



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 11:25 PM GMT

PDB ID : 4U52  
Title : Crystal structure of Nagilactone C bound to the yeast 80S ribosome  
Authors : Garreau de Loubresse, N.; Prokhorova, I.; Yusupova, G.; Yusupov, M.  
Deposited on : 2014-07-24  
Resolution : 3.00 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.  
We welcome your comments at [validation@mail.wwpdb.org](mailto: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.

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

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

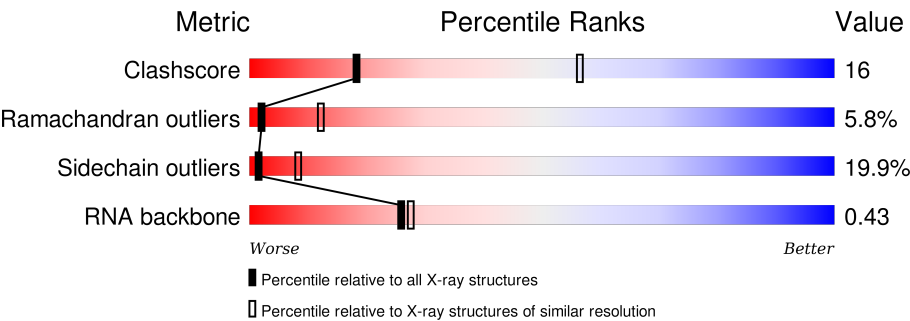
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.00 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	102246	1912 (3.00-3.00)
Ramachandran outliers	100387	1853 (3.00-3.00)
Sidechain outliers	100360	1856 (3.00-3.00)
RNA backbone	2183	1036 (3.40-2.60)

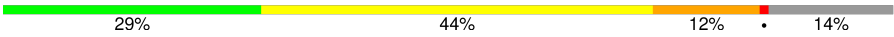



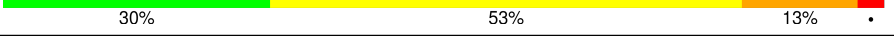

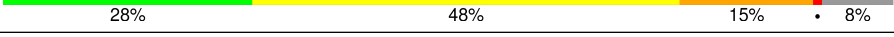

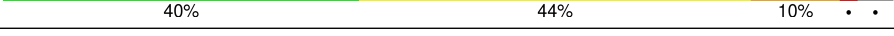

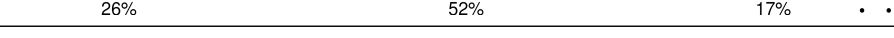
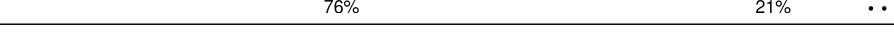

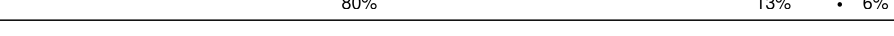


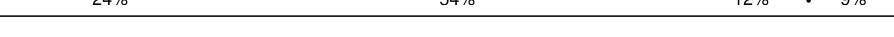

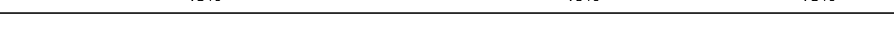




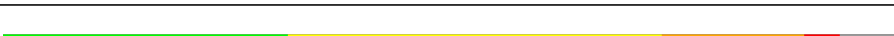

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria.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

Note EDS failed to run properly.

Mol	Chain	Length	Quality of chain
1	2	1800	<div><div></div><div>32%41%20%. .</div></div>
1	6	1800	<div><div></div><div>33%43%20%.</div></div>
2	S0	251	<div><div></div><div>21%46%14%.18%</div></div>
2	s0	251	<div><div></div><div>58%20%.18%</div></div>
3	S1	254	<div><div></div><div>18%46%18%.16%</div></div>
3	s1	254	<div><div></div><div>65%18%.15%</div></div>


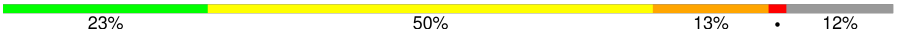



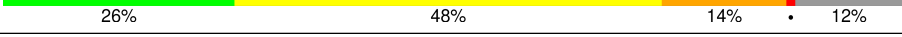


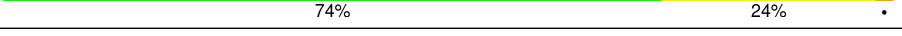

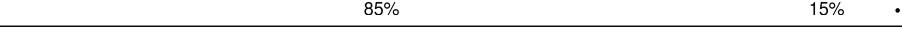
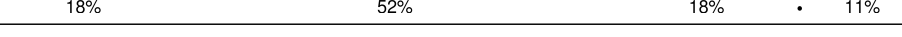

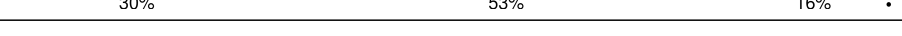


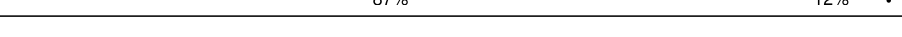

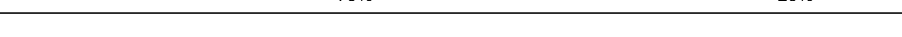






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Mol	Chain	Length	Quality of chain
4	S2	253	
4	s2	253	
5	S3	239	
5	s3	239	
6	S4	260	
6	s4	260	
7	S5	224	
7	s5	224	
8	S6	236	
8	s6	236	
9	S7	189	
9	s7	189	
10	S8	200	
10	s8	200	
11	S9	196	
11	s9	196	
12	C0	105	
12	c0	105	
13	C1	155	
13	c1	155	
14	C2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

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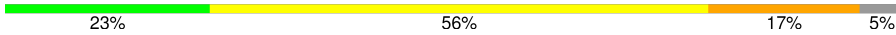

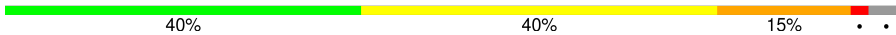

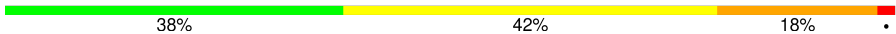
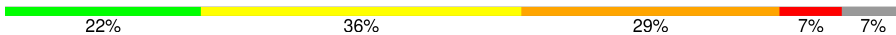
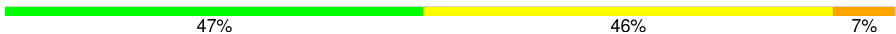
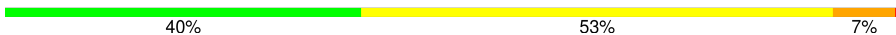

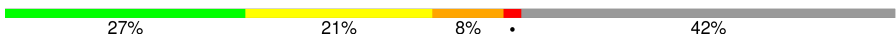

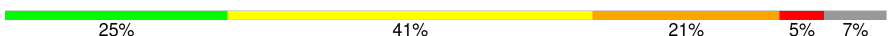


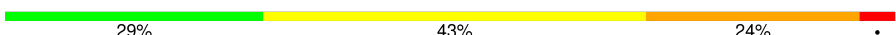
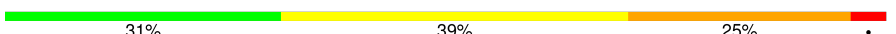







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Mol	Chain	Length	Quality of chain
16	c4	136	
17	C5	141	
17	c5	141	
18	C6	142	
18	c6	142	
19	C7	136	
19	c7	136	
20	C8	145	
20	c8	145	
21	C9	143	
21	c9	143	
22	D0	120	
22	d0	120	
23	D1	87	
23	d1	87	
24	D2	129	
24	d2	129	
25	D3	144	
25	d3	144	
26	D4	134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

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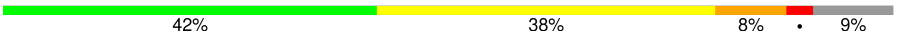

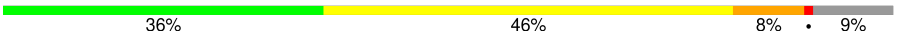

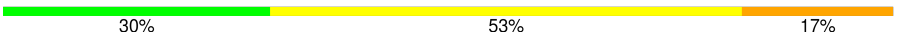

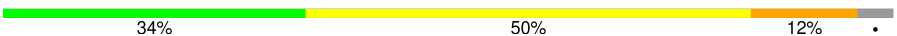

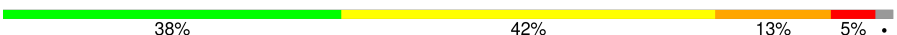














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Mol	Chain	Length	Quality of chain
29	D7	81	
29	d7	81	
30	D8	66	
30	d8	66	
31	D9	55	
31	d9	55	
32	E0	60	
33	E1	76	
33	e1	76	
34	SR	318	
34	sR	318	
35	SM	273	
35	sM	273	
36	1	3396	
36	5	3396	
37	3	121	
37	7	121	
38	4	158	
38	8	158	
39	L2	253	
39	l2	253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


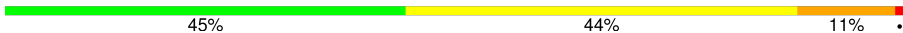



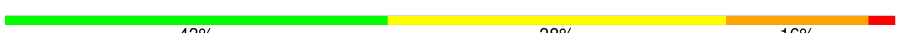





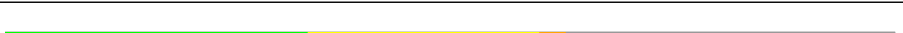






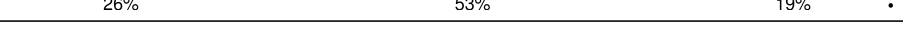






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Mol	Chain	Length	Quality of chain
42	L5	296	
42	l5	296	
43	L6	175	
43	l6	175	
44	L7	243	
44	l7	243	
45	L8	255	
45	l8	255	
46	L9	191	
46	l9	191	
47	M0	220	
47	m0	220	
48	M1	173	
48	m1	173	
49	M3	198	
49	m3	198	
50	M4	137	
50	m4	137	
51	M5	203	
51	m5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





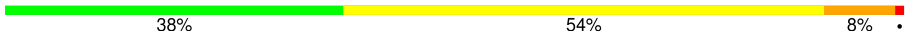

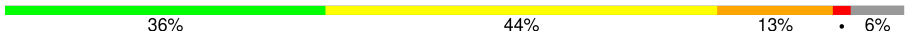

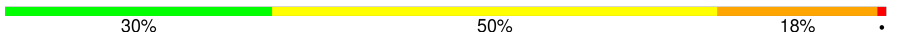

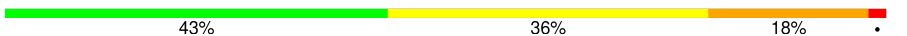

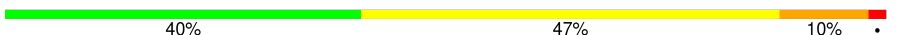












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Mol	Chain	Length	Quality of chain
54	m8	185	
55	M9	188	
55	m9	188	
56	N0	172	
56	n0	172	
57	N1	159	
57	n1	159	
58	N2	120	
58	n2	120	
59	N3	136	
59	n3	136	
60	N4	155	
60	n4	155	
61	N5	141	
61	n5	141	
62	N6	126	
62	n6	126	
63	N7	135	
63	n7	135	
64	N8	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	119	
70	o4	119	
71	O5	119	
71	o5	119	
72	O6	99	
72	o6	99	
73	O7	87	
73	o7	87	
74	O8	77	
74	o8	77	
75	O9	50	
75	o9	50	
76	Q0	52	
76	q0	52	
77	Q1	25	
77	q1	25	
78	Q2	105	
78	q2	105	
79	Q3	91	

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Mol	Chain	Length	Quality of chain
79	q3	91	 82% 18%
80	e0	62	 74% 24% .
81	m2	160	 94% 6%
82	p0	311	 38% 8% . 54%
83	p1	47	 100%
84	p2	46	 100%

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	3938	-	-	X	-
86	OHX	1	3957	-	-	X	-
86	OHX	1	3959	-	-	X	-
86	OHX	1	3970	-	-	X	-
86	OHX	1	3974	-	-	X	-
86	OHX	1	4000	-	-	X	-
86	OHX	1	4016	-	-	X	-
86	OHX	1	4025	-	-	X	-
86	OHX	1	4028	-	-	X	-
86	OHX	1	4039	-	-	X	-
86	OHX	1	4040	-	-	X	-
86	OHX	1	4047	-	-	X	-
86	OHX	1	4050	-	-	X	-
86	OHX	1	4052	-	-	X	-
86	OHX	1	4053	-	-	X	-
86	OHX	1	4057	-	-	X	-
86	OHX	1	4063	-	-	X	-
86	OHX	1	4076	-	-	X	-
86	OHX	1	4080	-	-	X	-
86	OHX	1	4110	-	-	X	-
86	OHX	1	4123	-	-	X	-
86	OHX	1	4136	-	-	X	-
86	OHX	1	4142	-	-	X	-
86	OHX	1	4146	-	-	X	-
86	OHX	1	4150	-	-	X	-
86	OHX	1	4151	-	-	X	-
86	OHX	1	4152	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
86	OHX	1	4156	-	-	X	-
86	OHX	1	4158	-	-	X	-
86	OHX	1	4159	-	-	X	-
86	OHX	1	4163	-	-	X	-
86	OHX	1	4168	-	-	X	-
86	OHX	1	4177	-	-	X	-
86	OHX	1	4193	-	-	X	-
86	OHX	2	2032	-	-	X	-
86	OHX	2	2045	-	-	X	-
86	OHX	2	2076	-	-	X	-
86	OHX	2	2084	-	-	X	-
86	OHX	2	2086	-	-	X	-
86	OHX	2	2091	-	-	X	-
86	OHX	2	2096	-	-	X	-
86	OHX	2	2099	-	-	X	-
86	OHX	2	2109	-	-	X	-
86	OHX	2	2116	-	-	X	-
86	OHX	2	2132	-	-	X	-
86	OHX	2	2147	-	-	X	-
86	OHX	2	2155	-	-	X	-
86	OHX	2	2158	-	-	X	-
86	OHX	2	2162	-	-	X	-
86	OHX	3	218	-	-	X	-
86	OHX	5	3944	-	-	X	-
86	OHX	5	3963	-	-	X	-
86	OHX	5	3974	-	-	X	-
86	OHX	5	3979	-	-	X	-
86	OHX	5	4000	-	-	X	-
86	OHX	5	4009	-	-	X	-
86	OHX	5	4019	-	-	X	-
86	OHX	5	4031	-	-	X	-
86	OHX	5	4032	-	-	X	-
86	OHX	5	4053	-	-	X	-
86	OHX	5	4063	-	-	X	-
86	OHX	5	4064	-	-	X	-
86	OHX	5	4072	-	-	X	-
86	OHX	5	4074	-	-	X	-
86	OHX	5	4079	-	-	X	-
86	OHX	5	4092	-	-	X	-
86	OHX	5	4093	-	-	X	-
86	OHX	5	4117	-	-	X	-
86	OHX	5	4127	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
86	OHX	5	4136	-	-	X	-
86	OHX	5	4142	-	-	X	-
86	OHX	5	4145	-	-	X	-
86	OHX	5	4189	-	-	X	-
86	OHX	5	4191	-	-	X	-
86	OHX	5	4192	-	-	X	-
86	OHX	5	4198	-	-	X	-
86	OHX	5	4199	-	-	X	-
86	OHX	5	4200	-	-	X	-
86	OHX	5	4201	-	-	X	-
86	OHX	5	4203	-	-	X	-
86	OHX	5	4217	-	-	X	-
86	OHX	5	4237	-	-	X	-
86	OHX	5	4244	-	-	X	-
86	OHX	6	2062	-	-	X	-
86	OHX	6	2123	-	-	X	-
86	OHX	6	2128	-	-	X	-
86	OHX	6	2150	-	-	X	-
86	OHX	6	2153	-	-	X	-
86	OHX	6	2174	-	-	X	-
86	OHX	7	221	-	-	X	-
86	OHX	7	226	-	-	X	-
86	OHX	8	217	-	-	X	-
86	OHX	8	218	-	-	X	-
86	OHX	8	226	-	-	X	-
86	OHX	8	227	-	-	X	-
86	OHX	C1	201	-	-	X	-
86	OHX	C5	201	-	-	X	-
86	OHX	Q2	502	-	-	X	-

## 2 Entry composition

There are 88 unique types of molecules in this entry. The entry contains 411206 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	2	1750	Total	C	N	O	P	0	0	0
			37283	16668	6591	12274	1750			
1	6	1795	Total	C	N	O	P	0	0	0
			38238	17095	6758	12590	1795			

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

There are 2 discrepancies between the modelled and reference sequences:

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

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

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

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

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

There are 4 discrepancies between the modelled and reference sequences:

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

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

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

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

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

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

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

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			
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			

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

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

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

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

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

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

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

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

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

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

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

- Molecule 35 is a protein called Suppressor protein STM1.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
35	SM	159	Total	C	N	O	0	0	0
			1104	652	221	231			
35	sM	104	Total	C	N	O	0	0	0
			680	403	140	137			

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	L2	252	Total	C	N	O	S	0	0	0
			1914	1191	388	334	1			
39	l2	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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	l3	386	Total	C	N	O	S	0	0	0
			3075	1950	584	533	8			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	L4	361	Total	C	N	O	S	0	0	0
			2748	1729	522	494	3			
41	l4	361	Total	C	N	O	S	0	0	0
			2748	1729	522	494	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	L5	296	Total	C	N	O	S	0	0	0
			2375	1501	414	458	2			
42	l5	294	Total	C	N	O	S	0	0	0
			2359	1489	412	456	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	L6	156	Total	C	N	O	S	0	0	0
			1239	800	222	216	1			
43	l6	157	Total	C	N	O	S	0	0	0
			1248	806	224	217	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	L7	222	Total	C	N	O	S	0	0	0
			1784	1151	324	308	1			
44	l7	223	Total	C	N	O	S	0	0	0
			1791	1155	325	310	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	L8	233	Total	C	N	O	S	0	0	0
			1804	1151	323	327	3			
45	l8	231	Total	C	N	O	S	0	0	0
			1763	1130	316	314	3			



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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	L9	191	Total	C	N	O	S	0	0	0
			1518	963	274	277	4			
46	l9	191	Total	C	N	O	S	0	0	0
			1518	963	274	277	4			

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	M4	136	Total	C	N	O	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			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

There are 22 discrepancies between the modelled and reference sequences:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
e0	62	VAL	-	expression tag	UNP P0CX33
e0	63	GLN	-	expression tag	UNP P0CX33

- Molecule 81 is a protein called Unknown Protein m2.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
82	p0	143	Total	C	N	O	S	0	0	0
			1077	687	192	195	3			

- 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	3	Total	Mg	0	0
			3	3		
85	N9	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	n8	5	Total 5	Mg 5	0	0
85	o1	1	Total 1	Mg 1	0	0
85	N5	1	Total 1	Mg 1	0	0
85	6	150	Total 150	Mg 150	0	0
85	sM	2	Total 2	Mg 2	0	0
85	O4	1	Total 1	Mg 1	0	0
85	m5	4	Total 4	Mg 4	0	0
85	l3	2	Total 2	Mg 2	0	0
85	M1	1	Total 1	Mg 1	0	0
85	n0	1	Total 1	Mg 1	0	0
85	d6	1	Total 1	Mg 1	0	0
85	2	125	Total 125	Mg 125	0	0
85	O3	1	Total 1	Mg 1	0	0
85	L4	2	Total 2	Mg 2	0	0
85	l7	1	Total 1	Mg 1	0	0
85	M5	3	Total 3	Mg 3	0	0
85	L8	1	Total 1	Mg 1	0	0
85	D3	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

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	SM	1	Total 1	Mg 1	0	0
85	c8	2	Total 2	Mg 2	0	0
85	M0	2	Total 2	Mg 2	0	0
85	5	502	Total 502	Mg 502	0	0
85	L5	1	Total 1	Mg 1	0	0
85	O7	2	Total 2	Mg 2	0	0
85	l4	1	Total 1	Mg 1	0	0
85	M4	1	Total 1	Mg 1	0	0
85	n9	1	Total 1	Mg 1	0	0
85	1	469	Total 469	Mg 469	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	M8	1	Total 1	Mg 1	0	0
85	q3	1	Total 1	Mg 1	0	0
85	o3	1	Total 1	Mg 1	0	0
85	d3	2	Total 2	Mg 2	0	0
85	M3	3	Total 3	Mg 3	0	0
85	N3	3	Total 3	Mg 3	0	0
85	4	22	Total 22	Mg 22	0	0
85	n6	1	Total 1	Mg 1	0	0

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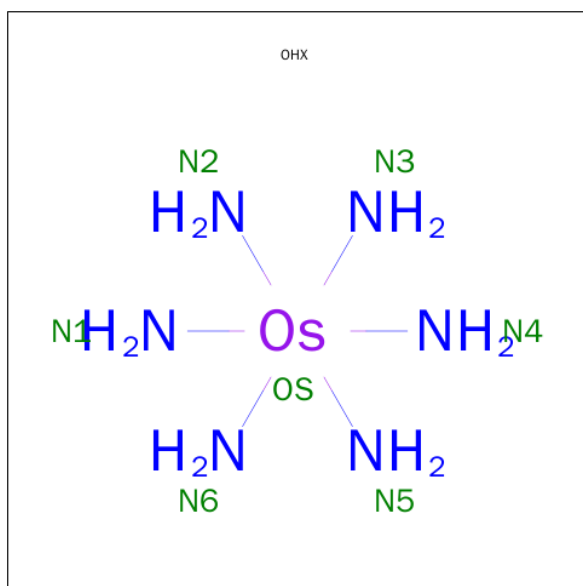
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	L2	3	Total 3	Mg 3	0	0
85	m1	2	Total 2	Mg 2	0	0
85	l5	1	Total 1	Mg 1	0	0
85	m7	5	Total 5	Mg 5	0	0
85	M7	3	Total 3	Mg 3	0	0
85	N8	5	Total 5	Mg 5	0	0
85	s1	1	Total 1	Mg 1	0	0
85	l9	1	Total 1	Mg 1	0	0
85	O1	1	Total 1	Mg 1	0	0
85	s8	2	Total 2	Mg 2	0	0
85	l8	1	Total 1	Mg 1	0	0
85	c7	2	Total 2	Mg 2	0	0
85	7	17	Total 17	Mg 17	0	0
85	n3	1	Total 1	Mg 1	0	0
85	L3	2	Total 2	Mg 2	0	0
85	m6	1	Total 1	Mg 1	0	0
85	N6	1	Total 1	Mg 1	0	0
85	8	15	Total 15	Mg 15	0	0
85	m0	1	Total 1	Mg 1	0	0
85	M6	1	Total 1	Mg 1	0	0
85	N0	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	3	14	Total	Mg	0	0
			14	14		

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



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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		

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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
			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
			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
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86	S9	1	Total	N	Os	0	0
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86	C8	1	Total	N	Os	0	0
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86	D9	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	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
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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	3	1	Total	N	Os	0	0
			7	6	1		
86	3	1	Total	N	Os	0	0
			7	6	1		
86	3	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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
			7	6	1		
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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86	3	1	Total	N	Os	0	0
			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		
86	4	1	Total	N	Os	0	0
			7	6	1		
86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
			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
86	4	1	Total 7	N 6	Os 1	0	0
86	4	1	Total 7	N 6	Os 1	0	0
86	4	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	M0	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	M7	1	Total 7	N 6	Os 1	0	0
86	M8	1	Total 7	N 6	Os 1	0	0
86	M9	1	Total 7	N 6	Os 1	0	0
86	N9	1	Total 7	N 6	Os 1	0	0
86	O2	1	Total 7	N 6	Os 1	0	0
86	O3	1	Total 7	N 6	Os 1	0	0
86	O7	1	Total 7	N 6	Os 1	0	0
86	O7	1	Total 7	N 6	Os 1	0	0
86	O9	1	Total 7	N 6	Os 1	0	0
86	Q2	1	Total 7	N 6	Os 1	0	0

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

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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			7	6	1		
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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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
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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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	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
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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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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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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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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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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			7	6	1		
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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86	6	1	Total	N	Os	0	0
			7	6	1		
86	6	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		
86	6	1	Total	N	Os	0	0
			7	6	1		
86	6	1	Total	N	Os	0	0
			7	6	1		
86	s1	1	Total	N	Os	0	0
			7	6	1		
86	s1	1	Total	N	Os	0	0
			7	6	1		
86	s4	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		
86	c8	1	Total	N	Os	0	0
			7	6	1		
86	d4	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	d9	1	Total	N	Os	0	0
			7	6	1		
86	sR	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
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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
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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
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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		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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
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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		

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

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

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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		
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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	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
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86	7	1	Total	N	Os	0	0
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86	7	1	Total	N	Os	0	0
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86	7	1	Total	N	Os	0	0
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86	7	1	Total	N	Os	0	0
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86	7	1	Total	N	Os	0	0
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86	7	1	Total	N	Os	0	0
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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	N	Os	0	0
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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
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86	8	1	Total	N	Os	0	0
			7	6	1		
86	13	1	Total	N	Os	0	0
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86	13	1	Total	N	Os	0	0
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86	14	1	Total	N	Os	0	0
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86	14	1	Total	N	Os	0	0
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86	15	1	Total	N	Os	0	0
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86	15	1	Total	N	Os	0	0
			7	6	1		
86	15	1	Total	N	Os	0	0
			7	6	1		
86	19	1	Total	N	Os	0	0
			7	6	1		
86	m0	1	Total	N	Os	0	0
			7	6	1		
86	m0	1	Total	N	Os	0	0
			7	6	1		
86	m1	1	Total	N	Os	0	0
			7	6	1		
86	m5	1	Total	N	Os	0	0
			7	6	1		
86	m6	1	Total	N	Os	0	0
			7	6	1		
86	m7	1	Total	N	Os	0	0
			7	6	1		
86	m8	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	m9	1	Total	N	Os	0	0
			7	6	1		
86	n3	1	Total	N	Os	0	0
			7	6	1		
86	n6	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
			7	6	1		
86	o7	1	Total	N	Os	0	0
			7	6	1		
86	q1	1	Total	N	Os	0	0
			7	6	1		
86	q2	1	Total	N	Os	0	0
			7	6	1		

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

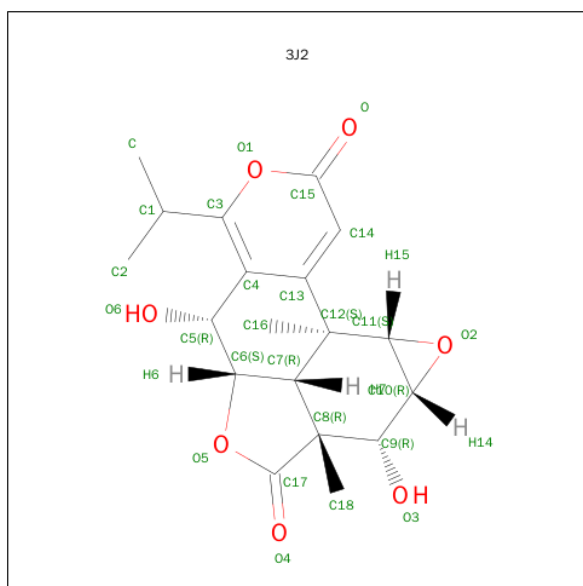
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
87	q0	1	Total	Zn	0	0
			1	1		
87	D6	1	Total	Zn	0	0
			1	1		
87	Q2	1	Total	Zn	0	0
			1	1		
87	e1	1	Total	Zn	0	0
			1	1		
87	Q3	1	Total	Zn	0	0
			1	1		
87	D9	1	Total	Zn	0	0
			1	1		
87	E1	1	Total	Zn	0	0
			1	1		
87	Q0	1	Total	Zn	0	0
			1	1		
87	d7	1	Total	Zn	0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

*Continued on next page...*

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

- Molecule 88 is Nagilactone C (three-letter code: 3J2) (formula:  $C_{19}H_{22}O_7$ ).



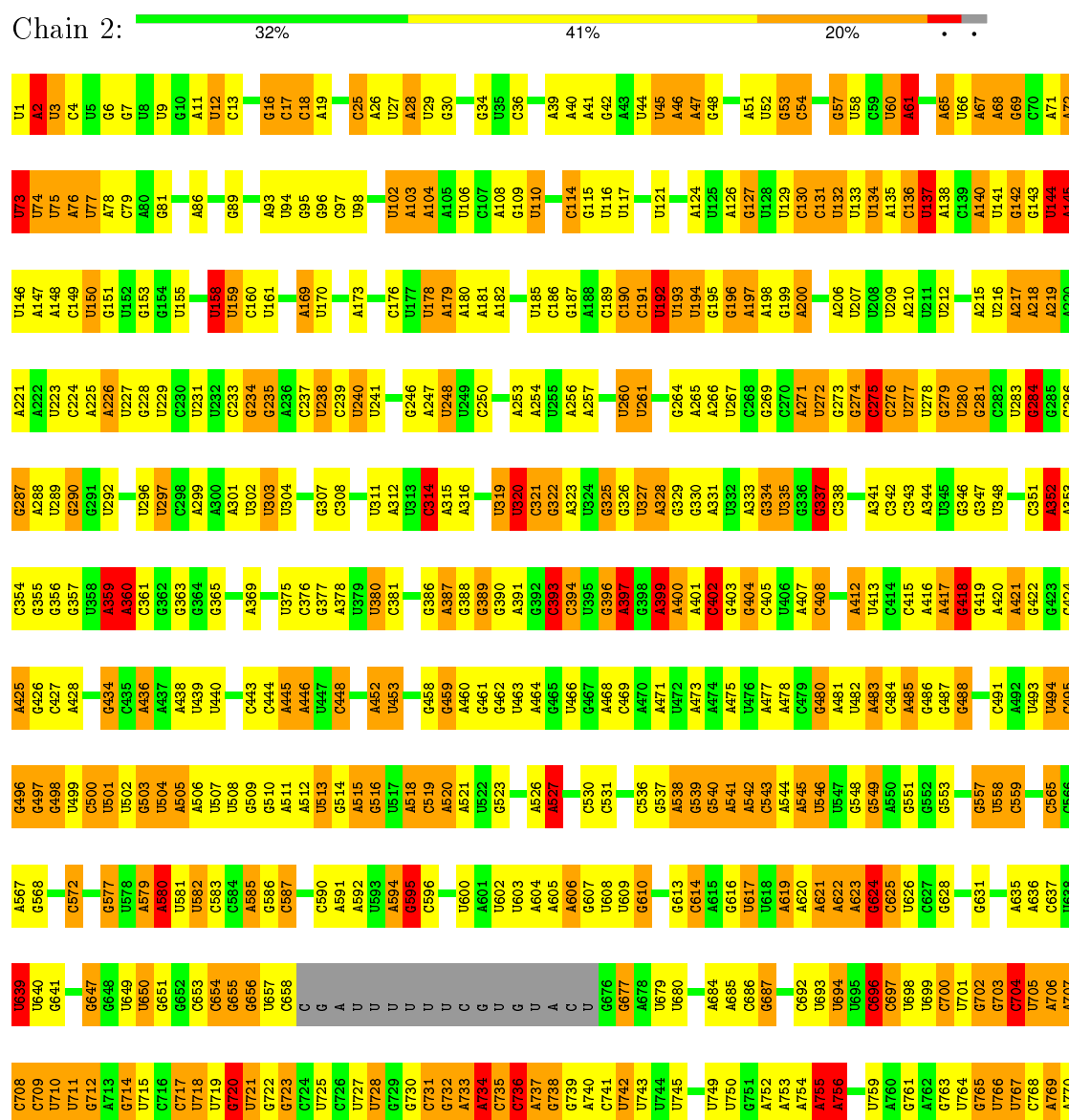
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	1	1	Total	C	O	0	0
			26	19	7		
88	5	1	Total	C	O	0	0
			26	19	7		

### 3 Residue-property plots

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

Note EDS failed to run properly.

#### • Molecule 1: 18S ribosomal RNA

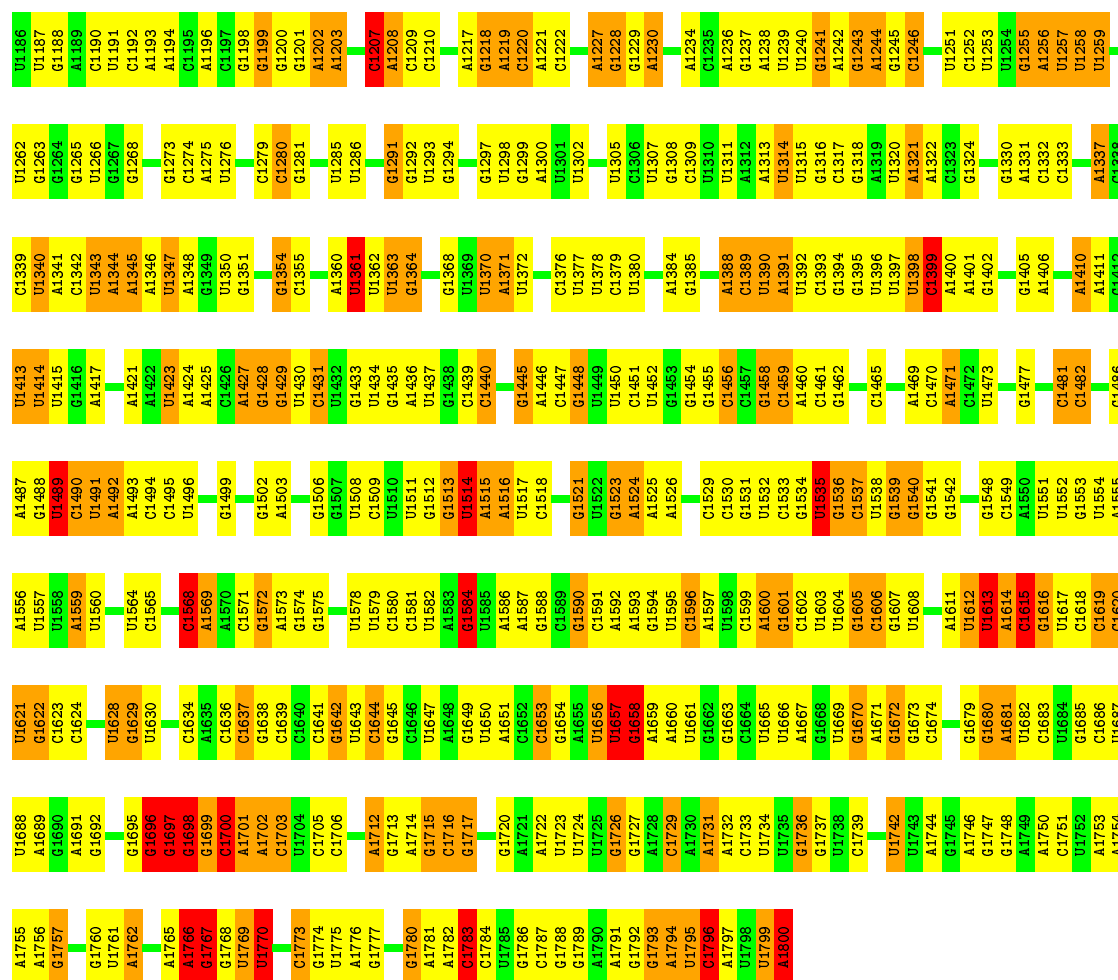


G1760	A	C1620	U1496	G1427	G1364	U1272	G1200	A1138	U1060	C990	G914	U843	A771
U1761	G	U1621	U1497	G1428	C1365	G1273	G1201	A1139	A1061	G991	A915	U844	G772
A1762	A	G1622	G1498	G1429	U1366	C1274	A1202	G1140	A1062	A992	U916	A844	C773
A1765	A	C1623	U1598	U1430	A1367	U1367	A1203	G1141	U1063	A993	U917		A774
A1766	G	U1624	C1500	G1431	G1368	G1277	U1206	A1142	G1064	G994	U918	C848	G775
	G	C1625	C1501	U1432	G1369		G1207	A1143	A1065	A995	U919	C849	G776
	G		G1502	U1433	A1360	C1280	A1208	A1144	C1066	U996	U920	A850	G777
	G	U1628	A1503	U1434	U1361	G1281	U1209	U1145	C1067	G997	U921	U851	G778
	G	C1629	A1504	G1435	U1362	U1282	U1210	G1146	C1068	A998		C852	U779
	C	A1630	A1505	U1436	U1363	U1283	U1211	A1147		U999	A924	U853	A780
	A	A1631	U1506	U1437	U1364	U1284	U1212	C1148	C1072	U999	A925	U854	U781
	A		G1507		C1365	U1286	U1213	G1149	G1073	A1001	A926	A855	U782
	C	C1634	U1508	G1445	U1366	A1287	U1214	G1150	G1074	A1002	C927	A856	G783
	U	A1635	C1509	A1446	G1367	U1288	A1217	A1151	C1075	A1003	U928	U857	C784
	C	A1636	U1510	U1447	U1368	U1289	G1218	A1152		U1004		G858	U785
	C	C1637	U1511	G1448	U1369	U1290	G1219	G1153		A1005		A859	G786
	A	G1638	G1512	U1449	U1370	G1291	C1221	G1154	U1079	U996	C931	U860	G787
	U	C1639	G1513	U1450	A1371	U1292	C1222	G1155	A1080	A1006	U932	U861	A788
	C		U1514	C1451	U1372	G1293	U1225	C1156	A1081	U1009	U933	U862	A789
	U		A1515	C1452	U1373	U1294	U1226	A1157	C1082	C934	U935	A863	
	C		A1516	G1464	C1374	U1295	U1227	C1158	G1083	C1040	U936	U864	A793
	C		U1517	G1465	C1375	U1296	G1228	A1159	A1087	G1011	U937	A865	U794
	A	U1647	C1518	C1466	U1376	U1301	G1229	A1160	U1097	A1012	U938	G866	U795
	G	A1648	U1519	U1457	U1377		U1230	A1161	A1091	A1013		G867	A796
	C	G1649	U1520	U1458	U1378	G1304	U1231	C1162	A1092	U1015	A941	G868	
	C		G1521	G1459	C1379		U1232	A1163	A1093	G1016	G942	A869	A799
			U1522	C1460		U1314	G1237	G1164	C1096	U1017	U943	C870	U800
			G1523	C1461	A1382	U1315	G1238	A1165	U1098	A1026	C950	G871	U813
			A1524	C1462	G1383	U1316	G1239	A1166	U1099	A1027	A951	U882	A814
			A1525	C1463	U1384	C1317	U1240	A1167	U1097	A1028	U952	G872	G815
			U1526	G1464	G1385	G1318	G1241	U1174	G1110	C1029	G953	G885	G816
			C1527	G1466	U1386	U1319	G1242	U1175	G1111	U1029	U959	U886	A817
			U1528		G1387	U1320	A1244	G1176	G1112	A1030	U960	A887	C818
			C1529	A1469	U1388	A1321	G1245	G1177	G1113	U1031	U961	U888	G819
			C1530	C1470	C1389	A1322	U1246	G1178	U1114	G1032	U964	U889	U820
			G1531	A1471	U1390	G1323	G1247	G1179	U1115	U1034	U965	C890	U821
			U1532	C1472		G1324	U1248	C1180	U1116	G1035	A966	A891	U822
			C1533	U1473	C1393	A1325	U1250	U1181	U1117	G1036	A967	U892	G823
			U1534	G1474	G1394		U1251	A1183	G1118	U1039	U968	U893	G824
			G1535	C1475	U1394		C1252	U1184	G1119	A1039	U969	U894	U825
			U1536	C1476	U1398	A1329	U1253	U1185	U1120	G1040	C969	G895	U826
			G1537	G1477	C1399	G1330	U1254	U1186	C1121	G1041	U964	U896	C827
			U1538	G1478	A1400	C1332	U1255	U1187	U1122	U1042	G972	C897	U828
			G1539	A1479	A1401		U1256	U1188	A1124	A1043	C975	A898	A830
			U1540	G1480		A1337	U1257	A1189	A1125	G1046	U980	A900	U831
			G1541	C1481	U1407	C1338	U1258	C1190	G1126		U981	G901	U832
			U1542	C1482	G1408	U1346	G1263	U1191	G1127		U982	G902	U833
			A1543	C1483	G1409	U1347	U1264	A1194	G1130	U1052	U982	A906	G834
			U1544	G1484	A1410	A1348	G1265	C1195	C1134	U1053			
			U1545	C1485	A1411	U1349	U1266	A1196	U1135	U1057			
			G1546	C1486	G1412	U1350	G1267	A1197	U1136	U1058			
			A1547	C1487	U1413	G1351	U1270	G1198	U1137	U1059			
			U1548	G1488	U1414	U1352	G1271	G1199	A1137				
			G1549	C1489	U1415	U1353							
			U1550	C1490	U1416	U1354							
			U1551	C1491	U1417	U1355							
			U1552	A1492	G1418	U1356							
			U1553	C1493	G1419	U1357							
			U1554	C1494	G1420	U1358							
			G1555	C1495	C1426	U1359							

• Molecule 1: 18S ribosomal RNA

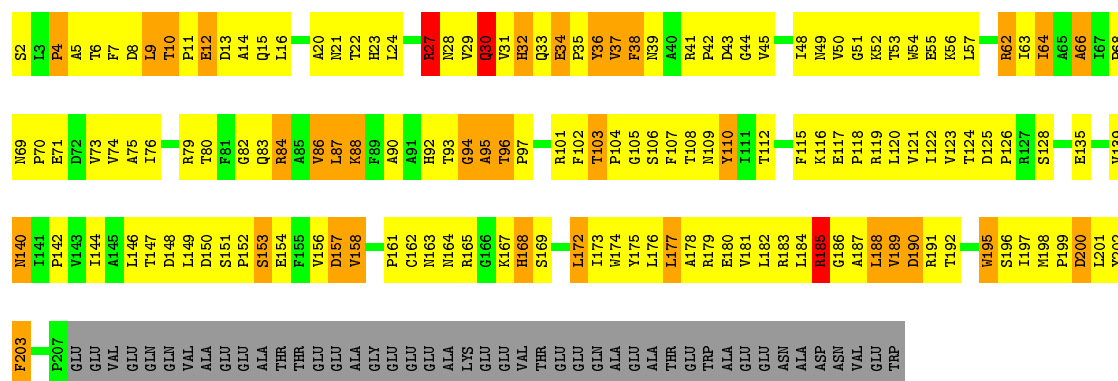
Chain 6: 33% 43% 20%

U1117	G1045	A979	G913	U843	A780	U715	C645	C575	G509	U439	A366	G291	U223	G143	U1
G1118	G1046	G980	G914	G846	U781	C716	C646	G576	G510	C443	A370	U292	C224	U144	A2
U1120	G1047	U981	A915	A847	U782	C717	G647	G577	A511	C443	G371	A72	A226	U145	U3
C1121	G1048	U982	U916	C848	U783	U718	G648	U578	A512	C444	G372	U74	U227	U146	C4
G1122	U1049	G983	U917	C849	C784	U719	U649	A579	U513	A445	G373	A300	G228	G151	U5
C1123	G1050	G988	A918	A850	U785	U720	U650	A580	U514	A446	G374	A301	U229	U152	U6
A1124	G1051	G986	U920		G786	U721	G651	U581	A515	U447	U374	U302	C230	G153	U9
A1125	U1052	G987	U921	A856	G787	G722	G652	U582	U516	C448	G377	C305	U231	G154	G10
G1126	G1053	U988	G922	U857	U788	G723	C653	C583	U517	U450	U378	U232	U232	C79	A11
	U1054	U989	A923	G858	U789	C724	C654	C584	C519	A451	U379	C308	C233	U82	U12
G1130	U1055	C900	A924	A859	U791	U727	G655	C590	A520	A452	U380	C309	G234	U158	G13
	U1056	G991	G925	U860	U792	U728	G656	A521	A521	U453	U381	C314	G235	G83	C14
A1133	U1057	A992	A926	U861	U793	G729	C658	A522	U522	U454	C382	A315	A236	A84	U15
C1134	U1058	G993	C927	A862	U794	G730	C659	U593	U523		G383	A316	C237	A85	G16
U1135	G1059	G994	U928	A863	U795	C731	G660	A594	U524	G457	G384			A86	C17
U1136	U1060	A995		U864		G732	A661	G596		G458	U385		U240	G163	C18
U1137	C1066	U996	U932		U800	G733	U662	C596	A527	G459	G386	U319	U241	C166	A19
A1138	U1067	G997	A933	G868	G801	A734	U663		U528		A387	U320	U242	U167	G20
A1139	C1068	A998	C934	A869	G802		U664	U600		U463	G390	G322	G243	A168	U21
G1140	U1069	U999	U935	C870	A803	U737	U665	A601	C531	A464	A391	A323	A244	A169	A92
G1141	C1100	C1000		G871	A804	G738	U666	U602	U532		G392	U324	G245	C172	A93
A1142	U1071	A1001	G938	G872	U805	G739	U667	U603	U533	G467	C393	G325	U246	A173	U94
	G1072	G1002	A939	U873	A806	A740	C668	A604	A534		C394	U327	A247	U174	
	G1073	A1003	A940		A807	C741	G669	A605	A535	A470		U328	U249		
U1145	G1074	U1004	A941	G876	U808	U742	U670	A606	C536	A471	A397	G329	C250	A100	U27
	C1075	A1005	G942	G877	A809	U743	G	G607	G537	U472	A398	G330	U249	U101	A28
G1149	A1076	U1009	C943	G878	G810	U744	U	U608	A473	U473	A399	A331	C256	U102	U29
A1150	C1077	A1010	U944	G879	A811	U745	A673	U609	G539	A474	A400	U332	A256	A103	G30
A1151	G1078	C980	U945	C880	A812	U746	G674	G610	G540	A475	A401	U333	A256	A104	C31
	U1079	G1011	U946	A881	U813	C747	U675	U611	A541	U476		A333	C258	A105	G34
	U1080		U947	U882	A814	U748	G676	U612	A542	A477	C402	G334	U259	G107	U35
G1154	U1081	G1014		C883	G815		G677	G613	C543	A478	C403	U335	U260	A108	C36
G1155	C1082	U1015	C950	U886	A816	G751	A678	G616	A544	A479	C404	G336	U261	C114	A43
C1156	G1083	U1016	A951	U887	G817	U752	U679	U617		C484	C405	G337	U262	U44	U44
C1158	U1084	U1017	A952	U888	C818	U753	U680	U618	G549	A485	U406	C338	U262	A119	U45
G1159	G1085	U1018		U889	G819	A754	U681	A619	A560	A486	A407	C339	A265	U120	A46
A1160	A1086	A1019	A955	C890	U820	A755	C682	A620	G551	G487	C408		A266	U121	A47
C1161	U1087	A1020	C956	A891	U821	A756	C683	A621	G552	G488		A344	U287	U122	
C1162		C1021	G957	A892	U822	U757	A684	A622	G553	C489		U345	C288	G48	
A1163	A1091	C1022	U958	A893	G823	U758	A685	A623	G554	C490	A416	G347	G269	G123	C49
G1164	A1092	A1023	U959	U893	G824	U759	C686	A624	A555	C491	A417	U348	C270	A124	C50
G1165		U1024	U960	U894	U825	A760	G687	G624	A556	A492	C418	U349	A271	U125	A51
A1166	C1096	A1025	U961	U895	U826	G761	C688	G625	A557	U493	G419	U350	U272	A126	U52
G1167	U1097	A1026	C962	U896	C827	A762	C691	U626	G557	U494	C420	C351	G273	G127	G53
	U1098	A1027	A963	C897	U828	U763		G627	G558	U495	A421	A352	G274	U128	C54
U1171	U1099	C1028	U964	A898	A829	U764		G628	C559	U496	A422	A353	C275	U129	A55
G1172	G1100	U1029	U965	G899	U830	G765	U694	U629	C559	G497		A354	C276	C130	U56
C1173		A1030	A966	A900	U831	U766	U695	A630	U563	G498	C424	C354	U277	G131	G57
C1174		U1031	A967	G901	U832	U767	C696	G631	C564	U499	A425	G355	U278	U132	U58
U1175	U1104	U1032		G902	U833	C768	C697		C565	U500	G426	G356	G279	C59	
	C1105	G1032	A970	U903	G834	A770	U698	A635	C566	U501	A428	U358	G280	U	
G1176	G1107	C1034	A971	G904	U835	G770	U699	A636	A567	U502	A429	A359	G281	A	
	U1108	A905	U972	A905	U836	C773		C637	G568	G503	C431	A360	C282	C136	G63
G1179	G1109	A906	A973	A907	G837	A774	C708	U638	C569	G504	C432	A361	G283	A217	U64
U1181	U1110	A907	A974	A907	G838	G775	G709	U639	A570	U504	C433	C361	G284	A218	A65
U1182	G1111	A1039	C975	U908	U839		U710	U640	A571	A505	C434	G362	G285	A219	U66
A1183	G1112	G1040	G976	U909	U840	G778	U711	G641	C572	A506	G435	G363	G286	A220	U67
A1184		U1041	U977	C910	U841	G779	G712	G644	C574	U507	C436	G364	G287	U141	A68
U1185	A1116	G1042	A978		C842	U779			G574	U508		G365		A222	G69



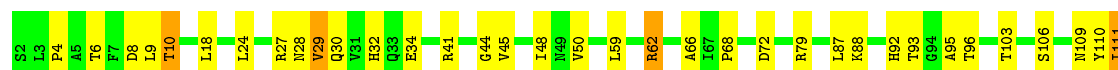
### • Molecule 2: 40S ribosomal protein S0-A

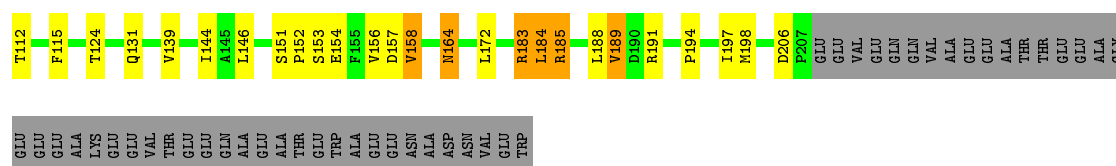
Chain S0: 21% 46% 14% 18%



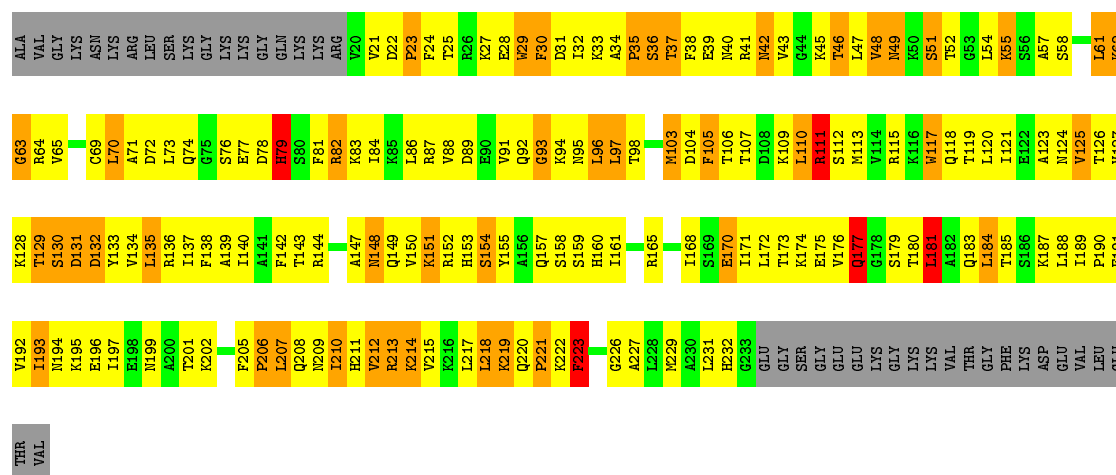
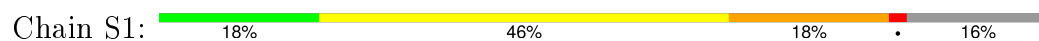
### • Molecule 2: 40S ribosomal protein S0-A

Chain s0: 58% 20% 18%

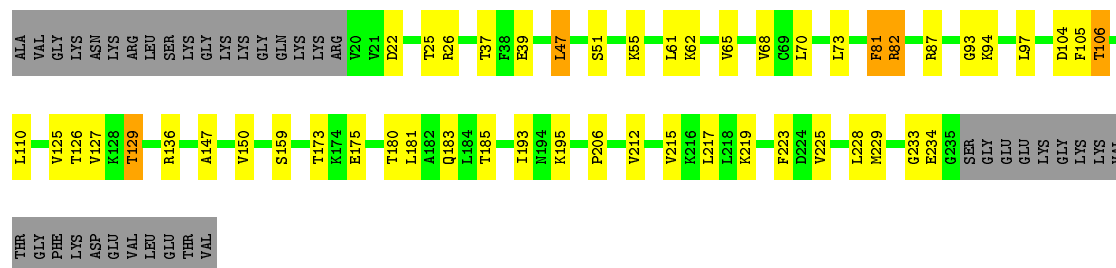




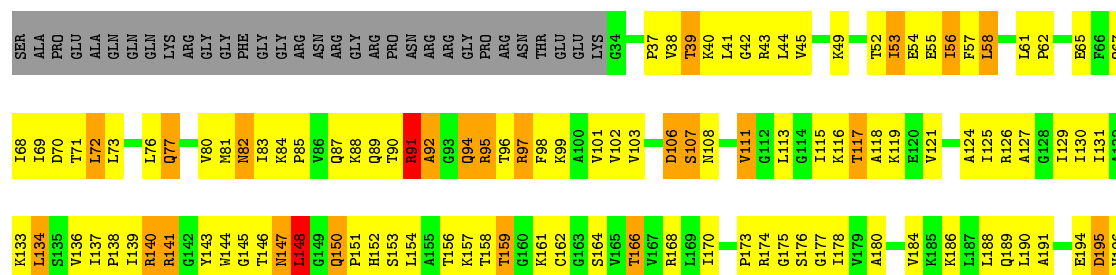
- Molecule 3: 40S ribosomal protein S1-A



- Molecule 3: 40S ribosomal protein S1-A



- Molecule 4: 40S ribosomal protein S2

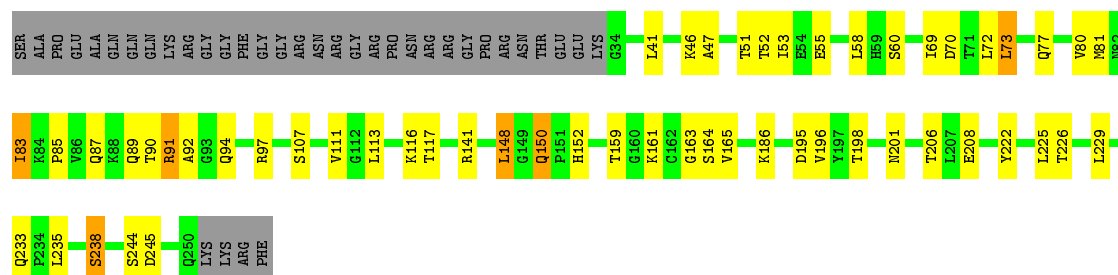






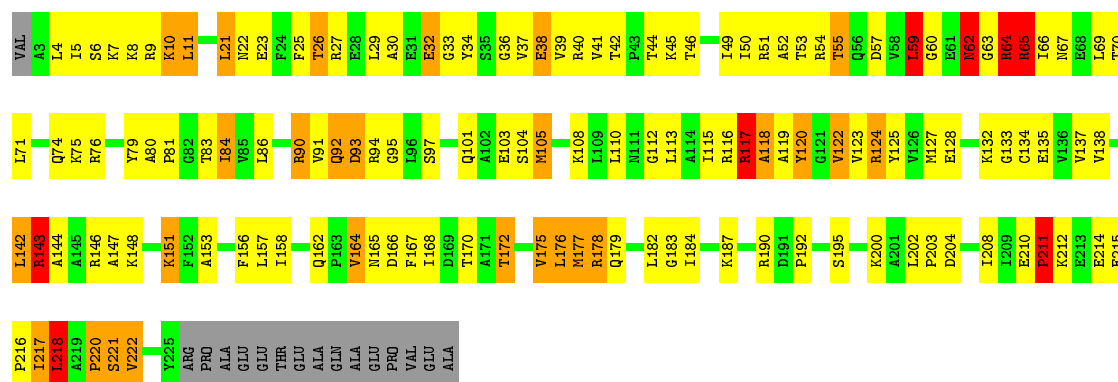
• Molecule 4: 40S ribosomal protein S2

Chain s2: 64% 19% 14%



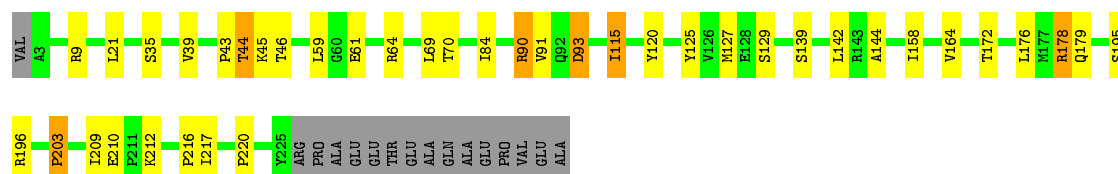
• Molecule 5: 40S ribosomal protein S3

Chain S3: 36% 42% 12% 7%



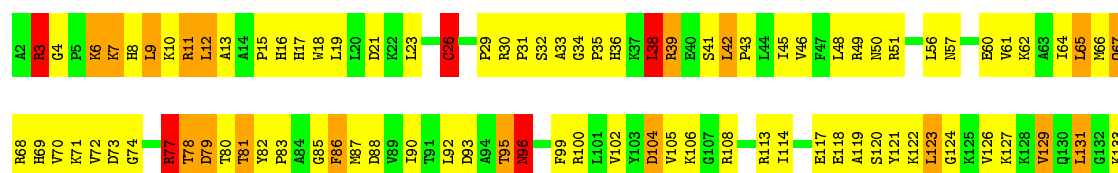
• Molecule 5: 40S ribosomal protein S3

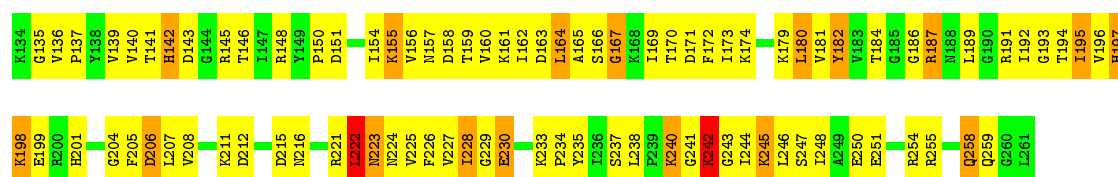
Chain s3: 77% 14% 7%



• Molecule 6: 40S ribosomal protein S4-A

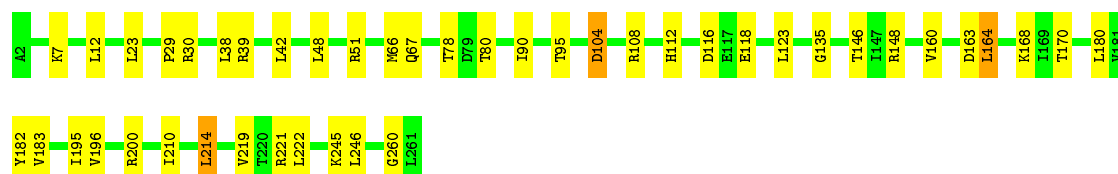
Chain S4: 30% 53% 13%





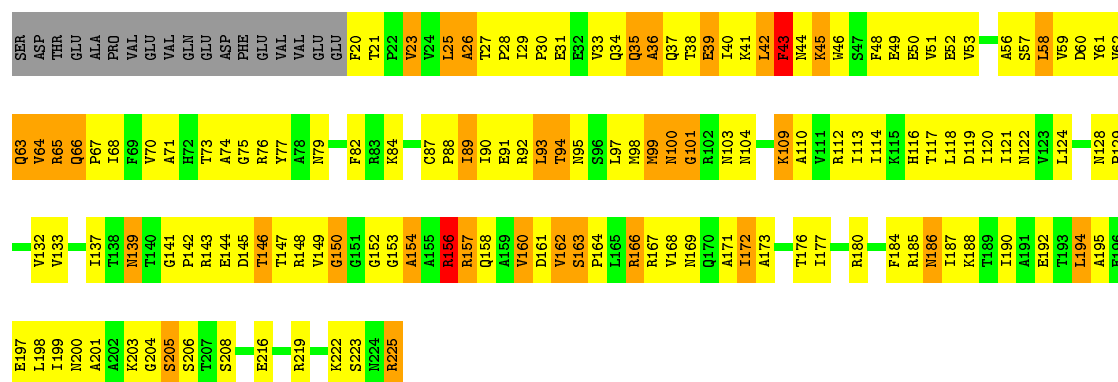
• Molecule 6: 40S ribosomal protein S4-A

Chain s4: 83% 16%



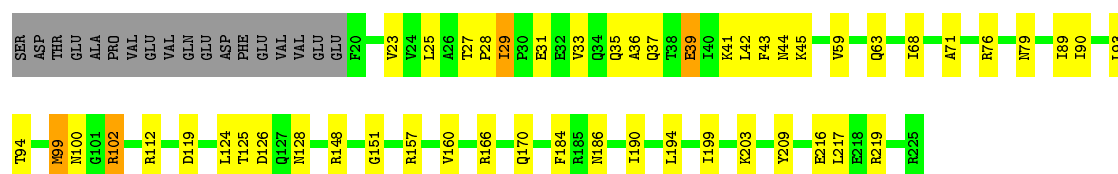
• Molecule 7: 40S ribosomal protein S5

Chain S5: 28% 48% 15% 8%



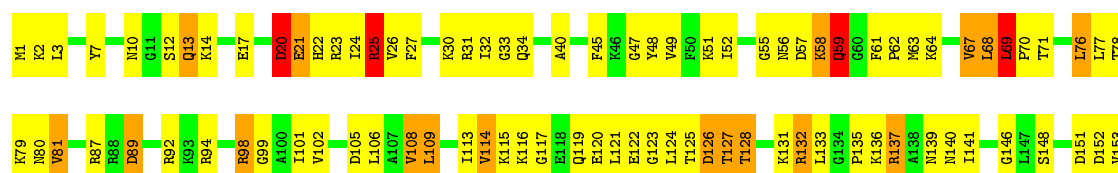
• Molecule 7: 40S ribosomal protein S5

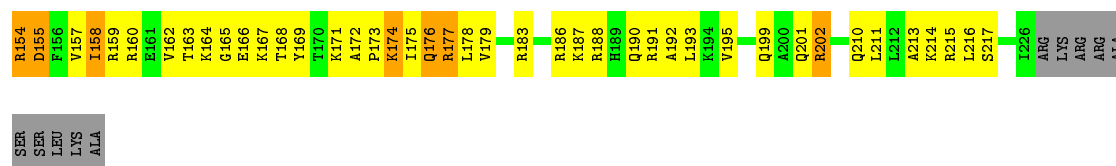
Chain s5: 69% 21% 8%



• Molecule 8: 40S ribosomal protein S6-A

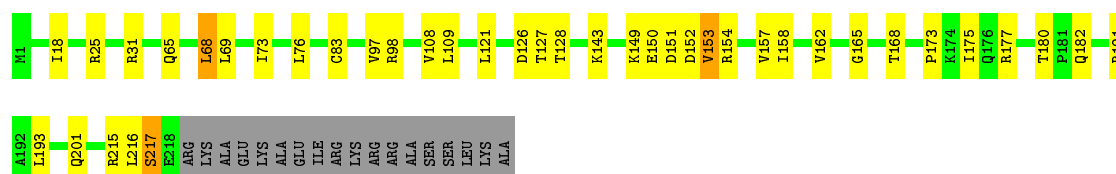
Chain S6: 40% 44% 10% 6%





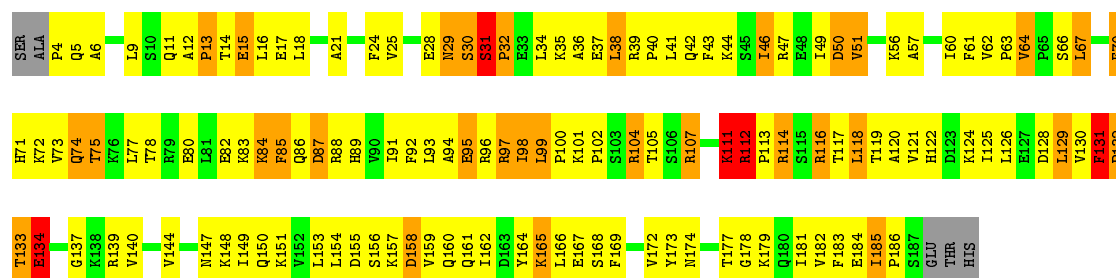
- Molecule 8: 40S ribosomal protein S6-A

Chain s6: 75% 16% 8%



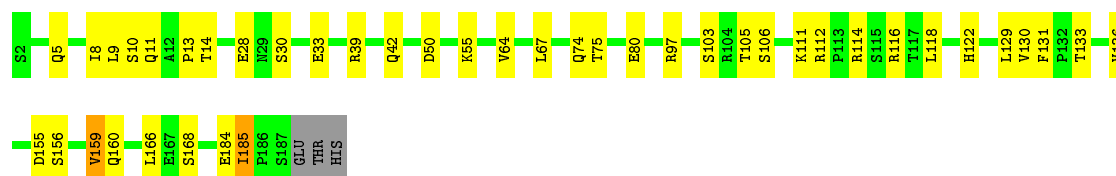
- Molecule 9: 40S ribosomal protein S7-A

Chain S7: 26% 52% 17%



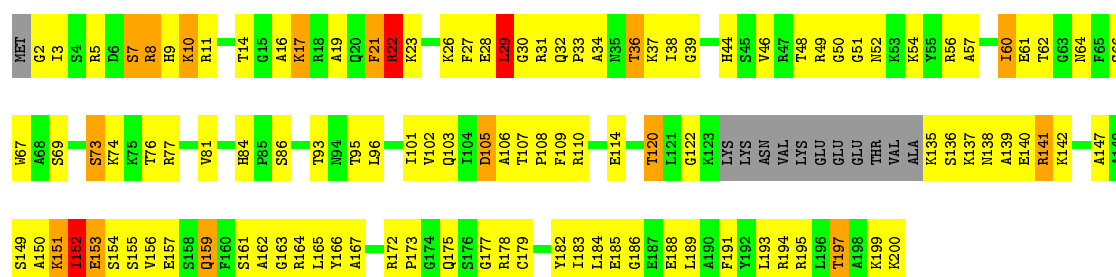
- Molecule 9: 40S ribosomal protein S7-A

Chain s7: 76% 21%

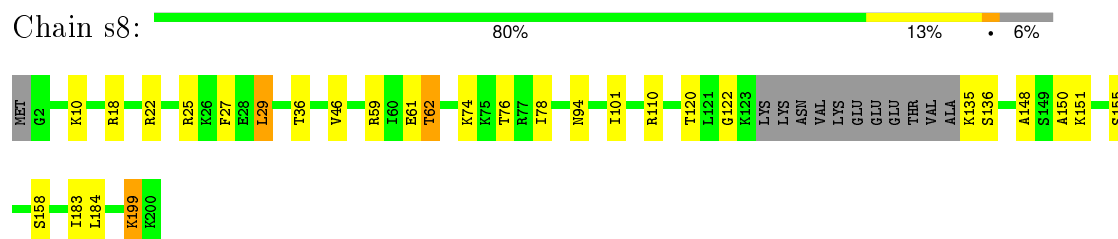


- Molecule 10: 40S ribosomal protein S8-A

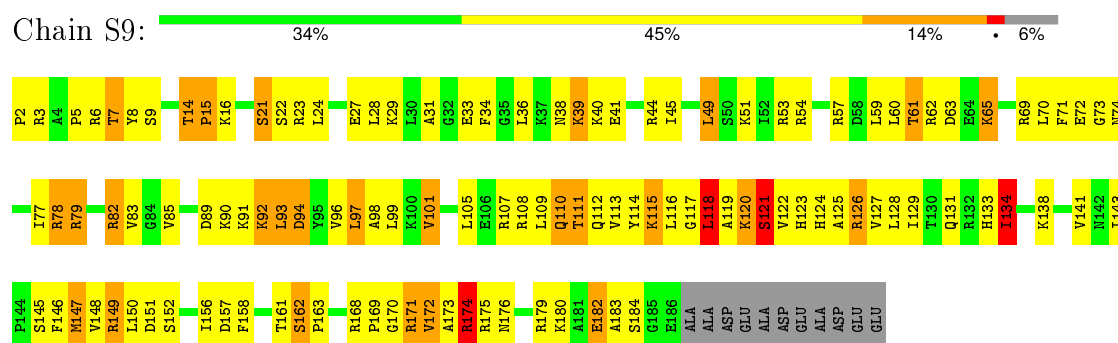
Chain S8: 38% 48% 8% 6%



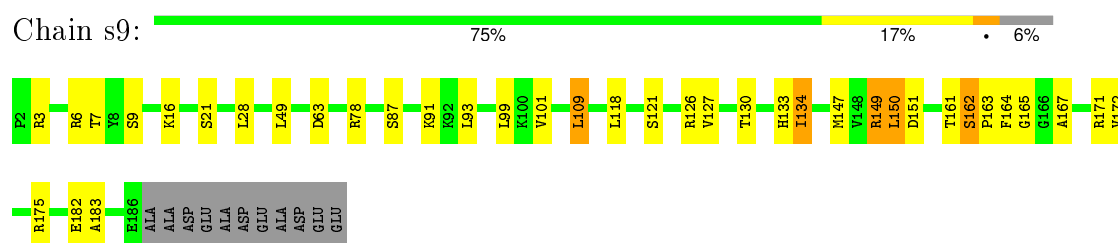
- Molecule 10: 40S ribosomal protein S8-A



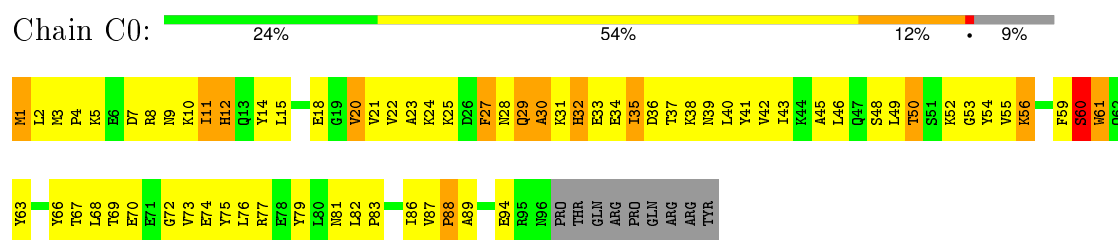
- Molecule 11: 40S ribosomal protein S9-A



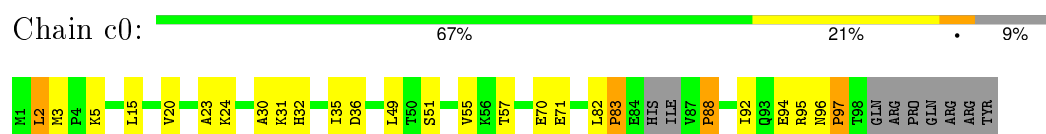
- Molecule 11: 40S ribosomal protein S9-A



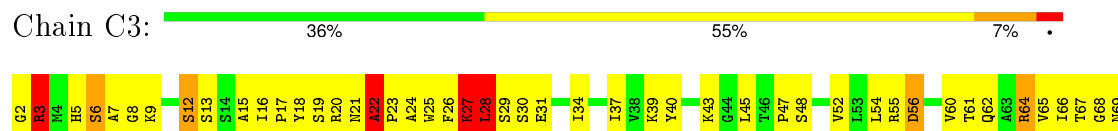
- Molecule 12: 40S ribosomal protein S10-A

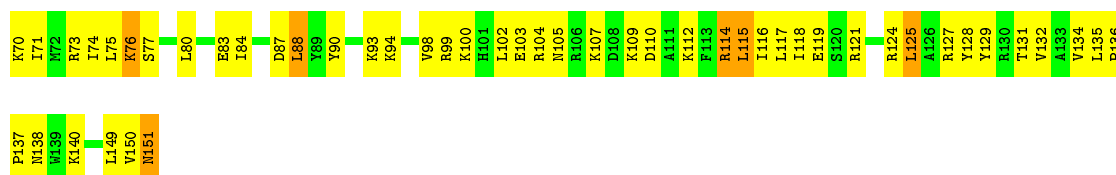


- Molecule 12: 40S ribosomal protein S10-A



- Molecule 13: 40S ribosomal protein S11-A





- Molecule 15: 40S ribosomal protein S13

Chain c3: 79% 19%



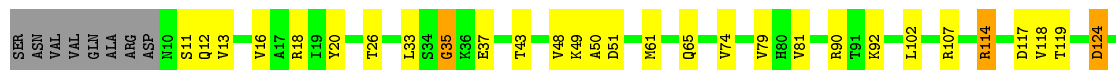
- Molecule 16: 40S ribosomal protein S14-A

Chain C4: 32% 42% 16% 7%



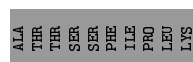
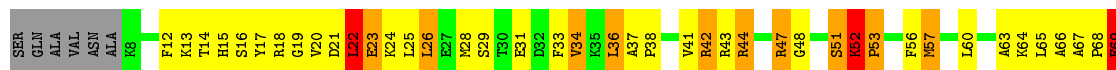
- Molecule 16: 40S ribosomal protein S14-A

Chain c4: 68% 24% 6%



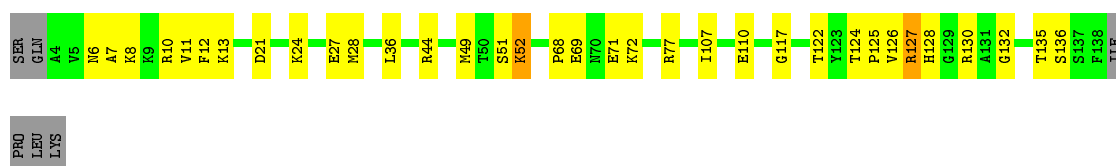
- Molecule 17: 40S ribosomal protein S15

Chain C5: 23% 50% 13% 12%



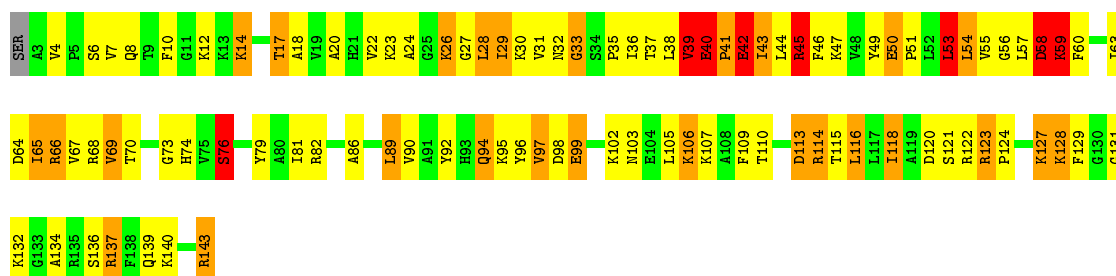
- Molecule 17: 40S ribosomal protein S15

Chain c5: 72% 23% 5%



- Molecule 18: 40S ribosomal protein S16-A

Chain C6: 31% 44% 19% 6%



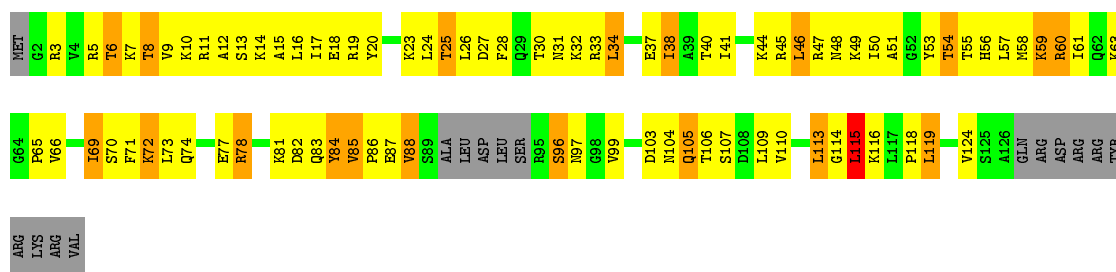
- Molecule 18: 40S ribosomal protein S16-A

Chain c6: 75% 25%



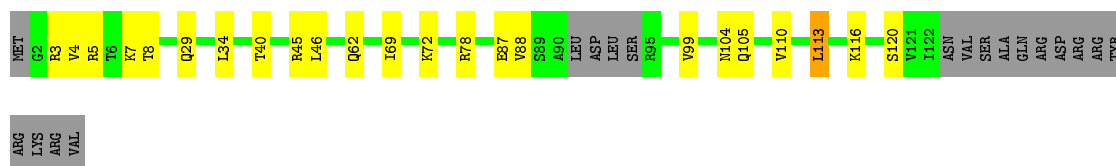
- Molecule 19: 40S ribosomal protein S17-A

Chain C7: 26% 48% 14% 12%



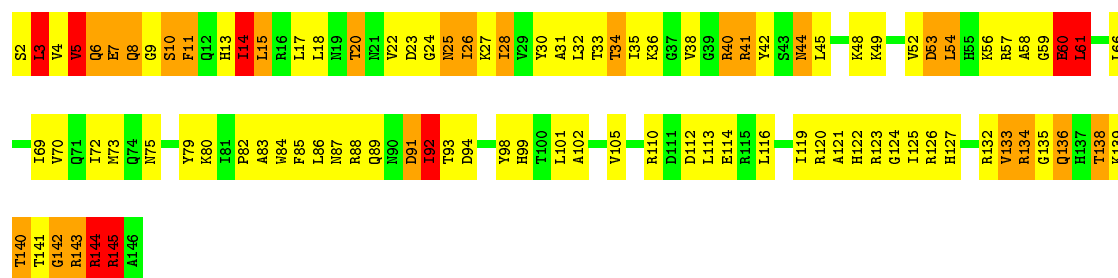
- Molecule 19: 40S ribosomal protein S17-A

Chain c7: 69% 16% 14%



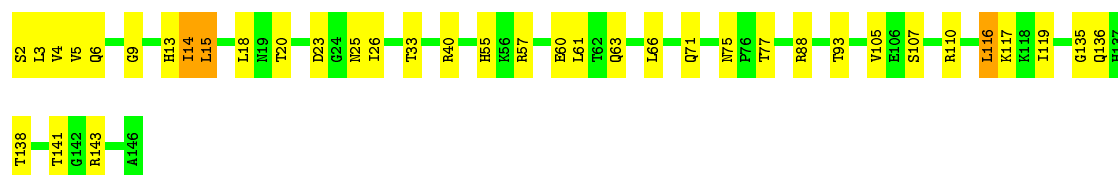
- Molecule 20: 40S ribosomal protein S18-A

Chain C8: 32% 46% 17% 6%



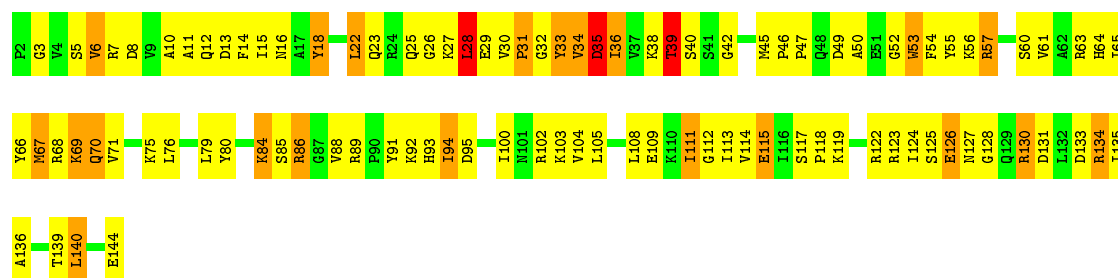
- Molecule 20: 40S ribosomal protein S18-A

Chain c8: 74% 24% •



- Molecule 21: 40S ribosomal protein S19-A

Chain C9: 31% 52% 15% •



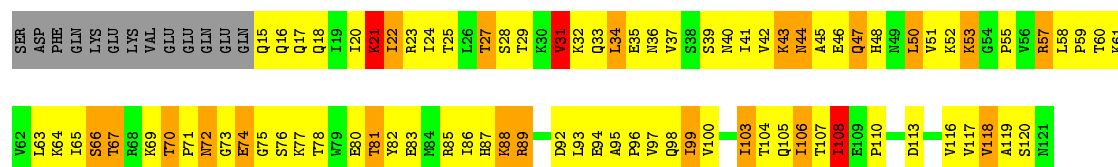
- Molecule 21: 40S ribosomal protein S19-A

Chain c9: 85% 15% •



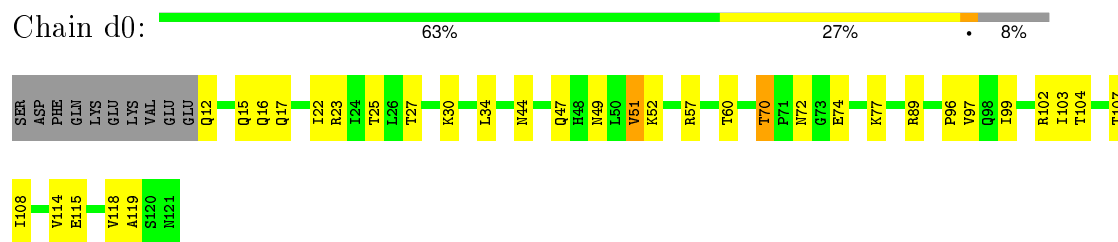
- Molecule 22: 40S ribosomal protein S20

Chain D0: 18% 52% 18% 11% •

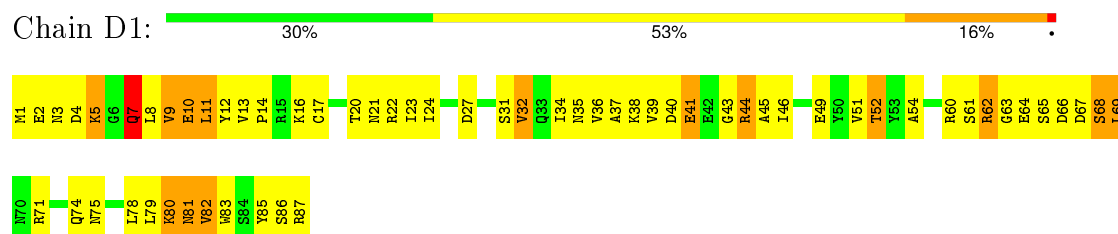


- Molecule 22: 40S ribosomal protein S20

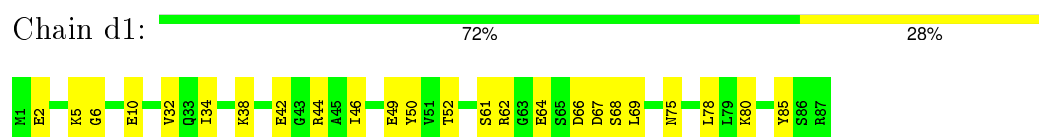




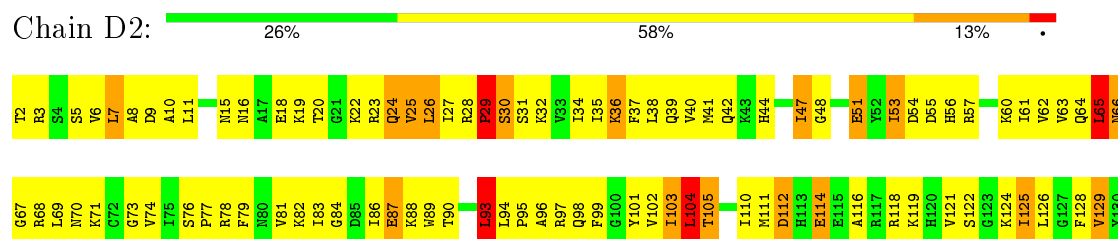
- Molecule 23: 40S ribosomal protein S21-A



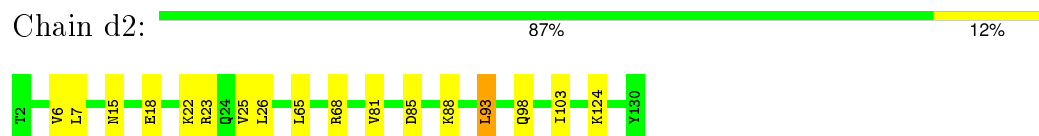
- Molecule 23: 40S ribosomal protein S21-A



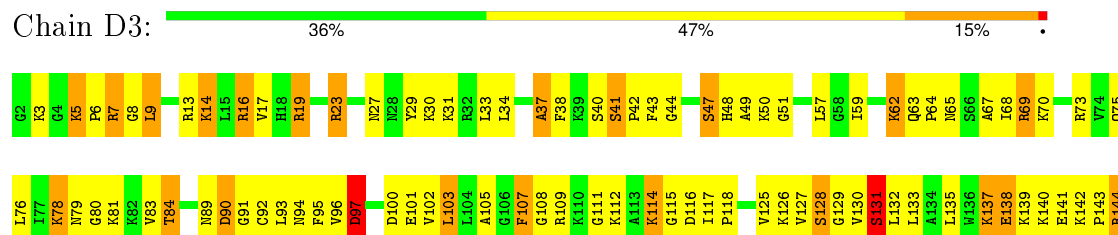
- Molecule 24: 40S ribosomal protein S22-A



- Molecule 24: 40S ribosomal protein S22-A




- Molecule 25: 40S ribosomal protein S23-A



S145

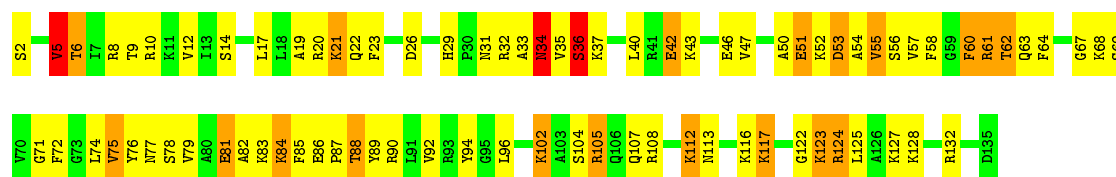
- Molecule 25: 40S ribosomal protein S23-A

Chain d3:  79% 20%



- Molecule 26: 40S ribosomal protein S24-A

Chain D4: 



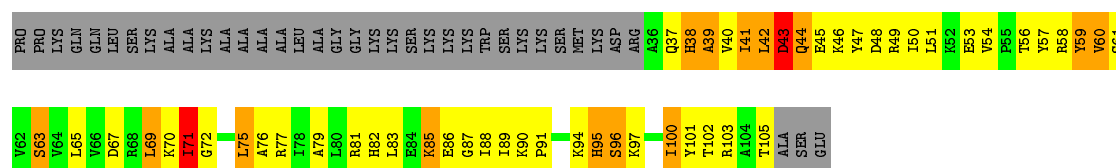
- Molecule 26: 40S ribosomal protein S24-A

Chain d4:  75% 23%



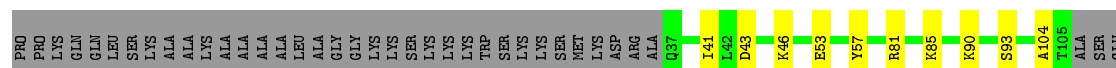
- Molecule 27: 40S ribosomal protein S25-A

Chain D5: 



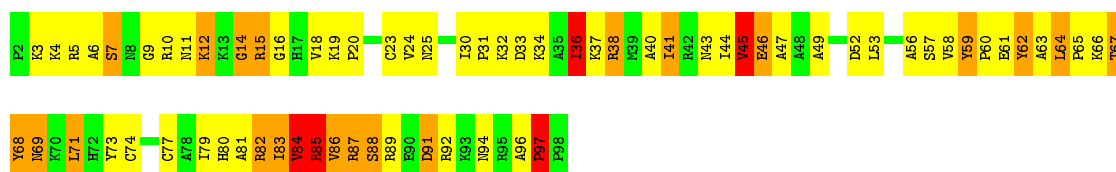
- Molecule 27: 40S ribosomal protein S25-A

Chain d5:  55% 9% 36%



- Molecule 28: 40S ribosomal protein S26-B

Chain D6: 



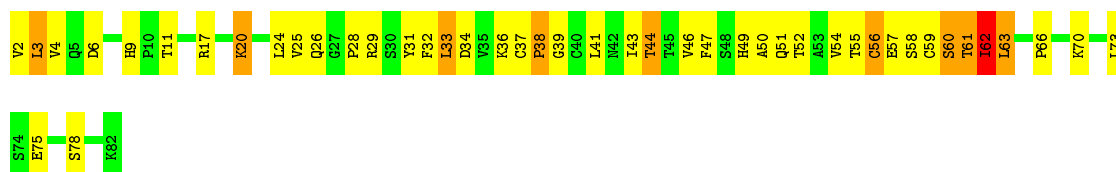
- Molecule 28: 40S ribosomal protein S26-B

Chain d6: 78% 20% •



- Molecule 29: 40S ribosomal protein S27-A

Chain D7: 44% 43% 11% •



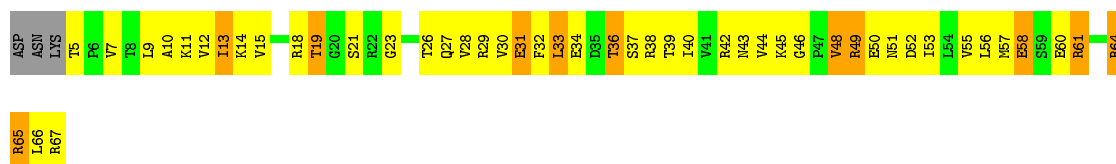
- Molecule 29: 40S ribosomal protein S27-A

Chain d7: 74% 23% •



- Molecule 30: 40S ribosomal protein S28-A

Chain D8: 23% 56% 17% 5%



- Molecule 30: 40S ribosomal protein S28-A

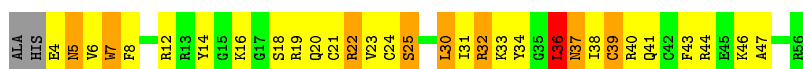
Chain d8: 80% 12% 5%



- Molecule 31: 40S ribosomal protein S29-A

Chain D9: 40% 40% 15% 5%





- Molecule 31: 40S ribosomal protein S29-A

Chain d9: 71% 22%



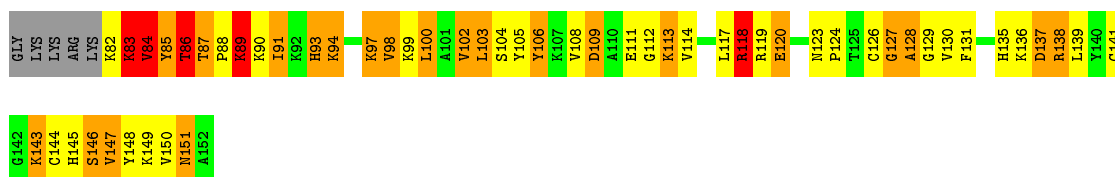
- Molecule 32: 40S ribosomal protein S30-A

Chain E0: 38% 42% 18%



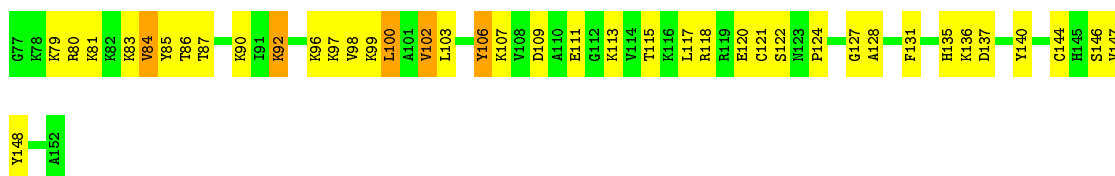
- Molecule 33: Ubiquitin-40S ribosomal protein S31

Chain E1: 22% 36% 29% 7% 7%



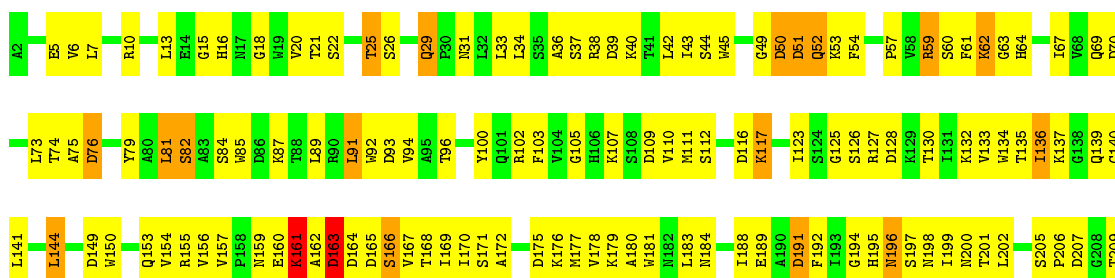
- Molecule 33: Ubiquitin-40S ribosomal protein S31

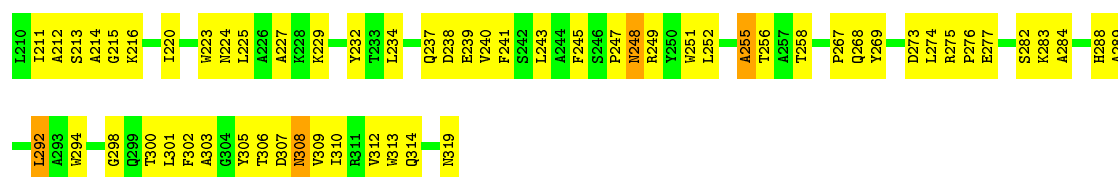
Chain e1: 47% 46% 7%



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

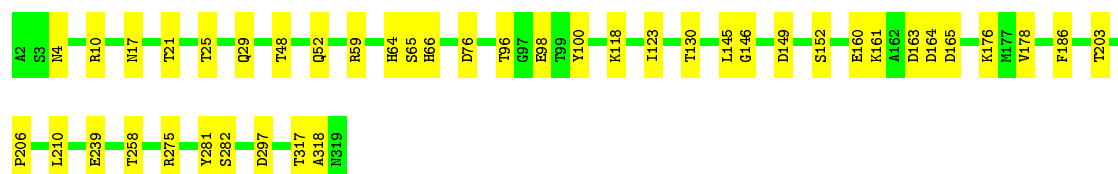
Chain SR: 40% 53% 7%





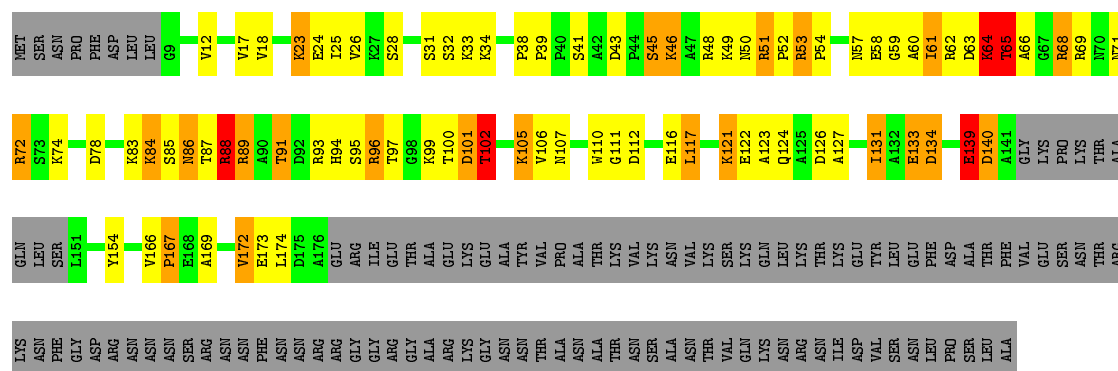
• Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

Chain sR: 87% 13%



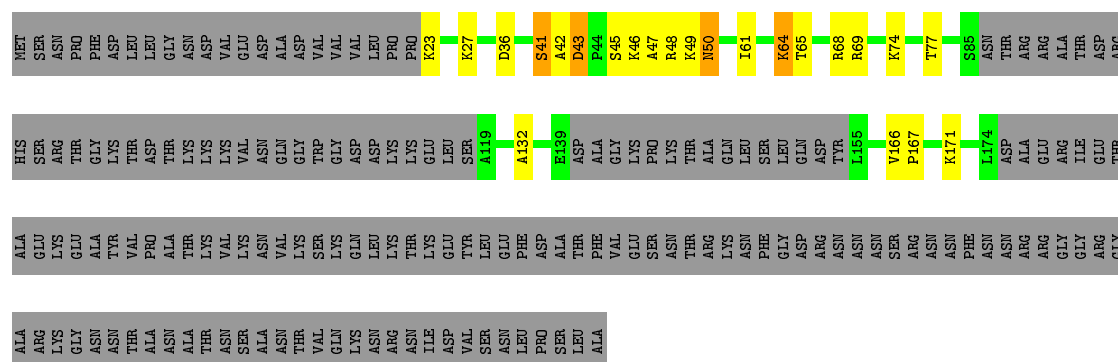
• Molecule 35: Suppressor protein STM1

Chain SM: 27% 21% 8% 42%



• Molecule 35: Suppressor protein STM1

Chain sM: 30% 7% 62%



• Molecule 36: 25S ribosomal RNA

Chain 1: 25% 41% 21% 5% 7%



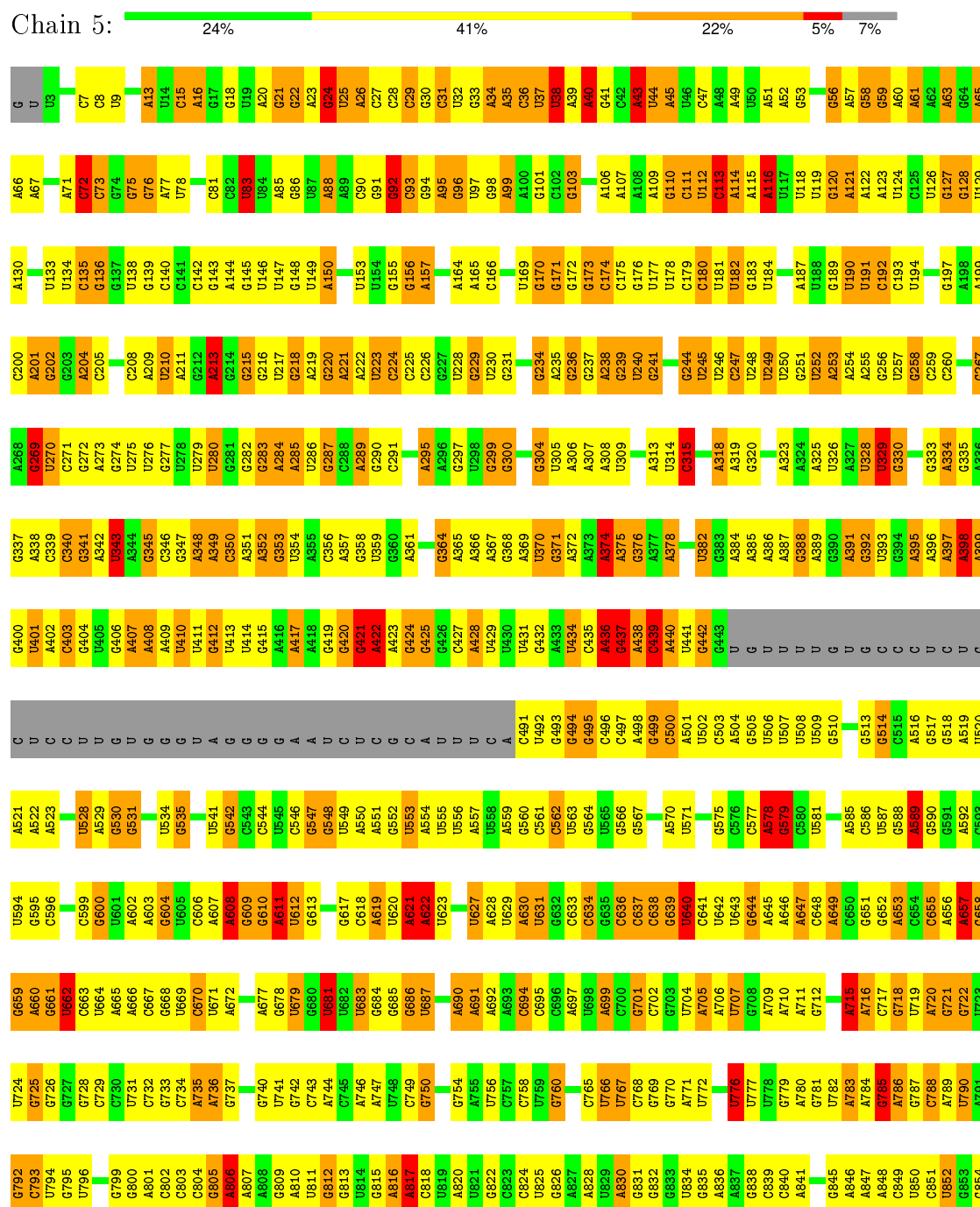






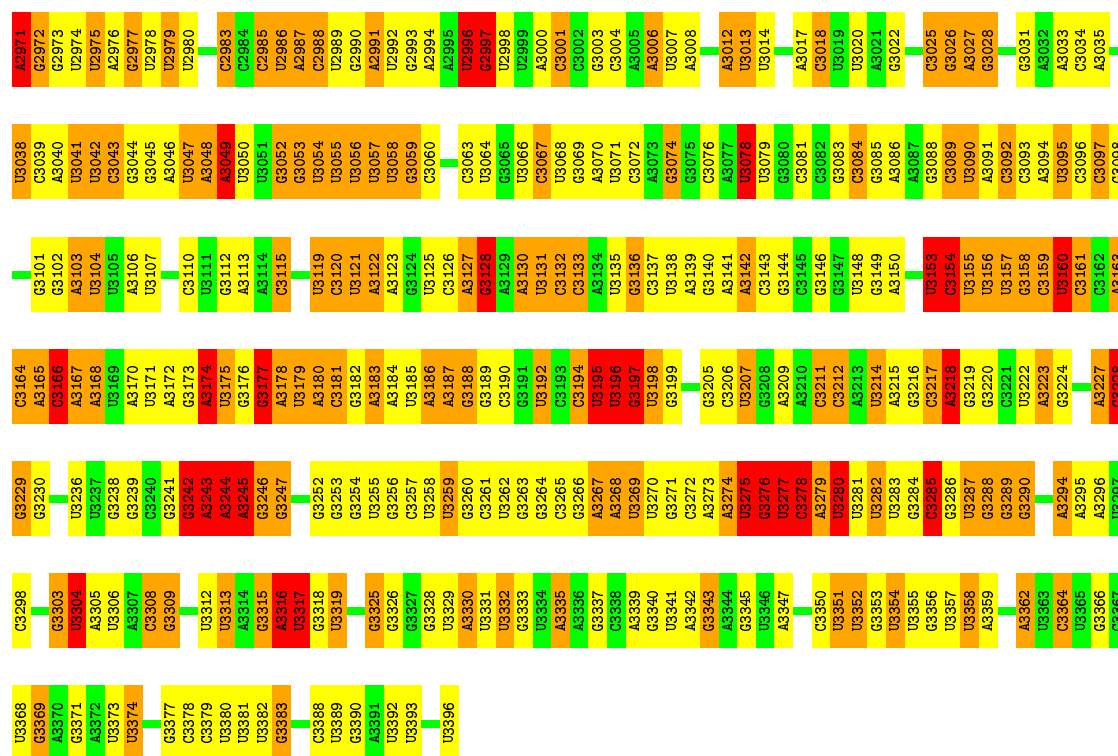


• Molecule 36: 25S ribosomal RNA



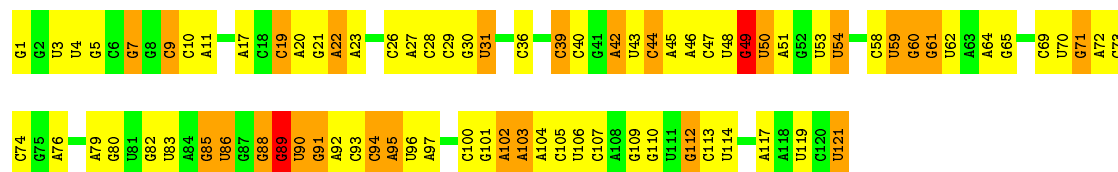


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U2961	G2898	G2834	U2774	A2705	G2638	C2573	U	A2441	C2308	G2245	G2179	G2179	A	A	G
C2962	C2899	U2835	U2775	G2706	C2639	G2574	A	G2442	G2309	G2246	C2179	C2179	G	C	C
G2963	G2900	G2836	U2776	U2707	U2640	G2575	U	U2443	U2310	G2247	G2180	G2180	A	U	U
G2964	A2903	A2837	U2777	G2708	G2641	G2576	U	C2444	U2311	G2248	C2181	C2181	C	U	U
A2967	U2904	A2838	U2778	U2709	U2642	A2579	U	A	U2312	G2249	G2182	G2182	G	U	G
G2968	U2905	G2839	U2779	U2710	A2643	A2580	U	U2504	U2313	G2250	G2183	G2183	G	U	G
A2969	G2906	C2840	U2780	U2711	U2644	G2584	U	U2505	G2314	G2251	U2184	U2184	C	U	U
G2970	G2907	G2841	U2781	U2712	C2644	G2585	G	U2506	A2385	A2252	G2185	G2185	C	C	G
			U2778	U2713				U2508	A2386						



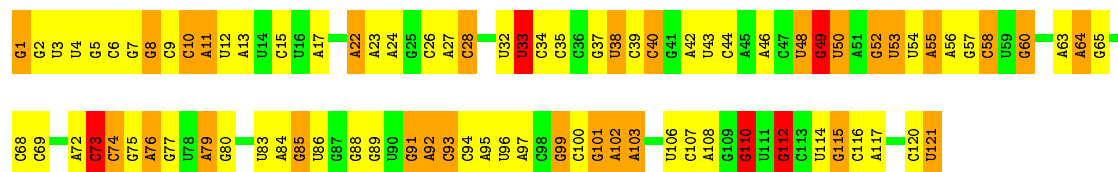
### • Molecule 37: 5S ribosomal RNA

Chain 3: 33% 45% 21% •



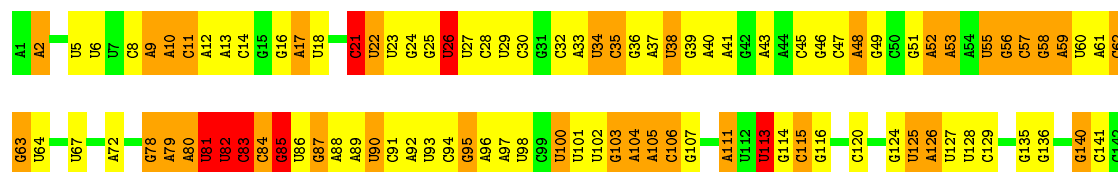
### • Molecule 37: 5S ribosomal RNA

Chain 7: 29% 43% 24% •



### • Molecule 38: 5.8S ribosomal RNA

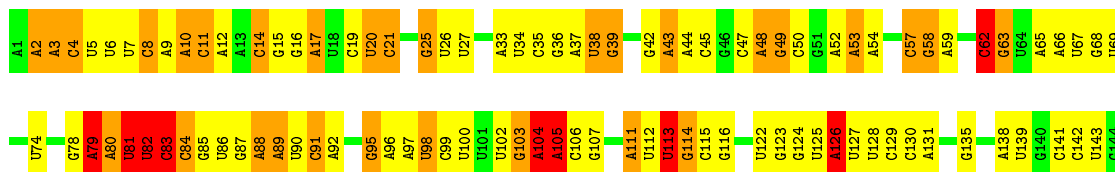
Chain 4: 31% 39% 25% •





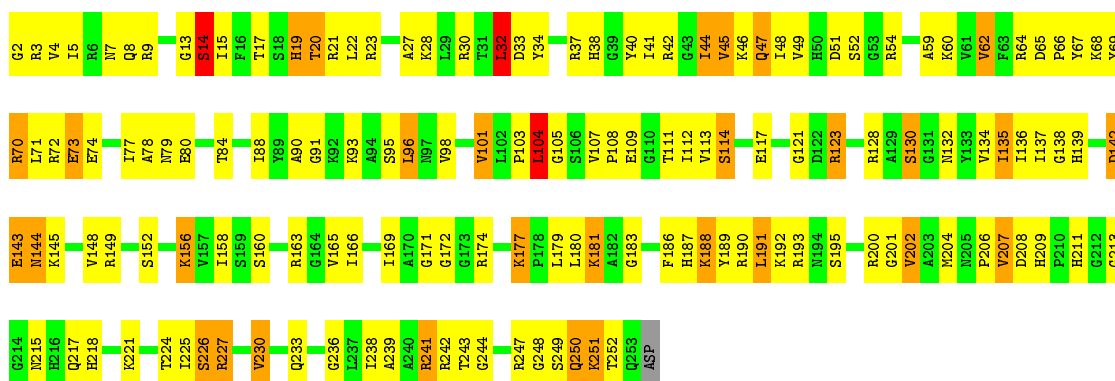
• Molecule 38: 5.8S ribosomal RNA

Chain 8: 32% 41% 22% 6%



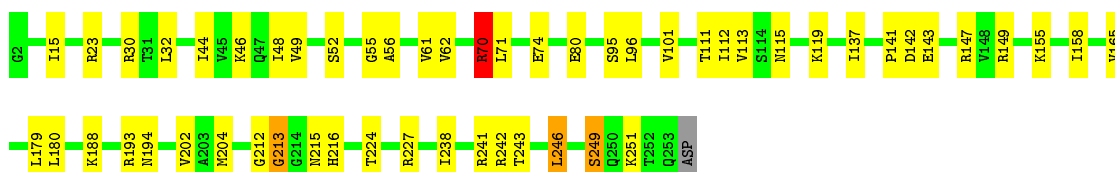
• Molecule 39: 60S ribosomal protein L2-A

Chain L2: 41% 46% 12% .



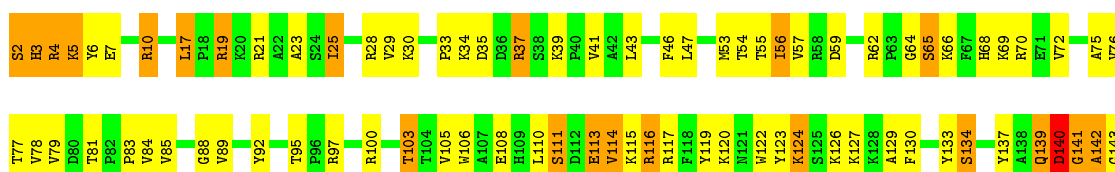
• Molecule 39: 60S ribosomal protein L2-A

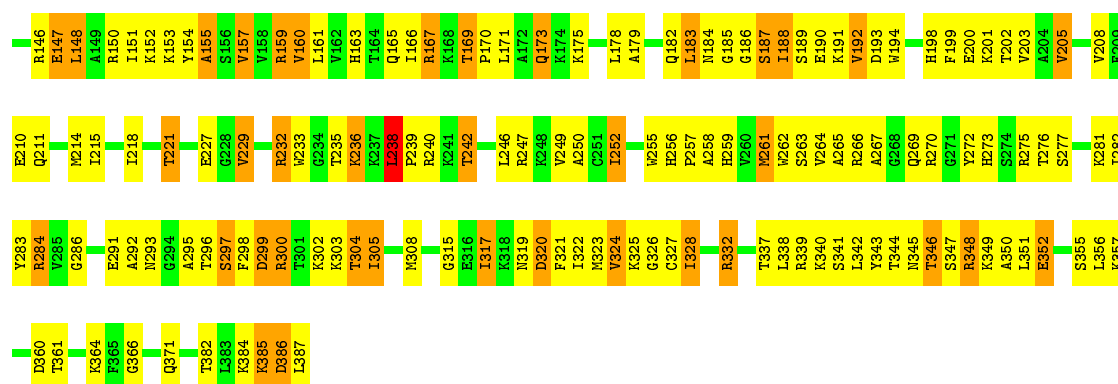
Chain L2: 78% 20% .



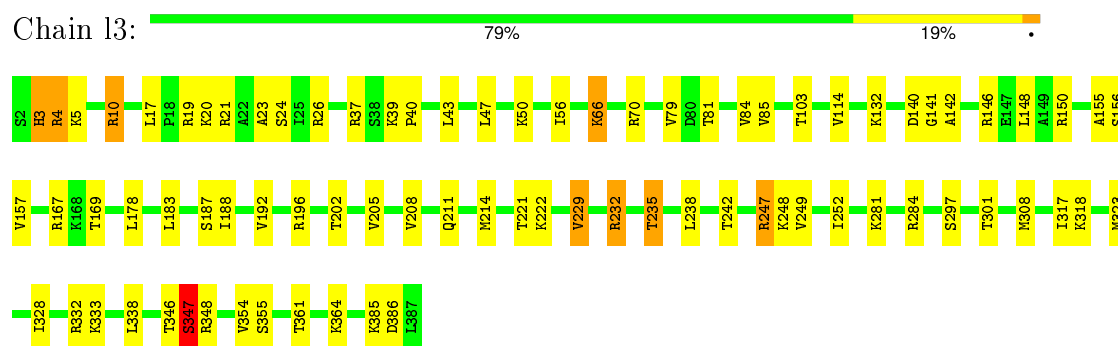
• Molecule 40: 60S ribosomal protein L3

Chain L3: 41% 43% 15% .

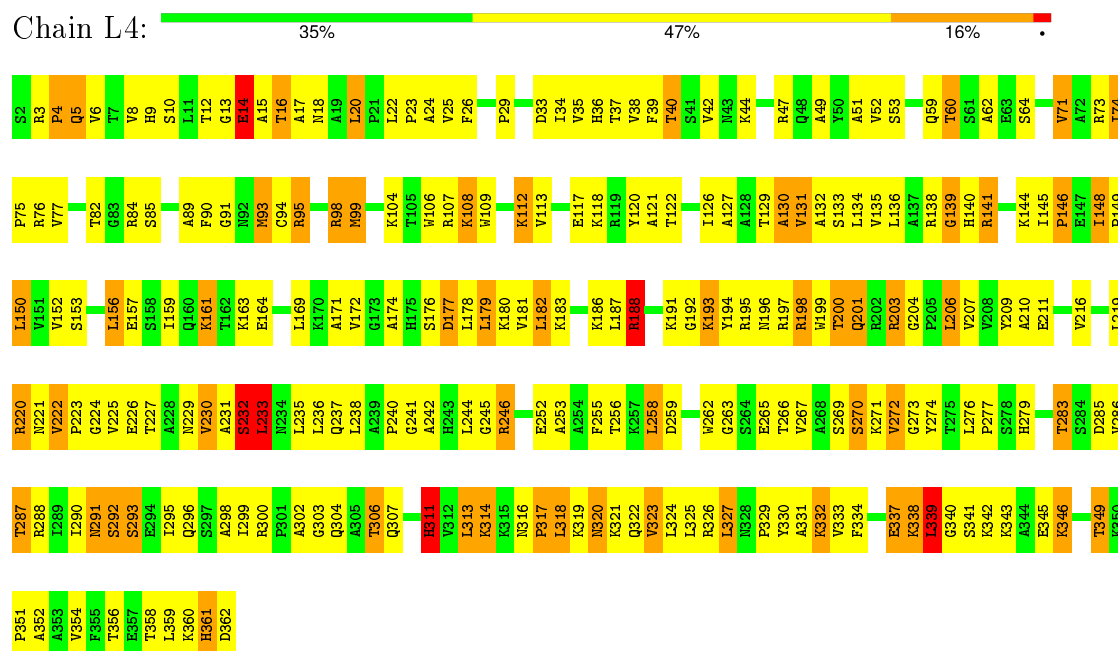




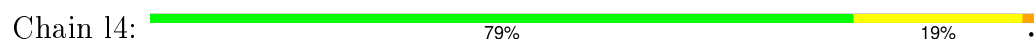
- Molecule 40: 60S ribosomal protein L3



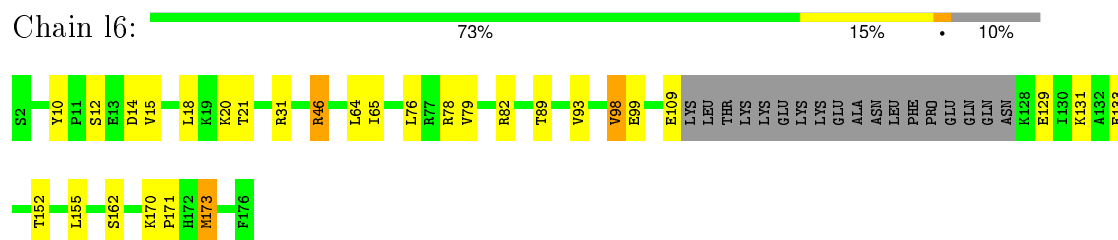
- Molecule 41: 60S ribosomal protein L4-A



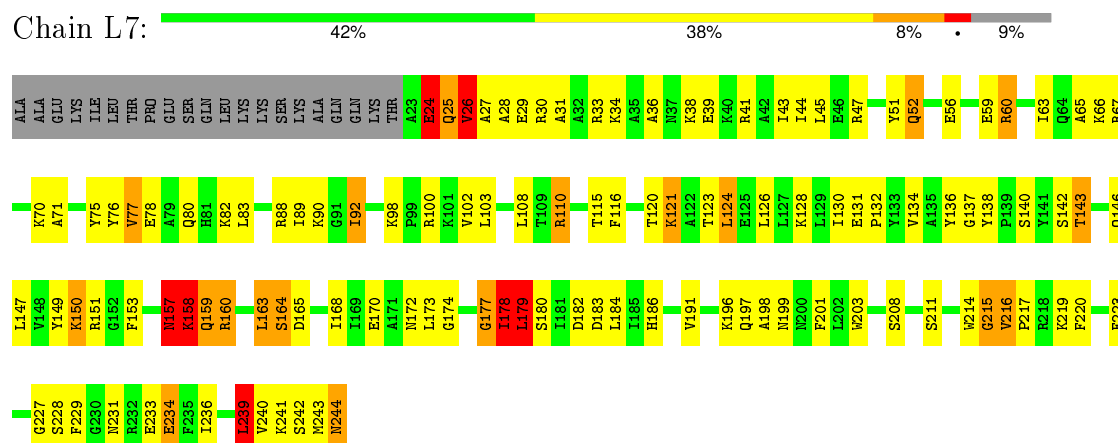
- Molecule 41: 60S ribosomal protein L4-A



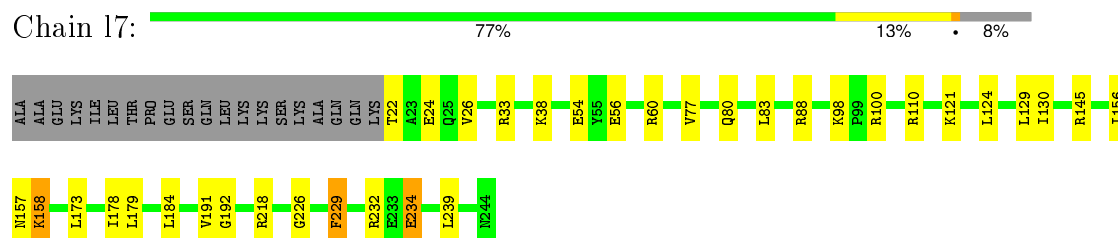




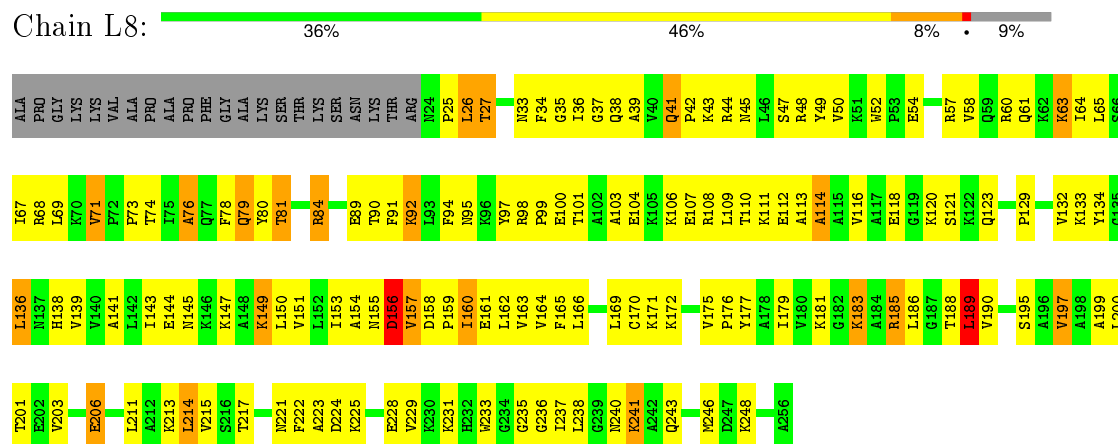
- Molecule 44: 60S ribosomal protein L7-A



- Molecule 44: 60S ribosomal protein L7-A



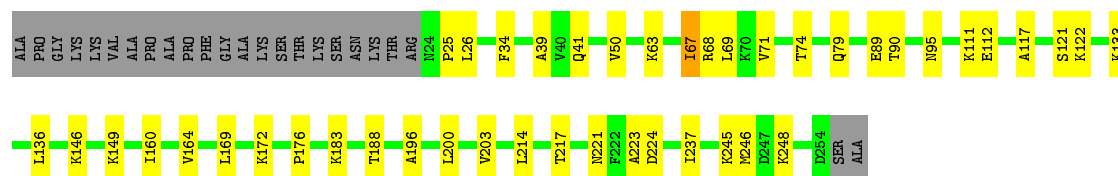
- Molecule 45: 60S ribosomal protein L8-A



- Molecule 45: 60S ribosomal protein L8-A

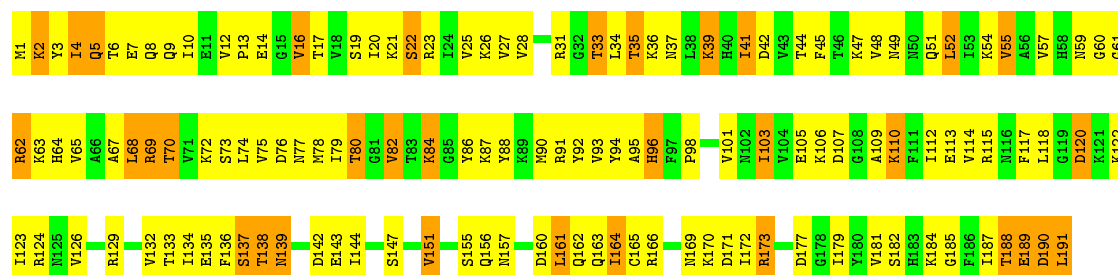


Chain l8: 




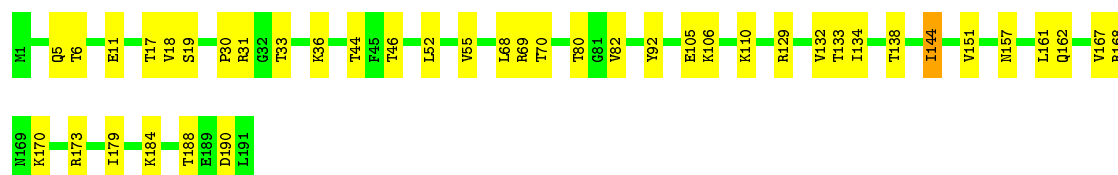
- Molecule 46: 60S ribosomal protein L9-A

Chain L9: 




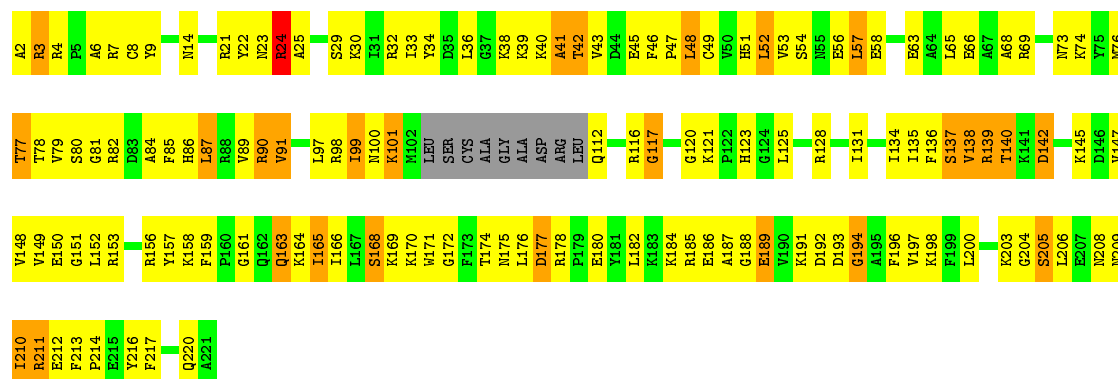
- Molecule 46: 60S ribosomal protein L9-A

Chain l9: 



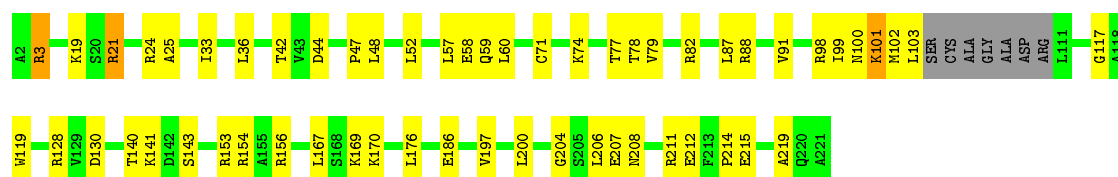
- Molecule 47: 60S ribosomal protein L10

Chain M0: 

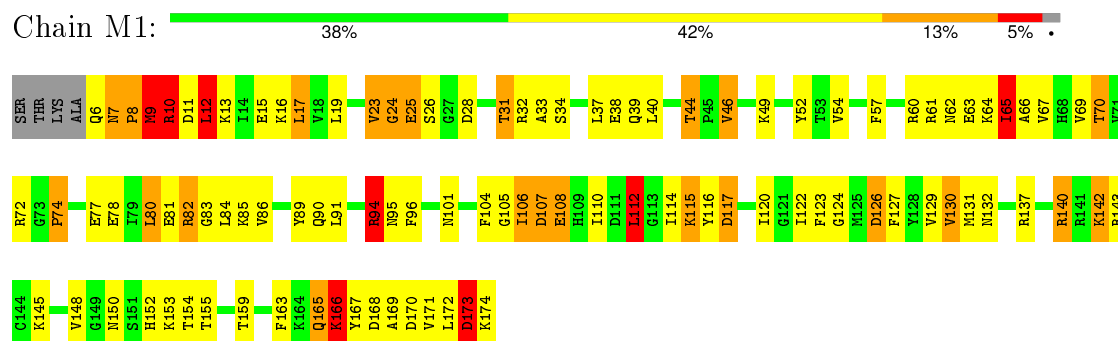


- Molecule 47: 60S ribosomal protein L10

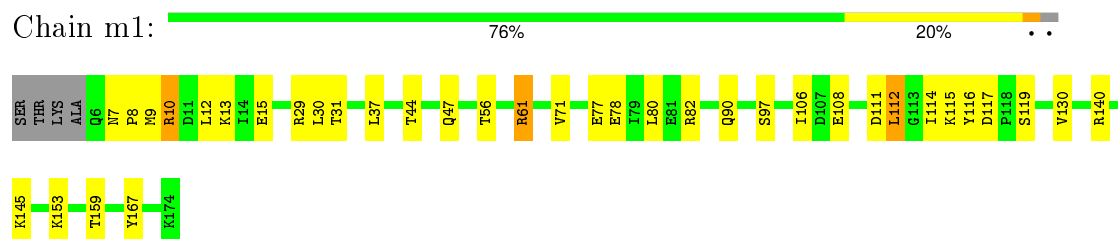
Chain m0: 



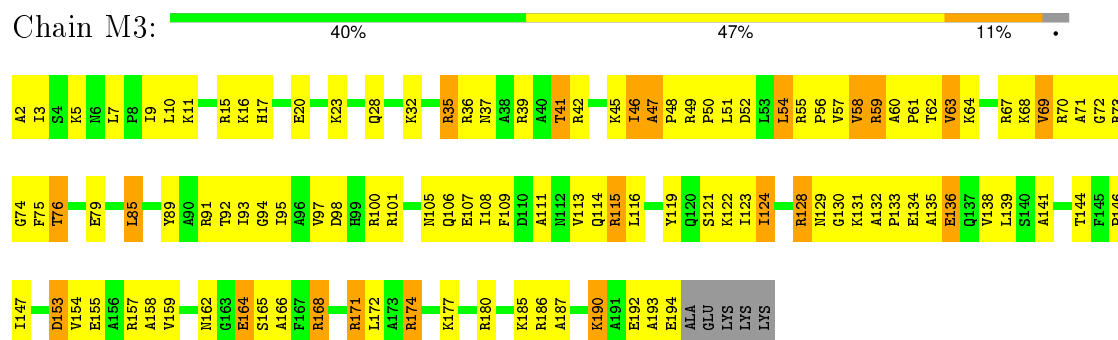
• Molecule 48: 60S ribosomal protein L11-B



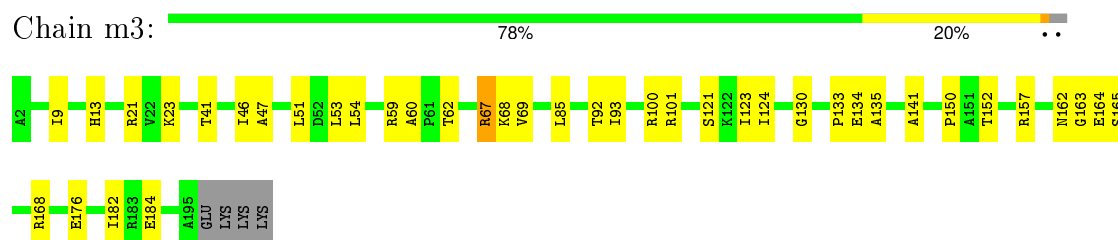
• Molecule 48: 60S ribosomal protein L11-B



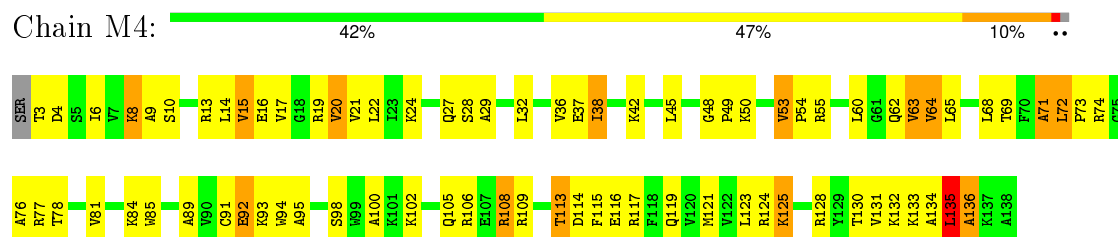
• Molecule 49: 60S ribosomal protein L13-A



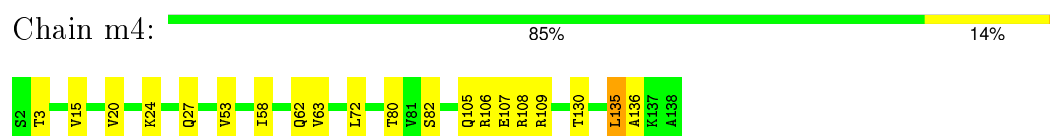
• Molecule 49: 60S ribosomal protein L13-A



- Molecule 50: 60S ribosomal protein L14-A



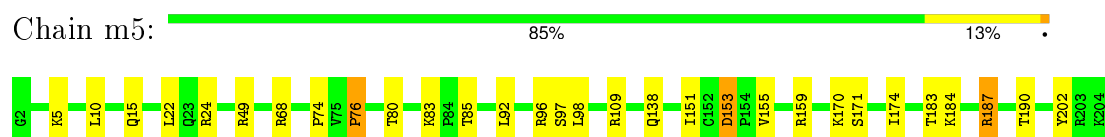
- Molecule 50: 60S ribosomal protein L14-A



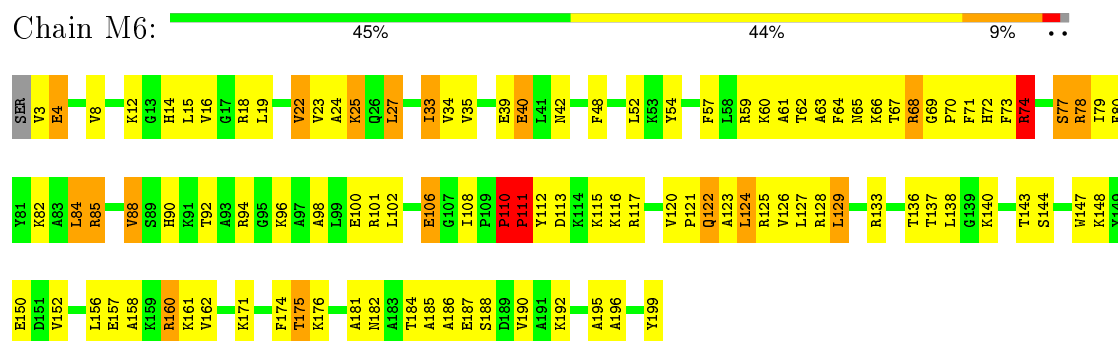
- Molecule 51: 60S ribosomal protein L15-A



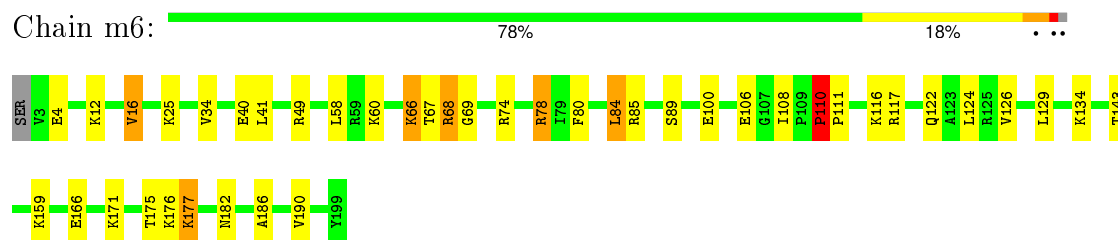
- Molecule 51: 60S ribosomal protein L15-A



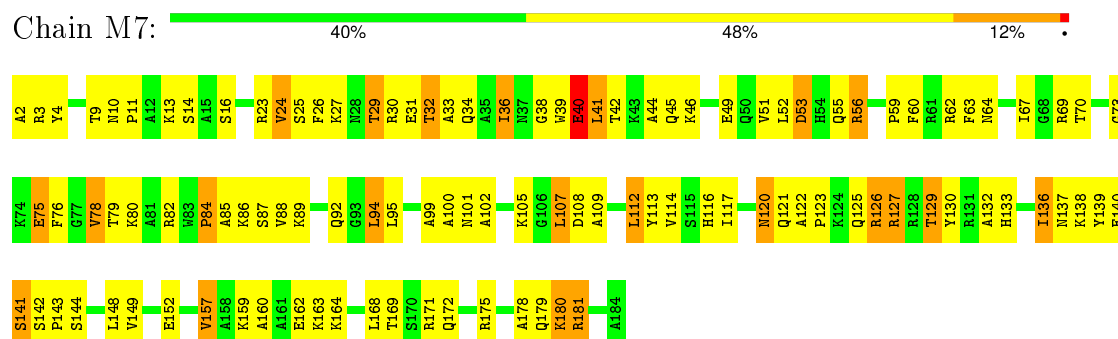
- Molecule 52: 60S ribosomal protein L16-A



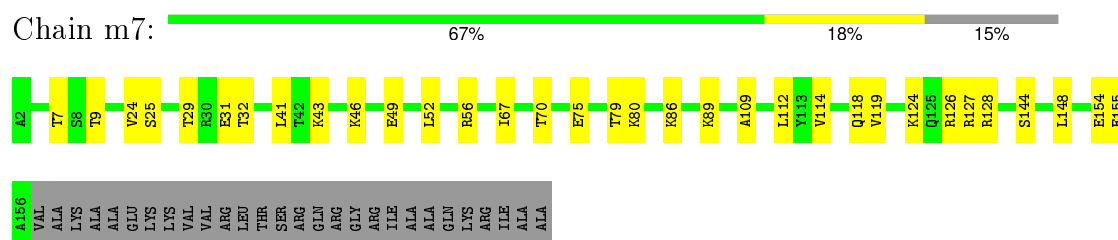
- Molecule 52: 60S ribosomal protein L16-A



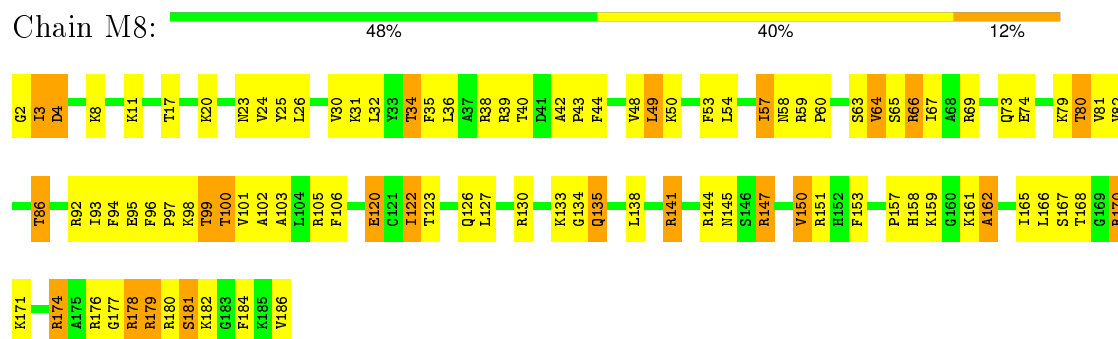
- Molecule 53: 60S ribosomal protein L17-A



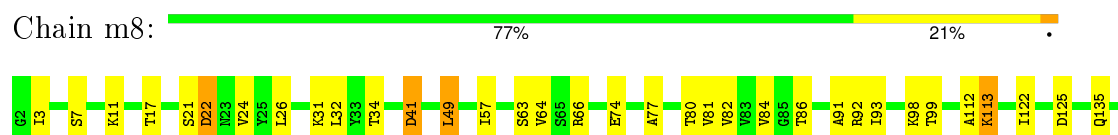
- Molecule 53: 60S ribosomal protein L17-A



- Molecule 54: 60S ribosomal protein L18-A



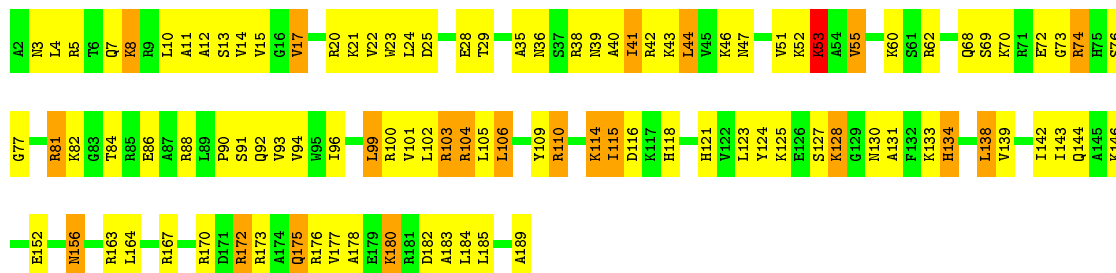
- Molecule 54: 60S ribosomal protein L18-A





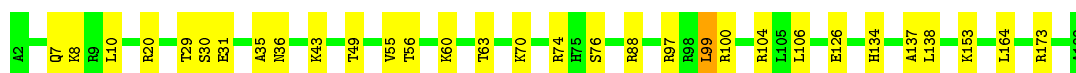
- Molecule 55: 60S ribosomal protein L19-A

Chain M9: 45% 44% 11%



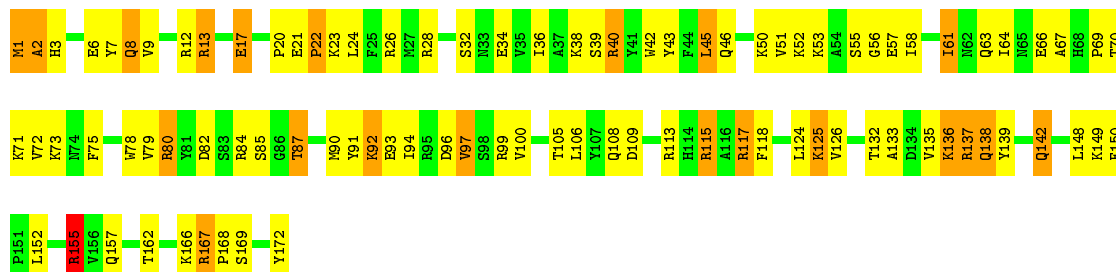
- Molecule 55: 60S ribosomal protein L19-A

Chain m9: 84% 16%



- Molecule 56: 60S ribosomal protein L20-A

Chain N0: 46% 41% 12%



- Molecule 56: 60S ribosomal protein L20-A

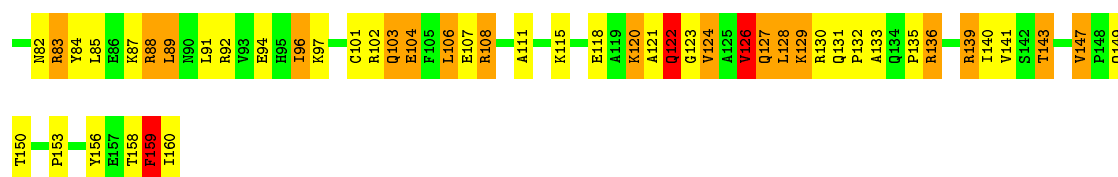
Chain n0: 81% 19%



- Molecule 57: 60S ribosomal protein L21-A

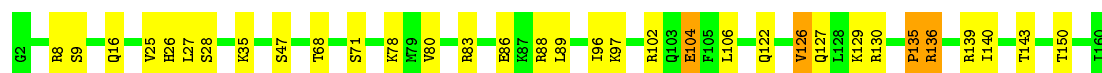
Chain N1: 43% 38% 16%





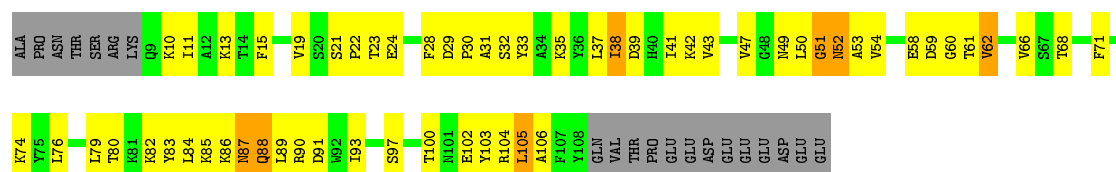
- Molecule 57: 60S ribosomal protein L21-A

Chain n1: 79% 18%



- Molecule 58: 60S ribosomal protein L22-A

Chain N2: 34% 43% 6% 17%



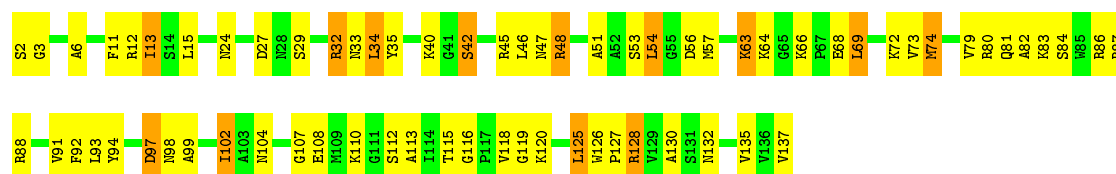
- Molecule 58: 60S ribosomal protein L22-A

Chain n2: 71% 11% 18%



- Molecule 59: 60S ribosomal protein L23-A

Chain N3: 49% 41% 10%



- Molecule 59: 60S ribosomal protein L23-A

Chain n3: 88% 11%



- Molecule 60: 60S ribosomal protein L24-A

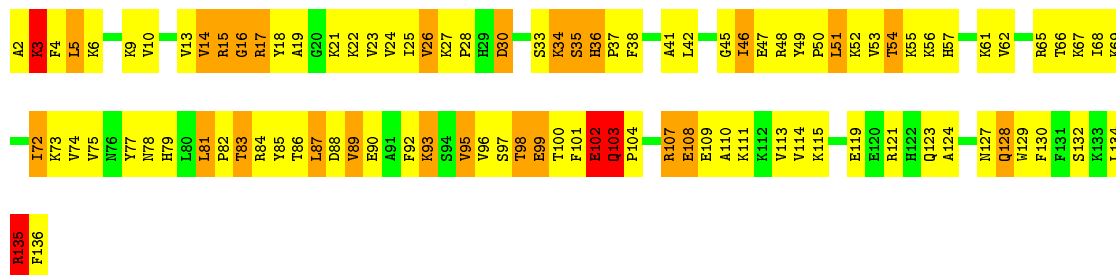
Chain N4: 34% 26% 37%





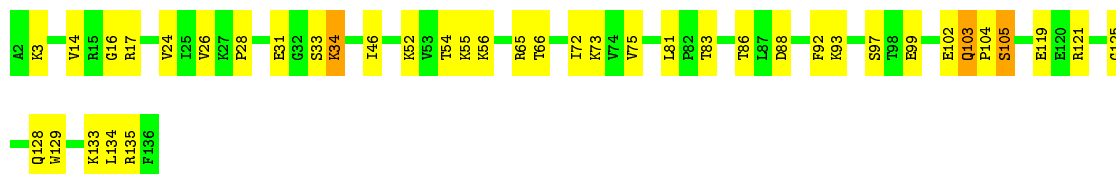
- Molecule 63: 60S ribosomal protein L27-A

Chain N7: 26% 53% 19%



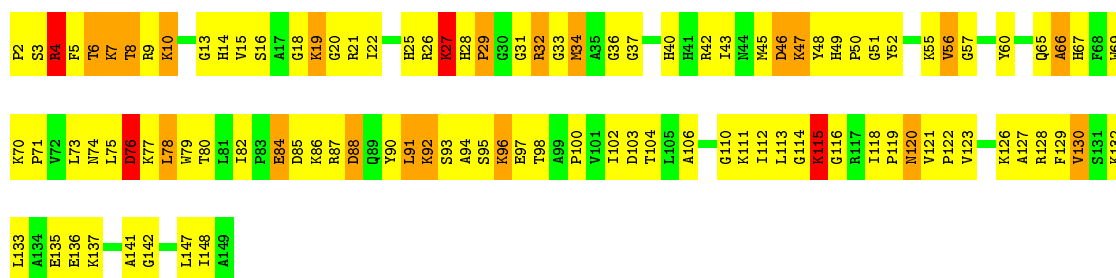
- Molecule 63: 60S ribosomal protein L27-A

Chain n7: 70% 27%



- Molecule 64: 60S ribosomal protein L28

Chain N8: 29% 55% 14%



- Molecule 64: 60S ribosomal protein L28

Chain n8: 79% 20%



- Molecule 65: 60S ribosomal protein L29

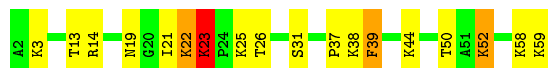
Chain N9: 47% 40% 10%





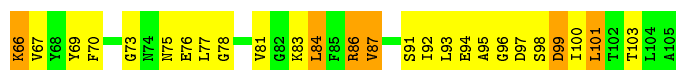
- Molecule 65: 60S ribosomal protein L29

Chain n9: 69% 24% 5% •



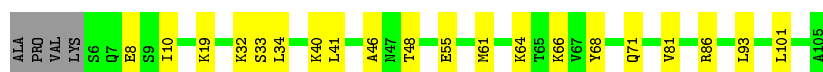
- Molecule 66: 60S ribosomal protein L30

Chain O0: 33% 49% 11% 7% •



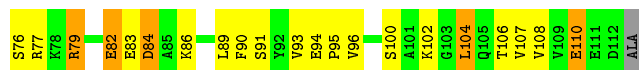
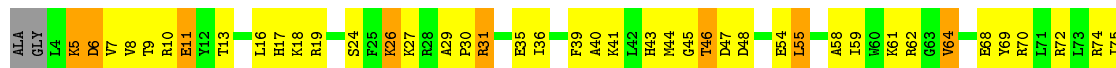
- Molecule 66: 60S ribosomal protein L30

Chain o0: 77% 19% •



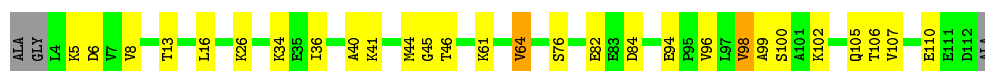
- Molecule 67: 60S ribosomal protein L31-A

Chain O1: 41% 45% 12% •



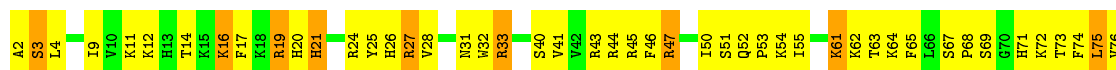
- Molecule 67: 60S ribosomal protein L31-A

Chain o1: 72% 23% •



- Molecule 68: 60S ribosomal protein L32

Chain O2: 41% 46% 12% •





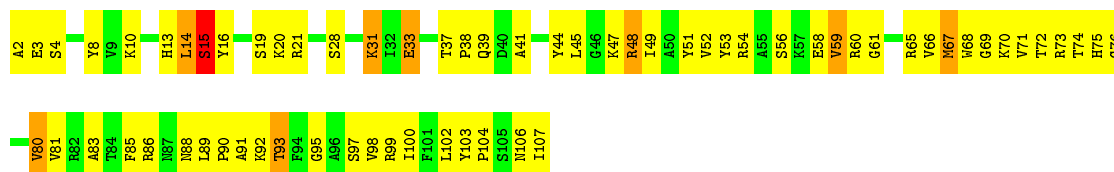
- Molecule 68: 60S ribosomal protein L32

Chain o2: 77% 21%



- Molecule 69: 60S ribosomal protein L33-A

Chain O3: 38% 54% 8%



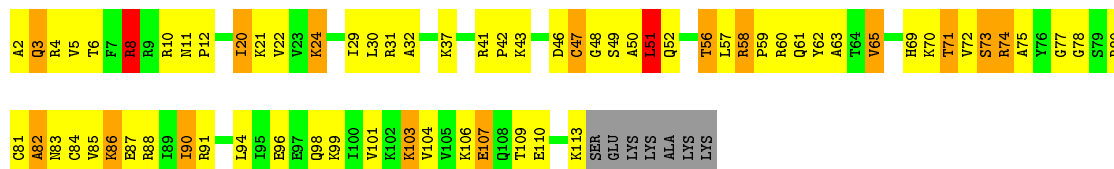
- Molecule 69: 60S ribosomal protein L33-A

Chain o3: 83% 17%



- Molecule 70: 60S ribosomal protein L34-A

Chain O4: 36% 44% 13% 6%



- Molecule 70: 60S ribosomal protein L34-A

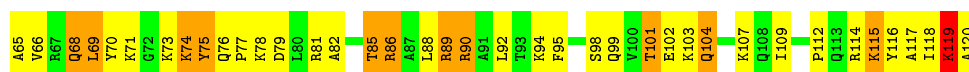
Chain o4: 81% 12% 6%



- Molecule 71: 60S ribosomal protein L35-A

Chain O5: 30% 50% 18%





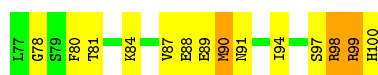
- Molecule 71: 60S ribosomal protein L35-A

Chain o5: 78% 22%



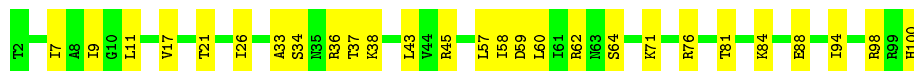
- Molecule 72: 60S ribosomal protein L36-A

Chain O6: 43% 36% 18%



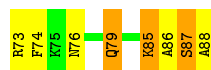
- Molecule 72: 60S ribosomal protein L36-A

Chain o6: 73% 27%



- Molecule 73: 60S ribosomal protein L37-A

Chain O7: 40% 47% 10%



- Molecule 73: 60S ribosomal protein L37-A

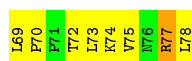
Chain o7: 84% 14%



- Molecule 74: 60S ribosomal protein L38

Chain O8: 32% 51% 17%





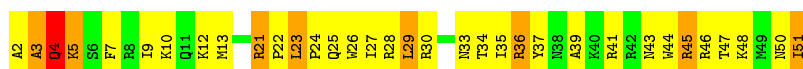
- Molecule 74: 60S ribosomal protein L38

Chain o8: 73% 26%



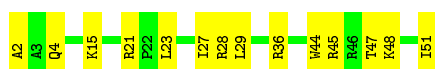
- Molecule 75: 60S ribosomal protein L39

Chain O9: 32% 50% 16%



- Molecule 75: 60S ribosomal protein L39

Chain o9: 72% 28%



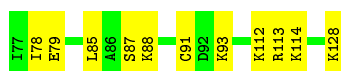
- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain Q0: 44% 42% 10%



- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain q0: 79% 21%



- Molecule 77: 60S ribosomal protein L41-A

Chain Q1: 12% 56% 32%



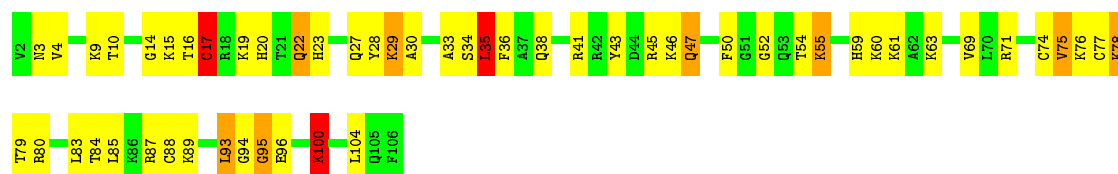
- Molecule 77: 60S ribosomal protein L41-A

Chain q1: 60% 32% 8%




- Molecule 78: 60S ribosomal protein L42-A

Chain Q2:  48% 42% 8% .



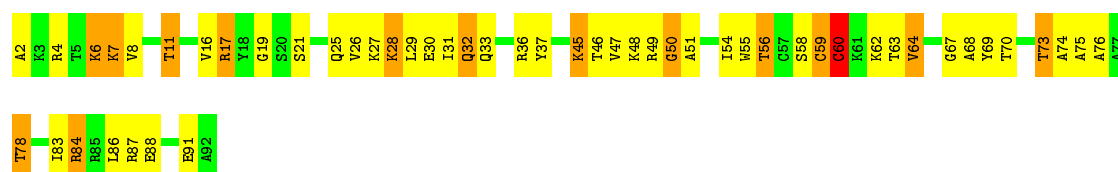
- Molecule 78: 60S ribosomal protein L42-A

Chain q2:  84% 16%




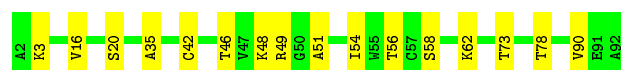
- Molecule 79: 60S ribosomal protein L43-A

Chain Q3:  43% 41% 15% .



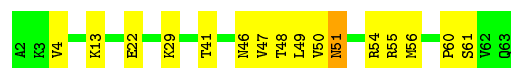
- Molecule 79: 60S ribosomal protein L43-A

Chain q3:  82% 18%



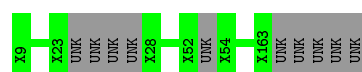
- Molecule 80: 40S ribosomal protein S30-A

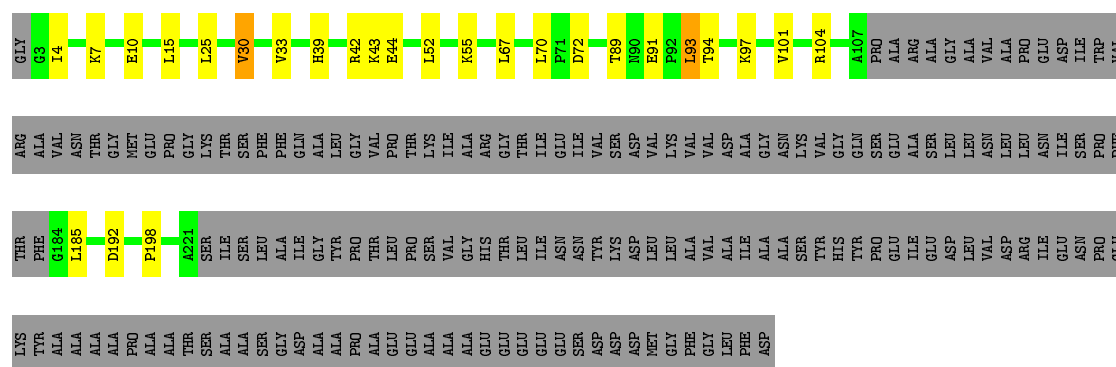
Chain e0:  74% 24% .



- Molecule 81: 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, $\alpha$ , $\beta$ , $\gamma$	435.39Å 286.22Å 303.33Å 90.00° 98.97° 90.00°	Depositor
Resolution (Å)	299.62 – 3.00	Depositor
% Data completeness (in resolution range)	100.0 (299.62-3.00)	Depositor
$R_{merge}$	0.27	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.48 (at 3.01Å)	Xtriage
Refinement program	PHENIX (phenix.refine: dev_1702)	Depositor
R, $R_{free}$	0.207 , 0.258	Depositor
Wilson B-factor (Å <sup>2</sup> )	66.5	Xtriage
Anisotropy	0.193	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.49$ , $\langle L^2 \rangle = 0.31$	Xtriage
Outliers	0 of 1459481 reflections	Xtriage
Total number of atoms	411206	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	58.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.48% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical 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: 3J2, ZN, OHX, MG

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z  > 5$	RMSZ	$\# Z  > 5$
1	2	0.87	13/41698 (0.0%)	1.42	462/64972 (0.7%)
1	6	0.97	33/42765 (0.1%)	1.48	645/66634 (1.0%)
2	S0	0.49	0/1617	0.69	0/2215
2	s0	0.52	0/1623	0.73	1/2222 (0.0%)
3	S1	0.42	0/1735	0.68	2/2335 (0.1%)
3	s1	0.54	0/1748	0.74	1/2352 (0.0%)
4	S2	0.54	0/1665	0.72	0/2263
4	s2	0.62	0/1665	0.81	2/2263 (0.1%)
5	S3	0.54	0/1759	0.72	1/2368 (0.0%)
5	s3	0.46	0/1759	0.65	0/2368
6	S4	0.56	0/2109	0.79	2/2839 (0.1%)
6	s4	0.56	0/2109	0.80	0/2839
7	S5	0.43	0/1629	0.63	0/2202
7	s5	0.47	0/1629	0.67	0/2202
8	S6	0.54	0/1823	0.72	0/2439
8	s6	0.64	1/1779 (0.1%)	0.74	0/2379
9	S7	0.48	0/1506	0.70	1/2028 (0.0%)
9	s7	0.52	0/1516	0.73	0/2043
10	S8	0.65	0/1514	0.82	1/2021 (0.0%)
10	s8	0.65	0/1514	0.79	1/2021 (0.0%)
11	S9	0.54	0/1519	0.74	1/2035 (0.0%)
11	s9	0.59	0/1519	0.80	4/2035 (0.2%)
12	C0	0.44	0/790	0.68	1/1069 (0.1%)
12	c0	0.39	0/777	0.66	3/1049 (0.3%)
13	C1	0.68	1/1239 (0.1%)	0.74	0/1673
13	c1	0.66	0/1194	0.82	1/1610 (0.1%)
14	C2	0.42	0/900	0.65	0/1224
14	c2	0.32	0/900	0.58	0/1224
15	C3	0.60	0/1215	0.73	2/1638 (0.1%)
15	c3	0.62	0/1215	0.82	2/1638 (0.1%)
16	C4	0.42	0/901	0.69	0/1217
16	c4	0.58	0/960	0.84	3/1290 (0.2%)



Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
17	C5	0.54	0/998	0.78	1/1341 (0.1%)
17	c5	0.51	0/1060	0.69	0/1426
18	C6	0.50	0/1125	0.75	2/1510 (0.1%)
18	c6	0.52	0/1131	0.71	0/1518
19	C7	0.49	0/935	0.69	0/1254
19	c7	0.52	0/914	0.70	0/1224
20	C8	0.48	0/1211	0.72	1/1628 (0.1%)
20	c8	0.51	0/1211	0.73	2/1628 (0.1%)
21	C9	0.48	0/1130	0.69	0/1517
21	c9	0.52	0/1130	0.68	1/1517 (0.1%)
22	D0	0.51	0/865	0.70	0/1169
22	d0	0.53	0/892	0.69	0/1205
23	D1	0.55	0/693	0.70	0/935
23	d1	0.59	0/693	0.79	0/935
24	D2	0.58	0/1038	0.80	3/1395 (0.2%)
24	d2	0.66	0/1038	0.80	1/1395 (0.1%)
25	D3	0.73	0/1139	0.85	1/1518 (0.1%)
25	d3	0.74	0/1139	0.83	1/1518 (0.1%)
26	D4	0.53	0/1087	0.66	0/1449
26	d4	0.57	0/1087	0.78	0/1449
27	D5	0.43	0/571	0.75	0/768
27	d5	0.46	0/566	0.69	0/761
28	D6	0.48	0/782	0.72	0/1047
28	d6	0.60	0/782	0.75	0/1047
29	D7	0.50	0/620	0.70	0/838
29	d7	0.53	0/620	0.73	0/838
30	D8	0.43	0/499	0.62	0/670
30	d8	0.45	0/499	0.69	0/670
31	D9	0.63	0/452	0.85	1/600 (0.2%)
31	d9	0.57	0/452	0.75	1/600 (0.2%)
32	E0	0.54	0/483	0.68	0/643
33	E1	0.53	0/577	0.86	0/770
33	e1	0.42	0/619	0.72	0/822
34	SR	0.42	0/2494	0.63	1/3393 (0.0%)
34	sR	0.42	0/2495	0.59	0/3395
35	SM	0.58	0/1113	0.78	2/1502 (0.1%)
35	sM	0.55	0/683	0.78	2/923 (0.2%)
36	1	1.38	411/75394 (0.5%)	1.86	2927/117545 (2.5%)
36	5	1.40	457/75414 (0.6%)	1.87	2915/117575 (2.5%)
37	3	1.08	4/2883 (0.1%)	1.61	59/4491 (1.3%)
37	7	1.39	14/2883 (0.5%)	1.82	95/4491 (2.1%)
38	4	1.32	12/3746 (0.3%)	1.84	130/5832 (2.2%)
38	8	1.20	10/3746 (0.3%)	1.71	88/5832 (1.5%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
39	L2	0.86	0/1948	0.93	2/2617 (0.1%)
39	l2	0.84	1/1946 (0.1%)	0.95	5/2614 (0.2%)
40	L3	0.87	1/3146 (0.0%)	0.93	2/4228 (0.0%)
40	l3	0.98	2/3146 (0.1%)	0.96	6/4228 (0.1%)
41	L4	0.93	0/2800	1.03	10/3790 (0.3%)
41	l4	0.90	1/2800 (0.0%)	0.95	5/3790 (0.1%)
42	L5	0.66	0/2425	0.75	0/3271
42	l5	0.87	2/2408 (0.1%)	0.89	2/3248 (0.1%)
43	L6	0.93	0/1260	0.91	1/1694 (0.1%)
43	l6	0.95	0/1269	0.97	4/1705 (0.2%)
44	L7	0.92	1/1821 (0.1%)	0.98	7/2451 (0.3%)
44	l7	1.01	4/1828 (0.2%)	0.98	3/2461 (0.1%)
45	L8	0.68	0/1836	0.76	1/2481 (0.0%)
45	l8	0.59	0/1795	0.71	0/2429
46	L9	0.77	0/1539	0.85	0/2073
46	l9	0.88	1/1539 (0.1%)	0.87	0/2073
47	M0	0.81	1/1741 (0.1%)	0.90	4/2335 (0.2%)
47	m0	0.88	1/1758 (0.1%)	0.98	6/2358 (0.3%)
48	M1	0.59	0/1374	0.80	1/1842 (0.1%)
48	m1	0.75	0/1374	0.85	2/1842 (0.1%)
49	M3	0.88	0/1568	0.93	1/2106 (0.0%)
49	m3	0.82	1/1573 (0.1%)	0.92	2/2113 (0.1%)
50	M4	0.88	0/1068	0.87	1/1438 (0.1%)
50	m4	0.96	0/1074	0.92	1/1446 (0.1%)
51	M5	0.90	0/1757	0.99	4/2354 (0.2%)
51	m5	0.78	1/1757 (0.1%)	0.91	2/2354 (0.1%)
52	M6	1.08	5/1585 (0.3%)	1.04	9/2128 (0.4%)
52	m6	1.18	4/1585 (0.3%)	1.08	6/2128 (0.3%)
53	M7	0.91	1/1443 (0.1%)	0.91	0/1944
53	m7	1.00	0/1250	0.97	0/1683
54	M8	0.90	0/1465	0.96	4/1965 (0.2%)
54	m8	0.90	0/1465	1.01	3/1965 (0.2%)
55	M9	0.69	0/1538	0.74	0/2050
55	m9	0.70	0/1538	0.77	0/2050
56	N0	0.89	0/1481	0.93	4/1990 (0.2%)
56	n0	1.01	0/1481	0.97	4/1990 (0.2%)
57	N1	0.87	0/1300	0.88	0/1743
57	n1	1.00	2/1300 (0.2%)	0.96	2/1743 (0.1%)
58	N2	0.49	0/812	0.66	0/1099
58	n2	0.54	0/794	0.72	0/1076
59	N3	0.87	0/1018	0.93	0/1369
59	n3	0.97	1/1018 (0.1%)	1.04	4/1369 (0.3%)
60	N4	0.70	0/712	0.77	1/958 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
60	n4	0.75	0/1052	0.80	1/1398 (0.1%)
61	N5	0.80	0/979	0.91	1/1321 (0.1%)
61	n5	0.73	0/974	0.91	1/1314 (0.1%)
62	N6	0.83	0/1004	0.99	2/1341 (0.1%)
62	n6	0.87	1/1004 (0.1%)	0.98	2/1341 (0.1%)
63	N7	0.64	0/1118	0.78	1/1497 (0.1%)
63	n7	0.55	0/1118	0.71	0/1497
64	N8	0.93	0/1204	1.01	2/1612 (0.1%)
64	n8	0.90	1/1204 (0.1%)	0.95	2/1612 (0.1%)
65	N9	0.79	0/473	0.91	1/629 (0.2%)
65	n9	0.96	0/473	1.05	2/629 (0.3%)
66	O0	0.57	0/751	0.74	1/1008 (0.1%)
66	o0	0.55	0/775	0.69	0/1040
67	O1	0.75	0/890	0.80	1/1196 (0.1%)
67	o1	0.90	0/897	0.89	0/1205
68	O2	0.98	0/1041	1.04	4/1394 (0.3%)
68	o2	1.03	1/1041 (0.1%)	1.03	1/1394 (0.1%)
69	O3	1.14	3/868 (0.3%)	0.98	0/1168
69	o3	1.06	0/868	0.96	0/1168
70	O4	0.74	0/890	0.94	5/1189 (0.4%)
70	o4	0.69	0/890	0.82	1/1189 (0.1%)
71	O5	0.88	1/978 (0.1%)	0.91	2/1301 (0.2%)
71	o5	0.68	0/974	0.80	0/1297
72	O6	0.75	0/778	0.88	0/1034
72	o6	0.64	0/777	0.75	0/1033
73	O7	0.96	0/696	1.05	3/923 (0.3%)
73	o7	0.85	0/696	0.96	1/923 (0.1%)
74	O8	0.61	0/618	0.73	0/826
74	o8	0.53	0/614	0.76	1/822 (0.1%)
75	O9	0.91	0/443	0.93	0/588
75	o9	0.82	0/443	0.96	0/588
76	Q0	0.89	1/423 (0.2%)	0.95	1/562 (0.2%)
76	q0	1.00	0/423	1.01	0/562
77	Q1	0.75	0/234	0.96	1/300 (0.3%)
77	q1	0.92	0/234	1.15	3/300 (1.0%)
78	Q2	1.02	1/860 (0.1%)	0.94	1/1136 (0.1%)
78	q2	0.88	0/860	0.91	1/1136 (0.1%)
79	Q3	0.90	0/701	0.94	1/934 (0.1%)
79	q3	0.84	0/701	0.90	0/934
80	e0	0.60	0/499	0.78	0/665
82	p0	0.48	0/1092	0.61	0/1474
All	All	1.06	995/430073 (0.2%)	1.45	7522/631362 (1.2%)

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
3	S1	0	1
3	s1	0	1
5	s3	0	1
6	S4	0	1
7	S5	0	1
7	s5	0	2
9	S7	0	2
9	s7	0	1
16	C4	0	1
16	c4	0	1
18	c6	0	2
19	c7	0	1
22	d0	0	1
26	d4	0	1
27	D5	0	2
28	D6	0	2
33	E1	0	1
33	e1	0	1
39	L2	0	1
39	l2	0	3
41	L4	0	1
41	l4	0	1
42	L5	0	2
42	l5	0	1
43	L6	0	1
44	L7	0	1
44	l7	0	1
45	l8	0	1
48	M1	0	1
49	M3	0	1
51	M5	0	1
52	M6	0	1
52	m6	0	1
53	M7	0	1
56	N0	0	1
56	n0	0	1
57	N1	0	1
59	n3	0	1
60	n4	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
63	N7	0	1
64	N8	0	1
64	n8	0	2
65	N9	0	1
65	n9	0	2
67	O1	0	2
67	o1	0	1
71	o5	0	1
72	O6	0	2
75	O9	0	1
75	o9	0	1
76	Q0	0	1
78	Q2	0	2
All	All	0	65

All (995) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	Q2	17	CYS	CB-SG	16.46	2.10	1.82
36	5	1152	G	N9-C4	-12.28	1.28	1.38
36	5	2872	A	N9-C4	-12.03	1.30	1.37
57	n1	104	GLU	CB-CG	10.19	1.71	1.52
36	1	3181	C	N3-C4	-9.73	1.27	1.33
36	1	2406	C	N1-C6	-9.39	1.31	1.37
36	5	1152	G	C2-N3	-9.39	1.25	1.32
36	1	2142	A	N3-C4	-9.31	1.29	1.34
37	7	73	C	N1-C6	9.17	1.42	1.37
36	5	1432	C	N3-C4	-9.15	1.27	1.33
36	1	2404	A	N7-C5	9.12	1.44	1.39
36	5	1143	A	N9-C4	-9.11	1.32	1.37
36	1	2911	A	N9-C4	-9.03	1.32	1.37
36	1	1114	U	C2-N3	-8.93	1.31	1.37
36	5	2971	A	N7-C5	8.68	1.44	1.39
36	5	1159	A	N9-C4	-8.65	1.32	1.37
36	5	1103	A	N9-C4	8.62	1.43	1.37
36	5	941	G	C6-N1	-8.60	1.33	1.39
36	1	2333	C	N3-C4	-8.54	1.27	1.33
36	1	1433	A	N7-C5	-8.50	1.34	1.39
36	5	2899	C	N3-C4	-8.46	1.28	1.33
36	5	947	G	C6-N1	-8.41	1.33	1.39
36	1	1143	A	N9-C4	-8.41	1.32	1.37
36	5	970	A	N9-C4	-8.25	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	645	A	C8-N7	-8.23	1.25	1.31
52	M6	4	GLU	CG-CD	8.21	1.64	1.51
36	1	1394	A	N9-C4	-8.17	1.32	1.37
36	5	2377	G	C6-N1	-8.17	1.33	1.39
36	5	2364	G	N7-C5	-8.06	1.34	1.39
36	5	3106	A	N7-C5	-8.06	1.34	1.39
36	5	876	A	C6-N1	-8.04	1.29	1.35
36	1	2616	C	N1-C6	-8.03	1.32	1.37
36	5	877	C	C4-N4	-7.99	1.26	1.33
36	5	2703	A	N7-C5	-7.98	1.34	1.39
36	5	922	U	N1-C2	7.94	1.45	1.38
36	5	2872	A	N9-C8	7.92	1.44	1.37
36	5	922	U	N3-C4	-7.88	1.31	1.38
36	1	2376	G	C6-N1	-7.88	1.34	1.39
36	5	2411	U	C4-O4	-7.88	1.17	1.23
36	1	2987	A	C6-N1	-7.87	1.30	1.35
36	5	2872	A	N3-C4	-7.87	1.30	1.34
36	5	953	G	C5-C4	-7.85	1.32	1.38
36	5	2397	A	N3-C4	-7.85	1.30	1.34
36	5	1199	C	N1-C6	-7.79	1.32	1.37
36	5	2726	C	N3-C4	-7.77	1.28	1.33
36	5	2636	A	C6-N1	-7.76	1.30	1.35
36	5	1117	G	C5-C4	-7.75	1.32	1.38
36	5	1847	A	N9-C4	-7.75	1.33	1.37
36	1	1116	G	N7-C5	-7.74	1.34	1.39
36	1	2398	A	N7-C5	-7.73	1.34	1.39
52	m6	66	LYS	CE-NZ	7.73	1.68	1.49
36	5	1433	A	N7-C5	-7.70	1.34	1.39
36	1	909	G	C5-C4	-7.63	1.33	1.38
36	5	3039	C	N3-C4	-7.61	1.28	1.33
36	5	2971	A	N9-C4	7.61	1.42	1.37
36	5	3245	A	C5-C6	-7.61	1.34	1.41
36	1	3142	A	N3-C4	-7.59	1.30	1.34
13	C1	128	CYS	CB-SG	-7.56	1.69	1.82
36	5	1152	G	N9-C8	7.55	1.43	1.37
36	5	2386	A	N7-C5	-7.55	1.34	1.39
36	5	410	U	C4-O4	7.53	1.29	1.23
36	5	631	U	C2-N3	-7.52	1.32	1.37
36	1	887	G	N9-C8	-7.51	1.32	1.37
36	5	36	C	N1-C6	-7.49	1.32	1.37
36	1	367	A	N3-C4	-7.48	1.30	1.34
36	5	895	A	N9-C4	-7.47	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	970	A	N9-C4	-7.46	1.33	1.37
36	1	921	A	N7-C5	-7.46	1.34	1.39
36	5	2792	A	N3-C4	-7.45	1.30	1.34
36	5	980	A	N7-C5	7.44	1.43	1.39
36	5	2136	C	N1-C6	-7.43	1.32	1.37
36	5	802	C	N1-C6	-7.42	1.32	1.37
36	1	1103	A	N7-C5	7.41	1.43	1.39
36	1	2640	A	C6-N1	-7.41	1.30	1.35
36	5	1874	A	N9-C4	-7.41	1.33	1.37
36	5	804	C	N1-C6	-7.40	1.32	1.37
36	1	2411	U	C4-O4	-7.39	1.17	1.23
36	1	423	A	N7-C5	-7.39	1.34	1.39
36	1	2800	G	C5-C4	-7.37	1.33	1.38
36	1	1149	G	N3-C4	-7.35	1.30	1.35
36	1	1116	G	C5-C4	-7.34	1.33	1.38
36	5	711	A	N9-C4	-7.32	1.33	1.37
36	5	1432	C	C2-N3	-7.32	1.29	1.35
36	1	1103	A	N9-C4	7.32	1.42	1.37
36	5	404	G	N9-C8	-7.31	1.32	1.37
40	L3	200	GLU	CG-CD	7.30	1.62	1.51
36	1	1891	A	N9-C4	-7.30	1.33	1.37
36	1	92	G	C5-C4	-7.29	1.33	1.38
36	1	1133	A	C5-C4	-7.28	1.33	1.38
36	5	2335	G	N3-C4	-7.27	1.30	1.35
36	1	1589	A	N9-C4	-7.26	1.33	1.37
36	1	3209	A	C5-C4	7.26	1.43	1.38
36	1	85	A	C5-C6	-7.24	1.34	1.41
36	1	2820	A	N3-C4	-7.22	1.30	1.34
1	2	1657	U	N1-C2	7.21	1.45	1.38
36	1	40	A	N9-C8	-7.13	1.32	1.37
36	5	2980	U	C2-O2	-7.12	1.16	1.22
36	5	1103	A	C5-C4	7.11	1.43	1.38
36	1	36	C	N1-C6	-7.09	1.32	1.37
36	1	2983	C	N3-C4	-7.08	1.28	1.33
38	4	79	A	N9-C4	7.08	1.42	1.37
36	5	3052	G	C2-N3	-7.05	1.27	1.32
36	1	1156	C	N3-C4	-7.00	1.29	1.33
36	1	2143	A	N9-C4	-7.00	1.33	1.37
36	5	947	G	N1-C2	-6.99	1.32	1.37
36	5	2147	A	C5-C6	-6.98	1.34	1.41
36	1	1113	G	N3-C4	-6.98	1.30	1.35
36	1	931	C	N3-C4	-6.96	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2404	A	N3-C4	6.96	1.39	1.34
1	6	754	A	N9-C4	6.94	1.42	1.37
36	1	2648	G	N1-C2	-6.94	1.32	1.37
36	1	34	A	N9-C4	-6.94	1.33	1.37
36	1	906	A	N7-C5	-6.93	1.35	1.39
36	1	909	G	N9-C8	-6.93	1.32	1.37
36	1	2281	A	N9-C4	-6.93	1.33	1.37
36	5	3245	A	N9-C4	-6.92	1.33	1.37
52	m6	80	PHE	CB-CG	-6.90	1.39	1.51
36	5	3136	G	C6-N1	-6.89	1.34	1.39
36	1	61	A	C6-N1	-6.88	1.30	1.35
36	5	2813	A	N7-C5	-6.87	1.35	1.39
36	1	936	A	N9-C4	-6.86	1.33	1.37
36	1	907	G	N7-C5	-6.84	1.35	1.39
36	1	2356	A	N9-C4	-6.82	1.33	1.37
36	5	2903	A	N9-C4	-6.81	1.33	1.37
36	1	2143	A	C6-N1	-6.81	1.30	1.35
36	1	2139	A	C6-N1	-6.79	1.30	1.35
36	1	2812	C	N1-C6	-6.79	1.33	1.37
36	1	92	G	N1-C2	-6.79	1.32	1.37
36	5	1193	A	N7-C5	-6.78	1.35	1.39
36	5	2383	C	N1-C6	-6.77	1.33	1.37
36	1	865	U	N1-C2	-6.76	1.32	1.38
36	1	1047	A	N9-C4	-6.76	1.33	1.37
36	5	3362	A	N9-C4	-6.75	1.33	1.37
36	1	40	A	C8-N7	-6.75	1.26	1.31
36	1	2885	C	N1-C6	-6.75	1.33	1.37
36	1	931	C	N1-C6	-6.74	1.33	1.37
36	5	428	A	N3-C4	-6.74	1.30	1.34
36	5	40	A	N7-C5	-6.73	1.35	1.39
36	1	504	A	N3-C4	-6.72	1.30	1.34
36	1	895	A	N9-C4	-6.72	1.33	1.37
36	5	437	G	C5-C4	6.72	1.43	1.38
1	2	1599	C	N1-C6	-6.71	1.33	1.37
36	1	2372	A	N9-C4	6.68	1.41	1.37
36	5	1332	A	N3-C4	-6.67	1.30	1.34
36	1	2761	G	C5-C4	-6.67	1.33	1.38
36	5	1152	G	N3-C4	-6.67	1.30	1.35
36	5	2824	G	C6-N1	-6.66	1.34	1.39
36	5	404	G	N7-C5	-6.66	1.35	1.39
36	5	895	A	N3-C4	-6.65	1.30	1.34
36	1	1547	G	C5-C4	-6.64	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	1132	C	N3-C4	-6.64	1.29	1.33
36	5	1047	A	C5-C6	-6.63	1.35	1.41
36	5	3008	A	N9-C4	-6.62	1.33	1.37
36	1	36	C	N1-C2	-6.62	1.33	1.40
36	1	2714	G	N9-C8	6.62	1.42	1.37
36	1	2958	A	C5-C4	-6.61	1.34	1.38
36	5	889	U	C4-O4	-6.60	1.18	1.23
36	5	861	C	N1-C6	-6.60	1.33	1.37
1	6	163	G	N9-C4	-6.60	1.32	1.38
38	4	11	C	N1-C6	-6.59	1.33	1.37
36	5	2134	G	N1-C2	-6.59	1.32	1.37
36	1	1164	G	N7-C5	-6.58	1.35	1.39
36	1	1154	A	N7-C5	-6.58	1.35	1.39
36	5	1332	A	C5-C4	-6.57	1.34	1.38
1	2	1274	C	N3-C4	-6.56	1.29	1.33
69	O3	15	SER	CB-OG	6.55	1.50	1.42
36	5	924	G	N3-C4	-6.55	1.30	1.35
1	6	366	A	N9-C4	-6.54	1.33	1.37
36	5	934	G	C5-C4	-6.53	1.33	1.38
36	5	2639	G	N9-C8	-6.53	1.33	1.37
38	8	80	A	N9-C4	6.53	1.41	1.37
36	1	1452	A	N9-C4	-6.53	1.33	1.37
36	5	1103	A	N3-C4	6.52	1.38	1.34
36	1	34	A	N3-C4	-6.51	1.30	1.34
36	5	3209	A	C5-C4	6.51	1.43	1.38
36	5	2811	A	N9-C4	-6.50	1.33	1.37
36	1	49	A	N9-C4	-6.48	1.33	1.37
36	1	2138	A	N7-C5	-6.48	1.35	1.39
36	5	922	U	C4-O4	-6.47	1.18	1.23
36	5	61	A	N3-C4	-6.47	1.30	1.34
1	2	320	U	N1-C2	6.44	1.44	1.38
36	1	2643	A	N9-C4	-6.44	1.33	1.37
36	5	2894	C	C4-C5	-6.44	1.37	1.43
36	1	61	A	N3-C4	-6.43	1.30	1.34
36	1	1373	A	C6-N1	-6.43	1.31	1.35
36	5	417	A	C6-N1	-6.42	1.31	1.35
36	1	1507	G	N9-C8	-6.42	1.33	1.37
36	5	2138	A	N7-C5	-6.42	1.35	1.39
38	8	79	A	N9-C4	6.42	1.41	1.37
36	1	94	G	C5-C6	-6.41	1.35	1.42
36	5	643	U	C2-N3	-6.41	1.33	1.37
36	5	1149	G	N9-C8	-6.41	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1886	A	C5-C6	-6.41	1.35	1.41
36	1	92	G	P-O5'	-6.41	1.53	1.59
36	5	1901	A	N7-C5	-6.41	1.35	1.39
36	1	3091	A	N7-C5	-6.39	1.35	1.39
36	1	1370	G	N7-C5	-6.38	1.35	1.39
36	1	3107	U	C2-N3	-6.37	1.33	1.37
36	5	338	A	C5-C6	-6.36	1.35	1.41
36	1	2800	G	N9-C8	-6.35	1.33	1.37
36	1	1370	G	C5-C4	-6.34	1.33	1.38
36	5	3374	U	C4-O4	-6.34	1.18	1.23
36	5	980	A	C5-C6	6.34	1.46	1.41
36	1	2363	A	C6-N1	-6.34	1.31	1.35
36	5	1436	U	N1-C6	-6.34	1.32	1.38
36	5	2945	G	N7-C5	-6.34	1.35	1.39
36	5	647	A	N3-C4	-6.33	1.31	1.34
36	1	1428	A	N9-C4	-6.33	1.34	1.37
76	Q0	110	CYS	CB-SG	-6.32	1.71	1.82
42	15	257	GLU	CG-CD	6.32	1.61	1.51
36	5	2609	A	C5-C4	-6.32	1.34	1.38
36	1	2748	A	N9-C4	-6.32	1.34	1.37
36	5	1885	U	N1-C2	-6.32	1.32	1.38
36	5	3046	A	C6-N1	-6.32	1.31	1.35
36	5	36	C	C4-C5	-6.31	1.38	1.43
36	1	658	G	C8-N7	-6.30	1.27	1.30
36	5	1379	G	C6-N1	-6.30	1.35	1.39
36	1	1143	A	N3-C4	-6.30	1.31	1.34
36	1	2945	G	N9-C8	-6.30	1.33	1.37
36	1	1459	C	N3-C4	-6.30	1.29	1.33
37	7	101	G	C5-C4	-6.30	1.33	1.38
36	1	28	C	N1-C6	-6.29	1.33	1.37
38	8	138	A	N3-C4	-6.29	1.31	1.34
36	5	1195	A	N7-C5	-6.29	1.35	1.39
36	5	3362	A	N3-C4	-6.28	1.31	1.34
36	5	3095	U	C2-N3	-6.28	1.33	1.37
36	5	3330	A	C5-C4	-6.28	1.34	1.38
36	1	661	G	N7-C5	-6.28	1.35	1.39
36	5	420	G	N9-C8	-6.27	1.33	1.37
36	1	3078	U	C4-O4	6.27	1.28	1.23
36	1	2823	G	N7-C5	-6.27	1.35	1.39
57	n1	104	GLU	CG-CD	6.27	1.61	1.51
36	1	3057	U	N3-C4	-6.26	1.32	1.38
36	5	645	A	C8-N7	-6.26	1.27	1.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	367	A	N3-C4	-6.26	1.31	1.34
36	5	1429	G	N9-C8	-6.25	1.33	1.37
36	5	2375	G	C6-N1	-6.25	1.35	1.39
36	5	909	G	N9-C8	-6.25	1.33	1.37
36	1	426	G	N1-C2	-6.24	1.32	1.37
36	1	2821	C	N1-C6	-6.24	1.33	1.37
36	1	878	G	N9-C8	-6.24	1.33	1.37
36	1	1370	G	C5-C6	-6.24	1.36	1.42
36	5	1340	G	C5-C4	-6.24	1.33	1.38
36	5	425	G	C5-C6	-6.23	1.36	1.42
44	17	234	GLU	CD-OE1	6.23	1.32	1.25
37	7	102	A	N9-C4	-6.22	1.34	1.37
36	1	984	G	N7-C5	-6.22	1.35	1.39
36	5	960	U	N1-C2	6.21	1.44	1.38
36	5	1406	A	N3-C4	-6.21	1.31	1.34
36	5	2919	A	C6-N1	-6.21	1.31	1.35
36	5	980	A	N3-C4	6.20	1.38	1.34
36	1	200	C	N1-C6	-6.20	1.33	1.37
36	1	1351	U	N1-C2	6.20	1.44	1.38
36	1	1399	A	N9-C4	-6.19	1.34	1.37
36	1	2617	U	N3-C4	-6.19	1.32	1.38
36	5	41	G	N9-C4	-6.19	1.32	1.38
36	5	653	A	N7-C5	-6.19	1.35	1.39
36	5	666	A	N3-C4	-6.18	1.31	1.34
36	5	1200	A	N3-C4	-6.18	1.31	1.34
36	1	2920	U	C2-N3	-6.18	1.33	1.37
36	5	651	G	N7-C5	-6.17	1.35	1.39
36	1	2169	G	N7-C5	6.17	1.43	1.39
36	1	440	A	N9-C4	6.16	1.41	1.37
1	2	1600	A	N9-C4	-6.16	1.34	1.37
36	1	805	G	N9-C8	-6.15	1.33	1.37
36	5	1370	G	C6-N1	-6.15	1.35	1.39
36	1	411	U	C2-N3	-6.15	1.33	1.37
1	6	616	G	N3-C4	-6.15	1.31	1.35
36	5	2970	C	N1-C6	-6.15	1.33	1.37
36	1	638	C	C2-N3	-6.14	1.30	1.35
36	5	704	U	N1-C2	-6.14	1.33	1.38
38	4	25	G	N7-C5	-6.14	1.35	1.39
36	1	659	G	N1-C2	-6.14	1.32	1.37
36	1	610	G	N9-C4	-6.13	1.33	1.38
36	1	1348	U	N1-C2	6.13	1.44	1.38
38	4	25	G	C6-N1	-6.13	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	3216	G	C5-C4	-6.12	1.34	1.38
36	5	983	A	C5-C4	-6.12	1.34	1.38
36	5	1174	G	C5-C4	-6.12	1.34	1.38
36	1	859	G	N7-C5	-6.12	1.35	1.39
36	1	3136	G	C6-N1	-6.12	1.35	1.39
36	5	969	C	N3-C4	-6.11	1.29	1.33
36	5	649	A	C5-C6	-6.10	1.35	1.41
36	1	895	A	C5-C6	-6.10	1.35	1.41
36	1	1847	A	C6-N6	-6.10	1.29	1.33
36	5	874	U	C4'-C3'	-6.10	1.46	1.53
36	1	3307	A	C6-N1	-6.09	1.31	1.35
36	5	2399	A	N9-C4	-6.09	1.34	1.37
36	5	2202	C	N1-C6	-6.09	1.33	1.37
36	1	2911	A	N3-C4	-6.08	1.31	1.34
36	5	2367	A	N7-C5	-6.08	1.35	1.39
36	5	2138	A	N3-C4	-6.08	1.31	1.34
36	1	1157	G	C6-N1	-6.08	1.35	1.39
36	5	1332	A	N7-C5	-6.07	1.35	1.39
36	1	2968	G	C6-N1	-6.07	1.35	1.39
36	5	3039	C	N1-C6	-6.07	1.33	1.37
38	8	25	G	N1-C2	-6.07	1.32	1.37
36	5	1205	A	N7-C5	-6.06	1.35	1.39
36	5	2957	G	C8-N7	-6.06	1.27	1.30
36	1	656	A	N7-C5	-6.05	1.35	1.39
36	5	2201	G	N1-C2	-6.05	1.32	1.37
36	5	2915	U	C2-N3	-6.05	1.33	1.37
36	1	3087	A	N3-C4	-6.04	1.31	1.34
36	5	636	C	N1-C6	-6.04	1.33	1.37
36	1	342	A	N3-C4	-6.04	1.31	1.34
36	1	635	G	C5-C4	-6.04	1.34	1.38
36	1	1119	C	N3-C4	-6.04	1.29	1.33
38	4	11	C	C4-C5	-6.04	1.38	1.43
1	6	397	A	N9-C4	-6.03	1.34	1.37
62	n6	55	GLU	CG-CD	6.03	1.60	1.51
36	5	3084	C	N1-C6	-6.03	1.33	1.37
36	1	874	U	C2-N3	-6.03	1.33	1.37
36	5	408	A	C5-C4	-6.03	1.34	1.38
36	1	345	G	N9-C8	-6.03	1.33	1.37
36	1	658	G	N9-C8	-6.03	1.33	1.37
36	5	1432	C	N1-C2	-6.03	1.34	1.40
36	5	2987	A	N7-C5	-6.02	1.35	1.39
36	5	2860	U	C2-O2	6.02	1.27	1.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	654	C	N1-C6	-6.02	1.33	1.37
36	5	1158	A	C5-C6	-6.01	1.35	1.41
36	5	3042	U	N3-C4	-6.01	1.33	1.38
36	1	1660	C	N1-C6	-6.01	1.33	1.37
36	1	3362	A	N7-C5	-6.01	1.35	1.39
36	5	1884	A	C5-C6	-6.00	1.35	1.41
36	5	1865	A	N9-C4	-6.00	1.34	1.37
38	8	14	C	N1-C2	-6.00	1.34	1.40
1	6	1027	A	N9-C4	-6.00	1.34	1.37
39	12	213	GLY	C-O	5.99	1.33	1.23
36	5	953	G	N9-C4	-5.99	1.33	1.38
36	5	668	G	C6-N1	-5.98	1.35	1.39
36	5	1301	A	N7-C5	-5.97	1.35	1.39
36	5	2937	G	C5-C4	-5.96	1.34	1.38
36	5	2848	G	N7-C5	-5.96	1.35	1.39
36	1	2404	A	C5-C6	5.95	1.46	1.41
36	5	513	G	C6-N1	-5.95	1.35	1.39
36	5	2334	U	C4-O4	-5.95	1.18	1.23
36	5	2728	G	C2-N3	-5.95	1.27	1.32
36	5	2987	A	N9-C8	-5.95	1.32	1.37
38	4	40	A	C5-C6	-5.94	1.35	1.41
36	1	636	C	N3-C4	-5.94	1.29	1.33
36	1	2833	A	N3-C4	-5.94	1.31	1.34
36	5	909	G	C8-N7	-5.94	1.27	1.30
36	5	1115	G	N1-C2	-5.94	1.33	1.37
36	5	1174	G	N3-C4	-5.94	1.31	1.35
36	5	2934	A	C6-N1	-5.94	1.31	1.35
36	1	1865	A	N9-C4	-5.93	1.34	1.37
1	6	337	G	C2-N3	5.93	1.37	1.32
36	5	2343	C	N1-C6	-5.93	1.33	1.37
38	8	104	A	N9-C4	-5.93	1.34	1.37
36	5	875	G	C6-N1	-5.93	1.35	1.39
36	5	3274	A	N9-C4	-5.93	1.34	1.37
36	5	3330	A	N9-C4	-5.93	1.34	1.37
36	5	2636	A	C5-C4	-5.92	1.34	1.38
1	6	1657	U	C2-O2	5.92	1.27	1.22
36	5	1436	U	C4-C5	-5.92	1.38	1.43
36	5	2830	G	N3-C4	-5.92	1.31	1.35
36	1	941	G	C6-N1	-5.91	1.35	1.39
36	1	1325	U	N1-C2	-5.91	1.33	1.38
1	6	1659	A	N9-C4	-5.91	1.34	1.37
36	5	2138	A	N9-C4	-5.91	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	971	G	C5-C4	-5.90	1.34	1.38
36	1	1846	C	N1-C2	-5.90	1.34	1.40
71	O5	64	GLU	CG-CD	5.90	1.60	1.51
36	1	1156	C	C2-N3	-5.90	1.31	1.35
36	1	2362	C	C4-C5	-5.89	1.38	1.43
36	5	876	A	N3-C4	-5.89	1.31	1.34
36	5	952	A	C5-C6	-5.89	1.35	1.41
36	5	1352	A	N9-C4	5.89	1.41	1.37
36	5	924	G	C2-N3	-5.88	1.28	1.32
36	5	2647	A	N9-C4	-5.88	1.34	1.37
36	1	1154	A	C6-N1	-5.88	1.31	1.35
36	1	406	G	C6-N1	-5.87	1.35	1.39
36	1	878	G	N3-C4	-5.87	1.31	1.35
36	5	924	G	C5-C4	-5.87	1.34	1.38
36	5	1843	C	N1-C6	-5.87	1.33	1.37
36	5	2874	G	N7-C5	-5.87	1.35	1.39
36	5	2899	C	C2-N3	-5.87	1.31	1.35
36	5	3139	A	N3-C4	-5.87	1.31	1.34
36	1	402	A	N3-C4	-5.87	1.31	1.34
36	1	1165	A	N3-C4	-5.87	1.31	1.34
36	5	794	U	N3-C4	-5.86	1.33	1.38
36	5	818	C	C2-O2	-5.86	1.19	1.24
36	5	36	C	N1-C2	-5.86	1.34	1.40
36	5	1134	G	N3-C4	-5.86	1.31	1.35
36	5	1157	G	N9-C8	-5.86	1.33	1.37
36	1	1305	U	C4-C5	-5.86	1.38	1.43
36	1	1103	A	N3-C4	5.86	1.38	1.34
36	5	1372	C	N1-C6	-5.86	1.33	1.37
36	1	2390	A	C6-N1	-5.85	1.31	1.35
36	1	99	A	N7-C5	-5.85	1.35	1.39
36	5	981	U	N1-C2	5.85	1.43	1.38
1	6	1537	C	C2-N3	5.85	1.40	1.35
36	5	2401	A	N9-C8	5.84	1.42	1.37
36	5	2899	C	C2-O2	-5.84	1.19	1.24
36	1	361	A	N3-C4	-5.84	1.31	1.34
1	6	1657	U	C2-N3	5.84	1.41	1.37
37	7	89	G	N9-C8	-5.83	1.33	1.37
36	1	2601	A	N9-C4	-5.83	1.34	1.37
36	5	1929	G	C6-N1	-5.83	1.35	1.39
36	1	1459	C	N1-C6	-5.83	1.33	1.37
36	5	711	A	N3-C4	-5.83	1.31	1.34
36	5	648	C	C4-C5	-5.83	1.38	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	804	C	N1-C6	-5.83	1.33	1.37
36	5	903	U	C2-N3	-5.82	1.33	1.37
36	5	832	G	N7-C5	-5.82	1.35	1.39
36	5	3330	A	N3-C4	-5.82	1.31	1.34
36	1	2814	G	C8-N7	-5.82	1.27	1.30
1	2	1200	G	N7-C5	-5.82	1.35	1.39
36	1	49	A	N9-C8	-5.82	1.33	1.37
36	5	3004	C	N1-C6	-5.81	1.33	1.37
36	1	890	C	N3-C4	-5.81	1.29	1.33
36	1	1134	G	C5-C6	-5.81	1.36	1.42
36	1	607	A	C6-N1	-5.81	1.31	1.35
36	5	1841	A	N7-C5	-5.81	1.35	1.39
52	M6	4	GLU	CD-OE2	5.81	1.32	1.25
36	1	653	A	C5-C6	-5.80	1.35	1.41
36	1	2986	U	N1-C6	-5.80	1.32	1.38
36	5	957	C	N3-C4	-5.80	1.29	1.33
36	1	206	G	C5-C4	-5.80	1.34	1.38
36	5	1849	C	N1-C6	-5.80	1.33	1.37
36	5	1195	A	N9-C4	-5.80	1.34	1.37
36	1	2984	C	N3-C4	-5.79	1.29	1.33
36	5	2335	G	N1-C2	-5.79	1.33	1.37
36	1	2800	G	N7-C5	-5.79	1.35	1.39
38	4	28	C	N1-C6	-5.79	1.33	1.37
36	1	36	C	C4-C5	-5.78	1.38	1.43
36	1	1606	U	N1-C2	-5.78	1.33	1.38
36	1	1522	U	N1-C6	-5.78	1.32	1.38
36	5	1114	U	C2-O2	-5.78	1.17	1.22
1	2	1291	G	N3-C4	-5.77	1.31	1.35
36	1	1405	U	C4-O4	-5.77	1.19	1.23
36	5	953	G	N7-C5	-5.76	1.35	1.39
36	1	963	G	N7-C5	-5.76	1.35	1.39
36	1	3277	U	N1-C2	5.76	1.43	1.38
36	1	2550	U	N3-C4	-5.76	1.33	1.38
1	2	1655	A	N3-C4	-5.76	1.31	1.34
36	1	1114	U	N3-C4	-5.75	1.33	1.38
36	1	1164	G	C8-N7	-5.75	1.27	1.30
36	5	3042	U	C2-N3	-5.75	1.33	1.37
37	3	88	G	C6-N1	-5.75	1.35	1.39
36	5	3008	A	N3-C4	-5.75	1.31	1.34
36	5	2996	U	N1-C2	5.75	1.43	1.38
36	1	805	G	C5-C4	-5.74	1.34	1.38
69	O3	3	GLU	CD-OE1	5.74	1.31	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1195	A	N3-C4	-5.74	1.31	1.34
36	1	1905	G	N3-C4	-5.74	1.31	1.35
36	5	3186	A	C6-N1	-5.74	1.31	1.35
36	1	432	G	N7-C5	-5.73	1.35	1.39
36	1	1845	G	C6-N1	-5.73	1.35	1.39
36	5	1318	A	N3-C4	-5.73	1.31	1.34
36	5	2336	U	N1-C2	-5.73	1.33	1.38
36	1	2362	C	N1-C6	-5.72	1.33	1.37
36	1	2648	G	C6-N1	-5.72	1.35	1.39
1	6	331	A	N9-C4	-5.72	1.34	1.37
36	1	908	G	C5-C6	-5.71	1.36	1.42
36	5	1121	U	N1-C2	-5.71	1.33	1.38
36	5	2816	G	N1-C2	-5.71	1.33	1.37
36	1	645	A	N7-C5	-5.71	1.35	1.39
36	1	3261	C	N1-C6	-5.71	1.33	1.37
36	5	3136	G	C2-N3	-5.71	1.28	1.32
36	5	2389	C	N3-C4	-5.70	1.29	1.33
36	5	3083	G	N1-C2	-5.70	1.33	1.37
36	1	2361	A	N9-C4	5.70	1.41	1.37
36	1	2733	A	N7-C5	-5.70	1.35	1.39
36	1	2368	A	N3-C4	-5.69	1.31	1.34
47	M0	8	CYS	CB-SG	-5.69	1.72	1.81
36	5	919	U	C4-O4	-5.68	1.19	1.23
36	1	2385	G	N9-C8	-5.68	1.33	1.37
36	5	645	A	C5-C6	5.68	1.46	1.41
36	5	2993	G	C5-C4	-5.68	1.34	1.38
36	1	2400	G	C5-C4	-5.68	1.34	1.38
36	1	2927	C	C2-O2	-5.67	1.19	1.24
36	5	3141	A	N9-C8	-5.67	1.33	1.37
36	1	1120	A	C6-N1	-5.67	1.31	1.35
36	1	2147	A	N3-C4	-5.67	1.31	1.34
36	5	3214	U	C2-N3	-5.67	1.33	1.37
36	5	868	C	N1-C6	-5.66	1.33	1.37
36	5	420	G	C5-C4	-5.66	1.34	1.38
36	5	981	U	C2-N3	5.66	1.41	1.37
36	5	1170	A	N7-C5	-5.66	1.35	1.39
36	1	651	G	N9-C8	-5.66	1.33	1.37
36	1	2614	G	N9-C8	-5.66	1.33	1.37
36	5	2342	U	C2-N3	-5.66	1.33	1.37
36	5	2945	G	C5-C6	-5.65	1.36	1.42
36	5	2399	A	N3-C4	-5.65	1.31	1.34
36	1	924	G	N1-C2	-5.65	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	951	A	C6-N1	-5.65	1.31	1.35
36	5	981	U	N1-C6	5.65	1.43	1.38
36	1	2631	U	N3-C4	-5.65	1.33	1.38
36	1	2640	A	C6-N6	-5.65	1.29	1.33
36	5	437	G	C6-N1	5.65	1.43	1.39
36	5	988	U	N3-C4	-5.64	1.33	1.38
36	1	2649	A	C5-C6	-5.64	1.35	1.41
36	5	2233	A	N7-C5	-5.64	1.35	1.39
36	5	2942	C	N1-C6	-5.64	1.33	1.37
36	1	2706	G	N7-C5	-5.64	1.35	1.39
36	5	1304	A	N3-C4	5.63	1.38	1.34
36	5	2887	A	N9-C8	-5.63	1.33	1.37
36	5	2625	C	N1-C6	-5.63	1.33	1.37
36	1	2719	U	C2-O2	-5.63	1.17	1.22
36	5	2280	A	N9-C4	-5.63	1.34	1.37
36	1	937	G	N9-C8	-5.62	1.33	1.37
36	1	2376	G	C6-O6	-5.62	1.19	1.24
36	1	1313	G	N7-C5	-5.62	1.35	1.39
36	5	3214	U	N3-C4	-5.62	1.33	1.38
36	5	706	A	N9-C4	-5.61	1.34	1.37
38	4	111	A	N7-C5	-5.61	1.35	1.39
37	7	73	C	N3-C4	5.61	1.37	1.33
36	5	2164	A	N7-C5	-5.60	1.35	1.39
36	1	1429	G	N9-C8	-5.60	1.33	1.37
38	8	79	A	C5-C4	5.60	1.42	1.38
36	5	1456	A	N9-C4	-5.59	1.34	1.37
36	1	1116	G	N1-C2	-5.59	1.33	1.37
36	1	2276	G	N7-C5	-5.59	1.35	1.39
36	5	3136	G	N1-C2	-5.59	1.33	1.37
36	5	2147	A	N7-C5	-5.59	1.35	1.39
36	1	2920	U	C4-O4	-5.59	1.19	1.23
36	5	981	U	N3-C4	5.59	1.43	1.38
36	5	1171	G	N7-C5	-5.58	1.35	1.39
36	5	2201	G	C5-C4	-5.58	1.34	1.38
36	5	3207	U	C2-N3	5.58	1.41	1.37
36	5	2639	G	N7-C5	-5.58	1.35	1.39
36	1	30	G	C6-N1	-5.58	1.35	1.39
36	5	645	A	N7-C5	-5.58	1.35	1.39
36	5	28	C	N1-C6	-5.57	1.33	1.37
36	5	431	U	C2-N3	-5.57	1.33	1.37
36	5	2758	A	N9-C4	5.57	1.41	1.37
36	1	3008	A	N9-C4	-5.57	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	l3	229	VAL	CB-CG2	-5.57	1.41	1.52
36	1	1430	U	N1-C6	-5.56	1.32	1.38
36	1	1436	U	N3-C4	-5.56	1.33	1.38
36	5	2425	G	N9-C4	-5.56	1.33	1.38
1	6	1746	A	N7-C5	-5.56	1.35	1.39
1	6	1023	A	C5-C4	-5.55	1.34	1.38
36	5	2851	A	C6-N1	-5.55	1.31	1.35
1	2	972	G	C6-N1	-5.55	1.35	1.39
38	4	79	A	O3'-P	5.55	1.67	1.61
36	5	1155	C	C4-N4	-5.55	1.28	1.33
36	1	2805	G	C8-N7	-5.55	1.27	1.30
36	5	2636	A	N3-C4	-5.54	1.31	1.34
36	1	2945	G	C5-C4	-5.54	1.34	1.38
36	5	947	G	N3-C4	-5.54	1.31	1.35
36	1	2878	G	C6-O6	-5.54	1.19	1.24
36	1	1806	A	N3-C4	-5.54	1.31	1.34
36	5	2953	U	C4-O4	5.54	1.28	1.23
36	1	2350	C	N1-C6	-5.54	1.33	1.37
52	m6	40	GLU	CG-CD	5.54	1.60	1.51
36	1	2762	A	N3-C4	-5.53	1.31	1.34
36	5	29	C	N1-C6	-5.53	1.33	1.37
36	1	878	G	C2-N3	-5.53	1.28	1.32
36	1	1416	C	N3-C4	-5.53	1.30	1.33
36	5	348	A	N9-C4	-5.53	1.34	1.37
36	1	652	G	N1-C2	-5.52	1.33	1.37
36	5	3197	G	N9-C8	5.52	1.41	1.37
36	5	21	G	C5-C6	-5.52	1.36	1.42
36	1	2714	G	N9-C4	-5.52	1.33	1.38
36	5	2389	C	N1-C6	-5.51	1.33	1.37
36	5	1174	G	N9-C8	-5.50	1.33	1.37
36	5	2637	A	N9-C4	-5.50	1.34	1.37
36	1	1155	C	N3-C4	-5.50	1.30	1.33
36	1	2980	U	C2-O2	-5.50	1.17	1.22
36	1	287	G	N9-C8	-5.50	1.34	1.37
36	1	1107	C	N1-C6	-5.50	1.33	1.37
1	6	126	A	N9-C4	-5.49	1.34	1.37
36	5	953	G	N3-C4	-5.49	1.31	1.35
36	5	1304	A	N7-C5	-5.49	1.35	1.39
36	1	2919	A	C6-N1	-5.49	1.31	1.35
69	O3	31	LYS	CD-CE	5.49	1.65	1.51
36	1	504	A	C6-N1	-5.49	1.31	1.35
36	1	3319	U	N1-C2	5.49	1.43	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1152	G	N1-C2	5.49	1.42	1.37
36	1	508	U	N1-C2	-5.49	1.33	1.38
37	7	88	G	N7-C5	-5.49	1.35	1.39
36	1	402	A	C5-C4	-5.48	1.34	1.38
36	1	864	G	N3-C4	-5.48	1.31	1.35
36	1	910	G	N7-C5	-5.48	1.35	1.39
36	5	2411	U	C2-N3	-5.48	1.33	1.37
36	1	1116	G	N3-C4	-5.48	1.31	1.35
36	5	1429	G	N7-C5	-5.48	1.35	1.39
52	M6	40	GLU	CG-CD	5.48	1.60	1.51
36	5	2361	A	N3-C4	5.48	1.38	1.34
36	1	1192	C	N1-C6	5.47	1.40	1.37
36	5	3180	A	C5-C4	-5.47	1.34	1.38
36	1	404	G	N9-C8	-5.47	1.34	1.37
36	1	1178	G	C5-C4	-5.47	1.34	1.38
36	5	1164	G	N9-C8	-5.47	1.34	1.37
36	1	1392	G	C5-C4	-5.47	1.34	1.38
36	5	1403	C	N3-C4	-5.47	1.30	1.33
36	5	2609	A	C6-N1	-5.47	1.31	1.35
36	1	1404	G	N9-C8	-5.46	1.34	1.37
40	l3	66	LYS	CD-CE	5.46	1.65	1.51
36	1	900	G	N9-C8	-5.46	1.34	1.37
36	1	2943	G	N1-C2	-5.46	1.33	1.37
1	6	65	A	N9-C4	-5.46	1.34	1.37
36	5	586	C	N1-C6	-5.45	1.33	1.37
41	l4	94	CYS	CB-SG	-5.45	1.73	1.81
36	5	2891	U	C2-N3	-5.45	1.33	1.37
36	1	2820	A	N1-C2	-5.44	1.29	1.34
36	1	2130	G	C6-N1	-5.44	1.35	1.39
36	5	1843	C	C4-C5	-5.44	1.38	1.43
36	1	2950	G	N1-C2	-5.44	1.33	1.37
8	s6	83	CYS	CB-SG	-5.44	1.73	1.81
36	5	1148	G	N9-C8	-5.44	1.34	1.37
36	1	406	G	N7-C5	5.43	1.42	1.39
36	5	966	U	N3-C4	-5.43	1.33	1.38
36	5	2411	U	C2-O2	-5.43	1.17	1.22
36	5	794	U	C2-N3	-5.43	1.33	1.37
36	1	2382	G	N1-C2	-5.43	1.33	1.37
36	5	643	U	N3-C4	-5.43	1.33	1.38
36	1	1149	G	C2-N3	-5.42	1.28	1.32
36	5	307	A	N3-C4	-5.42	1.31	1.34
36	5	2636	A	C2-N3	-5.42	1.28	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2326	A	N9-C4	-5.42	1.34	1.37
52	M6	100	GLU	CD-OE2	5.42	1.31	1.25
36	5	16	A	N9-C4	-5.42	1.34	1.37
36	5	1613	A	N9-C8	-5.42	1.33	1.37
36	5	1373	A	N7-C5	-5.41	1.36	1.39
36	1	1133	A	N9-C4	-5.41	1.34	1.37
36	1	1137	C	N1-C6	-5.41	1.33	1.37
52	m6	78	ARG	CZ-NH1	5.41	1.40	1.33
36	1	1532	C	N1-C6	-5.41	1.33	1.37
36	1	2896	A	N9-C4	-5.40	1.34	1.37
36	5	1186	G	C6-N1	-5.40	1.35	1.39
36	5	691	A	C6-N1	-5.40	1.31	1.35
36	1	1446	A	N9-C8	-5.40	1.33	1.37
53	M7	129	THR	CB-CG2	-5.39	1.34	1.52
36	5	1429	G	N9-C4	-5.39	1.33	1.38
36	5	1207	G	N1-C2	-5.39	1.33	1.37
36	5	2145	A	C6-N1	-5.39	1.31	1.35
36	5	3330	A	N9-C8	-5.39	1.33	1.37
36	5	406	G	N1-C2	-5.39	1.33	1.37
36	1	2647	A	C5-C4	-5.38	1.34	1.38
36	5	2174	G	N7-C5	-5.38	1.36	1.39
36	5	3106	A	N9-C8	-5.38	1.33	1.37
36	1	1428	A	C5-C6	-5.38	1.36	1.41
36	1	2991	A	N3-C4	-5.38	1.31	1.34
36	1	3245	A	N9-C4	-5.38	1.34	1.37
36	5	3209	A	C6-N1	5.38	1.39	1.35
36	1	2761	G	N9-C8	-5.38	1.34	1.37
36	1	16	A	N3-C4	-5.38	1.31	1.34
49	m3	23	LYS	CD-CE	5.38	1.64	1.51
36	1	2761	G	N3-C4	-5.38	1.31	1.35
36	5	2727	A	C5-C4	-5.37	1.34	1.38
44	17	158	LYS	CG-CD	5.37	1.70	1.52
36	1	1476	G	C5-C4	-5.37	1.34	1.38
36	1	952	A	N3-C4	-5.37	1.31	1.34
36	5	2340	U	C4-O4	-5.37	1.19	1.23
36	1	716	A	C5-C6	-5.37	1.36	1.41
36	1	2762	A	N9-C4	-5.37	1.34	1.37
37	3	83	U	C4-O4	-5.36	1.19	1.23
36	5	53	G	N9-C8	-5.36	1.34	1.37
36	5	1902	G	N7-C5	-5.36	1.36	1.39
36	5	2818	U	C5-C6	-5.36	1.29	1.34
36	1	699	A	N9-C4	-5.36	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2189	U	C4-C5	-5.36	1.38	1.43
36	1	626	U	C2-N3	-5.36	1.33	1.37
36	5	3366	G	N7-C5	-5.36	1.36	1.39
36	5	2299	A	C5-C4	-5.36	1.35	1.38
36	1	2397	A	N9-C4	-5.36	1.34	1.37
36	5	2818	U	C2-N3	-5.36	1.34	1.37
36	5	2960	C	N3-C4	-5.36	1.30	1.33
38	4	53	A	N9-C4	5.35	1.41	1.37
36	5	2375	G	C5-C4	-5.35	1.34	1.38
36	5	2807	U	C4-O4	-5.35	1.19	1.23
37	7	77	G	N9-C8	-5.35	1.34	1.37
1	6	173	A	N9-C4	-5.35	1.34	1.37
1	6	428	A	N3-C4	-5.35	1.31	1.34
36	5	1061	A	N9-C4	-5.35	1.34	1.37
1	6	1022	C	N1-C6	-5.35	1.33	1.37
36	5	1053	A	C6-N6	-5.35	1.29	1.33
36	5	1348	U	N1-C2	5.35	1.43	1.38
36	5	3174	A	N9-C8	5.35	1.42	1.37
36	5	1152	G	C5-C6	-5.35	1.37	1.42
36	5	2411	U	N1-C2	-5.34	1.33	1.38
36	5	2845	A	N3-C4	5.34	1.38	1.34
38	8	20	U	C4-O4	-5.34	1.19	1.23
1	6	163	G	N3-C4	-5.34	1.31	1.35
36	5	1134	G	C6-N1	-5.34	1.35	1.39
36	5	2375	G	N9-C8	-5.34	1.34	1.37
36	1	1375	G	N7-C5	-5.33	1.36	1.39
36	1	3000	A	N9-C4	-5.33	1.34	1.37
36	1	1390	A	N3-C4	-5.33	1.31	1.34
36	1	2802	A	C8-N7	5.33	1.35	1.31
36	5	1851	G	C5-C4	-5.33	1.34	1.38
36	5	3206	C	N3-C4	-5.33	1.30	1.33
36	5	1796	G	N9-C8	-5.33	1.34	1.37
36	5	2373	A	C6-N6	-5.33	1.29	1.33
36	1	92	G	C6-O6	-5.33	1.19	1.24
36	5	2271	A	C5-C4	-5.32	1.35	1.38
36	5	3140	G	C5-C6	-5.32	1.37	1.42
36	1	92	G	C6-N1	-5.32	1.35	1.39
37	3	97	A	N3-C4	-5.32	1.31	1.34
36	5	2976	A	N9-C8	-5.32	1.33	1.37
36	5	1187	C	N1-C6	-5.32	1.33	1.37
36	5	1335	C	C4-N4	-5.32	1.29	1.33
36	1	1047	A	N3-C4	-5.32	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	345	G	N7-C5	-5.31	1.36	1.39
36	5	980	A	C5-C4	5.31	1.42	1.38
36	1	1858	A	N7-C5	-5.31	1.36	1.39
36	1	1395	G	C5-C4	-5.31	1.34	1.38
36	1	949	C	N1-C6	-5.30	1.33	1.37
1	6	1800	A	N9-C4	5.30	1.41	1.37
36	5	2832	C	N3-C4	-5.30	1.30	1.33
36	5	3245	A	N7-C5	-5.30	1.36	1.39
36	1	960	U	N1-C6	5.30	1.42	1.38
36	5	795	G	C5-C4	-5.30	1.34	1.38
36	5	2372	A	N3-C4	-5.30	1.31	1.34
36	5	3139	A	N9-C4	-5.30	1.34	1.37
36	1	1336	U	C2-N3	-5.30	1.34	1.37
36	5	2971	A	C6-N1	5.30	1.39	1.35
36	1	2867	C	C2-N3	-5.30	1.31	1.35
36	1	2816	G	C5-C4	-5.29	1.34	1.38
36	5	1582	C	N1-C6	5.29	1.40	1.37
36	1	2733	A	C5-C6	-5.29	1.36	1.41
36	5	2950	G	N1-C2	-5.29	1.33	1.37
36	5	942	U	C5-C6	-5.29	1.29	1.34
36	1	3207	U	C4-C5	5.29	1.48	1.43
36	5	3060	C	C4-C5	-5.29	1.38	1.43
36	1	785	G	N1-C2	-5.29	1.33	1.37
36	1	3052	G	N7-C5	-5.29	1.36	1.39
36	5	916	G	C2-N3	-5.29	1.28	1.32
36	5	2138	A	N9-C8	-5.29	1.33	1.37
36	5	2396	G	C6-N1	-5.29	1.35	1.39
36	5	2824	G	N7-C5	-5.29	1.36	1.39
36	5	2147	A	C6-N6	-5.28	1.29	1.33
36	5	2823	G	N7-C5	-5.28	1.36	1.39
36	1	673	U	C4-O4	-5.28	1.19	1.23
52	M6	195	ALA	CA-CB	-5.28	1.41	1.52
36	1	895	A	N7-C5	-5.28	1.36	1.39
36	1	2147	A	C5-C4	-5.28	1.35	1.38
36	5	1844	C	N3-C4	-5.28	1.30	1.33
36	5	2737	C	N1-C6	-5.28	1.33	1.37
36	1	1380	G	C6-N1	-5.28	1.35	1.39
36	1	2811	A	C6-N1	-5.28	1.31	1.35
36	1	421	G	C2-N3	-5.27	1.28	1.32
36	1	947	G	N1-C2	-5.27	1.33	1.37
36	1	2867	C	N1-C6	-5.27	1.33	1.37
1	6	1765	A	N9-C4	-5.27	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1051	U	C4-O4	-5.27	1.19	1.23
37	7	80	G	C6-N1	-5.27	1.35	1.39
44	17	234	GLU	CD-OE2	5.27	1.31	1.25
37	7	57	G	N7-C5	-5.27	1.36	1.39
1	6	1773	C	C2-N3	5.26	1.40	1.35
36	1	895	A	N9-C8	5.26	1.42	1.37
36	1	2628	A	N9-C8	-5.26	1.33	1.37
36	5	1476	G	N9-C4	-5.26	1.33	1.38
36	1	2996	U	N3-C4	5.25	1.43	1.38
36	5	3138	U	N1-C2	-5.25	1.33	1.38
36	1	1133	A	N9-C8	-5.25	1.33	1.37
36	5	2816	G	C5-C4	-5.25	1.34	1.38
37	7	96	U	N3-C4	-5.25	1.33	1.38
36	1	65	A	N9-C4	5.25	1.41	1.37
36	1	1364	C	N1-C6	-5.25	1.33	1.37
36	5	420	G	C6-N1	-5.25	1.35	1.39
36	5	2362	C	C2-N3	-5.25	1.31	1.35
1	2	320	U	C2-N3	5.25	1.41	1.37
36	5	1310	G	N3-C4	-5.25	1.31	1.35
36	5	2894	C	N1-C6	-5.25	1.34	1.37
36	5	3104	U	C4-C5	-5.25	1.38	1.43
59	n3	38	ALA	CA-CB	-5.25	1.41	1.52
36	5	2889	C	N1-C6	-5.25	1.34	1.37
1	6	1137	A	C5-C4	-5.24	1.35	1.38
36	5	425	G	C6-O6	-5.24	1.19	1.24
36	5	1302	A	N3-C4	-5.24	1.31	1.34
38	4	10	A	C6-N6	-5.24	1.29	1.33
36	5	1851	G	C8-N7	-5.24	1.27	1.30
36	5	2897	A	C5-C4	-5.24	1.35	1.38
36	1	2514	U	N1-C2	-5.24	1.33	1.38
36	1	343	U	N3-C4	-5.24	1.33	1.38
44	L7	234	GLU	CD-OE2	5.24	1.31	1.25
36	5	1443	G	C2-N3	-5.23	1.28	1.32
36	1	92	G	N7-C5	-5.23	1.36	1.39
36	5	934	G	C5-C6	-5.23	1.37	1.42
38	8	17	A	C5-C6	-5.23	1.36	1.41
36	1	629	U	C2-N3	-5.23	1.34	1.37
1	6	1653	C	N1-C2	-5.22	1.34	1.40
68	o2	29	ALA	CA-CB	-5.22	1.41	1.52
36	1	2814	G	N7-C5	-5.22	1.36	1.39
36	1	99	A	C5-C4	-5.22	1.35	1.38
36	5	1331	U	N1-C2	-5.22	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	799	G	C8-N7	-5.21	1.27	1.30
36	1	1308	A	C6-N1	-5.21	1.31	1.35
36	1	776	U	N3-C4	-5.21	1.33	1.38
36	1	43	A	N9-C4	-5.21	1.34	1.37
36	1	1002	A	N9-C4	-5.21	1.34	1.37
36	1	2732	G	C6-N1	-5.21	1.35	1.39
36	5	3223	A	N3-C4	-5.21	1.31	1.34
36	1	968	G	C6-N1	-5.21	1.35	1.39
36	1	1129	A	C5-C6	-5.21	1.36	1.41
36	1	1556	C	N1-C2	5.20	1.45	1.40
1	2	1560	U	N3-C4	-5.20	1.33	1.38
36	5	1796	G	N7-C5	-5.20	1.36	1.39
36	1	1336	U	N3-C4	-5.20	1.33	1.38
36	5	1144	U	N3-C4	-5.20	1.33	1.38
36	5	2908	G	N9-C8	-5.20	1.34	1.37
36	5	2395	G	C5-C4	-5.20	1.34	1.38
36	1	695	C	C2-N3	-5.19	1.31	1.35
36	5	1887	A	N7-C5	-5.19	1.36	1.39
36	1	2617	U	C4-C5	5.19	1.48	1.43
36	5	1187	C	N3-C4	-5.19	1.30	1.33
36	5	2949	U	C4-O4	-5.19	1.19	1.23
36	5	3052	G	N1-C2	-5.19	1.33	1.37
36	1	663	C	N1-C6	-5.19	1.34	1.37
36	1	2933	A	C5-C6	-5.19	1.36	1.41
36	1	196	G	C5-C6	-5.19	1.37	1.42
36	5	2893	C	C4-C5	-5.19	1.38	1.43
36	5	947	G	C5-C4	-5.19	1.34	1.38
36	5	969	C	N1-C6	-5.19	1.34	1.37
36	1	2207	A	N9-C4	5.18	1.41	1.37
36	1	2247	G	N7-C5	-5.18	1.36	1.39
36	1	1048	A	C5-C4	-5.18	1.35	1.38
36	5	2704	A	C5-C6	-5.18	1.36	1.41
36	5	1134	G	N1-C2	-5.18	1.33	1.37
36	5	2185	G	N9-C8	-5.18	1.34	1.37
36	5	3132	C	C4-C5	-5.18	1.38	1.43
1	6	1748	G	N9-C8	-5.18	1.34	1.37
36	1	1308	A	P-OP2	-5.18	1.40	1.49
36	1	2978	U	N1-C2	5.17	1.43	1.38
36	1	709	A	N9-C8	-5.17	1.33	1.37
44	17	158	LYS	CB-CG	5.17	1.66	1.52
1	6	1734	U	N1-C2	-5.17	1.33	1.38
1	2	992	A	N9-C4	-5.17	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	429	U	C2-N3	-5.16	1.34	1.37
36	5	639	G	N3-C4	-5.16	1.31	1.35
36	1	367	A	C6-N1	-5.16	1.31	1.35
36	5	909	G	C5-C4	-5.16	1.34	1.38
36	5	1851	G	N7-C5	-5.16	1.36	1.39
36	1	2281	A	C6-N1	-5.16	1.31	1.35
36	5	2310	U	C2-N3	-5.16	1.34	1.37
36	1	3273	A	N7-C5	-5.15	1.36	1.39
36	1	289	A	N3-C4	-5.15	1.31	1.34
36	5	2856	G	N7-C5	-5.15	1.36	1.39
36	5	3153	U	N1-C2	5.15	1.43	1.38
36	1	668	G	C6-N1	-5.15	1.35	1.39
36	1	1133	A	N7-C5	-5.15	1.36	1.39
36	1	2938	G	N9-C8	-5.15	1.34	1.37
36	5	523	A	N9-C4	-5.15	1.34	1.37
36	1	189	G	N7-C5	-5.15	1.36	1.39
36	1	504	A	N9-C4	-5.15	1.34	1.37
36	5	2949	U	C4-C5	-5.15	1.39	1.43
1	6	366	A	N3-C4	-5.15	1.31	1.34
36	1	635	G	C6-O6	-5.14	1.19	1.24
36	5	872	U	C4-C5	-5.14	1.39	1.43
36	5	1838	G	N3-C4	-5.14	1.31	1.35
36	5	1433	A	C5-C6	-5.14	1.36	1.41
36	5	2635	A	N3-C4	-5.14	1.31	1.34
36	5	1373	A	C5-C4	-5.14	1.35	1.38
36	1	974	G	C6-N1	-5.13	1.35	1.39
36	5	611	A	C5-C4	-5.13	1.35	1.38
36	5	2869	U	C2-N3	-5.13	1.34	1.37
36	1	718	G	N9-C8	5.13	1.41	1.37
36	5	45	A	N9-C4	-5.13	1.34	1.37
36	5	417	A	N3-C4	-5.13	1.31	1.34
36	5	2199	G	N7-C5	-5.13	1.36	1.39
36	5	407	A	N3-C4	5.13	1.38	1.34
36	1	2280	A	N3-C4	-5.13	1.31	1.34
36	5	800	G	N9-C8	-5.13	1.34	1.37
36	5	959	C	N1-C6	-5.13	1.34	1.37
36	1	2169	G	C5-C6	5.12	1.47	1.42
36	5	1514	G	N7-C5	-5.12	1.36	1.39
36	1	635	G	C6-N1	-5.12	1.35	1.39
36	1	659	G	N7-C5	-5.12	1.36	1.39
36	1	2180	G	N7-C5	-5.12	1.36	1.39
36	5	2336	U	C2-N3	-5.12	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2	993	A	N3-C4	-5.12	1.31	1.34
36	5	2705	A	C5-C6	-5.12	1.36	1.41
36	1	1170	A	N7-C5	-5.12	1.36	1.39
36	1	2323	G	N1-C2	-5.12	1.33	1.37
36	1	645	A	N9-C8	-5.12	1.33	1.37
36	1	874	U	C2-O2	-5.12	1.17	1.22
36	1	2418	G	O3'-P	5.12	1.67	1.61
36	5	1462	A	C5-C6	-5.12	1.36	1.41
36	5	2609	A	N9-C8	-5.11	1.33	1.37
36	5	1117	G	C8-N7	-5.11	1.27	1.30
36	5	818	C	N1-C2	-5.11	1.35	1.40
36	1	627	U	N1-C2	-5.11	1.33	1.38
36	1	1164	G	N9-C8	-5.11	1.34	1.37
36	1	2726	C	N3-C4	-5.11	1.30	1.33
46	l9	11	GLU	CG-CD	5.11	1.59	1.51
51	m5	202	TYR	CD1-CE1	-5.11	1.31	1.39
36	1	657	A	N3-C4	-5.11	1.31	1.34
36	1	2910	A	N9-C4	-5.11	1.34	1.37
36	5	339	C	N3-C4	-5.11	1.30	1.33
36	1	952	A	N7-C5	-5.10	1.36	1.39
36	5	1113	G	N3-C4	-5.10	1.31	1.35
37	3	80	G	C6-N1	-5.10	1.35	1.39
36	1	2920	U	C2-O2	-5.10	1.17	1.22
38	4	46	G	N9-C8	-5.10	1.34	1.37
36	5	644	G	N3-C4	-5.10	1.31	1.35
37	7	92	A	C5-C6	-5.10	1.36	1.41
36	1	833	G	N1-C2	-5.10	1.33	1.37
36	5	2364	G	N3-C4	-5.10	1.31	1.35
36	5	642	U	N1-C2	-5.10	1.33	1.38
36	5	1438	U	N3-C4	-5.10	1.33	1.38
36	5	1586	G	C8-N7	-5.09	1.27	1.30
36	1	2994	A	C6-N1	-5.09	1.31	1.35
36	1	688	G	N9-C8	-5.09	1.34	1.37
36	1	1308	A	N7-C5	-5.09	1.36	1.39
36	1	2384	A	C6-N6	-5.09	1.29	1.33
36	5	367	A	N9-C4	-5.09	1.34	1.37
36	5	1332	A	N9-C8	-5.09	1.33	1.37
36	5	2276	G	N9-C8	-5.09	1.34	1.37
36	5	2985	C	C5-C6	-5.09	1.30	1.34
36	5	411	U	C2-O2	-5.09	1.17	1.22
36	5	1504	A	C6-N1	-5.09	1.31	1.35
36	5	1912	U	N1-C2	-5.09	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	579	A	N3-C4	5.09	1.38	1.34
36	5	3102	G	C6-N1	-5.09	1.35	1.39
36	1	808	A	N3-C4	-5.08	1.31	1.34
36	1	2945	G	N7-C5	-5.08	1.36	1.39
36	5	876	A	C6-N6	-5.08	1.29	1.33
36	5	1176	C	N1-C6	-5.08	1.34	1.37
36	1	1509	A	N9-C8	-5.08	1.33	1.37
36	1	2121	G	N1-C2	-5.08	1.33	1.37
36	1	343	U	N1-C6	-5.07	1.33	1.38
36	5	440	A	N9-C4	5.07	1.40	1.37
36	5	1847	A	C5-C6	-5.07	1.36	1.41
36	5	1432	C	C2-O2	-5.07	1.19	1.24
36	5	2825	C	N1-C6	-5.07	1.34	1.37
36	5	2897	A	N9-C8	-5.07	1.33	1.37
36	5	1301	A	C5-C6	-5.07	1.36	1.41
36	1	1915	A	C6-N6	-5.07	1.29	1.33
36	1	874	U	C4'-C3'	-5.06	1.47	1.52
1	6	623	A	N9-C4	-5.06	1.34	1.37
36	5	1145	G	N7-C5	-5.06	1.36	1.39
36	5	2968	G	N9-C8	-5.06	1.34	1.37
36	1	636	C	C4-N4	-5.06	1.29	1.33
36	5	2335	G	C6-N1	-5.06	1.36	1.39
36	5	3138	U	C4-C5	-5.06	1.39	1.43
36	1	2649	A	N9-C4	5.06	1.40	1.37
36	5	2703	A	N9-C8	-5.06	1.33	1.37
42	15	37	VAL	CB-CG2	-5.06	1.42	1.52
36	1	2413	A	C6-N1	-5.05	1.32	1.35
36	5	341	G	C5-C6	-5.05	1.37	1.42
36	1	406	G	N1-C2	-5.05	1.33	1.37
36	1	1374	G	N1-C2	-5.05	1.33	1.37
36	5	3211	C	N1-C6	-5.05	1.34	1.37
47	m0	119	TRP	CB-CG	-5.05	1.41	1.50
36	1	2116	G	N9-C8	-5.04	1.34	1.37
36	1	3377	G	C5-C4	-5.04	1.34	1.38
36	1	2867	C	N3-C4	-5.04	1.30	1.33
36	5	2550	U	N3-C4	-5.04	1.33	1.38
36	1	951	A	N9-C8	-5.04	1.33	1.37
36	5	2858	U	C4-O4	-5.04	1.19	1.23
36	5	2936	A	C5-C4	-5.04	1.35	1.38
36	5	2943	G	C6-N1	-5.04	1.36	1.39
36	5	2987	A	C5-C4	-5.04	1.35	1.38
36	1	2614	G	C5-C4	-5.04	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	616	G	C2-N3	-5.04	1.28	1.32
36	5	3337	G	C6-N1	-5.04	1.36	1.39
36	1	305	U	C2-N3	-5.03	1.34	1.37
36	1	2946	A	N9-C8	-5.03	1.33	1.37
36	1	677	A	C5-C6	-5.03	1.36	1.41
36	1	272	G	N7-C5	-5.03	1.36	1.39
36	1	677	A	C6-N6	-5.03	1.29	1.33
36	1	985	U	N1-C2	-5.03	1.34	1.38
36	1	1145	G	C5-C6	-5.03	1.37	1.42
36	1	2183	A	N3-C4	-5.03	1.31	1.34
36	1	2943	G	C6-N1	-5.03	1.36	1.39
37	7	95	A	N7-C5	-5.03	1.36	1.39
36	1	608	A	N9-C4	5.03	1.40	1.37
36	5	1834	U	C4-O4	5.03	1.27	1.23
36	5	2372	A	C6-N1	-5.03	1.32	1.35
37	7	95	A	C6-N1	-5.03	1.32	1.35
36	1	92	G	C5-C6	-5.03	1.37	1.42
36	1	408	A	N7-C5	-5.03	1.36	1.39
36	1	1120	A	C6-N6	-5.03	1.29	1.33
36	1	2143	A	N3-C4	-5.03	1.31	1.34
36	1	1144	U	C2-N3	-5.02	1.34	1.37
36	5	2936	A	C4'-C3'	-5.02	1.47	1.52
36	5	3309	G	N7-C5	-5.02	1.36	1.39
36	1	1062	A	N7-C5	-5.02	1.36	1.39
64	n8	5	PHE	CD2-CE2	-5.02	1.29	1.39
36	1	817	A	N9-C4	5.02	1.40	1.37
36	5	3050	U	N3-C4	-5.02	1.33	1.38
37	7	80	G	N1-C2	-5.02	1.33	1.37
36	1	64	G	N3-C4	-5.01	1.31	1.35
36	5	2270	A	N9-C4	-5.01	1.34	1.37
36	5	2945	G	C5-C4	-5.01	1.34	1.38
36	5	338	A	N7-C5	-5.01	1.36	1.39
36	5	421	G	C2-N3	-5.01	1.28	1.32
36	1	321	C	N1-C6	-5.01	1.34	1.37
36	1	613	G	C5-C6	-5.01	1.37	1.42
36	1	820	A	N9-C4	-5.01	1.34	1.37
36	1	1436	U	C4-C5	-5.01	1.39	1.43
36	1	584	G	C5-C4	-5.01	1.34	1.38
36	1	635	G	C5-C6	-5.01	1.37	1.42
36	1	2365	C	N3-C4	-5.01	1.30	1.33
36	1	2920	U	N3-C4	-5.01	1.33	1.38
1	6	794	U	N1-C2	5.01	1.43	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	1750	A	N7-C5	-5.01	1.36	1.39
38	8	57	C	N3-C4	-5.01	1.30	1.33
36	5	2941	A	N7-C5	-5.00	1.36	1.39
36	1	584	G	N9-C8	-5.00	1.34	1.37
36	5	790	U	C2-O2	-5.00	1.17	1.22

All (7522) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1152	G	N3-C4-C5	27.54	142.37	128.60
36	5	1152	G	N3-C4-N9	-26.81	109.91	126.00
36	1	2945	G	O5'-P-OP2	-22.04	84.25	110.70
36	5	1152	G	C2-N3-C4	-21.23	101.28	111.90
36	5	922	U	N3-C2-O2	-21.19	107.37	122.20
36	5	2403	G	O5'-P-OP2	-18.28	88.77	110.70
36	5	2923	U	O5'-P-OP1	-17.79	89.35	110.70
36	1	339	C	O5'-P-OP1	-17.48	89.73	110.70
36	5	1152	G	N3-C2-N2	-17.14	107.90	119.90
36	5	806	A	O5'-P-OP1	-16.93	90.38	110.70
36	5	877	C	N3-C4-C5	16.37	128.45	121.90
1	6	1657	U	O5'-P-OP2	-16.09	91.22	105.70
36	1	1495	U	C5-C6-N1	-16.05	114.67	122.70
36	1	2617	U	N1-C2-N3	15.96	124.47	114.90
36	5	2334	U	O5'-P-OP2	-15.83	91.45	105.70
36	5	2376	G	O5'-P-OP2	-15.61	91.65	105.70
36	1	2617	U	C5-C6-N1	-15.50	114.95	122.70
36	5	776	U	C5-C6-N1	-15.40	115.00	122.70
36	5	2385	G	O5'-P-OP1	-15.36	91.87	105.70
36	5	1152	G	C8-N9-C1'	15.12	146.65	127.00
36	5	2872	A	C2-N3-C4	-15.10	103.05	110.60
1	6	1773	C	N3-C4-C5	-15.01	115.90	121.90
36	1	1450	G	O5'-P-OP1	-14.80	92.38	105.70
36	5	2872	A	N3-C4-N9	-14.66	115.67	127.40
36	5	641	C	N1-C2-O2	-14.65	110.11	118.90
36	1	2281	A	O5'-P-OP2	-14.65	92.52	105.70
36	5	922	U	N3-C4-O4	-14.53	109.23	119.40
36	1	895	A	C5-N7-C8	-14.44	96.68	103.90
36	5	3245	A	C5-N7-C8	-14.38	96.71	103.90
36	5	1313	G	O5'-P-OP2	-14.38	92.76	105.70
36	1	1846	C	N1-C2-O2	-14.17	110.40	118.90
36	5	2872	A	N3-C4-C5	13.93	136.55	126.80
36	5	3245	A	C2-N3-C4	-13.82	103.69	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1152	G	C4-N9-C1'	-13.76	108.61	126.50
36	1	2923	U	O5'-P-OP1	-13.66	93.41	105.70
36	1	2621	G	N3-C2-N2	-13.56	110.41	119.90
36	1	2139	A	N1-C6-N6	-13.51	110.50	118.60
36	5	922	U	C5-C6-N1	-13.44	115.98	122.70
36	1	406	G	O4'-C1'-N9	13.32	118.85	108.20
36	5	922	U	C2-N3-C4	-13.26	119.04	127.00
36	1	3306	U	N3-C4-O4	-13.24	110.13	119.40
36	1	439	C	N1-C2-O2	13.19	126.81	118.90
36	5	398	A	O5'-P-OP2	-13.16	93.85	105.70
36	1	1196	C	C6-N1-C2	12.98	125.49	120.30
36	5	2872	A	C5-N7-C8	-12.97	97.42	103.90
36	1	2945	G	O5'-P-OP1	12.96	126.25	110.70
37	7	92	A	N1-C6-N6	12.92	126.35	118.60
1	2	553	G	N1-C6-O6	12.90	127.64	119.90
36	1	2617	U	C5-C4-O4	12.89	133.63	125.90
36	5	922	U	N1-C2-O2	12.85	131.79	122.80
36	5	2871	G	O5'-P-OP2	-12.78	94.20	105.70
36	1	1117	G	O5'-P-OP1	-12.75	94.23	105.70
36	1	2621	G	N1-C6-O6	12.68	127.51	119.90
36	5	1885	U	N1-C2-O2	-12.63	113.96	122.80
1	6	163	G	N3-C4-N9	-12.59	118.44	126.00
36	1	1495	U	N1-C2-N3	12.52	122.41	114.90
36	1	2373	A	O5'-P-OP1	-12.51	94.44	105.70
36	5	960	U	N3-C4-O4	-12.50	110.65	119.40
36	1	2714	G	N3-C4-C5	12.48	134.84	128.60
36	1	1495	U	C2-N3-C4	-12.47	119.52	127.00
36	1	2617	U	C2-N3-C4	-12.43	119.54	127.00
36	1	918	C	O5'-P-OP2	-12.38	94.56	105.70
36	1	2371	G	O5'-P-OP2	-12.37	94.57	105.70
36	1	802	C	O5'-P-OP1	-12.26	94.66	105.70
36	5	805	G	C8-N9-C4	12.24	111.30	106.40
36	5	1371	G	N1-C6-O6	-12.22	112.57	119.90
36	1	1495	U	C4-C5-C6	12.20	127.02	119.70
36	1	1899	G	C8-N9-C4	-12.18	101.53	106.40
36	5	1301	A	N1-C6-N6	12.13	125.88	118.60
36	1	2996	U	C2-N1-C1'	12.11	132.23	117.70
36	5	2726	C	C6-N1-C2	-12.10	115.46	120.30
36	1	2996	U	C6-N1-C1'	-12.07	104.30	121.20
36	1	3306	U	C5-C4-O4	12.01	133.11	125.90
36	5	3245	A	C4-C5-N7	12.00	116.70	110.70
38	4	51	G	C5-C6-O6	-11.98	121.41	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	718	G	N3-C4-C5	11.98	134.59	128.60
36	1	2400	G	C5-C6-O6	-11.98	121.41	128.60
36	1	3057	U	N3-C2-O2	-11.97	113.82	122.20
36	5	1158	A	N1-C6-N6	11.96	125.78	118.60
36	1	2362	C	O5'-P-OP2	-11.91	94.98	105.70
36	1	969	C	N3-C4-C5	11.91	126.66	121.90
36	1	86	G	O5'-P-OP2	-11.90	94.99	105.70
36	1	3181	C	N3-C2-O2	-11.88	113.58	121.90
36	5	204	A	N1-C6-N6	-11.83	111.50	118.60
36	5	1047	A	N1-C6-N6	11.82	125.69	118.60
36	1	1049	C	O5'-P-OP2	-11.82	95.07	105.70
36	5	2843	U	N3-C2-O2	-11.81	113.93	122.20
36	5	1047	A	C5-C6-N6	-11.77	114.28	123.70
36	1	2142	A	C6-N1-C2	-11.71	111.58	118.60
36	1	895	A	C4-C5-N7	11.68	116.54	110.70
36	5	1152	G	C5-N7-C8	-11.67	98.46	104.30
1	2	639	U	N3-C2-O2	-11.62	114.06	122.20
36	5	2634	U	C2-N3-C4	-11.61	120.03	127.00
36	1	2363	A	N1-C6-N6	-11.60	111.64	118.60
36	5	2726	C	C5-C4-N4	11.59	128.31	120.20
36	1	3181	C	N3-C4-N4	-11.55	109.92	118.00
36	5	1419	A	O5'-P-OP2	-11.54	95.32	105.70
1	6	1654	G	O5'-P-OP2	-11.53	95.33	105.70
36	1	111	C	C6-N1-C2	11.51	124.90	120.30
1	6	542	A	O5'-P-OP1	-11.50	95.35	105.70
36	1	895	A	N7-C8-N9	11.42	119.51	113.80
1	6	163	G	C2-N3-C4	-11.42	106.19	111.90
38	4	79	A	C8-N9-C4	-11.41	101.24	105.80
36	1	2209	U	C5-C6-N1	11.39	128.40	122.70
36	1	2818	U	O5'-P-OP1	-11.33	95.50	105.70
36	5	1869	C	C6-N1-C2	11.32	124.83	120.30
36	1	3181	C	C5-C4-N4	11.31	128.12	120.20
36	1	1308	A	O5'-P-OP2	-11.31	95.52	105.70
36	1	2870	C	N3-C4-N4	-11.31	110.08	118.00
36	1	805	G	C8-N9-C4	11.29	110.92	106.40
38	4	94	C	N3-C4-C5	11.29	126.42	121.90
37	7	73	C	C6-N1-C2	-11.25	115.80	120.30
36	5	1155	C	N3-C4-C5	11.24	126.40	121.90
36	1	806	A	O5'-P-OP2	-11.23	95.59	105.70
36	1	2385	G	O5'-P-OP1	-11.19	95.63	105.70
36	1	2411	U	N3-C4-O4	-11.19	111.57	119.40
1	2	1200	G	N1-C6-O6	11.15	126.59	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2827	U	N3-C2-O2	-11.15	114.40	122.20
36	1	1414	G	C5-C6-O6	-11.14	121.92	128.60
36	5	585	A	O5'-P-OP2	-11.13	95.69	105.70
36	1	3122	A	O5'-P-OP1	-11.10	95.71	105.70
36	5	946	U	N3-C4-O4	-11.09	111.64	119.40
36	5	2403	G	O5'-P-OP1	11.08	124.00	110.70
37	7	73	C	C5-C6-N1	11.03	126.52	121.00
36	5	437	G	C8-N9-C4	-11.03	101.99	106.40
36	5	3154	C	N1-C2-O2	10.99	125.49	118.90
36	5	3245	A	N1-C6-N6	10.99	125.19	118.60
36	1	2714	G	N3-C4-N9	-10.97	119.42	126.00
36	5	1001	G	O5'-P-OP1	-10.97	95.83	105.70
36	1	895	A	C2-N3-C4	-10.97	105.12	110.60
36	1	2617	U	N3-C4-O4	-10.96	111.72	119.40
36	1	2977	G	C5-C6-N1	10.95	116.97	111.50
36	1	3207	U	C2-N1-C1'	-10.94	104.57	117.70
36	5	805	G	N9-C4-C5	-10.92	101.03	105.40
36	1	1507	G	O5'-P-OP1	-10.91	95.88	105.70
36	1	2768	U	O5'-P-OP2	-10.91	95.88	105.70
36	1	2404	A	N1-C6-N6	-10.87	112.08	118.60
36	1	2621	G	N1-C2-N2	10.85	125.97	116.20
36	1	3306	U	N3-C2-O2	-10.83	114.62	122.20
36	5	2300	G	C5-C6-N1	10.82	116.91	111.50
36	1	1400	G	O5'-P-OP2	-10.80	95.98	105.70
36	5	1047	A	C4-C5-N7	10.80	116.10	110.70
36	5	3115	C	N1-C2-O2	-10.76	112.44	118.90
36	1	939	U	N1-C2-O2	-10.75	115.27	122.80
36	1	2314	U	C5-C4-O4	-10.75	119.45	125.90
1	6	973	A	O5'-P-OP2	-10.75	96.03	105.70
36	5	1193	A	C8-N9-C4	-10.74	101.50	105.80
36	1	635	G	C5-C6-N1	10.74	116.87	111.50
36	1	2983	C	N3-C2-O2	-10.73	114.39	121.90
36	1	2400	G	N3-C2-N2	-10.72	112.39	119.90
36	1	1381	A	O5'-P-OP2	10.71	123.56	110.70
36	5	662	U	O5'-P-OP1	-10.71	96.06	105.70
36	1	2836	C	C4-C5-C6	10.69	122.75	117.40
36	5	2617	U	O5'-P-OP2	-10.69	96.08	105.70
36	1	2983	C	C4-C5-C6	10.69	122.74	117.40
36	5	715	A	N1-C6-N6	-10.66	112.20	118.60
1	6	163	G	N3-C4-C5	10.64	133.92	128.60
36	1	1414	G	N1-C6-O6	10.63	126.28	119.90
36	5	2980	U	N3-C2-O2	-10.62	114.77	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2392	C	N3-C4-C5	10.62	126.15	121.90
36	5	422	A	O5'-P-OP1	-10.61	96.15	105.70
36	5	2899	C	N3-C2-O2	-10.61	114.48	121.90
36	1	3140	G	C5-C6-O6	-10.57	122.25	128.60
36	5	3245	A	N7-C8-N9	10.57	119.08	113.80
36	5	3245	A	C6-C5-N7	-10.53	124.93	132.30
36	5	2362	C	N1-C2-O2	10.51	125.21	118.90
36	1	1114	U	N3-C4-O4	-10.51	112.05	119.40
1	6	1596	C	N3-C2-O2	-10.47	114.57	121.90
36	5	2687	G	O5'-P-OP2	-10.47	96.28	105.70
36	1	304	G	N9-C4-C5	10.46	109.58	105.40
36	5	2618	G	C5-C6-N1	10.45	116.72	111.50
36	1	651	G	N3-C4-N9	10.44	132.26	126.00
36	1	2812	C	C4-C5-C6	10.42	122.61	117.40
36	5	3188	G	N1-C6-O6	-10.40	113.66	119.90
36	5	2899	C	N1-C2-N3	10.39	126.48	119.20
36	5	2375	G	N9-C4-C5	10.38	109.55	105.40
36	1	2617	U	C4-C5-C6	10.38	125.93	119.70
36	1	716	A	N9-C4-C5	-10.37	101.65	105.80
36	1	959	C	N3-C4-C5	10.36	126.04	121.90
36	5	2362	C	N3-C2-O2	-10.35	114.65	121.90
36	5	1124	U	O5'-P-OP1	-10.34	96.40	105.70
36	5	960	U	N3-C4-C5	10.33	120.80	114.60
1	6	337	G	N3-C4-N9	10.33	132.20	126.00
36	1	1419	A	O5'-P-OP2	-10.32	96.41	105.70
36	1	2884	C	N3-C4-C5	10.31	126.02	121.90
36	5	2372	A	C8-N9-C4	-10.31	101.67	105.80
36	1	651	G	N3-C4-C5	-10.29	123.46	128.60
36	5	2550	U	C5-C4-O4	10.28	132.07	125.90
36	1	2846	U	N3-C2-O2	-10.28	115.01	122.20
36	5	2860	U	C6-N1-C2	10.25	127.15	121.00
36	1	2945	G	OP1-P-OP2	-10.23	104.25	119.60
36	5	2889	C	C2-N3-C4	-10.23	114.79	119.90
36	5	1208	U	O5'-P-OP1	-10.21	96.51	105.70
36	1	2298	U	C5-C4-O4	10.15	131.99	125.90
36	1	2819	A	O5'-P-OP2	-10.14	96.57	105.70
36	1	2719	U	N1-C2-N3	10.13	120.98	114.90
36	1	2983	C	N1-C2-N3	10.12	126.28	119.20
36	1	2983	C	C5-C4-N4	10.10	127.27	120.20
36	5	2397	A	N1-C2-N3	10.09	134.35	129.30
36	1	2875	U	N1-C2-O2	-10.09	115.74	122.80
1	6	402	C	O5'-P-OP2	-10.08	96.63	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1773	C	N3-C4-N4	10.07	125.05	118.00
36	5	2618	G	C6-N1-C2	-10.06	119.06	125.10
36	1	718	G	N3-C4-N9	-10.06	119.97	126.00
36	5	2401	A	C8-N9-C4	-10.05	101.78	105.80
36	5	644	G	C5-C6-O6	10.04	134.63	128.60
36	1	2983	C	N3-C4-N4	-10.04	110.97	118.00
36	5	2816	G	C5-C6-N1	10.04	116.52	111.50
36	5	1312	C	N3-C4-C5	-10.02	117.89	121.90
1	6	1653	C	N1-C2-O2	-10.01	112.89	118.90
36	1	1421	G	O5'-P-OP2	-10.01	96.69	105.70
36	5	417	A	N1-C6-N6	-9.98	112.61	118.60
36	5	776	U	C2-N3-C4	-9.96	121.03	127.00
36	1	92	G	C5-C6-N1	9.95	116.47	111.50
36	5	645	A	C6-N1-C2	-9.94	112.64	118.60
36	5	92	G	N1-C6-O6	-9.94	113.94	119.90
36	1	648	C	C5-C4-N4	-9.93	113.25	120.20
36	5	1879	A	N1-C6-N6	9.91	124.55	118.60
37	7	92	A	N9-C4-C5	-9.91	101.83	105.80
36	5	2364	G	C8-N9-C4	-9.91	102.44	106.40
36	1	1101	G	C5-C6-O6	9.90	134.54	128.60
36	1	1307	G	N1-C6-O6	-9.90	113.96	119.90
36	1	608	A	N1-C6-N6	9.89	124.53	118.60
36	5	922	U	N1-C2-N3	9.87	120.82	114.90
36	5	205	C	O5'-P-OP1	-9.87	96.82	105.70
38	8	79	A	C8-N9-C4	-9.86	101.86	105.80
36	5	1149	G	O5'-P-OP2	-9.86	96.83	105.70
36	1	979	U	N1-C2-N3	9.85	120.81	114.90
36	5	1462	A	N1-C6-N6	9.85	124.51	118.60
36	1	3140	G	N1-C6-O6	9.84	125.80	119.90
36	5	877	C	N3-C4-N4	-9.84	111.11	118.00
36	1	3207	U	C5-C4-O4	9.83	131.80	125.90
36	5	348	A	O5'-P-OP1	-9.83	96.86	105.70
36	5	437	G	N7-C8-N9	9.82	118.01	113.10
36	1	25	U	N1-C2-O2	-9.80	115.94	122.80
36	1	969	C	C2-N3-C4	-9.80	115.00	119.90
36	5	993	G	O5'-P-OP2	-9.79	96.89	105.70
36	1	979	U	O4'-C1'-N1	9.79	116.03	108.20
36	1	1556	C	C2-N1-C1'	9.78	129.55	118.80
36	1	2302	G	C5-C6-O6	9.77	134.46	128.60
36	1	2343	C	N3-C4-C5	9.76	125.80	121.90
36	5	941	G	N1-C6-O6	-9.76	114.05	119.90
36	1	2763	U	C5-C4-O4	-9.75	120.05	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2395	G	C5-C6-O6	-9.75	122.75	128.60
36	5	2234	G	C5-C6-O6	-9.75	122.75	128.60
36	1	3362	A	O4'-C1'-N9	9.74	116.00	108.20
36	5	2278	C	N3-C4-C5	9.74	125.80	121.90
36	5	2953	U	N3-C4-O4	9.74	126.22	119.40
36	1	957	C	N1-C2-O2	-9.73	113.06	118.90
36	5	3050	U	C5-C4-O4	9.72	131.73	125.90
36	5	2393	G	O5'-P-OP2	-9.71	96.96	105.70
36	1	954	U	O5'-P-OP2	-9.70	96.97	105.70
36	1	3057	U	N3-C4-O4	-9.70	112.61	119.40
36	5	2816	G	N1-C6-O6	-9.69	114.08	119.90
38	4	120	C	N1-C2-O2	-9.69	113.09	118.90
36	5	969	C	N3-C4-N4	-9.69	111.22	118.00
1	6	1773	C	N1-C2-O2	-9.67	113.10	118.90
36	1	2279	A	C8-N9-C4	9.67	109.67	105.80
36	1	1196	C	C5-C6-N1	-9.66	116.17	121.00
36	1	2298	U	N1-C2-N3	9.66	120.70	114.90
36	1	1419	A	O5'-P-OP1	9.66	122.29	110.70
36	1	609	G	O5'-P-OP2	-9.65	97.02	105.70
36	1	1450	G	O5'-P-OP2	9.65	122.28	110.70
36	5	2935	U	O5'-P-OP2	-9.63	97.03	105.70
36	1	787	G	O5'-P-OP2	-9.63	97.03	105.70
36	5	2619	G	C5-C6-O6	-9.63	122.82	128.60
36	1	1303	A	C8-N9-C4	9.62	109.65	105.80
36	1	2609	A	N1-C6-N6	-9.62	112.83	118.60
36	5	217	U	C5-C6-N1	-9.61	117.89	122.70
36	1	1389	G	C5-C6-O6	-9.61	122.84	128.60
36	5	1152	G	N1-C6-O6	9.60	125.66	119.90
1	2	553	G	C6-C5-N7	-9.60	124.64	130.40
36	5	2255	A	O5'-P-OP1	-9.60	97.06	105.70
36	5	2290	C	C6-N1-C2	9.59	124.14	120.30
36	1	2983	C	C2-N3-C4	-9.57	115.11	119.90
36	1	2410	U	N1-C2-O2	-9.56	116.11	122.80
36	1	2889	C	C6-N1-C2	-9.55	116.48	120.30
36	5	2726	C	N3-C2-O2	-9.55	115.22	121.90
36	5	218	G	O5'-P-OP2	-9.54	97.11	105.70
36	1	2134	G	N1-C6-O6	-9.54	114.18	119.90
37	3	88	G	N1-C6-O6	-9.53	114.18	119.90
36	5	345	G	C5-C6-O6	-9.52	122.89	128.60
36	1	6	A	O5'-P-OP2	-9.51	97.14	105.70
36	1	665	A	N1-C6-N6	-9.51	112.90	118.60
36	5	1152	G	N1-C2-N2	9.50	124.75	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2192	C	O5'-P-OP2	-9.49	97.16	105.70
36	1	1858	A	C2-N3-C4	9.48	115.34	110.60
36	5	1051	U	N3-C4-C5	9.48	120.29	114.60
1	6	1670	G	O5'-P-OP2	-9.47	97.17	105.70
36	1	3362	A	N7-C8-N9	9.47	118.54	113.80
36	5	2763	U	C5-C4-O4	-9.47	120.22	125.90
36	5	343	U	O5'-P-OP1	-9.45	97.20	105.70
36	1	229	G	N3-C2-N2	-9.44	113.29	119.90
36	1	1371	G	C8-N9-C4	9.44	110.18	106.40
36	1	2617	U	N3-C2-O2	-9.44	115.59	122.20
36	5	2873	U	C2-N3-C4	-9.43	121.34	127.00
36	5	2375	G	C4-C5-N7	-9.43	107.03	110.80
36	5	2919	A	N1-C6-N6	-9.43	112.94	118.60
36	1	2871	G	O5'-P-OP2	-9.42	97.22	105.70
36	1	3362	A	C6-C5-N7	-9.42	125.70	132.30
36	1	1160	C	O5'-P-OP1	-9.42	97.22	105.70
36	5	2375	G	N1-C6-O6	-9.42	114.25	119.90
36	1	646	A	O5'-P-OP2	-9.42	97.23	105.70
36	1	895	A	C6-C5-N7	-9.42	125.71	132.30
36	1	2936	A	O5'-P-OP1	-9.41	97.23	105.70
36	1	3207	U	C6-N1-C1'	9.39	134.34	121.20
36	5	934	G	C5-C6-O6	-9.38	122.97	128.60
36	5	1899	G	C5-C6-O6	9.38	134.23	128.60
36	5	2813	A	C8-N9-C4	-9.38	102.05	105.80
36	5	2821	C	O5'-P-OP1	9.37	121.95	110.70
36	5	2379	U	C5-C6-N1	-9.36	118.02	122.70
1	2	1082	C	C2-N1-C1'	9.36	129.09	118.80
36	5	1548	C	N1-C2-O2	-9.35	113.29	118.90
36	5	2992	U	O5'-P-OP1	9.35	121.92	110.70
36	1	817	A	C8-N9-C4	-9.35	102.06	105.80
36	1	2870	C	C6-N1-C1'	9.35	132.01	120.80
1	6	144	U	N3-C2-O2	-9.32	115.68	122.20
36	1	645	A	C6-N1-C2	-9.31	113.01	118.60
36	5	2728	G	O5'-P-OP2	-9.31	97.32	105.70
36	5	960	U	C2-N3-C4	-9.30	121.42	127.00
36	5	1130	A	C2-N3-C4	9.29	115.25	110.60
36	5	372	A	N1-C6-N6	9.29	124.17	118.60
36	5	776	U	C4-C5-C6	9.28	125.27	119.70
36	1	2406	C	C6-N1-C2	9.28	124.01	120.30
36	1	2983	C	C5-C6-N1	-9.28	116.36	121.00
36	1	2800	G	C6-N1-C2	-9.27	119.54	125.10
36	5	2249	G	C8-N9-C4	-9.27	102.69	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
52	M6	74	ARG	NE-CZ-NH1	9.26	124.93	120.30
1	6	448	C	C6-N1-C2	-9.26	116.60	120.30
36	1	3055	U	C5-C4-O4	-9.25	120.35	125.90
1	2	453	U	N3-C2-O2	-9.25	115.72	122.20
36	1	1389	G	C4-C5-N7	9.25	114.50	110.80
36	5	903	U	N3-C2-O2	-9.24	115.73	122.20
36	5	1047	A	N9-C4-C5	-9.24	102.11	105.80
36	5	3098	G	O5'-P-OP2	-9.23	97.39	105.70
36	1	2279	A	N9-C4-C5	-9.23	102.11	105.80
36	5	2389	C	O5'-P-OP1	-9.23	97.39	105.70
36	1	979	U	C6-N1-C2	-9.23	115.46	121.00
36	5	2411	U	N3-C4-C5	9.22	120.13	114.60
36	1	2650	U	N1-C2-N3	9.22	120.43	114.90
36	5	608	A	N1-C6-N6	9.22	124.13	118.60
36	5	2927	C	C6-N1-C2	-9.22	116.61	120.30
36	1	2406	C	C2-N3-C4	-9.21	115.29	119.90
36	5	1879	A	C4-C5-N7	9.21	115.31	110.70
36	5	338	A	N1-C6-N6	9.21	124.12	118.60
36	5	2908	G	N3-C2-N2	-9.21	113.45	119.90
36	5	2400	G	N1-C6-O6	9.19	125.42	119.90
36	1	2147	A	O5'-P-OP1	-9.19	97.43	105.70
36	1	1445	U	C2-N3-C4	-9.18	121.49	127.00
36	1	2953	U	N1-C2-O2	-9.18	116.37	122.80
36	1	2400	G	N1-C6-O6	9.17	125.40	119.90
36	5	1149	G	N3-C4-C5	-9.16	124.02	128.60
36	1	2827	U	N3-C4-O4	-9.15	112.99	119.40
36	5	2996	U	N1-C2-O2	9.15	129.21	122.80
36	1	2286	U	O5'-P-OP2	-9.15	97.47	105.70
24	d2	93	LEU	CA-CB-CG	9.14	136.33	115.30
1	2	1773	C	N3-C4-N4	9.13	124.39	118.00
1	2	73	U	O4'-C1'-N1	9.13	115.50	108.20
36	1	1899	G	N9-C4-C5	9.13	109.05	105.40
36	5	922	U	C5-C4-O4	9.13	131.38	125.90
36	1	1374	G	N3-C2-N2	9.13	126.29	119.90
36	1	1405	U	N3-C4-C5	9.13	120.08	114.60
36	1	2411	U	N3-C4-C5	9.12	120.07	114.60
1	6	337	G	C6-C5-N7	-9.10	124.94	130.40
1	2	639	U	N1-C2-O2	9.10	129.17	122.80
36	1	3362	A	C5-N7-C8	-9.09	99.36	103.90
36	1	681	U	C5-C4-O4	-9.09	120.45	125.90
36	5	927	C	N1-C2-O2	-9.08	113.45	118.90
36	1	284	A	C8-N9-C4	-9.07	102.17	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1902	G	O5'-P-OP1	-9.07	97.54	105.70
36	1	716	A	N1-C6-N6	9.06	124.04	118.60
36	5	805	G	C5-C6-O6	-9.06	123.16	128.60
36	5	1372	C	C6-N1-C2	9.06	123.92	120.30
36	5	1200	A	C8-N9-C4	-9.06	102.18	105.80
36	1	2712	U	C5-C4-O4	9.04	131.33	125.90
36	1	1556	C	N3-C2-O2	-9.04	115.57	121.90
36	5	2392	C	C2-N3-C4	-9.03	115.38	119.90
36	5	3187	A	N1-C6-N6	-9.03	113.18	118.60
38	8	80	A	N7-C8-N9	9.03	118.32	113.80
47	M0	24	ARG	NE-CZ-NH1	9.03	124.81	120.30
36	5	2872	A	N7-C8-N9	9.03	118.31	113.80
36	1	3005	A	N1-C2-N3	-9.02	124.79	129.30
36	5	57	A	C8-N9-C4	9.02	109.41	105.80
36	1	704	U	O5'-P-OP2	-9.01	97.59	105.70
36	1	2424	A	N1-C6-N6	9.01	124.00	118.60
36	5	410	U	N3-C4-C5	-9.01	109.19	114.60
36	5	2899	C	C6-N1-C2	-9.01	116.70	120.30
1	6	928	U	O5'-P-OP1	-9.01	97.59	105.70
36	1	3209	A	N1-C6-N6	9.00	124.00	118.60
36	5	1496	C	N1-C2-O2	9.00	124.30	118.90
36	5	645	A	N1-C2-N3	8.99	133.80	129.30
36	5	2375	G	C5-C6-O6	8.99	133.99	128.60
36	5	1181	U	O5'-P-OP1	-8.98	97.61	105.70
36	1	1893	A	C2-N3-C4	-8.98	106.11	110.60
36	1	2177	G	N3-C4-N9	8.98	131.39	126.00
36	1	2726	C	C2-N3-C4	-8.98	115.41	119.90
36	1	2872	A	O5'-P-OP2	-8.98	97.62	105.70
36	1	792	G	O5'-P-OP1	-8.97	97.62	105.70
36	1	2875	U	N1-C2-N3	8.97	120.28	114.90
36	1	1904	C	C6-N1-C2	-8.97	116.71	120.30
36	1	2177	G	N3-C2-N2	8.97	126.18	119.90
1	2	1600	A	C2-N3-C4	-8.97	106.12	110.60
36	1	1114	U	N1-C2-O2	8.97	129.08	122.80
36	1	1373	A	N1-C6-N6	-8.96	113.22	118.60
36	1	639	G	C8-N9-C4	8.96	109.98	106.40
36	1	2176	U	N3-C2-O2	-8.95	115.93	122.20
36	1	2870	C	C5-C4-N4	8.95	126.46	120.20
36	5	21	G	N9-C4-C5	-8.95	101.82	105.40
36	5	1884	A	C2-N3-C4	-8.95	106.13	110.60
36	5	1879	A	C5-N7-C8	-8.94	99.43	103.90
36	5	2694	A	C8-N9-C4	-8.94	102.23	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1000	C	C6-N1-C2	8.93	123.87	120.30
36	1	2983	C	O5'-P-OP2	-8.93	97.67	105.70
36	5	3247	G	O5'-P-OP2	-8.92	97.67	105.70
36	5	1445	U	C2-N3-C4	-8.91	121.65	127.00
36	5	2870	C	C6-N1-C1'	8.90	131.49	120.80
36	1	2899	C	C2-N3-C4	-8.90	115.45	119.90
36	5	958	C	N1-C2-O2	8.90	124.24	118.90
36	5	668	G	N1-C6-O6	-8.88	114.57	119.90
36	5	822	G	O5'-P-OP1	-8.88	97.70	105.70
36	5	3186	A	N1-C6-N6	-8.88	113.27	118.60
36	1	644	G	C8-N9-C4	-8.87	102.85	106.40
36	1	1101	G	N1-C6-O6	-8.87	114.58	119.90
36	1	346	C	C2-N3-C4	-8.87	115.47	119.90
36	1	2714	G	C2-N3-C4	-8.87	107.47	111.90
36	5	2820	A	C8-N9-C4	-8.86	102.25	105.80
37	3	88	G	C5-C6-O6	8.86	133.92	128.60
36	1	2984	C	N1-C2-O2	-8.86	113.58	118.90
36	5	1117	G	C8-N9-C4	8.86	109.94	106.40
36	1	1114	U	C4-C5-C6	-8.86	114.39	119.70
36	5	3183	A	N1-C6-N6	8.86	123.91	118.60
36	5	2899	C	C5-C4-N4	8.85	126.39	120.20
1	6	609	U	C5-C4-O4	8.85	131.21	125.90
36	1	3005	A	C2-N3-C4	8.84	115.02	110.60
36	1	1517	G	O5'-P-OP2	-8.84	97.75	105.70
36	5	3178	A	O5'-P-OP1	-8.84	97.75	105.70
36	1	2815	G	C8-N9-C4	8.83	109.93	106.40
36	5	590	G	C5-C6-O6	-8.83	123.30	128.60
36	5	2872	A	C8-N9-C4	-8.83	102.27	105.80
1	6	1731	A	O5'-P-OP2	-8.83	97.76	105.70
36	5	1110	U	N1-C2-O2	8.82	128.98	122.80
36	5	2410	U	N3-C2-O2	8.81	128.37	122.20
36	5	2973	G	O5'-P-OP1	-8.81	97.77	105.70
36	1	2870	C	C2-N1-C1'	-8.81	109.11	118.80
36	1	1177	G	N3-C2-N2	-8.80	113.74	119.90
37	7	92	A	C5-C6-N6	-8.80	116.66	123.70
36	1	895	A	C8-N9-C4	-8.80	102.28	105.80
36	5	1336	U	O5'-P-OP2	-8.80	97.78	105.70
36	1	611	A	O5'-P-OP2	-8.79	97.79	105.70
36	5	2405	C	N3-C2-O2	-8.78	115.75	121.90
36	5	3188	G	C5-C6-O6	8.78	133.87	128.60
36	5	1178	G	C8-N9-C4	-8.78	102.89	106.40
36	1	28	C	N1-C2-O2	8.77	124.16	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	895	A	N1-C6-N6	8.77	123.86	118.60
36	5	2802	A	N9-C4-C5	8.77	109.31	105.80
36	1	2419	A	OP1-P-OP2	-8.76	106.46	119.60
36	5	929	A	N1-C6-N6	-8.76	113.34	118.60
37	7	92	A	C6-C5-N7	-8.76	126.17	132.30
36	1	3190	C	N3-C4-C5	8.74	125.40	121.90
38	4	47	C	N3-C2-O2	-8.74	115.78	121.90
1	6	65	A	C2-N3-C4	-8.74	106.23	110.60
36	5	874	U	O5'-P-OP1	-8.74	97.84	105.70
36	5	1430	U	C6-N1-C2	8.74	126.24	121.00
36	5	1856	C	C6-N1-C2	-8.73	116.81	120.30
36	5	2971	A	C2-N3-C4	8.73	114.97	110.60
1	6	48	G	O5'-P-OP2	-8.73	97.85	105.70
1	2	1486	G	C8-N9-C4	-8.72	102.91	106.40
36	1	2812	C	C5-C6-N1	-8.72	116.64	121.00
36	5	2281	A	C8-N9-C4	8.71	109.28	105.80
36	1	2602	G	C5-C6-O6	8.71	133.82	128.60
36	1	267	G	N1-C6-O6	8.70	125.12	119.90
36	5	716	A	O5'-P-OP1	-8.70	97.87	105.70
1	6	314	C	C6-N1-C2	-8.69	116.82	120.30
36	5	2821	C	O5'-P-OP2	-8.69	97.88	105.70
36	1	62	A	O5'-P-OP2	-8.69	97.88	105.70
1	6	337	G	C4-N9-C1'	8.68	137.79	126.50
36	5	2199	G	C6-C5-N7	-8.68	125.19	130.40
36	1	112	U	C2-N1-C1'	8.68	128.11	117.70
36	1	1127	G	C5-C6-O6	-8.67	123.40	128.60
36	1	1152	G	OP1-P-OP2	8.67	132.61	119.60
36	1	649	A	OP1-P-OP2	-8.67	106.59	119.60
36	5	640	U	N1-C2-O2	-8.67	116.73	122.80
36	1	1380	G	O5'-P-OP2	-8.66	97.90	105.70
36	1	2726	C	N3-C4-N4	-8.66	111.94	118.00
36	1	2758	A	C2-N3-C4	8.66	114.93	110.60
36	1	922	U	C5-C6-N1	8.66	127.03	122.70
36	5	1300	G	C5-C6-O6	-8.66	123.40	128.60
36	5	2634	U	N1-C2-N3	8.65	120.09	114.90
36	1	2142	A	N1-C2-N3	8.65	133.63	129.30
36	5	3092	C	N1-C2-O2	8.65	124.09	118.90
36	1	3174	A	C5-N7-C8	-8.65	99.58	103.90
36	1	2621	G	C5-C6-O6	-8.64	123.42	128.60
36	5	1868	G	C6-C5-N7	-8.64	125.22	130.40
1	6	87	C	C6-N1-C2	-8.64	116.84	120.30
36	1	361	A	N1-C6-N6	-8.63	113.42	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	908	G	N1-C6-O6	8.63	125.08	119.90
36	5	2873	U	N1-C2-N3	8.63	120.08	114.90
36	1	2642	A	C5-C6-N1	-8.63	113.39	117.70
36	5	1401	A	O5'-P-OP2	-8.63	97.94	105.70
36	5	2797	C	O5'-P-OP2	-8.62	97.94	105.70
36	5	1060	U	C5-C6-N1	-8.61	118.39	122.70
36	1	3344	A	O4'-C1'-N9	8.61	115.09	108.20
36	5	1123	U	O5'-P-OP2	-8.61	97.95	105.70
1	6	1481	C	N3-C2-O2	-8.61	115.87	121.90
36	5	1371	G	C4-C5-N7	-8.61	107.36	110.80
36	1	1130	A	C2-N3-C4	8.61	114.90	110.60
36	5	644	G	C4-C5-N7	-8.61	107.36	110.80
36	5	871	U	C5-C4-O4	8.60	131.06	125.90
36	5	1158	A	C4-C5-N7	8.60	115.00	110.70
36	1	648	C	O5'-P-OP1	-8.60	97.96	105.70
36	5	3260	G	C5-C6-O6	8.60	133.76	128.60
36	5	2383	C	N3-C4-N4	8.60	124.02	118.00
36	5	909	G	C5-N7-C8	8.59	108.60	104.30
36	1	1741	A	C2-N3-C4	-8.59	106.31	110.60
36	5	828	A	O5'-P-OP2	-8.59	97.97	105.70
36	5	2191	U	N3-C4-O4	-8.58	113.39	119.40
1	2	1043	A	O5'-P-OP2	-8.58	97.98	105.70
36	1	2323	G	N3-C4-N9	8.58	131.15	126.00
36	5	1427	U	N3-C4-O4	-8.58	113.40	119.40
36	1	1855	U	O5'-P-OP2	-8.57	97.99	105.70
38	4	29	U	C5-C4-O4	-8.57	120.76	125.90
36	1	3000	A	C8-N9-C4	8.57	109.23	105.80
36	1	3214	U	N3-C2-O2	-8.57	116.20	122.20
1	6	18	C	C6-N1-C2	-8.57	116.87	120.30
36	1	949	C	C4-C5-C6	8.56	121.68	117.40
36	5	3209	A	O4'-C1'-N9	8.56	115.05	108.20
36	1	2622	C	C6-N1-C2	-8.55	116.88	120.30
36	1	2706	G	C6-C5-N7	-8.56	125.27	130.40
36	5	2211	U	C4-C5-C6	8.55	124.83	119.70
36	5	2758	A	C2-N3-C4	8.55	114.88	110.60
1	6	1481	C	C6-N1-C2	-8.55	116.88	120.30
36	5	2572	C	N1-C2-O2	8.55	124.03	118.90
1	2	144	U	N3-C2-O2	-8.55	116.22	122.20
36	1	2679	A	C2-N3-C4	-8.55	106.33	110.60
36	1	2550	U	C5-C4-O4	8.54	131.03	125.90
36	1	3143	C	O5'-P-OP2	-8.54	98.02	105.70
36	1	2314	U	C6-N1-C1'	-8.53	109.26	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2310	U	N3-C2-O2	-8.53	116.23	122.20
1	6	1596	C	N1-C2-O2	8.52	124.01	118.90
36	5	295	A	O5'-P-OP1	-8.52	98.03	105.70
36	5	412	G	N3-C4-C5	-8.52	124.34	128.60
36	5	229	G	N3-C2-N2	-8.52	113.94	119.90
36	5	2300	G	N1-C6-O6	-8.51	114.79	119.90
36	5	878	G	C8-N9-C4	-8.51	103.00	106.40
38	4	40	A	N1-C6-N6	8.50	123.70	118.60
37	7	101	G	C5-C6-O6	-8.49	123.50	128.60
36	1	369	A	C8-N9-C4	-8.49	102.40	105.80
36	5	1743	G	C5-C6-O6	-8.49	123.51	128.60
36	5	2726	C	N3-C4-C5	-8.49	118.51	121.90
36	1	1370	G	C4-C5-N7	8.48	114.19	110.80
36	1	2620	G	C8-N9-C4	8.48	109.79	106.40
1	2	830	U	N3-C2-O2	-8.48	116.26	122.20
1	2	1596	C	N3-C2-O2	-8.48	115.96	121.90
36	1	2978	U	N1-C2-O2	8.48	128.74	122.80
36	5	1879	A	C6-C5-N7	-8.48	126.36	132.30
36	5	2308	C	N1-C2-O2	-8.48	113.81	118.90
36	5	406	G	N1-C6-O6	-8.48	114.81	119.90
36	5	3214	U	N3-C2-O2	-8.48	116.27	122.20
36	1	1133	A	C6-N1-C2	-8.47	113.52	118.60
1	2	1796	C	C4-C5-C6	8.47	121.63	117.40
36	1	1837	U	N3-C2-O2	8.47	128.13	122.20
36	1	2978	U	N3-C2-O2	-8.47	116.27	122.20
36	1	2121	G	N1-C6-O6	-8.46	114.82	119.90
36	1	2814	G	C5-C6-O6	-8.46	123.52	128.60
1	2	1039	A	O4'-C1'-N9	8.46	114.97	108.20
36	5	283	G	O4'-C1'-N9	-8.46	101.43	108.20
36	5	947	G	N1-C6-O6	-8.46	114.83	119.90
36	1	658	G	N1-C6-O6	8.46	124.97	119.90
36	5	2611	U	C5-C6-N1	-8.46	118.47	122.70
36	1	3214	U	C5-C4-O4	8.45	130.97	125.90
36	1	1495	U	N1-C2-O2	-8.45	116.88	122.80
36	1	1729	A	O5'-P-OP2	-8.45	98.09	105.70
37	7	100	C	C6-N1-C2	8.45	123.68	120.30
36	5	780	A	N1-C2-N3	-8.45	125.07	129.30
36	1	942	U	N1-C2-O2	-8.45	116.89	122.80
36	5	661	G	C5-N7-C8	-8.45	100.08	104.30
36	5	645	A	C4-C5-N7	-8.44	106.48	110.70
36	5	2838	A	N1-C6-N6	8.43	123.66	118.60
36	1	346	C	C5-C6-N1	-8.43	116.78	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	L3	159	ARG	NE-CZ-NH2	-8.43	116.08	120.30
36	1	94	G	C4-C5-N7	8.43	114.17	110.80
36	1	938	C	C5-C4-N4	-8.43	114.30	120.20
36	5	861	C	O5'-P-OP2	-8.43	98.11	105.70
36	5	1301	A	C6-C5-N7	-8.42	126.41	132.30
36	1	2889	C	N3-C2-O2	-8.41	116.01	121.90
36	5	776	U	N1-C2-N3	8.41	119.95	114.90
36	1	716	A	C8-N9-C4	8.41	109.17	105.80
36	1	770	G	O4'-C1'-N9	8.41	114.93	108.20
36	1	1606	U	N1-C2-O2	-8.41	116.92	122.80
1	2	830	U	N1-C2-O2	8.40	128.68	122.80
36	5	1370	G	N1-C6-O6	-8.40	114.86	119.90
36	1	2154	U	C5-C4-O4	-8.40	120.86	125.90
1	6	434	G	O5'-P-OP2	-8.40	98.14	105.70
36	1	2343	C	C2-N3-C4	-8.40	115.70	119.90
36	1	340	C	C2-N3-C4	-8.39	115.70	119.90
36	1	1405	U	C2-N3-C4	-8.39	121.97	127.00
52	m6	68	ARG	NE-CZ-NH2	8.39	124.50	120.30
36	1	3344	A	N7-C8-N9	8.38	117.99	113.80
36	1	2176	U	N1-C2-O2	8.38	128.66	122.80
36	1	2602	G	N1-C6-O6	-8.38	114.87	119.90
36	1	3319	U	N3-C2-O2	-8.38	116.34	122.20
1	2	1200	G	C6-C5-N7	-8.38	125.37	130.40
1	6	102	U	O5'-P-OP1	-8.38	98.16	105.70
36	5	1482	A	O5'-P-OP2	-8.38	98.16	105.70
1	2	1773	C	C6-N1-C2	-8.37	116.95	120.30
36	1	942	U	C2-N3-C4	-8.37	121.98	127.00
1	2	1672	G	O5'-P-OP2	-8.37	98.17	105.70
36	1	2827	U	C5-C6-N1	-8.36	118.52	122.70
36	5	2843	U	N1-C2-O2	8.36	128.65	122.80
36	5	421	G	C5-C6-O6	-8.36	123.58	128.60
36	5	715	A	N9-C4-C5	8.36	109.14	105.80
36	5	835	G	O4'-C1'-N9	8.35	114.88	108.20
36	1	2148	U	N3-C2-O2	8.35	128.04	122.20
38	8	4	C	C2-N3-C4	-8.35	115.73	119.90
36	1	1331	U	O4'-C1'-N1	-8.34	101.53	108.20
36	5	1340	G	N7-C8-N9	-8.34	108.93	113.10
1	2	1486	G	N7-C8-N9	8.34	117.27	113.10
36	1	2816	G	C5-C6-O6	-8.34	123.60	128.60
36	5	2287	C	O5'-P-OP2	-8.34	98.20	105.70
36	5	2278	C	C4-C5-C6	-8.33	113.23	117.40
36	1	3278	C	N3-C2-O2	-8.32	116.07	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	75	G	C5-C6-O6	-8.32	123.61	128.60
36	1	1301	A	O5'-P-OP1	-8.32	98.21	105.70
36	5	1907	C	N1-C2-O2	-8.32	113.91	118.90
36	1	1351	U	N1-C2-O2	8.31	128.62	122.80
36	5	2851	A	O5'-P-OP1	-8.31	98.22	105.70
36	5	2362	C	C6-N1-C2	-8.31	116.98	120.30
36	1	1316	C	N1-C2-O2	-8.30	113.92	118.90
1	6	60	U	C5-C6-N1	8.30	126.85	122.70
36	1	1556	C	N1-C2-O2	8.30	123.88	118.90
36	5	1311	G	N1-C6-O6	-8.30	114.92	119.90
36	1	3278	C	N1-C2-O2	8.30	123.88	118.90
36	1	1132	C	O5'-P-OP1	-8.29	98.24	105.70
36	1	2710	C	N1-C2-O2	-8.29	113.93	118.90
1	6	1123	C	N3-C4-C5	8.29	125.22	121.90
36	5	1160	C	C5-C4-N4	8.29	126.00	120.20
36	1	2923	U	O5'-P-OP2	8.28	120.64	110.70
36	1	2941	A	N9-C4-C5	-8.28	102.49	105.80
36	1	1113	G	N3-C2-N2	-8.28	114.10	119.90
36	1	2732	G	N3-C2-N2	8.28	125.70	119.90
36	5	1844	C	C6-N1-C2	-8.28	116.99	120.30
36	5	1239	C	C5-C6-N1	8.28	125.14	121.00
41	14	339	LEU	CA-CB-CG	8.28	134.34	115.30
1	6	163	G	C5-N7-C8	-8.28	100.16	104.30
36	5	2398	A	N1-C6-N6	-8.28	113.63	118.60
36	5	3166	C	C5-C6-N1	8.27	125.14	121.00
36	1	1507	G	N3-C2-N2	-8.27	114.11	119.90
1	2	1761	U	P-O3'-C3'	8.26	129.62	119.70
36	1	968	G	C8-N9-C4	-8.26	103.09	106.40
36	1	681	U	N3-C4-O4	8.26	125.18	119.40
36	5	345	G	N1-C6-O6	8.26	124.85	119.90
36	5	1190	A	C8-N9-C4	-8.26	102.50	105.80
52	m6	84	LEU	CA-CB-CG	-8.26	96.31	115.30
36	5	2830	G	C4-C5-N7	-8.25	107.50	110.80
36	5	1054	A	C8-N9-C4	8.25	109.10	105.80
36	5	3197	G	N3-C4-N9	-8.25	121.05	126.00
36	5	1305	U	O5'-P-OP1	-8.24	98.28	105.70
36	5	2550	U	N1-C2-N3	8.24	119.85	114.90
36	5	645	A	C5-N7-C8	8.24	108.02	103.90
36	1	1547	G	N7-C8-N9	-8.24	108.98	113.10
1	6	1123	C	C6-N1-C2	8.23	123.59	120.30
36	1	86	G	N1-C6-O6	-8.23	114.96	119.90
36	5	2991	A	C8-N9-C4	-8.23	102.51	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1121	C	O5'-P-OP2	-8.22	98.30	105.70
36	1	2977	G	C6-N1-C2	-8.22	120.17	125.10
36	5	2531	C	C2-N1-C1'	8.22	127.84	118.80
36	1	1403	C	C6-N1-C2	8.22	123.59	120.30
36	5	116	A	O4'-C1'-N9	8.22	114.78	108.20
36	5	200	C	N3-C4-C5	-8.22	118.61	121.90
1	6	1137	A	C8-N9-C4	8.21	109.09	105.80
36	1	859	G	N3-C2-N2	8.21	125.65	119.90
36	1	2417	U	C2-N3-C4	-8.21	122.07	127.00
36	5	877	C	C4-C5-C6	-8.21	113.29	117.40
36	1	3306	U	N1-C2-O2	8.21	128.55	122.80
36	1	2130	G	N1-C6-O6	-8.21	114.98	119.90
1	6	1560	U	N3-C2-O2	-8.21	116.45	122.20
36	5	2899	C	N3-C4-N4	-8.21	112.25	118.00
36	1	2941	A	C8-N9-C4	8.21	109.08	105.80
36	1	1157	G	N1-C6-O6	-8.20	114.98	119.90
36	1	1713	G	C8-N9-C4	8.20	109.68	106.40
38	8	26	U	N1-C2-O2	8.21	128.54	122.80
36	5	661	G	C4-C5-N7	8.20	114.08	110.80
36	1	2362	C	N1-C2-O2	8.20	123.82	118.90
36	1	2412	G	C5-C6-O6	-8.20	123.68	128.60
36	5	805	G	N1-C6-O6	8.20	124.82	119.90
36	5	1416	C	N1-C2-O2	8.20	123.82	118.90
36	5	1882	G	O5'-P-OP1	-8.20	98.33	105.70
36	1	1081	U	C5-C6-N1	8.19	126.80	122.70
36	1	2996	U	C5-C4-O4	-8.19	120.98	125.90
1	6	980	G	N1-C6-O6	-8.19	114.98	119.90
36	1	1445	U	C5-C4-O4	-8.19	120.99	125.90
36	1	2412	G	C6-N1-C2	-8.19	120.19	125.10
36	1	1507	G	N1-C6-O6	8.18	124.81	119.90
36	1	2405	C	N3-C4-C5	-8.18	118.63	121.90
36	5	1301	A	C5-C6-N6	-8.18	117.15	123.70
36	1	640	U	N1-C2-O2	-8.18	117.08	122.80
36	1	104	G	N1-C6-O6	8.18	124.81	119.90
1	6	57	G	O5'-P-OP2	-8.18	98.34	105.70
38	8	80	A	C8-N9-C4	-8.17	102.53	105.80
36	1	2899	C	N3-C2-O2	-8.17	116.18	121.90
36	5	2744	U	N3-C2-O2	-8.17	116.48	122.20
36	5	1122	U	N1-C2-N3	8.17	119.80	114.90
1	6	426	G	N3-C4-C5	-8.17	124.52	128.60
36	1	2825	C	N1-C2-O2	8.16	123.80	118.90
1	6	421	A	C8-N9-C4	8.16	109.07	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	359	U	OP1-P-OP2	-8.16	107.36	119.60
36	5	2964	G	N1-C6-O6	-8.16	115.00	119.90
38	8	79	A	N7-C8-N9	8.16	117.88	113.80
36	5	1481	A	N7-C8-N9	8.16	117.88	113.80
36	1	653	A	N1-C6-N6	8.16	123.49	118.60
36	1	1904	C	C5-C6-N1	8.16	125.08	121.00
36	5	3214	U	C5-C4-O4	8.16	130.79	125.90
36	1	1192	C	C6-N1-C2	-8.15	117.04	120.30
36	1	776	U	C5-C6-N1	-8.15	118.62	122.70
36	1	2374	C	N1-C2-N3	8.14	124.90	119.20
36	5	3136	G	N1-C2-N3	8.14	128.79	123.90
36	1	325	A	C2-N3-C4	8.14	114.67	110.60
36	5	410	U	N3-C4-O4	8.14	125.10	119.40
36	1	2846	U	N1-C2-N3	8.14	119.78	114.90
36	1	1177	G	C5-C6-O6	-8.12	123.73	128.60
36	1	2823	G	C5-N7-C8	8.12	108.36	104.30
1	6	101	U	N3-C2-O2	-8.12	116.51	122.20
1	2	1773	C	N3-C4-C5	-8.12	118.65	121.90
36	1	1307	G	C6-C5-N7	8.12	135.27	130.40
36	1	776	U	C4-C5-C6	8.12	124.57	119.70
36	5	2925	C	O5'-P-OP1	-8.11	98.40	105.70
36	5	890	C	N3-C4-C5	8.11	125.14	121.90
36	5	3092	C	N3-C2-O2	-8.11	116.22	121.90
1	6	1644	C	O5'-P-OP2	-8.11	98.40	105.70
36	5	3093	C	N1-C2-O2	-8.10	114.04	118.90
36	1	2314	U	C2-N1-C1'	8.10	127.42	117.70
36	1	3277	U	N3-C2-O2	-8.10	116.53	122.20
36	5	2142	A	C6-N1-C2	-8.10	113.74	118.60
36	5	3154	C	C2-N1-C1'	8.10	127.71	118.80
36	1	1133	A	C5-C6-N6	-8.10	117.22	123.70
36	5	204	A	C5-C6-N6	8.10	130.18	123.70
36	5	617	G	C4-C5-N7	8.09	114.04	110.80
1	6	337	G	C8-N9-C1'	-8.09	116.49	127.00
36	5	2300	G	N3-C4-C5	-8.09	124.56	128.60
38	8	63	G	N1-C6-O6	-8.09	115.05	119.90
36	5	941	G	C5-C6-N1	8.08	115.54	111.50
36	1	2808	A	N1-C6-N6	8.08	123.45	118.60
1	6	609	U	C5-C6-N1	-8.08	118.66	122.70
36	1	805	G	N7-C8-N9	-8.08	109.06	113.10
36	5	931	C	N3-C4-C5	8.07	125.13	121.90
36	5	2618	G	C2-N3-C4	8.07	115.93	111.90
37	7	121	U	C2-N1-C1'	8.07	127.38	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	287	G	C4-C5-N7	-8.06	107.58	110.80
36	1	785	G	C2-N3-C4	8.06	115.93	111.90
37	7	7	G	O5'-P-OP1	8.06	120.37	110.70
36	1	30	G	O5'-P-OP2	-8.05	98.45	105.70
36	1	859	G	C6-C5-N7	-8.05	125.57	130.40
36	5	3144	G	N3-C4-C5	-8.05	124.57	128.60
36	5	3183	A	C5-C6-N6	-8.05	117.26	123.70
36	1	776	U	N1-C2-N3	8.04	119.73	114.90
36	1	2836	C	N3-C4-C5	-8.05	118.68	121.90
36	1	3228	C	P-O3'-C3'	8.04	129.35	119.70
36	5	2663	G	O5'-P-OP2	-8.04	98.46	105.70
36	5	3136	G	C2-N3-C4	-8.04	107.88	111.90
36	1	699	A	C2-N3-C4	-8.04	106.58	110.60
36	1	1443	G	N7-C8-N9	8.04	117.12	113.10
1	6	539	G	C8-N9-C4	-8.04	103.18	106.40
36	5	987	U	O5'-P-OP1	-8.04	98.47	105.70
37	7	40	C	C6-N1-C2	8.04	123.52	120.30
51	m5	187	ARG	NE-CZ-NH1	-8.04	116.28	120.30
36	1	339	C	O5'-P-OP2	8.03	120.34	110.70
70	O4	51	LEU	CA-CB-CG	8.03	133.78	115.30
36	1	1435	A	OP1-P-OP2	-8.03	107.55	119.60
36	1	1582	C	C6-N1-C2	-8.03	117.09	120.30
44	17	229	PHE	CB-CG-CD1	8.03	126.42	120.80
36	1	2189	U	C5-C4-O4	-8.03	121.08	125.90
36	5	2867	C	C2-N3-C4	8.03	123.91	119.90
36	1	663	C	C5-C4-N4	-8.02	114.58	120.20
36	1	2385	G	C8-N9-C4	8.02	109.61	106.40
36	1	2996	U	N1-C2-N3	-8.02	110.09	114.90
36	5	2347	U	N3-C4-C5	8.02	119.41	114.60
1	2	254	A	C8-N9-C4	8.02	109.01	105.80
36	1	896	A	C8-N9-C4	-8.02	102.59	105.80
36	5	2925	C	N1-C2-O2	-8.02	114.09	118.90
36	1	1114	U	N3-C4-C5	8.02	119.41	114.60
1	6	609	U	N1-C2-N3	8.02	119.71	114.90
36	1	979	U	N3-C2-O2	-8.01	116.59	122.20
36	5	2272	G	O4'-C1'-N9	8.01	114.61	108.20
36	1	2400	G	C6-N1-C2	-8.01	120.30	125.10
36	5	908	G	C5-C6-O6	-8.01	123.80	128.60
36	5	959	C	O5'-P-OP1	-8.01	98.50	105.70
36	1	2714	G	C5-N7-C8	-8.00	100.30	104.30
36	5	372	A	C5-C6-N6	-8.00	117.30	123.70
36	5	1117	G	O5'-P-OP1	-8.00	98.50	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	47	C	N3-C4-C5	-8.00	118.70	121.90
36	1	66	A	O5'-P-OP1	-8.00	98.50	105.70
36	1	2413	A	N1-C6-N6	-8.00	113.80	118.60
36	1	2614	G	C8-N9-C4	8.00	109.60	106.40
36	1	78	U	N1-C2-O2	-8.00	117.20	122.80
36	5	939	U	O5'-P-OP2	-8.00	98.50	105.70
36	5	2375	G	N3-C4-C5	-7.99	124.60	128.60
36	1	2820	A	N9-C4-C5	7.99	109.00	105.80
36	1	2118	C	O5'-P-OP2	-7.99	98.51	105.70
36	1	2920	U	C2-N3-C4	-7.98	122.21	127.00
36	1	2959	C	C6-N1-C2	-7.98	117.11	120.30
36	5	411	U	N1-C2-N3	7.98	119.69	114.90
36	5	922	U	N3-C4-C5	7.98	119.39	114.60
36	5	3012	A	C8-N9-C4	7.98	108.99	105.80
39	12	242	ARG	NE-CZ-NH1	-7.98	116.31	120.30
36	5	2601	A	N1-C6-N6	-7.97	113.82	118.60
36	5	909	G	C4-C5-N7	-7.97	107.61	110.80
36	5	2572	C	C2-N1-C1'	7.97	127.56	118.80
36	5	189	G	N1-C6-O6	-7.96	115.12	119.90
36	1	2897	A	C8-N9-C4	7.96	108.98	105.80
36	5	2928	C	C4-C5-C6	7.96	121.38	117.40
36	1	946	U	O5'-P-OP2	-7.96	98.54	105.70
36	5	2156	C	N3-C2-O2	7.96	127.47	121.90
36	1	922	U	N1-C2-O2	7.95	128.36	122.80
1	2	1291	G	N3-C4-N9	-7.95	121.23	126.00
36	5	224	C	OP1-P-O3'	7.95	122.68	105.20
36	5	1378	U	C6-N1-C2	7.94	125.77	121.00
36	1	1160	C	C6-N1-C2	7.94	123.47	120.30
36	1	1334	U	N3-C4-C5	-7.94	109.84	114.60
36	5	2664	C	O5'-P-OP1	-7.94	98.56	105.70
36	1	611	A	O5'-P-OP1	7.93	120.22	110.70
36	5	1926	C	N1-C2-O2	-7.93	114.14	118.90
36	5	220	G	O5'-P-OP2	-7.93	98.56	105.70
36	5	1189	C	N3-C4-C5	-7.93	118.73	121.90
36	5	1331	U	O4'-C1'-N1	-7.93	101.86	108.20
36	5	21	G	C4-C5-N7	7.93	113.97	110.80
36	5	72	C	C6-N1-C2	7.93	123.47	120.30
36	5	651	G	N3-C4-C5	-7.92	124.64	128.60
36	5	1113	G	C5-C6-N1	-7.92	107.54	111.50
36	1	1049	C	O5'-P-OP1	7.92	120.20	110.70
1	6	679	U	C5-C6-N1	7.92	126.66	122.70
36	5	641	C	C6-N1-C1'	7.92	130.30	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1741	A	N1-C2-N3	7.91	133.26	129.30
36	1	908	G	C5-C6-O6	-7.91	123.85	128.60
36	5	750	G	C8-N9-C4	-7.91	103.23	106.40
36	1	3362	A	N1-C6-N6	7.90	123.34	118.60
36	1	335	G	O5'-P-OP2	7.90	120.18	110.70
36	5	2950	G	O4'-C1'-N9	7.90	114.52	108.20
36	1	2374	C	N1-C2-O2	-7.90	114.16	118.90
36	5	437	G	N3-C2-N2	-7.90	114.37	119.90
36	5	729	C	C5-C4-N4	-7.89	114.67	120.20
36	5	1101	G	N3-C2-N2	7.89	125.43	119.90
36	5	2726	C	N1-C2-N3	7.89	124.72	119.20
36	1	1445	U	N1-C2-O2	-7.89	117.28	122.80
36	1	2878	G	O5'-P-OP2	-7.89	98.60	105.70
36	1	346	C	N1-C2-O2	-7.89	114.17	118.90
36	1	1180	A	O4'-C1'-N9	-7.89	101.89	108.20
36	1	2758	A	N1-C2-N3	-7.89	125.36	129.30
38	4	40	A	C5-C6-N6	-7.89	117.39	123.70
36	5	1885	U	N3-C2-O2	7.88	127.72	122.20
36	5	1118	C	O5'-P-OP1	-7.88	98.61	105.70
36	5	1108	U	O5'-P-OP2	-7.88	98.61	105.70
37	7	92	A	C4-C5-N7	7.88	114.64	110.70
1	6	538	A	N1-C6-N6	-7.88	113.87	118.60
38	4	51	G	N1-C6-O6	7.87	124.62	119.90
1	6	337	G	N3-C4-C5	-7.87	124.66	128.60
36	5	1483	G	O4'-C1'-N9	7.87	114.50	108.20
1	2	1596	C	N1-C2-O2	7.87	123.62	118.90
36	1	1492	G	N3-C4-C5	-7.87	124.67	128.60
36	1	1899	G	N7-C8-N9	7.86	117.03	113.10
38	4	63	G	N1-C6-O6	-7.86	115.18	119.90
36	1	143	G	N1-C6-O6	-7.86	115.18	119.90
36	1	2823	G	C4-C5-N7	-7.86	107.66	110.80
36	5	406	G	O4'-C1'-N9	7.86	114.49	108.20
36	5	3103	A	C5-C6-N1	7.86	121.63	117.70
36	5	1884	A	N1-C6-N6	7.85	123.31	118.60
36	1	1313	G	C5-C6-O6	-7.84	123.89	128.60
36	5	1115	G	P-O3'-C3'	7.84	129.11	119.70
36	1	2836	C	C5-C4-N4	7.84	125.69	120.20
36	5	1191	U	N1-C2-O2	-7.84	117.31	122.80
36	5	2364	G	N9-C4-C5	7.84	108.54	105.40
1	2	1560	U	N3-C2-O2	-7.84	116.71	122.20
36	1	92	G	N1-C6-O6	-7.84	115.20	119.90
36	1	610	G	C2-N3-C4	-7.84	107.98	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2941	A	N1-C6-N6	7.84	123.30	118.60
36	5	2719	U	N1-C2-N3	7.84	119.60	114.90
36	5	513	G	N1-C6-O6	-7.83	115.20	119.90
39	12	246	LEU	CA-CB-CG	7.83	133.31	115.30
36	1	2850	G	N1-C6-O6	7.83	124.60	119.90
48	M1	112	LEU	CA-CB-CG	7.83	133.30	115.30
36	5	699	A	C2-N3-C4	-7.83	106.69	110.60
36	5	1926	C	C6-N1-C2	7.82	123.43	120.30
36	5	2240	G	N1-C6-O6	-7.82	115.21	119.90
36	5	1169	A	OP1-P-OP2	-7.82	107.87	119.60
36	5	2870	C	C2-N1-C1'	-7.82	110.20	118.80
36	5	2888	U	C5-C4-O4	-7.82	121.21	125.90
36	5	1390	A	C8-N9-C4	-7.82	102.67	105.80
36	5	1890	U	O5'-P-OP2	-7.82	98.67	105.70
36	1	2359	C	O5'-P-OP2	-7.82	98.67	105.70
36	1	2980	U	N1-C2-N3	7.81	119.59	114.90
37	7	80	G	N3-C4-C5	-7.81	124.69	128.60
36	5	813	G	C6-N1-C2	-7.81	120.42	125.10
36	5	1134	G	O5'-P-OP2	-7.81	98.67	105.70
36	1	2411	U	C2-N3-C4	-7.81	122.32	127.00
36	1	1134	G	C5-C6-O6	-7.80	123.92	128.60
36	5	1047	A	C5-N7-C8	-7.80	100.00	103.90
36	1	325	A	C5-C6-N1	7.80	121.60	117.70
36	1	3107	U	N3-C2-O2	-7.80	116.74	122.20
1	6	1700	C	C2-N1-C1'	7.80	127.38	118.80
36	1	2827	U	C5-C4-O4	7.80	130.58	125.90
36	5	1103	A	C8-N9-C4	-7.80	102.68	105.80
36	1	691	A	N1-C2-N3	-7.80	125.40	129.30
36	5	27	C	N1-C2-O2	-7.79	114.22	118.90
36	1	328	U	N1-C2-O2	7.79	128.25	122.80
36	1	2424	A	C4-C5-N7	7.79	114.59	110.70
36	5	889	U	N3-C4-C5	7.79	119.27	114.60
36	1	637	C	N3-C4-N4	-7.79	112.55	118.00
52	m6	78	ARG	NE-CZ-NH2	-7.78	116.41	120.30
36	5	1743	G	N1-C6-O6	7.78	124.57	119.90
36	1	1383	G	C5-C6-O6	-7.78	123.93	128.60
36	1	3048	A	O5'-P-OP2	-7.78	98.70	105.70
1	2	453	U	C2-N1-C1'	7.78	127.03	117.70
36	1	1503	A	C2-N3-C4	-7.78	106.71	110.60
36	5	1116	G	N9-C4-C5	7.78	108.51	105.40
36	5	946	U	C5-C4-O4	7.77	130.56	125.90
36	1	635	G	N3-C4-N9	7.77	130.66	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1082	C	N1-C2-O2	7.77	123.56	118.90
36	1	1194	G	N1-C6-O6	-7.77	115.24	119.90
1	6	696	C	O4'-C1'-N1	7.77	114.41	108.20
36	5	2861	U	C5-C6-N1	-7.77	118.82	122.70
36	5	2873	U	N1-C2-O2	-7.77	117.36	122.80
36	1	439	C	N3-C2-O2	-7.77	116.46	121.90
36	1	2712	U	N3-C2-O2	-7.77	116.76	122.20
36	5	1402	C	C4-C5-C6	7.76	121.28	117.40
36	5	2797	C	C6-N1-C2	-7.76	117.19	120.30
36	1	2362	C	C5-C6-N1	7.76	124.88	121.00
36	1	3079	U	C5-C6-N1	-7.76	118.82	122.70
38	4	60	U	N1-C2-N3	7.76	119.55	114.90
36	5	513	G	C5-C6-N1	7.76	115.38	111.50
36	5	3362	A	C5-N7-C8	-7.76	100.02	103.90
36	5	1899	G	C5-C6-N1	-7.75	107.62	111.50
36	1	3326	G	C8-N9-C4	7.75	109.50	106.40
36	5	3154	C	N3-C2-O2	-7.75	116.47	121.90
1	2	553	G	C5-C6-N1	-7.75	107.62	111.50
36	1	983	A	C8-N9-C4	7.74	108.90	105.80
36	5	1155	C	C5-C4-N4	-7.74	114.78	120.20
36	5	2392	C	N3-C4-N4	-7.74	112.58	118.00
36	5	2897	A	C6-N1-C2	-7.74	113.96	118.60
1	2	359	A	C8-N9-C4	7.74	108.90	105.80
36	1	1319	G	N1-C6-O6	-7.74	115.26	119.90
36	5	2375	G	C2-N3-C4	7.74	115.77	111.90
36	5	217	U	C6-N1-C2	7.74	125.64	121.00
36	5	1015	U	O4'-C1'-N1	7.74	114.39	108.20
36	5	2400	G	C5-C6-O6	-7.74	123.96	128.60
36	1	2614	G	O5'-P-OP2	-7.73	98.74	105.70
36	1	407	A	OP1-P-OP2	-7.73	108.00	119.60
36	1	1156	C	C5-C6-N1	-7.73	117.14	121.00
36	5	95	A	N7-C8-N9	-7.73	109.94	113.80
36	1	2281	A	C2-N3-C4	-7.72	106.74	110.60
36	5	3245	A	N1-C2-N3	7.72	133.16	129.30
36	5	1445	U	N1-C2-O2	-7.72	117.39	122.80
36	1	2169	G	C6-C5-N7	7.72	135.03	130.40
36	1	2883	U	O5'-P-OP2	-7.72	98.75	105.70
36	1	908	G	O4'-C1'-N9	-7.72	102.03	108.20
36	5	95	A	C8-N9-C4	7.71	108.89	105.80
36	5	661	G	C5-C6-O6	-7.71	123.97	128.60
36	1	2944	U	N1-C2-O2	7.71	128.20	122.80
36	5	644	G	N9-C4-C5	7.71	108.48	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2349	U	O5'-P-OP2	-7.71	98.76	105.70
1	6	1036	A	O5'-P-OP2	-7.71	98.76	105.70
36	5	1331	U	C5-C4-O4	-7.71	121.27	125.90
36	5	2818	U	N3-C4-C5	7.71	119.23	114.60
36	1	2603	G	N1-C6-O6	-7.71	115.27	119.90
36	1	2842	U	N1-C2-O2	7.71	128.20	122.80
36	1	3217	C	C2-N1-C1'	7.71	127.28	118.80
36	5	86	G	N1-C6-O6	-7.71	115.28	119.90
36	5	691	A	N1-C6-N6	-7.71	113.97	118.60
36	5	1390	A	N1-C6-N6	-7.70	113.98	118.60
1	6	1600	A	N9-C1'-C2'	7.70	124.01	114.00
1	6	543	C	N3-C2-O2	-7.70	116.51	121.90
36	5	2618	G	N3-C4-C5	-7.70	124.75	128.60
1	6	25	C	P-O3'-C3'	7.70	128.94	119.70
36	1	645	A	N3-C4-N9	7.69	133.56	127.40
36	5	229	G	N1-C2-N2	7.69	123.12	116.20
1	6	1600	A	C2-N3-C4	-7.69	106.76	110.60
36	5	1371	G	C6-C5-N7	7.69	135.01	130.40
36	1	1481	A	O4'-C1'-N9	7.69	114.35	108.20
36	5	1481	A	P-O3'-C3'	7.68	128.92	119.70
36	1	877	C	N1-C2-O2	-7.68	114.29	118.90
36	1	2549	G	N3-C2-N2	7.68	125.28	119.90
36	1	3057	U	C5-C4-O4	7.68	130.51	125.90
1	6	815	G	C6-C5-N7	-7.68	125.79	130.40
36	5	1152	G	C4-C5-C6	-7.68	114.19	118.80
36	1	1314	C	C6-N1-C2	-7.67	117.23	120.30
36	1	2726	C	N3-C2-O2	-7.67	116.53	121.90
1	6	1537	C	C6-N1-C2	-7.67	117.23	120.30
36	1	859	G	N1-C2-N2	-7.67	109.30	116.20
36	1	1156	C	N3-C2-O2	-7.67	116.53	121.90
36	1	44	U	N3-C4-O4	-7.67	114.03	119.40
36	1	1556	C	C6-N1-C2	-7.67	117.23	120.30
36	5	639	G	C5-C6-N1	-7.67	107.67	111.50
36	1	2719	U	N1-C2-O2	-7.66	117.44	122.80
36	5	649	A	C4-C5-N7	7.66	114.53	110.70
36	5	1182	A	O5'-P-OP2	7.66	119.89	110.70
36	5	2139	A	O5'-P-OP1	-7.66	98.81	105.70
36	5	2401	A	N7-C8-N9	7.66	117.63	113.80
36	1	2942	C	N3-C4-C5	7.66	124.96	121.90
36	1	2180	G	C2-N3-C4	-7.66	108.07	111.90
36	1	2941	A	C5-C6-N6	-7.66	117.58	123.70
36	1	1555	U	C5-C6-N1	-7.65	118.87	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2867	C	O5'-P-OP1	-7.65	98.81	105.70
36	1	1365	G	C8-N9-C4	-7.65	103.34	106.40
38	4	28	C	N1-C2-O2	7.65	123.49	118.90
36	5	3166	C	C6-N1-C2	-7.65	117.24	120.30
36	5	966	U	N3-C2-O2	-7.64	116.85	122.20
36	1	63	A	C5-N7-C8	-7.64	100.08	103.90
36	1	2649	A	C5-C6-N6	-7.64	117.59	123.70
1	6	1300	A	O5'-P-OP1	-7.64	98.82	105.70
36	5	1160	C	C2-N1-C1'	-7.64	110.40	118.80
36	5	2889	C	N3-C2-O2	-7.64	116.55	121.90
36	5	1121	U	N1-C2-O2	-7.64	117.45	122.80
36	1	648	C	N3-C4-N4	7.64	123.35	118.00
36	1	817	A	C2-N3-C4	7.64	114.42	110.60
36	5	2406	C	C6-N1-C2	7.64	123.36	120.30
36	1	86	G	C4-C5-N7	-7.63	107.75	110.80
36	1	2607	G	O5'-P-OP2	-7.63	98.83	105.70
36	5	806	A	C8-N9-C4	7.63	108.85	105.80
36	5	3054	U	N1-C2-O2	-7.63	117.46	122.80
36	1	1848	G	C5-C6-N1	7.63	115.31	111.50
36	1	2363	A	C5-C6-N6	7.63	129.80	123.70
36	5	578	A	O5'-P-OP2	7.63	119.86	110.70
36	5	2735	U	C6-N1-C2	-7.63	116.42	121.00
36	1	2658	G	O5'-P-OP2	-7.63	98.83	105.70
36	1	410	U	N1-C2-O2	-7.62	117.46	122.80
36	5	2931	C	N1-C2-O2	-7.62	114.33	118.90
36	1	22	G	C6-N1-C2	-7.62	120.53	125.10
36	1	410	U	C6-N1-C2	-7.62	116.43	121.00
37	7	37	G	C5-C6-O6	-7.62	124.03	128.60
1	2	1490	C	C6-N1-C2	-7.62	117.25	120.30
36	1	1154	A	C8-N9-C4	-7.62	102.75	105.80
36	5	1937	U	C5-C6-N1	-7.62	118.89	122.70
36	1	2949	U	O5'-P-OP2	-7.62	98.84	105.70
1	6	75	U	O4'-C1'-N1	7.61	114.29	108.20
36	1	801	A	N1-C2-N3	-7.61	125.49	129.30
1	6	557	G	N1-C6-O6	-7.61	115.33	119.90
1	6	1700	C	N1-C2-O2	7.61	123.47	118.90
36	5	2164	A	C8-N9-C4	-7.61	102.76	105.80
36	1	809	G	C5-C6-O6	-7.61	124.03	128.60
36	5	825	U	N3-C2-O2	-7.61	116.87	122.20
36	1	3043	C	N3-C4-N4	-7.61	112.68	118.00
1	6	1614	A	C4-C5-N7	7.61	114.50	110.70
36	5	2357	A	C8-N9-C4	7.60	108.84	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3362	A	C2-N3-C4	-7.60	106.80	110.60
36	1	1640	G	O5'-P-OP2	-7.60	98.86	105.70
36	5	97	U	O5'-P-OP2	-7.60	98.86	105.70
36	1	1139	G	C2-N3-C4	-7.60	108.10	111.90
1	6	889	U	N1-C2-O2	-7.60	117.48	122.80
36	1	1450	G	N1-C6-O6	-7.59	115.34	119.90
36	1	2397	A	N1-C6-N6	7.59	123.16	118.60
36	5	2692	A	N1-C6-N6	-7.59	114.04	118.60
1	6	794	U	N1-C2-O2	7.59	128.11	122.80
1	2	1455	G	C4-C5-N7	-7.59	107.76	110.80
36	5	2873	U	O5'-P-OP2	-7.59	98.87	105.70
36	1	949	C	C6-N1-C2	-7.59	117.27	120.30
36	1	2958	A	C5-C6-N1	7.59	121.49	117.70
36	5	2310	U	N1-C2-O2	7.59	128.11	122.80
36	5	3174	A	C5-N7-C8	-7.59	100.11	103.90
36	1	782	U	N3-C4-O4	-7.58	114.09	119.40
36	5	56	G	O5'-P-OP2	-7.58	98.88	105.70
36	5	3046	A	N1-C6-N6	-7.58	114.05	118.60
36	1	1454	A	O5'-P-OP1	-7.58	98.88	105.70
36	5	1194	G	N1-C6-O6	-7.58	115.35	119.90
1	2	553	G	C4-C5-C6	7.58	123.34	118.80
36	1	702	C	N1-C2-O2	-7.58	114.36	118.90
36	5	3084	C	O5'-P-OP1	-7.58	98.88	105.70
36	1	424	G	C4-C5-N7	-7.57	107.77	110.80
36	1	351	A	C8-N9-C4	7.57	108.83	105.80
36	5	641	C	C2-N1-C1'	-7.57	110.47	118.80
36	1	931	C	N3-C4-C5	7.57	124.93	121.90
36	1	2834	G	N1-C6-O6	7.57	124.44	119.90
36	5	1416	C	C6-N1-C2	-7.57	117.27	120.30
36	5	3209	A	C8-N9-C4	-7.57	102.77	105.80
36	1	2874	G	C5-C6-N1	-7.57	107.72	111.50
38	4	14	C	O5'-P-OP2	-7.56	98.89	105.70
1	2	608	U	N3-C2-O2	-7.56	116.91	122.20
36	1	2944	U	N3-C4-C5	7.56	119.14	114.60
1	2	863	A	N1-C6-N6	7.56	123.14	118.60
36	5	2888	U	N3-C4-O4	7.56	124.69	119.40
36	5	2199	G	C4-C5-N7	7.56	113.82	110.80
36	5	2656	A	O5'-P-OP2	-7.56	98.90	105.70
36	5	2736	A	O5'-P-OP2	-7.56	98.90	105.70
36	1	61	A	N1-C2-N3	7.55	133.08	129.30
36	1	663	C	N3-C4-N4	7.55	123.29	118.00
36	1	2513	U	O4'-C1'-N1	7.55	114.24	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1747	G	C8-N9-C4	7.55	109.42	106.40
1	2	61	A	N7-C8-N9	7.55	117.57	113.80
36	1	942	U	C5-C4-O4	-7.55	121.37	125.90
36	1	2886	U	C5-C4-O4	-7.55	121.37	125.90
36	5	1902	G	C5-C6-O6	-7.55	124.07	128.60
36	5	2136	C	C2-N3-C4	-7.55	116.13	119.90
36	1	229	G	N1-C6-O6	7.54	124.43	119.90
36	1	410	U	N1-C2-N3	7.54	119.43	114.90
36	1	420	G	O5'-P-OP2	-7.54	98.91	105.70
36	1	1660	C	O5'-P-OP2	-7.54	98.91	105.70
36	5	2623	G	N3-C4-N9	7.54	130.53	126.00
36	5	1373	A	N1-C6-N6	7.54	123.12	118.60
36	1	2302	G	N1-C6-O6	-7.54	115.38	119.90
36	1	2402	A	C8-N9-C4	-7.54	102.78	105.80
36	5	2753	G	N3-C2-N2	-7.54	114.62	119.90
36	5	1117	G	N7-C8-N9	-7.54	109.33	113.10
1	2	1145	U	N1-C2-O2	-7.54	117.53	122.80
36	1	1790	G	N1-C6-O6	7.54	124.42	119.90
37	3	83	U	N3-C4-C5	7.54	119.12	114.60
36	5	2249	G	N9-C4-C5	7.54	108.41	105.40
1	2	647	G	N3-C4-N9	-7.53	121.48	126.00
37	7	93	C	C6-N1-C2	-7.53	117.29	120.30
37	3	73	C	N1-C2-O2	7.53	123.42	118.90
36	5	1433	A	C5-C6-N6	-7.53	117.68	123.70
36	5	3003	G	C8-N9-C4	-7.53	103.39	106.40
36	1	3088	G	C5-C6-O6	7.52	133.11	128.60
36	5	338	A	C5-C6-N6	-7.52	117.68	123.70
36	1	2962	U	C5-C4-O4	-7.52	121.39	125.90
36	5	683	U	O5'-P-OP2	-7.52	98.93	105.70
36	5	1378	U	C5-C6-N1	-7.52	118.94	122.70
36	1	3269	U	C5-C4-O4	7.52	130.41	125.90
36	5	639	G	N1-C6-O6	7.52	124.41	119.90
36	1	817	A	O5'-P-OP1	-7.52	98.94	105.70
36	1	1547	G	C8-N9-C4	7.52	109.41	106.40
73	O7	65	ARG	NE-CZ-NH1	7.51	124.06	120.30
36	5	3243	A	C4-C5-C6	7.51	120.76	117.00
36	1	2688	U	N1-C2-N3	-7.51	110.39	114.90
36	1	44	U	C5-C6-N1	-7.51	118.95	122.70
1	6	1773	C	C4-C5-C6	7.51	121.15	117.40
36	1	2374	C	C2-N3-C4	-7.51	116.15	119.90
1	6	163	G	C8-N9-C4	-7.51	103.40	106.40
36	5	200	C	N3-C4-N4	7.50	123.25	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2864	A	O5'-P-OP1	-7.50	98.95	105.70
36	5	412	G	C8-N9-C4	-7.50	103.40	106.40
1	2	303	U	N3-C2-O2	-7.50	116.95	122.20
36	1	406	G	N1-C6-O6	-7.50	115.40	119.90
36	1	932	U	N1-C2-N3	7.50	119.40	114.90
36	1	2378	C	C5-C4-N4	-7.50	114.95	120.20
1	6	334	G	N1-C6-O6	-7.50	115.40	119.90
36	5	2849	C	N3-C4-C5	-7.50	118.90	121.90
36	5	3047	U	C5-C6-N1	-7.50	118.95	122.70
36	1	748	U	C5-C4-O4	-7.49	121.40	125.90
36	5	1304	A	O5'-P-OP1	-7.49	98.96	105.70
36	5	1306	G	C5-C6-O6	-7.49	124.10	128.60
36	5	2891	U	N3-C2-O2	-7.49	116.95	122.20
38	8	100	U	C2-N1-C1'	7.49	126.69	117.70
36	1	2973	G	N1-C6-O6	7.49	124.39	119.90
36	1	2142	A	C4-C5-C6	7.49	120.74	117.00
36	1	2296	A	O5'-P-OP1	-7.49	98.96	105.70
1	2	1145	U	N3-C4-O4	7.49	124.64	119.40
36	1	2850	G	C5-C6-O6	-7.49	124.11	128.60
1	6	941	A	N1-C6-N6	-7.49	114.11	118.60
36	5	2385	G	N1-C6-O6	7.49	124.39	119.90
36	1	2944	U	C4-C5-C6	-7.48	115.21	119.70
36	5	309	U	N1-C2-O2	-7.48	117.56	122.80
36	5	1481	A	C8-N9-C4	-7.48	102.81	105.80
12	C0	88	PRO	N-CA-CB	7.48	112.27	103.30
36	1	857	G	O5'-P-OP1	-7.48	98.97	105.70
36	1	3265	C	C6-N1-C2	7.48	123.29	120.30
36	5	1160	C	N3-C4-N4	-7.48	112.77	118.00
36	1	2827	U	C2-N3-C4	-7.48	122.51	127.00
36	1	1509	A	C8-N9-C4	7.47	108.79	105.80
36	5	1133	A	C5-C6-N1	7.47	121.44	117.70
36	5	1152	G	C4-C5-N7	7.47	113.79	110.80
36	5	1830	G	O5'-P-OP2	-7.47	98.97	105.70
1	2	934	C	C2-N1-C1'	7.47	127.02	118.80
1	6	1535	U	N3-C2-O2	-7.47	116.97	122.20
36	1	968	G	N7-C8-N9	7.47	116.83	113.10
36	5	612	U	O5'-P-OP1	-7.47	98.98	105.70
1	2	1363	U	N3-C2-O2	-7.47	116.97	122.20
36	1	648	C	C2-N1-C1'	7.47	127.01	118.80
36	1	2404	A	C5-C6-N1	7.47	121.43	117.70
36	1	2996	U	N1-C2-O2	7.46	128.02	122.80
36	5	617	G	N9-C4-C5	-7.46	102.42	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	776	U	C5-C4-O4	7.46	130.38	125.90
36	1	1351	U	N3-C2-O2	-7.46	116.98	122.20
36	1	2279	A	N1-C6-N6	7.46	123.08	118.60
36	1	3270	U	O5'-P-OP1	-7.46	98.98	105.70
36	5	2747	A	N1-C6-N6	-7.46	114.12	118.60
36	1	2314	U	N1-C2-N3	-7.46	110.42	114.90
1	6	453	U	C2-N1-C1'	7.46	126.65	117.70
36	5	1060	U	C6-N1-C2	7.46	125.47	121.00
36	5	3197	G	N3-C2-N2	-7.46	114.68	119.90
38	8	84	C	C6-N1-C2	-7.45	117.32	120.30
36	1	2653	C	C6-N1-C2	-7.45	117.32	120.30
36	5	358	G	N1-C6-O6	7.45	124.37	119.90
36	5	1598	G	N1-C6-O6	-7.45	115.43	119.90
37	7	49	G	O4'-C1'-N9	7.45	114.16	108.20
36	1	1377	G	N9-C4-C5	-7.45	102.42	105.40
36	1	2293	C	N1-C2-O2	7.45	123.37	118.90
36	5	804	C	N3-C4-C5	-7.45	118.92	121.90
36	1	1141	C	N1-C2-O2	-7.45	114.43	118.90
36	1	2973	G	C5-C6-O6	-7.45	124.13	128.60
36	1	3132	C	C6-N1-C2	-7.45	117.32	120.30
36	1	3344	A	C5-N7-C8	-7.45	100.18	103.90
36	1	42	C	C6-N1-C2	-7.44	117.32	120.30
36	1	2891	U	C2-N3-C4	-7.44	122.54	127.00
36	5	1128	U	C5-C6-N1	-7.44	118.98	122.70
36	1	584	G	C5-C6-O6	7.44	133.06	128.60
36	5	2838	A	C5-C6-N6	-7.44	117.75	123.70
36	1	2658	G	C8-N9-C4	7.44	109.37	106.40
1	6	1137	A	N7-C8-N9	-7.43	110.08	113.80
36	5	2996	U	N3-C2-O2	-7.43	117.00	122.20
36	5	190	U	N3-C2-O2	-7.43	117.00	122.20
36	5	2941	A	O4'-C1'-N9	-7.43	102.25	108.20
36	1	304	G	C8-N9-C4	-7.43	103.43	106.40
36	5	2870	C	N3-C4-N4	-7.43	112.80	118.00
36	1	1846	C	N1-C2-N3	7.43	124.40	119.20
36	5	1330	A	O5'-P-OP1	-7.43	99.02	105.70
36	1	2298	U	N3-C4-O4	-7.43	114.20	119.40
1	6	646	C	C6-N1-C2	-7.43	117.33	120.30
36	5	350	C	C6-N1-C2	-7.43	117.33	120.30
36	1	661	G	C5-C6-O6	-7.42	124.15	128.60
36	1	2323	G	N3-C4-C5	-7.42	124.89	128.60
36	1	29	C	C6-N1-C2	7.42	123.27	120.30
36	5	1343	A	C2-N3-C4	-7.42	106.89	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1762	A	C8-N9-C4	7.42	108.77	105.80
36	1	614	C	C6-N1-C2	7.42	123.27	120.30
36	1	661	G	C4-C5-N7	7.42	113.77	110.80
36	5	3245	A	C8-N9-C4	-7.42	102.83	105.80
36	1	2763	U	N3-C2-O2	7.41	127.39	122.20
36	1	646	A	N1-C2-N3	7.41	133.01	129.30
36	1	1421	G	C8-N9-C4	7.41	109.36	106.40
36	1	1366	A	C8-N9-C4	-7.41	102.84	105.80
36	1	3143	C	N1-C2-O2	-7.41	114.46	118.90
38	4	79	A	N7-C8-N9	7.41	117.50	113.80
1	6	1614	A	C5-N7-C8	-7.41	100.20	103.90
36	1	27	C	C2-N3-C4	-7.40	116.20	119.90
36	1	1374	G	N1-C2-N2	-7.40	109.54	116.20
36	1	2827	U	N1-C2-N3	7.40	119.34	114.90
1	6	380	U	N3-C2-O2	-7.40	117.02	122.20
36	1	635	G	C5-C6-O6	-7.39	124.16	128.60
36	1	3362	A	C4-C5-N7	7.39	114.40	110.70
36	1	2620	G	C5-C6-N1	7.39	115.19	111.50
36	1	2424	A	N1-C2-N3	-7.39	125.61	129.30
36	1	3135	U	C5-C6-N1	-7.39	119.01	122.70
1	6	426	G	O5'-P-OP2	-7.39	99.05	105.70
36	5	85	A	C8-N9-C4	7.39	108.76	105.80
36	5	1331	U	N3-C2-O2	7.39	127.37	122.20
36	1	53	G	C8-N9-C4	7.38	109.35	106.40
36	1	938	C	N1-C2-O2	-7.38	114.47	118.90
36	5	634	C	N3-C4-C5	7.38	124.85	121.90
1	2	1657	U	O4'-C1'-N1	7.38	114.11	108.20
36	5	2338	C	N1-C2-O2	-7.38	114.47	118.90
36	1	1660	C	N1-C2-O2	-7.38	114.47	118.90
64	N8	4	ARG	NE-CZ-NH1	-7.38	116.61	120.30
36	1	1399	A	C8-N9-C4	7.38	108.75	105.80
36	1	2640	A	N1-C6-N6	-7.38	114.17	118.60
36	5	1158	A	C6-C5-N7	-7.37	127.14	132.30
36	5	2401	A	C5-N7-C8	-7.37	100.21	103.90
36	1	2317	A	O5'-P-OP1	-7.37	99.07	105.70
37	3	88	G	N1-C2-N2	-7.37	109.56	116.20
36	5	3214	U	N3-C4-O4	-7.37	114.24	119.40
36	1	43	A	C8-N9-C4	7.37	108.75	105.80
36	1	2954	U	O5'-P-OP1	7.37	119.54	110.70
36	5	969	C	C5-C6-N1	-7.37	117.32	121.00
36	5	1160	C	C6-N1-C1'	7.37	129.64	120.80
36	5	2619	G	C5-C6-N1	7.37	115.19	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1114	U	N1-C2-N3	-7.37	110.48	114.90
36	1	1144	U	N1-C2-N3	7.37	119.32	114.90
36	5	2314	U	C2-N1-C1'	7.36	126.54	117.70
38	4	38	U	N3-C2-O2	-7.36	117.05	122.20
1	2	1104	U	O5'-P-OP2	-7.36	99.08	105.70
36	1	1318	A	N7-C8-N9	7.36	117.48	113.80
36	5	2735	U	C5-C6-N1	7.36	126.38	122.70
36	1	111	C	C2-N1-C1'	-7.35	110.71	118.80
36	1	295	A	O5'-P-OP1	-7.35	99.08	105.70
36	1	329	U	N1-C2-N3	7.35	119.31	114.90
36	1	1399	A	C2-N3-C4	-7.35	106.92	110.60
36	1	2143	A	C5-N7-C8	-7.35	100.22	103.90
36	1	78	U	N3-C4-O4	7.35	124.54	119.40
1	6	1127	G	N1-C2-N3	7.35	128.31	123.90
36	5	411	U	C2-N3-C4	-7.35	122.59	127.00
36	1	2614	G	N7-C8-N9	-7.35	109.43	113.10
38	4	97	A	C8-N9-C4	-7.35	102.86	105.80
36	1	642	U	C5-C6-N1	-7.34	119.03	122.70
36	1	897	U	O5'-P-OP1	-7.34	99.09	105.70
36	1	2978	U	O4'-C1'-N1	7.34	114.08	108.20
36	1	1145	G	C5-C6-O6	-7.34	124.19	128.60
36	5	2693	C	N3-C4-C5	7.34	124.84	121.90
36	1	2797	C	O5'-P-OP1	-7.34	99.09	105.70
36	5	38	U	O5'-P-OP1	7.34	119.51	110.70
36	5	2660	G	C8-N9-C4	7.34	109.34	106.40
36	1	347	G	C4-C5-N7	7.34	113.73	110.80
1	6	331	A	C2-N3-C4	-7.34	106.93	110.60
36	5	1870	C	C2-N3-C4	-7.33	116.23	119.90
36	5	3008	A	N1-C2-N3	7.33	132.97	129.30
36	1	1509	A	N9-C4-C5	-7.33	102.87	105.80
36	5	969	C	N3-C4-C5	7.33	124.83	121.90
36	1	1119	C	N3-C4-N4	-7.33	112.87	118.00
36	1	2169	G	N1-C6-O6	-7.33	115.50	119.90
1	6	119	A	C2-N3-C4	-7.33	106.94	110.60
36	5	2211	U	C5-C4-O4	7.33	130.29	125.90
36	5	2817	A	C2-N3-C4	7.33	114.26	110.60
36	1	1405	U	C5-C6-N1	-7.32	119.04	122.70
42	15	152	ARG	NE-CZ-NH1	7.32	123.96	120.30
36	1	878	G	OP1-P-O3'	7.32	121.31	105.20
36	1	1307	G	N9-C4-C5	7.32	108.33	105.40
36	1	2618	G	N1-C6-O6	-7.32	115.51	119.90
1	2	16	G	N3-C4-C5	-7.32	124.94	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	645	A	N3-C4-C5	-7.32	121.68	126.80
36	1	1144	U	C2-N3-C4	-7.32	122.61	127.00
36	5	928	C	O5'-P-OP2	-7.32	99.12	105.70
38	4	93	U	OP1-P-OP2	7.31	130.57	119.60
1	6	1537	C	N3-C4-C5	-7.31	118.97	121.90
36	1	2726	C	N1-C2-N3	7.31	124.32	119.20
36	1	2697	A	N1-C6-N6	-7.31	114.21	118.60
36	1	2247	G	N1-C6-O6	7.31	124.28	119.90
36	1	2602	G	C4-C5-N7	-7.31	107.88	110.80
36	1	2942	C	N1-C2-O2	-7.31	114.51	118.90
36	1	890	C	O5'-P-OP2	-7.31	99.12	105.70
36	1	1531	C	N3-C2-O2	-7.31	116.79	121.90
36	1	805	G	N9-C4-C5	-7.30	102.48	105.40
36	1	2619	G	O5'-P-OP1	-7.30	99.12	105.70
36	1	2773	C	O5'-P-OP2	-7.30	99.12	105.70
38	4	51	G	C8-N9-C4	7.30	109.32	106.40
1	6	93	A	N1-C6-N6	7.30	122.98	118.60
36	5	1372	C	C5-C6-N1	-7.30	117.35	121.00
36	5	3142	A	N1-C6-N6	7.30	122.98	118.60
36	1	1898	G	C5-C6-O6	-7.30	124.22	128.60
54	M8	174	ARG	NE-CZ-NH1	-7.30	116.65	120.30
36	5	2350	C	O5'-P-OP2	-7.30	99.13	105.70
36	5	3214	U	C5-C6-N1	-7.30	119.05	122.70
36	5	339	C	C6-N1-C1'	7.30	129.56	120.80
36	1	2777	G	C8-N9-C4	-7.30	103.48	106.40
37	3	88	G	N3-C2-N2	7.30	125.01	119.90
36	5	1208	U	C5-C4-O4	7.30	130.28	125.90
36	5	1838	G	N3-C2-N2	-7.30	114.79	119.90
1	2	453	U	N1-C2-O2	7.29	127.91	122.80
36	1	1368	U	C5-C4-O4	-7.29	121.52	125.90
36	1	55	G	C8-N9-C4	7.29	109.32	106.40
36	5	92	G	C5-C6-N1	7.29	115.15	111.50
36	5	1462	A	C4-C5-N7	7.29	114.35	110.70
36	1	2898	G	O4'-C1'-N9	-7.29	102.37	108.20
36	5	2707	C	N3-C4-C5	7.29	124.82	121.90
36	1	949	C	N3-C4-C5	-7.29	118.98	121.90
36	1	2550	U	N3-C2-O2	-7.29	117.10	122.20
1	6	351	C	N3-C4-N4	7.29	123.10	118.00
36	5	37	U	N1-C2-N3	7.29	119.27	114.90
36	5	3309	G	C6-C5-N7	-7.29	126.03	130.40
36	5	1416	C	C5-C6-N1	7.29	124.64	121.00
36	5	3209	A	N7-C8-N9	7.29	117.44	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	410	U	N3-C4-C5	-7.29	110.23	114.60
36	1	1141	C	C4-C5-C6	7.29	121.04	117.40
36	5	3392	U	C5-C4-O4	7.29	130.27	125.90
1	6	450	U	O5'-P-OP1	-7.28	99.14	105.70
36	5	920	A	OP1-P-OP2	-7.28	108.67	119.60
36	1	968	G	C5-N7-C8	-7.28	100.66	104.30
36	1	2942	C	N3-C2-O2	7.28	127.00	121.90
36	1	1390	A	C8-N9-C4	-7.28	102.89	105.80
36	5	2351	U	C5-C4-O4	7.28	130.27	125.90
1	2	1486	G	C5-N7-C8	-7.28	100.66	104.30
36	1	509	U	N3-C2-O2	-7.28	117.11	122.20
36	5	2820	A	N7-C8-N9	7.28	117.44	113.80
36	5	1292	C	C6-N1-C2	7.28	123.21	120.30
36	5	1906	G	C2-N3-C4	-7.28	108.26	111.90
38	4	67	U	N1-C2-N3	7.27	119.26	114.90
36	5	47	C	C6-N1-C2	7.27	123.21	120.30
36	1	55	G	N7-C8-N9	-7.27	109.47	113.10
36	1	970	A	C5-N7-C8	-7.27	100.27	103.90
36	1	3181	C	N1-C2-N3	7.27	124.29	119.20
36	5	2211	U	N3-C2-O2	-7.27	117.11	122.20
1	6	558	U	N1-C2-O2	7.26	127.89	122.80
36	5	2948	C	O5'-P-OP1	7.26	119.42	110.70
36	5	3060	C	N3-C4-N4	7.26	123.09	118.00
36	1	2129	U	C5-C6-N1	7.26	126.33	122.70
36	1	44	U	C5-C4-O4	7.26	130.25	125.90
36	5	2908	G	N9-C4-C5	7.26	108.30	105.40
36	5	1175	C	N3-C4-C5	7.26	124.80	121.90
36	5	1657	C	N1-C2-O2	7.26	123.25	118.90
36	1	786	A	N1-C6-N6	-7.25	114.25	118.60
36	1	2833	A	C8-N9-C4	7.25	108.70	105.80
36	1	3022	G	C8-N9-C4	-7.25	103.50	106.40
37	3	21	G	C8-N9-C4	7.25	109.30	106.40
38	8	63	G	C5-C6-O6	7.25	132.95	128.60
36	5	1373	A	C5-C6-N6	-7.25	117.90	123.70
1	2	581	U	C2-N1-C1'	7.25	126.40	117.70
36	1	159	A	N1-C6-N6	7.25	122.95	118.60
36	5	1396	C	N3-C4-C5	7.25	124.80	121.90
36	1	918	C	C6-N1-C2	-7.25	117.40	120.30
1	6	1783	C	O5'-P-OP2	-7.25	99.18	105.70
36	1	835	G	O4'-C1'-N9	7.25	114.00	108.20
36	5	2831	G	N3-C4-N9	7.25	130.35	126.00
36	1	2936	A	N1-C6-N6	-7.24	114.25	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	795	U	N3-C2-O2	-7.24	117.13	122.20
36	5	2772	C	P-O3'-C3'	7.24	128.39	119.70
36	5	3212	C	N1-C2-O2	-7.24	114.56	118.90
1	2	1198	G	C8-N9-C4	-7.24	103.50	106.40
38	4	89	A	C8-N9-C4	7.24	108.69	105.80
36	1	939	U	C2-N3-C4	-7.24	122.66	127.00
36	5	1060	U	N3-C4-C5	7.24	118.94	114.60
36	1	112	U	C6-N1-C1'	-7.23	111.07	121.20
36	1	651	G	C8-N9-C1'	-7.23	117.60	127.00
36	1	802	C	O5'-P-OP2	7.23	119.38	110.70
36	1	2634	U	C2-N3-C4	-7.23	122.66	127.00
36	5	2602	G	O5'-P-OP2	-7.23	99.19	105.70
1	2	602	U	O5'-P-OP1	-7.23	99.19	105.70
36	1	3309	G	N1-C6-O6	7.23	124.24	119.90
36	5	3096	C	N1-C2-O2	-7.23	114.56	118.90
36	1	435	C	C6-N1-C2	7.22	123.19	120.30
38	4	32	C	N3-C4-C5	7.22	124.79	121.90
38	4	61	A	C5-C6-N6	-7.22	117.92	123.70
36	5	1111	U	C5-C4-O4	-7.22	121.57	125.90
36	5	410	U	N1-C2-O2	-7.22	117.75	122.80
36	5	3197	G	N3-C4-C5	7.22	132.21	128.60
36	1	515	C	N3-C4-C5	-7.22	119.01	121.90
36	1	1307	G	C5-C6-O6	7.22	132.93	128.60
36	5	404	G	O5'-P-OP2	-7.22	99.21	105.70
36	5	1462	A	C5-C6-N6	-7.22	117.93	123.70
36	5	2936	A	O5'-P-OP2	7.21	119.36	110.70
1	6	433	C	O5'-P-OP1	-7.21	99.21	105.70
36	5	3179	U	N1-C2-O2	7.21	127.85	122.80
36	1	786	A	N9-C4-C5	7.21	108.68	105.80
36	5	1869	C	N3-C4-C5	7.21	124.78	121.90
36	1	824	C	C6-N1-C2	-7.21	117.42	120.30
36	1	1383	G	N1-C6-O6	7.21	124.22	119.90
36	5	610	G	C8-N9-C4	-7.21	103.52	106.40
36	5	1170	A	N1-C6-N6	7.21	122.92	118.60
36	1	283	G	C5-N7-C8	-7.20	100.70	104.30
36	1	716	A	C2-N3-C4	-7.20	107.00	110.60
36	5	3364	C	C6-N1-C2	-7.20	117.42	120.30
36	1	3319	U	N1-C2-O2	7.20	127.84	122.80
36	1	104	G	C6-C5-N7	-7.20	126.08	130.40
36	5	2300	G	C6-N1-C2	-7.20	120.78	125.10
36	5	2872	A	C5-C6-N1	-7.20	114.10	117.70
36	1	1896	A	O5'-P-OP1	-7.20	99.22	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	543	C	N1-C2-O2	7.20	123.22	118.90
1	6	1000	C	C2-N1-C1'	7.20	126.71	118.80
36	1	2944	U	C5-C6-N1	7.19	126.30	122.70
1	6	453	U	N3-C2-O2	-7.19	117.17	122.20
36	5	1054	A	N9-C4-C5	-7.19	102.92	105.80
1	2	192	U	C2-N1-C1'	7.19	126.33	117.70
36	5	2395	G	N1-C6-O6	7.19	124.21	119.90
37	7	120	C	C6-N1-C2	7.19	123.18	120.30
36	1	1269	U	C2-N1-C1'	7.19	126.32	117.70
36	5	2725	U	N1-C2-O2	-7.19	117.77	122.80
36	5	1113	G	C2-N3-C4	-7.19	108.31	111.90
36	5	2824	G	C6-N1-C2	-7.19	120.79	125.10
36	5	2880	U	O5'-P-OP1	-7.19	99.23	105.70
36	5	3161	C	C6-N1-C2	-7.19	117.43	120.30
36	1	338	A	OP2-P-O3'	7.18	121.00	105.20
36	1	2128	C	C6-N1-C2	-7.18	117.43	120.30
36	1	3272	C	C6-N1-C2	-7.18	117.43	120.30
36	5	640	U	OP1-P-OP2	-7.18	108.82	119.60
36	5	989	A	OP2-P-O3'	7.18	121.00	105.20
36	5	1852	G	N1-C6-O6	-7.18	115.59	119.90
36	5	1899	G	C8-N9-C4	-7.18	103.53	106.40
36	1	1541	G	C5-C6-O6	-7.18	124.29	128.60
38	8	25	G	N3-C2-N2	7.18	124.93	119.90
37	7	101	G	N1-C6-O6	7.18	124.21	119.90
36	5	2249	G	N3-C4-C5	-7.18	125.01	128.60
36	1	2847	A	O5'-P-OP1	-7.18	99.24	105.70
36	5	1514	G	C5-C6-O6	-7.18	124.29	128.60
36	5	3177	G	C2-N3-C4	-7.18	108.31	111.90
36	5	1902	G	O5'-P-OP2	7.18	119.31	110.70
1	2	1636	C	C6-N1-C2	-7.17	117.43	120.30
36	1	931	C	N3-C4-N4	-7.17	112.98	118.00
36	1	1433	A	C5-C6-N6	-7.17	117.96	123.70
36	1	2817	A	C5-C6-N1	7.17	121.29	117.70
36	1	2875	U	C6-N1-C2	-7.17	116.69	121.00
36	5	637	C	OP2-P-O3'	7.17	120.98	105.20
36	5	2411	U	N3-C4-O4	-7.17	114.38	119.40
36	1	1443	G	C8-N9-C4	-7.17	103.53	106.40
1	6	1122	G	O5'-P-OP1	-7.17	99.25	105.70
36	5	1140	G	C5-C6-O6	7.17	132.90	128.60
1	6	1117	U	C6-N1-C2	-7.17	116.70	121.00
36	5	2824	G	C5-C6-N1	7.17	115.08	111.50
36	5	3218	A	C4-C5-N7	7.17	114.28	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1136	A	C8-N9-C4	7.17	108.67	105.80
36	1	120	G	C8-N9-C4	7.17	109.27	106.40
36	1	905	U	C5-C6-N1	-7.17	119.12	122.70
36	5	2156	C	C6-N1-C2	7.17	123.17	120.30
36	5	2349	U	OP1-P-O3'	7.16	120.96	105.20
36	5	111	C	C6-N1-C2	7.16	123.17	120.30
36	5	2121	G	O5'-P-OP2	-7.16	99.25	105.70
36	5	2851	A	OP1-P-OP2	7.16	130.34	119.60
1	6	1629	G	OP2-P-O3'	7.16	120.95	105.20
36	5	1412	G	C8-N9-C4	-7.16	103.54	106.40
36	1	2416	U	O5'-P-OP2	-7.16	99.26	105.70
36	1	1445	U	C5-C6-N1	-7.16	119.12	122.70
1	2	1537	C	N3-C4-N4	7.15	123.01	118.00
36	1	2705	A	O5'-P-OP2	-7.15	99.26	105.70
36	1	52	A	C8-N9-C4	7.15	108.66	105.80
1	6	1031	U	C6-N1-C2	7.15	125.29	121.00
36	5	1301	A	C4-C5-N7	7.15	114.28	110.70
36	1	859	G	N3-C4-N9	7.15	130.29	126.00
1	6	794	U	C2-N1-C1'	7.15	126.28	117.70
15	C3	22	ALA	C-N-CD	-7.14	104.88	120.60
36	1	2334	U	O5'-P-OP2	-7.14	99.27	105.70
1	6	1145	U	N3-C4-C5	-7.14	110.31	114.60
36	5	937	G	C4-C5-N7	-7.14	107.94	110.80
36	5	2830	G	N3-C2-N2	-7.14	114.90	119.90
36	5	3217	C	C2-N1-C1'	-7.14	110.94	118.80
36	1	190	U	O5'-P-OP2	-7.14	99.27	105.70
36	5	2621	G	N3-C2-N2	-7.14	114.90	119.90
36	1	2873	U	N1-C2-O2	-7.14	117.80	122.80
36	1	3181	C	C5-C6-N1	-7.14	117.43	121.00
56	N0	40	ARG	NE-CZ-NH2	7.14	123.87	120.30
36	5	2234	G	C5-C6-N1	7.14	115.07	111.50
1	2	1733	C	N3-C4-N4	7.14	123.00	118.00
1	6	163	G	N7-C8-N9	7.14	116.67	113.10
1	6	901	G	C4-C5-N7	7.14	113.66	110.80
36	5	1158	A	C5-C6-N6	-7.14	117.99	123.70
36	5	1522	U	O5'-P-OP2	-7.14	99.28	105.70
36	1	2387	A	N1-C6-N6	7.13	122.88	118.60
1	6	1125	A	O5'-P-OP1	-7.13	99.28	105.70
36	1	895	A	C5-C6-N1	-7.13	114.13	117.70
36	5	3133	C	N3-C4-C5	-7.13	119.05	121.90
36	1	628	A	C8-N9-C4	7.13	108.65	105.80
36	1	2629	U	O5'-P-OP2	-7.13	99.28	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	794	U	N1-C2-O2	7.13	127.79	122.80
36	1	3209	A	C6-C5-N7	-7.13	127.31	132.30
1	6	943	C	O5'-P-OP1	-7.13	99.28	105.70
36	5	1662	G	O5'-P-OP1	-7.13	99.28	105.70
1	2	1274	C	N3-C4-N4	-7.13	113.01	118.00
36	1	958	C	C2-N3-C4	-7.13	116.34	119.90
36	1	2920	U	C5-C6-N1	-7.12	119.14	122.70
36	5	1402	C	C5-C6-N1	-7.12	117.44	121.00
36	5	969	C	C2-N3-C4	-7.12	116.34	119.90
36	5	2199	G	C5-C6-O6	-7.12	124.33	128.60
36	5	2350	C	O5'-P-OP1	7.12	119.24	110.70
37	7	10	C	C6-N1-C2	7.12	123.15	120.30
36	1	878	G	C4-C5-N7	-7.12	107.95	110.80
36	5	334	A	N7-C8-N9	-7.12	110.24	113.80
36	5	1665	C	N3-C4-C5	7.12	124.75	121.90
36	1	635	G	C6-N1-C2	-7.12	120.83	125.10
36	5	1379	G	C2-N3-C4	-7.12	108.34	111.90
1	6	402	C	C5-C4-N4	-7.11	115.22	120.20
36	1	968	G	C5-C6-N1	7.11	115.06	111.50
1	2	1798	U	C2-N1-C1'	7.10	126.22	117.70
36	5	3140	G	C5-C6-O6	-7.10	124.34	128.60
1	2	959	U	C2-N1-C1'	7.10	126.22	117.70
36	1	2811	A	N1-C6-N6	-7.10	114.34	118.60
36	1	28	C	N3-C2-O2	-7.10	116.93	121.90
36	1	1510	G	C6-C5-N7	-7.10	126.14	130.40
1	6	1796	C	C5-C6-N1	-7.10	117.45	121.00
10	S8	29	LEU	CA-CB-CG	7.10	131.62	115.30
36	1	2634	U	C5-C6-N1	-7.10	119.15	122.70
1	6	957	G	N1-C6-O6	7.10	124.16	119.90
36	1	939	U	N1-C2-N3	7.10	119.16	114.90
36	1	1192	C	N3-C4-C5	-7.09	119.06	121.90
36	1	2554	A	P-O3'-C3'	7.09	128.21	119.70
36	1	2762	A	C8-N9-C4	7.09	108.64	105.80
1	6	610	G	C8-N9-C1'	-7.09	117.78	127.00
36	5	1348	U	C6-N1-C2	-7.09	116.75	121.00
36	1	809	G	N9-C4-C5	-7.09	102.56	105.40
36	1	639	G	N1-C6-O6	7.09	124.15	119.90
36	5	287	G	O5'-P-OP1	-7.09	99.32	105.70
36	5	1340	G	C8-N9-C4	7.09	109.23	106.40
1	6	163	G	N3-C2-N2	-7.08	114.94	119.90
36	5	395	A	N1-C6-N6	7.08	122.85	118.60
1	2	1426	C	C4-C5-C6	-7.08	113.86	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	328	U	N3-C2-O2	-7.08	117.25	122.20
36	1	1153	A	O5'-P-OP1	-7.08	99.33	105.70
36	1	1292	C	C6-N1-C2	7.08	123.13	120.30
36	1	2175	U	C5-C6-N1	-7.08	119.16	122.70
36	1	2331	C	C2-N3-C4	-7.08	116.36	119.90
36	5	2402	A	C5-C6-N6	7.08	129.36	123.70
36	5	1918	C	O5'-P-OP2	-7.08	99.33	105.70
1	2	831	U	C5-C6-N1	7.07	126.23	122.70
36	5	369	A	N7-C8-N9	7.07	117.33	113.80
36	5	1155	C	C4-C5-C6	-7.07	113.86	117.40
36	1	931	C	C2-N3-C4	-7.07	116.37	119.90
36	1	963	G	O5'-P-OP2	-7.07	99.34	105.70
36	5	37	U	C6-N1-C2	-7.07	116.76	121.00
36	5	2732	G	O5'-P-OP2	-7.07	99.34	105.70
36	5	2872	A	C4-C5-N7	7.07	114.23	110.70
36	1	650	C	N1-C2-O2	-7.07	114.66	118.90
36	5	61	A	N1-C2-N3	7.07	132.83	129.30
36	5	341	G	C5-C6-O6	-7.07	124.36	128.60
36	5	1879	A	O5'-P-OP1	7.07	119.18	110.70
36	5	2397	A	C6-N1-C2	-7.07	114.36	118.60
36	1	702	C	C2-N3-C4	-7.06	116.37	119.90
36	5	96	G	O5'-P-OP2	-7.06	99.35	105.70
36	5	638	C	C6-N1-C2	-7.06	117.48	120.30
36	5	2334	U	O5'-P-OP1	7.06	119.17	110.70
36	5	35	A	O5'-P-OP2	-7.06	99.35	105.70
36	5	1387	G	O5'-P-OP1	-7.06	99.35	105.70
36	1	610	G	C8-N9-C4	7.05	109.22	106.40
36	1	1496	C	C5-C6-N1	7.05	124.53	121.00
36	5	1846	C	P-O3'-C3'	-7.05	111.24	119.70
36	1	2891	U	N1-C2-N3	7.05	119.13	114.90
36	1	333	G	C5-C6-O6	7.05	132.83	128.60
36	5	338	A	C4-C5-N7	7.05	114.22	110.70
36	5	661	G	N7-C8-N9	7.05	116.62	113.10
36	1	1493	G	O4'-C1'-N9	7.05	113.84	108.20
36	1	1386	A	N1-C2-N3	7.04	132.82	129.30
36	1	2123	G	C8-N9-C4	7.04	109.22	106.40
36	1	3045	G	C2-N3-C4	7.04	115.42	111.90
36	5	2848	G	C8-N9-C4	-7.04	103.58	106.40
36	1	2121	G	O5'-P-OP2	-7.04	99.36	105.70
36	1	1151	U	OP1-P-OP2	-7.04	109.04	119.60
36	1	1394	A	OP2-P-O3'	7.04	120.68	105.20
36	5	2860	U	P-O3'-C3'	-7.04	111.25	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2366	C	C5-C6-N1	7.04	124.52	121.00
36	5	370	U	N1-C2-O2	7.03	127.72	122.80
1	2	402	C	N3-C2-O2	7.03	126.82	121.90
1	2	1200	G	C8-N9-C4	-7.03	103.59	106.40
36	5	995	U	O5'-P-OP2	-7.03	99.38	105.70
36	1	1911	A	N1-C6-N6	7.03	122.81	118.60
36	5	75	G	C8-N9-C4	7.03	109.21	106.40
36	5	2372	A	P-O3'-C3'	7.03	128.13	119.70
36	5	436	A	OP1-P-OP2	-7.02	109.06	119.60
36	1	2413	A	C5-C6-N1	7.02	121.21	117.70
1	6	965	U	C5-C4-O4	-7.02	121.69	125.90
36	5	2412	G	C8-N9-C4	-7.02	103.59	106.40
1	2	1657	U	O5'-P-OP2	-7.02	99.38	105.70
36	1	1505	C	N3-C4-C5	7.02	124.71	121.90
1	6	337	G	C5-C6-O6	-7.02	124.39	128.60
36	5	339	C	C6-N1-C2	-7.02	117.49	120.30
36	5	2135	U	C5-C4-O4	-7.02	121.69	125.90
36	5	325	A	C6-N1-C2	-7.02	114.39	118.60
36	5	758	C	O5'-P-OP2	-7.02	99.39	105.70
36	1	644	G	N7-C8-N9	7.01	116.61	113.10
36	1	3362	A	N1-C2-N3	7.01	132.81	129.30
36	5	328	U	N3-C2-O2	-7.01	117.29	122.20
36	5	388	G	C4-C5-N7	7.01	113.61	110.80
36	1	86	G	N9-C4-C5	7.01	108.20	105.40
36	5	56	G	N1-C6-O6	-7.01	115.69	119.90
36	5	3362	A	O4'-C1'-N9	7.01	113.81	108.20
36	1	1048	A	N7-C8-N9	-7.01	110.30	113.80
1	6	1642	G	C5-C6-O6	-7.01	124.39	128.60
36	5	813	G	C5-C6-O6	-7.01	124.39	128.60
36	1	189	G	N3-C4-N9	7.01	130.20	126.00
38	8	104	A	C8-N9-C4	7.01	108.60	105.80
1	2	1082	C	N3-C2-O2	-7.00	117.00	121.90
36	1	1469	C	N1-C2-O2	7.00	123.10	118.90
38	8	100	U	N3-C2-O2	-7.00	117.30	122.20
36	5	875	G	N1-C6-O6	-7.00	115.70	119.90
77	q1	9	ARG	NE-CZ-NH1	7.00	123.80	120.30
36	1	1114	U	O5'-P-OP2	-7.00	99.40	105.70
36	1	1125	U	C5-C6-N1	-7.00	119.20	122.70
36	1	1468	A	N1-C2-N3	7.00	132.80	129.30
36	1	1943	C	C6-N1-C2	-7.00	117.50	120.30
1	2	287	G	O4'-C1'-N9	7.00	113.80	108.20
36	1	2387	A	N9-C4-C5	-7.00	103.00	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	876	A	N1-C6-N6	-7.00	114.40	118.60
36	1	1452	A	C2-N3-C4	-7.00	107.10	110.60
1	2	779	U	O4'-C1'-N1	6.99	113.80	108.20
36	5	2949	U	C2-N1-C1'	6.99	126.09	117.70
36	5	3130	A	N7-C8-N9	-6.99	110.30	113.80
36	5	1367	G	C4-C5-C6	6.99	122.99	118.80
36	1	810	A	N1-C6-N6	-6.99	114.41	118.60
36	1	2867	C	C5'-C4'-O4'	-6.99	100.71	109.10
36	5	704	U	N1-C2-O2	-6.99	117.91	122.80
36	1	304	G	C2-N3-C4	6.99	115.39	111.90
36	1	2814	G	O5'-P-OP1	-6.99	99.41	105.70
1	6	444	C	C6-N1-C2	6.99	123.09	120.30
36	5	2323	G	O5'-P-OP2	6.99	119.08	110.70
36	5	2945	G	C5-C6-O6	-6.99	124.41	128.60
36	5	697	A	N1-C6-N6	6.98	122.79	118.60
36	5	364	G	C4-C5-N7	6.98	113.59	110.80
36	5	903	U	N1-C2-O2	6.98	127.69	122.80
36	5	2747	A	N9-C4-C5	6.98	108.59	105.80
36	1	2343	C	C6-N1-C2	6.98	123.09	120.30
36	1	2623	G	N9-C4-C5	-6.98	102.61	105.40
36	1	3135	U	C6-N1-C2	6.98	125.19	121.00
36	5	358	G	N3-C4-C5	6.98	132.09	128.60
36	5	2964	G	C5-C6-O6	6.98	132.79	128.60
36	1	62	A	O5'-P-OP1	6.98	119.07	110.70
36	1	639	G	C5-C6-O6	-6.98	124.41	128.60
36	5	2985	C	C5-C6-N1	6.98	124.49	121.00
59	n3	45	ARG	NE-CZ-NH1	-6.98	116.81	120.30
36	1	25	U	N3-C4-O4	6.98	124.28	119.40
36	1	1843	C	C6-N1-C2	-6.97	117.51	120.30
36	5	350	C	N1-C2-O2	-6.97	114.72	118.90
36	5	1152	G	C5-C6-N1	-6.97	108.01	111.50
36	1	422	A	N1-C6-N6	-6.97	114.42	118.60
36	1	2182	A	N1-C6-N6	-6.97	114.42	118.60
36	5	646	A	O5'-P-OP2	-6.97	99.42	105.70
36	1	2848	G	O5'-P-OP2	-6.97	99.43	105.70
36	1	1820	U	P-O3'-C3'	6.97	128.06	119.70
36	5	1313	G	O5'-P-OP1	6.97	119.06	110.70
36	5	2158	A	C5-C6-N1	6.97	121.19	117.70
36	5	2704	A	O5'-P-OP1	-6.97	99.43	105.70
36	5	2820	A	C2'-C3'-O3'	6.97	124.85	113.70
36	1	575	G	N1-C6-O6	-6.97	115.72	119.90
36	1	801	A	O5'-P-OP1	6.97	119.06	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2142	A	OP1-P-O3'	6.97	120.53	105.20
36	5	194	U	N1-C2-N3	6.97	119.08	114.90
36	5	617	G	C6-C5-N7	-6.97	126.22	130.40
36	1	921	A	C8-N9-C4	-6.96	103.01	105.80
36	5	617	G	N1-C6-O6	6.96	124.08	119.90
38	8	82	U	O4'-C1'-N1	6.96	113.77	108.20
36	1	905	U	N1-C2-N3	6.96	119.08	114.90
10	s8	29	LEU	CA-CB-CG	6.96	131.31	115.30
36	1	1581	C	N1-C2-O2	6.96	123.08	118.90
36	5	2661	G	N1-C6-O6	-6.96	115.72	119.90
36	5	342	A	O5'-P-OP2	-6.96	99.44	105.70
36	1	1082	U	C6-N1-C2	-6.96	116.82	121.00
36	1	1351	U	C2-N1-C1'	6.96	126.05	117.70
36	1	2956	A	C8-N9-C4	-6.96	103.02	105.80
37	7	92	A	C8-N9-C4	6.96	108.58	105.80
1	2	1280	C	N3-C4-C5	-6.96	119.12	121.90
1	6	1658	G	C5-C6-O6	6.96	132.77	128.60
36	5	2631	U	OP1-P-O3'	6.96	120.50	105.20
36	5	3218	A	C5-N7-C8	-6.96	100.42	103.90
36	1	2130	G	C5-C6-O6	6.95	132.77	128.60
36	5	3090	U	C2-N3-C4	-6.95	122.83	127.00
36	1	586	C	N1-C2-O2	-6.95	114.73	118.90
36	5	2889	C	N1-C2-N3	6.95	124.06	119.20
36	1	974	G	N3-C4-C5	-6.95	125.13	128.60
36	5	985	U	O5'-P-OP2	-6.95	99.44	105.70
36	5	2849	C	C6-N1-C2	-6.95	117.52	120.30
36	1	696	C	N3-C4-C5	6.94	124.68	121.90
1	2	704	C	N1-C2-O2	6.94	123.07	118.90
36	1	1160	C	N1-C2-N3	-6.94	114.34	119.20
36	1	2383	C	C5-C6-N1	-6.94	117.53	121.00
36	5	2632	G	N1-C6-O6	-6.94	115.73	119.90
36	1	906	A	C6-N1-C2	-6.94	114.44	118.60
36	1	975	C	N1-C2-O2	-6.94	114.74	118.90
36	5	1371	G	C5-C6-N1	6.94	114.97	111.50
36	5	1331	U	N1-C2-O2	-6.94	117.94	122.80
36	5	2770	G	O5'-P-OP2	6.94	119.02	110.70
38	8	90	U	N1-C2-N3	-6.94	110.74	114.90
36	1	2176	U	N3-C4-O4	-6.93	114.55	119.40
36	5	3076	C	N1-C2-O2	6.93	123.06	118.90
36	5	2184	U	N1-C2-O2	6.93	127.65	122.80
36	1	801	A	C2-N3-C4	6.93	114.06	110.60
36	1	3316	A	C2-N3-C4	-6.93	107.14	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1154	A	N1-C2-N3	-6.93	125.84	129.30
36	5	1879	A	N7-C8-N9	6.93	117.26	113.80
36	5	2358	A	C8-N9-C4	6.93	108.57	105.80
36	1	608	A	N3-C4-N9	6.92	132.94	127.40
36	1	645	A	C5-C6-N6	-6.92	118.16	123.70
38	4	8	C	C5-C4-N4	-6.92	115.35	120.20
36	5	44	U	N1-C2-O2	-6.92	117.95	122.80
36	5	369	A	C8-N9-C4	-6.92	103.03	105.80
37	3	88	G	C5-N7-C8	6.92	107.76	104.30
1	2	767	U	N3-C2-O2	-6.92	117.36	122.20
36	1	981	U	O5'-P-OP2	-6.92	99.47	105.70
1	6	1581	C	C6-N1-C2	6.92	123.07	120.30
36	5	2400	G	C2-N3-C4	-6.92	108.44	111.90
59	n3	87	ARG	NE-CZ-NH2	-6.92	116.84	120.30
36	1	663	C	C6-N1-C2	6.92	123.07	120.30
1	6	1658	G	N1-C6-O6	-6.92	115.75	119.90
36	5	704	U	N3-C2-O2	6.92	127.04	122.20
36	5	3058	U	C2-N1-C1'	6.92	126.00	117.70
36	1	371	G	C4-C5-N7	6.91	113.57	110.80
36	1	1841	A	O5'-P-OP2	-6.91	99.48	105.70
1	6	978	A	C8-N9-C4	-6.91	103.04	105.80
36	5	2606	G	C8-N9-C4	-6.91	103.64	106.40
36	5	2946	A	N1-C6-N6	-6.91	114.45	118.60
36	1	1891	A	C2-N3-C4	-6.91	107.14	110.60
36	1	283	G	O4'-C1'-N9	-6.91	102.68	108.20
36	5	339	C	N1-C2-O2	-6.91	114.76	118.90
36	5	1868	G	C4-C5-N7	6.91	113.56	110.80
36	1	2950	G	N1-C6-O6	-6.90	115.76	119.90
36	1	1117	G	OP1-P-OP2	6.90	129.95	119.60
36	1	2874	G	C8-N9-C4	-6.90	103.64	106.40
36	5	2300	G	C2-N3-C4	6.90	115.35	111.90
36	1	2355	G	N1-C6-O6	6.90	124.04	119.90
36	5	2344	U	C2-N3-C4	-6.90	122.86	127.00
36	1	142	C	C6-N1-C2	-6.89	117.54	120.30
36	5	1838	G	OP1-P-O3'	6.89	120.36	105.20
36	5	1852	G	C5-C6-N1	6.89	114.95	111.50
36	5	2169	G	N1-C6-O6	-6.89	115.77	119.90
36	1	2396	G	N7-C8-N9	-6.89	109.66	113.10
16	c4	35	GLY	N-CA-C	6.89	130.32	113.10
36	5	3128	G	C5-C6-N1	6.89	114.94	111.50
1	2	1537	C	C5-C4-N4	-6.89	115.38	120.20
1	2	1568	C	P-O3'-C3'	6.89	127.97	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	391	A	N7-C8-N9	-6.89	110.36	113.80
36	1	304	G	N3-C2-N2	-6.89	115.08	119.90
36	1	2244	A	O5'-P-OP1	6.88	118.96	110.70
36	5	2726	C	N3-C4-N4	-6.88	113.18	118.00
36	5	645	A	O5'-P-OP2	6.88	118.96	110.70
36	5	2335	G	N1-C6-O6	-6.88	115.77	119.90
36	1	2714	G	C4-C5-N7	6.88	113.55	110.80
36	5	2886	U	O4'-C1'-N1	6.88	113.70	108.20
36	1	334	A	C8-N9-C4	-6.88	103.05	105.80
36	5	2274	U	N1-C2-O2	6.88	127.61	122.80
1	2	1241	G	O4'-C1'-N9	6.88	113.70	108.20
36	1	1339	C	N1-C2-O2	-6.88	114.77	118.90
36	1	2922	G	N1-C2-N2	-6.88	110.01	116.20
1	6	1774	G	N1-C6-O6	-6.88	115.77	119.90
36	5	2395	G	O5'-P-OP2	-6.88	99.51	105.70
36	5	3081	C	O5'-P-OP2	-6.88	99.51	105.70
38	8	90	U	C6-N1-C2	6.88	125.13	121.00
36	1	81	C	O5'-P-OP1	-6.88	99.51	105.70
36	1	155	G	N3-C4-N9	6.88	130.12	126.00
36	5	933	A	C4-C5-C6	6.88	120.44	117.00
36	1	3309	G	C5-C6-O6	-6.87	124.48	128.60
36	5	941	G	N3-C4-C5	-6.87	125.16	128.60
36	5	2983	C	C4-C5-C6	6.87	120.84	117.40
38	4	153	U	C6-N1-C2	6.87	125.12	121.00
1	6	1104	U	O5'-P-OP2	-6.87	99.52	105.70
36	5	3309	G	C4-N9-C1'	6.87	135.43	126.50
36	1	2314	U	P-O3'-C3'	-6.87	111.46	119.70
36	5	1926	C	N3-C2-O2	6.87	126.71	121.90
36	1	798	G	N3-C2-N2	-6.87	115.09	119.90
36	5	2913	C	O5'-P-OP1	-6.87	99.52	105.70
36	1	1386	A	C6-N1-C2	-6.87	114.48	118.60
49	M3	85	LEU	CA-CB-CG	6.87	131.09	115.30
1	6	1389	C	N3-C4-C5	6.87	124.65	121.90
36	5	900	G	N9-C4-C5	6.87	108.15	105.40
36	5	2756	C	OP2-P-O3'	6.87	120.30	105.20
36	1	85	A	N1-C6-N6	6.86	122.72	118.60
1	6	864	U	O4'-C1'-N1	6.86	113.69	108.20
36	5	750	G	N9-C4-C5	6.86	108.14	105.40
1	6	1773	C	C6-N1-C2	-6.86	117.56	120.30
36	1	2257	C	C6-N1-C2	-6.86	117.56	120.30
37	3	86	U	C2-N3-C4	-6.86	122.88	127.00
36	5	1116	G	O5'-P-OP1	-6.86	99.53	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	664	U	C5-C6-N1	-6.86	119.27	122.70
1	6	974	A	C8-N9-C4	6.86	108.54	105.80
36	5	1159	A	C8-N9-C4	6.86	108.54	105.80
1	6	350	U	N1-C2-O2	-6.86	118.00	122.80
36	5	2343	C	C6-N1-C2	6.86	123.04	120.30
36	1	1660	C	N3-C4-N4	6.86	122.80	118.00
36	5	817	A	C8-N9-C4	-6.86	103.06	105.80
36	5	2400	G	C6-C5-N7	-6.86	126.29	130.40
36	1	716	A	C4-C5-N7	6.85	114.13	110.70
36	1	808	A	N1-C6-N6	-6.85	114.49	118.60
36	1	2899	C	N1-C2-N3	6.85	124.00	119.20
36	5	968	G	N3-C2-N2	6.85	124.70	119.90
36	5	2142	A	C5-C6-N1	6.85	121.13	117.70
36	5	2385	G	C2-N3-C4	-6.85	108.47	111.90
36	1	1468	A	C2-N3-C4	-6.85	107.18	110.60
36	1	3031	G	O5'-P-OP2	-6.85	99.54	105.70
36	5	222	A	O5'-P-OP2	-6.85	99.54	105.70
36	5	1841	A	O5'-P-OP2	-6.85	99.53	105.70
1	2	1634	C	C6-N1-C2	6.85	123.04	120.30
36	1	1113	G	N9-C4-C5	6.85	108.14	105.40
36	1	2324	A	N9-C4-C5	6.85	108.54	105.80
1	6	1775	U	C5-C4-O4	6.84	130.01	125.90
36	5	2938	G	C5-C6-N1	6.84	114.92	111.50
36	1	614	C	N3-C4-C5	6.84	124.64	121.90
36	5	1051	U	C5-C4-O4	-6.84	121.79	125.90
36	5	3049	A	C5-C6-N1	-6.84	114.28	117.70
1	2	1345	A	O5'-P-OP2	-6.84	99.54	105.70
36	1	1098	A	C8-N9-C4	-6.84	103.06	105.80
36	5	2411	U	C4-C5-C6	-6.84	115.59	119.70
36	5	1833	G	N1-C6-O6	-6.84	115.80	119.90
36	1	1879	A	O4'-C1'-N9	6.84	113.67	108.20
36	1	2549	G	N1-C2-N2	-6.84	110.05	116.20
36	5	197	G	C4-N9-C1'	6.84	135.39	126.50
36	5	1885	U	C2-N1-C1'	-6.84	109.50	117.70
36	5	2385	G	N3-C4-C5	6.84	132.02	128.60
1	2	1454	G	N1-C6-O6	-6.83	115.80	119.90
36	1	1370	G	N3-C2-N2	6.83	124.68	119.90
36	1	1411	C	N3-C2-O2	-6.83	117.11	121.90
36	1	3057	U	N1-C2-O2	6.83	127.58	122.80
36	5	2932	U	N3-C4-C5	6.83	118.70	114.60
36	5	3025	C	N3-C2-O2	-6.83	117.12	121.90
36	5	2648	G	C5-C6-N1	6.83	114.92	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1200	G	C5-C6-O6	-6.83	124.50	128.60
36	1	1520	G	C5-N7-C8	6.83	107.72	104.30
36	1	2884	C	C6-N1-C2	6.83	123.03	120.30
36	5	2954	U	O4'-C1'-N1	6.83	113.66	108.20
36	1	826	G	O5'-P-OP1	-6.83	99.56	105.70
36	1	1324	U	O5'-P-OP1	6.83	118.89	110.70
36	5	930	U	N3-C4-O4	-6.83	114.62	119.40
36	5	1879	A	C5-C6-N6	-6.83	118.24	123.70
36	5	2376	G	C2-N3-C4	6.83	115.31	111.90
1	6	314	C	N3-C2-O2	-6.83	117.12	121.90
36	5	57	A	N9-C4-C5	-6.83	103.07	105.80
36	5	2327	U	C5-C6-N1	-6.83	119.29	122.70
1	2	1795	U	N1-C2-O2	-6.82	118.03	122.80
36	5	2310	U	C5-C4-O4	6.82	129.99	125.90
36	1	1488	G	C8-N9-C4	6.82	109.13	106.40
36	5	670	C	N1-C2-O2	-6.82	114.81	118.90
36	5	1880	U	N1-C2-N3	-6.82	110.81	114.90
38	8	113	U	C2-N1-C1'	6.82	125.89	117.70
36	1	2387	A	C8-N9-C4	6.82	108.53	105.80
36	5	1392	G	N1-C6-O6	6.82	123.99	119.90
36	1	704	U	N1-C2-N3	6.82	118.99	114.90
36	1	1507	G	C5-C6-O6	-6.82	124.51	128.60
36	5	1012	G	C4-N9-C1'	-6.82	117.64	126.50
36	1	1137	C	C5-C4-N4	-6.82	115.43	120.20
1	2	1030	A	N1-C6-N6	6.81	122.69	118.60
36	1	2682	C	O5'-P-OP2	-6.81	99.57	105.70
36	5	1239	C	C6-N1-C2	-6.81	117.58	120.30
36	5	3218	A	N1-C6-N6	6.81	122.69	118.60
61	n5	138	ARG	NE-CZ-NH2	6.81	123.71	120.30
36	5	2997	G	N3-C4-C5	6.81	132.01	128.60
38	4	113	U	C5-C6-N1	-6.81	119.30	122.70
36	5	204	A	C6-C5-N7	6.81	137.07	132.30
36	5	1116	G	C8-N9-C4	-6.81	103.68	106.40
36	5	290	G	O5'-P-OP1	-6.80	99.58	105.70
36	5	437	G	N9-C4-C5	6.80	108.12	105.40
36	5	2314	U	C5-C6-N1	6.80	126.10	122.70
36	5	1147	G	O4'-C1'-N9	6.80	113.64	108.20
36	1	397	A	C5-C6-N1	6.80	121.10	117.70
36	1	2282	U	N3-C4-C5	6.80	118.68	114.60
38	4	51	G	N9-C4-C5	-6.80	102.68	105.40
1	6	539	G	N7-C8-N9	6.80	116.50	113.10
36	5	883	A	O5'-P-OP2	6.80	118.86	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	351	A	N7-C8-N9	-6.80	110.40	113.80
36	1	2802	A	N9-C4-C5	6.80	108.52	105.80
36	5	1830	G	O5'-P-OP1	6.80	118.86	110.70
36	5	2826	U	N3-C2-O2	-6.80	117.44	122.20
36	5	3018	C	C6-N1-C2	-6.80	117.58	120.30
36	1	104	G	C5-C6-O6	-6.80	124.52	128.60
36	5	1161	G	C8-N9-C4	6.80	109.12	106.40
36	1	578	A	O5'-P-OP1	-6.79	99.58	105.70
1	2	73	U	N3-C2-O2	-6.79	117.44	122.20
1	2	158	U	N3-C2-O2	-6.79	117.44	122.20
36	1	1308	A	N7-C8-N9	6.79	117.20	113.80
36	1	817	A	N9-C1'-C2'	6.79	122.83	114.00
36	5	2397	A	N1-C6-N6	-6.79	114.53	118.60
36	5	2411	U	C6-N1-C2	6.79	125.08	121.00
38	8	58	G	C5-C6-N1	-6.79	108.10	111.50
36	1	646	A	O5'-P-OP1	6.79	118.85	110.70
36	1	2198	A	N7-C8-N9	-6.79	110.41	113.80
1	6	815	G	C4-C5-N7	6.79	113.52	110.80
36	5	2980	U	C6-N1-C2	-6.79	116.93	121.00
36	1	1199	C	C2-N3-C4	-6.79	116.51	119.90
36	5	741	U	O5'-P-OP1	-6.79	99.59	105.70
36	1	2730	G	N3-C2-N2	-6.79	115.15	119.90
36	1	2825	C	N3-C2-O2	-6.78	117.15	121.90
36	1	3362	A	C8-N9-C4	-6.78	103.09	105.80
1	6	158	U	P-O3'-C3'	6.78	127.84	119.70
36	5	2199	G	N1-C6-O6	6.78	123.97	119.90
36	5	2402	A	C6-N1-C2	6.78	122.67	118.60
37	7	6	C	N1-C2-O2	-6.78	114.83	118.90
1	2	794	U	N3-C2-O2	-6.78	117.45	122.20
36	1	2830	G	N3-C2-N2	-6.78	115.15	119.90
1	6	323	A	C8-N9-C4	-6.78	103.09	105.80
36	5	805	G	O5'-P-OP1	6.78	118.84	110.70
36	5	3060	C	N1-C2-O2	-6.78	114.83	118.90
36	1	2649	A	N9-C4-C5	-6.78	103.09	105.80
36	5	2983	C	O5'-P-OP1	-6.78	99.60	105.70
1	2	412	A	C5-C6-N1	-6.78	114.31	117.70
1	2	1363	U	N1-C2-O2	6.78	127.54	122.80
36	5	2626	A	O4'-C1'-N9	-6.78	102.78	108.20
1	2	1426	C	N3-C2-O2	6.78	126.64	121.90
36	1	3256	G	N1-C6-O6	6.78	123.97	119.90
36	5	2410	U	N1-C2-O2	-6.78	118.06	122.80
36	5	2832	C	O5'-P-OP2	-6.78	99.60	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1392	G	C5-C6-O6	-6.77	124.53	128.60
36	5	3154	C	C5-C6-N1	6.77	124.39	121.00
36	1	999	G	C5-C6-N1	6.77	114.89	111.50
36	1	2142	A	N3-C4-C5	-6.77	122.06	126.80
1	2	1455	G	N9-C4-C5	6.77	108.11	105.40
1	2	448	C	C6-N1-C2	-6.77	117.59	120.30
1	2	1748	G	C5-C6-O6	6.77	132.66	128.60
36	1	635	G	C4-C5-N7	6.77	113.51	110.80
36	1	2121	G	C5-C6-O6	6.77	132.66	128.60
1	2	1653	C	N3-C4-C5	-6.77	119.19	121.90
36	1	32	U	O5'-P-OP2	-6.77	99.61	105.70
36	1	396	A	O5'-P-OP1	-6.77	99.61	105.70
36	5	21	G	C8-N9-C4	6.77	109.11	106.40
1	2	610	G	C8-N9-C1'	-6.76	118.21	127.00
36	1	2549	G	N3-C4-N9	6.76	130.06	126.00
1	6	1280	C	N1-C2-O2	-6.76	114.84	118.90
36	5	3130	A	C5-N7-C8	6.76	107.28	103.90
36	1	281	G	N3-C2-N2	-6.76	115.17	119.90
1	6	44	U	N1-C2-O2	-6.76	118.07	122.80
36	5	2820	A	P-O3'-C3'	6.76	127.81	119.70
36	1	2763	U	C6-N1-C2	6.76	125.06	121.00
36	1	2814	G	N3-C4-N9	6.76	130.06	126.00
1	6	1747	G	O5'-P-OP2	-6.76	99.62	105.70
36	5	1906	G	O5'-P-OP1	-6.76	99.62	105.70
36	1	709	A	N7-C8-N9	-6.76	110.42	113.80
36	1	2143	A	C2-N3-C4	-6.76	107.22	110.60
36	5	2772	C	C2-N1-C1'	-6.76	111.37	118.80
36	1	2143	A	N1-C2-N3	6.75	132.68	129.30
36	1	948	C	N1-C2-O2	-6.75	114.85	118.90
36	1	1050	U	O5'-P-OP1	-6.75	99.62	105.70
36	1	651	G	C4-N9-C1'	6.75	135.28	126.50
36	5	1119	C	N3-C4-C5	6.75	124.60	121.90
36	1	2298	U	C5-C6-N1	-6.75	119.33	122.70
36	5	857	G	N1-C6-O6	6.75	123.95	119.90
36	1	2120	A	O5'-P-OP2	-6.75	99.63	105.70
36	1	2177	G	N1-C2-N2	-6.75	110.13	116.20
36	5	3392	U	C5-C6-N1	-6.75	119.33	122.70
37	7	38	U	C5-C4-O4	-6.75	121.85	125.90
36	1	1906	G	C5-C6-O6	-6.74	124.55	128.60
36	1	2947	G	N1-C2-N3	6.74	127.95	123.90
1	6	1361	U	C2-N1-C1'	6.74	125.79	117.70
36	5	2425	G	N3-C4-N9	-6.74	121.95	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1884	A	C4-C5-N7	6.74	114.07	110.70
1	6	923	A	O5'-P-OP2	-6.74	99.63	105.70
36	5	2351	U	C6-N1-C2	-6.74	116.96	121.00
36	1	1300	G	C4-C5-N7	6.74	113.50	110.80
36	1	3088	G	N1-C6-O6	-6.74	115.86	119.90
36	5	922	U	C4-C5-C6	6.74	123.74	119.70
36	5	1207	G	N1-C6-O6	-6.74	115.86	119.90
38	8	3	A	N1-C6-N6	-6.74	114.56	118.60
36	1	585	A	O5'-P-OP2	-6.74	99.64	105.70
36	5	875	G	N3-C4-C5	-6.74	125.23	128.60
36	1	2896	A	N1-C2-N3	6.73	132.67	129.30
36	5	1140	G	N1-C6-O6	-6.73	115.86	119.90
1	6	1731	A	N1-C6-N6	-6.73	114.56	118.60
36	5	1513	G	C8-N9-C4	-6.73	103.71	106.40
36	1	795	G	O5'-P-OP1	-6.73	99.64	105.70
36	1	2349	U	C2-N3-C4	-6.73	122.96	127.00
36	1	2982	A	C8-N9-C4	6.73	108.49	105.80
36	5	83	U	OP1-P-OP2	6.73	129.70	119.60
36	5	805	G	C2-N3-C4	-6.73	108.53	111.90
36	5	2913	C	N1-C2-O2	-6.73	114.86	118.90
36	1	2846	U	C5-C4-O4	6.73	129.94	125.90
36	5	1523	U	C5-C4-O4	6.73	129.94	125.90
36	1	1177	G	C6-N1-C2	-6.73	121.06	125.10
36	1	1428	A	N1-C6-N6	6.73	122.64	118.60
36	1	205	C	N3-C4-C5	6.72	124.59	121.90
36	1	1139	G	C5-C6-O6	6.72	132.63	128.60
36	5	2199	G	N7-C8-N9	6.72	116.46	113.10
36	1	1204	A	C8-N9-C4	6.72	108.49	105.80
36	1	1733	G	N3-C4-C5	-6.72	125.24	128.60
1	2	1773	C	N1-C2-O2	-6.72	114.87	118.90
36	1	767	U	O4'-C1'-N1	6.72	113.57	108.20
36	5	596	C	C6-N1-C2	-6.72	117.61	120.30
36	5	1409	G	N1-C6-O6	-6.72	115.87	119.90
36	5	3048	A	O5'-P-OP2	-6.71	99.66	105.70
1	2	18	C	C5-C6-N1	6.71	124.36	121.00
36	5	2353	G	N3-C4-N9	6.71	130.03	126.00
36	1	2343	C	C5-C6-N1	-6.71	117.64	121.00
1	6	1607	G	C4-C5-N7	-6.71	108.12	110.80
36	5	2434	U	N1-C2-N3	6.71	118.92	114.90
36	5	2871	G	C2-N3-C4	6.71	115.25	111.90
36	1	229	G	N1-C2-N2	6.71	122.24	116.20
36	1	1891	A	N3-C4-C5	6.71	131.50	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2887	A	N1-C6-N6	6.71	122.62	118.60
36	1	2899	C	P-O3'-C3'	6.71	127.75	119.70
36	5	1205	A	N9-C4-C5	6.71	108.48	105.80
36	5	2838	A	O5'-P-OP2	-6.71	99.66	105.70
36	5	2953	U	C5-C4-O4	-6.71	121.88	125.90
36	5	3166	C	C2-N1-C1'	6.71	126.18	118.80
36	1	1375	G	C6-C5-N7	-6.71	126.38	130.40
1	2	404	G	C8-N9-C4	6.70	109.08	106.40
36	1	653	A	C4-C5-N7	6.70	114.05	110.70
36	1	3368	U	C2-N1-C1'	-6.70	109.66	117.70
36	1	1307	G	N3-C4-N9	-6.70	121.98	126.00
36	5	2754	G	N1-C6-O6	-6.70	115.88	119.90
36	5	2835	U	C5-C6-N1	6.70	126.05	122.70
36	1	2623	G	C2-N3-C4	-6.70	108.55	111.90
38	4	81	U	N3-C2-O2	-6.70	117.51	122.20
36	5	76	G	N1-C6-O6	6.70	123.92	119.90
36	1	2522	G	N9-C4-C5	-6.70	102.72	105.40
36	5	1167	U	OP2-P-O3'	6.70	119.94	105.20
36	5	2915	U	C5-C6-N1	-6.70	119.35	122.70
36	1	2996	U	C4-C5-C6	-6.70	115.68	119.70
1	6	1615	C	N3-C4-C5	6.70	124.58	121.90
36	5	934	G	C5-C6-N1	6.70	114.85	111.50
1	2	1432	U	C6-N1-C2	6.70	125.02	121.00
36	5	660	A	O5'-P-OP2	-6.70	99.67	105.70
36	5	1587	A	C8-N9-C4	6.70	108.48	105.80
36	5	3161	C	C5-C6-N1	6.69	124.35	121.00
38	8	14	C	N1-C2-O2	-6.69	114.88	118.90
36	1	419	G	N1-C2-N2	-6.69	110.18	116.20
36	1	877	C	N3-C4-C5	6.69	124.58	121.90
36	5	877	C	C2-N3-C4	-6.69	116.55	119.90
36	1	297	G	O4'-C1'-N9	6.69	113.55	108.20
36	1	397	A	C2-N3-C4	6.69	113.94	110.60
36	1	2372	A	C2-N3-C4	6.69	113.95	110.60
36	5	820	A	O5'-P-OP1	-6.69	99.68	105.70
36	5	1155	C	C6-N1-C2	6.69	122.98	120.30
38	4	24	G	C5-C6-O6	-6.69	124.59	128.60
36	5	2347	U	C2-N3-C4	-6.69	122.99	127.00
36	5	2707	C	C6-N1-C2	6.69	122.98	120.30
36	1	1448	U	N1-C2-N3	6.69	118.91	114.90
36	1	704	U	N1-C2-O2	-6.69	118.12	122.80
36	5	1514	G	N1-C6-O6	6.69	123.91	119.90
36	5	1842	A	N9-C4-C5	-6.69	103.13	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1301	A	C5-N7-C8	-6.68	100.56	103.90
36	1	97	U	C5-C6-N1	-6.68	119.36	122.70
1	6	426	G	C4-N9-C1'	6.68	135.19	126.50
36	5	420	G	C5-C6-N1	6.68	114.84	111.50
36	5	793	C	N1-C2-O2	-6.68	114.89	118.90
36	5	2139	A	C5-C6-N6	6.68	129.05	123.70
36	1	1148	G	C8-N9-C4	6.68	109.07	106.40
36	1	104	G	C4-C5-N7	6.68	113.47	110.80
36	1	2420	C	C4-C5-C6	6.68	120.74	117.40
36	5	1158	A	C5-N7-C8	-6.68	100.56	103.90
1	2	380	U	N1-C2-O2	6.68	127.47	122.80
36	5	895	A	O5'-P-OP1	6.68	118.71	110.70
1	2	1280	C	N1-C2-O2	-6.67	114.90	118.90
36	1	2980	U	N1-C2-O2	-6.67	118.13	122.80
37	7	6	C	C2-N1-C1'	-6.67	111.46	118.80
36	1	2165	G	O5'-P-OP2	-6.67	99.69	105.70
36	1	3311	C	C6-N1-C2	6.67	122.97	120.30
36	5	1200	A	N9-C4-C5	6.67	108.47	105.80
1	6	1744	A	C5-C6-N6	-6.67	118.36	123.70
36	5	439	C	C6-N1-C2	-6.67	117.63	120.30
36	5	1928	G	N1-C6-O6	6.67	123.90	119.90
36	5	3374	U	N3-C4-C5	6.67	118.60	114.60
36	1	496	C	O5'-P-OP1	-6.67	99.70	105.70
1	6	1048	G	N9-C4-C5	-6.67	102.73	105.40
57	n1	136	ARG	NE-CZ-NH2	-6.67	116.97	120.30
1	2	106	U	C6-N1-C2	-6.67	117.00	121.00
1	6	1135	U	N3-C2-O2	-6.67	117.53	122.20
36	1	325	A	N1-C6-N6	-6.67	114.60	118.60
36	1	1156	C	N3-C4-N4	-6.67	113.33	118.00
38	8	42	G	C5-C6-O6	6.67	132.60	128.60
36	1	3108	G	C4-C5-N7	-6.67	108.13	110.80
36	5	2944	U	OP2-P-O3'	6.67	119.86	105.20
36	1	653	A	O5'-P-OP1	-6.66	99.70	105.70
36	1	1858	A	N3-C4-N9	6.66	132.73	127.40
36	5	2816	G	C8-N9-C4	6.66	109.06	106.40
36	1	1060	U	C6-N1-C2	6.66	125.00	121.00
36	1	2756	C	C6-N1-C2	-6.66	117.64	120.30
36	5	2824	G	N1-C2-N2	-6.66	110.21	116.20
36	5	2908	G	C4-C5-N7	-6.66	108.14	110.80
36	1	3183	A	N1-C6-N6	6.66	122.59	118.60
36	5	909	G	N7-C8-N9	-6.66	109.77	113.10
36	5	2375	G	C8-N9-C4	-6.66	103.74	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2679	A	O4'-C1'-N9	6.66	113.53	108.20
41	L4	327	LEU	CA-CB-CG	6.66	130.61	115.30
36	5	2660	G	N9-C4-C5	-6.66	102.74	105.40
36	1	1447	G	O5'-P-OP2	-6.65	99.71	105.70
38	4	58	G	O5'-P-OP1	6.65	118.68	110.70
36	5	633	C	N3-C4-C5	-6.65	119.24	121.90
36	5	1389	G	C5-C6-O6	-6.65	124.61	128.60
36	1	1318	A	C8-N9-C4	-6.65	103.14	105.80
36	5	740	G	O5'-P-OP1	-6.65	99.72	105.70
1	2	1600	A	C5-C6-N1	-6.65	114.38	117.70
36	5	2197	C	C2-N1-C1'	-6.65	111.49	118.80
36	1	2947	G	N3-C2-N2	-6.65	115.25	119.90
36	1	426	G	N3-C2-N2	6.64	124.55	119.90
1	6	1600	A	O4'-C1'-N9	6.64	113.52	108.20
36	1	1157	G	C5-C6-O6	6.64	132.59	128.60
36	1	934	G	C4-N9-C1'	6.64	135.13	126.50
36	1	1440	G	C5-C6-O6	6.64	132.59	128.60
36	1	1834	U	C4-C5-C6	6.64	123.68	119.70
36	1	3143	C	O5'-P-OP1	6.64	118.67	110.70
45	L8	189	LEU	CA-CB-CG	6.64	130.57	115.30
36	5	1499	C	C6-N1-C2	-6.64	117.64	120.30
1	6	351	C	C5-C4-N4	-6.64	115.55	120.20
1	6	815	G	N7-C8-N9	6.64	116.42	113.10
36	5	2141	U	N1-C2-N3	6.64	118.88	114.90
36	5	2353	G	N3-C4-C5	-6.64	125.28	128.60
36	5	3154	C	C6-N1-C2	-6.64	117.64	120.30
1	2	1092	A	N1-C6-N6	6.64	122.58	118.60
36	1	608	A	C6-C5-N7	-6.64	127.65	132.30
36	1	1367	G	C5-C6-O6	-6.64	124.62	128.60
36	5	2345	A	N1-C6-N6	6.64	122.58	118.60
36	1	1377	G	C8-N9-C4	6.63	109.05	106.40
36	5	2893	C	N3-C2-O2	6.63	126.54	121.90
1	2	600	U	N3-C2-O2	-6.63	117.56	122.20
36	1	339	C	OP1-P-OP2	-6.63	109.65	119.60
36	5	2290	C	C2-N3-C4	-6.63	116.58	119.90
36	1	2850	G	C4-C5-N7	6.63	113.45	110.80
36	5	1904	C	C5-C4-N4	-6.63	115.56	120.20
36	5	2133	U	N3-C4-C5	6.63	118.58	114.60
36	1	2831	G	C5-C6-O6	-6.63	124.62	128.60
38	4	102	U	N1-C2-N3	6.63	118.88	114.90
70	O4	8	ARG	NE-CZ-NH2	-6.63	116.98	120.30
1	6	371	G	C6-C5-N7	-6.63	126.42	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	579	G	N1-C6-O6	-6.63	115.92	119.90
36	5	2735	U	N3-C4-C5	-6.63	110.62	114.60
38	8	12	A	C5-C6-N1	6.63	121.01	117.70
1	6	572	C	C5-C4-N4	-6.63	115.56	120.20
1	6	1791	A	N1-C6-N6	6.63	122.58	118.60
36	5	421	G	N3-C2-N2	-6.63	115.26	119.90
36	5	1208	U	N3-C2-O2	-6.63	117.56	122.20
36	5	1939	G	OP2-P-O3'	6.63	119.78	105.20
38	8	82	U	C2-N1-C1'	-6.63	109.75	117.70
36	1	677	A	O5'-P-OP1	-6.62	99.74	105.70
36	1	2726	C	C5-C4-N4	6.62	124.84	120.20
1	6	101	U	N1-C2-O2	6.62	127.44	122.80
36	5	372	A	N9-C4-C5	-6.62	103.15	105.80
1	6	25	C	OP2-P-O3'	6.62	119.77	105.20
36	5	3020	U	N3-C4-O4	6.62	124.03	119.40
36	1	1858	A	N1-C2-N3	-6.62	125.99	129.30
36	1	645	A	C2-N3-C4	6.62	113.91	110.60
38	8	100	U	C6-N1-C2	-6.62	117.03	121.00
36	1	628	A	C2-N3-C4	-6.62	107.29	110.60
1	6	1775	U	N3-C4-O4	-6.62	114.77	119.40
36	5	908	G	C4-C5-N7	6.62	113.45	110.80
36	5	908	G	O4'-C1'-N9	-6.62	102.91	108.20
1	2	704	C	C2-N1-C1'	6.62	126.08	118.80
36	1	342	A	O5'-P-OP2	-6.62	99.75	105.70
36	1	1365	G	N3-C4-C5	-6.62	125.29	128.60
36	1	2402	A	N9-C4-C5	6.62	108.45	105.80
36	5	1792	C	C5-C6-N1	-6.62	117.69	121.00
36	5	2377	G	N1-C6-O6	-6.62	115.93	119.90
36	5	3174	A	N7-C8-N9	6.62	117.11	113.80
36	1	65	A	P-O3'-C3'	6.61	127.64	119.70
36	5	1407	A	C8-N9-C4	6.61	108.45	105.80
36	5	3026	G	C5-C6-O6	-6.61	124.63	128.60
38	8	54	A	C5-N7-C8	-6.61	100.59	103.90
1	2	421	A	N1-C6-N6	6.61	122.57	118.60
36	1	640	U	N3-C4-O4	6.61	124.03	119.40
36	1	1116	G	N3-C4-C5	-6.61	125.29	128.60
36	5	960	U	C5-C6-N1	-6.61	119.39	122.70
36	5	2372	A	N9-C4-C5	6.61	108.44	105.80
36	5	2603	G	N1-C6-O6	-6.61	115.93	119.90
44	17	232	ARG	NE-CZ-NH1	-6.61	116.99	120.30
36	1	347	G	N9-C4-C5	-6.61	102.75	105.40
36	1	1329	U	O4'-C1'-N1	6.61	113.49	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1426	C	N3-C4-C5	6.61	124.54	121.90
1	2	110	U	C6-N1-C2	-6.61	117.03	121.00
36	1	2642	A	C6-N1-C2	6.61	122.56	118.60
56	N0	155	ARG	NE-CZ-NH2	6.61	123.60	120.30
36	5	1012	G	N3-C4-N9	-6.61	122.03	126.00
36	5	2199	G	C5-N7-C8	-6.61	101.00	104.30
1	2	389	G	N1-C6-O6	-6.61	115.94	119.90
36	1	33	G	O5'-P-OP1	-6.61	99.75	105.70
36	1	2522	G	C8-N9-C1'	-6.60	118.42	127.00
36	1	2842	U	N3-C2-O2	-6.60	117.58	122.20
36	1	3123	A	C8-N9-C4	-6.60	103.16	105.80
77	q1	9	ARG	NE-CZ-NH2	-6.60	117.00	120.30
36	5	2376	G	N1-C6-O6	-6.60	115.94	119.90
36	1	81	C	N3-C4-C5	6.60	124.54	121.90
36	1	2160	G	N1-C6-O6	-6.60	115.94	119.90
1	2	1100	G	C6-C5-N7	-6.60	126.44	130.40
1	6	1280	C	N3-C4-C5	-6.60	119.26	121.90
36	5	2584	G	O5'-P-OP1	-6.60	99.76	105.70
1	2	240	U	OP2-P-O3'	6.59	119.71	105.20
36	1	1507	G	OP1-P-OP2	6.59	129.49	119.60
36	1	2977	G	N1-C6-O6	-6.59	115.94	119.90
11	s9	149	ARG	NE-CZ-NH1	6.59	123.60	120.30
36	5	3042	U	C5-C6-N1	-6.59	119.40	122.70
36	5	3140	G	C4-C5-N7	6.59	113.44	110.80
36	5	3330	A	N7-C8-N9	-6.59	110.50	113.80
36	5	3078	U	C2-N1-C1'	6.59	125.61	117.70
77	q1	23	ARG	NE-CZ-NH1	-6.59	117.00	120.30
1	2	1399	C	C5-C6-N1	6.59	124.30	121.00
36	1	2688	U	C6-N1-C2	6.59	124.95	121.00
36	5	1188	U	OP2-P-O3'	6.59	119.70	105.20
36	5	1791	C	N3-C2-O2	-6.59	117.29	121.90
36	5	2407	C	N3-C4-C5	-6.59	119.27	121.90
36	1	1492	G	C4-C5-N7	-6.59	108.17	110.80
36	1	1492	G	C5-N7-C8	6.59	107.59	104.30
36	1	2603	G	N3-C2-N2	6.59	124.51	119.90
36	1	3055	U	C2-N1-C1'	6.59	125.61	117.70
36	5	3308	C	N1-C2-O2	-6.59	114.95	118.90
36	1	2323	G	N3-C2-N2	6.59	124.51	119.90
36	1	2984	C	C4-C5-C6	6.59	120.69	117.40
36	1	3091	A	N1-C6-N6	6.59	122.55	118.60
36	5	3217	C	C5-C4-N4	6.59	124.81	120.20
36	5	1136	A	N7-C8-N9	-6.58	110.51	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	349	A	OP2-P-O3'	6.58	119.68	105.20
41	L4	313	LEU	CA-CB-CG	6.58	130.44	115.30
15	c3	64	ARG	NE-CZ-NH1	6.58	123.59	120.30
36	5	658	G	N3-C2-N2	-6.58	115.29	119.90
36	1	964	G	OP2-P-O3'	6.58	119.68	105.20
36	1	2828	G	O5'-P-OP1	-6.58	99.78	105.70
38	4	63	G	C5-C6-O6	6.58	132.55	128.60
36	5	349	A	OP2-P-O3'	6.58	119.68	105.20
36	5	1379	G	N9-C4-C5	-6.58	102.77	105.40
36	1	1307	G	P-O3'-C3'	6.58	127.59	119.70
52	M6	74	ARG	NE-CZ-NH2	-6.58	117.01	120.30
63	N7	135	ARG	NE-CZ-NH2	6.58	123.59	120.30
36	1	653	A	N9-C4-C5	-6.58	103.17	105.80
36	1	895	A	N3-C4-C5	6.58	131.40	126.80
36	5	804	C	N1-C2-O2	-6.58	114.95	118.90
36	5	1158	A	N9-C4-C5	-6.58	103.17	105.80
74	o8	31	LEU	CA-CB-CG	6.58	130.42	115.30
1	2	1267	G	C8-N9-C4	-6.57	103.77	106.40
36	1	1398	U	OP2-P-O3'	6.57	119.66	105.20
36	1	3055	U	C6-N1-C1'	-6.57	112.00	121.20
52	M6	110	PRO	C-N-CD	-6.57	106.14	120.60
1	2	1634	C	N1-C2-O2	-6.57	114.96	118.90
36	5	41	G	N1-C6-O6	6.57	123.84	119.90
36	1	2161	G	N1-C6-O6	-6.57	115.96	119.90
36	1	2810	C	C2-N3-C4	-6.57	116.61	119.90
36	5	2383	C	C4-C5-C6	6.57	120.69	117.40
36	5	2641	U	C5-C6-N1	-6.57	119.42	122.70
36	1	942	U	OP1-P-OP2	-6.57	109.75	119.60
36	1	2614	G	C5-N7-C8	6.57	107.58	104.30
36	1	3109	G	OP1-P-OP2	-6.57	109.75	119.60
36	1	53	G	N9-C4-C5	-6.57	102.77	105.40
36	1	72	C	C2-N1-C1'	-6.57	111.58	118.80
36	1	2821	C	N3-C2-O2	-6.57	117.30	121.90
36	1	2897	A	N7-C8-N9	-6.57	110.52	113.80
36	1	3135	U	N3-C4-C5	6.57	118.54	114.60
36	5	1205	A	C8-N9-C4	-6.57	103.17	105.80
36	5	3328	G	N1-C6-O6	-6.57	115.96	119.90
36	1	439	C	C2-N1-C1'	6.57	126.02	118.80
37	3	86	U	C5-C4-O4	-6.57	121.96	125.90
36	5	1852	G	C8-N9-C4	-6.57	103.77	106.40
36	5	2843	U	C6-N1-C2	-6.57	117.06	121.00
36	1	2585	G	N3-C4-N9	6.56	129.94	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	987	U	C5-C4-O4	6.56	129.84	125.90
36	5	3153	U	N1-C2-O2	6.56	127.39	122.80
36	1	1377	G	C4-C5-N7	6.56	113.42	110.80
36	5	2728	G	N9-C4-C5	6.56	108.03	105.40
36	1	2792	A	C8-N9-C4	-6.56	103.18	105.80
38	4	13	A	O5'-P-OP1	-6.56	99.80	105.70
12	c0	97	PRO	N-CA-CB	6.56	111.17	103.30
36	5	803	C	N3-C4-C5	-6.56	119.28	121.90
36	1	2833	A	N7-C8-N9	-6.56	110.52	113.80
36	5	1127	G	N3-C4-N9	6.56	129.93	126.00
1	2	767	U	C4-C5-C6	6.55	123.63	119.70
36	1	1434	G	N7-C8-N9	6.55	116.38	113.10
36	5	2828	G	OP2-P-O3'	6.55	119.62	105.20
36	1	65	A	N1-C6-N6	-6.55	114.67	118.60
36	1	1429	G	N3-C2-N2	6.55	124.49	119.90
36	5	1133	A	C6-N1-C2	-6.55	114.67	118.60
36	1	339	C	C2-N3-C4	-6.55	116.62	119.90
36	1	1309	U	N1-C2-O2	-6.55	118.22	122.80
36	1	1858	A	N3-C4-C5	-6.55	122.21	126.80
36	5	2212	C	C6-N1-C2	-6.55	117.68	120.30
1	6	331	A	C8-N9-C4	6.55	108.42	105.80
36	1	1381	A	C8-N9-C4	6.55	108.42	105.80
1	6	1164	G	C5-C6-O6	-6.55	124.67	128.60
1	6	1340	U	N3-C2-O2	-6.55	117.62	122.20
36	5	2572	C	N3-C2-O2	-6.55	117.32	121.90
36	1	85	A	C2-N3-C4	-6.54	107.33	110.60
36	5	2300	G	N3-C4-N9	6.54	129.93	126.00
1	2	1030	A	N9-C4-C5	-6.54	103.18	105.80
36	5	388	G	N1-C6-O6	6.54	123.83	119.90
36	5	813	G	N3-C4-C5	-6.54	125.33	128.60
36	1	3022	G	O4'-C1'-N9	6.54	113.43	108.20
36	5	326	U	C5-C4-O4	-6.54	121.97	125.90
36	1	1216	C	C6-N1-C2	-6.54	117.68	120.30
36	1	2706	G	C4-C5-N7	6.54	113.42	110.80
1	6	791	A	N1-C6-N6	6.54	122.52	118.60
36	1	84	U	C5-C6-N1	6.54	125.97	122.70
36	1	2571	U	C2-N1-C1'	6.54	125.55	117.70
36	5	1379	G	C8-N9-C4	6.54	109.02	106.40
36	1	2142	A	O5'-P-OP2	6.54	118.54	110.70
36	5	424	G	C5-C6-N1	6.54	114.77	111.50
36	1	936	A	C5-N7-C8	-6.54	100.63	103.90
36	1	143	G	N3-C4-C5	-6.53	125.33	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1198	C	C6-N1-C2	-6.53	117.69	120.30
36	5	911	C	N1-C2-O2	-6.53	114.98	118.90
36	1	2983	C	C6-N1-C2	-6.53	117.69	120.30
1	6	1539	G	O4'-C1'-N9	-6.53	102.97	108.20
56	n0	147	ASP	CB-CG-OD1	-6.53	112.42	118.30
1	2	1162	C	C6-N1-C2	-6.53	117.69	120.30
36	1	3209	A	N7-C8-N9	6.53	117.06	113.80
36	5	861	C	O5'-P-OP1	6.53	118.53	110.70
36	1	2816	G	C8-N9-C4	6.53	109.01	106.40
36	5	2362	C	O5'-P-OP2	-6.53	99.83	105.70
36	5	2634	U	N1-C2-O2	-6.53	118.23	122.80
36	1	607	A	N1-C6-N6	-6.52	114.69	118.60
1	6	1145	U	N1-C2-O2	-6.52	118.23	122.80
36	1	48	A	N1-C6-N6	6.52	122.51	118.60
36	1	613	G	C4-C5-N7	6.52	113.41	110.80
36	1	2139	A	C6-N1-C2	-6.52	114.69	118.60
36	1	3143	C	N3-C2-O2	6.52	126.46	121.90
36	1	3264	G	C8-N9-C4	6.52	109.01	106.40
36	5	506	U	C5-C6-N1	-6.52	119.44	122.70
36	5	1520	G	C5-C6-O6	-6.52	124.69	128.60
36	1	189	G	N3-C2-N2	6.51	124.46	119.90
36	1	2940	A	C6-N1-C2	-6.51	114.69	118.60
36	5	948	C	C6-N1-C2	6.51	122.91	120.30
36	5	1343	A	N1-C2-N3	6.51	132.56	129.30
36	5	2293	C	C5-C4-N4	-6.51	115.64	120.20
36	5	201	A	C8-N9-C4	-6.51	103.19	105.80
1	2	941	A	C8-N9-C4	-6.51	103.20	105.80
36	1	340	C	N3-C2-O2	-6.51	117.34	121.90
36	1	2679	A	N1-C2-N3	6.51	132.56	129.30
1	6	1767	G	C8-N9-C4	6.51	109.00	106.40
36	5	408	A	C6-N1-C2	-6.51	114.69	118.60
56	n0	106	LEU	CA-CB-CG	6.51	130.28	115.30
1	2	1241	G	C4-C5-N7	6.51	113.40	110.80
36	1	2427	U	N1-C2-O2	6.51	127.36	122.80
36	5	1060	U	N3-C4-O4	-6.51	114.84	119.40
36	5	2836	C	C2-N3-C4	-6.51	116.64	119.90
36	1	963	G	O5'-P-OP1	6.51	118.51	110.70
1	6	28	A	OP1-P-O3'	6.51	119.52	105.20
36	1	507	U	N1-C2-O2	-6.51	118.25	122.80
36	1	2912	G	N1-C6-O6	-6.51	116.00	119.90
36	5	2234	G	C8-N9-C4	6.51	109.00	106.40
36	5	2849	C	OP2-P-O3'	6.51	119.51	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	941	G	C5-C6-N1	6.50	114.75	111.50
36	5	834	U	N3-C4-C5	6.50	118.50	114.60
1	6	426	G	C2-N3-C4	6.50	115.15	111.90
36	5	2246	G	O5'-P-OP1	-6.50	99.85	105.70
36	1	3265	C	N3-C4-C5	6.50	124.50	121.90
1	6	538	A	C8-N9-C4	-6.50	103.20	105.80
36	5	2208	A	O4'-C1'-N9	6.50	113.40	108.20
36	5	2283	G	C5-C6-O6	-6.50	124.70	128.60
36	5	2772	C	OP2-P-O3'	6.50	119.50	105.20
36	5	3092	C	O4'-C1'-N1	6.50	113.40	108.20
36	5	1060	U	C2-N3-C4	-6.50	123.10	127.00
36	1	2299	A	C4-C5-C6	6.50	120.25	117.00
68	O2	27	ARG	NE-CZ-NH1	-6.50	117.05	120.30
1	6	47	A	O5'-P-OP1	-6.50	99.85	105.70
36	1	2360	C	OP1-P-OP2	-6.50	109.86	119.60
36	5	613	G	C4-C5-N7	-6.50	108.20	110.80
36	1	3000	A	N7-C8-N9	-6.50	110.55	113.80
36	5	1365	G	N3-C2-N2	6.50	124.45	119.90
36	5	2290	C	C5-C6-N1	-6.50	117.75	121.00
36	1	1148	G	N9-C4-C5	-6.49	102.80	105.40
36	1	2282	U	C5-C4-O4	-6.49	122.00	125.90
36	5	1462	A	C5-N7-C8	-6.49	100.65	103.90
47	m0	21	ARG	NE-CZ-NH1	6.49	123.55	120.30
1	2	1454	G	O5'-P-OP2	-6.49	99.86	105.70
36	1	2194	G	C6-C5-N7	-6.49	126.51	130.40
36	5	260	C	O5'-P-OP1	-6.49	99.86	105.70
36	5	1115	G	C8-N9-C4	-6.49	103.80	106.40
36	1	297	G	C8-N9-C4	-6.49	103.81	106.40
36	1	2896	A	C2-N3-C4	-6.49	107.36	110.60
36	5	968	G	N1-C2-N2	-6.49	110.36	116.20
36	5	2297	U	C2-N1-C1'	-6.49	109.92	117.70
1	2	736	C	C5-C6-N1	6.49	124.24	121.00
36	1	512	U	C5-C6-N1	-6.49	119.46	122.70
36	1	1367	G	N9-C4-C5	-6.49	102.81	105.40
36	1	2602	G	C5-N7-C8	6.49	107.54	104.30
36	5	2434	U	N3-C2-O2	-6.49	117.66	122.20
36	5	2827	U	O4'-C1'-N1	6.49	113.39	108.20
36	5	3276	G	C2-N3-C4	6.49	115.14	111.90
36	1	1295	G	N1-C6-O6	-6.48	116.01	119.90
36	1	2962	U	N3-C4-C5	6.48	118.49	114.60
36	5	2775	U	C5-C4-O4	6.48	129.79	125.90
36	1	412	G	N3-C2-N2	-6.48	115.36	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	43	A	O5'-P-OP1	-6.48	99.87	105.70
36	5	21	G	N3-C2-N2	6.48	124.44	119.90
36	5	88	A	C8-N9-C4	6.48	108.39	105.80
36	1	282	G	C8-N9-C4	-6.48	103.81	106.40
36	5	1628	C	C6-N1-C2	-6.48	117.71	120.30
36	5	2818	U	O5'-P-OP1	-6.48	99.87	105.70
1	2	44	U	N1-C2-O2	-6.48	118.27	122.80
36	1	922	U	C5-C4-O4	6.48	129.79	125.90
36	1	2124	G	C5-C6-O6	-6.48	124.71	128.60
36	5	1349	G	C8-N9-C4	6.48	108.99	106.40
36	5	3013	U	N3-C2-O2	-6.48	117.67	122.20
1	2	16	G	N3-C4-N9	6.47	129.88	126.00
36	1	3272	C	C5-C6-N1	6.47	124.24	121.00
36	1	2393	G	C2-N3-C4	6.47	115.14	111.90
36	1	2855	U	N3-C4-O4	-6.47	114.87	119.40
36	1	3344	A	C8-N9-C4	-6.47	103.21	105.80
36	5	1184	A	C5-C6-N1	6.47	120.94	117.70
36	1	72	C	C6-N1-C1'	6.47	128.56	120.80
1	2	1611	A	N7-C8-N9	6.47	117.03	113.80
44	L7	163	LEU	CA-CB-CG	-6.47	100.42	115.30
52	M6	94	ARG	NE-CZ-NH1	-6.47	117.06	120.30
36	5	810	A	N1-C2-N3	-6.47	126.07	129.30
36	5	1299	U	N3-C4-C5	6.47	118.48	114.60
36	1	2142	A	N9-C4-C5	6.47	108.39	105.80
36	1	2648	G	C5-C6-N1	6.47	114.73	111.50
36	5	190	U	N1-C2-O2	6.47	127.33	122.80
36	5	810	A	C2-N3-C4	6.47	113.83	110.60
36	5	2719	U	N1-C2-O2	-6.47	118.27	122.80
1	2	1199	G	O5'-P-OP2	-6.46	99.88	105.70
36	1	2813	A	C5-C6-N1	-6.46	114.47	117.70
36	1	2850	G	C6-C5-N7	-6.46	126.52	130.40
36	5	2623	G	C5-C6-O6	-6.46	124.72	128.60
36	5	3192	U	O5'-P-OP1	-6.46	99.88	105.70
36	5	933	A	C6-N1-C2	-6.46	114.72	118.60
36	1	836	A	C6-N1-C2	-6.46	114.72	118.60
36	1	1546	A	N1-C2-N3	-6.46	126.07	129.30
36	1	3174	A	C4-C5-N7	6.46	113.93	110.70
36	5	1327	C	N3-C4-C5	6.46	124.48	121.90
36	5	1488	G	OP1-P-O3'	6.46	119.41	105.20
36	5	3304	U	OP1-P-OP2	6.46	129.29	119.60
36	5	58	G	N1-C6-O6	6.46	123.78	119.90
36	5	1910	A	C8-N9-C4	6.46	108.38	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3371	G	N3-C4-N9	-6.46	122.12	126.00
38	8	91	C	N3-C4-C5	-6.46	119.32	121.90
1	2	553	G	C5-C6-O6	-6.46	124.72	128.60
36	5	2813	A	C4-C5-C6	6.46	120.23	117.00
1	2	427	C	N3-C2-O2	-6.46	117.38	121.90
36	1	2883	U	C5-C6-N1	6.46	125.93	122.70
36	1	2980	U	C2-N3-C4	-6.46	123.13	127.00
1	6	603	U	O5'-P-OP1	-6.46	99.89	105.70
36	5	1869	C	C5-C6-N1	-6.46	117.77	121.00
1	2	248	U	N1-C2-O2	-6.45	118.28	122.80
1	2	1796	C	N3-C4-C5	-6.45	119.32	121.90
36	1	2249	G	N1-C6-O6	-6.45	116.03	119.90
36	1	2424	A	C5-C6-N6	-6.45	118.54	123.70
36	1	2766	U	OP1-P-O3'	6.45	119.40	105.20
36	1	2139	A	C5-C6-N1	6.45	120.93	117.70
1	6	362	G	N3-C4-C5	-6.45	125.37	128.60
36	5	1407	A	C2-N3-C4	-6.45	107.38	110.60
36	5	1419	A	N1-C6-N6	-6.45	114.73	118.60
36	1	847	A	N1-C6-N6	6.45	122.47	118.60
1	6	1489	U	C2-N1-C1'	6.45	125.44	117.70
36	1	2620	G	C5-C6-O6	-6.45	124.73	128.60
36	5	3362	A	C2-N3-C4	-6.45	107.38	110.60
1	2	1082	C	C6-N1-C1'	-6.45	113.06	120.80
36	1	347	G	N3-C2-N2	6.45	124.41	119.90
36	1	960	U	C5-C6-N1	6.45	125.92	122.70
36	1	1420	C	C5-C4-N4	6.45	124.71	120.20
38	4	111	A	N1-C6-N6	6.45	122.47	118.60
70	O4	60	ARG	NE-CZ-NH2	-6.45	117.08	120.30
1	6	1584	G	C5-C6-O6	-6.45	124.73	128.60
36	5	2158	A	C6-N1-C2	-6.45	114.73	118.60
36	1	628	A	C5-C6-N1	-6.44	114.48	117.70
36	1	1464	G	O5'-P-OP2	-6.44	99.90	105.70
1	2	1177	C	O5'-P-OP1	-6.44	99.90	105.70
36	1	610	G	N3-C4-C5	6.44	131.82	128.60
36	1	1430	U	C2-N3-C4	-6.44	123.13	127.00
36	1	1835	A	C6-N1-C2	6.44	122.47	118.60
36	1	2134	G	C5-C6-O6	6.44	132.47	128.60
36	5	1126	G	C5-C6-N1	-6.44	108.28	111.50
36	5	1371	G	C5-C6-O6	6.44	132.47	128.60
36	5	2295	A	C5-C6-N1	6.44	120.92	117.70
36	1	2401	A	C5-C6-N1	-6.44	114.48	117.70
37	3	44	C	N1-C2-O2	6.44	122.76	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3220	G	O5'-P-OP1	-6.44	99.90	105.70
36	1	635	G	N9-C4-C5	-6.44	102.82	105.40
36	1	887	G	C4-C5-N7	-6.44	108.22	110.80
1	6	1753	A	C8-N9-C4	-6.44	103.22	105.80
36	5	2287	C	C6-N1-C2	-6.44	117.72	120.30
1	2	1200	G	C4-C5-C6	6.44	122.66	118.80
36	1	829	U	N1-C2-N3	6.44	118.76	114.90
36	1	1300	G	C5-C6-O6	-6.44	124.74	128.60
36	1	2715	A	O5'-P-OP1	-6.44	99.91	105.70
36	1	2883	U	O5'-P-OP1	6.44	118.42	110.70
36	5	1130	A	N3-C4-C5	-6.44	122.29	126.80
36	5	3303	G	N3-C2-N2	6.44	124.41	119.90
1	2	1537	C	C5-C6-N1	6.44	124.22	121.00
36	5	364	G	N9-C4-C5	-6.44	102.83	105.40
36	5	2603	G	N3-C2-N2	6.44	124.41	119.90
36	1	233	C	C6-N1-C2	6.43	122.87	120.30
36	1	3079	U	O5'-P-OP2	6.43	118.42	110.70
36	1	3182	G	C2-N3-C4	-6.43	108.68	111.90
36	5	1416	C	N3-C2-O2	-6.43	117.39	121.90
36	5	2650	U	N1-C2-N3	6.43	118.76	114.90
36	1	2379	U	O5'-P-OP2	-6.43	99.91	105.70
36	5	1680	G	N1-C6-O6	-6.43	116.04	119.90
36	5	2372	A	N7-C8-N9	6.43	117.02	113.80
37	3	89	G	C5-C6-N1	6.43	114.72	111.50
36	1	660	A	C2-N3-C4	6.43	113.81	110.60
36	1	783	A	C2-N3-C4	-6.43	107.39	110.60
1	6	758	U	N3-C2-O2	-6.43	117.70	122.20
36	5	662	U	C5-C4-O4	6.43	129.76	125.90
36	1	637	C	C5-C4-N4	6.43	124.70	120.20
36	5	99	A	C8-N9-C4	6.43	108.37	105.80
36	5	873	C	P-O3'-C3'	6.43	127.41	119.70
36	5	3044	G	N1-C2-N2	-6.43	110.41	116.20
36	1	287	G	C5-N7-C8	6.43	107.51	104.30
36	5	41	G	C8-N9-C4	6.43	108.97	106.40
36	5	329	U	C5-C6-N1	-6.43	119.49	122.70
36	5	1716	U	P-O3'-C3'	6.43	127.41	119.70
36	5	2383	C	N1-C2-O2	-6.43	115.04	118.90
36	1	2850	G	N9-C4-C5	-6.42	102.83	105.40
1	6	1009	U	C5-C6-N1	-6.42	119.49	122.70
36	5	1200	A	N7-C8-N9	6.42	117.01	113.80
36	5	2184	U	N3-C2-O2	-6.42	117.70	122.20
1	2	1258	U	N3-C2-O2	-6.42	117.70	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2314	U	N1-C2-O2	6.42	127.30	122.80
36	5	561	C	C6-N1-C2	-6.42	117.73	120.30
36	1	416	A	OP2-P-O3'	6.42	119.33	105.20
36	1	1353	U	N1-C2-O2	6.42	127.30	122.80
36	5	948	C	O5'-P-OP1	6.42	118.41	110.70
36	1	1371	G	N7-C8-N9	-6.42	109.89	113.10
36	1	1556	C	C6-N1-C1'	-6.42	113.10	120.80
36	5	1379	G	N1-C2-N2	-6.42	110.42	116.20
36	5	1884	A	C5-N7-C8	-6.42	100.69	103.90
36	1	1125	U	C2-N3-C4	-6.42	123.15	127.00
36	1	1589	A	O4'-C1'-N9	-6.42	103.06	108.20
36	1	2169	G	C4-C5-N7	-6.42	108.23	110.80
36	1	2396	G	C4-C5-N7	-6.42	108.23	110.80
36	1	2647	A	C2-N3-C4	6.42	113.81	110.60
36	5	2385	G	C4-C5-N7	6.42	113.37	110.80
36	1	2624	G	N1-C6-O6	6.42	123.75	119.90
36	5	706	A	C8-N9-C4	6.42	108.37	105.80
36	1	985	U	N3-C2-O2	6.41	126.69	122.20
36	1	2627	C	C6-N1-C2	6.41	122.86	120.30
1	6	1190	C	C6-N1-C2	6.41	122.86	120.30
35	sM	167	PRO	N-CA-CB	6.41	111.00	103.30
36	5	425	G	N9-C4-C5	-6.41	102.83	105.40
36	5	1103	A	N7-C8-N9	6.41	117.01	113.80
36	5	1487	G	N1-C6-O6	-6.41	116.05	119.90
36	1	2406	C	C5-C6-N1	-6.41	117.80	121.00
36	5	2134	G	C8-N9-C4	6.41	108.96	106.40
36	1	662	U	N3-C4-O4	-6.41	114.92	119.40
66	O0	84	LEU	CA-CB-CG	6.41	130.04	115.30
36	5	1002	A	O5'-P-OP2	-6.41	99.93	105.70
36	5	2661	G	C5-C6-N1	6.41	114.70	111.50
36	1	345	G	N1-C6-O6	-6.41	116.06	119.90
36	1	1661	G	N1-C2-N2	-6.41	110.43	116.20
1	6	933	A	O5'-P-OP2	-6.41	99.93	105.70
36	1	1477	A	O5'-P-OP1	-6.41	99.94	105.70
36	1	2802	A	C8-N9-C4	-6.41	103.24	105.80
36	1	1380	G	C2-N3-C4	-6.40	108.70	111.90
36	5	358	G	C5-C6-N1	-6.40	108.30	111.50
36	5	1323	G	N3-C2-N2	6.40	124.38	119.90
36	1	663	C	N3-C2-O2	6.40	126.38	121.90
36	5	326	U	N3-C2-O2	6.40	126.68	122.20
36	5	622	A	N1-C6-N6	6.40	122.44	118.60
36	5	2869	U	C2-N3-C4	-6.40	123.16	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	37	G	C4-C5-N7	6.40	113.36	110.80
36	1	364	G	O5'-P-OP2	6.40	118.38	110.70
36	5	2280	A	N1-C6-N6	6.40	122.44	118.60
36	1	267	G	C5-C6-O6	-6.40	124.76	128.60
36	1	1381	A	O5'-P-OP1	-6.40	99.94	105.70
36	1	2382	G	C5-C6-O6	6.40	132.44	128.60
36	5	668	G	N3-C2-N2	6.40	124.38	119.90
36	5	933	A	N1-C2-N3	6.40	132.50	129.30
36	5	2898	G	O4'-C1'-N9	-6.40	103.08	108.20
36	1	37	U	O5'-P-OP2	-6.40	99.94	105.70
36	1	412	G	C4-C5-N7	-6.40	108.24	110.80
36	1	1414	G	C4-C5-N7	6.40	113.36	110.80
36	5	636	C	C5-C4-N4	-6.40	115.72	120.20
36	5	2344	U	C5-C6-N1	-6.40	119.50	122.70
35	SM	167	PRO	N-CA-CB	6.39	110.97	103.30
36	1	2306	C	C5-C6-N1	6.39	124.20	121.00
36	1	2938	G	OP1-P-OP2	6.39	129.19	119.60
1	6	337	G	C4-C5-N7	6.39	113.36	110.80
36	5	579	G	C6-C5-N7	6.39	134.24	130.40
36	5	1186	G	C8-N9-C4	-6.39	103.84	106.40
36	5	1207	G	O5'-P-OP1	-6.39	99.94	105.70
36	5	2171	G	N3-C2-N2	-6.39	115.42	119.90
36	1	659	G	N3-C4-C5	-6.39	125.40	128.60
36	1	2636	A	C8-N9-C4	-6.39	103.24	105.80
1	6	308	C	N3-C4-N4	-6.39	113.53	118.00
1	2	1750	A	C8-N9-C4	-6.39	103.24	105.80
36	5	1180	A	O4'-C1'-N9	-6.39	103.09	108.20
36	1	47	C	C4-C5-C6	6.39	120.59	117.40
36	5	2747	A	C5-C6-N6	6.39	128.81	123.70
1	2	137	U	N3-C2-O2	-6.39	117.73	122.20
36	1	957	C	O5'-P-OP2	-6.39	99.95	105.70
36	1	1330	A	C5-C6-N1	-6.39	114.51	117.70
38	4	30	C	N1-C2-O2	-6.39	115.07	118.90
1	2	142	G	N3-C4-C5	6.39	131.79	128.60
36	1	1145	G	N1-C2-N3	-6.39	120.07	123.90
36	1	1309	U	C2-N3-C4	-6.39	123.17	127.00
36	1	1329	U	N1-C1'-C2'	-6.39	104.98	112.00
36	1	2808	A	C2-N3-C4	-6.39	107.41	110.60
36	5	2980	U	N1-C2-N3	6.39	118.73	114.90
41	14	90	PHE	C-N-CA	-6.39	108.89	122.30
36	1	54	C	N3-C4-N4	-6.38	113.53	118.00
1	6	21	U	N3-C4-O4	6.38	123.87	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	647	G	N3-C4-N9	-6.38	122.17	126.00
36	5	653	A	O5'-P-OP2	6.38	118.36	110.70
36	5	1888	U	C2-N3-C4	-6.38	123.17	127.00
36	5	3092	C	N3-C4-C5	6.38	124.45	121.90
47	m0	128	ARG	NE-CZ-NH2	-6.38	117.11	120.30
36	5	3242	G	N9-C4-C5	6.38	107.95	105.40
36	1	631	U	O5'-P-OP2	-6.38	99.96	105.70
36	1	2515	A	N1-C6-N6	-6.38	114.77	118.60
36	5	2725	U	C2-N3-C4	-6.38	123.17	127.00
37	3	91	G	C5-C6-O6	-6.38	124.77	128.60
36	5	2882	U	C2-N3-C4	-6.38	123.17	127.00
1	2	553	G	N7-C8-N9	6.38	116.29	113.10
1	2	941	A	N9-C4-C5	6.38	108.35	105.80
36	1	205	C	N3-C4-N4	-6.38	113.53	118.00
36	1	663	C	N1-C2-O2	-6.38	115.07	118.90
36	1	2116	G	C8-N9-C4	6.38	108.95	106.40
1	6	1551	U	N1-C2-O2	6.38	127.27	122.80
36	5	608	A	C5-C6-N6	-6.38	118.60	123.70
36	5	2109	U	N3-C2-O2	-6.38	117.73	122.20
36	1	2192	C	C5-C6-N1	-6.38	117.81	121.00
36	1	1390	A	N9-C4-C5	6.38	108.35	105.80
36	1	2607	G	N1-C6-O6	-6.38	116.08	119.90
36	1	1313	G	C6-C5-N7	-6.37	126.58	130.40
54	M8	178	ARG	NE-CZ-NH1	-6.37	117.11	120.30
36	1	715	A	N1-C6-N6	6.37	122.42	118.60
36	1	2619	G	C4-C5-N7	-6.37	108.25	110.80
1	6	1048	G	C5-C6-O6	-6.37	124.78	128.60
36	5	434	U	O5'-P-OP1	6.37	118.35	110.70
36	1	351	A	C2-N3-C4	-6.37	107.42	110.60
36	1	1319	G	N3-C2-N2	6.37	124.36	119.90
36	1	400	G	O5'-P-OP2	-6.37	99.97	105.70
11	s9	149	ARG	NE-CZ-NH2	-6.37	117.12	120.30
36	5	908	G	N1-C6-O6	6.37	123.72	119.90
36	5	1556	C	C6-N1-C2	-6.37	117.75	120.30
36	5	2794	G	C5-C6-N1	6.37	114.69	111.50
38	4	40	A	C4-C5-N7	6.37	113.88	110.70
1	6	609	U	C4-C5-C6	6.37	123.52	119.70
36	5	1363	A	N1-C6-N6	-6.37	114.78	118.60
36	5	1419	A	O5'-P-OP1	6.37	118.34	110.70
1	2	1200	G	N3-C2-N2	-6.37	115.44	119.90
36	5	792	G	O5'-P-OP1	-6.37	99.97	105.70
1	2	311	U	N3-C2-O2	-6.36	117.75	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	586	C	C6-N1-C2	6.36	122.85	120.30
36	5	2906	C	N1-C2-O2	-6.36	115.08	118.90
36	5	2912	G	OP1-P-OP2	6.36	129.15	119.60
36	1	959	C	C2-N3-C4	-6.36	116.72	119.90
36	1	1046	A	OP1-P-OP2	-6.36	110.06	119.60
1	6	813	U	N1-C2-O2	6.36	127.25	122.80
36	1	3344	A	C6-C5-N7	-6.36	127.85	132.30
1	6	603	U	N1-C2-O2	-6.36	118.35	122.80
36	5	649	A	C5-C6-N6	-6.36	118.61	123.70
36	5	2421	U	N1-C2-O2	-6.36	118.35	122.80
36	5	3328	G	O5'-P-OP2	-6.36	99.98	105.70
38	8	139	U	N3-C2-O2	-6.36	117.75	122.20
47	M0	48	LEU	CA-CB-CG	6.36	129.93	115.30
36	5	840	C	C6-N1-C2	-6.36	117.76	120.30
1	6	371	G	N1-C6-O6	6.36	123.72	119.90
1	6	965	U	N3-C4-C5	6.36	118.42	114.60
36	5	890	C	O5'-P-OP2	-6.36	99.98	105.70
36	5	2797	C	N1-C2-O2	-6.36	115.08	118.90
36	5	2816	G	N3-C2-N2	6.36	124.35	119.90
1	2	1241	G	C5-N7-C8	-6.36	101.12	104.30
36	1	873	C	P-O3'-C3'	6.36	127.33	119.70
36	1	1850	A	OP1-P-OP2	-6.36	110.07	119.60
36	1	2618	G	N9-C4-C5	6.36	107.94	105.40
38	4	61	A	N9-C4-C5	-6.36	103.26	105.80
36	5	645	A	C4-C5-C6	6.36	120.18	117.00
36	5	2719	U	O4'-C1'-N1	6.36	113.28	108.20
36	5	2922	G	N3-C2-N2	6.36	124.35	119.90
36	5	2953	U	N3-C2-O2	6.36	126.65	122.20
1	2	334	G	C2-N3-C4	-6.35	108.72	111.90
36	1	70	A	C8-N9-C4	6.35	108.34	105.80
36	1	2609	A	C5-C6-N6	6.35	128.78	123.70
35	sM	68	ARG	NE-CZ-NH2	-6.35	117.12	120.30
36	5	36	C	N3-C4-C5	-6.35	119.36	121.90
36	5	813	G	N3-C4-N9	6.35	129.81	126.00
40	l3	10	ARG	NE-CZ-NH2	-6.35	117.12	120.30
36	5	1132	C	O5'-P-OP1	-6.35	99.98	105.70
36	1	304	G	C4-C5-N7	-6.35	108.26	110.80
36	1	2773	C	C5-C4-N4	-6.35	115.76	120.20
36	1	3154	C	C2-N1-C1'	6.35	125.78	118.80
1	6	687	G	N3-C4-N9	-6.35	122.19	126.00
38	8	82	U	C6-N1-C1'	6.35	130.09	121.20
36	1	2130	G	N1-C2-N2	-6.35	110.49	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2953	U	N1-C2-N3	6.35	118.71	114.90
1	6	1091	A	N1-C6-N6	6.35	122.41	118.60
36	5	949	C	N1-C2-O2	-6.35	115.09	118.90
38	4	103	G	N3-C4-C5	-6.35	125.43	128.60
1	6	795	U	C6-N1-C2	-6.35	117.19	121.00
36	1	345	G	N3-C4-C5	-6.34	125.43	128.60
36	1	1495	U	C2-N1-C1'	-6.34	110.09	117.70
36	1	1898	G	N1-C6-O6	6.34	123.71	119.90
36	1	2622	C	N3-C4-N4	6.34	122.44	118.00
36	1	152	U	N1-C2-O2	-6.34	118.36	122.80
36	1	584	G	C4-C5-N7	-6.34	108.26	110.80
1	6	934	C	N1-C2-O2	6.34	122.71	118.90
1	6	1026	A	O5'-P-OP1	-6.34	99.99	105.70
36	5	1845	G	C8-N9-C4	-6.34	103.86	106.40
38	4	46	G	C8-N9-C1'	-6.34	118.76	127.00
36	5	649	A	N1-C6-N6	6.34	122.41	118.60
36	1	52	A	OP1-P-OP2	6.34	129.11	119.60
36	1	1858	A	C4-N9-C1'	6.34	137.71	126.30
36	1	2322	C	OP2-P-O3'	6.34	119.14	105.20
36	1	947	G	N3-C4-C5	-6.34	125.43	128.60
36	1	947	G	O5'-P-OP2	-6.34	100.00	105.70
36	5	370	U	N3-C2-O2	-6.34	117.76	122.20
36	5	971	G	N7-C8-N9	-6.34	109.93	113.10
36	5	1291	A	O5'-P-OP1	-6.34	100.00	105.70
36	1	509	U	N1-C2-N3	6.33	118.70	114.90
36	5	2362	C	C5-C6-N1	6.33	124.17	121.00
36	5	3245	A	N3-C4-C5	6.33	131.23	126.80
36	1	345	G	C5-C6-N1	6.33	114.67	111.50
36	5	608	A	C6-C5-N7	-6.33	127.87	132.30
36	1	397	A	O4'-C1'-N9	6.33	113.26	108.20
36	1	2585	G	N3-C4-C5	-6.33	125.44	128.60
13	c1	5	LEU	CA-CB-CG	6.33	129.86	115.30
36	5	282	G	O5'-P-OP1	-6.33	100.00	105.70
36	5	1157	G	C4-C5-N7	-6.33	108.27	110.80
36	5	1487	G	C5-N7-C8	6.33	107.46	104.30
36	5	2763	U	N1-C2-O2	-6.33	118.37	122.80
36	5	2809	C	C6-N1-C2	6.33	122.83	120.30
36	1	151	A	N1-C2-N3	6.33	132.46	129.30
1	6	308	C	C2-N1-C1'	-6.33	111.84	118.80
36	5	2361	A	C5-C6-N1	6.33	120.86	117.70
36	5	3048	A	OP1-P-OP2	6.33	129.09	119.60
36	5	631	U	N3-C4-C5	6.32	118.39	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1192	C	N1-C2-O2	6.32	122.69	118.90
36	5	1403	C	N3-C4-N4	-6.32	113.57	118.00
36	5	2927	C	OP2-P-O3'	6.32	119.11	105.20
36	5	3368	U	C2-N1-C1'	-6.32	110.11	117.70
36	1	3005	A	N1-C6-N6	-6.32	114.81	118.60
36	1	3182	G	C8-N9-C4	6.32	108.93	106.40
1	6	988	A	O5'-P-OP2	-6.32	100.01	105.70
36	5	3041	U	N3-C4-C5	6.32	118.39	114.60
36	1	1365	G	N3-C2-N2	6.32	124.33	119.90
36	1	2966	G	C5-C6-N1	6.32	114.66	111.50
36	5	585	A	OP1-P-OP2	6.32	129.08	119.60
36	5	1239	C	C2-N1-C1'	6.32	125.75	118.80
36	5	2770	G	O5'-P-OP1	-6.32	100.01	105.70
1	2	391	A	C4-C5-C6	-6.32	113.84	117.00
36	1	582	G	C6-C5-N7	6.32	134.19	130.40
1	2	959	U	N1-C2-O2	6.32	127.22	122.80
1	2	1291	G	C2-N3-C4	-6.32	108.74	111.90
36	1	660	A	N1-C2-N3	-6.32	126.14	129.30
36	5	2872	A	C4-C5-C6	-6.32	113.84	117.00
36	1	3109	G	O5'-P-OP2	6.31	118.28	110.70
36	5	1513	G	N3-C4-C5	-6.31	125.44	128.60
59	n3	12	ARG	NE-CZ-NH1	6.31	123.46	120.30
68	o2	105	ARG	NE-CZ-NH2	-6.31	117.14	120.30
36	1	608	A	C4-C5-C6	6.31	120.16	117.00
36	1	1903	U	C5-C4-O4	-6.31	122.11	125.90
36	5	75	G	N1-C6-O6	6.31	123.69	119.90
36	5	2294	U	N1-C2-N3	6.31	118.69	114.90
36	5	2861	U	N1-C2-N3	6.31	118.69	114.90
1	2	794	U	P-O3'-C3'	6.31	127.27	119.70
36	1	282	G	O5'-P-OP1	-6.31	100.02	105.70
38	4	9	A	C5-C6-N1	6.31	120.86	117.70
1	6	18	C	N3-C4-C5	-6.31	119.38	121.90
43	l6	46	ARG	NE-CZ-NH2	-6.31	117.14	120.30
1	2	1280	C	N3-C4-N4	6.31	122.42	118.00
36	5	414	U	C5-C6-N1	-6.31	119.55	122.70
36	5	570	A	O5'-P-OP1	-6.31	100.02	105.70
36	5	3123	A	C8-N9-C4	6.31	108.32	105.80
36	1	2685	C	C6-N1-C2	-6.31	117.78	120.30
1	2	992	A	C2-N3-C4	-6.30	107.45	110.60
36	1	782	U	N3-C4-C5	6.30	118.38	114.60
36	1	817	A	O5'-P-OP2	6.30	118.27	110.70
1	6	386	G	C8-N9-C4	6.30	108.92	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	14	187	LEU	CA-CB-CG	6.30	129.80	115.30
36	1	2403	G	O5'-P-OP2	-6.30	100.03	105.70
36	5	94	G	C5-C6-N1	6.30	114.65	111.50
36	5	990	U	C5-C6-N1	6.30	125.85	122.70
36	5	1115	G	OP1-P-O3'	6.30	119.07	105.20
36	1	907	G	C6-C5-N7	-6.30	126.62	130.40
38	8	83	C	N1-C2-O2	-6.30	115.12	118.90
36	1	709	A	C8-N9-C4	6.30	108.32	105.80
36	1	2802	A	OP2-P-O3'	6.30	119.06	105.20
1	6	29	U	C5-C4-O4	6.30	129.68	125.90
36	5	871	U	N3-C2-O2	-6.30	117.79	122.20
1	2	1761	U	C5-C4-O4	6.30	129.68	125.90
36	1	208	C	C6-N1-C2	-6.30	117.78	120.30
36	1	1414	G	C6-C5-N7	-6.30	126.62	130.40
36	5	31	C	N3-C4-C5	6.30	124.42	121.90
36	5	900	G	N1-C6-O6	-6.30	116.12	119.90
36	5	1405	U	O5'-P-OP2	-6.30	100.03	105.70
36	5	812	G	N1-C2-N2	-6.29	110.53	116.20
36	5	2631	U	N1-C2-O2	-6.29	118.39	122.80
36	1	718	G	C4-C5-C6	-6.29	115.02	118.80
36	1	3043	C	O5'-P-OP2	-6.29	100.04	105.70
36	5	204	A	N9-C4-C5	6.29	108.32	105.80
36	5	1865	A	C8-N9-C4	6.29	108.32	105.80
36	5	2928	C	N1-C2-N3	6.29	123.61	119.20
36	5	3177	G	N3-C4-N9	-6.29	122.22	126.00
36	1	351	A	OP1-P-OP2	6.29	129.04	119.60
36	1	2522	G	C4-C5-N7	6.29	113.32	110.80
36	1	3105	U	C5-C4-O4	-6.29	122.13	125.90
36	5	1150	A	C5-N7-C8	-6.29	100.75	103.90
36	5	1300	G	C4-C5-N7	6.29	113.32	110.80
36	5	1473	G	N3-C2-N2	-6.29	115.50	119.90
1	2	829	A	P-O3'-C3'	6.29	127.25	119.70
36	1	2404	A	C2-N3-C4	6.29	113.74	110.60
36	1	3044	G	N3-C2-N2	6.29	124.30	119.90
36	1	3302	U	N3-C4-O4	-6.29	115.00	119.40
36	5	351	A	N1-C6-N6	6.29	122.37	118.60
36	1	1506	A	O5'-P-OP2	-6.29	100.04	105.70
36	1	2993	G	C6-N1-C2	-6.29	121.33	125.10
36	5	364	G	C5-C6-O6	-6.29	124.83	128.60
36	5	938	C	C2-N3-C4	-6.29	116.76	119.90
36	5	2199	G	C8-N9-C4	-6.29	103.89	106.40
36	1	2616	C	N1-C2-O2	6.29	122.67	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1461	A	N7-C8-N9	-6.29	110.66	113.80
36	5	2158	A	N1-C6-N6	-6.29	114.83	118.60
36	5	3309	G	N3-C4-C5	-6.29	125.46	128.60
36	5	410	U	N3-C2-O2	6.28	126.60	122.20
36	5	1157	G	OP2-P-O3'	6.28	119.03	105.20
36	5	1604	G	N3-C4-N9	6.28	129.77	126.00
36	1	2920	U	N1-C2-N3	6.28	118.67	114.90
36	1	228	U	N3-C2-O2	-6.28	117.80	122.20
36	1	2706	G	C4-N9-C1'	6.28	134.66	126.50
36	5	2852	C	N1-C2-O2	-6.28	115.13	118.90
1	2	647	G	N3-C2-N2	-6.28	115.50	119.90
1	6	616	G	N9-C4-C5	6.28	107.91	105.40
36	1	627	U	N3-C2-O2	6.28	126.59	122.20
36	1	948	C	N3-C2-O2	6.28	126.30	121.90
36	1	3275	U	OP1-P-O3'	6.28	119.01	105.20
36	1	3107	U	N1-C2-O2	6.28	127.19	122.80
36	5	127	G	N1-C6-O6	6.28	123.67	119.90
1	2	48	G	OP2-P-O3'	6.27	119.00	105.20
36	1	1334	U	N3-C4-O4	6.27	123.79	119.40
37	7	35	C	C5-C6-N1	-6.27	117.86	121.00
36	1	645	A	C5-C6-N1	6.27	120.84	117.70
36	1	974	G	N3-C4-N9	6.27	129.76	126.00
36	1	1620	U	C2-N1-C1'	6.27	125.23	117.70
36	5	2794	G	C5-C6-O6	-6.27	124.84	128.60
36	1	942	U	O5'-P-OP2	-6.27	100.06	105.70
36	1	3259	U	C5-C6-N1	6.27	125.84	122.70
36	1	1098	A	N7-C8-N9	6.27	116.93	113.80
36	5	1064	A	O4'-C1'-N9	-6.27	103.19	108.20
36	5	1642	A	N1-C6-N6	6.27	122.36	118.60
36	5	2531	C	O4'-C1'-N1	6.27	113.22	108.20
36	5	208	C	N3-C2-O2	-6.27	117.51	121.90
36	5	3050	U	N3-C2-O2	-6.27	117.81	122.20
1	2	61	A	C8-N9-C4	-6.27	103.29	105.80
36	1	1891	A	N3-C4-N9	-6.27	122.39	127.40
36	1	894	G	C5-C6-O6	-6.26	124.84	128.60
36	5	365	A	N1-C6-N6	6.26	122.36	118.60
37	7	75	G	N1-C6-O6	6.26	123.66	119.90
36	1	2376	G	C5-C6-N1	6.26	114.63	111.50
1	6	1048	G	C8-N9-C4	6.26	108.90	106.40
36	5	641	C	N1-C2-N3	6.26	123.58	119.20
36	5	1083	G	O5'-P-OP1	-6.26	100.06	105.70
36	5	2531	C	N1-C2-O2	6.26	122.66	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1835	A	C5-C6-N1	-6.26	114.57	117.70
36	5	2725	U	C5-C4-O4	-6.26	122.14	125.90
36	5	2894	C	N3-C4-C5	6.26	124.40	121.90
36	1	3351	U	C5-C6-N1	6.26	125.83	122.70
38	4	13	A	N7-C8-N9	6.26	116.93	113.80
36	5	649	A	C6-C5-N7	-6.26	127.92	132.30
36	1	329	U	C2-N3-C4	-6.26	123.25	127.00
1	6	805	U	C6-N1-C2	-6.26	117.25	121.00
36	5	92	G	N3-C2-N2	6.26	124.28	119.90
36	5	627	U	C5-C6-N1	6.26	125.83	122.70
36	5	2699	G	C8-N9-C4	6.26	108.90	106.40
36	5	3374	U	C6-N1-C2	6.26	124.75	121.00
36	1	399	A	O5'-P-OP1	-6.25	100.07	105.70
1	2	1514	U	O5'-P-OP1	-6.25	100.07	105.70
36	5	955	U	C2-N3-C4	-6.25	123.25	127.00
36	5	1130	A	C5-C6-N1	6.25	120.83	117.70
36	5	2625	C	OP1-P-O3'	6.25	118.96	105.20
36	1	102	C	N1-C2-O2	-6.25	115.15	118.90
36	1	803	C	O5'-P-OP1	6.25	118.20	110.70
36	1	983	A	N1-C6-N6	6.25	122.35	118.60
1	6	144	U	N1-C2-N3	6.25	118.65	114.90
36	5	3034	C	N1-C2-O2	-6.25	115.15	118.90
36	1	334	A	C6-N1-C2	-6.25	114.85	118.60
36	1	1434	G	C8-N9-C4	-6.25	103.90	106.40
1	6	536	C	C6-N1-C2	-6.25	117.80	120.30
36	5	1169	A	C5-C6-N1	-6.25	114.58	117.70
36	5	1348	U	O4'-C1'-N1	6.25	113.20	108.20
36	1	59	G	N1-C6-O6	6.25	123.65	119.90
36	1	766	U	O5'-P-OP1	-6.25	100.08	105.70
36	1	3121	U	OP1-P-O3'	6.25	118.95	105.20
38	4	56	G	N1-C2-N2	-6.25	110.58	116.20
1	6	1058	U	OP1-P-O3'	6.25	118.95	105.20
1	2	352	A	O5'-P-OP1	-6.25	100.08	105.70
36	1	62	A	C2-N3-C4	6.25	113.72	110.60
36	1	2824	G	C5-C6-N1	6.25	114.62	111.50
36	5	366	A	N1-C6-N6	6.25	122.35	118.60
36	5	931	C	C2-N3-C4	-6.25	116.78	119.90
36	5	1604	G	C8-N9-C1'	-6.25	118.88	127.00
36	5	2550	U	N3-C2-O2	-6.25	117.83	122.20
36	5	2860	U	N3-C2-O2	6.25	126.57	122.20
38	4	113	U	C5-C4-O4	6.25	129.65	125.90
36	1	646	A	C8-N9-C4	-6.24	103.30	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	908	G	C8-N9-C1'	-6.24	118.88	127.00
36	1	1307	G	C8-N9-C1'	6.24	135.12	127.00
36	5	946	U	O5'-P-OP2	-6.24	100.08	105.70
36	5	2211	U	N1-C2-N3	6.24	118.65	114.90
36	1	1004	U	C5-C6-N1	6.24	125.82	122.70
37	7	89	G	C8-N9-C4	6.24	108.90	106.40
1	2	1137	A	C8-N9-C4	6.24	108.30	105.80
36	1	2243	A	C8-N9-C4	6.24	108.30	105.80
38	4	12	A	N1-C2-N3	-6.24	126.18	129.30
38	4	67	U	N3-C2-O2	-6.24	117.83	122.20
36	5	652	G	O5'-P-OP2	-6.24	100.08	105.70
36	5	1519	G	C5-C6-O6	-6.24	124.86	128.60
36	5	3120	C	C6-N1-C2	-6.24	117.80	120.30
36	1	2860	U	C5-C4-O4	-6.24	122.16	125.90
37	3	73	C	N3-C2-O2	-6.24	117.53	121.90
36	5	3128	G	C2-N3-C4	6.24	115.02	111.90
36	1	2215	A	C8-N9-C4	6.24	108.30	105.80
20	C8	3	LEU	CA-CB-CG	6.24	129.64	115.30
36	1	1294	A	N1-C6-N6	-6.24	114.86	118.60
36	1	2302	G	N1-C2-N2	-6.24	110.59	116.20
36	1	2324	A	C8-N9-C4	-6.24	103.31	105.80
4	s2	73	LEU	CA-CB-CG	6.24	129.64	115.30
36	5	1468	A	C8-N9-C4	6.24	108.29	105.80
1	2	1101	G	C5-C6-O6	-6.23	124.86	128.60
36	1	2942	C	C2-N1-C1'	-6.23	111.94	118.80
1	6	1657	U	N1-C2-N3	-6.23	111.16	114.90
36	5	596	C	N3-C4-C5	-6.23	119.41	121.90
37	7	121	U	C6-N1-C1'	-6.23	112.47	121.20
36	1	86	G	O5'-P-OP1	6.23	118.18	110.70
36	1	283	G	C4-C5-N7	6.23	113.29	110.80
36	1	2817	A	OP2-P-O3'	6.23	118.91	105.20
36	1	3228	C	OP1-P-OP2	-6.23	110.25	119.60
36	5	641	C	N3-C2-O2	6.23	126.26	121.90
36	5	1461	A	C8-N9-C4	6.23	108.29	105.80
36	5	2991	A	C6-N1-C2	-6.23	114.86	118.60
36	1	959	C	C5-C4-N4	-6.23	115.84	120.20
36	1	1300	G	C5-C6-N1	6.23	114.61	111.50
36	1	1359	C	C6-N1-C2	6.23	122.79	120.30
36	1	2857	C	N3-C4-C5	6.23	124.39	121.90
36	5	1367	G	C8-N9-C1'	-6.23	118.91	127.00
36	5	2996	U	O5'-P-OP2	-6.23	100.09	105.70
47	m0	128	ARG	NE-CZ-NH1	6.23	123.41	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1308	A	C8-N9-C4	-6.23	103.31	105.80
36	5	2826	U	N3-C4-O4	-6.23	115.04	119.40
1	2	1458	G	C4-N9-C1'	6.22	134.59	126.50
36	1	1792	C	N3-C4-C5	-6.22	119.41	121.90
1	6	31	C	C5-C4-N4	6.22	124.56	120.20
1	6	1120	U	N3-C4-O4	-6.22	115.04	119.40
36	5	1119	C	C2-N3-C4	-6.22	116.79	119.90
36	5	2802	A	C8-N9-C4	-6.22	103.31	105.80
36	1	1911	A	C6-C5-N7	-6.22	127.94	132.30
36	1	2648	G	C4-C5-N7	6.22	113.29	110.80
1	6	453	U	N1-C2-O2	6.22	127.16	122.80
36	5	47	C	C5-C6-N1	-6.22	117.89	121.00
36	5	201	A	OP1-P-OP2	-6.22	110.27	119.60
36	5	391	A	C8-N9-C4	6.22	108.29	105.80
36	5	1842	A	C8-N9-C4	6.22	108.29	105.80
36	5	2155	G	C8-N9-C4	6.22	108.89	106.40
36	5	3098	G	N1-C6-O6	-6.22	116.17	119.90
36	1	201	A	C5-C6-N1	-6.22	114.59	117.70
36	1	628	A	N1-C6-N6	6.22	122.33	118.60
36	1	1133	A	C5-C6-N1	6.22	120.81	117.70
36	1	2150	G	C5-C6-O6	6.22	132.33	128.60
37	3	94	C	N1-C2-O2	-6.22	115.17	118.90
37	7	35	C	C4-C5-C6	6.22	120.51	117.40
70	O4	8	ARG	NE-CZ-NH1	6.22	123.41	120.30
36	1	2954	U	C6-N1-C2	6.22	124.73	121.00
36	1	3178	A	C8-N9-C4	6.22	108.29	105.80
36	1	3309	G	C6-C5-N7	-6.22	126.67	130.40
1	6	385	A	N1-C6-N6	-6.22	114.87	118.60
36	5	282	G	N1-C6-O6	-6.22	116.17	119.90
38	8	82	U	O5'-P-OP1	-6.22	100.11	105.70
36	1	932	U	N1-C2-O2	-6.21	118.45	122.80
36	5	2335	G	N9-C4-C5	6.21	107.89	105.40
36	5	2867	C	C5-C4-N4	6.21	124.55	120.20
36	5	2927	C	C5-C4-N4	6.21	124.55	120.20
36	5	3027	A	C8-N9-C4	6.21	108.29	105.80
1	2	145	A	C8-N9-C4	-6.21	103.31	105.80
36	5	111	C	C5-C6-N1	-6.21	117.89	121.00
36	1	1843	C	O5'-P-OP2	-6.21	100.11	105.70
36	5	295	A	C2-N3-C4	-6.21	107.49	110.60
36	5	514	G	C5-C6-O6	-6.21	124.87	128.60
36	5	3045	G	O5'-P-OP2	-6.21	100.11	105.70
1	6	54	C	N3-C4-C5	6.21	124.38	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1849	C	C5-C4-N4	-6.21	115.85	120.20
36	1	2928	C	C6-N1-C2	-6.21	117.82	120.30
1	6	338	C	O5'-P-OP2	-6.21	100.11	105.70
36	5	341	G	C4-C5-N7	6.21	113.28	110.80
36	5	3095	U	N3-C2-O2	-6.21	117.85	122.20
36	1	834	U	C5-C6-N1	-6.21	119.60	122.70
36	1	2406	C	N1-C2-O2	-6.21	115.18	118.90
36	5	939	U	N1-C2-O2	-6.21	118.46	122.80
36	5	1487	G	C5-C6-O6	6.21	132.32	128.60
36	5	3217	C	C6-N1-C1'	6.21	128.25	120.80
1	2	1273	G	O4'-C1'-N9	6.21	113.16	108.20
36	1	690	A	C2-N3-C4	6.21	113.70	110.60
36	5	1081	U	N3-C4-C5	6.21	118.32	114.60
36	5	1899	G	N9-C4-C5	6.21	107.88	105.40
37	7	72	A	OP2-P-O3'	6.21	118.85	105.20
36	1	944	C	C5-C6-N1	6.20	124.10	121.00
36	1	2396	G	C5-N7-C8	6.20	107.40	104.30
36	1	2762	A	N7-C8-N9	-6.20	110.70	113.80
36	5	788	C	OP2-P-O3'	6.20	118.85	105.20
36	5	2830	G	N1-C2-N3	6.20	127.62	123.90
36	1	1103	A	P-O3'-C3'	6.20	127.14	119.70
36	1	657	A	N1-C6-N6	-6.20	114.88	118.60
36	1	3293	U	N3-C2-O2	6.20	126.54	122.20
37	7	84	A	C8-N9-C4	-6.20	103.32	105.80
36	1	1198	C	N1-C2-O2	-6.20	115.18	118.90
36	1	1382	G	OP1-P-OP2	-6.20	110.30	119.60
36	1	1389	G	N3-C4-N9	6.20	129.72	126.00
36	1	2139	A	N9-C4-C5	6.20	108.28	105.80
36	1	2975	U	N1-C2-O2	6.20	127.14	122.80
38	4	46	G	N3-C4-N9	6.20	129.72	126.00
36	5	2284	C	C2-N1-C1'	6.20	125.62	118.80
36	5	3160	U	C5-C6-N1	6.20	125.80	122.70
36	1	1153	A	N1-C6-N6	6.20	122.32	118.60
36	1	1520	G	N7-C8-N9	-6.20	110.00	113.10
36	1	2693	C	C6-N1-C2	6.20	122.78	120.30
36	5	952	A	C5-C6-N6	-6.20	118.74	123.70
36	1	368	G	N3-C2-N2	6.20	124.24	119.90
36	1	2622	C	N1-C2-O2	-6.20	115.18	118.90
36	1	2706	G	N3-C4-N9	6.20	129.72	126.00
36	1	2993	G	N3-C4-N9	6.20	129.72	126.00
1	2	1202	A	C8-N9-C4	-6.19	103.32	105.80
36	1	411	U	O5'-P-OP2	-6.19	100.13	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2984	C	N1-C2-N3	6.19	123.54	119.20
36	1	2165	G	C8-N9-C4	-6.19	103.92	106.40
1	6	858	G	C4-N9-C1'	6.19	134.55	126.50
36	5	3039	C	C5-C4-N4	6.19	124.53	120.20
36	5	1838	G	O5'-P-OP2	-6.19	100.13	105.70
36	5	2788	C	N3-C4-C5	-6.19	119.42	121.90
36	1	102	C	N3-C4-N4	6.19	122.33	118.00
38	8	26	U	N3-C2-O2	-6.19	117.87	122.20
36	5	2816	G	C6-C5-N7	6.19	134.11	130.40
36	1	957	C	N3-C2-O2	6.18	126.23	121.90
36	1	2383	C	C2-N3-C4	-6.18	116.81	119.90
37	7	79	A	N1-C6-N6	6.18	122.31	118.60
36	1	608	A	C5-C6-N6	-6.18	118.75	123.70
36	1	651	G	N1-C2-N2	-6.18	110.64	116.20
36	1	1307	G	OP1-P-O3'	6.18	118.80	105.20
1	6	987	G	C5-C6-O6	-6.18	124.89	128.60
36	5	305	U	O4'-C1'-N1	6.18	113.15	108.20
36	5	2812	C	C4-C5-C6	6.18	120.49	117.40
36	5	2968	G	C4-C5-N7	-6.18	108.33	110.80
36	1	335	G	C8-N9-C4	-6.18	103.93	106.40
36	1	810	A	OP1-P-OP2	-6.18	110.33	119.60
36	1	2191	U	O5'-P-OP2	-6.18	100.14	105.70
1	6	1145	U	N3-C4-O4	6.18	123.73	119.40
36	5	3007	U	N3-C2-O2	-6.18	117.87	122.20
36	1	2773	C	OP1-P-OP2	6.18	128.87	119.60
36	5	34	A	OP2-P-O3'	6.18	118.79	105.20
36	5	2626	A	OP1-P-OP2	-6.18	110.33	119.60
36	1	2139	A	C4-C5-N7	-6.18	107.61	110.70
38	4	27	U	OP1-P-OP2	-6.18	110.34	119.60
1	6	52	U	N1-C2-N3	6.18	118.61	114.90
1	6	1031	U	C5-C4-O4	-6.18	122.19	125.90
36	5	686	G	C8-N9-C4	6.18	108.87	106.40
36	1	1822	C	C6-N1-C2	-6.17	117.83	120.30
36	1	2899	C	OP2-P-O3'	6.17	118.78	105.20
1	6	65	A	N1-C6-N6	6.17	122.31	118.60
1	6	387	A	N9-C4-C5	6.17	108.27	105.80
1	6	542	A	P-O3'-C3'	6.17	127.11	119.70
36	5	803	C	C6-N1-C2	-6.17	117.83	120.30
36	5	1881	A	O5'-P-OP2	-6.17	100.14	105.70
36	5	1912	U	N1-C2-N3	-6.17	111.19	114.90
36	1	51	A	C5-N7-C8	-6.17	100.81	103.90
1	6	1605	G	N1-C6-O6	-6.17	116.20	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	535	G	C8-N9-C4	6.17	108.87	106.40
36	5	776	U	N3-C4-O4	-6.17	115.08	119.40
36	5	2719	U	C6-N1-C1'	6.17	129.84	121.20
36	1	1179	A	OP2-P-O3'	6.17	118.78	105.20
36	1	3209	A	C5-N7-C8	-6.17	100.81	103.90
1	6	1750	A	N1-C6-N6	6.17	122.30	118.60
36	5	3188	G	C4-C5-N7	-6.17	108.33	110.80
36	5	1373	A	C6-C5-N7	-6.17	127.98	132.30
36	5	1905	G	C2-N3-C4	6.17	114.98	111.90
1	2	1430	U	O5'-P-OP2	-6.17	100.15	105.70
36	1	794	U	O5'-P-OP2	-6.17	100.15	105.70
36	5	339	C	N3-C4-N4	-6.17	113.68	118.00
36	5	875	G	C5-C6-N1	6.17	114.58	111.50
37	7	69	C	C6-N1-C2	6.17	122.77	120.30
36	1	404	G	N7-C8-N9	-6.17	110.02	113.10
36	1	3019	U	C6-N1-C2	-6.17	117.30	121.00
36	5	2388	U	N1-C2-O2	-6.17	118.48	122.80
36	5	3175	U	N3-C2-O2	-6.17	117.88	122.20
36	1	1130	A	N1-C2-N3	-6.17	126.22	129.30
36	1	1931	U	N3-C4-O4	-6.17	115.08	119.40
1	2	901	G	C4-N9-C1'	6.16	134.51	126.50
1	2	1780	G	C4-C5-N7	6.16	113.27	110.80
36	1	2616	C	N3-C2-O2	-6.16	117.58	121.90
36	1	2882	U	O5'-P-OP2	6.16	118.10	110.70
1	6	977	A	N1-C6-N6	6.16	122.30	118.60
1	2	625	C	O5'-P-OP2	-6.16	100.16	105.70
36	1	2363	A	N9-C4-C5	6.16	108.26	105.80
1	6	44	U	N3-C2-O2	6.16	126.51	122.20
1	6	1628	U	N3-C2-O2	-6.16	117.89	122.20
36	5	987	U	N1-C2-N3	6.16	118.60	114.90
36	5	2883	U	O5'-P-OP1	6.16	118.09	110.70
36	5	3335	A	C6-C5-N7	-6.16	127.99	132.30
37	7	32	U	C2-N3-C4	-6.16	123.30	127.00
1	2	1082	C	C6-N1-C2	-6.16	117.84	120.30
36	5	718	G	O4'-C1'-N9	6.16	113.13	108.20
36	5	2848	G	N3-C4-C5	-6.16	125.52	128.60
37	7	95	A	N1-C6-N6	-6.16	114.90	118.60
1	2	89	G	C8-N9-C4	6.16	108.86	106.40
1	2	1270	G	N1-C6-O6	-6.16	116.21	119.90
36	1	3326	G	N7-C8-N9	-6.16	110.02	113.10
36	5	421	G	N1-C6-O6	6.16	123.59	119.90
36	5	882	A	N1-C2-N3	6.16	132.38	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	982	C	OP2-P-O3'	6.16	118.74	105.20
36	5	1875	G	O5'-P-OP2	-6.16	100.16	105.70
36	1	37	U	O5'-P-OP1	6.15	118.08	110.70
36	1	2942	C	C6-N1-C2	6.15	122.76	120.30
36	1	3057	U	N1-C2-N3	6.15	118.59	114.90
36	1	797	U	OP2-P-O3'	6.15	118.73	105.20
36	1	1878	G	O4'-C1'-N9	-6.15	103.28	108.20
38	4	5	U	C5-C4-O4	-6.15	122.21	125.90
36	5	1723	A	C5-C6-N1	6.15	120.78	117.70
36	1	88	A	N1-C6-N6	6.15	122.29	118.60
1	6	647	G	N3-C2-N2	-6.15	115.59	119.90
1	2	1241	G	N7-C8-N9	6.15	116.17	113.10
36	1	999	G	C5-C6-O6	-6.15	124.91	128.60
36	5	21	G	C5-C6-O6	-6.15	124.91	128.60
36	5	1195	A	C8-N9-C4	-6.15	103.34	105.80
36	1	696	C	C4-C5-C6	-6.15	114.33	117.40
36	1	1314	C	N1-C2-O2	-6.15	115.21	118.90
38	4	13	A	C8-N9-C4	-6.15	103.34	105.80
36	5	804	C	N3-C2-O2	6.15	126.20	121.90
36	5	3142	A	C8-N9-C4	6.15	108.26	105.80
36	1	356	C	N3-C4-C5	6.15	124.36	121.90
1	6	1537	C	C6-N1-C1'	6.15	128.18	120.80
36	1	1611	G	C2-N3-C4	-6.14	108.83	111.90
36	1	2306	C	C6-N1-C2	-6.14	117.84	120.30
37	3	39	C	N3-C4-N4	-6.14	113.70	118.00
1	6	1035	G	C8-N9-C4	6.14	108.86	106.40
36	5	2802	A	N1-C6-N6	-6.14	114.91	118.60
36	1	988	U	C5-C6-N1	-6.14	119.63	122.70
36	1	2400	G	N1-C2-N2	6.14	121.73	116.20
36	5	969	C	C6-N1-C2	6.14	122.76	120.30
36	5	2645	G	C5-C6-N1	6.14	114.57	111.50
36	1	2977	G	C2-N3-C4	6.14	114.97	111.90
36	5	1164	G	C5-C6-N1	-6.14	108.43	111.50
36	1	155	G	N3-C4-C5	-6.14	125.53	128.60
38	4	29	U	N3-C4-O4	6.14	123.70	119.40
1	2	1744	A	O5'-P-OP1	-6.14	100.18	105.70
36	1	907	G	O4'-C1'-N9	6.14	113.11	108.20
36	1	681	U	N1-C2-O2	-6.14	118.50	122.80
36	1	1133	A	C8-N9-C4	6.14	108.25	105.80
36	5	1127	G	N9-C4-C5	-6.14	102.95	105.40
36	5	1340	G	C5-N7-C8	6.14	107.37	104.30
36	1	639	G	N9-C1'-C2'	-6.13	105.25	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1313	G	C4-C5-N7	6.13	113.25	110.80
36	1	2658	G	N7-C8-N9	-6.13	110.03	113.10
36	5	388	G	C5-C6-O6	-6.13	124.92	128.60
36	5	611	A	N7-C8-N9	-6.13	110.73	113.80
36	5	942	U	OP1-P-OP2	-6.13	110.40	119.60
36	5	2531	C	C6-N1-C1'	-6.13	113.44	120.80
36	1	938	C	N3-C4-C5	6.13	124.35	121.90
71	O5	69	LEU	CA-CB-CG	6.13	129.40	115.30
1	6	427	C	C6-N1-C2	-6.13	117.85	120.30
1	6	558	U	P-O3'-C3'	6.13	127.06	119.70
36	5	213	A	O5'-P-OP1	6.13	118.06	110.70
36	5	329	U	C2-N3-C4	-6.13	123.32	127.00
36	5	927	C	N3-C2-O2	6.13	126.19	121.90
1	2	1652	C	C6-N1-C2	-6.13	117.85	120.30
37	3	103	A	N1-C6-N6	6.13	122.28	118.60
1	2	1012	U	C2-N3-C4	6.13	130.68	127.00
1	2	1778	G	O5'-P-OP1	-6.13	100.19	105.70
36	5	925	A	C8-N9-C4	6.13	108.25	105.80
36	5	1681	U	N1-C2-O2	-6.13	118.51	122.80
36	5	1750	A	N1-C6-N6	6.13	122.28	118.60
36	1	770	G	C5-C6-O6	-6.13	124.92	128.60
36	1	2614	G	OP1-P-OP2	6.13	128.79	119.60
1	6	56	U	C2-N3-C4	-6.13	123.32	127.00
1	6	1036	A	N1-C6-N6	-6.13	114.92	118.60
36	5	2813	A	N7-C8-N9	6.13	116.86	113.80
36	5	3076	C	N3-C2-O2	-6.13	117.61	121.90
36	1	68	C	OP2-P-O3'	6.12	118.67	105.20
36	1	631	U	OP2-P-O3'	6.12	118.67	105.20
36	5	1462	A	C6-C5-N7	-6.12	128.01	132.30
36	5	2976	A	OP2-P-O3'	6.12	118.67	105.20
37	7	80	G	N3-C4-N9	6.12	129.67	126.00
36	1	867	G	O5'-P-OP1	6.12	118.05	110.70
36	1	1160	C	C2-N3-C4	6.12	122.96	119.90
36	1	1848	G	C5-C6-O6	-6.12	124.93	128.60
36	5	1059	G	C6-N1-C2	-6.12	121.43	125.10
36	5	1178	G	N7-C8-N9	6.12	116.16	113.10
36	5	1935	G	N9-C4-C5	-6.12	102.95	105.40
36	5	2930	A	N9-C4-C5	6.12	108.25	105.80
36	1	2956	A	OP1-P-OP2	-6.12	110.42	119.60
36	5	1868	G	N3-C4-N9	6.12	129.67	126.00
1	2	314	C	O5'-P-OP1	-6.12	100.19	105.70
38	4	21	C	C6-N1-C2	6.12	122.75	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1737	G	C4-C5-N7	6.12	113.25	110.80
36	5	704	U	C2-N1-C1'	-6.12	110.36	117.70
37	7	28	C	N1-C2-O2	-6.12	115.23	118.90
36	1	1008	U	N1-C2-O2	-6.12	118.52	122.80
1	6	1297	G	O5'-P-OP2	-6.12	100.19	105.70
36	1	2627	C	N3-C4-C5	6.12	124.35	121.90
36	5	2246	G	O5'-P-OP2	6.12	118.04	110.70
36	5	628	A	C8-N9-C4	6.11	108.25	105.80
36	5	780	A	N9-C4-C5	-6.11	103.36	105.80
36	5	1193	A	C4-C5-C6	6.11	120.06	117.00
36	5	3013	U	C2-N1-C1'	6.11	125.04	117.70
36	5	3325	G	C5-C6-O6	6.11	132.27	128.60
1	2	1145	U	N3-C2-O2	6.11	126.48	122.20
36	1	718	G	C5-N7-C8	-6.11	101.24	104.30
36	5	815	G	N3-C4-C5	-6.11	125.54	128.60
36	5	2622	C	C4-C5-C6	6.11	120.46	117.40
36	5	2830	G	C5-N7-C8	6.11	107.36	104.30
1	2	959	U	N3-C2-O2	-6.11	117.92	122.20
36	1	1336	U	C5-C6-N1	-6.11	119.64	122.70
36	1	1881	A	C8-N9-C4	6.11	108.24	105.80
36	1	2984	C	C5-C6-N1	-6.11	117.94	121.00
1	6	1751	C	C6-N1-C2	6.11	122.74	120.30
36	5	2825	C	C6-N1-C2	6.11	122.74	120.30
36	5	3196	U	O5'-P-OP1	-6.11	100.20	105.70
36	1	3103	A	N1-C2-N3	6.11	132.35	129.30
36	5	960	U	N3-C2-O2	-6.11	117.92	122.20
1	6	1399	C	C5-C6-N1	6.11	124.05	121.00
1	6	1744	A	N1-C6-N6	6.11	122.26	118.60
36	5	3244	A	O5'-P-OP1	-6.10	100.21	105.70
1	2	933	A	C8-N9-C4	-6.10	103.36	105.80
36	5	41	G	OP2-P-O3'	6.10	118.62	105.20
36	5	57	A	N1-C6-N6	6.10	122.26	118.60
36	1	1049	C	N1-C2-O2	6.10	122.56	118.90
1	6	1698	G	P-O3'-C3'	6.10	127.02	119.70
36	1	203	G	OP2-P-O3'	6.10	118.62	105.20
36	1	1855	U	N3-C2-O2	-6.10	117.93	122.20
36	1	2139	A	C5-C6-N6	6.10	128.58	123.70
1	6	794	U	N3-C2-O2	-6.10	117.93	122.20
36	5	267	G	O4'-C1'-N9	-6.10	103.32	108.20
36	5	1880	U	C4-C5-C6	-6.10	116.04	119.70
36	5	3047	U	C4-C5-C6	6.10	123.36	119.70
36	5	3276	G	O5'-P-OP1	-6.10	100.21	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	361	A	C6-N1-C2	-6.10	114.94	118.60
36	1	954	U	N1-C2-O2	-6.10	118.53	122.80
36	1	1630	U	O5'-P-OP2	-6.10	100.21	105.70
36	1	2725	U	C5-C6-N1	-6.10	119.65	122.70
1	6	380	U	N1-C2-O2	6.10	127.07	122.80
38	4	81	U	N1-C2-O2	6.10	127.07	122.80
1	2	610	G	C4-N9-C1'	6.09	134.42	126.50
36	1	636	C	C2-N3-C4	-6.09	116.85	119.90
36	1	1199	C	C5-C6-N1	-6.09	117.95	121.00
36	1	1445	U	N3-C2-O2	6.09	126.47	122.20
36	1	2944	U	OP1-P-O3'	6.09	118.61	105.20
1	6	90	C	N3-C4-C5	6.09	124.34	121.90
1	6	1578	U	O5'-P-OP1	-6.09	100.22	105.70
36	5	1323	G	N1-C6-O6	-6.09	116.24	119.90
36	5	1908	A	C8-N9-C4	-6.09	103.36	105.80
36	5	2297	U	C6-N1-C1'	6.09	129.73	121.20
24	D2	104	LEU	CA-CB-CG	6.09	129.31	115.30
36	1	1173	U	C5-C6-N1	-6.09	119.66	122.70
36	1	644	G	O5'-P-OP1	-6.09	100.22	105.70
36	1	1157	G	C8-N9-C4	-6.09	103.97	106.40
36	1	2392	C	N1-C2-O2	-6.09	115.25	118.90
36	1	2525	G	C4-C5-N7	6.09	113.24	110.80
36	1	2572	C	N1-C2-O2	6.09	122.55	118.90
36	1	2830	G	C4-C5-N7	-6.09	108.36	110.80
38	4	151	C	N3-C4-C5	-6.09	119.46	121.90
79	Q3	17	ARG	NE-CZ-NH1	-6.09	117.26	120.30
1	6	416	A	N1-C6-N6	6.09	122.25	118.60
36	5	832	G	N3-C4-C5	-6.09	125.56	128.60
36	1	1472	U	C5-C6-N1	-6.09	119.66	122.70
1	6	1164	G	N1-C6-O6	6.09	123.55	119.90
1	6	1796	C	C4-C5-C6	6.09	120.44	117.40
36	5	1408	G	OP2-P-O3'	6.09	118.59	105.20
37	7	95	A	C5-C6-N6	6.09	128.57	123.70
36	1	2374	C	C4-C5-C6	6.09	120.44	117.40
36	1	2378	C	N3-C4-N4	6.09	122.26	118.00
36	5	2932	U	C2-N3-C4	-6.09	123.35	127.00
36	1	3140	G	N9-C4-C5	-6.08	102.97	105.40
36	5	2830	G	N9-C4-C5	6.08	107.83	105.40
36	1	1340	G	N3-C2-N2	6.08	124.16	119.90
36	1	2522	G	C4-N9-C1'	6.08	134.41	126.50
1	6	1747	G	N7-C8-N9	-6.08	110.06	113.10
36	5	1409	G	N3-C4-C5	-6.08	125.56	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3120	C	C2-N3-C4	6.08	122.94	119.90
43	16	173	MET	CB-CG-SD	-6.08	94.15	112.40
36	1	1171	G	O5'-P-OP1	-6.08	100.23	105.70
36	5	229	G	N1-C6-O6	6.08	123.55	119.90
36	5	1300	G	N1-C6-O6	6.08	123.55	119.90
36	1	685	G	C5-C6-O6	-6.08	124.95	128.60
36	1	2956	A	N7-C8-N9	6.08	116.84	113.80
36	1	55	G	N3-C2-N2	6.08	124.15	119.90
36	1	189	G	N3-C4-C5	-6.08	125.56	128.60
36	1	2723	U	C5-C6-N1	-6.08	119.66	122.70
36	1	3009	G	C2-N3-C4	6.08	114.94	111.90
36	5	952	A	O5'-P-OP2	-6.08	100.23	105.70
36	5	1127	G	C8-N9-C4	6.08	108.83	106.40
38	4	32	C	C6-N1-C1'	6.08	128.09	120.80
36	5	890	C	C2-N3-C4	-6.08	116.86	119.90
36	5	1113	G	N1-C2-N3	6.08	127.55	123.90
38	8	39	G	N3-C4-C5	-6.08	125.56	128.60
1	2	1560	U	C5-C4-O4	6.08	129.55	125.90
36	1	123	A	N7-C8-N9	6.08	116.84	113.80
36	1	2648	G	N3-C2-N2	6.08	124.15	119.90
36	5	1448	U	C5-C6-N1	-6.08	119.66	122.70
1	2	756	A	N9-C4-C5	6.07	108.23	105.80
36	1	427	C	N1-C2-N3	6.07	123.45	119.20
36	1	972	A	C8-N9-C4	6.07	108.23	105.80
36	5	984	G	N3-C4-C5	-6.07	125.56	128.60
36	5	1430	U	C5-C6-N1	-6.07	119.66	122.70
36	5	2616	C	OP2-P-O3'	6.07	118.56	105.20
36	1	94	G	C5-C6-O6	-6.07	124.96	128.60
36	1	426	G	N3-C4-N9	6.07	129.64	126.00
36	5	283	G	C5-C6-N1	6.07	114.54	111.50
36	1	608	A	N9-C4-C5	-6.07	103.37	105.80
36	1	1081	U	C5-C4-O4	-6.07	122.26	125.90
1	6	327	U	C5-C4-O4	6.07	129.54	125.90
1	6	616	G	C5-C6-O6	6.07	132.24	128.60
36	5	760	G	O4'-C1'-N9	6.07	113.06	108.20
36	5	2391	G	OP1-P-OP2	-6.07	110.49	119.60
36	5	2611	U	C4-C5-C6	6.07	123.34	119.70
36	1	1404	G	C8-N9-C4	6.07	108.83	106.40
36	1	1445	U	C6-N1-C2	6.07	124.64	121.00
36	1	2362	C	C2-N1-C1'	6.07	125.48	118.80
1	6	1124	A	O5'-P-OP2	6.07	117.98	110.70
36	5	2620	G	N3-C2-N2	-6.07	115.65	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	920	A	C8-N9-C4	6.07	108.23	105.80
36	1	2619	G	C5-N7-C8	6.07	107.33	104.30
36	1	656	A	C4-C5-C6	6.07	120.03	117.00
1	6	687	G	N3-C2-N2	-6.07	115.65	119.90
36	5	1458	U	O5'-P-OP1	-6.07	100.24	105.70
36	5	2323	G	OP1-P-OP2	-6.07	110.50	119.60
1	2	1568	C	C6-N1-C2	-6.06	117.87	120.30
36	1	57	A	C8-N9-C4	6.06	108.23	105.80
1	6	173	A	C2-N3-C4	-6.06	107.57	110.60
1	2	192	U	O4'-C1'-N1	6.06	113.05	108.20
36	1	336	A	OP2-P-O3'	6.06	118.54	105.20
36	1	380	U	C5-C6-N1	6.06	125.73	122.70
36	1	619	A	N1-C6-N6	6.06	122.24	118.60
36	1	2618	G	N3-C4-C5	-6.06	125.57	128.60
38	4	79	A	N3-C4-C5	-6.06	122.56	126.80
38	8	47	C	C4-C5-C6	6.06	120.43	117.40
36	5	341	G	N1-C6-O6	6.06	123.54	119.90
36	5	1433	A	N1-C6-N6	6.06	122.24	118.60
36	5	1848	G	C5-C6-N1	6.06	114.53	111.50
36	1	969	C	C5-C4-N4	-6.06	115.96	120.20
36	1	2891	U	C5-C6-N1	-6.06	119.67	122.70
36	5	2847	A	O5'-P-OP1	-6.06	100.25	105.70
36	5	2857	C	N3-C4-C5	6.06	124.32	121.90
36	1	1307	G	C2'-C3'-O3'	6.06	123.39	113.70
36	1	2177	G	N3-C4-C5	-6.06	125.57	128.60
36	5	210	U	N3-C4-O4	-6.06	115.16	119.40
36	5	2399	A	OP1-P-OP2	-6.06	110.52	119.60
38	8	25	G	N3-C4-N9	6.05	129.63	126.00
1	2	448	C	N3-C4-C5	-6.05	119.48	121.90
36	1	2180	G	N1-C2-N3	6.05	127.53	123.90
36	1	3244	A	O4'-C1'-N9	-6.05	103.36	108.20
36	5	1879	A	C8-N9-C4	-6.05	103.38	105.80
36	1	361	A	N9-C4-C5	6.05	108.22	105.80
1	6	19	A	O5'-P-OP1	-6.05	100.25	105.70
1	6	57	G	N3-C4-C5	-6.05	125.57	128.60
38	8	103	G	N3-C4-C5	-6.05	125.57	128.60
36	1	999	G	OP2-P-O3'	6.05	118.51	105.20
36	1	2427	U	N3-C2-O2	-6.05	117.97	122.20
36	1	2969	A	O5'-P-OP2	-6.05	100.25	105.70
1	6	1781	A	C4-C5-C6	6.05	120.02	117.00
36	5	338	A	N9-C4-C5	-6.05	103.38	105.80
36	5	389	A	N1-C6-N6	-6.05	114.97	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2524	A	C8-N9-C4	-6.05	103.38	105.80
36	1	47	C	OP1-P-OP2	-6.05	110.53	119.60
36	1	2705	A	C8-N9-C4	6.05	108.22	105.80
1	6	305	C	N1-C2-O2	-6.05	115.27	118.90
36	5	1495	U	C2-N1-C1'	6.05	124.96	117.70
36	5	2524	A	N7-C8-N9	6.05	116.82	113.80
36	5	2873	U	C4-C5-C6	6.05	123.33	119.70
36	1	1108	U	OP1-P-OP2	6.05	128.67	119.60
36	1	2798	C	N3-C4-C5	-6.05	119.48	121.90
36	1	2808	A	N9-C4-C5	-6.05	103.38	105.80
38	4	40	A	N9-C4-C5	-6.05	103.38	105.80
62	N6	75	ARG	NE-CZ-NH2	6.05	123.32	120.30
36	5	953	G	C5-C6-O6	-6.05	124.97	128.60
36	5	1427	U	N3-C4-C5	6.05	118.23	114.60
36	1	728	G	OP2-P-O3'	6.04	118.50	105.20
36	1	3062	G	C5-C6-O6	-6.04	124.97	128.60
36	5	1754	G	N3-C4-C5	-6.04	125.58	128.60
36	5	2798	C	C5-C4-N4	6.04	124.43	120.20
36	5	3315	G	N9-C4-C5	6.04	107.82	105.40
1	2	1207	C	C6-N1-C2	6.04	122.72	120.30
36	1	1584	U	C5-C4-O4	6.04	129.53	125.90
1	6	459	G	N1-C6-O6	6.04	123.53	119.90
1	2	551	G	C5-N7-C8	-6.04	101.28	104.30
36	1	53	G	N3-C4-N9	6.04	129.62	126.00
36	1	3151	U	O5'-P-OP2	-6.04	100.26	105.70
36	1	196	G	C4-C5-N7	6.04	113.22	110.80
36	1	1180	A	C5-N7-C8	6.04	106.92	103.90
36	1	1374	G	C5-C6-O6	6.04	132.22	128.60
36	5	2634	U	C5-C4-O4	-6.04	122.28	125.90
36	1	1127	G	N1-C6-O6	6.04	123.52	119.90
36	1	2142	A	C4-C5-N7	-6.04	107.68	110.70
36	1	2943	G	O5'-P-OP1	6.04	117.95	110.70
38	4	81	U	C2-N1-C1'	6.04	124.95	117.70
36	5	334	A	C8-N9-C4	6.04	108.22	105.80
36	5	2709	C	N3-C4-C5	6.04	124.31	121.90
36	1	1139	G	OP2-P-O3'	6.04	118.48	105.20
36	1	1450	G	C8-N9-C4	6.04	108.81	106.40
36	1	1713	G	N9-C4-C5	-6.04	102.99	105.40
67	O1	62	ARG	NE-CZ-NH1	-6.04	117.28	120.30
1	6	451	A	N1-C6-N6	6.04	122.22	118.60
1	6	1139	A	N1-C6-N6	-6.04	114.98	118.60
36	5	81	C	N3-C4-N4	-6.04	113.78	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2816	G	C4-N9-C1'	-6.04	118.66	126.50
36	5	3039	C	N3-C2-O2	-6.04	117.67	121.90
38	8	83	C	N3-C4-N4	6.04	122.23	118.00
36	1	698	U	N1-C2-O2	-6.03	118.58	122.80
36	1	1008	U	C2-N1-C1'	-6.03	110.46	117.70
36	1	1307	G	C4-C5-N7	-6.03	108.39	110.80
36	1	2160	G	C5-C6-O6	6.03	132.22	128.60
36	5	993	G	OP1-P-OP2	6.03	128.65	119.60
36	5	1116	G	C4-C5-N7	-6.03	108.39	110.80
36	5	3374	U	C5-C6-N1	-6.03	119.68	122.70
1	2	192	U	N1-C2-O2	6.03	127.02	122.80
36	1	962	A	C6-N1-C2	-6.03	114.98	118.60
1	6	1	U	C2-N1-C1'	6.03	124.94	117.70
1	2	158	U	C6-N1-C2	-6.03	117.38	121.00
36	1	1931	U	N3-C4-C5	6.03	118.22	114.60
1	6	418	G	C4-C5-N7	6.03	113.21	110.80
36	5	651	G	C2-N3-C4	6.03	114.92	111.90
36	5	756	U	O5'-P-OP2	-6.03	100.27	105.70
36	5	973	A	N1-C6-N6	6.03	122.22	118.60
36	5	2326	A	C8-N9-C4	6.03	108.21	105.80
36	5	2960	C	OP2-P-O3'	6.03	118.47	105.20
36	1	893	C	C6-N1-C2	-6.03	117.89	120.30
36	1	2209	U	C6-N1-C2	-6.03	117.38	121.00
38	4	8	C	N1-C2-O2	-6.03	115.28	118.90
1	6	1	U	O4'-C1'-N1	6.03	113.02	108.20
1	6	624	G	N1-C2-N3	-6.03	120.28	123.90
36	5	387	A	O5'-P-OP2	-6.03	100.27	105.70
36	1	2314	U	N3-C4-O4	6.03	123.62	119.40
36	1	2698	G	N9-C4-C5	6.03	107.81	105.40
36	1	2763	U	N3-C4-O4	6.03	123.62	119.40
36	5	1000	C	O4'-C1'-N1	6.03	113.02	108.20
36	5	2363	A	N1-C6-N6	-6.03	114.98	118.60
1	2	1426	C	N3-C4-C5	6.03	124.31	121.90
36	1	2748	A	C2-N3-C4	-6.03	107.59	110.60
36	5	2361	A	C5-C6-N6	-6.03	118.88	123.70
36	5	2376	G	OP1-P-OP2	6.02	128.64	119.60
36	1	576	C	N3-C4-C5	6.02	124.31	121.90
36	1	1325	U	C5-C4-O4	6.02	129.51	125.90
36	1	2354	C	C4-C5-C6	6.02	120.41	117.40
36	5	1116	G	N3-C4-C5	-6.02	125.59	128.60
37	7	44	C	N1-C2-O2	-6.02	115.29	118.90
36	5	1393	A	C4-C5-N7	6.02	113.71	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2879	C	N3-C4-C5	6.02	124.31	121.90
36	5	43	A	O4'-C1'-N9	6.02	113.02	108.20
36	5	807	A	O4'-C1'-N9	6.02	113.02	108.20
36	5	2176	U	C2-N1-C1'	6.02	124.92	117.70
36	1	1084	A	C8-N9-C4	-6.02	103.39	105.80
1	6	46	A	O5'-P-OP1	-6.02	100.28	105.70
36	5	936	A	P-O3'-C3'	6.02	126.92	119.70
36	5	3228	C	N1-C2-O2	6.02	122.51	118.90
1	2	595	G	O5'-P-OP2	-6.01	100.29	105.70
36	1	636	C	N3-C4-C5	6.01	124.31	121.90
36	1	1081	U	C2-N1-C1'	6.01	124.92	117.70
1	6	646	C	C5-C6-N1	6.01	124.01	121.00
36	1	380	U	C6-N1-C2	-6.01	117.39	121.00
36	1	2424	A	N9-C4-C5	-6.01	103.39	105.80
36	5	1496	C	OP1-P-OP2	-6.01	110.58	119.60
1	2	557	G	N3-C4-N9	6.01	129.61	126.00
36	1	2298	U	C2-N3-C4	-6.01	123.39	127.00
1	6	1537	C	N1-C2-O2	-6.01	115.30	118.90
70	o4	58	ARG	NE-CZ-NH1	6.01	123.31	120.30
36	1	1792	C	N1-C2-O2	-6.01	115.30	118.90
36	1	3228	C	O5'-P-OP1	6.01	117.91	110.70
36	1	53	G	O5'-P-OP2	-6.01	100.29	105.70
36	1	2970	C	C6-N1-C2	6.01	122.70	120.30
1	6	458	G	C5-C6-O6	-6.01	125.00	128.60
36	5	421	G	O5'-P-OP2	-6.01	100.29	105.70
36	5	717	C	OP2-P-O3'	6.01	118.42	105.20
36	5	1008	U	C2-N1-C1'	-6.01	110.49	117.70
36	1	2550	U	N1-C2-O2	6.00	127.00	122.80
36	5	2347	U	C5-C4-O4	-6.00	122.30	125.90
1	2	1629	G	C8-N9-C4	-6.00	104.00	106.40
36	1	1353	U	N3-C2-O2	-6.00	118.00	122.20
36	1	2726	C	C5-C6-N1	-6.00	118.00	121.00
1	6	616	G	O5'-P-OP1	-6.00	100.30	105.70
1	6	362	G	N3-C4-N9	6.00	129.60	126.00
36	5	805	G	OP2-P-O3'	6.00	118.40	105.20
36	5	1127	G	C5-C6-O6	-6.00	125.00	128.60
36	5	2735	U	C2-N3-C4	6.00	130.60	127.00
36	1	2611	U	C2-N3-C4	-6.00	123.40	127.00
36	1	3111	U	N1-C2-O2	6.00	127.00	122.80
36	5	1012	G	C8-N9-C1'	6.00	134.80	127.00
36	5	3195	U	N3-C2-O2	-6.00	118.00	122.20
36	1	282	G	C2'-C3'-O3'	6.00	123.30	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	63	A	OP1-P-OP2	-6.00	110.60	119.60
36	1	78	U	C4-C5-C6	6.00	123.30	119.70
36	1	667	C	N3-C4-N4	-6.00	113.80	118.00
36	1	2370	G	OP2-P-O3'	6.00	118.39	105.20
1	6	136	C	C2-N1-C1'	6.00	125.40	118.80
36	5	2109	U	N1-C2-N3	6.00	118.50	114.90
36	5	2399	A	N1-C2-N3	6.00	132.30	129.30
36	1	1103	A	O5'-P-OP2	6.00	117.89	110.70
36	1	1434	G	N9-C4-C5	6.00	107.80	105.40
36	1	2176	U	C5-C4-O4	6.00	129.50	125.90
36	1	2996	U	C5-C6-N1	6.00	125.70	122.70
1	6	339	C	N1-C2-O2	-6.00	115.30	118.90
36	5	2618	G	N1-C6-O6	-6.00	116.30	119.90
1	2	61	A	C5-N7-C8	-5.99	100.90	103.90
36	1	709	A	C5-N7-C8	5.99	106.90	103.90
38	4	79	A	P-O3'-C3'	5.99	126.89	119.70
36	5	1448	U	C2-N3-C4	-5.99	123.40	127.00
36	5	2763	U	N3-C2-O2	5.99	126.39	122.20
54	m8	92	ARG	NE-CZ-NH2	-5.99	117.30	120.30
6	S4	3	ARG	NE-CZ-NH1	-5.99	117.31	120.30
36	1	613	G	N9-C4-C5	-5.99	103.00	105.40
36	1	632	G	OP2-P-O3'	5.99	118.38	105.20
36	1	1126	G	N1-C6-O6	5.99	123.49	119.90
36	1	424	G	C5-N7-C8	5.99	107.30	104.30
36	1	946	U	N1-C2-N3	5.99	118.49	114.90
36	1	1210	U	C5-C6-N1	-5.99	119.71	122.70
36	1	1498	A	C6-N1-C2	-5.99	115.01	118.60
36	5	2138	A	C5-C6-N1	-5.99	114.70	117.70
36	5	2947	G	C2-N3-C4	5.99	114.89	111.90
36	1	3210	A	O5'-P-OP2	-5.99	100.31	105.70
36	5	928	C	O5'-P-OP1	5.99	117.89	110.70
36	5	3058	U	O4'-C1'-N1	5.99	112.99	108.20
36	1	1496	C	C2-N1-C1'	5.99	125.38	118.80
36	1	2728	G	O4'-C1'-N9	5.99	112.99	108.20
38	4	16	G	C8-N9-C4	5.99	108.79	106.40
36	5	2820	A	OP2-P-O3'	-5.99	92.03	105.20
36	5	2849	C	C5-C6-N1	5.99	123.99	121.00
1	2	1518	C	O5'-P-OP1	-5.98	100.31	105.70
36	1	2411	U	C2-N1-C1'	-5.98	110.52	117.70
36	5	1436	U	C5-C4-O4	-5.98	122.31	125.90
38	4	94	C	C6-N1-C2	5.98	122.69	120.30
36	1	319	A	O5'-P-OP1	-5.98	100.32	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	783	A	C2-N3-C4	-5.98	107.61	110.60
36	5	993	G	O4'-C1'-N9	5.98	112.98	108.20
36	5	2366	C	N3-C4-N4	5.98	122.19	118.00
36	5	2891	U	N1-C2-N3	5.98	118.49	114.90
36	1	1178	G	N3-C4-C5	-5.98	125.61	128.60
36	1	1793	C	N3-C4-C5	5.98	124.29	121.90
36	5	822	G	O5'-P-OP2	5.98	117.87	110.70
36	5	2379	U	C6-N1-C2	5.98	124.59	121.00
36	5	3130	A	C8-N9-C4	5.98	108.19	105.80
37	7	110	G	O4'-C1'-N9	5.98	112.98	108.20
36	1	1316	C	C2-N3-C4	-5.98	116.91	119.90
36	5	205	C	N3-C4-C5	5.98	124.29	121.90
38	4	32	C	C2-N1-C1'	-5.97	112.23	118.80
36	5	1192	C	N3-C4-C5	5.97	124.29	121.90
36	5	3347	A	C8-N9-C4	5.97	108.19	105.80
36	1	3055	U	N3-C4-O4	5.97	123.58	119.40
36	5	1314	C	N3-C2-O2	-5.97	117.72	121.90
1	2	551	G	C4-C5-N7	5.97	113.19	110.80
36	1	341	G	C5-C6-N1	5.97	114.48	111.50
36	1	2828	G	O5'-P-OP2	5.97	117.86	110.70
36	5	1193	A	N7-C8-N9	5.97	116.78	113.80
36	1	44	U	C2-N1-C1'	-5.97	110.54	117.70
36	1	709	A	O5'-P-OP2	5.97	117.86	110.70
36	1	371	G	N9-C4-C5	-5.97	103.01	105.40
36	1	1594	A	N9-C4-C5	5.97	108.19	105.80
36	5	204	A	C4-C5-N7	-5.97	107.72	110.70
36	5	2234	G	C6-N1-C2	-5.97	121.52	125.10
36	5	2705	A	N9-C4-C5	-5.97	103.41	105.80
36	5	2922	G	N1-C6-O6	-5.97	116.32	119.90
36	5	2955	U	N1-C2-N3	5.97	118.48	114.90
38	8	81	U	N3-C2-O2	-5.97	118.02	122.20
36	1	102	C	C5-C4-N4	-5.96	116.02	120.20
36	1	214	G	C8-N9-C4	5.96	108.79	106.40
36	1	1879	A	C8-N9-C4	-5.96	103.41	105.80
36	1	2731	U	N1-C2-O2	-5.96	118.62	122.80
1	6	901	G	C5-N7-C8	-5.96	101.32	104.30
36	5	937	G	C5-N7-C8	5.96	107.28	104.30
36	5	1047	A	C6-C5-N7	-5.96	128.12	132.30
36	5	2244	A	O5'-P-OP1	5.96	117.86	110.70
36	5	3304	U	N1-C2-O2	-5.96	118.62	122.80
36	1	924	G	C4-C5-N7	5.96	113.19	110.80
36	1	1586	G	O5'-P-OP2	-5.96	100.33	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	804	A	N1-C6-N6	5.96	122.18	118.60
36	5	1847	A	N3-C4-C5	5.96	130.97	126.80
36	5	1870	C	N3-C4-C5	5.96	124.28	121.90
36	5	2400	G	N1-C2-N3	5.96	127.48	123.90
36	5	2614	G	C5-N7-C8	5.96	107.28	104.30
36	5	2928	C	C6-N1-C2	-5.96	117.92	120.30
36	1	2376	G	N3-C4-C5	-5.96	125.62	128.60
36	5	966	U	O5'-P-OP2	-5.96	100.33	105.70
36	5	1838	G	N1-C2-N2	5.96	121.56	116.20
36	5	2290	C	N3-C4-C5	5.96	124.28	121.90
36	5	2692	A	N9-C4-C5	5.96	108.19	105.80
36	5	3060	C	C5-C4-N4	-5.96	116.03	120.20
36	1	2149	A	C5-C6-N1	-5.96	114.72	117.70
1	6	1613	U	N3-C2-O2	-5.96	118.03	122.20
36	5	1592	G	C8-N9-C4	-5.96	104.02	106.40
36	1	652	G	N3-C2-N2	5.96	124.07	119.90
36	1	1440	G	C6-N1-C2	5.96	128.68	125.10
36	5	277	G	O5'-P-OP1	-5.96	100.34	105.70
36	5	2373	A	C5-C6-N6	-5.96	118.93	123.70
36	5	3028	G	N3-C4-N9	5.96	129.57	126.00
37	7	94	C	O5'-P-OP2	5.96	117.85	110.70
37	7	100	C	C5-C6-N1	-5.96	118.02	121.00
36	1	1340	G	N9-C4-C5	-5.96	103.02	105.40
36	5	1884	A	OP2-P-O3'	5.96	118.30	105.20
36	5	2725	U	OP2-P-O3'	5.96	118.31	105.20
36	5	2816	G	C2-N3-C4	5.96	114.88	111.90
36	5	3285	C	C2-N1-C1'	5.96	125.35	118.80
1	2	577	G	N3-C4-C5	5.96	131.58	128.60
1	2	1291	G	N3-C4-C5	5.96	131.58	128.60
36	1	1177	G	N1-C2-N2	5.96	121.56	116.20
1	6	1614	A	N1-C6-N6	5.96	122.17	118.60
36	5	3228	C	C2-N1-C1'	5.96	125.35	118.80
1	2	1340	U	C5-C4-O4	5.95	129.47	125.90
36	1	960	U	OP2-P-O3'	5.95	118.30	105.20
36	5	192	C	OP1-P-O3'	5.95	118.30	105.20
36	5	372	A	C4-C5-N7	5.95	113.68	110.70
36	5	2818	U	C4-C5-C6	-5.95	116.13	119.70
36	1	1835	A	C2-N3-C4	-5.95	107.62	110.60
36	1	3040	A	OP2-P-O3'	5.95	118.29	105.20
36	5	1312	C	C5-C4-N4	5.95	124.37	120.20
36	5	2335	G	C5-C6-O6	5.95	132.17	128.60
36	1	637	C	C2-N1-C1'	-5.95	112.25	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2218	G	N1-C6-O6	-5.95	116.33	119.90
36	1	2359	C	N1-C2-O2	-5.95	115.33	118.90
36	5	1556	C	N1-C2-O2	5.95	122.47	118.90
36	5	1870	C	C5-C6-N1	-5.95	118.03	121.00
36	5	1917	C	C4-C5-C6	5.95	120.38	117.40
36	5	2944	U	N3-C2-O2	-5.95	118.03	122.20
37	7	10	C	N3-C4-C5	5.95	124.28	121.90
36	1	504	A	O5'-P-OP2	-5.95	100.35	105.70
36	1	786	A	C5-C6-N6	5.95	128.46	123.70
36	1	2178	A	N1-C6-N6	-5.95	115.03	118.60
36	1	2799	A	C8-N9-C4	5.95	108.18	105.80
36	1	2818	U	O5'-P-OP2	-5.95	100.35	105.70
38	4	5	U	N3-C4-C5	5.95	118.17	114.60
11	s9	99	LEU	CA-CB-CG	5.95	128.98	115.30
36	5	1371	G	C5-N7-C8	5.95	107.27	104.30
38	8	139	U	C5-C4-O4	5.95	129.47	125.90
36	1	71	A	N1-C2-N3	5.95	132.27	129.30
36	5	13	A	N1-C6-N6	-5.95	115.03	118.60
36	5	72	C	N3-C4-C5	5.95	124.28	121.90
36	1	280	U	C5-C4-O4	-5.95	122.33	125.90
36	1	776	U	N3-C2-O2	-5.95	118.04	122.20
36	1	932	U	OP1-P-O3'	5.95	118.28	105.20
36	1	2660	G	C5-C6-N1	5.95	114.47	111.50
1	6	678	A	P-O3'-C3'	5.95	126.83	119.70
36	5	831	G	C2-N3-C4	5.95	114.87	111.90
36	5	1161	G	N7-C8-N9	-5.95	110.13	113.10
36	5	2402	A	N1-C6-N6	-5.95	115.03	118.60
36	5	2422	C	N3-C4-N4	-5.95	113.84	118.00
36	5	3074	G	N3-C2-N2	5.95	124.06	119.90
37	7	73	C	OP1-P-OP2	-5.95	110.68	119.60
36	1	1867	A	C8-N9-C4	5.94	108.18	105.80
36	5	705	A	O5'-P-OP2	-5.94	100.35	105.70
1	2	734	A	OP1-P-O3'	5.94	118.27	105.20
36	1	2423	U	N1-C2-O2	-5.94	118.64	122.80
36	5	1298	C	N1-C2-O2	-5.94	115.33	118.90
36	5	1561	G	O4'-C1'-N9	5.94	112.95	108.20
36	5	2392	C	C5-C6-N1	-5.94	118.03	121.00
36	1	196	G	C5-C6-O6	-5.94	125.04	128.60
1	6	815	G	C8-N9-C4	-5.94	104.02	106.40
36	5	816	A	O5'-P-OP2	-5.94	100.35	105.70
36	5	841	A	C5-C6-N1	5.94	120.67	117.70
36	1	2340	U	C5-C6-N1	5.94	125.67	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2121	G	O5'-P-OP1	5.94	117.83	110.70
36	5	3309	G	N3-C4-N9	5.94	129.56	126.00
36	1	760	G	O4'-C1'-N9	5.94	112.95	108.20
36	1	765	C	N1-C2-O2	5.94	122.46	118.90
36	1	1296	C	C4-C5-C6	5.94	120.37	117.40
36	1	1448	U	C2-N3-C4	-5.94	123.44	127.00
1	6	272	U	P-O3'-C3'	5.94	126.83	119.70
36	5	393	U	C6-N1-C2	-5.94	117.44	121.00
36	5	3195	U	N1-C2-O2	5.94	126.95	122.80
37	7	43	U	N1-C2-N3	5.94	118.46	114.90
37	3	11	A	C8-N9-C4	5.93	108.17	105.80
1	6	385	A	C5-C6-N6	5.93	128.45	123.70
36	5	869	G	C5-C6-N1	5.93	114.47	111.50
36	5	908	G	C4-N9-C1'	5.93	134.22	126.50
36	1	112	U	N3-C4-O4	5.93	123.55	119.40
36	1	1048	A	C5-N7-C8	5.93	106.87	103.90
36	1	2247	G	N9-C4-C5	-5.93	103.03	105.40
36	1	2623	G	OP1-P-OP2	-5.93	110.70	119.60
36	5	2339	C	C6-N1-C2	-5.93	117.93	120.30
36	5	2614	G	O5'-P-OP2	-5.93	100.36	105.70
36	5	2859	U	C5-C6-N1	5.93	125.67	122.70
36	1	3247	G	C6-C5-N7	-5.93	126.84	130.40
36	1	1599	G	N1-C6-O6	-5.93	116.34	119.90
36	1	2899	C	C4-C5-C6	5.93	120.36	117.40
78	Q2	35	LEU	CA-CB-CG	5.93	128.94	115.30
12	c0	83	PRO	N-CA-CB	5.93	110.42	103.30
36	5	1480	G	O4'-C1'-N9	5.93	112.94	108.20
36	1	1868	G	N3-C4-N9	5.93	129.56	126.00
36	5	3123	A	N7-C8-N9	-5.93	110.84	113.80
24	D2	93	LEU	CA-CB-CG	5.93	128.93	115.30
36	1	961	C	C6-N1-C2	5.93	122.67	120.30
36	1	2732	G	C4-C5-N7	5.93	113.17	110.80
37	7	50	U	C6-N1-C2	-5.93	117.44	121.00
18	C6	40	GLU	C-N-CD	-5.92	107.56	120.60
36	1	110	G	C2-N3-C4	-5.92	108.94	111.90
1	6	337	G	O4'-C1'-N9	-5.92	103.46	108.20
1	6	1656	U	O5'-P-OP1	5.92	117.81	110.70
36	5	2961	G	C8-N9-C4	-5.92	104.03	106.40
36	5	3018	C	O5'-P-OP2	-5.92	100.37	105.70
37	7	32	U	C5-C6-N1	-5.92	119.74	122.70
1	2	1556	A	OP1-P-O3'	5.92	118.23	105.20
36	1	57	A	C2-N3-C4	-5.92	107.64	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2434	U	C5-C4-O4	5.92	129.45	125.90
36	1	2777	G	N9-C4-C5	5.92	107.77	105.40
36	5	22	G	C8-N9-C4	5.92	108.77	106.40
36	5	960	U	N1-C1'-C2'	5.92	121.70	114.00
36	1	1367	G	N3-C4-N9	5.92	129.55	126.00
36	1	2389	C	C6-N1-C2	5.92	122.67	120.30
36	5	415	G	N1-C6-O6	-5.92	116.35	119.90
36	5	972	A	OP2-P-O3'	5.92	118.23	105.20
36	5	297	G	O4'-C1'-N9	5.92	112.94	108.20
52	m6	16	VAL	CG1-CB-CG2	-5.92	101.43	110.90
36	1	1443	G	C5-N7-C8	-5.92	101.34	104.30
36	1	3123	A	C2-N3-C4	-5.92	107.64	110.60
36	1	3344	A	C2-N3-C4	-5.92	107.64	110.60
52	M6	84	LEU	CB-CG-CD2	-5.92	100.94	111.00
36	5	1445	U	N1-C2-N3	5.92	118.45	114.90
36	5	3280	U	OP1-P-OP2	-5.92	110.72	119.60
36	1	81	C	C2-N3-C4	-5.92	116.94	119.90
36	1	983	A	C5-C6-N6	-5.92	118.97	123.70
36	1	1372	C	C6-N1-C2	5.92	122.67	120.30
1	6	1746	A	C8-N9-C4	-5.92	103.43	105.80
36	5	1209	G	N1-C6-O6	-5.92	116.35	119.90
36	5	3228	C	N3-C2-O2	-5.92	117.76	121.90
36	1	2942	C	O5'-P-OP1	5.92	117.80	110.70
1	2	1198	G	N7-C8-N9	5.91	116.06	113.10
36	1	3178	A	N1-C6-N6	5.91	122.15	118.60
36	5	304	G	C2-N3-C4	5.91	114.86	111.90
36	5	337	G	C8-N9-C4	-5.91	104.03	106.40
1	2	314	C	C6-N1-C2	-5.91	117.94	120.30
36	1	890	C	C6-N1-C2	-5.91	117.94	120.30
36	1	1313	G	N1-C6-O6	5.91	123.45	119.90
36	1	1320	C	N1-C2-O2	-5.91	115.35	118.90
36	5	935	U	C2-N3-C4	-5.91	123.45	127.00
36	1	967	A	N1-C2-N3	5.91	132.25	129.30
36	1	2735	U	N3-C4-O4	-5.91	115.26	119.40
36	1	2834	G	C5-C6-O6	-5.91	125.05	128.60
1	6	435	C	N1-C2-O2	5.91	122.45	118.90
36	5	215	G	C8-N9-C4	-5.91	104.04	106.40
36	5	1164	G	C4-C5-N7	-5.91	108.44	110.80
36	5	1365	G	N3-C4-N9	5.91	129.55	126.00
36	5	2253	G	O5'-P-OP2	-5.91	100.38	105.70
1	2	1611	A	C8-N9-C4	-5.91	103.44	105.80
36	1	1155	C	N3-C4-N4	-5.91	113.86	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3362	A	C4-N9-C1'	5.91	136.94	126.30
37	3	104	A	C8-N9-C4	5.91	108.16	105.80
36	5	946	U	C5-C6-N1	-5.91	119.75	122.70
36	5	2369	G	C8-N9-C4	5.91	108.76	106.40
36	1	3045	G	N3-C4-C5	-5.91	125.65	128.60
15	c3	114	ARG	NE-CZ-NH1	5.91	123.25	120.30
36	5	1307	G	N1-C2-N3	-5.91	120.36	123.90
36	1	2152	A	C5-N7-C8	5.91	106.85	103.90
1	6	1027	A	C5-N7-C8	-5.91	100.95	103.90
1	6	1100	G	C6-N1-C2	-5.91	121.56	125.10
36	5	2861	U	C4-C5-C6	5.91	123.24	119.70
36	1	948	C	C6-N1-C2	5.90	122.66	120.30
36	1	2626	A	N1-C2-N3	5.90	132.25	129.30
12	c0	88	PRO	N-CA-CB	5.90	110.38	103.30
36	5	1124	U	C4-C5-C6	-5.90	116.16	119.70
36	5	3181	C	N3-C4-C5	-5.90	119.54	121.90
5	S3	143	ARG	NE-CZ-NH2	5.90	123.25	120.30
36	1	188	U	N1-C2-O2	-5.90	118.67	122.80
36	1	366	A	C2-N3-C4	5.90	113.55	110.60
36	1	2177	G	N9-C4-C5	-5.90	103.04	105.40
1	6	1703	C	C5-C6-N1	5.90	123.95	121.00
36	5	785	G	C2-N3-C4	5.90	114.85	111.90
36	5	2420	C	N3-C2-O2	5.90	126.03	121.90
36	1	701	G	OP2-P-O3'	5.90	118.18	105.20
36	1	859	G	N3-C4-C5	-5.90	125.65	128.60
36	5	427	C	N3-C4-N4	-5.90	113.87	118.00
65	n9	23	LYS	C-N-CD	5.90	140.79	128.40
36	1	956	U	O5'-P-OP1	-5.90	100.39	105.70
36	1	3107	U	O5'-P-OP2	-5.90	100.39	105.70
1	6	403	G	C8-N9-C4	5.90	108.76	106.40
36	5	980	A	C8-N9-C4	5.90	108.16	105.80
36	5	2968	G	N1-C6-O6	-5.90	116.36	119.90
1	2	1118	G	N3-C2-N2	-5.90	115.77	119.90
1	6	272	U	N3-C2-O2	-5.90	118.07	122.20
36	1	2417	U	N1-C2-N3	5.89	118.44	114.90
36	1	2694	A	O5'-P-OP2	-5.89	100.39	105.70
36	1	2725	U	C6-N1-C2	5.89	124.54	121.00
38	4	72	A	O5'-P-OP1	-5.89	100.40	105.70
1	6	31	C	N1-C2-O2	-5.89	115.36	118.90
1	6	163	G	C8-N9-C1'	5.89	134.66	127.00
36	5	916	G	N3-C2-N2	-5.89	115.77	119.90
36	1	941	G	N1-C6-O6	-5.89	116.36	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1365	G	N7-C8-N9	5.89	116.05	113.10
36	5	2112	U	C5-C6-N1	5.89	125.65	122.70
36	5	2823	G	C5-C6-O6	5.89	132.13	128.60
1	2	343	C	N1-C2-O2	5.89	122.43	118.90
36	1	2145	A	C8-N9-C4	-5.89	103.44	105.80
36	1	2960	C	N3-C4-C5	5.89	124.26	121.90
36	5	1367	G	C4-N9-C1'	5.89	134.16	126.50
36	5	3048	A	C2-N3-C4	5.89	113.55	110.60
36	5	3140	G	N1-C6-O6	5.89	123.43	119.90
1	2	1141	G	N1-C6-O6	-5.89	116.37	119.90
36	1	225	C	N3-C4-N4	5.89	122.12	118.00
36	1	1923	C	C6-N1-C2	5.89	122.66	120.30
36	1	2163	C	C2-N3-C4	-5.89	116.95	119.90
37	3	88	G	N3-C4-N9	5.89	129.53	126.00
1	6	1137	A	O5'-P-OP2	5.89	117.76	110.70
36	5	2327	U	C6-N1-C2	5.89	124.53	121.00
36	5	3330	A	N1-C6-N6	-5.89	115.07	118.60
36	1	960	U	C4-C5-C6	-5.88	116.17	119.70
36	1	2937	G	C8-N9-C4	5.88	108.75	106.40
36	1	3277	U	C6-N1-C2	-5.88	117.47	121.00
36	5	1373	A	N9-C4-C5	-5.88	103.45	105.80
36	5	2660	G	N3-C4-N9	5.88	129.53	126.00
36	5	3194	C	C2-N1-C1'	-5.88	112.33	118.80
38	8	37	A	N1-C6-N6	-5.88	115.07	118.60
36	1	267	G	C6-C5-N7	-5.88	126.87	130.40
36	1	3086	A	OP2-P-O3'	5.88	118.14	105.20
36	5	971	G	N3-C2-N2	-5.88	115.78	119.90
36	1	55	G	C5-N7-C8	5.88	107.24	104.30
36	1	400	G	N1-C6-O6	5.88	123.43	119.90
36	1	575	G	C6-C5-N7	5.88	133.93	130.40
36	1	1165	A	O5'-P-OP2	-5.88	100.41	105.70
36	1	2287	C	C6-N1-C2	-5.88	117.95	120.30
36	1	2920	U	N3-C4-C5	5.88	118.13	114.60
1	6	945	U	O5'-P-OP1	-5.88	100.41	105.70
36	5	571	U	N3-C2-O2	-5.88	118.08	122.20
36	5	1179	A	O5'-P-OP1	-5.88	100.41	105.70
36	5	1360	C	N1-C2-O2	-5.88	115.37	118.90
36	5	1880	U	N3-C4-O4	-5.88	115.28	119.40
36	5	1908	A	N9-C4-C5	5.88	108.15	105.80
36	5	2649	A	N9-C4-C5	-5.88	103.45	105.80
36	1	674	G	C4-C5-N7	-5.88	108.45	110.80
36	1	2818	U	C5-C4-O4	-5.88	122.37	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3050	U	N1-C2-O2	5.88	126.92	122.80
1	6	52	U	N3-C2-O2	-5.88	118.08	122.20
36	1	344	A	N1-C2-N3	-5.88	126.36	129.30
36	1	3172	A	C8-N9-C4	5.88	108.15	105.80
1	6	871	G	C6-C5-N7	-5.88	126.87	130.40
36	5	2875	U	N1-C2-O2	-5.88	118.69	122.80
1	6	417	A	P-O3'-C3'	5.88	126.75	119.70
36	1	22	G	N3-C4-C5	-5.88	125.66	128.60
36	5	871	U	N1-C2-N3	5.88	118.42	114.90
36	5	645	A	C8-N9-C4	-5.87	103.45	105.80
36	5	1935	G	C8-N9-C4	5.87	108.75	106.40
36	5	2404	A	N1-C6-N6	5.87	122.12	118.60
36	5	2824	G	N1-C2-N3	5.87	127.42	123.90
36	1	212	G	N3-C4-N9	5.87	129.52	126.00
36	1	938	C	N3-C2-O2	5.87	126.01	121.90
36	1	1847	A	C5-C6-N1	5.87	120.64	117.70
1	6	1188	G	N1-C6-O6	5.87	123.42	119.90
37	3	83	U	C2-N3-C4	-5.87	123.48	127.00
1	2	1363	U	C2-N1-C1'	5.87	124.74	117.70
36	1	1114	U	C6-N1-C2	5.87	124.52	121.00
36	1	2815	G	N9-C4-C5	-5.87	103.05	105.40
36	1	3120	C	N1-C2-O2	-5.87	115.38	118.90
36	1	3141	A	OP2-P-O3'	5.87	118.11	105.20
1	6	870	C	O5'-P-OP1	-5.87	100.42	105.70
36	5	285	A	C4-C5-N7	-5.87	107.77	110.70
36	5	2651	G	C6-C5-N7	5.87	133.92	130.40
36	5	3050	U	N1-C2-O2	5.87	126.91	122.80
1	2	427	C	C2-N1-C1'	5.87	125.25	118.80
1	2	580	A	C8-N9-C4	-5.87	103.45	105.80
1	2	396	G	C5-C6-O6	-5.87	125.08	128.60
1	2	1196	A	P-O3'-C3'	5.87	126.74	119.70
36	1	918	C	N1-C2-N3	5.87	123.31	119.20
36	1	1858	A	C8-N9-C1'	-5.87	117.14	127.70
1	6	609	U	N3-C2-O2	-5.87	118.09	122.20
1	6	616	G	N3-C4-N9	-5.87	122.48	126.00
36	5	1432	C	N1-C2-O2	-5.87	115.38	118.90
36	5	2617	U	N3-C2-O2	5.87	126.31	122.20
37	7	48	U	O5'-P-OP1	5.87	117.74	110.70
36	1	1051	U	N1-C2-O2	-5.86	118.69	122.80
36	1	1366	A	N7-C8-N9	5.86	116.73	113.80
36	1	1389	G	C6-C5-N7	-5.86	126.88	130.40
36	1	2128	C	O5'-P-OP2	-5.86	100.42	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2283	G	C5-C6-O6	-5.86	125.08	128.60
36	1	2383	C	C4-C5-C6	5.86	120.33	117.40
1	6	65	A	N3-C4-C5	5.86	130.91	126.80
1	6	941	A	N9-C4-C5	5.86	108.14	105.80
1	6	1110	G	C8-N9-C4	-5.86	104.06	106.40
36	5	197	G	C6-C5-N7	-5.86	126.88	130.40
36	5	348	A	C8-N9-C4	5.86	108.15	105.80
36	5	499	G	O5'-P-OP1	-5.86	100.42	105.70
36	5	2611	U	O5'-P-OP2	-5.86	100.42	105.70
36	5	2693	C	C6-N1-C2	5.86	122.64	120.30
36	1	331	G	N1-C2-N2	5.86	121.48	116.20
36	5	1854	C	C2-N3-C4	5.86	122.83	119.90
36	5	3053	G	OP2-P-O3'	5.86	118.10	105.20
36	5	3125	U	O5'-P-OP1	-5.86	100.42	105.70
36	1	369	A	N9-C4-C5	5.86	108.14	105.80
36	1	3269	U	N1-C2-N3	5.86	118.42	114.90
38	4	85	G	C8-N9-C4	-5.86	104.06	106.40
39	L2	123	ARG	NE-CZ-NH1	-5.86	117.37	120.30
36	5	1464	G	C8-N9-C4	5.86	108.74	106.40
36	5	2871	G	N1-C6-O6	-5.86	116.38	119.90
1	2	704	C	O4'-C1'-N1	5.86	112.89	108.20
1	2	1798	U	C5-C6-N1	5.86	125.63	122.70
36	1	1193	A	C5-C6-N6	-5.86	119.01	123.70
36	1	3017	A	O5'-P-OP2	-5.86	100.43	105.70
36	5	1012	G	N3-C4-C5	5.86	131.53	128.60
36	1	1120	A	C5-C6-N1	5.86	120.63	117.70
1	6	610	G	C4-N9-C1'	5.86	134.11	126.50
1	6	1133	A	O5'-P-OP2	5.86	117.73	110.70
36	5	1680	G	C5-C6-O6	5.86	132.11	128.60
36	1	930	U	C5-C6-N1	-5.85	119.77	122.70
36	1	962	A	N1-C2-N3	5.85	132.23	129.30
36	1	2423	U	N3-C4-O4	5.85	123.50	119.40
36	1	3011	A	C8-N9-C4	5.85	108.14	105.80
38	4	103	G	C8-N9-C4	-5.85	104.06	106.40
1	6	638	U	N3-C2-O2	-5.85	118.10	122.20
1	6	904	G	N3-C4-C5	-5.85	125.67	128.60
11	s9	109	LEU	CA-CB-CG	5.85	128.76	115.30
36	5	933	A	N3-C4-C5	-5.85	122.70	126.80
36	5	2643	A	O5'-P-OP2	-5.85	100.43	105.70
36	5	2796	G	O5'-P-OP1	5.85	117.72	110.70
36	5	3031	G	C8-N9-C4	5.85	108.74	106.40
1	2	394	C	N1-C2-O2	5.85	122.41	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2278	C	C5-C6-N1	5.85	123.92	121.00
1	2	720	G	OP1-P-O3'	5.85	118.07	105.20
36	1	646	A	N7-C8-N9	5.85	116.72	113.80
36	1	921	A	O4'-C1'-N9	-5.85	103.52	108.20
36	1	997	A	C8-N9-C4	-5.85	103.46	105.80
36	1	3178	A	N9-C4-C5	-5.85	103.46	105.80
36	5	2725	U	O5'-P-OP1	-5.85	100.44	105.70
36	5	3343	G	N3-C4-N9	5.85	129.51	126.00
36	1	72	C	N1-C2-O2	-5.85	115.39	118.90
36	1	2762	A	N1-C6-N6	-5.85	115.09	118.60
36	5	112	U	O4'-C1'-N1	5.85	112.88	108.20
36	5	506	U	C4-C5-C6	5.85	123.21	119.70
36	1	1003	A	C4-C5-C6	5.85	119.92	117.00
36	1	2722	U	N3-C2-O2	-5.85	118.11	122.20
36	1	2904	U	O5'-P-OP2	-5.85	100.44	105.70
36	5	1307	G	N1-C6-O6	-5.85	116.39	119.90
36	5	2807	U	OP1-P-O3'	5.85	118.06	105.20
1	6	542	A	OP1-P-O3'	5.84	118.06	105.20
1	6	1568	C	P-O3'-C3'	5.84	126.71	119.70
36	5	590	G	O5'-P-OP1	-5.84	100.44	105.70
36	5	1133	A	N1-C6-N6	-5.84	115.09	118.60
36	5	1912	U	N3-C2-O2	5.84	126.29	122.20
36	5	2386	A	C4-C5-C6	5.84	119.92	117.00
36	5	3022	G	N1-C6-O6	-5.84	116.39	119.90
36	1	2836	C	N1-C2-N3	5.84	123.29	119.20
1	2	1761	U	N1-C2-N3	5.84	118.41	114.90
36	1	1000	C	O4'-C1'-N1	5.84	112.87	108.20
36	1	1060	U	C5-C6-N1	-5.84	119.78	122.70
36	1	2295	A	C6-C5-N7	-5.84	128.21	132.30
36	1	2930	A	C2-N3-C4	5.84	113.52	110.60
36	1	2949	U	OP2-P-O3'	5.84	118.05	105.20
36	1	2950	G	C5-C6-N1	5.84	114.42	111.50
38	4	40	A	C6-C5-N7	-5.84	128.21	132.30
38	4	113	U	N1-C2-N3	5.84	118.41	114.90
52	M6	94	ARG	NE-CZ-NH2	5.84	123.22	120.30
36	5	2594	C	C5-C4-N4	-5.84	116.11	120.20
36	5	2611	U	C2-N3-C4	-5.84	123.50	127.00
36	5	1149	G	C4-C5-C6	5.84	122.30	118.80
36	5	2860	U	N1-C2-N3	-5.84	111.40	114.90
36	1	500	C	N3-C4-C5	-5.84	119.56	121.90
36	1	686	G	OP2-P-O3'	5.84	118.04	105.20
36	1	932	U	C2-N3-C4	-5.84	123.50	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	815	G	C4-N9-C1'	5.84	134.09	126.50
36	1	1000	C	O5'-P-OP2	-5.84	100.45	105.70
36	1	1155	C	OP1-P-O3'	5.84	118.04	105.20
36	1	2920	U	OP2-P-O3'	5.84	118.04	105.20
36	5	269	G	C8-N9-C4	5.84	108.73	106.40
36	5	812	G	N1-C6-O6	-5.84	116.40	119.90
36	5	1306	G	OP1-P-O3'	5.84	118.04	105.20
36	5	2418	G	O4'-C1'-N9	5.84	112.87	108.20
1	2	1611	A	N1-C2-N3	5.83	132.22	129.30
37	3	44	C	N3-C2-O2	-5.83	117.81	121.90
1	6	1630	U	C5-C6-N1	-5.83	119.78	122.70
1	6	1657	U	OP1-P-OP2	5.83	128.35	119.60
36	5	75	G	N9-C4-C5	-5.83	103.07	105.40
36	5	875	G	C6-N1-C2	-5.83	121.60	125.10
36	1	281	G	C6-N1-C2	-5.83	121.60	125.10
36	1	659	G	N3-C4-N9	5.83	129.50	126.00
36	1	2783	U	C4-C5-C6	5.83	123.20	119.70
36	5	2850	G	OP1-P-OP2	5.83	128.35	119.60
36	1	859	G	C4-C5-C6	5.83	122.30	118.80
36	1	3212	C	C6-N1-C2	5.83	122.63	120.30
36	5	1307	G	N3-C2-N2	5.83	123.98	119.90
36	5	2281	A	N7-C8-N9	-5.83	110.88	113.80
36	5	2350	C	OP1-P-OP2	-5.83	110.85	119.60
36	5	2887	A	OP2-P-O3'	5.83	118.03	105.20
36	5	3161	C	N3-C4-N4	5.83	122.08	118.00
36	1	2124	G	N1-C6-O6	5.83	123.40	119.90
36	1	2374	C	C6-N1-C2	-5.83	117.97	120.30
36	1	2653	C	N1-C2-N3	5.83	123.28	119.20
1	6	1001	A	N1-C6-N6	5.83	122.10	118.60
36	5	1155	C	OP1-P-O3'	5.83	118.02	105.20
36	5	1312	C	C6-N1-C2	-5.83	117.97	120.30
41	14	230	VAL	CB-CA-C	-5.83	100.33	111.40
1	2	577	G	C5-N7-C8	-5.83	101.39	104.30
1	6	194	U	C2-N1-C1'	5.83	124.69	117.70
1	6	1499	G	C5-C6-O6	5.83	132.09	128.60
36	5	374	A	P-O3'-C3'	5.83	126.69	119.70
36	5	1002	A	O5'-P-OP1	5.83	117.69	110.70
1	2	53	G	C5-C6-O6	5.82	132.09	128.60
1	2	553	G	N3-C2-N2	-5.82	115.82	119.90
36	1	404	G	C8-N9-C4	5.82	108.73	106.40
36	1	404	G	C5-N7-C8	5.82	107.21	104.30
36	1	419	G	N3-C2-N2	5.82	123.98	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	584	G	N1-C6-O6	-5.82	116.41	119.90
36	1	906	A	C5-C6-N1	5.82	120.61	117.70
36	5	952	A	N1-C6-N6	5.82	122.09	118.60
36	1	1420	C	N3-C2-O2	-5.82	117.83	121.90
36	5	216	G	N9-C4-C5	-5.82	103.07	105.40
36	5	531	G	O5'-P-OP1	-5.82	100.46	105.70
1	6	390	G	N1-C6-O6	5.82	123.39	119.90
36	5	2887	A	C4-C5-C6	5.82	119.91	117.00
36	1	3380	U	O5'-P-OP2	-5.82	100.46	105.70
36	5	2377	G	C5-C6-O6	5.82	132.09	128.60
36	1	284	A	N7-C8-N9	5.82	116.71	113.80
36	1	604	G	C8-N9-C4	-5.82	104.07	106.40
36	1	2414	G	N1-C2-N3	5.82	127.39	123.90
37	3	96	U	C2-N3-C4	-5.82	123.51	127.00
36	5	412	G	OP1-P-OP2	-5.82	110.87	119.60
36	5	571	U	N3-C4-O4	-5.82	115.33	119.40
36	5	2860	U	N3-C4-C5	5.82	118.09	114.60
36	5	3179	U	N3-C2-O2	-5.82	118.13	122.20
1	2	1654	G	C5-C6-N1	5.82	114.41	111.50
36	1	633	C	C5-C6-N1	-5.82	118.09	121.00
36	1	1926	C	C5-C4-N4	-5.82	116.13	120.20
1	6	406	U	N1-C2-O2	5.82	126.87	122.80
36	5	715	A	C8-N9-C4	-5.82	103.47	105.80
36	5	2937	G	O5'-P-OP2	5.82	117.68	110.70
36	5	3097	C	N1-C2-O2	-5.82	115.41	118.90
36	5	2351	U	OP1-P-OP2	-5.81	110.88	119.60
36	1	320	G	C5-C6-O6	-5.81	125.11	128.60
36	1	1008	U	N3-C2-O2	5.81	126.27	122.20
36	1	1154	A	N3-C4-C5	-5.81	122.73	126.80
36	1	1394	A	N3-C4-C5	5.81	130.87	126.80
36	1	2653	C	N3-C2-O2	-5.81	117.83	121.90
36	5	106	A	C8-N9-C4	5.81	108.12	105.80
36	5	649	A	C5-N7-C8	-5.81	100.99	103.90
36	1	3166	C	C6-N1-C2	-5.81	117.97	120.30
36	1	1516	C	N1-C2-O2	-5.81	115.41	118.90
36	1	2388	U	N1-C2-O2	-5.81	118.73	122.80
36	1	2892	A	N1-C6-N6	-5.81	115.11	118.60
1	6	412	A	C2-N3-C4	5.81	113.50	110.60
36	5	334	A	C5-N7-C8	5.81	106.81	103.90
36	5	1432	C	N3-C4-C5	5.81	124.22	121.90
36	5	2297	U	N1-C2-O2	-5.81	118.73	122.80
36	5	2383	C	C5-C4-N4	-5.81	116.13	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2836	C	O4'-C1'-N1	5.81	112.85	108.20
37	7	75	G	N3-C2-N2	-5.81	115.83	119.90
1	2	1596	C	C2-N1-C1'	5.81	125.19	118.80
36	1	545	U	C2-N1-C1'	5.81	124.67	117.70
36	1	1103	A	C8-N9-C4	5.81	108.12	105.80
36	1	1307	G	C4-N9-C1'	-5.81	118.95	126.50
36	5	1083	G	OP1-P-OP2	5.81	128.31	119.60
36	5	1917	C	N1-C2-O2	-5.81	115.42	118.90
36	5	2357	A	N9-C4-C5	-5.81	103.48	105.80
36	5	2831	G	N3-C4-C5	-5.81	125.70	128.60
36	5	2948	C	C6-N1-C2	5.81	122.62	120.30
36	1	66	A	O5'-P-OP2	5.81	117.67	110.70
36	5	309	U	N3-C2-O2	5.81	126.26	122.20
36	1	2620	G	C4-N9-C1'	-5.80	118.95	126.50
36	5	825	U	N1-C2-O2	5.80	126.86	122.80
36	5	1365	G	N1-C2-N2	-5.80	110.98	116.20
36	5	2113	A	O4'-C1'-N9	-5.80	103.56	108.20
36	1	1530	U	N3-C2-O2	5.80	126.26	122.20
36	1	2152	A	C4-C5-N7	-5.80	107.80	110.70
1	6	609	U	N3-C4-O4	-5.80	115.34	119.40
36	5	1441	G	C5-C6-O6	-5.80	125.12	128.60
36	5	2249	G	C2-N3-C4	5.80	114.80	111.90
36	5	2850	G	O5'-P-OP2	-5.80	100.48	105.70
36	1	2619	G	OP1-P-OP2	5.80	128.30	119.60
36	5	1156	C	C6-N1-C2	-5.80	117.98	120.30
36	5	2136	C	OP2-P-O3'	5.80	117.96	105.20
1	2	1462	G	N1-C6-O6	5.80	123.38	119.90
36	1	2722	U	N1-C2-O2	5.80	126.86	122.80
36	1	3174	A	N7-C8-N9	5.80	116.70	113.80
1	6	378	A	N1-C6-N6	5.80	122.08	118.60
36	5	2117	A	N1-C6-N6	-5.80	115.12	118.60
36	5	2914	G	C2-N3-C4	5.80	114.80	111.90
36	1	1197	A	C5-C6-N6	-5.80	119.06	123.70
38	4	38	U	N1-C2-N3	5.80	118.38	114.90
1	6	613	G	N3-C4-N9	5.80	129.48	126.00
1	2	380	U	N3-C2-O2	-5.80	118.14	122.20
36	1	201	A	C2-N3-C4	-5.80	107.70	110.60
36	1	2396	G	C8-N9-C4	5.80	108.72	106.40
36	1	3362	A	C4-C5-C6	5.80	119.90	117.00
38	4	51	G	C4-C5-N7	5.80	113.12	110.80
36	5	1548	C	N3-C2-O2	5.80	125.96	121.90
36	5	2182	A	N1-C2-N3	5.80	132.20	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3244	A	O4'-C1'-N9	-5.80	103.56	108.20
1	6	449	C	N3-C4-N4	-5.79	113.94	118.00
36	5	304	G	N3-C2-N2	-5.79	115.84	119.90
1	2	1093	A	N1-C6-N6	5.79	122.08	118.60
36	1	1593	A	C8-N9-C4	5.79	108.12	105.80
38	4	116	G	C8-N9-C4	5.79	108.72	106.40
36	5	3388	C	N3-C4-N4	-5.79	113.94	118.00
1	6	1700	C	C6-N1-C1'	-5.79	113.85	120.80
36	5	503	C	C5-C4-N4	-5.79	116.14	120.20
36	5	715	A	O4'-C1'-N9	5.79	112.83	108.20
36	5	861	C	C2-N3-C4	-5.79	117.00	119.90
36	5	1842	A	N1-C6-N6	5.79	122.07	118.60
36	1	922	U	N3-C2-O2	-5.79	118.15	122.20
36	5	2402	A	N9-C4-C5	5.79	108.12	105.80
36	5	2818	U	C5'-C4'-O4'	-5.79	102.15	109.10
36	1	652	G	C4-C5-N7	5.79	113.12	110.80
36	5	2191	U	N1-C2-O2	5.79	126.85	122.80
36	5	3058	U	C6-N1-C1'	-5.79	113.09	121.20
36	1	1920	U	N3-C2-O2	-5.79	118.15	122.20
36	1	2857	C	C6-N1-C2	5.79	122.61	120.30
1	6	1537	C	C4-C5-C6	5.79	120.29	117.40
36	5	579	G	OP2-P-O3'	5.79	117.93	105.20
36	1	329	U	C5-C6-N1	-5.79	119.81	122.70
36	1	971	G	O5'-P-OP2	-5.79	100.49	105.70
36	1	1541	G	N1-C6-O6	5.79	123.37	119.90
36	1	1793	C	C2-N3-C4	-5.79	117.01	119.90
36	1	2303	A	N1-C6-N6	-5.79	115.13	118.60
36	1	2637	A	O5'-P-OP1	-5.79	100.49	105.70
36	1	3135	U	OP1-P-OP2	5.79	128.28	119.60
1	6	402	C	O5'-P-OP1	5.79	117.64	110.70
36	5	3042	U	N3-C4-O4	-5.79	115.35	119.40
36	5	3303	G	O5'-P-OP2	-5.79	100.49	105.70
1	2	1761	U	C6-N1-C2	-5.78	117.53	121.00
36	1	655	C	N3-C2-O2	-5.78	117.85	121.90
36	1	2302	G	N3-C2-N2	5.78	123.95	119.90
36	1	2354	C	N3-C2-O2	-5.78	117.85	121.90
36	1	2906	C	N3-C2-O2	-5.78	117.85	121.90
36	1	2983	C	O4'-C1'-N1	5.78	112.83	108.20
1	6	1703	C	C2-N1-C1'	5.78	125.16	118.80
38	8	69	U	O5'-P-OP2	-5.78	100.49	105.70
36	1	331	G	N3-C2-N2	-5.78	115.85	119.90
36	5	197	G	O5'-P-OP2	-5.78	100.50	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1150	A	O5'-P-OP2	-5.78	100.50	105.70
36	5	1152	G	N9-C4-C5	5.78	107.71	105.40
1	6	4	C	O5'-P-OP1	-5.78	100.50	105.70
1	6	795	U	C2-N1-C1'	5.78	124.64	117.70
36	5	1164	G	C5-N7-C8	5.78	107.19	104.30
36	5	2615	G	N9-C4-C5	-5.78	103.09	105.40
1	2	769	A	N1-C6-N6	-5.78	115.13	118.60
36	1	340	C	C5-C6-N1	-5.78	118.11	121.00
36	1	1472	U	C6-N1-C2	5.78	124.47	121.00
36	5	406	G	C5-C6-N1	5.78	114.39	111.50
36	5	2732	G	C4-C5-C6	5.78	122.27	118.80
1	2	1051	G	O4'-C1'-N9	5.78	112.82	108.20
36	1	63	A	N7-C8-N9	5.78	116.69	113.80
36	1	2585	G	C2-N3-C4	5.78	114.79	111.90
1	6	1765	A	O4'-C1'-N9	5.78	112.82	108.20
36	5	878	G	OP1-P-O3'	5.78	117.91	105.20
36	5	1847	A	C4-C5-C6	-5.78	114.11	117.00
38	8	8	C	C6-N1-C2	-5.78	117.99	120.30
36	1	171	G	N3-C4-C5	5.78	131.49	128.60
36	1	2371	G	N1-C6-O6	5.78	123.36	119.90
36	1	3181	C	C4-C5-C6	5.78	120.29	117.40
36	5	504	A	C8-N9-C4	5.78	108.11	105.80
36	5	1045	C	OP2-P-O3'	5.78	117.91	105.20
36	5	1891	A	O5'-P-OP2	-5.78	100.50	105.70
36	5	2418	G	OP1-P-O3'	5.78	117.90	105.20
36	5	3362	A	N7-C8-N9	5.78	116.69	113.80
1	2	408	C	O5'-P-OP2	-5.77	100.50	105.70
1	2	1274	C	C5-C4-N4	5.77	124.24	120.20
36	1	1148	G	N3-C2-N2	5.77	123.94	119.90
36	5	407	A	N3-C4-N9	5.77	132.02	127.40
36	5	617	G	C5-C6-O6	-5.77	125.14	128.60
36	5	1907	C	N3-C2-O2	5.77	125.94	121.90
36	5	2284	C	C6-N1-C1'	-5.77	113.87	120.80
36	5	2430	A	C2-N3-C4	-5.77	107.71	110.60
36	5	2867	C	N1-C2-O2	5.77	122.36	118.90
37	7	91	G	N3-C2-N2	-5.77	115.86	119.90
36	5	339	C	C5-C4-N4	5.77	124.24	120.20
36	1	3256	G	N3-C4-C5	5.77	131.48	128.60
36	5	1175	C	C4-C5-C6	-5.77	114.52	117.40
36	5	1582	C	C6-N1-C2	-5.77	117.99	120.30
38	8	36	G	C5-C6-O6	5.77	132.06	128.60
36	5	1390	A	N9-C4-C5	5.77	108.11	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1770	G	C4-N9-C1'	5.77	134.00	126.50
36	5	2704	A	OP2-P-O3'	5.77	117.89	105.20
36	5	1722	U	C5-C6-N1	-5.77	119.82	122.70
36	5	2987	A	C5-N7-C8	5.77	106.78	103.90
36	5	3374	U	N3-C4-O4	-5.77	115.36	119.40
38	8	63	G	C6-C5-N7	5.77	133.86	130.40
36	1	1480	G	OP2-P-O3'	5.76	117.88	105.20
36	1	2121	G	C5-N7-C8	5.76	107.18	104.30
36	1	2135	U	C4-C5-C6	-5.76	116.24	119.70
36	1	2150	G	C4-C5-N7	-5.76	108.49	110.80
1	6	371	G	C5-C6-O6	-5.76	125.14	128.60
1	6	619	A	OP2-P-O3'	5.76	117.88	105.20
1	6	1004	U	N1-C2-O2	-5.76	118.77	122.80
36	5	880	G	C4-N9-C1'	-5.76	119.01	126.50
36	5	2197	C	C6-N1-C1'	5.76	127.72	120.80
36	5	2639	G	C4-C5-C6	5.76	122.26	118.80
36	5	2772	C	O5'-P-OP1	-5.76	100.51	105.70
51	m5	153	ASP	CB-CG-OD2	-5.76	113.11	118.30
36	1	1116	G	C8-N9-C4	-5.76	104.09	106.40
1	6	1607	G	C5-N7-C8	5.76	107.18	104.30
1	2	1669	U	C5-C6-N1	5.76	125.58	122.70
36	1	351	A	N1-C2-N3	5.76	132.18	129.30
36	1	730	C	N3-C4-C5	5.76	124.20	121.90
36	1	1062	A	C5-N7-C8	-5.76	101.02	103.90
36	1	1194	G	C4-C5-N7	-5.76	108.50	110.80
36	5	40	A	C8-N9-C4	-5.76	103.50	105.80
36	5	938	C	N1-C2-O2	-5.76	115.44	118.90
36	5	1117	G	C6-C5-N7	5.76	133.86	130.40
36	5	1466	G	OP2-P-O3'	5.76	117.87	105.20
36	5	2788	C	C5-C4-N4	5.76	124.23	120.20
1	2	742	U	C5-C6-N1	5.76	125.58	122.70
36	1	57	A	OP2-P-O3'	5.76	117.87	105.20
36	1	1541	G	N9-C4-C5	-5.76	103.10	105.40
36	1	2920	U	N3-C4-O4	-5.76	115.37	119.40
38	4	49	G	C5-C6-O6	-5.76	125.14	128.60
1	6	73	U	N3-C2-O2	5.76	126.23	122.20
36	5	861	C	C4-C5-C6	5.76	120.28	117.40
36	5	1884	A	C6-C5-N7	-5.76	128.27	132.30
36	5	3217	C	N3-C4-N4	-5.76	113.97	118.00
36	1	59	G	C6-C5-N7	-5.76	126.94	130.40
1	6	639	U	C2-N1-C1'	5.76	124.61	117.70
1	6	687	G	N9-C4-C5	5.76	107.70	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1059	G	C5-C6-N1	5.76	114.38	111.50
36	5	2609	A	N1-C6-N6	-5.76	115.14	118.60
36	1	956	U	N3-C2-O2	-5.76	118.17	122.20
36	1	1492	G	C4-C5-C6	5.76	122.25	118.80
62	N6	13	ARG	NE-CZ-NH2	-5.76	117.42	120.30
36	5	404	G	C4-C5-C6	5.76	122.25	118.80
36	5	681	U	N3-C4-O4	5.76	123.43	119.40
36	5	2384	A	OP2-P-O3'	5.76	117.87	105.20
36	5	3285	C	N1-C2-O2	5.76	122.35	118.90
38	8	113	U	N1-C2-O2	5.76	126.83	122.80
36	1	291	C	OP2-P-O3'	5.75	117.86	105.20
36	1	1496	C	C6-N1-C2	-5.75	118.00	120.30
36	5	1600	U	OP1-P-OP2	-5.75	110.97	119.60
36	1	1365	G	N1-C2-N2	-5.75	111.02	116.20
36	1	1389	G	C5-N7-C8	-5.75	101.42	104.30
36	1	1392	G	C2-N3-C4	5.75	114.78	111.90
36	1	2762	A	C5-C6-N6	5.75	128.30	123.70
36	1	3135	U	O5'-P-OP1	-5.75	100.52	105.70
1	6	1602	C	N1-C2-O2	5.75	122.35	118.90
36	5	157	A	O5'-P-OP2	-5.75	100.52	105.70
36	5	1113	G	N3-C2-N2	-5.75	115.87	119.90
36	5	1492	G	C2-N3-C4	5.75	114.78	111.90
36	5	2861	U	O5'-P-OP1	5.75	117.60	110.70
36	1	1458	U	C5-C6-N1	-5.75	119.82	122.70
36	5	640	U	N1-C2-N3	5.75	118.35	114.90
36	5	2371	G	C8-N9-C4	5.75	108.70	106.40
36	1	2141	U	N3-C4-O4	-5.75	115.38	119.40
36	1	3275	U	C6-N1-C2	-5.75	117.55	121.00
76	Q0	103	LEU	CA-CB-CG	-5.75	102.08	115.30
36	5	1139	G	N3-C2-N2	-5.75	115.88	119.90
36	1	2787	G	C8-N9-C4	-5.75	104.10	106.40
1	6	536	C	C5-C6-N1	5.75	123.87	121.00
36	5	425	G	C8-N9-C4	5.75	108.70	106.40
36	5	806	A	N9-C4-C5	-5.75	103.50	105.80
36	5	875	G	O5'-P-OP1	5.75	117.60	110.70
36	5	2271	A	C5-C6-N1	5.75	120.57	117.70
36	5	2689	A	C6-N1-C2	-5.75	115.15	118.60
36	5	3001	C	N1-C2-O2	-5.75	115.45	118.90
37	7	92	A	N3-C4-N9	5.75	132.00	127.40
36	1	755	A	N1-C6-N6	-5.75	115.15	118.60
36	1	2434	U	N3-C4-O4	-5.75	115.38	119.40
36	1	3157	U	C5-C4-O4	-5.75	122.45	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	630	A	C8-N9-C4	5.75	108.10	105.80
36	5	994	G	C5-C6-N1	5.75	114.37	111.50
36	5	1882	G	O5'-P-OP2	5.75	117.60	110.70
36	5	2250	G	N1-C6-O6	-5.75	116.45	119.90
1	2	581	U	C5-C6-N1	5.75	125.57	122.70
36	1	2648	G	C4-C5-C6	-5.75	115.35	118.80
1	2	577	G	C4-C5-N7	5.74	113.10	110.80
36	1	227	G	N1-C6-O6	5.74	123.35	119.90
36	1	635	G	N3-C2-N2	5.74	123.92	119.90
36	1	1374	G	N1-C6-O6	-5.74	116.45	119.90
36	1	2611	U	N3-C4-O4	-5.74	115.38	119.40
38	4	102	U	C4-C5-C6	5.74	123.15	119.70
1	6	390	G	C5-C6-O6	-5.74	125.15	128.60
36	5	840	C	N1-C2-N3	5.74	123.22	119.20
36	5	3042	U	N3-C4-C5	5.74	118.05	114.60
36	5	3180	A	C5-C6-N6	-5.74	119.11	123.70
36	1	515	C	C2-N3-C4	5.74	122.77	119.90
36	1	1204	A	N1-C6-N6	5.74	122.05	118.60
36	5	815	G	C8-N9-C1'	-5.74	119.53	127.00
36	1	2790	A	O5'-P-OP2	-5.74	100.53	105.70
36	1	3269	U	N3-C2-O2	-5.74	118.18	122.20
1	6	1666	U	N1-C2-O2	-5.74	118.78	122.80
36	5	1420	C	C5-C6-N1	-5.74	118.13	121.00
36	1	743	C	N1-C2-O2	-5.74	115.46	118.90
1	6	792	U	C5-C6-N1	5.74	125.57	122.70
36	5	2334	U	N3-C2-O2	-5.74	118.18	122.20
36	1	1064	A	O4'-C1'-N9	-5.74	103.61	108.20
36	1	1389	G	C5-C6-N1	5.74	114.37	111.50
1	2	1006	C	N1-C2-O2	-5.74	115.46	118.90
36	1	43	A	N3-C4-C5	5.74	130.81	126.80
36	1	2522	G	N3-C4-N9	5.74	129.44	126.00
36	1	2831	G	N1-C6-O6	5.74	123.34	119.90
38	4	58	G	N3-C4-C5	-5.74	125.73	128.60
41	L4	139	GLY	N-CA-C	-5.74	98.76	113.10
36	5	189	G	C5-C6-O6	5.74	132.04	128.60
36	1	639	G	N9-C4-C5	-5.73	103.11	105.40
36	1	3101	G	C8-N9-C4	5.73	108.69	106.40
36	5	907	G	N3-C2-N2	5.73	123.91	119.90
36	5	3044	G	C6-N1-C2	-5.73	121.66	125.10
36	1	2924	U	C5-C6-N1	-5.73	119.83	122.70
1	6	43	A	OP2-P-O3'	5.73	117.81	105.20
36	5	1937	U	C2-N3-C4	-5.73	123.56	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	793	C	N1-C2-O2	-5.73	115.46	118.90
36	1	1145	G	N9-C4-C5	-5.73	103.11	105.40
36	1	1716	U	P-O3'-C3'	5.73	126.58	119.70
1	6	815	G	C5-C6-O6	-5.73	125.16	128.60
1	6	1641	C	C6-N1-C2	5.73	122.59	120.30
36	5	1114	U	O5'-P-OP2	-5.73	100.54	105.70
36	5	2879	C	C6-N1-C2	5.73	122.59	120.30
36	5	3053	G	N1-C2-N3	-5.73	120.46	123.90
38	8	12	A	C4-C5-C6	-5.73	114.14	117.00
36	1	809	G	N1-C6-O6	5.73	123.34	119.90
36	1	971	G	C5-C6-N1	5.73	114.36	111.50
36	1	1119	C	C5-C4-N4	5.73	124.21	120.20
36	1	1841	A	N3-C4-N9	5.73	131.98	127.40
36	1	2622	C	C5-C6-N1	5.73	123.86	121.00
1	6	1789	G	N1-C6-O6	5.73	123.34	119.90
36	5	76	G	N3-C4-C5	5.73	131.47	128.60
1	2	16	G	N3-C2-N2	5.73	123.91	119.90
36	1	18	G	C4-C5-N7	5.73	113.09	110.80
36	1	1303	A	N7-C8-N9	-5.73	110.94	113.80
36	1	1594	A	N1-C6-N6	-5.73	115.16	118.60
38	4	46	G	C4-N9-C1'	5.73	133.94	126.50
1	6	272	U	C2-N1-C1'	5.73	124.57	117.70
36	5	25	U	N1-C2-O2	-5.73	118.79	122.80
36	5	2293	C	N3-C4-N4	5.73	122.01	118.00
36	5	2623	G	N9-C4-C5	-5.73	103.11	105.40
36	5	2730	G	C5-C6-O6	-5.73	125.16	128.60
36	1	99	A	O4'-C1'-N9	5.73	112.78	108.20
36	1	1929	G	N9-C4-C5	-5.73	103.11	105.40
36	5	1054	A	N1-C2-N3	-5.73	126.44	129.30
1	2	348	U	OP2-P-O3'	5.72	117.79	105.20
1	2	1595	U	C4-C5-C6	5.72	123.14	119.70
36	1	229	G	C5-C6-O6	-5.72	125.17	128.60
36	1	3217	C	C6-N1-C1'	-5.72	113.93	120.80
36	5	926	A	N1-C2-N3	5.72	132.16	129.30
36	5	1051	U	C2-N3-C4	-5.72	123.56	127.00
36	5	2109	U	C5-C4-O4	5.72	129.33	125.90
36	5	2959	C	N3-C4-C5	-5.72	119.61	121.90
36	5	3089	C	O5'-P-OP2	-5.72	100.55	105.70
1	2	720	G	P-O3'-C3'	5.72	126.57	119.70
1	2	992	A	N3-C4-C5	5.72	130.81	126.80
1	2	1385	G	N3-C4-N9	5.72	129.43	126.00
36	1	53	G	C8-N9-C1'	-5.72	119.56	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	786	A	C4-C5-N7	-5.72	107.84	110.70
1	6	1025	A	N1-C6-N6	5.72	122.03	118.60
36	5	664	U	N3-C2-O2	-5.72	118.19	122.20
36	5	1048	A	C8-N9-C4	5.72	108.09	105.80
36	5	1520	G	C5-C6-N1	5.72	114.36	111.50
36	1	953	G	P-O3'-C3'	5.72	126.56	119.70
36	5	1081	U	C5-C4-O4	-5.72	122.47	125.90
36	5	1445	U	N3-C4-C5	5.72	118.03	114.60
36	1	1421	G	N7-C8-N9	-5.72	110.24	113.10
36	1	2800	G	C5-N7-C8	5.72	107.16	104.30
36	1	3041	U	C6-N1-C2	-5.72	117.57	121.00
1	6	352	A	OP2-P-O3'	5.72	117.78	105.20
1	6	416	A	C5-C6-N1	-5.72	114.84	117.70
1	6	1596	C	C6-N1-C2	-5.72	118.01	120.30
36	5	2396	G	N9-C4-C5	5.72	107.69	105.40
36	5	3028	G	N9-C4-C5	-5.72	103.11	105.40
36	5	3104	U	N3-C4-C5	5.72	118.03	114.60
1	2	1634	C	C2-N1-C1'	-5.72	112.51	118.80
36	1	718	G	C2-N3-C4	-5.72	109.04	111.90
36	1	846	A	C2-N3-C4	-5.72	107.74	110.60
36	1	908	G	N3-C2-N2	-5.72	115.90	119.90
36	5	1910	A	OP2-P-O3'	5.72	117.78	105.20
36	5	2758	A	N9-C4-C5	5.72	108.09	105.80
36	5	2772	C	N3-C2-O2	5.72	125.90	121.90
36	1	653	A	C5-C6-N6	-5.72	119.13	123.70
36	1	1606	U	N3-C2-O2	5.72	126.20	122.20
36	1	1893	A	N1-C2-N3	5.72	132.16	129.30
36	1	2996	U	N1-C1'-C2'	5.72	121.43	114.00
36	1	3174	A	N1-C6-N6	5.72	122.03	118.60
36	5	3257	C	O5'-P-OP1	-5.72	100.55	105.70
1	2	1478	G	C8-N9-C4	-5.71	104.11	106.40
36	1	1834	U	N3-C4-C5	-5.71	111.17	114.60
36	5	427	C	C5-C6-N1	-5.71	118.14	121.00
36	5	1487	G	C4-C5-N7	-5.71	108.51	110.80
36	1	22	G	N1-C2-N3	5.71	127.33	123.90
36	1	1547	G	N1-C2-N3	-5.71	120.47	123.90
1	2	736	C	C2-N1-C1'	5.71	125.08	118.80
1	2	994	G	C5-C6-O6	5.71	132.03	128.60
36	1	340	C	C4-C5-C6	5.71	120.26	117.40
36	1	2632	G	OP1-P-O3'	5.71	117.77	105.20
38	4	83	C	O5'-P-OP1	-5.71	100.56	105.70
44	L7	177	GLY	N-CA-C	-5.71	98.82	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	980	G	C6-C5-N7	5.71	133.83	130.40
36	5	610	G	N9-C4-C5	5.71	107.69	105.40
36	5	691	A	N9-C4-C5	5.71	108.08	105.80
36	5	715	A	C4-C5-N7	-5.71	107.84	110.70
36	5	1355	A	OP2-P-O3'	5.71	117.77	105.20
36	5	2137	U	C2-N3-C4	-5.71	123.57	127.00
36	5	1481	A	C5-N7-C8	-5.71	101.05	103.90
1	2	1455	G	N3-C2-N2	-5.71	115.90	119.90
1	2	1773	C	C5-C6-N1	5.71	123.86	121.00
36	1	1169	A	C8-N9-C4	5.71	108.08	105.80
36	1	1394	A	OP1-P-O3'	-5.71	92.64	105.20
38	4	46	G	N3-C4-C5	-5.71	125.75	128.60
36	5	2169	G	C4-C5-N7	-5.71	108.52	110.80
38	8	4	C	C5-C6-N1	-5.71	118.15	121.00
38	8	126	A	OP1-P-O3'	5.71	117.76	105.20
1	2	619	A	OP2-P-O3'	5.71	117.75	105.20
1	2	756	A	C8-N9-C4	-5.71	103.52	105.80
36	1	365	A	N1-C6-N6	5.71	122.02	118.60
36	5	1420	C	C2-N1-C1'	-5.71	112.52	118.80
36	5	2386	A	C8-N9-C4	-5.71	103.52	105.80
36	5	2399	A	N1-C6-N6	5.71	122.02	118.60
36	5	2685	C	N3-C2-O2	-5.71	117.91	121.90
36	5	3044	G	N1-C2-N3	5.71	127.32	123.90
1	6	1184	A	C8-N9-C4	-5.71	103.52	105.80
1	2	142	G	N3-C4-N9	-5.70	122.58	126.00
1	2	1654	G	C5-C6-O6	-5.70	125.18	128.60
36	1	517	G	C5-C6-O6	-5.70	125.18	128.60
36	1	3308	C	N1-C2-O2	-5.70	115.48	118.90
56	N0	40	ARG	NE-CZ-NH1	-5.70	117.45	120.30
36	5	51	A	OP1-P-OP2	-5.70	111.04	119.60
36	5	694	C	N3-C2-O2	-5.70	117.91	121.90
36	5	826	G	N1-C2-N2	5.70	121.33	116.20
36	5	961	C	N3-C4-N4	5.70	121.99	118.00
36	5	1300	G	C6-C5-N7	-5.70	126.98	130.40
36	5	1944	U	C6-N1-C2	-5.70	117.58	121.00
37	7	92	A	C8-N9-C1'	-5.70	117.43	127.70
38	8	38	U	C5-C6-N1	-5.70	119.85	122.70
36	1	859	G	C4-N9-C1'	5.70	133.91	126.50
37	7	99	G	OP2-P-O3'	5.70	117.75	105.20
36	1	384	A	C8-N9-C4	5.70	108.08	105.80
36	1	2836	C	C5-C6-N1	-5.70	118.15	121.00
36	5	410	U	OP2-P-O3'	5.70	117.74	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	934	C	C6-N1-C1'	-5.70	113.96	120.80
36	1	2181	C	C5-C6-N1	-5.70	118.15	121.00
36	1	2812	C	N3-C4-C5	-5.70	119.62	121.90
65	N9	18	ARG	NE-CZ-NH2	-5.70	117.45	120.30
21	c9	57	ARG	NE-CZ-NH2	-5.70	117.45	120.30
36	5	3054	U	N3-C4-O4	5.70	123.39	119.40
49	m3	21	ARG	NE-CZ-NH1	-5.70	117.45	120.30
36	1	640	U	O5'-P-OP2	5.70	117.54	110.70
36	1	968	G	C4-C5-N7	5.70	113.08	110.80
36	1	1203	A	OP2-P-O3'	5.70	117.73	105.20
36	5	339	C	OP1-P-OP2	-5.70	111.06	119.60
36	5	2897	A	C5-C6-N1	5.70	120.55	117.70
1	2	1042	G	C4-C5-N7	-5.70	108.52	110.80
36	1	3052	G	C5-C6-N1	-5.70	108.65	111.50
1	6	965	U	C6-N1-C1'	-5.70	113.22	121.20
36	5	667	C	N3-C4-N4	-5.70	114.01	118.00
36	5	1426	C	C2-N3-C4	-5.70	117.05	119.90
36	5	1520	G	N3-C2-N2	-5.70	115.91	119.90
1	2	941	A	N1-C6-N6	-5.69	115.18	118.60
36	1	2643	A	C8-N9-C4	5.69	108.08	105.80
36	1	64	G	N3-C4-N9	-5.69	122.58	126.00
36	1	1147	G	N1-C6-O6	-5.69	116.48	119.90
36	1	1375	G	C4-C5-N7	5.69	113.08	110.80
1	6	1681	A	C2-N3-C4	-5.69	107.75	110.60
36	5	1049	C	C5-C6-N1	5.69	123.85	121.00
36	5	2606	G	N7-C8-N9	5.69	115.95	113.10
36	1	384	A	N1-C6-N6	5.69	122.01	118.60
36	1	2294	U	N1-C2-O2	-5.69	118.82	122.80
36	5	1301	A	N9-C4-C5	-5.69	103.52	105.80
36	5	2992	U	N1-C2-O2	5.69	126.78	122.80
44	17	229	PHE	CB-CG-CD2	-5.69	116.82	120.80
36	1	1227	C	C6-N1-C2	-5.69	118.02	120.30
36	1	1611	G	C5-C6-N1	-5.69	108.66	111.50
1	2	1202	A	N7-C8-N9	5.69	116.64	113.80
36	1	1851	G	O5'-P-OP2	-5.69	100.58	105.70
36	1	2130	G	N3-C4-C5	-5.69	125.76	128.60
36	5	52	A	C2-N3-C4	-5.69	107.76	110.60
36	5	695	C	O5'-P-OP2	5.69	117.53	110.70
36	5	796	U	N3-C2-O2	-5.69	118.22	122.20
36	5	868	C	C5-C6-N1	-5.69	118.16	121.00
36	5	2620	G	C5-C6-O6	-5.69	125.19	128.60
36	5	2806	U	C2-N3-C4	-5.69	123.59	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1429	G	C5-N7-C8	5.69	107.14	104.30
36	1	3192	U	N1-C2-O2	-5.69	118.82	122.80
1	6	1600	A	N1-C2-N3	5.69	132.14	129.30
36	5	2726	C	C4-C5-C6	5.69	120.24	117.40
36	5	2930	A	O4'-C1'-N9	5.69	112.75	108.20
36	5	3132	C	O5'-P-OP1	5.69	117.52	110.70
36	1	609	G	N3-C4-N9	5.68	129.41	126.00
36	1	685	G	N1-C6-O6	5.68	123.31	119.90
36	1	1926	C	N1-C2-O2	-5.68	115.49	118.90
36	1	2145	A	N7-C8-N9	5.68	116.64	113.80
1	6	1796	C	N3-C4-N4	-5.68	114.02	118.00
36	5	103	G	N1-C6-O6	-5.68	116.49	119.90
36	5	1665	C	N1-C2-O2	5.68	122.31	118.90
36	5	3058	U	N3-C2-O2	-5.68	118.22	122.20
36	1	981	U	C6-N1-C2	-5.68	117.59	121.00
36	1	2836	C	N3-C2-O2	-5.68	117.92	121.90
1	6	31	C	C6-N1-C1'	5.68	127.62	120.80
36	5	630	A	N9-C4-C5	-5.68	103.53	105.80
1	2	1180	C	N3-C2-O2	-5.68	117.92	121.90
1	6	337	G	N9-C4-C5	-5.68	103.13	105.40
1	6	1032	G	C8-N9-C4	5.68	108.67	106.40
1	2	65	A	C2-N3-C4	-5.68	107.76	110.60
36	1	2131	A	OP1-P-OP2	-5.68	111.08	119.60
36	1	2878	G	C5-C6-N1	5.68	114.34	111.50
1	6	144	U	C6-N1-C2	-5.68	117.59	121.00
36	5	641	C	C6-N1-C2	-5.68	118.03	120.30
36	5	805	G	N7-C8-N9	-5.68	110.26	113.10
36	5	1054	A	O4'-C1'-N9	-5.68	103.66	108.20
36	5	2971	A	C8-N9-C4	5.68	108.07	105.80
36	5	3371	G	N3-C4-C5	5.68	131.44	128.60
36	1	85	A	C4-C5-N7	5.68	113.54	110.70
36	1	808	A	N7-C8-N9	-5.68	110.96	113.80
51	M5	203	ARG	NE-CZ-NH1	-5.68	117.46	120.30
1	6	60	U	C2-N1-C1'	5.68	124.51	117.70
36	5	1315	U	N3-C4-O4	5.68	123.38	119.40
36	5	2150	G	C2-N3-C4	5.68	114.74	111.90
1	2	102	U	N1-C2-O2	-5.68	118.83	122.80
36	1	3142	A	C6-N1-C2	-5.68	115.19	118.60
36	5	908	G	C8-N9-C1'	-5.68	119.62	127.00
36	5	1364	C	OP2-P-O3'	5.68	117.69	105.20
36	5	3142	A	N9-C4-C5	-5.68	103.53	105.80
36	1	1841	A	N3-C4-C5	-5.67	122.83	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2379	U	O5'-P-OP1	5.67	117.51	110.70
36	5	2146	C	C5-C6-N1	-5.67	118.16	121.00
36	5	2276	G	C5-C6-O6	-5.67	125.19	128.60
36	5	3275	U	O5'-P-OP1	5.67	117.51	110.70
37	7	83	U	OP1-P-OP2	-5.67	111.09	119.60
37	3	105	C	OP2-P-O3'	5.67	117.68	105.20
1	6	566	C	N3-C4-C5	-5.67	119.63	121.90
36	1	400	G	C5-C6-O6	-5.67	125.20	128.60
37	3	86	U	N3-C4-C5	5.67	118.00	114.60
36	5	1107	C	OP2-P-O3'	5.67	117.68	105.20
36	5	2770	G	C2-N3-C4	5.67	114.74	111.90
36	5	3278	C	C6-N1-C2	5.67	122.57	120.30
36	1	589	A	C8-N9-C4	5.67	108.07	105.80
1	6	1285	U	C6-N1-C2	-5.67	117.60	121.00
36	5	832	G	C4-C5-C6	5.67	122.20	118.80
36	1	106	A	C8-N9-C4	5.67	108.07	105.80
36	1	123	A	C8-N9-C4	-5.67	103.53	105.80
36	1	887	G	C5-N7-C8	5.67	107.13	104.30
36	1	2611	U	C5-C6-N1	-5.67	119.87	122.70
36	5	1148	G	C8-N9-C4	5.67	108.67	106.40
36	1	304	G	N1-C6-O6	-5.67	116.50	119.90
36	1	867	G	C4-C5-N7	-5.67	108.53	110.80
36	1	2281	A	N3-C4-C5	5.67	130.77	126.80
36	1	2309	A	OP1-P-OP2	5.67	128.10	119.60
36	1	2362	C	C2-N3-C4	5.67	122.73	119.90
1	6	913	G	O5'-P-OP1	-5.67	100.60	105.70
1	6	1058	U	P-O3'-C3'	5.67	126.50	119.70
1	6	1503	A	O4'-C1'-N9	5.67	112.73	108.20
36	5	776	U	N3-C2-O2	-5.67	118.23	122.20
36	5	1152	G	N1-C2-N3	5.67	127.30	123.90
36	5	2156	C	N1-C2-O2	-5.67	115.50	118.90
1	6	1145	U	C4-C5-C6	5.67	123.10	119.70
36	5	945	C	C6-N1-C2	5.67	122.57	120.30
36	5	2938	G	C2-N3-C4	5.67	114.73	111.90
54	m8	178	ARG	NE-CZ-NH2	-5.67	117.47	120.30
1	2	527	A	N7-C8-N9	5.66	116.63	113.80
36	1	272	G	C5-C6-O6	-5.66	125.20	128.60
36	1	833	G	N1-C2-N2	-5.66	111.10	116.20
36	1	2649	A	N1-C6-N6	5.66	122.00	118.60
36	5	2148	U	C2-N3-C4	-5.66	123.60	127.00
36	5	2191	U	N3-C4-C5	5.66	118.00	114.60
1	2	696	C	C6-N1-C2	-5.66	118.03	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2146	C	OP1-P-O3'	5.66	117.66	105.20
36	5	415	G	N3-C2-N2	5.66	123.86	119.90
36	5	3028	G	N1-C2-N2	-5.66	111.10	116.20
37	7	40	C	C5-C4-N4	-5.66	116.24	120.20
36	1	2645	G	N3-C2-N2	-5.66	115.94	119.90
41	L4	188	ARG	NE-CZ-NH2	-5.66	117.47	120.30
1	6	174	U	O5'-P-OP1	-5.66	100.61	105.70
1	6	558	U	C2-N1-C1'	5.66	124.49	117.70
36	1	98	G	OP2-P-O3'	5.66	117.65	105.20
36	1	651	G	C4-C5-C6	5.66	122.19	118.80
36	1	2206	G	C5-C6-O6	-5.66	125.20	128.60
38	4	61	A	N1-C6-N6	5.66	122.00	118.60
36	5	41	G	C4-C5-N7	5.66	113.06	110.80
36	5	1403	C	C5-C6-N1	-5.66	118.17	121.00
36	5	3326	G	C4-C5-N7	5.66	113.06	110.80
1	2	158	U	P-O3'-C3'	5.66	126.49	119.70
36	1	922	U	C4-C5-C6	-5.66	116.31	119.70
36	5	404	G	C4-C5-N7	-5.66	108.54	110.80
36	5	653	A	C6-C5-N7	-5.66	128.34	132.30
36	1	1435	A	O5'-P-OP2	5.66	117.49	110.70
36	1	1472	U	C2-N3-C4	-5.66	123.61	127.00
36	1	1661	G	N3-C2-N2	5.66	123.86	119.90
36	1	2362	C	OP1-P-OP2	5.66	128.08	119.60
36	1	2670	G	N3-C2-N2	-5.66	115.94	119.90
1	6	449	C	C5-C4-N4	5.66	124.16	120.20
36	5	911	C	C2-N3-C4	-5.66	117.07	119.90
38	8	11	C	C2-N3-C4	5.66	122.73	119.90
1	2	48	G	C5-C6-O6	5.65	131.99	128.60
36	1	1194	G	C5-C6-O6	5.65	131.99	128.60
36	1	2402	A	C2-N3-C4	5.65	113.43	110.60
36	5	2948	C	OP1-P-OP2	-5.65	111.12	119.60
1	2	36	C	C6-N1-C2	5.65	122.56	120.30
36	1	1051	U	OP1-P-O3'	5.65	117.64	105.20
36	1	1164	G	C5-C6-O6	5.65	131.99	128.60
36	1	2180	G	C4-C5-C6	5.65	122.19	118.80
36	5	285	A	N9-C4-C5	5.65	108.06	105.80
36	5	1123	U	C5-C6-N1	-5.65	119.87	122.70
36	5	1206	G	C4-C5-N7	-5.65	108.54	110.80
36	5	1338	C	OP1-P-O3'	5.65	117.64	105.20
1	2	1082	C	P-O3'-C3'	5.65	126.48	119.70
11	S9	60	LEU	CA-CB-CG	5.65	128.30	115.30
36	1	940	G	C4-C5-N7	-5.65	108.54	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1522	U	C5-C4-O4	-5.65	122.51	125.90
36	1	2812	C	C6-N1-C2	5.65	122.56	120.30
36	5	113	C	C6-N1-C2	5.65	122.56	120.30
36	5	3206	C	OP1-P-OP2	5.65	128.07	119.60
38	8	57	C	N3-C4-C5	5.65	124.16	121.90
1	2	1482	C	C6-N1-C2	5.65	122.56	120.30
36	1	1581	C	N3-C2-O2	-5.65	117.95	121.90
36	1	2249	G	C5-C6-N1	5.65	114.33	111.50
37	3	5	G	N3-C4-N9	-5.65	122.61	126.00
1	6	554	C	N3-C2-O2	-5.65	117.95	121.90
36	5	226	C	C6-N1-C2	-5.65	118.04	120.30
36	5	313	A	C8-N9-C4	-5.65	103.54	105.80
37	7	37	G	C6-C5-N7	-5.65	127.01	130.40
36	1	1340	G	N3-C4-N9	5.65	129.39	126.00
36	1	2135	U	N3-C4-C5	5.65	117.99	114.60
36	1	2363	A	C4-C5-N7	-5.65	107.88	110.70
1	6	1	U	N1-C2-O2	5.65	126.75	122.80
1	6	416	A	C2-N3-C4	-5.65	107.78	110.60
36	5	3328	G	N3-C4-C5	-5.65	125.78	128.60
1	2	967	A	C8-N9-C4	5.64	108.06	105.80
36	1	196	G	N9-C4-C5	-5.64	103.14	105.40
36	1	371	G	N3-C2-N2	5.64	123.85	119.90
36	1	1394	A	N3-C4-N9	-5.64	122.88	127.40
36	1	2121	G	C4-C5-N7	-5.64	108.54	110.80
36	1	2417	U	N1-C2-O2	-5.64	118.85	122.80
36	1	2810	C	C5-C6-N1	-5.64	118.18	121.00
36	1	2915	U	C2-N3-C4	-5.64	123.61	127.00
1	6	308	C	C6-N1-C1'	5.64	127.57	120.80
36	5	2356	A	C5-C6-N1	-5.64	114.88	117.70
36	5	2641	U	OP1-P-O3'	5.64	117.62	105.20
36	5	3003	G	C5-C6-N1	5.64	114.32	111.50
1	2	1652	C	C5-C6-N1	5.64	123.82	121.00
36	1	1122	U	C2-N3-C4	-5.64	123.61	127.00
36	1	2952	G	N1-C6-O6	5.64	123.29	119.90
36	1	2985	C	N1-C2-O2	5.64	122.28	118.90
36	1	3111	U	N3-C2-O2	-5.64	118.25	122.20
36	5	422	A	N1-C6-N6	-5.64	115.22	118.60
36	5	2134	G	N9-C4-C5	-5.64	103.14	105.40
36	5	2816	G	N7-C8-N9	-5.64	110.28	113.10
36	5	3190	C	C6-N1-C2	-5.64	118.04	120.30
36	5	3275	U	P-O3'-C3'	5.64	126.47	119.70
1	2	734	A	P-O3'-C3'	5.64	126.47	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	325	A	C6-N1-C2	-5.64	115.22	118.60
36	1	856	G	C5-C6-O6	-5.64	125.22	128.60
1	6	1027	A	P-O3'-C3'	5.64	126.47	119.70
36	5	1847	A	C5-N7-C8	-5.64	101.08	103.90
1	2	765	G	C5-C6-O6	-5.64	125.22	128.60
36	1	1801	U	C4-C5-C6	5.64	123.08	119.70
36	1	2168	A	C5-C6-N1	5.64	120.52	117.70
36	1	2954	U	OP1-P-OP2	-5.64	111.14	119.60
37	3	44	C	C6-N1-C2	-5.64	118.04	120.30
1	6	524	U	N3-C2-O2	-5.64	118.25	122.20
36	5	611	A	C8-N9-C4	5.64	108.06	105.80
36	5	2693	C	C5-C6-N1	-5.64	118.18	121.00
36	1	785	G	N3-C4-C5	-5.64	125.78	128.60
36	1	1807	G	C8-N9-C4	-5.64	104.14	106.40
36	5	1660	C	N1-C2-O2	-5.64	115.52	118.90
36	5	2936	A	O5'-P-OP1	-5.64	100.63	105.70
36	1	895	A	O5'-P-OP1	-5.64	100.63	105.70
36	1	1269	U	N1-C2-O2	5.64	126.75	122.80
36	1	2608	G	N1-C6-O6	5.64	123.28	119.90
1	6	1747	G	C5-C6-N1	5.64	114.32	111.50
36	5	1154	A	C2-N3-C4	5.64	113.42	110.60
36	5	1496	C	N3-C2-O2	-5.64	117.95	121.90
37	3	49	G	N3-C2-N2	5.63	123.84	119.90
36	5	645	A	N3-C4-C5	-5.63	122.86	126.80
36	5	1657	C	C2-N1-C1'	5.63	125.00	118.80
36	5	2833	A	C5-C6-N6	-5.63	119.19	123.70
36	5	3196	U	C2-N1-C1'	-5.63	110.94	117.70
1	2	1289	U	C5-C6-N1	-5.63	119.88	122.70
36	1	2286	U	C5-C4-O4	5.63	129.28	125.90
36	5	544	C	C2-N1-C1'	5.63	125.00	118.80
36	5	2385	G	C5-C6-O6	-5.63	125.22	128.60
36	5	2631	U	N1-C2-N3	5.63	118.28	114.90
37	7	37	G	N1-C6-O6	5.63	123.28	119.90
36	1	2608	G	N3-C4-C5	5.63	131.42	128.60
36	5	2307	G	C5-C6-O6	5.63	131.98	128.60
36	5	2694	A	N9-C4-C5	5.63	108.05	105.80
36	5	3373	U	C2-N3-C4	-5.63	123.62	127.00
1	2	1100	G	N3-C4-N9	5.63	129.38	126.00
36	1	1145	G	N3-C4-C5	5.63	131.41	128.60
36	1	1367	G	C8-N9-C4	5.63	108.65	106.40
36	1	1815	U	P-O3'-C3'	5.63	126.46	119.70
36	1	2377	G	C5-C6-O6	5.63	131.98	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	62	C	C6-N1-C2	5.63	122.55	120.30
1	2	18	C	C6-N1-C2	-5.63	118.05	120.30
1	2	994	G	C5-C6-N1	-5.63	108.69	111.50
36	1	906	A	C5-C6-N6	-5.63	119.20	123.70
36	1	1555	U	C6-N1-C2	5.63	124.38	121.00
36	1	2811	A	C6-N1-C2	-5.63	115.22	118.60
1	6	864	U	C2-N1-C1'	5.63	124.45	117.70
36	5	1122	U	C4-C5-C6	5.63	123.08	119.70
36	5	1208	U	O5'-P-OP2	-5.63	100.64	105.70
36	5	1476	G	O5'-P-OP2	-5.63	100.64	105.70
36	5	2201	G	N3-C4-C5	-5.63	125.79	128.60
36	5	2899	C	C2-N3-C4	-5.63	117.09	119.90
1	2	1600	A	C5-N7-C8	-5.62	101.09	103.90
36	1	1325	U	OP1-P-OP2	5.62	128.04	119.60
38	4	25	G	C5-N7-C8	5.62	107.11	104.30
1	6	92	A	C8-N9-C4	5.62	108.05	105.80
1	6	355	G	N3-C2-N2	-5.62	115.96	119.90
36	1	1200	A	O4'-C1'-N9	5.62	112.70	108.20
36	1	1738	C	N3-C4-C5	5.62	124.15	121.90
38	4	60	U	C2-N3-C4	-5.62	123.62	127.00
1	6	1514	U	N3-C4-O4	-5.62	115.46	119.40
36	5	41	G	C5-N7-C8	-5.62	101.49	104.30
36	5	918	C	N1-C2-O2	5.62	122.27	118.90
36	5	1484	U	C5-C6-N1	-5.62	119.89	122.70
36	5	2293	C	C2-N1-C1'	5.62	124.98	118.80
1	2	553	G	C8-N9-C4	-5.62	104.15	106.40
1	2	1267	G	N3-C4-C5	-5.62	125.79	128.60
1	2	1600	A	N3-C4-C5	5.62	130.73	126.80
36	1	320	G	O5'-P-OP2	-5.62	100.64	105.70
36	1	3043	C	N3-C4-C5	5.62	124.15	121.90
38	4	113	U	N3-C2-O2	-5.62	118.27	122.20
1	6	815	G	C5-N7-C8	-5.62	101.49	104.30
36	5	2279	A	OP1-P-OP2	-5.62	111.17	119.60
36	5	2871	G	N3-C4-C5	-5.62	125.79	128.60
1	2	1455	G	C5-C6-N1	-5.62	108.69	111.50
48	m1	61	ARG	NE-CZ-NH2	-5.62	117.49	120.30
1	2	158	U	C5-C6-N1	5.62	125.51	122.70
36	1	1124	U	C5-C6-N1	5.62	125.51	122.70
36	1	3207	U	N3-C4-O4	-5.62	115.47	119.40
37	3	82	G	N1-C2-N2	-5.62	111.14	116.20
1	6	631	G	C8-N9-C4	-5.62	104.15	106.40
36	5	225	C	N3-C4-N4	5.62	121.93	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2708	C	N3-C4-C5	5.62	124.15	121.90
38	8	17	A	N1-C6-N6	5.62	121.97	118.60
38	8	116	G	C4-C5-N7	5.62	113.05	110.80
1	2	393	C	N3-C4-C5	5.62	124.15	121.90
1	2	1654	G	N3-C4-N9	5.62	129.37	126.00
36	1	2351	U	O5'-P-OP2	5.62	117.44	110.70
36	1	2621	G	O5'-P-OP2	-5.62	100.64	105.70
36	5	1296	C	N3-C4-C5	-5.62	119.65	121.90
1	2	687	G	N3-C2-N2	-5.62	115.97	119.90
36	1	1145	G	N1-C6-O6	5.62	123.27	119.90
38	4	14	C	N3-C4-C5	5.62	124.15	121.90
1	6	431	C	C5-C4-N4	5.62	124.13	120.20
36	5	197	G	C8-N9-C1'	-5.62	119.70	127.00
36	5	631	U	OP1-P-OP2	5.62	128.02	119.60
1	2	1426	C	C6-N1-C2	5.61	122.55	120.30
36	1	267	G	O4'-C1'-N9	-5.61	103.71	108.20
36	1	1713	G	N3-C4-C5	5.61	131.41	128.60
37	3	73	C	C6-N1-C2	-5.61	118.06	120.30
1	6	426	G	C8-N9-C4	-5.61	104.16	106.40
36	5	500	C	OP1-P-O3'	5.61	117.55	105.20
36	1	1125	U	O5'-P-OP1	-5.61	100.65	105.70
36	1	1145	G	N1-C2-N2	5.61	121.25	116.20
20	c8	15	LEU	CA-CB-CG	5.61	128.21	115.30
49	m3	67	ARG	NE-CZ-NH2	-5.61	117.49	120.30
1	2	1673	G	C6-C5-N7	-5.61	127.03	130.40
36	1	1124	U	N1-C2-O2	5.61	126.73	122.80
36	1	1319	G	C5-C6-O6	5.61	131.97	128.60
36	5	41	G	N9-C4-C5	-5.61	103.16	105.40
36	5	201	A	O5'-P-OP1	5.61	117.43	110.70
36	5	622	A	C5-C6-N6	-5.61	119.21	123.70
36	1	1133	A	N1-C6-N6	5.61	121.97	118.60
36	1	2392	C	N1-C2-N3	5.61	123.13	119.20
36	1	3142	A	N1-C2-N3	5.61	132.10	129.30
1	6	1560	U	N3-C4-O4	-5.61	115.47	119.40
36	5	1885	U	N1-C2-N3	5.61	118.27	114.90
36	5	2572	C	C6-N1-C1'	-5.61	114.07	120.80
40	l3	347	SER	N-CA-C	5.61	126.14	111.00
36	1	270	U	N3-C2-O2	-5.61	118.27	122.20
36	1	331	G	C2-N3-C4	5.61	114.70	111.90
36	1	754	G	OP2-P-O3'	5.61	117.53	105.20
36	5	1750	A	C5-C6-N6	-5.61	119.21	123.70
36	5	2263	C	N1-C2-O2	5.61	122.27	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1783	C	O5'-P-OP2	-5.61	100.65	105.70
36	1	347	G	C8-N9-C1'	-5.61	119.71	127.00
36	1	1349	G	N3-C4-N9	5.61	129.36	126.00
1	6	542	A	N7-C8-N9	5.61	116.60	113.80
1	6	754	A	N1-C6-N6	5.61	121.96	118.60
36	5	587	U	N3-C2-O2	5.61	126.12	122.20
36	5	1891	A	C6-N1-C2	-5.61	115.24	118.60
36	1	1165	A	C8-N9-C4	5.60	108.04	105.80
36	1	2152	A	C2-N3-C4	5.60	113.40	110.60
36	5	959	C	P-O3'-C3'	5.60	126.42	119.70
36	5	2641	U	C4-C5-C6	5.60	123.06	119.70
36	5	3383	G	N3-C4-C5	-5.60	125.80	128.60
1	2	344	A	N1-C6-N6	-5.60	115.24	118.60
36	1	1134	G	N1-C6-O6	5.60	123.26	119.90
36	1	1906	G	N1-C6-O6	5.60	123.26	119.90
36	1	3261	C	N1-C2-O2	-5.60	115.54	118.90
36	5	1926	C	C2-N3-C4	-5.60	117.10	119.90
1	2	404	G	O5'-P-OP1	-5.60	100.66	105.70
36	5	2824	G	OP1-P-OP2	5.60	128.00	119.60
1	2	1180	C	C2-N1-C1'	5.60	124.96	118.80
1	2	1491	U	O5'-P-OP1	-5.60	100.66	105.70
36	1	2800	G	N7-C8-N9	-5.60	110.30	113.10
38	4	55	U	C2-N3-C4	-5.60	123.64	127.00
1	6	1028	C	O5'-P-OP1	-5.60	100.66	105.70
20	c8	116	LEU	CA-CB-CG	5.60	128.18	115.30
36	5	786	A	C8-N9-C4	-5.60	103.56	105.80
1	2	325	G	N3-C4-C5	5.60	131.40	128.60
36	1	2688	U	N1-C2-O2	5.60	126.72	122.80
38	4	79	A	C4-C5-C6	5.60	119.80	117.00
1	6	331	A	N3-C4-C5	5.60	130.72	126.80
36	5	1082	U	N3-C4-O4	5.60	123.32	119.40
36	5	2414	G	C5-C6-N1	-5.60	108.70	111.50
36	5	2872	A	C8-N9-C1'	5.60	137.78	127.70
1	2	527	A	C8-N9-C4	-5.60	103.56	105.80
36	1	2130	G	N3-C2-N2	5.60	123.82	119.90
43	L6	64	LEU	CA-CB-CG	5.60	128.17	115.30
36	5	1747	G	C4-C5-N7	-5.60	108.56	110.80
36	5	3098	G	C2-N3-C4	5.60	114.70	111.90
36	1	2877	G	N9-C4-C5	5.59	107.64	105.40
36	1	2930	A	O4'-C1'-N9	5.59	112.68	108.20
71	O5	63	ARG	NE-CZ-NH1	-5.59	117.50	120.30
36	5	2673	A	C8-N9-C4	5.59	108.04	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2985	C	C2-N3-C4	5.59	122.70	119.90
36	1	1396	C	N1-C2-N3	-5.59	115.28	119.20
36	1	2918	G	OP1-P-OP2	5.59	127.99	119.60
36	1	3344	A	C4-C5-N7	5.59	113.50	110.70
1	6	1162	C	N3-C4-C5	-5.59	119.66	121.90
36	5	356	C	O5'-P-OP2	-5.59	100.67	105.70
36	5	2758	A	N3-C4-C5	-5.59	122.89	126.80
36	5	2878	G	C5-C6-N1	5.59	114.30	111.50
36	5	2940	A	C6-N1-C2	-5.59	115.25	118.60
36	5	3174	A	C8-N9-C4	-5.59	103.56	105.80
36	1	2952	G	C5-C6-O6	-5.59	125.25	128.60
2	s0	62	ARG	NE-CZ-NH1	5.59	123.09	120.30
36	5	644	G	N1-C6-O6	-5.59	116.55	119.90
36	5	2339	C	OP1-P-O3'	5.59	117.50	105.20
36	5	2703	A	C8-N9-C4	-5.59	103.56	105.80
57	n1	8	ARG	NE-CZ-NH2	-5.59	117.51	120.30
36	1	698	U	N3-C2-O2	5.59	126.11	122.20
36	1	3361	G	N3-C4-C5	-5.59	125.81	128.60
37	3	89	G	N3-C4-N9	5.59	129.35	126.00
36	5	924	G	N3-C2-N2	-5.59	115.99	119.90
36	5	1053	A	C5-C6-N1	5.59	120.49	117.70
36	5	1769	G	N1-C6-O6	5.59	123.25	119.90
36	5	2141	U	N3-C2-O2	-5.59	118.29	122.20
36	5	2763	U	C2-N3-C4	-5.59	123.65	127.00
1	2	54	C	N3-C4-C5	5.59	124.14	121.90
1	6	1736	G	N3-C2-N2	-5.59	115.99	119.90
25	d3	104	LEU	CA-CB-CG	5.59	128.15	115.30
38	8	25	G	N1-C6-O6	-5.59	116.55	119.90
36	1	1531	C	C6-N1-C2	-5.58	118.07	120.30
36	1	2912	G	C5-C6-N1	5.58	114.29	111.50
1	6	1285	U	C5-C4-O4	5.58	129.25	125.90
36	1	320	G	N1-C6-O6	5.58	123.25	119.90
36	1	658	G	C8-N9-C4	5.58	108.63	106.40
36	1	896	A	N7-C8-N9	5.58	116.59	113.80
36	1	1398	U	N3-C4-C5	5.58	117.95	114.60
36	1	2816	G	N1-C6-O6	5.58	123.25	119.90
36	1	3000	A	C2-N3-C4	-5.58	107.81	110.60
36	5	1906	G	N9-C4-C5	-5.58	103.17	105.40
36	5	3000	A	C5-C6-N6	-5.58	119.23	123.70
36	5	3101	G	C5-C6-O6	5.58	131.95	128.60
1	2	1654	G	N3-C4-C5	-5.58	125.81	128.60
36	1	2295	A	N1-C6-N6	5.58	121.95	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3278	C	C6-N1-C2	-5.58	118.07	120.30
37	7	6	C	C2-N3-C4	-5.58	117.11	119.90
36	1	1294	A	O4'-C1'-N9	5.58	112.66	108.20
36	1	2116	G	C5-N7-C8	5.58	107.09	104.30
1	2	458	G	C5-C6-N1	-5.58	108.71	111.50
1	2	1589	C	O5'-P-OP2	-5.58	100.68	105.70
36	1	2275	A	O5'-P-OP1	-5.58	100.68	105.70
1	6	21	U	C5-C4-O4	-5.58	122.55	125.90
36	5	128	G	N3-C4-N9	5.58	129.35	126.00
36	5	950	G	C5-C6-O6	5.58	131.95	128.60
36	5	2891	U	C5-C6-N1	-5.58	119.91	122.70
37	7	50	U	C5-C6-N1	5.58	125.49	122.70
1	2	1639	C	N3-C4-N4	5.58	121.90	118.00
36	1	1881	A	OP1-P-OP2	5.58	127.97	119.60
36	1	2658	G	C5-N7-C8	5.58	107.09	104.30
36	1	1659	U	N1-C2-N3	5.58	118.25	114.90
36	1	2298	U	C4-C5-C6	5.58	123.05	119.70
36	1	2760	C	N3-C4-C5	-5.58	119.67	121.90
38	4	35	C	C4-C5-C6	5.58	120.19	117.40
38	4	48	A	N1-C6-N6	5.58	121.94	118.60
36	5	1407	A	O5'-P-OP1	5.58	117.39	110.70
36	5	1420	C	OP2-P-O3'	5.58	117.47	105.20
36	5	2161	G	N3-C2-N2	-5.58	116.00	119.90
36	5	3078	U	C3'-C2'-C1'	5.58	105.96	101.50
36	1	1199	C	C4-C5-C6	5.57	120.19	117.40
36	1	2150	G	N3-C4-C5	-5.57	125.81	128.60
36	1	2627	C	C2-N1-C1'	-5.57	112.67	118.80
36	1	2728	G	C5-C6-N1	5.57	114.29	111.50
38	4	58	G	N3-C4-N9	5.57	129.34	126.00
1	6	767	U	N3-C2-O2	-5.57	118.30	122.20
36	5	410	U	C5-C6-N1	5.57	125.49	122.70
36	5	425	G	C5-C6-O6	-5.57	125.25	128.60
36	5	1110	U	C5-C6-N1	5.57	125.49	122.70
36	5	2136	C	C5-C4-N4	-5.57	116.30	120.20
36	1	272	G	C6-C5-N7	-5.57	127.06	130.40
36	1	809	G	C8-N9-C4	5.57	108.63	106.40
36	1	2129	U	C6-N1-C2	-5.57	117.66	121.00
37	7	8	G	N3-C4-C5	-5.57	125.81	128.60
36	1	1700	G	N3-C4-N9	5.57	129.34	126.00
36	1	1733	G	N3-C4-N9	5.57	129.34	126.00
38	4	140	G	C8-N9-C4	-5.57	104.17	106.40
36	5	326	U	OP2-P-O3'	5.57	117.46	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	596	C	C2-N3-C4	5.57	122.69	119.90
36	5	1381	A	O5'-P-OP1	-5.57	100.69	105.70
36	5	1391	C	N1-C2-O2	-5.57	115.56	118.90
36	5	2116	G	N1-C6-O6	5.57	123.24	119.90
38	8	8	C	O5'-P-OP1	5.57	117.38	110.70
38	8	115	C	N3-C2-O2	5.57	125.80	121.90
36	1	143	G	C5-C6-N1	5.57	114.28	111.50
36	5	785	G	C5-C6-N1	5.57	114.28	111.50
36	5	1333	C	C2-N3-C4	5.57	122.68	119.90
36	5	2365	C	OP1-P-OP2	5.57	127.95	119.60
36	1	104	G	C5-N7-C8	-5.57	101.52	104.30
36	1	2181	C	N3-C4-C5	5.57	124.13	121.90
36	1	3368	U	N1-C2-O2	-5.57	118.90	122.80
36	5	646	A	C2-N3-C4	-5.57	107.82	110.60
36	5	1450	G	OP2-P-O3'	5.57	117.45	105.20
36	5	2871	G	C5-C6-N1	5.57	114.28	111.50
36	1	102	C	N3-C2-O2	5.57	125.80	121.90
36	1	200	C	N3-C4-N4	5.57	121.90	118.00
36	1	361	A	C5-C6-N1	5.57	120.48	117.70
36	1	1489	A	N1-C6-N6	5.57	121.94	118.60
36	1	2572	C	N3-C2-O2	-5.57	118.00	121.90
1	6	163	G	N9-C4-C5	5.57	107.63	105.40
1	6	960	U	N3-C2-O2	-5.57	118.30	122.20
36	5	283	G	C2-N3-C4	5.57	114.68	111.90
36	5	1852	G	N7-C8-N9	5.57	115.88	113.10
36	5	2886	U	C5-C4-O4	5.57	129.24	125.90
36	5	2889	C	N3-C4-C5	5.57	124.13	121.90
47	m0	88	ARG	NE-CZ-NH1	-5.57	117.52	120.30
36	1	584	G	N9-C4-C5	5.56	107.63	105.40
36	1	1368	U	C2-N3-C4	-5.56	123.66	127.00
36	1	1425	U	N3-C2-O2	-5.56	118.31	122.20
36	5	1297	C	C6-N1-C2	-5.56	118.08	120.30
36	5	2249	G	N1-C6-O6	-5.56	116.56	119.90
36	5	2385	G	C8-N9-C4	5.56	108.62	106.40
36	1	796	U	OP2-P-O3'	5.56	117.44	105.20
36	1	1122	U	C5-C6-N1	-5.56	119.92	122.70
36	1	3137	C	N1-C2-O2	-5.56	115.56	118.90
36	5	358	G	C6-N1-C2	5.56	128.44	125.10
36	5	571	U	N1-C2-N3	5.56	118.24	114.90
36	5	2378	C	N3-C4-C5	5.56	124.12	121.90
36	5	2873	U	C5-C6-N1	-5.56	119.92	122.70
36	1	112	U	C5-C4-O4	-5.56	122.56	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1505	C	C6-N1-C2	5.56	122.52	120.30
1	6	1048	G	N1-C6-O6	5.56	123.24	119.90
36	5	948	C	N3-C4-N4	5.56	121.89	118.00
36	5	1314	C	N1-C2-O2	5.56	122.24	118.90
36	1	2431	C	C2-N3-C4	-5.56	117.12	119.90
36	1	3175	U	N1-C2-N3	5.56	118.24	114.90
1	6	402	C	O4'-C1'-N1	5.56	112.65	108.20
1	6	1696	G	P-O3'-C3'	5.56	126.37	119.70
36	5	1433	A	OP2-P-O3'	5.56	117.43	105.20
36	5	3078	U	N1-C1'-C2'	-5.56	105.88	112.00
38	8	11	C	N1-C2-O2	5.56	122.23	118.90
52	m6	69	GLY	N-CA-C	-5.56	99.20	113.10
36	1	428	A	OP2-P-O3'	5.56	117.42	105.20
36	1	580	C	N1-C2-O2	-5.56	115.56	118.90
1	6	172	C	C6-N1-C2	-5.56	118.08	120.30
36	5	935	U	C5-C4-O4	-5.56	122.56	125.90
36	5	2425	G	N3-C4-C5	5.56	131.38	128.60
36	5	2978	U	N3-C2-O2	-5.56	118.31	122.20
36	5	3260	G	N1-C2-N2	-5.56	111.20	116.20
1	2	1595	U	N3-C4-C5	-5.56	111.27	114.60
36	5	658	G	N1-C6-O6	5.56	123.23	119.90
1	2	440	U	C2-N1-C1'	-5.55	111.03	117.70
36	1	1520	G	C8-N9-C4	5.55	108.62	106.40
36	1	1586	G	N3-C4-C5	-5.55	125.82	128.60
36	1	2899	C	C2-N1-C1'	5.55	124.91	118.80
36	1	3063	C	N3-C4-C5	5.55	124.12	121.90
1	6	308	C	C5-C4-N4	5.55	124.09	120.20
36	5	1208	U	N3-C4-O4	-5.55	115.51	119.40
36	5	2142	A	N1-C6-N6	-5.55	115.27	118.60
36	5	2314	U	N3-C4-O4	5.55	123.29	119.40
36	5	2373	A	C5-C6-N1	5.55	120.48	117.70
36	1	1430	U	C5-C4-O4	-5.55	122.57	125.90
1	2	863	A	C5-C6-N6	-5.55	119.26	123.70
36	1	934	G	C8-N9-C1'	-5.55	119.78	127.00
36	1	1830	G	C5-C6-O6	-5.55	125.27	128.60
36	1	3341	U	O4'-C1'-N1	5.55	112.64	108.20
1	6	1674	C	N1-C2-O2	-5.55	115.57	118.90
36	5	782	U	N3-C2-O2	-5.55	118.31	122.20
36	5	2141	U	C5-C4-O4	5.55	129.23	125.90
36	5	2826	U	C5-C4-O4	5.55	129.23	125.90
36	5	3093	C	O4'-C1'-N1	-5.55	103.76	108.20
1	2	327	U	C5-C4-O4	-5.55	122.57	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	496	C	C6-N1-C2	-5.55	118.08	120.30
36	1	2549	G	N1-C6-O6	-5.55	116.57	119.90
36	1	2986	U	N1-C2-N3	5.55	118.23	114.90
38	4	34	U	C6-N1-C2	5.55	124.33	121.00
1	6	1140	G	C5-C6-N1	5.55	114.28	111.50
36	5	1181	U	C5-C6-N1	-5.55	119.92	122.70
36	5	2388	U	OP2-P-O3'	5.55	117.41	105.20
1	2	1502	G	N3-C4-N9	5.55	129.33	126.00
36	1	2343	C	N3-C4-N4	-5.55	114.12	118.00
36	1	439	C	C6-N1-C1'	-5.55	114.14	120.80
36	1	718	G	C8-N9-C1'	5.55	134.21	127.00
36	1	1793	C	C6-N1-C2	5.55	122.52	120.30
36	1	2732	G	N1-C2-N2	-5.55	111.21	116.20
36	1	3259	U	O4'-C1'-N1	-5.55	103.76	108.20
36	1	3308	C	N3-C4-C5	-5.55	119.68	121.90
36	5	421	G	N1-C2-N3	5.55	127.23	123.90
36	5	1065	A	N1-C6-N6	-5.55	115.27	118.60
37	7	99	G	OP1-P-O3'	-5.55	93.00	105.20
36	5	2376	G	N3-C4-C5	-5.54	125.83	128.60
36	5	2817	A	O5'-P-OP1	5.54	117.35	110.70
36	5	3028	G	C6-C5-N7	-5.54	127.07	130.40
37	7	1	G	N3-C4-N9	5.54	129.33	126.00
1	2	248	U	N3-C2-O2	5.54	126.08	122.20
36	1	994	G	N1-C6-O6	-5.54	116.57	119.90
36	1	2195	C	C6-N1-C2	-5.54	118.08	120.30
36	1	3186	A	C8-N9-C4	-5.54	103.58	105.80
1	6	16	G	N9-C4-C5	5.54	107.62	105.40
36	5	749	C	N1-C2-O2	-5.54	115.57	118.90
36	5	1911	A	O5'-P-OP2	-5.54	100.71	105.70
36	5	2983	C	N3-C4-C5	-5.54	119.68	121.90
36	5	3266	G	C5-C6-O6	5.54	131.93	128.60
24	D2	65	LEU	CA-CB-CG	5.54	128.04	115.30
36	1	776	U	N3-C4-O4	-5.54	115.52	119.40
36	1	1952	G	N3-C4-C5	-5.54	125.83	128.60
38	4	102	U	C6-N1-C2	-5.54	117.67	121.00
54	M8	138	LEU	CA-CB-CG	5.54	128.05	115.30
36	5	1047	A	O5'-P-OP1	-5.54	100.71	105.70
36	5	1120	A	OP1-P-O3'	-5.54	93.01	105.20
36	5	2710	C	N3-C4-C5	-5.54	119.68	121.90
36	5	2728	G	C8-N9-C4	-5.54	104.18	106.40
36	5	2736	A	N1-C6-N6	-5.54	115.28	118.60
36	1	1187	C	O5'-P-OP1	-5.54	100.71	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	412	G	C2-N3-C4	5.54	114.67	111.90
36	5	1376	C	C5-C4-N4	5.54	124.08	120.20
36	5	2947	G	N1-C2-N2	5.54	121.19	116.20
15	C3	22	ALA	C-N-CA	5.54	145.26	122.00
36	1	1116	G	OP2-P-O3'	5.54	117.39	105.20
36	1	3125	U	C6-N1-C2	5.54	124.32	121.00
36	5	645	A	N9-C4-C5	5.54	108.02	105.80
36	5	3120	C	C5-C6-N1	5.54	123.77	121.00
39	12	216	HIS	N-CA-C	-5.54	96.04	111.00
36	1	652	G	N3-C4-N9	5.54	129.32	126.00
36	1	2878	G	N9-C4-C5	-5.54	103.19	105.40
36	1	2912	G	N3-C4-C5	-5.54	125.83	128.60
36	5	1902	G	C5-C6-N1	5.54	114.27	111.50
36	1	435	C	N3-C2-O2	5.54	125.78	121.90
36	1	1362	G	OP2-P-O3'	5.54	117.38	105.20
36	1	2349	U	N3-C4-C5	5.54	117.92	114.60
36	1	3228	C	C2-N1-C1'	5.54	124.89	118.80
36	1	3353	G	P-O3'-C3'	5.54	126.34	119.70
37	3	119	U	N3-C2-O2	-5.54	118.33	122.20
36	5	835	G	C6-N1-C2	-5.54	121.78	125.10
36	5	2796	G	O5'-P-OP2	-5.54	100.72	105.70
1	2	1600	A	C4-C5-N7	5.53	113.47	110.70
36	1	812	G	N9-C4-C5	5.53	107.61	105.40
36	1	1724	U	O4'-C1'-N1	5.53	112.63	108.20
36	1	3086	A	O5'-P-OP2	-5.53	100.72	105.70
1	6	387	A	N1-C6-N6	-5.53	115.28	118.60
1	6	1739	C	N1-C2-O2	-5.53	115.58	118.90
36	5	396	A	N1-C6-N6	-5.53	115.28	118.60
36	5	672	A	C8-N9-C4	-5.53	103.59	105.80
36	5	1909	A	C8-N9-C4	5.53	108.01	105.80
36	5	2306	C	O4'-C1'-N1	-5.53	103.77	108.20
36	5	2869	U	C5-C6-N1	-5.53	119.93	122.70
36	5	3243	A	O4'-C1'-N9	-5.53	103.77	108.20
36	1	903	U	C5-C6-N1	-5.53	119.93	122.70
37	3	61	G	N3-C4-N9	-5.53	122.68	126.00
37	7	85	G	OP2-P-O3'	5.53	117.37	105.20
36	1	804	C	C5-C4-N4	-5.53	116.33	120.20
36	1	1901	A	N1-C6-N6	-5.53	115.28	118.60
37	3	89	G	N3-C4-C5	-5.53	125.83	128.60
36	5	645	A	OP1-P-OP2	-5.53	111.30	119.60
36	5	1556	C	C2-N1-C1'	5.53	124.89	118.80
36	5	2150	G	C8-N9-C4	-5.53	104.19	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2732	G	C4-N9-C1'	5.53	133.69	126.50
1	2	696	C	N1-C2-O2	5.53	122.22	118.90
36	1	69	C	N3-C2-O2	5.53	125.77	121.90
36	1	1203	A	N9-C4-C5	5.53	108.01	105.80
36	1	3000	A	N3-C4-C5	5.53	130.67	126.80
36	1	1165	A	C5-C6-N1	-5.53	114.94	117.70
38	4	8	C	N3-C2-O2	5.53	125.77	121.90
1	6	50	C	C5-C4-N4	-5.53	116.33	120.20
36	5	907	G	N1-C2-N2	-5.53	111.22	116.20
36	5	939	U	N1-C2-N3	5.53	118.22	114.90
36	5	1336	U	C5-C4-O4	-5.53	122.58	125.90
36	5	1864	A	N1-C6-N6	5.53	121.92	118.60
36	5	1885	U	C6-N1-C1'	5.53	128.94	121.20
36	1	84	U	N3-C4-O4	5.53	123.27	119.40
41	L4	95	ARG	NE-CZ-NH1	-5.53	117.54	120.30
1	6	137	U	C2-N1-C1'	5.53	124.33	117.70
1	6	1744	A	C8-N9-C4	5.53	108.01	105.80
36	5	1117	G	C4-C5-C6	-5.53	115.48	118.80
36	1	935	U	N3-C2-O2	-5.52	118.33	122.20
36	1	1419	A	C5'-C4'-O4'	5.52	115.73	109.10
36	1	2742	C	C6-N1-C2	-5.52	118.09	120.30
38	4	37	A	C8-N9-C4	-5.52	103.59	105.80
36	5	338	A	C6-C5-N7	-5.52	128.43	132.30
1	2	110	U	N3-C2-O2	-5.52	118.33	122.20
1	2	1164	G	N9-C4-C5	-5.52	103.19	105.40
36	1	366	A	N3-C4-N9	5.52	131.82	127.40
36	1	716	A	O4'-C1'-N9	-5.52	103.78	108.20
36	1	1917	C	N1-C2-O2	5.52	122.21	118.90
38	4	58	G	O5'-P-OP2	-5.52	100.73	105.70
1	6	978	A	N7-C8-N9	5.52	116.56	113.80
1	6	1313	A	C8-N9-C4	-5.52	103.59	105.80
36	5	1108	U	OP1-P-OP2	5.52	127.88	119.60
36	5	2144	A	OP1-P-O3'	5.52	117.35	105.20
36	1	983	A	N9-C4-C5	-5.52	103.59	105.80
36	5	2376	G	C8-N9-C4	-5.52	104.19	106.40
36	5	668	G	N1-C2-N2	-5.52	111.23	116.20
36	5	796	U	C2-N3-C4	-5.52	123.69	127.00
1	2	901	G	O4'-C1'-N9	5.52	112.61	108.20
36	1	357	A	O5'-P-OP2	-5.52	100.73	105.70
36	1	2265	C	N3-C2-O2	-5.52	118.04	121.90
36	1	2268	U	C5-C4-O4	-5.52	122.59	125.90
1	6	1027	A	C2-N3-C4	-5.52	107.84	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	229	G	C5-C6-O6	-5.52	125.29	128.60
36	5	1453	A	O5'-P-OP1	-5.52	100.73	105.70
36	5	3043	C	N3-C4-C5	5.52	124.11	121.90
38	8	82	U	N1-C2-N3	5.52	118.21	114.90
38	8	113	U	OP2-P-O3'	5.52	117.34	105.20
36	1	366	A	N3-C4-C5	-5.52	122.94	126.80
36	1	1203	A	C8-N9-C4	-5.52	103.59	105.80
36	1	2187	G	C6-C5-N7	-5.52	127.09	130.40
36	1	2604	U	OP1-P-O3'	5.52	117.34	105.20
1	2	621	A	O4'-C1'-N9	-5.51	103.79	108.20
1	2	1022	C	C2-N3-C4	-5.51	117.14	119.90
36	1	97	U	C2-N3-C4	-5.51	123.69	127.00
36	1	907	G	C5-C6-O6	-5.51	125.29	128.60
36	1	1139	G	C5-C6-N1	-5.51	108.74	111.50
36	1	1844	C	OP1-P-O3'	5.51	117.33	105.20
36	1	2412	G	C8-N9-C4	-5.51	104.19	106.40
36	1	3262	U	C5-C4-O4	5.51	129.21	125.90
1	6	1100	G	N3-C4-C5	-5.51	125.84	128.60
1	6	1773	C	N3-C2-O2	5.51	125.76	121.90
36	5	1861	G	C8-N9-C4	-5.51	104.19	106.40
36	5	2724	U	C6-N1-C2	-5.51	117.69	121.00
36	5	2956	A	C8-N9-C4	-5.51	103.59	105.80
36	5	3206	C	N3-C2-O2	-5.51	118.04	121.90
1	2	275	C	C5-C6-N1	5.51	123.76	121.00
36	1	225	C	C4-C5-C6	5.51	120.16	117.40
36	1	718	G	C4-C5-N7	5.51	113.00	110.80
36	1	2937	G	N7-C8-N9	-5.51	110.34	113.10
36	1	3207	U	C5-C6-N1	-5.51	119.94	122.70
36	5	805	G	N9-C1'-C2'	-5.51	105.94	112.00
25	D3	111	GLY	N-CA-C	-5.51	99.32	113.10
36	1	423	A	OP2-P-O3'	5.51	117.33	105.20
36	1	1356	U	N3-C4-O4	5.51	123.26	119.40
36	1	1373	A	OP2-P-O3'	5.51	117.32	105.20
36	1	2644	C	O4'-C1'-N1	-5.51	103.79	108.20
1	6	1729	C	C5-C6-N1	-5.51	118.25	121.00
36	5	892	U	C2-N1-C1'	-5.51	111.08	117.70
36	5	1144	U	N1-C2-O2	-5.51	118.94	122.80
1	2	360	A	C8-N9-C4	5.51	108.00	105.80
36	1	73	C	N3-C4-N4	5.51	121.86	118.00
36	1	111	C	C5-C6-N1	-5.51	118.25	121.00
36	1	1670	C	C2-N3-C4	-5.51	117.14	119.90
36	1	2247	G	C5-C6-O6	-5.51	125.30	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2688	U	C6-N1-C1'	-5.51	113.48	121.20
36	1	3222	U	N3-C4-O4	5.51	123.26	119.40
37	3	1	G	C4-N9-C1'	5.51	133.66	126.50
1	6	359	A	C6-N1-C2	5.51	121.91	118.60
1	6	449	C	N3-C2-O2	-5.51	118.04	121.90
36	5	679	U	N3-C4-O4	-5.51	115.54	119.40
36	5	1110	U	N3-C2-O2	-5.51	118.34	122.20
36	5	2121	G	C4-C5-N7	5.51	113.00	110.80
36	5	2819	A	O5'-P-OP2	-5.51	100.74	105.70
36	5	2833	A	C5-C6-N1	5.51	120.45	117.70
36	5	3091	A	C8-N9-C4	-5.51	103.60	105.80
36	5	3362	A	C8-N9-C4	-5.51	103.60	105.80
37	7	48	U	C5-C4-O4	-5.51	122.59	125.90
1	2	631	G	N3-C4-C5	5.51	131.35	128.60
36	1	863	C	OP2-P-O3'	5.51	117.32	105.20
36	1	922	U	N3-C4-O4	-5.51	115.54	119.40
36	1	636	C	OP1-P-OP2	5.51	127.86	119.60
36	1	640	U	OP1-P-O3'	-5.51	93.09	105.20
36	1	836	A	N1-C2-N3	5.51	132.05	129.30
36	1	1846	C	N3-C4-C5	-5.51	119.70	121.90
36	1	2405	C	C6-N1-C2	-5.51	118.10	120.30
36	1	2552	C	N3-C4-N4	-5.51	114.14	118.00
36	1	2873	U	N1-C2-N3	5.51	118.20	114.90
36	1	3078	U	C5-C6-N1	5.51	125.45	122.70
36	5	21	G	C5-C6-N1	5.51	114.25	111.50
36	5	2758	A	C5-N7-C8	5.51	106.65	103.90
36	5	2991	A	N9-C4-C5	5.51	108.00	105.80
56	n0	113	ARG	NE-CZ-NH1	-5.51	117.55	120.30
36	1	1296	C	N1-C2-N3	5.50	123.05	119.20
1	6	14	C	C6-N1-C2	-5.50	118.10	120.30
36	5	958	C	O5'-P-OP1	-5.50	100.75	105.70
1	2	158	U	N1-C2-O2	5.50	126.65	122.80
1	2	1118	G	C5-C6-O6	-5.50	125.30	128.60
1	2	1780	G	N1-C6-O6	5.50	123.20	119.90
36	1	427	C	C6-N1-C2	-5.50	118.10	120.30
36	1	978	G	P-O3'-C3'	-5.50	113.09	119.70
38	4	8	C	N3-C4-N4	5.50	121.85	118.00
36	5	428	A	OP2-P-O3'	5.50	117.31	105.20
36	5	818	C	N1-C2-O2	-5.50	115.60	118.90
36	5	1376	C	N3-C4-N4	-5.50	114.15	118.00
36	5	1641	U	C5-C4-O4	-5.50	122.60	125.90
36	5	2997	G	C4-C5-N7	5.50	113.00	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	647	G	N9-C4-C5	5.50	107.60	105.40
1	2	1189	A	C8-N9-C4	5.50	108.00	105.80
36	1	98	G	C2-N3-C4	-5.50	109.15	111.90
36	1	337	G	C8-N9-C4	5.50	108.60	106.40
36	1	717	C	OP2-P-O3'	5.50	117.31	105.20
36	1	1116	G	O5'-P-OP1	-5.50	100.75	105.70
36	1	1169	A	N7-C8-N9	-5.50	111.05	113.80
36	1	1293	U	N1-C2-O2	-5.50	118.95	122.80
36	5	896	A	C2-N3-C4	5.50	113.35	110.60
36	5	2991	A	C5-C6-N1	5.50	120.45	117.70
36	1	1903	U	N3-C4-O4	5.50	123.25	119.40
36	1	2706	G	C5-C6-O6	-5.50	125.30	128.60
38	4	13	A	C6-C5-N7	-5.50	128.45	132.30
1	6	1757	G	N1-C6-O6	-5.50	116.60	119.90
36	5	1662	G	C5-C6-N1	-5.50	108.75	111.50
36	5	1712	G	C8-N9-C4	-5.50	104.20	106.40
36	5	2169	G	N9-C4-C5	5.50	107.60	105.40
36	5	2877	G	N1-C2-N3	5.50	127.20	123.90
36	5	2890	A	C5-C6-N1	-5.50	114.95	117.70
1	2	631	G	N3-C4-N9	-5.50	122.70	126.00
36	1	2295	A	N7-C8-N9	5.50	116.55	113.80
37	3	39	C	N3-C4-C5	5.50	124.10	121.90
38	4	98	U	C5-C4-O4	-5.50	122.60	125.90
1	6	100	A	C5-C6-N1	-5.50	114.95	117.70
1	6	558	U	N3-C2-O2	-5.50	118.35	122.20
36	5	1445	U	C5-C6-N1	-5.50	119.95	122.70
36	5	3183	A	C6-C5-N7	-5.50	128.45	132.30
36	1	382	U	N1-C2-O2	-5.50	118.95	122.80
36	1	661	G	N3-C4-N9	5.50	129.30	126.00
36	1	816	A	C6-N1-C2	5.50	121.90	118.60
36	1	1592	G	N1-C2-N2	-5.50	111.25	116.20
1	6	393	C	C5-C6-N1	5.50	123.75	121.00
36	5	333	G	N1-C2-N3	5.50	127.20	123.90
36	5	636	C	C2-N3-C4	-5.50	117.15	119.90
36	5	1046	A	OP2-P-O3'	5.50	117.29	105.20
36	5	1367	G	C5-C6-N1	-5.50	108.75	111.50
36	5	1712	G	N3-C4-C5	-5.50	125.85	128.60
36	5	2149	A	O5'-P-OP2	-5.50	100.75	105.70
36	5	2980	U	N3-C4-O4	-5.50	115.55	119.40
37	7	74	C	C5-C4-N4	-5.50	116.35	120.20
36	1	2541	U	P-O3'-C3'	5.50	126.29	119.70
36	1	2646	C	C6-N1-C2	5.50	122.50	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1726	G	OP2-P-O3'	5.50	117.29	105.20
36	1	1654	A	N7-C8-N9	-5.49	111.05	113.80
36	1	2597	U	OP2-P-O3'	5.49	117.28	105.20
1	6	565	C	C5-C6-N1	-5.49	118.25	121.00
36	5	1170	A	C6-C5-N7	-5.49	128.46	132.30
36	5	1387	G	OP1-P-OP2	5.49	127.84	119.60
36	5	2129	U	C5-C6-N1	5.49	125.45	122.70
36	5	2836	C	OP1-P-OP2	5.49	127.84	119.60
1	2	619	A	N1-C6-N6	-5.49	115.31	118.60
36	1	1304	A	C8-N9-C4	5.49	108.00	105.80
36	1	1403	C	C5-C6-N1	-5.49	118.25	121.00
36	5	1430	U	N1-C2-N3	-5.49	111.61	114.90
36	5	1841	A	O4'-C1'-N9	5.49	112.59	108.20
36	5	2925	C	O5'-P-OP2	5.49	117.29	110.70
64	n8	46	ASP	CB-CG-OD1	5.49	123.24	118.30
36	1	296	A	C8-N9-C4	-5.49	103.61	105.80
36	1	325	A	OP1-P-OP2	-5.49	111.37	119.60
36	1	829	U	N3-C2-O2	-5.49	118.36	122.20
36	1	2615	G	C4-C5-N7	5.49	113.00	110.80
36	1	2942	C	C4-C5-C6	-5.49	114.66	117.40
36	1	3076	C	N1-C2-O2	-5.49	115.61	118.90
38	4	26	U	N3-C4-O4	-5.49	115.56	119.40
1	6	1786	G	C8-N9-C4	5.49	108.60	106.40
36	5	878	G	N7-C8-N9	5.49	115.84	113.10
36	5	1392	G	N3-C4-N9	5.49	129.29	126.00
36	1	109	A	OP1-P-O3'	5.49	117.27	105.20
36	5	1509	A	N9-C4-C5	-5.49	103.61	105.80
36	5	3330	A	C8-N9-C4	5.49	108.00	105.80
36	1	628	A	OP2-P-O3'	5.49	117.27	105.20
36	1	902	G	N1-C6-O6	5.49	123.19	119.90
36	1	3002	C	N3-C4-C5	5.49	124.09	121.90
36	1	3062	G	C4-C5-N7	5.49	112.99	110.80
36	5	350	C	N1-C2-N3	5.49	123.04	119.20
36	5	1149	G	C6-N1-C2	-5.49	121.81	125.10
36	5	1300	G	N3-C4-N9	5.49	129.29	126.00
36	5	1321	G	O5'-P-OP2	-5.49	100.76	105.70
36	5	1604	G	C4-N9-C1'	5.49	133.63	126.50
36	5	3217	C	C5-C6-N1	-5.49	118.26	121.00
36	1	2177	G	C6-C5-N7	-5.48	127.11	130.40
36	1	2376	G	N7-C8-N9	5.48	115.84	113.10
36	1	2821	C	C2-N3-C4	-5.48	117.16	119.90
36	5	2721	A	O5'-P-OP2	5.48	117.28	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	m0	153	ARG	NE-CZ-NH1	5.48	123.04	120.30
36	1	2625	C	C5-C6-N1	-5.48	118.26	121.00
36	5	636	C	C5-C6-N1	-5.48	118.26	121.00
36	1	51	A	C4-C5-N7	5.48	113.44	110.70
36	1	1332	A	N7-C8-N9	5.48	116.54	113.80
1	6	988	A	N1-C6-N6	-5.48	115.31	118.60
36	5	1466	G	OP1-P-OP2	-5.48	111.38	119.60
36	5	2857	C	C6-N1-C1'	-5.48	114.22	120.80
36	1	933	A	C4-C5-C6	5.48	119.74	117.00
36	1	1048	A	N1-C6-N6	-5.48	115.31	118.60
36	1	1377	G	N3-C2-N2	5.48	123.73	119.90
1	2	1180	C	N1-C2-O2	5.48	122.19	118.90
36	1	1421	G	N3-C2-N2	5.48	123.73	119.90
36	1	2356	A	N9-C4-C5	-5.48	103.61	105.80
36	1	2761	G	N7-C8-N9	-5.48	110.36	113.10
36	1	3344	A	N1-C2-N3	5.48	132.04	129.30
38	4	144	G	N9-C4-C5	5.48	107.59	105.40
36	5	918	C	C5-C6-N1	5.48	123.74	121.00
36	1	1434	G	N3-C2-N2	-5.48	116.07	119.90
36	5	2185	G	C5-C6-N1	-5.48	108.76	111.50
36	5	2584	G	OP2-P-O3'	5.48	117.25	105.20
36	5	2928	C	N3-C2-O2	-5.48	118.07	121.90
36	1	1405	U	C6-N1-C2	5.47	124.28	121.00
36	1	2391	G	C8-N9-C4	-5.47	104.21	106.40
36	1	2873	U	O5'-P-OP2	-5.47	100.77	105.70
1	6	922	G	OP1-P-OP2	5.47	127.81	119.60
37	7	37	G	N9-C4-C5	-5.47	103.21	105.40
40	l3	4	ARG	NE-CZ-NH1	5.47	123.04	120.30
1	2	572	C	O5'-P-OP1	-5.47	100.77	105.70
36	1	304	G	C6-C5-N7	5.47	133.68	130.40
36	1	1227	C	C2-N1-C1'	5.47	124.82	118.80
1	6	1285	U	N3-C2-O2	-5.47	118.37	122.20
36	5	2748	A	C8-N9-C4	5.47	107.99	105.80
36	5	3148	U	N1-C2-O2	-5.47	118.97	122.80
36	1	113	C	N3-C4-C5	-5.47	119.71	121.90
36	1	661	G	C5-C6-N1	5.47	114.23	111.50
36	1	884	A	OP1-P-OP2	5.47	127.81	119.60
36	1	1294	A	C2-N3-C4	5.47	113.34	110.60
36	1	3214	U	OP2-P-O3'	5.47	117.24	105.20
1	6	991	G	C5-C6-O6	-5.47	125.32	128.60
36	5	2961	G	N9-C4-C5	5.47	107.59	105.40
36	5	3088	G	O5'-P-OP1	-5.47	100.78	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1762	A	C2-N3-C4	-5.47	107.86	110.60
36	1	182	U	C2-N1-C1'	-5.47	111.14	117.70
1	6	454	U	C6-N1-C2	5.47	124.28	121.00
36	5	304	G	N9-C4-C5	5.47	107.59	105.40
36	5	815	G	C6-N1-C2	-5.47	121.82	125.10
36	5	908	G	C6-C5-N7	-5.47	127.12	130.40
36	5	1379	G	N3-C2-N2	5.47	123.73	119.90
36	5	2794	G	N3-C4-N9	5.47	129.28	126.00
36	5	2883	U	C2-N3-C4	5.47	130.28	127.00
36	1	345	G	C6-N1-C2	-5.47	121.82	125.10
36	1	2282	U	C2-N3-C4	-5.47	123.72	127.00
36	1	2874	G	N3-C2-N2	-5.47	116.07	119.90
38	8	83	C	N3-C4-C5	-5.47	119.71	121.90
36	1	678	G	N3-C4-C5	-5.47	125.87	128.60
36	5	644	G	C5-C6-N1	-5.47	108.77	111.50
36	5	884	A	C8-N9-C4	5.47	107.99	105.80
36	5	1680	G	N9-C4-C5	5.47	107.59	105.40
36	5	3084	C	C6-N1-C2	5.47	122.49	120.30
60	n4	25	ASP	CB-CG-OD2	-5.47	113.38	118.30
36	1	2824	G	N1-C6-O6	-5.46	116.62	119.90
36	1	3205	G	C8-N9-C4	5.46	108.59	106.40
36	5	146	U	C5-C6-N1	-5.46	119.97	122.70
36	5	1201	C	C6-N1-C1'	5.46	127.36	120.80
36	5	1659	U	OP2-P-O3'	5.46	117.22	105.20
36	5	2693	C	C2-N3-C4	-5.46	117.17	119.90
36	1	1792	C	C4-C5-C6	5.46	120.13	117.40
36	1	3052	G	C2-N3-C4	-5.46	109.17	111.90
37	3	88	G	N3-C4-C5	-5.46	125.87	128.60
1	6	538	A	N9-C4-C5	5.46	107.98	105.80
1	6	1031	U	N3-C2-O2	5.46	126.02	122.20
36	5	1014	U	C2-N1-C1'	5.46	124.26	117.70
36	5	2975	U	N1-C2-O2	5.46	126.62	122.80
1	2	553	G	C2-N3-C4	-5.46	109.17	111.90
36	1	1373	A	O5'-P-OP2	-5.46	100.78	105.70
36	1	2571	U	N1-C2-O2	5.46	126.62	122.80
1	6	1796	C	N3-C2-O2	-5.46	118.08	121.90
36	5	651	G	C8-N9-C4	-5.46	104.22	106.40
36	5	1840	U	N3-C2-O2	-5.46	118.38	122.20
36	5	2608	G	C8-N9-C4	5.46	108.58	106.40
36	5	2622	C	OP1-P-O3'	5.46	117.22	105.20
36	1	801	A	C5-C6-N6	-5.46	119.33	123.70
36	1	1309	U	N1-C2-N3	5.46	118.18	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1321	G	O5'-P-OP1	-5.46	100.79	105.70
36	5	392	G	C5-C6-O6	-5.46	125.32	128.60
36	5	876	A	C5-C6-N1	5.46	120.43	117.70
36	5	2426	U	N3-C4-O4	-5.46	115.58	119.40
56	n0	115	ARG	NE-CZ-NH1	5.46	123.03	120.30
1	2	968	U	C5-C6-N1	-5.46	119.97	122.70
1	2	1201	G	N3-C4-N9	-5.46	122.72	126.00
36	1	908	G	C6-C5-N7	-5.46	127.12	130.40
36	1	969	C	C5-C6-N1	-5.46	118.27	121.00
36	1	2709	C	N3-C2-O2	-5.46	118.08	121.90
36	1	2818	U	C5'-C4'-O4'	-5.46	102.55	109.10
36	1	2975	U	C2-N1-C1'	5.46	124.25	117.70
1	6	542	A	C5-N7-C8	-5.46	101.17	103.90
36	5	2393	G	C5-C6-O6	-5.46	125.33	128.60
36	5	2692	A	C5-C6-N6	5.46	128.07	123.70
1	2	347	G	N3-C4-C5	-5.46	125.87	128.60
36	1	422	A	N9-C4-C5	5.46	107.98	105.80
36	1	619	A	N9-C4-C5	-5.46	103.62	105.80
36	1	2322	C	N3-C2-O2	5.46	125.72	121.90
36	1	2660	G	C5-C6-O6	-5.46	125.33	128.60
16	c4	127	ARG	NE-CZ-NH1	5.46	123.03	120.30
36	5	201	A	N7-C8-N9	5.46	116.53	113.80
36	5	1144	U	C2-N1-C1'	-5.46	111.15	117.70
36	1	1654	A	C5-N7-C8	5.46	106.63	103.90
36	5	934	G	C2-N3-C4	5.46	114.63	111.90
36	5	1386	A	C2-N3-C4	-5.46	107.87	110.60
1	2	42	G	N1-C6-O6	-5.45	116.63	119.90
1	2	402	C	C6-N1-C2	5.45	122.48	120.30
1	2	1200	G	N7-C8-N9	5.45	115.83	113.10
1	2	1273	G	O5'-P-OP1	-5.45	100.79	105.70
1	6	543	C	C2-N1-C1'	5.45	124.80	118.80
36	5	1847	A	C4-C5-N7	5.45	113.43	110.70
36	1	909	G	O5'-P-OP2	5.45	117.24	110.70
36	1	3140	G	C4-C5-N7	5.45	112.98	110.80
1	6	83	G	N7-C8-N9	5.45	115.83	113.10
1	6	1680	G	C5-C6-O6	-5.45	125.33	128.60
36	5	805	G	OP1-P-OP2	-5.45	111.42	119.60
36	5	2733	A	O5'-P-OP1	5.45	117.24	110.70
37	7	101	G	C6-C5-N7	-5.45	127.13	130.40
36	1	374	A	P-O3'-C3'	5.45	126.24	119.70
1	6	871	G	C4-C5-N7	5.45	112.98	110.80
36	5	437	G	C5-N7-C8	-5.45	101.58	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2838	A	O5'-P-OP1	5.45	117.24	110.70
36	5	3093	C	C2-N3-C4	-5.45	117.17	119.90
37	7	121	U	N1-C2-O2	5.45	126.61	122.80
36	1	62	A	N3-C4-C5	-5.45	122.99	126.80
36	1	711	A	C4-C5-N7	-5.45	107.98	110.70
36	1	1129	A	C5-C6-N1	5.45	120.42	117.70
36	1	2812	C	N1-C2-O2	5.45	122.17	118.90
36	1	3029	A	C8-N9-C4	-5.45	103.62	105.80
36	1	3275	U	C5-C6-N1	5.45	125.42	122.70
40	L3	238	LEU	CA-CB-CG	5.45	127.83	115.30
1	6	572	C	N3-C4-N4	5.45	121.81	118.00
36	5	282	G	C5-C6-O6	5.45	131.87	128.60
36	5	644	G	C8-N9-C4	-5.45	104.22	106.40
37	7	97	A	N1-C6-N6	-5.45	115.33	118.60
65	n9	39	PHE	N-CA-CB	5.45	120.41	110.60
36	1	3122	A	C8-N9-C4	-5.45	103.62	105.80
36	5	900	G	C4-C5-N7	-5.45	108.62	110.80
36	1	1509	A	N1-C6-N6	5.45	121.87	118.60
36	1	1891	A	C4-N9-C1'	-5.45	116.50	126.30
37	3	53	U	N1-C2-O2	-5.45	118.99	122.80
36	5	681	U	C5-C4-O4	-5.45	122.63	125.90
37	7	48	U	O5'-P-OP2	-5.45	100.80	105.70
1	2	728	U	C2-N1-C1'	5.44	124.23	117.70
1	2	351	C	C2-N3-C4	-5.44	117.18	119.90
36	5	1098	A	N7-C8-N9	5.44	116.52	113.80
36	1	637	C	N3-C2-O2	-5.44	118.09	121.90
36	1	1117	G	C8-N9-C4	5.44	108.58	106.40
36	1	2373	A	C4-C5-C6	5.44	119.72	117.00
36	1	2731	U	N3-C2-O2	5.44	126.01	122.20
36	1	2993	G	N3-C4-C5	-5.44	125.88	128.60
36	1	3305	A	N1-C6-N6	-5.44	115.34	118.60
36	5	1370	G	C5-C6-O6	5.44	131.86	128.60
36	5	2349	U	N3-C2-O2	-5.44	118.39	122.20
36	5	2634	U	N3-C4-C5	5.44	117.86	114.60
36	5	3303	G	N1-C6-O6	-5.44	116.64	119.90
1	2	1057	U	C5-C6-N1	5.44	125.42	122.70
36	1	387	A	C8-N9-C4	-5.44	103.62	105.80
36	1	1513	G	C5-C6-N1	5.44	114.22	111.50
36	5	103	G	C5-C6-O6	5.44	131.86	128.60
36	1	1939	G	N3-C2-N2	-5.44	116.09	119.90
1	6	1751	C	N1-C2-O2	5.44	122.16	118.90
36	5	339	C	C2-N1-C1'	-5.44	112.82	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1017	C	C2-N3-C4	5.44	122.62	119.90
36	5	2376	G	N9-C4-C5	5.44	107.58	105.40
36	1	351	A	C5-N7-C8	5.44	106.62	103.90
1	6	427	C	N1-C2-O2	-5.44	115.64	118.90
36	1	54	C	C2-N1-C1'	-5.43	112.82	118.80
36	1	77	A	C2-N3-C4	5.43	113.32	110.60
36	1	545	U	N1-C2-O2	5.43	126.60	122.80
36	1	924	G	C5-N7-C8	-5.43	101.58	104.30
36	1	2915	U	N1-C2-O2	-5.43	119.00	122.80
1	6	399	A	C8-N9-C4	5.43	107.97	105.80
1	6	510	G	C6-C5-N7	-5.43	127.14	130.40
36	5	2610	G	C5-C6-N1	-5.43	108.78	111.50
36	5	2942	C	C2-N3-C4	-5.43	117.18	119.90
1	2	140	A	N1-C6-N6	5.43	121.86	118.60
1	2	1611	A	C2-N3-C4	-5.43	107.88	110.60
18	C6	53	LEU	CA-CB-CG	-5.43	102.80	115.30
36	1	1107	C	C6-N1-C2	5.43	122.47	120.30
1	6	327	U	N1-C2-N3	5.43	118.16	114.90
1	6	334	G	C5-C6-O6	5.43	131.86	128.60
36	5	43	A	C2-N3-C4	-5.43	107.88	110.60
36	1	1141	C	N3-C4-N4	5.43	121.80	118.00
36	1	1370	G	N9-C4-C5	-5.43	103.23	105.40
36	1	1444	G	C4-C5-N7	5.43	112.97	110.80
36	1	2417	U	C5-C6-N1	-5.43	119.98	122.70
38	4	39	G	N3-C2-N2	5.43	123.70	119.90
36	5	38	U	C6-N1-C2	5.43	124.26	121.00
36	5	1192	C	O5'-P-OP2	5.43	117.22	110.70
36	5	1451	C	N1-C2-O2	5.43	122.16	118.90
36	5	2413	A	N7-C8-N9	-5.43	111.08	113.80
36	1	1541	G	C4-C5-N7	5.43	112.97	110.80
36	1	2649	A	C5-C6-N1	5.43	120.41	117.70
36	5	56	G	O5'-P-OP1	5.43	117.21	110.70
36	5	1493	G	C4-C5-N7	5.43	112.97	110.80
36	1	647	A	C8-N9-C4	5.43	107.97	105.80
36	1	760	G	N3-C4-N9	5.43	129.26	126.00
36	1	2861	U	N3-C2-O2	-5.43	118.40	122.20
36	5	2985	C	N3-C4-C5	-5.43	119.73	121.90
36	1	585	A	C8-N9-C4	5.43	107.97	105.80
36	1	2116	G	N7-C8-N9	-5.43	110.39	113.10
36	5	1048	A	N1-C2-N3	-5.43	126.59	129.30
36	5	1820	U	O4'-C1'-N1	5.43	112.54	108.20
36	5	2298	U	OP1-P-OP2	5.43	127.74	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1762	A	O5'-P-OP2	5.42	117.21	110.70
36	1	49	A	C5-C6-N1	-5.42	114.99	117.70
36	1	52	A	C6-N1-C2	5.42	121.86	118.60
36	1	54	C	N3-C4-C5	5.42	124.07	121.90
36	1	662	U	N1-C2-O2	5.42	126.60	122.80
36	1	788	C	C2-N1-C1'	-5.42	112.83	118.80
36	1	1006	A	OP1-P-OP2	5.42	127.74	119.60
36	5	503	C	N3-C4-N4	5.42	121.80	118.00
36	5	2260	U	O5'-P-OP1	-5.42	100.82	105.70
36	5	2898	G	C4-N9-C1'	-5.42	119.45	126.50
36	1	1507	G	C4-C5-C6	5.42	122.05	118.80
36	1	1660	C	N1-C2-N3	5.42	123.00	119.20
36	5	974	G	C8-N9-C4	-5.42	104.23	106.40
37	7	74	C	N3-C2-O2	5.42	125.70	121.90
1	2	1446	A	C8-N9-C4	-5.42	103.63	105.80
9	S7	118	LEU	CA-CB-CG	5.42	127.77	115.30
36	1	421	G	O5'-P-OP1	-5.42	100.82	105.70
36	1	943	U	C2-N3-C4	-5.42	123.75	127.00
36	1	1185	C	C2-N3-C4	-5.42	117.19	119.90
36	1	2829	U	OP2-P-O3'	5.42	117.13	105.20
1	6	1697	G	N3-C4-C5	-5.42	125.89	128.60
36	5	369	A	C5-N7-C8	-5.42	101.19	103.90
36	5	779	G	C5-C6-O6	-5.42	125.35	128.60
36	5	1128	U	C4-C5-C6	5.42	122.95	119.70
36	5	1456	A	C8-N9-C4	5.42	107.97	105.80
36	5	2137	U	N3-C4-C5	5.42	117.85	114.60
36	5	2409	G	N3-C4-N9	-5.42	122.75	126.00
36	5	3115	C	N3-C2-O2	5.42	125.69	121.90
36	5	3214	U	N1-C2-O2	5.42	126.59	122.80
1	2	1241	G	C4-N9-C1'	5.42	133.55	126.50
1	2	1653	C	C6-N1-C2	-5.42	118.13	120.30
36	1	690	A	N9-C4-C5	5.42	107.97	105.80
1	6	1653	C	N1-C2-N3	5.42	122.99	119.20
36	5	562	C	C5-C4-N4	-5.42	116.41	120.20
36	5	1056	U	C5-C6-N1	5.42	125.41	122.70
36	5	1157	G	C6-C5-N7	5.42	133.65	130.40
36	5	3127	A	C8-N9-C4	-5.42	103.63	105.80
36	1	688	G	C4-C5-N7	-5.42	108.63	110.80
36	1	2171	G	N3-C4-C5	-5.42	125.89	128.60
36	1	3192	U	N3-C2-O2	5.42	125.99	122.20
36	5	1409	G	C5-C6-N1	5.42	114.21	111.50
36	5	2352	A	OP2-P-O3'	5.42	117.12	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	648	C	C6-N1-C1'	-5.42	114.30	120.80
36	1	908	G	C4-N9-C1'	5.42	133.54	126.50
36	1	1915	A	C5-C6-N1	5.42	120.41	117.70
36	1	2249	G	C3'-C2'-C1'	-5.42	97.17	101.50
36	1	2550	U	N3-C4-O4	-5.42	115.61	119.40
36	1	2800	G	N1-C2-N3	5.42	127.15	123.90
36	1	2954	U	C5-C6-N1	-5.42	119.99	122.70
36	5	1475	A	C4-C5-C6	5.42	119.71	117.00
36	5	1844	C	N1-C2-N3	5.42	122.99	119.20
36	5	2134	G	N3-C2-N2	5.42	123.69	119.90
36	5	2186	U	N1-C2-O2	5.42	126.59	122.80
38	8	63	G	C4-C5-N7	-5.42	108.63	110.80
1	2	549	G	N1-C6-O6	-5.42	116.65	119.90
36	1	2404	A	C4-C5-C6	-5.42	114.29	117.00
36	5	1122	U	C2-N3-C4	-5.42	123.75	127.00
36	5	1922	A	OP1-P-OP2	-5.42	111.48	119.60
36	1	78	U	C5-C4-O4	-5.41	122.65	125.90
36	1	1832	C	N1-C2-O2	5.41	122.15	118.90
36	1	2149	A	C6-N1-C2	5.41	121.85	118.60
36	1	2877	G	C4-C5-N7	-5.41	108.64	110.80
36	1	3036	G	N3-C4-C5	-5.41	125.89	128.60
36	1	3368	U	C6-N1-C1'	5.41	128.78	121.20
38	4	23	U	C5-C6-N1	-5.41	119.99	122.70
1	6	1347	U	N1-C2-N3	5.41	118.15	114.90
36	5	328	U	N1-C2-N3	5.41	118.15	114.90
36	5	2169	G	C6-C5-N7	5.41	133.65	130.40
36	5	2281	A	N9-C4-C5	-5.41	103.64	105.80
36	5	2744	U	N1-C2-O2	5.41	126.59	122.80
36	5	3317	U	C5-C4-O4	5.41	129.15	125.90
37	7	52	G	C8-N9-C4	5.41	108.56	106.40
36	1	651	G	N3-C2-N2	5.41	123.69	119.90
36	1	2291	A	OP1-P-O3'	5.41	117.11	105.20
36	1	3361	G	N3-C4-N9	5.41	129.25	126.00
1	6	1000	C	N3-C2-O2	-5.41	118.11	121.90
36	5	372	A	C6-C5-N7	-5.41	128.51	132.30
36	5	2887	A	OP1-P-OP2	5.41	127.72	119.60
36	5	3332	U	N3-C4-O4	-5.41	115.61	119.40
36	1	1421	G	N9-C4-C5	-5.41	103.24	105.40
36	1	1700	G	C6-C5-N7	-5.41	127.15	130.40
36	1	2877	G	N3-C4-C5	-5.41	125.89	128.60
38	4	115	C	O5'-P-OP2	-5.41	100.83	105.70
1	6	1765	A	N1-C6-N6	-5.41	115.35	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	869	G	N1-C6-O6	-5.41	116.65	119.90
36	5	942	U	O5'-P-OP1	5.41	117.19	110.70
36	5	1661	G	N3-C4-C5	-5.41	125.89	128.60
36	5	2833	A	C8-N9-C4	5.41	107.96	105.80
36	5	3267	A	C8-N9-C4	5.41	107.96	105.80
36	1	155	G	O5'-P-OP2	-5.41	100.83	105.70
36	1	213	A	C6-N1-C2	5.41	121.84	118.60
36	1	2197	C	N1-C2-O2	5.41	122.15	118.90
36	5	506	U	OP2-P-O3'	5.41	117.10	105.20
36	5	667	C	C6-N1-C2	5.41	122.46	120.30
36	5	969	C	C2-N1-C1'	-5.41	112.85	118.80
36	1	602	A	N1-C6-N6	-5.41	115.36	118.60
36	1	2772	C	P-O3'-C3'	5.41	126.19	119.70
38	4	100	U	C2-N1-C1'	5.41	124.19	117.70
36	5	2210	G	C6-C5-N7	-5.41	127.16	130.40
36	5	2550	U	N3-C4-O4	-5.41	115.61	119.40
1	6	1560	U	C5-C4-O4	5.41	129.14	125.90
36	5	328	U	N3-C4-O4	-5.41	115.62	119.40
36	5	2136	C	C4-C5-C6	5.41	120.10	117.40
36	5	2855	U	N3-C4-O4	-5.41	115.62	119.40
36	5	2974	U	N3-C4-O4	5.41	123.18	119.40
36	5	3242	G	C8-N9-C4	-5.41	104.24	106.40
36	1	1065	A	O5'-P-OP1	-5.40	100.84	105.70
36	1	1332	A	C8-N9-C4	-5.40	103.64	105.80
37	3	88	G	C4-C5-N7	-5.40	108.64	110.80
38	4	6	U	C5-C4-O4	-5.40	122.66	125.90
36	5	1411	C	N3-C4-C5	5.40	124.06	121.90
1	2	1092	A	N9-C4-C5	-5.40	103.64	105.80
36	1	806	A	OP1-P-OP2	5.40	127.70	119.60
36	1	2388	U	OP2-P-O3'	5.40	117.09	105.20
36	1	2399	A	OP1-P-OP2	-5.40	111.50	119.60
36	1	2894	C	C6-N1-C2	-5.40	118.14	120.30
36	1	3001	C	O5'-P-OP1	5.40	117.18	110.70
1	6	365	G	N3-C4-C5	-5.40	125.90	128.60
1	6	1619	C	C6-N1-C2	-5.40	118.14	120.30
1	6	1658	G	C6-C5-N7	5.40	133.64	130.40
36	5	887	G	C5-C6-O6	5.40	131.84	128.60
36	5	2358	A	N1-C6-N6	5.40	121.84	118.60
3	S1	96	LEU	CA-CB-CG	5.40	127.72	115.30
36	1	171	G	N3-C4-N9	-5.40	122.76	126.00
36	1	716	A	N3-C4-C5	5.40	130.58	126.80
36	1	893	C	C5-C6-N1	5.40	123.70	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	927	C	N3-C4-C5	5.40	124.06	121.90
36	1	938	C	C5-C6-N1	5.40	123.70	121.00
36	1	966	U	N3-C2-O2	-5.40	118.42	122.20
36	1	1529	A	C2-N3-C4	-5.40	107.90	110.60
36	1	2793	G	C8-N9-C1'	-5.40	119.98	127.00
38	4	35	C	C2-N3-C4	-5.40	117.20	119.90
1	6	883	C	O5'-P-OP1	-5.40	100.84	105.70
36	5	101	G	O4'-C1'-N9	5.40	112.52	108.20
36	5	287	G	N1-C6-O6	-5.40	116.66	119.90
36	5	395	A	C5-C6-N6	-5.40	119.38	123.70
36	5	2637	A	N1-C6-N6	5.40	121.84	118.60
36	5	2871	G	O5'-P-OP1	5.40	117.18	110.70
73	o7	65	ARG	NE-CZ-NH1	5.40	123.00	120.30
36	1	592	A	N1-C2-N3	5.40	132.00	129.30
37	3	85	G	OP2-P-O3'	5.40	117.08	105.20
36	5	2808	A	N9-C4-C5	-5.40	103.64	105.80
1	2	347	G	C8-N9-C4	-5.40	104.24	106.40
1	2	557	G	N3-C4-C5	-5.40	125.90	128.60
36	1	1937	U	N3-C4-C5	5.40	117.84	114.60
1	6	858	G	C4-C5-N7	5.40	112.96	110.80
36	5	78	U	C5-C4-O4	-5.40	122.66	125.90
36	5	1320	C	C2-N3-C4	5.40	122.60	119.90
36	5	2401	A	N3-C4-N9	-5.40	123.08	127.40
36	5	2866	U	C6-N1-C2	-5.40	117.76	121.00
36	1	1849	C	N1-C2-O2	-5.40	115.66	118.90
36	1	2802	A	C5-N7-C8	-5.40	101.20	103.90
1	6	557	G	N3-C4-C5	-5.40	125.90	128.60
1	6	639	U	N3-C2-O2	-5.40	118.42	122.20
36	1	327	A	C4-C5-C6	-5.39	114.30	117.00
36	1	2657	A	N9-C4-C5	5.39	107.96	105.80
36	1	3207	U	N1-C2-O2	-5.39	119.02	122.80
54	M8	99	THR	N-CA-C	5.39	125.56	111.00
1	6	448	C	N3-C4-C5	-5.39	119.74	121.90
1	6	1642	G	N1-C6-O6	5.39	123.14	119.90
36	5	337	G	N3-C4-C5	-5.39	125.90	128.60
36	5	721	G	O5'-P-OP1	-5.39	100.84	105.70
36	5	2988	C	C2-N3-C4	-5.39	117.20	119.90
1	2	852	C	N1-C2-O2	5.39	122.14	118.90
1	2	1206	U	N3-C4-O4	5.39	123.17	119.40
36	1	112	U	C5-C6-N1	5.39	125.40	122.70
36	1	227	G	C5-C6-O6	-5.39	125.36	128.60
36	1	1062	A	C4-C5-N7	5.39	113.40	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1508	C	N3-C4-N4	-5.39	114.23	118.00
1	6	1210	C	C6-N1-C2	-5.39	118.14	120.30
36	5	1170	A	C4-C5-C6	5.39	119.70	117.00
36	5	2223	A	C8-N9-C4	-5.39	103.64	105.80
36	5	2360	C	OP1-P-OP2	-5.39	111.51	119.60
37	7	44	C	C2-N1-C1'	-5.39	112.87	118.80
1	2	61	A	O4'-C1'-N9	5.39	112.51	108.20
36	1	1881	A	N7-C8-N9	-5.39	111.11	113.80
1	6	595	G	C5-C6-O6	5.39	131.84	128.60
36	5	2145	A	C6-N1-C2	-5.39	115.36	118.60
36	1	574	U	C5-C6-N1	-5.39	120.00	122.70
36	1	950	G	C4-C5-N7	5.39	112.96	110.80
36	1	2924	U	C6-N1-C2	5.39	124.23	121.00
1	6	362	G	C4-N9-C1'	5.39	133.50	126.50
36	5	1402	C	C2-N3-C4	-5.39	117.20	119.90
36	5	2622	C	C5-C6-N1	-5.39	118.31	121.00
36	5	2705	A	C8-N9-C4	5.39	107.95	105.80
36	5	2866	U	N3-C4-O4	5.39	123.17	119.40
37	7	6	C	C5-C6-N1	-5.39	118.31	121.00
36	1	2372	A	N3-C4-C5	-5.39	123.03	126.80
1	6	142	G	C6-C5-N7	-5.39	127.17	130.40
36	1	29	C	N3-C4-C5	5.39	124.05	121.90
36	1	346	C	O5'-P-OP2	-5.39	100.85	105.70
36	1	909	G	N7-C8-N9	-5.39	110.41	113.10
36	1	1178	G	N3-C4-N9	5.39	129.23	126.00
36	1	3179	U	O5'-P-OP2	5.39	117.17	110.70
37	3	21	G	N7-C8-N9	-5.39	110.41	113.10
38	4	47	C	N1-C2-O2	5.39	122.13	118.90
1	6	793	A	O4'-C1'-N9	5.39	112.51	108.20
1	6	1117	U	N3-C4-C5	-5.39	111.37	114.60
36	5	1192	C	C2-N3-C4	-5.39	117.21	119.90
36	5	1192	C	N3-C2-O2	-5.39	118.13	121.90
36	1	213	A	N1-C2-N3	-5.38	126.61	129.30
36	1	878	G	C5-C6-O6	5.38	131.83	128.60
36	1	1056	U	C5-C6-N1	5.38	125.39	122.70
36	1	2572	C	C6-N1-C2	-5.38	118.15	120.30
37	3	60	G	N1-C6-O6	5.38	123.13	119.90
37	3	61	G	N3-C4-C5	5.38	131.29	128.60
36	5	277	G	OP2-P-O3'	5.38	117.05	105.20
36	5	701	G	C4-C5-N7	-5.38	108.65	110.80
36	5	2922	G	C8-N9-C4	5.38	108.55	106.40
36	5	2971	A	N1-C2-N3	-5.38	126.61	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2971	A	N9-C4-C5	-5.38	103.65	105.80
36	5	2986	U	C2-N1-C1'	5.38	124.16	117.70
36	5	3278	C	P-O3'-C3'	5.38	126.16	119.70
36	5	3315	G	N1-C6-O6	-5.38	116.67	119.90
1	2	28	A	C8-N9-C4	5.38	107.95	105.80
36	5	667	C	N3-C4-C5	5.38	124.05	121.90
36	5	873	C	C4-C5-C6	5.38	120.09	117.40
36	1	1154	A	N9-C4-C5	5.38	107.95	105.80
36	1	2127	U	C6-N1-C2	-5.38	117.77	121.00
36	1	2210	G	C4-N9-C1'	-5.38	119.50	126.50
36	1	3181	C	N1-C2-O2	5.38	122.13	118.90
1	6	196	G	O4'-C1'-N9	5.38	112.50	108.20
36	5	335	G	C2-N3-C4	5.38	114.59	111.90
36	5	1452	A	C5-C6-N1	5.38	120.39	117.70
41	14	313	LEU	CA-CB-CG	5.38	127.68	115.30
36	5	2636	A	N1-C6-N6	-5.38	115.37	118.60
36	5	3146	G	N3-C2-N2	5.38	123.67	119.90
36	1	20	A	N1-C2-N3	5.38	131.99	129.30
36	1	25	U	N3-C2-O2	5.38	125.97	122.20
36	1	939	U	O5'-P-OP2	-5.38	100.86	105.70
36	1	974	G	C8-N9-C1'	-5.38	120.01	127.00
36	1	3044	G	N1-C2-N2	-5.38	111.36	116.20
38	4	111	A	C6-C5-N7	-5.38	128.53	132.30
1	6	1423	U	C5-C6-N1	-5.38	120.01	122.70
36	5	43	A	O5'-P-OP1	-5.38	100.86	105.70
36	5	1840	U	OP1-P-OP2	5.38	127.67	119.60
36	5	2818	U	C5-C4-O4	-5.38	122.67	125.90
36	5	3306	U	O5'-P-OP2	-5.38	100.86	105.70
1	2	399	A	C8-N9-C4	5.38	107.95	105.80
36	1	66	A	C8-N9-C4	5.38	107.95	105.80
36	1	1365	G	N1-C6-O6	-5.38	116.67	119.90
36	1	2143	A	N7-C8-N9	5.38	116.49	113.80
1	6	16	G	N1-C6-O6	-5.38	116.67	119.90
1	6	339	C	C6-N1-C2	-5.38	118.15	120.30
36	5	1075	A	N7-C8-N9	-5.38	111.11	113.80
36	5	1833	G	C5-C6-O6	5.38	131.82	128.60
36	5	2343	C	C5-C6-N1	-5.38	118.31	121.00
36	5	2987	A	C4-C5-N7	-5.38	108.01	110.70
1	6	1050	G	C8-N9-C4	-5.38	104.25	106.40
36	5	399	A	O5'-P-OP1	-5.38	100.86	105.70
36	1	368	G	N9-C4-C5	-5.37	103.25	105.40
36	1	950	G	N9-C4-C5	-5.37	103.25	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1753	A	N9-C4-C5	5.37	107.95	105.80
36	5	973	A	C5-C6-N6	-5.37	119.40	123.70
36	5	1127	G	C5-C6-N1	5.37	114.19	111.50
36	5	1348	U	N3-C4-C5	-5.37	111.38	114.60
36	1	416	A	N1-C6-N6	-5.37	115.38	118.60
36	1	2245	C	C6-N1-C2	-5.37	118.15	120.30
1	6	858	G	O4'-C1'-N9	5.37	112.50	108.20
36	5	606	C	C5-C6-N1	-5.37	118.31	121.00
36	5	1452	A	C4-C5-C6	-5.37	114.31	117.00
36	5	2192	C	N1-C2-O2	5.37	122.12	118.90
36	1	613	G	C6-N1-C2	5.37	128.32	125.10
36	5	25	U	N1-C2-N3	5.37	118.12	114.90
36	5	2390	A	OP2-P-O3'	5.37	117.01	105.20
36	5	3332	U	C5-C4-O4	5.37	129.12	125.90
1	2	440	U	C5-C4-O4	5.37	129.12	125.90
36	1	1144	U	C5-C6-N1	-5.37	120.02	122.70
36	1	1269	U	N3-C2-O2	-5.37	118.44	122.20
36	1	1381	A	N1-C6-N6	5.37	121.82	118.60
36	1	1427	U	C6-N1-C2	5.37	124.22	121.00
36	1	1531	C	N3-C4-N4	-5.37	114.24	118.00
36	1	3108	G	C5-N7-C8	5.37	106.98	104.30
36	5	210	U	C5-C4-O4	5.37	129.12	125.90
36	5	861	C	C5-C6-N1	-5.37	118.32	121.00
36	5	1519	G	N1-C6-O6	5.37	123.12	119.90
36	5	2351	U	O5'-P-OP2	5.37	117.14	110.70
36	5	2513	U	P-O3'-C3'	5.37	126.14	119.70
36	1	1807	G	C6-C5-N7	-5.37	127.18	130.40
36	1	2795	U	O5'-P-OP1	-5.37	100.87	105.70
36	1	2856	G	C4-C5-N7	-5.37	108.65	110.80
36	5	3309	G	C8-N9-C1'	-5.37	120.02	127.00
39	12	55	GLY	N-CA-C	-5.37	99.68	113.10
1	2	1180	C	C6-N1-C2	-5.37	118.15	120.30
36	1	958	C	N1-C2-N3	5.37	122.95	119.20
36	1	1116	G	C2-N3-C4	5.37	114.58	111.90
36	1	1445	U	N3-C4-C5	5.37	117.82	114.60
36	1	2380	U	N3-C4-O4	-5.37	115.64	119.40
36	1	2643	A	C2-N3-C4	-5.37	107.92	110.60
1	6	418	G	N9-C4-C5	-5.37	103.25	105.40
36	5	1613	A	C8-N9-C4	5.37	107.95	105.80
36	5	2763	U	N3-C4-O4	5.37	123.16	119.40
36	1	64	G	N9-C4-C5	5.36	107.55	105.40
36	1	1164	G	C5-C6-N1	-5.36	108.82	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1367	G	N1-C6-O6	5.36	123.12	119.90
36	1	2171	G	C2-N3-C4	5.36	114.58	111.90
47	M0	24	ARG	CD-NE-CZ	5.36	131.11	123.60
36	5	285	A	N1-C2-N3	5.36	131.98	129.30
36	5	607	A	N1-C6-N6	-5.36	115.38	118.60
36	5	1879	A	P-O3'-C3'	5.36	126.14	119.70
36	5	2651	G	C5-C6-O6	5.36	131.82	128.60
38	8	2	A	OP2-P-O3'	5.36	117.00	105.20
36	1	1103	A	OP1-P-O3'	5.36	116.99	105.20
36	1	1156	C	N1-C2-O2	5.36	122.12	118.90
36	1	1837	U	N1-C2-O2	-5.36	119.05	122.80
1	6	65	A	C4-C5-N7	5.36	113.38	110.70
1	6	572	C	C5-C6-N1	5.36	123.68	121.00
1	6	1266	U	C5-C6-N1	5.36	125.38	122.70
36	5	875	G	C8-N9-C4	-5.36	104.26	106.40
36	5	933	A	OP1-P-O3'	5.36	116.99	105.20
36	5	1306	G	N9-C4-C5	-5.36	103.26	105.40
36	5	1506	A	C8-N9-C4	-5.36	103.66	105.80
36	5	1528	G	C4-N9-C1'	5.36	133.47	126.50
38	8	95	G	N3-C4-N9	-5.36	122.78	126.00
36	1	30	G	N1-C6-O6	-5.36	116.68	119.90
36	1	325	A	C5-N7-C8	5.36	106.58	103.90
36	1	782	U	N1-C2-O2	5.36	126.55	122.80
36	1	2242	A	N1-C2-N3	5.36	131.98	129.30
1	6	1111	G	N3-C4-C5	-5.36	125.92	128.60
36	5	988	U	N3-C4-O4	-5.36	115.65	119.40
36	5	1130	A	N3-C4-N9	5.36	131.69	127.40
36	5	2112	U	P-O3'-C3'	5.36	126.13	119.70
36	5	2401	A	O4'-C1'-N9	5.36	112.49	108.20
36	5	2945	G	C4-C5-N7	5.36	112.94	110.80
36	1	1116	G	N9-C4-C5	5.36	107.54	105.40
36	1	1387	G	N1-C6-O6	-5.36	116.69	119.90
36	1	2631	U	N3-C4-O4	-5.36	115.65	119.40
36	1	2761	G	C8-N9-C4	5.36	108.54	106.40
1	6	934	C	C2-N1-C1'	5.36	124.69	118.80
36	5	1096	U	C5-C4-O4	-5.36	122.69	125.90
36	5	2661	G	N3-C4-C5	-5.36	125.92	128.60
36	1	1547	G	C5-N7-C8	5.36	106.98	104.30
36	1	2286	U	N3-C4-O4	-5.36	115.65	119.40
36	1	2422	C	N3-C4-N4	-5.36	114.25	118.00
1	6	628	G	N1-C2-N2	-5.36	111.38	116.20
36	1	1145	G	C4-C5-N7	5.35	112.94	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2859	U	N3-C4-C5	-5.35	111.39	114.60
1	6	908	U	N3-C4-O4	-5.35	115.65	119.40
36	5	1381	A	C8-N9-C4	5.35	107.94	105.80
36	5	2704	A	C5-C6-N6	-5.35	119.42	123.70
1	2	144	U	C4-C5-C6	5.35	122.91	119.70
36	1	665	A	C5-C6-N6	5.35	127.98	123.70
36	1	728	G	C5-C6-O6	5.35	131.81	128.60
36	1	1305	U	N1-C2-N3	-5.35	111.69	114.90
36	1	1939	G	N1-C2-N2	5.35	121.02	116.20
36	1	2371	G	N9-C4-C5	-5.35	103.26	105.40
36	1	3174	A	C2-N3-C4	-5.35	107.92	110.60
1	6	1549	C	N3-C4-C5	-5.35	119.76	121.90
36	5	300	G	C5-C6-O6	5.35	131.81	128.60
36	1	2881	C	C6-N1-C2	5.35	122.44	120.30
36	5	686	G	OP1-P-OP2	-5.35	111.57	119.60
36	1	283	G	C5-C6-O6	-5.35	125.39	128.60
36	1	942	U	N1-C2-N3	5.35	118.11	114.90
36	1	1047	A	O5'-P-OP1	-5.35	100.89	105.70
36	1	2120	A	C4-C5-C6	5.35	119.67	117.00
36	1	3300	U	C5-C4-O4	5.35	129.11	125.90
1	6	1000	C	C6-N1-C1'	-5.35	114.38	120.80
36	5	661	G	OP1-P-O3'	5.35	116.97	105.20
36	5	918	C	C2-N3-C4	5.35	122.58	119.90
36	5	1512	U	OP2-P-O3'	5.35	116.97	105.20
36	5	1880	U	N1-C2-O2	5.35	126.55	122.80
36	5	2351	U	N3-C2-O2	-5.35	118.45	122.20
1	2	307	G	C8-N9-C4	5.35	108.54	106.40
1	2	549	G	C5-C6-O6	5.35	131.81	128.60
36	1	2624	G	C5-C6-O6	-5.35	125.39	128.60
36	1	3293	U	C6-N1-C2	5.35	124.21	121.00
1	6	421	A	N9-C4-C5	-5.35	103.66	105.80
1	6	901	G	O4'-C1'-N9	5.35	112.48	108.20
36	5	395	A	N3-C4-N9	5.35	131.68	127.40
36	5	1205	A	OP1-P-OP2	5.35	127.62	119.60
36	5	1367	G	N1-C6-O6	5.35	123.11	119.90
36	5	2336	U	C4-C5-C6	-5.35	116.49	119.70
36	5	2843	U	C5-C4-O4	5.35	129.11	125.90
37	7	95	A	N9-C4-C5	5.35	107.94	105.80
37	7	120	C	N3-C4-C5	5.35	124.04	121.90
38	4	36	G	C5-C6-O6	-5.35	125.39	128.60
36	5	95	A	C5-N7-C8	5.35	106.57	103.90
36	5	225	C	C5-C4-N4	-5.35	116.46	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	845	G	OP2-P-O3'	5.35	116.96	105.20
36	1	817	A	C4-C5-C6	5.34	119.67	117.00
36	5	1369	A	N1-C6-N6	5.34	121.81	118.60
70	O4	60	ARG	NE-CZ-NH1	5.34	122.97	120.30
36	5	633	C	C4-C5-C6	5.34	120.07	117.40
1	2	192	U	N3-C2-O2	-5.34	118.46	122.20
36	1	1075	A	C8-N9-C4	5.34	107.94	105.80
36	1	1344	G	N9-C4-C5	-5.34	103.26	105.40
36	1	2140	U	O5'-P-OP1	5.34	117.11	110.70
36	1	2968	G	N3-C2-N2	5.34	123.64	119.90
1	6	1796	C	C5-C4-N4	5.34	123.94	120.20
36	5	715	A	N3-C4-C5	-5.34	123.06	126.80
36	5	969	C	C5-C4-N4	5.34	123.94	120.20
36	5	2136	C	C2-N1-C1'	5.34	124.67	118.80
1	2	1780	G	C5-N7-C8	-5.34	101.63	104.30
36	1	42	C	O5'-P-OP2	5.34	117.11	110.70
36	1	648	C	OP1-P-OP2	5.34	127.61	119.60
1	6	1614	A	C2-N3-C4	-5.34	107.93	110.60
36	5	608	A	N3-C4-N9	5.34	131.67	127.40
36	5	2870	C	N3-C4-C5	5.34	124.04	121.90
36	1	283	G	N3-C2-N2	-5.34	116.16	119.90
36	1	1334	U	C6-N1-C2	-5.34	117.80	121.00
36	1	2650	U	C2-N3-C4	-5.34	123.80	127.00
37	3	54	U	C5-C4-O4	-5.34	122.70	125.90
56	N0	155	ARG	NE-CZ-NH1	-5.34	117.63	120.30
36	5	1050	U	C5-C4-O4	5.34	129.10	125.90
36	5	2623	G	OP1-P-OP2	-5.34	111.59	119.60
36	5	2945	G	C6-C5-N7	-5.34	127.20	130.40
40	l3	4	ARG	CG-CD-NE	5.34	123.01	111.80
1	2	1572	G	C4-C5-N7	5.34	112.93	110.80
36	1	1164	G	C4-N9-C1'	5.34	133.44	126.50
36	1	1503	A	N3-C4-C5	5.34	130.53	126.80
36	1	1837	U	OP2-P-O3'	5.34	116.94	105.20
1	6	1641	C	N3-C2-O2	5.34	125.64	121.90
36	5	114	A	N1-C6-N6	5.34	121.80	118.60
36	5	915	A	OP1-P-O3'	5.34	116.94	105.20
36	5	3211	C	C6-N1-C2	5.34	122.43	120.30
36	1	2824	G	C8-N9-C4	5.33	108.53	106.40
1	6	35	U	N3-C2-O2	-5.33	118.47	122.20
36	5	589	A	O4'-C1'-N9	-5.33	103.93	108.20
36	5	2817	A	N3-C4-C5	-5.33	123.06	126.80
59	n3	87	ARG	NE-CZ-NH1	5.33	122.97	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	227	G	N3-C2-N2	-5.33	116.17	119.90
36	1	2343	C	O5'-P-OP2	-5.33	100.90	105.70
68	O2	47	ARG	NE-CZ-NH1	-5.33	117.63	120.30
1	6	52	U	C6-N1-C2	-5.33	117.80	121.00
36	5	966	U	C2-N1-C1'	5.33	124.10	117.70
36	5	1437	C	C6-N1-C2	-5.33	118.17	120.30
36	5	1898	G	O4'-C1'-N9	5.33	112.47	108.20
36	5	2138	A	C4-C5-C6	5.33	119.67	117.00
36	1	62	A	N3-C4-N9	5.33	131.66	127.40
36	1	282	G	P-O3'-C3'	5.33	126.10	119.70
36	1	1832	C	N3-C2-O2	-5.33	118.17	121.90
44	L7	179	LEU	CA-CB-CG	5.33	127.56	115.30
36	5	2345	A	C5-C6-N6	-5.33	119.43	123.70
36	1	105	C	C5-C4-N4	-5.33	116.47	120.20
36	1	2331	C	N1-C2-O2	-5.33	115.70	118.90
36	5	2156	C	C2-N1-C1'	-5.33	112.94	118.80
36	5	2948	C	N3-C4-N4	-5.33	114.27	118.00
1	2	1522	U	N1-C2-O2	-5.33	119.07	122.80
36	1	2298	U	O4'-C1'-N1	5.33	112.46	108.20
36	1	2916	U	OP1-P-O3'	5.33	116.92	105.20
36	5	41	G	C5-C6-O6	-5.33	125.40	128.60
36	5	1556	C	C5-C6-N1	5.33	123.66	121.00
36	5	2246	G	C4-C5-N7	-5.33	108.67	110.80
36	5	2420	C	N1-C2-O2	-5.33	115.70	118.90
36	5	2978	U	O4'-C1'-N1	5.33	112.46	108.20
1	2	359	A	N9-C4-C5	-5.33	103.67	105.80
36	1	142	C	N3-C4-C5	-5.33	119.77	121.90
36	1	402	A	O5'-P-OP1	-5.33	100.91	105.70
36	1	2952	G	C6-C5-N7	-5.33	127.20	130.40
1	6	1596	C	C2-N1-C1'	5.33	124.66	118.80
36	5	1122	U	N3-C2-O2	-5.33	118.47	122.20
1	2	1030	A	C8-N9-C4	5.33	107.93	105.80
36	1	69	C	N1-C2-O2	-5.33	115.70	118.90
36	1	647	A	N7-C8-N9	-5.33	111.14	113.80
36	1	1048	A	C5-C6-N1	5.33	120.36	117.70
36	1	2815	G	N3-C2-N2	5.33	123.63	119.90
36	5	934	G	C8-N9-C1'	-5.33	120.08	127.00
38	8	82	U	C5-C4-O4	5.33	129.10	125.90
36	1	25	U	N1-C2-N3	5.32	118.09	114.90
36	1	695	C	C5-C6-N1	-5.32	118.34	121.00
36	1	776	U	C2-N3-C4	-5.32	123.81	127.00
36	1	2537	U	P-O3'-C3'	5.32	126.09	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	945	U	N3-C2-O2	-5.32	118.47	122.20
1	6	1788	G	N1-C2-N3	5.32	127.09	123.90
36	5	575	G	N1-C6-O6	-5.32	116.71	119.90
36	5	776	U	C5-C4-O4	5.32	129.09	125.90
36	5	3043	C	C6-N1-C2	5.32	122.43	120.30
50	m4	109	ARG	NE-CZ-NH2	-5.32	117.64	120.30
1	2	1486	G	C4-C5-N7	5.32	112.93	110.80
36	1	1328	C	C2-N3-C4	-5.32	117.24	119.90
36	1	2649	A	N3-C4-N9	5.32	131.66	127.40
36	1	2661	G	C6-C5-N7	-5.32	127.21	130.40
36	1	2874	G	N1-C2-N3	5.32	127.09	123.90
38	4	39	G	O5'-P-OP2	-5.32	100.91	105.70
36	5	270	U	C6-N1-C1'	-5.32	113.75	121.20
36	5	815	G	C4-N9-C1'	5.32	133.42	126.50
36	1	2409	G	N3-C2-N2	5.32	123.62	119.90
36	1	3071	U	N1-C2-O2	-5.32	119.08	122.80
36	5	1906	G	N1-C2-N3	5.32	127.09	123.90
36	5	2627	C	N3-C4-N4	-5.32	114.28	118.00
36	5	3050	U	N3-C4-O4	-5.32	115.68	119.40
36	5	3103	A	C5-C6-N6	-5.32	119.44	123.70
36	1	1216	C	O5'-P-OP2	-5.32	100.91	105.70
36	1	1371	G	OP2-P-O3'	5.32	116.90	105.20
36	1	1407	A	C8-N9-C4	5.32	107.93	105.80
36	1	2380	U	N1-C2-N3	5.32	118.09	114.90
36	5	606	C	C2-N3-C4	-5.32	117.24	119.90
36	5	946	U	N3-C4-C5	5.32	117.79	114.60
36	1	105	C	C2-N3-C4	-5.32	117.24	119.90
36	5	728	G	C5-C6-O6	5.32	131.79	128.60
36	5	1403	C	N3-C4-C5	5.32	124.03	121.90
36	5	1514	G	N9-C4-C5	-5.32	103.27	105.40
36	5	2425	G	C5-N7-C8	-5.32	101.64	104.30
36	5	2813	A	N9-C4-C5	5.32	107.93	105.80
36	5	3243	A	C6-N1-C2	-5.32	115.41	118.60
1	2	1747	G	N1-C6-O6	5.32	123.09	119.90
36	1	1819	U	C5-C6-N1	5.32	125.36	122.70
36	1	2553	U	C5-C6-N1	-5.32	120.04	122.70
36	1	2623	G	C4-C5-N7	5.32	112.93	110.80
1	6	10	G	C5-C6-O6	5.32	131.79	128.60
1	6	1117	U	N3-C4-O4	5.32	123.12	119.40
36	5	339	C	N1-C2-N3	5.32	122.92	119.20
36	5	432	G	C2-N3-C4	-5.32	109.24	111.90
36	5	2834	G	OP1-P-OP2	5.32	127.57	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2297	U	P-O3'-C3'	5.31	126.08	119.70
1	6	858	G	N7-C8-N9	5.31	115.76	113.10
36	5	907	G	N3-C4-N9	5.31	129.19	126.00
1	2	1175	U	OP1-P-O3'	5.31	116.89	105.20
1	2	1277	G	N3-C4-N9	-5.31	122.81	126.00
36	1	338	A	O5'-P-OP1	-5.31	100.92	105.70
36	1	2180	G	C5-C6-N1	-5.31	108.84	111.50
36	1	2549	G	N3-C4-C5	-5.31	125.94	128.60
1	6	299	A	O5'-P-OP2	-5.31	100.92	105.70
36	5	669	U	N1-C2-O2	-5.31	119.08	122.80
36	5	1122	U	C5-C6-N1	-5.31	120.04	122.70
36	5	2392	C	C2-N1-C1'	-5.31	112.95	118.80
36	5	3050	U	O5'-P-OP2	5.31	117.08	110.70
36	1	3123	A	N7-C8-N9	5.31	116.45	113.80
36	1	3201	C	C6-N1-C2	-5.31	118.18	120.30
36	5	2366	C	C2-N1-C1'	5.31	124.64	118.80
36	5	2593	A	P-O3'-C3'	5.31	126.07	119.70
36	5	3054	U	N3-C2-O2	5.31	125.92	122.20
36	1	1544	G	O5'-P-OP2	-5.31	100.92	105.70
36	1	2194	G	C4-C5-C6	5.31	121.99	118.80
36	1	2656	A	N3-C4-C5	-5.31	123.08	126.80
1	6	1032	G	N3-C4-C5	5.31	131.25	128.60
36	5	192	C	C2-N1-C1'	5.31	124.64	118.80
36	5	1314	C	C2-N1-C1'	5.31	124.64	118.80
36	5	2849	C	O5'-P-OP1	-5.31	100.92	105.70
1	2	1456	C	C4-C5-C6	5.31	120.05	117.40
36	1	86	G	C5-C6-O6	5.31	131.78	128.60
36	1	363	G	OP1-P-O3'	5.31	116.88	105.20
36	1	594	U	C5-C6-N1	-5.31	120.05	122.70
36	1	805	G	C5-N7-C8	5.31	106.95	104.30
36	1	2402	A	P-O3'-C3'	5.31	126.07	119.70
1	6	1680	G	C4-C5-N7	5.31	112.92	110.80
36	5	897	U	N1-C2-N3	5.31	118.08	114.90
36	5	1846	C	C2-N3-C4	-5.31	117.25	119.90
36	5	2364	G	O4'-C1'-N9	5.31	112.44	108.20
36	5	2641	U	N1-C2-N3	5.31	118.08	114.90
36	5	2705	A	O5'-P-OP1	-5.31	100.92	105.70
36	5	3067	C	C6-N1-C2	5.31	122.42	120.30
1	2	1101	G	C5-C6-N1	5.31	114.15	111.50
36	1	176	G	N3-C4-N9	5.31	129.18	126.00
36	1	638	C	OP2-P-O3'	5.31	116.87	105.20
36	1	985	U	C4-C5-C6	-5.31	116.52	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2912	G	C2-N3-C4	5.31	114.55	111.90
36	1	2968	G	C2-N3-C4	-5.31	109.25	111.90
1	6	345	U	C5-C6-N1	-5.31	120.05	122.70
36	5	2405	C	N1-C2-N3	5.31	122.92	119.20
38	8	14	C	O5'-P-OP2	-5.31	100.92	105.70
52	m6	66	LYS	CD-CE-NZ	5.31	123.90	111.70
36	1	1101	G	C4-C5-N7	-5.30	108.68	110.80
36	1	2161	G	N3-C4-C5	-5.30	125.95	128.60
36	1	2865	U	C5-C4-O4	-5.30	122.72	125.90
36	1	2944	U	OP2-P-O3'	5.30	116.87	105.20
38	4	45	C	O5'-P-OP2	-5.30	100.93	105.70
1	6	16	G	C5-C6-O6	5.30	131.78	128.60
1	6	355	G	C4-C5-N7	-5.30	108.68	110.80
36	5	143	G	C8-N9-C4	5.30	108.52	106.40
36	5	729	C	N3-C4-C5	5.30	124.02	121.90
36	5	2892	A	O5'-P-OP2	-5.30	100.93	105.70
36	1	208	C	N1-C2-N3	5.30	122.91	119.20
36	1	2144	A	C5-C6-N6	-5.30	119.46	123.70
36	1	2418	G	C8-N9-C4	-5.30	104.28	106.40
36	5	2148	U	N1-C2-O2	-5.30	119.09	122.80
36	1	936	A	P-O3'-C3'	5.30	126.06	119.70
36	1	1125	U	OP2-P-O3'	5.30	116.86	105.20
36	1	1878	G	O5'-P-OP1	-5.30	100.93	105.70
36	1	3112	G	N1-C2-N3	-5.30	120.72	123.90
36	5	2243	A	C8-N9-C4	5.30	107.92	105.80
36	5	2318	U	N1-C2-O2	5.30	126.51	122.80
36	5	3104	U	C5-C4-O4	-5.30	122.72	125.90
36	1	132	C	C2-N1-C1'	-5.30	112.97	118.80
36	5	315	C	N3-C4-C5	5.30	124.02	121.90
36	5	980	A	C6-C5-N7	5.30	136.01	132.30
36	5	2415	C	N3-C4-C5	5.30	124.02	121.90
38	8	81	U	N1-C2-O2	5.30	126.51	122.80
36	1	354	U	OP1-P-OP2	5.30	127.55	119.60
36	1	1380	G	O5'-P-OP1	5.30	117.06	110.70
36	1	2356	A	C4-C5-N7	5.30	113.35	110.70
37	3	90	U	C2-N1-C1'	-5.30	111.34	117.70
1	6	574	G	C5-N7-C8	5.30	106.95	104.30
1	6	1615	C	N1-C1'-C2'	-5.30	106.17	112.00
36	5	1179	A	N1-C2-N3	5.30	131.95	129.30
36	5	2225	U	O5'-P-OP1	-5.30	100.93	105.70
36	1	2615	G	C5-C6-N1	5.30	114.15	111.50
36	1	3041	U	N1-C2-O2	-5.30	119.09	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	81	U	C6-N1-C2	-5.30	117.82	121.00
44	L7	239	LEU	CA-CB-CG	5.30	127.48	115.30
36	5	2662	G	OP2-P-O3'	5.30	116.85	105.20
1	2	158	U	C2-N1-C1'	5.29	124.06	117.70
36	1	99	A	C5-C6-N1	5.29	120.35	117.70
36	1	1431	G	N3-C4-C5	-5.29	125.95	128.60
36	1	1507	G	C6-N1-C2	-5.29	121.92	125.10
38	4	78	G	N3-C2-N2	5.29	123.61	119.90
36	5	2372	A	N1-C2-N3	5.29	131.95	129.30
36	5	2802	A	C2-N3-C4	5.29	113.25	110.60
1	2	1370	U	P-O3'-C3'	5.29	126.05	119.70
36	1	788	C	N3-C4-N4	-5.29	114.30	118.00
1	6	1440	C	C5-C6-N1	5.29	123.65	121.00
36	5	957	C	N3-C2-O2	-5.29	118.19	121.90
36	5	1164	G	C5-C6-O6	5.29	131.78	128.60
36	5	3184	A	C8-N9-C4	5.29	107.92	105.80
1	2	765	G	C5-C6-N1	5.29	114.15	111.50
36	1	633	C	C6-N1-C2	5.29	122.42	120.30
1	6	1039	A	O4'-C1'-N9	5.29	112.43	108.20
36	5	414	U	C6-N1-C2	5.29	124.17	121.00
36	5	832	G	N3-C4-N9	5.29	129.18	126.00
36	5	1610	G	O5'-P-OP1	5.29	117.05	110.70
36	5	2704	A	C5'-C4'-O4'	-5.29	102.75	109.10
36	5	3042	U	C2-N3-C4	-5.29	123.83	127.00
38	8	4	C	C4-C5-C6	5.29	120.05	117.40
36	1	2708	C	N3-C4-C5	5.29	124.02	121.90
1	6	1125	A	C2-N3-C4	-5.29	107.95	110.60
36	5	3090	U	N3-C4-C5	5.29	117.77	114.60
36	5	3123	A	C5-N7-C8	5.29	106.55	103.90
36	1	1433	A	N1-C6-N6	5.29	121.77	118.60
36	1	3280	U	O4'-C1'-N1	5.29	112.43	108.20
36	5	1657	C	C6-N1-C1'	-5.29	114.45	120.80
36	5	2211	U	C5-C6-N1	-5.29	120.06	122.70
36	5	2271	A	N1-C6-N6	-5.29	115.43	118.60
36	5	2754	G	C5-C6-O6	5.29	131.77	128.60
36	5	2927	C	N3-C4-C5	-5.29	119.78	121.90
36	1	878	G	N9-C4-C5	5.29	107.52	105.40
36	1	1855	U	N1-C2-N3	5.29	118.07	114.90
36	5	534	U	N3-C2-O2	-5.29	118.50	122.20
1	6	1658	G	N7-C8-N9	-5.29	110.46	113.10
36	5	655	C	C6-N1-C2	-5.29	118.19	120.30
36	5	809	G	C5-C6-N1	5.29	114.14	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	893	C	N3-C4-C5	-5.29	119.79	121.90
36	5	1001	G	OP1-P-OP2	5.29	127.53	119.60
36	5	1201	C	C2-N1-C1'	-5.29	112.99	118.80
36	5	2980	U	N1-C2-O2	5.29	126.50	122.80
36	5	3148	U	C5-C4-O4	-5.29	122.73	125.90
36	5	3242	G	C5-C6-O6	5.29	131.77	128.60
1	2	992	A	C5-N7-C8	-5.28	101.26	103.90
36	1	22	G	C5-C6-N1	5.28	114.14	111.50
36	1	375	A	C2-N3-C4	5.28	113.24	110.60
36	1	823	C	C6-N1-C2	-5.28	118.19	120.30
36	1	1646	G	O4'-C1'-N9	5.28	112.43	108.20
36	1	2815	G	N1-C2-N2	-5.28	111.45	116.20
36	5	40	A	N7-C8-N9	5.28	116.44	113.80
36	5	2705	A	C5-C6-N6	-5.28	119.47	123.70
36	5	3003	G	C5-N7-C8	-5.28	101.66	104.30
36	5	3107	U	OP2-P-O3'	5.28	116.82	105.20
37	7	37	G	N3-C4-N9	5.28	129.17	126.00
36	1	1838	G	OP1-P-O3'	5.28	116.82	105.20
36	5	200	C	C2-N3-C4	5.28	122.54	119.90
36	5	1186	G	N7-C8-N9	5.28	115.74	113.10
36	5	1855	U	O5'-P-OP2	-5.28	100.95	105.70
36	5	2631	U	C2-N3-C4	-5.28	123.83	127.00
36	5	3277	U	O5'-P-OP1	-5.28	100.95	105.70
1	2	1595	U	N3-C4-O4	5.28	123.10	119.40
36	1	919	U	N3-C4-C5	5.28	117.77	114.60
36	1	1940	G	N3-C4-N9	5.28	129.17	126.00
36	1	2163	C	N1-C2-N3	5.28	122.90	119.20
36	1	2865	U	O5'-P-OP2	-5.28	100.95	105.70
36	1	2878	G	C5-C6-O6	-5.28	125.43	128.60
36	5	636	C	C4-C5-C6	5.28	120.04	117.40
36	5	1017	C	C5-C6-N1	5.28	123.64	121.00
36	5	1442	U	O5'-P-OP1	-5.28	100.95	105.70
36	5	2605	G	C5-C6-O6	-5.28	125.43	128.60
36	5	3392	U	C2-N1-C1'	-5.28	111.36	117.70
36	1	1841	A	C4-C5-C6	5.28	119.64	117.00
36	5	659	G	P-O3'-C3'	5.28	126.03	119.70
36	5	1730	G	N3-C4-N9	5.28	129.17	126.00
36	5	2599	U	N1-C2-O2	-5.28	119.11	122.80
1	2	1280	C	O5'-P-OP1	-5.28	100.95	105.70
36	1	75	G	O5'-P-OP2	-5.28	100.95	105.70
36	1	927	C	C6-N1-C2	5.28	122.41	120.30
36	1	1884	A	OP2-P-O3'	5.28	116.81	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2865	U	OP2-P-O3'	5.28	116.81	105.20
1	6	467	G	N3-C4-N9	5.28	129.17	126.00
36	5	818	C	N1-C2-N3	5.28	122.89	119.20
36	5	1547	G	O5'-P-OP1	-5.28	100.95	105.70
36	5	2201	G	N3-C2-N2	5.28	123.59	119.90
36	5	2211	U	N3-C4-C5	-5.28	111.43	114.60
36	5	3195	U	P-O3'-C3'	5.28	126.03	119.70
1	2	1446	A	N1-C6-N6	-5.28	115.44	118.60
36	1	509	U	C2-N3-C4	-5.28	123.83	127.00
36	1	2821	C	C4-C5-C6	5.28	120.04	117.40
36	5	1388	U	O5'-P-OP2	-5.28	100.95	105.70
36	5	2334	U	N1-C2-N3	5.28	118.07	114.90
36	5	3142	A	C5-C6-N6	-5.28	119.48	123.70
36	1	1604	G	C4-N9-C1'	5.27	133.36	126.50
1	6	1027	A	OP1-P-O3'	5.27	116.80	105.20
36	5	128	G	C5-C6-O6	-5.27	125.44	128.60
36	5	644	G	N3-C4-C5	-5.27	125.96	128.60
36	5	2347	U	C4-C5-C6	-5.27	116.53	119.70
36	1	439	C	C2-N3-C4	5.27	122.54	119.90
36	1	2955	U	OP1-P-O3'	5.27	116.80	105.20
37	3	96	U	C5-C6-N1	-5.27	120.06	122.70
36	5	2623	G	O5'-P-OP2	5.27	117.03	110.70
37	7	77	G	N3-C4-C5	-5.27	125.96	128.60
1	2	587	C	N3-C4-C5	-5.27	119.79	121.90
36	1	1594	A	C8-N9-C4	-5.27	103.69	105.80
36	1	2242	A	OP2-P-O3'	5.27	116.80	105.20
37	3	73	C	C5-C6-N1	5.27	123.64	121.00
36	5	2878	G	OP1-P-O3'	5.27	116.80	105.20
37	7	8	G	N3-C4-N9	5.27	129.16	126.00
36	1	309	U	OP1-P-OP2	-5.27	111.70	119.60
36	1	946	U	N3-C2-O2	-5.27	118.51	122.20
41	L4	182	LEU	CA-CB-CG	5.27	127.42	115.30
1	6	308	C	C5-C6-N1	-5.27	118.36	121.00
36	5	1450	G	N1-C2-N2	5.27	120.94	116.20
36	5	2412	G	N3-C4-C5	-5.27	125.97	128.60
36	5	2727	A	C2-N3-C4	5.27	113.23	110.60
43	l6	18	LEU	CA-CB-CG	-5.27	103.18	115.30
1	2	545	A	OP1-P-O3'	5.27	116.79	105.20
36	1	2719	U	C2-N3-C4	-5.27	123.84	127.00
36	1	2894	C	OP2-P-O3'	5.27	116.79	105.20
36	1	2941	A	C4-C5-N7	5.27	113.33	110.70
36	1	3123	A	C5-N7-C8	-5.27	101.27	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	625	C	N3-C4-N4	5.27	121.69	118.00
1	6	1526	A	C5-C6-N6	5.27	127.91	123.70
36	5	1725	C	O4'-C1'-N1	5.27	112.41	108.20
36	5	2550	U	C6-N1-C2	-5.27	117.84	121.00
36	5	3041	U	C4-C5-C6	-5.27	116.54	119.70
36	5	3258	U	OP2-P-O3'	5.27	116.79	105.20
36	1	637	C	C6-N1-C1'	5.27	127.12	120.80
1	6	2	A	C8-N9-C4	5.27	107.91	105.80
1	6	187	G	P-O3'-C3'	5.27	126.02	119.70
36	1	101	G	O4'-C1'-N9	5.26	112.41	108.20
36	1	304	G	C5-C6-N1	5.26	114.13	111.50
1	6	142	G	C8-N9-C1'	-5.26	120.16	127.00
1	6	1614	A	O4'-C1'-N9	5.26	112.41	108.20
1	6	1766	A	C5-C6-N1	-5.26	115.07	117.70
36	5	210	U	C5'-C4'-O4'	-5.26	102.78	109.10
36	5	1832	C	C5-C6-N1	-5.26	118.37	121.00
36	5	2210	G	C4-N9-C1'	5.26	133.34	126.50
36	5	3115	C	C6-N1-C1'	5.26	127.12	120.80
40	13	26	ARG	NE-CZ-NH1	-5.26	117.67	120.30
36	1	27	C	N1-C2-N3	5.26	122.88	119.20
36	1	1097	G	N1-C6-O6	5.26	123.06	119.90
36	1	2370	G	C5-C6-O6	-5.26	125.44	128.60
1	6	1789	G	C5-C6-O6	-5.26	125.44	128.60
36	5	3028	G	C4-C5-N7	5.26	112.91	110.80
36	1	629	U	N3-C2-O2	-5.26	118.52	122.20
36	1	2623	G	C6-C5-N7	-5.26	127.24	130.40
36	5	63	A	N9-C4-C5	-5.26	103.70	105.80
36	5	990	U	C2-N3-C4	5.26	130.16	127.00
36	5	2753	G	C8-N9-C4	-5.26	104.30	106.40
36	5	3368	U	N1-C2-O2	-5.26	119.12	122.80
37	7	53	U	O5'-P-OP2	-5.26	100.97	105.70
37	7	112	G	C8-N9-C4	-5.26	104.30	106.40
36	1	497	C	OP2-P-O3'	5.26	116.77	105.20
36	1	1433	A	OP1-P-O3'	5.26	116.77	105.20
36	1	2688	U	C5-C4-O4	-5.26	122.74	125.90
1	6	1667	A	OP1-P-OP2	-5.26	111.71	119.60
36	5	2133	U	C6-N1-C2	5.26	124.16	121.00
36	5	3189	G	C5-C6-N1	5.26	114.13	111.50
1	2	624	G	N1-C6-O6	-5.26	116.75	119.90
1	2	959	U	C6-N1-C1'	-5.26	113.84	121.20
36	1	26	A	O5'-P-OP1	-5.26	100.97	105.70
36	1	2631	U	C5-C6-N1	-5.26	120.07	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2899	C	C5-C6-N1	-5.26	118.37	121.00
1	2	453	U	C6-N1-C1'	-5.26	113.84	121.20
31	D9	36	LEU	CA-CB-CG	5.26	127.39	115.30
36	1	375	A	N1-C2-N3	-5.26	126.67	129.30
36	1	1440	G	N3-C2-N2	5.26	123.58	119.90
36	1	2915	U	N1-C2-N3	5.26	118.05	114.90
36	1	3157	U	C6-N1-C1'	-5.26	113.84	121.20
38	4	101	U	N1-C2-O2	5.26	126.48	122.80
1	6	174	U	C5-C4-O4	-5.26	122.75	125.90
36	5	887	G	C6-N1-C2	5.26	128.25	125.10
36	5	900	G	C2-N3-C4	5.26	114.53	111.90
36	5	2137	U	OP1-P-OP2	-5.26	111.71	119.60
36	5	3330	A	C4-C5-N7	-5.26	108.07	110.70
36	1	1935	G	N3-C2-N2	5.25	123.58	119.90
1	2	1081	A	P-O3'-C3'	5.25	126.00	119.70
1	2	1374	C	C6-N1-C2	-5.25	118.20	120.30
3	S1	181	LEU	CA-CB-CG	5.25	127.38	115.30
36	1	2877	G	N1-C2-N3	5.25	127.05	123.90
36	1	3246	G	O4'-C1'-N9	5.25	112.40	108.20
36	5	96	G	C4-N9-C1'	-5.25	119.67	126.50
36	5	889	U	C5-C4-O4	-5.25	122.75	125.90
36	5	1137	C	N3-C4-C5	-5.25	119.80	121.90
36	5	3260	G	N1-C6-O6	-5.25	116.75	119.90
36	1	141	C	C5-C6-N1	5.25	123.63	121.00
36	1	1779	C	N1-C2-O2	-5.25	115.75	118.90
36	1	2296	A	OP2-P-O3'	5.25	116.75	105.20
36	1	2867	C	C6-N1-C2	5.25	122.40	120.30
73	O7	67	LEU	CA-CB-CG	5.25	127.38	115.30
36	5	955	U	N1-C2-N3	5.25	118.05	114.90
36	5	1592	G	OP2-P-O3'	5.25	116.75	105.20
1	2	418	G	O5'-P-OP2	5.25	117.00	110.70
36	1	862	U	C5-C4-O4	-5.25	122.75	125.90
36	1	1100	U	C2-N3-C4	-5.25	123.85	127.00
36	1	3264	G	C2-N3-C4	-5.25	109.28	111.90
1	6	1081	A	C5-C6-N6	-5.25	119.50	123.70
36	5	2832	C	C5-C6-N1	-5.25	118.38	121.00
36	1	1949	G	O5'-P-OP1	-5.25	100.98	105.70
36	1	3044	G	N1-C6-O6	-5.25	116.75	119.90
1	6	977	A	C8-N9-C4	5.25	107.90	105.80
36	5	44	U	C5-C6-N1	-5.25	120.08	122.70
36	5	528	U	N3-C2-O2	-5.25	118.53	122.20
36	5	2190	U	N1-C2-N3	5.25	118.05	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	m1	112	LEU	CA-CB-CG	5.25	127.37	115.30
54	m8	22	ASP	CB-CG-OD1	-5.25	113.58	118.30
36	1	150	A	C8-N9-C4	-5.25	103.70	105.80
36	1	652	G	O5'-P-OP2	-5.25	100.98	105.70
36	1	947	G	N3-C4-N9	5.25	129.15	126.00
36	1	3133	C	N3-C2-O2	-5.25	118.23	121.90
1	6	26	A	O5'-P-OP1	-5.25	100.98	105.70
36	5	571	U	C5-C4-O4	5.25	129.05	125.90
36	5	1048	A	N7-C8-N9	-5.25	111.18	113.80
36	5	1121	U	N3-C2-O2	5.25	125.87	122.20
36	5	1302	A	C8-N9-C4	-5.25	103.70	105.80
36	5	1528	G	N3-C4-C5	-5.25	125.98	128.60
36	5	2845	A	N9-C4-C5	-5.25	103.70	105.80
37	7	33	U	O5'-P-OP1	-5.25	100.98	105.70
36	1	826	G	C5-C6-N1	5.25	114.12	111.50
36	5	1141	C	O5'-P-OP1	-5.25	100.98	105.70
1	2	1458	G	C8-N9-C1'	-5.24	120.18	127.00
36	1	659	G	P-O3'-C3'	5.24	125.99	119.70
36	1	1671	C	C6-N1-C2	-5.24	118.20	120.30
36	1	2410	U	N1-C2-N3	5.24	118.05	114.90
36	1	2960	C	C2-N3-C4	-5.24	117.28	119.90
36	1	3140	G	C6-C5-N7	-5.24	127.25	130.40
37	3	39	C	C6-N1-C2	5.24	122.40	120.30
36	5	665	A	N1-C6-N6	5.24	121.75	118.60
36	5	1868	G	C5-C6-O6	-5.24	125.45	128.60
36	5	2617	U	N1-C2-O2	-5.24	119.13	122.80
36	5	3183	A	C4-C5-N7	5.24	113.32	110.70
36	1	1318	A	C5-N7-C8	-5.24	101.28	103.90
36	1	3120	C	N3-C2-O2	5.24	125.57	121.90
1	6	1456	C	N3-C2-O2	-5.24	118.23	121.90
36	5	382	U	N1-C2-N3	5.24	118.05	114.90
36	5	3038	U	N3-C4-C5	-5.24	111.45	114.60
36	1	2823	G	N3-C4-C5	-5.24	125.98	128.60
1	6	536	C	C2-N1-C1'	5.24	124.56	118.80
1	6	1526	A	N1-C6-N6	-5.24	115.45	118.60
1	6	1768	G	N1-C6-O6	-5.24	116.75	119.90
36	5	388	G	C6-C5-N7	-5.24	127.25	130.40
36	5	648	C	C2-N1-C1'	5.24	124.56	118.80
36	5	746	A	N9-C4-C5	5.24	107.90	105.80
36	5	796	U	C4-C5-C6	5.24	122.84	119.70
36	1	743	C	N3-C4-C5	5.24	124.00	121.90
36	1	1518	U	N1-C2-N3	5.24	118.04	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2661	G	O5'-P-OP1	-5.24	100.99	105.70
1	6	754	A	C5-C6-N6	-5.24	119.51	123.70
1	6	1135	U	C2-N3-C4	-5.24	123.86	127.00
31	d9	36	LEU	CA-CB-CG	5.24	127.35	115.30
36	5	103	G	N1-C2-N3	5.24	127.04	123.90
36	5	2132	C	C6-N1-C2	-5.24	118.20	120.30
36	5	2372	A	N1-C6-N6	-5.24	115.46	118.60
36	5	2601	A	C6-C5-N7	5.24	135.97	132.30
36	1	757	C	O5'-P-OP2	-5.24	100.99	105.70
36	5	189	G	N1-C2-N2	-5.24	111.49	116.20
36	5	1296	C	C4-C5-C6	5.24	120.02	117.40
36	5	3354	U	C6-N1-C2	-5.24	117.86	121.00
36	1	1838	G	N1-C6-O6	5.24	123.04	119.90
36	1	1899	G	N1-C6-O6	-5.24	116.76	119.90
36	1	3270	U	N1-C2-O2	-5.24	119.14	122.80
1	6	106	U	OP2-P-O3'	5.24	116.72	105.20
36	5	636	C	N3-C4-N4	5.24	121.67	118.00
36	5	804	C	N3-C4-N4	5.24	121.66	118.00
36	5	1355	A	P-O3'-C3'	5.24	125.98	119.70
36	5	3264	G	C6-N1-C2	5.24	128.24	125.10
36	5	3316	A	N1-C6-N6	5.24	121.74	118.60
36	5	3343	G	N3-C2-N2	5.24	123.56	119.90
36	1	2647	A	C6-N1-C2	-5.23	115.46	118.60
1	6	136	C	N1-C2-O2	5.23	122.04	118.90
36	5	85	A	N1-C6-N6	5.23	121.74	118.60
1	2	192	U	C5-C6-N1	5.23	125.32	122.70
6	S4	38	LEU	CA-CB-CG	5.23	127.33	115.30
36	1	684	G	N9-C4-C5	-5.23	103.31	105.40
36	1	940	G	N3-C2-N2	-5.23	116.24	119.90
36	1	1126	G	C6-C5-N7	-5.23	127.26	130.40
36	1	1918	C	C6-N1-C2	-5.23	118.21	120.30
77	Q1	17	ARG	NE-CZ-NH1	5.23	122.92	120.30
1	6	16	G	C8-N9-C4	-5.23	104.31	106.40
36	5	41	G	N3-C4-C5	5.23	131.22	128.60
36	5	365	A	N9-C4-C5	-5.23	103.71	105.80
36	5	747	A	O5'-P-OP2	-5.23	100.99	105.70
36	5	1450	G	N3-C2-N2	-5.23	116.24	119.90
36	5	3034	C	N3-C2-O2	5.23	125.56	121.90
36	1	410	U	OP2-P-O3'	5.23	116.71	105.20
36	1	656	A	O5'-P-OP1	-5.23	100.99	105.70
37	3	21	G	N9-C4-C5	-5.23	103.31	105.40
73	O7	24	ARG	NE-CZ-NH1	-5.23	117.69	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	887	G	C5-C6-N1	-5.23	108.88	111.50
36	5	1330	A	OP2-P-O3'	5.23	116.71	105.20
36	5	2994	A	C6-N1-C2	-5.23	115.46	118.60
36	1	41	G	N1-C6-O6	-5.23	116.76	119.90
36	5	1365	G	C6-C5-N7	-5.23	127.26	130.40
1	2	1454	G	N3-C4-C5	-5.23	125.99	128.60
36	1	2860	U	N3-C2-O2	5.23	125.86	122.20
36	1	3143	C	OP1-P-O3'	5.23	116.70	105.20
37	3	104	A	N7-C8-N9	-5.23	111.19	113.80
36	5	828	A	N1-C6-N6	-5.23	115.46	118.60
36	5	1865	A	OP1-P-OP2	-5.23	111.76	119.60
36	5	2249	G	C3'-C2'-C1'	-5.23	97.32	101.50
36	5	2797	C	N3-C4-C5	-5.23	119.81	121.90
36	5	3343	G	N9-C4-C5	-5.23	103.31	105.40
37	7	8	G	C6-C5-N7	-5.23	127.26	130.40
38	8	21	C	OP2-P-O3'	5.23	116.70	105.20
1	2	728	U	N1-C2-O2	5.23	126.46	122.80
36	1	419	G	OP2-P-O3'	5.23	116.70	105.20
36	1	2634	U	N3-C2-O2	-5.23	118.54	122.20
37	3	71	G	C5-C6-O6	5.23	131.74	128.60
44	L7	215	GLY	N-CA-C	-5.23	100.04	113.10
36	5	1842	A	C8-N9-C1'	-5.23	118.29	127.70
1	2	328	A	OP1-P-OP2	5.22	127.44	119.60
36	1	719	U	N3-C2-O2	5.22	125.86	122.20
36	1	780	A	N1-C6-N6	-5.22	115.47	118.60
36	1	1340	G	C8-N9-C4	5.22	108.49	106.40
36	1	1605	A	O4'-C1'-N9	5.22	112.38	108.20
36	1	2706	G	N1-C6-O6	5.22	123.03	119.90
52	M6	52	LEU	CB-CG-CD1	-5.22	102.12	111.00
36	5	643	U	C5-C6-N1	-5.22	120.09	122.70
36	5	929	A	C5-C6-N6	5.22	127.88	123.70
36	5	2698	G	N1-C6-O6	-5.22	116.77	119.90
36	5	2763	U	OP1-P-O3'	5.22	116.70	105.20
36	5	2915	U	OP1-P-OP2	-5.22	111.76	119.60
36	5	3275	U	OP1-P-OP2	-5.22	111.76	119.60
1	2	402	C	P-O3'-C3'	5.22	125.97	119.70
1	2	975	C	O5'-P-OP1	-5.22	101.00	105.70
36	1	212	G	C8-N9-C1'	-5.22	120.21	127.00
36	1	226	C	N3-C4-N4	5.22	121.66	118.00
36	1	1049	C	N3-C2-O2	-5.22	118.24	121.90
36	5	1002	A	OP2-P-O3'	5.22	116.69	105.20
36	5	1844	C	N3-C2-O2	-5.22	118.24	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2848	G	C6-C5-N7	-5.22	127.27	130.40
36	5	3313	U	O5'-P-OP2	-5.22	101.00	105.70
37	7	102	A	C5-C6-N1	-5.22	115.09	117.70
1	2	944	A	C8-N9-C4	5.22	107.89	105.80
36	1	1452	A	N3-C4-C5	5.22	130.45	126.80
36	5	966	U	N1-C2-O2	5.22	126.45	122.80
36	1	337	G	O5'-P-OP2	-5.22	101.00	105.70
36	1	500	C	C6-N1-C2	-5.22	118.21	120.30
37	3	5	G	N3-C4-C5	5.22	131.21	128.60
1	6	406	U	N3-C2-O2	-5.22	118.55	122.20
1	6	629	U	O5'-P-OP2	-5.22	101.00	105.70
1	6	1180	C	C6-N1-C2	-5.22	118.21	120.30
36	5	40	A	N1-C2-N3	5.22	131.91	129.30
36	5	75	G	N3-C4-N9	5.22	129.13	126.00
36	5	1198	C	N1-C2-N3	5.22	122.85	119.20
36	5	1725	C	C2-N3-C4	-5.22	117.29	119.90
36	5	2172	A	O5'-P-OP2	-5.22	101.00	105.70
36	5	2290	C	C5-C4-N4	-5.22	116.55	120.20
36	5	3328	G	C5-C6-N1	5.22	114.11	111.50
1	2	445	A	N1-C2-N3	-5.22	126.69	129.30
17	C5	42	ARG	NE-CZ-NH2	-5.22	117.69	120.30
36	5	1517	G	C8-N9-C4	-5.22	104.31	106.40
36	5	1873	U	N1-C2-O2	-5.22	119.15	122.80
1	2	297	U	C6-N1-C2	-5.22	117.87	121.00
36	1	804	C	N1-C2-O2	-5.22	115.77	118.90
1	6	1700	C	N3-C2-O2	-5.22	118.25	121.90
36	5	1174	G	C4-N9-C1'	5.22	133.28	126.50
36	5	2728	G	O4'-C1'-N9	5.22	112.37	108.20
37	7	69	C	N3-C4-C5	5.22	123.99	121.90
36	1	32	U	N1-C2-N3	5.21	118.03	114.90
36	1	658	G	C5-C6-O6	-5.21	125.47	128.60
36	1	1480	G	O4'-C1'-N9	5.21	112.37	108.20
36	1	1522	U	C2-N3-C4	-5.21	123.87	127.00
36	1	2353	G	C4-C5-N7	-5.21	108.71	110.80
36	1	2395	G	N3-C4-N9	5.21	129.13	126.00
36	1	2618	G	C5-C6-O6	5.21	131.73	128.60
36	1	2861	U	N3-C4-O4	-5.21	115.75	119.40
36	5	1126	G	C8-N9-C4	-5.21	104.31	106.40
36	5	1126	G	C5-C6-O6	5.21	131.73	128.60
36	5	1501	U	C5-C6-N1	5.21	125.31	122.70
36	5	1522	U	C5-C4-O4	-5.21	122.77	125.90
36	5	1874	A	C2-N3-C4	-5.21	107.99	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2159	U	C2-N3-C4	-5.21	123.87	127.00
36	5	2673	A	N7-C8-N9	-5.21	111.19	113.80
1	2	1733	C	C5-C4-N4	-5.21	116.55	120.20
36	1	424	G	N1-C6-O6	-5.21	116.77	119.90
1	6	1615	C	N3-C2-O2	5.21	125.55	121.90
1	6	1770	U	N1-C2-O2	5.21	126.45	122.80
36	5	1371	G	C6-N1-C2	-5.21	121.97	125.10
36	5	2703	A	C4-C5-C6	5.21	119.61	117.00
1	2	1448	G	O5'-P-OP1	-5.21	101.01	105.70
36	1	1739	U	C2-N1-C1'	-5.21	111.45	117.70
36	1	2985	C	OP2-P-O3'	5.21	116.66	105.20
38	4	82	U	C5-C6-N1	5.21	125.31	122.70
51	M5	153	ASP	CB-CG-OD1	-5.21	113.61	118.30
1	6	510	G	N3-C4-N9	5.21	129.13	126.00
1	6	514	G	N3-C2-N2	5.21	123.55	119.90
36	5	352	A	C4-C5-C6	-5.21	114.39	117.00
36	5	437	G	N3-C4-N9	-5.21	122.87	126.00
36	5	947	G	C5-C6-N1	5.21	114.11	111.50
36	5	2234	G	N9-C4-C5	-5.21	103.31	105.40
36	5	2271	A	C2-N3-C4	5.21	113.21	110.60
36	5	3276	G	OP1-P-O3'	5.21	116.67	105.20
36	1	817	A	N3-C4-C5	-5.21	123.15	126.80
38	4	111	A	C4-C5-N7	5.21	113.31	110.70
36	5	225	C	O5'-P-OP1	-5.21	101.01	105.70
36	5	2165	G	C5-C6-O6	-5.21	125.47	128.60
40	l3	232	ARG	NE-CZ-NH2	-5.21	117.69	120.30
36	1	979	U	C5-C4-O4	5.21	129.03	125.90
36	1	1474	A	N1-C2-N3	5.21	131.90	129.30
36	1	1837	U	C6-N1-C2	5.21	124.12	121.00
36	1	2541	U	C2-N1-C1'	5.21	123.95	117.70
36	1	2941	A	O4'-C1'-N9	-5.21	104.03	108.20
38	4	84	C	C5-C6-N1	-5.21	118.40	121.00
1	6	47	A	N1-C2-N3	-5.21	126.70	129.30
36	5	579	G	C4-N9-C1'	-5.21	119.73	126.50
36	5	2819	A	OP2-P-O3'	5.21	116.66	105.20
1	2	1339	C	C2-N1-C1'	5.21	124.53	118.80
36	1	1441	G	O5'-P-OP2	-5.21	101.01	105.70
36	1	2643	A	N1-C6-N6	5.21	121.72	118.60
36	1	3182	G	N7-C8-N9	-5.21	110.50	113.10
1	6	889	U	N3-C2-O2	5.21	125.84	122.20
36	5	2743	A	C8-N9-C4	5.21	107.88	105.80
36	1	829	U	C2-N3-C4	-5.21	123.88	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	920	A	N1-C2-N3	5.21	131.90	129.30
36	5	590	G	C4-C5-N7	5.21	112.88	110.80
36	5	1199	C	C4-C5-C6	5.21	120.00	117.40
36	5	2603	G	C5-C6-O6	5.21	131.72	128.60
36	5	2774	C	C4-C5-C6	5.21	120.00	117.40
36	1	585	A	N7-C8-N9	-5.20	111.20	113.80
36	1	878	G	N1-C2-N3	5.20	127.02	123.90
36	1	1081	U	N3-C4-O4	5.20	123.04	119.40
36	1	2909	U	OP2-P-O3'	5.20	116.65	105.20
36	1	3049	A	C8-N9-C4	5.20	107.88	105.80
36	1	3175	U	C5-C6-N1	-5.20	120.10	122.70
36	5	658	G	OP1-P-O3'	5.20	116.65	105.20
36	5	1551	C	C6-N1-C2	-5.20	118.22	120.30
36	5	1896	A	N1-C2-N3	5.20	131.90	129.30
36	1	111	C	N3-C2-O2	5.20	125.54	121.90
38	4	57	C	N3-C4-N4	-5.20	114.36	118.00
1	6	957	G	N3-C2-N2	-5.20	116.26	119.90
36	5	2843	U	C2-N1-C1'	5.20	123.94	117.70
36	5	3287	U	N1-C2-O2	5.20	126.44	122.80
37	7	43	U	C2-N3-C4	-5.20	123.88	127.00
1	2	150	U	N1-C2-O2	5.20	126.44	122.80
1	2	1280	C	C6-N1-C2	-5.20	118.22	120.30
36	1	939	U	C5-C4-O4	-5.20	122.78	125.90
36	1	1653	G	C2-N3-C4	5.20	114.50	111.90
36	1	2878	G	C4-C5-N7	5.20	112.88	110.80
36	1	2884	C	C4-C5-C6	-5.20	114.80	117.40
1	6	103	A	O4'-C1'-N9	5.20	112.36	108.20
1	6	815	G	N1-C6-O6	5.20	123.02	119.90
1	6	1657	U	C5-C4-O4	-5.20	122.78	125.90
36	5	590	G	N1-C6-O6	5.20	123.02	119.90
36	5	643	U	C2-N3-C4	-5.20	123.88	127.00
37	7	40	C	N3-C2-O2	5.20	125.54	121.90
1	2	1389	C	N3-C2-O2	-5.20	118.26	121.90
36	1	876	A	N9-C4-C5	-5.20	103.72	105.80
36	1	1331	U	N1-C1'-C2'	5.20	120.76	114.00
36	1	1379	G	N1-C2-N3	5.20	127.02	123.90
36	1	2710	C	N3-C2-O2	5.20	125.54	121.90
36	1	2841	G	OP1-P-O3'	5.20	116.64	105.20
1	6	454	U	N3-C2-O2	5.20	125.84	122.20
1	6	1149	G	C8-N9-C4	-5.20	104.32	106.40
36	5	391	A	C5-N7-C8	5.20	106.50	103.90
36	1	280	U	C2-N3-C4	-5.20	123.88	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2366	C	C6-N1-C2	-5.20	118.22	120.30
1	6	280	U	N1-C2-O2	5.20	126.44	122.80
1	6	1410	A	N1-C6-N6	5.20	121.72	118.60
36	5	1368	U	N3-C4-O4	5.20	123.04	119.40
36	5	1446	A	OP1-P-O3'	5.20	116.63	105.20
1	2	1463	C	C6-N1-C2	5.20	122.38	120.30
36	1	1548	C	N1-C2-O2	-5.20	115.78	118.90
36	1	2304	C	C4-C5-C6	5.20	120.00	117.40
36	1	2410	U	N3-C2-O2	5.20	125.84	122.20
36	1	2714	G	C8-N9-C1'	5.20	133.75	127.00
36	1	2936	A	C5-C6-N6	5.20	127.86	123.70
51	M5	201	ARG	NE-CZ-NH1	-5.20	117.70	120.30
1	6	1750	A	N9-C4-C5	-5.20	103.72	105.80
36	5	31	C	OP1-P-OP2	-5.20	111.81	119.60
36	5	718	G	C4-N9-C1'	5.20	133.25	126.50
37	7	103	A	C2-N3-C4	5.20	113.20	110.60
36	1	111	C	N3-C4-C5	5.19	123.98	121.90
1	6	1751	C	C5-C6-N1	-5.19	118.40	121.00
36	5	2164	A	C4-C5-C6	5.19	119.60	117.00
1	2	1654	G	C6-N1-C2	-5.19	121.98	125.10
36	1	2714	G	O5'-P-OP2	5.19	116.93	110.70
36	1	2975	U	N3-C2-O2	-5.19	118.56	122.20
1	6	26	A	C8-N9-C4	-5.19	103.72	105.80
1	6	778	G	C8-N9-C4	5.19	108.48	106.40
1	6	1127	G	C4-C5-N7	-5.19	108.72	110.80
36	5	1193	A	N9-C4-C5	5.19	107.88	105.80
36	5	1440	G	N9-C4-C5	5.19	107.48	105.40
36	5	1665	C	N3-C2-O2	-5.19	118.27	121.90
36	5	2692	A	C8-N9-C4	-5.19	103.72	105.80
36	1	376	G	O5'-P-OP1	-5.19	101.03	105.70
36	1	497	C	OP1-P-OP2	-5.19	111.81	119.60
36	1	1069	C	C5-C6-N1	5.19	123.59	121.00
36	1	2318	U	C2-N3-C4	-5.19	123.89	127.00
1	2	1200	G	C5-C6-N1	-5.19	108.91	111.50
36	1	2651	G	N3-C2-N2	-5.19	116.27	119.90
36	5	2268	U	C5-C6-N1	5.19	125.29	122.70
36	5	2797	C	C5-C6-N1	5.19	123.59	121.00
36	5	3078	U	N3-C2-O2	-5.19	118.57	122.20
36	1	1478	C	N1-C2-O2	-5.19	115.79	118.90
36	5	804	C	OP1-P-OP2	-5.19	111.82	119.60
36	5	2235	C	C6-N1-C2	5.19	122.38	120.30
1	2	303	U	N1-C2-O2	5.19	126.43	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	828	A	OP1-P-O3'	5.19	116.61	105.20
1	2	1611	A	C5-N7-C8	-5.18	101.31	103.90
36	1	325	A	O5'-P-OP2	5.18	116.92	110.70
36	1	2163	C	C4-C5-C6	5.18	119.99	117.40
36	5	621	A	N1-C6-N6	-5.18	115.49	118.60
36	5	1348	U	N3-C4-O4	5.18	123.03	119.40
36	1	386	A	O4'-C1'-N9	-5.18	104.05	108.20
36	1	2773	C	N3-C4-C5	5.18	123.97	121.90
38	4	56	G	N3-C2-N2	5.18	123.53	119.90
36	5	3126	C	N3-C4-C5	5.18	123.97	121.90
38	8	37	A	C8-N9-C4	-5.18	103.73	105.80
36	1	1555	U	C2-N1-C1'	-5.18	111.48	117.70
36	1	2620	G	N9-C4-C5	-5.18	103.33	105.40
36	1	2636	A	N7-C8-N9	5.18	116.39	113.80
36	5	1101	G	N1-C6-O6	-5.18	116.79	119.90
36	5	2830	G	N7-C8-N9	-5.18	110.51	113.10
36	1	304	G	N3-C4-C5	-5.18	126.01	128.60
36	1	1113	G	C8-N9-C4	-5.18	104.33	106.40
36	1	1854	C	O5'-P-OP2	-5.18	101.04	105.70
36	1	1921	A	C8-N9-C4	-5.18	103.73	105.80
1	6	53	G	N3-C4-C5	-5.18	126.01	128.60
1	6	1112	G	N3-C4-N9	5.18	129.11	126.00
36	5	299	G	N1-C6-O6	-5.18	116.79	119.90
36	5	627	U	C4-C5-C6	-5.18	116.59	119.70
36	5	636	C	C6-N1-C1'	-5.18	114.58	120.80
36	5	1330	A	OP1-P-OP2	5.18	127.37	119.60
36	5	1880	U	C6-N1-C2	5.18	124.11	121.00
36	5	3189	G	C6-N1-C2	-5.18	121.99	125.10
36	5	3194	C	N1-C2-O2	-5.18	115.79	118.90
36	5	2308	C	N3-C2-O2	5.18	125.53	121.90
36	5	2383	C	N3-C4-C5	-5.18	119.83	121.90
36	1	1320	C	C6-N1-C2	-5.18	118.23	120.30
36	1	2331	C	C4-C5-C6	5.18	119.99	117.40
36	1	2366	C	C5-C6-N1	5.18	123.59	121.00
1	6	1697	G	N3-C4-N9	5.18	129.11	126.00
4	s2	148	LEU	CA-CB-CG	5.18	127.20	115.30
36	5	579	G	C5-C6-N1	5.18	114.09	111.50
1	2	864	U	N3-C2-O2	-5.17	118.58	122.20
36	1	499	G	OP1-P-O3'	5.17	116.58	105.20
36	1	1304	A	OP1-P-OP2	5.17	127.36	119.60
36	1	2799	A	C5-N7-C8	5.17	106.49	103.90
36	1	3090	U	N3-C2-O2	5.17	125.82	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	4	C	C5-C6-N1	5.17	123.59	121.00
1	6	541	A	P-O3'-C3'	-5.17	113.49	119.70
1	6	613	G	N9-C4-C5	-5.17	103.33	105.40
36	5	283	G	N3-C2-N2	-5.17	116.28	119.90
36	5	852	U	OP2-P-O3'	5.17	116.58	105.20
36	5	1208	U	N1-C2-N3	5.17	118.00	114.90
36	5	1386	A	C5-C6-N1	-5.17	115.11	117.70
36	5	2736	A	N1-C2-N3	5.17	131.89	129.30
36	5	2748	A	C4-C5-C6	-5.17	114.41	117.00
36	1	974	G	C5-N7-C8	5.17	106.89	104.30
38	8	10	A	C8-N9-C4	-5.17	103.73	105.80
36	1	157	A	N1-C6-N6	5.17	121.70	118.60
36	1	718	G	C4-N9-C1'	-5.17	119.78	126.50
36	1	832	G	N7-C8-N9	-5.17	110.51	113.10
44	L7	160	ARG	NE-CZ-NH2	-5.17	117.71	120.30
1	6	137	U	C5-C6-N1	5.17	125.29	122.70
36	5	384	A	C8-N9-C4	5.17	107.87	105.80
36	5	408	A	C5-C6-N1	5.17	120.29	117.70
36	5	961	C	OP2-P-O3'	5.17	116.58	105.20
36	5	1133	A	N3-C4-C5	-5.17	123.18	126.80
36	5	3195	U	OP1-P-O3'	5.17	116.58	105.20
36	5	581	U	C5-C6-N1	5.17	125.28	122.70
36	5	1865	A	N3-C4-C5	5.17	130.42	126.80
36	5	2632	G	C5-N7-C8	5.17	106.89	104.30
38	8	42	G	O5'-P-OP1	5.17	116.90	110.70
1	2	247	A	N1-C6-N6	5.17	121.70	118.60
36	1	954	U	N3-C2-O2	5.17	125.82	122.20
36	5	340	C	C4-C5-C6	5.17	119.98	117.40
36	5	1190	A	N9-C4-C5	5.17	107.87	105.80
36	5	1842	A	O4'-C1'-N9	-5.17	104.06	108.20
36	5	2837	A	C4-C5-C6	5.17	119.58	117.00
36	5	2886	U	N3-C4-O4	-5.17	115.78	119.40
36	1	1101	G	C6-C5-N7	5.17	133.50	130.40
36	1	1129	A	C4-C5-N7	5.17	113.28	110.70
36	1	2331	C	C5-C6-N1	-5.17	118.42	121.00
41	L4	339	LEU	CA-CB-CG	5.17	127.18	115.30
1	6	594	A	OP1-P-O3'	5.17	116.56	105.20
36	5	371	G	N1-C6-O6	-5.17	116.80	119.90
36	5	1111	U	C4-C5-C6	-5.17	116.60	119.70
36	5	1115	G	C4-N9-C1'	5.17	133.22	126.50
36	5	2830	G	C6-N1-C2	-5.17	122.00	125.10
36	1	721	G	C6-C5-N7	-5.17	127.30	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	944	C	C2-N3-C4	5.17	122.48	119.90
36	1	1344	G	C6-C5-N7	-5.17	127.30	130.40
36	1	1882	G	N3-C2-N2	-5.17	116.28	119.90
36	5	1426	C	C6-N1-C2	5.17	122.37	120.30
36	5	1680	G	C4-C5-N7	-5.17	108.73	110.80
36	5	2949	U	N3-C2-O2	-5.17	118.58	122.20
38	8	113	U	C5-C6-N1	5.17	125.28	122.70
36	1	670	C	OP1-P-O3'	5.16	116.56	105.20
36	1	701	G	C2-N3-C4	-5.16	109.32	111.90
36	1	1323	G	OP2-P-O3'	5.16	116.56	105.20
36	1	1378	U	OP1-P-O3'	5.16	116.56	105.20
36	1	2772	C	C3'-C2'-C1'	-5.16	97.37	101.50
36	1	2802	A	N1-C6-N6	-5.16	115.50	118.60
60	N4	80	ARG	C-N-CA	5.16	143.68	122.00
36	5	318	A	N1-C6-N6	5.16	121.70	118.60
36	5	1174	G	C8-N9-C1'	-5.16	120.29	127.00
36	5	1329	U	N1-C2-N3	5.16	118.00	114.90
36	5	1927	G	N3-C2-N2	-5.16	116.29	119.90
36	5	2860	U	OP1-P-OP2	5.16	127.34	119.60
36	5	3046	A	C4-C5-N7	-5.16	108.12	110.70
36	1	1203	A	O5'-P-OP1	-5.16	101.05	105.70
36	1	1501	U	OP2-P-O3'	5.16	116.56	105.20
36	1	1940	G	N1-C2-N2	-5.16	111.55	116.20
36	1	2917	G	C2-N3-C4	5.16	114.48	111.90
36	1	3133	C	N1-C2-O2	5.16	122.00	118.90
16	c4	124	ASP	CB-CG-OD1	-5.16	113.65	118.30
36	5	2585	G	C2-N3-C4	5.16	114.48	111.90
36	5	3110	C	N3-C4-N4	-5.16	114.39	118.00
36	5	3144	G	N1-C6-O6	-5.16	116.80	119.90
1	2	325	G	N1-C6-O6	5.16	123.00	119.90
1	6	711	U	C2-N1-C1'	5.16	123.89	117.70
36	5	912	G	O5'-P-OP2	-5.16	101.06	105.70
36	5	2709	C	O5'-P-OP2	-5.16	101.06	105.70
36	1	230	U	N1-C2-N3	5.16	118.00	114.90
36	1	315	C	OP1-P-OP2	5.16	127.34	119.60
36	1	1180	A	N7-C8-N9	-5.16	111.22	113.80
36	1	1661	G	N3-C4-N9	5.16	129.09	126.00
36	1	2351	U	C5-C6-N1	5.16	125.28	122.70
36	1	2384	A	C5-C6-N6	-5.16	119.57	123.70
36	1	2623	G	C8-N9-C4	5.16	108.46	106.40
36	1	2834	G	C6-C5-N7	-5.16	127.31	130.40
36	1	2878	G	O5'-P-OP1	5.16	116.89	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	3	44	C	C5-C6-N1	5.16	123.58	121.00
1	6	142	G	N9-C4-C5	-5.16	103.34	105.40
1	6	542	A	O4'-C1'-N9	5.16	112.33	108.20
1	6	1119	G	C8-N9-C4	-5.16	104.34	106.40
1	6	1641	C	N1-C2-O2	-5.16	115.81	118.90
36	5	954	U	C6-N1-C2	-5.16	117.91	121.00
36	5	3245	A	C5-C6-N6	-5.16	119.57	123.70
35	SM	134	ASP	CB-CG-OD2	5.16	122.94	118.30
36	1	1899	G	C2-N3-C4	5.16	114.48	111.90
36	5	2248	C	C5-C6-N1	-5.16	118.42	121.00
36	5	2367	A	C8-N9-C4	-5.16	103.74	105.80
36	1	55	G	N1-C6-O6	-5.16	116.81	119.90
36	1	314	U	O5'-P-OP1	-5.16	101.06	105.70
36	1	638	C	N1-C2-O2	5.16	121.99	118.90
36	1	1329	U	C3'-C2'-C1'	5.16	105.62	101.50
36	1	2704	A	OP2-P-O3'	5.16	116.54	105.20
1	2	378	A	OP2-P-O3'	5.15	116.54	105.20
1	2	1600	A	N1-C6-N6	5.15	121.69	118.60
36	1	2180	G	C6-C5-N7	-5.15	127.31	130.40
36	1	2936	A	O5'-P-OP2	5.15	116.88	110.70
1	6	142	G	N3-C4-N9	5.15	129.09	126.00
36	5	38	U	O5'-P-OP2	-5.15	101.06	105.70
36	5	639	G	N3-C2-N2	-5.15	116.29	119.90
36	5	2836	C	C4-C5-C6	5.15	119.98	117.40
38	8	3	A	C5-C6-N1	5.15	120.28	117.70
1	2	315	A	N1-C6-N6	5.15	121.69	118.60
1	2	863	A	N9-C4-C5	-5.15	103.74	105.80
36	1	116	A	O4'-C1'-N9	5.15	112.32	108.20
36	1	2423	U	N3-C2-O2	5.15	125.81	122.20
36	1	3154	C	N1-C2-O2	5.15	121.99	118.90
1	6	114	C	C2-N1-C1'	5.15	124.47	118.80
36	5	746	A	OP2-P-O3'	5.15	116.53	105.20
36	5	1362	G	OP2-P-O3'	5.15	116.54	105.20
36	5	2133	U	C2-N3-C4	-5.15	123.91	127.00
36	5	2415	C	N3-C4-N4	-5.15	114.39	118.00
36	1	1117	G	C5-C6-O6	-5.15	125.51	128.60
36	1	3213	A	C4-C5-C6	5.15	119.58	117.00
1	6	1663	G	N7-C8-N9	5.15	115.67	113.10
36	5	353	G	C8-N9-C1'	5.15	133.69	127.00
36	5	832	G	C4-N9-C1'	5.15	133.19	126.50
36	5	1405	U	C2-N3-C4	-5.15	123.91	127.00
36	5	1416	C	C2-N1-C1'	5.15	124.47	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2946	A	C5-C6-N6	5.15	127.82	123.70
1	2	551	G	N1-C2-N3	-5.15	120.81	123.90
36	1	953	G	O4'-C1'-N9	5.15	112.32	108.20
36	1	2144	A	OP1-P-O3'	5.15	116.53	105.20
36	1	2524	A	O4'-C1'-N9	5.15	112.32	108.20
1	6	11	A	C5-N7-C8	5.15	106.47	103.90
1	6	457	G	C2-N3-C4	-5.15	109.33	111.90
36	5	939	U	C2-N3-C4	-5.15	123.91	127.00
36	5	1412	G	N9-C4-C5	5.15	107.46	105.40
36	5	2815	G	C5-C6-N1	5.15	114.07	111.50
36	5	2875	U	N3-C2-O2	5.15	125.80	122.20
36	5	3309	G	C8-N9-C4	-5.15	104.34	106.40
36	1	816	A	N1-C2-N3	-5.15	126.73	129.30
36	1	872	U	C4-C5-C6	5.15	122.79	119.70
36	1	1444	G	C5-C6-O6	-5.15	125.51	128.60
36	1	1858	A	O4'-C1'-N9	5.15	112.32	108.20
36	1	2138	A	C8-N9-C4	-5.15	103.74	105.80
36	1	2645	G	C6-N1-C2	-5.15	122.01	125.10
36	1	3277	U	C2-N1-C1'	5.15	123.88	117.70
36	5	2190	U	C6-N1-C2	-5.15	117.91	121.00
36	5	2367	A	C4-C5-C6	5.15	119.57	117.00
36	5	2882	U	C5-C4-O4	-5.15	122.81	125.90
1	2	1747	G	C8-N9-C4	5.15	108.46	106.40
36	1	78	U	N3-C2-O2	5.15	125.80	122.20
36	1	2719	U	C6-N1-C2	-5.15	117.91	121.00
36	1	3005	A	C4-C5-C6	-5.15	114.43	117.00
1	6	1723	U	N3-C2-O2	-5.15	118.60	122.20
36	5	1506	A	N7-C8-N9	5.15	116.37	113.80
36	5	3054	U	N3-C4-C5	-5.15	111.51	114.60
36	1	517	G	N1-C6-O6	5.14	122.99	119.90
36	1	690	A	OP1-P-O3'	5.14	116.52	105.20
36	1	877	C	C5-C4-N4	-5.14	116.60	120.20
36	1	1183	C	N1-C2-O2	-5.14	115.81	118.90
36	1	1642	A	O5'-P-OP1	-5.14	101.07	105.70
36	1	1841	A	O5'-P-OP1	5.14	116.87	110.70
36	1	3057	U	C2-N3-C4	-5.14	123.91	127.00
1	6	957	G	C5-C6-N1	-5.14	108.93	111.50
36	5	215	G	N3-C4-C5	-5.14	126.03	128.60
36	5	1191	U	C5-C6-N1	-5.14	120.13	122.70
36	5	2654	C	OP2-P-O3'	5.14	116.52	105.20
36	5	2873	U	N3-C4-O4	5.14	123.00	119.40
62	n6	76	LEU	CA-CB-CG	5.14	127.13	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	124	A	C8-N9-C4	-5.14	103.74	105.80
36	1	2653	C	N3-C4-N4	-5.14	114.40	118.00
38	4	120	C	N3-C2-O2	5.14	125.50	121.90
1	6	321	C	N1-C2-O2	5.14	121.99	118.90
36	1	820	A	C5-N7-C8	-5.14	101.33	103.90
36	1	1329	U	C5-C4-O4	-5.14	122.81	125.90
36	1	2403	G	O4'-C1'-N9	5.14	112.31	108.20
38	8	54	A	C4-C5-N7	5.14	113.27	110.70
1	2	1573	A	P-O3'-C3'	5.14	125.87	119.70
36	1	123	A	C5-N7-C8	-5.14	101.33	103.90
36	1	673	U	N3-C4-C5	5.14	117.68	114.60
36	1	905	U	C4-C5-C6	5.14	122.78	119.70
36	1	2917	G	O5'-P-OP1	-5.14	101.07	105.70
68	O2	105	ARG	NE-CZ-NH1	5.14	122.87	120.30
36	5	44	U	N3-C2-O2	5.14	125.80	122.20
36	5	313	A	C6-N1-C2	-5.14	115.52	118.60
36	5	3185	U	O5'-P-OP2	-5.14	101.08	105.70
36	1	1429	G	N3-C4-N9	5.14	129.08	126.00
36	1	2323	G	N1-C2-N2	-5.14	111.58	116.20
36	1	2695	A	C8-N9-C4	-5.14	103.75	105.80
1	6	280	U	C2-N1-C1'	5.14	123.86	117.70
36	5	37	U	OP2-P-O3'	5.14	116.50	105.20
36	5	116	A	O5'-P-OP1	-5.14	101.08	105.70
36	5	1311	G	C5-C6-N1	5.14	114.07	111.50
36	1	84	U	C5-C4-O4	-5.14	122.82	125.90
36	1	1468	A	C4-C5-C6	5.14	119.57	117.00
36	1	2125	A	N1-C2-N3	-5.14	126.73	129.30
36	1	2707	C	OP2-P-O3'	5.14	116.50	105.20
36	5	189	G	N3-C2-N2	5.14	123.50	119.90
36	5	1114	U	OP1-P-O3'	5.14	116.50	105.20
36	5	2572	C	C6-N1-C2	-5.14	118.25	120.30
36	5	2767	U	N3-C4-O4	-5.14	115.81	119.40
36	5	3154	C	C6-N1-C1'	-5.14	114.64	120.80
36	1	334	A	N1-C2-N3	5.13	131.87	129.30
36	1	340	C	N1-C2-N3	5.13	122.80	119.20
36	1	351	A	O5'-P-OP1	-5.13	101.08	105.70
36	1	1379	G	OP2-P-O3'	5.13	116.50	105.20
36	1	2819	A	C5-N7-C8	5.13	106.47	103.90
36	1	3150	A	C4-C5-C6	-5.13	114.43	117.00
1	6	538	A	C5-C6-N6	5.13	127.81	123.70
36	5	728	G	OP2-P-O3'	5.13	116.50	105.20
36	5	1419	A	N9-C1'-C2'	-5.13	106.35	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2353	G	C5-C6-O6	-5.13	125.52	128.60
36	1	918	C	C6-N1-C1'	5.13	126.96	120.80
36	5	961	C	N3-C4-C5	-5.13	119.85	121.90
36	1	719	U	O5'-P-OP1	-5.13	101.08	105.70
36	1	2144	A	N1-C6-N6	5.13	121.68	118.60
36	1	2656	A	C2-N3-C4	5.13	113.17	110.60
1	6	1742	U	OP2-P-O3'	5.13	116.49	105.20
36	5	1011	A	OP2-P-O3'	5.13	116.49	105.20
36	5	1117	G	C5-C6-N1	5.13	114.07	111.50
36	5	2661	G	N3-C2-N2	5.13	123.49	119.90
1	2	885	G	N1-C6-O6	5.13	122.98	119.90
36	1	146	U	C5-C6-N1	-5.13	120.14	122.70
36	1	3135	U	N3-C4-O4	-5.13	115.81	119.40
36	5	347	G	C5-C6-O6	5.13	131.68	128.60
36	5	1116	G	N1-C2-N3	5.13	126.98	123.90
36	5	2747	A	C8-N9-C4	-5.13	103.75	105.80
38	8	39	G	C2-N3-C4	5.13	114.47	111.90
1	2	639	U	C2-N1-C1'	5.13	123.85	117.70
36	1	1433	A	C5-C6-N1	5.13	120.26	117.70
36	1	1660	C	C4-C5-C6	5.13	119.96	117.40
36	1	2418	G	OP2-P-O3'	5.13	116.48	105.20
36	1	2714	G	C4-C5-C6	-5.13	115.72	118.80
36	1	2796	G	C4-C5-N7	5.13	112.85	110.80
36	1	2836	C	OP2-P-O3'	5.13	116.48	105.20
36	1	2940	A	N1-C2-N3	5.13	131.86	129.30
36	1	3085	G	N1-C6-O6	5.13	122.98	119.90
1	6	607	G	N3-C4-C5	-5.13	126.04	128.60
36	5	378	A	N7-C8-N9	-5.13	111.24	113.80
1	2	343	C	O4'-C1'-N1	5.13	112.30	108.20
1	2	1052	U	C2-N1-C1'	5.13	123.85	117.70
36	1	212	G	N1-C6-O6	5.13	122.98	119.90
36	1	2383	C	C6-N1-C2	5.13	122.35	120.30
38	4	46	G	C5-N7-C8	5.13	106.86	104.30
1	6	628	G	N9-C4-C5	-5.13	103.35	105.40
36	5	367	A	O5'-P-OP1	-5.13	101.09	105.70
36	5	649	A	C8-N9-C4	-5.13	103.75	105.80
36	5	715	A	C5-C6-N1	5.13	120.26	117.70
38	8	54	A	N1-C6-N6	5.13	121.68	118.60
36	1	1494	U	C2-N3-C4	-5.12	123.92	127.00
36	1	3138	U	OP2-P-O3'	5.12	116.48	105.20
1	6	402	C	N3-C4-N4	5.12	121.59	118.00
36	5	1074	U	C5-C4-O4	-5.12	122.83	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1191	U	N3-C2-O2	5.12	125.79	122.20
36	5	2712	U	N3-C2-O2	-5.12	118.61	122.20
1	2	284	G	C8-N9-C4	5.12	108.45	106.40
36	1	1336	U	N3-C2-O2	-5.12	118.61	122.20
36	5	942	U	C5-C4-O4	-5.12	122.83	125.90
36	5	1787	A	N1-C2-N3	-5.12	126.74	129.30
78	q2	77	CYS	CA-CB-SG	-5.12	104.78	114.00
36	1	634	C	C5-C6-N1	-5.12	118.44	121.00
36	1	2181	C	C6-N1-C2	5.12	122.35	120.30
36	1	2182	A	N9-C4-C5	5.12	107.85	105.80
36	1	2572	C	C2-N1-C1'	5.12	124.43	118.80
1	6	464	A	N1-C6-N6	-5.12	115.53	118.60
1	6	1162	C	C6-N1-C2	-5.12	118.25	120.30
36	5	216	G	C4-C5-N7	5.12	112.85	110.80
36	5	2660	G	C8-N9-C1'	-5.12	120.34	127.00
36	5	2937	G	C5-C6-N1	5.12	114.06	111.50
36	1	1329	U	C5'-C4'-O4'	-5.12	102.96	109.10
36	5	415	G	N3-C4-C5	-5.12	126.04	128.60
36	5	1114	U	OP1-P-OP2	5.12	127.28	119.60
36	5	1295	G	C5-C6-O6	5.12	131.67	128.60
36	5	3196	U	C5-C6-N1	-5.12	120.14	122.70
1	2	12	U	N3-C4-O4	-5.12	115.82	119.40
36	1	415	G	C8-N9-C4	-5.12	104.35	106.40
36	1	433	A	C5-C6-N1	5.12	120.26	117.70
36	1	3306	U	C5-C6-N1	-5.12	120.14	122.70
38	4	113	U	N3-C4-O4	-5.12	115.82	119.40
39	L2	156	LYS	CD-CE-NZ	-5.12	99.93	111.70
41	L4	95	ARG	NE-CZ-NH2	5.12	122.86	120.30
1	6	457	G	N3-C4-C5	5.12	131.16	128.60
36	5	2296	A	C2-N3-C4	5.12	113.16	110.60
36	5	2698	G	C4-C5-N7	-5.12	108.75	110.80
37	7	35	C	C6-N1-C2	5.12	122.35	120.30
36	1	94	G	N1-C2-N3	-5.12	120.83	123.90
36	1	678	G	C4-N9-C1'	5.12	133.15	126.50
36	1	940	G	O5'-P-OP1	-5.12	101.09	105.70
1	6	1361	U	N1-C2-O2	5.12	126.38	122.80
36	5	1120	A	C5-C6-N1	5.12	120.26	117.70
36	5	1432	C	N1-C2-N3	5.12	122.78	119.20
36	5	2385	G	N9-C4-C5	-5.12	103.35	105.40
36	5	3060	C	C6-N1-C2	-5.12	118.25	120.30
1	2	1456	C	C5-C6-N1	-5.12	118.44	121.00
36	1	328	U	OP2-P-O3'	5.12	116.45	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	582	G	N1-C2-N2	5.12	120.80	116.20
36	1	1300	G	N3-C4-N9	5.12	129.07	126.00
36	1	2766	U	C2-N1-C1'	5.12	123.84	117.70
36	5	687	U	C6-N1-C2	5.12	124.07	121.00
38	8	25	G	N1-C2-N2	-5.12	111.60	116.20
36	1	304	G	N1-C2-N2	5.11	120.80	116.20
36	1	615	U	C5-C4-O4	5.11	128.97	125.90
36	1	1528	G	C5-C6-N1	-5.11	108.94	111.50
36	1	2857	C	C5-C4-N4	-5.11	116.62	120.20
1	6	1081	A	N1-C6-N6	5.11	121.67	118.60
36	5	300	G	N1-C6-O6	-5.11	116.83	119.90
36	5	1200	A	OP1-P-O3'	5.11	116.45	105.20
36	1	947	G	N3-C2-N2	5.11	123.48	119.90
1	6	1421	A	C8-N9-C4	5.11	107.84	105.80
36	5	201	A	O5'-P-OP2	-5.11	101.10	105.70
36	5	494	G	N1-C6-O6	-5.11	116.83	119.90
36	5	1833	G	C4-C5-N7	-5.11	108.75	110.80
36	5	2413	A	C2-N3-C4	-5.11	108.04	110.60
36	5	2963	C	C6-N1-C2	-5.11	118.25	120.30
36	1	1100	U	N1-C2-N3	5.11	117.97	114.90
36	1	1439	U	O5'-P-OP2	5.11	116.83	110.70
36	1	2247	G	C6-C5-N7	-5.11	127.33	130.40
36	1	2363	A	C6-C5-N7	5.11	135.88	132.30
1	6	119	A	N1-C2-N3	5.11	131.85	129.30
36	5	633	C	O5'-P-OP1	-5.11	101.10	105.70
38	8	116	G	N1-C6-O6	5.11	122.97	119.90
36	1	1349	G	O4'-C1'-N9	5.11	112.29	108.20
36	1	2189	U	N3-C4-O4	5.11	122.98	119.40
36	1	2852	C	O5'-P-OP1	5.11	116.83	110.70
36	1	3207	U	O4'-C1'-N1	5.11	112.29	108.20
36	5	906	A	C6-N1-C2	-5.11	115.53	118.60
36	5	2314	U	C6-N1-C2	-5.11	117.93	121.00
36	5	2977	G	C5-C6-N1	5.11	114.06	111.50
36	5	3278	C	OP2-P-O3'	5.11	116.44	105.20
1	2	1399	C	C2-N1-C1'	5.11	124.42	118.80
36	1	182	U	N3-C4-O4	-5.11	115.82	119.40
36	1	809	G	O5'-P-OP1	5.11	116.83	110.70
36	1	2644	C	C2-N1-C1'	5.11	124.42	118.80
36	1	2887	A	C5-C6-N6	-5.11	119.61	123.70
36	1	2929	C	C6-N1-C2	5.11	122.34	120.30
36	1	2934	A	C4-C5-C6	5.11	119.55	117.00
36	1	3057	U	C5-C6-N1	-5.11	120.15	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3187	A	C5-C6-N6	-5.11	119.61	123.70
1	6	964	U	N3-C2-O2	-5.11	118.62	122.20
36	5	1205	A	N1-C6-N6	-5.11	115.53	118.60
36	5	1526	U	N1-C2-O2	-5.11	119.22	122.80
36	5	2831	G	N3-C2-N2	5.11	123.48	119.90
36	5	2979	U	C2-N3-C4	5.11	130.06	127.00
36	5	3275	U	C6-N1-C1'	5.11	128.35	121.20
38	8	111	A	C5-N7-C8	-5.11	101.35	103.90
1	2	628	G	C5-C6-O6	5.11	131.66	128.60
36	1	303	G	O4'-C1'-N9	5.11	112.28	108.20
36	1	689	U	N1-C2-O2	5.11	126.37	122.80
36	1	2810	C	C4-C5-C6	5.11	119.95	117.40
36	1	3219	G	N3-C4-C5	-5.11	126.05	128.60
36	5	2399	A	C2-N3-C4	-5.11	108.05	110.60
1	2	1591	C	N3-C2-O2	-5.10	118.33	121.90
36	1	64	G	C6-C5-N7	5.10	133.46	130.40
36	1	211	A	N1-C2-N3	5.10	131.85	129.30
36	1	953	G	C4-N9-C1'	-5.10	119.86	126.50
36	5	928	C	N3-C2-O2	-5.10	118.33	121.90
36	5	1765	U	O5'-P-OP1	5.10	116.83	110.70
36	5	2875	U	C2-N1-C1'	-5.10	111.58	117.70
36	5	2941	A	N9-C1'-C2'	5.10	120.64	114.00
36	5	2968	G	C5-N7-C8	5.10	106.85	104.30
36	5	3211	C	O5'-P-OP2	5.10	116.83	110.70
37	7	1	G	C6-C5-N7	-5.10	127.34	130.40
36	1	687	U	OP2-P-O3'	5.10	116.43	105.20
36	1	1328	C	C5-C6-N1	-5.10	118.45	121.00
36	1	2418	G	N7-C8-N9	5.10	115.65	113.10
36	1	2814	G	N3-C4-C5	-5.10	126.05	128.60
52	M6	33	ILE	CG1-CB-CG2	-5.10	100.17	111.40
36	5	3335	A	N1-C6-N6	5.10	121.66	118.60
36	5	3388	C	C5-C4-N4	5.10	123.77	120.20
36	1	664	U	OP1-P-OP2	-5.10	111.95	119.60
36	1	1122	U	N3-C4-C5	5.10	117.66	114.60
36	1	3317	U	N3-C2-O2	-5.10	118.63	122.20
38	4	58	G	OP1-P-OP2	-5.10	111.95	119.60
36	5	2643	A	N1-C6-N6	5.10	121.66	118.60
36	5	2771	U	N1-C2-O2	-5.10	119.23	122.80
38	8	36	G	O5'-P-OP1	-5.10	101.11	105.70
36	1	188	U	N1-C2-N3	5.10	117.96	114.90
36	1	2993	G	C5-C6-N1	5.10	114.05	111.50
36	5	1858	A	C8-N9-C4	-5.10	103.76	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2406	C	C5-C6-N1	-5.10	118.45	121.00
36	5	2695	A	C6-N1-C2	-5.10	115.54	118.60
36	5	2891	U	C2-N3-C4	-5.10	123.94	127.00
36	5	2919	A	C5-C6-N6	5.10	127.78	123.70
36	5	3091	A	OP1-P-OP2	-5.10	111.95	119.60
1	2	3	U	C6-N1-C2	5.10	124.06	121.00
36	1	2619	G	N7-C8-N9	-5.10	110.55	113.10
44	L7	178	ILE	CB-CA-C	-5.10	101.41	111.60
36	5	7	C	C6-N1-C2	5.10	122.34	120.30
36	5	1396	C	C4-C5-C6	-5.10	114.85	117.40
36	5	1899	G	C6-N1-C2	5.10	128.16	125.10
36	1	728	G	N1-C6-O6	-5.10	116.84	119.90
36	1	1175	C	O5'-P-OP1	-5.10	101.11	105.70
36	1	2281	A	O4'-C1'-N9	5.10	112.28	108.20
38	4	64	U	OP2-P-O3'	5.10	116.41	105.20
36	5	38	U	C5-C4-O4	-5.10	122.84	125.90
36	5	234	G	C5-C6-O6	-5.10	125.54	128.60
36	5	3028	G	N3-C2-N2	5.10	123.47	119.90
36	5	3371	G	C5-C6-O6	5.10	131.66	128.60
1	2	440	U	N3-C4-O4	-5.09	115.83	119.40
1	2	755	A	P-O3'-C3'	5.09	125.81	119.70
36	1	214	G	N7-C8-N9	-5.09	110.55	113.10
36	1	1323	G	N1-C2-N2	-5.09	111.62	116.20
36	1	2619	G	C5-C6-O6	5.09	131.66	128.60
1	6	1747	G	O5'-P-OP1	5.09	116.81	110.70
36	5	52	A	C5-C6-N1	-5.09	115.15	117.70
36	5	280	U	N1-C2-N3	5.09	117.96	114.90
36	5	958	C	N3-C2-O2	-5.09	118.33	121.90
36	5	1203	A	OP1-P-OP2	5.09	127.24	119.60
36	5	3154	C	C2-N3-C4	5.09	122.45	119.90
36	1	1301	A	C8-N9-C4	-5.09	103.76	105.80
36	1	2198	A	C8-N9-C4	5.09	107.84	105.80
1	6	1027	A	N3-C4-C5	5.09	130.37	126.80
36	5	276	U	O5'-P-OP2	5.09	116.81	110.70
36	5	2626	A	N1-C2-N3	5.09	131.85	129.30
1	2	140	A	C6-C5-N7	-5.09	128.74	132.30
1	2	1746	A	N1-C2-N3	-5.09	126.75	129.30
36	1	82	C	C6-N1-C2	5.09	122.34	120.30
36	1	1206	G	O5'-P-OP1	5.09	116.81	110.70
36	1	1352	A	P-O3'-C3'	5.09	125.81	119.70
36	1	1530	U	C6-N1-C2	5.09	124.06	121.00
1	6	31	C	C2-N1-C1'	-5.09	113.20	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	76	G	C8-N9-C4	5.09	108.44	106.40
36	5	412	G	N3-C4-N9	5.09	129.06	126.00
36	5	794	U	N3-C2-O2	-5.09	118.64	122.20
36	5	1051	U	C4-C5-C6	-5.09	116.64	119.70
36	5	1589	A	C5-C6-N6	-5.09	119.63	123.70
36	5	1729	A	N1-C6-N6	5.09	121.66	118.60
36	5	1792	C	N1-C2-O2	-5.09	115.85	118.90
36	5	2119	A	C5-C6-N6	-5.09	119.63	123.70
36	5	2964	G	C4-C5-N7	-5.09	108.76	110.80
36	5	3138	U	C5-C6-N1	5.09	125.25	122.70
36	5	3339	A	N1-C6-N6	5.09	121.66	118.60
36	1	834	U	C2-N3-C4	-5.09	123.95	127.00
1	6	1503	A	C2-N3-C4	-5.09	108.06	110.60
36	5	63	A	N1-C2-N3	-5.09	126.75	129.30
36	5	285	A	N1-C6-N6	-5.09	115.55	118.60
36	5	939	U	O5'-P-OP1	5.09	116.81	110.70
36	5	1064	A	P-O3'-C3'	5.09	125.81	119.70
36	5	2821	C	OP1-P-O3'	5.09	116.40	105.20
36	5	3298	C	O5'-P-OP2	-5.09	101.12	105.70
1	2	1481	C	C6-N1-C2	-5.09	118.27	120.30
36	1	276	U	OP1-P-OP2	5.09	127.23	119.60
36	1	1389	G	OP1-P-OP2	5.09	127.23	119.60
36	1	1829	G	N3-C4-C5	-5.09	126.06	128.60
36	5	2860	U	C5-C6-N1	-5.09	120.16	122.70
36	5	2932	U	OP1-P-OP2	-5.09	111.97	119.60
37	7	83	U	C5-C4-O4	5.09	128.95	125.90
1	2	1118	G	N1-C6-O6	5.09	122.95	119.90
36	1	945	C	N3-C4-N4	-5.09	114.44	118.00
36	1	972	A	N7-C8-N9	-5.09	111.26	113.80
36	1	2522	G	C6-C5-N7	-5.09	127.35	130.40
36	1	2815	G	N7-C8-N9	-5.09	110.56	113.10
36	1	2977	G	C6-C5-N7	5.09	133.45	130.40
1	6	1729	C	C2-N3-C4	-5.09	117.36	119.90
36	5	567	G	N1-C6-O6	5.09	122.95	119.90
36	5	1123	U	C2-N3-C4	-5.09	123.95	127.00
36	5	1140	G	N3-C2-N2	5.09	123.46	119.90
36	5	1202	A	C5-C6-N6	5.09	127.77	123.70
36	5	2879	C	C5-C6-N1	-5.09	118.46	121.00
36	5	2954	U	C6-N1-C1'	-5.09	114.08	121.20
36	5	3058	U	P-O3'-C3'	5.09	125.80	119.70
36	5	3177	G	N3-C4-C5	5.09	131.14	128.60
36	5	3271	G	N3-C4-N9	5.09	129.05	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	12	U	C5-C4-O4	-5.09	122.85	125.90
1	2	353	A	C2-N3-C4	-5.08	108.06	110.60
37	3	40	C	C6-N1-C2	-5.08	118.27	120.30
1	6	337	G	N3-C2-N2	5.08	123.46	119.90
36	5	3371	G	C5-C6-N1	-5.08	108.96	111.50
36	1	2529	A	OP2-P-O3'	5.08	116.39	105.20
36	1	2728	G	C5-C6-O6	-5.08	125.55	128.60
36	1	2864	A	N1-C6-N6	-5.08	115.55	118.60
36	1	3239	G	C8-N9-C1'	5.08	133.61	127.00
36	1	3317	U	C5-C4-O4	5.08	128.95	125.90
36	5	657	A	N1-C2-N3	-5.08	126.76	129.30
36	5	1402	C	N3-C2-O2	-5.08	118.34	121.90
36	5	3003	G	N9-C4-C5	5.08	107.43	105.40
1	2	1497	U	C2-N1-C1'	5.08	123.80	117.70
1	2	1751	C	N3-C4-N4	-5.08	114.44	118.00
36	1	1829	G	C8-N9-C4	-5.08	104.37	106.40
36	1	3099	C	O4'-C1'-N1	5.08	112.27	108.20
36	1	3307	A	N1-C6-N6	-5.08	115.55	118.60
1	6	1279	C	C6-N1-C2	-5.08	118.27	120.30
36	5	895	A	C2-N3-C4	-5.08	108.06	110.60
36	5	900	G	C6-C5-N7	5.08	133.45	130.40
36	5	2719	U	C2-N1-C1'	-5.08	111.60	117.70
36	5	2974	U	N3-C4-C5	-5.08	111.55	114.60
36	5	3006	A	N1-C6-N6	5.08	121.65	118.60
43	16	46	ARG	NE-CZ-NH1	5.08	122.84	120.30
1	2	501	U	OP1-P-O3'	5.08	116.38	105.20
1	2	1105	C	OP2-P-O3'	5.08	116.38	105.20
36	1	435	C	C2-N1-C1'	-5.08	113.21	118.80
36	1	2706	G	C8-N9-C1'	-5.08	120.40	127.00
36	5	378	A	C8-N9-C4	5.08	107.83	105.80
36	5	803	C	O5'-P-OP1	5.08	116.80	110.70
37	7	58	C	O5'-P-OP1	5.08	116.80	110.70
1	2	1100	G	C4-N9-C1'	5.08	133.10	126.50
36	1	883	A	C6-N1-C2	-5.08	115.55	118.60
36	1	2688	U	N3-C4-C5	5.08	117.65	114.60
36	1	3095	U	N3-C2-O2	-5.08	118.64	122.20
37	3	42	A	C5-C6-N1	-5.08	115.16	117.70
1	6	382	C	C2-N3-C4	-5.08	117.36	119.90
1	6	617	U	N3-C4-C5	-5.08	111.55	114.60
1	6	1291	G	C2-N3-C4	5.08	114.44	111.90
36	5	354	U	C4-C5-C6	5.08	122.75	119.70
36	5	2643	A	N9-C4-C5	-5.08	103.77	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	581	U	N1-C2-O2	-5.08	119.25	122.80
1	6	794	U	C6-N1-C1'	-5.08	114.09	121.20
36	5	194	U	N1-C2-O2	-5.08	119.25	122.80
36	5	2699	G	OP1-P-OP2	5.08	127.22	119.60
1	2	1291	G	C8-N9-C4	-5.08	104.37	106.40
36	1	824	C	C5-C6-N1	5.08	123.54	121.00
36	1	912	G	N3-C2-N2	-5.08	116.35	119.90
36	1	1911	A	C5-C6-N6	-5.08	119.64	123.70
36	1	2122	G	O5'-P-OP2	-5.08	101.13	105.70
47	M0	24	ARG	NE-CZ-NH2	-5.08	117.76	120.30
1	6	1001	A	C4-C5-N7	5.08	113.24	110.70
1	6	1526	A	N9-C4-C5	5.08	107.83	105.80
36	5	417	A	N7-C8-N9	-5.08	111.26	113.80
36	5	707	U	C4-C5-C6	5.08	122.75	119.70
36	5	2297	U	OP1-P-OP2	5.08	127.21	119.60
36	5	2414	G	N3-C2-N2	-5.08	116.35	119.90
1	2	150	U	C2-N1-C1'	5.07	123.79	117.70
36	1	626	U	N3-C4-O4	-5.07	115.85	119.40
36	1	1741	A	C6-C5-N7	-5.07	128.75	132.30
36	1	1908	A	OP2-P-O3'	5.07	116.36	105.20
36	1	2369	G	N3-C4-C5	-5.07	126.06	128.60
36	1	2823	G	N9-C4-C5	5.07	107.43	105.40
38	4	103	G	N1-C6-O6	-5.07	116.86	119.90
36	5	579	G	C4-C5-C6	-5.07	115.76	118.80
36	5	1312	C	C2-N3-C4	5.07	122.44	119.90
36	5	2204	C	C6-N1-C1'	5.07	126.89	120.80
36	5	2280	A	C2-N3-C4	-5.07	108.06	110.60
36	5	2300	G	O5'-P-OP1	-5.07	101.13	105.70
36	5	2816	G	C4-C5-C6	-5.07	115.76	118.80
36	5	3262	U	N1-C2-N3	5.07	117.94	114.90
36	1	816	A	C8-N9-C4	-5.07	103.77	105.80
36	1	1192	C	C5-C4-N4	5.07	123.75	120.20
36	5	2933	A	OP2-P-O3'	5.07	116.36	105.20
1	2	103	A	P-O3'-C3'	5.07	125.78	119.70
1	2	580	A	N9-C4-C5	5.07	107.83	105.80
36	1	564	G	N1-C6-O6	-5.07	116.86	119.90
36	1	1450	G	C6-C5-N7	5.07	133.44	130.40
36	1	1894	U	C5-C4-O4	-5.07	122.86	125.90
36	1	2711	C	N1-C2-O2	-5.07	115.86	118.90
36	5	876	A	OP2-P-O3'	5.07	116.36	105.20
36	5	1139	G	N1-C2-N3	5.07	126.94	123.90
38	4	61	A	O5'-P-OP1	-5.07	101.14	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1020	A	C8-N9-C4	-5.07	103.77	105.80
1	6	1075	C	N1-C2-O2	-5.07	115.86	118.90
36	5	928	C	C2-N3-C4	-5.07	117.36	119.90
36	5	2953	U	N1-C2-O2	-5.07	119.25	122.80
38	8	111	A	C2-N3-C4	-5.07	108.07	110.60
1	2	1446	A	N9-C4-C5	5.07	107.83	105.80
36	1	434	U	OP2-P-O3'	5.07	116.35	105.20
36	1	1086	C	C6-N1-C2	-5.07	118.27	120.30
36	1	2647	A	N3-C4-C5	-5.07	123.25	126.80
1	6	756	A	N7-C8-N9	5.07	116.33	113.80
1	6	1658	G	C8-N9-C4	5.07	108.43	106.40
36	5	1373	A	N3-C4-N9	5.07	131.46	127.40
36	5	1876	U	C5'-C4'-C3'	-5.07	107.89	116.00
36	5	2997	G	C2-N3-C4	-5.07	109.37	111.90
36	1	1176	C	C6-N1-C2	5.07	122.33	120.30
36	1	1494	U	C5-C6-N1	-5.07	120.17	122.70
36	1	1552	G	C5-C6-O6	-5.07	125.56	128.60
36	1	1869	C	N1-C2-O2	5.07	121.94	118.90
36	1	1886	A	O5'-P-OP2	-5.07	101.14	105.70
37	3	88	G	C8-N9-C1'	-5.07	120.42	127.00
36	5	320	G	C4-C5-N7	-5.07	108.77	110.80
36	5	813	G	C5-C6-N1	5.07	114.03	111.50
36	5	943	U	N1-C2-N3	5.07	117.94	114.90
36	5	1126	G	N9-C4-C5	5.07	107.43	105.40
36	5	1131	G	C5-C6-O6	5.07	131.64	128.60
36	5	1298	C	C6-N1-C2	-5.07	118.27	120.30
36	5	1494	U	C5-C6-N1	-5.07	120.17	122.70
36	5	2735	U	C5-C4-O4	5.07	128.94	125.90
36	5	3223	A	N1-C6-N6	-5.07	115.56	118.60
38	8	14	C	N3-C4-C5	-5.07	119.87	121.90
38	8	48	A	C5-C6-N1	5.07	120.23	117.70
51	M5	105	ARG	NE-CZ-NH2	-5.06	117.77	120.30
1	6	17	C	C6-N1-C2	-5.06	118.27	120.30
36	5	505	G	N9-C4-C5	5.06	107.43	105.40
36	5	841	A	O5'-P-OP2	-5.06	101.14	105.70
36	5	1192	C	C5-C6-N1	-5.06	118.47	121.00
36	5	2345	A	O5'-P-OP2	-5.06	101.14	105.70
36	5	2837	A	O4'-C1'-N9	5.06	112.25	108.20
36	1	112	U	N1-C1'-C2'	-5.06	106.43	112.00
36	1	1393	A	OP2-P-O3'	5.06	116.34	105.20
36	1	1416	C	N1-C2-O2	5.06	121.94	118.90
36	5	2187	G	N1-C6-O6	5.06	122.94	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2661	G	OP1-P-O3'	5.06	116.34	105.20
42	15	22	ARG	NE-CZ-NH1	-5.06	117.77	120.30
36	1	1301	A	C5-N7-C8	-5.06	101.37	103.90
36	1	1448	U	OP1-P-O3'	-5.06	94.07	105.20
1	6	1085	G	N1-C6-O6	-5.06	116.86	119.90
36	5	564	G	C4-C5-N7	-5.06	108.78	110.80
36	5	661	G	C5-C6-N1	5.06	114.03	111.50
1	2	581	U	C6-N1-C1'	-5.06	114.12	121.20
36	1	1117	G	C4-N9-C1'	-5.06	119.92	126.50
36	1	1150	A	O5'-P-OP2	-5.06	101.15	105.70
36	1	1782	U	C5-C4-O4	-5.06	122.86	125.90
38	4	28	C	C2-N1-C1'	5.06	124.37	118.80
41	L4	206	LEU	CA-CB-CG	5.06	126.94	115.30
36	5	1131	G	C4-C5-N7	-5.06	108.78	110.80
36	5	2550	U	C4-C5-C6	5.06	122.73	119.70
36	1	1125	U	N3-C4-C5	5.06	117.63	114.60
36	1	2123	G	N7-C8-N9	-5.06	110.57	113.10
38	4	67	U	C6-N1-C2	-5.06	117.97	121.00
36	5	24	G	N3-C4-N9	-5.06	122.97	126.00
36	5	514	G	N1-C6-O6	5.06	122.93	119.90
36	5	1198	C	N3-C2-O2	-5.06	118.36	121.90
36	5	1508	C	C6-N1-C2	5.06	122.32	120.30
36	5	2416	U	C6-N1-C2	-5.06	117.97	121.00
36	5	2625	C	C2-N3-C4	-5.06	117.37	119.90
36	5	3330	A	C5-N7-C8	5.06	106.43	103.90
47	m0	98	ARG	NE-CZ-NH2	5.06	122.83	120.30
36	1	2302	G	OP2-P-O3'	5.05	116.32	105.20
36	1	2604	U	C5-C4-O4	5.05	128.93	125.90
36	1	2700	G	C6-C5-N7	-5.05	127.37	130.40
1	6	1606	C	N1-C2-O2	5.05	121.93	118.90
36	5	421	G	C6-N1-C2	-5.05	122.07	125.10
36	5	746	A	C4-C5-N7	-5.05	108.17	110.70
36	5	972	A	C5-N7-C8	5.05	106.43	103.90
36	5	1348	U	N3-C2-O2	-5.05	118.66	122.20
36	5	1553	U	C6-N1-C2	5.05	124.03	121.00
36	5	1770	G	C8-N9-C1'	-5.05	120.43	127.00
36	5	2892	A	N1-C6-N6	-5.05	115.57	118.60
38	8	107	G	N1-C6-O6	5.05	122.93	119.90
36	1	85	A	N9-C4-C5	-5.05	103.78	105.80
36	1	281	G	O5'-P-OP1	-5.05	101.15	105.70
36	1	2279	A	N7-C8-N9	-5.05	111.27	113.80
1	2	990	C	C6-N1-C2	-5.05	118.28	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	48	A	O4'-C1'-N9	5.05	112.24	108.20
36	1	184	U	N3-C2-O2	-5.05	118.66	122.20
36	1	225	C	N3-C4-C5	-5.05	119.88	121.90
36	1	1301	A	N7-C8-N9	5.05	116.33	113.80
36	1	2355	G	N9-C4-C5	-5.05	103.38	105.40
36	1	3362	A	C5-C6-N6	-5.05	119.66	123.70
38	4	47	C	N3-C4-N4	-5.05	114.46	118.00
1	6	619	A	N1-C6-N6	-5.05	115.57	118.60
36	5	961	C	C4-C5-C6	5.05	119.93	117.40
36	5	2775	U	N3-C2-O2	-5.05	118.66	122.20
36	5	3209	A	C5-N7-C8	-5.05	101.37	103.90
1	2	240	U	P-O3'-C3'	5.05	125.76	119.70
1	2	1346	A	O4'-C1'-N9	5.05	112.24	108.20
36	1	1467	A	C6-N1-C2	-5.05	115.57	118.60
36	1	1918	C	N1-C2-N3	5.05	122.73	119.20
36	1	2339	C	N1-C2-O2	-5.05	115.87	118.90
36	1	2347	U	N3-C4-O4	-5.05	115.86	119.40
36	5	519	A	N1-C6-N6	5.05	121.63	118.60
36	5	841	A	C6-N1-C2	-5.05	115.57	118.60
36	5	1339	C	N3-C4-N4	5.05	121.53	118.00
36	5	1348	U	C4-C5-C6	5.05	122.73	119.70
36	5	1405	U	C5-C6-N1	-5.05	120.17	122.70
36	5	2668	U	C5-C6-N1	-5.05	120.18	122.70
36	5	2681	U	C5-C6-N1	-5.05	120.17	122.70
36	5	2695	A	N1-C2-N3	5.05	131.82	129.30
36	5	2873	U	C5-C4-O4	-5.05	122.87	125.90
36	1	1801	U	C5-C6-N1	-5.05	120.18	122.70
61	N5	34	LEU	CA-CB-CG	5.05	126.91	115.30
36	5	1475	A	N1-C2-N3	5.05	131.82	129.30
36	5	1847	A	N1-C2-N3	-5.05	126.78	129.30
36	5	2877	G	C5-C6-O6	5.05	131.63	128.60
1	2	1134	C	C6-N1-C2	-5.05	118.28	120.30
36	1	189	G	C5-C6-N1	5.05	114.02	111.50
36	1	1438	U	O5'-P-OP2	-5.05	101.16	105.70
36	1	1823	A	C4-C5-C6	5.05	119.52	117.00
50	M4	135	LEU	CA-CB-CG	5.05	126.91	115.30
1	6	858	G	C6-C5-N7	-5.05	127.37	130.40
36	5	370	U	C2-N1-C1'	5.05	123.76	117.70
36	5	909	G	C8-N9-C4	5.05	108.42	106.40
36	5	937	G	O4'-C1'-N9	5.05	112.24	108.20
36	5	1512	U	OP1-P-O3'	-5.05	94.10	105.20
36	5	2398	A	C6-N1-C2	-5.05	115.57	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2731	U	N1-C2-O2	-5.05	119.27	122.80
1	6	1002	G	O5'-P-OP2	5.04	116.75	110.70
36	5	872	U	N3-C2-O2	-5.04	118.67	122.20
36	5	908	G	C5-N7-C8	-5.04	101.78	104.30
36	5	2361	A	C6-N1-C2	-5.04	115.57	118.60
36	5	2816	G	O4'-C1'-N9	5.04	112.24	108.20
1	2	421	A	N9-C4-C5	-5.04	103.78	105.80
1	2	1419	G	N3-C4-C5	5.04	131.12	128.60
34	SR	161	LYS	N-CA-C	5.04	124.62	111.00
36	1	349	A	C8-N9-C4	-5.04	103.78	105.80
36	1	2397	A	C6-C5-N7	-5.04	128.77	132.30
36	1	2868	U	C2-N3-C4	-5.04	123.97	127.00
36	1	3222	U	C2-N1-C1'	5.04	123.75	117.70
38	4	12	A	C6-N1-C2	5.04	121.63	118.60
36	5	1399	A	C6-N1-C2	5.04	121.63	118.60
36	5	2386	A	C6-C5-N7	-5.04	128.77	132.30
1	2	194	U	C5-C6-N1	5.04	125.22	122.70
1	2	1620	C	C6-N1-C2	-5.04	118.28	120.30
36	1	894	G	OP1-P-O3'	5.04	116.29	105.20
36	1	2878	G	C8-N9-C4	5.04	108.42	106.40
36	5	289	A	C6-N1-C2	-5.04	115.58	118.60
36	5	1429	G	O5'-P-OP2	-5.04	101.16	105.70
36	5	2805	G	O5'-P-OP2	-5.04	101.16	105.70
1	2	704	C	C6-N1-C1'	-5.04	114.75	120.80
36	1	364	G	C5-C6-O6	-5.04	125.58	128.60
36	1	1321	G	N9-C4-C5	5.04	107.42	105.40
38	4	59	A	C5-C6-N1	5.04	120.22	117.70
1	6	100	A	OP1-P-OP2	-5.04	112.04	119.60
36	5	184	U	C5-C6-N1	-5.04	120.18	122.70
36	5	371	G	N3-C4-N9	-5.04	122.98	126.00
36	5	984	G	N3-C4-N9	5.04	129.02	126.00
36	5	1655	G	C5-C6-O6	-5.04	125.58	128.60
36	5	2777	G	C5-C6-O6	5.04	131.62	128.60
36	5	2808	A	C8-N9-C4	5.04	107.82	105.80
1	2	839	U	C6-N1-C2	-5.04	117.98	121.00
36	1	1438	U	OP1-P-O3'	5.04	116.28	105.20
36	1	2821	C	N1-C2-O2	5.04	121.92	118.90
36	1	3182	G	N3-C4-C5	5.04	131.12	128.60
1	6	365	G	N3-C4-N9	5.04	129.02	126.00
1	6	1032	G	N7-C8-N9	-5.04	110.58	113.10
36	5	415	G	N1-C2-N2	-5.04	111.67	116.20
36	5	1300	G	C6-N1-C2	-5.04	122.08	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2649	A	C4-C5-N7	5.04	113.22	110.70
37	7	117	A	OP2-P-O3'	5.04	116.28	105.20
36	1	1104	G	N1-C6-O6	-5.04	116.88	119.90
36	1	2324	A	N1-C6-N6	-5.04	115.58	118.60
36	5	1169	A	C4-C5-C6	5.04	119.52	117.00
36	5	1521	G	C5-C6-O6	5.04	131.62	128.60
36	5	2404	A	C6-C5-N7	-5.04	128.77	132.30
1	2	436	A	O5'-P-OP2	-5.04	101.17	105.70
1	2	1101	G	C4-C5-N7	5.04	112.81	110.80
36	1	657	A	C5-N7-C8	5.04	106.42	103.90
36	1	1512	U	N3-C4-O4	-5.04	115.88	119.40
36	1	1606	U	C2-N3-C4	-5.04	123.98	127.00
36	1	2820	A	C4-C5-N7	-5.04	108.18	110.70
36	1	2824	G	N7-C8-N9	-5.04	110.58	113.10
36	1	2977	G	N3-C4-C5	-5.04	126.08	128.60
41	L4	141	ARG	NE-CZ-NH1	-5.04	117.78	120.30
1	6	199	G	O4'-C1'-N9	5.04	112.23	108.20
1	6	1697	G	C2-N3-C4	5.04	114.42	111.90
3	s1	47	LEU	CA-CB-CG	5.04	126.88	115.30
36	5	634	C	OP2-P-O3'	5.04	116.28	105.20
36	5	1475	A	OP2-P-O3'	5.04	116.28	105.20
36	5	2410	U	C6-N1-C2	5.04	124.02	121.00
36	5	2754	G	N3-C4-C5	-5.04	126.08	128.60
36	1	368	G	N1-C2-N2	-5.03	111.67	116.20
36	1	394	G	O5'-P-OP2	-5.03	101.17	105.70
36	1	429	U	N3-C2-O2	-5.03	118.68	122.20
36	1	726	G	O5'-P-OP1	-5.03	101.17	105.70
36	1	1314	C	C5-C6-N1	5.03	123.52	121.00
36	1	2183	A	N1-C2-N3	5.03	131.82	129.30
1	6	1207	C	N1-C2-O2	-5.03	115.88	118.90
36	5	971	G	C8-N9-C4	5.03	108.41	106.40
36	5	1186	G	N1-C6-O6	-5.03	116.88	119.90
36	5	1836	C	C6-N1-C2	5.03	122.31	120.30
36	5	2427	U	O5'-P-OP1	-5.03	101.17	105.70
36	5	3088	G	O5'-P-OP2	5.03	116.74	110.70
1	2	397	A	O4'-C1'-N9	5.03	112.23	108.20
36	1	53	G	N7-C8-N9	-5.03	110.58	113.10
36	1	220	G	C5-C6-O6	-5.03	125.58	128.60
36	1	354	U	O5'-P-OP1	-5.03	101.17	105.70
36	1	634	C	N3-C4-N4	-5.03	114.48	118.00
36	1	1457	U	N3-C2-O2	-5.03	118.68	122.20
36	1	1517	G	OP2-P-O3'	5.03	116.27	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2424	A	C2-N3-C4	5.03	113.12	110.60
36	1	2964	G	OP1-P-O3'	5.03	116.27	105.20
36	1	3007	U	N3-C2-O2	-5.03	118.68	122.20
36	5	2792	A	C8-N9-C4	-5.03	103.79	105.80
36	5	2961	G	C5-C6-O6	5.03	131.62	128.60
36	5	3018	C	O5'-P-OP1	5.03	116.74	110.70
36	1	679	U	O5'-P-OP2	-5.03	101.17	105.70
36	1	1123	U	C4-C5-C6	5.03	122.72	119.70
36	1	1842	A	N1-C6-N6	-5.03	115.58	118.60
36	1	2194	G	C4-N9-C1'	5.03	133.04	126.50
36	1	2401	A	C6-N1-C2	5.03	121.62	118.60
1	6	31	C	N3-C4-C5	-5.03	119.89	121.90
1	6	154	G	C5-C6-N1	5.03	114.02	111.50
1	6	813	U	N3-C2-O2	-5.03	118.68	122.20
36	5	427	C	C2-N3-C4	-5.03	117.38	119.90
36	5	1507	G	OP1-P-OP2	5.03	127.15	119.60
36	5	1906	G	N1-C2-N2	-5.03	111.67	116.20
36	5	2949	U	N1-C2-O2	5.03	126.32	122.80
62	n6	28	ARG	NE-CZ-NH1	5.03	122.82	120.30
1	2	1755	A	N9-C4-C5	-5.03	103.79	105.80
36	1	80	G	C4-C5-N7	-5.03	108.79	110.80
36	1	2180	G	N1-C2-N2	-5.03	111.67	116.20
1	6	758	U	N1-C2-N3	5.03	117.92	114.90
36	5	403	C	OP2-P-O3'	5.03	116.26	105.20
36	5	2212	C	C5-C6-N1	5.03	123.52	121.00
36	1	658	G	N9-C4-C5	-5.03	103.39	105.40
36	1	875	G	N3-C4-N9	5.03	129.02	126.00
36	1	2958	A	C6-N1-C2	-5.03	115.58	118.60
36	1	3147	G	N1-C2-N2	-5.03	111.68	116.20
37	3	103	A	C5-C6-N6	-5.03	119.68	123.70
1	6	345	U	C2-N1-C1'	-5.03	111.67	117.70
1	6	1048	G	C4-C5-N7	5.03	112.81	110.80
1	6	1361	U	C6-N1-C1'	-5.03	114.16	121.20
1	6	1614	A	C6-C5-N7	-5.03	128.78	132.30
36	5	530	G	N9-C4-C5	5.03	107.41	105.40
38	8	42	G	O5'-P-OP2	-5.03	101.18	105.70
64	n8	24	LYS	CD-CE-NZ	-5.03	100.14	111.70
1	2	337	G	N9-C4-C5	-5.03	103.39	105.40
36	1	1854	C	N1-C2-O2	-5.03	115.89	118.90
52	M6	27	LEU	CB-CG-CD1	-5.03	102.46	111.00
1	6	100	A	C8-N9-C4	-5.03	103.79	105.80
36	5	883	A	N7-C8-N9	-5.03	111.29	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3034	C	O5'-P-OP2	-5.03	101.18	105.70
36	1	417	A	C5-C6-N1	-5.02	115.19	117.70
36	1	657	A	C4-C5-N7	-5.02	108.19	110.70
36	1	696	C	O5'-P-OP1	-5.02	101.18	105.70
36	1	1492	G	C4-N9-C1'	5.02	133.03	126.50
36	1	2634	U	C4-C5-C6	5.02	122.71	119.70
36	1	2959	C	N1-C2-N3	5.02	122.72	119.20
36	5	619	A	OP1-P-O3'	5.02	116.25	105.20
36	5	1508	C	N3-C4-C5	5.02	123.91	121.90
36	5	3218	A	N3-C4-C5	5.02	130.32	126.80
36	5	3325	G	N1-C6-O6	-5.02	116.89	119.90
1	2	1100	G	N1-C6-O6	5.02	122.91	119.90
36	1	104	G	N7-C8-N9	5.02	115.61	113.10
36	1	424	G	N7-C8-N9	-5.02	110.59	113.10
1	6	886	U	C5-C6-N1	-5.02	120.19	122.70
36	5	1082	U	N1-C2-N3	5.02	117.91	114.90
36	5	2278	C	OP2-P-O3'	5.02	116.25	105.20
36	5	2936	A	N1-C6-N6	5.02	121.61	118.60
36	1	2345	A	C5-C6-N6	-5.02	119.68	123.70
36	1	2799	A	N7-C8-N9	-5.02	111.29	113.80
36	1	3123	A	N3-C4-N9	-5.02	123.38	127.40
36	5	58	G	C5-C6-O6	-5.02	125.59	128.60
36	5	411	U	C5-C6-N1	-5.02	120.19	122.70
36	5	417	A	C4-C5-N7	-5.02	108.19	110.70
36	5	2209	U	C2-N1-C1'	-5.02	111.67	117.70
1	2	1457	C	OP1-P-OP2	-5.02	112.07	119.60
36	1	652	G	C6-C5-N7	-5.02	127.39	130.40
36	1	1328	C	C4-C5-C6	5.02	119.91	117.40
36	1	1834	U	OP1-P-O3'	5.02	116.24	105.20
36	1	2182	A	C5-C6-N6	5.02	127.72	123.70
36	1	2905	U	N1-C2-O2	-5.02	119.29	122.80
1	6	1539	G	N3-C4-N9	-5.02	122.99	126.00
1	6	1744	A	N9-C4-C5	-5.02	103.79	105.80
36	5	567	G	C5-C6-O6	-5.02	125.59	128.60
36	5	1198	C	C2-N3-C4	-5.02	117.39	119.90
36	5	1532	C	N1-C2-O2	5.02	121.91	118.90
36	5	2531	C	C5-C6-N1	5.02	123.51	121.00
36	5	2662	G	N1-C6-O6	-5.02	116.89	119.90
1	2	1207	C	C5-C6-N1	-5.02	118.49	121.00
36	1	691	A	C6-N1-C2	5.02	121.61	118.60
36	1	913	A	C5-N7-C8	5.02	106.41	103.90
36	1	967	A	C2-N3-C4	-5.02	108.09	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3302	U	C5-C4-O4	5.02	128.91	125.90
37	3	31	U	N3-C4-O4	5.02	122.91	119.40
1	6	426	G	C8-N9-C1'	-5.02	120.48	127.00
1	6	630	A	C2-N3-C4	-5.02	108.09	110.60
1	6	647	G	N3-C4-C5	5.02	131.11	128.60
1	6	1135	U	N1-C2-N3	5.02	117.91	114.90
36	5	97	U	N3-C4-C5	-5.02	111.59	114.60
36	5	1149	G	O4'-C1'-N9	5.02	112.21	108.20
1	6	748	U	N3-C2-O2	-5.02	118.69	122.20
1	6	1122	G	C8-N9-C4	5.02	108.41	106.40
36	5	836	A	C5-C6-N6	-5.02	119.69	123.70
36	5	1858	A	O4'-C1'-N9	5.02	112.21	108.20
36	5	2597	U	OP1-P-OP2	-5.02	112.08	119.60
36	5	3070	A	OP1-P-OP2	-5.02	112.08	119.60
36	1	2339	C	OP1-P-O3'	5.01	116.23	105.20
38	4	47	C	C4-C5-C6	5.01	119.91	117.40
1	6	951	A	C8-N9-C4	5.01	107.81	105.80
1	6	1612	U	C2-N1-C1'	-5.01	111.68	117.70
36	5	1004	U	N1-C2-O2	5.01	126.31	122.80
36	5	1646	G	O4'-C1'-N9	5.01	112.21	108.20
36	5	3018	C	N1-C2-N3	5.01	122.71	119.20
36	1	2810	C	N1-C2-N3	5.01	122.71	119.20
36	1	2973	G	C8-N9-C4	5.01	108.41	106.40
1	6	1674	C	N3-C2-O2	5.01	125.41	121.90
1	6	1739	C	C2-N1-C1'	-5.01	113.28	118.80
36	5	200	C	C6-N1-C2	-5.01	118.30	120.30
36	5	1149	G	C4-C5-N7	-5.01	108.80	110.80
36	1	64	G	C4-C5-N7	-5.01	108.80	110.80
36	1	642	U	N1-C2-O2	5.01	126.31	122.80
36	1	1835	A	C8-N9-C4	5.01	107.80	105.80
36	1	3216	G	C4-C5-N7	-5.01	108.80	110.80
1	6	1112	G	C5-C6-N1	5.01	114.01	111.50
36	5	364	G	C6-C5-N7	-5.01	127.39	130.40
36	5	2434	U	C5-C4-O4	5.01	128.91	125.90
38	8	25	G	C5-C6-N1	5.01	114.01	111.50
38	8	95	G	C8-N9-C1'	5.01	133.51	127.00
1	2	2	A	O4'-C1'-N9	-5.01	104.19	108.20
1	2	73	U	P-O3'-C3'	5.01	125.71	119.70
36	1	1492	G	C5-C6-O6	5.01	131.61	128.60
36	1	1518	U	C2-N3-C4	-5.01	124.00	127.00
36	1	2261	G	C8-N9-C1'	-5.01	120.49	127.00
1	6	56	U	N3-C4-C5	5.01	117.61	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	240	U	P-O3'-C3'	5.01	125.71	119.70
1	6	767	U	C5-C4-O4	5.01	128.91	125.90
1	6	1031	U	C5-C6-N1	-5.01	120.19	122.70
1	6	1672	G	N1-C2-N2	-5.01	111.69	116.20
36	5	2596	U	OP2-P-O3'	5.01	116.22	105.20
36	1	1442	U	C5-C4-O4	-5.01	122.89	125.90
36	5	372	A	N3-C4-N9	5.01	131.41	127.40
36	5	2373	A	OP1-P-OP2	-5.01	112.09	119.60
1	2	1339	C	C5-C6-N1	5.01	123.50	121.00
36	1	317	A	C8-N9-C4	-5.01	103.80	105.80
36	1	425	G	OP1-P-OP2	-5.01	112.09	119.60
36	1	502	U	C4-C5-C6	5.01	122.70	119.70
36	1	1045	C	OP2-P-O3'	5.01	116.22	105.20
36	1	1157	G	N1-C2-N3	5.01	126.90	123.90
36	1	1407	A	N7-C8-N9	-5.01	111.30	113.80
36	1	1513	G	C6-N1-C2	-5.01	122.10	125.10
36	1	2873	U	C4-C5-C6	5.01	122.70	119.70
36	1	2938	G	O5'-P-OP1	-5.01	101.19	105.70
64	N8	32	ARG	NE-CZ-NH1	-5.01	117.80	120.30
36	5	1321	G	C5-C6-N1	-5.01	109.00	111.50
36	5	2183	A	OP2-P-O3'	5.01	116.21	105.20
36	5	2685	C	C2-N1-C1'	5.01	124.31	118.80
36	5	2842	U	O5'-P-OP2	5.01	116.71	110.70
36	5	3288	G	C5-C6-N1	5.01	114.00	111.50
36	1	1416	C	N3-C4-N4	-5.00	114.50	118.00
36	1	2395	G	N3-C2-N2	5.00	123.40	119.90
1	6	130	C	N1-C2-O2	5.00	121.90	118.90
36	5	1138	U	N1-C2-N3	5.00	117.90	114.90
36	5	1321	G	N1-C6-O6	5.00	122.90	119.90
36	5	2341	A	O5'-P-OP2	-5.00	101.19	105.70
39	12	70	ARG	NE-CZ-NH2	-5.00	117.80	120.30
1	2	1161	C	N1-C2-O2	-5.00	115.90	118.90
36	1	1336	U	OP2-P-O3'	5.00	116.21	105.20
36	1	2650	U	C6-N1-C2	-5.00	118.00	121.00
36	1	2712	U	N3-C4-O4	-5.00	115.90	119.40
37	3	1	G	C6-C5-N7	-5.00	127.40	130.40
36	5	21	G	N3-C4-N9	5.00	129.00	126.00
36	5	407	A	C4-N9-C1'	5.00	135.31	126.30
36	5	809	G	C5-C6-O6	-5.00	125.60	128.60
36	5	1294	A	N9-C4-C5	5.00	107.80	105.80
36	5	2687	G	N3-C4-C5	-5.00	126.10	128.60
36	5	2772	C	C6-N1-C1'	5.00	126.80	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	518	A	O4'-C1'-N9	5.00	112.20	108.20
1	2	1082	C	C5-C6-N1	5.00	123.50	121.00
36	1	271	C	N1-C2-O2	5.00	121.90	118.90
36	1	2351	U	OP2-P-O3'	5.00	116.20	105.20
36	1	2385	G	N9-C4-C5	-5.00	103.40	105.40
36	1	2634	U	N1-C2-N3	5.00	117.90	114.90
68	O2	105	ARG	NE-CZ-NH2	-5.00	117.80	120.30
1	6	425	A	OP2-P-O3'	5.00	116.20	105.20
1	6	1513	G	C8-N9-C4	-5.00	104.40	106.40
36	5	438	A	N1-C6-N6	5.00	121.60	118.60
36	5	613	G	N9-C4-C5	5.00	107.40	105.40
36	5	2934	A	N1-C6-N6	-5.00	115.60	118.60
38	8	105	A	C8-N9-C4	5.00	107.80	105.80

There are no chirality outliers.

All (65) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
16	C4	124	ASP	Peptide
27	D5	94	LYS	Peptide
27	D5	96	SER	Peptide
28	D6	84	VAL	Peptide
28	D6	97	PRO	Peptide
33	E1	137	ASP	Peptide
39	L2	19	HIS	Peptide
41	L4	129	THR	Peptide
42	L5	290	ILE	Peptide
42	L5	58	LYS	Peptide
43	L6	89	THR	Peptide
44	L7	157	ASN	Peptide
48	M1	10	ARG	Peptide
49	M3	69	VAL	Peptide
51	M5	182	ASN	Peptide
52	M6	110	PRO	Peptide
53	M7	39	TRP	Peptide
56	N0	22	PRO	Peptide
57	N1	16	GLN	Peptide
63	N7	3	LYS	Peptide
64	N8	115	LYS	Peptide
65	N9	19	ASN	Peptide
67	O1	110	GLU	Peptide
67	O1	5	LYS	Peptide

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Mol	Chain	Res	Type	Group
72	O6	2	THR	Peptide
72	O6	78	GLY	Peptide
75	O9	4	GLN	Peptide
76	Q0	77	ILE	Peptide
78	Q2	29	LYS	Peptide
78	Q2	95	GLY	Peptide
3	S1	177	GLN	Peptide
6	S4	167	GLY	Peptide
7	S5	49	GLU	Peptide
9	S7	131	PHE	Peptide
9	S7	31	SER	Peptide
16	c4	124	ASP	Peptide
18	c6	40	GLU	Peptide
18	c6	41	PRO	Peptide
19	c7	87	GLU	Peptide
22	d0	70	THR	Peptide
26	d4	29	HIS	Peptide
33	e1	146	SER	Peptide
39	l2	141	PRO	Peptide
39	l2	143	GLU	Peptide
39	l2	212	GLY	Peptide
41	l4	91	GLY	Peptide
42	l5	270	LYS	Peptide
44	l7	192	GLY	Peptide
45	l8	67	ILE	Peptide
52	m6	110	PRO	Peptide
56	n0	3	HIS	Peptide
59	n3	41	GLY	Peptide
60	n4	78	ALA	Peptide
64	n8	18	GLY	Peptide
64	n8	66	ALA	Peptide
65	n9	19	ASN	Peptide
65	n9	23	LYS	Peptide
67	o1	64	VAL	Peptide
71	o5	118	ILE	Peptide
75	o9	2	ALA	Peptide
3	s1	104	ASP	Peptide
5	s3	203	PRO	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	963	1
1	6	38238	0	19240	913	0
2	S0	1577	0	1567	167	0
2	s0	1583	0	1578	0	0
3	S1	1709	0	1784	170	0
3	s1	1722	0	1793	0	0
4	S2	1635	0	1723	158	0
4	s2	1635	0	1723	0	0
5	S3	1734	0	1817	127	0
5	s3	1734	0	1817	0	0
6	S4	2068	0	2154	195	0
6	s4	2068	0	2154	0	0
7	S5	1609	0	1675	185	0
7	s5	1609	0	1675	0	0
8	S6	1799	0	1879	150	0
8	s6	1755	0	1845	0	0
9	S7	1481	0	1572	148	0
9	s7	1491	0	1578	0	0
10	S8	1489	0	1525	119	0
10	s8	1489	0	1525	0	0
11	S9	1494	0	1573	132	0
11	s9	1494	0	1573	0	0
12	C0	773	0	729	74	0
12	c0	762	0	699	0	0
13	C1	1213	0	1257	76	0
13	c1	1168	0	1233	0	0
14	C2	892	0	891	71	0
14	c2	892	0	891	0	0
15	C3	1192	0	1255	100	0
15	c3	1192	0	1255	0	0
16	C4	891	0	883	100	0
16	c4	949	0	985	0	0
17	C5	977	0	1002	103	0
17	c5	1039	0	1050	0	0
18	C6	1105	0	1166	118	0
18	c6	1111	0	1171	0	0
19	C7	926	0	930	83	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	c7	906	0	909	0	0
20	C8	1192	0	1222	113	0
20	c8	1192	0	1222	0	0
21	C9	1112	0	1124	110	0
21	c9	1112	0	1124	0	0
22	D0	855	0	917	94	0
22	d0	882	0	939	0	0
23	D1	684	0	672	82	0
23	d1	684	0	672	0	0
24	D2	1021	0	1060	112	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	93	0
26	d4	1073	0	1132	0	0
27	D5	563	0	603	54	0
27	d5	558	0	598	0	0
28	D6	769	0	814	104	0
28	d6	769	0	814	0	0
29	D7	610	0	631	44	0
29	d7	610	0	632	0	0
30	D8	497	0	535	55	0
30	d8	497	0	535	0	0
31	D9	442	0	428	42	0
31	d9	442	0	428	0	0
32	E0	475	0	525	36	0
33	E1	566	0	602	67	0
33	e1	608	0	656	0	0
34	SR	2441	0	2397	156	0
34	sR	2442	0	2392	0	0
35	SM	1104	0	996	87	0
35	sM	680	0	607	0	0
36	1	67355	0	33835	1320	0
36	5	67376	0	33849	1295	1
37	3	2579	0	1304	55	0
37	7	2579	0	1304	53	0
38	4	3353	0	1695	60	0
38	8	3353	0	1695	84	0
39	L2	1914	0	1981	161	0
39	l2	1912	0	1976	0	0
40	L3	3075	0	3142	257	0
40	l3	3075	0	3142	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
41	L4	2748	0	2859	224	0
41	l4	2748	0	2859	0	0
42	L5	2375	0	2325	191	0
42	l5	2359	0	2311	0	0
43	L6	1239	0	1326	88	0
43	l6	1248	0	1339	0	0
44	L7	1784	0	1862	124	0
44	l7	1791	0	1869	0	0
45	L8	1804	0	1877	143	0
45	l8	1763	0	1819	0	0
46	L9	1518	0	1587	134	0
46	l9	1518	0	1587	0	0
47	M0	1705	0	1736	139	0
47	m0	1722	0	1755	0	0
48	M1	1353	0	1383	90	0
48	m1	1353	0	1383	0	0
49	M3	1543	0	1608	128	0
49	m3	1548	0	1613	0	0
50	M4	1053	0	1149	79	0
50	m4	1059	0	1154	0	0
51	M5	1720	0	1779	156	0
51	m5	1720	0	1779	0	0
52	M6	1555	0	1659	108	0
52	m6	1555	0	1659	0	0
53	M7	1420	0	1437	115	0
53	m7	1227	0	1236	0	0
54	M8	1441	0	1543	103	0
54	m8	1441	0	1543	0	0
55	M9	1521	0	1617	112	0
55	m9	1521	0	1617	0	0
56	N0	1445	0	1487	89	0
56	n0	1445	0	1487	0	0
57	N1	1276	0	1323	95	0
57	n1	1276	0	1323	0	0
58	N2	796	0	812	42	0
58	n2	778	0	791	0	0
59	N3	1003	0	1048	68	0
59	n3	1003	0	1048	0	0
60	N4	699	0	640	28	0
60	n4	1038	0	1071	0	0
61	N5	964	0	1025	64	0
61	n5	959	0	1023	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
62	N6	993	0	1081	68	0
62	n6	993	0	1081	0	0
63	N7	1092	0	1155	115	0
63	n7	1092	0	1155	0	0
64	N8	1173	0	1215	130	0
64	n8	1173	0	1215	0	0
65	N9	462	0	491	33	0
65	n9	462	0	491	0	0
66	O0	743	0	797	53	0
66	o0	767	0	816	0	0
67	O1	876	0	912	43	0
67	o1	883	0	918	0	0
68	O2	1020	0	1090	68	0
68	o2	1020	0	1090	0	0
69	O3	850	0	880	67	0
69	o3	850	0	880	0	0
70	O4	880	0	945	70	0
70	o4	880	0	945	0	0
71	O5	969	0	1078	79	0
71	o5	965	0	1067	0	0
72	O6	771	0	849	51	0
72	o6	770	0	846	0	0
73	O7	681	0	683	56	0
73	o7	681	0	683	0	0
74	O8	612	0	682	41	0
74	o8	608	0	671	0	0
75	O9	436	0	475	56	0
75	o9	436	0	475	0	0
76	Q0	417	0	455	23	0
76	q0	417	0	455	0	0
77	Q1	233	0	284	39	0
77	q1	233	0	284	0	0
78	Q2	847	0	916	52	0
78	q2	847	0	914	0	0
79	Q3	694	0	734	56	0
79	q3	694	0	734	0	0
80	e0	491	0	542	0	0
81	m2	750	0	171	0	0
82	p0	1077	0	1041	0	0
83	p1	235	0	51	0	0
84	p2	230	0	51	0	0
85	1	469	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
85	2	125	0	0	0	0
85	3	14	0	0	0	0
85	4	22	0	0	0	0
85	5	502	0	0	0	0
85	6	150	0	0	0	0
85	7	17	0	0	0	0
85	8	15	0	0	0	0
85	D0	1	0	0	0	0
85	D3	1	0	0	0	0
85	L2	3	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	3	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	M4	1	0	0	0	0
85	M5	3	0	0	0	0
85	M6	1	0	0	0	0
85	M7	3	0	0	0	0
85	M8	1	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	1	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	1	0	0	0	0
85	O7	2	0	0	0	0
85	S8	1	0	0	0	0
85	SM	1	0	0	0	0
85	c7	2	0	0	0	0
85	c8	2	0	0	0	0
85	d3	2	0	0	0	0
85	d6	1	0	0	0	0
85	l2	3	0	0	0	0
85	l3	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
85	l4	1	0	0	0	0
85	l5	1	0	0	0	0
85	l7	1	0	0	0	0
85	l8	1	0	0	0	0
85	l9	1	0	0	0	0
85	m0	1	0	0	0	0
85	m1	2	0	0	0	0
85	m5	4	0	0	0	0
85	m6	1	0	0	0	0
85	m7	5	0	0	0	0
85	n0	1	0	0	0	0
85	n3	1	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	q3	1	0	0	0	0
85	s1	1	0	0	0	0
85	s8	2	0	0	0	0
85	sM	2	0	0	0	0
86	1	2422	0	0	309	0
86	2	1099	0	0	150	0
86	3	77	0	0	9	0
86	4	112	0	0	7	0
86	5	2478	0	0	247	0
86	6	1120	0	0	119	0
86	7	84	0	0	9	0
86	8	112	0	0	22	0
86	C1	7	0	0	6	0
86	C3	7	0	0	1	0
86	C5	7	0	0	5	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	2	0
86	M5	7	0	0	1	0
86	M6	7	0	0	0	0
86	M7	14	0	0	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
86	M8	7	0	0	0	0
86	M9	7	0	0	1	0
86	N9	7	0	0	0	0
86	O2	7	0	0	0	0
86	O3	7	0	0	3	0
86	O7	14	0	0	4	0
86	O9	7	0	0	3	0
86	Q2	7	0	0	5	0
86	S8	7	0	0	1	0
86	S9	7	0	0	2	0
86	SR	7	0	0	0	0
86	c3	7	0	0	0	0
86	c5	7	0	0	0	0
86	c8	7	0	0	0	0
86	d4	7	0	0	0	0
86	d9	7	0	0	0	0
86	l3	14	0	0	0	0
86	l4	14	0	0	0	0
86	l5	21	0	0	0	0
86	l9	7	0	0	0	0
86	m0	14	0	0	0	0
86	m1	7	0	0	0	0
86	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	m9	7	0	0	0	0
86	n3	7	0	0	0	0
86	n6	7	0	0	0	0
86	n9	7	0	0	0	0
86	o3	7	0	0	0	0
86	o7	7	0	0	0	0
86	q1	7	0	0	0	0
86	q2	7	0	0	0	0
86	s1	14	0	0	0	0
86	s4	7	0	0	0	0
86	s8	7	0	0	0	0
86	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

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
87	O7	1	0	0	0	0
87	Q0	1	0	0	0	0
87	Q2	1	0	0	1	0
87	Q3	1	0	0	0	0
87	d6	1	0	0	0	0
87	d7	1	0	0	0	0
87	d9	1	0	0	0	0
87	e1	1	0	0	0	0
87	o7	1	0	0	0	0
87	q0	1	0	0	0	0
87	q2	1	0	0	0	0
87	q3	1	0	0	0	0
88	1	26	0	21	3	0
88	5	26	0	22	2	0
All	All	411206	0	297306	10668	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 (10668) 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)
52:M6:66:LYS:NZ	52:M6:66:LYS:CE	1.52	1.52
78:Q2:17:CYS:CB	78:Q2:17:CYS:SG	2.10	1.39
40:L3:41:VAL:HA	40:L3:185:GLY:HA3	1.41	1.18
42:L5:152:ARG:HH11	42:L5:152:ARG:HG3	3.90	1.11
36:1:3182:G:OP1	52:M6:160:ARG:NH2	1.87	1.06
40:L3:296:THR:HG22	40:L3:298:PHE:H	4.92	1.01
1:2:320:U:H3'	1:2:321:C:H5''	1.42	1.00
36:5:2434:U:H4'	36:5:2435:G:H5''	1.43	1.00
65:N9:50:THR:HG22	36:5:1073:U:H1'	205.29	0.99
36:5:3165:A:H61	36:5:3285:C:H42	1.10	0.98
36:5:2311:G:OP2	86:5:4198:OHX:N1	1.97	0.97
1:2:1339:C:O2'	1:2:1341:A:N7	1.96	0.97
1:2:61:A:H8	1:2:269:G:HO2'	0.99	0.97
70:O4:74:ARG:NH2	36:5:1639:C:OP2	200.81	0.97
36:1:2208:A:N1	86:1:4039:OHX:N2	2.13	0.97
36:1:979:U:H1'	36:1:980:A:C8	2.01	0.96
1:6:1011:G:OP2	86:6:2123:OHX:N3	1.99	0.96
36:5:2273:G:O6	86:5:4198:OHX:N5	2.00	0.95
16:C4:85:ALA:H	16:C4:119:THR:HG22	1.30	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:71:THR:HG21	36:5:1603:A:H61	90.32	0.95
79:Q3:73:THR:HG22	79:Q3:76:ALA:H	1.31	0.94
51:M5:31:ARG:NH1	51:M5:124:ASP:OD1	2.43	0.94
36:1:1481:A:O2'	36:1:1858:A:N3	2.00	0.94
67:O1:79:ARG:H	67:O1:79:ARG:HE	1.15	0.94
36:5:437:G:H22	36:5:622:A:H61	1.14	0.94
36:5:3274:A:H3'	36:5:3275:U:H5''	1.50	0.94
17:C5:123:TYR:HH	20:C8:122:HIS:HE2	1.13	0.94
54:M8:100:THR:HG22	54:M8:120:GLU:HB3	2.45	0.94
1:6:755:A:HO2'	1:6:756:A:H8	1.08	0.94
70:O4:58:ARG:HG3	70:O4:58:ARG:HH11	2.25	0.94
47:M0:175:ASN:OD1	47:M0:176:LEU:N	4.99	0.93
36:1:2854:U:OP2	47:M0:3:ARG:NH2	2.01	0.93
36:1:3272:C:OP2	43:L6:78:ARG:NH1	2.02	0.93
36:1:1639:C:OP2	70:O4:74:ARG:NH2	2.00	0.93
24:D2:15:ASN:HD21	24:D2:71:LYS:HA	1.34	0.93
36:1:640:U:OP1	64:N8:21:ARG:NH2	2.01	0.93
18:C6:58:ASP:O	18:C6:60:PHE:N	2.00	0.92
9:S7:154:LEU:HD21	9:S7:183:PHE:HD1	1.34	0.92
1:2:823:G:H2'	1:2:824:G:H8	1.35	0.92
36:1:2123:G:N7	86:1:4194:OHX:N2	2.18	0.91
51:M5:188:ARG:NH2	36:5:31:C:OP2	121.77	0.91
36:5:3194:C:O2	36:5:3197:G:N2	2.03	0.91
41:L4:300:ARG:O	54:M8:39:ARG:NH1	2.19	0.91
16:C4:50:ALA:O	16:C4:52:ARG:N	2.32	0.91
1:2:1585:U:H3	1:2:1611:A:H2	0.99	0.91
36:5:3057:U:O2'	36:5:3059:G:OP1	1.87	0.90
36:1:2818:U:H6	36:1:2818:U:H5'	1.34	0.90
46:L9:22:SER:OG	46:L9:23:ARG:N	2.05	0.90
78:Q2:50:PHE:O	86:Q2:502:OHX:N1	2.97	0.89
28:D6:87:ARG:NH2	28:D6:94:ASN:O	2.04	0.89
36:5:1565:G:N1	36:5:1574:C:N3	2.19	0.89
1:2:1203:A:OP2	86:2:2111:OHX:N5	2.05	0.89
33:E1:88:PRO:HB2	33:E1:89:LYS:HD3	6.21	0.89
39:L2:70:ARG:NH2	36:5:2522:G:O6	175.31	0.89
19:C7:104:ASN:ND2	19:C7:105:GLN:OE1	4.57	0.89
10:S8:188:GLU:OE2	13:C1:15:LYS:NZ	2.05	0.89
10:S8:52:ASN:OD1	86:6:2139:OHX:N3	309.76	0.89
31:D9:19:ARG:NH2	1:6:1597:A:OP1	407.06	0.89
38:8:79:A:H2'	38:8:80:A:O4'	1.73	0.88
18:C6:82:ARG:HH22	18:C6:114:ARG:HB2	1.35	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:197:ARG:NH1	36:5:1381:A:OP1	108.65	0.88
41:L4:317:PRO:O	41:L4:319:LYS:N	2.06	0.88
1:2:740:A:H2'	1:2:741:C:H5''	1.56	0.88
59:N3:74:MET:HG3	59:N3:102:ILE:HD13	1.56	0.88
36:1:2356:A:H61	36:1:2983:C:H5	1.18	0.88
3:S1:70:LEU:HA	3:S1:73:LEU:HB3	1.55	0.88
1:2:1046:G:OP1	3:S1:157:GLN:NE2	2.06	0.88
36:5:1345:G:N7	86:5:4064:OHX:N5	2.21	0.88
13:C1:95:PRO:O	13:C1:97:TYR:N	2.06	0.88
6:S4:11:ARG:O	6:S4:13:ALA:N	2.07	0.87
1:6:542:A:H1'	1:6:543:C:H5'	1.53	0.87
1:6:915:A:OP1	86:6:2073:OHX:N6	2.06	0.87
1:6:470:A:OP2	86:6:2105:OHX:N1	2.07	0.87
77:Q1:9:ARG:HG3	77:Q1:9:ARG:HH11	2.78	0.87
28:D6:37:LYS:O	28:D6:38:ARG:NH1	2.07	0.87
36:1:1196:C:O2	86:3:218:OHX:N2	2.08	0.87
36:1:2836:C:H5	36:1:2852:C:H42	1.20	0.87
46:L9:28:VAL:HG22	46:L9:33:THR:HB	2.17	0.87
8:S6:87:ARG:NH2	1:6:161:U:OP2	314.96	0.87
16:C4:91:THR:O	16:C4:93:THR:N	2.07	0.87
36:1:2663:G:H4'	42:L5:152:ARG:HH21	1.37	0.86
1:2:169:A:H5''	8:S6:176:GLN:HG2	1.57	0.86
69:O3:68:TRP:NE1	36:5:3275:U:OP2	227.73	0.86
43:L6:78:ARG:NH1	36:5:3272:C:OP2	246.59	0.86
1:2:79:C:H1'	8:S6:174:LYS:HD3	1.58	0.86
36:5:3192:U:O4	86:5:4143:OHX:N6	2.09	0.86
52:M6:68:ARG:NH1	36:5:2988:C:OP1	217.03	0.86
41:L4:329:PRO:O	41:L4:331:ALA:N	3.16	0.86
50:M4:55:ARG:NH2	50:M4:76:ALA:O	2.34	0.86
52:M6:160:ARG:NH2	36:5:3182:G:OP1	280.04	0.86
57:N1:28:SER:HB2	37:7:9:C:OP1	266.32	0.85
36:5:1466:G:O6	86:5:3914:OHX:N5	2.09	0.85
53:M7:62:ARG:O	86:M7:204:OHX:N1	2.08	0.85
1:2:523:G:OP2	26:D4:37:LYS:NZ	2.09	0.85
36:5:3153:U:H4'	36:5:3154:C:H5'	1.58	0.85
36:1:371:G:O6	86:1:4176:OHX:N4	2.09	0.85
34:SR:89:LEU:HB2	34:SR:103:PHE:HB2	1.81	0.85
7:S5:100:ASN:HD22	7:S5:180:ARG:HD3	3.22	0.85
41:L4:203:ARG:NH1	41:L4:226:GLU:OE2	2.33	0.85
44:L7:217:PRO:HA	86:5:4001:OHX:N5	262.32	0.85
6:S4:79:ASP:HB3	6:S4:82:TYR:HB2	1.58	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:128:ARG:NH1	71:O5:109:ILE:O	3.86	0.85
19:C7:8:THR:HG21	1:6:1330:G:H21	419.21	0.85
53:M7:29:THR:HA	53:M7:32:THR:HG23	1.56	0.85
36:1:2960:C:OP1	86:1:3998:OHX:N4	2.10	0.85
36:1:1740:U:H1'	36:1:1741:A:H2	1.41	0.85
63:N7:102:GLU:H	63:N7:107:ARG:HH21	4.57	0.85
36:5:1541:G:OP2	86:5:4092:OHX:N4	2.10	0.85
36:1:300:G:O6	86:1:4146:OHX:N1	2.10	0.85
59:N3:120:LYS:H	59:N3:137:VAL:HG23	1.68	0.85
61:N5:138:ARG:HG2	61:N5:138:ARG:HH21	3.05	0.85
36:1:36:C:OP2	51:M5:83:LYS:NZ	2.10	0.85
1:2:992:A:OP1	86:2:2036:OHX:N2	2.10	0.84
70:O4:8:ARG:HH11	70:O4:8:ARG:HG2	1.41	0.84
36:1:1949:G:OP1	55:M9:104:ARG:NH1	2.11	0.84
59:N3:81:GLN:O	59:N3:98:ASN:ND2	2.11	0.84
39:L2:149:ARG:NH2	39:L2:252:THR:O	4.22	0.84
46:L9:4:ILE:HD11	56:N0:148:LEU:HD11	1.59	0.84
79:Q3:4:ARG:NH2	36:5:838:G:O6	236.33	0.84
72:O6:28:TYR:O	86:5:4189:OHX:N2	103.91	0.84
15:C3:114:ARG:HH11	15:C3:114:ARG:HG2	2.33	0.84
36:1:1355:A:H5''	36:1:1356:U:C5	2.12	0.84
51:M5:58:GLY:HA3	51:M5:142:ILE:HD11	1.60	0.84
34:SR:161:LYS:HB3	34:SR:164:ASP:HB3	1.59	0.84
39:L2:207:VAL:HG21	36:5:916:G:C6	186.40	0.84
28:D6:58:VAL:HG22	28:D6:59:TYR:H	3.73	0.84
73:O7:88:ALA:O	86:O7:104:OHX:N1	2.11	0.84
43:L6:31:ARG:NH1	69:O3:107:ILE:O	2.11	0.84
36:1:2754:G:OP2	86:1:4003:OHX:N6	2.11	0.84
11:S9:6:ARG:HB2	11:S9:6:ARG:HH11	3.33	0.84
55:M9:43:LYS:HE2	36:5:1765:U:H5'	93.79	0.84
36:5:272:G:OP2	86:5:4072:OHX:N6	2.10	0.84
50:M4:128:ARG:NH2	36:5:3214:U:OP2	280.13	0.84
2:S0:62:ARG:HG3	2:S0:62:ARG:HH11	1.96	0.83
1:6:69:G:O6	1:6:82:U:N3	2.11	0.83
56:N0:155:ARG:HH21	56:N0:155:ARG:HG2	1.42	0.83
2:S0:13:ASP:OD1	2:S0:179:ARG:NH2	2.32	0.83
55:M9:46:LYS:HZ1	36:5:1766:G:H8	99.52	0.83
47:M0:78:THR:OG1	47:M0:79:VAL:N	3.00	0.83
1:2:1382:A:H5''	22:D0:60:THR:HG22	1.59	0.83
59:N3:2:SER:N	59:N3:56:ASP:OD1	4.24	0.83
36:1:3039:C:OP1	40:L3:65:SER:OG	1.97	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:O9:10:LYS:HA	75:O9:13:MET:HE3	1.60	0.83
36:1:31:C:OP2	51:M5:188:ARG:NH2	2.12	0.83
1:6:1595:U:H3	1:6:1600:A:H2	1.20	0.83
36:5:2836:C:H5	36:5:2852:C:H42	1.27	0.83
44:L7:217:PRO:O	86:5:4001:OHX:N3	258.53	0.83
36:1:2098:C:H2'	36:1:2099:A:H8	1.44	0.82
36:1:2664:C:OP2	48:M1:142:LYS:NZ	2.12	0.82
36:5:343:U:OP2	86:5:3926:OHX:N3	2.12	0.82
36:5:2537:U:O2'	36:5:2538:U:O4'	1.96	0.82
36:1:1898:G:OP2	86:1:3930:OHX:N4	2.12	0.82
36:5:2818:U:H6	36:5:2818:U:H5'	1.41	0.82
5:S3:94:ARG:NH2	5:S3:125:TYR:OH	3.86	0.82
22:D0:20:ILE:HD12	22:D0:100:VAL:HG21	3.17	0.82
10:S8:11:ARG:O	13:C1:133:LYS:NZ	2.12	0.82
1:2:1282:U:OP1	86:2:2115:OHX:N5	2.12	0.82
36:1:1615:C:OP1	86:1:4175:OHX:N3	2.13	0.82
4:S2:140:ARG:NH1	23:D1:1:MET:SD	2.53	0.82
5:S3:175:VAL:HG13	5:S3:182:LEU:HB2	1.61	0.82
36:1:1240:A:H61	36:1:1244:A:H5''	1.45	0.82
32:E0:59:GLY:O	32:E0:61:SER:N	4.21	0.82
1:6:1010:C:OP2	86:6:2174:OHX:N3	2.13	0.82
6:S4:230:GLU:HB2	6:S4:233:LYS:HB3	4.57	0.82
51:M5:80:THR:HG21	51:M5:87:GLN:HA	1.62	0.82
10:S8:62:THR:HA	10:S8:76:THR:O	2.80	0.82
10:S8:36:THR:HB	10:S8:57:ALA:O	1.80	0.82
1:6:1726:G:N7	86:6:2150:OHX:N5	2.26	0.82
11:S9:168:ARG:HG2	11:S9:170:GLY:H	1.45	0.82
73:O7:65:ARG:HG3	73:O7:65:ARG:HH11	1.45	0.81
1:2:1529:C:OP1	7:S5:112:ARG:NH1	2.12	0.81
1:6:759:U:OP1	86:6:2181:OHX:N2	2.13	0.81
78:Q2:46:LYS:O	86:Q2:502:OHX:N3	4.66	0.81
1:6:1695:G:H21	1:6:1706:C:H41	1.25	0.81
1:6:1680:G:O6	86:6:2193:OHX:N1	2.13	0.81
68:O2:81:ASP:O	68:O2:84:THR:HG23	1.78	0.81
64:N8:4:ARG:NH2	36:5:1427:U:OP2	134.93	0.81
36:1:1103:A:H4'	36:1:1103:A:OP2	1.80	0.81
1:6:1679:G:O6	86:6:2193:OHX:N3	2.14	0.81
69:O3:48:ARG:HH11	69:O3:48:ARG:HG2	1.43	0.81
36:5:2255:A:H5'	36:5:2261:G:H22	1.44	0.81
15:C3:65:VAL:O	15:C3:67:THR:N	3.13	0.81
36:1:2108:C:O2'	36:1:3362:A:N6	2.14	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:992:A:H2	1:2:1012:U:H3	1.24	0.81
4:S2:225:LEU:HD13	24:D2:68:ARG:HA	1.95	0.81
71:O5:101:THR:HG22	71:O5:104:GLN:H	1.43	0.81
41:L4:226:GLU:OE1	41:L4:237:GLN:NE2	2.14	0.81
1:2:1550:A:P	17:C5:42:ARG:HH22	2.03	0.81
36:1:3348:G:H1	36:1:3357:U:H3	1.28	0.81
40:L3:347:SER:HB3	40:L3:350:ALA:H	2.45	0.81
37:7:112:G:OP2	86:7:223:OHX:N2	2.13	0.81
40:L3:218:ILE:HG12	40:L3:276:THR:HG23	1.77	0.81
36:1:1596:C:H2'	36:1:1597:C:C6	2.16	0.81
44:L7:25:GLN:HA	44:L7:29:GLU:HB2	1.62	0.81
60:N4:32:GLN:OE1	60:N4:33:ASN:ND2	2.70	0.81
78:Q2:41:ARG:NH1	36:5:284:A:OP2	156.57	0.81
57:N1:51:GLY:HA3	57:N1:92:ARG:HG3	2.41	0.81
36:1:2128:C:OP1	86:1:3956:OHX:N4	2.14	0.81
36:1:770:G:N7	86:1:4091:OHX:N6	2.29	0.81
36:5:2977:G:OP1	86:5:4152:OHX:N4	2.14	0.80
1:6:25:C:OP2	1:6:25:C:H4'	1.79	0.80
1:6:1636:C:H4'	1:6:1637:C:H5''	1.62	0.80
1:2:1291:G:H22	1:2:1324:G:H22	1.25	0.80
35:SM:72:ARG:NH1	1:6:1460:A:O2'	322.69	0.80
36:1:368:G:OP1	86:1:3882:OHX:N1	2.15	0.80
86:1:4076:OHX:N1	72:O6:28:TYR:O	2.14	0.80
51:M5:98:LEU:HD23	51:M5:128:LYS:HG3	5.46	0.80
36:5:1657:C:O2'	36:5:1797:A:OP2	1.99	0.80
32:E0:18:THR:HG21	1:6:584:C:H1'	388.71	0.80
7:S5:161:ASP:OD2	30:D8:42:ARG:NH1	3.96	0.80
13:C1:132:SER:O	13:C1:134:THR:N	3.58	0.80
34:SR:216:LYS:HA	34:SR:239:GLU:HG3	2.05	0.80
30:D8:21:SER:HB3	30:D8:67:ARG:HG2	6.45	0.80
49:M3:45:LYS:HG3	49:M3:46:ILE:HD13	5.00	0.80
3:S1:87:ARG:NH2	3:S1:220:GLN:OE1	3.19	0.80
51:M5:18:VAL:HG13	51:M5:19:LEU:HD12	3.98	0.80
7:S5:144:GLU:OE2	7:S5:225:ARG:NH2	4.12	0.80
1:2:1521:G:O6	21:C9:68:ARG:NH1	2.15	0.80
52:M6:110:PRO:O	52:M6:112:TYR:N	3.23	0.80
73:O7:21:ARG:NH2	73:O7:41:ALA:O	2.14	0.80
53:M7:109:ALA:HA	53:M7:112:LEU:HD22	1.63	0.80
50:M4:19:ARG:HA	50:M4:69:THR:HG22	2.21	0.80
4:S2:161:LYS:HB2	4:S2:166:THR:HG22	4.14	0.79
1:6:484:C:H42	1:6:503:G:H22	1.27	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:134:VAL:O	44:L7:229:PHE:HA	2.58	0.79
4:S2:77:GLN:NE2	4:S2:106:ASP:O	2.15	0.79
36:5:1235:U:H4'	36:5:1236:G:H5'	1.63	0.79
54:M8:158:HIS:H	54:M8:186:VAL:HG12	1.54	0.79
36:1:1355:A:H5''	36:1:1356:U:H5	1.46	0.79
36:5:2402:A:OP2	86:5:4109:OHX:N3	2.16	0.79
36:5:2187:G:OP2	86:5:3973:OHX:N4	2.16	0.79
1:6:1696:G:O2'	1:6:1698:G:N7	2.14	0.79
62:N6:45:ILE:HD11	62:N6:122:LYS:HB2	1.63	0.79
54:M8:176:ARG:NH1	64:N8:46:ASP:OD2	2.15	0.79
1:6:822:U:H2'	1:6:823:G:H5''	1.64	0.79
1:6:1588:G:H1	1:6:1608:U:H3	1.27	0.79
1:2:1202:A:OP1	86:2:2111:OHX:N1	2.15	0.79
1:6:1041:G:OP1	86:6:2178:OHX:N4	2.15	0.79
1:2:991:G:OP2	86:2:2132:OHX:N1	2.15	0.79
15:C3:87:ASP:HB3	15:C3:125:LEU:HD11	4.42	0.79
78:Q2:17:CYS:SG	78:Q2:77:CYS:HB3	2.25	0.79
1:2:9:U:O4	86:2:2156:OHX:N6	2.15	0.79
36:5:2568:C:N4	36:5:2574:G:O6	2.15	0.79
36:1:2534:G:O6	86:1:3994:OHX:N4	2.15	0.79
7:S5:185:ARG:NH1	1:6:1471:A:OP1	333.57	0.79
11:S9:108:ARG:HB3	11:S9:110:GLN:HB3	3.35	0.79
56:N0:91:TYR:O	56:N0:137:ARG:NH1	2.16	0.79
11:S9:108:ARG:HB2	11:S9:111:THR:HG23	4.01	0.79
86:5:3944:OHX:N2	86:5:4234:OHX:N6	2.30	0.79
8:S6:58:LYS:O	8:S6:59:GLN:NE2	2.15	0.79
36:1:3259:U:H6	36:1:3259:U:H5'	1.48	0.79
6:S4:88:ASP:OD1	6:S4:122:LYS:NZ	2.16	0.79
1:6:538:A:H8	1:6:543:C:H41	1.29	0.79
10:S8:36:THR:HG21	10:S8:173:PRO:HB2	1.95	0.79
11:S9:126:ARG:NH1	1:6:475:A:OP2	423.95	0.79
63:N7:78:ASN:OD1	66:O0:35:ARG:NH2	2.16	0.79
20:C8:23:ASP:OD1	20:C8:25:ASN:ND2	2.61	0.79
2:S0:70:PRO:HB2	2:S0:94:GLY:HA3	1.65	0.79
74:O8:5:ILE:HG22	74:O8:54:LEU:HB2	4.30	0.79
38:4:95:G:OP2	73:O7:72:ARG:NH1	2.15	0.79
36:1:3068:U:OP2	55:M9:62:ARG:NH1	2.10	0.78
4:S2:42:GLY:HA2	4:S2:68:ILE:HD11	1.64	0.78
5:S3:222:VAL:HG11	34:SR:229:LYS:HA	2.64	0.78
40:L3:41:VAL:CA	40:L3:185:GLY:HA3	2.28	0.78
86:2:2040:OHX:N1	25:D3:64:PRO:O	2.15	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1796:C:OP1	28:D6:87:ARG:NH1	2.16	0.78
38:8:80:A:H2'	38:8:82:U:C5	2.19	0.78
1:2:1720:G:O6	86:2:2083:OHX:N5	2.17	0.78
48:M1:11:ASP:O	48:M1:12:LEU:HB2	1.82	0.78
1:2:895:G:H1	1:2:917:U:H3	1.31	0.78
36:1:1466:G:O6	86:1:3877:OHX:N4	2.16	0.78
1:2:149:C:O2'	8:S6:132:ARG:NH1	2.17	0.78
48:M1:94:ARG:O	48:M1:96:PHE:N	2.13	0.78
44:L7:143:THR:HG22	44:L7:241:LYS:HE3	1.63	0.78
74:O8:46:ARG:NH2	36:5:1613:A:OP2	131.59	0.78
36:1:2766:U:O4	86:1:4033:OHX:N2	2.16	0.78
36:1:807:A:H61	36:1:934:G:H22	1.29	0.78
1:2:702:G:O6	1:2:736:C:N4	2.12	0.78
36:1:1230:G:H1	36:1:1279:C:H42	1.29	0.78
70:O4:74:ARG:HD3	70:O4:85:VAL:HG21	5.18	0.78
53:M7:25:SER:O	53:M7:29:THR:HG23	1.83	0.78
26:D4:50:ALA:HB1	26:D4:54:ALA:HB3	3.11	0.78
36:1:3358:U:H2'	36:1:3359:A:O4'	1.84	0.78
45:L8:144:GLU:OE1	72:O6:36:ARG:NH2	2.50	0.78
17:C5:126:VAL:HG13	17:C5:127:ARG:H	1.49	0.78
20:C8:143:ARG:NH2	1:6:1462:G:N7	338.53	0.78
53:M7:59:PRO:HG3	53:M7:76:PHE:CD1	2.18	0.78
46:L9:120:ASP:OD1	46:L9:124:ARG:NH2	2.17	0.78
1:2:1435:G:N7	12:C0:25:LYS:NZ	2.31	0.78
9:S7:28:GLU:HG2	9:S7:35:LYS:HA	3.94	0.78
1:2:900:A:OP1	16:C4:43:THR:OG1	2.02	0.78
18:C6:97:VAL:HG12	18:C6:98:ASP:H	1.62	0.78
1:2:68:A:OP1	8:S6:160:ARG:NH2	2.12	0.78
55:M9:5:ARG:NH2	36:5:1471:U:OP1	122.86	0.78
41:L4:311:HIS:CE1	41:L4:314:LYS:HA	2.18	0.77
34:SR:105:GLY:O	34:SR:132:LYS:NZ	3.77	0.77
71:O5:78:LYS:HA	71:O5:81:ARG:HD2	1.67	0.77
1:2:190:C:N4	1:2:196:G:O6	2.18	0.77
55:M9:76:SER:O	55:M9:81:ARG:NH1	2.16	0.77
36:5:419:G:N7	86:5:3906:OHX:N3	2.31	0.77
17:C5:110:GLU:HG3	20:C8:119:ILE:HD11	1.66	0.77
1:2:1542:G:N2	1:2:1568:C:H1'	1.99	0.77
24:D2:104:LEU:HD23	24:D2:125:ILE:HA	5.11	0.77
3:S1:34:ALA:HB3	3:S1:41:ARG:HA	1.67	0.77
36:1:1951:C:H42	36:1:2095:G:H1	1.29	0.77
36:1:1600:U:O2	36:1:1605:A:N6	2.17	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1385:G:N7	86:6:2124:OHX:N6	2.31	0.77
1:2:1502:G:O6	21:C9:102:ARG:NH2	2.18	0.77
36:5:495:G:O6	36:5:618:C:N4	2.17	0.77
36:1:3087:A:OP1	86:1:4177:OHX:N2	2.18	0.77
62:N6:81:GLN:NE2	62:N6:98:ASN:OD1	2.13	0.77
36:5:1152:G:H22	36:5:1200:A:H61	1.31	0.77
74:O8:46:ARG:NH1	74:O8:47:GLY:O	2.47	0.77
35:SM:65:THR:OG1	35:SM:66:ALA:N	3.50	0.77
56:N0:137:ARG:HG2	56:N0:139:TYR:CE1	2.45	0.77
71:O5:6:ALA:HA	71:O5:9:LEU:HD12	1.67	0.77
36:5:1239:C:H42	36:5:1249:G:H1	1.32	0.77
51:M5:149:ASN:OD1	86:M5:304:OHX:N2	2.17	0.77
1:2:833:U:H5'	1:2:834:G:H5''	1.66	0.77
24:D2:42:GLN:NE2	24:D2:48:GLY:O	5.39	0.77
1:2:1585:U:N3	1:2:1611:A:H2	1.81	0.77
11:S9:41:GLU:OE2	11:S9:126:ARG:NH2	2.87	0.77
1:6:58:U:O2'	1:6:451:A:N3	2.18	0.77
36:5:3103:A:OP2	86:5:4158:OHX:N4	2.17	0.77
1:2:1191:U:H4'	18:C6:143:ARG:HB3	1.67	0.77
42:L5:152:ARG:NH1	42:L5:152:ARG:HG3	4.08	0.77
1:2:1429:G:H1'	22:D0:74:GLU:HG2	1.66	0.77
1:2:1029:U:O4	86:2:2169:OHX:N3	2.17	0.77
40:L3:41:VAL:HA	40:L3:185:GLY:CA	2.27	0.77
3:S1:157:GLN:O	3:S1:159:SER:N	2.18	0.77
51:M5:68:ARG:HG2	51:M5:68:ARG:HH11	1.49	0.77
1:6:647:G:H1	1:6:687:G:H22	1.34	0.77
46:L9:31:ARG:HH21	46:L9:188:THR:HG22	1.49	0.77
21:C9:28:LEU:HD12	21:C9:29:GLU:H	1.50	0.76
67:O1:79:ARG:NE	67:O1:79:ARG:H	1.83	0.76
13:C1:133:LYS:NZ	1:6:324:U:OP1	292.07	0.76
19:C7:33:ARG:NH2	34:SR:109:ASP:OD1	2.32	0.76
74:O8:31:LEU:HA	74:O8:37:PRO:HA	1.67	0.76
34:SR:25:THR:OG1	34:SR:26:SER:N	2.67	0.76
8:S6:159:ARG:NH2	1:6:79:C:OP1	348.90	0.76
36:1:3344:A:H2	36:1:3361:G:H21	1.34	0.76
42:L5:233:ALA:O	42:L5:235:SER:N	2.19	0.76
36:1:1541:G:O6	36:1:1552:G:N2	2.19	0.76
36:5:3343:G:H21	36:5:3362:A:H2	1.33	0.76
37:3:17:A:OP1	42:L5:2:ALA:N	2.18	0.76
9:S7:131:PHE:O	9:S7:133:THR:N	2.18	0.76
36:1:2548:C:OP2	39:L2:93:LYS:NZ	2.18	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:48:ARG:HH11	59:N3:48:ARG:HG3	1.50	0.76
1:2:1625:C:OP1	4:S2:91:ARG:NH2	2.17	0.76
2:S0:140:ASN:HD22	4:S2:62:PRO:HD3	3.70	0.76
1:6:1665:U:O4	86:6:2126:OHX:N6	2.18	0.76
36:1:1495:U:H5	36:1:1835:A:N1	1.83	0.76
1:6:990:C:OP2	86:6:2123:OHX:N2	2.19	0.76
1:6:1239:U:O2	1:6:1246:C:N4	2.18	0.76
26:D4:122:GLY:O	26:D4:125:LEU:N	3.62	0.76
8:S6:164:LYS:HB3	8:S6:167:LYS:HB3	1.65	0.76
36:5:783:A:OP2	86:5:4193:OHX:N6	2.19	0.76
74:O8:8:ILE:HD12	74:O8:8:ILE:H	1.50	0.76
1:2:415:C:O2	1:2:418:G:N1	2.16	0.76
1:2:1588:G:H1	1:2:1608:U:H3	1.34	0.76
16:C4:81:VAL:HG22	16:C4:115:ILE:HB	1.66	0.76
17:C5:115:TYR:OH	1:6:1556:A:OP1	386.87	0.76
41:L4:118:LYS:NZ	36:5:681:U:O4	108.61	0.76
36:5:3128:G:OP2	86:5:4158:OHX:N3	2.19	0.76
19:C7:25:THR:OG1	19:C7:31:ASN:ND2	4.61	0.76
1:2:641:G:H1	1:2:693:U:H3	1.33	0.76
36:5:908:G:OP1	86:5:4042:OHX:N3	2.19	0.76
36:5:1734:G:O6	86:5:3970:OHX:N5	2.19	0.76
42:L5:106:ALA:HB2	42:L5:166:ALA:HA	1.68	0.76
36:1:1565:G:N2	36:1:1574:C:O2	2.18	0.76
51:M5:46:ASP:OD1	51:M5:50:ARG:NH2	2.18	0.76
6:S4:9:LEU:HB2	6:S4:30:ARG:HB2	1.88	0.76
44:L7:173:LEU:HD23	44:L7:178:ILE:HG21	1.68	0.76
1:6:1794:A:OP1	86:6:2129:OHX:N6	2.19	0.76
46:L9:12:VAL:HB	46:L9:51:GLN:HA	1.67	0.76
36:1:276:U:O2	51:M5:93:LYS:NZ	2.16	0.76
86:2:2032:OHX:N3	86:2:2147:OHX:N1	2.33	0.76
77:Q1:15:ARG:NH1	1:6:1126:G:OP1	280.84	0.76
36:5:1563:C:O2	36:5:1577:G:N2	2.18	0.76
36:5:2263:C:OP1	86:5:3957:OHX:N2	2.19	0.76
36:5:437:G:N2	36:5:622:A:H61	1.82	0.76
51:M5:96:ARG:NH2	51:M5:104:GLU:OE1	2.84	0.76
10:S8:57:ALA:HB2	10:S8:177:GLY:HA2	1.75	0.76
1:6:1050:G:N2	1:6:1068:C:O2	2.19	0.76
70:O4:82:ALA:O	70:O4:85:VAL:N	2.65	0.75
6:S4:49:ARG:NH1	1:6:448:C:OP2	379.46	0.75
46:L9:105:GLU:HG3	46:L9:109:ALA:HB3	1.68	0.75
10:S8:155:SER:O	10:S8:159:GLN:NE2	2.19	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1414:G:N7	86:1:4118:OHX:N2	2.33	0.75
1:6:383:G:N7	86:6:2152:OHX:N5	2.34	0.75
1:6:1769:U:OP2	86:6:2147:OHX:N2	2.19	0.75
43:L6:129:GLU:OE2	43:L6:130:ILE:N	2.17	0.75
53:M7:31:GLU:HG3	53:M7:60:PHE:HA	3.20	0.75
1:6:895:G:H1	1:6:917:U:H3	1.34	0.75
5:S3:211:PRO:HG2	19:C7:19:ARG:HB2	2.23	0.75
40:L3:25:ILE:H	40:L3:25:ILE:HD13	1.50	0.75
57:N1:139:ARG:HG2	57:N1:139:ARG:HH21	4.41	0.75
16:C4:81:VAL:H	16:C4:115:ILE:HG22	1.49	0.75
5:S3:170:THR:HG22	5:S3:187:LYS:HG3	1.69	0.75
60:N4:23:ARG:NH2	60:N4:25:ASP:OD1	3.41	0.75
37:3:49:G:N7	42:L5:58:LYS:HG2	2.02	0.75
36:5:1231:A:H5''	36:5:1232:C:H5'	1.69	0.75
36:1:1759:C:N4	36:1:1766:G:O6	2.20	0.75
11:S9:171:ARG:HH11	11:S9:174:ARG:HD3	4.26	0.75
86:2:2032:OHX:N4	86:2:2147:OHX:N1	2.34	0.75
1:2:794:U:O2'	1:2:795:U:O2	2.04	0.75
36:1:2386:A:OP1	86:1:4021:OHX:N2	2.19	0.75
2:S0:84:ARG:HH21	2:S0:201:LEU:HD12	3.35	0.75
71:O5:76:GLN:O	71:O5:81:ARG:NH1	2.30	0.75
16:C4:86:THR:HB	16:C4:91:THR:HG22	2.86	0.75
1:6:791:A:H2'	1:6:792:U:H6	1.51	0.75
23:D1:81:ASN:O	23:D1:83:TRP:N	2.19	0.75
15:C3:64:ARG:HG2	15:C3:64:ARG:HH11	3.73	0.75
36:5:1414:G:O6	86:5:4146:OHX:N1	2.18	0.75
66:O0:9:SER:OG	66:O0:10:ILE:N	2.20	0.75
7:S5:100:ASN:ND2	7:S5:180:ARG:HD3	3.23	0.75
7:S5:91:GLU:HA	7:S5:94:THR:HG23	1.90	0.75
7:S5:57:SER:O	7:S5:59:VAL:N	2.19	0.75
44:L7:92:ILE:HD11	54:M8:4:ASP:HB2	1.69	0.75
25:D3:79:ASN:HB3	25:D3:81:LYS:H	1.52	0.75
36:1:2554:A:N7	79:Q3:62:LYS:NZ	2.34	0.75
17:C5:15:HIS:H	17:C5:22:LEU:HD22	3.35	0.75
36:5:3165:A:H2'	36:5:3166:C:H6	1.52	0.75
36:1:2533:G:H3'	36:1:2534:G:H8	1.50	0.75
1:2:1254:U:OP2	14:C2:46:ARG:NH1	2.19	0.75
36:1:2120:A:OP2	86:1:4005:OHX:N2	2.21	0.74
25:D3:6:PRO:HG3	25:D3:14:LYS:HG2	1.69	0.74
36:1:2717:U:OP1	86:1:3981:OHX:N6	2.20	0.74
40:L3:284:ARG:NH2	40:L3:295:ALA:O	2.18	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:92:ARG:NH2	7:S5:169:ASN:OD1	2.20	0.74
13:C1:96:LYS:NZ	1:6:374:U:OP1	347.08	0.74
1:2:795:U:OP2	24:D2:82:LYS:NZ	2.18	0.74
36:5:1070:U:O4	86:5:4110:OHX:N6	2.20	0.74
36:1:1313:G:O6	86:1:4087:OHX:N3	2.20	0.74
52:M6:35:VAL:HG11	52:M6:80:PHE:HE2	2.52	0.74
36:1:2187:G:OP2	86:1:3998:OHX:N5	2.21	0.74
86:2:2032:OHX:N3	86:2:2147:OHX:N5	2.35	0.74
86:2:2032:OHX:N6	86:2:2147:OHX:N5	2.35	0.74
1:2:471:A:OP2	86:2:2077:OHX:N4	2.21	0.74
1:2:284:G:N7	8:S6:188:ARG:NH1	2.34	0.74
41:L4:16:THR:HG22	41:L4:18:ASN:H	1.62	0.74
40:L3:37:ARG:HG2	40:L3:187:SER:H	1.79	0.74
55:M9:4:LEU:HA	55:M9:7:GLN:HE21	5.62	0.74
8:S6:163:THR:HA	8:S6:168:THR:HG22	4.09	0.74
32:E0:29:LYS:HG3	32:E0:30:PRO:HD2	4.64	0.74
37:3:44:C:OP2	48:M1:137:ARG:NH2	2.20	0.74
1:2:770:A:OP2	86:2:2139:OHX:N6	2.20	0.74
46:L9:70:THR:HG21	36:5:3122:A:N1	323.96	0.74
63:N7:67:LYS:NZ	36:5:1630:U:OP1	198.57	0.74
36:1:2940:A:N7	40:L3:2:SER:N	2.34	0.74
1:2:1520:U:OP2	21:C9:75:LYS:NZ	2.20	0.74
1:2:823:G:H2'	1:2:824:G:C8	2.20	0.74
36:1:2522:G:O6	39:L2:70:ARG:NH2	2.19	0.74
75:O9:50:ASN:OD1	86:O9:101:OHX:N6	2.20	0.74
11:S9:8:TYR:O	86:6:2181:OHX:N4	383.83	0.74
3:S1:103:MET:H	3:S1:215:VAL:HG12	3.15	0.74
36:1:1364:C:OP1	44:L7:110:ARG:NH2	2.21	0.74
18:C6:68:ARG:HH12	18:C6:70:THR:HG23	7.12	0.74
1:6:1395:G:O6	86:6:2091:OHX:N3	2.21	0.74
36:5:1355:A:H1'	36:5:1356:U:OP2	1.87	0.74
36:1:687:U:OP2	49:M3:36:ARG:NH2	2.20	0.74
36:1:3103:A:OP2	86:1:4163:OHX:N3	2.20	0.74
17:C5:122:THR:HG22	17:C5:123:TYR:HD1	5.53	0.74
47:M0:158:LYS:NZ	36:5:2852:C:N3	307.74	0.74
19:C7:27:ASP:O	19:C7:31:ASN:ND2	3.45	0.74
1:6:1202:A:OP1	86:6:2133:OHX:N2	2.20	0.74
10:S8:8:ARG:HH21	10:S8:22:ARG:HH11	8.98	0.74
8:S6:114:VAL:HG13	8:S6:115:LYS:HD3	1.70	0.74
68:O2:91:THR:HG22	68:O2:92:TYR:CD2	2.23	0.74
1:2:1215:C:O2	1:2:1448:G:N2	2.16	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:361:HIS:O	56:N0:28:ARG:NH2	3.20	0.74
1:6:938:G:N7	86:6:2108:OHX:N3	2.35	0.74
86:1:3871:OHX:N5	38:4:2:A:OP2	2.21	0.74
1:2:885:G:H21	16:C4:123:SER:HB2	1.52	0.74
1:2:1500:C:OP1	21:C9:122:ARG:NH2	2.17	0.74
61:N5:82:LEU:HD12	61:N5:126:LEU:HD21	1.69	0.74
18:C6:40:GLU:HA	18:C6:42:GLU:N	2.03	0.74
1:2:452:A:OP2	86:2:2039:OHX:N5	2.21	0.74
8:S6:153:VAL:O	8:S6:155:ASP:N	2.74	0.73
36:5:679:U:O4	86:5:4013:OHX:N2	2.20	0.73
25:D3:130:VAL:O	25:D3:131:SER:HB3	1.86	0.73
36:1:283:G:OP1	78:Q2:45:ARG:NH2	2.20	0.73
36:5:742:G:N7	86:5:4002:OHX:N4	2.36	0.73
64:N8:21:ARG:NH2	36:5:640:U:OP1	181.83	0.73
1:6:471:A:OP2	86:6:2105:OHX:N5	2.20	0.73
34:SR:178:VAL:HB	34:SR:192:PHE:HB2	2.16	0.73
36:5:658:G:OP1	86:5:4091:OHX:N5	2.21	0.73
36:5:438:A:H2'	36:5:494:G:N2	2.03	0.73
61:N5:115:ARG:HH11	61:N5:115:ARG:HG3	1.57	0.73
53:M7:136:ILE:O	53:M7:137:ASN:ND2	2.34	0.73
1:6:230:C:N3	1:6:235:G:N2	2.27	0.73
1:2:639:U:OP1	9:S7:117:THR:OG1	2.03	0.73
44:L7:216:VAL:HG11	44:L7:227:GLY:HA3	4.52	0.73
47:M0:99:ILE:HG13	47:M0:123:HIS:HB2	5.06	0.73
35:SM:50:ASN:N	35:SM:50:ASN:OD1	3.53	0.73
36:1:1233:G:H22	36:1:1255:C:H42	1.32	0.73
36:5:2440:G:H2'	36:5:2441:A:C8	2.23	0.73
9:S7:154:LEU:HD21	9:S7:183:PHE:CD1	2.23	0.73
38:8:83:C:H5'	38:8:83:C:H6	1.53	0.73
1:6:1294:G:O6	86:6:2071:OHX:N5	2.21	0.73
1:2:1413:U:O2	86:2:2072:OHX:N4	2.22	0.73
1:2:1041:G:H2'	1:2:1042:G:C8	2.24	0.73
1:6:218:A:H2'	1:6:219:A:H5''	1.69	0.73
36:1:1942:U:HO2'	36:1:3345:G:HO2'	1.32	0.73
1:2:565:C:O2	86:2:2040:OHX:N5	2.22	0.73
59:N3:48:ARG:NH2	36:5:3043:C:OP2	250.56	0.73
35:SM:51:ARG:O	35:SM:53:ARG:HG2	1.88	0.73
36:5:955:U:H2'	36:5:956:U:C6	2.23	0.73
36:1:1334:U:O2'	44:L7:151:ARG:NH2	2.21	0.73
36:5:3377:G:O6	86:5:4086:OHX:N2	2.21	0.73
73:O7:87:SER:O	86:O7:104:OHX:N4	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:78:THR:HG22	8:S6:79:LYS:H	1.51	0.73
36:1:1238:C:N4	36:1:1245:A:OP2	2.21	0.73
3:S1:62:LYS:HD2	3:S1:91:VAL:HG11	1.69	0.73
1:2:1563:C:OP1	21:C9:84:LYS:NZ	2.14	0.73
36:1:2208:A:N1	86:1:4039:OHX:N4	2.37	0.73
1:2:702:G:O6	1:2:737:A:N6	2.21	0.73
14:C2:75:VAL:HG21	14:C2:120:VAL:HG21	2.74	0.73
46:L9:8:GLN:HG2	46:L9:68:LEU:HD13	1.71	0.73
40:L3:150:ARG:HG2	40:L3:150:ARG:HH11	3.81	0.73
22:D0:35:GLU:OE2	22:D0:57:ARG:NH2	3.23	0.73
1:2:1291:G:H22	1:2:1324:G:N2	1.87	0.73
11:S9:29:LYS:O	11:S9:33:GLU:HG2	3.99	0.73
40:L3:232:ARG:NH1	40:L3:269:GLN:O	2.22	0.73
54:M8:66:ARG:NH2	36:5:744:A:OP1	166.92	0.73
22:D0:15:GLN:O	22:D0:16:GLN:NE2	3.35	0.73
71:O5:94:LYS:O	71:O5:98:SER:OG	2.63	0.73
52:M6:39:GLU:HG2	52:M6:40:GLU:HG2	2.37	0.73
36:5:1409:G:N7	86:5:4161:OHX:N6	2.36	0.73
7:S5:52:GLU:HG2	7:S5:65:ARG:HH12	1.53	0.73
86:5:3944:OHX:N2	86:5:4234:OHX:N4	2.36	0.73
36:5:1246:G:O2'	36:5:1264:G:OP2	2.06	0.73
1:6:22:A:OP2	86:6:2151:OHX:N6	2.22	0.73
42:L5:106:ALA:O	42:L5:110:LEU:HD22	3.58	0.72
1:2:1745:G:O6	86:2:2087:OHX:N6	2.21	0.72
53:M7:127:ARG:NH2	36:5:1508:C:OP1	137.71	0.72
6:S4:19:LEU:HD22	1:6:788:A:H2'	389.53	0.72
36:5:1806:A:OP2	86:5:4022:OHX:N5	2.22	0.72
36:1:299:G:N7	86:1:4076:OHX:N2	2.36	0.72
16:C4:29:HIS:HB3	16:C4:41:ARG:HG3	1.71	0.72
36:1:18:G:OP1	71:O5:81:ARG:NH2	2.22	0.72
9:S7:122:HIS:HD2	9:S7:179:LYS:HE3	6.45	0.72
14:C2:42:ALA:HB2	14:C2:124:LYS:HD2	1.70	0.72
26:D4:104:SER:HB3	26:D4:107:GLN:HG3	1.71	0.72
9:S7:14:THR:OG1	9:S7:15:GLU:N	2.22	0.72
1:2:1240:U:OP2	86:2:2145:OHX:N1	2.21	0.72
63:N7:128:GLN:O	63:N7:130:PHE:N	3.04	0.72
36:1:1747:G:OP1	74:O8:42:LYS:NZ	2.20	0.72
73:O7:87:SER:O	86:O7:104:OHX:N3	2.22	0.72
1:2:637:C:O2	9:S7:114:ARG:NH2	2.21	0.72
42:L5:270:LYS:HG3	42:L5:273:ARG:HB3	5.22	0.72
66:O0:34:LEU:HD23	66:O0:59:TYR:HB3	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:155:G:H5''	36:5:156:G:C8	2.24	0.72
69:O3:86:ARG:NH2	36:5:497:C:O3'	214.17	0.72
2:S0:105:GLY:N	2:S0:135:GLU:OE2	2.24	0.72
49:M3:15:ARG:CZ	36:5:96:G:H5''	151.34	0.72
35:SM:31:SER:OG	36:5:2667:A:OP1	287.95	0.72
47:M0:174:THR:OG1	47:M0:175:ASN:O	5.59	0.72
36:5:979:U:H1'	36:5:980:A:N3	2.05	0.72
6:S4:96:ASN:N	6:S4:96:ASN:OD1	2.22	0.72
1:6:1166:A:H2'	1:6:1167:G:O4'	1.89	0.72
36:1:837:A:OP2	79:Q3:4:ARG:NH1	2.20	0.72
36:1:1765:U:H2'	36:1:1766:G:H8	1.54	0.72
10:S8:34:ALA:HB2	10:S8:56:ARG:HD3	2.66	0.72
16:C4:38:THR:HG21	1:6:895:G:H21	263.84	0.72
41:L4:35:VAL:HG21	41:L4:244:LEU:HD21	1.71	0.72
45:L8:221:ASN:HA	45:L8:225:LYS:HD2	2.51	0.72
49:M3:58:VAL:HG13	36:5:75:G:H5''	87.84	0.72
28:D6:87:ARG:NH1	1:6:1796:C:OP1	344.81	0.72
36:5:300:G:O6	86:5:4191:OHX:N2	2.21	0.72
36:1:2531:C:N4	36:1:2548:C:O2	2.20	0.72
1:2:1232:U:H4'	12:C0:2:LEU:HD21	1.71	0.72
1:2:829:A:O2'	1:2:830:U:OP2	2.06	0.72
40:L3:171:LEU:O	86:L3:404:OHX:N6	2.21	0.72
41:L4:104:LYS:HD2	41:L4:106:TRP:CZ2	2.25	0.72
36:5:622:A:H2'	36:5:623:U:O4'	1.89	0.72
36:1:838:G:O6	79:Q3:4:ARG:NH2	2.23	0.72
17:C5:126:VAL:O	17:C5:127:ARG:HB2	2.34	0.72
14:C2:97:LEU:HB3	14:C2:118:ALA:HB3	2.37	0.72
3:S1:190:PRO:HG2	3:S1:192:VAL:HG23	2.13	0.72
20:C8:30:TYR:O	20:C8:33:THR:OG1	2.08	0.72
1:2:651:G:N7	86:2:2104:OHX:N6	2.38	0.72
4:S2:157:LYS:HG2	4:S2:170:ILE:HG23	2.61	0.72
66:O0:101:LEU:HD22	66:O0:101:LEU:H	3.47	0.72
36:1:160:G:O6	86:1:4190:OHX:N6	2.22	0.72
63:N7:135:ARG:HG2	63:N7:135:ARG:HH21	1.55	0.72
20:C8:36:LYS:NZ	1:6:1568:C:OP1	333.91	0.72
1:2:140:A:N6	1:2:281:G:OP1	2.19	0.72
1:6:604:A:OP2	86:6:2154:OHX:N4	2.23	0.72
11:S9:93:LEU:HA	11:S9:96:VAL:HG13	1.70	0.72
36:5:330:G:OP2	86:5:4047:OHX:N1	2.23	0.72
34:SR:52:GLN:HG2	34:SR:53:LYS:HG3	3.51	0.72
5:S3:208:ILE:HD12	19:C7:16:LEU:HD21	1.72	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1069:C:H2'	36:1:1070:U:H6	1.55	0.72
50:M4:50:LYS:HD2	50:M4:91:CYS:SG	5.25	0.72
4:S2:237:VAL:HB	4:S2:242:ILE:HD11	3.30	0.72
21:C9:31:PRO:HG2	21:C9:34:VAL:HG23	6.30	0.71
3:S1:28:GLU:OE2	3:S1:94:LYS:NZ	3.24	0.71
51:M5:49:ARG:NH2	36:5:115:A:OP1	101.08	0.71
36:5:2371:G:O6	86:5:3910:OHX:N6	2.23	0.71
57:N1:43:LYS:HD2	36:5:992:A:H5''	255.56	0.71
2:S0:74:VAL:HG22	2:S0:96:THR:HG23	1.94	0.71
40:L3:139:GLN:O	40:L3:141:GLY:N	2.24	0.71
28:D6:6:ALA:H	1:6:1796:C:H5	345.42	0.71
36:5:2836:C:H5	36:5:2852:C:N4	1.88	0.71
1:6:69:G:N1	1:6:82:U:O2	2.18	0.71
9:S7:44:LYS:HG3	9:S7:63:PRO:HD3	3.29	0.71
1:6:228:G:N2	1:6:237:C:N3	2.39	0.71
39:L2:108:PRO:O	39:L2:111:THR:OG1	2.25	0.71
40:L3:139:GLN:HE22	40:L3:143:GLY:H	2.35	0.71
48:M1:49:LYS:HB3	48:M1:62:ASN:HA	1.71	0.71
19:C7:47:ARG:NH1	19:C7:48:ASN:OD1	2.22	0.71
39:L2:9:ARG:NH1	36:5:912:G:OP2	179.55	0.71
15:C3:93:LYS:HZ2	15:C3:150:VAL:HG13	5.80	0.71
1:2:1228:G:H1	14:C2:67:THR:HB	1.55	0.71
1:2:142:G:O6	8:S6:177:ARG:NH1	2.22	0.71
47:M0:74:LYS:HB2	47:M0:74:LYS:NZ	2.99	0.71
36:1:356:C:OP2	86:O9:101:OHX:N1	2.24	0.71
1:2:1471:A:OP1	7:S5:185:ARG:NH1	2.23	0.71
79:Q3:36:ARG:HH11	79:Q3:48:LYS:HE3	5.49	0.71
36:1:1815:U:O2'	36:1:1816:A:OP2	2.06	0.71
1:2:1657:U:O2	86:2:2090:OHX:N1	2.23	0.71
86:1:3938:OHX:N5	86:1:4193:OHX:N6	2.37	0.71
36:1:3050:U:OP2	86:1:4177:OHX:N4	2.23	0.71
40:L3:92:TYR:HB2	40:L3:157:VAL:HG22	1.72	0.71
66:O0:99:ASP:N	66:O0:99:ASP:OD2	2.18	0.71
1:2:1537:C:N3	86:2:2155:OHX:N3	2.39	0.71
1:2:1473:U:O2'	7:S5:103:ASN:ND2	2.22	0.71
36:5:900:G:H1'	36:5:1589:A:N6	2.06	0.71
36:5:279:U:H2'	36:5:280:U:H6	1.55	0.71
1:2:1600:A:O2'	1:2:1602:C:N4	2.23	0.71
37:7:73:C:H6	37:7:73:C:H3'	1.55	0.71
1:2:1297:G:N2	1:2:1300:A:OP2	2.24	0.71
1:2:1290:U:H2'	1:2:1291:G:C8	2.25	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3047:U:O2'	40:L3:53:MET:HE1	1.91	0.71
11:S9:92:LYS:NZ	1:6:673:A:OP2	429.30	0.71
36:5:1881:A:OP2	86:5:4028:OHX:N6	2.24	0.71
47:M0:14:ASN:O	47:M0:128:ARG:NH2	2.20	0.71
31:D9:44:ARG:HH22	1:6:1280:C:H5'	399.57	0.71
65:N9:23:LYS:HB3	65:N9:24:PRO:HD3	3.33	0.71
1:2:1587:A:O2'	7:S5:104:ASN:OD1	2.05	0.71
41:L4:120:TYR:CE2	41:L4:277:PRO:HB3	2.26	0.71
36:1:2927:C:H2'	36:1:2928:C:C6	2.25	0.71
23:D1:24:ILE:HD13	23:D1:31:SER:HB2	2.89	0.71
61:N5:38:LEU:HD11	61:N5:40:LEU:HD13	1.72	0.71
42:L5:56:THR:O	42:L5:58:LYS:N	2.21	0.71
73:O7:28:HIS:ND1	73:O7:31:LYS:HB2	2.06	0.71
7:S5:160:VAL:HG12	30:D8:43:ASN:HB3	2.30	0.71
18:C6:14:LYS:O	18:C6:123:ARG:NH1	2.24	0.71
86:6:2123:OHX:N6	86:6:2174:OHX:N3	2.39	0.71
1:6:991:G:OP2	86:6:2174:OHX:N2	2.24	0.71
1:2:1796:C:P	28:D6:5:ARG:HH12	2.13	0.71
33:E1:97:LYS:NZ	1:6:1253:U:O4	439.68	0.71
7:S5:84:LYS:HG3	7:S5:92:ARG:HH12	1.56	0.71
68:O2:124:GLY:O	68:O2:126:LEU:N	3.01	0.71
79:Q3:32:GLN:HG2	79:Q3:70:THR:HB	1.73	0.71
44:L7:27:ALA:HA	44:L7:30:ARG:HB3	1.93	0.71
38:8:112:U:O2	86:8:217:OHX:N4	2.24	0.71
36:5:25:U:O4	86:5:3908:OHX:N5	2.24	0.71
1:2:1169:G:N1	1:2:1575:G:OP2	2.24	0.71
41:L4:283:THR:HG22	41:L4:285:ASP:H	1.55	0.71
64:N8:94:ALA:HB1	64:N8:121:VAL:HG13	1.72	0.71
36:1:3066:U:O4	86:1:4131:OHX:N5	2.24	0.70
36:5:1313:G:O6	86:5:4162:OHX:N6	2.25	0.70
41:L4:98:ARG:HD2	41:L4:99:MET:O	1.91	0.70
46:L9:137:SER:HB2	46:L9:143:GLU:HB3	2.81	0.70
36:5:2236:G:OP1	86:5:4250:OHX:N3	2.24	0.70
70:O4:47:CYS:HB3	70:O4:84:CYS:SG	2.30	0.70
47:M0:3:ARG:NH2	36:5:2854:U:OP2	289.81	0.70
8:S6:33:GLY:HA2	8:S6:51:LYS:HE2	1.73	0.70
40:L3:211:GLN:NE2	40:L3:283:TYR:O	2.36	0.70
49:M3:153:ASP:OD1	49:M3:157:ARG:NH2	2.24	0.70
36:5:528:U:H2'	36:5:529:A:C8	2.25	0.70
71:O5:85:THR:HG22	71:O5:88:LEU:H	1.58	0.70
1:2:25:C:O2	86:2:2085:OHX:N4	2.24	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:N2:43:VAL:HG21	58:N2:50:LEU:HA	1.73	0.70
36:1:2818:U:C6	36:1:2818:U:H5'	2.23	0.70
55:M9:43:LYS:O	55:M9:47:ASN:HB2	4.91	0.70
1:2:1201:G:H22	1:2:1600:A:H5''	1.55	0.70
3:S1:143:THR:HB	3:S1:205:PHE:HE1	1.55	0.70
29:D7:56:CYS:SG	29:D7:57:GLU:N	2.64	0.70
36:1:329:U:OP2	86:1:4038:OHX:N4	2.24	0.70
36:1:562:C:H2'	36:1:563:U:H6	1.55	0.70
53:M7:29:THR:HG22	53:M7:87:SER:OG	1.92	0.70
55:M9:104:ARG:HH21	55:M9:105:LEU:HB2	1.54	0.70
40:L3:345:ASN:OD1	40:L3:346:THR:N	2.95	0.70
26:D4:2:SER:N	26:D4:32:ARG:HD3	3.67	0.70
7:S5:35:GLN:O	7:S5:37:GLN:N	2.44	0.70
34:SR:149:ASP:HB2	34:SR:175:ASP:HB3	2.26	0.70
34:SR:206:PRO:HG2	34:SR:247:PRO:HA	3.15	0.70
64:N8:82:ILE:HD11	64:N8:102:ILE:HG12	2.87	0.70
25:D3:27:ASN:OD1	25:D3:31:LYS:NZ	2.23	0.70
66:O0:24:THR:HG22	66:O0:91:SER:HB3	1.72	0.70
3:S1:171:ILE:HD13	3:S1:196:GLU:HG2	1.73	0.70
1:2:542:A:H8	1:2:543:C:H5'	1.57	0.70
36:1:149:U:OP2	51:M5:49:ARG:NH2	2.24	0.70
74:O8:17:ARG:NH2	36:5:1824:U:O3'	138.83	0.70
41:L4:73:ARG:HH11	36:5:805:G:H1'	163.56	0.70
36:1:2112:U:H4'	36:1:2113:A:H5'	1.72	0.70
14:C2:119:SER:OG	1:6:1228:G:OP1	463.68	0.70
54:M8:147:ARG:NH2	36:5:670:C:OP1	161.92	0.70
36:1:2234:G:O6	86:1:4039:OHX:N3	2.25	0.70
13:C1:2:SER:O	13:C1:3:THR:OG1	4.29	0.70
24:D2:26:LEU:HD12	24:D2:27:ILE:H	5.09	0.70
1:6:918:U:H2'	1:6:919:A:H8	1.57	0.70
57:N1:83:ARG:HD2	57:N1:85:LEU:HD21	1.74	0.70
20:C8:134:ARG:NH1	1:6:1559:A:N1	363.09	0.70
3:S1:150:VAL:HG23	1:6:1067:C:H5''	354.27	0.70
36:5:437:G:H22	36:5:622:A:N6	1.87	0.70
13:C1:99:ARG:NH1	25:D3:7:ARG:O	2.25	0.70
75:O9:9:ILE:HD11	75:O9:51:ILE:HG23	1.72	0.70
32:E0:14:VAL:O	32:E0:18:THR:HG23	2.18	0.70
36:1:1835:A:H5'	36:1:1835:A:H8	1.56	0.70
1:2:1606:C:H2'	1:2:1607:G:C8	2.27	0.70
20:C8:35:ILE:HB	20:C8:38:VAL:HG22	2.21	0.70
3:S1:173:THR:O	3:S1:177:GLN:NE2	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:44:MET:HB3	67:O1:77:ARG:NH1	3.76	0.70
42:L5:187:THR:HG23	42:L5:189:GLU:HB2	1.73	0.70
36:1:1724:U:H1'	36:1:1725:C:C6	2.26	0.70
52:M6:18:ARG:NH2	36:5:1318:A:OP1	276.45	0.70
47:M0:43:VAL:HG21	47:M0:197:VAL:HB	1.74	0.70
16:C4:81:VAL:HG22	16:C4:115:ILE:HG23	3.94	0.70
40:L3:211:GLN:HE21	40:L3:284:ARG:HA	1.78	0.70
36:5:979:U:H1'	36:5:980:A:C4	2.25	0.70
36:1:2514:U:H5'	45:L8:68:ARG:HG3	1.73	0.70
86:5:4000:OHX:N4	86:5:4192:OHX:N3	2.40	0.70
18:C6:12:LYS:NZ	1:6:1380:U:OP1	424.33	0.70
2:S0:13:ASP:HA	2:S0:16:LEU:HD12	2.27	0.70
9:S7:132:PRO:O	9:S7:133:THR:OG1	4.88	0.70
20:C8:30:TYR:HE2	20:C8:40:ARG:HH11	1.40	0.70
41:L4:59:GLN:OE1	73:O7:55:ARG:NH2	2.21	0.70
36:5:59:G:H2'	38:8:33:A:O2'	1.92	0.70
34:SR:133:VAL:O	34:SR:141:LEU:N	2.39	0.70
15:C3:40:TYR:HB3	15:C3:45:LEU:HD12	2.58	0.70
1:2:1680:G:O6	86:2:2110:OHX:N5	2.24	0.70
18:C6:82:ARG:HH12	18:C6:114:ARG:HB2	2.32	0.70
73:O7:25:ARG:HE	75:O9:51:ILE:HG13	3.61	0.70
86:1:3938:OHX:N3	86:1:4193:OHX:N4	2.40	0.70
1:2:1595:U:H3	1:2:1600:A:H2	1.39	0.70
45:L8:108:ARG:O	45:L8:112:GLU:N	2.95	0.70
1:6:452:A:OP2	86:6:2064:OHX:N1	2.25	0.70
36:5:847:A:H2'	36:5:848:A:C8	2.27	0.70
1:6:73:U:H2'	1:6:74:U:C6	2.27	0.70
1:2:359:A:C2	25:D3:38:PHE:HB3	2.27	0.70
1:2:1006:C:O2	86:2:2146:OHX:N2	2.25	0.69
25:D3:100:ASP:O	25:D3:101:GLU:HB3	4.80	0.69
6:S4:251:GLU:O	6:S4:255:ARG:HG2	4.09	0.69
63:N7:51:LEU:HD12	63:N7:65:ARG:HD2	1.74	0.69
39:L2:224:THR:HG21	36:5:2201:G:H21	222.32	0.69
29:D7:61:THR:HG23	29:D7:62:ILE:H	1.57	0.69
1:2:1789:G:H8	1:2:1789:G:H5''	1.58	0.69
86:1:3938:OHX:N5	86:1:4193:OHX:N2	2.39	0.69
6:S4:146:THR:HG21	1:6:123:G:H21	340.45	0.69
51:M5:172:ARG:NH2	36:5:63:A:OP1	103.18	0.69
49:M3:37:ASN:O	49:M3:41:THR:HG23	5.27	0.69
36:1:658:G:OP1	86:4:231:OHX:N4	2.25	0.69
39:L2:128:ARG:NH1	36:5:2177:G:OP2	197.85	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:63:GLU:HB2	36:5:2853:A:H5'	296.50	0.69
36:5:3364:C:OP1	86:5:3944:OHX:N1	2.25	0.69
12:C0:50:THR:HG22	12:C0:55:VAL:HG22	2.45	0.69
46:L9:171:ASP:OD2	46:L9:173:ARG:NH1	2.25	0.69
17:C5:68:PRO:HG2	17:C5:71:GLU:HB3	1.74	0.69
36:5:3165:A:H2'	36:5:3166:C:C6	2.28	0.69
3:S1:129:THR:OG1	3:S1:131:ASP:O	2.65	0.69
62:N6:39:LEU:HD12	62:N6:43:TYR:CE2	4.25	0.69
57:N1:139:ARG:NH2	57:N1:139:ARG:HG2	4.84	0.69
20:C8:123:ARG:HG3	20:C8:133:VAL:HG21	1.75	0.69
51:M5:172:ARG:HD2	36:5:30:G:O5'	110.47	0.69
17:C5:98:ASN:HD21	17:C5:101:ALA:HB3	3.63	0.69
35:SM:34:LYS:NZ	36:1:2707:C:OP1	2.25	0.69
1:6:75:U:O2'	1:6:76:A:O4'	2.09	0.69
21:C9:16:ASN:OD1	21:C9:56:LYS:NZ	2.24	0.69
50:M4:124:ARG:NH2	36:5:3212:C:OP2	290.11	0.69
1:2:1280:C:H2'	1:2:1281:G:C8	2.27	0.69
22:D0:20:ILE:HD11	22:D0:100:VAL:HG21	1.75	0.69
62:N6:112:ASP:HB3	62:N6:115:ARG:H	2.03	0.69
20:C8:139:LYS:O	20:C8:143:ARG:NH1	2.31	0.69
46:L9:171:ASP:OD1	46:L9:173:ARG:HD3	1.92	0.69
70:O4:71:THR:HG22	70:O4:78:GLY:H	1.57	0.69
21:C9:15:ILE:HD13	21:C9:60:SER:HA	2.57	0.69
1:6:1339:C:O2'	1:6:1341:A:N7	2.23	0.69
36:1:2669:G:N7	86:1:4066:OHX:N4	2.40	0.69
2:S0:150:ASP:OD1	2:S0:165:ARG:NH2	2.21	0.69
11:S9:83:VAL:HA	11:S9:149:ARG:HA	1.75	0.69
60:N4:25:ASP:OD2	60:N4:25:ASP:N	4.12	0.69
51:M5:45:PRO:O	51:M5:49:ARG:HB2	3.85	0.69
1:2:1595:U:N3	1:2:1600:A:H2	1.91	0.69
36:1:2528:G:N7	86:1:4179:OHX:N3	2.40	0.69
20:C8:26:ILE:HG12	20:C8:31:ALA:HB2	1.74	0.69
29:D7:37:CYS:O	29:D7:39:GLY:N	2.21	0.69
36:5:2115:G:H22	36:5:2120:A:H1'	1.56	0.69
46:L9:77:ASN:HA	46:L9:80:THR:HG23	1.93	0.69
36:1:25:U:O4	86:1:3868:OHX:N4	2.25	0.69
68:O2:40:SER:O	68:O2:44:ARG:HG3	1.98	0.69
86:5:4019:OHX:N3	86:5:4217:OHX:N1	2.40	0.69
1:2:732:G:O6	86:2:2130:OHX:N5	2.25	0.69
36:1:1073:U:H1'	65:N9:50:THR:HG22	1.73	0.69
1:2:144:U:H5	8:S6:137:ARG:HH12	1.41	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:46:THR:HG23	67:O1:48:ASP:H	2.62	0.69
55:M9:8:LYS:HD2	55:M9:22:VAL:HG23	1.75	0.69
36:1:1409:G:N7	86:1:4062:OHX:N3	2.40	0.69
39:L2:51:ASP:HB3	39:L2:54:ARG:HD2	2.86	0.69
46:L9:138:THR:O	46:L9:139:ASN:ND2	2.21	0.69
1:6:697:C:OP2	86:6:2076:OHX:N5	2.26	0.69
36:5:129:U:O4	86:5:3934:OHX:N4	2.26	0.69
36:5:917:A:OP2	86:5:4224:OHX:N3	2.25	0.69
66:O0:40:LYS:HB3	66:O0:101:LEU:HD11	1.74	0.69
36:5:1530:U:OP1	86:8:217:OHX:N1	2.26	0.69
2:S0:24:LEU:O	2:S0:163:ASN:ND2	2.26	0.69
36:1:3233:C:H2'	36:1:3234:A:C8	2.27	0.69
62:N6:73:VAL:HA	62:N6:80:VAL:HG23	2.44	0.69
66:O0:45:ALA:O	66:O0:48:THR:HG22	1.92	0.69
36:5:3159:C:H2'	36:5:3160:U:C6	2.27	0.69
75:O9:26:TRP:HA	75:O9:29:LEU:HD22	3.02	0.69
1:2:1495:C:OP1	86:2:2076:OHX:N3	2.25	0.69
36:5:1192:C:H41	36:5:1302:A:P	2.16	0.69
3:S1:206:PRO:O	3:S1:207:LEU:HB2	1.91	0.69
36:5:2308:C:O2	86:5:4241:OHX:N1	2.26	0.69
2:S0:146:LEU:HB3	2:S0:162:CYS:SG	2.96	0.69
45:L8:41:GLN:HG3	45:L8:44:ARG:HH12	2.07	0.69
10:S8:26:LYS:HG3	10:S8:29:LEU:HD13	4.40	0.69
1:2:647:G:N2	1:2:687:G:H22	1.90	0.69
34:SR:126:SER:OG	34:SR:127:ARG:N	2.26	0.69
40:L3:103:THR:HG21	40:L3:147:GLU:HG3	1.74	0.69
36:1:2392:C:O2'	40:L3:266:ARG:NH2	2.26	0.69
7:S5:26:ALA:HB3	18:C6:28:LEU:HB3	2.17	0.69
36:5:2211:U:H5	36:5:2234:G:O6	1.75	0.69
54:M8:64:VAL:HG22	54:M8:96:PHE:CE2	2.27	0.69
6:S4:3:ARG:HB3	1:6:93:A:H1'	326.07	0.69
64:N8:93:SER:OG	64:N8:93:SER:O	2.05	0.69
31:D9:33:LYS:HE2	31:D9:34:TYR:CZ	3.70	0.69
4:S2:141:ARG:NH2	23:D1:10:GLU:OE1	2.26	0.69
24:D2:118:ARG:NH1	1:6:686:C:O3'	400.22	0.69
36:1:2699:G:OP2	86:1:3906:OHX:N1	2.26	0.69
34:SR:22:SER:HB3	34:SR:36:ALA:HB3	1.75	0.69
1:2:887:A:H1'	16:C4:122:PRO:HB3	1.75	0.69
36:5:3278:C:O2'	36:5:3279:A:OP2	2.11	0.69
44:L7:179:LEU:HD22	44:L7:179:LEU:H	2.22	0.69
36:1:1722:U:OP1	55:M9:100:ARG:HD3	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:83:ALA:HA	20:C8:86:LEU:HD22	1.74	0.69
39:L2:13:GLY:O	39:L2:17:THR:HG23	1.93	0.69
52:M6:61:ALA:HA	52:M6:70:PRO:HD2	1.76	0.68
3:S1:181:LEU:O	3:S1:185:THR:N	2.20	0.68
34:SR:161:LYS:O	34:SR:161:LYS:HG2	1.92	0.68
22:D0:20:ILE:HG13	22:D0:96:PRO:HA	2.74	0.68
69:O3:48:ARG:NH1	69:O3:48:ARG:HG2	2.08	0.68
22:D0:74:GLU:HG2	1:6:1429:G:H1'	378.14	0.68
1:2:1508:U:O4	86:2:2032:OHX:N5	2.26	0.68
1:6:1542:G:H22	1:6:1568:C:H1'	1.58	0.68
4:S2:237:VAL:O	4:S2:238:SER:HB3	4.66	0.68
53:M7:129:THR:HG23	53:M7:139:TYR:HB2	1.75	0.68
36:5:2818:U:C6	36:5:2818:U:H5'	2.25	0.68
11:S9:129:ILE:HA	11:S9:134:ILE:HG12	4.86	0.68
1:6:1280:C:H2'	1:6:1281:G:H8	1.58	0.68
36:1:107:A:OP1	49:M3:39:ARG:NH1	2.24	0.68
7:S5:117:THR:HG21	7:S5:194:LEU:HD12	1.75	0.68
17:C5:64:LYS:HA	17:C5:73:PRO:HB3	1.75	0.68
39:L2:218:HIS:HD2	36:5:2246:G:OP1	221.17	0.68
21:C9:39:THR:HA	21:C9:100:ILE:HD12	4.25	0.68
6:S4:117:GLU:O	6:S4:119:ALA:N	3.22	0.68
36:1:2860:U:H6	36:1:2860:U:H5'	1.58	0.68
1:2:1181:U:O4	86:2:2119:OHX:N6	2.26	0.68
5:S3:108:LYS:HG2	5:S3:113:LEU:HD12	1.74	0.68
1:2:320:U:H2'	1:2:321:C:H6	1.57	0.68
86:6:2123:OHX:N2	86:6:2174:OHX:N5	2.41	0.68
7:S5:94:THR:HG22	7:S5:114:ILE:HG13	1.76	0.68
14:C2:46:ARG:NH2	1:6:1253:U:OP2	453.01	0.68
3:S1:48:VAL:HG21	3:S1:61:LEU:HD22	5.61	0.68
48:M1:37:LEU:HD13	48:M1:69:VAL:HG12	2.70	0.68
4:S2:143:TYR:O	24:D2:98:GLN:NE2	3.19	0.68
36:5:1696:A:OP2	86:5:4185:OHX:N6	2.26	0.68
24:D2:103:ILE:HA	24:D2:112:ASP:HA	1.74	0.68
36:5:438:A:N1	36:5:621:A:N6	2.40	0.68
41:L4:204:GLY:O	41:L4:246:ARG:NH1	2.30	0.68
36:1:1634:G:N7	63:N7:17:ARG:NH2	2.35	0.68
4:S2:53:ILE:HG23	4:S2:72:LEU:HD23	1.74	0.68
1:2:854:U:O4	55:M9:173:ARG:NH2	2.26	0.68
36:1:2258:U:OP2	86:1:3932:OHX:N1	2.26	0.68
1:2:74:U:H1'	1:2:75:U:H5''	1.75	0.68
41:L4:269:SER:O	41:L4:269:SER:OG	2.32	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:27:PHE:HB3	12:C0:40:LEU:HD23	1.76	0.68
36:5:3078:U:O2'	86:5:4195:OHX:N1	2.26	0.68
49:M3:59:ARG:NH1	36:5:73:C:N3	94.81	0.68
32:E0:37:ARG:NH1	1:6:478:A:OP1	439.34	0.68
1:2:144:U:H5	8:S6:137:ARG:NH1	1.91	0.68
1:6:1595:U:N3	1:6:1600:A:H2	1.91	0.68
36:5:812:G:N7	86:5:4042:OHX:N2	2.41	0.68
36:1:1245:A:H3'	36:1:1246:G:H5''	1.76	0.68
36:1:562:C:H2'	36:1:563:U:C6	2.29	0.68
34:SR:42:LEU:HB2	34:SR:61:PHE:HB2	1.92	0.68
26:D4:10:ARG:HD2	1:6:778:G:O6	429.05	0.68
35:SM:43:ASP:OD1	35:SM:45:SER:OG	2.31	0.68
1:6:800:U:H2'	1:6:801:G:H8	1.59	0.68
48:M1:23:VAL:O	48:M1:25:GLU:N	2.27	0.68
36:1:2371:G:O6	86:1:3870:OHX:N3	2.27	0.68
42:L5:40:HIS:HB3	42:L5:43:LYS:HG3	1.73	0.68
49:M3:74:GLY:O	49:M3:101:ARG:NH1	2.25	0.68
40:L3:239:PRO:O	40:L3:242:THR:HG23	1.94	0.68
1:2:1427:A:OP2	35:SM:93:ARG:NH1	2.20	0.68
42:L5:211:LEU:HD11	42:L5:222:LEU:HD12	3.56	0.68
36:1:2108:C:H1'	36:1:3344:A:C8	2.29	0.68
7:S5:225:ARG:CZ	30:D8:58:GLU:HB2	5.35	0.68
86:2:2032:OHX:N6	86:2:2147:OHX:N2	2.40	0.68
9:S7:46:ILE:HD11	9:S7:60:ILE:HG12	1.76	0.68
3:S1:24:PHE:HA	3:S1:27:LYS:HG2	4.34	0.68
23:D1:60:ARG:HA	23:D1:65:SER:HB2	2.17	0.68
54:M8:170:ARG:NH1	64:N8:56:VAL:O	2.25	0.68
1:6:276:C:H1'	1:6:277:U:H5	1.59	0.68
20:C8:4:VAL:HG21	27:D5:82:HIS:CG	3.04	0.68
1:2:1479:A:OP1	21:C9:57:ARG:NH1	2.27	0.68
64:N8:34:MET:HB2	36:5:95:A:H5''	162.20	0.68
1:2:142:G:H22	1:2:173:A:H2	1.40	0.68
32:E0:17:GLN:OE1	1:6:563:U:H4'	382.39	0.68
39:L2:204:MET:CE	39:L2:209:HIS:HB2	2.24	0.68
1:2:749:U:H3	1:2:800:U:H3	1.42	0.68
4:S2:44:LEU:HD21	4:S2:247:ALA:HB2	2.33	0.68
43:L6:175:LYS:O	50:M4:117:ARG:NH2	2.26	0.68
6:S4:106:LYS:O	6:S4:187:ARG:NH2	2.26	0.68
36:5:2771:U:O2'	36:5:2772:C:O4'	2.10	0.68
58:N2:103:TYR:OH	36:5:1677:G:OP2	146.95	0.68
7:S5:99:MET:HG3	7:S5:180:ARG:NH2	2.52	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3259:U:H5'	36:1:3259:U:C6	2.29	0.68
1:2:705:U:H2'	1:2:706:A:C8	2.29	0.68
68:O2:123:LYS:HA	68:O2:126:LEU:HD12	2.44	0.68
86:5:4000:OHX:N2	86:5:4192:OHX:N1	2.42	0.68
6:S4:246:LEU:HB2	6:S4:251:GLU:HG2	1.75	0.68
38:4:136:G:OP1	61:N5:48:SER:OG	2.10	0.68
69:O3:39:GLN:N	69:O3:39:GLN:OE1	2.72	0.68
28:D6:19:LYS:HG3	28:D6:20:PRO:HD2	1.76	0.68
31:D9:14:TYR:OH	1:6:1553:G:O2'	402.30	0.68
1:2:814:A:OP1	55:M9:170:ARG:NH2	2.27	0.68
36:1:662:U:OP1	64:N8:8:THR:HG21	1.94	0.68
62:N6:3:LYS:NZ	62:N6:5:SER:O	3.24	0.68
43:L6:136:GLU:OE2	43:L6:139:LYS:NZ	2.24	0.68
2:S0:8:ASP:O	2:S0:54:TRP:NE1	3.49	0.68
34:SR:164:ASP:O	34:SR:166:SER:N	2.56	0.68
36:1:1941:C:O2'	36:1:3344:A:N6	2.27	0.68
42:L5:278:SER:O	42:L5:280:GLU:N	3.29	0.68
86:2:2032:OHX:N4	86:2:2147:OHX:N2	2.41	0.68
53:M7:27:LYS:HD3	53:M7:63:PHE:HB3	2.40	0.68
86:5:4019:OHX:N6	86:5:4217:OHX:N4	2.42	0.68
11:S9:182:GLU:OE1	11:S9:183:ALA:N	4.94	0.68
1:2:580:A:H5''	5:S3:143:ARG:HH12	1.58	0.68
5:S3:7:LYS:HA	5:S3:10:LYS:HB3	1.75	0.68
40:L3:115:LYS:HE3	40:L3:129:ALA:HB3	5.38	0.68
41:L4:232:SER:O	41:L4:233:LEU:HB2	2.32	0.68
86:6:2123:OHX:N6	86:6:2174:OHX:N5	2.41	0.67
38:8:78:G:H2'	38:8:79:A:O4'	1.94	0.67
1:2:513:U:H2'	1:2:514:G:C8	2.28	0.67
43:L6:31:ARG:NH1	69:O3:107:ILE:HG22	5.63	0.67
36:5:1765:U:H4'	36:5:1765:U:OP1	1.92	0.67
36:1:1243:G:N2	36:1:1244:A:N7	2.43	0.67
41:L4:73:ARG:NH1	36:5:805:G:H1'	164.33	0.67
40:L3:10:ARG:NH2	40:L3:263:SER:O	2.25	0.67
20:C8:28:ILE:HD11	20:C8:56:LYS:HB2	7.13	0.67
13:C1:21:ASN:N	13:C1:21:ASN:OD1	2.25	0.67
20:C8:88:ARG:NH1	20:C8:112:ASP:OD2	2.99	0.67
59:N3:24:ASN:OD1	59:N3:32:ARG:NH2	8.83	0.67
32:E0:50:VAL:HA	32:E0:54:ARG:HA	3.30	0.67
3:S1:92:GLN:HG2	3:S1:97:LEU:HD21	6.12	0.67
17:C5:37:ALA:O	17:C5:42:ARG:NH1	4.15	0.67
36:1:3128:G:OP2	86:1:4163:OHX:N2	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1533:C:H4'	1:6:1539:G:N1	2.09	0.67
8:S6:10:ASN:HB3	8:S6:128:THR:HA	2.44	0.67
1:2:136:C:H4'	1:2:137:U:OP1	1.93	0.67
47:M0:9:TYR:CD1	47:M0:97:LEU:HD13	2.28	0.67
86:1:4000:OHX:N3	86:1:4168:OHX:N3	2.42	0.67
2:S0:179:ARG:HD3	2:S0:183:ARG:NE	3.19	0.67
36:1:1233:G:H22	36:1:1255:C:N4	1.92	0.67
36:1:595:G:N1	36:1:609:G:H5''	2.09	0.67
86:5:4000:OHX:N2	86:5:4192:OHX:N5	2.42	0.67
1:2:1488:G:H3'	1:2:1515:A:H61	1.59	0.67
1:6:1155:G:O2'	86:6:2188:OHX:N3	2.28	0.67
33:E1:90:LYS:HB2	33:E1:93:HIS:CE1	11.05	0.67
40:L3:43:LEU:HD22	40:L3:203:VAL:HG11	1.77	0.67
60:N4:27:LYS:HD3	60:N4:29:PHE:CZ	4.03	0.67
5:S3:59:LEU:HG	5:S3:63:GLY:HA2	1.76	0.67
36:1:2307:G:O2'	36:1:2310:U:OP2	2.12	0.67
47:M0:24:ARG:NH2	36:5:2648:G:OP1	264.90	0.67
78:Q2:17:CYS:SG	87:Q2:501:ZN:ZN	1.77	0.67
86:6:2123:OHX:N2	86:6:2174:OHX:N1	2.41	0.67
16:C4:19:ILE:HB	16:C4:83:ILE:HD12	1.76	0.67
41:L4:302:ALA:HB2	54:M8:39:ARG:CZ	2.39	0.67
28:D6:10:ARG:HB2	28:D6:34:LYS:HG3	1.75	0.67
3:S1:36:SER:O	3:S1:38:PHE:N	2.28	0.67
36:5:1502:C:OP1	86:5:3914:OHX:N3	2.27	0.67
17:C5:127:ARG:O	17:C5:130:ARG:NH1	4.76	0.67
36:1:1540:U:OP1	86:1:4016:OHX:N1	2.27	0.67
9:S7:46:ILE:HG12	9:S7:60:ILE:HA	1.76	0.67
86:5:4000:OHX:N4	86:5:4192:OHX:N1	2.42	0.67
3:S1:35:PRO:HB3	3:S1:231:LEU:HD11	5.02	0.67
17:C5:86:VAL:O	17:C5:89:MET:HG2	1.94	0.67
25:D3:91:GLY:O	25:D3:93:LEU:N	2.26	0.67
1:6:833:U:O4	86:6:2103:OHX:N2	2.28	0.67
67:O1:75:ILE:HG12	67:O1:93:VAL:HG13	2.44	0.67
1:6:104:A:H61	1:6:308:C:H5'	1.59	0.67
2:S0:184:LEU:O	2:S0:186:GLY:N	2.59	0.67
54:M8:158:HIS:H	54:M8:186:VAL:CG1	2.07	0.67
36:5:3241:G:H2'	36:5:3245:A:C8	2.30	0.67
26:D4:29:HIS:HB2	26:D4:67:GLY:HA2	4.44	0.67
1:2:780:A:H8	26:D4:8:ARG:HB3	1.58	0.67
34:SR:205:SER:O	34:SR:207:ASP:N	3.03	0.67
36:5:3156:U:O2'	36:5:3157:U:O2	2.10	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:430:U:OP1	86:1:4128:OHX:N6	2.28	0.67
45:L8:161:GLU:HA	45:L8:164:VAL:HG22	1.85	0.67
40:L3:293:ASN:HB2	40:L3:304:THR:HA	1.75	0.67
42:L5:8:LYS:NZ	37:7:15:C:O3'	311.69	0.67
1:2:1796:C:O5'	28:D6:5:ARG:NH1	2.28	0.67
1:2:734:A:H5''	1:2:735:C:OP1	1.94	0.67
16:C4:43:THR:OG1	1:6:900:A:OP1	278.80	0.67
77:Q1:7:LYS:HE2	77:Q1:11:ARG:HH12	3.44	0.67
40:L3:232:ARG:NH2	36:5:2989:U:O2'	215.10	0.67
4:S2:99:LYS:HA	4:S2:117:THR:HA	2.23	0.67
18:C6:22:VAL:HG22	18:C6:65:ILE:HG23	1.76	0.67
70:O4:3:GLN:HB3	70:O4:30:LEU:HD12	1.76	0.67
63:N7:53:VAL:HG21	63:N7:62:VAL:HG13	1.76	0.67
44:L7:142:SER:O	44:L7:146:GLN:HG3	1.94	0.67
54:M8:161:LYS:O	54:M8:162:ALA:HB3	1.95	0.67
57:N1:130:ARG:HD3	36:5:1098:A:OP2	254.41	0.67
43:L6:46:ARG:HG3	43:L6:46:ARG:HH11	2.36	0.67
40:L3:296:THR:HG22	40:L3:298:PHE:N	5.73	0.67
1:6:138:A:H62	1:6:266:A:H61	1.39	0.67
36:1:1514:G:N7	36:1:1841:A:O2'	2.28	0.67
1:6:1450:U:OP2	86:6:2131:OHX:N4	2.28	0.67
36:5:3177:G:H5'	36:5:3177:G:H8	1.59	0.67
28:D6:10:ARG:HB2	28:D6:34:LYS:HA	2.27	0.67
64:N8:47:LYS:HG3	64:N8:47:LYS:O	3.19	0.67
20:C8:140:THR:HA	20:C8:143:ARG:NH1	2.36	0.67
26:D4:124:ARG:O	26:D4:127:LYS:HG3	1.95	0.67
40:L3:4:ARG:O	40:L3:5:LYS:HB3	1.94	0.67
86:1:3938:OHX:N1	86:1:4193:OHX:N2	2.43	0.67
36:5:2234:G:O6	86:5:3963:OHX:N1	2.28	0.67
36:5:3174:A:H2'	36:5:3175:U:H5'	1.75	0.67
36:5:2971:A:H3'	36:5:2971:A:N3	2.10	0.67
1:2:717:C:H42	1:2:720:G:H22	1.40	0.67
1:2:649:U:O2'	1:2:650:U:O5'	2.13	0.67
1:2:61:A:H8	1:2:269:G:O2'	1.75	0.67
39:L2:68:LYS:HD3	39:L2:70:ARG:HH21	1.60	0.67
55:M9:105:LEU:HD22	55:M9:138:LEU:HD13	1.77	0.67
1:2:1291:G:N2	1:2:1324:G:H22	1.93	0.67
30:D8:58:GLU:HB3	30:D8:61:ARG:HG3	6.95	0.67
1:6:1698:G:N2	1:6:1699:G:N7	2.42	0.67
36:1:112:U:O2'	36:1:113:C:OP2	2.11	0.67
11:S9:59:LEU:HD22	11:S9:69:ARG:HA	2.45	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:116:LYS:HE2	1:6:57:G:OP2	338.44	0.67
55:M9:106:LEU:HD13	55:M9:138:LEU:HD11	2.37	0.67
9:S7:35:LYS:HZ2	9:S7:36:ALA:H	1.42	0.67
79:Q3:62:LYS:HZ2	36:5:2554:A:H62	217.43	0.67
2:S0:56:LYS:HD2	2:S0:158:VAL:HG23	1.77	0.67
1:2:591:A:H2'	1:2:592:A:H8	1.60	0.67
79:Q3:56:THR:HB	79:Q3:63:THR:OG1	1.95	0.67
36:5:1596:C:H2'	36:5:1597:C:C6	2.29	0.67
22:D0:106:ILE:HG23	22:D0:107:THR:HG23	1.76	0.67
44:L7:88:ARG:HD2	44:L7:90:LYS:O	2.21	0.66
36:1:1278:A:O2'	36:1:1279:C:O5'	2.11	0.66
1:6:151:G:H22	1:6:163:G:N2	1.92	0.66
40:L3:37:ARG:CG	40:L3:187:SER:H	2.07	0.66
2:S0:55:GLU:HG2	23:D1:79:LEU:HD23	4.92	0.66
86:2:2045:OHX:N1	86:2:2099:OHX:N5	2.43	0.66
36:5:1078:U:O4	86:5:3999:OHX:N5	2.28	0.66
36:5:3035:A:OP2	86:5:4049:OHX:N5	2.28	0.66
38:8:91:C:H2'	38:8:92:A:H8	1.59	0.66
4:S2:67:GLN:HA	4:S2:70:ASP:HB2	1.77	0.66
8:S6:20:ASP:HB3	8:S6:23:ARG:HG2	5.13	0.66
36:5:2957:G:H8	36:5:2957:G:H5'	1.61	0.66
19:C7:104:ASN:O	19:C7:106:THR:N	2.93	0.66
10:S8:50:GLY:HA2	1:6:397:A:O3'	315.12	0.66
1:2:159:U:H5'	26:D4:117:LYS:HB3	1.76	0.66
36:1:1492:G:N7	75:O9:2:ALA:HB1	2.10	0.66
36:1:2736:A:OP1	57:N1:92:ARG:NH1	2.28	0.66
7:S5:163:SER:HB2	30:D8:48:VAL:HG22	2.05	0.66
1:6:1699:G:H22	1:6:1702:A:H5''	1.60	0.66
22:D0:71:PRO:O	22:D0:72:ASN:ND2	5.92	0.66
66:O0:26:GLY:O	66:O0:30:THR:HG23	1.96	0.66
1:2:1545:A:OP2	20:C8:136:GLN:NE2	2.27	0.66
46:L9:86:TYR:CE2	46:L9:151:VAL:HG22	2.29	0.66
1:2:591:A:H2'	1:2:592:A:C8	2.30	0.66
22:D0:58:LEU:HD12	22:D0:88:LYS:HB3	1.77	0.66
36:5:1614:C:H2'	36:5:1615:C:H6	1.61	0.66
24:D2:86:ILE:HD12	24:D2:87:GLU:H	1.60	0.66
17:C5:65:LEU:O	86:C5:201:OHX:N2	3.99	0.66
1:6:1685:G:H1	1:6:1716:C:H42	1.41	0.66
26:D4:78:SER:OG	26:D4:79:VAL:N	3.04	0.66
45:L8:177:TYR:CZ	45:L8:222:PHE:HB3	3.20	0.66
36:5:1764:U:H3'	36:5:1765:U:H5''	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:140:LYS:NZ	52:M6:150:GLU:OE1	2.29	0.66
1:2:872:G:O6	86:2:2127:OHX:N3	2.28	0.66
54:M8:165:ILE:HG23	54:M8:167:SER:H	4.94	0.66
21:C9:85:SER:HB2	21:C9:91:TYR:CE2	2.81	0.66
55:M9:90:PRO:HB2	55:M9:93:VAL:HG23	1.77	0.66
47:M0:86:HIS:HB3	47:M0:139:ARG:HG2	1.78	0.66
1:6:1669:U:OP2	86:6:2194:OHX:N3	2.29	0.66
36:1:155:G:H1'	72:O6:26:ILE:HD13	1.77	0.66
40:L3:37:ARG:HG3	40:L3:187:SER:H	1.61	0.66
7:S5:26:ALA:N	18:C6:27:GLY:O	2.83	0.66
42:L5:129:TYR:OH	42:L5:175:HIS:O	2.13	0.66
1:2:487:G:H1	1:2:500:C:H42	1.43	0.66
5:S3:22:ASN:O	5:S3:26:THR:OG1	2.53	0.66
1:6:992:A:OP1	86:6:2056:OHX:N1	2.28	0.66
5:S3:40:ARG:HG2	22:D0:110:PRO:HB3	1.79	0.66
1:6:986:G:OP2	86:6:2122:OHX:N2	2.28	0.66
13:C1:78:THR:HG21	13:C1:118:GLN:HA	3.29	0.66
64:N8:46:ASP:N	64:N8:46:ASP:OD1	2.25	0.66
25:D3:102:VAL:HG12	25:D3:127:VAL:HG12	1.77	0.66
47:M0:100:ASN:O	47:M0:101:LYS:HB2	4.49	0.66
8:S6:78:THR:HG23	8:S6:92:ARG:HG2	1.77	0.66
7:S5:25:LEU:HD22	7:S5:25:LEU:H	1.61	0.66
1:2:1274:C:H5	35:SM:96:ARG:H	1.41	0.66
36:1:239:G:O6	86:1:4030:OHX:N3	2.28	0.66
48:M1:81:GLU:HA	48:M1:84:LEU:HB2	1.78	0.66
47:M0:142:ASP:OD2	47:M0:178:ARG:NH2	3.78	0.66
59:N3:87:ARG:HH22	59:N3:137:VAL:HG22	1.60	0.66
36:1:2107:A:H2	36:1:3344:A:H8	1.42	0.66
9:S7:133:THR:OG1	9:S7:134:GLU:N	2.28	0.66
21:C9:52:GLY:O	21:C9:54:PHE:N	2.26	0.66
1:6:407:A:H2'	1:6:408:C:C6	2.30	0.66
36:1:1119:C:OP2	86:1:3953:OHX:N1	2.28	0.66
36:1:768:C:OP1	49:M3:186:ARG:NH2	2.24	0.66
1:2:482:U:H2'	1:2:483:A:H8	1.60	0.66
41:L4:82:THR:HG23	41:L4:84:ARG:H	2.36	0.66
36:1:2680:A:C2	48:M1:24:GLY:HA3	2.31	0.66
29:D7:6:ASP:OD1	29:D7:9:HIS:ND1	2.71	0.66
8:S6:12:SER:HB3	8:S6:124:LEU:HD12	2.83	0.66
1:2:795:U:C5	1:2:796:A:C8	2.84	0.66
68:O2:91:THR:HG22	68:O2:92:TYR:HD2	1.59	0.66
86:1:3938:OHX:N1	86:1:4193:OHX:N4	2.43	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:O8:24:THR:HG23	74:O8:44:LYS:HB2	1.77	0.66
1:2:260:U:H3'	1:2:261:U:H5''	1.76	0.66
1:6:1681:A:H2	1:6:1720:G:H21	1.44	0.66
36:5:3195:U:O2'	36:5:3196:U:H5'	1.95	0.66
86:8:218:OHX:N6	86:8:226:OHX:N3	2.43	0.66
64:N8:46:ASP:O	64:N8:47:LYS:HB3	1.94	0.66
11:S9:109:LEU:HB2	11:S9:146:PHE:HB3	1.78	0.66
36:5:1249:G:H2'	36:5:1250:G:H8	1.60	0.66
37:3:60:G:H2'	37:3:61:G:C8	2.30	0.66
9:S7:13:PRO:HB3	9:S7:14:THR:HB	1.77	0.66
71:O5:85:THR:HB	71:O5:88:LEU:HD12	1.77	0.66
49:M3:91:ARG:NH2	49:M3:97:VAL:O	3.22	0.66
61:N5:73:MET:O	61:N5:77:GLU:HG3	1.96	0.66
41:L4:354:VAL:HG11	57:N1:143:THR:HG21	1.77	0.66
36:5:776:U:H5	36:5:2719:U:O2	1.77	0.66
1:2:755:A:H2'	1:2:756:A:C8	2.31	0.66
36:5:299:G:N7	86:5:4189:OHX:N1	2.44	0.66
7:S5:57:SER:HB2	30:D8:53:ILE:HB	2.98	0.66
62:N6:37:LYS:H	62:N6:37:LYS:HE2	2.33	0.66
20:C8:17:LEU:O	20:C8:20:THR:N	3.59	0.66
74:O8:18:ALA:O	74:O8:20:VAL:N	3.43	0.66
36:1:73:C:C2	49:M3:59:ARG:HD3	2.31	0.66
26:D4:10:ARG:HD2	26:D4:26:ASP:HB2	1.78	0.66
42:L5:39:GLN:OE1	42:L5:40:HIS:N	2.69	0.66
1:6:1515:A:O2'	1:6:1517:U:OP2	2.09	0.66
36:1:1878:G:OP1	86:1:3926:OHX:N4	2.28	0.66
6:S4:126:VAL:HG13	6:S4:158:ASP:O	2.15	0.66
36:1:3174:A:OP1	69:O3:97:SER:OG	2.13	0.66
36:5:201:A:OP2	86:5:3988:OHX:N1	2.29	0.66
38:8:149:A:H2'	38:8:150:G:C8	2.30	0.66
60:N4:39:LEU:HD12	60:N4:44:LYS:HG3	2.47	0.66
36:1:812:G:N7	86:1:3982:OHX:N1	2.44	0.66
60:N4:63:ILE:O	60:N4:65:GLU:N	2.66	0.66
52:M6:62:THR:HG22	52:M6:65:ASN:H	2.15	0.66
15:C3:30:SER:HB2	15:C3:67:THR:HA	4.64	0.66
36:1:3346:U:H3	36:1:3359:A:N6	1.94	0.66
36:5:1239:C:N3	36:5:1249:G:N2	2.41	0.66
3:S1:61:LEU:HG	3:S1:64:ARG:HH21	1.60	0.66
31:D9:36:LEU:O	31:D9:38:ILE:HG12	1.95	0.66
53:M7:4:TYR:CE1	53:M7:16:SER:HB2	2.81	0.66
62:N6:100:HIS:ND1	62:N6:102:SER:OG	2.98	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:155:THR:HB	42:L5:179:ARG:HD3	1.78	0.66
36:1:1719:G:OP2	55:M9:121:HIS:ND1	2.29	0.66
33:E1:98:VAL:HG12	33:E1:99:LYS:H	3.28	0.66
36:1:3035:A:OP2	86:1:4070:OHX:N4	2.29	0.66
74:O8:65:LEU:HD23	74:O8:68:SER:HB2	2.47	0.66
36:5:3153:U:H1'	36:5:3154:C:C6	2.30	0.65
41:L4:361:HIS:CG	41:L4:362:ASP:H	2.55	0.65
47:M0:4:ARG:NH1	36:5:2828:G:O2'	263.85	0.65
36:1:1877:U:OP2	86:1:3926:OHX:N2	2.28	0.65
58:N2:37:LEU:O	58:N2:41:ILE:HG13	2.25	0.65
43:L6:23:LYS:HD2	36:5:611:A:N3	236.03	0.65
28:D6:5:ARG:NH2	1:6:1795:U:OP2	337.61	0.65
36:1:1171:G:O6	86:1:3957:OHX:N2	2.29	0.65
11:S9:149:ARG:HH11	11:S9:149:ARG:HG3	4.40	0.65
14:C2:32:LEU:O	14:C2:35:ALA:N	2.28	0.65
21:C9:57:ARG:HH11	21:C9:57:ARG:HB2	1.59	0.65
5:S3:40:ARG:HD2	5:S3:49:ILE:HD11	3.60	0.65
65:N9:14:ARG:NH2	65:N9:18:ARG:HH11	4.29	0.65
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CZ3	3.03	0.65
13:C1:54:ILE:HG23	13:C1:55:ASP:H	1.59	0.65
1:2:1367:G:N7	86:2:2109:OHX:N6	2.44	0.65
49:M3:177:LYS:HG3	72:O6:11:LEU:HD13	2.21	0.65
11:S9:114:TYR:HE1	11:S9:121:SER:H	1.41	0.65
11:S9:157:ASP:OD1	11:S9:158:PHE:N	3.53	0.65
36:1:1951:C:N4	36:1:2095:G:H1	1.93	0.65
36:5:129:U:H2'	36:5:130:A:C8	2.31	0.65
49:M3:180:ARG:HD3	72:O6:11:LEU:HD21	1.78	0.65
1:6:1688:U:H3	1:6:1713:G:H1	1.44	0.65
36:5:1081:U:O2'	36:5:1082:U:O5'	2.13	0.65
17:C5:63:ALA:HA	17:C5:66:ALA:HB3	2.48	0.65
9:S7:80:GLU:OE1	9:S7:83:LYS:NZ	2.29	0.65
36:1:692:A:OP1	51:M5:201:ARG:NH2	2.30	0.65
12:C0:32:HIS:HD2	12:C0:35:ILE:HB	1.61	0.65
36:1:1831:U:O2'	38:4:114:G:OP1	2.08	0.65
36:1:790:U:H5'	41:L4:112:LYS:HD2	1.77	0.65
47:M0:177:ASP:O	47:M0:180:GLU:N	3.07	0.65
49:M3:46:ILE:HD12	49:M3:49:ARG:NH1	2.28	0.65
4:S2:56:ILE:HG23	4:S2:61:LEU:HB2	1.78	0.65
4:S2:53:ILE:HG12	4:S2:73:LEU:HD22	3.79	0.65
46:L9:84:LYS:HA	46:L9:188:THR:HG23	1.79	0.65
41:L4:122:THR:HG22	41:L4:235:LEU:HB2	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:20:LEU:HD11	41:L4:252:GLU:HG3	2.98	0.65
1:2:218:A:O2'	1:2:219:A:OP1	2.14	0.65
86:5:4019:OHX:N6	86:5:4217:OHX:N2	2.44	0.65
49:M3:76:THR:HG22	49:M3:101:ARG:HB3	1.78	0.65
36:5:2840:C:OP1	86:5:4137:OHX:N3	2.29	0.65
36:1:317:A:OP2	72:O6:30:LYS:NZ	2.29	0.65
47:M0:66:GLU:OE1	47:M0:69:ARG:NH2	2.55	0.65
36:5:1015:U:O2'	36:5:1016:C:H3'	1.96	0.65
1:2:127:G:N7	8:S6:202:ARG:NH2	2.43	0.65
4:S2:140:ARG:HH12	4:S2:229:LEU:HD11	3.94	0.65
10:S8:159:GLN:HB3	10:S8:165:LEU:HD23	1.79	0.65
58:N2:41:ILE:HD13	58:N2:71:PHE:CE2	3.72	0.65
1:2:16:G:O6	4:S2:203:LYS:NZ	2.27	0.65
1:6:417:A:H4'	1:6:418:G:O5'	1.97	0.65
36:1:1808:G:O6	86:1:3980:OHX:N3	2.29	0.65
44:L7:44:ILE:HD13	44:L7:180:SER:HB3	1.77	0.65
70:O4:37:LYS:NZ	36:5:1591:G:OP1	160.15	0.65
15:C3:73:ARG:HD3	1:6:859:A:C5	331.20	0.65
36:5:438:A:H2'	36:5:494:G:H21	1.61	0.65
38:8:79:A:C2	38:8:80:A:H1'	2.31	0.65
53:M7:62:ARG:NH1	36:5:412:G:OP1	158.89	0.65
47:M0:80:SER:HB3	47:M0:147:VAL:HG11	1.78	0.65
36:5:1152:G:N2	36:5:1200:A:H61	1.93	0.65
12:C0:12:HIS:CE1	12:C0:49:LEU:HD21	2.31	0.65
61:N5:38:LEU:O	61:N5:39:LYS:HB2	4.25	0.65
22:D0:58:LEU:HD23	1:6:1516:A:H8	444.20	0.65
1:2:1665:U:O4	86:2:2137:OHX:N4	2.30	0.65
1:6:1564:U:H2'	1:6:1565:C:C6	2.32	0.65
39:L2:192:LYS:HB3	39:L2:193:ARG:NH2	2.12	0.65
33:E1:144:CYS:C	33:E1:146:SER:H	1.99	0.65
36:1:439:C:H5'	36:1:440:A:C8	2.31	0.65
39:L2:213:GLY:HA2	36:5:2967:A:H5''	204.92	0.65
1:2:1370:U:O4	86:2:2121:OHX:N1	2.29	0.65
50:M4:121:MET:HG3	36:5:3214:U:C4	281.58	0.65
20:C8:33:THR:HA	20:C8:38:VAL:HG23	2.42	0.65
39:L2:204:MET:HG2	36:5:914:A:C2	195.08	0.65
1:2:1280:C:H2'	1:2:1281:G:H8	1.59	0.65
16:C4:125:SER:OG	16:C4:126:THR:N	2.29	0.65
48:M1:81:GLU:OE2	48:M1:89:TYR:OH	2.53	0.65
6:S4:159:THR:OG1	6:S4:160:VAL:N	2.76	0.65
6:S4:139:VAL:HG13	6:S4:150:PRO:HG3	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:72:ILE:HD13	63:N7:111:LYS:HG3	1.78	0.65
56:N0:12:ARG:HB3	56:N0:24:LEU:HD23	2.04	0.65
21:C9:49:ASP:HB3	21:C9:53:TRP:HB3	1.78	0.65
40:L3:308:MET:HE3	36:5:3329:U:H5''	221.82	0.65
60:N4:4:GLU:HG2	60:N4:30:ARG:HD2	1.78	0.65
24:D2:47:ILE:HG22	24:D2:65:LEU:HB3	1.79	0.65
86:2:2091:OHX:N5	86:2:2132:OHX:N2	2.45	0.65
36:1:2533:G:H3'	36:1:2534:G:C8	2.32	0.65
1:2:1231:U:HO2'	1:2:1258:U:HO2'	1.43	0.65
51:M5:172:ARG:HH11	36:5:30:G:P	107.13	0.65
2:S0:124:THR:HG22	2:S0:174:TRP:HE1	1.61	0.65
26:D4:10:ARG:NH1	1:6:778:G:N7	431.21	0.65
36:1:3115:C:OP1	46:L9:62:ARG:NH2	2.30	0.65
38:4:135:G:OP2	61:N5:56:ARG:NH2	2.30	0.65
61:N5:56:ARG:NH2	38:8:135:G:OP2	82.43	0.65
36:5:1752:A:OP2	86:5:4078:OHX:N6	2.30	0.65
36:1:1769:G:N7	86:1:4165:OHX:N2	2.45	0.65
2:S0:62:ARG:HG3	2:S0:62:ARG:NH1	2.47	0.65
44:L7:158:LYS:HE2	44:L7:159:GLN:H	1.59	0.65
1:6:823:G:H2'	1:6:824:G:O4'	1.97	0.65
36:5:1940:G:H21	36:5:3362:A:H8	1.44	0.65
53:M7:27:LYS:NZ	36:5:1447:G:OP2	160.59	0.65
66:O0:30:THR:HB	66:O0:91:SER:HB2	1.77	0.65
36:5:1192:C:N4	36:5:1302:A:OP2	2.29	0.65
20:C8:66:LEU:HA	20:C8:69:ILE:HD12	1.77	0.65
45:L8:26:LEU:HD22	63:N7:53:VAL:HG11	3.51	0.65
70:O4:99:LYS:O	70:O4:103:LYS:HG2	1.97	0.65
1:6:1160:A:H2'	1:6:1161:C:C6	2.32	0.65
36:1:2674:A:H5''	48:M1:105:GLY:HA3	1.79	0.65
36:1:12:A:H2'	36:1:13:A:H5''	1.79	0.65
1:2:6:G:OP2	4:S2:205:ARG:HD2	1.97	0.65
36:5:2444:C:H42	36:5:2503:G:H1	1.45	0.65
36:1:2512:C:N4	36:1:2593:A:OP2	2.30	0.65
21:C9:86:ARG:HG3	21:C9:86:ARG:HH11	1.61	0.65
51:M5:190:THR:O	51:M5:194:GLN:HG2	1.97	0.65
1:2:1773:C:OP1	77:Q1:3:ALA:HB3	1.96	0.65
9:S7:31:SER:HA	9:S7:35:LYS:HE3	4.15	0.65
36:5:1410:U:OP1	86:5:4025:OHX:N6	2.30	0.65
17:C5:43:ARG:NH2	1:6:1552:U:OP2	402.88	0.65
11:S9:124:HIS:HD2	1:6:479:C:H5'	451.79	0.65
14:C2:89:ILE:HD13	14:C2:90:LYS:H	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:E1:113:LYS:HD2	33:E1:113:LYS:H	1.61	0.65
36:5:171:G:H1	36:5:247:C:H42	1.45	0.65
47:M0:149:VAL:HG13	47:M0:165:ILE:HG21	3.19	0.65
54:M8:182:LYS:NZ	64:N8:55:LYS:O	2.22	0.65
86:1:3957:OHX:N3	44:L7:217:PRO:O	2.30	0.64
3:S1:229:MET:O	3:S1:232:HIS:N	4.50	0.64
10:S8:10:LYS:HG2	13:C1:133:LYS:HE3	2.24	0.64
49:M3:46:ILE:HG22	49:M3:49:ARG:HB2	1.95	0.64
37:3:60:G:H2'	37:3:61:G:H8	1.63	0.64
42:L5:58:LYS:HG3	42:L5:93:THR:HG21	1.79	0.64
12:C0:8:ARG:HD2	12:C0:12:HIS:CE1	2.32	0.64
61:N5:67:ILE:HB	61:N5:83:VAL:HG12	2.83	0.64
36:5:955:U:H2'	36:5:956:U:H6	1.62	0.64
36:5:279:U:H2'	36:5:280:U:C6	2.32	0.64
1:6:486:G:O6	1:6:488:G:N2	2.28	0.64
36:1:3164:C:H1'	36:1:3165:A:H5'	1.79	0.64
1:6:515:A:H2'	1:6:516:G:O4'	1.97	0.64
1:2:623:A:OP1	86:2:2158:OHX:N2	2.29	0.64
55:M9:84:THR:O	55:M9:88:ARG:HG2	3.94	0.64
35:SM:134:ASP:O	35:SM:134:ASP:OD1	2.14	0.64
2:S0:179:ARG:HD3	2:S0:183:ARG:CZ	2.96	0.64
18:C6:40:GLU:HG3	18:C6:42:GLU:HB2	1.78	0.64
1:2:1460:A:OP2	35:SM:68:ARG:HD3	1.98	0.64
52:M6:113:ASP:OD2	52:M6:113:ASP:N	2.28	0.64
15:C3:84:ILE:HG22	15:C3:135:LEU:HD21	1.78	0.64
9:S7:14:THR:HG22	9:S7:17:GLU:HB2	2.19	0.64
14:C2:66:VAL:HG11	14:C2:71:ILE:HD12	1.94	0.64
41:L4:60:THR:HG21	41:L4:77:VAL:HG22	1.79	0.64
39:L2:30:ARG:NH2	39:L2:33:ASP:OD2	2.39	0.64
36:5:2927:C:H2'	36:5:2928:C:C6	2.32	0.64
67:O1:11:GLU:OE2	67:O1:74:ARG:NE	2.30	0.64
39:L2:28:LYS:HB3	39:L2:123:ARG:HB3	1.78	0.64
1:2:605:A:OP2	1:2:606:A:O2'	2.13	0.64
18:C6:127:LYS:HA	18:C6:134:ALA:HA	1.78	0.64
1:6:1489:U:H6	1:6:1492:A:H2	1.43	0.64
50:M4:49:PRO:HG3	50:M4:78:THR:HG23	3.32	0.64
3:S1:168:ILE:HG12	3:S1:197:ILE:HD12	1.78	0.64
1:2:1291:G:H5'	4:S2:119:LYS:HE3	1.78	0.64
4:S2:166:THR:HG23	4:S2:201:ASN:HB3	1.78	0.64
1:6:1280:C:H2'	1:6:1281:G:C8	2.32	0.64
46:L9:57:VAL:HG23	46:L9:68:LEU:HG	1.88	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:12:LYS:HG2	52:M6:40:GLU:HB2	4.66	0.64
86:1:3938:OHX:N3	86:1:4193:OHX:N6	2.45	0.64
1:2:778:G:H22	26:D4:10:ARG:HH12	1.44	0.64
48:M1:23:VAL:HG12	48:M1:25:GLU:H	4.60	0.64
6:S4:151:ASP:HB3	6:S4:154:ILE:HG13	1.79	0.64
36:5:2274:U:OP2	86:5:3985:OHX:N6	2.30	0.64
36:5:22:G:H1'	38:8:104:A:N3	2.11	0.64
1:2:1738:U:H2'	1:2:1739:C:C6	2.32	0.64
36:5:2273:G:O6	86:5:3979:OHX:N2	2.31	0.64
1:2:397:A:O3'	10:S8:50:GLY:HA2	1.97	0.64
18:C6:44:LEU:O	18:C6:47:LYS:N	2.26	0.64
86:8:218:OHX:N5	86:8:226:OHX:N3	2.46	0.64
49:M3:75:PHE:O	49:M3:79:GLU:HB2	1.98	0.64
2:S0:41:ARG:HE	2:S0:45:VAL:HB	1.62	0.64
57:N1:12:ARG:HD3	57:N1:13:TYR:CE1	2.51	0.64
72:O6:60:LEU:HD13	72:O6:64:SER:HB3	1.78	0.64
42:L5:294:ALA:O	42:L5:296:GLN:N	2.26	0.64
40:L3:215:ILE:HD13	40:L3:282:ILE:HD11	1.79	0.64
36:1:2840:C:OP1	86:1:4138:OHX:N6	2.29	0.64
36:5:1879:A:N3	36:5:1879:A:H2'	2.12	0.64
34:SR:258:THR:O	34:SR:275:ARG:NH1	2.25	0.64
36:1:3152:U:O2'	36:1:3153:U:H5'	1.97	0.64
73:O7:18:LEU:HA	73:O7:25:ARG:H	1.61	0.64
15:C3:18:TYR:O	15:C3:19:SER:HB2	4.55	0.64
1:2:1483:A:H2'	1:2:1484:G:C8	2.32	0.64
1:2:393:C:H2'	1:2:394:C:H6	1.62	0.64
36:1:1310:G:N7	86:1:4024:OHX:N5	2.45	0.64
72:O6:58:ILE:HG22	72:O6:90:MET:HG3	1.78	0.64
36:5:181:U:H1'	36:5:236:G:N2	2.13	0.64
36:1:162:G:H1	36:1:259:C:H42	1.42	0.64
36:1:1308:A:OP2	36:1:1308:A:C8	2.50	0.64
48:M1:155:THR:O	48:M1:159:THR:HG23	5.31	0.64
36:1:180:C:H2'	36:1:181:U:C6	2.32	0.64
59:N3:87:ARG:HH22	59:N3:137:VAL:CG2	2.11	0.64
86:2:2091:OHX:N3	86:2:2132:OHX:N6	2.45	0.64
16:C4:29:HIS:ND1	16:C4:29:HIS:O	2.31	0.64
53:M7:60:PHE:CE2	53:M7:82:ARG:HB2	2.32	0.64
45:L8:217:THR:O	45:L8:221:ASN:ND2	3.31	0.64
26:D4:29:HIS:HB3	26:D4:32:ARG:HB2	5.03	0.64
86:5:4019:OHX:N5	86:5:4217:OHX:N2	2.45	0.64
36:5:1192:C:N4	36:5:1302:A:P	2.70	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:74:GLY:HA3	49:M3:98:ASP:HB2	2.17	0.64
36:1:1794:G:H4'	39:L2:191:LEU:HD13	1.80	0.64
36:1:410:U:O4	86:1:4051:OHX:N5	2.30	0.64
36:1:745:C:H5''	54:M8:145:ASN:HD22	1.61	0.64
45:L8:224:ASP:OD1	45:L8:224:ASP:N	2.85	0.64
52:M6:62:THR:H	52:M6:69:GLY:HA3	2.06	0.64
2:S0:140:ASN:ND2	4:S2:62:PRO:HD3	2.93	0.64
61:N5:39:LYS:HG3	36:5:13:A:H4'	119.73	0.64
64:N8:6:THR:HG23	64:N8:8:THR:HG23	2.04	0.64
86:5:4019:OHX:N5	86:5:4217:OHX:N1	2.46	0.64
20:C8:54:LEU:O	20:C8:56:LYS:N	2.99	0.64
9:S7:73:VAL:O	9:S7:75:THR:N	2.32	0.64
54:M8:69:ARG:HG3	54:M8:69:ARG:HH11	1.61	0.64
50:M4:115:PHE:O	50:M4:119:GLN:HG3	1.98	0.64
46:L9:22:SER:OG	46:L9:39:LYS:NZ	3.43	0.64
11:S9:171:ARG:NH1	11:S9:174:ARG:HD3	4.15	0.64
4:S2:137:ILE:HG12	4:S2:138:PRO:HD2	1.78	0.64
66:O0:99:ASP:HB2	66:O0:103:THR:HG23	1.80	0.64
6:S4:246:LEU:HB3	6:S4:250:GLU:HB2	1.79	0.64
45:L8:161:GLU:OE2	51:M5:26:ARG:NH2	3.12	0.64
72:O6:33:ALA:O	72:O6:34:SER:HB3	1.96	0.64
1:6:1518:C:OP2	86:6:2146:OHX:N1	2.30	0.64
8:S6:186:ARG:O	8:S6:190:GLN:HG2	1.98	0.64
63:N7:88:ASP:HB3	63:N7:121:ARG:HH22	1.61	0.64
45:L8:153:ILE:HD13	45:L8:166:LEU:HB3	2.15	0.64
36:1:1567:U:O2	36:1:1571:A:N6	2.29	0.64
21:C9:112:GLY:O	21:C9:125:SER:OG	3.68	0.64
21:C9:28:LEU:HA	21:C9:111:ILE:HD11	3.60	0.64
15:C3:22:ALA:HB1	15:C3:23:PRO:HA	2.26	0.64
66:O0:16:LEU:HD11	66:O0:97:ASP:HB3	1.80	0.64
36:5:2206:G:H2'	36:5:2207:A:H5'	1.80	0.64
74:O8:17:ARG:O	74:O8:19:ASP:N	2.30	0.64
36:1:3166:C:N3	36:1:3284:G:N2	2.37	0.64
41:L4:138:ARG:NH2	41:L4:240:PRO:HB2	3.01	0.64
71:O5:21:LEU:HD11	71:O5:55:LEU:HD21	1.80	0.64
30:D8:19:THR:HG21	30:D8:65:ARG:HA	1.78	0.64
36:5:1155:C:O2'	36:5:1197:A:N1	2.28	0.64
34:SR:220:ILE:HD13	34:SR:243:LEU:HD21	1.80	0.64
86:5:3979:OHX:N6	86:5:4198:OHX:N3	2.46	0.64
10:S8:50:GLY:O	10:S8:52:ASN:ND2	2.29	0.64
11:S9:85:VAL:HG12	11:S9:99:LEU:HD11	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:4:PHE:O	63:N7:6:LYS:N	2.30	0.64
42:L5:278:SER:C	42:L5:280:GLU:H	3.09	0.64
1:2:843:U:H2'	1:2:844:A:C8	2.33	0.64
1:6:1714:A:H2'	1:6:1715:G:O4'	1.98	0.64
38:8:113:U:O2'	38:8:114:G:OP2	2.12	0.64
40:L3:227:GLU:HG3	40:L3:270:ARG:HB3	4.75	0.64
67:O1:27:LYS:O	67:O1:31:ARG:HB2	1.98	0.64
36:5:1650:G:N7	86:5:4181:OHX:N3	2.46	0.64
39:L2:65:ASP:HB3	39:L2:68:LYS:O	2.29	0.63
8:S6:132:ARG:HH11	8:S6:132:ARG:HG2	1.63	0.63
3:S1:29:TRP:CZ3	3:S1:45:LYS:HD2	2.33	0.63
1:2:2:A:C2	4:S2:170:ILE:HD12	2.33	0.63
1:6:276:C:H1'	1:6:277:U:C5	2.33	0.63
1:2:1017:U:H2'	1:2:1018:U:C6	2.33	0.63
36:1:1809:A:O2'	86:1:4206:OHX:N2	2.31	0.63
1:2:116:U:H2'	1:2:117:U:C6	2.32	0.63
1:2:855:A:C2	1:2:857:U:H1'	2.33	0.63
41:L4:183:LYS:NZ	36:5:1386:A:N7	118.51	0.63
6:S4:163:ASP:O	6:S4:165:ALA:N	2.31	0.63
4:S2:102:VAL:HG11	4:S2:129:ILE:HG12	1.80	0.63
38:4:21:C:OP1	41:L4:193:LYS:HE2	1.98	0.63
63:N7:83:THR:HG23	63:N7:85:TYR:N	2.13	0.63
34:SR:76:ASP:OD1	34:SR:76:ASP:N	2.28	0.63
36:5:1025:A:H3'	36:5:1026:A:H4'	1.81	0.63
7:S5:76:ARG:HH12	18:C6:115:THR:HG21	1.62	0.63
36:5:2407:C:H2'	36:5:2408:U:H6	1.64	0.63
11:S9:8:TYR:O	86:S9:201:OHX:N5	2.31	0.63
36:1:2107:A:H2	36:1:3344:A:C8	2.16	0.63
36:1:2278:C:P	77:Q1:23:ARG:HH12	2.22	0.63
86:2:2091:OHX:N1	86:2:2132:OHX:N4	2.46	0.63
12:C0:55:VAL:HB	12:C0:68:LEU:HD12	3.81	0.63
40:L3:53:MET:HE2	40:L3:327:CYS:HB2	2.73	0.63
36:1:2897:A:H2'	36:1:2899:C:H5''	1.81	0.63
57:N1:108:ARG:HD2	57:N1:130:ARG:HD3	1.79	0.63
43:L6:46:ARG:CG	43:L6:46:ARG:HH11	2.84	0.63
1:6:1670:G:N7	86:6:2194:OHX:N4	2.45	0.63
1:2:45:U:O2'	1:2:46:A:H2'	1.98	0.63
41:L4:39:PHE:CD2	41:L4:242:ALA:HB2	2.91	0.63
73:O7:64:MET:HB2	73:O7:68:LYS:HB3	5.21	0.63
63:N7:81:LEU:HD22	63:N7:82:PRO:HD2	3.28	0.63
1:2:1331:A:OP1	19:C7:45:ARG:NH2	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:121:LYS:HB2	57:N1:133:ALA:HB3	1.80	0.63
38:4:141:C:OP1	51:M5:109:ARG:NH1	2.31	0.63
1:2:1101:G:O3'	24:D2:76:SER:HB2	1.99	0.63
63:N7:101:PHE:HA	63:N7:107:ARG:HE	2.31	0.63
1:6:1699:G:C2	1:6:1701:A:H5''	2.33	0.63
36:5:3121:U:H1'	36:5:3122:A:H5''	1.80	0.63
45:L8:68:ARG:O	45:L8:69:LEU:HB2	4.54	0.63
1:2:732:G:O2'	1:2:733:A:O4'	2.15	0.63
1:6:138:A:N6	1:6:266:A:H61	1.96	0.63
22:D0:27:THR:HB	22:D0:88:LYS:HG3	2.06	0.63
63:N7:88:ASP:O	63:N7:121:ARG:NH2	2.78	0.63
36:1:3228:C:H4'	36:1:3229:G:O5'	1.97	0.63
3:S1:93:GLY:O	3:S1:95:ASN:N	2.99	0.63
17:C5:52:LYS:HG3	17:C5:53:PRO:HD3	1.80	0.63
36:5:3227:A:H2'	36:5:3228:C:H5'	1.80	0.63
27:D5:59:TYR:HD2	27:D5:60:VAL:N	1.96	0.63
29:D7:2:VAL:O	29:D7:3:LEU:HB2	2.90	0.63
86:2:2091:OHX:N3	86:2:2132:OHX:N4	2.46	0.63
29:D7:36:LYS:HB3	29:D7:43:ILE:HG22	1.79	0.63
33:E1:90:LYS:HB2	33:E1:93:HIS:HE1	11.43	0.63
36:1:439:C:H3'	36:1:440:A:C8	2.33	0.63
59:N3:11:PHE:CG	59:N3:88:ARG:HD2	2.63	0.63
36:5:2619:G:N7	86:5:4244:OHX:N2	2.46	0.63
1:2:491:C:H42	1:2:496:G:H1	1.45	0.63
18:C6:18:ALA:HB2	18:C6:69:VAL:HG13	2.08	0.63
1:6:1207:C:H42	1:6:1456:C:H5	1.46	0.63
36:5:1540:U:OP1	86:5:4092:OHX:N2	2.32	0.63
36:1:315:C:OP2	72:O6:28:TYR:OH	2.15	0.63
56:N0:148:LEU:HD12	56:N0:149:LYS:H	1.63	0.63
2:S0:189:VAL:HG22	2:S0:190:ASP:H	1.63	0.63
34:SR:64:HIS:CE1	34:SR:84:SER:HB3	2.71	0.63
1:2:1253:U:H2'	1:2:1254:U:H6	1.64	0.63
12:C0:76:LEU:HD22	12:C0:79:TYR:HB3	5.70	0.63
45:L8:41:GLN:HG3	45:L8:42:PRO:HD2	1.80	0.63
22:D0:106:ILE:HG13	22:D0:107:THR:H	1.62	0.63
86:1:3970:OHX:N3	86:1:4152:OHX:N1	2.47	0.63
86:5:4009:OHX:N6	86:5:4200:OHX:N2	2.47	0.63
38:8:79:A:H3'	38:8:80:A:C8	2.34	0.63
55:M9:101:VAL:HG13	55:M9:104:ARG:NH1	2.14	0.63
86:8:218:OHX:N2	86:8:226:OHX:N1	2.45	0.63
17:C5:15:HIS:O	17:C5:21:ASP:HA	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:3:ARG:HG2	1:6:399:A:H4'	320.13	0.63
23:D1:66:ASP:O	23:D1:69:LEU:N	3.17	0.63
73:O7:5:THR:HA	73:O7:8:PHE:CD2	2.34	0.63
48:M1:7:ASN:HD22	48:M1:7:ASN:N	1.96	0.63
62:N6:83:ASP:O	62:N6:84:LYS:HB2	1.99	0.63
38:8:67:U:O4	86:8:228:OHX:N3	2.32	0.63
41:L4:47:ARG:NH1	41:L4:109:TRP:O	2.32	0.63
1:6:826:U:O4	86:6:2068:OHX:N3	2.31	0.63
1:6:729:G:O2'	1:6:730:G:O5'	2.16	0.63
3:S1:70:LEU:HB3	3:S1:79:HIS:HB3	5.54	0.63
1:2:39:A:OP1	11:S9:6:ARG:NH1	2.32	0.63
75:O9:9:ILE:O	75:O9:13:MET:HG3	1.98	0.63
34:SR:197:SER:HB2	34:SR:216:LYS:HB3	3.01	0.63
63:N7:25:ILE:HG23	63:N7:41:ALA:HB1	2.42	0.63
53:M7:67:ILE:HG22	53:M7:80:LYS:HB3	1.79	0.63
39:L2:224:THR:HG23	36:5:2202:C:O4'	218.51	0.63
1:2:1774:G:N7	77:Q1:4:LYS:NZ	2.44	0.63
50:M4:113:THR:HG22	50:M4:116:GLU:H	1.62	0.63
51:M5:68:ARG:HG3	36:5:291:C:OP1	144.96	0.63
36:1:3087:A:OP1	86:1:4177:OHX:N5	2.31	0.63
1:6:151:G:H1	1:6:163:G:H1	1.46	0.63
46:L9:90:MET:HB2	46:L9:144:ILE:HG22	1.80	0.63
36:1:121:A:C6	45:L8:129:PRO:HG3	2.34	0.63
77:Q1:1:MET:HB2	1:6:1783:C:OP2	309.06	0.63
51:M5:73:ARG:HG2	51:M5:75:VAL:HG22	2.25	0.63
53:M7:105:LYS:HB3	53:M7:107:LEU:HD13	3.05	0.63
7:S5:146:THR:HG21	7:S5:157:ARG:HB3	1.81	0.63
1:2:656:G:O2'	1:2:657:U:O4'	2.17	0.63
45:L8:94:PHE:HB3	45:L8:189:LEU:HD13	1.80	0.63
15:C3:138:ASN:O	15:C3:140:LYS:N	3.33	0.63
38:8:157:U:H2'	38:8:158:U:H6	1.64	0.63
75:O9:36:ARG:HG2	75:O9:36:ARG:HH11	1.64	0.63
46:L9:147:SER:HB2	46:L9:187:ILE:HD11	1.81	0.63
39:L2:215:ASN:HB2	36:5:2968:G:N7	216.55	0.63
70:O4:58:ARG:CG	70:O4:58:ARG:HH11	2.33	0.63
36:1:1103:A:C8	44:L7:158:LYS:HD3	2.34	0.63
8:S6:58:LYS:HE3	8:S6:105:ASP:HA	1.80	0.63
34:SR:26:SER:OG	34:SR:75:ALA:O	2.19	0.63
36:1:1429:G:OP2	41:L4:107:ARG:NH2	2.28	0.63
45:L8:109:LEU:O	45:L8:113:ALA:N	2.29	0.63
86:1:4000:OHX:N6	86:1:4168:OHX:N1	2.47	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2310:U:OP1	86:1:4135:OHX:N4	2.31	0.63
38:4:85:G:OP2	62:N6:113:LYS:HE2	1.99	0.63
57:N1:122:GLN:HB3	57:N1:124:VAL:HG23	6.59	0.63
47:M0:73:ASN:O	47:M0:77:THR:HG23	1.97	0.63
56:N0:96:ASP:OD1	56:N0:97:VAL:N	2.26	0.63
42:L5:23:ARG:NH2	36:5:2703:A:OP2	283.16	0.63
64:N8:42:ARG:NH2	36:5:2799:A:N3	193.21	0.63
1:2:741:C:O2	9:S7:107:ARG:NH1	2.26	0.62
11:S9:172:VAL:HG23	11:S9:175:ARG:HH21	1.64	0.62
8:S6:139:ASN:ND2	1:6:143:G:OP2	311.14	0.62
8:S6:67:VAL:HG21	8:S6:99:GLY:HA2	1.79	0.62
1:2:1535:U:O2'	1:2:1536:G:N3	2.28	0.62
71:O5:6:ALA:O	71:O5:10:ARG:HG3	2.81	0.62
36:1:2828:G:OP1	47:M0:7:ARG:NH1	2.32	0.62
36:1:1429:G:C5	41:L4:99:MET:HE1	2.33	0.62
36:1:3386:G:H5'	67:O1:10:ARG:NH2	2.14	0.62
36:1:12:A:C2'	36:1:13:A:H5''	2.29	0.62
36:5:181:U:H1'	36:5:236:G:H22	1.63	0.62
36:1:381:U:O4	86:1:4057:OHX:N4	2.32	0.62
1:2:1301:U:OP1	4:S2:88:LYS:HB2	1.99	0.62
36:5:385:A:H2'	36:5:386:A:C8	2.34	0.62
55:M9:86:GLU:OE2	55:M9:91:SER:N	2.27	0.62
2:S0:180:GLU:O	2:S0:184:LEU:HD23	1.98	0.62
52:M6:110:PRO:O	52:M6:113:ASP:N	5.19	0.62
1:2:1358:G:H2'	1:2:1359:C:C6	2.34	0.62
28:D6:73:TYR:CE2	28:D6:82:ARG:HD2	2.34	0.62
2:S0:112:THR:HG23	2:S0:115:PHE:HB2	2.12	0.62
42:L5:184:ASP:OD1	42:L5:187:THR:HG22	2.00	0.62
86:1:4199:OHX:N4	38:4:140:G:OP1	2.32	0.62
14:C2:87:PRO:HA	14:C2:140:PHE:HE1	2.18	0.62
63:N7:22:LYS:NZ	63:N7:132:SER:O	2.23	0.62
36:5:1064:A:H5''	36:5:1064:A:H8	1.64	0.62
63:N7:35:SER:OG	63:N7:36:HIS:N	2.32	0.62
1:6:982:U:OP1	86:6:2078:OHX:N2	2.32	0.62
28:D6:43:ASN:HA	28:D6:66:LYS:HA	1.81	0.62
1:2:520:A:H2'	1:2:521:A:C8	2.34	0.62
36:5:2248:C:OP2	86:5:3979:OHX:N6	2.32	0.62
36:1:1355:A:H1'	36:1:1356:U:OP2	2.00	0.62
11:S9:118:LEU:HD23	11:S9:158:PHE:CE1	2.88	0.62
8:S6:13:GLN:OE1	1:6:151:G:N2	310.45	0.62
24:D2:89:TRP:O	24:D2:93:LEU:HD22	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:27:ALA:O	39:L2:128:ARG:NH2	2.33	0.62
22:D0:65:ILE:HD11	31:D9:36:LEU:HD21	1.80	0.62
54:M8:170:ARG:O	54:M8:171:LYS:HB2	3.85	0.62
74:O8:44:LYS:HG2	74:O8:53:THR:HB	1.96	0.62
36:1:3107:U:OP1	76:Q0:114:LYS:NZ	2.26	0.62
42:L5:52:VAL:HG21	42:L5:65:ILE:HD12	2.15	0.62
63:N7:46:ILE:HD13	63:N7:68:ILE:HG23	1.79	0.62
1:6:1799:U:H4'	1:6:1800:A:H2'	1.81	0.62
1:2:851:U:H2'	1:2:852:C:C6	2.34	0.62
65:N9:5:LYS:HE2	65:N9:8:THR:HB	2.42	0.62
37:3:112:G:OP2	86:3:221:OHX:N1	2.32	0.62
19:C7:71:PHE:HD1	19:C7:73:LEU:HB3	1.64	0.62
45:L8:185:ARG:O	45:L8:188:THR:OG1	2.55	0.62
59:N3:82:ALA:HB3	59:N3:98:ASN:HD21	1.65	0.62
10:S8:8:ARG:NH2	10:S8:19:ALA:O	2.32	0.62
11:S9:34:PHE:HD1	11:S9:111:THR:HG21	1.90	0.62
3:S1:34:ALA:N	3:S1:41:ARG:O	2.29	0.62
39:L2:201:GLY:HA2	39:L2:204:MET:HG3	1.81	0.62
60:N4:4:GLU:HG2	60:N4:30:ARG:CD	2.28	0.62
43:L6:97:ASN:OD1	43:L6:99:GLU:HB2	1.98	0.62
1:6:639:U:H5	1:6:695:U:C5	2.17	0.62
52:M6:27:LEU:HB3	52:M6:98:ALA:HB1	1.79	0.62
36:1:2683:U:H2'	36:1:2684:C:C6	2.35	0.62
38:8:80:A:H8	38:8:80:A:O5'	1.82	0.62
28:D6:81:ALA:HB3	28:D6:83:ILE:HG12	9.10	0.62
10:S8:31:ARG:NH2	1:6:333:A:OP1	297.60	0.62
71:O5:101:THR:HG22	71:O5:104:GLN:N	2.13	0.62
36:5:980:A:H2'	36:5:981:U:C2	2.34	0.62
2:S0:50:VAL:HG23	19:C7:109:LEU:HD21	3.55	0.62
39:L2:193:ARG:NH2	36:5:2181:C:OP1	197.58	0.62
36:5:235:A:H2'	36:5:236:G:O4'	1.98	0.62
50:M4:92:GLU:OE2	50:M4:92:GLU:N	2.27	0.62
5:S3:137:VAL:HG22	5:S3:151:LYS:HG3	1.81	0.62
36:1:953:G:OP1	65:N9:15:LYS:NZ	2.26	0.62
24:D2:2:THR:N	1:6:1034:C:HO2'	338.24	0.62
1:6:727:U:H2'	1:6:728:U:H6	1.64	0.62
1:6:390:G:O2'	1:6:1731:A:H5''	1.99	0.62
26:D4:12:VAL:HG22	26:D4:23:PHE:HB3	2.41	0.62
8:S6:176:GLN:HG2	1:6:169:A:H5'	328.37	0.62
22:D0:69:LYS:HE3	22:D0:80:GLU:HG3	5.23	0.62
3:S1:126:THR:HG22	3:S1:136:ARG:HE	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:7:73:C:H3'	37:7:73:C:C6	2.33	0.62
36:1:1724:U:OP2	55:M9:128:LYS:NZ	2.32	0.62
41:L4:232:SER:OG	41:L4:233:LEU:N	2.30	0.62
72:O6:57:LEU:HD21	72:O6:73:ALA:HB2	1.82	0.62
41:L4:182:LEU:HD13	41:L4:223:PRO:HG2	1.82	0.62
36:5:1093:A:N3	36:5:1096:U:N3	2.48	0.62
1:6:85:A:OP1	86:6:2192:OHX:N4	2.32	0.62
16:C4:13:VAL:H	16:C4:77:THR:HG1	1.45	0.62
13:C1:22:ASN:HB3	13:C1:25:VAL:HG23	1.89	0.62
43:L6:63:LEU:HB2	43:L6:79:VAL:HG12	1.82	0.62
48:M1:15:GLU:OE1	48:M1:140:ARG:NH1	2.33	0.62
34:SR:160:GLU:O	34:SR:162:ALA:N	2.26	0.62
36:1:776:U:H5	36:1:2719:U:O2	1.82	0.62
4:S2:99:LYS:HG3	4:S2:117:THR:HG22	2.06	0.62
49:M3:56:PRO:HG3	49:M3:74:GLY:O	2.24	0.62
41:L4:193:LYS:NZ	38:8:21:C:OP1	108.69	0.62
1:6:280:U:O2'	1:6:281:G:OP2	2.17	0.62
36:5:566:G:O6	86:5:4130:OHX:N5	2.32	0.62
1:6:606:A:C8	1:6:608:U:H2'	2.35	0.62
76:Q0:92:ASP:O	76:Q0:105:PRO:HG3	2.00	0.62
36:1:735:A:H2'	36:1:736:A:C8	2.34	0.62
1:6:699:U:H3	1:6:739:G:H1	1.46	0.62
86:1:4080:OHX:N4	55:M9:14:VAL:O	2.33	0.62
62:N6:39:LEU:HD12	62:N6:43:TYR:HE2	3.55	0.62
1:2:68:A:H5'	8:S6:160:ARG:HH12	1.64	0.62
3:S1:48:VAL:HG12	3:S1:49:ASN:H	2.54	0.62
1:2:140:A:OP2	8:S6:187:LYS:NZ	2.30	0.62
34:SR:169:ILE:HG13	34:SR:181:TRP:HB2	1.80	0.62
36:1:2415:C:OP1	39:L2:2:GLY:HA2	2.00	0.62
39:L2:45:VAL:HG22	39:L2:84:THR:HA	1.83	0.62
45:L8:171:LYS:NZ	45:L8:223:ALA:O	2.55	0.62
40:L3:250:ALA:HB3	36:5:2880:U:H1'	223.90	0.62
1:2:97:C:H2'	1:2:98:U:C6	2.34	0.62
44:L7:163:LEU:O	44:L7:165:ASP:N	2.31	0.62
42:L5:115:LEU:H	42:L5:115:LEU:HD22	1.64	0.62
36:1:567:G:O6	86:1:3999:OHX:N1	2.33	0.62
1:2:1796:C:H5	28:D6:6:ALA:N	1.96	0.62
1:2:1202:A:H1'	1:2:1207:C:N4	2.15	0.62
1:6:538:A:H8	1:6:543:C:N4	1.98	0.62
47:M0:74:LYS:O	47:M0:78:THR:HG23	1.99	0.62
36:1:3343:G:H21	36:1:3362:A:H2	1.47	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:41:LYS:HB2	57:N1:68:THR:O	1.99	0.62
52:M6:110:PRO:O	52:M6:111:PRO:C	3.63	0.62
36:5:2960:C:OP1	86:5:3973:OHX:N5	2.33	0.62
62:N6:120:GLN:NE2	62:N6:126:LEU:HA	7.65	0.62
11:S9:108:ARG:HH21	11:S9:145:SER:HB2	1.63	0.62
77:Q1:11:ARG:NH2	1:6:1127:G:OP1	293.82	0.62
23:D1:71:ARG:O	23:D1:75:ASN:ND2	2.33	0.62
61:N5:115:ARG:HD3	61:N5:121:LYS:HB2	1.81	0.62
63:N7:83:THR:HG23	63:N7:85:TYR:H	1.64	0.62
23:D1:64:GLU:OE1	29:D7:3:LEU:HB2	1.99	0.62
46:L9:44:THR:HG22	36:5:3186:A:C2	326.17	0.62
51:M5:125:SER:HB3	36:5:2433:U:H1'	160.76	0.62
38:8:126:A:O2'	38:8:128:U:OP2	2.13	0.62
36:1:726:G:H8	36:1:726:G:H5"	1.64	0.62
36:1:2895:G:O2'	76:Q0:100:TYR:O	2.14	0.62
10:S8:76:THR:HG22	10:S8:108:PRO:HG2	1.82	0.62
1:6:484:C:H42	1:6:503:G:N2	1.97	0.62
1:2:192:U:O2'	1:2:193:U:O4'	2.17	0.62
21:C9:33:TYR:HD1	21:C9:34:VAL:H	2.37	0.62
36:1:3122:A:N1	46:L9:70:THR:HG21	2.14	0.62
42:L5:270:LYS:HB3	37:7:1:G:O2'	321.03	0.62
39:L2:204:MET:HE1	39:L2:209:HIS:HB2	1.81	0.62
36:5:2897:A:H2'	36:5:2899:C:H5'	1.81	0.62
36:1:3279:A:N6	36:1:3280:U:O4	2.32	0.62
47:M0:112:GLN:O	86:5:4244:OHX:N3	237.63	0.62
47:M0:49:CYS:HB3	47:M0:168:SER:HB3	2.78	0.62
20:C8:120:ARG:NH2	35:SM:58:GLU:OE1	2.33	0.62
36:5:2213:A:H2'	36:5:2214:A:C8	2.34	0.62
36:5:618:C:O2'	36:5:621:A:N3	2.28	0.61
28:D6:38:ARG:NH2	28:D6:83:ILE:HG21	2.15	0.61
8:S6:87:ARG:NH1	1:6:159:U:O2'	320.44	0.61
41:L4:226:GLU:OE2	41:L4:246:ARG:NH2	2.54	0.61
36:1:1103:A:H1'	36:1:1104:G:OP1	2.00	0.61
57:N1:91:LEU:HD12	57:N1:96:ILE:HD11	1.81	0.61
36:1:291:C:OP1	51:M5:68:ARG:NH1	2.33	0.61
11:S9:146:PHE:O	11:S9:147:MET:HB2	2.35	0.61
28:D6:84:VAL:O	28:D6:86:VAL:N	2.32	0.61
66:O0:13:LYS:HB3	66:O0:100:ILE:HG22	1.81	0.61
36:1:595:G:H1	36:1:609:G:H5"	1.63	0.61
64:N8:6:THR:HG23	64:N8:8:THR:H	1.65	0.61
8:S6:20:ASP:OD2	8:S6:22:HIS:N	6.69	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:7:G:O6	4:S2:205:ARG:NH2	2.33	0.61
40:L3:261:MET:HE2	52:M6:64:PHE:HA	1.80	0.61
14:C2:52:LEU:O	14:C2:85:LYS:NZ	2.33	0.61
36:5:1599:G:OP1	86:5:4136:OHX:N4	2.33	0.61
36:5:3132:C:H2'	36:5:3133:C:C6	2.35	0.61
59:N3:13:ILE:HD12	59:N3:53:SER:HB2	3.75	0.61
54:M8:123:THR:OG1	54:M8:126:GLN:HG3	2.00	0.61
10:S8:81:VAL:HA	10:S8:102:VAL:HG12	2.90	0.61
36:5:2584:G:H5'	36:5:2585:G:OP2	1.99	0.61
67:O1:36:ILE:HD12	67:O1:59:ILE:HD11	1.81	0.61
40:L3:159:ARG:HG2	40:L3:182:GLN:HA	1.94	0.61
70:O4:74:ARG:HG2	70:O4:75:ALA:N	2.79	0.61
3:S1:70:LEU:O	3:S1:74:GLN:N	2.33	0.61
7:S5:61:TYR:HE2	7:S5:164:PRO:HG2	2.98	0.61
11:S9:129:ILE:HG12	11:S9:134:ILE:HD12	1.81	0.61
11:S9:82:ARG:O	11:S9:150:LEU:HB2	2.00	0.61
1:6:647:G:H22	1:6:687:G:N2	1.98	0.61
37:3:19:C:H42	37:3:60:G:H1	1.46	0.61
1:2:651:G:O6	86:2:2104:OHX:N4	2.33	0.61
40:L3:238:LEU:HB3	40:L3:242:THR:HG21	2.18	0.61
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CE3	3.57	0.61
1:2:207:U:O2	10:S8:178:ARG:NH1	2.33	0.61
53:M7:125:GLN:HB2	53:M7:141:SER:HB2	2.14	0.61
17:C5:81:ARG:NH1	17:C5:97:TYR:O	2.32	0.61
6:S4:66:MET:HE1	6:S4:78:THR:HG23	3.13	0.61
86:5:4053:OHX:N3	86:5:4199:OHX:N6	2.48	0.61
36:5:2697:A:H2'	36:5:2698:G:C8	2.35	0.61
1:6:213:A:OP2	86:6:2153:OHX:N1	2.32	0.61
1:6:1391:A:H2'	1:6:1392:U:H6	1.65	0.61
38:4:11:C:OP2	86:4:238:OHX:N1	2.32	0.61
46:L9:88:TYR:CE2	46:L9:184:LYS:HD2	4.91	0.61
36:5:1230:G:OP2	86:5:4005:OHX:N6	2.33	0.61
36:1:269:G:OP2	51:M5:44:ARG:NH2	2.34	0.61
1:2:703:G:H2'	1:2:704:C:H5'	1.82	0.61
41:L4:38:VAL:HG21	41:L4:121:ALA:HB2	2.03	0.61
34:SR:249:ARG:NH1	34:SR:298:GLY:O	3.94	0.61
25:D3:97:ASP:O	25:D3:100:ASP:HB2	2.91	0.61
36:1:2101:C:O2'	36:1:2102:U:O5'	2.11	0.61
50:M4:119:GLN:O	50:M4:123:LEU:HD12	3.18	0.61
1:6:1133:A:H2'	1:6:1134:C:O4'	2.00	0.61
64:N8:88:ASP:HA	64:N8:91:LEU:HB2	2.17	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:263:C:H2'	36:1:264:G:O4'	2.00	0.61
10:S8:161:SER:OG	36:5:3353:G:OP1	232.80	0.61
5:S3:64:ARG:HH22	5:S3:65:ARG:HD3	9.81	0.61
75:O9:9:ILE:HG22	75:O9:13:MET:HE2	2.07	0.61
36:5:2960:C:H2'	36:5:2961:G:C8	2.35	0.61
63:N7:4:PHE:CZ	66:O0:35:ARG:HA	2.35	0.61
36:1:3308:C:O2	53:M7:69:ARG:HD3	2.01	0.61
1:2:443:C:OP2	26:D4:105:ARG:HB3	1.99	0.61
39:L2:193:ARG:NH2	36:5:2181:C:H5''	195.75	0.61
19:C7:71:PHE:CZ	19:C7:74:GLN:HB2	5.43	0.61
50:M4:92:GLU:CD	50:M4:92:GLU:H	2.00	0.61
36:1:566:G:N7	86:1:3999:OHX:N4	2.47	0.61
36:1:1095:U:O2	57:N1:128:LEU:N	2.33	0.61
50:M4:132:LYS:HD3	36:5:3230:G:H4'	286.34	0.61
12:C0:24:LYS:HD3	12:C0:63:TYR:CZ	3.23	0.61
70:O4:87:GLU:OE1	70:O4:91:ARG:NH1	3.03	0.61
26:D4:14:SER:HB2	26:D4:21:LYS:HE3	1.82	0.61
66:O0:78:GLY:HA2	66:O0:87:VAL:HG13	1.90	0.61
1:2:331:A:H5'	10:S8:33:PRO:HA	1.82	0.61
21:C9:135:ILE:O	21:C9:139:THR:OG1	2.18	0.61
36:1:917:A:OP2	86:1:4139:OHX:N2	2.34	0.61
71:O5:81:ARG:NH2	36:5:18:G:OP1	77.17	0.61
36:1:2104:A:OP2	55:M9:81:ARG:NH2	2.32	0.61
42:L5:111:GLN:HA	42:L5:116:ASP:HB2	1.81	0.61
1:2:1657:U:C5	36:1:2125:A:H4'	2.35	0.61
34:SR:169:ILE:HG12	34:SR:183:LEU:HD21	3.25	0.61
36:1:1918:C:OP2	86:1:4010:OHX:N2	2.33	0.61
36:5:1196:C:OP1	86:5:4238:OHX:N6	2.34	0.61
39:L2:64:ARG:HH12	45:L8:38:GLN:HA	1.65	0.61
57:N1:101:CYS:HB3	36:5:990:U:H1'	250.80	0.61
1:2:1670:G:N7	86:2:2123:OHX:N5	2.48	0.61
63:N7:95:VAL:HG21	63:N7:113:VAL:HG21	1.82	0.61
79:Q3:75:ALA:HA	79:Q3:78:THR:HG23	1.81	0.61
22:D0:95:ALA:HB1	22:D0:99:ILE:HG13	3.12	0.61
2:S0:11:PRO:O	2:S0:15:GLN:HG3	2.00	0.61
42:L5:34:LYS:HA	57:N1:27:LEU:HD21	1.81	0.61
18:C6:38:LEU:O	18:C6:45:ARG:NE	2.32	0.61
1:6:196:G:O2'	1:6:197:A:OP2	2.18	0.61
42:L5:114:GLY:C	42:L5:116:ASP:H	2.04	0.61
12:C0:53:GLY:O	12:C0:55:VAL:N	2.32	0.61
3:S1:62:LYS:O	3:S1:64:ARG:N	2.32	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	3.11	0.61
46:L9:41:ILE:HD13	46:L9:41:ILE:O	2.00	0.61
5:S3:162:GLN:OE1	5:S3:165:ASN:ND2	2.27	0.61
36:1:1221:A:H3'	36:1:1222:G:H5''	1.83	0.61
66:O0:22:LYS:HB2	66:O0:94:GLU:HG3	3.62	0.61
3:S1:109:LYS:HG3	3:S1:113:MET:HE3	1.81	0.61
51:M5:35:VAL:HG23	36:5:1543:G:OP1	140.61	0.61
44:L7:52:GLN:O	44:L7:56:GLU:HG2	2.00	0.61
56:N0:108:GLN:NE2	36:5:1322:U:O2	292.42	0.61
36:5:1564:U:H2'	36:5:1565:G:C8	2.35	0.61
1:6:484:C:N4	1:6:503:G:H22	1.97	0.61
35:SM:64:LYS:O	35:SM:66:ALA:N	2.34	0.61
86:5:4000:OHX:N6	86:5:4192:OHX:N3	2.48	0.61
21:C9:14:PHE:HE2	21:C9:63:ARG:HB2	1.66	0.61
51:M5:109:ARG:NH1	38:8:141:C:OP1	120.49	0.61
14:C2:81:ASP:O	14:C2:83:GLU:N	3.22	0.61
45:L8:71:VAL:HG22	45:L8:76:ALA:HB2	1.89	0.61
86:1:4148:OHX:N4	37:3:102:A:OP1	2.34	0.61
66:O0:20:SER:OG	66:O0:96:GLY:HA3	2.01	0.61
55:M9:99:LEU:O	55:M9:102:LEU:N	3.32	0.61
36:1:1407:A:O3'	68:O2:33:ARG:NH2	2.33	0.61
36:1:1845:G:H8	36:1:1845:G:H5''	1.66	0.61
59:N3:33:ASN:HD22	59:N3:63:LYS:HB2	4.32	0.61
86:6:2123:OHX:N4	86:6:2174:OHX:N3	2.49	0.61
86:8:218:OHX:N5	86:8:226:OHX:N1	2.49	0.61
75:O9:4:GLN:HG2	36:5:1588:A:C2	127.09	0.61
11:S9:125:ALA:O	11:S9:129:ILE:HG13	1.99	0.61
12:C0:21:VAL:HB	12:C0:66:TYR:HB2	2.59	0.61
50:M4:50:LYS:HD3	50:M4:85:TRP:CD1	2.35	0.61
86:1:4000:OHX:N5	86:1:4168:OHX:N5	2.49	0.61
1:6:486:G:H1	1:6:501:U:H3	1.49	0.61
45:L8:57:ARG:O	45:L8:61:GLN:HG3	2.96	0.61
36:1:1015:U:O2'	36:1:1017:C:OP2	2.17	0.61
41:L4:191:LYS:HG3	41:L4:194:TYR:CZ	4.22	0.61
58:N2:76:LEU:O	58:N2:80:THR:HG23	2.01	0.61
61:N5:25:LYS:HD3	61:N5:27:ARG:NH1	2.14	0.61
1:6:1273:G:H4'	1:6:1274:C:H5''	1.82	0.61
38:4:79:A:H3'	38:4:80:A:C4'	2.31	0.61
3:S1:137:ILE:HD11	3:S1:172:LEU:HB3	1.82	0.61
54:M8:38:ARG:NH2	36:5:1347:U:H3'	189.21	0.61
78:Q2:14:GLY:O	78:Q2:16:THR:N	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:185:THR:O	3:S1:189:ILE:HD12	3.52	0.61
1:2:65:A:OP1	8:S6:176:GLN:NE2	2.31	0.61
50:M4:72:LEU:HD22	50:M4:73:PRO:HD2	1.83	0.61
34:SR:159:ASN:O	34:SR:161:LYS:N	4.08	0.61
6:S4:108:ARG:NH2	1:6:789:A:OP1	390.29	0.61
36:5:2667:A:O2'	36:5:2691:A:OP1	2.13	0.61
36:5:528:U:H2'	36:5:529:A:H8	1.64	0.61
56:N0:71:LYS:NZ	36:5:563:U:OP1	339.89	0.61
2:S0:163:ASN:O	2:S0:165:ARG:N	2.94	0.61
36:5:2233:A:OP2	86:5:3963:OHX:N5	2.34	0.61
36:1:13:A:OP2	86:1:4199:OHX:N5	2.33	0.61
36:1:3166:C:H42	36:1:3284:G:H1	1.46	0.61
36:5:1024:G:N2	36:5:1026:A:OP2	2.34	0.61
86:5:4009:OHX:N3	86:5:4200:OHX:N5	2.48	0.61
86:5:4053:OHX:N5	86:5:4199:OHX:N6	2.49	0.61
57:N1:48:ILE:HG13	57:N1:94:GLU:HG2	2.10	0.61
2:S0:154:GLU:HA	23:D1:63:GLY:HA2	1.82	0.61
39:L2:48:ILE:HD11	79:Q3:54:ILE:HB	4.16	0.61
36:5:1724:U:H1'	36:5:1725:C:C6	2.36	0.61
46:L9:91:ARG:HG2	46:L9:182:SER:HB3	2.32	0.61
47:M0:188:GLY:HA3	47:M0:216:TYR:HB2	1.82	0.61
74:O8:58:ASP:OD2	74:O8:61:LYS:N	2.28	0.61
34:SR:302:PHE:HD1	34:SR:312:VAL:HG12	1.65	0.61
4:S2:235:LEU:HD11	23:D1:54:ALA:HB2	1.83	0.61
1:6:755:A:O2'	1:6:756:A:H5''	2.00	0.61
47:M0:68:ALA:HB2	47:M0:158:LYS:HB2	2.32	0.61
50:M4:17:VAL:HG22	50:M4:36:VAL:O	2.00	0.61
10:S8:76:THR:HG22	10:S8:105:ASP:HB3	2.32	0.61
49:M3:46:ILE:HG23	49:M3:49:ARG:CZ	2.78	0.61
71:O5:10:ARG:NH1	71:O5:60:GLU:OE1	2.27	0.61
1:2:1480:G:H4'	21:C9:11:ALA:HB1	1.83	0.61
55:M9:23:TRP:HB2	55:M9:53:LYS:HD3	1.83	0.61
31:D9:22:ARG:HG3	31:D9:37:ASN:O	2.01	0.61
1:2:73:U:H4'	1:2:74:U:OP1	2.00	0.61
36:1:1719:G:OP1	55:M9:110:ARG:NH2	2.34	0.61
36:1:180:C:H2'	36:1:181:U:H6	1.64	0.61
26:D4:23:PHE:HE2	26:D4:75:VAL:HG12	1.66	0.61
53:M7:122:ALA:HB3	53:M7:143:PRO:HB2	1.83	0.61
5:S3:74:GLN:HA	5:S3:79:TYR:HB2	2.37	0.61
70:O4:65:VAL:HG12	70:O4:70:LYS:HE2	2.31	0.61
36:5:2101:C:O2'	36:5:2102:U:OP1	2.18	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1752:A:OP2	86:1:4042:OHX:N5	2.33	0.61
40:L3:68:HIS:HE2	40:L3:69:LYS:HZ3	1.47	0.61
70:O4:74:ARG:HG2	70:O4:75:ALA:H	3.00	0.60
36:1:3275:U:H5''	69:O3:68:TRP:HZ2	1.66	0.60
55:M9:104:ARG:NH2	55:M9:105:LEU:HB2	2.16	0.60
86:8:218:OHX:N2	86:8:226:OHX:N4	2.49	0.60
4:S2:45:VAL:HG21	4:S2:68:ILE:HG23	2.19	0.60
42:L5:105:ILE:O	42:L5:109:THR:HG23	2.09	0.60
24:D2:37:PHE:CE2	24:D2:103:ILE:HD12	2.36	0.60
22:D0:58:LEU:HD23	1:6:1516:A:C8	443.61	0.60
5:S3:38:GLU:OE1	5:S3:40:ARG:NE	2.24	0.60
36:1:1769:G:O6	86:1:4165:OHX:N4	2.34	0.60
36:1:3227:A:H2'	36:1:3228:C:H5'	1.82	0.60
64:N8:28:HIS:CD2	64:N8:32:ARG:HG2	2.66	0.60
1:2:868:G:H1	1:2:960:U:H3	1.49	0.60
1:6:1350:U:H2'	1:6:1351:G:C8	2.36	0.60
36:5:2580:A:O2'	86:5:4129:OHX:N1	2.34	0.60
68:O2:16:LYS:O	68:O2:17:PHE:HB2	4.62	0.60
36:5:1119:C:OP2	86:5:3987:OHX:N2	2.34	0.60
64:N8:74:ASN:HB2	64:N8:76:ASP:HB3	2.77	0.60
1:2:604:A:OP2	86:2:2168:OHX:N5	2.34	0.60
36:1:1789:G:O6	86:1:4164:OHX:N4	2.34	0.60
36:5:873:C:H5''	36:5:874:U:O5'	2.01	0.60
33:E1:86:THR:O	33:E1:87:THR:OG1	2.96	0.60
86:1:4028:OHX:N4	86:1:4040:OHX:N3	2.49	0.60
4:S2:230:TRP:CE2	24:D2:68:ARG:HD2	3.63	0.60
62:N6:50:ILE:HD11	62:N6:70:ILE:HD13	1.83	0.60
26:D4:50:ALA:O	26:D4:51:GLU:HG2	2.37	0.60
36:5:978:G:O2'	36:5:979:U:O5'	2.18	0.60
36:1:670:C:OP1	54:M8:147:ARG:NH2	2.28	0.60
36:1:3113:A:OP1	46:L9:73:SER:OG	2.19	0.60
1:6:140:A:N6	1:6:281:G:OP1	2.34	0.60
1:2:1760:G:H2'	1:2:1761:U:H5'	1.83	0.60
5:S3:70:THR:HG22	5:S3:86:LEU:HD13	1.83	0.60
52:M6:78:ARG:HG3	52:M6:78:ARG:NH1	3.42	0.60
1:6:1230:A:H8	1:6:1258:U:C4	2.19	0.60
1:2:1675:C:H1'	10:S8:32:GLN:HE22	1.66	0.60
46:L9:75:VAL:HA	46:L9:78:MET:HE2	1.83	0.60
1:2:1486:G:H1'	1:2:1592:A:O2'	2.01	0.60
36:1:249:U:H1'	36:1:250:U:O2	2.02	0.60
48:M1:33:ALA:HB2	48:M1:123:PHE:CE1	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:15:ARG:NH2	70:O4:83:ASN:OD1	2.33	0.60
36:1:156:G:OP2	72:O6:25:LYS:HB3	2.00	0.60
86:2:2091:OHX:N1	86:2:2132:OHX:N2	2.48	0.60
36:1:1413:G:N7	86:1:4118:OHX:N4	2.49	0.60
22:D0:35:GLU:OE1	22:D0:89:ARG:NH1	6.06	0.60
53:M7:126:ARG:HH21	53:M7:138:LYS:HB3	1.66	0.60
6:S4:104:ASP:HB2	6:S4:108:ARG:H	1.67	0.60
86:2:2045:OHX:N2	86:2:2099:OHX:N5	2.49	0.60
14:C2:60:VAL:HG22	14:C2:122:VAL:HG22	2.28	0.60
5:S3:66:ILE:O	5:S3:70:THR:OG1	2.87	0.60
1:2:753:A:H5'	6:S4:221:ARG:HG3	1.82	0.60
37:7:85:G:N7	86:7:222:OHX:N6	2.49	0.60
18:C6:109:PHE:O	18:C6:113:ASP:N	2.80	0.60
41:L4:192:GLY:HA2	41:L4:195:ARG:HG3	3.28	0.60
73:O7:66:TYR:OH	73:O7:73:ARG:NH2	2.98	0.60
32:E0:46:ASN:OD1	32:E0:47:VAL:N	2.61	0.60
1:6:301:A:OP2	86:6:2095:OHX:N1	2.34	0.60
26:D4:62:THR:HG23	1:6:531:C:O2	420.87	0.60
18:C6:12:LYS:HD3	18:C6:17:THR:HB	2.48	0.60
33:E1:144:CYS:O	33:E1:146:SER:N	2.35	0.60
57:N1:12:ARG:HD3	57:N1:13:TYR:CZ	2.64	0.60
45:L8:163:VAL:O	45:L8:166:LEU:HB2	2.35	0.60
36:1:1488:G:H5''	36:1:1838:G:O6	2.01	0.60
14:C2:139:HIS:O	14:C2:139:HIS:ND1	2.34	0.60
11:S9:53:ARG:NH2	11:S9:97:LEU:O	2.33	0.60
5:S3:75:LYS:HB3	12:C0:22:VAL:HG22	2.66	0.60
36:5:2610:G:O6	86:5:4173:OHX:N3	2.33	0.60
37:3:64:A:H3'	47:M0:204:GLY:O	2.02	0.60
29:D7:49:HIS:CE1	29:D7:70:LYS:HG2	3.76	0.60
17:C5:77:ARG:NH1	1:6:1241:G:OP2	382.86	0.60
36:1:3045:G:O3'	40:L3:275:ARG:NH1	2.34	0.60
7:S5:192:GLU:OE2	27:D5:61:SER:OG	4.24	0.60
68:O2:82:LEU:HD11	68:O2:112:ALA:HB2	2.57	0.60
8:S6:2:LYS:HB3	8:S6:108:VAL:HG13	1.84	0.60
36:1:2663:G:H4'	42:L5:152:ARG:NH2	2.13	0.60
28:D6:11:ASN:HB3	1:6:934:C:H6	332.40	0.60
1:6:538:A:C8	1:6:543:C:N4	2.70	0.60
39:L2:207:VAL:HG21	36:5:916:G:O6	186.90	0.60
44:L7:26:VAL:HG23	44:L7:28:ALA:H	1.66	0.60
8:S6:120:GLU:HG3	8:S6:125:THR:HG22	2.51	0.60
41:L4:361:HIS:CG	41:L4:362:ASP:N	2.86	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:N9:24:PRO:HD2	65:N9:25:LYS:H	3.87	0.60
1:2:17:C:H2'	1:2:18:C:C6	2.36	0.60
86:1:3970:OHX:N6	86:1:4152:OHX:N4	2.49	0.60
37:3:112:G:H2'	37:3:113:C:C6	2.35	0.60
79:Q3:74:ALA:O	79:Q3:78:THR:HG23	2.67	0.60
18:C6:140:LYS:NZ	1:6:1192:C:O3'	363.31	0.60
16:C4:45:GLY:HA3	16:C4:54:GLU:HG2	2.73	0.60
5:S3:27:ARG:HD2	12:C0:60:SER:HB2	1.83	0.60
1:6:489:C:O2'	1:6:490:C:O5'	2.17	0.60
36:5:1785:U:H2'	36:5:1786:G:C8	2.36	0.60
15:C3:12:SER:HB3	1:6:956:C:OP2	335.10	0.60
20:C8:145:ARG:HD3	35:SM:68:ARG:NH2	2.16	0.60
36:5:1586:G:OP1	86:8:217:OHX:N3	2.35	0.60
1:6:833:U:O4	86:6:2103:OHX:N5	2.35	0.60
36:5:595:G:N1	36:5:609:G:H5''	2.17	0.60
1:6:1762:A:H1'	1:6:1783:C:H5'	1.84	0.60
56:N0:26:ARG:HD2	57:N1:150:THR:OG1	2.02	0.60
36:1:2366:C:H5'	40:L3:259:HIS:CE1	2.36	0.60
44:L7:66:LYS:NZ	44:L7:78:GLU:OE1	4.82	0.60
53:M7:108:ASP:N	53:M7:152:GLU:OE2	2.31	0.60
6:S4:141:THR:O	6:S4:143:ASP:N	2.34	0.60
27:D5:39:ALA:O	27:D5:75:LEU:HD11	2.01	0.60
36:1:530:G:N7	86:1:3919:OHX:N6	2.49	0.60
40:L3:315:GLY:HA2	36:5:3379:C:H4'	214.26	0.60
36:5:1176:C:H2'	36:5:1177:G:N2	2.17	0.60
42:L5:143:LYS:HG3	42:L5:172:TYR:HD2	1.64	0.60
1:2:1459:C:OP1	20:C8:126:ARG:NH2	2.35	0.60
41:L4:341:SER:OG	36:5:514:G:N3	292.89	0.60
43:L6:56:LYS:HD3	43:L6:98:VAL:HG13	1.82	0.60
68:O2:19:ARG:HD2	68:O2:28:VAL:HG13	2.31	0.60
43:L6:40:LEU:HD13	43:L6:84:VAL:HG11	1.99	0.60
45:L8:195:SER:O	45:L8:197:VAL:N	2.59	0.60
26:D4:37:LYS:HE3	1:6:523:G:OP2	413.49	0.60
3:S1:72:ASP:OD1	16:C4:114:ARG:NH1	4.34	0.60
9:S7:31:SER:HB2	9:S7:32:PRO:HD3	1.82	0.60
1:6:151:G:N2	1:6:163:G:N2	2.49	0.60
47:M0:4:ARG:NH2	47:M0:99:ILE:HG22	6.24	0.60
25:D3:96:VAL:HG23	25:D3:97:ASP:H	1.66	0.60
51:M5:112:ASN:O	51:M5:138:GLN:NE2	2.96	0.60
38:4:79:A:H3'	38:4:80:A:O4'	2.01	0.60
46:L9:9:GLN:HB3	46:L9:52:LEU:HD21	2.47	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1477:G:H2'	1:2:1478:G:C8	2.37	0.60
27:D5:47:TYR:CE2	27:D5:51:LEU:HD11	2.91	0.60
36:1:3118:C:H4'	76:Q0:106:ARG:NH2	2.17	0.60
29:D7:54:VAL:O	29:D7:63:LEU:HB2	2.01	0.60
45:L8:181:LYS:HD3	38:8:154:C:H5"	150.56	0.60
47:M0:58:GLU:OE1	47:M0:161:GLY:HA3	2.02	0.60
16:C4:136:ARG:HD2	1:6:1769:U:O2	302.91	0.60
36:1:1899:G:N7	86:1:3930:OHX:N3	2.50	0.60
36:1:1240:A:H3'	36:1:1241:U:H5'	1.83	0.60
3:S1:34:ALA:HA	3:S1:98:THR:HG22	1.84	0.60
1:6:163:G:H8	1:6:163:G:O5'	1.84	0.60
1:6:1050:G:O6	86:6:2199:OHX:N4	2.35	0.60
53:M7:67:ILE:HD11	36:5:1447:G:H3'	164.61	0.60
34:SR:22:SER:OG	34:SR:70:ASP:HA	2.85	0.60
49:M3:59:ARG:HD3	36:5:73:C:C2	93.43	0.60
36:5:2971:A:H5"	36:5:2972:G:C5'	2.31	0.60
41:L4:44:LYS:HB3	41:L4:47:ARG:NH1	2.51	0.60
45:L8:81:THR:HG21	45:L8:181:LYS:HD2	1.84	0.60
1:2:654:C:H3'	1:2:655:G:H5"	1.84	0.60
36:1:2768:U:H2'	36:1:2769:A:C8	2.37	0.60
12:C0:45:ALA:O	12:C0:48:SER:OG	4.30	0.60
19:C7:37:GLU:HG3	34:SR:150:TRP:HE1	1.66	0.60
36:5:1089:G:N7	86:5:4190:OHX:N6	2.50	0.60
36:5:2801:A:O2'	36:5:2802:A:H2'	2.02	0.60
4:S2:153:SER:O	4:S2:154:LEU:HD12	2.75	0.60
36:1:1634:G:OP1	63:N7:107:ARG:NH1	2.35	0.60
86:8:218:OHX:N6	86:8:226:OHX:N4	2.50	0.60
75:O9:2:ALA:N	75:O9:5:LYS:HE2	6.37	0.60
10:S8:29:LEU:HD21	10:S8:31:ARG:HG3	1.82	0.60
51:M5:50:ARG:HH11	36:5:267:G:H4'	111.06	0.60
40:L3:25:ILE:H	40:L3:25:ILE:CD1	2.15	0.60
1:2:1239:U:O4	86:2:2048:OHX:N2	2.35	0.60
36:1:1069:C:H2'	36:1:1070:U:C6	2.37	0.60
24:D2:37:PHE:CE2	24:D2:103:ILE:HD11	3.72	0.60
30:D8:27:GLN:HE22	30:D8:64:ARG:NH1	5.53	0.60
50:M4:135:LEU:HD21	52:M6:174:PHE:HE2	1.67	0.60
51:M5:27:VAL:HB	51:M5:122:ASN:ND2	2.17	0.60
1:6:1657:U:O2'	1:6:1658:G:OP2	2.13	0.60
15:C3:47:PRO:HG3	15:C3:75:LEU:HD22	1.84	0.60
51:M5:143:ARG:HH21	71:O5:92:LEU:HA	1.70	0.60
36:1:781:G:N7	86:1:3940:OHX:N5	2.50	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:O6:2:THR:OG1	72:O6:3:VAL:N	2.65	0.60
75:O9:21:ARG:HD2	75:O9:22:PRO:O	2.82	0.60
6:S4:208:VAL:HG11	6:S4:225:VAL:HG21	1.82	0.60
8:S6:24:ILE:O	8:S6:26:VAL:N	2.43	0.60
36:1:1276:U:OP1	86:1:4081:OHX:N4	2.34	0.60
36:5:410:U:O4	86:5:4101:OHX:N1	2.34	0.60
3:S1:70:LEU:HD22	3:S1:74:GLN:HG2	3.56	0.60
36:1:2836:C:H5	36:1:2852:C:N4	1.96	0.60
40:L3:152:LYS:HD3	40:L3:189:SER:HA	4.13	0.60
49:M3:58:VAL:CG1	36:5:75:G:H5"	87.21	0.60
1:6:1539:G:H8	1:6:1539:G:H5'	1.66	0.60
64:N8:6:THR:HG22	64:N8:9:ARG:HG2	1.95	0.60
36:5:3159:C:H2'	36:5:3160:U:H6	1.66	0.60
1:2:622:A:OP2	86:2:2158:OHX:N1	2.35	0.60
1:6:1391:A:H2'	1:6:1392:U:C6	2.37	0.60
36:1:655:C:H2'	36:1:656:A:H8	1.65	0.60
36:1:2768:U:H2'	36:1:2769:A:H8	1.67	0.60
59:N3:125:LEU:HB3	59:N3:126:TRP:CD1	2.37	0.60
36:5:766:U:H4'	36:5:767:U:O5'	2.00	0.60
71:O5:44:ILE:O	71:O5:48:ARG:HG3	4.94	0.60
7:S5:48:PHE:CD1	7:S5:67:PRO:HA	2.92	0.60
43:L6:72:ASN:HB3	43:L6:160:SER:HA	2.40	0.60
3:S1:29:TRP:HE1	3:S1:47:LEU:HG	1.66	0.59
40:L3:384:LYS:O	86:L3:404:OHX:N6	33.14	0.59
2:S0:69:ASN:HB3	2:S0:71:GLU:OE2	2.00	0.59
9:S7:44:LYS:NZ	9:S7:95:GLU:HG2	2.17	0.59
18:C6:122:ARG:HB3	1:6:1584:G:H5"	396.41	0.59
13:C1:21:ASN:ND2	13:C1:31:THR:HA	2.17	0.59
1:6:517:U:O4	86:6:2104:OHX:N4	2.35	0.59
1:2:1459:C:OP2	20:C8:138:THR:OG1	2.16	0.59
36:1:1231:A:OP2	86:1:4081:OHX:N6	2.35	0.59
26:D4:35:VAL:O	26:D4:36:SER:HB3	2.01	0.59
37:3:39:C:N3	48:M1:70:THR:HG23	2.17	0.59
36:5:1716:U:H6	36:5:1716:U:H5'	1.66	0.59
24:D2:41:MET:HG2	24:D2:129:VAL:HG11	1.83	0.59
39:L2:171:GLY:O	79:Q3:68:ALA:HB2	2.25	0.59
64:N8:103:ASP:OD2	64:N8:106:ALA:N	2.35	0.59
39:L2:202:VAL:HG23	39:L2:211:HIS:HB3	1.84	0.59
49:M3:47:ALA:HB1	49:M3:48:PRO:HD2	1.89	0.59
33:E1:109:ASP:OD1	33:E1:109:ASP:N	2.35	0.59
68:O2:2:ALA:HA	68:O2:90:LYS:HE2	5.73	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:90:THR:HG22	4:S2:92:ALA:H	1.66	0.59
54:M8:178:ARG:CD	64:N8:50:PRO:HB2	3.44	0.59
36:1:568:G:N7	86:1:3943:OHX:N4	2.50	0.59
36:1:1605:A:O2'	36:1:1607:U:OP2	2.19	0.59
86:5:4000:OHX:N6	86:5:4192:OHX:N5	2.50	0.59
36:5:595:G:H1	36:5:609:G:H5"	1.68	0.59
33:E1:147:VAL:HG23	33:E1:148:TYR:CD1	2.37	0.59
86:5:4009:OHX:N3	86:5:4200:OHX:N1	2.50	0.59
36:1:655:C:H2'	36:1:656:A:C8	2.37	0.59
49:M3:94:GLY:HA3	49:M3:119:TYR:OH	3.25	0.59
42:L5:22:ARG:NH2	42:L5:28:THR:OG1	2.32	0.59
38:8:43:A:OP1	86:8:227:OHX:N3	2.35	0.59
1:2:407:A:H2'	1:2:408:C:C6	2.37	0.59
66:O0:75:ASN:HA	66:O0:86:ARG:HB2	2.78	0.59
9:S7:150:GLN:HB2	9:S7:181:ILE:HD12	1.83	0.59
34:SR:38:ARG:HG2	34:SR:67:ILE:HG23	1.90	0.59
42:L5:83:LEU:HB3	42:L5:88:ILE:HB	1.83	0.59
36:5:1638:A:H5"	36:5:1639:C:OP2	2.01	0.59
62:N6:45:ILE:HG13	62:N6:124:GLY:HA3	2.13	0.59
63:N7:2:ALA:O	63:N7:4:PHE:N	2.34	0.59
1:6:687:G:H2'	1:6:688:G:H8	1.67	0.59
23:D1:71:ARG:HG3	23:D1:83:TRP:CZ2	2.44	0.59
36:1:670:C:P	54:M8:147:ARG:HH22	2.24	0.59
67:O1:40:ALA:O	67:O1:43:HIS:N	3.16	0.59
1:6:486:G:H22	1:6:501:U:H3	1.50	0.59
43:L6:89:THR:HG21	50:M4:115:PHE:HB2	1.84	0.59
36:1:2946:A:H5"	36:1:2947:G:H5'	1.83	0.59
1:6:1392:U:H2'	1:6:1393:C:C6	2.37	0.59
40:L3:106:TRP:CH2	40:L3:161:LEU:HD13	2.83	0.59
30:D8:11:LYS:N	30:D8:31:GLU:O	2.22	0.59
16:C4:133:ARG:HH11	16:C4:133:ARG:HG2	2.76	0.59
62:N6:63:LYS:HE3	62:N6:97:ILE:HD13	1.84	0.59
1:6:363:G:OP1	86:6:2114:OHX:N1	2.35	0.59
36:5:1481:A:O4'	36:5:1481:A:OP1	2.20	0.59
39:L2:250:GLN:HG2	39:L2:251:LYS:H	4.47	0.59
41:L4:326:ARG:O	44:L7:41:ARG:NH2	2.73	0.59
28:D6:5:ARG:NH1	1:6:1795:U:H3'	338.62	0.59
36:1:1579:C:H2'	36:1:1580:A:C8	2.37	0.59
32:E0:28:LYS:HD3	1:6:542:A:N1	430.13	0.59
4:S2:139:ILE:HG13	4:S2:218:ILE:HB	3.14	0.59
51:M5:8:GLU:HG3	51:M5:50:ARG:HH12	4.15	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:138:ASN:OD1	1:6:189:C:N4	275.30	0.59
28:D6:82:ARG:O	28:D6:84:VAL:HG12	2.02	0.59
2:S0:168:HIS:HB3	2:S0:203:PHE:CZ	2.37	0.59
9:S7:17:GLU:HG2	9:S7:46:ILE:HB	1.83	0.59
1:2:778:G:H1'	1:2:783:G:H22	1.68	0.59
20:C8:88:ARG:NH1	20:C8:112:ASP:OD1	2.36	0.59
6:S4:170:THR:OG1	6:S4:170:THR:O	3.42	0.59
38:4:78:G:H2'	38:4:79:A:C8	2.37	0.59
1:6:404:G:H2'	1:6:405:C:C6	2.37	0.59
1:6:1058:U:H4'	1:6:1059:U:OP1	2.01	0.59
36:1:795:G:O6	86:1:3893:OHX:N3	2.36	0.59
11:S9:65:LYS:HA	11:S9:70:LEU:HD11	2.17	0.59
4:S2:130:ILE:O	4:S2:134:LEU:HD22	2.03	0.59
22:D0:31:VAL:HG23	22:D0:32:LYS:HD2	6.31	0.59
1:2:1081:A:O2'	1:2:1083:G:N7	2.33	0.59
36:5:191:U:H2'	36:5:192:C:H6	1.66	0.59
2:S0:32:HIS:ND1	2:S0:32:HIS:O	2.35	0.59
22:D0:118:VAL:HG13	22:D0:119:ALA:H	2.18	0.59
1:2:1194:A:H2'	1:2:1195:C:H5'	1.82	0.59
24:D2:76:SER:OG	24:D2:77:PRO:HD3	2.01	0.59
13:C1:99:ARG:HB3	25:D3:9:LEU:HD22	1.84	0.59
18:C6:39:VAL:HG12	18:C6:41:PRO:HD2	5.89	0.59
36:1:269:G:P	51:M5:44:ARG:HH22	2.25	0.59
36:5:1236:G:N2	36:5:1244:A:OP1	2.33	0.59
25:D3:64:PRO:O	86:6:2162:OHX:N2	360.26	0.59
1:6:564:G:O2'	1:6:577:G:H4'	2.03	0.59
22:D0:80:GLU:OE1	31:D9:44:ARG:NH1	2.35	0.59
40:L3:4:ARG:HG3	40:L3:6:TYR:O	4.23	0.59
53:M7:126:ARG:HD3	53:M7:140:GLU:OE2	2.03	0.59
20:C8:56:LYS:HD3	20:C8:60:GLU:HG3	1.83	0.59
1:2:393:C:H2'	1:2:394:C:C6	2.37	0.59
36:1:2746:A:C6	42:L5:148:ILE:HD12	2.38	0.59
36:1:1806:A:OP2	86:1:3980:OHX:N4	2.35	0.59
72:O6:57:LEU:O	72:O6:61:ILE:HG13	2.10	0.59
45:L8:163:VAL:HG22	45:L8:166:LEU:HD12	1.91	0.59
10:S8:84:HIS:CE1	10:S8:86:SER:HB2	2.37	0.59
36:1:1938:U:O4	86:1:3913:OHX:N2	2.36	0.59
1:2:380:U:H5	11:S9:5:PRO:HB3	1.67	0.59
5:S3:34:TYR:HE2	5:S3:37:VAL:HG13	2.00	0.59
56:N0:1:MET:HE1	56:N0:32:SER:H	1.68	0.59
36:1:2318:U:O4	86:1:4035:OHX:N2	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:868:G:H1	1:6:960:U:H3	1.50	0.59
52:M6:61:ALA:HB1	52:M6:66:LYS:HG3	2.13	0.59
1:2:161:U:OP2	8:S6:87:ARG:NH2	2.34	0.59
62:N6:79:ALA:HB1	62:N6:98:ASN:HB3	1.85	0.59
40:L3:25:ILE:HD13	40:L3:25:ILE:N	2.16	0.59
1:6:1539:G:H5'	1:6:1539:G:C8	2.37	0.59
86:5:3974:OHX:N3	86:5:4244:OHX:N5	2.50	0.59
63:N7:46:ILE:HD12	63:N7:47:GLU:N	2.49	0.59
36:1:1321:G:O3'	56:N0:117:ARG:NH2	2.36	0.59
36:1:171:G:H2'	36:1:172:G:O4'	2.02	0.59
1:6:419:G:N7	86:6:2120:OHX:N1	2.50	0.59
49:M3:159:VAL:HB	64:N8:96:LYS:HG2	1.85	0.59
59:N3:80:ARG:NE	59:N3:97:ASP:OD2	2.31	0.59
5:S3:115:ILE:HG23	5:S3:116:ARG:HG3	1.83	0.59
6:S4:80:THR:HG22	6:S4:81:THR:HG23	4.33	0.59
41:L4:295:ILE:HG23	41:L4:299:ILE:HD11	2.95	0.59
52:M6:157:GLU:OE1	52:M6:160:ARG:NH1	3.13	0.59
40:L3:218:ILE:CG1	40:L3:276:THR:HG23	2.63	0.59
12:C0:15:LEU:HG	12:C0:68:LEU:HD22	1.85	0.59
48:M1:26:SER:HB3	48:M1:63:GLU:HG2	2.42	0.59
25:D3:91:GLY:O	25:D3:94:ASN:HB2	5.26	0.59
36:5:1595:U:C2	36:5:1596:C:C5	2.91	0.59
45:L8:45:ASN:HD21	45:L8:47:SER:HB3	1.68	0.59
3:S1:109:LYS:O	3:S1:112:SER:OG	2.13	0.59
36:1:2320:A:H2	79:Q3:16:VAL:HG13	1.68	0.59
36:5:3017:A:H2'	36:5:3018:C:H6	1.66	0.59
36:1:208:C:O2'	36:1:209:A:H5'	2.02	0.59
36:1:2155:G:O2'	39:L2:227:ARG:NH2	2.36	0.59
36:5:255:A:H2'	36:5:256:G:C8	2.38	0.59
1:2:1004:U:O4	86:1:3984:OHX:N1	2.36	0.59
1:6:1620:C:H2'	1:6:1621:U:H6	1.68	0.59
36:5:2372:A:H4'	36:5:2373:A:OP2	2.01	0.59
1:2:237:C:H5''	1:2:238:U:H5'	1.84	0.59
75:O9:43:ASN:HB3	75:O9:46:ARG:HD3	3.68	0.59
44:L7:75:TYR:HB2	57:N1:141:VAL:HG22	1.84	0.59
38:8:82:U:C2'	38:8:83:C:H5''	2.32	0.59
41:L4:237:GLN:O	41:L4:246:ARG:HG3	2.02	0.59
2:S0:88:LYS:HB3	2:S0:202:TYR:CZ	2.81	0.59
11:S9:146:PHE:HZ	1:6:765:G:C2	430.55	0.59
36:1:3308:C:N3	53:M7:69:ARG:NH1	2.49	0.59
20:C8:20:THR:HG21	20:C8:35:ILE:HA	2.88	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:14:LYS:HE2	1:6:1584:G:N7	395.38	0.59
5:S3:117:ARG:HD3	35:SM:122:GLU:HB3	1.85	0.59
1:2:1235:C:N3	33:E1:138:ARG:NH2	2.50	0.59
64:N8:77:LYS:O	64:N8:79:TRP:N	2.36	0.59
1:6:489:C:O2'	1:6:490:C:O4'	2.21	0.59
40:L3:106:TRP:HB2	40:L3:133:TYR:CE2	2.38	0.59
1:2:837:G:N7	86:2:2038:OHX:N6	2.50	0.59
1:2:52:U:H2'	1:2:53:G:C8	2.36	0.59
15:C3:115:LEU:HD22	15:C3:119:GLU:HG3	1.84	0.59
25:D3:57:LEU:HD22	32:E0:4:VAL:HG12	1.84	0.59
25:D3:13:ARG:HA	25:D3:16:ARG:HD3	1.84	0.59
36:1:2138:A:HO2'	73:O7:2:GLY:N	2.01	0.59
64:N8:66:ALA:HB1	64:N8:69:TRP:HB2	4.27	0.59
19:C7:17:ILE:HG23	19:C7:58:MET:HE1	2.12	0.59
39:L2:112:ILE:HD13	39:L2:135:ILE:HG23	1.85	0.59
46:L9:162:GLN:HG3	46:L9:179:ILE:O	2.02	0.59
15:C3:3:ARG:HG2	15:C3:8:GLY:H	1.67	0.59
3:S1:191:GLU:HB2	3:S1:194:ASN:ND2	2.18	0.59
4:S2:227:PRO:HA	4:S2:230:TRP:CD1	2.38	0.59
12:C0:69:THR:O	12:C0:73:VAL:HG23	2.03	0.59
14:C2:44:GLY:O	14:C2:48:SER:N	2.36	0.59
25:D3:125:VAL:HG12	25:D3:126:LYS:HG3	2.30	0.59
3:S1:48:VAL:HG13	3:S1:61:LEU:HD21	1.84	0.59
54:M8:178:ARG:HD3	64:N8:50:PRO:HB2	3.34	0.59
56:N0:2:ALA:HB3	56:N0:32:SER:HB3	1.83	0.59
40:L3:116:ARG:HG2	40:L3:175:LYS:HA	1.84	0.59
13:C1:142:VAL:HG12	13:C1:144:ALA:H	1.65	0.59
13:C1:37:ASN:O	1:6:247:A:O2'	318.78	0.59
45:L8:228:GLU:HA	45:L8:231:LYS:HE2	4.34	0.59
27:D5:79:ALA:O	27:D5:83:LEU:N	2.35	0.59
18:C6:95:LYS:HE3	18:C6:96:TYR:CZ	2.53	0.59
34:SR:289:ALA:HA	34:SR:305:TYR:HA	1.85	0.59
36:1:743:C:N3	54:M8:141:ARG:NH1	2.50	0.59
46:L9:156:GLN:NE2	46:L9:160:ASP:OD1	4.70	0.59
86:5:3979:OHX:N2	86:5:4198:OHX:N1	2.51	0.59
78:Q2:46:LYS:HE2	36:5:92:G:OP1	164.78	0.59
18:C6:79:TYR:HA	18:C6:82:ARG:HD3	1.85	0.59
36:1:1382:G:OP2	41:L4:188:ARG:NH1	2.36	0.59
3:S1:175:GLU:O	3:S1:187:LYS:NZ	2.38	0.59
36:1:2303:A:OP2	77:Q1:23:ARG:NH2	2.36	0.59
25:D3:50:LYS:HG3	25:D3:103:LEU:HD23	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:O2:126:LEU:O	68:O2:128:LEU:N	2.36	0.59
1:2:1533:C:H4'	1:2:1539:G:C6	2.38	0.59
46:L9:44:THR:HG22	36:5:3186:A:N3	325.53	0.59
86:5:4053:OHX:N1	86:5:4199:OHX:N2	2.51	0.59
41:L4:325:LEU:O	44:L7:41:ARG:NH2	2.36	0.59
36:1:3364:C:H2'	36:1:3365:U:H6	1.68	0.59
9:S7:111:LYS:O	9:S7:112:ARG:HB2	2.02	0.59
36:5:67:A:OP1	86:5:3956:OHX:N6	2.36	0.59
36:5:2299:A:OP2	86:5:3961:OHX:N1	2.36	0.59
33:E1:135:HIS:HB3	1:6:1251:U:H5'	434.24	0.59
1:6:1081:A:H1'	1:6:1082:C:H5	1.67	0.59
5:S3:167:PHE:CE1	5:S3:192:PRO:HB3	2.99	0.59
36:1:2867:C:H5'	36:1:2867:C:H6	1.67	0.59
34:SR:165:ASP:OD1	34:SR:184:ASN:ND2	2.36	0.59
3:S1:117:TRP:HE1	3:S1:152:ARG:CZ	2.16	0.59
38:8:79:A:N3	38:8:80:A:H1'	2.18	0.58
26:D4:112:LYS:HD2	26:D4:116:LYS:HD2	1.84	0.58
7:S5:225:ARG:HH22	30:D8:57:MET:HB2	5.60	0.58
44:L7:151:ARG:HD2	44:L7:244:ASN:ND2	2.18	0.58
45:L8:68:ARG:HE	45:L8:237:ILE:HG22	4.20	0.58
55:M9:173:ARG:HH21	55:M9:177:VAL:HG21	9.03	0.58
45:L8:160:ILE:HG23	45:L8:164:VAL:HG13	3.69	0.58
16:C4:25:ASP:HA	16:C4:54:GLU:O	2.02	0.58
51:M5:143:ARG:NH2	71:O5:92:LEU:HD23	2.33	0.58
75:O9:24:PRO:HB2	75:O9:27:ILE:HD12	2.78	0.58
42:L5:200:PHE:HB3	42:L5:237:GLU:HG3	1.85	0.58
53:M7:94:LEU:HB3	53:M7:148:LEU:HD21	1.90	0.58
19:C7:34:LEU:O	19:C7:38:ILE:HG22	2.02	0.58
1:2:1628:U:H2'	1:2:1629:G:C8	2.38	0.58
36:1:242:C:HO2'	36:1:243:G:H8	1.51	0.58
36:5:2514:U:OP1	36:5:2514:U:H6	1.85	0.58
59:N3:104:ASN:HD21	59:N3:108:GLU:HG3	3.99	0.58
53:M7:92:GLN:HA	53:M7:95:LEU:HD12	1.84	0.58
47:M0:171:TRP:O	47:M0:174:THR:HG22	2.00	0.58
86:5:4064:OHX:N1	86:5:4142:OHX:N2	2.51	0.58
36:1:2734:A:OP1	86:1:4003:OHX:N3	2.36	0.58
1:6:83:G:H8	1:6:83:G:O5'	1.86	0.58
36:1:1495:U:C5	36:1:1835:A:N1	2.70	0.58
36:1:3128:G:OP2	86:1:4163:OHX:N6	2.36	0.58
51:M5:49:ARG:NH1	36:5:149:U:OP2	100.87	0.58
3:S1:201:THR:HG21	3:S1:207:LEU:HD22	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:836:U:H2'	1:6:837:G:C8	2.38	0.58
59:N3:11:PHE:CD1	59:N3:88:ARG:HD2	2.38	0.58
86:1:3970:OHX:N3	86:1:4152:OHX:N4	2.50	0.58
1:2:1760:G:C2'	1:2:1761:U:H5'	2.33	0.58
36:1:2767:U:O2'	78:Q2:30:ALA:O	2.21	0.58
1:2:1390:U:OP1	19:C7:5:ARG:HD2	2.02	0.58
5:S3:104:SER:OG	5:S3:105:MET:N	2.37	0.58
36:5:1840:U:OP2	86:5:4037:OHX:N4	2.36	0.58
36:1:2233:A:OP2	86:1:4039:OHX:N5	2.36	0.58
1:6:521:A:H2'	1:6:522:U:O4'	2.03	0.58
51:M5:44:ARG:HH22	36:5:269:G:P	125.75	0.58
16:C4:17:ALA:HB3	16:C4:81:VAL:HA	1.85	0.58
1:2:25:C:H4'	1:2:25:C:OP2	2.02	0.58
1:2:1533:C:H4'	1:2:1539:G:N1	2.18	0.58
86:2:2045:OHX:N1	86:2:2099:OHX:N3	2.50	0.58
33:E1:144:CYS:HB3	33:E1:147:VAL:HG13	1.85	0.58
45:L8:157:VAL:HG21	45:L8:163:VAL:HG21	2.70	0.58
1:2:657:U:O2	1:2:677:G:N2	2.36	0.58
66:O0:18:ILE:HD11	66:O0:81:VAL:HG12	1.84	0.58
22:D0:118:VAL:HG22	22:D0:119:ALA:H	1.67	0.58
40:L3:339:ARG:NH1	40:L3:342:LEU:HD11	2.19	0.58
41:L4:337:GLU:HB2	41:L4:339:LEU:HG	3.26	0.58
54:M8:81:VAL:HG22	54:M8:101:VAL:HG13	1.85	0.58
33:E1:127:GLY:O	33:E1:129:GLY:N	2.37	0.58
1:6:649:U:H2'	1:6:650:U:H5	1.66	0.58
1:2:1428:G:H5'	1:2:1428:G:H8	1.69	0.58
40:L3:188:ILE:HD12	40:L3:189:SER:H	1.67	0.58
49:M3:35:ARG:NH1	36:5:685:G:OP2	83.03	0.58
3:S1:51:SER:HA	3:S1:57:ALA:H	1.68	0.58
9:S7:11:GLN:HG3	9:S7:12:ALA:H	1.69	0.58
49:M3:79:GLU:OE1	49:M3:101:ARG:NH2	2.36	0.58
2:S0:52:LYS:NZ	23:D1:82:VAL:O	3.40	0.58
36:1:1222:G:HO2'	36:1:1285:G:H1	1.46	0.58
36:1:873:C:H5''	36:1:874:U:O5'	2.03	0.58
50:M4:38:ILE:HD11	56:N0:150:PHE:CE2	2.37	0.58
36:1:3340:G:O6	86:1:4047:OHX:N4	2.35	0.58
37:3:106:U:H2'	37:3:107:C:H6	1.68	0.58
3:S1:134:VAL:HG12	3:S1:218:LEU:HD12	5.66	0.58
1:2:1248:C:H2'	1:2:1249:U:H6	1.69	0.58
36:5:3358:U:H2'	36:5:3359:A:H8	1.68	0.58
52:M6:77:SER:OG	52:M6:106:GLU:OE2	2.22	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:283:G:O6	36:5:304:G:H1'	2.04	0.58
31:D9:33:LYS:O	31:D9:36:LEU:HD23	2.04	0.58
31:D9:23:VAL:HG23	31:D9:38:ILE:HD12	1.85	0.58
24:D2:86:ILE:HD12	24:D2:87:GLU:N	2.18	0.58
17:C5:67:ALA:O	86:C5:201:OHX:N2	2.37	0.58
36:1:619:A:H5'	36:1:620:U:OP1	2.02	0.58
34:SR:220:ILE:HB	34:SR:234:LEU:HB2	2.38	0.58
73:O7:30:GLN:NE2	36:5:904:A:OP2	148.30	0.58
33:E1:82:LYS:O	33:E1:84:VAL:N	4.92	0.58
40:L3:108:GLU:O	40:L3:134:SER:OG	2.22	0.58
36:1:1743:G:H2'	36:1:1744:G:H8	1.69	0.58
1:2:1642:G:O6	86:2:2024:OHX:N6	2.36	0.58
1:2:579:A:N7	5:S3:178:ARG:HD3	2.18	0.58
86:1:4028:OHX:N6	86:1:4040:OHX:N3	2.51	0.58
11:S9:96:VAL:HA	11:S9:99:LEU:HD22	1.85	0.58
1:6:830:U:H2'	1:6:831:U:H5'	1.85	0.58
2:S0:150:ASP:CG	2:S0:165:ARG:HH22	2.07	0.58
1:2:778:G:H22	26:D4:10:ARG:NH1	2.01	0.58
32:E0:54:ARG:HE	32:E0:56:MET:HE1	5.65	0.58
36:1:510:G:O6	86:1:4004:OHX:N1	2.36	0.58
1:6:1160:A:H2'	1:6:1161:C:H6	1.67	0.58
36:1:1599:G:OP1	86:1:4080:OHX:N5	2.36	0.58
86:5:4053:OHX:N3	86:5:4199:OHX:N4	2.51	0.58
15:C3:100:LYS:HD3	15:C3:104:ARG:HH22	1.68	0.58
39:L2:32:LEU:HD22	39:L2:37:ARG:HD3	1.85	0.58
1:2:434:G:H5'	25:D3:78:LYS:HB3	1.86	0.58
38:4:106:C:O2'	86:4:234:OHX:N4	2.36	0.58
52:M6:115:LYS:HD3	36:5:3178:A:C2	259.79	0.58
59:N3:68:GLU:N	59:N3:68:GLU:OE1	2.24	0.58
36:5:2996:U:OP1	36:5:2996:U:H4'	2.03	0.58
45:L8:33:ASN:O	45:L8:35:GLY:N	3.31	0.58
36:5:1877:U:OP2	86:5:3958:OHX:N1	2.37	0.58
3:S1:70:LEU:HB3	3:S1:79:HIS:CB	6.26	0.58
20:C8:140:THR:HA	20:C8:143:ARG:HH11	2.66	0.58
21:C9:34:VAL:O	21:C9:35:ASP:HB3	2.04	0.58
36:5:2507:C:O2'	36:5:2508:U:OP1	2.19	0.58
26:D4:2:SER:N	26:D4:32:ARG:HD2	2.17	0.58
45:L8:133:LYS:HB2	45:L8:199:ALA:O	2.73	0.58
1:2:1494:C:H2'	1:2:1495:C:H6	1.69	0.58
1:2:780:A:C8	26:D4:8:ARG:HB3	2.37	0.58
42:L5:294:ALA:HB1	47:M0:217:PHE:HB3	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:120:LEU:HG	3:S1:142:PHE:CE1	2.75	0.58
52:M6:73:PHE:HB3	52:M6:78:ARG:HG2	3.87	0.58
27:D5:75:LEU:HD23	27:D5:75:LEU:H	1.68	0.58
34:SR:44:SER:OG	34:SR:59:ARG:HB2	2.04	0.58
36:1:3299:A:O2'	53:M7:55:GLN:NE2	2.35	0.58
39:L2:143:GLU:O	39:L2:145:LYS:N	3.00	0.58
12:C0:29:GLN:HB3	12:C0:39:ASN:HB3	2.55	0.58
36:5:830:A:O2'	36:5:1866:C:H2'	2.04	0.58
6:S4:95:THR:OG1	6:S4:95:THR:O	2.21	0.58
1:2:715:U:H3	1:2:723:G:H1	1.49	0.58
61:N5:50:ALA:N	71:O5:79:ASP:OD1	4.21	0.58
63:N7:101:PHE:HA	63:N7:107:ARG:HD2	1.85	0.58
16:C4:112:ILE:HG21	28:D6:53:LEU:HD21	1.85	0.58
43:L6:31:ARG:NH2	43:L6:81:ALA:O	2.36	0.58
56:N0:155:ARG:NH2	56:N0:155:ARG:HG2	2.09	0.58
51:M5:68:ARG:HD2	51:M5:128:LYS:HG2	4.24	0.58
44:L7:77:VAL:HG22	57:N1:139:ARG:HG2	1.84	0.58
41:L4:20:LEU:HD13	41:L4:256:THR:HG23	3.46	0.58
6:S4:129:VAL:HB	6:S4:139:VAL:HG12	1.86	0.58
36:1:19:U:H4'	51:M5:138:GLN:OE1	2.03	0.58
36:1:1286:A:O2'	36:1:1287:A:OP2	2.19	0.58
9:S7:139:ARG:HD3	24:D2:53:ILE:HA	1.86	0.58
1:2:1564:U:H2'	1:2:1565:C:C6	2.39	0.58
36:5:735:A:O2'	36:5:736:A:OP1	2.21	0.58
36:1:718:G:C2	36:1:721:G:H1'	2.38	0.58
36:5:2136:C:O2'	36:5:2137:U:H5'	2.03	0.58
36:1:2403:G:H5'	36:1:2872:A:C2	2.39	0.58
9:S7:47:ARG:HB2	9:S7:61:PHE:HE2	5.60	0.58
36:1:847:A:H2'	36:1:848:A:C8	2.39	0.58
39:L2:70:ARG:NH1	39:L2:72:ARG:HE	4.96	0.58
48:M1:8:PRO:CG	48:M1:9:MET:H	2.95	0.58
9:S7:117:THR:HG23	9:S7:120:ALA:H	1.69	0.58
24:D2:82:LYS:O	24:D2:84:GLY:N	2.29	0.58
36:5:1087:G:N7	86:5:4110:OHX:N4	2.52	0.58
40:L3:103:THR:HG21	40:L3:147:GLU:OE2	2.74	0.58
2:S0:107:PHE:O	2:S0:115:PHE:HE2	2.56	0.58
86:5:4019:OHX:N3	86:5:4217:OHX:N4	2.51	0.58
1:2:1274:C:C5	35:SM:96:ARG:HG2	2.39	0.58
36:1:2592:G:H4'	36:1:2594:C:C2	2.39	0.58
36:5:2912:G:H1'	36:5:3131:U:OP1	2.04	0.58
10:S8:81:VAL:HG21	10:S8:95:THR:O	2.59	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:116:GLY:HA3	64:N8:137:LYS:HZ3	1.69	0.58
7:S5:110:ALA:HA	7:S5:113:ILE:HD12	1.85	0.58
1:6:320:U:H2'	1:6:321:C:C2	2.38	0.58
58:N2:59:ASP:HB3	58:N2:62:VAL:HG12	1.86	0.58
36:5:2952:G:H2'	36:5:2953:U:C6	2.38	0.58
25:D3:141:GLU:OE1	25:D3:144:ARG:NH2	14.06	0.58
36:1:733:G:O6	86:1:4061:OHX:N2	2.37	0.58
36:1:1081:U:H5''	36:1:1081:U:H6	1.68	0.58
1:6:1031:U:H4'	1:6:1032:G:OP2	2.04	0.58
36:1:1108:U:H2'	36:1:1109:U:H6	1.69	0.58
3:S1:39:GLU:HG3	3:S1:40:ASN:N	2.18	0.58
4:S2:57:PHE:CZ	4:S2:138:PRO:HD3	2.86	0.58
1:2:1571:C:OP2	86:2:2155:OHX:N1	2.37	0.58
6:S4:31:PRO:HB2	6:S4:38:LEU:HD22	1.86	0.58
1:6:1542:G:N2	1:6:1568:C:H1'	2.19	0.58
39:L2:130:SER:HA	39:L2:169:ILE:HG22	1.86	0.58
7:S5:194:LEU:O	7:S5:198:LEU:HG	2.04	0.58
6:S4:187:ARG:NH1	1:6:753:A:OP2	376.48	0.58
48:M1:80:LEU:HD22	48:M1:84:LEU:HG	1.86	0.58
74:O8:64:LYS:HG3	74:O8:65:LEU:N	5.06	0.58
10:S8:114:GLU:HG2	10:S8:120:THR:HA	1.85	0.58
36:5:997:A:O2'	37:7:79:A:N3	2.36	0.58
36:5:3316:A:H5''	36:5:3318:G:N2	2.19	0.58
36:1:3010:U:OP2	86:1:4196:OHX:N5	2.36	0.58
36:1:1345:G:N7	86:1:3959:OHX:N4	2.51	0.58
1:6:1150:G:O6	86:6:2117:OHX:N5	2.36	0.58
36:1:22:G:H1'	38:4:104:A:N3	2.19	0.58
36:1:59:G:H2'	38:4:33:A:O2'	2.04	0.58
55:M9:175:GLN:HA	55:M9:178:ALA:HB3	1.86	0.58
36:1:1581:C:H2'	36:1:1582:C:H5''	1.86	0.57
11:S9:123:HIS:O	11:S9:127:VAL:HG23	2.16	0.57
53:M7:32:THR:HG21	53:M7:87:SER:HB3	1.86	0.57
72:O6:25:LYS:HB2	72:O6:28:TYR:HD2	1.68	0.57
2:S0:184:LEU:HD11	23:D1:39:VAL:HG12	3.03	0.57
86:1:4028:OHX:N4	86:1:4040:OHX:N1	2.52	0.57
1:6:230:C:H42	1:6:235:G:H1	1.52	0.57
36:5:1235:U:C4'	36:5:1236:G:H5'	2.33	0.57
28:D6:44:ILE:HG13	28:D6:67:THR:HG22	8.23	0.57
36:5:1438:U:H2'	36:5:1439:U:C6	2.38	0.57
36:1:2988:C:O2	40:L3:266:ARG:NH1	2.36	0.57
7:S5:43:PHE:H	7:S5:46:TRP:H	2.17	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:N2:50:LEU:HD13	58:N2:54:VAL:HG23	1.85	0.57
1:2:1557:U:OP2	1:2:1559:A:O2'	2.10	0.57
4:S2:67:GLN:O	4:S2:71:THR:HG23	2.26	0.57
63:N7:88:ASP:OD1	63:N7:89:VAL:N	2.37	0.57
6:S4:199:GLU:HB3	6:S4:207:LEU:HB2	3.48	0.57
47:M0:182:LEU:HD21	47:M0:185:ARG:HH11	4.51	0.57
59:N3:113:ALA:HA	59:N3:132:ASN:HB3	1.86	0.57
48:M1:28:ASP:HA	48:M1:31:THR:HG23	2.29	0.57
36:1:1687:U:C5	58:N2:42:LYS:HB2	2.39	0.57
46:L9:69:ARG:HG2	46:L9:69:ARG:HH11	2.84	0.57
79:Q3:59:CYS:O	79:Q3:60:CYS:HB3	2.04	0.57
36:1:1623:G:OP2	86:1:4036:OHX:N1	2.37	0.57
61:N5:139:ILE:HD11	71:O5:33:VAL:HG21	1.85	0.57
18:C6:103:ASN:HA	18:C6:106:LYS:HB2	2.64	0.57
36:1:420:G:O2'	36:1:2384:A:N3	2.33	0.57
36:1:1018:G:H8	36:1:1018:G:OP2	1.86	0.57
14:C2:103:LEU:HG	14:C2:116:VAL:HG13	4.74	0.57
7:S5:73:THR:HG23	18:C6:114:ARG:HG3	1.86	0.57
28:D6:57:SER:OG	28:D6:58:VAL:O	4.63	0.57
36:1:1765:U:H2'	36:1:1766:G:C8	2.38	0.57
11:S9:109:LEU:CB	11:S9:146:PHE:HB3	2.34	0.57
4:S2:53:ILE:HA	4:S2:56:ILE:HG13	1.85	0.57
21:C9:127:ASN:HA	21:C9:130:ARG:NH1	7.82	0.57
9:S7:122:HIS:HA	9:S7:125:ILE:HD12	2.96	0.57
6:S4:19:LEU:HB2	6:S4:51:ARG:HH22	1.69	0.57
16:C4:122:PRO:O	16:C4:124:ASP:N	2.35	0.57
43:L6:176:PHE:HA	50:M4:114:ASP:HB2	2.37	0.57
1:6:1311:U:O4	86:6:2188:OHX:N4	2.37	0.57
41:L4:140:HIS:H	41:L4:180:LYS:HE2	1.69	0.57
36:5:3227:A:C2'	36:5:3228:C:H5'	2.34	0.57
37:3:79:A:C2	37:3:102:A:C4	2.93	0.57
69:O3:19:SER:HB3	36:5:1330:A:OP1	233.10	0.57
36:5:2533:G:O6	86:5:4039:OHX:N2	2.38	0.57
42:L5:95:TRP:CH2	42:L5:181:PRO:HD3	4.66	0.57
19:C7:28:PHE:HA	19:C7:55:THR:HG21	3.24	0.57
20:C8:8:GLN:O	20:C8:10:SER:N	3.69	0.57
22:D0:43:LYS:O	22:D0:45:ALA:N	2.37	0.57
42:L5:68:THR:HG22	42:L5:70:THR:H	1.68	0.57
36:5:495:G:H2'	36:5:496:C:O4'	2.04	0.57
38:8:82:U:H2'	38:8:83:C:H5''	1.86	0.57
3:S1:131:ASP:HB3	3:S1:180:THR:HG23	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:106:ASP:OD1	4:S2:107:SER:N	2.64	0.57
28:D6:41:ILE:HD13	28:D6:41:ILE:H	1.68	0.57
23:D1:71:ARG:HE	29:D7:4:VAL:HG11	2.17	0.57
40:L3:183:LEU:O	40:L3:191:LYS:NZ	2.37	0.57
1:6:831:U:O2'	1:6:832:U:H5'	2.03	0.57
1:2:1228:G:N1	14:C2:67:THR:HB	2.19	0.57
63:N7:52:LYS:O	63:N7:65:ARG:NH1	2.38	0.57
39:L2:128:ARG:HA	39:L2:169:ILE:HD13	1.85	0.57
8:S6:22:HIS:CD2	8:S6:25:ARG:HH22	5.39	0.57
36:1:3107:U:P	76:Q0:112:LYS:HE3	2.44	0.57
53:M7:88:VAL:O	53:M7:92:GLN:HG2	2.03	0.57
36:1:1108:U:H2'	36:1:1109:U:C6	2.39	0.57
8:S6:48:TYR:CZ	8:S6:121:LEU:HD22	4.58	0.57
71:O5:14:LYS:NZ	71:O5:62:GLN:OE1	3.94	0.57
36:1:2169:G:O6	86:1:3911:OHX:N4	2.37	0.57
36:1:2169:G:OP2	86:1:4202:OHX:N1	2.37	0.57
1:6:1614:A:C6	1:6:1615:C:N4	2.72	0.57
69:O3:14:LEU:HD11	69:O3:31:LYS:HB2	1.86	0.57
36:1:3131:U:H2'	36:1:3132:C:C6	2.39	0.57
68:O2:69:SER:OG	68:O2:71:HIS:ND1	3.07	0.57
54:M8:23:ASN:OD1	54:M8:25:TYR:N	2.37	0.57
36:5:621:A:H2'	36:5:622:A:C8	2.40	0.57
41:L4:319:LYS:O	41:L4:320:ASN:HB3	4.62	0.57
11:S9:123:HIS:CE1	32:E0:37:ARG:HD2	4.43	0.57
44:L7:151:ARG:NH1	44:L7:244:ASN:O	2.94	0.57
36:5:3279:A:N6	36:5:3280:U:C4	2.73	0.57
6:S4:105:VAL:HG22	6:S4:243:GLY:HA2	1.85	0.57
56:N0:13:ARG:HH11	56:N0:13:ARG:HG3	3.80	0.57
63:N7:18:TYR:HA	63:N7:21:LYS:HD2	4.67	0.57
59:N3:54:LEU:HD21	59:N3:119:GLY:HA3	3.00	0.57
36:1:3364:C:H2'	36:1:3365:U:C6	2.39	0.57
36:5:3358:U:H2'	36:5:3359:A:C8	2.39	0.57
39:L2:20:THR:HA	39:L2:23:ARG:HD2	1.86	0.57
56:N0:50:LYS:NZ	37:7:76:A:O2'	301.50	0.57
63:N7:3:LYS:HE3	66:O0:36:GLN:HA	1.85	0.57
10:S8:136:SER:O	10:S8:140:GLU:HG2	4.68	0.57
36:5:929:A:H2'	36:5:930:U:C6	2.39	0.57
36:1:2689:A:H2'	36:1:2689:A:N3	2.19	0.57
86:6:2062:OHX:N5	86:6:2150:OHX:N3	2.52	0.57
36:1:3087:A:OP2	86:1:4177:OHX:N6	2.37	0.57
10:S8:166:TYR:O	10:S8:183:ILE:HD12	6.48	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:D1:71:ARG:O	23:D1:75:ASN:HB2	4.68	0.57
1:6:219:A:O2'	1:6:220:A:O5'	2.23	0.57
7:S5:43:PHE:HB3	7:S5:46:TRP:HD1	5.93	0.57
36:5:3281:U:H2'	36:5:3282:U:O4'	2.05	0.57
1:6:803:A:O2'	1:6:804:A:OP2	2.20	0.57
58:N2:97:SER:HB2	58:N2:103:TYR:CE1	2.74	0.57
21:C9:49:ASP:OD1	21:C9:53:TRP:N	2.36	0.57
38:4:81:U:H1'	38:4:82:U:H5'	1.85	0.57
38:4:62:C:O2	86:4:229:OHX:N5	2.38	0.57
34:SR:267:PRO:HD2	34:SR:269:TYR:HE1	1.91	0.57
1:6:241:U:H2'	1:6:242:U:C5	2.39	0.57
75:O9:33:ASN:ND2	75:O9:35:ILE:O	3.16	0.57
38:4:38:U:C4	71:O5:89:ARG:HD2	2.39	0.57
36:1:994:G:N2	36:1:995:U:O4	2.35	0.57
36:1:2572:C:O2'	36:1:2573:G:O4'	2.22	0.57
47:M0:176:LEU:HD22	47:M0:180:GLU:HG3	2.48	0.57
52:M6:176:LYS:HE3	36:5:3192:U:OP1	314.68	0.57
36:1:3214:U:OP2	50:M4:128:ARG:NH2	2.33	0.57
40:L3:343:TYR:CE2	40:L3:345:ASN:HB2	3.20	0.57
36:5:2567:C:N3	36:5:2568:C:N4	2.53	0.57
1:6:193:U:C2	1:6:195:G:H1'	2.40	0.57
36:5:420:G:O5'	36:5:420:G:OP1	2.22	0.57
7:S5:43:PHE:HB3	7:S5:46:TRP:CD1	5.50	0.57
18:C6:120:ASP:OD1	18:C6:122:ARG:HG3	2.41	0.57
73:O7:55:ARG:NH1	36:5:353:G:O6	112.35	0.57
36:1:3113:A:OP2	86:1:4023:OHX:N5	2.38	0.57
1:2:1427:A:H62	35:SM:95:SER:HB2	1.69	0.57
36:1:621:A:O2'	86:1:4160:OHX:N1	2.37	0.57
38:8:91:C:H2'	38:8:92:A:C8	2.40	0.57
56:N0:13:ARG:O	56:N0:22:PRO:HG2	2.05	0.57
1:6:1488:G:N2	1:6:1495:C:O2	2.32	0.57
71:O5:82:ALA:O	38:8:38:U:H5	64.66	0.57
38:4:155:A:H5'	45:L8:185:ARG:NH2	2.19	0.57
16:C4:13:VAL:N	16:C4:77:THR:OG1	2.41	0.57
10:S8:136:SER:HB3	10:S8:139:ALA:HB3	1.87	0.57
36:1:2443:A:N6	36:1:2504:U:O4	2.38	0.57
1:6:871:G:H2'	1:6:872:G:C8	2.40	0.57
1:2:1325:A:OP2	19:C7:11:ARG:NH1	2.37	0.57
36:1:2558:U:O2'	36:1:2559:U:H5'	2.03	0.57
42:L5:4:GLN:NE2	42:L5:4:GLN:O	6.95	0.57
36:1:2973:G:N7	86:1:4094:OHX:N2	2.53	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1130:G:OP2	86:6:2115:OHX:N1	2.38	0.57
39:L2:156:LYS:NZ	36:5:2158:A:OP2	204.06	0.57
36:5:138:U:H2'	36:5:139:G:C8	2.40	0.57
23:D1:4:ASP:HB3	23:D1:5:LYS:HD3	1.87	0.57
16:C4:127:ARG:CG	16:C4:127:ARG:HH11	3.94	0.57
3:S1:38:PHE:HA	3:S1:74:GLN:HE22	1.70	0.57
36:5:2111:G:H4'	36:5:2112:U:OP2	2.04	0.57
18:C6:67:VAL:HG11	18:C6:81:ILE:HG22	2.10	0.57
36:5:1103:A:H3'	36:5:1104:G:H5'	1.85	0.57
36:1:784:A:C6	54:M8:93:ILE:HG22	2.40	0.57
1:2:755:A:H2'	1:2:756:A:H8	1.68	0.57
36:1:409:A:OP2	86:1:4051:OHX:N5	2.36	0.57
51:M5:106:VAL:O	51:M5:109:ARG:N	2.37	0.57
63:N7:46:ILE:HD11	63:N7:49:TYR:CD2	3.86	0.57
36:5:3017:A:H2'	36:5:3018:C:C6	2.38	0.57
2:S0:148:ASP:HB2	2:S0:164:ASN:HB3	3.63	0.57
36:5:2298:U:O4	36:5:2923:U:H5	1.87	0.57
25:D3:65:ASN:ND2	1:6:574:G:O6	364.13	0.57
55:M9:115:ILE:HD12	55:M9:142:ILE:HD13	1.86	0.57
56:N0:66:GLU:OE1	56:N0:99:ARG:N	2.37	0.57
16:C4:127:ARG:HG3	16:C4:127:ARG:HH11	4.27	0.57
16:C4:85:ALA:N	16:C4:119:THR:HG22	2.11	0.57
13:C1:95:PRO:O	13:C1:98:ASN:N	2.24	0.57
28:D6:32:LYS:O	28:D6:37:LYS:NZ	2.25	0.57
36:1:2852:C:N3	47:M0:158:LYS:NZ	2.51	0.57
46:L9:3:TYR:HA	56:N0:142:GLN:OE1	2.03	0.57
1:2:759:U:OP1	86:S9:201:OHX:N1	2.38	0.57
1:6:197:A:H2'	1:6:198:A:C8	2.40	0.57
17:C5:111:MET:HG3	20:C8:119:ILE:HD11	4.23	0.57
1:6:151:G:N2	1:6:163:G:H22	2.03	0.57
86:1:4189:OHX:N4	43:L6:129:GLU:HA	2.20	0.57
40:L3:152:LYS:HG3	40:L3:192:VAL:HG11	1.87	0.57
19:C7:41:ILE:HD13	19:C7:47:ARG:HA	2.23	0.57
54:M8:65:SER:HA	54:M8:93:ILE:HD13	1.87	0.57
6:S4:187:ARG:NH2	1:6:754:A:N7	374.89	0.57
36:1:2248:C:OP2	86:1:3880:OHX:N3	2.37	0.57
36:5:608:A:H5'	36:5:609:G:OP2	2.05	0.57
47:M0:77:THR:HG22	47:M0:85:PHE:CZ	2.40	0.57
34:SR:282:SER:OG	1:6:1394:G:OP1	414.38	0.57
73:O7:69:HIS:O	73:O7:73:ARG:HG3	2.04	0.57
6:S4:180:LEU:N	6:S4:229:GLY:O	2.65	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:21:THR:OG1	34:SR:69:GLN:O	3.43	0.57
34:SR:37:SER:OG	34:SR:38:ARG:N	2.71	0.57
5:S3:115:ILE:HG21	35:SM:110:TRP:HA	1.87	0.57
22:D0:43:LYS:C	22:D0:45:ALA:H	2.07	0.57
65:N9:20:GLY:O	65:N9:21:ILE:HB	2.73	0.57
36:1:1952:G:H3'	36:1:1953:G:H5''	1.86	0.57
42:L5:55:PHE:CZ	42:L5:158:ARG:HB3	4.89	0.57
36:1:603:A:H2'	36:1:604:G:O4'	2.05	0.57
51:M5:2:GLY:HA3	36:5:116:A:OP2	107.52	0.57
56:N0:82:ASP:OD1	56:N0:87:THR:HB	2.05	0.57
1:2:820:U:H2'	1:2:821:U:H4'	1.86	0.57
78:Q2:46:LYS:O	86:Q2:502:OHX:N6	2.38	0.57
36:5:1765:U:H2'	36:5:1766:G:O4'	2.04	0.57
2:S0:62:ARG:HD3	23:D1:37:ALA:HB3	1.87	0.57
22:D0:20:ILE:HD13	22:D0:22:ILE:HD13	1.86	0.57
57:N1:40:VAL:HG21	57:N1:96:ILE:HG13	1.87	0.57
53:M7:67:ILE:CG2	53:M7:80:LYS:HB3	2.35	0.57
66:O0:17:VAL:HG11	66:O0:92:ILE:HD12	1.86	0.57
36:1:2988:C:O2'	40:L3:266:ARG:HD2	2.04	0.57
39:L2:77:ILE:CD1	39:L2:128:ARG:HB3	2.35	0.57
20:C8:86:LEU:HG	20:C8:99:HIS:HB2	1.95	0.57
20:C8:54:LEU:C	20:C8:56:LYS:H	2.56	0.57
33:E1:136:LYS:O	33:E1:138:ARG:HB2	2.04	0.57
63:N7:46:ILE:HD11	63:N7:48:ARG:C	2.24	0.57
51:M5:36:ILE:HG12	51:M5:64:VAL:HG23	2.60	0.57
75:O9:44:TRP:CZ2	75:O9:45:ARG:HG2	2.40	0.57
25:D3:142:LYS:O	25:D3:144:ARG:NH1	10.64	0.57
44:L7:120:THR:O	44:L7:124:LEU:HB2	2.23	0.57
40:L3:23:ALA:O	86:L3:403:OHX:N2	2.38	0.57
36:5:252:U:H4'	36:5:253:A:C5'	2.35	0.57
1:2:864:U:H3'	24:D2:28:ARG:HH22	1.69	0.57
55:M9:123:LEU:O	55:M9:127:SER:N	2.38	0.57
67:O1:58:ALA:O	67:O1:61:LYS:HE3	7.55	0.57
22:D0:48:HIS:O	22:D0:48:HIS:ND1	2.38	0.57
35:SM:131:ILE:C	35:SM:133:GLU:H	3.54	0.57
7:S5:205:SER:OG	7:S5:205:SER:O	2.19	0.57
69:O3:59:VAL:HG23	69:O3:60:ARG:H	2.34	0.57
86:2:2091:OHX:N5	86:2:2132:OHX:N6	2.53	0.57
66:O0:16:LEU:HB2	66:O0:98:SER:HB2	3.42	0.57
1:2:1186:U:O4	1:2:1200:G:N2	2.37	0.57
36:1:670:C:P	54:M8:147:ARG:NH2	2.78	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:549:U:O4	86:5:4011:OHX:N4	2.38	0.57
24:D2:112:ASP:OD1	24:D2:114:GLU:HG2	5.43	0.57
42:L5:208:MET:HG2	42:L5:223:PHE:CZ	2.39	0.57
1:6:515:A:OP2	86:6:2104:OHX:N6	2.38	0.57
2:S0:41:ARG:HD2	2:S0:42:PRO:O	2.05	0.57
1:2:818:C:N4	1:2:819:G:O6	2.28	0.57
1:6:694:U:H3'	1:6:695:U:O2	2.05	0.57
51:M5:122:ASN:OD1	51:M5:123:GLN:N	2.34	0.57
6:S4:180:LEU:HD12	6:S4:234:PRO:HB3	2.58	0.57
36:5:409:A:OP2	86:5:4101:OHX:N5	2.38	0.57
19:C7:23:LYS:O	19:C7:24:LEU:HB2	2.05	0.57
36:1:1770:G:H5'	36:1:1771:C:OP2	2.04	0.57
36:1:679:U:O4	86:1:3971:OHX:N1	2.38	0.57
38:8:88:A:H3'	38:8:89:A:C8	2.40	0.57
43:L6:19:LYS:O	43:L6:21:THR:N	3.08	0.57
66:O0:42:ILE:HG12	66:O0:67:VAL:HG22	2.79	0.57
36:1:2551:U:O4	39:L2:95:SER:HB3	2.05	0.57
26:D4:87:PRO:HB2	26:D4:90:ARG:HG3	1.87	0.57
1:2:66:U:C5	8:S6:173:PRO:HG3	2.39	0.57
44:L7:80:GLN:NE2	57:N1:135:PRO:O	7.07	0.57
1:2:549:G:OP2	86:2:2027:OHX:N2	2.37	0.57
36:1:929:A:H2'	36:1:930:U:C6	2.40	0.57
71:O5:95:PHE:CD2	36:5:136:G:H5'	63.39	0.57
36:1:2229:A:OP1	86:1:4187:OHX:N3	2.37	0.57
36:5:3295:A:H2'	36:5:3296:A:C8	2.39	0.57
1:6:1039:A:O2'	1:6:1040:G:OP2	2.23	0.57
36:1:1481:A:O2'	36:1:1858:A:C2	2.53	0.56
2:S0:62:ARG:HH11	2:S0:62:ARG:CG	2.52	0.56
1:6:152:U:C2	1:6:163:G:N2	2.72	0.56
36:1:1447:G:H3'	53:M7:67:ILE:HD11	1.87	0.56
42:L5:270:LYS:C	42:L5:272:TYR:H	2.57	0.56
1:2:1533:C:OP2	27:D5:77:ARG:NH2	2.34	0.56
1:2:93:A:O2'	6:S4:4:GLY:HA3	2.05	0.56
36:1:2282:U:O2	36:1:2310:U:H4'	2.04	0.56
72:O6:54:GLU:HG2	72:O6:90:MET:HE1	2.40	0.56
41:L4:139:GLY:O	41:L4:141:ARG:NH1	4.46	0.56
64:N8:95:SER:HG	64:N8:98:THR:H	2.76	0.56
53:M7:33:ALA:HB1	53:M7:117:ILE:HG13	1.87	0.56
36:1:2503:G:H1'	36:1:2504:U:H5	1.70	0.56
36:1:900:G:H1'	36:1:1589:A:N6	2.20	0.56
37:3:3:U:H2'	37:3:4:U:C6	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:43:ASP:HB2	27:D5:46:LYS:HB2	3.37	0.56
11:S9:73:GLY:O	11:S9:77:ILE:HG13	2.05	0.56
35:SM:88:ARG:HG2	35:SM:91:THR:HG23	1.87	0.56
41:L4:36:HIS:O	41:L4:40:THR:HG23	2.31	0.56
71:O5:90:ARG:NH1	36:5:20:A:OP2	86.32	0.56
69:O3:56:SER:OG	36:5:3170:A:OP2	203.26	0.56
36:5:1033:U:H2'	36:5:1034:U:H5'	1.86	0.56
1:2:540:G:O3'	1:2:541:A:H3'	2.05	0.56
36:5:701:G:H2'	36:5:702:C:C6	2.39	0.56
44:L7:108:LEU:HD21	44:L7:115:THR:HG23	1.85	0.56
16:C4:114:ARG:HE	28:D6:62:TYR:HE1	1.53	0.56
75:O9:9:ILE:HG22	75:O9:13:MET:CE	2.89	0.56
7:S5:57:SER:CB	30:D8:53:ILE:HB	2.81	0.56
62:N6:52:ARG:HA	62:N6:70:ILE:HG22	1.85	0.56
6:S4:122:LYS:HB3	6:S4:164:LEU:HD21	1.86	0.56
69:O3:85:PHE:O	86:O3:202:OHX:N2	4.04	0.56
34:SR:167:VAL:HG12	34:SR:183:LEU:HB2	1.87	0.56
42:L5:204:VAL:O	42:L5:208:MET:HG3	2.41	0.56
40:L3:250:ALA:HB3	36:5:2880:U:O2	223.72	0.56
4:S2:90:THR:O	4:S2:92:ALA:N	2.40	0.56
37:3:74:C:H1'	37:3:106:U:O2	2.04	0.56
7:S5:113:ILE:HD13	7:S5:190:ILE:HG13	4.00	0.56
36:1:1924:U:OP1	77:Q1:25:LYS:NZ	2.39	0.56
15:C3:55:ARG:NH1	15:C3:56:ASP:OD1	4.06	0.56
51:M5:160:GLU:OE1	51:M5:160:GLU:N	2.98	0.56
41:L4:161:LYS:NZ	36:5:209:A:OP1	74.74	0.56
36:1:841:A:OP2	86:1:4171:OHX:N2	2.38	0.56
48:M1:137:ARG:HG2	37:7:28:C:H5''	305.49	0.56
19:C7:105:GLN:CD	19:C7:105:GLN:H	2.09	0.56
1:2:740:A:C2'	1:2:741:C:H5''	2.31	0.56
3:S1:181:LEU:HD13	3:S1:181:LEU:H	1.69	0.56
1:2:542:A:C8	1:2:543:C:H5'	2.39	0.56
19:C7:6:THR:OG1	19:C7:8:THR:HG23	5.07	0.56
36:5:1549:U:O4	86:5:4201:OHX:N2	2.39	0.56
15:C3:114:ARG:HG3	1:6:952:A:O2'	299.50	0.56
2:S0:185:ARG:H	23:D1:44:ARG:HA	1.71	0.56
1:6:1680:G:O6	86:6:2193:OHX:N4	2.39	0.56
44:L7:25:GLN:O	44:L7:29:GLU:N	2.31	0.56
35:SM:68:ARG:O	35:SM:68:ARG:HD2	3.25	0.56
7:S5:162:VAL:HB	30:D8:45:LYS:HB3	1.86	0.56
62:N6:47:ALA:O	62:N6:122:LYS:NZ	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:31:ARG:NH1	8:S6:34:GLN:OE1	2.38	0.56
17:C5:128:HIS:O	17:C5:130:ARG:HG2	2.06	0.56
3:S1:103:MET:N	3:S1:215:VAL:HG12	3.65	0.56
41:L4:16:THR:HG22	41:L4:18:ASN:N	2.43	0.56
61:N5:82:LEU:HD11	61:N5:135:ILE:HG21	3.12	0.56
36:5:304:G:N3	36:5:304:G:H5'	2.20	0.56
41:L4:93:MET:H	41:L4:93:MET:HE2	2.43	0.56
36:1:2899:C:C5	46:L9:171:ASP:HA	2.40	0.56
36:5:541:U:H2'	36:5:542:G:C8	2.40	0.56
46:L9:62:ARG:NH2	36:5:3115:C:OP1	329.87	0.56
1:2:623:A:OP1	86:2:2158:OHX:N4	2.38	0.56
63:N7:9:LYS:HD2	63:N7:83:THR:O	2.17	0.56
1:2:1783:C:H2'	1:2:1784:C:H6	1.69	0.56
7:S5:145:ASP:OD2	7:S5:146:THR:N	2.37	0.56
63:N7:33:SER:OG	63:N7:34:LYS:N	3.07	0.56
54:M8:122:ILE:HD11	54:M8:130:ARG:CZ	3.53	0.56
41:L4:342:LYS:NZ	44:L7:56:GLU:OE2	2.22	0.56
51:M5:35:VAL:HG13	51:M5:65:ARG:HB2	4.56	0.56
16:C4:54:GLU:OE1	1:6:901:G:N2	282.22	0.56
41:L4:337:GLU:O	41:L4:339:LEU:HD23	2.04	0.56
1:2:325:G:H4'	13:C1:83:THR:HG21	1.87	0.56
59:N3:127:PRO:O	59:N3:130:ALA:HB3	2.05	0.56
74:O8:12:LEU:HB3	74:O8:16:ARG:NH2	2.21	0.56
1:2:104:A:OP2	1:2:308:C:N4	2.38	0.56
36:1:1144:U:OP1	36:1:1367:G:O2'	2.17	0.56
6:S4:171:ASP:OD1	6:S4:172:PHE:N	2.38	0.56
1:2:1350:U:H2'	1:2:1351:G:C8	2.40	0.56
16:C4:92:LYS:HG3	28:D6:69:ASN:OD1	2.05	0.56
38:4:143:U:P	51:M5:38:ARG:HH22	2.29	0.56
1:6:1000:C:N4	1:6:1003:A:OP2	2.32	0.56
11:S9:94:ASP:N	11:S9:94:ASP:OD1	2.37	0.56
36:1:2340:U:OP1	40:L3:236:LYS:HE3	2.06	0.56
45:L8:134:TYR:CG	45:L8:190:VAL:HG21	2.39	0.56
36:1:1176:C:H2'	36:1:1177:G:N2	2.19	0.56
3:S1:222:LYS:HD3	3:S1:223:PHE:H	1.70	0.56
36:1:1908:A:H2'	36:1:1909:A:O4'	2.06	0.56
39:L2:181:LYS:NZ	36:5:860:G:O5'	211.95	0.56
58:N2:28:PHE:HE1	58:N2:83:TYR:HE2	2.35	0.56
36:5:2269:U:H4'	36:5:2270:A:OP1	2.05	0.56
46:L9:37:ASN:OD1	46:L9:39:LYS:HB2	2.47	0.56
1:2:143:G:N7	8:S6:177:ARG:NH2	2.52	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:114:ARG:HD3	15:C3:117:LEU:HD12	2.74	0.56
6:S4:120:SER:O	6:S4:164:LEU:HB2	2.92	0.56
36:1:3152:U:O2	86:1:4140:OHX:N4	2.39	0.56
41:L4:181:VAL:O	41:L4:183:LYS:N	2.37	0.56
36:1:1433:A:N3	68:O2:27:ARG:NH1	2.53	0.56
86:5:4203:OHX:N6	86:8:227:OHX:N5	2.54	0.56
46:L9:163:GLN:O	46:L9:166:ARG:HD3	2.06	0.56
41:L4:334:PHE:HA	41:L4:339:LEU:HD11	3.28	0.56
37:3:106:U:H2'	37:3:107:C:C6	2.40	0.56
49:M3:2:ALA:N	64:N8:33:GLY:O	4.81	0.56
7:S5:95:ASN:O	7:S5:98:MET:HG2	2.06	0.56
20:C8:24:GLY:HA2	20:C8:58:ALA:HB3	2.36	0.56
5:S3:148:LYS:NZ	5:S3:148:LYS:HB3	2.21	0.56
11:S9:21:SER:HA	11:S9:24:LEU:HD12	2.08	0.56
86:1:4028:OHX:N2	86:1:4040:OHX:N1	2.54	0.56
20:C8:145:ARG:HE	35:SM:68:ARG:HH12	5.51	0.56
15:C3:23:PRO:O	15:C3:25:TRP:N	2.37	0.56
42:L5:120:LYS:HD2	42:L5:123:GLU:OE1	3.84	0.56
46:L9:13:PRO:HG2	46:L9:16:VAL:HG11	2.53	0.56
41:L4:18:ASN:ND2	41:L4:252:GLU:OE2	6.13	0.56
36:5:662:U:H2'	36:5:663:C:C6	2.41	0.56
68:O2:47:ARG:HD3	36:5:634:C:O2'	214.53	0.56
17:C5:86:VAL:HG22	17:C5:87:PRO:HD2	1.86	0.56
5:S3:64:ARG:HG2	5:S3:65:ARG:H	3.03	0.56
36:5:191:U:H2'	36:5:192:C:C6	2.40	0.56
61:N5:141:TYR:O	61:N5:142:ILE:HB	2.06	0.56
36:1:860:G:C5	39:L2:181:LYS:HB2	2.41	0.56
15:C3:105:ASN:HB3	1:6:879:G:O2'	276.39	0.56
36:5:1157:G:H2'	36:5:1158:A:O4'	2.05	0.56
70:O4:63:ALA:HB2	36:5:1803:C:H5'	157.98	0.56
11:S9:7:THR:HG21	1:6:758:U:OP1	383.41	0.56
36:1:1080:A:OP2	42:L5:140:ARG:NH2	2.37	0.56
41:L4:304:GLN:O	41:L4:306:THR:N	2.57	0.56
50:M4:37:GLU:OE2	50:M4:74:ARG:NH2	4.03	0.56
28:D6:79:ILE:HG23	28:D6:84:VAL:HG21	1.87	0.56
77:Q1:11:ARG:HE	1:6:1126:G:H5'	290.15	0.56
55:M9:23:TRP:CE3	55:M9:51:VAL:HG13	2.41	0.56
26:D4:8:ARG:HD2	1:6:780:A:C2	439.27	0.56
1:6:1314:U:OP2	86:6:2188:OHX:N4	2.39	0.56
22:D0:58:LEU:HD13	22:D0:88:LYS:HE3	1.88	0.56
41:L4:139:GLY:O	41:L4:140:HIS:HB2	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1034:C:HO2'	24:D2:2:THR:N	2.03	0.56
36:1:1221:A:H3'	36:1:1222:G:C5'	2.35	0.56
36:5:1481:A:H2'	36:5:1858:A:N3	2.21	0.56
25:D3:92:CYS:HA	25:D3:95:PHE:HD2	1.70	0.56
20:C8:15:LEU:HD22	20:C8:22:VAL:HB	4.65	0.56
36:1:2989:U:O2'	40:L3:267:ALA:O	2.19	0.56
86:1:4025:OHX:N2	86:1:4142:OHX:N5	2.54	0.56
34:SR:128:ASP:OD1	34:SR:130:THR:OG1	3.22	0.56
5:S3:176:LEU:HD12	5:S3:176:LEU:H	1.70	0.56
40:L3:57:VAL:HG21	60:N4:15:PRO:HG2	1.86	0.56
1:2:1765:A:OP2	86:2:2093:OHX:N5	2.38	0.56
39:L2:96:LEU:O	79:Q3:87:ARG:HD3	2.05	0.56
42:L5:45:ASN:O	42:L5:47:PRO:HD3	2.42	0.56
36:5:1662:G:N2	36:5:1788:C:O2	2.38	0.56
4:S2:97:ARG:NH2	1:6:1291:G:OP1	398.08	0.56
3:S1:183:GLN:O	3:S1:187:LYS:N	2.38	0.56
26:D4:113:ASN:HA	26:D4:116:LYS:HD3	1.88	0.56
52:M6:68:ARG:HH12	36:5:2988:C:P	214.97	0.56
11:S9:149:ARG:HD2	1:6:765:G:N7	428.15	0.56
11:S9:93:LEU:O	11:S9:96:VAL:HG22	2.08	0.56
26:D4:53:ASP:OD2	26:D4:96:LEU:HD21	2.06	0.56
42:L5:107:ARG:HH22	42:L5:120:LYS:HA	1.69	0.56
4:S2:157:LYS:HE3	24:D2:95:PRO:HA	1.86	0.56
36:1:2355:G:H4'	53:M7:139:TYR:CE2	2.40	0.56
59:N3:13:ILE:CD1	59:N3:53:SER:HB2	2.83	0.56
56:N0:1:MET:SD	56:N0:36:ILE:HD13	2.45	0.56
36:1:1576:G:O6	36:1:1577:G:N2	2.39	0.56
36:5:789:A:H2'	36:5:790:U:C6	2.41	0.56
9:S7:50:ASP:HB3	9:S7:56:LYS:HG2	1.86	0.56
36:1:3092:C:O2'	36:1:3094:A:OP2	2.14	0.56
21:C9:65:ILE:HG23	21:C9:71:VAL:HG22	1.87	0.56
13:C1:127:GLN:HG2	13:C1:137:PHE:CE1	2.40	0.56
13:C1:59:PRO:HG2	13:C1:60:PHE:CE2	2.41	0.56
36:5:2677:G:OP2	86:5:4156:OHX:N5	2.39	0.56
55:M9:125:LYS:NZ	36:5:1720:U:O4	242.50	0.56
1:2:614:C:OP2	25:D3:5:LYS:NZ	2.29	0.56
44:L7:197:GLN:OE1	44:L7:197:GLN:N	2.38	0.56
17:C5:122:THR:HG21	1:6:1455:G:OP1	369.18	0.56
36:1:284:A:OP2	78:Q2:41:ARG:NH1	2.38	0.56
7:S5:82:PHE:CE1	30:D8:49:ARG:HD2	2.64	0.56
17:C5:130:ARG:NH1	35:SM:71:ASN:OD1	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1359:C:OP1	21:C9:130:ARG:NH1	2.39	0.56
26:D4:124:ARG:NH2	1:6:151:G:O6	318.96	0.56
77:Q1:7:LYS:HE2	77:Q1:11:ARG:NH1	3.82	0.56
53:M7:82:ARG:HD3	36:5:2352:A:P	159.16	0.56
18:C6:32:ASN:O	18:C6:66:ARG:NH1	2.39	0.56
20:C8:35:ILE:HB	20:C8:38:VAL:HG21	1.87	0.56
36:5:2206:G:C2'	36:5:2207:A:H5'	2.36	0.56
36:5:3177:G:H5'	36:5:3177:G:C8	2.41	0.56
36:5:1015:U:O2'	36:5:1017:C:OP1	2.23	0.56
39:L2:193:ARG:HH21	36:5:2181:C:H5''	195.86	0.56
86:5:3974:OHX:N1	86:5:4244:OHX:N1	2.54	0.56
68:O2:33:ARG:NH2	36:5:1407:A:O3'	161.06	0.56
36:1:3118:C:O2'	76:Q0:106:ARG:NH2	2.37	0.56
36:5:1481:A:O2'	36:5:1482:A:O5'	2.24	0.56
56:N0:1:MET:HB2	56:N0:118:PHE:CD1	2.41	0.56
41:L4:295:ILE:HD13	54:M8:36:LEU:HD21	1.87	0.56
49:M3:64:LYS:HG3	64:N8:69:TRP:CG	2.61	0.56
1:6:241:U:H2'	1:6:242:U:C6	2.40	0.56
36:1:29:C:H4'	36:1:62:A:H4'	1.87	0.56
36:1:64:G:OP2	51:M5:169:LYS:NZ	2.39	0.56
41:L4:210:ALA:HB3	41:L4:253:ALA:HB1	2.28	0.56
3:S1:140:ILE:HB	3:S1:213:ARG:HD3	1.85	0.56
1:2:1214:U:OP1	1:2:1246:C:H1'	2.06	0.56
1:2:987:G:C2	39:L2:249:SER:HB2	2.41	0.56
1:2:912:U:H4'	1:2:913:G:O5'	2.06	0.56
1:2:826:U:H2'	1:2:827:C:C6	2.41	0.56
3:S1:70:LEU:HD11	3:S1:79:HIS:CD2	2.41	0.56
25:D3:7:ARG:HH11	25:D3:7:ARG:HB2	1.71	0.56
51:M5:135:VAL:HG13	51:M5:142:ILE:HG12	2.33	0.56
2:S0:184:LEU:HD12	23:D1:45:ALA:HB2	2.39	0.56
36:5:2407:C:H2'	36:5:2408:U:C6	2.41	0.56
1:2:1283:U:OP1	86:2:2115:OHX:N2	2.39	0.56
30:D8:42:ARG:HG3	30:D8:56:LEU:HD21	1.88	0.56
8:S6:98:ARG:HD3	8:S6:99:GLY:N	2.21	0.56
36:1:2718:U:OP2	86:1:3981:OHX:N3	2.39	0.56
40:L3:152:LYS:NZ	40:L3:193:ASP:OD1	2.36	0.56
1:2:927:C:H1'	16:C4:125:SER:HB2	1.88	0.56
1:2:482:U:H2'	1:2:483:A:C8	2.40	0.56
33:E1:138:ARG:HG3	33:E1:138:ARG:HH11	1.70	0.56
36:5:1817:G:O2'	36:5:1818:U:OP2	2.22	0.56
86:5:4053:OHX:N5	86:5:4199:OHX:N2	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:890:C:OP2	86:6:2156:OHX:N1	2.38	0.56
64:N8:85:ASP:OD1	64:N8:86:LYS:N	2.34	0.56
36:1:3318:G:H2'	36:1:3318:G:OP2	2.06	0.56
46:L9:20:ILE:HG12	46:L9:25:VAL:HG22	3.08	0.56
10:S8:69:SER:OG	10:S8:185:GLU:OE2	3.05	0.56
1:6:291:G:H2'	1:6:292:U:C6	2.40	0.56
70:O4:58:ARG:HG3	70:O4:58:ARG:NH1	2.69	0.56
1:2:1795:U:O2	28:D6:10:ARG:HD2	2.06	0.56
7:S5:112:ARG:NH2	18:C6:42:GLU:OE2	2.38	0.56
35:SM:68:ARG:NH2	1:6:1460:A:OP2	333.07	0.56
54:M8:157:PRO:HD3	64:N8:47:LYS:HB2	2.47	0.56
36:5:980:A:H2'	36:5:981:U:N1	2.21	0.56
7:S5:192:GLU:OE2	27:D5:63:SER:OG	4.48	0.56
1:2:1248:C:H2'	1:2:1249:U:C6	2.41	0.56
1:6:1220:C:H42	1:6:1263:G:H1	1.54	0.56
57:N1:56:PHE:CE1	57:N1:78:LYS:HD3	2.41	0.56
39:L2:230:VAL:O	39:L2:233:GLN:HB2	2.06	0.56
69:O3:75:HIS:HB3	69:O3:80:VAL:HG12	1.95	0.56
61:N5:113:LEU:HD22	36:5:1522:U:H3'	101.60	0.56
52:M6:42:ASN:OD1	52:M6:125:ARG:HD3	2.11	0.56
46:L9:93:VAL:HG22	76:Q0:82:LEU:HD13	2.42	0.56
36:5:3089:C:H2'	36:5:3090:U:O4'	2.06	0.56
36:1:1696:A:OP2	86:1:4154:OHX:N3	2.39	0.56
36:1:2242:A:H5'	39:L2:243:THR:HG23	1.88	0.56
64:N8:132:LYS:O	64:N8:136:GLU:HG3	3.31	0.56
1:6:770:A:OP2	86:6:2141:OHX:N3	2.39	0.56
86:5:4064:OHX:N5	86:5:4142:OHX:N2	2.53	0.55
36:1:916:G:H5'	36:1:917:A:OP1	2.06	0.55
55:M9:43:LYS:HZ1	55:M9:46:LYS:HD2	11.48	0.55
50:M4:121:MET:O	50:M4:125:LYS:HG2	2.05	0.55
18:C6:36:ILE:C	18:C6:38:LEU:H	2.40	0.55
63:N7:4:PHE:HE2	66:O0:63:SER:HB3	2.05	0.55
1:2:1570:A:OP1	86:2:2155:OHX:N5	2.39	0.55
36:5:3049:A:H8	36:5:3049:A:H5'	1.71	0.55
1:6:1429:G:H2'	1:6:1430:U:C6	2.40	0.55
20:C8:135:GLY:HA3	1:6:1559:A:H5''	365.53	0.55
39:L2:226:SER:N	36:5:2202:C:H5''	208.30	0.55
49:M3:59:ARG:O	49:M3:59:ARG:HG3	4.09	0.55
20:C8:28:ILE:O	20:C8:32:LEU:HG	2.06	0.55
17:C5:69:GLU:OE1	86:C5:201:OHX:N4	2.39	0.55
61:N5:25:LYS:HD2	61:N5:25:LYS:H	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:61:SER:OG	27:D5:63:SER:OG	4.33	0.55
21:C9:61:VAL:O	21:C9:65:ILE:HG13	2.06	0.55
46:L9:87:LYS:HD2	46:L9:191:LEU:HD11	15.43	0.55
49:M3:57:VAL:HG22	49:M3:147:ILE:HD13	1.88	0.55
22:D0:53:LYS:HB2	22:D0:92:ASP:HB2	3.45	0.55
1:6:1529:C:H2'	1:6:1530:C:C6	2.41	0.55
30:D8:36:THR:OG1	30:D8:37:SER:N	2.39	0.55
36:5:439:C:O2	36:5:493:G:N2	2.37	0.55
6:S4:13:ALA:O	6:S4:39:ARG:NH2	2.39	0.55
1:2:513:U:OP1	11:S9:133:HIS:NE2	2.38	0.55
86:6:2062:OHX:N2	86:6:2150:OHX:N4	2.54	0.55
18:C6:37:THR:O	18:C6:45:ARG:NH1	3.68	0.55
22:D0:80:GLU:OE1	22:D0:82:TYR:OH	3.05	0.55
1:6:780:A:H3'	1:6:781:U:H5'	1.88	0.55
1:2:1274:C:C5	35:SM:95:SER:HA	2.41	0.55
1:2:567:A:O2'	25:D3:90:ASP:OD2	2.19	0.55
22:D0:58:LEU:HD22	1:6:1516:A:H5''	442.80	0.55
22:D0:27:THR:HG23	22:D0:113:ASP:HB3	1.88	0.55
47:M0:206:LEU:HB2	37:7:64:A:O5'	341.37	0.55
42:L5:289:LYS:HD2	47:M0:206:LEU:HD23	1.88	0.55
63:N7:21:LYS:HE3	63:N7:47:GLU:O	2.05	0.55
38:4:155:A:H5'	45:L8:185:ARG:CZ	2.37	0.55
36:5:2697:A:H2'	36:5:2698:G:H8	1.71	0.55
68:O2:19:ARG:HH22	36:5:1433:A:P	163.27	0.55
39:L2:227:ARG:HG2	39:L2:239:ALA:HB2	1.88	0.55
34:SR:49:GLY:O	34:SR:51:ASP:N	2.39	0.55
52:M6:127:LEU:HD11	56:N0:168:PRO:HG3	2.56	0.55
1:2:767:U:C2	26:D4:64:PHE:CD2	2.93	0.55
1:6:880:C:OP2	86:6:2111:OHX:N2	2.40	0.55
36:5:2228:A:H2'	36:5:2229:A:C8	2.41	0.55
36:1:1441:G:C2'	36:1:1442:U:H5'	2.36	0.55
1:2:1067:C:H2'	1:2:1068:C:C6	2.41	0.55
31:D9:21:CYS:HB2	31:D9:39:CYS:HB3	1.88	0.55
60:N4:54:LEU:H	60:N4:54:LEU:HD12	1.71	0.55
36:5:3289:G:H4'	36:5:3290:G:OP1	2.06	0.55
86:5:3979:OHX:N4	86:5:4198:OHX:N1	2.55	0.55
36:1:1355:A:H4'	36:1:1356:U:O5'	2.06	0.55
56:N0:137:ARG:HD3	36:5:1213:G:OP1	324.73	0.55
1:2:702:G:O2'	1:2:703:G:O4'	2.24	0.55
53:M7:75:GLU:HG2	53:M7:76:PHE:CE2	2.42	0.55
21:C9:28:LEU:O	21:C9:29:GLU:HB2	2.20	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:280:U:O2'	1:2:281:G:OP2	2.19	0.55
65:N9:24:PRO:O	65:N9:25:LYS:HB2	2.54	0.55
1:2:1165:G:C6	1:2:1166:A:C6	2.95	0.55
20:C8:27:LYS:O	20:C8:31:ALA:N	2.56	0.55
21:C9:52:GLY:HA2	21:C9:55:TYR:HD2	2.17	0.55
6:S4:187:ARG:NH2	1:6:753:A:H62	373.86	0.55
1:2:1488:G:H5''	1:2:1489:U:OP1	2.05	0.55
45:L8:26:LEU:HD22	63:N7:66:THR:HG21	1.87	0.55
36:1:3115:C:O2'	36:1:3117:C:N4	2.38	0.55
33:E1:144:CYS:C	33:E1:146:SER:N	2.58	0.55
36:1:2593:A:H4'	36:1:2594:C:O5'	2.06	0.55
14:C2:88:LEU:HB3	14:C2:140:PHE:HZ	1.69	0.55
63:N7:10:VAL:HB	63:N7:83:THR:HG21	1.87	0.55
23:D1:64:GLU:O	23:D1:68:SER:HB2	2.06	0.55
45:L8:61:GLN:HA	45:L8:64:ILE:HD12	4.84	0.55
51:M5:23:GLN:HG2	51:M5:122:ASN:ND2	2.21	0.55
50:M4:38:ILE:HD11	56:N0:150:PHE:HE2	1.70	0.55
65:N9:16:ALA:O	65:N9:20:GLY:HA3	4.38	0.55
36:1:2970:C:H4'	36:1:2971:A:N1	2.22	0.55
54:M8:86:THR:HB	54:M8:105:ARG:HB2	2.14	0.55
36:1:3290:G:O6	86:1:4127:OHX:N6	2.39	0.55
11:S9:45:ILE:HG22	11:S9:101:VAL:HG12	1.88	0.55
36:5:1915:A:H2'	36:5:1916:U:C6	2.42	0.55
1:6:1324:G:N7	86:6:2106:OHX:N2	2.54	0.55
1:6:1363:U:H3'	1:6:1364:G:H8	1.71	0.55
72:O6:91:ASN:O	72:O6:94:ILE:HG22	4.06	0.55
9:S7:184:GLU:HG2	9:S7:185:ILE:H	1.71	0.55
52:M6:8:VAL:HG22	52:M6:34:VAL:HG22	1.89	0.55
36:1:1637:A:OP2	63:N7:73:LYS:NZ	2.34	0.55
39:L2:70:ARG:NH2	36:5:2522:G:C6	174.23	0.55
10:S8:8:ARG:NH2	10:S8:22:ARG:HE	7.94	0.55
24:D2:47:ILE:HG22	24:D2:65:LEU:HD12	3.81	0.55
20:C8:145:ARG:HG3	35:SM:68:ARG:NH2	3.76	0.55
30:D8:26:THR:O	30:D8:44:VAL:HG22	2.65	0.55
66:O0:9:SER:HB3	66:O0:12:GLN:HB3	3.06	0.55
22:D0:57:ARG:HG3	22:D0:89:ARG:CZ	2.35	0.55
4:S2:168:ARG:NE	1:6:1098:U:OP2	384.41	0.55
1:2:93:A:H1'	6:S4:3:ARG:HB3	1.88	0.55
50:M4:134:ALA:O	50:M4:136:ALA:N	2.48	0.55
26:D4:20:ARG:HE	26:D4:22:GLN:HG2	3.77	0.55
36:5:1221:A:H3'	36:5:1222:G:H5'	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:38:ARG:HD2	38:8:142:C:OP1	114.83	0.55
36:5:801:A:O2'	86:5:4026:OHX:N1	2.40	0.55
46:L9:113:GLU:OE1	46:L9:115:ARG:NE	2.88	0.55
64:N8:128:ARG:HB2	72:O6:8:ALA:HB2	4.40	0.55
71:O5:118:ILE:O	71:O5:119:LYS:HB2	2.18	0.55
36:5:2660:G:H4'	36:5:2750:U:O2	2.06	0.55
63:N7:97:SER:OG	63:N7:98:THR:N	3.87	0.55
18:C6:55:VAL:HG21	18:C6:105:LEU:HG	1.88	0.55
41:L4:321:LYS:HA	41:L4:324:LEU:HB3	2.51	0.55
36:1:1669:C:OP1	70:O4:24:LYS:HE2	2.06	0.55
3:S1:195:LYS:O	3:S1:199:ASN:N	2.38	0.55
36:1:1362:G:OP1	86:1:4028:OHX:N6	2.40	0.55
36:1:3353:G:O2'	36:1:3354:U:OP1	2.19	0.55
55:M9:23:TRP:HE3	55:M9:51:VAL:HG13	1.70	0.55
86:1:4000:OHX:N3	86:1:4168:OHX:N5	2.55	0.55
1:6:138:A:H62	1:6:266:A:N6	2.05	0.55
1:2:1672:G:N7	86:2:2045:OHX:N5	2.55	0.55
30:D8:65:ARG:NH2	30:D8:66:LEU:O	2.39	0.55
1:6:140:A:OP2	1:6:140:A:H4'	2.05	0.55
1:6:727:U:H2'	1:6:728:U:C6	2.41	0.55
36:1:2947:G:H4'	36:1:2947:G:OP2	2.07	0.55
22:D0:50:LEU:HD11	22:D0:95:ALA:HB2	1.89	0.55
36:5:1480:G:H4'	36:5:1481:A:OP1	2.06	0.55
27:D5:49:ARG:O	27:D5:53:GLU:HB2	2.46	0.55
36:1:1908:A:O5'	36:1:1908:A:H8	1.89	0.55
39:L2:183:GLY:O	39:L2:186:PHE:HB3	2.23	0.55
36:1:92:G:OP2	36:1:93:C:H5"	2.06	0.55
1:2:333:A:H2'	1:2:334:G:C8	2.42	0.55
1:2:542:A:N1	32:E0:28:LYS:NZ	2.40	0.55
10:S8:36:THR:HG23	10:S8:96:LEU:O	2.07	0.55
86:6:2062:OHX:N2	86:6:2150:OHX:N6	2.54	0.55
20:C8:145:ARG:CD	35:SM:68:ARG:HH22	2.87	0.55
9:S7:39:ARG:NH1	55:M9:189:ALA:HB2	6.68	0.55
36:1:776:U:C5	36:1:2719:U:O2	2.60	0.55
36:5:900:G:H1'	36:5:1589:A:H61	1.69	0.55
41:L4:29:PRO:HD2	41:L4:277:PRO:HB2	1.99	0.55
46:L9:151:VAL:O	46:L9:155:SER:OG	2.09	0.55
1:2:1773:C:OP2	77:Q1:2:ARG:NH1	2.40	0.55
47:M0:210:ILE:HA	47:M0:217:PHE:CE2	2.41	0.55
73:O7:64:MET:O	73:O7:68:LYS:HD2	2.97	0.55
17:C5:51:SER:OG	17:C5:52:LYS:N	3.61	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:1:3970:OHX:N5	86:1:4152:OHX:N2	2.54	0.55
38:4:81:U:O2	38:4:82:U:H3'	2.06	0.55
78:Q2:34:SER:OG	78:Q2:35:LEU:O	2.25	0.55
75:O9:21:ARG:HD3	75:O9:22:PRO:O	2.06	0.55
53:M7:49:GLU:OE2	53:M7:92:GLN:NE2	4.21	0.55
36:1:764:U:O4	86:1:3961:OHX:N5	2.38	0.55
36:1:2984:C:H2'	36:1:2985:C:H6	1.72	0.55
1:6:1354:G:H5'	1:6:1355:C:OP2	2.07	0.55
3:S1:151:LYS:NZ	1:6:1066:C:OP1	337.20	0.55
36:5:1151:U:OP1	86:5:4211:OHX:N1	2.39	0.55
36:1:1933:A:H2'	36:1:1934:G:H5'	1.87	0.55
6:S4:35:PRO:HD2	6:S4:83:PRO:HG2	2.28	0.55
16:C4:117:ASP:OD1	16:C4:119:THR:HG23	2.06	0.55
72:O6:25:LYS:HB2	72:O6:28:TYR:CD2	2.42	0.55
36:1:2107:A:C2	36:1:3344:A:H8	2.23	0.55
7:S5:143:ARG:HB3	30:D8:55:VAL:HB	1.89	0.55
1:6:1429:G:H2'	1:6:1430:U:H6	1.72	0.55
37:3:62:U:O3'	42:L5:285:ARG:NH1	2.40	0.55
16:C4:99:GLN:HB3	28:D6:46:GLU:OE2	2.06	0.55
12:C0:56:LYS:N	12:C0:67:THR:O	2.74	0.55
40:L3:233:TRP:CD1	40:L3:265:ALA:HB1	2.41	0.55
37:7:2:G:O2'	37:7:23:A:N1	2.31	0.55
1:2:1600:A:H4'	1:2:1601:G:OP1	2.06	0.55
1:2:887:A:C1'	16:C4:122:PRO:HB3	2.37	0.55
36:5:3268:A:H3'	36:5:3269:U:H3'	1.88	0.55
4:S2:203:LYS:O	4:S2:206:THR:HG23	4.15	0.55
27:D5:60:VAL:HG13	27:D5:101:TYR:HB2	1.89	0.55
45:L8:94:PHE:HB3	45:L8:189:LEU:HD11	2.92	0.55
3:S1:137:ILE:HG13	3:S1:172:LEU:HD13	1.89	0.55
11:S9:70:LEU:O	11:S9:74:ASN:HB2	2.07	0.55
71:O5:86:ARG:HG3	71:O5:90:ARG:NH2	2.38	0.55
52:M6:15:LEU:HD21	52:M6:125:ARG:HG3	1.99	0.55
36:1:627:U:H2'	36:1:628:A:C8	2.42	0.55
1:2:848:C:H2'	1:2:849:C:C6	2.41	0.55
47:M0:51:HIS:HB3	47:M0:134:ILE:HG23	2.20	0.55
66:O0:43:ILE:HG22	66:O0:70:PHE:HB2	1.88	0.55
27:D5:71:ILE:HB	27:D5:76:ALA:HB2	1.88	0.55
36:1:3218:A:H4'	36:1:3219:G:O5'	2.06	0.55
4:S2:118:ALA:HB3	4:S2:124:ALA:HB2	2.73	0.55
48:M1:106:ILE:HG12	48:M1:106:ILE:O	2.41	0.55
57:N1:41:ASP:HB2	57:N1:97:LYS:HD3	4.03	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:5:3979:OHX:N4	86:5:4198:OHX:N3	2.54	0.55
63:N7:15:ARG:HD3	36:5:1637:A:H4'	215.30	0.55
36:5:3153:U:H1'	36:5:3154:C:C5	2.41	0.55
38:8:68:G:OP1	86:8:218:OHX:N3	2.39	0.55
73:O7:18:LEU:HD21	75:O9:51:ILE:HG22	1.87	0.55
1:6:564:G:O6	86:6:2157:OHX:N5	2.40	0.55
17:C5:129:GLY:HA3	35:SM:74:LYS:HG2	5.28	0.55
36:5:420:G:O5'	36:5:420:G:OP2	2.22	0.55
9:S7:96:ARG:NH1	9:S7:128:ASP:OD2	2.29	0.55
8:S6:7:TYR:HB3	8:S6:12:SER:HB2	1.89	0.55
4:S2:159:THR:HG21	1:6:1097:U:O2'	382.56	0.55
35:SM:34:LYS:HE3	36:1:2692:A:O3'	2.07	0.55
2:S0:90:ALA:HA	2:S0:95:ALA:HB3	2.16	0.55
6:S4:187:ARG:NH2	1:6:753:A:N7	373.42	0.55
36:5:2975:U:OP1	86:5:4087:OHX:N3	2.39	0.55
36:5:1614:C:H2'	36:5:1615:C:C6	2.40	0.55
6:S4:161:LYS:HB3	6:S4:170:THR:O	4.76	0.55
77:Q1:2:ARG:HD2	1:6:1773:C:OP2	310.21	0.55
36:1:3153:U:H3	36:1:3293:U:H3	1.54	0.55
41:L4:49:ALA:HA	41:L4:109:TRP:CZ2	2.41	0.55
36:1:2947:G:C2	40:L3:250:ALA:HB1	2.42	0.55
4:S2:144:TRP:CE2	4:S2:173:PRO:HG3	2.40	0.55
70:O4:57:LEU:HB3	70:O4:61:GLN:HB2	2.05	0.55
43:L6:146:ILE:C	43:L6:148:GLU:H	2.10	0.55
31:D9:24:CYS:HB2	1:6:1434:U:H4'	410.10	0.55
1:6:1255:G:H4'	1:6:1256:A:OP1	2.07	0.55
39:L2:109:GLU:HA	39:L2:136:ILE:HG22	2.55	0.55
36:5:1641:U:O2'	36:5:1642:A:H3'	2.07	0.55
56:N0:92:LYS:NZ	56:N0:109:ASP:OD2	3.03	0.55
48:M1:82:ARG:NH1	48:M1:112:LEU:O	3.08	0.55
4:S2:162:CYS:SG	4:S2:212:LYS:HE2	2.47	0.55
43:L6:18:LEU:N	43:L6:18:LEU:HD22	2.21	0.55
1:2:1199:G:O6	22:D0:67:THR:HG23	2.07	0.55
11:S9:134:ILE:HD13	11:S9:141:VAL:O	3.20	0.55
51:M5:149:ASN:O	51:M5:152:CYS:HB2	2.07	0.55
1:2:693:U:H5'	1:2:694:U:H5'	1.88	0.55
24:D2:11:LEU:HD12	24:D2:74:VAL:HB	1.88	0.55
48:M1:63:GLU:O	48:M1:64:LYS:HB2	2.07	0.55
50:M4:113:THR:HB	50:M4:116:GLU:HG3	1.89	0.55
9:S7:119:THR:HG23	1:6:639:U:OP2	368.66	0.55
86:5:4053:OHX:N1	86:5:4199:OHX:N4	2.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:2:ALA:HB2	64:N8:31:GLY:O	2.07	0.55
31:D9:30:LEU:HA	31:D9:39:CYS:HA	2.32	0.55
41:L4:330:TYR:HA	41:L4:333:VAL:HG13	2.64	0.55
36:5:2271:A:H2'	36:5:2272:G:O4'	2.07	0.55
5:S3:135:GLU:HB2	5:S3:157:LEU:HD11	4.23	0.55
36:5:2998:U:O4	86:5:4141:OHX:N4	2.40	0.55
1:2:480:G:H22	1:2:509:G:H1'	1.71	0.55
36:1:3195:U:O2'	36:1:3197:G:N2	2.40	0.55
36:5:1801:U:H2'	36:5:1802:C:C6	2.42	0.55
38:8:62:C:O2	86:8:223:OHX:N1	2.40	0.55
36:5:2224:A:N7	36:5:2225:U:H1'	2.22	0.55
7:S5:186:ASN:HD21	7:S5:188:LYS:HG3	5.10	0.55
36:5:357:A:OP2	86:5:4209:OHX:N5	2.40	0.55
44:L7:196:LYS:HE2	36:5:1100:U:OP2	245.18	0.55
36:1:979:U:H1'	36:1:980:A:N9	2.22	0.55
11:S9:172:VAL:HG22	1:6:511:A:H5''	458.25	0.55
36:1:1170:A:OP2	86:1:3957:OHX:N3	2.40	0.55
5:S3:142:LEU:HD11	5:S3:182:LEU:HD11	1.88	0.55
71:O5:101:THR:HG22	71:O5:104:GLN:HB2	2.10	0.55
3:S1:84:ILE:HD13	3:S1:103:MET:HB2	1.88	0.55
46:L9:13:PRO:HG2	46:L9:16:VAL:CG1	2.66	0.55
23:D1:71:ARG:HG3	23:D1:83:TRP:CH2	2.42	0.55
66:O0:13:LYS:HB3	66:O0:100:ILE:CG2	2.36	0.55
12:C0:56:LYS:HG2	12:C0:67:THR:HB	1.89	0.55
2:S0:109:ASN:O	2:S0:112:THR:HG22	2.07	0.55
15:C3:93:LYS:HG3	15:C3:150:VAL:HG11	1.87	0.55
36:1:2898:G:H5''	36:1:2899:C:H5'	1.88	0.55
86:2:2076:OHX:N3	86:2:2162:OHX:N5	2.55	0.55
36:1:1878:G:C2'	36:1:1879:A:H5'	2.36	0.55
1:6:1689:A:H2	1:6:1712:A:H61	1.55	0.55
14:C2:73:LYS:NZ	33:E1:108:VAL:H	2.05	0.55
47:M0:149:VAL:HG13	47:M0:165:ILE:HG13	1.89	0.55
36:1:3164:C:N4	36:1:3286:G:O6	2.40	0.55
36:1:1794:G:O2'	36:1:1795:U:H5'	2.06	0.55
34:SR:214:ALA:HB2	34:SR:220:ILE:HA	1.89	0.55
1:2:97:C:H2'	1:2:98:U:H6	1.72	0.55
57:N1:101:CYS:O	57:N1:104:GLU:HG3	4.81	0.55
2:S0:79:ARG:NH2	2:S0:164:ASN:O	3.89	0.55
36:1:3084:C:OP2	86:1:3885:OHX:N5	2.39	0.55
52:M6:148:LYS:HD3	36:5:3135:U:OP1	258.55	0.55
1:6:1617:U:H2'	1:6:1618:C:C6	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:208:ASN:O	47:M0:212:GLU:HB2	3.05	0.55
35:SM:102:THR:HG23	35:SM:105:LYS:HB2	1.88	0.55
1:6:46:A:N6	1:6:433:C:H4'	2.21	0.55
9:S7:104:ARG:HB3	1:6:742:U:O4'	351.39	0.55
36:1:1547:G:OP1	51:M5:105:ARG:HD3	2.06	0.55
42:L5:126:GLU:HA	42:L5:196:ARG:HD2	1.88	0.55
36:5:112:U:O2'	36:5:113:C:OP2	2.21	0.55
36:1:1477:A:OP1	36:1:3075:G:O2'	2.23	0.55
55:M9:17:VAL:HG13	55:M9:21:LYS:HB2	3.82	0.55
86:5:3979:OHX:N2	86:5:4198:OHX:N5	2.55	0.54
70:O4:47:CYS:SG	70:O4:48:GLY:N	2.80	0.54
36:5:1560:G:O2'	36:5:1561:G:OP1	2.22	0.54
1:2:1537:C:O2'	1:2:1540:G:O6	2.21	0.54
9:S7:91:ILE:HD12	9:S7:92:PHE:H	2.33	0.54
1:2:1595:U:H5	1:2:1596:C:C5	2.24	0.54
1:2:1600:A:HO2'	1:2:1602:C:H41	1.53	0.54
21:C9:14:PHE:CE2	21:C9:63:ARG:HB2	2.42	0.54
54:M8:93:ILE:HG23	36:5:784:A:C6	149.94	0.54
1:2:1274:C:H5	35:SM:96:ARG:HG2	1.72	0.54
3:S1:22:ASP:O	3:S1:24:PHE:N	2.40	0.54
45:L8:177:TYR:CE1	45:L8:222:PHE:HB3	3.22	0.54
1:2:1000:C:H2'	1:2:1002:G:OP2	2.07	0.54
51:M5:35:VAL:O	51:M5:64:VAL:HA	2.24	0.54
1:6:1251:U:O2'	1:6:1252:C:OP2	2.23	0.54
36:1:1110:U:H2'	36:1:1111:U:C6	2.42	0.54
55:M9:35:ALA:O	55:M9:36:ASN:ND2	6.22	0.54
44:L7:219:LYS:O	44:L7:228:SER:HB2	3.17	0.54
52:M6:72:HIS:O	52:M6:74:ARG:HD3	2.25	0.54
36:1:2245:C:O2'	39:L2:221:LYS:HA	2.07	0.54
79:Q3:27:LYS:O	79:Q3:31:ILE:HD12	2.07	0.54
53:M7:86:LYS:HB2	36:5:2353:G:H5''	140.73	0.54
15:C3:61:THR:OG1	15:C3:62:GLN:N	2.70	0.54
1:2:377:G:O6	86:2:2079:OHX:N5	2.40	0.54
88:5:4254:3J2:O3	88:5:4254:3J2:H18	2.08	0.54
36:5:770:G:O6	86:5:4095:OHX:N6	2.39	0.54
8:S6:171:LYS:NZ	1:6:68:A:OP2	350.06	0.54
36:1:748:U:H2'	36:1:749:C:C6	2.42	0.54
32:E0:43:ARG:HH12	1:6:590:C:H5''	417.41	0.54
64:N8:21:ARG:NH1	36:5:1369:A:OP1	182.06	0.54
1:2:1796:C:H5	28:D6:6:ALA:H	1.54	0.54
1:6:158:U:O2'	1:6:159:U:H3'	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:65:VAL:HG23	15:C3:66:ILE:HG22	5.99	0.54
62:N6:37:LYS:H	62:N6:37:LYS:CE	2.74	0.54
1:6:565:C:C2	86:6:2162:OHX:N4	2.75	0.54
1:2:1542:G:H22	1:2:1568:C:H1'	1.72	0.54
1:2:885:G:OP1	3:S1:136:ARG:NH1	2.39	0.54
36:5:3047:U:O2'	36:5:3048:A:H5'	2.07	0.54
65:N9:23:LYS:HB3	65:N9:24:PRO:CD	2.90	0.54
42:L5:146:LEU:HD13	42:L5:148:ILE:HD13	4.63	0.54
79:Q3:84:ARG:HG2	79:Q3:87:ARG:HH22	1.72	0.54
1:6:1405:G:H2'	1:6:1406:A:C8	2.42	0.54
36:1:2882:U:H2'	36:1:2883:U:C6	2.41	0.54
9:S7:21:ALA:O	9:S7:24:PHE:HB2	2.22	0.54
36:1:3055:U:O5'	36:1:3055:U:H6	1.90	0.54
71:O5:75:TYR:OH	36:5:128:G:OP1	82.78	0.54
40:L3:385:LYS:O	40:L3:386:ASP:HB2	2.88	0.54
39:L2:21:ARG:HD3	36:5:824:C:H5''	170.41	0.54
36:1:1320:C:O2	56:N0:115:ARG:NH2	2.40	0.54
36:1:2400:G:H5''	36:1:2401:A:OP2	2.07	0.54
47:M0:2:ALA:O	47:M0:3:ARG:HB2	4.58	0.54
36:1:1554:U:C2	36:1:1555:U:C5	2.95	0.54
36:5:368:G:OP1	86:5:3926:OHX:N2	2.40	0.54
40:L3:29:VAL:HG22	40:L3:218:ILE:HD13	2.82	0.54
51:M5:44:ARG:NH2	36:5:269:G:OP1	124.38	0.54
1:6:1588:G:OP1	86:6:2127:OHX:N2	2.40	0.54
17:C5:119:PHE:HA	35:SM:57:ASN:ND2	2.85	0.54
77:Q1:11:ARG:HH21	1:6:1127:G:P	292.46	0.54
36:5:3241:G:H2'	36:5:3245:A:H8	1.69	0.54
11:S9:33:GLU:O	11:S9:122:VAL:HG11	2.08	0.54
40:L3:21:ARG:NH2	36:5:3309:G:O6	198.83	0.54
6:S4:248:ILE:HA	6:S4:251:GLU:HB2	3.24	0.54
36:1:2177:G:OP2	39:L2:128:ARG:NH1	2.38	0.54
47:M0:86:HIS:HB3	47:M0:139:ARG:CG	2.55	0.54
70:O4:103:LYS:O	70:O4:107:GLU:N	2.39	0.54
14:C2:59:LEU:HA	14:C2:87:PRO:HB2	1.89	0.54
1:6:86:A:OP2	86:6:2192:OHX:N1	2.41	0.54
59:N3:12:ARG:HG3	59:N3:13:ILE:N	3.91	0.54
5:S3:70:THR:O	5:S3:74:GLN:N	2.36	0.54
86:5:4203:OHX:N6	86:8:227:OHX:N3	2.56	0.54
36:5:1241:U:O2'	36:5:1242:G:O5'	2.25	0.54
33:E1:102:VAL:O	33:E1:104:SER:N	2.40	0.54
49:M3:17:HIS:O	49:M3:20:GLU:HG3	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:3:121:U:H5'	42:L5:265:TYR:HE1	1.72	0.54
86:1:4063:OHX:N3	86:1:4110:OHX:N4	2.56	0.54
59:N3:3:GLY:O	59:N3:6:ALA:HB3	2.08	0.54
57:N1:26:HIS:ND1	37:7:10:C:OP2	268.99	0.54
13:C1:72:THR:O	13:C1:88:ARG:HD2	2.07	0.54
46:L9:4:ILE:CD1	56:N0:148:LEU:HD11	2.36	0.54
36:1:3344:A:H2	36:1:3361:G:N2	2.03	0.54
86:2:2076:OHX:N4	86:2:2162:OHX:N1	2.55	0.54
36:1:73:C:O2	49:M3:59:ARG:HD3	2.08	0.54
2:S0:64:ILE:HG23	2:S0:73:VAL:HG11	1.89	0.54
54:M8:170:ARG:HA	54:M8:174:ARG:HD2	2.37	0.54
8:S6:126:ASP:OD2	8:S6:127:THR:HG22	2.08	0.54
63:N7:53:VAL:HA	63:N7:57:HIS:HD2	1.73	0.54
38:4:85:G:C8	38:4:85:G:H3'	2.42	0.54
57:N1:30:TYR:OH	57:N1:94:GLU:OE2	2.63	0.54
64:N8:115:LYS:HB2	36:5:715:A:H3'	146.98	0.54
54:M8:67:ILE:HG23	54:M8:81:VAL:HG11	2.72	0.54
57:N1:131:GLN:NE2	57:N1:132:PRO:HD2	3.30	0.54
86:1:4025:OHX:N2	86:1:4142:OHX:N1	2.56	0.54
1:2:710:U:H2'	1:2:711:U:H5'	1.87	0.54
36:5:23:A:H2'	36:5:24:G:O4'	2.08	0.54
1:2:625:C:H2'	1:2:626:U:C6	2.43	0.54
48:M1:143:ARG:NH2	37:7:5:G:OP1	291.46	0.54
36:1:3027:A:H2'	36:1:3028:G:O4'	2.06	0.54
86:5:4093:OHX:N1	86:5:4237:OHX:N4	2.55	0.54
1:2:355:G:O6	86:2:2028:OHX:N6	2.41	0.54
1:2:1060:U:H2'	1:2:1061:A:O4'	2.07	0.54
33:E1:151:ASN:O	33:E1:151:ASN:ND2	2.39	0.54
68:O2:61:LYS:HD3	36:5:1339:C:OP1	191.62	0.54
34:SR:16:HIS:O	34:SR:308:ASN:HB3	2.66	0.54
3:S1:229:MET:HG3	36:5:2537:U:H5'	258.15	0.54
8:S6:102:VAL:HG13	8:S6:106:LEU:HD12	1.94	0.54
21:C9:109:GLU:HG3	21:C9:114:VAL:HG23	6.11	0.54
24:D2:24:GLN:OE1	29:D7:4:VAL:HA	2.07	0.54
36:5:1750:A:H4'	36:5:1751:G:H5'	1.90	0.54
19:C7:41:ILE:HG21	19:C7:47:ARG:HB2	2.49	0.54
4:S2:116:LYS:HG2	4:S2:127:ALA:HB3	1.89	0.54
64:N8:94:ALA:CB	64:N8:121:VAL:HG13	2.38	0.54
36:5:2284:C:O2	86:5:4179:OHX:N1	2.40	0.54
1:2:399:A:OP1	10:S8:49:ARG:NH2	2.40	0.54
24:D2:105:THR:HG23	24:D2:110:ILE:HG13	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:800:U:H2'	1:6:801:G:C8	2.40	0.54
13:C1:54:ILE:HG23	13:C1:55:ASP:N	2.21	0.54
36:1:437:G:O2'	36:1:438:A:H5'	2.08	0.54
36:5:2964:G:N2	36:5:2967:A:OP2	2.31	0.54
4:S2:98:PHE:CD2	4:S2:121:VAL:HG23	3.73	0.54
36:5:1482:A:H4'	36:5:1483:G:OP2	2.06	0.54
11:S9:65:LYS:HA	11:S9:70:LEU:HD21	1.90	0.54
86:1:3959:OHX:N1	86:1:4136:OHX:N3	2.56	0.54
39:L2:96:LEU:HD22	79:Q3:83:ILE:HG23	1.90	0.54
41:L4:159:ILE:HG12	41:L4:164:GLU:HG2	4.61	0.54
1:6:1524:A:H2'	1:6:1525:A:C8	2.43	0.54
1:2:696:C:H1'	1:2:697:C:H2'	1.89	0.54
12:C0:7:ASP:OD2	12:C0:37:THR:HG22	2.07	0.54
1:6:761:G:O6	86:6:2086:OHX:N1	2.41	0.54
17:C5:19:GLY:N	20:C8:93:THR:O	2.41	0.54
41:L4:42:VAL:HG12	41:L4:236:LEU:HD21	2.13	0.54
6:S4:21:ASP:HB2	1:6:773:C:OP1	388.18	0.54
86:5:3979:OHX:N6	86:5:4198:OHX:N5	2.56	0.54
1:2:1788:G:P	16:C4:127:ARG:HH12	2.31	0.54
1:6:542:A:OP1	1:6:544:A:C5	2.61	0.54
73:O7:87:SER:O	86:8:218:OHX:N6	16.52	0.54
1:6:1700:C:O2'	1:6:1701:A:OP1	2.21	0.54
62:N6:51:ARG:HG2	62:N6:115:ARG:NH2	2.22	0.54
34:SR:132:LYS:HD2	34:SR:134:TRP:CZ2	2.43	0.54
17:C5:108:ARG:HG2	17:C5:110:GLU:HG2	1.90	0.54
40:L3:105:VAL:HG22	40:L3:147:GLU:HB3	1.89	0.54
1:2:274:G:C2	1:2:275:C:H1'	2.43	0.54
40:L3:141:GLY:O	40:L3:143:GLY:N	2.81	0.54
1:6:737:A:H2'	1:6:738:G:C8	2.41	0.54
53:M7:139:TYR:CE2	36:5:2355:G:H4'	147.22	0.54
6:S4:118:GLU:OE2	6:S4:237:SER:OG	2.86	0.54
36:1:437:G:H2'	36:1:438:A:O4'	2.07	0.54
86:1:3970:OHX:N5	86:1:4152:OHX:N1	2.55	0.54
63:N7:34:LYS:O	63:N7:37:PRO:HG3	3.96	0.54
52:M6:27:LEU:HD22	52:M6:101:ARG:HB2	2.23	0.54
86:5:4032:OHX:N5	86:5:4117:OHX:N4	2.56	0.54
49:M3:94:GLY:HA3	71:O5:116:TYR:OH	2.07	0.54
25:D3:37:ALA:O	25:D3:41:SER:HB3	3.58	0.54
1:2:76:A:H5'	1:2:77:U:OP2	2.07	0.54
36:1:3393:U:H2'	36:1:3394:U:C6	2.42	0.54
36:1:1522:U:H4'	36:1:1523:U:OP2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:999:G:C6	36:5:1000:C:N4	2.76	0.54
36:1:1347:U:OP1	41:L4:303:GLY:N	2.33	0.54
13:C1:36:LYS:HD3	1:6:248:U:H4'	311.90	0.54
25:D3:67:ALA:HB2	1:6:576:G:H22	363.07	0.54
1:2:1354:G:H5'	1:2:1355:C:OP2	2.07	0.54
36:5:1419:A:H5'	38:8:20:U:O2'	2.08	0.54
19:C7:104:ASN:O	19:C7:106:THR:HG22	6.14	0.54
11:S9:123:HIS:CE1	32:E0:37:ARG:HG3	2.43	0.54
36:1:412:G:OP1	53:M7:62:ARG:NH1	2.41	0.54
1:6:523:G:O6	86:6:2085:OHX:N6	2.41	0.54
69:O3:37:THR:HB	69:O3:38:PRO:HD2	2.51	0.54
1:2:568:G:N7	25:D3:69:ARG:NH2	2.55	0.54
6:S4:160:VAL:HG13	6:S4:169:ILE:HG23	2.49	0.54
36:1:12:A:OP1	86:1:4199:OHX:N6	2.41	0.54
47:M0:156:ARG:HD3	47:M0:163:GLN:O	2.43	0.54
86:5:4009:OHX:N6	86:5:4200:OHX:N5	2.56	0.54
43:L6:13:GLU:OE2	68:O2:90:LYS:HB2	2.08	0.54
1:2:539:G:OP2	1:2:539:G:H8	1.90	0.54
79:Q3:7:LYS:O	79:Q3:27:LYS:NZ	2.59	0.54
36:1:2418:G:O6	86:1:4114:OHX:N4	2.41	0.54
71:O5:35:LYS:NZ	38:8:50:C:OP1	62.11	0.54
6:S4:71:LYS:O	6:S4:90:ILE:HA	3.14	0.54
17:C5:44:ARG:NH2	17:C5:82:ASN:O	3.16	0.54
20:C8:5:VAL:HG23	27:D5:42:LEU:HD23	1.90	0.54
49:M3:124:ILE:HD11	71:O5:117:ALA:HB3	1.89	0.54
76:Q0:91:CYS:O	76:Q0:126:LYS:NZ	2.32	0.54
30:D8:12:VAL:HG22	30:D8:28:VAL:HG11	1.90	0.54
36:1:1260:A:H1'	36:1:1280:C:H1'	1.89	0.54
1:6:1490:C:H6	1:6:1490:C:OP1	1.91	0.54
62:N6:27:ARG:NH1	62:N6:76:LEU:O	2.82	0.54
16:C4:16:VAL:O	16:C4:30:VAL:HA	2.08	0.54
36:5:2434:U:C4'	36:5:2435:G:H5''	2.27	0.54
36:1:1603:A:OP1	55:M9:38:ARG:NH1	2.41	0.54
36:1:357:A:OP2	86:O9:101:OHX:N4	2.40	0.54
10:S8:56:ARG:HH22	1:6:332:U:P	287.39	0.54
7:S5:167:ARG:HH21	30:D8:55:VAL:HG21	3.61	0.54
7:S5:222:LYS:HG3	7:S5:225:ARG:NH2	2.22	0.54
36:5:2573:G:H5'	36:5:2574:G:OP2	2.08	0.54
9:S7:35:LYS:C	9:S7:37:GLU:H	2.11	0.54
1:2:1568:C:HO2'	1:2:1569:A:P	2.30	0.54
21:C9:42:GLY:HA2	21:C9:84:LYS:HG3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:43:ARG:HD3	1:6:1553:G:O6	396.26	0.54
51:M5:190:THR:O	51:M5:194:GLN:HG3	3.45	0.54
1:2:1738:U:H2'	1:2:1739:C:H6	1.72	0.54
12:C0:23:ALA:O	12:C0:24:LYS:HB3	4.61	0.54
54:M8:30:VAL:O	54:M8:34:THR:HG23	2.08	0.54
39:L2:48:ILE:HD11	79:Q3:54:ILE:HG23	1.90	0.54
86:5:4203:OHX:N4	86:8:227:OHX:N1	2.55	0.54
38:4:104:A:H3'	38:4:105:A:H5''	1.89	0.54
1:2:1615:C:O2'	1:2:1616:G:OP2	2.21	0.54
86:1:4063:OHX:N5	86:1:4110:OHX:N2	2.55	0.54
1:2:77:U:H4'	1:2:78:A:O5'	2.07	0.54
27:D5:41:ILE:HG23	27:D5:42:LEU:H	1.71	0.54
47:M0:42:THR:H	47:M0:45:GLU:HG3	5.06	0.54
22:D0:97:VAL:HG13	22:D0:98:GLN:H	2.56	0.54
40:L3:221:THR:HG22	40:L3:272:TYR:N	2.28	0.54
5:S3:203:PRO:HB3	1:6:1332:C:H4'	427.51	0.54
15:C3:129:TYR:HB3	15:C3:134:VAL:HG22	1.88	0.54
15:C3:132:VAL:HG23	15:C3:134:VAL:CG1	2.48	0.54
33:E1:119:ARG:HH11	33:E1:139:LEU:HD21	1.73	0.54
64:N8:16:SER:HA	36:5:942:U:N3	168.51	0.54
36:1:2225:U:H2'	36:1:2226:U:C6	2.43	0.54
70:O4:81:CYS:SG	70:O4:81:CYS:O	2.69	0.54
3:S1:70:LEU:HD21	3:S1:79:HIS:CE1	2.43	0.54
1:2:1101:G:H5''	24:D2:76:SER:HB3	1.90	0.54
36:5:1555:U:O2'	36:5:2169:G:N2	2.40	0.54
18:C6:38:LEU:HD22	21:C9:10:ALA:HB2	1.90	0.54
18:C6:31:VAL:HA	18:C6:67:VAL:O	2.51	0.54
41:L4:23:PRO:HB3	41:L4:258:LEU:HB3	2.00	0.54
1:2:1780:G:OP2	86:2:2053:OHX:N4	2.41	0.54
1:2:1490:C:H4'	1:2:1491:U:OP1	2.05	0.54
1:6:817:A:H2'	1:6:818:C:C6	2.42	0.54
36:1:801:A:O2'	86:1:3979:OHX:N2	2.40	0.54
9:S7:162:ILE:HA	9:S7:165:LYS:HE2	2.20	0.54
5:S3:214:GLU:OE1	34:SR:176:LYS:NZ	2.27	0.54
8:S6:89:ASP:N	8:S6:89:ASP:OD2	2.40	0.54
36:5:3259:U:H6	36:5:3259:U:H5'	1.73	0.54
34:SR:179:LYS:NZ	34:SR:191:ASP:OD1	2.33	0.54
10:S8:38:ILE:HA	10:S8:60:ILE:O	2.24	0.54
1:2:1555:A:OP1	17:C5:47:ARG:HD3	2.08	0.54
6:S4:33:ALA:O	1:6:121:U:O2'	353.07	0.54
40:L3:262:TRP:HE1	52:M6:66:LYS:HZ2	1.54	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:5:4064:OHX:N3	86:5:4142:OHX:N4	2.56	0.54
1:2:514:G:N1	1:2:543:C:C5	2.76	0.54
9:S7:35:LYS:NZ	9:S7:39:ARG:HD2	2.23	0.54
41:L4:311:HIS:HE1	41:L4:314:LYS:HA	1.67	0.54
36:5:419:G:O3'	36:5:420:G:OP2	2.24	0.54
36:5:1199:C:H4'	36:5:1200:A:O5'	2.07	0.54
36:5:3343:G:N2	36:5:3362:A:H2	2.03	0.54
9:S7:71:HIS:HD2	9:S7:74:GLN:OE1	7.76	0.54
7:S5:77:TYR:HB3	7:S5:84:LYS:HA	1.90	0.54
40:L3:3:HIS:O	40:L3:5:LYS:N	2.41	0.54
44:L7:150:LYS:HG2	44:L7:151:ARG:HG3	1.99	0.54
42:L5:269:SER:OG	37:7:1:G:N2	315.47	0.54
55:M9:11:ALA:O	55:M9:15:VAL:HG23	2.07	0.54
1:2:720:G:H1'	1:2:721:U:H5''	1.90	0.54
36:5:1814:A:OP1	86:5:4180:OHX:N3	2.41	0.54
1:6:709:C:O2	1:6:730:G:N2	2.41	0.54
18:C6:95:LYS:O	34:SR:59:ARG:NH2	2.41	0.54
36:1:2444:C:H3'	36:1:2445:A:H5''	1.89	0.54
33:E1:119:ARG:NH2	33:E1:120:GLU:O	9.50	0.54
6:S4:131:LEU:HD13	6:S4:135:GLY:HA2	1.88	0.54
36:1:3170:A:H2'	36:1:3171:U:C6	2.42	0.54
43:L6:137:ASP:O	43:L6:141:VAL:HG23	2.08	0.54
78:Q2:63:LYS:NZ	36:5:2761:G:N7	210.48	0.54
8:S6:14:LYS:HZ1	8:S6:122:GLU:HB3	1.73	0.54
36:1:103:G:OP1	49:M3:70:ARG:NH2	2.41	0.54
1:2:1338:C:H1'	1:2:1410:A:C4	2.42	0.54
1:2:178:U:C4	8:S6:191:ARG:HD3	2.42	0.54
25:D3:30:LYS:HE3	25:D3:34:LEU:HD11	1.90	0.54
1:2:1597:A:OP2	31:D9:32:ARG:NH2	2.40	0.53
3:S1:193:ILE:O	3:S1:197:ILE:HG12	2.09	0.53
86:5:4064:OHX:N5	86:5:4142:OHX:N6	2.56	0.53
1:2:514:G:O2'	1:2:515:A:H5'	2.08	0.53
3:S1:77:GLU:OE1	16:C4:114:ARG:NH2	2.41	0.53
17:C5:22:LEU:HD12	17:C5:26:LEU:HD22	1.90	0.53
1:2:74:U:O2'	1:2:75:U:H5'	2.07	0.53
1:2:778:G:O6	26:D4:10:ARG:HG2	2.08	0.53
20:C8:28:ILE:HG13	20:C8:56:LYS:O	5.25	0.53
36:5:3174:A:H2'	36:5:3175:U:C5'	2.38	0.53
1:2:260:U:H3'	1:2:261:U:C5'	2.37	0.53
12:C0:32:HIS:HD1	12:C0:33:GLU:H	3.12	0.53
1:6:1762:A:C1'	1:6:1783:C:H5'	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2696:A:H2'	36:5:2697:A:C8	2.42	0.53
36:5:1786:G:H2'	36:5:1787:A:C8	2.43	0.53
39:L2:230:VAL:HG21	36:5:2424:A:N1	183.11	0.53
45:L8:101:THR:H	45:L8:104:GLU:HB2	1.74	0.53
1:2:199:G:HO2'	1:2:200:A:H8	1.56	0.53
1:6:1535:U:H1'	1:6:1536:G:C2	2.44	0.53
50:M4:21:VAL:HB	50:M4:63:VAL:HG13	1.89	0.53
65:N9:58:LYS:HA	65:N9:58:LYS:NZ	3.45	0.53
36:5:370:U:OP1	86:5:4165:OHX:N1	2.41	0.53
1:2:997:G:H2'	1:2:998:A:O4'	2.08	0.53
35:SM:54:PRO:HB2	35:SM:59:GLY:HA2	2.11	0.53
1:6:1724:U:O4	86:6:2094:OHX:N5	2.41	0.53
1:2:881:A:H2'	1:2:882:U:O4'	2.08	0.53
68:O2:31:ASN:N	68:O2:31:ASN:OD1	2.79	0.53
36:1:1682:U:O4	58:N2:90:ARG:NH1	2.41	0.53
1:2:320:U:H3'	1:2:321:C:C5'	2.25	0.53
15:C3:114:ARG:NH1	15:C3:114:ARG:HG2	2.62	0.53
36:1:2278:C:H2'	36:1:2279:A:H5''	1.90	0.53
11:S9:105:LEU:O	11:S9:108:ARG:HG3	2.08	0.53
9:S7:133:THR:O	9:S7:134:GLU:HB2	2.07	0.53
66:O0:98:SER:OG	66:O0:100:ILE:HG23	2.08	0.53
7:S5:92:ARG:HH11	7:S5:92:ARG:HG2	2.63	0.53
70:O4:71:THR:HG22	70:O4:78:GLY:N	2.23	0.53
7:S5:133:VAL:HG22	7:S5:198:LEU:HD22	4.02	0.53
1:2:1552:U:OP2	17:C5:43:ARG:NH2	2.40	0.53
36:1:1796:G:H5''	36:1:1797:A:OP1	2.08	0.53
41:L4:138:ARG:HH21	41:L4:240:PRO:HB2	2.93	0.53
36:5:2866:U:O4	86:5:3974:OHX:N6	2.41	0.53
1:2:1474:G:P	7:S5:109:LYS:HZ1	2.31	0.53
13:C1:67:ARG:O	13:C1:127:GLN:HB3	2.31	0.53
86:5:4093:OHX:N5	86:5:4237:OHX:N6	2.56	0.53
36:1:1854:C:OP2	86:1:4029:OHX:N5	2.41	0.53
64:N8:90:TYR:CG	64:N8:100:PRO:HG3	2.43	0.53
8:S6:131:LYS:O	60:N4:83:THR:N	2.41	0.53
57:N1:18:ASP:HB3	57:N1:21:LYS:HD2	4.30	0.53
69:O3:91:ALA:C	69:O3:93:THR:H	2.12	0.53
15:C3:99:ARG:O	15:C3:103:GLU:HG2	2.08	0.53
36:5:182:U:H4'	36:5:182:U:OP1	2.08	0.53
20:C8:42:TYR:HA	20:C8:85:PHE:HE1	1.74	0.53
36:1:2298:U:O4	36:1:2923:U:H5	1.91	0.53
36:5:1686:U:O2	36:5:1688:U:H1'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:147:LYS:O	45:L8:201:THR:HB	2.48	0.53
6:S4:11:ARG:O	6:S4:12:LEU:HB2	2.52	0.53
78:Q2:41:ARG:HH21	36:5:2785:A:H4'	162.49	0.53
1:2:704:C:OP2	1:2:704:C:H3'	2.08	0.53
36:1:1230:G:N2	36:1:1279:C:N3	2.53	0.53
42:L5:278:SER:N	42:L5:281:GLU:OE2	3.18	0.53
41:L4:316:ASN:HD21	44:L7:150:LYS:HD2	1.73	0.53
40:L3:105:VAL:HG21	40:L3:148:LEU:HD13	1.90	0.53
35:SM:26:VAL:HG11	48:M1:49:LYS:HE3	1.89	0.53
41:L4:145:ILE:HD13	41:L4:150:LEU:HD12	3.34	0.53
36:1:618:C:H5'	53:M7:169:THR:HG22	1.90	0.53
63:N7:89:VAL:HG13	63:N7:93:LYS:HG2	2.10	0.53
1:6:1393:C:H2'	1:6:1394:G:H8	1.74	0.53
22:D0:42:VAL:HG21	22:D0:55:PRO:HD3	2.11	0.53
59:N3:79:VAL:HB	59:N3:118:VAL:HG22	1.97	0.53
36:1:1441:G:OP1	86:1:4201:OHX:N4	2.40	0.53
2:S0:35:PRO:C	2:S0:37:VAL:H	2.11	0.53
36:5:2322:C:OP1	86:5:4159:OHX:N6	2.41	0.53
1:2:150:U:OP1	26:D4:123:LYS:NZ	2.41	0.53
1:2:412:A:H2'	1:2:413:U:H6	1.74	0.53
18:C6:129:PHE:CE1	22:D0:78:THR:HA	2.60	0.53
53:M7:101:ASN:OD1	36:5:388:G:N2	114.06	0.53
1:6:1337:A:H5''	1:6:1337:A:H8	1.73	0.53
1:2:1449:U:H2'	1:2:1450:U:C6	2.43	0.53
11:S9:127:VAL:HG12	11:S9:131:GLN:OE1	2.08	0.53
53:M7:34:GLN:NE2	36:5:413:U:OP1	156.79	0.53
36:1:1833:G:OP1	75:O9:10:LYS:HD2	2.08	0.53
4:S2:111:VAL:HG22	4:S2:191:ALA:HA	1.91	0.53
4:S2:68:ILE:O	4:S2:72:LEU:HB2	2.09	0.53
59:N3:48:ARG:HG2	36:5:2339:C:P	246.90	0.53
8:S6:13:GLN:CD	1:6:151:G:H21	311.36	0.53
1:2:1253:U:H4'	33:E1:143:LYS:N	2.24	0.53
40:L3:2:SER:O	40:L3:3:HIS:HB3	2.08	0.53
3:S1:135:LEU:HD21	3:S1:217:LEU:HD12	4.45	0.53
69:O3:49:ILE:HG23	69:O3:100:ILE:HG13	2.14	0.53
86:2:2076:OHX:N6	86:2:2162:OHX:N5	2.56	0.53
26:D4:26:ASP:OD1	26:D4:68:LYS:HE3	3.07	0.53
8:S6:20:ASP:HB3	8:S6:23:ARG:CG	4.69	0.53
36:5:202:G:N7	86:5:3988:OHX:N2	2.56	0.53
36:1:1222:G:N2	36:1:1285:G:O2'	2.36	0.53
36:1:715:A:H4'	36:1:716:A:OP1	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:81:THR:HG21	45:L8:181:LYS:HE3	4.18	0.53
7:S5:200:ASN:HB2	7:S5:208:SER:HB3	3.03	0.53
26:D4:87:PRO:HG2	26:D4:90:ARG:CZ	2.38	0.53
34:SR:93:ASP:HB2	34:SR:100:TYR:CE1	2.43	0.53
1:2:58:U:O4	86:2:2047:OHX:N1	2.41	0.53
7:S5:219:ARG:O	7:S5:223:SER:OG	4.63	0.53
36:1:2383:C:H5'	52:M6:71:PHE:CE2	2.43	0.53
6:S4:238:LEU:HD12	6:S4:242:LYS:HD2	4.35	0.53
64:N8:73:LEU:HB3	64:N8:112:ILE:HD13	2.65	0.53
1:2:1114:G:O6	86:2:2075:OHX:N5	2.42	0.53
36:1:1650:G:N7	86:1:4134:OHX:N6	2.56	0.53
36:5:36:C:H2'	36:5:37:U:H5'	1.91	0.53
2:S0:75:ALA:HB1	2:S0:86:VAL:HG12	1.90	0.53
43:L6:35:VAL:O	43:L6:38:THR:OG1	2.23	0.53
36:5:3074:G:OP1	86:5:4118:OHX:N4	2.41	0.53
1:6:1154:G:OP2	1:6:1154:G:H8	1.92	0.53
57:N1:57:TYR:CD1	57:N1:89:LEU:HD21	2.67	0.53
36:1:3155:U:H3'	36:1:3156:U:H4'	1.89	0.53
71:O5:34:GLN:HB3	71:O5:38:ARG:HH11	1.73	0.53
86:5:4064:OHX:N3	86:5:4142:OHX:N6	2.56	0.53
17:C5:130:ARG:HD3	35:SM:74:LYS:HG3	1.90	0.53
40:L3:19:ARG:HB3	40:L3:232:ARG:NH1	2.24	0.53
69:O3:85:PHE:O	86:O3:202:OHX:N1	2.41	0.53
36:1:840:C:O2'	55:M9:128:LYS:HG2	2.09	0.53
5:S3:8:LYS:HG2	22:D0:63:LEU:HD21	2.57	0.53
36:5:1815:U:O2'	36:5:1816:A:OP2	2.22	0.53
4:S2:121:VAL:O	4:S2:125:ILE:HG13	2.08	0.53
54:M8:38:ARG:HH22	36:5:1347:U:H3'	188.66	0.53
36:1:715:A:H5'	64:N8:114:GLY:O	2.08	0.53
1:6:246:G:C6	1:6:247:A:C6	2.96	0.53
86:1:3959:OHX:N1	86:1:4136:OHX:N4	2.56	0.53
56:N0:50:LYS:O	56:N0:51:VAL:HG23	5.04	0.53
65:N9:21:ILE:HG22	65:N9:22:LYS:N	3.61	0.53
8:S6:173:PRO:HD3	1:6:66:U:C6	336.46	0.53
1:2:1766:A:H5'	86:2:2093:OHX:N6	2.24	0.53
31:D9:20:GLN:HB2	31:D9:25:SER:HA	2.36	0.53
59:N3:86:ARG:HG3	59:N3:92:PHE:CE2	2.77	0.53
26:D4:43:LYS:O	26:D4:47:VAL:HG12	5.77	0.53
39:L2:105:GLY:HA3	39:L2:160:SER:HB3	1.99	0.53
36:5:2209:U:H4'	36:5:2210:G:OP1	2.06	0.53
50:M4:94:TRP:CE2	50:M4:100:ALA:HB2	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2409:G:H4'	36:5:2410:U:OP2	2.07	0.53
48:M1:15:GLU:HB2	48:M1:132:ASN:ND2	2.24	0.53
70:O4:46:ASP:OD2	70:O4:80:ARG:HD2	2.95	0.53
28:D6:88:SER:OG	28:D6:89:ARG:N	2.41	0.53
24:D2:104:LEU:HB2	24:D2:124:LYS:O	2.08	0.53
43:L6:31:ARG:HH11	69:O3:107:ILE:HG22	4.98	0.53
36:1:1564:U:H2'	36:1:1565:G:C8	2.44	0.53
46:L9:49:ASN:OD1	46:L9:51:GLN:N	2.60	0.53
36:1:3121:U:H1'	36:1:3122:A:H5''	1.89	0.53
41:L4:316:ASN:ND2	44:L7:150:LYS:HD2	2.24	0.53
14:C2:32:LEU:HB3	14:C2:41:LEU:HD11	1.90	0.53
11:S9:182:GLU:HG3	11:S9:183:ALA:N	2.23	0.53
23:D1:74:GLN:OE1	23:D1:82:VAL:N	3.98	0.53
86:2:2045:OHX:N4	86:2:2099:OHX:N6	2.56	0.53
4:S2:206:THR:HG21	1:6:14:C:OP2	375.71	0.53
41:L4:193:LYS:O	41:L4:198:ARG:HG2	3.69	0.53
64:N8:116:GLY:HA3	64:N8:137:LYS:NZ	2.24	0.53
25:D3:57:LEU:HD11	25:D3:73:ARG:HG3	1.91	0.53
36:5:2546:C:H2'	36:5:2547:A:C8	2.42	0.53
36:1:2427:U:H2'	36:1:2428:U:C6	2.43	0.53
18:C6:51:PRO:O	18:C6:55:VAL:HG12	2.09	0.53
52:M6:121:PRO:HA	52:M6:124:LEU:HD22	2.40	0.53
6:S4:241:GLY:O	6:S4:244:ILE:HG12	2.08	0.53
45:L8:78:PHE:O	45:L8:80:TYR:N	2.50	0.53
45:L8:121:SER:O	45:L8:123:GLN:N	2.55	0.53
5:S3:42:THR:OG1	5:S3:44:THR:O	5.98	0.53
9:S7:30:SER:HB3	9:S7:34:LEU:HD12	1.90	0.53
5:S3:220:PRO:O	5:S3:221:SER:HB3	2.09	0.53
40:L3:229:VAL:HG11	40:L3:249:VAL:HG23	1.91	0.53
47:M0:169:LYS:CD	47:M0:169:LYS:H	3.63	0.53
1:2:1788:G:H2'	1:2:1789:G:H5''	1.89	0.53
36:5:1573:G:C5	36:5:1574:C:H1'	2.44	0.53
1:2:158:U:H5'	1:2:158:U:H6	1.73	0.53
36:1:1240:A:N6	36:1:1244:A:H5''	2.20	0.53
18:C6:38:LEU:O	18:C6:40:GLU:N	2.36	0.53
9:S7:31:SER:HB2	9:S7:32:PRO:CD	2.39	0.53
74:O8:26:LYS:NZ	74:O8:28:ASN:OD1	2.66	0.53
2:S0:74:VAL:HG23	2:S0:118:PRO:HB3	1.90	0.53
41:L4:148:ILE:HA	41:L4:149:PRO:C	2.46	0.53
55:M9:8:LYS:HD2	55:M9:22:VAL:CG2	2.39	0.53
66:O0:45:ALA:O	66:O0:47:ASN:N	3.35	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:60:ARG:O	48:M1:63:GLU:HB2	2.26	0.53
2:S0:90:ALA:HB1	2:S0:95:ALA:O	2.50	0.53
36:1:439:C:H5'	36:1:440:A:H8	1.73	0.53
6:S4:222:LEU:O	6:S4:224:ASN:N	2.42	0.53
1:2:121:U:H1'	6:S4:33:ALA:HB3	1.91	0.53
1:2:1409:G:N2	1:2:1411:A:H3'	2.24	0.53
57:N1:17:ARG:O	57:N1:18:ASP:HB2	2.08	0.53
47:M0:169:LYS:HD2	47:M0:169:LYS:H	2.98	0.53
19:C7:12:ALA:O	19:C7:15:ALA:HB3	2.50	0.53
47:M0:193:ASP:OD2	47:M0:194:GLY:N	2.42	0.53
36:5:1340:G:H2'	36:5:1341:U:H6	1.74	0.53
44:L7:137:GLY:HA3	44:L7:236:ILE:HB	1.91	0.53
36:5:26:A:N3	36:5:328:U:O2'	2.37	0.53
36:5:3222:U:H2'	36:5:3223:A:H8	1.74	0.53
41:L4:33:ASP:O	41:L4:37:THR:HG23	2.08	0.53
36:1:1915:A:H2'	36:1:1916:U:C6	2.43	0.53
11:S9:78:ARG:HG3	11:S9:79:ARG:N	2.35	0.53
55:M9:70:LYS:O	55:M9:73:GLY:N	2.41	0.53
25:D3:137:LYS:HB2	25:D3:139:LYS:HG3	1.90	0.53
40:L3:123:TYR:CZ	40:L3:124:LYS:HG3	2.43	0.53
58:N2:19:VAL:HG12	58:N2:105:LEU:HD22	1.89	0.53
36:1:191:U:H2'	36:1:192:C:C6	2.43	0.53
64:N8:40:HIS:CD2	36:5:40:A:C2	181.28	0.53
34:SR:180:ALA:O	34:SR:189:GLU:HB3	2.76	0.53
36:1:1561:G:O2'	36:1:1562:C:OP2	2.21	0.53
1:2:1091:A:H5''	1:2:1091:A:N3	2.24	0.53
63:N7:27:LYS:HD2	63:N7:28:PRO:HD2	1.91	0.53
39:L2:3:ARG:HG2	39:L2:4:VAL:H	1.74	0.53
1:6:219:A:H2'	1:6:831:U:O2	2.09	0.53
26:D4:29:HIS:O	26:D4:31:ASN:N	3.87	0.53
36:5:508:U:O4	86:5:4019:OHX:N3	2.42	0.53
86:1:4000:OHX:N6	86:1:4168:OHX:N5	2.57	0.53
36:1:2299:A:OP1	86:1:3946:OHX:N1	2.42	0.53
1:6:1161:C:OP1	86:6:2186:OHX:N6	2.41	0.53
54:M8:69:ARG:HG3	54:M8:69:ARG:NH1	2.22	0.53
10:S8:37:LYS:HZ2	10:S8:93:THR:HB	1.74	0.53
54:M8:34:THR:HG22	54:M8:49:LEU:HD21	1.91	0.53
16:C4:25:ASP:OD1	16:C4:26:THR:N	3.11	0.53
40:L3:259:HIS:CE1	36:5:2366:C:H5'	218.01	0.53
7:S5:109:LYS:O	7:S5:113:ILE:HG13	2.09	0.53
42:L5:68:THR:HB	42:L5:71:GLY:O	2.19	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3094:A:H2'	36:1:3095:U:C6	2.44	0.53
5:S3:134:CYS:N	5:S3:157:LEU:HD11	2.24	0.53
52:M6:79:ILE:HG21	52:M6:138:LEU:HD11	1.89	0.53
1:2:67:A:C2	1:2:69:G:H1'	2.44	0.53
36:1:230:U:H2'	36:1:231:G:O4'	2.08	0.53
35:SM:48:ARG:HA	36:5:1019:G:OP1	333.41	0.53
56:N0:7:TYR:CE1	56:N0:34:GLU:HG2	2.44	0.53
9:S7:148:LYS:O	9:S7:149:ILE:HG13	2.08	0.53
51:M5:179:LYS:HD3	36:5:287:G:OP1	126.48	0.53
36:5:1844:C:H2'	36:5:1845:G:H5''	1.90	0.53
1:6:924:A:H2'	1:6:925:G:C8	2.44	0.53
36:1:2209:U:H6	36:1:2209:U:OP2	1.91	0.53
40:L3:247:ARG:HD3	36:5:1888:U:OP1	209.94	0.53
22:D0:22:ILE:HG22	22:D0:93:LEU:HB2	1.93	0.53
10:S8:162:ALA:HA	36:1:3353:G:H5'	1.90	0.53
49:M3:46:ILE:CG2	49:M3:49:ARG:HB2	2.39	0.53
1:6:1698:G:N2	1:6:1699:G:C5	2.77	0.53
40:L3:21:ARG:HD3	40:L3:269:GLN:OE1	2.94	0.53
6:S4:104:ASP:OD2	6:S4:108:ARG:HB2	2.09	0.53
41:L4:26:PHE:HA	41:L4:127:ALA:HA	1.90	0.53
36:5:1145:G:H2'	36:5:1146:C:H5'	1.91	0.53
31:D9:34:TYR:OH	1:6:1487:A:OP1	418.92	0.53
2:S0:56:LYS:NZ	23:D1:66:ASP:OD1	2.41	0.53
1:2:800:U:O4	86:2:2055:OHX:N5	2.42	0.53
1:2:1298:U:O2	4:S2:209:ASN:ND2	2.39	0.53
47:M0:53:VAL:N	47:M0:164:LYS:O	3.05	0.53
36:1:1672:U:O2'	36:1:1673:G:H5'	2.09	0.53
1:6:1350:U:H2'	1:6:1351:G:H8	1.74	0.53
1:2:711:U:H1'	1:2:712:G:H5'	1.90	0.53
86:5:4093:OHX:N5	86:5:4237:OHX:N2	2.57	0.53
86:7:221:OHX:N5	86:7:226:OHX:N6	2.57	0.53
12:C0:10:LYS:HE2	12:C0:36:ASP:HB3	1.91	0.53
13:C1:6:THR:OG1	13:C1:7:VAL:N	2.42	0.53
36:5:2523:A:O2'	36:5:2587:U:H1'	2.08	0.53
38:8:145:U:H2'	38:8:146:U:C6	2.44	0.53
22:D0:36:ASN:HA	22:D0:39:SER:HB3	3.39	0.53
69:O3:20:LYS:HG2	69:O3:21:ARG:HG2	3.07	0.53
36:5:400:G:H4'	36:5:401:U:O5'	2.09	0.53
62:N6:8:VAL:HG11	36:5:228:U:H5''	65.05	0.53
12:C0:87:VAL:O	12:C0:89:ALA:N	5.11	0.53
78:Q2:9:LYS:O	36:5:2713:U:H3'	223.15	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:493:G:C2	36:5:494:G:H1'	2.44	0.53
36:5:314:U:H2'	36:5:315:C:C6	2.44	0.53
1:2:992:A:H2	1:2:1012:U:N3	2.00	0.53
36:1:965:A:H2	64:N8:43:ILE:HD12	1.74	0.53
1:2:1542:G:N2	1:2:1569:A:OP2	2.42	0.53
1:2:833:U:OP2	86:2:2142:OHX:N4	2.42	0.53
42:L5:58:LYS:HG3	42:L5:93:THR:CB	2.39	0.53
42:L5:58:LYS:N	42:L5:58:LYS:HD2	2.23	0.53
1:6:830:U:C2'	1:6:831:U:H5'	2.39	0.53
2:S0:29:VAL:HG12	2:S0:149:LEU:HD13	7.97	0.53
2:S0:73:VAL:O	2:S0:95:ALA:HA	2.36	0.53
14:C2:89:ILE:HG23	14:C2:90:LYS:N	2.24	0.53
1:2:1017:U:H2'	1:2:1018:U:H6	1.74	0.53
18:C6:107:LYS:HA	18:C6:110:THR:HG22	5.86	0.53
1:6:1620:C:H2'	1:6:1621:U:C6	2.44	0.53
40:L3:33:PRO:HG2	40:L3:340:LYS:HB2	1.91	0.53
57:N1:54:HIS:CD2	36:5:2724:U:H4'	228.67	0.53
36:5:1701:C:H2'	36:5:1702:U:O4'	2.09	0.53
1:2:876:G:H1'	1:2:944:A:O4'	2.09	0.53
33:E1:126:CYS:O	33:E1:128:ALA:N	2.41	0.53
56:N0:40:ARG:O	56:N0:43:TYR:HB3	2.09	0.53
43:L6:169:ASP:HB3	43:L6:174:LEU:HD11	1.91	0.53
36:1:2561:A:HO2'	36:1:2562:A:H8	1.57	0.53
3:S1:154:SER:OG	3:S1:154:SER:O	2.27	0.53
36:5:937:G:N3	36:5:963:G:H1'	2.24	0.53
36:5:284:A:H4'	36:5:285:A:C2	2.45	0.52
21:C9:68:ARG:HD2	1:6:1523:G:O6	416.82	0.52
36:5:3049:A:C8	36:5:3049:A:H5'	2.43	0.52
1:2:1794:A:H1'	28:D6:79:ILE:HD13	1.91	0.52
28:D6:79:ILE:HA	28:D6:84:VAL:HG21	1.91	0.52
53:M7:67:ILE:H	53:M7:67:ILE:HD12	2.48	0.52
26:D4:29:HIS:CE1	26:D4:34:ASN:HA	2.44	0.52
24:D2:27:ILE:HD11	24:D2:61:ILE:HD12	1.90	0.52
20:C8:26:ILE:HD11	20:C8:31:ALA:HA	2.66	0.52
31:D9:33:LYS:HD3	31:D9:34:TYR:CZ	2.44	0.52
49:M3:75:PHE:H	49:M3:97:VAL:HA	2.00	0.52
36:5:3155:U:H4'	36:5:3156:U:OP2	2.09	0.52
36:5:244:G:H2'	36:5:245:U:H5''	1.92	0.52
2:S0:41:ARG:HH21	19:C7:103:ASP:CB	3.85	0.52
19:C7:71:PHE:O	19:C7:73:LEU:N	2.30	0.52
1:6:711:U:H5'	1:6:712:G:OP2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:88:TYR:CZ	46:L9:184:LYS:HG2	2.44	0.52
36:5:874:U:H5'	36:5:2950:G:OP1	2.09	0.52
6:S4:127:LYS:HZ1	6:S4:142:HIS:HB2	1.74	0.52
25:D3:44:GLY:H	25:D3:78:LYS:HZ1	1.56	0.52
42:L5:68:THR:HG22	42:L5:71:GLY:H	2.09	0.52
23:D1:4:ASP:OD1	23:D1:5:LYS:HD3	2.76	0.52
1:6:1451:C:H2'	1:6:1452:U:H6	1.75	0.52
86:5:4093:OHX:N1	86:5:4237:OHX:N2	2.57	0.52
34:SR:16:HIS:CE1	34:SR:43:ILE:HG12	2.44	0.52
36:1:2507:C:H2'	36:1:2508:U:C6	2.43	0.52
18:C6:99:GLU:HG2	34:SR:57:PRO:HB2	2.70	0.52
44:L7:123:THR:O	44:L7:126:LEU:HB2	2.11	0.52
36:1:2611:U:H2'	36:1:2612:U:C6	2.44	0.52
36:1:1610:G:P	61:N5:125:ARG:HH12	2.32	0.52
36:1:349:A:H4'	36:1:350:C:OP2	2.09	0.52
1:2:1549:C:OP1	17:C5:38:PRO:HA	2.09	0.52
25:D3:23:ARG:HB3	25:D3:29:TYR:CE1	3.71	0.52
36:5:2531:C:H2'	36:5:2532:U:O4'	2.09	0.52
1:2:142:G:N2	1:2:173:A:H2	2.07	0.52
10:S8:76:THR:HG21	10:S8:105:ASP:O	5.25	0.52
86:6:2062:OHX:N5	86:6:2150:OHX:N6	2.58	0.52
7:S5:142:PRO:O	7:S5:167:ARG:HD3	2.94	0.52
36:1:1447:G:H3'	53:M7:67:ILE:CD1	2.39	0.52
1:2:273:G:N2	1:2:283:U:O2	2.38	0.52
8:S6:49:VAL:HG21	8:S6:115:LYS:HG3	5.47	0.52
53:M7:126:ARG:NH2	53:M7:138:LYS:HB3	2.23	0.52
1:2:830:U:O2'	1:2:831:U:H6	1.92	0.52
68:O2:109:LEU:HD21	68:O2:122:PRO:HB3	1.90	0.52
45:L8:133:LYS:HD2	45:L8:138:HIS:HE1	1.74	0.52
29:D7:59:CYS:HB2	29:D7:61:THR:HG22	3.92	0.52
1:6:738:G:O6	86:6:2076:OHX:N4	2.42	0.52
1:2:329:G:H2'	1:2:330:G:C8	2.44	0.52
59:N3:35:TYR:HB2	59:N3:63:LYS:HD3	1.91	0.52
47:M0:182:LEU:HD21	47:M0:185:ARG:NH1	4.03	0.52
39:L2:248:GLY:O	39:L2:249:SER:HB2	4.74	0.52
36:5:602:A:H2'	36:5:603:A:C8	2.44	0.52
40:L3:281:LYS:NZ	40:L3:352:GLU:O	3.08	0.52
1:6:424:C:O2'	1:6:426:G:OP1	2.24	0.52
51:M5:71:ARG:NH2	36:5:32:U:O3'	139.73	0.52
44:L7:116:PHE:HB2	44:L7:199:ASN:OD1	2.30	0.52
68:O2:43:ARG:NH1	36:5:1368:U:H5'	192.80	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:88:ARG:NH1	36:5:2556:C:OP1	200.56	0.52
3:S1:180:THR:H	3:S1:183:GLN:HB2	5.17	0.52
1:2:514:G:HO2'	1:2:515:A:H8	1.57	0.52
16:C4:80:HIS:HA	16:C4:113:GLY:O	3.21	0.52
1:2:1291:G:H8	1:2:1291:G:O5'	1.92	0.52
4:S2:41:LEU:HD11	4:S2:56:ILE:HD13	1.91	0.52
6:S4:49:ARG:NH2	6:S4:50:ASN:OD1	4.58	0.52
1:2:1231:U:O2'	1:2:1258:U:O2'	2.20	0.52
68:O2:105:ARG:O	68:O2:109:LEU:HB2	2.09	0.52
18:C6:28:LEU:HD22	18:C6:30:LYS:HE3	1.91	0.52
2:S0:122:ILE:HA	2:S0:144:ILE:O	2.35	0.52
20:C8:54:LEU:H	20:C8:54:LEU:HD12	3.70	0.52
47:M0:36:LEU:HD21	47:M0:69:ARG:HH11	2.69	0.52
20:C8:45:LEU:HD11	21:C9:36:ILE:HG22	2.25	0.52
33:E1:138:ARG:HG3	33:E1:138:ARG:NH1	2.24	0.52
36:1:1631:C:OP2	63:N7:48:ARG:NH2	2.40	0.52
77:Q1:22:ALA:HA	77:Q1:25:LYS:HG3	1.91	0.52
77:Q1:22:ALA:O	77:Q1:24:SER:N	2.41	0.52
6:S4:32:SER:HB2	6:S4:83:PRO:HD3	1.91	0.52
27:D5:65:LEU:HB3	27:D5:71:ILE:HD12	1.91	0.52
47:M0:169:LYS:O	47:M0:170:LYS:HB2	4.71	0.52
1:6:1042:G:N2	1:6:1077:C:O2	2.42	0.52
1:6:1305:U:O2	86:6:2079:OHX:N2	2.42	0.52
36:5:1721:U:H5''	36:5:1722:U:OP2	2.08	0.52
36:1:2157:G:O6	39:L2:152:SER:HB3	2.10	0.52
42:L5:61:ILE:HG23	42:L5:79:TYR:CE1	2.44	0.52
15:C3:17:PRO:HG3	1:6:959:U:C2	355.17	0.52
36:1:1048:A:H2'	47:M0:22:TYR:CZ	2.44	0.52
55:M9:13:SER:OG	55:M9:38:ARG:NH2	2.43	0.52
36:5:495:G:N1	36:5:618:C:N3	2.48	0.52
86:1:4053:OHX:N5	86:3:218:OHX:N2	2.57	0.52
55:M9:39:ASN:ND2	36:5:1765:U:OP2	94.69	0.52
36:1:1240:A:H2	36:1:1248:C:H41	1.56	0.52
20:C8:142:GLY:C	20:C8:145:ARG:HD2	2.29	0.52
35:SM:68:ARG:HD2	35:SM:68:ARG:C	3.48	0.52
16:C4:37:GLU:HA	1:6:895:G:O2'	259.03	0.52
36:1:3103:A:OP2	86:1:4163:OHX:N1	2.43	0.52
36:5:499:G:H2'	36:5:500:C:C6	2.45	0.52
68:O2:122:PRO:O	68:O2:123:LYS:HB2	2.09	0.52
34:SR:123:ILE:HG21	34:SR:169:ILE:HD13	2.53	0.52
3:S1:22:ASP:C	3:S1:24:PHE:H	2.13	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:85:LYS:HG3	27:D5:86:GLU:N	2.25	0.52
2:S0:53:THR:HA	2:S0:161:PRO:HG2	2.14	0.52
1:2:1726:G:N7	86:2:2099:OHX:N4	2.57	0.52
49:M3:28:GLN:HG3	51:M5:200:TRP:HZ3	1.74	0.52
41:L4:131:VAL:O	41:L4:135:VAL:HG23	2.94	0.52
36:5:1064:A:N6	36:5:1096:U:C4	2.77	0.52
34:SR:282:SER:N	1:6:1394:G:OP1	416.64	0.52
1:6:377:G:O6	86:6:2114:OHX:N4	2.43	0.52
19:C7:20:TYR:HD2	19:C7:23:LYS:HD2	3.35	0.52
42:L5:55:PHE:CZ	42:L5:158:ARG:HG3	2.44	0.52
54:M8:86:THR:CG2	54:M8:105:ARG:HB2	2.67	0.52
1:2:1450:U:H2'	1:2:1451:C:C6	2.44	0.52
36:1:1368:U:H5'	68:O2:43:ARG:NH1	2.24	0.52
45:L8:54:GLU:O	45:L8:58:VAL:HG23	2.09	0.52
71:O5:40:SER:HA	38:8:49:G:O2'	55.02	0.52
16:C4:135:ARG:NH1	16:C4:137:LEU:HD11	3.54	0.52
1:2:981:U:C2'	1:2:982:U:H5'	2.40	0.52
36:5:1310:G:N7	86:5:4024:OHX:N4	2.57	0.52
51:M5:96:ARG:HG2	51:M5:96:ARG:HH11	1.79	0.52
75:O9:5:LYS:HD3	75:O9:13:MET:CE	2.38	0.52
10:S8:61:GLU:HG2	10:S8:62:THR:HG23	2.70	0.52
1:6:25:C:H1'	1:6:26:A:OP2	2.10	0.52
1:6:1699:G:H22	1:6:1701:A:H3'	1.73	0.52
4:S2:45:VAL:HG21	4:S2:68:ILE:HG12	1.90	0.52
4:S2:56:ILE:HA	4:S2:61:LEU:HD12	2.71	0.52
1:2:916:U:H3	16:C4:41:ARG:HH22	1.57	0.52
6:S4:49:ARG:HG2	6:S4:50:ASN:OD1	4.97	0.52
86:2:2076:OHX:N4	86:2:2162:OHX:N2	2.58	0.52
21:C9:23:GLN:HG2	21:C9:55:TYR:CD1	2.45	0.52
36:5:3157:U:H3'	36:5:3158:G:C5'	2.39	0.52
39:L2:202:VAL:HG13	39:L2:217:GLN:HB3	1.92	0.52
36:5:644:G:H2'	36:5:2372:A:N7	2.24	0.52
61:N5:139:ILE:HG12	61:N5:141:TYR:CE2	2.44	0.52
27:D5:43:ASP:O	27:D5:44:GLN:HB3	3.78	0.52
36:1:2924:U:O4	86:1:4014:OHX:N1	2.42	0.52
67:O1:70:ARG:HE	67:O1:102:LYS:HE2	8.00	0.52
36:5:1277:C:H2'	36:5:1278:A:C8	2.44	0.52
36:5:378:A:N7	36:5:391:A:H2	2.08	0.52
3:S1:83:LYS:HE3	3:S1:104:ASP:HB3	1.91	0.52
6:S4:212:ASP:OD1	6:S4:216:ASN:N	4.58	0.52
1:6:1592:A:H2'	1:6:1593:A:C8	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:665:A:OP1	51:M5:203:ARG:NH1	2.42	0.52
36:5:3274:A:H3'	36:5:3275:U:C5'	2.33	0.52
17:C5:122:THR:HG22	17:C5:123:TYR:CD1	6.29	0.52
70:O4:58:ARG:HG3	70:O4:59:PRO:HD2	2.10	0.52
1:2:1796:C:C5	28:D6:6:ALA:N	2.75	0.52
18:C6:115:THR:HB	18:C6:118:ILE:O	2.09	0.52
24:D2:18:GLU:OE1	24:D2:69:LEU:HB3	3.27	0.52
36:5:1243:G:O6	36:5:1244:A:N6	2.42	0.52
1:6:1699:G:N1	1:6:1701:A:H5''	2.25	0.52
11:S9:149:ARG:O	11:S9:151:ASP:N	2.38	0.52
15:C3:64:ARG:CG	15:C3:64:ARG:HH11	2.78	0.52
40:L3:2:SER:N	36:5:2940:A:N7	237.66	0.52
3:S1:61:LEU:HA	3:S1:64:ARG:NE	4.89	0.52
36:5:1102:A:H5''	36:5:1103:A:OP1	2.10	0.52
67:O1:77:ARG:HD2	67:O1:89:LEU:HD23	2.32	0.52
24:D2:5:SER:HB3	24:D2:8:ALA:HB3	2.86	0.52
25:D3:68:ILE:O	25:D3:70:LYS:NZ	2.69	0.52
47:M0:89:VAL:HG22	47:M0:136:PHE:CE1	2.45	0.52
47:M0:52:LEU:HB2	47:M0:136:PHE:HB2	1.91	0.52
53:M7:105:LYS:HB3	53:M7:107:LEU:HD22	1.92	0.52
34:SR:20:VAL:HG11	34:SR:310:ILE:HG12	2.07	0.52
78:Q2:33:ALA:O	78:Q2:34:SER:HB3	2.09	0.52
86:1:3959:OHX:N5	86:1:4136:OHX:N6	2.58	0.52
23:D1:3:ASN:OD1	23:D1:7:GLN:HB2	2.40	0.52
36:5:135:C:H4'	36:5:136:G:OP2	2.09	0.52
36:1:20:A:OP2	71:O5:90:ARG:NH1	2.43	0.52
45:L8:134:TYR:CG	45:L8:190:VAL:HG11	3.74	0.52
39:L2:96:LEU:HD21	39:L2:107:VAL:HG12	3.45	0.52
36:1:627:U:H4'	36:1:1399:A:O2'	2.09	0.52
36:1:2226:U:H2'	36:1:2227:C:H6	1.75	0.52
9:S7:173:TYR:CE2	9:S7:177:THR:HG21	2.45	0.52
76:Q0:77:ILE:HG22	76:Q0:79:GLU:H	1.74	0.52
86:1:4050:OHX:N4	86:1:4159:OHX:N1	2.57	0.52
37:3:85:G:O6	86:3:216:OHX:N4	2.43	0.52
36:1:2677:G:H2'	36:1:2679:A:H2	1.73	0.52
26:D4:56:SER:OG	26:D4:94:TYR:OH	2.13	0.52
5:S3:92:GLN:NE2	5:S3:92:GLN:O	2.43	0.52
57:N1:79:MET:HB3	57:N1:84:TYR:CE2	2.45	0.52
21:C9:66:TYR:HA	21:C9:124:ILE:HB	1.91	0.52
18:C6:50:GLU:OE2	18:C6:82:ARG:NH2	3.04	0.52
24:D2:79:PHE:O	24:D2:124:LYS:HA	2.36	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:1:3957:OHX:N6	44:L7:217:PRO:O	2.42	0.52
47:M0:78:THR:O	47:M0:80:SER:N	4.31	0.52
22:D0:22:ILE:HG22	22:D0:93:LEU:H	1.75	0.52
7:S5:162:VAL:HG22	7:S5:167:ARG:HG2	2.27	0.52
1:6:188:A:H2'	1:6:189:C:O4'	2.09	0.52
36:1:2105:G:C2'	36:1:2106:A:H5'	2.40	0.52
3:S1:84:ILE:HG22	3:S1:86:LEU:HD22	1.91	0.52
24:D2:119:LYS:HG2	1:6:687:G:H5"	393.42	0.52
46:L9:55:VAL:HB	46:L9:68:LEU:HD21	2.19	0.52
14:C2:40:GLY:O	14:C2:124:LYS:N	2.83	0.52
36:5:2772:C:H1'	36:5:2773:C:OP2	2.09	0.52
21:C9:45:MET:HE3	21:C9:46:PRO:HD2	2.83	0.52
52:M6:27:LEU:HD11	52:M6:102:LEU:HB2	2.93	0.52
40:L3:261:MET:HE2	52:M6:64:PHE:CA	2.39	0.52
41:L4:342:LYS:HD3	44:L7:56:GLU:OE2	2.57	0.52
38:4:79:A:O3'	38:4:80:A:H4'	2.09	0.52
1:2:1530:C:C2	1:2:1531:G:C8	2.97	0.52
75:O9:21:ARG:CZ	75:O9:24:PRO:HG3	2.39	0.52
20:C8:14:ILE:H	20:C8:24:GLY:H	1.57	0.52
37:3:10:C:OP2	57:N1:26:HIS:HD2	1.93	0.52
36:5:976:U:H2'	36:5:977:C:O4'	2.10	0.52
3:S1:170:GLU:O	3:S1:174:LYS:HG3	2.09	0.52
79:Q3:37:TYR:HB2	79:Q3:47:VAL:HB	1.91	0.52
1:2:130:C:O2'	1:2:131:C:OP1	2.23	0.52
19:C7:57:LEU:O	19:C7:61:ILE:HG13	2.10	0.52
36:5:123:A:C6	36:5:150:A:C5	2.97	0.52
7:S5:187:ILE:HD12	7:S5:187:ILE:H	2.10	0.52
39:L2:14:SER:OG	39:L2:15:ILE:N	2.40	0.52
47:M0:3:ARG:CZ	47:M0:63:GLU:HG3	2.53	0.52
3:S1:129:THR:OG1	3:S1:131:ASP:OD1	6.78	0.52
24:D2:78:ARG:O	24:D2:124:LYS:HD3	2.09	0.52
1:6:542:A:C8	1:6:543:C:H2'	2.45	0.52
86:5:4189:OHX:N5	86:5:4191:OHX:N6	2.57	0.52
47:M0:80:SER:O	47:M0:84:ALA:HB2	2.09	0.52
4:S2:140:ARG:HB3	4:S2:221:THR:HB	1.91	0.52
36:1:1362:G:H2'	36:1:1363:A:C8	2.44	0.52
40:L3:345:ASN:OD1	40:L3:347:SER:HB2	2.08	0.52
52:M6:110:PRO:HA	52:M6:113:ASP:OD2	2.10	0.52
44:L7:229:PHE:HD1	44:L7:229:PHE:C	2.65	0.52
36:1:965:A:OP2	86:1:4068:OHX:N2	2.43	0.52
1:2:417:A:H4'	1:2:418:G:O5'	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:67:VAL:HA	1:6:1722:A:H1'	274.26	0.52
18:C6:97:VAL:HG12	18:C6:98:ASP:N	2.36	0.52
42:L5:75:LEU:HD22	42:L5:112:LYS:HE2	4.62	0.52
36:1:2553:U:H4'	36:1:2554:A:OP2	2.10	0.52
44:L7:215:GLY:O	44:L7:216:VAL:O	2.28	0.52
51:M5:4:TYR:OH	36:5:148:G:OP2	110.10	0.52
36:1:621:A:H8	36:1:623:U:O4	1.92	0.52
2:S0:52:LYS:HD3	23:D1:82:VAL:HA	1.91	0.52
36:5:255:A:H2'	36:5:256:G:H8	1.74	0.52
53:M7:36:ILE:HG12	53:M7:44:ALA:HB1	1.91	0.52
38:8:6:U:H2'	38:8:7:U:H6	1.75	0.52
1:2:301:A:OP2	86:2:2065:OHX:N2	2.43	0.52
46:L9:112:ILE:HD11	46:L9:134:ILE:HD13	1.92	0.52
36:1:2396:G:H5''	36:1:2397:A:H4'	1.92	0.52
54:M8:94:PHE:CE2	64:N8:119:PRO:HD3	3.28	0.52
39:L2:19:HIS:CD2	39:L2:19:HIS:N	2.76	0.52
71:O5:69:LEU:H	71:O5:69:LEU:HD23	3.97	0.52
36:5:879:U:O2	36:5:2357:A:H1'	2.10	0.52
15:C3:6:SER:OG	15:C3:7:ALA:N	2.43	0.52
1:6:1208:A:H5''	1:6:1209:C:OP2	2.10	0.52
28:D6:32:LYS:NZ	1:6:932:U:O2	310.96	0.52
34:SR:164:ASP:OD2	34:SR:166:SER:HB3	2.09	0.52
10:S8:5:ARG:HD3	10:S8:29:LEU:O	2.10	0.52
15:C3:20:ARG:NH1	24:D2:56:HIS:CE1	3.46	0.52
32:E0:14:VAL:HA	32:E0:17:GLN:HG2	1.91	0.52
62:N6:38:GLU:HG3	62:N6:39:LEU:HD23	1.92	0.52
1:2:1253:U:H2'	1:2:1254:U:C6	2.43	0.52
36:5:1409:G:OP1	86:5:4025:OHX:N5	2.43	0.52
79:Q3:36:ARG:NH2	79:Q3:46:THR:HG22	2.25	0.52
14:C2:45:LEU:HB2	1:6:1228:G:OP1	462.85	0.52
2:S0:29:VAL:HG13	2:S0:150:ASP:HB3	1.91	0.52
1:2:927:C:H1'	16:C4:125:SER:CB	2.40	0.52
1:6:1685:G:H1	1:6:1716:C:N4	2.05	0.52
20:C8:41:ARG:HD3	1:6:1565:C:OP1	368.80	0.52
1:2:1370:U:O4	86:2:2121:OHX:N5	2.42	0.52
86:1:4080:OHX:N6	86:1:4150:OHX:N4	2.58	0.52
64:N8:88:ASP:O	64:N8:92:LYS:HG2	2.10	0.52
36:1:1433:A:P	68:O2:19:ARG:HH22	2.33	0.52
25:D3:73:ARG:HH21	25:D3:84:THR:HG22	2.69	0.52
45:L8:149:LYS:O	45:L8:176:PRO:HG2	2.10	0.52
1:2:225:A:H2'	1:2:226:A:O4'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:31:VAL:HG12	2:S0:33:GLN:H	1.74	0.52
56:N0:42:TRP:O	56:N0:46:GLN:HG3	2.10	0.52
8:S6:148:SER:O	8:S6:151:ASP:HB2	3.36	0.52
1:2:1445:G:C4	33:E1:91:ILE:HB	2.45	0.52
39:L2:66:PRO:HB2	39:L2:67:TYR:CE2	2.45	0.52
36:5:1124:U:O4	86:5:4127:OHX:N3	2.43	0.52
42:L5:21:ARG:NH2	37:7:8:G:O6	287.57	0.52
11:S9:173:ALA:O	11:S9:176:ASN:N	2.43	0.52
8:S6:153:VAL:HG12	8:S6:175:ILE:HD13	1.92	0.52
7:S5:94:THR:HB	7:S5:114:ILE:HG13	2.29	0.52
15:C3:20:ARG:HA	15:C3:65:VAL:HG11	4.79	0.52
48:M1:12:LEU:HD12	48:M1:131:MET:HE3	1.91	0.52
28:D6:84:VAL:HG13	28:D6:85:ARG:N	2.25	0.52
36:1:1472:U:H5'	55:M9:4:LEU:HB2	1.92	0.52
44:L7:244:ASN:HD22	44:L7:244:ASN:C	2.14	0.52
20:C8:31:ALA:O	20:C8:34:THR:HG22	2.34	0.52
49:M3:59:ARG:HG2	36:5:73:C:O2'	94.18	0.52
2:S0:157:ASP:OD2	23:D1:65:SER:OG	2.22	0.52
36:1:623:U:OP2	86:1:4128:OHX:N1	2.43	0.52
8:S6:179:VAL:HG21	1:6:140:A:H1'	328.07	0.52
19:C7:51:ALA:HA	19:C7:54:THR:HG23	1.91	0.52
36:1:3131:U:H2'	36:1:3132:C:H6	1.75	0.52
86:5:4093:OHX:N3	86:5:4237:OHX:N4	2.58	0.52
86:1:4050:OHX:N2	86:1:4159:OHX:N1	2.57	0.52
36:5:1792:C:H5''	36:5:1793:C:OP1	2.10	0.52
36:1:855:U:H2'	36:1:856:G:O4'	2.09	0.52
74:O8:11:PHE:O	74:O8:14:LEU:HB2	2.23	0.52
86:1:3974:OHX:N1	86:1:4151:OHX:N4	2.58	0.52
59:N3:135:VAL:HG11	60:N4:26:SER:HB3	1.91	0.52
1:6:733:A:H2'	1:6:734:A:O4'	2.10	0.52
63:N7:92:PHE:N	63:N7:92:PHE:CD1	3.43	0.52
46:L9:17:THR:HB	50:M4:4:ASP:O	2.10	0.52
36:5:962:A:N1	36:5:2814:G:O2'	2.37	0.52
22:D0:64:LYS:HE2	22:D0:66:SER:HB2	6.91	0.52
36:1:980:A:H3'	36:1:981:U:C6	2.45	0.51
1:2:1796:C:H4'	1:2:1797:A:OP2	2.10	0.51
3:S1:181:LEU:HA	3:S1:184:LEU:HB3	1.91	0.51
1:2:513:U:H1'	11:S9:131:GLN:HE21	1.75	0.51
36:5:1552:G:C2'	36:5:1553:U:H5'	2.40	0.51
4:S2:158:THR:HG21	4:S2:221:THR:HG23	1.92	0.51
7:S5:143:ARG:HD3	30:D8:55:VAL:HG11	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:269:G:H5''	51:M5:14:LYS:NZ	2.24	0.51
1:2:964:U:OP1	15:C3:128:TYR:OH	2.23	0.51
1:2:190:C:O2'	1:2:191:C:H5'	2.09	0.51
22:D0:72:ASN:ND2	1:6:1429:G:H21	385.14	0.51
1:2:856:A:N6	9:S7:96:ARG:HB3	2.25	0.51
1:2:1239:U:OP1	86:2:2145:OHX:N5	2.43	0.51
68:O2:44:ARG:NH1	36:5:1145:G:OP1	206.77	0.51
86:2:2076:OHX:N6	86:2:2162:OHX:N2	2.57	0.51
6:S4:117:GLU:HG3	6:S4:118:GLU:H	4.52	0.51
1:2:72:A:C2	1:2:73:U:N3	2.78	0.51
54:M8:151:ARG:O	54:M8:161:LYS:O	2.28	0.51
1:2:1672:G:H2'	1:2:1673:G:C8	2.46	0.51
1:6:1488:G:O2'	1:6:1494:C:O2	2.16	0.51
3:S1:110:LEU:O	3:S1:112:SER:N	2.40	0.51
6:S4:180:LEU:HD22	6:S4:181:VAL:H	2.24	0.51
71:O5:86:ARG:O	71:O5:90:ARG:HG2	2.10	0.51
36:1:1688:U:H2'	36:1:1689:U:C6	2.45	0.51
36:1:2273:G:N2	36:1:2311:G:H2'	2.24	0.51
40:L3:366:GLY:HA3	36:5:3330:A:H4'	219.32	0.51
1:6:108:A:OP2	86:6:2093:OHX:N4	2.43	0.51
1:2:1116:A:P	77:Q1:17:ARG:HH21	2.31	0.51
1:6:1243:G:N3	1:6:1243:G:H5''	2.25	0.51
10:S8:23:LYS:NZ	1:6:391:A:OP2	304.40	0.51
8:S6:98:ARG:NH2	8:S6:101:ILE:O	2.51	0.51
1:2:702:G:O2'	1:2:703:G:H8	1.93	0.51
1:2:647:G:N2	1:2:687:G:N2	2.58	0.51
6:S4:38:LEU:O	6:S4:41:SER:OG	2.82	0.51
17:C5:22:LEU:HA	17:C5:25:LEU:HB2	2.91	0.51
2:S0:124:THR:HA	2:S0:146:LEU:HG	2.56	0.51
6:S4:187:ARG:HH22	1:6:753:A:H62	374.58	0.51
25:D3:69:ARG:NH1	25:D3:116:ASP:OD2	2.96	0.51
25:D3:90:ASP:OD2	32:E0:12:GLY:HA2	2.10	0.51
22:D0:106:ILE:C	22:D0:108:ILE:H	2.12	0.51
23:D1:79:LEU:HD22	23:D1:82:VAL:HG21	2.97	0.51
12:C0:32:HIS:CG	12:C0:33:GLU:H	3.50	0.51
36:5:1014:U:C2'	36:5:1015:U:H5'	2.40	0.51
36:1:2320:A:C2	79:Q3:16:VAL:HG13	2.45	0.51
86:1:4025:OHX:N6	86:1:4142:OHX:N5	2.58	0.51
1:2:1013:A:P	39:L2:248:GLY:HA2	2.51	0.51
86:5:4141:OHX:N4	86:5:4183:OHX:N3	2.58	0.51
56:N0:115:ARG:HD3	36:5:1295:G:O2'	294.56	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:412:A:H2'	1:2:413:U:C6	2.45	0.51
4:S2:177:GLY:HA2	4:S2:194:GLU:O	3.07	0.51
68:O2:95:GLU:OE2	68:O2:120:THR:OG1	2.21	0.51
49:M3:68:LYS:HE3	36:5:699:A:OP1	96.66	0.51
86:1:4137:OHX:N1	86:1:4180:OHX:N5	2.58	0.51
4:S2:103:VAL:HG12	4:S2:190:LEU:HD12	1.91	0.51
35:SM:107:ASN:CG	35:SM:112:ASP:HB3	2.30	0.51
1:2:707:A:H2	1:2:731:C:H2'	1.74	0.51
5:S3:215:GLU:O	5:S3:215:GLU:HG2	2.25	0.51
27:D5:81:ARG:HB2	27:D5:81:ARG:HH11	3.33	0.51
5:S3:95:GLY:HA2	5:S3:101:GLN:NE2	3.52	0.51
8:S6:177:ARG:NH2	1:6:143:G:N7	311.64	0.51
52:M6:62:THR:HG21	52:M6:68:ARG:HG3	1.93	0.51
55:M9:101:VAL:HG13	55:M9:104:ARG:HH12	1.75	0.51
4:S2:69:ILE:HD11	4:S2:133:LYS:HB3	1.93	0.51
38:8:102:U:H2'	38:8:103:G:C8	2.46	0.51
36:1:3354:U:OP1	36:1:3356:G:H5'	2.10	0.51
51:M5:11:GLN:HG2	51:M5:44:ARG:HH21	1.75	0.51
21:C9:30:VAL:O	21:C9:32:GLY:N	2.43	0.51
8:S6:164:LYS:N	8:S6:167:LYS:O	2.37	0.51
53:M7:60:PHE:HB3	53:M7:64:ASN:HB3	1.98	0.51
7:S5:62:VAL:HG13	7:S5:89:ILE:HG12	1.93	0.51
9:S7:9:LEU:HD11	9:S7:43:PHE:CZ	5.10	0.51
4:S2:116:LYS:NZ	4:S2:117:THR:O	4.00	0.51
3:S1:176:VAL:O	3:S1:177:GLN:HG2	2.11	0.51
21:C9:54:PHE:CE2	21:C9:104:VAL:HG22	2.45	0.51
1:2:778:G:H1	26:D4:10:ARG:NH1	2.08	0.51
1:6:1347:U:O2	1:6:1516:A:H5'	2.10	0.51
1:2:1235:C:H5'	33:E1:146:SER:HB2	1.92	0.51
42:L5:52:VAL:HG22	42:L5:147:ASP:HB3	1.91	0.51
63:N7:16:GLY:O	63:N7:18:TYR:N	2.42	0.51
45:L8:50:VAL:HG22	45:L8:52:TRP:CE2	2.46	0.51
14:C2:131:ASP:HB2	14:C2:132:GLU:OE1	2.10	0.51
34:SR:21:THR:HG23	34:SR:37:SER:HA	3.33	0.51
36:5:191:U:H6	36:5:191:U:H5'	1.74	0.51
1:6:1081:A:H8	1:6:1081:A:OP2	1.93	0.51
38:4:104:A:H3'	38:4:105:A:C5'	2.40	0.51
71:O5:13:SER:O	71:O5:16:GLN:N	3.38	0.51
86:5:4093:OHX:N3	86:5:4237:OHX:N6	2.59	0.51
6:S4:71:LYS:HD3	6:S4:74:GLY:O	2.52	0.51
1:6:1535:U:O2'	1:6:1536:G:O5'	2.28	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:93:ASP:HB3	34:SR:96:THR:HG22	1.93	0.51
38:8:6:U:H2'	38:8:7:U:C6	2.46	0.51
36:1:3350:C:O2'	36:1:3351:U:O5'	2.21	0.51
67:O1:55:LEU:HB2	67:O1:95:PRO:HD3	2.07	0.51
39:L2:187:HIS:ND1	39:L2:190:ARG:NH1	4.17	0.51
1:6:9:U:O4	86:6:2149:OHX:N3	2.42	0.51
36:1:2166:A:H2'	36:1:2167:A:C8	2.45	0.51
63:N7:115:LYS:O	63:N7:119:GLU:HB2	3.27	0.51
45:L8:89:GLU:HA	45:L8:92:LYS:HB2	1.92	0.51
36:5:2425:G:H2'	36:5:2426:U:O4'	2.09	0.51
43:L6:170:LYS:O	43:L6:172:HIS:N	2.80	0.51
26:D4:84:LYS:HD2	26:D4:85:PHE:CE2	2.46	0.51
1:2:738:G:O6	86:2:2097:OHX:N1	2.43	0.51
51:M5:85:THR:HG22	86:Q2:502:OHX:N1	2.26	0.51
59:N3:74:MET:HG3	59:N3:102:ILE:CD1	2.37	0.51
3:S1:82:ARG:HH22	3:S1:191:GLU:HB3	1.74	0.51
53:M7:84:PRO:HB2	53:M7:87:SER:HB2	1.91	0.51
2:S0:62:ARG:HD2	23:D1:36:VAL:HG22	1.92	0.51
71:O5:101:THR:HG23	71:O5:104:GLN:H	2.65	0.51
56:N0:137:ARG:HG2	56:N0:139:TYR:CZ	2.46	0.51
2:S0:200:ASP:HB2	19:C7:85:VAL:HG13	1.93	0.51
78:Q2:45:ARG:NH2	36:5:283:G:OP2	146.87	0.51
36:5:1438:U:H2'	36:5:1439:U:H6	1.76	0.51
3:S1:61:LEU:HA	3:S1:64:ARG:HE	4.08	0.51
6:S4:18:TRP:O	6:S4:51:ARG:NH1	2.68	0.51
37:7:23:A:H2'	37:7:24:A:C8	2.46	0.51
36:5:498:A:H2'	36:5:499:G:C8	2.46	0.51
45:L8:68:ARG:HA	45:L8:236:GLY:O	5.18	0.51
1:6:696:C:H4'	1:6:697:C:C6	2.46	0.51
47:M0:77:THR:HG22	47:M0:85:PHE:HZ	1.76	0.51
63:N7:46:ILE:HD13	63:N7:49:TYR:HA	2.74	0.51
86:5:4074:OHX:N1	86:5:4136:OHX:N2	2.58	0.51
59:N3:13:ILE:HG12	59:N3:53:SER:HB2	1.92	0.51
17:C5:77:ARG:HB3	17:C5:102:PHE:CE1	3.18	0.51
36:1:718:G:N1	36:1:721:G:H1'	2.26	0.51
39:L2:181:LYS:HB2	36:5:860:G:C6	212.67	0.51
45:L8:149:LYS:HD2	45:L8:201:THR:O	4.75	0.51
2:S0:82:GLY:O	2:S0:86:VAL:HG22	2.10	0.51
46:L9:103:ILE:HD11	46:L9:134:ILE:HG21	2.29	0.51
36:1:578:A:H5''	36:1:579:G:O5'	2.09	0.51
50:M4:71:ALA:O	50:M4:84:LYS:HD2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:164:VAL:HG22	5:S3:168:ILE:HD11	1.91	0.51
38:8:74:U:O2	86:8:222:OHX:N5	2.43	0.51
43:L6:71:VAL:HG22	43:L6:156:LYS:HE3	1.93	0.51
1:6:805:U:C2'	1:6:806:A:H5'	2.40	0.51
68:O2:14:THR:O	86:5:4088:OHX:N5	183.24	0.51
36:5:1284:C:O2'	36:5:1285:G:H5'	2.11	0.51
1:2:438:A:H1'	1:2:466:U:O2	2.10	0.51
34:SR:136:ILE:H	34:SR:136:ILE:HD13	1.74	0.51
69:O3:44:TYR:HA	69:O3:47:LYS:HG3	2.28	0.51
1:6:1767:G:OP1	1:6:1770:U:H4'	2.10	0.51
9:S7:107:ARG:NH1	1:6:741:C:O2'	345.28	0.51
34:SR:89:LEU:HD21	34:SR:110:VAL:HG11	1.92	0.51
51:M5:58:GLY:HA3	51:M5:142:ILE:HD13	2.56	0.51
23:D1:40:ASP:HB3	23:D1:46:ILE:HD11	2.21	0.51
2:S0:185:ARG:H	23:D1:45:ALA:H	2.12	0.51
36:1:1492:G:O2'	75:O9:48:LYS:NZ	2.44	0.51
7:S5:56:ALA:O	7:S5:57:SER:OG	2.24	0.51
8:S6:67:VAL:HG23	8:S6:68:LEU:O	2.28	0.51
1:6:791:A:H2'	1:6:792:U:C6	2.39	0.51
49:M3:36:ARG:HG3	49:M3:39:ARG:HH21	3.64	0.51
9:S7:93:LEU:HD21	9:S7:129:LEU:HD23	1.92	0.51
3:S1:125:VAL:HG11	3:S1:173:THR:HG23	2.78	0.51
47:M0:24:ARG:HG3	47:M0:24:ARG:HH11	1.91	0.51
1:6:837:G:O6	86:6:2103:OHX:N1	2.43	0.51
1:6:513:U:H2'	1:6:514:G:C8	2.45	0.51
3:S1:93:GLY:C	3:S1:95:ASN:H	2.61	0.51
17:C5:51:SER:C	17:C5:53:PRO:HD2	4.09	0.51
38:4:83:C:H1'	38:4:85:G:N2	2.25	0.51
63:N7:33:SER:HB3	63:N7:36:HIS:HB2	1.93	0.51
63:N7:33:SER:OG	63:N7:35:SER:O	4.68	0.51
39:L2:2:GLY:HA2	36:5:2415:C:OP1	181.61	0.51
63:N7:99:GLU:HG3	63:N7:100:THR:N	3.56	0.51
71:O5:41:LEU:O	71:O5:44:ILE:HG22	2.91	0.51
49:M3:16:LYS:O	49:M3:17:HIS:HB2	4.66	0.51
46:L9:106:LYS:HG3	46:L9:107:ASP:OD1	4.25	0.51
36:1:2437:G:N2	36:1:2511:A:H1'	2.25	0.51
1:2:1120:U:H2'	1:2:1121:C:C6	2.45	0.51
45:L8:240:ASN:HA	45:L8:243:GLN:HB2	1.93	0.51
86:5:4031:OHX:N3	86:5:4079:OHX:N4	2.58	0.51
36:5:2267:C:H2'	36:5:2268:U:C6	2.46	0.51
51:M5:104:GLU:O	51:M5:108:ARG:HG3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:82:ARG:HH11	11:S9:149:ARG:HD2	5.83	0.51
21:C9:108:LEU:HB3	21:C9:114:VAL:HG22	5.95	0.51
19:C7:27:ASP:HB3	19:C7:30:THR:HG22	1.92	0.51
20:C8:30:TYR:CE2	20:C8:40:ARG:HD2	2.93	0.51
4:S2:237:VAL:HB	4:S2:242:ILE:CD1	3.53	0.51
7:S5:121:ILE:HD11	7:S5:198:LEU:HD12	1.93	0.51
2:S0:51:GLY:O	2:S0:55:GLU:HG3	2.11	0.51
8:S6:26:VAL:HG21	8:S6:40:ALA:HB1	1.93	0.51
25:D3:59:ILE:HG12	32:E0:4:VAL:HG23	6.59	0.51
36:5:1221:A:H4'	36:5:1222:G:OP2	2.10	0.51
36:1:1927:G:P	79:Q3:6:LYS:H	2.34	0.51
1:2:67:A:H3'	1:2:69:G:H8	1.76	0.51
36:1:2209:U:P	36:1:2209:U:H6	2.34	0.51
17:C5:18:ARG:NH2	17:C5:38:PRO:HG3	2.26	0.51
74:O8:11:PHE:O	74:O8:14:LEU:N	2.43	0.51
13:C1:57:LYS:HD3	13:C1:131:ILE:HG23	2.00	0.51
41:L4:345:GLU:O	41:L4:346:LYS:HB2	4.95	0.51
42:L5:243:ALA:O	42:L5:247:ILE:HG12	3.98	0.51
36:1:2821:C:C2	88:1:4209:3J2:H7	2.46	0.51
36:5:2653:C:C2'	36:5:2654:C:H5'	2.41	0.51
47:M0:54:SER:HB2	47:M0:135:ILE:HD11	1.93	0.51
36:1:1802:C:H2'	36:1:1803:C:C6	2.45	0.51
13:C1:33:ARG:NH2	13:C1:51:GLY:O	3.11	0.51
29:D7:58:SER:O	29:D7:60:SER:N	4.45	0.51
36:5:2413:A:H2'	36:5:2414:G:C8	2.46	0.51
1:2:1163:A:N6	1:2:1164:G:C6	2.79	0.51
36:1:2849:C:OP2	86:1:4184:OHX:N2	2.43	0.51
35:SM:97:THR:C	35:SM:99:LYS:H	2.14	0.51
3:S1:185:THR:O	3:S1:188:LEU:N	3.38	0.51
36:5:1556:C:N4	36:5:2169:G:C8	2.78	0.51
55:M9:104:ARG:HE	55:M9:105:LEU:N	2.08	0.51
47:M0:78:THR:O	47:M0:81:GLY:N	5.10	0.51
8:S6:63:MET:HE1	8:S6:106:LEU:CD1	2.39	0.51
26:D4:52:LYS:O	26:D4:54:ALA:N	2.55	0.51
66:O0:100:ILE:HG13	66:O0:101:LEU:HD13	5.01	0.51
66:O0:95:ALA:HB2	66:O0:101:LEU:HD21	3.67	0.51
42:L5:269:SER:O	42:L5:270:LYS:HB2	4.67	0.51
2:S0:120:LEU:HD12	2:S0:121:VAL:H	1.76	0.51
41:L4:6:VAL:HG21	41:L4:255:PHE:CZ	2.46	0.51
21:C9:100:ILE:O	21:C9:104:VAL:HG23	2.11	0.51
36:1:1947:G:H1	36:1:2101:C:H42	1.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1097:G:N3	36:1:1097:G:H2'	2.25	0.51
42:L5:34:LYS:HD3	57:N1:30:TYR:CE2	2.46	0.51
61:N5:25:LYS:HD3	61:N5:27:ARG:HH11	1.74	0.51
56:N0:26:ARG:HH11	57:N1:150:THR:HG21	2.77	0.51
12:C0:39:ASN:O	12:C0:43:ILE:HG13	2.71	0.51
42:L5:68:THR:CG2	42:L5:70:THR:HG23	5.28	0.51
1:2:1146:G:C6	1:2:1147:A:C6	2.98	0.51
1:2:1765:A:OP1	86:2:2093:OHX:N3	2.44	0.51
79:Q3:6:LYS:HD3	79:Q3:7:LYS:HE3	5.15	0.51
25:D3:30:LYS:HG2	25:D3:34:LEU:HD11	2.51	0.51
1:2:1450:U:OP2	86:2:2063:OHX:N5	2.43	0.51
3:S1:138:PHE:CD2	3:S1:214:LYS:HB3	2.45	0.51
40:L3:256:HIS:HA	40:L3:257:PRO:C	2.39	0.51
1:6:222:A:H2'	1:6:223:U:O4'	2.10	0.51
36:1:3148:U:O4	86:1:4105:OHX:N2	2.44	0.51
1:6:371:G:N2	1:6:613:G:O6	2.42	0.51
36:1:237:G:H2'	36:1:238:A:O4'	2.11	0.51
36:1:975:C:H2'	36:1:976:U:C6	2.45	0.51
1:2:12:U:H2'	1:2:13:C:C6	2.45	0.51
36:1:1528:G:O2'	36:1:1588:A:N3	2.33	0.51
1:6:1458:G:H5''	1:6:1459:C:OP2	2.11	0.51
12:C0:38:LYS:HD2	12:C0:41:TYR:CE2	3.11	0.51
38:4:91:C:H2'	38:4:92:A:C8	2.46	0.51
49:M3:109:PHE:O	49:M3:113:VAL:HG23	2.11	0.51
36:1:909:G:OP2	51:M5:77:LYS:HE3	2.11	0.51
1:6:1244:A:N3	1:6:1244:A:H3'	2.25	0.51
36:1:600:G:H5''	36:1:600:G:H8	1.74	0.51
78:Q2:10:THR:HA	78:Q2:20:HIS:CD2	2.70	0.51
1:2:545:A:H2'	32:E0:31:LYS:HD2	1.93	0.51
1:2:932:U:OP2	3:S1:155:TYR:OH	2.29	0.51
8:S6:154:ARG:HD3	1:6:78:A:C8	340.44	0.51
19:C7:104:ASN:H	19:C7:106:THR:HG22	7.93	0.51
26:D4:112:LYS:O	26:D4:116:LYS:HG3	2.11	0.51
23:D1:1:MET:HG2	23:D1:9:VAL:CG1	6.50	0.51
36:1:1103:A:N3	36:1:1103:A:H2'	2.25	0.51
15:C3:66:ILE:HG13	15:C3:67:THR:HG23	3.41	0.51
31:D9:44:ARG:NH2	1:6:1280:C:H5'	399.78	0.51
36:1:1564:U:H2'	36:1:1565:G:H8	1.76	0.51
36:1:3112:G:O2'	46:L9:70:THR:HB	2.10	0.51
36:5:3245:A:H2	36:5:3246:G:C2	2.29	0.51
36:1:1724:U:H4'	36:1:1725:C:OP1	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1533:C:OP1	20:C8:27:LYS:HE3	2.10	0.51
6:S4:155:LYS:HG3	6:S4:174:LYS:NZ	2.26	0.51
1:6:416:A:H4'	1:6:417:A:OP2	2.11	0.51
60:N4:6:ASP:HA	60:N4:30:ARG:O	2.10	0.51
77:Q1:4:LYS:HG2	77:Q1:5:TRP:CE3	4.04	0.51
65:N9:26:THR:OG1	36:5:1065:A:N6	213.46	0.51
53:M7:41:LEU:HD23	53:M7:95:LEU:HD22	1.92	0.51
10:S8:136:SER:OG	10:S8:137:LYS:N	2.44	0.51
86:1:4025:OHX:N4	86:1:4142:OHX:N3	2.59	0.51
3:S1:104:ASP:OD2	3:S1:214:LYS:NZ	2.31	0.51
1:6:348:U:O4	86:6:2166:OHX:N4	2.44	0.51
38:8:8:C:H2'	38:8:9:A:C8	2.45	0.51
36:1:1302:A:N7	36:1:2857:C:O2'	2.34	0.51
36:1:863:C:OP1	86:1:3881:OHX:N5	2.44	0.51
36:1:3074:G:OP1	86:1:4034:OHX:N1	2.43	0.51
1:2:304:U:OP1	13:C1:136:ARG:HD3	2.10	0.51
36:1:1892:G:N7	86:1:4074:OHX:N1	2.58	0.51
37:3:89:G:N2	37:3:92:A:OP2	2.40	0.51
53:M7:10:ASN:HB3	53:M7:13:LYS:HG3	3.41	0.51
36:5:2895:G:H2'	36:5:2896:A:H5''	1.93	0.51
4:S2:245:ASP:N	4:S2:245:ASP:OD1	2.43	0.51
36:5:1781:C:H2'	36:5:1782:U:H6	1.76	0.51
2:S0:169:SER:O	2:S0:173:ILE:HG12	2.10	0.51
53:M7:172:GLN:NE2	69:O3:60:ARG:O	2.43	0.51
1:2:1599:C:O2	86:2:2111:OHX:N1	2.44	0.51
26:D4:112:LYS:HE3	1:6:57:G:OP1	346.25	0.51
36:1:2960:C:H2'	36:1:2961:G:H8	1.76	0.51
53:M7:126:ARG:HH21	53:M7:138:LYS:CB	2.23	0.51
1:2:829:A:HO2'	1:2:830:U:P	2.30	0.51
20:C8:35:ILE:HB	20:C8:38:VAL:CG2	2.41	0.51
4:S2:159:THR:HB	4:S2:168:ARG:HA	3.84	0.51
41:L4:152:VAL:HG22	41:L4:172:VAL:HG21	2.34	0.51
24:D2:31:SER:O	24:D2:34:ILE:HB	2.68	0.51
20:C8:134:ARG:O	20:C8:136:GLN:N	3.95	0.51
27:D5:82:HIS:ND1	27:D5:82:HIS:O	2.44	0.51
36:5:174:C:H2'	36:5:175:C:C6	2.46	0.51
1:2:902:G:H8	1:2:902:G:O5'	1.94	0.51
5:S3:195:SER:HB2	5:S3:200:LYS:HG2	5.86	0.51
46:L9:69:ARG:O	46:L9:69:ARG:HD2	2.11	0.51
36:5:2533:G:N2	36:5:2546:C:O2	2.26	0.51
4:S2:148:LEU:HA	23:D1:4:ASP:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:612:U:OP1	43:L6:21:THR:HB	2.10	0.51
48:M1:110:ILE:O	48:M1:112:LEU:N	2.90	0.51
1:6:1605:G:H2'	1:6:1606:C:H6	1.75	0.51
37:3:45:A:H5'	42:L5:154:THR:HG21	1.91	0.51
1:2:938:G:N7	86:2:2088:OHX:N6	2.58	0.51
36:1:3295:A:OP2	40:L3:126:LYS:N	2.41	0.51
36:1:993:G:OP1	86:1:3888:OHX:N1	2.43	0.51
36:1:898:U:H2'	36:1:899:U:O4'	2.10	0.51
40:L3:305:ILE:HG12	40:L3:321:PHE:CE2	2.45	0.51
39:L2:113:VAL:HG23	39:L2:134:VAL:HG22	1.91	0.51
15:C3:26:PHE:CE2	15:C3:28:LEU:HB2	2.78	0.51
67:O1:54:GLU:OE2	67:O1:54:GLU:N	2.44	0.51
36:1:3143:C:O2'	86:1:3899:OHX:N2	2.44	0.51
36:1:922:U:P	73:O7:3:LYS:HD2	2.50	0.51
36:1:385:A:H2'	36:1:386:A:C8	2.46	0.51
63:N7:136:PHE:HB2	70:O4:88:ARG:HG3	4.82	0.51
36:1:981:U:HO2'	36:1:982:C:P	2.34	0.51
16:C4:84:ARG:HG3	16:C4:85:ALA:O	3.37	0.51
1:2:538:A:H8	1:2:543:C:N4	2.09	0.51
36:5:1169:A:OP1	86:5:4001:OHX:N6	2.44	0.51
15:C3:94:LYS:HG2	15:C3:118:ILE:HD13	1.93	0.51
55:M9:43:LYS:CE	36:5:1765:U:H5'	94.18	0.51
73:O7:22:CYS:SG	73:O7:24:ARG:HG3	3.57	0.51
30:D8:49:ARG:HG2	30:D8:52:ASP:OD1	3.45	0.51
26:D4:51:GLU:O	26:D4:53:ASP:N	3.31	0.51
1:6:647:G:H1	1:6:687:G:N2	2.05	0.51
36:5:1940:G:H2'	36:5:1941:C:O4'	2.11	0.51
28:D6:79:ILE:HA	28:D6:84:VAL:CB	2.41	0.51
1:2:1483:A:C6	1:2:1484:G:C6	2.99	0.51
1:2:2:A:O2'	4:S2:198:THR:O	2.29	0.51
29:D7:61:THR:O	29:D7:62:ILE:HB	2.26	0.51
1:2:800:U:H2'	1:2:801:G:H8	1.76	0.51
22:D0:105:GLN:HG3	22:D0:106:ILE:N	2.26	0.51
42:L5:293:LEU:HB3	47:M0:210:ILE:HD12	1.92	0.51
1:6:694:U:H6	1:6:694:U:P	2.34	0.51
1:6:606:A:H8	1:6:608:U:H2'	1.75	0.51
42:L5:34:LYS:O	42:L5:38:THR:HG23	2.11	0.51
36:1:1348:U:OP2	54:M8:38:ARG:NH2	2.44	0.51
42:L5:131:LEU:HD12	42:L5:172:TYR:CE1	5.40	0.51
43:L6:40:LEU:HB3	43:L6:84:VAL:HG13	2.52	0.51
46:L9:48:VAL:HG21	46:L9:52:LEU:HD13	2.55	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1231:A:OP2	86:1:4081:OHX:N5	2.43	0.51
36:5:1717:U:H2'	36:5:1718:G:C8	2.46	0.51
18:C6:7:VAL:HG23	18:C6:95:LYS:HE2	6.31	0.51
33:E1:117:LEU:HD22	33:E1:118:ARG:NH1	4.59	0.51
45:L8:190:VAL:HG12	45:L8:190:VAL:O	3.57	0.51
39:L2:181:LYS:HZ3	36:5:860:G:P	213.82	0.51
1:2:480:G:N2	1:2:509:G:H1'	2.25	0.51
36:1:3393:U:H2'	36:1:3394:U:H6	1.76	0.51
37:7:86:U:O2	86:7:221:OHX:N4	2.44	0.51
21:C9:117:SER:OG	21:C9:118:PRO:O	2.25	0.51
48:M1:91:LEU:HD12	48:M1:163:PHE:CZ	2.46	0.51
36:5:1798:A:H2'	36:5:1799:A:C8	2.46	0.51
36:1:1207:G:N7	86:1:4058:OHX:N2	2.58	0.51
1:6:52:U:H2'	1:6:53:G:C8	2.45	0.51
39:L2:34:TYR:CD1	39:L2:38:HIS:HD2	6.51	0.51
36:1:952:A:N3	36:1:1114:U:O2'	2.42	0.51
1:2:594:A:H4'	1:2:595:G:H5'	1.92	0.51
1:2:1233:G:OP2	86:2:2153:OHX:N5	2.43	0.51
1:6:1645:G:H22	1:6:1756:A:H2	1.59	0.51
6:S4:6:LYS:HA	1:6:94:U:H4'	341.12	0.51
1:6:329:G:H2'	1:6:330:G:H8	1.75	0.51
36:5:2612:U:H2'	36:5:2613:U:O4'	2.10	0.51
36:1:305:U:C5	36:1:2776:C:H1'	2.46	0.51
28:D6:88:SER:O	28:D6:92:ARG:HG3	2.35	0.50
36:5:916:G:H5'	36:5:917:A:OP1	2.11	0.50
36:1:1777:U:H4'	36:1:2099:A:O2'	2.11	0.50
13:C1:132:SER:O	13:C1:132:SER:OG	3.45	0.50
1:2:1535:U:O2'	1:2:1536:G:H5''	2.12	0.50
12:C0:46:LEU:O	12:C0:50:THR:HG23	2.60	0.50
18:C6:31:VAL:O	18:C6:33:GLY:N	2.42	0.50
35:SM:53:ARG:HA	35:SM:53:ARG:HE	1.77	0.50
45:L8:225:LYS:O	45:L8:229:VAL:HG23	2.11	0.50
36:5:3167:A:H2'	36:5:3168:A:O4'	2.11	0.50
31:D9:14:TYR:CE1	1:6:1553:G:H4'	406.11	0.50
6:S4:150:PRO:HB2	6:S4:154:ILE:HD12	1.92	0.50
36:1:1543:G:OP1	51:M5:35:VAL:HG23	2.11	0.50
6:S4:140:VAL:HA	6:S4:145:ARG:O	2.11	0.50
24:D2:41:MET:HG2	24:D2:129:VAL:HG21	2.64	0.50
39:L2:172:GLY:HA3	79:Q3:68:ALA:H	4.64	0.50
75:O9:44:TRP:CH2	75:O9:45:ARG:HG2	2.46	0.50
36:5:1329:U:H4'	36:5:1330:A:OP1	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:139:G:C6	36:5:140:C:C4	2.99	0.50
27:D5:56:THR:HB	27:D5:57:TYR:CD2	5.25	0.50
34:SR:107:LYS:HB2	34:SR:128:ASP:CB	3.33	0.50
1:2:848:C:H2'	1:2:849:C:H6	1.76	0.50
1:2:1061:A:H2'	1:2:1062:A:H5'	1.93	0.50
16:C4:16:VAL:HG22	16:C4:33:LEU:HA	1.92	0.50
64:N8:112:ILE:HB	64:N8:130:VAL:HG12	2.96	0.50
39:L2:144:ASN:O	39:L2:160:SER:N	2.64	0.50
1:2:1504:G:H2'	1:2:1505:A:C8	2.46	0.50
76:Q0:77:ILE:O	76:Q0:78:ILE:HB	2.11	0.50
86:1:4050:OHX:N6	86:1:4159:OHX:N3	2.59	0.50
36:5:1110:U:H2'	36:5:1111:U:C6	2.46	0.50
37:3:100:C:OP2	56:N0:52:LYS:NZ	2.36	0.50
36:1:1064:A:H4'	36:1:1065:A:O5'	2.11	0.50
36:1:2369:G:H2'	36:1:2370:G:O4'	2.11	0.50
36:5:3255:U:H2'	36:5:3256:G:H8	1.76	0.50
48:M1:17:LEU:HD21	48:M1:19:LEU:HD21	1.92	0.50
36:1:2605:G:N7	86:1:3960:OHX:N1	2.59	0.50
1:2:181:A:H2'	1:2:182:A:C8	2.47	0.50
36:5:1566:A:H2'	36:5:1567:U:H5'	1.92	0.50
9:S7:107:ARG:NH1	1:6:743:U:OP2	343.93	0.50
52:M6:65:ASN:OD1	52:M6:67:THR:HB	2.10	0.50
36:1:1765:U:H4'	36:1:1765:U:OP1	2.10	0.50
44:L7:229:PHE:CD1	44:L7:229:PHE:C	3.15	0.50
8:S6:120:GLU:HG3	8:S6:125:THR:HB	1.93	0.50
1:2:1253:U:O2'	33:E1:143:LYS:HA	2.10	0.50
7:S5:172:ILE:O	7:S5:176:THR:HG23	2.11	0.50
40:L3:252:ILE:HD12	40:L3:264:VAL:HG21	4.54	0.50
9:S7:63:PRO:O	9:S7:64:VAL:HB	2.49	0.50
14:C2:67:THR:C	14:C2:69:ALA:H	2.15	0.50
1:2:25:C:O2	86:2:2085:OHX:N3	2.44	0.50
86:2:2076:OHX:N3	86:2:2162:OHX:N1	2.58	0.50
11:S9:117:GLY:O	11:S9:119:ALA:N	2.45	0.50
6:S4:206:ASP:HB2	6:S4:222:LEU:HD12	1.93	0.50
34:SR:38:ARG:HA	34:SR:67:ILE:HG23	1.95	0.50
86:1:4025:OHX:N6	86:1:4142:OHX:N3	2.59	0.50
36:1:2607:G:H5'	39:L2:233:GLN:HG3	1.93	0.50
20:C8:2:SER:OG	20:C8:3:LEU:N	2.44	0.50
16:C4:30:VAL:HG22	16:C4:39:ILE:HG13	1.93	0.50
36:5:1528:G:H2'	36:5:1529:A:O4'	2.11	0.50
26:D4:5:VAL:O	26:D4:6:THR:OG1	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:776:G:N2	1:2:785:U:H1'	2.27	0.50
42:L5:178:ASN:HA	42:L5:183:TRP:CG	2.82	0.50
36:5:3056:U:OP2	86:5:3943:OHX:N2	2.44	0.50
40:L3:7:GLU:HG2	36:5:2915:U:C5	257.79	0.50
36:1:1340:G:H2'	36:1:1341:U:H6	1.76	0.50
36:1:288:C:O3'	51:M5:171:SER:HB3	2.11	0.50
57:N1:103:GLN:HA	57:N1:106:LEU:HD12	6.63	0.50
1:6:848:C:H2'	1:6:849:C:C6	2.46	0.50
36:1:1237:G:H2'	36:1:1237:G:N3	2.26	0.50
29:D7:34:ASP:OD1	29:D7:34:ASP:N	3.42	0.50
36:1:2407:C:H2'	36:1:2408:U:C6	2.46	0.50
36:1:806:A:C4	36:1:936:A:C2	2.99	0.50
36:1:1016:C:O2	36:1:1028:U:N3	2.44	0.50
78:Q2:17:CYS:SG	78:Q2:77:CYS:CB	2.98	0.50
36:5:3163:A:N6	36:5:3164:C:H42	2.08	0.50
51:M5:96:ARG:NH1	51:M5:96:ARG:HG2	2.26	0.50
36:1:1582:C:H6	36:1:1582:C:H3'	1.77	0.50
19:C7:107:SER:O	19:C7:110:VAL:HG23	3.49	0.50
23:D1:38:LYS:HE3	23:D1:51:VAL:HG23	3.72	0.50
11:S9:118:LEU:HD23	11:S9:158:PHE:CZ	2.47	0.50
49:M3:35:ARG:HG2	49:M3:39:ARG:HH12	1.77	0.50
61:N5:115:ARG:NH1	61:N5:115:ARG:HG3	2.29	0.50
74:O8:30:LYS:NZ	74:O8:40:GLN:HE22	5.02	0.50
41:L4:360:LYS:O	86:L4:403:OHX:N4	114.00	0.50
36:5:2897:A:H2'	36:5:2899:C:C5'	2.41	0.50
47:M0:76:MET:CE	47:M0:148:VAL:HG22	2.41	0.50
1:2:460:A:H5'	1:2:461:G:OP2	2.12	0.50
53:M7:116:HIS:HB3	53:M7:149:VAL:HB	1.91	0.50
11:S9:120:LYS:O	11:S9:121:SER:HB3	2.12	0.50
63:N7:10:VAL:HG11	63:N7:129:TRP:HZ3	2.12	0.50
63:N7:48:ARG:HB3	63:N7:69:LYS:HB3	1.93	0.50
13:C1:17:PRO:HB2	13:C1:18:HIS:CD2	3.21	0.50
42:L5:95:TRP:HZ3	42:L5:156:GLY:O	8.12	0.50
27:D5:54:VAL:HA	27:D5:57:TYR:CE1	2.51	0.50
36:1:2728:G:O6	57:N1:78:LYS:HE3	2.10	0.50
36:1:98:G:OP1	49:M3:16:LYS:NZ	2.41	0.50
36:1:49:A:OP1	49:M3:16:LYS:HE2	2.11	0.50
36:5:2694:A:C6	36:5:2695:A:C6	3.00	0.50
1:2:179:A:H2'	1:2:180:A:O4'	2.11	0.50
42:L5:119:TYR:OH	42:L5:134:ALA:HA	2.11	0.50
36:1:308:A:H5'	36:1:2223:A:O2'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2925:C:H2'	36:5:2926:A:H5'	1.93	0.50
52:M6:88:VAL:O	52:M6:90:HIS:N	2.45	0.50
45:L8:241:LYS:HB2	36:5:2586:G:N7	184.82	0.50
3:S1:111:ARG:HB3	28:D6:68:TYR:CD2	2.46	0.50
20:C8:89:GLN:HE21	1:6:1548:G:H1'	372.82	0.50
40:L3:349:LYS:NZ	36:5:3097:C:OP1	266.35	0.50
42:L5:81:HIS:C	42:L5:81:HIS:HD1	2.15	0.50
36:5:1020:G:H2'	36:5:1021:G:O4'	2.12	0.50
36:1:541:U:O4	86:1:4188:OHX:N2	2.43	0.50
36:1:999:G:N3	36:1:1002:A:N6	2.58	0.50
78:Q2:77:CYS:SG	78:Q2:79:THR:HG23	2.52	0.50
1:2:1796:C:OP2	28:D6:5:ARG:NH1	2.38	0.50
7:S5:97:LEU:O	7:S5:99:MET:N	2.89	0.50
86:1:4076:OHX:N2	86:1:4146:OHX:N5	2.60	0.50
36:1:911:C:N4	39:L2:3:ARG:HD3	2.26	0.50
4:S2:226:THR:OG1	4:S2:228:ASN:HB2	4.93	0.50
1:2:1010:C:OP2	86:2:2132:OHX:N6	2.45	0.50
28:D6:73:TYR:CZ	28:D6:82:ARG:HD2	2.47	0.50
40:L3:187:SER:O	40:L3:191:LYS:HG3	3.13	0.50
69:O3:86:ARG:HH12	36:5:498:A:H5'	215.43	0.50
1:2:1097:U:O2'	4:S2:168:ARG:HB2	2.11	0.50
36:5:549:U:H2'	36:5:550:A:C8	2.46	0.50
21:C9:79:LEU:HD23	21:C9:80:TYR:CZ	2.90	0.50
25:D3:62:LYS:HD2	25:D3:118:PRO:HB3	1.93	0.50
36:5:1014:U:C3'	36:5:1015:U:H5'	2.41	0.50
1:2:1235:C:C2	33:E1:138:ARG:NH2	2.79	0.50
56:N0:12:ARG:HG3	56:N0:13:ARG:O	2.60	0.50
33:E1:108:VAL:HG12	33:E1:114:VAL:HG22	2.37	0.50
45:L8:156:ASP:OD2	45:L8:156:ASP:N	2.27	0.50
45:L8:157:VAL:H	45:L8:183:LYS:HZ2	1.59	0.50
38:4:21:C:C2'	38:4:22:U:H5'	2.41	0.50
36:1:1389:G:OP2	86:1:3970:OHX:N4	2.45	0.50
46:L9:48:VAL:HG22	46:L9:52:LEU:HB3	1.93	0.50
36:5:138:U:H2'	36:5:139:G:H8	1.76	0.50
36:1:1441:G:H2'	36:1:1442:U:H5'	1.93	0.50
42:L5:27:LYS:NZ	37:7:5:G:OP2	293.94	0.50
12:C0:7:ASP:O	12:C0:11:ILE:HG12	2.11	0.50
78:Q2:63:LYS:HD3	36:5:2795:U:OP2	212.73	0.50
9:S7:29:ASN:O	9:S7:30:SER:OG	2.29	0.50
36:5:1277:C:H2'	36:5:1278:A:H8	1.77	0.50
21:C9:118:PRO:HD2	21:C9:123:ARG:NH2	2.57	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:20:THR:OG1	24:D2:22:LYS:HD3	3.94	0.50
16:C4:57:PRO:HB3	16:C4:100:ALA:HB2	1.93	0.50
1:2:1417:A:O3'	18:C6:128:LYS:NZ	2.29	0.50
1:6:1603:U:H2'	1:6:1604:U:C6	2.46	0.50
4:S2:38:VAL:HG22	4:S2:39:THR:H	1.77	0.50
38:4:41:A:H61	38:4:103:G:H1'	1.75	0.50
49:M3:63:VAL:HG22	36:5:72:C:H5'	113.03	0.50
36:5:2147:A:H2'	36:5:2148:U:O4'	2.10	0.50
15:C3:124:ARG:NH2	1:6:967:A:OP2	319.60	0.50
46:L9:96:HIS:O	46:L9:98:PRO:HD3	2.12	0.50
2:S0:177:LEU:O	2:S0:181:VAL:HG22	2.12	0.50
1:2:607:G:H5'	1:2:613:G:N2	2.26	0.50
64:N8:10:LYS:NZ	36:5:1374:G:O6	164.07	0.50
1:6:493:U:H2'	1:6:494:U:H5''	1.93	0.50
36:1:1480:G:H4'	36:1:1481:A:OP1	2.12	0.50
28:D6:5:ARG:HH12	1:6:1795:U:H3'	338.83	0.50
2:S0:182:LEU:HB3	2:S0:188:LEU:HD23	1.93	0.50
10:S8:26:LYS:HG3	10:S8:29:LEU:CD1	4.90	0.50
7:S5:59:VAL:O	7:S5:60:ASP:HB2	2.12	0.50
1:6:578:U:O2	86:6:2157:OHX:N3	2.44	0.50
34:SR:132:LYS:HD3	34:SR:140:CYS:SG	2.51	0.50
1:6:189:C:C2'	1:6:190:C:H5'	2.41	0.50
21:C9:105:LEU:HD13	21:C9:122:ARG:NE	2.27	0.50
21:C9:102:ARG:O	21:C9:105:LEU:N	3.77	0.50
71:O5:10:ARG:NH2	38:8:65:A:O3'	33.05	0.50
44:L7:151:ARG:NH2	36:5:1334:U:O2'	240.64	0.50
36:5:3047:U:C2'	36:5:3048:A:H5'	2.42	0.50
40:L3:53:MET:HE2	40:L3:327:CYS:CB	2.89	0.50
54:M8:96:PHE:CD2	54:M8:97:PRO:HD2	2.75	0.50
7:S5:117:THR:HG23	7:S5:195:ALA:HB2	2.26	0.50
21:C9:23:GLN:HG2	21:C9:55:TYR:CG	2.46	0.50
21:C9:23:GLN:HG3	21:C9:55:TYR:CE2	4.07	0.50
6:S4:187:ARG:O	6:S4:187:ARG:HD3	2.12	0.50
55:M9:167:ARG:HG2	55:M9:170:ARG:NH1	2.27	0.50
49:M3:28:GLN:OE1	51:M5:201:ARG:NH1	2.85	0.50
63:N7:110:ALA:O	63:N7:114:VAL:HG23	2.21	0.50
22:D0:42:VAL:HG13	22:D0:52:LYS:HE3	1.93	0.50
77:Q1:22:ALA:C	77:Q1:24:SER:H	2.14	0.50
26:D4:86:GLU:OE1	26:D4:90:ARG:NH1	3.12	0.50
27:D5:38:HIS:HA	27:D5:70:LYS:HG2	9.37	0.50
27:D5:49:ARG:HH11	27:D5:70:LYS:NZ	2.09	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1148:C:H2'	1:2:1149:G:H8	1.77	0.50
36:5:1661:G:H2'	36:5:1662:G:C8	2.46	0.50
1:6:1649:G:N7	86:6:2112:OHX:N2	2.60	0.50
36:1:2724:U:OP1	57:N1:78:LYS:HE2	2.12	0.50
49:M3:70:ARG:NH2	36:5:103:G:OP1	94.38	0.50
15:C3:15:ALA:O	1:6:959:U:H5'	351.36	0.50
24:D2:57:ARG:NH2	29:D7:26:GLN:OE1	3.40	0.50
1:2:937:C:N4	28:D6:14:GLY:O	2.42	0.50
36:1:778:U:O4	86:1:4002:OHX:N2	2.44	0.50
1:6:1151:A:H4'	1:6:1766:A:C5	2.46	0.50
36:5:2397:A:H8	36:5:2941:A:N1	2.09	0.50
73:O7:13:ASN:O	36:5:817:A:C4	139.52	0.50
38:8:10:A:H2'	38:8:11:C:C6	2.46	0.50
38:8:16:G:O2'	38:8:17:A:OP2	2.27	0.50
36:1:3243:A:H4'	40:L3:95:THR:HG22	1.92	0.50
1:2:635:A:H2'	1:2:636:A:H8	1.76	0.50
36:5:90:C:H2'	36:5:91:G:H5'	1.94	0.50
36:1:2960:C:H2'	36:1:2961:G:C8	2.46	0.50
8:S6:64:LYS:O	8:S6:67:VAL:HG22	2.11	0.50
63:N7:5:LEU:HD13	63:N7:77:TYR:CE2	3.70	0.50
42:L5:109:THR:O	42:L5:112:LYS:N	2.45	0.50
23:D1:80:LYS:O	23:D1:81:ASN:HB2	2.12	0.50
1:2:1258:U:H4'	12:C0:2:LEU:HD13	1.93	0.50
42:L5:270:LYS:HD3	37:7:22:A:N6	321.14	0.50
51:M5:168:GLY:O	51:M5:172:ARG:HB2	2.64	0.50
36:5:1145:G:C2'	36:5:1146:C:H5'	2.41	0.50
44:L7:170:GLU:HG3	44:L7:179:LEU:HB3	2.49	0.50
36:1:436:A:C8	36:1:621:A:N6	2.76	0.50
63:N7:55:LYS:O	63:N7:57:HIS:N	3.32	0.50
17:C5:69:GLU:HB2	86:C5:201:OHX:N2	2.27	0.50
48:M1:6:GLN:C	48:M1:7:ASN:HD22	2.15	0.50
36:1:1235:U:H4'	36:1:1236:G:H5'	1.93	0.50
19:C7:13:SER:O	19:C7:17:ILE:HG13	2.63	0.50
30:D8:12:VAL:HA	30:D8:30:VAL:HG12	1.92	0.50
1:2:1490:C:H1'	1:2:1491:U:O4'	2.11	0.50
36:5:182:U:H2'	36:5:183:G:C8	2.47	0.50
36:1:975:C:H2'	36:1:976:U:H6	1.76	0.50
52:M6:85:ARG:HD3	52:M6:90:HIS:CG	2.90	0.50
36:1:1390:A:N6	36:1:1418:A:O2'	2.44	0.50
17:C5:41:VAL:HG22	17:C5:84:ILE:HD12	1.94	0.50
52:M6:122:GLN:NE2	36:5:1181:U:H2'	271.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:Q3:8:VAL:HG22	36:5:1927:G:OP1	245.12	0.50
1:2:1407:U:H2'	1:2:1408:G:O4'	2.10	0.50
63:N7:87:LEU:HB2	63:N7:127:ASN:OD1	2.11	0.50
9:S7:158:ASP:O	9:S7:160:GLN:N	3.15	0.50
6:S4:65:LEU:C	6:S4:67:GLN:H	2.30	0.50
36:1:304:G:H5'	36:1:304:G:N3	2.26	0.50
8:S6:192:ALA:O	8:S6:195:VAL:N	3.30	0.50
36:5:126:U:H2'	36:5:127:G:O4'	2.11	0.50
36:5:2705:A:OP2	86:5:3900:OHX:N4	2.45	0.50
1:2:1556:A:C5	1:2:1560:U:C2	2.99	0.50
36:5:314:U:O4	86:5:4191:OHX:N5	2.45	0.50
4:S2:140:ARG:HH22	4:S2:228:ASN:HD21	1.58	0.50
36:1:3362:A:H2'	36:1:3363:U:O4'	2.12	0.50
40:L3:347:SER:O	40:L3:348:ARG:HB2	2.12	0.50
36:1:269:G:H5''	51:M5:14:LYS:HZ1	1.77	0.50
50:M4:14:LEU:H	50:M4:19:ARG:NH1	2.66	0.50
1:2:283:U:H5''	8:S6:188:ARG:HD3	1.93	0.50
32:E0:30:PRO:O	32:E0:35:TYR:HB2	2.11	0.50
2:S0:74:VAL:HG12	2:S0:76:ILE:HG12	3.12	0.50
17:C5:98:ASN:ND2	17:C5:101:ALA:HB3	4.05	0.50
54:M8:171:LYS:O	54:M8:171:LYS:HG3	2.10	0.50
22:D0:37:VAL:HG13	22:D0:107:THR:HG22	5.59	0.50
67:O1:19:ARG:HD3	67:O1:35:GLU:CG	2.42	0.50
26:D4:55:VAL:HG13	26:D4:75:VAL:HB	1.93	0.50
1:2:545:A:N3	1:2:546:U:H1'	2.25	0.50
36:5:2859:U:O2'	86:5:3902:OHX:N2	2.44	0.50
25:D3:43:PHE:CE1	25:D3:49:ALA:HB3	2.50	0.50
71:O5:45:LYS:HD2	71:O5:49:LYS:HD3	6.45	0.50
1:2:296:U:H2'	1:2:297:U:C6	2.46	0.50
36:5:1949:G:H1	36:5:2097:U:H3	1.58	0.50
36:5:522:A:OP1	86:5:3941:OHX:N1	2.45	0.50
9:S7:98:ILE:HG13	9:S7:121:VAL:HG21	1.94	0.50
75:O9:37:TYR:CE1	75:O9:39:ALA:HA	2.82	0.50
48:M1:107:ASP:HA	48:M1:124:GLY:HA2	1.93	0.50
1:2:988:A:C2	1:2:989:U:H1'	2.47	0.50
56:N0:78:TRP:CE3	56:N0:125:LYS:HG2	2.46	0.50
71:O5:15:GLU:CD	71:O5:15:GLU:H	3.81	0.50
36:1:667:C:H6	36:1:667:C:H5''	1.76	0.50
13:C1:65:SER:OG	1:6:114:C:O2'	317.27	0.50
36:1:1569:U:H5'	36:1:1570:U:H5''	1.94	0.50
36:5:1046:A:H2'	36:5:1049:C:C5	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:3:VAL:HG22	52:M6:4:GLU:HG3	1.93	0.50
1:2:1469:A:H2'	1:2:1470:C:C6	2.46	0.50
5:S3:144:ALA:HB1	35:SM:101:ASP:OD2	2.12	0.50
51:M5:97:SER:OG	51:M5:98:LEU:N	2.44	0.50
62:N6:36:SER:HB3	62:N6:106:ILE:O	2.12	0.50
62:N6:37:LYS:H	62:N6:37:LYS:CD	2.24	0.50
11:S9:109:LEU:HD13	11:S9:129:ILE:HD13	1.94	0.50
6:S4:73:ASP:OD2	6:S4:122:LYS:NZ	2.49	0.50
34:SR:109:ASP:O	34:SR:126:SER:OG	2.22	0.50
42:L5:109:THR:OG1	42:L5:110:LEU:N	2.44	0.50
40:L3:4:ARG:HG3	40:L3:4:ARG:HH11	3.11	0.50
46:L9:7:GLU:HA	46:L9:68:LEU:HD11	1.93	0.50
1:6:1540:G:C6	1:6:1541:G:C4	2.99	0.50
65:N9:25:LYS:HB2	65:N9:25:LYS:NZ	2.26	0.50
36:1:663:C:H2'	36:1:664:U:C6	2.47	0.50
7:S5:37:GLN:OE1	18:C6:53:LEU:HD22	2.10	0.50
28:D6:20:PRO:HA	28:D6:31:PRO:HA	1.94	0.50
3:S1:227:ALA:O	3:S1:231:LEU:HB2	5.00	0.50
86:2:2045:OHX:N4	86:2:2099:OHX:N3	2.60	0.50
1:6:1489:U:H6	1:6:1492:A:C2	2.26	0.50
1:6:825:U:O2'	1:6:826:U:OP2	2.28	0.50
40:L3:240:ARG:NH2	36:5:874:U:OP2	213.28	0.50
41:L4:216:VAL:O	41:L4:220:ARG:HB3	2.11	0.50
18:C6:94:GLN:HG3	18:C6:95:LYS:N	2.46	0.50
1:6:649:U:H2'	1:6:650:U:C5	2.47	0.50
36:5:2997:G:N7	86:5:4183:OHX:N3	2.59	0.50
36:1:1100:U:OP2	44:L7:196:LYS:HE3	2.12	0.50
2:S0:31:VAL:HA	2:S0:34:GLU:OE2	7.36	0.50
23:D1:86:SER:HB3	29:D7:11:THR:HG22	2.33	0.50
55:M9:74:ARG:NH1	36:5:1942:U:OP2	209.42	0.50
36:1:1608:C:H2'	36:1:1609:C:C6	2.47	0.50
1:6:719:U:C4	1:6:721:U:H5	2.30	0.50
1:6:1268:G:H1'	1:6:1448:G:H5"	1.94	0.50
47:M0:198:LYS:HE2	36:5:1040:A:O2'	331.89	0.50
62:N6:2:ALA:N	36:5:213:A:H5"	80.22	0.50
36:1:2922:G:N3	36:1:2951:G:N2	2.60	0.50
43:L6:52:VAL:HG11	43:L6:65:ILE:HG13	4.76	0.50
1:2:918:U:H2'	1:2:919:A:C8	2.47	0.50
1:6:635:A:C2	1:6:863:A:C8	2.99	0.50
36:1:109:A:H4'	36:1:110:G:OP1	2.10	0.50
69:O3:60:ARG:NH2	69:O3:60:ARG:HB2	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:80:THR:HB	54:M8:100:THR:HB	1.93	0.50
1:2:158:U:O2'	1:2:159:U:H3'	2.12	0.50
1:2:169:A:OP1	8:S6:137:ARG:HG3	2.12	0.50
86:5:4189:OHX:N1	86:5:4191:OHX:N2	2.60	0.50
25:D3:108:GLY:HA2	1:6:600:U:OP2	357.15	0.50
44:L7:132:PRO:HA	44:L7:229:PHE:CD2	2.84	0.50
36:5:1578:C:H3'	36:5:1579:C:C6	2.47	0.50
35:SM:49:LYS:NZ	35:SM:53:ARG:HH12	11.13	0.50
36:1:1245:A:C3'	36:1:1246:G:H5''	2.41	0.50
40:L3:77:THR:OG1	40:L3:324:VAL:HG12	2.11	0.50
40:L3:53:MET:HG2	40:L3:77:THR:HG22	1.94	0.50
68:O2:123:LYS:HA	68:O2:126:LEU:HG	1.94	0.50
36:1:1029:G:H2'	36:1:1030:A:C8	2.47	0.50
31:D9:22:ARG:HG2	31:D9:37:ASN:O	3.44	0.50
7:S5:198:LEU:O	7:S5:201:ALA:N	2.45	0.50
1:2:72:A:O2'	1:2:73:U:H5''	2.12	0.50
1:2:1427:A:H5''	35:SM:93:ARG:NH1	2.27	0.50
86:1:4000:OHX:N3	86:1:4168:OHX:N1	2.59	0.50
79:Q3:50:GLY:O	79:Q3:51:ALA:HB3	2.11	0.50
47:M0:153:ARG:HH11	47:M0:156:ARG:HH21	3.95	0.50
59:N3:12:ARG:HB2	36:5:3040:A:H5''	267.43	0.50
30:D8:13:ILE:HG12	30:D8:31:GLU:HB2	3.91	0.50
24:D2:53:ILE:HD13	29:D7:24:LEU:HG	1.93	0.50
2:S0:148:ASP:O	2:S0:151:SER:OG	4.03	0.50
65:N9:22:LYS:HA	36:5:983:A:OP1	215.29	0.50
42:L5:158:ARG:HB2	37:7:46:A:OP1	278.29	0.50
64:N8:27:LYS:NZ	36:5:801:A:OP1	154.11	0.50
86:1:4063:OHX:N3	86:1:4110:OHX:N6	2.59	0.50
1:2:839:U:OP1	13:C1:27:THR:OG1	2.28	0.50
86:1:3974:OHX:N5	86:1:4151:OHX:N6	2.60	0.50
1:2:326:G:OP1	13:C1:57:LYS:NZ	2.43	0.50
36:5:1781:C:H2'	36:5:1782:U:C6	2.47	0.50
36:5:2925:C:C2'	36:5:2926:A:H5'	2.42	0.50
36:5:2541:U:H4'	36:5:2542:U:OP1	2.12	0.50
41:L4:64:SER:HB2	36:5:806:A:OP1	154.53	0.50
36:1:1786:G:H2'	36:1:1787:A:C8	2.46	0.50
48:M1:83:GLY:HA2	48:M1:86:VAL:HG23	1.93	0.50
36:5:308:A:H5'	36:5:2223:A:O2'	2.10	0.50
78:Q2:100:LYS:H	78:Q2:100:LYS:HE2	1.77	0.50
36:5:846:A:H8	36:5:846:A:OP1	1.94	0.50
1:6:655:G:H2'	1:6:656:G:C8	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:Q3:26:VAL:HG12	79:Q3:30:GLU:HG3	1.93	0.50
48:M1:132:ASN:HA	48:M1:154:THR:HG21	1.93	0.49
36:5:436:A:H3'	36:5:437:G:C8	2.47	0.49
49:M3:128:ARG:CZ	71:O5:112:PRO:HG2	2.42	0.49
36:1:362:U:OP1	73:O7:45:ARG:NH2	2.45	0.49
1:2:1718:G:OP2	86:2:2083:OHX:N1	2.45	0.49
40:L3:76:VAL:HG21	40:L3:323:MET:HE1	3.81	0.49
25:D3:48:HIS:HD2	25:D3:105:ALA:HB2	1.77	0.49
40:L3:129:ALA:O	36:5:3150:A:H5'	211.43	0.49
1:2:481:A:H61	1:2:505:A:H62	1.60	0.49
8:S6:199:GLN:HA	8:S6:202:ARG:NH1	2.26	0.49
1:2:1018:U:H2'	1:2:1019:A:C8	2.47	0.49
63:N7:36:HIS:NE2	63:N7:74:VAL:HG11	2.26	0.49
50:M4:89:ALA:HB1	50:M4:92:GLU:CG	2.42	0.49
39:L2:69:TYR:OH	36:5:2557:A:OP1	191.67	0.49
6:S4:141:THR:OG1	6:S4:143:ASP:OD2	2.28	0.49
36:1:208:C:C2'	36:1:209:A:H5'	2.42	0.49
39:L2:241:ARG:HG2	36:5:2155:G:OP1	220.69	0.49
14:C2:53:THR:HG21	33:E1:106:TYR:OH	3.62	0.49
36:5:996:A:C2	36:5:1054:A:C4	2.99	0.49
1:2:1157:A:H3'	1:2:1157:A:C8	2.47	0.49
15:C3:55:ARG:HA	15:C3:60:VAL:O	2.53	0.49
1:2:1149:G:H1'	1:2:1765:A:C4	2.46	0.49
36:5:3288:G:C4	36:5:3289:G:C8	3.00	0.49
36:5:1240:A:H2'	36:5:1241:U:H5'	1.93	0.49
69:O3:16:TYR:OH	69:O3:91:ALA:HB2	2.11	0.49
36:1:3255:U:H2'	36:1:3256:G:C8	2.46	0.49
86:1:4050:OHX:N2	86:1:4159:OHX:N5	2.59	0.49
36:1:3082:C:H2'	36:1:3083:G:C8	2.47	0.49
1:2:1393:C:H2'	1:2:1394:G:O4'	2.12	0.49
36:1:223:U:O2'	36:1:224:C:OP2	2.26	0.49
1:6:1656:U:HO2'	36:5:2292:U:HO2'	1.60	0.49
61:N5:131:ASP:HB3	61:N5:134:ASP:HB2	1.94	0.49
36:5:2398:A:OP1	36:5:2873:U:H4'	2.12	0.49
56:N0:79:VAL:HG21	56:N0:106:LEU:HD21	1.93	0.49
36:1:2404:A:C2'	36:1:2404:A:N3	2.75	0.49
36:1:1191:U:C2	52:M6:48:PHE:CE1	3.00	0.49
64:N8:22:ILE:HD12	36:5:1114:U:H5''	191.13	0.49
1:2:1183:A:N1	17:C5:99:GLY:HA3	2.26	0.49
1:6:1579:U:H2'	1:6:1580:C:C6	2.47	0.49
18:C6:47:LYS:NZ	18:C6:114:ARG:HD3	4.37	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3215:A:N7	50:M4:125:LYS:NZ	2.60	0.49
15:C3:88:LEU:HD11	15:C3:135:LEU:HD11	3.55	0.49
11:S9:83:VAL:HG23	11:S9:85:VAL:H	3.51	0.49
66:O0:32:LYS:HG3	66:O0:35:ARG:HH21	4.28	0.49
86:1:4016:OHX:N4	86:1:4052:OHX:N2	2.60	0.49
1:2:1595:U:N3	1:2:1600:A:C2	2.77	0.49
67:O1:10:ARG:HH12	67:O1:44:MET:CG	5.91	0.49
25:D3:51:GLY:O	25:D3:101:GLU:HA	2.38	0.49
1:6:93:A:C6	1:6:398:G:C6	3.00	0.49
36:5:1017:C:H2'	36:5:1017:C:OP2	2.12	0.49
1:2:859:A:C5	15:C3:73:ARG:HD3	2.47	0.49
36:1:1795:U:H4'	36:1:1796:G:C4	2.46	0.49
86:1:3970:OHX:N6	86:1:4152:OHX:N2	2.59	0.49
52:M6:73:PHE:CD1	52:M6:78:ARG:HG2	4.37	0.49
1:2:1675:C:H1'	10:S8:32:GLN:NE2	2.26	0.49
14:C2:131:ASP:OD1	14:C2:133:LEU:HD12	2.76	0.49
13:C1:101:GLU:OE2	25:D3:16:ARG:NH2	2.65	0.49
18:C6:26:LYS:NZ	1:6:1364:G:O3'	435.92	0.49
59:N3:40:LYS:HG3	59:N3:57:MET:HE2	1.93	0.49
20:C8:91:ASP:OD1	20:C8:93:THR:N	2.45	0.49
49:M3:70:ARG:HD2	49:M3:71:ALA:O	2.50	0.49
39:L2:105:GLY:CA	39:L2:160:SER:HB3	2.55	0.49
86:1:4050:OHX:N4	86:1:4159:OHX:N3	2.59	0.49
36:1:3350:C:HO2'	36:1:3351:U:C5'	2.23	0.49
20:C8:73:MET:HB3	20:C8:101:LEU:HD11	1.94	0.49
1:2:346:G:O6	86:2:2126:OHX:N5	2.45	0.49
19:C7:14:LYS:NZ	19:C7:18:GLU:OE2	2.43	0.49
1:2:1561:U:H2'	1:2:1562:G:H8	1.77	0.49
51:M5:5:LYS:HE2	72:O6:37:THR:HG22	1.93	0.49
11:S9:38:ASN:HB3	11:S9:40:LYS:H	1.75	0.49
5:S3:172:THR:HA	5:S3:184:ILE:O	2.54	0.49
36:5:2599:U:H2'	36:5:2600:C:C6	2.47	0.49
50:M4:13:ARG:NH1	50:M4:65:LEU:O	2.82	0.49
48:M1:132:ASN:HA	48:M1:154:THR:CG2	2.42	0.49
2:S0:185:ARG:HG2	23:D1:45:ALA:O	2.86	0.49
22:D0:18:GLN:O	22:D0:96:PRO:HA	2.12	0.49
10:S8:44:HIS:O	10:S8:56:ARG:N	2.70	0.49
36:1:2104:A:H2'	36:1:2105:G:H8	1.78	0.49
9:S7:67:LEU:HG	9:S7:94:ALA:HB2	2.42	0.49
1:2:1525:A:N1	1:2:1608:U:H1'	2.28	0.49
41:L4:93:MET:HB2	36:5:658:G:N2	145.18	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2439:A:N6	36:5:2508:U:H3	2.10	0.49
7:S5:63:GLN:HB3	7:S5:88:PRO:HA	2.35	0.49
1:2:276:C:O2'	1:2:277:U:H5''	2.12	0.49
36:1:1815:U:HO2'	36:1:1816:A:P	2.36	0.49
34:SR:62:LYS:O	34:SR:92:TRP:HH2	1.95	0.49
18:C6:22:VAL:HG22	18:C6:65:ILE:HD12	4.30	0.49
21:C9:91:TYR:OH	1:6:1469:A:OP1	364.28	0.49
6:S4:126:VAL:HG22	6:S4:156:VAL:HA	1.94	0.49
6:S4:156:VAL:O	6:S4:157:ASN:HB2	2.12	0.49
36:1:2299:A:P	86:1:3946:OHX:N1	2.85	0.49
63:N7:36:HIS:CD2	63:N7:74:VAL:HG11	2.47	0.49
35:SM:61:ILE:HD12	35:SM:62:ARG:H	1.77	0.49
36:5:3131:U:H2'	36:5:3132:C:C6	2.47	0.49
7:S5:41:LYS:HE2	7:S5:67:PRO:HB2	4.27	0.49
79:Q3:17:ARG:NH1	36:5:860:G:OP1	220.01	0.49
36:1:2407:C:H2'	36:1:2408:U:H6	1.77	0.49
1:2:1183:A:C6	1:2:1184:A:N1	2.80	0.49
36:5:2882:U:H2'	36:5:2883:U:C6	2.47	0.49
36:1:1844:C:O2	73:O7:9:GLY:HA2	2.13	0.49
42:L5:144:VAL:HG12	42:L5:173:VAL:HG22	1.94	0.49
36:1:3273:A:O2'	36:1:3274:A:H5'	2.13	0.49
9:S7:41:LEU:HB3	9:S7:70:PHE:CE2	3.87	0.49
1:2:1581:C:O2'	1:2:1582:U:H5'	2.11	0.49
4:S2:188:LEU:HD13	4:S2:196:VAL:HG11	1.94	0.49
36:1:2712:U:H2'	36:1:2713:U:C6	2.47	0.49
43:L6:69:PHE:CZ	36:5:3267:A:H2'	258.77	0.49
36:1:1381:A:OP1	41:L4:197:ARG:NH1	2.44	0.49
63:N7:42:LEU:HD23	63:N7:101:PHE:HE1	1.76	0.49
44:L7:88:ARG:HA	44:L7:134:VAL:HG12	2.02	0.49
54:M8:158:HIS:N	54:M8:186:VAL:HG12	2.34	0.49
8:S6:63:MET:HE2	8:S6:106:LEU:HD22	2.33	0.49
8:S6:159:ARG:HG2	8:S6:172:ALA:HB2	2.93	0.49
6:S4:45:ILE:HA	6:S4:61:VAL:HG11	1.94	0.49
37:3:49:G:O6	42:L5:58:LYS:HD3	2.13	0.49
47:M0:117:GLY:O	86:M0:303:OHX:N6	4.04	0.49
1:2:1413:U:O2'	86:2:2072:OHX:N1	2.45	0.49
7:S5:50:GLU:O	7:S5:65:ARG:NH2	2.46	0.49
40:L3:53:MET:CG	40:L3:77:THR:HG22	2.80	0.49
13:C1:2:SER:HB2	13:C1:81:HIS:CD2	2.47	0.49
45:L8:138:HIS:CE1	36:5:119:U:C2	104.46	0.49
1:2:778:G:H3'	1:2:780:A:H2	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:105:VAL:HG11	6:S4:245:LYS:H	2.39	0.49
20:C8:54:LEU:H	20:C8:54:LEU:HD22	1.78	0.49
1:6:500:C:O2'	1:6:501:U:O4'	2.31	0.49
47:M0:87:LEU:HD23	47:M0:138:VAL:HG22	3.81	0.49
1:6:722:G:O2'	1:6:723:G:H5''	2.12	0.49
36:5:1387:G:OP1	86:5:4200:OHX:N3	2.45	0.49
1:2:328:A:H2'	1:2:329:G:O4'	2.12	0.49
29:D7:47:PHE:CE1	29:D7:49:HIS:HB2	2.52	0.49
86:5:4203:OHX:N2	86:8:227:OHX:N1	2.60	0.49
36:1:2317:A:OP2	86:1:4065:OHX:N6	2.46	0.49
25:D3:92:CYS:HA	25:D3:95:PHE:CD2	2.47	0.49
1:2:1350:U:H2'	1:2:1351:G:H8	1.76	0.49
86:1:4025:OHX:N4	86:1:4142:OHX:N1	2.59	0.49
36:1:3169:U:H2'	36:1:3170:A:O4'	2.12	0.49
8:S6:14:LYS:NZ	8:S6:123:GLY:H	2.10	0.49
36:1:3294:A:H2'	36:1:3295:A:O4'	2.13	0.49
40:L3:81:THR:O	40:L3:81:THR:CG2	2.85	0.49
18:C6:128:LYS:HE2	1:6:1417:A:O3'	393.71	0.49
36:1:1211:U:H2'	36:1:1212:A:C8	2.47	0.49
36:1:2617:U:C5	36:1:2621:G:OP2	2.65	0.49
1:6:1511:U:H2'	1:6:1512:G:C8	2.47	0.49
51:M5:151:ILE:HD11	51:M5:159:ARG:HD2	1.94	0.49
46:L9:129:ARG:O	46:L9:132:VAL:HG13	2.13	0.49
10:S8:16:ALA:HB2	1:6:354:C:H5''	297.80	0.49
20:C8:110:ARG:NH2	20:C8:114:GLU:HG3	4.17	0.49
62:N6:4:GLN:HB2	36:5:229:G:H5''	68.49	0.49
72:O6:53:TYR:HB2	72:O6:76:ARG:HD2	1.94	0.49
40:L3:83:PRO:O	40:L3:165:GLN:NE2	2.45	0.49
36:1:1580:A:H1'	36:1:1581:C:C5	2.47	0.49
11:S9:175:ARG:HD2	11:S9:179:ARG:HH21	4.07	0.49
1:2:57:G:OP1	26:D4:112:LYS:NZ	2.45	0.49
4:S2:140:ARG:HD3	4:S2:222:TYR:CE1	2.48	0.49
1:2:400:A:C4	10:S8:26:LYS:HB2	2.47	0.49
18:C6:36:ILE:O	18:C6:38:LEU:N	2.92	0.49
36:5:2568:C:HO2'	36:5:2569:A:P	2.33	0.49
11:S9:129:ILE:HA	11:S9:134:ILE:CG1	4.26	0.49
1:2:1537:C:N3	86:2:2155:OHX:N4	2.60	0.49
1:2:1543:A:H1'	1:2:1569:A:C2	2.47	0.49
1:2:399:A:H4'	6:S4:3:ARG:HG2	1.95	0.49
48:M1:34:SER:HA	48:M1:67:VAL:HG21	1.95	0.49
24:D2:37:PHE:CD2	24:D2:103:ILE:HD12	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:16:SER:HB3	53:M7:149:VAL:HG22	2.10	0.49
1:2:1371:A:O2'	1:2:1373:C:OP1	2.30	0.49
70:O4:65:VAL:HG22	70:O4:69:HIS:ND1	2.27	0.49
45:L8:81:THR:OG1	45:L8:181:LYS:HB2	3.33	0.49
71:O5:31:LEU:HD21	71:O5:43:LYS:HG3	4.98	0.49
33:E1:103:LEU:HD11	1:6:1252:C:H5'	454.58	0.49
71:O5:62:GLN:O	71:O5:66:VAL:HG23	2.12	0.49
36:1:3084:C:H2'	36:1:3085:G:O4'	2.13	0.49
25:D3:23:ARG:HD2	25:D3:29:TYR:CD1	6.02	0.49
15:C3:16:ILE:HD12	1:6:959:U:H4'	346.79	0.49
1:2:335:U:O2'	13:C1:129:ARG:HD2	2.12	0.49
1:2:1561:U:O2'	1:2:1562:G:H5'	2.12	0.49
1:2:40:A:H2'	1:2:41:A:O4'	2.13	0.49
1:6:591:A:H2'	1:6:592:A:C8	2.48	0.49
42:L5:14:SER:OG	37:7:68:C:OP1	299.52	0.49
18:C6:24:ALA:HB2	18:C6:92:TYR:OH	2.12	0.49
35:SM:23:LYS:HG3	35:SM:24:GLU:N	4.98	0.49
56:N0:132:THR:O	56:N0:133:ALA:HB3	2.18	0.49
36:1:1039:U:H2'	36:1:1040:A:C8	2.47	0.49
40:L3:291:GLU:O	40:L3:292:ALA:HB3	2.12	0.49
68:O2:11:LYS:O	68:O2:12:LYS:HB2	2.11	0.49
6:S4:57:ASN:HB2	6:S4:60:GLU:H	2.27	0.49
66:O0:41:LEU:HD23	66:O0:66:LYS:O	2.13	0.49
36:1:3242:G:H21	36:1:3245:A:H5''	1.78	0.49
1:6:199:G:HO2'	1:6:200:A:H8	1.61	0.49
36:1:2522:G:C6	39:L2:70:ARG:NH2	2.81	0.49
36:5:1552:G:H2'	36:5:1553:U:H5'	1.94	0.49
23:D1:40:ASP:OD1	23:D1:41:GLU:N	3.01	0.49
3:S1:97:LEU:HG	3:S1:232:HIS:CE1	2.47	0.49
22:D0:104:THR:HG22	22:D0:116:VAL:HG21	1.94	0.49
11:S9:170:GLY:O	11:S9:174:ARG:HG3	2.91	0.49
24:D2:66:ASN:OD1	24:D2:68:ARG:HG2	3.88	0.49
77:Q1:16:LYS:O	77:Q1:20:VAL:HG23	2.12	0.49
63:N7:4:PHE:O	63:N7:5:LEU:HB2	4.58	0.49
1:2:1570:A:H2'	1:2:1571:C:O4'	2.11	0.49
1:2:1498:G:O2'	1:2:1499:G:H5'	2.13	0.49
17:C5:24:LYS:O	17:C5:28:MET:HB2	2.13	0.49
40:L3:323:MET:HE2	40:L3:356:LEU:HD11	3.58	0.49
7:S5:84:LYS:HG2	7:S5:92:ARG:NH1	3.55	0.49
61:N5:115:ARG:HH11	61:N5:115:ARG:CG	2.37	0.49
7:S5:43:PHE:N	7:S5:46:TRP:O	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:O3:45:LEU:HA	69:O3:71:VAL:HG12	2.20	0.49
73:O7:28:HIS:CE1	73:O7:31:LYS:HE2	2.82	0.49
5:S3:117:ARG:NH1	35:SM:126:ASP:OD1	2.45	0.49
2:S0:122:ILE:HG23	2:S0:144:ILE:HB	2.85	0.49
1:6:276:C:O2'	1:6:277:U:O5'	2.29	0.49
58:N2:74:LYS:HE3	36:5:1677:G:N7	151.15	0.49
36:1:3268:A:OP1	43:L6:46:ARG:NH2	2.45	0.49
1:2:487:G:H3'	1:2:488:G:H5''	1.94	0.49
6:S4:173:ILE:HD11	6:S4:235:TYR:CD1	2.48	0.49
12:C0:32:HIS:CD2	12:C0:35:ILE:HB	2.44	0.49
15:C3:73:ARG:HD3	1:6:859:A:C6	329.90	0.49
59:N3:11:PHE:HB2	59:N3:88:ARG:NH1	2.76	0.49
78:Q2:33:ALA:HA	36:5:2767:U:OP1	184.18	0.49
27:D5:43:ASP:O	27:D5:45:GLU:N	2.45	0.49
34:SR:107:LYS:HB2	34:SR:128:ASP:HB2	2.88	0.49
36:1:3317:U:H4'	36:1:3318:G:O5'	2.13	0.49
36:5:1241:U:HO2'	36:5:1242:G:P	2.36	0.49
64:N8:16:SER:HA	36:5:942:U:C4	169.48	0.49
9:S7:162:ILE:HA	9:S7:165:LYS:HG3	1.95	0.49
26:D4:43:LYS:O	26:D4:47:VAL:HG23	2.12	0.49
36:1:2209:U:O2'	36:1:2210:G:OP1	2.24	0.49
36:5:2426:U:H2'	36:5:2427:U:C6	2.47	0.49
1:2:1385:G:N7	86:2:2133:OHX:N3	2.60	0.49
36:1:3278:C:H2'	36:1:3278:C:O2	2.13	0.49
1:2:209:U:H2'	1:2:210:A:C8	2.47	0.49
36:5:1604:G:H3'	36:5:1604:G:N3	2.27	0.49
34:SR:200:ASN:H	34:SR:215:GLY:HA2	1.77	0.49
36:1:979:U:C2	36:1:980:A:C4	3.00	0.49
36:1:1481:A:OP1	36:1:1481:A:O4'	2.30	0.49
36:5:3275:U:H1'	36:5:3276:G:OP1	2.12	0.49
36:5:3276:G:N3	36:5:3276:G:O5'	2.45	0.49
44:L7:24:GLU:O	44:L7:26:VAL:N	2.44	0.49
7:S5:53:VAL:HB	7:S5:59:VAL:HG23	1.95	0.49
62:N6:35:LEU:HD23	62:N6:106:ILE:HD12	1.95	0.49
8:S6:27:PHE:O	8:S6:30:LYS:HG2	2.12	0.49
36:5:1152:G:H22	36:5:1200:A:N6	2.06	0.49
9:S7:96:ARG:NH2	9:S7:128:ASP:OD2	2.87	0.49
25:D3:48:HIS:CD2	25:D3:105:ALA:HB2	2.48	0.49
3:S1:48:VAL:HG11	3:S1:57:ALA:HB1	1.94	0.49
1:2:140:A:H61	1:2:281:G:P	2.32	0.49
44:L7:27:ALA:O	44:L7:31:ALA:N	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:15:ILE:HD11	21:C9:63:ARG:HD3	4.78	0.49
36:1:436:A:OP2	86:1:4183:OHX:N6	2.45	0.49
45:L8:26:LEU:HD13	63:N7:53:VAL:HG11	1.93	0.49
86:2:2045:OHX:N2	86:2:2099:OHX:N6	2.60	0.49
1:2:491:C:N3	1:2:496:G:N2	2.44	0.49
64:N8:77:LYS:HB3	64:N8:80:THR:OG1	2.13	0.49
5:S3:162:GLN:O	5:S3:165:ASN:N	2.66	0.49
58:N2:30:PRO:HA	58:N2:33:TYR:HB3	1.94	0.49
47:M0:57:LEU:HB2	47:M0:131:ILE:HG13	3.49	0.49
36:1:598:A:OP1	44:L7:41:ARG:NH1	2.45	0.49
1:6:872:G:H2'	1:6:873:U:O4'	2.12	0.49
1:6:1003:A:H1'	1:6:1005:A:N7	2.26	0.49
86:5:4127:OHX:N4	86:5:4145:OHX:N1	2.60	0.49
36:5:3255:U:H2'	36:5:3256:G:C8	2.47	0.49
6:S4:92:LEU:HD22	26:D4:17:LEU:HD11	5.18	0.49
1:2:858:G:H4'	9:S7:113:PRO:HG3	1.93	0.49
46:L9:61:GLY:O	46:L9:65:VAL:HG23	3.36	0.49
36:1:2111:G:C8	60:N4:49:ILE:HD13	2.48	0.49
18:C6:59:LYS:HG2	18:C6:89:LEU:HD21	1.95	0.49
1:2:1776:A:H2'	1:2:1777:G:C8	2.48	0.49
1:2:699:U:H2'	1:2:700:C:C6	2.47	0.49
48:M1:116:TYR:O	48:M1:117:ASP:HB3	2.16	0.49
58:N2:51:GLY:O	58:N2:52:ASN:ND2	2.37	0.49
43:L6:59:GLU:HA	43:L6:59:GLU:OE1	2.12	0.49
41:L4:302:ALA:HB2	54:M8:39:ARG:NH1	2.44	0.49
36:1:1555:U:H5	36:1:1559:A:H61	1.59	0.49
36:1:1581:C:H2'	36:1:1582:C:C5'	2.43	0.49
18:C6:47:LYS:HZ1	18:C6:114:ARG:HG2	1.78	0.49
86:5:4189:OHX:N1	86:5:4191:OHX:N4	2.60	0.49
10:S8:8:ARG:HH21	10:S8:22:ARG:NH1	9.57	0.49
7:S5:61:TYR:OH	30:D8:52:ASP:OD1	2.31	0.49
36:1:1471:U:H2'	36:1:1472:U:C6	2.47	0.49
69:O3:85:PHE:CZ	69:O3:89:LEU:HD11	2.48	0.49
18:C6:123:ARG:HG3	18:C6:124:PRO:HD2	1.93	0.49
25:D3:27:ASN:O	25:D3:31:LYS:HG2	2.13	0.49
73:O7:55:ARG:HD3	36:5:353:G:N7	107.43	0.49
22:D0:103:ILE:HD13	22:D0:107:THR:HG21	1.94	0.49
1:2:1726:G:O6	86:2:2099:OHX:N1	2.46	0.49
1:2:16:G:H2'	1:2:17:C:C6	2.48	0.49
19:C7:50:ILE:O	19:C7:54:THR:HG22	2.12	0.49
1:2:1158:C:OP2	86:2:2173:OHX:N5	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:14:ILE:HA	20:C8:22:VAL:O	2.13	0.49
20:C8:3:LEU:HD23	20:C8:5:VAL:HG23	4.71	0.49
86:1:4050:OHX:N6	86:1:4159:OHX:N5	2.61	0.49
1:2:131:C:O2'	1:2:132:U:OP1	2.31	0.49
1:2:545:A:H4'	1:2:546:U:OP1	2.11	0.49
1:2:967:A:OP2	15:C3:124:ARG:NH2	2.43	0.49
36:1:1785:U:H2'	36:1:1786:G:C8	2.48	0.49
62:N6:42:GLN:O	71:O5:68:GLN:HG2	52.53	0.49
40:L3:173:GLN:O	40:L3:173:GLN:HG3	2.12	0.49
36:1:2909:U:O2'	36:1:3105:U:O2	2.19	0.49
36:1:1456:A:N7	67:O1:26:LYS:HE2	2.27	0.49
36:5:374:A:N3	36:5:376:G:H5''	2.28	0.49
56:N0:67:ALA:O	56:N0:69:PRO:HD3	2.60	0.49
42:L5:191:ASP:OD2	42:L5:193:GLU:HB2	3.32	0.49
52:M6:19:LEU:O	52:M6:23:VAL:HG23	2.13	0.49
41:L4:144:LYS:H	41:L4:144:LYS:NZ	7.00	0.49
36:1:1127:G:O5'	36:1:1127:G:H8	1.96	0.49
61:N5:137:ASN:OD1	61:N5:137:ASN:N	2.43	0.49
31:D9:6:VAL:HG23	31:D9:7:TRP:CE3	2.91	0.49
62:N6:11:ASP:HB3	62:N6:14:LYS:HG3	2.08	0.49
78:Q2:77:CYS:O	78:Q2:78:LYS:HD3	2.41	0.49
69:O3:59:VAL:HG23	69:O3:60:ARG:N	2.99	0.49
18:C6:82:ARG:NH2	18:C6:114:ARG:HB2	2.16	0.49
7:S5:73:THR:HG22	7:S5:74:ALA:N	2.91	0.49
3:S1:180:THR:H	3:S1:183:GLN:CB	5.86	0.49
2:S0:179:ARG:O	2:S0:183:ARG:HD3	2.64	0.49
5:S3:142:LEU:H	5:S3:142:LEU:HD22	2.93	0.49
1:6:862:A:C2	1:6:963:A:C4	3.01	0.49
1:6:235:G:H2'	1:6:236:A:H8	1.78	0.49
35:SM:83:LYS:HG2	35:SM:84:LYS:H	4.70	0.49
36:5:1940:G:N2	36:5:3362:A:H8	2.10	0.49
42:L5:111:GLN:HA	42:L5:116:ASP:CB	2.43	0.49
33:E1:143:LYS:HA	1:6:1253:U:H4'	449.24	0.49
40:L3:19:ARG:HB3	40:L3:232:ARG:HH12	1.78	0.49
1:6:1097:U:H4'	1:6:1098:U:O5'	2.13	0.49
40:L3:53:MET:HE1	36:5:3048:A:C5'	233.29	0.49
42:L5:187:THR:O	42:L5:189:GLU:N	2.46	0.49
21:C9:57:ARG:HH22	21:C9:80:TYR:HB3	2.52	0.49
25:D3:116:ASP:O	25:D3:118:PRO:HD3	2.13	0.49
36:1:509:U:O4	86:1:4004:OHX:N5	2.46	0.49
2:S0:48:ILE:HG21	2:S0:161:PRO:HB2	2.63	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:481:A:H2'	1:2:482:U:O4'	2.13	0.49
36:5:2180:G:H2'	36:5:2181:C:C6	2.48	0.49
36:5:173:G:HO2'	36:5:174:C:C5'	2.25	0.49
38:8:104:A:C8	38:8:105:A:C8	3.01	0.49
63:N7:90:GLU:O	63:N7:93:LYS:HB2	2.71	0.49
1:2:1000:C:N4	1:2:1003:A:OP2	2.39	0.49
38:4:81:U:C2	38:4:82:U:C5	3.01	0.49
36:1:2880:U:O2	40:L3:250:ALA:HB3	2.12	0.49
67:O1:36:ILE:O	67:O1:39:PHE:HB3	2.13	0.49
1:2:329:G:H2'	1:2:330:G:H8	1.78	0.49
36:1:1033:U:H2'	36:1:1034:U:C6	2.48	0.49
25:D3:13:ARG:O	25:D3:17:VAL:HG23	2.12	0.49
40:L3:339:ARG:HG2	40:L3:340:LYS:O	2.13	0.49
36:1:3085:G:H5''	36:1:3086:A:OP1	2.13	0.49
20:C8:6:GLN:O	20:C8:7:GLU:HB2	2.43	0.49
38:4:91:C:H2'	38:4:92:A:H8	1.77	0.49
36:5:1584:U:H2'	36:5:1585:C:H6	1.77	0.49
5:S3:11:LEU:HD12	22:D0:86:ILE:HG12	1.94	0.49
8:S6:213:ALA:O	8:S6:217:SER:OG	2.56	0.49
71:O5:54:VAL:O	71:O5:58:ILE:HG13	2.61	0.49
1:2:1752:U:OP2	86:2:2059:OHX:N2	2.46	0.49
4:S2:49:LYS:HD2	4:S2:243:TYR:CE1	2.94	0.49
36:5:3094:A:H2'	36:5:3095:U:C6	2.47	0.49
36:5:578:A:H5''	36:5:579:G:O5'	2.13	0.49
43:L6:93:VAL:HG13	43:L6:93:VAL:O	2.12	0.49
36:1:1391:C:C2	68:O2:103:LYS:HD3	2.48	0.49
36:1:564:G:H2'	36:1:565:U:C6	2.48	0.49
2:S0:185:ARG:HG3	23:D1:45:ALA:O	2.13	0.49
15:C3:21:ASN:HA	15:C3:65:VAL:HG13	1.95	0.49
7:S5:222:LYS:HG3	7:S5:225:ARG:CZ	2.43	0.49
10:S8:141:ARG:NH2	1:6:196:G:N7	280.63	0.49
9:S7:134:GLU:OE1	15:C3:22:ALA:HB2	3.22	0.49
9:S7:122:HIS:CD2	9:S7:179:LYS:HE3	5.55	0.49
1:2:1288:G:H4'	4:S2:91:ARG:NH1	2.28	0.49
25:D3:130:VAL:HG23	25:D3:130:VAL:O	4.04	0.49
44:L7:150:LYS:HE2	44:L7:151:ARG:NH1	2.87	0.49
14:C2:123:VAL:CG1	14:C2:126:TRP:HB3	2.43	0.49
14:C2:124:LYS:O	14:C2:126:TRP:N	2.46	0.49
9:S7:9:LEU:O	9:S7:9:LEU:HD23	2.13	0.49
42:L5:270:LYS:HD2	42:L5:272:TYR:HB2	8.94	0.49
1:2:219:A:H5'	1:2:831:U:O2'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:169:THR:HG22	40:L3:171:LEU:H	1.77	0.49
36:5:148:G:O2'	36:5:149:U:OP2	2.30	0.49
36:1:1429:G:C6	41:L4:99:MET:HE1	2.46	0.49
34:SR:102:ARG:NH2	1:6:1341:A:O2'	458.64	0.49
36:5:510:G:O6	86:5:4021:OHX:N2	2.46	0.49
40:L3:119:TYR:HE2	40:L3:129:ALA:HB2	2.72	0.49
36:1:1098:A:OP2	57:N1:129:LYS:HA	2.13	0.49
36:5:1813:A:O2'	36:5:1816:A:N3	2.37	0.49
64:N8:42:ARG:HH21	36:5:2799:A:H1'	192.70	0.49
19:C7:71:PHE:CD1	19:C7:73:LEU:HB3	2.47	0.49
36:5:1754:G:OP1	86:5:4074:OHX:N1	2.46	0.49
36:1:2585:G:N3	38:4:151:C:H5	2.11	0.49
64:N8:88:ASP:HB3	64:N8:92:LYS:HE3	1.94	0.49
1:2:1194:A:OP2	22:D0:75:GLY:N	2.46	0.49
1:2:52:U:H2'	1:2:53:G:H8	1.78	0.49
39:L2:181:LYS:HB2	36:5:860:G:C5	211.67	0.49
1:2:827:C:H2'	1:2:828:U:O4'	2.13	0.49
49:M3:144:THR:C	49:M3:146:PRO:HD3	2.80	0.49
12:C0:10:LYS:NZ	12:C0:36:ASP:O	3.06	0.49
1:2:919:A:H2'	1:2:920:U:C6	2.48	0.49
36:1:955:U:H2'	36:1:956:U:C6	2.48	0.49
55:M9:40:ALA:O	55:M9:44:LEU:HG	4.89	0.49
40:L3:332:ARG:HH22	36:5:3304:U:P	206.12	0.49
36:1:2943:G:H2'	36:1:2944:U:O4'	2.13	0.49
47:M0:205:SER:O	47:M0:209:ASN:HB2	2.13	0.49
36:5:1643:A:H4'	36:5:1822:C:H5'	1.95	0.49
1:6:1174:C:H2'	1:6:1175:U:O4'	2.12	0.49
36:5:1659:U:H2'	36:5:1660:C:C6	2.48	0.49
1:2:1511:U:H2'	1:2:1512:G:C8	2.48	0.49
4:S2:101:VAL:HG22	4:S2:115:ILE:HG12	1.94	0.49
49:M3:107:GLU:OE1	72:O6:18:THR:HG23	2.13	0.49
41:L4:207:VAL:HB	41:L4:227:THR:HG22	2.32	0.49
60:N4:50:ALA:HA	60:N4:55:PHE:CG	2.48	0.49
1:2:558:U:HO2'	1:2:559:C:P	2.36	0.49
10:S8:182:TYR:OH	10:S8:188:GLU:OE1	2.24	0.48
32:E0:28:LYS:HE2	1:6:542:A:H61	430.70	0.48
36:1:1491:A:OP2	75:O9:2:ALA:N	2.46	0.48
22:D0:22:ILE:CG2	22:D0:93:LEU:HB2	2.43	0.48
10:S8:61:GLU:OE2	10:S8:77:ARG:NH1	9.31	0.48
4:S2:161:LYS:HE3	4:S2:164:SER:H	5.80	0.48
14:C2:44:GLY:O	14:C2:46:ARG:N	3.07	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:O8:28:ASN:HB2	74:O8:40:GLN:HB3	1.95	0.48
69:O3:49:ILE:HD11	69:O3:71:VAL:HG23	1.94	0.48
7:S5:37:GLN:HG2	18:C6:53:LEU:HD13	2.14	0.48
14:C2:45:LEU:O	14:C2:49:THR:HG23	2.34	0.48
86:5:4021:OHX:N4	86:5:4217:OHX:N3	2.61	0.48
36:1:1027:A:H2'	36:1:1029:G:H5''	1.95	0.48
5:S3:113:LEU:HD11	5:S3:117:ARG:HH11	4.53	0.48
41:L4:271:LYS:HB2	41:L4:274:TYR:CB	2.46	0.48
40:L3:238:LEU:HD22	40:L3:246:LEU:O	2.13	0.48
20:C8:52:VAL:HG13	20:C8:61:LEU:HD21	3.16	0.48
49:M3:168:ARG:O	49:M3:172:LEU:HG	2.48	0.48
1:2:717:C:N4	1:2:720:G:H22	2.09	0.48
19:C7:109:LEU:O	19:C7:113:LEU:HB2	5.54	0.48
36:5:245:U:H2'	36:5:246:U:O4'	2.13	0.48
40:L3:227:GLU:HG2	40:L3:270:ARG:HD3	1.95	0.48
36:1:884:A:P	73:O7:5:THR:HG22	2.53	0.48
45:L8:38:GLN:HB2	36:5:2557:A:H2	207.29	0.48
45:L8:73:PRO:HA	45:L8:76:ALA:HB3	1.95	0.48
6:S4:141:THR:OG1	6:S4:145:ARG:HB2	2.40	0.48
35:SM:25:ILE:HG12	37:7:39:C:H5'	290.08	0.48
19:C7:34:LEU:HD22	19:C7:38:ILE:HD13	5.19	0.48
1:2:1428:G:H5'	1:2:1428:G:C8	2.48	0.48
3:S1:134:VAL:HB	3:S1:219:LYS:HB2	1.94	0.48
1:2:108:A:H2'	1:2:109:G:C8	2.47	0.48
1:2:986:G:H2'	1:2:987:G:O4'	2.13	0.48
1:2:1067:C:H2'	1:2:1068:C:H6	1.77	0.48
20:C8:93:THR:OG1	20:C8:94:ASP:N	2.46	0.48
34:SR:93:ASP:HB2	34:SR:100:TYR:HE1	1.78	0.48
1:2:982:U:O5'	86:2:2136:OHX:N1	2.46	0.48
3:S1:83:LYS:HB2	3:S1:104:ASP:HB3	1.94	0.48
78:Q2:89:LYS:HB2	36:5:2653:C:OP1	236.18	0.48
1:6:1413:U:H4'	1:6:1414:U:OP2	2.13	0.48
9:S7:158:ASP:O	9:S7:161:GLN:HG3	2.13	0.48
31:D9:5:ASN:OD1	31:D9:7:TRP:NE1	2.45	0.48
49:M3:105:ASN:OD1	49:M3:107:GLU:HG2	2.68	0.48
45:L8:103:ALA:O	45:L8:107:GLU:HB2	2.13	0.48
36:1:1761:C:O2'	36:1:1762:C:H5''	2.13	0.48
1:6:1691:A:H2'	1:6:1692:G:C8	2.48	0.48
53:M7:38:GLY:H	53:M7:114:VAL:HG22	1.77	0.48
50:M4:77:ARG:O	50:M4:81:VAL:HG23	2.12	0.48
1:2:1646:C:H2'	1:2:1647:U:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:153:LYS:HD3	40:L3:154:TYR:CE2	2.48	0.48
36:5:3276:G:H4'	36:5:3277:U:OP1	2.13	0.48
64:N8:20:GLY:HA2	36:5:1369:A:O3'	180.55	0.48
3:S1:131:ASP:O	3:S1:133:TYR:N	2.36	0.48
1:2:990:C:H2'	1:2:991:G:O4'	2.12	0.48
1:6:577:G:N1	86:6:2162:OHX:N4	2.61	0.48
20:C8:141:THR:C	20:C8:143:ARG:H	4.15	0.48
86:1:4016:OHX:N6	86:1:4052:OHX:N2	2.60	0.48
1:2:1483:A:C2	1:2:1607:G:H1'	2.47	0.48
25:D3:126:LYS:HB3	25:D3:131:SER:H	2.65	0.48
46:L9:55:VAL:HB	46:L9:68:LEU:CD2	2.83	0.48
1:2:218:A:N6	1:2:844:A:H1'	2.27	0.48
40:L3:169:THR:CG2	40:L3:171:LEU:H	2.33	0.48
1:6:1227:A:H4'	1:6:1228:G:H5'	1.94	0.48
54:M8:150:VAL:HA	54:M8:153:PHE:CD1	2.48	0.48
45:L8:109:LEU:O	45:L8:112:GLU:HG2	2.13	0.48
34:SR:205:SER:C	34:SR:207:ASP:H	2.77	0.48
36:1:2546:C:H2'	36:1:2547:A:O4'	2.13	0.48
21:C9:49:ASP:CB	21:C9:53:TRP:HB3	2.43	0.48
41:L4:179:LEU:HD22	41:L4:183:LYS:HG2	1.95	0.48
1:6:825:U:O2'	1:6:826:U:H6	1.95	0.48
36:5:2433:U:OP1	86:5:4246:OHX:N1	2.46	0.48
47:M0:56:GLU:HG3	47:M0:161:GLY:C	4.02	0.48
36:5:1716:U:O2'	36:5:1717:U:O5'	2.25	0.48
34:SR:274:LEU:HD22	34:SR:313:TRP:CD1	3.49	0.48
36:1:241:G:O2'	36:1:242:C:H5'	2.13	0.48
1:2:924:A:O2'	1:2:987:G:OP1	2.31	0.48
36:1:3289:G:N7	86:1:4127:OHX:N4	2.61	0.48
31:D9:24:CYS:O	31:D9:25:SER:HB2	2.13	0.48
5:S3:42:THR:OG1	5:S3:45:LYS:O	3.01	0.48
5:S3:92:GLN:CD	5:S3:92:GLN:H	2.16	0.48
1:2:595:G:H2'	1:2:596:C:C6	2.48	0.48
42:L5:119:TYR:CZ	42:L5:135:VAL:HG12	2.47	0.48
2:S0:93:THR:HG21	2:S0:181:VAL:HG21	1.95	0.48
43:L6:3:ALA:HB2	68:O2:77:ALA:HB2	2.04	0.48
44:L7:33:ARG:O	44:L7:36:ALA:N	2.46	0.48
1:2:206:A:OP1	6:S4:133:LYS:NZ	2.47	0.48
34:SR:74:THR:HG21	34:SR:79:TYR:HD2	1.78	0.48
1:2:1682:U:O2'	1:2:1683:C:H5'	2.12	0.48
36:1:2296:A:H2	36:1:2918:G:N3	2.12	0.48
34:SR:240:VAL:HG22	34:SR:256:THR:HG22	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:829:A:H4'	1:6:829:A:OP1	2.12	0.48
1:6:558:U:O2	1:6:558:U:H2'	2.14	0.48
36:1:114:A:OP1	51:M5:54:LYS:NZ	2.46	0.48
1:6:946:U:H2'	1:6:947:U:C6	2.48	0.48
36:5:220:G:O2'	36:5:221:A:H5''	2.13	0.48
37:7:3:U:H2'	37:7:4:U:C6	2.48	0.48
79:Q3:28:LYS:HE2	1:6:983:A:H1'	246.64	0.48
59:N3:87:ARG:HH22	59:N3:137:VAL:HG21	1.99	0.48
73:O7:45:ARG:NH2	36:5:361:A:O3'	122.79	0.48
4:S2:69:ILE:HD11	4:S2:133:LYS:CG	2.43	0.48
1:2:1550:A:OP1	17:C5:42:ARG:NH2	2.45	0.48
86:1:3950:OHX:N4	86:1:4033:OHX:N5	2.61	0.48
66:O0:12:GLN:O	66:O0:15:ALA:HB3	2.14	0.48
7:S5:89:ILE:HD12	7:S5:90:ILE:N	2.91	0.48
24:D2:30:SER:OG	24:D2:31:SER:N	2.46	0.48
16:C4:122:PRO:C	16:C4:124:ASP:N	2.67	0.48
41:L4:232:SER:HA	36:5:694:C:O2'	95.49	0.48
63:N7:46:ILE:HG12	63:N7:49:TYR:CE1	2.76	0.48
1:6:1390:U:HO2'	1:6:1391:A:H8	1.59	0.48
66:O0:77:LEU:O	66:O0:81:VAL:HG22	2.42	0.48
26:D4:36:SER:O	26:D4:40:LEU:HG	2.14	0.48
16:C4:133:ARG:NH1	16:C4:133:ARG:HG2	3.21	0.48
73:O7:2:GLY:N	36:5:2138:A:HO2'	173.54	0.48
3:S1:117:TRP:HE1	3:S1:152:ARG:NH2	2.12	0.48
12:C0:4:PRO:HG2	12:C0:7:ASP:OD1	2.12	0.48
24:D2:55:ASP:C	24:D2:57:ARG:H	2.16	0.48
17:C5:33:PHE:O	17:C5:36:LEU:HD22	4.34	0.48
36:1:945:C:H2'	36:1:946:U:C6	2.48	0.48
36:5:2746:A:H2'	36:5:2747:A:O4'	2.12	0.48
11:S9:143:ILE:HD13	1:6:767:U:C5	421.60	0.48
1:6:1045:C:C2	1:6:1074:G:C2	3.01	0.48
1:2:1110:G:N7	86:2:2070:OHX:N3	2.60	0.48
38:4:87:G:O2'	38:4:88:A:OP2	2.28	0.48
36:1:352:A:H61	36:1:365:A:H5''	1.78	0.48
52:M6:157:GLU:O	52:M6:161:LYS:HG3	3.79	0.48
1:6:542:A:C8	1:6:543:C:H5'	2.48	0.48
32:E0:37:ARG:O	32:E0:41:THR:OG1	2.65	0.48
36:5:1759:C:N3	36:5:1760:A:C8	2.81	0.48
10:S8:48:THR:HG21	10:S8:54:LYS:HG3	1.94	0.48
1:2:915:A:H5''	1:2:916:U:H5	1.78	0.48
42:L5:120:LYS:O	42:L5:248:ARG:NH2	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:744:A:OP1	54:M8:66:ARG:NH2	2.46	0.48
20:C8:30:TYR:HE2	20:C8:40:ARG:HD2	2.26	0.48
1:2:1600:A:HO2'	1:2:1602:C:H5	1.61	0.48
68:O2:101:SER:O	68:O2:105:ARG:HG3	2.28	0.48
1:2:396:G:H22	1:2:399:A:H5'	1.78	0.48
6:S4:114:ILE:HB	6:S4:118:GLU:HG2	4.36	0.48
36:1:1485:G:N2	70:O4:4:ARG:HD2	2.28	0.48
36:1:439:C:HO2'	36:1:619:A:H2	1.61	0.48
63:N7:22:LYS:NZ	63:N7:129:TRP:O	2.45	0.48
51:M5:112:ASN:OD1	38:8:141:C:H1'	104.31	0.48
63:N7:46:ILE:HD11	63:N7:49:TYR:N	2.28	0.48
53:M7:141:SER:O	53:M7:143:PRO:HD3	2.38	0.48
17:C5:77:ARG:HH12	1:6:1241:G:P	382.81	0.48
1:2:901:G:C6	1:2:902:G:C6	3.02	0.48
14:C2:74:LEU:HD11	33:E1:106:TYR:HB3	3.48	0.48
33:E1:106:TYR:CZ	33:E1:131:PHE:HZ	2.94	0.48
37:3:71:G:H2'	37:3:72:A:C8	2.48	0.48
36:5:734:C:H2'	36:5:735:A:O4'	2.12	0.48
45:L8:134:TYR:CD2	45:L8:190:VAL:HG11	4.54	0.48
36:5:3288:G:O2'	36:5:3289:G:OP2	2.29	0.48
7:S5:186:ASN:ND2	7:S5:188:LYS:H	3.63	0.48
49:M3:16:LYS:NZ	36:5:98:G:OP1	133.02	0.48
15:C3:132:VAL:HG23	15:C3:134:VAL:HG13	2.01	0.48
9:S7:162:ILE:HB	9:S7:169:PHE:CE2	2.48	0.48
9:S7:126:LEU:HD22	9:S7:126:LEU:H	1.78	0.48
88:1:4209:3J2:H17	88:1:4209:3J2:O6	2.13	0.48
1:6:1413:U:O2	86:6:2089:OHX:N6	2.45	0.48
52:M6:60:LYS:HE2	36:5:1307:G:O5'	251.00	0.48
1:6:841:U:H2'	1:6:842:C:O4'	2.13	0.48
74:O8:59:ALA:O	74:O8:62:ALA:HB3	2.63	0.48
36:5:926:A:H2'	36:5:927:C:C6	2.48	0.48
36:1:1532:C:H2'	36:1:1533:U:C6	2.48	0.48
1:6:5:U:O2'	1:6:553:G:O2'	2.12	0.48
10:S8:186:GLY:O	10:S8:189:LEU:N	3.40	0.48
36:1:384:A:OP1	36:1:384:A:H8	1.97	0.48
49:M3:174:ARG:CZ	72:O6:9:ILE:HD13	2.44	0.48
48:M1:16:LYS:HB2	48:M1:72:ARG:HG2	1.94	0.48
40:L3:298:PHE:CD2	40:L3:357:LYS:HG2	2.49	0.48
16:C4:114:ARG:HD2	28:D6:59:TYR:OH	3.91	0.48
4:S2:139:ILE:CD1	4:S2:191:ALA:HB1	2.44	0.48
48:M1:9:MET:O	48:M1:11:ASP:HB2	4.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:25:GLN:HG2	21:C9:27:LYS:H	1.79	0.48
19:C7:27:ASP:OD2	19:C7:30:THR:HG22	2.14	0.48
9:S7:96:ARG:HB3	1:6:856:A:N6	364.83	0.48
1:2:1230:A:H2'	1:2:1258:U:H5	1.78	0.48
36:1:2645:G:OP2	47:M0:117:GLY:HA2	2.14	0.48
44:L7:151:ARG:HD2	44:L7:244:ASN:OD1	3.46	0.48
46:L9:7:GLU:CD	46:L9:54:LYS:HE3	2.33	0.48
7:S5:44:ASN:O	7:S5:45:LYS:HE3	2.31	0.48
79:Q3:45:LYS:HG3	79:Q3:45:LYS:O	2.13	0.48
29:D7:36:LYS:HE3	29:D7:78:SER:OG	2.12	0.48
1:2:888:U:H1'	16:C4:126:THR:HG21	1.94	0.48
17:C5:90:ILE:HG23	17:C5:109:PRO:HD3	1.95	0.48
47:M0:76:MET:HE1	47:M0:138:VAL:HG11	2.44	0.48
36:5:1064:A:H4'	36:5:1065:A:O5'	2.14	0.48
63:N7:50:PRO:HD3	63:N7:68:ILE:HG12	2.28	0.48
86:1:4080:OHX:N2	86:1:4150:OHX:N4	2.61	0.48
45:L8:45:ASN:ND2	45:L8:47:SER:H	2.11	0.48
5:S3:64:ARG:O	5:S3:66:ILE:N	2.74	0.48
30:D8:9:LEU:HB2	30:D8:34:GLU:OE1	2.13	0.48
36:5:2952:G:H2'	36:5:2953:U:H6	1.76	0.48
36:1:1819:U:O4	86:1:4036:OHX:N4	2.46	0.48
36:1:342:A:N1	36:1:349:A:O2'	2.39	0.48
55:M9:103:ARG:HD2	55:M9:124:TYR:CE1	2.48	0.48
46:L9:94:TYR:CD2	46:L9:98:PRO:HA	2.84	0.48
1:2:1754:A:O2'	86:2:2059:OHX:N5	2.46	0.48
36:1:1482:A:H4'	36:1:1483:G:OP2	2.14	0.48
11:S9:51:LYS:HB3	11:S9:54:ARG:HH11	1.78	0.48
36:1:496:C:H2'	36:1:497:C:O4'	2.13	0.48
1:2:485:A:H2'	1:2:486:G:O4'	2.12	0.48
46:L9:79:ILE:O	46:L9:82:VAL:HG12	2.13	0.48
5:S3:41:VAL:HA	5:S3:46:THR:HG23	3.20	0.48
36:1:3031:G:O6	86:1:4069:OHX:N6	2.46	0.48
11:S9:148:VAL:HG11	11:S9:156:ILE:HD11	1.96	0.48
30:D8:50:GLU:O	30:D8:51:ASN:HB2	2.12	0.48
50:M4:108:ARG:NH2	52:M6:196:ALA:O	2.55	0.48
36:5:270:U:O2'	36:5:318:A:H1'	2.13	0.48
36:1:1295:G:OP1	56:N0:84:ARG:HG3	2.13	0.48
36:5:690:A:H4'	36:5:691:A:OP1	2.14	0.48
7:S5:116:HIS:O	7:S5:120:ILE:HG13	2.36	0.48
1:2:1789:G:C8	1:2:1789:G:H5''	2.43	0.48
52:M6:68:ARG:H	52:M6:68:ARG:HG2	1.56	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:185:ARG:HB2	23:D1:45:ALA:HB3	2.09	0.48
7:S5:225:ARG:NH2	30:D8:58:GLU:HB2	5.53	0.48
36:5:2572:C:O2'	36:5:2573:G:OP2	2.26	0.48
71:O5:78:LYS:HA	71:O5:81:ARG:HD3	2.97	0.48
1:2:191:C:O2'	1:2:192:U:O5'	2.29	0.48
1:2:1127:G:OP1	77:Q1:11:ARG:NH2	2.39	0.48
18:C6:66:ARG:HH21	18:C6:68:ARG:HG2	6.36	0.48
49:M3:32:LYS:O	49:M3:36:ARG:HG3	2.13	0.48
9:S7:42:GLN:HG2	9:S7:43:PHE:H	1.77	0.48
1:2:274:G:H3'	1:2:275:C:C6	2.49	0.48
34:SR:123:ILE:HD11	34:SR:156:VAL:HG23	2.47	0.48
41:L4:271:LYS:O	41:L4:273:GLY:N	2.94	0.48
8:S6:126:ASP:OD2	8:S6:127:THR:N	2.77	0.48
54:M8:181:SER:O	54:M8:182:LYS:HG2	2.71	0.48
57:N1:120:LYS:NZ	36:5:1092:C:O3'	245.78	0.48
55:M9:172:ARG:HD3	55:M9:176:ARG:HH21	6.83	0.48
40:L3:258:ALA:O	40:L3:259:HIS:CD2	2.81	0.48
7:S5:41:LYS:O	7:S5:67:PRO:HB2	2.14	0.48
36:5:1494:U:H4'	36:5:1495:U:O5'	2.12	0.48
38:4:55:U:O2	86:4:229:OHX:N5	2.47	0.48
36:5:1340:G:H2'	36:5:1341:U:C6	2.48	0.48
21:C9:6:VAL:HG13	21:C9:66:TYR:CZ	2.70	0.48
51:M5:53:TYR:O	51:M5:54:LYS:HD2	2.47	0.48
10:S8:184:LEU:HB3	10:S8:189:LEU:HD13	1.95	0.48
1:6:1:U:O2'	1:6:370:A:OP2	2.32	0.48
16:C4:72:LYS:O	16:C4:74:VAL:N	2.93	0.48
36:5:2106:A:H2'	36:5:2107:A:H8	1.79	0.48
47:M0:65:LEU:HD23	47:M0:159:PHE:CZ	2.97	0.48
1:2:138:A:H62	1:2:266:A:H61	1.60	0.48
3:S1:147:ALA:O	3:S1:148:ASN:HB3	2.14	0.48
40:L3:111:SER:OG	40:L3:113:GLU:HB2	2.14	0.48
49:M3:73:ARG:NH2	36:5:77:A:N7	79.84	0.48
60:N4:34:SER:HA	60:N4:37:ALA:HB3	1.95	0.48
36:5:371:G:O6	86:5:4205:OHX:N2	2.46	0.48
36:1:2405:C:O2	36:1:2819:A:N1	2.47	0.48
68:O2:89:THR:HG22	68:O2:117:ILE:HA	1.95	0.48
3:S1:180:THR:HG22	3:S1:181:LEU:N	2.28	0.48
1:6:542:A:H1'	1:6:543:C:OP1	2.14	0.48
1:2:158:U:O2'	1:2:160:C:OP2	2.16	0.48
11:S9:109:LEU:HD22	11:S9:113:VAL:HG23	1.96	0.48
8:S6:57:ASP:HA	8:S6:106:LEU:HA	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:124:ARG:HD3	46:L9:164:ILE:O	2.13	0.48
3:S1:63:GLY:HA2	3:S1:88:VAL:O	2.13	0.48
1:6:647:G:N2	1:6:687:G:N2	2.61	0.48
36:1:1835:A:C8	36:1:1835:A:H5'	2.43	0.48
44:L7:47:ARG:NH1	44:L7:183:ASP:OD2	2.45	0.48
40:L3:284:ARG:HB3	40:L3:323:MET:HB3	1.94	0.48
46:L9:70:THR:HB	36:5:3112:G:O2'	328.95	0.48
40:L3:150:ARG:HD2	36:5:3242:G:N7	250.92	0.48
36:5:2207:A:N6	36:5:2236:G:H1	2.12	0.48
58:N2:38:ILE:O	58:N2:50:LEU:HD11	2.92	0.48
14:C2:41:LEU:O	14:C2:43:ARG:HD2	2.14	0.48
1:2:582:U:C6	1:2:582:U:H5''	2.48	0.48
70:O4:22:VAL:HG21	70:O4:30:LEU:HD13	4.17	0.48
8:S6:20:ASP:N	8:S6:20:ASP:OD1	2.47	0.48
1:2:461:G:OP1	11:S9:2:PRO:HG2	2.13	0.48
36:1:2139:A:H62	73:O7:4:GLY:HA3	1.78	0.48
40:L3:250:ALA:HB1	36:5:2947:G:C2	219.62	0.48
86:6:2128:OHX:N5	86:6:2153:OHX:N3	2.61	0.48
61:N5:46:TYR:CD2	71:O5:75:TYR:HB3	2.48	0.48
1:6:221:A:C2'	1:6:222:A:H5'	2.44	0.48
21:C9:136:ALA:O	21:C9:140:LEU:HB2	4.30	0.48
17:C5:100:LYS:HB3	1:6:1183:A:C2	369.60	0.48
36:1:638:C:H2'	36:1:639:G:C8	2.49	0.48
10:S8:147:ALA:C	10:S8:149:SER:H	2.53	0.48
36:5:8:C:H2'	36:5:9:U:O4'	2.13	0.48
62:N6:12:ARG:HG2	36:5:215:G:OP1	87.31	0.48
24:D2:36:LYS:O	24:D2:40:VAL:HG23	2.14	0.48
36:5:408:A:N6	38:8:15:G:H1'	2.28	0.48
49:M3:89:TYR:CE1	49:M3:93:ILE:HG13	2.49	0.48
55:M9:38:ARG:HH21	36:5:1603:A:P	111.27	0.48
1:6:1208:A:N1	1:6:1455:G:N2	2.60	0.48
33:E1:86:THR:C	33:E1:87:THR:HG1	2.65	0.48
3:S1:106:THR:HA	16:C4:116:GLU:OE1	2.99	0.48
26:D4:116:LYS:NZ	1:6:159:U:O4	334.64	0.48
1:2:144:U:O2'	1:2:145:A:H8	1.97	0.48
72:O6:25:LYS:HB3	36:5:156:G:OP2	88.39	0.48
55:M9:105:LEU:HD21	55:M9:139:VAL:HG12	6.06	0.48
36:5:1260:A:O2'	36:5:1279:C:O2	2.30	0.48
2:S0:179:ARG:HD3	2:S0:183:ARG:NH1	2.29	0.48
5:S3:177:MET:HG3	5:S3:178:ARG:HG2	6.34	0.48
4:S2:230:TRP:NE1	24:D2:68:ARG:HB2	3.97	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3356:G:H2'	36:1:3357:U:O4'	2.14	0.48
7:S5:161:ASP:O	30:D8:44:VAL:HA	2.14	0.48
62:N6:45:ILE:HD12	62:N6:119:ILE:HG23	2.17	0.48
8:S6:98:ARG:NH1	8:S6:105:ASP:OD2	3.21	0.48
63:N7:5:LEU:HD13	63:N7:77:TYR:CZ	3.35	0.48
46:L9:161:LEU:O	46:L9:164:ILE:HG22	2.14	0.48
1:6:187:G:H8	1:6:187:G:O5'	1.96	0.48
20:C8:125:ILE:HD11	35:SM:57:ASN:HB3	1.97	0.48
41:L4:34:ILE:O	41:L4:38:VAL:HG23	2.14	0.48
53:M7:79:THR:HG22	53:M7:80:LYS:HG3	6.26	0.48
1:2:1232:U:H5	33:E1:97:LYS:HG2	1.79	0.48
46:L9:70:THR:HG22	36:5:3113:A:H1'	328.43	0.48
36:1:685:G:P	49:M3:35:ARG:HH11	2.36	0.48
9:S7:12:ALA:HB3	9:S7:13:PRO:HD3	1.95	0.48
9:S7:49:ILE:HD11	9:S7:172:VAL:HG22	2.20	0.48
69:O3:71:VAL:HG13	69:O3:81:VAL:HG13	1.96	0.48
25:D3:96:VAL:HG23	25:D3:97:ASP:N	2.29	0.48
36:5:3280:U:O2'	36:5:3281:U:H5''	2.14	0.48
63:N7:54:THR:HG23	63:N7:57:HIS:CE1	3.14	0.48
1:2:505:A:N3	1:2:505:A:H2'	2.28	0.48
1:2:381:C:H1'	1:2:756:A:C2	2.49	0.48
33:E1:144:CYS:SG	33:E1:147:VAL:HG22	2.53	0.48
36:5:1813:A:OP1	36:5:1817:G:H4'	2.14	0.48
41:L4:222:VAL:HG22	41:L4:225:VAL:HB	2.69	0.48
4:S2:125:ILE:O	4:S2:129:ILE:HG13	2.14	0.48
1:6:280:U:HO2'	1:6:281:G:P	2.35	0.48
29:D7:3:LEU:HA	29:D7:3:LEU:HD22	1.77	0.48
1:2:1761:U:O2'	1:2:1762:A:OP2	2.28	0.48
57:N1:120:LYS:O	57:N1:122:GLN:N	2.47	0.48
36:5:2947:G:H4'	36:5:2947:G:OP2	2.14	0.48
48:M1:77:GLU:OE2	48:M1:166:LYS:NZ	4.51	0.48
9:S7:101:LYS:HA	9:S7:112:ARG:CZ	2.81	0.48
5:S3:118:ALA:O	5:S3:122:VAL:HG23	4.00	0.48
36:1:2871:G:H5''	36:1:2872:A:H5'	1.95	0.48
28:D6:40:ALA:HB3	28:D6:69:ASN:HB3	3.79	0.48
16:C4:30:VAL:HG13	16:C4:39:ILE:O	2.13	0.48
36:1:1853:U:OP2	86:1:4029:OHX:N3	2.47	0.48
49:M3:166:ALA:N	64:N8:135:GLU:OE1	2.88	0.48
39:L2:103:PRO:O	39:L2:105:GLY:N	2.47	0.48
51:M5:179:LYS:O	36:5:287:G:H5'	123.73	0.48
12:C0:10:LYS:NZ	12:C0:36:ASP:HB3	3.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:5:4031:OHX:N3	86:5:4079:OHX:N6	2.62	0.48
34:SR:294:TRP:CZ3	34:SR:301:LEU:HB2	2.49	0.48
4:S2:186:LYS:HA	4:S2:189:GLN:OE1	4.27	0.48
53:M7:178:ALA:HA	53:M7:181:ARG:HD2	1.96	0.48
38:8:124:G:H1	38:8:129:C:H42	1.61	0.48
43:L6:47:PHE:O	43:L6:50:LYS:HB2	2.14	0.48
48:M1:108:GLU:HB2	48:M1:122:ILE:CG2	4.73	0.48
64:N8:111:LYS:HE2	64:N8:113:LEU:HD21	1.96	0.48
51:M5:110:ALA:HB1	51:M5:113:LEU:HD22	1.96	0.48
1:6:683:C:OP2	1:6:683:C:H6	1.96	0.48
16:C4:127:ARG:HD2	1:6:990:C:O2'	283.17	0.48
16:C4:20:TYR:CG	16:C4:84:ARG:HD3	3.73	0.48
7:S5:94:THR:CG2	7:S5:114:ILE:HG13	2.43	0.48
7:S5:71:ALA:HB1	7:S5:91:GLU:HA	1.95	0.48
1:2:337:G:H3'	13:C1:133:LYS:HB2	1.95	0.48
7:S5:59:VAL:HG12	7:S5:60:ASP:H	2.79	0.48
45:L8:141:ALA:HA	45:L8:144:GLU:HB2	2.75	0.48
1:2:197:A:N6	10:S8:138:ASN:OD1	2.36	0.48
42:L5:282:ARG:O	42:L5:285:ARG:HB2	2.80	0.48
51:M5:93:LYS:HG3	36:5:289:A:C2	146.31	0.48
42:L5:58:LYS:HG3	42:L5:93:THR:CG2	2.43	0.48
36:1:345:G:OP1	36:1:1429:G:N2	2.45	0.48
71:O5:85:THR:HG22	71:O5:88:LEU:N	2.42	0.48
34:SR:123:ILE:HG12	34:SR:169:ILE:HG21	2.56	0.48
6:S4:191:ARG:CZ	6:S4:245:LYS:HD3	3.33	0.48
70:O4:2:ALA:O	70:O4:4:ARG:HG3	2.14	0.48
24:D2:87:GLU:O	24:D2:90:THR:OG1	2.81	0.48
47:M0:36:LEU:HD21	47:M0:69:ARG:HD3	1.94	0.48
72:O6:58:ILE:HA	72:O6:61:ILE:HD12	1.96	0.48
19:C7:70:SER:HA	19:C7:74:GLN:NE2	4.84	0.48
86:1:4080:OHX:N5	86:1:4150:OHX:N1	2.62	0.48
20:C8:120:ARG:HD3	35:SM:61:ILE:HG21	4.55	0.48
36:1:1919:G:N7	86:1:4010:OHX:N5	2.62	0.48
40:L3:62:ARG:O	40:L3:68:HIS:HB2	2.68	0.48
38:4:52:A:H62	75:O9:27:ILE:HD13	1.78	0.48
30:D8:9:LEU:HD12	30:D8:34:GLU:OE2	2.14	0.48
42:L5:68:THR:HG22	42:L5:70:THR:N	2.29	0.48
27:D5:43:ASP:O	27:D5:46:LYS:N	2.24	0.48
46:L9:115:ARG:HG2	46:L9:123:ILE:HG23	1.96	0.48
86:1:4063:OHX:N5	86:1:4110:OHX:N6	2.61	0.48
64:N8:26:ARG:HB3	36:5:937:G:OP2	170.59	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2677:G:OP2	86:1:4043:OHX:N4	2.47	0.48
86:1:3974:OHX:N5	86:1:4151:OHX:N2	2.61	0.48
36:1:114:A:N1	36:1:266:A:O2'	2.45	0.48
1:2:768:C:H1'	11:S9:143:ILE:HG21	1.96	0.48
36:5:3188:G:C2	36:5:3205:G:N1	2.81	0.48
36:1:128:G:H2'	36:1:129:U:O4'	2.14	0.48
36:5:428:A:H2'	36:5:429:U:C6	2.48	0.48
36:1:1891:A:H61	36:1:2344:U:H3	1.62	0.48
36:1:2261:G:O2'	36:1:2263:C:N4	2.47	0.48
40:L3:89:VAL:HG22	40:L3:199:PHE:HZ	1.78	0.48
1:6:1628:U:H2'	1:6:1629:G:C8	2.49	0.48
62:N6:86:THR:HB	62:N6:95:VAL:O	2.46	0.48
18:C6:139:GLN:NE2	1:6:1465:C:OP1	351.94	0.48
51:M5:184:LYS:H	51:M5:186:GLY:H	1.60	0.48
23:D1:20:THR:OG1	23:D1:22:ARG:HD3	2.74	0.48
36:5:953:G:H2'	36:5:1117:G:H5''	1.95	0.48
1:6:1586:A:H2'	1:6:1587:A:O4'	2.14	0.48
49:M3:133:PRO:O	49:M3:135:ALA:N	3.79	0.48
1:2:286:C:H2'	1:2:287:G:H5'	1.95	0.48
86:6:2123:OHX:N4	86:6:2174:OHX:N1	2.61	0.48
18:C6:44:LEU:O	18:C6:47:LYS:HB2	2.21	0.48
1:6:542:A:H1'	1:6:543:C:C5'	2.34	0.48
16:C4:114:ARG:HA	28:D6:62:TYR:CE1	2.49	0.48
73:O7:21:ARG:HD2	73:O7:37:CYS:SG	2.62	0.48
4:S2:53:ILE:HB	4:S2:57:PHE:CE2	2.49	0.48
86:1:4016:OHX:N6	86:1:4052:OHX:N5	2.61	0.48
6:S4:45:ILE:HG13	6:S4:61:VAL:HG21	4.28	0.48
1:6:895:G:H2'	1:6:896:U:C6	2.48	0.48
1:2:896:U:H1'	16:C4:38:THR:HG21	1.94	0.48
12:C0:55:VAL:HA	12:C0:69:THR:HG23	1.96	0.48
33:E1:141:CYS:SG	33:E1:143:LYS:HB3	3.49	0.48
61:N5:105:VAL:CG1	61:N5:126:LEU:HD22	2.44	0.48
6:S4:104:ASP:HB2	6:S4:108:ARG:O	2.47	0.48
74:O8:40:GLN:HG3	74:O8:57:ASN:OD1	3.46	0.48
4:S2:116:LYS:HB2	4:S2:131:ILE:HD12	2.67	0.48
40:L3:77:THR:CG2	40:L3:327:CYS:HA	2.73	0.48
55:M9:8:LYS:HD3	55:M9:24:LEU:HD22	1.95	0.48
27:D5:82:HIS:O	27:D5:85:LYS:N	4.27	0.48
32:E0:50:VAL:O	32:E0:51:ASN:HB2	4.62	0.48
25:D3:70:LYS:HB3	25:D3:93:LEU:HD22	1.95	0.48
6:S4:100:ARG:NH2	6:S4:121:TYR:O	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:4:TYR:HE1	53:M7:16:SER:HB2	2.35	0.48
4:S2:206:THR:OG1	4:S2:209:ASN:HB2	3.94	0.48
36:1:3284:G:H2'	36:1:3285:C:C6	2.48	0.48
36:5:1804:A:H2'	36:5:1805:C:C6	2.49	0.48
63:N7:14:VAL:HG12	63:N7:79:HIS:HA	1.95	0.48
35:SM:61:ILE:HD12	35:SM:62:ARG:N	2.29	0.48
1:2:901:G:N2	16:C4:54:GLU:OE1	2.47	0.48
36:1:1266:G:N2	36:1:1276:U:H1'	2.28	0.48
1:6:1080:U:O2'	1:6:1081:A:H5'	2.13	0.48
68:O2:3:SER:HB3	68:O2:71:HIS:NE2	3.60	0.48
27:D5:56:THR:HB	27:D5:57:TYR:HD2	4.53	0.48
36:1:2723:U:H2'	36:1:2724:U:C6	2.49	0.48
36:1:1562:C:H2'	36:1:1563:C:C6	2.49	0.48
36:1:938:C:OP2	64:N8:26:ARG:NH1	2.45	0.48
57:N1:79:MET:HA	57:N1:84:TYR:HA	1.96	0.48
86:1:3974:OHX:N3	86:1:4151:OHX:N4	2.61	0.48
24:D2:88:LYS:NZ	1:6:371:G:O3'	372.14	0.48
1:2:180:A:H2'	1:2:181:A:O4'	2.13	0.48
40:L3:332:ARG:HH11	40:L3:332:ARG:HG2	1.78	0.48
51:M5:183:THR:O	51:M5:184:LYS:HB3	3.52	0.48
36:5:392:G:O6	86:5:4065:OHX:N3	2.47	0.48
1:2:1118:G:O6	86:2:2149:OHX:N1	2.47	0.48
1:6:249:U:H3'	1:6:250:C:C5'	2.44	0.48
53:M7:132:ALA:O	53:M7:133:HIS:HB2	2.64	0.48
1:6:449:C:H2'	1:6:450:U:H6	1.79	0.48
5:S3:147:ALA:N	1:6:1276:U:OP1	384.88	0.48
1:2:1031:U:H4'	1:2:1032:G:OP2	2.14	0.48
4:S2:156:THR:HG21	4:S2:224:PHE:CD1	2.86	0.48
36:1:1639:C:N4	70:O4:73:SER:HB2	2.28	0.47
18:C6:114:ARG:O	18:C6:115:THR:HG22	4.22	0.47
13:C1:99:ARG:HD3	25:D3:8:GLY:O	2.42	0.47
1:2:142:G:O5'	1:2:142:G:C8	2.66	0.47
2:S0:62:ARG:HH21	23:D1:39:VAL:HG22	1.79	0.47
51:M5:7:LEU:HB3	51:M5:46:ASP:CG	3.00	0.47
62:N6:52:ARG:HG2	62:N6:52:ARG:O	2.13	0.47
56:N0:91:TYR:OH	56:N0:93:GLU:OE2	2.23	0.47
1:2:1153:G:OP1	28:D6:85:ARG:NH1	2.47	0.47
6:S4:9:LEU:HD22	6:S4:10:LYS:O	2.14	0.47
1:6:792:U:OP1	86:6:2197:OHX:N4	2.46	0.47
36:1:2718:U:H2'	36:1:2719:U:C6	2.49	0.47
55:M9:7:GLN:H	55:M9:7:GLN:CD	2.85	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:45:LYS:HD3	7:S5:45:LYS:HA	1.46	0.47
9:S7:91:ILE:HG12	9:S7:129:LEU:HA	2.97	0.47
1:2:275:C:H2'	1:2:276:C:C5	2.48	0.47
45:L8:151:VAL:HG13	45:L8:199:ALA:HB2	2.91	0.47
86:1:4000:OHX:N6	86:1:4168:OHX:N2	2.62	0.47
22:D0:41:ILE:HD11	22:D0:107:THR:HB	1.96	0.47
1:2:495:C:H3'	1:2:496:G:O4'	2.14	0.47
5:S3:66:ILE:HA	5:S3:69:LEU:HB2	1.96	0.47
36:1:1097:G:H8	57:N1:128:LEU:HD13	1.79	0.47
5:S3:162:GLN:NE2	5:S3:165:ASN:HB2	2.28	0.47
36:1:1019:G:N1	36:1:1034:U:O2	2.47	0.47
86:5:4032:OHX:N1	86:5:4117:OHX:N3	2.61	0.47
39:L2:172:GLY:HA3	79:Q3:67:GLY:HA2	4.16	0.47
49:M3:119:TYR:O	49:M3:123:ILE:HG23	2.14	0.47
86:5:4203:OHX:N2	86:8:227:OHX:N5	2.62	0.47
1:2:867:G:OP1	15:C3:3:ARG:NH1	2.47	0.47
22:D0:43:LYS:HD3	22:D0:47:GLN:HB2	5.63	0.47
36:1:994:G:O6	86:1:4082:OHX:N2	2.47	0.47
64:N8:128:ARG:O	64:N8:129:PHE:CG	3.07	0.47
36:5:938:C:OP1	36:5:963:G:H5'	2.14	0.47
1:2:1548:G:OP1	17:C5:18:ARG:NH1	2.47	0.47
36:1:2998:U:O4	86:1:4105:OHX:N1	2.46	0.47
40:L3:205:VAL:O	40:L3:208:VAL:HG23	2.87	0.47
4:S2:38:VAL:HG13	4:S2:39:THR:HG23	1.96	0.47
36:5:920:A:OP1	36:5:922:U:H5	1.96	0.47
36:5:1584:U:H2'	36:5:1585:C:C6	2.49	0.47
36:1:2260:U:H2'	36:1:2261:G:O4'	2.14	0.47
73:O7:16:HIS:HA	73:O7:27:PHE:O	2.32	0.47
5:S3:133:GLY:HA3	5:S3:156:PHE:O	2.14	0.47
54:M8:57:ILE:C	54:M8:59:ARG:H	2.17	0.47
36:1:3377:G:O6	86:1:4031:OHX:N1	2.47	0.47
36:5:2562:A:N6	36:5:2579:G:O2'	2.43	0.47
36:5:274:G:H2'	36:5:275:U:O4'	2.13	0.47
67:O1:41:LYS:NZ	67:O1:47:ASP:OD1	3.70	0.47
36:5:2985:C:H2'	36:5:2986:U:O4'	2.14	0.47
1:2:341:A:H2'	1:2:342:C:C6	2.49	0.47
50:M4:60:LEU:HD13	56:N0:152:LEU:HD11	1.95	0.47
40:L3:344:THR:O	40:L3:344:THR:OG1	2.31	0.47
74:O8:10:GLN:HG2	74:O8:10:GLN:O	2.79	0.47
1:2:217:A:OP1	1:2:217:A:H2'	2.14	0.47
79:Q3:86:LEU:HD23	79:Q3:86:LEU:HA	2.40	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:D1:35:ASN:OD1	23:D1:52:THR:HB	2.58	0.47
69:O3:51:TYR:HD2	69:O3:67:MET:HE3	1.79	0.47
78:Q2:17:CYS:SG	78:Q2:77:CYS:SG	3.12	0.47
36:5:3058:U:H5'	36:5:3059:G:OP1	2.12	0.47
36:1:2522:G:H4'	36:1:2523:A:OP2	2.14	0.47
18:C6:50:GLU:CD	18:C6:114:ARG:HH11	2.18	0.47
36:5:1764:U:H3'	36:5:1765:U:C5'	2.44	0.47
44:L7:158:LYS:HD2	44:L7:159:GLN:HA	5.06	0.47
62:N6:32:SER:HA	62:N6:50:ILE:H	2.50	0.47
36:1:2765:C:H2'	36:1:2766:U:C6	2.49	0.47
36:1:1313:G:OP1	52:M6:82:LYS:HE2	2.14	0.47
47:M0:99:ILE:HD13	47:M0:123:HIS:CE1	2.50	0.47
47:M0:7:ARG:NH1	36:5:2828:G:OP2	269.36	0.47
7:S5:43:PHE:N	7:S5:46:TRP:H	2.51	0.47
1:2:1238:A:OP2	86:2:2048:OHX:N2	2.47	0.47
7:S5:33:VAL:O	7:S5:37:GLN:HB2	2.43	0.47
45:L8:67:ILE:HG23	45:L8:237:ILE:HD12	1.95	0.47
2:S0:21:ASN:HA	2:S0:23:HIS:CE1	3.43	0.47
36:5:1913:A:N3	36:5:2120:A:H2'	2.28	0.47
36:1:1145:G:OP1	68:O2:44:ARG:NH1	2.41	0.47
1:2:72:A:C2	1:2:73:U:C2	3.02	0.47
20:C8:28:ILE:HG13	20:C8:61:LEU:HG	1.97	0.47
40:L3:299:ASP:O	40:L3:300:ARG:HB2	2.13	0.47
48:M1:65:ILE:HG22	48:M1:66:ALA:HB2	4.85	0.47
36:1:790:U:C5'	41:L4:112:LYS:HD2	2.43	0.47
24:D2:38:LEU:HD23	24:D2:41:MET:HE3	1.95	0.47
46:L9:162:GLN:HG3	46:L9:163:GLN:N	4.38	0.47
46:L9:93:VAL:O	46:L9:177:ASP:HA	2.29	0.47
46:L9:87:LYS:NZ	46:L9:191:LEU:HD21	15.51	0.47
9:S7:164:TYR:CE1	9:S7:165:LYS:HG2	2.49	0.47
1:2:1410:A:H2'	1:2:1411:A:O4'	2.15	0.47
49:M3:166:ALA:HB1	64:N8:147:LEU:HD21	2.09	0.47
36:1:40:A:N7	64:N8:29:PRO:O	2.46	0.47
21:C9:118:PRO:HD2	21:C9:123:ARG:HH21	2.33	0.47
43:L6:65:ILE:HA	43:L6:65:ILE:HD12	4.30	0.47
54:M8:44:PHE:CD2	54:M8:134:GLY:HA3	2.49	0.47
39:L2:188:LYS:HD2	39:L2:189:TYR:CE2	6.04	0.47
36:1:1781:C:H2'	36:1:1782:U:C6	2.49	0.47
1:2:861:U:H5'	1:2:862:A:OP2	2.14	0.47
1:6:1265:G:N7	86:6:2198:OHX:N6	2.61	0.47
86:2:2084:OHX:N6	86:2:2086:OHX:N2	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2191:U:H2'	36:1:2192:C:O4'	2.14	0.47
36:1:1352:A:H4'	36:1:1353:U:OP1	2.14	0.47
38:4:124:G:H1	38:4:129:C:H42	1.63	0.47
1:6:1482:C:OP2	1:6:1521:G:N1	2.47	0.47
36:1:559:A:H3'	36:1:559:A:C8	2.49	0.47
36:1:2249:G:C8	36:1:2249:G:H3'	2.50	0.47
60:N4:52:THR:O	60:N4:56:ARG:HG3	2.14	0.47
70:O4:80:ARG:NH1	70:O4:88:ARG:NH2	2.62	0.47
33:E1:87:THR:O	1:6:1445:G:N1	377.53	0.47
3:S1:180:THR:HG22	3:S1:181:LEU:H	1.79	0.47
26:D4:112:LYS:NZ	26:D4:113:ASN:OD1	2.25	0.47
86:5:4092:OHX:N3	86:5:4201:OHX:N1	2.61	0.47
36:1:910:G:O6	39:L2:3:ARG:NH1	2.47	0.47
36:5:2407:C:H1'	36:5:2818:U:H3	1.78	0.47
1:6:1698:G:O2'	1:6:1699:G:O5'	2.30	0.47
21:C9:108:LEU:O	21:C9:111:ILE:HG22	2.14	0.47
42:L5:281:GLU:O	42:L5:285:ARG:HG3	2.14	0.47
36:1:1573:G:N2	36:1:1574:C:O2'	2.47	0.47
1:6:217:A:C8	1:6:218:A:C8	3.01	0.47
1:2:1201:G:N2	1:2:1600:A:H5''	2.27	0.47
65:N9:23:LYS:HE3	65:N9:24:PRO:HD2	1.96	0.47
41:L4:146:PRO:O	86:L4:403:OHX:N5	2.47	0.47
36:1:2172:A:O3'	39:L2:17:THR:HG22	2.13	0.47
24:D2:7:LEU:HD22	24:D2:11:LEU:HG	2.04	0.47
6:S4:186:GLY:HA3	1:6:753:A:OP1	369.62	0.47
1:2:872:G:H2'	1:2:873:U:O4'	2.14	0.47
53:M7:2:ALA:HB1	53:M7:4:TYR:CD2	2.49	0.47
36:1:1793:C:OP2	79:Q3:49:ARG:NH2	2.30	0.47
4:S2:80:VAL:HA	4:S2:102:VAL:HG22	1.96	0.47
57:N1:101:CYS:HB3	36:5:990:U:C1'	251.75	0.47
45:L8:73:PRO:HD3	45:L8:233:TRP:CG	2.77	0.47
48:M1:28:ASP:OD2	48:M1:32:ARG:NH2	5.48	0.47
22:D0:44:ASN:HA	22:D0:47:GLN:HE21	2.91	0.47
36:1:2444:C:H3'	36:1:2445:A:C5'	2.44	0.47
36:5:789:A:H2'	36:5:790:U:H6	1.79	0.47
46:L9:26:LYS:HG3	46:L9:35:THR:HG22	3.30	0.47
46:L9:190:ASP:OD1	46:L9:191:LEU:HD12	2.14	0.47
1:2:1114:G:O2'	1:2:1130:G:O6	2.20	0.47
1:2:1130:G:OP2	86:2:2075:OHX:N2	2.47	0.47
57:N1:73:GLY:HA2	57:N1:89:LEU:O	2.14	0.47
36:5:936:A:H5''	36:5:937:G:OP1	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:178:ALA:HA	2:S0:181:VAL:HG22	2.47	0.47
36:1:3276:G:N7	53:M7:171:ARG:NH1	2.61	0.47
71:O5:7:TYR:CE1	71:O5:8:GLU:HG3	2.62	0.47
2:S0:102:PHE:CZ	2:S0:106:SER:HB2	2.49	0.47
16:C4:89:THR:O	16:C4:128:LYS:NZ	2.86	0.47
1:6:1171:A:H2'	1:6:1172:G:C8	2.49	0.47
36:1:1074:U:O2'	36:1:1075:A:H2'	2.15	0.47
26:D4:89:TYR:O	26:D4:92:VAL:HB	2.14	0.47
36:1:2771:U:O2'	36:1:2772:C:O4'	2.32	0.47
32:E0:48:THR:HB	32:E0:49:LEU:HD13	5.14	0.47
32:E0:55:ARG:HB3	32:E0:58:PRO:HG3	1.96	0.47
1:2:1649:G:N7	86:2:2052:OHX:N1	2.62	0.47
1:6:957:G:C6	1:6:958:U:C4	3.02	0.47
48:M1:137:ARG:HD3	37:7:28:C:OP1	302.66	0.47
70:O4:81:CYS:O	70:O4:83:ASN:N	2.47	0.47
36:5:493:G:N2	36:5:494:G:H1'	2.29	0.47
47:M0:192:ASP:HA	47:M0:197:VAL:HG23	2.75	0.47
28:D6:34:LYS:NZ	1:6:1793:G:N7	322.61	0.47
28:D6:9:GLY:HA3	28:D6:34:LYS:HE2	2.43	0.47
31:D9:19:ARG:CD	31:D9:32:ARG:HD2	2.45	0.47
3:S1:70:LEU:HD13	3:S1:71:ALA:N	2.30	0.47
1:6:56:U:H4'	1:6:57:G:H5'	1.96	0.47
4:S2:139:ILE:HG22	4:S2:141:ARG:HD3	1.96	0.47
7:S5:163:SER:HB3	30:D8:46:GLY:HA3	3.08	0.47
36:5:3127:A:H2'	36:5:3128:G:O4'	2.14	0.47
8:S6:12:SER:HB3	8:S6:124:LEU:HA	2.06	0.47
46:L9:47:LYS:HE3	46:L9:49:ASN:C	3.67	0.47
7:S5:39:GLU:HB3	7:S5:40:ILE:H	1.39	0.47
7:S5:43:PHE:HD2	7:S5:46:TRP:HD1	6.70	0.47
9:S7:168:SER:O	9:S7:172:VAL:HG23	3.30	0.47
40:L3:92:TYR:O	40:L3:155:ALA:HA	2.15	0.47
1:2:1200:G:H4'	1:2:1201:G:C5'	2.45	0.47
41:L4:255:PHE:O	41:L4:258:LEU:HB2	2.29	0.47
45:L8:100:GLU:OE1	45:L8:108:ARG:HD3	2.14	0.47
36:1:157:A:C8	72:O6:26:ILE:HG12	2.50	0.47
36:1:2747:A:H5'	42:L5:175:HIS:HA	1.96	0.47
62:N6:83:ASP:O	62:N6:84:LYS:CB	2.63	0.47
1:6:1230:A:H2'	1:6:1258:U:C5	2.50	0.47
1:2:1241:G:H5''	17:C5:77:ARG:HB3	1.95	0.47
53:M7:41:LEU:O	53:M7:41:LEU:HD22	2.14	0.47
36:1:1818:U:H3'	36:1:1819:U:H5''	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:O0:42:ILE:CG1	66:O0:67:VAL:HG22	2.86	0.47
36:1:3170:A:O2'	36:1:3171:U:H5'	2.14	0.47
1:2:1039:A:H5''	23:D1:62:ARG:NH2	2.29	0.47
36:1:3082:C:H2'	36:1:3083:G:H8	1.78	0.47
86:2:2084:OHX:N3	86:2:2086:OHX:N1	2.62	0.47
32:E0:49:LEU:HD23	32:E0:55:ARG:O	3.86	0.47
1:6:595:G:H2'	1:6:596:C:C6	2.49	0.47
36:5:792:G:H2'	36:5:793:C:C6	2.50	0.47
1:2:356:G:OP2	86:2:2037:OHX:N6	2.47	0.47
10:S8:191:PHE:O	10:S8:195:ARG:HG2	2.78	0.47
1:2:386:G:C6	1:2:387:A:N6	2.82	0.47
2:S0:195:TRP:NE1	2:S0:197:ILE:HB	3.91	0.47
8:S6:133:LEU:HD13	1:6:166:C:O2	326.63	0.47
64:N8:18:GLY:O	36:5:1370:G:H5''	174.24	0.47
66:O0:54:SER:HA	66:O0:57:GLU:OE2	2.87	0.47
49:M3:42:ARG:HH21	49:M3:51:LEU:HD22	5.12	0.47
36:5:863:C:H2'	36:5:864:G:O4'	2.15	0.47
1:6:393:C:H2'	1:6:394:C:C6	2.49	0.47
36:5:501:A:H2'	36:5:502:U:C6	2.49	0.47
36:5:3275:U:O3'	36:5:3276:G:C4	2.67	0.47
8:S6:157:VAL:HB	8:S6:175:ILE:HD11	1.97	0.47
61:N5:138:ARG:CG	61:N5:138:ARG:HH21	2.72	0.47
22:D0:70:THR:HG23	1:6:1280:C:O2'	388.25	0.47
7:S5:64:VAL:HG12	7:S5:89:ILE:HD11	5.23	0.47
7:S5:64:VAL:HG12	7:S5:65:ARG:HD3	1.97	0.47
7:S5:62:VAL:CG1	7:S5:89:ILE:HG12	2.64	0.47
34:SR:248:ASN:OD1	34:SR:249:ARG:HG3	3.40	0.47
24:D2:10:ALA:HB1	24:D2:27:ILE:HD12	1.96	0.47
3:S1:127:VAL:HG13	3:S1:176:VAL:HG11	1.96	0.47
36:1:112:U:O2'	36:1:113:C:P	2.71	0.47
22:D0:106:ILE:O	22:D0:107:THR:OG1	2.27	0.47
48:M1:54:VAL:HG11	48:M1:57:PHE:CD2	2.50	0.47
47:M0:66:GLU:OE2	47:M0:69:ARG:NH2	2.47	0.47
1:2:1762:A:H1'	1:2:1783:C:H5'	1.97	0.47
19:C7:73:LEU:O	19:C7:77:GLU:HB2	3.11	0.47
5:S3:71:LEU:HB3	12:C0:20:VAL:HG11	1.97	0.47
3:S1:110:LEU:C	3:S1:112:SER:H	2.17	0.47
6:S4:206:ASP:HB2	6:S4:222:LEU:HB2	2.43	0.47
19:C7:46:LEU:HD22	19:C7:50:ILE:HG13	1.96	0.47
15:C3:3:ARG:HG2	15:C3:8:GLY:N	2.30	0.47
1:2:1474:G:H2'	1:2:1475:A:C8	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:540:G:OP2	1:2:540:G:H2'	2.14	0.47
64:N8:15:VAL:HG12	64:N8:16:SER:N	2.87	0.47
49:M3:155:GLU:HG2	64:N8:90:TYR:OH	5.49	0.47
76:Q0:77:ILE:HG13	76:Q0:78:ILE:HG22	6.98	0.47
43:L6:170:LYS:HB3	43:L6:172:HIS:CE1	2.62	0.47
36:1:223:U:HO2'	36:1:224:C:P	2.36	0.47
51:M5:183:THR:O	51:M5:183:THR:HG23	2.21	0.47
49:M3:135:ALA:O	49:M3:136:GLU:HB3	2.15	0.47
39:L2:188:LYS:HD2	39:L2:189:TYR:CZ	5.61	0.47
1:2:387:A:H5''	1:2:389:G:OP2	2.14	0.47
24:D2:3:ARG:NH1	24:D2:9:ASP:OD2	3.91	0.47
61:N5:100:LYS:HZ2	61:N5:107:VAL:H	1.63	0.47
55:M9:180:LYS:HA	55:M9:183:ALA:HB3	1.96	0.47
44:L7:89:ILE:HD12	44:L7:214:TRP:CH2	2.48	0.47
15:C3:109:LYS:HD2	1:6:975:C:H5''	282.98	0.47
49:M3:10:LEU:HD23	54:M8:166:LEU:HD11	2.58	0.47
64:N8:2:PRO:HG2	64:N8:5:PHE:CD2	2.49	0.47
58:N2:29:ASP:OD1	58:N2:31:ALA:HB3	2.14	0.47
37:3:117:A:H1'	42:L5:74:VAL:HG21	1.97	0.47
1:6:1650:U:H2'	1:6:1651:A:C8	2.50	0.47
47:M0:47:PRO:O	47:M0:172:GLY:N	2.40	0.47
38:8:81:U:H4'	38:8:82:U:OP1	2.13	0.47
3:S1:129:THR:OG1	3:S1:130:SER:N	3.28	0.47
3:S1:184:LEU:HA	3:S1:187:LYS:HB2	1.96	0.47
1:6:1600:A:H4'	1:6:1601:G:OP1	2.14	0.47
36:1:3066:U:H2'	36:1:3067:C:C6	2.50	0.47
1:6:196:G:HO2'	1:6:197:A:P	2.34	0.47
21:C9:102:ARG:NH2	1:6:1502:G:O6	405.38	0.47
36:5:1577:G:H2'	36:5:1578:C:C6	2.50	0.47
40:L3:188:ILE:O	40:L3:192:VAL:HG12	2.14	0.47
41:L4:93:MET:CE	41:L4:93:MET:H	2.92	0.47
7:S5:43:PHE:CG	7:S5:44:ASN:N	2.86	0.47
7:S5:89:ILE:HD12	7:S5:90:ILE:H	2.19	0.47
36:5:1807:G:C6	36:5:1808:G:N1	2.82	0.47
2:S0:110:TYR:O	2:S0:112:THR:N	2.98	0.47
36:5:507:U:H2'	36:5:508:U:C6	2.50	0.47
36:5:2211:U:O4	86:5:3963:OHX:N4	2.48	0.47
6:S4:187:ARG:HH11	6:S4:245:LYS:NZ	2.12	0.47
74:O8:43:PHE:O	74:O8:53:THR:HA	2.13	0.47
11:S9:117:GLY:C	11:S9:119:ALA:H	2.17	0.47
36:5:171:G:H2'	36:5:172:G:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:89:ALA:O	50:M4:92:GLU:HG2	2.14	0.47
86:1:4080:OHX:N6	86:1:4150:OHX:N3	2.63	0.47
36:5:3132:C:H2'	36:5:3133:C:H6	1.80	0.47
48:M1:166:LYS:HB2	48:M1:166:LYS:HE2	1.76	0.47
36:5:2950:G:C5	36:5:2979:U:C4	3.02	0.47
36:1:2573:G:O6	86:1:3995:OHX:N3	2.48	0.47
36:1:900:G:H1'	36:1:1589:A:H61	1.80	0.47
27:D5:46:LYS:HB2	27:D5:46:LYS:HE3	4.26	0.47
35:SM:88:ARG:HG2	35:SM:91:THR:CG2	2.45	0.47
69:O3:15:SER:HB3	69:O3:16:TYR:O	2.14	0.47
52:M6:124:LEU:HA	52:M6:124:LEU:HD12	1.67	0.47
86:5:4031:OHX:N1	86:5:4079:OHX:N2	2.62	0.47
67:O1:82:GLU:C	67:O1:84:ASP:H	2.17	0.47
59:N3:107:GLY:O	59:N3:128:ARG:HG3	2.15	0.47
51:M5:41:ARG:HG3	51:M5:42:PRO:O	2.14	0.47
1:2:289:U:H2'	1:2:290:G:O4'	2.14	0.47
36:1:1674:G:OP2	86:1:3947:OHX:N2	2.48	0.47
39:L2:225:ILE:O	39:L2:238:ILE:O	4.86	0.47
16:C4:121:VAL:O	1:6:886:U:O2'	288.15	0.47
30:D8:10:ALA:HA	30:D8:32:PHE:HA	1.97	0.47
36:5:1190:A:C8	36:5:1193:A:H1'	2.48	0.47
47:M0:90:ARG:HG3	47:M0:137:SER:OG	2.15	0.47
36:1:2846:U:O2'	86:1:4071:OHX:N6	2.47	0.47
58:N2:100:THR:O	58:N2:102:GLU:HG3	3.22	0.47
43:L6:90:LYS:HB2	43:L6:90:LYS:HE2	1.65	0.47
36:5:771:A:H2'	36:5:772:U:O4'	2.13	0.47
1:2:1637:C:O2'	35:SM:94:HIS:HE1	1.97	0.47
36:1:1638:A:H5''	36:1:1639:C:OP2	2.13	0.47
39:L2:80:GLU:HG2	79:Q3:76:ALA:HB1	4.04	0.47
36:1:1481:A:H2'	36:1:1858:A:H1'	1.96	0.47
24:D2:71:LYS:NZ	1:6:1099:U:H5''	373.66	0.47
36:5:3055:U:O2'	36:5:3057:U:OP1	2.32	0.47
3:S1:81:PHE:HA	3:S1:106:THR:HG23	1.96	0.47
11:S9:127:VAL:O	11:S9:131:GLN:HB2	2.46	0.47
16:C4:112:ILE:HB	28:D6:57:SER:OG	2.15	0.47
75:O9:2:ALA:N	75:O9:5:LYS:HB3	5.18	0.47
1:2:319:U:H1'	1:2:323:A:C4	2.49	0.47
86:1:4028:OHX:N6	86:1:4040:OHX:N5	2.62	0.47
17:C5:34:VAL:O	17:C5:42:ARG:HG2	2.14	0.47
1:6:235:G:H2'	1:6:236:A:C8	2.50	0.47
7:S5:150:GLY:H	30:D8:67:ARG:C	2.56	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D8:60:GLU:OE1	30:D8:61:ARG:N	2.48	0.47
62:N6:115:ARG:HG3	62:N6:115:ARG:HH11	2.94	0.47
36:1:2535:A:N6	36:1:2544:U:H3	2.12	0.47
36:5:2569:A:H4'	36:5:2570:U:H5'	1.95	0.47
8:S6:55:GLY:CA	8:S6:63:MET:HE3	3.12	0.47
41:L4:311:HIS:NE2	41:L4:314:LYS:HA	2.81	0.47
36:1:3049:A:C2	40:L3:75:ALA:HB2	2.50	0.47
36:1:1541:G:OP2	86:1:4016:OHX:N5	2.48	0.47
1:2:637:C:OP1	24:D2:32:LYS:HG3	2.15	0.47
9:S7:117:THR:HG22	9:S7:120:ALA:H	2.52	0.47
28:D6:79:ILE:O	28:D6:84:VAL:HG11	2.15	0.47
28:D6:85:ARG:HD3	28:D6:85:ARG:HA	1.41	0.47
26:D4:122:GLY:O	26:D4:124:ARG:N	3.89	0.47
16:C4:115:ILE:HG21	28:D6:44:ILE:HG21	7.16	0.47
42:L5:110:LEU:HA	42:L5:113:LEU:HB2	3.14	0.47
44:L7:77:VAL:HG22	57:N1:139:ARG:CG	2.44	0.47
40:L3:56:ILE:HG12	40:L3:323:MET:HE3	1.97	0.47
8:S6:163:THR:HG22	8:S6:168:THR:HG22	1.96	0.47
40:L3:35:ASP:OD2	40:L3:37:ARG:HD2	2.30	0.47
55:M9:4:LEU:O	55:M9:7:GLN:HG2	4.79	0.47
25:D3:127:VAL:O	25:D3:130:VAL:HG22	2.14	0.47
42:L5:270:LYS:HG2	37:7:2:G:H5'	318.30	0.47
24:D2:94:LEU:HD11	24:D2:102:VAL:HG23	1.97	0.47
36:1:595:G:OP2	44:L7:30:ARG:NH2	2.47	0.47
41:L4:52:VAL:HB	41:L4:99:MET:HE3	1.95	0.47
41:L4:26:PHE:CD1	41:L4:130:ALA:HB2	3.64	0.47
45:L8:100:GLU:OE1	45:L8:108:ARG:NH1	2.72	0.47
7:S5:25:LEU:HB3	18:C6:27:GLY:O	3.67	0.47
22:D0:63:LEU:HD22	31:D9:34:TYR:CZ	2.50	0.47
16:C4:122:PRO:C	16:C4:124:ASP:H	2.20	0.47
7:S5:133:VAL:HG22	7:S5:198:LEU:HD13	1.97	0.47
41:L4:271:LYS:HB2	41:L4:274:TYR:HB3	2.06	0.47
86:1:4000:OHX:N4	86:1:4168:OHX:N1	2.62	0.47
36:1:112:U:H2'	36:1:112:U:H6	1.39	0.47
17:C5:69:GLU:OE1	17:C5:69:GLU:N	3.71	0.47
47:M0:46:PHE:CD1	47:M0:140:THR:HA	2.81	0.47
1:2:488:G:OP1	1:2:488:G:H4'	2.14	0.47
48:M1:89:TYR:HB3	48:M1:169:ALA:HA	1.95	0.47
36:5:1015:U:O3'	36:5:1016:C:H2'	2.15	0.47
1:2:1370:U:H1'	1:2:1371:A:OP2	2.14	0.47
36:1:3284:G:H8	36:1:3284:G:O5'	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:82:ALA:O	38:8:38:U:C5	65.51	0.47
59:N3:11:PHE:CD2	59:N3:88:ARG:HD2	3.16	0.47
1:6:1783:C:H2'	1:6:1784:C:C6	2.50	0.47
54:M8:92:ARG:HG2	64:N8:76:ASP:O	2.66	0.47
4:S2:173:PRO:HG2	11:S9:57:ARG:HD2	3.54	0.47
86:5:4032:OHX:N5	86:5:4117:OHX:N3	2.63	0.47
43:L6:72:ASN:ND2	43:L6:159:LEU:O	2.92	0.47
23:D1:3:ASN:CG	23:D1:7:GLN:HB2	2.82	0.47
51:M5:144:ARG:O	51:M5:145:ASP:HB3	2.14	0.47
36:1:2244:A:H5''	39:L2:243:THR:OG1	2.14	0.47
71:O5:119:LYS:HD2	71:O5:119:LYS:HA	2.03	0.47
1:2:1199:G:C6	22:D0:67:THR:HG23	2.49	0.47
36:5:113:C:C2	36:5:319:A:C2	3.02	0.47
86:1:4063:OHX:N1	86:1:4110:OHX:N4	2.62	0.47
20:C8:94:ASP:OD1	20:C8:98:TYR:OH	2.22	0.47
78:Q2:63:LYS:HE2	78:Q2:87:ARG:NH2	2.30	0.47
1:2:199:G:O2'	1:2:200:A:H8	1.97	0.47
55:M9:124:TYR:OH	36:5:1721:U:OP2	228.32	0.47
1:6:1592:A:H2'	1:6:1593:A:H8	1.79	0.47
1:6:1590:G:H2'	1:6:1591:C:H6	1.80	0.47
36:1:2677:G:H2'	36:1:2679:A:C2	2.50	0.47
1:6:1756:A:H2'	1:6:1757:G:H8	1.79	0.47
1:2:1039:A:O2'	1:2:1040:G:OP2	2.27	0.47
64:N8:10:LYS:HA	64:N8:10:LYS:HD3	3.51	0.47
36:5:90:C:C2'	36:5:91:G:H5'	2.44	0.47
36:1:955:U:OP1	65:N9:7:HIS:ND1	2.42	0.47
1:2:558:U:O2'	1:2:559:C:O5'	2.28	0.47
66:O0:57:GLU:OE1	66:O0:69:TYR:OH	2.55	0.47
64:N8:2:PRO:HG2	64:N8:5:PHE:CE2	2.81	0.47
34:SR:255:ALA:HB2	34:SR:292:LEU:HD21	1.97	0.47
41:L4:298:ALA:O	54:M8:40:THR:HG22	3.47	0.47
46:L9:1:MET:SD	56:N0:138:GLN:HG2	2.54	0.47
1:2:1015:U:OP1	86:2:2046:OHX:N3	2.48	0.47
36:5:629:U:H2'	36:5:630:A:C8	2.50	0.47
1:6:1342:C:C2'	1:6:1343:U:H5'	2.45	0.47
40:L3:194:TRP:CE2	40:L3:198:HIS:CE1	3.03	0.47
36:5:1201:C:N4	36:5:2857:C:OP1	2.37	0.47
36:1:2641:U:OP2	57:N1:10:ARG:NH1	2.40	0.47
36:1:1159:A:O2'	36:1:1160:C:H5''	2.15	0.47
1:6:282:C:H2'	1:6:283:U:O4'	2.14	0.47
36:1:2697:A:H2'	36:1:2698:G:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:434:G:N7	86:6:2084:OHX:N2	2.61	0.47
1:2:1522:U:OP1	86:2:2060:OHX:N3	2.47	0.47
55:M9:114:LYS:HE2	55:M9:114:LYS:HB3	1.52	0.47
16:C4:82:LYS:HG2	16:C4:118:VAL:HG11	4.64	0.47
49:M3:190:LYS:NZ	49:M3:190:LYS:HB2	2.30	0.47
43:L6:58:LEU:O	43:L6:61:ASN:N	2.47	0.47
1:6:751:G:H2'	1:6:752:A:C8	2.50	0.47
40:L3:122:TRP:CH2	40:L3:127:LYS:HG2	2.49	0.47
36:1:3078:U:H2'	36:1:3078:U:O2	2.15	0.47
86:2:2116:OHX:N6	86:C1:201:OHX:N4	2.63	0.47
43:L6:80:ASN:HB2	36:5:3272:C:O2	247.26	0.47
24:D2:15:ASN:ND2	24:D2:71:LYS:HA	2.19	0.47
18:C6:56:GLY:C	18:C6:58:ASP:H	2.81	0.47
1:2:1100:G:O2'	24:D2:76:SER:N	2.48	0.47
11:S9:172:VAL:HG13	1:6:512:A:OP2	454.64	0.47
28:D6:37:LYS:HA	28:D6:71:LEU:O	2.14	0.47
86:5:4189:OHX:N5	86:5:4191:OHX:N2	2.63	0.47
56:N0:148:LEU:HD12	56:N0:149:LYS:N	2.27	0.47
10:S8:31:ARG:HH21	10:S8:48:THR:HG22	2.12	0.47
11:S9:169:PRO:HD2	11:S9:174:ARG:HD2	1.96	0.47
15:C3:20:ARG:HD3	24:D2:56:HIS:CD2	5.80	0.47
11:S9:134:ILE:HA	11:S9:158:PHE:HA	1.97	0.47
63:N7:25:ILE:HD12	63:N7:25:ILE:H	2.47	0.47
44:L7:140:SER:OG	44:L7:143:THR:HG23	2.15	0.47
9:S7:35:LYS:O	9:S7:37:GLU:HG2	2.14	0.47
1:2:687:G:H5'	24:D2:119:LYS:HG2	1.96	0.47
12:C0:49:LEU:HB3	12:C0:55:VAL:CG1	2.53	0.47
36:1:3111:U:OP2	86:1:3890:OHX:N2	2.47	0.47
61:N5:115:ARG:HD3	61:N5:121:LYS:HE2	2.17	0.47
7:S5:43:PHE:CE2	7:S5:90:ILE:HG21	2.50	0.47
64:N8:122:PRO:HB3	64:N8:142:GLY:O	2.68	0.47
45:L8:67:ILE:HG22	45:L8:237:ILE:HG21	3.62	0.47
46:L9:171:ASP:HA	36:5:2899:C:C6	322.88	0.47
36:1:1592:G:OP2	70:O4:37:LYS:NZ	2.38	0.47
39:L2:121:GLY:C	39:L2:123:ARG:H	2.18	0.47
30:D8:64:ARG:HD2	30:D8:64:ARG:HA	1.36	0.47
38:8:113:U:O2	38:8:113:U:H3'	2.15	0.47
39:L2:44:ILE:HD12	39:L2:62:VAL:HG13	2.17	0.47
36:1:1019:G:H2'	36:1:1020:G:O4'	2.14	0.47
45:L8:132:VAL:HG21	45:L8:190:VAL:HG22	5.29	0.47
79:Q3:84:ARG:HA	79:Q3:87:ARG:NH1	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:5:4127:OHX:N3	86:5:4145:OHX:N1	2.63	0.47
77:Q1:13:LEU:O	77:Q1:17:ARG:HG3	2.14	0.47
20:C8:89:GLN:NE2	1:6:1548:G:O2'	375.54	0.47
1:6:1603:U:H2'	1:6:1604:U:H6	1.80	0.47
37:7:114:U:O2'	37:7:115:G:H5'	2.14	0.47
38:8:2:A:H3'	38:8:3:A:H8	1.80	0.47
36:1:1856:C:H2'	36:1:1857:C:C6	2.50	0.47
15:C3:112:LYS:O	15:C3:116:ILE:HG12	4.21	0.47
1:6:1321:A:H4'	1:6:1322:A:O5'	2.15	0.47
25:D3:107:PHE:CE2	25:D3:114:LYS:HB2	2.50	0.47
28:D6:23:CYS:HB2	28:D6:74:CYS:HB3	1.96	0.47
36:1:3056:U:OP2	86:1:3935:OHX:N3	2.48	0.47
42:L5:261:THR:HG23	42:L5:264:GLN:OE1	2.15	0.47
1:6:17:C:H2'	1:6:18:C:C6	2.49	0.47
29:D7:31:TYR:CD2	29:D7:33:LEU:HD21	4.29	0.47
36:5:1692:U:O4	36:5:1693:C:N4	2.48	0.47
68:O2:20:HIS:O	68:O2:21:HIS:HB2	2.14	0.47
34:SR:245:PHE:HD1	34:SR:251:TRP:O	3.02	0.47
36:5:2400:G:H5''	36:5:2401:A:OP2	2.15	0.47
50:M4:93:LYS:HB2	50:M4:93:LYS:HE3	1.68	0.47
36:5:683:U:H2'	36:5:684:G:O4'	2.15	0.47
70:O4:74:ARG:CD	70:O4:85:VAL:HG21	4.48	0.47
36:1:3275:U:O4'	69:O3:66:VAL:HG21	2.14	0.47
6:S4:77:ARG:HD2	6:S4:82:TYR:CE1	4.58	0.47
15:C3:114:ARG:NH2	1:6:939:A:OP1	307.30	0.47
36:1:2098:C:H2'	36:1:2099:A:C8	2.36	0.47
40:L3:347:SER:HB3	40:L3:348:ARG:H	1.52	0.47
51:M5:120:TRP:HA	51:M5:130:PHE:CD1	2.56	0.47
36:1:1613:A:OP2	74:O8:46:ARG:NH2	2.48	0.47
22:D0:73:GLY:HA3	1:6:1198:G:O4'	380.25	0.47
22:D0:69:LYS:HE3	22:D0:80:GLU:CG	4.99	0.47
9:S7:67:LEU:HD22	9:S7:71:HIS:CE1	2.50	0.47
36:1:2339:C:OP2	59:N3:48:ARG:NH1	2.48	0.47
1:6:1004:U:O4	86:5:3957:OHX:N5	2.48	0.47
10:S8:106:ALA:HB2	10:S8:165:LEU:HG	1.96	0.47
36:1:2719:U:O4	86:1:4195:OHX:N3	2.47	0.47
25:D3:127:VAL:O	25:D3:129:GLY:N	2.47	0.47
45:L8:213:LYS:O	45:L8:217:THR:HG23	5.91	0.47
24:D2:93:LEU:O	24:D2:94:LEU:HD23	2.76	0.47
36:1:1464:G:N7	86:1:4193:OHX:N6	2.62	0.47
52:M6:22:VAL:HG11	52:M6:120:VAL:HG11	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:247:SER:O	6:S4:251:GLU:HG3	2.15	0.47
46:L9:77:ASN:HB3	46:L9:151:VAL:HG21	1.96	0.47
34:SR:42:LEU:HD21	34:SR:82:SER:HB3	1.96	0.47
24:D2:86:ILE:O	24:D2:90:THR:HG23	2.44	0.47
6:S4:155:LYS:HZ1	1:6:244:A:P	342.89	0.47
6:S4:158:ASP:HB3	6:S4:173:ILE:O	2.46	0.47
12:C0:32:HIS:HB3	12:C0:34:GLU:O	5.51	0.47
16:C4:13:VAL:HG22	16:C4:76:ILE:HA	1.96	0.47
18:C6:110:THR:HA	18:C6:113:ASP:HB2	2.29	0.47
64:N8:66:ALA:HA	64:N8:69:TRP:N	3.95	0.47
53:M7:36:ILE:HD11	53:M7:95:LEU:HD11	1.97	0.47
36:5:1863:G:N1	36:5:1866:C:OP2	2.36	0.47
27:D5:57:TYR:N	27:D5:57:TYR:CD2	3.15	0.47
1:2:539:G:N2	1:2:540:G:O6	2.43	0.47
36:1:2273:G:O2'	36:1:2311:G:O6	2.33	0.47
1:2:707:A:O2'	1:2:731:C:N4	2.47	0.47
36:1:2584:G:O2'	45:L8:240:ASN:ND2	2.47	0.47
51:M5:5:LYS:O	51:M5:5:LYS:HD2	2.77	0.47
34:SR:198:ASN:O	34:SR:215:GLY:HA3	2.18	0.47
36:5:1618:G:H4'	38:8:129:C:H1'	1.96	0.47
2:S0:175:TYR:CD1	2:S0:199:PRO:HA	2.50	0.47
36:1:2353:G:C5	36:1:2354:C:C5	3.03	0.47
36:5:2592:G:H4'	36:5:2594:C:C2	2.50	0.47
5:S3:36:GLY:HA3	5:S3:51:ARG:NH1	2.30	0.47
51:M5:99:ARG:O	51:M5:102:ALA:HB3	2.15	0.47
40:L3:66:LYS:HE2	40:L3:66:LYS:HB3	1.59	0.47
1:2:1365:C:N4	1:2:1366:U:O4	2.48	0.47
69:O3:53:TYR:CZ	69:O3:65:ARG:HB2	2.49	0.47
1:6:1776:A:H2'	1:6:1777:G:C8	2.49	0.47
78:Q2:54:THR:O	78:Q2:55:LYS:HG2	2.39	0.47
28:D6:4:LYS:HG3	28:D6:4:LYS:O	2.14	0.47
1:2:739:G:H2'	1:2:740:A:C8	2.50	0.47
1:2:513:U:H5'	11:S9:133:HIS:HE2	1.80	0.47
36:1:3215:A:H5'	50:M4:121:MET:HE1	1.96	0.47
8:S6:58:LYS:O	8:S6:59:GLN:CD	2.52	0.47
6:S4:162:ILE:HG22	6:S4:164:LEU:H	1.80	0.47
1:2:916:U:H3	16:C4:41:ARG:NH2	2.12	0.47
42:L5:122:VAL:HG23	42:L5:123:GLU:N	3.14	0.47
44:L7:178:ILE:HA	44:L7:183:ASP:HB3	2.15	0.47
36:5:1070:U:C4	36:5:1071:U:C4	3.03	0.47
1:2:453:U:O4	86:2:2039:OHX:N5	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:103:LEU:HD12	25:D3:126:LYS:HD3	3.26	0.47
7:S5:40:ILE:HG23	7:S5:42:LEU:HB3	1.97	0.47
7:S5:43:PHE:CD2	7:S5:46:TRP:HD1	7.51	0.47
41:L4:130:ALA:HA	41:L4:148:ILE:HG23	1.97	0.47
67:O1:10:ARG:HE	67:O1:108:VAL:HG22	1.80	0.47
1:6:1340:U:C6	1:6:1378:U:H4'	2.50	0.47
36:1:508:U:O4	86:1:4168:OHX:N5	2.48	0.47
39:L2:117:GLU:CD	39:L2:121:GLY:H	2.17	0.47
41:L4:140:HIS:HA	41:L4:177:ASP:OD1	2.15	0.47
36:1:3186:A:N3	46:L9:44:THR:OG1	2.47	0.47
34:SR:33:LEU:HD22	34:SR:302:PHE:CD1	3.46	0.47
36:5:2767:U:O4	86:5:4117:OHX:N3	2.48	0.47
6:S4:208:VAL:HG21	6:S4:225:VAL:HG21	2.62	0.47
64:N8:95:SER:HG	64:N8:98:THR:N	3.59	0.47
59:N3:80:ARG:NH1	59:N3:116:GLY:HA3	2.39	0.47
53:M7:33:ALA:HB1	53:M7:117:ILE:HG12	2.60	0.47
53:M7:36:ILE:CD1	53:M7:95:LEU:HD11	2.45	0.47
46:L9:69:ARG:HD3	46:L9:72:LYS:HD3	1.97	0.47
1:2:1437:U:H5'	5:S3:176:LEU:HD23	1.96	0.47
12:C0:31:LYS:HA	12:C0:37:THR:O	2.46	0.47
16:C4:16:VAL:HG11	16:C4:18:ARG:NH2	2.30	0.47
40:L3:286:GLY:HA3	40:L3:321:PHE:CZ	2.59	0.47
11:S9:51:LYS:HB3	11:S9:54:ARG:NH1	2.30	0.47
36:1:638:C:H2'	36:1:639:G:H8	1.80	0.47
36:5:1675:G:N7	86:5:3971:OHX:N4	2.62	0.47
47:M0:29:SER:HA	47:M0:125:LEU:HD12	2.96	0.47
18:C6:6:SER:HA	18:C6:23:LYS:HA	2.74	0.47
53:M7:51:VAL:HA	53:M7:56:ARG:O	2.14	0.47
45:L8:214:LEU:HA	45:L8:214:LEU:HD12	1.65	0.47
40:L3:303:LYS:HD2	40:L3:361:THR:HG21	2.18	0.47
35:SM:38:PRO:HA	35:SM:39:PRO:HD2	1.62	0.47
62:N6:82:VAL:O	62:N6:85:VAL:N	3.36	0.47
1:2:1317:C:H2'	1:2:1318:G:O4'	2.15	0.47
1:2:1142:A:H2'	1:2:1143:A:C8	2.50	0.47
45:L8:154:ALA:HB2	45:L8:186:LEU:HD12	1.97	0.47
34:SR:112:SER:CB	34:SR:153:GLN:HA	2.62	0.47
1:6:463:U:H2'	1:6:464:A:C8	2.50	0.47
47:M0:152:LEU:HA	47:M0:152:LEU:HD23	1.74	0.47
47:M0:189:GLU:H	47:M0:189:GLU:HG3	1.54	0.47
1:2:1756:A:H8	1:2:1756:A:O5'	1.98	0.47
45:L8:238:LEU:HD12	45:L8:238:LEU:HA	2.42	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:151:LYS:HD3	10:S8:151:LYS:O	2.15	0.47
48:M1:15:GLU:HG3	48:M1:132:ASN:HD21	2.52	0.46
1:2:823:G:N3	1:2:823:G:H5''	2.30	0.46
1:2:1203:A:C4	1:2:1556:A:C2	3.03	0.46
40:L3:70:ARG:HH22	59:N3:120:LYS:HE3	1.79	0.46
39:L2:207:VAL:HG23	39:L2:207:VAL:H	2.31	0.46
36:1:355:A:H2'	36:1:356:C:O4'	2.15	0.46
1:6:1594:G:C6	1:6:1595:U:N3	2.83	0.46
1:2:1178:G:H2'	1:2:1179:G:O4'	2.15	0.46
20:C8:142:GLY:O	20:C8:145:ARG:HD2	2.15	0.46
1:2:1460:A:O2'	35:SM:72:ARG:NH2	2.49	0.46
30:D8:52:ASP:N	30:D8:52:ASP:OD2	3.83	0.46
36:5:2960:C:H2'	36:5:2961:G:H8	1.79	0.46
48:M1:8:PRO:HG2	48:M1:9:MET:H	2.56	0.46
35:SM:84:LYS:HE3	35:SM:86:ASN:HB2	1.97	0.46
86:1:4016:OHX:N3	86:1:4052:OHX:N1	2.63	0.46
41:L4:16:THR:HG22	41:L4:17:ALA:N	2.94	0.46
36:5:3120:C:HO2'	36:5:3121:U:H6	1.62	0.46
36:5:678:G:H2'	36:5:679:U:O4'	2.15	0.46
9:S7:89:HIS:CE1	9:S7:168:SER:HG	2.56	0.46
9:S7:9:LEU:HA	9:S7:9:LEU:HD12	4.00	0.46
7:S5:29:ILE:HG22	7:S5:34:GLN:HG3	1.96	0.46
34:SR:123:ILE:HG22	34:SR:133:VAL:HG22	1.97	0.46
36:5:2234:G:N7	86:5:3963:OHX:N1	2.63	0.46
36:5:3279:A:N6	36:5:3280:U:O4	2.48	0.46
42:L5:211:LEU:HD13	42:L5:219:PHE:HA	2.10	0.46
69:O3:38:PRO:HD2	69:O3:39:GLN:OE1	2.14	0.46
33:E1:93:HIS:HB3	33:E1:94:LYS:H	1.60	0.46
1:6:488:G:N2	1:6:499:U:H3	2.13	0.46
1:2:446:A:N6	1:2:461:G:H21	2.13	0.46
36:5:1066:G:OP1	86:5:4228:OHX:N2	2.48	0.46
45:L8:37:GLY:O	45:L8:38:GLN:HB3	2.43	0.46
14:C2:30:VAL:HB	14:C2:132:GLU:HG3	1.98	0.46
40:L3:163:HIS:HB3	40:L3:178:LEU:HB2	3.09	0.46
25:D3:89:ASN:HB2	25:D3:92:CYS:SG	3.01	0.46
36:5:760:G:N2	36:5:770:G:O2'	2.47	0.46
56:N0:115:ARG:NH2	36:5:1320:C:O2	288.45	0.46
36:1:2218:G:H2'	36:1:2219:A:C8	2.50	0.46
36:5:1685:C:H2'	36:5:1686:U:H6	1.80	0.46
52:M6:121:PRO:O	52:M6:123:ALA:N	2.89	0.46
1:6:1417:A:OP1	86:6:2089:OHX:N4	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D9:5:ASN:CG	31:D9:7:TRP:HE1	2.19	0.46
51:M5:133:ILE:HD12	51:M5:134:LEU:N	2.29	0.46
1:2:1030:A:H4'	1:2:1031:U:OP2	2.14	0.46
1:6:1320:U:O2	1:6:1322:A:H5'	2.15	0.46
21:C9:93:HIS:O	21:C9:94:ILE:HD12	2.15	0.46
70:O4:6:THR:HG22	36:5:1486:G:N2	145.95	0.46
71:O5:47:VAL:O	71:O5:51:ILE:HG13	2.88	0.46
36:5:240:U:O2'	36:5:241:G:H8	1.99	0.46
36:5:3025:C:H2'	36:5:3026:G:O4'	2.15	0.46
1:6:794:U:H3'	1:6:795:U:H5'	1.97	0.46
9:S7:86:GLN:HG2	9:S7:87:ASP:H	1.80	0.46
1:2:1340:U:O4'	1:2:1378:U:H5'	2.15	0.46
36:5:3084:C:H2'	36:5:3085:G:O4'	2.15	0.46
41:L4:3:ARG:HA	41:L4:4:PRO:HD2	1.55	0.46
72:O6:4:LYS:HE2	72:O6:13:LYS:O	3.51	0.46
2:S0:172:LEU:HD13	2:S0:176:LEU:HD11	1.97	0.46
36:1:3215:A:C5'	50:M4:121:MET:HE1	2.45	0.46
36:1:361:A:OP1	73:O7:24:ARG:NH1	2.48	0.46
36:5:2537:U:O2'	36:5:2538:U:O5'	2.33	0.46
23:D1:1:MET:HG2	23:D1:9:VAL:HG12	5.67	0.46
36:1:2736:A:O2'	57:N1:68:THR:HG21	2.15	0.46
1:6:1700:C:O2	1:6:1700:C:H2'	2.16	0.46
11:S9:113:VAL:HG21	11:S9:134:ILE:HG13	1.95	0.46
1:6:191:C:O2'	1:6:192:U:O5'	2.26	0.46
1:2:1536:G:H5'	1:2:1537:C:OP2	2.15	0.46
71:O5:4:VAL:HG23	71:O5:9:LEU:HD11	1.97	0.46
6:S4:29:PRO:O	6:S4:30:ARG:HB3	4.51	0.46
19:C7:82:ASP:O	19:C7:83:GLN:HB2	2.15	0.46
40:L3:4:ARG:O	40:L3:5:LYS:CB	2.59	0.46
61:N5:83:VAL:HG22	61:N5:123:TYR:HD1	2.66	0.46
2:S0:105:GLY:O	2:S0:112:THR:HG21	2.15	0.46
36:1:1070:U:C4	36:1:1071:U:C4	3.03	0.46
45:L8:100:GLU:OE2	45:L8:108:ARG:NH1	2.93	0.46
34:SR:70:ASP:HB2	34:SR:111:MET:O	2.14	0.46
1:2:73:U:H1'	1:2:74:U:O4'	2.16	0.46
8:S6:22:HIS:CD2	8:S6:25:ARG:HH12	4.59	0.46
26:D4:105:ARG:HB2	1:6:443:C:OP2	371.74	0.46
64:N8:76:ASP:HB2	64:N8:115:LYS:O	4.89	0.46
27:D5:47:TYR:CZ	27:D5:51:LEU:HD11	3.28	0.46
5:S3:115:ILE:HD11	5:S3:138:VAL:HG11	1.98	0.46
36:1:2320:A:OP2	86:1:4205:OHX:N5	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:163:GLN:HG2	46:L9:166:ARG:HD2	1.97	0.46
86:1:3959:OHX:N2	86:1:4136:OHX:N6	2.63	0.46
1:6:366:A:OP1	1:6:758:U:O2'	2.18	0.46
36:5:1000:C:C2	36:5:1045:C:N4	2.84	0.46
34:SR:176:LYS:HD3	34:SR:196:ASN:HA	1.97	0.46
1:6:805:U:H2'	1:6:806:A:H5'	1.97	0.46
1:2:1417:A:H2'	1:2:1418:G:O4'	2.15	0.46
41:L4:74:ILE:HD12	41:L4:75:PRO:HD2	4.94	0.46
10:S8:152:ILE:HD13	10:S8:157:GLU:OE1	2.14	0.46
86:2:2116:OHX:N5	86:C1:201:OHX:N3	2.63	0.46
36:1:1856:C:H2'	36:1:1857:C:H6	1.80	0.46
13:C1:84:ILE:HG23	13:C1:111:VAL:HG11	2.12	0.46
86:1:3989:OHX:N5	86:1:4026:OHX:N2	2.62	0.46
4:S2:180:ALA:HB1	4:S2:184:VAL:HB	2.66	0.46
62:N6:74:TYR:CD1	62:N6:77:LYS:HG3	2.50	0.46
7:S5:152:GLY:O	7:S5:154:ALA:N	2.48	0.46
61:N5:91:ASN:OD1	61:N5:94:GLN:HG3	2.15	0.46
44:L7:160:ARG:HG3	44:L7:203:TRP:CD2	2.87	0.46
36:1:168:U:H2'	36:1:169:U:C6	2.50	0.46
27:D5:72:GLY:O	1:6:1534:G:O2'	337.83	0.46
36:5:2317:A:OP2	86:5:4187:OHX:N4	2.48	0.46
52:M6:171:LYS:O	52:M6:175:THR:HG22	2.15	0.46
36:1:645:A:H5'	36:1:2372:A:N7	2.30	0.46
1:6:763:G:C5	1:6:764:U:C4	3.03	0.46
52:M6:54:TYR:O	52:M6:57:PHE:HB3	2.49	0.46
47:M0:174:THR:HG22	47:M0:196:PHE:CE2	6.29	0.46
28:D6:10:ARG:NE	1:6:1795:U:O2	328.19	0.46
1:6:119:A:H1'	1:6:397:A:C5	2.50	0.46
18:C6:115:THR:O	18:C6:115:THR:OG1	2.25	0.46
50:M4:17:VAL:HG12	50:M4:72:LEU:HB3	1.98	0.46
50:M4:17:VAL:HG21	50:M4:74:ARG:HB2	1.96	0.46
16:C4:112:ILE:N	28:D6:56:ALA:O	3.00	0.46
75:O9:10:LYS:HA	75:O9:13:MET:CE	2.40	0.46
4:S2:69:ILE:HD11	4:S2:76:LEU:HD22	2.70	0.46
86:1:4028:OHX:N2	86:1:4040:OHX:N5	2.63	0.46
15:C3:67:THR:O	15:C3:69:ASN:N	2.40	0.46
51:M5:11:GLN:HG3	51:M5:11:GLN:O	2.15	0.46
1:6:1699:G:C2'	1:6:1700:C:H5'	2.46	0.46
11:S9:108:ARG:HH11	11:S9:110:GLN:HG2	2.23	0.46
1:2:415:C:O2'	1:2:416:A:H2'	2.15	0.46
40:L3:37:ARG:HG3	40:L3:186:GLY:HA2	2.09	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:978:G:O2'	36:5:979:U:P	2.74	0.46
2:S0:76:ILE:HD12	2:S0:121:VAL:HG13	1.97	0.46
24:D2:26:LEU:HD23	24:D2:62:VAL:HG22	1.96	0.46
24:D2:8:ALA:HB2	24:D2:74:VAL:HG11	2.56	0.46
8:S6:10:ASN:ND2	8:S6:127:THR:O	3.22	0.46
1:6:139:C:C4	1:6:266:A:C2	3.03	0.46
36:1:1732:U:OP2	86:1:3914:OHX:N6	2.48	0.46
36:5:1013:G:H2'	36:5:1014:U:O4'	2.15	0.46
36:1:3228:C:H6	36:1:3228:C:H2'	1.54	0.46
40:L3:182:GLN:NE2	40:L3:184:ASN:OD1	2.44	0.46
59:N3:35:TYR:CD2	59:N3:63:LYS:HE2	2.89	0.46
64:N8:74:ASN:CB	64:N8:76:ASP:HB3	3.47	0.46
36:1:3118:C:H4'	76:Q0:106:ARG:HH22	1.79	0.46
71:O5:31:LEU:HD12	71:O5:41:LEU:HD21	3.65	0.46
36:5:1480:G:N2	36:5:1872:C:C5	2.83	0.46
5:S3:116:ARG:O	5:S3:120:TYR:N	2.42	0.46
1:2:1528:U:OP1	7:S5:109:LYS:HG2	2.16	0.46
1:2:1616:G:N7	86:2:2173:OHX:N6	2.62	0.46
36:1:62:A:H2'	36:1:63:A:H8	1.80	0.46
1:6:769:A:OP1	86:6:2141:OHX:N4	2.48	0.46
64:N8:110:GLY:O	64:N8:129:PHE:HB2	2.90	0.46
18:C6:86:ALA:O	18:C6:90:VAL:HG13	2.15	0.46
1:2:1113:A:H4'	1:2:1114:G:OP1	2.14	0.46
46:L9:17:THR:HG21	50:M4:3:THR:HB	1.96	0.46
54:M8:60:PRO:HG3	54:M8:144:ARG:HA	1.97	0.46
1:6:1458:G:C2	1:6:1459:C:C4	3.03	0.46
43:L6:64:LEU:HD22	43:L6:65:ILE:H	2.72	0.46
86:2:2116:OHX:N6	86:C1:201:OHX:N3	2.64	0.46
1:6:463:U:OP1	86:6:2208:OHX:N1	2.48	0.46
70:O4:41:ARG:CZ	70:O4:50:ALA:HB1	2.99	0.46
36:5:1895:A:O2'	36:5:3053:G:H4'	2.15	0.46
73:O7:26:SER:HB3	73:O7:35:SER:OG	2.16	0.46
9:S7:38:LEU:HD21	9:S7:77:LEU:HD11	1.97	0.46
1:2:947:U:H2'	1:2:948:G:C8	2.50	0.46
43:L6:10:TYR:HB2	36:5:1353:U:O2	171.45	0.46
78:Q2:71:ARG:HE	78:Q2:80:ARG:NE	2.14	0.46
56:N0:9:VAL:HG22	56:N0:61:ILE:HG12	1.96	0.46
36:1:1701:C:H2'	36:1:1702:U:O4'	2.15	0.46
36:5:2123:G:N7	86:5:4098:OHX:N1	2.63	0.46
36:1:2376:G:H2'	36:1:2377:G:C8	2.50	0.46
40:L3:64:GLY:O	36:5:3038:U:H4'	287.93	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:244:GLY:HA2	36:5:2243:A:H3'	233.23	0.46
34:SR:157:VAL:HG23	34:SR:168:THR:O	2.15	0.46
11:S9:15:PRO:HG2	11:S9:23:ARG:NH1	3.42	0.46
44:L7:63:ILE:HD13	36:5:517:G:H5'	301.83	0.46
86:5:4064:OHX:N1	86:5:4142:OHX:N4	2.63	0.46
46:L9:4:ILE:HG22	56:N0:142:GLN:CD	2.35	0.46
86:6:2062:OHX:N1	86:6:2150:OHX:N3	2.62	0.46
24:D2:56:HIS:O	1:6:862:A:H5'	355.55	0.46
56:N0:93:GLU:OE1	56:N0:135:VAL:HG13	2.15	0.46
26:D4:52:LYS:C	26:D4:54:ALA:H	2.17	0.46
17:C5:130:ARG:NH2	35:SM:65:THR:O	2.48	0.46
17:C5:126:VAL:HG13	35:SM:71:ASN:HD21	1.80	0.46
21:C9:112:GLY:O	21:C9:127:ASN:HB3	2.79	0.46
9:S7:114:ARG:NH2	1:6:637:C:O2	351.19	0.46
9:S7:74:GLN:HG2	9:S7:131:PHE:CD2	4.10	0.46
7:S5:84:LYS:HG3	7:S5:92:ARG:NH1	2.27	0.46
40:L3:188:ILE:HD12	40:L3:191:LYS:HD2	5.38	0.46
6:S4:19:LEU:HD13	1:6:788:A:C5	393.81	0.46
36:5:499:G:H2'	36:5:500:C:H6	1.80	0.46
20:C8:36:LYS:O	20:C8:102:ALA:N	2.53	0.46
34:SR:50:ASP:O	34:SR:52:GLN:N	2.49	0.46
1:2:1657:U:H5	36:1:2125:A:H4'	1.81	0.46
1:6:918:U:H2'	1:6:919:A:C8	2.43	0.46
20:C8:134:ARG:HB2	20:C8:136:GLN:NE2	2.31	0.46
45:L8:110:THR:OG1	45:L8:111:LYS:N	2.49	0.46
27:D5:85:LYS:HE3	27:D5:86:GLU:HB2	1.96	0.46
2:S0:9:LEU:HD23	2:S0:54:TRP:CG	2.50	0.46
14:C2:70:ASN:HA	14:C2:73:LYS:HG2	3.77	0.46
72:O6:60:LEU:HD11	72:O6:68:ARG:HD2	1.97	0.46
1:6:723:G:H5'	1:6:724:C:OP2	2.15	0.46
36:1:3226:A:H2'	36:1:3227:A:O4'	2.15	0.46
56:N0:73:LYS:NZ	56:N0:97:VAL:O	3.59	0.46
38:4:154:C:H2'	38:4:155:A:O4'	2.15	0.46
86:1:4080:OHX:N5	86:1:4150:OHX:N3	2.63	0.46
45:L8:47:SER:OG	36:5:2585:G:N7	171.52	0.46
1:6:1318:G:N7	86:6:2168:OHX:N5	2.63	0.46
26:D4:86:GLU:OE2	26:D4:90:ARG:NH1	2.48	0.46
37:3:121:U:OP2	42:L5:265:TYR:OH	2.20	0.46
50:M4:32:LEU:HD11	50:M4:94:TRP:CG	2.50	0.46
86:1:3974:OHX:N3	86:1:4151:OHX:N6	2.63	0.46
48:M1:17:LEU:HD12	48:M1:129:VAL:HG22	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:72:LYS:C	16:C4:74:VAL:H	2.30	0.46
49:M3:50:PRO:O	49:M3:51:LEU:HB2	4.50	0.46
36:5:1674:G:H2'	36:5:1675:G:O4'	2.15	0.46
36:1:309:U:OP1	72:O6:84:LYS:NZ	2.24	0.46
36:1:200:C:OP2	62:N6:60:ARG:NH1	2.49	0.46
46:L9:2:LYS:HA	46:L9:60:GLY:O	2.15	0.46
36:1:2162:U:H2'	36:1:2163:C:O4'	2.14	0.46
36:1:2163:C:H4'	39:L2:7:ASN:O	2.15	0.46
6:S4:184:THR:C	6:S4:189:LEU:HD13	3.06	0.46
36:5:2590:A:H2'	36:5:2590:A:N3	2.30	0.46
36:5:1210:U:H2'	36:5:1211:U:H6	1.80	0.46
1:2:609:U:H4'	1:2:610:G:O5'	2.16	0.46
36:1:533:A:O2'	36:1:535:G:OP2	2.33	0.46
53:M7:180:LYS:H	53:M7:180:LYS:HG3	1.53	0.46
20:C8:82:PRO:O	20:C8:84:TRP:N	2.44	0.46
50:M4:109:ARG:HD3	52:M6:199:TYR:CZ	2.65	0.46
70:O4:29:ILE:HD11	70:O4:31:ARG:HH21	1.80	0.46
36:5:2442:G:N1	36:5:2443:A:N7	2.63	0.46
28:D6:6:ALA:N	1:6:1796:C:C5	344.67	0.46
28:D6:96:ALA:HA	28:D6:97:PRO:HD3	1.74	0.46
30:D8:42:ARG:NH1	30:D8:56:LEU:HD22	2.31	0.46
64:N8:47:LYS:HD2	64:N8:48:TYR:CE2	5.03	0.46
42:L5:278:SER:C	42:L5:280:GLU:N	3.23	0.46
14:C2:62:LEU:HB3	14:C2:120:VAL:HG13	2.68	0.46
42:L5:269:SER:HA	37:7:22:A:C2	323.83	0.46
69:O3:41:ALA:HB1	69:O3:81:VAL:HG23	1.97	0.46
69:O3:86:ARG:NH1	36:5:498:A:H5'	216.28	0.46
40:L3:139:GLN:OE1	40:L3:142:ALA:HB3	2.15	0.46
67:O1:46:THR:HG21	67:O1:91:SER:OG	2.15	0.46
36:5:118:U:C5	36:5:119:U:C4	3.04	0.46
2:S0:10:THR:OG1	2:S0:12:GLU:HG2	3.83	0.46
1:2:393:C:H4'	1:2:1673:G:O2'	2.15	0.46
1:2:756:A:OP2	86:2:2180:OHX:N2	2.49	0.46
6:S4:159:THR:HB	6:S4:227:VAL:HG23	1.97	0.46
56:N0:13:ARG:NH1	56:N0:13:ARG:HG3	4.29	0.46
36:1:1769:G:OP2	36:1:1769:G:H8	1.98	0.46
52:M6:27:LEU:HA	52:M6:27:LEU:HD23	1.81	0.46
36:1:2433:U:H1'	51:M5:125:SER:HB3	1.96	0.46
59:N3:13:ILE:C	59:N3:13:ILE:HD13	4.42	0.46
6:S4:205:PHE:HB3	6:S4:221:ARG:HD2	1.96	0.46
78:Q2:35:LEU:O	78:Q2:36:PHE:HB2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1716:U:HO2'	36:5:1717:U:P	2.37	0.46
5:S3:192:PRO:O	5:S3:195:SER:OG	4.10	0.46
53:M7:117:ILE:HD13	53:M7:148:LEU:HB3	1.97	0.46
39:L2:143:GLU:O	39:L2:145:LYS:HG2	2.84	0.46
36:1:848:A:H8	36:1:848:A:O5'	1.98	0.46
36:1:1819:U:O4	86:1:4036:OHX:N6	2.49	0.46
30:D8:18:ARG:NH1	1:6:1616:G:H4'	362.37	0.46
1:2:109:G:C6	1:2:110:U:C2	3.03	0.46
51:M5:140:LYS:O	51:M5:144:ARG:HG3	2.16	0.46
15:C3:61:THR:HG22	29:D7:32:PHE:CZ	2.51	0.46
36:1:3055:U:H1'	36:1:3057:U:OP2	2.16	0.46
5:S3:92:GLN:CD	5:S3:92:GLN:N	2.68	0.46
54:M8:60:PRO:HG3	54:M8:144:ARG:HB3	3.95	0.46
58:N2:49:ASN:C	58:N2:51:GLY:H	2.39	0.46
26:D4:88:THR:O	26:D4:92:VAL:HG13	5.90	0.46
36:1:1044:U:OP1	47:M0:90:ARG:NH1	2.49	0.46
1:2:1015:U:H5''	1:2:1016:C:OP2	2.15	0.46
36:1:2416:U:H2'	36:1:2417:U:C6	2.51	0.46
2:S0:27:ARG:HG3	2:S0:44:GLY:O	2.16	0.46
1:6:1427:A:O2'	1:6:1428:G:OP1	2.25	0.46
36:1:1325:U:H2'	36:1:1326:A:O4'	2.15	0.46
36:1:2646:C:H2'	36:1:2647:A:H5'	1.98	0.46
1:6:271:A:C2	1:6:285:G:C5	3.04	0.46
36:5:3238:G:H5''	36:5:3238:G:H8	1.80	0.46
1:2:799:A:H5''	6:S4:201:HIS:NE2	2.31	0.46
24:D2:35:ILE:O	24:D2:39:GLN:HG3	2.70	0.46
1:2:256:A:H2'	1:2:257:A:O4'	2.15	0.46
48:M1:148:VAL:HG13	48:M1:152:HIS:HB3	1.98	0.46
37:7:52:G:C2	37:7:53:U:C6	3.03	0.46
24:D2:44:HIS:CD2	24:D2:101:TYR:HE1	2.34	0.46
1:6:1634:C:O2	86:6:2159:OHX:N2	2.49	0.46
70:O4:82:ALA:O	70:O4:84:CYS:N	3.05	0.46
26:D4:60:PHE:CD1	26:D4:71:GLY:HA3	2.51	0.46
86:5:4063:OHX:N2	86:5:4072:OHX:N1	2.64	0.46
5:S3:144:ALA:HB2	1:6:579:A:N1	391.17	0.46
18:C6:38:LEU:C	18:C6:40:GLU:H	2.18	0.46
1:6:234:G:H2'	1:6:235:G:O4'	2.15	0.46
86:1:3950:OHX:N2	86:1:4033:OHX:N6	2.63	0.46
36:5:1152:G:OP2	36:5:1152:G:H8	1.98	0.46
36:5:811:U:H2'	36:5:812:G:C8	2.50	0.46
44:L7:173:LEU:HD21	44:L7:198:ALA:HA	2.26	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:69:ARG:NH2	36:5:2991:A:N3	194.27	0.46
40:L3:266:ARG:NH2	36:5:2392:C:O2'	209.14	0.46
19:C7:44:LYS:HG3	19:C7:47:ARG:HH12	2.69	0.46
41:L4:283:THR:HG21	41:L4:288:ARG:HH21	7.23	0.46
24:D2:86:ILE:HD12	24:D2:87:GLU:HG3	1.97	0.46
36:1:1879:A:H4'	36:1:1880:U:OP2	2.16	0.46
42:L5:155:THR:HG22	42:L5:179:ARG:NH1	2.36	0.46
86:2:2096:OHX:N4	86:2:2109:OHX:N2	2.64	0.46
1:6:518:A:O2'	1:6:534:A:N6	2.45	0.46
36:1:3227:A:O3'	50:M4:133:LYS:NZ	2.48	0.46
15:C3:136:PRO:O	15:C3:138:ASN:N	3.30	0.46
75:O9:23:LEU:HA	75:O9:24:PRO:HD2	2.32	0.46
6:S4:181:VAL:HB	6:S4:193:GLY:O	4.25	0.46
1:2:866:G:OP1	15:C3:2:GLY:HA3	2.16	0.46
20:C8:8:GLN:HB3	20:C8:9:GLY:H	3.14	0.46
1:6:1255:G:O2'	1:6:1256:A:O5'	2.30	0.46
53:M7:24:VAL:HG13	53:M7:86:LYS:HG2	1.98	0.46
1:2:67:A:H3'	1:2:69:G:C8	2.50	0.46
40:L3:214:MET:SD	40:L3:281:LYS:HB2	3.17	0.46
15:C3:17:PRO:HG3	29:D7:28:PRO:HG3	1.98	0.46
1:2:981:U:H2'	1:2:982:U:H5'	1.98	0.46
3:S1:174:LYS:HE3	3:S1:174:LYS:HB2	1.72	0.46
86:5:4127:OHX:N6	86:5:4145:OHX:N2	2.64	0.46
36:1:224:C:O2	62:N6:103:LYS:NZ	2.49	0.46
51:M5:150:TRP:O	51:M5:153:ASP:HB2	2.84	0.46
60:N4:50:ALA:HA	60:N4:55:PHE:CD2	2.51	0.46
36:5:2590:A:C6	36:5:2591:A:C5	3.04	0.46
1:6:961:U:H2'	1:6:962:C:C6	2.51	0.46
36:1:2337:C:H2'	36:1:2338:C:H6	1.80	0.46
1:2:1304:G:H5'	1:2:1322:A:OP2	2.15	0.46
36:1:1798:A:H2'	36:1:1799:A:C8	2.51	0.46
36:5:3236:U:H1'	36:5:3252:G:N2	2.30	0.46
36:1:2519:A:C2	36:1:2589:G:C2	3.03	0.46
1:6:1572:G:N3	1:6:1572:G:H2'	2.30	0.46
36:5:969:C:H6	36:5:969:C:O5'	1.98	0.46
15:C3:70:LYS:HB3	15:C3:70:LYS:HE2	3.87	0.46
12:C0:72:GLY:O	12:C0:75:TYR:N	2.49	0.46
68:O2:64:LYS:O	68:O2:65:PHE:HB2	2.22	0.46
41:L4:91:GLY:O	41:L4:94:CYS:HB2	2.36	0.46
20:C8:18:LEU:HD21	20:C8:70:VAL:HG13	1.98	0.46
36:5:3163:A:C2'	36:5:3164:C:H5'	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:823:G:OP2	1:2:823:G:N2	2.40	0.46
18:C6:47:LYS:O	18:C6:50:GLU:HB2	2.16	0.46
1:2:143:G:H2'	1:2:144:U:H5''	1.96	0.46
8:S6:139:ASN:HD22	1:6:143:G:P	309.00	0.46
4:S2:133:LYS:O	4:S2:136:VAL:HG23	2.15	0.46
15:C3:34:ILE:HG13	15:C3:67:THR:HG21	1.96	0.46
38:8:4:C:H2'	38:8:5:U:H6	1.81	0.46
1:2:1535:U:H6	1:2:1535:U:H2'	1.53	0.46
36:1:3049:A:OP2	86:1:4177:OHX:N3	2.49	0.46
28:D6:41:ILE:HA	28:D6:67:THR:O	2.16	0.46
36:5:3112:G:O6	86:5:3919:OHX:N6	2.49	0.46
41:L4:316:ASN:O	41:L4:318:LEU:N	4.23	0.46
44:L7:150:LYS:HG2	44:L7:244:ASN:HD21	1.81	0.46
7:S5:43:PHE:HA	7:S5:68:ILE:O	2.15	0.46
40:L3:325:LYS:HG2	40:L3:326:GLY:N	2.81	0.46
20:C8:26:ILE:HG13	20:C8:27:LYS:N	2.29	0.46
5:S3:117:ARG:HE	35:SM:126:ASP:CB	6.47	0.46
2:S0:9:LEU:HD13	2:S0:10:THR:C	3.82	0.46
52:M6:143:THR:OG1	52:M6:150:GLU:OE2	2.23	0.46
1:6:1491:U:H5'	1:6:1492:A:OP1	2.15	0.46
36:5:2819:A:O2'	36:5:2820:A:H5'	2.15	0.46
5:S3:162:GLN:HG3	1:6:1333:C:C4'	427.50	0.46
1:6:1058:U:H1'	1:6:1059:U:H5''	1.98	0.46
46:L9:101:VAL:HG22	46:L9:114:VAL:HG22	1.98	0.46
36:1:995:U:C2	36:1:2637:A:C8	3.04	0.46
1:6:1039:A:O2'	1:6:1040:G:P	2.74	0.46
27:D5:53:GLU:O	27:D5:56:THR:N	5.28	0.46
69:O3:91:ALA:N	69:O3:93:THR:OG1	2.46	0.46
36:1:1710:C:H2'	36:1:1711:C:C6	2.51	0.46
3:S1:212:VAL:O	3:S1:214:LYS:N	2.49	0.46
1:2:707:A:H2'	1:2:708:C:H5''	1.97	0.46
40:L3:81:THR:HG23	40:L3:81:THR:O	3.29	0.46
51:M5:155:VAL:HG23	51:M5:156:HIS:ND1	2.31	0.46
36:1:1306:G:O2'	36:1:1307:G:H5'	2.16	0.46
36:1:1307:G:O4'	52:M6:60:LYS:HE3	2.15	0.46
54:M8:42:ALA:HA	54:M8:43:PRO:HD3	1.78	0.46
1:2:1025:A:H2'	1:2:1027:A:O5'	2.16	0.46
36:5:442:G:N2	36:5:491:C:O2'	2.49	0.46
75:O9:41:ARG:NH1	36:5:1517:G:OP1	97.30	0.46
48:M1:150:ASN:HD21	37:7:17:A:P	325.86	0.46
36:1:3033:A:H2'	36:1:3034:C:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:65:A:C4	36:5:110:G:N7	2.84	0.46
70:O4:20:ILE:HD12	70:O4:20:ILE:HA	1.56	0.46
7:S5:58:LEU:HA	7:S5:58:LEU:HD23	2.22	0.46
53:M7:30:ARG:HD3	53:M7:30:ARG:C	2.37	0.46
7:S5:93:LEU:HA	7:S5:93:LEU:HD23	1.96	0.46
6:S4:240:LYS:N	6:S4:240:LYS:HE2	2.30	0.46
36:5:1855:U:H2'	36:5:1856:C:C6	2.51	0.46
5:S3:119:ALA:O	5:S3:123:VAL:HG23	2.24	0.46
41:L4:290:ILE:HG23	54:M8:35:PHE:CE2	2.51	0.46
36:1:1481:A:H2'	36:1:1481:A:N3	2.31	0.46
36:5:3218:A:O2'	36:5:3277:U:H4'	2.16	0.46
1:2:1202:A:H1'	1:2:1207:C:H42	1.81	0.46
1:2:531:C:OP2	86:2:2071:OHX:N4	2.49	0.46
55:M9:104:ARG:C	55:M9:104:ARG:HE	2.19	0.46
36:5:1760:A:C4	36:5:1766:G:C2	3.04	0.46
50:M4:128:ARG:HG2	50:M4:128:ARG:O	2.15	0.46
36:5:2407:C:H1'	36:5:2818:U:N3	2.30	0.46
1:6:1698:G:H1'	1:6:1699:G:OP1	2.16	0.46
1:6:1697:G:H8	1:6:1705:C:N3	2.14	0.46
3:S1:86:LEU:HB3	3:S1:98:THR:OG1	2.15	0.46
21:C9:27:LYS:HB3	21:C9:111:ILE:HD11	1.98	0.46
51:M5:93:LYS:O	51:M5:94:TYR:HB3	2.16	0.46
36:5:1576:G:N7	36:5:1577:G:C4	2.84	0.46
12:C0:3:MET:HG3	12:C0:3:MET:O	2.16	0.46
1:6:1163:A:N3	1:6:1613:U:O2'	2.31	0.46
1:2:60:U:O4'	1:2:453:U:H5''	2.15	0.46
1:6:219:A:N6	1:6:843:U:O2	2.49	0.46
37:3:22:A:C6	37:3:23:A:C6	3.04	0.46
69:O3:49:ILE:HD12	69:O3:85:PHE:CZ	3.71	0.46
1:6:1542:G:N2	1:6:1569:A:OP2	2.45	0.46
1:2:1603:U:H2'	1:2:1604:U:C6	2.51	0.46
64:N8:3:SER:O	64:N8:6:THR:HB	2.63	0.46
45:L8:63:LYS:O	45:L8:67:ILE:HD12	2.16	0.46
6:S4:255:ARG:HG3	6:S4:255:ARG:HH11	4.49	0.46
40:L3:43:LEU:HD12	40:L3:43:LEU:HA	2.02	0.46
36:1:623:U:OP1	86:1:4128:OHX:N3	2.48	0.46
36:1:2299:A:OP2	86:1:3946:OHX:N1	2.49	0.46
12:C0:34:GLU:O	12:C0:35:ILE:HB	4.26	0.46
63:N7:108:GLU:HA	63:N7:111:LYS:HE3	1.97	0.46
36:1:2790:A:OP2	54:M8:181:SER:HB3	2.16	0.46
45:L8:156:ASP:O	45:L8:157:VAL:HB	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1783:C:H2'	1:6:1784:C:H6	1.81	0.46
53:M7:121:GLN:O	38:8:14:C:H5'	134.41	0.46
22:D0:50:LEU:O	22:D0:51:VAL:HG13	4.88	0.46
48:M1:165:GLN:HG2	48:M1:166:LYS:H	1.80	0.46
41:L4:191:LYS:HG2	41:L4:194:TYR:OH	2.16	0.46
8:S6:1:MET:HG3	8:S6:2:LYS:H	3.35	0.46
5:S3:27:ARG:CD	12:C0:60:SER:HB2	2.45	0.46
36:5:656:A:H2'	36:5:657:A:C8	2.51	0.46
6:S4:195:ILE:O	6:S4:196:VAL:HG23	4.43	0.46
6:S4:195:ILE:HG23	6:S4:208:VAL:CG1	3.84	0.46
25:D3:13:ARG:O	25:D3:17:VAL:HB	3.67	0.46
38:4:107:G:OP2	86:4:234:OHX:N2	2.49	0.46
86:1:3959:OHX:N5	86:1:4136:OHX:N3	2.64	0.46
38:4:104:A:C8	38:4:105:A:C8	3.03	0.46
1:2:147:A:H2'	1:2:148:A:O4'	2.16	0.46
36:1:2503:G:H1'	36:1:2504:U:C5	2.49	0.46
36:1:3318:G:O2'	36:1:3319:U:OP2	2.27	0.46
39:L2:243:THR:OG1	36:5:2244:A:H5''	228.00	0.46
40:L3:221:THR:HG22	40:L3:273:HIS:H	1.81	0.46
5:S3:183:GLY:O	5:S3:184:ILE:HD13	3.26	0.46
38:8:129:C:O2'	38:8:130:C:H5'	2.16	0.46
1:2:1141:G:H2'	1:2:1142:A:C8	2.51	0.46
21:C9:92:LYS:HE3	21:C9:94:ILE:HD11	2.02	0.46
73:O7:19:CYS:O	73:O7:23:GLY:N	2.45	0.46
36:5:1906:G:N2	36:5:1909:A:N1	2.63	0.46
1:2:869:A:H5''	15:C3:90:TYR:CD2	2.51	0.46
5:S3:32:GLU:O	5:S3:54:ARG:HB2	3.86	0.46
5:S3:54:ARG:HB2	5:S3:54:ARG:HE	1.46	0.46
41:L4:157:GLU:HB3	41:L4:211:GLU:O	2.16	0.46
39:L2:41:ILE:HG13	39:L2:42:ARG:N	3.38	0.46
18:C6:136:SER:O	18:C6:137:ARG:NE	2.48	0.46
16:C4:107:ARG:HB2	16:C4:107:ARG:HH21	1.81	0.46
72:O6:5:THR:HG23	72:O6:12:ASN:O	2.60	0.46
1:6:1671:A:H2'	1:6:1672:G:O4'	2.16	0.46
36:1:271:C:H2'	36:1:272:G:O4'	2.15	0.46
36:5:3276:G:OP2	36:5:3276:G:H2'	2.16	0.46
7:S5:73:THR:HG23	18:C6:114:ARG:CG	2.44	0.46
52:M6:68:ARG:NH1	36:5:2988:C:P	215.83	0.46
36:1:911:C:H42	39:L2:3:ARG:HD3	1.81	0.46
2:S0:185:ARG:N	23:D1:45:ALA:H	2.65	0.46
10:S8:21:PHE:CZ	1:6:106:U:H4'	319.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:230:TRP:HE1	24:D2:68:ARG:HB2	3.91	0.46
10:S8:163:GLY:HA3	36:1:3354:U:H1'	1.97	0.46
51:M5:97:SER:O	51:M5:100:ALA:N	2.62	0.46
9:S7:39:ARG:HH22	55:M9:185:LEU:HA	1.81	0.46
42:L5:280:GLU:CD	42:L5:280:GLU:H	2.19	0.46
24:D2:32:LYS:HG3	1:6:637:C:OP1	363.96	0.46
1:6:152:U:O2	1:6:163:G:N2	2.49	0.46
16:C4:81:VAL:HG13	16:C4:115:ILE:HG21	1.97	0.46
42:L5:64:ILE:HG13	42:L5:109:THR:HG21	4.56	0.46
6:S4:45:ILE:O	6:S4:49:ARG:HB3	2.51	0.46
10:S8:165:LEU:HD13	10:S8:183:ILE:HD13	1.98	0.46
53:M7:60:PHE:O	53:M7:64:ASN:ND2	2.46	0.46
40:L3:284:ARG:HB3	40:L3:323:MET:CB	2.46	0.46
63:N7:67:LYS:HA	63:N7:67:LYS:HD2	1.48	0.46
47:M0:100:ASN:OD1	86:M0:303:OHX:N5	5.64	0.46
1:6:219:A:N6	1:6:843:U:C2	2.84	0.46
36:5:3245:A:H2	36:5:3246:G:N1	2.14	0.46
18:C6:53:LEU:HG	18:C6:53:LEU:H	1.05	0.46
36:1:839:C:H4'	36:1:1724:U:H2'	1.96	0.46
6:S4:247:SER:OG	6:S4:250:GLU:HG3	2.24	0.46
46:L9:76:ASP:O	46:L9:80:THR:HG22	2.51	0.46
17:C5:64:LYS:HG3	17:C5:73:PRO:HG3	1.98	0.46
13:C1:54:ILE:HD12	13:C1:54:ILE:HA	1.82	0.46
33:E1:108:VAL:HA	33:E1:113:LYS:O	2.15	0.46
36:5:1815:U:O2'	36:5:1816:A:P	2.74	0.46
36:1:1097:G:C8	57:N1:128:LEU:HD13	2.51	0.46
36:1:1408:G:P	68:O2:33:ARG:HH22	2.39	0.46
34:SR:13:LEU:HB2	34:SR:310:ILE:HB	2.11	0.46
45:L8:195:SER:O	45:L8:195:SER:OG	2.47	0.46
35:SM:25:ILE:HG22	48:M1:46:VAL:HG23	3.13	0.46
59:N3:79:VAL:HG23	59:N3:80:ARG:HG3	1.97	0.46
38:8:145:U:H2'	38:8:146:U:H6	1.80	0.46
46:L9:112:ILE:N	46:L9:126:VAL:O	2.35	0.46
56:N0:53:LYS:C	56:N0:55:SER:H	3.02	0.46
1:2:1233:G:OP1	86:2:2153:OHX:N1	2.48	0.46
45:L8:241:LYS:HB2	36:5:2586:G:C5	184.31	0.46
36:5:407:A:C2	38:8:17:A:H1'	2.51	0.46
36:5:1307:G:C2	36:5:1308:A:C2	3.04	0.46
69:O3:88:ASN:HB2	36:5:429:U:H4'	214.78	0.46
36:5:434:U:H2'	36:5:435:C:C6	2.51	0.46
37:7:110:G:N7	86:7:224:OHX:N6	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3060:C:H1'	36:1:3332:U:H1'	1.97	0.46
5:S3:80:ALA:O	5:S3:83:THR:HG23	2.15	0.46
54:M8:177:GLY:HA2	54:M8:184:PHE:CE2	2.83	0.46
37:7:49:G:H4'	37:7:50:U:O5'	2.16	0.46
36:5:1138:U:H2'	36:5:1139:G:O4'	2.16	0.46
3:S1:157:GLN:H	3:S1:160:HIS:HB2	1.81	0.46
36:1:3215:A:O5'	50:M4:121:MET:HE1	2.15	0.46
2:S0:92:HIS:HB3	2:S0:182:LEU:HD11	2.52	0.46
1:6:190:C:O2'	1:6:191:C:O5'	2.33	0.46
28:D6:44:ILE:HD12	28:D6:45:VAL:N	2.31	0.46
3:S1:29:TRP:NE1	3:S1:47:LEU:HG	2.29	0.46
40:L3:211:GLN:NE2	40:L3:283:TYR:C	3.03	0.46
7:S5:84:LYS:HD3	1:6:1613:U:OP2	366.50	0.46
8:S6:163:THR:HG22	8:S6:168:THR:HA	1.98	0.46
1:6:217:A:HO2'	1:6:218:A:P	2.37	0.46
40:L3:232:ARG:HG2	40:L3:233:TRP:CD1	2.78	0.46
29:D7:59:CYS:HB2	29:D7:61:THR:CG2	4.59	0.46
21:C9:16:ASN:HA	21:C9:56:LYS:HZ3	3.33	0.46
2:S0:163:ASN:C	2:S0:165:ARG:H	2.34	0.46
1:2:134:U:OP1	1:2:136:C:N4	2.49	0.46
48:M1:89:TYR:HB3	48:M1:169:ALA:CB	2.45	0.46
14:C2:60:VAL:HG23	14:C2:87:PRO:HG2	1.98	0.46
63:N7:36:HIS:N	63:N7:37:PRO:HD3	3.15	0.46
54:M8:122:ILE:HD12	54:M8:122:ILE:HA	1.72	0.46
86:6:2128:OHX:N2	86:6:2153:OHX:N4	2.64	0.46
49:M3:47:ALA:HB1	49:M3:48:PRO:CD	2.46	0.46
59:N3:104:ASN:ND2	59:N3:108:GLU:HG3	4.66	0.46
36:1:1081:U:OP1	86:1:3965:OHX:N6	2.49	0.46
36:5:3294:A:H2'	36:5:3295:A:O4'	2.16	0.46
8:S6:14:LYS:HZ3	8:S6:123:GLY:H	1.64	0.46
64:N8:147:LEU:HD12	72:O6:7:ILE:HD11	6.12	0.46
36:1:1710:C:H2'	36:1:1711:C:H6	1.80	0.46
36:1:2506:U:H2'	36:1:2507:C:C6	2.50	0.46
21:C9:6:VAL:HG22	21:C9:66:TYR:HE1	1.81	0.46
21:C9:6:VAL:HG22	21:C9:66:TYR:CE1	2.50	0.46
36:1:2396:G:OP1	36:1:2397:A:H4'	2.16	0.46
36:1:908:G:H4'	36:1:909:G:O5'	2.16	0.46
51:M5:48:ALA:C	51:M5:53:TYR:HB3	2.53	0.46
61:N5:91:ASN:OD1	61:N5:93:TYR:HB2	2.60	0.46
54:M8:42:ALA:HB2	54:M8:133:LYS:HD3	2.72	0.46
76:Q0:118:THR:OG1	76:Q0:119:ASN:N	2.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:182:ASN:ND2	52:M6:186:ALA:HB2	6.36	0.46
36:1:2206:G:OP2	36:1:2206:G:H8	1.98	0.46
36:5:1270:A:H2'	36:5:1271:A:O4'	2.16	0.46
61:N5:92:LYS:HE3	36:5:1831:U:OP2	104.00	0.46
5:S3:53:THR:HG22	5:S3:91:VAL:HG11	2.28	0.46
1:6:1660:A:H2'	1:6:1661:U:C6	2.50	0.46
14:C2:24:ILE:O	14:C2:25:GLU:HG2	2.15	0.46
1:6:1732:A:H2'	1:6:1733:C:H6	1.81	0.46
1:6:1370:U:O3'	1:6:1371:A:H4'	2.16	0.46
1:2:1635:A:O5'	1:2:1635:A:H8	1.99	0.46
42:L5:90:HIS:ND1	42:L5:90:HIS:N	2.64	0.46
5:S3:204:ASP:HB2	1:6:1331:A:N3	423.21	0.46
11:S9:115:LYS:HD2	11:S9:115:LYS:HA	1.72	0.46
1:6:1110:G:N2	1:6:1136:U:H1'	2.31	0.46
1:6:678:A:C8	1:6:679:U:C4	3.04	0.46
32:E0:2:ALA:HA	1:6:1647:U:O2	330.30	0.46
1:6:1686:C:H2'	1:6:1687:U:H6	1.81	0.46
86:1:4053:OHX:N3	86:3:218:OHX:N6	2.64	0.45
7:S5:99:MET:HG3	7:S5:180:ARG:HH22	2.42	0.45
28:D6:58:VAL:HG22	28:D6:59:TYR:N	3.64	0.45
30:D8:42:ARG:CZ	30:D8:56:LEU:HD22	2.75	0.45
7:S5:225:ARG:NH2	30:D8:58:GLU:H	5.85	0.45
16:C4:42:VAL:HG23	16:C4:63:ALA:HB1	1.96	0.45
18:C6:143:ARG:HH22	35:SM:84:LYS:HZ2	1.64	0.45
8:S6:7:TYR:CD2	8:S6:113:ILE:HD12	3.71	0.45
40:L3:56:ILE:HD12	40:L3:56:ILE:HA	1.95	0.45
36:1:685:G:OP2	49:M3:35:ARG:NH1	2.49	0.45
61:N5:105:VAL:HG12	61:N5:130:TYR:CD2	5.60	0.45
46:L9:8:GLN:HB2	46:L9:55:VAL:HG23	2.15	0.45
37:7:73:C:C3'	37:7:73:C:C6	2.96	0.45
36:1:663:C:H2'	36:1:664:U:H6	1.80	0.45
45:L8:110:THR:O	45:L8:114:ALA:HB3	2.78	0.45
36:1:1507:G:N7	53:M7:129:THR:HG22	2.32	0.45
1:2:813:U:C2	55:M9:163:ARG:HD2	2.51	0.45
52:M6:147:TRP:CZ3	52:M6:150:GLU:HB2	2.51	0.45
6:S4:160:VAL:HG11	6:S4:169:ILE:HG12	2.31	0.45
72:O6:56:ARG:O	72:O6:60:LEU:HD22	4.65	0.45
41:L4:191:LYS:HB2	36:5:1380:G:OP1	115.18	0.45
14:C2:136:ILE:HA	14:C2:139:HIS:HB3	1.98	0.45
27:D5:47:TYR:O	27:D5:50:ILE:HG22	2.15	0.45
29:D7:44:THR:HB	29:D7:63:LEU:HD11	4.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:1:4047:OHX:N2	86:1:4156:OHX:N1	2.64	0.45
1:2:1527:C:H2'	1:2:1528:U:H6	1.81	0.45
51:M5:144:ARG:HG3	51:M5:144:ARG:H	1.53	0.45
69:O3:75:HIS:HB3	69:O3:80:VAL:CG1	2.47	0.45
61:N5:46:TYR:HD2	71:O5:75:TYR:HB3	1.81	0.45
86:1:3974:OHX:N1	86:1:4151:OHX:N2	2.63	0.45
86:1:4137:OHX:N4	86:1:4180:OHX:N2	2.63	0.45
36:5:2427:U:H2'	36:5:2428:U:C6	2.51	0.45
55:M9:68:GLN:O	55:M9:72:GLU:HG3	3.92	0.45
70:O4:41:ARG:HA	70:O4:56:THR:HG22	3.59	0.45
5:S3:202:LEU:C	5:S3:204:ASP:H	2.65	0.45
10:S8:193:LEU:O	10:S8:197:THR:HG23	2.15	0.45
44:L7:65:ALA:HB1	44:L7:76:TYR:CD1	2.51	0.45
36:1:1201:C:N3	86:1:4017:OHX:N1	2.65	0.45
68:O2:74:PHE:HB3	68:O2:85:LEU:HD11	2.74	0.45
36:1:2268:U:O2	36:1:2272:G:N2	2.38	0.45
71:O5:18:ALA:O	71:O5:22:VAL:HG23	2.16	0.45
18:C6:43:ILE:HD13	18:C6:43:ILE:H	1.82	0.45
48:M1:15:GLU:HB3	48:M1:130:VAL:HG22	1.97	0.45
37:3:43:U:H4'	48:M1:140:ARG:O	2.16	0.45
18:C6:47:LYS:HZ1	18:C6:114:ARG:HD3	3.84	0.45
7:S5:97:LEU:HA	7:S5:97:LEU:HD23	2.07	0.45
86:1:4076:OHX:N4	86:1:4146:OHX:N1	2.65	0.45
15:C3:114:ARG:O	15:C3:118:ILE:HG13	2.15	0.45
62:N6:112:ASP:HB2	62:N6:115:ARG:HB2	1.98	0.45
36:5:1470:U:H2'	36:5:1471:U:C6	2.51	0.45
36:5:1249:G:H2'	36:5:1250:G:C8	2.45	0.45
46:L9:188:THR:HG22	46:L9:189:GLU:H	4.77	0.45
42:L5:102:GLY:O	42:L5:105:ILE:HG22	2.21	0.45
23:D1:71:ARG:HG3	23:D1:83:TRP:CE2	2.94	0.45
14:C2:66:VAL:HB	14:C2:67:THR:H	1.43	0.45
61:N5:38:LEU:HD22	61:N5:39:LYS:N	2.31	0.45
7:S5:37:GLN:NE2	18:C6:53:LEU:HD13	2.31	0.45
25:D3:38:PHE:HB3	1:6:359:A:C2	324.88	0.45
6:S4:146:THR:HG21	1:6:123:G:N2	339.95	0.45
36:1:3279:A:C6	36:1:3280:U:C4	3.05	0.45
26:D4:8:ARG:HD2	1:6:780:A:N3	439.03	0.45
1:6:836:U:H2'	1:6:837:G:H8	1.80	0.45
1:2:649:U:O2'	1:2:650:U:H6	1.98	0.45
58:N2:15:PHE:CE2	58:N2:71:PHE:HD1	2.66	0.45
36:1:3285:C:H2'	36:1:3286:G:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:127:LYS:HE2	18:C6:132:LYS:O	5.15	0.45
19:C7:59:LYS:NZ	1:6:1392:U:OP1	425.69	0.45
22:D0:51:VAL:HB	22:D0:52:LYS:H	4.16	0.45
38:4:79:A:C6	38:4:80:A:C2	3.05	0.45
68:O2:27:ARG:HB3	36:5:655:C:OP1	161.68	0.45
86:1:4047:OHX:N2	86:1:4156:OHX:N4	2.64	0.45
15:C3:52:VAL:C	15:C3:54:LEU:H	2.20	0.45
1:2:67:A:H2'	1:2:69:G:O4'	2.17	0.45
36:1:938:C:OP1	36:1:963:G:H5'	2.16	0.45
36:1:1307:G:C5	52:M6:60:LYS:HD3	2.52	0.45
48:M1:108:GLU:HG2	48:M1:122:ILE:HG21	1.97	0.45
36:5:1210:U:H2'	36:5:1211:U:C6	2.52	0.45
61:N5:92:LYS:HE2	61:N5:110:VAL:O	2.16	0.45
48:M1:173:ASP:HB3	48:M1:174:LYS:H	1.62	0.45
28:D6:12:LYS:NZ	28:D6:12:LYS:HB3	3.44	0.45
41:L4:287:THR:HG22	36:5:1349:G:OP2	171.08	0.45
28:D6:25:ASN:HB3	28:D6:77:CYS:SG	2.57	0.45
76:Q0:83:LYS:O	76:Q0:87:SER:OG	2.62	0.45
1:2:585:A:N6	1:2:586:G:O6	2.49	0.45
8:S6:140:ASN:ND2	1:6:168:A:OP1	317.28	0.45
39:L2:40:TYR:HA	39:L2:91:GLY:HA3	1.97	0.45
42:L5:274:GLN:OE1	37:7:60:G:N2	332.49	0.45
1:6:1360:A:C4	1:6:1361:U:H1'	2.51	0.45
55:M9:152:GLU:O	55:M9:156:ASN:HB2	2.17	0.45
1:6:846:G:H2'	1:6:847:A:C8	2.51	0.45
36:5:3071:U:H2'	36:5:3072:C:O4'	2.17	0.45
50:M4:24:LYS:HE2	50:M4:24:LYS:HB2	2.66	0.45
43:L6:20:LYS:HD3	43:L6:20:LYS:HA	1.67	0.45
19:C7:119:LEU:H	19:C7:119:LEU:HD12	1.81	0.45
36:1:2722:U:O2'	57:N1:88:ARG:O	2.30	0.45
1:2:1789:G:C8	1:2:1789:G:C5'	3.00	0.45
3:S1:79:HIS:CD2	3:S1:82:ARG:HE	2.33	0.45
47:M0:157:TYR:CD1	36:5:2836:C:H4'	311.45	0.45
36:5:1464:G:O6	86:5:3975:OHX:N3	2.49	0.45
28:D6:59:TYR:C	28:D6:61:GLU:H	3.72	0.45
40:L3:347:SER:O	40:L3:348:ARG:CB	2.74	0.45
62:N6:120:GLN:CD	62:N6:126:LEU:HA	8.34	0.45
1:6:823:G:C5	1:6:850:A:C2	3.03	0.45
36:1:2534:G:N2	36:1:2535:A:N7	2.64	0.45
38:8:65:A:H2'	38:8:66:A:O4'	2.16	0.45
42:L5:278:SER:HB2	42:L5:280:GLU:OE1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2992:U:H1'	53:M7:69:ARG:HH21	1.82	0.45
5:S3:170:THR:HG22	5:S3:187:LYS:HG2	3.14	0.45
61:N5:67:ILE:CD1	61:N5:121:LYS:HG3	2.59	0.45
41:L4:150:LEU:HD11	41:L4:172:VAL:HG12	1.99	0.45
7:S5:23:VAL:O	7:S5:34:GLN:NE2	2.48	0.45
13:C1:3:THR:O	13:C1:4:GLU:HB3	2.16	0.45
67:O1:44:MET:O	67:O1:46:THR:N	3.09	0.45
2:S0:29:VAL:HG23	2:S0:30:GLN:H	3.39	0.45
36:1:1507:G:N7	53:M7:129:THR:CG2	2.80	0.45
49:M3:59:ARG:O	49:M3:60:ALA:HB3	4.57	0.45
49:M3:91:ARG:CZ	49:M3:97:VAL:HB	2.46	0.45
1:2:1735:U:OP2	59:N3:32:ARG:NH1	2.49	0.45
36:1:1393:A:N3	36:1:1419:A:O2'	2.48	0.45
49:M3:168:ARG:NH2	36:5:769:G:O2'	145.46	0.45
36:1:364:G:OP1	41:L4:60:THR:HG23	2.16	0.45
33:E1:98:VAL:O	33:E1:99:LYS:HG2	3.30	0.45
36:1:1807:G:C6	36:1:1808:G:N1	2.84	0.45
1:2:1784:C:N4	77:Q1:5:TRP:CH2	2.83	0.45
7:S5:156:ARG:HG3	7:S5:156:ARG:H	1.54	0.45
15:C3:136:PRO:HA	15:C3:137:PRO:HD2	2.38	0.45
36:1:2800:G:O6	64:N8:42:ARG:NH2	2.44	0.45
86:1:4057:OHX:N3	86:1:4170:OHX:N1	2.64	0.45
55:M9:172:ARG:O	55:M9:176:ARG:HG2	2.34	0.45
53:M7:120:ASN:HB2	53:M7:121:GLN:H	1.67	0.45
40:L3:114:VAL:O	40:L3:117:ARG:HB3	2.23	0.45
36:1:242:C:O2'	36:1:243:G:H8	1.98	0.45
38:4:143:U:H2'	38:4:144:G:O4'	2.15	0.45
1:2:1149:G:H5''	1:2:1150:G:OP1	2.16	0.45
57:N1:78:LYS:HB3	57:N1:87:LYS:HG3	1.97	0.45
69:O3:90:PRO:O	69:O3:91:ALA:HB3	2.16	0.45
36:1:2209:U:C6	36:1:2209:U:OP2	2.69	0.45
36:1:1662:G:N2	36:1:1788:C:O2	2.50	0.45
54:M8:94:PHE:CZ	64:N8:119:PRO:HD3	2.95	0.45
2:S0:177:LEU:O	2:S0:181:VAL:HG13	3.18	0.45
1:2:1182:U:H2'	1:2:1184:A:OP2	2.17	0.45
55:M9:180:LYS:HD3	55:M9:184:LEU:HD12	2.31	0.45
40:L3:54:THR:OG1	40:L3:360:ASP:HB3	2.16	0.45
43:L6:154:LEU:HA	43:L6:157:GLN:OE1	2.16	0.45
36:5:2662:G:H2'	36:5:2663:G:C8	2.51	0.45
36:1:2367:A:H2'	36:1:2368:A:O4'	2.16	0.45
38:4:26:U:H5'	41:L4:53:SER:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:108:ILE:O	49:M3:111:ALA:HB3	2.16	0.45
54:M8:8:LYS:HB2	54:M8:8:LYS:HE3	1.74	0.45
42:L5:259:LYS:H	42:L5:259:LYS:HG2	4.10	0.45
19:C7:78:ARG:O	19:C7:81:LYS:N	3.97	0.45
37:7:33:U:H2'	37:7:34:C:O4'	2.16	0.45
1:6:1761:U:O4	86:6:2191:OHX:N2	2.49	0.45
36:1:2686:A:OP2	86:1:3898:OHX:N2	2.50	0.45
37:7:107:C:H2'	37:7:108:A:C8	2.51	0.45
70:O4:80:ARG:NH1	70:O4:88:ARG:HH21	2.14	0.45
86:1:4053:OHX:N1	86:3:218:OHX:N2	2.64	0.45
2:S0:186:GLY:O	2:S0:188:LEU:N	2.47	0.45
36:1:1362:G:O2'	44:L7:159:GLN:HA	2.17	0.45
56:N0:90:MET:HG2	36:5:1213:G:H4'	317.70	0.45
17:C5:127:ARG:NH2	35:SM:65:THR:OG1	3.70	0.45
43:L6:129:GLU:O	43:L6:130:ILE:HG13	3.82	0.45
53:M7:64:ASN:C	53:M7:67:ILE:HD13	3.19	0.45
1:6:916:U:H5''	1:6:917:U:OP2	2.17	0.45
17:C5:16:SER:HA	17:C5:20:VAL:O	2.17	0.45
14:C2:123:VAL:HG11	14:C2:126:TRP:HB3	1.98	0.45
9:S7:51:VAL:HG11	9:S7:168:SER:HB3	2.69	0.45
1:2:830:U:H2'	1:2:830:U:O2	2.15	0.45
1:2:274:G:N2	1:2:275:C:H1'	2.31	0.45
39:L2:204:MET:HE3	39:L2:208:ASP:HB3	1.97	0.45
79:Q3:36:ARG:HG2	79:Q3:45:LYS:HG2	6.72	0.45
21:C9:11:ALA:O	21:C9:15:ILE:HG13	3.20	0.45
36:1:2529:A:C2	36:1:2582:C:C2	3.04	0.45
1:6:780:A:C3'	1:6:781:U:H5'	2.47	0.45
49:M3:56:PRO:HG2	49:M3:72:GLY:HA3	1.99	0.45
40:L3:119:TYR:CE2	40:L3:129:ALA:HB2	3.10	0.45
19:C7:113:LEU:HG	19:C7:114:GLY:N	2.31	0.45
42:L5:155:THR:HB	42:L5:179:ARG:HA	1.99	0.45
86:2:2096:OHX:N6	86:2:2109:OHX:N5	2.64	0.45
56:N0:13:ARG:HA	56:N0:56:GLY:HA2	1.98	0.45
67:O1:19:ARG:HD3	67:O1:35:GLU:HG3	1.98	0.45
19:C7:65:PRO:HB3	19:C7:74:GLN:OE1	4.92	0.45
36:5:2213:A:N1	36:5:2429:G:H1'	2.32	0.45
1:2:328:A:N3	10:S8:86:SER:OG	2.38	0.45
6:S4:207:LEU:HD23	6:S4:221:ARG:HA	1.98	0.45
6:S4:124:GLY:HA2	6:S4:142:HIS:CE1	2.70	0.45
36:1:2867:C:H5'	36:1:2867:C:C6	2.49	0.45
51:M5:38:ARG:NH2	38:8:143:U:OP1	108.26	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:95:ASN:ND2	1:6:1612:U:OP1	372.92	0.45
36:1:1682:U:C5	58:N2:85:LYS:HG2	2.52	0.45
57:N1:17:ARG:HB3	57:N1:22:HIS:CE1	2.51	0.45
55:M9:92:GLN:O	55:M9:96:ILE:HG13	2.16	0.45
88:1:4209:3J2:H18	88:1:4209:3J2:O3	2.16	0.45
2:S0:22:THR:HG22	2:S0:169:SER:OG	3.74	0.45
4:S2:38:VAL:N	4:S2:65:GLU:OE1	3.11	0.45
9:S7:41:LEU:HD13	9:S7:70:PHE:CD1	2.52	0.45
1:2:766:U:H3'	1:2:768:C:OP2	2.17	0.45
13:C1:75:VAL:HG22	13:C1:84:ILE:HD12	1.97	0.45
36:5:1270:A:H2'	36:5:1271:A:C8	2.52	0.45
11:S9:27:GLU:HB3	11:S9:39:LYS:HD2	2.15	0.45
24:D2:73:GLY:HA3	24:D2:128:PHE:CZ	2.66	0.45
17:C5:96:ILE:N	17:C5:103:ASN:O	2.83	0.45
36:1:729:C:O2'	54:M8:79:LYS:HE2	2.16	0.45
20:C8:44:ASN:O	20:C8:48:LYS:HG3	2.44	0.45
52:M6:156:LEU:HB3	36:5:3243:A:C5	266.81	0.45
1:6:909:U:H2'	1:6:910:C:C6	2.52	0.45
1:6:373:G:N7	86:6:2190:OHX:N3	2.64	0.45
1:6:570:A:H5''	1:6:571:G:OP2	2.17	0.45
11:S9:162:SER:OG	11:S9:163:PRO:O	2.25	0.45
36:1:816:A:H5''	36:1:920:A:H62	1.81	0.45
68:O2:9:ILE:HG12	68:O2:63:THR:HB	1.97	0.45
28:D6:6:ALA:N	1:6:1796:C:H5	344.63	0.45
24:D2:18:GLU:HG2	24:D2:65:LEU:HG	2.33	0.45
40:L3:29:VAL:HG22	40:L3:218:ILE:HD12	1.99	0.45
45:L8:136:LEU:HD11	45:L8:162:LEU:O	2.16	0.45
1:6:1702:A:H8	1:6:1703:C:C6	2.35	0.45
66:O0:32:LYS:HE2	66:O0:32:LYS:HB2	1.57	0.45
1:2:899:G:H2'	1:2:900:A:C8	2.51	0.45
35:SM:57:ASN:O	35:SM:60:ALA:HB3	2.16	0.45
42:L5:105:ILE:HA	42:L5:105:ILE:HD13	1.69	0.45
40:L3:55:THR:O	40:L3:56:ILE:HD12	2.17	0.45
18:C6:20:ALA:HA	18:C6:66:ARG:O	2.20	0.45
44:L7:208:SER:HB2	36:5:1334:U:H1'	240.98	0.45
40:L3:150:ARG:NH1	40:L3:150:ARG:HG2	4.30	0.45
36:1:1815:U:H1'	36:1:1816:A:O5'	2.17	0.45
1:2:927:C:H2'	1:2:928:U:C6	2.51	0.45
1:6:838:G:C6	1:6:839:U:C4	3.05	0.45
36:5:199:A:C4	36:5:201:A:C8	3.04	0.45
38:8:149:A:H2'	38:8:150:G:H8	1.79	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:124:HIS:CD2	1:6:479:C:H5'	451.71	0.45
6:S4:137:PRO:HG2	6:S4:150:PRO:HD2	2.87	0.45
36:5:3228:C:H4'	36:5:3229:G:O5'	2.15	0.45
45:L8:60:ARG:O	45:L8:64:ILE:HG13	3.37	0.45
1:6:1258:U:H5	1:6:1259:U:C2	2.35	0.45
1:2:1591:C:H2'	1:2:1592:A:C8	2.51	0.45
50:M4:135:LEU:HD21	52:M6:174:PHE:CE2	2.49	0.45
15:C3:75:LEU:O	15:C3:80:LEU:N	2.53	0.45
49:M3:48:PRO:HD2	71:O5:115:LYS:HD2	1.97	0.45
5:S3:116:ARG:HB2	5:S3:116:ARG:NH1	5.07	0.45
86:1:4047:OHX:N6	86:1:4156:OHX:N4	2.65	0.45
24:D2:53:ILE:HG13	24:D2:54:ASP:N	2.29	0.45
56:N0:6:GLU:OE1	56:N0:99:ARG:NH2	3.14	0.45
79:Q3:84:ARG:NH1	79:Q3:88:GLU:OE1	2.44	0.45
13:C1:67:ARG:N	13:C1:67:ARG:HD3	2.37	0.45
1:2:1388:A:HO2'	1:2:1411:A:H2	1.65	0.45
45:L8:101:THR:OG1	45:L8:104:GLU:HG3	2.44	0.45
56:N0:34:GLU:O	56:N0:38:LYS:HG3	2.74	0.45
86:7:221:OHX:N1	86:7:226:OHX:N2	2.64	0.45
9:S7:126:LEU:HD13	9:S7:173:TYR:CD2	3.67	0.45
36:1:1340:G:H2'	36:1:1341:U:C6	2.51	0.45
42:L5:81:HIS:C	42:L5:81:HIS:ND1	2.70	0.45
55:M9:69:SER:O	55:M9:74:ARG:HB2	2.17	0.45
49:M3:174:ARG:NH2	72:O6:9:ILE:HD13	2.31	0.45
13:C1:76:VAL:HG12	13:C1:85:VAL:O	2.38	0.45
36:1:1204:A:H2	36:1:2834:G:N3	2.14	0.45
42:L5:99:TYR:CD2	42:L5:199:ILE:HG12	2.52	0.45
10:S8:2:GLY:HA2	1:6:1729:C:O2'	286.89	0.45
14:C2:93:ASP:HB3	14:C2:96:GLN:HB2	3.97	0.45
2:S0:153:SER:O	2:S0:156:VAL:HG23	4.26	0.45
1:6:1431:C:H1'	1:6:1437:U:O4	2.17	0.45
1:6:1344:A:H4'	1:6:1345:A:OP1	2.16	0.45
36:5:2606:G:H2'	36:5:2606:G:N3	2.32	0.45
57:N1:36:VAL:HA	57:N1:64:VAL:HG12	2.49	0.45
1:2:234:G:C2	1:2:235:G:H1'	2.51	0.45
1:2:352:A:OP2	1:2:352:A:H8	1.99	0.45
32:E0:42:ARG:HH11	32:E0:42:ARG:CB	2.29	0.45
51:M5:174:ILE:HG22	51:M5:174:ILE:O	2.53	0.45
68:O2:45:ARG:NH1	36:5:1160:C:N3	205.36	0.45
40:L3:296:THR:HG21	40:L3:357:LYS:HA	3.82	0.45
36:1:1636:U:H5''	63:N7:73:LYS:NZ	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1203:A:C5	1:2:1556:A:C2	3.05	0.45
75:O9:2:ALA:O	75:O9:3:ALA:HB3	2.16	0.45
3:S1:97:LEU:HG	3:S1:232:HIS:NE2	2.32	0.45
65:N9:2:ALA:HB2	36:5:2818:U:H5''	211.15	0.45
7:S5:164:PRO:HA	7:S5:167:ARG:HB2	2.05	0.45
45:L8:162:LEU:HD23	51:M5:7:LEU:HD21	1.98	0.45
36:5:2573:G:H8	36:5:2573:G:H5''	1.82	0.45
1:2:894:U:H2'	1:2:895:G:H8	1.81	0.45
1:2:151:G:O6	26:D4:124:ARG:NH2	2.43	0.45
42:L5:57:ASN:O	42:L5:58:LYS:HB2	2.17	0.45
17:C5:26:LEU:HA	17:C5:26:LEU:HD12	1.60	0.45
12:C0:3:MET:SD	12:C0:8:ARG:NH1	2.90	0.45
74:O8:26:LYS:HE2	36:5:1751:G:H5''	127.93	0.45
1:2:1479:A:P	21:C9:57:ARG:HH12	2.40	0.45
1:6:1514:U:H4'	1:6:1515:A:C4	2.52	0.45
36:1:317:A:C2	36:1:318:A:C4	3.04	0.45
21:C9:86:ARG:HB2	21:C9:89:ARG:HB2	1.99	0.45
36:1:1947:G:H1	36:1:2101:C:N4	2.14	0.45
63:N7:90:GLU:OE2	63:N7:93:LYS:HG3	3.96	0.45
4:S2:80:VAL:HA	4:S2:102:VAL:HG13	2.93	0.45
76:Q0:114:LYS:HG2	76:Q0:115:CYS:N	2.43	0.45
1:6:212:U:OP2	86:6:2128:OHX:N1	2.50	0.45
5:S3:162:GLN:HG3	1:6:1333:C:O4'	426.27	0.45
6:S4:127:LYS:NZ	6:S4:142:HIS:HB2	2.30	0.45
36:5:2767:U:H2'	36:5:2768:U:C6	2.51	0.45
6:S4:194:THR:O	6:S4:195:ILE:HB	2.17	0.45
22:D0:118:VAL:HG13	22:D0:119:ALA:N	2.32	0.45
25:D3:59:ILE:HD13	32:E0:4:VAL:HG13	1.99	0.45
5:S3:105:MET:HG2	5:S3:122:VAL:HG21	2.55	0.45
44:L7:120:THR:HB	57:N1:132:PRO:HB2	1.99	0.45
27:D5:54:VAL:HA	27:D5:57:TYR:CD1	2.52	0.45
36:1:1668:G:C6	36:1:1669:C:C4	3.05	0.45
56:N0:42:TRP:CD1	56:N0:53:LYS:HD2	2.88	0.45
36:1:1528:G:H2'	36:1:1529:A:O4'	2.17	0.45
15:C3:24:ALA:O	15:C3:27:LYS:HE3	8.37	0.45
47:M0:191:LYS:HG2	47:M0:198:LYS:HB2	1.98	0.45
47:M0:65:LEU:HD23	47:M0:159:PHE:HZ	2.69	0.45
49:M3:50:PRO:O	49:M3:139:LEU:O	4.77	0.45
45:L8:90:THR:HA	45:L8:214:LEU:HD21	1.97	0.45
70:O4:41:ARG:O	70:O4:43:LYS:HE3	2.16	0.45
36:5:230:U:H2'	36:5:231:G:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:N2:13:LYS:NZ	36:5:1676:A:OP1	158.26	0.45
36:5:423:A:H2'	36:5:424:G:O4'	2.17	0.45
63:N7:23:VAL:HG12	63:N7:45:GLY:HA3	1.99	0.45
9:S7:62:VAL:HG12	9:S7:66:SER:OG	2.57	0.45
36:1:197:G:H21	36:1:218:G:H21	1.65	0.45
3:S1:33:LYS:HD3	3:S1:42:ASN:HA	1.99	0.45
10:S8:66:SER:HB3	10:S8:73:SER:CB	2.46	0.45
1:6:1105:C:H2'	1:6:1106:U:H6	1.82	0.45
1:6:827:C:H2'	1:6:828:U:C6	2.52	0.45
36:1:3224:G:O6	86:1:3892:OHX:N4	2.50	0.45
1:6:1473:U:O2	1:6:1473:U:H2'	2.17	0.45
38:4:90:U:H5'	38:4:90:U:H6	1.81	0.45
41:L4:338:LYS:HD2	41:L4:338:LYS:HA	1.42	0.45
41:L4:108:LYS:HE2	41:L4:108:LYS:HB3	1.48	0.45
36:1:832:G:OP1	86:1:3969:OHX:N4	2.49	0.45
6:S4:86:PHE:HE1	6:S4:226:PHE:CD2	2.35	0.45
65:N9:46:ALA:O	65:N9:50:THR:HG23	2.53	0.45
63:N7:15:ARG:HB3	36:5:1637:A:O3'	211.74	0.45
47:M0:47:PRO:HB3	47:M0:171:TRP:CZ2	2.52	0.45
86:5:4214:OHX:N1	86:5:4224:OHX:N3	2.65	0.45
75:O9:5:LYS:HD3	75:O9:13:MET:HE1	2.01	0.45
20:C8:143:ARG:O	20:C8:144:ARG:HB3	4.67	0.45
1:2:192:U:H2'	1:2:192:U:O2	2.15	0.45
19:C7:30:THR:HG22	34:SR:127:ARG:HH22	4.93	0.45
1:2:1484:G:O4'	1:2:1607:G:H4'	2.17	0.45
42:L5:105:ILE:HA	42:L5:105:ILE:HD12	2.41	0.45
44:L7:92:ILE:O	44:L7:92:ILE:HD12	2.17	0.45
40:L3:187:SER:HB3	40:L3:190:GLU:OE1	2.29	0.45
25:D3:48:HIS:HB3	25:D3:103:LEU:HD21	3.82	0.45
11:S9:92:LYS:HA	11:S9:92:LYS:HE3	1.99	0.45
68:O2:122:PRO:O	68:O2:123:LYS:CB	2.65	0.45
34:SR:123:ILE:HG23	34:SR:133:VAL:HG22	2.95	0.45
36:5:508:U:H2'	36:5:509:U:C6	2.52	0.45
42:L5:211:LEU:HB3	42:L5:219:PHE:HD2	1.82	0.45
6:S4:187:ARG:NH1	1:6:753:A:N7	374.23	0.45
43:L6:136:GLU:OE2	43:L6:139:LYS:HE3	3.53	0.45
5:S3:10:LYS:HB2	5:S3:10:LYS:HE3	1.69	0.45
63:N7:53:VAL:HA	63:N7:57:HIS:CD2	2.50	0.45
2:S0:38:PHE:HB2	2:S0:49:ASN:HB2	1.99	0.45
60:N4:63:ILE:HB	60:N4:64:THR:H	3.88	0.45
11:S9:124:HIS:O	11:S9:128:LEU:HG	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:28:GLN:HB3	51:M5:201:ARG:NH1	2.90	0.45
36:5:244:G:OP2	36:5:244:G:H8	2.00	0.45
47:M0:153:ARG:HG3	47:M0:165:ILE:HD12	4.80	0.45
67:O1:74:ARG:HB3	67:O1:94:GLU:HG2	5.20	0.45
1:2:495:C:H3'	1:2:496:G:C4'	2.46	0.45
7:S5:156:ARG:HA	7:S5:157:ARG:HH21	4.21	0.45
86:5:4074:OHX:N5	86:5:4136:OHX:N6	2.65	0.45
43:L6:42:LEU:HD23	43:L6:84:VAL:HG22	2.78	0.45
36:5:43:A:N6	36:5:2802:A:C4	2.84	0.45
30:D8:11:LYS:O	30:D8:31:GLU:N	2.57	0.45
51:M5:56:LYS:HG2	51:M5:57:GLN:O	4.38	0.45
51:M5:38:ARG:NH2	51:M5:60:VAL:HG22	2.58	0.45
36:1:2984:C:H2'	36:1:2985:C:C6	2.50	0.45
21:C9:123:ARG:HG2	21:C9:124:ILE:N	2.34	0.45
1:2:1183:A:C5	1:2:1184:A:C6	3.04	0.45
68:O2:103:LYS:O	68:O2:106:VAL:HG13	2.17	0.45
36:5:1794:G:O2'	36:5:1795:U:H5'	2.17	0.45
9:S7:4:PRO:HD2	9:S7:5:GLN:OE1	2.17	0.45
55:M9:42:ARG:NH2	36:5:1601:U:OP2	104.50	0.45
43:L6:131:LYS:HD3	43:L6:132:ALA:H	5.06	0.45
25:D3:19:ARG:HD3	1:6:609:U:H1'	343.30	0.45
36:5:547:G:C5	36:5:548:G:H1'	2.52	0.45
27:D5:102:THR:HG22	27:D5:103:ARG:H	3.93	0.45
39:L2:60:LYS:HD3	39:L2:73:GLU:OE1	3.02	0.45
1:6:1638:G:C2	1:6:1639:C:H1'	2.51	0.45
36:1:256:G:O6	86:1:4155:OHX:N3	2.50	0.45
29:D7:50:ALA:O	29:D7:52:THR:N	2.41	0.45
74:O8:69:LEU:HD13	74:O8:75:VAL:HG21	4.61	0.45
3:S1:128:LYS:HE3	3:S1:132:ASP:OD1	2.17	0.45
41:L4:89:ALA:O	41:L4:90:PHE:O	4.32	0.45
36:5:92:G:H5'	36:5:93:C:H5"	1.98	0.45
78:Q2:50:PHE:O	86:Q2:502:OHX:N2	2.50	0.45
28:D6:10:ARG:HB3	28:D6:11:ASN:H	4.03	0.45
28:D6:10:ARG:HB3	28:D6:34:LYS:HA	1.97	0.45
50:M4:121:MET:HE1	36:5:3215:A:O5'	274.60	0.45
70:O4:10:ARG:HD2	75:O9:4:GLN:NE2	3.23	0.45
50:M4:19:ARG:HE	50:M4:19:ARG:HB2	1.67	0.45
36:1:2765:C:H2'	36:1:2766:U:H6	1.82	0.45
36:1:3346:U:H3	36:1:3359:A:H62	1.63	0.45
1:6:193:U:N3	1:6:195:G:H1'	2.32	0.45
86:1:4016:OHX:N3	86:1:4052:OHX:N5	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:162:A:H2'	1:6:163:G:C8	2.52	0.45
8:S6:7:TYR:CE1	8:S6:125:THR:HA	3.04	0.45
28:D6:44:ILE:HD12	28:D6:45:VAL:HG13	1.98	0.45
1:6:447:U:C4	1:6:448:C:C4	3.05	0.45
37:3:27:A:OP2	42:L5:57:ASN:HB2	2.16	0.45
12:C0:70:GLU:O	12:C0:73:VAL:HG22	4.65	0.45
41:L4:5:GLN:HA	41:L4:20:LEU:O	2.16	0.45
40:L3:188:ILE:HA	40:L3:191:LYS:HD2	1.99	0.45
36:1:2392:C:HO2'	40:L3:266:ARG:NH2	2.15	0.45
7:S5:63:GLN:HE22	7:S5:66:GLN:HB2	3.98	0.45
9:S7:129:LEU:HD21	9:S7:172:VAL:HG11	1.97	0.45
4:S2:127:ALA:O	4:S2:131:ILE:HG13	2.17	0.45
1:2:25:C:H2'	1:2:25:C:H6	1.58	0.45
1:6:531:C:H2'	1:6:532:U:H5'	1.98	0.45
7:S5:20:PHE:CE1	7:S5:34:GLN:HB3	3.01	0.45
7:S5:31:GLU:O	7:S5:35:GLN:HB2	2.16	0.45
34:SR:167:VAL:HG23	34:SR:183:LEU:HB2	5.47	0.45
36:1:121:A:C2	45:L8:129:PRO:HB3	2.52	0.45
63:N7:61:LYS:O	63:N7:65:ARG:HG2	2.17	0.45
18:C6:27:GLY:HA2	18:C6:63:ILE:O	2.24	0.45
6:S4:3:ARG:HD2	6:S4:3:ARG:HH11	1.63	0.45
36:5:2971:A:H5''	36:5:2972:G:O5'	2.16	0.45
23:D1:85:TYR:CD1	29:D7:6:ASP:HB2	2.96	0.45
36:1:316:U:O2'	72:O6:30:LYS:HD2	2.17	0.45
20:C8:41:ARG:NH2	21:C9:36:ILE:O	2.73	0.45
56:N0:23:LYS:O	56:N0:24:LEU:HB2	2.17	0.45
36:1:409:A:H3'	36:1:410:U:H6	1.82	0.45
36:1:1388:U:O4	41:L4:186:LYS:HD2	2.16	0.45
12:C0:61:TRP:HD1	12:C0:61:TRP:H	1.65	0.45
74:O8:58:ASP:HB3	74:O8:61:LYS:HB2	1.99	0.45
46:L9:75:VAL:HA	46:L9:78:MET:CE	2.45	0.45
30:D8:13:ILE:HD12	30:D8:29:ARG:HG2	3.45	0.45
1:2:1527:C:H2'	1:2:1528:U:C6	2.51	0.45
8:S6:47:GLY:O	8:S6:117:GLY:HA2	2.17	0.45
27:D5:43:ASP:HB2	27:D5:46:LYS:HG3	1.99	0.45
9:S7:185:ILE:HG22	9:S7:186:PRO:HD3	3.41	0.45
36:1:1932:A:H5'	36:1:1933:A:OP2	2.17	0.45
43:L6:146:ILE:O	43:L6:148:GLU:N	2.49	0.45
49:M3:171:ARG:HD3	36:5:770:G:OP1	144.05	0.45
2:S0:35:PRO:O	2:S0:37:VAL:N	2.43	0.45
37:3:45:A:H2'	37:3:46:A:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:635:A:H2'	1:2:636:A:C8	2.52	0.45
36:1:2404:A:N3	36:1:2404:A:H2'	2.32	0.45
6:S4:240:LYS:HE2	6:S4:240:LYS:H	1.82	0.45
67:O1:72:ARG:NE	67:O1:104:LEU:HD12	2.31	0.45
11:S9:44:ARG:NH1	1:6:473:A:OP1	409.06	0.45
10:S8:101:ILE:HA	10:S8:167:ALA:O	3.02	0.45
36:1:86:G:O2'	49:M3:11:LYS:HD3	2.16	0.45
36:1:2855:U:OP2	47:M0:6:ALA:HB3	2.17	0.45
1:2:503:G:O2'	1:2:504:U:OP1	2.30	0.45
64:N8:70:LYS:N	64:N8:71:PRO:HD3	2.43	0.45
57:N1:102:ARG:NH2	36:5:1061:A:O3'	237.15	0.45
1:2:1347:U:O2	1:2:1516:A:H5'	2.16	0.45
1:6:922:G:H2'	1:6:923:A:C8	2.52	0.45
43:L6:8:LYS:HE2	43:L6:8:LYS:HB3	1.62	0.45
39:L2:22:LEU:HD23	39:L2:22:LEU:HA	1.70	0.45
46:L9:110:LYS:HB2	46:L9:110:LYS:HE3	4.69	0.45
28:D6:36:ILE:HD12	28:D6:36:ILE:N	5.01	0.45
61:N5:133:LEU:HD23	61:N5:133:LEU:HA	2.67	0.45
42:L5:217:GLU:O	42:L5:221:GLU:HG3	2.16	0.45
36:1:2662:G:H2'	36:1:2663:G:O4'	2.17	0.45
36:5:437:G:C2	36:5:438:A:H2	2.35	0.45
41:L4:320:ASN:HB3	41:L4:323:VAL:HG13	1.98	0.45
36:1:1449:A:C2	36:1:2356:A:C4	3.05	0.45
86:5:4092:OHX:N6	86:5:4201:OHX:N4	2.65	0.45
61:N5:101:GLU:O	61:N5:103:TYR:N	3.00	0.45
50:M4:16:GLU:HB2	56:N0:149:LYS:HG2	1.99	0.45
43:L6:2:SER:OG	43:L6:5:LYS:NZ	2.50	0.45
62:N6:118:LEU:O	62:N6:122:LYS:HG3	2.16	0.45
17:C5:119:PHE:HE1	20:C8:119:ILE:HG23	1.91	0.45
36:1:3087:A:H2'	36:1:3088:G:O4'	2.17	0.45
36:5:1238:C:H2'	36:5:1239:C:H5''	1.99	0.45
34:SR:85:TRP:HA	34:SR:109:ASP:HA	1.98	0.45
12:C0:15:LEU:HD13	12:C0:21:VAL:HG23	1.99	0.45
40:L3:211:GLN:NE2	40:L3:284:ARG:HA	2.31	0.45
55:M9:4:LEU:HB2	36:5:1472:U:H5'	114.45	0.45
36:1:3111:U:H2'	36:1:3112:G:O4'	2.16	0.45
53:M7:136:ILE:HG13	36:5:1846:C:C4	144.88	0.45
36:1:96:G:H5'	49:M3:15:ARG:CZ	2.47	0.45
7:S5:101:GLY:HA3	1:6:1167:G:OP1	355.88	0.45
36:1:1071:U:O2'	36:1:1072:G:OP2	2.28	0.45
19:C7:32:LYS:HG3	19:C7:47:ARG:HD3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:53:MET:HE1	36:5:3048:A:H5''	233.35	0.45
1:6:1584:G:H22	1:6:1611:A:P	2.40	0.45
64:N8:9:ARG:HE	64:N8:9:ARG:HB3	2.10	0.45
5:S3:113:LEU:HD13	5:S3:113:LEU:HA	4.02	0.45
48:M1:60:ARG:NE	78:Q2:104:LEU:O	4.33	0.45
1:6:517:U:H2'	1:6:518:A:O4'	2.17	0.45
1:6:1489:U:H5'	1:6:1494:C:H1'	1.98	0.45
86:5:4009:OHX:N4	86:5:4200:OHX:N1	2.65	0.45
38:8:157:U:H3'	38:8:158:U:H3'	1.99	0.45
38:4:81:U:C2	38:4:82:U:C6	3.05	0.45
11:S9:49:LEU:HD22	11:S9:53:ARG:HG3	2.38	0.45
1:6:955:A:H2'	1:6:956:C:O4'	2.17	0.45
35:SM:25:ILE:HG12	37:3:39:C:H5'	1.98	0.45
59:N3:80:ARG:HH12	59:N3:116:GLY:HA3	1.95	0.45
36:1:2443:A:O2'	36:1:2444:C:OP2	2.27	0.45
36:1:1926:C:H5'	36:1:1927:G:C5	2.51	0.45
46:L9:95:ALA:HA	76:Q0:77:ILE:HD11	8.47	0.45
86:5:4127:OHX:N4	86:5:4145:OHX:N2	2.64	0.45
36:1:698:U:H2'	36:1:699:A:O4'	2.17	0.45
40:L3:81:THR:O	40:L3:81:THR:HG22	2.17	0.45
39:L2:104:LEU:O	39:L2:139:HIS:HE1	2.17	0.45
86:2:2037:OHX:N2	10:S8:17:LYS:O	2.49	0.45
5:S3:30:ALA:C	5:S3:32:GLU:H	2.20	0.45
5:S3:52:ALA:O	5:S3:90:ARG:HA	2.17	0.45
42:L5:259:LYS:HE2	42:L5:259:LYS:HB3	1.66	0.45
1:6:20:G:H5'	1:6:571:G:C4	2.51	0.45
28:D6:36:ILE:HD12	28:D6:36:ILE:H	5.39	0.45
79:Q3:2:ALA:HB3	36:5:852:U:O4	252.89	0.45
69:O3:72:THR:HG23	69:O3:83:ALA:HA	1.99	0.45
35:SM:117:LEU:CD2	35:SM:121:LYS:HG3	2.47	0.45
14:C2:55:GLY:N	35:SM:172:VAL:O	2.50	0.45
36:1:1886:A:O4'	36:1:3307:A:H5'	2.17	0.45
67:O1:64:VAL:HG22	36:5:1456:A:N6	165.59	0.45
58:N2:21:SER:HA	58:N2:24:GLU:OE2	2.17	0.45
1:2:1263:G:H2'	1:2:1264:G:O4'	2.17	0.45
3:S1:55:LYS:HD3	3:S1:55:LYS:HA	2.03	0.45
13:C1:74:THR:HG22	13:C1:122:ILE:HG12	6.33	0.45
51:M5:31:ARG:HG3	51:M5:129:TYR:OH	3.26	0.45
28:D6:10:ARG:HG3	1:6:1797:A:OP1	332.98	0.45
1:2:543:C:O2	1:2:543:C:H5''	2.16	0.45
52:M6:62:THR:HA	36:5:1306:G:C6	232.92	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:O9:9:ILE:HA	75:O9:9:ILE:HD13	1.80	0.45
15:C3:18:TYR:CE1	24:D2:56:HIS:CE1	3.92	0.45
1:2:735:C:OP2	1:2:735:C:H2'	2.17	0.45
45:L8:144:GLU:CD	72:O6:36:ARG:HH21	2.94	0.45
10:S8:142:LYS:NZ	1:6:187:G:OP2	273.29	0.45
1:2:793:A:H5''	1:2:794:U:C6	2.52	0.45
23:D1:71:ARG:NE	29:D7:4:VAL:HG11	2.62	0.45
61:N5:82:LEU:HD11	61:N5:126:LEU:HD11	1.99	0.45
6:S4:16:HIS:C	6:S4:18:TRP:H	2.20	0.45
20:C8:133:VAL:O	20:C8:135:GLY:N	2.50	0.45
1:6:75:U:O2'	1:6:76:A:O5'	2.26	0.45
1:2:93:A:H4'	1:2:94:U:OP2	2.16	0.45
62:N6:5:SER:OG	62:N6:6:LEU:N	2.49	0.45
22:D0:27:THR:HB	22:D0:88:LYS:CG	2.47	0.45
36:1:2746:A:H2'	36:1:2747:A:O4'	2.16	0.45
8:S6:199:GLN:HA	8:S6:202:ARG:HH12	1.82	0.45
36:1:618:C:H2'	36:1:619:A:O4'	2.17	0.45
71:O5:21:LEU:HD22	71:O5:25:LYS:CE	2.47	0.45
30:D8:27:GLN:HE22	30:D8:64:ARG:HH11	5.75	0.45
1:2:1759:C:H2'	1:2:1760:G:O4'	2.17	0.45
1:6:981:U:O2'	1:6:982:U:H5'	2.17	0.45
20:C8:120:ARG:HD2	35:SM:61:ILE:HD11	1.97	0.45
34:SR:33:LEU:HB3	34:SR:45:TRP:HB2	1.99	0.45
1:6:1230:A:H8	1:6:1258:U:C5	2.34	0.45
6:S4:199:GLU:N	6:S4:207:LEU:O	2.94	0.45
36:1:1838:G:H4'	36:1:1839:A:N3	2.32	0.45
36:5:907:G:O5'	36:5:909:G:H1'	2.16	0.45
68:O2:19:ARG:HD2	68:O2:28:VAL:CG1	2.68	0.45
6:S4:222:LEU:O	6:S4:225:VAL:N	2.50	0.45
71:O5:115:LYS:HB2	71:O5:115:LYS:NZ	2.32	0.45
34:SR:305:TYR:HH	34:SR:313:TRP:HH2	2.02	0.45
19:C7:20:TYR:CD2	19:C7:23:LYS:HD2	4.17	0.45
24:D2:53:ILE:HG12	24:D2:60:LYS:HB2	1.99	0.45
36:5:702:C:O2	36:5:788:C:H4'	2.17	0.45
15:C3:55:ARG:HD2	15:C3:56:ASP:OD1	4.50	0.45
45:L8:134:TYR:CD2	45:L8:190:VAL:HG21	2.53	0.45
13:C1:67:ARG:NH2	13:C1:128:CYS:O	2.50	0.45
43:L6:146:ILE:C	43:L6:148:GLU:N	2.70	0.45
1:2:839:U:O2'	1:2:840:U:H5'	2.17	0.45
4:S2:152:HIS:ND1	4:S2:174:ARG:HG2	2.32	0.45
40:L3:46:PHE:CE2	40:L3:205:VAL:HG13	3.54	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:102:THR:HG22	27:D5:103:ARG:N	4.32	0.45
78:Q2:43:TYR:CZ	78:Q2:47:GLN:NE2	2.81	0.45
79:Q3:29:LEU:O	79:Q3:33:GLN:HG2	4.69	0.45
36:1:2516:U:O2'	36:1:2595:A:N6	2.45	0.45
1:2:1660:A:H2'	1:2:1661:U:C6	2.52	0.45
41:L4:62:ALA:HB1	41:L4:76:ARG:O	2.17	0.45
36:5:345:G:H2'	38:8:25:G:O2'	2.16	0.45
36:5:3136:G:C5	36:5:3137:C:C5	3.05	0.45
9:S7:137:GLY:HA3	9:S7:153:LEU:HD12	2.63	0.45
1:2:1225:U:C2'	1:2:1226:A:H5'	2.47	0.45
36:1:1247:U:H2'	36:1:1268:G:O6	2.16	0.45
1:6:1017:U:H2'	1:6:1018:U:C6	2.52	0.45
55:M9:133:LYS:HE3	55:M9:134:HIS:CD2	2.52	0.45
1:2:176:C:OP1	86:2:2074:OHX:N3	2.49	0.45
36:1:1501:U:H6	36:1:1501:U:O5'	1.99	0.45
42:L5:279:LYS:O	42:L5:279:LYS:HD3	2.17	0.45
19:C7:96:SER:HA	19:C7:97:ASN:HA	1.46	0.45
10:S8:3:ILE:HB	10:S8:30:GLY:O	2.55	0.45
49:M3:92:THR:HB	71:O5:114:ARG:HG2	1.98	0.45
70:O4:84:CYS:O	70:O4:88:ARG:HB2	3.78	0.44
16:C4:50:ALA:C	16:C4:52:ARG:N	3.00	0.44
3:S1:175:GLU:HG3	3:S1:193:ILE:HD12	1.99	0.44
4:S2:140:ARG:NH1	23:D1:10:GLU:OE1	7.20	0.44
4:S2:141:ARG:HG2	23:D1:10:GLU:OE1	2.17	0.44
1:6:333:A:C6	1:6:334:G:C6	3.05	0.44
1:2:1541:G:O2'	1:2:1570:A:N6	2.46	0.44
21:C9:26:GLY:O	21:C9:28:LEU:HG	2.17	0.44
1:2:1588:G:OP1	86:2:2117:OHX:N3	2.50	0.44
17:C5:115:TYR:CZ	1:6:1556:A:H5''	384.27	0.44
1:2:794:U:H1'	1:2:795:U:OP1	2.17	0.44
1:2:1230:A:H2'	1:2:1258:U:C5	2.51	0.44
41:L4:8:VAL:CG2	41:L4:18:ASN:HB3	5.49	0.44
46:L9:7:GLU:OE2	46:L9:54:LYS:HE3	2.17	0.44
46:L9:5:GLN:OE1	46:L9:7:GLU:HB3	2.31	0.44
4:S2:168:ARG:HD3	4:S2:170:ILE:HD11	1.98	0.44
15:C3:93:LYS:HA	15:C3:150:VAL:HG21	1.98	0.44
36:1:345:G:OP1	36:1:1429:G:N1	2.49	0.44
1:6:72:A:H5'	1:6:73:U:OP2	2.17	0.44
3:S1:144:ARG:HB3	3:S1:208:GLN:HG2	2.66	0.44
31:D9:33:LYS:HD3	31:D9:34:TYR:CE2	2.52	0.44
1:6:485:A:N6	1:6:486:G:N3	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:22:VAL:CG2	70:O4:30:LEU:HD13	4.62	0.44
47:M0:86:HIS:ND1	47:M0:139:ARG:HD3	2.32	0.44
48:M1:54:VAL:HG11	48:M1:57:PHE:CG	2.52	0.44
39:L2:193:ARG:O	39:L2:195:SER:N	2.64	0.44
36:1:2435:G:N7	36:1:2593:A:H2'	2.31	0.44
36:5:246:U:H2'	36:5:247:C:H5''	1.99	0.44
37:3:113:C:H2'	37:3:114:U:O4'	2.17	0.44
40:L3:261:MET:HE1	52:M6:63:ALA:HB1	1.98	0.44
26:D4:20:ARG:C	26:D4:21:LYS:HD2	2.37	0.44
34:SR:38:ARG:HG2	34:SR:67:ILE:CG2	2.46	0.44
40:L3:161:LEU:HD22	40:L3:178:LEU:HD11	1.98	0.44
16:C4:131:GLY:O	16:C4:133:ARG:N	2.75	0.44
1:6:1116:A:H62	1:6:1130:G:H21	1.65	0.44
27:D5:43:ASP:HB2	27:D5:46:LYS:HE3	1.99	0.44
36:1:3295:A:H2'	36:1:3296:A:C8	2.52	0.44
24:D2:55:ASP:HB3	29:D7:25:VAL:HG13	2.68	0.44
4:S2:188:LEU:HA	4:S2:188:LEU:HD23	1.61	0.44
58:N2:49:ASN:O	58:N2:51:GLY:N	2.67	0.44
18:C6:23:LYS:HE3	18:C6:64:ASP:O	6.67	0.44
40:L3:360:ASP:OD1	40:L3:361:THR:N	2.76	0.44
73:O7:26:SER:O	73:O7:34:CYS:HA	2.17	0.44
1:6:1672:G:H2'	1:6:1673:G:C8	2.51	0.44
5:S3:33:GLY:O	5:S3:53:THR:HG23	2.17	0.44
4:S2:83:ILE:HD12	35:SM:117:LEU:HD12	1.99	0.44
24:D2:111:MET:HE3	24:D2:116:ALA:HA	1.99	0.44
26:D4:58:PHE:CE2	26:D4:72:PHE:HB3	2.73	0.44
20:C8:11:PHE:CD2	20:C8:59:GLY:HA3	2.52	0.44
42:L5:202:GLY:O	42:L5:206:GLN:HG3	5.39	0.44
60:N4:31:PHE:HZ	60:N4:40:PHE:CD1	2.35	0.44
44:L7:34:LYS:HA	44:L7:34:LYS:HD3	2.68	0.44
31:D9:46:LYS:HA	31:D9:46:LYS:HD3	1.72	0.44
36:1:366:A:OP1	41:L4:95:ARG:NH2	2.45	0.44
36:5:3218:A:C2	36:5:3277:U:H1'	2.52	0.44
1:2:1795:U:H3'	28:D6:5:ARG:HH12	1.82	0.44
19:C7:106:THR:O	19:C7:110:VAL:HG23	2.17	0.44
1:6:542:A:H1'	1:6:543:C:P	2.57	0.44
1:6:542:A:H8	1:6:543:C:H2'	1.82	0.44
50:M4:16:GLU:OE2	56:N0:149:LYS:HD3	3.24	0.44
23:D1:36:VAL:HG12	23:D1:51:VAL:O	2.18	0.44
57:N1:68:THR:HG22	57:N1:71:SER:O	3.03	0.44
36:1:2278:C:P	77:Q1:23:ARG:NH1	2.89	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:16:SER:OG	51:M5:19:LEU:HD13	4.45	0.44
8:S6:31:ARG:HD3	8:S6:68:LEU:HD12	1.99	0.44
6:S4:36:HIS:CD2	6:S4:85:GLY:HA3	2.84	0.44
36:5:1579:C:H2'	36:5:1580:A:H8	1.82	0.44
36:5:2440:G:N2	36:5:2508:U:C2	2.85	0.44
1:6:219:A:C6	1:6:843:U:H1'	2.52	0.44
7:S5:87:CYS:HA	7:S5:88:PRO:HD2	1.80	0.44
36:5:562:C:H2'	36:5:563:U:H6	1.82	0.44
7:S5:31:GLU:HA	7:S5:34:GLN:HB2	2.77	0.44
86:5:4179:OHX:N4	86:5:4241:OHX:N1	2.65	0.44
48:M1:37:LEU:HD12	48:M1:67:VAL:HG23	2.00	0.44
24:D2:105:THR:HG22	1:6:804:A:N3	366.42	0.44
36:1:2258:U:OP2	86:1:3932:OHX:N5	2.50	0.44
42:L5:211:LEU:HB3	42:L5:219:PHE:HB2	2.41	0.44
2:S0:56:LYS:HZ3	2:S0:158:VAL:HA	1.83	0.44
1:6:1715:G:C6	1:6:1716:C:N4	2.84	0.44
36:5:776:U:C5	36:5:2719:U:O2	2.65	0.44
43:L6:22:ARG:C	43:L6:23:LYS:HG2	2.38	0.44
41:L4:112:LYS:HZ3	41:L4:112:LYS:HB2	1.81	0.44
36:1:13:A:H8	36:1:13:A:H5'	1.81	0.44
14:C2:89:ILE:HG23	14:C2:90:LYS:H	1.81	0.44
1:6:708:C:H2'	1:6:709:C:O4'	2.17	0.44
4:S2:88:LYS:HG2	4:S2:89:GLN:N	2.75	0.44
13:C1:18:HIS:O	86:6:2128:OHX:N3	293.80	0.44
34:SR:33:LEU:O	34:SR:45:TRP:HD1	2.01	0.44
36:1:1752:A:OP2	86:1:4042:OHX:N3	2.51	0.44
36:1:655:C:P	68:O2:27:ARG:HB3	2.57	0.44
24:D2:38:LEU:HA	24:D2:38:LEU:HD23	1.70	0.44
64:N8:65:GLN:O	64:N8:66:ALA:CB	2.65	0.44
28:D6:3:LYS:HB2	28:D6:3:LYS:HE3	4.41	0.44
1:6:1614:A:N1	1:6:1615:C:N4	2.64	0.44
36:5:929:A:H2'	36:5:930:U:H6	1.81	0.44
36:5:1662:G:H2'	36:5:1663:C:C6	2.52	0.44
18:C6:51:PRO:HB3	18:C6:86:ALA:HB2	1.99	0.44
36:1:2606:G:H2'	36:1:2606:G:N3	2.32	0.44
1:2:838:G:H2'	1:2:839:U:O4'	2.17	0.44
2:S0:57:LEU:HD21	2:S0:177:LEU:HG	4.26	0.44
36:5:407:A:O2'	36:5:1397:C:OP1	2.36	0.44
58:N2:47:VAL:C	58:N2:49:ASN:H	2.81	0.44
74:O8:66:ILE:HG21	74:O8:77:ARG:HH21	1.82	0.44
36:1:668:G:OP1	86:1:4116:OHX:N2	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1112:A:P	49:M3:5:LYS:HE3	2.58	0.44
1:2:994:G:H2'	1:2:995:A:C8	2.51	0.44
1:2:388:G:OP1	1:2:402:C:H5	1.99	0.44
36:1:1680:G:C5	36:1:1681:U:C5	3.06	0.44
15:C3:71:ILE:HA	15:C3:74:ILE:HD13	1.99	0.44
54:M8:103:ALA:HB3	54:M8:106:PHE:CE2	2.72	0.44
36:1:500:C:O2'	36:1:501:A:H5'	2.16	0.44
53:M7:99:ALA:O	53:M7:102:ALA:N	2.48	0.44
19:C7:99:VAL:CB	19:C7:118:PRO:HB2	2.47	0.44
36:1:2756:C:O4'	57:N1:49:GLN:HG2	2.17	0.44
36:1:1717:U:H2'	36:1:1718:G:C8	2.52	0.44
42:L5:92:LEU:HD23	42:L5:92:LEU:HA	2.02	0.44
8:S6:158:ILE:HD12	8:S6:158:ILE:HA	1.77	0.44
1:6:813:U:H2'	1:6:813:U:O2	2.15	0.44
6:S4:42:LEU:HD23	6:S4:42:LEU:HA	1.84	0.44
36:1:7:C:H2'	36:1:8:C:C6	2.52	0.44
1:6:950:C:H2'	1:6:951:A:C8	2.52	0.44
36:5:2358:A:H2'	36:5:2359:C:O4'	2.17	0.44
36:1:1637:A:P	63:N7:73:LYS:HZ1	2.39	0.44
1:2:1202:A:N3	1:2:1202:A:H3'	2.32	0.44
86:6:2062:OHX:N1	86:6:2150:OHX:N4	2.65	0.44
44:L7:25:GLN:O	44:L7:28:ALA:HB3	3.15	0.44
36:1:2544:U:H2'	36:1:2545:C:C6	2.52	0.44
11:S9:96:VAL:O	11:S9:99:LEU:HB2	2.76	0.44
36:5:2111:G:OP1	86:5:3944:OHX:N5	2.50	0.44
9:S7:35:LYS:HZ2	9:S7:36:ALA:N	2.12	0.44
1:2:196:G:O2'	1:2:197:A:P	2.76	0.44
17:C5:119:PHE:CE1	20:C8:119:ILE:HG23	2.52	0.44
22:D0:74:GLU:HG2	1:6:1429:G:C1'	377.72	0.44
21:C9:126:GLU:H	21:C9:126:GLU:HG2	3.19	0.44
33:E1:97:LYS:HA	33:E1:97:LYS:HD2	1.75	0.44
7:S5:92:ARG:HB3	7:S5:172:ILE:HD11	1.99	0.44
40:L3:3:HIS:O	40:L3:4:ARG:C	2.55	0.44
44:L7:216:VAL:HG23	44:L7:216:VAL:O	2.18	0.44
36:5:3245:A:C2	36:5:3246:G:C2	3.06	0.44
40:L3:150:ARG:CG	40:L3:150:ARG:HH11	2.99	0.44
37:3:22:A:H1'	42:L5:272:TYR:CZ	2.52	0.44
39:L2:5:ILE:HG12	39:L2:8:GLN:HG3	1.99	0.44
36:1:664:U:H5'	41:L4:107:ARG:HA	2.00	0.44
58:N2:32:SER:O	58:N2:35:LYS:HB3	2.18	0.44
13:C1:81:HIS:NE2	13:C1:82:ARG:HD2	4.02	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:76:A:H3'	86:6:2196:OHX:N1	2.31	0.44
66:O0:45:ALA:C	66:O0:47:ASN:H	3.17	0.44
5:S3:113:LEU:CD1	5:S3:117:ARG:HH11	4.78	0.44
36:5:1818:U:H2'	36:5:1819:U:H6	1.82	0.44
54:M8:69:ARG:NH1	36:5:720:A:H5'	162.47	0.44
41:L4:219:LEU:HD23	41:L4:219:LEU:HA	1.65	0.44
51:M5:75:VAL:O	51:M5:75:VAL:HG23	2.18	0.44
36:5:1093:A:C2	36:5:1096:U:O2	2.70	0.44
63:N7:13:VAL:HB	63:N7:18:TYR:O	2.18	0.44
53:M7:26:PHE:HE1	53:M7:120:ASN:HA	2.07	0.44
26:D4:14:SER:CB	26:D4:21:LYS:HE3	2.46	0.44
21:C9:134:ARG:HH11	21:C9:135:ILE:HG23	1.82	0.44
52:M6:78:ARG:HH11	52:M6:78:ARG:HG3	3.09	0.44
1:6:300:A:H2'	1:6:301:A:C8	2.52	0.44
1:6:300:A:O2'	1:6:301:A:H5'	2.16	0.44
40:L3:88:GLY:HA3	40:L3:161:LEU:HB2	1.98	0.44
33:E1:131:PHE:O	1:6:1252:C:O2'	450.34	0.44
36:5:2158:A:O4'	36:5:2160:G:C8	2.71	0.44
1:2:912:U:H4'	1:2:913:G:H2'	1.99	0.44
59:N3:40:LYS:HG3	59:N3:57:MET:CE	2.47	0.44
1:2:1059:U:O2'	1:2:1060:U:N3	2.51	0.44
36:1:3255:U:H2'	36:1:3256:G:H8	1.82	0.44
86:5:4031:OHX:N1	86:5:4079:OHX:N4	2.65	0.44
1:2:354:C:OP1	10:S8:14:THR:OG1	2.24	0.44
36:1:945:C:H2'	36:1:946:U:H6	1.82	0.44
1:6:250:C:H6	1:6:250:C:H5'	1.83	0.44
52:M6:171:LYS:HZ2	52:M6:171:LYS:HG3	4.52	0.44
36:1:818:C:N3	36:1:920:A:H5'	2.32	0.44
1:6:876:G:H1'	1:6:944:A:O4'	2.16	0.44
15:C3:110:ASP:OD2	1:6:877:G:N2	296.07	0.44
45:L8:116:VAL:C	45:L8:118:GLU:H	3.31	0.44
1:6:231:U:H2'	1:6:232:U:H2'	2.00	0.44
69:O3:73:ARG:NH2	36:5:1167:U:OP2	246.40	0.44
52:M6:133:ARG:HD2	36:5:1315:U:O2'	290.26	0.44
67:O1:17:HIS:HB2	67:O1:69:TYR:HB3	1.99	0.44
50:M4:48:GLY:HA3	50:M4:53:VAL:HG13	1.99	0.44
36:1:1460:A:H2'	36:1:1461:A:H8	1.81	0.44
20:C8:113:LEU:HD21	20:C8:127:HIS:CE1	2.52	0.44
36:1:2751:G:N7	86:1:4102:OHX:N6	2.65	0.44
36:5:2417:U:O2'	36:5:2418:G:H5'	2.17	0.44
79:Q3:19:GLY:HA2	36:5:1925:U:O2	239.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:216:GLU:O	42:L5:220:SER:OG	2.28	0.44
57:N1:2:GLY:HA3	36:5:2629:U:O4	232.97	0.44
1:6:1298:U:OP1	86:6:2053:OHX:N3	2.50	0.44
38:8:83:C:H5'	38:8:83:C:C6	2.44	0.44
3:S1:191:GLU:HB3	3:S1:194:ASN:ND2	3.29	0.44
36:1:1169:A:OP1	86:1:3957:OHX:N1	2.50	0.44
86:5:4092:OHX:N5	86:5:4201:OHX:N1	2.65	0.44
86:5:4214:OHX:N2	86:5:4224:OHX:N6	2.66	0.44
55:M9:43:LYS:N	55:M9:43:LYS:HD2	4.90	0.44
1:6:67:A:O2'	1:6:69:G:OP1	2.21	0.44
1:6:82:U:H2'	1:6:83:G:O4'	2.18	0.44
22:D0:24:ILE:HG12	22:D0:116:VAL:HG13	1.98	0.44
4:S2:69:ILE:HD11	4:S2:133:LYS:CB	2.47	0.44
36:1:2278:C:C2'	36:1:2279:A:H5''	2.48	0.44
51:M5:14:LYS:HA	51:M5:19:LEU:HD22	3.51	0.44
36:1:1213:G:H4'	56:N0:90:MET:HG2	1.99	0.44
1:2:190:C:N4	1:2:196:G:C6	2.84	0.44
36:5:3343:G:N2	36:5:3362:A:C2	2.76	0.44
6:S4:29:PRO:HD3	1:6:448:C:OP1	373.61	0.44
2:S0:84:ARG:HD3	2:S0:203:PHE:O	3.41	0.44
12:C0:1:MET:HG2	12:C0:2:LEU:H	1.83	0.44
36:1:3122:A:O2'	46:L9:63:LYS:HD2	2.18	0.44
18:C6:66:ARG:NH2	18:C6:68:ARG:HG2	5.92	0.44
18:C6:20:ALA:HB2	18:C6:67:VAL:HG22	1.99	0.44
9:S7:42:GLN:HG2	9:S7:43:PHE:N	2.32	0.44
9:S7:60:ILE:HD12	9:S7:92:PHE:CZ	2.53	0.44
24:D2:94:LEU:HA	24:D2:95:PRO:HD3	1.80	0.44
65:N9:23:LYS:HA	65:N9:23:LYS:HD2	1.84	0.44
34:SR:22:SER:CB	34:SR:70:ASP:HA	2.85	0.44
35:SM:46:LYS:HA	36:5:1018:G:H4'	324.08	0.44
2:S0:9:LEU:HD21	2:S0:14:ALA:HB2	3.94	0.44
54:M8:161:LYS:O	54:M8:162:ALA:CB	2.57	0.44
49:M3:172:LEU:HD23	49:M3:172:LEU:HA	1.70	0.44
22:D0:37:VAL:O	22:D0:41:ILE:HD13	2.18	0.44
36:1:1508:C:C6	36:1:1880:U:H1'	2.53	0.44
34:SR:232:TYR:CE1	34:SR:234:LEU:HD11	2.53	0.44
86:5:4009:OHX:N4	86:5:4200:OHX:N2	2.66	0.44
1:2:851:U:H5''	55:M9:172:ARG:HH22	1.82	0.44
36:1:5:G:H2'	36:1:6:A:O5'	2.17	0.44
52:M6:98:ALA:HA	52:M6:101:ARG:HH11	1.83	0.44
19:C7:59:LYS:HE2	1:6:1393:C:OP2	421.89	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:91:LEU:HD13	64:N8:91:LEU:HA	1.80	0.44
22:D0:50:LEU:HD22	22:D0:95:ALA:HB2	2.94	0.44
39:L2:48:ILE:C	39:L2:48:ILE:HD12	2.38	0.44
41:L4:195:ARG:O	41:L4:196:ASN:HB2	2.41	0.44
16:C4:24:ASN:O	16:C4:25:ASP:HB2	2.17	0.44
16:C4:25:ASP:H	16:C4:55:SER:HB3	1.83	0.44
4:S2:90:THR:C	4:S2:92:ALA:H	2.21	0.44
19:C7:20:TYR:CE1	19:C7:38:ILE:HD11	2.53	0.44
1:6:1030:A:H4'	1:6:1031:U:OP2	2.17	0.44
38:8:88:A:H3'	38:8:89:A:H8	1.83	0.44
71:O5:74:LYS:NZ	36:5:128:G:OP2	79.43	0.44
12:C0:11:ILE:HD12	12:C0:42:VAL:HA	2.00	0.44
36:1:3392:U:H2'	36:1:3393:U:H6	1.83	0.44
1:2:248:U:H4'	13:C1:36:LYS:HD3	1.99	0.44
36:1:191:U:H2'	36:1:192:C:H6	1.82	0.44
36:1:1093:A:OP1	36:1:1093:A:H4'	2.17	0.44
36:1:2586:G:N7	45:L8:241:LYS:HB2	2.33	0.44
10:S8:152:ILE:O	10:S8:153:GLU:HB2	2.18	0.44
53:M7:178:ALA:HA	53:M7:181:ARG:HH21	1.82	0.44
1:2:624:G:C8	1:2:1027:A:C6	3.06	0.44
19:C7:81:LYS:HE3	19:C7:81:LYS:HB2	1.83	0.44
36:5:231:G:H5''	36:5:231:G:H8	1.82	0.44
36:5:2095:G:H2'	36:5:2096:A:O4'	2.17	0.44
24:D2:25:VAL:HG23	24:D2:63:VAL:HB	1.98	0.44
52:M6:188:SER:O	52:M6:192:LYS:HG2	2.72	0.44
36:5:1704:A:N6	36:5:1740:U:O4'	2.50	0.44
72:O6:43:LEU:HD22	72:O6:47:ILE:HG13	3.68	0.44
4:S2:84:LYS:HG3	4:S2:84:LYS:O	2.17	0.44
49:M3:162:ASN:HD22	49:M3:164:GLU:HB2	4.55	0.44
69:O3:2:ALA:HB2	36:5:3216:G:OP2	265.22	0.44
41:L4:262:TRP:O	41:L4:276:LEU:HD11	3.26	0.44
49:M3:9:ILE:HD13	64:N8:52:TYR:CE1	2.53	0.44
55:M9:77:GLY:HA3	36:5:1939:G:OP1	218.70	0.44
59:N3:27:ASP:OD2	59:N3:29:SER:OG	2.28	0.44
86:2:2171:OHX:N3	86:2:2172:OHX:N4	2.65	0.44
21:C9:69:LYS:HE2	1:6:1368:G:OP1	434.95	0.44
1:2:518:A:H2'	1:2:519:C:H5''	1.99	0.44
74:O8:27:ILE:HA	74:O8:27:ILE:HD13	2.41	0.44
17:C5:83:MET:HE2	17:C5:83:MET:HB2	2.33	0.44
75:O9:47:THR:O	75:O9:47:THR:HG22	2.37	0.44
26:D4:132:ARG:HE	26:D4:132:ARG:HB2	4.23	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:7:38:U:HO2'	37:7:40:C:H5	1.61	0.44
36:5:1500:G:H2'	36:5:1501:U:O4'	2.18	0.44
4:S2:244:SER:O	4:S2:248:SER:OG	2.21	0.44
3:S1:196:GLU:HA	3:S1:199:ASN:HB2	2.00	0.44
16:C4:80:HIS:N	16:C4:80:HIS:CD2	2.85	0.44
36:5:271:C:H2'	36:5:272:G:O4'	2.17	0.44
75:O9:9:ILE:HD12	75:O9:9:ILE:HG23	1.94	0.44
23:D1:9:VAL:HG22	23:D1:10:GLU:H	2.49	0.44
4:S2:141:ARG:H	4:S2:141:ARG:HG2	1.58	0.44
1:6:1702:A:H3'	1:6:1703:C:C6	2.53	0.44
36:1:1574:C:H42	36:1:1575:A:N6	2.15	0.44
46:L9:12:VAL:HG13	46:L9:16:VAL:HG22	2.47	0.44
3:S1:46:THR:OG1	3:S1:47:LEU:N	4.16	0.44
1:6:791:A:O2'	1:6:792:U:H5'	2.18	0.44
7:S5:64:VAL:CG1	7:S5:89:ILE:HD11	4.54	0.44
26:D4:33:ALA:C	26:D4:34:ASN:HD22	2.20	0.44
20:C8:87:ASN:OD1	20:C8:99:HIS:HA	2.18	0.44
6:S4:123:LEU:HA	6:S4:160:VAL:O	2.18	0.44
42:L5:289:LYS:O	42:L5:293:LEU:HD12	4.46	0.44
1:2:1783:C:H2'	1:2:1784:C:C6	2.51	0.44
7:S5:146:THR:CG2	7:S5:157:ARG:HB3	2.45	0.44
86:6:2128:OHX:N5	86:6:2153:OHX:N1	2.66	0.44
86:6:2128:OHX:N6	86:6:2153:OHX:N4	2.66	0.44
62:N6:63:LYS:O	62:N6:66:GLN:HG3	2.18	0.44
40:L3:108:GLU:HB2	40:L3:137:TYR:CE1	2.52	0.44
3:S1:105:PHE:HZ	3:S1:211:HIS:CD2	3.82	0.44
20:C8:91:ASP:O	20:C8:92:ILE:HB	2.17	0.44
43:L6:166:LYS:N	43:L6:169:ASP:OD2	2.60	0.44
76:Q0:78:ILE:HG21	76:Q0:78:ILE:HD13	3.47	0.44
1:6:1459:C:OP2	1:6:1459:C:H6	2.01	0.44
1:2:918:U:H2'	1:2:919:A:H8	1.81	0.44
1:2:617:U:O4'	1:2:1031:U:C2	2.71	0.44
59:N3:128:ARG:H	59:N3:128:ARG:HG2	1.41	0.44
1:2:572:C:OP1	25:D3:114:LYS:O	2.35	0.44
36:1:853:G:N7	79:Q3:2:ALA:HB2	2.32	0.44
49:M3:162:ASN:O	49:M3:164:GLU:N	4.43	0.44
36:5:144:A:H2'	36:5:145:G:O4'	2.18	0.44
36:1:2794:G:N7	86:1:3933:OHX:N2	2.66	0.44
72:O6:40:VAL:O	72:O6:44:VAL:HG23	2.16	0.44
34:SR:116:ASP:HB2	34:SR:117:LYS:HD2	1.98	0.44
54:M8:82:VAL:HG13	54:M8:102:ALA:HB3	3.14	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:126:PRO:HG2	2:S0:152:PRO:HD2	3.11	0.44
42:L5:257:GLU:HA	42:L5:258:LYS:HD3	6.58	0.44
36:5:169:U:H4'	36:5:170:G:OP1	2.17	0.44
5:S3:21:LEU:HD22	5:S3:25:PHE:CE2	2.52	0.44
43:L6:149:ILE:HG23	43:L6:155:LEU:HD13	2.02	0.44
10:S8:122:GLY:O	86:S8:302:OHX:N6	2.51	0.44
34:SR:29:GLN:C	34:SR:31:ASN:H	2.21	0.44
1:2:526:A:H2'	1:2:527:A:O4'	2.18	0.44
1:2:871:G:O2'	29:D7:66:PRO:HB2	2.16	0.44
1:6:926:A:H2'	1:6:927:C:C6	2.52	0.44
14:C2:78:LEU:HA	14:C2:78:LEU:HD23	1.78	0.44
59:N3:93:LEU:H	59:N3:93:LEU:HD23	1.89	0.44
9:S7:157:LYS:HB2	9:S7:157:LYS:HE3	4.00	0.44
14:C2:33:ARG:HG3	14:C2:100:TRP:O	4.03	0.44
35:SM:139:GLU:HG2	35:SM:140:ASP:N	2.28	0.44
36:5:3312:U:O4	86:5:3928:OHX:N5	2.51	0.44
36:1:2657:A:C2	36:1:2694:A:C8	3.05	0.44
4:S2:150:GLN:HA	4:S2:151:PRO:HD3	1.78	0.44
36:1:849:C:H2'	36:1:850:U:C6	2.53	0.44
36:5:1768:U:H2'	36:5:1769:G:O4'	2.18	0.44
36:5:437:G:OP2	36:5:437:G:C8	2.71	0.44
69:O3:60:ARG:NH1	36:5:3275:U:O2'	220.59	0.44
3:S1:193:ILE:H	3:S1:193:ILE:HG12	1.58	0.44
3:S1:171:ILE:HD12	3:S1:197:ILE:HD13	1.98	0.44
13:C1:97:TYR:O	13:C1:99:ARG:HG2	2.18	0.44
36:1:2836:C:C2'	36:1:2837:A:H5'	2.48	0.44
1:2:159:U:O2'	8:S6:87:ARG:NH1	2.51	0.44
36:5:1502:C:N3	36:5:1513:G:O6	2.50	0.44
36:1:269:G:H5'	51:M5:120:TRP:CE3	2.52	0.44
11:S9:108:ARG:HH21	11:S9:145:SER:HB3	3.16	0.44
1:2:894:U:H2'	1:2:895:G:C8	2.53	0.44
9:S7:35:LYS:HZ1	9:S7:39:ARG:HD2	1.82	0.44
9:S7:120:ALA:O	9:S7:124:LYS:HG2	2.87	0.44
1:2:1607:G:H2'	1:2:1608:U:C6	2.53	0.44
17:C5:22:LEU:HA	17:C5:25:LEU:HD12	2.40	0.44
7:S5:166:ARG:HA	7:S5:169:ASN:HB2	2.65	0.44
41:L4:16:THR:HG21	41:L4:18:ASN:HB2	3.77	0.44
61:N5:115:ARG:NH1	61:N5:119:THR:OG1	2.98	0.44
36:1:1238:C:H41	36:1:1245:A:P	2.40	0.44
36:5:1808:G:O6	86:5:4022:OHX:N3	2.51	0.44
42:L5:269:SER:OG	37:7:1:G:C2	314.88	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1196:A:C8	1:2:1602:C:H4'	2.53	0.44
64:N8:3:SER:OG	36:5:1430:U:O4	139.06	0.44
34:SR:183:LEU:HD23	34:SR:183:LEU:HA	1.75	0.44
25:D3:100:ASP:O	25:D3:101:GLU:CB	4.21	0.44
55:M9:8:LYS:O	55:M9:11:ALA:HB3	2.18	0.44
36:5:549:U:H2'	36:5:550:A:H8	1.80	0.44
21:C9:57:ARG:HH21	21:C9:80:TYR:HB3	1.82	0.44
25:D3:62:LYS:HE3	25:D3:116:ASP:HA	4.85	0.44
1:6:837:G:H2'	1:6:838:G:C8	2.52	0.44
70:O4:22:VAL:HG12	70:O4:30:LEU:HD22	1.98	0.44
1:2:497:G:O2'	1:2:498:G:C8	2.70	0.44
36:1:2680:A:C2	48:M1:57:PHE:HB3	2.52	0.44
48:M1:24:GLY:HA2	48:M1:65:ILE:HG23	5.15	0.44
36:5:595:G:C8	36:5:609:G:C6	3.06	0.44
1:2:17:C:H2'	1:2:18:C:H6	1.78	0.44
44:L7:44:ILE:CD1	44:L7:180:SER:HB3	2.46	0.44
1:2:1236:A:C4	33:E1:138:ARG:NH2	2.83	0.44
33:E1:144:CYS:SG	33:E1:147:VAL:HG12	4.76	0.44
63:N7:111:LYS:HE2	36:5:1629:U:O4	206.34	0.44
34:SR:232:TYR:HE1	34:SR:234:LEU:HD11	1.83	0.44
65:N9:26:THR:OG1	36:5:1065:A:N1	214.94	0.44
16:C4:25:ASP:N	16:C4:55:SER:HB3	2.37	0.44
43:L6:98:VAL:HA	43:L6:101:PHE:CE2	2.77	0.44
38:8:155:A:H3'	38:8:156:U:H5''	2.00	0.44
6:S4:194:THR:OG1	6:S4:211:LYS:O	2.30	0.44
15:C3:54:LEU:O	15:C3:60:VAL:HG13	5.32	0.44
51:M5:140:LYS:HD2	51:M5:144:ARG:NH2	3.07	0.44
6:S4:33:ALA:HB3	1:6:121:U:H1'	348.39	0.44
36:5:2724:U:O4	86:5:3960:OHX:N1	2.51	0.44
76:Q0:77:ILE:HD12	76:Q0:78:ILE:H	4.23	0.44
13:C1:53:TYR:CD1	13:C1:113:PRO:HG2	2.52	0.44
36:5:2413:A:H2'	36:5:2414:G:H8	1.80	0.44
1:2:354:C:H5''	10:S8:16:ALA:HB2	2.00	0.44
1:2:138:A:N6	1:2:266:A:H61	2.16	0.44
38:4:125:U:HO2'	38:4:126:A:P	2.40	0.44
36:1:1460:A:H2'	36:1:1461:A:C8	2.52	0.44
36:5:1141:C:OP2	86:5:4112:OHX:N2	2.50	0.44
3:S1:30:PHE:HB3	3:S1:96:LEU:HD22	3.61	0.44
70:O4:109:THR:HB	70:O4:113:LYS:HE3	4.87	0.44
36:1:772:U:H2'	36:1:773:G:C8	2.53	0.44
42:L5:242:SER:O	42:L5:245:GLU:HB2	3.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:509:G:H2'	1:6:510:G:C8	2.52	0.44
1:2:1622:G:H2'	1:2:1623:C:C6	2.53	0.44
1:2:950:C:H2'	1:2:951:A:C8	2.53	0.44
36:1:2948:C:H2'	36:1:2949:U:O4'	2.18	0.44
45:L8:95:ASN:CG	45:L8:98:ARG:HH12	5.16	0.44
36:5:3066:U:H2'	36:5:3067:C:C6	2.53	0.44
41:L4:293:SER:O	41:L4:296:GLN:N	3.02	0.44
36:5:2152:A:H2'	36:5:2153:U:H6	1.82	0.44
12:C0:5:LYS:O	12:C0:9:ASN:N	2.93	0.44
69:O3:13:HIS:O	69:O3:95:GLY:N	2.40	0.44
36:5:627:U:H4'	36:5:1399:A:O2'	2.17	0.44
52:M6:108:ILE:HD13	52:M6:108:ILE:HG21	1.97	0.44
57:N1:160:ILE:HG23	57:N1:160:ILE:O	2.17	0.44
1:2:809:A:N6	1:2:810:G:O6	2.51	0.44
3:S1:82:ARG:NH2	3:S1:191:GLU:HG2	3.31	0.44
7:S5:99:MET:HB2	7:S5:100:ASN:H	1.67	0.44
86:1:4076:OHX:N2	86:1:4146:OHX:N1	2.65	0.44
2:S0:202:TYR:N	2:S0:202:TYR:CD2	2.85	0.44
36:1:1833:G:O2'	75:O9:4:GLN:HA	2.18	0.44
36:1:3344:A:H5''	36:1:3345:G:OP2	2.17	0.44
51:M5:44:ARG:NH2	51:M5:47:LYS:HD3	2.87	0.44
15:C3:87:ASP:OD2	15:C3:88:LEU:N	2.51	0.44
11:S9:109:LEU:HD11	11:S9:134:ILE:HD11	2.00	0.44
26:D4:42:GLU:OE2	26:D4:52:LYS:HD2	4.66	0.44
24:D2:48:GLY:N	24:D2:64:GLN:O	2.40	0.44
9:S7:94:ALA:HB3	9:S7:96:ARG:NH1	2.33	0.44
3:S1:31:ASP:HA	3:S1:45:LYS:HA	1.99	0.44
67:O1:43:HIS:O	67:O1:44:MET:HE2	5.06	0.44
39:L2:130:SER:OG	39:L2:174:ARG:NH2	3.56	0.44
1:6:75:U:HO2'	1:6:76:A:C5'	2.29	0.44
1:6:76:A:H2'	1:6:76:A:N3	2.33	0.44
68:O2:46:PHE:O	68:O2:47:ARG:C	2.55	0.44
48:M1:25:GLU:HG3	48:M1:26:SER:O	2.18	0.44
54:M8:170:ARG:HG2	54:M8:171:LYS:N	2.33	0.44
17:C5:87:PRO:HA	17:C5:90:ILE:HG13	1.99	0.44
43:L6:46:ARG:NH2	36:5:3268:A:OP1	245.78	0.44
1:6:1347:U:C2	1:6:1517:U:C5	3.06	0.44
65:N9:14:ARG:NH2	65:N9:18:ARG:HD2	2.32	0.44
41:L4:222:VAL:HA	41:L4:223:PRO:HD3	1.87	0.44
14:C2:132:GLU:O	14:C2:136:ILE:HG12	2.17	0.44
15:C3:75:LEU:HD23	15:C3:80:LEU:HB3	3.28	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2264:U:OP2	86:1:3984:OHX:N5	2.51	0.44
12:C0:29:GLN:HB3	12:C0:39:ASN:HB2	2.00	0.44
36:1:717:C:C4	36:1:718:G:C6	3.05	0.44
25:D3:95:PHE:O	25:D3:142:LYS:HE3	2.87	0.44
46:L9:69:ARG:CG	46:L9:69:ARG:HH11	3.19	0.44
7:S5:200:ASN:HB3	7:S5:205:SER:HB3	4.39	0.44
46:L9:122:LYS:HD3	46:L9:123:ILE:N	4.67	0.44
59:N3:3:GLY:HA3	59:N3:57:MET:HB3	6.03	0.44
36:5:123:A:H5'	36:5:124:U:OP2	2.17	0.44
13:C1:64:VAL:HG11	13:C1:131:ILE:HD11	2.03	0.44
1:6:846:G:H2'	1:6:847:A:O4'	2.18	0.44
3:S1:32:ILE:HG13	3:S1:96:LEU:HD21	2.00	0.44
36:1:185:C:H2'	36:1:186:U:H6	1.83	0.44
57:N1:62:GLY:HA3	57:N1:76:ILE:HD13	3.49	0.44
1:6:224:C:H2'	1:6:225:A:H8	1.82	0.44
36:5:1074:U:O2'	36:5:1075:A:H2'	2.18	0.44
36:5:1938:U:O4	86:5:3952:OHX:N1	2.51	0.44
1:6:1071:U:H2'	1:6:1072:C:C6	2.53	0.44
44:L7:136:TYR:CE2	44:L7:231:ASN:HB2	2.53	0.44
1:2:763:G:C6	1:2:764:U:C4	3.06	0.44
65:N9:41:ARG:O	65:N9:44:LYS:HB3	2.18	0.44
36:5:1910:A:H2'	36:5:1911:A:C8	2.53	0.44
1:2:95:G:C2	1:2:96:G:H1'	2.53	0.44
36:1:590:G:C2	36:1:610:G:H2'	2.52	0.44
52:M6:158:ALA:O	52:M6:162:VAL:HG23	2.63	0.44
50:M4:45:LEU:HD22	56:N0:72:VAL:HG23	2.78	0.44
1:2:1217:A:H8	1:2:1217:A:H5'	1.81	0.44
25:D3:132:LEU:HD23	25:D3:132:LEU:HA	2.10	0.44
36:1:1386:A:H5'	36:1:1387:G:H5'	1.99	0.44
58:N2:87:ASN:O	58:N2:89:LEU:HG	2.17	0.44
34:SR:288:HIS:O	34:SR:306:THR:HG23	2.48	0.44
48:M1:16:LYS:HE2	48:M1:130:VAL:HG11	1.99	0.44
40:L3:296:THR:CG2	40:L3:297:SER:N	4.26	0.44
36:5:1072:G:H2'	36:5:1073:U:C6	2.53	0.44
47:M0:47:PRO:HA	47:M0:171:TRP:CD1	2.53	0.44
3:S1:133:TYR:CZ	3:S1:181:LEU:HD12	4.94	0.44
13:C1:99:ARG:HH12	25:D3:7:ARG:C	2.21	0.44
36:5:2836:C:H2'	36:5:2837:A:O4'	2.18	0.44
36:5:1554:U:H4'	36:5:1555:U:OP1	2.17	0.44
1:2:322:G:O4'	1:2:323:A:H8	2.01	0.44
36:1:3353:G:O2'	36:1:3356:G:OP2	2.36	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2278:C:OP1	86:1:3956:OHX:N3	2.51	0.44
51:M5:50:ARG:NH1	36:5:267:G:H4'	111.80	0.44
1:2:1011:G:OP2	86:2:2091:OHX:N6	2.50	0.44
6:S4:88:ASP:HA	6:S4:122:LYS:NZ	2.32	0.44
36:1:3088:G:H2'	36:1:3089:C:O4'	2.18	0.44
9:S7:131:PHE:HB3	9:S7:132:PRO:HD3	1.99	0.44
37:3:49:G:H4'	37:3:50:U:O4'	2.18	0.44
40:L3:323:MET:HE1	40:L3:356:LEU:HD11	2.00	0.44
40:L3:188:ILE:HD12	40:L3:188:ILE:HA	3.93	0.44
40:L3:188:ILE:O	40:L3:191:LYS:HB2	2.31	0.44
14:C2:61:VAL:HG13	14:C2:121:VAL:HB	1.98	0.44
9:S7:49:ILE:HG13	9:S7:57:ALA:HB3	2.97	0.44
40:L3:139:GLN:H	40:L3:139:GLN:HG3	1.70	0.44
1:2:1595:U:H6	1:2:1596:C:C2	2.36	0.44
1:2:1480:G:H3'	1:2:1481:C:C6	2.53	0.44
1:2:71:A:H2'	1:2:72:A:O4'	2.18	0.44
78:Q2:104:LEU:HA	78:Q2:104:LEU:HD12	2.12	0.44
4:S2:206:THR:HG1	4:S2:209:ASN:HB2	3.80	0.44
33:E1:144:CYS:HB3	33:E1:147:VAL:N	2.32	0.44
14:C2:70:ASN:HA	14:C2:73:LYS:HB3	2.00	0.44
36:5:171:G:H1	36:5:247:C:N4	2.14	0.44
36:1:162:G:N2	36:1:259:C:N3	2.49	0.44
61:N5:58:ASP:OD1	71:O5:25:LYS:NZ	2.47	0.44
30:D8:19:THR:OG1	30:D8:27:GLN:HG3	2.18	0.44
67:O1:27:LYS:C	67:O1:30:PRO:HD2	2.38	0.44
36:1:1388:U:OP2	86:1:4152:OHX:N4	2.51	0.44
86:1:4080:OHX:N2	86:1:4150:OHX:N1	2.66	0.44
66:O0:78:GLY:CA	66:O0:87:VAL:HG13	2.58	0.44
59:N3:33:ASN:C	59:N3:34:LEU:HG	2.38	0.44
37:7:79:A:OP2	86:7:220:OHX:N3	2.51	0.44
24:D2:28:ARG:HA	24:D2:29:PRO:HA	1.67	0.44
51:M5:38:ARG:HH21	51:M5:60:VAL:HG22	1.82	0.44
46:L9:87:LYS:N	46:L9:185:GLY:O	2.95	0.44
5:S3:135:GLU:HG3	5:S3:153:ALA:HB2	3.48	0.44
86:1:4063:OHX:N1	86:1:4110:OHX:N2	2.64	0.44
50:M4:32:LEU:HD11	50:M4:94:TRP:CD1	2.53	0.44
40:L3:305:ILE:HG12	40:L3:321:PHE:CZ	2.52	0.44
36:1:2617:U:H5	36:1:2621:G:OP2	2.01	0.44
51:M5:150:TRP:CG	51:M5:151:ILE:N	2.86	0.44
36:5:374:A:H4'	36:5:375:A:OP1	2.16	0.44
1:2:47:A:N1	1:2:386:G:H1'	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:630:A:H2'	36:5:631:U:C6	2.53	0.44
36:5:2512:C:N4	36:5:2513:U:O4	2.51	0.44
5:S3:90:ARG:HB3	5:S3:91:VAL:H	3.79	0.44
36:1:1817:G:OP1	86:1:4086:OHX:N1	2.51	0.44
17:C5:116:LEU:HD23	17:C5:116:LEU:HA	1.86	0.44
19:C7:56:HIS:O	19:C7:60:ARG:HG2	3.02	0.44
1:2:477:A:H2'	1:2:478:A:H8	1.83	0.44
8:S6:214:LYS:C	8:S6:216:LEU:H	3.63	0.44
36:5:2350:C:H4'	36:5:3308:C:O2'	2.18	0.44
78:Q2:61:LYS:HG3	78:Q2:61:LYS:H	4.27	0.44
1:2:771:A:OP1	11:S9:9:SER:OG	2.25	0.44
44:L7:60:ARG:NH2	36:5:516:A:O3'	303.57	0.44
36:1:2743:A:H2'	36:1:2744:U:O4'	2.18	0.44
24:D2:16:ASN:HA	24:D2:19:LYS:HD2	4.75	0.44
1:2:1433:G:H2'	1:2:1434:U:C6	2.52	0.44
5:S3:217:ILE:HG22	5:S3:218:LEU:H	1.83	0.44
26:D4:128:LYS:HD2	26:D4:128:LYS:O	2.16	0.44
1:6:1187:U:O5'	1:6:1187:U:H6	2.01	0.44
36:1:709:A:P	54:M8:179:ARG:HH22	2.39	0.44
36:1:2782:U:OP1	49:M3:185:LYS:NZ	2.49	0.44
40:L3:296:THR:HG21	40:L3:357:LYS:O	3.78	0.44
50:M4:55:ARG:HG2	56:N0:70:THR:HB	2.00	0.44
36:1:1764:U:P	55:M9:43:LYS:HD3	2.57	0.44
36:1:1940:G:H21	36:1:3362:A:H8	1.65	0.44
30:D8:44:VAL:HG21	30:D8:48:VAL:CG2	2.67	0.44
62:N6:115:ARG:O	62:N6:119:ILE:HG13	2.18	0.44
11:S9:34:PHE:CE1	11:S9:105:LEU:HB3	2.53	0.44
38:8:4:C:H2'	38:8:5:U:C6	2.53	0.44
22:D0:74:GLU:O	22:D0:74:GLU:HG3	2.17	0.44
34:SR:84:SER:OG	34:SR:85:TRP:N	2.63	0.44
9:S7:67:LEU:HD23	9:S7:67:LEU:HA	1.74	0.44
37:3:26:C:H2'	37:3:27:A:O4'	2.17	0.44
66:O0:16:LEU:HB3	66:O0:98:SER:HB2	1.99	0.44
12:C0:8:ARG:NH1	1:6:1257:U:H4'	445.30	0.44
36:5:3121:U:C1'	36:5:3122:A:H5''	2.47	0.44
8:S6:78:THR:HG22	8:S6:79:LYS:N	2.26	0.44
56:N0:166:LYS:O	56:N0:167:ARG:CB	2.66	0.44
36:5:980:A:N6	36:5:1102:A:C6	2.86	0.44
39:L2:5:ILE:HG22	39:L2:208:ASP:O	2.18	0.44
36:1:561:C:H2'	36:1:562:C:C6	2.53	0.44
1:2:1578:U:O2'	1:2:1579:U:H5'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:18:U:OP1	86:4:231:OHX:N2	2.50	0.44
36:1:2898:G:H5''	36:1:2899:C:C5'	2.47	0.44
22:D0:63:LEU:O	22:D0:83:GLU:HA	2.34	0.44
42:L5:222:LEU:O	42:L5:223:PHE:HB2	2.17	0.44
1:6:275:C:N4	1:6:276:C:N4	2.66	0.44
1:2:568:G:O5'	25:D3:90:ASP:HA	2.17	0.44
59:N3:24:ASN:O	59:N3:99:ALA:HA	2.26	0.44
1:2:1235:C:H5'	33:E1:146:SER:CB	2.47	0.44
33:E1:146:SER:HB3	1:6:1234:A:H4'	433.87	0.44
57:N1:13:TYR:O	86:5:3912:OHX:N4	260.24	0.44
45:L8:156:ASP:HB2	45:L8:157:VAL:H	1.63	0.44
4:S2:98:PHE:HD2	4:S2:121:VAL:HG23	4.15	0.44
36:5:1065:A:H4'	36:5:1066:G:OP2	2.18	0.44
36:5:3041:U:H2'	36:5:3042:U:C6	2.53	0.44
53:M7:123:PRO:O	53:M7:143:PRO:HG2	2.58	0.44
36:5:3352:U:O4'	36:5:3353:G:C2	2.71	0.44
54:M8:92:ARG:HD2	64:N8:76:ASP:OD1	3.13	0.44
17:C5:78:THR:OG1	17:C5:79:HIS:N	2.91	0.44
78:Q2:35:LEU:HA	78:Q2:35:LEU:HD13	4.34	0.44
36:5:959:C:N4	36:5:2801:A:C8	2.86	0.44
46:L9:92:TYR:HD2	46:L9:179:ILE:HG23	6.31	0.44
53:M7:42:THR:HA	53:M7:45:GLN:HB2	2.90	0.44
40:L3:339:ARG:HH12	40:L3:342:LEU:HD11	1.83	0.44
1:2:1475:A:H2'	1:2:1476:C:C6	2.53	0.44
14:C2:103:LEU:HD23	14:C2:115:VAL:HA	3.07	0.44
36:5:799:G:H2'	36:5:801:A:N7	2.32	0.44
25:D3:41:SER:HA	25:D3:42:PRO:HD3	1.81	0.44
36:5:1684:U:H2'	36:5:1685:C:C6	2.53	0.44
14:C2:54:ARG:O	14:C2:56:GLU:N	2.51	0.44
41:L4:332:LYS:HE3	36:5:599:C:OP1	271.92	0.44
36:1:1047:A:C6	36:1:1048:A:C6	3.05	0.44
36:1:1093:A:H2	36:1:1096:U:O2	2.00	0.44
37:7:3:U:H2'	37:7:4:U:H6	1.81	0.44
36:1:1781:C:H2'	36:1:1782:U:H6	1.83	0.44
2:S0:102:PHE:CE1	2:S0:106:SER:HB2	2.53	0.44
36:1:2352:A:N6	36:1:2353:G:C6	2.85	0.44
48:M1:10:ARG:HH21	48:M1:152:HIS:H	4.28	0.44
1:2:585:A:H2'	1:2:586:G:H8	1.83	0.44
52:M6:156:LEU:HD23	52:M6:156:LEU:HA	2.11	0.44
4:S2:82:ASN:OD1	4:S2:207:LEU:HD12	2.18	0.44
1:2:1263:G:C2	1:2:1264:G:H1'	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2359:C:O5'	36:5:2359:C:H6	2.00	0.44
27:D5:90:LYS:HG3	27:D5:91:PRO:HD2	4.25	0.44
15:C3:127:ARG:O	15:C3:131:THR:HB	3.56	0.44
37:7:92:A:C5	37:7:93:C:H1'	2.52	0.44
1:6:745:U:C2	1:6:807:A:C2	3.05	0.44
7:S5:173:ALA:O	7:S5:177:ILE:HG13	2.61	0.44
73:O7:76:ASN:O	73:O7:79:GLN:HG3	3.04	0.44
1:2:420:A:H2'	1:2:421:A:O4'	2.17	0.44
40:L3:328:ILE:HG21	40:L3:328:ILE:HD13	1.73	0.44
36:5:1031:C:H2'	36:5:1032:C:H5''	2.00	0.44
57:N1:159:PHE:HD2	57:N1:159:PHE:O	2.00	0.44
42:L5:271:LYS:HA	42:L5:271:LYS:HD3	4.21	0.44
1:6:541:A:H8	1:6:541:A:OP1	2.00	0.44
50:M4:22:LEU:HB3	50:M4:64:VAL:HG13	2.33	0.44
40:L3:59:ASP:OD1	40:L3:357:LYS:NZ	3.28	0.43
63:N7:15:ARG:C	63:N7:19:ALA:HB2	3.07	0.43
36:1:1603:A:H61	61:N5:71:THR:HG21	1.83	0.43
36:5:3055:U:H1'	36:5:3057:U:OP2	2.18	0.43
18:C6:54:LEU:HD13	18:C6:54:LEU:HA	3.07	0.43
19:C7:8:THR:HG21	1:6:1330:G:N2	419.20	0.43
72:O6:25:LYS:HG3	72:O6:28:TYR:HE2	2.26	0.43
70:O4:8:ARG:NH1	70:O4:8:ARG:HG2	2.18	0.43
18:C6:39:VAL:O	18:C6:45:ARG:NE	6.08	0.43
57:N1:71:SER:HB2	57:N1:91:LEU:O	3.96	0.43
30:D8:26:THR:H	30:D8:44:VAL:HG22	1.82	0.43
51:M5:14:LYS:NZ	36:5:269:G:H5''	132.54	0.43
8:S6:63:MET:HA	8:S6:98:ARG:O	2.26	0.43
6:S4:88:ASP:HA	6:S4:122:LYS:HZ1	1.83	0.43
4:S2:57:PHE:CE1	4:S2:138:PRO:HD3	2.82	0.43
36:5:1470:U:H2'	36:5:1471:U:H6	1.83	0.43
42:L5:113:LEU:HA	42:L5:113:LEU:HD12	2.34	0.43
8:S6:114:VAL:HG12	8:S6:115:LYS:HG2	5.30	0.43
69:O3:45:LEU:HD21	69:O3:74:THR:HG23	2.54	0.43
2:S0:110:TYR:HA	2:S0:115:PHE:CZ	2.53	0.43
46:L9:90:MET:O	46:L9:143:GLU:O	4.57	0.43
55:M9:22:VAL:C	55:M9:53:LYS:HE2	5.50	0.43
1:2:778:G:H1	26:D4:10:ARG:CZ	2.31	0.43
36:1:2310:U:OP1	86:1:4135:OHX:N2	2.51	0.43
1:6:837:G:H2'	1:6:838:G:H8	1.83	0.43
26:D4:77:ASN:O	26:D4:78:SER:HB3	2.70	0.43
72:O6:11:LEU:HA	72:O6:11:LEU:HD12	1.78	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:88:ASP:HB3	63:N7:121:ARG:NH2	2.31	0.43
27:D5:87:GLY:O	27:D5:89:ILE:N	2.44	0.43
36:5:2820:A:OP1	86:5:3974:OHX:N6	2.51	0.43
63:N7:13:VAL:HG12	63:N7:14:VAL:H	2.44	0.43
35:SM:61:ILE:HG13	35:SM:61:ILE:H	1.58	0.43
36:5:2429:G:OP2	86:5:4043:OHX:N5	2.51	0.43
10:S8:37:LYS:HE3	10:S8:95:THR:OG1	4.51	0.43
1:6:301:A:H2'	1:6:302:U:C6	2.53	0.43
36:5:176:G:H2'	36:5:177:U:C6	2.53	0.43
62:N6:63:LYS:HA	62:N6:63:LYS:HD3	2.46	0.43
1:2:1390:U:O2	1:2:1412:G:H1'	2.16	0.43
39:L2:142:ASP:O	39:L2:143:GLU:HB2	2.18	0.43
43:L6:21:THR:HB	36:5:612:U:OP1	225.96	0.43
36:5:1662:G:O6	86:5:3921:OHX:N1	2.51	0.43
13:C1:109:VAL:HG23	13:C1:137:PHE:O	2.78	0.43
41:L4:324:LEU:O	41:L4:327:LEU:O	2.36	0.43
36:1:2881:C:H2'	36:1:2882:U:C6	2.53	0.43
34:SR:79:TYR:HB3	34:SR:91:LEU:CD1	2.48	0.43
36:1:127:G:O2'	36:1:128:G:H5'	2.18	0.43
6:S4:86:PHE:O	6:S4:87:MET:HB2	2.18	0.43
1:6:1087:A:H2	1:6:1142:A:H4'	1.83	0.43
1:6:976:G:O6	86:6:2082:OHX:N6	2.50	0.43
36:1:1123:U:H2'	36:1:1124:U:H5'	1.98	0.43
13:C1:46:LYS:O	13:C1:50:GLU:HG2	4.49	0.43
36:5:718:G:N7	36:5:721:G:H1'	2.33	0.43
36:5:725:G:H5'	36:5:726:G:OP2	2.18	0.43
72:O6:62:ARG:HH12	72:O6:98:ARG:HD3	1.83	0.43
36:5:2765:C:H2'	36:5:2766:U:H6	1.83	0.43
9:S7:140:VAL:O	24:D2:51:GLU:HA	2.19	0.43
1:6:1108:G:OP2	86:6:2177:OHX:N2	2.51	0.43
45:L8:158:ASP:O	36:5:147:U:N3	131.56	0.43
36:1:1161:G:OP1	86:1:3966:OHX:N5	2.51	0.43
36:1:425:G:O6	86:1:3873:OHX:N6	2.51	0.43
47:M0:150:GLU:OE2	47:M0:150:GLU:HA	2.18	0.43
36:1:650:C:H2'	36:1:651:G:C8	2.53	0.43
9:S7:154:LEU:HD22	9:S7:154:LEU:N	2.33	0.43
36:1:1581:C:O2	36:1:1582:C:H5'	2.18	0.43
41:L4:319:LYS:O	41:L4:320:ASN:CB	4.32	0.43
3:S1:39:GLU:HB3	3:S1:74:GLN:HA	1.99	0.43
77:Q1:10:THR:O	77:Q1:14:LYS:HG3	2.17	0.43
7:S5:94:THR:O	7:S5:97:LEU:HB2	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:81:GLN:O	59:N3:82:ALA:HB3	2.18	0.43
39:L2:149:ARG:HH21	39:L2:252:THR:HG23	1.82	0.43
4:S2:111:VAL:O	4:S2:136:VAL:HA	2.17	0.43
36:1:1427:U:OP2	64:N8:4:ARG:NH2	2.50	0.43
11:S9:110:GLN:NE2	11:S9:126:ARG:HG2	2.34	0.43
6:S4:36:HIS:NE2	6:S4:88:ASP:OD2	2.49	0.43
28:D6:45:VAL:HB	28:D6:46:GLU:H	1.62	0.43
10:S8:156:VAL:O	10:S8:159:GLN:HB2	2.21	0.43
17:C5:15:HIS:CG	17:C5:16:SER:N	2.85	0.43
55:M9:4:LEU:HA	55:M9:7:GLN:NE2	5.03	0.43
55:M9:4:LEU:CA	55:M9:7:GLN:HE21	6.52	0.43
46:L9:63:LYS:HD2	36:5:3122:A:O2'	312.42	0.43
4:S2:159:THR:HG21	1:6:1097:U:O3'	383.34	0.43
36:1:595:G:C8	36:1:609:G:C6	3.05	0.43
36:1:26:A:C4	36:1:330:G:C8	3.06	0.43
24:D2:30:SER:HB2	24:D2:61:ILE:HD11	1.99	0.43
68:O2:46:PHE:CE1	36:5:1145:G:H5'	210.59	0.43
36:1:2255:A:OP1	86:1:3932:OHX:N3	2.51	0.43
26:D4:63:GLN:HB2	26:D4:68:LYS:HB3	1.99	0.43
1:2:780:A:N7	26:D4:8:ARG:NH2	2.66	0.43
48:M1:26:SER:HB3	48:M1:64:LYS:O	2.18	0.43
1:2:582:U:H3'	1:2:583:C:C5	2.53	0.43
59:N3:32:ARG:HG3	59:N3:32:ARG:O	3.06	0.43
36:1:1470:U:OP1	86:1:3926:OHX:N3	2.52	0.43
36:5:248:U:H2'	36:5:249:U:H5'	1.99	0.43
1:2:1762:A:C1'	1:2:1783:C:H5'	2.48	0.43
36:1:735:A:H2'	36:1:736:A:H8	1.82	0.43
36:1:2413:A:H2'	36:1:2414:G:C8	2.53	0.43
22:D0:51:VAL:HG21	22:D0:94:GLU:HB2	5.31	0.43
6:S4:181:VAL:HG13	6:S4:225:VAL:HG13	2.00	0.43
40:L3:161:LEU:HA	40:L3:161:LEU:HD23	1.65	0.43
41:L4:295:ILE:CG2	41:L4:299:ILE:HD11	3.22	0.43
1:2:1035:G:OP1	15:C3:2:GLY:N	2.51	0.43
9:S7:111:LYS:HB3	9:S7:112:ARG:H	1.62	0.43
1:2:1147:A:H2'	1:2:1148:C:C6	2.53	0.43
36:1:3042:U:OP2	36:1:3092:C:N4	2.37	0.43
22:D0:67:THR:HG21	31:D9:40:ARG:HB2	2.00	0.43
1:6:760:A:H2'	1:6:761:G:O4'	2.18	0.43
36:5:1684:U:H2'	36:5:1685:C:H6	1.83	0.43
15:C3:27:LYS:HB2	15:C3:28:LEU:H	1.59	0.43
86:2:2116:OHX:N2	86:C1:201:OHX:N1	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:245:PHE:CD1	34:SR:252:LEU:HD13	2.84	0.43
36:1:849:C:H2'	36:1:850:U:H6	1.81	0.43
1:2:264:G:N7	86:2:2035:OHX:N1	2.66	0.43
1:2:3:U:C4	11:S9:16:LYS:HD3	2.53	0.43
13:C1:93:TYR:HB2	13:C1:100:TYR:CE1	2.53	0.43
36:5:2732:G:H2'	36:5:2733:A:O4'	2.17	0.43
36:1:1304:A:OP1	86:1:4204:OHX:N5	2.52	0.43
46:L9:117:PHE:CE1	46:L9:165:CYS:HB3	2.54	0.43
1:2:1124:A:H2'	1:2:1125:A:O4'	2.18	0.43
36:5:1204:A:H2'	36:5:1205:A:H5'	1.99	0.43
36:1:796:U:H2'	36:1:797:U:C6	2.54	0.43
36:1:1912:U:C4	36:1:1913:A:C6	3.06	0.43
49:M3:122:LYS:HA	71:O5:120:ALA:HA	2.00	0.43
38:8:123:G:N7	86:8:229:OHX:N2	2.66	0.43
1:2:51:A:OP2	86:2:2073:OHX:N3	2.51	0.43
2:S0:80:THR:HA	2:S0:83:GLN:OE1	2.26	0.43
68:O2:24:ARG:HD3	68:O2:25:TYR:CZ	2.53	0.43
64:N8:126:LYS:HB3	64:N8:148:ILE:HD13	2.27	0.43
36:1:1620:U:H2'	36:1:1621:A:C8	2.54	0.43
13:C1:63:LEU:HD23	13:C1:63:LEU:HA	3.06	0.43
45:L8:206:GLU:HG3	45:L8:206:GLU:H	1.35	0.43
26:D4:102:LYS:HD2	26:D4:102:LYS:H	1.83	0.43
36:1:3217:C:H2'	36:1:3217:C:O2	2.18	0.43
1:6:119:A:H1'	1:6:397:A:C4	2.53	0.43
7:S5:73:THR:HG22	7:S5:74:ALA:H	3.09	0.43
24:D2:77:PRO:O	24:D2:79:PHE:N	2.51	0.43
86:1:4053:OHX:N1	86:3:218:OHX:N4	2.66	0.43
36:5:2837:A:H8	36:5:2837:A:OP2	2.02	0.43
44:L7:157:ASN:O	44:L7:159:GLN:HG3	2.27	0.43
24:D2:67:GLY:O	24:D2:68:ARG:HG2	5.03	0.43
1:6:230:C:N4	1:6:235:G:H1	2.14	0.43
77:Q1:20:VAL:O	77:Q1:23:ARG:HB2	2.18	0.43
36:1:290:G:H2'	36:1:291:C:C6	2.54	0.43
62:N6:40:ARG:HG3	62:N6:45:ILE:O	2.18	0.43
1:2:706:A:C6	1:2:734:A:N6	2.85	0.43
20:C8:140:THR:HA	20:C8:143:ARG:HH12	1.83	0.43
16:C4:43:THR:O	16:C4:46:MET:HB2	2.29	0.43
21:C9:33:TYR:O	21:C9:35:ASP:N	3.10	0.43
41:L4:118:LYS:O	41:L4:122:THR:HG23	2.28	0.43
10:S8:156:VAL:HA	10:S8:159:GLN:NE2	2.33	0.43
25:D3:102:VAL:HG12	25:D3:127:VAL:HA	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:252:ILE:HG12	36:5:2393:G:H4'	213.56	0.43
7:S5:42:LEU:HB2	7:S5:46:TRP:O	2.17	0.43
9:S7:43:PHE:CE1	9:S7:46:ILE:HG13	3.08	0.43
36:1:662:U:H2'	36:1:663:C:C6	2.54	0.43
46:L9:137:SER:HB2	46:L9:143:GLU:HG2	2.00	0.43
7:S5:30:PRO:O	7:S5:33:VAL:HB	2.45	0.43
36:5:2211:U:C5	36:5:2234:G:O6	2.65	0.43
31:D9:22:ARG:HH11	31:D9:22:ARG:HB3	1.83	0.43
7:S5:121:ILE:O	7:S5:124:LEU:N	2.98	0.43
49:M3:74:GLY:CA	49:M3:98:ASP:HB2	2.80	0.43
36:1:2747:A:OP1	42:L5:176:SER:OG	2.33	0.43
4:S2:203:LYS:O	4:S2:206:THR:OG1	2.35	0.43
36:1:1646:G:O2'	36:1:1808:G:N2	2.42	0.43
33:E1:148:TYR:HA	33:E1:148:TYR:HD1	2.34	0.43
41:L4:198:ARG:HB3	41:L4:199:TRP:CD1	2.54	0.43
1:2:494:U:O2'	1:2:495:C:O5'	2.32	0.43
9:S7:100:PRO:HG3	1:6:695:U:H4'	366.85	0.43
86:5:4074:OHX:N5	86:5:4136:OHX:N2	2.67	0.43
12:C0:61:TRP:N	12:C0:61:TRP:CD1	2.86	0.43
40:L3:68:HIS:CD2	40:L3:69:LYS:HG3	2.53	0.43
36:1:1790:G:O6	86:1:4164:OHX:N4	2.50	0.43
68:O2:2:ALA:O	68:O2:90:LYS:HA	3.13	0.43
40:L3:178:LEU:HD12	40:L3:179:ALA:H	1.83	0.43
56:N0:1:MET:HB3	56:N0:1:MET:HE2	1.88	0.43
64:N8:96:LYS:O	64:N8:97:GLU:HB2	2.18	0.43
19:C7:5:ARG:HG2	19:C7:9:VAL:HG11	2.00	0.43
6:S4:34:GLY:HA3	6:S4:35:PRO:HD3	1.76	0.43
43:L6:148:GLU:OE1	43:L6:151:LYS:HE3	2.85	0.43
88:5:4254:3J2:O6	88:5:4254:3J2:H17	2.18	0.43
36:5:3222:U:O2'	36:5:3223:A:H5'	2.18	0.43
9:S7:148:LYS:HE3	9:S7:148:LYS:HB2	1.83	0.43
36:1:2273:G:O2'	36:1:2274:U:OP2	2.36	0.43
4:S2:174:ARG:HA	4:S2:195:ASP:OD2	2.18	0.43
12:C0:38:LYS:NZ	31:D9:4:GLU:HG3	2.34	0.43
39:L2:113:VAL:HG12	39:L2:166:ILE:HA	2.01	0.43
1:6:52:U:H2'	1:6:53:G:H8	1.83	0.43
1:6:329:G:H2'	1:6:330:G:C8	2.52	0.43
10:S8:172:ARG:NH1	1:6:330:G:OP2	280.52	0.43
36:5:1396:C:H2'	36:5:1397:C:C6	2.53	0.43
36:1:217:U:O2'	62:N6:103:LYS:HE2	2.18	0.43
34:SR:81:LEU:HD21	34:SR:91:LEU:HD22	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:255:A:H2'	36:1:256:G:C8	2.53	0.43
52:M6:108:ILE:O	52:M6:108:ILE:HG12	4.74	0.43
36:5:340:C:O2'	36:5:341:G:H5'	2.17	0.43
36:5:1253:U:H4'	36:5:1254:C:H5'	2.00	0.43
45:L8:211:LEU:O	45:L8:215:VAL:HG23	2.17	0.43
2:S0:4:PRO:HG2	2:S0:7:PHE:CD1	3.63	0.43
36:5:1536:G:N2	36:5:1537:A:H1'	2.33	0.43
42:L5:164:LYS:HE3	42:L5:168:ASP:OD1	3.17	0.43
36:1:2726:C:OP1	86:1:4121:OHX:N3	2.51	0.43
36:1:2635:A:H4'	36:1:2636:A:O5'	2.18	0.43
45:L8:48:ARG:NH2	36:5:2588:U:OP1	183.79	0.43
3:S1:123:ALA:HB2	3:S1:165:ARG:HG2	2.00	0.43
36:1:539:C:H2'	36:1:540:U:H6	1.84	0.43
57:N1:111:ALA:O	57:N1:115:LYS:HG3	2.22	0.43
58:N2:93:ILE:HA	58:N2:106:ALA:O	2.29	0.43
29:D7:29:ARG:NH1	29:D7:29:ARG:HG3	2.34	0.43
43:L6:34:LEU:HD23	43:L6:34:LEU:HA	2.11	0.43
36:1:373:A:N1	36:1:394:G:H4'	2.32	0.43
1:6:477:A:N6	1:6:539:G:N2	2.66	0.43
49:M3:132:ALA:O	49:M3:134:GLU:N	3.18	0.43
1:6:746:A:H2'	1:6:747:C:O4'	2.18	0.43
37:3:43:U:C4	37:3:44:C:C4	3.07	0.43
1:6:990:C:H2'	1:6:991:G:O4'	2.19	0.43
69:O3:52:VAL:HG22	69:O3:66:VAL:HG22	1.99	0.43
36:1:1554:U:HO2'	36:1:1582:C:H5	1.66	0.43
18:C6:47:LYS:HA	18:C6:47:LYS:HD2	1.86	0.43
36:1:2836:C:H4'	47:M0:157:TYR:CD1	2.54	0.43
36:1:3192:U:H2'	36:1:3193:C:C6	2.53	0.43
50:M4:17:VAL:HG11	50:M4:74:ARG:HA	2.10	0.43
36:5:838:G:H2'	36:5:839:C:O4'	2.19	0.43
15:C3:98:VAL:CG2	1:6:952:A:H5'	293.43	0.43
10:S8:54:LYS:HD3	10:S8:175:GLN:OE1	2.18	0.43
11:S9:8:TYR:C	11:S9:8:TYR:CD1	3.21	0.43
24:D2:18:GLU:HG3	24:D2:69:LEU:HD23	2.00	0.43
44:L7:90:LYS:HD3	44:L7:220:PHE:CZ	2.54	0.43
1:2:1009:U:H2'	1:2:1010:C:H6	1.83	0.43
63:N7:2:ALA:N	66:O0:63:SER:O	3.30	0.43
12:C0:25:LYS:HD2	12:C0:59:PHE:HZ	1.83	0.43
35:SM:60:ALA:O	35:SM:63:ASP:HB3	2.78	0.43
21:C9:28:LEU:CD1	21:C9:29:GLU:H	2.27	0.43
37:3:26:C:H5"	42:L5:56:THR:HB	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:21:ASP:O	17:C5:23:GLU:N	2.51	0.43
7:S5:137:ILE:HD11	7:S5:172:ILE:HG13	2.00	0.43
40:L3:186:GLY:O	40:L3:190:GLU:HB2	2.33	0.43
35:SM:50:ASN:HB2	35:SM:51:ARG:H	4.38	0.43
1:6:831:U:H6	1:6:831:U:OP2	2.01	0.43
41:L4:316:ASN:OD1	41:L4:318:LEU:HB2	2.18	0.43
54:M8:66:ARG:HH21	36:5:744:A:P	168.65	0.43
6:S4:108:ARG:NH1	1:6:788:A:OP2	396.65	0.43
36:5:1587:A:OP1	86:8:217:OHX:N5	2.52	0.43
41:L4:145:ILE:HB	41:L4:146:PRO:HD2	2.00	0.43
7:S5:23:VAL:HG11	18:C6:57:LEU:HB2	2.40	0.43
14:C2:32:LEU:HD22	14:C2:41:LEU:HD21	2.53	0.43
54:M8:147:ARG:HB3	54:M8:150:VAL:HG13	2.40	0.43
2:S0:28:ASN:O	2:S0:30:GLN:HB2	2.18	0.43
1:2:1494:C:H2'	1:2:1495:C:C6	2.52	0.43
44:L7:179:LEU:N	44:L7:179:LEU:HD22	2.74	0.43
23:D1:60:ARG:HG2	23:D1:65:SER:OG	3.55	0.43
2:S0:56:LYS:HA	2:S0:56:LYS:HD3	1.90	0.43
36:1:2307:G:O6	86:1:3964:OHX:N2	2.51	0.43
43:L6:46:ARG:NH1	43:L6:46:ARG:CG	3.29	0.43
1:2:16:G:H1'	1:2:1138:A:H61	1.83	0.43
38:8:157:U:O2'	38:8:158:U:H5'	2.19	0.43
57:N1:122:GLN:HB3	57:N1:123:GLY:H	1.57	0.43
47:M0:77:THR:HB	47:M0:82:ARG:HA	2.12	0.43
1:2:819:G:C6	1:2:853:G:C5	3.06	0.43
14:C2:52:LEU:HD22	14:C2:57:ALA:HB2	1.99	0.43
54:M8:126:GLN:O	54:M8:130:ARG:HG3	2.17	0.43
64:N8:79:TRP:CZ3	64:N8:91:LEU:HD13	3.91	0.43
48:M1:165:GLN:O	48:M1:166:LYS:C	2.56	0.43
64:N8:28:HIS:CE1	64:N8:32:ARG:CZ	3.01	0.43
16:C4:54:GLU:CD	1:6:901:G:H22	282.37	0.43
36:1:2767:U:OP1	78:Q2:33:ALA:O	2.36	0.43
34:SR:37:SER:HB3	34:SR:39:ASP:OD1	2.19	0.43
75:O9:45:ARG:NH2	36:5:1841:A:N3	130.31	0.43
46:L9:92:TYR:HB2	46:L9:142:ASP:HB3	2.00	0.43
1:6:1079:U:C4	1:6:1080:U:C4	3.06	0.43
19:C7:5:ARG:O	19:C7:10:LYS:HE2	2.18	0.43
44:L7:108:LEU:CD2	44:L7:115:THR:HG23	2.48	0.43
2:S0:35:PRO:C	2:S0:37:VAL:N	2.71	0.43
58:N2:19:VAL:HG12	58:N2:105:LEU:HD23	2.90	0.43
44:L7:102:VAL:HG13	44:L7:126:LEU:HD22	2.14	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1175:U:H2'	1:6:1176:G:C8	2.54	0.43
86:2:2084:OHX:N6	86:2:2086:OHX:N5	2.66	0.43
39:L2:177:LYS:HD2	79:Q3:69:TYR:CE1	5.22	0.43
36:5:1770:G:H5'	36:5:1771:C:OP2	2.18	0.43
36:1:216:G:H4'	62:N6:19:TYR:CE1	2.53	0.43
36:5:178:U:H2'	36:5:179:C:O4'	2.18	0.43
36:5:2754:G:O2'	36:5:2755:C:OP1	2.29	0.43
1:6:256:A:H2'	1:6:257:A:O4'	2.18	0.43
31:D9:16:LYS:HG3	1:6:1596:C:OP1	398.72	0.43
1:6:548:G:H2'	1:6:549:G:O4'	2.19	0.43
36:1:2749:G:N7	86:1:4111:OHX:N4	2.66	0.43
1:6:60:U:H5''	1:6:60:U:H6	1.83	0.43
36:5:3319:U:H6	36:5:3319:U:OP1	2.02	0.43
78:Q2:93:LEU:O	78:Q2:93:LEU:HD12	4.93	0.43
2:S0:87:LEU:HA	2:S0:87:LEU:HD12	1.80	0.43
41:L4:229:ASN:OD1	41:L4:231:ALA:N	2.56	0.43
40:L3:120:LYS:NZ	36:5:3001:C:OP1	204.18	0.43
69:O3:103:TYR:HA	69:O3:104:PRO:C	2.40	0.43
47:M0:174:THR:HG23	47:M0:176:LEU:H	1.83	0.43
36:1:3192:U:OP1	52:M6:176:LYS:NZ	2.49	0.43
36:1:1594:A:H1'	36:1:1615:C:H1'	2.01	0.43
10:S8:62:THR:OG1	10:S8:62:THR:O	3.16	0.43
36:5:284:A:H4'	36:5:285:A:N3	2.33	0.43
1:2:1460:A:O3'	35:SM:72:ARG:NH2	2.52	0.43
21:C9:64:HIS:CE1	1:6:1523:G:N7	409.14	0.43
36:1:3089:C:H2'	36:1:3090:U:O4'	2.19	0.43
77:Q1:15:ARG:O	77:Q1:19:LYS:HB2	2.70	0.43
12:C0:2:LEU:HB3	12:C0:3:MET:H	4.20	0.43
41:L4:16:THR:CG2	41:L4:18:ASN:HB2	3.56	0.43
53:M7:130:TYR:CE2	53:M7:136:ILE:HD13	2.52	0.43
47:M0:4:ARG:CZ	47:M0:99:ILE:HD12	2.49	0.43
1:6:217:A:C8	1:6:218:A:N7	2.87	0.43
22:D0:28:SER:HB3	22:D0:34:LEU:HG	1.99	0.43
9:S7:13:PRO:CB	9:S7:14:THR:HB	2.46	0.43
39:L2:201:GLY:HA2	39:L2:204:MET:SD	2.71	0.43
1:2:1602:C:H2'	1:2:1603:U:O4'	2.18	0.43
41:L4:145:ILE:O	41:L4:145:ILE:HG13	2.53	0.43
58:N2:35:LYS:O	58:N2:38:ILE:HB	2.33	0.43
54:M8:93:ILE:H	54:M8:93:ILE:HG13	2.74	0.43
42:L5:42:ALA:HB2	57:N1:67:VAL:HG12	2.58	0.43
13:C1:29:LYS:O	13:C1:31:THR:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:158:ASP:OD2	6:S4:174:LYS:HG2	2.18	0.43
11:S9:119:ALA:HA	11:S9:124:HIS:HD2	1.83	0.43
36:1:1566:A:H3'	36:1:1567:U:H5''	2.00	0.43
41:L4:181:VAL:O	41:L4:182:LEU:CB	2.65	0.43
36:5:1024:G:N7	36:5:1027:A:N6	2.67	0.43
41:L4:241:GLY:O	41:L4:242:ALA:HB3	2.34	0.43
1:6:825:U:O2'	1:6:826:U:P	2.76	0.43
38:4:83:C:H1'	38:4:85:G:H21	1.83	0.43
36:1:3106:A:H2'	36:1:3107:U:O4'	2.18	0.43
54:M8:34:THR:O	54:M8:38:ARG:HB2	2.46	0.43
8:S6:56:ASN:H	8:S6:108:VAL:HG23	2.62	0.43
38:8:154:C:H2'	38:8:155:A:O4'	2.19	0.43
47:M0:56:GLU:HG3	47:M0:161:GLY:HA3	3.73	0.43
36:5:767:U:H1'	36:5:768:C:C6	2.54	0.43
64:N8:96:LYS:O	64:N8:98:THR:N	2.49	0.43
36:1:209:A:N3	41:L4:221:ASN:ND2	2.65	0.43
36:1:2518:C:OP1	86:1:4202:OHX:N5	2.51	0.43
1:2:1157:A:HO2'	1:2:1158:C:P	2.42	0.43
1:6:1615:C:H4'	1:6:1616:G:OP2	2.19	0.43
56:N0:50:LYS:NZ	37:7:76:A:N3	298.54	0.43
36:1:1924:U:P	77:Q1:25:LYS:HZ1	2.41	0.43
1:2:1375:A:H2'	1:2:1376:C:C6	2.53	0.43
1:6:1451:C:H2'	1:6:1452:U:C6	2.53	0.43
1:2:773:C:H5''	6:S4:21:ASP:HB2	2.01	0.43
27:D5:41:ILE:HG23	27:D5:42:LEU:N	2.33	0.43
20:C8:6:GLN:O	27:D5:42:LEU:HD13	2.18	0.43
36:1:2218:G:H2'	36:1:2219:A:H8	1.83	0.43
9:S7:166:LEU:HA	9:S7:166:LEU:HD12	2.05	0.43
71:O5:34:GLN:HB3	71:O5:38:ARG:NH1	2.34	0.43
44:L7:138:TYR:CE2	44:L7:233:GLU:HG2	3.33	0.43
44:L7:236:ILE:O	44:L7:240:VAL:HG23	2.18	0.43
40:L3:123:TYR:CD1	36:5:3315:G:H2'	181.28	0.43
36:1:1723:A:OP2	55:M9:103:ARG:NH2	2.51	0.43
1:2:11:A:C2'	1:2:12:U:H5'	2.49	0.43
79:Q3:8:VAL:HB	79:Q3:11:THR:HG22	1.99	0.43
71:O5:45:LYS:O	71:O5:49:LYS:HG2	2.50	0.43
36:1:1608:C:H2'	36:1:1609:C:H6	1.83	0.43
47:M0:191:LYS:HB3	47:M0:213:PHE:CE2	2.54	0.43
36:1:1675:G:H2'	36:1:1676:A:H8	1.84	0.43
1:6:886:U:H2'	1:6:887:A:C8	2.53	0.43
41:L4:3:ARG:HA	41:L4:4:PRO:HD3	2.40	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:122:A:H4'	36:1:123:A:O5'	2.18	0.43
36:1:2731:U:OP2	86:1:4200:OHX:N1	2.51	0.43
73:O7:54:LYS:HG3	73:O7:54:LYS:H	2.79	0.43
1:2:1221:A:H2'	1:2:1222:C:C6	2.53	0.43
57:N1:126:VAL:HB	57:N1:127:GLN:H	1.73	0.43
41:L4:286:VAL:HG11	54:M8:31:LYS:HD2	4.71	0.43
36:1:997:A:H2'	36:1:998:A:O4'	2.18	0.43
56:N0:75:PHE:HB2	56:N0:94:ILE:O	2.26	0.43
36:1:174:C:H2'	36:1:175:C:C6	2.53	0.43
1:2:1583:A:N6	1:2:1612:U:H5	2.16	0.43
56:N0:136:LYS:HE2	56:N0:136:LYS:HB3	3.49	0.43
36:1:1922:A:H2'	36:1:1923:C:O4'	2.18	0.43
1:2:375:U:H2'	1:2:376:C:H6	1.83	0.43
70:O4:80:ARG:HH12	70:O4:88:ARG:NH2	2.17	0.43
16:C4:83:ILE:HG13	16:C4:84:ARG:N	2.34	0.43
17:C5:121:ILE:HG12	17:C5:122:THR:H	3.83	0.43
39:L2:68:LYS:CD	39:L2:70:ARG:HH21	2.30	0.43
3:S1:38:PHE:HA	3:S1:74:GLN:NE2	2.34	0.43
1:6:158:U:HO2'	1:6:159:U:H3'	1.81	0.43
86:1:4076:OHX:N6	86:1:4146:OHX:N5	2.67	0.43
3:S1:76:SER:OG	3:S1:77:GLU:N	3.19	0.43
2:S0:202:TYR:N	2:S0:202:TYR:HD2	2.16	0.43
2:S0:88:LYS:O	2:S0:92:HIS:ND1	3.53	0.43
10:S8:8:ARG:C	10:S8:9:HIS:O	2.55	0.43
4:S2:218:ILE:HD12	4:S2:219:GLY:N	2.52	0.43
5:S3:175:VAL:CG1	5:S3:182:LEU:HB2	2.47	0.43
1:2:1567:U:H2'	1:2:1568:C:H5'	2.00	0.43
8:S6:7:TYR:OH	8:S6:116:LYS:HD3	3.22	0.43
28:D6:41:ILE:HG12	28:D6:41:ILE:O	2.18	0.43
7:S5:92:ARG:NH1	7:S5:92:ARG:HG2	2.96	0.43
36:1:685:G:O2'	36:1:686:G:H5'	2.18	0.43
41:L4:93:MET:O	36:5:1438:U:H1'	141.14	0.43
46:L9:57:VAL:HG13	46:L9:64:HIS:CE1	2.60	0.43
40:L3:252:ILE:HD12	40:L3:252:ILE:HA	3.26	0.43
7:S5:62:VAL:HG13	7:S5:89:ILE:HG21	2.01	0.43
9:S7:14:THR:HG22	9:S7:17:GLU:CB	2.98	0.43
9:S7:91:ILE:HD12	9:S7:91:ILE:HA	1.74	0.43
1:2:1238:A:H2'	1:2:1239:U:O4'	2.17	0.43
42:L5:266:ALA:HA	37:7:1:G:C4	313.79	0.43
2:S0:163:ASN:OD1	2:S0:165:ARG:HB2	2.18	0.43
54:M8:64:VAL:HG13	54:M8:93:ILE:HD11	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:72:A:C3'	1:2:73:U:H5''	2.47	0.43
2:S0:64:ILE:HG12	2:S0:122:ILE:HD11	2.01	0.43
17:C5:65:LEU:O	86:C5:201:OHX:N1	2.51	0.43
36:1:1720:U:P	55:M9:110:ARG:HH12	2.41	0.43
1:2:1003:A:H1'	1:2:1005:A:N7	2.34	0.43
1:2:1783:C:OP2	77:Q1:1:MET:HB2	2.18	0.43
26:D4:20:ARG:HB3	26:D4:76:TYR:CD2	3.16	0.43
41:L4:192:GLY:HA2	41:L4:195:ARG:CG	3.91	0.43
36:1:655:C:OP1	68:O2:27:ARG:HB3	2.19	0.43
36:5:1514:G:C6	36:5:1841:A:C5	3.06	0.43
19:C7:13:SER:HA	19:C7:54:THR:HG22	3.17	0.43
19:C7:34:LEU:O	19:C7:38:ILE:HG12	5.82	0.43
57:N1:78:LYS:HG2	57:N1:87:LYS:HG3	3.48	0.43
71:O5:74:LYS:HB3	71:O5:75:TYR:CD2	2.53	0.43
13:C1:72:THR:HG22	13:C1:124:THR:HA	2.00	0.43
25:D3:30:LYS:HG2	25:D3:34:LEU:CD1	2.81	0.43
3:S1:124:ASN:HD22	3:S1:138:PHE:HE1	1.63	0.43
5:S3:164:VAL:O	5:S3:168:ILE:HG13	2.19	0.43
36:1:2510:U:H6	36:1:2510:U:H2'	1.60	0.43
6:S4:8:HIS:HE1	1:6:94:U:O2	347.98	0.43
58:N2:53:ALA:O	58:N2:68:THR:HG22	2.18	0.43
41:L4:144:LYS:H	41:L4:144:LYS:HZ3	6.71	0.43
36:1:956:U:H2'	36:1:957:C:C6	2.54	0.43
1:2:1:U:C4	11:S9:54:ARG:HG3	2.54	0.43
50:M4:60:LEU:C	50:M4:62:GLN:H	2.20	0.43
54:M8:44:PHE:O	54:M8:48:VAL:HG23	2.18	0.43
49:M3:187:ALA:O	49:M3:190:LYS:HB3	4.68	0.43
62:N6:82:VAL:HG12	62:N6:85:VAL:HG23	3.43	0.43
1:6:569:C:H2'	1:6:570:A:O4'	2.18	0.43
8:S6:216:LEU:HD23	8:S6:216:LEU:HA	2.22	0.43
41:L4:351:PRO:HB3	44:L7:70:LYS:HB3	2.01	0.43
86:5:4052:OHX:N6	86:5:4108:OHX:N5	2.66	0.43
53:M7:73:GLY:HA3	53:M7:78:VAL:HG12	2.01	0.43
41:L4:174:ALA:O	41:L4:178:LEU:HG	2.29	0.43
42:L5:108:ARG:CZ	42:L5:253:PHE:HB2	2.48	0.43
64:N8:67:HIS:NE2	36:5:71:A:OP2	118.50	0.43
36:1:2714:G:H4'	36:1:2715:A:H5''	2.00	0.43
36:1:90:C:H4'	36:1:282:G:OP1	2.19	0.43
17:C5:112:LEU:HA	17:C5:112:LEU:HD23	1.87	0.43
17:C5:60:LEU:HD23	17:C5:76:VAL:HG21	3.23	0.43
55:M9:116:ASP:OD1	55:M9:118:HIS:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:781:U:OP2	26:D4:9:THR:N	2.49	0.43
1:6:902:G:H2'	1:6:903:U:C6	2.54	0.43
41:L4:51:ALA:HB3	38:8:27:U:H4'	109.15	0.43
36:5:1108:U:H2'	36:5:1109:U:H6	1.84	0.43
61:N5:109:LYS:HE2	61:N5:109:LYS:HB3	1.71	0.43
42:L5:150:LEU:HD23	42:L5:150:LEU:HA	1.76	0.43
54:M8:159:LYS:HE2	54:M8:159:LYS:HB3	1.77	0.43
71:O5:20:GLN:O	71:O5:23:ASP:HB2	2.18	0.43
36:5:3374:U:O4	86:5:4033:OHX:N5	2.52	0.43
36:1:1656:A:H4'	36:1:1657:C:O5'	2.17	0.43
42:L5:214:ASP:O	42:L5:215:ASP:HB2	2.32	0.43
63:N7:73:LYS:NZ	36:5:1635:G:N7	208.91	0.43
19:C7:106:THR:O	19:C7:110:VAL:HG22	3.47	0.43
31:D9:19:ARG:HD3	31:D9:32:ARG:HD2	2.22	0.43
59:N3:120:LYS:N	59:N3:137:VAL:HG23	2.32	0.43
11:S9:6:ARG:HA	11:S9:6:ARG:HD2	1.79	0.43
36:5:2406:C:H2'	36:5:2407:C:C6	2.54	0.43
57:N1:92:ARG:NH1	36:5:2736:A:OP1	233.97	0.43
7:S5:222:LYS:HA	7:S5:225:ARG:HH11	4.57	0.43
53:M7:112:LEU:HA	53:M7:112:LEU:HD12	1.77	0.43
11:S9:110:GLN:HA	11:S9:129:ILE:HD11	2.00	0.43
36:1:1230:G:H1	36:1:1279:C:N4	2.06	0.43
1:2:221:A:H3'	1:2:833:U:O2	2.19	0.43
37:3:61:G:H2'	37:3:62:U:H6	1.84	0.43
26:D4:108:ARG:NH2	1:6:444:C:OP2	372.93	0.43
6:S4:30:ARG:HA	6:S4:31:PRO:HD2	2.23	0.43
17:C5:20:VAL:HG13	17:C5:24:LYS:HD2	2.00	0.43
1:6:220:A:H3'	1:6:832:U:H1'	1.99	0.43
7:S5:64:VAL:O	7:S5:65:ARG:HB2	2.18	0.43
53:M7:126:ARG:HG3	53:M7:127:ARG:H	1.83	0.43
2:S0:120:LEU:HD13	2:S0:142:PRO:HB2	2.00	0.43
1:6:919:A:H2'	1:6:920:U:C6	2.53	0.43
36:1:121:A:N1	45:L8:129:PRO:HG3	2.34	0.43
41:L4:271:LYS:O	41:L4:272:VAL:C	2.65	0.43
5:S3:60:GLY:O	5:S3:63:GLY:N	2.50	0.43
2:S0:49:ASN:OD1	2:S0:52:LYS:HG2	3.31	0.43
36:5:1208:U:H6	36:5:3115:C:H42	1.67	0.43
53:M7:2:ALA:O	53:M7:3:ARG:HB2	2.28	0.43
36:1:608:A:O4'	41:L4:322:GLN:HG2	2.18	0.43
21:C9:47:PRO:HG2	21:C9:53:TRP:CE2	2.53	0.43
38:4:85:G:H3'	38:4:85:G:H8	1.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:91:SER:O	55:M9:94:VAL:N	2.52	0.43
36:1:654:C:OP1	68:O2:27:ARG:NH2	2.51	0.43
54:M8:178:ARG:HG2	64:N8:51:GLY:CA	3.21	0.43
36:1:1322:U:OP1	56:N0:117:ARG:HD2	2.18	0.43
1:2:714:G:H2'	1:2:715:U:O4'	2.18	0.43
36:1:2424:A:H8	36:1:2424:A:O5'	2.02	0.43
51:M5:147:ARG:NH2	36:5:113:C:OP1	77.31	0.43
6:S4:71:LYS:HE3	6:S4:93:ASP:OD2	2.18	0.43
43:L6:96:VAL:HG13	43:L6:141:VAL:HG13	2.00	0.43
36:5:3063:C:H2'	36:5:3064:U:C6	2.54	0.43
77:Q1:13:LEU:HA	77:Q1:13:LEU:HD23	3.21	0.43
1:2:577:G:C2	35:SM:99:LYS:HG2	2.53	0.43
6:S4:92:LEU:HD23	6:S4:99:PHE:HE2	1.83	0.43
48:M1:108:GLU:HB2	48:M1:122:ILE:HG21	4.36	0.43
10:S8:194:ARG:HG2	10:S8:195:ARG:HH12	3.74	0.43
47:M0:90:ARG:O	47:M0:91:VAL:HG23	2.56	0.43
29:D7:31:TYR:HD2	29:D7:33:LEU:HD21	4.22	0.43
39:L2:42:ARG:HA	39:L2:88:ILE:O	2.52	0.43
1:6:922:G:H2'	1:6:923:A:H8	1.84	0.43
41:L4:71:VAL:HG13	41:L4:76:ARG:NH1	2.34	0.43
36:5:2726:C:O2'	36:5:2727:A:H2'	2.19	0.43
64:N8:120:ASN:O	64:N8:141:ALA:HB1	2.69	0.43
54:M8:54:LEU:HD22	54:M8:58:ASN:HB2	2.00	0.43
36:1:1400:G:C2	36:1:1401:A:C8	3.06	0.43
41:L4:352:ALA:HB2	44:L7:71:ALA:O	2.74	0.43
36:1:1505:C:OP1	53:M7:23:ARG:NH2	2.52	0.43
42:L5:69:ILE:HG22	57:N1:31:LEU:CB	2.48	0.43
36:5:2816:G:C8	36:5:2869:U:H3'	2.54	0.43
9:S7:151:LYS:HE3	9:S7:151:LYS:HB2	1.79	0.43
9:S7:151:LYS:HG3	9:S7:182:VAL:HG12	2.34	0.43
43:L6:30:LEU:HG	43:L6:57:HIS:CE1	2.99	0.43
1:6:1643:U:O2	1:6:1780:G:N2	2.51	0.43
1:2:587:C:OP1	32:E0:24:THR:HG23	2.19	0.43
36:1:196:G:C2	36:1:199:A:C8	3.06	0.43
36:5:850:U:H2'	36:5:851:C:C6	2.53	0.43
78:Q2:52:GLY:O	78:Q2:54:THR:HG23	2.47	0.43
25:D3:9:LEU:HD23	25:D3:9:LEU:HA	2.13	0.43
1:6:542:A:C1'	1:6:543:C:H5'	2.38	0.43
50:M4:36:VAL:HG11	50:M4:55:ARG:NH2	2.34	0.43
86:5:4063:OHX:N6	86:5:4072:OHX:N5	2.67	0.43
1:2:418:G:H1'	8:S6:59:GLN:OE1	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:445:A:H2'	1:6:446:A:H8	1.83	0.43
44:L7:177:GLY:O	44:L7:178:ILE:HB	2.55	0.43
36:5:1579:C:H2'	36:5:1580:A:C8	2.53	0.43
5:S3:210:GLU:HA	5:S3:211:PRO:HD3	2.26	0.43
12:C0:12:HIS:HB3	12:C0:76:LEU:HD23	6.86	0.43
69:O3:49:ILE:HD13	69:O3:49:ILE:HG21	1.72	0.43
1:2:1300:A:OP1	4:S2:99:LYS:NZ	2.42	0.43
64:N8:8:THR:HG21	36:5:662:U:OP1	148.85	0.43
3:S1:143:THR:HB	3:S1:205:PHE:CE1	2.43	0.43
45:L8:133:LYS:HD2	45:L8:138:HIS:CE1	2.54	0.43
6:S4:248:ILE:HD12	11:S9:71:PHE:CD1	2.54	0.43
34:SR:111:MET:N	34:SR:125:GLY:O	2.66	0.43
69:O3:54:ARG:NH2	36:5:3279:A:C4	228.26	0.43
47:M0:86:HIS:O	47:M0:138:VAL:HA	2.18	0.43
41:L4:60:THR:HG23	36:5:364:G:OP1	127.92	0.43
36:1:1719:G:H4'	36:1:1732:U:H4'	2.01	0.43
33:E1:98:VAL:O	33:E1:99:LYS:HG3	2.19	0.43
43:L6:22:ARG:HD3	36:5:608:A:N6	241.29	0.43
63:N7:26:VAL:HG12	63:N7:89:VAL:HG21	2.56	0.43
45:L8:166:LEU:HD23	45:L8:166:LEU:HA	1.73	0.43
36:1:884:A:HO2'	36:1:2139:A:H8	1.66	0.43
15:C3:137:PRO:O	15:C3:138:ASN:CG	2.57	0.43
57:N1:122:GLN:O	57:N1:124:VAL:HG23	5.73	0.43
51:M5:35:VAL:HA	51:M5:65:ARG:HD3	3.92	0.43
38:4:52:A:N6	75:O9:27:ILE:HD13	2.32	0.43
36:1:1323:G:O3'	56:N0:2:ALA:HA	2.19	0.43
33:E1:105:TYR:CD1	33:E1:118:ARG:HD3	2.53	0.43
28:D6:3:LYS:HE2	1:6:1030:A:OP1	337.05	0.43
38:8:44:A:H2'	38:8:45:C:C6	2.54	0.43
21:C9:65:ILE:HG12	21:C9:71:VAL:HG22	2.45	0.43
39:L2:243:THR:OG1	36:5:2244:A:OP1	227.83	0.43
25:D3:42:PRO:HB3	25:D3:83:VAL:HG21	2.01	0.43
36:1:3392:U:H2'	36:1:3393:U:C6	2.53	0.43
5:S3:45:LYS:HE2	5:S3:45:LYS:HB2	1.77	0.43
39:L2:98:VAL:HA	39:L2:166:ILE:O	2.19	0.43
1:6:1151:A:O3'	1:6:1766:A:N6	2.52	0.43
1:6:1388:A:H4'	1:6:1389:C:O5'	2.19	0.43
44:L7:89:ILE:HD12	44:L7:89:ILE:HG23	1.76	0.43
86:2:2116:OHX:N2	86:C1:201:OHX:N4	2.67	0.43
36:1:2337:C:H2'	36:1:2338:C:C6	2.54	0.43
36:1:3033:A:H2'	36:1:3034:C:H6	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:585:A:H2'	1:2:586:G:C8	2.54	0.43
43:L6:154:LEU:HD23	43:L6:154:LEU:HA	1.81	0.43
79:Q3:29:LEU:HA	79:Q3:29:LEU:HD23	1.66	0.43
36:5:849:C:H2'	36:5:850:U:C6	2.54	0.43
42:L5:136:GLU:O	42:L5:137:ASP:HB3	3.74	0.43
36:5:3317:U:H6	86:5:4139:OHX:N6	2.17	0.43
34:SR:202:LEU:HA	34:SR:212:ALA:O	2.18	0.43
36:1:652:G:OP1	86:1:3929:OHX:N4	2.52	0.43
36:1:2626:A:C4	36:1:2644:C:H5'	2.54	0.43
36:5:2916:U:H5	36:5:2935:U:HO2'	1.66	0.43
36:1:882:A:C4	36:1:885:U:H1'	2.53	0.43
37:3:7:G:OP1	42:L5:33:ARG:HD2	2.18	0.43
3:S1:149:GLN:NE2	3:S1:153:HIS:O	5.26	0.43
1:6:820:U:H6	1:6:820:U:H2'	1.51	0.43
36:1:1131:G:O2'	36:1:2373:A:N1	2.45	0.43
36:1:2876:C:H6	36:1:2876:C:O5'	2.02	0.43
43:L6:145:LEU:HD23	43:L6:145:LEU:HA	2.13	0.43
1:6:658:C:H5'	1:6:659:C:OP2	2.19	0.43
58:N2:86:LYS:C	58:N2:88:GLN:H	2.21	0.43
36:5:3195:U:H1'	36:5:3196:U:OP1	2.19	0.43
36:5:1566:A:C2'	36:5:1567:U:H5'	2.48	0.43
6:S4:11:ARG:O	6:S4:12:LEU:CB	3.06	0.43
36:1:1614:C:H2'	36:1:1615:C:H6	1.83	0.43
45:L8:136:LEU:HD13	51:M5:3:ALA:CB	2.49	0.43
16:C4:42:VAL:HA	16:C4:46:MET:SD	2.59	0.43
1:2:1153:G:N7	86:2:2167:OHX:N1	2.66	0.43
1:6:789:A:H3'	1:6:790:U:H6	1.83	0.43
6:S4:104:ASP:N	6:S4:108:ARG:O	2.47	0.43
69:O3:49:ILE:HD11	69:O3:71:VAL:CG2	2.48	0.43
2:S0:142:PRO:HB3	23:D1:34:ILE:HD13	2.63	0.43
45:L8:108:ARG:HA	45:L8:111:LYS:HD2	3.00	0.43
62:N6:25:SER:HB3	38:8:91:C:O2'	45.88	0.43
65:N9:14:ARG:CZ	65:N9:18:ARG:HD2	2.48	0.43
1:2:1370:U:O4	86:2:2121:OHX:N3	2.52	0.43
36:1:99:A:H5'	51:M5:194:GLN:OE1	2.18	0.43
48:M1:7:ASN:N	48:M1:7:ASN:OD1	4.25	0.43
36:5:2232:A:O2'	36:5:2429:G:H5'	2.19	0.43
5:S3:23:GLU:CD	12:C0:61:TRP:HE1	2.22	0.43
34:SR:38:ARG:C	34:SR:40:LYS:H	2.45	0.43
36:1:2252:A:C6	36:1:2253:G:N7	2.87	0.43
36:5:1841:A:O2'	36:5:1842:A:H5''	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:64:LYS:HG2	49:M3:64:LYS:O	2.19	0.43
36:5:1851:G:OP2	86:5:4037:OHX:N2	2.51	0.43
86:1:3959:OHX:N2	86:1:4136:OHX:N4	2.67	0.43
1:2:1615:C:OP1	30:D8:18:ARG:NH2	2.52	0.43
75:O9:28:ARG:HA	75:O9:33:ASN:ND2	2.34	0.43
51:M5:56:LYS:NZ	51:M5:145:ASP:OD2	2.38	0.43
18:C6:26:LYS:HE3	18:C6:26:LYS:HB2	1.97	0.43
13:C1:34:TRP:CZ2	13:C1:36:LYS:HB3	3.56	0.43
40:L3:81:THR:HB	40:L3:321:PHE:HA	2.03	0.43
42:L5:183:TRP:CH2	42:L5:188:GLU:HA	2.53	0.43
34:SR:79:TYR:HB3	34:SR:91:LEU:HD11	2.01	0.43
40:L3:344:THR:O	40:L3:344:THR:HG22	4.71	0.43
36:1:1675:G:H2'	36:1:1676:A:C8	2.52	0.43
54:M8:42:ALA:HA	54:M8:43:PRO:HD2	2.44	0.43
17:C5:94:VAL:HG12	17:C5:96:ILE:HG12	3.34	0.43
78:Q2:47:GLN:HE21	78:Q2:47:GLN:HB2	1.61	0.43
52:M6:185:ALA:O	52:M6:187:GLU:N	3.69	0.43
1:6:1643:U:H2'	1:6:1644:C:O4'	2.19	0.43
36:5:994:G:H5'	36:5:2637:A:O2'	2.19	0.43
55:M9:143:ILE:HG23	36:5:2093:A:P	255.09	0.43
1:6:1508:U:O2'	1:6:1509:C:H5'	2.19	0.43
1:2:462:G:N7	86:2:2144:OHX:N1	2.67	0.43
41:L4:265:GLU:OE2	41:L4:266:THR:HG23	2.18	0.43
69:O3:8:TYR:CE2	69:O3:99:ARG:HG2	2.67	0.43
36:1:143:G:H4'	38:4:145:U:OP1	2.19	0.43
2:S0:125:ASP:HB3	2:S0:128:SER:HB2	3.00	0.43
42:L5:198:TYR:CE1	42:L5:203:HIS:CD2	3.10	0.43
1:6:640:U:H2'	1:6:641:G:O4'	2.19	0.43
1:2:1364:G:N2	21:C9:3:GLY:HA3	2.34	0.43
1:2:1613:U:H2'	1:2:1614:A:H5''	2.01	0.43
36:5:2505:U:H2'	36:5:2506:U:C4	2.54	0.43
1:2:28:A:H2'	1:2:29:U:C6	2.53	0.43
36:5:3198:U:H4'	36:5:3199:G:OP2	2.19	0.43
36:5:1317:A:C4	36:5:1319:G:C8	3.07	0.43
36:5:1047:A:N3	36:5:2633:U:O2'	2.50	0.43
1:6:386:G:H2'	1:6:387:A:C8	2.54	0.43
36:1:183:G:H2'	36:1:184:U:O4'	2.19	0.43
36:5:621:A:O2'	36:5:622:A:O5'	2.33	0.43
47:M0:174:THR:HG22	47:M0:196:PHE:HE2	5.56	0.43
1:2:514:G:N1	1:2:543:C:H5	2.16	0.43
1:2:142:G:H5''	8:S6:139:ASN:HD21	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:62:ARG:NE	23:D1:37:ALA:O	2.52	0.43
44:L7:158:LYS:HE2	44:L7:159:GLN:N	2.30	0.43
36:1:2763:U:H5'	54:M8:176:ARG:HG3	2.00	0.43
36:5:1239:C:H1'	36:5:1250:G:N2	2.34	0.43
21:C9:32:GLY:H	21:C9:34:VAL:HG12	1.84	0.43
34:SR:25:THR:HA	34:SR:73:LEU:HD12	2.86	0.43
1:2:694:U:H5	9:S7:96:ARG:O	2.02	0.43
28:D6:79:ILE:HA	28:D6:84:VAL:CG2	2.49	0.43
53:M7:67:ILE:CD1	53:M7:67:ILE:H	2.67	0.43
53:M7:69:ARG:HB3	53:M7:79:THR:HG23	5.38	0.43
25:D3:126:LYS:HA	25:D3:131:SER:HA	2.01	0.43
7:S5:89:ILE:HG13	7:S5:89:ILE:H	1.65	0.43
1:2:218:A:HO2'	1:2:219:A:P	2.39	0.43
36:1:330:G:OP2	86:1:4038:OHX:N2	2.52	0.43
1:2:1480:G:H4'	21:C9:11:ALA:CB	2.49	0.43
24:D2:126:LEU:HD23	24:D2:126:LEU:HA	2.47	0.43
23:D1:74:GLN:OE1	23:D1:79:LEU:HB3	2.19	0.43
36:1:2532:U:H3	36:1:2547:A:H61	1.66	0.43
1:6:1495:C:OP1	86:6:2113:OHX:N4	2.52	0.43
72:O6:58:ILE:HG22	72:O6:90:MET:CG	2.68	0.43
41:L4:131:VAL:HG12	41:L4:134:LEU:H	2.65	0.43
6:S4:166:SER:OG	6:S4:167:GLY:N	2.51	0.43
27:D5:89:ILE:HD12	27:D5:101:TYR:CD2	2.54	0.43
36:1:2969:A:N7	39:L2:215:ASN:ND2	2.67	0.43
63:N7:13:VAL:HG12	63:N7:14:VAL:N	2.58	0.43
36:1:716:A:OP2	64:N8:137:LYS:NZ	2.52	0.43
47:M0:56:GLU:C	47:M0:131:ILE:HG12	3.17	0.43
64:N8:95:SER:C	64:N8:96:LYS:O	2.58	0.43
36:5:2297:U:H2'	36:5:2299:A:N7	2.34	0.43
36:1:1703:U:H1'	36:1:1743:G:C2	2.54	0.43
61:N5:136:ALA:O	61:N5:139:ILE:HG23	2.19	0.43
36:1:2572:C:P	36:1:2572:C:H3'	2.59	0.43
27:D5:43:ASP:HB2	27:D5:46:LYS:H	3.67	0.43
36:1:3195:U:O2'	36:1:3196:U:H5'	2.19	0.43
36:5:2657:A:C2	36:5:2694:A:C8	3.06	0.43
25:D3:30:LYS:O	25:D3:34:LEU:HG	2.19	0.43
42:L5:17:GLN:HE22	57:N1:22:HIS:N	2.47	0.43
58:N2:105:LEU:HA	58:N2:105:LEU:HD12	1.79	0.43
55:M9:92:GLN:HG3	36:5:856:G:OP2	221.17	0.43
36:1:1375:G:O6	64:N8:10:LYS:HE2	2.19	0.43
42:L5:261:THR:O	42:L5:264:GLN:N	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:91:PHE:O	45:L8:95:ASN:HB2	2.30	0.43
7:S5:118:LEU:HD22	7:S5:129:PRO:HB2	2.00	0.43
37:3:58:C:H2'	37:3:59:U:C6	2.54	0.43
36:1:2622:C:C3'	36:1:2623:G:H5'	2.49	0.43
36:1:1551:C:O2'	36:1:2170:U:O2'	2.23	0.43
53:M7:85:ALA:O	53:M7:89:LYS:HB2	3.28	0.43
40:L3:130:PHE:CE1	36:5:3149:G:H4'	221.07	0.43
36:5:913:A:H2	36:5:2134:G:N3	2.17	0.43
4:S2:52:THR:O	4:S2:55:GLU:HB2	2.19	0.43
1:2:422:G:OP1	86:2:2043:OHX:N6	2.51	0.43
49:M3:3:ILE:HG21	64:N8:45:MET:HE3	5.46	0.43
36:1:817:A:N3	73:O7:11:ARG:HB3	2.34	0.43
29:D7:73:LEU:HD12	29:D7:73:LEU:H	1.83	0.43
69:O3:102:LEU:HD23	69:O3:102:LEU:HA	1.73	0.43
19:C7:63:LYS:NZ	34:SR:284:ALA:HB2	3.41	0.43
36:1:1635:G:N2	36:1:1638:A:OP2	2.37	0.42
36:1:980:A:H2'	36:1:981:U:N1	2.34	0.42
16:C4:50:ALA:HB3	16:C4:53:ASP:HB2	2.88	0.42
8:S6:175:ILE:HG12	8:S6:175:ILE:H	3.10	0.42
61:N5:138:ARG:HG2	61:N5:138:ARG:NH2	3.37	0.42
36:1:1949:G:H2'	36:1:1950:U:C6	2.54	0.42
55:M9:106:LEU:HD12	55:M9:106:LEU:HA	1.88	0.42
2:S0:66:ALA:HB2	23:D1:37:ALA:HB2	2.27	0.42
47:M0:78:THR:O	47:M0:79:VAL:C	3.71	0.42
24:D2:67:GLY:O	24:D2:69:LEU:N	2.84	0.42
35:SM:68:ARG:HG2	1:6:1460:A:OP1	335.51	0.42
3:S1:87:ARG:HE	3:S1:87:ARG:HB3	2.09	0.42
7:S5:184:PHE:CD1	7:S5:185:ARG:HG3	3.17	0.42
8:S6:30:LYS:O	8:S6:102:VAL:HG23	2.19	0.42
8:S6:69:LEU:O	8:S6:99:GLY:HA3	2.54	0.42
3:S1:34:ALA:HB2	3:S1:43:VAL:HG21	2.00	0.42
74:O8:36:LYS:HA	74:O8:37:PRO:HD3	2.68	0.42
57:N1:139:ARG:HH21	57:N1:139:ARG:CG	3.90	0.42
47:M0:99:ILE:HG13	47:M0:100:ASN:N	2.33	0.42
3:S1:48:VAL:HG21	3:S1:61:LEU:HD13	7.37	0.42
74:O8:42:LYS:HE3	36:5:1750:A:OP2	141.10	0.42
36:1:1464:G:O6	86:1:3938:OHX:N6	2.52	0.42
36:1:2514:U:OP1	36:1:2514:U:H6	2.02	0.42
36:5:119:U:H4'	36:5:120:G:H5''	2.00	0.42
55:M9:23:TRP:CH2	55:M9:25:ASP:HA	3.08	0.42
42:L5:222:LEU:HA	42:L5:222:LEU:HD23	4.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:582:U:H3'	1:2:583:C:C6	2.54	0.42
47:M0:23:ASN:O	47:M0:24:ARG:HB2	2.19	0.42
22:D0:41:ILE:HG13	22:D0:107:THR:HG21	3.32	0.42
47:M0:148:VAL:O	47:M0:151:GLY:N	2.40	0.42
47:M0:210:ILE:HD13	47:M0:217:PHE:CE2	4.78	0.42
50:M4:134:ALA:C	50:M4:136:ALA:H	2.54	0.42
41:L4:44:LYS:HB3	41:L4:47:ARG:HH11	2.08	0.42
36:1:2585:G:N7	45:L8:47:SER:OG	2.50	0.42
1:6:1258:U:C5	1:6:1259:U:C2	3.07	0.42
36:5:1785:U:H2'	36:5:1786:G:H8	1.80	0.42
75:O9:23:LEU:HD22	75:O9:24:PRO:HD2	2.01	0.42
30:D8:31:GLU:O	30:D8:33:LEU:N	3.73	0.42
36:1:2253:G:C2	36:1:2264:U:C2	3.07	0.42
42:L5:200:PHE:CB	42:L5:237:GLU:HG3	2.49	0.42
53:M7:88:VAL:O	53:M7:92:GLN:HG3	3.53	0.42
37:3:72:A:C2	37:3:74:C:C6	3.07	0.42
37:3:30:G:C6	37:3:31:U:C4	3.07	0.42
36:5:20:A:O2'	36:5:21:G:H5'	2.19	0.42
1:2:1351:G:C2	1:2:1375:A:C2	3.06	0.42
46:L9:25:VAL:O	46:L9:35:THR:HA	2.32	0.42
60:N4:54:LEU:HD13	60:N4:54:LEU:HA	4.26	0.42
47:M0:208:ASN:CB	47:M0:211:ARG:HD2	2.86	0.42
14:C2:54:ARG:NH2	33:E1:126:CYS:O	5.05	0.42
16:C4:56:SER:HA	16:C4:57:PRO:HD3	1.90	0.42
1:6:656:G:N2	1:6:675:U:O2	2.53	0.42
10:S8:189:LEU:HD12	10:S8:189:LEU:O	2.30	0.42
1:2:1378:U:H1'	18:C6:8:GLN:HG3	2.00	0.42
62:N6:60:ARG:HD3	62:N6:60:ARG:HA	2.18	0.42
36:5:709:A:H2'	36:5:710:A:O4'	2.19	0.42
10:S8:164:ARG:HG2	10:S8:164:ARG:HH21	1.83	0.42
78:Q2:19:LYS:HA	36:5:2741:C:H4'	207.76	0.42
1:2:1619:C:H2'	1:2:1620:C:H6	1.83	0.42
62:N6:28:ARG:HB2	62:N6:75:ARG:NH2	2.34	0.42
36:5:38:U:H2'	36:5:39:A:O4'	2.18	0.42
42:L5:24:ARG:NH2	37:7:13:A:N3	292.43	0.42
74:O8:21:LYS:O	74:O8:74:LYS:HB2	2.19	0.42
61:N5:57:LEU:HA	61:N5:57:LEU:HD12	1.58	0.42
25:D3:76:LEU:HD23	25:D3:76:LEU:HA	1.74	0.42
70:O4:81:CYS:HG	70:O4:84:CYS:HG	1.66	0.42
36:1:2854:U:P	47:M0:3:ARG:HH22	2.36	0.42
1:2:1556:A:C4	1:2:1560:U:O2	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1580:A:H5'	36:1:2522:G:C5	2.53	0.42
1:2:1597:A:OP1	31:D9:19:ARG:NH2	2.52	0.42
11:S9:123:HIS:ND1	32:E0:37:ARG:HD2	4.79	0.42
4:S2:69:ILE:HD11	4:S2:133:LYS:HG2	2.02	0.42
51:M5:10:LEU:HD13	51:M5:19:LEU:HD11	4.25	0.42
15:C3:88:LEU:CD1	15:C3:135:LEU:HD11	3.72	0.42
1:2:704:C:N4	1:2:734:A:N3	2.66	0.42
1:6:195:G:H2'	1:6:196:G:H5'	2.01	0.42
1:2:1607:G:H2'	1:2:1608:U:H6	1.84	0.42
42:L5:110:LEU:O	42:L5:116:ASP:HB3	4.34	0.42
44:L7:198:ALA:O	44:L7:201:PHE:HB3	2.19	0.42
2:S0:200:ASP:HA	2:S0:203:PHE:CE1	2.60	0.42
66:O0:10:ILE:HA	66:O0:10:ILE:HD12	2.30	0.42
36:1:283:G:OP2	36:1:285:A:H4'	2.19	0.42
36:5:3242:G:H5'	36:5:3245:A:H8	1.84	0.42
40:L3:265:ALA:C	40:L3:266:ARG:HG2	2.42	0.42
36:1:95:A:C5	36:1:96:G:H1'	2.54	0.42
36:1:839:C:H4'	36:1:1724:U:C2'	2.49	0.42
36:5:2211:U:H2'	36:5:2212:C:O4'	2.19	0.42
10:S8:27:PHE:HB3	10:S8:49:ARG:NH2	2.34	0.42
36:1:3279:A:C6	69:O3:54:ARG:NE	2.87	0.42
43:L6:135:VAL:O	43:L6:139:LYS:HG3	2.19	0.42
1:2:720:G:H2'	1:2:720:G:N3	2.34	0.42
36:5:1595:U:H1'	36:5:1596:C:C6	2.54	0.42
2:S0:147:THR:O	2:S0:161:PRO:HA	2.96	0.42
22:D0:27:THR:O	22:D0:113:ASP:HB3	3.04	0.42
74:O8:44:LYS:HA	74:O8:52:TYR:O	2.18	0.42
47:M0:52:LEU:HD23	47:M0:164:LYS:O	3.20	0.42
36:1:3:U:H2'	36:1:4:U:O4'	2.19	0.42
66:O0:77:LEU:HG	66:O0:87:VAL:HG22	2.00	0.42
64:N8:76:ASP:H	64:N8:116:GLY:H	1.66	0.42
47:M0:57:LEU:HD13	47:M0:57:LEU:O	3.97	0.42
6:S4:180:LEU:HA	6:S4:180:LEU:HD23	1.84	0.42
6:S4:179:LYS:O	6:S4:181:VAL:HG23	2.19	0.42
6:S4:208:VAL:CG2	6:S4:222:LEU:HA	2.49	0.42
19:C7:10:LYS:HD3	19:C7:53:TYR:CZ	4.27	0.42
33:E1:83:LYS:O	33:E1:84:VAL:HG12	2.19	0.42
4:S2:148:LEU:HD22	4:S2:148:LEU:HA	1.87	0.42
26:D4:86:GLU:OE1	26:D4:90:ARG:HD2	2.34	0.42
42:L5:140:ARG:HD3	36:5:1080:A:OP1	225.72	0.42
1:2:115:G:OP1	13:C1:67:ARG:NH1	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:112:U:O2'	36:5:113:C:H5''	2.19	0.42
1:6:1645:G:OP2	86:6:2187:OHX:N3	2.53	0.42
1:6:492:A:H2'	1:6:493:U:H5''	2.01	0.42
36:1:1852:G:H1'	73:O7:9:GLY:HA3	2.00	0.42
86:2:2084:OHX:N4	86:2:2086:OHX:N2	2.66	0.42
86:2:2116:OHX:N5	86:C1:201:OHX:N1	2.67	0.42
51:M5:99:ARG:NH1	51:M5:167:THR:HB	3.57	0.42
68:O2:64:LYS:HE2	68:O2:65:PHE:CZ	2.80	0.42
10:S8:193:LEU:HD23	10:S8:193:LEU:HA	1.81	0.42
52:M6:156:LEU:HB3	36:5:3243:A:N7	266.94	0.42
1:2:473:A:H5''	11:S9:44:ARG:NH1	2.34	0.42
17:C5:85:ILE:HG22	17:C5:112:LEU:HD23	2.68	0.42
61:N5:57:LEU:HD23	61:N5:57:LEU:HA	4.46	0.42
9:S7:6:ALA:HB2	9:S7:18:LEU:HD21	2.00	0.42
1:6:784:C:H2'	1:6:785:U:C6	2.54	0.42
44:L7:128:LYS:C	44:L7:130:ILE:H	2.77	0.42
47:M0:38:LYS:CG	47:M0:41:ALA:HB2	2.80	0.42
1:6:1423:U:H2'	1:6:1424:A:O4'	2.20	0.42
76:Q0:97:ARG:HB2	76:Q0:120:GLN:O	2.19	0.42
44:L7:239:LEU:O	44:L7:242:SER:OG	2.48	0.42
36:5:731:U:H2'	36:5:732:C:C6	2.54	0.42
36:5:2217:U:H2'	36:5:2218:G:H8	1.85	0.42
22:D0:21:LYS:HB2	22:D0:21:LYS:HE2	1.62	0.42
23:D1:13:VAL:HA	23:D1:14:PRO:HD3	1.84	0.42
37:3:95:A:OP2	86:3:224:OHX:N2	2.52	0.42
1:6:554:C:H1'	1:6:555:A:N7	2.33	0.42
59:N3:46:LEU:O	59:N3:47:ASN:HB2	2.18	0.42
36:5:1216:C:H2'	36:5:1217:A:O4'	2.19	0.42
5:S3:110:LEU:C	5:S3:112:GLY:H	2.69	0.42
54:M8:20:LYS:HD3	36:5:671:U:O2'	156.90	0.42
1:2:271:A:H5'	1:2:272:U:OP2	2.18	0.42
58:N2:79:LEU:HA	58:N2:79:LEU:HD23	1.82	0.42
11:S9:28:LEU:O	11:S9:31:ALA:N	3.15	0.42
37:3:28:C:H2'	37:3:29:C:H5'	2.01	0.42
79:Q3:73:THR:HG22	79:Q3:76:ALA:N	2.17	0.42
18:C6:54:LEU:HD22	18:C6:54:LEU:HA	1.81	0.42
18:C6:79:TYR:O	18:C6:82:ARG:HG2	2.20	0.42
37:3:9:C:OP1	57:N1:28:SER:HB3	2.20	0.42
23:D1:46:ILE:HG13	23:D1:46:ILE:H	1.51	0.42
2:S0:185:ARG:N	23:D1:44:ARG:HA	2.32	0.42
2:S0:63:ILE:O	2:S0:66:ALA:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:O7:45:ARG:HE	73:O7:45:ARG:HB3	1.55	0.42
1:2:323:A:OP2	10:S8:10:LYS:HA	2.20	0.42
23:D1:10:GLU:OE2	23:D1:10:GLU:HA	2.19	0.42
36:1:1270:A:N6	36:1:1271:A:N3	2.67	0.42
10:S8:39:GLY:O	10:S8:61:GLU:HB3	2.19	0.42
36:1:3348:G:H2'	36:1:3349:C:C6	2.54	0.42
51:M5:97:SER:O	51:M5:100:ALA:HB3	2.56	0.42
64:N8:47:LYS:O	64:N8:48:TYR:CB	2.85	0.42
36:1:3067:C:H3'	55:M9:62:ARG:NH1	2.34	0.42
25:D3:63:GLN:OE1	25:D3:64:PRO:HA	2.56	0.42
1:2:735:C:O2'	1:2:736:C:H5''	2.20	0.42
59:N3:48:ARG:HH22	36:5:3043:C:P	249.64	0.42
8:S6:12:SER:C	8:S6:13:GLN:HG2	2.39	0.42
36:1:1333:C:H5''	44:L7:110:ARG:HD3	2.01	0.42
56:N0:28:ARG:HH21	56:N0:28:ARG:HD2	1.68	0.42
36:5:15:C:H6	36:5:15:C:H5'	1.84	0.42
6:S4:15:PRO:HD2	6:S4:18:TRP:CH2	3.55	0.42
2:S0:110:TYR:HA	2:S0:115:PHE:CE2	2.54	0.42
36:5:914:A:H5'	36:5:915:A:N7	2.34	0.42
40:L3:151:ILE:O	40:L3:155:ALA:HB3	2.34	0.42
67:O1:5:LYS:O	67:O1:6:ASP:HB2	2.19	0.42
39:L2:224:THR:HG21	36:5:2201:G:N2	222.97	0.42
36:1:2648:G:OP1	47:M0:24:ARG:NH2	2.52	0.42
36:5:1017:C:H5'	36:5:1017:C:C6	2.54	0.42
40:L3:308:MET:HE3	40:L3:308:MET:HB3	2.06	0.42
36:1:3165:A:H2'	36:1:3166:C:C6	2.54	0.42
1:6:268:C:O2'	1:6:269:G:H5'	2.19	0.42
36:5:1025:A:H5'	36:5:1026:A:OP2	2.19	0.42
14:C2:81:ASP:HA	14:C2:82:PRO:HD3	1.71	0.42
6:S4:198:LYS:HG2	6:S4:199:GLU:N	2.34	0.42
8:S6:2:LYS:HE2	8:S6:17:GLU:OE2	4.68	0.42
8:S6:2:LYS:O	8:S6:3:LEU:HD23	2.45	0.42
48:M1:44:THR:O	37:7:39:C:O2'	299.66	0.42
36:5:1495:U:H2'	36:5:1842:A:C2	2.54	0.42
1:2:1475:A:H2'	1:2:1476:C:O4'	2.18	0.42
36:1:2572:C:OP2	36:1:2572:C:H3'	2.19	0.42
79:Q3:84:ARG:HG2	79:Q3:87:ARG:NH2	2.33	0.42
1:2:709:C:N4	1:2:710:U:H1'	2.34	0.42
1:2:1059:U:O2'	1:2:1060:U:C2	2.73	0.42
86:1:4137:OHX:N1	86:1:4180:OHX:N2	2.67	0.42
15:C3:28:LEU:HB3	15:C3:29:SER:H	1.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:222:A:C6	36:1:223:U:C4	3.07	0.42
48:M1:117:ASP:O	48:M1:120:ILE:HG22	2.20	0.42
50:M4:108:ARG:HD2	50:M4:108:ARG:HA	1.77	0.42
1:6:886:U:H2'	1:6:887:A:H8	1.84	0.42
18:C6:23:LYS:H	18:C6:23:LYS:HE2	4.99	0.42
86:1:3989:OHX:N1	86:1:4026:OHX:N2	2.67	0.42
1:6:1298:U:H2'	1:6:1299:G:O4'	2.19	0.42
1:6:1309:C:O2'	1:6:1401:A:N1	2.37	0.42
2:S0:7:PHE:HZ	23:D1:43:GLY:HA2	2.08	0.42
1:6:819:G:O2'	1:6:821:U:OP2	2.38	0.42
36:1:278:U:H2'	36:1:279:U:O4'	2.18	0.42
77:Q1:21:ARG:HD2	1:6:1653:C:O3'	284.04	0.42
36:1:1327:C:O2'	69:O3:76:GLY:HA2	2.19	0.42
48:M1:90:GLN:HB3	48:M1:90:GLN:HE21	4.01	0.42
34:SR:307:ASP:OD1	34:SR:309:VAL:HG22	4.51	0.42
42:L5:254:LYS:HA	42:L5:255:PRO:HD2	1.92	0.42
36:1:3383:G:H2'	36:1:3384:U:H6	1.84	0.42
36:5:1633:C:H42	36:5:1640:G:H1	1.67	0.42
1:6:181:A:H2'	1:6:182:A:C8	2.54	0.42
1:2:246:G:N3	13:C1:40:LEU:HD13	2.35	0.42
47:M0:98:ARG:HB3	47:M0:120:GLY:HA3	2.22	0.42
56:N0:124:LEU:HD23	57:N1:153:PRO:HB2	2.00	0.42
45:L8:84:ARG:H	45:L8:84:ARG:HG2	1.42	0.42
36:1:3382:U:OP2	36:1:3382:U:H6	2.02	0.42
28:D6:4:LYS:HE2	28:D6:5:ARG:NH2	3.03	0.42
1:2:1560:U:O4'	1:2:1560:U:O2	2.37	0.42
77:Q1:9:ARG:NH2	1:6:1642:G:O3'	307.43	0.42
1:2:1786:G:OP1	16:C4:136:ARG:NH2	2.53	0.42
28:D6:58:VAL:HG13	28:D6:59:TYR:CD2	5.76	0.42
18:C6:40:GLU:CG	18:C6:42:GLU:HB2	2.47	0.42
32:E0:13:LYS:O	32:E0:17:GLN:HG2	2.84	0.42
51:M5:46:ASP:OD2	51:M5:47:LYS:N	2.53	0.42
1:2:1541:G:C5	1:2:1542:G:C6	3.07	0.42
6:S4:9:LEU:HD12	6:S4:30:ARG:HA	2.14	0.42
66:O0:17:VAL:HG21	66:O0:100:ILE:HD13	2.02	0.42
7:S5:92:ARG:HB3	7:S5:172:ILE:CD1	2.49	0.42
46:L9:67:ALA:HA	46:L9:70:THR:HG23	2.02	0.42
7:S5:43:PHE:CZ	7:S5:90:ILE:HG21	2.53	0.42
9:S7:63:PRO:O	9:S7:64:VAL:HG23	2.18	0.42
36:1:3046:A:H2'	36:1:3047:U:O4'	2.19	0.42
1:2:1586:A:H2'	1:2:1587:A:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:51:LEU:HB2	63:N7:65:ARG:NH1	2.35	0.42
34:SR:63:GLY:HA2	1:6:1341:A:OP1	450.19	0.42
86:1:3868:OHX:N2	73:O7:46:SER:OG	2.52	0.42
86:5:4179:OHX:N2	86:5:4241:OHX:N1	2.67	0.42
6:S4:114:ILE:HB	6:S4:118:GLU:OE2	2.18	0.42
36:1:2860:U:H2'	36:1:2861:U:H5'	2.01	0.42
35:SM:45:SER:O	35:SM:46:LYS:HD3	4.34	0.42
2:S0:36:TYR:OH	23:D1:66:ASP:OD2	2.25	0.42
1:2:814:A:C8	1:2:816:G:C8	3.07	0.42
1:6:1469:A:H2'	1:6:1470:C:C6	2.54	0.42
42:L5:148:ILE:HG21	42:L5:148:ILE:HD13	1.74	0.42
79:Q3:49:ARG:HD3	79:Q3:51:ALA:O	2.18	0.42
41:L4:112:LYS:HG3	41:L4:113:VAL:N	3.78	0.42
36:5:180:C:H2'	36:5:181:U:O4'	2.18	0.42
41:L4:219:LEU:O	41:L4:222:VAL:HG13	2.39	0.42
52:M6:24:ALA:O	52:M6:27:LEU:HB2	2.19	0.42
6:S4:62:LYS:HE3	6:S4:66:MET:HG2	6.58	0.42
68:O2:16:LYS:O	68:O2:17:PHE:CB	4.14	0.42
11:S9:57:ARG:HG2	11:S9:97:LEU:HD21	4.26	0.42
17:C5:102:PHE:HZ	1:6:1241:G:H5''	384.87	0.42
5:S3:27:ARG:HD2	12:C0:60:SER:CB	2.49	0.42
41:L4:295:ILE:O	41:L4:299:ILE:HG12	2.19	0.42
36:1:209:A:H4'	36:1:211:A:C8	2.54	0.42
40:L3:117:ARG:HA	40:L3:175:LYS:HD3	3.87	0.42
40:L3:117:ARG:HA	40:L3:175:LYS:CD	3.47	0.42
1:6:1317:C:H2'	1:6:1318:G:O4'	2.19	0.42
86:1:3911:OHX:N6	51:M5:32:GLN:O	2.53	0.42
36:1:2571:U:C1'	36:1:2572:C:H5'	2.49	0.42
13:C1:80:MET:HE3	13:C1:83:THR:HG23	2.01	0.42
36:5:770:G:N7	86:5:4095:OHX:N6	2.67	0.42
32:E0:39:LEU:HD23	32:E0:43:ARG:NH2	6.66	0.42
41:L4:156:LEU:HA	41:L4:159:ILE:HD12	3.30	0.42
86:7:221:OHX:N3	86:7:226:OHX:N6	2.66	0.42
3:S1:139:ALA:HA	3:S1:212:VAL:HA	2.61	0.42
9:S7:126:LEU:HD13	9:S7:173:TYR:CE2	4.06	0.42
40:L3:255:TRP:CD1	40:L3:256:HIS:CE1	3.08	0.42
42:L5:119:TYR:CZ	42:L5:135:VAL:HG22	6.08	0.42
10:S8:153:GLU:OE1	10:S8:186:GLY:HA2	2.64	0.42
10:S8:184:LEU:HD12	10:S8:184:LEU:HA	1.58	0.42
50:M4:109:ARG:NH1	36:5:3211:C:OP2	291.79	0.42
36:1:729:C:H2'	36:1:730:C:H6	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:53:VAL:HA	50:M4:54:PRO:HD3	1.79	0.42
36:1:882:A:H2'	36:1:883:A:H5''	2.01	0.42
41:L4:259:ASP:O	41:L4:263:GLY:N	3.36	0.42
15:C3:5:HIS:CE1	15:C3:121:ARG:HG3	3.21	0.42
36:1:3191:G:O6	86:1:4124:OHX:N3	2.52	0.42
1:2:312:A:C2	1:2:314:C:H2'	2.54	0.42
36:1:2284:C:H5''	36:1:2285:C:OP2	2.19	0.42
41:L4:9:HIS:O	41:L4:153:SER:N	2.47	0.42
36:1:629:U:H2'	36:1:630:A:C8	2.54	0.42
72:O6:97:SER:C	72:O6:99:ARG:H	2.22	0.42
44:L7:149:TYR:OH	44:L7:182:ASP:OD1	2.36	0.42
62:N6:108:LYS:HA	62:N6:108:LYS:HD3	2.56	0.42
76:Q0:128:LYS:HG3	76:Q0:128:LYS:H	2.83	0.42
36:5:854:G:H2'	36:5:855:U:O4'	2.19	0.42
37:7:55:A:H2'	37:7:56:A:O4'	2.19	0.42
70:O4:42:PRO:HB2	70:O4:51:LEU:HD12	5.33	0.42
1:2:934:C:H1'	28:D6:11:ASN:OD1	2.19	0.42
28:D6:87:ARG:NH1	28:D6:92:ARG:HA	3.10	0.42
26:D4:112:LYS:HB3	26:D4:112:LYS:HE3	1.66	0.42
36:1:412:G:C6	36:1:413:U:C4	3.07	0.42
19:C7:6:THR:OG1	19:C7:7:LYS:N	2.53	0.42
61:N5:103:TYR:O	61:N5:138:ARG:NH1	2.49	0.42
23:D1:41:GLU:N	23:D1:41:GLU:OE2	2.52	0.42
75:O9:9:ILE:CD1	75:O9:51:ILE:HG23	2.46	0.42
10:S8:22:ARG:HG3	10:S8:23:LYS:O	2.20	0.42
10:S8:29:LEU:C	10:S8:29:LEU:HD23	2.40	0.42
4:S2:230:TRP:CE2	24:D2:68:ARG:HB3	2.55	0.42
62:N6:35:LEU:HD11	62:N6:45:ILE:HG22	2.01	0.42
1:2:1011:G:OP2	86:2:2091:OHX:N5	2.53	0.42
8:S6:52:ILE:HD13	8:S6:102:VAL:HG21	2.02	0.42
48:M1:94:ARG:H	48:M1:94:ARG:HG2	1.63	0.42
1:2:189:C:C2'	1:2:190:C:H5'	2.50	0.42
1:2:1152:A:O2'	28:D6:85:ARG:HG3	2.19	0.42
1:2:1793:G:H4'	1:2:1794:A:OP1	2.20	0.42
4:S2:91:ARG:HB3	4:S2:91:ARG:HE	1.61	0.42
42:L5:107:ARG:O	42:L5:109:THR:N	2.52	0.42
53:M7:67:ILE:HG13	53:M7:82:ARG:CZ	2.62	0.42
55:M9:7:GLN:N	55:M9:7:GLN:OE1	2.52	0.42
47:M0:99:ILE:O	47:M0:99:ILE:HD12	5.28	0.42
3:S1:61:LEU:HD22	3:S1:61:LEU:H	1.84	0.42
14:C2:118:ALA:O	14:C2:120:VAL:N	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:61:VAL:HG22	14:C2:97:LEU:HD11	2.01	0.42
40:L3:147:GLU:OE2	40:L3:150:ARG:NH1	3.26	0.42
7:S5:62:VAL:HG12	7:S5:89:ILE:HG12	2.58	0.42
53:M7:126:ARG:HG3	53:M7:127:ARG:N	2.33	0.42
36:5:2370:G:H2'	36:5:2371:G:O4'	2.20	0.42
39:L2:201:GLY:CA	39:L2:204:MET:HG3	2.48	0.42
26:D4:32:ARG:HB3	26:D4:33:ALA:H	3.63	0.42
52:M6:18:ARG:O	52:M6:22:VAL:HG13	2.19	0.42
36:5:3160:U:H2'	36:5:3161:C:C6	2.54	0.42
22:D0:63:LEU:HD22	31:D9:34:TYR:CE1	2.54	0.42
35:SM:123:ALA:O	35:SM:126:ASP:HB2	2.20	0.42
54:M8:170:ARG:HD2	64:N8:57:GLY:HA3	2.00	0.42
20:C8:52:VAL:HG21	20:C8:69:ILE:HD11	3.03	0.42
36:1:2747:A:H2'	36:1:2748:A:C8	2.54	0.42
40:L3:282:ILE:HD12	40:L3:322:ILE:HD12	2.02	0.42
67:O1:19:ARG:HB3	67:O1:35:GLU:HG2	2.02	0.42
36:1:4:U:C2'	36:1:5:G:H5'	2.50	0.42
39:L2:44:ILE:HD13	39:L2:46:LYS:HD3	2.01	0.42
5:S3:57:ASP:O	5:S3:65:ARG:HG2	5.09	0.42
1:2:1332:C:O2'	5:S3:162:GLN:HB3	2.19	0.42
6:S4:141:THR:HB	6:S4:142:HIS:H	2.74	0.42
36:1:1556:C:N3	36:1:2169:G:C4	2.87	0.42
58:N2:23:THR:HA	58:N2:28:PHE:HB3	2.02	0.42
55:M9:96:ILE:HG12	36:5:1722:U:O4'	218.58	0.42
21:C9:118:PRO:O	21:C9:119:LYS:HB2	2.19	0.42
5:S3:164:VAL:O	5:S3:168:ILE:HG12	3.34	0.42
40:L3:286:GLY:O	40:L3:320:ASP:HB3	2.20	0.42
36:1:3277:U:OP1	36:1:3278:C:N4	2.48	0.42
34:SR:74:THR:HG21	34:SR:79:TYR:CD2	2.54	0.42
51:M5:48:ALA:HA	51:M5:133:ILE:HD11	7.18	0.42
67:O1:84:ASP:N	67:O1:84:ASP:OD1	2.57	0.42
17:C5:96:ILE:HD11	17:C5:116:LEU:HD22	2.00	0.42
17:C5:57:MET:HA	17:C5:60:LEU:CB	2.50	0.42
36:1:2373:A:OP2	36:1:2373:A:H3'	2.19	0.42
71:O5:103:LYS:HE3	36:5:153:U:OP2	72.68	0.42
64:N8:36:GLY:O	64:N8:37:GLY:C	2.58	0.42
57:N1:14:MET:CE	57:N1:55:LYS:HB2	3.00	0.42
36:1:2993:G:H2'	36:1:3142:A:N6	2.35	0.42
36:5:604:G:N7	86:5:4167:OHX:N2	2.67	0.42
20:C8:121:ALA:O	20:C8:124:GLY:N	2.52	0.42
1:2:761:G:H4'	11:S9:72:GLU:OE1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:553:U:H2'	36:5:554:A:O4'	2.19	0.42
36:1:829:U:H3	36:1:895:A:H62	1.68	0.42
21:C9:113:ILE:HD12	21:C9:128:GLY:HA2	2.98	0.42
21:C9:5:SER:HA	21:C9:133:ASP:OD1	2.19	0.42
51:M5:197:LEU:HA	51:M5:197:LEU:HD12	2.05	0.42
68:O2:55:ILE:HA	68:O2:55:ILE:HD12	2.06	0.42
8:S6:109:LEU:HA	8:S6:109:LEU:HD23	1.86	0.42
41:L4:14:GLU:HG3	41:L4:14:GLU:H	4.35	0.42
36:5:2430:A:H2'	36:5:2431:C:C6	2.54	0.42
35:SM:124:GLN:O	35:SM:127:ALA:N	2.52	0.42
64:N8:19:LYS:HG3	64:N8:25:HIS:HB2	2.80	0.42
40:L3:262:TRP:HE1	52:M6:66:LYS:NZ	2.18	0.42
36:5:1638:A:H2	36:5:1736:G:N3	2.18	0.42
70:O4:52:GLN:HG2	36:5:1639:C:H5'	196.45	0.42
3:S1:129:THR:HB	3:S1:180:THR:HA	2.01	0.42
3:S1:129:THR:HG21	3:S1:133:TYR:HB2	4.25	0.42
1:2:1101:G:H5''	24:D2:76:SER:CB	2.49	0.42
1:6:542:A:H8	1:6:543:C:H5'	1.83	0.42
1:2:142:G:O5'	1:2:142:G:H8	2.03	0.42
8:S6:141:ILE:HG21	8:S6:153:VAL:HG13	2.01	0.42
36:1:1248:C:OP1	36:1:1249:G:H8	2.01	0.42
7:S5:112:ARG:HD3	27:D5:95:HIS:NE2	2.49	0.42
62:N6:50:ILE:HD13	62:N6:51:ARG:N	2.49	0.42
36:1:2534:G:O6	86:1:3994:OHX:N2	2.53	0.42
1:2:647:G:H22	1:2:687:G:H1	1.68	0.42
19:C7:31:ASN:H	19:C7:31:ASN:HD22	4.35	0.42
19:C7:33:ARG:NH2	34:SR:85:TRP:HE3	2.18	0.42
1:2:1791:A:O2'	1:2:1793:G:H8	2.03	0.42
12:C0:46:LEU:HA	12:C0:46:LEU:HD13	1.92	0.42
12:C0:55:VAL:HG23	12:C0:67:THR:O	3.83	0.42
61:N5:130:TYR:N	61:N5:130:TYR:CD1	2.87	0.42
1:6:219:A:HO2'	1:6:220:A:P	2.42	0.42
36:5:956:U:OP1	86:5:4153:OHX:N2	2.53	0.42
40:L3:252:ILE:CD1	40:L3:266:ARG:HH21	2.32	0.42
37:3:22:A:H2'	37:3:23:A:C8	2.55	0.42
46:L9:136:PHE:CE1	46:L9:144:ILE:HG12	4.78	0.42
36:1:563:U:OP1	56:N0:71:LYS:NZ	2.31	0.42
74:O8:17:ARG:O	74:O8:18:ALA:HB2	3.61	0.42
36:5:118:U:O2	36:5:121:A:H5'	2.19	0.42
51:M5:172:ARG:NH1	36:5:29:C:O3'	105.28	0.42
1:2:928:U:H4'	16:C4:124:ASP:OD1	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:51:ARG:NH1	50:M4:114:ASP:OD2	2.53	0.42
1:2:1734:U:H2'	1:2:1735:U:O4'	2.19	0.42
17:C5:86:VAL:HB	17:C5:87:PRO:HD2	4.09	0.42
63:N7:54:THR:O	63:N7:57:HIS:HB2	2.19	0.42
47:M0:86:HIS:ND1	47:M0:139:ARG:NH1	2.65	0.42
6:S4:123:LEU:HD12	6:S4:161:LYS:HA	2.01	0.42
14:C2:73:LYS:HZ1	33:E1:108:VAL:H	1.67	0.42
36:5:173:G:O2'	36:5:174:C:O5'	2.37	0.42
38:8:39:G:N3	38:8:105:A:C2	2.88	0.42
67:O1:31:ARG:O	67:O1:35:GLU:N	2.68	0.42
1:2:1002:G:N1	1:2:1761:U:OP1	2.47	0.42
59:N3:12:ARG:HD2	36:5:3041:U:OP1	262.04	0.42
86:6:2128:OHX:N6	86:6:2153:OHX:N3	2.68	0.42
13:C1:19:ILE:HD13	86:6:2128:OHX:N3	294.87	0.42
59:N3:33:ASN:ND2	59:N3:63:LYS:HB2	3.60	0.42
1:2:1241:G:H1'	17:C5:79:HIS:CG	2.54	0.42
68:O2:2:ALA:O	68:O2:90:LYS:HG2	2.18	0.42
4:S2:90:THR:C	4:S2:92:ALA:N	2.73	0.42
36:5:192:C:H2'	36:5:193:C:C6	2.54	0.42
5:S3:132:LYS:HD3	5:S3:192:PRO:HD2	2.01	0.42
19:C7:34:LEU:HD23	19:C7:34:LEU:HA	1.86	0.42
36:1:3316:A:OP1	36:1:3318:G:N2	2.53	0.42
1:2:150:U:P	26:D4:123:LYS:HZ1	2.43	0.42
1:6:1592:A:C2	1:6:1605:G:C2	3.07	0.42
53:M7:10:ASN:OD1	53:M7:13:LYS:HG3	2.19	0.42
68:O2:103:LYS:O	68:O2:106:VAL:HG22	4.32	0.42
49:M3:105:ASN:OD1	49:M3:107:GLU:N	2.52	0.42
51:M5:116:LEU:HB3	51:M5:133:ILE:HG13	2.01	0.42
55:M9:109:TYR:CD2	55:M9:114:LYS:HD2	6.07	0.42
36:5:2513:U:C2'	36:5:2592:G:H1	2.33	0.42
43:L6:6:ALA:HA	43:L6:7:PRO:HD3	2.63	0.42
36:1:1517:G:P	75:O9:41:ARG:HH22	2.43	0.42
18:C6:131:GLY:HA3	18:C6:136:SER:O	2.61	0.42
59:N3:84:SER:HA	59:N3:94:TYR:HB3	2.29	0.42
36:5:2656:A:C4	36:5:2658:G:N7	2.88	0.42
36:5:1727:G:H1'	36:5:1731:A:O4'	2.20	0.42
36:5:1728:G:H4'	36:5:1729:A:H5''	2.01	0.42
36:5:637:C:HO2'	36:5:638:C:H6	1.65	0.42
36:1:3018:C:H2'	36:1:3019:U:O4'	2.19	0.42
66:O0:27:TYR:O	66:O0:31:VAL:HG23	2.19	0.42
1:2:516:G:N2	1:2:537:G:H1'	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2673:A:O2'	48:M1:126:ASP:OD2	2.17	0.42
64:N8:84:GLU:O	64:N8:87:ARG:HB2	2.92	0.42
3:S1:226:GLY:HA2	36:5:2536:A:H4'	257.22	0.42
8:S6:76:LEU:HA	8:S6:76:LEU:HD23	1.74	0.42
55:M9:10:LEU:HB3	55:M9:41:ILE:HG13	3.66	0.42
4:S2:126:ARG:HH22	5:S3:124:ARG:HH12	1.67	0.42
40:L3:296:THR:HG22	40:L3:297:SER:N	4.28	0.42
47:M0:175:ASN:CG	47:M0:176:LEU:N	4.62	0.42
36:1:1369:A:H5''	64:N8:21:ARG:HD2	2.02	0.42
1:2:1796:C:OP2	28:D6:92:ARG:HD3	2.19	0.42
28:D6:7:SER:O	28:D6:9:GLY:N	3.15	0.42
8:S6:176:GLN:HG2	1:6:169:A:C5'	327.81	0.42
86:5:4092:OHX:N6	86:5:4201:OHX:N2	2.67	0.42
46:L9:4:ILE:HD13	46:L9:4:ILE:HG21	1.71	0.42
1:2:579:A:C8	5:S3:178:ARG:HD3	2.54	0.42
5:S3:144:ALA:HB2	35:SM:106:VAL:HG22	2.02	0.42
11:S9:149:ARG:HG2	11:S9:152:SER:HB2	2.01	0.42
8:S6:63:MET:HE2	8:S6:106:LEU:CD2	2.97	0.42
36:1:1262:G:C6	36:1:1278:A:N6	2.87	0.42
31:D9:31:ILE:HD11	1:6:1199:G:O6	404.15	0.42
6:S4:10:LYS:HD3	1:6:381:C:OP1	358.65	0.42
6:S4:46:VAL:O	6:S4:50:ASN:HB2	2.19	0.42
77:Q1:7:LYS:CE	77:Q1:11:ARG:HH12	3.45	0.42
1:6:1227:A:OP1	1:6:1228:G:H3'	2.18	0.42
45:L8:100:GLU:CD	45:L8:108:ARG:HH12	3.29	0.42
42:L5:40:HIS:CE1	42:L5:42:ALA:HB3	2.54	0.42
6:S4:155:LYS:NZ	1:6:244:A:OP1	344.97	0.42
11:S9:114:TYR:HA	11:S9:119:ALA:HB3	2.71	0.42
36:5:1081:U:O2'	36:5:1082:U:P	2.78	0.42
21:C9:38:LYS:O	21:C9:40:SER:N	2.50	0.42
21:C9:47:PRO:HA	1:6:1477:G:O2'	374.85	0.42
21:C9:45:MET:O	1:6:1477:G:H5''	371.79	0.42
42:L5:293:LEU:HB3	47:M0:210:ILE:CD1	2.49	0.42
36:5:1023:C:H42	36:5:1029:G:H1	1.67	0.42
27:D5:59:TYR:CE2	27:D5:100:ILE:HG12	2.54	0.42
38:4:82:U:H2'	38:4:83:C:O5'	2.19	0.42
63:N7:46:ILE:HD11	63:N7:49:TYR:HA	2.01	0.42
9:S7:99:LEU:HA	9:S7:100:PRO:HD2	2.51	0.42
36:1:1034:U:H2'	36:1:1035:G:O4'	2.19	0.42
46:L9:34:LEU:HD12	46:L9:78:MET:HA	2.01	0.42
27:D5:51:LEU:HD12	27:D5:51:LEU:H	3.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:18:GLY:N	34:SR:39:ASP:HB3	2.35	0.42
59:N3:54:LEU:HA	59:N3:54:LEU:HD12	2.83	0.42
53:M7:53:ASP:O	86:M7:205:OHX:N3	2.52	0.42
1:2:972:G:O2'	36:1:847:A:N1	2.47	0.42
39:L2:148:VAL:HG22	39:L2:156:LYS:O	3.05	0.42
3:S1:221:PRO:HB2	3:S1:222:LYS:H	1.74	0.42
36:1:3095:U:H2'	36:1:3096:C:C6	2.55	0.42
39:L2:109:GLU:H	39:L2:109:GLU:CD	3.87	0.42
1:2:906:A:H2	1:2:998:A:HO2'	1.67	0.42
9:S7:30:SER:O	9:S7:34:LEU:HB2	2.20	0.42
40:L3:247:ARG:HH22	36:5:2341:A:P	219.56	0.42
26:D4:82:ALA:C	26:D4:84:LYS:H	2.23	0.42
42:L5:178:ASN:N	42:L5:178:ASN:OD1	2.83	0.42
55:M9:69:SER:HA	55:M9:72:GLU:HB2	2.02	0.42
1:2:980:G:H4'	1:2:1776:A:H4'	2.02	0.42
36:5:1821:U:H4'	36:5:1822:C:OP2	2.19	0.42
36:1:535:G:C6	36:1:555:U:N3	2.87	0.42
37:7:106:U:H2'	37:7:107:C:O4'	2.20	0.42
56:N0:75:PHE:O	56:N0:94:ILE:N	2.53	0.42
42:L5:69:ILE:HG22	57:N1:31:LEU:HB3	2.00	0.42
36:5:731:U:H2'	36:5:732:C:H6	1.85	0.42
36:5:880:G:H8	36:5:882:A:OP2	2.03	0.42
36:1:2419:A:H1'	36:1:2804:A:O4'	2.19	0.42
42:L5:60:ILE:HB	42:L5:80:SER:HB3	2.02	0.42
36:1:2537:U:H1'	36:1:2538:U:O5'	2.20	0.42
24:D2:96:ALA:HB3	24:D2:99:PHE:CE1	2.90	0.42
72:O6:74:LYS:HG3	72:O6:80:PHE:CD2	2.54	0.42
86:3:220:OHX:N3	86:3:225:OHX:N5	2.67	0.42
36:1:1804:A:H2'	36:1:1805:C:C6	2.55	0.42
48:M1:104:PHE:O	48:M1:127:PHE:HB2	2.53	0.42
37:3:93:C:O2'	37:3:94:C:H5'	2.18	0.42
39:L2:137:ILE:HG13	39:L2:138:GLY:N	3.36	0.42
12:C0:77:ARG:HD3	12:C0:83:PRO:HA	4.81	0.42
52:M6:161:LYS:HD3	36:5:3182:G:H4'	287.37	0.42
47:M0:175:ASN:O	47:M0:176:LEU:HB2	4.62	0.42
78:Q2:55:LYS:HD2	36:5:92:G:O2'	174.38	0.42
3:S1:180:THR:HG22	3:S1:181:LEU:HD13	2.02	0.42
1:2:1100:G:O2'	24:D2:76:SER:HB3	2.20	0.42
24:D2:77:PRO:HD3	25:D3:7:ARG:O	4.30	0.42
1:2:515:A:OP2	86:2:2071:OHX:N3	2.53	0.42
1:2:523:G:H5'	26:D4:60:PHE:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:59:TYR:HA	28:D6:60:PRO:HD3	2.52	0.42
28:D6:60:PRO:O	28:D6:61:GLU:HB3	2.41	0.42
36:5:273:A:N7	86:5:4063:OHX:N3	2.67	0.42
8:S6:27:PHE:O	8:S6:102:VAL:HB	2.20	0.42
8:S6:58:LYS:O	8:S6:59:GLN:HB2	2.18	0.42
1:2:1790:A:N6	1:2:1791:A:N6	2.67	0.42
42:L5:122:VAL:O	42:L5:123:GLU:HB2	4.25	0.42
2:S0:203:PHE:N	2:S0:203:PHE:CD2	2.87	0.42
25:D3:47:SER:HB2	25:D3:48:HIS:ND1	2.35	0.42
1:6:1541:G:C5	1:6:1542:G:C6	3.08	0.42
67:O1:77:ARG:HA	67:O1:90:PHE:O	2.61	0.42
1:2:1533:C:N4	1:2:1534:G:C6	2.87	0.42
1:6:277:U:O2'	1:6:278:U:OP1	2.31	0.42
42:L5:148:ILE:HG12	42:L5:159:VAL:HG21	2.00	0.42
57:N1:143:THR:HG23	57:N1:143:THR:O	2.19	0.42
1:2:381:C:OP1	11:S9:2:PRO:HA	2.19	0.42
6:S4:121:TYR:OH	6:S4:235:TYR:O	2.39	0.42
47:M0:153:ARG:HH11	47:M0:156:ARG:NH2	4.73	0.42
1:2:623:A:H5''	86:2:2158:OHX:N2	2.34	0.42
47:M0:210:ILE:HD13	47:M0:217:PHE:CD2	4.60	0.42
42:L5:50:ARG:NH2	42:L5:147:ASP:OD2	2.44	0.42
1:2:852:C:N3	1:2:853:G:C5	2.88	0.42
5:S3:71:LEU:HD23	5:S3:74:GLN:NE2	2.35	0.42
12:C0:61:TRP:O	12:C0:63:TYR:HD2	2.28	0.42
21:C9:135:ILE:HG13	21:C9:135:ILE:H	1.70	0.42
6:S4:199:GLU:HB2	6:S4:207:LEU:HB2	2.02	0.42
42:L5:88:ILE:HD13	42:L5:240:TYR:CE1	2.87	0.42
30:D8:33:LEU:HB3	30:D8:34:GLU:H	3.43	0.42
25:D3:16:ARG:H	25:D3:16:ARG:HG3	1.75	0.42
25:D3:44:GLY:H	25:D3:78:LYS:NZ	2.16	0.42
36:5:2137:U:C6	36:5:2141:U:C4	3.08	0.42
61:N5:139:ILE:HG13	61:N5:139:ILE:O	2.13	0.42
36:5:2676:A:H4'	36:5:2677:G:O5'	2.19	0.42
32:E0:43:ARG:HB3	32:E0:44:PHE:CD2	2.71	0.42
1:2:301:A:C5	1:2:302:U:C4	3.08	0.42
1:2:11:A:H5'	4:S2:87:GLN:HE21	1.84	0.42
40:L3:46:PHE:CD1	40:L3:208:VAL:HG21	3.04	0.42
1:6:1754:A:H4'	1:6:1755:A:O5'	2.20	0.42
1:6:1755:A:C2	1:6:1756:A:C8	3.08	0.42
1:2:607:G:H5'	1:2:613:G:C2	2.55	0.42
10:S8:147:ALA:C	10:S8:149:SER:N	2.86	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1119:G:O6	86:2:2149:OHX:N4	2.53	0.42
86:2:2084:OHX:N3	86:2:2086:OHX:N5	2.67	0.42
36:1:1674:G:C6	36:1:1675:G:C5	3.08	0.42
36:5:2515:A:H61	36:5:2592:G:H1'	1.83	0.42
86:1:3989:OHX:N1	86:1:4026:OHX:N4	2.68	0.42
36:5:3238:G:H5''	36:5:3238:G:C8	2.55	0.42
63:N7:23:VAL:HA	63:N7:45:GLY:HA2	2.00	0.42
4:S2:82:ASN:C	4:S2:83:ILE:HG12	3.53	0.42
49:M3:162:ASN:ND2	49:M3:164:GLU:HB2	3.70	0.42
36:5:144:A:N6	36:5:145:G:C2	2.88	0.42
36:5:1769:G:C2	36:5:1770:G:C8	3.08	0.42
44:L7:136:TYR:CZ	44:L7:231:ASN:HB2	2.55	0.42
36:1:2744:U:OP1	86:1:4072:OHX:N1	2.53	0.42
73:O7:51:ALA:O	73:O7:54:LYS:N	2.70	0.42
55:M9:28:GLU:OE1	86:M9:202:OHX:N6	2.53	0.42
36:1:3333:G:N2	36:1:3369:G:O2'	2.53	0.42
36:1:1120:A:C2	36:1:1139:G:C2	3.08	0.42
10:S8:7:SER:HB2	1:6:336:G:H21	299.76	0.42
36:1:787:G:H2'	36:1:788:C:C6	2.54	0.42
36:1:696:C:HO2'	36:1:697:A:H8	1.65	0.42
36:1:3389:U:O2'	36:1:3390:G:OP2	2.35	0.42
40:L3:387:LEU:O	86:L3:405:OHX:N4	2.53	0.42
36:1:426:G:H5'	68:O2:50:ILE:HG22	2.02	0.42
36:1:2193:U:H5''	36:1:2194:G:H5'	2.01	0.42
68:O2:32:TRP:CE2	68:O2:53:PRO:HD2	2.67	0.42
52:M6:129:LEU:HA	52:M6:129:LEU:HD12	1.79	0.42
36:5:3380:U:O2'	36:5:3381:U:H5'	2.20	0.42
66:O0:39:SER:HA	66:O0:93:LEU:HD12	6.53	0.42
78:Q2:14:GLY:O	78:Q2:17:CYS:N	2.53	0.42
36:1:1635:G:N2	36:1:1637:A:H3'	2.34	0.42
36:1:2232:A:H2'	36:1:2233:A:O4'	2.20	0.42
10:S8:51:GLY:O	10:S8:52:ASN:HB2	2.33	0.42
26:D4:60:PHE:HB2	1:6:522:U:O3'	415.61	0.42
36:5:1553:U:H1'	36:5:1554:U:H5	1.85	0.42
73:O7:87:SER:HB3	73:O7:88:ALA:H	1.77	0.42
36:1:1766:G:N7	55:M9:46:LYS:NZ	2.68	0.42
51:M5:87:GLN:NE2	36:5:2422:C:O2	173.73	0.42
36:1:2278:C:OP1	77:Q1:23:ARG:NH1	2.49	0.42
1:2:1010:C:H2'	1:2:1011:G:O4'	2.19	0.42
16:C4:41:ARG:O	16:C4:42:VAL:HG22	2.20	0.42
22:D0:72:ASN:HB2	22:D0:73:GLY:H	1.69	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:80:HIS:C	28:D6:82:ARG:H	4.25	0.42
42:L5:107:ARG:NH2	42:L5:120:LYS:HA	2.35	0.42
36:5:1232:C:C5	36:5:1261:G:H2'	2.55	0.42
17:C5:22:LEU:O	17:C5:25:LEU:HB2	2.27	0.42
36:1:1255:C:H2'	36:1:1256:G:H8	1.84	0.42
22:D0:34:LEU:HD21	22:D0:89:ARG:NH1	6.63	0.42
19:C7:44:LYS:HE3	19:C7:44:LYS:HB2	1.83	0.42
36:1:2927:C:H2'	36:1:2928:C:H6	1.80	0.42
34:SR:154:VAL:HG12	34:SR:171:SER:CB	2.50	0.42
17:C5:70:ASN:O	17:C5:71:GLU:HG2	5.12	0.42
22:D0:63:LEU:HB3	31:D9:34:TYR:CE2	2.76	0.42
36:5:686:G:H2'	36:5:687:U:O4'	2.20	0.42
14:C2:87:PRO:O	14:C2:88:LEU:HB2	2.20	0.42
57:N1:13:TYR:O	57:N1:16:GLN:HB2	2.44	0.42
40:L3:72:VAL:HA	59:N3:88:ARG:O	2.20	0.42
3:S1:121:ILE:HD13	3:S1:161:ILE:HG23	2.85	0.42
36:1:1015:U:O2'	36:1:1017:C:P	2.77	0.42
29:D7:46:VAL:HG13	29:D7:54:VAL:HG21	2.55	0.42
1:6:1657:U:H4'	1:6:1658:G:OP2	2.19	0.42
36:5:1481:A:C2'	36:5:1858:A:N3	2.83	0.42
46:L9:92:TYR:OH	46:L9:101:VAL:HB	2.20	0.42
46:L9:92:TYR:CD1	46:L9:92:TYR:N	2.87	0.42
9:S7:101:LYS:HA	9:S7:102:PRO:HD3	1.93	0.42
1:6:1316:G:H2'	1:6:1317:C:H6	1.85	0.42
39:L2:142:ASP:O	39:L2:143:GLU:CB	2.67	0.42
58:N2:59:ASP:N	58:N2:62:VAL:O	2.46	0.42
75:O9:12:LYS:HE3	38:8:45:C:OP1	102.59	0.42
36:1:62:A:H2'	36:1:63:A:C8	2.54	0.42
36:1:2424:A:N1	39:L2:230:VAL:HG21	2.34	0.42
6:S4:241:GLY:O	6:S4:244:ILE:HB	3.41	0.42
36:5:1700:G:H2'	36:5:1701:C:C6	2.55	0.42
18:C6:99:GLU:O	18:C6:102:LYS:N	2.86	0.42
86:5:4031:OHX:N5	86:5:4079:OHX:N6	2.67	0.42
56:N0:78:TRP:CZ3	56:N0:125:LYS:HG2	2.55	0.42
36:1:2620:G:O2'	36:1:2621:G:H5'	2.19	0.42
45:L8:106:LYS:HE2	45:L8:107:GLU:N	2.34	0.42
1:6:270:C:H2'	1:6:271:A:H5''	2.01	0.42
37:7:52:G:O2'	37:7:53:U:H5'	2.20	0.42
5:S3:55:THR:HG21	5:S3:90:ARG:H	1.85	0.42
28:D6:15:ARG:HB3	28:D6:16:GLY:H	1.66	0.42
1:6:609:U:H4'	1:6:610:G:O5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:O8:77:ARG:HH11	74:O8:77:ARG:HB2	1.83	0.42
45:L8:118:GLU:C	45:L8:120:LYS:N	2.72	0.42
4:S2:84:LYS:HA	4:S2:85:PRO:HD3	1.74	0.42
37:7:91:G:H2'	37:7:92:A:C8	2.55	0.42
22:D0:29:THR:HG22	22:D0:85:ARG:O	2.20	0.42
36:1:335:G:H5''	62:N6:9:SER:HB2	2.02	0.42
1:6:1051:G:H5''	1:6:1052:U:OP2	2.19	0.42
36:1:407:A:C2	38:4:17:A:H1'	2.55	0.42
1:6:1157:A:C2	1:6:1622:G:C2	3.08	0.42
36:5:1354:G:C6	36:5:1358:C:H5'	2.55	0.42
4:S2:40:LYS:HA	4:S2:43:ARG:NH1	2.35	0.42
36:1:1509:A:O2'	36:1:1510:G:H5'	2.20	0.42
36:5:3054:U:O4	86:5:4172:OHX:N4	2.53	0.42
38:4:56:G:H2'	38:4:57:C:O4'	2.20	0.42
64:N8:7:LYS:HA	64:N8:7:LYS:HD3	1.69	0.42
56:N0:45:LEU:HA	56:N0:45:LEU:HD13	1.72	0.42
70:O4:94:LEU:HA	70:O4:94:LEU:HD23	1.95	0.42
36:5:1128:U:H2'	36:5:1129:A:O4'	2.20	0.42
47:M0:196:PHE:CG	47:M0:197:VAL:N	2.88	0.42
1:2:1207:C:C4	1:2:1456:C:H5	2.38	0.42
38:8:80:A:H8	38:8:80:A:P	2.42	0.42
3:S1:184:LEU:HD13	3:S1:188:LEU:HG	2.02	0.42
8:S6:136:LYS:O	8:S6:175:ILE:HA	2.34	0.42
1:2:992:A:C2	1:2:1012:U:N3	2.68	0.42
75:O9:5:LYS:HB3	75:O9:5:LYS:HE2	3.26	0.42
36:1:2278:C:OP2	77:Q1:23:ARG:NH1	2.53	0.42
7:S5:59:VAL:C	7:S5:61:TYR:H	2.73	0.42
7:S5:222:LYS:HA	7:S5:225:ARG:HD2	3.44	0.42
63:N7:5:LEU:HA	63:N7:5:LEU:HD23	1.82	0.42
63:N7:41:ALA:HB2	63:N7:77:TYR:HE2	6.04	0.42
9:S7:31:SER:O	9:S7:35:LYS:HB3	2.56	0.42
55:M9:3:ASN:C	55:M9:5:ARG:H	2.24	0.42
10:S8:138:ASN:O	10:S8:142:LYS:HG3	2.19	0.42
40:L3:75:ALA:HB2	36:5:3049:A:C2	245.61	0.42
9:S7:114:ARG:O	9:S7:117:THR:HB	3.01	0.42
9:S7:74:GLN:O	9:S7:78:THR:OG1	2.30	0.42
1:6:1238:A:H2'	1:6:1239:U:H5'	2.02	0.42
41:L4:118:LYS:O	41:L4:121:ALA:HB3	2.60	0.42
36:1:2992:U:H1'	53:M7:69:ARG:NH2	2.34	0.42
44:L7:150:LYS:O	44:L7:150:LYS:HG3	2.18	0.42
7:S5:43:PHE:HD2	7:S5:46:TRP:CD1	6.12	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:63:GLN:HB3	7:S5:64:VAL:H	1.58	0.42
1:2:216:U:H5''	1:2:830:U:H4'	2.01	0.42
40:L3:169:THR:HG23	40:L3:170:PRO:N	2.65	0.42
41:L4:132:ALA:HB2	41:L4:148:ILE:HG21	2.98	0.42
36:5:529:A:H2'	36:5:530:G:O4'	2.19	0.42
1:2:1579:U:H2'	1:2:1580:C:H6	1.85	0.42
34:SR:175:ASP:OD1	34:SR:177:MET:HB2	3.32	0.42
24:D2:30:SER:HB2	24:D2:61:ILE:CG1	2.50	0.42
45:L8:67:ILE:HA	45:L8:67:ILE:HD13	4.40	0.42
36:5:2157:G:N2	36:5:2177:G:O2'	2.53	0.42
24:D2:103:ILE:HD11	24:D2:126:LEU:HD13	2.02	0.42
54:M8:170:ARG:HB2	64:N8:56:VAL:HG13	6.03	0.42
1:2:789:A:O2'	6:S4:106:LYS:NZ	2.49	0.42
70:O4:3:GLN:HG2	70:O4:30:LEU:HB2	2.01	0.42
51:M5:201:ARG:NH2	36:5:692:A:OP1	95.95	0.42
34:SR:273:ASP:CG	34:SR:275:ARG:HH22	2.23	0.42
71:O5:21:LEU:HD11	71:O5:55:LEU:CD2	2.49	0.42
36:5:2620:G:O6	86:5:4244:OHX:N4	2.52	0.42
1:6:730:G:C5	1:6:731:C:C4	3.07	0.42
46:L9:41:ILE:O	46:L9:42:ASP:HB2	2.19	0.42
46:L9:10:ILE:HD13	46:L9:75:VAL:HG11	2.29	0.42
1:2:1189:A:N3	1:2:1194:A:O2'	2.46	0.42
5:S3:34:TYR:OH	5:S3:37:VAL:HG22	2.78	0.42
59:N3:54:LEU:HD11	59:N3:79:VAL:O	3.09	0.42
75:O9:43:ASN:O	75:O9:45:ARG:N	2.83	0.42
3:S1:117:TRP:NE1	3:S1:152:ARG:CZ	2.83	0.42
71:O5:62:GLN:O	71:O5:65:ALA:HB3	2.31	0.42
75:O9:35:ILE:HD11	38:8:53:A:C2	83.15	0.42
2:S0:148:ASP:HB2	2:S0:164:ASN:CB	3.93	0.42
52:M6:15:LEU:HD23	52:M6:15:LEU:HA	1.79	0.42
43:L6:18:LEU:N	43:L6:18:LEU:CD2	2.83	0.42
36:5:3259:U:C6	36:5:3259:U:H5'	2.55	0.42
4:S2:176:SER:HB2	4:S2:195:ASP:HB3	2.34	0.42
13:C1:33:ARG:NH2	13:C1:48:ALA:O	4.71	0.42
40:L3:81:THR:HG22	40:L3:205:VAL:CG2	2.50	0.42
1:6:591:A:H2'	1:6:592:A:H8	1.85	0.42
43:L6:3:ALA:HB1	68:O2:75:LEU:HD13	2.03	0.42
72:O6:9:ILE:HD13	72:O6:10:GLY:H	5.31	0.42
54:M8:57:ILE:HD13	54:M8:57:ILE:HG21	1.83	0.42
2:S0:195:TRP:CZ2	2:S0:197:ILE:HD13	2.55	0.42
1:6:1292:G:C6	1:6:1293:U:C4	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:763:G:H2'	1:6:764:U:C6	2.55	0.42
11:S9:22:SER:OG	11:S9:23:ARG:N	4.12	0.42
41:L4:157:GLU:HG2	41:L4:209:TYR:HB2	2.01	0.42
17:C5:116:LEU:O	17:C5:118:GLU:N	3.23	0.42
1:6:1087:A:H5'	1:6:1298:U:C5	2.55	0.42
36:1:2949:U:C5	36:1:2950:G:C6	3.07	0.42
34:SR:6:VAL:HG22	34:SR:7:LEU:H	1.85	0.42
1:6:356:G:OP2	86:6:2077:OHX:N5	2.53	0.42
36:5:589:A:H1'	36:5:1337:A:H5''	2.02	0.42
47:M0:116:ARG:HD3	36:5:2644:C:O2	234.74	0.42
1:6:892:A:C5	1:6:893:U:C4	3.08	0.42
10:S8:107:THR:HA	10:S8:110:ARG:HB3	2.01	0.42
36:5:1366:A:C2	36:5:1367:G:C4	3.07	0.42
34:SR:224:ASN:OD1	34:SR:227:ALA:N	2.74	0.42
25:D3:75:GLN:HG3	25:D3:80:GLY:HA2	2.01	0.42
1:6:261:U:O2'	1:6:262:U:OP2	2.29	0.42
36:1:1259:A:H2	36:1:1281:G:H1'	1.85	0.42
36:1:1281:G:C6	36:1:1282:G:N7	2.88	0.42
38:4:113:U:H5''	75:O9:7:PHE:HB3	2.02	0.42
36:1:2925:C:H2'	36:1:2926:A:O4'	2.20	0.42
15:C3:13:SER:O	29:D7:20:LYS:NZ	3.26	0.42
36:5:2700:G:N7	86:5:3933:OHX:N6	2.68	0.42
6:S4:102:VAL:HG23	6:S4:182:TYR:CE1	2.55	0.42
36:5:3164:C:O2'	36:5:3165:A:P	2.78	0.41
36:1:1554:U:C4	36:1:1582:C:H2'	2.55	0.41
16:C4:23:PHE:HE2	16:C4:91:THR:HG21	1.84	0.41
15:C3:98:VAL:HG22	1:6:952:A:H5'	293.16	0.41
44:L7:158:LYS:HD2	44:L7:158:LYS:O	6.02	0.41
10:S8:162:ALA:HA	36:1:3353:G:H3'	2.01	0.41
51:M5:14:LYS:HZ1	36:5:269:G:H5''	131.78	0.41
1:2:189:C:H2'	1:2:190:C:H5'	2.02	0.41
1:6:1384:A:H2'	1:6:1385:G:O4'	2.20	0.41
37:3:20:A:C4	37:3:60:G:N2	2.88	0.41
37:3:48:U:O4	42:L5:58:LYS:HE2	2.20	0.41
36:1:2554:A:C8	36:1:2554:A:H5'	2.55	0.41
3:S1:62:LYS:C	3:S1:64:ARG:H	2.22	0.41
50:M4:50:LYS:HE2	50:M4:91:CYS:SG	2.60	0.41
36:5:114:A:H2'	36:5:115:A:O4'	2.19	0.41
2:S0:142:PRO:HG3	23:D1:32:VAL:HG22	2.02	0.41
46:L9:90:MET:HG2	46:L9:181:VAL:HG22	2.02	0.41
1:6:1228:G:H2'	1:6:1228:G:N3	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:35:GLY:HA3	1:6:919:A:H5'	269.49	0.41
62:N6:80:VAL:HG12	62:N6:99:LEU:O	2.71	0.41
44:L7:170:GLU:O	44:L7:174:GLY:N	2.53	0.41
1:2:749:U:H2'	1:2:750:U:C6	2.55	0.41
45:L8:27:THR:HG22	63:N7:53:VAL:HG12	6.85	0.41
1:6:407:A:H2'	1:6:408:C:H6	1.79	0.41
36:5:611:A:H4'	36:5:611:A:OP2	2.20	0.41
86:2:2096:OHX:N3	86:2:2109:OHX:N1	2.68	0.41
36:1:684:G:OP2	49:M3:28:GLN:NE2	2.39	0.41
20:C8:41:ARG:NH1	21:C9:38:LYS:HG3	2.34	0.41
36:1:3167:A:H8	36:1:3167:A:OP2	2.02	0.41
63:N7:37:PRO:HD2	63:N7:38:PHE:CD1	2.55	0.41
63:N7:46:ILE:HD11	63:N7:49:TYR:CG	3.53	0.41
1:2:603:U:H2'	1:2:604:A:C8	2.55	0.41
32:E0:46:ASN:O	32:E0:47:VAL:HG12	2.20	0.41
1:6:301:A:H2'	1:6:302:U:O4'	2.20	0.41
1:2:901:G:N1	1:2:902:G:O6	2.53	0.41
42:L5:88:ILE:HG21	42:L5:88:ILE:HD13	2.11	0.41
39:L2:112:ILE:CD1	39:L2:135:ILE:HG23	2.48	0.41
54:M8:141:ARG:HD3	36:5:743:C:O2	174.43	0.41
36:1:2503:G:HO2'	36:1:2504:U:H5	1.65	0.41
57:N1:82:ASN:O	65:N9:21:ILE:HA	2.19	0.41
7:S5:197:GLU:OE1	7:S5:208:SER:HB2	2.68	0.41
3:S1:140:ILE:O	3:S1:210:ILE:HA	2.19	0.41
3:S1:105:PHE:CD2	3:S1:213:ARG:HA	2.55	0.41
45:L8:78:PHE:O	45:L8:79:GLN:HB3	2.20	0.41
42:L5:79:TYR:O	42:L5:82:GLU:HB2	2.55	0.41
1:6:1591:C:H2'	1:6:1592:A:C8	2.55	0.41
1:2:707:A:C2	1:2:731:C:H2'	2.54	0.41
1:2:698:U:H2'	1:2:699:U:O4'	2.19	0.41
10:S8:150:ALA:O	10:S8:152:ILE:HG13	2.20	0.41
36:1:3276:G:H5'	43:L6:48:ARG:NH2	2.34	0.41
39:L2:177:LYS:HA	79:Q3:29:LEU:HD12	2.71	0.41
36:1:8:C:H2'	36:1:9:U:O4'	2.20	0.41
52:M6:133:ARG:HD3	52:M6:133:ARG:HH11	1.94	0.41
36:1:2794:G:H1'	36:1:2795:U:C6	2.55	0.41
55:M9:116:ASP:OD1	55:M9:116:ASP:N	4.14	0.41
42:L5:136:GLU:H	42:L5:136:GLU:CD	5.00	0.41
36:1:279:U:H2'	36:1:280:U:C6	2.54	0.41
4:S2:40:LYS:HE3	4:S2:40:LYS:HB2	4.58	0.41
42:L5:229:ASP:C	42:L5:231:ILE:H	3.18	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:236:GLY:N	36:5:2183:A:O2'	204.98	0.41
1:6:1410:A:H2'	1:6:1411:A:O4'	2.20	0.41
36:1:1954:G:H5''	36:1:1955:U:OP2	2.19	0.41
36:1:866:A:H2'	36:1:867:G:O4'	2.20	0.41
36:5:223:U:O4	86:5:4245:OHX:N4	2.53	0.41
34:SR:211:ILE:HG22	34:SR:223:TRP:HD1	1.90	0.41
1:2:530:C:O2	26:D4:61:ARG:NH2	2.50	0.41
37:3:69:C:H2'	37:3:70:U:H6	1.85	0.41
73:O7:60:GLY:O	86:O7:105:OHX:N6	2.53	0.41
36:5:3331:U:H2'	36:5:3332:U:O4'	2.20	0.41
1:6:1014:G:H2'	1:6:1015:U:O4'	2.19	0.41
66:O0:73:GLY:O	66:O0:76:GLU:HG2	2.20	0.41
19:C7:115:LEU:HD13	19:C7:116:LYS:H	1.85	0.41
36:1:2652:U:C5	36:1:2653:C:C5	3.08	0.41
36:5:2780:A:H2'	36:5:2781:U:C6	2.55	0.41
70:O4:11:ASN:HA	70:O4:12:PRO:HD3	1.78	0.41
49:M3:54:LEU:HD23	49:M3:54:LEU:HA	1.92	0.41
5:S3:62:ASN:N	5:S3:62:ASN:OD1	2.52	0.41
36:5:83:U:OP2	86:5:4207:OHX:N4	2.53	0.41
36:1:274:G:H2'	36:1:275:U:O4'	2.20	0.41
1:2:1188:G:O2'	1:2:1430:U:OP1	2.30	0.41
36:5:3164:C:OP2	36:5:3164:C:H2'	2.20	0.41
33:E1:88:PRO:O	33:E1:89:LYS:HB2	2.20	0.41
7:S5:71:ALA:O	7:S5:91:GLU:HG3	2.21	0.41
36:5:1258:U:O2	36:5:1260:A:H8	2.03	0.41
73:O7:17:THR:C	73:O7:25:ARG:HA	2.40	0.41
22:D0:100:VAL:O	22:D0:104:THR:HG23	2.20	0.41
10:S8:5:ARG:NH1	1:6:332:U:O2'	299.62	0.41
18:C6:36:ILE:C	18:C6:38:LEU:N	3.02	0.41
18:C6:38:LEU:HA	18:C6:38:LEU:HD23	2.37	0.41
57:N1:68:THR:HG22	57:N1:71:SER:H	2.15	0.41
57:N1:96:ILE:HA	57:N1:96:ILE:HD13	3.03	0.41
7:S5:141:GLY:HA2	7:S5:142:PRO:HD3	1.84	0.41
21:C9:64:HIS:HE1	1:6:1523:G:N7	408.57	0.41
1:2:1009:U:H2'	1:2:1010:C:C6	2.55	0.41
48:M1:9:MET:O	48:M1:11:ASP:N	3.49	0.41
53:M7:59:PRO:HG3	53:M7:76:PHE:CG	2.54	0.41
34:SR:135:THR:HG23	34:SR:139:GLN:HB3	2.02	0.41
21:C9:31:PRO:HG3	21:C9:103:LYS:HD3	2.02	0.41
37:3:27:A:O5'	42:L5:57:ASN:ND2	2.53	0.41
12:C0:46:LEU:O	12:C0:50:THR:HG22	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:37:ARG:HA	40:L3:186:GLY:HA2	2.08	0.41
3:S1:144:ARG:HD3	3:S1:207:LEU:O	2.63	0.41
23:D1:69:LEU:HD23	23:D1:69:LEU:HA	2.01	0.41
2:S0:144:ILE:HG12	2:S0:158:VAL:HG13	2.02	0.41
1:6:485:A:C6	1:6:486:G:H1'	2.55	0.41
8:S6:22:HIS:CD2	40:L3:300:ARG:HH12	2.38	0.41
6:S4:151:ASP:OD1	8:S6:215:ARG:NH1	3.39	0.41
72:O6:61:ILE:HD11	72:O6:87:VAL:HG13	3.06	0.41
77:Q1:5:TRP:HA	77:Q1:5:TRP:CE3	2.67	0.41
86:5:4074:OHX:N3	86:5:4136:OHX:N6	2.68	0.41
36:1:1094:U:O2'	36:1:1095:U:O5'	2.33	0.41
63:N7:95:VAL:O	63:N7:100:THR:OG1	2.48	0.41
48:M1:166:LYS:C	48:M1:168:ASP:H	3.00	0.41
36:1:250:U:H5'	36:1:251:G:H5''	2.02	0.41
6:S4:207:LEU:HD23	6:S4:207:LEU:HA	1.90	0.41
6:S4:208:VAL:HG23	6:S4:222:LEU:HA	2.02	0.41
50:M4:15:VAL:HG13	56:N0:150:PHE:O	2.19	0.41
1:2:1616:G:O2'	30:D8:18:ARG:NH1	2.54	0.41
4:S2:147:ASN:HB3	23:D1:3:ASN:C	2.40	0.41
1:2:1375:A:H2'	1:2:1376:C:H6	1.85	0.41
1:6:1255:G:O2'	1:6:1256:A:H8	2.03	0.41
56:N0:109:ASP:OD1	56:N0:113:ARG:NH1	2.45	0.41
52:M6:121:PRO:C	52:M6:123:ALA:H	2.45	0.41
36:1:40:A:C2	64:N8:40:HIS:CE1	3.09	0.41
1:6:53:G:H2'	1:6:54:C:O4'	2.20	0.41
36:1:952:A:O3'	36:1:968:G:N2	2.53	0.41
75:O9:37:TYR:HE1	75:O9:39:ALA:HA	2.29	0.41
51:M5:150:TRP:HZ3	51:M5:156:HIS:CD2	2.38	0.41
35:SM:23:LYS:HG3	35:SM:24:GLU:H	4.90	0.41
26:D4:17:LEU:HA	26:D4:17:LEU:HD23	2.34	0.41
49:M3:105:ASN:OD1	49:M3:106:GLN:N	2.53	0.41
37:7:4:U:H4'	37:7:26:C:C4'	2.51	0.41
38:4:124:G:H3'	38:4:125:U:C5'	2.48	0.41
53:M7:56:ARG:HD3	53:M7:56:ARG:HH21	1.70	0.41
9:S7:87:ASP:O	9:S7:88:ARG:HD3	3.45	0.41
46:L9:2:LYS:HB3	46:L9:59:ASN:OD1	2.20	0.41
36:5:707:U:H1'	36:5:754:G:O2'	2.21	0.41
27:D5:90:LYS:HA	27:D5:91:PRO:HD2	1.93	0.41
36:1:540:U:C2	36:1:552:G:N2	2.88	0.41
36:1:122:A:C2	36:1:145:G:N3	2.89	0.41
10:S8:103:GLN:HE21	10:S8:164:ARG:HB2	4.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2218:G:O2'	36:5:2219:A:H5'	2.20	0.41
58:N2:79:LEU:O	58:N2:82:LYS:HB3	2.19	0.41
36:1:520:U:O4	41:L4:349:THR:HG23	2.19	0.41
52:M6:136:THR:HG22	52:M6:137:THR:N	2.43	0.41
1:2:1219:A:H3'	1:2:1220:C:C6	2.55	0.41
1:6:1435:G:H4'	1:6:1436:A:H5'	2.02	0.41
1:6:993:A:H2'	1:6:994:G:O4'	2.19	0.41
59:N3:15:LEU:HD13	59:N3:51:ALA:HB3	2.01	0.41
40:L3:97:ARG:NH1	36:5:3244:A:C2	243.53	0.41
1:2:931:C:O2'	3:S1:118:GLN:O	2.37	0.41
86:1:4123:OHX:N5	86:1:4158:OHX:N2	2.68	0.41
86:1:4123:OHX:N3	86:1:4158:OHX:N4	2.68	0.41
49:M3:52:ASP:OD1	49:M3:141:ALA:HB3	2.55	0.41
1:6:644:C:H2'	1:6:645:C:C6	2.55	0.41
49:M3:116:LEU:HD23	49:M3:116:LEU:HA	2.71	0.41
36:5:785:G:N3	36:5:785:G:H2'	2.34	0.41
68:O2:115:LEU:HD23	68:O2:115:LEU:HA	1.79	0.41
36:1:1025:A:OP1	36:1:1025:A:C8	2.73	0.41
1:6:1397:U:C5	1:6:1399:C:H1'	2.54	0.41
18:C6:10:PHE:CE2	1:6:1379:C:H5'	431.59	0.41
20:C8:72:ILE:HG12	20:C8:79:TYR:CG	3.29	0.41
28:D6:10:ARG:HD3	28:D6:34:LYS:HA	3.15	0.41
28:D6:11:ASN:O	28:D6:33:ASP:HB2	2.51	0.41
53:M7:32:THR:HG21	53:M7:87:SER:CB	2.49	0.41
1:2:1785:U:OP1	16:C4:136:ARG:NH1	2.53	0.41
86:5:4063:OHX:N4	86:5:4072:OHX:N3	2.68	0.41
73:O7:18:LEU:HA	73:O7:24:ARG:O	4.53	0.41
10:S8:173:PRO:C	10:S8:175:GLN:H	2.42	0.41
20:C8:145:ARG:NE	35:SM:68:ARG:HH12	4.75	0.41
36:1:2104:A:H2'	36:1:2105:G:C8	2.56	0.41
1:2:1287:A:H4'	1:2:1288:G:OP1	2.19	0.41
17:C5:115:TYR:OH	1:6:1556:A:H5''	385.04	0.41
46:L9:70:THR:O	46:L9:74:LEU:HG	2.22	0.41
41:L4:358:THR:HA	41:L4:361:HIS:HB2	2.07	0.41
14:C2:97:LEU:HD13	14:C2:121:VAL:HG23	2.02	0.41
20:C8:36:LYS:HB3	20:C8:102:ALA:O	3.63	0.41
49:M3:157:ARG:HG2	49:M3:158:ALA:N	2.34	0.41
7:S5:31:GLU:HG3	7:S5:31:GLU:H	3.54	0.41
45:L8:68:ARG:H	45:L8:68:ARG:HG2	2.34	0.41
6:S4:246:LEU:HD21	6:S4:254:ARG:CZ	2.50	0.41
21:C9:23:GLN:HB2	21:C9:55:TYR:CG	4.62	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:118:GLU:HG2	6:S4:118:GLU:O	2.20	0.41
3:S1:22:ASP:HA	3:S1:23:PRO:HD3	2.34	0.41
33:E1:94:LYS:HA	33:E1:94:LYS:HD3	2.64	0.41
8:S6:22:HIS:CD2	40:L3:300:ARG:NH1	2.88	0.41
36:5:2957:G:C8	36:5:2957:G:H5'	2.47	0.41
6:S4:26:CYS:SG	11:S9:2:PRO:HB2	2.60	0.41
50:M4:133:LYS:O	50:M4:136:ALA:HB3	2.20	0.41
39:L2:47:GLN:HA	39:L2:84:THR:HG22	2.45	0.41
36:1:2945:G:H5''	36:1:2947:G:C8	2.55	0.41
17:C5:81:ARG:H	17:C5:81:ARG:HG3	1.67	0.41
6:S4:62:LYS:HD2	6:S4:62:LYS:HA	4.25	0.41
66:O0:50:VAL:HG12	36:5:2553:U:C6	231.43	0.41
1:2:330:G:C6	1:2:331:A:C6	3.09	0.41
36:1:656:A:C2	36:1:1440:G:C2	3.08	0.41
14:C2:50:LYS:HZ1	33:E1:131:PHE:HE2	1.65	0.41
53:M7:95:LEU:HA	53:M7:95:LEU:HD23	2.72	0.41
25:D3:144:ARG:HG3	25:D3:145:SER:H	1.85	0.41
36:1:22:G:H5''	73:O7:43:LYS:HG2	2.01	0.41
51:M5:28:TRP:O	51:M5:32:GLN:HG2	2.26	0.41
30:D8:18:ARG:HD2	30:D8:23:GLY:O	2.21	0.41
44:L7:80:GLN:HG3	57:N1:136:ARG:HB2	3.46	0.41
36:1:1176:C:OP1	52:M6:25:LYS:HE3	2.21	0.41
36:1:1576:G:N7	36:1:1577:G:C2	2.88	0.41
36:1:1933:A:OP2	86:1:3883:OHX:N6	2.52	0.41
1:2:1368:G:C6	1:2:1369:U:C4	3.08	0.41
52:M6:14:HIS:NE2	52:M6:124:LEU:HD13	2.35	0.41
36:5:3222:U:H2'	36:5:3223:A:C8	2.54	0.41
25:D3:137:LYS:HB2	25:D3:138:GLU:H	1.71	0.41
36:1:287:G:OP1	51:M5:179:LYS:HD3	2.19	0.41
5:S3:215:GLU:N	5:S3:215:GLU:OE2	2.53	0.41
36:1:3267:A:H2'	43:L6:69:PHE:CE1	2.56	0.41
72:O6:76:ARG:HE	72:O6:76:ARG:HA	1.85	0.41
48:M1:116:TYR:CG	48:M1:117:ASP:N	2.99	0.41
49:M3:50:PRO:O	49:M3:51:LEU:CB	4.18	0.41
70:O4:43:LYS:HA	70:O4:49:SER:O	2.46	0.41
9:S7:38:LEU:HA	9:S7:38:LEU:HD23	2.25	0.41
36:5:1352:A:H2'	36:5:1352:A:N3	2.35	0.41
10:S8:197:THR:HA	10:S8:200:LYS:HB2	2.01	0.41
36:1:1680:G:C4	36:1:1681:U:C5	3.08	0.41
52:M6:185:ALA:O	52:M6:188:SER:N	3.25	0.41
29:D7:17:ARG:O	1:6:1071:U:H5'	364.10	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:O7:50:GLY:O	73:O7:54:LYS:HG3	3.00	0.41
34:SR:172:ALA:HB2	34:SR:202:LEU:HD13	2.02	0.41
1:2:463:U:H2'	1:2:464:A:C8	2.55	0.41
45:L8:159:PRO:HG3	51:M5:43:THR:O	4.08	0.41
52:M6:92:THR:O	52:M6:96:LYS:HG3	2.49	0.41
1:2:223:U:H2'	1:2:224:C:C6	2.55	0.41
38:4:9:A:H2'	38:4:10:A:C8	2.55	0.41
36:1:613:G:C6	36:1:614:C:C4	3.08	0.41
7:S5:27:THR:HA	7:S5:28:PRO:HD2	2.05	0.41
36:1:1076:C:O3'	65:N9:38:LYS:HD3	2.21	0.41
73:O7:71:SER:HA	73:O7:74:PHE:HB3	2.03	0.41
1:2:1266:U:H2'	1:2:1267:G:C8	2.56	0.41
64:N8:14:HIS:N	64:N8:14:HIS:ND1	2.69	0.41
40:L3:167:ARG:HB3	40:L3:167:ARG:HE	3.71	0.41
76:Q0:88:LYS:HE3	76:Q0:88:LYS:HB3	3.45	0.41
36:5:1365:G:OP2	86:5:4027:OHX:N3	2.53	0.41
36:1:978:G:OP2	86:1:4099:OHX:N5	2.53	0.41
59:N3:69:LEU:HD12	59:N3:69:LEU:HA	1.86	0.41
78:Q2:74:CYS:HB3	78:Q2:77:CYS:SG	2.60	0.41
48:M1:101:ASN:HB3	48:M1:130:VAL:HA	2.02	0.41
36:1:1580:A:H1'	36:1:1581:C:H5	1.85	0.41
36:5:1345:G:H2'	36:5:1346:G:H8	1.86	0.41
36:5:1556:C:C4	36:5:2169:G:C4	3.08	0.41
2:S0:188:LEU:O	2:S0:189:VAL:HG12	4.36	0.41
10:S8:9:HIS:O	10:S8:10:LYS:HB3	2.21	0.41
4:S2:222:TYR:O	23:D1:23:ILE:HG21	2.20	0.41
36:1:1244:A:N6	36:1:1271:A:OP1	2.53	0.41
51:M5:68:ARG:HD2	51:M5:127:TYR:C	2.41	0.41
11:S9:107:ARG:NH2	11:S9:150:LEU:H	2.18	0.41
20:C8:25:ASN:O	27:D5:40:VAL:HG21	3.21	0.41
1:6:189:C:H2'	1:6:190:C:H5'	2.03	0.41
21:C9:105:LEU:HA	21:C9:105:LEU:HD23	1.73	0.41
28:D6:84:VAL:HG22	28:D6:85:ARG:C	2.40	0.41
42:L5:64:ILE:HD13	42:L5:105:ILE:HG13	2.02	0.41
42:L5:111:GLN:HA	42:L5:116:ASP:HB3	3.24	0.41
51:M5:93:LYS:HG3	36:5:289:A:N3	145.22	0.41
40:L3:160:VAL:HG22	40:L3:183:LEU:HD22	2.02	0.41
36:1:685:G:P	49:M3:35:ARG:NH1	2.94	0.41
3:S1:126:THR:HA	3:S1:135:LEU:O	2.31	0.41
61:N5:135:ILE:HD13	61:N5:135:ILE:HA	1.87	0.41
1:6:1302:U:O4	86:6:2071:OHX:N1	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:830:U:C4	1:6:831:U:C4	3.09	0.41
40:L3:17:LEU:HD12	40:L3:17:LEU:HA	2.18	0.41
7:S5:42:LEU:HB2	7:S5:45:LYS:HD3	5.27	0.41
7:S5:63:GLN:HE22	7:S5:66:GLN:H	1.99	0.41
2:S0:107:PHE:HE2	2:S0:116:LYS:HB2	2.28	0.41
20:C8:102:ALA:O	20:C8:105:VAL:HG12	2.20	0.41
15:C3:93:LYS:HG3	15:C3:93:LYS:HZ2	4.12	0.41
40:L3:53:MET:HE1	36:5:3048:A:H5'	233.96	0.41
18:C6:14:LYS:HA	18:C6:123:ARG:HE	4.17	0.41
41:L4:169:LEU:O	41:L4:172:VAL:HG12	4.05	0.41
41:L4:22:LEU:HD23	41:L4:22:LEU:HA	1.68	0.41
41:L4:22:LEU:HD22	41:L4:26:PHE:CD2	2.55	0.41
1:2:1559:A:C6	20:C8:134:ARG:HD2	2.55	0.41
29:D7:37:CYS:HA	29:D7:38:PRO:HD3	2.25	0.41
1:2:580:A:C6	1:2:583:C:C2	3.08	0.41
60:N4:35:LYS:O	60:N4:39:LEU:HD22	3.00	0.41
36:1:438:A:C2	36:1:620:U:H5	2.38	0.41
41:L4:180:LYS:C	41:L4:181:VAL:O	2.57	0.41
1:6:1207:C:N4	1:6:1456:C:H5	2.14	0.41
51:M5:73:ARG:O	51:M5:75:VAL:N	4.04	0.41
63:N7:47:GLU:OE2	63:N7:69:LYS:HE2	2.21	0.41
55:M9:172:ARG:O	55:M9:176:ARG:N	2.53	0.41
45:L8:45:ASN:OD1	61:N5:26:VAL:HG23	2.20	0.41
54:M8:49:LEU:HD22	54:M8:53:PHE:CZ	2.55	0.41
11:S9:57:ARG:O	11:S9:61:THR:HG23	4.42	0.41
8:S6:2:LYS:HG3	8:S6:17:GLU:OE2	6.29	0.41
36:1:514:G:N3	41:L4:341:SER:OG	2.49	0.41
5:S3:29:LEU:HB2	5:S3:34:TYR:HB2	2.02	0.41
6:S4:81:THR:O	6:S4:81:THR:OG1	2.38	0.41
36:5:2923:U:H2'	36:5:2924:U:C6	2.54	0.41
38:8:88:A:H2'	38:8:89:A:O4'	2.21	0.41
45:L8:97:TYR:O	45:L8:132:VAL:HG13	2.38	0.41
46:L9:87:LYS:HZ2	46:L9:191:LEU:HD21	16.22	0.41
56:N0:92:LYS:HE2	56:N0:92:LYS:HB3	3.12	0.41
69:O3:15:SER:OG	69:O3:16:TYR:O	4.11	0.41
13:C1:6:THR:O	13:C1:7:VAL:HG12	2.21	0.41
25:D3:23:ARG:HB2	25:D3:29:TYR:CE1	2.55	0.41
36:1:1723:A:N1	36:1:1788:C:O2'	2.41	0.41
4:S2:177:GLY:H	4:S2:195:ASP:HB3	1.86	0.41
4:S2:37:PRO:HA	4:S2:65:GLU:OE1	2.37	0.41
36:1:294:U:H5'	72:O6:76:ARG:HG3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:N2:47:VAL:O	58:N2:49:ASN:N	3.42	0.41
1:6:1691:A:H2'	1:6:1692:G:H8	1.86	0.41
1:2:1118:G:N7	86:2:2149:OHX:N1	2.68	0.41
34:SR:112:SER:HB2	34:SR:153:GLN:HA	2.03	0.41
78:Q2:71:ARG:HE	78:Q2:80:ARG:HE	1.68	0.41
36:5:2589:G:H2'	36:5:2590:A:O4'	2.21	0.41
41:L4:209:TYR:O	41:L4:230:VAL:HG22	2.44	0.41
36:1:3331:U:H2'	36:1:3332:U:C6	2.55	0.41
36:1:516:A:O3'	44:L7:60:ARG:NH2	2.51	0.41
36:1:1504:A:C5	36:1:1505:C:C5	3.09	0.41
1:2:29:U:H2'	1:2:30:G:H8	1.86	0.41
48:M1:90:GLN:HE21	48:M1:170:ASP:HB2	2.49	0.41
9:S7:174:ASN:O	9:S7:178:GLY:N	2.44	0.41
36:1:3321:C:H2'	36:1:3322:A:O4'	2.21	0.41
1:2:102:U:O4	1:2:360:A:H2'	2.20	0.41
56:N0:17:GLU:O	56:N0:20:PRO:HD3	2.48	0.41
41:L4:10:SER:C	41:L4:12:THR:H	2.43	0.41
17:C5:74:ALA:HA	17:C5:75:PRO:HD3	2.47	0.41
1:2:1315:U:H5'	1:2:1329:A:C2	2.55	0.41
1:2:968:U:H2'	1:2:969:C:O4'	2.19	0.41
36:5:2517:U:H2'	36:5:2518:C:H6	1.85	0.41
1:6:358:U:O2'	1:6:360:A:H5''	2.20	0.41
57:N1:50:LYS:HE2	36:5:2751:G:OP1	237.28	0.41
34:SR:201:THR:HB	34:SR:241:PHE:O	2.19	0.41
30:D8:5:THR:O	30:D8:7:VAL:HG23	2.90	0.41
43:L6:55:LEU:HD23	43:L6:55:LEU:HA	1.87	0.41
74:O8:32:ASN:HD22	74:O8:32:ASN:C	2.14	0.41
65:N9:59:LYS:HE2	65:N9:59:LYS:HB2	4.65	0.41
33:E1:87:THR:HA	33:E1:88:PRO:HD3	1.95	0.41
18:C6:44:LEU:O	18:C6:46:PHE:N	2.54	0.41
28:D6:24:VAL:HG21	28:D6:71:LEU:HD13	2.03	0.41
49:M3:128:ARG:NH2	71:O5:109:ILE:O	2.51	0.41
2:S0:88:LYS:HD2	2:S0:88:LYS:N	2.36	0.41
4:S2:226:THR:OG1	4:S2:228:ASN:OD1	2.38	0.41
51:M5:14:LYS:HA	51:M5:19:LEU:HD23	2.02	0.41
15:C3:125:LEU:O	15:C3:128:TYR:HB3	2.50	0.41
11:S9:116:LEU:O	11:S9:118:LEU:HD12	3.71	0.41
1:2:155:U:H4'	8:S6:59:GLN:H	1.85	0.41
42:L5:114:GLY:C	42:L5:116:ASP:N	2.72	0.41
10:S8:106:ALA:O	10:S8:109:PHE:N	2.53	0.41
53:M7:69:ARG:CZ	36:5:2389:C:H1'	189.32	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:37:ARG:CA	40:L3:186:GLY:HA2	2.61	0.41
1:6:217:A:O2'	1:6:218:A:H8	2.03	0.41
9:S7:44:LYS:HZ3	9:S7:95:GLU:HG2	1.82	0.41
39:L2:204:MET:CG	36:5:914:A:C2	194.72	0.41
39:L2:204:MET:HE2	39:L2:209:HIS:HB2	2.01	0.41
39:L2:5:ILE:HG12	39:L2:8:GLN:OE1	2.85	0.41
46:L9:171:ASP:HA	36:5:2899:C:C5	322.98	0.41
46:L9:171:ASP:CG	46:L9:173:ARG:HH11	2.24	0.41
35:SM:32:SER:O	35:SM:34:LYS:HE2	2.21	0.41
42:L5:212:ALA:HB2	42:L5:219:PHE:CE2	2.55	0.41
2:S0:157:ASP:OD2	23:D1:60:ARG:NE	3.79	0.41
1:2:813:U:H4'	1:2:814:A:OP2	2.21	0.41
86:1:4004:OHX:N5	86:1:4168:OHX:N6	2.69	0.41
6:S4:158:ASP:N	6:S4:158:ASP:OD1	2.60	0.41
60:N4:4:GLU:HG2	60:N4:30:ARG:NE	2.36	0.41
50:M4:133:LYS:HE3	50:M4:133:LYS:HB3	2.34	0.41
86:1:4057:OHX:N3	86:1:4170:OHX:N5	2.69	0.41
36:1:2413:A:H2'	36:1:2414:G:H8	1.85	0.41
44:L7:163:LEU:HA	44:L7:163:LEU:HD23	1.64	0.41
14:C2:81:ASP:OD1	14:C2:85:LYS:HB3	2.88	0.41
10:S8:37:LYS:NZ	10:S8:93:THR:HB	2.36	0.41
63:N7:100:THR:HG21	63:N7:110:ALA:HB2	2.37	0.41
36:1:1845:G:C5'	36:1:1845:G:H8	2.32	0.41
52:M6:78:ARG:HD2	52:M6:78:ARG:HA	1.77	0.41
4:S2:175:GLY:O	11:S9:53:ARG:NH2	3.14	0.41
40:L3:259:HIS:HE1	36:5:2366:C:H5'	218.37	0.41
36:5:655:C:H2'	36:5:656:A:C8	2.55	0.41
36:5:238:A:HO2'	36:5:239:G:P	2.44	0.41
5:S3:34:TYR:CE2	5:S3:37:VAL:HG13	2.66	0.41
49:M3:159:VAL:HB	64:N8:96:LYS:CG	2.49	0.41
41:L4:299:ILE:HG23	41:L4:299:ILE:HD12	2.28	0.41
36:1:211:A:OP1	41:L4:220:ARG:NH1	2.43	0.41
8:S6:48:TYR:CD2	8:S6:117:GLY:HA3	2.70	0.41
1:2:325:G:H4'	13:C1:80:MET:HE3	2.01	0.41
61:N5:113:LEU:C	61:N5:113:LEU:HD12	2.40	0.41
34:SR:49:GLY:N	34:SR:54:PHE:O	2.48	0.41
54:M8:86:THR:CB	54:M8:105:ARG:HB2	2.74	0.41
9:S7:184:GLU:HG2	9:S7:185:ILE:N	2.35	0.41
13:C1:33:ARG:NH1	13:C1:53:TYR:O	3.22	0.41
36:1:2998:U:H3	36:1:3150:A:H61	1.67	0.41
2:S0:177:LEU:HA	2:S0:177:LEU:HD23	1.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:10:LYS:HE2	36:5:1375:G:O6	159.25	0.41
24:D2:55:ASP:OD1	24:D2:55:ASP:N	2.51	0.41
36:1:1353:U:C5	43:L6:9:TRP:CZ3	3.08	0.41
34:SR:255:ALA:HB2	34:SR:292:LEU:CD2	2.50	0.41
36:5:2513:U:H3	36:5:2593:A:H62	1.68	0.41
36:1:2206:G:C2	36:1:2207:A:C8	3.09	0.41
36:5:2418:G:N3	36:5:2418:G:H2'	2.35	0.41
86:2:2171:OHX:N5	86:2:2172:OHX:N1	2.68	0.41
1:6:386:G:C6	1:6:387:A:N6	2.89	0.41
1:6:1201:G:N2	1:6:1599:C:H2'	2.36	0.41
36:5:422:A:C2	36:5:2363:A:H4'	2.56	0.41
36:1:3199:G:C2	36:1:3200:G:C8	3.08	0.41
33:E1:123:ASN:HA	33:E1:124:PRO:HD2	2.22	0.41
13:C1:79:LYS:HB3	1:6:346:G:H5'	281.39	0.41
28:D6:49:ALA:O	28:D6:52:ASP:N	3.61	0.41
16:C4:129:LYS:HG3	16:C4:130:GLY:N	2.35	0.41
36:1:428:A:H2'	36:1:429:U:C6	2.55	0.41
36:5:3333:G:N2	36:5:3369:G:O2'	2.53	0.41
36:1:989:A:H2'	36:1:990:U:C6	2.55	0.41
36:5:58:G:O2'	36:5:61:A:H5'	2.21	0.41
4:S2:81:MET:HE2	4:S2:81:MET:HB3	4.25	0.41
36:1:942:U:O5'	36:1:942:U:H6	2.03	0.41
1:2:114:C:H6	1:2:114:C:H5'	1.85	0.41
36:5:1672:U:O2	36:5:1776:G:C2	2.73	0.41
11:S9:133:HIS:CE1	1:6:512:A:HO2'	446.74	0.41
1:2:1798:U:C6	28:D6:97:PRO:HB3	2.55	0.41
52:M6:67:THR:HG23	52:M6:67:THR:O	3.03	0.41
52:M6:67:THR:CG2	52:M6:67:THR:O	3.05	0.41
34:SR:162:ALA:O	34:SR:163:ASP:HB3	2.21	0.41
16:C4:80:HIS:HB3	16:C4:114:ARG:O	2.19	0.41
50:M4:121:MET:HG3	36:5:3214:U:C5	280.58	0.41
23:D1:40:ASP:OD1	23:D1:44:ARG:HB2	2.21	0.41
2:S0:179:ARG:HD3	2:S0:183:ARG:HH11	1.86	0.41
10:S8:26:LYS:HD2	10:S8:26:LYS:O	2.21	0.41
24:D2:23:ARG:NH1	24:D2:66:ASN:HA	2.40	0.41
1:2:1550:A:OP2	17:C5:42:ARG:NH2	2.54	0.41
4:S2:164:SER:HB3	1:6:1086:A:H5'	370.41	0.41
4:S2:166:THR:HG23	4:S2:201:ASN:CB	2.50	0.41
1:6:1198:G:OP1	1:6:1199:G:H1'	2.20	0.41
1:2:641:G:H8	1:2:641:G:O5'	2.02	0.41
36:1:2339:C:P	59:N3:48:ARG:HG3	2.61	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:140:ASP:OD1	40:L3:142:ALA:N	2.45	0.41
73:O7:28:HIS:ND1	73:O7:31:LYS:HE2	2.89	0.41
45:L8:108:ARG:NH1	36:5:121:A:C2	97.55	0.41
46:L9:73:SER:HA	46:L9:76:ASP:HB2	2.62	0.41
23:D1:66:ASP:O	23:D1:67:ASP:C	2.89	0.41
2:S0:50:VAL:HA	2:S0:53:THR:HB	2.02	0.41
67:O1:29:ALA:HB3	67:O1:30:PRO:HD3	2.02	0.41
1:2:1019:A:OP2	15:C3:107:LYS:HE3	2.20	0.41
41:L4:135:VAL:O	41:L4:140:HIS:HB2	2.21	0.41
45:L8:94:PHE:CE2	45:L8:200:LEU:HG	2.54	0.41
36:5:2799:A:H5''	36:5:2800:G:O5'	2.20	0.41
86:1:4057:OHX:N4	86:1:4170:OHX:N1	2.68	0.41
14:C2:57:ALA:O	14:C2:85:LYS:HE3	2.79	0.41
22:D0:50:LEU:HD21	22:D0:95:ALA:HB2	2.01	0.41
3:S1:113:MET:HB3	3:S1:142:PHE:CE2	2.58	0.41
46:L9:75:VAL:HG22	46:L9:78:MET:HE3	3.04	0.41
33:E1:103:LEU:HD22	33:E1:105:TYR:HB2	3.34	0.41
7:S5:110:ALA:O	7:S5:113:ILE:N	2.54	0.41
36:1:22:G:OP1	73:O7:43:LYS:HE2	2.21	0.41
1:6:1614:A:C6	1:6:1615:C:C4	3.09	0.41
34:SR:267:PRO:HG2	34:SR:269:TYR:CD1	2.55	0.41
1:2:825:U:H2'	1:2:826:U:C6	2.56	0.41
49:M3:115:ARG:NH2	49:M3:147:ILE:HD11	2.35	0.41
49:M3:124:ILE:CD1	71:O5:117:ALA:HB3	2.50	0.41
36:5:2209:U:H1'	36:5:2210:G:H5''	2.03	0.41
86:7:221:OHX:N1	86:7:226:OHX:N4	2.69	0.41
15:C3:17:PRO:HB3	29:D7:28:PRO:HG3	3.47	0.41
76:Q0:77:ILE:HB	76:Q0:78:ILE:H	1.63	0.41
42:L5:178:ASN:HA	42:L5:183:TRP:CD1	3.32	0.41
36:5:1396:C:H2'	36:5:1397:C:H6	1.85	0.41
1:2:768:C:H2'	1:2:769:A:O4'	2.21	0.41
46:L9:27:VAL:HG11	46:L9:79:ILE:HG12	2.75	0.41
36:5:2396:G:N2	36:5:2985:C:C2	2.88	0.41
34:SR:112:SER:HB3	34:SR:155:ARG:HH12	1.86	0.41
11:S9:14:THR:HA	11:S9:15:PRO:HD2	1.61	0.41
44:L7:59:GLU:HG2	44:L7:63:ILE:HD12	2.02	0.41
17:C5:95:GLY:HA2	17:C5:103:ASN:O	2.76	0.41
11:S9:162:SER:HA	11:S9:163:PRO:HD2	2.05	0.41
36:1:359:U:C6	36:1:920:A:C2	3.08	0.41
57:N1:39:ILE:HD12	57:N1:102:ARG:HD2	2.03	0.41
45:L8:165:PHE:HA	72:O6:47:ILE:HD13	2.42	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1499:C:C2'	36:5:1500:G:H5'	2.50	0.41
58:N2:84:LEU:O	58:N2:89:LEU:N	2.53	0.41
2:S0:2:SER:O	2:S0:4:PRO:HD3	2.21	0.41
29:D7:29:ARG:HG3	29:D7:29:ARG:HH11	1.86	0.41
86:5:4052:OHX:N4	86:5:4108:OHX:N1	2.68	0.41
86:1:4123:OHX:N5	86:1:4158:OHX:N6	2.68	0.41
56:N0:20:PRO:O	56:N0:21:GLU:HB2	2.21	0.41
54:M8:2:GLY:O	54:M8:3:ILE:HD13	2.23	0.41
63:N7:103:GLN:HA	63:N7:104:PRO:HD2	1.90	0.41
45:L8:139:VAL:O	45:L8:143:ILE:HG13	2.29	0.41
1:2:327:U:O2'	13:C1:10:GLU:HG2	2.21	0.41
11:S9:36:LEU:O	32:E0:33:ARG:HG3	2.20	0.41
1:2:1172:G:C5	1:2:1173:C:C4	3.09	0.41
1:2:1064:G:C6	1:2:1065:A:C6	3.09	0.41
1:2:892:A:C5	1:2:893:U:C4	3.08	0.41
36:5:1394:A:N3	38:8:19:C:O2'	2.45	0.41
16:C4:49:LYS:HA	16:C4:49:LYS:HD3	2.81	0.41
7:S5:139:ASN:N	7:S5:139:ASN:HD22	2.17	0.41
65:N9:39:PHE:CD2	65:N9:39:PHE:C	2.94	0.41
25:D3:135:LEU:HA	25:D3:135:LEU:HD23	2.37	0.41
4:S2:58:LEU:HD23	4:S2:58:LEU:HA	1.79	0.41
46:L9:170:LYS:HD3	46:L9:170:LYS:HA	2.03	0.41
36:5:1779:C:H5''	36:5:1780:G:OP2	2.21	0.41
1:6:680:U:C2	1:6:682:C:N4	2.88	0.41
37:3:44:C:H4'	42:L5:152:ARG:NH1	2.36	0.41
36:1:1637:A:P	63:N7:73:LYS:NZ	2.93	0.41
36:5:3194:C:C2	36:5:3197:G:N2	2.79	0.41
51:M5:85:THR:HG21	36:5:45:A:OP1	156.37	0.41
36:5:1565:G:N2	36:5:1566:A:H1'	2.35	0.41
39:L2:68:LYS:HD3	39:L2:70:ARG:HE	1.84	0.41
19:C7:105:GLN:H	19:C7:105:GLN:NE2	2.19	0.41
18:C6:44:LEU:HA	18:C6:44:LEU:HD23	2.21	0.41
8:S6:135:PRO:HB2	8:S6:141:ILE:HG13	2.03	0.41
16:C4:112:ILE:HG22	16:C4:113:GLY:N	2.35	0.41
51:M5:84:PRO:HA	51:M5:87:GLN:OE1	2.94	0.41
36:5:2785:A:H2'	36:5:2786:G:O4'	2.21	0.41
8:S6:33:GLY:N	8:S6:52:ILE:O	2.83	0.41
1:6:687:G:C2	1:6:688:G:N7	2.89	0.41
1:2:856:A:H62	9:S7:97:ARG:H	1.68	0.41
1:2:1151:A:H2'	1:2:1152:A:H8	1.85	0.41
1:2:1041:G:OP1	86:2:2150:OHX:N5	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:71:GLU:O	2:S0:96:THR:HG22	2.21	0.41
11:S9:90:LYS:O	11:S9:92:LYS:N	4.45	0.41
1:2:1165:G:O6	1:2:1166:A:N6	2.54	0.41
24:D2:26:LEU:HA	24:D2:26:LEU:HD13	3.86	0.41
34:SR:171:SER:CB	34:SR:181:TRP:HE1	2.85	0.41
51:M5:172:ARG:HH22	36:5:63:A:P	100.97	0.41
2:S0:21:ASN:O	2:S0:163:ASN:HB2	3.39	0.41
1:6:779:U:HO2'	1:6:780:A:P	2.44	0.41
1:6:834:G:O2'	1:6:835:U:OP1	2.35	0.41
33:E1:98:VAL:HG22	33:E1:99:LYS:H	1.85	0.41
36:1:692:A:C4	36:1:693:A:C8	3.09	0.41
14:C2:60:VAL:O	14:C2:89:ILE:HG22	2.20	0.41
72:O6:56:ARG:O	72:O6:60:LEU:HB2	2.20	0.41
41:L4:177:ASP:OD1	41:L4:180:LYS:NZ	3.70	0.41
6:S4:163:ASP:HB3	6:S4:167:GLY:O	4.80	0.41
39:L2:46:LYS:O	39:L2:47:GLN:HB2	2.21	0.41
53:M7:123:PRO:HD3	38:8:14:C:OP1	127.53	0.41
36:1:209:A:H4'	36:1:211:A:N7	2.36	0.41
44:L7:80:GLN:NE2	57:N1:136:ARG:HB2	5.66	0.41
1:2:540:G:O2'	1:2:541:A:OP1	2.32	0.41
15:C3:37:ILE:HG13	15:C3:54:LEU:HD11	3.58	0.41
51:M5:57:GLN:HG2	38:8:143:U:O3'	100.16	0.41
36:1:2383:C:H5'	52:M6:71:PHE:HE2	1.86	0.41
47:M0:193:ASP:O	47:M0:194:GLY:C	2.59	0.41
43:L6:68:PRO:HG2	43:L6:71:VAL:HG23	3.22	0.41
36:5:817:A:H2'	36:5:920:A:C2	2.55	0.41
43:L6:54:TYR:HA	43:L6:65:ILE:CD1	6.16	0.41
36:5:2881:C:H2'	36:5:2882:U:C6	2.55	0.41
31:D9:6:VAL:HB	31:D9:7:TRP:H	4.40	0.41
36:1:2770:G:O2'	36:1:2771:U:H5'	2.20	0.41
39:L2:40:TYR:HA	39:L2:90:ALA:O	2.20	0.41
36:1:2659:G:H4'	36:1:2751:G:O2'	2.20	0.41
1:6:1087:A:C2	1:6:1142:A:H4'	2.56	0.41
39:L2:132:ASN:OD1	36:5:2178:A:H5''	215.29	0.41
1:6:1047:G:H2'	1:6:1048:G:H8	1.86	0.41
78:Q2:3:ASN:O	36:5:2655:U:H2'	237.73	0.41
41:L4:340:GLY:O	36:5:577:C:H1'	286.47	0.41
61:N5:75:LYS:NZ	36:5:1523:U:O4	96.56	0.41
1:6:1054:U:H2'	1:6:1055:U:O4'	2.20	0.41
53:M7:40:GLU:HA	53:M7:113:TYR:HA	2.65	0.41
36:5:2860:U:C2	36:5:2938:G:H4'	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:Q2:22:GLN:HG3	78:Q2:23:HIS:N	2.35	0.41
78:Q2:22:GLN:HB3	78:Q2:75:VAL:HG22	2.76	0.41
1:6:325:G:C2	1:6:344:A:C2	3.08	0.41
71:O5:70:TYR:CE1	71:O5:77:PRO:HD3	2.71	0.41
21:C9:18:TYR:CE1	21:C9:22:LEU:HD21	3.07	0.41
36:5:733:G:N7	86:5:4062:OHX:N5	2.68	0.41
36:1:2890:A:N1	36:1:2913:C:N3	2.69	0.41
60:N4:5:ILE:HD13	60:N4:10:GLY:HA2	2.03	0.41
1:6:809:A:N1	1:6:810:G:C6	2.89	0.41
36:5:1289:G:O2'	36:5:1290:A:H5'	2.20	0.41
36:5:2220:A:N6	36:5:2221:G:C6	2.89	0.41
36:1:2656:A:C8	36:1:2658:G:C8	3.09	0.41
42:L5:213:ASP:OD2	42:L5:213:ASP:N	2.53	0.41
34:SR:283:LYS:HE3	34:SR:283:LYS:HB2	1.60	0.41
36:1:2513:U:H6	36:1:2513:U:H2'	1.64	0.41
1:2:425:A:H5'	1:2:425:A:H8	1.84	0.41
36:5:1680:G:C5	36:5:1681:U:C5	3.09	0.41
86:1:4129:OHX:N3	86:1:4186:OHX:N4	2.68	0.41
1:6:1218:G:O2'	1:6:1219:A:OP2	2.31	0.41
36:5:3182:G:H2'	36:5:3183:A:O4'	2.20	0.41
69:O3:59:VAL:CG2	69:O3:60:ARG:H	2.83	0.41
36:1:1559:A:H5''	61:N5:34:LEU:HD12	2.03	0.41
18:C6:50:GLU:O	18:C6:54:LEU:HB2	2.21	0.41
8:S6:135:PRO:HB2	8:S6:141:ILE:CG1	2.51	0.41
36:1:413:U:H5''	53:M7:34:GLN:NE2	2.35	0.41
53:M7:29:THR:HA	53:M7:32:THR:CG2	2.37	0.41
75:O9:4:GLN:HG2	36:5:1588:A:N1	126.07	0.41
73:O7:24:ARG:NH1	36:5:361:A:OP1	120.24	0.41
15:C3:30:SER:O	15:C3:34:ILE:HG13	2.94	0.41
36:1:1595:U:C2	36:1:1596:C:C5	3.09	0.41
36:5:2186:U:H2'	36:5:2187:G:O4'	2.21	0.41
1:6:1702:A:H3'	1:6:1703:C:H6	1.85	0.41
62:N6:50:ILE:HD13	62:N6:51:ARG:H	1.85	0.41
4:S2:61:LEU:HA	4:S2:61:LEU:HD23	1.71	0.41
36:5:420:G:N2	36:5:2385:G:OP2	2.48	0.41
17:C5:108:ARG:HH11	17:C5:108:ARG:HG3	4.40	0.41
21:C9:102:ARG:NH2	1:6:1502:G:N7	405.17	0.41
18:C6:143:ARG:HH22	35:SM:84:LYS:NZ	2.19	0.41
21:C9:114:VAL:N	21:C9:125:SER:HB3	2.35	0.41
9:S7:114:ARG:O	9:S7:117:THR:HG22	2.21	0.41
16:C4:17:ALA:HB3	16:C4:81:VAL:HB	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:62:LEU:HB3	14:C2:75:VAL:HG11	2.03	0.41
69:O3:49:ILE:N	69:O3:69:GLY:O	2.48	0.41
20:C8:30:TYR:CE1	1:6:1539:G:C2	352.12	0.41
40:L3:77:THR:HG23	40:L3:326:GLY:O	2.26	0.41
41:L4:26:PHE:HE2	41:L4:258:LEU:HD23	2.75	0.41
18:C6:49:TYR:HB3	18:C6:53:LEU:HD21	2.03	0.41
7:S5:35:GLN:C	7:S5:37:GLN:H	2.24	0.41
36:1:840:C:O4'	55:M9:128:LYS:HE2	2.21	0.41
21:C9:63:ARG:O	21:C9:67:MET:HE3	2.21	0.41
2:S0:21:ASN:HB3	2:S0:24:LEU:HD22	2.72	0.41
55:M9:20:ARG:HG3	55:M9:20:ARG:H	3.51	0.41
1:2:717:C:H2'	1:2:718:U:H5''	2.03	0.41
22:D0:27:THR:HA	22:D0:87:HIS:O	2.26	0.41
42:L5:155:THR:HA	42:L5:179:ARG:HD3	2.45	0.41
79:Q3:50:GLY:O	79:Q3:51:ALA:CB	2.69	0.41
14:C2:68:GLU:C	14:C2:70:ASN:H	2.24	0.41
41:L4:193:LYS:HZ3	41:L4:193:LYS:HG2	1.71	0.41
18:C6:18:ALA:CB	18:C6:69:VAL:HG13	2.63	0.41
48:M1:7:ASN:ND2	48:M1:7:ASN:N	2.66	0.41
7:S5:149:VAL:HG12	7:S5:156:ARG:O	3.13	0.41
57:N1:122:GLN:C	57:N1:124:VAL:H	3.63	0.41
63:N7:34:LYS:HA	63:N7:34:LYS:HD2	2.64	0.41
36:5:3041:U:H2'	36:5:3042:U:H6	1.86	0.41
6:S4:194:THR:H	6:S4:194:THR:HG23	2.94	0.41
86:1:4035:OHX:N4	86:1:4065:OHX:N2	2.69	0.41
36:1:2155:G:OP1	39:L2:241:ARG:HG2	2.21	0.41
45:L8:228:GLU:HA	45:L8:231:LYS:CE	3.98	0.41
1:2:1565:C:H2'	1:2:1566:U:O4'	2.20	0.41
42:L5:68:THR:CG2	42:L5:70:THR:H	2.31	0.41
36:1:3198:U:H1'	46:L9:21:LYS:HB2	2.03	0.41
15:C3:61:THR:HG22	29:D7:32:PHE:CE2	2.56	0.41
36:1:3170:A:H2'	36:1:3171:U:H6	1.84	0.41
21:C9:115:GLU:O	21:C9:117:SER:N	2.54	0.41
1:6:1151:A:H4'	1:6:1766:A:C6	2.56	0.41
34:SR:200:ASN:HB2	34:SR:215:GLY:HA2	2.41	0.41
54:M8:59:ARG:HD2	54:M8:59:ARG:HH11	1.84	0.41
86:2:2084:OHX:N4	86:2:2086:OHX:N1	2.69	0.41
36:5:1352:A:H1'	36:5:1353:U:H5'	2.02	0.41
43:L6:7:PRO:HG2	43:L6:10:TYR:CE1	2.56	0.41
1:6:271:A:H8	1:6:271:A:C5'	2.34	0.41
37:7:48:U:O2	37:7:50:U:C4	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:O3:13:HIS:NE2	69:O3:28:SER:OG	2.44	0.41
1:2:1433:G:C8	31:D9:41:GLN:HG2	2.56	0.41
36:1:1123:U:C2'	36:1:1124:U:H5'	2.51	0.41
54:M8:54:LEU:HD23	54:M8:54:LEU:HA	1.91	0.41
7:S5:129:PRO:O	7:S5:132:VAL:HB	2.62	0.41
36:1:2283:G:N3	36:1:2285:C:N4	2.63	0.41
57:N1:14:MET:HE1	57:N1:55:LYS:HA	2.30	0.41
46:L9:169:ASN:O	46:L9:170:LYS:HD3	2.20	0.41
36:5:885:U:H2'	36:5:886:C:H6	1.85	0.41
36:5:898:U:H2'	36:5:899:U:O4'	2.21	0.41
1:6:1623:C:H2'	1:6:1624:C:H6	1.85	0.41
16:C4:132:ARG:HB3	1:6:1787:C:OP2	292.72	0.41
56:N0:8:GLN:HB3	56:N0:64:ILE:HD11	2.03	0.41
36:5:1668:G:H2'	36:5:1669:C:O4'	2.21	0.41
74:O8:70:PRO:O	74:O8:73:LEU:HB3	2.96	0.41
18:C6:116:LEU:HD23	18:C6:116:LEU:HA	4.55	0.41
49:M3:7:LEU:HA	49:M3:7:LEU:HD23	1.89	0.41
8:S6:21:GLU:HG2	8:S6:21:GLU:H	1.69	0.41
17:C5:12:PHE:CZ	48:M1:85:LYS:HG2	5.27	0.41
36:1:71:A:C2	36:1:2778:G:H1'	2.55	0.41
36:1:2599:U:H2'	36:1:2600:C:C6	2.55	0.41
69:O3:58:GLU:OE1	69:O3:61:GLY:HA2	5.16	0.41
36:1:943:U:H3'	64:N8:13:GLY:HA2	2.03	0.41
36:5:3163:A:O2'	36:5:3164:C:H5'	2.21	0.41
36:5:3275:U:O3'	36:5:3276:G:N3	2.54	0.41
36:1:1369:A:OP1	64:N8:21:ARG:NH1	2.54	0.41
36:1:1554:U:H4'	36:1:1555:U:O5'	2.19	0.41
3:S1:81:PHE:HB2	3:S1:82:ARG:H	1.83	0.41
77:Q1:6:ARG:O	77:Q1:10:THR:HG23	2.21	0.41
77:Q1:6:ARG:HA	77:Q1:9:ARG:HB2	2.03	0.41
1:6:89:G:C6	1:6:90:C:C4	3.09	0.41
28:D6:58:VAL:CG2	28:D6:59:TYR:H	3.05	0.41
3:S1:69:CYS:HB3	3:S1:72:ASP:OD1	2.21	0.41
50:M4:125:LYS:NZ	36:5:3215:A:OP2	277.78	0.41
75:O9:48:LYS:HD2	75:O9:48:LYS:HA	2.22	0.41
10:S8:8:ARG:NH2	10:S8:28:GLU:OE1	10.53	0.41
22:D0:22:ILE:HD12	22:D0:22:ILE:HA	1.88	0.41
10:S8:8:ARG:HD2	10:S8:21:PHE:H	1.85	0.41
5:S3:142:LEU:O	5:S3:144:ALA:N	2.48	0.41
73:O7:65:ARG:NH2	38:8:102:U:O4	84.64	0.41
1:6:25:C:O2	86:6:2110:OHX:N6	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:57:SER:HB3	30:D8:53:ILE:HB	2.02	0.41
7:S5:163:SER:CB	30:D8:48:VAL:HG22	2.51	0.41
44:L7:131:GLU:O	44:L7:229:PHE:HB2	2.21	0.41
4:S2:77:GLN:HG3	4:S2:77:GLN:H	1.75	0.41
1:6:1697:G:H2'	1:6:1697:G:N3	2.36	0.41
64:N8:43:ILE:O	64:N8:46:ASP:O	2.63	0.41
62:N6:120:GLN:HE22	62:N6:126:LEU:HA	8.09	0.41
36:1:965:A:C2	64:N8:43:ILE:HD12	2.54	0.41
55:M9:62:ARG:NH2	36:5:3068:U:OP2	172.40	0.41
17:C5:127:ARG:O	17:C5:129:GLY:N	4.27	0.41
36:5:419:G:N2	38:8:5:U:C2	2.89	0.41
3:S1:88:VAL:HA	3:S1:98:THR:HG22	5.69	0.41
71:O5:56:THR:O	71:O5:60:GLU:HG3	4.40	0.41
1:2:1357:A:C6	1:2:1358:G:C5	3.09	0.41
9:S7:125:ILE:O	9:S7:128:ASP:N	2.45	0.41
51:M5:81:TYR:OH	36:5:908:G:H3'	165.16	0.41
36:5:1562:C:H2'	36:5:1563:C:O4'	2.21	0.41
2:S0:84:ARG:HD2	19:C7:82:ASP:OD2	8.08	0.41
12:C0:49:LEU:HB3	12:C0:55:VAL:HG11	2.03	0.41
12:C0:12:HIS:HD2	12:C0:79:TYR:CD2	2.39	0.41
36:5:3119:U:OP2	86:5:3919:OHX:N3	2.54	0.41
3:S1:48:VAL:HG22	3:S1:64:ARG:NH2	3.91	0.41
40:L3:150:ARG:CG	40:L3:150:ARG:NH1	3.40	0.41
40:L3:147:GLU:OE2	40:L3:150:ARG:HD2	2.20	0.41
7:S5:63:GLN:NE2	7:S5:66:GLN:HB2	4.67	0.41
40:L3:252:ILE:HG12	40:L3:266:ARG:HH21	1.86	0.41
7:S5:90:ILE:HA	7:S5:90:ILE:HD13	2.12	0.41
36:5:329:U:H4'	36:5:330:G:OP2	2.21	0.41
40:L3:139:GLN:NE2	40:L3:143:GLY:H	2.94	0.41
64:N8:121:VAL:HA	64:N8:122:PRO:HD3	2.27	0.41
41:L4:23:PRO:O	41:L4:24:ALA:HB3	2.25	0.41
7:S5:35:GLN:HB3	7:S5:36:ALA:H	1.59	0.41
14:C2:43:ARG:HG3	1:6:1227:A:C2	461.90	0.41
67:O1:6:ASP:HB2	67:O1:77:ARG:NH2	2.35	0.41
36:1:839:C:H2'	36:1:840:C:C6	2.56	0.41
45:L8:235:GLY:O	45:L8:237:ILE:HD13	4.69	0.41
34:SR:133:VAL:HB	34:SR:141:LEU:HB2	2.81	0.41
45:L8:129:PRO:HB3	36:5:121:A:C2	101.81	0.41
2:S0:165:ARG:HD3	2:S0:165:ARG:HA	1.79	0.41
2:S0:29:VAL:O	2:S0:30:GLN:HB3	3.92	0.41
46:L9:86:TYR:CD1	46:L9:151:VAL:HG13	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3161:C:H6	36:5:3161:C:O5'	2.04	0.41
1:2:1494:C:C2	1:2:1495:C:C5	3.09	0.41
36:5:1192:C:C5	86:5:4090:OHX:N4	2.89	0.41
24:D2:7:LEU:HD11	24:D2:37:PHE:CD2	3.28	0.41
24:D2:8:ALA:HA	24:D2:74:VAL:HG11	2.02	0.41
2:S0:157:ASP:O	2:S0:158:VAL:C	2.76	0.41
43:L6:175:LYS:O	43:L6:176:PHE:HB2	4.61	0.41
20:C8:28:ILE:HG22	20:C8:32:LEU:HD12	5.69	0.41
20:C8:54:LEU:C	20:C8:56:LYS:N	2.99	0.41
47:M0:24:ARG:O	47:M0:25:ALA:HB3	4.61	0.41
45:L8:161:GLU:OE1	51:M5:26:ARG:NH1	2.36	0.41
1:6:1714:A:C5	1:6:1715:G:C8	3.08	0.41
1:6:1716:C:O2'	1:6:1717:G:P	2.79	0.41
41:L4:84:ARG:HG2	36:5:364:G:O3'	123.59	0.41
36:1:398:A:H5'	53:M7:3:ARG:HD3	2.02	0.41
13:C1:54:ILE:CG2	13:C1:55:ASP:H	2.28	0.41
47:M0:53:VAL:O	47:M0:163:GLN:HB2	2.81	0.41
1:6:514:G:HO2'	1:6:515:A:H8	1.68	0.41
36:5:1816:A:H4'	36:5:1816:A:OP1	2.20	0.41
47:M0:206:LEU:HD22	37:7:64:A:O4'	342.95	0.41
34:SR:273:ASP:OD1	34:SR:275:ARG:NH1	2.54	0.41
8:S6:186:ARG:HD3	1:6:268:C:H41	342.31	0.41
45:L8:153:ILE:CD1	45:L8:166:LEU:HB3	2.70	0.41
41:L4:181:VAL:HG11	41:L4:224:GLY:HA3	2.60	0.41
1:2:45:U:C2	1:2:436:A:N6	2.89	0.41
63:N7:48:ARG:NH2	36:5:1631:C:OP2	192.80	0.41
1:2:851:U:H5''	55:M9:172:ARG:NH2	2.36	0.41
9:S7:118:LEU:N	1:6:639:U:OP1	366.31	0.41
14:C2:57:ALA:HB3	14:C2:85:LYS:HE2	2.01	0.41
70:O4:91:ARG:NE	36:5:2553:U:O2'	220.55	0.41
58:N2:33:TYR:OH	58:N2:80:THR:HG21	2.20	0.41
34:SR:13:LEU:HD13	34:SR:45:TRP:CD2	2.97	0.41
36:5:2101:C:O2'	36:5:2102:U:P	2.78	0.41
36:5:2101:C:H2'	36:5:2102:U:C6	2.56	0.41
1:2:868:G:C2	1:2:961:U:C2	3.09	0.41
36:1:250:U:C5'	36:1:251:G:H5''	2.51	0.41
5:S3:27:ARG:NE	12:C0:60:SER:HB2	2.36	0.41
36:1:655:C:H5''	68:O2:26:HIS:HB2	2.03	0.41
27:D5:47:TYR:CD2	27:D5:51:LEU:HD11	3.58	0.41
6:S4:196:VAL:HG12	6:S4:197:HIS:N	2.54	0.41
51:M5:27:VAL:HB	51:M5:122:ASN:HD21	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:191:U:H3	36:5:204:A:H61	1.69	0.41
64:N8:65:GLN:O	64:N8:66:ALA:HB2	2.20	0.41
34:SR:303:ALA:HB3	34:SR:313:TRP:HZ3	2.13	0.41
53:M7:36:ILE:HD13	53:M7:36:ILE:HG21	1.58	0.41
1:2:1401:A:O3'	19:C7:10:LYS:NZ	2.48	0.41
86:1:4047:OHX:N5	86:1:4156:OHX:N1	2.69	0.41
37:3:71:G:O2'	37:3:72:A:H5'	2.20	0.41
1:2:434:G:N7	86:2:2049:OHX:N4	2.69	0.41
36:5:735:A:H2'	36:5:736:A:C8	2.56	0.41
36:5:996:A:H2'	36:5:997:A:O4'	2.21	0.41
4:S2:148:LEU:CA	23:D1:4:ASP:HB2	2.51	0.41
1:2:66:U:H6	1:2:66:U:H2'	1.75	0.41
36:5:787:G:H2'	36:5:788:C:C6	2.56	0.41
5:S3:148:LYS:HZ2	5:S3:148:LYS:HB3	1.85	0.41
4:S2:97:ARG:HG2	4:S2:97:ARG:H	1.58	0.41
46:L9:20:ILE:HD13	46:L9:45:PHE:CD1	2.96	0.41
1:6:1529:C:H2'	1:6:1530:C:H6	1.84	0.41
36:5:3288:G:O2'	36:5:3289:G:P	2.79	0.41
46:L9:115:ARG:CZ	46:L9:123:ILE:HD13	2.50	0.41
25:D3:67:ALA:HB1	1:6:567:A:OP2	360.58	0.41
86:2:2063:OHX:N4	86:D9:102:OHX:N6	2.68	0.41
49:M3:166:ALA:HB3	64:N8:130:VAL:HG21	2.03	0.41
45:L8:78:PHE:CD2	45:L8:179:ILE:HD13	2.56	0.41
36:5:599:C:H2'	36:5:600:G:O4'	2.20	0.41
1:2:302:U:H2'	1:2:303:U:H5'	2.03	0.41
36:5:2653:C:H2'	36:5:2654:C:H5'	2.02	0.41
36:1:976:U:OP1	54:M8:144:ARG:NH2	2.46	0.41
12:C0:30:ALA:O	12:C0:38:LYS:HA	2.21	0.41
68:O2:11:LYS:HD3	68:O2:11:LYS:HA	1.89	0.41
6:S4:60:GLU:O	6:S4:64:ILE:HG13	2.21	0.41
8:S6:210:GLN:O	8:S6:213:ALA:N	2.54	0.41
49:M3:93:ILE:HG23	49:M3:93:ILE:HD12	1.79	0.41
62:N6:95:VAL:HA	62:N6:96:PRO:HD3	1.87	0.41
23:D1:17:CYS:HB3	23:D1:22:ARG:H	2.67	0.41
67:O1:41:LYS:O	67:O1:45:GLY:HA2	2.94	0.41
36:1:1075:A:C6	65:N9:45:HIS:CE1	3.09	0.41
1:2:386:G:O2'	1:2:387:A:H5'	2.21	0.41
1:6:16:G:H2'	1:6:17:C:C6	2.56	0.41
36:1:647:A:C2	36:1:2372:A:H2'	2.56	0.41
13:C1:111:VAL:HG13	13:C1:111:VAL:O	2.21	0.41
61:N5:93:TYR:CE2	38:8:131:A:H5"	105.94	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:679:U:H3'	1:6:679:U:C6	2.56	0.41
1:6:1105:C:H2'	1:6:1106:U:C6	2.56	0.41
36:5:2417:U:C2'	36:5:2418:G:H5'	2.50	0.41
45:L8:98:ARG:HA	45:L8:99:PRO:HD3	1.92	0.41
36:1:185:C:H2'	36:1:186:U:C6	2.55	0.41
64:N8:104:THR:HG1	64:N8:127:ALA:HA	2.58	0.41
2:S0:7:PHE:CZ	23:D1:43:GLY:HA2	2.56	0.41
1:6:539:G:P	1:6:539:G:C8	3.14	0.41
36:5:2727:A:OP2	36:5:2728:G:N2	2.49	0.41
36:5:2093:A:H3'	36:5:2093:A:N3	2.35	0.41
47:M0:38:LYS:HG2	47:M0:41:ALA:HB2	2.03	0.41
36:1:279:U:H2'	36:1:280:U:H6	1.86	0.41
36:1:3383:G:H2'	36:1:3384:U:C6	2.56	0.41
4:S2:126:ARG:NH2	5:S3:124:ARG:HH12	2.19	0.41
86:1:4123:OHX:N1	86:1:4158:OHX:N2	2.69	0.41
36:1:2656:A:C4	36:1:2658:G:N7	2.89	0.41
64:N8:13:GLY:HA2	36:5:943:U:H3'	163.22	0.41
8:S6:61:PHE:HA	8:S6:62:PRO:HD2	1.81	0.41
6:S4:136:VAL:HG21	6:S4:148:ARG:NH2	2.36	0.41
36:5:3013:U:H2'	36:5:3014:U:C6	2.55	0.41
65:N9:33:LYS:HD3	36:5:2721:A:O3'	204.73	0.41
8:S6:77:LEU:HB3	8:S6:81:VAL:HG11	2.02	0.41
78:Q2:28:TYR:HB3	78:Q2:69:VAL:HB	2.15	0.41
42:L5:11:ALA:O	42:L5:15:ARG:HG3	2.20	0.41
43:L6:150:LYS:C	43:L6:152:THR:H	3.01	0.41
36:1:1329:U:O2'	36:1:1330:A:C5'	2.69	0.41
7:S5:168:VAL:O	7:S5:171:ALA:HB3	2.32	0.41
70:O4:98:GLN:HG2	70:O4:101:VAL:HB	4.23	0.41
36:5:3284:G:OP1	86:5:4182:OHX:N3	2.54	0.41
15:C3:151:ASN:O	86:C3:201:OHX:N6	3.06	0.41
19:C7:66:VAL:O	19:C7:69:ILE:HG12	2.21	0.41
69:O3:10:LYS:O	69:O3:33:GLU:HB2	2.54	0.41
1:2:1509:C:H2'	1:2:1510:U:O4'	2.21	0.41
36:5:306:A:C2	36:5:2784:G:H1'	2.55	0.41
36:5:397:A:H5''	36:5:398:A:H5'	2.03	0.41
22:D0:77:LYS:HG2	22:D0:77:LYS:H	1.66	0.41
75:O9:30:ARG:HB2	75:O9:30:ARG:HE	1.62	0.41
44:L7:51:TYR:CD1	44:L7:186:HIS:CD2	3.09	0.41
1:6:1221:A:H2'	1:6:1222:C:C6	2.56	0.41
36:1:1168:U:OP1	44:L7:211:SER:O	2.39	0.41
36:5:2910:A:N6	86:5:3903:OHX:N4	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:N4:42:GLN:O	60:N4:43:ARG:HB2	2.54	0.41
1:2:889:U:H2'	1:2:890:C:O4'	2.21	0.41
44:L7:103:LEU:HA	44:L7:103:LEU:HD23	2.17	0.41
44:L7:234:GLU:HG2	44:L7:234:GLU:H	2.60	0.41
41:L4:270:SER:OG	41:L4:270:SER:O	2.59	0.41
36:1:2116:G:C2	36:1:3064:U:H5'	2.56	0.41
13:C1:112:SER:C	13:C1:114:ALA:H	2.24	0.41
36:1:1384:U:O2'	36:1:1385:C:H5'	2.21	0.41
36:1:3257:C:H2'	36:1:3258:U:O4'	2.20	0.41
1:6:1307:U:C5	1:6:1308:G:N7	2.89	0.41
45:L8:170:CYS:HB3	45:L8:175:VAL:O	2.21	0.41
36:1:2208:A:C6	86:1:4039:OHX:N2	2.85	0.41
36:1:2422:C:O5'	78:Q2:52:GLY:HA2	2.21	0.41
1:2:1207:C:N4	1:2:1456:C:H5	2.18	0.41
3:S1:38:PHE:CE1	3:S1:189:ILE:HD11	2.56	0.41
1:2:1798:U:C5	28:D6:38:ARG:NH2	2.89	0.41
36:5:1464:G:N2	36:5:1466:G:H3'	2.36	0.41
36:1:371:G:H4'	36:1:396:A:N1	2.36	0.41
36:5:1554:U:C2	36:5:1555:U:C5	3.09	0.41
39:L2:3:ARG:HB2	39:L2:207:VAL:HG12	3.21	0.41
86:5:4063:OHX:N4	86:5:4072:OHX:N1	2.68	0.41
1:2:1382:A:O2'	1:2:1383:G:H5"	2.20	0.41
43:L6:2:SER:HA	68:O2:81:ASP:OD1	2.65	0.41
15:C3:66:ILE:HG13	15:C3:67:THR:N	3.76	0.41
7:S5:163:SER:O	7:S5:167:ARG:HG3	2.21	0.41
1:6:1696:G:H21	1:6:1705:C:H5	1.68	0.41
64:N8:47:LYS:HE2	64:N8:48:TYR:CZ	2.56	0.41
8:S6:13:GLN:NE2	1:6:151:G:H21	312.10	0.41
44:L7:43:ILE:O	44:L7:47:ARG:HG3	2.20	0.41
49:M3:39:ARG:NH1	36:5:107:A:OP1	72.97	0.41
2:S0:96:THR:HA	2:S0:97:PRO:HD3	1.93	0.41
73:O7:28:HIS:ND1	73:O7:31:LYS:HG3	3.63	0.41
41:L4:145:ILE:HA	41:L4:146:PRO:HD3	2.70	0.41
14:C2:32:LEU:O	14:C2:34:THR:N	2.54	0.41
39:L2:114:SER:HB2	39:L2:169:ILE:HG12	3.74	0.41
24:D2:105:THR:OG1	24:D2:126:LEU:HG	2.20	0.41
24:D2:7:LEU:HD23	24:D2:7:LEU:HA	2.16	0.41
34:SR:61:PHE:HD1	34:SR:92:TRP:CE3	2.39	0.41
86:1:3880:OHX:N6	86:1:4135:OHX:N5	2.69	0.41
2:S0:51:GLY:HA3	19:C7:113:LEU:HD21	3.43	0.41
36:5:1615:C:H2'	36:5:1616:U:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:86:ILE:H	24:D2:86:ILE:HG13	1.58	0.41
1:2:18:C:C4	1:2:19:A:N7	2.89	0.41
67:O1:31:ARG:O	67:O1:35:GLU:HB2	2.57	0.41
36:5:1027:A:N7	36:5:1029:G:C2	2.89	0.41
1:2:491:C:N4	1:2:496:G:H1	2.15	0.41
36:5:1363:A:OP2	86:5:4199:OHX:N3	2.54	0.41
36:1:2767:U:H2'	36:1:2768:U:C6	2.56	0.41
86:5:4032:OHX:N1	86:5:4117:OHX:N4	2.69	0.41
1:6:1082:C:H2'	1:6:1083:G:O4'	2.20	0.41
61:N5:50:ALA:HB2	71:O5:79:ASP:HB2	5.08	0.41
22:D0:43:LYS:HD2	22:D0:43:LYS:HA	1.72	0.41
54:M8:23:ASN:C	54:M8:23:ASN:OD1	2.59	0.41
36:5:2997:G:C5	36:5:2998:U:C5	3.09	0.41
42:L5:260:PHE:HB2	42:L5:265:TYR:CZ	2.56	0.41
1:2:1555:A:P	17:C5:47:ARG:HH21	2.44	0.41
8:S6:131:LYS:HB2	60:N4:81:PRO:O	2.21	0.41
36:1:634:C:H5'	69:O3:21:ARG:O	2.21	0.41
1:2:1504:G:C6	1:2:1505:A:C6	3.08	0.41
15:C3:16:ILE:HD12	15:C3:16:ILE:HA	4.47	0.41
53:M7:10:ASN:HA	53:M7:11:PRO:HD2	1.89	0.41
39:L2:104:LEU:HD11	39:L2:113:VAL:HG21	2.02	0.41
6:S4:6:LYS:O	6:S4:7:LYS:HD2	3.61	0.41
36:1:1338:C:O2'	36:1:1339:C:H5'	2.20	0.41
43:L6:54:TYR:HA	43:L6:65:ILE:HD12	6.20	0.41
41:L4:74:ILE:HG22	41:L4:75:PRO:HD2	2.02	0.41
58:N2:51:GLY:C	58:N2:53:ALA:H	2.24	0.41
36:1:2190:U:C4	36:1:2191:U:C4	3.08	0.41
25:D3:114:LYS:HB3	25:D3:114:LYS:HE3	1.96	0.41
36:5:1270:A:C4	36:5:1271:A:C8	3.09	0.41
28:D6:12:LYS:HE2	28:D6:16:GLY:H	2.42	0.41
17:C5:114:HIS:ND1	17:C5:118:GLU:OE1	2.36	0.41
1:6:1017:U:C2	1:6:1018:U:C5	3.09	0.41
36:5:721:G:C2'	36:5:722:G:H5'	2.51	0.41
1:2:1022:C:H4'	1:2:1124:A:N6	2.36	0.41
36:1:143:G:OP2	86:1:3972:OHX:N1	2.53	0.41
36:1:2623:G:C5	36:1:2624:G:C5	3.09	0.41
1:6:1424:A:H2'	1:6:1425:A:O4'	2.21	0.41
40:L3:387:LEU:H	40:L3:387:LEU:HD12	1.85	0.41
36:5:421:G:O2'	36:5:422:A:H5''	2.21	0.41
44:L7:67:ARG:HH21	36:5:518:G:P	311.33	0.41
36:5:2278:C:C2	36:5:2307:G:N2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3027:A:H2'	36:5:3028:G:O4'	2.21	0.41
36:5:346:C:C2	36:5:348:A:N7	2.89	0.41
5:S3:166:ASP:O	5:S3:190:ARG:NH2	5.44	0.41
36:1:1840:U:OP2	86:1:3976:OHX:N5	2.54	0.41
36:5:3224:G:O6	86:5:3998:OHX:N6	2.53	0.41
1:6:1439:C:H2'	1:6:1440:C:C6	2.56	0.41
44:L7:168:ILE:O	44:L7:172:ASN:ND2	2.99	0.41
1:2:357:G:OP2	86:2:2061:OHX:N6	2.54	0.41
55:M9:130:ASN:O	55:M9:131:ALA:HB3	2.20	0.41
8:S6:178:LEU:O	8:S6:183:ARG:NH1	3.33	0.41
34:SR:319:ASN:ND2	34:SR:319:ASN:O	2.53	0.41
34:SR:144:LEU:HD12	34:SR:144:LEU:HA	1.96	0.41
1:6:991:G:N7	86:6:2174:OHX:N1	2.70	0.40
47:M0:47:PRO:HA	47:M0:171:TRP:NE1	2.36	0.40
36:5:3194:C:O2'	36:5:3195:U:H2'	2.21	0.40
36:1:45:A:OP2	51:M5:85:THR:HG21	2.21	0.40
1:2:992:A:O2'	1:2:1785:U:O2	2.37	0.40
36:1:3214:U:C4	50:M4:121:MET:HG3	2.56	0.40
40:L3:350:ALA:O	40:L3:351:LEU:HB2	2.22	0.40
51:M5:98:LEU:HD13	51:M5:98:LEU:HA	1.68	0.40
62:N6:43:TYR:CD1	62:N6:126:LEU:HA	2.56	0.40
11:S9:105:LEU:HA	11:S9:105:LEU:HD12	2.76	0.40
1:6:194:U:H2'	1:6:195:G:H4'	2.03	0.40
21:C9:28:LEU:HD13	21:C9:30:VAL:HG22	2.03	0.40
2:S0:167:LYS:HB3	2:S0:168:HIS:H	1.25	0.40
25:D3:79:ASN:ND2	25:D3:81:LYS:HG3	2.36	0.40
12:C0:12:HIS:HB3	12:C0:76:LEU:CD2	6.13	0.40
40:L3:78:VAL:HG22	40:L3:323:MET:HB2	3.48	0.40
7:S5:166:ARG:NH2	1:6:1163:A:O3'	347.24	0.40
52:M6:77:SER:O	52:M6:80:PHE:HB3	2.26	0.40
55:M9:7:GLN:N	55:M9:7:GLN:CD	3.04	0.40
49:M3:35:ARG:NH1	36:5:685:G:P	82.46	0.40
52:M6:12:LYS:O	56:N0:167:ARG:NH2	2.39	0.40
1:6:604:A:OP1	86:6:2154:OHX:N2	2.54	0.40
36:5:912:G:C2	36:5:914:A:C2	3.10	0.40
1:2:1466:G:O2'	1:2:1602:C:OP1	2.38	0.40
3:S1:119:THR:HB	3:S1:143:THR:CG2	2.51	0.40
2:S0:20:ALA:O	2:S0:21:ASN:HB2	2.21	0.40
20:C8:53:ASP:HB3	20:C8:56:LYS:HG3	2.03	0.40
1:2:1547:A:H5'	20:C8:112:ASP:OD2	2.21	0.40
1:6:486:G:N2	1:6:501:U:H3	2.18	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:90:PRO:HG2	55:M9:93:VAL:CG2	3.07	0.40
33:E1:98:VAL:HG13	33:E1:99:LYS:N	2.36	0.40
9:S7:83:LYS:HB2	9:S7:83:LYS:HE3	4.42	0.40
70:O4:96:GLU:O	70:O4:99:LYS:HB2	2.24	0.40
36:5:1650:G:H2'	36:5:1651:U:O4'	2.21	0.40
54:M8:49:LEU:HB3	54:M8:50:LYS:H	2.77	0.40
52:M6:73:PHE:CB	52:M6:78:ARG:HG2	4.69	0.40
64:N8:49:HIS:N	64:N8:50:PRO:HD3	2.92	0.40
1:2:1628:U:H2'	1:2:1629:G:H8	1.84	0.40
19:C7:10:LYS:HE2	1:6:1316:G:H4'	407.88	0.40
41:L4:337:GLU:HB3	41:L4:339:LEU:CD2	2.51	0.40
1:2:86:A:O2'	1:2:147:A:N3	2.40	0.40
27:D5:46:LYS:O	27:D5:49:ARG:HB2	2.21	0.40
1:6:1354:G:H3'	1:6:1355:C:C6	2.56	0.40
70:O4:57:LEU:HD12	70:O4:62:TYR:CD1	2.79	0.40
6:S4:244:ILE:HA	6:S4:244:ILE:HD12	3.10	0.40
36:1:2612:U:H2'	36:1:2613:U:O4'	2.21	0.40
21:C9:117:SER:HB2	21:C9:123:ARG:CB	2.51	0.40
1:2:301:A:C6	1:2:302:U:C4	3.10	0.40
36:1:699:A:OP1	49:M3:68:LYS:NZ	2.46	0.40
36:1:999:G:C6	36:1:1000:C:N4	2.89	0.40
1:2:858:G:OP1	9:S7:116:ARG:NH2	2.54	0.40
40:L3:166:ILE:HD13	40:L3:173:GLN:HG2	3.77	0.40
36:5:1692:U:C2'	36:5:1693:C:H5'	2.51	0.40
1:2:1143:A:O2'	1:2:1144:U:H5'	2.20	0.40
1:2:1320:U:O2	1:2:1322:A:H5'	2.21	0.40
41:L4:291:ASN:ND2	36:5:1349:G:O3'	177.28	0.40
39:L2:90:ALA:HB2	39:L2:101:VAL:HG13	2.03	0.40
36:5:1939:G:H8	36:5:1939:G:O5'	2.03	0.40
78:Q2:59:HIS:O	78:Q2:61:LYS:HG3	5.77	0.40
36:5:2765:C:H2'	36:5:2766:U:C6	2.56	0.40
2:S0:4:PRO:HG2	2:S0:7:PHE:HD1	2.76	0.40
1:6:539:G:P	1:6:539:G:H8	2.44	0.40
36:5:1108:U:H2'	36:5:1109:U:C6	2.57	0.40
43:L6:28:GLN:OE1	43:L6:57:HIS:CE1	5.33	0.40
37:7:11:A:O2'	37:7:13:A:H2'	2.21	0.40
22:D0:21:LYS:HE3	22:D0:120:SER:OG	2.20	0.40
70:O4:42:PRO:HB2	70:O4:51:LEU:CD2	2.52	0.40
36:5:2699:G:H2'	36:5:2700:G:O5'	2.21	0.40
59:N3:66:LYS:HD2	59:N3:69:LEU:HD22	2.35	0.40
76:Q0:95:VAL:N	76:Q0:122:ARG:O	2.48	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1236:A:H2'	1:6:1237:G:C8	2.56	0.40
36:5:164:A:N1	36:5:258:G:C6	2.89	0.40
36:5:1443:G:O6	86:5:4007:OHX:N5	2.54	0.40
36:1:247:C:H2'	36:1:248:U:C6	2.56	0.40
38:8:98:U:H5''	38:8:99:C:OP2	2.21	0.40
1:6:1376:C:O2'	1:6:1377:U:H5'	2.20	0.40
36:1:3139:A:OP2	40:L3:28:ARG:NH2	2.53	0.40
38:4:157:U:OP1	38:4:157:U:H4'	2.21	0.40
44:L7:147:LEU:HA	44:L7:147:LEU:HD23	1.86	0.40
36:1:893:C:H6	36:1:893:C:O5'	2.04	0.40
50:M4:42:LYS:HZ2	50:M4:42:LYS:HG2	2.79	0.40
36:5:3351:U:O2	36:5:3351:U:H3'	2.21	0.40
1:6:63:G:C6	1:6:64:U:C5	3.09	0.40
36:1:1003:A:C5	36:1:1004:U:C5	3.09	0.40
1:2:1272:U:H5''	1:2:1273:G:OP2	2.21	0.40
40:L3:296:THR:HG21	40:L3:357:LYS:C	3.45	0.40
36:5:3163:A:N6	36:5:3164:C:N4	2.69	0.40
36:1:1578:C:C5	36:1:1579:C:N4	2.88	0.40
8:S6:174:LYS:O	8:S6:175:ILE:C	2.90	0.40
6:S4:43:PRO:HA	6:S4:82:TYR:O	2.21	0.40
75:O9:10:LYS:HD3	36:5:1833:G:OP1	103.83	0.40
75:O9:50:ASN:O	75:O9:51:ILE:HB	2.22	0.40
4:S2:139:ILE:HD12	4:S2:191:ALA:HB1	2.13	0.40
62:N6:43:TYR:CZ	62:N6:109:LEU:HD12	2.55	0.40
36:5:2572:C:H1'	36:5:2573:G:O4'	2.21	0.40
36:5:3364:C:P	86:5:3944:OHX:N1	2.94	0.40
8:S6:63:MET:HE1	8:S6:106:LEU:HD13	2.01	0.40
9:S7:35:LYS:NZ	9:S7:36:ALA:H	2.16	0.40
1:6:686:C:H2'	1:6:687:G:C8	2.56	0.40
1:6:648:G:C4	1:6:687:G:N2	2.90	0.40
9:S7:96:ARG:NH1	9:S7:124:LYS:HB3	2.36	0.40
8:S6:164:LYS:O	8:S6:166:GLU:N	2.53	0.40
36:5:2263:C:C2'	36:5:2264:U:H5'	2.52	0.40
10:S8:165:LEU:HB3	10:S8:183:ILE:HD13	3.56	0.40
66:O0:95:ALA:CB	66:O0:101:LEU:HD21	4.57	0.40
7:S5:75:GLY:HA3	7:S5:77:TYR:CE1	2.56	0.40
36:1:1334:U:H1'	44:L7:208:SER:HB2	2.02	0.40
1:2:405:C:O2'	8:S6:92:ARG:O	2.35	0.40
69:O3:86:ARG:O	86:O3:202:OHX:N1	2.55	0.40
1:2:277:U:H6	1:2:279:G:N2	2.19	0.40
40:L3:77:THR:HG23	40:L3:327:CYS:HA	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:O2:105:ARG:HH21	68:O2:124:GLY:HA3	1.86	0.40
29:D7:36:LYS:O	29:D7:38:PRO:HD3	2.21	0.40
55:M9:20:ARG:O	55:M9:53:LYS:HE3	4.98	0.40
7:S5:25:LEU:HB2	18:C6:27:GLY:O	2.21	0.40
18:C6:30:LYS:HE2	18:C6:35:PRO:HD3	4.13	0.40
36:1:2257:C:H2'	36:1:2258:U:O4'	2.22	0.40
41:L4:269:SER:OG	41:L4:271:LYS:HG3	2.22	0.40
49:M3:59:ARG:HD3	49:M3:59:ARG:HH11	1.97	0.40
17:C5:86:VAL:HG22	17:C5:89:MET:HE2	7.17	0.40
6:S4:159:THR:HG22	6:S4:173:ILE:HB	2.04	0.40
9:S7:80:GLU:HG3	9:S7:84:LYS:HG3	2.03	0.40
36:1:410:U:O4	86:1:4051:OHX:N2	2.53	0.40
67:O1:31:ARG:HA	67:O1:31:ARG:HD3	1.66	0.40
41:L4:182:LEU:CD1	41:L4:223:PRO:HG2	2.49	0.40
36:5:1093:A:N3	36:5:1096:U:C2	2.89	0.40
36:1:2414:G:H2'	36:1:2415:C:O4'	2.21	0.40
36:5:2585:G:N3	36:5:2585:G:H2'	2.36	0.40
45:L8:52:TRP:CD1	45:L8:60:ARG:NH1	3.26	0.40
64:N8:75:LEU:HD12	64:N8:137:LYS:HD3	2.03	0.40
15:C3:2:GLY:O	15:C3:3:ARG:HB3	2.21	0.40
60:N4:14:TYR:HB3	60:N4:15:PRO:CD	2.51	0.40
79:Q3:84:ARG:O	79:Q3:88:GLU:HG3	2.21	0.40
49:M3:144:THR:HG21	71:O5:118:ILE:HG21	2.65	0.40
35:SM:102:THR:CG2	35:SM:105:LYS:HB2	2.51	0.40
36:1:2219:A:H2'	36:1:2220:A:C8	2.56	0.40
9:S7:162:ILE:HB	9:S7:169:PHE:HE2	1.85	0.40
9:S7:164:TYR:C	9:S7:166:LEU:H	2.24	0.40
1:2:1337:A:H5'	1:2:1338:C:OP2	2.21	0.40
25:D3:133:LEU:O	25:D3:137:LYS:HG2	2.22	0.40
21:C9:6:VAL:O	21:C9:8:ASP:N	2.54	0.40
39:L2:66:PRO:HB2	39:L2:67:TYR:CD2	2.60	0.40
36:1:2941:A:N7	40:L3:255:TRP:CE2	2.90	0.40
12:C0:38:LYS:O	12:C0:41:TYR:HB2	2.21	0.40
36:5:3254:G:C5	36:5:3255:U:C4	3.09	0.40
47:M0:213:PHE:N	47:M0:214:PRO:HD3	2.36	0.40
1:2:1683:C:O2'	1:2:1684:U:O5'	2.35	0.40
17:C5:100:LYS:HD3	1:6:1183:A:C4	364.61	0.40
36:1:2846:U:O4'	36:1:2846:U:O2	2.39	0.40
10:S8:151:LYS:HA	10:S8:151:LYS:HD2	3.92	0.40
21:C9:93:HIS:NE2	21:C9:95:ASP:OD1	3.09	0.40
36:1:168:U:H2'	36:1:169:U:H6	1.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2590:A:H5''	36:5:2591:A:OP2	2.21	0.40
36:1:2267:C:C2'	36:1:2268:U:H5'	2.51	0.40
42:L5:197:SER:OG	42:L5:202:GLY:HA3	2.21	0.40
34:SR:117:LYS:N	34:SR:117:LYS:HD2	2.37	0.40
1:2:526:A:C6	1:2:527:A:C5	3.09	0.40
64:N8:104:THR:OG1	64:N8:127:ALA:HA	3.08	0.40
1:6:539:G:H8	1:6:539:G:OP2	2.04	0.40
36:1:2714:G:H4'	36:1:2715:A:C5'	2.52	0.40
11:S9:28:LEU:HA	11:S9:28:LEU:HD23	2.63	0.40
36:5:3052:G:O6	86:5:4172:OHX:N3	2.54	0.40
36:1:1004:U:C4	36:1:1005:G:N7	2.89	0.40
36:1:861:C:H2'	36:1:862:U:C6	2.56	0.40
36:1:2402:A:OP2	86:1:4084:OHX:N6	2.55	0.40
36:1:80:G:H2'	36:1:81:C:H6	1.87	0.40
36:1:1317:A:O2'	36:1:1318:A:H3'	2.22	0.40
12:C0:14:TYR:CE1	12:C0:18:GLU:HG3	2.56	0.40
66:O0:29:SER:O	66:O0:33:SER:HB3	2.95	0.40
58:N2:58:GLU:OE2	58:N2:60:GLY:N	3.42	0.40
15:C3:76:LYS:HB3	15:C3:76:LYS:HE3	1.77	0.40
54:M8:135:GLN:CD	54:M8:135:GLN:H	2.38	0.40
4:S2:94:GLN:HG2	4:S2:95:ARG:N	4.50	0.40
36:5:871:U:H2'	36:5:872:U:C6	2.56	0.40
36:1:1846:C:OP1	36:1:1849:C:N4	2.38	0.40
72:O6:21:THR:HA	72:O6:22:PRO:HD2	1.92	0.40
24:D2:104:LEU:HB2	24:D2:125:ILE:HA	2.02	0.40
36:5:1559:A:H4'	36:5:1560:G:OP2	2.20	0.40
36:1:911:C:O2	36:1:917:A:N1	2.54	0.40
10:S8:96:LEU:HD13	10:S8:179:CYS:SG	2.61	0.40
44:L7:132:PRO:HA	44:L7:229:PHE:CE2	3.07	0.40
8:S6:63:MET:HE1	8:S6:106:LEU:HD11	2.03	0.40
9:S7:35:LYS:O	9:S7:37:GLU:N	2.43	0.40
16:C4:44:GLY:C	16:C4:46:MET:H	2.52	0.40
1:6:1203:A:C4	1:6:1556:A:C2	3.10	0.40
1:2:1498:G:O6	86:2:2032:OHX:N3	2.54	0.40
41:L4:358:THR:HG21	57:N1:147:VAL:HG12	2.03	0.40
3:S1:217:LEU:HD12	3:S1:217:LEU:HA	1.72	0.40
3:S1:61:LEU:HD23	3:S1:62:LYS:H	1.87	0.40
40:L3:17:LEU:HD11	40:L3:233:TRP:HH2	2.16	0.40
36:5:978:G:HO2'	36:5:979:U:P	2.43	0.40
2:S0:120:LEU:HD12	2:S0:121:VAL:N	2.35	0.40
41:L4:29:PRO:HG3	41:L4:279:HIS:CE1	3.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:30:SER:HA	24:D2:34:ILE:HD12	2.03	0.40
29:D7:61:THR:CG2	29:D7:62:ILE:H	2.35	0.40
86:5:4021:OHX:N2	86:5:4217:OHX:N5	2.70	0.40
45:L8:34:PHE:CE2	45:L8:42:PRO:HD3	3.31	0.40
31:D9:37:ASN:O	31:D9:38:ILE:HD13	2.22	0.40
20:C8:83:ALA:O	20:C8:86:LEU:HB2	2.22	0.40
1:2:72:A:N1	1:2:73:U:C4	2.89	0.40
35:SM:46:LYS:HD3	35:SM:46:LYS:HA	1.76	0.40
36:1:780:A:O4'	54:M8:162:ALA:HB2	2.22	0.40
2:S0:52:LYS:HB3	23:D1:82:VAL:HG22	2.02	0.40
47:M0:46:PHE:HB2	47:M0:139:ARG:HG3	2.03	0.40
1:2:755:A:O2'	1:2:756:A:P	2.79	0.40
74:O8:64:LYS:HA	74:O8:64:LYS:NZ	2.36	0.40
79:Q3:55:TRP:O	79:Q3:64:VAL:HG23	2.21	0.40
1:2:127:G:O6	8:S6:202:ARG:NH2	2.54	0.40
36:1:3166:C:H2'	36:1:3167:A:O4'	2.21	0.40
36:5:1627:U:H2'	36:5:1814:A:H62	1.87	0.40
36:1:1310:G:O6	86:1:4024:OHX:N1	2.54	0.40
63:N7:26:VAL:HG21	63:N7:96:VAL:HB	2.03	0.40
36:1:2946:A:C5'	36:1:2947:G:H5'	2.48	0.40
5:S3:67:ASN:O	5:S3:71:LEU:HB2	2.22	0.40
3:S1:113:MET:HE3	3:S1:142:PHE:HE2	5.58	0.40
39:L2:200:ARG:NH2	39:L2:202:VAL:HG12	2.37	0.40
34:SR:276:PRO:HG3	34:SR:313:TRP:CZ2	4.65	0.40
1:6:320:U:H2'	1:6:321:C:N1	2.36	0.40
36:1:1109:U:H2'	36:1:1110:U:O4'	2.21	0.40
69:O3:14:LEU:HD11	69:O3:31:LYS:CB	2.83	0.40
35:SM:131:ILE:C	35:SM:133:GLU:N	3.50	0.40
36:1:3198:U:O4	46:L9:26:LYS:HB2	2.21	0.40
31:D9:21:CYS:HA	31:D9:30:LEU:HD21	2.83	0.40
1:2:709:C:C4	1:2:710:U:H1'	2.55	0.40
1:2:1553:G:N2	1:2:1555:A:H3'	2.36	0.40
65:N9:56:ALA:C	65:N9:58:LYS:H	3.26	0.40
39:L2:103:PRO:HA	39:L2:163:ARG:HA	2.02	0.40
15:C3:17:PRO:HG3	1:6:959:U:O2	354.80	0.40
56:N0:53:LYS:C	56:N0:55:SER:N	3.20	0.40
86:5:4127:OHX:N3	86:5:4145:OHX:N5	2.69	0.40
36:1:2510:U:O2'	36:1:2511:A:OP2	2.35	0.40
13:C1:129:ARG:O	13:C1:131:ILE:HG12	2.21	0.40
36:1:1528:G:N3	36:1:1588:A:H2	2.20	0.40
37:3:36:C:O2	37:3:45:A:H1'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1339:C:H2'	36:1:1340:G:O4'	2.21	0.40
36:5:2147:A:O2'	36:5:2148:U:H5'	2.22	0.40
52:M6:3:VAL:HG13	52:M6:4:GLU:N	2.36	0.40
62:N6:2:ALA:N	36:5:213:A:OP1	81.77	0.40
36:1:1456:A:C8	67:O1:26:LYS:HE2	2.56	0.40
36:1:2296:A:C2	36:1:2918:G:N3	2.88	0.40
74:O8:41:THR:HG21	74:O8:62:ALA:CB	2.80	0.40
1:2:1348:A:H2'	1:2:1349:G:O4'	2.21	0.40
70:O4:31:ARG:HG2	70:O4:32:ALA:O	2.21	0.40
19:C7:60:ARG:NH1	1:6:1401:A:OP1	411.88	0.40
1:6:820:U:O2'	1:6:821:U:H5''	2.21	0.40
36:1:867:G:C6	36:1:868:C:C4	3.09	0.40
1:6:1398:U:H4'	1:6:1399:C:OP2	2.20	0.40
20:C8:49:LYS:NZ	20:C8:79:TYR:O	2.54	0.40
2:S0:103:THR:HA	2:S0:104:PRO:HD3	1.69	0.40
36:5:1441:G:OP1	86:5:4169:OHX:N5	2.55	0.40
36:5:34:A:C6	36:5:35:A:C6	3.09	0.40
1:6:625:C:H2'	1:6:626:U:C6	2.55	0.40
36:1:1146:C:H4'	36:1:1331:U:C5	2.57	0.40
41:L4:126:ILE:HG13	41:L4:238:LEU:HD13	2.15	0.40
36:5:1953:G:O6	36:5:2094:C:N4	2.54	0.40
63:N7:84:ARG:HA	66:O0:62:LEU:HD21	2.02	0.40
45:L8:172:LYS:HE3	45:L8:172:LYS:HB2	4.23	0.40
45:L8:43:LYS:HD3	45:L8:43:LYS:HA	1.81	0.40
61:N5:54:TYR:H	61:N5:54:TYR:HD1	2.41	0.40
68:O2:67:SER:HB3	68:O2:68:PRO:HD2	2.03	0.40
70:O4:73:SER:O	70:O4:74:ARG:O	2.39	0.40
1:6:1010:C:OP2	86:6:2174:OHX:N6	2.55	0.40
1:2:1795:U:O4	28:D6:9:GLY:HA2	2.22	0.40
39:L2:70:ARG:CZ	39:L2:72:ARG:HH21	6.95	0.40
1:6:90:C:H2'	1:6:91:G:O4'	2.21	0.40
34:SR:162:ALA:O	34:SR:164:ASP:N	4.45	0.40
36:1:1764:U:O5'	55:M9:43:LYS:HD3	2.22	0.40
5:S3:175:VAL:HG22	5:S3:177:MET:HG2	2.04	0.40
36:1:2108:C:H1'	36:1:3344:A:H8	1.82	0.40
36:5:2573:G:N7	86:5:4194:OHX:N6	2.70	0.40
9:S7:39:ARG:N	9:S7:40:PRO:HD2	2.36	0.40
21:C9:70:GLN:HA	21:C9:122:ARG:O	2.50	0.40
36:5:1152:G:OP2	36:5:1152:G:C8	2.74	0.40
36:5:1239:C:N4	36:5:1249:G:H1	2.06	0.40
9:S7:133:THR:HG21	9:S7:159:VAL:HA	3.45	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1471:U:H2'	36:1:1472:U:H6	1.86	0.40
4:S2:242:ILE:HA	4:S2:242:ILE:HD12	1.89	0.40
48:M1:61:ARG:O	48:M1:62:ASN:HB2	2.22	0.40
46:L9:143:GLU:O	46:L9:144:ILE:O	4.14	0.40
41:L4:145:ILE:HD11	41:L4:148:ILE:HG13	2.02	0.40
41:L4:152:VAL:HG21	41:L4:172:VAL:HG11	2.03	0.40
7:S5:30:PRO:HB2	7:S5:33:VAL:HB	2.03	0.40
1:6:72:A:H2'	1:6:73:U:C1'	2.51	0.40
39:L2:51:ASP:HB3	39:L2:54:ARG:HB3	2.04	0.40
49:M3:91:ARG:HA	49:M3:95:ILE:O	2.77	0.40
70:O4:2:ALA:O	70:O4:3:GLN:C	2.59	0.40
49:M3:168:ARG:CZ	49:M3:172:LEU:HD21	3.49	0.40
1:6:1716:C:HO2'	1:6:1717:G:C5'	2.34	0.40
1:6:985:G:C2	1:6:986:G:H1'	2.56	0.40
36:1:608:A:C4	43:L6:22:ARG:NH1	2.90	0.40
60:N4:6:ASP:HB3	60:N4:11:ALA:H	1.94	0.40
47:M0:52:LEU:HA	47:M0:52:LEU:HD23	1.87	0.40
38:8:38:U:H4'	38:8:39:G:OP2	2.22	0.40
1:2:850:A:C2	1:2:851:U:C2	3.10	0.40
36:1:6:A:C2	38:4:154:C:C2	3.10	0.40
5:S3:79:TYR:CE1	5:S3:84:ILE:HG12	2.57	0.40
36:5:2553:U:H2'	36:5:2553:U:O2	2.20	0.40
3:S1:120:LEU:HD23	3:S1:121:ILE:N	2.37	0.40
36:1:1019:G:O6	86:1:4054:OHX:N1	2.55	0.40
75:O9:23:LEU:O	75:O9:25:GLN:NE2	2.72	0.40
5:S3:37:VAL:HG12	5:S3:50:ILE:HA	2.42	0.40
36:1:178:U:H1'	36:1:241:G:N1	2.36	0.40
25:D3:142:LYS:HA	25:D3:143:PRO:HD3	1.75	0.40
71:O5:13:SER:O	71:O5:14:LYS:C	2.89	0.40
36:1:1556:C:H5''	36:1:2169:G:N2	2.36	0.40
36:1:994:G:N2	36:1:1053:A:H2'	2.36	0.40
4:S2:147:ASN:HB3	23:D1:4:ASP:N	2.37	0.40
39:L2:242:ARG:HG3	39:L2:243:THR:N	2.84	0.40
36:5:999:G:O2'	36:5:1000:C:H5'	2.22	0.40
34:SR:176:LYS:HB3	34:SR:195:HIS:O	2.22	0.40
9:S7:30:SER:CB	9:S7:34:LEU:HD12	2.85	0.40
44:L7:137:GLY:HA3	44:L7:233:GLU:O	2.45	0.40
9:S7:148:LYS:HE2	9:S7:148:LYS:HB2	3.24	0.40
1:6:426:G:N2	1:6:427:C:C2	2.89	0.40
1:6:1531:G:C6	1:6:1532:U:C4	3.10	0.40
56:N0:125:LYS:HG3	56:N0:126:VAL:N	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:D1:87:ARG:C	29:D7:11:THR:HG23	2.42	0.40
11:S9:143:ILE:HD13	1:6:767:U:H5	421.83	0.40
40:L3:361:THR:HG22	40:L3:371:GLN:HB3	2.39	0.40
1:2:799:A:H5''	6:S4:201:HIS:CD2	2.56	0.40
7:S5:70:VAL:HG11	18:C6:43:ILE:O	2.21	0.40
74:O8:66:ILE:HA	74:O8:69:LEU:HD23	2.03	0.40
52:M6:133:ARG:NE	36:5:1316:C:OP2	293.66	0.40
40:L3:130:PHE:CZ	36:5:3149:G:H4'	220.36	0.40
1:6:784:C:H2'	1:6:785:U:H6	1.87	0.40
44:L7:239:LEU:HD22	44:L7:243:MET:SD	2.61	0.40
1:6:180:A:H2'	1:6:181:A:O4'	2.21	0.40
36:1:1281:G:C2	36:1:1282:G:C8	3.10	0.40
34:SR:170:ILE:HG21	34:SR:211:ILE:HD11	2.07	0.40
48:M1:171:VAL:HG13	48:M1:172:LEU:N	2.36	0.40
70:O4:106:LYS:O	70:O4:110:GLU:HG3	2.22	0.40
36:5:3303:G:C2	36:5:3305:A:C4	3.10	0.40
36:1:962:A:N1	36:1:2814:G:O2'	2.38	0.40
50:M4:20:VAL:HG13	50:M4:68:LEU:O	2.26	0.40
65:N9:3:LYS:HE3	36:5:2618:G:O4'	227.77	0.40
18:C6:73:GLY:H	18:C6:76:SER:HB3	1.87	0.40
1:6:1182:U:H3	1:6:1185:U:H5''	1.85	0.40
41:L4:200:THR:HG23	41:L4:201:GLN:N	2.36	0.40
34:SR:34:LEU:HD12	34:SR:34:LEU:HA	1.89	0.40
44:L7:153:PHE:N	44:L7:153:PHE:CD2	3.00	0.40
42:L5:36:LEU:HD23	42:L5:36:LEU:HA	1.91	0.40
56:N0:80:ARG:HH11	57:N1:156:TYR:HA	1.87	0.40
36:1:2213:A:H2'	36:1:2214:A:C8	2.57	0.40
26:D4:19:ALA:HB3	26:D4:81:GLU:HG2	2.03	0.40
67:O1:9:THR:OG1	67:O1:76:SER:HB3	3.10	0.40
31:D9:43:PHE:O	31:D9:47:ALA:N	2.54	0.40
9:S7:154:LEU:HD11	9:S7:183:PHE:CD1	3.79	0.40
51:M5:96:ARG:HD3	36:5:31:C:H4'	124.47	0.40
36:1:1582:C:C6	36:1:1582:C:H3'	2.56	0.40
41:L4:188:ARG:NH2	41:L4:197:ARG:HB3	2.49	0.40
86:1:4076:OHX:N4	86:1:4146:OHX:N3	2.70	0.40
36:5:1234:G:H2'	36:5:1235:U:C5	2.57	0.40
62:N6:109:LEU:HB3	62:N6:115:ARG:NH1	2.37	0.40
62:N6:37:LYS:HA	62:N6:40:ARG:HB3	3.27	0.40
36:1:1278:A:HO2'	36:1:1279:C:H6	1.64	0.40
34:SR:134:TRP:HA	34:SR:139:GLN:O	2.21	0.40
21:C9:76:LEU:CD1	21:C9:105:LEU:HD11	3.46	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:70:THR:HB	22:D0:72:ASN:O	4.98	0.40
21:C9:126:GLU:HG2	21:C9:127:ASN:N	2.36	0.40
21:C9:30:VAL:HA	21:C9:31:PRO:HD2	1.91	0.40
15:C3:25:TRP:HE3	15:C3:25:TRP:O	2.17	0.40
10:S8:67:TRP:HA	10:S8:183:ILE:HG23	5.16	0.40
2:S0:84:ARG:HD2	2:S0:203:PHE:O	2.21	0.40
12:C0:21:VAL:HG21	12:C0:46:LEU:HD11	3.78	0.40
63:N7:67:LYS:HZ3	63:N7:67:LYS:HG3	2.56	0.40
44:L7:223:PHE:HA	44:L7:227:GLY:O	2.22	0.40
46:L9:68:LEU:HD23	46:L9:68:LEU:HA	1.96	0.40
9:S7:82:GLU:OE2	9:S7:89:HIS:HA	2.84	0.40
1:2:275:C:O2	1:2:276:C:N4	2.55	0.40
26:D4:33:ALA:O	1:6:532:U:O2'	433.67	0.40
34:SR:247:PRO:HG2	34:SR:248:ASN:ND2	2.37	0.40
1:6:359:A:OP1	86:6:2202:OHX:N2	2.55	0.40
51:M5:172:ARG:NH1	36:5:30:G:OP1	106.87	0.40
42:L5:211:LEU:HD23	42:L5:211:LEU:HA	1.76	0.40
55:M9:167:ARG:HA	55:M9:170:ARG:HB2	2.96	0.40
20:C8:57:ARG:HG2	20:C8:60:GLU:OE1	2.22	0.40
13:C1:21:ASN:HB3	13:C1:32:LYS:HD3	6.09	0.40
57:N1:129:LYS:HD2	36:5:1098:A:H5'	249.50	0.40
86:2:2096:OHX:N4	86:2:2109:OHX:N1	2.69	0.40
1:6:1688:U:H2'	1:6:1689:A:C8	2.57	0.40
39:L2:192:LYS:HB3	39:L2:193:ARG:CZ	2.51	0.40
6:S4:129:VAL:CG2	6:S4:139:VAL:HG12	3.69	0.40
63:N7:108:GLU:HG2	63:N7:108:GLU:H	1.45	0.40
36:5:172:G:H2'	36:5:173:G:H5'	2.03	0.40
41:L4:135:VAL:HA	41:L4:245:GLY:O	2.21	0.40
52:M6:98:ALA:HA	52:M6:101:ARG:NH1	2.49	0.40
36:1:726:G:C8	36:1:726:G:H5''	2.50	0.40
45:L8:45:ASN:OD1	61:N5:26:VAL:HA	2.22	0.40
12:C0:24:LYS:HB3	12:C0:24:LYS:HE2	1.81	0.40
1:2:1332:C:O5'	1:2:1332:C:H6	2.03	0.40
8:S6:108:VAL:HG22	1:6:154:G:H4'	303.05	0.40
53:M7:41:LEU:HD22	53:M7:45:GLN:CD	2.88	0.40
36:1:1744:G:O6	86:1:4090:OHX:N2	2.54	0.40
11:S9:77:ILE:HD13	11:S9:91:LYS:O	2.89	0.40
1:6:881:A:OP2	86:6:2111:OHX:N5	2.54	0.40
55:M9:12:ALA:HB1	55:M9:17:VAL:O	2.33	0.40
45:L8:49:TYR:O	36:5:2523:A:H2'	170.38	0.40
3:S1:83:LYS:HB2	3:S1:83:LYS:HE2	3.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:976:U:C4	36:5:977:C:C5	3.09	0.40
22:D0:66:SER:OG	22:D0:81:THR:HG22	4.08	0.40
23:D1:62:ARG:HH22	24:D2:20:THR:HB	2.57	0.40
41:L4:64:SER:N	41:L4:75:PRO:HA	2.35	0.40
36:1:352:A:N6	36:1:365:A:H5"	2.37	0.40
1:6:652:G:N2	1:6:683:C:N3	2.70	0.40
1:2:54:C:O2'	1:2:459:G:N7	2.43	0.40
48:M1:148:VAL:O	48:M1:153:LYS:HE2	2.21	0.40
28:D6:15:ARG:HD2	28:D6:18:VAL:HG12	2.04	0.40
36:5:2661:G:O2'	36:5:2662:G:H5'	2.21	0.40
1:6:20:G:H5'	1:6:571:G:C5	2.56	0.40
4:S2:82:ASN:HD22	4:S2:82:ASN:C	2.24	0.40
42:L5:206:GLN:O	42:L5:209:GLU:HB2	2.21	0.40
64:N8:127:ALA:O	64:N8:148:ILE:HG12	3.14	0.40
44:L7:239:LEU:O	44:L7:242:SER:N	2.67	0.40
1:6:645:C:H2'	1:6:646:C:C6	2.57	0.40
2:S0:101:ARG:NH2	2:S0:104:PRO:HD3	2.37	0.40
50:M4:131:VAL:HG13	52:M6:181:ALA:HB1	2.03	0.40
36:1:76:G:O2'	49:M3:100:ARG:NH1	2.52	0.40
34:SR:209:THR:O	34:SR:225:LEU:N	2.93	0.40
36:1:959:C:H5'	36:1:960:U:O5'	2.21	0.40
41:L4:13:GLY:N	41:L4:171:ALA:HB1	2.37	0.40
70:O4:86:LYS:O	70:O4:90:ILE:HG13	3.03	0.40
39:L2:59:ALA:HB2	39:L2:78:ALA:HB2	2.03	0.40
36:1:2270:A:H2'	36:1:2271:A:C8	2.56	0.40
23:D1:16:LYS:HD2	23:D1:21:ASN:O	3.50	0.40
36:1:1715:A:H4'	36:1:1716:U:OP1	2.21	0.40
49:M3:61:PRO:C	49:M3:62:THR:HG23	2.46	0.40
36:1:3181:C:H5"	36:1:3181:C:O2	2.22	0.40
1:6:425:A:H5'	1:6:425:A:H8	1.86	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)
1:2:1353:U:O2'	36:5:3165:A:OP1[2_546]	2.14	0.06

## 5.3 Torsion angles

### 5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	S0	204/251 (81%)	145 (71%)	36 (18%)	23 (11%)	0	2
2	s0	204/251 (81%)	151 (74%)	28 (14%)	25 (12%)	0	2
3	S1	212/254 (84%)	144 (68%)	40 (19%)	28 (13%)	0	1
3	s1	214/254 (84%)	169 (79%)	31 (14%)	14 (6%)	1	8
4	S2	215/253 (85%)	180 (84%)	23 (11%)	12 (6%)	2	13
4	s2	215/253 (85%)	183 (85%)	20 (9%)	12 (6%)	2	13
5	S3	221/239 (92%)	175 (79%)	32 (14%)	14 (6%)	2	9
5	s3	221/239 (92%)	182 (82%)	22 (10%)	17 (8%)	1	6
6	S4	258/260 (99%)	202 (78%)	36 (14%)	20 (8%)	1	6
6	s4	258/260 (99%)	211 (82%)	31 (12%)	16 (6%)	2	10
7	S5	204/224 (91%)	158 (78%)	25 (12%)	21 (10%)	1	3
7	s5	204/224 (91%)	152 (74%)	37 (18%)	15 (7%)	1	6
8	S6	224/236 (95%)	187 (84%)	28 (12%)	9 (4%)	4	21
8	s6	216/236 (92%)	180 (83%)	26 (12%)	10 (5%)	3	18
9	S7	182/189 (96%)	136 (75%)	28 (15%)	18 (10%)	1	3
9	s7	184/189 (97%)	133 (72%)	37 (20%)	14 (8%)	1	6
10	S8	184/200 (92%)	160 (87%)	16 (9%)	8 (4%)	3	19
10	s8	184/200 (92%)	157 (85%)	18 (10%)	9 (5%)	3	16
11	S9	183/196 (93%)	150 (82%)	25 (14%)	8 (4%)	3	18
11	s9	183/196 (93%)	143 (78%)	28 (15%)	12 (7%)	1	8
12	C0	94/105 (90%)	69 (73%)	16 (17%)	9 (10%)	1	3
12	c0	92/105 (88%)	67 (73%)	9 (10%)	16 (17%)	0	1
13	C1	153/155 (99%)	123 (80%)	19 (12%)	11 (7%)	1	7
13	c1	144/155 (93%)	121 (84%)	13 (9%)	10 (7%)	1	7
14	C2	122/142 (86%)	70 (57%)	28 (23%)	24 (20%)	0	0

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
14	c2	122/142 (86%)	73 (60%)	32 (26%)	17 (14%)	0	1
15	C3	148/150 (99%)	120 (81%)	22 (15%)	6 (4%)	3	20
15	c3	148/150 (99%)	117 (79%)	20 (14%)	11 (7%)	1	6
16	C4	125/136 (92%)	81 (65%)	28 (22%)	16 (13%)	0	1
16	c4	126/136 (93%)	99 (79%)	14 (11%)	13 (10%)	1	3
17	C5	122/141 (86%)	91 (75%)	18 (15%)	13 (11%)	0	2
17	c5	133/141 (94%)	95 (71%)	20 (15%)	18 (14%)	0	1
18	C6	139/142 (98%)	111 (80%)	14 (10%)	14 (10%)	1	3
18	c6	140/142 (99%)	115 (82%)	17 (12%)	8 (6%)	2	12
19	C7	116/136 (85%)	86 (74%)	18 (16%)	12 (10%)	1	3
19	c7	113/136 (83%)	86 (76%)	20 (18%)	7 (6%)	2	10
20	C8	143/145 (99%)	110 (77%)	20 (14%)	13 (9%)	1	4
20	c8	143/145 (99%)	112 (78%)	22 (15%)	9 (6%)	2	9
21	C9	141/143 (99%)	116 (82%)	17 (12%)	8 (6%)	2	12
21	c9	141/143 (99%)	120 (85%)	18 (13%)	3 (2%)	9	40
22	D0	105/120 (88%)	81 (77%)	16 (15%)	8 (8%)	1	6
22	d0	108/120 (90%)	80 (74%)	19 (18%)	9 (8%)	1	5
23	D1	85/87 (98%)	62 (73%)	15 (18%)	8 (9%)	1	4
23	d1	85/87 (98%)	68 (80%)	9 (11%)	8 (9%)	1	4
24	D2	127/129 (98%)	100 (79%)	23 (18%)	4 (3%)	5	28
24	d2	127/129 (98%)	112 (88%)	13 (10%)	2 (2%)	12	48
25	D3	142/144 (99%)	112 (79%)	17 (12%)	13 (9%)	1	4
25	d3	142/144 (99%)	121 (85%)	16 (11%)	5 (4%)	4	24
26	D4	132/134 (98%)	108 (82%)	17 (13%)	7 (5%)	2	14
26	d4	132/134 (98%)	104 (79%)	16 (12%)	12 (9%)	1	4
27	D5	68/107 (64%)	46 (68%)	13 (19%)	9 (13%)	0	1
27	d5	67/107 (63%)	52 (78%)	12 (18%)	3 (4%)	3	18
28	D6	95/97 (98%)	55 (58%)	24 (25%)	16 (17%)	0	1
28	d6	95/97 (98%)	73 (77%)	12 (13%)	10 (10%)	1	3
29	D7	79/81 (98%)	60 (76%)	14 (18%)	5 (6%)	2	9
29	d7	79/81 (98%)	63 (80%)	9 (11%)	7 (9%)	1	4

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
30	D8	61/66 (92%)	47 (77%)	12 (20%)	2 (3%)	5	26
30	d8	61/66 (92%)	44 (72%)	13 (21%)	4 (7%)	1	8
31	D9	51/55 (93%)	43 (84%)	5 (10%)	3 (6%)	2	11
31	d9	51/55 (93%)	37 (72%)	9 (18%)	5 (10%)	1	3
32	E0	58/60 (97%)	44 (76%)	11 (19%)	3 (5%)	2	15
33	E1	69/76 (91%)	30 (44%)	19 (28%)	20 (29%)	0	0
33	e1	74/76 (97%)	37 (50%)	16 (22%)	21 (28%)	0	0
34	SR	316/318 (99%)	263 (83%)	45 (14%)	8 (2%)	7	34
34	sR	316/318 (99%)	256 (81%)	48 (15%)	12 (4%)	4	22
35	SM	155/273 (57%)	103 (66%)	29 (19%)	23 (15%)	0	1
35	sM	98/273 (36%)	57 (58%)	28 (29%)	13 (13%)	0	1
39	L2	250/253 (99%)	222 (89%)	19 (8%)	9 (4%)	4	24
39	l2	250/253 (99%)	211 (84%)	29 (12%)	10 (4%)	4	21
40	L3	384/386 (100%)	339 (88%)	29 (8%)	16 (4%)	3	20
40	l3	384/386 (100%)	342 (89%)	29 (8%)	13 (3%)	5	25
41	L4	359/361 (99%)	301 (84%)	39 (11%)	19 (5%)	2	14
41	l4	359/361 (99%)	303 (84%)	36 (10%)	20 (6%)	2	13
42	L5	294/296 (99%)	235 (80%)	37 (13%)	22 (8%)	1	6
42	l5	292/296 (99%)	247 (85%)	34 (12%)	11 (4%)	4	22
43	L6	152/175 (87%)	137 (90%)	12 (8%)	3 (2%)	9	41
43	l6	153/175 (87%)	129 (84%)	20 (13%)	4 (3%)	7	33
44	L7	220/243 (90%)	192 (87%)	20 (9%)	8 (4%)	4	24
44	l7	221/243 (91%)	201 (91%)	14 (6%)	6 (3%)	6	32
45	L8	231/255 (91%)	188 (81%)	36 (16%)	7 (3%)	5	29
45	l8	229/255 (90%)	180 (79%)	33 (14%)	16 (7%)	1	7
46	L9	189/191 (99%)	164 (87%)	21 (11%)	4 (2%)	9	40
46	l9	189/191 (99%)	169 (89%)	16 (8%)	4 (2%)	9	40
47	M0	207/220 (94%)	174 (84%)	25 (12%)	8 (4%)	4	21
47	m0	209/220 (95%)	167 (80%)	26 (12%)	16 (8%)	1	6
48	M1	167/173 (96%)	130 (78%)	21 (13%)	16 (10%)	1	3
48	m1	167/173 (96%)	139 (83%)	17 (10%)	11 (7%)	1	8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
49	M3	191/198 (96%)	165 (86%)	17 (9%)	9 (5%)	3	17
49	m3	192/198 (97%)	152 (79%)	26 (14%)	14 (7%)	1	6
50	M4	134/137 (98%)	114 (85%)	10 (8%)	10 (8%)	1	6
50	m4	135/137 (98%)	122 (90%)	11 (8%)	2 (2%)	13	50
51	M5	201/203 (99%)	179 (89%)	17 (8%)	5 (2%)	7	34
51	m5	201/203 (99%)	180 (90%)	16 (8%)	5 (2%)	7	34
52	M6	195/198 (98%)	182 (93%)	10 (5%)	3 (2%)	13	50
52	m6	195/198 (98%)	172 (88%)	15 (8%)	8 (4%)	3	20
53	M7	181/183 (99%)	149 (82%)	21 (12%)	11 (6%)	2	11
53	m7	153/183 (84%)	133 (87%)	17 (11%)	3 (2%)	9	41
54	M8	183/185 (99%)	161 (88%)	16 (9%)	6 (3%)	5	26
54	m8	183/185 (99%)	148 (81%)	24 (13%)	11 (6%)	2	11
55	M9	186/188 (99%)	162 (87%)	21 (11%)	3 (2%)	12	48
55	m9	186/188 (99%)	156 (84%)	25 (13%)	5 (3%)	6	32
56	N0	170/172 (99%)	154 (91%)	14 (8%)	2 (1%)	16	56
56	n0	170/172 (99%)	153 (90%)	15 (9%)	2 (1%)	16	56
57	N1	157/159 (99%)	135 (86%)	13 (8%)	9 (6%)	2	12
57	n1	157/159 (99%)	140 (89%)	11 (7%)	6 (4%)	4	22
58	N2	98/120 (82%)	75 (76%)	18 (18%)	5 (5%)	2	15
58	n2	96/120 (80%)	77 (80%)	16 (17%)	3 (3%)	5	28
59	N3	134/136 (98%)	123 (92%)	9 (7%)	2 (2%)	13	50
59	n3	134/136 (98%)	124 (92%)	10 (8%)	0	100	100
60	N4	96/155 (62%)	72 (75%)	16 (17%)	8 (8%)	1	5
60	n4	133/155 (86%)	101 (76%)	21 (16%)	11 (8%)	1	5
61	N5	119/141 (84%)	100 (84%)	17 (14%)	2 (2%)	11	46
61	n5	118/141 (84%)	103 (87%)	7 (6%)	8 (7%)	1	7
62	N6	124/126 (98%)	114 (92%)	8 (6%)	2 (2%)	12	48
62	n6	124/126 (98%)	109 (88%)	12 (10%)	3 (2%)	7	35
63	N7	133/135 (98%)	102 (77%)	21 (16%)	10 (8%)	1	6
63	n7	133/135 (98%)	101 (76%)	20 (15%)	12 (9%)	1	4
64	N8	146/148 (99%)	121 (83%)	18 (12%)	7 (5%)	3	17

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
64	n8	146/148 (99%)	128 (88%)	14 (10%)	4 (3%)	6	32
65	N9	56/58 (97%)	43 (77%)	12 (21%)	1 (2%)	11	45
65	n9	56/58 (97%)	40 (71%)	9 (16%)	7 (12%)	0	1
66	O0	95/104 (91%)	88 (93%)	5 (5%)	2 (2%)	9	40
66	o0	98/104 (94%)	88 (90%)	8 (8%)	2 (2%)	9	41
67	O1	107/112 (96%)	95 (89%)	8 (8%)	4 (4%)	4	23
67	o1	107/112 (96%)	86 (80%)	14 (13%)	7 (6%)	1	8
68	O2	125/129 (97%)	113 (90%)	11 (9%)	1 (1%)	24	66
68	o2	125/129 (97%)	108 (86%)	12 (10%)	5 (4%)	4	21
69	O3	104/106 (98%)	95 (91%)	8 (8%)	1 (1%)	19	61
69	o3	104/106 (98%)	98 (94%)	4 (4%)	2 (2%)	10	43
70	O4	110/119 (92%)	100 (91%)	6 (6%)	4 (4%)	4	24
70	o4	110/119 (92%)	99 (90%)	7 (6%)	4 (4%)	4	24
71	O5	117/119 (98%)	108 (92%)	7 (6%)	2 (2%)	11	46
71	o5	117/119 (98%)	104 (89%)	7 (6%)	6 (5%)	2	15
72	O6	97/99 (98%)	79 (81%)	13 (13%)	5 (5%)	2	15
72	o6	97/99 (98%)	85 (88%)	10 (10%)	2 (2%)	9	40
73	O7	85/87 (98%)	71 (84%)	11 (13%)	3 (4%)	4	24
73	o7	85/87 (98%)	73 (86%)	10 (12%)	2 (2%)	7	35
74	O8	75/77 (97%)	62 (83%)	9 (12%)	4 (5%)	2	14
74	o8	75/77 (97%)	57 (76%)	15 (20%)	3 (4%)	4	21
75	O9	48/50 (96%)	42 (88%)	4 (8%)	2 (4%)	3	20
75	o9	48/50 (96%)	45 (94%)	2 (4%)	1 (2%)	9	40
76	Q0	50/52 (96%)	47 (94%)	1 (2%)	2 (4%)	4	21
76	q0	50/52 (96%)	46 (92%)	3 (6%)	1 (2%)	9	41
77	Q1	23/25 (92%)	20 (87%)	2 (9%)	1 (4%)	3	19
77	q1	23/25 (92%)	21 (91%)	2 (9%)	0	100	100
78	Q2	103/105 (98%)	84 (82%)	12 (12%)	7 (7%)	1	7
78	q2	103/105 (98%)	91 (88%)	12 (12%)	0	100	100
79	Q3	89/91 (98%)	74 (83%)	11 (12%)	4 (4%)	3	18
79	q3	89/91 (98%)	80 (90%)	7 (8%)	2 (2%)	8	38

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
80	e0	60/62 (97%)	46 (77%)	8 (13%)	6 (10%)	1	3
82	p0	139/311 (45%)	113 (81%)	22 (16%)	4 (3%)	6	29
All	All	22333/24141 (92%)	18316 (82%)	2723 (12%)	1294 (6%)	2	12

All (1294) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	S0	4	PRO
2	S0	5	ALA
2	S0	30	GLN
2	S0	39	ASN
2	S0	66	ALA
2	S0	95	ALA
2	S0	139	VAL
2	S0	158	VAL
2	S0	187	ALA
2	S0	191	ARG
3	S1	37	THR
3	S1	49	ASN
3	S1	63	GLY
3	S1	132	ASP
3	S1	148	ASN
3	S1	158	SER
3	S1	206	PRO
4	S2	107	SER
4	S2	236	PRO
5	S3	62	ASN
5	S3	93	ASP
5	S3	211	PRO
5	S3	220	PRO
6	S4	3	ARG
6	S4	96	ASN
6	S4	104	ASP
6	S4	142	HIS
6	S4	223	ASN
7	S5	35	GLN
7	S5	39	GLU
7	S5	43	PHE
7	S5	63	GLN
7	S5	148	ARG
7	S5	154	ALA

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Mol	Chain	Res	Type
9	S7	30	SER
9	S7	31	SER
9	S7	32	PRO
9	S7	64	VAL
9	S7	74	GLN
9	S7	85	PHE
9	S7	111	LYS
9	S7	112	ARG
9	S7	131	PHE
9	S7	133	THR
9	S7	134	GLU
9	S7	156	SER
10	S8	152	ILE
10	S8	153	GLU
10	S8	199	LYS
11	S9	134	ILE
12	C0	54	TYR
12	C0	88	PRO
13	C1	29	LYS
13	C1	96	LYS
13	C1	154	ALA
14	C2	55	GLY
14	C2	83	GLU
14	C2	89	ILE
14	C2	91	VAL
14	C2	93	ASP
14	C2	113	ARG
14	C2	130	THR
15	C3	22	ALA
15	C3	27	LYS
16	C4	42	VAL
16	C4	50	ALA
16	C4	92	LYS
16	C4	124	ASP
16	C4	125	SER
16	C4	126	THR
17	C5	22	LEU
17	C5	51	SER
17	C5	125	PRO
18	C6	29	ILE
18	C6	39	VAL
18	C6	41	PRO

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Mol	Chain	Res	Type
18	C6	58	ASP
18	C6	59	LYS
18	C6	113	ASP
19	C7	85	VAL
19	C7	86	PRO
19	C7	88	VAL
19	C7	96	SER
20	C8	8	GLN
20	C8	14	ILE
20	C8	61	LEU
20	C8	91	ASP
20	C8	92	ILE
20	C8	145	ARG
21	C9	31	PRO
21	C9	53	TRP
23	D1	2	GLU
23	D1	11	LEU
23	D1	82	VAL
24	D2	83	ILE
25	D3	40	SER
25	D3	41	SER
25	D3	78	LYS
25	D3	128	SER
25	D3	131	SER
25	D3	137	LYS
25	D3	144	ARG
26	D4	6	THR
26	D4	34	ASN
26	D4	36	SER
26	D4	60	PHE
27	D5	39	ALA
27	D5	43	ASP
27	D5	44	GLN
27	D5	71	ILE
27	D5	97	LYS
28	D6	45	VAL
28	D6	47	ALA
28	D6	84	VAL
28	D6	85	ARG
28	D6	86	VAL
29	D7	38	PRO
29	D7	62	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
31	D9	8	PHE
32	E0	47	VAL
33	E1	84	VAL
33	E1	102	VAL
33	E1	128	ALA
34	SR	51	ASP
34	SR	161	LYS
35	SM	17	VAL
35	SM	23	LYS
35	SM	52	PRO
35	SM	64	LYS
35	SM	102	THR
35	SM	140	ASP
35	SM	166	VAL
35	SM	167	PRO
39	L2	143	GLU
39	L2	250	GLN
40	L3	4	ARG
40	L3	5	LYS
40	L3	140	ASP
40	L3	142	ALA
40	L3	348	ARG
41	L4	4	PRO
41	L4	291	ASN
41	L4	317	PRO
41	L4	318	LEU
41	L4	338	LYS
41	L4	361	HIS
42	L5	107	ARG
42	L5	108	ARG
42	L5	125	VAL
42	L5	215	ASP
42	L5	233	ALA
42	L5	234	ASP
42	L5	258	LYS
43	L6	98	VAL
44	L7	24	GLU
44	L7	26	VAL
44	L7	216	VAL
45	L8	25	PRO
47	M0	142	ASP
48	M1	9	MET

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
48	M1	12	LEU
48	M1	94	ARG
48	M1	114	ILE
48	M1	165	GLN
49	M3	47	ALA
49	M3	129	ASN
50	M4	8	LYS
50	M4	9	ALA
50	M4	135	LEU
51	M5	74	PRO
52	M6	111	PRO
53	M7	157	VAL
54	M8	99	THR
56	N0	2	ALA
57	N1	122	GLN
57	N1	126	VAL
60	N4	64	THR
60	N4	81	PRO
60	N4	97	LYS
61	N5	105	VAL
62	N6	52	ARG
62	N6	84	LYS
63	N7	5	LEU
63	N7	30	ASP
63	N7	35	SER
63	N7	128	GLN
64	N8	76	ASP
64	N8	78	LEU
64	N8	96	LYS
67	O1	6	ASP
68	O2	127	ALA
70	O4	74	ARG
71	O5	119	LYS
72	O6	3	VAL
72	O6	33	ALA
75	O9	4	GLN
76	Q0	78	ILE
76	Q0	79	GLU
77	Q1	23	ARG
78	Q2	15	LYS
78	Q2	100	LYS
79	Q3	58	SER

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Mol	Chain	Res	Type
2	s0	8	ASP
2	s0	29	VAL
2	s0	30	GLN
2	s0	66	ALA
2	s0	115	PHE
2	s0	185	ARG
2	s0	189	VAL
2	s0	206	ASP
3	s1	106	THR
3	s1	147	ALA
3	s1	206	PRO
4	s2	83	ILE
4	s2	91	ARG
4	s2	92	ALA
4	s2	238	SER
5	s3	90	ARG
5	s3	115	ILE
5	s3	195	SER
5	s3	216	PRO
5	s3	217	ILE
5	s3	220	PRO
6	s4	163	ASP
6	s4	195	ILE
6	s4	196	VAL
6	s4	214	LEU
7	s5	28	PRO
7	s5	35	GLN
7	s5	36	ALA
7	s5	39	GLU
7	s5	184	PHE
8	s6	153	VAL
8	s6	173	PRO
9	s7	30	SER
9	s7	64	VAL
9	s7	74	GLN
9	s7	155	ASP
10	s8	199	LYS
11	s9	91	LYS
11	s9	147	MET
12	c0	2	LEU
12	c0	32	HIS
12	c0	83	PRO

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Mol	Chain	Res	Type
12	c0	88	PRO
12	c0	97	PRO
13	c1	3	THR
13	c1	121	ASP
13	c1	133	LYS
13	c1	144	ALA
14	c2	22	VAL
14	c2	131	ASP
15	c3	19	SER
15	c3	66	ILE
15	c3	87	ASP
15	c3	137	PRO
15	c3	139	TRP
15	c3	140	LYS
16	c4	90	ARG
17	c5	11	VAL
17	c5	51	SER
17	c5	52	LYS
17	c5	125	PRO
17	c5	126	VAL
17	c5	127	ARG
18	c6	42	GLU
19	c7	88	VAL
19	c7	99	VAL
19	c7	116	LYS
20	c8	18	LEU
20	c8	55	HIS
21	c9	29	GLU
22	d0	49	ASN
22	d0	51	VAL
22	d0	97	VAL
22	d0	118	VAL
23	d1	66	ASP
23	d1	67	ASP
25	d3	131	SER
25	d3	138	GLU
26	d4	30	PRO
26	d4	35	VAL
26	d4	52	LYS
27	d5	85	LYS
27	d5	104	ALA
28	d6	61	GLU

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Mol	Chain	Res	Type
29	d7	3	LEU
29	d7	62	ILE
29	d7	75	GLU
30	d8	61	ARG
31	d9	6	VAL
80	e0	51	ASN
80	e0	60	PRO
33	e1	83	LYS
33	e1	84	VAL
33	e1	87	THR
33	e1	98	VAL
33	e1	103	LEU
33	e1	106	TYR
33	e1	111	GLU
33	e1	136	LYS
34	sR	160	GLU
34	sR	161	LYS
34	sR	163	ASP
34	sR	165	ASP
34	sR	318	ALA
39	l2	194	ASN
40	l3	140	ASP
40	l3	142	ALA
40	l3	235	THR
40	l3	347	SER
41	l4	15	ALA
41	l4	24	ALA
41	l4	90	PHE
41	l4	272	VAL
41	l4	305	ALA
41	l4	329	PRO
41	l4	339	LEU
41	l4	345	GLU
43	l6	98	VAL
45	l8	25	PRO
45	l8	34	PHE
45	l8	112	GLU
45	l8	122	LYS
45	l8	203	VAL
45	l8	223	ALA
47	m0	25	ALA
47	m0	79	VAL

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Mol	Chain	Res	Type
47	m0	100	ASN
47	m0	101	LYS
47	m0	170	LYS
48	m1	8	PRO
48	m1	9	MET
48	m1	10	ARG
49	m3	47	ALA
49	m3	51	LEU
49	m3	93	ILE
49	m3	101	ARG
49	m3	133	PRO
49	m3	134	GLU
49	m3	141	ALA
49	m3	162	ASN
51	m5	184	LYS
52	m6	16	VAL
52	m6	110	PRO
54	m8	74	GLU
54	m8	99	THR
55	m9	100	ARG
56	n0	2	ALA
57	n1	122	GLN
57	n1	136	ARG
58	n2	91	ASP
60	n4	25	ASP
60	n4	95	SER
61	n5	38	LEU
61	n5	101	GLU
61	n5	102	LEU
62	n6	125	LYS
63	n7	105	SER
63	n7	125	GLY
63	n7	128	GLN
63	n7	129	TRP
64	n8	48	TYR
64	n8	76	ASP
65	n9	23	LYS
65	n9	39	PHE
67	o1	5	LYS
67	o1	45	GLY
67	o1	99	ALA
68	o2	5	PRO

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Mol	Chain	Res	Type
68	o2	6	HIS
68	o2	87	MET
69	o3	88	ASN
70	o4	79	SER
74	o8	18	ALA
74	o8	19	ASP
82	p0	93	LEU
2	S0	27	ARG
2	S0	36	TYR
2	S0	94	GLY
2	S0	185	ARG
2	S0	190	ASP
2	S0	195	TRP
3	S1	23	PRO
3	S1	35	PRO
3	S1	54	LEU
3	S1	58	SER
3	S1	93	GLY
3	S1	179	SER
3	S1	213	ARG
4	S2	91	ARG
4	S2	248	SER
5	S3	64	ARG
5	S3	65	ARG
5	S3	118	ALA
5	S3	216	PRO
6	S4	11	ARG
6	S4	12	LEU
6	S4	17	HIS
6	S4	86	PHE
6	S4	195	ILE
6	S4	204	GLY
7	S5	36	ALA
7	S5	58	LEU
7	S5	101	GLY
7	S5	150	GLY
7	S5	156	ARG
7	S5	206	SER
8	S6	25	ARG
8	S6	59	GLN
8	S6	70	PRO
8	S6	146	GLY

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Mol	Chain	Res	Type
8	S6	165	GLY
9	S7	155	ASP
10	S8	22	ARG
11	S9	15	PRO
11	S9	98	ALA
12	C0	11	ILE
12	C0	35	ILE
12	C0	60	SER
13	C1	55	ASP
13	C1	95	PRO
14	C2	21	GLU
14	C2	66	VAL
14	C2	127	GLY
14	C2	131	ASP
15	C3	3	ARG
15	C3	68	GLY
16	C4	51	ASP
16	C4	123	SER
17	C5	48	GLY
17	C5	101	ALA
18	C6	76	SER
18	C6	97	VAL
19	C7	59	LYS
19	C7	124	VAL
20	C8	144	ARG
21	C9	35	ASP
22	D0	44	ASN
23	D1	7	GLN
23	D1	10	GLU
23	D1	12	TYR
25	D3	3	LYS
25	D3	37	ALA
25	D3	112	LYS
25	D3	115	GLY
25	D3	138	GLU
26	D4	5	VAL
28	D6	46	GLU
28	D6	63	ALA
28	D6	82	ARG
29	D7	75	GLU
30	D8	36	THR
30	D8	61	ARG

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Mol	Chain	Res	Type
32	E0	51	ASN
33	E1	83	LYS
33	E1	89	LYS
33	E1	94	LYS
33	E1	98	VAL
33	E1	103	LEU
33	E1	127	GLY
33	E1	138	ARG
33	E1	146	SER
34	SR	50	ASP
35	SM	86	ASN
35	SM	88	ARG
35	SM	101	ASP
35	SM	139	GLU
35	SM	154	TYR
39	L2	104	LEU
39	L2	144	ASN
40	L3	113	GLU
40	L3	155	ALA
41	L4	15	ALA
41	L4	130	ALA
41	L4	146	PRO
41	L4	232	SER
41	L4	311	HIS
42	L5	57	ASN
42	L5	58	LYS
42	L5	137	ASP
42	L5	178	ASN
42	L5	239	ILE
42	L5	253	PHE
42	L5	259	LYS
42	L5	260	PHE
42	L5	295	GLY
44	L7	158	LYS
46	L9	96	HIS
47	M0	24	ARG
47	M0	194	GLY
47	M0	211	ARG
48	M1	24	GLY
48	M1	115	LYS
48	M1	167	TYR
48	M1	173	ASP

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Mol	Chain	Res	Type
50	M4	10	SER
50	M4	136	ALA
51	M5	75	VAL
51	M5	184	LYS
53	M7	75	GLU
53	M7	100	ALA
53	M7	162	GLU
53	M7	164	LYS
54	M8	4	ASP
55	M9	53	LYS
55	M9	128	LYS
57	N1	108	ARG
57	N1	120	LYS
57	N1	124	VAL
58	N2	11	ILE
60	N4	69	LYS
63	N7	3	LYS
64	N8	66	ALA
67	O1	7	VAL
70	O4	73	SER
70	O4	77	GLY
72	O6	34	SER
72	O6	64	SER
73	O7	86	ALA
74	O8	11	PHE
74	O8	33	LYS
75	O9	3	ALA
78	Q2	94	GLY
2	s0	10	THR
2	s0	44	GLY
2	s0	68	PRO
2	s0	111	ILE
2	s0	183	ARG
2	s0	191	ARG
3	s1	39	GLU
3	s1	82	ARG
3	s1	93	GLY
3	s1	94	LYS
3	s1	105	PHE
3	s1	233	GLY
4	s2	107	SER
4	s2	163	GLY

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Mol	Chain	Res	Type
6	s4	12	LEU
6	s4	66	MET
6	s4	104	ASP
6	s4	164	LEU
6	s4	245	LYS
7	s5	37	GLN
7	s5	43	PHE
7	s5	151	GLY
7	s5	209	TYR
8	s6	25	ARG
8	s6	68	LEU
8	s6	154	ARG
9	s7	159	VAL
9	s7	185	ILE
10	s8	62	THR
10	s8	101	ILE
10	s8	122	GLY
10	s8	150	ALA
11	s9	118	LEU
11	s9	134	ILE
12	c0	31	LYS
12	c0	82	LEU
12	c0	92	ILE
13	c1	55	ASP
13	c1	128	CYS
14	c2	45	LEU
14	c2	89	ILE
14	c2	101	ALA
14	c2	115	VAL
15	c3	108	ASP
16	c4	35	GLY
16	c4	48	VAL
16	c4	50	ALA
16	c4	51	ASP
16	c4	79	VAL
16	c4	131	GLY
16	c4	132	ARG
17	c5	8	LYS
17	c5	71	GLU
17	c5	132	GLY
18	c6	39	VAL
18	c6	113	ASP

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Mol	Chain	Res	Type
19	c7	104	ASN
19	c7	105	GLN
19	c7	113	LEU
19	c7	120	SER
20	c8	9	GLY
20	c8	135	GLY
21	c9	33	TYR
22	d0	15	GLN
23	d1	44	ARG
23	d1	64	GLU
24	d2	68	ARG
26	d4	32	ARG
26	d4	53	ASP
26	d4	58	PHE
26	d4	77	ASN
26	d4	123	LYS
28	d6	34	LYS
28	d6	62	TYR
29	d7	26	GLN
29	d7	59	CYS
30	d8	32	PHE
30	d8	57	MET
31	d9	7	TRP
33	e1	79	LYS
33	e1	81	LYS
33	e1	92	LYS
33	e1	100	LEU
33	e1	102	VAL
33	e1	127	GLY
33	e1	128	ALA
34	sR	4	ASN
35	sM	64	LYS
39	l2	115	ASN
39	l2	213	GLY
39	l2	215	ASN
39	l2	249	SER
40	l3	333	LYS
41	l4	233	LEU
41	l4	302	ALA
41	l4	311	HIS
42	l5	119	TYR
42	l5	124	GLU

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Mol	Chain	Res	Type
42	l5	260	PHE
42	l5	270	LYS
42	l5	279	LYS
44	l7	157	ASN
44	l7	158	LYS
45	l8	117	ALA
45	l8	121	SER
45	l8	188	THR
45	l8	196	ALA
45	l8	237	ILE
46	l9	144	ILE
46	l9	190	ASP
47	m0	3	ARG
47	m0	82	ARG
47	m0	204	GLY
47	m0	207	GLU
48	m1	15	GLU
48	m1	108	GLU
48	m1	111	ASP
49	m3	152	THR
49	m3	163	GLY
50	m4	135	LEU
50	m4	136	ALA
51	m5	183	THR
51	m5	187	ARG
52	m6	122	GLN
52	m6	176	LYS
52	m6	186	ALA
53	m7	75	GLU
57	n1	16	GLN
60	n4	63	ILE
60	n4	71	ARG
60	n4	76	VAL
60	n4	83	THR
61	n5	25	LYS
61	n5	39	LYS
61	n5	47	ALA
62	n6	83	ASP
62	n6	84	LYS
63	n7	16	GLY
63	n7	56	LYS
63	n7	104	PRO

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Mol	Chain	Res	Type
64	n8	47	LYS
65	n9	21	ILE
65	n9	25	LYS
66	o0	10	ILE
67	o1	40	ALA
68	o2	17	PHE
71	o5	40	SER
71	o5	79	ASP
71	o5	119	LYS
73	o7	85	LYS
3	S1	62	LYS
3	S1	129	THR
3	S1	207	LEU
3	S1	221	PRO
4	S2	147	ASN
4	S2	150	GLN
6	S4	26	CYS
6	S4	77	ARG
6	S4	79	ASP
6	S4	164	LEU
6	S4	222	LEU
6	S4	242	LYS
6	S4	245	LYS
7	S5	64	VAL
7	S5	100	ASN
9	S7	29	ASN
9	S7	84	LYS
9	S7	98	ILE
10	S8	105	ASP
10	S8	120	THR
10	S8	154	SER
11	S9	118	LEU
11	S9	120	LYS
12	C0	61	TRP
12	C0	86	ILE
12	C0	94	GLU
13	C1	30	ARG
14	C2	22	VAL
14	C2	87	PRO
14	C2	107	ASP
14	C2	115	VAL
14	C2	117	GLY

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Mol	Chain	Res	Type
14	C2	125	ASN
14	C2	128	ALA
15	C3	28	LEU
15	C3	31	GLU
16	C4	86	THR
16	C4	109	GLY
17	C5	17	TYR
17	C5	52	LYS
17	C5	69	GLU
18	C6	42	GLU
19	C7	3	ARG
19	C7	72	LYS
19	C7	84	TYR
19	C7	87	GLU
20	C8	7	GLU
20	C8	142	GLY
21	C9	69	LYS
22	D0	17	GLN
22	D0	21	LYS
22	D0	31	VAL
23	D1	81	ASN
24	D2	66	ASN
26	D4	53	ASP
28	D6	97	PRO
29	D7	63	LEU
31	D9	37	ASN
32	E0	33	ARG
33	E1	85	TYR
33	E1	106	TYR
33	E1	111	GLU
33	E1	145	HIS
34	SR	194	GLY
35	SM	18	VAL
35	SM	65	THR
35	SM	87	THR
35	SM	89	ARG
35	SM	173	GLU
35	SM	174	LEU
39	L2	14	SER
39	L2	47	GLN
40	L3	3	HIS
40	L3	187	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
40	L3	299	ASP
40	L3	300	ARG
40	L3	385	LYS
42	L5	7	ALA
42	L5	124	GLU
42	L5	188	GLU
42	L5	292	ALA
44	L7	159	GLN
44	L7	164	SER
45	L8	156	ASP
46	L9	2	LYS
48	M1	8	PRO
48	M1	95	ASN
48	M1	108	GLU
48	M1	166	LYS
49	M3	128	ARG
49	M3	165	SER
50	M4	6	ILE
50	M4	29	ALA
52	M6	16	VAL
53	M7	40	GLU
53	M7	160	ALA
54	M8	98	LYS
55	M9	55	VAL
57	N1	121	ALA
57	N1	159	PHE
58	N2	91	ASP
59	N3	42	SER
60	N4	86	SER
63	N7	16	GLY
63	N7	36	HIS
63	N7	102	GLU
63	N7	124	ALA
64	N8	27	LYS
73	O7	68	LYS
73	O7	85	LYS
78	Q2	35	LEU
78	Q2	96	GLU
2	s0	95	ALA
2	s0	184	LEU
3	s1	22	ASP
3	s1	26	ARG

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Mol	Chain	Res	Type
3	s1	81	PHE
4	s2	47	ALA
5	s3	45	LYS
5	s3	61	GLU
5	s3	93	ASP
6	s4	80	THR
6	s4	90	ILE
6	s4	95	THR
7	s5	33	VAL
7	s5	100	ASN
8	s6	69	LEU
8	s6	149	LYS
8	s6	152	ASP
8	s6	217	SER
9	s7	5	GLN
9	s7	131	PHE
10	s8	27	PHE
11	s9	162	SER
11	s9	164	PHE
11	s9	167	ALA
12	c0	24	LYS
12	c0	94	GLU
13	c1	95	PRO
14	c2	103	LEU
14	c2	108	ARG
14	c2	111	ASN
14	c2	130	THR
15	c3	3	ARG
16	c4	11	SER
16	c4	12	GLN
17	c5	7	ALA
17	c5	117	GLY
17	c5	135	THR
20	c8	14	ILE
20	c8	23	ASP
20	c8	61	LEU
21	c9	28	LEU
22	d0	17	GLN
22	d0	52	LYS
22	d0	96	PRO
22	d0	119	ALA
23	d1	42	GLU

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Mol	Chain	Res	Type
26	d4	3	ASP
27	d5	53	GLU
28	d6	8	ASN
28	d6	13	LYS
28	d6	82	ARG
29	d7	20	LYS
31	d9	17	GLY
80	e0	54	ARG
80	e0	61	SER
33	e1	85	TYR
34	sR	186	PHE
34	sR	206	PRO
35	sM	41	SER
35	sM	42	ALA
35	sM	46	LYS
35	sM	47	ALA
35	sM	48	ARG
35	sM	50	ASN
39	l2	56	ALA
40	l3	3	HIS
40	l3	23	ALA
41	l4	146	PRO
41	l4	338	LYS
41	l4	346	LYS
42	l5	168	ASP
42	l5	178	ASN
42	l5	215	ASP
43	l6	10	TYR
43	l6	20	LYS
43	l6	171	PRO
44	l7	129	LEU
45	l8	26	LEU
45	l8	39	ALA
45	l8	69	LEU
45	l8	133	LYS
47	m0	78	THR
47	m0	102	MET
47	m0	117	GLY
47	m0	214	PRO
48	m1	7	ASN
49	m3	135	ALA
52	m6	177	LYS

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Mol	Chain	Res	Type
53	m7	109	ALA
54	m8	21	SER
54	m8	98	LYS
54	m8	113	LYS
55	m9	35	ALA
57	n1	135	PRO
58	n2	50	LEU
60	n4	64	THR
61	n5	24	LEU
61	n5	48	SER
63	n7	103	GLN
65	n9	52	LYS
66	o0	46	ALA
67	o1	84	ASP
70	o4	51	LEU
70	o4	83	ASN
71	o5	99	GLN
72	o6	33	ALA
72	o6	64	SER
2	S0	64	ILE
2	S0	103	THR
2	S0	192	THR
2	S0	203	PHE
3	S1	36	SER
3	S1	55	LYS
3	S1	79	HIS
3	S1	82	ARG
3	S1	111	ARG
3	S1	131	ASP
4	S2	92	ALA
4	S2	145	GLY
5	S3	59	LEU
5	S3	117	ARG
5	S3	217	ILE
5	S3	218	LEU
7	S5	26	ALA
7	S5	204	GLY
8	S6	20	ASP
8	S6	152	ASP
11	S9	121	SER
11	S9	147	MET
13	C1	3	THR

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Mol	Chain	Res	Type
14	C2	25	GLU
14	C2	53	THR
14	C2	68	GLU
14	C2	90	LYS
14	C2	106	ILE
16	C4	18	ARG
17	C5	56	PHE
18	C6	14	LYS
18	C6	74	HIS
19	C7	115	LEU
21	C9	28	LEU
21	C9	39	THR
21	C9	50	ALA
23	D1	44	ARG
26	D4	83	LYS
27	D5	38	HIS
27	D5	41	ILE
27	D5	69	LEU
28	D6	14	GLY
28	D6	62	TYR
28	D6	64	LEU
28	D6	91	ASP
33	E1	87	THR
33	E1	100	LEU
33	E1	118	ARG
34	SR	237	GLN
35	SM	12	VAL
35	SM	172	VAL
40	L3	302	LYS
41	L4	272	VAL
41	L4	292	SER
41	L4	320	ASN
42	L5	6	ASP
43	L6	147	ALA
45	L8	36	ILE
45	L8	76	ALA
45	L8	114	ALA
45	L8	157	VAL
46	L9	110	LYS
47	M0	187	ALA
47	M0	220	GLN
48	M1	65	ILE

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Mol	Chain	Res	Type
48	M1	117	ASP
49	M3	76	THR
49	M3	136	GLU
50	M4	95	ALA
53	M7	163	LYS
53	M7	179	GLN
54	M8	162	ALA
54	M8	170	ARG
56	N0	167	ARG
59	N3	112	SER
60	N4	77	LYS
61	N5	25	LYS
63	N7	103	GLN
66	O0	64	LYS
67	O1	82	GLU
67	O1	83	GLU
69	O3	14	LEU
70	O4	82	ALA
71	O5	75	TYR
79	Q3	91	GLU
2	s0	4	PRO
2	s0	92	HIS
2	s0	103	THR
2	s0	158	VAL
2	s0	164	ASN
3	s1	61	LEU
4	s2	235	LEU
5	s3	144	ALA
5	s3	203	PRO
7	s5	102	ARG
9	s7	111	LYS
9	s7	112	ARG
9	s7	133	THR
9	s7	156	SER
9	s7	160	GLN
10	s8	148	ALA
11	s9	150	LEU
12	c0	3	MET
12	c0	23	ALA
12	c0	30	ALA
12	c0	35	ILE
14	c2	90	LYS

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Mol	Chain	Res	Type
14	c2	106	ILE
14	c2	119	SER
16	c4	37	GLU
17	c5	6	ASN
17	c5	13	LYS
17	c5	136	SER
18	c6	97	VAL
18	c6	142	TYR
20	c8	60	GLU
23	d1	10	GLU
23	d1	46	ILE
24	d2	18	GLU
25	d3	70	LYS
25	d3	101	GLU
26	d4	50	ALA
29	d7	61	THR
30	d8	33	LEU
31	d9	5	ASN
33	e1	148	TYR
34	sR	146	GLY
34	sR	281	TYR
34	sR	317	THR
35	sM	43	ASP
35	sM	65	THR
35	sM	171	LYS
39	l2	70	ARG
40	l3	155	ALA
40	l3	386	ASP
41	l4	174	ALA
41	l4	317	PRO
42	l5	44	TYR
42	l5	125	VAL
44	l7	191	VAL
46	l9	110	LYS
46	l9	167	VAL
48	m1	116	TYR
48	m1	117	ASP
48	m1	167	TYR
49	m3	60	ALA
51	m5	76	PRO
52	m6	111	PRO
54	m8	41	ASP

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Mol	Chain	Res	Type
54	m8	49	LEU
54	m8	77	ALA
54	m8	91	ALA
55	m9	97	ARG
55	m9	99	LEU
56	n0	51	VAL
57	n1	127	GLN
60	n4	130	SER
63	n7	55	LYS
64	n8	17	ALA
65	n9	22	LYS
67	o1	41	LYS
71	o5	14	LYS
71	o5	74	LYS
75	o9	44	TRP
76	q0	78	ILE
79	q3	51	ALA
82	p0	33	VAL
2	S0	38	PHE
2	S0	189	VAL
3	S1	209	ASN
3	S1	223	PHE
4	S2	148	LEU
4	S2	235	LEU
5	S3	81	PRO
6	S4	258	GLN
7	S5	51	VAL
7	S5	109	LYS
8	S6	69	LEU
10	S8	10	LYS
11	S9	174	ARG
12	C0	30	ALA
14	C2	119	SER
16	C4	25	ASP
16	C4	105	LEU
17	C5	29	SER
17	C5	126	VAL
18	C6	45	ARG
19	C7	6	THR
20	C8	10	SER
20	C8	60	GLU
21	C9	7	ARG

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Mol	Chain	Res	Type
24	D2	112	ASP
27	D5	88	ILE
28	D6	36	ILE
31	D9	25	SER
33	E1	86	THR
33	E1	112	GLY
34	SR	163	ASP
34	SR	255	ALA
35	SM	111	GLY
35	SM	169	ALA
39	L2	32	LEU
39	L2	142	ASP
39	L2	251	LYS
40	L3	317	ILE
40	L3	386	ASP
41	L4	16	THR
41	L4	233	LEU
43	L6	97	ASN
46	L9	120	ASP
47	M0	41	ALA
47	M0	117	GLY
48	M1	74	PRO
49	M3	153	ASP
49	M3	193	ALA
50	M4	28	SER
50	M4	71	ALA
51	M5	145	ASP
53	M7	159	LYS
54	M8	147	ARG
57	N1	18	ASP
57	N1	107	GLU
58	N2	51	GLY
60	N4	18	GLY
64	N8	47	LYS
66	O0	20	SER
72	O6	21	THR
78	Q2	17	CYS
2	s0	109	ASN
3	s1	129	THR
4	s2	85	PRO
4	s2	150	GLN
4	s2	152	HIS

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Mol	Chain	Res	Type
5	s3	43	PRO
5	s3	44	THR
5	s3	64	ARG
5	s3	178	ARG
5	s3	196	ARG
6	s4	30	ARG
7	s5	29	ILE
7	s5	42	LEU
7	s5	71	ALA
10	s8	78	ILE
10	s8	136	SER
11	s9	121	SER
11	s9	165	GLY
11	s9	183	ALA
12	c0	95	ARG
13	c1	7	VAL
13	c1	129	ARG
14	c2	58	LEU
15	c3	29	SER
16	c4	92	LYS
16	c4	114	ARG
17	c5	68	PRO
17	c5	130	ARG
18	c6	4	VAL
18	c6	106	LYS
20	c8	75	ASN
26	d4	33	ALA
28	d6	47	ALA
28	d6	58	VAL
31	d9	11	PRO
33	e1	118	ARG
33	e1	131	PHE
34	sR	239	GLU
35	sM	36	ASP
35	sM	132	ALA
39	l2	96	LEU
40	l3	187	SER
40	l3	247	ARG
41	l4	4	PRO
41	l4	328	ASN
41	l4	331	ALA
44	l7	178	ILE

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Mol	Chain	Res	Type
47	m0	219	ALA
49	m3	150	PRO
52	m6	68	ARG
54	m8	112	ALA
55	m9	137	ALA
60	n4	72	SER
60	n4	96	LEU
63	n7	102	GLU
73	o7	84	SER
82	p0	198	PRO
3	S1	48	VAL
4	S2	39	THR
4	S2	108	ASN
5	S3	212	LYS
7	S5	21	THR
13	C1	4	GLU
13	C1	113	PRO
13	C1	145	ALA
16	C4	79	VAL
16	C4	108	SER
18	C6	40	GLU
20	C8	134	ARG
25	D3	97	ASP
29	D7	51	GLN
41	L4	5	GLN
41	L4	14	GLU
42	L5	221	GLU
44	L7	178	ILE
45	L8	39	ALA
51	M5	94	TYR
58	N2	87	ASN
79	Q3	60	CYS
2	s0	157	ASP
4	s2	196	VAL
6	s4	168	LYS
6	s4	260	GLY
13	c1	96	LYS
14	c2	82	PRO
17	c5	128	HIS
26	d4	36	SER
28	d6	59	TYR
33	e1	99	LYS

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Mol	Chain	Res	Type
39	l2	80	GLU
47	m0	176	LEU
48	m1	114	ILE
54	m8	84	VAL
60	n4	26	SER
63	n7	33	SER
63	n7	34	LYS
68	o2	86	THR
74	o8	35	GLY
79	q3	35	ALA
3	S1	210	ILE
7	S5	153	GLY
7	S5	199	ILE
9	S7	132	PRO
17	C5	53	PRO
28	D6	65	PRO
34	SR	15	GLY
40	L3	141	GLY
41	L4	131	VAL
44	L7	191	VAL
49	M3	130	GLY
65	N9	21	ILE
2	s0	152	PRO
9	s7	13	PRO
14	c2	87	PRO
15	c3	22	ALA
15	c3	65	VAL
18	c6	124	PRO
25	d3	44	GLY
80	e0	47	VAL
44	l7	226	GLY
47	m0	47	PRO
49	m3	130	GLY
53	m7	67	ILE
67	o1	98	VAL
69	o3	59	VAL
8	S6	162	VAL
13	C1	7	VAL
18	C6	33	GLY
22	D0	59	PRO
22	D0	108	ILE
58	N2	22	PRO

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Mol	Chain	Res	Type
74	O8	37	PRO
5	s3	91	VAL
8	s6	165	GLY
14	c2	63	VAL
80	e0	50	VAL
40	l3	141	GLY
65	n9	37	PRO
16	C4	75	GLY
22	D0	106	ILE
22	D0	118	VAL
28	D6	59	TYR
52	M6	110	PRO
74	O8	36	LYS
78	Q2	95	GLY
2	s0	194	PRO
39	l2	238	ILE
45	l8	176	PRO
51	m5	74	PRO
70	o4	78	GLY
2	S0	117	GLU
6	S4	228	ILE
17	C5	109	PRO
20	C8	5	VAL
53	M7	84	PRO
60	N4	76	VAL
79	Q3	50	GLY
6	s4	135	GLY
11	s9	163	PRO
12	c0	96	ASN
23	d1	6	GLY
28	d6	60	PRO
35	sM	166	VAL
40	l3	40	PRO
41	l4	190	GLY
42	l5	286	VAL
82	p0	30	VAL
9	S7	13	PRO
64	N8	29	PRO
33	e1	124	PRO
57	n1	126	VAL
58	n2	48	GLY
24	D2	29	PRO

### 5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	S0	164/209 (78%)	132 (80%)	32 (20%)	2	9
2	s0	165/209 (79%)	120 (73%)	45 (27%)	0	2
3	S1	191/223 (86%)	152 (80%)	39 (20%)	1	7
3	s1	192/223 (86%)	152 (79%)	40 (21%)	1	7
4	S2	176/204 (86%)	142 (81%)	34 (19%)	2	9
4	s2	176/204 (86%)	129 (73%)	47 (27%)	0	3
5	S3	182/194 (94%)	136 (75%)	46 (25%)	1	3
5	s3	182/194 (94%)	154 (85%)	28 (15%)	3	16
6	S4	221/221 (100%)	179 (81%)	42 (19%)	2	10
6	s4	221/221 (100%)	190 (86%)	31 (14%)	4	19
7	S5	173/190 (91%)	140 (81%)	33 (19%)	2	10
7	s5	173/190 (91%)	135 (78%)	38 (22%)	1	6
8	S6	188/201 (94%)	150 (80%)	38 (20%)	1	8
8	s6	187/201 (93%)	155 (83%)	32 (17%)	2	12
9	S7	165/169 (98%)	132 (80%)	33 (20%)	1	8
9	s7	165/169 (98%)	136 (82%)	29 (18%)	2	12
10	S8	150/161 (93%)	132 (88%)	18 (12%)	6	26
10	s8	150/161 (93%)	128 (85%)	22 (15%)	4	18
11	S9	158/165 (96%)	121 (77%)	37 (23%)	1	4
11	s9	158/165 (96%)	130 (82%)	28 (18%)	2	11
12	C0	77/98 (79%)	63 (82%)	14 (18%)	2	11
12	c0	73/98 (74%)	62 (85%)	11 (15%)	3	17
13	C1	129/136 (95%)	106 (82%)	23 (18%)	2	11
13	c1	129/136 (95%)	101 (78%)	28 (22%)	1	6
14	C2	88/118 (75%)	64 (73%)	24 (27%)	0	2
14	c2	88/118 (75%)	64 (73%)	24 (27%)	0	2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
15	C3	127/127 (100%)	106 (84%)	21 (16%)	3	13
15	c3	127/127 (100%)	106 (84%)	21 (16%)	3	13
16	C4	81/104 (78%)	55 (68%)	26 (32%)	0	1
16	c4	97/104 (93%)	74 (76%)	23 (24%)	1	4
17	C5	101/117 (86%)	81 (80%)	20 (20%)	1	8
17	c5	103/117 (88%)	85 (82%)	18 (18%)	2	12
18	C6	117/118 (99%)	86 (74%)	31 (26%)	0	3
18	c6	118/118 (100%)	93 (79%)	25 (21%)	1	6
19	C7	94/124 (76%)	75 (80%)	19 (20%)	1	8
19	c7	92/124 (74%)	76 (83%)	16 (17%)	2	12
20	C8	128/128 (100%)	97 (76%)	31 (24%)	1	4
20	c8	128/128 (100%)	98 (77%)	30 (23%)	1	4
21	C9	115/115 (100%)	89 (77%)	26 (23%)	1	5
21	c9	115/115 (100%)	96 (84%)	19 (16%)	3	13
22	D0	100/113 (88%)	71 (71%)	29 (29%)	0	2
22	d0	103/113 (91%)	77 (75%)	26 (25%)	1	3
23	D1	74/74 (100%)	58 (78%)	16 (22%)	1	6
23	d1	74/74 (100%)	58 (78%)	16 (22%)	1	6
24	D2	110/110 (100%)	85 (77%)	25 (23%)	1	5
24	d2	110/110 (100%)	95 (86%)	15 (14%)	5	20
25	D3	119/119 (100%)	97 (82%)	22 (18%)	2	10
25	d3	119/119 (100%)	94 (79%)	25 (21%)	1	7
26	D4	112/112 (100%)	89 (80%)	23 (20%)	1	7
26	d4	112/112 (100%)	90 (80%)	22 (20%)	1	9
27	D5	61/88 (69%)	44 (72%)	17 (28%)	0	2
27	d5	61/88 (69%)	54 (88%)	7 (12%)	7	28
28	D6	83/83 (100%)	65 (78%)	18 (22%)	1	6
28	d6	83/83 (100%)	70 (84%)	13 (16%)	3	15
29	D7	70/70 (100%)	60 (86%)	10 (14%)	4	19
29	d7	70/70 (100%)	54 (77%)	16 (23%)	1	5
30	D8	56/59 (95%)	42 (75%)	14 (25%)	1	3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
30	d8	56/59 (95%)	48 (86%)	8 (14%)	4	19
31	D9	47/48 (98%)	38 (81%)	9 (19%)	2	10
31	d9	47/48 (98%)	37 (79%)	10 (21%)	1	6
32	E0	51/51 (100%)	36 (71%)	15 (29%)	0	2
33	E1	62/66 (94%)	42 (68%)	20 (32%)	0	1
33	e1	66/66 (100%)	43 (65%)	23 (35%)	0	1
34	SR	260/261 (100%)	227 (87%)	33 (13%)	5	23
34	sR	260/261 (100%)	230 (88%)	30 (12%)	7	28
35	SM	97/228 (42%)	68 (70%)	29 (30%)	0	2
35	sM	54/228 (24%)	42 (78%)	12 (22%)	1	5
39	L2	193/195 (99%)	158 (82%)	35 (18%)	2	11
39	l2	192/195 (98%)	152 (79%)	40 (21%)	1	7
40	L3	320/322 (99%)	252 (79%)	68 (21%)	1	6
40	l3	320/322 (99%)	249 (78%)	71 (22%)	1	5
41	L4	288/288 (100%)	229 (80%)	59 (20%)	1	7
41	l4	288/288 (100%)	234 (81%)	54 (19%)	2	10
42	L5	244/244 (100%)	193 (79%)	51 (21%)	1	7
42	l5	243/244 (100%)	193 (79%)	50 (21%)	1	7
43	L6	134/152 (88%)	108 (81%)	26 (19%)	2	9
43	l6	135/152 (89%)	110 (82%)	25 (18%)	2	10
44	L7	186/204 (91%)	159 (86%)	27 (14%)	4	18
44	l7	187/204 (92%)	160 (86%)	27 (14%)	4	18
45	L8	187/207 (90%)	158 (84%)	29 (16%)	3	16
45	l8	177/207 (86%)	149 (84%)	28 (16%)	3	15
46	L9	171/171 (100%)	133 (78%)	38 (22%)	1	5
46	l9	171/171 (100%)	134 (78%)	37 (22%)	1	6
47	M0	177/186 (95%)	140 (79%)	37 (21%)	1	7
47	m0	179/186 (96%)	141 (79%)	38 (21%)	1	6
48	M1	147/150 (98%)	114 (78%)	33 (22%)	1	5
48	m1	147/150 (98%)	120 (82%)	27 (18%)	2	10
49	M3	154/158 (98%)	128 (83%)	26 (17%)	2	13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
49	m3	154/158 (98%)	130 (84%)	24 (16%)	3	16
50	M4	107/108 (99%)	88 (82%)	19 (18%)	2	11
50	m4	108/108 (100%)	90 (83%)	18 (17%)	3	13
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%)	134 (84%)	26 (16%)	3	14
52	m6	160/161 (99%)	127 (79%)	33 (21%)	1	7
53	M7	140/145 (97%)	111 (79%)	29 (21%)	1	7
53	m7	125/145 (86%)	95 (76%)	30 (24%)	1	4
54	M8	150/150 (100%)	122 (81%)	28 (19%)	2	10
54	m8	150/150 (100%)	118 (79%)	32 (21%)	1	6
55	M9	153/153 (100%)	124 (81%)	29 (19%)	2	10
55	m9	153/153 (100%)	126 (82%)	27 (18%)	2	12
56	N0	156/156 (100%)	126 (81%)	30 (19%)	2	10
56	n0	156/156 (100%)	129 (83%)	27 (17%)	2	12
57	N1	136/136 (100%)	101 (74%)	35 (26%)	0	3
57	n1	136/136 (100%)	108 (79%)	28 (21%)	1	7
58	N2	87/106 (82%)	77 (88%)	10 (12%)	7	28
58	n2	85/106 (80%)	75 (88%)	10 (12%)	6	26
59	N3	104/104 (100%)	83 (80%)	21 (20%)	1	8
59	n3	104/104 (100%)	92 (88%)	12 (12%)	7	28
60	N4	57/129 (44%)	52 (91%)	5 (9%)	12	42
60	n4	100/129 (78%)	85 (85%)	15 (15%)	3	17
61	N5	104/117 (89%)	80 (77%)	24 (23%)	1	5
61	n5	104/117 (89%)	84 (81%)	20 (19%)	2	10
62	N6	109/109 (100%)	79 (72%)	30 (28%)	0	2
62	n6	109/109 (100%)	88 (81%)	21 (19%)	2	9
63	N7	115/115 (100%)	85 (74%)	30 (26%)	0	3
63	n7	115/115 (100%)	84 (73%)	31 (27%)	0	3
64	N8	118/118 (100%)	95 (80%)	23 (20%)	2	9
64	n8	118/118 (100%)	94 (80%)	24 (20%)	1	7

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
65	N9	46/46 (100%)	35 (76%)	11 (24%)	1	4
65	n9	46/46 (100%)	34 (74%)	12 (26%)	0	3
66	O0	81/87 (93%)	67 (83%)	14 (17%)	2	12
66	o0	84/87 (97%)	66 (79%)	18 (21%)	1	6
67	O1	92/96 (96%)	71 (77%)	21 (23%)	1	5
67	o1	94/96 (98%)	72 (77%)	22 (23%)	1	4
68	O2	109/110 (99%)	86 (79%)	23 (21%)	1	6
68	o2	109/110 (99%)	87 (80%)	22 (20%)	1	8
69	O3	90/90 (100%)	78 (87%)	12 (13%)	5	21
69	o3	90/90 (100%)	74 (82%)	16 (18%)	2	11
70	O4	95/101 (94%)	77 (81%)	18 (19%)	2	10
70	o4	95/101 (94%)	82 (86%)	13 (14%)	4	20
71	O5	104/104 (100%)	72 (69%)	32 (31%)	0	2
71	o5	103/104 (99%)	84 (82%)	19 (18%)	2	10
72	O6	81/81 (100%)	58 (72%)	23 (28%)	0	2
72	o6	80/81 (99%)	55 (69%)	25 (31%)	0	2
73	O7	70/70 (100%)	58 (83%)	12 (17%)	2	12
73	o7	70/70 (100%)	57 (81%)	13 (19%)	2	10
74	O8	68/68 (100%)	53 (78%)	15 (22%)	1	5
74	o8	67/68 (98%)	49 (73%)	18 (27%)	0	3
75	O9	45/45 (100%)	36 (80%)	9 (20%)	1	8
75	o9	45/45 (100%)	33 (73%)	12 (27%)	0	3
76	Q0	47/47 (100%)	37 (79%)	10 (21%)	1	6
76	q0	47/47 (100%)	37 (79%)	10 (21%)	1	6
77	Q1	23/23 (100%)	17 (74%)	6 (26%)	0	3
77	q1	23/23 (100%)	13 (56%)	10 (44%)	0	0
78	Q2	90/90 (100%)	73 (81%)	17 (19%)	2	10
78	q2	90/90 (100%)	74 (82%)	16 (18%)	2	11
79	Q3	71/71 (100%)	56 (79%)	15 (21%)	1	6
79	q3	71/71 (100%)	57 (80%)	14 (20%)	1	9
80	e0	53/53 (100%)	42 (79%)	11 (21%)	1	7

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
82	p0	105/253 (42%)	81 (77%)	24 (23%)	1	5
All	All	18728/20239 (92%)	14998 (80%)	3730 (20%)	1	8

All (3730) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	S0	6	THR
2	S0	9	LEU
2	S0	10	THR
2	S0	12	GLU
2	S0	27	ARG
2	S0	30	GLN
2	S0	32	HIS
2	S0	34	GLU
2	S0	37	VAL
2	S0	43	ASP
2	S0	62	ARG
2	S0	68	PRO
2	S0	84	ARG
2	S0	86	VAL
2	S0	87	LEU
2	S0	88	LYS
2	S0	96	THR
2	S0	108	THR
2	S0	110	TYR
2	S0	119	ARG
2	S0	123	VAL
2	S0	140	ASN
2	S0	153	SER
2	S0	157	ASP
2	S0	168	HIS
2	S0	172	LEU
2	S0	177	LEU
2	S0	185	ARG
2	S0	188	LEU
2	S0	196	SER
2	S0	198	MET
2	S0	200	ASP
3	S1	21	VAL
3	S1	25	THR
3	S1	29	TRP
3	S1	30	PHE

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Mol	Chain	Res	Type
3	S1	37	THR
3	S1	42	ASN
3	S1	46	THR
3	S1	51	SER
3	S1	52	THR
3	S1	61	LEU
3	S1	65	VAL
3	S1	70	LEU
3	S1	78	ASP
3	S1	79	HIS
3	S1	89	ASP
3	S1	97	LEU
3	S1	103	MET
3	S1	105	PHE
3	S1	107	THR
3	S1	110	LEU
3	S1	111	ARG
3	S1	115	ARG
3	S1	117	TRP
3	S1	125	VAL
3	S1	130	SER
3	S1	135	LEU
3	S1	151	LYS
3	S1	154	SER
3	S1	170	GLU
3	S1	177	GLN
3	S1	181	LEU
3	S1	184	LEU
3	S1	193	ILE
3	S1	202	LYS
3	S1	212	VAL
3	S1	214	LYS
3	S1	218	LEU
3	S1	219	LYS
3	S1	223	PHE
4	S2	53	ILE
4	S2	54	GLU
4	S2	56	ILE
4	S2	58	LEU
4	S2	72	LEU
4	S2	77	GLN
4	S2	82	ASN

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Mol	Chain	Res	Type
4	S2	91	ARG
4	S2	94	GLN
4	S2	95	ARG
4	S2	96	THR
4	S2	97	ARG
4	S2	106	ASP
4	S2	111	VAL
4	S2	113	LEU
4	S2	117	THR
4	S2	134	LEU
4	S2	140	ARG
4	S2	141	ARG
4	S2	146	THR
4	S2	148	LEU
4	S2	159	THR
4	S2	166	THR
4	S2	178	ILE
4	S2	195	ASP
4	S2	221	THR
4	S2	222	TYR
4	S2	225	LEU
4	S2	226	THR
4	S2	235	LEU
4	S2	240	LEU
4	S2	242	ILE
4	S2	245	ASP
4	S2	250	GLN
5	S3	4	LEU
5	S3	5	ILE
5	S3	6	SER
5	S3	9	ARG
5	S3	10	LYS
5	S3	11	LEU
5	S3	21	LEU
5	S3	26	THR
5	S3	32	GLU
5	S3	38	GLU
5	S3	39	VAL
5	S3	55	THR
5	S3	59	LEU
5	S3	62	ASN
5	S3	64	ARG

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Mol	Chain	Res	Type
5	S3	65	ARG
5	S3	76	ARG
5	S3	84	ILE
5	S3	90	ARG
5	S3	92	GLN
5	S3	93	ASP
5	S3	97	SER
5	S3	103	GLU
5	S3	105	MET
5	S3	117	ARG
5	S3	120	TYR
5	S3	122	VAL
5	S3	124	ARG
5	S3	127	MET
5	S3	128	GLU
5	S3	142	LEU
5	S3	143	ARG
5	S3	146	ARG
5	S3	151	LYS
5	S3	158	ILE
5	S3	164	VAL
5	S3	172	THR
5	S3	175	VAL
5	S3	176	LEU
5	S3	177	MET
5	S3	178	ARG
5	S3	179	GLN
5	S3	211	PRO
5	S3	218	LEU
5	S3	221	SER
5	S3	222	VAL
6	S4	6	LYS
6	S4	7	LYS
6	S4	9	LEU
6	S4	23	LEU
6	S4	26	CYS
6	S4	38	LEU
6	S4	39	ARG
6	S4	42	LEU
6	S4	48	LEU
6	S4	56	LEU
6	S4	65	LEU

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Mol	Chain	Res	Type
6	S4	67	GLN
6	S4	68	ARG
6	S4	69	HIS
6	S4	70	VAL
6	S4	72	VAL
6	S4	77	ARG
6	S4	78	THR
6	S4	81	THR
6	S4	95	THR
6	S4	96	ASN
6	S4	113	ARG
6	S4	123	LEU
6	S4	129	VAL
6	S4	131	LEU
6	S4	155	LYS
6	S4	180	LEU
6	S4	182	TYR
6	S4	187	ARG
6	S4	192	ILE
6	S4	197	HIS
6	S4	198	LYS
6	S4	206	ASP
6	S4	215	ASP
6	S4	222	LEU
6	S4	223	ASN
6	S4	228	ILE
6	S4	230	GLU
6	S4	240	LYS
6	S4	242	LYS
6	S4	258	GLN
6	S4	259	GLN
7	S5	23	VAL
7	S5	25	LEU
7	S5	38	THR
7	S5	42	LEU
7	S5	43	PHE
7	S5	45	LYS
7	S5	65	ARG
7	S5	66	GLN
7	S5	79	ASN
7	S5	89	ILE
7	S5	93	LEU

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Mol	Chain	Res	Type
7	S5	94	THR
7	S5	99	MET
7	S5	119	ASP
7	S5	122	ASN
7	S5	128	ASN
7	S5	139	ASN
7	S5	146	THR
7	S5	147	THR
7	S5	156	ARG
7	S5	157	ARG
7	S5	158	GLN
7	S5	160	VAL
7	S5	162	VAL
7	S5	163	SER
7	S5	166	ARG
7	S5	172	ILE
7	S5	186	ASN
7	S5	194	LEU
7	S5	203	LYS
7	S5	205	SER
7	S5	216	GLU
7	S5	225	ARG
8	S6	13	GLN
8	S6	20	ASP
8	S6	21	GLU
8	S6	25	ARG
8	S6	32	ILE
8	S6	45	PHE
8	S6	58	LYS
8	S6	59	GLN
8	S6	67	VAL
8	S6	68	LEU
8	S6	69	LEU
8	S6	71	THR
8	S6	76	LEU
8	S6	80	ASN
8	S6	81	VAL
8	S6	89	ASP
8	S6	94	ARG
8	S6	98	ARG
8	S6	108	VAL
8	S6	109	LEU

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Mol	Chain	Res	Type
8	S6	114	VAL
8	S6	119	GLN
8	S6	126	ASP
8	S6	127	THR
8	S6	128	THR
8	S6	132	ARG
8	S6	137	ARG
8	S6	154	ARG
8	S6	155	ASP
8	S6	158	ILE
8	S6	169	TYR
8	S6	174	LYS
8	S6	176	GLN
8	S6	177	ARG
8	S6	193	LEU
8	S6	201	GLN
8	S6	202	ARG
8	S6	211	LEU
9	S7	15	GLU
9	S7	16	LEU
9	S7	25	VAL
9	S7	31	SER
9	S7	38	LEU
9	S7	46	ILE
9	S7	50	ASP
9	S7	51	VAL
9	S7	67	LEU
9	S7	70	PHE
9	S7	72	LYS
9	S7	75	THR
9	S7	85	PHE
9	S7	87	ASP
9	S7	95	GLU
9	S7	97	ARG
9	S7	99	LEU
9	S7	104	ARG
9	S7	105	THR
9	S7	107	ARG
9	S7	111	LYS
9	S7	112	ARG
9	S7	114	ARG
9	S7	116	ARG

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Mol	Chain	Res	Type
9	S7	129	LEU
9	S7	130	VAL
9	S7	134	GLU
9	S7	144	VAL
9	S7	147	ASN
9	S7	158	ASP
9	S7	165	LYS
9	S7	167	GLU
9	S7	185	ILE
10	S8	7	SER
10	S8	8	ARG
10	S8	17	LYS
10	S8	21	PHE
10	S8	22	ARG
10	S8	29	LEU
10	S8	36	THR
10	S8	46	VAL
10	S8	60	ILE
10	S8	64	ASN
10	S8	73	SER
10	S8	74	LYS
10	S8	135	LYS
10	S8	141	ARG
10	S8	151	LYS
10	S8	152	ILE
10	S8	159	GLN
10	S8	197	THR
11	S9	3	ARG
11	S9	7	THR
11	S9	14	THR
11	S9	21	SER
11	S9	39	LYS
11	S9	49	LEU
11	S9	61	THR
11	S9	62	ARG
11	S9	63	ASP
11	S9	65	LYS
11	S9	78	ARG
11	S9	79	ARG
11	S9	82	ARG
11	S9	89	ASP
11	S9	92	LYS

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Mol	Chain	Res	Type
11	S9	93	LEU
11	S9	94	ASP
11	S9	97	LEU
11	S9	101	VAL
11	S9	110	GLN
11	S9	111	THR
11	S9	112	GLN
11	S9	115	LYS
11	S9	118	LEU
11	S9	121	SER
11	S9	126	ARG
11	S9	134	ILE
11	S9	138	LYS
11	S9	149	ARG
11	S9	161	THR
11	S9	162	SER
11	S9	171	ARG
11	S9	172	VAL
11	S9	174	ARG
11	S9	180	LYS
11	S9	182	GLU
11	S9	184	SER
12	C0	1	MET
12	C0	12	HIS
12	C0	20	VAL
12	C0	27	PHE
12	C0	28	ASN
12	C0	29	GLN
12	C0	32	HIS
12	C0	50	THR
12	C0	52	LYS
12	C0	56	LYS
12	C0	60	SER
12	C0	74	GLU
12	C0	81	ASN
12	C0	82	LEU
13	C1	7	VAL
13	C1	10	GLU
13	C1	21	ASN
13	C1	25	VAL
13	C1	29	LYS
13	C1	40	LEU

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Mol	Chain	Res	Type
13	C1	44	THR
13	C1	63	LEU
13	C1	67	ARG
13	C1	69	LYS
13	C1	71	LEU
13	C1	79	LYS
13	C1	80	MET
13	C1	83	THR
13	C1	99	ARG
13	C1	105	LYS
13	C1	109	VAL
13	C1	118	GLN
13	C1	123	VAL
13	C1	127	GLN
13	C1	128	CYS
13	C1	136	ARG
13	C1	140	VAL
14	C2	28	LEU
14	C2	30	VAL
14	C2	33	ARG
14	C2	34	THR
14	C2	36	LEU
14	C2	37	VAL
14	C2	43	ARG
14	C2	50	LYS
14	C2	52	LEU
14	C2	53	THR
14	C2	54	ARG
14	C2	66	VAL
14	C2	71	ILE
14	C2	83	GLU
14	C2	86	VAL
14	C2	89	ILE
14	C2	97	LEU
14	C2	103	LEU
14	C2	126	TRP
14	C2	129	GLU
14	C2	132	GLU
14	C2	138	GLU
14	C2	139	HIS
14	C2	140	PHE
15	C3	3	ARG

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Mol	Chain	Res	Type
15	C3	6	SER
15	C3	9	LYS
15	C3	12	SER
15	C3	27	LYS
15	C3	28	LEU
15	C3	39	LYS
15	C3	43	LYS
15	C3	48	SER
15	C3	56	ASP
15	C3	64	ARG
15	C3	76	LYS
15	C3	77	SER
15	C3	83	GLU
15	C3	88	LEU
15	C3	102	LEU
15	C3	114	ARG
15	C3	115	LEU
15	C3	125	LEU
15	C3	149	LEU
15	C3	151	ASN
16	C4	14	PHE
16	C4	16	VAL
16	C4	20	TYR
16	C4	24	ASN
16	C4	29	HIS
16	C4	30	VAL
16	C4	31	THR
16	C4	39	ILE
16	C4	42	VAL
16	C4	48	VAL
16	C4	51	ASP
16	C4	55	SER
16	C4	80	HIS
16	C4	81	VAL
16	C4	83	ILE
16	C4	92	LYS
16	C4	102	LEU
16	C4	107	ARG
16	C4	118	VAL
16	C4	123	SER
16	C4	124	ASP
16	C4	126	THR

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Mol	Chain	Res	Type
16	C4	128	LYS
16	C4	129	LYS
16	C4	136	ARG
16	C4	137	LEU
17	C5	13	LYS
17	C5	14	THR
17	C5	22	LEU
17	C5	23	GLU
17	C5	26	LEU
17	C5	31	GLU
17	C5	34	VAL
17	C5	36	LEU
17	C5	44	ARG
17	C5	47	ARG
17	C5	52	LYS
17	C5	57	MET
17	C5	69	GLU
17	C5	86	VAL
17	C5	100	LYS
17	C5	106	GLU
17	C5	110	GLU
17	C5	121	ILE
17	C5	124	THR
17	C5	130	ARG
18	C6	4	VAL
18	C6	17	THR
18	C6	26	LYS
18	C6	28	LEU
18	C6	29	ILE
18	C6	39	VAL
18	C6	42	GLU
18	C6	43	ILE
18	C6	45	ARG
18	C6	50	GLU
18	C6	53	LEU
18	C6	54	LEU
18	C6	58	ASP
18	C6	59	LYS
18	C6	65	ILE
18	C6	66	ARG
18	C6	69	VAL
18	C6	76	SER

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Mol	Chain	Res	Type
18	C6	89	LEU
18	C6	94	GLN
18	C6	99	GLU
18	C6	106	LYS
18	C6	114	ARG
18	C6	116	LEU
18	C6	118	ILE
18	C6	121	SER
18	C6	123	ARG
18	C6	127	LYS
18	C6	128	LYS
18	C6	137	ARG
18	C6	143	ARG
19	C7	8	THR
19	C7	25	THR
19	C7	26	LEU
19	C7	34	LEU
19	C7	38	ILE
19	C7	40	THR
19	C7	46	LEU
19	C7	49	LYS
19	C7	54	THR
19	C7	60	ARG
19	C7	69	ILE
19	C7	72	LYS
19	C7	78	ARG
19	C7	84	TYR
19	C7	88	VAL
19	C7	105	GLN
19	C7	113	LEU
19	C7	115	LEU
19	C7	119	LEU
20	C8	3	LEU
20	C8	5	VAL
20	C8	6	GLN
20	C8	11	PHE
20	C8	13	HIS
20	C8	14	ILE
20	C8	15	LEU
20	C8	20	THR
20	C8	25	ASN
20	C8	26	ILE

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Mol	Chain	Res	Type
20	C8	28	ILE
20	C8	34	THR
20	C8	40	ARG
20	C8	41	ARG
20	C8	44	ASN
20	C8	53	ASP
20	C8	54	LEU
20	C8	60	GLU
20	C8	61	LEU
20	C8	75	ASN
20	C8	80	LYS
20	C8	92	ILE
20	C8	116	LEU
20	C8	132	ARG
20	C8	133	VAL
20	C8	136	GLN
20	C8	138	THR
20	C8	140	THR
20	C8	143	ARG
20	C8	144	ARG
20	C8	145	ARG
21	C9	6	VAL
21	C9	12	GLN
21	C9	13	ASP
21	C9	18	TYR
21	C9	22	LEU
21	C9	28	LEU
21	C9	33	TYR
21	C9	34	VAL
21	C9	35	ASP
21	C9	36	ILE
21	C9	39	THR
21	C9	57	ARG
21	C9	67	MET
21	C9	70	GLN
21	C9	84	LYS
21	C9	86	ARG
21	C9	88	VAL
21	C9	94	ILE
21	C9	111	ILE
21	C9	115	GLU
21	C9	126	GLU

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Mol	Chain	Res	Type
21	C9	130	ARG
21	C9	131	ASP
21	C9	134	ARG
21	C9	140	LEU
21	C9	144	GLU
22	D0	21	LYS
22	D0	22	ILE
22	D0	23	ARG
22	D0	25	THR
22	D0	27	THR
22	D0	31	VAL
22	D0	33	GLN
22	D0	34	LEU
22	D0	40	ASN
22	D0	43	LYS
22	D0	46	GLU
22	D0	47	GLN
22	D0	50	LEU
22	D0	53	LYS
22	D0	57	ARG
22	D0	61	LYS
22	D0	66	SER
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	88	LYS
22	D0	89	ARG
22	D0	99	ILE
22	D0	103	ILE
22	D0	108	ILE
22	D0	117	VAL
23	D1	5	LYS
23	D1	7	GLN
23	D1	8	LEU
23	D1	9	VAL
23	D1	11	LEU
23	D1	27	ASP
23	D1	32	VAL
23	D1	41	GLU

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Mol	Chain	Res	Type
23	D1	49	GLU
23	D1	52	THR
23	D1	61	SER
23	D1	62	ARG
23	D1	68	SER
23	D1	69	LEU
23	D1	78	LEU
23	D1	80	LYS
24	D2	6	VAL
24	D2	7	LEU
24	D2	24	GLN
24	D2	25	VAL
24	D2	26	LEU
24	D2	29	PRO
24	D2	30	SER
24	D2	36	LYS
24	D2	47	ILE
24	D2	51	GLU
24	D2	53	ILE
24	D2	65	LEU
24	D2	70	ASN
24	D2	81	VAL
24	D2	87	GLU
24	D2	93	LEU
24	D2	97	ARG
24	D2	103	ILE
24	D2	104	LEU
24	D2	105	THR
24	D2	114	GLU
24	D2	121	VAL
24	D2	122	SER
24	D2	125	ILE
24	D2	129	VAL
25	D3	5	LYS
25	D3	7	ARG
25	D3	9	LEU
25	D3	14	LYS
25	D3	16	ARG
25	D3	19	ARG
25	D3	23	ARG
25	D3	33	LEU
25	D3	47	SER

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Mol	Chain	Res	Type
25	D3	62	LYS
25	D3	69	ARG
25	D3	84	THR
25	D3	90	ASP
25	D3	97	ASP
25	D3	103	LEU
25	D3	107	PHE
25	D3	109	ARG
25	D3	114	LYS
25	D3	117	ILE
25	D3	128	SER
25	D3	131	SER
25	D3	140	LYS
26	D4	5	VAL
26	D4	21	LYS
26	D4	34	ASN
26	D4	36	SER
26	D4	42	GLU
26	D4	46	GLU
26	D4	51	GLU
26	D4	55	VAL
26	D4	57	VAL
26	D4	61	ARG
26	D4	62	THR
26	D4	69	SER
26	D4	74	LEU
26	D4	75	VAL
26	D4	81	GLU
26	D4	84	LYS
26	D4	88	THR
26	D4	102	LYS
26	D4	105	ARG
26	D4	112	LYS
26	D4	117	LYS
26	D4	123	LYS
26	D4	124	ARG
27	D5	37	GLN
27	D5	42	LEU
27	D5	43	ASP
27	D5	48	ASP
27	D5	58	ARG
27	D5	59	TYR

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Mol	Chain	Res	Type
27	D5	60	VAL
27	D5	63	SER
27	D5	67	ASP
27	D5	69	LEU
27	D5	71	ILE
27	D5	75	LEU
27	D5	85	LYS
27	D5	95	HIS
27	D5	96	SER
27	D5	100	ILE
27	D5	105	THR
28	D6	7	SER
28	D6	12	LYS
28	D6	15	ARG
28	D6	30	ILE
28	D6	36	ILE
28	D6	38	ARG
28	D6	41	ILE
28	D6	45	VAL
28	D6	64	LEU
28	D6	67	THR
28	D6	68	TYR
28	D6	69	ASN
28	D6	71	LEU
28	D6	83	ILE
28	D6	85	ARG
28	D6	87	ARG
28	D6	88	SER
28	D6	91	ASP
29	D7	3	LEU
29	D7	20	LYS
29	D7	33	LEU
29	D7	41	LEU
29	D7	44	THR
29	D7	55	THR
29	D7	56	CYS
29	D7	60	SER
29	D7	61	THR
29	D7	62	ILE
30	D8	13	ILE
30	D8	14	LYS
30	D8	15	VAL

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Mol	Chain	Res	Type
30	D8	19	THR
30	D8	31	GLU
30	D8	33	LEU
30	D8	38	ARG
30	D8	39	THR
30	D8	40	ILE
30	D8	48	VAL
30	D8	49	ARG
30	D8	58	GLU
30	D8	64	ARG
30	D8	65	ARG
31	D9	5	ASN
31	D9	7	TRP
31	D9	12	ARG
31	D9	18	SER
31	D9	22	ARG
31	D9	30	LEU
31	D9	32	ARG
31	D9	36	LEU
31	D9	39	CYS
32	E0	8	LEU
32	E0	16	SER
32	E0	20	LYS
32	E0	21	VAL
32	E0	22	GLU
32	E0	24	THR
32	E0	28	LYS
32	E0	31	LYS
32	E0	37	ARG
32	E0	39	LEU
32	E0	41	THR
32	E0	42	ARG
32	E0	43	ARG
32	E0	47	VAL
32	E0	56	MET
33	E1	83	LYS
33	E1	84	VAL
33	E1	85	TYR
33	E1	86	THR
33	E1	89	LYS
33	E1	91	ILE
33	E1	93	HIS

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Mol	Chain	Res	Type
33	E1	97	LYS
33	E1	100	LEU
33	E1	109	ASP
33	E1	113	LYS
33	E1	118	ARG
33	E1	120	GLU
33	E1	130	VAL
33	E1	137	ASP
33	E1	143	LYS
33	E1	147	VAL
33	E1	149	LYS
33	E1	150	VAL
33	E1	151	ASN
34	SR	5	GLU
34	SR	10	ARG
34	SR	25	THR
34	SR	29	GLN
34	SR	52	GLN
34	SR	59	ARG
34	SR	60	SER
34	SR	62	LYS
34	SR	76	ASP
34	SR	81	LEU
34	SR	82	SER
34	SR	87	LYS
34	SR	91	LEU
34	SR	94	VAL
34	SR	117	LYS
34	SR	136	ILE
34	SR	137	LYS
34	SR	144	LEU
34	SR	163	ASP
34	SR	166	SER
34	SR	188	ILE
34	SR	191	ASP
34	SR	196	ASN
34	SR	199	ILE
34	SR	213	SER
34	SR	238	ASP
34	SR	248	ASN
34	SR	268	GLN
34	SR	277	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
34	SR	292	LEU
34	SR	300	THR
34	SR	308	ASN
34	SR	314	GLN
35	SM	28	SER
35	SM	33	LYS
35	SM	41	SER
35	SM	45	SER
35	SM	46	LYS
35	SM	51	ARG
35	SM	53	ARG
35	SM	61	ILE
35	SM	64	LYS
35	SM	65	THR
35	SM	68	ARG
35	SM	69	ARG
35	SM	72	ARG
35	SM	78	ASP
35	SM	84	LYS
35	SM	85	SER
35	SM	88	ARG
35	SM	89	ARG
35	SM	91	THR
35	SM	96	ARG
35	SM	100	THR
35	SM	102	THR
35	SM	105	LYS
35	SM	116	GLU
35	SM	117	LEU
35	SM	121	LYS
35	SM	131	ILE
35	SM	133	GLU
35	SM	139	GLU
39	L2	14	SER
39	L2	20	THR
39	L2	32	LEU
39	L2	44	ILE
39	L2	45	VAL
39	L2	49	VAL
39	L2	52	SER
39	L2	62	VAL
39	L2	70	ARG

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Mol	Chain	Res	Type
39	L2	71	LEU
39	L2	73	GLU
39	L2	74	GLU
39	L2	79	ASN
39	L2	96	LEU
39	L2	101	VAL
39	L2	104	LEU
39	L2	114	SER
39	L2	130	SER
39	L2	135	ILE
39	L2	158	ILE
39	L2	165	VAL
39	L2	177	LYS
39	L2	179	LEU
39	L2	180	LEU
39	L2	181	LYS
39	L2	188	LYS
39	L2	191	LEU
39	L2	202	VAL
39	L2	206	PRO
39	L2	207	VAL
39	L2	226	SER
39	L2	227	ARG
39	L2	230	VAL
39	L2	241	ARG
39	L2	247	ARG
40	L3	2	SER
40	L3	10	ARG
40	L3	17	LEU
40	L3	19	ARG
40	L3	25	ILE
40	L3	30	LYS
40	L3	34	LYS
40	L3	37	ARG
40	L3	39	LYS
40	L3	47	LEU
40	L3	56	ILE
40	L3	65	SER
40	L3	79	VAL
40	L3	84	VAL
40	L3	85	VAL
40	L3	100	ARG

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Mol	Chain	Res	Type
40	L3	103	THR
40	L3	110	LEU
40	L3	111	SER
40	L3	114	VAL
40	L3	116	ARG
40	L3	124	LYS
40	L3	134	SER
40	L3	139	GLN
40	L3	140	ASP
40	L3	146	ARG
40	L3	147	GLU
40	L3	148	LEU
40	L3	157	VAL
40	L3	160	VAL
40	L3	167	ARG
40	L3	169	THR
40	L3	173	GLN
40	L3	183	LEU
40	L3	188	ILE
40	L3	192	VAL
40	L3	201	LYS
40	L3	202	THR
40	L3	205	VAL
40	L3	210	GLU
40	L3	221	THR
40	L3	229	VAL
40	L3	232	ARG
40	L3	235	THR
40	L3	236	LYS
40	L3	238	LEU
40	L3	242	THR
40	L3	252	ILE
40	L3	261	MET
40	L3	277	SER
40	L3	284	ARG
40	L3	297	SER
40	L3	304	THR
40	L3	305	ILE
40	L3	317	ILE
40	L3	319	ASN
40	L3	320	ASP
40	L3	324	VAL

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Mol	Chain	Res	Type
40	L3	328	ILE
40	L3	332	ARG
40	L3	337	THR
40	L3	338	LEU
40	L3	341	SER
40	L3	346	THR
40	L3	352	GLU
40	L3	355	SER
40	L3	364	LYS
40	L3	382	THR
41	L4	14	GLU
41	L4	20	LEU
41	L4	25	VAL
41	L4	40	THR
41	L4	60	THR
41	L4	71	VAL
41	L4	74	ILE
41	L4	85	SER
41	L4	93	MET
41	L4	98	ARG
41	L4	99	MET
41	L4	108	LYS
41	L4	112	LYS
41	L4	117	GLU
41	L4	133	SER
41	L4	136	LEU
41	L4	148	ILE
41	L4	150	LEU
41	L4	156	LEU
41	L4	161	LYS
41	L4	163	LYS
41	L4	176	SER
41	L4	177	ASP
41	L4	179	LEU
41	L4	187	LEU
41	L4	188	ARG
41	L4	193	LYS
41	L4	198	ARG
41	L4	200	THR
41	L4	201	GLN
41	L4	203	ARG
41	L4	206	LEU

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Mol	Chain	Res	Type
41	L4	220	ARG
41	L4	222	VAL
41	L4	230	VAL
41	L4	232	SER
41	L4	233	LEU
41	L4	246	ARG
41	L4	258	LEU
41	L4	267	VAL
41	L4	270	SER
41	L4	283	THR
41	L4	287	THR
41	L4	292	SER
41	L4	293	SER
41	L4	306	THR
41	L4	307	GLN
41	L4	311	HIS
41	L4	313	LEU
41	L4	314	LYS
41	L4	323	VAL
41	L4	332	LYS
41	L4	337	GLU
41	L4	339	LEU
41	L4	343	LYS
41	L4	346	LYS
41	L4	349	THR
41	L4	356	THR
41	L4	359	LEU
42	L5	5	LYS
42	L5	23	ARG
42	L5	35	ARG
42	L5	41	LYS
42	L5	66	SER
42	L5	67	SER
42	L5	68	THR
42	L5	69	ILE
42	L5	75	LEU
42	L5	81	HIS
42	L5	89	THR
42	L5	90	HIS
42	L5	101	THR
42	L5	105	ILE
42	L5	109	THR

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Mol	Chain	Res	Type
42	L5	112	LYS
42	L5	115	LEU
42	L5	118	THR
42	L5	122	VAL
42	L5	124	GLU
42	L5	131	LEU
42	L5	132	THR
42	L5	140	ARG
42	L5	144	VAL
42	L5	146	LEU
42	L5	148	ILE
42	L5	151	GLN
42	L5	154	THR
42	L5	155	THR
42	L5	163	LEU
42	L5	177	GLU
42	L5	185	PHE
42	L5	188	GLU
42	L5	193	GLU
42	L5	194	LEU
42	L5	203	HIS
42	L5	211	LEU
42	L5	216	GLU
42	L5	217	GLU
42	L5	227	LEU
42	L5	236	LEU
42	L5	242	SER
42	L5	257	GLU
42	L5	259	LYS
42	L5	261	THR
42	L5	273	ARG
42	L5	274	GLN
42	L5	275	THR
42	L5	276	LYS
42	L5	279	LYS
42	L5	293	LEU
43	L6	2	SER
43	L6	5	LYS
43	L6	8	LYS
43	L6	9	TRP
43	L6	15	VAL
43	L6	21	THR

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Mol	Chain	Res	Type
43	L6	23	LYS
43	L6	31	ARG
43	L6	35	VAL
43	L6	52	VAL
43	L6	59	GLU
43	L6	64	LEU
43	L6	70	LYS
43	L6	76	LEU
43	L6	78	ARG
43	L6	79	VAL
43	L6	89	THR
43	L6	93	VAL
43	L6	98	VAL
43	L6	129	GLU
43	L6	134	ARG
43	L6	146	ILE
43	L6	152	THR
43	L6	155	LEU
43	L6	160	SER
43	L6	162	SER
44	L7	24	GLU
44	L7	25	GLN
44	L7	26	VAL
44	L7	38	LYS
44	L7	39	GLU
44	L7	45	LEU
44	L7	52	GLN
44	L7	60	ARG
44	L7	77	VAL
44	L7	82	LYS
44	L7	83	LEU
44	L7	92	ILE
44	L7	98	LYS
44	L7	100	ARG
44	L7	110	ARG
44	L7	121	LYS
44	L7	124	LEU
44	L7	143	THR
44	L7	150	LYS
44	L7	157	ASN
44	L7	158	LYS
44	L7	164	SER

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Mol	Chain	Res	Type
44	L7	178	ILE
44	L7	179	LEU
44	L7	184	LEU
44	L7	239	LEU
44	L7	244	ASN
45	L8	26	LEU
45	L8	27	THR
45	L8	41	GLN
45	L8	63	LYS
45	L8	65	LEU
45	L8	71	VAL
45	L8	74	THR
45	L8	79	GLN
45	L8	81	THR
45	L8	84	ARG
45	L8	92	LYS
45	L8	136	LEU
45	L8	145	ASN
45	L8	149	LYS
45	L8	150	LEU
45	L8	155	ASN
45	L8	156	ASP
45	L8	160	ILE
45	L8	169	LEU
45	L8	183	LYS
45	L8	185	ARG
45	L8	189	LEU
45	L8	197	VAL
45	L8	203	VAL
45	L8	206	GLU
45	L8	214	LEU
45	L8	241	LYS
45	L8	246	MET
45	L8	248	LYS
46	L9	4	ILE
46	L9	5	GLN
46	L9	6	THR
46	L9	14	GLU
46	L9	16	VAL
46	L9	19	SER
46	L9	22	SER
46	L9	33	THR

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Mol	Chain	Res	Type
46	L9	35	THR
46	L9	36	LYS
46	L9	39	LYS
46	L9	41	ILE
46	L9	52	LEU
46	L9	55	VAL
46	L9	62	ARG
46	L9	68	LEU
46	L9	69	ARG
46	L9	70	THR
46	L9	80	THR
46	L9	82	VAL
46	L9	84	LYS
46	L9	103	ILE
46	L9	118	LEU
46	L9	133	THR
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	164	ILE
46	L9	172	ILE
46	L9	173	ARG
46	L9	188	THR
46	L9	189	GLU
46	L9	190	ASP
46	L9	191	LEU
47	M0	3	ARG
47	M0	21	ARG
47	M0	24	ARG
47	M0	30	LYS
47	M0	32	ARG
47	M0	33	ILE
47	M0	34	TYR
47	M0	39	LYS
47	M0	40	LYS
47	M0	42	THR
47	M0	48	LEU
47	M0	52	LEU

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Mol	Chain	Res	Type
47	M0	57	LEU
47	M0	77	THR
47	M0	87	LEU
47	M0	90	ARG
47	M0	91	VAL
47	M0	99	ILE
47	M0	101	LYS
47	M0	121	LYS
47	M0	137	SER
47	M0	138	VAL
47	M0	139	ARG
47	M0	140	THR
47	M0	145	LYS
47	M0	163	GLN
47	M0	165	ILE
47	M0	166	ILE
47	M0	168	SER
47	M0	177	ASP
47	M0	184	LYS
47	M0	186	GLU
47	M0	189	GLU
47	M0	200	LEU
47	M0	203	LYS
47	M0	205	SER
47	M0	210	ILE
48	M1	7	ASN
48	M1	9	MET
48	M1	10	ARG
48	M1	12	LEU
48	M1	13	LYS
48	M1	17	LEU
48	M1	23	VAL
48	M1	25	GLU
48	M1	31	THR
48	M1	38	GLU
48	M1	39	GLN
48	M1	40	LEU
48	M1	44	THR
48	M1	46	VAL
48	M1	52	TYR
48	M1	65	ILE
48	M1	70	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
48	M1	74	PRO
48	M1	78	GLU
48	M1	80	LEU
48	M1	82	ARG
48	M1	94	ARG
48	M1	106	ILE
48	M1	107	ASP
48	M1	112	LEU
48	M1	115	LYS
48	M1	126	ASP
48	M1	130	VAL
48	M1	140	ARG
48	M1	142	LYS
48	M1	145	LYS
48	M1	166	LYS
48	M1	173	ASP
49	M3	23	LYS
49	M3	35	ARG
49	M3	41	THR
49	M3	46	ILE
49	M3	54	LEU
49	M3	55	ARG
49	M3	58	VAL
49	M3	59	ARG
49	M3	63	VAL
49	M3	67	ARG
49	M3	69	VAL
49	M3	85	LEU
49	M3	114	GLN
49	M3	115	ARG
49	M3	121	SER
49	M3	124	ILE
49	M3	131	LYS
49	M3	138	VAL
49	M3	154	VAL
49	M3	164	GLU
49	M3	168	ARG
49	M3	171	ARG
49	M3	174	ARG
49	M3	190	LYS
49	M3	192	GLU
49	M3	194	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
50	M4	8	LYS
50	M4	15	VAL
50	M4	20	VAL
50	M4	27	GLN
50	M4	38	ILE
50	M4	53	VAL
50	M4	63	VAL
50	M4	64	VAL
50	M4	72	LEU
50	M4	92	GLU
50	M4	98	SER
50	M4	102	LYS
50	M4	105	GLN
50	M4	106	ARG
50	M4	108	ARG
50	M4	113	THR
50	M4	125	LYS
50	M4	130	THR
50	M4	135	LEU
51	M5	7	LEU
51	M5	10	LEU
51	M5	19	LEU
51	M5	22	LEU
51	M5	33	LYS
51	M5	38	ARG
51	M5	49	ARG
51	M5	50	ARG
51	M5	68	ARG
51	M5	80	THR
51	M5	84	PRO
51	M5	85	THR
51	M5	92	LEU
51	M5	96	ARG
51	M5	98	LEU
51	M5	109	ARG
51	M5	113	LEU
51	M5	117	ASN
51	M5	124	ASP
51	M5	133	ILE
51	M5	138	GLN
51	M5	151	ILE
51	M5	155	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
51	M5	157	LYS
51	M5	170	LYS
51	M5	171	SER
51	M5	183	THR
51	M5	187	ARG
51	M5	190	THR
51	M5	201	ARG
52	M6	22	VAL
52	M6	25	LYS
52	M6	33	ILE
52	M6	59	ARG
52	M6	68	ARG
52	M6	74	ARG
52	M6	77	SER
52	M6	78	ARG
52	M6	84	LEU
52	M6	85	ARG
52	M6	88	VAL
52	M6	106	GLU
52	M6	111	PRO
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	129	LEU
52	M6	144	SER
52	M6	152	VAL
52	M6	160	ARG
52	M6	175	THR
52	M6	184	THR
52	M6	190	VAL
53	M7	9	THR
53	M7	14	SER
53	M7	24	VAL
53	M7	29	THR
53	M7	32	THR
53	M7	36	ILE
53	M7	40	GLU
53	M7	41	LEU
53	M7	46	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
53	M7	52	LEU
53	M7	53	ASP
53	M7	56	ARG
53	M7	70	THR
53	M7	78	VAL
53	M7	94	LEU
53	M7	107	LEU
53	M7	112	LEU
53	M7	120	ASN
53	M7	126	ARG
53	M7	127	ARG
53	M7	136	ILE
53	M7	141	SER
53	M7	142	SER
53	M7	144	SER
53	M7	157	VAL
53	M7	168	LEU
53	M7	175	ARG
53	M7	180	LYS
53	M7	181	ARG
54	M8	3	ILE
54	M8	11	LYS
54	M8	17	THR
54	M8	24	VAL
54	M8	26	LEU
54	M8	32	LEU
54	M8	34	THR
54	M8	49	LEU
54	M8	57	ILE
54	M8	63	SER
54	M8	64	VAL
54	M8	66	ARG
54	M8	73	GLN
54	M8	74	GLU
54	M8	80	THR
54	M8	86	THR
54	M8	95	GLU
54	M8	100	THR
54	M8	120	GLU
54	M8	122	ILE
54	M8	127	LEU
54	M8	135	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
54	M8	141	ARG
54	M8	150	VAL
54	M8	168	THR
54	M8	179	ARG
54	M8	180	ARG
54	M8	181	SER
55	M9	8	LYS
55	M9	17	VAL
55	M9	29	THR
55	M9	41	ILE
55	M9	44	LEU
55	M9	52	LYS
55	M9	53	LYS
55	M9	55	VAL
55	M9	60	LYS
55	M9	74	ARG
55	M9	81	ARG
55	M9	82	LYS
55	M9	99	LEU
55	M9	103	ARG
55	M9	104	ARG
55	M9	106	LEU
55	M9	110	ARG
55	M9	114	LYS
55	M9	115	ILE
55	M9	134	HIS
55	M9	138	LEU
55	M9	144	GLN
55	M9	146	LYS
55	M9	156	ASN
55	M9	164	LEU
55	M9	172	ARG
55	M9	175	GLN
55	M9	180	LYS
55	M9	182	ASP
56	N0	1	MET
56	N0	3	HIS
56	N0	8	GLN
56	N0	13	ARG
56	N0	17	GLU
56	N0	39	SER
56	N0	45	LEU

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Mol	Chain	Res	Type
56	N0	57	GLU
56	N0	58	ILE
56	N0	61	ILE
56	N0	63	GLN
56	N0	80	ARG
56	N0	85	SER
56	N0	87	THR
56	N0	92	LYS
56	N0	97	VAL
56	N0	100	VAL
56	N0	105	THR
56	N0	115	ARG
56	N0	117	ARG
56	N0	125	LYS
56	N0	136	LYS
56	N0	137	ARG
56	N0	138	GLN
56	N0	142	GLN
56	N0	155	ARG
56	N0	157	GLN
56	N0	162	THR
56	N0	169	SER
56	N0	172	TYR
57	N1	9	SER
57	N1	16	GLN
57	N1	25	VAL
57	N1	26	HIS
57	N1	27	LEU
57	N1	32	LYS
57	N1	43	LYS
57	N1	52	MET
57	N1	55	LYS
57	N1	68	THR
57	N1	75	ILE
57	N1	76	ILE
57	N1	78	LYS
57	N1	79	MET
57	N1	83	ARG
57	N1	88	ARG
57	N1	89	LEU
57	N1	96	ILE
57	N1	103	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
57	N1	104	GLU
57	N1	106	LEU
57	N1	118	GLU
57	N1	122	GLN
57	N1	126	VAL
57	N1	127	GLN
57	N1	128	LEU
57	N1	129	LYS
57	N1	136	ARG
57	N1	139	ARG
57	N1	140	ILE
57	N1	143	THR
57	N1	147	VAL
57	N1	149	GLN
57	N1	158	THR
57	N1	159	PHE
58	N2	10	LYS
58	N2	38	ILE
58	N2	39	ASP
58	N2	52	ASN
58	N2	61	THR
58	N2	62	VAL
58	N2	66	VAL
58	N2	88	GLN
58	N2	104	ARG
58	N2	105	LEU
59	N3	13	ILE
59	N3	32	ARG
59	N3	34	LEU
59	N3	42	SER
59	N3	45	ARG
59	N3	48	ARG
59	N3	54	LEU
59	N3	63	LYS
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	91	VAL
59	N3	97	ASP

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Mol	Chain	Res	Type
59	N3	102	ILE
59	N3	110	LYS
59	N3	115	THR
59	N3	125	LEU
59	N3	128	ARG
60	N4	5	ILE
60	N4	17	ARG
60	N4	19	THR
60	N4	39	LEU
60	N4	45	ASN
61	N5	26	VAL
61	N5	27	ARG
61	N5	34	LEU
61	N5	38	LEU
61	N5	39	LYS
61	N5	40	LEU
61	N5	45	LYS
61	N5	48	SER
61	N5	49	LYS
61	N5	59	SER
61	N5	63	ILE
61	N5	71	THR
61	N5	86	VAL
61	N5	92	LYS
61	N5	108	LEU
61	N5	109	LYS
61	N5	115	ARG
61	N5	125	ARG
61	N5	127	THR
61	N5	129	ASP
61	N5	137	ASN
61	N5	138	ARG
61	N5	139	ILE
61	N5	142	ILE
62	N6	3	LYS
62	N6	5	SER
62	N6	8	VAL
62	N6	10	SER
62	N6	13	ARG
62	N6	17	LYS
62	N6	36	SER
62	N6	37	LYS

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Mol	Chain	Res	Type
62	N6	38	GLU
62	N6	39	LEU
62	N6	45	ILE
62	N6	50	ILE
62	N6	55	GLU
62	N6	56	VAL
62	N6	57	LEU
62	N6	62	SER
62	N6	64	LYS
62	N6	70	ILE
62	N6	74	TYR
62	N6	76	LEU
62	N6	80	VAL
62	N6	83	ASP
62	N6	88	GLU
62	N6	90	VAL
62	N6	95	VAL
62	N6	105	VAL
62	N6	112	ASP
62	N6	115	ARG
62	N6	126	LEU
62	N6	127	GLU
63	N7	14	VAL
63	N7	15	ARG
63	N7	17	ARG
63	N7	24	VAL
63	N7	26	VAL
63	N7	30	ASP
63	N7	34	LYS
63	N7	46	ILE
63	N7	51	LEU
63	N7	54	THR
63	N7	56	LYS
63	N7	72	ILE
63	N7	75	VAL
63	N7	81	LEU
63	N7	83	THR
63	N7	86	THR
63	N7	87	LEU
63	N7	89	VAL
63	N7	93	LYS
63	N7	95	VAL

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Mol	Chain	Res	Type
63	N7	98	THR
63	N7	99	GLU
63	N7	102	GLU
63	N7	103	GLN
63	N7	107	ARG
63	N7	108	GLU
63	N7	109	GLU
63	N7	123	GLN
63	N7	134	LEU
63	N7	135	ARG
64	N8	4	ARG
64	N8	6	THR
64	N8	7	LYS
64	N8	8	THR
64	N8	10	LYS
64	N8	19	LYS
64	N8	27	LYS
64	N8	34	MET
64	N8	46	ASP
64	N8	56	VAL
64	N8	60	TYR
64	N8	76	ASP
64	N8	78	LEU
64	N8	84	GLU
64	N8	88	ASP
64	N8	91	LEU
64	N8	92	LYS
64	N8	115	LYS
64	N8	118	ILE
64	N8	120	ASN
64	N8	123	VAL
64	N8	130	VAL
64	N8	133	LEU
65	N9	17	HIS
65	N9	18	ARG
65	N9	21	ILE
65	N9	22	LYS
65	N9	25	LYS
65	N9	28	LYS
65	N9	33	LYS
65	N9	40	ARG
65	N9	50	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
65	N9	58	LYS
65	N9	59	LYS
66	O0	16	LEU
66	O0	20	SER
66	O0	30	THR
66	O0	32	LYS
66	O0	40	LYS
66	O0	41	LEU
66	O0	61	MET
66	O0	66	LYS
66	O0	83	LYS
66	O0	84	LEU
66	O0	86	ARG
66	O0	87	VAL
66	O0	99	ASP
66	O0	101	LEU
67	O1	8	VAL
67	O1	11	GLU
67	O1	13	THR
67	O1	16	LEU
67	O1	18	LYS
67	O1	24	SER
67	O1	26	LYS
67	O1	31	ARG
67	O1	46	THR
67	O1	55	LEU
67	O1	64	VAL
67	O1	68	GLU
67	O1	79	ARG
67	O1	84	ASP
67	O1	86	LYS
67	O1	96	VAL
67	O1	100	SER
67	O1	104	LEU
67	O1	106	THR
67	O1	107	VAL
67	O1	110	GLU
68	O2	3	SER
68	O2	4	LEU
68	O2	16	LYS
68	O2	19	ARG
68	O2	21	HIS

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Mol	Chain	Res	Type
68	O2	33	ARG
68	O2	41	VAL
68	O2	51	SER
68	O2	52	GLN
68	O2	54	LYS
68	O2	61	LYS
68	O2	62	LYS
68	O2	72	LYS
68	O2	73	THR
68	O2	75	LEU
68	O2	76	VAL
68	O2	82	LEU
68	O2	84	THR
68	O2	87	MET
68	O2	106	VAL
68	O2	109	LEU
68	O2	111	ARG
68	O2	128	LEU
69	O3	4	SER
69	O3	15	SER
69	O3	33	GLU
69	O3	48	ARG
69	O3	59	VAL
69	O3	67	MET
69	O3	70	LYS
69	O3	80	VAL
69	O3	92	LYS
69	O3	93	THR
69	O3	98	VAL
69	O3	106	ASN
70	O4	3	GLN
70	O4	5	VAL
70	O4	8	ARG
70	O4	20	ILE
70	O4	21	LYS
70	O4	24	LYS
70	O4	47	CYS
70	O4	51	LEU
70	O4	56	THR
70	O4	58	ARG
70	O4	65	VAL
70	O4	71	THR

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Mol	Chain	Res	Type
70	O4	72	VAL
70	O4	86	LYS
70	O4	90	ILE
70	O4	103	LYS
70	O4	104	VAL
70	O4	107	GLU
71	O5	4	VAL
71	O5	5	LYS
71	O5	14	LYS
71	O5	20	GLN
71	O5	21	LEU
71	O5	27	GLU
71	O5	28	LEU
71	O5	31	LEU
71	O5	36	LEU
71	O5	40	SER
71	O5	41	LEU
71	O5	44	ILE
71	O5	46	THR
71	O5	48	ARG
71	O5	49	LYS
71	O5	50	SER
71	O5	62	GLN
71	O5	68	GLN
71	O5	71	LYS
71	O5	73	LYS
71	O5	74	LYS
71	O5	85	THR
71	O5	86	ARG
71	O5	89	ARG
71	O5	90	ARG
71	O5	99	GLN
71	O5	101	THR
71	O5	102	GLU
71	O5	104	GLN
71	O5	107	LYS
71	O5	115	LYS
71	O5	119	LYS
72	O6	3	VAL
72	O6	11	LEU
72	O6	16	LYS
72	O6	18	THR

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Mol	Chain	Res	Type
72	O6	25	LYS
72	O6	26	ILE
72	O6	34	SER
72	O6	36	ARG
72	O6	45	ARG
72	O6	57	LEU
72	O6	58	ILE
72	O6	60	LEU
72	O6	62	ARG
72	O6	68	ARG
72	O6	75	LYS
72	O6	76	ARG
72	O6	81	THR
72	O6	88	GLU
72	O6	89	GLU
72	O6	90	MET
72	O6	98	ARG
72	O6	99	ARG
72	O6	100	HIS
73	O7	5	THR
73	O7	17	THR
73	O7	24	ARG
73	O7	25	ARG
73	O7	33	THR
73	O7	45	ARG
73	O7	59	THR
73	O7	65	ARG
73	O7	67	LEU
73	O7	79	GLN
73	O7	85	LYS
73	O7	87	SER
74	O8	22	THR
74	O8	24	THR
74	O8	31	LEU
74	O8	32	ASN
74	O8	33	LYS
74	O8	41	THR
74	O8	46	ARG
74	O8	51	LEU
74	O8	53	THR
74	O8	64	LYS
74	O8	65	LEU

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Mol	Chain	Res	Type
74	O8	67	GLN
74	O8	72	THR
74	O8	77	ARG
74	O8	78	LEU
75	O9	4	GLN
75	O9	5	LYS
75	O9	21	ARG
75	O9	23	LEU
75	O9	29	LEU
75	O9	34	THR
75	O9	36	ARG
75	O9	45	ARG
75	O9	51	ILE
76	Q0	77	ILE
76	Q0	78	ILE
76	Q0	83	LYS
76	Q0	85	LEU
76	Q0	91	CYS
76	Q0	108	THR
76	Q0	113	ARG
76	Q0	114	LYS
76	Q0	127	LEU
76	Q0	128	LYS
77	Q1	9	ARG
77	Q1	10	THR
77	Q1	16	LYS
77	Q1	19	LYS
77	Q1	21	ARG
77	Q1	24	SER
78	Q2	4	VAL
78	Q2	22	GLN
78	Q2	27	GLN
78	Q2	29	LYS
78	Q2	38	GLN
78	Q2	47	GLN
78	Q2	55	LYS
78	Q2	60	LYS
78	Q2	75	VAL
78	Q2	76	LYS
78	Q2	78	LYS
78	Q2	83	LEU
78	Q2	84	THR

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Mol	Chain	Res	Type
78	Q2	85	LEU
78	Q2	88	CYS
78	Q2	93	LEU
78	Q2	100	LYS
79	Q3	6	LYS
79	Q3	7	LYS
79	Q3	11	THR
79	Q3	21	SER
79	Q3	25	GLN
79	Q3	28	LYS
79	Q3	32	GLN
79	Q3	45	LYS
79	Q3	56	THR
79	Q3	59	CYS
79	Q3	60	CYS
79	Q3	64	VAL
79	Q3	73	THR
79	Q3	78	THR
79	Q3	84	ARG
2	s0	6	THR
2	s0	9	LEU
2	s0	10	THR
2	s0	18	LEU
2	s0	24	LEU
2	s0	27	ARG
2	s0	28	ASN
2	s0	29	VAL
2	s0	32	HIS
2	s0	34	GLU
2	s0	41	ARG
2	s0	45	VAL
2	s0	48	ILE
2	s0	50	VAL
2	s0	59	LEU
2	s0	62	ARG
2	s0	72	ASP
2	s0	79	ARG
2	s0	87	LEU
2	s0	88	LYS
2	s0	93	THR
2	s0	96	THR
2	s0	106	SER

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Mol	Chain	Res	Type
2	s0	110	TYR
2	s0	111	ILE
2	s0	112	THR
2	s0	124	THR
2	s0	131	GLN
2	s0	139	VAL
2	s0	144	ILE
2	s0	146	LEU
2	s0	151	SER
2	s0	153	SER
2	s0	154	GLU
2	s0	156	VAL
2	s0	158	VAL
2	s0	164	ASN
2	s0	172	LEU
2	s0	183	ARG
2	s0	184	LEU
2	s0	185	ARG
2	s0	188	LEU
2	s0	189	VAL
2	s0	197	ILE
2	s0	198	MET
3	s1	25	THR
3	s1	37	THR
3	s1	47	LEU
3	s1	51	SER
3	s1	55	LYS
3	s1	62	LYS
3	s1	65	VAL
3	s1	68	VAL
3	s1	70	LEU
3	s1	73	LEU
3	s1	81	PHE
3	s1	82	ARG
3	s1	87	ARG
3	s1	97	LEU
3	s1	106	THR
3	s1	110	LEU
3	s1	125	VAL
3	s1	126	THR
3	s1	127	VAL
3	s1	129	THR

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Mol	Chain	Res	Type
3	s1	136	ARG
3	s1	150	VAL
3	s1	159	SER
3	s1	173	THR
3	s1	175	GLU
3	s1	180	THR
3	s1	181	LEU
3	s1	183	GLN
3	s1	185	THR
3	s1	193	ILE
3	s1	195	LYS
3	s1	212	VAL
3	s1	215	VAL
3	s1	217	LEU
3	s1	219	LYS
3	s1	223	PHE
3	s1	225	VAL
3	s1	228	LEU
3	s1	229	MET
3	s1	234	GLU
4	s2	41	LEU
4	s2	46	LYS
4	s2	51	THR
4	s2	52	THR
4	s2	53	ILE
4	s2	55	GLU
4	s2	58	LEU
4	s2	60	SER
4	s2	69	ILE
4	s2	70	ASP
4	s2	72	LEU
4	s2	73	LEU
4	s2	77	GLN
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	94	GLN
4	s2	97	ARG

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Mol	Chain	Res	Type
4	s2	111	VAL
4	s2	113	LEU
4	s2	116	LYS
4	s2	117	THR
4	s2	141	ARG
4	s2	148	LEU
4	s2	150	GLN
4	s2	159	THR
4	s2	161	LYS
4	s2	164	SER
4	s2	165	VAL
4	s2	186	LYS
4	s2	195	ASP
4	s2	198	THR
4	s2	201	ASN
4	s2	206	THR
4	s2	208	GLU
4	s2	222	TYR
4	s2	225	LEU
4	s2	226	THR
4	s2	229	LEU
4	s2	233	GLN
4	s2	238	SER
4	s2	244	SER
4	s2	245	ASP
5	s3	9	ARG
5	s3	21	LEU
5	s3	35	SER
5	s3	39	VAL
5	s3	44	THR
5	s3	46	THR
5	s3	59	LEU
5	s3	69	LEU
5	s3	70	THR
5	s3	84	ILE
5	s3	90	ARG
5	s3	93	ASP
5	s3	115	ILE
5	s3	120	TYR
5	s3	125	TYR
5	s3	127	MET
5	s3	129	SER

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Mol	Chain	Res	Type
5	s3	139	SER
5	s3	142	LEU
5	s3	158	ILE
5	s3	164	VAL
5	s3	172	THR
5	s3	176	LEU
5	s3	178	ARG
5	s3	179	GLN
5	s3	209	ILE
5	s3	210	GLU
5	s3	212	LYS
6	s4	7	LYS
6	s4	23	LEU
6	s4	29	PRO
6	s4	38	LEU
6	s4	39	ARG
6	s4	42	LEU
6	s4	48	LEU
6	s4	51	ARG
6	s4	67	GLN
6	s4	78	THR
6	s4	104	ASP
6	s4	108	ARG
6	s4	112	HIS
6	s4	116	ASP
6	s4	118	GLU
6	s4	123	LEU
6	s4	146	THR
6	s4	148	ARG
6	s4	160	VAL
6	s4	164	LEU
6	s4	170	THR
6	s4	180	LEU
6	s4	182	TYR
6	s4	183	VAL
6	s4	200	ARG
6	s4	210	ILE
6	s4	214	LEU
6	s4	219	VAL
6	s4	221	ARG
6	s4	222	LEU
6	s4	246	LEU

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Mol	Chain	Res	Type
7	s5	23	VAL
7	s5	25	LEU
7	s5	27	THR
7	s5	29	ILE
7	s5	31	GLU
7	s5	39	GLU
7	s5	41	LYS
7	s5	45	LYS
7	s5	59	VAL
7	s5	63	GLN
7	s5	68	ILE
7	s5	76	ARG
7	s5	79	ASN
7	s5	89	ILE
7	s5	90	ILE
7	s5	93	LEU
7	s5	94	THR
7	s5	99	MET
7	s5	102	ARG
7	s5	112	ARG
7	s5	119	ASP
7	s5	124	LEU
7	s5	125	THR
7	s5	126	ASP
7	s5	128	ASN
7	s5	148	ARG
7	s5	157	ARG
7	s5	160	VAL
7	s5	166	ARG
7	s5	170	GLN
7	s5	186	ASN
7	s5	190	ILE
7	s5	194	LEU
7	s5	199	ILE
7	s5	203	LYS
7	s5	216	GLU
7	s5	217	LEU
7	s5	219	ARG
8	s6	18	ILE
8	s6	31	ARG
8	s6	65	GLN
8	s6	68	LEU

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Mol	Chain	Res	Type
8	s6	73	ILE
8	s6	76	LEU
8	s6	97	VAL
8	s6	98	ARG
8	s6	108	VAL
8	s6	109	LEU
8	s6	121	LEU
8	s6	126	ASP
8	s6	127	THR
8	s6	128	THR
8	s6	143	LYS
8	s6	150	GLU
8	s6	151	ASP
8	s6	153	VAL
8	s6	157	VAL
8	s6	158	ILE
8	s6	162	VAL
8	s6	168	THR
8	s6	175	ILE
8	s6	177	ARG
8	s6	180	THR
8	s6	182	GLN
8	s6	191	ARG
8	s6	193	LEU
8	s6	201	GLN
8	s6	215	ARG
8	s6	216	LEU
8	s6	217	SER
9	s7	8	ILE
9	s7	9	LEU
9	s7	10	SER
9	s7	11	GLN
9	s7	14	THR
9	s7	28	GLU
9	s7	33	GLU
9	s7	39	ARG
9	s7	42	GLN
9	s7	50	ASP
9	s7	55	LYS
9	s7	67	LEU
9	s7	75	THR
9	s7	80	GLU

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Mol	Chain	Res	Type
9	s7	97	ARG
9	s7	103	SER
9	s7	105	THR
9	s7	106	SER
9	s7	114	ARG
9	s7	116	ARG
9	s7	118	LEU
9	s7	122	HIS
9	s7	129	LEU
9	s7	136	VAL
9	s7	159	VAL
9	s7	166	LEU
9	s7	168	SER
9	s7	184	GLU
9	s7	185	ILE
10	s8	10	LYS
10	s8	18	ARG
10	s8	22	ARG
10	s8	25	ARG
10	s8	29	LEU
10	s8	36	THR
10	s8	46	VAL
10	s8	59	ARG
10	s8	61	GLU
10	s8	62	THR
10	s8	74	LYS
10	s8	76	THR
10	s8	94	ASN
10	s8	110	ARG
10	s8	120	THR
10	s8	135	LYS
10	s8	151	LYS
10	s8	155	SER
10	s8	158	SER
10	s8	183	ILE
10	s8	184	LEU
10	s8	199	LYS
11	s9	3	ARG
11	s9	6	ARG
11	s9	7	THR
11	s9	9	SER
11	s9	16	LYS

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Mol	Chain	Res	Type
11	s9	21	SER
11	s9	28	LEU
11	s9	49	LEU
11	s9	63	ASP
11	s9	78	ARG
11	s9	87	SER
11	s9	93	LEU
11	s9	101	VAL
11	s9	109	LEU
11	s9	126	ARG
11	s9	127	VAL
11	s9	130	THR
11	s9	133	HIS
11	s9	134	ILE
11	s9	149	ARG
11	s9	150	LEU
11	s9	151	ASP
11	s9	161	THR
11	s9	162	SER
11	s9	171	ARG
11	s9	172	VAL
11	s9	175	ARG
11	s9	182	GLU
12	c0	2	LEU
12	c0	5	LYS
12	c0	15	LEU
12	c0	20	VAL
12	c0	36	ASP
12	c0	49	LEU
12	c0	51	SER
12	c0	55	VAL
12	c0	57	THR
12	c0	70	GLU
12	c0	71	GLU
13	c1	5	LEU
13	c1	10	GLU
13	c1	21	ASN
13	c1	22	ASN
13	c1	27	THR
13	c1	31	THR
13	c1	32	LYS
13	c1	33	ARG

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Mol	Chain	Res	Type
13	c1	35	TYR
13	c1	40	LEU
13	c1	44	THR
13	c1	47	THR
13	c1	60	PHE
13	c1	64	VAL
13	c1	67	ARG
13	c1	69	LYS
13	c1	76	VAL
13	c1	77	SER
13	c1	86	ILE
13	c1	109	VAL
13	c1	112	SER
13	c1	116	ARG
13	c1	123	VAL
13	c1	129	ARG
13	c1	136	ARG
13	c1	138	ASN
13	c1	140	VAL
13	c1	143	SER
14	c2	30	VAL
14	c2	36	LEU
14	c2	37	VAL
14	c2	39	ASP
14	c2	52	LEU
14	c2	58	LEU
14	c2	59	LEU
14	c2	62	LEU
14	c2	71	ILE
14	c2	74	LEU
14	c2	83	GLU
14	c2	85	LYS
14	c2	86	VAL
14	c2	89	ILE
14	c2	91	VAL
14	c2	97	LEU
14	c2	103	LEU
14	c2	116	VAL
14	c2	125	ASN
14	c2	132	GLU
14	c2	133	LEU
14	c2	137	MET

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Mol	Chain	Res	Type
14	c2	138	GLU
14	c2	140	PHE
15	c3	12	SER
15	c3	14	SER
15	c3	16	ILE
15	c3	20	ARG
15	c3	27	LYS
15	c3	39	LYS
15	c3	53	LEU
15	c3	64	ARG
15	c3	66	ILE
15	c3	70	LYS
15	c3	75	LEU
15	c3	80	LEU
15	c3	94	LYS
15	c3	97	SER
15	c3	103	GLU
15	c3	114	ARG
15	c3	115	LEU
15	c3	125	LEU
15	c3	127	ARG
15	c3	131	THR
15	c3	149	LEU
16	c4	13	VAL
16	c4	16	VAL
16	c4	18	ARG
16	c4	20	TYR
16	c4	26	THR
16	c4	33	LEU
16	c4	43	THR
16	c4	49	LYS
16	c4	61	MET
16	c4	65	GLN
16	c4	74	VAL
16	c4	81	VAL
16	c4	102	LEU
16	c4	107	ARG
16	c4	114	ARG
16	c4	117	ASP
16	c4	118	VAL
16	c4	119	THR
16	c4	127	ARG

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Mol	Chain	Res	Type
16	c4	133	ARG
16	c4	135	ARG
16	c4	136	ARG
16	c4	137	LEU
17	c5	10	ARG
17	c5	12	PHE
17	c5	21	ASP
17	c5	24	LYS
17	c5	27	GLU
17	c5	28	MET
17	c5	36	LEU
17	c5	44	ARG
17	c5	49	MET
17	c5	52	LYS
17	c5	69	GLU
17	c5	72	LYS
17	c5	77	ARG
17	c5	107	ILE
17	c5	110	GLU
17	c5	122	THR
17	c5	124	THR
17	c5	127	ARG
18	c6	7	VAL
18	c6	17	THR
18	c6	23	LYS
18	c6	28	LEU
18	c6	37	THR
18	c6	43	ILE
18	c6	48	VAL
18	c6	53	LEU
18	c6	54	LEU
18	c6	57	LEU
18	c6	58	ASP
18	c6	66	ARG
18	c6	68	ARG
18	c6	69	VAL
18	c6	81	ILE
18	c6	82	ARG
18	c6	83	GLN
18	c6	94	GLN
18	c6	98	ASP
18	c6	107	LYS

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Mol	Chain	Res	Type
18	c6	110	THR
18	c6	114	ARG
18	c6	115	THR
18	c6	117	LEU
18	c6	137	ARG
19	c7	3	ARG
19	c7	4	VAL
19	c7	5	ARG
19	c7	7	LYS
19	c7	8	THR
19	c7	29	GLN
19	c7	34	LEU
19	c7	40	THR
19	c7	45	ARG
19	c7	46	LEU
19	c7	62	GLN
19	c7	69	ILE
19	c7	72	LYS
19	c7	78	ARG
19	c7	110	VAL
19	c7	113	LEU
20	c8	2	SER
20	c8	3	LEU
20	c8	4	VAL
20	c8	5	VAL
20	c8	6	GLN
20	c8	13	HIS
20	c8	14	ILE
20	c8	15	LEU
20	c8	20	THR
20	c8	25	ASN
20	c8	26	ILE
20	c8	33	THR
20	c8	40	ARG
20	c8	57	ARG
20	c8	63	GLN
20	c8	66	LEU
20	c8	71	GLN
20	c8	77	THR
20	c8	88	ARG
20	c8	93	THR
20	c8	105	VAL

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Mol	Chain	Res	Type
20	c8	107	SER
20	c8	110	ARG
20	c8	116	LEU
20	c8	117	LYS
20	c8	119	ILE
20	c8	136	GLN
20	c8	138	THR
20	c8	141	THR
20	c8	143	ARG
21	c9	20	SER
21	c9	28	LEU
21	c9	36	ILE
21	c9	37	VAL
21	c9	68	ARG
21	c9	70	GLN
21	c9	71	VAL
21	c9	75	LYS
21	c9	85	SER
21	c9	86	ARG
21	c9	88	VAL
21	c9	91	TYR
21	c9	111	ILE
21	c9	126	GLU
21	c9	132	LEU
21	c9	139	THR
21	c9	140	LEU
21	c9	141	GLU
21	c9	142	GLU
22	d0	12	GLN
22	d0	16	GLN
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	44	ASN
22	d0	47	GLN
22	d0	51	VAL
22	d0	57	ARG
22	d0	60	THR
22	d0	70	THR

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Mol	Chain	Res	Type
22	d0	72	ASN
22	d0	74	GLU
22	d0	77	LYS
22	d0	89	ARG
22	d0	99	ILE
22	d0	102	ARG
22	d0	103	ILE
22	d0	104	THR
22	d0	107	THR
22	d0	108	ILE
22	d0	114	VAL
22	d0	115	GLU
23	d1	2	GLU
23	d1	5	LYS
23	d1	32	VAL
23	d1	34	ILE
23	d1	38	LYS
23	d1	49	GLU
23	d1	50	TYR
23	d1	52	THR
23	d1	61	SER
23	d1	62	ARG
23	d1	68	SER
23	d1	69	LEU
23	d1	75	ASN
23	d1	78	LEU
23	d1	80	LYS
23	d1	85	TYR
24	d2	6	VAL
24	d2	7	LEU
24	d2	15	ASN
24	d2	22	LYS
24	d2	23	ARG
24	d2	25	VAL
24	d2	26	LEU
24	d2	65	LEU
24	d2	81	VAL
24	d2	85	ASP
24	d2	88	LYS
24	d2	93	LEU
24	d2	98	GLN
24	d2	103	ILE

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Mol	Chain	Res	Type
24	d2	124	LYS
25	d3	9	LEU
25	d3	14	LYS
25	d3	17	VAL
25	d3	19	ARG
25	d3	23	ARG
25	d3	28	ASN
25	d3	36	THR
25	d3	40	SER
25	d3	46	SER
25	d3	55	GLU
25	d3	69	ARG
25	d3	72	VAL
25	d3	73	ARG
25	d3	75	GLN
25	d3	83	VAL
25	d3	84	THR
25	d3	96	VAL
25	d3	100	ASP
25	d3	103	LEU
25	d3	107	PHE
25	d3	109	ARG
25	d3	125	VAL
25	d3	133	LEU
25	d3	138	GLU
25	d3	139	LYS
26	d4	5	VAL
26	d4	10	ARG
26	d4	22	GLN
26	d4	28	LEU
26	d4	32	ARG
26	d4	36	SER
26	d4	42	GLU
26	d4	43	LYS
26	d4	47	VAL
26	d4	49	LYS
26	d4	55	VAL
26	d4	62	THR
26	d4	74	LEU
26	d4	83	LYS
26	d4	88	THR
26	d4	92	VAL

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Mol	Chain	Res	Type
26	d4	100	VAL
26	d4	104	SER
26	d4	112	LYS
26	d4	116	LYS
26	d4	128	LYS
26	d4	132	ARG
27	d5	41	ILE
27	d5	43	ASP
27	d5	46	LYS
27	d5	57	TYR
27	d5	81	ARG
27	d5	90	LYS
27	d5	93	SER
28	d6	3	LYS
28	d6	4	LYS
28	d6	10	ARG
28	d6	11	ASN
28	d6	18	VAL
28	d6	42	ARG
28	d6	44	ILE
28	d6	53	LEU
28	d6	57	SER
28	d6	61	GLU
28	d6	67	THR
28	d6	82	ARG
28	d6	90	GLU
29	d7	3	LEU
29	d7	8	LEU
29	d7	14	SER
29	d7	15	GLU
29	d7	22	LYS
29	d7	34	ASP
29	d7	41	LEU
29	d7	43	ILE
29	d7	52	THR
29	d7	55	THR
29	d7	59	CYS
29	d7	67	THR
29	d7	72	LYS
29	d7	77	THR
29	d7	78	SER
29	d7	81	ARG

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Mol	Chain	Res	Type
30	d8	16	LEU
30	d8	19	THR
30	d8	22	ARG
30	d8	32	PHE
30	d8	33	LEU
30	d8	54	LEU
30	d8	64	ARG
30	d8	65	ARG
31	d9	6	VAL
31	d9	10	HIS
31	d9	12	ARG
31	d9	16	LYS
31	d9	26	SER
31	d9	30	LEU
31	d9	32	ARG
31	d9	36	LEU
31	d9	38	ILE
31	d9	54	LYS
80	e0	4	VAL
80	e0	13	LYS
80	e0	22	GLU
80	e0	29	LYS
80	e0	41	THR
80	e0	46	ASN
80	e0	48	THR
80	e0	49	LEU
80	e0	51	ASN
80	e0	55	ARG
80	e0	56	MET
33	e1	80	ARG
33	e1	84	VAL
33	e1	86	THR
33	e1	90	LYS
33	e1	92	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	109	ASP
33	e1	113	LYS

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Mol	Chain	Res	Type
33	e1	115	THR
33	e1	117	LEU
33	e1	120	GLU
33	e1	121	CYS
33	e1	122	SER
33	e1	135	HIS
33	e1	137	ASP
33	e1	140	TYR
33	e1	144	CYS
33	e1	147	VAL
34	sR	10	ARG
34	sR	17	ASN
34	sR	21	THR
34	sR	25	THR
34	sR	29	GLN
34	sR	48	THR
34	sR	52	GLN
34	sR	59	ARG
34	sR	64	HIS
34	sR	65	SER
34	sR	66	HIS
34	sR	76	ASP
34	sR	96	THR
34	sR	98	GLU
34	sR	100	TYR
34	sR	118	LYS
34	sR	123	ILE
34	sR	130	THR
34	sR	145	LEU
34	sR	149	ASP
34	sR	152	SER
34	sR	164	ASP
34	sR	176	LYS
34	sR	178	VAL
34	sR	203	THR
34	sR	210	LEU
34	sR	258	THR
34	sR	275	ARG
34	sR	282	SER
34	sR	297	ASP
35	sM	23	LYS
35	sM	27	LYS

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Mol	Chain	Res	Type
35	sM	41	SER
35	sM	43	ASP
35	sM	45	SER
35	sM	49	LYS
35	sM	50	ASN
35	sM	61	ILE
35	sM	64	LYS
35	sM	69	ARG
35	sM	74	LYS
35	sM	77	THR
39	l2	15	ILE
39	l2	23	ARG
39	l2	30	ARG
39	l2	32	LEU
39	l2	44	ILE
39	l2	46	LYS
39	l2	48	ILE
39	l2	49	VAL
39	l2	52	SER
39	l2	61	VAL
39	l2	62	VAL
39	l2	70	ARG
39	l2	71	LEU
39	l2	74	GLU
39	l2	95	SER
39	l2	101	VAL
39	l2	111	THR
39	l2	112	ILE
39	l2	113	VAL
39	l2	119	LYS
39	l2	137	ILE
39	l2	142	ASP
39	l2	147	ARG
39	l2	149	ARG
39	l2	155	LYS
39	l2	158	ILE
39	l2	165	VAL
39	l2	179	LEU
39	l2	180	LEU
39	l2	188	LYS
39	l2	193	ARG
39	l2	202	VAL

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Mol	Chain	Res	Type
39	12	204	MET
39	12	224	THR
39	12	227	ARG
39	12	241	ARG
39	12	243	THR
39	12	246	LEU
39	12	249	SER
39	12	251	LYS
40	13	3	HIS
40	13	4	ARG
40	13	5	LYS
40	13	10	ARG
40	13	17	LEU
40	13	19	ARG
40	13	20	LYS
40	13	21	ARG
40	13	24	SER
40	13	37	ARG
40	13	39	LYS
40	13	43	LEU
40	13	47	LEU
40	13	50	LYS
40	13	56	ILE
40	13	66	LYS
40	13	70	ARG
40	13	79	VAL
40	13	81	THR
40	13	84	VAL
40	13	85	VAL
40	13	103	THR
40	13	114	VAL
40	13	132	LYS
40	13	146	ARG
40	13	148	LEU
40	13	150	ARG
40	13	156	SER
40	13	157	VAL
40	13	167	ARG
40	13	169	THR
40	13	178	LEU
40	13	183	LEU
40	13	188	ILE

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Mol	Chain	Res	Type
40	l3	192	VAL
40	l3	196	ARG
40	l3	202	THR
40	l3	205	VAL
40	l3	208	VAL
40	l3	211	GLN
40	l3	214	MET
40	l3	221	THR
40	l3	222	LYS
40	l3	229	VAL
40	l3	232	ARG
40	l3	235	THR
40	l3	238	LEU
40	l3	242	THR
40	l3	247	ARG
40	l3	248	LYS
40	l3	249	VAL
40	l3	252	ILE
40	l3	281	LYS
40	l3	284	ARG
40	l3	297	SER
40	l3	301	THR
40	l3	308	MET
40	l3	317	ILE
40	l3	318	LYS
40	l3	323	MET
40	l3	328	ILE
40	l3	332	ARG
40	l3	338	LEU
40	l3	346	THR
40	l3	347	SER
40	l3	348	ARG
40	l3	354	VAL
40	l3	355	SER
40	l3	361	THR
40	l3	364	LYS
40	l3	385	LYS
41	l4	3	ARG
41	l4	14	GLU
41	l4	20	LEU
41	l4	25	VAL
41	l4	47	ARG

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Mol	Chain	Res	Type
41	14	53	SER
41	14	64	SER
41	14	93	MET
41	14	99	MET
41	14	112	LYS
41	14	120	TYR
41	14	122	THR
41	14	144	LYS
41	14	145	ILE
41	14	156	LEU
41	14	158	SER
41	14	161	LYS
41	14	163	LYS
41	14	170	LYS
41	14	172	VAL
41	14	179	LEU
41	14	182	LEU
41	14	186	LYS
41	14	187	LEU
41	14	191	LYS
41	14	193	LYS
41	14	200	THR
41	14	203	ARG
41	14	206	LEU
41	14	230	VAL
41	14	246	ARG
41	14	258	LEU
41	14	266	THR
41	14	267	VAL
41	14	283	THR
41	14	287	THR
41	14	292	SER
41	14	293	SER
41	14	297	SER
41	14	301	PRO
41	14	306	THR
41	14	307	GLN
41	14	313	LEU
41	14	319	LYS
41	14	327	LEU
41	14	333	VAL
41	14	337	GLU

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Mol	Chain	Res	Type
41	14	342	LYS
41	14	343	LYS
41	14	345	GLU
41	14	347	THR
41	14	349	THR
41	14	358	THR
41	14	359	LEU
42	15	4	GLN
42	15	13	SER
42	15	34	LYS
42	15	35	ARG
42	15	41	LYS
42	15	51	LEU
42	15	61	ILE
42	15	68	THR
42	15	70	THR
42	15	75	LEU
42	15	89	THR
42	15	93	THR
42	15	109	THR
42	15	110	LEU
42	15	111	GLN
42	15	112	LYS
42	15	113	LEU
42	15	115	LEU
42	15	118	THR
42	15	124	GLU
42	15	130	GLU
42	15	132	THR
42	15	133	GLU
42	15	135	VAL
42	15	140	ARG
42	15	144	VAL
42	15	146	LEU
42	15	148	ILE
42	15	152	ARG
42	15	155	THR
42	15	158	ARG
42	15	183	TRP
42	15	185	PHE
42	15	186	GLU
42	15	194	LEU

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Mol	Chain	Res	Type
42	15	211	LEU
42	15	220	SER
42	15	227	LEU
42	15	232	ASP
42	15	236	LEU
42	15	241	THR
42	15	254	LYS
42	15	258	LYS
42	15	259	LYS
42	15	261	THR
42	15	268	GLU
42	15	271	LYS
42	15	273	ARG
42	15	282	ARG
42	15	297	GLN
43	16	12	SER
43	16	14	ASP
43	16	15	VAL
43	16	21	THR
43	16	31	ARG
43	16	46	ARG
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	89	THR
43	16	93	VAL
43	16	98	VAL
43	16	99	GLU
43	16	109	GLU
43	16	129	GLU
43	16	131	LYS
43	16	133	GLU
43	16	152	THR
43	16	155	LEU
43	16	162	SER
43	16	170	LYS
43	16	173	MET
44	17	22	THR
44	17	24	GLU

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Mol	Chain	Res	Type
44	17	26	VAL
44	17	33	ARG
44	17	38	LYS
44	17	54	GLU
44	17	56	GLU
44	17	60	ARG
44	17	77	VAL
44	17	80	GLN
44	17	83	LEU
44	17	88	ARG
44	17	98	LYS
44	17	100	ARG
44	17	110	ARG
44	17	121	LYS
44	17	124	LEU
44	17	130	ILE
44	17	145	ARG
44	17	156	ILE
44	17	173	LEU
44	17	179	LEU
44	17	184	LEU
44	17	218	ARG
44	17	229	PHE
44	17	234	GLU
44	17	239	LEU
45	18	41	GLN
45	18	50	VAL
45	18	63	LYS
45	18	67	ILE
45	18	68	ARG
45	18	71	VAL
45	18	74	THR
45	18	79	GLN
45	18	89	GLU
45	18	90	THR
45	18	95	ASN
45	18	111	LYS
45	18	136	LEU
45	18	146	LYS
45	18	149	LYS
45	18	160	ILE
45	18	164	VAL

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Mol	Chain	Res	Type
45	18	169	LEU
45	18	172	LYS
45	18	183	LYS
45	18	200	LEU
45	18	214	LEU
45	18	217	THR
45	18	221	ASN
45	18	224	ASP
45	18	245	LYS
45	18	246	MET
45	18	248	LYS
46	19	5	GLN
46	19	6	THR
46	19	17	THR
46	19	18	VAL
46	19	19	SER
46	19	30	PRO
46	19	31	ARG
46	19	33	THR
46	19	36	LYS
46	19	44	THR
46	19	46	THR
46	19	52	LEU
46	19	55	VAL
46	19	68	LEU
46	19	69	ARG
46	19	70	THR
46	19	80	THR
46	19	82	VAL
46	19	92	TYR
46	19	105	GLU
46	19	106	LYS
46	19	129	ARG
46	19	132	VAL
46	19	133	THR
46	19	134	ILE
46	19	138	THR
46	19	144	ILE
46	19	151	VAL
46	19	157	ASN
46	19	161	LEU
46	19	162	GLN

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Mol	Chain	Res	Type
46	l9	168	ARG
46	l9	170	LYS
46	l9	173	ARG
46	l9	179	ILE
46	l9	184	LYS
46	l9	188	THR
47	m0	3	ARG
47	m0	19	LYS
47	m0	21	ARG
47	m0	24	ARG
47	m0	33	ILE
47	m0	36	LEU
47	m0	42	THR
47	m0	44	ASP
47	m0	48	LEU
47	m0	52	LEU
47	m0	57	LEU
47	m0	58	GLU
47	m0	59	GLN
47	m0	60	LEU
47	m0	71	CYS
47	m0	74	LYS
47	m0	77	THR
47	m0	87	LEU
47	m0	91	VAL
47	m0	99	ILE
47	m0	101	LYS
47	m0	103	LEU
47	m0	130	ASP
47	m0	140	THR
47	m0	141	LYS
47	m0	143	SER
47	m0	154	ARG
47	m0	156	ARG
47	m0	167	LEU
47	m0	169	LYS
47	m0	186	GLU
47	m0	197	VAL
47	m0	200	LEU
47	m0	206	LEU
47	m0	208	ASN
47	m0	211	ARG

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Mol	Chain	Res	Type
47	m0	212	GLU
47	m0	215	GLU
48	m1	10	ARG
48	m1	12	LEU
48	m1	13	LYS
48	m1	29	ARG
48	m1	30	LEU
48	m1	31	THR
48	m1	37	LEU
48	m1	44	THR
48	m1	47	GLN
48	m1	56	THR
48	m1	61	ARG
48	m1	71	VAL
48	m1	77	GLU
48	m1	78	GLU
48	m1	80	LEU
48	m1	82	ARG
48	m1	90	GLN
48	m1	97	SER
48	m1	106	ILE
48	m1	112	LEU
48	m1	115	LYS
48	m1	119	SER
48	m1	130	VAL
48	m1	140	ARG
48	m1	145	LYS
48	m1	153	LYS
48	m1	159	THR
49	m3	9	ILE
49	m3	13	HIS
49	m3	41	THR
49	m3	46	ILE
49	m3	53	LEU
49	m3	54	LEU
49	m3	59	ARG
49	m3	62	THR
49	m3	67	ARG
49	m3	68	LYS
49	m3	69	VAL
49	m3	85	LEU
49	m3	92	THR

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Mol	Chain	Res	Type
49	m3	100	ARG
49	m3	121	SER
49	m3	123	ILE
49	m3	124	ILE
49	m3	157	ARG
49	m3	164	GLU
49	m3	165	SER
49	m3	168	ARG
49	m3	176	GLU
49	m3	182	ILE
49	m3	184	GLU
50	m4	3	THR
50	m4	15	VAL
50	m4	20	VAL
50	m4	24	LYS
50	m4	27	GLN
50	m4	53	VAL
50	m4	58	ILE
50	m4	62	GLN
50	m4	63	VAL
50	m4	72	LEU
50	m4	80	THR
50	m4	82	SER
50	m4	105	GLN
50	m4	106	ARG
50	m4	107	GLU
50	m4	108	ARG
50	m4	130	THR
50	m4	135	LEU
51	m5	5	LYS
51	m5	10	LEU
51	m5	15	GLN
51	m5	22	LEU
51	m5	24	ARG
51	m5	49	ARG
51	m5	68	ARG
51	m5	76	PRO
51	m5	80	THR
51	m5	83	LYS
51	m5	85	THR
51	m5	92	LEU
51	m5	96	ARG

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Mol	Chain	Res	Type
51	m5	97	SER
51	m5	98	LEU
51	m5	109	ARG
51	m5	138	GLN
51	m5	151	ILE
51	m5	153	ASP
51	m5	155	VAL
51	m5	159	ARG
51	m5	170	LYS
51	m5	171	SER
51	m5	174	ILE
51	m5	190	THR
52	m6	4	GLU
52	m6	12	LYS
52	m6	25	LYS
52	m6	34	VAL
52	m6	41	LEU
52	m6	49	ARG
52	m6	58	LEU
52	m6	60	LYS
52	m6	66	LYS
52	m6	67	THR
52	m6	74	ARG
52	m6	78	ARG
52	m6	84	LEU
52	m6	85	ARG
52	m6	89	SER
52	m6	100	GLU
52	m6	106	GLU
52	m6	108	ILE
52	m6	110	PRO
52	m6	116	LYS
52	m6	117	ARG
52	m6	124	LEU
52	m6	126	VAL
52	m6	129	LEU
52	m6	134	LYS
52	m6	143	THR
52	m6	159	LYS
52	m6	166	GLU
52	m6	171	LYS
52	m6	175	THR

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Mol	Chain	Res	Type
52	m6	177	LYS
52	m6	182	ASN
52	m6	190	VAL
53	m7	7	THR
53	m7	9	THR
53	m7	24	VAL
53	m7	25	SER
53	m7	29	THR
53	m7	31	GLU
53	m7	32	THR
53	m7	41	LEU
53	m7	43	LYS
53	m7	46	LYS
53	m7	49	GLU
53	m7	52	LEU
53	m7	56	ARG
53	m7	70	THR
53	m7	79	THR
53	m7	80	LYS
53	m7	86	LYS
53	m7	89	LYS
53	m7	112	LEU
53	m7	114	VAL
53	m7	118	GLN
53	m7	119	VAL
53	m7	124	LYS
53	m7	126	ARG
53	m7	127	ARG
53	m7	128	ARG
53	m7	144	SER
53	m7	148	LEU
53	m7	154	GLU
53	m7	155	GLU
54	m8	3	ILE
54	m8	7	SER
54	m8	11	LYS
54	m8	17	THR
54	m8	22	ASP
54	m8	24	VAL
54	m8	26	LEU
54	m8	31	LYS
54	m8	32	LEU

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Mol	Chain	Res	Type
54	m8	34	THR
54	m8	41	ASP
54	m8	49	LEU
54	m8	57	ILE
54	m8	63	SER
54	m8	64	VAL
54	m8	66	ARG
54	m8	80	THR
54	m8	81	VAL
54	m8	82	VAL
54	m8	86	THR
54	m8	93	ILE
54	m8	113	LYS
54	m8	122	ILE
54	m8	125	ASP
54	m8	135	GLN
54	m8	144	ARG
54	m8	147	ARG
54	m8	159	LYS
54	m8	161	LYS
54	m8	165	ILE
54	m8	170	ARG
54	m8	180	ARG
55	m9	7	GLN
55	m9	8	LYS
55	m9	10	LEU
55	m9	20	ARG
55	m9	29	THR
55	m9	30	SER
55	m9	31	GLU
55	m9	36	ASN
55	m9	43	LYS
55	m9	49	THR
55	m9	55	VAL
55	m9	56	THR
55	m9	60	LYS
55	m9	63	THR
55	m9	70	LYS
55	m9	74	ARG
55	m9	76	SER
55	m9	88	ARG
55	m9	99	LEU

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Mol	Chain	Res	Type
55	m9	104	ARG
55	m9	106	LEU
55	m9	126	GLU
55	m9	134	HIS
55	m9	138	LEU
55	m9	153	LYS
55	m9	164	LEU
55	m9	173	ARG
56	n0	1	MET
56	n0	8	GLN
56	n0	13	ARG
56	n0	23	LYS
56	n0	49	HIS
56	n0	53	LYS
56	n0	71	LYS
56	n0	73	LYS
56	n0	80	ARG
56	n0	87	THR
56	n0	92	LYS
56	n0	97	VAL
56	n0	100	VAL
56	n0	105	THR
56	n0	115	ARG
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	169	SER
56	n0	172	TYR
57	n1	9	SER
57	n1	25	VAL
57	n1	26	HIS
57	n1	27	LEU
57	n1	28	SER
57	n1	35	LYS
57	n1	47	SER

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Mol	Chain	Res	Type
57	n1	68	THR
57	n1	71	SER
57	n1	78	LYS
57	n1	80	VAL
57	n1	83	ARG
57	n1	86	GLU
57	n1	88	ARG
57	n1	89	LEU
57	n1	96	ILE
57	n1	97	LYS
57	n1	102	ARG
57	n1	104	GLU
57	n1	106	LEU
57	n1	126	VAL
57	n1	129	LYS
57	n1	130	ARG
57	n1	135	PRO
57	n1	139	ARG
57	n1	140	ILE
57	n1	143	THR
57	n1	150	THR
58	n2	11	ILE
58	n2	13	LYS
58	n2	37	LEU
58	n2	61	THR
58	n2	63	VAL
58	n2	68	THR
58	n2	74	LYS
58	n2	90	ARG
58	n2	96	VAL
58	n2	99	LYS
59	n3	13	ILE
59	n3	17	LEU
59	n3	22	ILE
59	n3	40	LYS
59	n3	42	SER
59	n3	45	ARG
59	n3	48	ARG
59	n3	69	LEU
59	n3	91	VAL
59	n3	108	GLU
59	n3	110	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
59	n3	115	THR
60	n4	1	MET
60	n4	2	LYS
60	n4	19	THR
60	n4	23	ARG
60	n4	26	SER
60	n4	39	LEU
60	n4	54	LEU
60	n4	57	LYS
60	n4	63	ILE
60	n4	89	LEU
60	n4	97	LYS
60	n4	105	ARG
60	n4	126	GLU
60	n4	127	LYS
60	n4	135	SER
61	n5	24	LEU
61	n5	27	ARG
61	n5	34	LEU
61	n5	38	LEU
61	n5	40	LEU
61	n5	45	LYS
61	n5	55	ASN
61	n5	56	ARG
61	n5	57	LEU
61	n5	63	ILE
61	n5	65	GLN
61	n5	69	SER
61	n5	86	VAL
61	n5	109	LYS
61	n5	115	ARG
61	n5	125	ARG
61	n5	133	LEU
61	n5	137	ASN
61	n5	138	ARG
61	n5	142	ILE
62	n6	4	GLN
62	n6	9	SER
62	n6	12	ARG
62	n6	13	ARG
62	n6	37	LYS
62	n6	39	LEU

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Mol	Chain	Res	Type
62	n6	40	ARG
62	n6	45	ILE
62	n6	50	ILE
62	n6	51	ARG
62	n6	56	VAL
62	n6	57	LEU
62	n6	62	SER
62	n6	66	GLN
62	n6	74	TYR
62	n6	76	LEU
62	n6	80	VAL
62	n6	83	ASP
62	n6	97	ILE
62	n6	120	GLN
62	n6	127	GLU
63	n7	3	LYS
63	n7	14	VAL
63	n7	17	ARG
63	n7	24	VAL
63	n7	26	VAL
63	n7	28	PRO
63	n7	31	GLU
63	n7	34	LYS
63	n7	46	ILE
63	n7	52	LYS
63	n7	54	THR
63	n7	65	ARG
63	n7	66	THR
63	n7	72	ILE
63	n7	73	LYS
63	n7	75	VAL
63	n7	81	LEU
63	n7	83	THR
63	n7	86	THR
63	n7	88	ASP
63	n7	92	PHE
63	n7	93	LYS
63	n7	97	SER
63	n7	99	GLU
63	n7	103	GLN
63	n7	105	SER
63	n7	119	GLU

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Mol	Chain	Res	Type
63	n7	121	ARG
63	n7	133	LYS
63	n7	134	LEU
63	n7	135	ARG
64	n8	4	ARG
64	n8	6	THR
64	n8	8	THR
64	n8	9	ARG
64	n8	16	SER
64	n8	27	LYS
64	n8	42	ARG
64	n8	43	ILE
64	n8	44	ASN
64	n8	46	ASP
64	n8	47	LYS
64	n8	60	TYR
64	n8	65	GLN
64	n8	78	LEU
64	n8	80	THR
64	n8	81	LEU
64	n8	91	LEU
64	n8	95	SER
64	n8	98	THR
64	n8	124	ILE
64	n8	128	ARG
64	n8	132	LYS
64	n8	133	LEU
64	n8	144	VAL
65	n9	3	LYS
65	n9	13	THR
65	n9	14	ARG
65	n9	22	LYS
65	n9	26	THR
65	n9	31	SER
65	n9	38	LYS
65	n9	44	LYS
65	n9	50	THR
65	n9	52	LYS
65	n9	58	LYS
65	n9	59	LYS
66	o0	8	GLU
66	o0	19	LYS

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Mol	Chain	Res	Type
66	o0	32	LYS
66	o0	33	SER
66	o0	34	LEU
66	o0	40	LYS
66	o0	41	LEU
66	o0	48	THR
66	o0	55	GLU
66	o0	61	MET
66	o0	64	LYS
66	o0	66	LYS
66	o0	68	TYR
66	o0	71	GLN
66	o0	81	VAL
66	o0	86	ARG
66	o0	93	LEU
66	o0	101	LEU
67	o1	6	ASP
67	o1	8	VAL
67	o1	13	THR
67	o1	16	LEU
67	o1	26	LYS
67	o1	34	LYS
67	o1	36	ILE
67	o1	44	MET
67	o1	46	THR
67	o1	61	LYS
67	o1	64	VAL
67	o1	76	SER
67	o1	82	GLU
67	o1	94	GLU
67	o1	96	VAL
67	o1	98	VAL
67	o1	100	SER
67	o1	102	LYS
67	o1	105	GLN
67	o1	106	THR
67	o1	107	VAL
67	o1	110	GLU
68	o2	4	LEU
68	o2	5	PRO
68	o2	15	LYS
68	o2	16	LYS

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Mol	Chain	Res	Type
68	o2	19	ARG
68	o2	27	ARG
68	o2	31	ASN
68	o2	33	ARG
68	o2	34	LYS
68	o2	41	VAL
68	o2	51	SER
68	o2	61	LYS
68	o2	73	THR
68	o2	75	LEU
68	o2	76	VAL
68	o2	82	LEU
68	o2	89	THR
68	o2	91	THR
68	o2	109	LEU
68	o2	125	ARG
68	o2	126	LEU
68	o2	128	LEU
69	o3	10	LYS
69	o3	20	LYS
69	o3	21	ARG
69	o3	28	SER
69	o3	31	LYS
69	o3	49	ILE
69	o3	57	LYS
69	o3	58	GLU
69	o3	60	ARG
69	o3	62	SER
69	o3	70	LYS
69	o3	74	THR
69	o3	81	VAL
69	o3	92	LYS
69	o3	98	VAL
69	o3	107	ILE
70	o4	5	VAL
70	o4	20	ILE
70	o4	24	LYS
70	o4	29	ILE
70	o4	30	LEU
70	o4	33	GLN
70	o4	58	ARG
70	o4	66	SER

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Mol	Chain	Res	Type
70	o4	79	SER
70	o4	86	LYS
70	o4	98	GLN
70	o4	103	LYS
70	o4	104	VAL
71	o5	20	GLN
71	o5	21	LEU
71	o5	30	GLU
71	o5	31	LEU
71	o5	35	LYS
71	o5	37	SER
71	o5	47	VAL
71	o5	48	ARG
71	o5	62	GLN
71	o5	69	LEU
71	o5	73	LYS
71	o5	80	LEU
71	o5	81	ARG
71	o5	85	THR
71	o5	89	ARG
71	o5	90	ARG
71	o5	100	VAL
71	o5	107	LYS
71	o5	115	LYS
72	o6	7	ILE
72	o6	9	ILE
72	o6	11	LEU
72	o6	17	VAL
72	o6	21	THR
72	o6	26	ILE
72	o6	34	SER
72	o6	36	ARG
72	o6	37	THR
72	o6	38	LYS
72	o6	43	LEU
72	o6	45	ARG
72	o6	57	LEU
72	o6	58	ILE
72	o6	59	ASP
72	o6	60	LEU
72	o6	62	ARG
72	o6	71	LYS

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Mol	Chain	Res	Type
72	o6	76	ARG
72	o6	81	THR
72	o6	84	LYS
72	o6	88	GLU
72	o6	94	ILE
72	o6	98	ARG
72	o6	100	HIS
73	o7	3	LYS
73	o7	17	THR
73	o7	19	CYS
73	o7	33	THR
73	o7	36	SER
73	o7	44	THR
73	o7	59	THR
73	o7	64	MET
73	o7	65	ARG
73	o7	67	LEU
73	o7	72	ARG
73	o7	84	SER
73	o7	87	SER
74	o8	5	ILE
74	o8	10	GLN
74	o8	12	LEU
74	o8	16	ARG
74	o8	31	LEU
74	o8	33	LYS
74	o8	41	THR
74	o8	42	LYS
74	o8	45	VAL
74	o8	46	ARG
74	o8	50	SER
74	o8	53	THR
74	o8	64	LYS
74	o8	65	LEU
74	o8	67	GLN
74	o8	69	LEU
74	o8	73	LEU
74	o8	74	LYS
75	o9	4	GLN
75	o9	15	LYS
75	o9	21	ARG
75	o9	23	LEU

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Mol	Chain	Res	Type
75	o9	27	ILE
75	o9	28	ARG
75	o9	29	LEU
75	o9	36	ARG
75	o9	45	ARG
75	o9	47	THR
75	o9	48	LYS
75	o9	51	ILE
76	q0	79	GLU
76	q0	85	LEU
76	q0	87	SER
76	q0	88	LYS
76	q0	91	CYS
76	q0	93	LYS
76	q0	112	LYS
76	q0	113	ARG
76	q0	114	LYS
76	q0	128	LYS
77	q1	2	ARG
77	q1	6	ARG
77	q1	9	ARG
77	q1	13	LEU
77	q1	16	LYS
77	q1	18	ARG
77	q1	19	LYS
77	q1	21	ARG
77	q1	23	ARG
77	q1	24	SER
78	q2	7	THR
78	q2	8	ARG
78	q2	16	THR
78	q2	35	LEU
78	q2	45	ARG
78	q2	61	LYS
78	q2	71	ARG
78	q2	76	LYS
78	q2	78	LYS
78	q2	83	LEU
78	q2	84	THR
78	q2	85	LEU
78	q2	89	LYS
78	q2	104	LEU

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Mol	Chain	Res	Type
78	q2	105	GLN
78	q2	106	PHE
79	q3	3	LYS
79	q3	16	VAL
79	q3	20	SER
79	q3	42	CYS
79	q3	46	THR
79	q3	48	LYS
79	q3	49	ARG
79	q3	54	ILE
79	q3	56	THR
79	q3	58	SER
79	q3	62	LYS
79	q3	73	THR
79	q3	78	THR
79	q3	90	VAL
82	p0	4	ILE
82	p0	7	LYS
82	p0	10	GLU
82	p0	15	LEU
82	p0	25	LEU
82	p0	30	VAL
82	p0	39	HIS
82	p0	42	ARG
82	p0	43	LYS
82	p0	44	GLU
82	p0	52	LEU
82	p0	55	LYS
82	p0	67	LEU
82	p0	70	LEU
82	p0	72	ASP
82	p0	89	THR
82	p0	91	GLU
82	p0	93	LEU
82	p0	94	THR
82	p0	97	LYS
82	p0	101	VAL
82	p0	104	ARG
82	p0	185	LEU
82	p0	192	ASP

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

Mol	Chain	Res	Type
2	S0	15	GLN
3	S1	79	HIS
5	S3	74	GLN
8	S6	59	GLN
10	S8	64	ASN
12	C0	12	HIS
12	C0	17	GLN
12	C0	32	HIS
17	C5	103	ASN
19	C7	105	GLN
20	C8	6	GLN
20	C8	25	ASN
21	C9	70	GLN
22	D0	47	GLN
23	D1	75	ASN
27	D5	95	HIS
34	SR	319	ASN
35	SM	94	HIS
40	L3	173	GLN
41	L4	311	HIS
43	L6	28	GLN
44	L7	244	ASN
45	L8	41	GLN
48	M1	7	ASN
54	M8	145	ASN
59	N3	98	ASN
74	O8	32	ASN
2	s0	140	ASN
7	s5	100	ASN
7	s5	186	ASN
8	s6	201	GLN
9	s7	71	HIS
9	s7	122	HIS
10	s8	103	GLN
11	s9	124	HIS
11	s9	155	HIS
19	c7	31	ASN
19	c7	74	GLN
20	c8	89	GLN
20	c8	103	ASN
21	c9	64	HIS
22	d0	44	ASN
22	d0	47	GLN

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Mol	Chain	Res	Type
24	d2	56	HIS
30	d8	27	GLN
33	e1	93	HIS
39	l2	218	HIS
40	l3	211	GLN
41	l4	18	ASN
52	m6	122	GLN
55	m9	7	GLN
55	m9	36	ASN
57	n1	98	HIS
57	n1	131	GLN
59	n3	33	ASN
64	n8	44	ASN
71	o5	108	GLN
79	q3	33	GLN

### 5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	2	1747/1800 (97%)	512 (29%)	56 (3%)
1	6	1792/1800 (99%)	463 (25%)	53 (2%)
36	1	3145/3396 (92%)	702 (22%)	92 (2%)
36	5	3145/3396 (92%)	717 (22%)	94 (2%)
37	3	120/121 (99%)	24 (20%)	2 (1%)
37	7	120/121 (99%)	23 (19%)	1 (0%)
38	4	157/158 (99%)	40 (25%)	4 (2%)
38	8	157/158 (99%)	40 (25%)	4 (2%)
All	All	10383/10950 (94%)	2521 (24%)	306 (2%)

All (2521) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	2	2	A
1	2	4	C
1	2	17	C
1	2	25	C
1	2	26	A
1	2	27	U
1	2	34	G
1	2	45	U
1	2	46	A

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Mol	Chain	Res	Type
1	2	47	A
1	2	57	G
1	2	60	U
1	2	61	A
1	2	67	A
1	2	68	A
1	2	69	G
1	2	72	A
1	2	73	U
1	2	74	U
1	2	75	U
1	2	76	A
1	2	77	U
1	2	81	G
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	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	169	A
1	2	170	U
1	2	178	U
1	2	179	A
1	2	185	U
1	2	186	C
1	2	187	G
1	2	190	C
1	2	191	C

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Mol	Chain	Res	Type
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	212	U
1	2	215	A
1	2	217	A
1	2	218	A
1	2	219	A
1	2	226	A
1	2	227	U
1	2	228	G
1	2	229	U
1	2	231	U
1	2	233	C
1	2	234	G
1	2	235	G
1	2	238	U
1	2	239	C
1	2	240	U
1	2	241	U
1	2	250	C
1	2	253	A
1	2	260	U
1	2	261	U
1	2	265	A
1	2	267	U
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

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Mol	Chain	Res	Type
1	2	288	A
1	2	290	G
1	2	292	U
1	2	299	A
1	2	314	C
1	2	316	A
1	2	319	U
1	2	320	U
1	2	321	C
1	2	322	G
1	2	335	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	365	G
1	2	369	A
1	2	387	A
1	2	390	G
1	2	393	C
1	2	397	A
1	2	399	A
1	2	400	A
1	2	401	A
1	2	402	C
1	2	403	G
1	2	404	G
1	2	418	G
1	2	419	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	445	A
1	2	446	A
1	2	448	C

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Mol	Chain	Res	Type
1	2	452	A
1	2	459	G
1	2	469	C
1	2	475	A
1	2	480	G
1	2	483	A
1	2	484	C
1	2	485	A
1	2	488	G
1	2	493	U
1	2	494	U
1	2	495	C
1	2	496	G
1	2	497	G
1	2	498	G
1	2	499	U
1	2	500	C
1	2	502	U
1	2	503	G
1	2	504	U
1	2	505	A
1	2	506	A
1	2	507	U
1	2	508	U
1	2	510	G
1	2	511	A
1	2	512	A
1	2	513	U
1	2	515	A
1	2	516	G
1	2	519	C
1	2	520	A
1	2	527	A
1	2	536	C
1	2	538	A
1	2	539	G
1	2	540	G
1	2	541	A
1	2	542	A
1	2	543	C
1	2	544	A
1	2	546	U

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Mol	Chain	Res	Type
1	2	548	G
1	2	557	G
1	2	558	U
1	2	559	C
1	2	565	C
1	2	579	A
1	2	580	A
1	2	582	U
1	2	585	A
1	2	590	C
1	2	594	A
1	2	595	G
1	2	606	A
1	2	614	C
1	2	616	G
1	2	617	U
1	2	619	A
1	2	620	A
1	2	621	A
1	2	622	A
1	2	623	A
1	2	624	G
1	2	639	U
1	2	640	U
1	2	650	U
1	2	653	C
1	2	654	C
1	2	655	G
1	2	656	G
1	2	658	C
1	2	677	G
1	2	679	U
1	2	680	U
1	2	684	A
1	2	685	A
1	2	686	C
1	2	692	C
1	2	694	U
1	2	696	C
1	2	697	C
1	2	700	C
1	2	701	U

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Mol	Chain	Res	Type
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	711	U
1	2	712	G
1	2	714	G
1	2	717	C
1	2	718	U
1	2	719	U
1	2	720	G
1	2	721	U
1	2	722	G
1	2	723	G
1	2	725	U
1	2	727	U
1	2	728	U
1	2	730	G
1	2	731	C
1	2	732	G
1	2	733	A
1	2	734	A
1	2	735	C
1	2	736	C
1	2	737	A
1	2	738	G
1	2	742	U
1	2	743	U
1	2	745	U
1	2	752	A
1	2	754	A
1	2	755	A
1	2	756	A
1	2	765	G
1	2	766	U
1	2	774	A
1	2	775	G

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Mol	Chain	Res	Type
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	794	U
1	2	795	U
1	2	811	A
1	2	812	A
1	2	815	G
1	2	816	G
1	2	818	C
1	2	819	G
1	2	820	U
1	2	821	U
1	2	822	U
1	2	823	G
1	2	824	G
1	2	829	A
1	2	830	U
1	2	831	U
1	2	832	U
1	2	854	U
1	2	860	U
1	2	862	A
1	2	863	A
1	2	864	U
1	2	869	A
1	2	876	G
1	2	892	A
1	2	898	A
1	2	911	U
1	2	912	U
1	2	914	G
1	2	915	A
1	2	916	U
1	2	921	U
1	2	926	A
1	2	933	A

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Mol	Chain	Res	Type
1	2	935	U
1	2	941	A
1	2	942	G
1	2	951	A
1	2	952	A
1	2	953	G
1	2	960	U
1	2	966	A
1	2	982	U
1	2	991	G
1	2	992	A
1	2	993	A
1	2	995	A
1	2	997	G
1	2	1002	G
1	2	1003	A
1	2	1004	U
1	2	1005	A
1	2	1016	C
1	2	1020	A
1	2	1021	C
1	2	1026	A
1	2	1028	C
1	2	1031	U
1	2	1039	A
1	2	1040	G
1	2	1052	U
1	2	1053	G
1	2	1058	U
1	2	1059	U
1	2	1060	U
1	2	1061	A
1	2	1072	C
1	2	1073	G
1	2	1075	C
1	2	1079	U
1	2	1082	C
1	2	1083	G
1	2	1087	A
1	2	1091	A
1	2	1092	A
1	2	1096	C

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Mol	Chain	Res	Type
1	2	1097	U
1	2	1100	G
1	2	1111	G
1	2	1114	G
1	2	1134	C
1	2	1135	U
1	2	1138	A
1	2	1140	G
1	2	1141	G
1	2	1146	G
1	2	1149	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	1176	G
1	2	1185	U
1	2	1194	A
1	2	1196	A
1	2	1197	C
1	2	1198	G
1	2	1199	G
1	2	1200	G
1	2	1202	A
1	2	1203	A
1	2	1206	U
1	2	1207	C
1	2	1208	A
1	2	1216	C
1	2	1217	A
1	2	1218	G
1	2	1226	A
1	2	1227	A
1	2	1229	G
1	2	1234	A
1	2	1235	C
1	2	1241	G
1	2	1244	A
1	2	1245	G

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Mol	Chain	Res	Type
1	2	1250	U
1	2	1251	U
1	2	1257	U
1	2	1258	U
1	2	1273	G
1	2	1286	U
1	2	1301	U
1	2	1314	U
1	2	1315	U
1	2	1316	G
1	2	1319	A
1	2	1320	U
1	2	1321	A
1	2	1337	A
1	2	1339	C
1	2	1340	U
1	2	1341	A
1	2	1344	A
1	2	1345	A
1	2	1354	G
1	2	1361	U
1	2	1362	U
1	2	1363	U
1	2	1364	G
1	2	1370	U
1	2	1371	A
1	2	1372	U
1	2	1379	C
1	2	1383	G
1	2	1386	G
1	2	1388	A
1	2	1390	U
1	2	1398	U
1	2	1399	C
1	2	1400	A
1	2	1412	G
1	2	1413	U
1	2	1415	U
1	2	1427	A
1	2	1428	G
1	2	1431	C
1	2	1433	G

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Mol	Chain	Res	Type
1	2	1446	A
1	2	1447	C
1	2	1448	G
1	2	1454	G
1	2	1457	C
1	2	1459	C
1	2	1462	G
1	2	1466	G
1	2	1471	A
1	2	1473	U
1	2	1474	G
1	2	1477	G
1	2	1482	C
1	2	1486	G
1	2	1487	A
1	2	1489	U
1	2	1490	C
1	2	1491	U
1	2	1492	A
1	2	1493	A
1	2	1494	C
1	2	1500	C
1	2	1506	G
1	2	1514	U
1	2	1515	A
1	2	1516	A
1	2	1517	U
1	2	1521	G
1	2	1523	G
1	2	1524	A
1	2	1526	A
1	2	1528	U
1	2	1535	U
1	2	1536	G
1	2	1537	C
1	2	1538	U
1	2	1540	G
1	2	1544	U
1	2	1548	G
1	2	1557	U
1	2	1559	A
1	2	1568	C

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Mol	Chain	Res	Type
1	2	1569	A
1	2	1573	A
1	2	1574	G
1	2	1584	G
1	2	1590	G
1	2	1600	A
1	2	1601	G
1	2	1614	A
1	2	1616	G
1	2	1631	A
1	2	1635	A
1	2	1637	C
1	2	1652	C
1	2	1657	U
1	2	1658	G
1	2	1663	G
1	2	1673	G
1	2	1681	A
1	2	1682	U
1	2	1683	C
1	2	1684	U
1	2	1729	C
1	2	1731	A
1	2	1747	G
1	2	1756	A
1	2	1757	G
1	2	1760	G
1	2	1761	U
1	2	1762	A
1	2	1766	A
1	2	1769	U
1	2	1770	U
1	2	1780	G
1	2	1782	A
1	2	1783	C
1	2	1789	G
1	2	1792	G
1	2	1793	G
1	2	1794	A
1	2	1795	U
1	2	1796	C
36	1	5	G

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Mol	Chain	Res	Type
36	1	6	A
36	1	11	A
36	1	13	A
36	1	14	U
36	1	26	A
36	1	31	C
36	1	37	U
36	1	40	A
36	1	49	A
36	1	59	G
36	1	60	A
36	1	65	A
36	1	66	A
36	1	73	C
36	1	74	G
36	1	75	G
36	1	83	U
36	1	88	A
36	1	92	G
36	1	93	C
36	1	99	A
36	1	109	A
36	1	110	G
36	1	113	C
36	1	117	U
36	1	121	A
36	1	122	A
36	1	128	G
36	1	133	U
36	1	135	C
36	1	136	G
36	1	156	G
36	1	157	A
36	1	163	C
36	1	166	C
36	1	173	G
36	1	187	A
36	1	190	U
36	1	191	U
36	1	192	C
36	1	199	A
36	1	210	U

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Mol	Chain	Res	Type
36	1	219	A
36	1	224	C
36	1	238	A
36	1	240	U
36	1	241	G
36	1	243	G
36	1	244	G
36	1	245	U
36	1	249	U
36	1	250	U
36	1	252	U
36	1	269	G
36	1	283	G
36	1	284	A
36	1	286	U
36	1	295	A
36	1	298	U
36	1	305	U
36	1	315	C
36	1	323	A
36	1	329	U
36	1	339	C
36	1	343	U
36	1	349	A
36	1	350	C
36	1	357	A
36	1	375	A
36	1	376	G
36	1	397	A
36	1	398	A
36	1	401	U
36	1	402	A
36	1	403	C
36	1	420	G
36	1	421	G
36	1	422	A
36	1	438	A
36	1	439	C
36	1	440	A
36	1	495	G
36	1	497	C
36	1	507	U

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Mol	Chain	Res	Type
36	1	520	U
36	1	521	A
36	1	532	A
36	1	535	G
36	1	544	C
36	1	545	U
36	1	546	C
36	1	548	G
36	1	551	A
36	1	552	G
36	1	553	U
36	1	555	U
36	1	556	U
36	1	557	A
36	1	559	A
36	1	560	G
36	1	568	G
36	1	572	A
36	1	578	A
36	1	579	G
36	1	589	A
36	1	592	A
36	1	593	C
36	1	600	G
36	1	601	U
36	1	604	G
36	1	607	A
36	1	608	A
36	1	609	G
36	1	611	A
36	1	619	A
36	1	620	U
36	1	621	A
36	1	622	A
36	1	624	G
36	1	636	C
36	1	639	G
36	1	642	U
36	1	649	A
36	1	656	A
36	1	660	A
36	1	661	G

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Mol	Chain	Res	Type
36	1	667	C
36	1	677	A
36	1	681	U
36	1	683	U
36	1	691	A
36	1	705	A
36	1	712	G
36	1	715	A
36	1	716	A
36	1	726	G
36	1	736	A
36	1	738	A
36	1	741	U
36	1	763	G
36	1	764	U
36	1	765	C
36	1	766	U
36	1	767	U
36	1	768	C
36	1	776	U
36	1	777	U
36	1	781	G
36	1	785	G
36	1	798	G
36	1	799	G
36	1	803	C
36	1	806	A
36	1	817	A
36	1	830	A
36	1	849	C
36	1	861	C
36	1	872	U
36	1	874	U
36	1	879	U
36	1	881	C
36	1	890	C
36	1	895	A
36	1	896	A
36	1	907	G
36	1	908	G
36	1	914	A
36	1	916	G

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Mol	Chain	Res	Type
36	1	917	A
36	1	923	C
36	1	924	G
36	1	925	A
36	1	937	G
36	1	938	C
36	1	943	U
36	1	944	C
36	1	958	C
36	1	959	C
36	1	960	U
36	1	962	A
36	1	979	U
36	1	981	U
36	1	982	C
36	1	993	G
36	1	994	G
36	1	996	A
36	1	997	A
36	1	1000	C
36	1	1001	G
36	1	1002	A
36	1	1010	G
36	1	1014	U
36	1	1015	U
36	1	1016	C
36	1	1017	C
36	1	1018	G
36	1	1020	G
36	1	1021	G
36	1	1024	G
36	1	1025	A
36	1	1029	G
36	1	1035	G
36	1	1036	A
36	1	1037	C
36	1	1041	U
36	1	1047	A
36	1	1048	A
36	1	1049	C
36	1	1052	U
36	1	1057	A

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Mol	Chain	Res	Type
36	1	1064	A
36	1	1065	A
36	1	1069	C
36	1	1071	U
36	1	1072	G
36	1	1081	U
36	1	1082	U
36	1	1087	G
36	1	1093	A
36	1	1094	U
36	1	1095	U
36	1	1096	U
36	1	1097	G
36	1	1098	A
36	1	1103	A
36	1	1104	G
36	1	1116	G
36	1	1117	G
36	1	1128	U
36	1	1131	G
36	1	1144	U
36	1	1153	A
36	1	1159	A
36	1	1160	C
36	1	1178	G
36	1	1179	A
36	1	1180	A
36	1	1181	U
36	1	1182	A
36	1	1185	C
36	1	1190	A
36	1	1191	U
36	1	1192	C
36	1	1193	A
36	1	1201	C
36	1	1209	G
36	1	1213	G
36	1	1216	C
36	1	1217	A
36	1	1221	A
36	1	1222	G
36	1	1225	A

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Mol	Chain	Res	Type
36	1	1227	C
36	1	1232	C
36	1	1233	G
36	1	1236	G
36	1	1237	G
36	1	1241	U
36	1	1243	G
36	1	1245	A
36	1	1246	G
36	1	1248	C
36	1	1249	G
36	1	1253	U
36	1	1258	U
36	1	1259	A
36	1	1260	A
36	1	1262	G
36	1	1263	A
36	1	1264	G
36	1	1265	U
36	1	1266	G
36	1	1267	U
36	1	1269	U
36	1	1270	A
36	1	1271	A
36	1	1274	A
36	1	1277	C
36	1	1278	A
36	1	1279	C
36	1	1285	G
36	1	1287	A
36	1	1292	C
36	1	1303	A
36	1	1307	G
36	1	1308	A
36	1	1309	U
36	1	1313	G
36	1	1329	U
36	1	1330	A
36	1	1331	U
36	1	1333	C
36	1	1344	G
36	1	1345	G

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Mol	Chain	Res	Type
36	1	1348	U
36	1	1349	G
36	1	1350	A
36	1	1351	U
36	1	1352	A
36	1	1353	U
36	1	1355	A
36	1	1356	U
36	1	1357	G
36	1	1380	G
36	1	1386	A
36	1	1399	A
36	1	1400	G
36	1	1405	U
36	1	1418	A
36	1	1419	A
36	1	1425	U
36	1	1434	G
36	1	1437	C
36	1	1446	A
36	1	1450	G
36	1	1465	A
36	1	1481	A
36	1	1482	A
36	1	1488	G
36	1	1503	A
36	1	1508	C
36	1	1524	A
36	1	1527	C
36	1	1528	G
36	1	1533	U
36	1	1536	G
36	1	1554	U
36	1	1555	U
36	1	1556	C
36	1	1558	A
36	1	1560	G
36	1	1561	G
36	1	1562	C
36	1	1563	C
36	1	1564	U
36	1	1565	G

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Mol	Chain	Res	Type
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	1578	C
36	1	1579	C
36	1	1580	A
36	1	1581	C
36	1	1582	C
36	1	1583	A
36	1	1587	A
36	1	1589	A
36	1	1593	A
36	1	1607	U
36	1	1620	U
36	1	1624	G
36	1	1629	U
36	1	1641	U
36	1	1643	A
36	1	1645	U
36	1	1657	C
36	1	1664	G
36	1	1668	G
36	1	1675	G
36	1	1676	A
36	1	1683	A
36	1	1687	U
36	1	1688	U
36	1	1716	U
36	1	1717	U
36	1	1721	U
36	1	1724	U
36	1	1725	C
36	1	1736	G
36	1	1747	G
36	1	1750	A
36	1	1751	G
36	1	1752	A
36	1	1760	A

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Mol	Chain	Res	Type
36	1	1762	C
36	1	1764	U
36	1	1765	U
36	1	1766	G
36	1	1767	C
36	1	1770	G
36	1	1772	U
36	1	1778	G
36	1	1780	G
36	1	1795	U
36	1	1797	A
36	1	1809	A
36	1	1810	A
36	1	1814	A
36	1	1816	A
36	1	1819	U
36	1	1820	U
36	1	1821	U
36	1	1826	C
36	1	1835	A
36	1	1839	A
36	1	1841	A
36	1	1842	A
36	1	1845	G
36	1	1846	C
36	1	1847	A
36	1	1849	C
36	1	1855	U
36	1	1866	C
36	1	1869	C
36	1	1871	U
36	1	1879	A
36	1	1884	A
36	1	1901	A
36	1	1906	G
36	1	1917	C
36	1	1937	U
36	1	1948	G
36	1	1951	C
36	1	1952	G
36	1	1953	G
36	1	1954	G

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Mol	Chain	Res	Type
36	1	2097	U
36	1	2101	C
36	1	2102	U
36	1	2106	A
36	1	2111	G
36	1	2112	U
36	1	2113	A
36	1	2121	G
36	1	2122	G
36	1	2131	A
36	1	2140	U
36	1	2158	A
36	1	2169	G
36	1	2170	U
36	1	2177	G
36	1	2184	U
36	1	2187	G
36	1	2188	A
36	1	2194	G
36	1	2195	C
36	1	2198	A
36	1	2205	U
36	1	2208	A
36	1	2209	U
36	1	2210	G
36	1	2213	A
36	1	2223	A
36	1	2225	U
36	1	2228	A
36	1	2244	A
36	1	2245	C
36	1	2246	G
36	1	2249	G
36	1	2250	G
36	1	2254	U
36	1	2255	A
36	1	2256	A
36	1	2258	U
36	1	2262	A
36	1	2272	G
36	1	2273	G
36	1	2279	A

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Mol	Chain	Res	Type
36	1	2281	A
36	1	2282	U
36	1	2284	C
36	1	2298	U
36	1	2307	G
36	1	2310	U
36	1	2313	A
36	1	2314	U
36	1	2315	G
36	1	2319	U
36	1	2323	G
36	1	2334	U
36	1	2336	U
36	1	2360	C
36	1	2372	A
36	1	2373	A
36	1	2374	C
36	1	2375	G
36	1	2385	G
36	1	2388	U
36	1	2393	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	2424	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
36	1	2504	U
36	1	2507	C
36	1	2511	A
36	1	2514	U
36	1	2515	A
36	1	2519	A

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Mol	Chain	Res	Type
36	1	2522	G
36	1	2523	A
36	1	2532	U
36	1	2533	G
36	1	2537	U
36	1	2538	U
36	1	2539	C
36	1	2540	A
36	1	2541	U
36	1	2542	U
36	1	2543	U
36	1	2549	G
36	1	2551	U
36	1	2552	C
36	1	2554	A
36	1	2555	G
36	1	2561	A
36	1	2567	C
36	1	2568	C
36	1	2569	A
36	1	2570	U
36	1	2571	U
36	1	2572	C
36	1	2573	G
36	1	2581	U
36	1	2585	G
36	1	2586	G
36	1	2589	G
36	1	2590	A
36	1	2593	A
36	1	2594	C
36	1	2606	G
36	1	2607	G
36	1	2613	U
36	1	2614	G
36	1	2622	C
36	1	2623	G
36	1	2637	A
36	1	2647	A
36	1	2652	U
36	1	2653	C
36	1	2656	A

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Mol	Chain	Res	Type
36	1	2657	A
36	1	2674	A
36	1	2677	G
36	1	2681	U
36	1	2689	A
36	1	2690	G
36	1	2691	A
36	1	2694	A
36	1	2696	A
36	1	2699	G
36	1	2705	A
36	1	2707	C
36	1	2708	C
36	1	2712	U
36	1	2713	U
36	1	2714	G
36	1	2728	G
36	1	2729	U
36	1	2753	G
36	1	2755	C
36	1	2762	A
36	1	2764	C
36	1	2771	U
36	1	2772	C
36	1	2773	C
36	1	2777	G
36	1	2778	G
36	1	2780	A
36	1	2796	G
36	1	2799	A
36	1	2800	G
36	1	2801	A
36	1	2810	C
36	1	2817	A
36	1	2818	U
36	1	2825	C
36	1	2826	U
36	1	2839	G
36	1	2842	U
36	1	2843	U
36	1	2845	A
36	1	2849	C

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Mol	Chain	Res	Type
36	1	2858	U
36	1	2860	U
36	1	2867	C
36	1	2871	G
36	1	2872	A
36	1	2878	G
36	1	2887	A
36	1	2889	C
36	1	2898	G
36	1	2899	C
36	1	2902	A
36	1	2923	U
36	1	2935	U
36	1	2936	A
36	1	2941	A
36	1	2942	C
36	1	2945	G
36	1	2947	G
36	1	2971	A
36	1	2974	U
36	1	2977	G
36	1	2983	C
36	1	2990	G
36	1	2992	U
36	1	2996	U
36	1	2997	G
36	1	3006	A
36	1	3012	A
36	1	3030	G
36	1	3037	U
36	1	3056	U
36	1	3057	U
36	1	3059	G
36	1	3078	U
36	1	3079	U
36	1	3080	G
36	1	3085	G
36	1	3086	A
36	1	3092	C
36	1	3113	A
36	1	3122	A
36	1	3123	A

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Mol	Chain	Res	Type
36	1	3130	A
36	1	3131	U
36	1	3134	A
36	1	3142	A
36	1	3143	C
36	1	3151	U
36	1	3154	C
36	1	3155	U
36	1	3156	U
36	1	3157	U
36	1	3164	C
36	1	3165	A
36	1	3168	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	3185	U
36	1	3187	A
36	1	3196	U
36	1	3198	U
36	1	3207	U
36	1	3210	A
36	1	3217	C
36	1	3218	A
36	1	3219	G
36	1	3228	C
36	1	3229	G
36	1	3243	A
36	1	3245	A
36	1	3246	G
36	1	3247	G
36	1	3253	G
36	1	3259	U
36	1	3270	U
36	1	3272	C
36	1	3274	A
36	1	3276	G
36	1	3281	U
36	1	3286	G

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Mol	Chain	Res	Type
36	1	3287	U
36	1	3289	G
36	1	3293	U
36	1	3294	A
36	1	3304	U
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	3328	G
36	1	3334	U
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
36	1	3367	C
36	1	3369	G
36	1	3378	C
36	1	3382	U
36	1	3386	G
36	1	3389	U
37	3	7	G
37	3	9	C
37	3	19	C
37	3	22	A
37	3	42	A
37	3	47	C
37	3	50	U
37	3	51	A
37	3	54	U
37	3	59	U
37	3	65	G
37	3	76	A
37	3	88	G

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Mol	Chain	Res	Type
37	3	89	G
37	3	90	U
37	3	91	G
37	3	95	A
37	3	101	G
37	3	102	A
37	3	103	A
37	3	109	G
37	3	110	G
37	3	112	G
37	3	121	U
38	4	2	A
38	4	17	A
38	4	21	C
38	4	22	U
38	4	26	U
38	4	34	U
38	4	35	C
38	4	48	A
38	4	52	A
38	4	53	A
38	4	58	G
38	4	59	A
38	4	62	C
38	4	63	G
38	4	80	A
38	4	81	U
38	4	82	U
38	4	83	C
38	4	84	C
38	4	85	G
38	4	86	U
38	4	87	G
38	4	90	U
38	4	95	G
38	4	96	A
38	4	100	U
38	4	104	A
38	4	105	A
38	4	106	C
38	4	111	A
38	4	113	U

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Mol	Chain	Res	Type
38	4	115	C
38	4	125	U
38	4	126	A
38	4	127	U
38	4	128	U
38	4	148	G
38	4	155	A
38	4	157	U
38	4	158	U
1	6	2	A
1	6	4	C
1	6	6	G
1	6	13	C
1	6	19	A
1	6	20	G
1	6	25	C
1	6	26	A
1	6	27	U
1	6	34	G
1	6	36	C
1	6	44	U
1	6	46	A
1	6	47	A
1	6	57	G
1	6	66	U
1	6	67	A
1	6	68	A
1	6	69	G
1	6	72	A
1	6	73	U
1	6	75	U
1	6	76	A
1	6	77	U
1	6	104	A
1	6	114	C
1	6	124	A
1	6	126	A
1	6	127	G
1	6	129	U
1	6	137	U
1	6	138	A
1	6	140	A

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Mol	Chain	Res	Type
1	6	141	U
1	6	144	U
1	6	145	A
1	6	146	U
1	6	153	G
1	6	158	U
1	6	159	U
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	197	A
1	6	199	G
1	6	200	A
1	6	215	A
1	6	216	U
1	6	217	A
1	6	218	A
1	6	219	A
1	6	220	A
1	6	222	A
1	6	226	A
1	6	227	U
1	6	228	G
1	6	230	C
1	6	232	U
1	6	233	C
1	6	240	U
1	6	241	U
1	6	246	G
1	6	249	U
1	6	250	C
1	6	260	U
1	6	261	U
1	6	265	A
1	6	270	C

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Mol	Chain	Res	Type
1	6	271	A
1	6	272	U
1	6	273	G
1	6	275	C
1	6	277	U
1	6	278	U
1	6	279	G
1	6	280	U
1	6	281	G
1	6	287	G
1	6	299	A
1	6	308	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	337	G
1	6	338	C
1	6	352	A
1	6	359	A
1	6	360	A
1	6	361	C
1	6	370	A
1	6	400	A
1	6	401	A
1	6	402	C
1	6	404	G
1	6	405	C
1	6	416	A
1	6	418	G
1	6	424	C
1	6	425	A
1	6	426	G
1	6	434	G
1	6	439	U
1	6	444	C
1	6	448	C
1	6	477	A
1	6	478	A
1	6	484	C

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Mol	Chain	Res	Type
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	499	U
1	6	500	C
1	6	501	U
1	6	504	U
1	6	505	A
1	6	506	A
1	6	507	U
1	6	508	U
1	6	510	G
1	6	511	A
1	6	515	A
1	6	519	C
1	6	527	A
1	6	528	U
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	551	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	566	C

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Mol	Chain	Res	Type
1	6	570	A
1	6	571	G
1	6	574	G
1	6	577	G
1	6	579	A
1	6	580	A
1	6	581	U
1	6	582	U
1	6	591	A
1	6	594	A
1	6	595	G
1	6	602	U
1	6	609	U
1	6	611	U
1	6	617	U
1	6	619	A
1	6	620	A
1	6	622	A
1	6	623	A
1	6	624	G
1	6	630	A
1	6	639	U
1	6	640	U
1	6	644	C
1	6	650	U
1	6	651	G
1	6	652	G
1	6	653	C
1	6	658	C
1	6	661	A
1	6	662	U
1	6	665	U
1	6	667	U
1	6	668	C
1	6	669	G
1	6	670	U
1	6	676	G
1	6	678	A
1	6	679	U
1	6	680	U
1	6	681	U
1	6	682	C

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Mol	Chain	Res	Type
1	6	683	C
1	6	684	A
1	6	685	A
1	6	691	C
1	6	695	U
1	6	697	C
1	6	698	U
1	6	699	U
1	6	709	C
1	6	710	U
1	6	711	U
1	6	715	U
1	6	718	U
1	6	719	U
1	6	720	G
1	6	721	U
1	6	722	G
1	6	723	G
1	6	730	G
1	6	739	G
1	6	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	779	U
1	6	780	A
1	6	781	U
1	6	782	U
1	6	783	G
1	6	787	G
1	6	789	A
1	6	792	U
1	6	793	A
1	6	794	U
1	6	806	A
1	6	811	A
1	6	812	A
1	6	814	A

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Mol	Chain	Res	Type
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	846	G
1	6	847	A
1	6	856	A
1	6	860	U
1	6	861	U
1	6	863	A
1	6	898	A
1	6	904	G
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	959	U
1	6	960	U
1	6	962	C
1	6	970	A
1	6	971	A
1	6	985	G
1	6	992	A
1	6	996	U
1	6	998	A
1	6	1003	A
1	6	1004	U
1	6	1005	A
1	6	1021	C

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Mol	Chain	Res	Type
1	6	1026	A
1	6	1028	C
1	6	1039	A
1	6	1040	G
1	6	1052	U
1	6	1053	G
1	6	1057	U
1	6	1058	U
1	6	1059	U
1	6	1060	U
1	6	1073	G
1	6	1081	A
1	6	1082	C
1	6	1091	A
1	6	1092	A
1	6	1096	C
1	6	1097	U
1	6	1098	U
1	6	1100	G
1	6	1138	A
1	6	1139	A
1	6	1150	G
1	6	1151	A
1	6	1154	G
1	6	1155	G
1	6	1158	C
1	6	1160	A
1	6	1167	G
1	6	1179	G
1	6	1185	U
1	6	1191	U
1	6	1193	A
1	6	1194	A
1	6	1196	A
1	6	1199	G
1	6	1200	G
1	6	1202	A
1	6	1203	A
1	6	1208	A
1	6	1217	A
1	6	1218	G
1	6	1219	A

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Mol	Chain	Res	Type
1	6	1220	C
1	6	1227	A
1	6	1228	G
1	6	1229	G
1	6	1230	A
1	6	1240	U
1	6	1241	G
1	6	1242	A
1	6	1243	G
1	6	1244	A
1	6	1245	G
1	6	1246	C
1	6	1255	G
1	6	1256	A
1	6	1257	U
1	6	1258	U
1	6	1259	U
1	6	1262	U
1	6	1275	A
1	6	1286	U
1	6	1314	U
1	6	1315	U
1	6	1321	A
1	6	1337	A
1	6	1343	U
1	6	1344	A
1	6	1345	A
1	6	1346	A
1	6	1348	A
1	6	1354	G
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	1388	A
1	6	1390	U
1	6	1391	A
1	6	1396	U
1	6	1398	U

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Mol	Chain	Res	Type
1	6	1399	C
1	6	1400	A
1	6	1402	G
1	6	1413	U
1	6	1414	U
1	6	1415	U
1	6	1427	A
1	6	1428	G
1	6	1429	G
1	6	1431	C
1	6	1433	G
1	6	1445	G
1	6	1446	A
1	6	1447	C
1	6	1448	G
1	6	1454	G
1	6	1458	G
1	6	1459	C
1	6	1461	C
1	6	1471	A
1	6	1482	C
1	6	1486	G
1	6	1489	U
1	6	1490	C
1	6	1491	U
1	6	1492	A
1	6	1493	A
1	6	1496	U
1	6	1506	G
1	6	1513	G
1	6	1514	U
1	6	1515	A
1	6	1516	A
1	6	1521	G
1	6	1523	G
1	6	1524	A
1	6	1535	U
1	6	1536	G
1	6	1537	C
1	6	1538	U
1	6	1540	G
1	6	1554	U

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Mol	Chain	Res	Type
1	6	1555	A
1	6	1557	U
1	6	1559	A
1	6	1569	A
1	6	1571	C
1	6	1573	A
1	6	1574	G
1	6	1575	G
1	6	1582	U
1	6	1584	G
1	6	1590	G
1	6	1601	G
1	6	1613	U
1	6	1616	G
1	6	1619	C
1	6	1621	U
1	6	1622	G
1	6	1637	C
1	6	1657	U
1	6	1658	G
1	6	1682	U
1	6	1683	C
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	1712	A
1	6	1715	G
1	6	1716	C
1	6	1717	G
1	6	1727	G
1	6	1736	G
1	6	1742	U
1	6	1760	G
1	6	1762	A
1	6	1766	A
1	6	1767	G
1	6	1769	U
1	6	1770	U

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Mol	Chain	Res	Type
1	6	1780	G
1	6	1782	A
1	6	1783	C
1	6	1792	G
1	6	1793	G
1	6	1794	A
1	6	1795	U
1	6	1796	C
1	6	1799	U
1	6	1800	A
36	5	15	C
36	5	16	A
36	5	24	G
36	5	26	A
36	5	33	G
36	5	38	U
36	5	40	A
36	5	43	A
36	5	44	U
36	5	49	A
36	5	56	G
36	5	59	G
36	5	60	A
36	5	65	A
36	5	66	A
36	5	72	C
36	5	73	C
36	5	76	G
36	5	83	U
36	5	88	A
36	5	92	G
36	5	93	C
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

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Mol	Chain	Res	Type
36	5	134	U
36	5	135	C
36	5	136	G
36	5	142	C
36	5	150	A
36	5	156	G
36	5	157	A
36	5	165	A
36	5	166	C
36	5	170	G
36	5	171	G
36	5	173	G
36	5	174	C
36	5	180	C
36	5	182	U
36	5	187	A
36	5	190	U
36	5	191	U
36	5	202	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	224	C
36	5	234	G
36	5	236	G
36	5	237	G
36	5	238	A
36	5	239	G
36	5	240	U
36	5	241	G
36	5	244	G
36	5	245	U
36	5	247	C
36	5	249	U
36	5	250	U
36	5	251	G
36	5	252	U
36	5	253	A
36	5	254	A

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Mol	Chain	Res	Type
36	5	257	U
36	5	258	G
36	5	259	C
36	5	269	G
36	5	284	A
36	5	286	U
36	5	295	A
36	5	315	C
36	5	323	A
36	5	329	U
36	5	330	G
36	5	334	A
36	5	343	U
36	5	349	A
36	5	350	C
36	5	352	A
36	5	375	A
36	5	376	G
36	5	382	U
36	5	395	A
36	5	397	A
36	5	398	A
36	5	399	A
36	5	401	U
36	5	402	A
36	5	403	C
36	5	417	A
36	5	421	G
36	5	422	A
36	5	425	G
36	5	436	A
36	5	437	G
36	5	439	C
36	5	440	A
36	5	441	U
36	5	442	G
36	5	492	U
36	5	495	G
36	5	520	U
36	5	521	A
36	5	531	G
36	5	535	G

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Mol	Chain	Res	Type
36	5	542	G
36	5	546	C
36	5	547	G
36	5	548	G
36	5	551	A
36	5	552	G
36	5	553	U
36	5	555	U
36	5	556	U
36	5	557	A
36	5	559	A
36	5	560	G
36	5	578	A
36	5	579	G
36	5	589	A
36	5	592	A
36	5	600	G
36	5	604	G
36	5	608	A
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	622	A
36	5	636	C
36	5	639	G
36	5	640	U
36	5	647	A
36	5	649	A
36	5	653	A
36	5	657	A
36	5	660	A
36	5	661	G
36	5	662	U
36	5	677	A
36	5	681	U
36	5	690	A
36	5	705	A
36	5	712	G
36	5	715	A

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Mol	Chain	Res	Type
36	5	716	A
36	5	719	U
36	5	720	A
36	5	722	G
36	5	724	U
36	5	725	G
36	5	736	A
36	5	737	G
36	5	750	G
36	5	766	U
36	5	767	U
36	5	776	U
36	5	777	U
36	5	781	G
36	5	785	G
36	5	786	A
36	5	806	A
36	5	817	A
36	5	830	A
36	5	859	G
36	5	861	C
36	5	874	U
36	5	879	U
36	5	881	C
36	5	891	G
36	5	894	G
36	5	895	A
36	5	896	A
36	5	897	U
36	5	907	G
36	5	908	G
36	5	910	G
36	5	914	A
36	5	916	G
36	5	917	A
36	5	919	U
36	5	921	A
36	5	923	C
36	5	924	G
36	5	937	G
36	5	944	C
36	5	959	C

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Mol	Chain	Res	Type
36	5	960	U
36	5	977	C
36	5	979	U
36	5	983	A
36	5	993	G
36	5	994	G
36	5	997	A
36	5	1001	G
36	5	1002	A
36	5	1003	A
36	5	1006	A
36	5	1010	G
36	5	1015	U
36	5	1016	C
36	5	1017	C
36	5	1018	G
36	5	1021	G
36	5	1024	G
36	5	1025	A
36	5	1026	A
36	5	1028	U
36	5	1029	G
36	5	1032	C
36	5	1033	U
36	5	1035	G
36	5	1047	A
36	5	1049	C
36	5	1050	U
36	5	1052	U
36	5	1064	A
36	5	1065	A
36	5	1071	U
36	5	1072	G
36	5	1081	U
36	5	1082	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

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Mol	Chain	Res	Type
36	5	1104	G
36	5	1117	G
36	5	1129	A
36	5	1131	G
36	5	1144	U
36	5	1147	G
36	5	1153	A
36	5	1159	A
36	5	1160	C
36	5	1166	G
36	5	1180	A
36	5	1181	U
36	5	1182	A
36	5	1192	C
36	5	1193	A
36	5	1196	C
36	5	1200	A
36	5	1201	C
36	5	1209	G
36	5	1222	G
36	5	1232	C
36	5	1236	G
36	5	1237	G
36	5	1239	C
36	5	1241	U
36	5	1242	G
36	5	1243	G
36	5	1244	A
36	5	1245	A
36	5	1246	G
36	5	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	1281	G
36	5	1285	G
36	5	1305	U
36	5	1307	G

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Mol	Chain	Res	Type
36	5	1309	U
36	5	1313	G
36	5	1321	G
36	5	1329	U
36	5	1330	A
36	5	1332	A
36	5	1348	U
36	5	1349	G
36	5	1350	A
36	5	1352	A
36	5	1353	U
36	5	1356	U
36	5	1375	G
36	5	1385	C
36	5	1386	A
36	5	1387	G
36	5	1389	G
36	5	1399	A
36	5	1400	G
36	5	1418	A
36	5	1419	A
36	5	1424	C
36	5	1425	U
36	5	1431	G
36	5	1434	G
36	5	1437	C
36	5	1446	A
36	5	1450	G
36	5	1456	A
36	5	1461	A
36	5	1481	A
36	5	1482	A
36	5	1490	A
36	5	1495	U
36	5	1500	G
36	5	1501	U
36	5	1502	C
36	5	1503	A
36	5	1508	C
36	5	1519	G
36	5	1527	C
36	5	1536	G

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Mol	Chain	Res	Type
36	5	1541	G
36	5	1544	G
36	5	1553	U
36	5	1554	U
36	5	1555	U
36	5	1556	C
36	5	1560	G
36	5	1561	G
36	5	1562	C
36	5	1564	U
36	5	1565	G
36	5	1566	A
36	5	1567	U
36	5	1570	U
36	5	1571	A
36	5	1572	U
36	5	1574	C
36	5	1575	A
36	5	1576	G
36	5	1577	G
36	5	1578	C
36	5	1579	C
36	5	1581	C
36	5	1582	C
36	5	1583	A
36	5	1589	A
36	5	1593	A
36	5	1605	A
36	5	1620	U
36	5	1625	A
36	5	1629	U
36	5	1633	C
36	5	1635	G
36	5	1638	A
36	5	1639	C
36	5	1643	A
36	5	1644	C
36	5	1651	U
36	5	1685	C
36	5	1687	U
36	5	1701	C
36	5	1713	G

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Mol	Chain	Res	Type
36	5	1716	U
36	5	1717	U
36	5	1721	U
36	5	1722	U
36	5	1725	C
36	5	1736	G
36	5	1750	A
36	5	1751	G
36	5	1752	A
36	5	1760	A
36	5	1761	C
36	5	1762	C
36	5	1764	U
36	5	1765	U
36	5	1766	G
36	5	1767	C
36	5	1769	G
36	5	1770	G
36	5	1778	G
36	5	1780	G
36	5	1795	U
36	5	1797	A
36	5	1810	A
36	5	1814	A
36	5	1815	U
36	5	1816	A
36	5	1817	G
36	5	1818	U
36	5	1820	U
36	5	1821	U
36	5	1839	A
36	5	1841	A
36	5	1842	A
36	5	1845	G
36	5	1846	C
36	5	1848	G
36	5	1849	C
36	5	1850	A
36	5	1864	A
36	5	1866	C
36	5	1869	C
36	5	1878	G

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Mol	Chain	Res	Type
36	5	1879	A
36	5	1880	U
36	5	1893	A
36	5	1906	G
36	5	1908	A
36	5	1935	G
36	5	1947	G
36	5	1952	G
36	5	2101	C
36	5	2102	U
36	5	2112	U
36	5	2113	A
36	5	2120	A
36	5	2121	G
36	5	2122	G
36	5	2131	A
36	5	2139	A
36	5	2144	A
36	5	2158	A
36	5	2169	G
36	5	2187	G
36	5	2188	A
36	5	2189	U
36	5	2198	A
36	5	2199	G
36	5	2201	G
36	5	2205	U
36	5	2207	A
36	5	2209	U
36	5	2210	G
36	5	2222	A
36	5	2223	A
36	5	2225	U
36	5	2231	C
36	5	2239	G
36	5	2244	A
36	5	2250	G
36	5	2251	G
36	5	2252	A
36	5	2253	G
36	5	2255	A
36	5	2256	A

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Mol	Chain	Res	Type
36	5	2258	U
36	5	2264	U
36	5	2270	A
36	5	2273	G
36	5	2274	U
36	5	2278	C
36	5	2279	A
36	5	2280	A
36	5	2281	A
36	5	2282	U
36	5	2288	G
36	5	2297	U
36	5	2298	U
36	5	2306	C
36	5	2307	G
36	5	2310	U
36	5	2313	A
36	5	2315	G
36	5	2333	C
36	5	2334	U
36	5	2336	U
36	5	2373	A
36	5	2374	C
36	5	2375	G
36	5	2385	G
36	5	2388	U
36	5	2392	C
36	5	2393	G
36	5	2397	A
36	5	2401	A
36	5	2402	A
36	5	2403	G
36	5	2404	A
36	5	2410	U
36	5	2411	U
36	5	2418	G
36	5	2420	C
36	5	2435	G
36	5	2436	U
36	5	2439	A
36	5	2440	G
36	5	2441	A

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Mol	Chain	Res	Type
36	5	2443	A
36	5	2444	C
36	5	2504	U
36	5	2505	U
36	5	2506	U
36	5	2507	C
36	5	2508	U
36	5	2510	U
36	5	2511	A
36	5	2514	U
36	5	2515	A
36	5	2523	A
36	5	2524	A
36	5	2525	G
36	5	2526	C
36	5	2530	G
36	5	2538	U
36	5	2539	C
36	5	2540	A
36	5	2541	U
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
36	5	2570	U
36	5	2571	U
36	5	2572	C
36	5	2573	G
36	5	2574	G
36	5	2585	G
36	5	2586	G
36	5	2593	A
36	5	2594	C
36	5	2606	G
36	5	2607	G
36	5	2614	G
36	5	2619	G
36	5	2625	C

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Mol	Chain	Res	Type
36	5	2639	G
36	5	2652	U
36	5	2654	C
36	5	2656	A
36	5	2674	A
36	5	2677	G
36	5	2681	U
36	5	2689	A
36	5	2690	G
36	5	2691	A
36	5	2694	A
36	5	2696	A
36	5	2700	G
36	5	2714	G
36	5	2726	C
36	5	2728	G
36	5	2729	U
36	5	2734	A
36	5	2739	A
36	5	2749	G
36	5	2752	U
36	5	2753	G
36	5	2762	A
36	5	2771	U
36	5	2772	C
36	5	2773	C
36	5	2777	G
36	5	2778	G
36	5	2783	U
36	5	2787	G
36	5	2796	G
36	5	2799	A
36	5	2800	G
36	5	2801	A
36	5	2810	C
36	5	2814	G
36	5	2817	A
36	5	2818	U
36	5	2819	A
36	5	2821	C
36	5	2822	U
36	5	2829	U

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Mol	Chain	Res	Type
36	5	2837	A
36	5	2838	A
36	5	2843	U
36	5	2845	A
36	5	2847	A
36	5	2853	A
36	5	2861	U
36	5	2871	G
36	5	2872	A
36	5	2887	A
36	5	2889	C
36	5	2896	A
36	5	2899	C
36	5	2904	U
36	5	2923	U
36	5	2928	C
36	5	2932	U
36	5	2935	U
36	5	2936	A
36	5	2942	C
36	5	2947	G
36	5	2955	U
36	5	2957	G
36	5	2971	A
36	5	2972	G
36	5	2983	C
36	5	2987	A
36	5	2990	G
36	5	2996	U
36	5	2997	G
36	5	3006	A
36	5	3012	A
36	5	3033	A
36	5	3049	A
36	5	3056	U
36	5	3057	U
36	5	3059	G
36	5	3069	G
36	5	3078	U
36	5	3079	U
36	5	3086	A
36	5	3092	C

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Mol	Chain	Res	Type
36	5	3104	U
36	5	3119	U
36	5	3122	A
36	5	3128	G
36	5	3130	A
36	5	3131	U
36	5	3142	A
36	5	3143	C
36	5	3153	U
36	5	3154	C
36	5	3155	U
36	5	3156	U
36	5	3157	U
36	5	3158	G
36	5	3159	C
36	5	3160	U
36	5	3163	A
36	5	3164	C
36	5	3165	A
36	5	3166	C
36	5	3167	A
36	5	3168	A
36	5	3171	U
36	5	3172	A
36	5	3173	G
36	5	3174	A
36	5	3176	G
36	5	3177	G
36	5	3179	U
36	5	3180	A
36	5	3181	C
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	3217	C
36	5	3218	A
36	5	3219	G
36	5	3227	A
36	5	3228	C

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Mol	Chain	Res	Type
36	5	3229	G
36	5	3239	G
36	5	3243	A
36	5	3244	A
36	5	3245	A
36	5	3246	G
36	5	3247	G
36	5	3253	G
36	5	3259	U
36	5	3261	C
36	5	3263	G
36	5	3265	C
36	5	3268	A
36	5	3269	U
36	5	3270	U
36	5	3273	A
36	5	3275	U
36	5	3276	G
36	5	3277	U
36	5	3278	C
36	5	3279	A
36	5	3280	U
36	5	3282	U
36	5	3283	U
36	5	3285	C
36	5	3286	G
36	5	3287	U
36	5	3289	G
36	5	3290	G
36	5	3294	A
36	5	3304	U
36	5	3313	U
36	5	3316	A
36	5	3317	U
36	5	3319	U
36	5	3325	G
36	5	3335	A
36	5	3341	U
36	5	3342	A
36	5	3345	G
36	5	3350	C
36	5	3351	U

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Mol	Chain	Res	Type
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	3393	U
36	5	3396	U
37	7	11	A
37	7	22	A
37	7	27	A
37	7	33	U
37	7	42	A
37	7	54	U
37	7	55	A
37	7	58	C
37	7	60	G
37	7	64	A
37	7	65	G
37	7	73	C
37	7	74	C
37	7	76	A
37	7	99	G
37	7	101	G
37	7	102	A
37	7	103	A
37	7	110	G
37	7	112	G
37	7	115	G
37	7	116	C
37	7	121	U
38	8	34	U
38	8	35	C
38	8	43	A
38	8	48	A
38	8	49	G
38	8	52	A

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Mol	Chain	Res	Type
38	8	53	A
38	8	57	C
38	8	58	G
38	8	59	A
38	8	62	C
38	8	63	G
38	8	79	A
38	8	81	U
38	8	82	U
38	8	83	C
38	8	84	C
38	8	85	G
38	8	86	U
38	8	87	G
38	8	88	A
38	8	89	A
38	8	95	G
38	8	96	A
38	8	97	A
38	8	98	U
38	8	104	A
38	8	105	A
38	8	106	C
38	8	111	A
38	8	113	U
38	8	114	G
38	8	122	U
38	8	125	U
38	8	126	A
38	8	127	U
38	8	155	A
38	8	156	U
38	8	157	U
38	8	158	U

All (306) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	2	25	C
1	2	45	U
1	2	73	U
1	2	103	A

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Mol	Chain	Res	Type
1	2	104	A
1	2	114	C
1	2	126	A
1	2	130	C
1	2	131	C
1	2	136	C
1	2	158	U
1	2	218	A
1	2	240	U
1	2	277	U
1	2	280	U
1	2	321	C
1	2	400	A
1	2	417	A
1	2	468	A
1	2	497	G
1	2	499	U
1	2	501	U
1	2	503	G
1	2	510	G
1	2	512	A
1	2	558	U
1	2	582	U
1	2	685	A
1	2	696	C
1	2	704	C
1	2	720	G
1	2	721	U
1	2	734	A
1	2	755	A
1	2	794	U
1	2	811	A
1	2	829	A
1	2	1058	U
1	2	1081	A
1	2	1137	A
1	2	1157	A
1	2	1196	A
1	2	1226	A
1	2	1244	A
1	2	1250	U
1	2	1339	C

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Mol	Chain	Res	Type
1	2	1344	A
1	2	1370	U
1	2	1371	A
1	2	1481	C
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	5	G
36	1	13	A
36	1	43	A
36	1	65	A
36	1	93	C
36	1	210	U
36	1	223	U
36	1	239	G
36	1	282	G
36	1	349	A
36	1	374	A
36	1	397	A
36	1	547	G
36	1	559	A
36	1	588	G
36	1	594	U
36	1	647	A
36	1	715	A
36	1	763	G
36	1	816	A
36	1	873	C
36	1	896	A
36	1	916	G
36	1	981	U
36	1	993	G
36	1	1064	A
36	1	1094	U
36	1	1097	G
36	1	1103	A
36	1	1196	C
36	1	1222	G
36	1	1273	A

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Mol	Chain	Res	Type
36	1	1307	G
36	1	1329	U
36	1	1348	U
36	1	1352	A
36	1	1355	A
36	1	1419	A
36	1	1481	A
36	1	1507	G
36	1	1554	U
36	1	1562	C
36	1	1582	C
36	1	1716	U
36	1	1765	U
36	1	1815	U
36	1	1820	U
36	1	1841	A
36	1	1842	A
36	1	1846	C
36	1	2101	C
36	1	2112	U
36	1	2209	U
36	1	2249	G
36	1	2281	A
36	1	2309	A
36	1	2372	A
36	1	2374	C
36	1	2400	G
36	1	2418	G
36	1	2513	U
36	1	2523	A
36	1	2537	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	2728	G
36	1	2772	C
36	1	2801	A
36	1	2817	A
36	1	2818	U

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Mol	Chain	Res	Type
36	1	2867	C
36	1	2887	A
36	1	3056	U
36	1	3078	U
36	1	3121	U
36	1	3195	U
36	1	3217	C
36	1	3218	A
36	1	3228	C
36	1	3242	G
36	1	3269	U
36	1	3275	U
36	1	3315	G
36	1	3316	A
36	1	3319	U
36	1	3350	C
36	1	3351	U
36	1	3353	G
37	3	49	G
37	3	86	U
38	4	80	A
38	4	85	G
38	4	111	A
38	4	125	U
1	6	25	C
1	6	66	U
1	6	114	C
1	6	139	C
1	6	158	U
1	6	187	G
1	6	192	U
1	6	217	A
1	6	218	A
1	6	240	U
1	6	259	U
1	6	272	U
1	6	277	U
1	6	280	U
1	6	400	A
1	6	417	A
1	6	539	G
1	6	542	A

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Mol	Chain	Res	Type
1	6	557	G
1	6	558	U
1	6	651	G
1	6	664	U
1	6	678	A
1	6	697	C
1	6	717	C
1	6	720	G
1	6	755	A
1	6	815	G
1	6	829	A
1	6	834	G
1	6	1051	G
1	6	1058	U
1	6	1097	U
1	6	1137	A
1	6	1207	C
1	6	1244	A
1	6	1255	G
1	6	1344	A
1	6	1431	C
1	6	1481	C
1	6	1489	U
1	6	1491	U
1	6	1523	G
1	6	1535	U
1	6	1568	C
1	6	1572	G
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	40	A
36	5	43	A
36	5	93	C
36	5	210	U
36	5	223	U
36	5	238	A
36	5	374	A

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Mol	Chain	Res	Type
36	5	397	A
36	5	557	A
36	5	588	G
36	5	594	U
36	5	647	A
36	5	659	G
36	5	715	A
36	5	735	A
36	5	765	C
36	5	766	U
36	5	816	A
36	5	896	A
36	5	908	G
36	5	916	G
36	5	960	U
36	5	978	G
36	5	993	G
36	5	1027	A
36	5	1064	A
36	5	1081	U
36	5	1152	G
36	5	1181	U
36	5	1192	C
36	5	1236	G
36	5	1238	C
36	5	1239	C
36	5	1241	U
36	5	1284	C
36	5	1329	U
36	5	1331	U
36	5	1348	U
36	5	1352	A
36	5	1355	A
36	5	1392	G
36	5	1434	G
36	5	1481	A
36	5	1507	G
36	5	1554	U
36	5	1560	G
36	5	1643	A
36	5	1716	U
36	5	1815	U

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Mol	Chain	Res	Type
36	5	1816	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	2281	A
36	5	2372	A
36	5	2374	C
36	5	2440	G
36	5	2507	C
36	5	2513	U
36	5	2539	C
36	5	2585	G
36	5	2593	A
36	5	2728	G
36	5	2752	U
36	5	2772	C
36	5	2801	A
36	5	2818	U
36	5	2820	A
36	5	2887	A
36	5	2896	A
36	5	2971	A
36	5	2996	U
36	5	3055	U
36	5	3056	U
36	5	3078	U
36	5	3121	U
36	5	3154	C
36	5	3167	A
36	5	3177	G
36	5	3195	U
36	5	3228	C
36	5	3242	G
36	5	3246	G
36	5	3269	U
36	5	3275	U
36	5	3289	G

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Mol	Chain	Res	Type
36	5	3340	G
36	5	3354	U
36	5	3357	U
37	7	49	G
38	8	84	C
38	8	111	A
38	8	113	U
38	8	126	A

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

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

## 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

Of 2562 ligands modelled in this entry, 1429 are monoatomic - leaving 1133 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	-
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	-

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
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	-
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	86	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4001	-	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	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	-
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	-

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
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	-
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	86	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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
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	-
86	OHX	1	4208	-	0,6,6	0.00	-	0,15,15	0.00	-
88	3J2	1	4209	-	28,30,30	1.54	4 (14%)	31,52,52	1.48	4 (12%)
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	2	2031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2032	86	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	-
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	-

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
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	-
86	OHX	2	2146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2147	86	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	-



Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
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	2	2179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	230	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	231	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	232	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	233	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	4	234	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	235	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	236	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	237	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	238	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3900	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3901	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3905	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3908	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3915	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3919	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3937	-	0,6,6	0.00	-	0,15,15	0.00	-

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

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

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

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

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

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



Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
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	-
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	86	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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
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	-
86	OHX	5	4246	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4247	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4248	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4249	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4250	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4251	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4252	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4253	-	0,6,6	0.00	-	0,15,15	0.00	-
88	3J2	5	4254	-	28,30,30	1.59	6 (21%)	31,52,52	1.48	6 (19%)
86	OHX	6	2049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2075	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
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	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2118	-	0,6,6	0.00	-	0,15,15	0.00	-

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
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	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2198	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	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	6	2203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2204	-	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	2205	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2207	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2208	-	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	7	229	-	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	-
86	OHX	C1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	D9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	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	304	-	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	M6	202	-	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	M8	202	-	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	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	104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O7	105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O9	101	-	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	S8	302	-	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	-
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	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	d4	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	l4	402	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l4	403	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	304	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l9	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m0	302	-	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	m1	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m5	305	-	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	-
86	OHX	m9	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n3	202	-	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	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	q1	101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	q2	502	-	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	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	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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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	86	-	0/0/0/0	0/0/0/0
86	OHX	1	4001	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4002	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4003	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4004	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4005	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4006	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4007	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4008	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4009	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4010	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4011	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4012	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4013	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4014	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4015	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4016	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4017	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4018	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4019	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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	86	-	0/0/0/0	0/0/0/0
86	OHX	1	4169	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4170	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4171	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4172	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4173	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4174	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4175	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4176	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4177	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4178	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4179	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4180	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4181	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4182	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4183	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4184	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4185	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4186	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4187	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
88	3J2	1	4209	-	-	0/2/65/65	0/4/5/5
86	OHX	2	2024	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2025	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2026	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2027	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2028	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2029	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2030	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2031	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2032	86	-	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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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	86	-	0/0/0/0	0/0/0/0
86	OHX	2	2148	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2149	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2150	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2151	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2152	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2153	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2154	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2155	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2156	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2157	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2158	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2159	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2160	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2161	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2162	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2163	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2164	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2165	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2166	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2167	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2168	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2169	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2170	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2171	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2172	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2173	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2174	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2175	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2176	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2177	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2178	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2179	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2180	-	-	0/0/0/0	0/0/0/0
86	OHX	3	215	-	-	0/0/0/0	0/0/0/0
86	OHX	3	216	-	-	0/0/0/0	0/0/0/0
86	OHX	3	217	-	-	0/0/0/0	0/0/0/0
86	OHX	3	218	-	-	0/0/0/0	0/0/0/0
86	OHX	3	219	-	-	0/0/0/0	0/0/0/0
86	OHX	3	220	-	-	0/0/0/0	0/0/0/0
86	OHX	3	221	-	-	0/0/0/0	0/0/0/0
86	OHX	3	222	-	-	0/0/0/0	0/0/0/0
86	OHX	3	223	-	-	0/0/0/0	0/0/0/0
86	OHX	3	224	-	-	0/0/0/0	0/0/0/0
86	OHX	3	225	-	-	0/0/0/0	0/0/0/0
86	OHX	4	223	-	-	0/0/0/0	0/0/0/0
86	OHX	4	224	-	-	0/0/0/0	0/0/0/0
86	OHX	4	225	-	-	0/0/0/0	0/0/0/0
86	OHX	4	226	-	-	0/0/0/0	0/0/0/0
86	OHX	4	227	-	-	0/0/0/0	0/0/0/0
86	OHX	4	228	-	-	0/0/0/0	0/0/0/0
86	OHX	4	229	-	-	0/0/0/0	0/0/0/0
86	OHX	4	230	-	-	0/0/0/0	0/0/0/0
86	OHX	4	231	-	-	0/0/0/0	0/0/0/0
86	OHX	4	232	-	-	0/0/0/0	0/0/0/0
86	OHX	4	233	-	-	0/0/0/0	0/0/0/0
86	OHX	4	234	-	-	0/0/0/0	0/0/0/0
86	OHX	4	235	-	-	0/0/0/0	0/0/0/0
86	OHX	4	236	-	-	0/0/0/0	0/0/0/0
86	OHX	4	237	-	-	0/0/0/0	0/0/0/0
86	OHX	4	238	-	-	0/0/0/0	0/0/0/0
86	OHX	5	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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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	86	-	0/0/0/0	0/0/0/0
86	OHX	5	3945	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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	86	-	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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
86	OHX	5	4246	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4247	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4248	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4249	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4250	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4251	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4252	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4253	-	-	0/0/0/0	0/0/0/0
88	3J2	5	4254	-	-	0/2/65/65	0/4/5/5
86	OHX	6	2049	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2050	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2051	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2052	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2053	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2054	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2055	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2056	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2057	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2058	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2059	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2060	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2061	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2062	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2063	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2064	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2065	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2066	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2067	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2068	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2069	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2070	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2071	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2072	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2073	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2074	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2075	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2096	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2097	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2098	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2099	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2100	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2101	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2102	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2103	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2104	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2105	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2106	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2107	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2108	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2109	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2110	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2111	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2112	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2113	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2114	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2115	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2116	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2117	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
86	OHX	6	2184	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2185	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2186	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2187	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2188	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2189	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2190	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2191	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2192	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2193	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2194	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2195	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2196	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2197	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2198	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2199	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2200	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2201	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2202	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2203	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2204	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2205	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2206	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2207	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2208	-	-	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	7	229	-	-	0/0/0/0	0/0/0/0
86	OHX	8	216	-	-	0/0/0/0	0/0/0/0
86	OHX	8	217	-	-	0/0/0/0	0/0/0/0
86	OHX	8	218	-	-	0/0/0/0	0/0/0/0
86	OHX	8	219	-	-	0/0/0/0	0/0/0/0
86	OHX	8	220	-	-	0/0/0/0	0/0/0/0
86	OHX	8	221	-	-	0/0/0/0	0/0/0/0
86	OHX	8	222	-	-	0/0/0/0	0/0/0/0
86	OHX	8	223	-	-	0/0/0/0	0/0/0/0
86	OHX	8	224	-	-	0/0/0/0	0/0/0/0
86	OHX	8	225	-	-	0/0/0/0	0/0/0/0
86	OHX	8	226	-	-	0/0/0/0	0/0/0/0
86	OHX	8	227	-	-	0/0/0/0	0/0/0/0
86	OHX	8	228	-	-	0/0/0/0	0/0/0/0
86	OHX	8	229	-	-	0/0/0/0	0/0/0/0
86	OHX	8	230	-	-	0/0/0/0	0/0/0/0
86	OHX	8	231	-	-	0/0/0/0	0/0/0/0
86	OHX	C1	201	-	-	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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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	304	-	-	0/0/0/0	0/0/0/0
86	OHX	M6	202	-	-	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	M8	202	-	-	0/0/0/0	0/0/0/0
86	OHX	M9	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	104	-	-	0/0/0/0	0/0/0/0
86	OHX	O7	105	-	-	0/0/0/0	0/0/0/0
86	OHX	O9	101	-	-	0/0/0/0	0/0/0/0
86	OHX	Q2	502	-	-	0/0/0/0	0/0/0/0
86	OHX	S8	302	-	-	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
86	OHX	c3	201	-	-	0/0/0/0	0/0/0/0
86	OHX	c5	201	-	-	0/0/0/0	0/0/0/0
86	OHX	c8	203	-	-	0/0/0/0	0/0/0/0
86	OHX	d4	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	l4	402	-	-	0/0/0/0	0/0/0/0
86	OHX	l4	403	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	302	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	303	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	304	-	-	0/0/0/0	0/0/0/0
86	OHX	l9	202	-	-	0/0/0/0	0/0/0/0
86	OHX	m0	302	-	-	0/0/0/0	0/0/0/0
86	OHX	m0	303	-	-	0/0/0/0	0/0/0/0
86	OHX	m1	203	-	-	0/0/0/0	0/0/0/0
86	OHX	m5	305	-	-	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	m9	201	-	-	0/0/0/0	0/0/0/0
86	OHX	n3	202	-	-	0/0/0/0	0/0/0/0
86	OHX	n6	202	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	n9	102	-	-	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	q1	101	-	-	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	sR	401	-	-	0/0/0/0	0/0/0/0

All (10) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
88	5	4254	3J2	C4-C3	-4.34	1.34	1.39
88	5	4254	3J2	C14-C13	-2.93	1.34	1.39
88	1	4209	3J2	C14-C13	-2.74	1.34	1.39
88	5	4254	3J2	C14-C15	2.15	1.41	1.37
88	1	4209	3J2	O1-C3	2.26	1.37	1.35
88	5	4254	3J2	O1-C3	2.45	1.38	1.35
88	5	4254	3J2	C-C1	2.63	1.59	1.52
88	5	4254	3J2	C4-C13	3.19	1.46	1.40
88	1	4209	3J2	C4-C13	4.03	1.47	1.40
88	1	4209	3J2	C3-C1	4.39	1.57	1.51

All (10) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
88	1	4209	3J2	O1-C3-C1	-4.82	107.25	112.51
88	5	4254	3J2	O1-C15-C14	-3.06	115.97	119.40
88	1	4209	3J2	C7-C12-C11	-2.75	99.05	107.27
88	5	4254	3J2	C7-C12-C11	-2.54	99.68	107.27
88	1	4209	3J2	O1-C15-C14	-2.24	116.89	119.40
88	5	4254	3J2	C16-C12-C7	2.29	120.79	112.81
88	5	4254	3J2	C2-C1-C	2.45	116.29	110.33
88	1	4209	3J2	C15-C14-C13	2.48	123.76	119.41
88	5	4254	3J2	C15-C14-C13	2.89	124.48	119.41
88	5	4254	3J2	C14-C13-C12	3.43	127.09	120.17

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

525 monomers are involved in 904 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3868	OHX	2	0
86	1	3870	OHX	1	0
86	1	3871	OHX	1	0
86	1	3873	OHX	1	0
86	1	3877	OHX	1	0
86	1	3880	OHX	2	0
86	1	3881	OHX	1	0
86	1	3882	OHX	1	0
86	1	3883	OHX	1	0
86	1	3885	OHX	1	0
86	1	3888	OHX	1	0
86	1	3890	OHX	1	0
86	1	3892	OHX	1	0
86	1	3893	OHX	1	0
86	1	3898	OHX	1	0
86	1	3899	OHX	1	0
86	1	3906	OHX	1	0
86	1	3911	OHX	2	0
86	1	3913	OHX	1	0
86	1	3914	OHX	1	0
86	1	3919	OHX	1	0
86	1	3926	OHX	3	0
86	1	3929	OHX	1	0
86	1	3930	OHX	2	0
86	1	3932	OHX	3	0
86	1	3933	OHX	1	0
86	1	3935	OHX	1	0
86	1	3938	OHX	7	0
86	1	3940	OHX	1	0
86	1	3943	OHX	1	0
86	1	3946	OHX	3	0
86	1	3947	OHX	1	0
86	1	3950	OHX	2	0
86	1	3953	OHX	1	0
86	1	3956	OHX	2	0
86	1	3957	OHX	5	0
86	1	3959	OHX	7	0
86	1	3960	OHX	1	0
86	1	3961	OHX	1	0
86	1	3964	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3965	OHX	1	0
86	1	3966	OHX	1	0
86	1	3969	OHX	1	0
86	1	3970	OHX	7	0
86	1	3971	OHX	1	0
86	1	3972	OHX	1	0
86	1	3974	OHX	6	0
86	1	3976	OHX	1	0
86	1	3979	OHX	1	0
86	1	3980	OHX	2	0
86	1	3981	OHX	2	0
86	1	3982	OHX	1	0
86	1	3984	OHX	2	0
86	1	3989	OHX	3	0
86	1	3994	OHX	2	0
86	1	3995	OHX	1	0
86	1	3998	OHX	2	0
86	1	3999	OHX	2	0
86	1	4000	OHX	8	0
86	1	4002	OHX	1	0
86	1	4003	OHX	2	0
86	1	4004	OHX	3	0
86	1	4005	OHX	1	0
86	1	4010	OHX	2	0
86	1	4014	OHX	1	0
86	1	4016	OHX	7	0
86	1	4017	OHX	1	0
86	1	4021	OHX	1	0
86	1	4023	OHX	1	0
86	1	4024	OHX	2	0
86	1	4025	OHX	6	0
86	1	4026	OHX	3	0
86	1	4028	OHX	7	0
86	1	4029	OHX	2	0
86	1	4030	OHX	1	0
86	1	4031	OHX	1	0
86	1	4033	OHX	3	0
86	1	4034	OHX	1	0
86	1	4035	OHX	2	0
86	1	4036	OHX	3	0
86	1	4038	OHX	2	0
86	1	4039	OHX	5	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4040	OHX	6	0
86	1	4042	OHX	2	0
86	1	4043	OHX	1	0
86	1	4047	OHX	5	0
86	1	4050	OHX	6	0
86	1	4051	OHX	3	0
86	1	4052	OHX	5	0
86	1	4053	OHX	4	0
86	1	4054	OHX	1	0
86	1	4057	OHX	4	0
86	1	4058	OHX	1	0
86	1	4061	OHX	1	0
86	1	4062	OHX	1	0
86	1	4063	OHX	6	0
86	1	4065	OHX	2	0
86	1	4066	OHX	1	0
86	1	4068	OHX	1	0
86	1	4069	OHX	1	0
86	1	4070	OHX	1	0
86	1	4071	OHX	1	0
86	1	4072	OHX	1	0
86	1	4074	OHX	1	0
86	1	4076	OHX	7	0
86	1	4080	OHX	8	0
86	1	4081	OHX	3	0
86	1	4082	OHX	1	0
86	1	4084	OHX	1	0
86	1	4086	OHX	1	0
86	1	4087	OHX	1	0
86	1	4090	OHX	1	0
86	1	4091	OHX	1	0
86	1	4094	OHX	1	0
86	1	4099	OHX	1	0
86	1	4102	OHX	1	0
86	1	4105	OHX	2	0
86	1	4110	OHX	6	0
86	1	4111	OHX	1	0
86	1	4114	OHX	1	0
86	1	4116	OHX	1	0
86	1	4118	OHX	2	0
86	1	4121	OHX	1	0
86	1	4123	OHX	4	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4124	OHX	1	0
86	1	4127	OHX	2	0
86	1	4128	OHX	3	0
86	1	4129	OHX	1	0
86	1	4131	OHX	1	0
86	1	4134	OHX	1	0
86	1	4135	OHX	3	0
86	1	4136	OHX	6	0
86	1	4137	OHX	3	0
86	1	4138	OHX	1	0
86	1	4139	OHX	1	0
86	1	4140	OHX	1	0
86	1	4142	OHX	6	0
86	1	4146	OHX	6	0
86	1	4148	OHX	1	0
86	1	4150	OHX	6	0
86	1	4151	OHX	6	0
86	1	4152	OHX	7	0
86	1	4154	OHX	1	0
86	1	4155	OHX	1	0
86	1	4156	OHX	4	0
86	1	4158	OHX	4	0
86	1	4159	OHX	6	0
86	1	4160	OHX	1	0
86	1	4163	OHX	4	0
86	1	4164	OHX	2	0
86	1	4165	OHX	2	0
86	1	4168	OHX	10	0
86	1	4170	OHX	3	0
86	1	4171	OHX	1	0
86	1	4175	OHX	1	0
86	1	4176	OHX	1	0
86	1	4177	OHX	5	0
86	1	4179	OHX	1	0
86	1	4180	OHX	3	0
86	1	4183	OHX	1	0
86	1	4184	OHX	1	0
86	1	4186	OHX	1	0
86	1	4187	OHX	1	0
86	1	4188	OHX	1	0
86	1	4189	OHX	1	0
86	1	4190	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4193	OHX	7	0
86	1	4194	OHX	1	0
86	1	4195	OHX	1	0
86	1	4196	OHX	1	0
86	1	4199	OHX	3	0
86	1	4200	OHX	1	0
86	1	4201	OHX	1	0
86	1	4202	OHX	2	0
86	1	4204	OHX	1	0
86	1	4205	OHX	1	0
86	1	4206	OHX	1	0
88	1	4209	3J2	3	0
86	2	2024	OHX	1	0
86	2	2027	OHX	1	0
86	2	2028	OHX	1	0
86	2	2032	OHX	8	0
86	2	2035	OHX	1	0
86	2	2036	OHX	1	0
86	2	2037	OHX	2	0
86	2	2038	OHX	1	0
86	2	2039	OHX	2	0
86	2	2040	OHX	2	0
86	2	2043	OHX	1	0
86	2	2045	OHX	7	0
86	2	2046	OHX	1	0
86	2	2047	OHX	1	0
86	2	2048	OHX	2	0
86	2	2049	OHX	1	0
86	2	2052	OHX	1	0
86	2	2053	OHX	1	0
86	2	2055	OHX	1	0
86	2	2059	OHX	2	0
86	2	2060	OHX	1	0
86	2	2061	OHX	1	0
86	2	2063	OHX	2	0
86	2	2065	OHX	1	0
86	2	2070	OHX	1	0
86	2	2071	OHX	2	0
86	2	2072	OHX	2	0
86	2	2073	OHX	1	0
86	2	2074	OHX	1	0
86	2	2075	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	2	2076	OHX	7	0
86	2	2077	OHX	1	0
86	2	2079	OHX	1	0
86	2	2083	OHX	2	0
86	2	2084	OHX	6	0
86	2	2085	OHX	2	0
86	2	2086	OHX	6	0
86	2	2087	OHX	1	0
86	2	2088	OHX	1	0
86	2	2090	OHX	1	0
86	2	2091	OHX	8	0
86	2	2093	OHX	3	0
86	2	2096	OHX	4	0
86	2	2097	OHX	1	0
86	2	2099	OHX	8	0
86	2	2104	OHX	2	0
86	2	2109	OHX	5	0
86	2	2110	OHX	1	0
86	2	2111	OHX	3	0
86	2	2115	OHX	2	0
86	2	2116	OHX	6	0
86	2	2117	OHX	1	0
86	2	2119	OHX	1	0
86	2	2121	OHX	3	0
86	2	2123	OHX	1	0
86	2	2126	OHX	1	0
86	2	2127	OHX	1	0
86	2	2130	OHX	1	0
86	2	2132	OHX	8	0
86	2	2133	OHX	1	0
86	2	2136	OHX	1	0
86	2	2137	OHX	1	0
86	2	2139	OHX	1	0
86	2	2142	OHX	1	0
86	2	2144	OHX	1	0
86	2	2145	OHX	2	0
86	2	2146	OHX	1	0
86	2	2147	OHX	6	0
86	2	2149	OHX	3	0
86	2	2150	OHX	1	0
86	2	2153	OHX	2	0
86	2	2155	OHX	4	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	2	2156	OHX	1	0
86	2	2158	OHX	4	0
86	2	2162	OHX	6	0
86	2	2167	OHX	1	0
86	2	2168	OHX	1	0
86	2	2169	OHX	1	0
86	2	2171	OHX	2	0
86	2	2172	OHX	2	0
86	2	2173	OHX	2	0
86	2	2180	OHX	1	0
86	3	216	OHX	1	0
86	3	218	OHX	5	0
86	3	220	OHX	1	0
86	3	221	OHX	1	0
86	3	224	OHX	1	0
86	3	225	OHX	1	0
86	4	229	OHX	2	0
86	4	231	OHX	2	0
86	4	234	OHX	2	0
86	4	238	OHX	1	0
86	5	3900	OHX	1	0
86	5	3902	OHX	1	0
86	5	3903	OHX	1	0
86	5	3906	OHX	1	0
86	5	3908	OHX	1	0
86	5	3910	OHX	1	0
86	5	3912	OHX	1	0
86	5	3914	OHX	2	0
86	5	3919	OHX	2	0
86	5	3921	OHX	1	0
86	5	3926	OHX	2	0
86	5	3928	OHX	1	0
86	5	3933	OHX	1	0
86	5	3934	OHX	1	0
86	5	3941	OHX	1	0
86	5	3943	OHX	1	0
86	5	3944	OHX	5	0
86	5	3952	OHX	1	0
86	5	3956	OHX	1	0
86	5	3957	OHX	2	0
86	5	3958	OHX	1	0
86	5	3960	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	3961	OHX	1	0
86	5	3963	OHX	4	0
86	5	3970	OHX	1	0
86	5	3971	OHX	1	0
86	5	3973	OHX	2	0
86	5	3974	OHX	4	0
86	5	3975	OHX	1	0
86	5	3979	OHX	8	0
86	5	3985	OHX	1	0
86	5	3987	OHX	1	0
86	5	3988	OHX	2	0
86	5	3998	OHX	1	0
86	5	3999	OHX	1	0
86	5	4000	OHX	6	0
86	5	4001	OHX	3	0
86	5	4002	OHX	1	0
86	5	4005	OHX	1	0
86	5	4007	OHX	1	0
86	5	4009	OHX	6	0
86	5	4011	OHX	1	0
86	5	4013	OHX	1	0
86	5	4019	OHX	7	0
86	5	4021	OHX	3	0
86	5	4022	OHX	2	0
86	5	4024	OHX	1	0
86	5	4025	OHX	2	0
86	5	4026	OHX	1	0
86	5	4027	OHX	1	0
86	5	4028	OHX	1	0
86	5	4031	OHX	5	0
86	5	4032	OHX	4	0
86	5	4033	OHX	1	0
86	5	4037	OHX	2	0
86	5	4039	OHX	1	0
86	5	4042	OHX	2	0
86	5	4043	OHX	1	0
86	5	4047	OHX	1	0
86	5	4049	OHX	1	0
86	5	4052	OHX	2	0
86	5	4053	OHX	6	0
86	5	4062	OHX	1	0
86	5	4063	OHX	5	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4064	OHX	7	0
86	5	4065	OHX	1	0
86	5	4072	OHX	5	0
86	5	4074	OHX	5	0
86	5	4078	OHX	1	0
86	5	4079	OHX	5	0
86	5	4086	OHX	1	0
86	5	4087	OHX	1	0
86	5	4088	OHX	1	0
86	5	4090	OHX	1	0
86	5	4091	OHX	1	0
86	5	4092	OHX	6	0
86	5	4093	OHX	6	0
86	5	4095	OHX	2	0
86	5	4098	OHX	1	0
86	5	4101	OHX	2	0
86	5	4108	OHX	2	0
86	5	4109	OHX	1	0
86	5	4110	OHX	2	0
86	5	4112	OHX	1	0
86	5	4117	OHX	5	0
86	5	4118	OHX	1	0
86	5	4127	OHX	6	0
86	5	4129	OHX	1	0
86	5	4130	OHX	1	0
86	5	4136	OHX	5	0
86	5	4137	OHX	1	0
86	5	4139	OHX	1	0
86	5	4141	OHX	2	0
86	5	4142	OHX	6	0
86	5	4143	OHX	1	0
86	5	4145	OHX	5	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	4158	OHX	2	0
86	5	4159	OHX	1	0
86	5	4161	OHX	1	0
86	5	4162	OHX	1	0
86	5	4165	OHX	1	0
86	5	4167	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4169	OHX	1	0
86	5	4172	OHX	2	0
86	5	4173	OHX	1	0
86	5	4179	OHX	3	0
86	5	4180	OHX	1	0
86	5	4181	OHX	1	0
86	5	4182	OHX	1	0
86	5	4183	OHX	2	0
86	5	4185	OHX	1	0
86	5	4187	OHX	1	0
86	5	4189	OHX	6	0
86	5	4190	OHX	1	0
86	5	4191	OHX	6	0
86	5	4192	OHX	6	0
86	5	4193	OHX	1	0
86	5	4194	OHX	1	0
86	5	4195	OHX	1	0
86	5	4198	OHX	8	0
86	5	4199	OHX	7	0
86	5	4200	OHX	7	0
86	5	4201	OHX	5	0
86	5	4203	OHX	5	0
86	5	4205	OHX	1	0
86	5	4207	OHX	1	0
86	5	4209	OHX	1	0
86	5	4211	OHX	1	0
86	5	4214	OHX	2	0
86	5	4217	OHX	8	0
86	5	4224	OHX	3	0
86	5	4228	OHX	1	0
86	5	4234	OHX	2	0
86	5	4237	OHX	6	0
86	5	4238	OHX	1	0
86	5	4241	OHX	3	0
86	5	4244	OHX	5	0
86	5	4245	OHX	1	0
86	5	4246	OHX	1	0
86	5	4250	OHX	1	0
88	5	4254	3J2	2	0
86	6	2053	OHX	1	0
86	6	2056	OHX	1	0
86	6	2062	OHX	6	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	6	2064	OHX	1	0
86	6	2068	OHX	1	0
86	6	2071	OHX	2	0
86	6	2073	OHX	1	0
86	6	2076	OHX	2	0
86	6	2077	OHX	1	0
86	6	2078	OHX	1	0
86	6	2079	OHX	1	0
86	6	2082	OHX	1	0
86	6	2084	OHX	1	0
86	6	2085	OHX	1	0
86	6	2086	OHX	1	0
86	6	2089	OHX	2	0
86	6	2091	OHX	1	0
86	6	2093	OHX	1	0
86	6	2094	OHX	1	0
86	6	2095	OHX	1	0
86	6	2103	OHX	3	0
86	6	2104	OHX	2	0
86	6	2105	OHX	2	0
86	6	2106	OHX	1	0
86	6	2108	OHX	1	0
86	6	2110	OHX	1	0
86	6	2111	OHX	2	0
86	6	2112	OHX	1	0
86	6	2113	OHX	1	0
86	6	2114	OHX	2	0
86	6	2115	OHX	1	0
86	6	2117	OHX	1	0
86	6	2120	OHX	1	0
86	6	2122	OHX	1	0
86	6	2123	OHX	8	0
86	6	2124	OHX	1	0
86	6	2126	OHX	1	0
86	6	2127	OHX	1	0
86	6	2128	OHX	8	0
86	6	2129	OHX	1	0
86	6	2131	OHX	1	0
86	6	2133	OHX	1	0
86	6	2139	OHX	1	0
86	6	2141	OHX	2	0
86	6	2146	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	6	2147	OHX	1	0
86	6	2149	OHX	1	0
86	6	2150	OHX	7	0
86	6	2151	OHX	1	0
86	6	2152	OHX	1	0
86	6	2153	OHX	6	0
86	6	2154	OHX	2	0
86	6	2156	OHX	1	0
86	6	2157	OHX	2	0
86	6	2159	OHX	1	0
86	6	2162	OHX	3	0
86	6	2166	OHX	1	0
86	6	2168	OHX	1	0
86	6	2174	OHX	10	0
86	6	2177	OHX	1	0
86	6	2178	OHX	1	0
86	6	2181	OHX	2	0
86	6	2186	OHX	1	0
86	6	2187	OHX	1	0
86	6	2188	OHX	3	0
86	6	2190	OHX	1	0
86	6	2191	OHX	1	0
86	6	2192	OHX	2	0
86	6	2193	OHX	3	0
86	6	2194	OHX	2	0
86	6	2196	OHX	1	0
86	6	2197	OHX	1	0
86	6	2198	OHX	1	0
86	6	2199	OHX	1	0
86	6	2202	OHX	1	0
86	6	2208	OHX	1	0
86	7	220	OHX	1	0
86	7	221	OHX	5	0
86	7	222	OHX	1	0
86	7	223	OHX	1	0
86	7	224	OHX	1	0
86	7	226	OHX	4	0
86	8	217	OHX	4	0
86	8	218	OHX	8	0
86	8	222	OHX	1	0
86	8	223	OHX	1	0
86	8	226	OHX	6	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	8	227	OHX	6	0
86	8	228	OHX	1	0
86	8	229	OHX	1	0
86	C1	201	OHX	6	0
86	C3	201	OHX	1	0
86	C5	201	OHX	5	0
86	D9	102	OHX	1	0
86	L3	403	OHX	1	0
86	L3	404	OHX	2	0
86	L3	405	OHX	1	0
86	L4	403	OHX	2	0
86	M0	303	OHX	2	0
86	M5	304	OHX	1	0
86	M7	204	OHX	1	0
86	M7	205	OHX	1	0
86	M9	202	OHX	1	0
86	O3	202	OHX	3	0
86	O7	104	OHX	3	0
86	O7	105	OHX	1	0
86	O9	101	OHX	3	0
86	Q2	502	OHX	5	0
86	S8	302	OHX	1	0
86	S9	201	OHX	2	0

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.



## 6 Fit of model and data ⓘ

### 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.