



Full wwPDB X-ray Structure Validation Report ⓘ

May 25, 2020 – 08:11 am BST

PDB ID : 5NDW
Title : Crystal structure of aminoglycoside TC007 bound to the yeast 80S ribosome
Authors : Prokhorova, I.; Djumagulov, M.; Urzhumtsev, A.; Yusupov, M.; Yusupova, G.
Deposited on : 2017-03-09
Resolution : 3.70 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.11
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.11

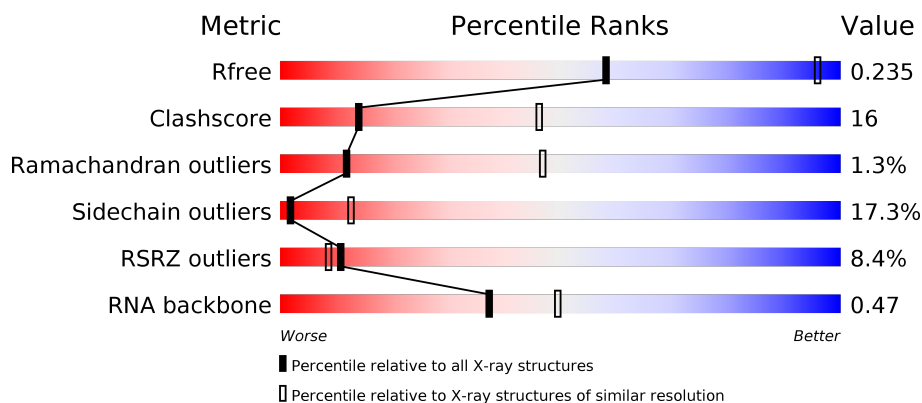
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.70 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.





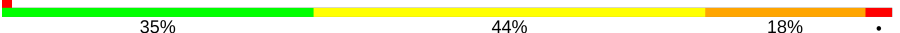



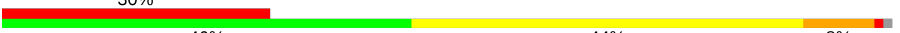







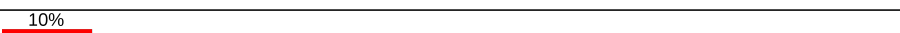




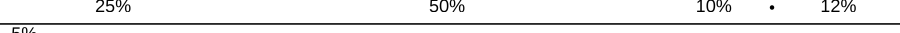

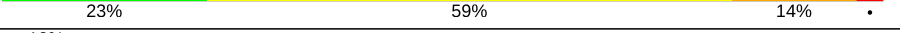



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1049 (3.88-3.52)
Clashscore	141614	1027 (3.86-3.54)
Ramachandran outliers	138981	1069 (3.88-3.52)
Sidechain outliers	138945	1065 (3.88-3.52)
RSRZ outliers	127900	1578 (3.90-3.50)
RNA backbone	3102	1027 (4.40-3.00)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. 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.

Mol	Chain	Length	Quality of chain
1	1	3396	
1	5	3396	
2	2	1800	
2	6	1800	

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Mol	Chain	Length	Quality of chain
3	3	121	
3	7	121	
4	4	158	
4	8	158	
5	C0	105	
5	c0	105	
6	C1	156	
6	c1	156	
7	C2	143	
7	c2	143	
8	C3	150	
8	c3	150	
9	C4	128	
9	c4	128	
10	C5	141	
10	c5	141	
11	C6	141	
11	c6	141	
12	C7	136	
12	c7	136	
13	C8	145	
13	c8	145	
14	C9	143	
14	c9	143	
15	D0	107	

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Mol	Chain	Length	Quality of chain
15	d0	107	
16	D1	87	
16	d1	87	
17	D2	129	
17	d2	129	
18	D3	144	
18	d3	144	
19	D4	134	
19	d4	134	
20	D5	70	
20	d5	70	
21	D6	97	
21	d6	97	
22	D7	81	
22	d7	81	
23	D8	63	
23	d8	63	
24	D9	53	
24	d9	53	
25	E0	61	
25	e0	61	
26	E1	73	
26	e1	73	
27	L2	252	
27	l2	252	

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Mol	Chain	Length	Quality of chain
28	L3	386	
28	l3	386	
29	L4	361	
29	l4	361	
30	L5	296	
30	l5	296	
31	L6	176	
31	l6	176	
32	L7	223	
32	l7	223	
33	L8	233	
33	l8	233	
34	L9	191	
34	l9	191	
35	M0	221	
35	m0	221	
36	M1	169	
36	m1	169	
37	M3	194	
37	m3	194	
38	M4	137	
38	m4	137	
39	M5	203	
39	m5	203	
40	M6	197	

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Mol	Chain	Length	Quality of chain
40	m6	197	
41	M7	184	
41	m7	184	
42	M8	185	
42	m8	185	
43	M9	188	
43	m9	188	
44	N0	172	
44	n0	172	
45	N1	159	
45	n1	159	
46	N2	100	
46	n2	100	
47	N3	136	
47	n3	136	
48	N4	155	
48	n4	155	
49	N5	121	
49	n5	121	
50	N6	126	
50	n6	126	
51	N7	135	
51	n7	135	
52	N8	148	
52	n8	148	

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Mol	Chain	Length	Quality of chain
53	N9	58	
53	n9	58	
54	O0	100	
54	o0	100	
55	O1	109	
55	o1	109	
56	O2	127	
56	o2	127	
57	O3	106	
57	o3	106	
58	O4	112	
58	o4	112	
59	O5	119	
59	o5	119	
60	O6	99	
60	o6	99	
61	O7	87	
61	o7	87	
62	O8	77	
62	o8	77	
63	O9	50	
63	o9	50	
64	Q0	52	
64	q0	52	
65	Q1	25	

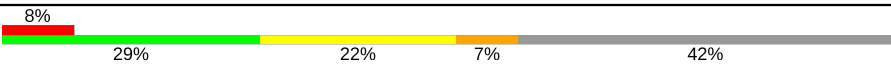

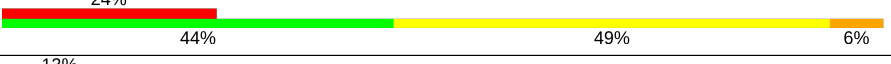
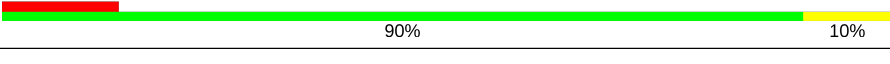
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Mol	Chain	Length	Quality of chain
65	q1	25	
66	Q2	105	
66	q2	105	
67	Q3	91	
67	q3	91	
68	S0	206	
68	s0	206	
69	S1	216	
69	s1	216	
70	S2	217	
70	s2	217	
71	S3	223	
71	s3	223	
72	S4	260	
72	s4	260	
73	S5	206	
73	s5	206	
74	S6	236	
74	s6	236	
75	S7	184	
75	s7	184	
76	S8	200	
76	s8	200	
77	S9	185	
77	s9	185	

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Mol	Chain	Length	Quality of chain
78	SM	272	
78	sM	272	
79	SR	318	
79	sR	318	

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
80	MG	1	3413	-	-	-	X
80	MG	1	3418	-	-	-	X
80	MG	1	3431	-	-	-	X
80	MG	1	3441	-	-	-	X
80	MG	1	3448	-	-	-	X
80	MG	1	3461	-	-	-	X
80	MG	1	3480	-	-	-	X
80	MG	1	3492	-	-	-	X
80	MG	1	3498	-	-	-	X
80	MG	1	3504	-	-	-	X
80	MG	1	3505	-	-	-	X
80	MG	1	3515	-	-	-	X
80	MG	1	3517	-	-	-	X
80	MG	1	3523	-	-	-	X
80	MG	1	3544	-	-	-	X
80	MG	1	3548	-	-	-	X
80	MG	1	3550	-	-	-	X
80	MG	1	3551	-	-	-	X
80	MG	1	3552	-	-	-	X
80	MG	1	3559	-	-	-	X
80	MG	1	3564	-	-	-	X
80	MG	1	3567	-	-	-	X
80	MG	1	3569	-	-	-	X
80	MG	1	3571	-	-	-	X
80	MG	1	3576	-	-	-	X
80	MG	1	3580	-	-	-	X
80	MG	1	3590	-	-	-	X
80	MG	1	3598	-	-	-	X
80	MG	1	3608	-	-	-	X
80	MG	1	3609	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
80	MG	1	3623	-	-	-	X
80	MG	1	3658	-	-	-	X
80	MG	1	3659	-	-	-	X
80	MG	1	3664	-	-	-	X
80	MG	1	3667	-	-	-	X
80	MG	1	3674	-	-	-	X
80	MG	1	3687	-	-	-	X
80	MG	1	3690	-	-	-	X
80	MG	1	3699	-	-	-	X
80	MG	1	3706	-	-	-	X
80	MG	1	3708	-	-	-	X
80	MG	1	3709	-	-	-	X
80	MG	1	3712	-	-	-	X
80	MG	1	3713	-	-	-	X
80	MG	1	3737	-	-	-	X
80	MG	1	3739	-	-	-	X
80	MG	1	3740	-	-	-	X
80	MG	1	3741	-	-	-	X
80	MG	1	3744	-	-	-	X
80	MG	1	3761	-	-	-	X
80	MG	1	3763	-	-	-	X
80	MG	1	3775	-	-	-	X
80	MG	1	3829	-	-	-	X
80	MG	1	3841	-	-	-	X
80	MG	1	3842	-	-	-	X
80	MG	1	3853	-	-	-	X
80	MG	1	3854	-	-	-	X
80	MG	1	3856	-	-	-	X
80	MG	1	3858	-	-	-	X
80	MG	1	3860	-	-	-	X
80	MG	1	3862	-	-	-	X
80	MG	1	3864	-	-	-	X
80	MG	1	3867	-	-	-	X
80	MG	1	3868	-	-	-	X
80	MG	1	3876	-	-	-	X
80	MG	1	3877	-	-	-	X
80	MG	1	3880	-	-	-	X
80	MG	2	1908	-	-	-	X
80	MG	2	1944	-	-	-	X
80	MG	2	1947	-	-	-	X
80	MG	2	1968	-	-	-	X
80	MG	2	1973	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
80	MG	2	1977	-	-	-	X
80	MG	2	2022	-	-	-	X
80	MG	2	2026	-	-	-	X
80	MG	2	2027	-	-	-	X
80	MG	3	201	-	-	-	X
80	MG	4	202	-	-	-	X
80	MG	4	203	-	-	-	X
80	MG	4	206	-	-	-	X
80	MG	4	207	-	-	-	X
80	MG	4	214	-	-	-	X
80	MG	5	3426	-	-	-	X
80	MG	5	3430	-	-	-	X
80	MG	5	3431	-	-	-	X
80	MG	5	3437	-	-	-	X
80	MG	5	3445	-	-	-	X
80	MG	5	3457	-	-	-	X
80	MG	5	3459	-	-	-	X
80	MG	5	3463	-	-	-	X
80	MG	5	3464	-	-	-	X
80	MG	5	3466	-	-	-	X
80	MG	5	3471	-	-	-	X
80	MG	5	3480	-	-	-	X
80	MG	5	3481	-	-	-	X
80	MG	5	3488	-	-	-	X
80	MG	5	3491	-	-	-	X
80	MG	5	3493	-	-	-	X
80	MG	5	3506	-	-	-	X
80	MG	5	3513	-	-	-	X
80	MG	5	3516	-	-	-	X
80	MG	5	3543	-	-	-	X
80	MG	5	3556	-	-	-	X
80	MG	5	3565	-	-	-	X
80	MG	5	3588	-	-	-	X
80	MG	5	3595	-	-	-	X
80	MG	5	3598	-	-	-	X
80	MG	5	3601	-	-	-	X
80	MG	5	3603	-	-	-	X
80	MG	5	3614	-	-	-	X
80	MG	5	3619	-	-	-	X
80	MG	5	3627	-	-	-	X
80	MG	5	3635	-	-	-	X
80	MG	5	3640	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
80	MG	5	3650	-	-	-	X
80	MG	5	3664	-	-	-	X
80	MG	5	3667	-	-	-	X
80	MG	5	3694	-	-	-	X
80	MG	5	3696	-	-	-	X
80	MG	5	3697	-	-	-	X
80	MG	5	3698	-	-	-	X
80	MG	5	3701	-	-	-	X
80	MG	5	3702	-	-	-	X
80	MG	5	3705	-	-	-	X
80	MG	5	3707	-	-	-	X
80	MG	5	3713	-	-	-	X
80	MG	5	3725	-	-	-	X
80	MG	5	3728	-	-	-	X
80	MG	5	3731	-	-	-	X
80	MG	5	3735	-	-	-	X
80	MG	5	3736	-	-	-	X
80	MG	5	3738	-	-	-	X
80	MG	5	3740	-	-	-	X
80	MG	5	3750	-	-	-	X
80	MG	5	3764	-	-	-	X
80	MG	5	3768	-	-	-	X
80	MG	5	3800	-	-	-	X
80	MG	5	3822	-	-	-	X
80	MG	5	3829	-	-	-	X
80	MG	5	3832	-	-	-	X
80	MG	5	3834	-	-	-	X
80	MG	5	3843	-	-	-	X
80	MG	5	3846	-	-	-	X
80	MG	5	3847	-	-	-	X
80	MG	6	1901	-	-	-	X
80	MG	6	1904	-	-	-	X
80	MG	6	1908	-	-	-	X
80	MG	6	1913	-	-	-	X
80	MG	6	1915	-	-	-	X
80	MG	6	1921	-	-	-	X
80	MG	6	1939	-	-	-	X
80	MG	6	1940	-	-	-	X
80	MG	6	1965	-	-	-	X
80	MG	6	1967	-	-	-	X
80	MG	6	1979	-	-	-	X
80	MG	6	1981	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
80	MG	6	1995	-	-	-	X
80	MG	6	1996	-	-	-	X
80	MG	6	2009	-	-	-	X
80	MG	6	2033	-	-	-	X
80	MG	6	2038	-	-	-	X
80	MG	6	2041	-	-	-	X
80	MG	6	2046	-	-	-	X
80	MG	6	2047	-	-	-	X
80	MG	6	2050	-	-	-	X
80	MG	6	2054	-	-	-	X
80	MG	6	2060	-	-	-	X
80	MG	8	203	-	-	-	X
80	MG	8	206	-	-	-	X
80	MG	C4	202	-	-	-	X
80	MG	M6	201	-	-	-	X
80	MG	N0	201	-	-	-	X
80	MG	O1	201	-	-	-	X
80	MG	O1	202	-	-	-	X
80	MG	O3	202	-	-	-	X
80	MG	O4	502	-	-	-	X
80	MG	c1	201	-	-	-	X
80	MG	c1	202	-	-	-	X
80	MG	d2	201	-	-	-	X
80	MG	d3	201	-	-	-	X
80	MG	l3	401	-	-	-	X
80	MG	l5	301	-	-	-	X
80	MG	m6	201	-	-	-	X
80	MG	n1	201	-	-	-	X
80	MG	n6	201	-	-	-	X
80	MG	n8	201	-	-	-	X
80	MG	o3	201	-	-	-	X
80	MG	q2	503	-	-	-	X
80	MG	q2	504	-	-	-	X

2 Entry composition

There are 83 unique types of molecules in this entry. The entry contains 400111 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 25S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	1	3090	Total	C	N	O	P	0	0	0
			66081	29518	11903	21570	3090			
1	5	3080	Total	C	N	O	P	0	0	0
			65880	29427	11878	21495	3080			

- Molecule 2 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	2	1770	Total	C	N	O	P	0	0	0
			37692	16850	6663	12409	1770			
2	6	1736	Total	C	N	O	P	0	0	0
			36971	16529	6541	12165	1736			

- Molecule 3 is a RNA chain called 5S ribosomal RNA.

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

- Molecule 4 is a RNA chain called 5.8S ribosomal RNA.

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

- Molecule 5 is a protein called 40S ribosomal protein S10-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	C0	96	Total	C	N	O	S	0	0	0
			772	499	126	145	2			
5	c0	93	Total	C	N	O	S	0	0	0
			746	481	122	141	2			

- Molecule 6 is a protein called 40S ribosomal protein S11-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	C1	154	Total	C	N	O	S	0	0	0
			1207	771	229	204	3			
6	c1	146	Total	C	N	O	S	0	0	0
			1168	747	221	197	3			

- Molecule 7 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	C2	119	Total	C	N	O	S	0	0	0
			865	545	151	167	2			
7	c2	124	Total	C	N	O	S	0	0	0
			890	560	156	172	2			

- Molecule 8 is a protein called 40S ribosomal protein S13.

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

- Molecule 9 is a protein called 40S ribosomal protein S14-B.

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

- Molecule 10 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	C5	124	Total	C	N	O	S	0	0	0
			977	622	182	166	7			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	c5	125	Total	C	N	O	S	0	0	0
			987	627	186	167	7			

- Molecule 11 is a protein called 40S ribosomal protein S16-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	C6	141	Total	C	N	O		0	0	0
			1105	708	203	194				
11	c6	141	Total	C	N	O		0	0	0
			1105	708	203	194				

- Molecule 12 is a protein called 40S ribosomal protein S17-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	C7	120	Total	C	N	O	S	0	0	0
			926	577	177	170	2			
12	c7	121	Total	C	N	O	S	0	0	0
			926	575	178	171	2			

- Molecule 13 is a protein called 40S ribosomal protein S18-A.

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

- Molecule 14 is a protein called 40S ribosomal protein S19-A.

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

- Molecule 15 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	d0	104	Total	C	N	O	S	0	0	0
			828	524	150	153	1			
15	D0	105	Total	C	N	O	S	0	0	0
			841	532	153	155	1			

- Molecule 16 is a protein called 40S ribosomal protein S21-A.

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

- Molecule 17 is a protein called 40S ribosomal protein S22-A.

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

- Molecule 18 is a protein called 40S ribosomal protein S23-A.

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

- Molecule 19 is a protein called 40S ribosomal protein S24-A.

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

- Molecule 20 is a protein called 40S ribosomal protein S25-A.

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

- Molecule 21 is a protein called 40S ribosomal protein S26-B.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	d6	97	Total	C	N	O	S	0	0	0
			769	475	160	129	5			
21	D6	97	Total	C	N	O	S	0	0	0
			769	475	160	129	5			

- Molecule 22 is a protein called 40S ribosomal protein S27-A.

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

- Molecule 23 is a protein called 40S ribosomal protein S28-A.

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

- Molecule 24 is a protein called 40S ribosomal protein S29-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	d9	53	Total	C	N	O	S	0	0	0
			442	274	92	72	4			
24	D9	52	Total	C	N	O	S	0	0	0
			433	269	91	69	4			

- Molecule 25 is a protein called 40S ribosomal protein S30-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	e0	61	Total	C	N	O	S	0	0	0
			482	304	99	78	1			
25	E0	60	Total	C	N	O	S	0	0	0
			475	299	98	77	1			

- Molecule 26 is a protein called Ubiquitin-40S ribosomal protein S31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	e1	73	Total	C	N	O	S	0	0	0
			586	374	112	96	4			

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

- Molecule 27 is a protein called 60S ribosomal protein L2-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	l2	252	Total	C	N	O	S	0	0	0
			1912	1190	388	333	1			
27	L2	252	Total	C	N	O	S	0	0	0
			1914	1191	388	334	1			

- Molecule 28 is a protein called 60S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	l3	386	Total	C	N	O	S	0	0	0
			3075	1950	584	533	8			
28	L3	386	Total	C	N	O	S	0	0	0
			3075	1950	584	533	8			

- Molecule 29 is a protein called 60S ribosomal protein L4-A.

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

- Molecule 30 is a protein called 60S ribosomal protein L5.

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

- Molecule 31 is a protein called 60S ribosomal protein L6-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	l6	157	Total	C	N	O	S	0	0	0
			1248	806	224	217	1			
31	L6	157	Total	C	N	O	S	0	0	0
			1248	806	224	217	1			

- Molecule 32 is a protein called 60S ribosomal protein L7-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	17	223	Total	C	N	O	S	0	0	0
			1791	1155	325	310	1			
32	L7	222	Total	C	N	O	S	0	0	0
			1784	1151	324	308	1			

- Molecule 33 is a protein called 60S ribosomal protein L8-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	18	231	Total	C	N	O	S	0	0	0
			1764	1130	316	315	3			
33	L8	233	Total	C	N	O	S	0	0	0
			1804	1151	323	327	3			

- Molecule 34 is a protein called 60S ribosomal protein L9-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	19	191	Total	C	N	O	S	0	0	0
			1518	963	274	277	4			
34	L9	191	Total	C	N	O	S	0	0	0
			1518	963	274	277	4			

- Molecule 35 is a protein called 60S ribosomal protein L10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	m0	209	Total	C	N	O	S	0	0	0
			1696	1077	321	293	5			
35	M0	211	Total	C	N	O	S	0	0	0
			1705	1083	322	294	6			

- Molecule 36 is a protein called 60S ribosomal protein L11-B.

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

- Molecule 37 is a protein called 60S ribosomal protein L13-A.

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

- Molecule 38 is a protein called 60S ribosomal protein L14-A.

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

- Molecule 39 is a protein called 60S ribosomal protein L15-A.

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

- Molecule 40 is a protein called 60S ribosomal protein L16-A.

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

- Molecule 41 is a protein called 60S ribosomal protein L17-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
41	m7	183	Total	C	N	O	0	0	0
			1420	882	281	257			
41	M7	183	Total	C	N	O	0	0	0
			1420	882	281	257			

- Molecule 42 is a protein called 60S ribosomal protein L18-A.

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

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

- Molecule 43 is a protein called 60S ribosomal protein L19-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	m9	184	Total	C	N	O		0	0	0
			1490	917	321	252				
43	M9	188	Total	C	N	O		0	0	0
			1521	935	326	260				

- Molecule 44 is a protein called 60S ribosomal protein L20-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	n0	171	Total	C	N	O	S	0	0	0
			1437	925	266	243	3			
44	N0	172	Total	C	N	O	S	0	0	0
			1445	930	267	244	4			

- Molecule 45 is a protein called 60S ribosomal protein L21-A.

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

- Molecule 46 is a protein called 60S ribosomal protein L22-A.

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

- Molecule 47 is a protein called 60S ribosomal protein L23-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	n3	135	Total	C	N	O	S	0	0	0
			997	625	188	177	7			
47	N3	136	Total	C	N	O	S	0	0	0
			1003	628	189	179	7			

- Molecule 48 is a protein called 60S ribosomal protein L24-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	n4	130	Total	C	N	O	S	0	0	0
			1007	634	200	172	1			
48	N4	130	Total	C	N	O	S	0	0	0
			965	606	192	166	1			

- Molecule 49 is a protein called 60S ribosomal protein L25.

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

- Molecule 50 is a protein called 60S ribosomal protein L26-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
50	n6	122	Total	C	N	O	0	0	0
			963	606	187	170			
50	N6	126	Total	C	N	O	0	0	0
			993	625	192	176			

- Molecule 51 is a protein called 60S ribosomal protein L27-A.

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

- Molecule 52 is a protein called 60S ribosomal protein L28.

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

- Molecule 53 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
53	n9	56	Total	C	N	O	0	0	0
			444	277	96	71			
53	N9	58	Total	C	N	O	0	0	0
			462	289	100	73			

- Molecule 54 is a protein called 60S ribosomal protein L30.

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

- Molecule 55 is a protein called 60S ribosomal protein L31-A.

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

- Molecule 56 is a protein called 60S ribosomal protein L32.

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

- Molecule 57 is a protein called 60S ribosomal protein L33-A.

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

- Molecule 58 is a protein called 60S ribosomal protein L34-A.

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

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

- Molecule 59 is a protein called 60S ribosomal protein L35-A.

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

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

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

- Molecule 61 is a protein called 60S ribosomal protein L37-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
61	o7	83	Total	C	N	O	S	0	0	0
			656	399	143	109	5			
61	O7	87	Total	C	N	O	S	0	0	0
			681	414	148	114	5			

- Molecule 62 is a protein called 60S ribosomal protein L38.

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

- Molecule 63 is a protein called 60S ribosomal protein L39.

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

- Molecule 64 is a protein called Ubiquitin-60S ribosomal protein L40.

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

- Molecule 65 is a protein called 60S ribosomal protein L41-A.

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

- Molecule 66 is a protein called 60S ribosomal protein L42-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
66	q2	104	Total	C	N	O	S	0	0	0
			836	525	169	137	5			
66	Q2	105	Total	C	N	O	S	0	0	0
			847	534	170	138	5			

- Molecule 67 is a protein called 60S ribosomal protein L43-A.

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

- Molecule 68 is a protein called 40S ribosomal protein S0-A.

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

- Molecule 69 is a protein called 40S ribosomal protein S1-A.

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

- Molecule 70 is a protein called 40S ribosomal protein S2.

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

- Molecule 71 is a protein called 40S ribosomal protein S3.

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

- Molecule 72 is a protein called 40S ribosomal protein S4-A.

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

- Molecule 73 is a protein called 40S ribosomal protein S5.

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

- Molecule 74 is a protein called 40S ribosomal protein S6-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
74	S6	226	Total	C	N	O	S	0	0	0
			1799	1129	346	321	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
74	s6	218	Total	C	N	O	S	0	0	0
			1755	1102	337	313	3			

- Molecule 75 is a protein called 40S ribosomal protein S7-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
75	s7	184	Total	C	N	O	S	0	0	0
			1481	951	265	265				
75	S7	184	Total	C	N	O	S	0	0	0
			1481	951	265	265				

- Molecule 76 is a protein called 40S ribosomal protein S8-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
76	s8	185	Total	C	N	O	S	0	0	0
			1466	910	293	261	2			
76	S8	188	Total	C	N	O	S	0	0	0
			1489	925	298	264	2			

- Molecule 77 is a protein called 40S ribosomal protein S9-A.

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

- Molecule 78 is a protein called Suppressor protein STM1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
78	sM	131	Total	C	N	O	S	0	0	0
			958	564	193	201				
78	SM	159	Total	C	N	O	S	0	0	0
			1104	652	221	231				

- Molecule 79 is a protein called Guanine nucleotide-binding protein subunit beta-like protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
79	sR	316	Total	C	N	O	S	0	0	0
			2427	1535	415	469	8			
79	SR	318	Total	C	N	O	S	0	0	0
			2437	1541	418	470	8			

- Molecule 80 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
80	L7	2	Total Mg 2 2	0	0
80	s0	1	Total Mg 1 1	0	0
80	n8	1	Total Mg 1 1	0	0
80	s8	1	Total Mg 1 1	0	0
80	O2	1	Total Mg 1 1	0	0
80	N0	1	Total Mg 1 1	0	0
80	o2	2	Total Mg 2 2	0	0
80	6	160	Total Mg 160 160	0	0
80	D2	1	Total Mg 1 1	0	0
80	O4	1	Total Mg 1 1	0	0
80	m5	1	Total Mg 1 1	0	0
80	l3	3	Total Mg 3 3	0	0
80	C8	1	Total Mg 1 1	0	0
80	O3	2	Total Mg 2 2	0	0
80	S6	1	Total Mg 1 1	0	0
80	c9	1	Total Mg 1 1	0	0
80	l7	1	Total Mg 1 1	0	0
80	M5	3	Total Mg 3 3	0	0
80	N7	1	Total Mg 1 1	0	0
80	C4	3	Total Mg 3 3	0	0
80	N6	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
80	d2	1	Total 1	Mg 1	0	0
80	SM	2	Total 2	Mg 2	0	0
80	o4	1	Total 1	Mg 1	0	0
80	s4	1	Total 1	Mg 1	0	0
80	M0	2	Total 2	Mg 2	0	0
80	c1	2	Total 2	Mg 2	0	0
80	5	449	Total 449	Mg 449	1	0
80	n1	1	Total 1	Mg 1	0	0
80	c8	2	Total 2	Mg 2	0	0
80	O7	2	Total 2	Mg 2	0	0
80	s6	1	Total 1	Mg 1	0	0
80	l4	1	Total 1	Mg 1	0	0
80	C9	1	Total 1	Mg 1	0	0
80	1	485	Total 485	Mg 485	0	0
80	S1	1	Total 1	Mg 1	0	0
80	L9	1	Total 1	Mg 1	0	0
80	M8	1	Total 1	Mg 1	0	0
80	Q2	1	Total 1	Mg 1	0	0
80	d3	1	Total 1	Mg 1	0	0
80	o3	2	Total 2	Mg 2	0	0
80	N3	1	Total 1	Mg 1	0	0

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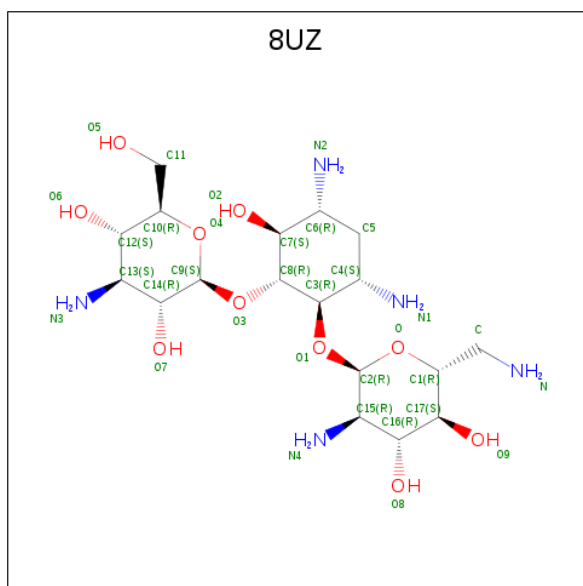
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
80	N8	1	Total 1	Mg 1	0	0
80	4	19	Total 19	Mg 19	1	0
80	n6	1	Total 1	Mg 1	0	0
80	S4	1	Total 1	Mg 1	0	0
80	L2	2	Total 2	Mg 2	0	0
80	O6	1	Total 1	Mg 1	0	0
80	o7	2	Total 2	Mg 2	0	0
80	l5	1	Total 1	Mg 1	0	0
80	m7	2	Total 2	Mg 2	0	0
80	M7	4	Total 4	Mg 4	0	0
80	L6	3	Total 3	Mg 3	0	0
80	n7	1	Total 1	Mg 1	0	0
80	m6	1	Total 1	Mg 1	0	0
80	O1	2	Total 2	Mg 2	0	0
80	q2	3	Total 3	Mg 3	0	0
80	C6	1	Total 1	Mg 1	0	0
80	d9	2	Total 2	Mg 2	0	0
80	c7	1	Total 1	Mg 1	0	0
80	7	8	Total 8	Mg 8	0	0
80	n3	1	Total 1	Mg 1	0	0
80	L3	2	Total 2	Mg 2	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
80	O5	1	Total	Mg	0	0
			1	1		
80	2	128	Total	Mg	0	0
			128	128		
80	12	2	Total	Mg	0	0
			2	2		
80	8	10	Total	Mg	0	0
			10	10		
80	m0	2	Total	Mg	0	0
			2	2		
80	M6	1	Total	Mg	0	0
			1	1		
80	c3	1	Total	Mg	0	0
			1	1		
80	3	13	Total	Mg	0	0
			13	13		

- Molecule 81 is TC007 (three-letter code: 8UZ) (formula: $C_{18}H_{37}N_5O_{10}$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
81	1	1	Total	C	N	O	0	0
			33	18	5	10		
81	1	1	Total	C	N	O	0	0
			33	18	5	10		
81	1	1	Total	C	N	O	0	0
			33	18	5	10		

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
81	1	1	Total	C	N	O	0	0
			33	18	5	10		
81	1	1	Total	C	N	O	0	0
			33	18	5	10		
81	1	1	Total	C	N	O	0	0
			33	18	5	10		
81	1	1	Total	C	N	O	0	0
			33	18	5	10		
81	1	1	Total	C	N	O	0	0
			33	18	5	10		
81	1	1	Total	C	N	O	0	0
			33	18	5	10		
81	2	1	Total	C	N	O	0	0
			33	18	5	10		
81	2	1	Total	C	N	O	0	0
			33	18	5	10		
81	2	1	Total	C	N	O	0	0
			33	18	5	10		
81	3	1	Total	C	N	O	0	0
			33	18	5	10		
81	4	1	Total	C	N	O	0	0
			33	18	5	10		
81	5	1	Total	C	N	O	0	0
			33	18	5	10		
81	5	1	Total	C	N	O	0	0
			33	18	5	10		
81	5	1	Total	C	N	O	0	0
			33	18	5	10		
81	5	1	Total	C	N	O	0	0
			33	18	5	10		
81	5	1	Total	C	N	O	0	0
			33	18	5	10		
81	5	1	Total	C	N	O	0	0
			33	18	5	10		
81	6	1	Total	C	N	O	0	0
			33	18	5	10		

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
81	7	1	Total	C	N	O	0	0
			33	18	5	10		

- Molecule 82 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
82	Q0	1	Total	Zn	0	0
			1	1		
82	d6	1	Total	Zn	0	0
			1	1		
82	q3	1	Total	Zn	0	0
			1	1		
82	E1	1	Total	Zn	0	0
			1	1		
82	O7	1	Total	Zn	0	0
			1	1		
82	q2	1	Total	Zn	0	0
			1	1		
82	O4	1	Total	Zn	0	0
			1	1		
82	D9	1	Total	Zn	0	0
			1	1		
82	e1	1	Total	Zn	0	0
			1	1		
82	q0	1	Total	Zn	0	0
			1	1		
82	Q3	1	Total	Zn	0	0
			1	1		
82	o4	1	Total	Zn	0	0
			1	1		
82	d9	1	Total	Zn	0	0
			1	1		
82	D7	1	Total	Zn	0	0
			1	1		
82	o7	1	Total	Zn	0	0
			1	1		
82	D6	1	Total	Zn	0	0
			1	1		
82	Q2	1	Total	Zn	0	0
			1	1		

- Molecule 83 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
83	1	597	Total O 597 597	3	0
83	2	154	Total O 154 154	0	0
83	3	23	Total O 23 23	0	0
83	4	7	Total O 7 7	0	0
83	5	556	Total O 556 556	0	0
83	6	204	Total O 204 204	0	0
83	7	19	Total O 19 19	0	0
83	8	10	Total O 10 10	0	0
83	C3	2	Total O 2 2	0	0
83	C4	1	Total O 1 1	0	0
83	c4	1	Total O 1 1	0	0
83	C6	1	Total O 1 1	0	0
83	c6	1	Total O 1 1	0	0
83	C7	1	Total O 1 1	0	0
83	c8	1	Total O 1 1	0	0
83	C9	3	Total O 3 3	0	0
83	c9	4	Total O 4 4	0	0
83	D0	1	Total O 1 1	0	0
83	d3	1	Total O 1 1	0	0
83	D3	2	Total O 2 2	0	0
83	d6	3	Total O 3 3	0	0
83	D6	1	Total O 1 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
83	d9	2	Total 2	O 2	0	0
83	l2	4	Total 4	O 4	0	0
83	L2	3	Total 3	O 3	0	0
83	l3	4	Total 4	O 4	0	0
83	L3	1	Total 1	O 1	0	0
83	l4	3	Total 3	O 3	0	0
83	L4	1	Total 1	O 1	0	0
83	l5	3	Total 3	O 3	0	0
83	L5	2	Total 2	O 2	0	0
83	l9	2	Total 2	O 2	0	0
83	M0	2	Total 2	O 2	0	0
83	M3	3	Total 3	O 3	0	0
83	m5	3	Total 3	O 3	0	0
83	M5	1	Total 1	O 1	0	0
83	M6	3	Total 3	O 3	0	0
83	m7	3	Total 3	O 3	0	0
83	M7	4	Total 4	O 4	0	0
83	m8	1	Total 1	O 1	0	0
83	m9	5	Total 5	O 5	0	0
83	M9	2	Total 2	O 2	0	0
83	n1	2	Total 2	O 2	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
83	N1	3	Total 3	O 3	0	0
83	n3	3	Total 3	O 3	0	0
83	N3	3	Total 3	O 3	0	0
83	N5	1	Total 1	O 1	0	0
83	N6	3	Total 3	O 3	0	0
83	n8	3	Total 3	O 3	0	0
83	N8	1	Total 1	O 1	0	0
83	o1	3	Total 3	O 3	0	0
83	O1	5	Total 5	O 5	0	0
83	o2	5	Total 5	O 5	0	0
83	O2	3	Total 3	O 3	0	0
83	o4	4	Total 4	O 4	0	0
83	O4	1	Total 1	O 1	0	0
83	O5	1	Total 1	O 1	0	0
83	o6	3	Total 3	O 3	0	0
83	o7	1	Total 1	O 1	0	0
83	O7	4	Total 4	O 4	0	0
83	O9	2	Total 2	O 2	0	0
83	q0	1	Total 1	O 1	0	0
83	q2	1	Total 1	O 1	0	0
83	Q2	1	Total 1	O 1	0	0

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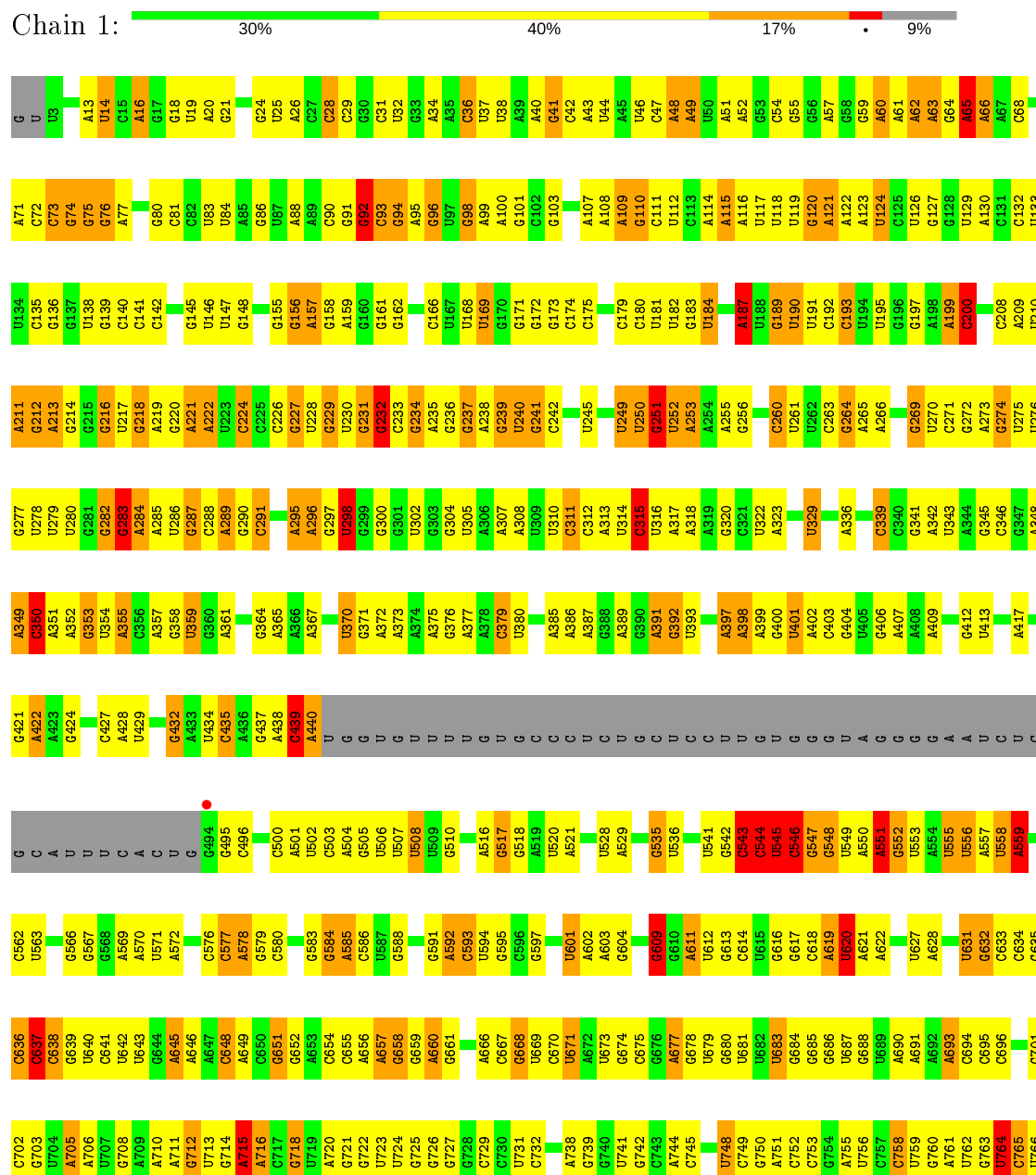
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
83	S6	1	Total 1	O 1	0	0
83	S9	1	Total 1	O 1	0	0
83	sM	3	Total 3	O 3	0	0
83	SM	1	Total 1	O 1	0	0

3 Residue-property plots

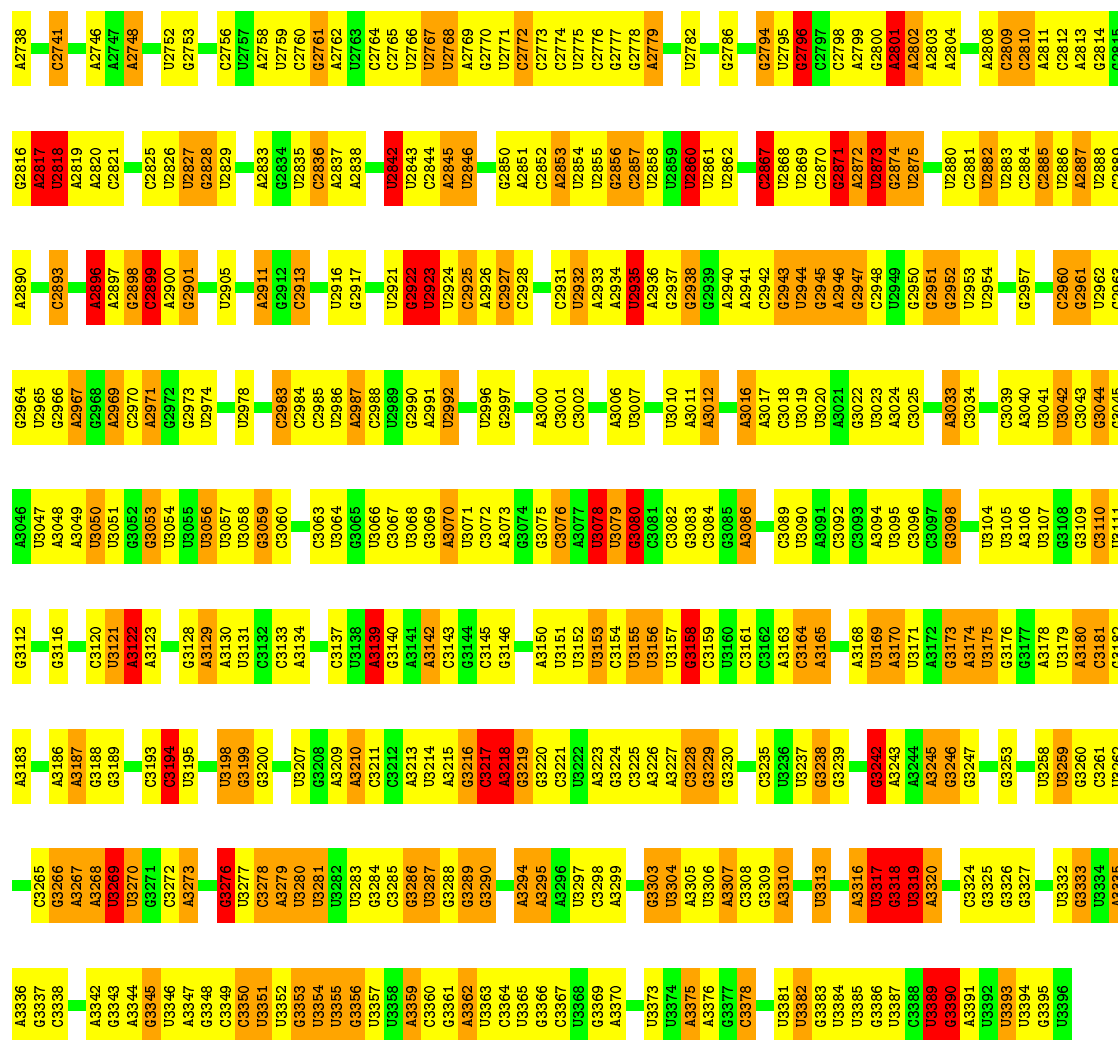
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are 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.

• Molecule 1: 25S ribosomal RNA



U1645	C1581	U1448	U1384	U1318	U1190	U1114	A1047	C975	G968	U767
A1648	C1582	A1449	C1385	G1319	U1191	G1115	A1043	U976	G909	C768
U1649	A1583	C1450	A1386	C1320	C1192	G1116	C1049	C977	G910	C769
G1650	U1584	C1451	G1387	G1321	A1193	G1117	U1050	G978	C911	G770
U1651	C1585	A1452	G1389	U1322	G1194	C1118	U1051	U979	G912	A771
G1652	U1586	A1453	A1390	G1323	G1195	C1119	U1052	A980	A913	G838
U1653	A1587	C1454	C1391	U1324	A1196	G1120	U1053	U981	A914	C839
A1654	A1588	U1455	G1392	U1325	C1197	A1121	A1054	C982	A915	U776
G1655	U1589	U1456	A1393	A1326	C1198	U1125	A1055	G986	G916	U777
U1656	U1590	U1457	G1394	C1327	C1199	G1126	U1056	U987	G917	U778
G1657	A1591	U1458	A1395	C1328	C1201	G1127	A1057	U988	C918	A780
C1658	U1592	C1459	C1396	U1329	A1202	U1128	A1062	A992	U919	G781
U1659	A1593	A1460	U1398	A1330	A1203	A1129	G1063	G993	A920	U782
C1660	U1594	U1463	A1399	U1334	A1204	A1130	U1064	G994	A921	A783
G1661	U1595	G1400	C1335	C1335	A1205	G1131	A1065	G995	U922	A784
U1662	A1536	A1467	A1401	U1336	G1206	G1132	G1066	U996	C923	G785
C1663	G1536	U1470	A1402	A1337	G1209	A1133	U1071	A999	A924	A786
G1664	U1537	U1471	C1403	C1338	U1210	C1137	G1072	G999	A925	G787
U1665	G1538	U1472	G1404	G1339	U1211	U1138	A1073	C1000	A926	C788
C1666	A1539	U1473	U1405	U1340	U1212	G1139	U1074	G1001	C927	A789
A1667	G1541	G1474	A1406	U1341	G1213	U1143	A1075	A1002	C928	G790
G1668	G1542	A1475	A1407	C1342	G1216	U1144	G1076	A1003	A929	A791
U1674	G1493	G1476	G1408	A1343	C1217	G1145	U1077	U1004	U930	G792
G1675	C1411	A1477	C1412	G1344	U1218	C1146	U1078	G1005	G874	C793
A1676	G1413	U1480	G1414	U1345	C1219	U1147	A1079	A1006	U935	U794
G1677	A1416	A1481	C1415	G1346	C1280	G1148	U1080	U1007	A936	G795
U1680	G1416	U1482	G1416	U1348	G1281	U1153	U1081	U1008	G868	U796
U1681	C1551	G1483	G1417	G1357	G1282	A1154	U1082	G1010	C938	G797
A1683	G1552	U1484	A1418	A1358	C1283	C1155	G1083	U940	U939	G798
C1684	U1553	U1485	A1419	A1359	G1284	C1156	A1084	G1013	G941	G800
U1686	U1554	G1486	A1420	U1363	A1285	G1157	U1085	U1014	G942	A801
U1687	U1555	G1487	G1421	G1354	A1287	U1158	U1086	C1016	U943	C802
U1688	C1556	G1488	G1422	A1355	G1288	A1159	C1087	C1017	C944	C803
C1689	A1557	A1489	C1423	U1356	G1289	G1160	U1090	C1018	C945	C804
U1690	U1558	A1490	C1424	G1357	C1292	G1161	A1091	G1019	U946	G805
U1691	A1559	A1491	U1427	C1358	U1293	G1164	C1092	G1020	G949	A806
C1692	G1560	G1492	A1428	C1359	A1294	A1165	A1093	G1021	C950	A807
U1693	G1561	G1493	G1429	U1361	G1295	G1166	U1094	U1022	G881	A808
U1694	C1562	U1494	U1430	G1362	C1296	U1167	U1095	C1023	A882	G809
G1695	U1563	C1495	G1431	C1363	G1300	A1168	U1096	G1024	A883	A810
U1696	U1564	C1496	G1432	C1364	A1301	A1169	A1097	A1025	A884	U811
A1697	C1565	C1497	A1433	G1365	A1302	A1170	A1098	U1026	U855	G812
C1698	U1566	U1567	G1434	G1366	A1303	G1174	A1099	A1027	C886	G813
U1699	U1568	C1633	A1435	G1367	A1304	C1175	U1100	G1028	C890	U814
G1700	U1569	U1570	U1436	U1368	U1305	C1176	G1101	C958	G891	A816
C1701	U1570	A1504	C1437	A1369	G1306	G1177	A1102	A1030	U892	A817
U1702	A1571	C1505	U1438	G1370	G1307	A1178	A1103	C1031	A895	C818
U1695	U1571	U1506	U1439	A1373	A1308	G1179	A1105	U1033	A896	U821
A1696	G1572	G1507	G1440	C1376	U1309	A1180	G1106	A1036	G900	G822
C1699	U1573	C1508	G1441	U1380	A1312	U1181	C1107	C1037	A897	C823
U1703	C1574	U1509	G1442	G1381	U1313	A1182	U1108	C1038	G901	G826
C1709	U1575	G1510	G1443	C1382	C1314	C1185	U1109	C1039	G902	A828
G1712	G1576	U1511	U1444	G1383	U1315	G1189	U1110	A1041	U903	U829
G1713	U1577	U1512	U1445	C1384	C1316	C1189	A1112	G974	A906	A830
U1716	C1578	U1513	U1446	A1385	A1317		G1113			G831
U1717	A1580	G1514	G1447							

G2666	G2600	G2599	G2533	G2403	U2336	A2262	C2192	A2120	C	A1936	G1860	G1789	G1719	G1720	G1718
A2667	C2601	C2606	G2534	A2404	C2337	C2263	U2193	G2121	U	U1937	G1863	G1790	G1791	U1721	G1785
A2674	G2602	G2602	A2535	C2406	C2338	C2264	G2194	G2122	G	U1938	A1864	C1792	C1791	U1722	U1765
C2675	G2603	G2603	C2407	C2407	U2340	C2265	G2201	A2125	A	G1939	A1865	C1793	G1792	U1723	G1766
A2676	U2604	U2604	U2537	U2408	A2341	U2269	C2202	A2126	G	G1940	A1866	C1794	C1793	U1724	U1768
G2677	G2605	G2605	C2538	G2409	U2342	A2270	U2203	U2127	G	U1942	A1867	U1795	C1725	G1725	C1775
A2678	G2606	G2606	C2539	U2410	U2343	A2271	C2204	U2128	U	C1943	G1868	G1796	G1726	C1726	U1777
A2679	C2607	C2607	U2541	U2411	U2344	A2272	U2205	G2130	C	U1944	G1869	G1797	G1727	G1727	G1778
U2680	G2608	G2608	U2542	G2412	U2345	G2273	C2206	A2131	C	A1945	C1870	A1800	G1728	G1729	G1779
A2681	A2609	A2609	A2543	A2413	U2346	U2274	A2207	C2136	U	A1946	U1871	G1802	G1729	G1730	G1780
G2682	G2610	G2610	U2544	G2414	U2349	G2275	U2208	U2137	U	G1947	G1872	C1803	G1731	G1732	G1781
U2683	U2611	U2611	G2545	G2415	U2349	G2276	U2209	A2138	G	U1948	U1873	C1804	U1732	U1733	U1782
C2684	U2612	U2612	C2546	C2415	C2350	C2277	G2210	A2139	U	G1949	A1874	C1805	G1734	G1735	G1783
U2688	U2613	U2613	A2547	G2418	U2351	C2278	U2211	A2140	A	U1950	G1878	C1806	G1736	G1737	G1784
A2689	G2614	G2614	A2548	A2419	A2352	U2279	C2212	U2141	U	G1951	A1879	A1807	G1738	G1739	G1785
G2690	G2615	G2615	C2549	C2420	G2353	A2280	A2213	U2142	G	U1952	U1880	C1808	G1740	G1741	G1786
A2691	U2616	U2617	C2552	U2421	C2354	A2281	A2214	A2143	C	G	A1881	G1809	U1742	A1741	G1787
A2692	G2618	G2618	U2553	U2422	A2356	U2282	G2215	A2144	C	U	G1882	A1810	U1743	U1744	G1788
C2693	G2619	G2619	A2554	A2423	A2357	C2284	U2217	C2146	G	A	A1886	G1811	U1745	U1746	G1789
G2694	G2620	G2620	G2555	G2425	A2358	C2285	A2218	A2147	C	U	A1887	G1812	U1747	U1748	G1790
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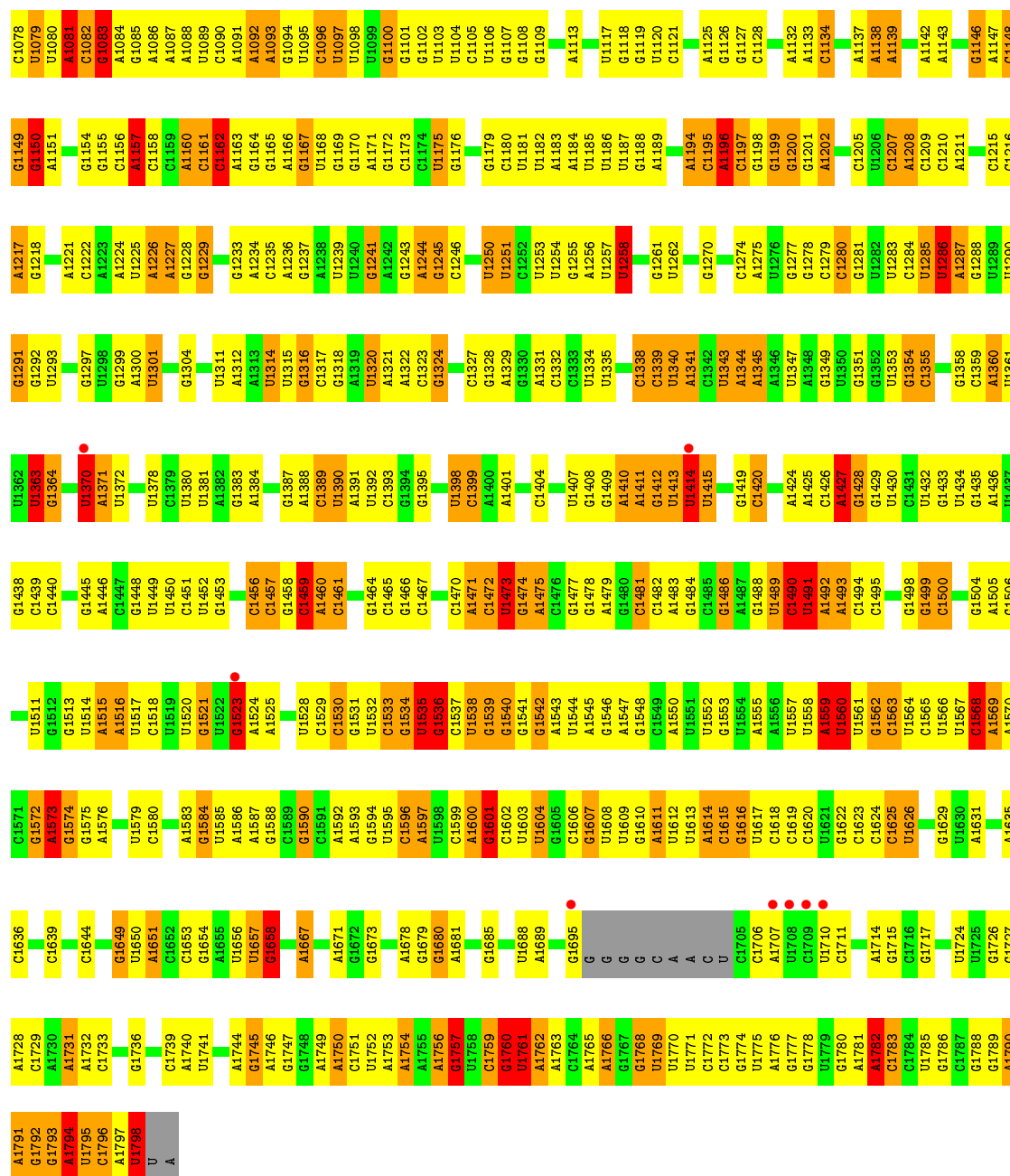




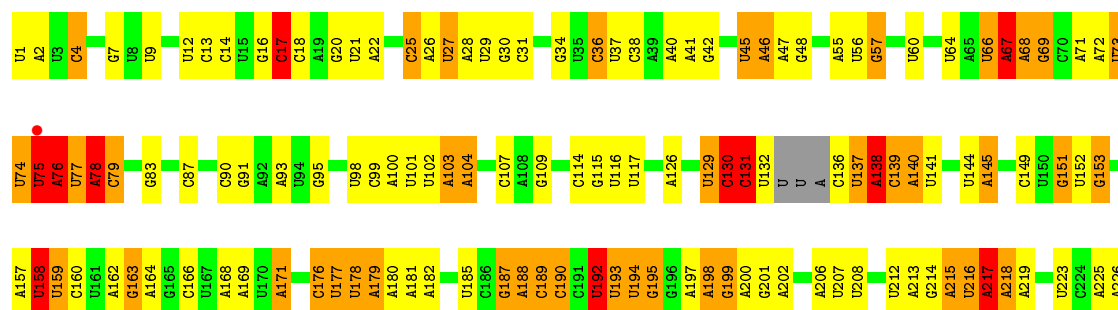
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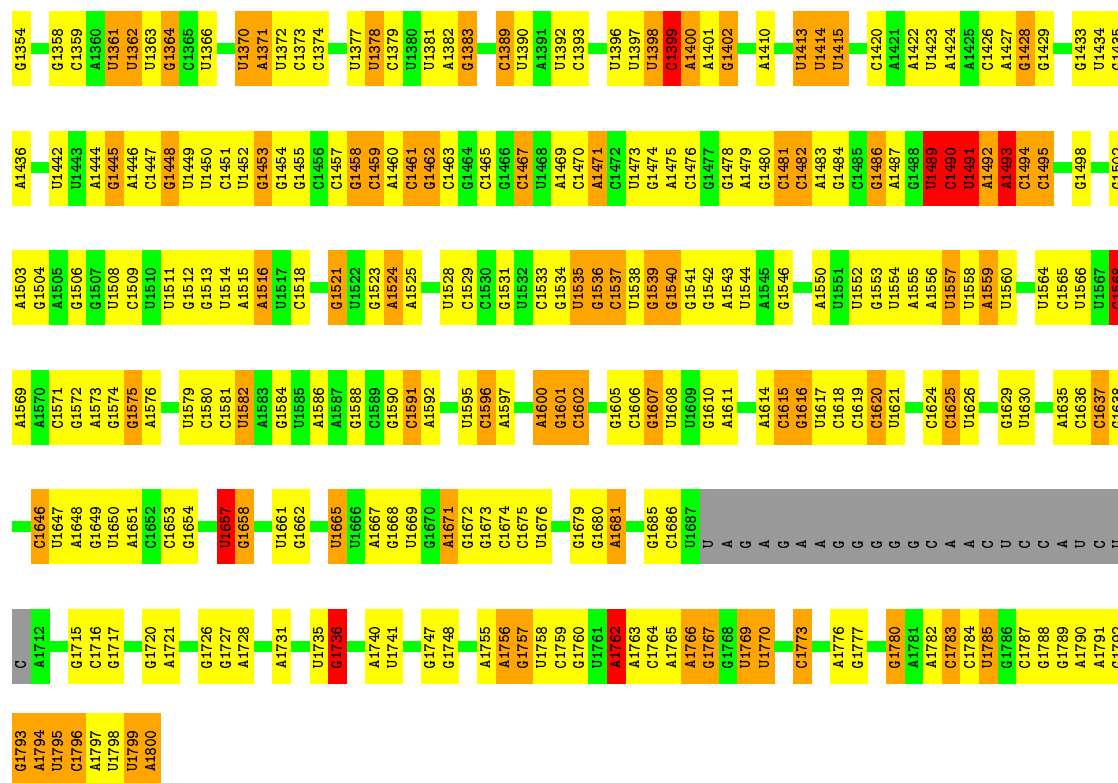
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● Molecule 2: 18S ribosomal RNA

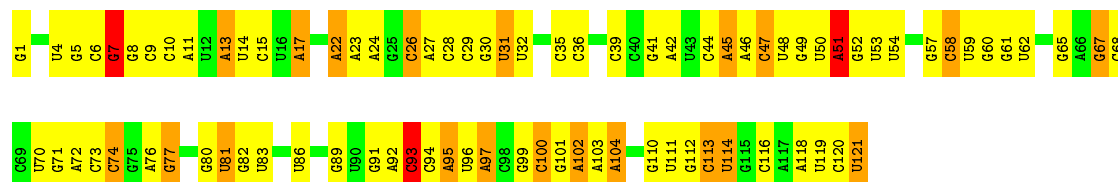






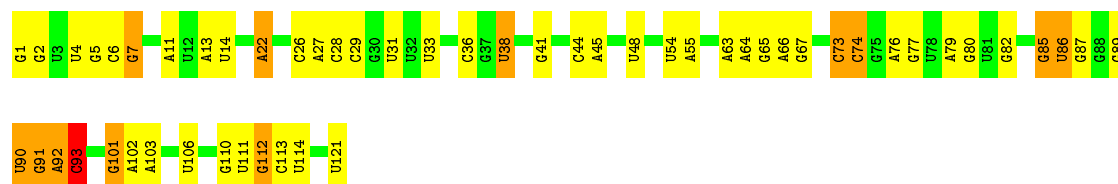
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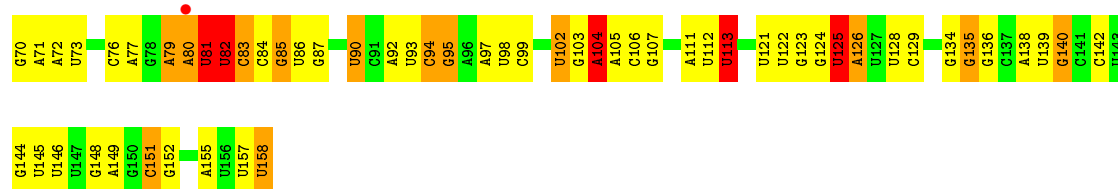
Chain 3: 31% 50% 17%



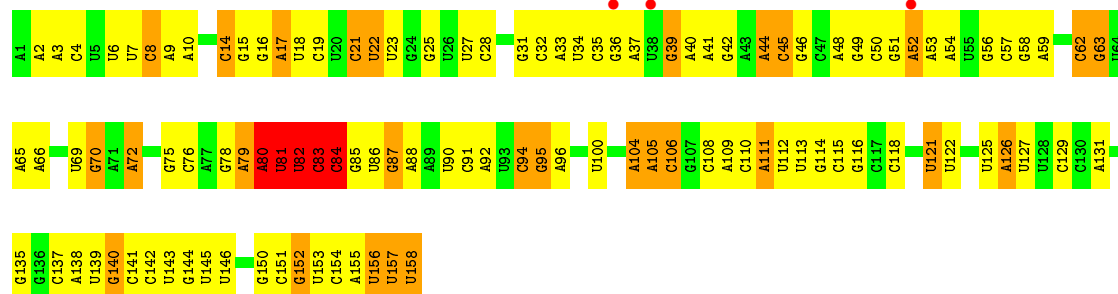
• Molecule 3: 5S ribosomal RNA

Chain 7: 55% 34% 10%

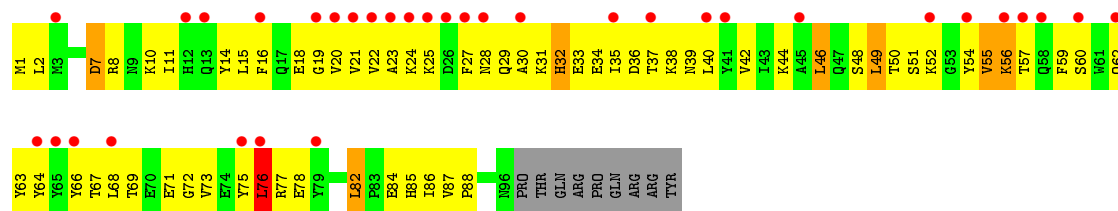




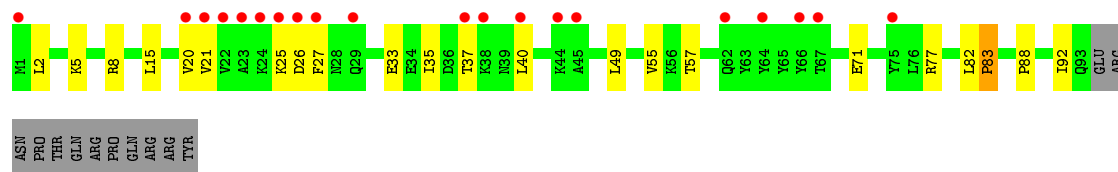
• Molecule 4: 5.8S ribosomal RNA



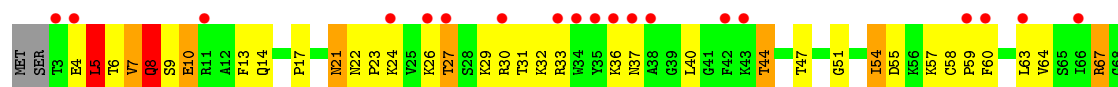
• Molecule 5: 40S ribosomal protein S10-A

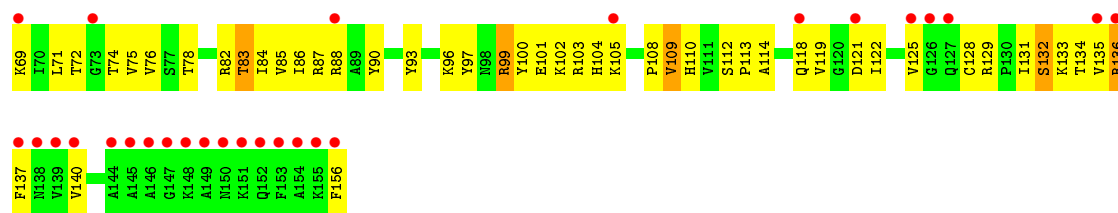


• Molecule 5: 40S ribosomal protein S10-A

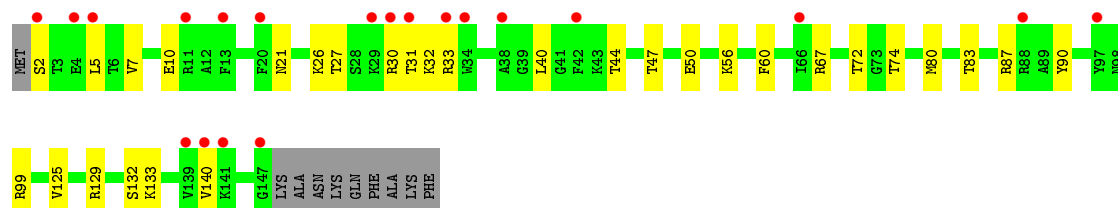
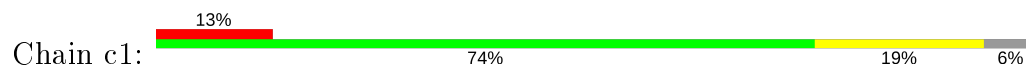


• Molecule 6: 40S ribosomal protein S11-A

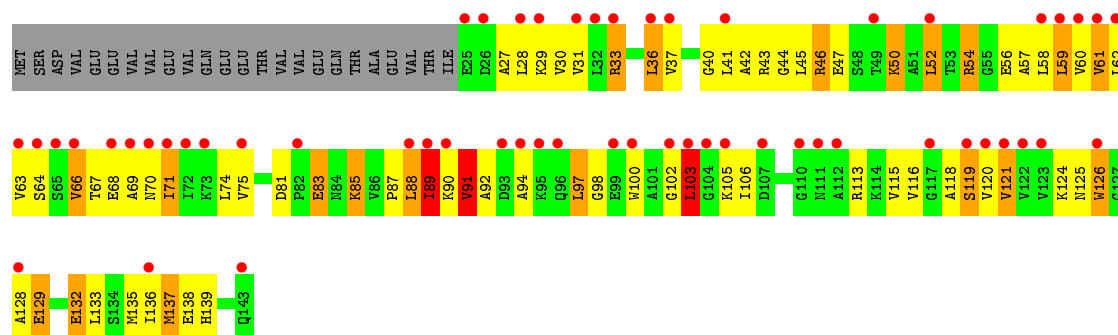




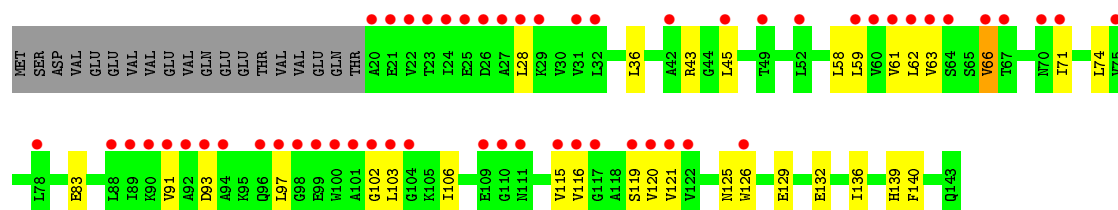
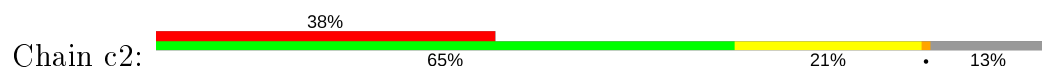
• Molecule 6: 40S ribosomal protein S11-A



• Molecule 7: 40S ribosomal protein S12

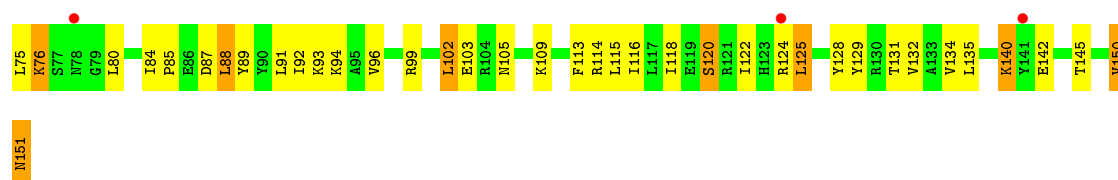


• Molecule 7: 40S ribosomal protein S12

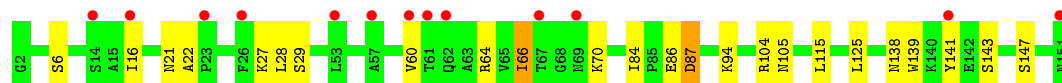
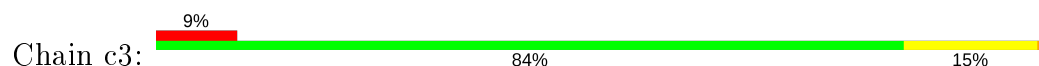


• Molecule 8: 40S ribosomal protein S13





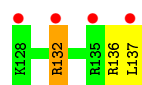
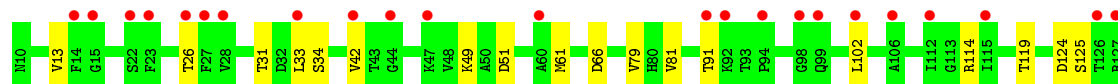
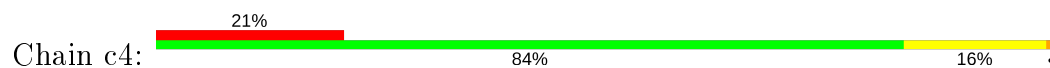
- Molecule 8: 40S ribosomal protein S13



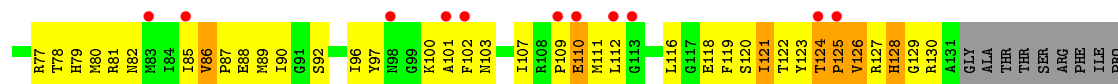
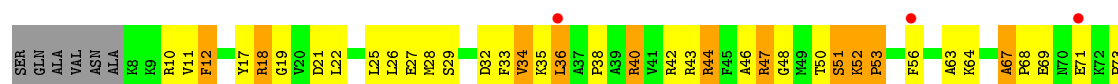
- Molecule 9: 40S ribosomal protein S14-B



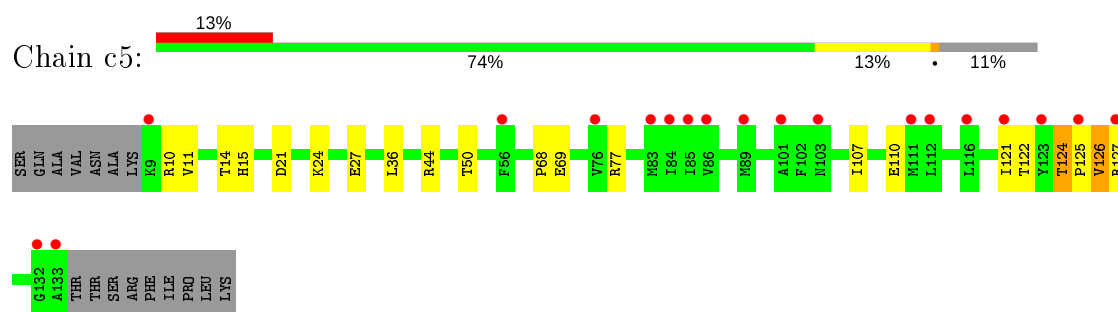
- Molecule 9: 40S ribosomal protein S14-B



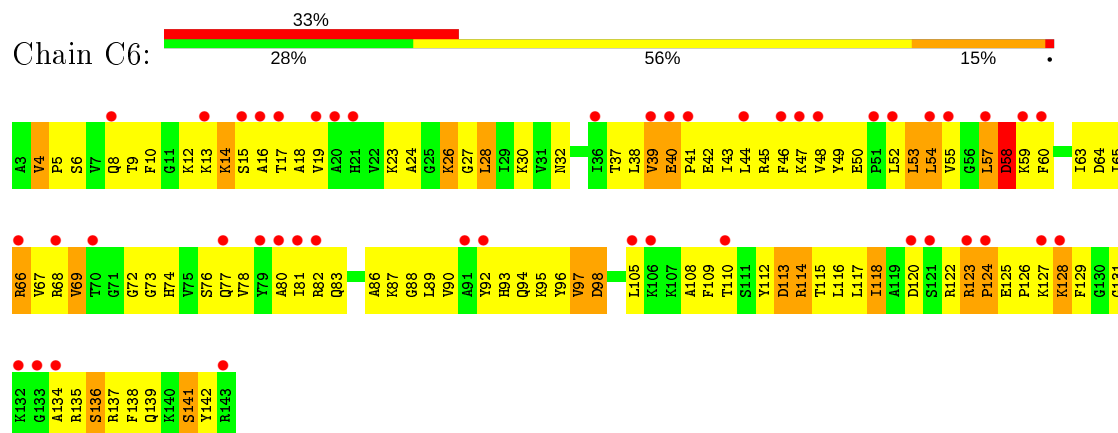
- Molecule 10: 40S ribosomal protein S15



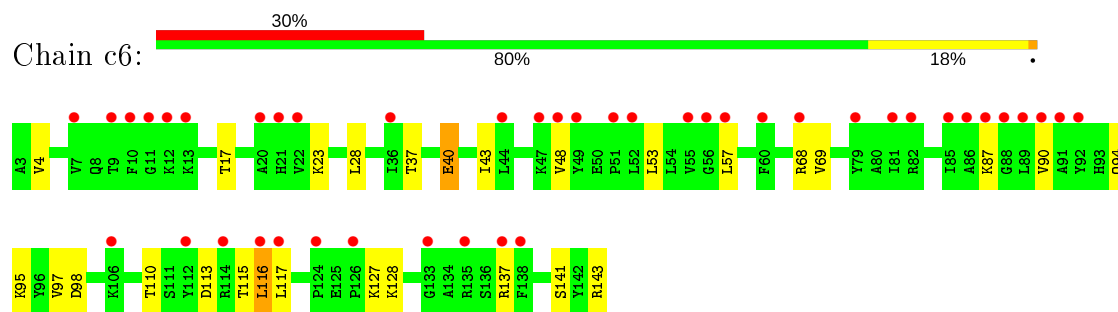
- Molecule 10: 40S ribosomal protein S15



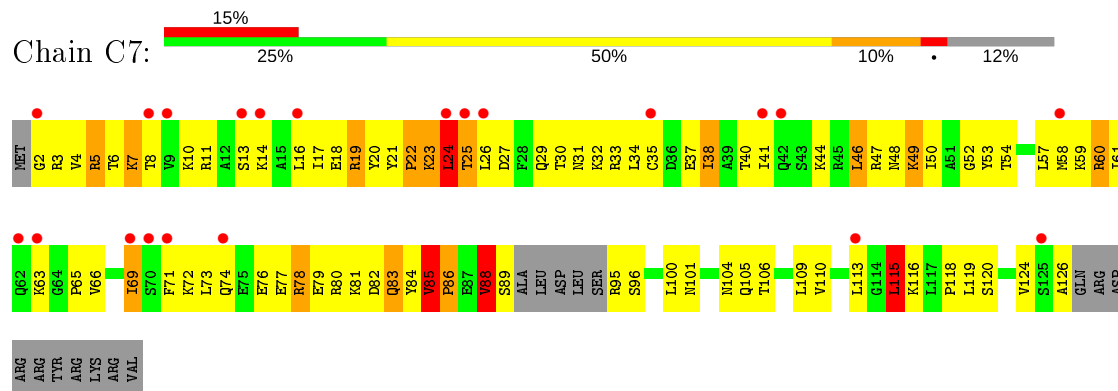
- Molecule 11: 40S ribosomal protein S16-A



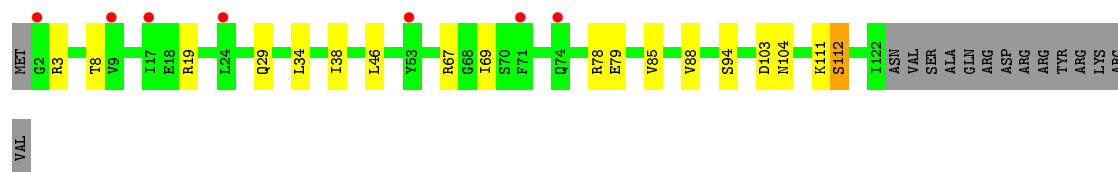
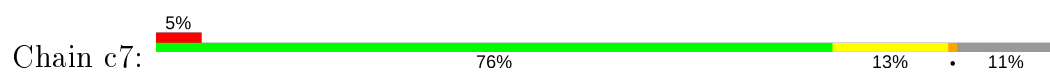
- Molecule 11: 40S ribosomal protein S16-A



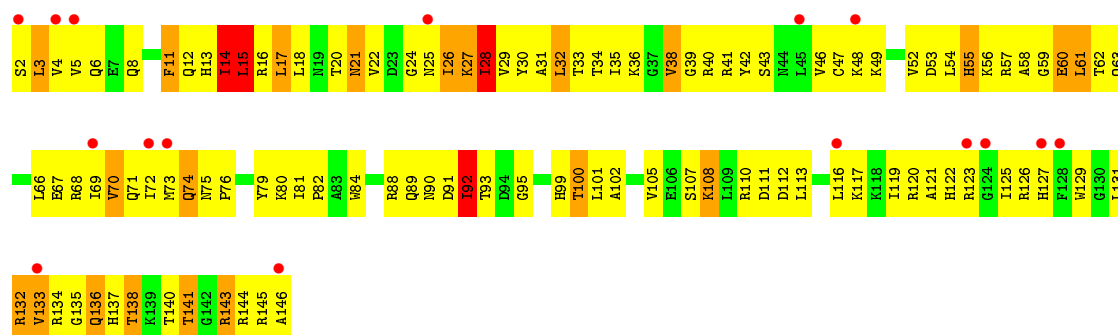
- Molecule 12: 40S ribosomal protein S17-A



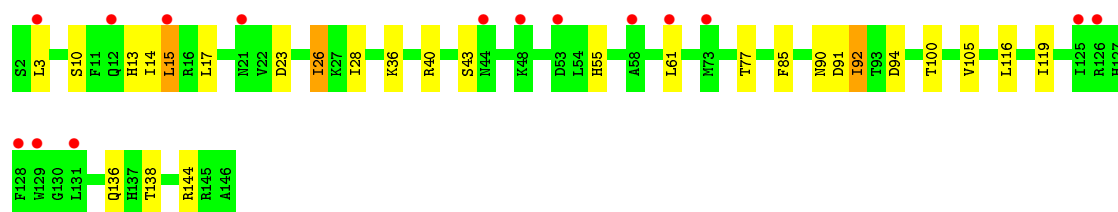
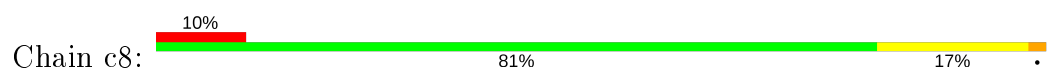
- Molecule 12: 40S ribosomal protein S17-A



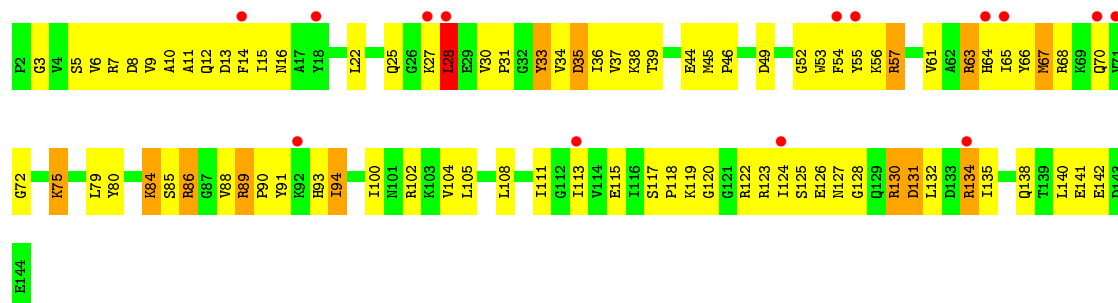
- Molecule 13: 40S ribosomal protein S18-A



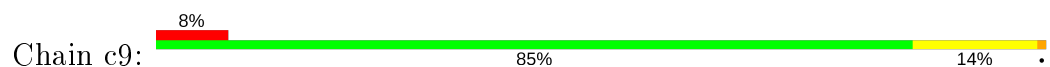
- Molecule 13: 40S ribosomal protein S18-A

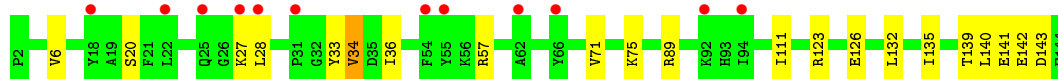


- Molecule 14: 40S ribosomal protein S19-A

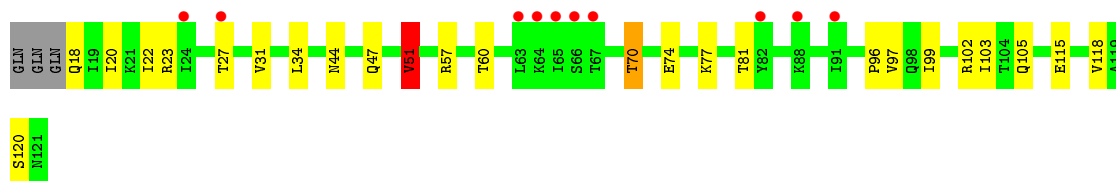
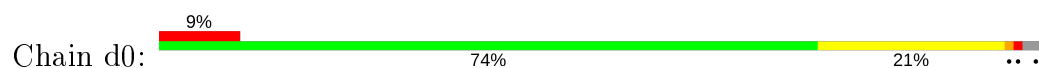


- Molecule 14: 40S ribosomal protein S19-A

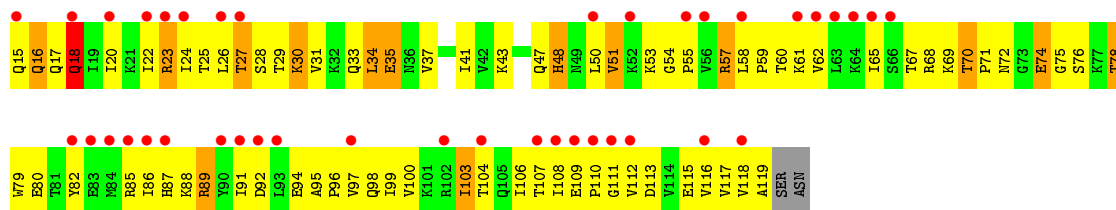




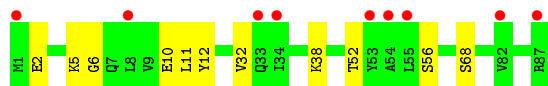
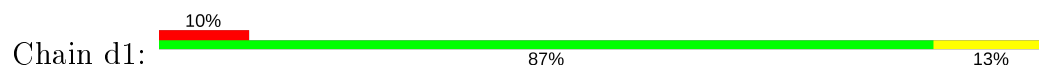
- Molecule 15: 40S ribosomal protein S20



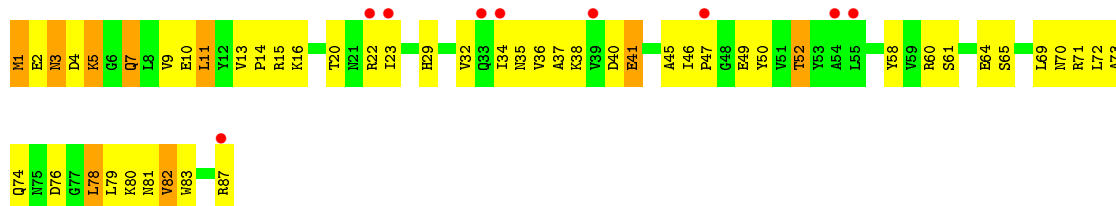
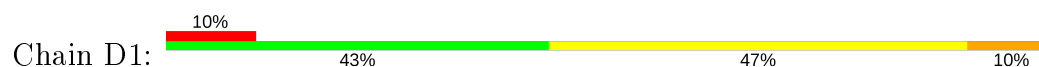
- Molecule 15: 40S ribosomal protein S20



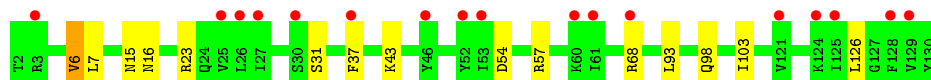
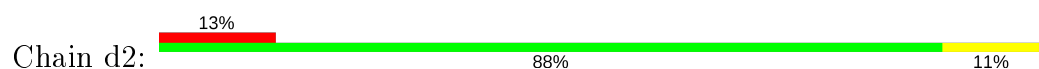
- Molecule 16: 40S ribosomal protein S21-A



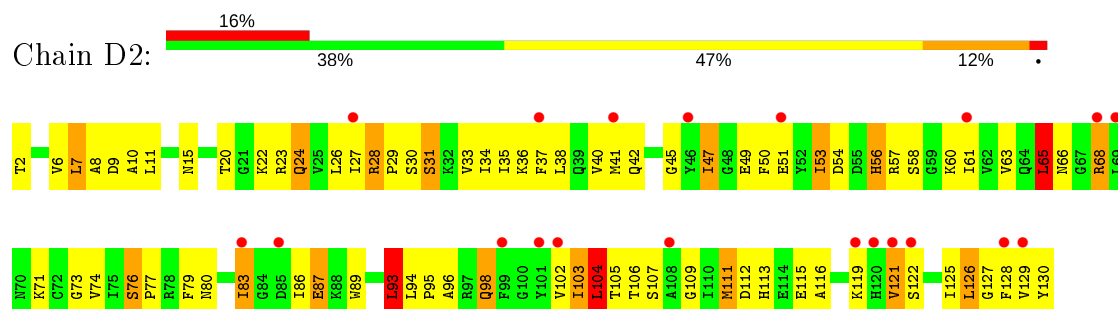
- Molecule 16: 40S ribosomal protein S21-A



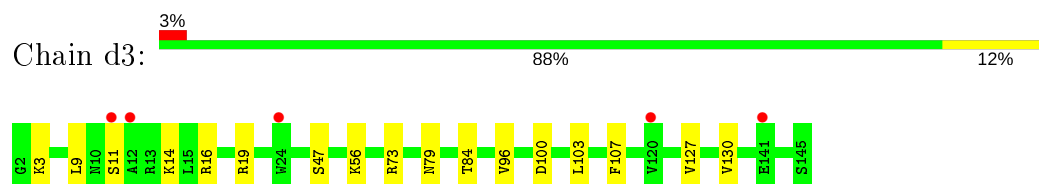
- Molecule 17: 40S ribosomal protein S22-A



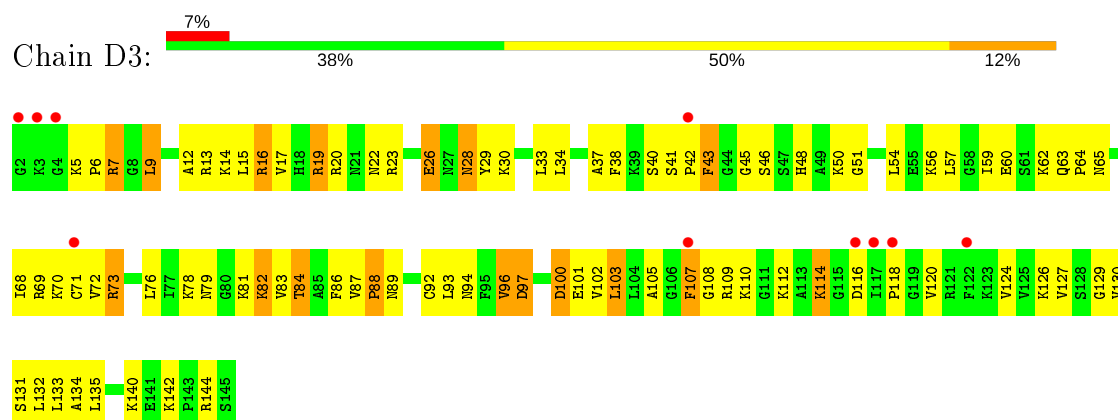
- Molecule 17: 40S ribosomal protein S22-A



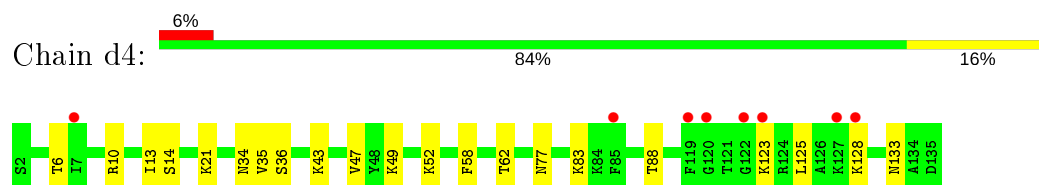
- Molecule 18: 40S ribosomal protein S23-A



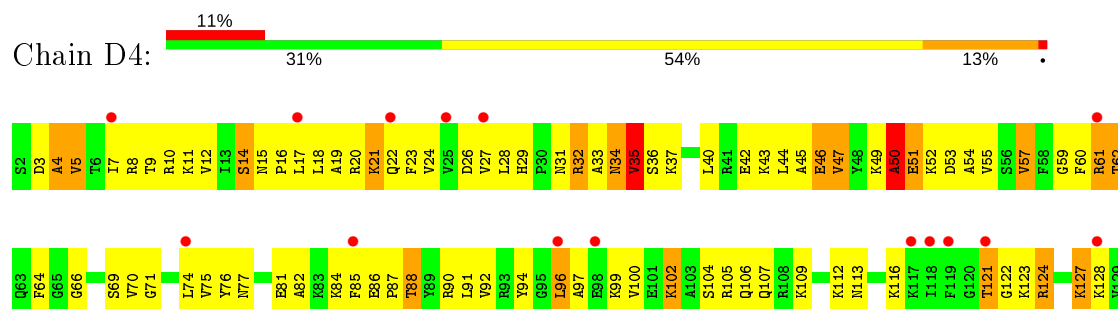
- Molecule 18: 40S ribosomal protein S23-A



- Molecule 19: 40S ribosomal protein S24-A

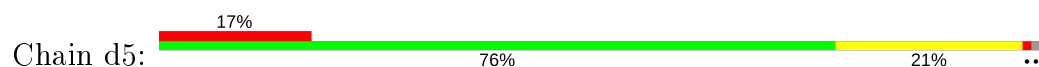


- Molecule 19: 40S ribosomal protein S24-A

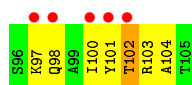
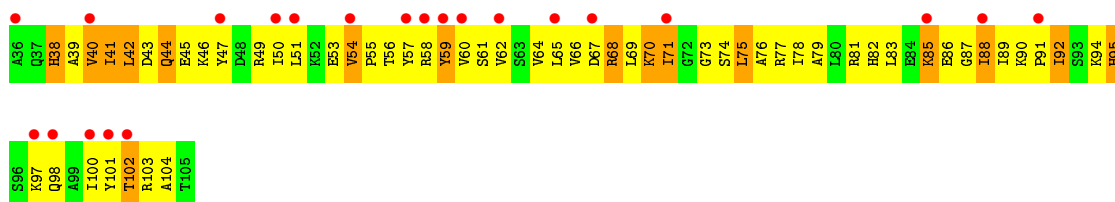




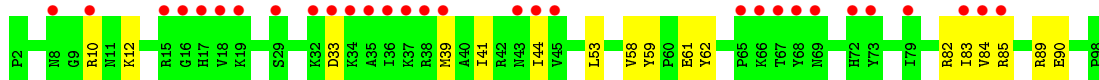
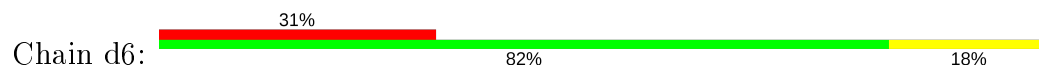
- Molecule 20: 40S ribosomal protein S25-A



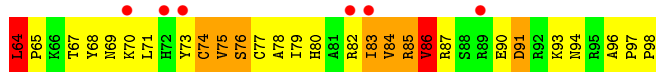
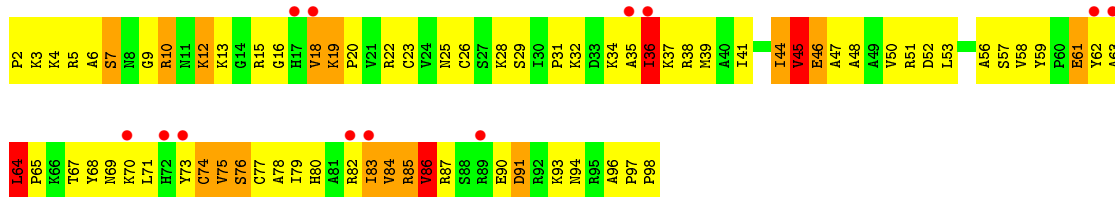
- Molecule 20: 40S ribosomal protein S25-A



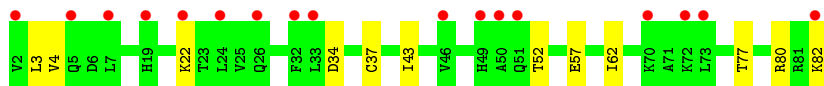
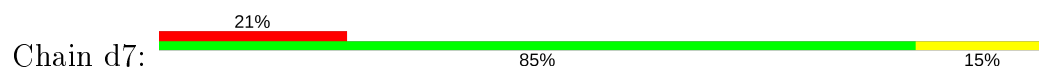
- Molecule 21: 40S ribosomal protein S26-B



- Molecule 21: 40S ribosomal protein S26-B

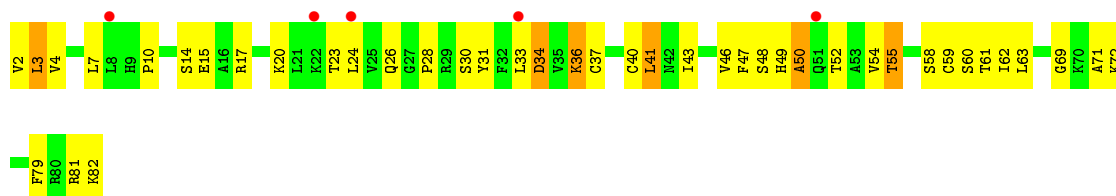


- Molecule 22: 40S ribosomal protein S27-A

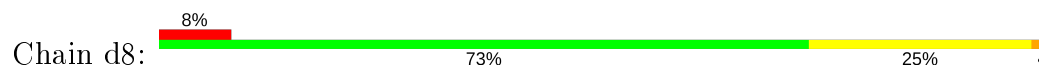


- Molecule 22: 40S ribosomal protein S27-A

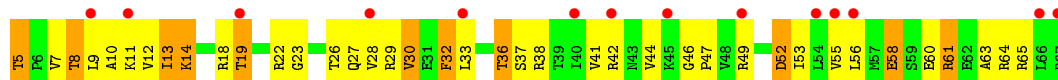




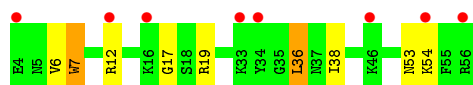
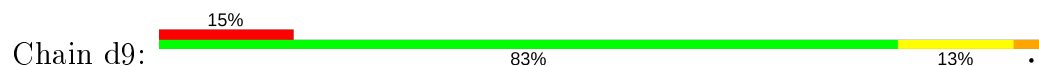
- Molecule 23: 40S ribosomal protein S28-A



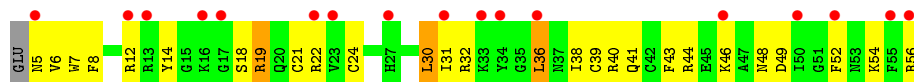
- Molecule 23: 40S ribosomal protein S28-A



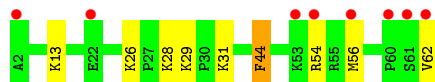
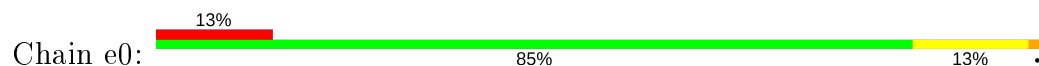
- Molecule 24: 40S ribosomal protein S29-A



- Molecule 24: 40S ribosomal protein S29-A



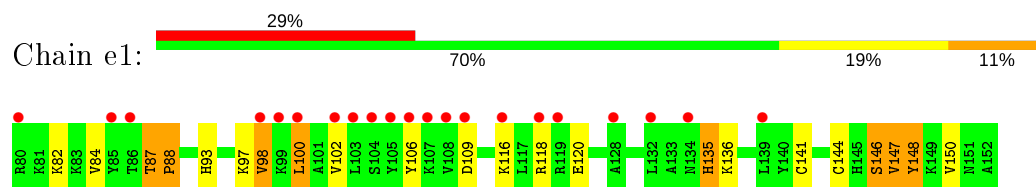
- Molecule 25: 40S ribosomal protein S30-A



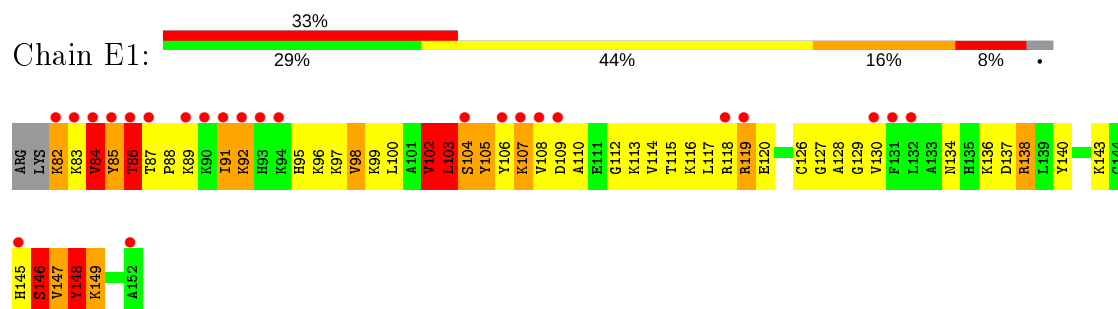
- Molecule 25: 40S ribosomal protein S30-A



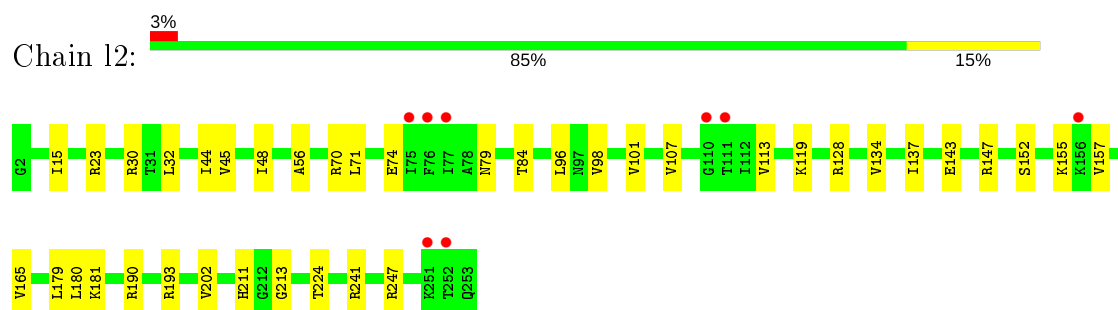
- Molecule 26: Ubiquitin-40S ribosomal protein S31



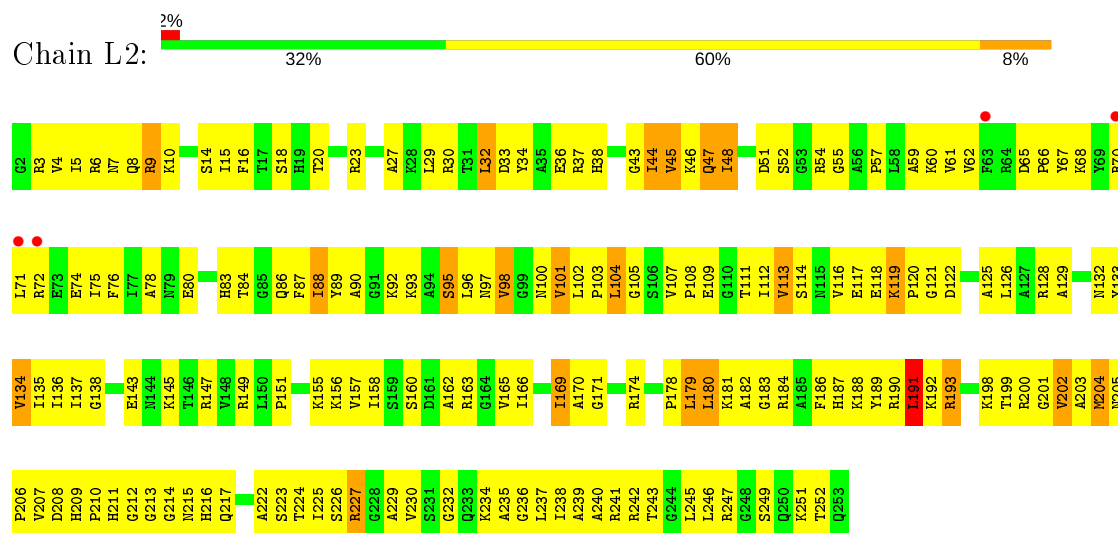
- Molecule 26: Ubiquitin-40S ribosomal protein S31



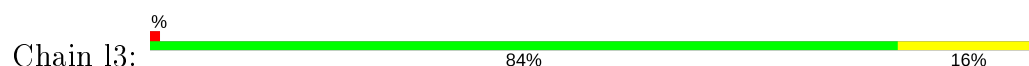
- Molecule 27: 60S ribosomal protein L2-A

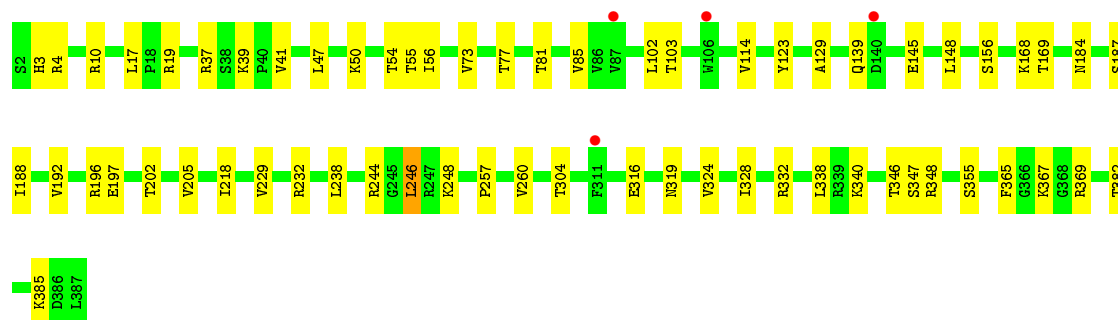


- Molecule 27: 60S ribosomal protein L2-A



- Molecule 28: 60S ribosomal protein L3

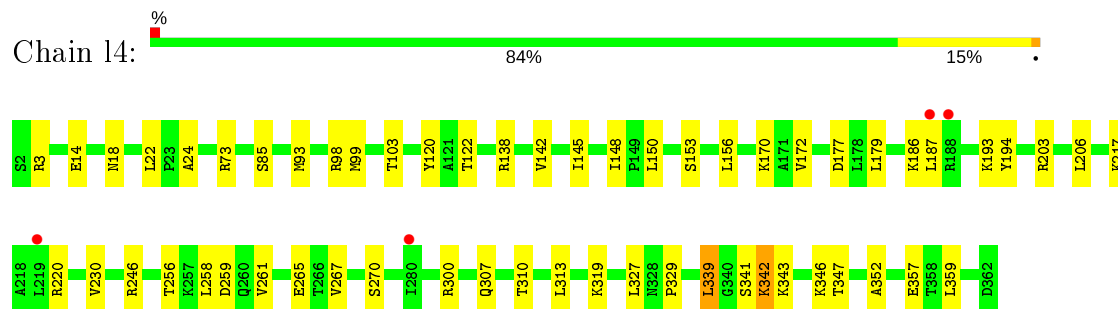




• Molecule 28: 60S ribosomal protein L3

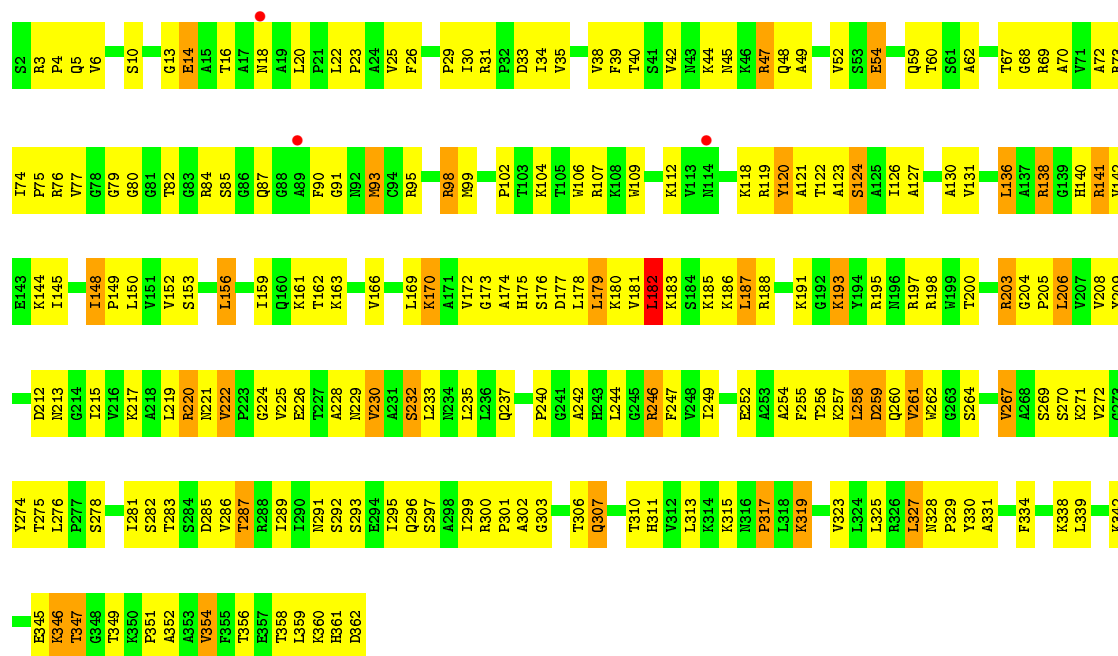


• Molecule 29: 60S ribosomal protein L4-A

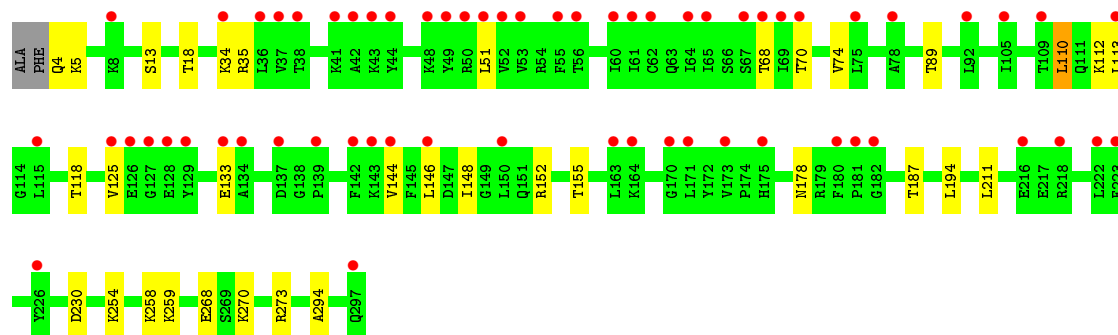
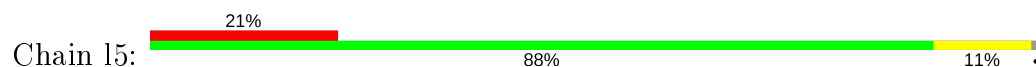


• Molecule 29: 60S ribosomal protein L4-A

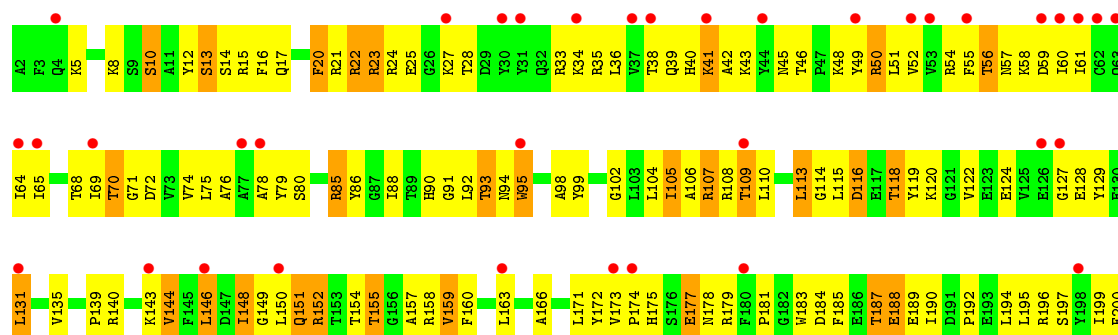


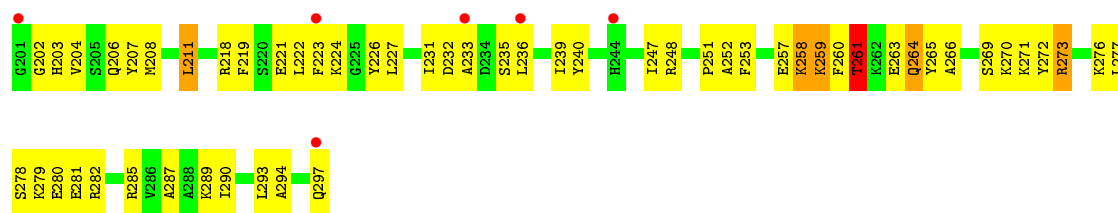


• Molecule 30: 60S ribosomal protein L5

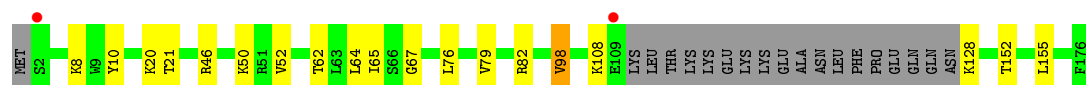
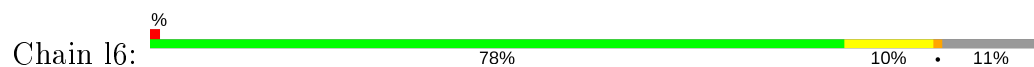


• Molecule 30: 60S ribosomal protein L5

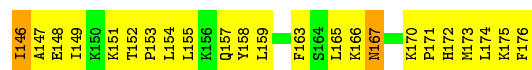
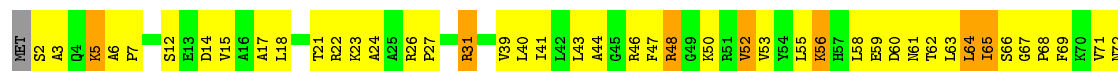




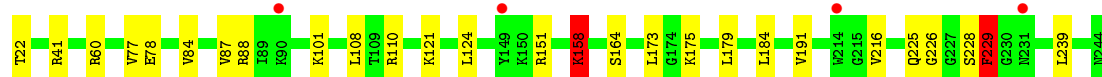
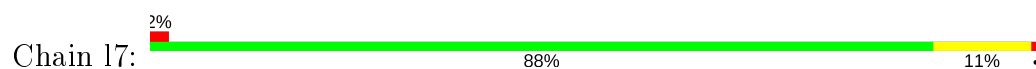
• Molecule 31: 60S ribosomal protein L6-A



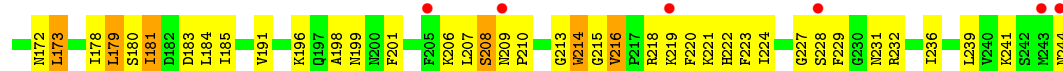
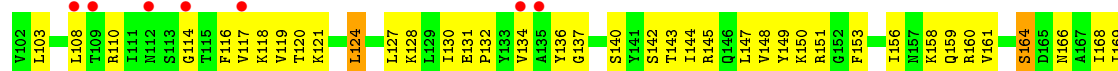
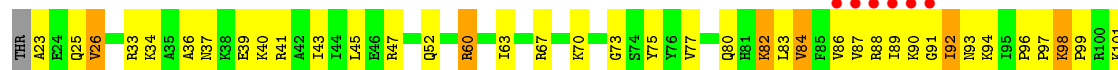
• Molecule 31: 60S ribosomal protein L6-A



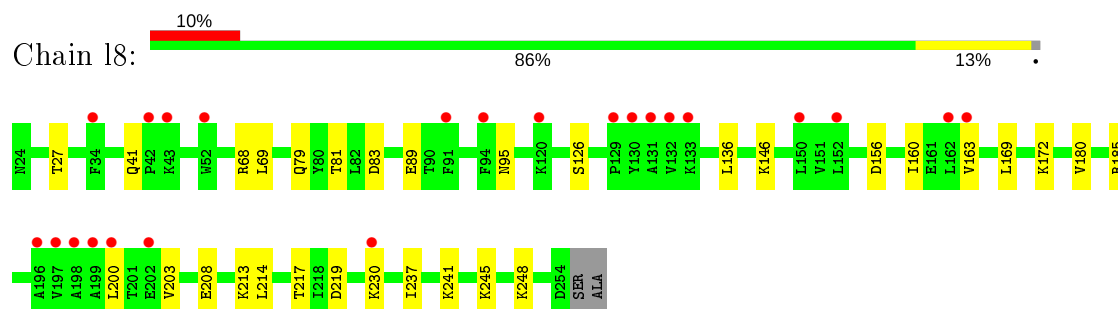
• Molecule 32: 60S ribosomal protein L7-A



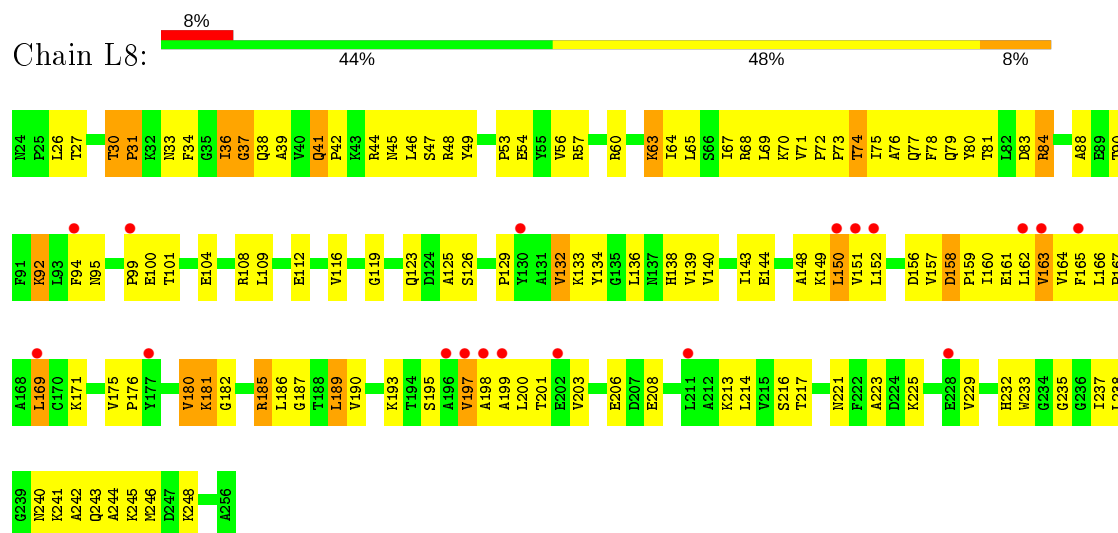
• Molecule 32: 60S ribosomal protein L7-A



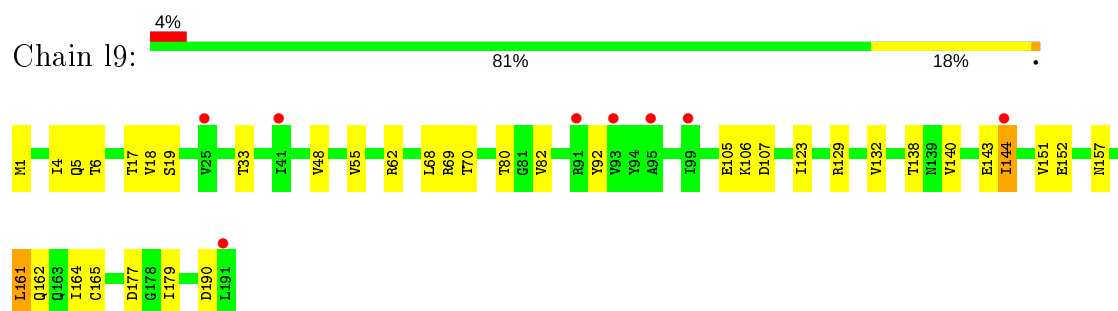
- Molecule 33: 60S ribosomal protein L8-A



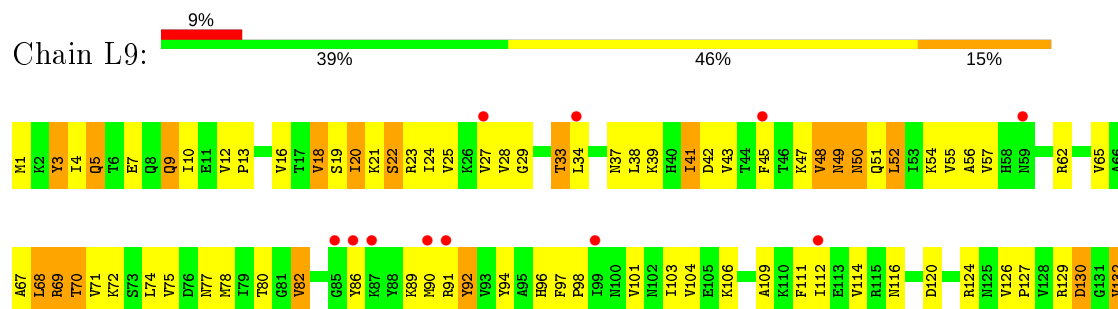
- Molecule 33: 60S ribosomal protein L8-A

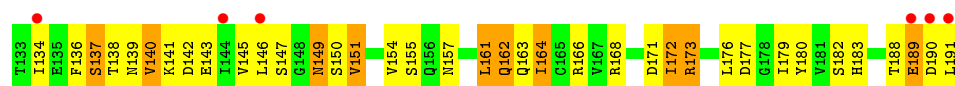


- Molecule 34: 60S ribosomal protein L9-A

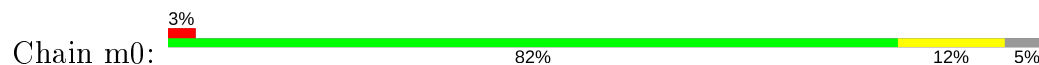


- Molecule 34: 60S ribosomal protein L9-A

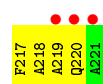
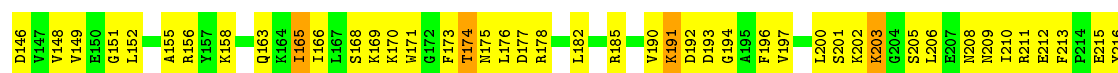




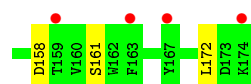
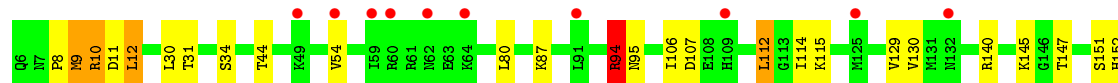
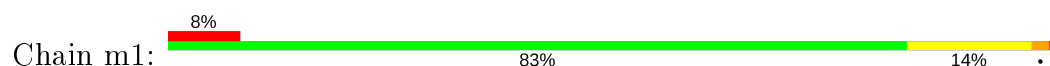
- Molecule 35: 60S ribosomal protein L10



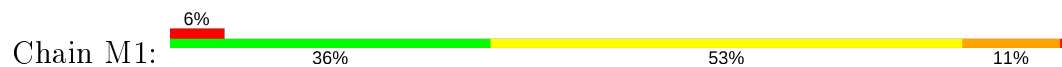
- Molecule 35: 60S ribosomal protein L10

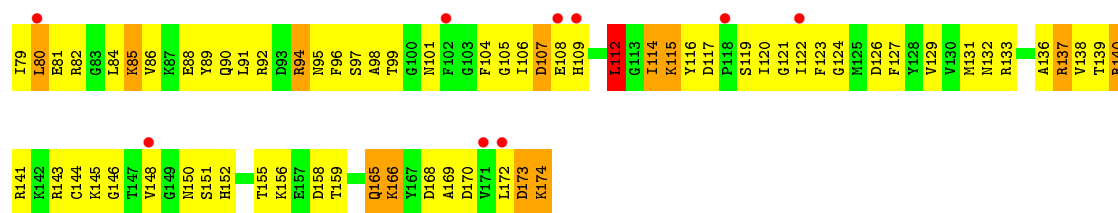


- Molecule 36: 60S ribosomal protein L11-B

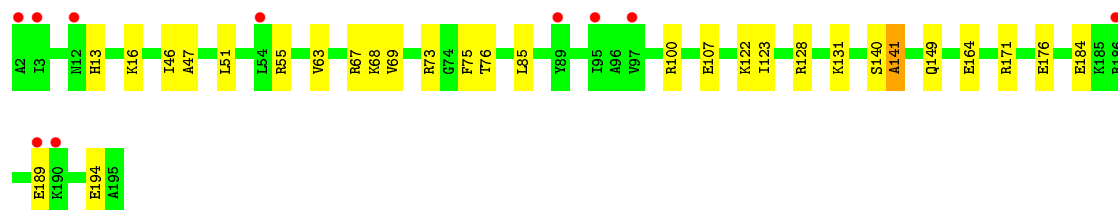
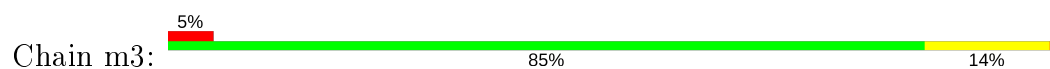


- Molecule 36: 60S ribosomal protein L11-B

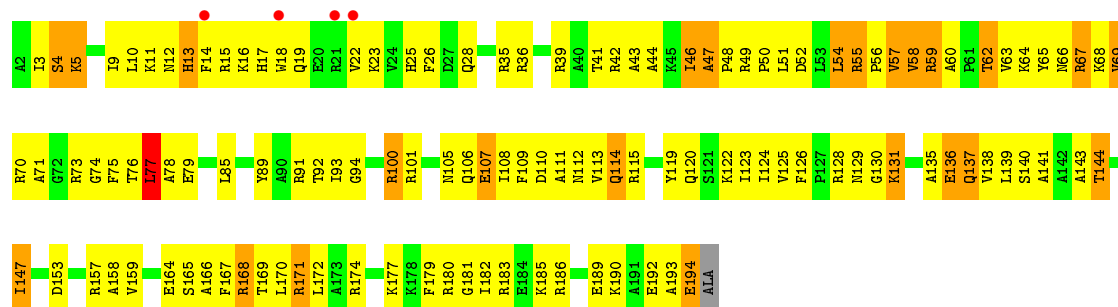




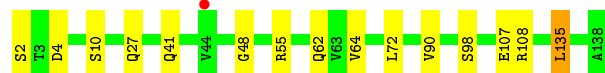
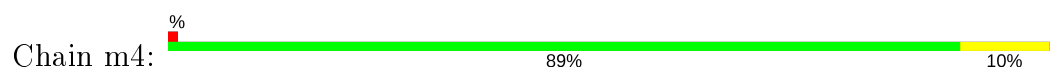
• Molecule 37: 60S ribosomal protein L13-A



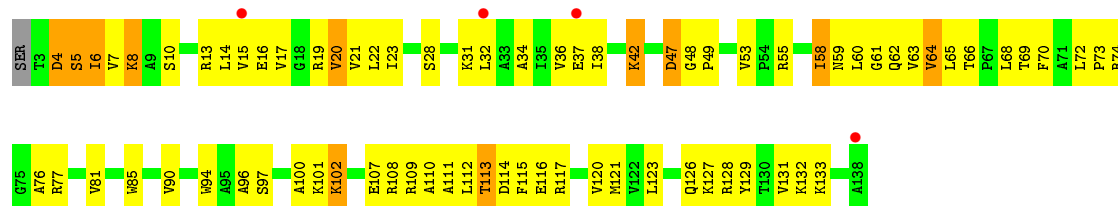
• Molecule 37: 60S ribosomal protein L13-A



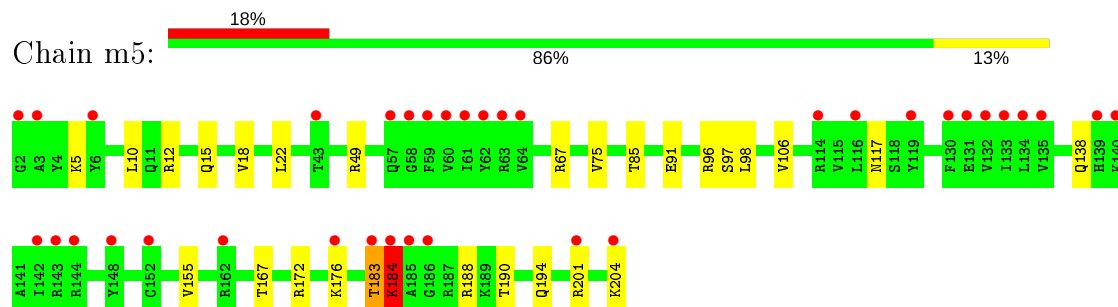
• Molecule 38: 60S ribosomal protein L14-A



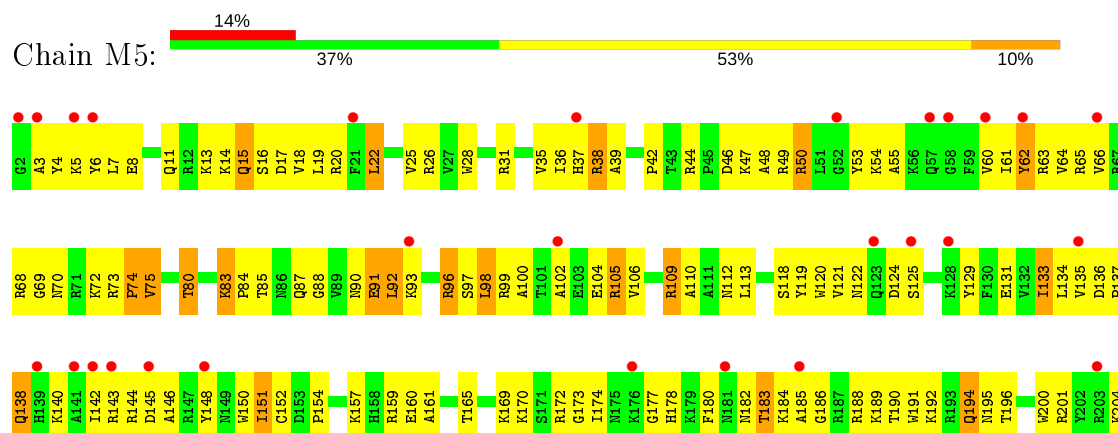
• Molecule 38: 60S ribosomal protein L14-A



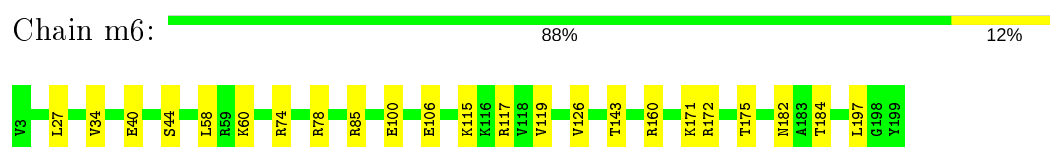
- Molecule 39: 60S ribosomal protein L15-A



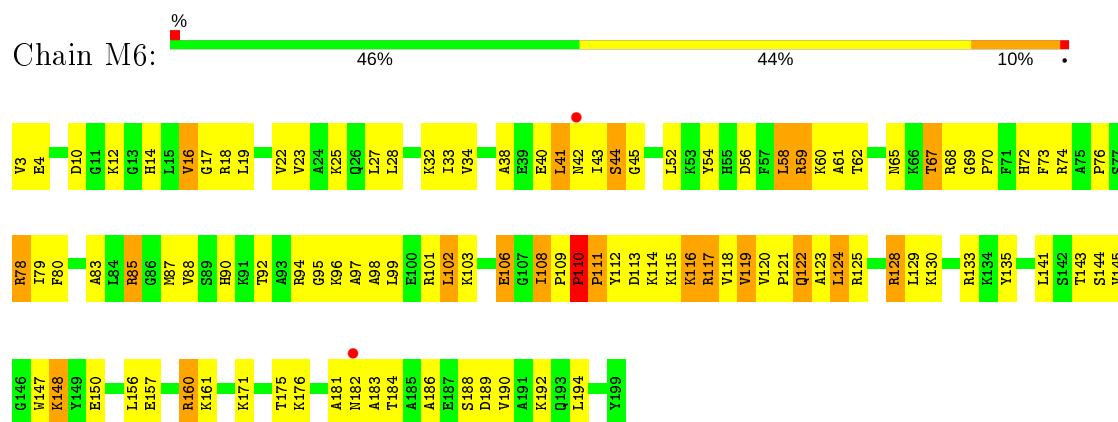
- Molecule 39: 60S ribosomal protein L15-A



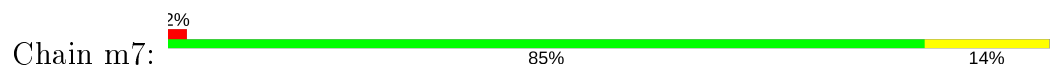
- Molecule 40: 60S ribosomal protein L16-A

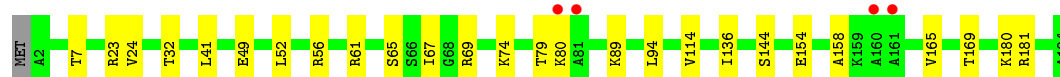


- Molecule 40: 60S ribosomal protein L16-A

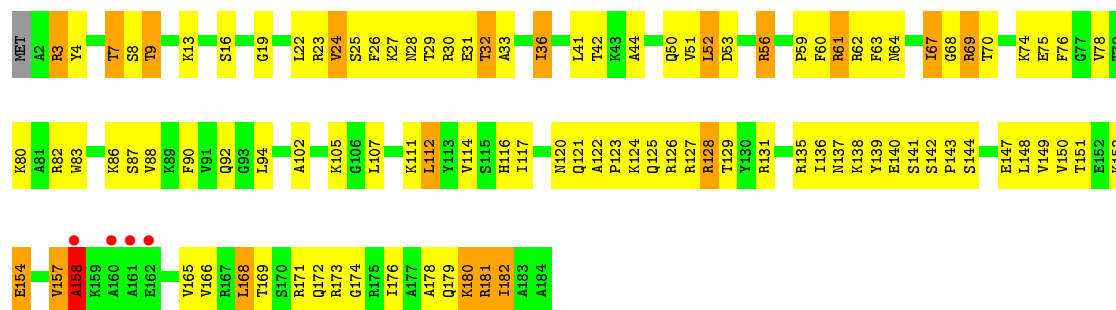


- Molecule 41: 60S ribosomal protein L17-A

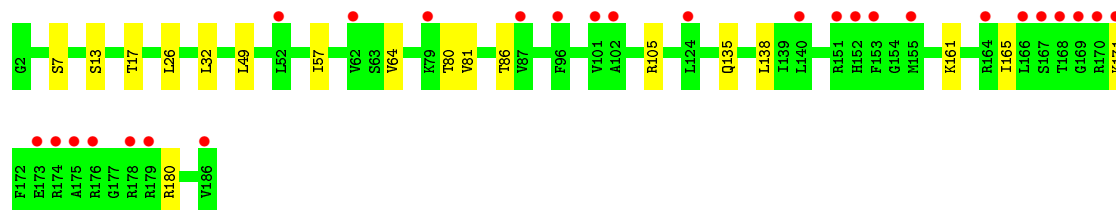
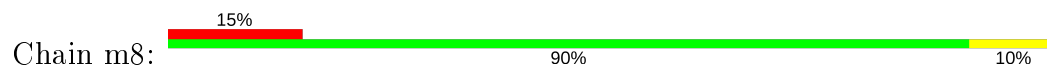




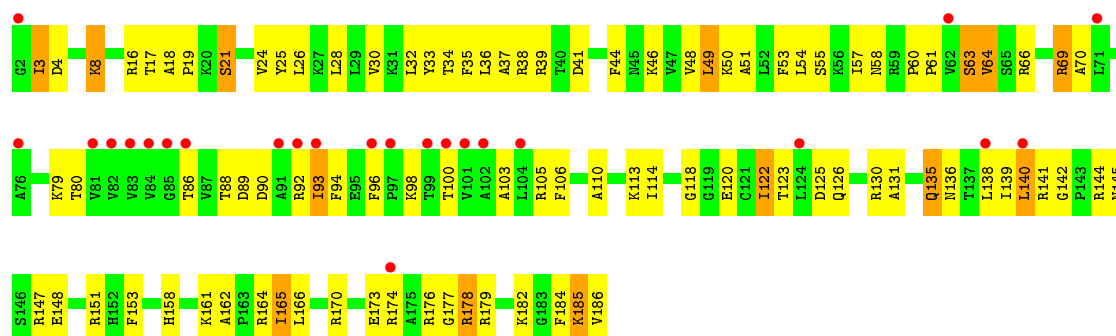
- Molecule 41: 60S ribosomal protein L17-A



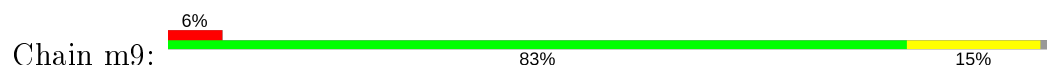
- Molecule 42: 60S ribosomal protein L18-A

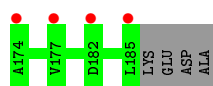


- Molecule 42: 60S ribosomal protein L18-A

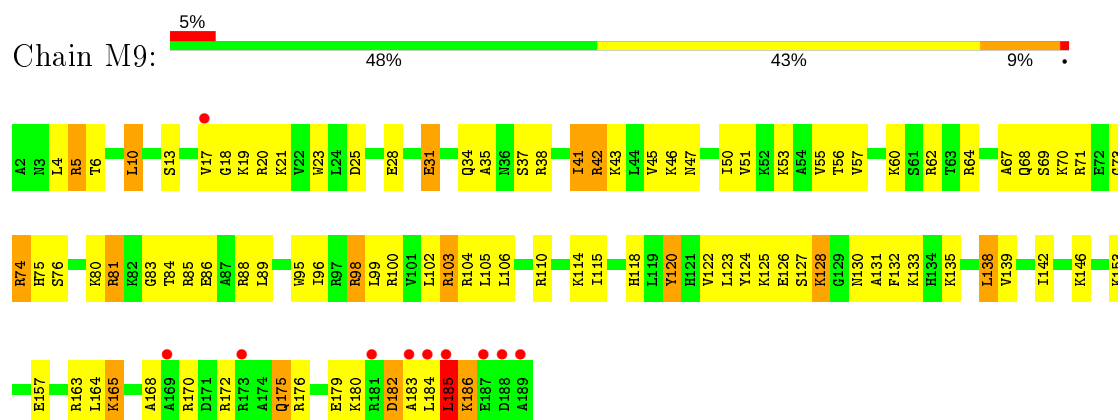


- Molecule 43: 60S ribosomal protein L19-A

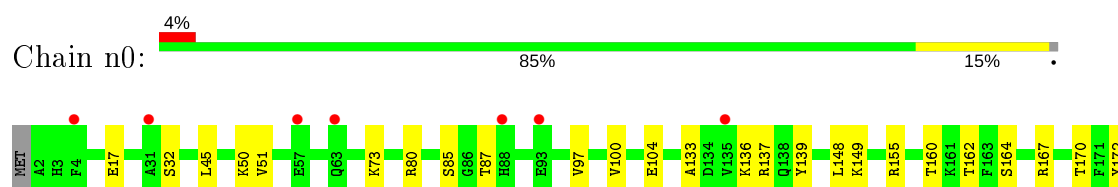




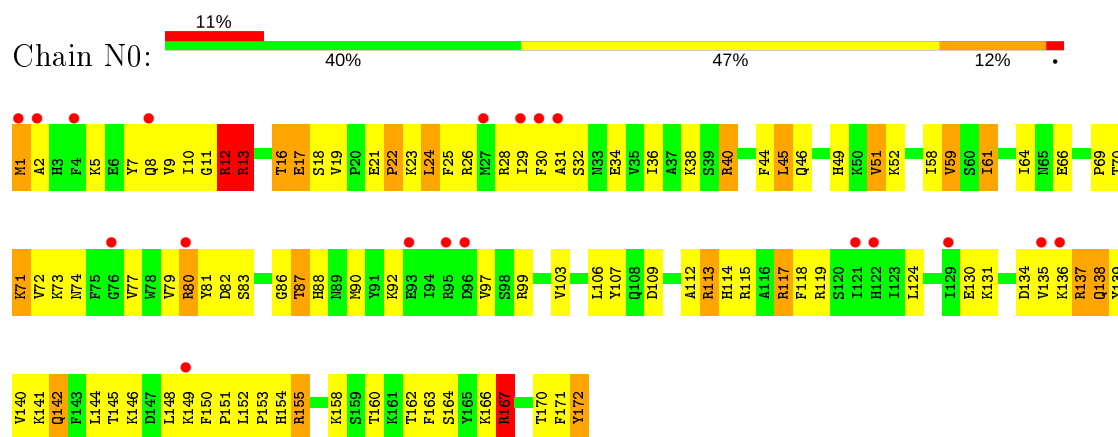
• Molecule 43: 60S ribosomal protein L19-A



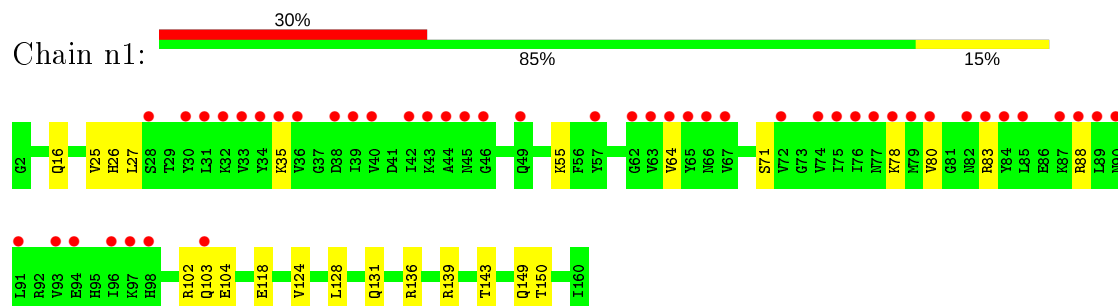
• Molecule 44: 60S ribosomal protein L20-A



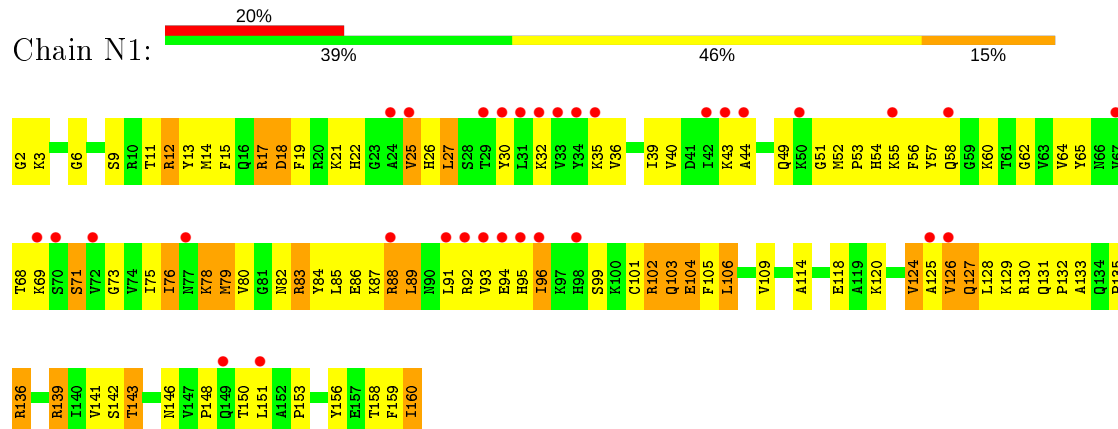
• Molecule 44: 60S ribosomal protein L20-A



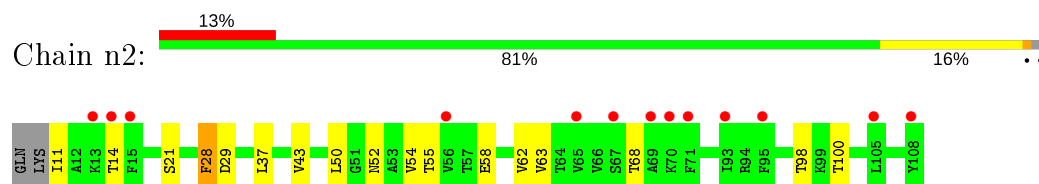
• Molecule 45: 60S ribosomal protein L21-A



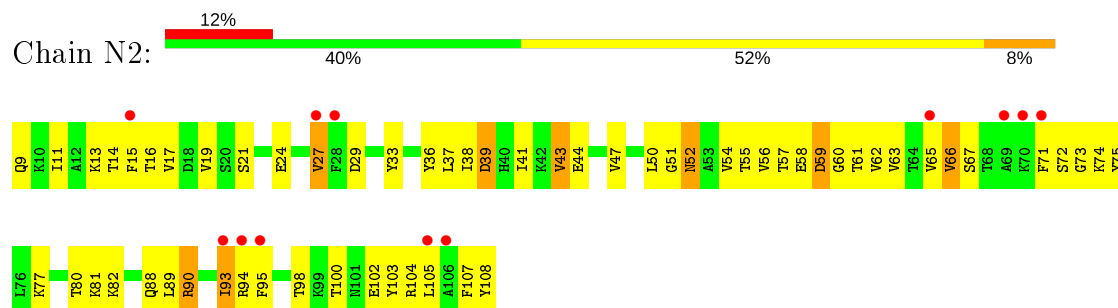
- Molecule 45: 60S ribosomal protein L21-A



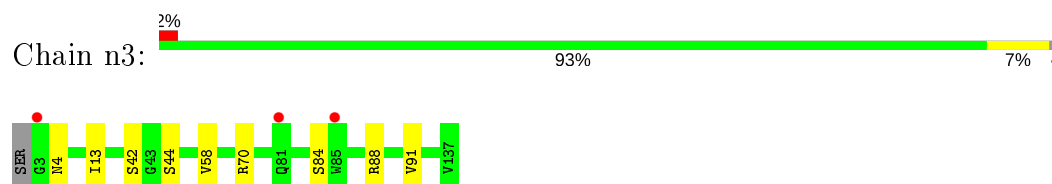
- Molecule 46: 60S ribosomal protein L22-A



- Molecule 46: 60S ribosomal protein L22-A



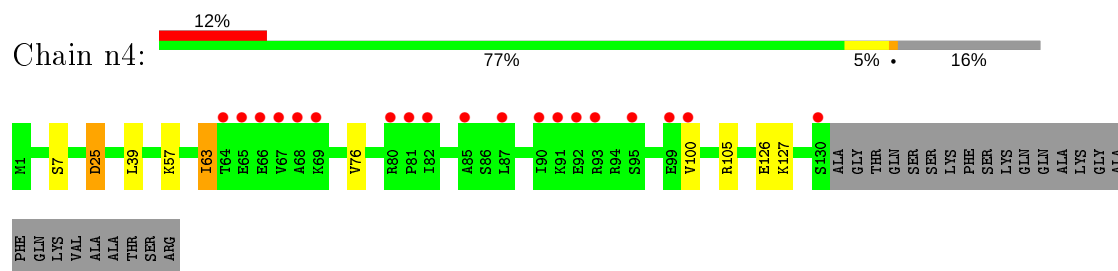
- Molecule 47: 60S ribosomal protein L23-A



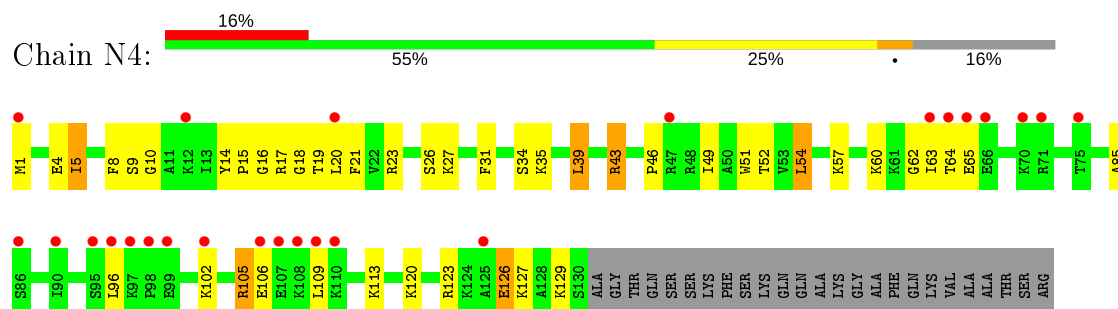
- Molecule 47: 60S ribosomal protein L23-A



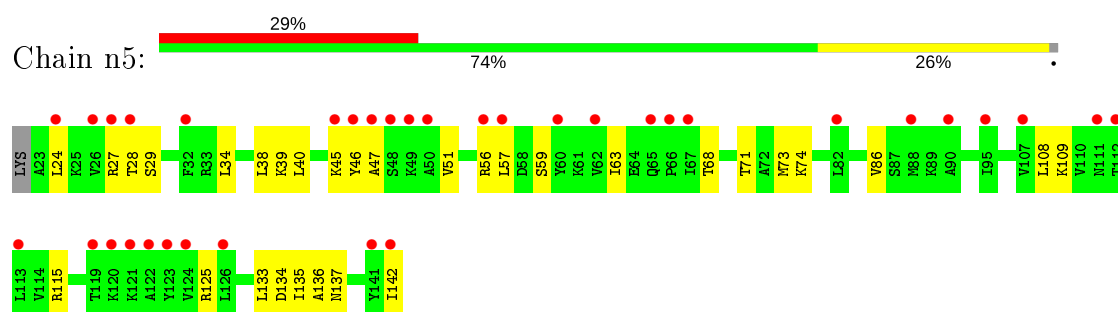
- Molecule 48: 60S ribosomal protein L24-A



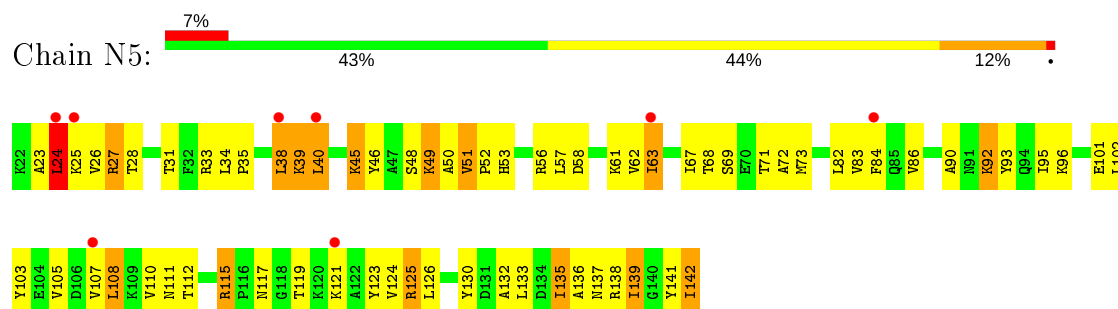
- Molecule 48: 60S ribosomal protein L24-A



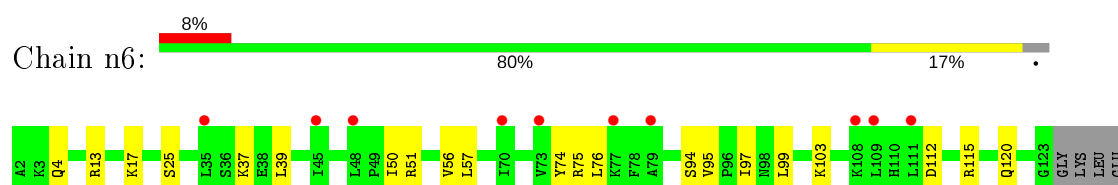
- Molecule 49: 60S ribosomal protein L25



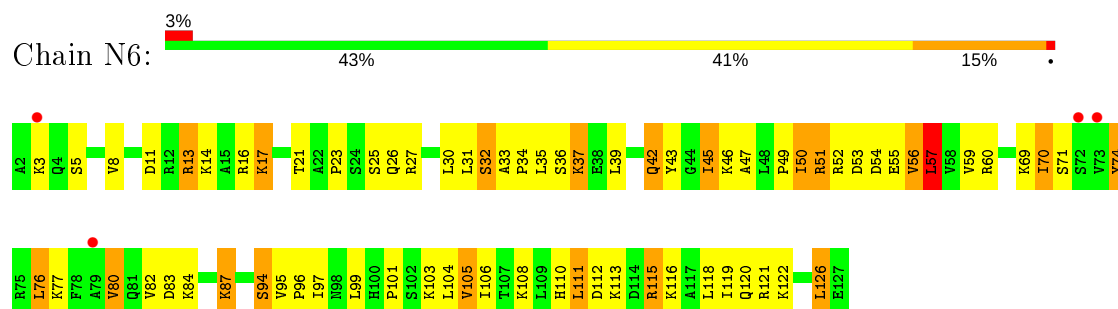
- Molecule 49: 60S ribosomal protein L25



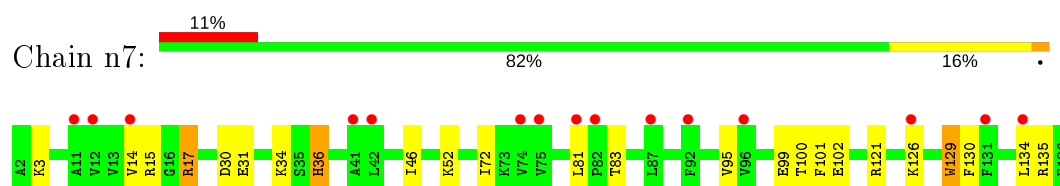
- Molecule 50: 60S ribosomal protein L26-A



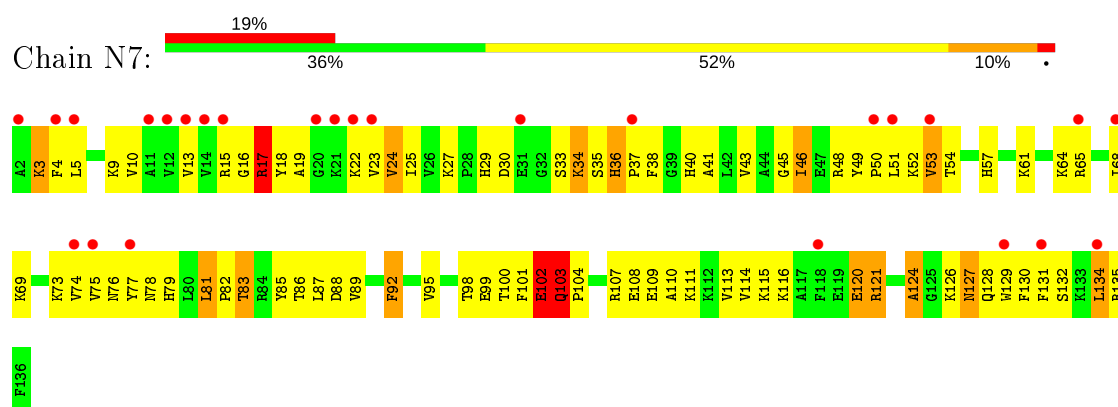
- Molecule 50: 60S ribosomal protein L26-A



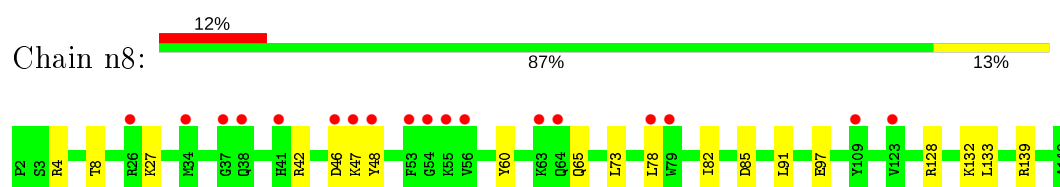
- Molecule 51: 60S ribosomal protein L27-A



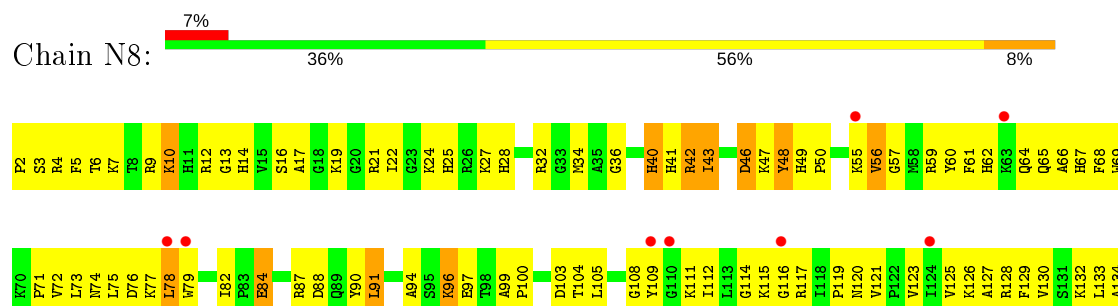
- Molecule 51: 60S ribosomal protein L27-A

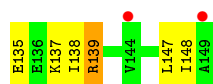


- Molecule 52: 60S ribosomal protein L28

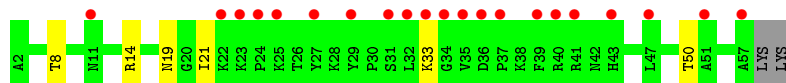
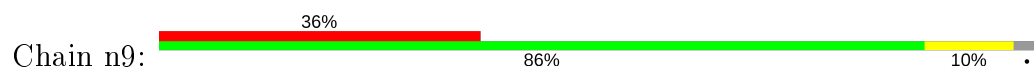


- Molecule 52: 60S ribosomal protein L28

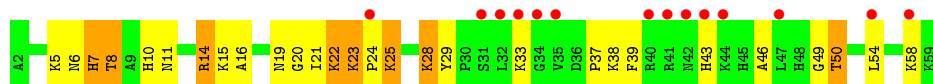




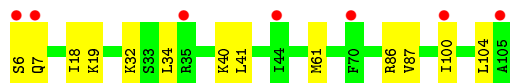
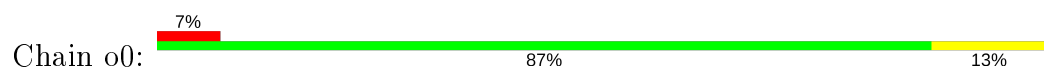
- Molecule 53: 60S ribosomal protein L29



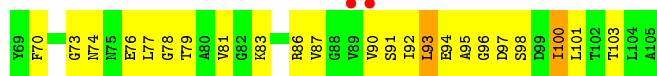
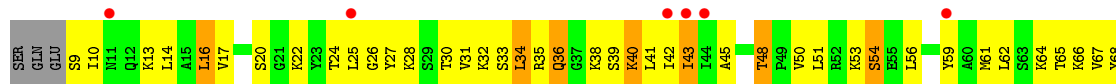
- Molecule 53: 60S ribosomal protein L29



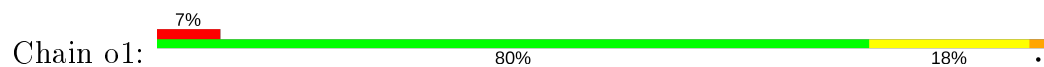
- Molecule 54: 60S ribosomal protein L30



- Molecule 54: 60S ribosomal protein L30



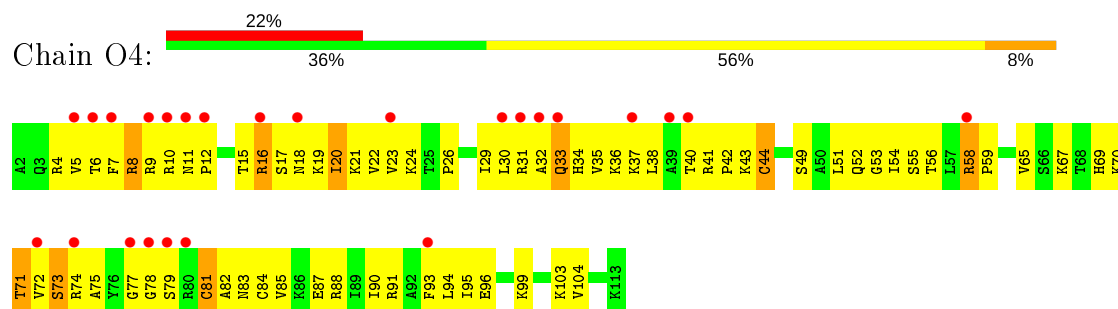
- Molecule 55: 60S ribosomal protein L31-A



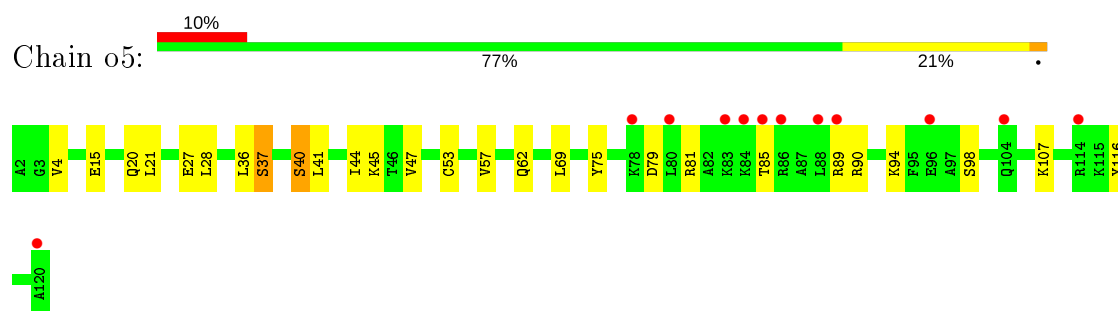
- Molecule 55: 60S ribosomal protein L31-A



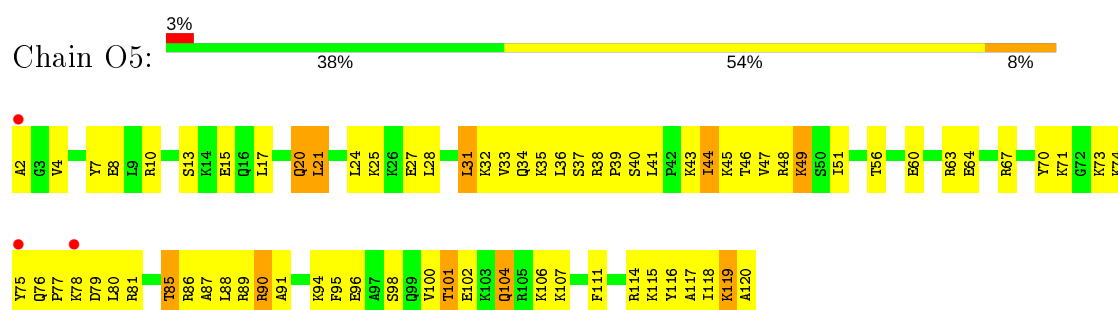
- Molecule 58: 60S ribosomal protein L34-A



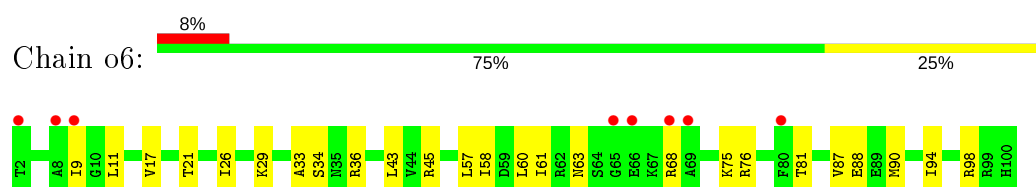
- Molecule 59: 60S ribosomal protein L35-A



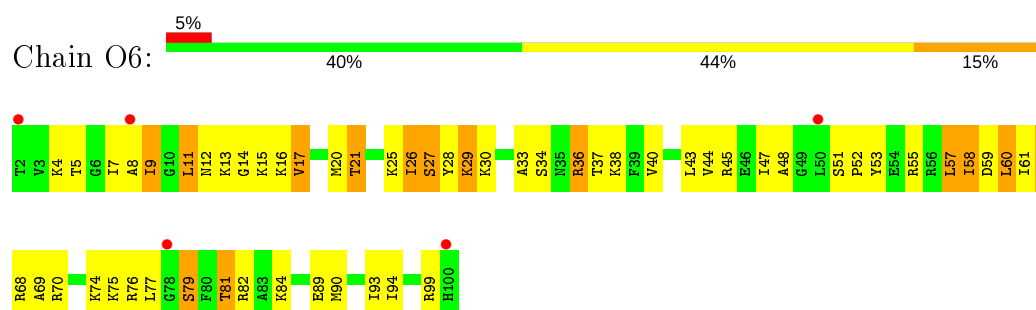
- Molecule 59: 60S ribosomal protein L35-A



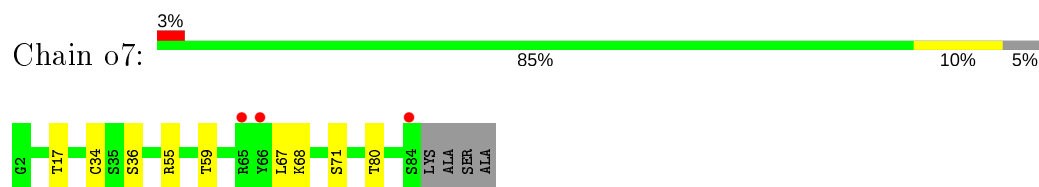
- Molecule 60: 60S ribosomal protein L36-A



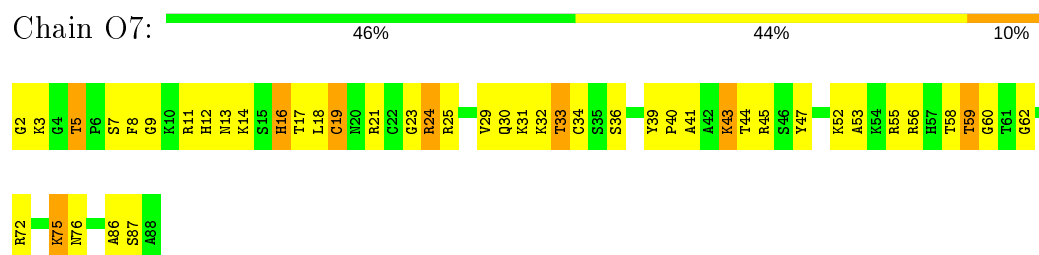
- Molecule 60: 60S ribosomal protein L36-A



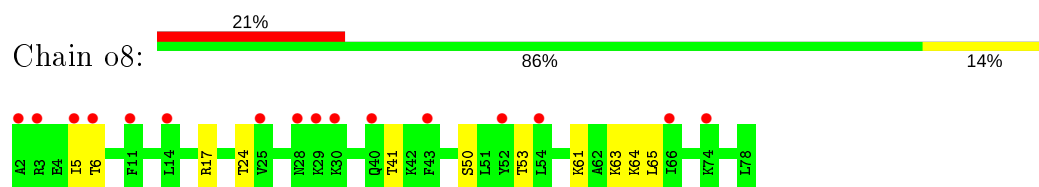
- Molecule 61: 60S ribosomal protein L37-A



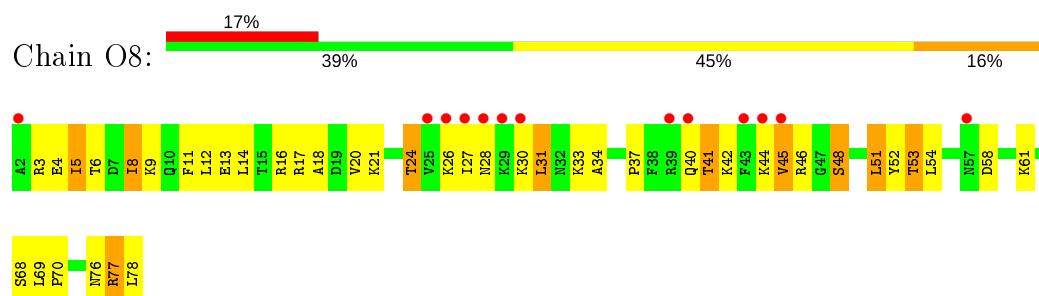
- Molecule 61: 60S ribosomal protein L37-A



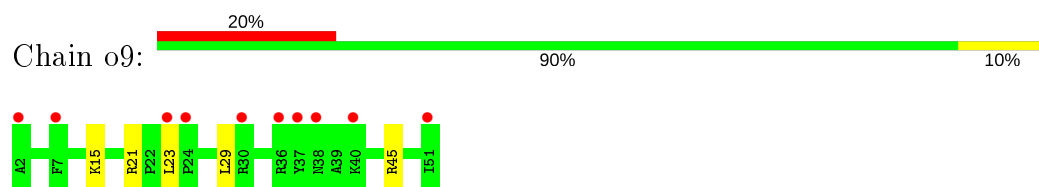
- Molecule 62: 60S ribosomal protein L38



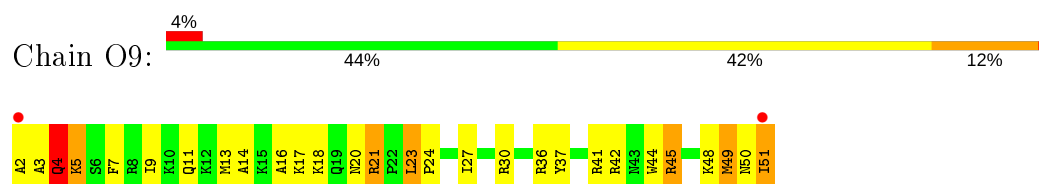
- Molecule 62: 60S ribosomal protein L38



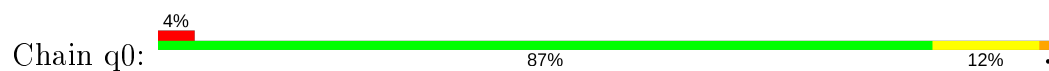
- Molecule 63: 60S ribosomal protein L39



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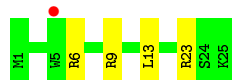
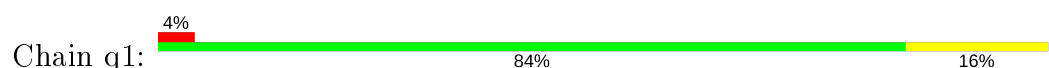
- Molecule 64: Ubiquitin-60S ribosomal protein L40



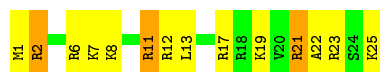
- Molecule 64: Ubiquitin-60S ribosomal protein L40



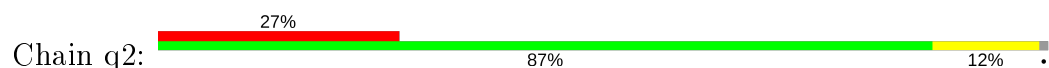
- Molecule 65: 60S ribosomal protein L41-A



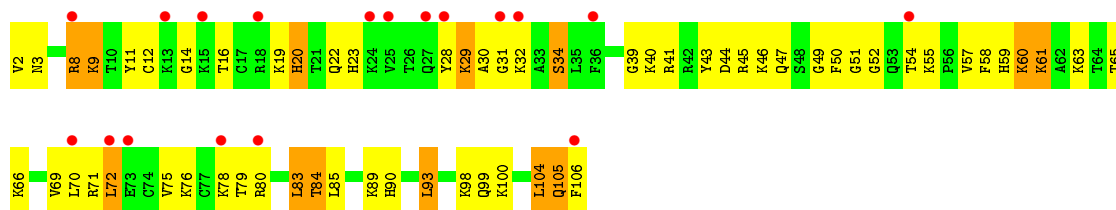
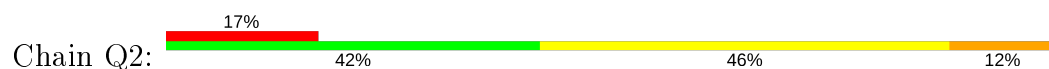
- Molecule 65: 60S ribosomal protein L41-A



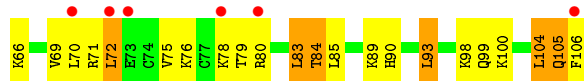
- Molecule 66: 60S ribosomal protein L42-A

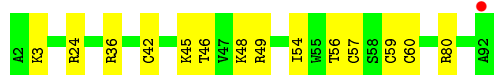
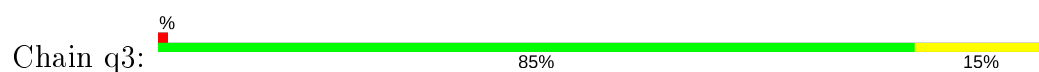


- Molecule 66: 60S ribosomal protein L42-A

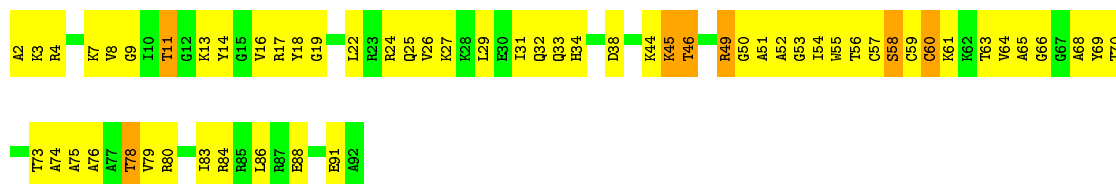
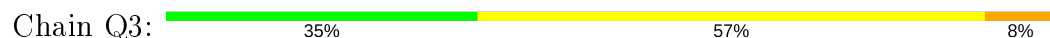


- Molecule 67: 60S ribosomal protein L43-A

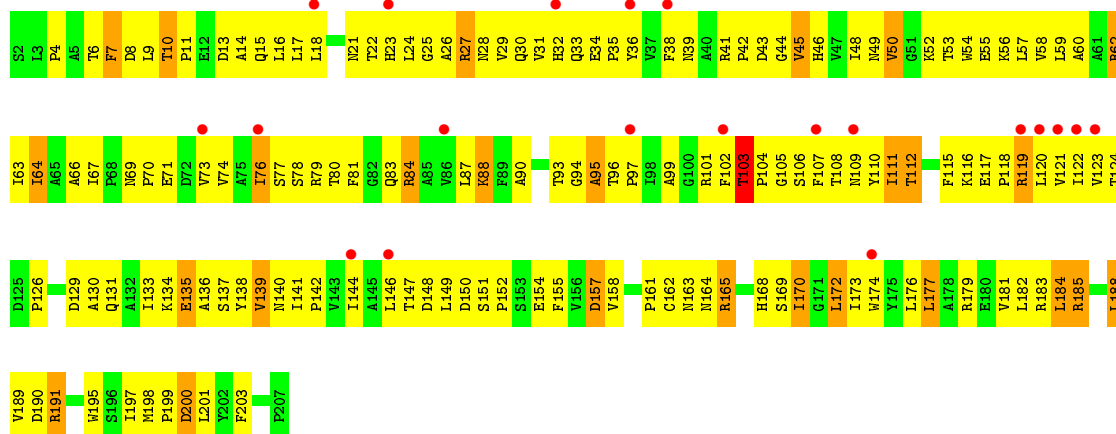




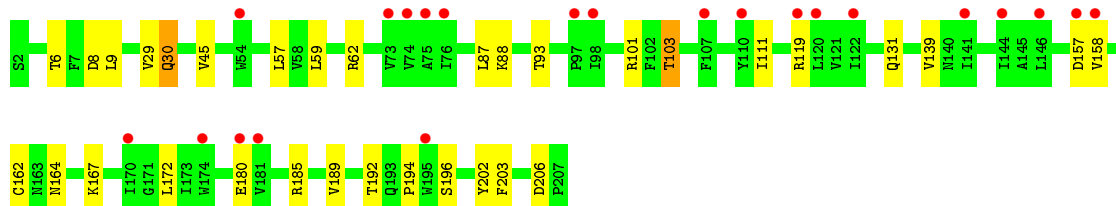
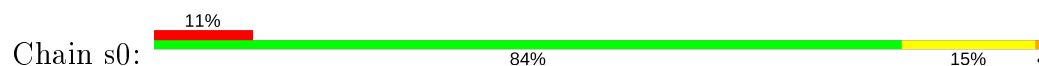
- Molecule 67: 60S ribosomal protein L43-A



- Molecule 68: 40S ribosomal protein S0-A

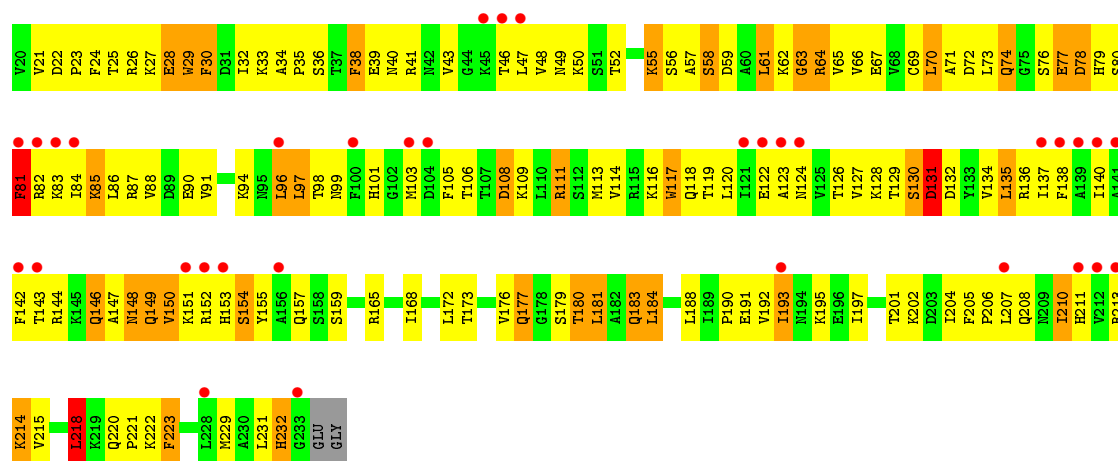


- Molecule 68: 40S ribosomal protein S0-A

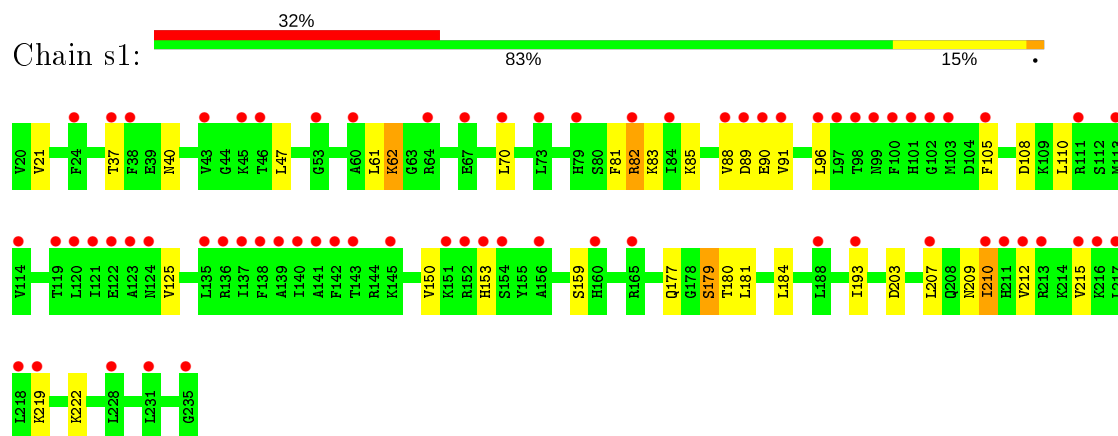


- Molecule 69: 40S ribosomal protein S1-A

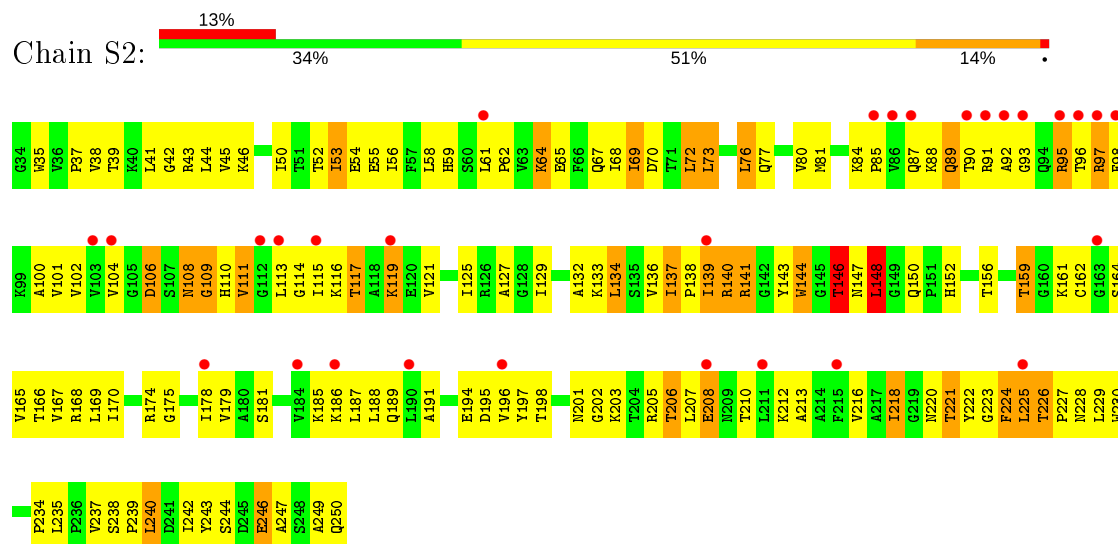




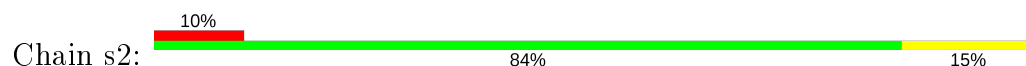
- Molecule 69: 40S ribosomal protein S1-A

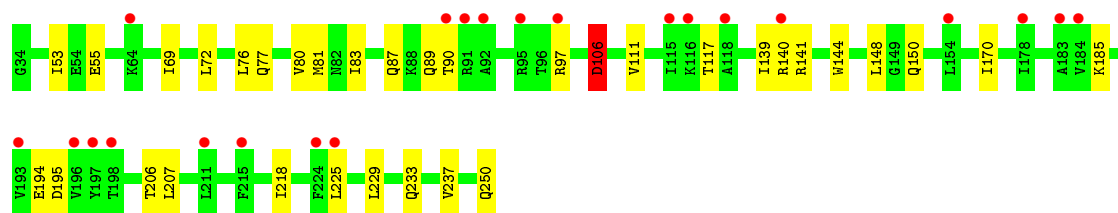


- Molecule 70: 40S ribosomal protein S2

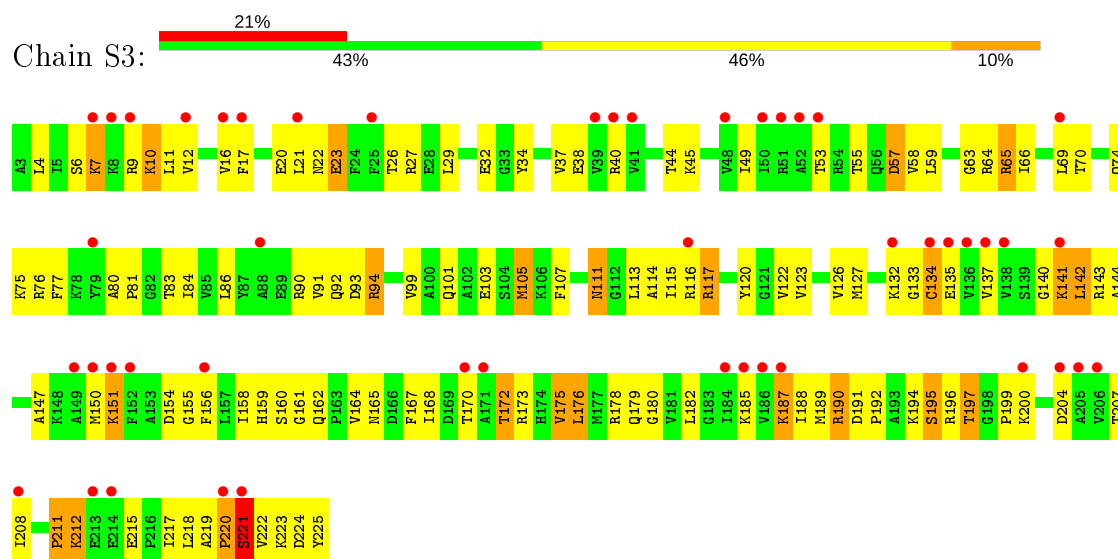


- Molecule 70: 40S ribosomal protein S2

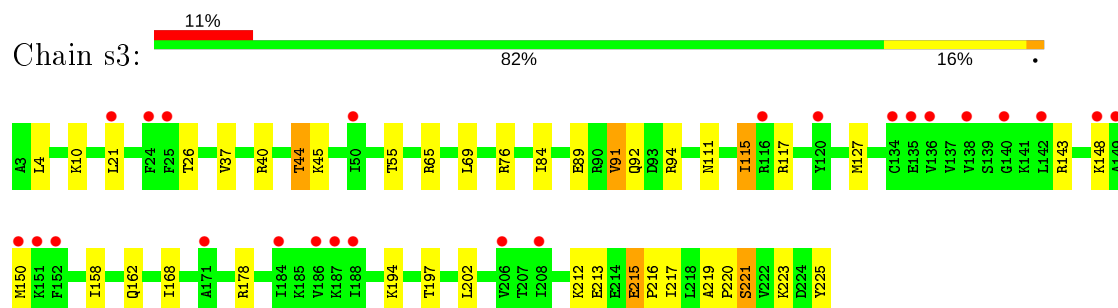




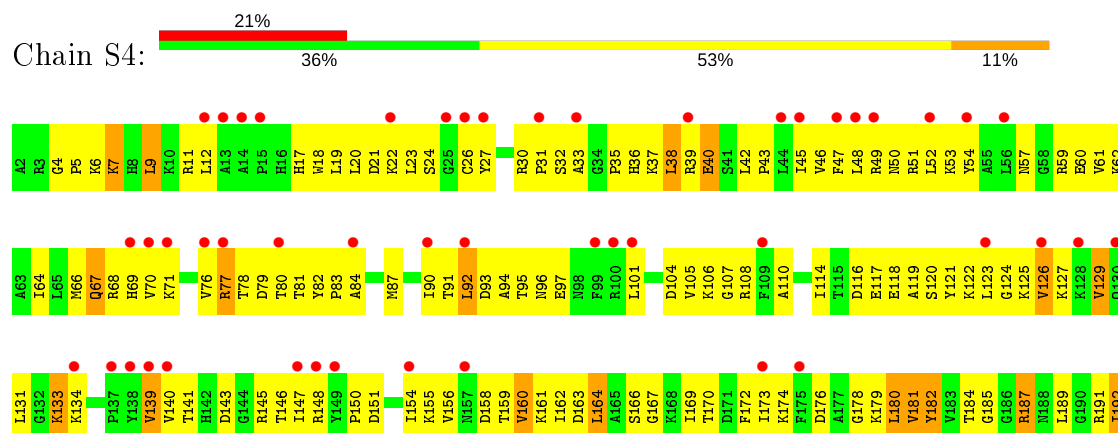
• Molecule 71: 40S ribosomal protein S3



• Molecule 71: 40S ribosomal protein S3

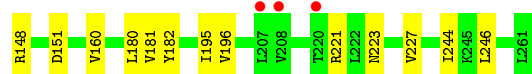
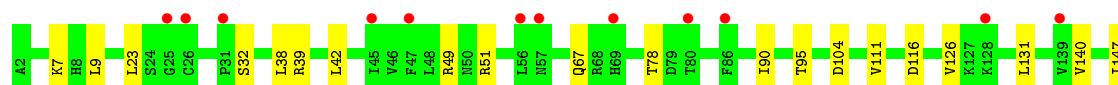
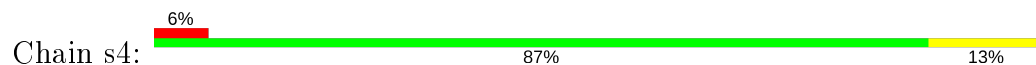


• Molecule 72: 40S ribosomal protein S4-A

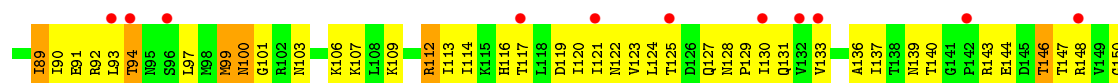
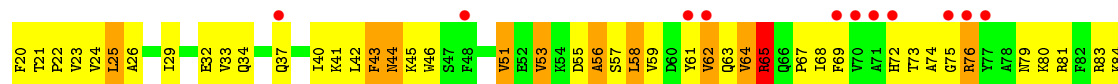




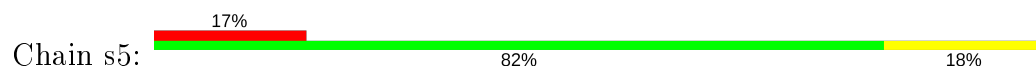
• Molecule 72: 40S ribosomal protein S4-A



• Molecule 73: 40S ribosomal protein S5

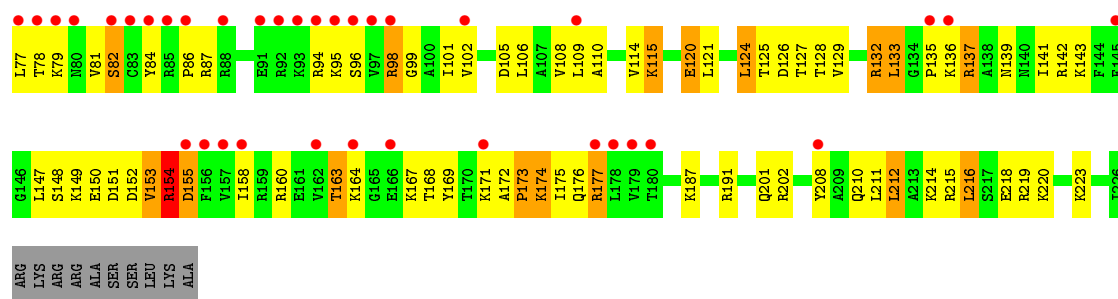


• Molecule 73: 40S ribosomal protein S5

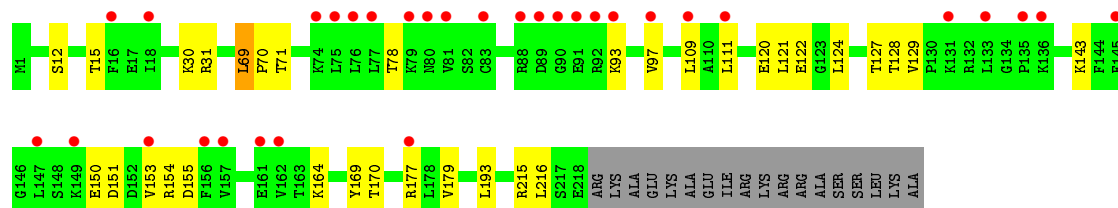
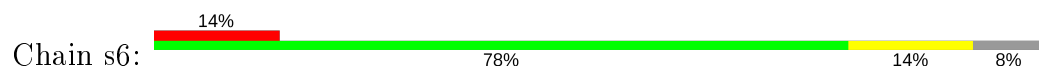


• Molecule 74: 40S ribosomal protein S6-A

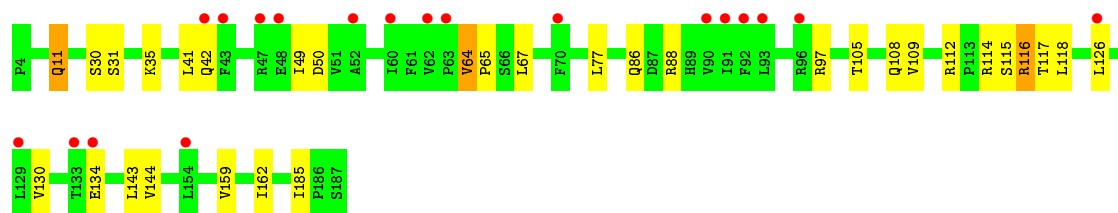
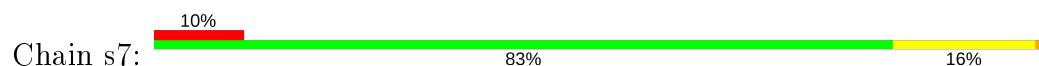




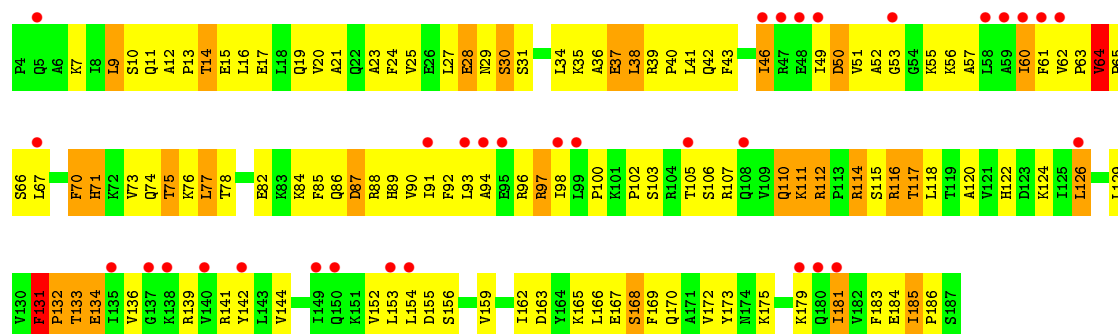
- Molecule 74: 40S ribosomal protein S6-A



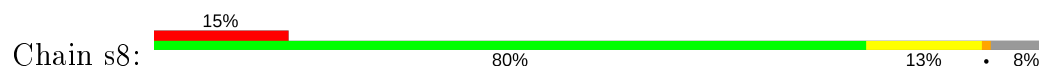
- Molecule 75: 40S ribosomal protein S7-A

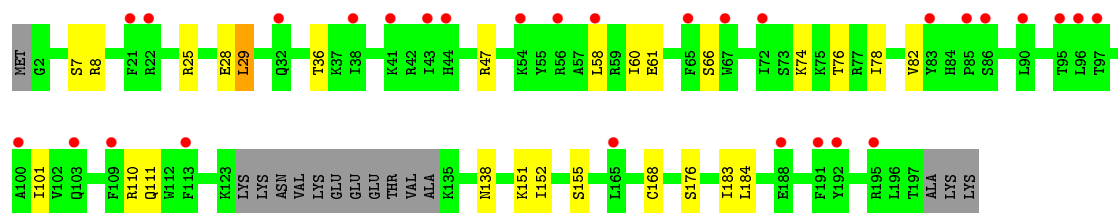


- Molecule 75: 40S ribosomal protein S7-A

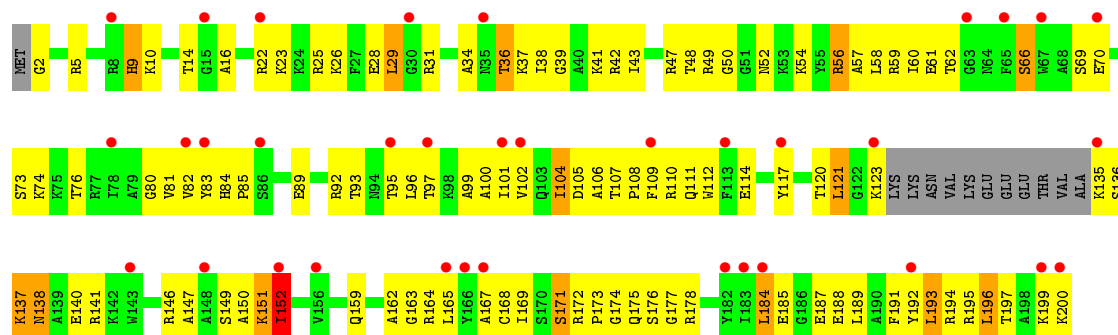


- Molecule 76: 40S ribosomal protein S8-A

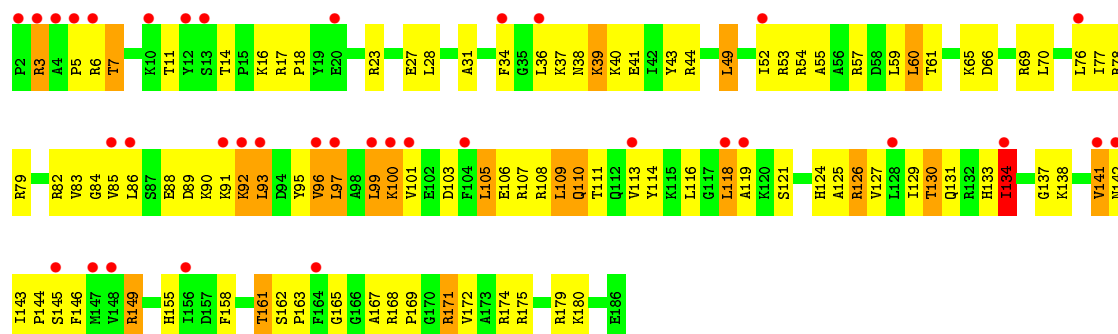
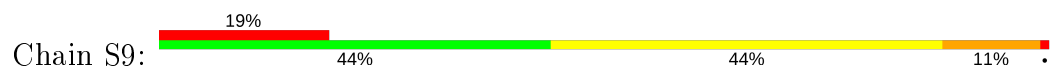




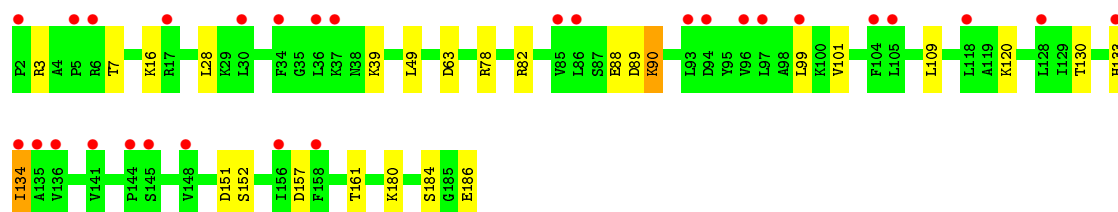
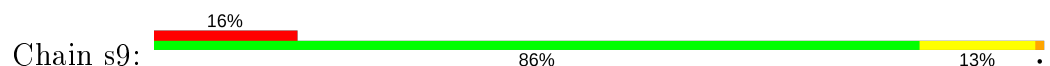
• Molecule 76: 40S ribosomal protein S8-A



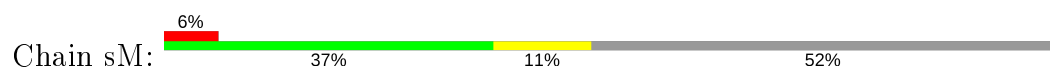
• Molecule 77: 40S ribosomal protein S9-A

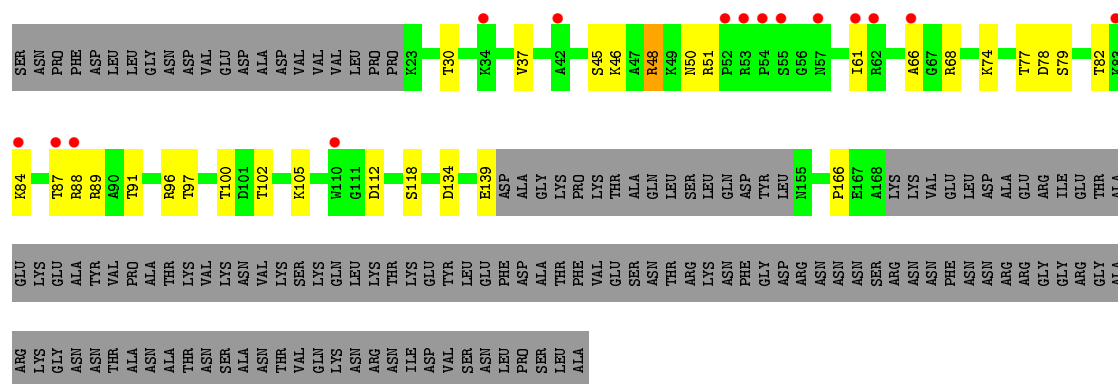


• Molecule 77: 40S ribosomal protein S9-A

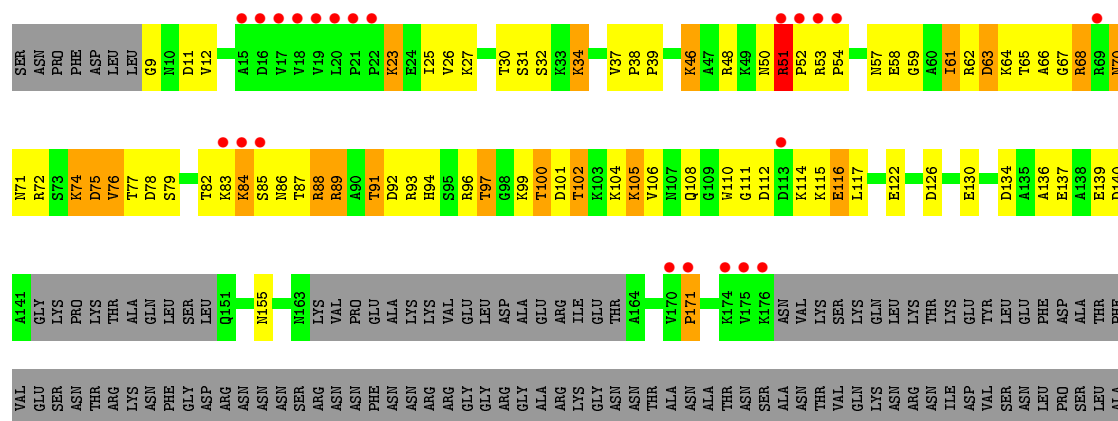
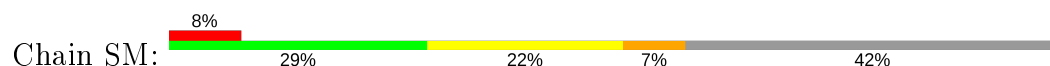


• Molecule 78: Suppressor protein STM1

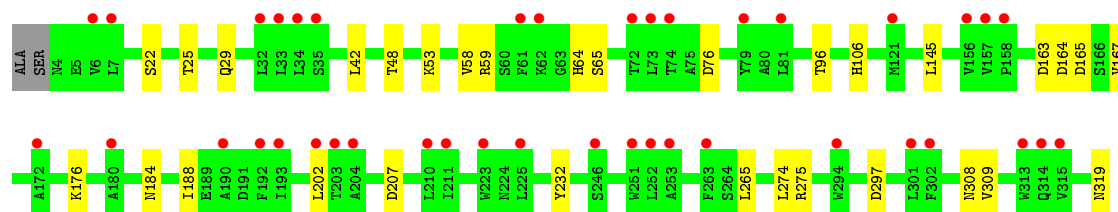
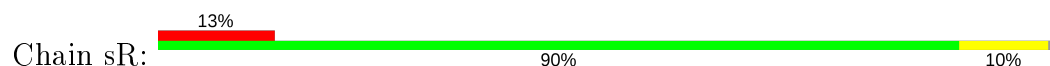




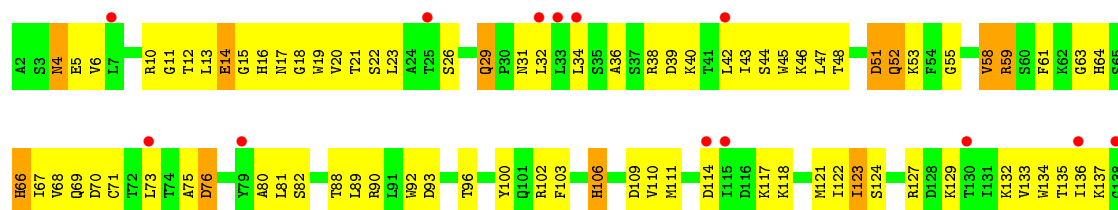
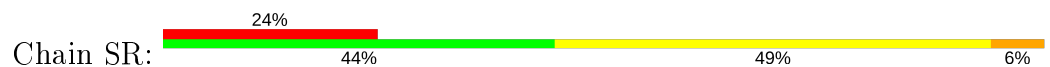
• Molecule 78: Suppressor protein STM1

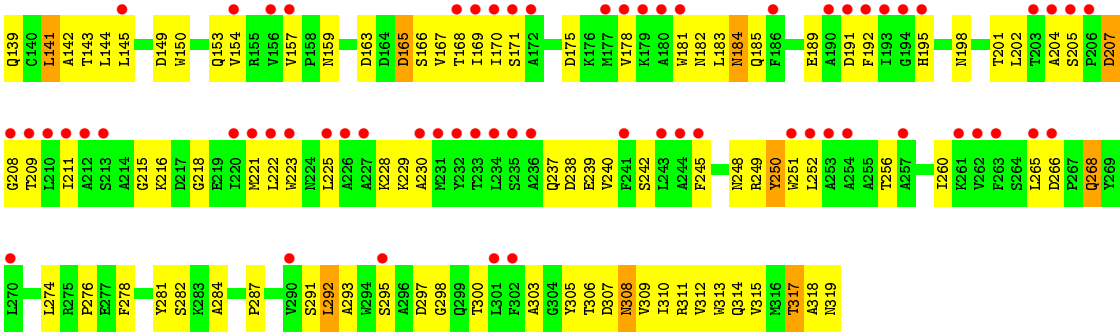


• Molecule 79: Guanine nucleotide-binding protein subunit beta-like protein



• Molecule 79: Guanine nucleotide-binding protein subunit beta-like protein





4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	442.14 Å 298.76 Å 299.77 Å 90.00° 99.49° 90.00°	Depositor
Resolution (Å)	147.83 – 3.70 147.83 – 3.70	Depositor EDS
% Data completeness (in resolution range)	99.9 (147.83-3.70) 92.7 (147.83-3.70)	Depositor EDS
R_{merge}	0.30	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.75 (at 3.67 Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.192 , 0.235 0.192 , 0.235	Depositor DCC
R_{free} test set	16291 reflections (2.00%)	wwPDB-VP
Wilson B-factor (Å ²)	118.6	Xtriage
Anisotropy	0.323	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.28 , 98.8	EDS
L-test for twinning ²	$\langle L \rangle = 0.46$, $\langle L^2 \rangle = 0.29$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.93	EDS
Total number of atoms	400111	wwPDB-VP
Average B, all atoms (Å ²)	150.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.42% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, MG, 8UZ

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	1	0.92	42/73963 (0.1%)	1.53	1261/115306 (1.1%)
1	5	0.84	20/73738 (0.0%)	1.45	984/114951 (0.9%)
2	2	0.68	6/42154 (0.0%)	1.30	354/65680 (0.5%)
2	6	0.68	4/41349 (0.0%)	1.29	326/64423 (0.5%)
3	3	0.81	0/2883	1.42	33/4491 (0.7%)
3	7	0.66	0/2883	1.16	10/4491 (0.2%)
4	4	0.84	0/3746	1.47	52/5832 (0.9%)
4	8	0.81	0/3746	1.44	41/5832 (0.7%)
5	C0	0.39	0/789	0.66	1/1067 (0.1%)
5	c0	0.35	0/762	0.68	2/1029 (0.2%)
6	C1	0.51	0/1233	0.69	1/1665 (0.1%)
6	c1	0.49	0/1194	0.69	0/1610
7	C2	0.36	0/873	0.71	1/1185 (0.1%)
7	c2	0.35	0/898	0.67	0/1220
8	C3	0.46	0/1215	0.66	0/1638
8	c3	0.44	0/1215	0.60	0/1638
9	C4	0.41	0/901	0.71	2/1217 (0.2%)
9	c4	0.37	0/960	0.61	0/1290
10	C5	0.48	1/998 (0.1%)	0.63	0/1341
10	c5	0.42	0/1008	0.68	0/1353
11	C6	0.49	1/1125 (0.1%)	0.66	1/1510 (0.1%)
11	c6	0.56	1/1125 (0.1%)	0.64	0/1510
12	C7	0.40	0/935	0.73	2/1254 (0.2%)
12	c7	0.40	0/935	0.62	0/1255
13	C8	0.45	0/1211	0.71	1/1628 (0.1%)
13	c8	0.43	0/1211	0.69	1/1628 (0.1%)
14	C9	0.41	0/1130	0.63	1/1517 (0.1%)
14	c9	0.42	0/1130	0.60	0/1517
15	D0	0.42	0/851	0.64	1/1150 (0.1%)
15	d0	0.40	0/838	0.62	0/1133
16	D1	0.50	0/693	0.66	0/935
16	d1	0.46	0/693	0.63	0/935

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	D2	0.44	0/1038	0.70	4/1395 (0.3%)
17	d2	0.44	0/1038	0.65	1/1395 (0.1%)
18	D3	0.52	0/1139	0.73	0/1518
18	d3	0.48	0/1139	0.70	0/1518
19	D4	0.41	0/1087	0.63	1/1449 (0.1%)
19	d4	0.42	0/1087	0.68	0/1449
20	D5	0.41	0/571	0.71	0/768
20	d5	0.35	0/566	0.63	1/761 (0.1%)
21	D6	0.50	0/782	0.82	2/1047 (0.2%)
21	d6	0.42	0/782	0.63	0/1047
22	D7	0.36	0/620	0.65	1/838 (0.1%)
22	d7	0.40	0/620	0.66	0/838
23	D8	0.40	0/499	0.63	0/670
23	d8	0.68	1/499 (0.2%)	0.66	1/670 (0.1%)
24	D9	0.57	0/443	0.70	0/588
24	d9	0.54	0/452	0.72	1/600 (0.2%)
25	E0	0.43	0/483	0.66	0/643
25	e0	0.45	0/490	0.67	0/653
26	E1	0.46	0/577	0.88	3/770 (0.4%)
26	e1	0.42	0/597	0.81	1/795 (0.1%)
27	L2	0.53	0/1948	0.73	1/2617 (0.0%)
27	l2	0.55	0/1946	0.71	0/2614
28	L3	0.60	2/3146 (0.1%)	0.71	0/4228
28	l3	0.58	0/3146	0.71	1/4228 (0.0%)
29	L4	0.57	0/2800	0.75	0/3790
29	l4	0.53	0/2800	0.71	1/3790 (0.0%)
30	L5	0.50	0/2425	0.65	0/3271
30	l5	0.38	0/2408	0.55	1/3248 (0.0%)
31	L6	0.59	0/1269	0.72	0/1705
31	l6	0.59	0/1269	0.70	0/1705
32	L7	0.57	1/1821 (0.1%)	0.67	0/2451
32	l7	0.55	0/1828	0.67	1/2461 (0.0%)
33	L8	0.47	1/1836 (0.1%)	0.62	0/2481
33	l8	0.41	0/1796	0.61	1/2430 (0.0%)
34	L9	0.54	0/1539	0.70	1/2073 (0.0%)
34	l9	0.54	0/1539	0.70	1/2073 (0.0%)
35	M0	0.59	0/1741	0.74	0/2335
35	m0	0.53	0/1732	0.69	0/2323
36	M1	0.46	0/1374	0.69	1/1842 (0.1%)
36	m1	0.37	0/1374	0.61	1/1842 (0.1%)
37	M3	0.54	1/1568 (0.1%)	0.70	0/2106
37	m3	0.49	0/1573	0.68	1/2113 (0.0%)
38	M4	0.50	0/1068	0.64	0/1438

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	m4	0.53	0/1074	0.68	1/1446 (0.1%)
39	M5	0.58	2/1757 (0.1%)	0.70	0/2354
39	m5	0.51	0/1757	0.71	0/2354
40	M6	0.66	0/1585	0.69	0/2128
40	m6	0.70	0/1585	0.74	1/2128 (0.0%)
41	M7	0.59	0/1443	0.76	0/1944
41	m7	0.59	0/1443	0.75	0/1944
42	M8	0.50	0/1465	0.71	0/1965
42	m8	0.45	0/1465	0.65	0/1965
43	M9	0.48	0/1538	0.65	1/2050 (0.0%)
43	m9	0.45	0/1507	0.60	0/2009
44	N0	0.57	0/1481	0.69	1/1990 (0.1%)
44	n0	0.56	0/1473	0.66	0/1980
45	N1	0.51	0/1300	0.65	0/1743
45	n1	0.49	0/1300	0.60	0/1743
46	N2	0.46	0/812	0.64	0/1099
46	n2	0.41	0/794	0.57	1/1076 (0.1%)
47	N3	0.62	0/1018	0.73	1/1369 (0.1%)
47	n3	0.60	0/1012	0.75	0/1361
48	N4	0.50	0/978	0.60	0/1302
48	n4	0.49	0/1021	0.60	0/1356
49	N5	0.48	0/979	0.69	0/1321
49	n5	0.48	0/974	0.72	0/1314
50	N6	0.55	0/1004	0.76	3/1341 (0.2%)
50	n6	0.57	1/974 (0.1%)	0.73	0/1302
51	N7	0.47	1/1118 (0.1%)	0.60	0/1497
51	n7	0.77	1/1118 (0.1%)	0.62	0/1497
52	N8	0.54	0/1204	0.74	0/1612
52	n8	0.49	0/1204	0.71	0/1612
53	N9	0.52	0/473	0.65	0/629
53	n9	0.43	0/455	0.68	0/607
54	O0	0.46	0/751	0.63	0/1008
54	o0	0.41	0/775	0.62	1/1040 (0.1%)
55	O1	0.58	0/890	0.70	0/1196
55	o1	0.56	0/897	0.69	0/1205
56	O2	0.57	0/1041	0.74	0/1394
56	o2	0.56	0/1041	0.74	1/1394 (0.1%)
57	O3	0.62	0/868	0.78	0/1168
57	o3	0.66	0/868	0.76	1/1168 (0.1%)
58	O4	0.48	0/890	0.64	0/1189
58	o4	0.45	0/890	0.62	0/1189
59	O5	0.52	0/978	0.66	0/1301
59	o5	0.56	2/974 (0.2%)	0.65	0/1297

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
60	O6	0.48	0/778	0.66	0/1034
60	o6	0.46	0/777	0.65	0/1033
61	O7	0.65	2/696 (0.3%)	0.79	0/923
61	o7	0.60	0/671	0.76	0/890
62	O8	0.44	0/618	0.59	0/826
62	o8	0.42	0/614	0.59	0/822
63	O9	0.56	0/443	0.75	0/588
63	o9	0.51	0/443	0.64	0/588
64	Q0	0.60	0/423	0.78	0/562
64	q0	0.59	0/423	0.77	0/562
65	Q1	0.59	0/234	0.77	0/300
65	q1	0.55	0/234	0.69	0/300
66	Q2	0.54	0/860	0.75	0/1136
66	q2	0.45	0/848	0.61	0/1120
67	Q3	0.59	0/701	0.68	0/934
67	q3	0.48	0/701	0.70	0/934
68	S0	0.42	0/1617	0.61	0/2215
68	s0	0.42	1/1623 (0.1%)	0.62	0/2222
69	S1	0.39	0/1735	0.68	2/2335 (0.1%)
69	s1	0.36	0/1748	0.62	0/2352
70	S2	0.44	0/1665	0.66	0/2263
70	s2	0.43	0/1665	0.63	0/2263
71	S3	0.45	0/1759	0.60	0/2368
71	s3	0.42	0/1759	0.62	0/2368
72	S4	0.41	0/2109	0.66	1/2839 (0.0%)
72	s4	0.43	0/2109	0.67	0/2839
73	S5	0.38	0/1629	0.58	0/2202
73	s5	0.42	0/1629	0.60	0/2202
74	S6	0.40	0/1823	0.57	0/2439
74	s6	0.43	0/1779	0.61	0/2379
75	S7	0.42	0/1506	0.68	1/2028 (0.0%)
75	s7	0.39	0/1506	0.68	1/2028 (0.0%)
76	S8	0.44	0/1514	0.65	1/2021 (0.0%)
76	s8	0.46	0/1491	0.65	1/1992 (0.1%)
77	S9	0.41	0/1519	0.61	0/2035
77	s9	0.42	0/1519	0.61	1/2035 (0.0%)
78	SM	0.44	0/1113	0.70	2/1502 (0.1%)
78	sM	0.43	0/964	0.67	2/1291 (0.2%)
79	SR	0.33	0/2490	0.57	0/3389
79	sR	0.37	0/2480	0.59	1/3376 (0.0%)
All	All	0.70	91/425229 (0.0%)	1.19	3127/623929 (0.5%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if

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

Mol	Chain	#Chirality outliers	#Planarity outliers
5	c0	0	1
7	C2	0	2
7	c2	0	1
9	C4	0	2
9	c4	0	1
10	C5	0	1
10	c5	0	3
11	C6	0	2
11	c6	0	1
12	C7	0	3
12	c7	0	3
13	C8	0	1
13	c8	0	1
15	d0	0	3
17	D2	0	1
17	d2	0	1
18	D3	0	1
19	D4	0	2
20	D5	0	3
20	d5	0	2
21	D6	0	3
22	D7	0	1
24	d9	0	1
25	e0	0	1
26	E1	0	4
26	e1	0	6
27	l2	0	3
28	L3	0	3
28	l3	0	1
29	L4	0	1
29	l4	0	3
30	L5	0	1
30	l5	0	2
31	l6	0	1
32	l7	0	2
33	L8	0	1
34	L9	0	1
36	m1	0	3
37	M3	0	1
37	m3	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
38	m4	0	1
39	m5	0	2
40	M6	0	1
41	M7	0	2
43	M9	0	1
44	N0	0	3
44	n0	0	2
48	n4	0	1
50	n6	0	1
51	N7	0	2
51	n7	0	1
53	N9	0	1
53	n9	0	1
55	O1	0	1
55	o1	0	2
56	o2	0	1
58	o4	0	2
59	O5	0	1
60	O6	0	1
66	Q2	0	1
67	q3	0	1
68	S0	0	2
69	S1	0	2
70	S2	0	2
70	s2	0	2
71	S3	0	1
71	s3	0	4
72	S4	0	1
73	S5	0	4
73	s5	0	1
74	s6	0	1
75	S7	0	4
75	s7	0	4
77	s9	0	3
78	SM	0	1
79	SR	0	1
All	All	0	137

All (91) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
51	n7	36	HIS	C-N	20.49	1.73	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	d8	5	THR	C-N	12.69	1.58	1.34
11	c6	4	VAL	C-N	10.62	1.54	1.34
1	5	1103	A	N9-C4	9.38	1.43	1.37
1	1	2093	A	N9-C4	8.68	1.43	1.37
10	C5	67	ALA	C-N	7.60	1.48	1.34
1	5	2401	A	N3-C4	7.42	1.39	1.34
1	1	2983	C	N1-C6	-7.26	1.32	1.37
11	C6	124	PRO	C-N	7.20	1.50	1.34
33	L8	158	ASP	C-N	-7.10	1.20	1.34
50	n6	99	LEU	C-N	-7.07	1.17	1.34
1	1	3012	A	N9-C4	-7.04	1.33	1.37
37	M3	125	VAL	C-N	-6.98	1.18	1.34
1	5	2872	A	N9-C4	6.93	1.42	1.37
1	1	1302	A	N9-C4	-6.93	1.33	1.37
1	1	1654	A	N9-C4	-6.92	1.33	1.37
1	1	1858	A	N9-C4	6.80	1.42	1.37
1	1	2911	A	N9-C4	-6.70	1.33	1.37
2	2	1749	A	N9-C4	-6.64	1.33	1.37
1	1	2820	A	N9-C4	-6.53	1.33	1.37
1	1	1589	A	N9-C4	-6.51	1.33	1.37
1	5	1839	A	N9-C4	-6.45	1.33	1.37
2	2	1746	A	N9-C4	-6.44	1.33	1.37
2	2	541	A	N9-C4	6.41	1.41	1.37
61	O7	62	GLY	C-O	-6.38	1.13	1.23
1	1	3209	A	C5-C4	6.31	1.43	1.38
1	5	1196	C	C4-C5	6.28	1.48	1.43
59	o5	37	SER	C-N	6.19	1.48	1.34
39	M5	152	CYS	CB-SG	-6.12	1.71	1.82
1	1	2853	A	N9-C4	-6.00	1.34	1.37
1	1	1907	C	N1-C6	-5.96	1.33	1.37
1	1	895	A	C5-C6	-5.96	1.35	1.41
1	5	1221	A	N9-C4	5.94	1.41	1.37
28	L3	7	GLU	CB-CG	5.94	1.63	1.52
2	6	541	A	N9-C4	5.93	1.41	1.37
1	1	1911	A	N7-C5	-5.91	1.35	1.39
1	5	1412	G	N7-C5	-5.90	1.35	1.39
1	5	1412	G	C5-C6	-5.87	1.36	1.42
1	1	3142	A	N9-C4	-5.81	1.34	1.37
1	1	1524	A	N9-C4	-5.80	1.34	1.37
1	1	2811	A	C5-C4	-5.74	1.34	1.38
1	1	895	A	N7-C5	-5.73	1.35	1.39
1	1	2693	C	N1-C6	-5.73	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1	1452	A	N9-C4	-5.71	1.34	1.37
1	1	1330	A	N9-C4	-5.61	1.34	1.37
1	5	2363	A	N9-C4	-5.59	1.34	1.37
1	1	284	A	N7-C5	-5.58	1.35	1.39
1	1	2139	A	N9-C4	-5.58	1.34	1.37
1	5	1152	G	N9-C4	-5.56	1.33	1.38
1	5	2911	A	N9-C4	-5.56	1.34	1.37
28	L3	7	GLU	CG-CD	5.55	1.60	1.51
2	6	992	A	N9-C4	-5.52	1.34	1.37
1	1	2932	U	C2-N3	-5.49	1.33	1.37
1	1	2702	A	N7-C5	-5.49	1.35	1.39
2	6	234	G	N9-C4	5.48	1.42	1.38
59	o5	75	TYR	C-N	5.47	1.46	1.34
1	1	2377	G	C6-N1	-5.41	1.35	1.39
1	5	1343	A	N9-C4	-5.41	1.34	1.37
32	L7	214	TRP	CB-CG	-5.41	1.40	1.50
1	1	660	A	N9-C4	-5.39	1.34	1.37
1	1	1319	G	C6-N1	-5.35	1.35	1.39
61	O7	62	GLY	CA-C	5.35	1.60	1.51
1	1	397	A	C6-N1	-5.34	1.31	1.35
1	5	2401	A	C5-C4	5.34	1.42	1.38
1	1	810	A	N7-C5	-5.34	1.36	1.39
51	N7	36	HIS	C-N	5.26	1.44	1.34
2	2	966	A	N9-C4	-5.25	1.34	1.37
1	5	2601	A	N9-C4	-5.21	1.34	1.37
1	1	1911	A	C5-C6	-5.20	1.36	1.41
39	M5	8	GLU	CG-CD	5.18	1.59	1.51
1	5	94	G	N9-C4	-5.18	1.33	1.38
1	1	2625	C	N3-C4	-5.17	1.30	1.33
1	1	60	A	N9-C4	-5.17	1.34	1.37
2	2	1732	A	N9-C4	-5.15	1.34	1.37
1	1	1322	U	C4-O4	5.15	1.27	1.23
1	1	817	A	N9-C4	5.14	1.41	1.37
1	5	336	A	N9-C4	-5.14	1.34	1.37
1	1	1432	C	N1-C6	-5.14	1.34	1.37
68	s0	192	THR	C-N	5.14	1.45	1.34
1	1	2391	G	C6-N1	-5.13	1.35	1.39
1	1	1399	A	N9-C4	-5.10	1.34	1.37
1	5	920	A	C5-C6	-5.08	1.36	1.41
1	5	1152	G	C6-N1	5.08	1.43	1.39
1	1	806	A	N9-C4	-5.08	1.34	1.37
1	1	2679	A	C5-C6	-5.07	1.36	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	5	2635	A	N9-C4	5.05	1.40	1.37
1	5	2968	G	C5-C6	-5.04	1.37	1.42
1	1	1839	A	N9-C4	-5.04	1.34	1.37
1	1	1882	G	C6-N1	-5.04	1.36	1.39
2	6	803	A	N9-C4	5.02	1.40	1.37
2	2	400	A	N9-C4	-5.00	1.34	1.37

All (3127) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	2	1059	U	O5'-P-OP2	-30.24	74.41	110.70
2	2	1059	U	OP1-P-OP2	17.12	145.28	119.60
2	2	1059	U	O5'-P-OP1	-16.80	90.55	110.70
2	2	1058	U	OP2-P-O3'	-13.98	74.45	105.20
1	5	1152	G	N3-C4-C5	13.14	135.17	128.60
1	5	1592	G	C5-C6-O6	-12.74	120.96	128.60
4	8	115	C	C6-N1-C2	12.53	125.31	120.30
1	1	2212	C	C5-C6-N1	12.46	127.23	121.00
1	1	2212	C	N1-C2-O2	12.41	126.34	118.90
1	5	2400	G	C4-C5-N7	11.71	115.49	110.80
1	5	2917	G	O5'-P-OP2	-11.59	95.27	105.70
1	5	2403	G	N1-C6-O6	11.43	126.76	119.90
1	5	2548	C	N1-C2-O2	11.32	125.69	118.90
1	5	1356	U	N3-C2-O2	-11.30	114.29	122.20
1	1	638	C	O5'-P-OP2	-11.26	95.56	105.70
1	5	2968	G	C5-C6-O6	-11.16	121.90	128.60
1	1	1413	G	N1-C6-O6	11.15	126.59	119.90
1	1	1432	C	C6-N1-C2	-11.03	115.89	120.30
1	1	2871	G	O5'-P-OP2	-11.00	95.80	105.70
1	1	645	A	N1-C6-N6	-10.99	112.01	118.60
1	5	2400	G	N9-C4-C5	-10.93	101.03	105.40
1	1	1916	U	O5'-P-OP2	-10.90	95.89	105.70
1	5	2968	G	N1-C6-O6	10.89	126.43	119.90
1	1	2861	U	O5'-P-OP1	-10.86	95.93	105.70
2	2	1058	U	OP1-P-O3'	-10.77	81.51	105.20
1	5	1152	G	C8-N9-C1'	10.73	140.95	127.00
1	1	1443	G	C5-C6-O6	-10.70	122.18	128.60
1	5	2983	C	O5'-P-OP1	-10.66	96.11	105.70
1	5	1152	G	C4-N9-C1'	-10.59	112.73	126.50
1	1	891	G	C5-C6-O6	-10.56	122.27	128.60
1	1	1160	C	C6-N1-C2	10.54	124.51	120.30
1	1	1495	U	C5-C6-N1	-10.52	117.44	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	1152	G	N3-C4-N9	-10.47	119.72	126.00
1	5	2821	C	C6-N1-C2	-10.46	116.12	120.30
2	6	1467	C	C6-N1-C2	-10.42	116.13	120.30
1	1	2310	U	O5'-P-OP1	-10.35	96.38	105.70
2	2	1280	C	C6-N1-C2	-10.35	116.16	120.30
1	5	1592	G	N1-C6-O6	10.35	126.11	119.90
1	5	2400	G	C5-C6-O6	-10.21	122.47	128.60
2	6	129	U	OP1-P-O3'	-10.21	82.75	105.20
1	1	1451	C	C6-N1-C2	10.11	124.34	120.30
1	1	2996	U	N1-C2-O2	10.03	129.82	122.80
1	5	2548	C	C6-N1-C2	-10.00	116.30	120.30
1	5	2403	G	C6-C5-N7	-9.98	124.41	130.40
2	2	309	C	C6-N1-C2	-9.95	116.32	120.30
4	4	158	U	O4'-C1'-N1	9.94	116.15	108.20
1	1	981	U	O5'-P-OP1	-9.90	96.78	105.70
1	5	2548	C	N3-C2-O2	-9.88	114.98	121.90
1	1	1403	C	C6-N1-C2	9.88	124.25	120.30
1	1	2913	C	C6-N1-C2	9.85	124.24	120.30
2	2	1096	C	N1-C2-O2	9.80	124.78	118.90
2	6	129	U	OP2-P-O3'	-9.73	83.78	105.20
1	1	2192	C	C6-N1-C2	-9.72	116.41	120.30
1	5	1356	U	N1-C2-O2	9.72	129.60	122.80
1	1	2827	U	C5-C6-N1	-9.68	117.86	122.70
1	5	700	C	C6-N1-C2	-9.66	116.44	120.30
1	5	1793	C	C6-N1-C2	9.63	124.15	120.30
1	5	439	C	C6-N1-C2	-9.60	116.46	120.30
1	1	2821	C	C6-N1-C2	-9.59	116.47	120.30
2	2	405	C	C6-N1-C2	9.56	124.13	120.30
1	1	891	G	N1-C6-O6	9.53	125.62	119.90
1	1	2273	G	O5'-P-OP2	-9.52	97.13	105.70
1	5	439	C	N1-C2-O2	9.52	124.61	118.90
1	1	966	U	N3-C4-O4	9.49	126.04	119.40
1	1	631	U	O5'-P-OP2	-9.46	97.19	105.70
1	1	1926	C	O5'-P-OP2	-9.46	97.19	105.70
1	5	200	C	C6-N1-C2	-9.46	116.52	120.30
1	5	2572	C	N1-C2-O2	9.42	124.55	118.90
1	5	2355	G	N1-C6-O6	9.41	125.55	119.90
1	5	2400	G	N1-C6-O6	9.40	125.54	119.90
1	5	3269	U	C5-C6-N1	9.38	127.39	122.70
1	1	2679	A	N1-C6-N6	9.35	124.21	118.60
1	1	2922	G	C6-C5-N7	-9.34	124.80	130.40
2	2	1751	C	C6-N1-C2	9.31	124.03	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	1454	A	C8-N9-C4	9.31	109.52	105.80
1	1	1338	C	C6-N1-C2	-9.27	116.59	120.30
1	5	439	C	C2-N1-C1'	9.27	128.99	118.80
1	5	1308	A	C8-N9-C4	-9.22	102.11	105.80
1	5	3278	C	N1-C2-O2	9.21	124.42	118.90
1	1	55	G	C8-N9-C4	9.19	110.08	106.40
1	1	945	C	C6-N1-C2	-9.19	116.63	120.30
2	2	453	U	C2-N1-C1'	9.16	128.69	117.70
1	1	645	A	N9-C4-C5	9.15	109.46	105.80
1	1	2355	G	N1-C6-O6	9.14	125.38	119.90
1	5	982	C	C6-N1-C2	-9.13	116.65	120.30
1	5	2403	G	C4-C5-C6	9.13	124.28	118.80
1	1	639	G	N1-C6-O6	9.11	125.36	119.90
1	5	424	G	N1-C6-O6	9.10	125.36	119.90
4	4	125	U	N1-C2-O2	9.10	129.17	122.80
1	1	914	A	N1-C6-N6	-9.09	113.15	118.60
4	4	140	G	N1-C6-O6	9.08	125.35	119.90
3	3	15	C	C6-N1-C2	9.07	123.93	120.30
1	1	1763	U	C2-N1-C1'	9.07	128.58	117.70
1	5	824	C	C6-N1-C2	-9.07	116.67	120.30
1	5	3217	C	C6-N1-C2	9.06	123.93	120.30
4	4	54	A	N1-C6-N6	9.05	124.03	118.60
1	1	1665	C	C6-N1-C2	9.04	123.91	120.30
1	5	2156	C	C6-N1-C2	9.03	123.91	120.30
1	5	408	A	C8-N9-C4	-9.02	102.19	105.80
1	5	2383	C	C6-N1-C2	-9.01	116.69	120.30
1	1	1422	G	N1-C6-O6	9.00	125.30	119.90
1	5	833	G	C8-N9-C4	9.00	110.00	106.40
2	6	320	U	C5-C6-N1	8.98	127.19	122.70
1	1	884	A	N1-C6-N6	8.98	123.99	118.60
13	C8	15	LEU	CA-CB-CG	8.97	135.93	115.30
1	1	546	C	O5'-P-OP1	-8.93	97.67	105.70
1	5	2181	C	C6-N1-C2	8.86	123.84	120.30
1	5	1312	C	C6-N1-C2	-8.83	116.77	120.30
1	1	1866	C	N1-C2-O2	8.80	124.18	118.90
1	1	2693	C	C6-N1-C2	8.79	123.82	120.30
1	1	1589	A	C8-N9-C4	8.79	109.32	105.80
1	5	875	G	O5'-P-OP2	-8.77	97.81	105.70
1	1	3025	C	C6-N1-C2	8.76	123.80	120.30
1	1	667	C	C6-N1-C2	8.74	123.80	120.30
1	5	1413	G	N1-C6-O6	8.74	125.14	119.90
1	5	860	G	C4-C5-N7	8.71	114.28	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	6	558	U	C2-N1-C1'	8.70	128.15	117.70
1	1	1306	G	C6-C5-N7	-8.69	125.18	130.40
1	1	3266	G	C8-N9-C4	-8.69	102.92	106.40
2	2	1420	C	C6-N1-C2	8.69	123.78	120.30
1	1	2093	A	C2-N3-C4	8.69	114.94	110.60
1	1	289	A	O5'-P-OP1	-8.67	97.90	105.70
1	1	1279	C	C6-N1-C2	-8.67	116.83	120.30
4	8	14	C	O5'-P-OP2	-8.64	97.93	105.70
1	5	2885	C	O5'-P-OP2	-8.63	97.94	105.70
1	1	2937	G	C5-C6-O6	-8.62	123.43	128.60
43	M9	185	LEU	CA-CB-CG	8.61	135.10	115.30
2	6	794	U	C2-N1-C1'	8.61	128.03	117.70
1	1	924	G	N1-C6-O6	-8.59	114.75	119.90
1	1	1941	C	C6-N1-C2	-8.59	116.87	120.30
1	5	3093	C	C6-N1-C2	8.58	123.73	120.30
1	1	2608	G	C8-N9-C4	8.58	109.83	106.40
2	6	589	C	C6-N1-C2	-8.57	116.87	120.30
1	5	21	G	N1-C6-O6	-8.57	114.76	119.90
1	1	2171	G	N1-C6-O6	-8.57	114.76	119.90
1	5	835	G	N3-C4-N9	-8.56	120.86	126.00
4	4	134	G	O5'-P-OP1	-8.56	98.00	105.70
1	5	2821	C	N3-C2-O2	-8.56	115.91	121.90
1	5	2548	C	C2-N1-C1'	8.55	128.21	118.80
2	6	1490	C	C6-N1-C2	-8.54	116.89	120.30
1	1	312	C	C6-N1-C2	-8.53	116.89	120.30
1	1	753	C	C6-N1-C2	8.51	123.70	120.30
1	1	979	U	C6-N1-C2	-8.50	115.90	121.00
4	8	45	C	C6-N1-C2	8.50	123.70	120.30
1	1	1493	G	N1-C6-O6	-8.49	114.80	119.90
1	5	1412	G	N1-C6-O6	8.49	124.99	119.90
1	1	2944	U	C6-N1-C2	-8.48	115.91	121.00
2	6	337	G	C4-C5-N7	8.48	114.19	110.80
1	5	1911	A	N1-C6-N6	-8.47	113.52	118.60
6	C1	5	LEU	CA-CB-CG	8.46	134.76	115.30
2	2	1077	C	C6-N1-C2	-8.46	116.92	120.30
1	5	2400	G	C8-N9-C4	8.45	109.78	106.40
1	5	1839	A	C8-N9-C4	8.44	109.18	105.80
1	5	3205	G	N1-C6-O6	8.44	124.96	119.90
1	1	1507	G	N1-C6-O6	8.44	124.96	119.90
1	1	924	G	C5-C6-O6	8.43	133.66	128.60
3	3	47	C	C6-N1-C2	-8.42	116.93	120.30
1	5	2606	G	N3-C4-N9	8.42	131.05	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2400	G	C5-C6-O6	-8.41	123.55	128.60
1	1	1889	G	N1-C6-O6	8.41	124.94	119.90
1	1	2862	U	C6-N1-C2	8.41	126.05	121.00
1	1	42	C	N3-C4-C5	8.40	125.26	121.90
2	6	697	C	C6-N1-C2	-8.39	116.94	120.30
4	8	81	U	N3-C2-O2	-8.39	116.33	122.20
1	1	979	U	N3-C2-O2	-8.38	116.33	122.20
29	14	339	LEU	CA-CB-CG	8.38	134.57	115.30
1	1	46	U	O5'-P-OP1	-8.37	98.17	105.70
1	1	1604	G	N3-C4-C5	-8.37	124.42	128.60
1	1	1306	G	N3-C4-N9	8.37	131.02	126.00
1	1	92	G	C4-C5-N7	8.36	114.14	110.80
1	5	1550	C	C6-N1-C2	-8.36	116.95	120.30
1	1	545	U	C2-N1-C1'	8.35	127.72	117.70
1	1	2212	C	C2-N1-C1'	8.35	127.99	118.80
1	1	2568	C	N1-C2-O2	8.35	123.91	118.90
1	5	1437	C	C6-N1-C2	-8.35	116.96	120.30
1	1	3076	C	N3-C4-C5	-8.32	118.57	121.90
2	6	234	G	N3-C4-C5	-8.31	124.44	128.60
1	1	424	G	O5'-P-OP2	-8.31	98.22	105.70
1	1	675	C	C6-N1-C2	-8.30	116.98	120.30
1	5	1592	G	C4-C5-N7	8.30	114.12	110.80
1	5	2881	C	C6-N1-C2	8.30	123.62	120.30
1	5	2160	G	C8-N9-C4	8.28	109.71	106.40
1	1	2212	C	C4-C5-C6	-8.27	113.27	117.40
1	5	1220	U	C5-C6-N1	8.27	126.83	122.70
1	5	1633	C	C6-N1-C2	-8.27	116.99	120.30
1	5	2245	C	C6-N1-C2	8.26	123.60	120.30
1	5	2968	G	C4-C5-N7	8.26	114.10	110.80
1	1	648	C	C6-N1-C2	-8.25	117.00	120.30
1	1	1495	U	C4-C5-C6	8.25	124.65	119.70
1	5	1412	G	C5-C6-O6	-8.25	123.65	128.60
1	1	1609	C	O5'-P-OP2	-8.25	98.28	105.70
1	1	3217	C	C2-N1-C1'	8.23	127.85	118.80
1	1	379	C	C6-N1-C2	8.21	123.59	120.30
1	1	1385	C	C6-N1-C2	8.21	123.58	120.30
26	E1	105	TYR	C-N-CA	8.20	142.20	121.70
1	5	979	U	C6-N1-C2	-8.20	116.08	121.00
1	1	2937	G	N1-C6-O6	8.19	124.81	119.90
2	6	1173	C	C6-N1-C2	-8.19	117.03	120.30
1	1	1306	G	C5-C6-O6	-8.19	123.69	128.60
1	1	3319	U	O5'-P-OP1	-8.18	98.34	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	635	G	N9-C4-C5	-8.18	102.13	105.40
1	5	3124	G	C6-C5-N7	-8.17	125.50	130.40
1	1	1092	C	C6-N1-C2	-8.17	117.03	120.30
2	6	1773	C	C6-N1-C2	-8.15	117.04	120.30
1	1	1201	C	C6-N1-C2	-8.15	117.04	120.30
1	5	925	A	N1-C6-N6	8.14	123.49	118.60
1	1	392	G	C8-N9-C4	-8.14	103.14	106.40
1	1	2311	G	C5-C6-O6	-8.13	123.72	128.60
1	5	726	G	C8-N9-C4	-8.13	103.15	106.40
1	1	981	U	C5-C6-N1	8.11	126.75	122.70
1	1	92	G	N9-C4-C5	-8.10	102.16	105.40
1	1	2156	C	C6-N1-C2	8.10	123.54	120.30
1	1	2400	G	C4-C5-N7	8.08	114.03	110.80
1	5	347	G	C5-C6-O6	-8.08	123.75	128.60
1	1	1432	C	N3-C4-C5	-8.08	118.67	121.90
2	6	501	U	N1-C2-O2	8.07	128.45	122.80
1	5	860	G	N1-C6-O6	8.04	124.72	119.90
2	6	1541	G	N1-C6-O6	-8.04	115.08	119.90
1	1	636	C	C6-N1-C2	-8.04	117.09	120.30
1	1	693	A	O5'-P-OP1	-8.03	98.47	105.70
1	1	2572	C	C2-N1-C1'	8.03	127.63	118.80
1	1	3217	C	N1-C2-O2	8.03	123.72	118.90
1	5	860	G	C5-C6-O6	-8.03	123.78	128.60
2	6	607	G	N1-C6-O6	8.02	124.71	119.90
2	2	1363	U	N3-C2-O2	-8.02	116.59	122.20
1	5	1412	G	C6-C5-N7	-8.01	125.59	130.40
1	1	218	G	O5'-P-OP2	-8.00	98.50	105.70
1	1	2682	C	C6-N1-C2	8.00	123.50	120.30
4	8	81	U	N1-C2-O2	8.00	128.40	122.80
1	5	1152	G	C5-N7-C8	-7.99	100.30	104.30
2	6	1465	C	C6-N1-C2	-7.99	117.10	120.30
1	5	353	G	O5'-P-OP2	-7.98	98.52	105.70
1	1	2922	G	N3-C4-N9	7.97	130.78	126.00
1	1	2572	C	C6-N1-C2	-7.97	117.11	120.30
2	6	742	U	C6-N1-C2	-7.97	116.22	121.00
1	1	1015	U	O5'-P-OP2	-7.97	98.53	105.70
1	1	2206	G	C8-N9-C1'	-7.97	116.64	127.00
1	5	2635	A	C8-N9-C4	-7.97	102.61	105.80
1	5	2952	G	N1-C6-O6	7.96	124.68	119.90
1	1	1381	A	C8-N9-C4	7.96	108.98	105.80
1	1	1762	C	P-O3'-C3'	7.96	129.25	119.70
2	2	1096	C	C2-N1-C1'	7.95	127.55	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	1137	C	N1-C2-O2	7.94	123.66	118.90
1	5	1114	U	C5-C4-O4	-7.94	121.14	125.90
1	5	1663	C	C6-N1-C2	7.93	123.47	120.30
1	5	2594	C	O5'-P-OP1	-7.93	98.56	105.70
1	1	2612	U	C6-N1-C2	-7.92	116.25	121.00
1	1	924	G	N9-C4-C5	7.92	108.57	105.40
1	5	1582	C	C2-N1-C1'	7.91	127.50	118.80
1	1	2568	C	N3-C2-O2	-7.91	116.36	121.90
2	2	758	U	N3-C2-O2	-7.91	116.66	122.20
1	1	3084	C	C6-N1-C2	-7.90	117.14	120.30
1	1	953	G	N1-C6-O6	-7.89	115.16	119.90
1	1	1495	U	N1-C2-N3	7.89	119.63	114.90
2	2	131	C	C2-N1-C1'	7.89	127.47	118.80
2	2	864	U	C6-N1-C2	-7.89	116.27	121.00
1	5	1307	G	P-O3'-C3'	7.88	129.15	119.70
1	1	2867	C	C6-N1-C2	7.87	123.45	120.30
1	5	54	C	C6-N1-C2	7.87	123.45	120.30
2	2	1363	U	N1-C2-O2	7.86	128.30	122.80
1	5	1913	A	N1-C6-N6	7.86	123.31	118.60
1	1	1319	G	N1-C6-O6	-7.86	115.19	119.90
1	1	3266	G	N9-C4-C5	7.86	108.54	105.40
1	1	1408	G	N1-C6-O6	7.84	124.61	119.90
1	1	2183	A	N1-C6-N6	7.84	123.31	118.60
2	2	1096	C	N3-C2-O2	-7.84	116.41	121.90
1	1	1548	C	C6-N1-C2	-7.84	117.17	120.30
2	2	1011	G	C8-N9-C4	-7.83	103.27	106.40
1	1	353	G	C8-N9-C4	7.83	109.53	106.40
1	1	3075	G	N1-C6-O6	7.83	124.60	119.90
1	5	2409	G	C8-N9-C4	7.83	109.53	106.40
2	6	590	C	C6-N1-C2	-7.82	117.17	120.30
1	1	1194	G	C5-C6-O6	-7.82	123.91	128.60
1	1	2400	G	N1-C6-O6	7.82	124.59	119.90
2	2	1280	C	N3-C4-C5	-7.82	118.77	121.90
1	1	1443	G	N1-C6-O6	7.81	124.59	119.90
1	5	2406	C	C6-N1-C2	7.81	123.42	120.30
1	1	780	A	N1-C6-N6	-7.80	113.92	118.60
1	5	439	C	N3-C2-O2	-7.80	116.44	121.90
2	2	1745	G	N3-C4-N9	7.80	130.68	126.00
1	1	2934	A	N1-C6-N6	7.80	123.28	118.60
1	1	2925	C	N1-C2-O2	7.79	123.58	118.90
1	1	1773	C	C6-N1-C2	7.79	123.42	120.30
2	6	1196	A	P-O3'-C3'	7.79	129.04	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	895	A	C4-C5-N7	7.79	114.59	110.70
2	6	499	U	C5-C6-N1	7.78	126.59	122.70
1	5	1413	G	C6-C5-N7	-7.78	125.73	130.40
1	5	1581	C	N1-C2-O2	7.77	123.56	118.90
1	1	2996	U	N3-C2-O2	-7.77	116.76	122.20
1	1	2809	C	C6-N1-C2	-7.76	117.19	120.30
4	4	4	C	O5'-P-OP2	-7.76	98.71	105.70
1	1	1507	G	C5-C6-O6	-7.76	123.94	128.60
1	5	2871	G	N1-C6-O6	7.76	124.56	119.90
1	1	1306	G	N1-C6-O6	7.76	124.56	119.90
1	1	142	C	C6-N1-C2	-7.75	117.20	120.30
1	1	1604	G	C4-N9-C1'	7.75	136.58	126.50
1	1	924	G	C4-C5-N7	-7.75	107.70	110.80
1	1	1542	G	C4-C5-N7	7.74	113.90	110.80
57	o3	88	ASN	C-N-CA	-7.73	102.36	121.70
1	1	2827	U	N3-C4-O4	-7.73	113.99	119.40
1	1	633	C	C6-N1-C2	7.73	123.39	120.30
1	5	1307	G	O5'-P-OP1	-7.73	98.74	105.70
1	5	2376	G	C5-C6-O6	-7.73	123.96	128.60
2	2	1161	C	O5'-P-OP2	-7.73	98.74	105.70
1	1	2767	U	O5'-P-OP2	-7.73	98.75	105.70
1	5	1730	G	N3-C4-C5	-7.72	124.74	128.60
2	2	1059	U	N3-C2-O2	-7.72	116.80	122.20
1	1	2206	G	N3-C4-N9	7.70	130.62	126.00
1	1	2572	C	N1-C2-O2	7.70	123.52	118.90
1	5	2572	C	N3-C2-O2	-7.70	116.51	121.90
1	5	3245	A	N1-C2-N3	7.70	133.15	129.30
1	1	3278	C	N1-C2-O2	7.69	123.52	118.90
2	6	794	U	C6-N1-C1'	-7.69	110.43	121.20
1	5	3245	A	N7-C8-N9	7.69	117.64	113.80
1	1	1156	C	C5-C4-N4	-7.66	114.84	120.20
1	1	1389	G	C8-N9-C4	7.66	109.46	106.40
1	1	823	C	C6-N1-C2	-7.66	117.24	120.30
1	5	3076	C	C6-N1-C2	-7.66	117.24	120.30
1	1	1348	U	C6-N1-C2	-7.65	116.41	121.00
1	1	1424	C	C6-N1-C2	7.65	123.36	120.30
1	1	2212	C	N3-C2-O2	-7.65	116.55	121.90
1	1	1359	C	C6-N1-C2	7.64	123.36	120.30
1	1	3076	C	C6-N1-C2	-7.64	117.25	120.30
2	2	1467	C	C6-N1-C2	-7.63	117.25	120.30
1	1	2209	U	O5'-P-OP2	-7.63	98.83	105.70
1	1	609	G	C5-C6-O6	-7.62	124.03	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	439	C	C5-C6-N1	7.61	124.81	121.00
4	8	44	A	N1-C6-N6	7.61	123.16	118.60
1	5	1592	G	C6-C5-N7	-7.61	125.84	130.40
2	2	1157	A	C8-N9-C4	-7.60	102.76	105.80
1	5	1861	G	C8-N9-C4	-7.60	103.36	106.40
1	1	2612	U	C5-C6-N1	7.60	126.50	122.70
1	5	1412	G	C4-C5-N7	7.59	113.84	110.80
1	1	1444	G	N1-C6-O6	7.58	124.45	119.90
2	6	1491	U	N3-C2-O2	-7.58	116.89	122.20
2	6	1582	U	C6-N1-C2	7.58	125.55	121.00
2	2	14	C	C6-N1-C2	-7.58	117.27	120.30
1	1	2964	G	O5'-P-OP1	-7.58	98.88	105.70
1	1	917	A	O5'-P-OP2	-7.57	98.88	105.70
1	1	2208	A	P-O3'-C3'	7.57	128.79	119.70
4	4	54	A	C6-C5-N7	-7.57	127.00	132.30
1	1	2206	G	C4-N9-C1'	7.57	136.34	126.50
1	1	2967	A	N1-C6-N6	7.57	123.14	118.60
1	5	2268	U	C5-C6-N1	7.57	126.48	122.70
1	5	2403	G	C5-C6-N1	-7.57	107.72	111.50
1	1	1526	U	O5'-P-OP2	-7.57	98.89	105.70
1	5	915	A	O5'-P-OP1	-7.56	98.90	105.70
1	5	2816	G	N1-C6-O6	7.56	124.44	119.90
1	1	1546	A	C8-N9-C4	-7.56	102.78	105.80
2	6	103	A	P-O3'-C3'	7.55	128.75	119.70
1	5	3004	C	C6-N1-C2	7.54	123.32	120.30
1	5	3195	U	C5-C6-N1	7.53	126.46	122.70
1	5	423	A	N1-C6-N6	-7.52	114.09	118.60
1	5	2993	G	N1-C6-O6	-7.52	115.39	119.90
2	6	501	U	N3-C2-O2	-7.52	116.94	122.20
1	5	1145	G	N3-C4-N9	7.52	130.51	126.00
2	6	414	C	C6-N1-C2	7.51	123.31	120.30
1	5	2831	G	C5-C6-O6	-7.51	124.09	128.60
1	1	1820	U	P-O3'-C3'	7.51	128.71	119.70
1	1	298	U	N1-C2-O2	7.50	128.05	122.80
1	5	2355	G	C6-C5-N7	-7.50	125.90	130.40
3	3	104	A	O5'-P-OP2	-7.50	98.95	105.70
2	6	558	U	N3-C2-O2	-7.50	116.95	122.20
1	1	748	U	C6-N1-C2	-7.49	116.50	121.00
1	1	1854	C	C6-N1-C2	-7.49	117.30	120.30
1	1	895	A	C5-C6-N6	-7.49	117.71	123.70
1	1	1852	G	N1-C6-O6	7.49	124.39	119.90
2	6	13	C	C6-N1-C2	-7.49	117.30	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	3194	C	C2-N1-C1'	7.49	127.03	118.80
2	2	1562	G	C8-N9-C4	7.49	109.39	106.40
1	1	3226	A	O5'-P-OP1	-7.48	98.97	105.70
2	6	577	G	C6-C5-N7	-7.47	125.92	130.40
3	3	83	U	C5-C6-N1	-7.46	118.97	122.70
3	3	116	C	C6-N1-C2	-7.46	117.31	120.30
2	6	781	U	C2-N1-C1'	7.46	126.66	117.70
1	1	1413	G	C5-C6-O6	-7.46	124.12	128.60
1	1	2711	C	C6-N1-C2	-7.46	117.31	120.30
1	1	1000	C	C6-N1-C2	7.46	123.28	120.30
1	5	3260	G	N3-C4-N9	7.46	130.48	126.00
1	1	2355	G	C6-C5-N7	-7.45	125.93	130.40
1	1	3382	U	C2-N1-C1'	7.45	126.64	117.70
1	1	1028	U	P-O3'-C3'	7.44	128.63	119.70
1	5	2831	G	N1-C6-O6	7.44	124.37	119.90
1	5	2572	C	C2-N1-C1'	7.44	126.98	118.80
2	6	765	G	C8-N9-C4	7.44	109.38	106.40
3	3	80	G	C8-N9-C4	-7.43	103.43	106.40
1	1	1451	C	N3-C2-O2	7.43	127.10	121.90
2	2	1459	C	C6-N1-C2	-7.43	117.33	120.30
1	1	1417	G	C4-C5-N7	7.42	113.77	110.80
1	5	3103	A	C8-N9-C4	7.42	108.77	105.80
1	1	3269	U	N3-C2-O2	-7.42	117.00	122.20
2	2	131	C	N1-C2-O2	7.42	123.35	118.90
2	2	992	A	C5-N7-C8	-7.42	100.19	103.90
1	5	887	G	N1-C6-O6	7.41	124.34	119.90
1	1	1417	G	N9-C4-C5	-7.40	102.44	105.40
2	6	794	U	O5'-P-OP1	7.40	119.58	110.70
1	5	980	A	C8-N9-C4	-7.37	102.85	105.80
2	6	1458	G	C4-C5-N7	7.36	113.75	110.80
1	5	2430	A	C5-C6-N1	-7.36	114.02	117.70
1	5	1056	U	N3-C2-O2	-7.36	117.05	122.20
1	5	2715	A	C8-N9-C4	7.36	108.74	105.80
1	1	1016	C	N1-C2-O2	7.35	123.31	118.90
1	5	3266	G	N9-C4-C5	7.33	108.33	105.40
2	6	1028	C	C6-N1-C2	7.33	123.23	120.30
1	1	2354	C	C6-N1-C2	-7.32	117.37	120.30
2	6	130	C	OP1-P-OP2	7.32	130.58	119.60
1	5	1303	A	C8-N9-C4	7.32	108.73	105.80
1	1	2623	G	C6-C5-N7	-7.31	126.01	130.40
1	5	920	A	N1-C6-N6	7.31	122.99	118.60
2	2	192	U	C2-N1-C1'	7.30	126.47	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	3382	U	N3-C2-O2	-7.30	117.09	122.20
1	1	2420	C	C6-N1-C2	-7.30	117.38	120.30
1	5	1495	U	C5-C6-N1	7.30	126.35	122.70
1	1	1399	A	C8-N9-C4	7.29	108.72	105.80
1	5	2251	G	N1-C6-O6	7.29	124.28	119.90
1	1	895	A	N1-C6-N6	7.29	122.97	118.60
1	1	1929	G	C4-C5-N7	7.29	113.72	110.80
1	5	1607	U	P-O3'-C3'	7.29	128.45	119.70
1	5	2325	G	O5'-P-OP2	-7.29	99.14	105.70
1	1	1016	C	C2-N1-C1'	7.29	126.82	118.80
1	1	1307	G	P-O3'-C3'	7.29	128.44	119.70
1	1	145	G	C8-N9-C4	-7.28	103.49	106.40
1	1	291	C	C6-N1-C2	7.28	123.21	120.30
1	1	632	G	N1-C6-O6	7.28	124.27	119.90
1	1	1296	C	C6-N1-C2	-7.28	117.39	120.30
38	m4	135	LEU	CA-CB-CG	7.28	132.05	115.30
1	5	2365	C	N3-C4-C5	7.27	124.81	121.90
2	6	234	G	C8-N9-C4	-7.27	103.49	106.40
1	5	2620	G	N1-C6-O6	7.27	124.26	119.90
1	1	2996	U	C2-N1-C1'	7.27	126.42	117.70
1	5	1356	U	C2-N1-C1'	7.26	126.41	117.70
1	1	1507	G	C6-C5-N7	-7.25	126.05	130.40
2	6	1118	G	N1-C6-O6	7.25	124.25	119.90
1	1	1852	G	N3-C4-C5	7.25	132.22	128.60
1	1	1146	C	C6-N1-C2	7.25	123.20	120.30
1	5	942	U	N1-C2-O2	7.25	127.87	122.80
1	5	2943	G	C6-C5-N7	-7.25	126.05	130.40
1	1	2240	G	O5'-P-OP1	-7.24	99.18	105.70
1	1	3198	U	O5'-P-OP1	-7.24	99.19	105.70
2	6	781	U	N1-C2-O2	7.24	127.87	122.80
26	e1	100	LEU	CA-CB-CG	7.24	131.94	115.30
2	2	1572	G	C5-C6-O6	-7.23	124.26	128.60
2	6	741	C	P-O3'-C3'	7.23	128.38	119.70
2	6	1389	C	N1-C2-O2	7.23	123.24	118.90
1	1	1866	C	N3-C2-O2	-7.23	116.84	121.90
1	1	867	G	N1-C6-O6	7.22	124.23	119.90
1	1	1145	G	N3-C4-N9	7.22	130.33	126.00
1	1	1417	G	C5-C6-O6	-7.22	124.27	128.60
2	2	639	U	N1-C2-O2	7.22	127.86	122.80
1	1	891	G	C4-C5-N7	7.22	113.69	110.80
2	2	507	U	N3-C2-O2	-7.22	117.15	122.20
1	1	2093	A	N3-C4-C5	-7.22	121.75	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	4	9	A	C8-N9-C4	7.21	108.69	105.80
4	4	14	C	C6-N1-C2	7.21	123.19	120.30
2	2	704	C	C2-N1-C1'	7.21	126.73	118.80
1	1	116	A	N1-C6-N6	-7.21	114.27	118.60
1	5	1481	A	C8-N9-C4	-7.21	102.92	105.80
1	5	2385	G	N3-C4-C5	7.21	132.20	128.60
2	6	1074	G	N1-C6-O6	7.20	124.22	119.90
1	5	2281	A	O4'-C1'-N9	7.19	113.95	108.20
1	1	1103	A	P-O3'-C3'	7.19	128.32	119.70
1	5	1450	G	N1-C6-O6	7.19	124.21	119.90
1	5	398	A	C8-N9-C4	7.18	108.67	105.80
2	2	576	G	C8-N9-C4	-7.18	103.53	106.40
3	3	100	C	O5'-P-OP1	-7.18	99.23	105.70
1	5	953	G	C5-C6-O6	7.18	132.91	128.60
2	6	794	U	N1-C2-O2	7.18	127.83	122.80
1	1	580	C	C6-N1-C2	7.18	123.17	120.30
1	1	2287	C	O5'-P-OP1	-7.18	99.24	105.70
1	1	91	G	N1-C6-O6	7.18	124.21	119.90
1	5	2899	C	C6-N1-C2	-7.18	117.43	120.30
1	5	216	G	O5'-P-OP1	-7.17	99.24	105.70
1	1	1607	U	P-O3'-C3'	7.17	128.31	119.70
2	6	996	U	C5-C6-N1	7.17	126.29	122.70
4	4	82	U	N3-C2-O2	-7.17	117.18	122.20
1	1	593	C	C6-N1-C2	7.16	123.17	120.30
1	5	106	A	C8-N9-C4	7.16	108.67	105.80
1	1	1855	U	N3-C2-O2	-7.16	117.19	122.20
2	6	1686	C	C6-N1-C2	-7.16	117.44	120.30
2	2	1059	U	C2-N1-C1'	7.16	126.29	117.70
1	1	98	G	C8-N9-C4	7.16	109.26	106.40
2	2	1560	U	N3-C2-O2	-7.16	117.19	122.20
1	5	412	G	N1-C6-O6	7.15	124.19	119.90
1	5	966	U	C6-N1-C2	-7.15	116.71	121.00
1	5	942	U	N3-C2-O2	-7.14	117.20	122.20
1	5	821	U	C5-C6-N1	7.14	126.27	122.70
2	2	939	A	N1-C6-N6	7.13	122.88	118.60
1	5	333	G	C8-N9-C4	7.13	109.25	106.40
2	2	995	A	C8-N9-C4	7.13	108.65	105.80
1	5	1103	A	O5'-P-OP1	7.13	119.25	110.70
1	1	91	G	C5-C6-O6	-7.12	124.33	128.60
1	5	379	C	C6-N1-C2	7.12	123.15	120.30
1	5	1779	C	C2-N1-C1'	7.12	126.64	118.80
1	5	424	G	C5-C6-O6	-7.12	124.33	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	1382	G	N3-C4-C5	7.12	132.16	128.60
2	2	1600	A	N1-C6-N6	7.12	122.87	118.60
4	8	94	C	C6-N1-C2	7.12	123.15	120.30
1	5	400	G	C8-N9-C4	-7.12	103.55	106.40
1	5	2400	G	N3-C4-C5	7.11	132.16	128.60
1	5	2355	G	C5-C6-O6	-7.11	124.34	128.60
1	1	2827	U	C2-N3-C4	-7.11	122.74	127.00
1	1	979	U	C5-C4-O4	7.09	130.15	125.90
2	2	1058	U	N1-C2-O2	7.08	127.76	122.80
1	1	1578	C	C2-N1-C1'	7.08	126.58	118.80
1	5	1417	G	N1-C6-O6	7.08	124.15	119.90
2	6	194	U	C2-N1-C1'	7.08	126.19	117.70
1	1	315	C	C6-N1-C2	-7.07	117.47	120.30
12	C7	23	LYS	C-N-CA	7.07	139.38	121.70
2	2	1746	A	C8-N9-C4	7.07	108.63	105.80
1	5	1152	G	C4-C5-C6	-7.07	114.56	118.80
1	1	1589	A	N1-C6-N6	7.07	122.84	118.60
2	6	1458	G	N9-C4-C5	-7.07	102.57	105.40
1	5	1901	A	N1-C6-N6	-7.06	114.36	118.60
2	2	1148	C	C6-N1-C2	-7.06	117.47	120.30
2	2	1470	C	C6-N1-C2	-7.06	117.47	120.30
2	2	1316	G	O5'-P-OP2	-7.06	99.35	105.70
1	5	2572	C	C6-N1-C2	-7.06	117.48	120.30
1	5	3022	G	C8-N9-C4	-7.06	103.58	106.40
2	6	501	U	C2-N1-C1'	7.05	126.16	117.70
1	1	1604	G	N3-C4-N9	7.05	130.23	126.00
1	5	2817	A	C8-N9-C4	7.05	108.62	105.80
1	1	1581	C	P-O3'-C3'	7.05	128.16	119.70
2	2	1736	G	N1-C6-O6	7.04	124.13	119.90
2	6	1148	C	C6-N1-C2	-7.04	117.48	120.30
1	1	2896	A	N1-C6-N6	7.04	122.83	118.60
2	2	1324	G	N3-C4-N9	-7.04	121.77	126.00
2	6	750	U	C6-N1-C2	7.04	125.22	121.00
2	6	453	U	C2-N1-C1'	7.04	126.14	117.70
2	6	67	A	C8-N9-C4	7.03	108.61	105.80
1	1	1342	C	C6-N1-C2	7.03	123.11	120.30
1	1	2651	G	C5-C6-O6	-7.03	124.38	128.60
1	5	347	G	N1-C6-O6	7.03	124.12	119.90
1	1	2606	G	C6-C5-N7	-7.02	126.19	130.40
1	5	2624	G	N1-C6-O6	7.02	124.11	119.90
1	5	2816	G	C5-C6-N1	-7.02	107.99	111.50
1	1	895	A	C6-C5-N7	-7.02	127.39	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	285	A	N7-C8-N9	7.02	117.31	113.80
1	5	1152	G	C4-C5-N7	7.02	113.61	110.80
1	1	1444	G	C5-C6-O6	-7.02	124.39	128.60
1	1	200	C	N3-C4-C5	-7.01	119.09	121.90
1	1	510	G	N1-C6-O6	7.01	124.11	119.90
1	1	2278	C	C6-N1-C2	-7.01	117.50	120.30
1	5	3124	G	N1-C6-O6	7.01	124.11	119.90
2	6	1481	C	C6-N1-C2	-7.01	117.50	120.30
2	6	163	G	C8-N9-C4	-7.01	103.60	106.40
1	5	3195	U	C2-N1-C1'	7.01	126.11	117.70
1	1	2566	C	C6-N1-C2	-7.00	117.50	120.30
1	5	2272	G	OP1-P-O3'	7.00	120.60	105.20
1	5	3053	G	C6-C5-N7	-7.00	126.20	130.40
2	6	453	U	N1-C2-O2	6.99	127.70	122.80
1	5	3245	A	C8-N9-C4	-6.99	103.00	105.80
1	5	1329	U	P-O3'-C3'	6.99	128.09	119.70
1	1	2348	A	N1-C6-N6	-6.99	114.41	118.60
2	2	1059	U	C6-N1-C2	-6.98	116.81	121.00
1	5	3124	G	C4-C5-N7	6.98	113.59	110.80
1	1	1419	A	N1-C6-N6	6.98	122.79	118.60
1	1	637	C	P-O3'-C3'	6.98	128.07	119.70
1	1	2935	U	C5-C6-N1	6.96	126.18	122.70
1	5	726	G	N7-C8-N9	6.96	116.58	113.10
1	1	2174	G	N3-C4-C5	6.96	132.08	128.60
1	5	2873	U	C6-N1-C2	-6.96	116.82	121.00
2	2	1745	G	N3-C4-C5	-6.96	125.12	128.60
1	5	428	A	C8-N9-C4	6.96	108.58	105.80
1	5	2548	C	C5-C6-N1	6.96	124.48	121.00
1	1	1858	A	N1-C6-N6	-6.96	114.43	118.60
2	6	1286	U	C5-C4-O4	-6.96	121.73	125.90
1	1	2645	G	N1-C6-O6	6.95	124.07	119.90
2	2	1324	G	N3-C2-N2	-6.95	115.03	119.90
1	1	830	A	C8-N9-C4	6.95	108.58	105.80
2	2	1759	C	C6-N1-C2	6.95	123.08	120.30
1	5	332	C	C6-N1-C2	6.95	123.08	120.30
1	1	329	U	N1-C2-O2	6.95	127.66	122.80
2	2	369	A	C8-N9-C4	-6.94	103.02	105.80
1	5	1312	C	N3-C4-C5	-6.93	119.13	121.90
2	2	158	U	P-O3'-C3'	6.93	128.02	119.70
2	2	704	C	C6-N1-C2	-6.93	117.53	120.30
1	1	1609	C	C6-N1-C2	6.92	123.07	120.30
1	5	1303	A	N1-C6-N6	6.92	122.75	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	200	C	N3-C4-C5	-6.92	119.13	121.90
1	5	2288	G	O5'-P-OP1	-6.92	99.47	105.70
2	2	1754	A	C8-N9-C4	-6.92	103.03	105.80
1	1	1866	C	C2-N1-C1'	6.91	126.41	118.80
1	5	2920	U	O5'-P-OP1	-6.91	99.48	105.70
1	5	49	A	N1-C6-N6	6.91	122.75	118.60
1	5	1387	G	C8-N9-C4	-6.91	103.64	106.40
1	5	3053	G	N1-C6-O6	6.91	124.05	119.90
1	1	1858	A	N3-C4-C5	-6.90	121.97	126.80
1	1	1892	G	C8-N9-C4	6.90	109.16	106.40
3	3	7	G	C5-C6-O6	6.90	132.74	128.60
1	1	208	C	C6-N1-C2	-6.90	117.54	120.30
1	1	329	U	N3-C2-O2	-6.89	117.37	122.20
1	5	2315	G	N1-C6-O6	6.89	124.04	119.90
4	4	73	U	N3-C2-O2	-6.89	117.38	122.20
1	5	1459	C	C6-N1-C2	-6.89	117.54	120.30
1	1	1589	A	N9-C4-C5	-6.89	103.05	105.80
1	5	2139	A	O5'-P-OP2	-6.89	99.50	105.70
4	8	115	C	N3-C4-C5	6.89	124.66	121.90
1	5	402	A	O5'-P-OP1	-6.89	99.50	105.70
2	6	577	G	N1-C6-O6	6.88	124.03	119.90
1	1	1858	A	C2-N3-C4	6.88	114.04	110.60
2	2	1355	C	C6-N1-C2	-6.88	117.55	120.30
1	5	2169	G	N3-C4-N9	-6.87	121.88	126.00
1	1	91	G	C6-C5-N7	-6.87	126.28	130.40
1	5	3205	G	C5-C6-O6	-6.87	124.48	128.60
1	1	2298	U	O5'-P-OP2	-6.87	99.52	105.70
1	1	3269	U	P-O3'-C3'	6.87	127.94	119.70
2	2	626	U	C6-N1-C2	-6.87	116.88	121.00
1	5	2968	G	C6-C5-N7	-6.87	126.28	130.40
1	1	2679	A	C4-C5-N7	6.87	114.13	110.70
1	1	935	U	C6-N1-C2	-6.86	116.88	121.00
1	1	1348	U	C5-C6-N1	6.86	126.13	122.70
1	1	2568	C	C6-N1-C2	-6.85	117.56	120.30
2	2	617	U	C2-N1-C1'	6.85	125.92	117.70
2	6	1646	C	C6-N1-C2	-6.85	117.56	120.30
1	1	34	A	O5'-P-OP2	-6.85	99.53	105.70
1	1	1542	G	C5-C6-O6	-6.85	124.49	128.60
2	2	1061	A	O4'-C1'-N9	6.84	113.68	108.20
1	1	1493	G	C5-C6-O6	6.84	132.71	128.60
1	1	2817	A	C8-N9-C4	-6.84	103.06	105.80
2	2	704	C	N1-C2-O2	6.84	123.00	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2967	A	C5-C6-N6	-6.83	118.23	123.70
2	6	320	U	C6-N1-C2	-6.83	116.90	121.00
1	5	1328	C	C6-N1-C2	-6.83	117.57	120.30
1	5	3116	G	N1-C6-O6	-6.83	115.80	119.90
1	5	1149	G	N3-C4-N9	6.82	130.09	126.00
2	2	780	A	C8-N9-C4	-6.82	103.07	105.80
2	6	308	C	N3-C4-C5	6.82	124.63	121.90
1	1	1497	C	C6-N1-C2	6.81	123.03	120.30
1	1	1855	U	C6-N1-C2	-6.81	116.91	121.00
1	1	2965	U	N3-C4-C5	6.81	118.69	114.60
2	2	1083	G	C8-N9-C4	6.81	109.12	106.40
1	5	1531	C	C6-N1-C2	6.80	123.02	120.30
1	5	1000	C	C6-N1-C2	6.80	123.02	120.30
2	6	499	U	C6-N1-C2	-6.80	116.92	121.00
1	1	273	A	N1-C6-N6	-6.80	114.52	118.60
1	1	1417	G	N1-C6-O6	6.79	123.97	119.90
3	3	7	G	N1-C6-O6	-6.79	115.83	119.90
1	1	2606	G	C4-N9-C1'	6.79	135.32	126.50
1	1	1838	G	C4-C5-N7	6.79	113.51	110.80
1	5	2872	A	C2-N3-C4	6.79	113.99	110.60
1	5	2772	C	P-O3'-C3'	6.78	127.84	119.70
1	1	1888	U	N3-C2-O2	-6.78	117.45	122.20
1	1	2553	U	N3-C2-O2	-6.78	117.45	122.20
1	1	718	G	N3-C4-C5	6.78	131.99	128.60
1	5	827	A	O5'-P-OP1	-6.78	99.60	105.70
1	5	2952	G	C5-C6-O6	-6.78	124.53	128.60
21	D6	64	LEU	CA-CB-CG	6.77	130.88	115.30
1	1	660	A	C5-C6-N6	6.77	129.12	123.70
1	1	2572	C	N3-C2-O2	-6.77	117.16	121.90
1	1	1145	G	C6-C5-N7	-6.77	126.34	130.40
1	5	1149	G	C5-C6-O6	-6.77	124.54	128.60
2	6	131	C	C2-N1-C1'	6.76	126.24	118.80
1	1	283	G	C4-N9-C1'	6.76	135.29	126.50
1	1	1820	U	OP2-P-O3'	6.76	120.07	105.20
1	1	1157	G	N9-C4-C5	-6.75	102.70	105.40
2	6	337	G	C5-N7-C8	-6.75	100.92	104.30
2	6	1568	C	P-O3'-C3'	6.75	127.81	119.70
1	1	1194	G	N1-C6-O6	6.75	123.95	119.90
1	1	2821	C	N3-C4-C5	-6.75	119.20	121.90
1	5	2821	C	N1-C2-O2	6.75	122.95	118.90
1	5	1716	U	P-O3'-C3'	6.75	127.80	119.70
1	5	2403	G	C4-N9-C1'	6.75	135.28	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	2620	G	N3-C4-C5	6.75	131.97	128.60
12	C7	115	LEU	CA-CB-CG	6.75	130.81	115.30
1	1	2675	C	C2-N1-C1'	6.74	126.22	118.80
1	5	2249	G	N9-C1'-C2'	-6.74	104.58	112.00
1	5	2315	G	C6-C5-N7	-6.74	126.35	130.40
1	5	1145	G	N9-C4-C5	-6.74	102.70	105.40
1	1	2679	A	N9-C4-C5	-6.74	103.10	105.80
1	5	101	G	N1-C6-O6	6.74	123.94	119.90
1	5	867	G	N1-C6-O6	6.74	123.94	119.90
1	5	2416	U	O5'-P-OP2	-6.74	99.64	105.70
1	5	2600	C	C6-N1-C2	-6.74	117.61	120.30
1	5	1730	G	N3-C4-N9	6.73	130.04	126.00
1	1	1522	U	N3-C2-O2	-6.73	117.49	122.20
1	1	1362	G	C8-N9-C4	6.73	109.09	106.40
2	6	234	G	C4-N9-C1'	6.73	135.25	126.50
2	6	1582	U	C5-C6-N1	-6.73	119.34	122.70
1	1	1764	U	C5-C6-N1	6.72	126.06	122.70
2	2	794	U	N1-C2-O2	6.72	127.51	122.80
2	2	1600	A	C6-C5-N7	-6.72	127.59	132.30
1	1	1716	U	P-O3'-C3'	6.72	127.77	119.70
1	1	36	C	C6-N1-C2	-6.72	117.61	120.30
2	6	355	G	O5'-P-OP2	-6.72	99.66	105.70
1	5	2401	A	N9-C4-C5	-6.71	103.11	105.80
1	1	780	A	C4-C5-N7	-6.71	107.34	110.70
2	6	1277	G	N9-C4-C5	6.71	108.08	105.40
1	1	1929	G	C5-C6-O6	-6.71	124.58	128.60
1	5	1115	G	C4-N9-C1'	6.71	135.22	126.50
1	5	2405	C	C6-N1-C2	6.71	122.98	120.30
1	1	1780	G	C8-N9-C4	-6.71	103.72	106.40
1	5	2222	A	O5'-P-OP2	-6.70	99.67	105.70
1	5	2278	C	N1-C2-O2	6.70	122.92	118.90
1	1	1444	G	C4-C5-N7	6.70	113.48	110.80
2	6	558	U	C6-N1-C2	-6.70	116.98	121.00
2	6	1773	C	N3-C4-C5	-6.70	119.22	121.90
1	5	2872	A	C8-N9-C4	-6.70	103.12	105.80
1	1	1763	U	C6-N1-C2	-6.69	116.98	121.00
1	1	1493	G	C4-C5-N7	-6.69	108.12	110.80
2	6	338	C	C6-N1-C2	6.69	122.98	120.30
1	1	964	G	OP2-P-O3'	6.68	119.90	105.20
1	1	2360	C	C2-N3-C4	-6.68	116.56	119.90
3	3	8	G	C8-N9-C4	6.67	109.07	106.40
1	5	2837	A	C8-N9-C4	6.67	108.47	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	6	558	U	N1-C2-O2	6.67	127.47	122.80
1	1	793	C	C2-N1-C1'	6.67	126.13	118.80
75	s7	118	LEU	CA-CB-CG	6.67	130.63	115.30
1	1	1507	G	C4-C5-N7	6.66	113.47	110.80
3	3	29	C	C6-N1-C2	-6.66	117.64	120.30
1	5	94	G	N3-C4-C5	6.66	131.93	128.60
1	5	2251	G	C5-C6-O6	-6.66	124.61	128.60
1	5	2866	U	N3-C2-O2	-6.65	117.54	122.20
1	5	757	C	C6-N1-C2	6.65	122.96	120.30
1	1	1348	U	C2-N1-C1'	6.65	125.68	117.70
1	5	3260	G	N3-C4-C5	-6.64	125.28	128.60
1	1	1411	C	N3-C4-C5	6.64	124.56	121.90
2	2	1399	C	N1-C2-O2	6.64	122.88	118.90
2	6	389	G	N1-C6-O6	6.64	123.88	119.90
1	1	920	A	N1-C6-N6	6.64	122.58	118.60
1	1	2212	C	C6-N1-C2	-6.64	117.65	120.30
1	1	2944	U	C5-C6-N1	6.63	126.02	122.70
1	5	700	C	N3-C4-C5	-6.63	119.25	121.90
1	5	2374	C	O5'-P-OP1	-6.63	99.73	105.70
1	1	1663	C	C6-N1-C2	6.63	122.95	120.30
1	1	1586	G	N3-C4-N9	-6.62	122.03	126.00
1	1	1838	G	C5-C6-O6	-6.62	124.62	128.60
1	1	725	G	C8-N9-C4	6.62	109.05	106.40
1	1	116	A	N9-C4-C5	6.62	108.45	105.80
1	1	2708	C	C6-N1-C2	6.61	122.94	120.30
2	6	858	G	C6-C5-N7	-6.61	126.44	130.40
1	5	2965	U	C5-C4-O4	-6.60	121.94	125.90
1	1	2256	A	O4'-C1'-N9	6.60	113.48	108.20
1	5	420	G	C6-C5-N7	-6.60	126.44	130.40
1	1	2646	C	C6-N1-C2	6.60	122.94	120.30
1	5	282	G	C8-N9-C4	-6.60	103.76	106.40
1	5	1161	G	N1-C6-O6	6.60	123.86	119.90
1	1	65	A	P-O3'-C3'	6.60	127.62	119.70
1	1	2913	C	N1-C2-N3	-6.59	114.58	119.20
2	6	794	U	O5'-P-OP2	-6.59	99.77	105.70
1	1	92	G	C8-N9-C4	6.59	109.04	106.40
2	6	652	G	P-O3'-C3'	6.59	127.61	119.70
78	SM	171	PRO	N-CA-CB	6.59	111.21	103.30
2	2	852	C	C6-N1-C2	6.58	122.93	120.30
4	4	125	U	N3-C2-O2	-6.58	117.59	122.20
1	5	360	G	N3-C4-C5	-6.58	125.31	128.60
34	19	161	LEU	CA-CB-CG	6.58	130.44	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	3266	G	C5-C6-O6	6.58	132.55	128.60
2	6	151	G	N3-C4-N9	-6.58	122.05	126.00
1	5	2284	C	C2-N1-C1'	6.58	126.04	118.80
1	1	666	A	C8-N9-C4	6.57	108.43	105.80
7	C2	103	LEU	CA-CB-CG	6.57	130.42	115.30
1	1	432	G	C5-C6-N1	-6.57	108.22	111.50
1	1	886	C	C6-N1-C2	6.57	122.93	120.30
1	5	347	G	C4-C5-N7	6.57	113.43	110.80
1	1	2403	G	C6-C5-N7	-6.57	126.46	130.40
2	6	613	G	N3-C4-C5	-6.57	125.32	128.60
1	1	2726	C	N3-C2-O2	-6.57	117.30	121.90
1	1	645	A	C8-N9-C4	-6.56	103.17	105.80
1	1	1120	A	N1-C6-N6	-6.56	114.67	118.60
1	1	1202	A	N1-C6-N6	6.56	122.53	118.60
1	1	2311	G	O5'-P-OP1	-6.55	99.80	105.70
1	5	81	C	C6-N1-C2	-6.55	117.68	120.30
2	6	1059	U	C2-N1-C1'	6.55	125.57	117.70
1	5	2550	U	N3-C2-O2	-6.55	117.61	122.20
2	6	1762	A	OP1-P-O3'	-6.55	90.80	105.20
1	1	1327	C	N3-C4-C5	-6.55	119.28	121.90
2	2	569	C	C6-N1-C2	6.55	122.92	120.30
1	1	1443	G	C4-C5-N7	6.54	113.42	110.80
1	5	1146	C	C6-N1-C2	6.54	122.92	120.30
1	5	975	C	C6-N1-C2	6.54	122.92	120.30
2	6	377	G	N1-C6-O6	6.54	123.82	119.90
1	1	2965	U	C5-C4-O4	-6.54	121.98	125.90
1	1	3370	A	N1-C6-N6	6.54	122.52	118.60
28	l3	246	LEU	CA-CB-CG	6.54	130.34	115.30
1	5	99	A	N1-C6-N6	-6.54	114.68	118.60
1	5	1227	C	C6-N1-C2	-6.54	117.69	120.30
1	5	2366	C	C6-N1-C2	6.53	122.91	120.30
1	5	94	G	N3-C4-N9	-6.53	122.08	126.00
1	1	2418	G	C5-N7-C8	-6.53	101.04	104.30
1	5	1356	U	C6-N1-C2	-6.52	117.09	121.00
1	5	2315	G	C4-C5-N7	6.52	113.41	110.80
2	2	192	U	N3-C2-O2	-6.52	117.63	122.20
1	1	797	U	C6-N1-C2	-6.52	117.09	121.00
1	1	1435	A	N1-C6-N6	-6.52	114.69	118.60
2	2	1143	A	O5'-P-OP2	-6.52	99.83	105.70
2	2	1751	C	N3-C4-C5	6.52	124.51	121.90
1	1	2222	A	N1-C6-N6	-6.52	114.69	118.60
1	5	1930	A	C8-N9-C4	-6.52	103.19	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	2	344	A	C8-N9-C4	6.51	108.41	105.80
1	5	2821	C	C2-N1-C1'	6.51	125.97	118.80
1	1	3075	G	C4-C5-N7	6.51	113.41	110.80
1	5	1306	G	OP2-P-O3'	6.51	119.53	105.20
1	1	2284	C	N1-C2-O2	6.51	122.81	118.90
1	5	2170	U	O5'-P-OP1	-6.51	99.84	105.70
1	5	3311	C	N3-C4-C5	6.51	124.50	121.90
2	6	1041	G	C8-N9-C4	-6.51	103.80	106.40
1	5	2881	C	N3-C4-C5	6.51	124.50	121.90
1	1	667	C	C5-C6-N1	-6.50	117.75	121.00
2	2	1490	C	P-O3'-C3'	6.50	127.50	119.70
1	5	2817	A	N9-C4-C5	-6.50	103.20	105.80
1	5	2376	G	N3-C4-N9	6.50	129.90	126.00
4	4	44	A	O5'-P-OP1	-6.50	99.85	105.70
1	1	725	G	C4-N9-C1'	-6.50	118.06	126.50
1	1	2227	C	P-O3'-C3'	6.50	127.49	119.70
1	1	283	G	C8-N9-C1'	-6.49	118.56	127.00
1	1	793	C	C6-N1-C2	-6.49	117.70	120.30
1	1	979	U	P-O3'-C3'	6.49	127.48	119.70
1	1	2556	C	N3-C2-O2	-6.49	117.36	121.90
1	5	247	C	C6-N1-C2	-6.49	117.71	120.30
1	5	1161	G	C6-C5-N7	-6.48	126.51	130.40
2	6	136	C	N1-C2-O2	6.48	122.79	118.90
2	2	1572	G	C4-C5-N7	6.48	113.39	110.80
1	1	884	A	C5-C6-N6	-6.48	118.52	123.70
1	1	2282	U	O5'-P-OP2	-6.48	99.87	105.70
1	5	601	U	C5-C6-N1	6.48	125.94	122.70
2	6	1541	G	C5-C6-O6	6.48	132.49	128.60
1	1	915	A	N7-C8-N9	6.48	117.04	113.80
1	1	2606	G	C8-N9-C1'	-6.48	118.58	127.00
1	5	2877	G	N3-C4-N9	6.48	129.88	126.00
4	8	46	G	N1-C6-O6	-6.48	116.01	119.90
1	1	3194	C	C6-N1-C1'	-6.47	113.04	120.80
1	5	61	A	C8-N9-C4	-6.47	103.21	105.80
1	1	145	G	N3-C4-C5	-6.47	125.37	128.60
1	1	1403	C	N3-C4-C5	6.47	124.49	121.90
1	5	821	U	C6-N1-C2	-6.47	117.12	121.00
2	6	1039	A	O4'-C1'-N9	6.47	113.37	108.20
1	1	545	U	N3-C2-O2	-6.46	117.67	122.20
1	5	2598	G	O5'-P-OP2	-6.46	99.88	105.70
2	6	541	A	C8-N9-C4	-6.46	103.21	105.80
1	5	1103	A	N3-C4-C5	-6.46	122.28	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	6	939	A	C8-N9-C4	-6.46	103.22	105.80
1	1	919	U	N3-C2-O2	-6.46	117.68	122.20
1	5	1078	U	N1-C2-N3	6.46	118.78	114.90
1	5	1825	G	N1-C6-O6	-6.46	116.03	119.90
1	1	3042	U	C6-N1-C2	-6.46	117.13	121.00
1	5	384	A	C8-N9-C4	6.46	108.38	105.80
1	5	3043	C	C6-N1-C2	-6.46	117.72	120.30
1	1	1145	G	N9-C4-C5	-6.46	102.82	105.40
1	1	645	A	C4-C5-N7	-6.45	107.47	110.70
1	5	2325	G	N3-C4-C5	6.45	131.83	128.60
1	1	251	G	C4-N9-C1'	6.45	134.89	126.50
1	1	1145	G	C5-C6-O6	-6.45	124.73	128.60
1	1	2996	U	C6-N1-C1'	-6.45	112.17	121.20
1	1	966	U	C6-N1-C2	-6.45	117.13	121.00
1	1	2616	C	C6-N1-C2	6.45	122.88	120.30
1	1	232	G	O4'-C1'-N9	6.44	113.35	108.20
1	5	1863	G	C8-N9-C4	6.44	108.98	106.40
1	1	1306	G	C4-C5-N7	6.44	113.38	110.80
1	1	1542	G	C6-C5-N7	-6.44	126.53	130.40
32	17	229	PHE	CB-CG-CD1	6.44	125.31	120.80
1	1	793	C	N3-C2-O2	-6.44	117.39	121.90
1	5	1308	A	N9-C4-C5	6.44	108.37	105.80
1	1	1402	C	C6-N1-C2	6.43	122.87	120.30
1	1	2735	U	C6-N1-C2	-6.43	117.14	121.00
1	1	1169	A	N1-C6-N6	-6.43	114.74	118.60
1	1	1865	A	N9-C4-C5	-6.43	103.23	105.80
1	5	3209	A	C8-N9-C4	6.43	108.37	105.80
1	1	3080	G	C5-C6-O6	-6.43	124.74	128.60
1	1	2606	G	N3-C4-N9	6.42	129.85	126.00
4	4	33	A	O5'-P-OP2	6.42	118.40	110.70
1	1	2922	G	C4-N9-C1'	6.41	134.84	126.50
1	5	1324	U	C6-N1-C2	6.41	124.85	121.00
1	5	2241	U	C5-C4-O4	6.41	129.75	125.90
1	1	545	U	N1-C2-O2	6.41	127.29	122.80
2	6	163	G	N9-C4-C5	6.41	107.96	105.40
1	1	2867	C	N3-C2-O2	6.41	126.39	121.90
1	1	867	G	C5-C6-O6	-6.41	124.76	128.60
2	6	455	C	C6-N1-C2	-6.41	117.74	120.30
1	1	924	G	C8-N9-C4	-6.40	103.84	106.40
1	1	2645	G	C6-C5-N7	-6.40	126.56	130.40
1	5	3039	C	C6-N1-C2	6.40	122.86	120.30
1	5	3382	U	N1-C2-O2	6.40	127.28	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	1143	A	C8-N9-C4	6.40	108.36	105.80
2	2	507	U	C2-N1-C1'	6.40	125.38	117.70
1	5	2824	G	C6-C5-N7	-6.40	126.56	130.40
1	1	1516	C	C6-N1-C2	6.40	122.86	120.30
1	5	2651	G	N1-C6-O6	6.39	123.74	119.90
1	1	2209	U	C5-C6-N1	6.39	125.90	122.70
1	1	923	C	C6-N1-C2	6.39	122.86	120.30
1	5	203	G	N1-C6-O6	-6.39	116.06	119.90
2	2	320	U	O5'-P-OP1	-6.39	99.95	105.70
1	5	2231	C	C2-N1-C1'	6.39	125.83	118.80
1	5	1078	U	N1-C2-O2	-6.38	118.33	122.80
2	6	577	G	C4-C5-N7	6.38	113.35	110.80
1	1	1604	G	C6-C5-N7	-6.38	126.57	130.40
1	1	1148	G	C8-N9-C4	6.38	108.95	106.40
1	5	2727	A	N1-C6-N6	-6.38	114.77	118.60
1	1	1443	G	N3-C2-N2	-6.38	115.43	119.90
1	5	3278	C	N3-C2-O2	-6.38	117.44	121.90
2	2	577	G	N1-C6-O6	6.38	123.72	119.90
1	1	1166	G	C4-C5-N7	6.37	113.35	110.80
2	2	794	U	C2-N1-C1'	6.37	125.34	117.70
2	6	266	A	C8-N9-C4	6.37	108.35	105.80
40	m6	27	LEU	CA-CB-CG	-6.37	100.65	115.30
2	2	590	C	C6-N1-C2	-6.37	117.75	120.30
1	5	635	G	C8-N9-C4	6.37	108.95	106.40
2	2	1456	C	C2-N1-C1'	6.37	125.80	118.80
1	1	2556	C	N1-C2-O2	6.37	122.72	118.90
2	2	553	G	C6-C5-N7	-6.37	126.58	130.40
2	2	1572	G	N1-C6-O6	6.37	123.72	119.90
1	5	637	C	C6-N1-C2	6.37	122.85	120.30
1	1	336	A	N9-C4-C5	-6.36	103.25	105.80
2	2	1768	G	N1-C6-O6	-6.36	116.08	119.90
1	1	2311	G	N1-C6-O6	6.36	123.72	119.90
1	5	2852	C	N3-C4-C5	-6.36	119.36	121.90
2	6	1059	U	O4'-C1'-N1	6.36	113.29	108.20
1	1	3053	G	N1-C6-O6	6.36	123.72	119.90
2	2	934	C	C2-N1-C1'	6.36	125.79	118.80
2	6	1340	U	C2-N1-C1'	6.36	125.33	117.70
2	2	364	G	C8-N9-C4	6.35	108.94	106.40
2	2	1370	U	P-O3'-C3'	6.35	127.32	119.70
9	C4	137	LEU	CA-CB-CG	6.35	129.91	115.30
1	1	1435	A	C6-N1-C2	-6.35	114.79	118.60
1	1	657	A	OP1-P-O3'	6.35	119.17	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	2	614	C	C6-N1-C2	-6.35	117.76	120.30
1	1	1028	U	OP2-P-O3'	6.35	119.17	105.20
2	6	779	U	O4'-C1'-N1	6.35	113.28	108.20
1	1	914	A	N9-C4-C5	6.35	108.34	105.80
1	1	2608	G	N7-C8-N9	-6.35	109.93	113.10
1	5	1581	C	N3-C4-C5	6.34	124.44	121.90
1	1	3218	A	N1-C6-N6	6.34	122.41	118.60
1	1	2913	C	N3-C2-O2	6.34	126.34	121.90
1	1	3217	C	N3-C2-O2	-6.34	117.46	121.90
1	5	311	C	C6-N1-C2	-6.34	117.76	120.30
1	1	1542	G	N1-C6-O6	6.34	123.70	119.90
1	1	2696	A	O5'-P-OP2	-6.34	100.00	105.70
1	5	2381	G	N1-C6-O6	6.34	123.70	119.90
2	6	696	C	C6-N1-C2	-6.34	117.76	120.30
1	5	833	G	N9-C4-C5	-6.34	102.87	105.40
1	5	2927	C	N3-C4-C5	6.34	124.43	121.90
1	1	2937	G	C4-C5-N7	6.33	113.33	110.80
1	5	979	U	N3-C2-O2	-6.33	117.77	122.20
1	1	2828	G	N1-C6-O6	-6.33	116.10	119.90
2	2	1082	C	C2-N1-C1'	6.33	125.76	118.80
1	5	1701	C	C6-N1-C2	-6.33	117.77	120.30
1	5	3344	A	C8-N9-C4	6.33	108.33	105.80
2	6	1398	U	C2-N1-C1'	6.33	125.29	117.70
1	5	2957	G	N3-C4-C5	6.33	131.76	128.60
2	2	1399	C	N3-C2-O2	-6.32	117.47	121.90
1	1	1206	G	C8-N9-C4	-6.32	103.87	106.40
3	3	114	U	O5'-P-OP2	-6.32	100.01	105.70
1	1	651	G	C6-C5-N7	-6.32	126.61	130.40
1	1	979	U	N1-C2-N3	6.32	118.69	114.90
2	2	577	G	C4-C5-N7	6.31	113.33	110.80
2	6	682	C	C6-N1-C2	-6.31	117.77	120.30
1	1	1422	G	C6-C5-N7	-6.31	126.61	130.40
1	1	28	C	C5-C6-N1	-6.31	117.85	121.00
2	2	1154	G	N1-C6-O6	-6.31	116.11	119.90
1	5	1053	A	N1-C6-N6	6.31	122.38	118.60
1	5	2177	G	C8-N9-C4	6.31	108.92	106.40
1	1	1554	U	N1-C2-O2	-6.30	118.39	122.80
1	5	2934	A	N1-C6-N6	6.30	122.38	118.60
1	1	2158	A	N1-C6-N6	6.30	122.38	118.60
1	1	2209	U	C2-N1-C1'	6.30	125.26	117.70
1	1	2553	U	N1-C2-O2	6.30	127.21	122.80
4	4	82	U	C2-N1-C1'	6.30	125.26	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2873	U	N3-C2-O2	-6.30	117.79	122.20
1	1	2263	C	C6-N1-C2	6.30	122.82	120.30
1	5	274	G	C8-N9-C4	6.30	108.92	106.40
1	1	3139	A	C8-N9-C4	-6.29	103.28	105.80
1	1	2247	G	C8-N9-C4	-6.29	103.88	106.40
1	5	860	G	N9-C4-C5	-6.29	102.88	105.40
2	6	192	U	C2-N1-C1'	6.29	125.25	117.70
1	5	1779	C	N3-C4-N4	6.29	122.40	118.00
1	1	1413	G	C6-C5-N7	-6.28	126.63	130.40
1	1	73	C	C6-N1-C2	-6.28	117.79	120.30
1	1	1852	G	C4-C5-N7	6.28	113.31	110.80
1	1	2818	U	O5'-P-OP1	-6.28	100.05	105.70
1	5	1188	U	N3-C2-O2	-6.28	117.80	122.20
1	1	3098	G	C5-C6-N1	6.28	114.64	111.50
1	1	639	G	N3-C4-C5	6.28	131.74	128.60
2	2	1059	U	N1-C2-O2	6.28	127.19	122.80
1	5	2873	U	N3-C2-O2	-6.28	117.81	122.20
1	1	234	G	O5'-P-OP1	-6.27	100.05	105.70
1	1	3278	C	C2-N1-C1'	6.27	125.70	118.80
2	2	543	C	C4-C5-C6	6.27	120.54	117.40
1	5	366	A	C8-N9-C4	6.27	108.31	105.80
1	5	3245	A	C2-N3-C4	-6.27	107.47	110.60
2	6	1560	U	N3-C2-O2	-6.27	117.81	122.20
1	1	1400	G	N1-C6-O6	-6.27	116.14	119.90
1	5	435	C	C6-N1-C2	6.27	122.81	120.30
1	5	1839	A	N7-C8-N9	-6.27	110.67	113.80
1	1	1866	C	C6-N1-C1'	-6.27	113.28	120.80
1	5	2945	G	O5'-P-OP2	-6.27	100.06	105.70
1	1	1114	U	N3-C4-C5	-6.26	110.84	114.60
1	1	1815	U	P-O3'-C3'	6.26	127.22	119.70
1	5	1495	U	C6-N1-C2	-6.26	117.24	121.00
1	1	2651	G	N1-C6-O6	6.26	123.66	119.90
2	2	130	C	C6-N1-C2	-6.26	117.80	120.30
1	5	2600	C	C5-C6-N1	6.26	124.13	121.00
1	1	282	G	P-O3'-C3'	6.26	127.21	119.70
1	1	1157	G	C8-N9-C4	6.26	108.90	106.40
1	1	1404	G	N1-C6-O6	6.26	123.65	119.90
2	2	1096	C	C6-N1-C2	-6.26	117.80	120.30
1	5	3100	U	C6-N1-C2	6.26	124.75	121.00
2	6	653	C	C5-C6-N1	6.26	124.13	121.00
1	1	1482	A	O5'-P-OP2	-6.25	100.07	105.70
1	1	1102	A	C8-N9-C4	6.25	108.30	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2152	A	C8-N9-C4	-6.25	103.30	105.80
1	5	359	U	C6-N1-C2	-6.25	117.25	121.00
1	1	2730	G	N3-C4-N9	-6.25	122.25	126.00
34	L9	191	LEU	CA-CB-CG	6.25	129.67	115.30
1	1	2818	U	N3-C2-O2	6.25	126.57	122.20
1	1	935	U	N3-C2-O2	-6.25	117.83	122.20
1	1	2256	A	OP1-P-O3'	6.25	118.94	105.20
2	6	1042	G	N1-C6-O6	6.24	123.64	119.90
1	1	1166	G	N1-C6-O6	6.24	123.64	119.90
1	1	1438	U	C6-N1-C2	-6.24	117.26	121.00
1	1	2818	U	N3-C4-O4	6.24	123.77	119.40
4	4	14	C	C2-N1-C1'	-6.24	111.94	118.80
1	1	1889	G	C5-C6-O6	-6.24	124.86	128.60
1	5	2935	U	C5-C6-N1	6.24	125.82	122.70
1	1	1581	C	C6-N1-C2	-6.23	117.81	120.30
2	2	864	U	C2-N1-C1'	6.23	125.18	117.70
1	1	1157	G	N1-C6-O6	6.23	123.64	119.90
1	1	2933	A	N1-C6-N6	-6.23	114.86	118.60
1	5	1413	G	C4-C5-N7	6.23	113.29	110.80
2	2	1490	C	C6-N1-C2	-6.23	117.81	120.30
1	1	2603	G	O5'-P-OP2	-6.23	100.10	105.70
1	5	809	G	C5-C6-O6	-6.23	124.86	128.60
1	1	1480	G	C4-C5-N7	6.22	113.29	110.80
2	2	136	C	C2-N1-C1'	6.22	125.65	118.80
1	5	1413	G	C5-C6-O6	-6.22	124.87	128.60
1	1	224	C	C5-C4-N4	-6.22	115.85	120.20
1	1	1348	U	N3-C2-O2	-6.22	117.85	122.20
2	6	638	U	N1-C2-O2	6.22	127.15	122.80
1	1	793	C	N1-C2-O2	6.22	122.63	118.90
1	1	2620	G	N3-C4-C5	6.22	131.71	128.60
1	5	1779	C	C5-C6-N1	6.22	124.11	121.00
1	5	1331	U	C6-N1-C2	6.21	124.73	121.00
1	5	1145	G	C6-C5-N7	-6.21	126.67	130.40
1	5	1156	C	C6-N1-C2	6.21	122.78	120.30
2	6	418	G	C8-N9-C4	6.21	108.88	106.40
4	4	54	A	C5-N7-C8	-6.21	100.80	103.90
2	2	305	C	C6-N1-C2	6.20	122.78	120.30
1	5	1200	A	N1-C6-N6	6.20	122.32	118.60
2	2	1324	G	N9-C4-C5	6.20	107.88	105.40
2	6	607	G	C5-C6-O6	-6.20	124.88	128.60
1	5	2386	A	C8-N9-C4	6.20	108.28	105.80
2	6	302	U	C5-C6-N1	6.20	125.80	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	822	G	C8-N9-C4	-6.20	103.92	106.40
1	5	988	U	C6-N1-C2	6.20	124.72	121.00
1	1	3084	C	N3-C4-C5	-6.20	119.42	121.90
2	6	171	A	N1-C2-N3	6.20	132.40	129.30
1	1	2862	U	C5-C6-N1	-6.19	119.60	122.70
1	1	1437	C	C6-N1-C2	-6.19	117.82	120.30
2	2	308	C	N3-C4-C5	6.19	124.38	121.90
2	6	1600	A	C6-C5-N7	-6.19	127.97	132.30
1	5	2132	C	C5-C6-N1	6.19	124.09	121.00
2	2	794	U	P-O3'-C3'	6.19	127.12	119.70
2	6	741	C	C6-N1-C2	6.18	122.77	120.30
1	1	1016	C	C6-N1-C2	-6.18	117.83	120.30
1	1	1508	C	C6-N1-C2	-6.18	117.83	120.30
2	6	1097	U	P-O3'-C3'	6.18	127.12	119.70
1	1	350	C	C6-N1-C2	-6.18	117.83	120.30
2	2	1258	U	N3-C2-O2	-6.18	117.87	122.20
1	1	3269	U	N1-C2-O2	6.18	127.12	122.80
2	2	780	A	N1-C2-N3	6.18	132.39	129.30
1	5	1520	G	C5-C6-O6	-6.18	124.89	128.60
3	7	82	G	N1-C6-O6	-6.18	116.19	119.90
1	1	2860	U	N1-C2-O2	6.18	127.12	122.80
1	5	2715	A	N9-C4-C5	-6.18	103.33	105.80
2	2	1597	A	N1-C6-N6	6.18	122.31	118.60
1	5	1858	A	C8-N9-C4	-6.17	103.33	105.80
2	6	217	A	P-O3'-C3'	6.17	127.11	119.70
1	1	2943	G	C6-C5-N7	-6.17	126.70	130.40
2	6	765	G	C5-N7-C8	6.17	107.39	104.30
1	1	2818	U	C5-C4-O4	-6.17	122.20	125.90
1	1	1076	C	O5'-P-OP2	-6.17	100.15	105.70
2	2	734	A	P-O3'-C3'	6.17	127.10	119.70
1	1	1382	G	C8-N9-C4	6.17	108.87	106.40
1	5	1436	U	N1-C2-O2	6.16	127.11	122.80
2	2	261	U	N3-C2-O2	-6.16	117.89	122.20
1	5	2612	U	N3-C4-O4	6.16	123.71	119.40
1	5	2892	A	N1-C6-N6	6.16	122.30	118.60
4	8	140	G	N1-C6-O6	6.16	123.60	119.90
1	1	1158	A	O5'-P-OP2	-6.16	100.16	105.70
1	1	2256	A	P-O3'-C3'	6.16	127.09	119.70
1	1	2257	C	N1-C2-O2	6.16	122.59	118.90
1	1	2554	A	P-O3'-C3'	6.16	127.09	119.70
1	5	1633	C	C2-N1-C1'	6.16	125.57	118.80
1	1	2263	C	N3-C4-C5	6.16	124.36	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	2376	G	N1-C6-O6	6.16	123.59	119.90
1	5	663	C	C6-N1-C2	-6.15	117.84	120.30
2	6	558	U	P-O3'-C3'	6.15	127.08	119.70
2	2	704	C	N3-C2-O2	-6.15	117.59	121.90
1	5	2872	A	N3-C4-C5	-6.15	122.49	126.80
1	1	1578	C	C5-C6-N1	6.15	124.08	121.00
1	1	3333	G	N1-C6-O6	-6.15	116.21	119.90
1	5	799	G	N1-C6-O6	6.15	123.59	119.90
2	6	276	C	C6-N1-C2	6.15	122.76	120.30
1	5	1149	G	C6-C5-N7	-6.15	126.71	130.40
1	5	2822	U	C5-C6-N1	6.15	125.78	122.70
2	6	765	G	N7-C8-N9	-6.15	110.03	113.10
1	1	2568	C	C2-N1-C1'	6.15	125.56	118.80
5	c0	83	PRO	N-CA-CB	6.15	110.68	103.30
1	1	3382	U	C6-N1-C2	-6.15	117.31	121.00
75	S7	31	SER	N-CA-C	6.15	127.59	111.00
1	5	427	C	C6-N1-C2	6.14	122.76	120.30
1	5	2403	G	C8-N9-C1'	-6.14	119.01	127.00
1	1	302	U	N3-C2-O2	-6.14	117.90	122.20
1	5	651	G	C5-C6-O6	-6.14	124.92	128.60
1	1	1399	A	N3-C4-C5	6.14	131.10	126.80
2	2	1745	G	C4-N9-C1'	6.14	134.48	126.50
1	1	2809	C	C5-C6-N1	6.14	124.07	121.00
1	1	669	U	C6-N1-C2	6.14	124.68	121.00
3	3	26	C	C6-N1-C2	-6.14	117.84	120.30
1	5	2606	G	N3-C2-N2	6.14	124.20	119.90
1	5	3089	C	N3-C2-O2	-6.14	117.61	121.90
17	D2	104	LEU	CA-CB-CG	6.14	129.41	115.30
1	1	2820	A	C4-C5-C6	-6.13	113.93	117.00
1	5	3089	C	N1-C2-O2	6.13	122.58	118.90
3	7	93	C	C2-N3-C4	-6.13	116.83	119.90
1	1	1589	A	C5-C6-N6	-6.13	118.80	123.70
1	1	891	G	N9-C4-C5	-6.13	102.95	105.40
1	1	2340	U	C5-C6-N1	6.13	125.76	122.70
1	5	2105	G	C8-N9-C4	6.13	108.85	106.40
2	6	460	A	O5'-P-OP1	-6.13	100.18	105.70
1	5	2332	A	N1-C6-N6	6.13	122.28	118.60
1	5	2362	C	N3-C2-O2	-6.13	117.61	121.90
1	5	2949	U	C5-C6-N1	-6.12	119.64	122.70
1	5	405	U	OP2-P-O3'	6.12	118.67	105.20
1	5	1303	A	N9-C4-C5	-6.12	103.35	105.80
1	5	3069	G	C5-C6-O6	6.12	132.27	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	8	105	A	N1-C6-N6	6.12	122.27	118.60
1	1	2825	C	N1-C2-O2	6.12	122.57	118.90
1	5	2837	A	N9-C4-C5	-6.12	103.35	105.80
1	1	2899	C	N3-C2-O2	-6.12	117.62	121.90
2	2	1739	C	C6-N1-C2	6.12	122.75	120.30
2	6	1490	C	C5-C6-N1	6.12	124.06	121.00
2	6	1211	A	C8-N9-C4	-6.12	103.35	105.80
1	5	1417	G	C4-C5-N7	6.12	113.25	110.80
2	6	1286	U	C5-C6-N1	6.12	125.76	122.70
1	1	1677	G	N1-C6-O6	6.11	123.57	119.90
2	2	192	U	C6-N1-C2	-6.11	117.33	121.00
1	1	2620	G	N1-C6-O6	6.11	123.57	119.90
1	1	1938	U	C6-N1-C2	6.11	124.67	121.00
1	5	609	G	O5'-P-OP2	-6.11	100.20	105.70
1	5	1028	U	N1-C2-O2	6.11	127.08	122.80
1	5	1902	G	N1-C6-O6	6.11	123.56	119.90
1	5	2325	G	C4-C5-N7	6.11	113.24	110.80
1	1	1720	U	C5-C4-O4	6.11	129.56	125.90
1	5	1115	G	C6-C5-N7	-6.11	126.74	130.40
1	1	635	G	O5'-P-OP2	6.10	118.02	110.70
1	1	1654	A	C8-N9-C4	6.10	108.24	105.80
1	1	92	G	C5-C6-O6	-6.10	124.94	128.60
1	5	1878	G	C8-N9-C4	-6.10	103.96	106.40
1	5	1150	A	C8-N9-C4	-6.10	103.36	105.80
1	5	2169	G	C6-C5-N7	6.10	134.06	130.40
1	1	200	C	N1-C2-O2	-6.10	115.24	118.90
1	1	222	A	N1-C6-N6	6.10	122.26	118.60
1	1	508	U	C6-N1-C2	-6.10	117.34	121.00
1	1	3382	U	N3-C2-O2	-6.10	117.93	122.20
1	5	297	G	O4'-C1'-N9	6.10	113.08	108.20
1	5	359	U	N1-C2-N3	6.10	118.56	114.90
1	5	639	G	C8-N9-C4	6.10	108.84	106.40
1	1	439	C	C5-C6-N1	6.09	124.05	121.00
1	1	2139	A	OP1-P-O3'	6.09	118.61	105.20
1	5	873	C	P-O3'-C3'	6.09	127.01	119.70
2	6	306	U	C6-N1-C2	6.09	124.66	121.00
2	6	377	G	C5-C6-O6	-6.09	124.94	128.60
1	5	1375	G	C5-C6-O6	-6.09	124.94	128.60
1	1	3370	A	O5'-P-OP2	-6.09	100.22	105.70
1	1	2794	G	N3-C4-C5	6.09	131.64	128.60
1	1	63	A	C4-C5-C6	6.08	120.04	117.00
1	5	1196	C	C5-C4-N4	6.08	124.46	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	61	A	N9-C4-C5	6.08	108.23	105.80
1	5	2433	U	C6-N1-C2	6.08	124.65	121.00
2	2	507	U	N1-C2-O2	6.08	127.06	122.80
1	5	776	U	N3-C2-O2	-6.08	117.94	122.20
1	5	1906	G	N1-C6-O6	6.08	123.55	119.90
1	1	2147	A	C8-N9-C4	6.08	108.23	105.80
1	5	2246	G	N1-C6-O6	6.08	123.55	119.90
2	6	1489	U	C5-C6-N1	6.08	125.74	122.70
1	1	2381	G	C5-C6-O6	-6.08	124.95	128.60
1	5	3269	U	C6-N1-C2	-6.08	117.35	121.00
4	4	140	G	C5-C6-O6	-6.07	124.96	128.60
1	5	525	C	C6-N1-C2	-6.07	117.87	120.30
1	1	827	A	C8-N9-C4	6.07	108.23	105.80
1	5	2872	A	P-O3'-C3'	6.07	126.98	119.70
44	N0	24	LEU	CA-CB-CG	6.07	129.26	115.30
1	1	1764	U	C6-N1-C2	-6.07	117.36	121.00
17	d2	93	LEU	CA-CB-CG	6.07	129.26	115.30
1	1	1306	G	C8-N9-C1'	-6.07	119.11	127.00
1	1	2922	G	C8-N9-C1'	-6.06	119.12	127.00
1	1	370	U	O5'-P-OP2	-6.06	100.24	105.70
1	5	3022	G	N9-C4-C5	6.06	107.83	105.40
1	5	291	C	C6-N1-C2	6.06	122.72	120.30
2	6	321	C	N1-C2-O2	6.06	122.54	118.90
1	1	1495	U	C2-N1-C1'	-6.06	110.43	117.70
1	1	2612	U	C2-N1-C1'	6.06	124.97	117.70
1	1	2613	U	C6-N1-C2	-6.06	117.36	121.00
1	1	1943	C	C6-N1-C2	-6.06	117.88	120.30
1	5	2809	C	N3-C4-C5	-6.06	119.48	121.90
2	6	302	U	C2-N1-C1'	6.06	124.97	117.70
1	1	352	A	C8-N9-C4	6.05	108.22	105.80
1	1	1819	U	C5-C6-N1	6.05	125.73	122.70
2	2	1782	A	C5-C6-N1	-6.05	114.67	117.70
1	5	3076	C	C5-C6-N1	6.05	124.03	121.00
1	1	1365	G	C8-N9-C4	-6.05	103.98	106.40
1	5	638	C	C6-N1-C2	-6.05	117.88	120.30
2	2	1291	G	C5-N7-C8	-6.05	101.27	104.30
2	2	1745	G	C8-N9-C1'	-6.05	119.14	127.00
1	5	1520	G	N1-C6-O6	6.05	123.53	119.90
1	5	2606	G	C8-N9-C1'	-6.05	119.14	127.00
1	5	3180	A	C8-N9-C4	6.05	108.22	105.80
2	2	1339	C	P-O3'-C3'	6.05	126.96	119.70
2	2	1465	C	C6-N1-C2	-6.05	117.88	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	3362	A	O4'-C1'-N9	6.05	113.04	108.20
1	1	2987	A	N1-C6-N6	6.04	122.23	118.60
4	4	11	C	C6-N1-C2	-6.04	117.88	120.30
1	5	409	A	O5'-P-OP1	-6.04	100.26	105.70
1	1	1095	U	C6-N1-C2	-6.04	117.38	121.00
2	2	782	U	P-O3'-C3'	6.04	126.95	119.70
2	2	497	G	P-O3'-C3'	6.04	126.94	119.70
1	1	901	G	O5'-P-OP1	-6.04	100.27	105.70
1	5	3092	C	O5'-P-OP2	6.04	117.94	110.70
3	7	92	A	O5'-P-OP1	-6.04	100.27	105.70
1	1	1003	A	O5'-P-OP1	-6.03	100.27	105.70
2	2	1757	G	C8-N9-C4	-6.03	103.99	106.40
2	2	1611	A	N1-C2-N3	6.03	132.31	129.30
1	5	1211	U	C5-C6-N1	-6.03	119.69	122.70
2	6	1457	C	N1-C2-O2	6.03	122.52	118.90
2	6	1511	U	C6-N1-C2	-6.03	117.38	121.00
1	5	420	G	N1-C6-O6	6.02	123.51	119.90
1	1	115	A	C8-N9-C4	6.02	108.21	105.80
1	5	2381	G	C5-C6-O6	-6.02	124.99	128.60
1	1	1930	A	C8-N9-C4	-6.02	103.39	105.80
1	5	1793	C	N3-C4-C5	6.02	124.31	121.90
2	6	992	A	C8-N9-C4	6.02	108.21	105.80
1	1	1404	G	N3-C4-C5	6.02	131.61	128.60
1	1	1865	A	C8-N9-C4	6.02	108.21	105.80
1	1	2613	U	N1-C2-N3	6.02	118.51	114.90
1	1	3012	A	C2-N3-C4	-6.02	107.59	110.60
1	5	2507	C	C6-N1-C2	-6.02	117.89	120.30
1	1	1454	A	N9-C4-C5	-6.01	103.39	105.80
1	1	817	A	O5'-P-OP1	-6.01	100.29	105.70
1	1	2355	G	C5-C6-O6	-6.01	124.99	128.60
2	2	1399	C	C2-N1-C1'	6.01	125.41	118.80
1	5	2326	A	N1-C6-N6	6.01	122.21	118.60
1	1	2139	A	N1-C6-N6	-6.01	114.99	118.60
2	2	1032	G	C8-N9-C4	6.01	108.80	106.40
1	5	1081	U	P-O3'-C3'	6.01	126.91	119.70
1	5	2779	A	O5'-P-OP1	-6.01	100.29	105.70
2	6	639	U	N3-C2-O2	-6.01	117.99	122.20
2	2	1572	G	N9-C4-C5	-6.01	103.00	105.40
1	1	2967	A	N9-C4-C5	-6.01	103.40	105.80
1	5	3286	G	N1-C6-O6	-6.01	116.30	119.90
2	6	542	A	P-O3'-C3'	6.01	126.91	119.70
2	2	321	C	N1-C2-O2	6.00	122.50	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	2	1733	C	C6-N1-C2	6.00	122.70	120.30
1	5	1183	C	C6-N1-C2	6.00	122.70	120.30
1	5	31	C	N3-C4-C5	6.00	124.30	121.90
1	5	1196	C	N3-C2-O2	-6.00	117.70	121.90
1	5	2156	C	C5-C6-N1	-6.00	118.00	121.00
2	6	576	G	N1-C6-O6	6.00	123.50	119.90
1	5	227	G	N3-C4-N9	6.00	129.60	126.00
1	5	432	G	N1-C6-O6	6.00	123.50	119.90
1	5	644	G	N9-C4-C5	6.00	107.80	105.40
2	6	433	C	O5'-P-OP1	-5.99	100.31	105.70
1	1	2735	U	C2-N1-C1'	5.99	124.89	117.70
1	1	3217	C	C6-N1-C1'	-5.99	113.61	120.80
1	5	227	G	N3-C4-C5	-5.99	125.61	128.60
1	5	3101	G	N1-C6-O6	5.99	123.49	119.90
2	6	1426	C	C6-N1-C2	5.99	122.69	120.30
1	1	1353	U	C6-N1-C2	-5.99	117.41	121.00
2	6	1568	C	C6-N1-C2	-5.99	117.91	120.30
1	5	1849	C	C2-N3-C4	-5.98	116.91	119.90
1	5	2403	G	N3-C4-N9	5.98	129.59	126.00
1	5	3135	U	N3-C4-O4	5.98	123.59	119.40
1	5	2313	A	C4-C5-N7	-5.98	107.71	110.70
1	1	966	U	C5-C6-N1	5.98	125.69	122.70
1	5	2651	G	C5-C6-O6	-5.98	125.01	128.60
1	5	1483	G	O4'-C1'-N9	5.98	112.98	108.20
1	1	291	C	C2-N1-C1'	-5.97	112.23	118.80
1	1	2142	A	O5'-P-OP2	-5.97	100.32	105.70
2	6	163	G	N3-C4-N9	-5.97	122.42	126.00
2	6	1607	G	C6-C5-N7	-5.97	126.81	130.40
1	1	73	C	N3-C4-C5	-5.97	119.51	121.90
1	1	570	A	N1-C6-N6	5.97	122.18	118.60
2	2	863	A	O4'-C1'-N9	5.97	112.98	108.20
1	5	2860	U	N1-C2-O2	5.97	126.98	122.80
1	1	798	G	C8-N9-C4	-5.97	104.01	106.40
1	1	2360	C	N3-C4-C5	5.97	124.29	121.90
3	3	58	C	C6-N1-C2	-5.97	117.91	120.30
1	5	2911	A	O5'-P-OP2	-5.97	100.33	105.70
50	N6	126	LEU	CA-CB-CG	5.97	129.03	115.30
1	1	2893	C	O5'-P-OP1	-5.97	100.33	105.70
2	2	73	U	OP1-P-O3'	5.97	118.33	105.20
1	5	1775	G	C5-C6-O6	-5.97	125.02	128.60
1	1	28	C	C2-N3-C4	-5.96	116.92	119.90
1	1	3195	U	C5-C6-N1	5.96	125.68	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	809	G	C4-C5-N7	5.96	113.18	110.80
1	5	2878	G	N1-C6-O6	5.96	123.47	119.90
1	1	2801	A	N1-C6-N6	5.96	122.17	118.60
1	5	2968	G	OP2-P-O3'	5.96	118.31	105.20
2	6	337	G	C5-C6-O6	-5.96	125.03	128.60
1	5	3209	A	N9-C4-C5	-5.95	103.42	105.80
1	1	924	G	O4'-C1'-N9	-5.95	103.44	108.20
1	1	3129	A	C8-N9-C4	5.95	108.18	105.80
1	1	3317	U	N3-C2-O2	-5.95	118.03	122.20
1	5	635	G	C4-C5-N7	5.95	113.18	110.80
1	5	1196	C	N3-C4-C5	-5.95	119.52	121.90
1	5	3266	G	C4-C5-N7	-5.95	108.42	110.80
1	1	835	G	O4'-C1'-N9	5.95	112.96	108.20
1	1	1355	A	P-O3'-C3'	5.95	126.84	119.70
1	1	2380	U	C6-N1-C2	5.95	124.57	121.00
3	3	67	G	N1-C6-O6	5.95	123.47	119.90
2	6	320	U	N3-C4-O4	5.95	123.56	119.40
1	1	116	A	C8-N9-C4	-5.94	103.42	105.80
1	1	764	U	OP2-P-O3'	5.94	118.28	105.20
1	1	1604	G	C8-N9-C1'	-5.94	119.27	127.00
2	6	1197	C	C6-N1-C2	-5.94	117.92	120.30
1	1	895	A	C5-N7-C8	-5.94	100.93	103.90
1	1	2363	A	N1-C6-N6	-5.94	115.03	118.60
2	2	1563	C	C6-N1-C2	5.94	122.68	120.30
1	5	1420	C	C6-N1-C2	-5.94	117.92	120.30
1	1	284	A	C4-C5-C6	5.94	119.97	117.00
1	1	3389	U	OP2-P-O3'	5.94	118.27	105.20
1	5	1633	C	C5-C6-N1	5.94	123.97	121.00
1	5	2395	G	N1-C6-O6	5.94	123.47	119.90
1	1	2403	G	N1-C6-O6	5.94	123.46	119.90
2	2	720	G	OP1-P-O3'	5.94	118.26	105.20
1	1	1484	U	P-O3'-C3'	5.94	126.82	119.70
1	5	101	G	C5-C6-O6	-5.94	125.04	128.60
1	5	2206	G	P-O3'-C3'	5.94	126.82	119.70
1	5	2954	U	N1-C2-O2	5.94	126.95	122.80
1	1	2192	C	N3-C2-O2	-5.93	117.75	121.90
1	1	2418	G	C4-C5-N7	5.93	113.17	110.80
2	2	934	C	N1-C2-O2	5.93	122.46	118.90
1	5	1844	C	N1-C2-O2	-5.93	115.34	118.90
1	1	639	G	C2-N3-C4	-5.93	108.93	111.90
1	1	2632	G	O5'-P-OP1	-5.93	100.36	105.70
1	1	2874	G	C5-C6-N1	-5.93	108.53	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	2873	U	N1-C2-N3	5.93	118.46	114.90
1	5	953	G	N1-C6-O6	-5.93	116.34	119.90
1	5	2606	G	N9-C4-C5	-5.92	103.03	105.40
1	1	2860	U	N3-C2-O2	-5.92	118.05	122.20
2	2	797	G	C8-N9-C4	5.92	108.77	106.40
1	5	1417	G	C5-C6-O6	-5.92	125.05	128.60
1	1	1306	G	N9-C4-C5	-5.92	103.03	105.40
2	2	278	U	N1-C2-O2	5.92	126.94	122.80
1	1	953	G	N3-C2-N2	5.92	124.04	119.90
2	2	1644	C	C6-N1-C2	-5.92	117.93	120.30
1	5	1152	G	C5-C6-O6	-5.92	125.05	128.60
1	5	1284	C	P-O3'-C3'	5.92	126.80	119.70
1	5	3337	G	N3-C4-C5	5.92	131.56	128.60
1	1	803	C	C2-N1-C1'	5.92	125.31	118.80
1	1	2741	C	N3-C4-C5	-5.92	119.53	121.90
1	1	2950	G	N1-C6-O6	-5.92	116.35	119.90
1	5	1841	A	O5'-P-OP1	-5.92	100.38	105.70
1	1	1763	U	C5-C6-N1	5.92	125.66	122.70
1	5	3099	C	C5-C4-N4	-5.92	116.06	120.20
1	1	63	A	C8-N9-C4	-5.91	103.44	105.80
1	1	1865	A	N1-C6-N6	5.91	122.15	118.60
1	5	227	G	C4-N9-C1'	5.91	134.18	126.50
2	2	966	A	C8-N9-C4	5.91	108.16	105.80
4	8	31	G	C8-N9-C4	5.91	108.76	106.40
2	6	378	A	N9-C4-C5	-5.91	103.44	105.80
1	1	543	C	N1-C2-O2	5.91	122.44	118.90
1	1	1385	C	C5-C6-N1	-5.91	118.05	121.00
1	1	3012	A	C8-N9-C4	5.91	108.16	105.80
2	2	332	U	N1-C2-O2	5.91	126.93	122.80
1	5	868	C	C6-N1-C2	5.91	122.66	120.30
1	5	3175	U	O5'-P-OP2	-5.90	100.39	105.70
1	1	397	A	N1-C6-N6	-5.90	115.06	118.60
1	1	601	U	C5-C6-N1	5.90	125.65	122.70
4	4	104	A	N1-C6-N6	5.90	122.14	118.60
1	5	347	G	N9-C4-C5	-5.90	103.04	105.40
1	5	2372	A	OP2-P-O3'	-5.90	92.22	105.20
1	5	2390	A	N1-C6-N6	-5.90	115.06	118.60
1	5	3216	G	N1-C6-O6	5.90	123.44	119.90
1	5	2315	G	C5-C6-O6	-5.90	125.06	128.60
1	1	2608	G	N9-C4-C5	-5.89	103.04	105.40
2	2	895	G	N9-C4-C5	5.89	107.76	105.40
1	5	215	G	N1-C6-O6	5.89	123.44	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	2144	A	C5-C6-N1	5.89	120.65	117.70
1	1	651	G	C4-C5-C6	5.89	122.33	118.80
1	1	2719	U	C6-N1-C2	5.89	124.53	121.00
1	1	1169	A	N9-C4-C5	5.89	108.16	105.80
1	5	2719	U	C6-N1-C2	5.89	124.53	121.00
1	1	3189	G	O5'-P-OP1	-5.89	100.40	105.70
1	1	189	G	O5'-P-OP1	-5.89	100.40	105.70
2	2	728	U	C2-N1-C1'	5.89	124.76	117.70
2	2	1075	C	C6-N1-C2	-5.89	117.94	120.30
1	1	264	G	C8-N9-C4	-5.88	104.05	106.40
1	1	1356	U	C2-N1-C1'	-5.88	110.64	117.70
1	1	1166	G	N3-C4-C5	5.88	131.54	128.60
1	1	1909	A	N9-C4-C5	-5.88	103.45	105.80
2	2	192	U	N1-C2-O2	5.88	126.92	122.80
1	1	116	A	C2-N3-C4	5.88	113.54	110.60
1	1	1451	C	C5-C4-N4	-5.88	116.08	120.20
1	1	1773	C	N3-C4-C5	5.88	124.25	121.90
3	3	89	G	C8-N9-C4	5.88	108.75	106.40
1	5	2869	U	O5'-P-OP1	-5.88	100.41	105.70
2	2	1729	C	C6-N1-C2	5.88	122.65	120.30
2	6	417	A	P-O3'-C3'	5.88	126.76	119.70
2	2	1061	A	C8-N9-C4	-5.88	103.45	105.80
2	6	639	U	C2-N1-C1'	5.88	124.75	117.70
1	5	1197	A	C8-N9-C4	5.88	108.15	105.80
1	5	358	G	N3-C4-N9	-5.88	122.47	126.00
2	6	1620	C	C6-N1-C2	-5.88	117.95	120.30
1	1	729	C	C6-N1-C2	-5.87	117.95	120.30
1	1	2969	A	O5'-P-OP1	-5.87	100.41	105.70
1	1	2101	C	OP1-P-O3'	5.87	118.11	105.20
2	2	1658	G	N3-C4-C5	5.87	131.54	128.60
1	5	835	G	N3-C4-C5	5.87	131.54	128.60
1	5	939	U	N3-C2-O2	-5.87	118.09	122.20
1	1	1115	G	C5-N7-C8	-5.87	101.36	104.30
2	2	278	U	P-O3'-C3'	5.87	126.74	119.70
1	1	3080	G	N1-C6-O6	5.87	123.42	119.90
1	1	251	G	C8-N9-C1'	-5.87	119.37	127.00
1	5	517	G	C6-C5-N7	-5.87	126.88	130.40
1	5	3269	U	P-O3'-C3'	5.87	126.74	119.70
1	1	1399	A	C2-N3-C4	-5.87	107.67	110.60
1	1	1497	C	N3-C4-C5	5.87	124.25	121.90
2	2	427	C	C6-N1-C2	5.87	122.65	120.30
1	1	124	U	N3-C2-O2	-5.86	118.09	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2355	G	C4-C5-N7	5.86	113.14	110.80
1	5	1149	G	C4-C5-N7	5.86	113.15	110.80
1	5	732	C	C6-N1-C2	-5.86	117.95	120.30
1	5	2169	G	C8-N9-C1'	5.86	134.62	127.00
1	1	2730	G	N9-C4-C5	5.86	107.74	105.40
2	6	1	U	C6-N1-C2	-5.86	117.48	121.00
1	1	2208	A	C8-N9-C4	-5.86	103.46	105.80
1	5	652	G	N3-C4-C5	-5.86	125.67	128.60
2	6	192	U	N1-C2-O2	5.86	126.90	122.80
4	8	2	A	C2-N3-C4	-5.86	107.67	110.60
1	1	632	G	C4-C5-N7	5.85	113.14	110.80
1	1	671	U	O5'-P-OP2	-5.85	100.43	105.70
1	5	2871	G	C5-N7-C8	-5.85	101.37	104.30
2	6	1277	G	C8-N9-C4	-5.85	104.06	106.40
5	c0	88	PRO	N-CA-CB	5.85	110.32	103.30
1	1	510	G	N3-C4-C5	5.85	131.53	128.60
1	5	1080	A	O4'-C1'-N9	5.85	112.88	108.20
1	5	384	A	N9-C4-C5	-5.85	103.46	105.80
1	5	3261	C	C6-N1-C2	5.85	122.64	120.30
1	1	2873	U	C5-C4-O4	5.85	129.41	125.90
2	2	1052	U	C2-N1-C1'	5.85	124.72	117.70
1	5	324	A	OP2-P-O3'	5.85	118.06	105.20
1	1	900	G	C8-N9-C4	-5.84	104.06	106.40
1	1	1380	G	C8-N9-C4	5.84	108.74	106.40
1	1	1838	G	C6-C5-N7	-5.84	126.89	130.40
1	1	1940	G	C8-N9-C4	5.84	108.74	106.40
1	1	2137	U	O4'-C1'-N1	5.84	112.88	108.20
1	1	2593	A	P-O3'-C3'	5.84	126.71	119.70
4	4	125	U	C2-N1-C1'	5.84	124.71	117.70
2	6	864	U	N3-C2-O2	-5.84	118.11	122.20
2	6	1340	U	C5-C6-N1	5.84	125.62	122.70
1	1	2600	C	C6-N1-C2	-5.84	117.96	120.30
2	2	1523	G	N3-C4-C5	-5.84	125.68	128.60
1	5	2385	G	N3-C4-N9	-5.84	122.50	126.00
2	6	802	G	N3-C4-C5	-5.84	125.68	128.60
1	1	2741	C	C6-N1-C2	-5.84	117.97	120.30
1	5	869	G	C6-C5-N7	5.84	133.90	130.40
2	6	1442	U	C6-N1-C2	-5.84	117.50	121.00
1	1	1300	G	C4-C5-N7	5.83	113.13	110.80
1	5	1201	C	C5-C6-N1	5.83	123.92	121.00
1	5	1846	C	C6-N1-C2	5.83	122.63	120.30
1	1	1178	G	N1-C6-O6	-5.83	116.40	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	1495	U	N1-C2-O2	-5.83	118.72	122.80
2	2	488	G	O5'-P-OP1	5.83	117.70	110.70
1	5	3063	C	C6-N1-C2	5.83	122.63	120.30
2	2	131	C	N3-C2-O2	-5.83	117.82	121.90
1	1	2871	G	C4-C5-N7	5.82	113.13	110.80
1	1	3221	C	C6-N1-C2	-5.82	117.97	120.30
1	5	980	A	N9-C4-C5	5.82	108.13	105.80
2	2	1472	C	C6-N1-C2	5.82	122.63	120.30
1	1	424	G	N1-C6-O6	5.82	123.39	119.90
1	1	1175	C	C6-N1-C2	-5.82	117.97	120.30
1	1	1300	G	C6-C5-N7	-5.82	126.91	130.40
1	1	2237	C	C2-N1-C1'	-5.82	112.40	118.80
1	1	3382	U	C5-C6-N1	5.82	125.61	122.70
1	5	1145	G	C8-N9-C1'	-5.82	119.43	127.00
1	5	2647	A	N1-C6-N6	5.82	122.09	118.60
1	1	651	G	C8-N9-C4	-5.82	104.07	106.40
1	1	1838	G	N3-C4-N9	5.82	129.49	126.00
1	1	2882	U	C2-N3-C4	-5.82	123.51	127.00
2	2	1491	U	P-O3'-C3'	5.81	126.68	119.70
1	5	2625	C	C6-N1-C2	5.81	122.63	120.30
1	1	2362	C	C6-N1-C2	-5.81	117.97	120.30
1	1	2868	U	C6-N1-C2	-5.81	117.51	121.00
2	2	1	U	P-O3'-C3'	5.81	126.68	119.70
1	1	1892	G	O5'-P-OP2	-5.81	100.47	105.70
1	1	2625	C	N3-C4-C5	5.81	124.22	121.90
2	2	864	U	C5-C6-N1	5.81	125.61	122.70
1	1	945	C	N3-C4-C5	-5.81	119.58	121.90
1	5	2949	U	C2-N1-C1'	-5.81	110.73	117.70
1	5	2612	U	C5-C6-N1	5.80	125.60	122.70
4	8	58	G	OP1-P-OP2	-5.80	110.89	119.60
2	2	187	G	P-O3'-C3'	5.80	126.66	119.70
2	2	453	U	C6-N1-C1'	-5.80	113.08	121.20
1	5	1779	C	C6-N1-C2	-5.80	117.98	120.30
1	5	282	G	N7-C8-N9	5.80	116.00	113.10
1	1	2353	G	C8-N9-C4	-5.80	104.08	106.40
1	5	356	C	C6-N1-C2	5.80	122.62	120.30
1	1	1417	G	C8-N9-C4	5.79	108.72	106.40
1	1	3362	A	N1-C6-N6	5.79	122.08	118.60
1	1	3370	A	C5-C6-N6	-5.79	119.06	123.70
2	2	1134	C	C6-N1-C2	5.79	122.62	120.30
1	5	2881	C	OP2-P-O3'	5.79	117.95	105.20
2	6	993	A	N3-C4-C5	-5.79	122.74	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	8	39	G	C8-N9-C4	-5.79	104.08	106.40
36	M1	112	LEU	CA-CB-CG	5.79	128.62	115.30
1	1	1174	G	C4-N9-C1'	5.79	134.03	126.50
1	5	628	A	N1-C6-N6	5.79	122.08	118.60
1	5	2245	C	C5-C6-N1	-5.79	118.10	121.00
2	6	1139	A	C8-N9-C4	5.79	108.12	105.80
78	sM	166	PRO	N-CA-CB	5.79	110.25	103.30
1	5	937	G	N1-C6-O6	-5.79	116.43	119.90
1	5	2612	U	C6-N1-C2	-5.79	117.53	121.00
1	1	1016	C	N3-C2-O2	-5.79	117.85	121.90
1	1	184	U	O5'-P-OP2	-5.79	100.49	105.70
1	1	2209	U	C6-N1-C2	-5.79	117.53	121.00
1	1	2241	U	N1-C2-N3	5.79	118.37	114.90
1	5	368	G	C8-N9-C4	5.79	108.71	106.40
4	8	70	G	N9-C4-C5	-5.79	103.08	105.40
1	1	1145	G	C4-C5-N7	5.78	113.11	110.80
1	1	1913	A	N1-C6-N6	5.78	122.07	118.60
2	6	319	U	OP1-P-O3'	5.78	117.92	105.20
1	5	860	G	C6-C5-N7	-5.78	126.93	130.40
1	1	1083	G	C8-N9-C4	5.78	108.71	106.40
4	4	17	A	N1-C6-N6	5.78	122.07	118.60
1	5	2355	G	C4-C5-N7	5.78	113.11	110.80
2	2	29	U	C6-N1-C2	5.78	124.47	121.00
1	5	207	U	C6-N1-C2	-5.78	117.53	121.00
1	1	55	G	N9-C4-C5	-5.78	103.09	105.40
1	5	1329	U	N1-C2-N3	5.78	118.36	114.90
1	1	1174	G	C6-C5-N7	-5.77	126.94	130.40
1	1	3181	C	N3-C2-O2	-5.77	117.86	121.90
2	2	992	A	N7-C8-N9	5.77	116.69	113.80
1	5	2726	C	N3-C2-O2	-5.77	117.86	121.90
1	1	3317	U	P-O3'-C3'	5.77	126.63	119.70
1	5	3275	U	P-O3'-C3'	5.77	126.62	119.70
1	1	1428	A	C8-N9-C4	5.77	108.11	105.80
1	1	1345	G	C5-C6-O6	-5.77	125.14	128.60
1	1	2925	C	N3-C4-C5	5.77	124.21	121.90
1	1	1495	U	C5-C4-O4	5.76	129.36	125.90
2	6	802	G	C8-N9-C4	-5.76	104.09	106.40
4	8	121	U	C6-N1-C2	-5.76	117.54	121.00
1	1	91	G	C4-C5-N7	5.76	113.11	110.80
2	6	864	U	C6-N1-C2	-5.76	117.54	121.00
47	N3	15	LEU	CA-CB-CG	-5.76	102.05	115.30
1	1	1413	G	N3-C2-N2	-5.76	115.87	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2606	G	N3-C4-C5	-5.76	125.72	128.60
4	4	16	G	N1-C6-O6	5.76	123.36	119.90
2	6	55	A	N1-C6-N6	5.76	122.06	118.60
1	1	890	C	N3-C4-C5	5.76	124.20	121.90
1	1	980	A	C8-N9-C4	-5.76	103.50	105.80
1	1	1411	C	C2-N3-C4	-5.76	117.02	119.90
2	2	124	A	C8-N9-C4	-5.76	103.50	105.80
1	5	1176	C	C6-N1-C2	5.76	122.60	120.30
1	1	212	G	C8-N9-C4	-5.76	104.10	106.40
1	1	2768	U	O5'-P-OP2	-5.75	100.52	105.70
1	5	21	G	O5'-P-OP2	-5.75	100.52	105.70
2	6	555	A	C8-N9-C4	-5.75	103.50	105.80
1	1	660	A	C2-N3-C4	-5.75	107.72	110.60
1	1	1382	G	N1-C6-O6	5.75	123.35	119.90
1	1	3390	G	O5'-P-OP2	-5.75	100.52	105.70
2	2	794	U	C5-C6-N1	5.75	125.58	122.70
1	5	406	G	O4'-C1'-N9	5.75	112.80	108.20
2	2	577	G	C6-C5-N7	-5.75	126.95	130.40
1	5	2332	A	N9-C4-C5	-5.75	103.50	105.80
2	2	412	A	C8-N9-C4	5.75	108.10	105.80
3	3	99	G	N1-C6-O6	5.75	123.35	119.90
2	6	958	U	C6-N1-C2	-5.75	117.55	121.00
1	1	883	A	O5'-P-OP1	5.75	117.60	110.70
2	6	1762	A	OP2-P-O3'	5.75	117.84	105.20
1	1	3053	G	C6-C5-N7	-5.74	126.95	130.40
1	5	437	G	N1-C6-O6	5.74	123.35	119.90
1	5	2376	G	N3-C4-C5	-5.74	125.73	128.60
1	1	3075	G	C5-C6-O6	-5.74	125.16	128.60
1	1	1819	U	C6-N1-C2	-5.74	117.56	121.00
1	1	2403	G	C5-C6-O6	-5.74	125.16	128.60
2	2	278	U	N3-C2-O2	-5.74	118.18	122.20
1	5	966	U	C5-C6-N1	5.74	125.57	122.70
2	6	1493	A	P-O3'-C3'	5.74	126.59	119.70
3	7	90	U	N3-C2-O2	-5.74	118.18	122.20
1	1	355	A	O5'-P-OP1	-5.74	100.53	105.70
1	1	2375	G	O5'-P-OP1	-5.74	100.54	105.70
4	4	72	A	O5'-P-OP1	-5.74	100.53	105.70
2	6	45	U	C2-N1-C1'	-5.74	110.81	117.70
1	5	196	G	N3-C4-C5	-5.74	125.73	128.60
13	c8	15	LEU	CA-CB-CG	5.74	128.50	115.30
1	1	2352	A	C5-C6-N6	-5.74	119.11	123.70
2	2	306	U	C6-N1-C2	5.74	124.44	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2978	U	N1-C2-N3	5.73	118.34	114.90
1	5	1137	C	N3-C2-O2	-5.73	117.89	121.90
1	1	923	C	N3-C4-C5	5.73	124.19	121.90
1	1	1003	A	N1-C6-N6	5.73	122.04	118.60
1	1	1440	G	OP1-P-O3'	5.73	117.81	105.20
1	1	2171	G	C4-C5-N7	-5.73	108.51	110.80
2	6	163	G	N3-C2-N2	-5.73	115.89	119.90
1	1	658	G	C4-N9-C1'	5.73	133.95	126.50
1	1	2922	G	C4-C5-N7	5.73	113.09	110.80
1	5	1380	G	C8-N9-C4	5.73	108.69	106.40
1	5	2305	G	C8-N9-C4	-5.73	104.11	106.40
1	1	1435	A	N1-C2-N3	5.73	132.16	129.30
1	1	3120	C	C6-N1-C2	-5.73	118.01	120.30
2	6	1274	C	N1-C2-O2	5.73	122.34	118.90
1	1	585	A	N1-C6-N6	-5.72	115.17	118.60
1	1	2273	G	O5'-P-OP1	5.72	117.57	110.70
1	1	2690	G	O5'-P-OP1	-5.72	100.55	105.70
1	1	2809	C	N1-C2-O2	-5.72	115.47	118.90
2	2	1277	G	C8-N9-C4	-5.72	104.11	106.40
1	5	652	G	N3-C4-N9	5.72	129.44	126.00
1	5	925	A	N9-C4-C5	-5.72	103.51	105.80
1	5	2374	C	C6-N1-C1'	-5.72	113.93	120.80
4	4	47	C	N3-C4-N4	-5.72	113.99	118.00
1	5	37	U	N3-C2-O2	-5.72	118.19	122.20
4	8	8	C	N1-C2-O2	-5.72	115.47	118.90
1	1	517	G	C8-N9-C4	-5.72	104.11	106.40
1	1	1614	C	C6-N1-C2	-5.72	118.01	120.30
2	6	1006	C	C6-N1-C2	-5.72	118.01	120.30
1	1	2153	U	C6-N1-C2	-5.72	117.57	121.00
1	5	22	G	O5'-P-OP2	-5.72	100.55	105.70
27	L2	191	LEU	CA-CB-CG	-5.72	102.15	115.30
1	5	2204	C	N1-C1'-C2'	-5.72	105.71	112.00
1	1	1662	G	C8-N9-C4	5.71	108.69	106.40
1	1	2905	U	C2-N1-C1'	-5.71	110.84	117.70
1	1	1699	A	C8-N9-C4	5.71	108.08	105.80
1	5	2144	A	O4'-C1'-N9	5.71	112.77	108.20
2	6	590	C	C5-C6-N1	5.71	123.86	121.00
1	1	780	A	C5-C6-N6	5.71	128.27	123.70
1	5	18	G	N3-C4-N9	-5.71	122.58	126.00
1	5	691	A	OP1-P-O3'	5.71	117.76	105.20
1	5	1878	G	N9-C4-C5	5.71	107.68	105.40
1	1	239	G	C8-N9-C4	-5.71	104.12	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2358	A	O5'-P-OP2	-5.71	100.56	105.70
2	2	696	C	C6-N1-C2	-5.71	118.02	120.30
2	2	1033	C	C6-N1-C2	5.71	122.58	120.30
1	1	1554	U	C2-N1-C1'	-5.71	110.85	117.70
1	5	3022	G	O4'-C1'-N9	5.71	112.76	108.20
1	1	2337	C	C6-N1-C2	-5.70	118.02	120.30
2	2	326	G	C8-N9-C4	-5.70	104.12	106.40
1	5	1496	C	C2-N1-C1'	5.70	125.07	118.80
1	5	1931	U	N1-C2-O2	5.70	126.79	122.80
2	6	1458	G	N3-C4-N9	5.70	129.42	126.00
2	2	316	A	O5'-P-OP1	-5.70	100.57	105.70
2	2	1568	C	P-O3'-C3'	5.70	126.54	119.70
1	1	42	C	C6-N1-C2	5.70	122.58	120.30
1	1	890	C	OP2-P-O3'	5.70	117.73	105.20
1	1	1017	C	C2-N1-C1'	5.70	125.06	118.80
2	2	992	A	N1-C6-N6	5.70	122.02	118.60
1	5	3231	U	C5-C6-N1	-5.70	119.85	122.70
2	6	1602	C	C6-N1-C2	5.70	122.58	120.30
1	1	2870	C	C6-N1-C2	5.69	122.58	120.30
1	5	2856	G	N1-C6-O6	5.69	123.32	119.90
1	1	917	A	O5'-P-OP1	5.69	117.53	110.70
1	5	3216	G	C5-C6-O6	-5.69	125.19	128.60
1	1	715	A	P-O3'-C3'	5.69	126.53	119.70
1	1	1604	G	C8-N9-C4	-5.69	104.12	106.40
1	1	2355	G	N9-C4-C5	-5.69	103.12	105.40
1	5	1582	C	C5-C6-N1	5.69	123.84	121.00
1	5	2952	G	C4-C5-N7	5.69	113.08	110.80
2	6	361	C	C5-C6-N1	5.69	123.84	121.00
2	6	1279	C	C6-N1-C2	-5.69	118.03	120.30
1	5	1437	C	C5-C6-N1	5.68	123.84	121.00
1	1	2620	G	C4-C5-N7	5.68	113.07	110.80
1	5	330	G	N1-C6-O6	5.68	123.31	119.90
1	1	339	C	O5'-P-OP1	-5.68	100.59	105.70
2	2	1059	U	C5-C6-N1	5.68	125.54	122.70
1	5	3217	C	C5-C6-N1	-5.68	118.16	121.00
26	E1	86	THR	C-N-CA	5.68	135.90	121.70
1	1	660	A	N1-C6-N6	-5.68	115.19	118.60
1	1	283	G	O4'-C1'-N9	-5.68	103.66	108.20
1	1	2973	G	N7-C8-N9	-5.68	110.26	113.10
2	2	25	C	P-O3'-C3'	5.68	126.51	119.70
2	2	1511	U	C6-N1-C2	-5.68	117.59	121.00
2	6	239	C	C6-N1-C2	-5.68	118.03	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	6	453	U	N3-C2-O2	-5.68	118.23	122.20
1	1	3109	G	N1-C6-O6	5.67	123.31	119.90
1	5	1442	U	C2-N1-C1'	-5.67	110.89	117.70
2	6	158	U	P-O3'-C3'	5.67	126.51	119.70
2	6	623	A	N1-C6-N6	5.67	122.00	118.60
2	2	565	C	C6-N1-C2	5.67	122.57	120.30
2	6	747	C	C6-N1-C2	-5.67	118.03	120.30
1	1	1383	G	N3-C4-C5	5.67	131.43	128.60
1	1	2679	A	C5-C6-N6	-5.67	119.17	123.70
2	2	1534	G	C8-N9-C4	5.67	108.67	106.40
1	5	1329	U	N3-C2-O2	-5.67	118.23	122.20
1	1	1556	C	C6-N1-C2	-5.67	118.03	120.30
1	5	1481	A	N7-C8-N9	5.67	116.63	113.80
1	5	1834	U	N3-C4-O4	5.67	123.37	119.40
4	4	14	C	C5-C6-N1	-5.67	118.17	121.00
1	5	1552	G	C4-C5-N7	5.67	113.07	110.80
1	5	2871	G	N3-C4-C5	5.67	131.43	128.60
1	1	2875	U	N3-C2-O2	-5.66	118.24	122.20
1	5	32	U	C6-N1-C2	-5.66	117.60	121.00
1	1	2917	G	N1-C6-O6	5.66	123.30	119.90
1	1	1495	U	C2-N3-C4	-5.66	123.61	127.00
2	2	610	G	C8-N9-C1'	-5.66	119.64	127.00
1	5	2112	U	P-O3'-C3'	5.66	126.49	119.70
1	1	3318	G	C8-N9-C4	-5.66	104.14	106.40
3	3	7	G	N9-C4-C5	5.66	107.66	105.40
1	5	1482	A	O5'-P-OP2	-5.66	100.61	105.70
4	8	110	C	OP2-P-O3'	5.66	117.64	105.20
1	5	139	G	C8-N9-C4	5.65	108.66	106.40
1	5	3216	G	O5'-P-OP2	-5.65	100.61	105.70
1	1	350	C	N3-C2-O2	-5.65	117.94	121.90
1	1	1076	C	N1-C2-O2	5.65	122.29	118.90
4	4	8	C	OP2-P-O3'	5.65	117.63	105.20
1	5	92	G	C5-C6-O6	-5.65	125.21	128.60
1	5	2348	A	N1-C6-N6	-5.65	115.21	118.60
4	8	17	A	N1-C6-N6	5.65	121.99	118.60
1	1	1113	G	N3-C2-N2	-5.65	115.94	119.90
1	1	1819	U	C2-N1-C1'	5.65	124.48	117.70
1	5	1751	G	C8-N9-C4	5.65	108.66	106.40
1	1	1104	G	O5'-P-OP1	-5.65	100.62	105.70
1	1	839	C	C5-C6-N1	-5.65	118.18	121.00
1	1	3267	A	N1-C6-N6	-5.65	115.21	118.60
4	4	90	U	C6-N1-C2	5.65	124.39	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	1056	U	C6-N1-C2	-5.65	117.61	121.00
2	6	1467	C	C5-C6-N1	5.65	123.82	121.00
2	6	1301	U	O5'-P-OP2	-5.65	100.62	105.70
1	1	510	G	C5-C6-O6	-5.64	125.21	128.60
1	1	1319	G	C5-C6-O6	5.64	131.99	128.60
1	1	1838	G	N9-C4-C5	-5.64	103.14	105.40
2	2	1782	A	C8-N9-C4	-5.64	103.54	105.80
2	6	1658	G	C4-C5-N7	5.64	113.06	110.80
1	1	968	G	C4-C5-N7	5.64	113.06	110.80
1	1	1306	G	C4-N9-C1'	5.64	133.83	126.50
1	5	644	G	N3-C4-N9	-5.64	122.61	126.00
1	1	88	A	C8-N9-C4	5.64	108.06	105.80
1	1	884	A	N9-C4-C5	-5.64	103.54	105.80
1	1	935	U	N1-C2-N3	5.64	118.28	114.90
1	5	1436	U	N3-C2-O2	-5.64	118.25	122.20
1	1	703	G	O5'-P-OP1	-5.64	100.63	105.70
1	1	2120	A	O5'-P-OP2	-5.64	100.63	105.70
1	5	36	C	C6-N1-C2	-5.64	118.05	120.30
1	5	2719	U	N3-C2-O2	5.64	126.15	122.20
2	6	779	U	N1-C2-O2	5.64	126.75	122.80
1	1	577	C	C6-N1-C2	5.64	122.55	120.30
1	1	2208	A	OP1-P-O3'	5.64	117.60	105.20
2	2	192	U	C5-C6-N1	5.64	125.52	122.70
1	5	1625	A	C8-N9-C4	5.64	108.05	105.80
1	5	3195	U	N1-C2-O2	5.64	126.75	122.80
1	1	961	C	O5'-P-OP1	-5.63	100.63	105.70
1	5	2321	A	C8-N9-C4	5.63	108.05	105.80
1	5	3134	A	C4-C5-N7	5.63	113.52	110.70
1	1	884	A	O5'-P-OP1	-5.63	100.63	105.70
1	1	1156	C	N3-C4-N4	5.63	121.94	118.00
1	5	2979	U	O5'-P-OP1	-5.63	100.63	105.70
1	1	63	A	N1-C6-N6	5.63	121.98	118.60
1	1	966	U	N3-C4-C5	-5.63	111.22	114.60
1	1	1480	G	C5-C6-O6	-5.63	125.22	128.60
1	5	1581	C	P-O3'-C3'	5.63	126.46	119.70
1	5	1581	C	C6-N1-C1'	-5.63	114.04	120.80
1	5	2524	A	O4'-C1'-N9	5.63	112.70	108.20
1	5	1805	C	C6-N1-C2	5.63	122.55	120.30
1	1	1897	G	C5-C6-O6	-5.63	125.22	128.60
1	1	2679	A	C6-C5-N7	-5.63	128.36	132.30
1	5	1588	A	N1-C6-N6	5.63	121.98	118.60
1	1	251	G	N3-C4-N9	5.63	129.38	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	806	A	O4'-C1'-N9	-5.63	103.70	108.20
1	1	2645	G	C4-C5-N7	5.63	113.05	110.80
1	5	1115	G	C8-N9-C1'	-5.63	119.69	127.00
1	5	669	U	C6-N1-C2	5.62	124.38	121.00
1	5	2379	U	N1-C2-O2	-5.62	118.86	122.80
1	1	62	A	C8-N9-C4	5.62	108.05	105.80
1	1	2896	A	C6-C5-N7	-5.62	128.36	132.30
1	1	3016	A	O5'-P-OP2	-5.62	100.64	105.70
2	6	194	U	N1-C2-O2	5.62	126.74	122.80
1	1	551	A	O4'-C1'-N9	5.62	112.70	108.20
1	1	1392	G	N1-C6-O6	-5.62	116.53	119.90
1	1	1432	C	N1-C2-O2	-5.62	115.53	118.90
1	1	1493	G	C2-N3-C4	5.62	114.71	111.90
2	2	1792	G	C8-N9-C4	-5.62	104.15	106.40
1	5	2933	A	O5'-P-OP2	-5.62	100.64	105.70
1	1	38	U	C6-N1-C2	5.62	124.37	121.00
1	1	2853	A	N1-C6-N6	5.62	121.97	118.60
2	2	130	C	N1-C2-O2	5.62	122.27	118.90
1	5	934	G	C4-N9-C1'	5.62	133.80	126.50
2	2	1060	U	C5-C6-N1	5.62	125.51	122.70
2	6	781	U	C6-N1-C1'	-5.62	113.34	121.20
1	5	1772	U	C5-C6-N1	-5.62	119.89	122.70
2	2	734	A	OP1-P-O3'	5.61	117.55	105.20
2	6	95	G	N1-C6-O6	-5.61	116.53	119.90
1	1	2171	G	C6-C5-N7	5.61	133.77	130.40
1	1	2422	C	N3-C4-C5	5.61	124.14	121.90
1	1	2978	U	C6-N1-C2	-5.61	117.63	121.00
1	1	3370	A	O5'-P-OP1	5.61	117.43	110.70
1	5	1095	U	C2-N1-C1'	5.61	124.43	117.70
1	1	884	A	C4-C5-N7	5.61	113.50	110.70
2	2	1052	U	N3-C2-O2	-5.61	118.28	122.20
1	5	1224	C	C6-N1-C2	5.61	122.54	120.30
1	5	1582	C	C6-N1-C2	-5.61	118.06	120.30
1	5	2971	A	N7-C8-N9	5.61	116.60	113.80
2	6	377	G	N9-C4-C5	-5.61	103.16	105.40
5	C0	76	LEU	CA-CB-CG	5.61	128.20	115.30
9	C4	124	ASP	N-CA-C	5.61	126.14	111.00
1	1	1196	C	O4'-C1'-N1	5.61	112.68	108.20
1	1	2183	A	C5-C6-N6	-5.61	119.22	123.70
1	5	2400	G	C6-C5-N7	-5.60	127.04	130.40
1	1	1370	G	C4-C5-N7	5.60	113.04	110.80
2	2	1058	U	N3-C2-O2	-5.60	118.28	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	2	1768	G	C5-C6-O6	5.60	131.96	128.60
1	5	88	A	C8-N9-C4	5.60	108.04	105.80
4	8	151	C	N1-C2-O2	5.60	122.26	118.90
37	m3	51	LEU	CA-CB-CG	5.60	128.18	115.30
2	2	1667	A	N1-C6-N6	-5.60	115.24	118.60
1	5	1581	C	C4-C5-C6	-5.60	114.60	117.40
1	5	2858	U	O5'-P-OP1	-5.60	100.66	105.70
2	2	1011	G	N9-C4-C5	5.60	107.64	105.40
4	4	102	U	O5'-P-OP2	-5.60	100.66	105.70
1	1	3246	G	N3-C4-C5	-5.59	125.80	128.60
2	6	866	G	C8-N9-C4	5.59	108.64	106.40
1	1	968	G	C5-C6-O6	-5.59	125.24	128.60
1	1	2794	G	C5-C6-O6	-5.59	125.24	128.60
1	1	2874	G	C5-C6-O6	5.59	131.96	128.60
2	2	1761	U	P-O3'-C3'	5.59	126.41	119.70
4	4	73	U	N1-C2-O2	5.59	126.72	122.80
1	5	1609	C	C6-N1-C2	5.59	122.54	120.30
1	1	234	G	C8-N9-C4	-5.59	104.16	106.40
1	1	1586	G	N9-C4-C5	5.59	107.64	105.40
1	1	2610	G	N3-C4-C5	5.59	131.40	128.60
2	2	1761	U	OP2-P-O3'	5.59	117.50	105.20
2	6	1458	G	C6-C5-N7	-5.59	127.05	130.40
4	8	32	C	C6-N1-C2	5.59	122.54	120.30
4	4	54	A	N7-C8-N9	5.59	116.59	113.80
2	6	1089	U	C6-N1-C2	5.59	124.35	121.00
1	1	620	U	C2-N1-C1'	-5.59	110.99	117.70
1	1	879	U	N3-C2-O2	5.59	126.11	122.20
4	4	107	G	N1-C6-O6	-5.59	116.55	119.90
1	5	94	G	C2-N3-C4	-5.59	109.11	111.90
1	5	2313	A	N1-C6-N6	-5.59	115.25	118.60
1	1	300	G	C8-N9-C4	-5.59	104.17	106.40
1	1	1852	G	C2-N3-C4	-5.59	109.11	111.90
1	1	2922	G	N3-C4-C5	-5.59	125.81	128.60
1	1	2984	C	C2-N1-C1'	-5.59	112.66	118.80
2	2	5	U	C6-N1-C2	-5.59	117.65	121.00
2	2	204	G	C5-N7-C8	-5.59	101.51	104.30
1	5	1443	G	C4-C5-N7	5.59	113.03	110.80
2	6	425	A	C8-N9-C4	-5.59	103.56	105.80
2	6	131	C	C5-C6-N1	5.58	123.79	121.00
1	1	834	U	C6-N1-C2	5.58	124.35	121.00
1	5	284	A	C8-N9-C4	-5.58	103.57	105.80
1	5	912	G	C8-N9-C4	5.58	108.63	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	2279	A	C8-N9-C4	-5.58	103.57	105.80
2	6	1280	C	C6-N1-C2	-5.58	118.07	120.30
1	1	1889	G	C6-C5-N7	-5.58	127.05	130.40
1	5	3093	C	N3-C2-O2	5.58	125.81	121.90
1	1	940	G	N1-C6-O6	5.58	123.25	119.90
2	2	1768	G	C4-C5-N7	-5.58	108.57	110.80
1	5	2866	U	C5-C4-O4	5.58	129.25	125.90
1	1	1897	G	N1-C6-O6	5.58	123.25	119.90
2	2	242	U	C2-N1-C1'	5.58	124.39	117.70
1	5	3205	G	C6-C5-N7	-5.58	127.05	130.40
1	1	2732	G	O5'-P-OP2	-5.58	100.68	105.70
2	2	1473	U	N3-C2-O2	-5.58	118.30	122.20
1	1	142	C	C5-C6-N1	5.57	123.79	121.00
1	5	1145	G	C5-C6-O6	-5.57	125.26	128.60
1	5	2976	A	O5'-P-OP2	-5.57	100.69	105.70
2	6	1785	U	O5'-P-OP1	-5.57	100.68	105.70
2	6	604	A	N1-C6-N6	-5.57	115.26	118.60
1	5	2726	C	C6-N1-C2	-5.57	118.07	120.30
1	1	2985	C	N3-C4-N4	5.57	121.90	118.00
1	1	2256	A	O5'-P-OP1	-5.57	100.69	105.70
1	5	2990	G	N3-C2-N2	-5.57	116.00	119.90
56	o2	128	LEU	CA-CB-CG	5.57	128.11	115.30
4	4	94	C	C6-N1-C2	5.57	122.53	120.30
1	1	2281	A	O4'-C1'-N9	5.56	112.65	108.20
1	1	2422	C	C2-N3-C4	-5.56	117.12	119.90
1	1	3012	A	N3-C4-C5	5.56	130.69	126.80
1	1	611	A	C4-C5-C6	5.56	119.78	117.00
1	1	1604	G	C4-C5-C6	5.56	122.14	118.80
1	5	285	A	C5-N7-C8	-5.56	101.12	103.90
2	6	1200	G	N3-C4-C5	5.56	131.38	128.60
2	2	1456	C	N3-C2-O2	-5.56	118.01	121.90
2	2	1707	A	C8-N9-C4	-5.56	103.58	105.80
2	6	360	A	C8-N9-C4	5.56	108.02	105.80
1	1	2651	G	N3-C4-C5	5.56	131.38	128.60
1	5	18	G	N3-C4-C5	5.56	131.38	128.60
1	5	196	G	C8-N9-C4	-5.56	104.18	106.40
1	5	1145	G	C4-C5-N7	5.56	113.02	110.80
1	1	92	G	C5-N7-C8	-5.56	101.52	104.30
1	1	264	G	N3-C4-C5	-5.56	125.82	128.60
1	5	1861	G	O5'-P-OP1	-5.56	100.70	105.70
2	6	391	A	C8-N9-C4	5.56	108.02	105.80
1	5	2376	G	C6-C5-N7	-5.56	127.07	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2770	G	C8-N9-C4	-5.55	104.18	106.40
1	1	2842	U	N3-C2-O2	-5.55	118.31	122.20
1	1	2320	A	C8-N9-C4	5.55	108.02	105.80
1	5	1332	A	C8-N9-C4	-5.55	103.58	105.80
1	5	1449	A	N1-C6-N6	5.55	121.93	118.60
1	1	951	A	C8-N9-C4	5.55	108.02	105.80
1	5	1152	G	C2-N3-C4	-5.55	109.12	111.90
1	5	1442	U	C6-N1-C2	5.55	124.33	121.00
2	2	131	C	C6-N1-C1'	-5.55	114.14	120.80
1	5	890	C	OP2-P-O3'	5.55	117.40	105.20
1	5	2363	A	N1-C6-N6	-5.55	115.27	118.60
2	6	1457	C	N3-C2-O2	-5.55	118.02	121.90
1	1	3070	A	C8-N9-C4	5.54	108.02	105.80
1	5	1375	G	C4-C5-N7	5.54	113.02	110.80
1	5	1481	A	P-O3'-C3'	5.54	126.35	119.70
1	1	3362	A	C4-C5-N7	5.54	113.47	110.70
2	2	261	U	C6-N1-C2	-5.54	117.68	121.00
1	5	639	G	N9-C1'-C2'	-5.54	105.91	112.00
1	5	835	G	N3-C2-N2	-5.54	116.02	119.90
2	6	136	C	N3-C2-O2	-5.54	118.02	121.90
4	8	72	A	N1-C6-N6	5.54	121.92	118.60
1	1	790	U	C6-N1-C2	5.54	124.32	121.00
1	1	2400	G	C6-C5-N7	-5.54	127.08	130.40
1	5	809	G	N1-C6-O6	5.54	123.22	119.90
1	5	3260	G	C8-N9-C1'	-5.54	119.80	127.00
2	6	389	G	C6-C5-N7	-5.54	127.08	130.40
1	1	2378	C	C5-C4-N4	-5.54	116.33	120.20
1	1	2382	G	C5-C6-O6	-5.54	125.28	128.60
4	8	151	C	C6-N1-C2	-5.53	118.09	120.30
1	1	3273	A	O5'-P-OP2	-5.53	100.72	105.70
4	4	54	A	C4-C5-N7	5.53	113.47	110.70
1	5	339	C	O5'-P-OP1	-5.53	100.72	105.70
1	5	1419	A	N1-C6-N6	5.53	121.92	118.60
1	5	517	G	N1-C6-O6	5.53	123.22	119.90
2	2	166	C	C6-N1-C2	-5.53	118.09	120.30
1	5	1672	U	C6-N1-C1'	5.53	128.94	121.20
1	5	2719	U	C2-N1-C1'	-5.53	111.07	117.70
2	6	802	G	C2-N3-C4	5.53	114.66	111.90
1	1	3382	U	N1-C2-O2	5.53	126.67	122.80
2	2	1600	A	C2-N3-C4	-5.53	107.84	110.60
1	1	2257	C	O5'-P-OP1	-5.52	100.73	105.70
1	5	282	G	P-O3'-C3'	5.52	126.33	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2171	G	C5-C6-O6	5.52	131.91	128.60
1	1	2978	U	O4'-C1'-N1	5.52	112.62	108.20
3	3	116	C	C5-C6-N1	5.52	123.76	121.00
1	5	1527	C	N1-C2-O2	5.52	122.21	118.90
1	1	3390	G	C4-C5-N7	5.52	113.01	110.80
1	5	1615	C	N3-C2-O2	-5.52	118.03	121.90
1	1	353	G	C4-N9-C1'	-5.52	119.32	126.50
1	1	2835	U	C6-N1-C2	5.52	124.31	121.00
1	5	2169	G	C4-N9-C1'	-5.52	119.33	126.50
77	s9	99	LEU	CA-CB-CG	5.52	128.00	115.30
2	2	1291	G	N7-C8-N9	5.52	115.86	113.10
1	5	1896	A	OP2-P-O3'	5.52	117.34	105.20
1	1	1014	U	C5-C6-N1	5.52	125.46	122.70
1	1	1166	G	C8-N9-C4	5.52	108.61	106.40
1	5	408	A	N7-C8-N9	5.52	116.56	113.80
1	5	1450	G	C5-C6-O6	-5.52	125.29	128.60
1	1	1391	C	N3-C4-N4	5.51	121.86	118.00
1	1	1432	C	C5-C6-N1	5.51	123.76	121.00
1	1	2922	G	C4-C5-C6	5.51	122.11	118.80
1	5	521	A	C8-N9-C4	-5.51	103.59	105.80
2	6	109	G	N3-C4-C5	5.51	131.36	128.60
2	6	1194	A	N1-C6-N6	5.51	121.91	118.60
2	6	1600	A	N7-C8-N9	5.51	116.56	113.80
1	1	2973	G	C8-N9-C4	5.51	108.61	106.40
2	2	405	C	N3-C4-C5	5.51	124.11	121.90
1	1	821	U	C2-N1-C1'	-5.51	111.09	117.70
1	1	1417	G	C6-C5-N7	-5.51	127.09	130.40
1	1	2661	G	N1-C6-O6	5.51	123.21	119.90
1	5	1308	A	N7-C8-N9	5.51	116.56	113.80
2	6	272	U	P-O3'-C3'	5.51	126.31	119.70
2	6	1512	G	C4-C5-N7	5.51	113.00	110.80
1	1	1443	G	C5-N7-C8	-5.51	101.55	104.30
1	5	1582	C	N1-C2-O2	5.51	122.20	118.90
1	5	3076	C	N3-C4-C5	-5.51	119.70	121.90
1	1	120	G	N3-C4-C5	-5.50	125.85	128.60
1	1	1512	U	C6-N1-C2	-5.50	117.70	121.00
1	1	3276	G	N3-C4-C5	5.50	131.35	128.60
1	1	669	U	C5-C6-N1	-5.50	119.95	122.70
4	8	17	A	N9-C4-C5	-5.50	103.60	105.80
2	2	941	A	N1-C6-N6	-5.50	115.30	118.60
2	2	1600	A	C4-C5-N7	5.50	113.45	110.70
1	5	1429	G	C8-N9-C1'	-5.50	119.85	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	2842	U	N1-C2-O2	5.50	126.65	122.80
2	6	858	G	N1-C6-O6	5.50	123.20	119.90
1	5	2809	C	C6-N1-C2	-5.50	118.10	120.30
4	8	70	G	C4-C5-N7	5.50	113.00	110.80
1	1	636	C	N3-C4-C5	-5.50	119.70	121.90
1	1	1338	C	N3-C2-O2	-5.50	118.05	121.90
1	1	2694	A	N1-C6-N6	-5.50	115.30	118.60
2	2	577	G	C5-N7-C8	-5.50	101.55	104.30
1	1	2093	A	C8-N9-C4	-5.50	103.60	105.80
1	1	2163	C	C6-N1-C2	-5.50	118.10	120.30
1	1	2186	U	O5'-P-OP2	-5.50	100.75	105.70
1	1	2984	C	N1-C2-O2	-5.50	115.60	118.90
1	1	2654	C	C6-N1-C2	-5.50	118.10	120.30
1	5	1853	U	C6-N1-C2	-5.50	117.70	121.00
1	5	1188	U	N1-C2-N3	5.49	118.20	114.90
4	4	17	A	C2-N3-C4	-5.49	107.85	110.60
1	5	868	C	C2-N1-C1'	-5.49	112.76	118.80
1	1	920	A	C6-C5-N7	-5.49	128.46	132.30
3	3	100	C	O5'-P-OP2	5.49	117.29	110.70
1	5	1408	G	N3-C4-C5	5.49	131.34	128.60
30	15	110	LEU	CA-CB-CG	5.49	127.93	115.30
1	1	1166	G	C5-C6-O6	-5.49	125.31	128.60
1	1	2363	A	N9-C4-C5	5.49	108.00	105.80
2	2	1137	A	C8-N9-C4	5.49	108.00	105.80
1	5	835	G	N9-C4-C5	5.49	107.59	105.40
2	2	1768	G	N9-C4-C5	5.49	107.59	105.40
1	5	2132	C	N3-C4-N4	5.49	121.84	118.00
1	1	2932	U	N3-C4-O4	-5.49	115.56	119.40
2	2	610	G	C4-N9-C1'	5.49	133.63	126.50
2	2	959	U	N3-C2-O2	-5.49	118.36	122.20
2	6	1338	C	C6-N1-C2	-5.49	118.11	120.30
23	d8	66	LEU	CA-CB-CG	5.49	127.92	115.30
1	1	2826	U	N3-C4-O4	-5.48	115.56	119.40
1	1	3246	G	N3-C4-N9	5.48	129.29	126.00
2	2	1195	C	O5'-P-OP1	-5.48	100.76	105.70
1	1	2628	A	C8-N9-C4	-5.48	103.61	105.80
1	5	2240	G	C8-N9-C4	-5.48	104.21	106.40
1	5	3090	U	C6-N1-C2	-5.48	117.71	121.00
1	5	3099	C	C6-N1-C2	5.48	122.49	120.30
1	1	637	C	C5-C6-N1	5.48	123.74	121.00
1	1	1554	U	P-O3'-C3'	5.48	126.28	119.70
2	2	1189	A	C8-N9-C4	5.48	107.99	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	2	1035	G	C8-N9-C4	5.48	108.59	106.40
2	6	429	G	N1-C6-O6	5.48	123.19	119.90
2	6	781	U	O4'-C1'-N1	-5.48	103.82	108.20
1	1	2114	C	N3-C2-O2	-5.48	118.06	121.90
1	5	3176	G	N1-C6-O6	5.48	123.19	119.90
1	5	2310	U	C5-C6-N1	5.48	125.44	122.70
1	1	632	G	N9-C4-C5	-5.47	103.21	105.40
1	5	1825	G	C5-C6-O6	5.47	131.88	128.60
1	5	2093	A	C8-N9-C4	5.47	107.99	105.80
1	1	1664	G	C8-N9-C4	5.47	108.59	106.40
2	2	1001	A	O5'-P-OP1	-5.47	100.78	105.70
1	5	1102	A	C8-N9-C4	5.47	107.99	105.80
1	5	1306	G	N3-C4-N9	5.47	129.28	126.00
1	5	2606	G	C4-N9-C1'	5.47	133.62	126.50
1	1	221	A	N9-C4-C5	5.47	107.99	105.80
1	1	1359	C	N3-C4-C5	5.47	124.09	121.90
1	1	2257	C	C2-N1-C1'	5.47	124.82	118.80
2	2	386	G	O5'-P-OP2	-5.47	100.78	105.70
2	6	1600	A	C4-N9-C1'	5.47	136.15	126.30
1	1	2572	C	C5-C6-N1	5.47	123.73	121.00
2	2	1058	U	C2-N1-C1'	5.47	124.26	117.70
1	1	639	G	N3-C2-N2	-5.47	116.07	119.90
1	1	2986	U	N3-C4-O4	5.47	123.23	119.40
2	2	961	U	C6-N1-C2	-5.47	117.72	121.00
2	2	1491	U	C2-N1-C1'	5.47	124.26	117.70
1	5	3039	C	N3-C4-C5	5.47	124.09	121.90
1	1	199	A	O4'-C1'-N9	5.47	112.57	108.20
1	1	424	G	C5-C6-O6	-5.47	125.32	128.60
1	1	1452	A	C5-N7-C8	-5.47	101.17	103.90
1	1	2206	G	N9-C4-C5	-5.47	103.21	105.40
2	2	378	A	N9-C4-C5	-5.47	103.61	105.80
4	8	126	A	P-O3'-C3'	5.47	126.26	119.70
1	1	2110	G	N3-C4-C5	-5.46	125.87	128.60
1	1	2796	G	OP1-P-OP2	5.46	127.80	119.60
1	1	2871	G	C6-C5-N7	-5.46	127.12	130.40
2	2	719	U	C2-N1-C1'	5.46	124.26	117.70
2	2	992	A	C4-C5-N7	5.46	113.43	110.70
1	5	1340	G	N3-C4-N9	-5.46	122.72	126.00
1	5	2359	C	C6-N1-C2	-5.46	118.11	120.30
1	5	2932	U	C5-C4-O4	5.46	129.18	125.90
1	1	2389	C	N1-C2-O2	-5.46	115.62	118.90
4	8	83	C	C6-N1-C2	-5.46	118.11	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2541	U	P-O3'-C3'	5.46	126.25	119.70
1	5	1745	C	C6-N1-C2	5.46	122.48	120.30
1	5	1851	G	C8-N9-C4	-5.46	104.22	106.40
1	5	2149	A	OP2-P-O3'	5.46	117.22	105.20
2	6	1794	A	N1-C6-N6	-5.46	115.32	118.60
1	1	953	G	C5-C6-O6	5.46	131.88	128.60
1	1	1161	G	C6-C5-N7	-5.46	127.12	130.40
3	3	7	G	C4-C5-N7	-5.46	108.62	110.80
1	1	2725	U	C6-N1-C2	5.46	124.27	121.00
1	1	2922	G	N3-C2-N2	5.46	123.72	119.90
1	1	3044	G	N3-C4-C5	5.46	131.33	128.60
1	1	3276	G	C6-N1-C2	5.46	128.37	125.10
1	5	2110	G	N3-C4-N9	5.46	129.27	126.00
2	2	1389	C	C6-N1-C2	-5.46	118.12	120.30
2	2	136	C	C5-C6-N1	5.45	123.73	121.00
2	2	1611	A	C2-N3-C4	-5.45	107.87	110.60
1	5	883	A	C5-N7-C8	-5.45	101.17	103.90
1	5	2363	A	N9-C4-C5	5.45	107.98	105.80
1	5	2817	A	C5-C6-N6	-5.45	119.34	123.70
1	1	2101	C	P-O3'-C3'	5.45	126.24	119.70
1	1	2183	A	C6-C5-N7	-5.45	128.48	132.30
1	1	1028	U	C2-N1-C1'	5.45	124.24	117.70
1	1	3020	U	N3-C2-O2	-5.45	118.38	122.20
2	6	1033	C	C6-N1-C2	5.45	122.48	120.30
2	6	1399	C	C6-N1-C2	-5.45	118.12	120.30
1	1	224	C	N3-C4-N4	5.45	121.81	118.00
1	1	609	G	N1-C6-O6	5.45	123.17	119.90
1	5	358	G	N3-C2-N2	-5.45	116.09	119.90
1	5	2268	U	C4-C5-C6	-5.45	116.43	119.70
1	5	2286	U	O5'-P-OP2	-5.45	100.80	105.70
2	6	1189	A	C8-N9-C4	5.45	107.98	105.80
2	6	1596	C	N3-C2-O2	-5.45	118.08	121.90
1	5	2993	G	N3-C2-N2	5.45	123.71	119.90
72	S4	193	GLY	N-CA-C	5.45	126.72	113.10
1	1	1376	C	N1-C2-O2	-5.45	115.63	118.90
1	1	2923	U	C5-C6-N1	5.45	125.42	122.70
2	2	653	C	C6-N1-C2	-5.45	118.12	120.30
1	5	1450	G	N3-C4-C5	5.45	131.32	128.60
2	6	623	A	N9-C4-C5	-5.45	103.62	105.80
19	D4	50	ALA	C-N-CA	5.45	135.31	121.70
1	5	1901	A	N9-C4-C5	5.44	107.98	105.80
2	6	31	C	C6-N1-C2	-5.44	118.12	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	6	138	A	C2-N3-C4	5.44	113.32	110.60
2	6	250	C	C6-N1-C2	-5.44	118.12	120.30
1	1	91	G	N9-C4-C5	-5.44	103.22	105.40
1	1	725	G	N3-C4-C5	5.44	131.32	128.60
1	1	2246	G	O5'-P-OP1	-5.44	100.80	105.70
1	1	3078	U	P-O3'-C3'	5.44	126.23	119.70
1	5	915	A	OP1-P-OP2	5.44	127.76	119.60
1	5	3052	G	N1-C6-O6	5.44	123.17	119.90
2	6	136	C	C2-N1-C1'	5.44	124.78	118.80
2	6	385	A	C8-N9-C4	-5.44	103.62	105.80
1	5	1343	A	N1-C6-N6	5.44	121.86	118.60
1	1	770	G	O4'-C1'-N9	5.44	112.55	108.20
1	5	1194	G	N3-C4-C5	-5.44	125.88	128.60
1	5	2187	G	N3-C4-C5	-5.44	125.88	128.60
1	5	2268	U	N1-C2-N3	-5.44	111.64	114.90
1	5	580	C	N3-C4-N4	-5.44	114.19	118.00
1	1	389	A	C8-N9-C4	-5.43	103.63	105.80
1	1	3242	G	C5-C6-O6	-5.43	125.34	128.60
2	2	1277	G	N9-C4-C5	5.43	107.57	105.40
2	2	1456	C	C6-N1-C2	-5.43	118.13	120.30
1	1	1542	G	C5-N7-C8	-5.43	101.58	104.30
1	1	2174	G	N3-C4-N9	-5.43	122.74	126.00
1	1	2858	U	N1-C2-N3	5.43	118.16	114.90
1	5	669	U	C5-C6-N1	-5.43	119.98	122.70
2	6	369	A	C8-N9-C4	-5.43	103.63	105.80
1	1	1525	G	C8-N9-C4	-5.43	104.23	106.40
2	2	1198	G	N3-C4-C5	5.43	131.31	128.60
1	5	2431	C	C6-N1-C2	-5.43	118.13	120.30
1	1	2094	C	N1-C2-O2	5.43	122.16	118.90
1	1	2400	G	N9-C4-C5	-5.43	103.23	105.40
1	1	2719	U	N3-C2-O2	5.43	126.00	122.20
2	2	498	G	N3-C4-C5	-5.43	125.89	128.60
1	5	1665	C	C2-N1-C1'	-5.43	112.83	118.80
1	1	212	G	N3-C4-C5	-5.42	125.89	128.60
1	1	274	G	N1-C6-O6	-5.42	116.64	119.90
1	5	282	G	C2'-C3'-O3'	5.42	122.38	113.70
2	6	1285	U	C6-N1-C2	-5.42	117.75	121.00
2	6	1610	G	N3-C4-N9	5.42	129.25	126.00
2	2	807	A	O5'-P-OP2	-5.42	100.82	105.70
1	1	2373	A	O5'-P-OP1	-5.42	100.82	105.70
1	1	3393	U	C5-C6-N1	-5.42	119.99	122.70
2	2	230	C	N1-C2-O2	5.42	122.15	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	1911	A	N9-C4-C5	5.42	107.97	105.80
1	5	2858	U	N1-C2-N3	5.42	118.15	114.90
3	7	6	C	C6-N1-C2	5.42	122.47	120.30
1	1	278	U	C2-N1-C1'	-5.42	111.20	117.70
1	1	2667	A	C8-N9-C4	5.42	107.97	105.80
1	1	3276	G	N1-C2-N3	-5.42	120.65	123.90
3	3	93	C	C6-N1-C2	-5.42	118.13	120.30
4	4	82	U	C6-N1-C2	-5.42	117.75	121.00
1	5	2138	A	OP1-P-OP2	5.42	127.73	119.60
1	1	559	A	O5'-P-OP2	-5.42	100.82	105.70
1	1	1361	U	OP2-P-O3'	5.42	117.12	105.20
1	1	2809	C	N3-C4-C5	-5.42	119.73	121.90
1	5	94	G	C5-C6-N1	-5.42	108.79	111.50
1	5	926	A	OP2-P-O3'	5.42	117.12	105.20
1	5	2362	C	N1-C2-O2	5.42	122.15	118.90
1	5	2846	U	N3-C4-O4	-5.42	115.61	119.40
33	18	69	LEU	CA-CB-CG	5.42	127.75	115.30
1	1	2212	C	C6-N1-C1'	-5.41	114.30	120.80
2	2	1751	C	C5-C6-N1	-5.41	118.29	121.00
1	5	1582	C	P-O3'-C3'	5.41	126.20	119.70
1	5	2840	C	O5'-P-OP1	-5.41	100.83	105.70
2	6	993	A	C8-N9-C4	-5.41	103.64	105.80
1	1	659	G	N3-C2-N2	5.41	123.69	119.90
1	1	1665	C	N3-C4-C5	5.41	124.06	121.90
1	1	16	A	C8-N9-C4	5.41	107.96	105.80
1	1	1543	G	OP1-P-O3'	5.41	117.10	105.20
2	2	308	C	N3-C4-N4	-5.41	114.21	118.00
2	2	1562	G	N9-C4-C5	-5.41	103.24	105.40
2	6	437	A	C8-N9-C4	5.41	107.97	105.80
1	1	908	G	C5-C6-O6	5.41	131.84	128.60
1	1	1353	U	N3-C2-O2	-5.41	118.41	122.20
1	5	288	C	C6-N1-C2	-5.41	118.14	120.30
1	5	1085	A	C8-N9-C4	-5.41	103.64	105.80
1	5	1759	C	N1-C2-O2	5.41	122.14	118.90
1	5	2330	C	C2-N1-C1'	5.41	124.75	118.80
1	5	3260	G	C4-N9-C1'	5.41	133.53	126.50
2	6	36	C	C6-N1-C2	5.41	122.46	120.30
15	D0	16	GLN	C-N-CA	5.41	135.22	121.70
1	1	675	C	N3-C4-C5	-5.41	119.74	121.90
1	1	1137	C	OP2-P-O3'	5.41	117.09	105.20
1	1	1395	G	N1-C6-O6	5.41	123.14	119.90
1	1	1940	G	N1-C6-O6	5.41	123.14	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2858	U	C2-N1-C1'	-5.41	111.21	117.70
2	2	956	C	C6-N1-C2	-5.41	118.14	120.30
1	5	644	G	C5-C6-O6	5.41	131.84	128.60
1	5	1160	C	C6-N1-C2	5.41	122.46	120.30
1	5	2169	G	N9-C4-C5	5.41	107.56	105.40
1	5	3062	G	C8-N9-C4	5.41	108.56	106.40
1	1	1635	G	N3-C4-C5	5.40	131.30	128.60
1	5	2624	G	C5-C6-O6	-5.40	125.36	128.60
1	5	2871	G	O5'-P-OP2	-5.40	100.84	105.70
1	1	1364	C	OP2-P-O3'	5.40	117.09	105.20
2	2	704	C	O4'-C1'-N1	5.40	112.52	108.20
1	1	1639	C	C6-N1-C2	-5.40	118.14	120.30
1	1	2150	G	N3-C2-N2	-5.40	116.12	119.90
1	1	790	U	C5-C6-N1	-5.40	120.00	122.70
1	5	2397	A	O4'-C1'-N9	-5.40	103.88	108.20
2	2	1277	G	C5-C6-O6	5.40	131.84	128.60
1	5	1148	G	C2-N3-C4	-5.40	109.20	111.90
1	5	2400	G	C5-N7-C8	-5.40	101.60	104.30
1	5	2890	A	C8-N9-C4	-5.40	103.64	105.80
1	1	1157	G	C4-C5-N7	5.39	112.96	110.80
2	2	1081	A	P-O3'-C3'	5.39	126.17	119.70
1	5	212	G	N3-C4-C5	-5.39	125.90	128.60
1	5	379	C	C2-N1-C1'	-5.39	112.87	118.80
1	5	398	A	N9-C4-C5	-5.39	103.64	105.80
1	5	427	C	C5-C4-N4	-5.39	116.42	120.20
1	1	116	A	C4-C5-N7	-5.39	108.00	110.70
1	1	639	G	N9-C1'-C2'	-5.39	106.07	112.00
1	1	1858	A	C8-N9-C4	-5.39	103.64	105.80
1	5	410	U	N1-C2-O2	-5.39	119.03	122.80
1	1	1062	A	C8-N9-C4	5.39	107.96	105.80
1	1	1166	G	N9-C4-C5	-5.39	103.24	105.40
1	5	943	U	C5-C6-N1	-5.39	120.01	122.70
2	6	1389	C	C2-N1-C1'	5.39	124.73	118.80
1	5	3075	G	N1-C6-O6	5.39	123.13	119.90
2	2	309	C	C2-N1-C1'	5.39	124.72	118.80
1	1	1442	U	C5-C4-O4	-5.38	122.67	125.90
1	1	1444	G	C5-N7-C8	-5.38	101.61	104.30
1	1	2376	G	N3-C2-N2	-5.38	116.13	119.90
2	2	1181	U	C6-N1-C2	-5.38	117.77	121.00
1	5	1150	A	N7-C8-N9	5.38	116.49	113.80
1	5	3286	G	C6-C5-N7	5.38	133.63	130.40
2	2	547	U	O5'-P-OP2	-5.38	100.86	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	1846	C	O5'-P-OP1	5.38	117.16	110.70
2	6	20	G	N1-C6-O6	5.38	123.13	119.90
21	D6	86	VAL	N-CA-C	-5.38	96.47	111.00
1	1	1773	C	C5-C6-N1	-5.38	118.31	121.00
1	1	2714	G	N3-C4-C5	5.38	131.29	128.60
1	1	2144	A	C5-C6-N1	5.38	120.39	117.70
1	1	2885	C	O5'-P-OP2	-5.38	100.86	105.70
2	2	309	C	C5-C6-N1	5.38	123.69	121.00
2	2	1370	U	OP2-P-O3'	5.38	117.03	105.20
2	2	888	U	C6-N1-C2	-5.38	117.78	121.00
1	5	637	C	N3-C4-C5	5.38	124.05	121.90
1	5	2574	G	N9-C4-C5	-5.38	103.25	105.40
1	5	2609	A	C8-N9-C4	5.38	107.95	105.80
1	5	1527	C	N3-C2-O2	-5.38	118.14	121.90
2	6	496	G	O4'-C1'-N9	-5.38	103.90	108.20
1	5	927	C	C2-N1-C1'	5.37	124.71	118.80
1	5	3134	A	N1-C6-N6	5.37	121.82	118.60
1	1	836	A	C4-C5-C6	-5.37	114.31	117.00
1	1	1551	C	N3-C4-C5	5.37	124.05	121.90
1	1	2853	A	C4-C5-N7	5.37	113.39	110.70
2	2	1600	A	C5-N7-C8	-5.37	101.21	103.90
1	5	1017	C	C6-N1-C2	-5.37	118.15	120.30
1	1	1194	G	C4-C5-N7	5.37	112.95	110.80
1	1	1600	U	C6-N1-C2	5.37	124.22	121.00
1	1	2924	U	N3-C2-O2	-5.37	118.44	122.20
2	2	61	A	O4'-C1'-N9	5.37	112.49	108.20
1	5	838	G	OP2-P-O3'	5.37	117.01	105.20
2	6	153	G	N3-C4-C5	5.37	131.28	128.60
2	6	1340	U	C6-N1-C2	-5.37	117.78	121.00
1	1	2794	G	C4-N9-C1'	-5.37	119.52	126.50
2	2	327	U	C5-C6-N1	5.37	125.38	122.70
2	2	1320	U	O5'-P-OP2	-5.37	100.87	105.70
1	5	2873	U	C2-N1-C1'	5.37	124.14	117.70
1	5	2928	C	N1-C2-O2	5.37	122.12	118.90
1	5	3195	U	C6-N1-C1'	-5.37	113.69	121.20
2	6	1539	G	N1-C6-O6	5.37	123.12	119.90
1	5	2606	G	N3-C4-C5	-5.36	125.92	128.60
1	5	2877	G	N3-C4-C5	-5.36	125.92	128.60
1	5	2935	U	C6-N1-C2	-5.36	117.78	121.00
2	6	927	C	C6-N1-C2	-5.36	118.16	120.30
1	1	75	G	O5'-P-OP2	-5.36	100.87	105.70
1	5	1464	G	N3-C4-N9	-5.36	122.78	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	2772	C	OP2-P-O3'	5.36	117.00	105.20
1	1	903	U	C2-N1-C1'	-5.36	111.27	117.70
1	1	1574	C	C6-N1-C2	-5.36	118.16	120.30
1	5	1460	A	C8-N9-C4	5.36	107.94	105.80
1	5	1832	C	OP2-P-O3'	5.36	116.99	105.20
1	5	3388	C	C6-N1-C2	5.36	122.44	120.30
1	1	2748	A	C8-N9-C4	5.36	107.94	105.80
1	1	2278	C	O5'-P-OP2	-5.36	100.88	105.70
1	1	2423	U	C2-N1-C1'	5.36	124.13	117.70
1	1	2943	G	C4-N9-C1'	5.36	133.47	126.50
1	5	1343	A	C8-N9-C4	5.36	107.94	105.80
1	5	1674	G	C8-N9-C4	5.36	108.54	106.40
2	6	163	G	N7-C8-N9	5.36	115.78	113.10
1	1	890	C	C5-C6-N1	-5.36	118.32	121.00
1	1	1338	C	C2-N1-C1'	5.36	124.69	118.80
2	2	948	G	N3-C4-C5	5.36	131.28	128.60
1	1	645	A	C6-C5-N7	5.35	136.05	132.30
1	1	2702	A	N1-C6-N6	5.35	121.81	118.60
2	2	1324	G	N1-C2-N2	5.35	121.02	116.20
1	5	860	G	C5-N7-C8	-5.35	101.62	104.30
1	5	2812	C	N3-C4-C5	5.35	124.04	121.90
3	3	81	U	C2-N1-C1'	-5.35	111.28	117.70
1	5	1375	G	N1-C6-O6	5.35	123.11	119.90
1	5	1220	U	C2-N1-C1'	5.35	124.12	117.70
1	5	1906	G	O4'-C1'-N9	-5.35	103.92	108.20
1	1	1775	G	C5-C6-O6	-5.35	125.39	128.60
1	5	3278	C	C2-N1-C1'	5.35	124.68	118.80
1	1	3246	G	C6-C5-N7	-5.34	127.19	130.40
2	2	1062	A	O4'-C1'-N9	5.34	112.48	108.20
2	6	576	G	C5-C6-O6	-5.34	125.39	128.60
1	1	3075	G	C6-C5-N7	-5.34	127.19	130.40
2	2	913	G	OP1-P-O3'	5.34	116.96	105.20
2	2	1794	A	N9-C4-C5	5.34	107.94	105.80
1	5	221	A	N9-C4-C5	5.34	107.94	105.80
1	5	619	A	OP1-P-O3'	5.34	116.95	105.20
1	5	1199	C	O5'-P-OP1	-5.34	100.89	105.70
1	5	1228	C	C6-N1-C2	-5.34	118.16	120.30
2	6	1100	G	C2-N3-C4	-5.34	109.23	111.90
1	1	315	C	C5-C6-N1	5.34	123.67	121.00
1	1	1403	C	N3-C2-O2	5.34	125.64	121.90
1	5	864	G	N3-C4-N9	5.34	129.20	126.00
1	5	1582	C	C6-N1-C1'	-5.34	114.39	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	3195	U	O4'-C1'-N1	-5.34	103.93	108.20
2	6	378	A	N1-C6-N6	5.34	121.80	118.60
1	1	2425	G	N3-C2-N2	-5.34	116.16	119.90
1	1	803	C	C6-N1-C2	-5.34	118.17	120.30
1	1	1556	C	C5-C6-N1	5.34	123.67	121.00
1	1	3362	A	C5-N7-C8	-5.34	101.23	103.90
2	2	639	U	N3-C2-O2	-5.34	118.46	122.20
2	2	1075	C	C5-C6-N1	5.34	123.67	121.00
69	S1	218	LEU	CA-CB-CG	5.34	127.57	115.30
1	5	352	A	C8-N9-C4	5.33	107.93	105.80
1	5	2572	C	C5-C6-N1	5.33	123.67	121.00
1	1	44	U	C6-N1-C2	5.33	124.20	121.00
1	1	2247	G	O5'-P-OP1	-5.33	100.90	105.70
4	4	14	C	N3-C4-C5	5.33	124.03	121.90
1	5	356	C	C5-C6-N1	-5.33	118.33	121.00
1	1	187	A	C8-N9-C4	-5.33	103.67	105.80
4	4	113	U	N3-C4-O4	-5.33	115.67	119.40
1	1	1582	C	C2-N1-C1'	-5.33	112.94	118.80
2	2	1196	A	P-O3'-C3'	5.33	126.10	119.70
1	5	424	G	C6-C5-N7	-5.33	127.20	130.40
17	D2	28	ARG	C-N-CD	-5.33	108.87	120.60
1	1	2201	G	N3-C4-C5	-5.33	125.94	128.60
1	5	511	G	C5-C6-O6	-5.33	125.40	128.60
1	5	656	A	C5-N7-C8	-5.33	101.24	103.90
1	5	1161	G	C5-C6-O6	-5.33	125.40	128.60
1	5	2987	A	C2-N3-C4	5.33	113.26	110.60
2	6	576	G	C6-C5-N7	-5.33	127.20	130.40
2	6	1671	A	N1-C6-N6	-5.33	115.40	118.60
11	C6	28	LEU	CA-CB-CG	5.33	127.55	115.30
1	1	41	G	N1-C6-O6	-5.33	116.70	119.90
1	1	1929	G	N1-C6-O6	5.33	123.10	119.90
1	1	2514	U	O5'-P-OP1	-5.33	100.91	105.70
1	5	291	C	N3-C4-C5	5.33	124.03	121.90
1	5	3047	U	N1-C2-O2	-5.33	119.07	122.80
1	1	2651	G	C4-C5-N7	5.33	112.93	110.80
1	1	226	C	C6-N1-C2	-5.32	118.17	120.30
1	1	287	G	N1-C6-O6	5.32	123.09	119.90
1	1	1446	A	C8-N9-C4	-5.32	103.67	105.80
1	5	2201	G	C6-C5-N7	-5.32	127.21	130.40
2	6	78	A	C8-N9-C4	-5.32	103.67	105.80
1	1	1306	G	N3-C4-C5	-5.32	125.94	128.60
1	1	3122	A	N1-C6-N6	-5.32	115.41	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	2320	A	C8-N9-C4	5.32	107.93	105.80
1	5	3211	C	C6-N1-C2	5.32	122.43	120.30
1	1	864	G	OP2-P-O3'	5.32	116.90	105.20
2	2	947	U	C5-C6-N1	5.32	125.36	122.70
1	1	2603	G	N9-C4-C5	-5.32	103.27	105.40
4	4	135	G	C4-C5-N7	-5.32	108.67	110.80
1	1	667	C	N1-C2-O2	5.32	122.09	118.90
1	1	1024	G	P-O3'-C3'	5.32	126.08	119.70
1	1	2311	G	C4-C5-N7	5.32	112.93	110.80
1	1	3056	U	C6-N1-C2	5.32	124.19	121.00
1	5	1355	A	P-O3'-C3'	5.32	126.08	119.70
1	1	1544	G	N9-C4-C5	-5.32	103.27	105.40
2	2	1607	G	N3-C4-C5	-5.32	125.94	128.60
2	6	487	G	N3-C4-N9	5.32	129.19	126.00
2	2	433	C	C6-N1-C2	5.31	122.42	120.30
1	5	384	A	N1-C6-N6	5.31	121.79	118.60
1	1	1853	U	N1-C2-O2	-5.31	119.08	122.80
1	1	1915	A	C8-N9-C4	5.31	107.92	105.80
2	2	1600	A	C5-C6-N1	-5.31	115.04	117.70
36	m1	112	LEU	CA-CB-CG	5.31	127.52	115.30
1	1	1482	A	N7-C8-N9	5.31	116.46	113.80
1	1	3310	A	N1-C6-N6	5.31	121.79	118.60
1	1	668	G	C8-N9-C4	5.31	108.52	106.40
2	2	1097	U	O4'-C1'-N1	5.31	112.45	108.20
2	2	238	U	C5-C6-N1	5.31	125.35	122.70
1	5	2574	G	C4-C5-N7	5.31	112.92	110.80
1	1	837	A	C2-N3-C4	-5.31	107.95	110.60
2	2	1778	G	C8-N9-C4	-5.31	104.28	106.40
1	5	227	G	C8-N9-C1'	-5.31	120.10	127.00
1	1	1169	A	C5-C6-N6	5.30	127.94	123.70
1	1	3316	A	P-O3'-C3'	5.30	126.06	119.70
2	2	1343	U	C6-N1-C2	-5.30	117.82	121.00
1	5	824	C	N3-C4-C5	-5.30	119.78	121.90
1	5	2849	C	O5'-P-OP2	-5.30	100.93	105.70
2	6	1607	G	N1-C6-O6	5.30	123.08	119.90
17	D2	65	LEU	CA-CB-CG	5.30	127.50	115.30
1	1	1356	U	N3-C2-O2	5.30	125.91	122.20
2	2	1794	A	N1-C6-N6	-5.30	115.42	118.60
1	5	26	A	N1-C6-N6	5.30	121.78	118.60
1	5	1115	G	N7-C8-N9	5.30	115.75	113.10
1	1	3268	A	C8-N9-C4	-5.30	103.68	105.80
2	2	939	A	C5-C6-N6	-5.30	119.46	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	2606	G	C6-C5-N7	-5.30	127.22	130.40
2	2	895	G	C4-C5-N7	-5.30	108.68	110.80
1	1	2110	G	N3-C4-N9	5.30	129.18	126.00
2	2	622	A	OP1-P-O3'	5.30	116.85	105.20
1	5	1004	U	N3-C4-O4	5.30	123.11	119.40
1	5	1149	G	N3-C4-C5	-5.30	125.95	128.60
1	1	229	G	C8-N9-C4	-5.29	104.28	106.40
1	1	1702	U	C6-N1-C2	-5.29	117.82	121.00
1	1	195	U	OP1-P-O3'	5.29	116.84	105.20
2	2	1427	A	N9-C4-C5	5.29	107.92	105.80
1	5	1913	A	C5-C6-N6	-5.29	119.47	123.70
2	6	391	A	O5'-P-OP2	-5.29	100.94	105.70
2	6	466	U	C6-N1-C2	-5.29	117.82	121.00
1	1	2946	A	OP2-P-O3'	5.29	116.84	105.20
1	5	880	G	N1-C6-O6	-5.29	116.72	119.90
1	5	2977	G	N1-C2-N2	-5.29	111.44	116.20
1	5	953	G	N3-C2-N2	5.29	123.60	119.90
2	2	1332	C	C6-N1-C2	-5.29	118.18	120.30
1	5	3307	A	C5-C6-N6	-5.29	119.47	123.70
1	1	3278	C	N3-C2-O2	-5.29	118.20	121.90
2	6	1060	U	C2-N1-C1'	5.29	124.04	117.70
1	1	2401	A	O4'-C1'-N9	5.29	112.43	108.20
1	5	1775	G	N1-C6-O6	5.29	123.07	119.90
1	1	929	A	OP1-P-O3'	5.28	116.82	105.20
1	1	964	G	C8-N9-C4	-5.28	104.29	106.40
1	1	1218	U	C2-N1-C1'	5.28	124.04	117.70
1	1	2112	U	P-O3'-C3'	5.28	126.04	119.70
2	2	498	G	C8-N9-C4	-5.28	104.29	106.40
1	5	2137	U	C2-N1-C1'	5.28	124.04	117.70
2	6	1059	U	C5-C6-N1	5.28	125.34	122.70
2	6	1657	U	C3'-C2'-C1'	5.28	105.73	101.50
1	1	632	G	C5-C6-O6	-5.28	125.43	128.60
1	1	2761	G	N1-C6-O6	-5.28	116.73	119.90
1	1	3303	G	C8-N9-C4	5.28	108.51	106.40
1	5	1878	G	C5-C6-O6	5.28	131.77	128.60
1	1	753	C	N3-C4-C5	5.28	124.01	121.90
1	1	915	A	C8-N9-C4	-5.28	103.69	105.80
1	5	3266	G	N1-C6-O6	-5.28	116.73	119.90
1	1	216	G	N1-C6-O6	5.28	123.07	119.90
1	1	273	A	C6-C5-N7	5.28	136.00	132.30
1	1	1581	C	OP2-P-O3'	5.28	116.81	105.20
1	1	2372	A	C8-N9-C4	5.28	107.91	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	193	C	C6-N1-C2	-5.28	118.19	120.30
1	1	966	U	C5-C4-O4	-5.28	122.73	125.90
1	1	1047	A	O5'-P-OP2	-5.28	100.95	105.70
1	1	2764	C	C6-N1-C2	-5.28	118.19	120.30
1	1	2794	G	N1-C6-O6	5.28	123.07	119.90
2	2	1649	G	C8-N9-C4	5.28	108.51	106.40
1	5	2824	G	N3-C4-N9	5.28	129.17	126.00
1	1	1610	G	C6-C5-N7	-5.28	127.23	130.40
1	1	1614	C	N3-C2-O2	-5.28	118.21	121.90
3	3	113	C	C6-N1-C2	5.28	122.41	120.30
1	5	1078	U	C6-N1-C1'	5.28	128.59	121.20
3	7	85	G	N3-C4-C5	5.28	131.24	128.60
14	C9	28	LEU	CA-CB-CG	5.28	127.43	115.30
2	2	1420	C	N3-C4-C5	5.27	124.01	121.90
1	5	2837	A	N1-C6-N6	5.27	121.76	118.60
1	5	1146	C	C5-C6-N1	-5.27	118.36	121.00
1	5	1370	G	N1-C6-O6	5.27	123.06	119.90
1	5	1429	G	C6-C5-N7	-5.27	127.24	130.40
1	5	2983	C	O5'-P-OP2	5.27	117.03	110.70
1	1	1610	G	N1-C6-O6	5.27	123.06	119.90
1	1	2846	U	N3-C2-O2	-5.27	118.51	122.20
50	N6	111	LEU	CA-CB-CG	-5.27	103.18	115.30
1	1	1202	A	C5-C6-N6	-5.27	119.48	123.70
1	1	2857	C	N3-C4-C5	-5.27	119.79	121.90
4	4	136	G	C8-N9-C4	5.27	108.51	106.40
1	5	3245	A	C4-C5-C6	5.27	119.64	117.00
3	7	91	G	N3-C2-N2	-5.27	116.21	119.90
1	5	2246	G	C5-C6-O6	-5.27	125.44	128.60
1	5	1000	C	N3-C4-C5	5.27	124.01	121.90
2	6	1736	G	N1-C6-O6	5.27	123.06	119.90
1	1	869	G	C5-C6-N1	5.26	114.13	111.50
1	1	1886	A	N1-C6-N6	-5.26	115.44	118.60
1	5	826	G	N1-C6-O6	5.26	123.06	119.90
1	5	2260	U	C6-N1-C2	-5.26	117.84	121.00
1	1	919	U	N1-C2-O2	5.26	126.48	122.80
2	2	130	C	N3-C2-O2	-5.26	118.22	121.90
2	2	926	A	N1-C2-N3	5.26	131.93	129.30
1	5	920	A	C2-N3-C4	-5.26	107.97	110.60
1	5	1825	G	C4-C5-N7	-5.26	108.70	110.80
1	5	2382	G	C5-C6-O6	-5.26	125.44	128.60
2	6	779	U	C2-N1-C1'	5.26	124.01	117.70
1	1	1316	C	C6-N1-C2	5.26	122.40	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2961	G	C8-N9-C4	-5.26	104.30	106.40
4	4	140	G	C6-C5-N7	-5.26	127.24	130.40
1	5	3245	A	C6-C5-N7	-5.26	128.62	132.30
1	1	2150	G	N1-C6-O6	5.26	123.05	119.90
1	1	3217	C	C5-C6-N1	5.26	123.63	121.00
1	1	3318	G	C4-N9-C1'	5.26	133.33	126.50
1	5	287	G	N9-C4-C5	-5.26	103.30	105.40
1	5	562	C	C6-N1-C2	-5.26	118.20	120.30
1	5	917	A	O5'-P-OP2	-5.26	100.97	105.70
1	5	3338	C	N3-C4-C5	5.26	124.00	121.90
2	6	9	U	C5-C6-N1	5.26	125.33	122.70
1	1	3068	U	C2-N1-C1'	-5.25	111.40	117.70
1	5	1855	U	C5-C4-O4	5.25	129.05	125.90
1	5	2413	A	C2-N3-C4	-5.25	107.97	110.60
2	6	858	G	C4-N9-C1'	5.25	133.33	126.50
1	1	584	G	O5'-P-OP2	-5.25	100.97	105.70
1	1	1161	G	C8-N9-C4	-5.25	104.30	106.40
1	5	1878	G	N1-C6-O6	-5.25	116.75	119.90
1	5	2240	G	C6-C5-N7	-5.25	127.25	130.40
2	6	75	U	P-O3'-C3'	5.25	126.00	119.70
2	6	548	G	N1-C6-O6	5.25	123.05	119.90
1	1	2174	G	N3-C2-N2	-5.25	116.23	119.90
2	2	204	G	C4-C5-N7	5.25	112.90	110.80
2	2	1736	G	C5-C6-O6	-5.25	125.45	128.60
1	5	422	A	C8-N9-C4	-5.25	103.70	105.80
2	6	1491	U	C6-N1-C2	-5.25	117.85	121.00
1	5	2827	U	C5-C6-N1	-5.25	120.08	122.70
1	5	3049	A	N1-C6-N6	5.25	121.75	118.60
1	1	1174	G	C8-N9-C1'	-5.25	120.18	127.00
3	3	83	U	C6-N1-C2	5.25	124.15	121.00
1	1	782	U	OP2-P-O3'	5.24	116.74	105.20
1	5	1155	C	O5'-P-OP1	-5.24	100.98	105.70
1	5	1581	C	C2-N1-C1'	5.24	124.57	118.80
1	5	3205	G	C4-C5-N7	5.24	112.90	110.80
2	6	1625	C	C6-N1-C2	5.24	122.40	120.30
1	1	2420	C	C5-C6-N1	5.24	123.62	121.00
1	1	2645	G	C5-C6-O6	-5.24	125.45	128.60
1	1	2940	A	C5-C6-N1	5.24	120.32	117.70
2	2	1760	G	N1-C6-O6	5.24	123.04	119.90
1	5	283	G	C4-N9-C1'	5.24	133.31	126.50
1	5	1657	C	C6-N1-C2	-5.24	118.20	120.30
1	5	799	G	C6-C5-N7	-5.24	127.26	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	2951	G	C4-C5-N7	5.24	112.90	110.80
1	1	63	A	O5'-P-OP1	-5.24	100.99	105.70
1	1	350	C	N1-C2-O2	5.24	122.04	118.90
1	1	891	G	C6-C5-N7	-5.24	127.26	130.40
2	2	1154	G	C5-C6-O6	5.24	131.74	128.60
1	5	1730	G	C8-N9-C4	-5.24	104.31	106.40
1	5	2619	G	C6-C5-N7	-5.24	127.26	130.40
2	6	1495	C	C6-N1-C2	-5.24	118.21	120.30
1	1	2817	A	C2-N3-C4	5.23	113.22	110.60
1	5	1437	C	N3-C4-N4	5.23	121.66	118.00
2	6	176	C	N1-C2-O2	5.23	122.04	118.90
1	1	96	G	N3-C4-C5	5.23	131.22	128.60
1	1	2541	U	C2-N1-C1'	5.23	123.98	117.70
1	5	1465	A	N1-C6-N6	-5.23	115.46	118.60
2	6	151	G	C6-C5-N7	5.23	133.54	130.40
2	6	320	U	O5'-P-OP1	-5.23	100.99	105.70
1	1	1571	A	P-O3'-C3'	5.23	125.98	119.70
1	1	2617	U	N1-C2-O2	-5.23	119.14	122.80
4	4	104	A	C5-C6-N6	-5.23	119.52	123.70
1	5	3243	A	O4'-C1'-N9	-5.23	104.02	108.20
1	1	2180	G	N3-C4-C5	5.23	131.22	128.60
1	1	2425	G	N1-C6-O6	5.23	123.04	119.90
1	5	2404	A	N3-C4-C5	5.23	130.46	126.80
1	1	1602	A	N1-C6-N6	-5.23	115.46	118.60
1	5	1715	A	OP1-P-O3'	5.23	116.70	105.20
1	5	2651	G	C8-N9-C4	5.23	108.49	106.40
2	6	192	U	C5-C6-N1	5.23	125.31	122.70
1	1	94	G	O5'-P-OP1	-5.23	101.00	105.70
1	5	2830	G	C2-N3-C4	-5.23	109.29	111.90
2	6	581	U	C2-N1-C1'	-5.23	111.43	117.70
2	2	294	C	C6-N1-C2	5.22	122.39	120.30
2	2	616	G	N9-C4-C5	5.22	107.49	105.40
4	4	51	G	N1-C6-O6	5.22	123.03	119.90
1	1	1450	G	OP1-P-OP2	-5.22	111.77	119.60
1	5	601	U	C2-N1-C1'	5.22	123.97	117.70
4	8	118	C	C6-N1-C2	-5.22	118.21	120.30
1	1	780	A	N9-C4-C5	5.22	107.89	105.80
1	1	928	C	N3-C4-C5	5.22	123.99	121.90
1	5	439	C	C6-N1-C1'	-5.22	114.53	120.80
2	6	624	G	N1-C6-O6	5.22	123.03	119.90
1	1	1322	U	N3-C4-C5	-5.22	111.47	114.60
3	3	8	G	N3-C4-C5	5.22	131.21	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	913	A	N1-C6-N6	5.22	121.73	118.60
1	5	925	A	C2-N3-C4	-5.22	107.99	110.60
2	6	176	C	N3-C2-O2	-5.22	118.25	121.90
2	6	1458	G	C8-N9-C1'	-5.22	120.21	127.00
1	1	1211	U	C6-N1-C2	5.22	124.13	121.00
1	1	2836	C	C6-N1-C2	-5.22	118.21	120.30
1	5	2366	C	N3-C4-C5	5.22	123.99	121.90
1	1	2403	G	O5'-P-OP2	-5.22	101.00	105.70
1	1	3220	G	N1-C6-O6	5.22	123.03	119.90
1	5	718	G	O4'-C1'-N9	5.22	112.37	108.20
1	5	2628	A	N1-C6-N6	5.22	121.73	118.60
1	1	611	A	C6-C5-N7	-5.21	128.65	132.30
1	1	1399	A	N1-C6-N6	5.21	121.73	118.60
1	1	1413	G	C2-N3-C4	-5.21	109.29	111.90
2	2	209	U	O5'-P-OP1	-5.21	101.01	105.70
1	5	909	G	N1-C6-O6	-5.21	116.77	119.90
1	5	2942	C	C6-N1-C2	-5.21	118.21	120.30
1	5	2964	G	OP1-P-O3'	5.21	116.67	105.20
3	7	79	A	N1-C6-N6	-5.21	115.47	118.60
4	8	121	U	N3-C2-O2	-5.21	118.55	122.20
1	5	2181	C	N3-C4-C5	5.21	123.98	121.90
2	6	1453	G	C8-N9-C4	5.21	108.48	106.40
50	N6	57	LEU	CA-CB-CG	5.21	127.29	115.30
1	1	1000	C	N3-C4-C5	5.21	123.98	121.90
1	1	1422	G	C5-C6-O6	-5.21	125.47	128.60
1	1	2934	A	C2-N3-C4	-5.21	108.00	110.60
1	1	3373	U	C6-N1-C2	5.21	124.13	121.00
2	2	306	U	C5-C6-N1	-5.21	120.10	122.70
4	8	46	G	C5-C6-O6	5.21	131.72	128.60
2	6	1686	C	C5-C6-N1	5.21	123.60	121.00
79	sR	165	ASP	C-N-CA	5.21	134.72	121.70
1	1	3216	G	N3-C4-C5	5.21	131.20	128.60
1	5	601	U	C6-N1-C2	-5.21	117.88	121.00
3	3	51	A	C8-N9-C4	-5.20	103.72	105.80
3	3	77	G	C8-N9-C4	5.20	108.48	106.40
1	5	1672	U	O4'-C1'-N1	5.20	112.36	108.20
1	5	2204	C	P-O3'-C3'	5.20	125.94	119.70
2	6	1003	A	C8-N9-C4	5.20	107.88	105.80
1	1	1941	C	C5-C6-N1	5.20	123.60	121.00
1	5	3252	G	N3-C4-C5	5.20	131.20	128.60
4	8	82	U	P-O3'-C3'	5.20	125.94	119.70
1	1	359	U	N1-C2-N3	5.20	118.02	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	1086	C	C6-N1-C2	-5.20	118.22	120.30
1	1	3220	G	C5-C6-O6	-5.20	125.48	128.60
2	2	91	G	C8-N9-C4	5.20	108.48	106.40
1	5	1075	A	C8-N9-C4	5.20	107.88	105.80
17	D2	93	LEU	CA-CB-CG	5.20	127.26	115.30
1	1	645	A	C5-C6-N6	5.20	127.86	123.70
1	1	1078	U	C6-N1-C2	-5.20	117.88	121.00
1	1	2206	G	O4'-C1'-N9	-5.20	104.04	108.20
1	1	211	A	O5'-P-OP1	-5.20	101.03	105.70
1	5	2332	A	C8-N9-C4	5.20	107.88	105.80
4	8	100	U	C2-N1-C1'	5.20	123.93	117.70
2	2	1760	G	C5-C6-O6	-5.19	125.48	128.60
1	5	1592	G	N3-C4-N9	5.19	129.12	126.00
1	5	3008	A	N1-C6-N6	-5.19	115.48	118.60
1	1	260	C	C6-N1-C2	5.19	122.38	120.30
1	1	839	C	C6-N1-C2	5.19	122.38	120.30
1	1	2960	C	OP2-P-O3'	5.19	116.62	105.20
3	3	31	U	C6-N1-C2	-5.19	117.89	121.00
1	5	368	G	N9-C4-C5	-5.19	103.32	105.40
1	5	2286	U	C2-N1-C1'	-5.19	111.47	117.70
1	1	620	U	N1-C2-N3	5.19	118.01	114.90
1	1	2186	U	O5'-P-OP1	5.19	116.93	110.70
1	1	2372	A	N7-C8-N9	-5.19	111.20	113.80
1	1	62	A	N9-C4-C5	-5.19	103.72	105.80
2	2	39	A	O4'-C1'-N9	5.19	112.35	108.20
2	2	1473	U	N1-C2-O2	5.19	126.43	122.80
1	5	711	A	N1-C6-N6	-5.19	115.49	118.60
2	6	789	A	N1-C6-N6	-5.19	115.49	118.60
1	1	637	C	C4-C5-C6	-5.19	114.81	117.40
2	2	1729	C	N3-C4-C5	5.18	123.97	121.90
1	5	423	A	N9-C4-C5	5.18	107.87	105.80
1	5	529	A	C8-N9-C4	-5.18	103.73	105.80
2	6	42	G	N1-C6-O6	5.18	123.01	119.90
2	6	553	G	N1-C6-O6	5.18	123.01	119.90
1	1	1871	U	N3-C2-O2	-5.18	118.57	122.20
1	5	2430	A	N1-C6-N6	5.18	121.71	118.60
1	1	1028	U	C5-C6-N1	5.18	125.29	122.70
2	6	639	U	N1-C2-O2	5.18	126.43	122.80
1	1	54	C	C6-N1-C2	5.18	122.37	120.30
1	1	632	G	C6-C5-N7	-5.18	127.29	130.40
1	1	808	A	C8-N9-C4	-5.18	103.73	105.80
1	1	2654	C	C5-C6-N1	5.18	123.59	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2817	A	N9-C4-C5	5.18	107.87	105.80
1	1	2937	G	C6-C5-N7	-5.18	127.29	130.40
1	5	280	U	O5'-P-OP2	-5.18	101.04	105.70
1	5	1858	A	N9-C4-C5	5.18	107.87	105.80
1	5	2625	C	N3-C2-O2	5.18	125.53	121.90
2	6	765	G	C4-C5-N7	-5.18	108.73	110.80
78	sM	134	ASP	CB-CG-OD2	5.18	122.96	118.30
1	1	2209	U	P-O3'-C3'	5.18	125.91	119.70
1	1	2620	G	C2-N3-C4	-5.18	109.31	111.90
1	5	2892	A	N9-C4-C5	-5.18	103.73	105.80
1	5	2987	A	N1-C2-N3	-5.18	126.71	129.30
2	2	499	U	C3'-C2'-C1'	5.17	105.64	101.50
1	5	1552	G	N9-C4-C5	-5.17	103.33	105.40
2	6	393	C	C6-N1-C2	5.17	122.37	120.30
2	6	565	C	C2-N1-C1'	5.17	124.49	118.80
2	6	810	G	N1-C6-O6	5.17	123.00	119.90
1	1	869	G	O5'-P-OP1	5.17	116.91	110.70
1	1	1206	G	N3-C4-C5	-5.17	126.01	128.60
1	1	353	G	O4'-C1'-N9	-5.17	104.06	108.20
1	1	2383	C	C6-N1-C2	5.17	122.37	120.30
1	1	2868	U	C2-N1-C1'	5.17	123.91	117.70
1	1	2901	G	N1-C6-O6	5.17	123.00	119.90
2	2	1093	A	N1-C6-N6	5.17	121.70	118.60
1	5	32	U	N3-C2-O2	-5.17	118.58	122.20
1	5	887	G	C5-C6-O6	-5.17	125.50	128.60
1	5	1858	A	N1-C6-N6	-5.17	115.50	118.60
1	5	2240	G	N7-C8-N9	5.17	115.69	113.10
2	6	302	U	C6-N1-C2	-5.17	117.90	121.00
76	S8	121	LEU	CA-CB-CG	5.17	127.19	115.30
1	1	1197	A	N1-C6-N6	5.17	121.70	118.60
1	1	336	A	N1-C6-N6	5.17	121.70	118.60
2	2	75	U	N3-C2-O2	-5.17	118.58	122.20
1	5	216	G	N1-C6-O6	5.17	123.00	119.90
2	6	1591	C	C6-N1-C2	-5.17	118.23	120.30
1	1	2150	G	N3-C4-C5	5.17	131.18	128.60
1	5	1481	A	C4-N9-C1'	5.17	135.60	126.30
1	5	1776	G	C8-N9-C4	-5.17	104.33	106.40
1	5	2954	U	N3-C2-O2	-5.17	118.58	122.20
1	1	1521	G	N3-C4-N9	-5.17	122.90	126.00
1	5	18	G	N3-C2-N2	-5.17	116.28	119.90
78	SM	134	ASP	CB-CG-OD2	5.17	122.95	118.30
1	1	756	U	C6-N1-C2	5.16	124.10	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2354	C	N3-C4-C5	-5.16	119.83	121.90
1	1	2870	C	P-O3'-C3'	5.16	125.90	119.70
1	5	68	C	N1-C2-O2	5.16	122.00	118.90
1	5	2371	G	N3-C4-N9	5.16	129.10	126.00
2	6	558	U	C5-C6-N1	5.16	125.28	122.70
2	6	1524	A	C8-N9-C4	-5.16	103.73	105.80
1	1	1508	C	OP1-P-O3'	5.16	116.56	105.20
2	2	75	U	C2-N1-C1'	5.16	123.89	117.70
1	5	2620	G	C2-N3-C4	-5.16	109.32	111.90
1	1	339	C	N3-C4-C5	5.16	123.96	121.90
1	1	1381	A	N9-C4-C5	-5.16	103.74	105.80
1	1	2180	G	C8-N9-C4	5.16	108.46	106.40
2	2	881	A	C8-N9-C4	5.16	107.86	105.80
2	2	1052	U	O4'-C1'-N1	5.16	112.33	108.20
1	5	2831	G	C4-C5-N7	5.16	112.86	110.80
1	1	2646	C	C5-C6-N1	-5.16	118.42	121.00
2	2	1783	C	C2-N1-C1'	5.16	124.47	118.80
1	5	1006	A	C8-N9-C4	5.16	107.86	105.80
1	5	1338	C	N3-C4-N4	5.16	121.61	118.00
1	5	1913	A	C6-C5-N7	-5.16	128.69	132.30
1	5	2401	A	N3-C4-N9	5.16	131.53	127.40
1	5	2848	G	N9-C4-C5	5.16	107.46	105.40
2	6	1060	U	C5-C6-N1	5.16	125.28	122.70
4	8	84	C	N1-C2-O2	-5.16	115.80	118.90
1	1	949	C	N3-C4-C5	5.16	123.96	121.90
1	1	3280	U	N3-C2-O2	5.16	125.81	122.20
3	3	45	A	C8-N9-C4	-5.16	103.74	105.80
1	1	2348	A	N9-C4-C5	5.16	107.86	105.80
1	1	3056	U	N3-C2-O2	5.16	125.81	122.20
1	5	106	A	N9-C4-C5	-5.16	103.74	105.80
1	5	924	G	O5'-P-OP1	-5.16	101.06	105.70
1	5	3090	U	N3-C4-C5	-5.16	111.51	114.60
1	1	3110	C	C6-N1-C2	-5.15	118.24	120.30
1	1	2853	A	C5-C6-N6	-5.15	119.58	123.70
1	5	48	A	C5-C6-N6	5.15	127.82	123.70
1	5	877	C	C6-N1-C2	5.15	122.36	120.30
1	5	2574	G	O4'-C1'-N9	-5.15	104.08	108.20
1	1	1437	C	C5-C6-N1	5.15	123.58	121.00
1	1	1582	C	C6-N1-C1'	5.15	126.98	120.80
1	5	1437	C	N3-C4-C5	-5.15	119.84	121.90
1	5	2298	U	N3-C2-O2	-5.15	118.59	122.20
1	1	2385	G	N1-C6-O6	5.15	122.99	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	1531	C	C5-C4-N4	-5.15	116.60	120.20
2	6	1458	G	C5-C6-O6	-5.15	125.51	128.60
1	1	1940	G	N9-C4-C5	-5.15	103.34	105.40
2	2	1096	C	C6-N1-C1'	-5.15	114.62	120.80
76	s8	29	LEU	CA-CB-CG	5.15	127.14	115.30
1	1	251	G	N3-C4-C5	-5.14	126.03	128.60
2	2	29	U	C2-N1-C1'	-5.14	111.53	117.70
1	5	1229	G	N3-C4-C5	-5.14	126.03	128.60
1	5	2611	U	O5'-P-OP1	5.14	116.88	110.70
2	6	163	G	C2-N3-C4	-5.14	109.33	111.90
2	6	1034	C	C6-N1-C2	5.14	122.36	120.30
1	1	2613	U	O5'-P-OP2	-5.14	101.07	105.70
1	1	2748	A	N9-C4-C5	-5.14	103.74	105.80
1	1	3318	G	C6-C5-N7	-5.14	127.31	130.40
1	5	439	C	C2-N3-C4	5.14	122.47	119.90
1	5	1024	G	N3-C4-C5	-5.14	126.03	128.60
1	5	3100	U	N3-C2-O2	5.14	125.80	122.20
2	6	45	U	O4'-C1'-N1	5.14	112.31	108.20
1	1	1625	A	C8-N9-C4	5.14	107.86	105.80
1	5	813	G	C5-C6-O6	-5.14	125.52	128.60
2	6	1422	A	N9-C4-C5	-5.14	103.74	105.80
1	1	2961	G	OP1-P-O3'	5.14	116.51	105.20
2	2	1486	G	C4-C5-N7	5.14	112.86	110.80
1	5	701	G	C8-N9-C4	-5.14	104.34	106.40
1	5	1205	A	N1-C6-N6	5.14	121.68	118.60
1	5	1400	G	N1-C6-O6	-5.14	116.82	119.90
2	6	1323	C	C6-N1-C2	-5.14	118.24	120.30
1	1	227	G	N3-C4-N9	5.14	129.08	126.00
1	1	992	A	C8-N9-C4	5.14	107.86	105.80
1	5	609	G	C5-C6-O6	-5.14	125.52	128.60
2	6	434	G	O5'-P-OP2	-5.14	101.08	105.70
4	8	72	A	C5-C6-N6	-5.14	119.59	123.70
1	1	1454	A	N7-C8-N9	-5.14	111.23	113.80
2	2	1798	U	N3-C2-O2	-5.14	118.61	122.20
4	4	47	C	N3-C4-C5	5.14	123.95	121.90
1	5	894	G	N3-C4-N9	5.14	129.08	126.00
1	5	1343	A	C2-N3-C4	-5.13	108.03	110.60
1	5	1590	G	C8-N9-C4	5.13	108.45	106.40
1	5	1782	U	C2-N1-C1'	5.13	123.86	117.70
2	6	767	U	C2-N1-C1'	5.13	123.86	117.70
1	1	1085	A	N1-C6-N6	5.13	121.68	118.60
1	5	912	G	N9-C4-C5	-5.13	103.35	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	1609	C	N3-C4-C5	5.13	123.95	121.90
1	1	1204	A	N1-C6-N6	5.13	121.68	118.60
1	1	2943	G	C8-N9-C4	-5.13	104.35	106.40
2	2	497	G	C3'-C2'-C1'	5.13	105.61	101.50
54	o0	104	LEU	CA-CB-CG	5.13	127.10	115.30
1	1	968	G	N9-C4-C5	-5.13	103.35	105.40
1	5	3158	G	C8-N9-C4	-5.13	104.35	106.40
1	1	96	G	C2-N3-C4	-5.13	109.34	111.90
1	1	884	A	C6-C5-N7	-5.13	128.71	132.30
2	2	1389	C	C2-N1-C1'	5.13	124.44	118.80
4	4	140	G	N9-C4-C5	-5.13	103.35	105.40
1	5	1495	U	C2-N1-C1'	5.13	123.85	117.70
1	1	3216	G	C8-N9-C4	5.13	108.45	106.40
1	5	970	A	N9-C1'-C2'	-5.13	106.36	112.00
1	5	2726	C	C5-C4-N4	5.13	123.79	120.20
2	6	1605	G	C8-N9-C4	-5.13	104.35	106.40
1	5	1323	G	C5-C6-O6	-5.12	125.53	128.60
1	5	1606	U	OP2-P-O3'	5.12	116.47	105.20
1	5	3195	U	N1-C2-N3	-5.12	111.83	114.90
2	6	557	G	C4-N9-C1'	5.12	133.16	126.50
1	1	1473	G	C8-N9-C4	5.12	108.45	106.40
2	2	1324	G	C8-N9-C1'	5.12	133.66	127.00
1	5	506	U	C6-N1-C2	-5.12	117.93	121.00
1	5	2817	A	C4-C5-C6	-5.12	114.44	117.00
1	1	758	C	C6-N1-C2	-5.12	118.25	120.30
2	2	1331	A	N1-C6-N6	-5.12	115.53	118.60
1	5	2403	G	C5-C6-O6	-5.12	125.53	128.60
2	6	1773	C	C5-C6-N1	5.12	123.56	121.00
24	d9	36	LEU	CA-CB-CG	5.12	127.08	115.30
1	1	1113	G	C8-N9-C4	-5.12	104.35	106.40
1	1	2857	C	O5'-P-OP1	-5.12	101.09	105.70
2	2	1162	C	C6-N1-C2	-5.12	118.25	120.30
1	5	1672	U	C2-N1-C1'	-5.12	111.56	117.70
1	1	141	C	C6-N1-C2	-5.12	118.25	120.30
2	2	15	U	OP2-P-O3'	5.12	116.46	105.20
1	5	2404	A	C8-N9-C4	5.12	107.85	105.80
1	1	63	A	C6-C5-N7	-5.12	128.72	132.30
1	1	651	G	N3-C4-C5	-5.12	126.04	128.60
1	1	1842	A	O4'-C1'-N9	-5.12	104.11	108.20
1	1	2376	G	N1-C6-O6	5.12	122.97	119.90
1	1	3390	G	N1-C6-O6	5.12	122.97	119.90
2	2	1490	C	OP1-P-O3'	5.12	116.45	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	3	9	C	C6-N1-C2	5.12	122.35	120.30
1	5	228	U	C6-N1-C2	-5.12	117.93	121.00
1	5	1851	G	N7-C8-N9	5.12	115.66	113.10
1	1	3050	U	N1-C2-O2	5.11	126.38	122.80
2	2	1286	U	C6-N1-C1'	5.11	128.36	121.20
1	5	1303	A	C4-C5-N7	5.11	113.26	110.70
2	6	163	G	N1-C2-N3	5.11	126.97	123.90
2	6	577	G	N7-C8-N9	5.11	115.66	113.10
2	2	1473	U	C5-C4-O4	5.11	128.97	125.90
1	5	2105	G	C4-N9-C1'	-5.11	119.86	126.50
1	5	2225	U	C6-N1-C2	-5.11	117.93	121.00
1	1	2973	G	C5-N7-C8	5.11	106.86	104.30
1	1	3128	G	OP2-P-O3'	5.11	116.44	105.20
1	1	3194	C	C5-C6-N1	5.11	123.56	121.00
1	5	1931	U	N3-C2-O2	-5.11	118.62	122.20
2	6	238	U	P-O3'-C3'	5.11	125.83	119.70
1	1	3128	G	N3-C4-C5	-5.11	126.05	128.60
26	E1	84	VAL	C-N-CA	5.11	134.47	121.70
1	1	1487	G	C6-C5-N7	-5.11	127.34	130.40
2	2	1726	G	O5'-P-OP1	-5.11	101.10	105.70
1	5	251	G	N3-C4-C5	-5.11	126.05	128.60
1	1	3109	G	C5-C6-O6	-5.11	125.54	128.60
1	5	1831	U	OP2-P-O3'	5.11	116.43	105.20
1	5	3320	A	C8-N9-C4	5.11	107.84	105.80
1	1	3033	A	C8-N9-C4	-5.10	103.76	105.80
1	5	641	C	C5-C6-N1	5.10	123.55	121.00
1	1	1157	G	C5-C6-O6	-5.10	125.54	128.60
1	1	1197	A	N9-C4-C5	-5.10	103.76	105.80
2	2	1150	G	C3'-C2'-C1'	5.10	105.58	101.50
2	2	1536	G	C4-N9-C1'	5.10	133.13	126.50
3	3	7	G	N3-C4-C5	-5.10	126.05	128.60
1	1	120	G	N3-C4-N9	5.10	129.06	126.00
1	1	1178	G	C5-C6-O6	5.10	131.66	128.60
2	2	1241	G	O4'-C1'-N9	5.10	112.28	108.20
1	1	1086	C	C5-C6-N1	5.10	123.55	121.00
1	1	2415	C	N3-C4-C5	5.10	123.94	121.90
1	5	2971	A	C8-N9-C4	-5.10	103.76	105.80
1	1	2617	U	N1-C2-N3	5.10	117.96	114.90
1	5	48	A	N9-C4-C5	5.10	107.84	105.80
2	6	577	G	C5-N7-C8	-5.10	101.75	104.30
2	6	1187	U	C6-N1-C2	-5.10	117.94	121.00
4	8	2	A	C8-N9-C4	-5.10	103.76	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2366	C	C4-C5-C6	-5.09	114.85	117.40
1	5	1775	G	C4-C5-N7	5.09	112.84	110.80
1	5	1920	U	C5-C4-O4	5.09	128.96	125.90
20	d5	69	LEU	CA-CB-CG	5.09	127.02	115.30
69	S1	73	LEU	CA-CB-CG	5.09	127.02	115.30
1	1	639	G	C8-N9-C4	5.09	108.44	106.40
1	1	1888	U	N1-C2-O2	5.09	126.36	122.80
1	1	1493	G	C5-N7-C8	5.09	106.84	104.30
1	5	1594	A	C8-N9-C4	5.09	107.84	105.80
1	5	2980	U	C2-N1-C1'	5.09	123.81	117.70
1	1	1496	C	O5'-P-OP2	-5.09	101.12	105.70
1	1	1554	U	N3-C2-O2	5.09	125.76	122.20
1	1	2984	C	C6-N1-C1'	5.09	126.91	120.80
1	5	1450	G	C4-C5-N7	5.09	112.84	110.80
1	5	2817	A	C4-C5-N7	5.09	113.25	110.70
1	5	3043	C	N3-C4-C5	-5.09	119.86	121.90
2	6	864	U	C2-N1-C1'	5.09	123.81	117.70
2	6	1491	U	N1-C2-O2	5.09	126.36	122.80
1	1	353	G	N7-C8-N9	-5.09	110.56	113.10
1	1	648	C	N3-C4-C5	-5.09	119.86	121.90
1	1	1145	G	N1-C6-O6	5.09	122.95	119.90
1	5	511	G	N3-C2-N2	-5.09	116.34	119.90
1	5	2651	G	C4-C5-N7	5.09	112.83	110.80
1	1	1075	A	N1-C6-N6	-5.09	115.55	118.60
1	1	1404	G	C5-C6-O6	-5.09	125.55	128.60
1	1	2137	U	C2-N1-C1'	5.09	123.80	117.70
1	5	1538	G	C8-N9-C4	-5.09	104.36	106.40
1	5	2651	G	N9-C4-C5	-5.09	103.36	105.40
1	5	3144	G	C5-C6-O6	-5.09	125.55	128.60
2	6	417	A	N3-C4-C5	-5.09	123.24	126.80
2	6	1246	C	C2-N1-C1'	5.09	124.39	118.80
1	1	1764	U	C2-N1-C1'	5.08	123.80	117.70
1	1	876	A	C2-N3-C4	-5.08	108.06	110.60
1	1	1801	U	O5'-P-OP2	-5.08	101.12	105.70
1	1	1908	A	C8-N9-C4	5.08	107.83	105.80
1	5	2619	G	C4-C5-N7	5.08	112.83	110.80
1	1	60	A	C2-N3-C4	-5.08	108.06	110.60
1	1	116	A	N3-C4-C5	-5.08	123.24	126.80
1	1	1556	C	C2-N1-C1'	5.08	124.39	118.80
1	1	1655	G	N1-C2-N2	-5.08	111.63	116.20
1	1	1720	U	C6-N1-C2	-5.08	117.95	121.00
1	1	3044	G	OP2-P-O3'	5.08	116.38	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	5	580	C	N3-C4-C5	5.08	123.93	121.90
2	6	1286	U	N3-C4-O4	5.08	122.96	119.40
2	2	1798	U	C2-N1-C1'	5.08	123.80	117.70
1	1	966	U	C2-N1-C1'	5.08	123.80	117.70
1	1	2633	U	O5'-P-OP2	5.08	116.79	110.70
2	2	1573	A	OP2-P-O3'	5.08	116.37	105.20
1	5	1548	C	C6-N1-C2	-5.08	118.27	120.30
1	5	2617	U	C6-N1-C2	-5.08	117.95	121.00
1	5	3394	U	C6-N1-C2	5.08	124.05	121.00
2	6	501	U	C6-N1-C1'	-5.08	114.09	121.20
1	1	2507	C	C6-N1-C2	-5.08	118.27	120.30
1	1	2675	C	C6-N1-C1'	-5.08	114.71	120.80
1	5	1588	A	O5'-P-OP1	-5.08	101.13	105.70
2	6	1114	G	O4'-C1'-N9	5.08	112.26	108.20
1	1	336	A	C4-C5-N7	5.08	113.24	110.70
1	1	1899	G	O5'-P-OP1	-5.08	101.13	105.70
2	2	111	U	C2-N1-C1'	5.08	123.79	117.70
2	2	380	U	C2-N1-C1'	5.08	123.79	117.70
2	2	453	U	N3-C2-O2	-5.08	118.65	122.20
1	5	2240	G	N1-C6-O6	5.08	122.94	119.90
2	6	76	A	P-O3'-C3'	5.08	125.79	119.70
2	6	687	G	N9-C4-C5	5.08	107.43	105.40
1	1	1024	G	OP1-P-O3'	5.07	116.36	105.20
2	6	1462	G	N1-C6-O6	-5.07	116.86	119.90
2	2	61	A	C8-N9-C4	-5.07	103.77	105.80
2	2	1560	U	N1-C2-O2	5.07	126.35	122.80
1	1	666	A	N7-C8-N9	-5.07	111.27	113.80
1	1	2097	U	C6-N1-C2	-5.07	117.96	121.00
1	1	2623	G	N1-C6-O6	5.07	122.94	119.90
1	1	3059	G	C8-N9-C4	5.07	108.43	106.40
1	1	3158	G	N1-C6-O6	-5.07	116.86	119.90
2	2	1363	U	C2-N1-C1'	5.07	123.78	117.70
1	5	770	G	C8-N9-C4	-5.07	104.37	106.40
2	6	234	G	N3-C4-N9	5.07	129.04	126.00
2	6	794	U	N1-C2-N3	-5.07	111.86	114.90
1	1	48	A	N9-C4-C5	5.07	107.83	105.80
2	2	1	U	OP2-P-O3'	5.07	116.35	105.20
2	2	1414	U	C6-N1-C2	-5.07	117.96	121.00
2	2	1535	U	O5'-P-OP1	5.07	116.78	110.70
1	5	1321	G	N3-C4-C5	5.07	131.13	128.60
46	n2	28	PHE	C-N-CA	5.07	134.37	121.70
2	2	553	G	N1-C6-O6	5.07	122.94	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	2	1082	C	N1-C2-O2	5.07	121.94	118.90
4	8	112	U	N1-C2-O2	-5.07	119.25	122.80
4	8	126	A	OP1-P-O3'	5.07	116.34	105.20
2	2	1601	G	O5'-P-OP2	-5.06	101.14	105.70
1	1	798	G	N7-C8-N9	5.06	115.63	113.10
1	1	1490	A	C8-N9-C4	5.06	107.83	105.80
1	1	2381	G	N9-C4-C5	-5.06	103.38	105.40
4	4	134	G	O5'-P-OP2	5.06	116.78	110.70
4	4	144	G	C8-N9-C4	5.06	108.42	106.40
1	1	391	A	N1-C6-N6	5.06	121.64	118.60
1	1	2943	G	N7-C8-N9	5.06	115.63	113.10
2	6	806	A	O5'-P-OP2	-5.06	101.14	105.70
1	1	298	U	C6-N1-C1'	-5.06	114.12	121.20
1	1	1118	C	C6-N1-C2	-5.06	118.28	120.30
1	1	2779	A	C8-N9-C4	5.06	107.82	105.80
1	1	3290	G	C8-N9-C4	-5.06	104.38	106.40
4	4	2	A	C2-N3-C4	-5.06	108.07	110.60
4	4	81	U	O4'-C1'-N1	5.06	112.25	108.20
1	5	2797	C	C6-N1-C2	5.06	122.32	120.30
2	6	646	C	C6-N1-C2	-5.06	118.28	120.30
2	6	1060	U	C6-N1-C2	-5.06	117.96	121.00
1	1	611	A	N1-C6-N6	5.06	121.64	118.60
1	1	1448	U	C6-N1-C2	5.06	124.03	121.00
1	1	1663	C	C5-C6-N1	-5.06	118.47	121.00
1	1	2888	U	C5-C4-O4	-5.06	122.86	125.90
1	5	2288	G	C4-N9-C1'	5.06	133.07	126.50
2	6	453	U	C6-N1-C1'	-5.06	114.12	121.20
1	1	591	G	C4-C5-N7	5.06	112.82	110.80
1	1	1434	G	C8-N9-C4	5.05	108.42	106.40
1	1	1446	A	N9-C4-C5	5.05	107.82	105.80
4	4	54	A	C4-C5-C6	5.05	119.53	117.00
1	5	770	G	N9-C4-C5	5.05	107.42	105.40
1	5	1219	C	N3-C2-O2	-5.05	118.36	121.90
1	5	2160	G	N9-C4-C5	-5.05	103.38	105.40
4	8	84	C	N3-C2-O2	5.05	125.44	121.90
1	1	1763	U	N3-C2-O2	-5.05	118.66	122.20
1	1	2735	U	C5-C6-N1	5.05	125.23	122.70
1	1	3390	G	C5-C6-O6	-5.05	125.57	128.60
1	5	898	U	C6-N1-C2	-5.05	117.97	121.00
1	5	3124	G	N9-C4-C5	-5.05	103.38	105.40
1	5	3126	C	O5'-P-OP2	-5.05	101.15	105.70
1	1	2320	A	C2-N3-C4	-5.05	108.08	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	4	70	G	C8-N9-C4	5.05	108.42	106.40
1	5	1863	G	N3-C4-C5	5.05	131.12	128.60
1	5	2382	G	N3-C4-C5	5.05	131.12	128.60
3	7	89	G	N1-C6-O6	5.05	122.93	119.90
1	1	620	U	C6-N1-C1'	5.05	128.27	121.20
1	1	1340	G	C8-N9-C4	5.05	108.42	106.40
1	1	1373	A	OP2-P-O3'	5.05	116.31	105.20
1	1	1531	C	O5'-P-OP1	5.05	116.76	110.70
1	1	2381	G	N1-C6-O6	5.05	122.93	119.90
1	1	2896	A	C5-N7-C8	-5.05	101.38	103.90
1	5	98	G	C8-N9-C4	5.05	108.42	106.40
2	2	1610	G	N3-C4-C5	-5.05	126.08	128.60
1	5	934	G	C6-C5-N7	-5.05	127.37	130.40
1	5	1429	G	N3-C4-N9	5.05	129.03	126.00
1	5	2811	A	O5'-P-OP2	-5.05	101.16	105.70
4	8	80	A	C2-N3-C4	5.04	113.12	110.60
2	2	453	U	C5-C6-N1	5.04	125.22	122.70
1	5	1442	U	C5-C6-N1	-5.04	120.18	122.70
2	6	1074	G	C4-C5-N7	5.04	112.82	110.80
2	2	720	G	P-O3'-C3'	5.04	125.75	119.70
3	3	97	A	N1-C6-N6	5.04	121.62	118.60
4	4	36	G	N1-C6-O6	5.04	122.92	119.90
1	5	2421	U	C5-C6-N1	-5.04	120.18	122.70
1	1	2616	C	N3-C2-O2	5.04	125.43	121.90
1	1	3242	G	N1-C6-O6	5.04	122.92	119.90
2	2	188	A	O5'-P-OP1	-5.04	101.17	105.70
1	5	51	A	C5-C6-N6	-5.04	119.67	123.70
2	6	565	C	C6-N1-C1'	-5.04	114.75	120.80
2	6	687	G	N3-C4-N9	-5.04	122.98	126.00
2	6	1524	A	OP2-P-O3'	5.04	116.28	105.20
1	1	2934	A	N9-C4-C5	-5.04	103.78	105.80
2	6	555	A	P-O3'-C3'	5.04	125.74	119.70
2	6	1340	U	N3-C2-O2	-5.04	118.67	122.20
1	1	55	G	N1-C6-O6	5.04	122.92	119.90
1	1	2935	U	C2-N1-C1'	5.04	123.74	117.70
2	2	256	A	C8-N9-C4	-5.04	103.79	105.80
1	5	48	A	N3-C4-N9	-5.04	123.37	127.40
1	5	1770	G	C4-N9-C1'	5.04	133.05	126.50
2	6	1787	C	C6-N1-C2	5.04	122.31	120.30
1	1	1365	G	N3-C4-C5	-5.03	126.08	128.60
1	1	1413	G	C4-C5-N7	5.03	112.81	110.80
1	1	1892	G	N3-C4-C5	5.03	131.12	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2127	U	N3-C2-O2	5.03	125.72	122.20
1	1	2943	G	C4-C5-C6	5.03	121.82	118.80
1	1	3362	A	C2-N3-C4	-5.03	108.08	110.60
2	2	1051	G	P-O3'-C3'	5.03	125.74	119.70
2	6	194	U	N3-C2-O2	-5.03	118.68	122.20
1	5	2239	G	N1-C6-O6	5.03	122.92	119.90
1	5	2862	U	C5-C6-N1	-5.03	120.18	122.70
1	1	619	A	OP1-P-O3'	5.03	116.27	105.20
1	1	2571	U	C2-N1-C1'	5.03	123.74	117.70
1	5	1303	A	C5-C6-N6	-5.03	119.67	123.70
1	5	1413	G	C2-N3-C4	-5.03	109.38	111.90
1	5	1795	U	N1-C2-O2	5.03	126.32	122.80
1	5	2986	U	C6-N1-C2	-5.03	117.98	121.00
1	1	2833	A	C5-C6-N1	5.03	120.21	117.70
1	5	916	G	P-O3'-C3'	5.03	125.73	119.70
1	5	1408	G	N1-C6-O6	5.03	122.92	119.90
1	5	2427	U	O5'-P-OP1	5.03	116.73	110.70
1	5	3049	A	C5-C6-N6	-5.03	119.68	123.70
1	1	544	C	O4'-C1'-N1	5.03	112.22	108.20
1	1	639	G	C5-C6-N1	-5.03	108.99	111.50
1	1	1897	G	C4-C5-N7	5.03	112.81	110.80
1	1	1911	A	O5'-P-OP1	-5.03	101.17	105.70
1	1	3056	U	N1-C2-O2	-5.03	119.28	122.80
2	2	23	G	C8-N9-C4	-5.03	104.39	106.40
1	5	934	G	C8-N9-C1'	-5.03	120.46	127.00
1	5	2346	C	N3-C2-O2	5.03	125.42	121.90
1	5	2620	G	N3-C4-N9	-5.03	122.98	126.00
1	1	1507	G	O4'-C1'-N9	-5.03	104.18	108.20
1	1	1607	U	N3-C2-O2	-5.03	118.68	122.20
2	2	139	C	P-O3'-C3'	5.03	125.73	119.70
2	2	187	G	OP1-P-O3'	5.03	116.26	105.20
2	2	913	G	P-O3'-C3'	5.03	125.73	119.70
1	5	412	G	N3-C2-N2	-5.03	116.38	119.90
1	1	1595	U	C2-N1-C1'	-5.02	111.67	117.70
2	2	1559	A	O4'-C1'-N9	5.02	112.22	108.20
1	5	200	C	C5-C4-N4	5.02	123.72	120.20
1	5	278	U	C6-N1-C2	-5.02	117.98	121.00
1	5	515	C	C6-N1-C2	-5.02	118.29	120.30
1	5	2719	U	N1-C2-O2	-5.02	119.28	122.80
2	2	526	A	C8-N9-C4	-5.02	103.79	105.80
2	2	1398	U	C6-N1-C2	-5.02	117.99	121.00
1	5	2612	U	N3-C4-C5	-5.02	111.59	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	6	972	G	C5-C6-O6	-5.02	125.59	128.60
2	6	1274	C	N3-C2-O2	-5.02	118.38	121.90
2	2	1596	C	N1-C2-O2	5.02	121.91	118.90
1	1	2725	U	C5-C6-N1	-5.02	120.19	122.70
1	1	3159	C	C2-N1-C1'	-5.02	113.28	118.80
2	2	1466	G	C8-N9-C4	5.02	108.41	106.40
1	5	110	G	C8-N9-C4	5.02	108.41	106.40
1	5	400	G	N3-C4-C5	-5.02	126.09	128.60
1	5	915	A	N7-C8-N9	5.02	116.31	113.80
1	5	1105	A	C8-N9-C4	-5.02	103.79	105.80
1	5	2626	A	N1-C6-N6	5.02	121.61	118.60
1	5	3275	U	OP1-P-O3'	5.02	116.24	105.20
2	6	1177	C	C6-N1-C2	5.02	122.31	120.30
2	2	915	A	OP1-P-OP2	-5.02	112.08	119.60
1	5	1324	U	C5-C6-N1	-5.02	120.19	122.70
2	6	17	C	C6-N1-C2	-5.02	118.29	120.30
4	8	137	C	C6-N1-C2	5.02	122.31	120.30
22	D7	41	LEU	CA-CB-CG	5.02	126.84	115.30
1	1	2868	U	C5-C6-N1	5.02	125.21	122.70
1	5	1911	A	C4-C5-N7	-5.02	108.19	110.70
1	1	1348	U	N1-C2-O2	5.01	126.31	122.80
1	1	2362	C	N3-C2-O2	-5.01	118.39	121.90
1	1	2759	U	C2-N1-C1'	5.01	123.72	117.70
1	1	3142	A	N3-C4-C5	5.01	130.31	126.80
1	1	3303	G	N3-C4-C5	5.01	131.11	128.60
1	5	898	U	C5-C6-N1	5.01	125.21	122.70
1	5	2978	U	OP1-P-O3'	5.01	116.23	105.20
1	1	2566	C	N3-C4-C5	-5.01	119.89	121.90
1	5	1391	C	C5-C4-N4	-5.01	116.69	120.20
1	5	1437	C	N1-C2-O2	-5.01	115.89	118.90
1	5	3180	A	N1-C6-N6	5.01	121.61	118.60
1	1	1216	C	C6-N1-C2	5.01	122.31	120.30
1	1	2366	C	N3-C4-C5	5.01	123.90	121.90
1	1	3225	C	C6-N1-C2	-5.01	118.30	120.30
2	2	453	U	N1-C2-O2	5.01	126.31	122.80
2	2	929	A	N1-C6-N6	-5.01	115.59	118.60
2	2	1000	C	O4'-C1'-N1	5.01	112.21	108.20
2	2	1187	U	C5-C4-O4	5.01	128.91	125.90
2	2	1604	U	C6-N1-C2	-5.01	117.99	121.00
1	5	1834	U	C6-N1-C2	-5.01	117.99	121.00
2	6	1200	G	N3-C4-N9	-5.01	122.99	126.00
1	1	435	C	C6-N1-C2	5.01	122.30	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2858	U	C6-N1-C1'	5.01	128.21	121.20
2	2	1215	C	C6-N1-C2	-5.01	118.30	120.30
1	5	2345	A	N1-C6-N6	5.01	121.61	118.60
2	6	956	C	C6-N1-C2	-5.01	118.30	120.30
1	1	1382	G	N9-C4-C5	-5.01	103.40	105.40
1	1	2523	A	C8-N9-C4	5.01	107.80	105.80
1	1	545	U	C6-N1-C1'	-5.01	114.19	121.20
1	1	1578	C	C6-N1-C1'	-5.01	114.79	120.80
1	1	2513	U	OP1-P-O3'	5.01	116.21	105.20
2	6	1052	U	C6-N1-C2	-5.01	118.00	121.00
1	1	3056	U	C2-N1-C1'	-5.00	111.69	117.70
2	2	1610	G	N3-C4-N9	5.00	129.00	126.00
2	2	1629	G	N3-C4-C5	-5.00	126.10	128.60
1	1	1853	U	N3-C2-O2	5.00	125.70	122.20
2	2	1157	A	N7-C8-N9	5.00	116.30	113.80
1	5	3048	A	C8-N9-C4	-5.00	103.80	105.80
2	6	773	C	C6-N1-C2	-5.00	118.30	120.30
3	7	29	C	C6-N1-C2	-5.00	118.30	120.30
1	1	1324	U	O5'-P-OP1	-5.00	101.20	105.70
1	1	1370	G	C5-C6-O6	-5.00	125.60	128.60
1	1	1544	G	C4-C5-N7	5.00	112.80	110.80
1	1	1936	A	C8-N9-C4	5.00	107.80	105.80
1	1	2351	U	N3-C4-C5	5.00	117.60	114.60
2	2	364	G	N9-C4-C5	-5.00	103.40	105.40
1	5	2407	C	C6-N1-C2	-5.00	118.30	120.30
1	5	3137	C	OP1-P-O3'	5.00	116.20	105.20
1	5	3176	G	C5-C6-N1	-5.00	109.00	111.50
2	6	131	C	N1-C2-O2	5.00	121.90	118.90
2	6	1721	A	N1-C6-N6	-5.00	115.60	118.60

There are no chirality outliers.

All (137) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
7	C2	102	GLY	Peptide
7	C2	88	LEU	Peptide
9	C4	123	SER	Peptide
9	C4	90	ARG	Peptide
10	C5	124	THR	Peptide
11	C6	113	ASP	Peptide
11	C6	40	GLU	Peptide
12	C7	22	PRO	Peptide

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Mol	Chain	Res	Type	Group
12	C7	24	LEU	Peptide
12	C7	85	VAL	Peptide
13	C8	27	LYS	Peptide
17	D2	54	ASP	Peptide
18	D3	88	PRO	Peptide
19	D4	46	GLU	Peptide
19	D4	50	ALA	Peptide
20	D5	54	VAL	Peptide
20	D5	87	GLY	Peptide
20	D5	94	LYS	Peptide
21	D6	10	ARG	Peptide
21	D6	74	CYS	Peptide
21	D6	97	PRO	Peptide
22	D7	50	ALA	Peptide
26	E1	102	VAL	Peptide
26	E1	138	ARG	Peptide
26	E1	146	SER	Peptide
26	E1	147	VAL	Peptide
28	L3	290	ASP	Peptide
28	L3	346	THR	Peptide
28	L3	349	LYS	Peptide
29	L4	182	LEU	Peptide
30	L5	258	LYS	Peptide
33	L8	30	THR	Peptide
34	L9	49	ASN	Peptide
37	M3	129	ASN	Peptide
40	M6	110	PRO	Peptide
41	M7	157	VAL	Peptide
41	M7	158	ALA	Peptide
43	M9	128	LYS	Peptide
44	N0	12	ARG	Peptide
44	N0	166	LYS	Peptide
44	N0	22	PRO	Peptide
51	N7	102	GLU	Peptide
51	N7	124	ALA	Peptide
53	N9	19	ASN	Peptide
55	O1	83	GLU	Peptide
59	O5	90	ARG	Peptide
60	O6	27	SER	Peptide
66	Q2	99	GLN	Peptide
68	S0	188	LEU	Peptide
68	S0	94	GLY	Peptide

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Mol	Chain	Res	Type	Group
69	S1	131	ASP	Peptide
69	S1	81	PHE	Peptide
70	S2	106	ASP	Peptide
70	S2	144	TRP	Peptide
71	S3	221	SER	Peptide
72	S4	193	GLY	Peptide
73	S5	44	ASN	Peptide
73	S5	56	ALA	Peptide
73	S5	62	VAL	Peptide
73	S5	65	ARG	Peptide
75	S7	110	GLN	Peptide
75	S7	131	PHE	Peptide
75	S7	30	SER	Peptide
75	S7	64	VAL	Peptide
78	SM	51	ARG	Peptide
79	SR	96	THR	Peptide
5	c0	25	LYS	Peptide
7	c2	102	GLY	Peptide
9	c4	125	SER	Peptide
10	c5	124	THR	Peptide
10	c5	50	THR	Peptide
10	c5	68	PRO	Peptide
11	c6	40	GLU	Peptide
12	c7	111	LYS	Peptide
12	c7	112	SER	Peptide
12	c7	94	SER	Peptide
13	c8	90	ASN	Peptide
15	d0	51	VAL	Peptide
15	d0	70	THR	Peptide
15	d0	96	PRO	Peptide
17	d2	54	ASP	Peptide
20	d5	69	LEU	Peptide
20	d5	87	GLY	Peptide
24	d9	17	GLY	Peptide
25	e0	44	PHE	Peptide
26	e1	135	HIS	Peptide
26	e1	146	SER	Peptide
26	e1	147	VAL	Peptide
26	e1	82	LYS	Peptide
26	e1	87	THR	Peptide
26	e1	88	PRO	Peptide
27	l2	143	GLU	Peptide

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Mol	Chain	Res	Type	Group
27	l2	211	HIS	Peptide
27	l2	213	GLY	Peptide
28	l3	346	THR	Peptide
29	l4	300	ARG	Peptide
29	l4	339	LEU	Peptide
29	l4	352	ALA	Peptide
30	l5	270	LYS	Peptide
30	l5	294	ALA	Peptide
31	l6	67	GLY	Peptide
32	l7	158	LYS	Peptide
32	l7	226	GLY	Peptide
36	m1	151	SER	Peptide
36	m1	9	MET	Peptide
36	m1	94	ARG	Peptide
37	m3	141	ALA	Peptide
38	m4	48	GLY	Peptide
39	m5	184	LYS	Peptide
39	m5	67	ARG	Peptide
44	n0	133	ALA	Peptide
44	n0	170	THR	Peptide
48	n4	25	ASP	Peptide
50	n6	75	ARG	Peptide
51	n7	101	PHE	Peptide
53	n9	19	ASN	Peptide
55	o1	6	ASP	Peptide
55	o1	82	GLU	Peptide
56	o2	122	PRO	Peptide
58	o4	80	ARG	Peptide
58	o4	81	CYS	Peptide
67	q3	49	ARG	Peptide
70	s2	106	ASP	Peptide
70	s2	144	TRP	Peptide
71	s3	143	ARG	Peptide
71	s3	215	GLU	Peptide
71	s3	219	ALA	Peptide
71	s3	221	SER	Peptide
73	s5	44	ASN	Peptide
74	s6	164	LYS	Peptide
75	s7	115	SER	Peptide
75	s7	130	VAL	Peptide
75	s7	31	SER	Peptide
75	s7	64	VAL	Peptide

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Mol	Chain	Res	Type	Group
77	s9	88	GLU	Peptide
77	s9	89	ASP	Peptide
77	s9	90	LYS	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	1	66081	0	33208	1565	0
1	5	65880	0	33109	1448	1
2	2	37692	0	18964	969	1
2	6	36971	0	18603	851	0
3	3	2579	0	1303	77	0
3	7	2579	0	1304	55	0
4	4	3353	0	1695	91	0
4	8	3353	0	1695	100	0
5	C0	772	0	727	65	0
5	c0	746	0	693	0	0
6	C1	1207	0	1252	83	0
6	c1	1168	0	1233	0	0
7	C2	865	0	874	58	0
7	c2	890	0	887	0	0
8	C3	1192	0	1255	90	0
8	c3	1192	0	1255	0	0
9	C4	891	0	883	103	0
9	c4	949	0	985	0	0
10	C5	977	0	1002	81	0
10	c5	987	0	1019	0	0
11	C6	1105	0	1166	108	0
11	c6	1105	0	1166	0	0
12	C7	926	0	930	108	0
12	c7	926	0	918	0	0
13	C8	1192	0	1222	158	0
13	c8	1192	0	1221	0	0
14	C9	1112	0	1124	97	0
14	c9	1112	0	1124	0	0
15	D0	841	0	906	80	0
15	d0	828	0	893	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
16	D1	684	0	672	70	0
16	d1	684	0	672	0	0
17	D2	1021	0	1060	77	0
17	d2	1021	0	1060	0	0
18	D3	1121	0	1196	99	0
18	d3	1121	0	1196	0	0
19	D4	1073	0	1132	87	0
19	d4	1073	0	1132	0	0
20	D5	563	0	603	87	0
20	d5	558	0	598	0	0
21	D6	769	0	814	101	0
21	d6	769	0	814	0	0
22	D7	610	0	632	34	0
22	d7	610	0	633	0	0
23	D8	497	0	535	43	0
23	d8	497	0	535	0	0
24	D9	433	0	422	34	0
24	d9	442	0	428	0	0
25	E0	475	0	525	51	0
25	e0	482	0	534	0	0
26	E1	566	0	604	57	0
26	e1	586	0	629	0	0
27	L2	1914	0	1981	211	0
27	l2	1912	0	1976	0	0
28	L3	3075	0	3142	262	0
28	l3	3075	0	3142	0	0
29	L4	2748	0	2859	229	0
29	l4	2748	0	2859	0	0
30	L5	2375	0	2324	219	0
30	l5	2359	0	2311	0	0
31	L6	1248	0	1339	95	0
31	l6	1248	0	1339	0	0
32	L7	1784	0	1862	132	0
32	l7	1791	0	1869	0	0
33	L8	1804	0	1877	129	0
33	l8	1764	0	1822	0	0
34	L9	1518	0	1587	127	0
34	l9	1518	0	1587	0	0
35	M0	1705	0	1736	145	0
35	m0	1696	0	1731	0	0
36	M1	1353	0	1383	113	0
36	m1	1353	0	1383	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
37	M3	1543	0	1607	155	0
37	m3	1548	0	1613	0	0
38	M4	1053	0	1149	93	0
38	m4	1059	0	1154	0	0
39	M5	1720	0	1779	146	0
39	m5	1720	0	1779	0	0
40	M6	1555	0	1659	110	0
40	m6	1555	0	1659	0	0
41	M7	1420	0	1437	115	0
41	m7	1420	0	1437	0	0
42	M8	1441	0	1543	96	0
42	m8	1441	0	1543	0	0
43	M9	1521	0	1617	105	0
43	m9	1490	0	1589	0	0
44	N0	1445	0	1487	109	0
44	n0	1437	0	1475	0	0
45	N1	1276	0	1323	98	0
45	n1	1276	0	1323	0	0
46	N2	796	0	812	44	0
46	n2	778	0	791	0	0
47	N3	1003	0	1048	83	0
47	n3	997	0	1043	0	0
48	N4	965	0	953	34	0
48	n4	1007	0	1043	0	0
49	N5	964	0	1025	75	0
49	n5	959	0	1023	0	0
50	N6	993	0	1081	77	0
50	n6	963	0	1047	0	0
51	N7	1092	0	1155	101	0
51	n7	1092	0	1155	0	0
52	N8	1173	0	1215	140	0
52	n8	1173	0	1215	0	0
53	N9	462	0	491	30	0
53	n9	444	0	465	0	0
54	O0	743	0	797	71	0
54	o0	767	0	816	0	0
55	O1	876	0	912	61	0
55	o1	883	0	918	0	0
56	O2	1020	0	1090	64	0
56	o2	1020	0	1090	0	0
57	O3	850	0	880	63	0
57	o3	850	0	880	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	O4	880	0	944	86	0
58	o4	880	0	944	0	0
59	O5	969	0	1078	76	0
59	o5	965	0	1067	0	0
60	O6	771	0	849	61	0
60	o6	770	0	846	0	0
61	O7	681	0	683	57	0
61	o7	656	0	655	0	0
62	O8	612	0	682	38	0
62	o8	608	0	671	0	0
63	O9	436	0	475	45	0
63	o9	436	0	475	0	0
64	Q0	417	0	455	31	0
64	q0	417	0	455	0	0
65	Q1	233	0	284	16	0
65	q1	233	0	284	0	0
66	Q2	847	0	917	54	0
66	q2	836	0	908	0	0
67	Q3	694	0	735	73	0
67	q3	694	0	735	0	0
68	S0	1577	0	1567	168	0
68	s0	1583	0	1578	0	0
69	S1	1709	0	1784	157	0
69	s1	1722	0	1793	0	0
70	S2	1635	0	1723	162	0
70	s2	1635	0	1723	0	0
71	S3	1734	0	1817	126	0
71	s3	1734	0	1817	0	0
72	S4	2068	0	2154	155	0
72	s4	2068	0	2154	0	0
73	S5	1609	0	1675	150	0
73	s5	1609	0	1675	0	0
74	S6	1799	0	1879	111	0
74	s6	1755	0	1845	0	0
75	S7	1481	0	1572	126	0
75	s7	1481	0	1572	0	0
76	S8	1489	0	1525	128	0
76	s8	1466	0	1494	0	0
77	S9	1494	0	1572	135	0
77	s9	1494	0	1573	0	0
78	SM	1104	0	999	110	0
78	sM	958	0	917	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
79	SR	2437	0	2386	139	0
79	sR	2427	0	2371	0	0
80	1	485	0	0	0	0
80	2	128	0	0	0	0
80	3	13	0	0	0	0
80	4	19	0	0	0	0
80	5	449	0	0	0	0
80	6	160	0	0	0	0
80	7	8	0	0	0	0
80	8	10	0	0	0	0
80	C4	3	0	0	0	0
80	C6	1	0	0	1	0
80	C8	1	0	0	0	0
80	C9	1	0	0	0	0
80	D2	1	0	0	0	0
80	L2	2	0	0	0	0
80	L3	2	0	0	0	0
80	L6	3	0	0	0	0
80	L7	2	0	0	0	0
80	L9	1	0	0	0	0
80	M0	2	0	0	0	0
80	M5	3	0	0	0	0
80	M6	1	0	0	0	0
80	M7	4	0	0	0	0
80	M8	1	0	0	1	0
80	N0	1	0	0	0	0
80	N3	1	0	0	0	0
80	N6	1	0	0	0	0
80	N7	1	0	0	0	0
80	N8	1	0	0	0	0
80	O1	2	0	0	0	0
80	O2	1	0	0	0	0
80	O3	2	0	0	0	0
80	O4	1	0	0	0	0
80	O5	1	0	0	0	0
80	O6	1	0	0	0	0
80	O7	2	0	0	0	0
80	Q2	1	0	0	0	0
80	S1	1	0	0	0	0
80	S4	1	0	0	0	0
80	S6	1	0	0	0	0
80	SM	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
80	c1	2	0	0	0	0
80	c3	1	0	0	0	0
80	c7	1	0	0	0	0
80	c8	2	0	0	0	0
80	c9	1	0	0	0	0
80	d2	1	0	0	0	0
80	d3	1	0	0	0	0
80	d9	2	0	0	0	0
80	l2	2	0	0	0	0
80	l3	3	0	0	0	0
80	l4	1	0	0	0	0
80	l5	1	0	0	0	0
80	l7	1	0	0	0	0
80	m0	2	0	0	0	0
80	m5	1	0	0	0	0
80	m6	1	0	0	0	0
80	m7	2	0	0	0	0
80	n1	1	0	0	0	0
80	n3	1	0	0	0	0
80	n6	1	0	0	0	0
80	n7	1	0	0	0	0
80	n8	1	0	0	0	0
80	o2	2	0	0	0	0
80	o3	2	0	0	0	0
80	o4	1	0	0	0	0
80	o7	2	0	0	0	0
80	q2	3	0	0	0	0
80	s0	1	0	0	0	0
80	s4	1	0	0	0	0
80	s6	1	0	0	0	0
80	s8	1	0	0	0	0
81	1	330	0	0	20	0
81	2	99	0	0	5	0
81	3	33	0	0	6	0
81	4	33	0	0	2	0
81	5	264	0	0	12	0
81	6	33	0	0	1	0
81	7	33	0	0	2	0
82	D6	1	0	0	0	0
82	D7	1	0	0	0	0
82	D9	1	0	0	0	0
82	E1	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
82	O4	1	0	0	0	0
82	O7	1	0	0	0	0
82	Q0	1	0	0	0	0
82	Q2	1	0	0	0	0
82	Q3	1	0	0	0	0
82	d6	1	0	0	0	0
82	d9	1	0	0	0	0
82	e1	1	0	0	0	0
82	o4	1	0	0	0	0
82	o7	1	0	0	0	0
82	q0	1	0	0	0	0
82	q2	1	0	0	0	0
82	q3	1	0	0	0	0
83	1	597	0	0	37	0
83	2	154	0	0	13	0
83	3	23	0	0	1	0
83	4	7	0	0	0	0
83	5	556	0	0	36	0
83	6	204	0	0	12	0
83	7	19	0	0	2	0
83	8	10	0	0	0	0
83	C3	2	0	0	0	0
83	C4	1	0	0	0	0
83	C6	1	0	0	0	0
83	C7	1	0	0	0	0
83	C9	3	0	0	0	0
83	D0	1	0	0	0	0
83	D3	2	0	0	1	0
83	D6	1	0	0	1	0
83	L2	3	0	0	3	0
83	L3	1	0	0	1	0
83	L4	1	0	0	0	0
83	L5	2	0	0	0	0
83	M0	2	0	0	0	0
83	M3	3	0	0	0	0
83	M5	1	0	0	0	0
83	M6	3	0	0	0	0
83	M7	4	0	0	0	0
83	M9	2	0	0	0	0
83	N1	3	0	0	0	0
83	N3	3	0	0	1	0
83	N5	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
83	N6	3	0	0	0	0
83	N8	1	0	0	0	0
83	O1	5	0	0	0	0
83	O2	3	0	0	1	0
83	O4	1	0	0	1	0
83	O5	1	0	0	0	0
83	O7	4	0	0	2	0
83	O9	2	0	0	0	0
83	Q2	1	0	0	0	0
83	S6	1	0	0	0	0
83	S9	1	0	0	0	0
83	SM	1	0	0	1	0
83	c4	1	0	0	0	0
83	c6	1	0	0	0	0
83	c8	1	0	0	0	0
83	c9	4	0	0	0	0
83	d3	1	0	0	0	0
83	d6	3	0	0	0	0
83	d9	2	0	0	0	0
83	l2	4	0	0	0	0
83	l3	4	0	0	0	0
83	l4	3	0	0	0	0
83	l5	3	0	0	0	0
83	l9	2	0	0	0	0
83	m5	3	0	0	0	0
83	m7	3	0	0	0	0
83	m8	1	0	0	0	0
83	m9	5	0	0	0	0
83	n1	2	0	0	0	0
83	n3	3	0	0	0	0
83	n8	3	0	0	0	0
83	o1	3	0	0	0	0
83	o2	5	0	0	0	0
83	o4	4	0	0	0	0
83	o6	3	0	0	0	0
83	o7	1	0	0	0	0
83	q0	1	0	0	0	0
83	q2	1	0	0	0	0
83	sM	3	0	0	0	0
All	All	400111	0	294576	10587	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 (10587) 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)
51:N7:36:HIS:C	51:N7:37:PRO:N	1.44	1.39
28:L3:41:VAL:HA	28:L3:185:GLY:HA3	1.51	1.15
2:6:780:A:H4'	2:6:781:U:H5'	1.28	1.14
2:6:1636:C:H4'	2:6:1637:C:H5'	1.32	1.07
2:2:1585:U:H3	2:2:1611:A:H2	1.04	0.99
13:C8:25:ASN:HB2	20:D5:40:VAL:HB	1.45	0.99
2:2:702:G:HO2'	2:2:703:G:H8	0.99	0.98
26:E1:91:ILE:HG12	26:E1:92:LYS:HG2	6.67	0.98
2:2:1429:G:H1'	15:D0:74:GLU:HG2	1.45	0.98
39:M5:84:PRO:HA	39:M5:87:GLN:HG3	1.47	0.97
79:SR:184:ASN:HD22	79:SR:185:GLN:H	5.17	0.96
1:1:1566:A:H61	1:1:1572:U:H3	1.11	0.96
2:2:1034:C:HO2'	17:D2:2:THR:N	1.64	0.95
20:D5:89:ILE:HD11	20:D5:101:TYR:HB3	5.43	0.95
2:6:1559:A:H5''	13:C8:135:GLY:HA3	365.29	0.94
2:6:1588:G:H1	2:6:1608:U:H3	1.14	0.94
59:O5:85:THR:HG22	59:O5:88:LEU:H	1.52	0.94
9:C4:29:HIS:HB3	9:C4:41:ARG:HG3	1.50	0.94
1:1:640:U:OP1	52:N8:21:ARG:NH2	2.01	0.94
2:6:74:U:H3'	2:6:75:U:H3'	1.48	0.94
34:L9:49:ASN:O	34:L9:51:GLN:N	2.01	0.93
1:5:155:G:H5''	1:5:156:G:C8	2.04	0.93
2:6:1055:U:H2'	2:6:1056:U:H5''	1.51	0.92
2:2:1588:G:H1	2:2:1608:U:H3	1.12	0.92
12:C7:27:ASP:O	12:C7:31:ASN:ND2	3.18	0.92
51:N7:46:ILE:HD11	51:N7:49:TYR:HA	1.53	0.91
1:5:1952:G:H1	1:5:2094:C:H42	1.11	0.91
44:N0:155:ARG:NH2	44:N0:171:PHE:O	2.03	0.91
1:5:3278:C:H3'	1:5:3279:A:H5''	1.53	0.91
13:C8:80:LYS:HE3	13:C8:82:PRO:HA	1.52	0.91
30:L5:68:THR:HG22	30:L5:70:THR:H	1.36	0.91
1:5:210:U:OP1	29:L4:161:LYS:NZ	70.77	0.91
1:5:1949:G:OP1	43:M9:104:ARG:NH1	218.76	0.90
1:5:110:G:OP2	37:M3:73:ARG:NH1	73.05	0.90
1:5:2871:G:H5'	1:5:2872:A:H5''	1.53	0.90
16:D1:37:ALA:HB2	68:S0:66:ALA:HB2	1.52	0.90
28:L3:230:THR:HA	28:L3:235:THR:HG22	2.84	0.90
29:L4:16:THR:HG22	29:L4:18:ASN:H	1.36	0.89
37:M3:180:ARG:HD3	60:O6:11:LEU:HD21	1.54	0.89
47:N3:87:ARG:HH22	47:N3:137:VAL:HG22	1.64	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:M0:38:LYS:HG2	35:M0:41:ALA:HB2	1.79	0.89
79:SR:89:LEU:HB2	79:SR:103:PHE:HB2	1.52	0.89
1:5:640:U:OP1	52:N8:21:ARG:NH2	178.87	0.89
2:6:1521:G:O6	14:C9:68:ARG:NH1	414.42	0.89
20:D5:41:ILE:HG13	20:D5:42:LEU:HG	1.52	0.89
2:6:868:G:H1	2:6:960:U:H3	1.19	0.89
4:8:72:A:H61	4:8:79:A:H61	1.15	0.89
13:C8:4:VAL:HG13	20:D5:82:HIS:HB3	1.55	0.89
36:M1:82:ARG:HD2	36:M1:112:LEU:HB2	2.84	0.89
1:1:3165:A:H61	1:1:3285:C:H42	1.19	0.89
72:S4:5:PRO:HB2	72:S4:7:LYS:HE3	1.52	0.89
1:1:3071:U:O3'	81:1:3888:8UZ:N3	2.07	0.88
27:L2:137:ILE:HG12	27:L2:147:ARG:HG3	4.13	0.88
35:M0:14:ASN:O	35:M0:128:ARG:NH2	2.07	0.88
41:M7:23:ARG:HE	41:M7:125:GLN:HG3	1.89	0.88
17:D2:30:SER:HA	17:D2:34:ILE:HD12	1.51	0.88
1:5:837:A:OP2	67:Q3:4:ARG:NH1	239.29	0.88
39:M5:35:VAL:HG13	39:M5:65:ARG:HB2	2.72	0.88
1:5:1750:A:H4'	1:5:1751:G:H5'	1.55	0.88
1:5:1639:C:OP2	58:O4:74:ARG:NH2	203.31	0.88
1:5:912:G:OP2	27:L2:9:ARG:NH1	180.56	0.88
1:1:1362:G:H4'	32:L7:159:GLN:O	1.74	0.88
1:5:1222:G:O2'	1:5:1285:G:N1	2.07	0.88
75:S7:51:VAL:HG12	75:S7:53:GLY:H	1.39	0.87
2:2:1552:U:OP2	10:C5:43:ARG:NH2	2.08	0.87
51:N7:88:ASP:HB3	51:N7:121:ARG:HH22	1.38	0.87
73:S5:94:THR:HG22	73:S5:114:ILE:HG13	1.59	0.87
1:1:2401:A:H5'	29:L4:70:ALA:HB2	1.55	0.87
1:1:1022:U:O2	1:1:1031:C:N4	2.08	0.87
1:5:726:G:H5'	1:5:726:G:H8	1.38	0.87
41:M7:131:ARG:NH1	41:M7:137:ASN:OD1	2.08	0.87
2:6:1305:U:OP2	2:6:1306:C:N4	2.08	0.87
1:1:3353:G:H5'	76:S8:162:ALA:HA	1.56	0.87
1:5:1127:G:N7	83:5:3985:HOH:O	2.06	0.86
70:S2:38:VAL:HG13	70:S2:39:THR:HG23	1.56	0.86
75:S7:11:GLN:HG3	75:S7:13:PRO:HD2	1.57	0.86
59:O5:34:GLN:HB3	59:O5:38:ARG:HH12	1.41	0.86
68:S0:119:ARG:HE	70:S2:240:LEU:HB3	1.38	0.86
10:C5:130:ARG:HH21	78:SM:65:THR:HB	1.41	0.86
1:5:978:G:O2'	1:5:979:U:O2	1.92	0.86
1:1:2896:A:H5'	1:1:2896:A:H8	1.38	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1603:A:H61	49:N5:71:THR:HG21	1.41	0.86
76:S8:106:ALA:HB2	76:S8:165:LEU:HG	1.56	0.86
1:5:2814:G:OP1	29:L4:73:ARG:NH2	170.36	0.85
55:O1:13:THR:HG22	55:O1:72:ARG:HH21	4.96	0.85
57:O3:52:VAL:HG22	57:O3:66:VAL:HG22	1.58	0.85
36:M1:94:ARG:O	36:M1:96:PHE:N	2.66	0.85
1:5:1369:A:OP1	52:N8:21:ARG:NH1	180.50	0.85
28:L3:296:THR:HG22	28:L3:298:PHE:H	1.39	0.85
47:N3:47:ASN:OD1	83:N3:301:HOH:O	1.98	0.85
1:5:2392:C:O2'	28:L3:266:ARG:NH2	207.76	0.85
19:D4:14:SER:HA	19:D4:21:LYS:HG3	1.57	0.85
23:D8:10:ALA:HA	23:D8:32:PHE:HA	1.57	0.85
1:5:1073:U:H1'	53:N9:50:THR:HG22	200.17	0.85
2:6:753:A:N7	72:S4:187:ARG:NH2	376.41	0.85
2:2:1766:A:N1	21:D6:80:HIS:ND1	2.25	0.85
2:2:1390:U:OP2	12:C7:49:LYS:NZ	2.09	0.85
1:5:2974:U:H2'	1:5:2975:U:C6	2.12	0.85
1:1:2392:C:O2'	28:L3:266:ARG:NH2	2.09	0.85
18:D3:96:VAL:O	18:D3:142:LYS:NZ	2.10	0.84
28:L3:221:THR:HG22	28:L3:273:HIS:H	3.62	0.84
32:L7:158:LYS:HE2	32:L7:159:GLN:H	1.42	0.84
34:L9:41:ILE:HD11	34:L9:67:ALA:HB1	1.58	0.84
38:M4:113:THR:HG22	38:M4:116:GLU:H	1.41	0.84
79:SR:18:GLY:H	79:SR:39:ASP:HB3	1.96	0.84
77:S9:163:PRO:HB3	77:S9:169:PRO:HA	2.85	0.84
43:M9:114:LYS:O	43:M9:146:LYS:NZ	4.43	0.84
2:6:1257:U:O2'	5:C0:2:LEU:O	437.72	0.84
30:L5:144:VAL:HG12	30:L5:173:VAL:HG22	1.60	0.84
33:L8:41:GLN:HG3	33:L8:44:ARG:HH12	1.44	0.84
1:5:149:U:OP2	39:M5:49:ARG:NH1	103.51	0.84
70:S2:56:ILE:HG23	70:S2:61:LEU:HB2	1.86	0.84
74:S6:57:ASP:HA	74:S6:106:LEU:HA	1.59	0.84
1:1:911:C:H42	27:L2:3:ARG:HD3	1.43	0.84
37:M3:74:GLY:O	37:M3:101:ARG:NH1	2.10	0.83
2:2:1274:C:H5	78:SM:96:ARG:H	1.26	0.83
4:4:135:G:OP2	49:N5:56:ARG:NH2	2.11	0.83
36:M1:97:SER:HG	36:M1:99:THR:HG1	2.96	0.83
12:C7:82:ASP:O	12:C7:83:GLN:NE2	2.10	0.83
1:5:1219:C:O2'	1:5:1286:A:N1	2.09	0.83
2:6:913:G:H3'	2:6:914:G:H5'	1.60	0.83
29:L4:99:MET:SD	29:L4:102:PRO:HA	2.48	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:M7:25:SER:HB3	41:M7:28:ASN:HB2	1.58	0.83
2:2:702:G:O6	2:2:736:C:N4	2.11	0.83
29:L4:226:GLU:OE2	29:L4:246:ARG:NH2	2.11	0.83
29:L4:354:VAL:HG11	45:N1:143:THR:HG21	2.02	0.83
2:6:104:A:OP2	2:6:308:C:N4	2.12	0.83
69:S1:147:ALA:O	69:S1:148:ASN:ND2	2.09	0.83
1:5:1213:G:H4'	44:N0:90:MET:HG2	315.94	0.82
9:C4:122:PRO:HB2	9:C4:124:ASP:HA	1.61	0.82
17:D2:68:ARG:HA	70:S2:225:LEU:HD13	1.81	0.82
1:1:1509:A:N7	83:1:3994:HOH:O	2.12	0.82
2:2:1474:G:H2'	2:2:1475:A:C8	2.14	0.82
18:D3:28:ASN:N	18:D3:28:ASN:OD1	2.12	0.82
1:1:2567:C:H42	1:1:2574:G:H1	1.24	0.82
2:2:1142:A:H5''	21:D6:2:PRO:HG3	1.62	0.82
39:M5:172:ARG:HB3	39:M5:174:ILE:HD13	4.26	0.82
1:1:854:G:OP2	83:1:3982:HOH:O	1.97	0.82
2:6:1034:C:HO2'	17:D2:2:THR:N	339.90	0.82
2:6:1339:C:O2'	2:6:1341:A:N7	2.11	0.82
79:SR:260:ILE:HB	79:SR:274:LEU:HD12	2.86	0.82
70:S2:52:THR:HB	70:S2:54:GLU:HG2	3.09	0.82
1:1:2854:U:OP2	35:M0:3:ARG:NH2	2.13	0.82
2:2:1235:C:H2'	26:E1:138:ARG:NH2	1.94	0.82
1:5:148:G:OP2	39:M5:4:TYR:OH	112.27	0.82
69:S1:144:ARG:HB3	69:S1:208:GLN:HB3	2.39	0.82
2:6:67:A:O2'	2:6:69:G:OP1	1.97	0.82
1:1:3276:G:O6	41:M7:171:ARG:NH1	2.13	0.82
42:M8:178:ARG:HD3	52:N8:50:PRO:HB2	3.47	0.82
1:5:1581:C:H1'	1:5:1582:C:H2'	1.60	0.81
39:M5:36:ILE:HG12	39:M5:64:VAL:HG23	2.31	0.81
2:2:1236:A:O4'	26:E1:138:ARG:NH2	2.13	0.81
41:M7:31:GLU:HG2	41:M7:60:PHE:HA	3.98	0.81
1:5:744:A:OP1	42:M8:66:ARG:NH2	161.35	0.81
75:S7:64:VAL:HG22	75:S7:94:ALA:HB1	1.62	0.81
46:N2:14:THR:HG23	46:N2:66:VAL:HG13	3.69	0.81
2:2:159:U:O2'	74:S6:87:ARG:NH1	2.14	0.81
75:S7:67:LEU:HG	75:S7:94:ALA:HB2	2.30	0.81
1:1:2531:C:N4	1:1:2548:C:O2	2.13	0.81
1:5:2640:A:N7	83:5:3992:HOH:O	2.13	0.81
2:2:960:U:H1'	8:C3:52:VAL:HG23	1.61	0.81
1:1:2818:U:H6	1:1:2818:U:H5'	1.44	0.81
1:5:1912:U:N3	1:5:2122:G:OP2	2.13	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:6:130:C:OP2	2:6:131:C:N4	2.14	0.81
25:E0:53:LYS:HG2	25:E0:55:ARG:HD3	7.05	0.81
1:5:1103:A:H3'	1:5:1104:G:H5'	1.63	0.81
1:5:2208:A:H3'	1:5:2209:U:H5''	1.61	0.81
1:1:687:U:OP2	37:M3:36:ARG:NH2	2.13	0.81
1:1:3164:C:N4	1:1:3286:G:O6	2.14	0.81
1:1:2278:C:O2	83:1:3983:HOH:O	1.98	0.81
1:1:618:C:H5'	41:M7:169:THR:HG22	1.63	0.81
2:2:514:G:H1	2:2:543:C:H5	1.29	0.81
45:N1:51:GLY:HA3	45:N1:92:ARG:HG3	1.63	0.81
2:6:1675:C:O2	2:6:1726:G:N2	2.15	0.80
2:6:140:A:N6	2:6:281:G:OP1	2.13	0.80
45:N1:83:ARG:HB2	53:N9:22:LYS:HG3	3.05	0.80
1:1:1951:C:H42	1:1:2095:G:H1	1.30	0.80
2:2:1186:U:O4	2:2:1200:G:N2	2.13	0.80
1:5:1590:G:OP2	83:5:3982:HOH:O	1.99	0.80
47:N3:81:GLN:O	47:N3:98:ASN:ND2	2.14	0.80
1:1:837:A:OP2	67:Q3:4:ARG:NH1	2.14	0.80
2:6:321:C:N4	2:6:1667:A:OP1	2.14	0.80
3:3:121:U:OP2	30:L5:265:TYR:OH	1.99	0.80
55:O1:13:THR:HG22	55:O1:72:ARG:HH11	1.44	0.80
58:O4:41:ARG:HG2	58:O4:56:THR:HG21	2.24	0.80
29:L4:204:GLY:O	29:L4:246:ARG:NH1	2.20	0.80
1:1:1759:C:N4	1:1:1766:G:O6	2.13	0.80
14:C9:84:LYS:HD2	14:C9:94:ILE:HG13	5.19	0.80
71:S3:137:VAL:HG22	71:S3:151:LYS:HG3	1.60	0.80
2:6:1098:U:OP2	70:S2:168:ARG:NE	385.95	0.80
1:1:2850:G:HO2'	1:1:2851:A:H8	1.30	0.80
1:1:3080:G:N7	83:1:3997:HOH:O	2.14	0.80
2:2:1297:G:N2	2:2:1300:A:OP2	2.15	0.80
3:7:44:C:OP2	36:M1:137:ARG:NH2	292.17	0.80
2:2:701:U:H3	2:2:737:A:H61	1.28	0.80
2:6:1796:C:OP2	21:D6:5:ARG:NH1	342.77	0.80
35:M0:174:THR:HG23	35:M0:176:LEU:H	1.45	0.80
76:S8:184:LEU:HB3	76:S8:189:LEU:HD13	1.74	0.80
1:1:269:G:H5''	39:M5:14:LYS:HE2	1.64	0.80
1:5:1226:G:H1	1:5:1283:C:H42	1.28	0.80
21:D6:16:GLY:O	83:D6:601:HOH:O	1.99	0.80
1:1:1639:C:OP2	58:O4:74:ARG:NH2	2.14	0.80
69:S1:201:THR:HG21	69:S1:207:LEU:HD22	1.64	0.80
1:1:1381:A:OP1	29:L4:197:ARG:NH1	2.14	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:C2:67:THR:HG22	7:C2:68:GLU:HG3	1.62	0.80
13:C8:29:VAL:HG22	13:C8:54:LEU:HD12	1.64	0.80
15:D0:115:GLU:OE2	71:S3:7:LYS:NZ	2.13	0.80
3:3:26:C:H5'	30:L5:56:THR:HB	1.63	0.79
11:C6:5:PRO:HG2	11:C6:24:ALA:HB2	1.65	0.79
76:S8:36:THR:HG21	76:S8:173:PRO:HB2	1.69	0.79
29:L4:122:THR:HG22	29:L4:235:LEU:HB2	1.64	0.79
72:S4:129:VAL:HB	72:S4:139:VAL:HG23	1.62	0.79
78:SM:65:THR:O	78:SM:70:ASN:ND2	3.47	0.79
59:O5:101:THR:HG22	59:O5:104:GLN:H	1.45	0.79
2:2:513:U:OP1	77:S9:133:HIS:NE2	2.16	0.79
14:C9:33:TYR:HD1	14:C9:34:VAL:H	2.78	0.79
58:O4:71:THR:O	83:O4:601:HOH:O	4.14	0.79
70:S2:73:LEU:HG	70:S2:76:LEU:HD13	1.64	0.79
73:S5:40:ILE:HG23	73:S5:42:LEU:HD22	1.64	0.79
2:6:1479:A:OP1	14:C9:57:ARG:NH1	392.00	0.79
69:S1:179:SER:HB3	69:S1:183:GLN:HB2	1.62	0.79
18:D3:79:ASN:HB3	18:D3:81:LYS:H	1.46	0.79
26:E1:102:VAL:HG22	26:E1:103:LEU:H	2.52	0.79
69:S1:149:GLN:HE21	69:S1:151:LYS:HG2	3.52	0.79
70:S2:170:ILE:HB	70:S2:197:TYR:HB2	1.75	0.79
13:C8:88:ARG:NH1	13:C8:112:ASP:OD2	2.63	0.79
35:M0:99:ILE:HD13	35:M0:101:LYS:HB2	3.99	0.79
29:L4:299:ILE:HG23	42:M8:39:ARG:HB3	1.84	0.79
68:S0:179:ARG:HD3	68:S0:183:ARG:HH11	1.48	0.79
10:C5:130:ARG:NH1	78:SM:71:ASN:OD1	2.16	0.79
1:1:1567:U:H3'	1:1:1568:U:H5''	1.64	0.79
9:C4:25:ASP:OD1	9:C4:26:THR:N	2.16	0.79
17:D2:38:LEU:HD23	17:D2:41:MET:HE3	2.83	0.79
59:O5:85:THR:HG22	59:O5:88:LEU:HG	1.64	0.79
77:S9:60:LEU:HD21	77:S9:93:LEU:HD21	1.65	0.79
1:1:76:G:O2'	37:M3:100:ARG:NH1	2.16	0.78
6:C1:21:ASN:HD22	6:C1:32:LYS:H	1.59	0.78
2:6:1234:A:OP1	24:D9:5:ASN:ND2	421.64	0.78
58:O4:82:ALA:O	58:O4:85:VAL:N	3.60	0.78
1:1:1657:C:O2'	1:1:1797:A:OP2	2.01	0.78
1:5:2376:G:N7	83:5:3997:HOH:O	2.15	0.78
9:C4:85:ALA:H	9:C4:119:THR:HG22	1.48	0.78
1:1:1722:U:H5''	43:M9:99:LEU:HD12	1.66	0.78
75:S7:30:SER:HB2	75:S7:34:LEU:HB2	1.63	0.78
2:2:1678:A:OP1	76:S8:59:ARG:NH1	2.15	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:D2:15:ASN:HD21	17:D2:71:LYS:HA	1.49	0.78
37:M3:122:LYS:HD2	59:O5:120:ALA:HA	1.65	0.78
16:D1:36:VAL:HG22	68:S0:63:ILE:HG12	1.83	0.78
7:C2:36:LEU:HA	7:C2:41:LEU:HD22	5.94	0.78
2:6:325:G:H4'	6:C1:83:THR:HG21	291.50	0.78
2:6:330:G:OP2	76:S8:172:ARG:NH1	283.21	0.78
1:1:1126:G:OP2	35:M0:14:ASN:ND2	2.17	0.78
51:N7:88:ASP:O	51:N7:121:ARG:NH2	2.61	0.78
1:1:422:A:N1	1:1:2362:C:O2'	2.17	0.78
2:2:1535:U:O2'	2:2:1536:G:N3	2.15	0.78
1:5:1381:A:OP1	29:L4:197:ARG:NH1	105.89	0.78
1:1:1565:G:H2'	1:1:1566:A:H8	1.48	0.78
1:5:2523:A:O2'	1:5:2587:U:H1'	1.84	0.78
2:6:542:A:H1'	2:6:543:C:H5'	1.65	0.78
13:C8:27:LYS:HE2	13:C8:55:HIS:HA	1.64	0.78
37:M3:46:ILE:HG23	37:M3:49:ARG:HB2	1.98	0.78
78:SM:54:PRO:HB2	78:SM:59:GLY:HA2	1.65	0.78
2:2:868:G:H1	2:2:960:U:H3	1.29	0.78
70:S2:179:VAL:O	70:S2:198:THR:OG1	2.02	0.78
2:2:1166:A:H5''	73:S5:101:GLY:H	1.48	0.78
2:2:1488:G:H3'	2:2:1515:A:H61	1.48	0.78
12:C7:77:GLU:HG2	12:C7:80:ARG:HH21	7.33	0.78
35:M0:76:MET:HE3	35:M0:148:VAL:HG13	1.63	0.78
49:N5:103:TYR:O	49:N5:138:ARG:NH1	2.72	0.78
6:C1:78:THR:HG21	6:C1:118:GLN:HA	3.06	0.77
12:C7:34:LEU:HD22	12:C7:38:ILE:HD13	5.20	0.77
2:6:1429:G:H1'	15:D0:74:GLU:HG2	378.23	0.77
24:D9:19:ARG:HD2	24:D9:32:ARG:HD2	1.65	0.77
36:M1:96:PHE:HB2	36:M1:156:LYS:HE3	2.30	0.77
74:S6:153:VAL:O	74:S6:155:ASP:N	2.16	0.77
15:D0:95:ALA:HB1	15:D0:99:ILE:HG13	4.02	0.77
30:L5:58:LYS:HA	30:L5:93:THR:HB	1.66	0.77
30:L5:58:LYS:HD2	30:L5:93:THR:HG21	1.65	0.77
2:2:1280:C:H2'	2:2:1281:G:H8	1.47	0.77
1:5:353:G:O6	61:O7:55:ARG:NH1	111.60	0.77
35:M0:72:ALA:HB2	35:M0:155:ALA:HB2	1.65	0.77
2:2:402:C:O2	83:2:2129:HOH:O	2.00	0.77
1:1:3313:U:OP1	28:L3:117:ARG:NH2	2.17	0.77
2:2:523:G:OP2	19:D4:37:LYS:NZ	2.16	0.77
2:6:480:G:H1	2:6:508:U:H3	1.32	0.77
11:C6:18:ALA:HB2	11:C6:69:VAL:HG13	1.66	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:M8:158:HIS:H	42:M8:186:VAL:HG12	1.74	0.77
1:5:1010:G:H4'	35:M0:40:LYS:HG2	337.64	0.77
1:5:3242:G:H5''	1:5:3245:A:H8	1.50	0.77
1:1:1728:G:OP1	1:1:1729:A:O2'	2.02	0.77
1:1:2766:U:OP2	83:1:3985:HOH:O	2.02	0.77
29:L4:300:ARG:O	42:M8:39:ARG:NH1	2.20	0.77
1:1:939:U:OP1	83:1:3984:HOH:O	2.01	0.77
30:L5:76:ALA:HB3	30:L5:109:THR:HG22	2.51	0.77
76:S8:138:ASN:OD1	76:S8:138:ASN:N	2.16	0.77
18:D3:69:ARG:NH1	18:D3:116:ASP:OD1	2.43	0.77
60:O6:70:ARG:HD3	60:O6:84:LYS:HG2	2.80	0.77
30:L5:107:ARG:HH22	30:L5:120:LYS:HA	1.50	0.77
42:M8:100:THR:HG22	42:M8:120:GLU:HB3	3.87	0.77
1:1:2437:G:N2	1:1:2511:A:H1'	1.99	0.76
1:1:404:G:OP1	83:1:3986:HOH:O	2.02	0.76
1:5:269:G:H5''	39:M5:14:LYS:HE2	133.79	0.76
2:2:169:A:H5''	74:S6:176:GLN:HG2	1.67	0.76
3:3:72:A:O2'	3:3:74:C:OP1	2.03	0.76
11:C6:63:ILE:HD12	11:C6:65:ILE:HD11	1.65	0.76
35:M0:174:THR:OG1	35:M0:175:ASN:N	3.61	0.76
38:M4:48:GLY:HA3	38:M4:53:VAL:HG13	1.67	0.76
1:1:673:U:OP1	42:M8:21:SER:OG	2.03	0.76
61:O7:30:GLN:OE1	83:O7:201:HOH:O	2.04	0.76
67:Q3:46:THR:OG1	67:Q3:57:CYS:SG	2.43	0.76
1:1:1029:G:H21	1:1:1030:A:H62	1.30	0.76
1:5:1709:C:OP1	58:O4:83:ASN:ND2	218.61	0.76
41:M7:122:ALA:HB3	41:M7:143:PRO:HB2	1.96	0.76
46:N2:56:VAL:HG22	46:N2:65:VAL:HG22	1.67	0.76
73:S5:113:ILE:HG21	73:S5:190:ILE:HG22	1.67	0.76
2:2:1533:C:H4'	2:2:1539:G:N1	2.00	0.76
21:D6:23:CYS:HB3	21:D6:28:LYS:H	2.66	0.76
29:L4:20:LEU:HD11	29:L4:252:GLU:HG3	1.67	0.76
76:S8:197:THR:HA	76:S8:200:LYS:HZ3	1.46	0.76
2:2:45:U:O2'	2:2:46:A:H2'	1.83	0.76
2:6:1370:U:H4'	2:6:1371:A:H4'	1.68	0.76
4:8:63:G:O2'	59:O5:49:LYS:NZ	50.90	0.76
12:C7:95:ARG:N	12:C7:96:SER:HA	5.07	0.76
15:D0:28:SER:HB2	15:D0:112:VAL:HA	1.68	0.76
44:N0:124:LEU:HD23	45:N1:153:PRO:HG2	1.67	0.76
2:2:1239:U:O2	2:2:1246:C:N4	2.19	0.76
2:2:321:C:N4	2:2:1667:A:OP1	2.19	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2661:G:H2'	1:5:2662:G:C8	2.21	0.76
1:1:911:C:N4	27:L2:3:ARG:HD3	2.01	0.76
76:S8:89:GLU:HG2	76:S8:92:ARG:HH12	7.68	0.76
1:1:3054:U:O4	83:1:3987:HOH:O	2.03	0.76
4:4:79:A:H2'	4:4:81:U:C2	2.20	0.76
1:5:2661:G:H2'	1:5:2662:G:H8	1.50	0.76
2:6:153:G:OP2	19:D4:131:ARG:NH1	320.01	0.76
37:M3:141:ALA:HA	37:M3:144:THR:HB	3.49	0.76
1:1:2303:A:OP1	65:Q1:23:ARG:NH2	2.19	0.75
2:6:1198:G:OP1	2:6:1199:G:O2'	2.02	0.75
28:L3:41:VAL:CA	28:L3:185:GLY:HA3	2.20	0.75
2:6:1482:C:OP2	2:6:1521:G:N1	2.18	0.75
35:M0:177:ASP:OD2	35:M0:177:ASP:N	3.61	0.75
36:M1:107:ASP:N	36:M1:107:ASP:OD1	2.18	0.75
37:M3:47:ALA:HB1	37:M3:48:PRO:HD2	1.66	0.75
56:O2:82:LEU:HD11	56:O2:112:ALA:HB2	2.65	0.75
2:2:706:A:N1	2:2:734:A:N6	2.34	0.75
1:5:1427:U:OP2	52:N8:4:ARG:NH2	130.92	0.75
29:L4:361:HIS:O	44:N0:28:ARG:NH2	2.73	0.75
77:S9:106:GLU:O	77:S9:111:THR:OG1	2.03	0.75
2:2:856:A:H62	75:S7:97:ARG:H	1.33	0.75
14:C9:57:ARG:HH11	14:C9:57:ARG:HG3	2.31	0.75
1:5:1430:U:OP1	83:5:3984:HOH:O	2.04	0.75
1:1:65:A:H4'	1:1:66:A:O5'	1.85	0.75
2:2:489:C:H42	2:2:497:G:H22	1.33	0.75
2:6:482:U:O4	2:6:505:A:N6	2.17	0.75
11:C6:58:ASP:O	11:C6:60:PHE:N	2.15	0.75
1:1:3276:G:H1	57:O3:60:ARG:HH22	1.35	0.75
1:1:2227:C:OP1	66:Q2:32:LYS:NZ	2.19	0.75
12:C7:17:ILE:HG12	12:C7:58:MET:HE3	3.54	0.75
63:O9:24:PRO:HB2	63:O9:27:ILE:HD12	1.81	0.75
79:SR:167:VAL:HG23	79:SR:183:LEU:HB2	4.72	0.75
13:C8:33:THR:HA	13:C8:38:VAL:HG23	2.57	0.75
18:D3:73:ARG:HE	18:D3:84:THR:HG22	1.52	0.75
27:L2:10:LYS:HA	27:L2:16:PHE:CD2	2.29	0.75
73:S5:41:LYS:NZ	73:S5:67:PRO:O	4.34	0.75
1:1:1492:G:O2'	63:O9:48:LYS:NZ	2.19	0.74
2:2:1626:U:OP1	70:S2:91:ARG:NH1	2.19	0.74
29:L4:292:SER:OG	29:L4:293:SER:N	2.16	0.74
4:4:81:U:C2	4:4:82:U:H5	2.06	0.74
16:D1:5:LYS:HD2	16:D1:5:LYS:H	3.44	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:7:7:G:OP1	30:L5:33:ARG:NH1	266.33	0.74
37:M3:159:VAL:HB	52:N8:96:LYS:HG3	1.68	0.74
69:S1:33:LYS:HE2	69:S1:41:ARG:HH12	4.26	0.74
1:1:915:A:OP2	83:1:3902:HOH:O	2.03	0.74
2:2:802:G:H21	17:D2:107:SER:HB3	1.51	0.74
1:5:922:U:O2	1:5:927:C:H5'	1.87	0.74
40:M6:3:VAL:HG13	40:M6:4:GLU:HG3	1.69	0.74
1:5:1824:U:OP1	62:O8:3:ARG:NH2	150.99	0.74
1:5:3110:C:HO2'	34:L9:155:SER:HG	327.64	0.74
1:5:900:G:H1'	1:5:1589:A:N6	2.02	0.74
6:C1:132:SER:O	6:C1:134:THR:N	3.37	0.74
16:D1:9:VAL:HG13	16:D1:10:GLU:HG3	1.67	0.74
43:M9:21:LYS:HE3	43:M9:55:VAL:HA	1.88	0.74
64:Q0:127:LEU:HD22	64:Q0:128:LYS:HG3	4.68	0.74
1:5:2375:G:OP2	83:5:3983:HOH:O	2.04	0.74
2:6:332:U:P	76:S8:56:ARG:HH22	288.51	0.74
12:C7:76:GLU:HA	12:C7:79:GLU:HB2	1.70	0.74
14:C9:53:TRP:HA	14:C9:56:LYS:HB2	1.69	0.74
26:E1:126:CYS:HB3	26:E1:143:LYS:HG2	1.68	0.74
68:S0:107:PHE:HB3	68:S0:139:VAL:HG21	1.70	0.74
71:S3:164:VAL:HG13	71:S3:168:ILE:HD11	1.67	0.74
1:5:1902:G:OP1	83:5:3972:HOH:O	2.05	0.74
17:D2:47:ILE:HG22	17:D2:65:LEU:HB3	1.68	0.74
38:M4:60:LEU:HD13	44:N0:152:LEU:HD11	1.70	0.74
2:2:57:G:OP1	19:D4:112:LYS:NZ	2.20	0.74
1:5:398:A:O2'	1:5:1416:C:OP1	2.05	0.74
10:C5:122:THR:HG22	10:C5:123:TYR:HD1	5.39	0.74
18:D3:102:VAL:HG12	18:D3:127:VAL:HG12	1.68	0.74
79:SR:184:ASN:ND2	79:SR:185:GLN:H	5.10	0.74
1:1:1600:U:O2	1:1:1605:A:N6	2.19	0.74
28:L3:284:ARG:HB3	28:L3:323:MET:HB3	1.93	0.74
39:M5:35:VAL:HA	39:M5:65:ARG:HD3	1.93	0.74
77:S9:109:LEU:HB2	77:S9:146:PHE:HB3	1.94	0.74
77:S9:82:ARG:HH11	77:S9:149:ARG:HD3	7.38	0.74
1:1:1389:G:N2	1:1:1390:A:N1	2.35	0.74
1:1:147:U:H3	33:L8:159:PRO:HD2	1.53	0.74
1:1:648:C:OP1	83:1:3989:HOH:O	2.06	0.74
1:5:1778:G:O2'	1:5:1780:G:OP2	2.06	0.74
16:D1:40:ASP:HB3	16:D1:46:ILE:HD11	1.68	0.74
29:L4:259:ASP:OD1	29:L4:259:ASP:N	3.58	0.74
73:S5:133:VAL:HG22	73:S5:198:LEU:HD13	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:154:G:OP1	74:S6:2:LYS:NZ	2.21	0.74
1:1:3346:U:H3	1:1:3359:A:H61	1.33	0.74
1:1:655:C:H2'	1:1:656:A:H8	1.52	0.74
10:C5:51:SER:HB2	10:C5:53:PRO:HD3	7.10	0.74
1:1:2969:A:N7	27:L2:215:ASN:ND2	2.35	0.74
44:N0:12:ARG:HG2	44:N0:24:LEU:HD23	1.69	0.74
63:O9:3:ALA:H	63:O9:5:LYS:HZ2	1.36	0.74
72:S4:256:ARG:HA	72:S4:259:GLN:HB3	1.69	0.74
1:1:2842:U:OP1	1:1:2844:C:N4	2.21	0.73
3:3:6:C:OP1	30:L5:54:ARG:NE	2.18	0.73
4:8:72:A:N6	4:8:79:A:H61	1.84	0.73
2:2:1351:G:OP1	11:C6:66:ARG:NH2	2.20	0.73
23:D8:42:ARG:NH2	23:D8:58:GLU:O	4.53	0.73
42:M8:55:SER:OG	42:M8:58:ASN:ND2	3.40	0.73
49:N5:34:LEU:HD22	49:N5:35:PRO:HD2	1.70	0.73
2:2:814:A:H5''	43:M9:170:ARG:HH22	1.53	0.73
21:D6:10:ARG:HB2	21:D6:34:LYS:HA	2.01	0.73
26:E1:106:TYR:HA	26:E1:116:LYS:HA	1.69	0.73
1:1:2255:A:H5'	1:1:2261:G:H22	1.51	0.73
2:2:38:C:H2'	2:2:39:A:H5'	1.70	0.73
2:2:927:C:H1'	9:C4:125:SER:HB2	1.69	0.73
1:5:115:A:OP1	39:M5:49:ARG:NH2	102.86	0.73
1:5:269:G:N2	1:5:295:A:OP2	2.14	0.73
5:C0:22:VAL:HG22	71:S3:75:LYS:HB3	4.66	0.73
74:S6:163:THR:HG22	74:S6:168:THR:HG22	3.78	0.73
2:2:104:A:OP2	2:2:308:C:N4	2.19	0.73
2:2:484:C:H42	2:2:503:G:H22	1.36	0.73
15:D0:35:GLU:OE1	15:D0:89:ARG:NH1	5.66	0.73
68:S0:119:ARG:HE	70:S2:240:LEU:HD23	2.30	0.73
75:S7:115:SER:O	75:S7:116:ARG:HB2	4.11	0.73
1:1:1618:G:H4'	4:4:129:C:H1'	1.70	0.73
1:5:885:U:H2'	1:5:886:C:H6	1.54	0.73
2:6:207:U:O2	76:S8:178:ARG:NH1	291.06	0.73
73:S5:62:VAL:HG13	73:S5:89:ILE:HG12	2.49	0.73
1:1:126:U:OP1	39:M5:144:ARG:NH1	2.22	0.73
15:D0:27:THR:HB	15:D0:88:LYS:HG2	2.12	0.73
58:O4:74:ARG:CZ	58:O4:82:ALA:HB2	2.19	0.73
76:S8:39:GLY:HA2	76:S8:61:GLU:HB3	1.70	0.73
1:1:543:C:N4	1:1:548:G:O6	2.19	0.73
9:C4:85:ALA:H	9:C4:119:THR:HB	2.39	0.73
35:M0:218:ALA:HB1	35:M0:219:ALA:HA	4.74	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:M9:76:SER:O	43:M9:81:ARG:NH1	2.22	0.73
50:N6:11:ASP:HB3	50:N6:14:LYS:HG3	2.15	0.73
76:S8:76:THR:HG22	76:S8:108:PRO:HG2	1.71	0.73
2:2:1559:A:H5''	13:C8:135:GLY:HA3	1.70	0.73
38:M4:22:LEU:HB3	38:M4:64:VAL:HG13	2.85	0.73
40:M6:74:ARG:HB3	40:M6:145:VAL:HG23	2.08	0.73
59:O5:101:THR:HG23	59:O5:104:GLN:H	2.31	0.73
11:C6:53:LEU:HB3	73:S5:37:GLN:HB3	3.77	0.73
13:C8:123:ARG:HG3	13:C8:133:VAL:HG11	1.71	0.73
51:N7:52:LYS:O	51:N7:65:ARG:NH1	2.22	0.73
56:O2:85:LEU:HB2	56:O2:117:ILE:HD13	1.92	0.73
66:Q2:104:LEU:HD13	66:Q2:105:GLN:H	5.10	0.73
1:5:1151:U:O4	83:5:3987:HOH:O	2.07	0.73
1:5:1166:G:O6	1:5:1333:C:N4	2.14	0.73
29:L4:72:ALA:O	29:L4:76:ARG:NH1	2.41	0.73
38:M4:23:ILE:HA	38:M4:63:VAL:HG23	1.70	0.73
55:O1:23:VAL:O	55:O1:28:ARG:NH1	2.21	0.73
79:SR:240:VAL:HG22	79:SR:256:THR:HG22	1.70	0.73
12:C7:47:ARG:NH1	12:C7:48:ASN:OD1	2.22	0.72
26:E1:102:VAL:HG13	26:E1:103:LEU:H	1.53	0.72
2:6:151:G:N2	74:S6:13:GLN:OE1	311.01	0.72
1:1:1897:G:O6	83:1:3990:HOH:O	2.07	0.72
1:1:978:G:O2'	1:1:979:U:O2	2.06	0.72
7:C2:103:LEU:HG	7:C2:116:VAL:HG22	1.71	0.72
40:M6:59:ARG:HB3	40:M6:59:ARG:HH11	1.52	0.72
49:N5:105:VAL:HG13	49:N5:130:TYR:CD2	2.24	0.72
1:1:642:U:OP1	52:N8:22:ILE:HG23	1.90	0.72
68:S0:31:VAL:HG12	68:S0:33:GLN:H	1.53	0.72
69:S1:137:ILE:HD11	69:S1:172:LEU:HB3	1.69	0.72
2:6:1529:C:OP1	73:S5:112:ARG:HD3	374.33	0.72
1:5:1102:A:H5''	1:5:1103:A:N7	2.03	0.72
2:6:324:U:OP1	6:C1:133:LYS:NZ	294.11	0.72
2:6:1415:U:OP2	12:C7:3:ARG:NH2	409.85	0.72
45:N1:11:THR:HG22	45:N1:14:MET:HE2	1.71	0.72
68:S0:126:PRO:HB2	68:S0:152:PRO:HG2	1.97	0.72
2:2:238:U:O2'	2:2:240:U:H5'	1.89	0.72
4:4:53:A:H2'	4:4:54:A:H8	1.53	0.72
4:8:157:U:H3'	4:8:158:U:H3'	1.72	0.72
2:2:896:U:H1'	9:C4:38:THR:HG21	1.72	0.72
13:C8:30:TYR:HE2	13:C8:40:ARG:HH11	1.37	0.72
31:L6:60:ASP:OD1	31:L6:62:THR:OG1	2.65	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:98:G:OP1	37:M3:16:LYS:NZ	130.74	0.72
73:S5:122:ASN:HB2	73:S5:129:PRO:HD3	1.72	0.72
1:1:2774:C:O2	1:1:2786:G:N2	2.18	0.72
2:6:936:G:N7	21:D6:15:ARG:NH1	321.71	0.72
2:2:1773:C:OP2	65:Q1:2:ARG:NH1	2.22	0.72
1:1:2438:A:H2'	1:1:2439:A:H8	1.54	0.72
1:5:1367:G:O6	83:5:3911:HOH:O	2.06	0.72
2:6:1316:G:O2'	2:6:1401:A:O2'	2.04	0.72
13:C8:36:LYS:HB2	13:C8:102:ALA:HA	1.71	0.72
18:D3:57:LEU:HB3	25:E0:4:VAL:HG13	2.87	0.72
30:L5:289:LYS:HG2	30:L5:293:LEU:HD23	1.72	0.72
68:S0:83:GLN:HG2	68:S0:99:ALA:HB1	1.85	0.72
1:5:838:G:O6	67:Q3:4:ARG:NH2	238.52	0.72
2:6:1328:G:OP2	83:6:2123:HOH:O	2.07	0.72
39:M5:183:THR:O	39:M5:184:LYS:HB3	4.24	0.72
40:M6:88:VAL:HG21	40:M6:99:LEU:HD21	1.78	0.72
51:N7:83:THR:HG23	51:N7:85:TYR:H	1.57	0.72
2:2:231:U:H3	2:2:234:G:H22	1.35	0.72
2:2:312:A:H4'	2:2:313:U:H5''	1.70	0.72
2:6:1060:U:H2'	2:6:1061:A:C4	2.24	0.72
4:8:82:U:H1'	4:8:83:C:H5'	1.70	0.72
29:L4:203:ARG:NH1	29:L4:226:GLU:OE2	2.23	0.72
35:M0:43:VAL:HG21	35:M0:197:VAL:HG13	1.72	0.72
32:L7:92:ILE:HD11	42:M8:4:ASP:HB2	1.71	0.72
74:S6:135:PRO:HB2	74:S6:141:ILE:HG12	1.93	0.72
1:1:829:U:H3	1:1:895:A:N6	1.87	0.72
2:6:1533:C:H4'	2:6:1539:G:N1	2.05	0.72
11:C6:73:GLY:H	11:C6:76:SER:HB3	1.55	0.72
15:D0:69:LYS:HE2	15:D0:80:GLU:HB3	1.71	0.72
31:L6:31:ARG:NH1	57:O3:107:ILE:O	2.28	0.72
1:1:1913:A:N3	1:1:2120:A:H2'	2.04	0.72
1:5:2594:C:OP1	81:5:3855:8UZ:C6	2.37	0.72
1:5:627:U:H2'	1:5:628:A:C8	2.23	0.72
1:5:979:U:H1'	1:5:980:A:C8	2.25	0.72
6:C1:112:SER:OG	6:C1:113:PRO:O	4.73	0.72
11:C6:93:HIS:HA	11:C6:97:VAL:HG13	1.71	0.72
1:5:2155:G:H4'	27:L2:239:ALA:HB3	210.27	0.72
42:M8:173:GLU:OE2	52:N8:49:HIS:ND1	2.15	0.72
72:S4:199:GLU:OE1	72:S4:201:HIS:NE2	2.90	0.72
1:1:252:U:O2'	1:1:253:A:OP2	2.07	0.71
1:1:3060:C:O2	1:1:3332:U:O2'	2.07	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:D6:79:ILE:HA	21:D6:84:VAL:HG11	1.72	0.71
30:L5:148:ILE:HG12	30:L5:159:VAL:HG11	1.72	0.71
36:M1:49:LYS:HB3	36:M1:62:ASN:HA	1.72	0.71
1:1:3006:A:OP2	40:M6:148:LYS:NZ	2.22	0.71
45:N1:6:GLY:H	45:N1:9:SER:HB2	3.25	0.71
79:SR:184:ASN:HD22	79:SR:185:GLN:N	5.39	0.71
1:1:911:C:H5"	27:L2:15:ILE:HD13	1.71	0.71
1:5:875:G:OP2	83:5:3986:HOH:O	2.07	0.71
2:2:1380:U:OP1	11:C6:12:LYS:NZ	2.23	0.71
16:D1:10:GLU:HG3	16:D1:10:GLU:O	4.66	0.71
17:D2:68:ARG:HD3	70:S2:230:TRP:CE2	2.57	0.71
1:5:2594:C:OP1	81:5:3855:8UZ:C4	2.38	0.71
2:2:324:U:OP1	6:C1:133:LYS:NZ	2.18	0.71
39:M5:15:GLN:HB3	60:O6:52:PRO:HD2	1.85	0.71
1:5:2394:G:OP2	83:5:3988:HOH:O	2.08	0.71
1:5:3039:C:OP1	28:L3:62:ARG:NH1	276.33	0.71
2:6:64:U:O2'	2:6:168:A:N3	2.22	0.71
2:6:263:C:H4'	2:6:292:U:H5'	1.73	0.71
15:D0:37:VAL:HG13	15:D0:107:THR:HG22	4.81	0.71
15:D0:70:THR:OG1	15:D0:72:ASN:O	2.08	0.71
30:L5:232:ASP:O	30:L5:235:SER:OG	2.09	0.71
1:5:1186:G:O2'	44:N0:113:ARG:NH1	306.02	0.71
71:S3:222:VAL:HG11	79:SR:229:LYS:HA	1.73	0.71
1:1:1575:A:H3'	1:1:1576:G:H5"	1.73	0.71
2:6:217:A:O2'	2:6:218:A:O5'	2.09	0.71
2:6:539:G:N3	83:6:2130:HOH:O	2.22	0.71
2:2:1235:C:H2'	26:E1:138:ARG:HH21	1.54	0.71
28:L3:7:GLU:OE2	83:L3:501:HOH:O	36.67	0.71
36:M1:9:MET:O	36:M1:11:ASP:N	3.12	0.71
38:M4:19:ARG:HA	38:M4:69:THR:HG22	1.73	0.71
49:N5:115:ARG:NH1	49:N5:119:THR:OG1	2.43	0.71
67:Q3:38:ASP:OD1	67:Q3:45:LYS:HB3	1.91	0.71
1:5:345:G:OP1	1:5:1429:G:N2	2.19	0.71
11:C6:46:PHE:HA	11:C6:49:TYR:HB2	2.22	0.71
43:M9:21:LYS:O	43:M9:53:LYS:HB2	1.90	0.71
2:6:888:U:H1'	9:C4:126:THR:HG21	275.71	0.71
9:C4:20:TYR:HB3	9:C4:27:PHE:HB2	1.73	0.71
35:M0:77:THR:HG22	35:M0:82:ARG:HA	1.72	0.71
47:N3:80:ARG:HB2	47:N3:99:ALA:HB3	1.73	0.71
1:1:1818:U:H3'	1:1:1819:U:H5"	1.72	0.71
2:2:1291:G:N2	2:2:1324:G:H22	1.88	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:1474:G:H2'	2:2:1475:A:H8	1.55	0.71
2:6:1253:U:O4	26:E1:97:LYS:NZ	437.14	0.71
2:6:852:C:OP2	43:M9:172:ARG:NH1	324.86	0.71
5:C0:14:TYR:OH	5:C0:34:GLU:OE1	2.03	0.71
13:C8:4:VAL:HG21	20:D5:82:HIS:CE1	3.26	0.71
30:L5:196:ARG:HA	30:L5:199:ILE:HD12	1.73	0.71
34:L9:48:VAL:HG13	34:L9:52:LEU:HB3	1.73	0.71
1:5:3276:G:O6	41:M7:171:ARG:NH1	221.54	0.71
66:Q2:29:LYS:HD3	66:Q2:30:ALA:H	1.55	0.71
68:S0:69:ASN:OD1	70:S2:244:SER:OG	2.08	0.71
69:S1:128:LYS:HE3	69:S1:132:ASP:HB3	1.73	0.71
2:2:1046:G:OP1	69:S1:157:GLN:NE2	2.24	0.71
1:5:1952:G:H1	1:5:2094:C:N4	1.87	0.71
1:5:2397:A:OP1	1:5:2398:A:H5''	1.91	0.71
27:L2:206:PRO:O	83:L2:401:HOH:O	2.09	0.71
1:1:1145:G:OP1	56:O2:44:ARG:NH1	2.23	0.71
70:S2:50:ILE:HD11	70:S2:239:PRO:HB3	1.72	0.71
72:S4:240:LYS:HE2	72:S4:240:LYS:H	1.56	0.71
1:1:2756:C:OP1	83:1:3991:HOH:O	2.07	0.71
1:5:2261:G:O2'	1:5:2263:C:N4	2.24	0.71
1:5:269:G:H5'	39:M5:120:TRP:CE3	133.51	0.71
10:C5:118:GLU:O	78:SM:57:ASN:ND2	2.24	0.71
27:L2:111:THR:HB	27:L2:136:ILE:HD13	1.71	0.71
42:M8:103:ALA:HB3	42:M8:106:PHE:CE2	2.26	0.71
76:S8:82:VAL:HG13	76:S8:196:LEU:HD21	3.71	0.71
4:4:139:U:H2'	4:4:140:G:H8	1.56	0.70
30:L5:17:GLN:HE22	45:N1:22:HIS:H	2.76	0.70
2:2:393:C:OP2	76:S8:2:GLY:N	2.25	0.70
1:1:1229:G:N7	1:1:1281:G:N2	2.38	0.70
3:3:7:G:OP1	30:L5:33:ARG:NH1	2.24	0.70
1:5:2818:U:H6	1:5:2818:U:H5'	1.55	0.70
1:5:92:G:OP2	1:5:93:C:H5''	1.90	0.70
31:L6:176:PHE:H	38:M4:117:ARG:HH22	4.46	0.70
79:SR:207:ASP:OD1	79:SR:209:THR:OG1	2.09	0.70
2:6:919:A:H5'	9:C4:35:GLY:HA3	271.56	0.70
6:C1:7:VAL:O	6:C1:8:GLN:HB2	1.89	0.70
8:C3:34:ILE:HG13	8:C3:67:THR:HG21	1.72	0.70
12:C7:10:LYS:HG2	12:C7:53:TYR:CE1	2.26	0.70
35:M0:53:VAL:HG22	35:M0:134:ILE:HG12	1.73	0.70
44:N0:92:LYS:NZ	44:N0:109:ASP:OD2	2.23	0.70
52:N8:2:PRO:HG2	52:N8:5:PHE:HD2	1.54	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:S4:52:LEU:HB3	72:S4:54:TYR:HD2	3.05	0.70
1:1:3354:U:H1'	76:S8:163:GLY:HA3	1.74	0.70
7:C2:61:VAL:HG13	7:C2:121:VAL:HG23	1.74	0.70
15:D0:97:VAL:HG13	15:D0:98:GLN:H	4.49	0.70
20:D5:59:TYR:HE2	20:D5:61:SER:HB3	1.54	0.70
31:L6:7:PRO:HD3	56:O2:74:PHE:HE1	2.85	0.70
49:N5:34:LEU:HD23	49:N5:35:PRO:HD2	3.13	0.70
50:N6:82:VAL:HG12	50:N6:83:ASP:O	2.56	0.70
2:2:1293:U:O2'	68:S0:109:ASN:OD1	2.08	0.70
72:S4:79:ASP:HB3	72:S4:82:TYR:HB2	1.71	0.70
2:2:614:C:OP2	18:D3:5:LYS:NZ	2.24	0.70
2:6:1650:U:H2'	2:6:1651:A:C8	2.26	0.70
14:C9:16:ASN:OD1	14:C9:56:LYS:NZ	2.24	0.70
29:L4:140:HIS:H	29:L4:180:LYS:HE2	1.55	0.70
68:S0:134:LYS:O	68:S0:137:SER:OG	2.21	0.70
76:S8:110:ARG:HG3	76:S8:121:LEU:HD23	3.12	0.70
1:1:1017:C:O2'	1:1:1018:G:OP2	2.10	0.70
2:2:1160:A:OP2	11:C6:142:TYR:OH	2.09	0.70
2:2:16:G:H2'	2:2:17:C:C6	2.27	0.70
27:L2:190:ARG:HG2	27:L2:191:LEU:HD22	6.04	0.70
38:M4:55:ARG:NH2	38:M4:76:ALA:O	2.23	0.70
40:M6:54:TYR:OH	40:M6:73:PHE:O	2.36	0.70
1:1:2151:C:O2'	1:1:2243:A:N1	2.22	0.70
1:1:399:A:OP2	83:1:3992:HOH:O	2.10	0.70
3:3:58:C:H2'	3:3:59:U:H6	1.56	0.70
2:6:1600:A:N6	83:6:2133:HOH:O	2.24	0.70
19:D4:57:VAL:HB	19:D4:60:PHE:HE2	3.96	0.70
34:L9:89:LYS:HG2	34:L9:145:VAL:HG22	1.81	0.70
71:S3:179:GLN:OE1	71:S3:180:GLY:N	4.02	0.70
1:1:3346:U:H3	1:1:3359:A:N6	1.89	0.70
2:2:1173:C:OP1	13:C8:132:ARG:NH1	2.24	0.70
2:2:747:C:O2'	17:D2:80:ASN:OD1	2.08	0.70
49:N5:137:ASN:HB3	49:N5:142:ILE:HG13	2.76	0.70
54:O0:22:LYS:HD3	54:O0:94:GLU:HG3	3.27	0.70
60:O6:62:ARG:O	60:O6:63:ASN:ND2	6.01	0.70
20:D5:58:ARG:HB3	73:S5:123:VAL:HG13	1.73	0.70
79:SR:38:ARG:HA	79:SR:67:ILE:HG23	1.98	0.70
1:1:2100:A:N7	1:1:2101:C:N4	2.40	0.70
1:5:1760:A:C4	1:5:1761:C:H5	2.10	0.70
2:6:1459:C:OP2	13:C8:138:THR:OG1	349.39	0.70
2:6:332:U:O2'	76:S8:5:ARG:NH1	301.16	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:1459:C:OP2	13:C8:138:THR:OG1	2.10	0.70
31:L6:89:THR:HG21	38:M4:115:PHE:HB2	1.73	0.70
33:L8:150:LEU:HD22	33:L8:151:VAL:H	2.04	0.70
34:L9:21:LYS:HG3	38:M4:8:LYS:HD2	1.72	0.70
37:M3:76:THR:O	37:M3:79:GLU:N	2.25	0.70
42:M8:18:ALA:HA	42:M8:53:PHE:CE1	2.27	0.70
2:6:1330:G:N2	71:S3:204:ASP:OD1	421.37	0.70
2:2:396:G:H22	2:2:399:A:H5'	1.56	0.70
1:5:2947:G:H4'	1:5:2947:G:OP2	1.92	0.70
20:D5:71:ILE:HG21	20:D5:76:ALA:HB2	5.42	0.70
16:D1:64:GLU:HG3	22:D7:3:LEU:HG	1.72	0.70
25:E0:43:ARG:NH1	25:E0:56:MET:SD	3.60	0.70
27:L2:143:GLU:O	27:L2:145:LYS:HG2	1.91	0.70
43:M9:68:GLN:OE1	43:M9:71:ARG:HD2	1.92	0.70
1:5:217:U:O2	50:N6:103:LYS:NZ	74.31	0.70
51:N7:50:PRO:HD3	51:N7:68:ILE:HG12	1.73	0.70
62:O8:24:THR:HG23	62:O8:44:LYS:HB2	2.16	0.70
76:S8:81:VAL:HG22	76:S8:102:VAL:HG12	2.22	0.70
1:1:1615:C:H2'	1:1:1616:U:C6	2.27	0.69
1:5:86:G:O2'	1:5:98:G:O6	2.10	0.69
9:C4:103:ARG:HH12	21:D6:48:ALA:HB3	3.83	0.69
21:D6:36:ILE:HD12	21:D6:36:ILE:H	5.67	0.69
22:D7:36:LYS:HE2	22:D7:43:ILE:HG23	4.48	0.69
68:S0:172:LEU:HD22	68:S0:176:LEU:HG	2.05	0.69
77:S9:93:LEU:HA	77:S9:96:VAL:HG13	1.73	0.69
6:C1:82:ARG:O	6:C1:110:HIS:ND1	3.82	0.69
11:C6:39:VAL:O	11:C6:45:ARG:NE	5.63	0.69
35:M0:86:HIS:HB3	35:M0:139:ARG:HG2	1.97	0.69
1:1:1212:A:H1'	44:N0:114:HIS:HE1	1.57	0.69
72:S4:32:SER:OG	72:S4:81:THR:OG1	2.05	0.69
2:2:488:G:OP1	2:2:488:G:H4'	1.91	0.69
1:5:2181:C:OP1	27:L2:192:LYS:NZ	200.83	0.69
2:6:591:A:H2'	2:6:592:A:C8	2.27	0.69
40:M6:157:GLU:OE2	40:M6:160:ARG:NH1	2.24	0.69
62:O8:14:LEU:HD23	62:O8:17:ARG:HD3	2.08	0.69
19:D4:22:GLN:NE2	72:S4:53:LYS:O	2.25	0.69
2:2:1391:A:H2'	2:2:1392:U:C6	2.28	0.69
2:6:178:U:H3	74:S6:191:ARG:CZ	325.09	0.69
18:D3:79:ASN:OD1	18:D3:79:ASN:N	3.29	0.69
30:L5:104:LEU:HD11	30:L5:108:ARG:HH21	1.57	0.69
50:N6:26:GLN:O	50:N6:30:LEU:HG	2.47	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:O6:43:LEU:O	60:O6:47:ILE:HG13	2.22	0.69
62:O8:27:ILE:HD13	62:O8:41:THR:HB	1.87	0.69
78:SM:50:ASN:N	78:SM:50:ASN:OD1	3.76	0.69
7:C2:60:VAL:HG23	7:C2:87:PRO:HG2	2.14	0.69
28:L3:347:SER:O	28:L3:349:LYS:N	2.22	0.69
34:L9:47:LYS:HB2	38:M4:7:VAL:HB	1.72	0.69
72:S4:163:ASP:OD1	72:S4:166:SER:N	2.19	0.69
2:2:895:G:H1	2:2:917:U:H3	1.37	0.69
2:2:901:G:OP2	2:2:901:G:N2	2.19	0.69
2:6:1766:A:N1	21:D6:80:HIS:ND1	327.01	0.69
6:C1:21:ASN:ND2	6:C1:32:LYS:H	2.27	0.69
8:C3:88:LEU:HD22	8:C3:92:ILE:HD11	2.68	0.69
30:L5:68:THR:HG22	30:L5:71:GLY:H	2.40	0.69
64:Q0:98:LYS:HD3	64:Q0:118:THR:HG21	1.72	0.69
66:Q2:57:VAL:O	66:Q2:59:HIS:ND1	2.26	0.69
1:5:3099:C:O2'	1:5:3100:U:H5'	1.92	0.69
5:C0:77:ARG:HD3	5:C0:84:GLU:HA	1.73	0.69
20:D5:71:ILE:HG23	20:D5:73:GLY:H	8.34	0.69
35:M0:54:SER:HB2	35:M0:135:ILE:HD11	1.78	0.69
1:1:3057:U:H5'	1:1:3086:A:H61	1.58	0.69
2:2:1535:U:H1'	2:2:1536:G:C2	2.27	0.69
1:5:1493:G:O6	63:O9:2:ALA:N	123.62	0.69
1:5:317:A:H2'	1:5:318:A:C8	2.27	0.69
2:6:1799:U:H4'	2:6:1800:A:H2'	1.74	0.69
27:L2:137:ILE:HD11	27:L2:147:ARG:HG2	1.75	0.69
45:N1:17:ARG:HE	45:N1:22:HIS:HA	3.82	0.69
59:O5:85:THR:CG2	59:O5:88:LEU:H	2.16	0.69
1:1:1018:G:H5''	78:SM:46:LYS:HD3	1.75	0.69
2:2:1521:G:O6	14:C9:68:ARG:NH1	2.25	0.69
2:2:276:C:O2'	2:2:277:U:H5''	1.93	0.69
1:5:1682:U:O2	46:N2:82:LYS:NZ	162.64	0.69
12:C7:71:PHE:HE1	12:C7:73:LEU:HD22	1.58	0.69
29:L4:177:ASP:OD1	29:L4:180:LYS:HE3	1.92	0.69
32:L7:130:ILE:HD12	32:L7:134:VAL:HG11	1.75	0.69
51:N7:51:LEU:HB2	51:N7:65:ARG:HD2	1.75	0.69
71:S3:80:ALA:O	71:S3:83:THR:OG1	2.21	0.69
75:S7:25:VAL:HA	75:S7:28:GLU:HB2	1.75	0.69
4:4:79:A:H2'	4:4:81:U:N3	2.08	0.69
1:5:664:U:H3	1:5:798:G:H1	1.40	0.69
2:6:206:A:OP1	72:S4:133:LYS:NZ	316.67	0.69
10:C5:119:PHE:HE1	13:C8:119:ILE:HG23	2.29	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:D4:124:ARG:NH1	19:D4:124:ARG:O	5.95	0.69
1:5:2176:U:OP1	27:L2:54:ARG:NH2	195.67	0.69
1:5:3068:U:OP2	43:M9:62:ARG:NH2	173.87	0.69
71:S3:221:SER:HA	79:SR:230:ALA:HB3	1.73	0.69
1:1:2433:U:H1'	39:M5:125:SER:HB3	1.76	0.69
2:6:1474:G:H2'	2:6:1475:A:H8	1.58	0.69
2:6:448:C:OP2	72:S4:49:ARG:NH1	381.45	0.69
5:C0:50:THR:HG22	5:C0:55:VAL:HG22	1.74	0.69
6:C1:78:THR:HA	6:C1:84:ILE:HG22	2.51	0.69
12:C7:14:LYS:NZ	12:C7:18:GLU:OE2	2.26	0.69
28:L3:41:VAL:HA	28:L3:185:GLY:CA	2.24	0.69
51:N7:36:HIS:CD2	51:N7:74:VAL:HG11	2.28	0.69
54:O0:22:LYS:HB2	54:O0:94:GLU:HB2	1.75	0.69
31:L6:85:ILE:HA	57:O3:107:ILE:HG21	4.09	0.69
69:S1:129:THR:HA	69:S1:177:GLN:HA	1.74	0.69
2:2:1572:G:H1'	73:S5:185:ARG:HH12	1.56	0.69
1:1:2656:A:H4'	66:Q2:98:LYS:HD2	1.75	0.68
1:5:1102:A:H4'	1:5:1103:A:C5	2.28	0.68
2:6:1364:G:O2'	11:C6:26:LYS:NZ	436.20	0.68
42:M8:177:GLY:O	42:M8:186:VAL:N	2.42	0.68
72:S4:37:LYS:HB2	72:S4:40:GLU:HG3	1.75	0.68
77:S9:119:ALA:O	77:S9:124:HIS:ND1	4.51	0.68
2:2:789:A:O2'	72:S4:106:LYS:NZ	2.26	0.68
4:4:9:A:H2'	4:4:10:A:C8	2.28	0.68
2:6:1462:G:N7	13:C8:143:ARG:NH2	338.42	0.68
13:C8:26:ILE:HG13	13:C8:31:ALA:HB2	2.32	0.68
66:Q2:72:LEU:HD11	66:Q2:83:LEU:HB2	1.75	0.68
2:2:1183:A:N6	2:2:1184:A:N1	2.42	0.68
2:2:1477:G:OP1	14:C9:44:GLU:N	2.27	0.68
2:2:322:G:O2'	76:S8:10:LYS:NZ	2.27	0.68
1:5:1929:G:OP2	1:5:1930:A:O2'	2.10	0.68
1:5:2268:U:H4'	1:5:2268:U:OP1	1.93	0.68
9:C4:81:VAL:H	9:C4:115:ILE:HG22	1.58	0.68
13:C8:17:LEU:O	13:C8:20:THR:OG1	2.06	0.68
21:D6:38:ARG:HG2	21:D6:82:ARG:HE	1.58	0.68
25:E0:43:ARG:HG3	25:E0:54:ARG:HH22	1.57	0.68
34:L9:50:ASN:HD21	38:M4:4:ASP:HB3	2.05	0.68
36:M1:37:LEU:HD12	36:M1:67:VAL:HG23	1.75	0.68
69:S1:117:TRP:HE1	69:S1:152:ARG:HD3	1.58	0.68
76:S8:66:SER:HA	76:S8:73:SER:HA	1.74	0.68
1:1:1940:G:N2	1:1:2109:U:O2	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:6:1297:G:N2	2:6:1300:A:OP2	2.25	0.68
1:5:1318:A:OP1	40:M6:18:ARG:NH2	274.14	0.68
69:S1:39:GLU:HG3	69:S1:40:ASN:H	1.58	0.68
72:S4:11:ARG:O	72:S4:12:LEU:HB2	2.16	0.68
78:SM:102:THR:HG23	78:SM:105:LYS:HB2	1.89	0.68
1:5:1126:G:OP2	83:5:3990:HOH:O	2.12	0.68
2:6:754:A:N6	2:6:793:A:N1	2.41	0.68
1:1:2548:C:OP2	27:L2:93:LYS:NZ	2.27	0.68
28:L3:77:THR:HG22	28:L3:326:GLY:O	3.40	0.68
42:M8:64:VAL:HG13	42:M8:93:ILE:HD11	1.74	0.68
46:N2:51:GLY:O	46:N2:52:ASN:ND2	2.26	0.68
52:N8:27:LYS:HB3	52:N8:28:HIS:HD2	5.78	0.68
69:S1:180:THR:HG22	69:S1:181:LEU:HD13	1.75	0.68
70:S2:146:THR:HG23	70:S2:148:LEU:HB2	1.75	0.68
2:2:1229:G:O2'	2:2:1255:G:N2	2.27	0.68
2:2:1328:G:OP2	83:2:2130:HOH:O	2.10	0.68
2:2:1796:C:H5	21:D6:6:ALA:H	1.42	0.68
1:5:1727:G:OP1	67:Q3:44:LYS:NZ	233.13	0.68
1:5:2807:U:O2'	1:5:2809:C:OP1	2.12	0.68
2:6:261:U:O5'	83:6:2124:HOH:O	2.11	0.68
2:2:959:U:H5'	8:C3:15:ALA:O	1.94	0.68
29:L4:178:LEU:O	29:L4:182:LEU:HG	4.85	0.68
29:L4:20:LEU:HD13	29:L4:256:THR:HG23	1.87	0.68
1:5:3199:G:H5''	38:M4:6:ILE:HG21	333.53	0.68
1:5:1653:G:N3	83:5:4018:HOH:O	2.27	0.68
2:6:1241:G:H1'	10:C5:79:HIS:HB2	389.24	0.68
13:C8:48:LYS:HD3	14:C9:35:ASP:HB2	2.35	0.68
33:L8:148:ALA:HA	33:L8:201:THR:HG22	1.76	0.68
36:M1:109:HIS:HD2	36:M1:123:PHE:H	1.41	0.68
32:L7:80:GLN:HG3	45:N1:136:ARG:HB2	3.10	0.68
1:1:2573:G:OP1	51:N7:61:LYS:HG3	1.94	0.68
54:O0:16:LEU:HD11	54:O0:97:ASP:HB2	1.75	0.68
68:S0:71:GLU:O	68:S0:96:THR:HG22	2.04	0.68
1:1:1295:G:O2'	44:N0:115:ARG:NH1	2.26	0.68
1:1:2896:A:C8	1:1:2896:A:H5'	2.25	0.68
2:6:1565:C:OP1	13:C8:41:ARG:HD3	369.74	0.68
2:6:475:A:OP2	77:S9:126:ARG:NH1	424.74	0.68
37:M3:140:SER:OG	37:M3:141:ALA:N	2.41	0.68
37:M3:48:PRO:HA	37:M3:137:GLN:HB3	1.76	0.68
1:5:351:A:N6	63:O9:37:TYR:O	93.02	0.68
20:D5:59:TYR:HB2	73:S5:123:VAL:HG11	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C0:85:HIS:O	78:SM:155:ASN:N	6.58	0.68
2:2:136:C:H4'	2:2:137:U:OP1	1.93	0.68
2:2:149:C:OP1	19:D4:121:THR:OG1	2.10	0.68
2:2:591:A:H2'	2:2:592:A:C8	2.28	0.68
1:5:3275:U:H5''	57:O3:68:TRP:HZ2	230.58	0.68
32:L7:145:ARG:HA	32:L7:185:ILE:HD13	2.33	0.68
43:M9:185:LEU:HD13	43:M9:186:LYS:HG2	1.75	0.68
2:6:1681:A:H1'	74:S6:66:GLY:HA3	274.90	0.68
1:5:1874:A:H5''	43:M9:18:GLY:HA3	137.93	0.68
2:6:1330:G:O6	83:6:2123:HOH:O	2.09	0.68
13:C8:137:HIS:O	13:C8:141:THR:OG1	2.10	0.68
20:D5:71:ILE:HG22	20:D5:75:LEU:HD12	1.75	0.68
26:E1:100:LEU:HG	26:E1:102:VAL:HB	3.87	0.68
28:L3:232:ARG:NH1	28:L3:269:GLN:O	2.23	0.68
2:2:1060:U:H2'	2:2:1061:A:H5''	1.76	0.67
1:5:2913:C:OP2	83:5:3989:HOH:O	2.12	0.67
1:5:3042:U:OP2	1:5:3092:C:N4	2.26	0.67
1:5:55:G:OP1	61:O7:43:LYS:NZ	115.54	0.67
81:7:209:8UZ:O4	81:7:209:8UZ:N4	2.27	0.67
5:C0:11:ILE:HD13	5:C0:35:ILE:HG21	1.75	0.67
2:2:1785:U:OP1	9:C4:136:ARG:NH1	2.27	0.67
2:2:1550:A:P	10:C5:42:ARG:HH22	2.17	0.67
31:L6:67:GLY:O	31:L6:72:ASN:ND2	3.13	0.67
47:N3:54:LEU:HD21	47:N3:119:GLY:HA3	1.77	0.67
58:O4:44:CYS:HB3	58:O4:49:SER:H	2.68	0.67
1:1:1039:U:H2'	1:1:1040:A:C8	2.29	0.67
1:5:1430:U:H2'	52:N8:9:ARG:HH22	142.23	0.67
2:6:16:G:H2'	2:6:17:C:C6	2.29	0.67
8:C3:88:LEU:HG	8:C3:125:LEU:HD13	2.13	0.67
12:C7:86:PRO:HG2	12:C7:88:VAL:HA	8.27	0.67
27:L2:46:LYS:HD3	27:L2:62:VAL:HG21	2.88	0.67
28:L3:92:TYR:CE2	28:L3:101:SER:HB3	2.78	0.67
34:L9:38:LEU:HD13	34:L9:71:VAL:HG13	1.76	0.67
33:L8:140:VAL:HG21	39:M5:3:ALA:HB2	1.76	0.67
70:S2:69:ILE:HD11	70:S2:133:LYS:HB3	1.76	0.67
79:SR:76:ASP:OD1	79:SR:76:ASP:N	2.27	0.67
2:2:1754:A:HO2'	25:E0:2:ALA:N	1.92	0.67
2:2:66:U:H5'	74:S6:173:PRO:HA	1.76	0.67
26:E1:102:VAL:O	26:E1:104:SER:N	2.27	0.67
3:3:73:C:N4	44:N0:19:VAL:HG21	2.10	0.67
46:N2:37:LEU:HD12	46:N2:41:ILE:HD11	5.52	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:S3:70:THR:HG22	71:S3:86:LEU:HD13	1.76	0.67
1:1:655:C:H2'	1:1:656:A:C8	2.29	0.67
3:3:44:C:OP2	36:M1:137:ARG:NH2	2.26	0.67
13:C8:5:VAL:O	20:D5:42:LEU:HB2	4.22	0.67
30:L5:110:LEU:HA	30:L5:113:LEU:HB2	2.76	0.67
49:N5:67:ILE:HB	49:N5:83:VAL:HG12	1.77	0.67
51:N7:25:ILE:HA	51:N7:43:VAL:HG12	1.75	0.67
66:Q2:69:VAL:HG22	66:Q2:84:THR:HB	1.75	0.67
70:S2:45:VAL:HG21	70:S2:68:ILE:HG23	1.77	0.67
2:2:734:A:H5''	2:2:735:C:OP1	1.93	0.67
4:4:53:A:H2'	4:4:54:A:C8	2.29	0.67
1:5:2761:G:N7	66:Q2:63:LYS:NZ	208.56	0.67
1:5:861:C:OP2	83:5:3991:HOH:O	2.12	0.67
1:5:920:A:H3'	1:5:922:U:C5	2.29	0.67
2:6:1280:C:O2'	15:D0:70:THR:HG23	388.10	0.67
29:L4:44:LYS:HB3	29:L4:47:ARG:HH11	2.19	0.67
33:L8:162:LEU:HA	39:M5:7:LEU:HD11	1.83	0.67
46:N2:93:ILE:HG21	46:N2:105:LEU:HD23	1.76	0.67
55:O1:88:PRO:HG2	55:O1:89:LEU:HD22	1.77	0.67
17:D2:51:GLU:OE1	75:S7:141:ARG:NH1	5.95	0.67
75:S7:49:ILE:HG13	75:S7:57:ALA:HB3	3.33	0.67
14:C9:28:LEU:HD23	14:C9:111:ILE:HD11	8.90	0.67
14:C9:138:GLN:O	14:C9:142:GLU:N	2.27	0.67
15:D0:80:GLU:OE1	24:D9:44:ARG:NH1	2.27	0.67
19:D4:37:LYS:HA	19:D4:40:LEU:HD12	4.06	0.67
34:L9:41:ILE:HD13	34:L9:67:ALA:HB1	2.92	0.67
36:M1:21:ILE:HG21	36:M1:33:ALA:HB1	1.76	0.67
37:M3:140:SER:HG	37:M3:143:ALA:H	1.99	0.67
1:1:118:U:O2	1:1:121:A:H5'	1.94	0.67
1:1:1720:U:OP2	43:M9:120:TYR:OH	2.09	0.67
1:1:3174:A:OP1	57:O3:97:SER:OG	2.09	0.67
2:2:1092:A:O2'	2:2:1093:A:H3'	1.95	0.67
2:2:1290:U:H2'	2:2:1291:G:C8	2.30	0.67
2:2:276:C:HO2'	2:2:278:U:H3	1.41	0.67
11:C6:49:TYR:HB3	11:C6:53:LEU:HD11	1.87	0.67
1:5:2944:U:H1'	28:L3:251:CYS:SG	223.14	0.67
28:L3:211:GLN:NE2	28:L3:284:ARG:HA	2.21	0.67
54:O0:78:GLY:HA2	54:O0:87:VAL:HG13	1.75	0.67
39:M5:84:PRO:HB2	66:Q2:51:GLY:HA2	1.77	0.67
73:S5:33:VAL:O	73:S5:37:GLN:HB2	1.94	0.67
2:2:420:A:OP1	74:S6:96:SER:OG	2.08	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:3:82:G:OP2	81:3:214:8UZ:C	2.43	0.67
4:8:72:A:H61	4:8:79:A:N6	1.90	0.67
15:D0:48:HIS:O	15:D0:48:HIS:ND1	2.28	0.67
28:L3:169:THR:HG23	28:L3:171:LEU:H	1.60	0.67
35:M0:36:LEU:HD21	35:M0:69:ARG:HD3	1.75	0.67
41:M7:26:PHE:CE1	41:M7:121:GLN:HG2	2.29	0.67
52:N8:94:ALA:HB2	52:N8:121:VAL:HG22	1.77	0.67
70:S2:178:ILE:HB	70:S2:185:LYS:HG2	2.93	0.67
73:S5:29:ILE:HG22	73:S5:34:GLN:HG3	1.76	0.67
77:S9:49:LEU:HD11	77:S9:100:LYS:HA	3.33	0.67
1:1:1601:U:OP1	43:M9:42:ARG:NH2	2.28	0.67
1:1:317:A:H2'	1:1:318:A:C8	2.29	0.67
1:5:361:A:O3'	61:O7:45:ARG:NH2	124.08	0.67
13:C8:26:ILE:HD11	13:C8:31:ALA:N	2.09	0.67
6:C1:99:ARG:NH1	18:D3:7:ARG:O	2.41	0.67
28:L3:284:ARG:NH2	28:L3:295:ALA:O	2.27	0.67
39:M5:39:ALA:HB3	39:M5:61:ILE:HG22	1.77	0.67
44:N0:8:GLN:HB2	44:N0:64:ILE:HD11	1.74	0.67
62:O8:65:LEU:HD23	62:O8:68:SER:HB2	2.27	0.67
1:1:3041:U:H2'	1:1:3042:U:H6	1.59	0.67
2:6:1575:G:H2'	2:6:1576:A:C8	2.29	0.67
2:2:1211:A:O2'	10:C5:100:LYS:HD3	1.95	0.67
12:C7:115:LEU:HD13	12:C7:116:LYS:H	1.58	0.67
19:D4:45:ALA:HA	19:D4:50:ALA:HB3	2.79	0.67
20:D5:92:ILE:HD11	20:D5:100:ILE:HG22	1.76	0.67
28:L3:311:PHE:HE2	28:L3:317:ILE:HD13	1.60	0.67
1:5:2914:G:H5'	28:L3:9:PRO:HG3	254.18	0.67
39:M5:73:ARG:NH1	39:M5:88:GLY:O	2.38	0.67
1:1:1369:A:OP1	52:N8:21:ARG:NH1	2.27	0.67
77:S9:108:ARG:HB2	77:S9:111:THR:HG23	1.77	0.67
70:S2:121:VAL:HG11	78:SM:117:LEU:HB2	1.77	0.67
79:SR:165:ASP:O	79:SR:184:ASN:ND2	2.28	0.67
1:1:1083:G:H2'	1:1:1084:A:C8	2.30	0.66
1:1:1856:C:H2'	1:1:1857:C:C6	2.30	0.66
2:2:514:G:N1	2:2:543:C:H5	1.93	0.66
2:6:484:C:H42	2:6:503:G:H22	1.41	0.66
14:C9:117:SER:HB2	14:C9:123:ARG:HB2	1.76	0.66
31:L6:175:LYS:HD2	38:M4:111:ALA:HA	3.72	0.66
35:M0:77:THR:O	35:M0:81:GLY:N	2.25	0.66
1:1:3325:G:H5'	55:O1:104:LEU:O	1.95	0.66
1:1:3276:G:H1	57:O3:60:ARG:NH2	1.93	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:6:861:U:O2'	17:D2:56:HIS:O	358.46	0.66
13:C8:6:GLN:NE2	20:D5:44:GLN:OE1	5.07	0.66
19:D4:57:VAL:HB	19:D4:60:PHE:CE2	4.85	0.66
20:D5:103:ARG:HG3	20:D5:104:ALA:H	1.60	0.66
20:D5:46:LYS:HD3	20:D5:70:LYS:HD2	1.76	0.66
30:L5:131:LEU:HD22	30:L5:131:LEU:H	1.59	0.66
32:L7:144:ILE:O	32:L7:148:VAL:HG23	1.99	0.66
70:S2:137:ILE:HD13	70:S2:138:PRO:HD2	1.76	0.66
1:1:1545:A:N7	39:M5:105:ARG:NH1	2.43	0.66
1:1:915:A:H8	1:1:2136:C:O2'	1.78	0.66
1:5:1346:G:C2'	1:5:1347:U:H5'	2.25	0.66
1:5:2158:A:H4'	1:5:2159:U:H5''	1.78	0.66
15:D0:110:PRO:HB3	71:S3:40:ARG:HG2	1.77	0.66
32:L7:88:ARG:NH1	32:L7:91:GLY:O	2.28	0.66
55:O1:82:GLU:HG3	55:O1:83:GLU:HB2	3.27	0.66
77:S9:125:ALA:O	77:S9:129:ILE:HG13	1.95	0.66
1:1:1471:U:H2'	1:1:1472:U:H6	1.60	0.66
1:1:1687:U:H5''	1:1:1688:U:H5'	1.77	0.66
2:2:1068:C:H2'	2:2:1069:A:H8	1.58	0.66
2:2:17:C:H2'	2:2:18:C:C6	2.29	0.66
1:5:3242:G:H5''	1:5:3245:A:C8	2.30	0.66
1:5:961:C:OP2	83:5:3993:HOH:O	2.13	0.66
2:6:116:U:H2'	2:6:117:U:C6	2.31	0.66
13:C8:27:LYS:O	13:C8:29:VAL:N	2.26	0.66
21:D6:35:ALA:O	21:D6:36:ILE:HG22	1.95	0.66
27:L2:202:VAL:HG13	27:L2:217:GLN:HG2	1.99	0.66
1:1:3178:A:C2	40:M6:115:LYS:HG2	2.30	0.66
1:1:1567:U:H3'	1:1:1568:U:C5'	2.25	0.66
1:1:1581:C:H4'	1:1:1582:C:H4'	1.78	0.66
2:2:656:G:O2'	2:2:657:U:O4'	2.12	0.66
2:6:813:U:OP2	8:C3:76:LYS:NZ	320.09	0.66
9:C4:81:VAL:HG22	9:C4:115:ILE:HB	1.77	0.66
3:3:22:A:H1'	30:L5:272:TYR:CZ	2.30	0.66
33:L8:65:LEU:HD12	39:M5:25:VAL:HG13	2.35	0.66
1:1:3122:A:N1	34:L9:70:THR:HG21	2.11	0.66
2:2:280:U:O2'	2:2:281:G:OP2	2.14	0.66
1:5:1220:U:H6	1:5:1222:G:N1	1.93	0.66
1:5:1391:C:C2	56:O2:103:LYS:HD3	122.28	0.66
1:5:284:A:OP2	66:Q2:41:ARG:NH1	155.32	0.66
16:D1:45:ALA:HB3	68:S0:185:ARG:HB2	1.78	0.66
35:M0:68:ALA:HB2	35:M0:158:LYS:HB2	2.20	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:M3:48:PRO:HB2	59:O5:117:ALA:HB2	1.77	0.66
31:L6:3:ALA:HB2	56:O2:77:ALA:HB2	2.39	0.66
1:1:1449:A:OP2	83:1:3995:HOH:O	2.13	0.66
1:5:173:G:HO2'	1:5:174:C:H6	1.44	0.66
1:5:2208:A:H3'	1:5:2209:U:C5'	2.26	0.66
1:5:2642:A:OP2	45:N1:3:LYS:NZ	230.82	0.66
1:5:650:C:H2'	1:5:651:G:C8	2.31	0.66
30:L5:34:LYS:HD2	45:N1:30:TYR:CZ	2.31	0.66
1:1:1844:C:O2	61:O7:9:GLY:HA2	1.96	0.66
69:S1:154:SER:OG	69:S1:154:SER:O	2.10	0.66
70:S2:53:ILE:O	70:S2:56:ILE:N	2.29	0.66
71:S3:223:LYS:HB3	71:S3:225:TYR:CE2	4.33	0.66
72:S4:45:ILE:HG13	72:S4:61:VAL:HG21	1.77	0.66
1:1:900:G:H1'	1:1:1589:A:H61	1.59	0.66
1:5:1307:G:H5''	40:M6:60:LYS:HE2	249.70	0.66
1:5:3261:C:O2'	1:5:3262:U:H5'	1.96	0.66
2:6:913:G:H3'	2:6:914:G:C5'	2.26	0.66
9:C4:131:GLY:O	9:C4:133:ARG:N	3.49	0.66
13:C8:140:THR:HA	13:C8:143:ARG:NH1	2.11	0.66
27:L2:113:VAL:HG23	27:L2:166:ILE:HD13	1.78	0.66
31:L6:108:LYS:HD3	31:L6:109:GLU:HG2	1.78	0.66
33:L8:134:TYR:CD1	33:L8:190:VAL:HG11	3.19	0.66
34:L9:18:VAL:HB	34:L9:27:VAL:HG22	1.77	0.66
52:N8:84:GLU:HA	52:N8:87:ARG:HD3	1.78	0.66
51:N7:4:PHE:HZ	54:O0:62:LEU:C	5.88	0.66
1:1:1284:C:O2'	1:1:1285:G:H5'	1.95	0.66
2:2:1160:A:H2'	2:2:1161:C:C6	2.31	0.66
4:4:121:U:H2'	4:4:122:U:H6	1.60	0.66
1:5:1346:G:H2'	1:5:1347:U:H5'	1.77	0.66
1:5:3245:A:H2	1:5:3246:G:C2	2.14	0.66
1:5:601:U:H2'	1:5:602:A:O4'	1.95	0.66
6:C1:75:VAL:HA	6:C1:86:ILE:HG22	1.76	0.66
13:C8:99:HIS:HD2	13:C8:101:LEU:HD21	5.75	0.66
2:2:1381:U:H4'	15:D0:59:PRO:HG3	1.78	0.66
33:L8:45:ASN:HD21	33:L8:47:SER:HB3	1.61	0.66
1:1:2355:G:H4'	41:M7:139:TYR:CE2	2.31	0.66
58:O4:42:PRO:HD3	58:O4:56:THR:HG22	2.45	0.66
59:O5:67:ARG:HG3	59:O5:80:LEU:HD22	1.97	0.66
1:5:136:G:H5'	59:O5:95:PHE:CG	65.34	0.66
71:S3:116:ARG:NH1	78:SM:110:TRP:O	4.96	0.66
1:1:1565:G:H2'	1:1:1566:A:C8	2.30	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:873:C:H5''	1:5:874:U:O5'	1.95	0.66
7:C2:59:LEU:HA	7:C2:87:PRO:HB2	1.78	0.66
36:M1:98:ALA:HA	36:M1:156:LYS:HB2	1.78	0.66
38:M4:113:THR:HG22	38:M4:115:PHE:H	2.71	0.66
44:N0:1:MET:HE1	44:N0:32:SER:H	1.59	0.66
51:N7:9:LYS:HB3	51:N7:25:ILE:HD12	1.95	0.66
2:2:479:C:O2	2:2:510:G:N2	2.29	0.65
2:2:932:U:OP2	69:S1:155:TYR:OH	2.07	0.65
1:5:2154:U:H4'	27:L2:240:ALA:HB2	219.18	0.65
2:6:348:U:H4'	76:S8:14:THR:HG22	302.17	0.65
4:8:104:A:C8	4:8:105:A:C8	2.83	0.65
1:5:520:U:O2	29:L4:346:LYS:NZ	317.05	0.65
45:N1:39:ILE:HD12	45:N1:102:ARG:HD3	1.78	0.65
73:S5:33:VAL:O	73:S5:37:GLN:HG2	4.57	0.65
1:1:869:G:H1'	1:1:891:G:N2	2.12	0.65
2:2:1364:G:H4'	11:C6:26:LYS:HE2	1.78	0.65
1:5:126:U:H2'	1:5:127:G:O4'	1.96	0.65
2:6:87:C:O2'	2:6:169:A:N1	2.27	0.65
6:C1:133:LYS:HE3	76:S8:10:LYS:HG2	2.65	0.65
17:D2:94:LEU:HD11	17:D2:102:VAL:HG23	1.90	0.65
69:S1:61:LEU:HG	69:S1:64:ARG:HH21	1.60	0.65
11:C6:120:ASP:OD1	73:S5:76:ARG:NH2	2.78	0.65
77:S9:38:ASN:HB2	77:S9:41:GLU:HG3	1.78	0.65
1:1:2593:A:H4'	1:1:2594:C:O5'	1.96	0.65
1:1:2794:G:O2'	1:1:2795:U:OP2	2.15	0.65
1:1:3051:U:H1'	47:N3:92:PHE:CE1	2.31	0.65
2:2:320:U:H3'	2:2:321:C:H5''	1.77	0.65
2:6:1636:C:O2	2:6:1765:A:N6	2.29	0.65
2:6:71:A:H2'	2:6:72:A:O4'	1.96	0.65
7:C2:62:LEU:HB3	7:C2:75:VAL:HG11	1.78	0.65
26:E1:105:TYR:HB3	26:E1:117:LEU:HD12	4.15	0.65
31:L6:40:LEU:HD13	31:L6:84:VAL:HG11	2.15	0.65
32:L7:73:GLY:O	45:N1:143:THR:HB	1.96	0.65
37:M3:9:ILE:HG23	52:N8:34:MET:HE3	3.27	0.65
57:O3:32:ILE:HG23	57:O3:100:ILE:HD13	1.85	0.65
1:1:289:A:O2'	39:M5:93:LYS:O	2.13	0.65
2:2:1062:A:H2'	2:2:1063:U:O4'	1.96	0.65
2:2:140:A:N6	2:2:281:G:OP1	2.27	0.65
4:8:135:G:OP2	49:N5:56:ARG:NH2	84.70	0.65
7:C2:31:VAL:HG21	7:C2:136:ILE:HD12	3.68	0.65
12:C7:37:GLU:HG3	79:SR:150:TRP:HE1	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D1:71:ARG:HG3	16:D1:83:TRP:CZ2	2.31	0.65
1:5:1651:U:H5'	27:L2:71:LEU:HD22	191.66	0.65
29:L4:339:LEU:HA	29:L4:342:LYS:HB3	3.31	0.65
3:7:44:C:H4'	30:L5:152:ARG:HG3	278.36	0.65
34:L9:28:VAL:HG22	34:L9:33:THR:HB	1.76	0.65
35:M0:171:TRP:HE3	35:M0:178:ARG:HB3	3.06	0.65
44:N0:16:THR:HG23	44:N0:19:VAL:H	1.61	0.65
79:SR:170:ILE:HG21	79:SR:211:ILE:HD11	1.79	0.65
2:2:1347:U:O2	2:2:1516:A:H5'	1.95	0.65
15:D0:104:THR:HG22	15:D0:116:VAL:HG21	2.36	0.65
21:D6:75:VAL:O	21:D6:78:ALA:N	2.30	0.65
36:M1:115:LYS:HG2	36:M1:116:TYR:H	1.61	0.65
51:N7:101:PHE:HA	51:N7:107:ARG:HE	1.62	0.65
59:O5:64:GLU:HA	59:O5:67:ARG:HB2	1.77	0.65
1:5:1844:C:O2	61:O7:9:GLY:HA2	149.68	0.65
28:L3:123:TYR:CE2	28:L3:124:LYS:HG3	2.32	0.65
32:L7:89:ILE:HG22	32:L7:219:LYS:HE3	1.79	0.65
39:M5:110:ALA:HB1	39:M5:113:LEU:HD23	1.77	0.65
2:2:1301:U:OP1	70:S2:88:LYS:HB2	1.96	0.65
1:1:885:U:H2'	1:1:886:C:H6	1.62	0.65
1:5:1136:A:OP2	53:N9:8:THR:OG1	224.92	0.65
1:5:869:G:H1'	1:5:891:G:N2	2.11	0.65
3:7:45:A:OP2	83:7:305:HOH:O	2.15	0.65
10:C5:17:TYR:HD1	10:C5:18:ARG:H	1.44	0.65
12:C7:27:ASP:OD2	12:C7:30:THR:HG22	1.97	0.65
19:D4:33:ALA:O	19:D4:34:ASN:ND2	2.29	0.65
20:D5:88:ILE:HA	20:D5:104:ALA:HB2	1.77	0.65
21:D6:18:VAL:HG23	21:D6:19:LYS:H	1.62	0.65
33:L8:94:PHE:CZ	33:L8:200:LEU:HG	2.96	0.65
1:1:1222:G:HO2'	1:1:1285:G:H1	0.67	0.65
1:1:2390:A:OP1	83:1:3998:HOH:O	2.15	0.65
1:5:1578:C:O2'	1:5:1649:U:OP1	2.14	0.65
30:L5:54:ARG:HB2	30:L5:61:ILE:HB	1.79	0.65
30:L5:65:ILE:HD13	30:L5:74:VAL:HB	6.24	0.65
34:L9:9:GLN:O	34:L9:72:LYS:NZ	2.32	0.65
42:M8:123:THR:OG1	42:M8:125:ASP:OD2	2.21	0.65
47:N3:10:LYS:NZ	47:N3:54:LEU:O	2.27	0.65
2:2:149:C:O2'	74:S6:132:ARG:NH1	2.30	0.65
77:S9:53:ARG:NH2	77:S9:97:LEU:O	2.30	0.65
1:1:114:A:OP1	39:M5:54:LYS:NZ	2.22	0.65
1:1:155:G:H5''	1:1:156:G:C8	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1586:G:OP2	83:1:3996:HOH:O	2.13	0.65
1:1:2703:A:OP2	30:L5:23:ARG:NH1	2.30	0.65
2:6:600:U:OP2	18:D3:108:GLY:HA2	359.39	0.65
27:L2:117:GLU:OE1	27:L2:121:GLY:N	2.30	0.65
1:5:2882:U:O2'	28:L3:263:SER:OG	232.11	0.65
29:L4:229:ASN:OD1	29:L4:230:VAL:N	2.30	0.65
37:M3:140:SER:OG	37:M3:143:ALA:N	2.71	0.65
71:S3:223:LYS:HB3	71:S3:225:TYR:HE2	4.78	0.65
1:1:1431:G:N7	52:N8:9:ARG:NH2	2.45	0.65
1:1:2223:A:H2'	1:1:2224:A:C8	2.32	0.65
2:2:1533:C:H4'	2:2:1539:G:C2	2.31	0.65
2:2:329:G:H2'	2:2:330:G:H8	1.62	0.65
1:5:1329:U:O2'	1:5:1330:A:H5''	1.96	0.65
1:5:2261:G:H21	1:5:2262:A:N6	1.94	0.65
1:5:96:G:OP1	37:M3:15:ARG:NH2	150.82	0.65
10:C5:87:PRO:HA	10:C5:90:ILE:HG13	1.98	0.65
13:C8:16:ARG:HE	13:C8:21:ASN:HB3	1.62	0.65
1:5:2746:A:H2	30:L5:146:LEU:HB3	254.70	0.65
34:L9:103:ILE:HD11	34:L9:134:ILE:HG22	2.06	0.65
36:M1:82:ARG:HG2	36:M1:112:LEU:HB2	1.78	0.65
40:M6:65:ASN:OD1	40:M6:67:THR:HB	1.97	0.65
1:1:787:G:H2'	1:1:788:C:C6	2.32	0.64
2:2:959:U:C6	8:C3:61:THR:HB	2.32	0.64
2:6:765:G:N1	77:S9:146:PHE:HZ	433.06	0.64
8:C3:94:LYS:HG2	8:C3:118:ILE:HD13	1.79	0.64
1:1:1556:C:O2'	33:L8:54:GLU:OE1	2.14	0.64
35:M0:66:GLU:OE1	35:M0:69:ARG:NH2	2.76	0.64
72:S4:191:ARG:HH11	72:S4:245:LYS:HB3	1.62	0.64
1:1:3139:A:H5''	1:1:3139:A:H8	1.62	0.64
2:2:1490:C:H4'	2:2:1491:U:OP1	1.97	0.64
2:2:1529:C:OP1	73:S5:112:ARG:NH1	2.26	0.64
2:2:38:C:C2'	2:2:39:A:H5'	2.27	0.64
2:2:986:G:OP2	27:L2:251:LYS:NZ	2.18	0.64
1:5:1631:C:H5''	1:5:1632:A:H5''	1.79	0.64
2:6:1085:G:H2'	2:6:1087:A:OP2	1.97	0.64
9:C4:84:ARG:HA	9:C4:119:THR:HG22	1.79	0.64
2:6:902:G:N1	9:C4:51:ASP:OD1	284.89	0.64
2:6:1460:A:OP2	13:C8:145:ARG:NH2	336.05	0.64
14:C9:14:PHE:HZ	14:C9:132:LEU:HD13	4.91	0.64
31:L6:80:ASN:OD1	31:L6:81:ALA:N	2.30	0.64
37:M3:126:PHE:HZ	37:M3:135:ALA:HB2	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:M5:31:ARG:NH1	39:M5:124:ASP:OD1	2.86	0.64
60:O6:58:ILE:HG22	60:O6:90:MET:HG3	3.22	0.64
71:S3:175:VAL:HG13	71:S3:182:LEU:HB2	1.89	0.64
79:SR:88:THR:HG21	79:SR:102:ARG:HH22	1.60	0.64
1:1:94:G:H2'	1:1:95:A:C8	2.33	0.64
2:2:115:G:OP1	6:C1:67:ARG:NH1	2.28	0.64
1:5:1150:A:OP1	83:5:3995:HOH:O	2.14	0.64
1:5:1323:G:O3'	44:N0:2:ALA:HA	284.31	0.64
2:6:1340:U:C6	2:6:1378:U:H4'	2.32	0.64
2:6:765:G:N7	77:S9:149:ARG:NE	430.40	0.64
2:6:767:U:H6	77:S9:141:VAL:HA	430.14	0.64
5:C0:15:LEU:O	5:C0:19:GLY:N	2.29	0.64
6:C1:8:GLN:OE1	6:C1:14:GLN:N	2.31	0.64
35:M0:171:TRP:O	35:M0:174:THR:HG23	3.86	0.64
1:1:2557:A:H5'	51:N7:135:ARG:HH11	1.62	0.64
1:1:2738:A:H5''	53:N9:38:LYS:HG3	1.80	0.64
1:1:1064:A:H5''	1:1:1066:G:O4'	1.98	0.64
1:1:1571:A:H2'	1:1:1572:U:O4'	1.97	0.64
1:1:171:G:O6	83:1:3993:HOH:O	2.10	0.64
1:1:2534:G:H2'	1:1:2535:A:H8	1.62	0.64
1:1:3041:U:H2'	1:1:3042:U:C6	2.32	0.64
2:2:540:G:H4'	2:2:541:A:H2'	1.79	0.64
2:2:765:G:C2	77:S9:149:ARG:HD2	2.31	0.64
2:2:850:A:H5'	43:M9:165:LYS:HD3	1.79	0.64
1:5:90:C:O2'	1:5:282:G:OP1	2.14	0.64
2:6:1017:U:H2'	2:6:1018:U:C6	2.33	0.64
2:6:1389:C:O2'	12:C7:52:GLY:HA3	424.87	0.64
45:N1:91:LEU:HD12	45:N1:96:ILE:HD11	1.98	0.64
28:L3:70:ARG:HH22	47:N3:120:LYS:HE3	1.62	0.64
47:N3:33:ASN:HB2	47:N3:64:LYS:H	4.87	0.64
59:O5:76:GLN:O	59:O5:81:ARG:NH1	2.49	0.64
60:O6:26:ILE:H	60:O6:26:ILE:HD12	1.61	0.64
68:S0:26:ALA:H	68:S0:149:LEU:HD12	1.62	0.64
76:S8:152:ILE:H	76:S8:152:ILE:HD13	4.81	0.64
2:2:1316:G:OP1	12:C7:7:LYS:NZ	2.27	0.64
2:2:1371:A:OP1	2:2:1371:A:H2'	1.98	0.64
1:5:210:U:H6	29:L4:217:LYS:HG2	68.03	0.64
39:M5:17:ASP:OD2	60:O6:55:ARG:NH2	3.49	0.64
61:O7:8:PHE:O	61:O7:11:ARG:HG3	1.97	0.64
13:C8:125:ILE:HD11	78:SM:57:ASN:HB3	2.56	0.64
1:5:3218:A:H5''	1:5:3219:G:C5	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:C4:21:ALA:HA	9:C4:26:THR:HG22	1.79	0.64
2:2:1559:A:C6	13:C8:134:ARG:HD2	2.32	0.64
16:D1:58:TYR:O	16:D1:61:SER:OG	2.24	0.64
32:L7:128:LYS:HA	32:L7:131:GLU:HG3	1.79	0.64
39:M5:18:VAL:HG22	39:M5:19:LEU:HD12	2.57	0.64
54:O0:30:THR:O	54:O0:34:LEU:N	3.00	0.64
56:O2:9:ILE:HA	56:O2:63:THR:HG21	2.05	0.64
1:1:2534:G:N2	1:1:2546:C:N3	2.45	0.64
1:1:2952:G:OP2	83:1:3914:HOH:O	2.15	0.64
1:1:677:A:H4'	1:1:678:G:O5'	1.97	0.64
2:2:333:A:H2'	2:2:334:G:C8	2.32	0.64
1:5:2510:U:O2'	1:5:2511:A:O5'	2.10	0.64
1:5:2778:G:OP1	83:5:3996:HOH:O	2.15	0.64
1:5:761:A:C2	1:5:771:A:H1'	2.33	0.64
2:6:384:G:O6	83:6:2125:HOH:O	2.12	0.64
3:7:66:A:OP2	83:7:304:HOH:O	2.15	0.64
28:L3:147:GLU:HA	28:L3:150:ARG:HB3	1.79	0.64
1:1:1114:U:H5''	52:N8:22:ILE:HD12	1.78	0.64
54:O0:13:LYS:O	54:O0:17:VAL:HG23	1.98	0.64
54:O0:43:ILE:HG22	54:O0:70:PHE:HB2	1.79	0.64
68:S0:9:LEU:HD11	68:S0:14:ALA:HB2	2.08	0.64
76:S8:26:LYS:O	76:S8:29:LEU:HB3	1.98	0.64
1:5:726:G:H5'	1:5:726:G:C8	2.27	0.64
1:5:846:A:H2'	1:5:847:A:O4'	1.98	0.64
12:C7:22:PRO:O	12:C7:23:LYS:HB2	1.96	0.64
3:3:13:A:O2'	30:L5:24:ARG:NH2	2.30	0.64
34:L9:20:ILE:HG13	38:M4:7:VAL:HG22	1.79	0.64
1:5:2177:G:OP2	27:L2:128:ARG:NH1	200.33	0.64
1:5:2714:G:H4'	1:5:2715:A:H5''	1.80	0.64
2:6:922:G:H2'	2:6:923:A:H8	1.62	0.64
29:L4:179:LEU:HD22	29:L4:183:LYS:HG2	1.80	0.64
38:M4:20:VAL:HG13	38:M4:68:LEU:O	2.06	0.64
41:M7:112:LEU:HG	41:M7:150:VAL:HB	2.41	0.64
44:N0:26:ARG:HH11	45:N1:150:THR:HG21	2.25	0.64
62:O8:20:VAL:HG11	62:O8:45:VAL:HG12	1.79	0.64
71:S3:34:TYR:HE2	71:S3:37:VAL:HG13	1.80	0.64
76:S8:101:ILE:HD13	76:S8:168:CYS:HB2	1.86	0.64
1:1:2818:U:C6	1:1:2818:U:H5'	2.32	0.64
1:5:2254:U:H2'	1:5:2261:G:N2	2.13	0.64
1:5:2366:C:H2'	1:5:2367:A:H8	1.61	0.64
31:L6:43:LEU:HD11	31:L6:85:ILE:HG13	1.77	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:M0:48:LEU:HD23	35:M0:178:ARG:HH12	1.62	0.64
78:SM:88:ARG:O	78:SM:88:ARG:NE	2.32	0.64
1:1:1039:U:H2'	1:1:1040:A:H8	1.62	0.63
1:1:1615:C:H2'	1:1:1616:U:H6	1.64	0.63
1:1:3375:A:H5''	1:1:3378:C:H5	1.62	0.63
1:1:661:G:OP2	52:N8:12:ARG:NH2	2.31	0.63
1:5:2996:U:OP1	1:5:2996:U:H4'	1.98	0.63
2:6:778:G:H2'	2:6:779:U:H5''	1.80	0.63
8:C3:56:ASP:OD2	22:D7:52:THR:OG1	4.31	0.63
75:S7:36:ALA:HA	75:S7:39:ARG:HG2	1.80	0.63
1:1:501:A:H2'	1:1:502:U:C6	2.33	0.63
4:4:15:G:C6	4:4:16:G:N1	2.66	0.63
18:D3:68:ILE:O	18:D3:70:LYS:NZ	2.32	0.63
32:L7:96:PRO:HB2	32:L7:99:PRO:HD2	2.31	0.63
69:S1:36:SER:HA	69:S1:41:ARG:HE	2.63	0.63
73:S5:90:ILE:O	73:S5:94:THR:HG23	1.98	0.63
1:5:930:U:H2'	1:5:931:C:H6	1.62	0.63
23:D8:10:ALA:HB1	23:D8:30:VAL:HB	1.79	0.63
1:1:2528:G:O3'	33:L8:248:LYS:NZ	2.31	0.63
38:M4:21:VAL:HG23	38:M4:65:LEU:HA	1.81	0.63
1:1:674:G:P	42:M8:105:ARG:HH12	2.21	0.63
37:M3:3:ILE:HB	52:N8:41:HIS:HD2	1.62	0.63
45:N1:82:ASN:O	53:N9:21:ILE:HA	1.99	0.63
68:S0:124:THR:HG22	68:S0:174:TRP:HE1	1.63	0.63
1:5:2436:U:H3	1:5:2511:A:N6	1.97	0.63
1:5:3198:U:H3'	1:5:3199:G:H5'	1.80	0.63
1:5:70:A:H5'	52:N8:64:GLN:HE22	113.60	0.63
10:C5:17:TYR:HB2	10:C5:25:LEU:HD11	2.16	0.63
30:L5:68:THR:HG22	30:L5:70:THR:N	2.12	0.63
39:M5:46:ASP:OD1	39:M5:50:ARG:NH2	2.31	0.63
49:N5:105:VAL:HG11	49:N5:126:LEU:HD13	1.81	0.63
72:S4:251:GLU:OE1	72:S4:255:ARG:NH2	2.31	0.63
1:1:2628:A:H1'	1:1:2798:C:C2	2.33	0.63
1:1:2896:A:OP1	64:Q0:102:ARG:NE	2.29	0.63
1:1:618:C:OP1	41:M7:173:ARG:NH2	2.31	0.63
1:1:945:C:H2'	1:1:946:U:C6	2.34	0.63
1:1:979:U:H1'	1:1:980:A:C8	2.32	0.63
2:2:1229:G:HO2'	2:2:1255:G:N2	1.97	0.63
1:5:1220:U:H1'	1:5:1222:G:C6	2.34	0.63
1:5:2407:C:H2'	1:5:2408:U:H6	1.62	0.63
1:5:2946:A:H5''	1:5:2947:G:H5'	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:6:491:C:C2	2:6:496:G:N1	2.67	0.63
2:6:56:U:H4'	2:6:57:G:H5'	1.80	0.63
3:7:36:C:O2	3:7:45:A:H1'	1.99	0.63
22:D7:50:ALA:HB2	22:D7:71:ALA:HB2	1.79	0.63
32:L7:80:GLN:HB2	45:N1:135:PRO:HB2	1.80	0.63
1:5:353:G:N7	61:O7:55:ARG:HD3	107.15	0.63
64:Q0:99:CYS:HB2	64:Q0:114:LYS:HD3	2.14	0.63
69:S1:207:LEU:HB3	69:S1:210:ILE:HD11	1.81	0.63
1:1:2112:U:H4'	1:1:2113:A:H5'	1.80	0.63
2:2:649:U:O2'	2:2:650:U:O5'	2.15	0.63
1:5:2514:U:OP1	1:5:2514:U:H6	1.81	0.63
1:5:2697:A:H2'	1:5:2698:G:C8	2.34	0.63
2:6:235:G:H2'	2:6:236:A:H8	1.62	0.63
2:6:553:G:OP2	2:6:554:C:O2'	2.16	0.63
2:6:768:C:H1'	77:S9:143:ILE:HG21	422.04	0.63
29:L4:302:ALA:HB2	42:M8:39:ARG:NH2	2.14	0.63
35:M0:201:SER:O	35:M0:209:ASN:ND2	2.83	0.63
36:M1:80:LEU:HD22	36:M1:84:LEU:HG	1.81	0.63
42:M8:44:PHE:CD1	42:M8:139:ILE:HD11	2.61	0.63
4:4:24:G:OP2	50:N6:13:ARG:HD3	1.99	0.63
52:N8:74:ASN:CG	52:N8:115:LYS:HB2	2.18	0.63
1:5:943:U:H3'	52:N8:13:GLY:HA2	160.99	0.63
27:L2:57:PRO:HB3	67:Q3:54:ILE:HG22	6.28	0.63
68:S0:36:TYR:OH	68:S0:56:LYS:HE3	2.68	0.63
69:S1:48:VAL:HG13	69:S1:61:LEU:HD21	1.81	0.63
78:SM:54:PRO:HG2	78:SM:62:ARG:HD2	1.78	0.63
1:1:2402:A:H5''	29:L4:67:THR:OG1	1.99	0.63
1:1:712:G:H2'	1:1:713:U:C6	2.34	0.63
2:2:755:A:O2'	2:2:756:A:OP1	2.16	0.63
1:5:635:G:OP2	83:5:3917:HOH:O	2.15	0.63
10:C5:12:PHE:HE2	36:M1:85:LYS:HZ3	1.47	0.63
27:L2:44:ILE:HD12	27:L2:62:VAL:HB	3.11	0.63
32:L7:222:HIS:CE1	32:L7:224:ILE:HG13	2.33	0.63
40:M6:22:VAL:HG21	40:M6:120:VAL:HG11	1.79	0.63
72:S4:52:LEU:HB3	72:S4:54:TYR:CD2	3.14	0.63
73:S5:73:THR:HG22	73:S5:75:GLY:H	1.91	0.63
75:S7:62:VAL:HG11	75:S7:67:LEU:HD23	1.92	0.63
2:2:1573:A:H4'	2:2:1574:G:H5'	1.80	0.63
2:2:732:G:O2'	2:2:733:A:O4'	2.15	0.63
7:C2:42:ALA:HB1	7:C2:47:GLU:HB3	2.48	0.63
9:C4:16:VAL:HG22	9:C4:18:ARG:HG3	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:D3:13:ARG:HA	18:D3:16:ARG:HD3	1.81	0.63
18:D3:70:LYS:HB3	18:D3:93:LEU:HD22	1.80	0.63
28:L3:205:VAL:HG11	28:L3:322:ILE:HD11	1.81	0.63
1:1:2644:C:O2	35:M0:116:ARG:HD3	1.99	0.63
40:M6:61:ALA:HA	40:M6:70:PRO:HD2	1.84	0.63
52:N8:103:ASP:HA	52:N8:126:LYS:HB2	1.80	0.63
74:S6:33:GLY:N	74:S6:52:ILE:O	2.62	0.63
1:1:1389:G:H5''	56:O2:101:SER:HB3	1.80	0.63
1:1:1495:U:H5	1:1:1835:A:N1	1.96	0.63
1:1:718:G:N1	1:1:721:G:H1'	2.14	0.63
1:1:720:A:C2	1:1:784:A:H5'	2.33	0.63
2:2:1280:C:H2'	2:2:1281:G:C8	2.33	0.63
1:5:290:G:OP1	39:M5:98:LEU:HD13	135.55	0.63
12:C7:50:ILE:O	12:C7:54:THR:HG23	1.99	0.63
1:1:2177:G:OP2	27:L2:128:ARG:NH1	2.32	0.63
28:L3:35:ASP:OD2	28:L3:191:LYS:NZ	2.41	0.63
32:L7:178:ILE:HA	32:L7:183:ASP:HB3	1.81	0.63
38:M4:14:LEU:H	38:M4:19:ARG:NH1	2.25	0.63
1:5:63:A:OP1	39:M5:172:ARG:NH2	102.41	0.63
52:N8:104:THR:HG21	52:N8:112:ILE:HD11	1.86	0.63
34:L9:172:ILE:HB	64:Q0:90:ASN:ND2	2.91	0.63
70:S2:203:LYS:O	70:S2:206:THR:HG23	2.26	0.63
5:C0:60:SER:HB2	71:S3:27:ARG:HD2	1.79	0.63
2:2:1535:U:H5''	73:S5:187:ILE:HD11	1.81	0.63
2:2:386:G:H2'	2:2:387:A:C8	2.34	0.62
1:5:2951:G:OP2	83:5:3951:HOH:O	2.16	0.62
2:6:138:A:H5''	2:6:138:A:N3	2.14	0.62
9:C4:17:ALA:HB3	9:C4:81:VAL:HA	1.80	0.62
27:L2:48:ILE:HA	27:L2:59:ALA:HA	1.81	0.62
30:L5:64:ILE:HG13	30:L5:109:THR:HG21	4.54	0.62
30:L5:40:HIS:HD2	30:L5:42:ALA:H	5.13	0.62
35:M0:76:MET:CE	35:M0:148:VAL:HA	2.82	0.62
39:M5:172:ARG:HB3	39:M5:174:ILE:CD1	3.31	0.62
3:7:73:C:N3	44:N0:13:ARG:NH1	302.29	0.62
44:N0:82:ASP:OD1	44:N0:87:THR:HB	1.99	0.62
1:1:1065:A:C4	53:N9:28:LYS:HG2	2.34	0.62
1:1:953:G:C8	1:1:1117:G:C8	2.86	0.62
2:2:142:G:H22	2:2:173:A:H2	1.47	0.62
2:2:992:A:O2'	2:2:1785:U:O2	2.17	0.62
18:D3:127:VAL:O	18:D3:130:VAL:HG22	1.98	0.62
29:L4:261:VAL:HG22	29:L4:262:TRP:CD1	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:M3:59:ARG:HE	37:M3:69:VAL:HG23	2.14	0.62
51:N7:5:LEU:HD11	54:O0:35:ARG:HD2	1.81	0.62
62:O8:8:ILE:HD12	62:O8:8:ILE:H	1.64	0.62
78:SM:97:THR:HG22	78:SM:99:LYS:HG3	1.81	0.62
1:1:1336:U:H2'	1:1:1337:A:H8	1.63	0.62
1:1:1347:U:H2'	1:1:1355:A:H61	1.63	0.62
1:1:13:A:H5''	1:1:13:A:H8	1.64	0.62
4:4:104:A:C8	4:4:105:A:C8	2.87	0.62
2:6:320:U:C5	2:6:321:C:H2'	2.34	0.62
5:C0:10:LYS:NZ	5:C0:36:ASP:HB3	3.29	0.62
14:C9:105:LEU:HD13	14:C9:122:ARG:HD3	2.04	0.62
27:L2:66:PRO:HB2	27:L2:67:TYR:CE2	2.34	0.62
28:L3:77:THR:HG23	28:L3:326:GLY:O	1.98	0.62
29:L4:44:LYS:HB3	29:L4:47:ARG:NH1	2.57	0.62
33:L8:186:LEU:HB3	33:L8:195:SER:OG	3.71	0.62
33:L8:36:ILE:HG22	33:L8:37:GLY:H	1.62	0.62
38:M4:20:VAL:HG22	38:M4:66:THR:OG1	1.99	0.62
41:M7:105:LYS:HB3	41:M7:107:LEU:HD13	1.81	0.62
41:M7:59:PRO:HG3	41:M7:76:PHE:CG	2.42	0.62
2:6:856:A:H1'	75:S7:64:VAL:HG11	365.41	0.62
1:1:1102:A:HO2'	1:1:1103:A:H8	1.45	0.62
1:1:285:A:O2'	66:Q2:45:ARG:NH2	2.32	0.62
1:5:2191:U:H2'	1:5:2192:C:C6	2.34	0.62
1:5:1895:A:O2'	1:5:3053:G:H4'	1.98	0.62
1:5:68:C:O3'	39:M5:177:GLY:HA2	108.46	0.62
2:6:1559:A:H5''	13:C8:135:GLY:CA	364.33	0.62
8:C3:23:PRO:HG2	8:C3:26:PHE:HB2	2.09	0.62
10:C5:125:PRO:HB3	13:C8:129:TRP:CH2	2.98	0.62
13:C8:29:VAL:HG21	13:C8:54:LEU:HD23	5.52	0.62
16:D1:32:VAL:HB	16:D1:60:ARG:HD2	2.68	0.62
29:L4:42:VAL:HA	29:L4:45:ASN:ND2	2.14	0.62
35:M0:208:ASN:HA	35:M0:211:ARG:HG2	3.72	0.62
1:5:1098:A:OP2	45:N1:130:ARG:HD3	250.53	0.62
51:N7:95:VAL:HG21	51:N7:113:VAL:HG11	1.80	0.62
69:S1:70:LEU:HD11	69:S1:79:HIS:HB3	1.81	0.62
79:SR:16:HIS:CE1	79:SR:43:ILE:HG12	2.34	0.62
1:1:13:A:H5'	1:1:14:U:OP2	1.99	0.62
2:2:260:U:H5'	2:2:261:U:H5''	1.80	0.62
1:5:3085:G:OP1	48:N4:34:SER:OG	228.47	0.62
11:C6:55:VAL:HG21	11:C6:105:LEU:HG	1.81	0.62
13:C8:14:ILE:H	13:C8:24:GLY:HA3	3.83	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:6:1382:A:H5''	15:D0:60:THR:HG22	436.87	0.62
41:M7:36:ILE:HD11	41:M7:44:ALA:HB1	1.82	0.62
47:N3:58:VAL:HG22	47:N3:76:ALA:HB3	1.81	0.62
1:1:1712:G:O6	54:O0:28:LYS:NZ	2.32	0.62
59:O5:101:THR:HG22	59:O5:104:GLN:HB2	1.81	0.62
1:1:1219:C:O2'	1:1:1286:A:N1	2.28	0.62
1:1:2294:U:O2	1:1:2296:A:H8	1.82	0.62
2:6:538:A:H8	2:6:543:C:H42	1.47	0.62
2:2:1530:C:P	20:D5:95:HIS:HB2	2.40	0.62
23:D8:36:THR:OG1	23:D8:37:SER:N	2.31	0.62
34:L9:106:LYS:O	34:L9:109:ALA:HB2	1.99	0.62
3:7:5:G:OP1	36:M1:143:ARG:NH2	286.83	0.62
60:O6:63:ASN:O	60:O6:65:GLY:N	3.86	0.62
66:Q2:58:PHE:HE1	66:Q2:60:LYS:HB2	4.08	0.62
69:S1:176:VAL:HG12	69:S1:177:GLN:H	1.64	0.62
2:2:1471:A:H5'	73:S5:184:PHE:HE2	1.64	0.62
75:S7:35:LYS:HG2	75:S7:36:ALA:H	1.64	0.62
1:1:1103:A:H1'	1:1:1104:G:O5'	1.99	0.62
1:1:2836:C:H5	1:1:2852:C:H42	1.45	0.62
3:3:62:U:O3'	30:L5:285:ARG:NH1	2.33	0.62
3:3:73:C:H42	44:N0:19:VAL:HG21	1.65	0.62
4:4:52:A:O4'	63:O9:21:ARG:HD2	2.00	0.62
1:5:2202:C:H5''	27:L2:226:SER:N	208.21	0.62
1:5:2989:U:O2'	28:L3:232:ARG:NH2	214.07	0.62
1:5:829:U:H5''	1:5:830:A:OP1	1.99	0.62
2:6:1474:G:H2'	2:6:1475:A:C8	2.34	0.62
2:6:1553:G:O2'	24:D9:14:TYR:OH	401.63	0.62
2:6:1727:G:H2'	2:6:1728:A:C8	2.35	0.62
2:6:827:C:H2'	2:6:828:U:C6	2.34	0.62
13:C8:15:LEU:HD13	13:C8:15:LEU:H	4.22	0.62
15:D0:106:ILE:HG23	15:D0:107:THR:HG23	1.82	0.62
20:D5:39:ALA:O	20:D5:71:ILE:HA	1.99	0.62
21:D6:44:ILE:HG12	21:D6:65:PRO:HG2	1.82	0.62
16:D1:47:PRO:HD3	68:S0:185:ARG:HG3	1.82	0.62
72:S4:122:LYS:HD2	72:S4:164:LEU:HD21	2.57	0.62
25:E0:33:ARG:HB2	77:S9:37:LYS:HB3	1.81	0.62
1:1:1925:U:O2	67:Q3:19:GLY:HA2	2.00	0.62
1:1:2217:U:H2'	1:1:2218:G:H8	1.65	0.62
2:6:1317:C:H2'	2:6:1318:G:O4'	1.99	0.62
4:8:111:A:OP1	61:O7:32:LYS:HE3	129.53	0.62
2:6:1402:G:OP2	12:C7:5:ARG:NH1	411.38	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:L2:206:PRO:O	83:L2:402:HOH:O	9.39	0.62
29:L4:329:PRO:HB2	32:L7:45:LEU:HD23	5.54	0.62
37:M3:179:PHE:HD1	37:M3:182:ILE:HD12	1.64	0.62
41:M7:22:LEU:HD13	41:M7:90:PHE:HD2	2.31	0.62
48:N4:35:LYS:HD3	48:N4:51:TRP:CZ2	2.80	0.62
55:O1:79:ARG:H	55:O1:79:ARG:HE	1.48	0.62
73:S5:80:LYS:HD2	73:S5:83:ARG:HH12	1.65	0.62
1:1:3317:U:H4'	1:1:3318:G:O5'	2.00	0.62
2:2:1087:A:H2'	2:2:1088:A:C8	2.35	0.62
2:6:1054:U:H2'	2:6:1055:U:C6	2.34	0.62
5:C0:49:LEU:HB3	5:C0:55:VAL:HG11	1.82	0.62
2:6:306:U:H5''	6:C1:90:TYR:CE1	330.29	0.62
13:C8:14:ILE:HD11	13:C8:21:ASN:HB3	4.81	0.62
1:1:3139:A:OP1	28:L3:274:SER:HB2	2.00	0.62
50:N6:23:PRO:HD2	50:N6:26:GLN:HB2	1.82	0.62
63:O9:23:LEU:HD22	63:O9:24:PRO:HD2	1.89	0.62
2:2:1473:U:O2'	73:S5:103:ASN:OD1	2.12	0.62
77:S9:27:GLU:OE1	77:S9:39:LYS:NZ	2.31	0.62
1:1:2896:A:O2'	64:Q0:122:ARG:NH2	2.33	0.62
1:1:906:A:H2	1:1:919:U:HO2'	1.48	0.62
2:2:1592:A:H2'	2:2:1593:A:C8	2.35	0.62
2:2:58:U:O2'	2:2:451:A:N3	2.30	0.62
4:8:42:G:OP1	61:O7:60:GLY:N	88.61	0.62
11:C6:46:PHE:O	11:C6:50:GLU:HG3	2.00	0.62
15:D0:27:THR:HG23	15:D0:113:ASP:HB3	1.82	0.62
21:D6:79:ILE:HA	21:D6:84:VAL:HG21	1.80	0.62
3:7:36:C:H4'	30:L5:155:THR:HG23	266.59	0.62
30:L5:59:ASP:OD2	30:L5:60:ILE:N	3.17	0.62
32:L7:156:ILE:HD12	32:L7:161:VAL:HG21	2.28	0.62
37:M3:52:ASP:OD2	37:M3:141:ALA:HB3	2.00	0.62
44:N0:17:GLU:HG3	44:N0:18:SER:N	2.14	0.62
63:O9:3:ALA:O	63:O9:4:GLN:HB2	1.99	0.62
70:S2:80:VAL:HA	70:S2:102:VAL:HG22	1.80	0.62
71:S3:20:GLU:OE2	71:S3:76:ARG:NH2	2.74	0.62
74:S6:63:MET:HE1	74:S6:106:LEU:HD13	1.81	0.62
1:1:1094:U:C2	1:1:1096:U:H2'	2.35	0.61
1:1:110:G:OP2	37:M3:73:ARG:NH1	2.27	0.61
2:2:1542:G:N2	2:2:1569:A:OP2	2.30	0.61
1:5:2103:U:H2'	1:5:2104:A:H8	1.64	0.61
4:8:156:U:OP1	4:8:156:U:H4'	1.98	0.61
8:C3:85:PRO:HG2	8:C3:129:TYR:CE2	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:C5:111:MET:HG2	13:C8:119:ILE:HG13	4.11	0.61
20:D5:38:HIS:CE1	20:D5:39:ALA:HB2	2.35	0.61
2:6:584:C:H1'	25:E0:18:THR:HG21	390.76	0.61
29:L4:38:VAL:O	29:L4:42:VAL:HG23	2.00	0.61
30:L5:107:ARG:NH1	30:L5:120:LYS:O	2.29	0.61
46:N2:98:THR:HG23	46:N2:104:ARG:HH21	5.99	0.61
76:S8:89:GLU:HG2	76:S8:92:ARG:NH1	7.36	0.61
77:S9:49:LEU:HD13	77:S9:53:ARG:HD3	1.81	0.61
1:1:3308:C:O2	41:M7:69:ARG:HD3	2.00	0.61
1:1:789:A:H2'	1:1:790:U:C6	2.35	0.61
1:1:877:C:N4	83:1:4037:HOH:O	2.33	0.61
2:2:861:U:OP1	8:C3:64:ARG:NH2	2.29	0.61
1:5:708:G:N2	1:5:711:A:OP2	2.32	0.61
5:C0:46:LEU:O	5:C0:50:THR:HG23	2.00	0.61
10:C5:67:ALA:HB2	10:C5:73:PRO:HA	2.69	0.61
21:D6:44:ILE:HG23	21:D6:67:THR:HG23	1.82	0.61
35:M0:192:ASP:HA	35:M0:197:VAL:HG12	2.37	0.61
52:N8:77:LYS:O	52:N8:79:TRP:N	2.46	0.61
72:S4:161:LYS:HB3	72:S4:170:THR:O	4.67	0.61
2:2:1572:G:H1'	73:S5:185:ARG:NH1	2.15	0.61
76:S8:76:THR:HB	76:S8:105:ASP:HB2	1.82	0.61
1:1:2254:U:H2'	1:1:2261:G:N2	2.14	0.61
2:2:263:C:H4'	2:2:292:U:H5'	1.81	0.61
1:5:1102:A:H4'	1:5:1103:A:C6	2.35	0.61
8:C3:26:PHE:CE2	8:C3:28:LEU:HB2	2.63	0.61
10:C5:126:VAL:HG13	10:C5:127:ARG:H	1.67	0.61
27:L2:5:ILE:HD11	27:L2:232:GLY:HA2	1.81	0.61
1:1:912:G:OP2	27:L2:9:ARG:NH1	2.33	0.61
29:L4:205:PRO:HB3	29:L4:247:PHE:CD2	2.39	0.61
29:L4:98:ARG:HG2	29:L4:99:MET:N	2.14	0.61
33:L8:152:LEU:HB3	33:L8:180:VAL:HG21	1.83	0.61
1:5:2916:U:H1'	47:N3:44:SER:HB3	261.40	0.61
47:N3:45:ARG:HD2	47:N3:46:LEU:H	1.80	0.61
52:N8:74:ASN:HB3	52:N8:76:ASP:H	1.65	0.61
58:O4:10:ARG:HD2	63:O9:4:GLN:NE2	2.60	0.61
71:S3:90:ARG:HH11	78:SM:137:GLU:HG2	6.77	0.61
73:S5:222:LYS:HG3	73:S5:225:ARG:NH1	2.15	0.61
79:SR:89:LEU:HD11	79:SR:124:SER:HB3	2.81	0.61
1:1:1294:A:O2'	1:1:1295:G:H5''	1.99	0.61
1:1:240:U:O2'	1:1:241:G:OP2	2.17	0.61
2:2:494:U:O2'	2:2:495:C:O5'	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1877:U:H5''	1:5:1878:G:O4'	2.01	0.61
2:6:396:G:O6	76:S8:26:LYS:NZ	306.98	0.61
6:C1:36:LYS:NZ	6:C1:59:PRO:O	2.33	0.61
8:C3:140:LYS:HD3	8:C3:140:LYS:N	2.16	0.61
11:C6:113:ASP:HA	11:C6:116:LEU:HD12	6.77	0.61
19:D4:106:GLN:HA	19:D4:109:LYS:HD2	1.83	0.61
21:D6:87:ARG:NH2	21:D6:94:ASN:O	2.83	0.61
27:L2:129:ALA:HB3	27:L2:132:ASN:OD1	1.99	0.61
32:L7:168:ILE:O	32:L7:172:ASN:ND2	2.31	0.61
39:M5:38:ARG:HG2	39:M5:62:TYR:CE2	2.35	0.61
34:L9:4:ILE:HD11	44:N0:148:LEU:HD21	3.04	0.61
55:O1:80:ASN:N	55:O1:88:PRO:O	2.24	0.61
70:S2:38:VAL:HG22	70:S2:39:THR:H	1.64	0.61
1:1:1791:C:H2'	1:1:1792:C:C6	2.35	0.61
1:1:1856:C:H2'	1:1:1857:C:H6	1.66	0.61
1:1:619:A:H5''	1:1:620:U:OP1	2.01	0.61
2:2:1500:C:OP1	14:C9:122:ARG:NH2	2.28	0.61
1:5:1321:G:N2	44:N0:112:ALA:HB2	293.75	0.61
1:5:1781:C:H2'	1:5:1782:U:C6	2.35	0.61
1:5:3072:C:H2'	1:5:3073:A:O4'	2.00	0.61
1:5:3343:G:H21	1:5:3362:A:H2	1.48	0.61
2:6:234:G:H2'	2:6:235:G:H4'	1.83	0.61
13:C8:2:SER:HB2	13:C8:3:LEU:HD13	1.83	0.61
14:C9:52:GLY:O	14:C9:56:LYS:HG2	5.68	0.61
36:M1:12:LEU:HD12	36:M1:131:MET:HE3	1.80	0.61
1:1:291:C:H5''	39:M5:68:ARG:NH1	2.15	0.61
51:N7:4:PHE:O	51:N7:5:LEU:HG	3.85	0.61
60:O6:27:SER:O	60:O6:28:TYR:HB2	2.01	0.61
66:Q2:72:LEU:H	66:Q2:72:LEU:HD12	1.64	0.61
1:1:1420:C:OP2	29:L4:193:LYS:NZ	2.28	0.61
1:1:2335:G:N7	83:1:4031:HOH:O	2.31	0.61
1:1:2960:C:H2'	1:1:2961:G:C8	2.36	0.61
1:1:361:A:O3'	61:O7:45:ARG:NH2	2.34	0.61
1:1:620:U:H5'	83:1:4105:HOH:O	2.00	0.61
2:2:1449:U:H2'	2:2:1450:U:C6	2.36	0.61
8:C3:19:SER:OG	8:C3:21:ASN:O	2.58	0.61
16:D1:71:ARG:HE	22:D7:4:VAL:HG11	1.66	0.61
32:L7:140:SER:O	32:L7:144:ILE:HG13	2.00	0.61
34:L9:22:SER:OG	34:L9:23:ARG:N	2.33	0.61
35:M0:201:SER:OG	35:M0:203:LYS:HD2	2.00	0.61
47:N3:10:LYS:NZ	47:N3:56:ASP:OD1	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:N8:36:GLY:HA3	52:N8:40:HIS:CE1	2.35	0.61
74:S6:120:GLU:HG3	74:S6:125:THR:HB	1.84	0.61
75:S7:64:VAL:O	75:S7:66:SER:N	4.11	0.61
76:S8:9:HIS:ND1	76:S8:10:LYS:HB2	2.14	0.61
76:S8:38:ILE:CD1	76:S8:80:GLY:HA2	2.31	0.61
71:S3:90:ARG:NH1	78:SM:137:GLU:HG2	5.91	0.61
2:2:1125:A:N7	2:2:1126:G:H1'	2.14	0.61
2:2:74:U:H1'	2:2:75:U:H5''	1.81	0.61
1:5:109:A:H4'	1:5:110:G:OP1	1.98	0.61
1:5:2697:A:H2'	1:5:2698:G:H8	1.66	0.61
8:C3:140:LYS:HD3	8:C3:140:LYS:H	1.65	0.61
20:D5:60:VAL:HG22	20:D5:101:TYR:HB2	1.81	0.61
1:5:1079:A:O2'	30:L5:140:ARG:O	230.52	0.61
32:L7:118:LYS:HE3	32:L7:191:VAL:HG11	3.95	0.61
43:M9:106:LEU:HB3	43:M9:120:TYR:CE1	2.52	0.61
50:N6:45:ILE:HD11	50:N6:122:LYS:HB2	1.81	0.61
54:O0:45:ALA:HB3	54:O0:48:THR:HG23	4.13	0.61
69:S1:35:PRO:HB3	69:S1:231:LEU:HD21	5.86	0.61
71:S3:44:THR:O	71:S3:45:LYS:HB2	4.02	0.61
73:S5:68:ILE:HD13	73:S5:69:PHE:H	5.57	0.61
74:S6:20:ASP:HB3	74:S6:23:ARG:HG3	2.40	0.61
1:1:3216:G:H5''	1:1:3219:G:N2	2.16	0.61
1:1:551:A:O2'	1:1:552:G:O5'	2.19	0.61
1:1:860:G:OP1	67:Q3:17:ARG:NH1	2.33	0.61
4:4:81:U:O2'	4:4:82:U:OP2	2.18	0.61
2:6:1154:G:N2	2:6:1625:C:O2	2.33	0.61
2:6:789:A:H4'	72:S4:106:LYS:HE2	397.63	0.61
3:7:1:G:N2	30:L5:269:SER:HG	311.47	0.61
12:C7:23:LYS:HB3	12:C7:34:LEU:HD11	2.19	0.61
13:C8:20:THR:HG21	13:C8:35:ILE:HG23	1.83	0.61
35:M0:193:ASP:OD2	35:M0:194:GLY:N	2.31	0.61
57:O3:19:SER:OG	57:O3:20:LYS:N	3.75	0.61
70:S2:169:LEU:HD23	70:S2:198:THR:HG22	1.83	0.61
1:1:1579:C:H2'	1:1:1580:A:O4'	2.00	0.61
1:1:3121:U:H1'	1:1:3122:A:H5''	1.83	0.61
81:1:3887:8UZ:O2	81:1:3887:8UZ:O7	2.17	0.61
2:2:1320:U:O2	2:2:1322:A:H5'	2.01	0.61
2:2:1553:G:N2	2:2:1555:A:H3'	2.15	0.61
2:2:930:A:OP1	21:D6:32:LYS:NZ	2.33	0.61
1:5:619:A:H5''	1:5:620:U:OP1	2.00	0.61
1:5:93:C:C2	52:N8:55:LYS:HE2	158.73	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:6:240:U:O4	2:6:834:G:O2'	2.18	0.61
2:6:454:U:H2'	2:6:455:C:C5	2.35	0.61
13:C8:126:ARG:HG2	13:C8:133:VAL:HA	1.83	0.61
28:L3:162:VAL:O	28:L3:178:LEU:HD12	2.21	0.61
33:L8:67:ILE:O	33:L8:235:GLY:HA2	2.73	0.61
1:1:49:A:OP1	37:M3:16:LYS:NZ	2.33	0.61
37:M3:189:GLU:HA	37:M3:192:GLU:HG2	1.83	0.61
38:M4:23:ILE:HG21	38:M4:28:SER:HB2	2.55	0.61
41:M7:125:GLN:HB2	41:M7:141:SER:HB2	1.87	0.61
44:N0:66:GLU:HB3	44:N0:69:PRO:HG3	1.83	0.61
63:O9:3:ALA:H	63:O9:5:LYS:NZ	1.98	0.61
67:Q3:49:ARG:HB2	67:Q3:55:TRP:CZ3	2.77	0.61
74:S6:137:ARG:O	74:S6:141:ILE:HG13	2.01	0.61
1:1:3364:C:H2'	1:1:3365:U:H6	1.65	0.61
1:5:3295:A:H2'	1:5:3296:A:C8	2.36	0.61
2:6:580:A:O2'	2:6:582:U:OP1	2.18	0.61
7:C2:97:LEU:HD11	7:C2:121:VAL:HG22	1.83	0.61
13:C8:126:ARG:HB3	13:C8:133:VAL:HG13	1.83	0.61
17:D2:27:ILE:HG12	17:D2:61:ILE:HB	1.83	0.61
18:D3:12:ALA:O	18:D3:16:ARG:HG3	2.00	0.61
18:D3:73:ARG:HH21	18:D3:84:THR:HG22	1.81	0.61
29:L4:118:LYS:O	29:L4:122:THR:HG22	4.05	0.61
36:M1:137:ARG:HA	36:M1:140:ARG:HB2	1.83	0.61
36:M1:54:VAL:HG23	36:M1:57:PHE:HB2	4.92	0.61
51:N7:16:GLY:O	51:N7:18:TYR:N	2.23	0.61
1:1:266:A:H2'	60:O6:30:LYS:HE3	1.83	0.61
60:O6:34:SER:OG	60:O6:37:THR:N	3.32	0.61
67:Q3:18:TYR:O	67:Q3:22:LEU:HD12	2.01	0.61
72:S4:160:VAL:HG13	72:S4:169:ILE:HG23	2.23	0.61
75:S7:49:ILE:HG22	75:S7:175:LYS:HD2	4.08	0.61
79:SR:250:TYR:O	79:SR:251:TRP:HD1	1.84	0.61
79:SR:17:ASN:O	79:SR:308:ASN:ND2	2.34	0.61
1:1:3335:A:H2'	1:1:3336:A:C8	2.35	0.60
2:2:1590:G:OP1	14:C9:91:TYR:HB2	2.01	0.60
1:5:3156:U:O2'	1:5:3157:U:O4'	2.19	0.60
2:6:1458:G:H5''	2:6:1459:C:OP2	1.99	0.60
2:6:895:G:H1	2:6:917:U:H3	1.49	0.60
2:2:1258:U:H4'	5:C0:2:LEU:HD13	1.82	0.60
14:C9:7:ARG:NH2	14:C9:67:MET:O	2.34	0.60
61:O7:14:LYS:HD2	63:O9:51:ILE:HD11	3.02	0.60
2:6:472:U:H5''	77:S9:11:THR:HG23	399.87	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1306:G:C6	40:M6:62:THR:HA	2.36	0.60
13:C8:61:LEU:HB3	13:C8:66:LEU:HD21	1.81	0.60
15:D0:82:TYR:HB3	24:D9:52:PHE:HB3	1.83	0.60
37:M3:36:ARG:HG2	37:M3:39:ARG:HH21	2.04	0.60
30:L5:41:LYS:NZ	45:N1:32:LYS:O	2.28	0.60
1:5:1738:C:O3'	58:O4:53:GLY:HA2	191.06	0.60
2:6:354:C:H5''	76:S8:16:ALA:HB2	299.20	0.60
76:S8:74:LYS:HB2	76:S8:109:PHE:CE2	2.35	0.60
76:S8:36:THR:OG1	76:S8:96:LEU:HB2	2.39	0.60
2:2:472:U:H5''	77:S9:11:THR:HG23	1.82	0.60
77:S9:41:GLU:OE1	77:S9:126:ARG:NH2	2.34	0.60
1:1:1651:U:H2'	1:1:1652:G:C8	2.36	0.60
1:1:180:C:H2'	1:1:181:U:H6	1.66	0.60
1:1:2442:G:H22	1:1:2505:U:H3	1.49	0.60
1:1:350:C:N3	1:1:367:A:H2'	2.16	0.60
1:1:601:U:H2'	1:1:602:A:O4'	2.02	0.60
1:1:660:A:H2	1:1:941:G:N3	1.98	0.60
2:2:452:A:H3'	2:2:453:U:C5	2.37	0.60
1:5:2662:G:H2'	1:5:2663:G:C8	2.37	0.60
2:6:1067:C:H5''	69:S1:150:VAL:HG12	355.28	0.60
2:2:632:U:OP1	6:C1:102:LYS:HG3	2.01	0.60
2:2:867:G:OP2	8:C3:3:ARG:NH1	2.34	0.60
20:D5:61:SER:H	20:D5:64:VAL:HB	1.66	0.60
27:L2:204:MET:HB3	27:L2:208:ASP:HB2	2.89	0.60
28:L3:37:ARG:HG3	28:L3:186:GLY:HA2	2.48	0.60
31:L6:58:LEU:HD21	31:L6:64:LEU:HB2	1.83	0.60
32:L7:136:TYR:CZ	32:L7:231:ASN:HB2	2.47	0.60
33:L8:70:LYS:HA	33:L8:235:GLY:HA3	3.29	0.60
41:M7:178:ALA:HA	41:M7:181:ARG:HD2	1.94	0.60
50:N6:39:LEU:HA	50:N6:42:GLN:HB2	1.83	0.60
73:S5:119:ASP:O	73:S5:123:VAL:HG23	2.96	0.60
2:2:116:U:H2'	2:2:117:U:C6	2.37	0.60
1:5:1718:G:OP1	43:M9:118:HIS:ND1	257.45	0.60
1:5:2967:A:H5''	27:L2:213:GLY:HA3	204.51	0.60
1:5:641:C:H2'	1:5:642:U:O4'	2.02	0.60
2:6:235:G:H2'	2:6:236:A:C8	2.36	0.60
5:C0:25:LYS:HB2	5:C0:64:TYR:CE2	2.99	0.60
14:C9:111:ILE:HG23	14:C9:113:ILE:HG12	1.82	0.60
34:L9:49:ASN:O	34:L9:49:ASN:ND2	2.34	0.60
35:M0:10:ARG:HG2	35:M0:11:TYR:CD1	2.35	0.60
49:N5:105:VAL:HA	49:N5:130:TYR:CE2	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:N7:23:VAL:HG12	51:N7:45:GLY:HA3	2.18	0.60
1:5:18:G:OP1	59:O5:81:ARG:NH2	80.12	0.60
69:S1:143:THR:HB	69:S1:205:PHE:HE1	1.66	0.60
72:S4:163:ASP:HB3	72:S4:167:GLY:O	4.34	0.60
1:5:1048:A:H2'	35:M0:22:TYR:CZ	264.47	0.60
1:5:1810:A:H2'	1:5:1811:G:C8	2.36	0.60
13:C8:16:ARG:NH2	13:C8:21:ASN:OD1	2.29	0.60
2:2:1523:G:N7	14:C9:68:ARG:NH1	2.48	0.60
20:D5:58:ARG:HD3	20:D5:103:ARG:NH1	6.99	0.60
21:D6:10:ARG:NH1	21:D6:36:ILE:HG13	5.33	0.60
2:6:1235:C:H5'	26:E1:146:SER:HB3	431.33	0.60
30:L5:155:THR:N	30:L5:179:ARG:HH11	2.00	0.60
33:L8:133:LYS:HB2	33:L8:199:ALA:O	3.47	0.60
49:N5:92:LYS:HD2	49:N5:112:THR:HG23	1.84	0.60
56:O2:39:ASP:OD2	83:O2:301:HOH:O	2.16	0.60
69:S1:33:LYS:HB3	69:S1:97:LEU:HD22	1.84	0.60
1:1:2737:C:H4'	45:N1:68:THR:OG1	2.01	0.60
1:1:2897:A:H2'	1:1:2899:C:H5''	1.84	0.60
2:2:1171:A:H2'	2:2:1172:G:C8	2.36	0.60
2:2:782:U:H4'	2:2:783:G:H5''	1.84	0.60
1:5:90:C:H4'	1:5:282:G:H5''	1.83	0.60
14:C9:6:VAL:HB	14:C9:14:PHE:CE1	2.37	0.60
15:D0:23:ARG:HD3	15:D0:92:ASP:OD1	2.27	0.60
15:D0:55:PRO:HA	15:D0:91:ILE:HG12	1.82	0.60
21:D6:4:LYS:HE2	21:D6:5:ARG:NH2	2.15	0.60
29:L4:35:VAL:HG21	29:L4:244:LEU:HD21	2.10	0.60
32:L7:88:ARG:HH12	32:L7:92:ILE:HA	2.12	0.60
33:L8:134:TYR:CG	33:L8:190:VAL:HG21	2.37	0.60
1:1:1471:U:H5''	43:M9:5:ARG:HD2	1.84	0.60
70:S2:161:LYS:HB2	70:S2:166:THR:HG22	3.16	0.60
72:S4:77:ARG:NH1	72:S4:82:TYR:OH	3.53	0.60
1:1:1064:A:H4'	1:1:1065:A:O5'	2.01	0.60
1:1:2845:A:H2	1:1:2850:G:H1	1.50	0.60
1:5:20:A:H2'	1:5:21:G:C8	2.37	0.60
1:5:2174:G:OP2	27:L2:193:ARG:NH1	192.13	0.60
1:5:2666:C:H2'	1:5:2667:A:H5''	1.84	0.60
1:5:94:G:H2'	1:5:95:A:C8	2.37	0.60
2:6:686:C:H2'	2:6:687:G:C8	2.36	0.60
1:5:3:U:H3	4:8:156:U:H3	1.50	0.60
8:C3:91:LEU:HB3	8:C3:122:ILE:HG12	1.83	0.60
15:D0:28:SER:OG	15:D0:111:GLY:O	3.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:D3:97:ASP:O	18:D3:100:ASP:HB2	2.90	0.60
27:L2:181:LYS:HG3	27:L2:184:ARG:HG3	2.39	0.60
28:L3:293:ASN:HB3	28:L3:305:ILE:HG13	1.83	0.60
38:M4:113:THR:HG22	38:M4:115:PHE:N	2.83	0.60
38:M4:55:ARG:HH11	44:N0:70:THR:HB	1.97	0.60
51:N7:4:PHE:HB2	51:N7:9:LYS:HE3	1.84	0.60
54:O0:26:GLY:O	54:O0:30:THR:HG23	2.07	0.60
73:S5:29:ILE:O	73:S5:34:GLN:NE2	2.30	0.60
2:6:765:G:C2	77:S9:146:PHE:HZ	432.38	0.60
79:SR:182:ASN:ND2	79:SR:184:ASN:OD1	3.11	0.60
79:SR:93:ASP:HB2	79:SR:100:TYR:HE1	1.66	0.60
1:1:3384:U:H2'	1:1:3385:U:H6	1.67	0.60
2:2:912:U:H4'	2:2:913:G:H2'	1.84	0.60
1:5:2167:A:OP1	39:M5:72:LYS:NZ	162.53	0.60
1:5:2366:C:H2'	1:5:2367:A:C8	2.37	0.60
2:6:1054:U:H2'	2:6:1055:U:H6	1.67	0.60
2:6:189:C:H2'	2:6:190:C:H5'	1.82	0.60
9:C4:85:ALA:N	9:C4:119:THR:HG22	2.17	0.60
21:D6:82:ARG:HG3	21:D6:83:ILE:H	1.67	0.60
29:L4:361:HIS:CD2	29:L4:362:ASP:H	2.19	0.60
33:L8:158:ASP:HB3	33:L8:159:PRO:HD3	1.83	0.60
34:L9:120:ASP:OD1	34:L9:124:ARG:NH2	2.35	0.60
34:L9:18:VAL:O	38:M4:5:SER:HB3	2.65	0.60
51:N7:38:PHE:O	51:N7:40:HIS:ND1	2.27	0.60
51:N7:10:VAL:HG23	51:N7:86:THR:HA	1.82	0.60
1:1:792:G:H5''	52:N8:2:PRO:HD3	1.84	0.60
1:5:1857:C:H2'	58:O4:4:ARG:HG2	157.98	0.60
68:S0:30:GLN:HG3	68:S0:33:GLN:H	8.86	0.60
1:1:3279:A:H8	1:1:3279:A:H5'	1.67	0.60
1:5:1661:G:H2'	1:5:1662:G:C8	2.36	0.60
1:5:1733:G:H2'	1:5:1734:G:H8	1.66	0.60
2:6:320:U:H3'	2:6:321:C:H5''	1.83	0.60
8:C3:64:ARG:HG3	8:C3:70:LYS:HD2	5.20	0.60
13:C8:49:LYS:HG3	13:C8:81:ILE:HD11	2.79	0.60
30:L5:148:ILE:HG23	30:L5:151:GLN:HB3	2.39	0.60
31:L6:96:VAL:HG21	31:L6:141:VAL:HG13	1.84	0.60
1:5:2436:U:H4'	33:L8:70:LYS:HD2	175.46	0.60
47:N3:87:ARG:NH2	47:N3:137:VAL:HG22	2.49	0.60
56:O2:40:SER:O	56:O2:44:ARG:HG3	2.02	0.60
15:D0:86:ILE:HG12	71:S3:11:LEU:HD12	1.83	0.60
79:SR:123:ILE:HG22	79:SR:133:VAL:HG22	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1826:C:OP1	62:O8:48:SER:OG	2.19	0.60
1:1:255:A:H2'	1:1:256:G:H8	1.67	0.60
1:1:314:U:H2'	1:1:315:C:C6	2.36	0.60
2:2:1414:U:OP1	12:C7:2:GLY:N	2.35	0.60
2:2:95:G:HO2'	2:2:460:A:HO2'	1.50	0.60
2:2:522:U:O2'	19:D4:60:PHE:O	2.14	0.60
13:C8:57:ARG:HH11	20:D5:75:LEU:HD21	1.67	0.60
1:5:2522:G:O6	27:L2:70:ARG:NH2	177.08	0.60
30:L5:211:LEU:HB3	30:L5:219:PHE:HD2	1.67	0.60
33:L8:143:ILE:HG23	33:L8:175:VAL:HG21	1.84	0.60
35:M0:49:CYS:HB3	35:M0:168:SER:HB3	1.84	0.60
36:M1:92:ARG:O	36:M1:95:ASN:HB2	2.92	0.60
38:M4:32:LEU:HD11	38:M4:94:TRP:CG	2.37	0.60
42:M8:170:ARG:HA	42:M8:174:ARG:HD2	2.12	0.60
44:N0:1:MET:HE3	44:N0:36:ILE:HG21	1.84	0.60
78:SM:84:LYS:HZ3	78:SM:86:ASN:HB2	3.76	0.60
1:1:1029:G:H21	1:1:1030:A:N6	1.99	0.59
1:1:818:C:N3	1:1:920:A:H5'	2.17	0.59
2:2:1341:A:OP1	79:SR:63:GLY:HA2	2.02	0.59
2:2:140:A:OP2	74:S6:187:LYS:NZ	2.34	0.59
2:2:1559:A:N6	13:C8:134:ARG:HD2	2.17	0.59
2:2:432:G:O6	81:2:2029:8UZ:C11	2.50	0.59
2:2:67:A:OP1	74:S6:171:LYS:NZ	2.34	0.59
2:2:992:A:H8	2:2:1777:G:H1'	1.66	0.59
4:4:80:A:N7	59:O5:43:LYS:NZ	2.39	0.59
1:5:1718:G:H2'	1:5:1719:G:C8	2.37	0.59
2:6:1555:A:P	10:C5:47:ARG:HH21	402.62	0.59
2:6:639:U:OP1	75:S7:118:LEU:N	368.64	0.59
2:6:74:U:H3'	2:6:75:U:C3'	2.27	0.59
2:6:1525:A:OP1	14:C9:93:HIS:ND1	391.62	0.59
15:D0:96:PRO:HG2	15:D0:99:ILE:HG22	1.82	0.59
22:D7:34:ASP:O	22:D7:79:PHE:HA	2.46	0.59
25:E0:35:TYR:CE1	25:E0:39:LEU:HD21	2.66	0.59
41:M7:29:THR:HG22	41:M7:87:SER:CB	2.44	0.59
41:M7:29:THR:HG22	41:M7:87:SER:HB3	2.15	0.59
44:N0:79:VAL:HG21	44:N0:106:LEU:HD11	1.84	0.59
55:O1:79:ARG:NE	55:O1:79:ARG:H	1.99	0.59
72:S4:105:VAL:HG21	72:S4:245:LYS:H	2.18	0.59
2:2:260:U:H5	76:S8:43:ILE:HB	1.65	0.59
78:SM:70:ASN:O	78:SM:74:LYS:NZ	2.34	0.59
1:1:1317:A:O2'	1:1:1318:A:H3'	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2801:A:O2'	1:1:2802:A:H2'	2.02	0.59
1:1:2882:U:H2'	1:1:2883:U:C6	2.37	0.59
1:1:2943:G:OP2	28:L3:2:SER:HB2	2.02	0.59
1:1:764:U:H4'	1:1:765:C:OP2	2.01	0.59
2:2:1592:A:H2'	2:2:1593:A:H8	1.66	0.59
1:5:1108:U:H2'	1:5:1109:U:C6	2.36	0.59
1:5:211:A:OP1	29:L4:220:ARG:HD2	73.52	0.59
1:5:3268:A:H3'	1:5:3269:U:H3'	1.82	0.59
1:5:664:U:H5'	29:L4:107:ARG:HA	120.99	0.59
2:2:952:A:O2'	8:C3:114:ARG:HG3	2.02	0.59
8:C3:71:ILE:O	8:C3:75:LEU:HD12	3.08	0.59
1:1:2341:A:OP2	28:L3:247:ARG:NH2	2.35	0.59
30:L5:155:THR:HA	30:L5:179:ARG:HA	2.06	0.59
34:L9:7:GLU:OE1	34:L9:54:LYS:HD2	2.02	0.59
51:N7:3:LYS:NZ	51:N7:30:ASP:OD1	4.14	0.59
55:O1:55:LEU:HD23	55:O1:95:PRO:HB3	2.26	0.59
1:5:1653:G:H4'	58:O4:43:LYS:O	188.71	0.59
69:S1:34:ALA:N	69:S1:41:ARG:O	2.34	0.59
76:S8:54:LYS:HG2	76:S8:175:GLN:O	2.02	0.59
78:SM:88:ARG:HG2	78:SM:91:THR:HG23	2.64	0.59
1:1:1367:G:OP2	83:1:4000:HOH:O	2.17	0.59
2:2:1085:G:H2'	2:2:1087:A:OP2	2.01	0.59
2:2:1338:C:H1'	2:2:1410:A:C4	2.37	0.59
2:2:1429:G:H1'	15:D0:74:GLU:CG	2.28	0.59
2:2:1544:U:OP1	13:C8:136:GLN:NE2	2.35	0.59
2:2:1606:C:H2'	2:2:1607:G:C8	2.37	0.59
3:3:48:U:N3	3:3:49:G:N7	2.50	0.59
1:5:577:C:OP1	32:L7:142:SER:OG	269.18	0.59
1:5:787:G:H2'	1:5:788:C:C6	2.37	0.59
2:6:1648:A:H2'	2:6:1649:G:C8	2.37	0.59
2:6:1657:U:H5'	2:6:1657:U:H6	1.67	0.59
11:C6:115:THR:HB	11:C6:118:ILE:O	2.02	0.59
14:C9:86:ARG:NH1	14:C9:89:ARG:HB2	2.16	0.59
15:D0:67:THR:HG22	15:D0:68:ARG:O	2.02	0.59
29:L4:282:SER:OG	42:M8:125:ASP:OD1	2.78	0.59
72:S4:230:GLU:HB2	72:S4:233:LYS:NZ	6.19	0.59
2:6:66:U:H5	74:S6:173:PRO:HG3	333.81	0.59
1:1:945:C:H2'	1:1:946:U:H6	1.68	0.59
1:5:1864:A:O4'	43:M9:83:GLY:HA3	208.57	0.59
1:5:3075:G:H2'	1:5:3076:C:H6	1.67	0.59
1:5:364:G:OP1	29:L4:60:THR:HG23	128.15	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:6:1469:A:H2'	2:6:1470:C:C6	2.38	0.59
2:6:169:A:H5''	74:S6:176:GLN:HG2	329.78	0.59
11:C6:27:GLY:HA2	11:C6:63:ILE:O	2.29	0.59
36:M1:53:THR:HG23	36:M1:60:ARG:HA	1.85	0.59
37:M3:76:THR:HG22	37:M3:101:ARG:HB3	1.84	0.59
43:M9:13:SER:OG	43:M9:38:ARG:NH2	2.35	0.59
1:1:3050:U:O2'	48:N4:16:GLY:O	2.21	0.59
51:N7:4:PHE:CZ	54:O0:62:LEU:HB3	4.17	0.59
58:O4:93:PHE:CD2	58:O4:94:LEU:HD23	2.53	0.59
62:O8:46:ARG:HH21	62:O8:51:LEU:HB2	1.87	0.59
68:S0:105:GLY:N	68:S0:135:GLU:OE2	2.67	0.59
68:S0:189:VAL:HG22	68:S0:190:ASP:H	1.66	0.59
1:1:2216:G:OP1	60:O6:75:LYS:NZ	2.33	0.59
2:6:1783:C:H2'	2:6:1784:C:H6	1.66	0.59
4:8:91:C:O2'	50:N6:25:SER:HB3	44.78	0.59
25:E0:47:VAL:HG11	25:E0:50:VAL:HG13	1.84	0.59
29:L4:145:ILE:HG22	29:L4:173:GLY:HA3	2.72	0.59
30:L5:106:ALA:O	30:L5:110:LEU:HD22	3.59	0.59
36:M1:117:ASP:HB3	36:M1:120:ILE:HB	2.66	0.59
51:N7:88:ASP:HB3	51:N7:121:ARG:NH2	2.14	0.59
68:S0:120:LEU:HD12	68:S0:121:VAL:H	1.67	0.59
79:SR:4:ASN:O	79:SR:318:ALA:N	2.36	0.59
1:1:1307:G:C2	1:1:1308:A:C2	2.91	0.59
1:1:1334:U:O2'	32:L7:151:ARG:NH2	2.36	0.59
1:1:1945:A:H2'	1:1:1946:A:H8	1.67	0.59
1:1:2222:A:H2'	1:1:2223:A:C8	2.38	0.59
2:2:1513:G:H1'	2:2:1518:C:O2	2.03	0.59
1:5:2712:U:O2'	1:5:2743:A:H4'	2.02	0.59
1:5:2960:C:H2'	1:5:2961:G:C8	2.37	0.59
1:5:900:G:H1'	1:5:1589:A:H61	1.68	0.59
2:6:1003:A:H4'	2:6:1004:U:O5'	2.01	0.59
2:6:1361:U:O2'	2:6:1362:U:H5''	2.02	0.59
1:5:59:G:H2'	4:8:33:A:O2'	2.02	0.59
6:C1:17:PRO:HG3	6:C1:63:LEU:HD11	2.02	0.59
16:D1:37:ALA:HB1	16:D1:45:ALA:HB1	2.98	0.59
18:D3:126:LYS:HB3	18:D3:131:SER:H	1.66	0.59
19:D4:60:PHE:HA	19:D4:70:VAL:O	2.02	0.59
20:D5:97:LYS:HG3	20:D5:98:GLN:H	1.67	0.59
30:L5:218:ARG:NH2	30:L5:221:GLU:OE1	5.13	0.59
32:L7:33:ARG:HH12	32:L7:34:LYS:HE2	3.11	0.59
33:L8:161:GLU:OE2	39:M5:26:ARG:NH2	2.31	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L9:4:ILE:N	44:N0:142:GLN:OE1	2.35	0.59
37:M3:47:ALA:O	37:M3:49:ARG:N	2.65	0.59
38:M4:116:GLU:O	38:M4:120:VAL:HG23	2.01	0.59
41:M7:67:ILE:HB	41:M7:80:LYS:HG2	4.64	0.59
44:N0:155:ARG:NH2	44:N0:172:TYR:H	4.67	0.59
49:N5:48:SER:OG	49:N5:49:LYS:N	3.66	0.59
50:N6:57:LEU:HB3	50:N6:105:VAL:HG12	2.96	0.59
54:O0:41:LEU:HD12	54:O0:92:ILE:HG13	1.85	0.59
59:O5:85:THR:HG23	59:O5:87:ALA:H	1.68	0.59
1:5:860:G:OP1	67:Q3:17:ARG:NH1	220.49	0.59
69:S1:36:SER:HB2	69:S1:231:LEU:HB3	1.83	0.59
74:S6:10:ASN:HB3	74:S6:128:THR:HA	2.04	0.59
77:S9:36:LEU:HD11	77:S9:105:LEU:HD21	4.76	0.59
2:6:576:G:OP2	78:SM:102:THR:HG21	380.28	0.59
1:1:2689:A:C8	1:1:2702:A:C6	2.90	0.59
2:2:1010:C:OP2	83:2:2131:HOH:O	2.17	0.59
2:2:1681:A:H1'	74:S6:66:GLY:HA2	1.83	0.59
4:4:46:G:N3	4:4:58:G:C2	2.71	0.59
1:5:1559:A:C6	1:5:1581:C:N4	2.71	0.59
1:5:3269:U:OP1	31:L6:77:ARG:NE	246.81	0.59
2:6:1208:A:H4'	2:6:1270:G:OP1	2.03	0.59
2:6:755:A:H2'	2:6:756:A:C8	2.38	0.59
8:C3:4:MET:SD	8:C3:124:ARG:NH1	2.75	0.59
13:C8:47:CYS:CB	13:C8:54:LEU:HD11	2.32	0.59
20:D5:91:PRO:HG3	20:D5:101:TYR:HE1	1.68	0.59
27:L2:204:MET:HB2	27:L2:208:ASP:HB2	1.85	0.59
33:L8:75:ILE:HG22	33:L8:76:ALA:H	1.66	0.59
44:N0:24:LEU:HG	45:N1:146:ASN:ND2	4.45	0.59
49:N5:137:ASN:HB3	49:N5:142:ILE:HG12	1.84	0.59
55:O1:72:ARG:NH1	55:O1:105:GLN:O	2.21	0.59
68:S0:179:ARG:HD3	68:S0:183:ARG:NH1	2.28	0.59
16:D1:50:TYR:CE1	68:S0:66:ALA:HB1	2.42	0.59
70:S2:56:ILE:HA	70:S2:61:LEU:HD12	2.17	0.59
71:S3:115:ILE:CG2	71:S3:142:LEU:HD13	7.76	0.59
2:6:66:U:C5	74:S6:173:PRO:HG3	334.23	0.59
2:2:143:G:N7	74:S6:177:ARG:NH2	2.50	0.59
2:2:781:U:HO2'	2:2:782:U:H6	1.47	0.59
2:2:891:A:H2'	2:2:892:A:C8	2.38	0.59
2:6:491:C:O2	2:6:496:G:N2	2.36	0.59
12:C7:109:LEU:O	12:C7:113:LEU:HB3	2.03	0.59
13:C8:102:ALA:O	13:C8:105:VAL:HG12	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:D3:76:LEU:HB2	18:D3:79:ASN:HB2	1.83	0.59
29:L4:122:THR:HB	29:L4:235:LEU:HB2	3.80	0.59
35:M0:76:MET:HE1	35:M0:148:VAL:HA	3.74	0.59
37:M3:76:THR:OG1	37:M3:76:THR:O	2.34	0.59
41:M7:26:PHE:HE1	41:M7:120:ASN:HA	1.68	0.59
43:M9:180:LYS:HA	43:M9:183:ALA:HB3	1.85	0.59
52:N8:75:LEU:HD11	52:N8:134:ALA:HA	1.85	0.59
57:O3:16:TYR:CD2	57:O3:25:PRO:HA	2.37	0.59
68:S0:77:SER:HB2	68:S0:124:THR:HG21	1.85	0.59
1:1:1405:U:OP2	56:O2:59:SER:OG	2.17	0.59
1:1:2945:G:O2'	1:1:2948:C:OP2	2.19	0.59
2:2:190:C:N4	2:2:196:G:O6	2.36	0.59
2:2:717:C:H42	2:2:720:G:H22	1.49	0.59
2:2:836:U:H2'	2:2:837:G:C8	2.38	0.59
1:5:314:U:H2'	1:5:315:C:C6	2.37	0.59
1:5:91:G:OP2	1:5:93:C:N4	2.30	0.59
2:6:1795:U:OP2	21:D6:5:ARG:NH2	338.51	0.59
14:C9:127:ASN:OD1	14:C9:130:ARG:NH1	7.74	0.59
2:6:558:U:OP2	25:E0:55:ARG:NH2	417.56	0.59
28:L3:227:GLU:HG3	28:L3:270:ARG:HE	4.44	0.59
32:L7:216:VAL:HG11	32:L7:227:GLY:HA3	4.82	0.59
43:M9:84:THR:O	43:M9:88:ARG:HG2	4.39	0.59
1:5:2724:U:H4'	45:N1:54:HIS:CD2	225.38	0.59
70:S2:156:THR:HG21	70:S2:224:PHE:CD1	2.98	0.59
68:S0:119:ARG:NE	70:S2:240:LEU:HB3	2.15	0.59
23:D8:42:ARG:NH1	73:S5:161:ASP:OD2	3.90	0.59
76:S8:100:ALA:HB3	76:S8:169:ILE:HG12	2.81	0.59
70:S2:175:GLY:HA3	77:S9:53:ARG:HH22	1.68	0.59
78:SM:79:SER:O	78:SM:82:THR:OG1	3.27	0.59
2:2:1274:C:C5	78:SM:96:ARG:HG2	2.38	0.59
1:1:1062:A:N3	45:N1:130:ARG:NH2	2.50	0.59
81:1:3889:8UZ:N4	81:1:3889:8UZ:O4	2.36	0.59
1:1:679:U:H2'	1:1:680:G:C8	2.38	0.59
2:2:1253:U:O2'	26:E1:143:LYS:HA	2.03	0.59
1:5:1717:U:H2'	1:5:1718:G:C8	2.38	0.59
1:5:1551:C:HO2'	1:5:2170:U:HO2'	1.51	0.59
2:6:1175:U:H2'	2:6:1176:G:H8	1.68	0.59
2:6:1453:G:H2'	2:6:1454:G:H8	1.68	0.59
3:7:112:G:H2'	3:7:113:C:C6	2.37	0.59
8:C3:132:VAL:HG23	8:C3:134:VAL:HG13	1.84	0.59
9:C4:26:THR:HG21	9:C4:97:GLY:HA3	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:C5:64:LYS:NZ	10:C5:90:ILE:O	2.35	0.59
13:C8:129:TRP:O	78:SM:68:ARG:HB2	2.51	0.59
14:C9:117:SER:HB2	14:C9:123:ARG:HB3	2.29	0.59
14:C9:86:ARG:HG3	14:C9:90:PRO:O	4.52	0.59
16:D1:9:VAL:HG22	16:D1:10:GLU:H	1.77	0.59
1:1:2880:U:H1'	28:L3:250:ALA:HB3	1.85	0.59
58:O4:11:ASN:O	58:O4:18:ASN:ND2	2.36	0.59
2:6:1783:C:OP2	65:Q1:1:MET:HB2	311.26	0.59
69:S1:119:THR:HB	69:S1:143:THR:HG23	1.84	0.59
72:S4:48:LEU:HD21	72:S4:70:VAL:HG21	1.85	0.59
79:SR:300:THR:HG23	79:SR:314:GLN:HG3	1.85	0.59
2:2:407:A:O2'	2:2:1671:A:N3	2.29	0.58
2:2:320:U:C5	2:2:321:C:H2'	2.38	0.58
3:3:77:G:N2	3:3:102:A:OP2	2.27	0.58
1:5:2730:G:H4'	42:M8:184:PHE:CG	187.67	0.58
1:5:655:C:H2'	1:5:656:A:H8	1.68	0.58
7:C2:103:LEU:HD23	7:C2:115:VAL:HA	1.86	0.58
7:C2:40:GLY:HA3	7:C2:125:ASN:O	5.31	0.58
27:L2:57:PRO:HD3	67:Q3:53:GLY:HA3	2.08	0.58
27:L2:61:VAL:HG21	27:L2:76:PHE:CD2	3.61	0.58
28:L3:152:LYS:HD3	28:L3:189:SER:HA	2.97	0.58
28:L3:18:PRO:HG2	28:L3:20:LYS:HD2	2.12	0.58
29:L4:10:SER:OG	29:L4:13:GLY:O	2.66	0.58
1:1:1386:A:N3	29:L4:180:LYS:HA	2.17	0.58
34:L9:163:GLN:O	34:L9:166:ARG:HD3	2.03	0.58
41:M7:129:THR:HG23	41:M7:139:TYR:HB2	1.85	0.58
59:O5:85:THR:HG22	59:O5:88:LEU:CG	2.33	0.58
75:S7:155:ASP:OD2	75:S7:156:SER:N	3.15	0.58
78:SM:102:THR:O	78:SM:106:VAL:HG23	2.35	0.58
1:1:547:G:H4'	1:1:548:G:OP1	2.03	0.58
1:1:80:G:H2'	1:1:81:C:H6	1.68	0.58
1:5:342:A:N1	1:5:349:A:O2'	2.23	0.58
1:5:93:C:OP2	1:5:2764:C:O2'	2.12	0.58
2:6:1490:C:O2'	2:6:1491:U:O2	2.14	0.58
2:6:1564:U:H2'	2:6:1565:C:C6	2.38	0.58
2:6:563:U:H4'	25:E0:17:GLN:NE2	384.60	0.58
12:C7:71:PHE:HD1	12:C7:73:LEU:HB3	1.68	0.58
13:C8:129:TRP:N	13:C8:129:TRP:CD1	2.92	0.58
28:L3:37:ARG:O	28:L3:186:GLY:HA3	2.03	0.58
31:L6:149:ILE:HG23	31:L6:155:LEU:HD13	2.32	0.58
1:5:3268:A:H1'	31:L6:75:PRO:HG3	250.89	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:L7:173:LEU:HD21	32:L7:198:ALA:HA	1.95	0.58
34:L9:20:ILE:HG12	34:L9:25:VAL:HG13	3.20	0.58
37:M3:56:PRO:HG3	37:M3:74:GLY:O	2.02	0.58
1:1:1941:C:OP2	43:M9:74:ARG:HG2	2.03	0.58
47:N3:129:VAL:O	47:N3:133:SER:OG	2.25	0.58
47:N3:89:ASP:OD1	47:N3:91:VAL:HG13	2.02	0.58
50:N6:39:LEU:HD22	50:N6:43:TYR:HE2	1.69	0.58
69:S1:180:THR:HG22	69:S1:181:LEU:H	1.67	0.58
75:S7:96:ARG:CZ	75:S7:124:LYS:HB3	2.60	0.58
79:SR:80:ALA:HB3	79:SR:92:TRP:HB2	2.35	0.58
2:2:1636:C:O2	2:2:1765:A:N6	2.36	0.58
1:5:1500:G:H2'	1:5:1501:U:O4'	2.03	0.58
4:8:154:C:H5''	33:L8:181:LYS:HG2	152.33	0.58
7:C2:63:VAL:HG22	7:C2:64:SER:H	1.68	0.58
13:C8:140:THR:HA	13:C8:143:ARG:HH12	1.67	0.58
14:C9:28:LEU:HD22	14:C9:30:VAL:HG22	1.85	0.58
17:D2:68:ARG:HD3	70:S2:230:TRP:CD2	2.38	0.58
20:D5:71:ILE:HD13	20:D5:76:ALA:HA	1.85	0.58
41:M7:8:SER:OG	41:M7:8:SER:O	2.21	0.58
50:N6:53:ASP:HA	50:N6:69:LYS:HG2	3.06	0.58
75:S7:60:ILE:HD12	75:S7:92:PHE:CE2	2.38	0.58
1:1:2138:A:O2'	61:O7:3:LYS:HG2	2.03	0.58
1:1:2523:A:O2'	1:1:2587:U:H1'	2.03	0.58
1:1:810:A:H2'	1:1:811:U:H6	1.68	0.58
2:2:970:A:H5'	2:2:971:A:OP2	2.03	0.58
2:6:1552:U:O4	10:C5:40:ARG:NH2	391.81	0.58
2:6:768:C:C2	77:S9:143:ILE:HG12	419.09	0.58
5:C0:29:GLN:HB3	5:C0:39:ASN:HB3	2.84	0.58
8:C3:120:SER:O	8:C3:124:ARG:HG3	2.19	0.58
44:N0:12:ARG:HB3	44:N0:24:LEU:HD23	2.99	0.58
46:N2:27:VAL:HG21	46:N2:107:PHE:CE1	2.38	0.58
54:O0:41:LEU:HD22	54:O0:42:ILE:H	1.68	0.58
74:S6:114:VAL:HG12	74:S6:115:LYS:HD3	1.86	0.58
74:S6:98:ARG:NH2	74:S6:101:ILE:O	2.49	0.58
75:S7:165:LYS:O	75:S7:168:SER:OG	2.20	0.58
1:1:1951:C:N4	1:1:2095:G:H1	1.98	0.58
2:2:93:A:C6	2:2:398:G:C6	2.92	0.58
1:5:1602:A:OP2	43:M9:38:ARG:N	102.06	0.58
1:5:2727:A:C2	52:N8:43:ILE:HG23	188.04	0.58
1:5:598:A:OP1	32:L7:41:ARG:NH1	256.21	0.58
1:5:802:C:H2'	1:5:803:C:H6	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:6:361:C:N3	2:6:384:G:C2	2.71	0.58
4:8:70:G:N2	4:8:87:G:O2'	2.34	0.58
9:C4:64:ALA:HB3	9:C4:104:ALA:HB3	1.85	0.58
11:C6:16:ALA:HB2	11:C6:72:GLY:HA3	1.85	0.58
12:C7:77:GLU:O	12:C7:81:LYS:HB2	2.04	0.58
25:E0:55:ARG:HB3	25:E0:55:ARG:HH11	3.38	0.58
28:L3:292:ALA:HB1	28:L3:295:ALA:HB3	1.85	0.58
2:6:1680:G:OP1	48:N4:60:LYS:NZ	249.15	0.58
58:O4:58:ARG:HG3	58:O4:59:PRO:HD2	1.84	0.58
72:S4:163:ASP:HB3	72:S4:166:SER:O	2.04	0.58
1:1:2692:A:O3'	78:SM:34:LYS:NZ	2.35	0.58
79:SR:93:ASP:HB2	79:SR:100:TYR:CE1	2.39	0.58
1:1:1740:U:H1'	1:1:1741:A:H2	1.68	0.58
1:1:2572:C:O2'	1:1:2573:G:O4'	2.16	0.58
1:1:880:G:OP2	83:1:4001:HOH:O	2.17	0.58
2:2:1175:U:H2'	2:2:1176:G:H8	1.67	0.58
2:2:1244:A:O2'	2:2:1245:G:OP1	2.20	0.58
1:5:1138:U:H2'	1:5:1139:G:H8	1.68	0.58
1:5:1778:G:N7	81:5:3851:8UZ:O8	2.36	0.58
1:5:2440:G:O2'	1:5:2441:A:O4'	2.19	0.58
1:5:3000:A:H2'	1:5:3001:C:H6	1.67	0.58
1:5:3118:C:H4'	64:Q0:106:ARG:HH22	343.81	0.58
2:6:1114:G:O2'	2:6:1130:G:O6	2.20	0.58
2:6:1767:G:OP1	2:6:1770:U:H4'	2.04	0.58
2:6:485:A:H61	2:6:502:U:H3	1.51	0.58
4:8:37:A:H2'	4:8:37:A:N3	2.18	0.58
1:5:2203:U:H4'	27:L2:241:ARG:HA	220.78	0.58
30:L5:55:PHE:CZ	30:L5:158:ARG:HG3	2.39	0.58
30:L5:40:HIS:CE1	30:L5:42:ALA:HB3	2.38	0.58
43:M9:69:SER:O	43:M9:74:ARG:HB2	2.45	0.58
37:M3:67:ARG:HG2	52:N8:105:LEU:HD11	1.93	0.58
65:Q1:13:LEU:HD13	65:Q1:17:ARG:NH2	3.27	0.58
69:S1:70:LEU:HD21	69:S1:79:HIS:CD2	2.39	0.58
75:S7:112:ARG:NH2	75:S7:117:THR:OG1	2.97	0.58
1:1:2808:A:H4'	1:1:2809:C:H5''	1.86	0.58
1:1:679:U:H2'	1:1:680:G:H8	1.68	0.58
1:1:839:C:H2'	1:1:840:C:C6	2.39	0.58
1:1:915:A:H8	1:1:2136:C:HO2'	1.50	0.58
2:2:153:G:OP2	19:D4:131:ARG:NH1	2.31	0.58
1:5:1079:A:H2'	1:5:1080:A:H5'	1.86	0.58
1:5:971:G:O2'	1:5:1371:G:N3	2.35	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1913:A:N3	1:5:2120:A:H2'	2.19	0.58
1:5:2273:G:O2'	1:5:2311:G:O6	2.17	0.58
1:5:579:G:H2'	1:5:580:C:H6	1.69	0.58
1:5:584:G:H2'	1:5:585:A:H8	1.69	0.58
3:7:77:G:O2'	3:7:101:G:O6	2.20	0.58
14:C9:6:VAL:HG13	14:C9:66:TYR:CZ	2.39	0.58
17:D2:77:PRO:HG2	17:D2:79:PHE:CE2	2.67	0.58
21:D6:10:ARG:HD3	21:D6:34:LYS:HG2	1.86	0.58
23:D8:13:ILE:HB	23:D8:29:ARG:HG2	4.81	0.58
25:E0:50:VAL:HG23	25:E0:52:GLY:H	6.72	0.58
27:L2:116:VAL:HG11	27:L2:134:VAL:HG11	2.65	0.58
34:L9:166:ARG:HD2	34:L9:168:ARG:HH12	13.59	0.58
37:M3:130:GLY:O	37:M3:131:LYS:HG2	2.03	0.58
42:M8:51:ALA:HA	42:M8:54:LEU:HG	1.86	0.58
43:M9:102:LEU:HD13	43:M9:127:SER:HB2	5.20	0.58
45:N1:56:PHE:CZ	45:N1:78:LYS:HD3	2.39	0.58
47:N3:135:VAL:HG21	48:N4:26:SER:HB3	1.85	0.58
54:O0:24:THR:HG22	54:O0:91:SER:HB3	1.85	0.58
61:O7:21:ARG:NH2	61:O7:41:ALA:O	2.76	0.58
68:S0:22:THR:HG22	68:S0:169:SER:HB3	2.06	0.58
2:6:333:A:OP1	76:S8:31:ARG:NH2	299.10	0.58
1:1:1302:A:N7	1:1:2857:C:O2'	2.35	0.58
1:1:2662:G:N7	83:1:4032:HOH:O	2.31	0.58
2:2:1788:G:P	9:C4:127:ARG:HH22	2.25	0.58
1:5:1103:A:H5'	1:5:1104:G:OP2	2.03	0.58
1:5:3118:C:H4'	64:Q0:106:ARG:NH2	342.96	0.58
1:5:3259:U:H5'	1:5:3259:U:H6	1.69	0.58
2:6:566:C:O2	25:E0:13:LYS:NZ	377.27	0.58
13:C8:16:ARG:HB2	13:C8:21:ASN:HA	1.85	0.58
16:D1:73:ALA:HB1	16:D1:78:LEU:HB2	3.76	0.58
1:1:211:A:OP2	29:L4:221:ASN:HB2	2.04	0.58
34:L9:132:VAL:HB	34:L9:154:VAL:HG22	1.85	0.58
37:M3:168:ARG:NH1	37:M3:172:LEU:HD11	2.19	0.58
37:M3:75:PHE:O	37:M3:79:GLU:HB2	2.04	0.58
41:M7:131:ARG:HG3	41:M7:137:ASN:OD1	2.27	0.58
49:N5:136:ALA:O	49:N5:139:ILE:HG23	2.04	0.58
51:N7:110:ALA:O	51:N7:114:VAL:HG23	2.19	0.58
68:S0:170:ILE:H	68:S0:170:ILE:HD12	1.69	0.58
68:S0:26:ALA:N	68:S0:149:LEU:HD12	2.19	0.58
70:S2:140:ARG:HH21	70:S2:229:LEU:HD22	1.69	0.58
71:S3:143:ARG:HG3	71:S3:144:ALA:HB2	5.76	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
76:S8:62:THR:HA	76:S8:76:THR:O	2.55	0.58
1:5:1028:U:H3	78:SM:48:ARG:HH12	338.55	0.58
1:1:2294:U:OP2	47:N3:71:LYS:HE2	2.04	0.58
1:1:2946:A:N6	83:1:4028:HOH:O	2.30	0.58
2:2:1525:A:OP1	14:C9:93:HIS:ND1	2.35	0.58
2:2:1530:C:OP2	20:D5:95:HIS:HB2	2.03	0.58
1:5:1336:U:H2'	1:5:1337:A:H8	1.68	0.58
7:C2:105:LYS:H	7:C2:113:ARG:CB	3.05	0.58
12:C7:5:ARG:HB2	12:C7:10:LYS:HZ2	1.69	0.58
12:C7:7:LYS:HD2	12:C7:11:ARG:HH21	2.73	0.58
28:L3:257:PRO:HG2	28:L3:261:MET:HE1	1.85	0.58
29:L4:188:ARG:HH21	29:L4:197:ARG:HB3	1.69	0.58
29:L4:59:GLN:OE1	61:O7:55:ARG:NH2	2.33	0.58
31:L6:63:LEU:HB2	31:L6:79:VAL:HG12	1.86	0.58
34:L9:86:TYR:CE2	34:L9:151:VAL:HG22	2.39	0.58
1:5:2780:A:O3'	37:M3:181:GLY:HA3	139.17	0.58
44:N0:2:ALA:HB3	44:N0:32:SER:CB	2.33	0.58
59:O5:101:THR:HG22	59:O5:104:GLN:N	2.18	0.58
69:S1:76:SER:OG	69:S1:78:ASP:OD1	2.21	0.58
2:2:512:A:OP2	77:S9:172:VAL:HB	2.04	0.58
1:1:1427:U:OP2	52:N8:4:ARG:NH2	2.30	0.58
1:1:900:G:H1'	1:1:1589:A:N6	2.19	0.58
1:1:240:U:OP2	59:O5:94:LYS:NZ	2.27	0.58
1:1:2662:G:H2'	1:1:2663:G:C8	2.39	0.58
1:1:422:A:C2	1:1:2363:A:H4'	2.39	0.58
1:1:546:C:H5'	1:1:547:G:H5'	1.85	0.58
1:1:929:A:H2'	1:1:930:U:C6	2.39	0.58
2:2:1031:U:H4'	2:2:1032:G:OP2	2.04	0.58
2:2:1600:A:O2'	2:2:1602:C:N4	2.37	0.58
2:2:856:A:N6	75:S7:96:ARG:HB3	2.18	0.58
2:2:993:A:OP2	83:2:2132:HOH:O	2.17	0.58
4:4:10:A:H2'	4:4:11:C:C6	2.38	0.58
1:5:1659:U:H2'	1:5:1660:C:H6	1.69	0.58
1:5:691:A:H5''	1:5:692:A:H8	1.69	0.58
2:6:306:U:H5''	6:C1:90:TYR:HE1	330.84	0.58
2:6:416:A:H5'	2:6:417:A:N7	2.19	0.58
3:7:45:A:OP1	30:L5:151:GLN:NE2	277.23	0.58
9:C4:102:LEU:HD22	9:C4:105:LEU:HD11	1.84	0.58
31:L6:176:PHE:H	38:M4:117:ARG:NH2	5.03	0.58
31:L6:31:ARG:NH2	31:L6:81:ALA:O	2.81	0.58
38:M4:21:VAL:HG22	38:M4:63:VAL:HG22	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:M6:59:ARG:HH11	40:M6:59:ARG:CB	2.16	0.58
50:N6:32:SER:HA	50:N6:49:PRO:HA	1.86	0.58
55:O1:19:ARG:HD3	55:O1:35:GLU:CG	2.45	0.58
67:Q3:49:ARG:NH2	67:Q3:52:ALA:HB2	2.18	0.58
69:S1:132:ASP:HB2	69:S1:221:PRO:HB3	1.85	0.58
70:S2:188:LEU:HD13	70:S2:196:VAL:HG11	2.02	0.58
79:SR:10:ARG:NH1	79:SR:51:ASP:OD1	6.36	0.58
1:1:228:U:H5''	50:N6:8:VAL:HG11	1.86	0.57
1:1:2666:C:O2'	78:SM:32:SER:OG	2.18	0.57
1:1:3283:U:H2'	1:1:3284:G:H8	1.68	0.57
4:4:121:U:H2'	4:4:122:U:C6	2.38	0.57
1:5:1659:U:H2'	1:5:1660:C:C6	2.38	0.57
2:6:1413:U:H4'	2:6:1414:U:OP2	2.02	0.57
11:C6:114:ARG:O	11:C6:115:THR:OG1	2.18	0.57
16:D1:79:LEU:HD21	68:S0:59:LEU:HB2	4.60	0.57
2:2:1101:G:H5''	17:D2:76:SER:HB2	1.85	0.57
29:L4:301:PRO:C	42:M8:39:ARG:HH12	2.57	0.57
32:L7:220:PHE:O	32:L7:229:PHE:HE2	1.86	0.57
33:L8:36:ILE:O	33:L8:38:GLN:N	2.37	0.57
66:Q2:14:GLY:C	66:Q2:16:THR:H	2.07	0.57
69:S1:229:MET:HA	69:S1:232:HIS:CE1	2.39	0.57
21:D6:59:TYR:OH	69:S1:72:ASP:OD2	2.19	0.57
70:S2:162:CYS:H	70:S2:213:ALA:HB2	1.95	0.57
70:S2:67:GLN:HA	70:S2:70:ASP:HB2	1.86	0.57
71:S3:126:VAL:HG11	71:S3:188:ILE:HG12	2.52	0.57
71:S3:53:THR:HG22	71:S3:91:VAL:HG21	2.80	0.57
77:S9:105:LEU:HD12	77:S9:108:ARG:HD2	1.85	0.57
1:1:1571:A:O2'	1:1:1572:U:OP1	2.17	0.57
1:5:1781:C:H2'	1:5:1782:U:H6	1.68	0.57
1:5:1856:C:H2'	1:5:1857:C:C6	2.39	0.57
1:5:196:G:N2	1:5:198:A:H3'	2.19	0.57
1:5:2375:G:O2'	1:5:2377:G:OP2	2.15	0.57
2:6:7:G:O6	70:S2:205:ARG:NH2	370.68	0.57
13:C8:75:ASN:O	13:C8:79:TYR:HD2	2.26	0.57
14:C9:131:ASP:O	14:C9:135:ILE:HG23	3.18	0.57
18:D3:23:ARG:HD2	18:D3:26:GLU:OE1	2.21	0.57
27:L2:45:VAL:HG22	27:L2:84:THR:HA	1.86	0.57
30:L5:95:TRP:CH2	30:L5:181:PRO:HD3	4.40	0.57
37:M3:9:ILE:HG13	52:N8:49:HIS:CE1	2.38	0.57
38:M4:48:GLY:HA3	38:M4:53:VAL:HB	3.88	0.57
48:N4:21:PHE:CZ	48:N4:23:ARG:HA	2.88	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:N7:23:VAL:HB	51:N7:43:VAL:HB	1.85	0.57
58:O4:41:ARG:HA	58:O4:56:THR:HG22	2.26	0.57
66:Q2:40:LYS:HE3	66:Q2:44:ASP:OD2	2.04	0.57
68:S0:110:TYR:CE1	68:S0:111:ILE:HG13	2.39	0.57
11:C6:114:ARG:NH1	73:S5:73:THR:OG1	4.64	0.57
72:S4:148:ARG:NH1	74:S6:201:GLN:OE1	2.35	0.57
79:SR:245:PHE:CE1	79:SR:252:LEU:HD13	2.71	0.57
79:SR:48:THR:HG22	79:SR:55:GLY:HA2	5.52	0.57
1:1:1723:A:N1	1:1:1788:C:O2'	2.27	0.57
1:1:2283:G:O6	83:1:3980:HOH:O	2.14	0.57
1:1:851:C:OP1	67:Q3:3:LYS:NZ	2.28	0.57
1:1:999:G:C6	1:1:1000:C:N4	2.72	0.57
1:5:1107:C:OP1	53:N9:25:LYS:HE2	199.80	0.57
1:5:2555:G:H5'	1:5:2556:C:OP2	2.04	0.57
6:C1:72:THR:O	6:C1:88:ARG:HD2	2.05	0.57
11:C6:127:LYS:HA	11:C6:134:ALA:HA	1.84	0.57
13:C8:76:PRO:HB2	13:C8:81:ILE:HB	1.86	0.57
19:D4:12:VAL:HG22	19:D4:23:PHE:HB3	2.21	0.57
20:D5:71:ILE:CG2	20:D5:76:ALA:HB2	5.25	0.57
28:L3:256:HIS:HA	28:L3:257:PRO:C	2.25	0.57
30:L5:106:ALA:HB2	30:L5:166:ALA:HA	1.95	0.57
33:L8:68:ARG:O	33:L8:69:LEU:HB2	4.50	0.57
39:M5:38:ARG:CZ	39:M5:60:VAL:HG13	2.66	0.57
43:M9:185:LEU:HD22	75:S7:39:ARG:HH21	1.70	0.57
1:1:2626:A:OP1	45:N1:2:GLY:N	2.37	0.57
48:N4:9:SER:HA	48:N4:52:THR:HG22	1.87	0.57
51:N7:81:LEU:HG	58:O4:90:ILE:HD13	1.87	0.57
56:O2:96:ILE:HB	56:O2:121:ASN:HD21	2.52	0.57
1:1:1433:A:N3	56:O2:27:ARG:NH1	2.52	0.57
72:S4:104:ASP:HB3	72:S4:106:LYS:H	1.68	0.57
23:D8:46:GLY:HA3	73:S5:166:ARG:HB2	1.87	0.57
78:SM:64:LYS:O	78:SM:65:THR:OG1	2.13	0.57
1:1:2356:A:OP1	41:M7:138:LYS:NZ	2.35	0.57
1:1:3214:U:H6	31:L6:166:LYS:NZ	2.03	0.57
1:1:546:C:H5'	1:1:547:G:H2'	1.86	0.57
2:2:1600:A:H4'	2:2:1601:G:OP1	2.04	0.57
2:6:1087:A:H2'	2:6:1088:A:C8	2.39	0.57
15:D0:51:VAL:HG13	15:D0:94:GLU:HB2	1.85	0.57
2:6:783:G:OP2	19:D4:14:SER:OG	418.99	0.57
29:L4:209:TYR:O	29:L4:230:VAL:HG22	2.35	0.57
29:L4:329:PRO:C	29:L4:331:ALA:H	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:L4:79:GLY:O	29:L4:85:SER:HB3	3.42	0.57
32:L7:228:SER:O	32:L7:229:PHE:HB3	4.00	0.57
37:M3:144:THR:HG21	59:O5:118:ILE:HG21	1.85	0.57
43:M9:175:GLN:O	43:M9:179:GLU:N	2.37	0.57
1:5:225:C:H5'	50:N6:34:PRO:HD3	61.05	0.57
50:N6:37:LYS:H	50:N6:37:LYS:HE2	2.11	0.57
27:L2:83:HIS:HB3	67:Q3:64:VAL:HG13	1.87	0.57
70:S2:88:LYS:HD2	70:S2:95:ARG:NH2	10.36	0.57
71:S3:116:ARG:HD2	78:SM:111:GLY:HA3	3.72	0.57
1:1:1581:C:H4'	1:1:1582:C:C4'	2.34	0.57
1:1:1621:A:H2'	1:1:1622:U:C6	2.39	0.57
1:1:1945:A:H2'	1:1:1946:A:C8	2.40	0.57
4:4:103:G:OP2	4:4:105:A:O2'	2.21	0.57
1:5:1138:U:H2'	1:5:1139:G:C8	2.40	0.57
1:5:1591:G:OP1	58:O4:37:LYS:NZ	162.28	0.57
1:5:1556:C:P	1:5:2169:G:N2	2.78	0.57
1:5:2401:A:H2'	1:5:2401:A:N3	2.18	0.57
1:5:613:G:H2'	1:5:614:C:C6	2.40	0.57
1:5:613:G:H2'	1:5:614:C:H6	1.69	0.57
11:C6:129:PHE:CE1	15:D0:78:THR:HA	2.39	0.57
13:C8:63:GLN:HA	13:C8:66:LEU:HD12	1.86	0.57
17:D2:86:ILE:HD12	17:D2:87:GLU:N	2.20	0.57
27:L2:30:ARG:NH2	27:L2:33:ASP:OD1	3.14	0.57
28:L3:10:ARG:NH1	28:L3:11:HIS:O	2.37	0.57
28:L3:56:ILE:HG12	28:L3:323:MET:HE1	2.30	0.57
29:L4:330:TYR:HB2	32:L7:45:LEU:HD22	5.20	0.57
30:L5:40:HIS:CD2	30:L5:42:ALA:H	4.25	0.57
30:L5:40:HIS:HE1	30:L5:42:ALA:HB3	1.69	0.57
32:L7:214:TRP:CE2	32:L7:219:LYS:HD2	2.39	0.57
41:M7:131:ARG:HH11	41:M7:131:ARG:HG3	1.93	0.57
41:M7:50:GLN:OE1	41:M7:56:ARG:NH2	2.35	0.57
46:N2:17:VAL:HB	46:N2:63:VAL:HG23	4.25	0.57
51:N7:22:LYS:HE2	51:N7:129:TRP:CH2	3.48	0.57
51:N7:89:VAL:HA	51:N7:92:PHE:CE2	2.40	0.57
52:N8:125:VAL:HG21	52:N8:138:ILE:HD13	1.87	0.57
37:M3:170:LEU:HB3	60:O6:9:ILE:HD11	1.87	0.57
67:Q3:32:GLN:HG2	67:Q3:70:THR:HB	1.86	0.57
75:S7:12:ALA:HB3	75:S7:13:PRO:HD3	1.85	0.57
75:S7:74:GLN:HG2	75:S7:131:PHE:CD2	3.61	0.57
1:1:1724:U:H1'	1:1:1725:C:C6	2.40	0.57
1:1:2213:A:H2'	1:1:2214:A:C8	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2228:A:H2'	1:1:2229:A:C8	2.39	0.57
1:1:3258:U:O2'	1:1:3260:G:OP1	2.13	0.57
1:1:3354:U:H5''	1:1:3355:U:O5'	2.04	0.57
1:5:1767:C:H2'	1:5:1768:U:O4'	2.04	0.57
1:5:2403:G:N7	1:5:2870:C:H4'	2.20	0.57
2:6:17:C:H2'	2:6:18:C:C6	2.40	0.57
12:C7:101:ASN:HA	12:C7:120:SER:CB	4.03	0.57
2:2:1132:A:OP1	18:D3:30:LYS:HE2	2.05	0.57
29:L4:104:LYS:HD2	29:L4:106:TRP:CZ2	2.39	0.57
31:L6:174:LEU:HB3	38:M4:117:ARG:NH2	2.20	0.57
31:L6:18:LEU:HD12	31:L6:18:LEU:H	4.10	0.57
32:L7:150:LYS:HG2	32:L7:151:ARG:HG2	1.86	0.57
34:L9:163:GLN:O	34:L9:166:ARG:HG3	3.85	0.57
41:M7:176:ILE:HG22	41:M7:180:LYS:HE2	2.58	0.57
51:N7:24:VAL:HG21	51:N7:87:LEU:HD23	2.47	0.57
51:N7:83:THR:HG23	51:N7:85:TYR:N	2.20	0.57
57:O3:49:ILE:HD11	57:O3:71:VAL:HG22	2.20	0.57
68:S0:4:PRO:HB2	68:S0:6:THR:HG23	8.19	0.57
75:S7:168:SER:O	75:S7:172:VAL:HG23	2.33	0.57
79:SR:42:LEU:HD21	79:SR:82:SER:HB3	1.85	0.57
1:1:706:A:H4'	1:1:781:G:O2'	2.04	0.57
2:2:717:C:H2'	2:2:718:U:H5''	1.87	0.57
2:2:768:C:H1'	77:S9:143:ILE:HG21	1.84	0.57
4:4:124:G:H3'	4:4:125:U:C5'	2.35	0.57
1:5:867:G:C6	1:5:868:C:C4	2.92	0.57
2:6:1535:U:H1'	2:6:1536:G:N1	2.19	0.57
2:6:591:A:H2'	2:6:592:A:H8	1.67	0.57
9:C4:89:THR:O	9:C4:128:LYS:HE2	2.05	0.57
14:C9:118:PRO:HD2	14:C9:123:ARG:NH2	2.19	0.57
2:6:523:G:H5'	19:D4:60:PHE:O	415.20	0.57
21:D6:38:ARG:HG2	21:D6:82:ARG:NE	2.18	0.57
29:L4:289:ILE:O	29:L4:295:ILE:HD12	2.04	0.57
30:L5:108:ARG:CZ	30:L5:253:PHE:HB2	2.34	0.57
31:L6:53:VAL:H	31:L6:67:GLY:HA2	3.90	0.57
35:M0:86:HIS:O	35:M0:138:VAL:HA	2.41	0.57
37:M3:119:TYR:O	37:M3:123:ILE:HG23	2.53	0.57
37:M3:93:ILE:HG22	37:M3:94:GLY:H	4.47	0.57
1:5:2609:A:H1'	39:M5:87:GLN:NE2	170.53	0.57
1:1:3182:G:OP1	40:M6:160:ARG:NH2	2.38	0.57
41:M7:67:ILE:HD12	41:M7:82:ARG:CZ	3.08	0.57
49:N5:38:LEU:HD11	49:N5:40:LEU:HD13	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2553:U:H5	54:O0:54:SER:HG	1.52	0.57
56:O2:122:PRO:O	56:O2:123:LYS:HB2	2.03	0.57
1:5:1821:U:C2	58:O4:67:LYS:HB2	170.45	0.57
67:Q3:38:ASP:HA	67:Q3:45:LYS:HA	1.85	0.57
68:S0:140:ASN:OD1	70:S2:62:PRO:HD3	2.04	0.57
20:D5:59:TYR:CD1	73:S5:120:ILE:HG23	2.40	0.57
78:SM:99:LYS:O	78:SM:100:THR:HG22	2.05	0.57
1:1:1080:A:OP2	30:L5:140:ARG:NH2	2.38	0.57
1:1:1776:G:N7	81:1:3887:8UZ:O9	2.38	0.57
1:1:2532:U:H3	1:1:2547:A:H61	1.53	0.57
1:1:3169:U:O2'	1:1:3170:A:OP1	2.21	0.57
1:1:838:G:O6	67:Q3:4:ARG:NH2	2.37	0.57
2:2:5:U:O2'	2:2:553:G:O3'	2.22	0.57
3:3:10:C:O2'	83:3:305:HOH:O	2.07	0.57
4:4:59:A:OP1	4:4:98:U:O2'	2.16	0.57
1:5:2777:G:H5'	1:5:2778:G:OP1	2.04	0.57
1:5:2942:C:OP1	83:5:3934:HOH:O	2.17	0.57
2:6:1065:A:O2'	69:S1:146:GLN:NE2	342.05	0.57
2:6:1795:U:O2	21:D6:10:ARG:NE	329.80	0.57
3:7:92:A:C5	3:7:93:C:H1'	2.39	0.57
2:2:975:C:H5''	8:C3:109:LYS:HE2	1.85	0.57
10:C5:100:LYS:HD2	10:C5:101:ALA:H	1.68	0.57
10:C5:25:LEU:HA	10:C5:28:MET:HE2	2.53	0.57
2:6:1555:A:OP2	10:C5:47:ARG:NH2	403.37	0.57
28:L3:293:ASN:HB2	28:L3:304:THR:HA	2.18	0.57
29:L4:203:ARG:HH21	29:L4:240:PRO:HB3	1.70	0.57
31:L6:56:LYS:NZ	31:L6:98:VAL:O	2.37	0.57
34:L9:109:ALA:HB1	34:L9:111:PHE:CE2	2.40	0.57
44:N0:7:TYR:CD1	44:N0:61:ILE:HD11	2.39	0.57
45:N1:101:CYS:SG	45:N1:102:ARG:N	3.14	0.57
1:5:13:A:H4'	49:N5:39:LYS:HG3	123.38	0.57
55:O1:52:ALA:O	55:O1:55:LEU:N	2.38	0.57
56:O2:103:LYS:O	56:O2:106:VAL:HG22	4.37	0.57
60:O6:21:THR:O	60:O6:21:THR:OG1	2.23	0.57
68:S0:41:ARG:HD2	68:S0:42:PRO:O	2.04	0.57
73:S5:57:SER:C	73:S5:59:VAL:H	2.08	0.57
2:2:761:G:OP1	77:S9:54:ARG:NH1	2.37	0.57
1:1:2796:G:H4'	1:1:2798:C:C6	2.40	0.57
1:1:75:G:H5''	37:M3:58:VAL:HG13	1.86	0.57
2:2:1175:U:H2'	2:2:1176:G:C8	2.40	0.57
2:2:1261:G:H2'	2:2:1262:U:C6	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:1409:G:N1	2:2:1412:G:OP2	2.36	0.57
2:2:1565:C:OP1	13:C8:41:ARG:HG3	2.05	0.57
1:5:1940:G:H21	1:5:3362:A:H8	1.51	0.57
1:5:2987:A:O2'	28:L3:259:HIS:HB3	215.47	0.57
1:5:929:A:C2	1:5:930:U:C2	2.93	0.57
2:6:742:U:H3'	2:6:744:U:OP2	2.04	0.57
4:8:37:A:H5''	4:8:39:G:O4'	2.04	0.57
12:C7:26:LEU:HD22	12:C7:59:LYS:HA	1.86	0.57
13:C8:41:ARG:NE	14:C9:46:PRO:HD3	2.18	0.57
16:D1:32:VAL:HB	16:D1:60:ARG:HD3	1.86	0.57
29:L4:181:VAL:O	29:L4:182:LEU:HB3	2.04	0.57
30:L5:55:PHE:HE2	30:L5:159:VAL:HG23	1.70	0.57
31:L6:41:ILE:HG21	31:L6:163:PHE:CD1	2.40	0.57
34:L9:57:VAL:HG23	34:L9:68:LEU:HG	2.47	0.57
35:M0:34:TYR:HD2	35:M0:89:VAL:HB	2.33	0.57
36:M1:10:ARG:HD3	36:M1:10:ARG:O	2.04	0.57
39:M5:135:VAL:HG13	39:M5:142:ILE:HG12	1.87	0.57
51:N7:99:GLU:OE2	51:N7:102:GLU:HB3	2.05	0.57
54:O0:78:GLY:HA2	54:O0:81:VAL:HG22	2.74	0.57
57:O3:2:ALA:O	57:O3:5:HIS:NE2	2.91	0.57
70:S2:175:GLY:HA3	77:S9:53:ARG:NH2	2.20	0.57
71:S3:150:MET:HE1	78:SM:110:TRP:HB3	1.87	0.57
78:SM:50:ASN:HB2	78:SM:51:ARG:O	5.55	0.57
1:1:1320:C:O2	44:N0:115:ARG:NH2	2.38	0.57
1:1:881:C:H1'	1:1:1850:A:C8	2.40	0.57
1:1:723:U:H2'	1:1:724:U:H6	1.70	0.57
2:2:1520:U:OP2	14:C9:75:LYS:NZ	2.38	0.57
2:2:464:A:OP2	81:2:2030:8UZ:N4	2.38	0.57
2:2:765:G:C6	77:S9:149:ARG:HB3	2.39	0.57
1:5:1672:U:OP1	43:M9:64:ARG:NE	177.40	0.57
1:5:210:U:C6	29:L4:217:LYS:HG2	67.30	0.57
1:5:2801:A:O2'	1:5:2802:A:H2'	2.04	0.57
1:5:83:U:H2'	1:5:84:U:O4'	2.05	0.57
1:5:921:A:N6	1:5:1846:C:OP2	2.38	0.57
2:6:1534:G:OP2	20:D5:74:SER:OG	343.45	0.57
2:6:1535:U:H1'	2:6:1536:G:C2	2.39	0.57
2:6:485:A:C2	2:6:486:G:H1'	2.40	0.57
2:6:912:U:H4'	2:6:913:G:H5'	1.87	0.57
2:6:926:A:H2	9:C4:125:SER:HB3	280.63	0.57
2:6:1795:U:O2'	21:D6:84:VAL:HG11	335.59	0.57
28:L3:114:VAL:HG22	28:L3:163:HIS:CE1	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:L7:83:LEU:HD22	32:L7:84:VAL:H	1.68	0.57
33:L8:33:ASN:O	33:L8:39:ALA:HB3	2.05	0.57
33:L8:41:GLN:HG3	33:L8:44:ARG:NH1	2.29	0.57
34:L9:126:VAL:HG21	34:L9:161:LEU:HA	2.35	0.57
41:M7:179:GLN:O	41:M7:182:ILE:HG22	2.04	0.57
38:M4:55:ARG:HD3	44:N0:70:THR:HB	2.23	0.57
72:S4:35:PRO:HB2	72:S4:36:HIS:CD2	2.40	0.57
11:C6:53:LEU:HD22	73:S5:37:GLN:HG3	3.29	0.57
79:SR:133:VAL:HB	79:SR:142:ALA:HB3	1.87	0.57
1:1:1554:U:H4'	1:1:1555:U:OP1	2.05	0.56
1:1:1874:A:H5''	43:M9:18:GLY:HA3	1.86	0.56
2:2:1068:C:H2'	2:2:1069:A:C8	2.39	0.56
2:2:1150:G:H2'	2:2:1768:G:N2	2.20	0.56
1:5:3216:G:OP2	57:O3:2:ALA:HB2	262.69	0.56
2:6:1544:U:OP1	13:C8:136:GLN:NE2	355.69	0.56
2:6:486:G:H4'	2:6:486:G:OP1	2.03	0.56
10:C5:33:PHE:CE1	10:C5:112:LEU:HD13	2.40	0.56
2:2:1597:A:C8	24:D9:14:TYR:HD2	2.24	0.56
27:L2:113:VAL:HG12	27:L2:134:VAL:HG13	4.08	0.56
28:L3:240:ARG:HA	28:L3:246:LEU:HD23	2.24	0.56
30:L5:204:VAL:O	30:L5:208:MET:HG3	2.05	0.56
35:M0:171:TRP:CE3	35:M0:178:ARG:HB3	3.89	0.56
3:3:39:C:O2'	36:M1:44:THR:O	2.12	0.56
39:M5:182:ASN:O	39:M5:183:THR:HG22	4.18	0.56
1:1:3043:C:P	47:N3:48:ARG:HH22	2.28	0.56
58:O4:7:PHE:HD1	58:O4:20:ILE:HD12	4.28	0.56
1:5:1588:A:C2	63:O9:4:GLN:HG2	128.42	0.56
69:S1:130:SER:OG	69:S1:131:ASP:N	2.38	0.56
69:S1:131:ASP:HB3	69:S1:180:THR:OG1	2.05	0.56
71:S3:101:GLN:HG3	71:S3:126:VAL:HG21	1.87	0.56
76:S8:48:THR:HG21	76:S8:54:LYS:HE3	1.87	0.56
76:S8:34:ALA:HB2	76:S8:56:ARG:HD3	3.05	0.56
1:1:288:C:OP1	39:M5:170:LYS:NZ	2.25	0.56
1:1:718:G:C2	1:1:721:G:H1'	2.40	0.56
2:2:1160:A:H2'	2:2:1161:C:H6	1.70	0.56
2:2:1167:G:H2'	2:2:1168:U:C6	2.40	0.56
2:2:520:A:H2'	2:2:521:A:C8	2.41	0.56
1:5:1340:G:H2'	1:5:1341:U:H6	1.69	0.56
1:5:1841:A:C5	1:5:1848:G:C2	2.93	0.56
1:5:748:U:H2'	1:5:749:C:C6	2.40	0.56
2:6:1220:C:H5'	5:C0:52:LYS:HE2	442.25	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:L3:152:LYS:HG2	28:L3:192:VAL:HG11	1.86	0.56
29:L4:170:LYS:HE2	29:L4:175:HIS:ND1	2.20	0.56
32:L7:84:VAL:HG12	32:L7:117:VAL:HB	1.86	0.56
32:L7:229:PHE:CD1	32:L7:229:PHE:C	2.90	0.56
37:M3:177:LYS:HG3	60:O6:11:LEU:HD13	2.09	0.56
39:M5:38:ARG:NH2	39:M5:60:VAL:HG13	2.19	0.56
40:M6:85:ARG:HD3	40:M6:90:HIS:CE1	3.66	0.56
41:M7:157:VAL:HG13	41:M7:158:ALA:O	4.16	0.56
43:M9:115:ILE:HG22	43:M9:146:LYS:HE3	9.53	0.56
51:N7:75:VAL:HG12	51:N7:76:ASN:O	2.05	0.56
53:N9:16:ALA:HB1	53:N9:21:ILE:HD11	1.87	0.56
62:O8:31:LEU:HA	62:O8:37:PRO:HA	1.86	0.56
67:Q3:49:ARG:HD3	67:Q3:52:ALA:HA	2.65	0.56
68:S0:4:PRO:HD2	68:S0:7:PHE:CD1	8.31	0.56
1:1:2303:A:N7	83:1:4035:HOH:O	2.33	0.56
1:1:688:G:O5'	1:1:688:G:H8	1.88	0.56
2:2:1291:G:H8	2:2:1291:G:O5'	1.87	0.56
2:2:1435:G:H4'	2:2:1436:A:H5'	1.87	0.56
2:2:1791:A:N7	21:D6:34:LYS:NZ	2.51	0.56
2:2:498:G:O2'	2:2:499:U:O5'	2.17	0.56
1:5:1580:A:H2'	1:5:1581:C:H4'	1.86	0.56
2:6:1611:A:OP1	73:S5:107:LYS:NZ	380.49	0.56
2:6:896:U:C4	2:6:897:C:N4	2.73	0.56
11:C6:37:THR:O	11:C6:45:ARG:NH1	3.03	0.56
12:C7:109:LEU:HD21	68:S0:50:VAL:HG23	2.23	0.56
12:C7:29:GLN:O	12:C7:32:LYS:HB3	2.06	0.56
27:L2:27:ALA:O	27:L2:128:ARG:NH2	2.56	0.56
27:L2:4:VAL:HG12	27:L2:9:ARG:HG2	1.87	0.56
29:L4:188:ARG:NH2	29:L4:197:ARG:HB3	2.19	0.56
30:L5:85:ARG:NH1	30:L5:86:TYR:OH	2.38	0.56
32:L7:118:LYS:HG3	32:L7:191:VAL:HG11	1.87	0.56
1:5:2899:C:C5	34:L9:171:ASP:HA	321.51	0.56
1:1:685:G:P	37:M3:35:ARG:HH11	2.28	0.56
39:M5:113:LEU:HD12	39:M5:134:LEU:HD22	5.07	0.56
39:M5:154:PRO:HB3	39:M5:157:LYS:HE3	4.54	0.56
39:M5:18:VAL:O	39:M5:22:LEU:HD22	2.06	0.56
46:N2:33:TYR:HE2	46:N2:63:VAL:HG21	2.15	0.56
50:N6:47:ALA:O	50:N6:122:LYS:NZ	2.38	0.56
1:5:1857:C:H1'	58:O4:5:VAL:O	153.03	0.56
70:S2:144:TRP:HH2	77:S9:61:THR:HG22	1.74	0.56
2:2:1424:A:O4'	70:S2:92:ALA:HB1	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:D5:59:TYR:HD1	73:S5:120:ILE:HG23	1.70	0.56
1:1:3319:U:H3'	1:1:3320:A:C5'	2.36	0.56
2:2:1164:G:H2'	2:2:1165:G:H8	1.70	0.56
2:2:523:G:H5''	19:D4:59:GLY:O	2.04	0.56
1:5:2228:A:H2'	1:5:2229:A:C8	2.40	0.56
7:C2:97:LEU:HD12	7:C2:119:SER:H	2.65	0.56
9:C4:87:GLY:HA3	9:C4:120:PRO:HG2	1.87	0.56
9:C4:29:HIS:CB	9:C4:41:ARG:HA	2.35	0.56
19:D4:42:GLU:HG3	19:D4:52:LYS:HD2	4.43	0.56
28:L3:221:THR:HG22	28:L3:273:HIS:N	4.35	0.56
51:N7:25:ILE:HG23	51:N7:41:ALA:HB1	1.87	0.56
31:L6:85:ILE:HA	57:O3:107:ILE:CG2	4.12	0.56
60:O6:60:LEU:HD12	60:O6:69:ALA:HA	1.88	0.56
72:S4:49:ARG:HG3	72:S4:50:ASN:N	3.57	0.56
73:S5:137:ILE:HD13	73:S5:175:LEU:HD12	1.87	0.56
2:6:1461:C:H1'	78:SM:76:VAL:HG11	325.93	0.56
1:1:1334:U:H5'	32:L7:207:LEU:O	2.05	0.56
1:1:2425:G:OP2	39:M5:90:ASN:ND2	2.37	0.56
1:1:2664:C:O2'	1:1:2665:U:H5'	2.05	0.56
1:1:439:C:H3'	1:1:440:A:O4'	2.05	0.56
1:1:829:U:N3	1:1:895:A:N6	2.53	0.56
2:2:1584:G:N2	2:2:1611:A:OP2	2.35	0.56
1:5:2129:U:H2'	1:5:2130:G:C8	2.40	0.56
1:5:2284:C:N4	1:5:2308:C:OP2	2.39	0.56
2:6:1449:U:H2'	2:6:1450:U:C6	2.40	0.56
2:6:1776:A:H2'	2:6:1777:G:C8	2.41	0.56
2:6:780:A:H4'	2:6:781:U:C5'	2.19	0.56
2:6:872:G:H2'	2:6:873:U:O4'	2.04	0.56
14:C9:49:ASP:O	14:C9:53:TRP:HB3	4.84	0.56
1:1:2147:A:H5''	27:L2:198:LYS:O	2.05	0.56
29:L4:35:VAL:HG11	29:L4:244:LEU:HD21	2.86	0.56
36:M1:52:TYR:HA	36:M1:61:ARG:HG3	1.88	0.56
37:M3:42:ARG:O	37:M3:46:ILE:HB	2.06	0.56
39:M5:65:ARG:HG2	39:M5:129:TYR:CE1	2.50	0.56
43:M9:41:ILE:O	43:M9:45:VAL:HG23	2.06	0.56
48:N4:18:GLY:HA3	48:N4:31:PHE:O	2.41	0.56
48:N4:46:PRO:HB2	48:N4:54:LEU:HD23	3.24	0.56
50:N6:54:ASP:O	50:N6:69:LYS:HA	2.47	0.56
51:N7:129:TRP:O	51:N7:132:SER:N	3.08	0.56
51:N7:46:ILE:HD11	51:N7:49:TYR:CD2	3.49	0.56
56:O2:100:ILE:O	56:O2:105:ARG:NH1	2.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:S1:173:THR:O	69:S1:177:GLN:HB2	5.99	0.56
71:S3:32:GLU:HG3	71:S3:57:ASP:HB2	1.88	0.56
76:S8:117:TYR:CD1	76:S8:150:ALA:HB2	2.40	0.56
1:1:1110:U:OP1	42:M8:164:ARG:NH2	2.24	0.56
1:1:1724:U:H4'	1:1:1725:C:OP1	2.06	0.56
2:2:79:C:H1'	74:S6:174:LYS:HD3	1.87	0.56
4:4:97:A:OP1	59:O5:63:ARG:NH2	2.28	0.56
1:5:1686:U:O2	1:5:1688:U:H1'	2.06	0.56
1:5:1657:C:N4	1:5:1798:A:OP2	2.34	0.56
1:5:3278:C:O2	1:5:3278:C:H2'	2.06	0.56
2:6:1304:G:H5'	2:6:1322:A:OP2	2.06	0.56
2:6:513:U:H2'	2:6:514:G:C8	2.40	0.56
10:C5:85:ILE:HG22	10:C5:112:LEU:HD23	2.19	0.56
13:C8:127:HIS:CE1	13:C8:133:VAL:HG21	2.93	0.56
16:D1:41:GLU:H	16:D1:41:GLU:CD	2.09	0.56
28:L3:2:SER:O	28:L3:3:HIS:HB3	2.06	0.56
29:L4:186:LYS:HB2	29:L4:200:THR:HG22	1.87	0.56
30:L5:160:PHE:CD2	30:L5:179:ARG:HB3	2.41	0.56
34:L9:137:SER:HB2	34:L9:143:GLU:CB	3.21	0.56
59:O5:64:GLU:HG3	59:O5:67:ARG:HE	1.69	0.56
12:C7:20:TYR:CZ	71:S3:211:PRO:HB3	2.40	0.56
74:S6:48:TYR:CZ	74:S6:121:LEU:HD22	5.26	0.56
1:1:1019:G:H2'	1:1:1020:G:H5''	1.87	0.56
1:1:1793:C:O2	27:L2:174:ARG:NH1	2.38	0.56
1:1:427:C:OP2	56:O2:15:LYS:NZ	2.33	0.56
2:2:130:C:H2'	2:2:131:C:H5'	1.87	0.56
2:2:1498:G:H5''	14:C9:72:GLY:HA3	1.88	0.56
2:2:329:G:H2'	2:2:330:G:C8	2.41	0.56
3:3:94:C:OP1	81:3:214:8UZ:N2	2.39	0.56
1:5:1746:U:H2'	1:5:1747:G:H8	1.71	0.56
1:5:590:G:C2	1:5:610:G:H2'	2.41	0.56
1:5:595:G:C8	1:5:609:G:C6	2.93	0.56
7:C2:71:ILE:O	7:C2:75:VAL:HG23	2.06	0.56
19:D4:122:GLY:O	19:D4:124:ARG:N	3.55	0.56
23:D8:44:VAL:HA	73:S5:161:ASP:O	2.27	0.56
29:L4:180:LYS:NZ	29:L4:203:ARG:O	2.39	0.56
34:L9:166:ARG:HD2	34:L9:168:ARG:NH1	13.06	0.56
63:O9:44:TRP:CZ3	63:O9:45:ARG:HG3	2.41	0.56
27:L2:112:ILE:HG12	67:Q3:79:VAL:HG22	4.27	0.56
71:S3:99:VAL:HG13	71:S3:173:ARG:NH2	2.34	0.56
73:S5:117:THR:HG21	73:S5:194:LEU:HD12	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1572:U:H2'	1:1:1573:G:C8	2.40	0.56
1:1:1700:G:H2'	1:1:1701:C:C6	2.40	0.56
1:5:2132:C:OP1	83:5:3999:HOH:O	2.18	0.56
1:5:2736:A:O2'	45:N1:68:THR:HG21	220.76	0.56
1:5:495:G:N2	1:5:619:A:H1'	2.21	0.56
2:6:322:G:O2'	76:S8:10:LYS:NZ	282.80	0.56
4:8:37:A:C8	4:8:39:G:N2	2.74	0.56
5:C0:59:PHE:CZ	5:C0:62:GLN:HA	2.40	0.56
8:C3:26:PHE:O	8:C3:28:LEU:HD13	8.31	0.56
11:C6:125:GLU:HG2	11:C6:126:PRO:HD2	1.87	0.56
12:C7:71:PHE:CD1	12:C7:73:LEU:HB3	2.41	0.56
10:C5:125:PRO:HB3	13:C8:129:TRP:CZ3	2.42	0.56
19:D4:51:GLU:O	19:D4:53:ASP:N	4.03	0.56
27:L2:27:ALA:HA	27:L2:75:ILE:HG22	1.88	0.56
28:L3:187:SER:O	28:L3:190:GLU:N	2.39	0.56
1:5:339:C:OP2	29:L4:197:ARG:NH2	104.46	0.56
30:L5:122:VAL:O	30:L5:248:ARG:NH2	2.37	0.56
32:L7:222:HIS:ND1	32:L7:224:ILE:HG13	2.20	0.56
35:M0:51:HIS:ND1	35:M0:137:SER:OG	2.35	0.56
1:1:686:G:OP2	37:M3:39:ARG:NH2	2.39	0.56
38:M4:21:VAL:HG13	38:M4:63:VAL:HG13	4.18	0.56
57:O3:50:ALA:HB2	57:O3:68:TRP:CZ3	2.41	0.56
67:Q3:56:THR:HG22	67:Q3:63:THR:HG23	1.87	0.56
71:S3:135:GLU:HB3	71:S3:187:LYS:HB3	2.72	0.56
75:S7:14:THR:OG1	75:S7:15:GLU:N	2.71	0.56
13:C8:145:ARG:HB3	78:SM:68:ARG:HH12	3.13	0.56
12:C7:63:LYS:HE2	79:SR:284:ALA:HB2	1.86	0.56
1:1:1639:C:N4	58:O4:73:SER:HB2	2.21	0.56
1:1:1863:G:N1	1:1:1866:C:OP2	2.34	0.56
2:2:167:U:H1'	74:S6:133:LEU:HD23	1.86	0.56
2:2:181:A:H2'	2:2:182:A:C8	2.40	0.56
1:5:1322:U:OP1	44:N0:117:ARG:NH2	278.30	0.56
1:5:1556:C:OP1	1:5:2169:G:N2	2.37	0.56
1:5:2211:U:H2'	1:5:2212:C:O4'	2.06	0.56
1:5:3228:C:H4'	1:5:3229:G:O5'	2.06	0.56
1:5:726:G:H1'	1:5:744:A:N6	2.21	0.56
1:5:748:U:H2'	1:5:749:C:H6	1.71	0.56
2:6:490:C:O2'	2:6:491:C:OP1	2.22	0.56
2:6:886:U:H2'	2:6:887:A:C8	2.41	0.56
12:C7:104:ASN:C	12:C7:106:THR:H	2.97	0.56
13:C8:100:THR:HB	13:C8:105:VAL:HG23	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C8:49:LYS:NZ	13:C8:80:LYS:O	2.39	0.56
35:M0:53:VAL:HG21	35:M0:166:ILE:HD12	1.86	0.56
38:M4:15:VAL:HG12	38:M4:38:ILE:HD11	2.85	0.56
45:N1:52:MET:HG3	45:N1:95:HIS:CE1	2.44	0.56
47:N3:79:VAL:HB	47:N3:118:VAL:HG22	1.87	0.56
55:O1:41:LYS:O	55:O1:45:GLY:HA2	2.59	0.56
1:1:3276:G:H1	57:O3:60:ARG:HH12	1.53	0.56
1:5:1738:C:O2'	58:O4:52:GLN:HG3	196.33	0.56
1:1:2303:A:P	65:Q1:23:ARG:HH22	2.28	0.56
68:S0:8:ASP:O	68:S0:54:TRP:NE1	2.38	0.56
1:1:2947:G:N2	1:1:2948:C:C2	2.74	0.56
1:1:3058:U:OP1	55:O1:28:ARG:NH2	2.39	0.56
1:1:562:C:H2'	1:1:563:U:H6	1.69	0.56
1:1:683:U:H2'	1:1:684:G:O4'	2.05	0.56
1:1:718:G:N2	1:1:721:G:O2'	2.39	0.56
2:2:1234:A:O2'	26:E1:146:SER:HB3	2.06	0.56
2:2:1762:A:O2'	2:2:1763:A:H5'	2.06	0.56
2:2:333:A:C6	2:2:334:G:C6	2.94	0.56
2:2:733:A:H4'	2:2:734:A:C5	2.41	0.56
1:5:2268:U:H6	1:5:2268:U:H5''	1.71	0.56
1:5:3165:A:H61	1:5:3285:C:H42	1.52	0.56
2:6:1358:G:H2'	2:6:1359:C:C6	2.41	0.56
6:C1:44:THR:OG1	6:C1:44:THR:O	2.24	0.56
10:C5:17:TYR:O	10:C5:19:GLY:N	2.36	0.56
28:L3:113:GLU:HB3	28:L3:176:ALA:HB2	2.18	0.56
29:L4:74:ILE:HG21	29:L4:93:MET:CE	2.36	0.56
39:M5:184:LYS:O	39:M5:184:LYS:HG2	3.09	0.56
16:D1:87:ARG:HH21	68:S0:35:PRO:HG3	1.70	0.56
68:S0:84:ARG:HB3	68:S0:203:PHE:O	2.15	0.56
75:S7:24:PHE:CE1	75:S7:77:LEU:HD11	3.01	0.56
1:1:1210:U:H2'	1:1:1211:U:H6	1.70	0.56
1:1:276:U:O2'	39:M5:91:GLU:HG2	2.05	0.56
1:1:400:G:H4'	1:1:401:U:H5''	1.88	0.56
1:1:656:A:H2'	1:1:657:A:C8	2.41	0.56
2:2:1586:A:C2	2:2:1587:A:H1'	2.41	0.56
1:5:2433:U:O4	81:5:3855:8UZ:N2	2.38	0.56
1:5:691:A:H5''	1:5:692:A:C8	2.41	0.56
2:6:1337:A:H4'	11:C6:123:ARG:NH1	415.28	0.56
2:6:1648:A:H2'	2:6:1649:G:H8	1.70	0.56
2:6:388:G:OP2	2:6:423:G:O2'	2.21	0.56
3:7:85:G:O3'	32:L7:218:ARG:NH2	255.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:C3:66:ILE:HG13	8:C3:67:THR:HG23	3.46	0.56
20:D5:54:VAL:HG11	20:D5:83:LEU:HD13	3.35	0.56
20:D5:92:ILE:HD13	20:D5:92:ILE:H	1.71	0.56
21:D6:4:LYS:HE2	21:D6:5:ARG:CZ	2.36	0.56
22:D7:31:TYR:HB3	22:D7:81:ARG:HH21	5.03	0.56
27:L2:112:ILE:HG12	27:L2:135:ILE:HG12	1.89	0.56
28:L3:296:THR:HG22	28:L3:298:PHE:N	2.18	0.56
29:L4:44:LYS:O	29:L4:47:ARG:HD3	2.28	0.56
29:L4:42:VAL:HA	29:L4:45:ASN:HD22	1.70	0.56
1:1:2557:A:H2	33:L8:38:GLN:HB2	1.71	0.56
1:5:2585:G:C8	33:L8:48:ARG:HA	176.32	0.56
34:L9:69:ARG:HD3	34:L9:72:LYS:HD3	2.51	0.56
1:1:77:A:H5'	37:M3:100:ARG:NH1	2.21	0.56
1:1:291:C:H5"	39:M5:68:ARG:HH12	1.69	0.56
83:1:4001:HOH:O	41:M7:131:ARG:HA	2.05	0.56
1:1:1472:U:H5'	43:M9:4:LEU:HB2	1.88	0.56
44:N0:10:ILE:HG12	44:N0:26:ARG:HB2	1.87	0.56
51:N7:48:ARG:H	51:N7:69:LYS:HB3	2.38	0.56
62:O8:66:ILE:HA	62:O8:69:LEU:HD23	1.88	0.56
68:S0:126:PRO:HA	68:S0:133:ILE:HD11	2.12	0.56
68:S0:29:VAL:O	68:S0:30:GLN:HB3	4.41	0.56
68:S0:90:ALA:HA	68:S0:95:ALA:HB3	1.87	0.56
69:S1:109:LYS:HG3	69:S1:113:MET:HE3	1.88	0.56
69:S1:190:PRO:O	69:S1:191:GLU:HG2	2.05	0.56
72:S4:185:GLY:HA3	72:S4:224:ASN:OD1	2.06	0.56
75:S7:63:PRO:HB2	75:S7:65:PRO:HD2	1.88	0.56
75:S7:71:HIS:CG	75:S7:131:PHE:HZ	2.24	0.56
76:S8:136:SER:OG	76:S8:137:LYS:N	2.39	0.56
1:1:156:G:OP2	60:O6:25:LYS:HB3	2.06	0.55
1:1:2185:G:O2'	1:1:2314:U:OP2	2.21	0.55
1:1:2205:U:H2'	1:1:2206:G:H4'	1.88	0.55
1:1:3047:U:H5'	28:L3:329:PRO:HA	1.87	0.55
1:1:3095:U:H2'	1:1:3096:C:H6	1.71	0.55
2:2:1058:U:O2'	2:2:1059:U:O2	2.25	0.55
2:2:629:U:C2	2:2:630:A:C8	2.95	0.55
2:2:926:A:H2	9:C4:125:SER:HB3	1.71	0.55
1:5:1596:C:H2'	1:5:1597:C:C6	2.41	0.55
1:5:1947:G:H1	1:5:2101:C:H42	1.54	0.55
1:5:2585:G:H8	33:L8:48:ARG:HG3	179.30	0.55
1:5:677:A:H8	1:5:785:G:C5	2.24	0.55
2:6:1219:A:N3	5:C0:51:SER:OG	430.43	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:6:201:G:H2'	2:6:202:A:H8	1.71	0.55
3:7:101:G:OP2	44:N0:52:LYS:NZ	276.71	0.55
9:C4:51:ASP:HA	9:C4:54:GLU:HG3	1.88	0.55
11:C6:42:GLU:O	11:C6:45:ARG:N	3.47	0.55
15:D0:18:GLN:O	15:D0:96:PRO:HB3	3.19	0.55
18:D3:87:VAL:HG22	18:D3:124:VAL:HG21	1.88	0.55
1:5:2988:C:O2	28:L3:266:ARG:NH1	209.22	0.55
1:1:976:U:OP1	42:M8:144:ARG:NH2	2.39	0.55
2:6:852:C:OP1	43:M9:172:ARG:HD3	328.09	0.55
44:N0:2:ALA:HB3	44:N0:32:SER:HB3	2.30	0.55
52:N8:47:LYS:HE2	52:N8:48:TYR:CE2	2.42	0.55
65:Q1:13:LEU:HD13	65:Q1:17:ARG:HH22	3.82	0.55
68:S0:148:ASP:OD1	68:S0:149:LEU:N	2.32	0.55
71:S3:22:ASN:OD1	71:S3:34:TYR:OH	2.21	0.55
75:S7:78:THR:HG22	75:S7:92:PHE:HE1	1.69	0.55
78:SM:100:THR:HG23	78:SM:101:ASP:H	1.70	0.55
71:S3:224:ASP:OD1	79:SR:228:LYS:HD2	2.11	0.55
1:1:2355:G:H4'	41:M7:139:TYR:CD2	2.42	0.55
1:1:2768:U:H2'	1:1:2769:A:C8	2.42	0.55
1:1:3242:G:H21	1:1:3245:A:H5''	1.71	0.55
1:1:2311:G:OP2	81:1:3893:8UZ:N	2.39	0.55
1:1:791:A:H2'	1:1:792:G:C8	2.41	0.55
2:2:138:A:OP2	2:2:1706:C:O2'	2.24	0.55
2:2:1413:U:H4'	2:2:1414:U:OP2	2.06	0.55
2:2:791:A:H2'	2:2:792:U:C6	2.41	0.55
1:5:2196:C:H2'	1:5:2242:A:H61	1.72	0.55
1:5:3112:G:O2'	34:L9:70:THR:HB	327.34	0.55
2:6:1182:U:O2	2:6:1184:A:H8	1.90	0.55
2:6:1657:U:H5''	2:6:1657:U:C6	2.41	0.55
2:6:93:A:C6	2:6:398:G:C6	2.95	0.55
2:6:616:G:C2	2:6:622:A:N7	2.74	0.55
15:D0:29:THR:HG23	71:S3:11:LEU:HD13	2.41	0.55
19:D4:105:ARG:HG2	19:D4:109:LYS:HE2	1.88	0.55
29:L4:39:PHE:CG	29:L4:242:ALA:HB2	2.42	0.55
30:L5:23:ARG:NH1	30:L5:23:ARG:O	4.52	0.55
30:L5:34:LYS:O	30:L5:38:THR:HG23	2.07	0.55
41:M7:22:LEU:HB3	41:M7:90:PHE:CE2	2.52	0.55
52:N8:139:ARG:HH11	52:N8:139:ARG:HB3	2.91	0.55
1:5:1712:G:O6	54:O0:28:LYS:NZ	235.83	0.55
62:O8:26:LYS:HE2	62:O8:27:ILE:O	2.05	0.55
68:S0:49:ASN:HB3	68:S0:52:LYS:HG3	1.86	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:S1:213:ARG:HG2	69:S1:214:LYS:HE3	1.88	0.55
2:2:1473:U:H5''	73:S5:190:ILE:HG13	1.89	0.55
75:S7:173:TYR:CE1	75:S7:181:ILE:HD11	3.11	0.55
77:S9:142:ASN:OD1	77:S9:143:ILE:HD12	2.68	0.55
1:1:1110:U:H2'	1:1:1111:U:C6	2.42	0.55
1:1:1393:A:N6	1:1:1417:G:H1'	2.21	0.55
1:1:1588:A:C4	63:O9:4:GLN:HG2	2.41	0.55
1:1:249:U:O2	1:1:250:U:N3	2.37	0.55
1:1:2771:U:H2'	1:1:2772:C:C2	2.41	0.55
1:1:2761:G:O6	1:1:2796:G:H5''	2.07	0.55
2:2:1714:A:H2'	2:2:1715:G:C8	2.41	0.55
2:2:888:U:H1'	9:C4:126:THR:HG21	1.89	0.55
4:4:4:C:H2'	4:4:5:U:H6	1.70	0.55
1:5:3281:U:H2'	1:5:3282:U:O4'	2.07	0.55
1:5:651:G:C6	1:5:652:G:C6	2.94	0.55
2:6:201:G:H2'	2:6:202:A:C8	2.42	0.55
2:6:513:U:H5'	77:S9:133:HIS:HE2	445.81	0.55
2:6:513:U:OP1	77:S9:133:HIS:NE2	448.10	0.55
4:8:91:C:H2'	4:8:92:A:C8	2.41	0.55
12:C7:35:CYS:HA	12:C7:38:ILE:HG22	1.87	0.55
22:D7:2:VAL:O	22:D7:3:LEU:HB2	2.15	0.55
31:L6:64:LEU:O	31:L6:65:ILE:HD13	4.81	0.55
1:1:2514:U:OP2	33:L8:68:ARG:NH1	2.36	0.55
51:N7:100:THR:O	51:N7:107:ARG:HG3	2.06	0.55
1:5:1460:A:H5'	55:O1:51:LEU:O	138.04	0.55
63:O9:27:ILE:HG23	63:O9:30:ARG:CZ	2.36	0.55
67:Q3:8:VAL:HB	67:Q3:11:THR:HG22	1.88	0.55
68:S0:60:ALA:O	68:S0:64:ILE:HG13	2.06	0.55
1:1:1094:U:O2	1:1:1096:U:H2'	2.07	0.55
1:1:2278:C:C2	1:1:2307:G:C2	2.95	0.55
1:1:2667:A:OP1	78:SM:31:SER:OG	2.12	0.55
1:1:2836:C:H6	35:M0:158:LYS:HZ3	1.52	0.55
1:1:2882:U:H2'	1:1:2883:U:H6	1.71	0.55
1:1:31:C:H4'	39:M5:96:ARG:HD3	1.88	0.55
2:2:873:U:O2'	2:2:1047:G:OP1	2.24	0.55
2:2:1615:C:H4'	2:2:1616:G:O5'	2.07	0.55
1:5:516:A:O3'	32:L7:60:ARG:NH2	299.95	0.55
2:6:484:C:H42	2:6:503:G:N2	2.05	0.55
5:C0:16:PHE:HD2	5:C0:76:LEU:HB2	1.71	0.55
8:C3:129:TYR:HB3	8:C3:134:VAL:HG22	2.16	0.55
2:6:960:U:H1'	8:C3:52:VAL:HG23	330.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:C6:113:ASP:CG	11:C6:115:THR:H	2.10	0.55
12:C7:7:LYS:HG3	12:C7:8:THR:H	1.70	0.55
18:D3:130:VAL:O	18:D3:131:SER:HB3	2.05	0.55
27:L2:65:ASP:HB3	27:L2:68:LYS:O	2.28	0.55
29:L4:126:ILE:HD11	29:L4:233:LEU:HD13	1.88	0.55
30:L5:34:LYS:HA	45:N1:27:LEU:HD11	1.88	0.55
31:L6:65:ILE:O	31:L6:76:LEU:HA	2.35	0.55
37:M3:89:TYR:CE1	37:M3:93:ILE:HD11	3.24	0.55
39:M5:172:ARG:O	39:M5:183:THR:OG1	2.18	0.55
40:M6:171:LYS:O	40:M6:175:THR:HG23	2.16	0.55
41:M7:30:ARG:NH1	41:M7:31:GLU:OE2	3.35	0.55
45:N1:57:TYR:CE2	45:N1:89:LEU:HD11	2.42	0.55
47:N3:31:ALA:HB2	47:N3:69:LEU:HD23	2.51	0.55
2:6:1341:A:OP1	79:SR:63:GLY:HA2	450.44	0.55
1:1:1463:U:OP2	83:1:4002:HOH:O	2.18	0.55
1:1:1651:U:H2'	1:1:1652:G:H8	1.72	0.55
2:2:1688:U:H2'	2:2:1689:A:C8	2.42	0.55
2:2:1795:U:O2	21:D6:10:ARG:HD2	2.06	0.55
2:2:74:U:H4'	2:2:75:U:OP1	2.07	0.55
2:6:138:A:H62	2:6:266:A:H61	1.54	0.55
2:6:1533:C:OP2	20:D5:77:ARG:NH1	352.96	0.55
2:6:861:U:H5''	2:6:862:A:OP2	2.07	0.55
2:6:886:U:H2'	2:6:887:A:H8	1.71	0.55
2:2:325:G:H4'	6:C1:83:THR:HG21	1.88	0.55
11:C6:95:LYS:HG2	11:C6:96:TYR:CE1	4.60	0.55
12:C7:13:SER:CB	12:C7:54:THR:HG22	2.36	0.55
15:D0:30:LYS:HD3	15:D0:33:GLN:NE2	4.94	0.55
2:2:435:C:OP2	18:D3:50:LYS:HE3	2.07	0.55
20:D5:58:ARG:HH21	20:D5:103:ARG:HH12	7.93	0.55
1:1:3048:A:H5'	28:L3:53:MET:HE3	1.87	0.55
29:L4:62:ALA:HB3	29:L4:90:PHE:HE2	1.71	0.55
1:1:2854:U:P	35:M0:3:ARG:HH22	2.28	0.55
37:M3:43:ALA:HB2	37:M3:51:LEU:HD11	3.04	0.55
1:1:277:G:H4'	39:M5:91:GLU:HB3	1.89	0.55
40:M6:62:THR:HG21	40:M6:68:ARG:HG3	1.87	0.55
41:M7:31:GLU:CG	41:M7:60:PHE:HA	3.08	0.55
47:N3:87:ARG:HH22	47:N3:137:VAL:CG2	2.18	0.55
47:N3:36:ILE:HG23	47:N3:58:VAL:HB	1.87	0.55
49:N5:72:ALA:HB1	49:N5:83:VAL:HG21	2.80	0.55
58:O4:21:LYS:HD2	58:O4:23:VAL:HG23	1.89	0.55
60:O6:58:ILE:HG12	60:O6:59:ASP:N	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:S2:43:ARG:CZ	70:S2:249:ALA:HB2	5.16	0.55
70:S2:53:ILE:HA	70:S2:56:ILE:HG13	1.87	0.55
2:6:1535:U:N3	73:S5:187:ILE:HG22	339.90	0.55
1:1:1566:A:N6	1:1:1572:U:H3	1.93	0.55
1:1:1631:C:H5''	1:1:1632:A:H5''	1.88	0.55
1:1:241:G:H5'	1:1:242:C:OP2	2.06	0.55
1:1:873:C:H5''	1:1:874:U:O5'	2.07	0.55
2:2:1427:A:OP2	78:SM:93:ARG:NH1	2.39	0.55
2:2:1201:G:H21	2:2:1600:A:H5''	1.72	0.55
2:2:570:A:H5''	2:2:571:G:OP2	2.06	0.55
2:2:577:G:H3'	2:2:577:G:H8	1.72	0.55
3:3:82:G:OP2	81:3:214:8UZ:N	2.40	0.55
3:3:58:C:H2'	3:3:59:U:C6	2.38	0.55
1:5:2111:G:C8	48:N4:49:ILE:HD13	227.48	0.55
1:5:2359:C:H2'	1:5:2360:C:C6	2.42	0.55
1:5:2737:C:H4'	45:N1:68:THR:OG1	218.76	0.55
2:6:1591:C:H2'	2:6:1592:A:H8	1.72	0.55
15:D0:118:VAL:HG22	15:D0:119:ALA:H	1.71	0.55
16:D1:74:GLN:NE2	16:D1:81:ASN:O	2.39	0.55
17:D2:41:MET:HG2	17:D2:129:VAL:HG21	2.24	0.55
19:D4:102:LYS:HD2	19:D4:102:LYS:H	1.72	0.55
28:L3:103:THR:HG21	28:L3:147:GLU:OE2	3.96	0.55
28:L3:173:GLN:O	28:L3:175:LYS:N	2.40	0.55
35:M0:170:LYS:HA	35:M0:177:ASP:HA	2.22	0.55
39:M5:112:ASN:ND2	39:M5:113:LEU:HD22	2.22	0.55
68:S0:124:THR:HG22	68:S0:174:TRP:NE1	2.22	0.55
71:S3:195:SER:HB2	71:S3:200:LYS:HA	2.26	0.55
72:S4:159:THR:HB	72:S4:227:VAL:HG23	1.88	0.55
1:1:1315:U:OP2	40:M6:44:SER:OG	2.22	0.55
1:1:1574:C:H2'	1:1:1575:A:H5''	1.88	0.55
1:1:831:G:O2'	1:1:1864:A:N3	2.35	0.55
1:1:2535:A:H61	1:1:2544:U:H3	1.53	0.55
1:1:2696:A:H2'	1:1:2697:A:C8	2.41	0.55
1:1:671:U:OP2	42:M8:57:ILE:HD12	2.07	0.55
1:1:848:A:H2'	1:1:849:C:O4'	2.06	0.55
2:2:877:G:OP2	2:2:936:G:N2	2.31	0.55
1:5:1347:U:OP1	29:L4:300:ARG:NH2	193.41	0.55
1:5:1602:A:H2'	1:5:1603:A:C8	2.40	0.55
1:5:1792:C:H5''	1:5:1793:C:OP1	2.06	0.55
1:5:802:C:H2'	1:5:803:C:C6	2.42	0.55
1:5:960:U:H4'	1:5:963:G:C2	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:6:539:G:O5'	2:6:539:G:H8	1.89	0.55
4:8:53:A:H2'	4:8:54:A:H8	1.71	0.55
5:C0:27:PHE:HD1	5:C0:40:LEU:HD23	2.00	0.55
2:2:324:U:P	6:C1:133:LYS:HZ2	2.30	0.55
7:C2:128:ALA:HB1	7:C2:133:LEU:HB3	6.29	0.55
2:2:1241:G:H5''	10:C5:77:ARG:HB2	1.88	0.55
11:C6:122:ARG:NH2	73:S5:74:ALA:O	2.39	0.55
18:D3:103:LEU:HD12	18:D3:126:LYS:HD3	2.88	0.55
27:L2:116:VAL:HG13	27:L2:126:LEU:HB2	2.70	0.55
1:1:2948:C:O2'	28:L3:242:THR:HG22	2.07	0.55
1:1:696:C:OP1	29:L4:272:VAL:HG23	2.07	0.55
3:7:1:G:O2'	30:L5:270:LYS:HB3	317.14	0.55
32:L7:86:VAL:HG22	32:L7:136:TYR:CB	2.48	0.55
36:M1:59:ILE:HG21	36:M1:65:ILE:HD11	1.88	0.55
40:M6:147:TRP:CH2	40:M6:150:GLU:HA	2.51	0.55
45:N1:83:ARG:HD2	45:N1:85:LEU:HD21	1.87	0.55
46:N2:19:VAL:HG12	46:N2:105:LEU:HD22	3.55	0.55
62:O8:44:LYS:HG2	62:O8:53:THR:HB	1.89	0.55
34:L9:180:TYR:HB2	64:Q0:85:LEU:HD13	1.92	0.55
71:S3:162:GLN:OE1	71:S3:165:ASN:ND2	2.38	0.55
78:SM:84:LYS:NZ	78:SM:86:ASN:HB2	4.57	0.55
79:SR:318:ALA:O	79:SR:319:ASN:ND2	4.94	0.55
1:1:129:U:H2'	1:1:130:A:C8	2.41	0.55
1:1:1560:G:H2'	1:1:1561:G:O4'	2.07	0.55
1:1:1632:A:OP1	51:N7:69:LYS:NZ	2.35	0.55
1:1:2295:A:C2	47:N3:37:ILE:HB	2.41	0.55
2:2:702:G:O2'	2:2:703:G:H8	1.78	0.55
1:5:1613:A:H2'	1:5:1614:C:C6	2.42	0.55
1:5:1779:C:O2'	81:5:3852:8UZ:N3	2.40	0.55
1:5:956:U:H2'	1:5:957:C:H6	1.71	0.55
12:C7:41:ILE:HD13	12:C7:50:ILE:HD12	2.19	0.55
15:D0:27:THR:HB	15:D0:88:LYS:HG3	1.88	0.55
16:D1:36:VAL:HG11	16:D1:78:LEU:HD13	1.89	0.55
17:D2:6:VAL:HG12	17:D2:34:ILE:HD11	1.89	0.55
18:D3:63:GLN:OE1	18:D3:64:PRO:HA	2.06	0.55
35:M0:17:TYR:CE1	35:M0:98:ARG:HD3	2.55	0.55
36:M1:104:PHE:O	36:M1:127:PHE:HB2	2.07	0.55
1:5:618:C:OP1	41:M7:173:ARG:NH2	213.25	0.55
52:N8:6:THR:HG22	52:N8:9:ARG:HG2	1.88	0.55
67:Q3:75:ALA:O	67:Q3:79:VAL:HG23	2.07	0.55
69:S1:48:VAL:HG11	69:S1:57:ALA:HB1	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:S2:116:LYS:HG2	70:S2:127:ALA:HB3	1.88	0.55
76:S8:171:SER:OG	76:S8:178:ARG:O	2.21	0.55
79:SR:198:ASN:O	79:SR:215:GLY:HA3	2.43	0.55
1:1:2718:U:H2'	1:1:2719:U:C6	2.41	0.55
1:1:2746:A:C6	30:L5:148:ILE:HD12	2.42	0.55
1:1:2748:A:H1'	30:L5:36:LEU:HD23	1.87	0.55
1:1:3022:G:O2'	1:1:3023:U:OP2	2.25	0.55
1:1:3089:C:H2'	1:1:3090:U:O4'	2.07	0.55
1:1:3343:G:H21	1:1:3362:A:H2	1.54	0.55
1:1:3389:U:H1'	1:1:3390:G:OP2	2.07	0.55
1:5:2139:A:O3'	81:5:3853:8UZ:N	2.40	0.55
1:5:920:A:H3'	1:5:922:U:H5	1.71	0.55
2:6:1591:C:H2'	2:6:1592:A:C8	2.42	0.55
2:6:1600:A:H4'	2:6:1601:G:OP1	2.06	0.55
2:6:67:A:N6	2:6:83:G:O2'	2.39	0.55
14:C9:34:VAL:HG23	14:C9:53:TRP:CZ2	2.42	0.55
17:D2:53:ILE:HD13	22:D7:24:LEU:HD11	2.95	0.55
28:L3:88:GLY:O	28:L3:161:LEU:N	2.37	0.55
30:L5:8:LYS:HD3	30:L5:12:TYR:HE2	7.61	0.55
41:M7:67:ILE:HD12	41:M7:82:ARG:NH2	2.94	0.55
48:N4:5:ILE:HD12	48:N4:10:GLY:HA2	1.88	0.55
54:O0:42:ILE:HG13	54:O0:67:VAL:HG13	2.21	0.55
59:O5:76:GLN:O	59:O5:81:ARG:HD2	2.07	0.55
66:Q2:93:LEU:H	66:Q2:93:LEU:HD23	1.71	0.55
71:S3:115:ILE:HG21	71:S3:142:LEU:HD13	7.44	0.55
12:C7:16:LEU:HD21	71:S3:208:ILE:HD12	1.89	0.55
1:1:3366:G:H2'	1:1:3367:C:C6	2.42	0.55
1:1:542:G:H2'	1:1:543:C:C6	2.42	0.55
2:2:127:G:N7	74:S6:202:ARG:NH2	2.54	0.55
2:2:1439:C:H2'	2:2:1440:C:H6	1.72	0.55
3:3:27:A:OP2	30:L5:57:ASN:HB2	2.07	0.55
1:5:1699:A:H2'	1:5:1700:G:C8	2.42	0.55
1:5:2423:U:H2'	1:5:2424:A:C8	2.41	0.55
27:L2:108:PRO:O	27:L2:111:THR:OG1	2.25	0.55
1:1:2163:C:H4'	27:L2:7:ASN:O	2.07	0.55
28:L3:188:ILE:O	28:L3:192:VAL:HG12	2.07	0.55
30:L5:190:ILE:HD11	30:L5:195:LEU:HD22	3.11	0.55
31:L6:97:ASN:CG	31:L6:98:VAL:H	2.10	0.55
39:M5:48:ALA:C	39:M5:53:TYR:HB3	2.38	0.55
1:1:780:A:H4'	42:M8:162:ALA:HB2	1.88	0.55
44:N0:137:ARG:HG2	44:N0:139:TYR:CZ	2.56	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:S3:29:LEU:HB2	71:S3:34:TYR:HB2	1.87	0.55
75:S7:173:TYR:CD1	75:S7:181:ILE:HD11	3.46	0.55
76:S8:37:LYS:H	76:S8:59:ARG:H	1.55	0.55
2:6:577:G:H2'	78:SM:99:LYS:NZ	373.93	0.55
1:1:216:G:OP1	50:N6:16:ARG:NH1	2.40	0.54
1:1:2514:U:OP1	1:1:2514:U:H6	1.90	0.54
1:1:417:A:OP2	81:4:220:8UZ:N3	2.40	0.54
2:2:836:U:H2'	2:2:837:G:H8	1.72	0.54
1:5:1340:G:H2'	1:5:1341:U:C6	2.43	0.54
1:5:3000:A:H2'	1:5:3001:C:C6	2.43	0.54
2:6:579:A:C5	71:S3:178:ARG:HG3	407.85	0.54
4:8:84:C:O2	50:N6:113:LYS:N	26.10	0.54
6:C1:90:TYR:CE2	6:C1:103:ARG:HB2	3.29	0.54
14:C9:14:PHE:CD2	14:C9:63:ARG:HD2	3.21	0.54
16:D1:82:VAL:HA	68:S0:52:LYS:HD2	1.89	0.54
17:D2:11:LEU:HD11	17:D2:37:PHE:CE2	2.98	0.54
28:L3:37:ARG:HG2	28:L3:187:SER:H	2.21	0.54
28:L3:347:SER:HB3	28:L3:350:ALA:H	3.15	0.54
30:L5:129:TYR:OH	30:L5:175:HIS:O	2.66	0.54
33:L8:100:GLU:OE2	33:L8:108:ARG:NH1	2.56	0.54
34:L9:12:VAL:HB	34:L9:51:GLN:HA	1.88	0.54
36:M1:15:GLU:OE1	36:M1:140:ARG:NH1	2.40	0.54
36:M1:40:LEU:HD13	36:M1:79:ILE:HD13	1.88	0.54
42:M8:173:GLU:OE2	52:N8:49:HIS:HD2	5.11	0.54
50:N6:74:TYR:CZ	50:N6:77:LYS:HE3	2.42	0.54
75:S7:129:LEU:HD21	75:S7:172:VAL:HG11	1.98	0.54
76:S8:36:THR:HB	76:S8:57:ALA:O	2.08	0.54
1:1:1340:G:H2'	1:1:1341:U:H6	1.70	0.54
1:1:1471:U:H2'	1:1:1472:U:C6	2.40	0.54
1:1:3006:A:H2'	1:1:3007:U:O4'	2.07	0.54
1:1:685:G:OP2	37:M3:35:ARG:NH1	2.40	0.54
2:2:590:C:OP1	25:E0:43:ARG:NH1	2.41	0.54
1:5:1438:U:H2'	1:5:1439:U:H6	1.72	0.54
1:5:644:G:H2'	1:5:2372:A:N7	2.22	0.54
1:5:3107:U:OP1	64:Q0:114:LYS:NZ	298.98	0.54
2:6:1330:G:H21	12:C7:8:THR:HG21	421.16	0.54
7:C2:63:VAL:HB	7:C2:119:SER:HA	2.16	0.54
18:D3:118:PRO:O	18:D3:120:VAL:HG23	2.07	0.54
18:D3:56:LYS:NZ	18:D3:97:ASP:HA	2.94	0.54
19:D4:10:ARG:HD2	19:D4:26:ASP:HB2	1.89	0.54
27:L2:137:ILE:HG13	27:L2:147:ARG:HB3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:M7:88:VAL:O	41:M7:92:GLN:HG2	2.08	0.54
44:N0:141:LYS:HA	44:N0:144:LEU:HD12	2.57	0.54
46:N2:89:LEU:HB3	46:N2:93:ILE:HD12	2.16	0.54
54:O0:40:LYS:HD3	54:O0:93:LEU:O	2.07	0.54
64:Q0:77:ILE:HG23	64:Q0:78:ILE:H	4.16	0.54
68:S0:11:PRO:O	68:S0:15:GLN:HG3	2.21	0.54
69:S1:172:LEU:O	69:S1:176:VAL:HG23	2.07	0.54
69:S1:34:ALA:HB2	69:S1:43:VAL:HG23	1.89	0.54
2:2:765:G:N3	77:S9:149:ARG:NH1	2.54	0.54
77:S9:65:LYS:HA	77:S9:70:LEU:HD11	1.96	0.54
1:1:2256:A:H1'	1:1:2257:C:P	2.47	0.54
1:1:255:A:H2'	1:1:256:G:C8	2.42	0.54
1:1:2611:U:H2'	1:1:2612:U:C6	2.41	0.54
1:1:677:A:H2'	1:1:785:G:C6	2.42	0.54
2:2:913:G:O2'	2:2:914:G:H5"	2.06	0.54
1:1:409:A:H61	4:4:15:G:H1'	1.71	0.54
1:5:1471:U:H2'	1:5:1472:U:C6	2.42	0.54
1:5:3355:U:O2'	1:5:3357:U:OP2	2.25	0.54
1:5:3087:A:O2'	1:5:3375:A:N1	2.32	0.54
1:5:45:A:P	39:M5:85:THR:HG21	154.84	0.54
2:6:1219:A:O2'	5:C0:48:SER:HA	433.47	0.54
2:6:139:C:H4'	2:6:140:A:O5'	2.08	0.54
2:6:46:A:H1'	2:6:48:G:C8	2.42	0.54
4:8:80:A:N3	4:8:80:A:H3'	2.22	0.54
8:C3:116:ILE:O	8:C3:120:SER:OG	2.23	0.54
10:C5:18:ARG:NH2	10:C5:38:PRO:HG3	3.06	0.54
18:D3:107:PHE:CD2	18:D3:114:LYS:HB2	2.42	0.54
29:L4:299:ILE:HG22	29:L4:300:ARG:O	2.10	0.54
34:L9:143:GLU:HG2	34:L9:145:VAL:HG23	2.73	0.54
37:M3:4:SER:HB2	37:M3:5:LYS:HG2	1.90	0.54
53:N9:28:LYS:HG3	53:N9:29:TYR:CD1	3.65	0.54
1:5:294:U:H4'	60:O6:77:LEU:HD23	146.40	0.54
70:S2:53:ILE:HG12	70:S2:72:LEU:HB3	1.90	0.54
79:SR:216:LYS:HA	79:SR:239:GLU:HG3	1.93	0.54
79:SR:40:LYS:HA	79:SR:68:VAL:HG23	1.89	0.54
1:1:2113:A:N7	1:1:2114:C:C4	2.75	0.54
1:1:2771:U:O2'	1:1:2772:C:O4'	2.22	0.54
2:2:1201:G:N2	2:2:1599:C:H2'	2.22	0.54
2:2:74:U:C1'	2:2:75:U:H5"	2.37	0.54
4:4:58:G:OP1	4:4:98:U:N3	2.35	0.54
1:5:2407:C:H2'	1:5:2408:U:C6	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:8:80:A:H1'	4:8:82:U:H5	1.73	0.54
9:C4:29:HIS:CD2	9:C4:41:ARG:HB2	4.07	0.54
2:6:1581:C:H5'	11:C6:135:ARG:O	375.67	0.54
16:D1:38:LYS:O	16:D1:46:ILE:HD12	2.60	0.54
16:D1:35:ASN:OD1	16:D1:52:THR:HB	2.66	0.54
2:6:804:A:N3	17:D2:105:THR:HG22	368.68	0.54
34:L9:172:ILE:HB	64:Q0:90:ASN:HD22	2.46	0.54
53:N9:38:LYS:O	53:N9:39:PHE:HB3	4.60	0.54
55:O1:81:GLU:O	55:O1:82:GLU:HG2	3.22	0.54
69:S1:28:GLU:HG3	69:S1:29:TRP:N	2.22	0.54
76:S8:138:ASN:HA	76:S8:141:ARG:HD3	4.66	0.54
79:SR:166:SER:HA	79:SR:184:ASN:HD21	1.71	0.54
1:1:1148:G:C2	1:1:1156:C:C2	2.96	0.54
1:1:1658:G:H2'	1:1:1659:U:C6	2.42	0.54
1:1:1765:U:H4'	1:1:1765:U:OP1	2.07	0.54
1:1:3071:U:O2'	81:1:3888:8UZ:N3	2.40	0.54
2:2:781:U:O2'	2:2:782:U:H6	1.90	0.54
1:5:1657:C:O2'	1:5:1797:A:OP2	2.16	0.54
1:5:2407:C:H1'	1:5:2818:U:C2	2.43	0.54
1:5:541:U:H2'	1:5:542:G:C8	2.42	0.54
1:5:980:A:H2'	1:5:981:U:C1'	2.37	0.54
2:6:1434:U:H4'	24:D9:24:CYS:HB2	408.83	0.54
2:6:159:U:O4	19:D4:116:LYS:NZ	335.26	0.54
2:6:1671:A:H2'	2:6:1672:G:O4'	2.08	0.54
2:6:970:A:H5'	2:6:970:A:H8	1.73	0.54
5:C0:24:LYS:HB2	5:C0:63:TYR:CE1	2.43	0.54
8:C3:16:ILE:HG22	17:D2:57:ARG:NH2	2.23	0.54
13:C8:63:GLN:O	13:C8:67:GLU:HG3	2.08	0.54
27:L2:80:GLU:HB2	27:L2:170:ALA:HA	2.24	0.54
28:L3:83:PRO:HG3	28:L3:204:ALA:HB2	1.89	0.54
28:L3:221:THR:HB	28:L3:273:HIS:H	1.73	0.54
30:L5:49:TYR:HB3	30:L5:144:VAL:HG23	1.90	0.54
34:L9:77:ASN:HA	34:L9:80:THR:HG23	3.67	0.54
41:M7:181:ARG:HG2	41:M7:181:ARG:O	2.47	0.54
48:N4:43:ARG:HB3	48:N4:43:ARG:HH11	1.72	0.54
49:N5:132:ALA:O	49:N5:136:ALA:N	2.52	0.54
55:O1:23:VAL:HG12	55:O1:24:SER:O	2.07	0.54
1:1:1145:G:H5'	56:O2:46:PHE:CE1	2.43	0.54
58:O4:82:ALA:O	58:O4:84:CYS:N	3.71	0.54
59:O5:7:TYR:CE1	59:O5:8:GLU:HG3	2.42	0.54
72:S4:118:GLU:HA	72:S4:121:TYR:CE1	2.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:S6:163:THR:HB	74:S6:168:THR:HG22	1.90	0.54
75:S7:131:PHE:HD2	75:S7:132:PRO:N	2.05	0.54
75:S7:50:ASP:HA	75:S7:56:LYS:HA	1.89	0.54
1:1:1194:G:H2'	1:1:1195:A:C8	2.41	0.54
1:1:1686:U:O2	1:1:1688:U:H1'	2.07	0.54
1:1:168:U:H2'	1:1:169:U:C6	2.43	0.54
1:1:221:A:OP2	83:1:4003:HOH:O	2.18	0.54
1:1:3338:C:OP2	81:1:3888:8UZ:N4	2.40	0.54
1:5:1613:A:H2'	1:5:1614:C:H6	1.72	0.54
1:5:2541:U:H1'	1:5:2542:U:H4'	1.90	0.54
1:5:641:C:H42	1:5:645:A:H8	1.56	0.54
2:6:791:A:H2'	2:6:792:U:O4'	2.07	0.54
3:7:121:U:OP2	30:L5:265:TYR:OH	307.45	0.54
8:C3:75:LEU:O	8:C3:80:LEU:N	2.69	0.54
17:D2:31:SER:O	17:D2:35:ILE:HG12	2.07	0.54
20:D5:57:TYR:CE2	20:D5:68:ARG:HD3	5.43	0.54
21:D6:28:LYS:HG2	21:D6:29:SER:H	2.47	0.54
28:L3:153:LYS:HE2	28:L3:154:TYR:OH	3.19	0.54
30:L5:50:ARG:NH1	30:L5:72:ASP:OD2	2.41	0.54
31:L6:105:TYR:OH	31:L6:134:ARG:HG3	2.08	0.54
32:L7:216:VAL:HG23	32:L7:218:ARG:N	2.23	0.54
40:M6:72:HIS:O	40:M6:74:ARG:HD3	2.82	0.54
47:N3:120:LYS:H	47:N3:137:VAL:HG23	1.73	0.54
50:N6:115:ARG:O	50:N6:119:ILE:HG13	2.08	0.54
1:1:716:A:C6	52:N8:117:ARG:HG3	2.43	0.54
52:N8:126:LYS:HB3	52:N8:148:ILE:HD13	2.01	0.54
54:O0:41:LEU:HD22	54:O0:42:ILE:N	2.23	0.54
60:O6:33:ALA:O	60:O6:34:SER:HB3	2.32	0.54
72:S4:184:THR:HA	72:S4:189:LEU:HD13	1.88	0.54
75:S7:28:GLU:HG2	75:S7:35:LYS:HG3	1.88	0.54
75:S7:38:LEU:HD23	75:S7:41:LEU:HD12	1.89	0.54
76:S8:137:LYS:O	76:S8:140:GLU:N	2.92	0.54
1:1:1027:A:C4	1:1:1029:G:C8	2.96	0.54
1:1:1722:U:C4	1:1:1723:A:N7	2.76	0.54
1:1:2282:U:O2	1:1:2310:U:H4'	2.07	0.54
1:1:3174:A:H2'	1:1:3175:U:H5'	1.89	0.54
2:2:1205:C:OP1	83:2:2133:HOH:O	2.18	0.54
3:3:23:A:H2'	3:3:24:A:C8	2.43	0.54
1:5:1522:U:H4'	1:5:1604:G:O2'	2.07	0.54
1:5:2204:C:H4'	1:5:2205:U:OP1	2.07	0.54
1:5:71:A:C2	1:5:2778:G:H1'	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2872:A:N3	1:5:2872:A:H2'	2.23	0.54
1:5:3210:A:C6	1:5:3211:C:C4	2.96	0.54
1:5:88:A:H2'	1:5:89:A:O4'	2.08	0.54
1:5:930:U:H2'	1:5:931:C:C6	2.41	0.54
2:6:894:U:H2'	2:6:895:G:C8	2.43	0.54
2:6:914:G:H8	2:6:914:G:OP2	1.91	0.54
7:C2:94:ALA:O	7:C2:118:ALA:HB3	2.59	0.54
2:2:896:U:C1'	9:C4:38:THR:HG21	2.36	0.54
17:D2:31:SER:OG	17:D2:33:VAL:N	2.41	0.54
19:D4:10:ARG:HH11	19:D4:10:ARG:HB3	2.48	0.54
19:D4:19:ALA:HB1	19:D4:81:GLU:OE1	2.08	0.54
29:L4:208:VAL:HA	29:L4:228:ALA:O	2.08	0.54
33:L8:112:GLU:O	33:L8:116:VAL:HB	2.06	0.54
38:M4:13:ARG:NH1	38:M4:65:LEU:O	2.39	0.54
42:M8:60:PRO:HB2	42:M8:142:GLY:HA3	1.88	0.54
51:N7:5:LEU:HD13	51:N7:77:TYR:OH	3.98	0.54
59:O5:78:LYS:HA	59:O5:81:ARG:HD3	2.01	0.54
69:S1:117:TRP:HE1	69:S1:152:ARG:CD	2.21	0.54
69:S1:23:PRO:HB3	69:S1:26:ARG:NH2	2.85	0.54
70:S2:90:THR:HG22	70:S2:92:ALA:H	1.73	0.54
71:S3:164:VAL:O	71:S3:168:ILE:HG13	2.07	0.54
1:1:2205:U:H2'	1:1:2206:G:C4'	2.37	0.54
1:1:816:A:C8	1:1:906:A:C6	2.96	0.54
2:2:1164:G:H2'	2:2:1165:G:C8	2.42	0.54
2:2:320:U:C6	2:2:321:C:H2'	2.43	0.54
4:4:82:U:H2'	4:4:82:U:O2	2.08	0.54
1:5:2105:G:H2'	1:5:2106:A:H8	1.71	0.54
1:5:2512:C:O2'	1:5:2513:U:OP1	2.24	0.54
1:5:3368:U:O2'	83:5:4003:HOH:O	2.19	0.54
2:6:1614:A:C6	2:6:1615:C:N4	2.76	0.54
2:6:277:U:O2'	2:6:278:U:OP1	2.25	0.54
10:C5:18:ARG:NH1	13:C8:90:ASN:O	2.57	0.54
11:C6:87:LYS:HD2	11:C6:117:LEU:O	3.46	0.54
18:D3:46:SER:OG	18:D3:78:LYS:NZ	3.43	0.54
20:D5:42:LEU:HD12	20:D5:43:ASP:H	1.73	0.54
32:L7:147:LEU:HD23	32:L7:244:ASN:ND2	2.22	0.54
35:M0:142:ASP:OD1	35:M0:178:ARG:NH2	2.39	0.54
37:M3:120:GLN:O	37:M3:123:ILE:HD13	4.78	0.54
39:M5:16:SER:O	39:M5:20:ARG:HG2	2.08	0.54
42:M8:148:GLU:O	42:M8:151:ARG:HG3	2.08	0.54
30:L5:34:LYS:HD2	45:N1:30:TYR:CE2	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:N4:120:LYS:HA	48:N4:123:ARG:HD2	6.31	0.54
50:N6:56:VAL:HG11	50:N6:104:LEU:HD13	1.90	0.54
54:O0:34:LEU:HD23	54:O0:59:TYR:HB3	1.90	0.54
55:O1:53:PRO:O	55:O1:57:GLN:HG3	2.18	0.54
69:S1:39:GLU:CG	69:S1:40:ASN:H	2.20	0.54
69:S1:61:LEU:HD22	69:S1:61:LEU:H	1.71	0.54
2:6:78:A:H1'	74:S6:175:ILE:HG12	339.13	0.54
1:1:2709:C:H2'	1:1:2710:C:C6	2.42	0.54
1:1:3259:U:H6	1:1:3259:U:H5'	1.73	0.54
1:1:761:A:C2	1:1:771:A:H1'	2.43	0.54
1:1:966:U:H2'	1:1:967:A:C8	2.43	0.54
2:2:738:G:H2'	2:2:739:G:H8	1.72	0.54
3:3:31:U:H2'	3:3:32:U:H6	1.72	0.54
1:5:2106:A:H2'	1:5:2107:A:H8	1.72	0.54
1:5:2329:C:OP1	83:5:4001:HOH:O	2.18	0.54
2:6:1535:U:O2'	2:6:1536:G:O5'	2.26	0.54
2:6:158:U:O2'	2:6:160:C:OP2	2.17	0.54
2:6:1671:A:C4	2:6:1731:A:C2	2.96	0.54
4:8:139:U:H2'	4:8:140:G:H8	1.73	0.54
5:C0:49:LEU:HB3	5:C0:55:VAL:CG1	2.42	0.54
2:6:1253:U:P	7:C2:46:ARG:HH22	451.01	0.54
8:C3:89:TYR:CE2	8:C3:150:VAL:HG22	2.43	0.54
19:D4:77:ASN:HB2	19:D4:81:GLU:OE1	2.07	0.54
30:L5:184:ASP:CG	30:L5:187:THR:HG23	2.28	0.54
33:L8:94:PHE:CE2	33:L8:200:LEU:HG	2.56	0.54
33:L8:54:GLU:HG2	33:L8:57:ARG:HH22	3.57	0.54
34:L9:20:ILE:HD13	34:L9:25:VAL:HG13	1.90	0.54
37:M3:57:VAL:HG22	37:M3:147:ILE:HG23	2.68	0.54
46:N2:55:THR:O	46:N2:65:VAL:HA	2.08	0.54
4:4:41:A:O2'	61:O7:59:THR:HB	2.08	0.54
75:S7:73:VAL:HG12	75:S7:77:LEU:HB2	1.88	0.54
77:S9:88:GLU:O	77:S9:91:LYS:HD2	4.45	0.54
1:1:1288:U:H2'	1:1:1289:G:C8	2.43	0.54
1:1:197:G:N2	1:1:372:A:C8	2.75	0.54
1:1:3304:U:O3'	28:L3:334:ARG:NH2	2.41	0.54
81:1:3892:8UZ:O4	81:1:3892:8UZ:N4	2.41	0.54
2:2:1603:U:H2'	2:2:1604:U:C6	2.43	0.54
2:2:1622:G:H2'	2:2:1623:C:C6	2.43	0.54
1:5:1079:A:C2'	1:5:1080:A:H5'	2.38	0.54
1:5:1099:A:H2'	1:5:1100:U:C6	2.43	0.54
1:5:2520:A:H2'	1:5:2521:U:C6	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2552:C:H2'	54:O0:50:VAL:HG11	236.99	0.54
1:5:811:U:H2'	1:5:812:G:C8	2.43	0.54
1:5:875:G:H5''	83:5:4056:HOH:O	2.08	0.54
1:5:901:G:H2'	1:5:902:G:H8	1.72	0.54
2:6:411:C:H2'	2:6:412:A:O4'	2.08	0.54
2:6:687:G:H5''	17:D2:119:LYS:HG3	394.57	0.54
2:6:814:A:O2'	2:6:815:G:H5''	2.08	0.54
6:C1:4:GLU:HG3	6:C1:5:LEU:N	4.49	0.54
9:C4:30:VAL:O	9:C4:39:ILE:HG12	2.07	0.54
2:6:1241:G:OP2	10:C5:77:ARG:NH1	381.54	0.54
14:C9:61:VAL:HG21	14:C9:104:VAL:HG11	1.90	0.54
16:D1:20:THR:HB	16:D1:22:ARG:HD3	2.60	0.54
18:D3:30:LYS:HE3	18:D3:34:LEU:HD11	1.88	0.54
29:L4:138:ARG:HG3	29:L4:244:LEU:O	2.08	0.54
29:L4:356:THR:HG23	29:L4:360:LYS:HD3	4.88	0.54
1:5:75:G:H5''	37:M3:58:VAL:HG13	85.09	0.54
38:M4:96:ALA:HA	38:M4:101:LYS:HE3	1.90	0.54
4:4:142:C:O2'	39:M5:136:ASP:OD1	2.15	0.54
40:M6:188:SER:O	40:M6:192:LYS:HG2	3.15	0.54
41:M7:67:ILE:HG22	41:M7:68:GLY:O	2.45	0.54
42:M8:185:LYS:HD3	42:M8:186:VAL:HG23	1.88	0.54
46:N2:17:VAL:HG22	46:N2:103:TYR:HB2	2.09	0.54
1:5:96:G:OP2	52:N8:34:MET:HB2	156.53	0.54
70:S2:227:PRO:HA	70:S2:230:TRP:CG	2.43	0.54
1:1:1496:C:C2	1:1:1521:G:N2	2.76	0.53
1:1:3094:A:H2'	1:1:3095:U:C6	2.43	0.53
1:1:90:C:OP1	52:N8:59:ARG:NH1	2.41	0.53
1:5:1523:U:OP1	1:5:1607:U:N3	2.39	0.53
1:5:2255:A:H5'	1:5:2261:G:H22	1.73	0.53
1:5:2394:G:OP2	83:5:4002:HOH:O	2.19	0.53
1:5:2550:U:C6	33:L8:37:GLY:HA3	215.68	0.53
1:5:2772:C:H1'	1:5:2773:C:OP2	2.08	0.53
2:6:1629:G:H2'	2:6:1630:U:H6	1.73	0.53
2:6:212:U:H2'	2:6:213:A:H8	1.72	0.53
2:6:329:G:H2'	2:6:330:G:H8	1.73	0.53
2:6:922:G:H2'	2:6:923:A:C8	2.43	0.53
10:C5:17:TYR:C	10:C5:19:GLY:H	2.11	0.53
11:C6:110:THR:HA	11:C6:113:ASP:HB3	4.56	0.53
13:C8:29:VAL:O	13:C8:43:SER:OG	2.17	0.53
30:L5:122:VAL:HG12	30:L5:124:GLU:H	2.08	0.53
36:M1:96:PHE:HB3	36:M1:156:LYS:HG3	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:O4:5:VAL:HG22	58:O4:6:THR:H	1.89	0.53
2:2:1653:C:O2'	65:Q1:21:ARG:HG3	2.07	0.53
68:S0:4:PRO:HD2	68:S0:7:PHE:HD1	7.47	0.53
72:S4:21:ASP:OD1	72:S4:24:SER:OG	2.22	0.53
78:SM:112:ASP:OD1	78:SM:115:LYS:HG3	2.08	0.53
1:1:146:U:H5''	1:1:148:G:O4'	2.07	0.53
1:1:2257:C:H2'	1:1:2258:U:O4'	2.08	0.53
2:2:1067:C:H5''	69:S1:150:VAL:HG12	1.90	0.53
2:2:1597:A:C8	24:D9:14:TYR:CD2	2.95	0.53
2:2:705:U:H2'	2:2:706:A:C8	2.44	0.53
1:5:2137:U:OP2	1:5:2142:A:N6	2.38	0.53
1:5:2261:G:H21	1:5:2262:A:H61	1.54	0.53
1:5:240:U:HO2'	1:5:241:G:H8	1.56	0.53
1:5:885:U:H2'	1:5:886:C:C6	2.41	0.53
2:6:1058:U:H4'	2:6:1059:U:OP1	2.08	0.53
2:6:1231:U:O4	26:E1:97:LYS:HE2	438.77	0.53
2:6:514:G:O2'	2:6:515:A:H5'	2.08	0.53
2:6:570:A:H5''	2:6:571:G:OP2	2.09	0.53
3:7:27:A:H2'	3:7:28:C:C6	2.42	0.53
5:C0:15:LEU:HD21	5:C0:68:LEU:HD13	1.89	0.53
8:C3:54:LEU:HB3	8:C3:60:VAL:HG21	1.90	0.53
12:C7:40:THR:OG1	71:S3:207:THR:HB	2.14	0.53
1:1:2991:A:P	28:L3:20:LYS:HB2	2.48	0.53
29:L4:237:GLN:O	29:L4:246:ARG:HG3	2.52	0.53
29:L4:44:LYS:O	29:L4:47:ARG:HB2	2.07	0.53
31:L6:47:PHE:HE2	31:L6:77:ARG:HE	1.54	0.53
1:1:120:G:N2	33:L8:126:SER:O	2.41	0.53
40:M6:14:HIS:CE1	40:M6:119:VAL:HG22	2.43	0.53
50:N6:76:LEU:O	50:N6:77:LYS:HB2	4.60	0.53
1:1:2741:C:H4'	66:Q2:19:LYS:HA	1.89	0.53
68:S0:14:ALA:O	68:S0:18:LEU:HG	2.08	0.53
2:6:66:U:H5'	74:S6:172:ALA:O	344.16	0.53
2:6:696:C:OP2	75:S7:100:PRO:HG3	367.74	0.53
76:S8:26:LYS:HD2	76:S8:29:LEU:HD13	1.90	0.53
12:C7:29:GLN:HG2	79:SR:67:ILE:HD11	2.13	0.53
1:1:1108:U:H2'	1:1:1109:U:H6	1.73	0.53
1:1:1340:G:H2'	1:1:1341:U:C6	2.44	0.53
1:1:1948:G:C2	1:1:1949:G:C8	2.97	0.53
1:1:265:A:H5'	60:O6:34:SER:HB2	1.90	0.53
1:1:2662:G:H2'	1:1:2663:G:H8	1.73	0.53
1:1:595:G:C8	1:1:609:G:C6	2.95	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:874:U:OP1	28:L3:241:LYS:HG3	2.08	0.53
2:2:1656:U:H5''	2:2:1657:U:O5'	2.08	0.53
2:2:647:G:N2	2:2:687:G:H22	2.07	0.53
1:5:173:G:O2'	1:5:174:C:H5''	2.07	0.53
1:5:2608:G:O2'	1:5:2609:A:H5'	2.09	0.53
1:5:979:U:H1'	1:5:980:A:N7	2.23	0.53
2:6:320:U:C6	2:6:321:C:H2'	2.44	0.53
9:C4:85:ALA:H	9:C4:119:THR:CG2	2.19	0.53
17:D2:8:ALA:HB2	17:D2:74:VAL:HG11	2.01	0.53
23:D8:11:LYS:HA	23:D8:52:ASP:O	2.08	0.53
25:E0:53:LYS:O	25:E0:53:LYS:HG3	4.75	0.53
28:L3:13:HIS:CE1	28:L3:15:GLY:HA3	2.43	0.53
1:1:3215:A:H8	38:M4:121:MET:HE1	1.74	0.53
1:5:2515:A:H5''	39:M5:28:TRP:CD1	161.20	0.53
46:N2:39:ASP:O	46:N2:47:VAL:HB	2.22	0.53
46:N2:77:LYS:HG2	46:N2:81:LYS:HE2	1.90	0.53
51:N7:3:LYS:HE3	54:O0:36:GLN:HA	1.91	0.53
1:5:2556:C:OP1	58:O4:88:ARG:NH1	203.03	0.53
69:S1:91:VAL:HG23	69:S1:96:LEU:HB3	2.90	0.53
78:SM:37:VAL:HG22	78:SM:38:PRO:HD2	3.65	0.53
1:1:1700:G:H2'	1:1:1701:C:H6	1.74	0.53
1:1:1870:C:H4'	1:1:3076:C:O2	2.08	0.53
1:1:2322:C:H2'	1:1:2323:G:H5'	1.90	0.53
1:1:2389:C:O2'	1:1:2390:A:H5'	2.08	0.53
1:1:3095:U:H2'	1:1:3096:C:C6	2.43	0.53
1:1:372:A:H2'	1:1:373:A:O4'	2.09	0.53
1:1:791:A:H2'	1:1:792:G:H8	1.74	0.53
2:2:1000:C:H2'	2:2:1002:G:OP2	2.08	0.53
2:2:1533:C:OP2	20:D5:77:ARG:NH1	2.35	0.53
1:5:1101:G:C2'	1:5:1102:A:H5'	2.39	0.53
1:5:124:U:H4'	1:5:150:A:O2'	2.09	0.53
1:5:2206:G:H4'	1:5:2207:A:H5'	1.90	0.53
1:5:3062:G:O6	83:5:3998:HOH:O	2.17	0.53
2:6:333:A:C6	2:6:334:G:C6	2.96	0.53
2:6:499:U:H2'	2:6:500:C:O4'	2.08	0.53
2:6:681:U:H4'	2:6:682:C:H5'	1.89	0.53
2:6:778:G:C2'	2:6:779:U:H5''	2.38	0.53
9:C4:103:ARG:HH12	21:D6:48:ALA:CB	3.54	0.53
11:C6:39:VAL:HG12	11:C6:41:PRO:HD2	2.18	0.53
15:D0:62:VAL:HG22	15:D0:85:ARG:HG3	1.90	0.53
19:D4:36:SER:O	19:D4:40:LEU:HG	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:E1:107:LYS:O	26:E1:114:VAL:HA	2.09	0.53
28:L3:346:THR:O	28:L3:348:ARG:N	2.38	0.53
31:L6:52:VAL:HA	31:L6:67:GLY:HA2	3.21	0.53
38:M4:16:GLU:HB3	44:N0:149:LYS:HB3	1.97	0.53
51:N7:36:HIS:HA	51:N7:38:PHE:CE1	2.43	0.53
51:N7:46:ILE:HG12	51:N7:49:TYR:CE1	3.07	0.53
1:5:792:G:H5''	52:N8:2:PRO:HD3	134.18	0.53
58:O4:7:PHE:CD1	58:O4:20:ILE:HD12	5.00	0.53
68:S0:41:ARG:HB2	68:S0:45:VAL:O	3.48	0.53
70:S2:238:SER:OG	70:S2:240:LEU:HB2	2.09	0.53
11:C6:46:PHE:HE1	73:S5:37:GLN:NE2	3.51	0.53
75:S7:61:PHE:HE1	75:S7:93:LEU:HD12	1.74	0.53
71:S3:142:LEU:HG	78:SM:110:TRP:CH2	5.85	0.53
1:1:307:A:H2'	1:1:308:A:C8	2.43	0.53
2:2:1451:C:H2'	2:2:1452:U:C6	2.43	0.53
2:2:291:G:H2'	2:2:292:U:C6	2.44	0.53
2:2:40:A:OP1	77:S9:3:ARG:NH1	2.41	0.53
2:2:425:A:H5'	2:2:425:A:H8	1.74	0.53
2:2:545:A:H2'	25:E0:31:LYS:HD2	1.89	0.53
2:2:93:A:OP2	83:2:2134:HOH:O	2.19	0.53
1:5:2794:G:O2'	1:5:2795:U:OP2	2.25	0.53
1:5:282:G:H2'	1:5:286:U:H6	1.73	0.53
1:5:817:A:H2'	1:5:920:A:C2	2.43	0.53
1:5:945:C:H2'	1:5:946:U:C6	2.44	0.53
2:6:1400:A:H5'	2:6:1401:A:OP2	2.09	0.53
2:6:163:G:H8	2:6:163:G:O5'	1.92	0.53
2:6:208:U:H4'	76:S8:176:SER:HB3	289.14	0.53
28:L3:185:GLY:O	28:L3:191:LYS:NZ	2.40	0.53
28:L3:76:VAL:HG11	28:L3:323:MET:HE3	2.30	0.53
1:5:147:U:O2	33:L8:162:LEU:HD13	126.72	0.53
34:L9:112:ILE:HD11	34:L9:134:ILE:HG12	1.90	0.53
42:M8:122:ILE:HG23	42:M8:126:GLN:HB2	1.90	0.53
50:N6:36:SER:HB2	50:N6:37:LYS:HE2	1.95	0.53
51:N7:34:LYS:O	51:N7:37:PRO:HG3	3.31	0.53
55:O1:55:LEU:HB2	55:O1:95:PRO:HD3	2.11	0.53
4:4:63:G:O2'	59:O5:49:LYS:HE2	2.09	0.53
71:S3:105:MET:HG2	71:S3:122:VAL:HG21	1.89	0.53
72:S4:19:LEU:HD11	72:S4:108:ARG:HD2	1.90	0.53
74:S6:139:ASN:HA	74:S6:142:ARG:HB2	1.95	0.53
76:S8:66:SER:HB3	76:S8:73:SER:OG	2.08	0.53
2:2:1149:G:H1'	2:2:1765:A:C4	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:1216:C:H4'	2:2:1217:A:H8	1.73	0.53
2:2:1594:G:C6	2:2:1595:U:N3	2.76	0.53
2:2:1657:U:O2'	2:2:1658:G:OP1	2.25	0.53
2:2:609:U:N3	18:D3:22:ASN:O	2.42	0.53
2:2:895:G:O2'	9:C4:38:THR:N	2.38	0.53
1:5:1294:A:O2'	1:5:1295:G:H5''	2.09	0.53
1:5:1438:U:H2'	1:5:1439:U:C6	2.43	0.53
1:5:3075:G:H2'	1:5:3076:C:C6	2.44	0.53
3:7:121:U:H5''	30:L5:265:TYR:HE1	311.48	0.53
3:7:74:C:H1'	3:7:106:U:O2	2.09	0.53
27:L2:34:TYR:CE1	27:L2:38:HIS:HD2	2.26	0.53
1:1:3150:A:H5'	28:L3:130:PHE:H	1.74	0.53
29:L4:10:SER:OG	29:L4:14:GLU:HG3	5.22	0.53
29:L4:257:LYS:O	29:L4:260:GLN:HB2	2.20	0.53
35:M0:47:PRO:HB3	35:M0:171:TRP:CZ2	2.43	0.53
35:M0:47:PRO:HD2	35:M0:141:LYS:HA	2.20	0.53
42:M8:54:LEU:HD13	42:M8:58:ASN:HB3	1.90	0.53
48:N4:126:GLU:HG3	48:N4:129:LYS:NZ	3.14	0.53
50:N6:53:ASP:OD1	50:N6:69:LYS:HD3	3.93	0.53
56:O2:32:TRP:CZ2	56:O2:53:PRO:HD2	2.56	0.53
62:O8:77:ARG:HG3	62:O8:78:LEU:HD22	1.91	0.53
68:S0:79:ARG:NH1	68:S0:164:ASN:O	3.17	0.53
69:S1:23:PRO:HG3	69:S1:26:ARG:NH2	2.23	0.53
71:S3:195:SER:CB	71:S3:200:LYS:HG2	5.00	0.53
73:S5:25:LEU:HD21	73:S5:29:ILE:HD12	3.81	0.53
43:M9:185:LEU:C	75:S7:39:ARG:HH22	2.12	0.53
77:S9:118:LEU:HG	77:S9:158:PHE:CE1	2.43	0.53
2:6:535:A:OP1	77:S9:171:ARG:NH2	453.59	0.53
1:1:1584:U:H2'	1:1:1585:C:H6	1.74	0.53
1:1:1717:U:H2'	1:1:1718:G:C8	2.44	0.53
1:1:2139:A:C4	61:O7:3:LYS:HD2	2.44	0.53
1:1:3228:C:H4'	1:1:3229:G:O5'	2.08	0.53
1:1:3276:G:H1	57:O3:60:ARG:NH1	2.06	0.53
1:1:3337:G:O5'	1:1:3337:G:H8	1.91	0.53
1:1:346:C:C4	1:1:348:A:C8	2.96	0.53
2:2:1796:C:H4'	2:2:1797:A:OP2	2.08	0.53
1:5:1039:U:H2'	1:5:1040:A:C8	2.44	0.53
1:5:1145:G:OP1	56:O2:44:ARG:NH1	204.06	0.53
1:5:2974:U:H2'	1:5:2975:U:H6	1.72	0.53
1:5:3057:U:H5'	1:5:3086:A:H61	1.73	0.53
2:6:935:U:O2'	2:6:936:G:H5'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:C3:99:ARG:O	8:C3:103:GLU:HG2	2.08	0.53
2:6:886:U:O2'	9:C4:121:VAL:O	288.47	0.53
10:C5:34:VAL:O	10:C5:42:ARG:HG2	2.08	0.53
2:6:1337:A:H4'	11:C6:123:ARG:HH11	415.42	0.53
14:C9:61:VAL:O	14:C9:65:ILE:HG13	2.09	0.53
2:2:1104:U:OP1	18:D3:14:LYS:NZ	2.41	0.53
2:2:434:G:H5'	18:D3:78:LYS:HB3	1.89	0.53
28:L3:286:GLY:HA3	28:L3:321:PHE:CE2	2.43	0.53
30:L5:104:LEU:HD21	30:L5:108:ARG:NH2	2.23	0.53
34:L9:137:SER:HB2	34:L9:143:GLU:HB3	2.50	0.53
35:M0:4:ARG:CZ	35:M0:99:ILE:HG13	2.39	0.53
38:M4:21:VAL:HA	38:M4:66:THR:HG23	1.90	0.53
39:M5:165:THR:O	39:M5:169:LYS:HG3	2.08	0.53
39:M5:13:LYS:O	39:M5:19:LEU:HD22	2.24	0.53
68:S0:115:PHE:O	68:S0:116:LYS:HD3	2.17	0.53
16:D1:50:TYR:CD1	68:S0:66:ALA:HB1	2.57	0.53
68:S0:70:PRO:O	68:S0:95:ALA:N	2.46	0.53
79:SR:248:ASN:HD21	79:SR:298:GLY:HA3	1.72	0.53
1:1:651:G:O2'	1:1:1435:A:OP1	2.21	0.53
1:1:2093:A:H3'	1:1:2093:A:N3	2.23	0.53
2:2:1304:G:H5'	2:2:1322:A:OP2	2.09	0.53
2:2:1529:C:OP1	73:S5:112:ARG:HD2	2.09	0.53
2:2:779:U:OP2	2:2:780:A:H2	1.90	0.53
2:2:927:C:H1'	9:C4:125:SER:CB	2.37	0.53
4:4:85:G:O6	50:N6:112:ASP:HB3	2.08	0.53
1:5:1315:U:OP1	40:M6:18:ARG:NH1	274.99	0.53
1:5:2112:U:H4'	1:5:2113:A:H5'	1.91	0.53
1:5:385:A:H2'	1:5:386:A:C8	2.44	0.53
1:5:852:U:C5	67:Q3:2:ALA:HB3	254.91	0.53
2:6:495:C:H3'	2:6:496:G:C5'	2.39	0.53
6:C1:71:LEU:HB3	6:C1:88:ARG:NH1	2.24	0.53
11:C6:27:GLY:HA2	11:C6:60:PHE:O	2.09	0.53
2:6:1316:G:OP1	12:C7:7:LYS:N	412.06	0.53
19:D4:94:TYR:HB2	19:D4:96:LEU:HD11	1.91	0.53
21:D6:9:GLY:O	21:D6:10:ARG:HG3	2.09	0.53
26:E1:127:GLY:O	26:E1:129:GLY:N	2.42	0.53
27:L2:47:GLN:O	27:L2:60:LYS:N	2.28	0.53
1:5:2554:A:N1	27:L2:84:THR:HB	213.83	0.53
29:L4:317:PRO:C	29:L4:319:LYS:H	2.11	0.53
30:L5:290:ILE:O	30:L5:294:ALA:HB2	2.09	0.53
1:1:500:C:H4'	31:L6:80:ASN:HD21	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L8:149:LYS:HD3	33:L8:201:THR:O	4.89	0.53
35:M0:210:ILE:HG12	35:M0:217:PHE:CZ	2.44	0.53
38:M4:113:THR:H	38:M4:116:GLU:HB2	1.73	0.53
38:M4:17:VAL:HG11	38:M4:74:ARG:HA	2.12	0.53
42:M8:33:TYR:HA	42:M8:36:LEU:HB2	2.12	0.53
43:M9:99:LEU:HD11	43:M9:103:ARG:CZ	2.39	0.53
52:N8:2:PRO:HG2	52:N8:5:PHE:CD2	2.41	0.53
54:O0:27:TYR:O	54:O0:31:VAL:HG23	2.08	0.53
66:Q2:2:VAL:N	66:Q2:90:HIS:O	2.42	0.53
70:S2:98:PHE:O	70:S2:117:THR:HA	2.09	0.53
72:S4:31:PRO:HD2	72:S4:38:LEU:HD13	2.79	0.53
76:S8:147:ALA:C	76:S8:149:SER:H	2.61	0.53
76:S8:76:THR:HB	76:S8:105:ASP:CB	2.39	0.53
77:S9:90:LYS:HG3	77:S9:95:TYR:CD1	2.98	0.53
1:1:1328:C:H2'	1:1:1329:U:C6	2.44	0.53
1:1:72:C:H5'	37:M3:63:VAL:HG22	1.91	0.53
1:1:738:A:H2'	1:1:739:G:C8	2.44	0.53
2:2:226:A:H2'	2:2:227:U:H5'	1.90	0.53
2:2:717:C:N3	2:2:720:G:N1	2.53	0.53
1:5:1220:U:H6	1:5:1222:G:C2	2.27	0.53
1:5:2191:U:H2'	1:5:2192:C:H6	1.72	0.53
1:5:2209:U:O2'	1:5:2210:G:OP2	2.23	0.53
1:5:22:G:O4'	4:8:104:A:H1'	2.08	0.53
1:5:825:U:C2	1:5:826:G:C8	2.97	0.53
2:6:1553:G:N2	2:6:1555:A:H3'	2.24	0.53
3:7:1:G:C2	3:7:2:G:C8	2.97	0.53
10:C5:78:THR:OG1	10:C5:80:MET:HG3	2.09	0.53
23:D8:42:ARG:HH12	23:D8:56:LEU:HB3	1.73	0.53
25:E0:13:LYS:HE3	25:E0:17:GLN:NE2	5.30	0.53
30:L5:236:LEU:HA	30:L5:239:ILE:HD12	1.89	0.53
33:L8:116:VAL:HG21	33:L8:123:GLN:HA	1.91	0.53
33:L8:149:LYS:O	33:L8:176:PRO:HG2	2.09	0.53
1:1:685:G:P	37:M3:35:ARG:NH1	2.82	0.53
39:M5:190:THR:O	39:M5:194:GLN:HG2	2.13	0.53
1:5:3180:A:C6	40:M6:114:LYS:HG2	269.33	0.53
40:M6:12:LYS:HG3	40:M6:40:GLU:HB3	1.90	0.53
40:M6:59:ARG:HB3	40:M6:59:ARG:NH1	2.23	0.53
41:M7:176:ILE:O	41:M7:180:LYS:HG2	2.81	0.53
4:8:131:A:H5''	49:N5:93:TYR:CE2	108.70	0.53
71:S3:195:SER:HB2	71:S3:200:LYS:HG2	4.39	0.53
72:S4:17:HIS:CE1	72:S4:18:TRP:CD1	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:S7:43:PHE:HB2	75:S7:61:PHE:O	2.09	0.53
75:S7:56:LYS:HB2	75:S7:88:ARG:HH11	2.74	0.53
79:SR:12:THR:HG22	79:SR:311:ARG:HG2	2.21	0.53
79:SR:265:LEU:O	79:SR:268:GLN:HG2	2.08	0.53
1:1:1049:C:H2'	1:1:1050:U:C6	2.43	0.53
1:1:2724:U:OP2	45:N1:87:LYS:HE3	2.09	0.53
1:1:439:C:C6	1:1:439:C:H5''	2.44	0.53
1:1:979:U:C2	1:1:980:A:C4	2.97	0.53
2:2:1341:A:H61	2:2:1384:A:H61	1.57	0.53
2:2:332:U:OP2	76:S8:175:GLN:NE2	2.39	0.53
2:2:503:G:O2'	2:2:504:U:OP1	2.26	0.53
2:2:577:G:H3'	2:2:577:G:C8	2.44	0.53
1:5:151:A:H2'	1:5:152:U:H6	1.74	0.53
1:5:2167:A:O5'	1:5:2167:A:H8	1.91	0.53
1:5:2267:C:H2'	1:5:2268:U:O4'	2.08	0.53
1:5:3241:G:H2'	1:5:3245:A:C8	2.43	0.53
1:5:3268:A:H5'	31:L6:46:ARG:HH21	242.78	0.53
4:8:91:C:H2'	4:8:92:A:H8	1.74	0.53
30:L5:207:TYR:O	30:L5:211:LEU:HB2	2.43	0.53
1:5:745:C:OP1	42:M8:145:ASN:HB2	165.70	0.53
44:N0:74:ASN:HD21	44:N0:144:LEU:HD21	1.74	0.53
59:O5:63:ARG:O	59:O5:67:ARG:HB2	2.59	0.53
1:5:361:A:OP1	61:O7:24:ARG:NH1	119.50	0.53
62:O8:16:ARG:NH1	62:O8:70:PRO:HG3	5.67	0.53
70:S2:226:THR:OG1	70:S2:228:ASN:OD1	2.26	0.53
72:S4:68:ARG:HH11	72:S4:76:VAL:HG21	1.74	0.53
72:S4:47:PHE:CE2	72:S4:90:ILE:HG21	3.01	0.53
75:S7:156:SER:O	75:S7:159:VAL:HB	2.08	0.53
75:S7:185:ILE:HG22	75:S7:186:PRO:HD2	4.21	0.53
1:1:2655:U:H4'	1:1:2656:A:O4'	2.10	0.52
1:1:3242:G:N2	1:1:3245:A:H5''	2.24	0.52
2:2:1236:A:H2'	2:2:1237:G:C8	2.44	0.52
2:2:1525:A:N1	2:2:1608:U:H1'	2.24	0.52
2:2:1542:G:N2	2:2:1568:C:H1'	2.24	0.52
2:2:192:U:O2'	2:2:193:U:O4'	2.26	0.52
2:2:199:G:HO2'	2:2:200:A:H8	1.57	0.52
1:5:1114:U:H5''	52:N8:22:ILE:HD12	187.73	0.52
1:5:1794:G:O2'	1:5:1795:U:H5'	2.09	0.52
1:5:209:A:H4'	1:5:211:A:N7	2.24	0.52
1:5:3242:G:N2	1:5:3245:A:H5''	2.24	0.52
2:6:21:U:H2'	2:6:22:A:H8	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:7:64:A:N1	35:M0:202:LYS:HG2	337.60	0.52
6:C1:33:ARG:NH2	6:C1:51:GLY:O	2.42	0.52
11:C6:4:VAL:HG12	11:C6:5:PRO:HD2	1.91	0.52
16:D1:29:HIS:HB3	68:S0:138:TYR:O	2.33	0.52
18:D3:130:VAL:HG23	18:D3:131:SER:H	2.64	0.52
20:D5:54:VAL:HG13	20:D5:57:TYR:CD1	2.45	0.52
21:D6:44:ILE:HD11	21:D6:64:LEU:HD22	1.91	0.52
22:D7:31:TYR:CD2	22:D7:48:SER:HB3	2.73	0.52
29:L4:62:ALA:HB3	29:L4:90:PHE:CE2	2.45	0.52
43:M9:23:TRP:HB3	43:M9:51:VAL:HG22	1.89	0.52
47:N3:33:ASN:O	47:N3:62:VAL:HA	2.46	0.52
50:N6:80:VAL:HG23	50:N6:101:PRO:HD3	4.69	0.52
50:N6:45:ILE:HD12	50:N6:119:ILE:HG23	2.45	0.52
42:M8:182:LYS:NZ	52:N8:55:LYS:O	3.99	0.52
53:N9:8:THR:HG23	53:N9:10:HIS:H	1.72	0.52
2:6:1653:C:O3'	65:Q1:21:ARG:HD2	285.40	0.52
68:S0:130:ALA:HA	68:S0:133:ILE:HD13	1.90	0.52
68:S0:48:ILE:HG21	68:S0:161:PRO:HB2	1.91	0.52
69:S1:208:GLN:O	69:S1:210:ILE:HG13	2.09	0.52
76:S8:76:THR:HG21	76:S8:105:ASP:O	5.77	0.52
79:SR:19:TRP:CD2	79:SR:306:THR:HG22	2.53	0.52
1:1:1176:C:OP1	40:M6:25:LYS:HE3	2.10	0.52
1:1:2173:U:H5'	27:L2:18:SER:HB2	1.89	0.52
1:1:2207:A:O2'	1:1:2208:A:H2'	2.08	0.52
1:1:670:C:OP1	42:M8:147:ARG:NH2	2.43	0.52
2:2:1327:C:C4	2:2:1328:G:N7	2.77	0.52
2:2:1612:U:H1'	73:S5:99:MET:HE1	1.89	0.52
2:2:1776:A:H2'	2:2:1777:G:C8	2.44	0.52
2:2:78:A:H5'	74:S6:154:ARG:O	2.08	0.52
4:4:62:C:H4'	4:4:63:G:O5'	2.09	0.52
1:5:197:G:N2	1:5:372:A:C8	2.78	0.52
1:5:823:C:H2'	1:5:824:C:H6	1.73	0.52
4:8:83:C:H4'	4:8:85:G:N3	2.25	0.52
4:8:8:C:H2'	4:8:9:A:C8	2.44	0.52
8:C3:20:ARG:O	8:C3:65:VAL:HG13	2.09	0.52
11:C6:49:TYR:O	11:C6:53:LEU:HG	2.36	0.52
2:6:1381:U:H4'	15:D0:59:PRO:HG3	436.68	0.52
15:D0:58:LEU:HD12	15:D0:88:LYS:HB3	1.91	0.52
28:L3:56:ILE:HD11	28:L3:359:ILE:HG12	2.21	0.52
29:L4:49:ALA:HA	29:L4:109:TRP:CZ2	2.43	0.52
33:L8:116:VAL:HG23	33:L8:125:ALA:HB3	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:N3:79:VAL:HB	47:N3:118:VAL:HG13	3.04	0.52
1:5:3041:U:OP1	47:N3:12:ARG:NH1	261.66	0.52
1:5:1821:U:O2	58:O4:67:LYS:HB2	170.56	0.52
4:4:80:A:N6	59:O5:43:LYS:HD2	2.24	0.52
60:O6:63:ASN:OD1	60:O6:63:ASN:N	2.40	0.52
23:D8:53:ILE:HB	73:S5:57:SER:HA	2.60	0.52
75:S7:60:ILE:HD12	75:S7:92:PHE:CZ	2.45	0.52
77:S9:96:VAL:HA	77:S9:99:LEU:HD22	1.91	0.52
78:SM:100:THR:HG23	78:SM:101:ASP:N	2.25	0.52
79:SR:248:ASN:ND2	79:SR:297:ASP:O	2.41	0.52
1:1:3082:C:H2'	1:1:3083:G:H8	1.73	0.52
1:1:3259:U:C6	1:1:3259:U:H5'	2.44	0.52
1:1:3306:U:H2'	1:1:3307:A:H5''	1.91	0.52
1:1:1555:U:H5'	81:1:3894:8UZ:C2	2.39	0.52
2:2:1166:A:H5''	73:S5:101:GLY:N	2.20	0.52
2:2:257:A:H1'	76:S8:73:SER:HB2	1.91	0.52
2:2:904:G:H2'	2:2:905:A:O4'	2.09	0.52
1:5:143:G:C2	1:5:144:A:C8	2.97	0.52
1:5:1621:A:H2'	1:5:1622:U:C6	2.44	0.52
1:5:1863:G:N1	1:5:1866:C:OP2	2.25	0.52
1:5:839:C:H2'	1:5:840:C:H6	1.73	0.52
2:6:1624:C:H2'	2:6:1625:C:C6	2.45	0.52
2:6:542:A:H2'	2:6:542:A:OP2	2.09	0.52
6:C1:99:ARG:HG2	18:D3:9:LEU:HA	4.46	0.52
10:C5:96:ILE:HB	10:C5:120:SER:HB2	2.30	0.52
11:C6:32:ASN:N	11:C6:67:VAL:O	2.33	0.52
14:C9:14:PHE:CE2	14:C9:63:ARG:HB2	2.90	0.52
18:D3:23:ARG:O	18:D3:26:GLU:HB2	2.13	0.52
26:E1:96:LYS:O	26:E1:97:LYS:HB3	2.09	0.52
28:L3:37:ARG:HG2	28:L3:186:GLY:HA2	1.91	0.52
28:L3:305:ILE:H	28:L3:305:ILE:CD1	2.21	0.52
29:L4:327:LEU:HA	32:L7:166:ASN:ND2	2.25	0.52
30:L5:290:ILE:HG23	35:M0:206:LEU:HD21	1.90	0.52
31:L6:104:GLU:HA	31:L6:107:ALA:HB2	2.57	0.52
33:L8:163:VAL:HG22	33:L8:166:LEU:HD12	2.09	0.52
33:L8:186:LEU:HB3	33:L8:195:SER:HB3	1.90	0.52
36:M1:108:GLU:OE1	36:M1:122:ILE:HG21	2.10	0.52
36:M1:7:ASN:N	36:M1:7:ASN:OD1	2.58	0.52
37:M3:60:ALA:HB3	37:M3:65:TYR:O	2.09	0.52
58:O4:99:LYS:O	58:O4:103:LYS:HG2	2.19	0.52
72:S4:251:GLU:O	72:S4:255:ARG:HG2	4.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:6:741:C:N4	75:S7:105:THR:O	357.51	0.52
43:M9:185:LEU:HD22	75:S7:39:ARG:NH2	2.24	0.52
77:S9:174:ARG:HE	77:S9:174:ARG:HA	1.73	0.52
2:6:4:C:O2'	77:S9:17:ARG:NH1	390.84	0.52
79:SR:69:GLN:HG2	79:SR:111:MET:HA	1.91	0.52
1:1:1590:G:OP1	58:O4:17:SER:OG	2.28	0.52
1:1:2379:U:H2'	1:1:2380:U:C6	2.45	0.52
1:1:576:C:H2'	1:1:577:C:H6	1.74	0.52
1:1:613:G:H2'	1:1:614:C:H6	1.73	0.52
2:2:326:G:OP1	6:C1:57:LYS:NZ	2.32	0.52
2:2:871:G:H2'	2:2:872:G:C8	2.44	0.52
1:5:1080:A:H2'	1:5:1081:U:H4'	1.92	0.52
1:5:2662:G:H2'	1:5:2663:G:H8	1.73	0.52
1:5:3339:A:N7	81:5:3857:8UZ:O6	2.42	0.52
1:5:532:A:H2'	1:5:533:A:C8	2.44	0.52
2:6:1280:C:H2'	2:6:1281:G:H8	1.73	0.52
2:6:492:A:O2'	2:6:496:G:N7	2.42	0.52
11:C6:18:ALA:CB	11:C6:69:VAL:HG13	2.39	0.52
13:C8:12:GLN:HG3	13:C8:13:HIS:O	2.09	0.52
13:C8:2:SER:N	20:D5:81:ARG:HD3	2.25	0.52
15:D0:41:ILE:HG13	15:D0:103:ILE:HD11	1.90	0.52
18:D3:63:GLN:HA	18:D3:65:ASN:H	1.75	0.52
19:D4:104:SER:HB3	19:D4:107:GLN:HB2	1.92	0.52
30:L5:57:ASN:O	30:L5:93:THR:HG21	6.08	0.52
36:M1:81:GLU:HA	36:M1:84:LEU:HB2	1.92	0.52
38:M4:34:ALA:HB2	38:M4:85:TRP:HZ3	1.74	0.52
49:N5:135:ILE:O	49:N5:139:ILE:HG13	6.22	0.52
57:O3:72:THR:HG21	57:O3:84:THR:HG23	2.13	0.52
68:S0:172:LEU:O	68:S0:176:LEU:HG	2.09	0.52
69:S1:140:ILE:O	69:S1:210:ILE:HA	2.10	0.52
69:S1:97:LEU:HB3	69:S1:232:HIS:CD2	4.49	0.52
69:S1:58:SER:O	69:S1:62:LYS:HD3	3.85	0.52
70:S2:143:TYR:CD2	70:S2:147:ASN:HA	4.22	0.52
70:S2:85:PRO:HG3	70:S2:98:PHE:HD1	2.47	0.52
72:S4:87:MET:SD	72:S4:123:LEU:HB2	2.88	0.52
73:S5:57:SER:O	73:S5:59:VAL:N	2.42	0.52
1:1:1940:G:C2	1:1:2109:U:O2	2.62	0.52
1:1:2649:A:C2	1:1:2650:U:C5	2.98	0.52
1:1:631:U:H2'	1:1:632:G:H8	1.75	0.52
1:1:993:G:OP1	45:N1:58:GLN:NE2	2.41	0.52
2:2:1202:A:C8	2:2:1456:C:C5	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:1202:A:N6	2:2:1457:C:H5''	2.25	0.52
2:2:1535:U:H4'	2:2:1535:U:OP1	2.08	0.52
2:2:1603:U:H2'	2:2:1604:U:H6	1.74	0.52
2:2:1796:C:OP2	21:D6:5:ARG:NH1	2.42	0.52
2:2:273:G:H1	2:2:283:U:H3	1.57	0.52
2:2:3:U:C4	77:S9:16:LYS:HD3	2.45	0.52
2:2:853:G:OP1	43:M9:176:ARG:HG3	2.09	0.52
2:2:985:G:N7	83:2:2143:HOH:O	2.34	0.52
1:5:2102:U:H2'	1:5:2103:U:C6	2.44	0.52
1:5:2960:C:H2'	1:5:2961:G:H8	1.74	0.52
1:5:848:A:C2	2:6:973:A:H5'	2.45	0.52
2:6:1333:C:H4'	71:S3:162:GLN:HG3	428.70	0.52
4:8:155:A:H4'	33:L8:185:ARG:HD2	145.74	0.52
10:C5:90:ILE:HG21	10:C5:109:PRO:HG3	3.21	0.52
11:C6:115:THR:HG23	11:C6:118:ILE:O	4.62	0.52
11:C6:40:GLU:HA	11:C6:42:GLU:N	2.25	0.52
18:D3:126:LYS:HE2	18:D3:129:GLY:HA2	1.92	0.52
18:D3:57:LEU:HD11	18:D3:73:ARG:HG3	2.17	0.52
20:D5:85:LYS:HG3	20:D5:86:GLU:N	2.23	0.52
21:D6:53:LEU:O	21:D6:57:SER:HB3	4.35	0.52
21:D6:63:ALA:O	21:D6:64:LEU:HB3	2.09	0.52
27:L2:116:VAL:CG1	27:L2:134:VAL:HG11	3.26	0.52
1:1:1794:G:H4'	27:L2:191:LEU:HD13	1.90	0.52
28:L3:62:ARG:NH2	28:L3:349:LYS:HE3	2.24	0.52
1:1:364:G:OP1	29:L4:60:THR:HG23	2.10	0.52
36:M1:109:HIS:HE1	36:M1:121:GLY:O	3.77	0.52
54:O0:74:ASN:OD1	54:O0:74:ASN:N	2.75	0.52
68:S0:150:ASP:OD1	68:S0:165:ARG:NH2	2.42	0.52
68:S0:30:GLN:NE2	68:S0:149:LEU:HD13	2.25	0.52
69:S1:58:SER:O	69:S1:62:LYS:HG3	2.09	0.52
73:S5:94:THR:CG2	73:S5:114:ILE:HG13	2.35	0.52
77:S9:83:VAL:HA	77:S9:149:ARG:HA	2.48	0.52
1:1:2663:G:H5'	30:L5:152:ARG:HD3	1.90	0.52
1:1:799:G:O2'	37:M3:18:TRP:NE1	2.38	0.52
1:1:875:G:H5''	83:1:4022:HOH:O	2.10	0.52
1:5:1412:G:OP1	56:O2:105:ARG:NH2	143.23	0.52
1:5:1671:C:OP1	43:M9:60:LYS:NZ	169.46	0.52
1:5:1677:G:N7	46:N2:74:LYS:HE3	152.73	0.52
1:5:208:C:OP1	29:L4:163:LYS:NZ	82.39	0.52
1:5:2726:C:O2'	1:5:2727:A:H2'	2.09	0.52
1:5:3379:C:H4'	28:L3:315:GLY:HA2	215.31	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:385:A:C6	1:5:386:A:C6	2.98	0.52
2:6:490:C:N3	2:6:491:C:C2	2.78	0.52
4:8:121:U:C2	4:8:122:U:C5	2.98	0.52
5:C0:23:ALA:O	5:C0:24:LYS:HB3	4.57	0.52
5:C0:72:GLY:O	5:C0:76:LEU:HD22	2.10	0.52
6:C1:26:LYS:HD2	6:C1:27:THR:H	4.49	0.52
24:D9:31:ILE:HB	24:D9:38:ILE:O	2.10	0.52
1:5:2746:A:C2	30:L5:148:ILE:HD13	259.58	0.52
30:L5:208:MET:HG2	30:L5:223:PHE:CE2	2.94	0.52
31:L6:170:LYS:HB3	31:L6:172:HIS:CE1	2.59	0.52
32:L7:208:SER:OG	32:L7:209:ASN:N	2.41	0.52
34:L9:68:LEU:O	34:L9:71:VAL:N	2.76	0.52
38:M4:58:ILE:HD13	38:M4:63:VAL:HG23	4.53	0.52
1:5:1306:G:C6	40:M6:62:THR:HA	231.26	0.52
42:M8:176:ARG:NH1	52:N8:46:ASP:OD1	2.92	0.52
43:M9:182:ASP:O	43:M9:186:LYS:HB2	2.08	0.52
46:N2:15:PHE:HE2	46:N2:71:PHE:HD1	2.43	0.52
69:S1:129:THR:HB	69:S1:180:THR:HA	1.92	0.52
69:S1:26:ARG:HD2	69:S1:49:ASN:OD1	2.09	0.52
75:S7:133:THR:O	75:S7:134:GLU:HB2	2.10	0.52
75:S7:153:LEU:HD22	75:S7:184:GLU:HB3	1.90	0.52
1:1:209:A:H4'	1:1:211:A:C8	2.45	0.52
2:2:186:C:H3'	2:2:187:G:H8	1.74	0.52
2:2:73:U:O2'	2:2:74:U:H5''	2.10	0.52
1:5:2711:C:O2	1:5:2744:U:H5''	2.10	0.52
2:6:1756:A:H2'	2:6:1757:G:H5'	1.91	0.52
2:6:493:U:N3	2:6:494:U:H2'	2.25	0.52
4:8:155:A:H2'	4:8:156:U:O4'	2.10	0.52
8:C3:142:GLU:HG3	8:C3:145:THR:OG1	2.09	0.52
13:C8:53:ASP:HB3	13:C8:56:LYS:HD2	1.91	0.52
16:D1:73:ALA:HB3	16:D1:79:LEU:HD12	1.92	0.52
17:D2:36:LYS:O	17:D2:40:VAL:HG23	2.09	0.52
17:D2:66:ASN:OD1	17:D2:68:ARG:HG3	2.10	0.52
1:5:2154:U:H4'	27:L2:240:ALA:CB	219.88	0.52
27:L2:29:LEU:HA	27:L2:76:PHE:HE1	2.25	0.52
29:L4:203:ARG:NH2	29:L4:240:PRO:HB3	2.24	0.52
30:L5:279:LYS:HE3	30:L5:282:ARG:HH12	1.73	0.52
33:L8:140:VAL:O	33:L8:144:GLU:HG3	2.10	0.52
34:L9:5:GLN:HE22	34:L9:56:ALA:HB1	1.74	0.52
36:M1:14:ILE:HD12	36:M1:77:GLU:HG2	1.91	0.52
39:M5:6:TYR:CD2	60:O6:40:VAL:HG13	2.59	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:N1:39:ILE:HG22	45:N1:99:SER:HB3	1.91	0.52
45:N1:51:GLY:O	45:N1:95:HIS:CD2	2.63	0.52
1:1:3039:C:OP1	47:N3:88:ARG:NH2	2.41	0.52
56:O2:78:ASN:HA	56:O2:108:ILE:HD11	1.91	0.52
1:1:585:A:H4'	57:O3:72:THR:HG22	1.92	0.52
61:O7:14:LYS:HE2	63:O9:51:ILE:HG13	1.91	0.52
62:O8:4:GLU:HG2	62:O8:5:ILE:N	2.24	0.52
68:S0:9:LEU:HD23	68:S0:54:TRP:CG	2.44	0.52
70:S2:218:ILE:O	70:S2:221:THR:OG1	2.27	0.52
2:6:169:A:OP2	74:S6:137:ARG:NH2	319.55	0.52
77:S9:99:LEU:O	77:S9:100:LYS:HB3	2.10	0.52
71:S3:225:TYR:OH	79:SR:191:ASP:OD2	3.25	0.52
1:1:1108:U:H2'	1:1:1109:U:C6	2.45	0.52
1:1:2992:U:H5'	1:1:3310:A:O2'	2.09	0.52
1:1:80:G:H2'	1:1:81:C:C6	2.44	0.52
2:2:1058:U:O2'	2:2:1059:U:OP2	2.21	0.52
2:2:1100:G:O2'	17:D2:76:SER:N	2.42	0.52
2:2:1133:A:H2'	2:2:1134:C:O4'	2.10	0.52
2:2:1233:G:O2'	26:E1:145:HIS:HB2	2.10	0.52
2:2:1291:G:N2	2:2:1324:G:N2	2.58	0.52
2:2:1410:A:O2'	2:2:1411:A:OP1	2.26	0.52
2:2:1650:U:H2'	2:2:1651:A:C8	2.45	0.52
2:2:61:A:C6	2:2:62:A:C6	2.98	0.52
2:2:94:U:H2'	2:2:95:G:O4'	2.10	0.52
1:5:1816:A:O2'	1:5:1817:G:OP1	2.27	0.52
1:5:3122:A:N1	34:L9:70:THR:HG21	322.05	0.52
1:5:385:A:C2	1:5:386:A:C4	2.98	0.52
2:6:151:G:H1	2:6:163:G:H22	1.56	0.52
2:6:252:U:C2	2:6:253:A:C8	2.98	0.52
20:D5:55:PRO:O	20:D5:56:THR:OG1	2.23	0.52
25:E0:46:ASN:O	25:E0:47:VAL:HG12	2.08	0.52
26:E1:88:PRO:HB2	26:E1:89:LYS:HA	5.81	0.52
27:L2:3:ARG:HB2	27:L2:207:VAL:HG22	2.06	0.52
28:L3:4:ARG:HD3	28:L3:7:GLU:HA	1.91	0.52
28:L3:92:TYR:CE1	28:L3:159:ARG:HD2	2.66	0.52
30:L5:38:THR:O	30:L5:48:LYS:NZ	2.99	0.52
32:L7:143:THR:HG22	32:L7:241:LYS:HE3	1.92	0.52
37:M3:62:THR:O	37:M3:66:ASN:HB3	2.09	0.52
58:O4:51:LEU:HD23	58:O4:51:LEU:H	1.74	0.52
1:1:1821:U:C2	58:O4:67:LYS:HB2	2.45	0.52
1:1:316:U:O2'	60:O6:30:LYS:HD2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:Q0:79:GLU:O	64:Q0:82:LEU:N	2.42	0.52
68:S0:74:VAL:HG23	68:S0:118:PRO:HB3	1.92	0.52
71:S3:107:PHE:O	71:S3:111:ASN:HB2	2.23	0.52
71:S3:57:ASP:N	71:S3:57:ASP:OD1	2.43	0.52
72:S4:182:TYR:HB2	72:S4:228:ILE:HD13	1.92	0.52
11:C6:28:LEU:HA	73:S5:26:ALA:HB3	1.92	0.52
79:SR:106:HIS:CE1	79:SR:132:LYS:HD2	3.39	0.52
79:SR:178:VAL:HB	79:SR:192:PHE:HB2	1.92	0.52
1:1:1014:U:H5'	1:1:1015:U:OP2	2.10	0.52
1:1:1602:A:H4'	43:M9:10:LEU:HD21	1.91	0.52
1:1:209:A:H4'	1:1:211:A:N7	2.25	0.52
1:1:3350:C:H4'	1:1:3351:U:OP1	2.10	0.52
2:2:304:U:H2'	2:2:305:C:C6	2.45	0.52
2:2:73:U:H1'	2:2:74:U:H5''	1.92	0.52
2:2:926:A:H1'	2:2:988:A:C2	2.45	0.52
4:4:125:U:HO2'	4:4:126:A:P	2.33	0.52
1:5:1916:U:H2'	1:5:1917:C:C6	2.45	0.52
1:5:2131:A:N6	67:Q3:18:TYR:HA	227.92	0.52
1:5:2344:U:H2'	1:5:2345:A:C8	2.45	0.52
1:5:3245:A:H2	1:5:3246:G:N1	2.07	0.52
2:6:1366:U:OP1	11:C6:30:LYS:HD3	425.78	0.52
2:6:304:U:H2'	2:6:305:C:C6	2.45	0.52
13:C8:18:LEU:O	13:C8:20:THR:HG23	2.10	0.52
13:C8:36:LYS:HB3	13:C8:105:VAL:HG11	1.92	0.52
15:D0:53:LYS:CB	15:D0:92:ASP:HB2	3.32	0.52
2:2:1199:G:H1	24:D9:31:ILE:HD11	1.75	0.52
27:L2:204:MET:HE2	27:L2:208:ASP:HB3	2.02	0.52
35:M0:86:HIS:HB3	35:M0:139:ARG:CG	2.45	0.52
36:M1:92:ARG:NH2	36:M1:94:ARG:HH11	5.44	0.52
37:M3:16:LYS:O	37:M3:17:HIS:HB2	4.62	0.52
40:M6:38:ALA:O	40:M6:41:LEU:HB2	2.09	0.52
1:1:1917:C:P	43:M9:85:ARG:HH22	2.33	0.52
44:N0:77:VAL:HG11	44:N0:106:LEU:CD1	2.40	0.52
44:N0:135:VAL:O	44:N0:141:LYS:HE3	2.10	0.52
49:N5:50:ALA:HB2	59:O5:79:ASP:HB3	5.62	0.52
52:N8:62:HIS:O	52:N8:62:HIS:CG	2.65	0.52
56:O2:18:LYS:HD3	56:O2:30:GLU:OE1	2.12	0.52
56:O2:76:VAL:HG13	56:O2:81:ASP:HB2	1.92	0.52
57:O3:14:LEU:HD11	57:O3:31:LYS:HB2	1.91	0.52
59:O5:31:LEU:HD22	59:O5:44:ILE:HG13	1.92	0.52
60:O6:81:THR:HA	60:O6:84:LYS:NZ	3.64	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:Q2:28:TYR:HB3	66:Q2:69:VAL:HB	2.17	0.52
67:Q3:59:CYS:SG	67:Q3:60:CYS:N	3.87	0.52
69:S1:30:PHE:CD1	69:S1:94:LYS:HA	3.61	0.52
71:S3:115:ILE:HG23	71:S3:116:ARG:HG3	1.91	0.52
71:S3:176:LEU:HD12	71:S3:176:LEU:H	1.75	0.52
71:S3:58:VAL:O	71:S3:65:ARG:HB3	2.10	0.52
1:1:1576:G:H4'	1:1:1576:G:OP1	2.09	0.52
1:1:224:C:O2	50:N6:103:LYS:NZ	2.43	0.52
1:1:2827:U:O2'	1:1:2829:U:O4	2.28	0.52
1:1:688:G:C5	1:1:690:A:N7	2.78	0.52
2:2:1671:A:C4	2:2:1731:A:C2	2.98	0.52
2:2:397:A:O3'	76:S8:50:GLY:HA2	2.10	0.52
1:5:144:A:H2'	1:5:145:G:O4'	2.10	0.52
1:5:1559:A:N6	1:5:1581:C:H41	2.08	0.52
1:5:1718:G:H2'	1:5:1719:G:H8	1.74	0.52
1:5:2224:A:N1	1:5:2783:U:O2'	2.36	0.52
1:5:2572:C:O2'	1:5:2573:G:OP2	2.26	0.52
1:5:871:U:H2'	1:5:872:U:O4'	2.10	0.52
2:6:232:U:H3'	2:6:232:U:OP1	2.10	0.52
2:6:255:U:H2'	2:6:256:A:H8	1.75	0.52
2:6:327:U:O2'	6:C1:10:GLU:HG2	273.84	0.52
2:6:421:A:O2'	2:6:422:G:H5'	2.10	0.52
12:C7:13:SER:HA	12:C7:54:THR:HG22	2.07	0.52
13:C8:2:SER:OG	13:C8:4:VAL:HG22	8.45	0.52
21:D6:26:CYS:SG	21:D6:28:LYS:HB2	3.50	0.52
27:L2:214:GLY:C	27:L2:216:HIS:H	2.94	0.52
30:L5:61:ILE:HG23	30:L5:79:TYR:CE1	2.45	0.52
34:L9:162:GLN:HG3	34:L9:163:GLN:N	2.25	0.52
34:L9:41:ILE:HG23	34:L9:43:VAL:HG13	1.92	0.52
38:M4:72:LEU:HD12	38:M4:73:PRO:HD2	1.90	0.52
43:M9:31:GLU:O	43:M9:34:GLN:HB2	2.44	0.52
55:O1:51:LEU:HD22	55:O1:55:LEU:HD12	1.92	0.52
57:O3:16:TYR:CG	57:O3:25:PRO:HA	2.74	0.52
69:S1:41:ARG:HH22	69:S1:97:LEU:HD21	1.75	0.52
69:S1:48:VAL:HG21	69:S1:61:LEU:HD22	3.92	0.52
72:S4:11:ARG:HB2	72:S4:26:CYS:O	2.10	0.52
78:SM:65:THR:OG1	78:SM:66:ALA:N	3.52	0.52
1:1:2736:A:O2'	45:N1:68:THR:HG21	2.09	0.51
1:1:3280:U:H1'	1:1:3281:U:H5'	1.92	0.51
2:2:755:A:H2'	2:2:756:A:C8	2.45	0.51
1:5:2514:U:C6	1:5:2514:U:OP1	2.63	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:6:1471:A:OP1	73:S5:185:ARG:NH1	332.66	0.51
2:6:741:C:H1'	2:6:742:U:OP1	2.10	0.51
10:C5:100:LYS:CD	10:C5:101:ALA:H	2.22	0.51
10:C5:128:HIS:H	78:SM:71:ASN:HD21	1.57	0.51
13:C8:67:GLU:O	13:C8:70:VAL:HG23	2.10	0.51
2:6:778:G:O6	19:D4:10:ARG:HB3	429.61	0.51
27:L2:67:TYR:N	27:L2:67:TYR:CD2	2.76	0.51
1:5:3045:G:O3'	28:L3:275:ARG:NH1	233.66	0.51
28:L3:46:PHE:HD1	28:L3:208:VAL:HG21	1.99	0.51
1:1:1028:U:C5	36:M1:174:LYS:HE3	2.45	0.51
52:N8:100:PRO:HG2	52:N8:123:VAL:HG13	3.76	0.51
31:L6:7:PRO:HD3	56:O2:74:PHE:CE1	3.54	0.51
66:Q2:58:PHE:CE1	66:Q2:60:LYS:HB2	4.16	0.51
67:Q3:50:GLY:O	67:Q3:51:ALA:HB3	2.11	0.51
68:S0:124:THR:O	68:S0:146:LEU:HB2	2.36	0.51
68:S0:126:PRO:HG2	68:S0:152:PRO:HD2	1.91	0.51
68:S0:182:LEU:HB3	68:S0:188:LEU:HD23	1.92	0.51
68:S0:29:VAL:HG13	68:S0:30:GLN:H	4.47	0.51
19:D4:87:PRO:HG3	72:S4:59:ARG:HH11	1.75	0.51
73:S5:40:ILE:HG12	73:S5:41:LYS:N	2.59	0.51
75:S7:154:LEU:O	75:S7:186:PRO:HD3	5.84	0.51
76:S8:177:GLY:O	76:S8:178:ARG:HD3	2.09	0.51
1:1:1696:A:H2'	1:1:1697:A:C8	2.45	0.51
2:2:17:C:H2'	2:2:18:C:H6	1.73	0.51
2:2:604:A:H2'	2:2:605:A:O4'	2.10	0.51
1:5:1148:G:C2	1:5:1156:C:C2	2.98	0.51
1:5:1659:U:OP1	83:5:4000:HOH:O	2.18	0.51
1:5:1770:G:H5'	1:5:1771:C:OP2	2.10	0.51
1:5:2881:C:H2'	1:5:2882:U:C6	2.45	0.51
1:5:3285:C:H2'	1:5:3286:G:H5'	1.92	0.51
2:6:538:A:H8	2:6:543:C:N4	2.08	0.51
2:6:90:C:H2'	2:6:91:G:H8	1.74	0.51
14:C9:49:ASP:HB3	14:C9:53:TRP:HB3	1.92	0.51
14:C9:9:VAL:HG22	14:C9:140:LEU:HD23	3.23	0.51
19:D4:50:ALA:O	19:D4:51:GLU:HB3	3.22	0.51
28:L3:81:THR:HG21	28:L3:322:ILE:HD13	4.49	0.51
29:L4:219:LEU:O	29:L4:222:VAL:HG12	2.97	0.51
35:M0:85:PHE:HA	35:M0:140:THR:HG22	1.92	0.51
39:M5:102:ALA:O	39:M5:106:VAL:HG13	2.37	0.51
1:1:2756:C:O4'	45:N1:49:GLN:HG2	2.11	0.51
51:N7:76:ASN:OD1	51:N7:78:ASN:N	2.37	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:O1:72:ARG:O	55:O1:96:VAL:HG13	2.10	0.51
59:O5:56:THR:O	59:O5:60:GLU:HG3	3.99	0.51
68:S0:23:HIS:CE1	68:S0:24:LEU:HD13	3.01	0.51
69:S1:123:ALA:HB2	69:S1:165:ARG:HG2	1.91	0.51
72:S4:9:LEU:HB2	72:S4:30:ARG:HB2	2.33	0.51
75:S7:9:LEU:O	75:S7:10:SER:OG	4.04	0.51
77:S9:18:PRO:O	77:S9:23:ARG:NH2	2.93	0.51
1:1:1719:G:N2	1:1:1726:C:C2	2.79	0.51
1:1:1779:C:C4	43:M9:89:LEU:HD13	2.45	0.51
1:1:2152:A:H1'	1:1:2243:A:N3	2.24	0.51
1:1:2539:C:H5'	1:1:2541:U:O4	2.10	0.51
1:1:701:G:H2'	1:1:702:C:C6	2.45	0.51
1:1:705:A:H4'	1:1:706:A:OP1	2.10	0.51
2:2:1201:G:N2	2:2:1600:A:H5''	2.25	0.51
2:2:1370:U:H4'	2:2:1371:A:H5''	1.92	0.51
2:2:1439:C:H2'	2:2:1440:C:C6	2.45	0.51
2:2:863:A:O5'	17:D2:57:ARG:HG2	2.09	0.51
2:2:898:A:N3	2:2:899:G:H1'	2.26	0.51
1:5:1940:G:H2'	1:5:1941:C:O4'	2.11	0.51
1:5:2203:U:O2'	1:5:2204:C:H5'	2.11	0.51
1:5:3192:U:OP1	40:M6:176:LYS:HE3	312.99	0.51
1:5:767:U:H1'	1:5:768:C:C6	2.45	0.51
2:2:626:U:HO2'	8:C3:113:PHE:HZ	1.58	0.51
9:C4:81:VAL:HG13	9:C4:115:ILE:HG23	3.21	0.51
11:C6:30:LYS:HE2	14:C9:8:ASP:OD1	2.10	0.51
13:C8:28:ILE:O	13:C8:32:LEU:HG	2.70	0.51
13:C8:42:TYR:CZ	13:C8:99:HIS:CD2	2.99	0.51
19:D4:35:VAL:O	19:D4:36:SER:HB3	2.26	0.51
1:1:1363:A:OP1	32:L7:160:ARG:HD3	2.11	0.51
32:L7:98:LYS:HB3	32:L7:99:PRO:HD3	2.14	0.51
35:M0:89:VAL:HG13	35:M0:136:PHE:CE1	3.15	0.51
36:M1:59:ILE:HD12	36:M1:65:ILE:HD11	2.24	0.51
39:M5:99:ARG:NH2	39:M5:118:SER:O	3.18	0.51
40:M6:119:VAL:HG13	40:M6:124:LEU:HD21	1.92	0.51
2:6:814:A:N3	43:M9:170:ARG:NH1	328.21	0.51
47:N3:93:LEU:HA	48:N4:20:LEU:O	2.10	0.51
60:O6:26:ILE:O	60:O6:29:LYS:HB2	2.10	0.51
69:S1:63:GLY:HA2	69:S1:88:VAL:O	2.11	0.51
69:S1:88:VAL:HB	69:S1:98:THR:HG22	7.21	0.51
71:S3:195:SER:OG	71:S3:199:PRO:O	2.68	0.51
75:S7:14:THR:HG23	75:S7:15:GLU:H	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
77:S9:34:PHE:HD1	77:S9:111:THR:HG21	2.03	0.51
1:1:1364:C:H5''	42:M8:3:ILE:HD12	1.92	0.51
1:1:3070:A:H2'	1:1:3071:U:C6	2.46	0.51
1:1:3072:C:H2'	1:1:3073:A:O4'	2.11	0.51
1:1:3210:A:H2'	1:1:3211:C:C6	2.46	0.51
1:1:549:U:H2'	1:1:550:A:C8	2.45	0.51
2:2:29:U:O2'	2:2:30:G:H5'	2.09	0.51
2:2:514:G:O2'	2:2:515:A:H5'	2.10	0.51
1:5:1014:U:H2'	1:5:1015:U:H5''	1.93	0.51
1:5:1099:A:H2'	1:5:1100:U:H6	1.75	0.51
1:5:1673:G:C6	1:5:1775:G:C5	2.99	0.51
1:5:2254:U:H2'	1:5:2261:G:H22	1.74	0.51
1:5:2569:A:H1'	1:5:2570:U:H5''	1.91	0.51
1:5:2775:U:H2'	1:5:2776:C:C6	2.45	0.51
2:6:187:G:H8	2:6:187:G:O5'	1.93	0.51
2:6:416:A:H5'	2:6:417:A:C8	2.45	0.51
2:6:74:U:HO2'	2:6:76:A:H2	1.57	0.51
5:C0:15:LEU:HG	5:C0:68:LEU:HD22	1.92	0.51
11:C6:82:ARG:HH12	11:C6:114:ARG:HB2	3.58	0.51
13:C8:4:VAL:HG13	20:D5:82:HIS:CB	2.36	0.51
10:C5:18:ARG:HB3	13:C8:95:GLY:HA2	2.97	0.51
29:L4:140:HIS:CD2	29:L4:247:PHE:H	2.29	0.51
29:L4:141:ARG:HB2	29:L4:176:SER:HB3	3.09	0.51
37:M3:105:ASN:OD1	37:M3:107:GLU:HG2	2.23	0.51
37:M3:170:LEU:HD21	52:N8:147:LEU:HD22	2.93	0.51
45:N1:142:SER:OG	45:N1:143:THR:N	3.05	0.51
1:5:2737:C:OP1	45:N1:69:LYS:HB3	226.49	0.51
47:N3:33:ASN:ND2	47:N3:64:LYS:HB2	2.68	0.51
50:N6:55:GLU:HB2	50:N6:108:LYS:HB2	2.17	0.51
55:O1:9:THR:OG1	55:O1:76:SER:HB3	2.71	0.51
75:S7:89:HIS:CD2	75:S7:165:LYS:HG2	3.19	0.51
77:S9:110:GLN:HA	77:S9:129:ILE:HD11	1.91	0.51
2:6:512:A:OP2	77:S9:172:VAL:HB	456.78	0.51
2:6:1460:A:O3'	78:SM:72:ARG:NH1	323.49	0.51
1:1:1770:G:H5'	1:1:1771:C:OP2	2.10	0.51
1:1:2232:A:H2'	1:1:2233:A:C8	2.46	0.51
1:1:2552:C:H5	54:O0:53:LYS:NZ	2.07	0.51
2:2:1714:A:H2'	2:2:1715:G:H8	1.73	0.51
2:2:1789:G:OP2	9:C4:132:ARG:NH2	2.23	0.51
2:2:187:G:H4'	2:2:188:A:OP1	2.10	0.51
1:5:1380:G:OP1	29:L4:191:LYS:HB2	112.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1701:C:H2'	1:5:1702:U:O4'	2.10	0.51
1:5:2659:G:H4'	1:5:2751:G:O2'	2.11	0.51
2:6:1373:C:H2'	2:6:1374:C:C6	2.44	0.51
2:6:255:U:H2'	2:6:256:A:C8	2.46	0.51
8:C3:55:ARG:NH1	8:C3:56:ASP:OD2	2.44	0.51
12:C7:24:LEU:HG	12:C7:34:LEU:HD13	1.92	0.51
19:D4:3:ASP:HB2	19:D4:31:ASN:HB2	4.09	0.51
20:D5:43:ASP:O	20:D5:46:LYS:N	2.36	0.51
29:L4:122:THR:HA	29:L4:235:LEU:HD13	2.16	0.51
31:L6:43:LEU:HD13	57:O3:102:LEU:HB2	1.93	0.51
38:M4:59:ASN:HB3	38:M4:62:GLN:CD	4.24	0.51
52:N8:79:TRP:CE3	52:N8:82:ILE:HD12	2.45	0.51
55:O1:13:THR:HG22	55:O1:72:ARG:NH1	2.18	0.51
59:O5:44:ILE:O	59:O5:48:ARG:HG3	4.58	0.51
1:5:817:A:O2'	61:O7:11:ARG:HG2	148.55	0.51
64:Q0:118:THR:OG1	64:Q0:120:GLN:HG3	2.10	0.51
70:S2:144:TRP:CH2	77:S9:61:THR:HG22	2.54	0.51
71:S3:142:LEU:HG	78:SM:110:TRP:CZ2	5.47	0.51
74:S6:155:ASP:OD2	74:S6:155:ASP:N	3.09	0.51
79:SR:19:TRP:HB2	79:SR:38:ARG:HD2	1.93	0.51
79:SR:11:GLY:O	79:SR:312:VAL:HG22	2.10	0.51
1:1:1791:C:H2'	1:1:1792:C:C5	2.45	0.51
1:1:2112:U:O5'	1:1:2112:U:H6	1.94	0.51
1:1:2653:C:OP1	66:Q2:89:LYS:HB2	2.10	0.51
1:1:3070:A:H2'	1:1:3071:U:H6	1.75	0.51
1:1:3353:G:O2'	1:1:3354:U:OP1	2.24	0.51
1:1:3393:U:H2'	1:1:3394:U:H6	1.75	0.51
1:1:62:A:C8	83:1:4074:HOH:O	2.54	0.51
1:1:744:A:H4'	42:M8:142:GLY:O	2.10	0.51
1:1:677:A:C5	1:1:786:A:C2	2.98	0.51
2:2:304:U:H2'	2:2:305:C:H6	1.75	0.51
1:5:3018:C:C4	1:5:3019:U:C4	2.99	0.51
1:5:779:G:OP1	42:M8:185:LYS:NZ	175.72	0.51
1:5:884:A:C8	1:5:2139:A:C8	2.99	0.51
2:6:465:G:OP2	81:6:2061:8UZ:N1	2.43	0.51
2:6:886:U:OP1	69:S1:214:LYS:NZ	289.71	0.51
2:6:994:G:C2'	2:6:995:A:H5'	2.40	0.51
8:C3:23:PRO:HB3	8:C3:25:TRP:NE1	2.26	0.51
11:C6:5:PRO:HG2	11:C6:24:ALA:CB	2.39	0.51
13:C8:91:ASP:HB3	13:C8:95:GLY:H	1.91	0.51
16:D1:65:SER:OG	68:S0:157:ASP:OD2	2.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:D5:89:ILE:HD12	20:D5:102:THR:O	6.93	0.51
2:2:1434:U:H4'	24:D9:24:CYS:HB2	1.93	0.51
27:L2:183:GLY:O	27:L2:186:PHE:HB3	2.10	0.51
35:M0:205:SER:O	35:M0:209:ASN:HB2	2.09	0.51
36:M1:49:LYS:HE3	78:SM:26:VAL:HG11	1.94	0.51
37:M3:193:ALA:HA	37:M3:194:GLU:HG2	1.92	0.51
1:5:3298:C:OP1	41:M7:74:LYS:NZ	184.78	0.51
47:N3:23:MET:HB2	47:N3:98:ASN:O	2.74	0.51
47:N3:68:GLU:N	47:N3:68:GLU:OE1	2.38	0.51
47:N3:84:SER:HA	47:N3:94:TYR:HB3	1.92	0.51
50:N6:33:ALA:HB3	50:N6:106:ILE:HD11	2.48	0.51
37:M3:167:PHE:CE1	52:N8:132:LYS:HB2	2.46	0.51
1:1:2738:A:H4'	53:N9:37:PRO:HB2	1.92	0.51
68:S0:88:LYS:HG2	68:S0:201:LEU:HG	1.92	0.51
70:S2:111:VAL:HG21	70:S2:191:ALA:HB2	2.69	0.51
2:6:1145:U:O2'	70:S2:89:GLN:O	380.38	0.51
23:D8:22:ARG:NH2	73:S5:148:ARG:HE	4.90	0.51
2:2:153:G:OP1	74:S6:15:THR:OG1	2.29	0.51
74:S6:136:LYS:HZ2	74:S6:174:LYS:HB3	1.76	0.51
74:S6:77:LEU:HD13	74:S6:84:TYR:HB2	1.92	0.51
79:SR:16:HIS:ND1	79:SR:39:ASP:OD2	2.42	0.51
1:1:1027:A:HO2'	1:1:1029:G:H8	1.59	0.51
1:1:1485:G:N2	58:O4:4:ARG:HD2	2.25	0.51
1:1:1775:G:C2	1:1:1776:G:C8	2.98	0.51
1:1:2209:U:H4'	1:1:2210:G:OP2	2.11	0.51
1:1:3082:C:H2'	1:1:3083:G:C8	2.45	0.51
1:1:3283:U:H2'	1:1:3284:G:C8	2.45	0.51
2:2:609:U:C5	18:D3:26:GLU:HG3	2.46	0.51
1:5:2278:C:C2'	1:5:2279:A:H5''	2.41	0.51
1:5:2547:A:C2	1:5:2548:C:H6	2.29	0.51
1:5:2989:U:H2'	1:5:2990:G:O4'	2.10	0.51
1:5:3200:G:H2'	1:5:3201:C:C6	2.46	0.51
1:5:979:U:H1'	1:5:980:A:C5	2.46	0.51
2:6:1553:G:N1	2:6:1556:A:OP2	2.43	0.51
2:6:1566:U:H5''	13:C8:39:GLY:H	354.21	0.51
2:6:500:C:O2'	2:6:501:U:O4'	2.27	0.51
4:8:78:G:H2'	4:8:79:A:O4'	2.11	0.51
6:C1:26:LYS:NZ	6:C1:27:THR:O	8.58	0.51
2:6:1797:A:N1	21:D6:87:ARG:HD2	346.24	0.51
2:6:959:U:H5''	22:D7:28:PRO:HB3	353.21	0.51
27:L2:178:PRO:HD2	67:Q3:26:VAL:CG2	2.81	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:L2:209:HIS:CE1	27:L2:210:PRO:HD2	2.58	0.51
28:L3:79:VAL:O	28:L3:81:THR:HG22	5.91	0.51
29:L4:174:ALA:O	29:L4:178:LEU:HD12	2.10	0.51
30:L5:236:LEU:HD12	30:L5:239:ILE:HD12	1.92	0.51
1:5:769:G:O2'	37:M3:168:ARG:NH2	141.03	0.51
40:M6:54:TYR:CD2	40:M6:145:VAL:HG11	2.68	0.51
52:N8:64:GLN:OE1	52:N8:67:HIS:NE2	4.12	0.51
59:O5:39:PRO:O	59:O5:40:SER:HB3	4.27	0.51
60:O6:55:ARG:O	60:O6:58:ILE:HD13	2.15	0.51
68:S0:147:THR:HB	68:S0:151:SER:HB2	1.93	0.51
70:S2:244:SER:HA	70:S2:247:ALA:HB3	2.68	0.51
70:S2:38:VAL:HG22	70:S2:39:THR:N	2.24	0.51
72:S4:104:ASP:OD1	72:S4:110:ALA:HB2	2.10	0.51
75:S7:131:PHE:O	75:S7:133:THR:N	2.44	0.51
75:S7:64:VAL:CG2	75:S7:94:ALA:HB1	2.38	0.51
77:S9:130:THR:HA	77:S9:142:ASN:HB2	1.93	0.51
77:S9:77:ILE:HD11	77:S9:93:LEU:HD13	3.09	0.51
79:SR:154:VAL:HG12	79:SR:171:SER:HB3	2.13	0.51
1:1:2438:A:H2'	1:1:2439:A:C8	2.40	0.51
1:1:2691:A:H2'	1:1:2692:A:C8	2.46	0.51
2:2:1410:A:H2'	2:2:1411:A:C8	2.45	0.51
2:2:1504:G:H2'	2:2:1505:A:C8	2.45	0.51
2:2:495:C:H3'	2:2:496:G:O4'	2.11	0.51
2:2:610:G:H2'	2:2:614:C:C5	2.46	0.51
2:2:93:A:O2'	72:S4:4:GLY:HA3	2.10	0.51
1:5:1402:C:O2'	1:5:1403:C:H5'	2.10	0.51
1:5:1856:C:H2'	1:5:1857:C:H6	1.76	0.51
1:5:44:U:H5"	39:M5:85:THR:HG23	159.53	0.51
1:5:632:G:H2'	1:5:633:C:C6	2.45	0.51
2:6:1003:A:H1'	2:6:1005:A:N7	2.26	0.51
2:6:1055:U:C2'	2:6:1056:U:H5"	2.33	0.51
2:6:1294:G:C2	2:6:1322:A:C5	2.99	0.51
4:8:111:A:C6	61:O7:29:VAL:HG11	135.90	0.51
6:C1:75:VAL:O	6:C1:119:VAL:HA	2.76	0.51
7:C2:30:VAL:HB	7:C2:132:GLU:HG3	1.92	0.51
11:C6:115:THR:O	11:C6:117:LEU:N	2.66	0.51
13:C8:61:LEU:HD12	13:C8:66:LEU:HD23	1.92	0.51
17:D2:26:LEU:HD21	17:D2:60:LYS:HD3	1.93	0.51
21:D6:58:VAL:HG12	21:D6:59:TYR:H	1.76	0.51
22:D7:34:ASP:HB3	22:D7:43:ILE:HD12	1.93	0.51
1:5:2525:G:H2'	27:L2:34:TYR:CE1	201.07	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:L3:199:PHE:C	28:L3:201:LYS:H	2.13	0.51
34:L9:161:LEU:O	34:L9:164:ILE:HG22	2.88	0.51
35:M0:208:ASN:CB	35:M0:211:ARG:HD2	2.41	0.51
35:M0:77:THR:HG23	35:M0:85:PHE:HZ	1.76	0.51
36:M1:109:HIS:CD2	36:M1:123:PHE:H	2.26	0.51
3:3:17:A:P	36:M1:150:ASN:HD21	2.34	0.51
36:M1:151:SER:O	36:M1:152:HIS:HB2	4.06	0.51
1:5:277:G:H1'	39:M5:93:LYS:HE2	150.86	0.51
43:M9:106:LEU:HD13	43:M9:138:LEU:HD11	1.91	0.51
51:N7:129:TRP:O	51:N7:131:PHE:N	2.89	0.51
51:N7:46:ILE:HD13	51:N7:68:ILE:HG23	1.93	0.51
57:O3:60:ARG:O	57:O3:62:SER:N	3.86	0.51
67:Q3:73:THR:HB	67:Q3:76:ALA:HB2	4.53	0.51
68:S0:90:ALA:HB2	68:S0:97:PRO:HB3	2.01	0.51
71:S3:64:ARG:NH1	71:S3:65:ARG:HB2	6.55	0.51
74:S6:2:LYS:HB3	74:S6:108:VAL:HG12	5.53	0.51
2:6:332:U:OP2	76:S8:56:ARG:NH2	287.49	0.51
77:S9:142:ASN:O	77:S9:144:PRO:HD3	2.13	0.51
79:SR:89:LEU:O	79:SR:103:PHE:HD2	1.94	0.51
79:SR:192:PHE:HD1	79:SR:223:TRP:CE3	2.43	0.51
1:1:810:A:H2'	1:1:811:U:C6	2.45	0.51
2:2:1009:U:OP2	9:C4:129:LYS:NZ	2.43	0.51
2:2:1034:C:N3	2:2:1102:G:C2	2.79	0.51
2:2:1504:G:C6	2:2:1505:A:C6	2.98	0.51
2:2:973:A:H2'	2:2:974:A:H8	1.76	0.51
3:3:4:U:H2'	3:3:5:G:C8	2.46	0.51
3:3:77:G:H3'	44:N0:46:GLN:O	2.10	0.51
1:5:1593:A:OP1	1:5:1593:A:H8	1.94	0.51
1:5:1495:U:H2'	1:5:1842:A:C2	2.46	0.51
1:5:2612:U:H1'	1:5:2803:A:N3	2.26	0.51
1:5:2922:G:H1'	1:5:2951:G:N3	2.26	0.51
1:5:731:U:H2'	1:5:732:C:C6	2.46	0.51
2:6:1041:G:H2'	2:6:1042:G:C8	2.45	0.51
2:6:294:C:H2'	2:6:295:A:H8	1.76	0.51
6:C1:128:CYS:HB3	6:C1:136:ARG:O	2.11	0.51
11:C6:97:VAL:HG23	11:C6:98:ASP:N	2.41	0.51
2:2:600:U:P	18:D3:108:GLY:HA2	2.51	0.51
18:D3:48:HIS:CD2	18:D3:105:ALA:HB2	2.46	0.51
13:C8:4:VAL:HG22	20:D5:82:HIS:CG	2.46	0.51
27:L2:92:LYS:HA	27:L2:103:PRO:HD2	1.98	0.51
28:L3:347:SER:C	28:L3:349:LYS:H	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:L4:209:TYR:CE2	29:L4:212:ASP:HB2	2.46	0.51
3:3:120:C:H2'	30:L5:265:TYR:CE1	2.46	0.51
30:L5:270:LYS:HG3	30:L5:273:ARG:N	7.02	0.51
31:L6:31:ARG:HH12	57:O3:107:ILE:HG22	4.79	0.51
32:L7:23:ALA:O	32:L7:26:VAL:HG13	2.11	0.51
34:L9:3:TYR:CD2	34:L9:3:TYR:N	2.85	0.51
1:1:2622:C:N4	35:M0:116:ARG:HH12	2.09	0.51
37:M3:174:ARG:NH1	60:O6:9:ILE:HG21	2.26	0.51
72:S4:117:GLU:C	72:S4:119:ALA:H	2.60	0.51
73:S5:21:THR:N	73:S5:22:PRO:HD3	2.71	0.51
74:S6:14:LYS:HD3	74:S6:16:PHE:CZ	2.68	0.51
76:S8:93:THR:HG1	76:S8:95:THR:HG1	1.58	0.51
1:1:297:G:H4'	1:1:298:U:H5'	1.93	0.51
2:2:579:A:N7	71:S3:178:ARG:NH2	2.41	0.51
2:2:846:G:H2'	2:2:847:A:C8	2.46	0.51
1:5:1470:U:H2'	1:5:1471:U:C6	2.46	0.51
1:5:2829:U:OP2	83:5:4005:HOH:O	2.19	0.51
1:5:65:A:H3'	1:5:111:C:N4	2.26	0.51
3:7:2:G:H4'	30:L5:270:LYS:HD3	315.57	0.51
8:C3:93:LYS:HG3	8:C3:150:VAL:HG21	3.76	0.51
20:D5:40:VAL:O	20:D5:75:LEU:HD11	2.10	0.51
2:6:1795:U:O4	21:D6:9:GLY:HA2	331.11	0.51
22:D7:46:VAL:HG13	22:D7:54:VAL:HG21	1.93	0.51
27:L2:105:GLY:CA	27:L2:160:SER:HB3	2.53	0.51
1:1:2163:C:O2'	27:L2:8:GLN:O	2.26	0.51
1:1:3297:U:O4	28:L3:124:LYS:NZ	2.43	0.51
3:3:46:A:P	30:L5:158:ARG:HH11	2.34	0.51
31:L6:97:ASN:HD22	31:L6:97:ASN:H	1.57	0.51
32:L7:90:LYS:HG3	32:L7:91:GLY:N	2.48	0.51
34:L9:129:ARG:O	34:L9:132:VAL:HG13	2.30	0.51
39:M5:119:TYR:OH	39:M5:131:GLU:OE1	2.17	0.51
40:M6:3:VAL:O	40:M6:4:GLU:HG2	3.12	0.51
42:M8:153:PHE:O	42:M8:161:LYS:HE2	2.11	0.51
44:N0:131:LYS:O	44:N0:134:ASP:HB2	2.43	0.51
44:N0:26:ARG:O	45:N1:150:THR:HA	2.11	0.51
50:N6:37:LYS:H	50:N6:37:LYS:CD	2.23	0.51
54:O0:17:VAL:HG11	54:O0:92:ILE:HD12	2.03	0.51
59:O5:64:GLU:CG	59:O5:67:ARG:HE	2.23	0.51
68:S0:162:CYS:HB3	68:S0:173:ILE:HG13	4.40	0.51
69:S1:85:LYS:HB3	69:S1:101:HIS:HB3	2.18	0.51
69:S1:88:VAL:HA	69:S1:98:THR:HA	2.30	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:S2:174:ARG:HA	70:S2:195:ASP:OD2	2.22	0.51
76:S8:39:GLY:O	76:S8:59:ARG:HB3	2.10	0.51
1:1:2157:G:N2	1:1:2177:G:O2'	2.44	0.50
1:1:2185:G:C5	1:1:2186:U:C5	2.98	0.50
1:1:3155:U:O3'	1:1:3156:U:H4'	2.11	0.50
1:1:674:G:OP1	42:M8:105:ARG:NH1	2.36	0.50
2:2:129:U:N3	2:2:177:U:O4	2.44	0.50
2:2:1427:A:O2'	2:2:1428:G:OP1	2.26	0.50
2:2:1207:C:N4	2:2:1456:C:H5	2.10	0.50
2:2:1477:G:H5'	14:C9:45:MET:HB2	1.93	0.50
2:2:652:G:H1	2:2:682:C:N4	2.09	0.50
3:3:5:G:OP1	36:M1:143:ARG:NH2	2.44	0.50
4:4:94:C:O2'	4:4:95:G:H5''	2.11	0.50
1:5:1049:C:H2'	1:5:1050:U:C6	2.47	0.50
1:5:1733:G:H2'	1:5:1734:G:C8	2.46	0.50
1:5:2168:A:C6	1:5:2170:U:H1'	2.46	0.50
1:5:2611:U:H2'	1:5:2612:U:C6	2.46	0.50
1:5:2885:C:N3	1:5:2886:U:C4	2.79	0.50
1:5:287:G:C6	1:5:288:C:C4	3.00	0.50
1:5:3308:C:N3	41:M7:69:ARG:NH1	189.71	0.50
2:6:1489:U:H6	2:6:1489:U:H5'	1.76	0.50
4:8:69:U:H2'	4:8:70:G:O4'	2.10	0.50
5:C0:23:ALA:O	5:C0:64:TYR:HB2	2.11	0.50
8:C3:29:SER:O	8:C3:29:SER:OG	3.42	0.50
11:C6:28:LEU:HG	11:C6:64:ASP:OD2	2.12	0.50
16:D1:3:ASN:C	70:S2:147:ASN:HD22	3.55	0.50
27:L2:66:PRO:HB2	27:L2:67:TYR:CD2	2.46	0.50
27:L2:96:LEU:HD23	67:Q3:83:ILE:HG23	1.93	0.50
30:L5:160:PHE:CE2	30:L5:179:ARG:HB3	2.46	0.50
32:L7:88:ARG:HD2	32:L7:90:LYS:O	2.09	0.50
34:L9:176:LEU:HB3	64:Q0:86:ALA:HB1	2.38	0.50
35:M0:89:VAL:HG22	35:M0:136:PHE:CE1	2.45	0.50
39:M5:150:TRP:CZ3	39:M5:151:ILE:HG13	4.08	0.50
41:M7:178:ALA:O	41:M7:182:ILE:HB	2.35	0.50
44:N0:155:ARG:HD3	44:N0:172:TYR:CD1	2.70	0.50
52:N8:111:LYS:HG3	52:N8:129:PHE:O	2.61	0.50
54:O0:24:THR:HG23	54:O0:30:THR:HG22	1.93	0.50
57:O3:35:VAL:HG13	57:O3:40:ASP:HB3	2.44	0.50
67:Q3:27:LYS:HE2	67:Q3:31:ILE:HD11	1.91	0.50
68:S0:10:THR:OG1	68:S0:13:ASP:OD2	2.29	0.50
68:S0:198:MET:SD	68:S0:199:PRO:HD2	3.05	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:S1:70:LEU:HD13	69:S1:71:ALA:N	2.26	0.50
73:S5:196:GLU:O	73:S5:200:ASN:ND2	3.36	0.50
1:1:2808:A:H4'	1:1:2809:C:C5'	2.41	0.50
2:2:1564:U:OP1	14:C9:38:LYS:NZ	2.44	0.50
2:2:1769:U:O2	9:C4:136:ARG:HD2	2.11	0.50
2:2:396:G:N2	2:2:399:A:H5'	2.25	0.50
2:2:381:C:O2'	2:2:755:A:N1	2.42	0.50
1:5:1336:U:H2'	1:5:1337:A:C8	2.46	0.50
1:5:1641:U:O2'	1:5:1642:A:H3'	2.12	0.50
1:5:1819:U:O2'	1:5:1820:U:OP1	2.27	0.50
1:5:251:G:OP2	1:5:251:G:H3'	2.11	0.50
1:5:2519:A:H2'	1:5:2520:A:C8	2.46	0.50
1:5:828:A:H2'	1:5:829:U:H6	1.75	0.50
2:6:1503:A:H2'	2:6:1504:G:O4'	2.10	0.50
2:6:21:U:H2'	2:6:22:A:C8	2.46	0.50
2:6:647:G:N2	2:6:687:G:H22	2.09	0.50
4:8:82:U:H3	4:8:88:A:H5'	1.76	0.50
6:C1:13:PHE:CD2	76:S8:188:GLU:HG2	2.46	0.50
7:C2:125:ASN:O	7:C2:126:TRP:CG	2.65	0.50
27:L2:114:SER:HB2	27:L2:169:ILE:HD12	3.76	0.50
28:L3:305:ILE:H	28:L3:305:ILE:HD12	1.76	0.50
35:M0:200:LEU:HA	35:M0:213:PHE:CE1	3.04	0.50
35:M0:3:ARG:CZ	35:M0:63:GLU:HG3	2.41	0.50
48:N4:106:GLU:HA	48:N4:109:LEU:HB2	1.93	0.50
1:5:1374:G:O6	52:N8:10:LYS:HE2	159.88	0.50
68:S0:13:ASP:HA	68:S0:16:LEU:HD12	1.93	0.50
69:S1:190:PRO:HG2	69:S1:192:VAL:HG23	2.20	0.50
69:S1:23:PRO:HB3	69:S1:26:ARG:NH1	2.26	0.50
70:S2:125:ILE:O	70:S2:129:ILE:HG13	2.14	0.50
71:S3:117:ARG:HE	78:SM:122:GLU:HB3	3.53	0.50
73:S5:120:ILE:O	73:S5:124:LEU:HD13	3.27	0.50
74:S6:55:GLY:O	74:S6:63:MET:HG3	2.11	0.50
78:SM:58:GLU:O	78:SM:61:ILE:HG13	2.11	0.50
79:SR:144:LEU:HD13	79:SR:181:TRP:CE3	4.81	0.50
79:SR:40:LYS:HB3	79:SR:64:HIS:O	2.28	0.50
1:1:2898:G:H5''	1:1:2899:C:H5'	1.93	0.50
1:1:385:A:C2	1:1:386:A:C4	2.99	0.50
1:1:68:C:O3'	39:M5:177:GLY:HA2	2.12	0.50
2:2:1559:A:N3	2:2:1559:A:H3'	2.27	0.50
2:2:238:U:H6	2:2:238:U:P	2.35	0.50
2:2:341:A:C6	2:2:342:C:C4	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:99:A:H1'	1:5:281:G:N7	2.27	0.50
2:6:1537:C:O2'	2:6:1540:G:O6	2.23	0.50
2:6:1597:A:C8	24:D9:14:TYR:CD2	403.63	0.50
2:6:929:A:O4'	9:C4:124:ASP:HB2	295.96	0.50
7:C2:98:GLY:CA	7:C2:118:ALA:HB2	2.40	0.50
9:C4:115:ILE:HG21	21:D6:44:ILE:HG21	7.13	0.50
15:D0:104:THR:HG21	15:D0:116:VAL:HG21	1.94	0.50
18:D3:37:ALA:O	18:D3:41:SER:HB3	4.44	0.50
28:L3:108:GLU:HB3	28:L3:109:HIS:ND1	3.17	0.50
1:5:2947:G:N3	28:L3:250:ALA:HB1	218.08	0.50
30:L5:178:ASN:HA	30:L5:183:TRP:CG	2.53	0.50
30:L5:25:GLU:O	36:M1:144:CYS:HA	2.12	0.50
30:L5:40:HIS:HD2	30:L5:42:ALA:N	5.98	0.50
33:L8:156:ASP:N	33:L8:156:ASP:OD2	2.74	0.50
34:L9:34:LEU:HD21	34:L9:149:ASN:HB2	3.37	0.50
35:M0:210:ILE:HG12	35:M0:217:PHE:CE2	2.84	0.50
43:M9:105:LEU:HD12	43:M9:135:LYS:HD2	1.93	0.50
2:2:852:C:OP2	43:M9:172:ARG:HD3	2.10	0.50
45:N1:14:MET:HE3	45:N1:15:PHE:CE2	2.47	0.50
49:N5:121:LYS:HD3	49:N5:123:TYR:CE1	2.45	0.50
83:5:4184:HOH:O	52:N8:22:ILE:HD11	192.65	0.50
52:N8:46:ASP:O	52:N8:47:LYS:HB3	2.12	0.50
57:O3:59:VAL:HG23	57:O3:60:ARG:H	1.77	0.50
62:O8:5:ILE:HG22	62:O8:54:LEU:HB2	2.17	0.50
62:O8:61:LYS:O	62:O8:65:LEU:HB2	2.11	0.50
2:2:884:A:H4'	69:S1:124:ASN:ND2	2.27	0.50
69:S1:127:VAL:HG11	69:S1:176:VAL:HG21	1.94	0.50
70:S2:81:MET:HB2	70:S2:101:VAL:HG12	2.28	0.50
71:S3:172:THR:HG22	71:S3:185:LYS:HG2	2.51	0.50
76:S8:39:GLY:N	76:S8:60:ILE:O	2.28	0.50
79:SR:157:VAL:HB	79:SR:168:THR:HG22	3.30	0.50
1:1:1397:C:N4	1:1:1398:U:O4	2.44	0.50
1:1:156:G:O2'	1:1:157:A:H4'	2.11	0.50
1:1:1674:G:H2'	1:1:1675:G:O4'	2.11	0.50
1:1:3294:A:H2'	1:1:3295:A:O4'	2.12	0.50
2:2:1796:C:OP1	21:D6:87:ARG:NH1	2.41	0.50
2:2:423:G:H4'	2:2:424:C:OP1	2.11	0.50
2:2:610:G:H5''	2:2:611:U:OP1	2.12	0.50
2:2:624:G:H2'	2:2:625:C:H6	1.77	0.50
1:5:1317:A:O2'	1:5:1318:A:H3'	2.11	0.50
1:5:2095:G:H2'	1:5:2096:A:C8	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2600:C:OP1	39:M5:93:LYS:NZ	155.30	0.50
1:5:3006:A:H2'	1:5:3007:U:O4'	2.12	0.50
1:5:3066:U:H2'	1:5:3067:C:H6	1.76	0.50
1:5:3204:C:O2'	1:5:3205:G:H5'	2.12	0.50
1:5:3245:A:C2	1:5:3246:G:C2	2.97	0.50
2:6:1175:U:H2'	2:6:1176:G:C8	2.46	0.50
2:6:1208:A:H5''	2:6:1209:C:OP2	2.12	0.50
2:6:1301:U:H5'	70:S2:88:LYS:HG3	385.07	0.50
2:6:1625:C:H2'	2:6:1626:U:C6	2.47	0.50
3:7:4:U:H2'	3:7:5:G:C8	2.46	0.50
16:D1:58:TYR:OH	17:D2:20:THR:HA	2.39	0.50
17:D2:115:GLU:HG2	17:D2:119:LYS:HD2	4.72	0.50
2:6:57:G:OP2	19:D4:116:LYS:HE2	339.07	0.50
25:E0:41:THR:O	25:E0:45:VAL:HB	2.78	0.50
27:L2:206:PRO:HA	27:L2:212:GLY:HA2	3.97	0.50
28:L3:106:TRP:CG	28:L3:130:PHE:HE1	2.52	0.50
28:L3:361:THR:HG22	28:L3:371:GLN:OE1	2.40	0.50
29:L4:205:PRO:HD2	29:L4:225:VAL:HG22	1.93	0.50
1:1:1429:G:C6	29:L4:99:MET:HE1	2.46	0.50
3:3:6:C:P	30:L5:54:ARG:HE	2.31	0.50
1:5:1101:G:OP2	32:L7:196:LYS:NZ	236.54	0.50
35:M0:48:LEU:HD22	35:M0:49:CYS:N	2.30	0.50
37:M3:16:LYS:HE2	39:M5:195:ASN:OD1	4.51	0.50
50:N6:59:VAL:HG22	50:N6:103:LYS:O	5.50	0.50
52:N8:90:TYR:CG	52:N8:100:PRO:HG3	2.46	0.50
54:O0:36:GLN:HB3	54:O0:38:LYS:HG3	1.92	0.50
61:O7:31:LYS:O	61:O7:33:THR:HG22	2.10	0.50
62:O8:11:PHE:O	62:O8:14:LEU:HB2	2.12	0.50
68:S0:41:ARG:HE	68:S0:45:VAL:HB	1.77	0.50
70:S2:227:PRO:HA	70:S2:230:TRP:CD2	2.46	0.50
1:1:1015:U:H4'	1:1:1016:C:OP2	2.12	0.50
1:1:1762:C:O2'	1:1:1763:U:O5'	2.27	0.50
1:1:183:G:O6	81:1:3886:8UZ:O5	2.30	0.50
1:1:828:A:H2'	1:1:829:U:C6	2.46	0.50
2:2:992:A:C8	2:2:1777:G:H1'	2.46	0.50
4:4:47:C:H1'	4:4:61:A:H2'	1.92	0.50
1:5:1112:A:N3	1:5:1370:G:O2'	2.43	0.50
1:5:1554:U:H4'	1:5:1555:U:OP1	2.11	0.50
1:5:2282:U:O2	1:5:2310:U:H4'	2.12	0.50
1:5:239:G:H2'	1:5:240:U:O4'	2.12	0.50
1:5:284:A:H4'	1:5:285:A:C8	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2854:U:OP1	35:M0:61:SER:OG	290.13	0.50
1:5:2997:G:C6	1:5:3396:U:C4	3.00	0.50
1:5:726:G:H1'	1:5:744:A:H61	1.76	0.50
1:5:856:G:C6	1:5:857:G:N1	2.79	0.50
1:5:994:G:H5'	1:5:2637:A:O2'	2.10	0.50
2:6:1321:A:H4'	2:6:1322:A:O5'	2.12	0.50
2:6:1579:U:H2'	2:6:1580:C:C6	2.47	0.50
2:6:216:U:OP1	2:6:216:U:H4'	2.09	0.50
2:6:793:A:H5'	2:6:794:U:H5''	1.94	0.50
2:6:793:A:H5'	2:6:794:U:C5'	2.42	0.50
6:C1:97:TYR:O	6:C1:99:ARG:HG2	2.12	0.50
8:C3:27:LYS:HD2	8:C3:28:LEU:H	1.76	0.50
13:C8:6:GLN:CB	20:D5:44:GLN:HB2	5.61	0.50
16:D1:5:LYS:N	16:D1:5:LYS:HD2	3.83	0.50
25:E0:33:ARG:NH1	25:E0:33:ARG:HB3	2.26	0.50
27:L2:43:GLY:N	27:L2:88:ILE:O	2.35	0.50
28:L3:94:GLU:HG3	28:L3:156:SER:OG	2.11	0.50
36:M1:80:LEU:HD13	36:M1:84:LEU:HD11	3.30	0.50
37:M3:3:ILE:HB	52:N8:41:HIS:CD2	2.44	0.50
43:M9:180:LYS:HG2	43:M9:184:LEU:HG	1.94	0.50
54:O0:31:VAL:HG13	54:O0:59:TYR:CE2	2.88	0.50
58:O4:55:SER:OG	58:O4:69:HIS:HB3	2.11	0.50
69:S1:129:THR:HG22	69:S1:176:VAL:HG12	1.92	0.50
70:S2:106:ASP:OD1	70:S2:106:ASP:N	3.07	0.50
70:S2:108:ASN:O	70:S2:110:HIS:ND1	2.75	0.50
70:S2:178:ILE:HB	70:S2:185:LYS:HG3	1.93	0.50
71:S3:142:LEU:HD13	71:S3:182:LEU:HD21	1.93	0.50
72:S4:241:GLY:O	72:S4:244:ILE:HB	3.47	0.50
23:D8:55:VAL:HG11	73:S5:143:ARG:HD3	2.45	0.50
78:SM:136:ALA:O	78:SM:140:ASP:N	2.45	0.50
1:1:1131:G:C4	1:1:2373:A:C2	3.00	0.50
1:1:1602:A:H5''	43:M9:38:ARG:HG3	1.93	0.50
1:1:1902:G:C6	1:1:1903:U:C2	3.00	0.50
1:1:2568:C:H2'	1:1:2568:C:O2	2.11	0.50
1:1:2592:G:H4'	1:1:2594:C:C2	2.46	0.50
2:2:1344:A:H2'	2:2:1345:A:C8	2.47	0.50
2:2:1426:C:H5''	78:SM:93:ARG:HH12	1.75	0.50
2:2:1451:C:H2'	2:2:1452:U:H6	1.77	0.50
2:2:1584:G:H22	2:2:1611:A:P	2.35	0.50
1:5:627:U:H2'	1:5:628:A:H8	1.74	0.50
2:6:1201:G:C2	2:6:1600:A:C2	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:8:65:A:C2	4:8:96:A:C5	3.00	0.50
8:C3:27:LYS:HE2	8:C3:27:LYS:H	1.76	0.50
10:C5:86:VAL:HG22	10:C5:88:GLU:H	1.75	0.50
15:D0:50:LEU:HD22	15:D0:95:ALA:HB2	3.20	0.50
19:D4:45:ALA:CA	19:D4:50:ALA:HB3	3.67	0.50
28:L3:155:ALA:O	28:L3:188:ILE:HG21	2.16	0.50
29:L4:281:ILE:HG22	42:M8:25:TYR:HB3	2.27	0.50
29:L4:361:HIS:CG	29:L4:362:ASP:N	2.79	0.50
30:L5:8:LYS:HD3	30:L5:12:TYR:CE2	6.83	0.50
30:L5:219:PHE:CE1	30:L5:227:LEU:HD11	2.46	0.50
30:L5:251:PRO:O	30:L5:253:PHE:N	2.45	0.50
30:L5:287:ALA:HA	30:L5:290:ILE:HD11	1.93	0.50
1:5:31:C:OP2	39:M5:188:ARG:NH2	121.33	0.50
41:M7:116:HIS:HB3	41:M7:149:VAL:HG13	1.94	0.50
45:N1:73:GLY:HA2	45:N1:89:LEU:O	2.33	0.50
50:N6:17:LYS:O	50:N6:21:THR:OG1	2.43	0.50
51:N7:10:VAL:HB	51:N7:83:THR:CG2	2.42	0.50
52:N8:22:ILE:O	52:N8:24:LYS:HG3	2.12	0.50
54:O0:74:ASN:O	54:O0:86:ARG:HB2	2.57	0.50
55:O1:19:ARG:HD3	55:O1:35:GLU:HG2	1.92	0.50
58:O4:87:GLU:OE1	58:O4:91:ARG:NH1	3.41	0.50
4:4:81:U:H4'	59:O5:2:ALA:HA	1.93	0.50
61:O7:65:ARG:HG3	61:O7:65:ARG:HH11	2.28	0.50
62:O8:16:ARG:O	62:O8:18:ALA:N	3.03	0.50
76:S8:82:VAL:HG11	76:S8:196:LEU:HD11	3.13	0.50
77:S9:55:ALA:O	77:S9:59:LEU:HG	2.15	0.50
71:S3:144:ALA:HB2	78:SM:105:LYS:HG2	3.79	0.50
36:M1:46:VAL:HG23	78:SM:25:ILE:HG22	2.38	0.50
1:1:1524:A:O2'	1:1:1526:U:OP2	2.29	0.50
1:1:1618:G:H4'	4:4:129:C:C1'	2.41	0.50
1:1:174:C:H2'	1:1:175:C:C6	2.47	0.50
1:1:2400:G:H5''	1:1:2401:A:OP2	2.11	0.50
1:1:269:G:H5'	39:M5:120:TRP:CE3	2.47	0.50
1:1:631:U:H2'	1:1:632:G:C8	2.46	0.50
1:1:688:G:C4	1:1:690:A:C8	2.99	0.50
2:2:1278:G:H2'	2:2:1279:C:O4'	2.12	0.50
2:2:730:G:H2'	2:2:730:G:N3	2.27	0.50
2:2:791:A:H2'	2:2:792:U:H6	1.77	0.50
2:2:793:A:H5''	2:2:794:U:C5	2.47	0.50
3:3:28:C:OP1	36:M1:137:ARG:NH1	2.38	0.50
1:5:1758:G:OP1	46:N2:104:ARG:NH2	121.64	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1841:A:N3	63:O9:45:ARG:NH2	128.30	0.50
1:5:501:A:H2'	1:5:502:U:C6	2.47	0.50
2:6:1159:C:O2'	2:6:1580:C:OP1	2.29	0.50
10:C5:80:MET:O	10:C5:82:ASN:N	2.45	0.50
20:D5:82:HIS:ND1	20:D5:82:HIS:O	2.44	0.50
21:D6:35:ALA:HB3	21:D6:37:LYS:HE3	1.93	0.50
22:D7:54:VAL:O	22:D7:63:LEU:N	2.86	0.50
26:E1:91:ILE:HD13	26:E1:92:LYS:H	1.76	0.50
27:L2:224:THR:HA	27:L2:237:LEU:O	2.41	0.50
1:5:2184:U:O2'	27:L2:236:GLY:HA2	211.55	0.50
28:L3:3:HIS:CG	28:L3:3:HIS:O	3.61	0.50
30:L5:78:ALA:HB3	30:L5:105:ILE:HG12	1.93	0.50
3:3:13:A:HO2'	30:L5:24:ARG:NH2	2.09	0.50
30:L5:51:LEU:HB2	30:L5:144:VAL:HG13	2.12	0.50
35:M0:46:PHE:CD1	35:M0:140:THR:HA	2.46	0.50
35:M0:206:LEU:O	35:M0:210:ILE:HG13	2.12	0.50
35:M0:89:VAL:HG13	35:M0:136:PHE:HE1	2.36	0.50
36:M1:82:ARG:CG	36:M1:112:LEU:HB2	2.42	0.50
36:M1:94:ARG:C	36:M1:96:PHE:H	2.13	0.50
38:M4:36:VAL:HG11	38:M4:55:ARG:NH2	2.27	0.50
39:M5:186:GLY:O	39:M5:190:THR:HG22	3.81	0.50
50:N6:50:ILE:HD13	50:N6:51:ARG:H	1.80	0.50
1:5:942:U:N3	52:N8:16:SER:HA	167.01	0.50
1:5:1597:C:O2'	58:O4:26:PRO:HG2	138.06	0.50
70:S2:139:ILE:HG22	70:S2:141:ARG:HD2	1.94	0.50
75:S7:78:THR:HG22	75:S7:92:PHE:CE1	2.45	0.50
78:SM:9:GLY:C	78:SM:11:ASP:H	2.14	0.50
79:SR:106:HIS:CD2	79:SR:110:VAL:HG22	2.95	0.50
79:SR:149:ASP:HB2	79:SR:175:ASP:HB3	2.02	0.50
79:SR:52:GLN:HG2	79:SR:53:LYS:H	1.77	0.50
1:1:1334:U:H5''	32:L7:206:LYS:HB3	1.92	0.50
1:1:2274:U:O2'	1:1:2275:A:H5'	2.11	0.50
1:1:2562:A:C2	33:L8:31:PRO:HB3	2.45	0.50
1:1:3163:A:H2'	1:1:3164:C:H5'	1.93	0.50
1:1:722:G:C5	1:1:723:U:C5	3.00	0.50
1:1:828:A:H2'	1:1:829:U:H6	1.77	0.50
2:2:1285:U:H4'	2:2:1286:U:OP2	2.12	0.50
2:2:1169:G:N1	2:2:1575:G:OP2	2.42	0.50
2:2:778:G:C6	2:2:783:G:O6	2.64	0.50
2:2:814:A:O2'	2:2:815:G:H3'	2.12	0.50
1:5:1478:C:H2'	1:5:1479:U:C6	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1488:G:C2	1:5:1489:A:C8	2.99	0.50
1:5:2898:G:OP2	34:L9:173:ARG:NH2	328.95	0.50
1:5:3156:U:O2'	1:5:3157:U:O5'	2.29	0.50
1:5:3309:G:O6	28:L3:21:ARG:NH2	198.14	0.50
2:6:999:U:N3	2:6:1003:A:O2'	2.38	0.50
2:6:1040:G:H5'	68:S0:31:VAL:HG21	386.48	0.50
2:6:1278:G:H2'	2:6:1279:C:O4'	2.12	0.50
2:6:36:C:H2'	2:6:37:U:C6	2.47	0.50
5:C0:50:THR:HG21	5:C0:57:THR:OG1	2.13	0.50
13:C8:129:TRP:N	13:C8:129:TRP:HD1	2.51	0.50
2:2:1498:G:OP1	14:C9:75:LYS:HD2	2.12	0.50
14:C9:57:ARG:NH2	14:C9:80:TYR:HB3	2.26	0.50
2:6:1153:G:OP1	21:D6:85:ARG:NH1	342.70	0.50
27:L2:245:LEU:HD12	27:L2:246:LEU:N	2.26	0.50
27:L2:6:ARG:HH12	27:L2:199:THR:H	1.59	0.50
28:L3:103:THR:HG21	28:L3:147:GLU:HG2	1.94	0.50
29:L4:156:LEU:HD22	29:L4:215:ILE:HD13	1.94	0.50
31:L6:26:ARG:HG2	31:L6:27:PRO:HD2	1.93	0.50
31:L6:43:LEU:HB2	31:L6:83:TYR:O	2.24	0.50
33:L8:182:GLY:O	33:L8:185:ARG:N	4.26	0.50
37:M3:28:GLN:HB3	39:M5:201:ARG:HD3	1.94	0.50
47:N3:32:ARG:HB3	47:N3:64:LYS:HB3	1.92	0.50
27:L2:171:GLY:O	67:Q3:68:ALA:HB2	2.63	0.50
70:S2:212:LYS:O	70:S2:216:VAL:HG23	2.45	0.50
73:S5:64:VAL:HG13	73:S5:89:ILE:HD11	4.22	0.50
73:S5:73:THR:HG22	73:S5:75:GLY:N	2.42	0.50
74:S6:22:HIS:HA	74:S6:25:ARG:HH11	1.76	0.50
76:S8:197:THR:HG22	76:S8:200:LYS:NZ	2.27	0.50
77:S9:141:VAL:HG21	77:S9:146:PHE:CD2	2.80	0.50
79:SR:21:THR:N	79:SR:36:ALA:O	2.44	0.50
1:1:1016:C:O2	1:1:1017:C:H5'	2.11	0.50
1:1:1341:U:H2'	1:1:1342:C:C6	2.47	0.50
1:1:135:C:N3	59:O5:94:LYS:HG3	2.26	0.50
1:1:157:A:C8	60:O6:26:ILE:HG12	2.46	0.50
1:1:265:A:H5''	1:1:266:A:OP2	2.12	0.50
1:1:2966:G:C6	1:1:2967:A:N6	2.80	0.50
1:1:3199:G:O2'	1:1:3200:G:H5'	2.12	0.50
1:1:3324:C:C4	1:1:3325:G:N7	2.80	0.50
1:1:439:C:H5'	1:1:440:A:OP2	2.11	0.50
1:1:839:C:H2'	1:1:840:C:H6	1.77	0.50
2:2:1194:A:H2'	2:2:1195:C:H5'	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:1464:G:O3'	11:C6:141:SER:HB3	2.12	0.50
2:2:209:U:H2'	2:2:210:A:C8	2.46	0.50
2:2:901:G:C6	2:2:902:G:C6	3.00	0.50
4:4:139:U:H2'	4:4:140:G:C8	2.42	0.50
1:5:2106:A:H2'	1:5:2107:A:C8	2.47	0.50
1:5:2538:U:H2'	1:5:2539:C:H4'	1.94	0.50
1:5:2957:G:OP1	83:5:4004:HOH:O	2.19	0.50
1:5:3165:A:H61	1:5:3285:C:N4	2.08	0.50
2:6:1160:A:H2'	2:6:1161:C:C6	2.47	0.50
2:6:339:C:O2'	2:6:340:U:H5'	2.12	0.50
5:C0:77:ARG:NH2	5:C0:84:GLU:O	6.17	0.50
9:C4:16:VAL:O	9:C4:30:VAL:HA	2.12	0.50
9:C4:42:VAL:HA	9:C4:46:MET:SD	2.52	0.50
12:C7:46:LEU:O	12:C7:50:ILE:HG13	2.22	0.50
2:2:611:U:H5''	18:D3:5:LYS:HD3	1.94	0.50
19:D4:12:VAL:HG13	19:D4:23:PHE:HB3	1.92	0.50
2:6:1199:G:P	24:D9:40:ARG:HH21	390.32	0.50
27:L2:116:VAL:HG22	27:L2:126:LEU:HD12	1.94	0.50
27:L2:205:ASN:ND2	83:L2:401:HOH:O	10.49	0.50
1:1:1080:A:P	30:L5:140:ARG:HH21	2.34	0.50
40:M6:189:ASP:OD1	40:M6:189:ASP:N	2.44	0.50
43:M9:106:LEU:HB3	43:M9:120:TYR:CD1	2.47	0.50
45:N1:60:LYS:HB3	45:N1:76:ILE:HD12	1.93	0.50
49:N5:25:LYS:HG2	49:N5:26:VAL:H	4.49	0.50
50:N6:35:LEU:HD12	50:N6:45:ILE:O	2.34	0.50
55:O1:46:THR:HG21	55:O1:91:SER:OG	2.12	0.50
58:O4:7:PHE:HE2	58:O4:12:PRO:O	2.53	0.50
1:5:1514:G:C8	63:O9:45:ARG:NH2	126.68	0.50
58:O4:10:ARG:HD2	63:O9:4:GLN:HE22	1.92	0.50
1:1:1588:A:C2	63:O9:4:GLN:HG2	2.47	0.50
67:Q3:73:THR:HG23	67:Q3:76:ALA:H	1.75	0.50
70:S2:56:ILE:HG23	70:S2:61:LEU:HD12	1.93	0.50
72:S4:107:GLY:HA2	72:S4:189:LEU:HG	1.94	0.50
75:S7:63:PRO:HD2	75:S7:66:SER:OG	2.31	0.50
77:S9:39:LYS:HB3	77:S9:43:TYR:CE2	2.46	0.50
77:S9:41:GLU:HG2	77:S9:44:ARG:NH2	3.23	0.50
79:SR:129:LYS:HG2	79:SR:149:ASP:O	2.12	0.50
1:1:2181:C:OP1	27:L2:192:LYS:NZ	2.44	0.49
1:1:2554:A:C8	1:1:2554:A:H5'	2.47	0.49
1:1:2898:G:OP2	1:1:2899:C:H5'	2.12	0.49
1:1:345:G:OP1	1:1:1429:G:N1	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:585:A:H2'	1:1:586:C:C6	2.47	0.49
2:2:1542:G:H22	2:2:1568:C:H1'	1.77	0.49
2:2:178:U:C4	74:S6:191:ARG:HD3	2.47	0.49
2:2:72:A:H2'	2:2:73:U:H2'	1.93	0.49
1:5:1176:C:H2'	1:5:1177:G:N2	2.26	0.49
1:5:1446:A:O2'	41:M7:27:LYS:NZ	159.99	0.49
1:5:2775:U:H2'	1:5:2776:C:H6	1.77	0.49
1:5:2852:C:N3	35:M0:158:LYS:NZ	306.55	0.49
1:5:28:C:C2	1:5:57:A:C6	3.00	0.49
1:5:642:U:OP1	52:N8:22:ILE:HG23	190.02	0.49
1:5:655:C:H2'	1:5:656:A:C8	2.45	0.49
2:6:158:U:O2'	2:6:159:U:H3'	2.12	0.49
2:6:741:C:O2'	2:6:742:U:H4'	2.12	0.49
2:6:875:G:H2'	2:6:877:G:OP1	2.12	0.49
4:8:9:A:H2'	4:8:10:A:C8	2.46	0.49
12:C7:17:ILE:HG23	12:C7:58:MET:HE2	3.03	0.49
12:C7:20:TYR:CE1	12:C7:38:ILE:HD11	2.47	0.49
16:D1:3:ASN:ND2	16:D1:7:GLN:HB3	4.55	0.49
18:D3:23:ARG:HB3	18:D3:29:TYR:CD1	2.84	0.49
20:D5:40:VAL:C	20:D5:75:LEU:HD11	2.33	0.49
22:D7:31:TYR:CE2	22:D7:48:SER:HB3	2.83	0.49
21:D6:51:ARG:CZ	23:D8:60:GLU:HG2	2.42	0.49
2:2:567:A:N3	25:E0:14:VAL:HG21	2.27	0.49
27:L2:178:PRO:HD2	67:Q3:26:VAL:HG23	2.56	0.49
27:L2:34:TYR:CD1	27:L2:38:HIS:HD2	2.30	0.49
28:L3:14:LEU:O	28:L3:17:LEU:HD22	2.97	0.49
28:L3:221:THR:CG2	28:L3:273:HIS:H	3.47	0.49
29:L4:23:PRO:HA	29:L4:259:ASP:OD1	2.11	0.49
31:L6:142:ASP:O	31:L6:146:ILE:HG13	2.51	0.49
32:L7:88:ARG:NH2	32:L7:103:LEU:HD13	2.27	0.49
49:N5:103:TYR:HE1	49:N5:139:ILE:HD12	1.76	0.49
1:5:353:G:O6	61:O7:52:LYS:HE2	114.07	0.49
1:1:2150:G:H4'	67:Q3:22:LEU:HD21	1.94	0.49
2:6:244:A:P	72:S4:155:LYS:HZ2	346.65	0.49
2:6:1473:U:O2'	73:S5:103:ASN:OD1	358.89	0.49
73:S5:128:ASN:O	73:S5:131:GLN:N	2.45	0.49
17:D2:49:GLU:HB2	75:S7:142:TYR:O	2.43	0.49
10:C5:128:HIS:HB2	78:SM:71:ASN:ND2	2.27	0.49
71:S3:220:PRO:HB3	79:SR:221:MET:HE1	2.68	0.49
1:1:1288:U:H2'	1:1:1289:G:H8	1.77	0.49
1:1:1786:G:H2'	1:1:1787:A:C8	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1556:C:OP1	1:1:2169:G:N2	2.45	0.49
1:1:2185:G:C6	1:1:2186:U:C4	3.00	0.49
1:1:2523:A:OP1	49:N5:31:THR:OG1	2.19	0.49
1:1:2562:A:N1	33:L8:31:PRO:HB3	2.27	0.49
1:1:269:G:N2	1:1:295:A:OP2	2.29	0.49
2:2:1157:A:C8	2:2:1157:A:H3'	2.47	0.49
2:2:190:C:O2'	2:2:191:C:H5'	2.12	0.49
2:2:337:G:H3'	6:C1:133:LYS:HB2	1.94	0.49
3:3:61:G:H2'	3:3:62:U:H6	1.76	0.49
4:4:121:U:C2	4:4:122:U:C5	3.00	0.49
1:5:2185:G:O2'	1:5:2314:U:OP2	2.29	0.49
1:5:2352:A:H5''	41:M7:83:TRP:O	152.11	0.49
1:5:283:G:OP2	1:5:286:U:H5	1.96	0.49
1:5:3391:A:H2'	1:5:3392:U:O4'	2.12	0.49
1:5:2140:U:OP2	81:5:3853:8UZ:N	2.45	0.49
2:6:1337:A:H5'	2:6:1338:C:OP2	2.12	0.49
2:6:198:A:H2'	2:6:199:G:H5'	1.94	0.49
2:6:490:C:HO2'	2:6:491:C:P	2.34	0.49
2:6:490:C:C2	2:6:498:G:C8	2.99	0.49
2:6:780:A:O2'	19:D4:9:THR:N	435.00	0.49
17:D2:95:PRO:HD3	17:D2:130:TYR:CD1	2.47	0.49
26:E1:88:PRO:CB	26:E1:89:LYS:HA	5.69	0.49
27:L2:83:HIS:NE2	27:L2:86:GLN:HB2	2.27	0.49
29:L4:91:GLY:H	29:L4:98:ARG:NH2	5.59	0.49
1:5:3214:U:H6	31:L6:166:LYS:NZ	271.47	0.49
31:L6:170:LYS:HB2	31:L6:173:MET:HB2	1.94	0.49
31:L6:47:PHE:O	31:L6:50:LYS:HB2	2.20	0.49
34:L9:171:ASP:OD1	34:L9:173:ARG:HD3	2.12	0.49
40:M6:12:LYS:HB3	44:N0:167:ARG:NH2	3.00	0.49
1:5:743:C:O2	42:M8:141:ARG:HD3	169.73	0.49
44:N0:9:VAL:HG22	44:N0:61:ILE:HD13	2.50	0.49
46:N2:80:THR:HG21	46:N2:95:PHE:HD2	6.45	0.49
48:N4:23:ARG:NH2	48:N4:27:LYS:HD3	2.69	0.49
50:N6:115:ARG:O	50:N6:118:LEU:HB3	2.76	0.49
61:O7:5:THR:HA	61:O7:8:PHE:CD2	2.47	0.49
70:S2:59:HIS:HB2	70:S2:61:LEU:HD21	1.95	0.49
73:S5:63:GLN:CB	73:S5:89:ILE:HG13	2.41	0.49
74:S6:148:SER:O	74:S6:150:GLU:N	2.45	0.49
74:S6:208:TYR:CE1	74:S6:212:LEU:HD12	2.47	0.49
78:SM:52:PRO:C	78:SM:54:PRO:HD3	4.89	0.49
1:1:3011:A:C8	28:L3:13:HIS:NE2	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3133:C:H2'	1:1:3134:A:O4'	2.11	0.49
2:2:1221:A:H2'	2:2:1222:C:C6	2.47	0.49
2:2:261:U:HO2'	2:2:262:U:H5	1.60	0.49
2:2:385:A:H5''	76:S8:22:ARG:HB3	1.94	0.49
2:2:475:A:OP2	77:S9:126:ARG:NH1	2.46	0.49
1:5:1328:C:H2'	1:5:1329:U:C6	2.46	0.49
1:5:1505:C:N4	1:5:1506:A:H62	2.10	0.49
1:5:1506:A:H1'	1:5:1848:G:O6	2.12	0.49
1:5:915:A:H8	1:5:2136:C:HO2'	1.60	0.49
1:5:2539:C:H4'	1:5:2540:A:OP2	2.12	0.49
1:5:2984:C:H2'	1:5:2985:C:H6	1.78	0.49
1:5:620:U:C2	1:5:622:A:C5	3.01	0.49
2:6:1067:C:H2'	2:6:1068:C:C6	2.47	0.49
2:6:1215:C:O2'	83:6:2126:HOH:O	2.19	0.49
2:6:90:C:H2'	2:6:91:G:C8	2.46	0.49
4:8:52:A:O4'	63:O9:21:ARG:HD2	85.04	0.49
5:C0:32:HIS:CD2	5:C0:33:GLU:HG2	7.07	0.49
9:C4:117:ASP:OD1	9:C4:119:THR:HG22	3.19	0.49
17:D2:103:ILE:HG23	17:D2:127:GLY:O	2.98	0.49
19:D4:43:LYS:O	19:D4:47:VAL:HG13	5.03	0.49
2:6:1199:G:O6	24:D9:31:ILE:HD11	403.86	0.49
29:L4:4:PRO:HD2	29:L4:22:LEU:HB2	2.39	0.49
30:L5:155:THR:H	30:L5:179:ARG:HH11	1.58	0.49
30:L5:99:TYR:CG	30:L5:199:ILE:HG23	2.48	0.49
31:L6:167:ASN:OD1	31:L6:167:ASN:N	2.46	0.49
33:L8:67:ILE:HG23	33:L8:237:ILE:HD13	3.54	0.49
36:M1:48:SER:O	36:M1:64:LYS:HA	2.11	0.49
42:M8:30:VAL:O	42:M8:34:THR:HG23	2.55	0.49
1:1:1601:U:P	43:M9:42:ARG:HH22	2.35	0.49
50:N6:35:LEU:HD23	50:N6:106:ILE:HB	1.93	0.49
50:N6:83:ASP:O	50:N6:84:LYS:HB2	2.13	0.49
69:S1:126:THR:HG22	69:S1:136:ARG:HG3	1.93	0.49
69:S1:82:ARG:NH2	69:S1:188:LEU:O	2.45	0.49
70:S2:161:LYS:HA	70:S2:165:VAL:O	2.31	0.49
70:S2:88:LYS:HG2	70:S2:89:GLN:N	2.44	0.49
74:S6:176:GLN:HG3	74:S6:177:ARG:H	2.00	0.49
74:S6:67:VAL:CG2	74:S6:99:GLY:HA2	2.62	0.49
1:1:1094:U:H4'	1:1:1095:U:OP1	2.10	0.49
1:1:1575:A:H3'	1:1:1576:G:C5'	2.39	0.49
1:1:1481:A:O2'	1:1:1858:A:N3	2.33	0.49
1:1:2104:A:H2'	1:1:2105:G:H8	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3384:U:H2'	1:1:3385:U:C6	2.46	0.49
1:1:549:U:H2'	1:1:550:A:O4'	2.13	0.49
2:2:416:A:H5'	2:2:417:A:N7	2.26	0.49
2:2:755:A:HO2'	2:2:756:A:P	2.36	0.49
4:4:4:C:H5	81:4:220:8UZ:N	2.11	0.49
1:5:1025:A:H3'	1:5:1026:A:C5'	2.42	0.49
1:5:1824:U:O3'	62:O8:17:ARG:NH2	141.38	0.49
1:5:2257:C:H2'	1:5:2258:U:C6	2.47	0.49
1:5:562:C:H5''	44:N0:71:LYS:HD2	337.24	0.49
2:6:1617:U:H2'	2:6:1618:C:C6	2.47	0.49
9:C4:42:VAL:HG22	9:C4:63:ALA:HB1	6.11	0.49
10:C5:36:LEU:HD13	10:C5:36:LEU:H	4.68	0.49
13:C8:108:LYS:HA	13:C8:111:ASP:OD2	2.12	0.49
13:C8:146:ALA:H	78:SM:68:ARG:NH2	2.11	0.49
28:L3:303:LYS:HD2	28:L3:361:THR:HG21	1.97	0.49
28:L3:43:LEU:HG	28:L3:181:ILE:HG21	1.93	0.49
29:L4:295:ILE:O	29:L4:299:ILE:HG12	2.12	0.49
30:L5:235:SER:O	30:L5:239:ILE:HG13	2.12	0.49
31:L6:97:ASN:ND2	31:L6:97:ASN:H	2.11	0.49
33:L8:221:ASN:O	33:L8:225:LYS:HB2	3.85	0.49
3:7:93:C:OP1	35:M0:57:LEU:HD12	274.52	0.49
36:M1:21:ILE:HG22	36:M1:23:VAL:HG12	1.94	0.49
37:M3:130:GLY:C	37:M3:131:LYS:HG2	2.33	0.49
39:M5:47:LYS:HD2	39:M5:50:ARG:HE	2.30	0.49
40:M6:141:LEU:O	40:M6:144:SER:HB3	4.00	0.49
40:M6:98:ALA:HA	40:M6:101:ARG:NH1	2.27	0.49
32:L7:110:ARG:CZ	42:M8:3:ILE:HD11	3.59	0.49
48:N4:102:LYS:HG2	48:N4:105:ARG:NH1	2.28	0.49
52:N8:28:HIS:ND1	52:N8:32:ARG:HG2	3.34	0.49
1:1:944:C:H4'	56:O2:33:ARG:NH1	2.26	0.49
16:D1:4:ASP:HB2	70:S2:148:LEU:HA	2.28	0.49
70:S2:220:ASN:O	70:S2:223:GLY:N	2.52	0.49
75:S7:50:ASP:N	75:S7:50:ASP:OD1	2.45	0.49
1:1:1592:G:OP2	58:O4:37:LYS:NZ	2.34	0.49
1:1:1621:A:H2'	1:1:1622:U:H6	1.76	0.49
1:1:1818:U:C3'	1:1:1819:U:H5''	2.41	0.49
1:1:2333:C:H2'	1:1:2334:U:O4'	2.13	0.49
2:2:1045:C:C2	2:2:1074:G:C2	3.00	0.49
2:2:1534:G:OP2	20:D5:74:SER:OG	2.23	0.49
2:2:833:U:O5'	2:2:834:G:H5''	2.12	0.49
3:3:57:G:C8	3:3:58:C:C5	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:4:58:G:H5''	4:4:98:U:O2	2.12	0.49
1:5:1460:A:H2'	1:5:1461:A:C8	2.47	0.49
1:5:2194:G:H2'	1:5:2195:C:C6	2.47	0.49
1:5:2397:A:C5	1:5:2873:U:O2	2.66	0.49
1:5:2544:U:H3'	1:5:2545:C:H5''	1.95	0.49
1:5:3269:U:H5'	1:5:3269:U:H6	1.77	0.49
1:5:73:C:O2'	37:M3:59:ARG:HG2	90.74	0.49
1:5:956:U:H2'	1:5:957:C:C6	2.47	0.49
2:6:1091:A:H4'	2:6:1092:A:O5'	2.13	0.49
4:8:53:A:H2'	4:8:54:A:C8	2.47	0.49
5:C0:23:ALA:CB	5:C0:64:TYR:HB2	4.16	0.49
5:C0:10:LYS:HZ1	5:C0:36:ASP:HB3	3.87	0.49
13:C8:52:VAL:HG13	13:C8:61:LEU:HD21	2.73	0.49
28:L3:92:TYR:O	28:L3:155:ALA:HA	2.11	0.49
28:L3:350:ALA:O	28:L3:351:LEU:HB2	2.13	0.49
29:L4:187:LEU:HD23	29:L4:198:ARG:O	2.75	0.49
29:L4:5:GLN:HA	29:L4:20:LEU:O	2.12	0.49
32:L7:137:GLY:HA3	32:L7:236:ILE:HB	2.05	0.49
34:L9:48:VAL:CG1	34:L9:52:LEU:HB3	2.42	0.49
40:M6:33:ILE:O	40:M6:102:LEU:HA	2.13	0.49
1:1:3217:C:N3	41:M7:182:ILE:HD11	2.28	0.49
42:M8:123:THR:OG1	42:M8:126:GLN:HG3	2.12	0.49
44:N0:1:MET:HE1	44:N0:32:SER:N	2.26	0.49
45:N1:126:VAL:HG23	45:N1:127:GLN:H	2.03	0.49
1:1:2724:U:H4'	45:N1:54:HIS:CD2	2.48	0.49
46:N2:54:VAL:HG13	46:N2:67:SER:HB2	3.62	0.49
49:N5:135:ILE:HD13	49:N5:139:ILE:HD11	6.80	0.49
49:N5:51:VAL:HG23	49:N5:52:PRO:O	2.67	0.49
1:5:1431:G:OP2	52:N8:12:ARG:NH1	145.10	0.49
54:O0:43:ILE:HD12	54:O0:90:VAL:HB	1.94	0.49
70:S2:85:PRO:HA	70:S2:98:PHE:HA	2.25	0.49
2:6:149:C:O2'	74:S6:132:ARG:NH1	333.65	0.49
1:1:1028:U:H1'	1:1:1029:G:OP2	2.12	0.49
1:1:1632:A:H2'	1:1:1633:C:C6	2.47	0.49
1:1:2256:A:H1'	1:1:2257:C:OP1	2.11	0.49
1:1:3018:C:H2'	1:1:3019:U:O4'	2.13	0.49
2:2:370:A:H2'	2:2:371:G:C8	2.48	0.49
2:2:749:U:H3	2:2:800:U:H3	1.59	0.49
4:4:79:A:OP2	4:4:79:A:H8	1.96	0.49
1:5:1819:U:H2'	1:5:1820:U:H5'	1.94	0.49
1:5:2509:U:O2'	1:5:2510:U:P	2.71	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2698:G:O2'	45:N1:12:ARG:HG3	256.13	0.49
1:5:683:U:H2'	1:5:684:G:O4'	2.12	0.49
2:6:1320:U:O2	2:6:1322:A:H5'	2.12	0.49
3:7:22:A:N3	3:7:22:A:H2'	2.28	0.49
10:C5:10:ARG:O	10:C5:11:VAL:HG22	5.29	0.49
15:D0:104:THR:CG2	15:D0:116:VAL:HG21	2.43	0.49
15:D0:27:THR:HB	15:D0:88:LYS:CG	2.41	0.49
17:D2:7:LEU:HD21	17:D2:37:PHE:CD2	3.02	0.49
6:C1:101:GLU:OE2	18:D3:16:ARG:NH2	2.63	0.49
28:L3:296:THR:HG21	28:L3:357:LYS:O	2.40	0.49
3:3:1:G:H1'	30:L5:266:ALA:HA	1.94	0.49
1:1:3272:C:OP2	31:L6:78:ARG:NH1	2.45	0.49
34:L9:137:SER:HB3	34:L9:140:VAL:HG13	1.94	0.49
35:M0:152:LEU:O	35:M0:155:ALA:N	2.45	0.49
38:M4:48:GLY:HA3	38:M4:53:VAL:CG1	2.41	0.49
34:L9:50:ASN:ND2	38:M4:4:ASP:HB3	2.71	0.49
38:M4:17:VAL:HG21	38:M4:74:ARG:HB2	3.18	0.49
42:M8:110:ALA:O	42:M8:114:ILE:HG13	2.37	0.49
45:N1:105:PHE:O	45:N1:109:VAL:HG23	2.73	0.49
47:N3:38:ALA:HB3	47:N3:59:MET:HB2	2.62	0.49
55:O1:61:LYS:HE2	55:O1:62:ARG:HG2	5.97	0.49
56:O2:127:ALA:O	56:O2:128:LEU:HB2	4.56	0.49
57:O3:48:ARG:HG2	57:O3:104:PRO:HD3	3.13	0.49
1:1:1177:G:C5	57:O3:20:LYS:HD2	2.47	0.49
1:5:359:U:O2'	61:O7:16:HIS:ND1	133.03	0.49
27:L2:78:ALA:HB1	67:Q3:65:ALA:HB2	2.56	0.49
2:2:1065:A:H4'	69:S1:205:PHE:CD2	2.47	0.49
72:S4:11:ARG:NH1	72:S4:20:LEU:HD22	2.28	0.49
2:2:151:G:N3	74:S6:13:GLN:NE2	2.61	0.49
77:S9:66:ASP:HB3	77:S9:69:ARG:HB3	1.94	0.49
1:1:1219:C:H4'	1:1:1223:A:H1'	1.95	0.49
1:1:1806:A:H2'	1:1:1807:G:O4'	2.12	0.49
1:1:2153:U:OP1	27:L2:246:LEU:HB2	2.12	0.49
1:1:2405:C:O2	1:1:2819:A:N1	2.46	0.49
1:1:2628:A:H1'	1:1:2798:C:N3	2.26	0.49
2:2:1207:C:H42	2:2:1456:C:H5	1.60	0.49
2:2:819:G:C5	2:2:853:G:C2	3.00	0.49
1:5:1791:C:H2'	1:5:1792:C:C6	2.47	0.49
1:5:2344:U:H2'	1:5:2345:A:H8	1.77	0.49
1:5:65:A:H4'	1:5:66:A:O5'	2.12	0.49
1:5:36:C:O2'	1:5:808:A:N1	2.38	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:6:620:A:N1	83:6:2128:HOH:O	2.35	0.49
2:6:800:U:H2'	2:6:801:G:C8	2.48	0.49
4:8:82:U:O2	4:8:87:G:H4'	2.12	0.49
5:C0:69:THR:O	5:C0:73:VAL:HG23	2.13	0.49
13:C8:123:ARG:HG3	13:C8:133:VAL:HG13	2.98	0.49
13:C8:4:VAL:HG21	20:D5:82:HIS:ND1	3.08	0.49
18:D3:17:VAL:HG22	18:D3:20:ARG:NH2	2.28	0.49
20:D5:82:HIS:CE1	20:D5:85:LYS:HG2	2.48	0.49
22:D7:47:PHE:CE1	22:D7:49:HIS:HB2	3.05	0.49
25:E0:49:LEU:HD13	25:E0:51:ASN:HB3	1.94	0.49
28:L3:311:PHE:CE2	28:L3:317:ILE:HD11	3.43	0.49
29:L4:352:ALA:HB1	29:L4:354:VAL:HG23	1.94	0.49
1:5:336:A:O2'	29:L4:48:GLN:OE1	89.16	0.49
30:L5:155:THR:HG22	30:L5:179:ARG:NH1	2.27	0.49
36:M1:117:ASP:OD2	36:M1:119:SER:OG	2.26	0.49
38:M4:14:LEU:H	38:M4:19:ARG:HH11	1.85	0.49
1:5:1213:G:OP1	44:N0:137:ARG:HD3	322.78	0.49
46:N2:27:VAL:HG11	46:N2:93:ILE:HD11	5.19	0.49
49:N5:132:ALA:HA	49:N5:135:ILE:HG22	1.95	0.49
37:M3:64:LYS:HE3	52:N8:69:TRP:CD1	3.00	0.49
55:O1:88:PRO:HB2	55:O1:89:LEU:HD13	1.95	0.49
60:O6:57:LEU:O	60:O6:61:ILE:HG13	2.13	0.49
68:S0:38:PHE:CD1	68:S0:39:ASN:HB2	2.47	0.49
69:S1:109:LYS:O	69:S1:113:MET:HG3	2.12	0.49
70:S2:111:VAL:O	70:S2:136:VAL:HA	2.11	0.49
73:S5:187:ILE:H	73:S5:187:ILE:HD12	1.78	0.49
73:S5:65:ARG:NE	73:S5:65:ARG:HA	4.67	0.49
75:S7:28:GLU:O	75:S7:35:LYS:HB2	2.12	0.49
77:S9:90:LYS:HB3	77:S9:95:TYR:CG	2.48	0.49
1:1:1212:A:H1'	44:N0:114:HIS:CE1	2.42	0.49
1:1:2812:C:H2'	1:1:2813:A:H8	1.78	0.49
1:1:3049:A:C2	28:L3:75:ALA:HB2	2.48	0.49
1:1:3193:C:H2'	1:1:3194:C:O4'	2.13	0.49
2:2:1340:U:H4'	2:2:1341:A:H5''	1.94	0.49
2:2:393:C:H2'	2:2:394:C:C6	2.47	0.49
2:2:445:A:H2'	2:2:446:A:H8	1.78	0.49
2:2:647:G:N2	2:2:687:G:N2	2.61	0.49
3:3:61:G:H2'	3:3:62:U:C6	2.48	0.49
4:4:34:U:O2'	4:4:35:C:OP2	2.27	0.49
1:5:1575:A:H8	1:5:1575:A:OP1	1.95	0.49
1:5:1908:A:H2'	1:5:1909:A:O4'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2818:U:H5'	1:5:2818:U:C6	2.42	0.49
1:5:743:C:N3	42:M8:141:ARG:NH1	174.34	0.49
2:6:29:U:H2'	2:6:30:G:C8	2.48	0.49
2:6:496:G:H2'	2:6:496:G:N3	2.27	0.49
2:6:514:G:OP2	2:6:514:G:H8	1.96	0.49
2:6:577:G:H3'	2:6:577:G:H8	1.78	0.49
4:8:139:U:H2'	4:8:140:G:C8	2.47	0.49
8:C3:92:ILE:O	8:C3:96:VAL:HG23	2.11	0.49
12:C7:54:THR:O	12:C7:57:LEU:HB2	2.79	0.49
2:6:1616:G:O3'	23:D8:18:ARG:HD3	362.87	0.49
25:E0:14:VAL:O	25:E0:18:THR:HG23	2.56	0.49
1:5:1579:C:H5''	27:L2:68:LYS:NZ	172.91	0.49
28:L3:238:LEU:HB2	28:L3:246:LEU:O	2.12	0.49
28:L3:358:TRP:CZ2	28:L3:360:ASP:HA	2.48	0.49
33:L8:134:TYR:CG	33:L8:190:VAL:HG11	3.76	0.49
36:M1:23:VAL:HB	36:M1:65:ILE:O	4.90	0.49
38:M4:113:THR:HB	38:M4:116:GLU:HG3	2.49	0.49
39:M5:61:ILE:HD13	39:M5:133:ILE:HA	1.94	0.49
41:M7:60:PHE:CE2	41:M7:82:ARG:HB2	3.08	0.49
46:N2:36:TYR:OH	46:N2:82:LYS:HG2	2.12	0.49
47:N3:127:PRO:O	47:N3:130:ALA:HB3	2.13	0.49
47:N3:28:ASN:HD21	47:N3:112:SER:H	1.62	0.49
52:N8:116:GLY:O	52:N8:137:LYS:NZ	5.49	0.49
58:O4:23:VAL:HG21	58:O4:33:GLN:OE1	2.13	0.49
68:S0:81:PHE:HB3	68:S0:170:ILE:HD13	1.94	0.49
21:D6:68:TYR:HB2	69:S1:111:ARG:HG3	1.95	0.49
2:6:1535:U:C2	73:S5:187:ILE:HG22	338.98	0.49
2:2:144:U:H5	74:S6:137:ARG:HH12	1.60	0.49
77:S9:83:VAL:HG23	77:S9:85:VAL:HG23	1.95	0.49
1:1:1027:A:C8	1:1:1029:G:N7	2.81	0.49
1:1:1031:C:H2'	1:1:1032:C:H6	1.78	0.49
1:1:2255:A:H4'	1:1:2256:A:OP1	2.12	0.49
1:1:2585:G:N3	1:1:2585:G:H2'	2.27	0.49
1:1:2680:A:C2	36:M1:57:PHE:HB3	2.48	0.49
1:1:2732:G:H2'	1:1:2733:A:O4'	2.13	0.49
1:1:627:U:H2'	1:1:628:A:C8	2.48	0.49
2:2:1078:C:H2'	2:2:1079:U:C6	2.48	0.49
2:2:2:A:OP1	2:2:2:A:H8	1.96	0.49
1:5:1443:G:H2'	1:5:1444:G:C8	2.48	0.49
1:5:3007:U:OP1	40:M6:73:PHE:HA	247.70	0.49
2:6:1478:G:H2'	2:6:1479:A:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:6:1597:A:OP1	24:D9:19:ARG:NH2	406.31	0.49
2:6:1740:A:H2'	2:6:1741:U:C6	2.48	0.49
4:8:41:A:N7	4:8:42:G:C8	2.81	0.49
7:C2:91:VAL:HG22	7:C2:92:ALA:H	4.43	0.49
2:2:926:A:C2	9:C4:125:SER:HB3	2.48	0.49
12:C7:5:ARG:HD3	12:C7:5:ARG:N	2.28	0.49
19:D4:20:ARG:HD2	19:D4:74:LEU:HD22	3.27	0.49
1:5:2244:A:OP1	27:L2:243:THR:OG1	228.23	0.49
1:5:2948:C:O2'	28:L3:242:THR:HA	212.23	0.49
28:L3:288:GLY:N	28:L3:320:ASP:OD1	4.40	0.49
30:L5:119:TYR:OH	30:L5:135:VAL:N	2.41	0.49
3:3:10:C:N3	30:L5:20:PHE:HB3	2.28	0.49
32:L7:45:LEU:HD13	32:L7:45:LEU:O	5.07	0.49
34:L9:29:GLY:HA3	34:L9:82:VAL:HG13	1.95	0.49
35:M0:42:THR:HG23	35:M0:45:GLU:HB2	1.95	0.49
35:M0:99:ILE:O	35:M0:99:ILE:HD12	5.70	0.49
39:M5:138:GLN:HA	39:M5:143:ARG:HH11	1.76	0.49
40:M6:54:TYR:CD2	40:M6:58:LEU:HD22	2.47	0.49
41:M7:181:ARG:HH21	41:M7:181:ARG:HB3	3.41	0.49
44:N0:11:GLY:HA2	44:N0:59:VAL:H	1.78	0.49
48:N4:85:ALA:HB3	74:S6:158:ILE:HG13	1.95	0.49
54:O0:41:LEU:HD23	54:O0:66:LYS:O	2.58	0.49
55:O1:31:ARG:HB3	55:O1:31:ARG:HH11	2.06	0.49
1:5:2553:U:C4	58:O4:95:ILE:HG12	230.43	0.49
70:S2:164:SER:O	70:S2:202:GLY:HA3	2.52	0.49
72:S4:42:LEU:HD23	72:S4:46:VAL:HB	1.95	0.49
75:S7:30:SER:HB3	75:S7:34:LEU:HD12	1.94	0.49
76:S8:56:ARG:NH2	76:S8:174:GLY:O	2.43	0.49
79:SR:132:LYS:HG2	79:SR:143:THR:HG23	2.25	0.49
1:1:1176:C:H2'	1:1:1177:G:N2	2.27	0.49
1:1:1210:U:H2'	1:1:1211:U:C6	2.47	0.49
1:1:1439:U:C2	1:1:1440:G:C8	3.01	0.49
1:1:1702:U:H1'	1:1:1744:G:N2	2.28	0.49
1:1:2217:U:H2'	1:1:2218:G:C8	2.47	0.49
1:1:279:U:O2'	1:1:280:U:H5'	2.12	0.49
1:1:789:A:H2'	1:1:790:U:H6	1.76	0.49
2:2:297:U:O2'	72:S4:33:ALA:HA	2.13	0.49
2:2:308:C:OP2	6:C1:103:ARG:NH1	2.43	0.49
4:4:124:G:H1	4:4:129:C:H42	1.60	0.49
1:5:1581:C:H1'	1:5:1582:C:C2'	2.36	0.49
1:5:1680:G:C6	1:5:1681:U:C4	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1912:U:H2'	1:5:1913:A:O4'	2.12	0.49
1:5:2213:A:H2'	1:5:2214:A:C8	2.48	0.49
1:5:212:G:OP1	1:5:227:G:N2	2.44	0.49
1:5:175:C:N4	1:5:243:G:H1	2.11	0.49
1:5:3022:G:O2'	1:5:3031:G:O6	2.30	0.49
1:5:895:A:O2'	1:5:897:U:H5'	2.13	0.49
2:6:1172:G:H2'	2:6:1173:C:O4'	2.13	0.49
2:6:1649:G:H2'	2:6:1650:U:C6	2.47	0.49
8:C3:22:ALA:HB1	8:C3:23:PRO:HA	2.43	0.49
9:C4:87:GLY:O	9:C4:90:ARG:HB2	2.12	0.49
11:C6:122:ARG:O	11:C6:123:ARG:HD2	4.19	0.49
21:D6:96:ALA:C	21:D6:98:PRO:HD2	2.32	0.49
25:E0:53:LYS:HG2	25:E0:55:ARG:CD	7.25	0.49
26:E1:136:LYS:O	26:E1:138:ARG:N	2.45	0.49
28:L3:13:HIS:HE1	28:L3:15:GLY:HA3	1.78	0.49
29:L4:26:PHE:HA	29:L4:127:ALA:HA	1.99	0.49
30:L5:178:ASN:N	30:L5:178:ASN:OD1	2.68	0.49
32:L7:116:PHE:CZ	32:L7:144:ILE:HG23	2.48	0.49
32:L7:132:PRO:HA	32:L7:229:PHE:CD1	2.60	0.49
32:L7:179:LEU:H	32:L7:179:LEU:HD13	2.30	0.49
37:M3:54:LEU:HD13	37:M3:75:PHE:CE2	2.48	0.49
42:M8:34:THR:HG22	42:M8:49:LEU:HD21	2.27	0.49
44:N0:45:LEU:HD12	44:N0:51:VAL:HG21	2.12	0.49
45:N1:12:ARG:HD3	45:N1:13:TYR:CZ	2.48	0.49
28:L3:67:PHE:CZ	47:N3:88:ARG:HB2	2.48	0.49
56:O2:105:ARG:HD3	56:O2:124:GLY:O	2.12	0.49
59:O5:77:PRO:HD2	59:O5:80:LEU:HD12	1.95	0.49
62:O8:26:LYS:HB3	62:O8:42:LYS:HB2	2.28	0.49
63:O9:2:ALA:HB1	63:O9:5:LYS:HZ2	1.77	0.49
68:S0:49:ASN:HB3	68:S0:52:LYS:CG	2.43	0.49
73:S5:146:THR:CG2	73:S5:157:ARG:HB3	3.06	0.49
73:S5:190:ILE:O	73:S5:194:LEU:HB2	2.13	0.49
2:2:142:G:P	74:S6:139:ASN:HD21	2.36	0.49
75:S7:21:ALA:O	75:S7:25:VAL:HG23	2.18	0.49
2:2:856:A:N6	75:S7:97:ARG:H	2.08	0.49
79:SR:13:LEU:HB3	79:SR:45:TRP:CZ3	2.66	0.49
1:1:2194:G:N7	83:1:4042:HOH:O	2.35	0.48
1:1:3279:A:C6	1:1:3280:U:C4	3.01	0.48
1:1:718:G:N2	1:1:721:G:HO2'	2.12	0.48
2:2:1183:A:C6	2:2:1184:A:N1	2.80	0.48
3:3:73:C:O5'	3:3:73:C:H6	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1078:U:O2	1:5:1082:U:C2	2.66	0.48
1:5:1148:G:N2	1:5:1156:C:C2	2.81	0.48
1:5:1150:A:P	83:5:3995:HOH:O	2.70	0.48
1:5:1223:A:OP2	1:5:1285:G:N2	2.31	0.48
1:5:1370:G:C8	83:5:4040:HOH:O	2.65	0.48
1:5:2258:U:H2'	1:5:2259:A:O4'	2.12	0.48
1:5:2689:A:N3	1:5:2689:A:H2'	2.28	0.48
1:5:2696:A:N7	1:5:2758:A:N6	2.61	0.48
1:5:2902:A:H2'	1:5:2903:A:O4'	2.13	0.48
1:5:3153:U:C4	1:5:3158:G:C4	3.01	0.48
1:5:785:G:O4'	42:M8:92:ARG:NH1	144.30	0.48
2:6:1036:A:H1'	17:D2:9:ASP:OD1	359.81	0.48
2:6:1160:A:H2'	2:6:1161:C:H6	1.77	0.48
2:6:1546:G:OP1	13:C8:123:ARG:NH1	357.37	0.48
2:6:46:A:N6	2:6:433:C:H4'	2.28	0.48
2:6:895:G:H21	9:C4:38:THR:HG21	264.87	0.48
4:8:82:U:C1'	4:8:83:C:H5'	2.42	0.48
6:C1:57:LYS:HD3	6:C1:131:ILE:HG23	1.94	0.48
9:C4:107:ARG:HH21	9:C4:107:ARG:HB2	2.69	0.48
12:C7:26:LEU:O	12:C7:59:LYS:NZ	5.39	0.48
15:D0:22:ILE:HD12	15:D0:118:VAL:HA	1.94	0.48
2:6:1516:A:C8	15:D0:58:LEU:HD23	443.92	0.48
17:D2:77:PRO:HG2	17:D2:79:PHE:CZ	2.48	0.48
19:D4:113:ASN:HA	19:D4:116:LYS:HD2	3.32	0.48
1:1:209:A:C4	29:L4:162:THR:HG21	2.48	0.48
30:L5:107:ARG:NH2	30:L5:120:LYS:HA	2.25	0.48
30:L5:200:PHE:O	30:L5:240:TYR:HD2	1.94	0.48
33:L8:164:VAL:O	33:L8:167:PRO:HD2	2.12	0.48
35:M0:200:LEU:HD12	35:M0:213:PHE:CD1	3.20	0.48
36:M1:96:PHE:O	36:M1:156:LYS:HE3	2.13	0.48
40:M6:41:LEU:HD21	40:M6:80:PHE:CD1	2.48	0.48
41:M7:67:ILE:N	41:M7:67:ILE:HD13	2.97	0.48
42:M8:35:PHE:CE1	42:M8:39:ARG:HG3	2.48	0.48
43:M9:180:LYS:HD3	43:M9:184:LEU:HD12	2.38	0.48
47:N3:85:TRP:O	47:N3:92:PHE:HA	2.13	0.48
51:N7:4:PHE:CE2	54:O0:62:LEU:HB3	3.82	0.48
1:5:1430:U:H2'	52:N8:9:ARG:NH2	142.65	0.48
54:O0:13:LYS:HB3	54:O0:100:ILE:HG23	1.95	0.48
56:O2:20:HIS:O	56:O2:21:HIS:HB2	2.11	0.48
59:O5:85:THR:CG2	59:O5:88:LEU:HG	2.45	0.48
63:O9:50:ASN:O	63:O9:51:ILE:HB	2.75	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:S0:74:VAL:HG22	68:S0:96:THR:HG23	1.95	0.48
2:6:930:A:H2'	69:S1:114:VAL:HG11	311.81	0.48
69:S1:131:ASP:O	69:S1:180:THR:HG23	2.13	0.48
70:S2:102:VAL:HG11	70:S2:129:ILE:HG12	1.95	0.48
70:S2:139:ILE:HD12	70:S2:191:ALA:HB1	2.18	0.48
74:S6:153:VAL:HG23	74:S6:154:ARG:H	4.24	0.48
75:S7:30:SER:OG	75:S7:34:LEU:HD12	3.87	0.48
78:SM:57:ASN:O	78:SM:61:ILE:HG22	5.36	0.48
1:1:1498:A:OP1	43:M9:6:THR:OG1	2.30	0.48
1:1:1659:U:H2'	1:1:1660:C:C6	2.48	0.48
1:1:19:U:H4'	39:M5:138:GLN:OE1	2.13	0.48
1:1:2146:C:OP1	27:L2:200:ARG:NH1	2.44	0.48
1:1:2207:A:O2'	1:1:2208:A:C8	2.63	0.48
1:1:233:C:H2'	1:1:234:G:O4'	2.13	0.48
1:1:2631:U:H2'	1:1:2632:G:H8	1.78	0.48
1:1:290:G:H4'	39:M5:69:GLY:O	2.13	0.48
1:1:496:C:O5'	1:1:496:C:H6	1.96	0.48
1:1:345:G:O2'	4:4:25:G:N3	2.46	0.48
1:5:101:G:OP2	1:5:101:G:N2	2.43	0.48
1:5:1618:G:H4'	4:8:129:C:H1'	1.95	0.48
1:5:1654:A:N3	58:O4:59:PRO:HB3	167.69	0.48
1:5:1664:G:H2'	1:5:1665:C:C6	2.48	0.48
1:5:175:C:N3	1:5:243:G:N2	2.60	0.48
1:5:2237:C:H2'	1:5:2238:G:H8	1.78	0.48
1:5:2917:G:OP1	47:N3:46:LEU:HD12	249.92	0.48
1:5:1940:G:N2	1:5:3362:A:H8	2.10	0.48
1:5:397:A:C4'	1:5:398:A:H5'	2.43	0.48
1:5:589:A:H1'	1:5:1337:A:H5''	1.94	0.48
2:6:1428:G:H8	2:6:1428:G:H5'	1.78	0.48
2:6:1455:G:OP1	10:C5:122:THR:HG21	368.42	0.48
2:6:995:A:H2'	2:6:996:U:O4'	2.13	0.48
6:C1:76:VAL:HG12	6:C1:85:VAL:O	2.13	0.48
6:C1:99:ARG:HB3	18:D3:9:LEU:O	2.13	0.48
8:C3:40:TYR:HB3	8:C3:45:LEU:HD12	3.66	0.48
10:C5:68:PRO:HG2	10:C5:71:GLU:OE2	2.14	0.48
13:C8:122:HIS:CE1	13:C8:126:ARG:HD3	3.65	0.48
15:D0:51:VAL:CG1	15:D0:94:GLU:HB2	2.43	0.48
27:L2:57:PRO:HG2	27:L2:170:ALA:HB3	1.95	0.48
27:L2:229:ALA:O	27:L2:234:LYS:HE3	2.90	0.48
29:L4:286:VAL:O	29:L4:289:ILE:N	2.46	0.48
3:3:11:A:N6	30:L5:13:SER:O	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:L5:144:VAL:O	30:L5:173:VAL:HG13	2.14	0.48
33:L8:213:LYS:O	33:L8:217:THR:HG22	6.07	0.48
35:M0:210:ILE:HA	35:M0:217:PHE:CE2	2.48	0.48
36:M1:92:ARG:HH22	36:M1:94:ARG:HH11	6.13	0.48
37:M3:13:HIS:ND1	37:M3:13:HIS:N	2.63	0.48
40:M6:14:HIS:HD2	40:M6:123:ALA:HB3	1.78	0.48
1:1:2384:A:N1	40:M6:96:LYS:HE2	2.28	0.48
42:M8:120:GLU:OE2	42:M8:130:ARG:NH2	2.72	0.48
1:5:1875:G:OP2	43:M9:20:ARG:HG2	137.95	0.48
43:M9:70:LYS:O	43:M9:73:GLY:N	2.40	0.48
46:N2:107:PHE:O	46:N2:108:TYR:CG	2.66	0.48
49:N5:105:VAL:HG13	49:N5:130:TYR:CG	2.62	0.48
50:N6:50:ILE:HD13	50:N6:51:ARG:N	2.49	0.48
52:N8:77:LYS:C	52:N8:79:TRP:H	2.19	0.48
54:O0:22:LYS:NZ	54:O0:94:GLU:HG3	2.28	0.48
59:O5:34:GLN:O	59:O5:37:SER:N	2.37	0.48
62:O8:9:LYS:O	62:O8:13:GLU:HG3	2.13	0.48
71:S3:142:LEU:HD12	78:SM:110:TRP:CE3	7.17	0.48
73:S5:162:VAL:HG22	73:S5:167:ARG:HG3	1.95	0.48
74:S6:152:ASP:OD2	74:S6:154:ARG:NH1	5.73	0.48
77:S9:163:PRO:C	77:S9:165:GLY:H	2.16	0.48
13:C8:145:ARG:HG3	78:SM:68:ARG:HH22	4.26	0.48
1:1:1164:G:H2'	1:1:1165:A:H8	1.78	0.48
1:1:158:G:H2'	1:1:159:A:H8	1.78	0.48
1:1:1764:U:H3'	1:1:1765:U:C4'	2.42	0.48
1:1:1803:C:O5'	1:1:1803:C:H6	1.96	0.48
1:1:2294:U:O2	1:1:2296:A:C8	2.63	0.48
1:1:2419:A:H2'	1:1:2420:C:C6	2.48	0.48
1:1:2885:C:O2'	1:1:2886:U:H5'	2.13	0.48
1:1:3353:G:O2'	1:1:3356:G:H5'	2.13	0.48
1:1:705:A:C4	1:1:715:A:N6	2.81	0.48
2:2:281:G:H2'	2:2:282:C:C6	2.49	0.48
1:5:1875:G:OP1	43:M9:19:LYS:HG3	131.37	0.48
1:5:39:A:H2'	1:5:42:C:N4	2.29	0.48
2:6:1566:U:H5''	13:C8:39:GLY:N	353.50	0.48
2:6:234:G:H2'	2:6:235:G:C4'	2.42	0.48
2:6:393:C:OP2	76:S8:2:GLY:N	293.47	0.48
2:6:682:C:H2'	2:6:683:C:O4'	2.13	0.48
3:7:1:G:N2	30:L5:269:SER:OG	310.89	0.48
10:C5:53:PRO:O	10:C5:56:PHE:N	3.48	0.48
11:C6:41:PRO:HG2	11:C6:78:VAL:HG21	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C9:85:SER:HB2	14:C9:91:TYR:CZ	2.48	0.48
21:D6:44:ILE:HD11	21:D6:65:PRO:HD2	1.94	0.48
26:E1:118:ARG:HE	26:E1:134:ASN:HB2	5.25	0.48
28:L3:211:GLN:HE21	28:L3:284:ARG:HA	1.90	0.48
29:L4:150:LEU:HD21	29:L4:172:VAL:HG22	1.95	0.48
29:L4:185:LYS:HA	29:L4:200:THR:O	2.19	0.48
29:L4:264:SER:H	29:L4:267:VAL:HG22	1.78	0.48
30:L5:85:ARG:NH2	30:L5:252:ALA:O	5.04	0.48
30:L5:39:GLN:OE1	30:L5:40:HIS:N	2.46	0.48
32:L7:179:LEU:H	32:L7:179:LEU:HD22	1.79	0.48
32:L7:60:ARG:NH2	32:L7:63:ILE:HD12	2.29	0.48
4:8:155:A:H5'	33:L8:185:ARG:HD2	146.11	0.48
33:L8:186:LEU:O	33:L8:189:LEU:HB3	4.23	0.48
34:L9:111:PHE:HD1	34:L9:127:PRO:HA	1.78	0.48
36:M1:139:THR:HG22	36:M1:146:GLY:O	2.20	0.48
37:M3:166:ALA:HB3	52:N8:135:GLU:HG3	1.95	0.48
37:M3:47:ALA:HB1	59:O5:115:LYS:HD2	4.31	0.48
42:M8:70:ALA:HB2	42:M8:140:LEU:HD11	1.94	0.48
42:M8:64:VAL:HB	42:M8:88:THR:O	2.13	0.48
42:M8:94:PHE:CE2	52:N8:119:PRO:HD3	2.76	0.48
49:N5:103:TYR:O	49:N5:105:VAL:HG23	2.34	0.48
49:N5:34:LEU:HD22	49:N5:35:PRO:CD	2.42	0.48
49:N5:57:LEU:HD22	49:N5:62:VAL:CG2	4.53	0.48
57:O3:42:GLN:HA	57:O3:45:LEU:HG	2.28	0.48
57:O3:60:ARG:HB3	57:O3:60:ARG:NH2	2.28	0.48
59:O5:85:THR:H	59:O5:88:LEU:HB2	1.77	0.48
67:Q3:46:THR:HB	67:Q3:58:SER:H	1.78	0.48
68:S0:173:ILE:O	68:S0:177:LEU:HB2	2.14	0.48
72:S4:150:PRO:HB2	72:S4:154:ILE:HD12	2.13	0.48
75:S7:17:GLU:HG2	75:S7:46:ILE:HB	1.95	0.48
79:SR:276:PRO:HG3	79:SR:313:TRP:CZ2	3.71	0.48
1:1:2712:U:H2'	1:1:2713:U:C6	2.48	0.48
1:1:507:U:H2'	1:1:508:U:C6	2.48	0.48
2:2:1438:G:C5	2:2:1439:C:C4	3.01	0.48
2:2:628:G:O5'	2:2:628:G:H8	1.96	0.48
2:2:916:U:C5	2:2:917:U:C5	3.02	0.48
1:5:283:G:O2'	52:N8:59:ARG:NH1	150.93	0.48
1:5:2942:C:H3'	83:5:3941:HOH:O	2.11	0.48
1:5:3219:G:H4'	1:5:3220:G:H5'	1.94	0.48
1:5:504:A:N1	1:5:588:G:C6	2.81	0.48
1:5:634:C:H4'	56:O2:47:ARG:NH1	216.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:677:A:H4'	1:5:678:G:O5'	2.13	0.48
1:5:828:A:H2'	1:5:829:U:C6	2.49	0.48
1:5:929:A:H2'	1:5:930:U:C6	2.48	0.48
7:C2:133:LEU:O	7:C2:137:MET:HB2	2.12	0.48
2:6:1498:G:OP1	14:C9:75:LYS:HD2	418.18	0.48
18:D3:42:PRO:O	18:D3:79:ASN:ND2	2.64	0.48
22:D7:82:LYS:HB2	22:D7:82:LYS:HE2	4.55	0.48
28:L3:296:THR:HG22	28:L3:297:SER:N	2.28	0.48
29:L4:76:ARG:HA	29:L4:87:GLN:O	2.13	0.48
3:7:121:U:H5'	30:L5:260:PHE:CE2	315.57	0.48
37:M3:89:TYR:HB2	59:O5:111:PHE:CE1	2.49	0.48
1:1:3183:A:OP1	40:M6:161:LYS:NZ	2.46	0.48
41:M7:78:VAL:HG13	41:M7:80:LYS:H	1.77	0.48
44:N0:77:VAL:HG11	44:N0:106:LEU:HG	4.29	0.48
46:N2:58:GLU:HG2	46:N2:60:GLY:H	5.07	0.48
47:N3:80:ARG:NH1	47:N3:117:PRO:O	2.93	0.48
49:N5:45:LYS:HG2	59:O5:75:TYR:CD2	2.48	0.48
51:N7:81:LEU:HD12	58:O4:93:PHE:CD2	2.71	0.48
55:O1:19:ARG:HB3	55:O1:35:GLU:HG2	1.94	0.48
69:S1:120:LEU:HG	69:S1:142:PHE:CE1	3.01	0.48
71:S3:22:ASN:O	71:S3:26:THR:OG1	2.66	0.48
72:S4:163:ASP:O	72:S4:164:LEU:HB2	2.14	0.48
73:S5:172:ILE:O	73:S5:176:THR:HG23	2.12	0.48
2:2:208:U:H5''	76:S8:176:SER:HB2	1.95	0.48
1:1:1018:G:H2'	1:1:1019:G:O4'	2.12	0.48
1:1:950:G:N7	1:1:1367:G:C6	2.81	0.48
1:1:2218:G:H1	1:1:2227:C:H42	1.60	0.48
1:1:2897:A:C8	1:1:2899:C:C2	3.01	0.48
1:1:341:G:N7	29:L4:195:ARG:NH2	2.51	0.48
1:1:708:G:N2	1:1:711:A:OP2	2.43	0.48
1:1:723:U:H2'	1:1:724:U:C6	2.48	0.48
2:2:339:C:OP2	76:S8:10:LYS:NZ	2.42	0.48
2:2:417:A:H5'	2:2:418:G:C5	2.48	0.48
2:2:45:U:HO2'	2:2:46:A:H2'	1.75	0.48
2:2:962:C:OP1	8:C3:70:LYS:HB3	2.13	0.48
3:3:59:U:H2'	3:3:60:G:H8	1.77	0.48
1:5:953:G:C8	1:5:1117:G:C8	3.02	0.48
1:5:1390:A:H5'	1:5:1390:A:N3	2.28	0.48
1:5:1638:A:N1	1:5:1736:G:O2'	2.32	0.48
1:5:3122:A:C2	1:5:3123:A:C8	3.02	0.48
2:6:1125:A:C5	2:6:1126:G:H1'	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:7:13:A:N3	30:L5:24:ARG:NH2	289.16	0.48
2:6:1558:U:H3	10:C5:122:THR:CG2	365.91	0.48
18:D3:109:ARG:O	18:D3:112:LYS:NZ	7.15	0.48
20:D5:58:ARG:NH2	20:D5:103:ARG:HH12	8.18	0.48
28:L3:385:LYS:HD3	28:L3:386:ASP:H	5.49	0.48
28:L3:68:HIS:CD2	28:L3:69:LYS:HG3	3.08	0.48
35:M0:12:GLN:HG2	35:M0:59:GLN:HG3	2.75	0.48
35:M0:72:ALA:O	35:M0:76:MET:HG2	3.93	0.48
37:M3:183:ARG:HG2	37:M3:186:ARG:HH12	3.38	0.48
37:M3:42:ARG:O	37:M3:46:ILE:N	2.45	0.48
39:M5:191:TRP:CD1	39:M5:195:ASN:ND2	2.82	0.48
1:5:2599:U:OP1	39:M5:70:ASN:HB2	154.75	0.48
41:M7:166:VAL:HG22	41:M7:168:LEU:HD11	3.56	0.48
1:1:2730:G:H4'	42:M8:184:PHE:CG	2.48	0.48
50:N6:80:VAL:HG12	50:N6:99:LEU:O	2.14	0.48
67:Q3:84:ARG:O	67:Q3:88:GLU:HG2	2.14	0.48
70:S2:100:ALA:O	70:S2:115:ILE:HA	2.25	0.48
70:S2:35:TRP:NE1	70:S2:37:PRO:HB3	2.28	0.48
72:S4:117:GLU:HG2	72:S4:118:GLU:H	4.23	0.48
72:S4:57:ASN:O	72:S4:61:VAL:HG23	2.39	0.48
72:S4:42:LEU:N	72:S4:84:ALA:O	2.68	0.48
74:S6:26:VAL:HG21	74:S6:40:ALA:HB1	1.94	0.48
76:S8:89:GLU:O	76:S8:93:THR:HG23	2.14	0.48
77:S9:149:ARG:H	77:S9:149:ARG:HG2	1.33	0.48
77:S9:23:ARG:NH1	77:S9:27:GLU:OE2	2.87	0.48
1:1:1580:A:H2'	1:1:1581:C:C5	2.48	0.48
1:1:1713:G:N2	1:1:1730:G:H1'	2.29	0.48
1:1:1481:A:C5	1:1:1859:A:C8	3.01	0.48
1:1:2394:G:H5'	28:L3:252:ILE:HG22	1.96	0.48
1:1:41:G:N2	1:1:2803:A:N7	2.61	0.48
2:2:1408:G:H2'	2:2:1409:G:O4'	2.12	0.48
2:2:992:A:C2	2:2:1012:U:N3	2.75	0.48
1:5:1121:U:H2'	1:5:1122:U:C6	2.49	0.48
1:5:2539:C:H3'	1:5:2540:A:H5'	1.94	0.48
1:5:2828:G:O2'	35:M0:4:ARG:NH1	262.32	0.48
2:6:1586:A:H1'	2:6:1611:A:N6	2.27	0.48
2:6:816:G:C2	2:6:817:A:C8	3.01	0.48
5:C0:44:LYS:HD3	5:C0:44:LYS:HA	1.53	0.48
9:C4:115:ILE:O	21:D6:65:PRO:HG3	2.76	0.48
12:C7:33:ARG:NH2	79:SR:109:ASP:OD1	2.46	0.48
27:L2:104:LEU:HD22	27:L2:162:ALA:O	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:L2:29:LEU:HA	27:L2:76:PHE:CE1	2.53	0.48
29:L4:208:VAL:HG12	29:L4:230:VAL:HG13	1.94	0.48
31:L6:148:GLU:HA	31:L6:151:LYS:HG3	1.96	0.48
32:L7:41:ARG:HH11	32:L7:41:ARG:HG2	4.21	0.48
41:M7:7:THR:HB	41:M7:9:THR:HG22	2.90	0.48
44:N0:71:LYS:O	44:N0:73:LYS:HG3	2.13	0.48
48:N4:63:ILE:HB	48:N4:64:THR:H	4.31	0.48
51:N7:10:VAL:HB	51:N7:83:THR:HG22	1.95	0.48
53:N9:23:LYS:HA	53:N9:23:LYS:HD2	1.60	0.48
55:O1:82:GLU:O	55:O1:84:ASP:HA	2.12	0.48
57:O3:13:HIS:HE2	57:O3:28:SER:HG	2.53	0.48
68:S0:168:HIS:HB3	68:S0:203:PHE:CZ	2.48	0.48
68:S0:27:ARG:HG2	68:S0:28:ASN:H	1.78	0.48
69:S1:34:ALA:HB3	69:S1:41:ARG:HA	1.95	0.48
70:S2:137:ILE:HG12	70:S2:138:PRO:HD2	2.40	0.48
70:S2:181:SER:O	70:S2:185:LYS:HB2	3.37	0.48
72:S4:151:ASP:HB3	72:S4:154:ILE:HG13	1.95	0.48
72:S4:211:LYS:HD3	72:S4:215:ASP:OD2	4.85	0.48
76:S8:106:ALA:O	76:S8:109:PHE:N	3.02	0.48
77:S9:90:LYS:HD2	77:S9:95:TYR:CZ	2.48	0.48
1:1:2107:A:C2	1:1:2108:C:C2	3.01	0.48
1:1:2343:C:H2'	1:1:2344:U:H6	1.78	0.48
1:1:503:C:O2'	31:L6:23:LYS:HE2	2.13	0.48
1:1:656:A:H2'	1:1:657:A:H8	1.79	0.48
2:2:1390:U:HO2'	2:2:1391:A:H8	1.60	0.48
2:2:1176:G:C6	2:2:1464:G:C6	3.01	0.48
2:2:340:U:H2'	2:2:341:A:H8	1.79	0.48
2:2:579:A:C2	71:S3:143:ARG:HG3	2.47	0.48
4:4:65:A:H2'	4:4:66:A:O4'	2.13	0.48
1:5:2103:U:H2'	1:5:2104:A:C8	2.45	0.48
1:5:678:G:C5	1:5:679:U:C5	3.01	0.48
2:6:1171:A:H2'	2:6:1172:G:C8	2.48	0.48
2:6:547:U:C2	2:6:548:G:C8	3.01	0.48
4:8:45:C:H4'	63:O9:11:GLN:HG3	96.47	0.48
8:C3:54:LEU:O	8:C3:60:VAL:HG23	2.14	0.48
13:C8:120:ARG:HE	78:SM:61:ILE:HD12	4.41	0.48
2:2:1479:A:OP1	14:C9:57:ARG:NH1	2.47	0.48
15:D0:24:ILE:HG12	15:D0:116:VAL:HG22	1.95	0.48
15:D0:117:VAL:HG22	15:D0:118:VAL:H	1.79	0.48
22:D7:7:LEU:O	22:D7:10:PRO:HD3	2.46	0.48
26:E1:92:LYS:HD2	26:E1:92:LYS:N	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3044:G:O3'	28:L3:13:HIS:HB2	241.34	0.48
30:L5:55:PHE:CE1	30:L5:158:ARG:HG3	2.49	0.48
32:L7:82:LYS:HB3	32:L7:191:VAL:HG21	4.47	0.48
34:L9:69:ARG:O	34:L9:72:LYS:HB3	2.39	0.48
35:M0:4:ARG:NH2	35:M0:99:ILE:HG13	2.28	0.48
36:M1:112:LEU:O	36:M1:114:ILE:HD13	2.13	0.48
37:M3:76:THR:O	37:M3:78:ALA:N	2.47	0.48
41:M7:128:ARG:HG2	41:M7:136:ILE:CG2	5.15	0.48
1:1:1348:U:OP2	42:M8:38:ARG:NH2	2.47	0.48
54:O0:39:SER:OG	54:O0:65:THR:HG21	2.14	0.48
61:O7:53:ALA:HA	61:O7:56:ARG:HH11	1.78	0.48
68:S0:133:ILE:O	68:S0:136:ALA:HB3	2.13	0.48
12:C7:88:VAL:HG13	68:S0:200:ASP:OD1	2.14	0.48
2:6:93:A:O2'	72:S4:4:GLY:HA3	331.30	0.48
72:S4:71:LYS:O	72:S4:90:ILE:HA	2.76	0.48
73:S5:51:VAL:HG23	73:S5:131:GLN:HA	1.95	0.48
74:S6:136:LYS:NZ	74:S6:174:LYS:HB3	2.28	0.48
76:S8:61:GLU:CG	76:S8:62:THR:HG23	3.22	0.48
2:2:380:U:H5	77:S9:5:PRO:HA	1.79	0.48
79:SR:205:SER:OG	79:SR:207:ASP:OD1	2.29	0.48
1:1:1634:G:O6	51:N7:17:ARG:HG3	2.12	0.48
1:1:1940:G:OP1	43:M9:80:LYS:HE3	2.13	0.48
1:1:2374:C:N4	1:1:2941:A:C4	2.82	0.48
1:1:271:C:H2'	1:1:272:G:O4'	2.12	0.48
1:1:2946:A:H5''	1:1:2947:G:H5'	1.95	0.48
1:1:434:U:H2'	1:1:435:C:C6	2.49	0.48
2:2:1488:G:N3	2:2:1495:C:H1'	2.28	0.48
2:2:1685:G:C2	2:2:1717:G:C4	3.02	0.48
2:2:1727:G:H2'	2:2:1728:A:C8	2.49	0.48
2:2:934:C:N3	2:2:1077:C:H4'	2.28	0.48
1:5:1103:A:H3'	1:5:1104:G:C5'	2.40	0.48
1:5:118:U:C5	1:5:119:U:C4	3.01	0.48
1:5:244:G:H2'	1:5:245:U:H6	1.79	0.48
1:5:2586:G:O2'	33:L8:241:LYS:HE2	186.86	0.48
1:5:404:G:H2'	1:5:405:U:O4'	2.14	0.48
1:5:532:A:O2'	1:5:533:A:H5'	2.14	0.48
1:5:809:G:N1	1:5:932:U:O4	2.47	0.48
2:6:1058:U:H1'	2:6:1059:U:H5''	1.96	0.48
4:8:121:U:O2'	4:8:122:U:H5'	2.13	0.48
9:C4:105:LEU:HD12	9:C4:106:ALA:N	2.29	0.48
9:C4:48:VAL:O	9:C4:49:LYS:HD2	5.22	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C9:113:ILE:O	14:C9:124:ILE:HD12	2.18	0.48
19:D4:35:VAL:HG11	19:D4:40:LEU:HD21	2.56	0.48
23:D8:27:GLN:NE2	23:D8:64:ARG:O	2.47	0.48
23:D8:42:ARG:NH1	23:D8:56:LEU:HB3	2.29	0.48
27:L2:179:LEU:HA	27:L2:179:LEU:HD13	1.57	0.48
1:1:2584:G:O2'	33:L8:240:ASN:ND2	2.47	0.48
37:M3:77:LEU:H	37:M3:77:LEU:HG	1.43	0.48
39:M5:192:LYS:O	39:M5:196:THR:OG1	2.58	0.48
39:M5:38:ARG:HD3	39:M5:62:TYR:CE2	4.60	0.48
41:M7:29:THR:HA	41:M7:32:THR:HG23	2.08	0.48
1:1:992:A:H5''	45:N1:43:LYS:HD2	1.96	0.48
46:N2:33:TYR:CE2	46:N2:63:VAL:HG21	2.73	0.48
50:N6:76:LEU:HD22	50:N6:77:LYS:N	3.93	0.48
58:O4:74:ARG:HG2	58:O4:75:ALA:O	2.13	0.48
59:O5:21:LEU:HD22	59:O5:25:LYS:HE3	1.95	0.48
59:O5:28:LEU:O	59:O5:32:LYS:HG3	2.16	0.48
60:O6:5:THR:HG23	60:O6:12:ASN:HB2	1.95	0.48
1:1:181:U:O3'	61:O7:75:LYS:HD3	2.14	0.48
67:Q3:51:ALA:O	67:Q3:54:ILE:HG23	5.43	0.48
67:Q3:56:THR:HA	67:Q3:63:THR:HA	2.07	0.48
68:S0:195:TRP:NE1	68:S0:197:ILE:HD13	2.35	0.48
16:D1:15:ARG:HE	70:S2:59:HIS:HA	1.79	0.48
73:S5:139:ASN:ND2	73:S5:202:ALA:O	3.05	0.48
73:S5:42:LEU:HB2	73:S5:46:TRP:O	2.13	0.48
75:S7:70:PHE:O	75:S7:74:GLN:NE2	2.82	0.48
12:C7:33:ARG:NH2	79:SR:109:ASP:OD2	3.01	0.48
1:1:1164:G:H2'	1:1:1165:A:C8	2.48	0.48
1:1:1555:U:H3'	1:1:1556:C:C5'	2.44	0.48
1:1:2176:U:H6	1:1:2176:U:O5'	1.97	0.48
1:1:2552:C:H41	54:O0:53:LYS:HE3	1.77	0.48
1:1:2567:C:N4	1:1:2574:G:H1	2.03	0.48
1:1:2947:G:N2	1:1:2948:C:O2	2.47	0.48
1:1:304:G:C6	39:M5:178:HIS:CD2	3.01	0.48
1:1:3163:A:C2'	1:1:3164:C:H5'	2.43	0.48
1:1:385:A:H2'	1:1:386:A:C8	2.49	0.48
1:1:802:C:O2'	1:1:803:C:H5'	2.13	0.48
1:1:884:A:OP2	61:O7:5:THR:HG23	2.14	0.48
2:2:147:A:C6	2:2:148:A:C2	3.02	0.48
2:2:1600:A:HO2'	2:2:1602:C:N4	2.11	0.48
2:2:467:G:N2	81:2:2030:8UZ:N3	2.62	0.48
2:2:271:A:C2	2:2:285:G:C6	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:872:G:N2	2:2:956:C:O2	2.47	0.48
3:3:59:U:H2'	3:3:60:G:C8	2.48	0.48
1:5:306:A:C2	1:5:2784:G:H1'	2.49	0.48
2:6:1208:A:O2'	2:6:1270:G:OP2	2.27	0.48
2:6:1399:C:O2'	2:6:1400:A:P	2.72	0.48
2:6:162:A:H2'	2:6:163:G:C8	2.48	0.48
2:6:479:C:O2	2:6:510:G:N2	2.47	0.48
2:6:789:A:H3'	2:6:790:U:H6	1.78	0.48
4:8:3:A:H4'	41:M7:61:ARG:HD3	169.61	0.48
7:C2:128:ALA:HA	7:C2:133:LEU:HD13	4.92	0.48
11:C6:6:SER:HA	11:C6:23:LYS:HA	1.96	0.48
11:C6:39:VAL:HB	11:C6:45:ARG:HD3	1.96	0.48
14:C9:117:SER:HB2	14:C9:123:ARG:CB	2.42	0.48
14:C9:12:GLN:O	14:C9:15:ILE:N	2.47	0.48
15:D0:72:ASN:HD22	15:D0:74:GLU:H	1.62	0.48
18:D3:127:VAL:HG21	18:D3:142:LYS:HE3	1.96	0.48
26:E1:100:LEU:O	26:E1:102:VAL:HB	2.56	0.48
27:L2:33:ASP:N	27:L2:33:ASP:OD2	2.86	0.48
28:L3:14:LEU:HA	28:L3:17:LEU:HD13	1.96	0.48
28:L3:296:THR:HB	28:L3:299:ASP:H	1.78	0.48
33:L8:235:GLY:O	33:L8:237:ILE:HD12	4.38	0.48
34:L9:126:VAL:HG22	34:L9:164:ILE:HD13	5.70	0.48
34:L9:3:TYR:HD2	34:L9:3:TYR:H	1.88	0.48
37:M3:46:ILE:O	37:M3:47:ALA:HB3	2.14	0.48
38:M4:128:ARG:HD3	38:M4:132:LYS:HD2	2.55	0.48
40:M6:124:LEU:O	40:M6:128:ARG:HB2	2.13	0.48
46:N2:15:PHE:CE2	46:N2:71:PHE:HD1	2.61	0.48
47:N3:125:LEU:HB3	47:N3:126:TRP:CD1	2.51	0.48
47:N3:83:LYS:HD2	47:N3:84:SER:H	4.17	0.48
50:N6:39:LEU:HD13	50:N6:43:TYR:HE2	2.35	0.48
1:5:641:C:OP1	52:N8:21:ARG:HB3	181.78	0.48
56:O2:63:THR:HA	56:O2:66:LEU:HD12	1.96	0.48
68:S0:122:ILE:HG23	68:S0:144:ILE:HB	2.50	0.48
70:S2:139:ILE:CD1	70:S2:191:ALA:HB1	2.45	0.48
70:S2:139:ILE:HD11	70:S2:191:ALA:HB1	1.95	0.48
73:S5:91:GLU:HA	73:S5:94:THR:HG23	2.39	0.48
75:S7:82:GLU:HG3	75:S7:90:VAL:HB	1.96	0.48
79:SR:61:PHE:HB3	79:SR:92:TRP:CE3	2.48	0.48
1:1:1785:U:OP1	58:O4:19:LYS:NZ	2.46	0.48
1:1:592:A:C6	1:1:593:C:C4	3.02	0.48
2:2:400:A:H5''	76:S8:25:ARG:HA	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:758:U:OP1	77:S9:7:THR:HG21	2.14	0.48
2:2:887:A:H2'	2:2:888:U:H6	1.79	0.48
1:5:1220:U:H1'	1:5:1222:G:C5	2.49	0.48
1:5:1283:C:H2'	1:5:1284:C:H5'	1.96	0.48
1:5:283:G:N2	1:5:285:A:H5''	2.28	0.48
1:5:284:A:H4'	1:5:285:A:H8	1.77	0.48
2:6:1397:U:O2'	2:6:1400:A:N6	2.46	0.48
2:6:396:G:N2	2:6:398:G:H3'	2.29	0.48
2:6:460:A:H5'	2:6:461:G:OP2	2.14	0.48
2:6:701:U:H2'	2:6:702:G:O4'	2.14	0.48
2:6:78:A:H5'	2:6:78:A:H8	1.79	0.48
11:C6:53:LEU:HD13	73:S5:37:GLN:OE1	4.27	0.48
14:C9:28:LEU:HD23	14:C9:55:TYR:OH	2.14	0.48
18:D3:51:GLY:O	18:D3:101:GLU:HA	2.38	0.48
24:D9:19:ARG:HD3	24:D9:32:ARG:NE	4.50	0.48
28:L3:206:ASP:OD1	28:L3:206:ASP:N	2.43	0.48
28:L3:35:ASP:HA	28:L3:184:ASN:ND2	2.38	0.48
1:5:3049:A:C2	28:L3:75:ALA:HB2	246.58	0.48
29:L4:329:PRO:O	29:L4:330:TYR:HB3	4.59	0.48
30:L5:107:ARG:HH12	30:L5:120:LYS:C	2.14	0.48
30:L5:57:ASN:OD1	30:L5:58:LYS:NZ	2.47	0.48
33:L8:190:VAL:O	33:L8:190:VAL:HG12	3.59	0.48
34:L9:13:PRO:HG2	34:L9:16:VAL:HB	1.96	0.48
39:M5:88:GLY:HA3	66:Q2:50:PHE:CE2	2.93	0.48
48:N4:8:PHE:CZ	48:N4:39:LEU:HB3	2.97	0.48
58:O4:54:ILE:HD11	58:O4:78:GLY:HA2	2.98	0.48
65:Q1:7:LYS:HE2	65:Q1:11:ARG:CZ	2.44	0.48
66:Q2:52:GLY:O	66:Q2:54:THR:HG23	2.39	0.48
67:Q3:13:LYS:HG3	67:Q3:14:TYR:N	2.29	0.48
68:S0:109:ASN:O	68:S0:112:THR:HG22	2.13	0.48
69:S1:103:MET:HB3	69:S1:215:VAL:CG1	2.44	0.48
72:S4:173:ILE:HD11	72:S4:235:TYR:CD1	3.21	0.48
73:S5:103:ASN:HA	73:S5:106:LYS:HD2	1.95	0.48
73:S5:120:ILE:O	73:S5:124:LEU:HD12	2.13	0.48
1:1:1382:G:OP2	29:L4:188:ARG:NH1	2.29	0.47
1:1:1383:G:O3'	29:L4:138:ARG:NH2	2.47	0.47
1:1:180:C:H2'	1:1:181:U:C6	2.46	0.47
1:1:2218:G:H2'	1:1:2219:A:C8	2.49	0.47
1:1:2610:G:C5	1:1:2611:U:C5	3.02	0.47
1:1:2688:U:C6	1:1:2689:A:N1	2.82	0.47
2:2:1000:C:O2'	2:2:1002:G:N7	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:1167:G:H2'	2:2:1168:U:H6	1.79	0.47
2:2:1540:G:C6	2:2:1541:G:C4	3.01	0.47
2:2:1597:A:OP2	24:D9:32:ARG:NH2	2.47	0.47
2:2:563:U:H4'	25:E0:17:GLN:OE1	2.14	0.47
2:2:938:G:N2	2:2:941:A:OP2	2.34	0.47
1:5:1481:A:C6	1:5:1859:A:C8	3.01	0.47
1:5:708:G:H5'	1:5:709:A:OP2	2.13	0.47
2:6:1100:G:H8	2:6:1100:G:H5''	1.78	0.47
2:6:1755:A:OP1	18:D3:63:GLN:HG2	347.94	0.47
2:6:297:U:H5''	72:S4:37:LYS:HG2	354.46	0.47
2:6:397:A:O3'	76:S8:50:GLY:HA2	316.60	0.47
2:6:793:A:H5'	2:6:794:U:O5'	2.14	0.47
2:6:930:A:OP1	21:D6:32:LYS:NZ	311.04	0.47
4:8:62:C:H4'	4:8:63:G:O5'	2.14	0.47
5:C0:30:ALA:O	5:C0:31:LYS:HB2	3.22	0.47
12:C7:73:LEU:O	12:C7:77:GLU:HG3	2.14	0.47
16:D1:74:GLN:OE1	16:D1:83:TRP:N	4.50	0.47
20:D5:66:VAL:HG22	20:D5:71:ILE:O	2.14	0.47
2:2:1199:G:H1	24:D9:31:ILE:CD1	2.26	0.47
30:L5:86:TYR:CE1	30:L5:247:ILE:HA	2.49	0.47
3:3:7:G:O3'	30:L5:33:ARG:NH2	2.46	0.47
30:L5:88:ILE:HD13	30:L5:239:ILE:HG22	4.02	0.47
32:L7:86:VAL:HG22	32:L7:136:TYR:HB2	2.04	0.47
33:L8:84:ARG:H	33:L8:84:ARG:NE	2.12	0.47
34:L9:10:ILE:HD13	34:L9:75:VAL:HB	2.26	0.47
36:M1:109:HIS:HD2	36:M1:114:ILE:HG21	5.54	0.47
1:5:96:G:H5'	37:M3:15:ARG:CZ	149.19	0.47
38:M4:112:LEU:HD23	38:M4:112:LEU:HA	1.73	0.47
39:M5:121:VAL:HG23	39:M5:122:ASN:HB2	1.96	0.47
41:M7:178:ALA:HA	41:M7:181:ARG:HB3	1.96	0.47
52:N8:56:VAL:HG13	52:N8:57:GLY:N	2.29	0.47
45:N1:83:ARG:CB	53:N9:22:LYS:HG3	3.83	0.47
55:O1:81:GLU:O	55:O1:82:GLU:HG3	2.14	0.47
59:O5:86:ARG:O	59:O5:90:ARG:HG2	2.15	0.47
64:Q0:121:LEU:HA	64:Q0:121:LEU:HD23	1.70	0.47
68:S0:26:ALA:HB3	68:S0:149:LEU:HB2	1.96	0.47
68:S0:29:VAL:HG22	68:S0:30:GLN:N	3.13	0.47
69:S1:70:LEU:O	69:S1:74:GLN:N	2.43	0.47
72:S4:77:ARG:HD2	72:S4:82:TYR:CE1	4.44	0.47
73:S5:188:LYS:HE3	73:S5:188:LYS:HB2	4.38	0.47
77:S9:109:LEU:HD22	77:S9:113:VAL:HG23	2.12	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1018:G:H8	1:1:1018:G:OP2	1.96	0.47
1:1:1021:G:H2'	1:1:1022:U:H5'	1.96	0.47
1:1:139:G:H2'	1:1:140:C:O4'	2.14	0.47
1:1:2568:C:C2	1:1:2573:G:N2	2.81	0.47
1:1:2612:U:H2'	1:1:2613:U:O4'	2.13	0.47
1:1:305:U:C5	1:1:2776:C:H1'	2.48	0.47
1:1:2816:G:C4	1:1:2869:U:C5	3.02	0.47
1:1:2310:U:OP1	81:1:3893:8UZ:N	2.48	0.47
1:1:583:G:H5''	57:O3:106:ASN:OD1	2.12	0.47
1:1:705:A:N1	1:1:714:G:O2'	2.41	0.47
2:2:1107:G:O2'	2:2:1108:G:H5'	2.14	0.47
2:2:1170:G:C6	2:2:1574:G:C5	3.01	0.47
2:2:1567:U:C5	2:2:1568:C:C4	3.01	0.47
2:2:1614:A:H5'	2:2:1615:C:OP2	2.14	0.47
2:2:1651:A:C2	2:2:1750:A:C2	3.03	0.47
2:2:467:G:N1	81:2:2030:8UZ:N3	2.54	0.47
2:2:293:U:H2'	2:2:294:C:H6	1.79	0.47
2:2:410:A:C6	2:2:411:C:C4	3.01	0.47
2:2:990:C:H2'	2:2:991:G:O4'	2.14	0.47
4:4:145:U:H2'	4:4:146:U:C6	2.49	0.47
4:4:52:A:C6	4:4:53:A:C8	3.01	0.47
1:5:1184:A:H2'	1:5:1185:C:C6	2.48	0.47
1:5:1202:A:N6	1:5:1301:A:C4	2.82	0.47
1:5:2369:G:H2'	1:5:2370:G:C8	2.49	0.47
1:5:243:G:H2'	1:5:244:G:C8	2.49	0.47
1:5:2609:A:H2'	1:5:2610:G:H8	1.78	0.47
1:5:2799:A:H5''	1:5:2800:G:OP1	2.13	0.47
2:6:1486:G:N2	2:6:1487:A:C4	2.82	0.47
2:6:1494:C:H2'	2:6:1495:C:C6	2.49	0.47
2:6:974:A:C5	2:6:975:C:C5	3.02	0.47
6:C1:125:VAL:HG13	6:C1:137:PHE:HB3	1.97	0.47
8:C3:26:PHE:CZ	8:C3:28:LEU:HB2	2.49	0.47
9:C4:57:PRO:HB3	9:C4:100:ALA:HB2	1.95	0.47
11:C6:128:LYS:HE2	11:C6:134:ALA:HA	5.07	0.47
12:C7:84:TYR:O	12:C7:85:VAL:HG13	2.13	0.47
14:C9:53:TRP:HH2	14:C9:100:ILE:HD12	2.34	0.47
14:C9:125:SER:OG	14:C9:128:GLY:N	2.42	0.47
25:E0:35:TYR:CZ	25:E0:39:LEU:HD21	2.58	0.47
29:L4:274:TYR:HE1	29:L4:276:LEU:HD23	1.78	0.47
29:L4:60:THR:HG21	29:L4:77:VAL:HG22	2.54	0.47
1:1:2688:U:N3	30:L5:16:PHE:CE2	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:M0:9:TYR:CG	35:M0:97:LEU:HD13	2.49	0.47
36:M1:148:VAL:HG13	36:M1:152:HIS:HB3	1.95	0.47
39:M5:180:PHE:O	39:M5:184:LYS:HD2	4.91	0.47
44:N0:30:PHE:CE1	44:N0:103:VAL:HG21	2.52	0.47
38:M4:14:LEU:HD13	44:N0:149:LYS:HB2	2.73	0.47
51:N7:104:PRO:HA	51:N7:107:ARG:HD2	1.96	0.47
31:L6:31:ARG:HH11	57:O3:107:ILE:H	3.79	0.47
57:O3:48:ARG:HH11	57:O3:48:ARG:HG2	1.79	0.47
66:Q2:22:GLN:O	66:Q2:75:VAL:HG22	2.35	0.47
68:S0:120:LEU:HD11	68:S0:144:ILE:HG13	1.95	0.47
68:S0:30:GLN:CD	68:S0:32:HIS:H	7.10	0.47
69:S1:41:ARG:NH2	69:S1:97:LEU:HD21	2.29	0.47
75:S7:166:LEU:O	75:S7:170:GLN:HG3	2.48	0.47
77:S9:109:LEU:HD13	77:S9:129:ILE:HD13	1.96	0.47
1:1:1451:C:H2'	1:1:1880:U:H5	1.79	0.47
1:1:2689:A:O2'	1:1:2702:A:N6	2.44	0.47
1:1:715:A:H4'	1:1:716:A:OP1	2.13	0.47
1:1:847:A:H2'	1:1:848:A:C8	2.49	0.47
2:2:1328:G:OP1	71:S3:159:HIS:N	2.46	0.47
2:2:1583:A:N6	2:2:1612:U:OP2	2.44	0.47
2:2:649:U:HO2'	2:2:650:U:P	2.34	0.47
3:3:31:U:C2	3:3:32:U:C5	3.01	0.47
4:4:46:G:N2	4:4:58:G:C4	2.82	0.47
1:5:1129:A:N3	1:5:2826:U:O2'	2.44	0.47
1:5:1284:C:O2'	1:5:1285:G:H5'	2.14	0.47
1:5:1746:U:H2'	1:5:1747:G:C8	2.49	0.47
1:5:1816:A:H4'	1:5:1816:A:OP1	2.14	0.47
1:5:2413:A:O5'	1:5:2413:A:H8	1.97	0.47
1:5:2425:G:OP2	39:M5:90:ASN:ND2	167.94	0.47
1:5:255:A:H2'	1:5:256:G:H8	1.79	0.47
1:5:2561:A:C8	1:5:2579:G:N2	2.83	0.47
1:5:3181:C:N4	1:5:3182:G:C6	2.82	0.47
1:5:744:A:P	42:M8:66:ARG:HH21	163.23	0.47
1:5:781:G:OP1	42:M8:151:ARG:HD2	156.40	0.47
2:6:1783:C:H2'	2:6:1784:C:C6	2.47	0.47
2:6:195:G:N3	2:6:195:G:H2'	2.29	0.47
2:6:514:G:HO2'	2:6:515:A:H8	1.62	0.47
9:C4:114:ARG:HA	21:D6:62:TYR:OH	2.14	0.47
12:C7:86:PRO:HD2	12:C7:88:VAL:HG12	10.19	0.47
13:C8:122:HIS:O	13:C8:126:ARG:HG2	5.11	0.47
15:D0:87:HIS:HB3	15:D0:89:ARG:NH1	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:D2:23:ARG:NH1	17:D2:66:ASN:HA	2.49	0.47
23:D8:13:ILE:O	23:D8:14:LYS:HD2	2.15	0.47
26:E1:108:VAL:HG12	26:E1:110:ALA:HA	1.96	0.47
27:L2:89:TYR:O	27:L2:100:ASN:HB3	2.28	0.47
28:L3:159:ARG:HG2	28:L3:182:GLN:HA	2.00	0.47
30:L5:287:ALA:O	30:L5:290:ILE:HB	5.26	0.47
32:L7:39:GLU:O	32:L7:43:ILE:HG13	2.44	0.47
32:L7:45:LEU:O	32:L7:45:LEU:HD23	2.15	0.47
1:1:3214:U:OP2	38:M4:128:ARG:NH2	2.46	0.47
42:M8:16:ARG:HH12	42:M8:55:SER:HB3	1.79	0.47
43:M9:23:TRP:O	43:M9:50:ILE:HA	2.14	0.47
1:5:1873:U:OP1	43:M9:56:THR:HG23	151.74	0.47
32:L7:120:THR:HB	45:N1:132:PRO:HB2	1.95	0.47
62:O8:16:ARG:C	62:O8:18:ALA:H	2.72	0.47
62:O8:26:LYS:NZ	62:O8:28:ASN:OD1	2.98	0.47
69:S1:55:LYS:HA	69:S1:55:LYS:HD3	2.31	0.47
68:S0:119:ARG:NE	70:S2:240:LEU:HD23	2.84	0.47
71:S3:219:ALA:HB1	71:S3:220:PRO:HD2	1.95	0.47
72:S4:122:LYS:HG2	72:S4:164:LEU:HD21	1.96	0.47
72:S4:87:MET:O	72:S4:122:LYS:HE3	2.19	0.47
73:S5:222:LYS:HA	73:S5:225:ARG:NH1	3.59	0.47
23:D8:47:PRO:HB3	73:S5:81:ARG:CZ	2.44	0.47
6:C1:24:LYS:NZ	76:S8:70:GLU:OE2	2.30	0.47
1:1:1355:A:H5'	1:1:1357:G:H1'	1.95	0.47
1:1:1566:A:H3'	1:1:1567:U:C5'	2.44	0.47
1:1:1777:U:C5'	1:1:2099:A:H4'	2.44	0.47
1:1:2553:U:O2	1:1:2553:U:H2'	2.14	0.47
1:1:2571:U:O2'	1:1:2572:C:O5'	2.28	0.47
1:1:2927:C:H2'	1:1:2928:C:C6	2.49	0.47
1:1:2987:A:O2'	28:L3:259:HIS:HB3	2.15	0.47
1:1:558:U:H4'	1:1:559:A:OP2	2.14	0.47
1:1:562:C:H2'	1:1:563:U:C6	2.48	0.47
1:1:716:A:N7	52:N8:117:ARG:HG2	2.30	0.47
2:2:1389:C:H5'	12:C7:49:LYS:HD2	1.96	0.47
2:2:1498:G:O2'	2:2:1499:G:H5'	2.14	0.47
2:2:67:A:O3'	2:2:68:A:H3'	2.14	0.47
4:4:76:C:H2'	4:4:77:A:O4'	2.14	0.47
1:5:150:A:C5	1:5:151:A:N7	2.82	0.47
1:5:1558:A:O2'	49:N5:34:LEU:HG	140.42	0.47
1:5:2531:C:H2'	1:5:2532:U:O4'	2.14	0.47
1:5:2767:U:H2'	1:5:2768:U:H6	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:359:U:H4'	1:5:817:A:H62	1.79	0.47
2:6:485:A:H3'	2:6:486:G:H5''	1.95	0.47
7:C2:29:LYS:HG3	7:C2:100:TRP:CD1	2.78	0.47
11:C6:39:VAL:HG21	11:C6:48:VAL:HG11	1.96	0.47
11:C6:53:LEU:H	11:C6:53:LEU:HG	1.25	0.47
11:C6:18:ALA:HB3	11:C6:80:ALA:O	2.65	0.47
13:C8:36:LYS:HA	13:C8:36:LYS:HD3	1.56	0.47
13:C8:91:ASP:OD1	13:C8:92:ILE:N	3.66	0.47
16:D1:5:LYS:O	16:D1:7:GLN:HB2	2.15	0.47
6:C1:101:GLU:OE2	18:D3:13:ARG:HB2	2.15	0.47
23:D8:19:THR:OG1	23:D8:27:GLN:HG3	2.14	0.47
27:L2:117:GLU:OE1	27:L2:122:ASP:N	2.47	0.47
27:L2:23:ARG:HD3	27:L2:52:SER:O	3.05	0.47
27:L2:51:ASP:HB3	27:L2:54:ARG:HB3	2.18	0.47
28:L3:233:TRP:CG	28:L3:265:ALA:HB1	2.98	0.47
28:L3:37:ARG:CG	28:L3:186:GLY:HA2	2.44	0.47
32:L7:36:ALA:O	32:L7:39:GLU:HB2	2.14	0.47
33:L8:240:ASN:O	33:L8:244:ALA:N	3.03	0.47
35:M0:63:GLU:H	35:M0:63:GLU:HG2	1.48	0.47
31:L6:158:TYR:CE1	38:M4:115:PHE:HA	2.51	0.47
38:M4:47:ASP:C	38:M4:49:PRO:HD3	2.75	0.47
38:M4:59:ASN:HB3	38:M4:62:GLN:OE1	5.45	0.47
44:N0:9:VAL:HG22	44:N0:61:ILE:CD1	2.77	0.47
67:Q3:33:GLN:HG3	67:Q3:34:HIS:CD2	2.50	0.47
68:S0:106:SER:N	68:S0:135:GLU:OE2	2.47	0.47
69:S1:106:THR:OG1	69:S1:106:THR:O	3.36	0.47
69:S1:62:LYS:O	69:S1:88:VAL:HG13	4.13	0.47
72:S4:192:ILE:HG23	72:S4:228:ILE:HD11	2.11	0.47
73:S5:133:VAL:O	73:S5:137:ILE:HG12	2.15	0.47
74:S6:27:PHE:HB3	74:S6:102:VAL:HG11	1.96	0.47
2:2:66:U:C5'	74:S6:173:PRO:HA	2.43	0.47
77:S9:118:LEU:HD23	77:S9:158:PHE:CE1	3.67	0.47
78:SM:58:GLU:O	78:SM:62:ARG:HB2	2.80	0.47
79:SR:218:GLY:HA3	79:SR:237:GLN:O	2.14	0.47
1:1:1080:A:OP1	30:L5:140:ARG:HD3	2.14	0.47
1:1:1155:C:H1'	1:1:1198:C:O2	2.15	0.47
1:1:1509:A:N1	1:1:1510:G:C2	2.83	0.47
1:1:1605:A:O2'	1:1:1607:U:OP2	2.24	0.47
1:1:1488:G:H5''	1:1:1838:G:O6	2.14	0.47
1:1:2536:A:H2'	1:1:2537:U:C5	2.49	0.47
1:1:274:G:H2'	1:1:275:U:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2818:U:H6	1:1:2818:U:C5'	2.21	0.47
1:1:3319:U:H3'	1:1:3320:A:H5'	1.95	0.47
2:2:1060:U:O2'	2:2:1061:A:O4'	2.24	0.47
2:2:484:C:N4	2:2:503:G:H22	2.06	0.47
4:4:41:A:H61	4:4:103:G:C2'	2.28	0.47
1:5:1021:G:N3	1:5:1021:G:H2'	2.29	0.47
1:5:1174:G:O2'	1:5:1181:U:C5	2.64	0.47
1:5:119:U:C2	33:L8:138:HIS:CE1	107.27	0.47
1:5:1445:U:H5''	1:5:1446:A:OP2	2.15	0.47
1:5:2594:C:H6	1:5:2594:C:OP2	1.97	0.47
1:5:2821:C:H2'	1:5:2821:C:O2	2.14	0.47
1:5:282:G:C8	1:5:282:G:H3'	2.49	0.47
1:5:3158:G:C8	1:5:3159:C:C6	3.02	0.47
1:5:3278:C:C3'	1:5:3279:A:H5''	2.36	0.47
1:5:692:A:C4	1:5:693:A:C8	3.03	0.47
2:6:1383:G:OP1	15:D0:87:HIS:ND1	441.84	0.47
2:6:157:A:O5'	2:6:157:A:H8	1.97	0.47
2:6:498:G:N7	2:6:499:U:N3	2.62	0.47
2:6:979:A:H2'	2:6:980:G:O4'	2.14	0.47
5:C0:56:LYS:HG3	5:C0:67:THR:HB	1.96	0.47
9:C4:29:HIS:HB3	9:C4:41:ARG:HA	1.96	0.47
12:C7:88:VAL:HG23	12:C7:89:SER:N	4.35	0.47
27:L2:90:ALA:HB2	27:L2:101:VAL:HG13	1.97	0.47
28:L3:305:ILE:HG12	28:L3:321:PHE:CZ	2.49	0.47
29:L4:26:PHE:CD1	29:L4:130:ALA:HB2	2.97	0.47
29:L4:358:THR:HG21	45:N1:148:PRO:HD2	2.25	0.47
30:L5:104:LEU:HD11	30:L5:108:ARG:NH2	2.34	0.47
1:5:1080:A:H5''	30:L5:139:PRO:HB3	226.84	0.47
1:1:1170:A:OP1	32:L7:218:ARG:HA	2.14	0.47
34:L9:161:LEU:HD22	34:L9:179:ILE:HD12	1.97	0.47
37:M3:153:ASP:OD1	37:M3:157:ARG:NH2	2.48	0.47
1:5:3230:G:H4'	38:M4:132:LYS:HD3	284.89	0.47
39:M5:136:ASP:OD2	39:M5:138:GLN:HG2	2.15	0.47
41:M7:128:ARG:HG2	41:M7:136:ILE:HG21	4.63	0.47
47:N3:10:LYS:HB2	47:N3:125:LEU:HD21	1.96	0.47
51:N7:15:ARG:HB2	51:N7:79:HIS:HB3	2.43	0.47
60:O6:4:LYS:HD2	60:O6:14:GLY:HA3	2.53	0.47
9:C4:121:VAL:HG21	69:S1:111:ARG:HH12	1.79	0.47
70:S2:42:GLY:HA3	70:S2:65:GLU:OE2	2.23	0.47
73:S5:144:GLU:OE1	73:S5:225:ARG:NH2	2.46	0.47
73:S5:197:GLU:OE1	73:S5:210:ALA:N	2.42	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:6:767:U:C6	77:S9:141:VAL:HA	429.31	0.47
1:1:993:G:N3	1:1:2637:A:H2'	2.30	0.47
1:1:2809:C:H6	1:1:2809:C:O5'	1.98	0.47
1:1:3112:G:O2'	34:L9:70:THR:HB	2.15	0.47
1:1:3276:G:H1	57:O3:60:ARG:CZ	2.27	0.47
1:1:3353:G:HO2'	1:1:3354:U:P	2.38	0.47
1:1:397:A:H4'	1:1:398:A:O5'	2.15	0.47
1:1:86:G:O2'	1:1:98:G:O6	2.23	0.47
2:2:1619:C:H1'	23:D8:22:ARG:HH21	1.80	0.47
3:3:92:A:C5	3:3:93:C:H1'	2.49	0.47
1:5:1158:A:H2'	1:5:1159:A:H4'	1.97	0.47
1:5:1766:G:C2	1:5:1767:C:H1'	2.50	0.47
1:5:1944:U:H2'	1:5:1945:A:C8	2.50	0.47
1:5:2204:C:O2'	1:5:2205:U:O4'	2.33	0.47
1:5:3218:A:OP1	1:5:3218:A:H3'	2.15	0.47
1:5:397:A:H4'	1:5:398:A:H5'	1.97	0.47
1:5:54:C:H2'	1:5:55:G:H8	1.80	0.47
2:6:1227:A:C8	7:C2:116:VAL:HG21	451.41	0.47
2:6:151:G:N2	2:6:164:A:C4	2.82	0.47
2:6:237:C:O2	2:6:238:U:H5	1.98	0.47
2:6:895:G:H22	2:6:917:U:H3	1.63	0.47
9:C4:70:LYS:O	9:C4:74:VAL:HG23	2.13	0.47
9:C4:71:CYS:O	9:C4:75:GLY:N	3.67	0.47
11:C6:74:HIS:O	11:C6:78:VAL:HG23	2.14	0.47
17:D2:109:GLY:O	17:D2:111:MET:HG2	2.14	0.47
19:D4:45:ALA:HA	19:D4:50:ALA:CB	3.76	0.47
20:D5:49:ARG:O	20:D5:53:GLU:HB2	2.41	0.47
21:D6:36:ILE:HG23	21:D6:73:TYR:HB2	1.96	0.47
22:D7:14:SER:O	22:D7:17:ARG:HG2	2.14	0.47
23:D8:29:ARG:HD3	23:D8:41:VAL:HG22	1.96	0.47
29:L4:329:PRO:HB3	32:L7:41:ARG:NH2	2.30	0.47
31:L6:50:LYS:HE2	31:L6:72:ASN:HB2	1.97	0.47
32:L7:210:PRO:HB2	32:L7:213:GLY:O	2.14	0.47
1:1:304:G:O6	39:M5:178:HIS:HB2	2.15	0.47
41:M7:64:ASN:O	41:M7:67:ILE:HB	2.15	0.47
42:M8:44:PHE:O	42:M8:48:VAL:HG23	2.15	0.47
43:M9:168:ALA:HB1	43:M9:172:ARG:CZ	2.45	0.47
44:N0:30:PHE:CZ	44:N0:103:VAL:HG21	2.49	0.47
1:5:3041:U:O2'	47:N3:43:GLY:HA3	265.84	0.47
49:N5:38:LEU:HD13	49:N5:40:LEU:HD22	3.31	0.47
54:O0:16:LEU:HB3	54:O0:98:SER:HB2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:O1:19:ARG:HD3	55:O1:35:GLU:HG3	2.14	0.47
62:O8:69:LEU:HA	62:O8:69:LEU:HD13	1.60	0.47
66:Q2:12:CYS:HB2	66:Q2:23:HIS:NE2	2.30	0.47
68:S0:50:VAL:HA	68:S0:53:THR:OG1	2.14	0.47
70:S2:35:TRP:HB3	70:S2:46:LYS:HE2	1.97	0.47
71:S3:64:ARG:HG2	71:S3:65:ARG:N	3.27	0.47
19:D4:16:PRO:HB2	72:S4:95:THR:HG22	1.96	0.47
76:S8:70:GLU:HB3	76:S8:112:TRP:CH2	4.03	0.47
1:1:1138:U:H2'	1:1:1139:G:C8	2.50	0.47
1:1:1744:G:C6	1:1:1745:C:N4	2.83	0.47
1:1:1758:G:H1	1:1:1767:C:H42	1.61	0.47
1:1:2103:U:H2'	1:1:2104:A:C8	2.50	0.47
1:1:2604:U:H2'	1:1:2605:G:O4'	2.15	0.47
1:1:2992:U:OP1	1:1:3310:A:O2'	2.12	0.47
1:1:3104:U:O2'	1:1:3105:U:H5'	2.14	0.47
1:1:3279:A:C8	1:1:3279:A:H5'	2.49	0.47
1:1:3286:G:H3'	1:1:3287:U:H5''	1.97	0.47
1:1:831:G:O5'	1:1:831:G:H8	1.98	0.47
2:2:1287:A:N6	2:2:1329:A:H5'	2.30	0.47
2:2:1575:G:H2'	2:2:1576:A:C8	2.50	0.47
1:5:1385:C:HO2'	31:L6:2:SER:N	132.81	0.47
1:5:3001:C:OP1	28:L3:120:LYS:NZ	204.15	0.47
1:5:3194:C:O2'	1:5:3195:U:C2	2.68	0.47
1:5:379:C:H2'	1:5:380:U:H6	1.78	0.47
2:6:102:U:O4	2:6:360:A:H2'	2.14	0.47
2:6:490:C:H1'	2:6:498:G:C4	2.50	0.47
3:7:67:G:H5'	30:L5:10:SER:HB2	307.22	0.47
8:C3:87:ASP:OD2	8:C3:88:LEU:N	2.43	0.47
11:C6:83:GLN:O	11:C6:87:LYS:HB2	2.62	0.47
12:C7:17:ILE:HG23	12:C7:58:MET:HE1	1.95	0.47
14:C9:37:VAL:HG11	14:C9:100:ILE:HD11	1.97	0.47
2:6:1172:G:H21	14:C9:88:VAL:CG2	357.68	0.47
19:D4:130:ALA:HA	19:D4:133:ASN:ND2	2.30	0.47
1:1:2880:U:O2	28:L3:250:ALA:HB3	2.14	0.47
29:L4:351:PRO:HB3	32:L7:70:LYS:HB3	1.96	0.47
32:L7:60:ARG:CZ	32:L7:63:ILE:HD12	2.44	0.47
33:L8:46:LEU:O	33:L8:49:TYR:N	2.47	0.47
33:L8:81:THR:OG1	33:L8:181:LYS:HB2	2.72	0.47
35:M0:170:LYS:HE3	35:M0:175:ASN:HA	4.65	0.47
36:M1:54:VAL:HG12	36:M1:57:PHE:H	1.79	0.47
41:M7:141:SER:O	41:M7:143:PRO:HD3	2.36	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:M7:19:GLY:N	41:M7:94:LEU:HD21	2.30	0.47
43:M9:81:ARG:HD3	43:M9:88:ARG:NH1	5.13	0.47
49:N5:133:LEU:HD22	49:N5:133:LEU:O	2.63	0.47
58:O4:74:ARG:HD2	58:O4:85:VAL:HG21	3.05	0.47
1:5:817:A:N3	61:O7:11:ARG:HB3	143.42	0.47
70:S2:162:CYS:SG	70:S2:212:LYS:HE2	2.99	0.47
74:S6:219:ARG:O	74:S6:223:LYS:HG2	2.15	0.47
78:SM:65:THR:O	78:SM:67:GLY:N	3.95	0.47
79:SR:169:ILE:HG13	79:SR:181:TRP:HB2	1.95	0.47
1:1:566:G:O2'	1:1:567:G:H5'	2.14	0.47
1:1:66:A:H5'	83:1:4408:HOH:O	2.13	0.47
2:2:150:U:H2'	2:2:151:G:C8	2.50	0.47
2:2:1600:A:N6	83:2:2157:HOH:O	2.48	0.47
2:2:454:U:H3'	2:2:455:C:C6	2.50	0.47
1:5:1595:U:C2	1:5:1596:C:C5	3.03	0.47
1:5:220:G:N7	1:5:1389:G:N1	2.63	0.47
1:5:230:U:H2'	1:5:231:G:O4'	2.14	0.47
1:5:2612:U:H1'	1:5:2803:A:C2	2.50	0.47
1:5:276:U:O2	39:M5:93:LYS:HE3	150.94	0.47
1:5:3033:A:H2'	1:5:3034:C:H6	1.79	0.47
1:5:592:A:H5'	31:L6:17:ALA:O	208.09	0.47
2:6:1044:U:H2'	2:6:1045:C:C6	2.50	0.47
2:6:138:A:N6	2:6:266:A:H61	2.12	0.47
2:6:1486:G:C2	2:6:1487:A:C4	3.03	0.47
2:6:228:G:H1	2:6:237:C:H42	1.62	0.47
2:6:386:G:H2'	2:6:387:A:C8	2.50	0.47
3:7:11:A:H4'	3:7:13:A:C8	2.50	0.47
1:5:407:A:C2	4:8:17:A:H1'	2.49	0.47
6:C1:108:PRO:HG3	6:C1:134:THR:HB	1.96	0.47
8:C3:128:TYR:O	8:C3:131:THR:N	2.47	0.47
10:C5:130:ARG:HD2	78:SM:74:LYS:HE3	5.27	0.47
16:D1:38:LYS:NZ	16:D1:49:GLU:HG3	2.29	0.47
17:D2:42:GLN:O	17:D2:45:GLY:N	3.02	0.47
18:D3:43:PHE:C	18:D3:45:GLY:H	2.17	0.47
19:D4:27:VAL:HG11	19:D4:35:VAL:CG1	3.10	0.47
25:E0:38:LEU:O	25:E0:42:ARG:HB2	2.14	0.47
27:L2:117:GLU:OE2	27:L2:120:PRO:HA	3.63	0.47
28:L3:86:VAL:HG22	28:L3:162:VAL:HG12	2.01	0.47
28:L3:351:LEU:HA	28:L3:351:LEU:HD23	2.42	0.47
28:L3:53:MET:HE1	28:L3:327:CYS:CB	2.67	0.47
29:L4:329:PRO:C	29:L4:331:ALA:N	2.81	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:L6:53:VAL:O	31:L6:65:ILE:HB	2.14	0.47
32:L7:178:ILE:HA	32:L7:183:ASP:CB	2.62	0.47
33:L8:171:LYS:NZ	33:L8:223:ALA:O	2.33	0.47
36:M1:108:GLU:HA	36:M1:122:ILE:HG23	2.35	0.47
36:M1:19:LEU:O	36:M1:68:HIS:HB2	2.15	0.47
1:5:3182:G:OP1	40:M6:160:ARG:NH2	277.52	0.47
40:M6:183:ALA:HA	40:M6:186:ALA:HB2	3.00	0.47
45:N1:57:TYR:CG	45:N1:89:LEU:HD21	2.60	0.47
50:N6:76:LEU:HD22	50:N6:77:LYS:H	4.51	0.47
52:N8:64:GLN:HB2	52:N8:67:HIS:CE1	2.50	0.47
53:N9:23:LYS:HD2	53:N9:24:PRO:HD2	3.26	0.47
54:O0:16:LEU:O	54:O0:20:SER:OG	2.72	0.47
62:O8:9:LYS:NZ	62:O8:13:GLU:OE2	2.29	0.47
1:5:277:G:H5''	66:Q2:49:GLY:HA2	159.42	0.47
70:S2:246:GLU:HG2	70:S2:246:GLU:H	1.38	0.47
2:6:1420:C:O2'	71:S3:160:SER:O	414.63	0.47
72:S4:125:LYS:HA	72:S4:159:THR:HA	2.02	0.47
72:S4:47:PHE:HE2	72:S4:90:ILE:HG21	2.75	0.47
72:S4:95:THR:O	72:S4:97:GLU:HG3	2.42	0.47
73:S5:40:ILE:HG12	73:S5:41:LYS:H	2.43	0.47
2:6:72:A:N6	74:S6:169:TYR:CD1	364.92	0.47
76:S8:138:ASN:HA	76:S8:141:ARG:CD	3.78	0.47
77:S9:110:GLN:HA	77:S9:129:ILE:CD1	2.44	0.47
1:1:2898:G:H5''	1:1:2899:C:C5'	2.45	0.47
1:1:2988:C:P	40:M6:68:ARG:NH1	2.87	0.47
1:1:550:A:N6	1:1:551:A:N6	2.63	0.47
2:2:1612:U:H2'	2:2:1613:U:H5'	1.95	0.47
1:1:2256:A:N6	2:2:1756:A:H2'	2.30	0.47
2:2:1796:C:OP1	21:D6:87:ARG:HD3	2.15	0.47
1:5:1639:C:N4	58:O4:73:SER:HB2	199.90	0.47
1:5:2295:A:C5	1:5:2296:A:C6	3.03	0.47
1:5:3269:U:H6	1:5:3269:U:C5'	2.27	0.47
1:5:973:A:H2'	1:5:974:G:O4'	2.15	0.47
2:6:1636:C:C2	2:6:1765:A:N6	2.83	0.47
2:6:855:A:C2	2:6:857:U:H1'	2.50	0.47
4:8:141:C:OP1	39:M5:109:ARG:NH1	122.38	0.47
5:C0:82:LEU:H	5:C0:82:LEU:HG	1.39	0.47
8:C3:23:PRO:HB3	8:C3:25:TRP:CD1	2.50	0.47
11:C6:82:ARG:HH22	11:C6:114:ARG:HB3	1.79	0.47
18:D3:86:PHE:O	18:D3:124:VAL:HG23	2.19	0.47
21:D6:79:ILE:HG12	21:D6:84:VAL:HG11	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:542:A:N6	25:E0:28:LYS:HZ3	2.13	0.47
27:L2:101:VAL:C	27:L2:102:LEU:HD12	2.70	0.47
29:L4:30:ILE:HA	29:L4:124:SER:HB3	3.33	0.47
34:L9:20:ILE:HD12	34:L9:45:PHE:CD1	2.50	0.47
35:M0:87:LEU:HD23	35:M0:138:VAL:HG22	1.97	0.47
43:M9:122:VAL:O	43:M9:126:GLU:HB2	2.14	0.47
1:5:1720:U:C4	43:M9:124:TYR:CE2	238.13	0.47
38:M4:38:ILE:HD13	44:N0:150:PHE:CE2	3.80	0.47
38:M4:55:ARG:HD3	44:N0:70:THR:CB	2.65	0.47
54:O0:13:LYS:NZ	54:O0:103:THR:HG21	5.33	0.47
54:O0:56:LEU:HA	54:O0:56:LEU:HD23	1.87	0.47
59:O5:45:LYS:O	59:O5:49:LYS:HG2	4.92	0.47
66:Q2:105:GLN:HB2	66:Q2:106:PHE:CD1	2.50	0.47
70:S2:38:VAL:O	70:S2:39:THR:OG1	2.31	0.47
70:S2:65:GLU:HB2	70:S2:68:ILE:HG13	2.09	0.47
76:S8:114:GLU:CD	76:S8:120:THR:HA	2.35	0.47
2:2:767:U:C5	77:S9:143:ILE:HD12	2.50	0.47
77:S9:49:LEU:HD22	77:S9:53:ARG:HG3	1.97	0.47
71:S3:117:ARG:NH1	78:SM:126:ASP:OD1	2.47	0.47
1:1:1317:A:C4	1:1:1319:G:N7	2.83	0.47
1:1:168:U:C2	1:1:169:U:C5	3.03	0.47
1:1:2561:A:HO2'	1:1:2562:A:H8	1.60	0.47
1:1:602:A:H2'	1:1:603:A:C8	2.49	0.47
1:1:72:C:N3	1:1:74:G:C4	2.82	0.47
1:1:798:G:H4'	37:M3:15:ARG:NH2	2.29	0.47
1:1:981:U:H5''	1:1:981:U:H6	1.79	0.47
2:2:276:C:H2'	2:2:278:U:O4	2.15	0.47
2:2:636:A:H1'	17:D2:58:SER:OG	2.14	0.47
4:4:122:U:H2'	4:4:123:G:H8	1.79	0.47
1:5:1064:A:C5	1:5:1093:A:C2	3.03	0.47
1:5:1204:A:H2'	1:5:1205:A:H5'	1.97	0.47
1:5:1386:A:N7	29:L4:183:LYS:HE3	114.78	0.47
1:5:1617:G:C2	1:5:1828:A:C2	3.01	0.47
1:5:1896:A:C6	1:5:1897:G:C6	3.02	0.47
1:5:1945:A:H2'	1:5:1946:A:C8	2.49	0.47
1:5:3218:A:H5''	1:5:3219:G:N7	2.29	0.47
1:5:679:U:H2'	1:5:680:G:C8	2.50	0.47
2:6:1043:A:C6	2:6:1044:U:C4	3.03	0.47
2:6:152:U:OP2	19:D4:127:LYS:NZ	325.68	0.47
2:6:1625:C:OP1	70:S2:91:ARG:NH1	375.07	0.47
2:6:1626:U:P	70:S2:91:ARG:HH22	376.51	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:6:1759:C:O2	2:6:1780:G:N2	2.34	0.47
2:6:968:U:H5''	2:6:1033:C:O2'	2.15	0.47
5:C0:54:TYR:HB3	5:C0:72:GLY:HA2	2.54	0.47
12:C7:24:LEU:HD23	12:C7:34:LEU:HD12	2.88	0.47
18:D3:131:SER:HB3	18:D3:134:ALA:HB3	3.64	0.47
19:D4:15:ASN:HD22	19:D4:22:GLN:NE2	3.43	0.47
23:D8:52:ASP:N	23:D8:52:ASP:OD1	2.48	0.47
29:L4:156:LEU:O	29:L4:159:ILE:HG13	2.15	0.47
29:L4:205:PRO:HB3	29:L4:247:PHE:CE2	2.50	0.47
29:L4:123:ALA:HB2	29:L4:262:TRP:CZ3	2.50	0.47
37:M3:25:HIS:CG	39:M5:200:TRP:CZ3	3.15	0.47
1:5:73:C:N3	37:M3:59:ARG:NH1	90.47	0.47
40:M6:116:LYS:HG3	40:M6:117:ARG:N	2.29	0.47
47:N3:85:TRP:HH2	47:N3:95:PHE:HE2	1.62	0.47
49:N5:82:LEU:HB3	49:N5:84:PHE:CE2	2.50	0.47
55:O1:50:ARG:CZ	55:O1:90:PHE:CZ	4.11	0.47
62:O8:30:LYS:HD2	62:O8:40:GLN:NE2	2.30	0.47
69:S1:184:LEU:O	69:S1:188:LEU:HG	2.32	0.47
71:S3:74:GLN:NE2	71:S3:81:PRO:HA	4.11	0.47
72:S4:173:ILE:HD11	72:S4:235:TYR:CE1	3.02	0.47
73:S5:162:VAL:HG22	73:S5:167:ARG:HG2	2.84	0.47
73:S5:94:THR:O	73:S5:97:LEU:HB2	2.15	0.47
75:S7:184:GLU:O	75:S7:185:ILE:HG23	2.15	0.47
78:SM:51:ARG:NE	78:SM:51:ARG:HA	5.60	0.47
79:SR:61:PHE:HB3	79:SR:92:TRP:CZ3	2.50	0.47
1:1:1567:U:H5'	1:1:1568:U:H5''	1.97	0.47
1:1:304:G:N3	1:1:304:G:H2'	2.30	0.47
1:1:3324:C:OP1	55:O1:19:ARG:NH1	2.46	0.47
1:1:693:A:H2'	1:1:694:C:H6	1.80	0.47
2:2:1061:A:H2'	2:2:1062:A:H5'	1.97	0.47
2:2:1146:G:H4'	70:S2:89:GLN:HB3	1.96	0.47
2:2:1254:U:OP2	7:C2:46:ARG:NH1	2.48	0.47
2:2:717:C:N4	2:2:720:G:H22	2.12	0.47
1:5:1039:U:H2'	1:5:1040:A:H8	1.80	0.47
1:5:915:A:H8	1:5:2136:C:O2'	1.98	0.47
1:5:576:C:H2'	1:5:577:C:H6	1.79	0.47
2:6:1467:C:H5'	2:6:1602:C:OP1	2.15	0.47
2:6:373:G:O3'	6:C1:96:LYS:HE3	353.17	0.47
2:6:496:G:H5''	2:6:497:G:OP2	2.15	0.47
2:6:499:U:C6	2:6:499:U:H3'	2.50	0.47
8:C3:23:PRO:HB2	8:C3:26:PHE:H	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C7:20:TYR:CE2	12:C7:38:ILE:HG13	2.50	0.47
17:D2:126:LEU:HD23	17:D2:126:LEU:HA	2.20	0.47
20:D5:61:SER:OG	20:D5:64:VAL:HG23	2.15	0.47
2:2:1335:U:H1'	24:D9:56:ARG:HD3	1.97	0.47
25:E0:39:LEU:HD12	25:E0:43:ARG:NH2	2.30	0.47
26:E1:126:CYS:HB3	26:E1:130:VAL:HG22	3.72	0.47
27:L2:180:LEU:HD23	27:L2:180:LEU:HA	1.83	0.47
27:L2:5:ILE:CD1	27:L2:232:GLY:HA2	2.46	0.47
29:L4:144:LYS:O	29:L4:145:ILE:HG13	4.49	0.47
29:L4:23:PRO:O	29:L4:25:VAL:HG23	2.55	0.47
29:L4:31:ARG:O	29:L4:35:VAL:HG23	2.15	0.47
30:L5:59:ASP:OD2	30:L5:80:SER:OG	3.39	0.47
33:L8:71:VAL:HG23	33:L8:235:GLY:HA3	1.97	0.47
34:L9:106:LYS:H	34:L9:109:ALA:HB3	1.80	0.47
34:L9:101:VAL:HG22	34:L9:114:VAL:HG22	1.97	0.47
35:M0:149:VAL:HG13	35:M0:165:ILE:HG13	1.96	0.47
35:M0:216:TYR:C	35:M0:216:TYR:CD1	4.23	0.47
39:M5:174:ILE:HA	39:M5:184:LYS:HB2	5.50	0.47
42:M8:64:VAL:HG22	42:M8:96:PHE:CE2	2.50	0.47
43:M9:115:ILE:HD12	43:M9:142:ILE:HD13	1.96	0.47
44:N0:34:GLU:O	44:N0:38:LYS:HG3	2.66	0.47
46:N2:59:ASP:OD1	46:N2:62:VAL:N	2.44	0.47
59:O5:85:THR:HG22	59:O5:88:LEU:N	2.34	0.47
68:S0:17:LEU:HD23	68:S0:172:LEU:HD13	1.95	0.47
70:S2:216:VAL:O	70:S2:220:ASN:ND2	2.48	0.47
70:S2:55:GLU:OE1	70:S2:239:PRO:HD3	4.38	0.47
70:S2:37:PRO:HA	70:S2:65:GLU:OE1	2.78	0.47
80:C6:201:MG:MG	73:S5:25:LEU:HB2	1.40	0.47
78:SM:79:SER:HA	78:SM:82:THR:CG2	2.94	0.47
1:1:1090:G:H2'	1:1:1091:A:H8	1.79	0.46
1:1:1397:C:C4	1:1:1398:U:C4	3.02	0.46
1:1:1495:U:H5	1:1:1835:A:C2	2.32	0.46
1:1:1573:G:H8	1:1:1573:G:H5''	1.80	0.46
1:1:2689:A:C8	1:1:2702:A:N6	2.83	0.46
1:1:2921:U:H2'	1:1:2923:U:OP2	2.15	0.46
1:1:722:G:C6	1:1:723:U:C4	3.03	0.46
2:2:1094:G:O2'	2:2:1095:U:H5'	2.15	0.46
2:2:1120:U:H2'	2:2:1121:C:C6	2.50	0.46
2:2:1182:U:O2	2:2:1184:A:H8	1.98	0.46
2:2:1360:A:H8	2:2:1360:A:OP2	1.98	0.46
1:1:407:A:C2	4:4:17:A:H1'	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2929:C:H2'	1:5:2930:A:O4'	2.15	0.46
1:5:2953:U:H2'	1:5:2954:U:H2'	1.96	0.46
2:6:1491:U:H4'	2:6:1492:A:H5''	1.97	0.46
2:6:966:A:H2'	2:6:967:A:H8	1.80	0.46
4:8:80:A:H4'	4:8:81:U:H5'	1.98	0.46
2:6:895:G:O2'	9:C4:37:GLU:HA	260.18	0.46
15:D0:20:ILE:HD12	15:D0:100:VAL:HG21	3.86	0.46
18:D3:97:ASP:HB2	18:D3:100:ASP:OD2	2.16	0.46
20:D5:85:LYS:HG3	20:D5:86:GLU:H	1.81	0.46
22:D7:72:LYS:HE2	22:D7:72:LYS:HB2	2.04	0.46
27:L2:125:ALA:O	27:L2:128:ARG:HD2	2.42	0.46
27:L2:242:ARG:CZ	27:L2:246:LEU:HD13	5.80	0.46
28:L3:183:LEU:O	28:L3:191:LYS:NZ	3.10	0.46
28:L3:239:PRO:O	28:L3:242:THR:HG23	2.33	0.46
29:L4:193:LYS:HE3	29:L4:193:LYS:HB2	1.54	0.46
30:L5:197:SER:OG	30:L5:202:GLY:HA3	2.14	0.46
31:L6:24:ALA:HB3	31:L6:26:ARG:NH2	2.30	0.46
32:L7:181:ILE:O	32:L7:185:ILE:HG13	3.31	0.46
1:1:1334:U:H1'	32:L7:208:SER:HB2	1.96	0.46
1:1:1156:C:OP2	32:L7:94:LYS:NZ	2.45	0.46
33:L8:60:ARG:O	33:L8:64:ILE:HG13	2.48	0.46
35:M0:48:LEU:HD22	35:M0:49:CYS:H	1.79	0.46
36:M1:12:LEU:HD22	36:M1:12:LEU:HA	2.43	0.46
1:5:699:A:OP1	37:M3:68:LYS:HE3	95.09	0.46
41:M7:24:VAL:HG13	41:M7:86:LYS:HE2	1.97	0.46
42:M8:63:SER:HA	42:M8:88:THR:OG1	2.21	0.46
1:1:2093:A:N1	43:M9:114:LYS:NZ	2.62	0.46
46:N2:16:THR:OG1	46:N2:102:GLU:HG2	2.15	0.46
49:N5:103:TYR:HB3	49:N5:135:ILE:HD11	1.98	0.46
49:N5:82:LEU:HD13	49:N5:84:PHE:HZ	1.80	0.46
50:N6:34:PRO:HA	50:N6:47:ALA:HB2	1.98	0.46
1:1:1517:G:P	63:O9:41:ARG:HH22	2.37	0.46
64:Q0:92:ASP:O	64:Q0:105:PRO:HG3	2.16	0.46
68:S0:48:ILE:HD12	68:S0:162:CYS:O	2.91	0.46
19:D4:18:LEU:HD21	72:S4:64:ILE:HG13	2.72	0.46
73:S5:55:ASP:HB3	73:S5:58:LEU:HD12	1.97	0.46
74:S6:214:LYS:HE3	74:S6:214:LYS:HB2	3.94	0.46
75:S7:111:LYS:O	75:S7:112:ARG:HB2	2.15	0.46
76:S8:117:TYR:CE1	76:S8:146:ARG:HB3	2.50	0.46
78:SM:23:LYS:HD2	78:SM:23:LYS:H	1.80	0.46
79:SR:249:ARG:NH2	79:SR:315:VAL:HG11	2.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:SR:249:ARG:NH1	79:SR:298:GLY:O	2.75	0.46
1:1:1498:A:H2'	1:1:1499:C:C6	2.50	0.46
1:1:1564:U:H5'	1:1:1565:G:OP2	2.15	0.46
1:1:1692:U:O4	1:1:1693:C:N4	2.48	0.46
1:1:2186:U:OP1	83:1:4005:HOH:O	2.21	0.46
1:1:2244:A:H5''	27:L2:243:THR:OG1	2.15	0.46
1:1:2774:C:H2'	1:1:2775:U:H6	1.80	0.46
1:1:2916:U:H5	1:1:2935:U:HO2'	1.57	0.46
1:1:3393:U:H2'	1:1:3394:U:C6	2.51	0.46
2:2:1472:C:N4	2:2:1536:G:H1	2.13	0.46
2:2:1572:G:H3'	2:2:1572:G:OP1	2.15	0.46
3:3:70:U:H2'	3:3:71:G:C8	2.50	0.46
3:3:81:U:O4	81:3:214:8UZ:O5	2.33	0.46
4:4:148:G:H2'	4:4:149:A:H8	1.80	0.46
1:5:1181:U:H2'	40:M6:122:GLN:NE2	269.53	0.46
1:5:1470:U:H2'	1:5:1471:U:H6	1.80	0.46
1:5:149:U:H5'	39:M5:55:ALA:O	101.15	0.46
1:5:2224:A:OP1	60:O6:74:LYS:HE2	156.40	0.46
1:5:255:A:H2'	1:5:256:G:C8	2.51	0.46
1:5:3049:A:H2'	1:5:3050:U:O4'	2.15	0.46
1:5:321:C:H4'	39:M5:150:TRP:CG	83.47	0.46
1:5:620:U:C4	1:5:622:A:N1	2.84	0.46
1:5:865:U:C5	1:5:866:A:N7	2.83	0.46
1:5:986:U:H2'	1:5:987:U:H6	1.80	0.46
2:6:283:U:H2'	2:6:284:G:C8	2.50	0.46
5:C0:42:VAL:O	5:C0:46:LEU:HB2	2.16	0.46
6:C1:87:ARG:HH21	6:C1:104:HIS:CD2	2.34	0.46
7:C2:50:LYS:O	7:C2:54:ARG:HG2	2.59	0.46
8:C3:30:SER:HB3	8:C3:66:ILE:O	5.08	0.46
8:C3:55:ARG:HA	8:C3:60:VAL:O	2.15	0.46
17:D2:10:ALA:HB2	17:D2:34:ILE:HD13	1.98	0.46
21:D6:10:ARG:HD3	21:D6:34:LYS:HA	2.35	0.46
29:L4:346:LYS:HD2	29:L4:346:LYS:HA	4.67	0.46
31:L6:39:VAL:HG13	31:L6:159:LEU:HD21	1.98	0.46
33:L8:45:ASN:ND2	33:L8:47:SER:HB3	2.29	0.46
38:M4:37:GLU:HG3	38:M4:74:ARG:HG3	3.12	0.46
40:M6:118:VAL:HG23	40:M6:119:VAL:N	2.32	0.46
43:M9:172:ARG:O	43:M9:176:ARG:HG2	2.14	0.46
1:1:1212:A:H5'	44:N0:113:ARG:CZ	2.46	0.46
46:N2:21:SER:HA	46:N2:24:GLU:OE2	2.15	0.46
50:N6:27:ARG:NH1	50:N6:76:LEU:HA	2.42	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:N7:13:VAL:O	51:N7:19:ALA:HA	2.34	0.46
53:N9:5:LYS:HE2	53:N9:8:THR:HB	2.29	0.46
60:O6:25:LYS:HE2	60:O6:28:TYR:HE2	1.79	0.46
66:Q2:43:TYR:CZ	66:Q2:47:GLN:NE2	2.84	0.46
69:S1:205:PHE:CG	69:S1:206:PRO:HD2	2.52	0.46
69:S1:84:ILE:HG22	69:S1:86:LEU:HD22	1.96	0.46
70:S2:228:ASN:HB2	70:S2:229:LEU:HD13	4.85	0.46
72:S4:57:ASN:HB2	72:S4:60:GLU:H	2.05	0.46
73:S5:41:LYS:HG2	73:S5:69:PHE:CE1	5.55	0.46
74:S6:67:VAL:HG23	74:S6:68:LEU:O	2.16	0.46
78:SM:104:LYS:O	78:SM:108:GLN:HG2	2.56	0.46
78:SM:79:SER:HA	78:SM:82:THR:HG23	2.41	0.46
79:SR:276:PRO:HG3	79:SR:313:TRP:HZ2	3.08	0.46
79:SR:15:GLY:N	79:SR:45:TRP:HH2	2.12	0.46
1:1:1495:U:C5	1:1:1835:A:N1	2.79	0.46
1:1:1577:G:H2'	1:1:1578:C:O4'	2.16	0.46
1:1:1734:G:H2'	1:1:1735:G:O4'	2.15	0.46
1:1:2683:U:H2'	1:1:2684:C:C6	2.50	0.46
1:1:3060:C:H1'	1:1:3332:U:H1'	1.97	0.46
1:1:377:A:H1'	1:1:392:G:N2	2.31	0.46
1:1:645:A:N6	1:1:2869:U:OP1	2.48	0.46
1:1:679:U:C2	1:1:680:G:N7	2.84	0.46
1:1:695:C:OP1	29:L4:271:LYS:NZ	2.49	0.46
1:1:802:C:H2'	1:1:803:C:C6	2.51	0.46
2:2:1387:G:O6	12:C7:44:LYS:NZ	2.45	0.46
2:2:178:U:O4	74:S6:191:ARG:HD3	2.15	0.46
2:2:884:A:H4'	69:S1:124:ASN:HD21	1.79	0.46
3:3:68:C:OP1	30:L5:14:SER:OG	2.27	0.46
1:5:1818:U:H2'	1:5:1819:U:H6	1.81	0.46
1:5:190:U:O4	50:N6:103:LYS:HE2	74.02	0.46
1:5:2898:G:H5''	1:5:2899:C:H5'	1.97	0.46
1:5:3203:U:H2'	1:5:3204:C:C6	2.51	0.46
1:5:929:A:O2'	1:5:930:U:H5'	2.15	0.46
2:6:1323:C:H2'	2:6:1324:G:O4'	2.16	0.46
2:6:1535:U:H1'	2:6:1536:G:C6	2.50	0.46
2:6:38:C:C2	2:6:471:A:N1	2.84	0.46
4:8:109:A:C2	4:8:114:G:C6	3.03	0.46
4:8:72:A:N3	4:8:88:A:O2'	2.48	0.46
6:C1:108:PRO:HB2	6:C1:135:VAL:HG22	1.98	0.46
6:C1:37:ASN:HA	6:C1:44:THR:CG2	2.45	0.46
6:C1:90:TYR:OH	6:C1:105:LYS:HE2	3.20	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:C6:129:PHE:HB2	15:D0:79:TRP:CD1	3.12	0.46
13:C8:32:LEU:O	13:C8:38:VAL:HG21	2.15	0.46
15:D0:70:THR:HG22	15:D0:71:PRO:O	7.15	0.46
18:D3:23:ARG:HB3	18:D3:29:TYR:CE1	2.96	0.46
20:D5:66:VAL:HG22	20:D5:71:ILE:HG22	6.79	0.46
22:D7:30:SER:HB2	22:D7:48:SER:OG	2.16	0.46
28:L3:147:GLU:N	28:L3:147:GLU:OE1	2.47	0.46
33:L8:99:PRO:HG3	33:L8:132:VAL:HG22	4.63	0.46
40:M6:52:LEU:HD23	40:M6:52:LEU:HA	2.27	0.46
1:5:535:G:OP1	44:N0:146:LYS:HE3	357.57	0.46
44:N0:81:TYR:CE1	44:N0:90:MET:HE1	2.51	0.46
37:M3:165:SER:OG	52:N8:135:GLU:OE2	4.26	0.46
52:N8:19:LYS:HD2	52:N8:25:HIS:HD2	1.80	0.46
54:O0:33:SER:OG	54:O0:34:LEU:N	2.48	0.46
58:O4:30:LEU:HA	58:O4:30:LEU:HD23	1.93	0.46
58:O4:38:LEU:H	58:O4:38:LEU:HD12	2.54	0.46
65:Q1:13:LEU:HD11	65:Q1:17:ARG:CZ	2.45	0.46
65:Q1:6:ARG:O	65:Q1:6:ARG:HG3	2.14	0.46
70:S2:140:ARG:NH2	70:S2:229:LEU:HD13	2.30	0.46
70:S2:68:ILE:O	70:S2:72:LEU:HD22	2.16	0.46
73:S5:183:ALA:HB2	73:S5:193:THR:HG21	2.36	0.46
74:S6:53:SER:OG	74:S6:110:ALA:O	2.87	0.46
79:SR:5:GLU:HA	79:SR:317:THR:HA	2.66	0.46
1:1:231:G:H2'	1:1:232:G:O4'	2.15	0.46
1:1:2515:A:H61	1:1:2594:C:H41	1.64	0.46
1:1:2767:U:H2'	1:1:2768:U:C6	2.50	0.46
1:1:867:G:C6	1:1:868:C:C4	3.03	0.46
2:2:1183:A:C6	2:2:1184:A:C2	3.03	0.46
2:2:1283:U:C2	2:2:1425:A:C2	3.03	0.46
2:2:1438:G:C6	2:2:1439:C:N3	2.84	0.46
2:2:682:C:H2'	2:2:683:C:O4'	2.16	0.46
1:5:1400:G:C2	1:5:1401:A:C8	3.03	0.46
1:5:3027:A:H2'	1:5:3028:G:O4'	2.14	0.46
1:5:966:U:H2'	1:5:967:A:C8	2.51	0.46
2:6:1177:C:H42	2:6:1463:C:H42	1.63	0.46
2:6:168:A:O2'	2:6:169:A:H5'	2.15	0.46
2:6:176:C:H5'	2:6:177:U:OP2	2.16	0.46
2:6:40:A:H2'	2:6:41:A:O4'	2.15	0.46
2:6:765:G:N1	77:S9:146:PHE:CZ	432.88	0.46
3:7:26:C:H2'	3:7:27:A:O4'	2.15	0.46
5:C0:29:GLN:HB3	5:C0:39:ASN:CB	3.00	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:C2:132:GLU:HA	7:C2:135:MET:HB2	1.97	0.46
10:C5:21:ASP:O	10:C5:25:LEU:N	3.02	0.46
12:C7:106:THR:O	12:C7:110:VAL:HG23	2.15	0.46
13:C8:11:PHE:HA	13:C8:59:GLY:O	5.34	0.46
13:C8:66:LEU:O	13:C8:70:VAL:HG23	2.84	0.46
14:C9:127:ASN:O	14:C9:130:ARG:HB3	2.25	0.46
14:C9:14:PHE:HE2	14:C9:63:ARG:HB2	2.34	0.46
17:D2:104:LEU:HB3	17:D2:125:ILE:HA	1.96	0.46
17:D2:73:GLY:HA3	17:D2:128:PHE:CZ	2.50	0.46
18:D3:13:ARG:HA	18:D3:16:ARG:CD	2.44	0.46
19:D4:7:ILE:HG21	19:D4:44:LEU:HD11	3.87	0.46
25:E0:55:ARG:NH1	25:E0:55:ARG:HB3	4.14	0.46
7:C2:50:LYS:NZ	26:E1:129:GLY:O	2.28	0.46
27:L2:137:ILE:HG13	27:L2:138:GLY:N	2.97	0.46
27:L2:188:LYS:HD2	27:L2:189:TYR:CE2	5.70	0.46
28:L3:358:TRP:CZ3	48:N4:15:PRO:HD2	3.37	0.46
28:L3:56:ILE:HG13	28:L3:356:LEU:HD22	2.34	0.46
29:L4:120:TYR:O	29:L4:120:TYR:HD1	1.99	0.46
31:L6:155:LEU:O	31:L6:155:LEU:HD22	2.35	0.46
34:L9:130:ASP:N	34:L9:130:ASP:OD1	2.49	0.46
34:L9:171:ASP:OD2	34:L9:173:ARG:NH1	2.60	0.46
35:M0:31:ILE:HA	35:M0:66:GLU:OE1	2.15	0.46
35:M0:73:ASN:O	35:M0:77:THR:HG23	3.07	0.46
37:M3:131:LYS:HD2	37:M3:131:LYS:H	5.07	0.46
37:M3:46:ILE:HG22	37:M3:47:ALA:O	2.16	0.46
4:4:13:A:H1'	41:M7:120:ASN:HD22	1.79	0.46
44:N0:81:TYR:CE1	44:N0:88:HIS:HB2	3.02	0.46
45:N1:86:GLU:OE1	45:N1:88:ARG:NH1	3.27	0.46
49:N5:25:LYS:HD2	49:N5:25:LYS:H	1.80	0.46
51:N7:76:ASN:OD1	51:N7:77:TYR:N	2.48	0.46
55:O1:16:LEU:HD12	55:O1:16:LEU:HA	1.55	0.46
58:O4:103:LYS:HA	58:O4:103:LYS:HD3	1.61	0.46
68:S0:121:VAL:HG23	68:S0:141:ILE:HG21	2.31	0.46
68:S0:163:ASN:OD1	68:S0:165:ARG:HB2	2.16	0.46
16:D1:36:VAL:HG13	68:S0:62:ARG:HD3	1.96	0.46
16:D1:35:ASN:O	68:S0:63:ILE:HG23	2.44	0.46
16:D1:1:MET:HA	70:S2:228:ASN:HD22	1.81	0.46
2:2:144:U:H5	74:S6:137:ARG:NH1	2.14	0.46
76:S8:197:THR:HA	76:S8:200:LYS:HG3	1.97	0.46
77:S9:105:LEU:O	77:S9:108:ARG:HG3	2.15	0.46
77:S9:38:ASN:HB3	77:S9:40:LYS:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:179:C:H2'	1:1:180:C:C6	2.51	0.46
1:1:1812:G:O2'	1:1:1818:U:H4'	2.15	0.46
1:1:1939:G:C6	1:1:2110:G:O6	2.68	0.46
1:1:2854:U:O5'	1:1:2854:U:H6	1.97	0.46
2:2:1226:A:O2'	2:2:1227:A:OP1	2.33	0.46
2:2:1323:C:H2'	2:2:1324:G:O4'	2.16	0.46
2:2:1546:G:P	13:C8:127:HIS:HE2	2.39	0.46
2:2:56:U:H4'	2:2:57:G:H5'	1.98	0.46
2:2:980:G:H4'	2:2:1776:A:H4'	1.97	0.46
1:5:1019:G:H2'	1:5:1020:G:O4'	2.16	0.46
1:5:2333:C:H2'	1:5:2334:U:O4'	2.16	0.46
1:5:277:G:H5'	39:M5:91:GLU:OE2	161.00	0.46
2:6:1133:A:N3	2:6:1650:U:O2'	2.34	0.46
2:6:246:G:C6	2:6:247:A:C6	3.03	0.46
2:6:364:G:O2'	2:6:756:A:N6	2.48	0.46
2:6:802:G:H21	17:D2:107:SER:HB3	367.64	0.46
4:8:37:A:C8	4:8:39:G:C2	3.04	0.46
2:2:916:U:H3	9:C4:41:ARG:NH2	2.14	0.46
11:C6:90:VAL:HG21	11:C6:117:LEU:HD11	1.98	0.46
14:C9:105:LEU:HB3	14:C9:122:ARG:NE	2.86	0.46
2:6:609:U:O2'	18:D3:23:ARG:HD3	345.33	0.46
22:D7:59:CYS:SG	22:D7:61:THR:HG23	4.43	0.46
27:L2:187:HIS:ND1	27:L2:190:ARG:NH1	4.92	0.46
30:L5:271:LYS:HA	30:L5:271:LYS:HD3	4.37	0.46
32:L7:127:LEU:HD13	32:L7:136:TYR:CE2	2.50	0.46
38:M4:37:GLU:CG	38:M4:38:ILE:H	2.28	0.46
42:M8:19:PRO:HD3	42:M8:53:PHE:CD1	2.75	0.46
43:M9:35:ALA:O	43:M9:37:SER:N	3.78	0.46
45:N1:124:VAL:HG12	45:N1:125:ALA:H	1.97	0.46
47:N3:45:ARG:HD2	47:N3:46:LEU:N	2.46	0.46
49:N5:132:ALA:O	49:N5:135:ILE:HG22	2.15	0.46
37:M3:64:LYS:HG3	52:N8:69:TRP:CD1	2.80	0.46
55:O1:44:MET:HB2	55:O1:46:THR:HG22	1.98	0.46
63:O9:9:ILE:HD12	63:O9:51:ILE:HG23	2.58	0.46
65:Q1:1:MET:SD	65:Q1:6:ARG:HB2	2.56	0.46
69:S1:97:LEU:HD13	69:S1:98:THR:H	1.80	0.46
71:S3:101:GLN:OE1	71:S3:122:VAL:HG13	2.15	0.46
71:S3:172:THR:HB	71:S3:185:LYS:HG2	1.97	0.46
2:2:169:A:OP1	74:S6:137:ARG:HG3	2.15	0.46
74:S6:147:LEU:HD23	74:S6:147:LEU:HA	1.71	0.46
2:6:178:U:O4	74:S6:191:ARG:NE	325.55	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:S6:76:LEU:HA	74:S6:76:LEU:HD23	1.77	0.46
75:S7:16:LEU:O	75:S7:20:VAL:HG23	2.37	0.46
76:S8:151:LYS:HA	76:S8:151:LYS:HD2	4.03	0.46
78:SM:37:VAL:HG12	78:SM:38:PRO:O	2.16	0.46
79:SR:163:ASP:C	79:SR:165:ASP:H	2.18	0.46
79:SR:209:THR:O	79:SR:225:LEU:N	2.51	0.46
79:SR:31:ASN:O	79:SR:47:LEU:N	2.46	0.46
1:1:1013:G:O6	1:1:1036:A:N6	2.49	0.46
1:1:1218:U:C4	1:1:1219:C:C5	3.03	0.46
1:1:1482:A:C2	1:1:1867:A:H5'	2.51	0.46
1:1:2655:U:H2'	66:Q2:3:ASN:O	2.16	0.46
1:1:3178:A:N3	40:M6:115:LYS:HG2	2.30	0.46
1:1:345:G:P	1:1:1429:G:H22	2.39	0.46
1:1:37:U:OP1	1:1:934:G:N2	2.44	0.46
1:1:51:A:H2'	1:1:52:A:H8	1.80	0.46
1:1:696:C:OP2	29:L4:119:ARG:NH2	2.48	0.46
1:1:738:A:H2'	1:1:739:G:H8	1.79	0.46
1:1:977:C:H2'	1:1:978:G:O4'	2.16	0.46
2:2:1118:G:C4	2:2:1119:G:C8	3.04	0.46
2:2:1291:G:H5'	70:S2:119:LYS:NZ	2.30	0.46
2:2:1753:A:H2'	2:2:1754:A:O4'	2.16	0.46
2:2:199:G:O2'	2:2:200:A:H8	1.98	0.46
2:2:605:A:C5	2:2:606:A:C2	3.04	0.46
2:2:935:U:O2'	2:2:936:G:H5'	2.16	0.46
4:4:95:G:OP2	61:O7:72:ARG:NH1	2.48	0.46
1:5:1110:U:H2'	1:5:1111:U:C6	2.49	0.46
1:5:1786:G:H2'	1:5:1787:A:C8	2.51	0.46
1:5:2207:A:H5''	2:6:913:G:C2	2.51	0.46
1:5:2681:U:C2	1:5:2682:C:C5	3.03	0.46
1:5:71:A:OP2	52:N8:67:HIS:NE2	115.75	0.46
1:5:7:C:H5''	33:L8:193:LYS:HB3	126.25	0.46
2:6:1493:A:H1'	2:6:1494:C:OP2	2.16	0.46
2:6:260:U:O4	76:S8:42:ARG:HA	272.43	0.46
2:6:765:G:C6	77:S9:149:ARG:NH1	430.37	0.46
2:6:789:A:OP1	72:S4:108:ARG:NH2	392.92	0.46
2:6:862:A:H4'	2:6:863:A:O5'	2.16	0.46
3:7:113:C:H2'	3:7:114:U:O4'	2.15	0.46
1:5:406:G:N2	4:8:16:G:C4	2.83	0.46
4:8:18:U:H2'	4:8:19:C:C6	2.50	0.46
6:C1:109:VAL:HG21	6:C1:125:VAL:HG22	1.97	0.46
2:2:1545:A:H4'	13:C8:127:HIS:HE1	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:D6:64:LEU:HD23	21:D6:64:LEU:HA	3.27	0.46
28:L3:345:ASN:OD1	28:L3:347:SER:HB2	2.16	0.46
29:L4:219:LEU:O	29:L4:222:VAL:HG13	2.14	0.46
30:L5:154:THR:OG1	30:L5:157:ALA:HB2	2.16	0.46
30:L5:232:ASP:OD1	30:L5:233:ALA:N	3.40	0.46
31:L6:44:ALA:C	31:L6:48:ARG:HB3	2.36	0.46
34:L9:28:VAL:HG13	34:L9:33:THR:HB	2.08	0.46
36:M1:12:LEU:HD12	36:M1:131:MET:CE	2.45	0.46
36:M1:19:LEU:HG	36:M1:19:LEU:H	1.60	0.46
41:M7:59:PRO:HG3	41:M7:76:PHE:CD2	3.11	0.46
43:M9:17:VAL:HG12	43:M9:18:GLY:H	1.80	0.46
43:M9:25:ASP:HB3	43:M9:28:GLU:HB2	2.29	0.46
47:N3:45:ARG:HG2	47:N3:48:ARG:NH2	2.88	0.46
48:N4:9:SER:HB2	48:N4:51:TRP:CZ3	2.55	0.46
52:N8:10:LYS:HD2	52:N8:10:LYS:N	2.29	0.46
68:S0:78:SER:OG	68:S0:129:ASP:OD1	2.31	0.46
69:S1:70:LEU:HB3	69:S1:79:HIS:HB3	5.03	0.46
73:S5:222:LYS:HA	73:S5:225:ARG:HH11	3.89	0.46
76:S8:48:THR:HG21	76:S8:54:LYS:HD2	4.06	0.46
77:S9:116:LEU:O	77:S9:118:LEU:HD12	4.27	0.46
77:S9:31:ALA:HA	77:S9:36:LEU:HB2	3.41	0.46
1:1:1725:C:H2'	1:1:1726:C:C6	2.51	0.46
1:1:304:G:H3'	1:1:304:G:OP2	2.15	0.46
1:1:744:A:H2'	1:1:745:C:O4'	2.15	0.46
2:2:1030:A:H4'	2:2:1031:U:OP2	2.16	0.46
2:2:1292:G:H2'	2:2:1293:U:C6	2.50	0.46
2:2:1299:G:C6	2:2:1300:A:N6	2.84	0.46
2:2:1499:G:H2'	2:2:1500:C:C6	2.50	0.46
2:2:372:G:H1'	2:2:612:U:O2	2.14	0.46
2:2:431:C:H2'	2:2:432:G:O4'	2.16	0.46
2:2:755:A:H2'	2:2:756:A:H8	1.80	0.46
4:4:79:A:OP2	4:4:79:A:C8	2.69	0.46
1:5:1195:A:H2'	1:5:1309:U:O2	2.15	0.46
1:5:1444:G:H2'	1:5:1445:U:O4'	2.16	0.46
1:5:2245:C:C5	1:5:2246:G:C8	3.04	0.46
1:5:280:U:O2	1:5:282:G:H3'	2.15	0.46
1:5:306:A:N6	1:5:2784:G:C2	2.84	0.46
1:5:718:G:OP1	52:N8:117:ARG:NH2	153.49	0.46
2:6:532:U:H4'	19:D4:66:GLY:HA2	432.92	0.46
2:6:66:U:OP1	74:S6:136:LYS:NZ	336.61	0.46
2:6:793:A:OP1	2:6:793:A:N3	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:D2:86:ILE:HD13	17:D2:104:LEU:HD11	6.57	0.46
18:D3:59:ILE:HG13	18:D3:71:CYS:SG	2.56	0.46
18:D3:86:PHE:CE1	18:D3:88:PRO:HA	2.87	0.46
19:D4:76:TYR:HB2	19:D4:82:ALA:HB2	2.32	0.46
19:D4:86:GLU:HB2	19:D4:91:LEU:HD21	1.96	0.46
20:D5:85:LYS:HE3	20:D5:86:GLU:HB3	2.83	0.46
26:E1:116:LYS:HZ3	26:E1:119:ARG:NE	11.16	0.46
26:E1:96:LYS:HG2	26:E1:98:VAL:HA	1.96	0.46
27:L2:5:ILE:HG22	27:L2:208:ASP:O	2.16	0.46
28:L3:10:ARG:HB2	28:L3:10:ARG:CZ	2.46	0.46
28:L3:169:THR:HG21	28:L3:171:LEU:HD12	2.32	0.46
28:L3:212:ASN:HB3	28:L3:281:LYS:NZ	3.24	0.46
1:1:3098:G:H4'	28:L3:278:ILE:HD11	1.97	0.46
29:L4:140:HIS:HA	29:L4:177:ASP:OD1	2.25	0.46
30:L5:64:ILE:HG13	30:L5:144:VAL:HG21	1.97	0.46
30:L5:60:ILE:HB	30:L5:80:SER:HB3	1.98	0.46
31:L6:96:VAL:HG23	31:L6:144:ALA:HB3	1.98	0.46
32:L7:224:ILE:HG23	44:N0:36:ILE:HG12	1.98	0.46
35:M0:36:LEU:HD13	35:M0:87:LEU:HD13	1.98	0.46
35:M0:7:ARG:HB3	35:M0:7:ARG:HE	2.79	0.46
36:M1:7:ASN:HA	36:M1:10:ARG:HD2	2.89	0.46
37:M3:28:GLN:HB3	39:M5:201:ARG:CD	2.45	0.46
38:M4:72:LEU:HD23	38:M4:73:PRO:HD2	5.26	0.46
45:N1:104:GLU:HG3	45:N1:105:PHE:N	2.29	0.46
45:N1:79:MET:HA	45:N1:84:TYR:HA	2.29	0.46
46:N2:50:LEU:HB3	46:N2:54:VAL:HG23	1.97	0.46
47:N3:13:ILE:HD12	47:N3:54:LEU:HB3	1.98	0.46
49:N5:57:LEU:HD23	49:N5:61:LYS:HG2	6.32	0.46
61:O7:45:ARG:NH1	61:O7:47:TYR:HE2	2.36	0.46
68:S0:80:THR:HA	68:S0:83:GLN:OE1	2.96	0.46
69:S1:111:ARG:HD3	69:S1:111:ARG:HA	1.72	0.46
69:S1:23:PRO:HB3	69:S1:26:ARG:CZ	2.45	0.46
69:S1:35:PRO:HG3	69:S1:98:THR:O	2.16	0.46
71:S3:143:ARG:HD3	78:SM:108:GLN:HB2	1.98	0.46
72:S4:32:SER:HB2	72:S4:83:PRO:HD3	1.98	0.46
73:S5:25:LEU:HD22	73:S5:25:LEU:H	2.40	0.46
74:S6:163:THR:HG22	74:S6:168:THR:CG2	4.69	0.46
74:S6:220:LYS:HA	74:S6:223:LYS:HG3	1.98	0.46
76:S8:104:ILE:HG12	76:S8:165:LEU:O	2.15	0.46
77:S9:114:TYR:HA	77:S9:119:ALA:HB3	2.02	0.46
77:S9:109:LEU:CB	77:S9:146:PHE:HB3	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:765:G:N1	77:S9:149:ARG:HB3	2.30	0.46
79:SR:29:GLN:HG3	79:SR:32:LEU:HB3	2.71	0.46
1:1:1746:U:H2'	1:1:1747:G:H8	1.79	0.46
1:1:1750:A:H4'	1:1:1751:G:H5'	1.98	0.46
1:1:2168:A:H8	1:1:2168:A:O5'	1.99	0.46
1:1:2437:G:C2	1:1:2511:A:H1'	2.50	0.46
1:1:250:U:C5	1:1:251:G:C5	3.03	0.46
1:1:2700:G:OP1	45:N1:17:ARG:HB2	2.15	0.46
1:1:2407:C:H1'	1:1:2818:U:C2	2.50	0.46
1:1:354:U:H2'	1:1:355:A:H8	1.81	0.46
1:1:651:G:C6	1:1:652:G:C6	3.04	0.46
1:1:750:G:C2	1:1:751:A:C8	3.03	0.46
2:2:1000:C:C6	2:2:1003:A:H2'	2.51	0.46
2:2:868:G:C2	2:2:869:A:C8	3.04	0.46
1:5:1575:A:H2'	1:5:1576:G:H8	1.80	0.46
1:5:1668:G:H4'	58:O4:22:VAL:HG12	160.18	0.46
1:5:2144:A:C4	1:5:2281:A:C6	3.04	0.46
1:5:198:A:H1'	1:5:218:G:N3	2.31	0.46
1:5:2540:A:H2'	1:5:2541:U:H2'	1.98	0.46
1:5:41:G:H4'	1:5:2410:U:H2'	1.96	0.46
2:6:1133:A:H2'	2:6:1134:C:O4'	2.16	0.46
2:6:130:C:H5'	2:6:131:C:H41	1.81	0.46
2:6:1595:U:N3	2:6:1600:A:H2	2.14	0.46
2:6:813:U:C2	43:M9:163:ARG:HD3	306.33	0.46
2:6:827:C:O2	2:6:845:G:N1	2.44	0.46
5:C0:24:LYS:HB2	5:C0:63:TYR:CZ	2.50	0.46
5:C0:24:LYS:HB3	5:C0:24:LYS:HE2	1.49	0.46
6:C1:93:TYR:HB2	6:C1:100:TYR:CE1	2.51	0.46
10:C5:127:ARG:HH22	78:SM:63:ASP:CG	2.18	0.46
2:2:1241:G:H1'	10:C5:79:HIS:CG	2.51	0.46
2:2:1414:U:H5''	12:C7:3:ARG:HD3	1.98	0.46
13:C8:26:ILE:HD12	13:C8:27:LYS:N	2.31	0.46
10:C5:18:ARG:HG2	13:C8:92:ILE:HA	1.98	0.46
14:C9:11:ALA:O	14:C9:15:ILE:HG13	2.15	0.46
18:D3:78:LYS:HG3	18:D3:79:ASN:OD1	3.29	0.46
20:D5:83:LEU:HD23	20:D5:83:LEU:HA	1.68	0.46
29:L4:317:PRO:O	29:L4:319:LYS:N	2.45	0.46
31:L6:144:ALA:O	31:L6:147:ALA:HB3	2.30	0.46
32:L7:80:GLN:HG3	45:N1:136:ARG:CB	3.24	0.46
34:L9:101:VAL:HG12	34:L9:136:PHE:HE1	1.80	0.46
34:L9:28:VAL:HG13	34:L9:33:THR:HG22	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:M0:84:ALA:O	35:M0:140:THR:HG22	2.30	0.46
36:M1:155:THR:O	36:M1:159:THR:HG23	5.25	0.46
37:M3:165:SER:O	37:M3:167:PHE:N	2.48	0.46
39:M5:66:VAL:HG21	39:M5:98:LEU:HB3	2.20	0.46
45:N1:102:ARG:O	45:N1:106:LEU:HD22	2.16	0.46
50:N6:5:SER:HB3	50:N6:8:VAL:HG23	1.96	0.46
51:N7:88:ASP:CB	51:N7:121:ARG:HH22	2.19	0.46
51:N7:46:ILE:HD11	51:N7:49:TYR:CA	2.37	0.46
51:N7:81:LEU:HD22	51:N7:82:PRO:HD2	1.97	0.46
1:5:942:U:C4	52:N8:16:SER:HA	168.15	0.46
54:O0:10:ILE:HG12	54:O0:68:TYR:HE2	1.80	0.46
56:O2:96:ILE:HG21	56:O2:105:ARG:HG2	2.68	0.46
56:O2:120:THR:C	56:O2:122:PRO:HD3	2.36	0.46
56:O2:20:HIS:HB3	56:O2:35:GLN:OE1	2.16	0.46
62:O8:4:GLU:HG2	62:O8:5:ILE:H	1.80	0.46
68:S0:73:VAL:O	68:S0:95:ALA:HA	2.17	0.46
69:S1:97:LEU:HG	69:S1:232:HIS:CD2	2.51	0.46
71:S3:38:GLU:HG3	71:S3:49:ILE:HB	1.98	0.46
1:1:1422:G:C6	1:1:1423:C:C4	3.04	0.46
1:1:1582:C:C6	1:1:1582:C:H5'	2.50	0.46
1:1:1667:A:H2'	1:1:1668:G:C8	2.51	0.46
1:1:229:G:C6	1:1:230:U:C4	3.04	0.46
1:1:2353:G:C5	1:1:2354:C:C5	3.04	0.46
1:1:2395:G:H4'	28:L3:258:ALA:HB1	1.98	0.46
1:1:2581:U:H2'	1:1:2582:C:C6	2.51	0.46
1:1:2736:A:O3'	45:N1:71:SER:OG	2.30	0.46
1:1:283:G:OP2	1:1:285:A:O2'	2.24	0.46
1:1:3215:A:O5'	38:M4:121:MET:HE1	2.16	0.46
1:1:36:C:H2'	1:1:37:U:H5'	1.96	0.46
1:1:613:G:H2'	1:1:614:C:C6	2.51	0.46
1:1:895:A:C2	1:1:897:U:C5	3.03	0.46
1:1:900:G:H2'	1:1:901:G:C8	2.51	0.46
2:2:1059:U:P	2:2:1059:U:H2'	2.56	0.46
2:2:87:C:O2'	2:2:169:A:N1	2.46	0.46
2:2:1654:G:C6	2:2:1745:G:C6	3.04	0.46
2:2:1790:A:C2'	2:2:1791:A:H5'	2.46	0.46
2:2:26:A:C2	2:2:27:U:C4	3.04	0.46
2:2:653:C:H2'	2:2:654:C:O4'	2.16	0.46
2:2:67:A:C2	2:2:69:G:H1'	2.51	0.46
1:5:1655:G:OP1	58:O4:40:THR:OG1	176.75	0.46
1:5:1715:A:H4'	1:5:1716:U:OP1	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:279:U:H2'	1:5:280:U:H6	1.81	0.46
1:5:3298:C:P	41:M7:74:LYS:HZ1	185.05	0.46
2:6:1162:C:H5''	2:6:1163:A:OP2	2.16	0.46
2:6:14:C:OP2	70:S2:206:THR:HG21	377.54	0.46
2:6:1550:A:OP2	10:C5:42:ARG:NH2	392.31	0.46
2:6:1595:U:H6	2:6:1596:C:C2	2.34	0.46
2:6:225:A:H2'	2:6:226:A:C8	2.50	0.46
2:6:539:G:O5'	2:6:539:G:C8	2.68	0.46
2:6:755:A:H2'	2:6:756:A:H8	1.79	0.46
5:C0:52:LYS:HG3	5:C0:54:TYR:CE2	2.51	0.46
5:C0:54:TYR:CE2	5:C0:75:TYR:HB2	3.85	0.46
6:C1:21:ASN:N	6:C1:21:ASN:OD1	2.46	0.46
6:C1:4:GLU:HG3	6:C1:5:LEU:H	4.70	0.46
11:C6:47:LYS:HZ1	11:C6:114:ARG:HH11	3.90	0.46
11:C6:122:ARG:C	11:C6:123:ARG:HD2	4.38	0.46
12:C7:60:ARG:HH22	12:C7:66:VAL:HG13	1.80	0.46
12:C7:82:ASP:OD1	68:S0:88:LYS:NZ	4.95	0.46
12:C7:86:PRO:O	12:C7:88:VAL:HG13	6.47	0.46
14:C9:118:PRO:O	14:C9:119:LYS:HB2	2.16	0.46
16:D1:32:VAL:HB	16:D1:60:ARG:CD	2.46	0.46
18:D3:107:PHE:CD2	18:D3:114:LYS:HB3	3.42	0.46
2:2:1793:G:N2	21:D6:76:SER:OG	2.40	0.46
23:D8:9:LEU:HD11	73:S5:56:ALA:HB1	1.98	0.46
27:L2:227:ARG:HG2	27:L2:239:ALA:HB2	1.98	0.46
29:L4:152:VAL:HG22	29:L4:172:VAL:HG21	1.97	0.46
1:5:357:A:H1'	29:L4:80:GLY:O	129.89	0.46
30:L5:223:PHE:HA	30:L5:226:TYR:HD1	1.80	0.46
33:L8:75:ILE:C	33:L8:77:GLN:H	2.18	0.46
35:M0:33:ILE:HD11	35:M0:36:LEU:HG	1.98	0.46
35:M0:4:ARG:NH2	35:M0:99:ILE:HG22	5.96	0.46
36:M1:90:GLN:OE1	36:M1:172:LEU:HD11	2.16	0.46
37:M3:63:VAL:HG12	52:N8:128:ARG:NH1	2.30	0.46
1:1:3187:A:H5''	38:M4:8:LYS:HE2	1.97	0.46
41:M7:112:LEU:HA	41:M7:112:LEU:HD12	1.63	0.46
44:N0:24:LEU:O	45:N1:148:PRO:HA	2.16	0.46
45:N1:62:GLY:HA3	45:N1:76:ILE:HD13	3.13	0.46
1:1:2916:U:H1'	47:N3:44:SER:HB3	1.97	0.46
1:5:1831:U:OP1	49:N5:92:LYS:HG3	101.07	0.46
50:N6:120:GLN:HG2	59:O5:8:GLU:HB3	31.70	0.46
51:N7:27:LYS:HG3	51:N7:29:HIS:CD2	3.20	0.46
55:O1:67:VAL:HG12	55:O1:68:GLU:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:O1:71:LEU:HA	55:O1:71:LEU:HD23	1.69	0.46
61:O7:39:TYR:CD2	61:O7:40:PRO:HA	2.64	0.46
63:O9:2:ALA:C	63:O9:4:GLN:H	4.18	0.46
63:O9:9:ILE:HG22	63:O9:13:MET:HE2	1.97	0.46
66:Q2:46:LYS:HD3	66:Q2:54:THR:HB	2.43	0.46
69:S1:134:VAL:O	69:S1:218:LEU:HD22	2.16	0.46
70:S2:242:ILE:HG22	70:S2:243:TYR:CD2	2.51	0.46
71:S3:162:GLN:O	71:S3:165:ASN:N	2.49	0.46
77:S9:161:THR:O	77:S9:162:SER:OG	2.27	0.46
78:SM:54:PRO:HG2	78:SM:62:ARG:CG	2.46	0.46
79:SR:135:THR:HG23	79:SR:139:GLN:O	2.16	0.46
1:1:1049:C:H2'	1:1:1050:U:H6	1.80	0.46
1:1:1138:U:H2'	1:1:1139:G:H8	1.81	0.46
1:1:1634:G:OP1	51:N7:107:ARG:NH1	2.49	0.46
1:1:1927:G:N2	1:1:1928:G:C8	2.84	0.46
1:1:2379:U:H2'	1:1:2380:U:H6	1.80	0.46
1:1:2425:G:OP1	39:M5:72:LYS:HE3	2.15	0.46
1:1:2552:C:H2'	1:1:2553:U:H5'	1.98	0.46
1:1:266:A:OP1	39:M5:5:LYS:NZ	2.35	0.46
1:1:3024:A:H5''	34:L9:96:HIS:CD2	2.51	0.46
1:1:847:A:N1	2:2:972:G:O2'	2.41	0.46
2:2:1179:G:H2'	2:2:1180:C:C6	2.51	0.46
2:2:1773:C:C2	2:2:1789:G:C2	3.04	0.46
2:2:501:U:O2'	2:2:502:U:H6	1.99	0.46
4:4:102:U:H2'	4:4:103:G:C8	2.51	0.46
4:4:6:U:H2'	4:4:7:U:C6	2.51	0.46
1:5:1423:C:H2'	1:5:1424:C:H6	1.81	0.46
1:5:1757:A:C2	1:5:1769:G:C2	3.04	0.46
1:5:2185:G:C5	1:5:2186:U:C5	3.04	0.46
1:5:2339:C:P	47:N3:48:ARG:HG3	246.01	0.46
1:5:939:U:O2'	1:5:2402:A:N1	2.39	0.46
1:5:2651:G:H5''	1:5:2652:U:O4'	2.15	0.46
1:5:3028:G:H2'	1:5:3029:A:C8	2.51	0.46
1:5:3242:G:H21	1:5:3245:A:H5''	1.81	0.46
1:5:3291:G:H2'	1:5:3292:A:H8	1.81	0.46
1:5:728:G:H2'	1:5:729:C:O4'	2.15	0.46
1:5:852:U:O2'	1:5:853:G:H5'	2.15	0.46
2:6:1668:G:H2'	2:6:1669:U:O4'	2.16	0.46
2:6:179:A:H2'	2:6:180:A:O4'	2.16	0.46
2:6:294:C:H2'	2:6:295:A:C8	2.51	0.46
4:8:79:A:N6	4:8:80:A:H62	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:C4:102:LEU:HD11	9:C4:115:ILE:HD13	3.54	0.46
14:C9:37:VAL:O	14:C9:46:PRO:HB3	2.16	0.46
19:D4:42:GLU:HA	19:D4:52:LYS:HG2	3.03	0.46
25:E0:30:PRO:O	25:E0:35:TYR:HB2	2.16	0.46
26:E1:102:VAL:CG2	26:E1:103:LEU:H	3.02	0.46
1:5:2163:C:O2'	27:L2:8:GLN:O	179.99	0.46
28:L3:339:ARG:HG2	28:L3:340:LYS:O	2.19	0.46
29:L4:162:THR:O	29:L4:166:VAL:HG23	2.16	0.46
29:L4:254:ALA:O	29:L4:257:LYS:N	2.41	0.46
29:L4:74:ILE:HG21	29:L4:93:MET:HE3	1.98	0.46
31:L6:46:ARG:HG3	31:L6:46:ARG:HH11	3.04	0.46
32:L7:117:VAL:HG12	32:L7:118:LYS:O	2.76	0.46
34:L9:75:VAL:HA	34:L9:78:MET:CE	2.81	0.46
1:1:1048:A:H2'	35:M0:22:TYR:CZ	2.51	0.46
1:5:2853:A:H5'	35:M0:63:GLU:HB2	294.65	0.46
1:5:2675:C:N4	36:M1:22:SER:HB3	314.06	0.46
39:M5:97:SER:O	39:M5:100:ALA:HB3	2.58	0.46
40:M6:32:LYS:O	40:M6:33:ILE:HD13	4.65	0.46
1:5:1447:G:H3'	41:M7:67:ILE:HD11	163.44	0.46
43:M9:81:ARG:HG3	43:M9:88:ARG:CZ	2.45	0.46
45:N1:44:ALA:HB2	45:N1:53:PRO:HG2	1.99	0.46
49:N5:110:VAL:HG22	49:N5:124:VAL:HG22	2.78	0.46
49:N5:53:HIS:CE1	49:N5:56:ARG:HD3	3.44	0.46
51:N7:33:SER:HB2	51:N7:40:HIS:CE1	2.69	0.46
52:N8:73:LEU:HB2	52:N8:109:TYR:CD2	2.51	0.46
1:5:1369:A:H5''	52:N8:21:ARG:HD2	182.15	0.46
55:O1:46:THR:HG23	55:O1:47:ASP:N	4.04	0.46
61:O7:21:ARG:HH12	61:O7:44:THR:HA	2.50	0.46
69:S1:50:LYS:O	69:S1:52:THR:HG23	3.22	0.46
73:S5:186:ASN:OD1	73:S5:187:ILE:HD13	6.07	0.46
73:S5:41:LYS:HE2	73:S5:41:LYS:HB3	2.87	0.46
75:S7:86:GLN:HG2	75:S7:87:ASP:H	1.81	0.46
77:S9:60:LEU:HD22	77:S9:60:LEU:HA	1.79	0.46
2:2:1274:C:N4	78:SM:94:HIS:O	2.48	0.46
79:SR:13:LEU:HB2	79:SR:310:ILE:HB	1.97	0.46
1:1:1432:C:O2'	1:1:1434:G:OP2	2.34	0.45
1:1:169:U:H5'	37:M3:128:ARG:CZ	2.45	0.45
1:1:2125:A:H4'	2:2:1657:U:O2	2.16	0.45
1:1:2443:A:O2'	1:1:2444:C:OP2	2.24	0.45
1:1:3150:A:OP1	28:L3:132:LYS:HB2	2.16	0.45
1:1:317:A:H2'	1:1:318:A:H8	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3326:G:H2'	1:1:3327:G:H8	1.81	0.45
1:1:3364:C:H2'	1:1:3365:U:C6	2.46	0.45
1:1:720:A:N3	1:1:720:A:H2'	2.31	0.45
1:1:901:G:H2'	1:1:902:G:H8	1.80	0.45
1:1:955:U:H2'	1:1:956:U:C6	2.51	0.45
2:2:1071:U:H2'	2:2:1072:C:C6	2.51	0.45
2:2:1451:C:OP1	24:D9:12:ARG:NH2	2.47	0.45
2:2:505:A:N3	2:2:505:A:H2'	2.32	0.45
2:2:514:G:N3	2:2:515:A:C8	2.84	0.45
2:2:915:A:N6	9:C4:41:ARG:HH22	2.14	0.45
1:5:1131:G:C4	1:5:2373:A:C2	3.03	0.45
1:5:2343:C:O3'	83:5:4006:HOH:O	2.21	0.45
1:5:2741:C:H4'	66:Q2:19:LYS:HA	204.78	0.45
1:5:2886:U:C6	1:5:2911:A:N7	2.84	0.45
1:5:517:G:P	32:L7:60:ARG:HH22	302.00	0.45
1:5:860:G:OP1	67:Q3:18:TYR:OH	220.25	0.45
1:5:914:A:C2	27:L2:204:MET:HG2	195.95	0.45
1:5:660:A:H2	1:5:941:G:N3	2.13	0.45
2:6:1542:G:H22	2:6:1568:C:H1'	1.81	0.45
2:6:1647:U:H2'	2:6:1648:A:C8	2.50	0.45
2:6:234:G:N3	2:6:234:G:H3'	2.31	0.45
2:6:452:A:H3'	2:6:453:U:C5	2.51	0.45
2:6:631:G:H2'	2:6:632:U:C6	2.51	0.45
3:7:86:U:H3'	32:L7:218:ARG:NH2	256.37	0.45
1:5:22:G:N3	4:8:40:A:C2	2.84	0.45
6:C1:22:ASN:OD1	76:S8:69:SER:HB2	2.15	0.45
6:C1:6:THR:OG1	6:C1:9:SER:HB3	2.15	0.45
7:C2:66:VAL:HG21	7:C2:71:ILE:HD12	1.98	0.45
8:C3:52:VAL:HG22	8:C3:55:ARG:NH2	2.80	0.45
10:C5:107:ILE:HA	10:C5:111:MET:SD	2.83	0.45
11:C6:47:LYS:NZ	11:C6:114:ARG:HG2	2.31	0.45
11:C6:9:THR:HG21	11:C6:88:GLY:HA2	2.15	0.45
12:C7:21:TYR:HA	12:C7:58:MET:HE1	2.22	0.45
13:C8:84:TRP:HA	13:C8:89:GLN:OE1	2.17	0.45
19:D4:27:VAL:HG11	19:D4:35:VAL:HG13	2.84	0.45
21:D6:12:LYS:HE3	21:D6:16:GLY:HA2	3.36	0.45
24:D9:18:SER:OG	24:D9:18:SER:O	3.61	0.45
26:E1:148:TYR:HD1	26:E1:148:TYR:HA	1.53	0.45
26:E1:92:LYS:HA	26:E1:92:LYS:NZ	2.32	0.45
27:L2:102:LEU:HD22	27:L2:107:VAL:HG13	2.79	0.45
1:5:1793:C:O4'	27:L2:174:ARG:HG3	216.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:L2:62:VAL:HG11	27:L2:71:LEU:HD23	1.97	0.45
28:L3:166:ILE:O	28:L3:169:THR:HG22	2.16	0.45
28:L3:188:ILE:HD12	28:L3:189:SER:H	1.82	0.45
28:L3:76:VAL:HG12	28:L3:325:LYS:HA	1.98	0.45
1:5:2898:G:P	34:L9:173:ARG:HH22	328.99	0.45
35:M0:216:TYR:O	35:M0:220:GLN:HA	8.92	0.45
35:M0:29:SER:OG	35:M0:31:ILE:O	2.38	0.45
39:M5:38:ARG:HD3	39:M5:38:ARG:C	2.37	0.45
40:M6:125:ARG:CG	40:M6:129:LEU:HD22	2.46	0.45
43:M9:130:ASN:C	43:M9:132:PHE:H	2.19	0.45
43:M9:185:LEU:O	75:S7:39:ARG:NH2	2.49	0.45
45:N1:68:THR:HG22	45:N1:71:SER:O	2.19	0.45
1:1:95:A:H5''	52:N8:34:MET:HB3	1.98	0.45
39:M5:16:SER:HB2	60:O6:48:ALA:HB1	1.98	0.45
61:O7:2:GLY:O	61:O7:7:SER:HB3	2.17	0.45
27:L2:96:LEU:HD21	67:Q3:83:ILE:HD12	1.97	0.45
70:S2:81:MET:N	70:S2:101:VAL:O	2.45	0.45
71:S3:154:ASP:OD1	71:S3:155:GLY:N	3.12	0.45
72:S4:206:ASP:HB2	72:S4:222:LEU:HD12	1.99	0.45
73:S5:43:PHE:HB3	73:S5:46:TRP:HD1	5.86	0.45
74:S6:95:LYS:HE3	74:S6:95:LYS:HB3	1.82	0.45
1:1:1571:A:H2'	1:1:1572:U:C4'	2.45	0.45
1:1:180:C:C2	1:1:237:G:C2	3.05	0.45
1:1:1857:C:H1'	58:O4:5:VAL:O	2.16	0.45
1:1:2303:A:P	65:Q1:23:ARG:NH2	2.89	0.45
1:1:2541:U:O4'	1:1:2542:U:H4'	2.16	0.45
1:1:2886:U:C2	1:1:2911:A:N6	2.85	0.45
1:1:992:A:C2'	1:1:993:G:H5'	2.46	0.45
2:2:1060:U:H6	2:2:1061:A:N3	2.14	0.45
2:2:1089:U:O2'	2:2:1090:C:H5'	2.15	0.45
2:2:1491:U:H1'	2:2:1492:A:H5'	1.98	0.45
2:2:1540:G:C6	2:2:1541:G:C5	3.04	0.45
2:2:1564:U:H2'	2:2:1565:C:C6	2.52	0.45
2:2:1774:G:H2'	2:2:1775:U:O4'	2.16	0.45
2:2:289:U:H2'	2:2:290:G:O4'	2.15	0.45
2:2:66:U:C6	74:S6:173:PRO:HB3	2.52	0.45
2:2:706:A:C6	2:2:734:A:N6	2.85	0.45
1:5:1792:C:H5''	1:5:1793:C:P	2.56	0.45
1:5:2433:U:O4	81:5:3855:8UZ:C5	2.64	0.45
1:5:2643:A:H5'	53:N9:6:ASN:OD1	222.76	0.45
1:5:305:U:C5	1:5:2776:C:H1'	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3383:G:H2'	1:5:3384:U:C6	2.52	0.45
1:5:3152:U:C5	1:5:3395:G:C6	3.04	0.45
2:6:1144:U:H2'	2:6:1145:U:C6	2.52	0.45
2:6:1174:C:C4	2:6:1175:U:C4	3.04	0.45
2:6:254:A:O2'	2:6:255:U:H5'	2.17	0.45
2:6:90:C:O2'	2:6:451:A:H5''	2.15	0.45
4:8:145:U:H2'	4:8:146:U:O4'	2.16	0.45
13:C8:61:LEU:HD12	13:C8:66:LEU:CD2	2.46	0.45
16:D1:3:ASN:HD21	16:D1:7:GLN:HB3	4.60	0.45
21:D6:44:ILE:HD12	21:D6:45:VAL:HG22	1.98	0.45
25:E0:20:LYS:HE2	25:E0:20:LYS:HA	1.98	0.45
27:L2:204:MET:HG2	27:L2:204:MET:H	1.50	0.45
28:L3:211:GLN:NE2	28:L3:283:TYR:O	2.79	0.45
1:5:2395:G:H5''	28:L3:255:TRP:CD1	214.94	0.45
28:L3:370:PHE:CE2	28:L3:376:LYS:HG3	2.65	0.45
1:1:2814:G:OP1	29:L4:73:ARG:NH2	2.49	0.45
31:L6:68:PRO:HG2	31:L6:71:VAL:HG23	3.27	0.45
33:L8:160:ILE:O	33:L8:164:VAL:HG13	2.16	0.45
34:L9:20:ILE:HD13	34:L9:25:VAL:HG22	1.98	0.45
34:L9:94:TYR:CE2	34:L9:98:PRO:HA	2.51	0.45
37:M3:47:ALA:CB	59:O5:115:LYS:HD2	4.80	0.45
38:M4:15:VAL:HG12	38:M4:38:ILE:HD12	1.97	0.45
39:M5:35:VAL:O	39:M5:64:VAL:HA	2.22	0.45
42:M8:89:ASP:HB2	42:M8:110:ALA:N	2.86	0.45
55:O1:98:VAL:HG21	55:O1:104:LEU:HD11	1.99	0.45
58:O4:72:VAL:HG22	58:O4:77:GLY:O	2.62	0.45
62:O8:64:LYS:HG3	62:O8:65:LEU:N	4.86	0.45
68:S0:200:ASP:N	68:S0:200:ASP:OD1	2.49	0.45
9:C4:114:ARG:HD3	69:S1:69:CYS:CB	2.83	0.45
70:S2:165:VAL:HG11	70:S2:210:THR:HA	2.22	0.45
70:S2:72:LEU:HD12	70:S2:72:LEU:HA	1.94	0.45
70:S2:84:LYS:HG3	70:S2:84:LYS:O	2.53	0.45
71:S3:113:LEU:HD11	71:S3:117:ARG:HH11	4.17	0.45
71:S3:11:LEU:HD23	71:S3:11:LEU:HA	1.82	0.45
74:S6:81:VAL:HG22	74:S6:82:SER:H	1.80	0.45
2:6:474:A:OP1	77:S9:145:SER:HB2	420.36	0.45
78:SM:54:PRO:HG2	78:SM:62:ARG:CD	2.45	0.45
78:SM:83:LYS:HG2	78:SM:85:SER:H	5.93	0.45
1:1:1757:A:C2	1:1:1769:G:C2	3.04	0.45
1:1:1762:C:H2'	1:1:1763:U:H6	1.82	0.45
1:1:1845:G:H5'	1:1:1846:C:H5''	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2171:G:C2	1:1:2172:A:N7	2.85	0.45
1:1:230:U:H2'	1:1:231:G:O4'	2.16	0.45
1:1:2352:A:C6	1:1:2353:G:C6	3.05	0.45
1:1:2568:C:C4	1:1:2570:U:N3	2.84	0.45
1:1:24:G:H2'	1:1:25:U:O4'	2.17	0.45
1:1:162:G:N2	1:1:260:C:C2	2.85	0.45
1:1:2676:A:H4'	1:1:2677:G:O5'	2.17	0.45
1:1:544:C:O2'	1:1:545:U:H4'	2.17	0.45
1:1:641:C:H42	1:1:645:A:H8	1.65	0.45
1:1:92:G:OP2	1:1:93:C:H5''	2.15	0.45
2:2:1149:G:O3'	2:2:1150:G:H3'	2.16	0.45
2:2:1211:A:C6	2:2:1453:G:C6	3.05	0.45
2:2:340:U:H2'	2:2:341:A:C8	2.52	0.45
2:2:542:A:H8	2:2:543:C:H2'	1.82	0.45
2:2:647:G:H22	2:2:687:G:N2	2.14	0.45
2:2:874:C:OP1	69:S1:159:SER:OG	2.16	0.45
1:5:1334:U:H1'	32:L7:208:SER:HB2	237.56	0.45
1:5:1630:U:OP1	51:N7:115:LYS:NZ	205.68	0.45
1:5:1639:C:H5''	58:O4:72:VAL:HG11	196.50	0.45
1:5:1696:A:H2'	1:5:1697:A:C8	2.50	0.45
1:5:210:U:C2	1:5:230:U:H4'	2.51	0.45
1:5:2155:G:O2'	27:L2:227:ARG:NH2	206.30	0.45
1:5:2268:U:H5''	1:5:2268:U:C6	2.49	0.45
1:5:1450:G:C6	1:5:2355:G:N2	2.85	0.45
1:5:3391:A:O2'	41:M7:50:GLN:NE2	157.36	0.45
1:5:372:A:C6	1:5:373:A:C6	3.04	0.45
1:5:535:G:C2	1:5:555:U:C2	3.04	0.45
1:5:595:G:N1	1:5:609:G:H5''	2.30	0.45
2:6:1423:U:O2'	70:S2:92:ALA:HB1	390.91	0.45
2:6:1764:C:C5	2:6:1767:G:C5	3.04	0.45
2:6:329:G:H2'	2:6:330:G:C8	2.51	0.45
6:C1:122:ILE:HD12	6:C1:122:ILE:H	1.82	0.45
7:C2:45:LEU:H	7:C2:120:VAL:CG2	4.65	0.45
10:C5:51:SER:CB	10:C5:53:PRO:HD3	6.42	0.45
13:C8:145:ARG:HB3	78:SM:68:ARG:NH1	3.03	0.45
15:D0:97:VAL:HG13	15:D0:98:GLN:N	4.69	0.45
16:D1:70:ASN:N	16:D1:70:ASN:OD1	2.78	0.45
18:D3:48:HIS:HB3	18:D3:103:LEU:HD21	1.98	0.45
21:D6:86:VAL:O	21:D6:87:ARG:HG3	2.16	0.45
27:L2:201:GLY:HA2	27:L2:204:MET:SD	2.84	0.45
27:L2:30:ARG:HB2	27:L2:36:GLU:OE2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:L2:23:ARG:NH1	27:L2:52:SER:O	2.48	0.45
28:L3:19:ARG:HG3	28:L3:273:HIS:CE1	3.09	0.45
1:1:3309:G:O6	28:L3:21:ARG:NH2	2.50	0.45
30:L5:68:THR:HG23	30:L5:70:THR:H	2.44	0.45
3:7:48:U:OP2	30:L5:94:ASN:HB3	285.16	0.45
34:L9:65:VAL:O	34:L9:68:LEU:HB2	2.49	0.45
35:M0:194:GLY:C	35:M0:196:PHE:H	3.02	0.45
35:M0:200:LEU:HD23	35:M0:202:LYS:NZ	2.31	0.45
35:M0:44:ASP:OD1	35:M0:185:ARG:NE	3.14	0.45
35:M0:61:SER:HB2	35:M0:63:GLU:HG2	2.17	0.45
37:M3:36:ARG:HG2	37:M3:39:ARG:NH2	2.31	0.45
37:M3:50:PRO:O	37:M3:51:LEU:HB2	2.49	0.45
38:M4:70:PHE:HE2	38:M4:72:LEU:HG	4.33	0.45
40:M6:62:THR:OG1	40:M6:69:GLY:HA2	2.16	0.45
41:M7:117:ILE:HG13	41:M7:148:LEU:HB3	2.65	0.45
47:N3:38:ALA:O	47:N3:58:VAL:HB	2.26	0.45
68:S0:102:PHE:CZ	68:S0:106:SER:HB2	2.56	0.45
68:S0:119:ARG:NH1	68:S0:119:ARG:HB3	2.63	0.45
69:S1:103:MET:O	69:S1:214:LYS:HA	2.48	0.45
69:S1:57:ALA:O	69:S1:61:LEU:HB2	5.78	0.45
2:2:2:A:C2	70:S2:170:ILE:HD12	2.52	0.45
71:S3:161:GLY:O	71:S3:164:VAL:HB	2.17	0.45
71:S3:90:ARG:O	71:S3:91:VAL:HG13	4.81	0.45
74:S6:87:ARG:HD3	74:S6:87:ARG:HA	1.92	0.45
75:S7:124:LYS:HA	75:S7:124:LYS:HD2	2.81	0.45
77:S9:134:ILE:HG12	77:S9:134:ILE:O	2.16	0.45
3:3:39:C:H5'	78:SM:25:ILE:HG12	1.97	0.45
79:SR:305:TYR:CE2	79:SR:311:ARG:HD2	2.51	0.45
1:1:1176:C:H2'	1:1:1177:G:H21	1.81	0.45
1:1:1603:A:OP1	43:M9:38:ARG:NH1	2.49	0.45
1:1:2106:A:H2'	1:1:2107:A:H8	1.80	0.45
1:1:2322:C:C2'	1:1:2323:G:H5'	2.46	0.45
1:1:2729:U:H2'	1:1:2730:G:O4'	2.17	0.45
1:1:96:G:P	52:N8:34:MET:HB2	2.57	0.45
2:2:1608:U:OP1	11:C6:14:LYS:HB3	2.17	0.45
2:2:1781:A:H2'	2:2:1782:A:O4'	2.17	0.45
2:2:111:U:C2	2:2:304:U:C4	3.04	0.45
1:5:1471:U:H2'	1:5:1472:U:H6	1.82	0.45
1:5:1573:G:C6	1:5:1574:C:H1'	2.52	0.45
1:5:2341:A:OP2	28:L3:247:ARG:NH2	219.00	0.45
1:5:3118:C:H2'	1:5:3119:U:O4'	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:3121:U:H1'	1:5:3122:A:H5''	1.98	0.45
1:5:3154:C:O2'	1:5:3155:U:H5''	2.16	0.45
1:5:784:A:C8	42:M8:69:ARG:CZ	153.77	0.45
1:5:96:G:H2'	1:5:97:U:O4'	2.16	0.45
2:6:1170:G:C2	2:6:1171:A:C8	3.05	0.45
2:6:1176:G:C6	2:6:1177:C:C4	3.04	0.45
2:6:1508:U:H2'	2:6:1509:C:C6	2.51	0.45
2:6:366:A:OP1	2:6:758:U:O2'	2.26	0.45
7:C2:90:LYS:O	7:C2:91:VAL:HB	3.12	0.45
2:6:885:G:N2	9:C4:123:SER:OG	287.25	0.45
11:C6:131:GLY:HA3	11:C6:136:SER:O	2.45	0.45
13:C8:101:LEU:HD13	13:C8:102:ALA:HB3	1.99	0.45
13:C8:18:LEU:HD21	13:C8:101:LEU:HD11	1.97	0.45
13:C8:70:VAL:O	13:C8:74:GLN:HG2	2.66	0.45
14:C9:86:ARG:HB3	14:C9:86:ARG:HH11	1.81	0.45
16:D1:45:ALA:HB2	68:S0:184:LEU:HB3	1.98	0.45
19:D4:8:ARG:HD2	19:D4:28:LEU:HD12	1.98	0.45
20:D5:41:ILE:HG23	20:D5:42:LEU:H	1.80	0.45
26:E1:126:CYS:HB3	26:E1:130:VAL:CG2	3.98	0.45
26:E1:84:VAL:O	26:E1:85:TYR:CD2	2.69	0.45
27:L2:114:SER:HB2	27:L2:169:ILE:CD1	3.07	0.45
1:5:3294:A:H5'	28:L3:128:LYS:HG3	196.66	0.45
28:L3:153:LYS:HE2	28:L3:154:TYR:CZ	3.68	0.45
28:L3:265:ALA:C	28:L3:266:ARG:HG2	2.36	0.45
28:L3:299:ASP:OD1	28:L3:301:THR:HG23	2.63	0.45
30:L5:208:MET:HG2	30:L5:223:PHE:CZ	2.76	0.45
30:L5:22:ARG:HG2	30:L5:28:THR:OG1	2.17	0.45
33:L8:73:PRO:HD3	33:L8:233:TRP:CE2	2.59	0.45
34:L9:188:THR:HG22	34:L9:189:GLU:N	4.80	0.45
37:M3:106:GLN:O	37:M3:109:PHE:HB3	2.62	0.45
38:M4:127:LYS:O	38:M4:131:VAL:HG23	2.17	0.45
1:5:1471:U:H5''	43:M9:5:ARG:HG3	119.94	0.45
1:5:1671:C:H5''	43:M9:60:LYS:HZ3	171.69	0.45
43:M9:88:ARG:HG2	43:M9:88:ARG:H	3.48	0.45
51:N7:102:GLU:O	51:N7:103:GLN:HB2	2.16	0.45
1:5:1635:G:O6	51:N7:17:ARG:HB2	206.84	0.45
1:1:943:U:H3'	52:N8:13:GLY:HA2	1.98	0.45
37:M3:64:LYS:HA	52:N8:69:TRP:CE3	2.51	0.45
68:S0:30:GLN:HG2	68:S0:33:GLN:HG2	10.98	0.45
68:S0:59:LEU:O	68:S0:63:ILE:HG13	2.33	0.45
72:S4:71:LYS:HG3	72:S4:91:THR:HB	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:S5:140:THR:HG21	73:S5:175:LEU:HD21	2.87	0.45
73:S5:46:TRP:CD1	73:S5:129:PRO:HD2	2.51	0.45
2:2:811:A:C5	75:S7:110:GLN:HG2	2.50	0.45
75:S7:96:ARG:NH1	75:S7:124:LYS:HB3	2.31	0.45
75:S7:133:THR:OG1	75:S7:134:GLU:N	2.47	0.45
79:SR:239:GLU:O	79:SR:256:THR:HA	2.32	0.45
79:SR:242:SER:HB3	79:SR:292:LEU:HD23	1.99	0.45
79:SR:36:ALA:HB2	79:SR:71:CYS:HB3	1.97	0.45
79:SR:42:LEU:HB2	79:SR:61:PHE:HB2	2.65	0.45
79:SR:81:LEU:HD11	79:SR:122:ILE:HD13	1.98	0.45
1:1:1505:C:O2'	1:1:1506:A:H5'	2.16	0.45
1:1:1658:G:C6	1:1:1659:U:C4	3.05	0.45
1:1:2881:C:H2'	1:1:2882:U:H6	1.81	0.45
2:2:1387:G:H1'	2:2:1410:A:N6	2.31	0.45
2:2:301:A:H2'	2:2:302:U:C6	2.52	0.45
2:2:555:A:N6	83:2:2156:HOH:O	2.49	0.45
2:2:711:U:H1'	2:2:712:G:C8	2.52	0.45
3:3:110:G:C6	3:3:111:U:C4	3.04	0.45
1:1:2585:G:C2	4:4:151:C:H5	2.34	0.45
1:5:1560:G:O2'	1:5:1561:G:H5'	2.17	0.45
1:5:19:U:O2'	39:M5:138:GLN:NE2	94.55	0.45
1:5:2101:C:O2'	1:5:2102:U:OP1	2.34	0.45
1:5:104:G:H4'	1:5:698:U:O2	2.17	0.45
1:5:980:A:H2'	1:5:981:U:H1'	1.98	0.45
2:6:1110:G:N1	2:6:1136:U:O2	2.50	0.45
3:7:22:A:C6	30:L5:269:SER:O	319.45	0.45
7:C2:33:ARG:O	7:C2:37:VAL:HG23	2.17	0.45
8:C3:55:ARG:HA	8:C3:59:GLY:O	5.56	0.45
13:C8:15:LEU:HD22	13:C8:22:VAL:CG1	5.07	0.45
14:C9:52:GLY:O	14:C9:53:TRP:CD1	2.70	0.45
15:D0:24:ILE:HG23	15:D0:116:VAL:HG22	2.12	0.45
18:D3:69:ARG:NH1	18:D3:116:ASP:OD2	2.49	0.45
28:L3:114:VAL:HG13	28:L3:163:HIS:CG	2.51	0.45
28:L3:275:ARG:HA	28:L3:275:ARG:HD3	2.43	0.45
28:L3:283:TYR:HB3	28:L3:323:MET:HE2	2.34	0.45
28:L3:283:TYR:OH	28:L3:325:LYS:HD2	2.17	0.45
29:L4:169:LEU:HD22	29:L4:249:ILE:HD12	2.70	0.45
29:L4:33:ASP:OD2	29:L4:34:ILE:HG13	2.17	0.45
30:L5:203:HIS:CE1	30:L5:204:VAL:HG23	2.96	0.45
30:L5:40:HIS:HB3	30:L5:43:LYS:HE2	1.98	0.45
29:L4:317:PRO:HB2	32:L7:149:TYR:HD1	2.67	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L8:42:PRO:HD2	33:L8:44:ARG:NH1	2.32	0.45
35:M0:216:TYR:HD1	35:M0:216:TYR:C	4.35	0.45
35:M0:34:TYR:HB3	35:M0:89:VAL:HB	1.99	0.45
1:1:1008:U:H4'	35:M0:34:TYR:HD1	1.82	0.45
39:M5:64:VAL:CG1	39:M5:102:ALA:HB1	2.47	0.45
41:M7:78:VAL:HG22	41:M7:80:LYS:H	3.48	0.45
42:M8:58:ASN:O	42:M8:60:PRO:HD3	2.17	0.45
44:N0:137:ARG:HG2	44:N0:139:TYR:CE1	2.52	0.45
44:N0:23:LYS:HB3	44:N0:25:PHE:CZ	2.52	0.45
47:N3:26:ALA:O	47:N3:115:THR:HG23	2.92	0.45
50:N6:53:ASP:HB2	50:N6:110:HIS:ND1	2.32	0.45
52:N8:66:ALA:HA	52:N8:69:TRP:HB2	3.44	0.45
53:N9:16:ALA:O	53:N9:20:GLY:HA3	4.78	0.45
54:O0:34:LEU:HD12	54:O0:34:LEU:HA	1.73	0.45
54:O0:40:LYS:HD2	54:O0:40:LYS:N	2.42	0.45
58:O4:31:ARG:HG3	58:O4:32:ALA:N	2.50	0.45
59:O5:85:THR:HG23	59:O5:87:ALA:N	2.31	0.45
64:Q0:79:GLU:O	64:Q0:81:SER:N	2.49	0.45
66:Q2:8:ARG:HB2	66:Q2:8:ARG:HH11	4.67	0.45
67:Q3:73:THR:CG2	67:Q3:76:ALA:H	2.29	0.45
69:S1:65:VAL:HG21	69:S1:101:HIS:CD2	2.52	0.45
2:6:773:C:OP1	72:S4:21:ASP:HB2	389.17	0.45
74:S6:31:ARG:H	74:S6:34:GLN:NE2	2.14	0.45
75:S7:91:ILE:HD12	75:S7:91:ILE:HA	1.80	0.45
76:S8:184:LEU:O	76:S8:189:LEU:HD22	2.23	0.45
71:S3:143:ARG:HD3	78:SM:108:GLN:CB	2.46	0.45
1:1:2352:A:H2'	1:1:2353:G:C8	2.52	0.45
1:1:3106:A:H2'	1:1:3107:U:O4'	2.17	0.45
1:1:3137:C:H5''	28:L3:276:THR:HG21	1.99	0.45
1:1:3198:U:H4'	1:1:3199:G:OP2	2.17	0.45
1:1:542:G:H1	1:1:549:U:H3	1.63	0.45
1:1:710:A:H2'	1:1:711:A:C8	2.52	0.45
2:2:1150:G:H3'	2:2:1150:G:P	2.57	0.45
2:2:1317:C:H2'	2:2:1318:G:O4'	2.17	0.45
2:2:1472:C:H41	2:2:1536:G:H1	1.65	0.45
2:2:1797:A:C5	21:D6:87:ARG:NH1	2.85	0.45
2:2:195:G:H2'	2:2:196:G:H5'	1.98	0.45
2:2:322:G:O4'	2:2:323:A:H8	1.99	0.45
2:2:847:A:H2'	2:2:848:C:C6	2.52	0.45
2:2:947:U:H6	2:2:947:U:O5'	1.99	0.45
1:5:1307:G:C2	1:5:1308:A:C2	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2712:U:HO2'	1:5:2743:A:H4'	1.80	0.45
1:5:2651:G:HO2'	1:5:2796:G:H1	1.63	0.45
1:5:2915:U:C5	28:L3:7:GLU:HG2	256.31	0.45
1:5:3104:U:O2'	1:5:3105:U:H5'	2.16	0.45
1:5:3111:U:H2'	1:5:3112:G:H5'	1.99	0.45
1:5:76:G:O2'	37:M3:100:ARG:NH1	82.32	0.45
2:6:214:G:H5''	2:6:215:A:O4'	2.17	0.45
2:6:486:G:C2	2:6:502:U:C2	3.04	0.45
2:6:338:C:P	6:C1:133:LYS:HG3	294.66	0.45
7:C2:132:GLU:O	7:C2:136:ILE:HG23	3.11	0.45
8:C3:93:LYS:HA	8:C3:150:VAL:HG21	2.43	0.45
2:6:1483:A:H4'	11:C6:72:GLY:N	408.28	0.45
12:C7:100:LEU:H	12:C7:118:PRO:HB2	1.81	0.45
12:C7:110:VAL:HA	12:C7:113:LEU:HB2	4.92	0.45
13:C8:62:THR:O	13:C8:66:LEU:HG	2.16	0.45
14:C9:14:PHE:CZ	14:C9:132:LEU:HD13	5.82	0.45
17:D2:28:ARG:HG3	17:D2:29:PRO:HA	1.99	0.45
26:E1:103:LEU:HA	26:E1:103:LEU:HD23	1.63	0.45
26:E1:136:LYS:HA	26:E1:136:LYS:HD3	3.57	0.45
27:L2:203:ALA:HA	27:L2:217:GLN:HE21	1.82	0.45
1:5:2969:A:N7	27:L2:215:ASN:ND2	218.05	0.45
1:5:2244:A:H5''	27:L2:243:THR:OG1	228.44	0.45
29:L4:22:LEU:HD23	29:L4:22:LEU:HA	1.64	0.45
30:L5:261:THR:N	30:L5:264:GLN:HG3	2.31	0.45
35:M0:88:ARG:HD2	35:M0:173:PHE:CE2	2.51	0.45
35:M0:210:ILE:HG23	35:M0:217:PHE:CE2	2.52	0.45
37:M3:165:SER:HB3	37:M3:168:ARG:HB3	2.13	0.45
37:M3:179:PHE:CD1	37:M3:182:ILE:HD12	2.48	0.45
1:5:3214:U:OP2	38:M4:128:ARG:NH2	278.34	0.45
39:M5:42:PRO:HG3	39:M5:61:ILE:HG13	2.57	0.45
40:M6:111:PRO:HG2	40:M6:112:TYR:CD2	3.35	0.45
46:N2:54:VAL:HG12	46:N2:67:SER:CB	2.47	0.45
50:N6:116:LYS:O	50:N6:119:ILE:N	2.92	0.45
50:N6:60:ARG:HD3	50:N6:60:ARG:HA	1.63	0.45
51:N7:134:LEU:HD22	51:N7:135:ARG:N	2.32	0.45
55:O1:57:GLN:O	55:O1:61:LYS:N	2.49	0.45
56:O2:123:LYS:HA	56:O2:126:LEU:HD12	2.39	0.45
58:O4:82:ALA:HA	58:O4:85:VAL:HB	1.97	0.45
69:S1:62:LYS:O	69:S1:64:ARG:N	2.49	0.45
72:S4:172:PHE:HE2	72:S4:174:LYS:HG3	1.82	0.45
73:S5:151:GLY:HA3	73:S5:155:ALA:HA	4.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
76:S8:82:VAL:HG12	76:S8:83:TYR:N	2.84	0.45
1:1:3345:G:OP1	76:S8:92:ARG:HD3	2.17	0.45
1:1:1028:U:C4	36:M1:174:LYS:HE3	2.52	0.45
1:1:1107:C:H2'	1:1:1108:U:H6	1.81	0.45
1:1:1317:A:C5	1:1:1319:G:C8	3.04	0.45
1:1:2249:G:C8	1:1:2272:G:C4	3.05	0.45
1:1:2307:G:H4'	1:1:2308:C:OP2	2.17	0.45
1:1:2971:A:H2'	1:1:2971:A:OP1	2.16	0.45
1:1:3016:A:H2'	1:1:3017:A:C8	2.51	0.45
1:1:3066:U:H2'	1:1:3067:C:C6	2.52	0.45
1:1:3069:G:C6	1:1:3070:A:N7	2.85	0.45
1:1:3266:G:C6	1:1:3267:A:C6	3.05	0.45
1:1:386:A:H8	1:1:386:A:O5'	2.00	0.45
1:1:528:U:H2'	1:1:529:A:C8	2.51	0.45
2:2:1079:U:H2'	2:2:1080:U:C6	2.52	0.45
2:2:1494:C:H2'	2:2:1495:C:H6	1.82	0.45
2:2:1673:G:H22	2:2:1728:A:H2	1.63	0.45
2:2:497:G:O2'	2:2:498:G:O4'	2.35	0.45
2:2:616:G:C2	2:2:622:A:N7	2.85	0.45
3:3:50:U:C2'	3:3:51:A:H5'	2.47	0.45
1:5:338:A:H2	1:5:1426:C:O2	1.99	0.45
1:5:2384:A:N1	40:M6:96:LYS:HE2	217.70	0.45
1:5:2949:U:C5	1:5:2950:G:C6	3.05	0.45
1:5:366:A:N6	1:5:367:A:C2	2.84	0.45
1:5:38:U:H5''	52:N8:32:ARG:HD2	156.04	0.45
1:5:418:A:H4'	1:5:629:U:O3'	2.16	0.45
2:6:1595:U:H3'	2:6:1596:C:O2	2.17	0.45
2:6:25:C:H5''	2:6:25:C:H6	1.80	0.45
2:6:490:C:H1'	2:6:498:G:C2	2.52	0.45
5:C0:31:LYS:HA	5:C0:37:THR:O	2.16	0.45
13:C8:13:HIS:HA	13:C8:24:GLY:HA3	3.32	0.45
17:D2:47:ILE:HG22	17:D2:65:LEU:HD12	3.51	0.45
17:D2:89:TRP:O	17:D2:93:LEU:HD22	2.16	0.45
18:D3:96:VAL:HG12	18:D3:127:VAL:HG11	1.99	0.45
20:D5:70:LYS:HD3	20:D5:70:LYS:HA	1.30	0.45
20:D5:90:LYS:HB3	20:D5:90:LYS:HE2	1.47	0.45
21:D6:20:PRO:HA	21:D6:31:PRO:HA	2.30	0.45
21:D6:62:TYR:CG	21:D6:63:ALA:N	2.84	0.45
28:L3:199:PHE:O	28:L3:201:LYS:N	2.50	0.45
28:L3:95:THR:OG1	28:L3:98:GLY:N	2.49	0.45
29:L4:23:PRO:O	29:L4:25:VAL:N	2.79	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:L4:74:ILE:HG22	29:L4:75:PRO:HD2	1.99	0.45
30:L5:39:GLN:HG3	30:L5:40:HIS:O	2.76	0.45
30:L5:78:ALA:HB3	30:L5:105:ILE:HB	2.59	0.45
35:M0:215:GLU:H	35:M0:215:GLU:HG2	3.64	0.45
30:L5:297:GLN:C	35:M0:218:ALA:HB3	12.91	0.45
36:M1:92:ARG:NH2	36:M1:94:ARG:HD2	6.32	0.45
37:M3:56:PRO:HB2	37:M3:112:ASN:HD21	2.76	0.45
37:M3:158:ALA:HA	52:N8:97:GLU:O	3.24	0.45
41:M7:112:LEU:HA	41:M7:151:THR:O	2.40	0.45
42:M8:184:PHE:N	42:M8:184:PHE:CD2	2.84	0.45
42:M8:19:PRO:HB3	42:M8:53:PHE:HA	2.30	0.45
43:M9:98:ARG:HD3	43:M9:133:LYS:O	3.55	0.45
43:M9:153:LYS:O	43:M9:157:GLU:HG3	2.16	0.45
43:M9:185:LEU:CD1	43:M9:186:LYS:HG2	2.46	0.45
47:N3:80:ARG:HD2	47:N3:95:PHE:CD1	2.52	0.45
49:N5:121:LYS:HD3	49:N5:123:TYR:CZ	2.51	0.45
49:N5:68:THR:HG21	59:O5:36:LEU:HD13	1.98	0.45
51:N7:87:LEU:HD13	51:N7:127:ASN:ND2	3.22	0.45
52:N8:91:LEU:HA	52:N8:121:VAL:HG21	2.00	0.45
56:O2:22:SER:HA	56:O2:28:VAL:HB	1.98	0.45
60:O6:25:LYS:HB2	60:O6:28:TYR:HD2	1.80	0.45
1:1:353:G:O6	61:O7:52:LYS:HE2	2.16	0.45
64:Q0:97:ARG:HG3	64:Q0:120:GLN:O	2.16	0.45
66:Q2:58:PHE:HE1	66:Q2:61:LYS:N	2.14	0.45
69:S1:48:VAL:CG1	69:S1:61:LEU:HD21	2.45	0.45
16:D1:10:GLU:OE1	70:S2:140:ARG:HD2	2.80	0.45
17:D2:68:ARG:HB3	70:S2:230:TRP:NE1	2.32	0.45
70:S2:50:ILE:HD11	70:S2:239:PRO:CB	2.44	0.45
72:S4:173:ILE:HG22	72:S4:174:LYS:O	2.69	0.45
74:S6:28:PHE:HD1	74:S6:102:VAL:HG12	6.02	0.45
74:S6:58:LYS:HB2	74:S6:59:GLN:HE21	1.82	0.45
74:S6:71:THR:O	74:S6:99:GLY:N	2.50	0.45
77:S9:105:LEU:HD12	77:S9:105:LEU:HA	1.96	0.45
77:S9:96:VAL:O	77:S9:99:LEU:HB2	2.41	0.45
1:1:1063:G:C6	45:N1:109:VAL:HG22	2.52	0.45
1:1:1495:U:H2'	1:1:1842:A:C2	2.51	0.45
1:1:1929:G:OP2	1:1:1930:A:O2'	2.19	0.45
1:1:2948:C:O2'	28:L3:242:THR:HA	2.17	0.45
1:1:3280:U:O2'	1:1:3281:U:P	2.75	0.45
1:1:3344:A:N6	1:1:3361:G:O2'	2.50	0.45
1:1:2310:U:P	81:1:3893:8UZ:O9	2.75	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:72:C:N4	1:1:74:G:C5	2.85	0.45
1:1:784:A:N7	42:M8:69:ARG:HG3	2.31	0.45
1:1:986:U:H2'	1:1:987:U:H6	1.82	0.45
2:2:1127:G:C6	2:2:1128:C:C4	3.05	0.45
2:2:1392:U:H2'	2:2:1393:C:C6	2.52	0.45
2:2:1756:A:O2'	2:2:1757:G:O5'	2.30	0.45
2:2:330:G:C4	2:2:331:A:C8	3.05	0.45
2:2:702:G:C6	2:2:737:A:N6	2.85	0.45
2:2:77:U:O5'	2:2:77:U:H6	1.99	0.45
1:5:135:C:O2	59:O5:94:LYS:HB2	58.54	0.45
1:5:2095:G:H2'	1:5:2096:A:H8	1.81	0.45
1:5:2102:U:H2'	1:5:2103:U:H6	1.81	0.45
1:5:2206:G:H4'	1:5:2207:A:C5'	2.46	0.45
1:5:2556:C:O2'	51:N7:135:ARG:NH2	203.46	0.45
1:5:2158:A:O2'	81:5:3854:8UZ:N1	2.49	0.45
1:5:699:A:H2'	1:5:700:C:O4'	2.17	0.45
1:5:793:C:H2'	1:5:794:U:O4'	2.17	0.45
2:6:1280:C:H2'	2:6:1281:G:C8	2.51	0.45
2:6:1292:G:C5	2:6:1293:U:C4	3.05	0.45
2:6:384:G:C6	2:6:385:A:C6	3.04	0.45
2:6:811:A:C6	75:S7:110:GLN:HB3	344.40	0.45
18:D3:72:VAL:HG11	18:D3:96:VAL:HG21	2.55	0.45
21:D6:87:ARG:NH2	21:D6:91:ASP:O	3.32	0.45
21:D6:94:ASN:HD21	21:D6:96:ALA:HB3	1.82	0.45
28:L3:212:ASN:OD1	28:L3:354:VAL:HG22	2.17	0.45
30:L5:68:THR:HG22	30:L5:71:GLY:N	3.06	0.45
1:1:597:G:OP1	32:L7:37:ASN:HB3	2.16	0.45
35:M0:32:ARG:HA	35:M0:32:ARG:HD2	1.83	0.45
36:M1:89:TYR:O	36:M1:169:ALA:HB1	2.15	0.45
36:M1:94:ARG:O	36:M1:95:ASN:HB2	2.17	0.45
1:5:1306:G:C5	40:M6:62:THR:HA	232.51	0.45
1:5:2353:G:H5''	41:M7:86:LYS:HB2	140.38	0.45
43:M9:138:LEU:O	43:M9:142:ILE:HG13	2.17	0.45
43:M9:95:TRP:O	43:M9:98:ARG:N	2.50	0.45
49:N5:57:LEU:HD21	49:N5:90:ALA:HB2	1.99	0.45
51:N7:53:VAL:HA	51:N7:57:HIS:CD2	2.65	0.45
51:N7:81:LEU:HA	51:N7:81:LEU:HD22	1.83	0.45
68:S0:21:ASN:HA	68:S0:23:HIS:CE1	2.52	0.45
69:S1:176:VAL:HG13	69:S1:184:LEU:HG	1.99	0.45
71:S3:29:LEU:HD21	71:S3:69:LEU:HD11	1.98	0.45
72:S4:46:VAL:O	72:S4:50:ASN:HB2	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:S7:10:SER:O	75:S7:11:GLN:HB2	2.45	0.45
75:S7:89:HIS:CG	75:S7:165:LYS:HG2	3.61	0.45
75:S7:23:ALA:O	75:S7:27:LEU:HG	2.17	0.45
79:SR:144:LEU:HD13	79:SR:144:LEU:HA	1.76	0.45
1:1:2561:A:H2	33:L8:31:PRO:HA	1.82	0.45
1:1:2707:C:H2'	1:1:2708:C:C6	2.52	0.45
1:1:359:U:H4'	1:1:817:A:N6	2.32	0.45
2:2:1363:U:O2	2:2:1363:U:H2'	2.15	0.45
2:2:1624:C:H2'	2:2:1625:C:H6	1.81	0.45
2:2:1786:G:OP1	9:C4:136:ARG:NH2	2.49	0.45
2:2:715:U:H3	2:2:723:G:H1	1.65	0.45
4:4:43:A:C2	4:4:44:A:C4	3.05	0.45
4:4:68:G:OP1	61:O7:86:ALA:N	2.50	0.45
4:4:68:G:H2'	4:4:69:U:O4'	2.17	0.45
1:5:1128:U:H2'	1:5:1129:A:O4'	2.17	0.45
1:5:1368:U:O2'	1:5:1369:A:H5'	2.17	0.45
1:5:1381:A:C2	1:5:1426:C:C2	3.05	0.45
1:5:1468:A:N6	1:5:1508:C:O2	2.50	0.45
1:5:150:A:C5	1:5:151:A:C8	3.05	0.45
1:5:198:A:C6	1:5:219:A:C6	3.04	0.45
1:5:2107:A:C2	1:5:2108:C:C2	3.04	0.45
1:5:2132:C:O5'	1:5:2132:C:H6	2.00	0.45
1:5:2771:U:H5''	1:5:2772:C:C6	2.52	0.45
1:5:2812:C:H2'	1:5:2813:A:C8	2.51	0.45
1:5:386:A:C5	1:5:387:A:H1'	2.52	0.45
2:6:1183:A:C6	2:6:1184:A:N1	2.85	0.45
2:6:1236:A:OP1	2:6:1243:G:N1	2.50	0.45
2:6:542:A:C8	2:6:543:C:H2'	2.52	0.45
2:6:882:U:H2'	2:6:883:C:C6	2.52	0.45
2:6:954:G:H2'	2:6:955:A:O4'	2.16	0.45
6:C1:132:SER:O	6:C1:132:SER:OG	3.57	0.45
12:C7:24:LEU:HB3	12:C7:31:ASN:CG	2.37	0.45
15:D0:23:ARG:NH1	15:D0:92:ASP:OD2	2.72	0.45
16:D1:74:GLN:HE21	16:D1:74:GLN:HB3	2.75	0.45
20:D5:71:ILE:H	20:D5:71:ILE:HG13	1.54	0.45
21:D6:47:ALA:O	21:D6:50:VAL:HG12	2.23	0.45
27:L2:189:TYR:HA	27:L2:192:LYS:HB2	1.97	0.45
27:L2:242:ARG:NE	27:L2:246:LEU:HD13	6.05	0.45
29:L4:148:ILE:HA	29:L4:149:PRO:C	2.35	0.45
29:L4:285:ASP:O	29:L4:289:ILE:HG13	2.33	0.45
32:L7:180:SER:H	32:L7:183:ASP:HB2	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:L7:82:LYS:HG2	32:L7:82:LYS:H	1.59	0.45
36:M1:85:LYS:HB2	36:M1:89:TYR:HE2	1.80	0.45
40:M6:34:VAL:HB	40:M6:103:LYS:HB2	2.10	0.45
40:M6:92:THR:O	40:M6:95:GLY:N	2.49	0.45
1:5:3308:C:O2	41:M7:69:ARG:HD3	185.10	0.45
43:M9:43:LYS:O	43:M9:47:ASN:HB2	4.80	0.45
46:N2:13:LYS:HD2	46:N2:15:PHE:CZ	5.59	0.45
49:N5:69:SER:O	49:N5:72:ALA:N	2.83	0.45
1:1:1072:G:H21	53:N9:50:THR:HB	1.82	0.45
1:5:1655:G:P	58:O4:40:THR:HG1	175.95	0.45
1:1:2131:A:N6	67:Q3:18:TYR:HA	2.32	0.45
68:S0:103:THR:HA	68:S0:104:PRO:HD3	1.77	0.45
16:D1:61:SER:HA	68:S0:155:PHE:CZ	2.57	0.45
68:S0:93:THR:HG21	68:S0:181:VAL:HG21	1.98	0.45
68:S0:64:ILE:HG23	68:S0:73:VAL:HG11	2.06	0.45
70:S2:98:PHE:CZ	78:SM:116:GLU:HG2	4.29	0.45
71:S3:94:ARG:NH2	78:SM:130:GLU:OE2	3.77	0.45
73:S5:53:VAL:HG21	73:S5:59:VAL:HG22	1.99	0.45
73:S5:68:ILE:HD13	73:S5:69:PHE:N	5.47	0.45
76:S8:189:LEU:O	76:S8:193:LEU:HB2	2.17	0.45
76:S8:101:ILE:HD11	76:S8:192:TYR:CZ	2.52	0.45
77:S9:129:ILE:HA	77:S9:134:ILE:CG1	4.19	0.45
78:SM:114:LYS:HE3	78:SM:114:LYS:HB2	1.74	0.45
1:1:1596:C:H2'	1:1:1597:C:C6	2.52	0.45
1:1:1680:G:H2'	1:1:1681:U:C6	2.52	0.45
1:1:1859:A:C2	1:1:1860:G:N7	2.85	0.45
1:1:1898:G:O2'	47:N3:21:ALA:HB2	2.16	0.45
1:1:213:A:N6	1:1:227:G:O2'	2.46	0.45
1:1:2419:A:H2'	1:1:2420:C:H6	1.81	0.45
1:1:2585:G:N3	4:4:151:C:H5	2.15	0.45
1:1:2874:G:C6	1:1:2945:G:C8	3.05	0.45
1:1:3210:A:H2'	1:1:3211:C:H6	1.80	0.45
1:1:65:A:H3'	1:1:111:C:N4	2.32	0.45
1:1:741:U:H2'	1:1:742:G:O4'	2.17	0.45
1:1:780:A:C4'	42:M8:162:ALA:HB2	2.46	0.45
1:1:796:U:H2'	1:1:797:U:C6	2.52	0.45
2:2:1036:A:H2'	2:2:1037:C:O4'	2.18	0.45
2:2:1186:U:OP1	2:2:1456:C:O2'	2.21	0.45
2:2:1334:U:H2'	2:2:1335:U:C6	2.52	0.45
2:2:1458:G:H5''	2:2:1459:C:OP2	2.17	0.45
2:2:15:U:H4'	2:2:619:A:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:852:C:P	43:M9:172:ARG:HD3	2.56	0.45
2:2:945:U:O2'	2:2:946:U:H5'	2.17	0.45
1:5:1282:G:H2'	1:5:1283:C:C6	2.52	0.45
1:5:183:G:H1'	1:5:234:G:N2	2.32	0.45
1:5:2295:A:C6	1:5:2296:A:C6	3.05	0.45
1:5:2915:U:H5	28:L3:7:GLU:HG2	255.52	0.45
1:5:506:U:H2'	1:5:507:U:O4'	2.16	0.45
1:5:947:G:H5''	56:O2:55:ILE:HB	183.90	0.45
2:6:1054:U:H2'	2:6:1055:U:O4'	2.16	0.45
2:6:1080:U:O2'	2:6:1081:A:H5'	2.17	0.45
2:6:1502:G:N7	14:C9:102:ARG:NH2	404.94	0.45
2:6:74:U:H5''	2:6:75:U:O5'	2.17	0.45
2:6:855:A:O2'	2:6:856:A:H5''	2.17	0.45
4:8:95:G:OP2	61:O7:72:ARG:NH1	52.69	0.45
12:C7:34:LEU:O	12:C7:38:ILE:HG22	2.17	0.45
13:C8:41:ARG:NH2	14:C9:46:PRO:HG3	3.67	0.45
15:D0:30:LYS:HB3	15:D0:30:LYS:HE2	3.66	0.45
15:D0:53:LYS:O	15:D0:91:ILE:HG23	2.17	0.45
20:D5:59:TYR:HD2	20:D5:60:VAL:N	2.14	0.45
22:D7:59:CYS:SG	22:D7:61:THR:HB	2.56	0.45
25:E0:38:LEU:O	25:E0:38:LEU:HD23	2.21	0.45
28:L3:44:THR:CG2	28:L3:184:ASN:HB2	2.70	0.45
1:5:2880:U:H1'	28:L3:250:ALA:HB3	223.60	0.45
28:L3:281:LYS:NZ	28:L3:352:GLU:O	2.68	0.45
30:L5:273:ARG:O	30:L5:273:ARG:HG2	3.02	0.45
32:L7:149:TYR:HE2	32:L7:181:ILE:CG2	2.30	0.45
33:L8:240:ASN:HA	33:L8:243:GLN:HB2	1.97	0.45
37:M3:54:LEU:HD22	37:M3:55:ARG:N	2.31	0.45
38:M4:107:GLU:O	38:M4:110:ALA:HB3	2.79	0.45
41:M7:116:HIS:O	41:M7:148:LEU:HA	2.16	0.45
42:M8:50:LYS:O	42:M8:53:PHE:N	2.45	0.45
45:N1:160:ILE:HD12	45:N1:160:ILE:HA	1.68	0.45
45:N1:94:GLU:OE1	45:N1:94:GLU:N	2.99	0.45
46:N2:59:ASP:HB3	46:N2:62:VAL:O	2.17	0.45
47:N3:16:GLY:O	47:N3:17:LEU:HD23	2.16	0.45
50:N6:59:VAL:HG12	50:N6:103:LYS:O	2.17	0.45
51:N7:135:ARG:HH21	51:N7:135:ARG:HB3	2.88	0.45
52:N8:19:LYS:HA	52:N8:19:LYS:HD3	1.82	0.45
54:O0:24:THR:CG2	54:O0:91:SER:HB3	2.45	0.45
1:5:3279:A:N7	57:O3:54:ARG:NH2	225.70	0.45
68:S0:184:LEU:HA	68:S0:184:LEU:HD13	3.20	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:S1:116:LYS:HB3	69:S1:117:TRP:CE3	2.52	0.45
69:S1:168:ILE:O	69:S1:172:LEU:HG	2.24	0.45
70:S2:170:ILE:N	70:S2:197:TYR:O	2.49	0.45
70:S2:227:PRO:HA	70:S2:230:TRP:CD1	2.52	0.45
72:S4:129:VAL:HG12	72:S4:156:VAL:HG23	2.43	0.45
6:C1:23:PRO:HG2	76:S8:185:GLU:HG2	1.97	0.45
1:1:1026:A:H8	1:1:1026:A:OP2	2.00	0.44
1:1:129:U:H2'	1:1:130:A:H8	1.81	0.44
1:1:1336:U:H2'	1:1:1337:A:C8	2.47	0.44
1:1:1638:A:N3	1:1:1709:C:H1'	2.32	0.44
1:1:1852:G:C6	1:1:1853:U:C4	3.05	0.44
1:1:2361:A:N6	1:1:2376:G:O6	2.50	0.44
1:1:252:U:O2'	1:1:253:A:P	2.75	0.44
1:1:2630:C:H4'	1:1:2758:A:O4'	2.18	0.44
1:1:2947:G:C2	1:1:2948:C:C2	3.05	0.44
1:1:29:C:H4'	1:1:62:A:H4'	1.98	0.44
1:1:637:C:H2'	1:1:637:C:H6	1.41	0.44
2:2:1194:A:OP2	15:D0:75:GLY:N	2.47	0.44
2:2:1197:C:P	83:2:2144:HOH:O	2.76	0.44
2:2:44:U:H5	2:2:437:A:N1	2.14	0.44
3:3:119:U:OP2	30:L5:258:LYS:NZ	2.46	0.44
1:5:1158:A:O5'	1:5:1158:A:H8	1.99	0.44
1:5:118:U:O2	1:5:121:A:H5'	2.18	0.44
1:5:1839:A:N6	1:5:1843:C:C2	2.85	0.44
1:5:209:A:O2'	1:5:211:A:H8	2.01	0.44
1:5:2179:C:O3'	27:L2:174:ARG:NH2	214.34	0.44
1:5:46:U:O4	39:M5:83:LYS:HE3	155.19	0.44
1:5:361:A:N3	1:5:814:U:H1'	2.32	0.44
2:6:145:A:C2	2:6:171:A:C2	3.05	0.44
2:6:1727:G:H2'	2:6:1728:A:H8	1.79	0.44
2:6:472:U:H2'	2:6:473:A:C8	2.53	0.44
2:6:512:A:HO2'	77:S9:133:HIS:HE2	447.95	0.44
2:6:520:A:H2'	2:6:521:A:C8	2.51	0.44
2:6:891:A:H2'	2:6:892:A:C8	2.52	0.44
3:7:38:U:N3	3:7:41:G:OP2	2.32	0.44
5:C0:23:ALA:HB2	5:C0:64:TYR:HB2	4.91	0.44
6:C1:5:LEU:HD22	6:C1:6:THR:HG23	1.99	0.44
10:C5:29:SER:OG	10:C5:32:ASP:OD2	2.21	0.44
11:C6:77:GLN:O	11:C6:81:ILE:HG23	2.16	0.44
2:6:610:G:H21	18:D3:19:ARG:NH1	343.95	0.44
20:D5:85:LYS:HE3	20:D5:86:GLU:CB	3.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:D2:24:GLN:HE22	22:D7:4:VAL:HA	4.07	0.44
31:L6:12:SER:OG	31:L6:14:ASP:OD2	3.33	0.44
33:L8:187:GLY:HA2	33:L8:195:SER:HB2	1.99	0.44
34:L9:97:PHE:HB3	34:L9:116:ASN:ND2	2.32	0.44
38:M4:38:ILE:HD11	44:N0:150:PHE:CE2	2.52	0.44
38:M4:59:ASN:O	38:M4:61:GLY:N	2.83	0.44
38:M4:94:TRP:CE2	38:M4:100:ALA:HB2	2.62	0.44
40:M6:3:VAL:HG13	40:M6:4:GLU:CG	2.42	0.44
51:N7:104:PRO:O	51:N7:108:GLU:HG3	2.16	0.44
53:N9:39:PHE:O	53:N9:43:HIS:HB2	2.34	0.44
54:O0:43:ILE:CG2	54:O0:70:PHE:HB2	2.47	0.44
54:O0:77:LEU:HD21	54:O0:90:VAL:HG23	1.99	0.44
56:O2:91:THR:HG22	56:O2:92:TYR:CD2	2.51	0.44
59:O5:70:TYR:HB3	59:O5:76:GLN:HG2	4.92	0.44
60:O6:40:VAL:O	60:O6:44:VAL:HG23	2.61	0.44
60:O6:79:SER:HB3	60:O6:82:ARG:HB2	4.86	0.44
64:Q0:88:LYS:HA	64:Q0:92:ASP:OD2	2.16	0.44
67:Q3:73:THR:HG22	67:Q3:76:ALA:H	2.13	0.44
70:S2:56:ILE:HA	70:S2:61:LEU:CD1	2.47	0.44
72:S4:30:ARG:O	72:S4:81:THR:HB	2.17	0.44
73:S5:148:ARG:HD2	73:S5:155:ALA:HB3	1.99	0.44
73:S5:65:ARG:HE	73:S5:65:ARG:HA	4.62	0.44
75:S7:170:GLN:HG2	75:S7:181:ILE:HG22	1.98	0.44
75:S7:55:LYS:HE3	75:S7:87:ASP:HA	3.75	0.44
77:S9:137:GLY:H	77:S9:155:HIS:HB3	5.09	0.44
79:SR:21:THR:OG1	79:SR:68:VAL:O	2.29	0.44
1:1:1003:A:C6	1:1:1004:U:C4	3.04	0.44
1:1:795:G:O2'	1:1:1111:U:H5''	2.17	0.44
1:1:1226:G:H5''	1:1:1227:C:OP2	2.17	0.44
1:1:1308:A:OP2	1:1:1308:A:C8	2.69	0.44
1:1:1509:A:C6	1:1:1510:G:C2	3.05	0.44
1:1:1913:A:C5	1:1:2120:A:C2	3.05	0.44
1:1:2284:C:H5''	1:1:2285:C:OP2	2.17	0.44
1:1:3041:U:OP1	47:N3:12:ARG:NH1	2.48	0.44
1:1:802:C:H2'	1:1:803:C:H6	1.82	0.44
2:2:1010:C:H2'	2:2:1011:G:O4'	2.18	0.44
2:2:1340:U:N3	2:2:1378:U:H4'	2.32	0.44
2:2:1534:G:H4'	2:2:1536:G:C6	2.52	0.44
2:2:1794:A:C6	21:D6:76:SER:HB3	2.52	0.44
2:2:622:A:H4'	2:2:623:A:OP1	2.18	0.44
2:2:704:C:N4	2:2:735:C:C2	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:738:G:H2'	2:2:739:G:C8	2.51	0.44
1:1:18:G:N2	4:4:142:C:C2	2.86	0.44
4:4:95:G:OP1	61:O7:76:ASN:ND2	2.34	0.44
1:5:1087:G:O2'	53:N9:54:LEU:HD11	200.57	0.44
1:5:1766:G:H2'	1:5:1767:C:O4'	2.17	0.44
1:5:1771:C:C4	1:5:1772:U:C5	3.06	0.44
1:5:2684:C:H2'	1:5:2685:C:C6	2.52	0.44
1:5:3183:A:C2	1:5:3184:A:C5	3.05	0.44
1:5:730:C:H2'	1:5:731:U:C6	2.52	0.44
1:5:947:G:H2'	1:5:948:C:C6	2.52	0.44
2:6:1008:G:N2	2:6:1009:U:C2	2.85	0.44
2:6:1681:A:H2	2:6:1720:G:H21	1.64	0.44
2:6:425:A:OP1	83:6:2127:HOH:O	2.20	0.44
2:6:484:C:N4	2:6:503:G:H1	2.16	0.44
2:6:520:A:C6	2:6:521:A:C6	3.05	0.44
2:6:732:G:H4'	2:6:733:A:OP1	2.17	0.44
5:C0:85:HIS:HA	5:C0:86:ILE:HA	4.34	0.44
6:C1:71:LEU:HD13	6:C1:88:ARG:CZ	2.47	0.44
7:C2:56:GLU:OE1	7:C2:124:LYS:NZ	3.78	0.44
8:C3:102:LEU:HA	8:C3:102:LEU:HD23	1.95	0.44
11:C6:89:LEU:HG	11:C6:105:LEU:HD23	2.39	0.44
11:C6:13:LYS:NZ	11:C6:120:ASP:OD2	2.49	0.44
11:C6:40:GLU:HA	11:C6:42:GLU:H	2.18	0.44
12:C7:24:LEU:HD23	12:C7:31:ASN:HA	1.98	0.44
16:D1:60:ARG:NH2	68:S0:157:ASP:OD2	2.50	0.44
17:D2:111:MET:HE3	17:D2:121:VAL:HG21	4.05	0.44
17:D2:125:ILE:HG12	17:D2:126:LEU:N	2.39	0.44
21:D6:7:SER:OG	21:D6:10:ARG:HA	2.17	0.44
21:D6:12:LYS:O	21:D6:13:LYS:HG3	2.17	0.44
9:C4:111:ARG:HA	21:D6:56:ALA:O	2.30	0.44
27:L2:114:SER:O	27:L2:165:VAL:HG13	2.83	0.44
28:L3:47:LEU:HB3	28:L3:164:THR:HG22	2.29	0.44
29:L4:261:VAL:HG23	29:L4:271:LYS:HE2	2.06	0.44
30:L5:152:ARG:HB3	30:L5:154:THR:HG23	2.31	0.44
32:L7:215:GLY:C	32:L7:216:VAL:HG13	2.37	0.44
32:L7:88:ARG:CZ	32:L7:103:LEU:HD13	2.47	0.44
35:M0:3:ARG:NH1	35:M0:63:GLU:HG3	2.32	0.44
38:M4:114:ASP:HA	38:M4:117:ARG:NH1	2.38	0.44
1:5:1602:A:H5'	43:M9:10:LEU:HD21	105.31	0.44
1:5:185:C:H5'	50:N6:121:ARG:HG2	32.98	0.44
52:N8:42:ARG:HG3	52:N8:43:ILE:N	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:N8:87:ARG:O	52:N8:91:LEU:HD22	2.47	0.44
55:O1:12:TYR:CD1	55:O1:106:THR:HB	3.09	0.44
56:O2:11:LYS:O	56:O2:12:LYS:HB2	2.16	0.44
59:O5:73:LYS:HE2	59:O5:73:LYS:HB3	1.64	0.44
68:S0:50:VAL:HA	68:S0:53:THR:HB	2.47	0.44
70:S2:109:GLY:HA2	70:S2:139:ILE:HB	1.98	0.44
71:S3:123:VAL:HA	71:S3:134:CYS:SG	2.96	0.44
72:S4:140:VAL:HA	72:S4:145:ARG:O	2.17	0.44
73:S5:51:VAL:HG21	73:S5:130:ILE:HG12	1.99	0.44
75:S7:159:VAL:O	75:S7:162:ILE:HG13	2.68	0.44
79:SR:248:ASN:ND2	79:SR:298:GLY:HA3	2.32	0.44
79:SR:26:SER:OG	79:SR:75:ALA:O	3.35	0.44
1:1:1093:A:OP1	45:N1:120:LYS:NZ	2.50	0.44
1:1:1458:U:C2	1:1:1475:A:C2	3.05	0.44
1:1:1540:U:O4	1:1:1553:U:C2	2.71	0.44
1:1:1648:A:H2'	1:1:1649:U:O4'	2.17	0.44
1:1:1859:A:C2	1:1:1860:G:C8	3.06	0.44
1:1:1878:G:C2'	1:1:1879:A:H5'	2.47	0.44
1:1:20:A:H2'	1:1:21:G:C8	2.52	0.44
1:1:2102:U:H2'	1:1:2103:U:C6	2.52	0.44
1:1:2900:A:C6	1:1:2901:G:C5	3.06	0.44
1:1:3112:G:O2'	1:1:3122:A:N6	2.49	0.44
1:1:343:U:O4'	29:L4:95:ARG:NE	2.44	0.44
1:1:609:G:H4'	1:1:609:G:OP1	2.17	0.44
1:1:690:A:H4'	1:1:691:A:OP1	2.18	0.44
1:1:847:A:C6	1:1:848:A:C6	3.05	0.44
2:2:1414:U:H3'	2:2:1415:U:H5''	1.99	0.44
2:2:1196:A:C8	2:2:1602:C:H4'	2.51	0.44
2:2:189:C:H2'	2:2:190:C:H5'	1.97	0.44
3:3:118:A:H2'	3:3:119:U:O4'	2.17	0.44
4:4:98:U:H2'	4:4:99:C:O4'	2.18	0.44
1:5:1448:U:O2'	1:5:1449:A:H5'	2.17	0.44
1:5:1718:G:C2	1:5:1727:G:C2	3.06	0.44
1:5:2201:G:H21	27:L2:224:THR:HG21	222.52	0.44
1:5:2202:C:O2'	1:5:2203:U:H5'	2.18	0.44
1:5:3044:G:H2'	1:5:3045:G:C8	2.52	0.44
1:5:3049:A:H5'	28:L3:53:MET:HB2	234.78	0.44
1:5:3127:A:H2'	1:5:3128:G:O4'	2.17	0.44
1:5:54:C:H2'	1:5:55:G:C8	2.51	0.44
2:6:1559:A:C8	13:C8:134:ARG:HB3	364.49	0.44
7:C2:103:LEU:HG	7:C2:116:VAL:HG13	3.19	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:C5:48:GLY:O	10:C5:52:LYS:HD3	2.16	0.44
12:C7:71:PHE:CZ	12:C7:74:GLN:HB2	4.92	0.44
14:C9:70:GLN:HG3	14:C9:120:GLY:O	2.41	0.44
15:D0:96:PRO:O	15:D0:99:ILE:HG12	5.83	0.44
20:D5:38:HIS:NE2	20:D5:39:ALA:HB2	2.33	0.44
20:D5:46:LYS:O	20:D5:50:ILE:HG13	2.87	0.44
28:L3:56:ILE:HD13	28:L3:76:VAL:HG21	2.00	0.44
30:L5:143:LYS:HG3	30:L5:172:TYR:HD2	1.83	0.44
34:L9:74:LEU:HD23	34:L9:74:LEU:HA	1.92	0.44
35:M0:208:ASN:HB2	35:M0:211:ARG:HD2	1.99	0.44
36:M1:91:LEU:O	36:M1:172:LEU:HB2	2.73	0.44
36:M1:86:VAL:HG21	36:M1:112:LEU:HD13	2.96	0.44
1:5:686:G:OP2	37:M3:39:ARG:NH2	71.30	0.44
38:M4:38:ILE:HD13	44:N0:150:PHE:HE2	3.12	0.44
40:M6:41:LEU:HD12	40:M6:41:LEU:HA	2.03	0.44
1:1:412:G:OP1	41:M7:62:ARG:NH1	2.50	0.44
47:N3:87:ARG:NE	47:N3:121:GLU:OE2	2.49	0.44
47:N3:13:ILE:HG13	47:N3:85:TRP:CG	5.10	0.44
47:N3:85:TRP:HH2	47:N3:95:PHE:CE2	2.35	0.44
52:N8:14:HIS:N	52:N8:14:HIS:CD2	4.19	0.44
1:5:1456:A:H5'	55:O1:26:LYS:HG2	166.34	0.44
67:Q3:50:GLY:N	67:Q3:54:ILE:O	2.48	0.44
68:S0:24:LEU:HD11	68:S0:41:ARG:HH12	1.83	0.44
69:S1:211:HIS:CD2	69:S1:211:HIS:N	2.85	0.44
69:S1:61:LEU:O	69:S1:63:GLY:N	2.50	0.44
24:D9:46:LYS:NZ	71:S3:23:GLU:OE2	2.28	0.44
71:S3:45:LYS:HE2	71:S3:45:LYS:HB2	2.23	0.44
73:S5:44:ASN:O	73:S5:45:LYS:HE3	2.41	0.44
75:S7:52:ALA:HB3	75:S7:167:GLU:OE1	4.25	0.44
1:1:101:G:H8	52:N8:64:GLN:OE1	2.01	0.44
1:1:1213:G:N7	81:1:3892:8UZ:O6	2.50	0.44
1:1:1493:G:N7	63:O9:2:ALA:HB2	2.33	0.44
1:1:161:G:N2	1:1:261:U:H1'	2.32	0.44
1:1:2213:A:C6	1:1:2214:A:C6	3.05	0.44
1:1:250:U:H5''	1:1:251:G:H5''	2.00	0.44
1:1:2746:A:H2	30:L5:146:LEU:HB3	1.82	0.44
1:1:3186:A:O2'	34:L9:42:ASP:HA	2.17	0.44
1:1:3348:G:H1	1:1:3357:U:H3	1.66	0.44
1:1:345:G:OP1	1:1:1429:G:N2	2.46	0.44
1:1:358:G:N2	1:1:361:A:OP2	2.49	0.44
1:1:391:A:C4	1:1:392:G:C8	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:592:A:C5	1:1:593:C:C5	3.05	0.44
2:2:238:U:OP1	2:2:834:G:H4'	2.17	0.44
3:3:35:C:H2'	3:3:36:C:O4'	2.17	0.44
3:3:36:C:O2	3:3:45:A:H1'	2.17	0.44
3:3:86:U:H3'	32:L7:218:ARG:NH2	2.33	0.44
1:5:1161:G:C2	1:5:1162:U:C6	3.05	0.44
1:5:1560:G:C6	1:5:1561:G:C6	3.06	0.44
1:5:1688:U:H2'	1:5:1689:U:C6	2.53	0.44
1:5:1901:A:O3'	1:5:2918:G:H5'	2.18	0.44
1:5:271:C:O2	60:O6:82:ARG:NH2	130.53	0.44
1:5:2732:G:H2'	1:5:2733:A:O4'	2.17	0.44
1:5:3147:G:C6	1:5:3148:U:C4	3.06	0.44
1:5:359:U:H4'	1:5:817:A:N6	2.33	0.44
1:5:928:C:H2'	1:5:929:A:H8	1.83	0.44
2:6:1475:A:C2	2:6:1476:C:C2	3.05	0.44
2:6:1667:A:H2'	2:6:1668:G:C8	2.53	0.44
2:6:397:A:H4'	76:S8:50:GLY:HA2	317.51	0.44
2:6:532:U:H2'	2:6:533:U:O4'	2.17	0.44
7:C2:87:PRO:O	7:C2:88:LEU:HB2	2.34	0.44
8:C3:84:ILE:HG22	8:C3:135:LEU:HD21	2.00	0.44
10:C5:43:ARG:HH11	10:C5:47:ARG:HD2	1.83	0.44
12:C7:7:LYS:HG3	12:C7:8:THR:N	2.37	0.44
25:E0:38:LEU:HD22	25:E0:42:ARG:HH21	2.99	0.44
28:L3:140:ASP:HB3	28:L3:142:ALA:H	5.09	0.44
28:L3:156:SER:OG	28:L3:157:VAL:HG23	4.62	0.44
29:L4:141:ARG:H	29:L4:141:ARG:HG2	1.42	0.44
29:L4:33:ASP:OD1	29:L4:33:ASP:N	2.83	0.44
30:L5:55:PHE:CE2	30:L5:159:VAL:HG23	2.52	0.44
30:L5:61:ILE:HG23	30:L5:79:TYR:HE1	1.99	0.44
30:L5:68:THR:HB	30:L5:71:GLY:O	2.16	0.44
34:L9:41:ILE:HD11	34:L9:67:ALA:CB	2.40	0.44
34:L9:45:PHE:CE1	34:L9:55:VAL:HG13	3.24	0.44
37:M3:174:ARG:HG3	60:O6:9:ILE:HD11	6.16	0.44
37:M3:67:ARG:NH2	52:N8:108:GLY:HA2	2.32	0.44
37:M3:70:ARG:HD2	37:M3:71:ALA:O	2.72	0.44
44:N0:107:TYR:CE1	44:N0:118:PHE:CD1	3.06	0.44
54:O0:25:LEU:HD23	54:O0:90:VAL:HG13	2.24	0.44
56:O2:107:VAL:O	56:O2:110:ALA:HB3	2.17	0.44
56:O2:61:LYS:HB2	56:O2:61:LYS:HE2	2.10	0.44
49:N5:141:TYR:HD2	59:O5:33:VAL:HG13	2.40	0.44
66:Q2:58:PHE:CD1	66:Q2:58:PHE:C	2.91	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:S0:183:ARG:NH2	68:S0:191:ARG:O	2.51	0.44
71:S3:191:ASP:HB3	71:S3:194:LYS:HG3	2.00	0.44
72:S4:114:ILE:HB	72:S4:118:GLU:OE2	2.74	0.44
72:S4:178:GLY:H	72:S4:195:ILE:HB	2.24	0.44
73:S5:84:LYS:HG2	73:S5:92:ARG:NH1	2.32	0.44
74:S6:215:ARG:HH21	74:S6:216:LEU:HD23	11.36	0.44
76:S8:114:GLU:HG2	76:S8:120:THR:HA	1.99	0.44
1:1:138:U:H2'	1:1:139:G:C8	2.53	0.44
1:1:1430:U:H2'	52:N8:9:ARG:HH22	1.83	0.44
1:1:1919:G:H1'	1:1:1934:G:N2	2.33	0.44
1:1:2947:G:C2	28:L3:250:ALA:HB1	2.53	0.44
1:1:71:A:N1	1:1:313:A:H1'	2.33	0.44
1:1:571:U:H2'	1:1:572:A:H8	1.83	0.44
1:1:817:A:OP1	83:O7:201:HOH:O	2.21	0.44
1:1:911:C:OP1	27:L2:14:SER:OG	2.35	0.44
2:2:1291:G:H2'	2:2:1292:G:H8	1.83	0.44
2:2:370:A:H2'	2:2:371:G:O4'	2.18	0.44
2:2:63:G:C6	2:2:64:U:C5	3.05	0.44
1:5:2395:G:H4'	28:L3:258:ALA:HB1	213.06	0.44
1:5:26:A:N3	1:5:328:U:O2'	2.44	0.44
1:5:2896:A:N6	83:5:4064:HOH:O	2.50	0.44
1:5:3211:C:H2'	1:5:3212:C:C6	2.53	0.44
1:5:659:G:H2'	1:5:660:A:N7	2.33	0.44
1:5:811:U:H2'	1:5:812:G:H8	1.82	0.44
1:5:888:A:H2'	1:5:889:U:C6	2.52	0.44
2:6:140:A:H61	2:6:281:G:P	2.39	0.44
2:6:507:U:H6	2:6:507:U:OP2	2.01	0.44
2:6:539:G:C4	83:6:2130:HOH:O	2.68	0.44
2:6:765:G:O6	77:S9:149:ARG:HD2	432.42	0.44
3:7:110:G:C6	3:7:111:U:C4	3.05	0.44
11:C6:113:ASP:HB2	11:C6:116:LEU:HB2	6.21	0.44
12:C7:104:ASN:C	12:C7:106:THR:N	3.24	0.44
2:6:1534:G:OP2	13:C8:57:ARG:NH1	342.28	0.44
15:D0:106:ILE:HA	15:D0:106:ILE:HD12	1.89	0.44
2:6:1616:G:O2'	23:D8:18:ARG:NE	362.78	0.44
23:D8:8:THR:HG21	23:D8:32:PHE:CE1	4.37	0.44
29:L4:59:GLN:O	61:O7:52:LYS:NZ	2.93	0.44
3:7:1:G:H4'	30:L5:273:ARG:NH2	311.40	0.44
30:L5:293:LEU:HA	30:L5:293:LEU:HD12	2.42	0.44
30:L5:85:ARG:HD3	30:L5:86:TYR:CZ	2.52	0.44
33:L8:72:PRO:HA	33:L8:233:TRP:CE3	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2549:G:N1	33:L8:33:ASN:O	212.64	0.44
35:M0:182:LEU:HD23	35:M0:182:LEU:HA	1.83	0.44
1:1:2828:G:OP1	35:M0:7:ARG:NH1	2.51	0.44
36:M1:90:GLN:HA	36:M1:170:ASP:O	2.17	0.44
38:M4:123:LEU:HB2	40:M6:194:LEU:HD21	2.25	0.44
39:M5:74:PRO:O	39:M5:75:VAL:O	2.36	0.44
42:M8:60:PRO:HG2	42:M8:142:GLY:HA3	3.12	0.44
42:M8:37:ALA:O	42:M8:46:LYS:NZ	2.48	0.44
43:M9:74:ARG:HB3	43:M9:75:HIS:CD2	2.53	0.44
28:L3:66:LYS:NZ	47:N3:120:LYS:HE2	2.33	0.44
1:5:190:U:H2'	50:N6:60:ARG:NH2	80.29	0.44
51:N7:33:SER:HB3	51:N7:35:SER:O	2.18	0.44
69:S1:126:THR:HA	69:S1:135:LEU:O	2.79	0.44
69:S1:35:PRO:HB2	69:S1:38:PHE:CE2	2.53	0.44
69:S1:36:SER:HB3	69:S1:231:LEU:HD22	1.98	0.44
69:S1:70:LEU:HB2	69:S1:82:ARG:O	4.78	0.44
70:S2:101:VAL:HG22	70:S2:115:ILE:HG12	1.98	0.44
2:2:14:C:OP2	70:S2:206:THR:HG21	2.18	0.44
71:S3:76:ARG:C	71:S3:76:ARG:HD2	3.35	0.44
73:S5:117:THR:O	73:S5:121:ILE:HG13	2.35	0.44
73:S5:121:ILE:HA	73:S5:199:ILE:HD11	2.55	0.44
75:S7:97:ARG:HD3	75:S7:97:ARG:HA	3.52	0.44
1:1:1055:A:N3	3:3:81:U:O2'	2.44	0.44
1:1:1456:A:N6	1:1:1477:A:H4'	2.33	0.44
1:1:200:C:OP1	50:N6:60:ARG:NH1	2.51	0.44
1:1:993:G:C5	1:1:2637:A:C2	3.06	0.44
1:1:2373:A:N7	1:1:2867:C:H1'	2.32	0.44
1:1:685:G:N2	1:1:696:C:C2	2.86	0.44
2:2:1078:C:H2'	2:2:1079:U:H6	1.82	0.44
2:2:1146:G:C6	2:2:1147:A:C6	3.05	0.44
2:2:1560:U:C4	2:2:1561:U:C4	3.05	0.44
2:2:1789:G:H5''	2:2:1789:G:C8	2.52	0.44
2:2:280:U:HO2'	2:2:281:G:P	2.37	0.44
2:2:614:C:C2	2:2:615:A:C8	3.06	0.44
1:5:1308:A:C8	1:5:1308:A:OP2	2.70	0.44
1:5:1395:G:H2'	1:5:1396:C:O4'	2.17	0.44
1:5:24:G:H2'	1:5:25:U:O4'	2.18	0.44
1:5:2689:A:C8	1:5:2702:A:C6	3.06	0.44
1:5:2938:G:N7	28:L3:3:HIS:HB2	249.70	0.44
1:5:3278:C:H3'	1:5:3279:A:C5'	2.36	0.44
1:5:758:C:C2	1:5:774:G:C2	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:833:G:N2	1:5:862:U:H1'	2.33	0.44
2:6:1132:A:C2	2:6:1133:A:C4	3.06	0.44
2:6:1679:G:C6	2:6:1680:G:C6	3.05	0.44
2:6:218:A:C6	2:6:844:A:H1'	2.53	0.44
2:6:305:C:H2'	2:6:306:U:C6	2.52	0.44
2:6:816:G:N3	75:S7:110:GLN:NE2	338.15	0.44
2:6:950:C:H2'	2:6:951:A:C8	2.53	0.44
2:6:978:A:H2'	2:6:979:A:O4'	2.17	0.44
5:C0:32:HIS:HD2	5:C0:34:GLU:H	5.88	0.44
8:C3:47:PRO:HG3	8:C3:75:LEU:HD13	3.44	0.44
12:C7:126:ALA:HB1	68:S0:43:ASP:OD1	2.16	0.44
13:C8:28:ILE:HG12	13:C8:58:ALA:HA	1.99	0.44
19:D4:35:VAL:HG21	19:D4:40:LEU:HD11	2.00	0.44
2:6:780:A:N3	19:D4:8:ARG:HB3	437.84	0.44
20:D5:79:ALA:O	20:D5:83:LEU:N	2.47	0.44
28:L3:161:LEU:HA	28:L3:161:LEU:HD23	2.26	0.44
28:L3:116:ARG:HG2	28:L3:175:LYS:HB2	2.23	0.44
29:L4:328:ASN:C	29:L4:329:PRO:O	4.09	0.44
29:L4:60:THR:HG22	29:L4:62:ALA:H	1.82	0.44
30:L5:22:ARG:NH2	30:L5:27:LYS:HD3	4.84	0.44
33:L8:68:ARG:H	33:L8:68:ARG:HG2	1.92	0.44
38:M4:47:ASP:OD1	38:M4:55:ARG:HB2	2.82	0.44
39:M5:113:LEU:HB2	39:M5:134:LEU:HD23	2.93	0.44
40:M6:83:ALA:O	40:M6:87:MET:HG3	2.43	0.44
42:M8:90:ASP:OD1	42:M8:92:ARG:HG3	2.18	0.44
43:M9:45:VAL:HG22	43:M9:50:ILE:HB	1.99	0.44
45:N1:103:GLN:HG2	45:N1:104:GLU:N	2.32	0.44
45:N1:65:TYR:CE2	45:N1:73:GLY:HA3	2.88	0.44
53:N9:23:LYS:HD3	53:N9:23:LYS:HA	2.87	0.44
56:O2:75:LEU:HA	56:O2:75:LEU:HD23	1.77	0.44
58:O4:16:ARG:NH2	58:O4:37:LYS:HD2	5.02	0.44
52:N8:147:LEU:HB2	60:O6:7:ILE:HG22	1.99	0.44
63:O9:49:MET:O	63:O9:50:ASN:HB2	2.17	0.44
1:5:2655:U:H2'	66:Q2:3:ASN:O	235.55	0.44
66:Q2:54:THR:O	66:Q2:55:LYS:HG2	2.18	0.44
68:S0:27:ARG:HG3	68:S0:44:GLY:O	2.18	0.44
69:S1:62:LYS:O	69:S1:64:ARG:HG3	2.17	0.44
69:S1:84:ILE:HD13	69:S1:103:MET:HB2	2.12	0.44
70:S2:121:VAL:HG11	78:SM:117:LEU:CB	2.46	0.44
70:S2:159:THR:HA	70:S2:167:VAL:O	2.31	0.44
71:S3:133:GLY:HA3	71:S3:156:PHE:H	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:S3:225:TYR:HB2	79:SR:189:GLU:O	2.17	0.44
73:S5:188:LYS:HE2	73:S5:196:GLU:OE2	2.18	0.44
73:S5:40:ILE:HG23	73:S5:42:LEU:HG	4.34	0.44
73:S5:63:GLN:H	73:S5:89:ILE:HG13	1.82	0.44
74:S6:64:LYS:O	74:S6:67:VAL:HG22	2.17	0.44
79:SR:307:ASP:OD2	79:SR:311:ARG:NH2	3.16	0.44
1:1:1483:G:C8	1:1:1485:G:C8	3.06	0.44
1:1:1661:G:H2'	1:1:1662:G:C8	2.53	0.44
1:1:1481:A:O2'	1:1:1858:A:C2	2.66	0.44
1:1:2148:U:O2'	27:L2:182:ALA:HB2	2.18	0.44
1:1:2255:A:H5'	1:1:2261:G:N2	2.26	0.44
1:1:2352:A:C6	1:1:2353:G:C5	3.05	0.44
1:1:994:G:H5'	1:1:2637:A:O2'	2.18	0.44
1:1:2931:C:H2'	1:1:2932:U:O4'	2.18	0.44
1:1:3145:C:H2'	1:1:3146:G:H8	1.82	0.44
2:2:1117:U:H2'	2:2:1118:G:C8	2.53	0.44
2:2:1329:A:N6	83:2:2155:HOH:O	2.47	0.44
2:2:1481:C:H6	2:2:1481:C:O5'	2.01	0.44
2:2:438:A:OP1	81:2:2029:8UZ:O2	2.36	0.44
2:2:577:G:C3'	2:2:577:G:C8	3.00	0.44
2:2:894:U:H2'	2:2:895:G:C8	2.53	0.44
2:2:912:U:H4'	2:2:913:G:O5'	2.17	0.44
4:4:46:G:C2	4:4:58:G:C2	3.06	0.44
1:5:1220:U:C6	1:5:1222:G:C2	3.06	0.44
1:5:123:A:H5'	1:5:124:U:OP2	2.17	0.44
1:5:1722:U:O4'	43:M9:96:ILE:HG12	220.59	0.44
1:5:189:G:C2	1:5:191:U:C4	3.05	0.44
1:5:2888:U:H2'	1:5:2910:A:H61	1.82	0.44
1:5:2927:C:H2'	1:5:2928:C:C6	2.53	0.44
1:5:317:A:C2	1:5:318:A:C4	3.06	0.44
2:6:1208:A:H4'	2:6:1270:G:P	2.58	0.44
2:6:1349:G:N2	2:6:1377:U:O2	2.50	0.44
2:6:1475:A:H2'	2:6:1476:C:C6	2.53	0.44
2:6:1657:U:H5'	83:6:2242:HOH:O	2.16	0.44
2:6:335:U:O4	2:6:336:G:C6	2.71	0.44
2:6:367:A:H2'	2:6:368:U:O4'	2.18	0.44
4:8:106:C:H5''	4:8:108:C:OP2	2.18	0.44
7:C2:31:VAL:HG22	7:C2:133:LEU:HD23	5.61	0.44
7:C2:57:ALA:HB3	7:C2:85:LYS:NZ	2.32	0.44
8:C3:87:ASP:HB3	8:C3:125:LEU:HD11	4.75	0.44
2:6:1552:U:OP2	10:C5:43:ARG:NH2	403.07	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C7:16:LEU:CD2	71:S3:208:ILE:HD12	2.48	0.44
2:2:1316:G:OP1	12:C7:7:LYS:HB3	2.17	0.44
13:C8:102:ALA:O	13:C8:105:VAL:HG13	3.57	0.44
13:C8:119:ILE:HA	13:C8:119:ILE:HD12	2.75	0.44
13:C8:12:GLN:NE2	13:C8:13:HIS:O	3.22	0.44
13:C8:28:ILE:HG23	13:C8:58:ALA:HA	5.28	0.44
18:D3:92:CYS:HB3	18:D3:132:LEU:HD22	6.15	0.44
7:C2:54:ARG:NH2	26:E1:127:GLY:O	2.48	0.44
27:L2:133:TYR:CD1	27:L2:133:TYR:C	3.16	0.44
28:L3:3:HIS:ND1	28:L3:3:HIS:O	3.99	0.44
3:7:63:A:OP1	30:L5:282:ARG:NE	331.55	0.44
30:L5:293:LEU:HA	30:L5:293:LEU:HD13	1.58	0.44
31:L6:154:LEU:HD23	31:L6:157:GLN:HB2	1.99	0.44
32:L7:223:PHE:HA	32:L7:227:GLY:HA2	4.65	0.44
33:L8:139:VAL:HG21	33:L8:197:VAL:HB	2.00	0.44
38:M4:42:LYS:HB3	38:M4:42:LYS:HE3	1.84	0.44
33:L8:161:GLU:CD	39:M5:26:ARG:HH12	2.78	0.44
40:M6:27:LEU:HD22	40:M6:101:ARG:HB2	2.00	0.44
44:N0:83:SER:N	44:N0:86:GLY:O	2.59	0.44
45:N1:25:VAL:HG22	45:N1:30:TYR:HE2	1.82	0.44
49:N5:115:ARG:HD3	49:N5:121:LYS:HE3	1.99	0.44
51:N7:3:LYS:HD2	51:N7:4:PHE:N	4.64	0.44
52:N8:7:LYS:HA	52:N8:7:LYS:HD3	1.70	0.44
56:O2:15:LYS:HE3	56:O2:15:LYS:HB3	4.36	0.44
59:O5:34:GLN:HB3	59:O5:38:ARG:NH2	3.42	0.44
61:O7:31:LYS:O	61:O7:33:THR:HG23	3.06	0.44
1:5:2657:A:OP2	66:Q2:100:LYS:HE2	257.51	0.44
1:1:853:G:N7	67:Q3:2:ALA:HB2	2.33	0.44
69:S1:69:CYS:O	69:S1:72:ASP:HB2	2.18	0.44
73:S5:146:THR:HG23	73:S5:221:ALA:HA	2.00	0.44
75:S7:129:LEU:HD22	75:S7:169:PHE:CD1	2.83	0.44
77:S9:49:LEU:HD12	77:S9:101:VAL:HG13	5.02	0.44
77:S9:77:ILE:CG2	77:S9:91:LYS:HG2	2.47	0.44
78:SM:84:LYS:HD2	78:SM:85:SER:N	2.32	0.44
2:6:1635:A:OP2	78:SM:93:ARG:NH2	365.59	0.44
79:SR:42:LEU:O	79:SR:61:PHE:HD2	2.00	0.44
1:1:117:U:H1'	1:1:119:U:OP2	2.18	0.44
1:1:1470:U:H2'	1:1:1471:U:C6	2.53	0.44
1:1:1506:A:H1'	1:1:1848:G:O6	2.18	0.44
1:1:171:G:C2	1:1:172:G:C8	3.06	0.44
1:1:1815:U:H1'	1:1:1816:A:P	2.58	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3018:C:C4	1:1:3019:U:C4	3.06	0.44
1:1:3242:G:H2'	28:L3:154:TYR:CE1	2.53	0.44
2:2:1105:C:H2'	2:2:1106:U:H6	1.83	0.44
2:2:1235:C:O2	26:E1:138:ARG:NE	2.51	0.44
2:2:1428:G:OP2	2:2:1428:G:H3'	2.17	0.44
2:2:1478:G:C6	2:2:1479:A:C5	3.06	0.44
2:2:29:U:H2'	2:2:30:G:H8	1.83	0.44
2:2:513:U:H2'	2:2:514:G:C8	2.53	0.44
2:2:544:A:O3'	25:E0:31:LYS:HE3	2.18	0.44
2:2:552:G:C6	2:2:553:G:C6	3.06	0.44
4:4:56:G:C2	4:4:57:C:C2	3.06	0.44
1:5:2192:C:C4	1:5:2193:U:C5	3.06	0.44
1:5:2255:A:O2'	1:5:2256:A:OP1	2.36	0.44
1:5:2270:A:H2'	1:5:2271:A:C8	2.52	0.44
1:5:2419:A:H5'	1:5:2420:C:OP2	2.17	0.44
1:5:2653:C:P	66:Q2:89:LYS:HB2	234.35	0.44
1:5:3175:U:O4	57:O3:99:ARG:NH2	233.91	0.44
1:5:675:C:O2'	1:5:679:U:OP1	2.35	0.44
1:5:701:G:H2'	1:5:702:C:H6	1.81	0.44
1:5:705:A:N1	1:5:714:G:O2'	2.45	0.44
1:5:776:U:H5	1:5:2719:U:O2	2.01	0.44
1:5:971:G:OP1	42:M8:8:LYS:NZ	192.73	0.44
2:6:1132:A:C2	2:6:1133:A:C5	3.06	0.44
2:6:1198:G:O3'	24:D9:40:ARG:NH2	389.75	0.44
2:6:1290:U:H2'	2:6:1291:G:N3	2.33	0.44
2:6:1392:U:H2'	2:6:1393:C:C6	2.53	0.44
2:6:1646:C:H2'	2:6:1647:U:H6	1.83	0.44
2:6:289:U:H2'	2:6:290:G:O4'	2.17	0.44
2:6:393:C:H2'	2:6:394:C:C6	2.52	0.44
2:6:755:A:O2'	2:6:756:A:P	2.76	0.44
2:6:754:A:C6	2:6:793:A:N1	2.85	0.44
2:6:852:C:H2'	2:6:853:G:H8	1.83	0.44
4:8:56:G:H2'	4:8:57:C:O4'	2.18	0.44
8:C3:17:PRO:HD2	8:C3:62:GLN:NE2	2.33	0.44
8:C3:28:LEU:HA	8:C3:28:LEU:HD12	4.40	0.44
9:C4:102:LEU:HA	9:C4:102:LEU:HD22	1.78	0.44
9:C4:107:ARG:NH2	9:C4:107:ARG:HB2	3.50	0.44
9:C4:67:VAL:O	9:C4:71:CYS:N	2.91	0.44
2:6:1402:G:OP1	12:C7:4:VAL:HA	406.85	0.44
14:C9:25:GLN:HE21	14:C9:27:LYS:HD3	1.83	0.44
2:2:611:U:OP2	18:D3:5:LYS:HE3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:D5:91:PRO:HG3	20:D5:101:TYR:CE1	2.51	0.44
21:D6:44:ILE:HD12	21:D6:45:VAL:H	1.83	0.44
22:D7:15:GLU:OE2	22:D7:24:LEU:N	2.63	0.44
24:D9:31:ILE:HD13	24:D9:31:ILE:HA	1.84	0.44
26:E1:85:TYR:CD2	26:E1:86:THR:N	2.86	0.44
27:L2:118:GLU:HG3	27:L2:126:LEU:HD21	2.56	0.44
27:L2:204:MET:HE2	27:L2:209:HIS:HB2	2.00	0.44
28:L3:173:GLN:HG2	28:L3:175:LYS:H	3.16	0.44
28:L3:300:ARG:HD3	74:S6:22:HIS:NE2	6.50	0.44
30:L5:115:LEU:O	30:L5:118:THR:O	2.36	0.44
1:5:2746:A:C2	30:L5:146:LEU:HB3	254.89	0.44
31:L6:153:PRO:O	31:L6:154:LEU:HB2	2.32	0.44
33:L8:148:ALA:CA	33:L8:201:THR:HG22	2.46	0.44
33:L8:34:PHE:H	33:L8:39:ALA:CB	5.40	0.44
36:M1:133:ARG:HB2	36:M1:152:HIS:NE2	2.32	0.44
36:M1:20:ASN:HB3	36:M1:126:ASP:HB2	2.13	0.44
37:M3:128:ARG:HB3	37:M3:128:ARG:HE	3.96	0.44
37:M3:135:ALA:O	37:M3:136:GLU:HG3	2.18	0.44
37:M3:167:PHE:CZ	52:N8:132:LYS:HB2	2.53	0.44
37:M3:54:LEU:HD23	37:M3:54:LEU:HA	1.88	0.44
37:M3:64:LYS:HD2	52:N8:66:ALA:HB1	3.89	0.44
37:M3:92:THR:HB	59:O5:114:ARG:HG2	2.34	0.44
38:M4:17:VAL:HG13	38:M4:36:VAL:O	2.17	0.44
41:M7:181:ARG:HH21	41:M7:181:ARG:CB	4.06	0.44
42:M8:113:LYS:O	42:M8:113:LYS:HG2	2.18	0.44
43:M9:123:LEU:HD11	43:M9:142:ILE:HG12	2.26	0.44
48:N4:49:ILE:HD13	48:N4:49:ILE:HA	1.83	0.44
1:5:1608:C:H5''	49:N5:111:ASN:ND2	107.55	0.44
1:1:1609:C:H5''	49:N5:125:ARG:HH11	1.83	0.44
51:N7:87:LEU:HD12	51:N7:88:ASP:H	1.83	0.44
52:N8:105:LEU:HA	52:N8:109:TYR:O	2.17	0.44
1:5:40:A:C2	52:N8:40:HIS:CE1	178.38	0.44
1:5:1145:G:H5'	56:O2:46:PHE:CE1	207.58	0.44
57:O3:50:ALA:HB2	57:O3:68:TRP:CE3	2.53	0.44
60:O6:36:ARG:O	60:O6:40:VAL:HG23	2.27	0.44
63:O9:41:ARG:HG3	63:O9:42:ARG:H	2.02	0.44
66:Q2:93:LEU:CD2	66:Q2:93:LEU:H	2.30	0.44
68:S0:146:LEU:HD11	68:S0:174:TRP:CD1	2.69	0.44
69:S1:229:MET:HA	69:S1:232:HIS:ND1	2.33	0.44
75:S7:184:GLU:HG2	75:S7:185:ILE:H	1.83	0.44
75:S7:86:GLN:CG	75:S7:87:ASP:H	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
76:S8:101:ILE:HA	76:S8:167:ALA:O	2.51	0.44
76:S8:101:ILE:CD1	76:S8:168:CYS:HB2	2.47	0.44
77:S9:93:LEU:O	77:S9:96:VAL:HG22	2.54	0.44
1:1:1189:C:C4	40:M6:133:ARG:CZ	3.01	0.44
1:1:2203:U:H2'	1:1:2204:C:H6	1.82	0.44
1:1:2525:G:H2'	27:L2:34:TYR:CE1	2.53	0.44
1:1:3230:G:H4'	38:M4:132:LYS:HD3	1.98	0.44
2:2:1478:G:OP1	14:C9:39:THR:OG1	2.36	0.44
2:2:990:C:O2'	9:C4:127:ARG:HD3	2.18	0.44
3:3:95:A:OP1	81:3:214:8UZ:N3	2.51	0.44
1:5:999:G:C6	1:5:1000:C:N4	2.86	0.44
1:5:1498:A:H2'	1:5:1499:C:C6	2.53	0.44
1:5:1547:G:H2'	1:5:1548:C:C6	2.53	0.44
1:5:157:A:C8	60:O6:26:ILE:HG12	84.32	0.44
1:5:156:G:O2'	1:5:157:A:H4'	2.18	0.44
1:5:1888:U:H2'	1:5:1889:G:O4'	2.17	0.44
1:5:2163:C:H4'	27:L2:8:GLN:HA	184.26	0.44
1:5:2403:G:O4'	1:5:2872:A:N7	2.51	0.44
1:5:2440:G:N2	1:5:2441:A:C5	2.86	0.44
1:5:2610:G:C5	1:5:2611:U:C5	3.05	0.44
1:5:3107:U:H2'	1:5:3108:G:C8	2.53	0.44
1:5:3366:G:H2'	1:5:3367:C:C6	2.52	0.44
1:5:895:A:HO2'	1:5:896:A:H3'	1.83	0.44
2:6:1059:U:H4'	2:6:1060:U:O2	2.16	0.44
2:6:1458:G:OP1	13:C8:138:THR:N	353.33	0.44
2:6:706:A:H1'	2:6:733:A:N1	2.33	0.44
2:6:794:U:H4'	2:6:794:U:OP1	2.14	0.44
4:8:70:G:C2	4:8:87:G:N3	2.86	0.44
5:C0:15:LEU:O	5:C0:15:LEU:HD22	5.57	0.44
6:C1:21:ASN:ND2	6:C1:31:THR:HA	2.38	0.44
7:C2:44:GLY:HA2	7:C2:120:VAL:HB	4.07	0.44
12:C7:88:VAL:HG21	68:S0:198:MET:SD	3.15	0.44
16:D1:50:TYR:HE1	68:S0:66:ALA:HB1	1.83	0.44
18:D3:43:PHE:N	18:D3:43:PHE:CD1	2.84	0.44
21:D6:22:ARG:HA	21:D6:28:LYS:O	2.48	0.44
21:D6:44:ILE:H	21:D6:44:ILE:HG13	1.45	0.44
25:E0:13:LYS:O	25:E0:17:GLN:HG2	2.24	0.44
1:5:1651:U:C5'	27:L2:71:LEU:HD22	191.29	0.44
28:L3:147:GLU:OE2	28:L3:150:ARG:NH2	2.51	0.44
28:L3:173:GLN:O	28:L3:173:GLN:HG3	2.17	0.44
35:M0:23:ASN:HB3	35:M0:24:ARG:H	1.55	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:M0:82:ARG:O	35:M0:82:ARG:HG2	3.46	0.44
37:M3:64:LYS:HG3	52:N8:69:TRP:CG	2.52	0.44
39:M5:37:HIS:NE2	39:M5:63:ARG:HB3	2.76	0.44
40:M6:74:ARG:HD2	40:M6:145:VAL:HG23	1.99	0.44
42:M8:60:PRO:HG2	42:M8:142:GLY:CA	3.36	0.44
44:N0:158:LYS:HE3	44:N0:158:LYS:HB3	1.81	0.44
38:M4:37:GLU:HB3	44:N0:72:VAL:HG21	1.99	0.44
1:5:2724:U:H4'	45:N1:54:HIS:NE2	225.49	0.44
50:N6:95:VAL:HA	50:N6:96:PRO:HD3	1.90	0.44
37:M3:9:ILE:HG13	52:N8:49:HIS:CD2	3.69	0.44
53:N9:46:ALA:O	53:N9:50:THR:HG22	2.18	0.44
55:O1:51:LEU:HD23	55:O1:93:VAL:HB	2.00	0.44
57:O3:31:LYS:HA	57:O3:31:LYS:HD2	1.71	0.44
37:M3:89:TYR:HB2	59:O5:111:PHE:HE1	1.82	0.44
49:N5:45:LYS:HG2	59:O5:75:TYR:HD2	1.82	0.44
27:L2:170:ALA:HB2	67:Q3:65:ALA:HB1	2.00	0.44
68:S0:30:GLN:O	68:S0:34:GLU:HG3	6.03	0.44
69:S1:70:LEU:CD1	69:S1:79:HIS:HB3	2.47	0.44
70:S2:235:LEU:HD23	70:S2:235:LEU:HA	1.84	0.44
70:S2:97:ARG:HG2	70:S2:97:ARG:H	1.66	0.44
71:S3:140:GLY:O	71:S3:147:ALA:HB1	2.86	0.44
75:S7:56:LYS:O	75:S7:88:ARG:HA	2.52	0.44
77:S9:134:ILE:HD12	77:S9:134:ILE:N	4.71	0.44
79:SR:141:LEU:H	79:SR:141:LEU:HG	1.58	0.44
79:SR:157:VAL:HG23	79:SR:170:ILE:HG12	2.51	0.44
79:SR:281:TYR:HB3	79:SR:282:SER:H	1.70	0.44
1:1:1116:G:C4	1:1:2817:A:C2	3.06	0.43
1:1:2890:A:N1	1:1:2913:C:N3	2.66	0.43
1:1:677:A:C8	1:1:786:A:C6	3.06	0.43
2:2:206:A:H1'	2:2:262:U:C2	2.52	0.43
2:2:929:A:N6	2:2:930:A:N1	2.65	0.43
3:3:100:C:OP2	44:N0:52:LYS:HD2	2.17	0.43
1:5:121:A:C2	33:L8:129:PRO:HB3	106.83	0.43
1:5:1402:C:H2'	1:5:1403:C:H6	1.82	0.43
1:5:1481:A:C5	1:5:1859:A:C8	3.06	0.43
1:5:1521:G:O6	63:O9:17:LYS:NZ	97.97	0.43
1:5:1577:G:H2'	1:5:1578:C:C6	2.53	0.43
1:5:244:G:H2'	1:5:245:U:C6	2.53	0.43
1:5:2882:U:H2'	1:5:2883:U:O4'	2.18	0.43
1:5:31:C:H2'	1:5:32:U:O4'	2.18	0.43
1:5:3267:A:H2'	31:L6:69:PHE:CE1	255.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:411:U:H2'	1:5:412:G:H8	1.83	0.43
1:5:411:U:H2'	1:5:412:G:C8	2.53	0.43
2:6:1665:U:H3	2:6:1736:G:H1	1.66	0.43
2:6:1667:A:H2'	2:6:1668:G:H8	1.82	0.43
2:6:802:G:C6	2:6:803:A:N1	2.86	0.43
2:6:854:U:C4	2:6:855:A:N7	2.86	0.43
4:8:49:G:C6	4:8:50:C:C4	3.06	0.43
5:C0:21:VAL:HG12	5:C0:66:TYR:HD2	3.03	0.43
6:C1:87:ARG:HE	6:C1:104:HIS:CG	2.36	0.43
7:C2:29:LYS:HE2	7:C2:100:TRP:HE1	2.07	0.43
10:C5:116:LEU:HD23	10:C5:116:LEU:HA	1.89	0.43
2:2:1570:A:O2'	13:C8:144:ARG:NH2	2.51	0.43
2:2:359:A:C2	18:D3:38:PHE:HB3	2.53	0.43
16:D1:71:ARG:NE	22:D7:4:VAL:HG11	2.33	0.43
2:2:1754:A:H1'	25:E0:2:ALA:HB2	2.00	0.43
27:L2:30:ARG:NH2	27:L2:33:ASP:OD2	2.51	0.43
28:L3:123:TYR:CZ	28:L3:124:LYS:HG3	2.53	0.43
28:L3:103:THR:HG21	28:L3:147:GLU:CG	2.48	0.43
28:L3:81:THR:CG2	28:L3:321:PHE:HA	4.21	0.43
28:L3:41:VAL:HG22	28:L3:194:TRP:CD1	2.53	0.43
29:L4:18:ASN:OD1	29:L4:18:ASN:N	4.24	0.43
29:L4:6:VAL:HG21	29:L4:255:PHE:CZ	2.53	0.43
30:L5:179:ARG:HA	30:L5:179:ARG:HD3	1.85	0.43
30:L5:289:LYS:O	30:L5:293:LEU:N	2.47	0.43
32:L7:179:LEU:N	32:L7:179:LEU:HD13	2.64	0.43
33:L8:150:LEU:O	33:L8:199:ALA:HA	2.18	0.43
35:M0:208:ASN:O	35:M0:212:GLU:HB2	3.45	0.43
36:M1:52:TYR:CZ	78:SM:39:PRO:HD3	2.53	0.43
1:5:770:G:OP1	37:M3:171:ARG:HD3	140.55	0.43
40:M6:12:LYS:HA	40:M6:40:GLU:HB3	2.31	0.43
40:M6:76:PRO:HD3	40:M6:147:TRP:CD2	2.52	0.43
41:M7:178:ALA:HB2	41:M7:181:ARG:HH21	1.82	0.43
41:M7:24:VAL:O	41:M7:144:SER:OG	2.36	0.43
42:M8:165:ILE:HG12	42:M8:166:LEU:N	2.32	0.43
40:M6:118:VAL:HG21	44:N0:163:PHE:HB3	2.77	0.43
44:N0:40:ARG:O	44:N0:44:PHE:HD2	2.05	0.43
48:N4:62:GLY:C	48:N4:63:ILE:HG13	5.25	0.43
49:N5:40:LEU:HA	49:N5:40:LEU:HD12	1.75	0.43
51:N7:101:PHE:HA	51:N7:107:ARG:NE	2.32	0.43
56:O2:67:SER:OG	56:O2:71:HIS:O	2.35	0.43
57:O3:51:TYR:HB2	57:O3:98:VAL:HG23	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:O4:35:VAL:HG12	58:O4:36:LYS:O	2.17	0.43
68:S0:112:THR:HG23	68:S0:115:PHE:HB2	1.99	0.43
69:S1:142:PHE:O	69:S1:208:GLN:N	2.85	0.43
69:S1:23:PRO:HG3	69:S1:26:ARG:HH22	1.83	0.43
69:S1:70:LEU:HD12	69:S1:82:ARG:O	2.18	0.43
70:S2:207:LEU:HA	70:S2:207:LEU:HD23	1.86	0.43
71:S3:132:LYS:HB3	71:S3:189:MET:HG3	2.23	0.43
71:S3:64:ARG:CZ	71:S3:65:ARG:HB2	6.79	0.43
72:S4:184:THR:HA	72:S4:189:LEU:CD1	2.48	0.43
72:S4:11:ARG:NH1	72:S4:21:ASP:OD2	2.91	0.43
72:S4:47:PHE:O	72:S4:51:ARG:HB2	2.18	0.43
72:S4:70:VAL:HG22	72:S4:92:LEU:HD22	5.69	0.43
73:S5:64:VAL:HG11	73:S5:130:ILE:HD11	4.02	0.43
75:S7:131:PHE:HB3	75:S7:132:PRO:HD3	1.99	0.43
36:M1:52:TYR:CZ	78:SM:39:PRO:CD	3.01	0.43
79:SR:19:TRP:CE2	79:SR:306:THR:HG22	2.82	0.43
1:1:1578:C:H3'	1:1:1579:C:C6	2.53	0.43
1:1:1695:U:C2	1:1:1749:A:N1	2.86	0.43
1:1:2370:G:C6	1:1:2371:G:C5	3.07	0.43
1:1:2991:A:O2'	1:1:3308:C:N4	2.50	0.43
1:1:3140:G:OP1	28:L3:20:LYS:NZ	2.51	0.43
1:1:3145:C:H2'	1:1:3146:G:C8	2.54	0.43
2:2:1147:A:H2'	2:2:1148:C:C6	2.53	0.43
2:2:1288:G:N7	2:2:1314:U:O2'	2.41	0.43
2:2:1616:G:H4'	23:D8:18:ARG:NH1	2.33	0.43
2:2:1759:C:H5''	2:2:1760:G:OP2	2.17	0.43
2:2:239:C:O3'	2:2:240:U:H3'	2.18	0.43
2:2:256:A:H2'	2:2:257:A:O4'	2.18	0.43
1:5:1290:A:H2'	1:5:1291:A:C8	2.53	0.43
1:5:1550:C:O2'	1:5:2166:A:N6	2.52	0.43
1:5:2255:A:OP2	1:5:2261:G:N1	2.43	0.43
1:5:2389:C:H1'	41:M7:69:ARG:CZ	188.34	0.43
1:5:2885:C:N4	1:5:2886:U:O4	2.51	0.43
1:5:2887:A:N3	1:5:2887:A:H2'	2.31	0.43
1:5:607:A:OP1	31:L6:24:ALA:N	241.73	0.43
1:5:791:A:H2'	1:5:792:G:C8	2.53	0.43
2:6:1086:A:H5'	70:S2:164:SER:HB3	372.96	0.43
1:5:2256:A:H61	2:6:1756:A:H5'	1.84	0.43
2:6:1798:U:OP2	21:D6:38:ARG:NH2	335.42	0.43
2:6:545:A:N1	2:6:593:U:O2'	2.36	0.43
2:6:948:G:C6	2:6:949:C:C4	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:406:G:N3	4:8:16:G:C2	2.86	0.43
6:C1:64:VAL:HG12	6:C1:129:ARG:NH1	2.33	0.43
8:C3:26:PHE:CE1	8:C3:28:LEU:HD12	2.53	0.43
12:C7:84:TYR:CE2	12:C7:86:PRO:HD3	8.84	0.43
10:C5:111:MET:HG2	13:C8:119:ILE:CG1	4.71	0.43
17:D2:89:TRP:O	17:D2:93:LEU:HD23	2.78	0.43
19:D4:54:ALA:HB1	19:D4:76:TYR:O	2.52	0.43
13:C8:6:GLN:HB2	20:D5:44:GLN:HB2	6.50	0.43
22:D7:50:ALA:HB2	22:D7:71:ALA:CB	2.45	0.43
27:L2:117:GLU:OE2	27:L2:163:ARG:NE	2.50	0.43
28:L3:325:LYS:HG2	28:L3:326:GLY:N	3.00	0.43
29:L4:258:LEU:HD12	29:L4:258:LEU:HA	1.88	0.43
30:L5:257:GLU:H	30:L5:257:GLU:CD	4.65	0.43
34:L9:114:VAL:HB	34:L9:124:ARG:HB2	2.24	0.43
40:M6:94:ARG:O	40:M6:97:ALA:HB3	2.18	0.43
43:M9:67:ALA:O	43:M9:71:ARG:HG3	2.19	0.43
44:N0:38:LYS:HD2	44:N0:58:ILE:HD13	3.67	0.43
47:N3:11:PHE:HB2	47:N3:88:ARG:NH1	2.74	0.43
51:N7:128:GLN:O	51:N7:129:TRP:C	2.97	0.43
52:N8:134:ALA:O	52:N8:138:ILE:HG13	3.07	0.43
55:O1:55:LEU:CB	55:O1:95:PRO:HD3	2.81	0.43
1:1:1456:A:N6	55:O1:64:VAL:HG22	2.33	0.43
56:O2:103:LYS:O	56:O2:106:VAL:HG13	2.19	0.43
57:O3:24:ASN:OD1	57:O3:26:ASN:HB2	2.34	0.43
59:O5:24:LEU:HA	59:O5:24:LEU:HD23	1.73	0.43
60:O6:43:LEU:HD13	60:O6:47:ILE:HD11	2.62	0.43
39:M5:15:GLN:HB3	60:O6:51:SER:HB2	2.00	0.43
62:O8:33:LYS:HA	62:O8:33:LYS:HD3	1.80	0.43
1:1:351:A:N6	63:O9:37:TYR:O	2.41	0.43
64:Q0:97:ARG:HG3	64:Q0:120:GLN:C	2.38	0.43
34:L9:176:LEU:HB3	64:Q0:86:ALA:CB	2.78	0.43
64:Q0:98:LYS:HD3	64:Q0:118:THR:CG2	2.43	0.43
68:S0:90:ALA:HA	68:S0:95:ALA:CB	2.47	0.43
71:S3:143:ARG:HG3	71:S3:144:ALA:CB	6.29	0.43
12:C7:16:LEU:HD23	71:S3:208:ILE:HG23	2.00	0.43
72:S4:11:ARG:H	72:S4:27:TYR:HA	1.84	0.43
72:S4:244:ILE:HD12	72:S4:244:ILE:HA	2.47	0.43
72:S4:35:PRO:HD2	72:S4:83:PRO:HG2	2.00	0.43
72:S4:42:LEU:CD2	72:S4:46:VAL:HB	2.48	0.43
72:S4:62:LYS:HD3	72:S4:80:THR:OG1	2.56	0.43
72:S4:67:GLN:HB3	72:S4:69:HIS:CE1	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:D4:16:PRO:CG	72:S4:95:THR:HG22	2.49	0.43
2:6:1528:U:OP1	73:S5:109:LYS:HE3	371.56	0.43
73:S5:136:ALA:O	73:S5:175:LEU:HD11	2.17	0.43
73:S5:156:ARG:HG3	73:S5:156:ARG:H	1.57	0.43
74:S6:74:LYS:HA	74:S6:95:LYS:O	2.18	0.43
76:S8:5:ARG:NH1	76:S8:29:LEU:O	2.65	0.43
1:1:100:A:O2'	1:1:101:G:H5'	2.19	0.43
1:1:1541:G:C5	1:1:1542:G:H1'	2.53	0.43
1:1:1557:A:C5	1:1:1559:A:C6	3.05	0.43
1:1:1576:G:C6	1:1:1577:G:C6	3.06	0.43
1:1:1641:U:O2'	1:1:1642:A:H3'	2.17	0.43
1:1:1676:A:P	46:N2:73:GLY:H	2.42	0.43
1:1:1779:C:N4	43:M9:89:LEU:HD13	2.33	0.43
1:1:1658:G:C4	1:1:1796:G:C6	3.06	0.43
1:1:284:A:H4'	1:1:285:A:C2	2.52	0.43
1:1:2893:C:O4'	1:1:3129:A:H4'	2.18	0.43
1:1:3261:C:H2'	1:1:3262:U:H6	1.83	0.43
1:1:31:C:H2'	1:1:32:U:O4'	2.18	0.43
81:1:3895:8UZ:O1	81:1:3895:8UZ:O7	2.37	0.43
1:1:716:A:N6	52:N8:117:ARG:HG3	2.33	0.43
1:1:810:A:C4	1:1:811:U:C5	3.06	0.43
2:2:1061:A:C2'	2:2:1062:A:H5'	2.49	0.43
2:2:253:A:OP1	72:S4:134:LYS:N	2.46	0.43
2:2:108:A:C2	2:2:307:G:C2	3.07	0.43
2:2:978:A:H2'	2:2:979:A:O4'	2.18	0.43
4:4:125:U:H2'	4:4:125:U:O2	2.17	0.43
4:4:14:C:H2'	4:4:15:G:O4'	2.18	0.43
4:4:81:U:OP2	4:4:81:U:H2'	2.18	0.43
1:5:1456:A:N7	55:O1:26:LYS:HE2	166.84	0.43
1:5:1656:A:H4'	1:5:1657:C:O5'	2.18	0.43
1:5:1680:G:C5	1:5:1681:U:C5	3.07	0.43
1:5:1692:U:O4	1:5:1693:C:N4	2.51	0.43
1:5:2694:A:C6	1:5:2695:A:C6	3.06	0.43
1:5:3218:A:HO2'	1:5:3278:C:H5	1.65	0.43
2:6:337:G:H5''	2:6:337:G:H8	1.83	0.43
2:6:524:U:H2'	2:6:526:A:OP2	2.19	0.43
2:6:592:A:P	77:S9:39:LYS:HE3	411.23	0.43
4:8:83:C:H2'	4:8:83:C:OP2	2.18	0.43
6:C1:58:CYS:SG	6:C1:60:PHE:O	5.41	0.43
9:C4:101:ALA:O	9:C4:105:LEU:HG	2.17	0.43
11:C6:38:LEU:O	11:C6:45:ARG:NE	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C7:19:ARG:HG3	12:C7:20:TYR:HD1	1.83	0.43
2:2:1525:A:H5'	14:C9:93:HIS:HB2	1.99	0.43
23:D8:12:VAL:HG22	23:D8:28:VAL:HG11	1.99	0.43
23:D8:8:THR:HB	23:D8:56:LEU:HD12	2.01	0.43
27:L2:118:GLU:HG2	27:L2:156:LYS:NZ	2.92	0.43
27:L2:145:LYS:O	27:L2:160:SER:OG	2.36	0.43
27:L2:246:LEU:HD23	27:L2:246:LEU:HA	1.78	0.43
32:L7:216:VAL:HG23	32:L7:218:ARG:H	1.83	0.43
33:L8:81:THR:OG1	33:L8:181:LYS:HD3	2.17	0.43
36:M1:10:ARG:HB2	36:M1:133:ARG:HD3	1.99	0.43
36:M1:49:LYS:HD3	36:M1:62:ASN:O	3.56	0.43
37:M3:157:ARG:HG2	37:M3:158:ALA:H	1.82	0.43
40:M6:129:LEU:HA	40:M6:129:LEU:HD12	1.98	0.43
4:8:14:C:H5''	41:M7:123:PRO:HG3	128.05	0.43
42:M8:80:THR:HG22	42:M8:100:THR:HB	1.99	0.43
43:M9:96:ILE:O	43:M9:100:ARG:HG3	2.17	0.43
44:N0:45:LEU:HD22	44:N0:45:LEU:HA	1.84	0.43
29:L4:359:LEU:HA	44:N0:8:GLN:OE1	2.27	0.43
47:N3:28:ASN:OD1	47:N3:113:ALA:N	2.70	0.43
51:N7:9:LYS:HD3	51:N7:9:LYS:HA	1.88	0.43
54:O0:64:LYS:HB3	54:O0:64:LYS:HE2	1.88	0.43
1:5:1606:U:C2	58:O4:8:ARG:NH1	137.12	0.43
66:Q2:34:SER:OG	66:Q2:34:SER:O	2.26	0.43
66:Q2:93:LEU:HD12	66:Q2:93:LEU:H	4.76	0.43
68:S0:13:ASP:OD1	68:S0:179:ARG:NH2	2.31	0.43
72:S4:7:LYS:N	72:S4:7:LYS:HD2	2.51	0.43
78:SM:53:ARG:HA	78:SM:53:ARG:HE	1.83	0.43
1:1:155:G:H4'	1:1:156:G:H2'	1.99	0.43
1:1:1924:U:OP1	65:Q1:25:LYS:NZ	2.43	0.43
1:1:2103:U:H2'	1:1:2104:A:H8	1.84	0.43
1:1:2328:U:H2'	1:1:2329:C:H6	1.84	0.43
1:1:2562:A:H1'	33:L8:30:THR:OG1	2.18	0.43
1:1:2871:G:H5'	1:1:2872:A:H5'	2.00	0.43
1:1:2922:G:N3	1:1:2952:G:H1'	2.34	0.43
1:1:3053:G:C5	1:1:3054:U:C4	3.06	0.43
1:1:3288:G:O2'	1:1:3289:G:P	2.76	0.43
1:1:944:C:O2'	1:1:945:C:H5'	2.18	0.43
2:2:1534:G:H4'	2:2:1536:G:O6	2.18	0.43
2:2:339:C:O2'	2:2:340:U:H5'	2.18	0.43
2:2:357:G:C6	2:2:358:U:C4	3.06	0.43
2:2:795:U:H5	2:2:796:A:C5	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:3:59:U:C2	3:3:60:G:C8	3.07	0.43
4:4:19:C:H2'	4:4:20:U:C6	2.54	0.43
1:5:1561:G:O2'	1:5:1562:C:H5''	2.18	0.43
1:5:1581:C:C1'	1:5:1582:C:H2'	2.40	0.43
1:5:1449:A:C2	1:5:2356:A:C4	3.06	0.43
1:5:3113:A:O2'	34:L9:70:THR:HG22	327.17	0.43
1:5:3216:G:H5''	1:5:3219:G:N2	2.34	0.43
1:5:701:G:H2'	1:5:702:C:C6	2.54	0.43
2:6:107:C:H1'	2:6:362:G:O2'	2.18	0.43
2:6:1271:G:H2'	2:6:1272:U:O4'	2.19	0.43
2:6:1579:U:O2'	11:C6:139:GLN:HG3	358.60	0.43
2:6:181:A:H2'	2:6:182:A:C8	2.53	0.43
2:6:400:A:H5''	76:S8:25:ARG:HA	309.98	0.43
3:7:4:U:H2'	3:7:5:G:H8	1.82	0.43
3:7:92:A:H5''	3:7:93:C:OP2	2.18	0.43
5:C0:68:LEU:HD11	5:C0:76:LEU:HD21	2.00	0.43
6:C1:4:GLU:OE1	6:C1:113:PRO:HG2	10.93	0.43
6:C1:90:TYR:N	6:C1:90:TYR:CD2	3.06	0.43
9:C4:13:VAL:HG22	9:C4:76:ILE:HA	1.99	0.43
9:C4:71:CYS:O	9:C4:76:ILE:N	3.01	0.43
9:C4:17:ALA:O	9:C4:81:VAL:HA	4.97	0.43
12:C7:86:PRO:HB2	12:C7:88:VAL:H	5.52	0.43
10:C5:18:ARG:HD3	13:C8:90:ASN:OD1	2.47	0.43
16:D1:78:LEU:HA	16:D1:78:LEU:HD13	4.60	0.43
16:D1:5:LYS:O	16:D1:7:GLN:N	3.16	0.43
20:D5:75:LEU:HA	20:D5:78:ILE:HB	2.01	0.43
26:E1:119:ARG:H	26:E1:119:ARG:HG3	1.49	0.43
27:L2:224:THR:HG22	27:L2:240:ALA:HB3	1.99	0.43
29:L4:285:ASP:OD1	29:L4:287:THR:OG1	3.39	0.43
1:1:804:C:O2'	29:L4:74:ILE:HG23	2.18	0.43
30:L5:200:PHE:O	30:L5:240:TYR:CD2	2.72	0.43
3:7:13:A:H2	30:L5:21:ARG:HB2	285.13	0.43
31:L6:23:LYS:HD3	31:L6:23:LYS:HA	1.80	0.43
32:L7:96:PRO:HA	32:L7:97:PRO:HD3	1.98	0.43
33:L8:47:SER:HB2	49:N5:27:ARG:HG2	2.01	0.43
35:M0:51:HIS:CE1	35:M0:137:SER:OG	2.72	0.43
35:M0:217:PHE:HA	35:M0:218:ALA:HA	4.32	0.43
4:8:141:C:H4'	39:M5:110:ALA:HB2	112.98	0.43
40:M6:18:ARG:O	40:M6:22:VAL:HG13	2.70	0.43
40:M6:19:LEU:O	40:M6:23:VAL:HG23	2.20	0.43
45:N1:40:VAL:HB	45:N1:96:ILE:HG23	2.89	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:N3:25:CYS:SG	47:N3:27:ASP:OD2	3.01	0.43
52:N8:128:ARG:HB3	60:O6:8:ALA:HB2	2.91	0.43
52:N8:75:LEU:HA	52:N8:78:LEU:HB2	2.00	0.43
1:1:1654:A:N3	58:O4:59:PRO:HB3	2.33	0.43
1:5:1821:U:N3	58:O4:67:LYS:HD2	172.08	0.43
1:5:2895:G:O2'	64:Q0:100:TYR:O	311.28	0.43
68:S0:203:PHE:HA	68:S0:203:PHE:HD2	1.75	0.43
69:S1:90:GLU:HG2	69:S1:223:PHE:HZ	1.83	0.43
71:S3:220:PRO:HB2	71:S3:221:SER:H	1.88	0.43
71:S3:32:GLU:N	71:S3:32:GLU:OE1	3.43	0.43
76:S8:25:ARG:O	76:S8:28:GLU:HG3	3.28	0.43
76:S8:84:HIS:ND1	76:S8:85:PRO:HD2	2.32	0.43
77:S9:129:ILE:HG12	77:S9:134:ILE:HD12	2.00	0.43
79:SR:106:HIS:ND1	79:SR:132:LYS:HD2	3.34	0.43
79:SR:201:THR:HG21	79:SR:242:SER:CA	2.65	0.43
79:SR:274:LEU:HD13	79:SR:313:TRP:CD2	2.53	0.43
79:SR:90:ARG:NH2	79:SR:102:ARG:HE	2.17	0.43
1:1:1107:C:OP1	53:N9:25:LYS:HD2	2.18	0.43
1:1:1535:A:C8	1:1:1536:G:C8	3.07	0.43
1:1:1835:A:C5	1:1:1836:C:C5	3.07	0.43
1:1:2420:C:N3	1:1:2421:U:C5	2.86	0.43
1:1:2688:U:C2	30:L5:16:PHE:CE2	3.07	0.43
1:1:701:G:H2'	1:1:702:C:H6	1.84	0.43
2:2:1311:U:O3'	12:C7:2:GLY:HA3	2.19	0.43
2:2:1327:C:C2	2:2:1328:G:C8	3.07	0.43
2:2:1541:G:O2'	2:2:1570:A:N6	2.49	0.43
2:2:246:G:C6	2:2:247:A:C6	3.06	0.43
2:2:402:C:OP2	83:2:2135:HOH:O	2.21	0.43
2:2:485:A:H2'	2:2:486:G:O4'	2.19	0.43
2:2:948:G:C6	2:2:949:C:C4	3.05	0.43
3:3:11:A:N1	3:3:67:G:O2'	2.38	0.43
3:3:30:G:C2	3:3:31:U:C6	3.06	0.43
1:5:1139:G:OP1	32:L7:97:PRO:HG3	227.46	0.43
1:5:1141:C:H2'	1:5:1142:G:O4'	2.17	0.43
1:5:1580:A:N6	49:N5:33:ARG:HE	155.60	0.43
1:5:2136:C:O2'	1:5:2137:U:H5'	2.19	0.43
1:5:2154:U:O3'	27:L2:240:ALA:HA	218.63	0.43
1:5:2663:G:H2'	1:5:2664:C:O4'	2.18	0.43
1:5:2726:C:C5	1:5:2728:G:C4	3.06	0.43
1:5:2955:U:C5	1:5:2977:G:N2	2.86	0.43
1:5:3225:C:H2'	1:5:3226:A:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:867:G:C2	1:5:868:C:C2	3.07	0.43
1:5:944:C:C5	1:5:1431:G:C6	3.06	0.43
2:6:1107:G:O2'	2:6:1108:G:H5'	2.19	0.43
2:6:1117:U:H2'	2:6:1118:G:C8	2.53	0.43
2:6:1389:C:H4'	12:C7:49:LYS:HA	424.33	0.43
2:6:1796:C:C5	21:D6:6:ALA:N	345.90	0.43
2:6:754:A:N3	2:6:754:A:H2'	2.32	0.43
4:8:142:C:H5''	39:M5:60:VAL:HG21	108.85	0.43
4:8:66:A:H61	4:8:92:A:H61	1.65	0.43
7:C2:91:VAL:HG12	7:C2:92:ALA:H	1.82	0.43
12:C7:14:LYS:HG3	12:C7:69:ILE:HG23	2.01	0.43
18:D3:23:ARG:HD2	18:D3:26:GLU:CD	3.01	0.43
22:D7:23:THR:OG1	22:D7:26:GLN:HA	2.39	0.43
2:6:1253:U:H4'	26:E1:143:LYS:N	447.31	0.43
27:L2:174:ARG:HA	67:Q3:69:TYR:CE2	2.55	0.43
28:L3:19:ARG:HB3	28:L3:232:ARG:NH1	2.33	0.43
28:L3:252:ILE:HA	28:L3:252:ILE:HD12	1.64	0.43
29:L4:142:VAL:O	29:L4:142:VAL:HG23	3.12	0.43
29:L4:60:THR:HG22	29:L4:62:ALA:N	2.34	0.43
29:L4:52:VAL:HG11	29:L4:99:MET:HE3	2.01	0.43
30:L5:177:GLU:N	30:L5:177:GLU:OE1	4.73	0.43
30:L5:52:VAL:HG21	30:L5:65:ILE:HD12	2.00	0.43
32:L7:83:LEU:HD22	32:L7:84:VAL:N	2.33	0.43
33:L8:152:LEU:HB2	33:L8:198:ALA:HB3	2.00	0.43
34:L9:111:PHE:CD1	34:L9:127:PRO:HA	2.54	0.43
31:L6:89:THR:HG21	38:M4:115:PHE:CB	2.49	0.43
41:M7:30:ARG:HD2	41:M7:63:PHE:HE2	1.94	0.43
1:1:2352:A:OP1	41:M7:82:ARG:HB3	2.18	0.43
44:N0:40:ARG:HA	44:N0:40:ARG:HD2	1.59	0.43
44:N0:29:ILE:HG21	44:N0:40:ARG:HB2	2.00	0.43
45:N1:18:ASP:O	45:N1:21:LYS:HB2	2.18	0.43
49:N5:92:LYS:HA	49:N5:95:ILE:HD12	2.56	0.43
52:N8:73:LEU:HB2	52:N8:109:TYR:CE2	2.54	0.43
53:N9:7:HIS:CD2	53:N9:7:HIS:C	2.92	0.43
58:O4:84:CYS:O	58:O4:88:ARG:HB2	4.58	0.43
58:O4:96:GLU:O	58:O4:99:LYS:HB2	2.83	0.43
70:S2:64:LYS:O	70:S2:134:LEU:HD11	2.18	0.43
71:S3:167:PHE:CE1	71:S3:192:PRO:HB3	3.19	0.43
72:S4:124:GLY:O	72:S4:160:VAL:N	2.69	0.43
72:S4:31:PRO:HG2	72:S4:38:LEU:HD13	1.99	0.43
2:2:297:U:H5''	72:S4:37:LYS:HD3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:D4:15:ASN:ND2	72:S4:54:TYR:O	2.68	0.43
74:S6:7:TYR:HB3	74:S6:12:SER:HB2	2.50	0.43
2:2:259:U:H1'	76:S8:178:ARG:NH1	2.33	0.43
76:S8:194:ARG:CZ	76:S8:194:ARG:HB2	2.49	0.43
77:S9:82:ARG:NH1	77:S9:149:ARG:HD3	7.78	0.43
1:1:1460:A:H5'	55:O1:51:LEU:O	2.18	0.43
1:1:1919:G:O5'	1:1:1919:G:H8	2.02	0.43
1:1:2247:G:H2'	1:1:2248:C:O4'	2.19	0.43
1:1:2298:U:O2'	1:1:2299:A:H5'	2.18	0.43
1:1:2349:U:H5'	1:1:2391:G:OP1	2.18	0.43
1:1:2860:U:C6	1:1:2938:G:H4'	2.54	0.43
1:1:3153:U:N3	1:1:3158:G:C5	2.84	0.43
1:1:541:U:H2'	1:1:542:G:C8	2.53	0.43
1:1:840:C:H2'	1:1:841:A:H8	1.84	0.43
1:1:993:G:P	45:N1:58:GLN:HE21	2.42	0.43
2:2:1011:G:H2'	2:2:1012:U:C5	2.53	0.43
2:2:1166:A:OP1	73:S5:100:ASN:N	2.45	0.43
2:2:1395:G:N2	2:2:1404:C:C2	2.86	0.43
2:2:1562:G:H2'	2:2:1563:C:C6	2.53	0.43
2:2:1586:A:H2'	2:2:1587:A:O4'	2.18	0.43
2:2:768:C:C2	77:S9:143:ILE:HG12	2.53	0.43
2:2:827:C:H2'	2:2:828:U:C6	2.54	0.43
2:2:915:A:N6	9:C4:41:ARG:NH2	2.67	0.43
3:3:11:A:C2	3:3:68:C:O4'	2.72	0.43
3:3:13:A:H5''	3:3:14:U:C5	2.53	0.43
1:5:1315:U:OP2	40:M6:44:SER:OG	275.79	0.43
1:5:151:A:H2'	1:5:152:U:C6	2.52	0.43
1:5:151:A:HO2'	1:5:152:U:P	2.41	0.43
1:5:1613:A:C2	1:5:1614:C:C2	3.07	0.43
1:5:1616:U:H2'	1:5:1617:G:C8	2.54	0.43
1:5:2540:A:C2'	1:5:2541:U:H2'	2.49	0.43
1:5:3001:C:O2'	1:5:3002:C:H5'	2.18	0.43
1:5:800:G:N2	1:5:801:A:C2	2.86	0.43
2:6:1542:G:N2	2:6:1568:C:H1'	2.34	0.43
2:6:1167:G:N2	2:6:1579:U:C2	2.87	0.43
2:6:364:G:C2	2:6:381:C:C4	3.06	0.43
2:6:963:A:H4'	8:C3:128:TYR:OH	326.15	0.43
2:2:964:U:H5''	8:C3:128:TYR:CE1	2.54	0.43
10:C5:63:ALA:O	10:C5:73:PRO:HB3	2.41	0.43
13:C8:127:HIS:NE2	13:C8:133:VAL:HG21	2.45	0.43
13:C8:134:ARG:HB2	13:C8:136:GLN:OE1	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C8:81:ILE:HG12	13:C8:81:ILE:H	4.17	0.43
16:D1:36:VAL:HG22	68:S0:63:ILE:CG1	2.49	0.43
18:D3:43:PHE:N	18:D3:43:PHE:HD1	2.16	0.43
26:E1:106:TYR:CE2	26:E1:116:LYS:HG2	2.53	0.43
27:L2:119:LYS:HB2	27:L2:119:LYS:HE3	4.45	0.43
29:L4:330:TYR:OH	32:L7:52:GLN:HG2	2.91	0.43
31:L6:55:LEU:HD11	31:L6:66:SER:HB2	4.16	0.43
32:L7:151:ARG:O	32:L7:153:PHE:HD2	2.02	0.43
32:L7:40:LYS:HA	32:L7:43:ILE:HD12	2.00	0.43
33:L8:101:THR:HG23	33:L8:104:GLU:H	1.82	0.43
34:L9:103:ILE:HD11	34:L9:134:ILE:CG2	2.57	0.43
34:L9:3:TYR:HD2	34:L9:3:TYR:N	2.17	0.43
35:M0:52:LEU:HA	35:M0:52:LEU:HD23	1.76	0.43
37:M3:111:ALA:O	37:M3:115:ARG:HB2	2.18	0.43
39:M5:140:LYS:HA	39:M5:140:LYS:HD3	1.83	0.43
1:1:781:G:OP1	42:M8:151:ARG:HD2	2.18	0.43
43:M9:105:LEU:HD11	43:M9:139:VAL:HG23	2.00	0.43
43:M9:81:ARG:HD3	43:M9:88:ARG:HH12	5.13	0.43
44:N0:138:GLN:O	44:N0:138:GLN:HG3	2.18	0.43
2:2:280:U:N3	48:N4:113:LYS:HG3	2.33	0.43
50:N6:54:ASP:OD1	50:N6:110:HIS:N	2.96	0.43
51:N7:36:HIS:N	51:N7:37:PRO:HD3	2.34	0.43
51:N7:81:LEU:HD12	58:O4:93:PHE:CE2	3.42	0.43
54:O0:73:GLY:H	54:O0:76:GLU:CD	2.22	0.43
58:O4:67:LYS:HA	58:O4:70:LYS:CE	2.49	0.43
62:O8:17:ARG:HB3	62:O8:20:VAL:HG23	2.19	0.43
70:S2:108:ASN:O	70:S2:110:HIS:N	2.51	0.43
70:S2:69:ILE:HD11	70:S2:133:LYS:HD2	1.99	0.43
71:S3:175:VAL:CG1	71:S3:182:LEU:HB2	2.63	0.43
71:S3:70:THR:HG23	71:S3:86:LEU:HB2	2.17	0.43
73:S5:42:LEU:HD12	73:S5:45:LYS:HD2	4.38	0.43
73:S5:43:PHE:HB3	73:S5:46:TRP:CD1	5.39	0.43
75:S7:103:SER:N	75:S7:106:SER:O	5.97	0.43
2:6:1274:C:N3	78:SM:96:ARG:HG2	362.08	0.43
71:S3:221:SER:HA	79:SR:230:ALA:HB2	2.67	0.43
79:SR:89:LEU:HD11	79:SR:124:SER:CB	3.08	0.43
1:1:1523:U:C2	49:N5:123:TYR:CD2	3.07	0.43
1:1:1557:A:N7	1:1:1559:A:N6	2.66	0.43
1:1:1522:U:H4'	1:1:1604:G:O2'	2.19	0.43
1:1:2837:A:H2	1:1:2851:A:N7	2.17	0.43
1:1:283:G:C8	52:N8:61:PHE:CE1	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3199:G:N7	81:1:3895:8UZ:O8	2.51	0.43
1:1:3272:C:O5'	1:1:3272:C:H6	2.00	0.43
1:1:548:G:H2'	1:1:549:U:O4'	2.18	0.43
1:1:685:G:OP1	37:M3:35:ARG:HD2	2.18	0.43
1:1:909:G:N2	1:1:910:G:H1'	2.33	0.43
2:2:1419:G:H2'	2:2:1420:C:C6	2.53	0.43
2:2:648:G:C4	2:2:687:G:N2	2.87	0.43
4:4:41:A:C5'	61:O7:67:LEU:HD12	2.49	0.43
4:4:49:G:C6	4:4:50:C:C4	3.07	0.43
1:5:1003:A:H1'	30:L5:15:ARG:CZ	286.76	0.43
1:5:1779:C:C4	43:M9:89:LEU:HD13	209.96	0.43
1:5:1944:U:H2'	1:5:1945:A:H8	1.84	0.43
1:5:2318:U:C4	1:5:2319:U:C4	3.06	0.43
1:5:2527:G:C2	1:5:2584:G:C2	3.06	0.43
1:5:270:U:H2'	1:5:271:C:C6	2.54	0.43
1:5:2931:C:H2'	1:5:2932:U:O4'	2.19	0.43
1:5:3193:C:H2'	1:5:3194:C:O4'	2.19	0.43
1:5:3210:A:C5	1:5:3211:C:C5	3.06	0.43
1:5:3275:U:H5''	57:O3:68:TRP:CZ2	230.62	0.43
1:5:3283:U:H2'	1:5:3284:G:C8	2.53	0.43
1:5:789:A:H2'	1:5:790:U:C6	2.54	0.43
1:5:810:A:H2'	1:5:811:U:H6	1.83	0.43
2:6:490:C:O2'	2:6:491:C:P	2.77	0.43
2:6:619:A:N3	2:6:1141:G:H1'	2.33	0.43
2:6:766:U:C4	2:6:769:A:N7	2.87	0.43
3:7:14:U:C4	3:7:67:G:N2	2.87	0.43
5:C0:22:VAL:HB	5:C0:32:HIS:CE1	5.78	0.43
7:C2:129:GLU:HA	7:C2:133:LEU:HD22	2.00	0.43
9:C4:117:ASP:OD1	9:C4:119:THR:HG23	2.19	0.43
9:C4:26:THR:HG21	9:C4:97:GLY:CA	2.48	0.43
11:C6:19:VAL:O	11:C6:67:VAL:HA	2.19	0.43
11:C6:28:LEU:HD12	11:C6:30:LYS:HG3	4.55	0.43
2:2:1609:U:OP1	11:C6:76:SER:HB2	2.18	0.43
13:C8:26:ILE:HG13	13:C8:31:ALA:CB	3.25	0.43
13:C8:92:ILE:HD13	13:C8:92:ILE:O	2.18	0.43
19:D4:84:LYS:HG3	19:D4:85:PHE:N	2.33	0.43
23:D8:64:ARG:HD2	23:D8:64:ARG:HA	1.79	0.43
26:E1:102:VAL:C	26:E1:104:SER:H	2.22	0.43
27:L2:105:GLY:HA3	27:L2:160:SER:HB3	2.07	0.43
27:L2:155:LYS:H	27:L2:155:LYS:HG2	3.70	0.43
27:L2:208:ASP:O	27:L2:209:HIS:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:L3:117:ARG:NH2	28:L3:175:LYS:HG2	2.67	0.43
28:L3:232:ARG:HD2	28:L3:269:GLN:O	2.17	0.43
28:L3:280:HIS:HB3	28:L3:324:VAL:HG13	2.00	0.43
29:L4:191:LYS:C	29:L4:193:LYS:N	2.72	0.43
29:L4:206:LEU:HD23	29:L4:226:GLU:O	2.18	0.43
29:L4:347:THR:OG1	29:L4:349:THR:HG23	2.21	0.43
1:L1:1429:G:C5	29:L4:99:MET:HE1	2.53	0.43
30:L5:258:LYS:O	30:L5:258:LYS:HG2	3.93	0.43
1:L1:503:C:H1'	31:L6:23:LYS:HD2	2.00	0.43
32:L7:169:ILE:HD11	32:L7:181:ILE:HG13	1.99	0.43
33:L8:134:TYR:N	33:L8:134:TYR:CD2	3.06	0.43
39:M5:160:GLU:HG2	39:M5:161:ALA:N	2.34	0.43
40:M6:108:ILE:HA	40:M6:109:PRO:HD2	2.26	0.43
40:M6:121:PRO:HA	40:M6:124:LEU:CD2	2.48	0.43
44:N0:139:TYR:CD2	44:N0:140:VAL:HG23	2.54	0.43
51:N7:16:GLY:H	51:N7:19:ALA:HB2	2.12	0.43
51:N7:33:SER:HB2	51:N7:40:HIS:HE1	2.11	0.43
52:N8:65:GLN:O	52:N8:66:ALA:HB3	4.56	0.43
52:N8:69:TRP:CZ2	52:N8:71:PRO:HG2	2.94	0.43
53:N9:11:ASN:O	53:N9:15:LYS:HG3	2.18	0.43
54:O0:40:LYS:HB3	54:O0:101:LEU:HD11	2.01	0.43
55:O1:43:HIS:H	55:O1:43:HIS:CD2	3.19	0.43
57:O3:12:LYS:HD3	57:O3:12:LYS:HA	1.67	0.43
57:O3:16:TYR:OH	57:O3:91:ALA:HB2	2.18	0.43
58:O4:41:ARG:HA	58:O4:56:THR:CG2	2.80	0.43
4:4:113:U:H5''	63:O9:7:PHE:HB3	2.01	0.43
1:5:1925:U:O2	67:Q3:19:GLY:HA2	240.77	0.43
71:S3:55:THR:OG1	71:S3:90:ARG:NE	2.49	0.43
72:S4:126:VAL:HG13	72:S4:158:ASP:O	2.21	0.43
72:S4:121:TYR:CD2	72:S4:161:LYS:HE3	2.78	0.43
72:S4:174:LYS:O	72:S4:179:LYS:HD2	2.18	0.43
72:S4:230:GLU:HB2	72:S4:233:LYS:HZ2	6.74	0.43
72:S4:31:PRO:HG3	72:S4:43:PRO:HG3	2.44	0.43
73:S5:162:VAL:HG23	73:S5:166:ARG:HB3	2.30	0.43
73:S5:214:LYS:HE2	73:S5:218:GLU:OE1	2.19	0.43
74:S6:124:LEU:HA	74:S6:124:LEU:HD12	1.79	0.43
2:2:348:U:O2'	76:S8:14:THR:HG22	2.18	0.43
76:S8:159:GLN:OE1	76:S8:165:LEU:HA	2.56	0.43
79:SR:52:GLN:HG2	79:SR:53:LYS:N	2.34	0.43
1:1:126:U:H2'	1:1:127:G:O4'	2.18	0.43
1:1:1317:A:C8	1:1:1319:G:C8	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2190:U:C5	1:1:2191:U:C5	3.07	0.43
1:1:2252:A:C2	1:1:2265:C:C2	3.07	0.43
1:1:2581:U:H2'	1:1:2582:C:H6	1.83	0.43
1:1:3187:A:C2	1:1:3188:G:H1'	2.53	0.43
1:1:386:A:C5	1:1:387:A:H1'	2.54	0.43
1:1:612:U:H2'	1:1:613:G:H8	1.82	0.43
1:1:801:A:H4'	1:1:802:C:O5'	2.19	0.43
1:1:908:G:C6	1:1:925:A:C8	3.06	0.43
2:2:1086:A:H2'	2:2:1087:A:C8	2.53	0.43
2:2:1283:U:N3	2:2:1425:A:C2	2.87	0.43
2:2:1460:A:C2	2:2:1461:C:C2	3.06	0.43
2:2:1547:A:OP2	13:C8:123:ARG:NH1	2.39	0.43
2:2:1548:G:N2	2:2:1564:U:C2	2.86	0.43
2:2:1762:A:OP2	83:2:2136:HOH:O	2.21	0.43
2:2:190:C:H1'	2:2:191:C:H5'	1.99	0.43
2:2:27:U:C2	2:2:28:A:C8	3.07	0.43
2:2:391:A:H2'	2:2:392:G:O4'	2.18	0.43
2:2:46:A:N6	2:2:433:C:H4'	2.34	0.43
3:3:113:C:H2'	3:3:114:U:O4'	2.18	0.43
3:3:68:C:H6	3:3:68:C:O5'	2.01	0.43
4:4:46:G:H1'	4:4:58:G:N2	2.34	0.43
4:4:92:A:C6	4:4:93:U:C4	3.07	0.43
1:5:1528:G:O2'	1:5:1588:A:N3	2.47	0.43
1:5:2150:G:N2	1:5:2313:A:H2	2.16	0.43
1:5:2932:U:O2	1:5:2934:A:C8	2.72	0.43
1:5:47:C:OP2	1:5:48:A:O2'	2.36	0.43
1:5:61:A:O5'	1:5:61:A:H8	2.02	0.43
1:5:708:G:H5''	1:5:708:G:H8	1.83	0.43
1:5:764:U:HO2'	1:5:765:C:H6	1.64	0.43
1:5:848:A:C5	1:5:849:C:H1'	2.53	0.43
1:5:960:U:H4'	1:5:963:G:N1	2.33	0.43
2:6:1383:G:OP1	15:D0:89:ARG:NH2	446.81	0.43
2:6:448:C:C2	2:6:449:C:C5	3.07	0.43
2:6:474:A:N1	2:6:594:A:H5'	2.33	0.43
2:6:500:C:O2'	2:6:501:U:O5'	2.37	0.43
8:C3:9:LYS:HA	8:C3:9:LYS:HD3	1.99	0.43
9:C4:117:ASP:HB2	21:D6:44:ILE:HD11	7.90	0.43
9:C4:89:THR:O	9:C4:128:LYS:HG3	2.18	0.43
13:C8:121:ALA:O	13:C8:125:ILE:HG13	2.18	0.43
13:C8:30:TYR:HE2	13:C8:40:ARG:NH1	2.12	0.43
13:C8:31:ALA:O	13:C8:34:THR:HG23	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D1:5:LYS:O	16:D1:5:LYS:HG2	2.40	0.43
2:2:600:U:OP2	18:D3:108:GLY:HA2	2.19	0.43
2:6:1793:G:N1	21:D6:75:VAL:HB	322.63	0.43
21:D6:86:VAL:C	21:D6:87:ARG:HG3	2.39	0.43
2:6:1445:G:OP2	26:E1:92:LYS:HE3	396.17	0.43
27:L2:132:ASN:HD22	27:L2:151:PRO:HB3	1.84	0.43
1:5:896:A:H5'	27:L2:183:GLY:HA2	202.69	0.43
27:L2:225:ILE:O	27:L2:238:ILE:O	4.86	0.43
28:L3:117:ARG:HB2	28:L3:117:ARG:HE	2.67	0.43
28:L3:303:LYS:NZ	28:L3:361:THR:HB	2.34	0.43
29:L4:169:LEU:O	29:L4:172:VAL:HG12	2.18	0.43
29:L4:47:ARG:NH1	29:L4:109:TRP:O	2.52	0.43
1:1:1080:A:P	30:L5:140:ARG:NH2	2.92	0.43
30:L5:131:LEU:HD11	30:L5:174:PRO:HA	4.37	0.43
32:L7:116:PHE:HB2	32:L7:199:ASN:OD1	2.19	0.43
33:L8:162:LEU:O	33:L8:165:PHE:CE1	2.71	0.43
34:L9:124:ARG:HD3	34:L9:164:ILE:HG23	2.00	0.43
1:1:2899:C:C5	34:L9:171:ASP:HA	2.54	0.43
34:L9:27:VAL:HG12	34:L9:82:VAL:HG11	2.61	0.43
35:M0:175:ASN:HB3	35:M0:176:LEU:HG	4.52	0.43
36:M1:115:LYS:HG2	36:M1:116:TYR:N	2.31	0.43
36:M1:75:LYS:O	36:M1:79:ILE:HG13	2.56	0.43
1:1:73:C:C2	37:M3:59:ARG:HD3	2.54	0.43
40:M6:85:ARG:HD3	40:M6:90:HIS:CD2	2.54	0.43
41:M7:29:THR:HA	41:M7:87:SER:HB3	2.09	0.43
42:M8:131:ALA:HB1	42:M8:135:GLN:H	2.67	0.43
42:M8:36:LEU:HD23	42:M8:36:LEU:HA	1.77	0.43
3:3:96:U:H4'	44:N0:119:ARG:HB2	2.01	0.43
45:N1:17:ARG:HD2	45:N1:17:ARG:HA	1.74	0.43
50:N6:87:LYS:HG3	50:N6:97:ILE:HD11	2.01	0.43
55:O1:9:THR:HG22	55:O1:109:VAL:HB	2.21	0.43
41:M7:172:GLN:OE1	57:O3:60:ARG:NH1	2.51	0.43
59:O5:101:THR:CG2	59:O5:104:GLN:H	2.24	0.43
62:O8:21:LYS:HD3	62:O8:21:LYS:HA	4.34	0.43
67:Q3:73:THR:HB	67:Q3:76:ALA:CB	4.83	0.43
68:S0:147:THR:O	68:S0:161:PRO:HA	2.50	0.43
69:S1:120:LEU:HD21	69:S1:122:GLU:HG3	2.00	0.43
69:S1:61:LEU:HD23	69:S1:62:LYS:H	1.84	0.43
72:S4:179:LYS:H	72:S4:195:ILE:HG13	3.19	0.43
72:S4:211:LYS:HA	72:S4:216:ASN:O	2.19	0.43
72:S4:255:ARG:O	72:S4:259:GLN:N	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:S5:45:LYS:HD3	73:S5:45:LYS:HA	1.77	0.43
75:S7:84:LYS:HD3	75:S7:84:LYS:HA	2.23	0.43
76:S8:22:ARG:HD2	76:S8:25:ARG:CZ	2.49	0.43
79:SR:40:LYS:HG2	79:SR:66:HIS:O	2.19	0.43
1:1:1355:A:H4'	1:1:1356:U:O5'	2.18	0.43
1:1:1595:U:H1'	1:1:1596:C:C6	2.54	0.43
1:1:1839:A:N6	1:1:1843:C:C2	2.86	0.43
1:1:212:G:C6	1:1:222:A:C5	3.07	0.43
1:1:2137:U:OP2	1:1:2142:A:N6	2.49	0.43
1:1:2428:U:O2	1:1:2601:A:H2	2.01	0.43
1:1:263:C:H2'	1:1:264:G:O4'	2.19	0.43
1:1:2674:A:O4'	36:M1:105:GLY:HA3	2.19	0.43
1:1:748:U:H2'	1:1:749:C:C6	2.54	0.43
2:2:1196:A:H1'	2:2:1602:C:O2'	2.18	0.43
2:2:81:G:H2'	2:2:82:U:O4'	2.18	0.43
2:2:864:U:OP2	22:D7:26:GLN:NE2	2.51	0.43
2:2:882:U:H2'	2:2:883:C:C6	2.53	0.43
1:5:1357:G:C6	1:5:1358:C:C4	3.07	0.43
1:5:1374:G:H2'	1:5:1375:G:O4'	2.19	0.43
1:5:170:G:N3	1:5:249:U:H5	2.16	0.43
1:5:1728:G:H4'	1:5:1729:A:H5''	2.00	0.43
1:5:1744:G:C6	1:5:1745:C:C4	3.07	0.43
1:5:2710:C:H2'	1:5:2711:C:C6	2.54	0.43
1:5:2948:C:H2'	1:5:2949:U:O4'	2.19	0.43
2:6:1163:A:H2'	2:6:1164:G:O4'	2.18	0.43
2:6:1346:A:H4'	2:6:1347:U:OP1	2.18	0.43
2:6:137:U:H5''	2:6:138:A:H5'	2.01	0.43
2:6:1338:C:H1'	2:6:1410:A:C4	2.54	0.43
2:6:1460:A:C5	78:SM:76:VAL:HG13	325.49	0.43
2:6:1735:U:H2'	2:6:1736:G:C8	2.54	0.43
2:6:1757:G:C2	2:6:1758:U:C6	3.07	0.43
7:C2:89:ILE:HG12	7:C2:90:LYS:N	2.34	0.43
10:C5:44:ARG:NH2	10:C5:82:ASN:O	3.40	0.43
12:C7:25:THR:OG1	12:C7:31:ASN:ND2	4.47	0.43
13:C8:72:ILE:HG12	13:C8:79:TYR:CE1	3.35	0.43
14:C9:100:ILE:O	14:C9:104:VAL:HG23	2.58	0.43
17:D2:11:LEU:HD12	17:D2:74:VAL:HB	2.01	0.43
18:D3:86:PHE:HB2	18:D3:120:VAL:HG11	2.30	0.43
21:D6:36:ILE:HG23	21:D6:36:ILE:O	2.19	0.43
22:D7:55:THR:HG21	22:D7:60:SER:HA	4.75	0.43
25:E0:49:LEU:HD13	25:E0:51:ASN:CB	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:L4:118:LYS:O	29:L4:121:ALA:HB3	2.63	0.43
30:L5:110:LEU:HD13	30:L5:171:LEU:HD23	2.00	0.43
32:L7:221:LYS:N	32:L7:229:PHE:CD2	3.78	0.43
36:M1:141:ARG:O	36:M1:145:LYS:HE2	2.19	0.43
37:M3:50:PRO:HA	37:M3:138:VAL:O	2.84	0.43
1:1:1112:A:P	37:M3:5:LYS:HE3	2.59	0.43
38:M4:77:ARG:O	38:M4:81:VAL:HG23	2.18	0.43
1:1:115:A:OP1	39:M5:49:ARG:NE	2.52	0.43
41:M7:16:SER:HA	41:M7:149:VAL:HA	1.99	0.43
43:M9:176:ARG:HA	43:M9:176:ARG:HD3	2.09	0.43
1:1:1095:U:N3	45:N1:127:GLN:HG2	2.33	0.43
1:1:1051:U:H4'	45:N1:19:PHE:CD2	2.53	0.43
47:N3:117:PRO:HB3	47:N3:135:VAL:HG22	2.32	0.43
54:O0:9:SER:OG	54:O0:10:ILE:N	2.65	0.43
56:O2:111:ARG:NE	56:O2:115:LEU:HD11	3.11	0.43
57:O3:102:LEU:HD23	57:O3:102:LEU:HA	2.07	0.43
1:1:1841:A:H2	63:O9:45:ARG:HH22	1.66	0.43
68:S0:69:ASN:HB3	68:S0:71:GLU:OE1	2.35	0.43
69:S1:131:ASP:OD2	69:S1:180:THR:HG21	2.19	0.43
71:S3:167:PHE:O	71:S3:190:ARG:HG2	4.38	0.43
71:S3:21:LEU:HD23	71:S3:21:LEU:HA	1.92	0.43
72:S4:59:ARG:HE	72:S4:59:ARG:HB2	3.34	0.43
73:S5:214:LYS:HE2	73:S5:218:GLU:OE2	2.72	0.43
11:C6:47:LYS:HE2	73:S5:72:HIS:O	2.19	0.43
76:S8:107:THR:O	76:S8:111:GLN:HB2	3.07	0.43
76:S8:5:ARG:HG3	76:S8:28:GLU:O	2.18	0.43
79:SR:245:PHE:CD1	79:SR:252:LEU:HD13	2.77	0.43
79:SR:42:LEU:HD11	79:SR:68:VAL:HG11	2.01	0.43
1:1:1100:U:H2'	1:1:1101:G:C8	2.54	0.43
1:1:1580:A:H5''	1:1:1581:C:C4	2.54	0.43
1:1:1604:G:H3'	1:1:1604:G:N3	2.34	0.43
1:1:1658:G:H2'	1:1:1659:U:H6	1.79	0.43
1:1:1771:C:C4	1:1:1772:U:C5	3.06	0.43
1:1:1873:U:H2'	1:1:1874:A:C8	2.54	0.43
1:1:1556:C:O5'	1:1:2169:G:N2	2.52	0.43
1:1:2525:G:OP2	27:L2:37:ARG:NH1	2.52	0.43
1:1:2557:A:H4'	1:1:2558:U:OP2	2.18	0.43
1:1:2951:G:H2'	1:1:2951:G:N3	2.33	0.43
1:1:314:U:H2'	1:1:315:C:H6	1.81	0.43
1:1:432:G:C2	1:1:628:A:C2	3.07	0.43
1:1:437:G:H2'	1:1:438:A:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:726:G:H8	1:1:726:G:H5''	1.84	0.43
1:1:860:G:OP2	27:L2:181:LYS:NZ	2.47	0.43
2:2:1041:G:H2'	2:2:1042:G:C8	2.54	0.43
2:2:1049:U:H2'	2:2:1050:G:C8	2.54	0.43
2:2:1059:U:C2	2:2:1061:A:C2	3.06	0.43
2:2:113:U:O3'	2:2:114:C:H3'	2.19	0.43
2:2:1208:A:H4'	2:2:1270:G:P	2.59	0.43
2:2:1274:C:H4'	2:2:1275:A:O5'	2.18	0.43
2:2:1147:A:O4'	2:2:1635:A:C2	2.71	0.43
2:2:1796:C:H5'	2:2:1797:A:C8	2.54	0.43
2:2:506:A:H3'	2:2:506:A:OP1	2.19	0.43
2:2:711:U:H1'	2:2:712:G:H5'	2.00	0.43
2:2:766:U:H5'	2:2:767:U:H5''	2.00	0.43
2:2:7:G:O2'	2:2:573:C:H4'	2.18	0.43
2:2:866:G:H2'	2:2:867:G:H8	1.83	0.43
3:3:5:G:C5	3:3:6:C:C5	3.07	0.43
1:5:1805:C:OP1	58:O4:71:THR:HG21	184.86	0.43
1:5:1481:A:H2'	1:5:1858:A:N3	2.33	0.43
1:5:1904:C:N4	1:5:1905:G:C6	2.86	0.43
1:5:2510:U:O2'	1:5:2511:A:P	2.76	0.43
1:5:2653:C:OP1	66:Q2:89:LYS:HB2	235.27	0.43
1:5:2806:U:H2'	1:5:2807:U:C6	2.54	0.43
1:5:3193:C:C2	1:5:3200:G:C2	3.07	0.43
1:5:727:G:C5	1:5:743:C:N4	2.87	0.43
2:6:1268:G:H1'	2:6:1448:G:H5''	2.01	0.43
2:6:1312:A:N7	12:C7:2:GLY:N	395.77	0.43
2:6:1342:C:O2'	2:6:1343:U:H5'	2.18	0.43
2:6:1675:C:H2'	2:6:1676:U:O4'	2.19	0.43
2:6:230:C:C4	2:6:231:U:H1'	2.54	0.43
2:6:498:G:H2'	2:6:499:U:O4'	2.19	0.43
2:6:683:C:H5''	2:6:684:A:OP2	2.19	0.43
2:6:765:G:N7	77:S9:149:ARG:CD	430.50	0.43
4:8:3:A:H2'	4:8:4:C:O4'	2.18	0.43
2:6:1429:G:C1'	15:D0:74:GLU:HG2	377.86	0.43
17:D2:102:VAL:O	17:D2:113:HIS:N	2.51	0.43
17:D2:96:ALA:HB1	17:D2:98:GLN:HE21	2.69	0.43
20:D5:47:TYR:O	20:D5:51:LEU:HD12	2.94	0.43
20:D5:75:LEU:H	20:D5:75:LEU:HG	1.67	0.43
2:6:930:A:P	21:D6:32:LYS:HZ1	310.57	0.43
2:6:477:A:OP1	25:E0:31:LYS:HG2	425.64	0.43
28:L3:320:ASP:OD2	28:L3:320:ASP:N	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:L3:50:LYS:HG2	28:L3:332:ARG:HA	2.01	0.43
29:L4:338:LYS:HD2	29:L4:338:LYS:HA	1.56	0.43
29:L4:34:ILE:O	29:L4:38:VAL:HG23	2.19	0.43
33:L8:206:GLU:HG3	33:L8:206:GLU:H	1.63	0.43
34:L9:109:ALA:HB1	34:L9:111:PHE:CD2	2.54	0.43
35:M0:123:HIS:CG	35:M0:123:HIS:O	2.71	0.43
36:M1:65:ILE:HG22	36:M1:66:ALA:HB2	2.59	0.43
40:M6:106:GLU:HG2	40:M6:106:GLU:H	1.63	0.43
40:M6:23:VAL:HG12	40:M6:27:LEU:HD11	2.01	0.43
40:M6:62:THR:HG22	40:M6:65:ASN:H	2.63	0.43
44:N0:7:TYR:CE1	44:N0:34:GLU:HG2	2.54	0.43
1:1:2698:G:O2'	45:N1:12:ARG:HG3	2.19	0.43
47:N3:110:LYS:O	47:N3:110:LYS:HG3	2.19	0.43
48:N4:63:ILE:C	48:N4:65:GLU:H	4.12	0.43
49:N5:46:TYR:HB3	59:O5:75:TYR:HB3	2.94	0.43
1:1:943:U:O2'	52:N8:12:ARG:HD3	2.18	0.43
55:O1:27:LYS:C	55:O1:30:PRO:HD2	2.65	0.43
55:O1:44:MET:O	55:O1:46:THR:N	2.86	0.43
55:O1:61:LYS:HD3	55:O1:61:LYS:HA	1.79	0.43
69:S1:56:SER:OG	69:S1:59:ASP:OD1	2.37	0.43
70:S2:90:THR:HB	70:S2:93:GLY:H	3.49	0.43
77:S9:109:LEU:HD11	77:S9:134:ILE:HD11	2.01	0.43
1:1:1048:A:H2'	35:M0:22:TYR:CE1	2.53	0.42
1:1:1835:A:C6	1:1:1836:C:C4	3.07	0.42
1:1:2761:G:C4	1:1:2795:U:C5	3.07	0.42
1:1:3361:G:OP2	81:1:3888:8UZ:N2	2.51	0.42
1:1:584:G:H2'	1:1:585:A:H8	1.83	0.42
2:2:1617:U:H4'	23:D8:23:GLY:HA3	2.00	0.42
2:2:386:G:C6	2:2:387:A:N6	2.87	0.42
2:2:757:A:H4'	72:S4:22:LYS:HD3	2.01	0.42
2:2:895:G:C6	2:2:896:U:C4	3.06	0.42
1:5:1037:C:H2'	1:5:1038:C:H6	1.84	0.42
1:5:1346:G:C5	1:5:1347:U:C5	3.07	0.42
1:5:1477:A:C2	1:5:1478:C:C2	3.07	0.42
1:5:1738:C:O2'	58:O4:53:GLY:N	193.50	0.42
1:5:1898:G:N2	1:5:1901:A:N6	2.67	0.42
1:5:2594:C:OP1	81:5:3855:8UZ:C5	2.67	0.42
1:5:270:U:H2'	1:5:271:C:H6	1.84	0.42
1:5:2407:C:H1'	1:5:2818:U:N3	2.34	0.42
1:5:2855:U:H2'	1:5:2856:G:O4'	2.18	0.42
1:5:992:A:C2'	1:5:993:G:H5'	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:6:1674:C:H2'	2:6:1675:C:C6	2.54	0.42
2:6:1793:G:C6	21:D6:75:VAL:HB	322.85	0.42
2:6:417:A:H4'	2:6:418:G:O5'	2.19	0.42
2:6:966:A:H2'	2:6:967:A:C8	2.54	0.42
6:C1:128:CYS:O	6:C1:129:ARG:HB3	4.41	0.42
6:C1:30:ARG:HB3	6:C1:31:THR:H	1.65	0.42
8:C3:114:ARG:HD3	8:C3:114:ARG:HA	1.61	0.42
2:2:1389:C:O2'	12:C7:52:GLY:HA3	2.19	0.42
2:2:1172:G:OP1	13:C8:144:ARG:HD3	2.18	0.42
18:D3:133:LEU:HD23	18:D3:133:LEU:HA	2.39	0.42
19:D4:55:VAL:HG12	19:D4:75:VAL:HA	4.59	0.42
23:D8:58:GLU:OE2	23:D8:61:ARG:HB3	2.19	0.42
23:D8:61:ARG:HH11	23:D8:63:ALA:HB2	1.84	0.42
25:E0:50:VAL:HG23	25:E0:52:GLY:N	6.75	0.42
27:L2:137:ILE:CD1	27:L2:147:ARG:HH11	3.48	0.42
27:L2:193:ARG:NH1	27:L2:193:ARG:HB3	4.38	0.42
28:L3:10:ARG:HD3	28:L3:10:ARG:HH11	1.87	0.42
28:L3:196:ARG:HD2	28:L3:196:ARG:HA	2.43	0.42
28:L3:361:THR:HG23	28:L3:371:GLN:O	2.36	0.42
29:L4:325:LEU:HD23	29:L4:325:LEU:HA	1.99	0.42
33:L8:116:VAL:HA	33:L8:119:GLY:C	5.55	0.42
1:1:2622:C:H42	35:M0:116:ARG:HH12	1.66	0.42
40:M6:43:ILE:HG22	40:M6:44:SER:O	2.77	0.42
29:L4:302:ALA:HA	42:M8:39:ARG:NH1	2.77	0.42
46:N2:80:THR:HG21	46:N2:95:PHE:CD2	5.58	0.42
48:N4:109:LEU:O	48:N4:113:LYS:HB2	2.33	0.42
51:N7:46:ILE:HG13	51:N7:46:ILE:O	2.19	0.42
51:N7:4:PHE:HZ	54:O0:62:LEU:O	6.49	0.42
56:O2:19:ARG:HG3	56:O2:33:ARG:H	1.84	0.42
63:O9:20:ASN:O	63:O9:41:ARG:NE	2.50	0.42
64:Q0:99:CYS:HB2	64:Q0:114:LYS:CD	2.89	0.42
68:S0:108:THR:HA	70:S2:64:LYS:NZ	2.57	0.42
68:S0:74:VAL:HG21	68:S0:118:PRO:HG3	2.01	0.42
68:S0:55:GLU:O	68:S0:58:VAL:HB	2.18	0.42
69:S1:67:GLU:CD	69:S1:83:LYS:HE2	4.57	0.42
70:S2:170:ILE:HB	70:S2:197:TYR:CB	2.47	0.42
70:S2:234:PRO:O	70:S2:235:LEU:HB2	2.19	0.42
74:S6:58:LYS:C	74:S6:60:GLY:H	2.22	0.42
78:SM:102:THR:CG2	78:SM:105:LYS:HD3	3.28	0.42
78:SM:89:ARG:HD3	78:SM:89:ARG:HA	1.94	0.42
1:1:1080:A:H2'	1:1:1081:U:H3'	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1222:G:O2'	1:1:1285:G:N1	2.10	0.42
1:1:1795:U:C2	67:Q3:51:ALA:HB2	2.54	0.42
1:1:2147:A:H2'	1:1:2148:U:O4'	2.18	0.42
1:1:2350:C:O2'	1:1:2351:U:H5'	2.20	0.42
1:1:2443:A:H61	1:1:2504:U:H3	1.66	0.42
1:1:2812:C:O2'	1:1:2813:A:H5'	2.19	0.42
1:1:3163:A:N1	1:1:3288:G:N1	2.67	0.42
1:1:3355:U:H3'	1:1:3356:G:H5''	2.01	0.42
1:1:517:G:H5'	32:L7:67:ARG:HH21	1.85	0.42
1:1:668:G:O6	1:1:795:G:C6	2.72	0.42
1:1:72:C:C2	1:1:74:G:H1'	2.54	0.42
2:2:1150:G:H2'	2:2:1768:G:H21	1.83	0.42
2:2:1162:C:H1'	2:2:1616:G:N2	2.34	0.42
2:2:1286:U:C6	2:2:1286:U:H5'	2.54	0.42
2:2:200:A:H2'	2:2:201:G:C8	2.54	0.42
2:2:28:A:C2	2:2:29:U:C2	3.08	0.42
4:4:9:A:H2'	4:4:10:A:H8	1.80	0.42
1:5:1536:G:C6	1:5:1586:G:C2	3.07	0.42
1:5:1741:A:C8	1:5:1742:U:C5	3.07	0.42
1:5:1741:A:H2'	1:5:1742:U:O4'	2.19	0.42
1:5:1749:A:H8	1:5:1749:A:OP1	2.01	0.42
1:5:2353:G:C5	1:5:2354:C:C5	3.07	0.42
1:5:2386:A:C2	1:5:2387:A:H1'	2.54	0.42
1:5:240:U:O2'	1:5:241:G:H8	2.02	0.42
1:5:2567:C:H2'	1:5:2568:C:H5'	2.00	0.42
1:5:2609:A:H2'	1:5:2610:G:C8	2.55	0.42
1:5:3021:A:H5'	1:5:3023:U:H1'	2.01	0.42
1:5:3266:G:C6	1:5:3267:A:C6	3.07	0.42
1:5:3318:G:C2	1:5:3320:A:N3	2.87	0.42
1:5:3353:G:H4'	1:5:3354:U:OP2	2.18	0.42
1:5:423:A:H2'	1:5:424:G:C8	2.54	0.42
1:5:888:A:H2'	1:5:889:U:O4'	2.19	0.42
2:6:1400:A:C2	2:6:1401:A:C2	3.07	0.42
2:6:1615:C:H4'	2:6:1616:G:OP2	2.18	0.42
2:6:317:C:H2'	2:6:318:U:H6	1.84	0.42
2:6:651:G:N2	2:6:652:G:C6	2.87	0.42
3:7:80:G:OP1	81:7:209:8UZ:C1	2.67	0.42
4:8:104:A:OP2	4:8:105:A:H2'	2.19	0.42
9:C4:17:ALA:O	9:C4:29:HIS:O	2.37	0.42
15:D0:53:LYS:HB3	15:D0:92:ASP:HB2	3.93	0.42
27:L2:113:VAL:HG12	27:L2:134:VAL:HG22	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:L2:188:LYS:O	27:L2:192:LYS:HG3	3.48	0.42
1:5:1579:C:H5''	27:L2:68:LYS:HZ2	172.66	0.42
28:L3:120:LYS:HA	28:L3:120:LYS:HD3	1.75	0.42
28:L3:244:ARG:HH11	28:L3:244:ARG:HG2	3.12	0.42
29:L4:179:LEU:HA	29:L4:179:LEU:HD23	1.77	0.42
29:L4:275:THR:HG22	29:L4:276:LEU:O	2.22	0.42
30:L5:127:GLY:O	30:L5:192:PRO:HB3	2.22	0.42
31:L6:18:LEU:N	31:L6:18:LEU:HD22	2.34	0.42
34:L9:91:ARG:HH21	34:L9:91:ARG:HG3	1.83	0.42
36:M1:34:SER:HA	36:M1:67:VAL:HG11	3.19	0.42
36:M1:19:LEU:HD11	36:M1:79:ILE:HG21	3.29	0.42
38:M4:112:LEU:HD22	38:M4:116:GLU:HB3	2.01	0.42
1:5:30:G:P	39:M5:172:ARG:HH11	107.99	0.42
1:5:1543:G:OP1	39:M5:35:VAL:HG23	141.45	0.42
41:M7:4:TYR:HB3	41:M7:147:GLU:OE2	2.18	0.42
44:N0:80:ARG:NH1	45:N1:156:TYR:HA	2.34	0.42
52:N8:112:ILE:HB	52:N8:130:VAL:HG12	2.53	0.42
54:O0:38:LYS:O	54:O0:93:LEU:HA	2.18	0.42
61:O7:18:LEU:HD11	63:O9:51:ILE:CG2	2.66	0.42
69:S1:138:PHE:CD2	69:S1:214:LYS:HB3	3.40	0.42
69:S1:77:GLU:O	69:S1:80:SER:OG	3.45	0.42
72:S4:180:LEU:HD22	72:S4:192:ILE:HG22	2.01	0.42
72:S4:198:LYS:HG3	72:S4:208:VAL:HG22	4.21	0.42
72:S4:43:PRO:HA	72:S4:82:TYR:O	2.29	0.42
11:C6:114:ARG:CD	73:S5:73:THR:HG23	2.49	0.42
77:S9:171:ARG:HH12	77:S9:174:ARG:HG3	1.84	0.42
77:S9:175:ARG:O	77:S9:179:ARG:HG2	3.94	0.42
1:1:1722:U:C4	1:1:1723:A:C8	3.08	0.42
1:1:2236:G:H8	1:1:2236:G:O5'	2.02	0.42
1:1:2347:U:H2'	1:1:2348:A:O4'	2.18	0.42
1:1:2571:U:O2'	1:1:2572:C:H2'	2.19	0.42
1:1:2969:A:C6	1:1:2970:C:C4	3.08	0.42
1:1:3268:A:H3'	1:1:3269:U:H3'	2.02	0.42
1:1:552:G:C2	1:1:553:U:C2	3.06	0.42
2:2:1142:A:OP1	21:D6:2:PRO:HB3	2.18	0.42
2:2:1236:A:H2'	2:2:1237:G:H8	1.82	0.42
2:2:1483:A:C6	2:2:1484:G:C6	3.07	0.42
2:2:1499:G:C6	2:2:1500:C:C4	3.07	0.42
2:2:276:C:O2'	2:2:278:U:N3	2.32	0.42
2:2:330:G:C6	2:2:331:A:C5	3.07	0.42
4:4:122:U:H2'	4:4:123:G:C8	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1170:A:OP1	32:L7:219:LYS:N	253.50	0.42
1:5:1687:U:H1'	46:N2:75:TYR:CD2	168.86	0.42
1:5:1647:A:C2	1:5:1809:A:H1'	2.54	0.42
1:5:1841:A:C6	1:5:1848:G:N1	2.87	0.42
1:5:2157:G:N2	1:5:2178:A:OP2	2.45	0.42
1:5:421:G:C8	1:5:2365:C:C6	3.07	0.42
1:5:2402:A:H5''	29:L4:67:THR:OG1	172.52	0.42
1:5:2427:U:H2'	1:5:2428:U:C6	2.53	0.42
1:5:2441:A:H4'	1:5:2441:A:OP1	2.19	0.42
1:5:2527:G:N3	1:5:2584:G:N2	2.66	0.42
1:5:3033:A:H2'	1:5:3034:C:C6	2.54	0.42
1:5:615:U:H2'	1:5:616:G:H8	1.84	0.42
1:5:787:G:H2'	1:5:788:C:H6	1.84	0.42
2:6:1024:U:OP1	2:6:1127:G:O2'	2.37	0.42
2:6:1482:C:H4'	11:C6:77:GLN:OE1	407.28	0.42
2:6:1653:C:N4	2:6:1654:G:C6	2.88	0.42
2:6:1661:U:H2'	2:6:1662:G:H8	1.83	0.42
2:6:29:U:H2'	2:6:30:G:H8	1.84	0.42
2:6:330:G:H2'	2:6:331:A:O4'	2.20	0.42
2:6:487:G:H4'	2:6:487:G:OP1	2.19	0.42
2:6:499:U:H6	2:6:499:U:H3'	1.84	0.42
2:6:484:C:N4	2:6:503:G:H22	2.13	0.42
2:6:751:G:C4	2:6:799:A:C2	3.08	0.42
2:6:793:A:H3'	2:6:794:U:C4'	2.50	0.42
3:7:1:G:N3	30:L5:269:SER:OG	310.92	0.42
4:8:75:G:H2'	4:8:76:C:C6	2.54	0.42
5:C0:31:LYS:H	5:C0:38:LYS:HA	3.88	0.42
9:C4:116:GLU:HG3	69:S1:108:ASP:OD1	5.93	0.42
10:C5:97:TYR:HB2	10:C5:102:PHE:CD1	2.54	0.42
12:C7:34:LEU:HD23	12:C7:34:LEU:HA	2.51	0.42
19:D4:60:PHE:CD1	19:D4:71:GLY:HA3	2.54	0.42
25:E0:13:LYS:HE2	25:E0:13:LYS:HB3	4.54	0.42
27:L2:137:ILE:HD13	27:L2:147:ARG:HH11	4.15	0.42
27:L2:80:GLU:N	27:L2:170:ALA:HB2	3.13	0.42
28:L3:106:TRP:HB2	28:L3:133:TYR:CE2	2.55	0.42
28:L3:298:PHE:O	74:S6:25:ARG:NH2	2.52	0.42
28:L3:284:ARG:HB3	28:L3:323:MET:CB	2.49	0.42
28:L3:347:SER:O	28:L3:348:ARG:HB3	2.49	0.42
29:L4:136:LEU:HA	29:L4:136:LEU:HD23	1.76	0.42
29:L4:138:ARG:NH1	29:L4:138:ARG:O	2.52	0.42
29:L4:244:LEU:HA	29:L4:244:LEU:HD23	1.80	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:L4:361:HIS:CG	29:L4:362:ASP:H	2.36	0.42
1:1:365:A:H4'	29:L4:84:ARG:HB2	2.00	0.42
30:L5:148:ILE:HG22	30:L5:149:GLY:O	2.39	0.42
30:L5:93:THR:O	30:L5:93:THR:OG1	2.34	0.42
31:L6:149:ILE:HG23	31:L6:155:LEU:CD1	2.66	0.42
31:L6:175:LYS:HB3	31:L6:175:LYS:HE2	1.73	0.42
33:L8:84:ARG:H	33:L8:84:ARG:HE	1.65	0.42
34:L9:49:ASN:O	34:L9:52:LEU:N	2.51	0.42
36:M1:53:THR:OG1	36:M1:60:ARG:HA	2.66	0.42
36:M1:85:LYS:HE3	36:M1:85:LYS:HB3	1.76	0.42
37:M3:166:ALA:O	37:M3:169:THR:N	2.51	0.42
38:M4:85:TRP:NE1	38:M4:90:VAL:HB	2.34	0.42
40:M6:73:PHE:CD1	40:M6:78:ARG:HG2	2.90	0.42
41:M7:26:PHE:C	41:M7:26:PHE:CD2	2.92	0.42
41:M7:64:ASN:O	41:M7:67:ILE:HG12	3.57	0.42
42:M8:79:LYS:HA	42:M8:136:ASN:OD1	2.19	0.42
40:M6:121:PRO:HD2	44:N0:162:THR:O	2.31	0.42
32:L7:77:VAL:HG22	45:N1:139:ARG:HG2	2.01	0.42
47:N3:125:LEU:HA	47:N3:125:LEU:HD12	1.70	0.42
47:N3:87:ARG:HB2	47:N3:89:ASP:OD1	2.34	0.42
49:N5:92:LYS:HG2	49:N5:112:THR:HG23	4.01	0.42
50:N6:51:ARG:HG3	50:N6:52:ARG:N	2.34	0.42
52:N8:36:GLY:O	52:N8:41:HIS:HB2	2.18	0.42
56:O2:111:ARG:NH2	56:O2:115:LEU:HD11	2.34	0.42
56:O2:77:ALA:O	56:O2:100:ILE:HD12	2.39	0.42
58:O4:74:ARG:CZ	58:O4:74:ARG:HB3	2.48	0.42
54:O0:86:ARG:CZ	67:Q3:44:LYS:HG2	3.19	0.42
67:Q3:58:SER:O	67:Q3:61:LYS:HD3	2.19	0.42
68:S0:150:ASP:OD2	68:S0:165:ARG:NH1	5.09	0.42
70:S2:115:ILE:HD13	70:S2:208:GLU:HG2	2.01	0.42
72:S4:127:LYS:O	72:S4:156:VAL:HG13	2.30	0.42
72:S4:180:LEU:HD13	72:S4:228:ILE:HD12	2.00	0.42
72:S4:20:LEU:HA	72:S4:20:LEU:HD23	1.79	0.42
76:S8:29:LEU:HD23	76:S8:29:LEU:O	2.70	0.42
76:S8:96:LEU:HA	76:S8:96:LEU:HD23	1.89	0.42
78:SM:54:PRO:HG2	78:SM:62:ARG:HG3	2.01	0.42
78:SM:79:SER:H	78:SM:79:SER:HG	1.88	0.42
79:SR:13:LEU:O	79:SR:309:VAL:HG12	3.76	0.42
1:1:1105:A:H2'	1:1:1106:G:H8	1.84	0.42
1:1:1358:C:H2'	1:1:1359:C:H6	1.83	0.42
1:1:189:G:OP2	50:N6:46:LYS:NZ	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2943:G:N7	1:1:2944:U:C4	2.88	0.42
1:1:2944:U:O2'	1:1:2947:G:N7	2.50	0.42
1:1:2953:U:H2'	1:1:2954:U:H2'	2.00	0.42
1:1:357:A:H2'	1:1:358:G:O4'	2.19	0.42
1:1:627:U:H4'	1:1:1399:A:O2'	2.19	0.42
1:1:694:C:H4'	29:L4:232:SER:O	2.19	0.42
1:1:929:A:H2'	1:1:930:U:H6	1.84	0.42
2:2:1000:C:C5	2:2:1003:A:H2'	2.54	0.42
2:2:1492:A:OP2	2:2:1492:A:H3'	2.19	0.42
2:2:1536:G:N1	2:2:1538:U:O2	2.53	0.42
2:2:1679:G:C6	2:2:1680:G:C6	3.07	0.42
2:2:248:U:H4'	6:C1:36:LYS:HD3	2.01	0.42
2:2:261:U:O2'	2:2:262:U:H5	2.02	0.42
2:2:275:C:N3	2:2:276:C:N4	2.67	0.42
2:2:351:C:OP1	2:2:630:A:O2'	2.28	0.42
2:2:499:U:O2'	2:2:500:C:O4'	2.37	0.42
1:1:346:C:C2	4:4:25:G:H4'	2.54	0.42
1:5:1387:G:C2	1:5:1388:U:C5	3.07	0.42
1:5:1525:G:C5	1:5:1829:G:C6	3.07	0.42
1:5:2274:U:O4	1:5:2312:A:C8	2.72	0.42
1:5:2651:G:C4	1:5:2796:G:C2	3.07	0.42
2:6:1182:U:H2'	2:6:1184:A:OP2	2.19	0.42
2:6:137:U:H4'	2:6:138:A:OP2	2.19	0.42
2:6:1429:G:H1'	15:D0:74:GLU:CG	377.84	0.42
2:6:1672:G:H2'	2:6:1673:G:C8	2.54	0.42
2:6:926:A:H1'	2:6:988:A:C2	2.54	0.42
2:6:990:C:O5'	2:6:990:C:H6	2.02	0.42
5:C0:7:ASP:O	5:C0:11:ILE:HG12	2.20	0.42
7:C2:98:GLY:HA2	7:C2:118:ALA:HB2	2.00	0.42
7:C2:52:LEU:HD22	7:C2:57:ALA:HB2	2.40	0.42
7:C2:67:THR:C	7:C2:69:ALA:H	2.22	0.42
9:C4:50:ALA:HB3	9:C4:53:ASP:HB2	2.00	0.42
2:6:1414:U:H5'	12:C7:3:ARG:NE	404.64	0.42
13:C8:49:LYS:HB3	13:C8:72:ILE:HD13	2.02	0.42
14:C9:111:ILE:H	14:C9:111:ILE:HG13	4.34	0.42
16:D1:11:LEU:HG	16:D1:11:LEU:H	1.63	0.42
17:D2:6:VAL:HG13	17:D2:29:PRO:HD2	2.01	0.42
20:D5:57:TYR:CZ	20:D5:68:ARG:HD3	4.77	0.42
23:D8:13:ILE:HG13	23:D8:29:ARG:O	2.19	0.42
25:E0:13:LYS:HE3	25:E0:17:GLN:HE22	4.82	0.42
26:E1:149:LYS:HB2	26:E1:149:LYS:HE2	1.71	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:L2:32:LEU:HD23	27:L2:32:LEU:HA	2.31	0.42
27:L2:54:ARG:HG2	27:L2:55:GLY:O	4.88	0.42
1:1:2882:U:O2'	28:L3:263:SER:OG	2.17	0.42
1:1:3304:U:H1'	28:L3:334:ARG:HH21	1.84	0.42
29:L4:30:ILE:HA	29:L4:124:SER:OG	2.19	0.42
30:L5:78:ALA:CB	30:L5:105:ILE:HG12	2.50	0.42
34:L9:37:ASN:OD1	34:L9:39:LYS:HB2	3.04	0.42
35:M0:171:TRP:CE3	35:M0:178:ARG:HD2	2.54	0.42
37:M3:54:LEU:HD22	37:M3:55:ARG:H	1.84	0.42
39:M5:144:ARG:O	39:M5:145:ASP:HB3	2.19	0.42
39:M5:154:PRO:CB	39:M5:157:LYS:HE3	5.04	0.42
39:M5:38:ARG:HD3	39:M5:39:ALA:N	2.35	0.42
1:5:277:G:H4'	39:M5:91:GLU:HB3	156.24	0.42
40:M6:10:ASP:O	40:M6:14:HIS:CE1	2.98	0.42
1:5:1063:G:N1	45:N1:109:VAL:HG13	240.50	0.42
46:N2:41:ILE:HD13	46:N2:71:PHE:HE2	1.83	0.42
49:N5:63:ILE:HD11	49:N5:84:PHE:CD1	2.61	0.42
58:O4:81:CYS:O	58:O4:82:ALA:HB3	2.23	0.42
58:O4:9:ARG:NH1	58:O4:34:HIS:HB3	2.34	0.42
59:O5:24:LEU:HB3	59:O5:51:ILE:HG12	2.00	0.42
64:Q0:120:GLN:O	64:Q0:121:LEU:HD23	2.44	0.42
68:S0:130:ALA:HA	68:S0:133:ILE:HG13	4.17	0.42
68:S0:88:LYS:HD2	68:S0:88:LYS:HA	3.12	0.42
74:S6:158:ILE:HD12	74:S6:158:ILE:HA	1.89	0.42
2:6:741:C:H42	75:S7:107:ARG:N	355.14	0.42
75:S7:75:THR:OG1	75:S7:76:LYS:N	2.52	0.42
75:S7:9:LEU:HD12	75:S7:9:LEU:HA	4.21	0.42
76:S8:97:THR:O	76:S8:100:ALA:HB2	2.75	0.42
2:2:329:G:H5'	76:S8:99:ALA:HB3	2.00	0.42
77:S9:39:LYS:HB3	77:S9:43:TYR:CZ	2.54	0.42
1:1:1521:G:C2	1:1:1522:U:H5	2.37	0.42
1:1:1667:A:C6	1:1:1668:G:C6	3.07	0.42
1:1:2353:G:C6	1:1:2354:C:C4	3.08	0.42
1:1:2578:U:H2'	1:1:2579:G:O4'	2.20	0.42
1:1:2688:U:OP1	30:L5:12:TYR:OH	2.37	0.42
2:2:1102:G:H2'	2:2:1103:U:O4'	2.18	0.42
2:2:1345:A:OP1	15:D0:54:GLY:N	2.49	0.42
2:2:1494:C:H2'	2:2:1495:C:C6	2.54	0.42
2:2:1791:A:C5	2:2:1793:G:N7	2.87	0.42
2:2:25:C:H1'	2:2:26:A:OP2	2.19	0.42
2:2:38:C:C4	2:2:39:A:N7	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:768:C:H2'	2:2:769:A:O4'	2.18	0.42
3:3:48:U:C2	3:3:49:G:N7	2.87	0.42
1:5:1119:C:H2'	1:5:1120:A:C8	2.55	0.42
1:5:1284:C:N4	1:5:1285:G:N1	2.68	0.42
1:5:1315:U:H4'	1:5:1317:A:O4'	2.20	0.42
1:5:1456:A:N6	55:O1:64:VAL:HG22	166.29	0.42
1:5:1667:A:H2'	1:5:1668:G:C8	2.54	0.42
1:5:1874:A:H5''	43:M9:18:GLY:CA	137.00	0.42
1:5:2249:G:O2'	1:5:2250:G:OP1	2.32	0.42
1:5:2352:A:H2'	1:5:2353:G:C8	2.54	0.42
1:5:3162:C:O2	1:5:3289:G:C2	2.72	0.42
1:5:692:A:H2'	1:5:693:A:H8	1.84	0.42
1:5:751:A:H2'	1:5:752:C:H6	1.85	0.42
1:5:895:A:HO2'	1:5:897:U:H5'	1.85	0.42
2:6:1629:G:H2'	2:6:1630:U:C6	2.51	0.42
2:6:1762:A:O2'	2:6:1763:A:H5'	2.19	0.42
2:6:472:U:H2'	2:6:473:A:H8	1.84	0.42
2:6:570:A:H1'	2:6:574:G:N2	2.35	0.42
2:6:652:G:O2'	2:6:653:C:C6	2.72	0.42
2:6:66:U:H4'	2:6:67:A:OP1	2.18	0.42
2:6:861:U:C4	2:6:862:A:C2	3.07	0.42
2:6:909:U:O2'	2:6:910:C:H5'	2.20	0.42
3:7:64:A:H5''	35:M0:206:LEU:H	335.24	0.42
4:8:143:U:C4	4:8:144:G:N7	2.87	0.42
8:C3:56:ASP:OD1	22:D7:52:THR:OG1	2.34	0.42
8:C3:56:ASP:O	22:D7:46:VAL:HA	2.25	0.42
11:C6:54:LEU:HD12	11:C6:108:ALA:O	2.19	0.42
14:C9:135:ILE:HA	14:C9:138:GLN:HG3	2.02	0.42
14:C9:94:ILE:HD12	14:C9:94:ILE:HA	1.77	0.42
18:D3:131:SER:HB3	18:D3:134:ALA:CB	4.38	0.42
18:D3:54:LEU:HD11	18:D3:82:LYS:HG2	3.17	0.42
18:D3:60:GLU:HG3	25:E0:2:ALA:HB1	6.65	0.42
19:D4:29:HIS:HB2	19:D4:32:ARG:HB2	3.21	0.42
19:D4:3:ASP:O	19:D4:4:ALA:HB3	2.20	0.42
19:D4:61:ARG:HG3	19:D4:61:ARG:O	2.19	0.42
23:D8:26:THR:H	23:D8:44:VAL:HG22	1.84	0.42
26:E1:109:ASP:HB2	26:E1:112:GLY:HA3	6.48	0.42
28:L3:255:TRP:CD1	28:L3:255:TRP:C	2.93	0.42
28:L3:313:HIS:O	28:L3:333:LYS:HE3	2.28	0.42
28:L3:205:VAL:CG1	28:L3:322:ILE:HD11	2.47	0.42
29:L4:300:ARG:HB2	29:L4:301:PRO:HD2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:L5:91:GLY:HA3	30:L5:94:ASN:ND2	2.54	0.42
34:L9:52:LEU:HA	34:L9:52:LEU:HD23	1.93	0.42
35:M0:51:HIS:CE1	35:M0:137:SER:HG	2.33	0.42
37:M3:168:ARG:CZ	37:M3:172:LEU:HD11	2.49	0.42
38:M4:128:ARG:HG2	38:M4:132:LYS:HG3	2.00	0.42
41:M7:180:LYS:HB3	41:M7:180:LYS:NZ	2.34	0.42
43:M9:106:LEU:HA	43:M9:106:LEU:HD12	2.00	0.42
44:N0:151:PRO:C	44:N0:153:PRO:HD3	2.40	0.42
46:N2:27:VAL:HG21	46:N2:107:PHE:HE1	1.82	0.42
49:N5:117:ASN:HB2	63:O9:18:LYS:HD3	2.01	0.42
33:L8:46:LEU:HD12	49:N5:28:THR:O	2.60	0.42
49:N5:61:LYS:HB2	49:N5:61:LYS:HE3	1.91	0.42
1:1:1629:U:O4	51:N7:111:LYS:HD2	2.19	0.42
51:N7:38:PHE:CE2	51:N7:40:HIS:HB3	2.54	0.42
55:O1:13:THR:HG22	55:O1:72:ARG:NH2	4.30	0.42
56:O2:89:THR:HG22	56:O2:117:ILE:HG12	2.00	0.42
1:5:3275:U:C5'	57:O3:68:TRP:HZ2	230.08	0.42
59:O5:94:LYS:O	59:O5:98:SER:HB2	4.26	0.42
60:O6:81:THR:HA	60:O6:84:LYS:HZ1	4.08	0.42
68:S0:76:ILE:O	68:S0:124:THR:HG23	2.19	0.42
16:D1:34:ILE:CD1	68:S0:142:PRO:HB3	2.49	0.42
72:S4:181:VAL:HG11	72:S4:210:ILE:HD12	2.26	0.42
73:S5:125:THR:O	73:S5:127:GLN:HB2	2.19	0.42
74:S6:121:LEU:HD12	74:S6:121:LEU:HA	4.47	0.42
74:S6:67:VAL:HG21	74:S6:99:GLY:HA2	2.00	0.42
75:S7:154:LEU:HD11	75:S7:183:PHE:CD1	2.81	0.42
2:6:329:G:H5'	76:S8:99:ALA:HB3	272.78	0.42
77:S9:95:TYR:O	77:S9:99:LEU:N	2.51	0.42
1:1:1602:A:C6	1:1:1603:A:C6	3.08	0.42
1:1:1642:A:O2'	1:1:1643:A:C8	2.73	0.42
1:1:1764:U:H6	1:1:1764:U:O5'	2.03	0.42
1:1:2245:C:C5	1:1:2246:G:C8	3.07	0.42
1:1:2407:C:H2'	1:1:2408:U:H6	1.84	0.42
1:1:2420:C:C4	1:1:2421:U:C5	3.07	0.42
1:1:2513:U:C6	1:1:2592:G:C6	3.07	0.42
1:1:2881:C:H2'	1:1:2882:U:C6	2.54	0.42
1:1:3237:U:H2'	1:1:3238:G:O4'	2.20	0.42
1:1:505:G:C5	1:1:506:U:C5	3.08	0.42
1:1:705:A:C6	1:1:715:A:N7	2.87	0.42
2:2:1156:C:C2'	2:2:1157:A:H5'	2.50	0.42
2:2:1250:U:O2'	2:2:1251:U:OP1	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:1451:C:O2'	2:2:1452:U:H5'	2.20	0.42
2:2:27:U:H2'	2:2:28:A:H8	1.84	0.42
2:2:425:A:C8	2:2:425:A:H5'	2.53	0.42
2:2:702:G:C2	2:2:703:G:H1'	2.54	0.42
2:2:804:A:N3	17:D2:105:THR:HG22	2.35	0.42
2:2:885:G:H21	9:C4:123:SER:HB2	1.84	0.42
4:4:83:C:H42	50:N6:52:ARG:NH1	2.17	0.42
1:5:1724:U:OP2	43:M9:128:LYS:NZ	233.82	0.42
1:5:2168:A:N1	1:5:2170:U:H1'	2.35	0.42
1:5:2572:C:O2'	1:5:2573:G:P	2.78	0.42
1:5:1054:A:H5''	1:5:2637:A:H61	1.84	0.42
1:5:2773:C:H2'	1:5:2774:C:H6	1.85	0.42
1:5:315:C:C4	1:5:316:U:C4	3.08	0.42
1:5:3216:G:H3'	1:5:3219:G:N3	2.33	0.42
2:6:1032:G:C2	2:6:1104:U:C2	3.07	0.42
2:6:116:U:H2'	2:6:117:U:C5	2.54	0.42
2:6:1218:G:O4'	2:6:1444:A:N6	2.53	0.42
2:6:1534:G:O2'	2:6:1535:U:OP2	2.34	0.42
2:6:1595:U:H3	2:6:1600:A:H2	1.65	0.42
2:6:151:G:H22	2:6:163:G:N2	2.16	0.42
2:6:1006:C:H1'	2:6:1769:U:C5	2.54	0.42
9:C4:17:ALA:N	9:C4:80:HIS:O	2.56	0.42
10:C5:103:ASN:OD1	10:C5:120:SER:OG	2.27	0.42
15:D0:82:TYR:HE1	24:D9:54:LYS:HD3	1.85	0.42
16:D1:1:MET:CE	16:D1:13:VAL:HG22	2.49	0.42
17:D2:93:LEU:HD12	17:D2:128:PHE:CD1	2.81	0.42
23:D8:32:PHE:CZ	23:D8:38:ARG:HB3	2.55	0.42
24:D9:36:LEU:HD12	24:D9:38:ILE:HG13	2.01	0.42
24:D9:54:LYS:H	24:D9:54:LYS:HG2	3.04	0.42
1:5:2201:G:O2'	27:L2:222:ALA:HB3	215.58	0.42
1:5:1347:U:H5''	29:L4:303:GLY:HA3	196.45	0.42
30:L5:211:LEU:HA	30:L5:211:LEU:HD23	2.13	0.42
30:L5:8:LYS:HG2	30:L5:12:TYR:CD1	2.54	0.42
32:L7:228:SER:H	32:L7:232:ARG:NH2	5.43	0.42
32:L7:77:VAL:HG13	45:N1:139:ARG:HB2	5.52	0.42
33:L8:78:PHE:C	33:L8:80:TYR:H	2.23	0.42
35:M0:76:MET:HE3	35:M0:138:VAL:HG11	2.00	0.42
1:1:2736:A:OP1	45:N1:92:ARG:NH1	2.50	0.42
46:N2:43:VAL:HG21	46:N2:50:LEU:HA	2.00	0.42
50:N6:31:LEU:HD23	50:N6:31:LEU:HA	1.75	0.42
52:N8:125:VAL:HG21	52:N8:138:ILE:CD1	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:O1:54:GLU:CD	55:O1:54:GLU:H	2.54	0.42
56:O2:115:LEU:HA	56:O2:115:LEU:HD23	1.73	0.42
56:O2:9:ILE:HG23	56:O2:63:THR:HB	2.01	0.42
31:L6:85:ILE:HG12	57:O3:107:ILE:HG21	3.70	0.42
59:O5:10:ARG:NH1	59:O5:60:GLU:OE1	2.60	0.42
59:O5:90:ARG:HG2	59:O5:90:ARG:H	2.28	0.42
61:O7:21:ARG:NE	61:O7:39:TYR:HB2	2.59	0.42
62:O8:14:LEU:HD23	62:O8:14:LEU:HA	1.69	0.42
66:Q2:83:LEU:HD23	66:Q2:83:LEU:HA	1.77	0.42
70:S2:218:ILE:H	70:S2:218:ILE:HG13	1.51	0.42
68:S0:109:ASN:H	70:S2:64:LYS:HZ2	2.93	0.42
71:S3:167:PHE:HD1	71:S3:190:ARG:HH11	1.67	0.42
5:C0:14:TYR:OH	71:S3:75:LYS:HE3	2.19	0.42
72:S4:131:LEU:HA	72:S4:131:LEU:HD22	1.91	0.42
74:S6:84:TYR:CZ	74:S6:86:PRO:HA	2.84	0.42
77:S9:40:LYS:HB2	77:S9:40:LYS:HE3	1.81	0.42
77:S9:52:ILE:HG23	77:S9:76:LEU:HD11	2.49	0.42
71:S3:222:VAL:HG23	79:SR:191:ASP:O	3.40	0.42
1:1:1481:A:C2	58:O4:4:ARG:NE	2.87	0.42
1:1:1781:C:H2'	1:1:1782:U:C6	2.55	0.42
1:1:1927:G:OP1	67:Q3:8:VAL:HG13	2.20	0.42
1:1:1556:C:P	1:1:2169:G:H21	2.43	0.42
1:1:2244:A:C8	27:L2:243:THR:HG21	2.55	0.42
1:1:2276:G:C5	1:1:2277:C:C5	3.07	0.42
1:1:250:U:H3'	1:1:251:G:C5'	2.49	0.42
1:1:2688:U:C6	1:1:2689:A:C6	3.08	0.42
1:1:2943:G:C8	28:L3:2:SER:N	2.87	0.42
1:1:296:A:C6	1:1:297:G:O6	2.73	0.42
1:1:3078:U:H4'	1:1:3079:U:O5'	2.19	0.42
1:1:412:G:C6	1:1:413:U:C4	3.07	0.42
2:2:1459:C:H6	2:2:1459:C:OP2	2.03	0.42
2:2:163:G:OP2	2:2:163:G:N2	2.43	0.42
2:2:286:C:H2'	2:2:287:G:H5'	2.02	0.42
2:2:623:A:C2	2:2:1105:C:H1'	2.55	0.42
2:2:624:G:H2'	2:2:625:C:C6	2.55	0.42
2:2:628:G:HO2'	2:2:629:U:H6	1.67	0.42
2:2:717:C:H42	2:2:720:G:N2	2.17	0.42
1:5:1581:C:OP1	1:5:1581:C:H3'	2.20	0.42
1:5:1839:A:C5	1:5:1843:C:C4	3.07	0.42
1:5:2237:C:H2'	1:5:2238:G:C8	2.54	0.42
1:5:1895:A:C5	1:5:2335:G:N7	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2376:G:O2'	1:5:2377:G:H5'	2.20	0.42
1:5:2666:C:C2'	1:5:2667:A:H5''	2.50	0.42
1:5:2807:U:O3'	1:5:2808:A:H3'	2.19	0.42
1:5:2836:C:N4	1:5:2837:A:C6	2.88	0.42
1:5:3195:U:O2	1:5:3195:U:H2'	2.19	0.42
1:5:3165:A:N6	1:5:3285:C:H42	2.15	0.42
1:5:3332:U:OP1	48:N4:35:LYS:HE3	221.96	0.42
1:5:595:G:H1	1:5:609:G:H5''	1.85	0.42
1:5:678:G:C6	1:5:679:U:C4	3.08	0.42
1:5:73:C:O2	37:M3:59:ARG:HD3	88.54	0.42
2:6:1435:G:H4'	2:6:1436:A:H5'	2.00	0.42
2:6:476:U:H5''	2:6:477:A:O4'	2.20	0.42
2:6:503:G:H2'	2:6:504:U:H5'	2.02	0.42
2:6:645:C:H2'	2:6:646:C:C6	2.54	0.42
2:6:767:U:C5	19:D4:64:PHE:CE1	425.91	0.42
4:8:27:U:H2'	4:8:28:C:C6	2.55	0.42
9:C4:92:LYS:HE2	9:C4:92:LYS:HB2	2.75	0.42
10:C5:100:LYS:HD2	10:C5:101:ALA:N	2.35	0.42
11:C6:113:ASP:HB3	11:C6:114:ARG:H	1.68	0.42
11:C6:125:GLU:HG2	11:C6:126:PRO:CD	2.48	0.42
12:C7:19:ARG:HG2	12:C7:19:ARG:H	1.47	0.42
13:C8:24:GLY:O	13:C8:26:ILE:HG23	2.20	0.42
14:C9:115:GLU:HG3	14:C9:123:ARG:HD3	4.44	0.42
2:6:1480:G:H4'	14:C9:11:ALA:HB1	398.15	0.42
2:2:1281:G:O3'	15:D0:76:SER:OG	2.37	0.42
17:D2:111:MET:HE1	17:D2:116:ALA:HA	2.01	0.42
17:D2:86:ILE:H	17:D2:86:ILE:HG13	1.51	0.42
18:D3:126:LYS:HB3	18:D3:131:SER:N	2.33	0.42
23:D8:10:ALA:HB3	23:D8:56:LEU:HD21	2.02	0.42
25:E0:39:LEU:HA	25:E0:39:LEU:HD13	2.23	0.42
2:6:987:G:C6	27:L2:249:SER:HB2	252.06	0.42
28:L3:19:ARG:HB3	28:L3:232:ARG:HH12	1.83	0.42
28:L3:227:GLU:HG3	28:L3:228:GLY:N	2.34	0.42
30:L5:114:GLY:C	30:L5:116:ASP:H	2.23	0.42
3:7:22:A:N1	30:L5:269:SER:O	318.96	0.42
32:L7:84:VAL:HG22	32:L7:137:GLY:O	2.20	0.42
33:L8:238:LEU:HB3	33:L8:242:ALA:HB3	2.64	0.42
33:L8:41:GLN:CG	33:L8:44:ARG:HH12	2.28	0.42
34:L9:188:THR:CG2	34:L9:189:GLU:H	4.71	0.42
34:L9:78:MET:HB2	34:L9:78:MET:HE3	2.34	0.42
37:M3:105:ASN:HD21	60:O6:17:VAL:HG21	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:M3:110:ASP:O	37:M3:114:GLN:HB2	2.19	0.42
37:M3:46:ILE:HD12	37:M3:49:ARG:CZ	2.49	0.42
40:M6:76:PRO:HD2	40:M6:106:GLU:OE1	2.20	0.42
45:N1:85:LEU:HD23	45:N1:85:LEU:HA	2.05	0.42
46:N2:89:LEU:O	46:N2:93:ILE:HG13	2.20	0.42
47:N3:102:ILE:HG13	47:N3:110:LYS:HB3	2.01	0.42
51:N7:46:ILE:CD1	51:N7:68:ILE:HG23	2.48	0.42
52:N8:3:SER:O	52:N8:6:THR:HG22	2.24	0.42
58:O4:67:LYS:HA	58:O4:70:LYS:HE3	2.13	0.42
60:O6:15:LYS:HG3	60:O6:16:LYS:N	2.34	0.42
1:1:266:A:N6	60:O6:30:LYS:HA	2.34	0.42
1:5:2767:U:O3'	66:Q2:31:GLY:HA3	189.37	0.42
67:Q3:73:THR:HG22	67:Q3:75:ALA:N	4.10	0.42
70:S2:162:CYS:N	70:S2:213:ALA:HB2	2.48	0.42
71:S3:12:VAL:O	71:S3:16:VAL:HG23	2.81	0.42
72:S4:18:TRP:HH2	72:S4:31:PRO:HD3	2.29	0.42
75:S7:152:VAL:O	75:S7:183:PHE:HA	2.19	0.42
76:S8:196:LEU:HD23	76:S8:196:LEU:HA	4.36	0.42
79:SR:278:PHE:CE1	79:SR:287:PRO:HD2	2.69	0.42
79:SR:295:SER:HB2	79:SR:300:THR:HB	2.01	0.42
1:1:1080:A:OP1	30:L5:140:ARG:HB2	2.19	0.42
1:1:1105:A:H2'	1:1:1106:G:C8	2.54	0.42
1:1:1185:C:OP1	38:M4:42:LYS:HE2	2.19	0.42
1:1:2166:A:H2'	1:1:2167:A:O4'	2.20	0.42
1:1:2419:A:H1'	1:1:2804:A:O4'	2.20	0.42
1:1:2413:A:C2	1:1:2810:C:N3	2.88	0.42
1:1:3047:U:O2'	28:L3:53:MET:HE3	2.19	0.42
1:1:3353:G:H4'	1:1:3354:U:OP2	2.20	0.42
1:1:392:G:H2'	1:1:393:U:H6	1.84	0.42
1:1:505:G:H5''	29:L4:315:LYS:HG2	2.01	0.42
1:1:535:G:C6	1:1:555:U:N3	2.88	0.42
1:1:879:U:H1'	41:M7:135:ARG:HH22	1.84	0.42
1:1:891:G:C6	1:1:892:U:C4	3.08	0.42
1:1:975:C:H2'	1:1:976:U:H6	1.85	0.42
2:2:1558:U:H3'	2:2:1559:A:H4'	2.02	0.42
2:2:1594:G:C5	2:2:1595:U:N3	2.88	0.42
2:2:161:U:OP2	74:S6:87:ARG:NH2	2.53	0.42
2:2:1790:A:O2'	2:2:1791:A:H5'	2.19	0.42
2:2:268:C:O2'	2:2:269:G:H5'	2.19	0.42
2:2:416:A:H4'	2:2:417:A:OP2	2.20	0.42
2:2:819:G:C6	2:2:853:G:C2	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:927:C:H2'	2:2:928:U:C6	2.54	0.42
4:4:65:A:H2'	4:4:66:A:C8	2.55	0.42
1:5:1121:U:H2'	1:5:1122:U:H6	1.84	0.42
1:5:1690:C:H2'	1:5:1691:U:O4'	2.19	0.42
1:5:1757:A:N3	1:5:1769:G:C2	2.88	0.42
1:5:1811:G:H2'	1:5:1812:G:O4'	2.20	0.42
1:5:232:G:H2'	1:5:233:C:O4'	2.20	0.42
1:5:776:U:C5	1:5:2719:U:O2	2.73	0.42
1:5:282:G:H2'	1:5:286:U:C6	2.53	0.42
1:5:74:G:C2	1:5:75:G:C8	3.07	0.42
1:5:760:G:H1'	1:5:770:G:N2	2.35	0.42
1:5:810:A:C4	1:5:811:U:C5	3.07	0.42
1:5:823:C:O2'	1:5:824:C:H5'	2.19	0.42
2:6:1433:G:C4	24:D9:41:GLN:HB3	401.80	0.42
2:6:1595:U:H5	2:6:1596:C:C5	2.38	0.42
5:C0:22:VAL:HB	5:C0:32:HIS:NE2	6.70	0.42
6:C1:75:VAL:HG22	6:C1:86:ILE:HG22	2.02	0.42
8:C3:34:ILE:CG1	8:C3:67:THR:HG21	2.46	0.42
8:C3:89:TYR:CD2	8:C3:150:VAL:HG22	2.54	0.42
10:C5:92:SER:HB2	10:C5:107:ILE:HD11	5.19	0.42
13:C8:99:HIS:CD2	13:C8:101:LEU:HD21	6.42	0.42
13:C8:30:TYR:CE2	13:C8:40:ARG:HD2	2.78	0.42
13:C8:47:CYS:SG	13:C8:54:LEU:HD11	2.59	0.42
20:D5:91:PRO:HB3	20:D5:101:TYR:HE1	2.85	0.42
20:D5:62:VAL:O	20:D5:66:VAL:HG23	2.20	0.42
26:E1:99:LYS:O	26:E1:100:LEU:HD23	5.56	0.42
28:L3:28:ARG:HH21	28:L3:30:LYS:HE2	1.85	0.42
3:3:49:G:O6	30:L5:58:LYS:HE2	2.20	0.42
33:L8:67:ILE:HG22	33:L8:237:ILE:HB	2.02	0.42
34:L9:188:THR:CG2	34:L9:189:GLU:N	4.74	0.42
35:M0:208:ASN:HA	35:M0:211:ARG:HH11	5.43	0.42
3:7:28:C:H5''	36:M1:137:ARG:HG2	303.74	0.42
36:M1:166:LYS:C	36:M1:168:ASP:H	2.48	0.42
36:M1:54:VAL:O	36:M1:55:ARG:HB3	2.20	0.42
36:M1:55:ARG:O	36:M1:55:ARG:HG2	2.20	0.42
37:M3:157:ARG:H	52:N8:99:ALA:H	1.67	0.42
37:M3:46:ILE:HA	37:M3:46:ILE:HD13	1.60	0.42
41:M7:78:VAL:HG13	41:M7:80:LYS:N	2.35	0.42
2:2:850:A:C5'	43:M9:165:LYS:HD3	2.48	0.42
45:N1:99:SER:OG	45:N1:101:CYS:SG	3.27	0.42
1:1:2338:C:H1'	47:N3:49:LEU:HD12	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:N7:100:THR:HG21	51:N7:110:ALA:HB2	2.01	0.42
51:N7:116:LYS:O	51:N7:120:GLU:HB2	2.19	0.42
51:N7:10:VAL:O	51:N7:83:THR:HG22	2.34	0.42
52:N8:28:HIS:CD2	52:N8:32:ARG:HG2	2.55	0.42
53:N9:21:ILE:HA	53:N9:21:ILE:HD13	2.35	0.42
55:O1:29:ALA:HB2	55:O1:64:VAL:HA	2.41	0.42
57:O3:16:TYR:CZ	57:O3:91:ALA:HB2	2.55	0.42
59:O5:17:LEU:HA	59:O5:20:GLN:HB2	2.19	0.42
16:D1:4:ASP:HA	70:S2:147:ASN:HB3	2.02	0.42
70:S2:90:THR:HB	70:S2:93:GLY:N	2.94	0.42
2:6:1333:C:C4'	71:S3:162:GLN:HG3	428.24	0.42
72:S4:141:THR:OG1	72:S4:143:ASP:OD2	2.43	0.42
72:S4:210:ILE:O	72:S4:217:THR:HA	2.38	0.42
72:S4:159:THR:HG21	72:S4:227:VAL:O	2.34	0.42
72:S4:252:ARG:O	72:S4:256:ARG:HG2	5.23	0.42
73:S5:56:ALA:C	73:S5:57:SER:HG	2.45	0.42
75:S7:102:PRO:HA	75:S7:106:SER:O	7.04	0.42
75:S7:131:PHE:HB3	75:S7:132:PRO:CD	2.50	0.42
76:S8:195:ARG:O	76:S8:199:LYS:HD3	2.19	0.42
2:2:474:A:H5''	77:S9:144:PRO:HD2	2.01	0.42
1:1:1219:C:O2'	1:1:1220:U:H5''	2.19	0.42
1:1:1728:G:C8	1:1:1730:G:N2	2.88	0.42
1:1:1887:A:H5'	28:L3:226:PHE:O	2.20	0.42
1:1:1950:U:O5'	1:1:1950:U:H6	2.03	0.42
1:1:2249:G:C8	1:1:2272:G:C5	3.08	0.42
1:1:2256:A:H61	2:2:1756:A:H2'	1.85	0.42
1:1:2338:C:O3'	47:N3:48:ARG:HG2	2.19	0.42
1:1:3010:U:O2'	1:1:3011:A:H2'	2.19	0.42
1:1:3180:A:H4'	40:M6:116:LYS:HB2	2.01	0.42
1:1:3332:U:C5	1:1:3333:G:C5	3.08	0.42
1:1:1776:G:O6	81:1:3887:8UZ:O9	2.38	0.42
2:2:1409:G:N2	2:2:1411:A:H3'	2.34	0.42
2:2:1425:A:C6	2:2:1426:C:N4	2.88	0.42
2:2:545:A:H4'	2:2:546:U:OP1	2.20	0.42
3:3:47:C:C2	3:3:48:U:C5	3.08	0.42
3:3:95:A:H5''	81:3:214:8UZ:N3	2.35	0.42
1:5:1152:G:N2	1:5:1200:A:H61	2.17	0.42
1:5:2207:A:H5''	2:6:913:G:N1	2.35	0.42
1:5:2209:U:HO2'	1:5:2210:G:P	2.41	0.42
1:5:2355:G:OP1	41:M7:141:SER:OG	136.55	0.42
1:5:2436:U:H3	1:5:2511:A:H62	1.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2656:A:OP1	66:Q2:98:LYS:HG2	248.48	0.42
1:5:155:G:C4	1:5:266:A:C2	3.08	0.42
1:5:2817:A:H4'	1:5:2818:U:OP2	2.20	0.42
1:5:3162:C:O2	1:5:3289:G:N2	2.53	0.42
1:5:49:A:C2	1:5:279:U:H4'	2.54	0.42
1:5:929:A:H2'	1:5:930:U:H6	1.85	0.42
2:6:1292:G:H2'	2:6:1293:U:C6	2.55	0.42
2:6:1490:C:O4'	2:6:1490:C:P	2.77	0.42
2:6:1581:C:O5'	2:6:1581:C:H6	2.03	0.42
2:6:1785:U:OP1	9:C4:136:ARG:NH1	299.26	0.42
2:6:1797:A:C6	21:D6:84:VAL:HG22	339.51	0.42
2:6:212:U:H2'	2:6:213:A:C8	2.54	0.42
2:6:888:U:H2'	2:6:889:U:C6	2.55	0.42
4:8:21:C:N4	4:8:22:U:O4	2.53	0.42
4:8:6:U:H2'	4:8:7:U:C6	2.55	0.42
10:C5:100:LYS:HG3	10:C5:101:ALA:H	2.52	0.42
11:C6:128:LYS:HE2	11:C6:134:ALA:CA	5.42	0.42
2:2:1558:U:C5	13:C8:122:HIS:CD2	3.07	0.42
15:D0:43:LYS:HD2	15:D0:43:LYS:HA	1.58	0.42
16:D1:15:ARG:HH21	70:S2:59:HIS:C	2.49	0.42
17:D2:27:ILE:CG1	17:D2:61:ILE:HB	2.48	0.42
19:D4:113:ASN:HA	19:D4:116:LYS:CD	3.06	0.42
20:D5:61:SER:O	20:D5:65:LEU:HG	2.19	0.42
21:D6:35:ALA:O	21:D6:73:TYR:O	2.38	0.42
21:D6:45:VAL:O	21:D6:46:GLU:HB3	2.19	0.42
23:D8:5:THR:OG1	23:D8:5:THR:O	2.30	0.42
28:L3:229:VAL:HG12	28:L3:247:ARG:O	3.17	0.42
29:L4:138:ARG:HH21	29:L4:240:PRO:HB2	1.86	0.42
30:L5:99:TYR:CD2	30:L5:199:ILE:HG23	2.55	0.42
32:L7:159:GLN:O	32:L7:160:ARG:C	2.58	0.42
29:L4:311:HIS:CD2	32:L7:164:SER:OG	5.19	0.42
32:L7:173:LEU:HA	32:L7:173:LEU:HD12	1.80	0.42
33:L8:165:PHE:O	33:L8:169:LEU:HB2	2.39	0.42
33:L8:53:PRO:HB2	33:L8:56:VAL:HG23	2.45	0.42
34:L9:112:ILE:HG21	34:L9:161:LEU:HD11	2.02	0.42
34:L9:173:ARG:HB3	64:Q0:127:LEU:HB2	2.83	0.42
34:L9:45:PHE:CD1	34:L9:55:VAL:HG13	3.19	0.42
37:M3:41:THR:O	37:M3:44:ALA:HB3	2.69	0.42
40:M6:58:LEU:HD11	40:M6:74:ARG:NH2	3.02	0.42
42:M8:178:ARG:HA	42:M8:178:ARG:HD2	3.01	0.42
43:M9:25:ASP:OD1	43:M9:28:GLU:N	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:N0:154:HIS:HA	44:N0:170:THR:HB	2.20	0.42
44:N0:16:THR:HG23	44:N0:19:VAL:N	2.33	0.42
44:N0:26:ARG:HH11	45:N1:150:THR:CG2	2.62	0.42
48:N4:57:LYS:HB2	48:N4:57:LYS:HE3	1.72	0.42
50:N6:71:SER:HB3	50:N6:83:ASP:HB2	2.02	0.42
80:M8:201:MG:MG	52:N8:47:LYS:HA	1.45	0.42
56:O2:105:ARG:HD3	56:O2:124:GLY:HA3	3.67	0.42
59:O5:35:LYS:HB2	59:O5:41:LEU:HD23	2.02	0.42
60:O6:53:TYR:O	60:O6:57:LEU:HB2	2.75	0.42
1:5:1548:C:H4'	61:O7:43:LYS:HE3	119.30	0.42
27:L2:112:ILE:HD11	67:Q3:79:VAL:HG11	5.54	0.42
68:S0:179:ARG:HD3	68:S0:183:ARG:HD2	2.02	0.42
72:S4:94:ALA:C	72:S4:96:ASN:H	2.23	0.42
73:S5:73:THR:OG1	73:S5:91:GLU:OE1	3.00	0.42
76:S8:22:ARG:HG3	76:S8:23:LYS:N	2.35	0.42
79:SR:34:LEU:HB2	79:SR:73:LEU:HD11	2.65	0.42
79:SR:22:SER:HB2	79:SR:70:ASP:HA	2.01	0.42
1:1:1167:U:H2'	1:1:1168:U:O4'	2.20	0.42
1:1:1219:C:C4'	1:1:1223:A:H1'	2.49	0.42
1:1:951:A:C4	1:1:1369:A:C2	3.07	0.42
1:1:1404:G:N2	1:1:1408:G:C4	2.87	0.42
1:1:1762:C:H2'	1:1:1762:C:H6	1.50	0.42
1:1:1790:G:C6	1:1:1791:C:C4	3.08	0.42
1:1:187:A:N7	83:1:4049:HOH:O	2.37	0.42
1:1:2094:C:H2'	1:1:2095:G:C8	2.54	0.42
1:1:2597:U:H2'	1:1:2598:G:H8	1.85	0.42
1:1:2709:C:H2'	1:1:2710:C:H6	1.83	0.42
1:1:2730:G:H4'	42:M8:184:PHE:CD1	2.55	0.42
1:1:3218:A:H5'	1:1:3219:G:C5	2.55	0.42
1:1:641:C:H2'	1:1:642:U:O4'	2.19	0.42
1:1:884:A:P	61:O7:5:THR:HG23	2.60	0.42
1:1:900:G:H2'	1:1:901:G:H8	1.85	0.42
1:1:937:G:N3	1:1:963:G:H1'	2.35	0.42
2:2:1358:G:H2'	2:2:1359:C:C6	2.54	0.42
2:2:1389:C:O2	2:2:1390:U:H4'	2.19	0.42
2:2:1429:G:C6	2:2:1430:U:C4	3.08	0.42
2:2:1546:G:C2	2:2:1566:U:O2	2.73	0.42
2:2:1594:G:OP2	2:2:1596:C:N4	2.53	0.42
2:2:180:A:H2'	2:2:181:A:O4'	2.20	0.42
2:2:567:A:H4'	25:E0:10:ARG:O	2.20	0.42
2:2:779:U:OP2	2:2:780:A:C2	2.71	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:406:G:N3	4:4:16:G:C2	2.88	0.42
1:5:152:U:H5''	1:5:153:U:OP2	2.19	0.42
1:5:2356:A:OP1	41:M7:138:LYS:NZ	146.86	0.42
1:5:3384:U:H2'	1:5:3385:U:C6	2.55	0.42
1:5:764:U:H2'	1:5:765:C:H2'	2.02	0.42
1:5:908:G:C4	1:5:925:A:C6	3.08	0.42
1:5:92:G:H5'	1:5:93:C:H5''	2.01	0.42
2:6:1747:G:O2'	2:6:1748:G:H5'	2.19	0.42
2:6:577:G:H3'	2:6:577:G:C8	2.55	0.42
2:6:68:A:OP1	74:S6:160:ARG:NH2	345.90	0.42
4:8:22:U:H4'	4:8:23:U:OP1	2.20	0.42
2:6:626:U:HO2'	8:C3:113:PHE:HZ	306.40	0.42
9:C4:116:GLU:OE1	69:S1:106:THR:HA	2.42	0.42
9:C4:29:HIS:HB2	9:C4:41:ARG:HA	2.01	0.42
11:C6:116:LEU:HA	11:C6:116:LEU:HD23	4.01	0.42
19:D4:87:PRO:HG3	72:S4:59:ARG:NH1	2.34	0.42
19:D4:88:THR:O	19:D4:92:VAL:HG23	2.19	0.42
2:6:1030:A:P	21:D6:3:LYS:HZ1	338.29	0.42
2:6:1619:C:O2	23:D8:22:ARG:NH1	341.16	0.42
23:D8:12:VAL:HG13	23:D8:28:VAL:HG13	2.02	0.42
15:D0:65:ILE:HG21	24:D9:43:PHE:CZ	2.67	0.42
1:5:211:A:OP2	29:L4:221:ASN:HB2	75.42	0.42
30:L5:21:ARG:O	30:L5:25:GLU:HG2	4.21	0.42
30:L5:224:LYS:HB2	30:L5:224:LYS:HE3	1.90	0.42
32:L7:86:VAL:HG22	32:L7:136:TYR:HB3	2.23	0.42
33:L8:74:THR:O	33:L8:77:GLN:HG2	2.19	0.42
34:L9:182:SER:OG	34:L9:183:HIS:N	3.48	0.42
36:M1:155:THR:OG1	36:M1:158:ASP:HB2	2.49	0.42
36:M1:173:ASP:HB3	36:M1:174:LYS:H	1.52	0.42
37:M3:19:GLN:HA	37:M3:22:VAL:HG23	2.02	0.42
39:M5:150:TRP:CH2	39:M5:151:ILE:HG12	2.55	0.42
39:M5:80:THR:OG1	39:M5:87:GLN:HA	2.70	0.42
43:M9:10:LEU:HD12	43:M9:10:LEU:HA	1.82	0.42
44:N0:99:ARG:O	44:N0:103:VAL:HG23	2.20	0.42
32:L7:121:LYS:HB2	45:N1:133:ALA:HB3	2.01	0.42
47:N3:13:ILE:HG13	47:N3:53:SER:HB2	2.00	0.42
52:N8:47:LYS:HE2	52:N8:48:TYR:CZ	2.55	0.42
52:N8:6:THR:CG2	52:N8:9:ARG:HG2	2.60	0.42
54:O0:66:LYS:N	54:O0:66:LYS:HD2	4.27	0.42
57:O3:47:LYS:HE3	57:O3:102:LEU:O	2.20	0.42
57:O3:5:HIS:N	57:O3:5:HIS:CD2	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:Q0:110:CYS:SG	64:Q0:112:LYS:HB2	2.60	0.42
68:S0:119:ARG:HH11	68:S0:119:ARG:HB3	1.84	0.42
16:D1:45:ALA:CB	68:S0:185:ARG:HB2	2.49	0.42
68:S0:50:VAL:O	68:S0:53:THR:HB	2.25	0.42
71:S3:116:ARG:O	71:S3:120:TYR:HB2	2.19	0.42
71:S3:140:GLY:C	71:S3:147:ALA:HB1	3.26	0.42
71:S3:211:PRO:O	71:S3:212:LYS:HB2	2.20	0.42
72:S4:120:SER:O	72:S4:163:ASP:O	2.57	0.42
73:S5:51:VAL:HA	73:S5:131:GLN:OE1	2.19	0.42
2:6:66:U:O5'	74:S6:173:PRO:HA	340.95	0.42
75:S7:39:ARG:N	75:S7:40:PRO:HD2	2.34	0.42
78:SM:105:LYS:HE2	78:SM:105:LYS:HB3	1.80	0.42
78:SM:92:ASP:OD1	83:SM:401:HOH:O	2.21	0.42
1:1:1367:G:OP1	56:O2:45:ARG:NH2	2.53	0.41
1:1:1112:A:O2'	1:1:1370:G:O3'	2.37	0.41
1:1:1636:U:H5''	51:N7:73:LYS:NZ	2.35	0.41
1:1:2339:C:OP2	47:N3:48:ARG:HG3	2.20	0.41
1:1:2379:U:C2	1:1:2380:U:C5	3.08	0.41
1:1:3216:G:H5''	1:1:3219:G:C2	2.55	0.41
1:1:3243:A:N7	40:M6:156:LEU:HB3	2.34	0.41
1:1:3161:C:O2	1:1:3290:G:C2	2.72	0.41
1:1:578:A:C2	29:L4:328:ASN:ND2	2.87	0.41
1:1:61:A:H2'	1:1:62:A:O4'	2.20	0.41
1:1:63:A:C6	1:1:64:G:C6	3.08	0.41
1:1:678:G:C6	1:1:679:U:C4	3.08	0.41
1:1:98:G:O6	37:M3:11:LYS:NZ	2.39	0.41
2:2:1081:A:O2'	2:2:1083:G:N7	2.46	0.41
2:2:1563:C:H2'	2:2:1564:U:C6	2.55	0.41
2:2:783:G:O2'	2:2:784:C:H6	2.02	0.41
3:3:97:A:OP1	44:N0:40:ARG:NH1	2.52	0.41
4:4:83:C:H42	50:N6:52:ARG:HH12	1.67	0.41
1:5:130:A:H2'	1:5:131:C:C6	2.55	0.41
1:5:1387:G:H1'	1:5:1421:G:N2	2.35	0.41
1:5:1402:C:C2	1:5:1403:C:C5	3.08	0.41
1:5:1447:G:O2'	1:5:1448:U:OP2	2.38	0.41
1:5:1813:A:O2'	1:5:1816:A:N3	2.39	0.41
1:5:2257:C:H2'	1:5:2258:U:O4'	2.20	0.41
1:5:2632:G:C6	1:5:2633:U:C4	3.08	0.41
1:5:2997:G:C5	1:5:2998:U:C5	3.08	0.41
1:5:3203:U:H2'	1:5:3204:C:H6	1.85	0.41
1:5:346:C:C4	4:8:25:G:H4'	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:430:U:H2'	1:5:431:U:O4'	2.20	0.41
1:5:32:U:H1'	1:5:53:G:N2	2.35	0.41
1:5:72:C:C2	1:5:74:G:H1'	2.55	0.41
1:5:811:U:C2	1:5:812:G:C8	3.08	0.41
1:5:968:G:H2'	1:5:969:C:C6	2.55	0.41
2:6:1489:U:O4'	2:6:1494:C:C2	2.73	0.41
2:6:1571:C:H6	2:6:1571:C:O5'	2.02	0.41
2:6:1788:G:OP2	9:C4:132:ARG:HD2	295.95	0.41
2:6:233:C:H4'	2:6:234:G:O4'	2.20	0.41
2:6:503:G:C2'	2:6:504:U:H5'	2.50	0.41
4:8:65:A:H2'	4:8:66:A:O4'	2.20	0.41
5:C0:14:TYR:CZ	5:C0:18:GLU:HG3	2.80	0.41
11:C6:24:ALA:HB2	11:C6:92:TYR:OH	2.88	0.41
12:C7:57:LEU:O	12:C7:61:ILE:HG13	2.20	0.41
12:C7:63:LYS:HE2	79:SR:284:ALA:CB	2.49	0.41
12:C7:82:ASP:O	68:S0:88:LYS:NZ	5.70	0.41
13:C8:18:LEU:CD2	13:C8:101:LEU:HD11	2.49	0.41
10:C5:110:GLU:HB2	13:C8:119:ILE:HD11	2.01	0.41
10:C5:121:ILE:HD11	13:C8:122:HIS:NE2	2.35	0.41
14:C9:138:GLN:HA	14:C9:141:GLU:HB2	2.02	0.41
15:D0:57:ARG:HD2	15:D0:89:ARG:CZ	2.83	0.41
16:D1:69:LEU:HD23	16:D1:69:LEU:HA	1.81	0.41
18:D3:73:ARG:NE	18:D3:84:THR:HG22	2.26	0.41
19:D4:11:LYS:HB2	19:D4:24:VAL:HG23	2.01	0.41
19:D4:20:ARG:C	19:D4:21:LYS:HD2	2.40	0.41
23:D8:26:THR:O	23:D8:44:VAL:HG22	2.78	0.41
27:L2:183:GLY:O	27:L2:186:PHE:N	2.53	0.41
30:L5:40:HIS:NE2	30:L5:42:ALA:HB3	3.64	0.41
33:L8:81:THR:HG21	33:L8:181:LYS:HE3	3.84	0.41
35:M0:202:LYS:HD3	35:M0:202:LYS:HA	1.87	0.41
36:M1:101:ASN:HB3	36:M1:129:VAL:O	2.20	0.41
37:M3:157:ARG:O	52:N8:99:ALA:N	2.51	0.41
1:5:19:U:H4'	39:M5:138:GLN:CD	90.99	0.41
40:M6:128:ARG:HD3	40:M6:128:ARG:HA	2.33	0.41
40:M6:27:LEU:HA	40:M6:27:LEU:HD23	2.13	0.41
40:M6:28:LEU:HD23	40:M6:28:LEU:HA	2.12	0.41
41:M7:171:ARG:H	41:M7:171:ARG:HG3	1.74	0.41
42:M8:98:LYS:HG3	42:M8:118:GLY:C	2.83	0.41
49:N5:108:LEU:HA	49:N5:108:LEU:HD22	2.32	0.41
51:N7:22:LYS:HE3	51:N7:134:LEU:HB2	2.30	0.41
56:O2:64:LYS:HG2	56:O2:65:PHE:CD2	2.95	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:O3:51:TYR:CZ	57:O3:53:TYR:HB3	2.57	0.41
1:1:3173:G:C2	57:O3:96:ALA:HB2	2.55	0.41
58:O4:20:ILE:HD13	58:O4:32:ALA:HB1	4.38	0.41
62:O8:31:LEU:HD12	62:O8:34:ALA:O	2.20	0.41
1:5:1834:U:OP1	63:O9:5:LYS:HD2	114.41	0.41
1:1:284:A:P	66:Q2:41:ARG:HH11	2.43	0.41
2:6:741:C:N3	75:S7:107:ARG:HB3	350.74	0.41
75:S7:24:PHE:HE1	75:S7:77:LEU:HD11	2.33	0.41
76:S8:38:ILE:HD11	76:S8:80:GLY:HA2	2.01	0.41
79:SR:16:HIS:CD2	79:SR:20:VAL:HG22	2.54	0.41
1:1:112:U:C2	1:1:320:G:C2	3.09	0.41
1:1:123:A:H5'	1:1:124:U:OP2	2.20	0.41
1:1:1481:A:N7	1:1:1859:A:C5	2.88	0.41
1:1:1842:A:H4'	1:1:1843:C:OP2	2.20	0.41
1:1:2350:C:H4'	1:1:3308:C:O2'	2.20	0.41
1:1:2591:A:O2'	1:1:2592:G:H5'	2.20	0.41
1:1:2683:U:H2'	1:1:2684:C:H6	1.85	0.41
1:1:298:U:O2	1:1:298:U:H2'	2.20	0.41
1:1:3227:A:C2'	1:1:3228:C:H5'	2.50	0.41
1:1:3324:C:C2	1:1:3325:G:C8	3.08	0.41
1:1:536:U:N3	1:1:556:U:C4	2.88	0.41
1:1:715:A:OP2	52:N8:114:GLY:N	2.49	0.41
1:1:956:U:H2'	1:1:957:C:C6	2.55	0.41
2:2:1740:A:C6	2:2:1741:U:C4	3.08	0.41
2:2:196:G:O2'	2:2:197:A:OP2	2.38	0.41
2:2:971:A:C8	2:2:972:G:C8	3.09	0.41
1:5:1085:A:H5'	1:5:1086:C:OP2	2.19	0.41
1:5:1385:C:N3	1:5:1387:G:C8	2.88	0.41
1:5:1679:A:OP1	46:N2:94:ARG:NH1	132.82	0.41
1:5:168:U:H2'	1:5:169:U:H6	1.85	0.41
1:5:2155:G:OP1	27:L2:241:ARG:HG2	222.08	0.41
1:5:2213:A:C6	1:5:2214:A:C6	3.08	0.41
1:5:251:G:O2'	1:5:252:U:H4'	2.20	0.41
1:5:2961:G:C6	1:5:2962:U:C4	3.07	0.41
1:5:313:A:C6	1:5:314:U:C4	3.08	0.41
1:5:3291:G:H2'	1:5:3292:A:C8	2.54	0.41
2:6:100:A:H2'	2:6:101:U:O4'	2.20	0.41
2:6:1221:A:H2'	2:6:1222:C:C6	2.55	0.41
2:6:1270:G:H1'	2:6:1447:C:O2	2.20	0.41
2:6:1606:C:H2'	2:6:1607:G:C8	2.56	0.41
5:C0:14:TYR:CD1	5:C0:35:ILE:HG12	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C0:46:LEU:HA	5:C0:46:LEU:HD13	1.88	0.41
8:C3:54:LEU:HB3	8:C3:60:VAL:CG2	2.49	0.41
14:C9:64:HIS:CE1	14:C9:79:LEU:HD22	3.15	0.41
15:D0:106:ILE:HG13	15:D0:107:THR:H	1.85	0.41
16:D1:36:VAL:CG1	68:S0:62:ARG:HD3	2.50	0.41
2:2:310:C:H4'	18:D3:33:LEU:HD13	2.02	0.41
18:D3:50:LYS:NZ	83:D3:201:HOH:O	2.52	0.41
21:D6:25:ASN:ND2	21:D6:77:CYS:SG	2.92	0.41
26:E1:112:GLY:O	26:E1:113:LYS:HG3	5.68	0.41
27:L2:247:ARG:HG3	27:L2:247:ARG:HH11	1.85	0.41
28:L3:67:PHE:CE2	47:N3:88:ARG:HB2	2.54	0.41
29:L4:119:ARG:HA	29:L4:122:THR:HG23	3.20	0.41
29:L4:181:VAL:HG11	29:L4:224:GLY:HA3	2.23	0.41
3:7:11:A:N6	30:L5:13:SER:O	295.14	0.41
30:L5:202:GLY:O	30:L5:206:GLN:HG3	4.80	0.41
33:L8:160:ILE:HA	33:L8:160:ILE:HD13	4.51	0.41
33:L8:67:ILE:HG23	33:L8:237:ILE:HD12	2.01	0.41
1:1:86:G:N7	37:M3:13:HIS:CE1	2.88	0.41
1:1:2782:U:OP1	37:M3:185:LYS:HE2	2.21	0.41
4:4:142:C:H4'	39:M5:60:VAL:HG21	2.01	0.41
1:1:1447:G:H3'	41:M7:67:ILE:CD1	2.50	0.41
44:N0:107:TYR:CZ	44:N0:118:PHE:CE1	3.41	0.41
49:N5:96:LYS:HG3	49:N5:107:VAL:HB	2.05	0.41
1:5:200:C:OP2	50:N6:60:ARG:NH1	83.10	0.41
54:O0:77:LEU:HD23	54:O0:87:VAL:O	2.81	0.41
55:O1:42:LEU:HG	55:O1:42:LEU:O	2.20	0.41
61:O7:16:HIS:ND1	61:O7:16:HIS:N	2.68	0.41
62:O8:24:THR:HB	62:O8:76:ASN:HB3	2.02	0.41
1:1:2765:C:O3'	66:Q2:39:GLY:HA3	2.20	0.41
1:5:836:A:O2'	67:Q3:9:GLY:O	237.16	0.41
68:S0:41:ARG:N	68:S0:45:VAL:O	2.66	0.41
69:S1:27:LYS:NZ	69:S1:48:VAL:O	2.40	0.41
69:S1:32:ILE:HA	69:S1:96:LEU:HD23	2.02	0.41
71:S3:168:ILE:O	71:S3:168:ILE:HG13	2.88	0.41
72:S4:127:LYS:HA	72:S4:127:LYS:HD3	1.91	0.41
20:D5:102:THR:HG23	73:S5:123:VAL:HG13	4.85	0.41
74:S6:64:LYS:NZ	74:S6:82:SER:OG	3.43	0.41
75:S7:131:PHE:CD2	75:S7:132:PRO:N	2.87	0.41
77:S9:127:VAL:HG12	77:S9:131:GLN:OE1	2.23	0.41
78:SM:37:VAL:HG13	78:SM:38:PRO:O	3.47	0.41
2:2:577:G:N1	78:SM:99:LYS:HA	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:SR:121:MET:SD	79:SR:167:VAL:HG11	2.60	0.41
79:SR:216:LYS:HD2	79:SR:239:GLU:CD	3.41	0.41
1:1:174:C:H2'	1:1:175:C:H6	1.84	0.41
1:1:2151:C:H2'	1:1:2152:A:O4'	2.20	0.41
1:1:2176:U:C2'	1:1:2177:G:H5'	2.50	0.41
1:1:2516:U:C4	1:1:2517:U:C5	3.09	0.41
1:1:1304:A:N6	1:1:2860:U:OP1	2.51	0.41
1:1:3039:C:C2	1:1:3040:A:C8	3.08	0.41
1:1:686:G:C2	1:1:695:C:C2	3.08	0.41
1:1:813:G:C2	1:1:814:U:C6	3.09	0.41
1:1:911:C:H5''	27:L2:15:ILE:CD1	2.46	0.41
1:1:815:G:C2	1:1:926:A:C2	3.08	0.41
1:1:966:U:C2	1:1:967:A:N7	2.88	0.41
2:2:1498:G:OP1	14:C9:72:GLY:HA3	2.20	0.41
2:2:1531:G:H5'	20:D5:81:ARG:NH2	2.35	0.41
2:2:1678:A:C2	2:2:1724:U:C2	3.08	0.41
2:2:1744:A:N6	2:2:1745:G:C6	2.89	0.41
2:2:282:C:H2'	2:2:283:U:O4'	2.19	0.41
2:2:333:A:N6	2:2:334:G:O6	2.54	0.41
2:2:361:C:N3	2:2:384:G:C2	2.89	0.41
2:2:621:A:H1'	2:2:1107:G:O4'	2.20	0.41
2:2:811:A:N3	2:2:858:G:H1'	2.35	0.41
3:3:31:U:N3	3:3:32:U:C5	2.88	0.41
1:5:1299:U:H2'	1:5:1300:G:O4'	2.20	0.41
1:5:1437:C:H5'	1:5:1437:C:H6	1.83	0.41
1:5:173:G:O2'	1:5:174:C:H6	2.02	0.41
1:5:2238:G:C2	1:5:2239:G:C8	3.09	0.41
1:5:28:C:O2'	1:5:29:C:H5'	2.21	0.41
1:5:3182:G:H2'	1:5:3183:A:O4'	2.20	0.41
1:5:3220:G:C5	1:5:3266:G:C2	3.07	0.41
1:5:511:G:C2	1:5:512:U:H1'	2.56	0.41
1:5:602:A:H2'	1:5:603:A:C8	2.55	0.41
1:5:87:U:H2'	1:5:88:A:C8	2.55	0.41
2:6:1078:C:H2'	2:6:1079:U:C6	2.56	0.41
2:6:1154:G:N2	2:6:1625:C:C2	2.88	0.41
2:6:1773:C:C2	2:6:1789:G:C2	3.08	0.41
2:6:240:U:H4'	2:6:241:U:OP2	2.16	0.41
2:6:27:U:O2'	2:6:28:A:H5'	2.20	0.41
2:6:547:U:N3	2:6:548:G:N7	2.69	0.41
2:6:889:U:H4'	2:6:989:U:OP1	2.20	0.41
2:6:981:U:O2'	2:6:982:U:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:8:157:U:H2'	4:8:158:U:C6	2.55	0.41
4:8:28:C:O3'	37:M3:26:PHE:HB2	95.24	0.41
2:6:1072:C:H4'	8:C3:11:ILE:HD11	351.14	0.41
8:C3:26:PHE:CE1	8:C3:28:LEU:HD22	5.92	0.41
11:C6:57:LEU:H	11:C6:57:LEU:HD12	4.65	0.41
2:6:1330:G:N2	12:C7:8:THR:HG21	421.02	0.41
13:C8:3:LEU:O	13:C8:5:VAL:HG22	3.93	0.41
15:D0:53:LYS:HD3	15:D0:53:LYS:HA	4.19	0.41
15:D0:67:THR:HG21	24:D9:40:ARG:HB2	2.02	0.41
2:2:1102:G:P	17:D2:76:SER:HG	2.43	0.41
19:D4:57:VAL:HG22	19:D4:60:PHE:HE2	1.85	0.41
24:D9:21:CYS:HA	24:D9:30:LEU:HD21	2.59	0.41
24:D9:5:ASN:HB2	24:D9:7:TRP:CZ2	5.19	0.41
27:L2:87:PHE:O	27:L2:88:ILE:HD12	2.20	0.41
27:L2:98:VAL:HA	27:L2:166:ILE:CG2	2.93	0.41
28:L3:169:THR:CG2	28:L3:171:LEU:H	2.49	0.41
1:5:1305:U:N3	28:L3:257:PRO:HB3	227.42	0.41
28:L3:293:ASN:ND2	28:L3:305:ILE:HD11	2.35	0.41
28:L3:56:ILE:HD12	28:L3:56:ILE:HA	1.75	0.41
29:L4:40:THR:O	29:L4:44:LYS:HE3	4.53	0.41
30:L5:278:SER:OG	30:L5:281:GLU:HG3	2.21	0.41
31:L6:131:LYS:HD3	31:L6:131:LYS:HA	4.58	0.41
32:L7:82:LYS:HA	32:L7:119:VAL:HB	2.02	0.41
1:1:1169:A:H4'	32:L7:219:LYS:HD3	2.02	0.41
34:L9:67:ALA:O	34:L9:70:THR:HG23	2.20	0.41
35:M0:95:HIS:CD2	35:M0:128:ARG:HE	2.38	0.41
35:M0:200:LEU:HD23	35:M0:202:LYS:HZ1	1.84	0.41
36:M1:38:GLU:O	36:M1:42:GLY:N	2.53	0.41
36:M1:54:VAL:HB	36:M1:59:ILE:HG12	2.02	0.41
36:M1:85:LYS:O	36:M1:88:GLU:N	2.41	0.41
39:M5:137:PRO:HG2	39:M5:138:GLN:NE2	2.36	0.41
39:M5:146:ALA:C	39:M5:148:TYR:H	3.40	0.41
40:M6:70:PRO:O	40:M6:72:HIS:CE1	2.74	0.41
45:N1:151:LEU:HA	45:N1:151:LEU:HD23	2.05	0.41
54:O0:31:VAL:HA	54:O0:34:LEU:HB2	2.19	0.41
55:O1:92:TYR:CE2	55:O1:94:GLU:HG2	2.54	0.41
57:O3:72:THR:CG2	57:O3:84:THR:HG23	2.67	0.41
4:8:111:A:N6	61:O7:29:VAL:HG11	137.20	0.41
66:Q2:65:THR:O	66:Q2:66:LYS:HG3	2.92	0.41
16:D1:32:VAL:HG13	68:S0:142:PRO:HG3	2.22	0.41
68:S0:169:SER:O	68:S0:173:ILE:HG12	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:S1:88:VAL:HG21	69:S1:96:LEU:HB2	5.27	0.41
70:S2:113:LEU:HD22	70:S2:114:GLY:N	2.38	0.41
71:S3:23:GLU:OE1	71:S3:27:ARG:NH2	3.41	0.41
71:S3:29:LEU:HD21	71:S3:69:LEU:HD21	3.52	0.41
72:S4:38:LEU:HD13	72:S4:38:LEU:O	2.20	0.41
73:S5:113:ILE:HG21	73:S5:190:ILE:CG2	2.45	0.41
75:S7:173:TYR:CD1	75:S7:181:ILE:HD13	2.55	0.41
76:S8:41:LYS:HA	76:S8:59:ARG:O	2.21	0.41
76:S8:36:THR:HG1	76:S8:96:LEU:HB2	2.44	0.41
77:S9:57:ARG:HG3	77:S9:97:LEU:HD21	2.02	0.41
77:S9:90:LYS:HD2	77:S9:95:TYR:CE1	2.55	0.41
1:1:953:G:N7	1:1:1117:G:C8	2.89	0.41
1:1:1421:G:C2	1:1:1422:G:C8	3.09	0.41
1:1:1497:C:H2'	1:1:1498:A:C8	2.54	0.41
1:1:1536:G:C4	1:1:1537:A:C8	3.08	0.41
1:1:1613:A:C6	1:1:1614:C:C4	3.08	0.41
1:1:1719:G:N2	1:1:1726:C:O2	2.54	0.41
1:1:1868:G:C6	1:1:1869:C:C4	3.09	0.41
1:1:1950:U:H2'	1:1:1951:C:C6	2.55	0.41
1:1:2626:A:H5'	1:1:2627:C:H5''	2.02	0.41
1:1:2694:A:C6	1:1:2695:A:C6	3.09	0.41
1:1:2925:C:H2'	1:1:2926:A:O4'	2.20	0.41
1:1:406:G:N2	4:4:16:G:C4	2.88	0.41
1:1:616:G:H2'	1:1:617:G:H8	1.85	0.41
1:1:62:A:H2'	1:1:63:A:C8	2.54	0.41
1:1:767:U:H1'	1:1:768:C:C6	2.55	0.41
1:1:90:C:OP1	1:1:283:G:H1'	2.20	0.41
1:1:92:G:O5'	66:Q2:46:LYS:NZ	2.53	0.41
2:2:1209:C:H2'	2:2:1210:C:C6	2.55	0.41
2:2:1224:A:H2'	2:2:1225:U:C6	2.56	0.41
2:2:1433:G:C2	2:2:1434:U:C2	3.08	0.41
2:2:1528:U:OP1	73:S5:109:LYS:HG2	2.20	0.41
2:2:1710:U:H2'	2:2:1711:C:C6	2.55	0.41
2:2:333:A:C6	2:2:334:G:O6	2.73	0.41
2:2:341:A:C5	2:2:342:C:C5	3.09	0.41
2:2:906:A:H2	2:2:998:A:H1'	1.85	0.41
1:5:999:G:O2'	1:5:1000:C:H5'	2.21	0.41
1:5:1087:G:N2	1:5:1088:U:C2	2.89	0.41
1:5:1101:G:O2'	1:5:1102:A:H5'	2.20	0.41
1:5:1759:C:N3	1:5:1760:A:N7	2.68	0.41
1:5:2302:G:C6	1:5:2303:A:C5	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2609:A:C4	1:5:2610:G:C8	3.08	0.41
1:5:276:U:O2'	39:M5:91:GLU:HG2	158.61	0.41
1:5:3042:U:C2'	1:5:3043:C:H5'	2.50	0.41
2:6:1381:U:H1'	2:6:1516:A:N6	2.35	0.41
2:6:640:U:C4	2:6:641:G:C5	3.08	0.41
2:6:648:G:N2	2:6:649:U:C2	2.88	0.41
2:6:696:C:H4'	2:6:697:C:O5'	2.20	0.41
2:6:953:G:OP2	8:C3:94:LYS:HE3	304.44	0.41
2:6:973:A:C2	2:6:974:A:C5	3.08	0.41
2:6:98:U:H2'	2:6:99:C:C6	2.56	0.41
5:C0:24:LYS:HD3	5:C0:63:TYR:CZ	3.35	0.41
6:C1:101:GLU:OE1	6:C1:103:ARG:NE	2.84	0.41
7:C2:61:VAL:HB	7:C2:89:ILE:CG2	2.78	0.41
7:C2:68:GLU:C	7:C2:70:ASN:H	2.24	0.41
2:2:626:U:O2'	8:C3:113:PHE:HZ	2.03	0.41
8:C3:29:SER:O	8:C3:32:SER:HB3	4.36	0.41
8:C3:53:LEU:HD13	22:D7:52:THR:HG21	2.49	0.41
10:C5:129:GLY:O	10:C5:130:ARG:HB2	2.68	0.41
10:C5:32:ASP:O	10:C5:36:LEU:HD23	2.20	0.41
10:C5:85:ILE:HA	10:C5:89:MET:SD	2.61	0.41
11:C6:86:ALA:CB	11:C6:116:LEU:HB3	2.50	0.41
2:2:1607:G:H5''	11:C6:124:PRO:HG2	2.01	0.41
14:C9:108:LEU:O	14:C9:111:ILE:HG22	2.20	0.41
19:D4:35:VAL:HB	19:D4:40:LEU:HD11	3.89	0.41
21:D6:85:ARG:HA	21:D6:85:ARG:HD3	1.82	0.41
26:E1:95:HIS:CG	26:E1:96:LYS:H	2.60	0.41
27:L2:10:LYS:HG2	27:L2:16:PHE:CD1	3.13	0.41
1:5:2181:C:P	27:L2:192:LYS:HZ3	201.10	0.41
27:L2:209:HIS:ND1	27:L2:210:PRO:HD2	2.38	0.41
27:L2:95:SER:OG	27:L2:97:ASN:OD1	2.38	0.41
28:L3:232:ARG:HG2	28:L3:233:TRP:CD1	3.54	0.41
28:L3:257:PRO:HG2	28:L3:261:MET:CE	2.51	0.41
30:L5:187:THR:HG23	30:L5:189:GLU:HB2	3.55	0.41
36:M1:145:LYS:HB2	36:M1:145:LYS:HE2	1.76	0.41
37:M3:139:LEU:HD23	37:M3:139:LEU:HA	1.89	0.41
41:M7:102:ALA:CB	41:M7:112:LEU:HD21	2.51	0.41
41:M7:126:ARG:HA	41:M7:140:GLU:HG2	2.11	0.41
41:M7:51:VAL:HG11	41:M7:88:VAL:HG21	2.02	0.41
42:M8:158:HIS:H	42:M8:186:VAL:CG1	2.34	0.41
47:N3:37:ILE:HG12	47:N3:59:MET:O	2.21	0.41
47:N3:62:VAL:O	47:N3:70:ARG:HB3	3.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:N7:49:TYR:HD1	51:N7:50:PRO:HD2	2.89	0.41
52:N8:17:ALA:O	52:N8:19:LYS:HG2	2.20	0.41
57:O3:26:ASN:HA	57:O3:88:ASN:OD1	2.56	0.41
62:O8:11:PHE:HD1	62:O8:12:LEU:HD22	3.74	0.41
67:Q3:29:LEU:HA	67:Q3:29:LEU:HD23	1.86	0.41
70:S2:186:LYS:HD2	70:S2:186:LYS:HA	2.15	0.41
71:S3:114:ALA:C	71:S3:115:ILE:HG13	5.01	0.41
71:S3:17:PHE:HE1	71:S3:77:PHE:CG	2.52	0.41
73:S5:157:ARG:O	73:S5:224:ASN:HB3	2.20	0.41
73:S5:64:VAL:HG23	73:S5:89:ILE:HG12	2.03	0.41
2:6:811:A:N6	75:S7:110:GLN:HB3	345.52	0.41
75:S7:35:LYS:C	75:S7:37:GLU:H	2.24	0.41
77:S9:92:LYS:HA	77:S9:92:LYS:HE3	2.02	0.41
79:SR:114:ASP:O	79:SR:123:ILE:HG13	2.21	0.41
79:SR:222:LEU:HD13	79:SR:222:LEU:HA	2.05	0.41
79:SR:208:GLY:O	79:SR:225:LEU:HD23	3.70	0.41
1:1:999:G:O2'	1:1:1002:A:N7	2.53	0.41
1:1:1098:A:C2	1:1:1099:A:C8	3.09	0.41
1:1:1133:A:H1'	1:1:2618:G:O6	2.20	0.41
1:1:1689:U:N3	1:1:1690:C:C5	2.89	0.41
1:1:260:C:H2'	1:1:261:U:C6	2.56	0.41
1:1:2691:A:H2	1:1:2706:G:HO2'	1.65	0.41
1:1:2772:C:H4'	1:1:2773:C:H5'	2.02	0.41
1:1:2988:C:OP1	40:M6:68:ARG:NH1	2.47	0.41
1:1:822:G:H2'	1:1:823:C:O4'	2.21	0.41
1:1:643:U:H5''	1:1:953:G:O6	2.19	0.41
2:2:1060:U:H6	2:2:1061:A:C2	2.38	0.41
2:2:1138:A:H2'	2:2:1139:A:H8	1.85	0.41
2:2:1492:A:O2'	2:2:1493:A:P	2.78	0.41
2:2:1789:G:H8	2:2:1789:G:H5''	1.85	0.41
2:2:758:U:H5''	2:2:759:U:OP2	2.21	0.41
1:5:1133:A:O2'	1:5:1134:G:H5'	2.21	0.41
1:5:1339:C:H2'	1:5:1340:G:O4'	2.20	0.41
1:5:1464:G:N2	1:5:1467:A:C8	2.88	0.41
1:5:1777:U:O4	81:5:3851:8UZ:N4	2.53	0.41
1:5:2295:A:C6	1:5:2296:A:N1	2.89	0.41
1:5:2407:C:O5'	1:5:2407:C:H6	2.03	0.41
1:5:2628:A:C5	1:5:2798:C:N4	2.89	0.41
1:5:2885:C:C4	1:5:2886:U:O4	2.74	0.41
1:5:2974:U:H2'	1:5:2975:U:C5	2.54	0.41
1:5:3332:U:P	48:N4:35:LYS:HE3	221.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:397:A:H5''	1:5:398:A:H5'	2.02	0.41
1:5:730:C:O2'	1:5:731:U:H5'	2.21	0.41
1:5:735:A:O2'	1:5:736:A:OP1	2.32	0.41
2:6:955:A:H4'	2:6:1073:G:O2'	2.21	0.41
2:6:1372:U:H6	2:6:1372:U:OP1	2.03	0.41
2:6:1433:G:H2'	2:6:1434:U:C6	2.55	0.41
2:6:980:G:H4'	2:6:1776:A:H4'	2.02	0.41
2:6:245:U:H2'	2:6:247:A:OP2	2.21	0.41
2:6:320:U:OP2	2:6:321:C:H5''	2.19	0.41
2:6:322:G:H4'	2:6:323:A:OP1	2.21	0.41
2:6:364:G:C2	2:6:381:C:N3	2.88	0.41
2:6:372:G:H1'	2:6:612:U:O2	2.20	0.41
2:6:609:U:C5	18:D3:26:GLU:HG3	345.20	0.41
2:6:765:G:O6	77:S9:149:ARG:NH1	431.08	0.41
4:8:135:G:OP1	49:N5:49:LYS:HE3	83.34	0.41
4:8:155:A:H4'	33:L8:185:ARG:CD	146.23	0.41
8:C3:2:GLY:HA3	8:C3:9:LYS:HE3	6.54	0.41
9:C4:15:GLY:O	9:C4:79:VAL:HA	2.20	0.41
11:C6:50:GLU:OE1	11:C6:112:TYR:OH	2.30	0.41
14:C9:10:ALA:HB3	14:C9:13:ASP:OD2	2.41	0.41
14:C9:57:ARG:HH21	14:C9:80:TYR:HB3	1.85	0.41
16:D1:1:MET:HE2	16:D1:13:VAL:HG22	2.02	0.41
17:D2:104:LEU:HD23	17:D2:106:THR:HG23	2.01	0.41
19:D4:5:VAL:O	19:D4:28:LEU:O	2.39	0.41
19:D4:86:GLU:OE1	19:D4:90:ARG:HD2	2.21	0.41
21:D6:25:ASN:HB3	21:D6:77:CYS:SG	2.60	0.41
24:D9:49:ASP:OD1	24:D9:49:ASP:N	2.94	0.41
25:E0:30:PRO:HB2	25:E0:34:ALA:HB3	2.02	0.41
27:L2:109:GLU:HG2	27:L2:109:GLU:H	1.73	0.41
27:L2:193:ARG:HH11	27:L2:193:ARG:HB3	4.37	0.41
28:L3:10:ARG:CZ	28:L3:14:LEU:HD21	2.99	0.41
28:L3:24:SER:O	28:L3:220:VAL:HG21	2.20	0.41
30:L5:184:ASP:HB3	30:L5:187:THR:HG22	4.28	0.41
30:L5:280:GLU:CD	30:L5:280:GLU:H	2.44	0.41
31:L6:50:LYS:HG2	31:L6:74:VAL:HG23	2.26	0.41
32:L7:173:LEU:HD22	32:L7:201:PHE:CD1	2.94	0.41
32:L7:75:TYR:HB2	45:N1:141:VAL:CG2	2.50	0.41
33:L8:240:ASN:HB3	33:L8:241:LYS:H	4.16	0.41
35:M0:96:VAL:HG11	35:M0:122:PRO:HB3	2.35	0.41
38:M4:97:SER:O	38:M4:101:LYS:HG3	2.20	0.41
1:5:19:U:H4'	39:M5:138:GLN:OE1	90.16	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:M5:185:ALA:HB3	39:M5:190:THR:CG2	2.55	0.41
39:M5:194:GLN:H	39:M5:194:GLN:HG2	1.42	0.41
41:M7:13:LYS:HE3	41:M7:154:GLU:HG2	2.03	0.41
41:M7:168:LEU:HD22	41:M7:176:ILE:HD11	2.02	0.41
41:M7:29:THR:HG22	41:M7:87:SER:HA	2.02	0.41
46:N2:37:LEU:HA	46:N2:37:LEU:HD13	3.85	0.41
47:N3:23:MET:HB2	47:N3:98:ASN:C	2.82	0.41
51:N7:124:ALA:O	51:N7:126:LYS:N	2.57	0.41
54:O0:101:LEU:H	54:O0:101:LEU:HD22	2.72	0.41
55:O1:82:GLU:HG3	55:O1:83:GLU:CB	4.14	0.41
1:1:1804:A:H5'	58:O4:70:LYS:HD2	2.02	0.41
59:O5:116:TYR:CD2	59:O5:116:TYR:N	3.27	0.41
27:L2:108:PRO:CG	67:Q3:86:LEU:HD22	2.59	0.41
68:S0:119:ARG:HE	70:S2:240:LEU:CB	2.22	0.41
68:S0:147:THR:O	68:S0:162:CYS:N	2.53	0.41
2:2:1045:C:OP1	69:S1:153:HIS:CE1	2.73	0.41
70:S2:119:LYS:H	70:S2:119:LYS:HG2	1.58	0.41
71:S3:195:SER:C	71:S3:197:THR:H	2.24	0.41
73:S5:62:VAL:HG13	73:S5:89:ILE:HG21	2.01	0.41
74:S6:75:LEU:O	74:S6:94:ARG:HA	2.55	0.41
2:2:639:U:OP1	75:S7:118:LEU:N	2.53	0.41
75:S7:71:HIS:CG	75:S7:131:PHE:CE1	3.77	0.41
75:S7:7:LYS:HB2	75:S7:7:LYS:HE3	4.50	0.41
76:S8:184:LEU:HA	76:S8:184:LEU:HD12	1.79	0.41
76:S8:61:GLU:HG2	76:S8:62:THR:HG23	4.06	0.41
78:SM:75:ASP:OD1	78:SM:75:ASP:N	4.01	0.41
79:SR:81:LEU:HD23	79:SR:81:LEU:HA	1.93	0.41
1:1:107:A:N1	1:1:108:A:C4	2.89	0.41
1:1:1380:G:OP1	29:L4:191:LYS:HG3	2.21	0.41
1:1:1599:G:N2	1:1:1609:C:C2	2.88	0.41
1:1:1941:C:O4'	1:1:3362:A:H1'	2.21	0.41
1:1:240:U:H1'	1:1:241:G:O5'	2.21	0.41
1:1:2587:U:O2'	1:1:2588:U:H5'	2.20	0.41
1:1:284:A:OP2	66:Q2:41:ARG:HD2	2.21	0.41
1:1:398:A:C4	41:M7:3:ARG:NH2	2.88	0.41
1:1:428:A:H2'	1:1:429:U:C6	2.56	0.41
1:1:748:U:H2'	1:1:749:C:H6	1.84	0.41
1:1:870:G:H3'	83:1:4141:HOH:O	2.20	0.41
2:2:1477:G:H2'	2:2:1478:G:C8	2.56	0.41
2:2:1567:U:C5	2:2:1568:C:N4	2.89	0.41
2:2:1595:U:H6	2:2:1596:C:C2	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:786:C:H6	2:2:786:C:O5'	2.03	0.41
1:1:406:G:H1'	4:4:16:G:N2	2.36	0.41
1:5:2203:U:C2'	1:5:2204:C:H5'	2.51	0.41
1:5:2662:G:O2'	1:5:2663:G:OP1	2.37	0.41
1:5:2780:A:H2'	1:5:2781:U:C6	2.56	0.41
1:5:2223:A:N1	1:5:2783:U:H1'	2.36	0.41
1:5:2938:G:C2'	1:5:2939:G:H5'	2.51	0.41
1:5:3210:A:C5	1:5:3211:C:C4	3.08	0.41
1:5:676:G:C2	1:5:787:G:C6	3.09	0.41
1:5:847:A:N1	2:6:972:G:O2'	2.51	0.41
1:5:933:A:H61	29:L4:102:PRO:HD3	131.72	0.41
1:5:992:A:O2'	1:5:993:G:H5'	2.20	0.41
2:6:1173:C:H5'	2:6:1543:A:O2'	2.21	0.41
2:6:1202:A:N3	2:6:1202:A:H3'	2.36	0.41
2:6:1679:G:C6	2:6:1680:G:N1	2.89	0.41
2:6:292:U:C4	2:6:293:U:C4	3.09	0.41
2:6:77:U:H5''	2:6:79:C:OP2	2.21	0.41
2:6:956:C:O5'	2:6:956:C:H6	2.04	0.41
3:7:87:G:OP1	32:L7:218:ARG:NE	259.09	0.41
11:C6:86:ALA:HB1	11:C6:109:PHE:CE2	2.89	0.41
2:2:1539:G:C2	13:C8:30:TYR:CE1	3.09	0.41
14:C9:28:LEU:HA	14:C9:28:LEU:HD23	4.69	0.41
14:C9:33:TYR:C	14:C9:35:ASP:H	4.21	0.41
14:C9:38:LYS:O	14:C9:39:THR:OG1	2.34	0.41
18:D3:33:LEU:HD23	18:D3:33:LEU:HA	1.73	0.41
19:D4:62:THR:HA	19:D4:69:SER:HA	2.09	0.41
20:D5:43:ASP:O	20:D5:45:GLU:N	2.54	0.41
21:D6:93:LYS:H	21:D6:93:LYS:HG3	1.74	0.41
27:L2:137:ILE:HG12	27:L2:147:ARG:O	2.20	0.41
28:L3:222:LYS:HE3	28:L3:222:LYS:HB3	2.83	0.41
28:L3:287:LYS:HD2	28:L3:287:LYS:HA	4.37	0.41
30:L5:110:LEU:HG	30:L5:116:ASP:HA	3.73	0.41
3:7:31:U:H4'	30:L5:218:ARG:NH1	310.57	0.41
32:L7:103:LEU:HA	32:L7:103:LEU:HD23	1.92	0.41
33:L8:88:ALA:O	33:L8:92:LYS:HB2	2.34	0.41
34:L9:68:LEU:O	34:L9:69:ARG:C	2.76	0.41
1:1:1125:U:OP1	35:M0:15:LYS:HG3	2.21	0.41
35:M0:190:VAL:O	35:M0:191:LYS:HD2	2.20	0.41
37:M3:109:PHE:O	37:M3:113:VAL:HG23	2.19	0.41
40:M6:56:ASP:O	40:M6:60:LYS:HE3	4.54	0.41
41:M7:25:SER:O	41:M7:29:THR:HG23	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:M7:52:LEU:HD12	41:M7:52:LEU:HA	2.03	0.41
44:N0:2:ALA:HB3	44:N0:32:SER:HB2	2.02	0.41
47:N3:67:PRO:HA	47:N3:70:ARG:HG3	2.02	0.41
28:L3:67:PHE:CD2	47:N3:88:ARG:HD3	2.55	0.41
50:N6:50:ILE:HD11	50:N6:70:ILE:HD13	2.02	0.41
51:N7:129:TRP:HB3	51:N7:130:PHE:H	2.66	0.41
54:O0:14:LEU:HA	54:O0:14:LEU:HD23	1.81	0.41
1:1:945:C:OP1	56:O2:33:ARG:HG3	2.19	0.41
1:1:634:C:H5'	57:O3:21:ARG:O	2.20	0.41
59:O5:31:LEU:HB3	59:O5:44:ILE:HG13	2.03	0.41
59:O5:70:TYR:O	59:O5:73:LYS:HG2	2.19	0.41
63:O9:14:ALA:O	63:O9:18:LYS:HG3	2.21	0.41
67:Q3:44:LYS:HD2	67:Q3:59:CYS:SG	2.60	0.41
27:L2:96:LEU:CD2	67:Q3:83:ILE:HG23	2.51	0.41
2:2:788:A:OP2	72:S4:106:LYS:HE3	2.19	0.41
73:S5:97:LEU:HA	73:S5:97:LEU:HD23	1.81	0.41
77:S9:167:ALA:O	77:S9:168:ARG:HB2	2.27	0.41
78:SM:54:PRO:HB3	78:SM:58:GLU:HG3	2.03	0.41
1:1:1155:C:O2'	1:1:1197:A:N1	2.46	0.41
1:1:1650:G:H2'	1:1:1651:U:H6	1.85	0.41
1:1:1889:G:H5'	28:L3:245:GLY:HA2	2.02	0.41
1:1:2225:U:H2'	1:1:2226:U:C6	2.56	0.41
1:1:2520:A:OP1	81:1:3894:8UZ:O9	2.38	0.41
1:1:2525:G:O2'	1:1:2526:C:OP2	2.26	0.41
1:1:2541:U:H1'	1:1:2542:U:OP2	2.20	0.41
1:1:2648:G:C2	1:1:2649:A:C8	3.08	0.41
1:1:2694:A:N6	1:1:2695:A:N1	2.69	0.41
1:1:2935:U:H2'	1:1:2935:U:O2	2.21	0.41
1:1:3033:A:H2'	1:1:3034:C:H6	1.86	0.41
1:1:3305:A:H2'	1:1:3306:U:O4'	2.21	0.41
1:1:3152:U:C5	1:1:3395:G:C6	3.09	0.41
1:1:504:A:N1	1:1:588:G:C6	2.89	0.41
2:2:1407:U:H2'	2:2:1408:G:O4'	2.20	0.41
2:2:438:A:H1'	2:2:466:U:O2	2.21	0.41
2:2:474:A:OP2	77:S9:44:ARG:NH1	2.52	0.41
1:5:1070:U:C4	1:5:1071:U:C4	3.09	0.41
1:5:1204:A:C2'	1:5:1205:A:H5'	2.51	0.41
1:5:1523:U:H3'	1:5:1607:U:O2	2.20	0.41
1:5:1602:A:C6	1:5:1603:A:C6	3.08	0.41
1:5:1716:U:H2'	1:5:1716:U:H6	1.70	0.41
1:5:1744:G:C6	1:5:1745:C:N4	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:189:G:N7	1:5:206:G:N1	2.68	0.41
1:5:2186:U:OP2	27:L2:200:ARG:NH2	216.37	0.41
1:5:2331:C:H2'	1:5:2332:A:O4'	2.20	0.41
1:5:2544:U:H3'	1:5:2545:C:C5'	2.51	0.41
1:5:263:C:H2'	1:5:264:G:O4'	2.20	0.41
1:5:2911:A:H4'	1:5:2912:G:C8	2.55	0.41
1:5:3181:C:C4	1:5:3182:G:C5	3.09	0.41
1:5:112:U:C2	1:5:320:G:C2	3.09	0.41
1:5:3340:G:H5''	1:5:3341:U:OP2	2.20	0.41
1:5:817:A:C4	61:O7:13:ASN:O	140.79	0.41
1:5:839:C:H2'	1:5:840:C:C6	2.54	0.41
2:6:1017:U:H2'	2:6:1018:U:H6	1.81	0.41
2:6:1553:G:H2'	2:6:1555:A:OP2	2.21	0.41
2:6:1790:A:O2'	2:6:1791:A:H5'	2.21	0.41
2:6:188:A:H2'	2:6:189:C:O4'	2.21	0.41
2:6:232:U:P	2:6:232:U:H3'	2.61	0.41
2:6:973:A:H2'	2:6:974:A:C8	2.56	0.41
2:6:973:A:H2'	2:6:974:A:H8	1.85	0.41
2:6:990:C:O2'	9:C4:127:ARG:HD3	284.13	0.41
4:8:36:G:N2	4:8:37:A:N1	2.67	0.41
4:8:41:A:O2'	61:O7:59:THR:HG22	92.57	0.41
2:2:952:A:OP1	8:C3:94:LYS:HE2	2.21	0.41
2:6:1460:A:C4	10:C5:128:HIS:CD2	332.30	0.41
2:6:1379:C:H5'	11:C6:10:PHE:CE2	432.93	0.41
21:D6:53:LEU:HA	21:D6:53:LEU:HD22	2.24	0.41
26:E1:82:LYS:O	26:E1:84:VAL:N	3.45	0.41
28:L3:115:LYS:HA	28:L3:118:PHE:HD1	2.27	0.41
28:L3:163:HIS:HB3	28:L3:178:LEU:HD13	2.75	0.41
28:L3:306:THR:HA	28:L3:307:PRO:HD3	1.99	0.41
30:L5:25:GLU:HG2	30:L5:25:GLU:H	3.09	0.41
30:L5:98:ALA:O	30:L5:102:GLY:N	2.44	0.41
33:L8:101:THR:HG22	33:L8:104:GLU:CG	2.50	0.41
33:L8:101:THR:HG22	33:L8:104:GLU:HG3	2.03	0.41
33:L8:144:GLU:OE1	60:O6:36:ARG:NH2	2.52	0.41
33:L8:160:ILE:HG13	33:L8:160:ILE:H	1.69	0.41
1:5:2557:A:H2	33:L8:38:GLN:HA	208.77	0.41
35:M0:178:ARG:HG2	35:M0:178:ARG:H	2.21	0.41
3:3:42:A:O2'	36:M1:140:ARG:HG2	2.20	0.41
37:M3:12:ASN:HB3	37:M3:14:PHE:CE1	2.73	0.41
44:N0:13:ARG:O	44:N0:22:PRO:HG2	2.21	0.41
45:N1:27:LEU:HD22	45:N1:27:LEU:HA	1.72	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:N1:15:PHE:CE2	45:N1:44:ALA:HB3	2.68	0.41
48:N4:14:TYR:HD2	48:N4:15:PRO:HD2	1.85	0.41
1:1:1558:A:O2'	49:N5:34:LEU:HD23	2.20	0.41
50:N6:3:LYS:HE2	50:N6:8:VAL:O	2.20	0.41
50:N6:94:SER:O	50:N6:95:VAL:HG23	2.74	0.41
52:N8:127:ALA:O	52:N8:147:LEU:HA	2.35	0.41
56:O2:125:ARG:HD3	56:O2:125:ARG:H	4.33	0.41
1:5:1433:A:N3	56:O2:27:ARG:NH1	166.94	0.41
1:1:817:A:N3	61:O7:11:ARG:HB3	2.35	0.41
65:Q1:22:ALA:HA	65:Q1:25:LYS:HG3	2.03	0.41
66:Q2:9:LYS:HB2	66:Q2:9:LYS:HE3	1.84	0.41
9:C4:114:ARG:HH22	69:S1:77:GLU:HG3	1.86	0.41
70:S2:56:ILE:O	70:S2:61:LEU:HG	2.21	0.41
71:S3:212:LYS:HB2	71:S3:212:LYS:HE2	1.87	0.41
72:S4:101:LEU:HD23	72:S4:101:LEU:HA	1.98	0.41
72:S4:197:HIS:CG	72:S4:198:LYS:N	2.89	0.41
73:S5:53:VAL:CG2	73:S5:59:VAL:HG22	2.50	0.41
74:S6:7:TYR:CE2	74:S6:9:VAL:HB	2.72	0.41
75:S7:60:ILE:HG13	75:S7:91:ILE:O	2.21	0.41
76:S8:121:LEU:HA	76:S8:121:LEU:HD13	2.57	0.41
1:1:3353:G:OP2	76:S8:162:ALA:HB2	2.20	0.41
1:1:103:G:O4'	37:M3:65:TYR:CE1	2.74	0.41
1:1:1481:A:N3	58:O4:4:ARG:CZ	2.84	0.41
1:1:1467:A:C6	1:1:1511:U:C2	3.09	0.41
1:1:168:U:H2'	1:1:169:U:C5	2.56	0.41
1:1:1745:C:H2'	1:1:1746:U:O4'	2.20	0.41
1:1:200:C:H41	1:1:217:U:H2'	1.85	0.41
1:1:2269:U:O2	1:1:2271:A:C8	2.73	0.41
1:1:1131:G:C2	1:1:2373:A:C4	3.08	0.41
1:1:2611:U:H2'	1:1:2612:U:H6	1.83	0.41
1:1:2628:A:C4	1:1:2798:C:N4	2.88	0.41
1:1:2709:C:O2'	1:1:2710:C:H5'	2.21	0.41
1:1:2962:U:C4	1:1:2963:C:C5	3.09	0.41
1:1:2992:U:H1'	41:M7:69:ARG:NH2	2.36	0.41
1:1:3110:C:H2'	1:1:3111:U:O4'	2.21	0.41
1:1:3261:C:O2'	1:1:3262:U:H5'	2.20	0.41
1:1:3269:U:O2	1:1:3269:U:H5'	2.20	0.41
1:1:3390:G:N2	1:1:3391:A:H1'	2.36	0.41
1:1:379:C:H2'	1:1:380:U:H6	1.85	0.41
81:1:3890:8UZ:O7	2:2:981:U:OP1	2.38	0.41
1:1:687:U:H5	37:M3:36:ARG:CZ	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:693:A:H2'	1:1:694:C:C6	2.56	0.41
1:1:723:U:C2	1:1:724:U:C5	3.09	0.41
1:1:755:A:N1	1:1:778:U:C2	2.88	0.41
1:1:840:C:H6	1:1:840:C:O5'	2.04	0.41
2:2:1118:G:H2'	2:2:1119:G:H8	1.86	0.41
2:2:1491:U:H1'	2:2:1492:A:OP2	2.20	0.41
2:2:1579:U:H2'	2:2:1580:C:H6	1.85	0.41
2:2:64:U:O2'	2:2:168:A:N3	2.47	0.41
2:2:15:U:C4	2:2:16:G:C5	3.08	0.41
2:2:1761:U:O2'	2:2:1762:A:OP2	2.30	0.41
2:2:1771:U:H2'	2:2:1772:C:C6	2.56	0.41
2:2:866:G:N2	2:2:965:U:C5	2.89	0.41
2:2:911:U:O2'	2:2:915:A:H1'	2.20	0.41
3:3:101:G:OP2	44:N0:52:LYS:NZ	2.48	0.41
1:5:1064:A:H4'	1:5:1065:A:O5'	2.20	0.41
1:5:1397:C:C2'	1:5:1398:U:H5'	2.51	0.41
1:5:1559:A:O2'	1:5:1560:G:OP1	2.30	0.41
1:5:2162:U:OP1	27:L2:234:LYS:NZ	196.99	0.41
1:5:20:A:N6	1:5:21:G:O6	2.54	0.41
1:5:2278:C:O2'	1:5:2279:A:H5''	2.21	0.41
1:5:2623:G:H2'	1:5:2624:G:H8	1.86	0.41
1:5:3174:A:C5	1:5:3279:A:H1'	2.56	0.41
2:6:273:G:O5'	2:6:273:G:H8	2.04	0.41
2:6:321:C:H4'	2:6:322:G:OP2	2.21	0.41
2:6:323:A:C6	2:6:324:U:O4	2.74	0.41
2:6:557:G:H8	2:6:557:G:H2'	1.75	0.41
2:6:72:A:H3'	2:6:73:U:O4'	2.20	0.41
4:8:139:U:C2	4:8:140:G:C8	3.09	0.41
6:C1:13:PHE:HB2	76:S8:191:PHE:CD1	2.56	0.41
7:C2:27:ALA:O	7:C2:31:VAL:HG23	2.41	0.41
2:2:901:G:N2	9:C4:54:GLU:OE1	2.54	0.41
11:C6:48:VAL:HG23	11:C6:81:ILE:HG13	2.03	0.41
12:C7:13:SER:OG	12:C7:54:THR:HG22	2.21	0.41
13:C8:29:VAL:CG2	13:C8:54:LEU:HD23	5.78	0.41
2:2:1280:C:O2'	15:D0:70:THR:HB	2.21	0.41
15:D0:57:ARG:HG3	15:D0:89:ARG:CZ	2.50	0.41
17:D2:50:PHE:CB	17:D2:63:VAL:HG22	2.51	0.41
18:D3:6:PRO:O	18:D3:15:LEU:HD21	2.58	0.41
21:D6:71:LEU:HB3	21:D6:73:TYR:CE2	2.56	0.41
21:D6:79:ILE:CA	21:D6:84:VAL:HG11	2.47	0.41
26:E1:102:VAL:HG13	26:E1:103:LEU:N	2.30	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:1253:U:H5'	26:E1:130:VAL:HB	2.03	0.41
30:L5:154:THR:HG1	30:L5:157:ALA:HB2	1.86	0.41
33:L8:225:LYS:O	33:L8:229:VAL:HG23	2.20	0.41
34:L9:172:ILE:O	34:L9:176:LEU:HD23	2.21	0.41
34:L9:180:TYR:HB2	64:Q0:85:LEU:CD1	2.50	0.41
35:M0:142:ASP:CG	35:M0:178:ARG:HH22	2.81	0.41
36:M1:14:ILE:HG23	36:M1:129:VAL:HG13	2.02	0.41
39:M5:48:ALA:HB1	39:M5:53:TYR:CB	2.65	0.41
40:M6:181:ALA:O	40:M6:184:THR:HG22	2.20	0.41
41:M7:28:ASN:O	41:M7:32:THR:HG22	2.83	0.41
48:N4:17:ARG:HA	48:N4:17:ARG:HD3	2.09	0.41
48:N4:39:LEU:HD12	48:N4:39:LEU:HA	2.06	0.41
49:N5:57:LEU:HD22	49:N5:62:VAL:HG22	3.71	0.41
50:N6:97:ILE:HG22	50:N6:99:LEU:HG	2.14	0.41
54:O0:95:ALA:HB2	54:O0:101:LEU:CD2	2.96	0.41
56:O2:109:LEU:HA	56:O2:109:LEU:HD23	2.20	0.41
56:O2:123:LYS:HA	56:O2:126:LEU:HB2	2.01	0.41
56:O2:75:LEU:HD23	56:O2:95:GLU:HB3	2.03	0.41
59:O5:70:TYR:CD1	59:O5:76:GLN:HA	2.83	0.41
60:O6:26:ILE:CD1	60:O6:26:ILE:H	2.27	0.41
67:Q3:74:ALA:O	67:Q3:78:THR:HG23	2.21	0.41
68:S0:107:PHE:CB	68:S0:139:VAL:HG21	2.47	0.41
68:S0:29:VAL:HG22	68:S0:30:GLN:H	3.22	0.41
69:S1:193:ILE:O	69:S1:197:ILE:HG12	2.21	0.41
70:S2:178:ILE:HD13	70:S2:189:GLN:HG3	3.36	0.41
70:S2:168:ARG:O	70:S2:198:THR:HA	2.21	0.41
70:S2:243:TYR:HB3	70:S2:246:GLU:HG3	2.02	0.41
70:S2:44:LEU:HD21	70:S2:247:ALA:HB2	2.03	0.41
70:S2:59:HIS:HB2	70:S2:61:LEU:CD2	2.51	0.41
72:S4:62:LYS:CE	72:S4:66:MET:HE3	6.37	0.41
73:S5:64:VAL:O	73:S5:65:ARG:HB2	2.20	0.41
74:S6:48:TYR:CE1	74:S6:121:LEU:HD22	6.21	0.41
75:S7:114:ARG:O	75:S7:117:THR:HB	2.79	0.41
75:S7:49:ILE:HD12	75:S7:172:VAL:HA	2.09	0.41
79:SR:170:ILE:HD11	79:SR:204:ALA:HB2	2.02	0.41
1:1:109:A:H8	1:1:109:A:O5'	2.04	0.41
1:1:1324:U:H2'	1:1:1325:U:O4'	2.21	0.41
1:1:20:A:N6	1:1:21:G:O6	2.54	0.41
1:1:2534:G:H1	1:1:2545:C:H42	1.67	0.41
1:1:2796:G:C4'	1:1:2798:C:C6	3.04	0.41
1:1:287:G:H2'	1:1:288:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3044:G:O2'	1:1:3045:G:H5'	2.20	0.41
1:1:112:U:N3	1:1:320:G:C2	2.89	0.41
1:1:3216:G:O6	1:1:3259:U:H2'	2.21	0.41
1:1:3295:A:OP2	28:L3:126:LYS:N	2.54	0.41
1:1:551:A:C4	1:1:552:G:C8	3.09	0.41
2:2:1244:A:N3	2:2:1244:A:H3'	2.36	0.41
2:2:1226:A:N3	2:2:1256:A:H2	2.18	0.41
2:2:1771:U:H2'	2:2:1772:C:O4'	2.21	0.41
2:2:1788:G:OP2	9:C4:132:ARG:NH1	2.52	0.41
2:2:197:A:H2'	2:2:198:A:C8	2.56	0.41
2:2:301:A:C6	2:2:302:U:C4	3.09	0.41
2:2:547:U:H2'	2:2:548:G:O4'	2.21	0.41
2:2:684:A:H2'	2:2:685:A:H5'	2.02	0.41
2:2:775:G:C2	2:2:786:C:N3	2.88	0.41
2:2:884:A:H2'	2:2:885:G:C8	2.55	0.41
4:4:37:A:N3	4:4:37:A:H2'	2.35	0.41
1:5:1454:A:H5''	1:5:1455:U:H5'	2.03	0.41
1:5:1634:G:O6	51:N7:17:ARG:HG3	202.25	0.41
1:5:199:A:N3	1:5:201:A:C8	2.88	0.41
1:5:2278:C:H2'	1:5:2279:A:H5''	2.02	0.41
1:5:2553:U:C5	58:O4:95:ILE:HG12	229.52	0.41
1:5:938:C:O2'	1:5:2814:G:O2'	2.36	0.41
1:5:3371:G:C6	1:5:3372:A:C6	3.09	0.41
1:5:584:G:H2'	1:5:585:A:C8	2.51	0.41
1:5:944:C:O2'	1:5:945:C:H5'	2.20	0.41
2:6:1049:U:H2'	2:6:1050:G:C8	2.56	0.41
2:6:1557:U:O2'	2:6:1558:U:H2'	2.21	0.41
2:6:1764:C:C5	2:6:1767:G:C4	3.09	0.41
2:6:304:U:H2'	2:6:305:C:H6	1.85	0.41
2:6:490:C:H2'	2:6:491:C:O4'	2.21	0.41
2:6:895:G:H2'	2:6:896:U:C6	2.56	0.41
4:8:153:U:OP1	33:L8:63:LYS:HE2	157.34	0.41
4:8:52:A:C2	4:8:53:A:H1'	2.54	0.41
4:8:83:C:P	4:8:83:C:H3'	2.61	0.41
6:C1:47:THR:HB	6:C1:114:ALA:HA	3.28	0.41
2:2:813:U:O2	6:C1:156:PHE:HA	2.21	0.41
6:C1:54:ILE:CG2	6:C1:55:ASP:N	2.83	0.41
7:C2:29:LYS:HG3	7:C2:100:TRP:HD1	2.38	0.41
9:C4:20:TYR:HA	9:C4:84:ARG:HG2	4.09	0.41
14:C9:124:ILE:HD11	14:C9:128:GLY:HA3	2.03	0.41
25:E0:34:ALA:O	25:E0:37:ARG:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:L4:334:PHE:HA	29:L4:339:LEU:HD12	2.03	0.41
29:L4:3:ARG:HA	29:L4:4:PRO:HD3	1.82	0.41
31:L6:43:LEU:HD23	31:L6:43:LEU:HA	1.81	0.41
33:L8:70:LYS:H	33:L8:70:LYS:HG3	3.62	0.41
33:L8:71:VAL:CG1	33:L8:76:ALA:HB2	2.51	0.41
34:L9:24:ILE:HD13	34:L9:37:ASN:HA	2.03	0.41
34:L9:4:ILE:HG23	44:N0:142:GLN:OE1	3.90	0.41
35:M0:10:ARG:HG2	35:M0:11:TYR:CE1	2.56	0.41
39:M5:92:LEU:HD12	39:M5:92:LEU:HA	1.85	0.41
40:M6:110:PRO:O	40:M6:112:TYR:N	2.50	0.41
40:M6:42:ASN:OD1	40:M6:125:ARG:HD3	2.20	0.41
40:M6:45:GLY:O	40:M6:135:TYR:HA	2.21	0.41
40:M6:98:ALA:HA	40:M6:101:ARG:HH11	1.92	0.41
42:M8:131:ALA:HB1	42:M8:135:GLN:N	2.88	0.41
42:M8:178:ARG:HA	42:M8:178:ARG:HD3	1.70	0.41
45:N1:129:LYS:H	45:N1:129:LYS:HG2	3.86	0.41
1:1:190:U:H2'	50:N6:60:ARG:NH2	2.36	0.41
51:N7:13:VAL:HG12	51:N7:19:ALA:HA	2.78	0.41
54:O0:20:SER:OG	54:O0:96:GLY:HA3	2.21	0.41
58:O4:9:ARG:HD2	58:O4:34:HIS:ND1	2.35	0.41
1:5:1852:G:H1'	61:O7:9:GLY:HA3	155.39	0.41
62:O8:61:LYS:HE2	62:O8:61:LYS:HB3	1.95	0.41
1:1:1493:G:C6	63:O9:2:ALA:HB2	2.56	0.41
66:Q2:57:VAL:O	66:Q2:59:HIS:CE1	2.74	0.41
69:S1:81:PHE:CE1	69:S1:109:LYS:HE2	2.56	0.41
69:S1:27:LYS:HB3	69:S1:48:VAL:O	4.91	0.41
69:S1:40:ASN:O	69:S1:40:ASN:ND2	2.53	0.41
70:S2:178:ILE:HD13	70:S2:188:LEU:HB2	2.03	0.41
71:S3:6:SER:O	71:S3:10:LYS:HB3	2.60	0.41
72:S4:118:GLU:HA	72:S4:121:TYR:CD1	3.39	0.41
73:S5:99:MET:HB3	73:S5:99:MET:HE3	1.96	0.41
2:2:155:U:H4'	74:S6:59:GLN:N	2.36	0.41
74:S6:63:MET:HA	74:S6:98:ARG:O	2.58	0.41
77:S9:99:LEU:HD12	77:S9:103:ASP:OD1	2.21	0.41
77:S9:121:SER:HB3	77:S9:124:HIS:CB	2.74	0.41
79:SR:127:ARG:HG2	79:SR:150:TRP:CD2	2.55	0.41
79:SR:250:TYR:N	79:SR:250:TYR:CD1	2.89	0.41
1:1:2094:C:H2'	1:1:2095:G:H8	1.85	0.41
1:1:2204:C:H2'	1:1:2205:U:O4'	2.21	0.41
1:1:2361:A:C6	1:1:2362:C:N3	2.89	0.41
1:1:2534:G:H2'	1:1:2535:A:C8	2.48	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2707:C:H2'	1:1:2708:C:H6	1.86	0.41
1:1:2884:C:H2'	1:1:2885:C:H6	1.86	0.41
1:1:3277:U:OP1	1:1:3278:C:N4	2.53	0.41
1:1:3386:G:H2'	1:1:3387:U:C6	2.55	0.41
1:1:751:A:H2'	1:1:752:C:H6	1.85	0.41
1:1:826:G:C4	1:1:827:A:C8	3.09	0.41
2:2:1068:C:C2	2:2:1069:A:C8	3.09	0.41
2:2:1471:A:H5'	73:S5:184:PHE:CE2	2.49	0.41
2:2:590:C:H5'	25:E0:56:MET:HG2	2.01	0.41
2:2:686:C:H2'	2:2:687:G:C8	2.56	0.41
2:2:783:G:O2'	2:2:784:C:P	2.79	0.41
2:2:870:C:O2'	2:2:871:G:H5'	2.20	0.41
2:2:872:G:H2'	2:2:873:U:O4'	2.21	0.41
1:5:1152:G:H8	1:5:1152:G:OP2	2.04	0.41
1:5:620:U:C4	1:5:622:A:C6	3.08	0.41
1:5:668:G:C5	1:5:795:G:C2	3.09	0.41
1:5:709:A:H2'	1:5:710:A:O4'	2.20	0.41
2:6:1513:G:H1'	2:6:1518:C:O2	2.21	0.41
2:6:765:G:N7	77:S9:149:ARG:CZ	429.40	0.41
5:C0:32:HIS:CD2	5:C0:33:GLU:N	3.88	0.41
7:C2:52:LEU:HD21	7:C2:60:VAL:CG2	2.51	0.41
11:C6:50:GLU:OE2	11:C6:82:ARG:NH2	3.02	0.41
2:2:1532:U:OP1	20:D5:81:ARG:NH1	2.54	0.41
27:L2:116:VAL:CG1	27:L2:126:LEU:HB2	3.46	0.41
1:5:2184:U:O3'	27:L2:211:HIS:CE1	209.81	0.41
28:L3:383:LEU:HD23	28:L3:383:LEU:HA	1.85	0.41
29:L4:269:SER:C	29:L4:271:LYS:H	2.37	0.41
29:L4:276:LEU:HA	29:L4:276:LEU:HD23	1.85	0.41
29:L4:67:THR:OG1	29:L4:68:GLY:N	2.54	0.41
29:L4:93:MET:H	29:L4:93:MET:HE2	3.04	0.41
32:L7:108:LEU:HD22	32:L7:114:GLY:HA2	2.03	0.41
34:L9:92:TYR:CD2	34:L9:92:TYR:N	4.21	0.41
35:M0:169:LYS:H	35:M0:169:LYS:HE2	4.85	0.41
36:M1:132:ASN:HD22	36:M1:136:ALA:CB	2.64	0.41
36:M1:21:ILE:HG13	36:M1:37:LEU:HD11	2.42	0.41
1:5:1547:G:OP1	39:M5:105:ARG:HD3	129.07	0.41
40:M6:16:VAL:HG12	40:M6:17:GLY:N	2.36	0.41
52:N8:69:TRP:CD2	52:N8:71:PRO:HD3	2.80	0.41
54:O0:25:LEU:CD2	54:O0:90:VAL:HG13	2.69	0.41
1:5:3175:U:C4	57:O3:99:ARG:NH2	235.09	0.41
58:O4:19:LYS:O	58:O4:20:ILE:HD13	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:O5:119:LYS:HD2	59:O5:119:LYS:HA	1.55	0.41
64:Q0:88:LYS:HB3	64:Q0:88:LYS:HE3	2.70	0.41
68:S0:172:LEU:HA	68:S0:172:LEU:HD23	1.92	0.41
69:S1:103:MET:HB3	69:S1:215:VAL:HG12	2.03	0.41
73:S5:116:HIS:O	73:S5:120:ILE:HG13	2.20	0.41
1:1:1316:C:C6	40:M6:130:LYS:HB2	2.56	0.41
1:1:1343:A:H2'	1:1:1344:G:C8	2.56	0.41
1:1:1491:A:H2'	1:1:1492:G:O4'	2.21	0.41
1:1:1632:A:C4	1:1:1644:C:C2	3.09	0.41
1:1:2310:U:OP1	81:1:3893:8UZ:O9	2.38	0.41
1:1:2315:G:C2	1:1:2316:G:N7	2.89	0.41
1:1:2325:G:C2	1:1:2326:A:C8	3.09	0.41
1:1:250:U:H5	1:1:251:G:C4	2.39	0.41
1:1:2661:G:H2'	1:1:2662:G:H8	1.86	0.41
1:1:2855:U:H2'	1:1:2856:G:O4'	2.20	0.41
1:1:3112:G:C2	1:1:3121:U:C5	3.09	0.41
1:1:3276:G:H22	57:O3:60:ARG:HH22	1.67	0.41
1:1:3355:U:H3'	1:1:3356:G:C5'	2.51	0.41
1:1:47:C:N4	1:1:48:A:C6	2.89	0.41
1:1:776:U:C5	1:1:2719:U:O2	2.74	0.41
2:2:103:A:H4'	2:2:104:A:O5'	2.21	0.41
2:2:1488:G:H5'	2:2:1489:U:OP1	2.21	0.41
2:2:1505:A:H2	2:2:1550:A:O4'	2.03	0.41
2:2:603:U:H2'	2:2:604:A:C8	2.56	0.41
2:2:74:U:H2'	2:2:74:U:H6	1.64	0.41
2:2:866:G:N3	2:2:867:G:C8	2.89	0.41
1:5:1009:A:H2'	1:5:1010:G:C8	2.55	0.41
1:5:1118:C:O2'	1:5:1154:A:N1	2.45	0.41
1:5:1488:G:H5''	1:5:1838:G:O6	2.21	0.41
1:5:2249:G:C8	1:5:2249:G:H3'	2.55	0.41
1:5:2771:U:H3'	1:5:2772:C:C5'	2.51	0.41
1:5:3038:U:H2'	1:5:3039:C:O4'	2.21	0.41
1:5:592:A:H2'	1:5:593:C:O4'	2.20	0.41
1:5:744:A:H4'	42:M8:142:GLY:O	163.27	0.41
1:5:74:G:N1	1:5:75:G:C5	2.89	0.41
1:5:903:U:H2'	1:5:904:A:H8	1.86	0.41
2:6:1120:U:H2'	2:6:1121:C:C6	2.56	0.41
2:6:159:U:O2'	74:S6:87:ARG:NH1	320.80	0.41
2:6:281:G:H2'	2:6:282:C:C6	2.56	0.41
2:6:585:A:N6	2:6:586:G:O6	2.55	0.41
2:6:779:U:H3'	2:6:780:A:H5''	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C0:52:LYS:HE2	5:C0:54:TYR:HE2	1.86	0.41
8:C3:23:PRO:O	8:C3:24:ALA:HB3	2.20	0.41
13:C8:113:LEU:O	13:C8:117:LYS:HG3	2.21	0.41
18:D3:126:LYS:HA	18:D3:131:SER:HA	2.02	0.41
2:2:1754:A:N3	25:E0:2:ALA:HB2	2.35	0.41
27:L2:54:ARG:HG2	27:L2:55:GLY:H	1.86	0.41
27:L2:80:GLU:HG3	67:Q3:66:GLY:HA2	2.03	0.41
29:L4:186:LYS:HB2	29:L4:200:THR:CG2	2.51	0.41
29:L4:291:ASN:O	29:L4:296:GLN:HG2	2.21	0.41
29:L4:29:PRO:O	29:L4:124:SER:OG	2.54	0.41
31:L6:154:LEU:HA	31:L6:157:GLN:OE1	2.20	0.41
31:L6:50:LYS:HG2	31:L6:74:VAL:CG2	2.73	0.41
4:8:154:C:H5"	33:L8:181:LYS:HD3	153.70	0.41
34:L9:109:ALA:HB3	34:L9:111:PHE:CE2	3.59	0.41
34:L9:41:ILE:O	34:L9:42:ASP:HB2	2.20	0.41
37:M3:76:THR:HG23	37:M3:101:ARG:NH1	2.36	0.41
39:M5:112:ASN:O	39:M5:138:GLN:NE2	2.54	0.41
44:N0:10:ILE:O	44:N0:59:VAL:N	2.54	0.41
47:N3:15:LEU:HA	47:N3:15:LEU:HD23	1.81	0.41
50:N6:103:LYS:HA	50:N6:103:LYS:HD3	2.09	0.41
1:5:228:U:H5"	50:N6:8:VAL:HG21	62.67	0.41
51:N7:4:PHE:C	51:N7:5:LEU:HG	3.38	0.41
52:N8:48:TYR:O	52:N8:49:HIS:CG	2.78	0.41
52:N8:87:ARG:O	52:N8:90:TYR:N	2.53	0.41
58:O4:95:ILE:O	58:O4:99:LYS:N	2.95	0.41
59:O5:102:GLU:OE1	59:O5:106:LYS:HE3	2.21	0.41
1:5:116:A:OP1	60:O6:36:ARG:NH1	110.29	0.41
4:8:94:C:H5"	61:O7:76:ASN:HD21	46.61	0.41
4:4:95:G:P	61:O7:76:ASN:HD22	2.41	0.41
63:O9:13:MET:O	63:O9:16:ALA:HB3	2.21	0.41
2:6:931:C:O2'	69:S1:118:GLN:O	319.72	0.41
69:S1:48:VAL:HG22	69:S1:64:ARG:NH2	3.32	0.41
70:S2:104:VAL:HG22	70:S2:132:ALA:HB1	2.03	0.41
73:S5:127:GLN:O	73:S5:128:ASN:C	2.58	0.41
2:2:1473:U:OP1	73:S5:190:ILE:HG12	2.21	0.41
74:S6:215:ARG:HA	74:S6:218:GLU:OE1	3.62	0.41
75:S7:117:THR:CG2	75:S7:120:ALA:H	2.35	0.41
77:S9:60:LEU:HA	77:S9:60:LEU:HD23	2.60	0.41
77:S9:84:GLY:O	77:S9:107:ARG:HD3	2.21	0.41
77:S9:77:ILE:HG23	77:S9:86:LEU:CD2	2.67	0.41
79:SR:14:GLU:HB3	79:SR:309:VAL:HG22	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1073:U:O2'	53:N9:49:GLY:HA3	2.20	0.40
1:1:1405:U:H2'	1:1:1406:A:O4'	2.21	0.40
1:1:1472:U:H2'	1:1:1473:G:H8	1.86	0.40
1:1:1675:G:N2	1:1:1773:C:C4	2.89	0.40
1:1:1744:G:C6	1:1:1745:C:C4	3.09	0.40
1:1:2362:C:H2'	1:1:2363:A:O4'	2.20	0.40
1:1:2394:G:C5'	28:L3:252:ILE:HG22	2.51	0.40
1:1:2553:U:C6	54:O0:50:VAL:HG12	2.56	0.40
1:1:2887:A:H2'	1:1:2887:A:N3	2.36	0.40
1:1:28:C:C2	1:1:57:A:C6	3.09	0.40
1:1:2943:G:N7	1:1:2944:U:C5	2.89	0.40
1:1:3047:U:O2'	1:1:3048:A:H5'	2.21	0.40
1:1:3298:C:H2'	1:1:3299:A:C8	2.56	0.40
1:1:3308:C:C4	1:1:3309:G:C5	3.09	0.40
1:1:342:A:C5	1:1:349:A:N7	2.89	0.40
1:1:371:G:H2'	1:1:373:A:OP2	2.20	0.40
1:1:51:A:H2'	1:1:52:A:C8	2.55	0.40
1:1:715:A:C8	52:N8:115:LYS:HG2	2.57	0.40
2:2:1083:G:O2'	2:2:1084:A:H5'	2.20	0.40
2:2:1291:G:H22	2:2:1324:G:H1	1.68	0.40
2:2:1387:G:H1'	2:2:1410:A:H61	1.85	0.40
2:2:1798:U:O4	21:D6:83:ILE:HG13	2.21	0.40
2:2:238:U:O2	2:2:240:U:H2'	2.21	0.40
2:2:633:U:O2	2:2:967:A:C2	2.74	0.40
2:2:652:G:N2	2:2:683:C:O2	2.54	0.40
1:5:1213:G:O2'	1:5:1214:U:H5'	2.21	0.40
1:5:1295:G:H2'	1:5:1296:C:C6	2.56	0.40
1:5:1558:A:O2'	1:5:1559:A:H5'	2.21	0.40
1:5:1573:G:N1	1:5:1574:C:O2'	2.43	0.40
1:5:1696:A:C2	1:5:1697:A:C5	3.09	0.40
1:5:1480:G:O2'	1:5:1871:U:O4	2.27	0.40
1:5:2183:A:O2'	27:L2:235:ALA:HA	202.94	0.40
1:5:2228:A:C6	1:5:2229:A:C6	3.09	0.40
1:5:2674:A:C5	1:5:2675:C:C5	3.08	0.40
1:5:296:A:N6	1:5:297:G:O6	2.54	0.40
1:5:3055:U:O3'	1:5:3056:U:H3'	2.20	0.40
1:5:3302:U:O2'	1:5:3303:G:H5'	2.21	0.40
1:5:725:G:H2'	1:5:726:G:H5"	2.03	0.40
2:6:1065:A:H5"	69:S1:205:PHE:CD2	330.42	0.40
2:6:1484:G:H21	2:6:1606:C:H1'	1.85	0.40
2:6:1625:C:H5"	70:S2:91:ARG:HH12	376.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:6:145:A:C2	2:6:171:A:H2	2.39	0.40
2:6:518:A:C2'	2:6:519:C:H5''	2.51	0.40
2:6:802:G:C6	2:6:803:A:C6	3.09	0.40
2:6:906:A:N6	2:6:907:A:C6	2.89	0.40
2:6:922:G:O2'	2:6:923:A:H5'	2.21	0.40
4:8:150:G:C2	4:8:152:G:N7	2.89	0.40
8:C3:18:TYR:CE1	17:D2:56:HIS:CE1	3.49	0.40
8:C3:21:ASN:O	8:C3:22:ALA:HB3	2.23	0.40
9:C4:81:VAL:HG22	9:C4:115:ILE:CB	2.49	0.40
2:6:1241:G:H5''	10:C5:102:PHE:HZ	383.47	0.40
11:C6:94:GLN:HG3	11:C6:95:LYS:N	2.48	0.40
2:2:1413:U:H5'	12:C7:3:ARG:HH11	1.85	0.40
13:C8:69:ILE:O	13:C8:73:MET:HB2	2.55	0.40
19:D4:112:LYS:HE3	19:D4:116:LYS:HD2	2.03	0.40
2:2:152:U:OP2	19:D4:127:LYS:NZ	2.55	0.40
2:6:1797:A:C6	21:D6:87:ARG:HD2	345.34	0.40
2:6:1049:U:OP1	22:D7:69:GLY:HA3	344.15	0.40
27:L2:149:ARG:NH2	27:L2:155:LYS:HE3	5.30	0.40
28:L3:56:ILE:CG1	28:L3:356:LEU:HD22	2.74	0.40
29:L4:233:LEU:HD23	29:L4:233:LEU:HA	1.96	0.40
1:5:1429:G:C4	29:L4:99:MET:HE1	121.82	0.40
30:L5:60:ILE:N	30:L5:80:SER:OG	3.01	0.40
31:L6:165:LEU:HD21	31:L6:171:PRO:HG3	2.43	0.40
31:L6:90:LYS:HB2	31:L6:90:LYS:HE3	1.90	0.40
32:L7:89:ILE:CG2	32:L7:219:LYS:HE3	2.46	0.40
34:L9:162:GLN:HB2	34:L9:179:ILE:O	2.21	0.40
34:L9:166:ARG:HH21	34:L9:168:ARG:HH12	11.83	0.40
35:M0:74:LYS:HE3	35:M0:74:LYS:HB2	1.73	0.40
38:M4:109:ARG:HA	38:M4:112:LEU:HG	2.29	0.40
38:M4:28:SER:O	38:M4:31:LYS:HG3	2.21	0.40
1:5:29:C:OP1	39:M5:189:LYS:HB2	104.09	0.40
40:M6:58:LEU:HA	40:M6:72:HIS:CD2	2.56	0.40
40:M6:78:ARG:O	40:M6:79:ILE:C	2.82	0.40
42:M8:28:LEU:HD23	42:M8:28:LEU:HA	2.04	0.40
44:N0:114:HIS:N	44:N0:114:HIS:ND1	2.68	0.40
49:N5:101:GLU:HG2	49:N5:102:LEU:HD23	2.91	0.40
49:N5:24:LEU:HD23	49:N5:25:LYS:H	1.85	0.40
50:N6:45:ILE:CD1	50:N6:122:LYS:HB2	2.50	0.40
37:M3:9:ILE:HG13	52:N8:49:HIS:NE2	3.02	0.40
1:1:182:U:H5'	61:O7:75:LYS:NZ	2.36	0.40
63:O9:30:ARG:HB2	63:O9:30:ARG:HE	1.59	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:Q2:70:LEU:N	66:Q2:83:LEU:O	2.42	0.40
69:S1:35:PRO:HB2	69:S1:38:PHE:HE2	1.85	0.40
69:S1:98:THR:HG1	69:S1:99:ASN:N	2.19	0.40
75:S7:173:TYR:HE1	75:S7:179:LYS:HB2	1.87	0.40
2:6:856:A:N6	75:S7:96:ARG:HB3	367.66	0.40
76:S8:61:GLU:HG3	76:S8:62:THR:HG23	2.54	0.40
78:SM:78:ASP:OD1	78:SM:78:ASP:N	3.21	0.40
79:SR:23:LEU:HB2	79:SR:293:ALA:HB2	2.23	0.40
1:1:1664:G:H2'	1:1:1665:C:C6	2.56	0.40
1:1:2522:G:H2'	1:1:2522:G:N3	2.36	0.40
1:1:2555:G:C6	1:1:2556:C:C4	3.10	0.40
1:1:2634:U:O3'	35:M0:15:LYS:NZ	2.48	0.40
1:1:759:U:O4	1:1:760:G:N1	2.55	0.40
1:1:996:A:C2	1:1:1054:A:C4	3.09	0.40
2:2:1017:U:H2'	2:2:1018:U:C6	2.55	0.40
2:2:1795:U:OP2	21:D6:4:LYS:NZ	2.34	0.40
2:2:720:G:H1'	2:2:721:U:H5''	2.04	0.40
2:2:781:U:O2'	2:2:782:U:C6	2.67	0.40
2:2:97:C:O2'	2:2:426:G:H5'	2.21	0.40
3:3:27:A:H2'	3:3:28:C:O4'	2.21	0.40
1:5:1423:C:H2'	1:5:1424:C:C6	2.56	0.40
1:5:2100:A:OP2	1:5:2100:A:H8	2.04	0.40
1:5:2176:U:C2'	1:5:2177:G:H5'	2.51	0.40
1:5:2747:A:N1	1:5:2748:A:C6	2.89	0.40
1:5:2821:C:O2	1:5:2822:U:C6	2.74	0.40
1:5:1201:C:N4	1:5:2857:C:OP1	2.42	0.40
1:5:2919:A:N1	1:5:2927:C:O2	2.54	0.40
1:5:701:G:C6	1:5:702:C:C4	3.10	0.40
1:5:717:C:H2'	1:5:718:G:O4'	2.20	0.40
1:5:824:C:C2	1:5:825:U:C5	3.09	0.40
2:6:1553:G:O6	10:C5:43:ARG:NH1	398.31	0.40
2:6:396:G:H22	2:6:399:A:P	2.44	0.40
5:C0:77:ARG:HA	5:C0:82:LEU:HD12	2.03	0.40
6:C1:118:GLN:O	6:C1:121:ASP:HB2	3.02	0.40
8:C3:150:VAL:HG12	8:C3:151:ASN:ND2	2.36	0.40
8:C3:65:VAL:O	8:C3:66:ILE:HG12	6.03	0.40
9:C4:128:LYS:HG2	9:C4:129:LYS:N	2.74	0.40
10:C5:43:ARG:O	10:C5:46:ALA:HB3	2.21	0.40
2:2:1340:U:O4	11:C6:9:THR:HA	2.20	0.40
13:C8:29:VAL:O	13:C8:33:THR:HG23	2.21	0.40
13:C8:60:GLU:O	13:C8:61:LEU:HB2	3.47	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C8:41:ARG:HE	14:C9:46:PRO:HD3	1.84	0.40
17:D2:20:THR:OG1	17:D2:22:LYS:HD3	2.52	0.40
18:D3:57:LEU:HD22	25:E0:4:VAL:CG1	2.70	0.40
2:2:150:U:OP1	19:D4:123:LYS:HE2	2.21	0.40
23:D8:11:LYS:O	23:D8:30:VAL:HA	2.20	0.40
2:2:1253:U:H4'	26:E1:143:LYS:N	2.37	0.40
1:1:2962:U:O4	27:L2:216:HIS:HE1	2.04	0.40
28:L3:239:PRO:HD2	28:L3:242:THR:HG21	2.11	0.40
28:L3:44:THR:HA	28:L3:340:LYS:HD3	4.62	0.40
28:L3:4:ARG:O	28:L3:5:LYS:HB3	2.20	0.40
29:L4:169:LEU:HD22	29:L4:249:ILE:CD1	2.84	0.40
30:L5:151:GLN:HG3	30:L5:152:ARG:O	5.65	0.40
30:L5:40:HIS:CD2	30:L5:42:ALA:HB3	4.52	0.40
31:L6:60:ASP:O	31:L6:61:ASN:HB2	2.38	0.40
32:L7:120:THR:O	32:L7:124:LEU:N	2.60	0.40
32:L7:181:ILE:HD13	32:L7:181:ILE:HG21	1.87	0.40
32:L7:43:ILE:O	32:L7:47:ARG:HG3	2.75	0.40
33:L8:109:LEU:HD23	33:L8:109:LEU:HA	1.80	0.40
34:L9:19:SER:C	34:L9:20:ILE:HG12	2.39	0.40
35:M0:169:LYS:O	35:M0:170:LYS:HD3	3.23	0.40
3:7:64:A:C6	35:M0:202:LYS:HG2	337.48	0.40
37:M3:193:ALA:HA	37:M3:194:GLU:HA	1.80	0.40
38:M4:34:ALA:HB2	38:M4:85:TRP:CZ3	2.55	0.40
40:M6:113:ASP:OD2	40:M6:114:LYS:N	2.83	0.40
40:M6:124:LEU:HA	40:M6:124:LEU:HD12	1.81	0.40
42:M8:161:LYS:HD3	42:M8:161:LYS:HA	1.74	0.40
47:N3:2:SER:HB2	47:N3:7:GLN:HE22	1.86	0.40
54:O0:13:LYS:HB3	54:O0:100:ILE:CG2	2.51	0.40
54:O0:51:LEU:HA	54:O0:51:LEU:HD12	1.81	0.40
56:O2:5:PRO:O	56:O2:6:HIS:CG	4.74	0.40
57:O3:103:TYR:HA	57:O3:104:PRO:C	2.42	0.40
57:O3:48:ARG:H	57:O3:48:ARG:HG2	3.31	0.40
60:O6:38:LYS:HE2	60:O6:38:LYS:HB2	4.65	0.40
66:Q2:11:TYR:HB2	66:Q2:20:HIS:CE1	2.56	0.40
68:S0:34:GLU:N	68:S0:35:PRO:HD2	3.45	0.40
68:S0:77:SER:HB2	68:S0:124:THR:CG2	2.51	0.40
69:S1:61:LEU:CD2	69:S1:62:LYS:H	2.34	0.40
69:S1:87:ARG:HB3	69:S1:87:ARG:HE	1.46	0.40
70:S2:35:TRP:CE2	70:S2:37:PRO:HB3	2.56	0.40
72:S4:143:ASP:OD2	72:S4:145:ARG:HG3	2.21	0.40
72:S4:184:THR:C	72:S4:189:LEU:HD13	3.07	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:S7:131:PHE:HD2	75:S7:132:PRO:HD3	2.56	0.40
75:S7:16:LEU:HA	75:S7:19:GLN:HG3	2.03	0.40
76:S8:48:THR:OG1	76:S8:52:ASN:O	2.69	0.40
77:S9:101:VAL:O	77:S9:105:LEU:HD22	2.21	0.40
77:S9:169:PRO:HD2	77:S9:174:ARG:HD2	2.03	0.40
79:SR:211:ILE:HG22	79:SR:223:TRP:CD1	2.57	0.40
1:1:1010:G:N2	35:M0:193:ASP:OD2	2.54	0.40
1:1:1018:G:H5'	78:SM:46:LYS:CD	2.47	0.40
1:1:1397:C:C2'	1:1:1398:U:H5'	2.52	0.40
1:1:1575:A:N6	1:1:1576:G:C5	2.89	0.40
1:1:1675:G:H2'	1:1:1676:A:C8	2.57	0.40
1:1:1695:U:C2	1:1:1749:A:C2	3.09	0.40
1:1:1839:A:C5	1:1:1843:C:C4	3.09	0.40
1:1:2534:G:C2	1:1:2535:A:N7	2.89	0.40
1:1:2535:A:N1	1:1:2545:C:C2	2.89	0.40
1:1:2647:A:C6	1:1:2648:G:N7	2.89	0.40
1:1:310:U:H2'	1:1:311:C:O4'	2.21	0.40
1:1:346:C:C4	1:1:348:A:N7	2.89	0.40
1:1:713:U:OP2	37:M3:174:ARG:NH2	2.53	0.40
1:1:731:U:H2'	1:1:732:C:H6	1.86	0.40
1:1:841:A:H5'	43:M9:125:LYS:O	2.21	0.40
1:1:83:U:H2'	1:1:84:U:O4'	2.20	0.40
1:1:830:A:C8	1:1:865:U:C2	3.10	0.40
2:2:100:A:H61	2:2:385:A:H1'	1.85	0.40
2:2:1353:U:H2'	2:2:1354:G:O4'	2.21	0.40
2:2:1389:C:C4	2:2:1391:A:O4'	2.75	0.40
2:2:1473:U:O2	2:2:1473:U:H2'	2.21	0.40
2:2:1572:G:N3	2:2:1572:G:H2'	2.36	0.40
2:2:238:U:O3'	2:2:239:C:H4'	2.22	0.40
2:2:300:A:O2'	2:2:301:A:H5'	2.21	0.40
2:2:319:U:H2'	2:2:320:U:OP1	2.21	0.40
2:2:773:C:OP1	72:S4:21:ASP:HB2	2.21	0.40
2:2:994:G:O6	2:2:1011:G:N2	2.54	0.40
1:5:1313:G:C2	1:5:1314:C:C2	3.10	0.40
1:5:1334:U:H5'	32:L7:206:LYS:HB3	232.97	0.40
1:5:1421:G:C2	1:5:1422:G:N7	2.89	0.40
1:5:1655:G:H5'	1:5:1656:A:H2'	2.02	0.40
1:5:884:A:C8	1:5:2139:A:N7	2.90	0.40
1:5:2330:C:H2'	1:5:2331:C:H6	1.86	0.40
1:5:2647:A:C5	1:5:2648:G:C8	3.09	0.40
1:5:2778:G:C2	1:5:2779:A:C8	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:2859:U:H4'	1:5:2860:U:O5'	2.22	0.40
1:5:3091:A:C4	1:5:3094:A:C8	3.09	0.40
1:5:504:A:C2	1:5:588:G:C2	3.09	0.40
1:5:561:C:OP1	38:M4:77:ARG:HG3	344.74	0.40
1:5:842:G:H1	1:5:851:C:H42	1.68	0.40
2:6:1291:G:H4'	70:S2:119:LYS:HE3	410.14	0.40
2:6:1451:C:H2'	2:6:1452:U:C6	2.57	0.40
2:6:192:U:H1'	2:6:193:U:C4	2.56	0.40
2:6:73:U:O4	74:S6:167:LYS:NZ	377.24	0.40
2:6:788:A:H2'	72:S4:19:LEU:HD22	391.25	0.40
2:6:830:U:H5''	83:6:2256:HOH:O	2.20	0.40
3:7:90:U:C4	3:7:91:G:C5	3.10	0.40
4:8:15:G:C6	4:8:16:G:N1	2.90	0.40
4:8:44:A:H2'	4:8:45:C:C6	2.57	0.40
4:8:81:U:H2'	4:8:81:U:O2	2.20	0.40
7:C2:81:ASP:O	7:C2:83:GLU:N	2.76	0.40
11:C6:52:LEU:HB2	11:C6:53:LEU:HD23	2.02	0.40
12:C7:65:PRO:HG3	12:C7:78:ARG:HH21	1.86	0.40
18:D3:107:PHE:HA	18:D3:107:PHE:HD1	1.76	0.40
18:D3:79:ASN:HB2	18:D3:81:LYS:HG3	3.87	0.40
24:D9:30:LEU:HA	24:D9:39:CYS:HA	2.20	0.40
27:L2:83:HIS:HB3	67:Q3:64:VAL:HG22	2.03	0.40
28:L3:163:HIS:HA	28:L3:177:HIS:O	2.31	0.40
1:5:696:C:OP1	29:L4:271:LYS:HA	95.71	0.40
29:L4:307:GLN:N	29:L4:307:GLN:HE21	2.19	0.40
30:L5:184:ASP:HB3	30:L5:187:THR:CG2	3.75	0.40
30:L5:188:GLU:O	30:L5:189:GLU:HG3	2.31	0.40
30:L5:52:VAL:HG21	30:L5:65:ILE:HG13	3.83	0.40
31:L6:26:ARG:HD2	31:L6:26:ARG:HH11	1.88	0.40
31:L6:83:TYR:N	31:L6:83:TYR:CD2	2.89	0.40
32:L7:222:HIS:HA	32:L7:229:PHE:O	2.78	0.40
33:L8:245:LYS:HB3	33:L8:245:LYS:HE3	1.93	0.40
33:L8:71:VAL:HA	33:L8:72:PRO:HD3	2.69	0.40
33:L8:74:THR:HG21	60:O6:47:ILE:O	2.94	0.40
36:M1:71:VAL:HG13	36:M1:75:LYS:HE3	4.77	0.40
39:M5:173:GLY:O	39:M5:183:THR:HG23	2.66	0.40
39:M5:11:GLN:HG2	39:M5:44:ARG:NH2	2.50	0.40
40:M6:147:TRP:CZ3	40:M6:150:GLU:HB2	2.72	0.40
41:M7:23:ARG:NE	41:M7:125:GLN:HG3	2.37	0.40
44:N0:172:TYR:HD1	44:N0:172:TYR:HA	1.77	0.40
44:N0:5:LYS:HB2	44:N0:7:TYR:CE2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:N2:90:ARG:HA	46:N2:90:ARG:HD2	1.61	0.40
50:N6:37:LYS:H	50:N6:37:LYS:HD3	1.86	0.40
50:N6:3:LYS:O	50:N6:3:LYS:HG3	4.30	0.40
52:N8:68:PHE:N	52:N8:68:PHE:CD2	2.92	0.40
57:O3:39:GLN:CD	57:O3:39:GLN:H	2.33	0.40
1:5:1190:A:H4'	64:Q0:113:ARG:NH2	288.79	0.40
1:5:2131:A:H61	67:Q3:18:TYR:HA	228.02	0.40
68:S0:177:LEU:HA	68:S0:177:LEU:HD23	1.80	0.40
69:S1:109:LYS:HE3	69:S1:113:MET:SD	3.93	0.40
70:S2:152:HIS:O	70:S2:194:GLU:HB2	2.21	0.40
2:6:1275:A:C2'	71:S3:141:LYS:HZ2	387.70	0.40
72:S4:124:GLY:H	72:S4:162:ILE:HD12	3.10	0.40
72:S4:147:ILE:HG21	72:S4:169:ILE:HG13	2.04	0.40
72:S4:77:ARG:HA	72:S4:77:ARG:HD3	4.27	0.40
73:S5:150:GLY:HA2	73:S5:155:ALA:CB	2.52	0.40
73:S5:61:TYR:CE2	73:S5:164:PRO:HG2	2.56	0.40
74:S6:210:GLN:HB3	74:S6:214:LYS:NZ	2.37	0.40
74:S6:98:ARG:HD3	74:S6:99:GLY:N	2.66	0.40
75:S7:37:GLU:H	75:S7:37:GLU:HG2	1.58	0.40
76:S8:105:ASP:OD1	76:S8:107:THR:OG1	2.35	0.40
1:1:2320:A:H2	67:Q3:16:VAL:HG13	1.87	0.40
1:1:41:G:H1'	1:1:2410:U:O2	2.22	0.40
1:1:2443:A:N6	1:1:2504:U:H3	2.19	0.40
1:1:2513:U:H2'	1:1:2513:U:H6	1.67	0.40
1:1:2619:G:H2'	1:1:2620:G:O4'	2.21	0.40
1:1:2880:U:H1'	28:L3:250:ALA:CB	2.51	0.40
1:1:3063:C:H2'	1:1:3064:U:C6	2.57	0.40
1:1:3305:A:C5	1:1:3306:U:C5	3.10	0.40
1:1:546:C:C5'	1:1:547:G:H2'	2.51	0.40
1:1:748:U:O2'	1:1:749:C:H5'	2.22	0.40
1:1:798:G:O2'	37:M3:14:PHE:HB2	2.20	0.40
2:2:1102:G:OP1	17:D2:76:SER:OG	2.36	0.40
2:2:1149:G:H5''	2:2:1150:G:OP1	2.22	0.40
2:2:1401:A:H5''	12:C7:53:TYR:OH	2.20	0.40
2:2:158:U:O2'	2:2:159:U:H3'	2.21	0.40
2:2:235:G:H2'	2:2:236:A:O4'	2.21	0.40
2:2:775:G:N2	2:2:786:C:N3	2.69	0.40
2:2:852:C:H2'	2:2:853:G:O4'	2.21	0.40
2:2:880:C:C2	2:2:881:A:C8	3.10	0.40
2:2:973:A:C2	2:2:974:A:N7	2.89	0.40
1:5:1028:U:H3	78:SM:48:ARG:NH1	338.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:1063:G:C6	45:N1:109:VAL:HG13	241.17	0.40
1:5:1174:G:C4	1:5:1175:C:C5	3.09	0.40
1:5:1364:C:O2'	1:5:1365:G:H5'	2.20	0.40
1:5:1627:U:C2	1:5:1817:G:N1	2.89	0.40
1:5:20:A:C6	1:5:21:G:O6	2.74	0.40
1:5:2766:U:H2'	1:5:2767:U:C6	2.56	0.40
1:5:3074:G:C2	1:5:3075:G:C8	3.10	0.40
1:5:3222:U:H1'	1:5:3264:G:N2	2.35	0.40
1:5:3283:U:H2'	1:5:3284:G:H8	1.85	0.40
1:5:561:C:H2'	1:5:562:C:C6	2.56	0.40
1:5:608:A:N6	31:L6:22:ARG:HD3	236.87	0.40
2:6:1087:A:H2'	2:6:1088:A:H8	1.85	0.40
2:6:12:U:H1'	2:6:1300:A:N3	2.36	0.40
2:6:1331:A:H2'	2:6:1332:C:H5'	2.03	0.40
2:6:1335:U:H2'	2:6:1336:A:C8	2.56	0.40
2:6:1637:C:O2	78:SM:93:ARG:N	355.44	0.40
2:6:1674:C:H2'	2:6:1675:C:H6	1.87	0.40
2:6:1685:G:C2	2:6:1717:G:C4	3.10	0.40
2:6:1715:G:H2'	2:6:1716:C:C6	2.57	0.40
2:6:283:U:H2'	2:6:284:G:H8	1.86	0.40
2:6:351:C:O2	6:C1:104:HIS:ND1	316.80	0.40
2:6:577:G:H2'	78:SM:99:LYS:HZ2	374.68	0.40
2:6:957:G:C6	2:6:958:U:C4	3.10	0.40
2:6:959:U:O2	8:C3:61:THR:HB	353.31	0.40
5:C0:77:ARG:HA	5:C0:82:LEU:CD1	2.52	0.40
7:C2:89:ILE:HG12	7:C2:90:LYS:H	1.86	0.40
9:C4:110:LEU:HD23	9:C4:110:LEU:HA	2.11	0.40
10:C5:86:VAL:HG23	10:C5:87:PRO:HD2	2.04	0.40
12:C7:14:LYS:NZ	12:C7:69:ILE:HG23	4.46	0.40
13:C8:129:TRP:O	13:C8:131:LEU:HG	2.22	0.40
14:C9:134:ARG:HH21	14:C9:138:GLN:HE22	5.49	0.40
2:2:1364:G:N2	14:C9:3:GLY:HA3	2.37	0.40
14:C9:57:ARG:HH11	14:C9:57:ARG:CG	2.62	0.40
2:2:1543:A:H5'	14:C9:88:VAL:HG11	2.04	0.40
15:D0:26:LEU:HB3	15:D0:34:LEU:HD21	2.03	0.40
16:D1:72:LEU:HA	16:D1:72:LEU:HD23	1.99	0.40
17:D2:8:ALA:CB	17:D2:74:VAL:HG11	2.53	0.40
18:D3:135:LEU:HD21	18:D3:142:LYS:N	2.37	0.40
18:D3:54:LEU:HA	18:D3:54:LEU:HD23	1.87	0.40
18:D3:96:VAL:HA	18:D3:127:VAL:HG11	2.30	0.40
20:D5:42:LEU:O	20:D5:46:LYS:HB2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:D5:57:TYR:CD2	20:D5:57:TYR:N	3.12	0.40
27:L2:209:HIS:CG	27:L2:210:PRO:HD2	2.93	0.40
27:L2:59:ALA:HB2	27:L2:78:ALA:HB2	2.03	0.40
28:L3:92:TYR:HA	28:L3:100:ARG:O	2.28	0.40
29:L4:208:VAL:CG1	29:L4:230:VAL:HG13	2.56	0.40
30:L5:259:LYS:O	30:L5:260:PHE:HB2	2.21	0.40
31:L6:62:THR:O	31:L6:63:LEU:HD23	2.38	0.40
31:L6:82:ARG:HA	31:L6:82:ARG:HD2	2.23	0.40
31:L6:97:ASN:CG	31:L6:98:VAL:N	2.74	0.40
34:L9:90:MET:O	34:L9:143:GLU:O	4.82	0.40
35:M0:76:MET:CE	35:M0:138:VAL:HG11	2.51	0.40
35:M0:42:THR:CG2	35:M0:45:GLU:HG3	4.32	0.40
1:1:2674:A:C6	36:M1:124:GLY:HA3	2.56	0.40
37:M3:67:ARG:HG2	52:N8:105:LEU:CD1	2.61	0.40
1:1:3270:U:O4'	41:M7:174:GLY:HA3	2.20	0.40
41:M7:41:LEU:O	41:M7:41:LEU:HD22	2.21	0.40
47:N3:104:ASN:HD21	47:N3:106:LYS:HB2	2.23	0.40
52:N8:71:PRO:HG2	52:N8:108:GLY:O	2.20	0.40
53:N9:11:ASN:OD1	53:N9:14:ARG:HB3	2.68	0.40
53:N9:29:TYR:CD1	53:N9:29:TYR:N	2.90	0.40
54:O0:42:ILE:HD11	54:O0:67:VAL:HG22	2.04	0.40
57:O3:32:ILE:HD11	57:O3:81:VAL:HG11	2.29	0.40
60:O6:61:ILE:HD12	60:O6:90:MET:HB3	2.70	0.40
1:1:1852:G:H1'	61:O7:9:GLY:HA3	2.02	0.40
63:O9:5:LYS:HD3	63:O9:13:MET:HE3	2.02	0.40
67:Q3:80:ARG:HE	67:Q3:80:ARG:HB2	2.56	0.40
68:S0:168:HIS:HB3	68:S0:203:PHE:CE2	2.56	0.40
68:S0:25:GLY:N	68:S0:46:HIS:O	2.72	0.40
68:S0:49:ASN:CB	68:S0:52:LYS:HG3	2.50	0.40
68:S0:64:ILE:O	68:S0:67:ILE:HG12	2.23	0.40
16:D1:16:LYS:NZ	70:S2:229:LEU:O	2.46	0.40
71:S3:59:LEU:HD12	71:S3:63:GLY:HA2	2.03	0.40
72:S4:155:LYS:HD3	72:S4:155:LYS:HA	3.20	0.40
72:S4:93:ASP:O	72:S4:96:ASN:N	2.84	0.40
20:D5:100:ILE:HD11	73:S5:120:ILE:HG12	2.03	0.40
73:S5:197:GLU:CD	73:S5:208:SER:HB2	2.42	0.40
75:S7:122:HIS:O	75:S7:126:LEU:HD22	2.22	0.40
77:S9:3:ARG:N	77:S9:3:ARG:HD3	2.36	0.40
78:SM:88:ARG:HG2	78:SM:91:THR:CG2	3.00	0.40
79:SR:122:ILE:HB	79:SR:134:TRP:HB2	2.32	0.40
79:SR:291:SER:O	79:SR:303:ALA:HA	2.53	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1493:G:C5	63:O9:2:ALA:HB2	2.57	0.40
1:1:158:G:H2'	1:1:159:A:C8	2.56	0.40
1:1:1821:U:N3	58:O4:67:LYS:HD2	2.36	0.40
1:1:2155:G:H2'	1:1:2156:C:C6	2.56	0.40
1:1:2768:U:H2'	1:1:2769:A:H8	1.83	0.40
1:1:2397:A:C5	1:1:2873:U:C6	3.09	0.40
1:1:3001:C:H2'	1:1:3002:C:H6	1.87	0.40
1:1:3313:U:H4'	28:L3:173:GLN:OE1	2.22	0.40
1:1:688:G:C6	1:1:690:A:C5	3.10	0.40
1:1:696:C:OP1	29:L4:272:VAL:N	2.37	0.40
1:1:980:A:H5''	1:1:981:U:OP2	2.20	0.40
2:2:1619:C:H2'	2:2:1620:C:H6	1.86	0.40
2:2:1649:G:C2	2:2:1752:U:O2	2.74	0.40
2:2:374:U:C4	2:2:375:U:C4	3.10	0.40
2:2:486:G:C2	2:2:487:G:C4	3.09	0.40
2:2:906:A:H2'	2:2:907:A:C8	2.57	0.40
3:3:103:A:H2'	3:3:104:A:O4'	2.22	0.40
1:5:1222:G:O2'	1:5:1285:G:C2	2.72	0.40
1:5:1282:G:H2'	1:5:1283:C:H6	1.86	0.40
1:5:1615:C:H2'	1:5:1616:U:C6	2.56	0.40
1:5:1454:A:C2	1:5:1840:U:C2	3.10	0.40
1:5:1846:C:C5	41:M7:136:ILE:HD11	144.80	0.40
1:5:1480:G:N1	1:5:1872:C:OP2	2.55	0.40
1:5:2113:A:N7	1:5:2114:C:C4	2.90	0.40
1:5:2596:U:H2'	1:5:2597:U:C6	2.57	0.40
1:5:429:U:H2'	1:5:430:U:H6	1.87	0.40
1:5:61:A:H2'	1:5:62:A:O4'	2.22	0.40
1:5:901:G:H2'	1:5:902:G:C8	2.54	0.40
1:5:945:C:H2'	1:5:946:U:H6	1.86	0.40
2:6:1178:G:H2'	2:6:1179:G:O4'	2.21	0.40
2:6:1433:G:H2'	2:6:1434:U:H6	1.86	0.40
2:6:198:A:N3	2:6:198:A:H2'	2.36	0.40
2:6:633:U:O2'	2:6:1102:G:H4'	2.21	0.40
2:6:747:C:H4'	17:D2:80:ASN:ND2	355.73	0.40
6:C1:131:ILE:HA	6:C1:131:ILE:HD13	1.78	0.40
11:C6:97:VAL:CG2	11:C6:98:ASP:N	2.85	0.40
12:C7:41:ILE:HD13	12:C7:47:ARG:HA	2.04	0.40
14:C9:25:GLN:NE2	14:C9:27:LYS:HD3	2.37	0.40
14:C9:31:PRO:HD3	14:C9:54:PHE:CZ	2.56	0.40
15:D0:28:SER:OG	15:D0:29:THR:N	2.54	0.40
16:D1:14:PRO:HB2	16:D1:23:ILE:HG23	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:D2:103:ILE:HA	17:D2:112:ASP:HA	2.24	0.40
18:D3:62:LYS:HD2	18:D3:118:PRO:HB3	2.03	0.40
19:D4:18:LEU:HA	19:D4:18:LEU:HD23	1.81	0.40
19:D4:92:VAL:HG12	19:D4:97:ALA:O	4.78	0.40
21:D6:61:GLU:O	21:D6:62:TYR:HB3	2.38	0.40
23:D8:26:THR:HB	23:D8:44:VAL:CG2	2.70	0.40
26:E1:116:LYS:HZ1	26:E1:119:ARG:HH11	14.64	0.40
27:L2:90:ALA:HA	27:L2:101:VAL:O	2.21	0.40
1:5:3313:U:O3'	28:L3:173:GLN:HG3	204.50	0.40
28:L3:238:LEU:HD12	28:L3:238:LEU:HA	1.89	0.40
28:L3:83:PRO:HG3	28:L3:204:ALA:CB	2.51	0.40
29:L4:317:PRO:HB2	32:L7:149:TYR:CD1	3.02	0.40
29:L4:54:GLU:H	29:L4:54:GLU:HG3	1.69	0.40
31:L6:139:LYS:O	31:L6:143:LYS:HG3	2.22	0.40
32:L7:41:ARG:HG2	32:L7:41:ARG:NH1	4.42	0.40
33:L8:101:THR:CG2	33:L8:104:GLU:H	2.34	0.40
34:L9:10:ILE:HD13	34:L9:75:VAL:HG11	2.04	0.40
34:L9:91:ARG:HD2	34:L9:142:ASP:O	2.21	0.40
35:M0:76:MET:HE1	35:M0:151:GLY:HA3	5.41	0.40
36:M1:82:ARG:C	36:M1:112:LEU:HD12	3.14	0.40
38:M4:102:LYS:HB2	38:M4:102:LYS:HE3	1.80	0.40
39:M5:185:ALA:HB3	39:M5:190:THR:HG22	2.17	0.40
41:M7:33:ALA:HB1	41:M7:117:ILE:HG12	2.04	0.40
44:N0:31:ALA:HB1	44:N0:36:ILE:HG22	2.03	0.40
45:N1:114:ALA:O	45:N1:118:GLU:HB2	2.22	0.40
49:N5:23:ALA:O	49:N5:24:LEU:HB2	2.20	0.40
51:N7:46:ILE:HD11	51:N7:49:TYR:CE2	4.28	0.40
52:N8:139:ARG:NH1	52:N8:139:ARG:HB3	3.61	0.40
56:O2:55:ILE:HA	56:O2:55:ILE:HD12	1.95	0.40
57:O3:74:THR:HA	57:O3:81:VAL:HG23	2.04	0.40
60:O6:5:THR:HG23	60:O6:12:ASN:HB3	2.84	0.40
60:O6:62:ARG:HH11	60:O6:94:ILE:HD11	4.31	0.40
60:O6:89:GLU:O	60:O6:93:ILE:HG13	3.57	0.40
61:O7:19:CYS:O	61:O7:23:GLY:HA2	2.22	0.40
65:Q1:8:LYS:O	65:Q1:12:ARG:HG3	2.22	0.40
67:Q3:26:VAL:O	67:Q3:27:LYS:C	2.60	0.40
67:Q3:49:ARG:CZ	67:Q3:52:ALA:HB2	2.51	0.40
69:S1:179:SER:HB3	69:S1:183:GLN:CB	2.44	0.40
69:S1:195:LYS:HA	69:S1:195:LYS:HD3	2.38	0.40
2:6:1064:G:O2'	69:S1:204:ILE:O	328.56	0.40
70:S2:140:ARG:HB2	70:S2:222:TYR:CE1	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:S4:117:GLU:C	72:S4:119:ALA:N	2.97	0.40
2:6:788:A:C4	72:S4:19:LEU:HD13	394.96	0.40
73:S5:72:HIS:HD2	73:S5:107:LYS:HG2	3.08	0.40
73:S5:20:PHE:N	73:S5:20:PHE:CD2	3.28	0.40
75:S7:46:ILE:HG12	75:S7:60:ILE:HG23	2.13	0.40
76:S8:194:ARG:HD2	76:S8:195:ARG:HH12	3.51	0.40
77:S9:109:LEU:HD22	77:S9:109:LEU:O	2.22	0.40
77:S9:86:LEU:HD13	77:S9:96:VAL:HG12	2.03	0.40
79:SR:145:LEU:O	79:SR:181:TRP:HH2	2.04	0.40
79:SR:58:VAL:HG22	79:SR:59:ARG:N	2.66	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)
2:2:1355:C:O3'	1:5:3221:C:O2' 2_546]	2.15	0.05

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	
5	C0	94/105 (90%)	80 (85%)	12 (13%)	2 (2%)	7	38
5	c0	91/105 (87%)	68 (75%)	19 (21%)	4 (4%)	2	24
6	C1	152/156 (97%)	136 (90%)	14 (9%)	2 (1%)	12	47
6	c1	144/156 (92%)	130 (90%)	12 (8%)	2 (1%)	11	45
7	C2	117/143 (82%)	87 (74%)	26 (22%)	4 (3%)	3	30
7	c2	122/143 (85%)	95 (78%)	22 (18%)	5 (4%)	3	26
8	C3	148/150 (99%)	135 (91%)	11 (7%)	2 (1%)	11	45
8	c3	148/150 (99%)	134 (90%)	10 (7%)	4 (3%)	5	33

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	C4	125/128 (98%)	112 (90%)	11 (9%)	2 (2%)	9	43
9	c4	126/128 (98%)	112 (89%)	13 (10%)	1 (1%)	19	56
10	C5	122/141 (86%)	102 (84%)	15 (12%)	5 (4%)	3	26
10	c5	123/141 (87%)	104 (85%)	16 (13%)	3 (2%)	6	35
11	C6	139/141 (99%)	121 (87%)	13 (9%)	5 (4%)	3	29
11	c6	139/141 (99%)	128 (92%)	10 (7%)	1 (1%)	22	59
12	C7	116/136 (85%)	98 (84%)	14 (12%)	4 (3%)	3	30
12	c7	119/136 (88%)	104 (87%)	13 (11%)	2 (2%)	9	42
13	C8	143/145 (99%)	125 (87%)	15 (10%)	3 (2%)	7	38
13	c8	143/145 (99%)	126 (88%)	13 (9%)	4 (3%)	5	33
14	C9	141/143 (99%)	127 (90%)	14 (10%)	0	100	100
14	c9	141/143 (99%)	129 (92%)	11 (8%)	1 (1%)	22	59
15	D0	103/107 (96%)	95 (92%)	7 (7%)	1 (1%)	15	51
15	d0	102/107 (95%)	87 (85%)	12 (12%)	3 (3%)	4	32
16	D1	85/87 (98%)	70 (82%)	14 (16%)	1 (1%)	13	48
16	d1	85/87 (98%)	76 (89%)	8 (9%)	1 (1%)	13	48
17	D2	127/129 (98%)	118 (93%)	7 (6%)	2 (2%)	9	43
17	d2	127/129 (98%)	118 (93%)	8 (6%)	1 (1%)	19	56
18	D3	142/144 (99%)	120 (84%)	18 (13%)	4 (3%)	5	33
18	d3	142/144 (99%)	134 (94%)	8 (6%)	0	100	100
19	D4	132/134 (98%)	119 (90%)	10 (8%)	3 (2%)	6	36
19	d4	132/134 (98%)	115 (87%)	15 (11%)	2 (2%)	10	44
20	D5	68/70 (97%)	53 (78%)	14 (21%)	1 (2%)	10	44
20	d5	67/70 (96%)	61 (91%)	5 (8%)	1 (2%)	10	44
21	D6	95/97 (98%)	66 (70%)	22 (23%)	7 (7%)	1	13
21	d6	95/97 (98%)	76 (80%)	17 (18%)	2 (2%)	7	38
22	D7	79/81 (98%)	74 (94%)	5 (6%)	0	100	100
22	d7	79/81 (98%)	73 (92%)	5 (6%)	1 (1%)	12	47
23	D8	61/63 (97%)	53 (87%)	8 (13%)	0	100	100
23	d8	61/63 (97%)	53 (87%)	8 (13%)	0	100	100
24	D9	50/53 (94%)	47 (94%)	3 (6%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
24	d9	51/53 (96%)	46 (90%)	3 (6%)	2 (4%)	3	27
25	E0	58/61 (95%)	53 (91%)	4 (7%)	1 (2%)	9	42
25	e0	59/61 (97%)	54 (92%)	5 (8%)	0	100	100
26	E1	69/73 (94%)	39 (56%)	20 (29%)	10 (14%)	0	3
26	e1	71/73 (97%)	43 (61%)	21 (30%)	7 (10%)	0	8
27	L2	250/252 (99%)	235 (94%)	15 (6%)	0	100	100
27	l2	250/252 (99%)	231 (92%)	18 (7%)	1 (0%)	34	69
28	L3	384/386 (100%)	354 (92%)	30 (8%)	0	100	100
28	l3	384/386 (100%)	367 (96%)	15 (4%)	2 (0%)	29	66
29	L4	359/361 (99%)	321 (89%)	36 (10%)	2 (1%)	25	62
29	l4	359/361 (99%)	328 (91%)	27 (8%)	4 (1%)	14	50
30	L5	294/296 (99%)	261 (89%)	28 (10%)	5 (2%)	9	42
30	l5	292/296 (99%)	280 (96%)	11 (4%)	1 (0%)	41	74
31	L6	153/176 (87%)	144 (94%)	5 (3%)	4 (3%)	5	34
31	l6	153/176 (87%)	139 (91%)	12 (8%)	2 (1%)	12	47
32	L7	220/223 (99%)	206 (94%)	13 (6%)	1 (0%)	29	66
32	l7	221/223 (99%)	206 (93%)	11 (5%)	4 (2%)	8	41
33	L8	231/233 (99%)	208 (90%)	19 (8%)	4 (2%)	9	42
33	l8	229/233 (98%)	201 (88%)	26 (11%)	2 (1%)	17	54
34	L9	189/191 (99%)	176 (93%)	12 (6%)	1 (0%)	29	66
34	l9	189/191 (99%)	173 (92%)	15 (8%)	1 (0%)	29	66
35	M0	207/221 (94%)	195 (94%)	11 (5%)	1 (0%)	29	66
35	m0	205/221 (93%)	192 (94%)	12 (6%)	1 (0%)	29	66
36	M1	167/169 (99%)	142 (85%)	23 (14%)	2 (1%)	13	48
36	m1	167/169 (99%)	147 (88%)	12 (7%)	8 (5%)	2	22
37	M3	191/194 (98%)	171 (90%)	18 (9%)	2 (1%)	15	51
37	m3	192/194 (99%)	167 (87%)	22 (12%)	3 (2%)	9	43
38	M4	134/137 (98%)	124 (92%)	8 (6%)	2 (2%)	10	44
38	m4	135/137 (98%)	132 (98%)	3 (2%)	0	100	100
39	M5	201/203 (99%)	185 (92%)	14 (7%)	2 (1%)	15	51
39	m5	201/203 (99%)	191 (95%)	8 (4%)	2 (1%)	15	51

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
40	M6	195/197 (99%)	187 (96%)	6 (3%)	2 (1%)	15	51
40	m6	195/197 (99%)	188 (96%)	7 (4%)	0	100	100
41	M7	181/184 (98%)	171 (94%)	9 (5%)	1 (1%)	25	62
41	m7	181/184 (98%)	171 (94%)	9 (5%)	1 (1%)	25	62
42	M8	183/185 (99%)	171 (93%)	12 (7%)	0	100	100
42	m8	183/185 (99%)	172 (94%)	11 (6%)	0	100	100
43	M9	186/188 (99%)	177 (95%)	8 (4%)	1 (0%)	29	66
43	m9	182/188 (97%)	177 (97%)	4 (2%)	1 (0%)	29	66
44	N0	170/172 (99%)	157 (92%)	11 (6%)	2 (1%)	13	48
44	n0	169/172 (98%)	166 (98%)	3 (2%)	0	100	100
45	N1	157/159 (99%)	146 (93%)	10 (6%)	1 (1%)	25	62
45	n1	157/159 (99%)	150 (96%)	6 (4%)	1 (1%)	25	62
46	N2	98/100 (98%)	87 (89%)	10 (10%)	1 (1%)	15	51
46	n2	96/100 (96%)	89 (93%)	7 (7%)	0	100	100
47	N3	134/136 (98%)	129 (96%)	5 (4%)	0	100	100
47	n3	133/136 (98%)	130 (98%)	2 (2%)	1 (1%)	19	56
48	N4	128/155 (83%)	116 (91%)	12 (9%)	0	100	100
48	n4	128/155 (83%)	115 (90%)	10 (8%)	3 (2%)	6	36
49	N5	119/121 (98%)	113 (95%)	5 (4%)	1 (1%)	19	56
49	n5	118/121 (98%)	106 (90%)	10 (8%)	2 (2%)	9	42
50	N6	124/126 (98%)	118 (95%)	6 (5%)	0	100	100
50	n6	120/126 (95%)	116 (97%)	4 (3%)	0	100	100
51	N7	133/135 (98%)	122 (92%)	9 (7%)	2 (2%)	10	44
51	n7	133/135 (98%)	114 (86%)	16 (12%)	3 (2%)	6	36
52	N8	146/148 (99%)	132 (90%)	13 (9%)	1 (1%)	22	59
52	n8	146/148 (99%)	133 (91%)	10 (7%)	3 (2%)	7	38
53	N9	56/58 (97%)	52 (93%)	4 (7%)	0	100	100
53	n9	54/58 (93%)	46 (85%)	7 (13%)	1 (2%)	8	40
54	O0	95/100 (95%)	90 (95%)	5 (5%)	0	100	100
54	o0	98/100 (98%)	92 (94%)	6 (6%)	0	100	100
55	O1	107/109 (98%)	100 (94%)	4 (4%)	3 (3%)	5	33

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
55	o1	107/109 (98%)	99 (92%)	4 (4%)	4 (4%)	3	28
56	O2	125/127 (98%)	116 (93%)	8 (6%)	1 (1%)	19	56
56	o2	125/127 (98%)	115 (92%)	9 (7%)	1 (1%)	19	56
57	O3	104/106 (98%)	100 (96%)	4 (4%)	0	100	100
57	o3	104/106 (98%)	97 (93%)	6 (6%)	1 (1%)	15	51
58	O4	110/112 (98%)	105 (96%)	5 (4%)	0	100	100
58	o4	110/112 (98%)	104 (94%)	5 (4%)	1 (1%)	17	54
59	O5	117/119 (98%)	105 (90%)	11 (9%)	1 (1%)	17	54
59	o5	117/119 (98%)	106 (91%)	10 (8%)	1 (1%)	17	54
60	O6	97/99 (98%)	84 (87%)	12 (12%)	1 (1%)	15	51
60	o6	97/99 (98%)	89 (92%)	5 (5%)	3 (3%)	4	32
61	O7	85/87 (98%)	78 (92%)	7 (8%)	0	100	100
61	o7	81/87 (93%)	74 (91%)	7 (9%)	0	100	100
62	O8	75/77 (97%)	69 (92%)	6 (8%)	0	100	100
62	o8	75/77 (97%)	68 (91%)	6 (8%)	1 (1%)	12	47
63	O9	48/50 (96%)	44 (92%)	3 (6%)	1 (2%)	7	38
63	o9	48/50 (96%)	47 (98%)	1 (2%)	0	100	100
64	Q0	50/52 (96%)	47 (94%)	3 (6%)	0	100	100
64	q0	50/52 (96%)	46 (92%)	3 (6%)	1 (2%)	7	39
65	Q1	23/25 (92%)	23 (100%)	0	0	100	100
65	q1	23/25 (92%)	23 (100%)	0	0	100	100
66	Q2	103/105 (98%)	91 (88%)	12 (12%)	0	100	100
66	q2	102/105 (97%)	97 (95%)	5 (5%)	0	100	100
67	Q3	89/91 (98%)	82 (92%)	6 (7%)	1 (1%)	14	50
67	q3	89/91 (98%)	81 (91%)	8 (9%)	0	100	100
68	S0	204/206 (99%)	172 (84%)	27 (13%)	5 (2%)	5	35
68	s0	204/206 (99%)	176 (86%)	21 (10%)	7 (3%)	3	30
69	S1	212/216 (98%)	167 (79%)	42 (20%)	3 (1%)	11	45
69	s1	214/216 (99%)	190 (89%)	19 (9%)	5 (2%)	6	36
70	S2	215/217 (99%)	192 (89%)	19 (9%)	4 (2%)	8	40
70	s2	215/217 (99%)	203 (94%)	11 (5%)	1 (0%)	29	66

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
71	S3	221/223 (99%)	201 (91%)	15 (7%)	5 (2%)	6	36
71	s3	221/223 (99%)	198 (90%)	15 (7%)	8 (4%)	3	29
72	S4	258/260 (99%)	233 (90%)	23 (9%)	2 (1%)	19	56
72	s4	258/260 (99%)	232 (90%)	24 (9%)	2 (1%)	19	56
73	S5	204/206 (99%)	175 (86%)	26 (13%)	3 (2%)	10	44
73	s5	204/206 (99%)	181 (89%)	20 (10%)	3 (2%)	10	44
74	S6	224/236 (95%)	208 (93%)	9 (4%)	7 (3%)	4	32
74	s6	216/236 (92%)	198 (92%)	15 (7%)	3 (1%)	11	45
75	S7	182/184 (99%)	151 (83%)	24 (13%)	7 (4%)	3	27
75	s7	182/184 (99%)	153 (84%)	25 (14%)	4 (2%)	6	37
76	S8	184/200 (92%)	160 (87%)	22 (12%)	2 (1%)	14	50
76	s8	181/200 (90%)	171 (94%)	8 (4%)	2 (1%)	14	50
77	S9	183/185 (99%)	159 (87%)	22 (12%)	2 (1%)	14	50
77	s9	183/185 (99%)	169 (92%)	13 (7%)	1 (0%)	29	66
78	SM	155/272 (57%)	125 (81%)	27 (17%)	3 (2%)	8	40
78	sM	125/272 (46%)	105 (84%)	17 (14%)	3 (2%)	6	35
79	SR	316/318 (99%)	293 (93%)	23 (7%)	0	100	100
79	sR	314/318 (99%)	290 (92%)	24 (8%)	0	100	100
All	All	22224/23150 (96%)	20097 (90%)	1833 (8%)	294 (1%)	12	47

All (294) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	C0	88	PRO
7	c2	91	VAL
10	c5	11	VAL
10	c5	126	VAL
11	C6	58	ASP
11	C6	59	LYS
11	c6	116	LEU
13	C8	28	ILE
13	C8	92	ILE
13	c8	91	ASP
14	c9	34	VAL
17	d2	6	VAL
17	D2	83	ILE

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Mol	Chain	Res	Type
18	D3	97	ASP
22	d7	62	ILE
26	e1	102	VAL
31	l6	98	VAL
31	L6	98	VAL
33	L8	36	ILE
34	L9	50	ASN
36	m1	10	ARG
36	m1	95	ASN
36	m1	115	LYS
38	M4	8	LYS
39	m5	184	LYS
53	n9	21	ILE
60	o6	33	ALA
69	s1	210	ILE
71	S3	220	PRO
71	s3	220	PRO
74	S6	149	LYS
74	S6	153	VAL
74	S6	154	ARG
75	s7	65	PRO
75	S7	111	LYS
78	SM	171	PRO
5	c0	82	LEU
5	c0	92	ILE
6	C1	8	GLN
6	c1	7	VAL
6	c1	133	LYS
7	C2	91	VAL
7	c2	63	VAL
8	c3	66	ILE
11	C6	39	VAL
11	C6	138	PHE
12	C7	88	VAL
12	c7	88	VAL
18	D3	89	ASN
19	d4	52	LYS
19	d4	123	LYS
19	D4	4	ALA
21	D6	45	VAL
21	D6	46	GLU
21	D6	75	VAL

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Mol	Chain	Res	Type
26	e1	98	VAL
26	E1	84	VAL
26	E1	98	VAL
26	E1	103	LEU
26	E1	128	ALA
30	L5	276	LYS
31	L6	5	LYS
33	L8	37	GLY
36	M1	165	GLN
40	M6	111	PRO
43	M9	131	ALA
45	N1	124	VAL
48	n4	76	VAL
51	n7	17	ARG
51	n7	130	PHE
51	N7	17	ARG
55	o1	7	VAL
60	o6	34	SER
60	o6	63	ASN
68	s0	30	GLN
71	s3	217	ILE
71	s3	221	SER
73	S5	58	LEU
74	s6	153	VAL
75	s7	64	VAL
75	S7	112	ARG
75	S7	133	THR
75	S7	134	GLU
78	sM	66	ALA
7	C2	54	ARG
7	C2	89	ILE
7	c2	119	SER
8	C3	28	LEU
9	C4	124	ASP
10	C5	81	ARG
13	c8	26	ILE
15	D0	18	GLN
18	D3	114	LYS
19	D4	5	VAL
24	d9	7	TRP
24	d9	19	ARG
26	e1	88	PRO

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Mol	Chain	Res	Type
26	E1	102	VAL
26	E1	137	ASP
26	E1	148	TYR
28	l3	129	ALA
30	L5	20	PHE
30	L5	261	THR
31	L6	6	ALA
32	l7	229	PHE
35	m0	175	ASN
36	m1	11	ASP
44	N0	13	ARG
47	n3	42	SER
49	N5	24	LEU
51	n7	129	TRP
55	o1	83	GLU
55	O1	82	GLU
55	O1	83	GLU
59	o5	40	SER
59	O5	91	ALA
62	o8	17	ARG
63	O9	4	GLN
68	s0	29	VAL
69	S1	63	GLY
69	s1	179	SER
70	S2	146	THR
71	S3	221	SER
71	s3	44	THR
71	s3	91	VAL
71	s3	115	ILE
72	s4	196	VAL
73	S5	64	VAL
74	S6	173	PRO
74	S6	174	LYS
74	s6	70	PRO
75	s7	116	ARG
5	C0	87	VAL
7	C2	106	ILE
7	c2	106	ILE
10	C5	18	ARG
12	C7	85	VAL
12	C7	86	PRO
12	C7	124	VAL

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Mol	Chain	Res	Type
13	c8	92	ILE
15	d0	97	VAL
16	D1	82	VAL
18	D3	96	VAL
20	d5	104	ALA
21	d6	62	TYR
26	e1	87	THR
26	e1	136	LYS
26	e1	148	TYR
26	E1	86	THR
26	E1	104	SER
29	l4	329	PRO
29	l4	341	SER
29	L4	317	PRO
30	L5	259	LYS
32	l7	158	LYS
32	l7	228	SER
37	M3	77	LEU
39	m5	183	THR
39	M5	74	PRO
40	M6	110	PRO
41	m7	158	ALA
48	n4	63	ILE
49	n5	47	ALA
58	o4	83	ASN
68	S0	191	ARG
69	s1	209	ASN
70	S2	109	GLY
71	S3	217	ILE
71	s3	45	LYS
73	s5	58	LEU
73	s5	184	PHE
76	S8	152	ILE
78	sM	87	THR
78	SM	87	THR
5	c0	83	PRO
6	C1	7	VAL
8	c3	87	ASP
9	c4	132	ARG
10	C5	125	PRO
10	c5	125	PRO
11	C6	114	ARG

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Mol	Chain	Res	Type
12	c7	103	ASP
15	d0	51	VAL
17	D2	31	SER
28	l3	187	SER
29	l4	24	ALA
29	l4	342	LYS
32	l7	191	VAL
32	L7	164	SER
33	l8	203	VAL
33	L8	31	PRO
36	m1	8	PRO
36	m1	12	LEU
36	m1	94	ARG
37	m3	140	SER
41	M7	158	ALA
43	m9	35	ALA
44	N0	167	ARG
48	n4	25	ASP
49	n5	136	ALA
52	n8	48	TYR
52	n8	78	LEU
52	N8	48	TYR
55	o1	42	LEU
57	o3	61	GLY
64	q0	78	ILE
67	Q3	58	SER
68	S0	95	ALA
68	s0	103	THR
68	s0	206	ASP
69	s1	62	LYS
69	s1	82	ARG
70	S2	148	LEU
70	s2	106	ASP
71	S3	212	LYS
71	s3	216	PRO
72	S4	196	VAL
73	S5	51	VAL
75	s7	11	GLN
75	S7	131	PHE
77	S9	100	LYS
77	S9	134	ILE
77	s9	134	ILE

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Mol	Chain	Res	Type
78	sM	48	ARG
8	C3	22	ALA
10	C5	126	VAL
21	D6	64	LEU
25	E0	47	VAL
30	L5	116	ASP
33	L8	157	VAL
34	l9	144	ILE
36	M1	114	ILE
37	m3	141	ALA
37	M3	47	ALA
39	M5	75	VAL
45	n1	136	ARG
51	N7	103	GLN
52	n8	47	LYS
55	O1	7	VAL
56	O2	12	LYS
68	s0	189	VAL
69	S1	130	SER
74	S6	70	PRO
75	S7	132	PRO
76	S8	9	HIS
78	SM	12	VAL
5	c0	35	ILE
9	C4	42	VAL
10	C5	53	PRO
15	d0	118	VAL
26	e1	84	VAL
26	E1	87	THR
31	L6	140	VAL
68	S0	103	THR
68	S0	158	VAL
70	S2	150	GLN
71	S3	211	PRO
72	S4	195	ILE
74	S6	69	LEU
74	s6	69	LEU
8	c3	22	ALA
16	d1	6	GLY
21	D6	86	VAL
36	m1	114	ILE
55	o1	33	VAL

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Mol	Chain	Res	Type
56	o2	6	HIS
68	S0	64	ILE
68	s0	158	VAL
68	s0	194	PRO
76	s8	101	ILE
7	c2	66	VAL
13	C8	14	ILE
19	D4	35	VAL
20	D5	41	ILE
21	d6	59	TYR
21	D6	36	ILE
27	l2	56	ALA
35	M0	70	ILE
37	m3	47	ALA
46	N2	11	ILE
69	S1	210	ILE
72	s4	90	ILE
76	s8	78	ILE
13	c8	14	ILE
21	D6	19	LYS
29	L4	131	VAL
30	l5	125	VAL
31	l6	10	TYR
33	l8	237	ILE
38	M4	6	ILE
60	O6	9	ILE
75	S7	98	ILE
8	c3	60	VAL
73	s5	29	ILE

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	
5	C0	77/98 (79%)	63 (82%)	14 (18%)	1	11
5	c0	73/98 (74%)	57 (78%)	16 (22%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
6	C1	128/137 (93%)	110 (86%)	18 (14%)	3	20
6	c1	129/137 (94%)	101 (78%)	28 (22%)	1	7
7	C2	88/119 (74%)	61 (69%)	27 (31%)	0	2
7	c2	88/119 (74%)	62 (70%)	26 (30%)	0	2
8	C3	127/127 (100%)	103 (81%)	24 (19%)	1	9
8	c3	127/127 (100%)	105 (83%)	22 (17%)	2	12
9	C4	81/97 (84%)	59 (73%)	22 (27%)	0	3
9	c4	97/97 (100%)	77 (79%)	20 (21%)	1	7
10	C5	101/117 (86%)	82 (81%)	19 (19%)	1	10
10	c5	102/117 (87%)	85 (83%)	17 (17%)	2	14
11	C6	117/117 (100%)	94 (80%)	23 (20%)	1	8
11	c6	117/117 (100%)	90 (77%)	27 (23%)	1	6
12	C7	94/124 (76%)	75 (80%)	19 (20%)	1	8
12	c7	92/124 (74%)	78 (85%)	14 (15%)	3	17
13	C8	128/128 (100%)	96 (75%)	32 (25%)	0	4
13	c8	128/128 (100%)	104 (81%)	24 (19%)	1	10
14	C9	115/115 (100%)	97 (84%)	18 (16%)	2	16
14	c9	115/115 (100%)	94 (82%)	21 (18%)	1	10
15	D0	98/100 (98%)	75 (76%)	23 (24%)	1	5
15	d0	97/100 (97%)	75 (77%)	22 (23%)	1	6
16	D1	74/74 (100%)	63 (85%)	11 (15%)	3	18
16	d1	74/74 (100%)	64 (86%)	10 (14%)	4	21
17	D2	110/110 (100%)	92 (84%)	18 (16%)	2	15
17	d2	110/110 (100%)	97 (88%)	13 (12%)	5	26
18	D3	119/119 (100%)	100 (84%)	19 (16%)	2	15
18	d3	119/119 (100%)	102 (86%)	17 (14%)	3	19
19	D4	112/112 (100%)	90 (80%)	22 (20%)	1	9
19	d4	112/112 (100%)	93 (83%)	19 (17%)	2	13
20	D5	61/61 (100%)	45 (74%)	16 (26%)	0	4
20	d5	61/61 (100%)	47 (77%)	14 (23%)	1	6
21	D6	83/83 (100%)	63 (76%)	20 (24%)	0	5

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
21	d6	83/83 (100%)	68 (82%)	15 (18%)	1	11
22	D7	70/70 (100%)	59 (84%)	11 (16%)	2	16
22	d7	70/70 (100%)	59 (84%)	11 (16%)	2	16
23	D8	56/56 (100%)	41 (73%)	15 (27%)	0	3
23	d8	56/56 (100%)	40 (71%)	16 (29%)	0	2
24	D9	46/47 (98%)	39 (85%)	7 (15%)	3	17
24	d9	47/47 (100%)	40 (85%)	7 (15%)	3	18
25	E0	51/52 (98%)	42 (82%)	9 (18%)	2	12
25	e0	52/52 (100%)	43 (83%)	9 (17%)	2	12
26	E1	62/64 (97%)	46 (74%)	16 (26%)	0	4
26	e1	64/64 (100%)	48 (75%)	16 (25%)	0	4
27	L2	193/194 (100%)	163 (84%)	30 (16%)	2	17
27	l2	192/194 (99%)	157 (82%)	35 (18%)	1	11
28	L3	320/322 (99%)	264 (82%)	56 (18%)	2	12
28	l3	319/322 (99%)	260 (82%)	59 (18%)	1	10
29	L4	288/288 (100%)	239 (83%)	49 (17%)	2	13
29	l4	288/288 (100%)	237 (82%)	51 (18%)	2	12
30	L5	244/244 (100%)	196 (80%)	48 (20%)	1	8
30	l5	243/244 (100%)	212 (87%)	31 (13%)	4	23
31	L6	135/153 (88%)	114 (84%)	21 (16%)	2	17
31	l6	135/153 (88%)	118 (87%)	17 (13%)	4	23
32	L7	186/187 (100%)	168 (90%)	18 (10%)	8	33
32	l7	187/187 (100%)	163 (87%)	24 (13%)	4	23
33	L8	187/191 (98%)	160 (86%)	27 (14%)	3	19
33	l8	178/191 (93%)	150 (84%)	28 (16%)	2	16
34	L9	171/171 (100%)	132 (77%)	39 (23%)	1	6
34	l9	171/171 (100%)	134 (78%)	37 (22%)	1	7
35	M0	177/187 (95%)	154 (87%)	23 (13%)	4	22
35	m0	177/187 (95%)	149 (84%)	28 (16%)	2	16
36	M1	147/147 (100%)	124 (84%)	23 (16%)	2	17
36	m1	147/147 (100%)	124 (84%)	23 (16%)	2	17

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
37	M3	154/154 (100%)	122 (79%)	32 (21%)	1	7
37	m3	154/154 (100%)	129 (84%)	25 (16%)	2	15
38	M4	107/108 (99%)	93 (87%)	14 (13%)	4	22
38	m4	108/108 (100%)	94 (87%)	14 (13%)	4	22
39	M5	175/175 (100%)	154 (88%)	21 (12%)	5	25
39	m5	175/175 (100%)	148 (85%)	27 (15%)	2	17
40	M6	160/160 (100%)	137 (86%)	23 (14%)	3	19
40	m6	160/160 (100%)	138 (86%)	22 (14%)	3	21
41	M7	140/146 (96%)	111 (79%)	29 (21%)	1	7
41	m7	140/146 (96%)	115 (82%)	25 (18%)	2	11
42	M8	150/150 (100%)	127 (85%)	23 (15%)	2	17
42	m8	150/150 (100%)	132 (88%)	18 (12%)	5	25
43	M9	153/153 (100%)	132 (86%)	21 (14%)	3	21
43	m9	150/153 (98%)	123 (82%)	27 (18%)	1	11
44	N0	156/156 (100%)	127 (81%)	29 (19%)	1	10
44	n0	155/156 (99%)	132 (85%)	23 (15%)	3	18
45	N1	136/136 (100%)	101 (74%)	35 (26%)	0	4
45	n1	136/136 (100%)	113 (83%)	23 (17%)	2	13
46	N2	87/87 (100%)	70 (80%)	17 (20%)	1	9
46	n2	85/87 (98%)	68 (80%)	17 (20%)	1	8
47	N3	104/104 (100%)	91 (88%)	13 (12%)	4	23
47	n3	103/104 (99%)	95 (92%)	8 (8%)	12	42
48	N4	85/129 (66%)	74 (87%)	11 (13%)	4	22
48	n4	97/129 (75%)	89 (92%)	8 (8%)	11	41
49	N5	104/105 (99%)	85 (82%)	19 (18%)	1	10
49	n5	104/105 (99%)	75 (72%)	29 (28%)	0	2
50	N6	109/109 (100%)	89 (82%)	20 (18%)	1	10
50	n6	106/109 (97%)	87 (82%)	19 (18%)	2	11
51	N7	115/115 (100%)	96 (84%)	19 (16%)	2	14
51	n7	115/115 (100%)	93 (81%)	22 (19%)	1	9
52	N8	118/118 (100%)	102 (86%)	16 (14%)	3	21

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
52	n8	118/118 (100%)	102 (86%)	16 (14%)	3	21
53	N9	46/46 (100%)	36 (78%)	10 (22%)	1	7
53	n9	44/46 (96%)	40 (91%)	4 (9%)	9	36
54	O0	81/84 (96%)	68 (84%)	13 (16%)	2	15
54	o0	84/84 (100%)	72 (86%)	12 (14%)	3	19
55	O1	92/96 (96%)	77 (84%)	15 (16%)	2	15
55	o1	94/96 (98%)	76 (81%)	18 (19%)	1	9
56	O2	109/109 (100%)	96 (88%)	13 (12%)	5	25
56	o2	109/109 (100%)	93 (85%)	16 (15%)	3	18
57	O3	90/90 (100%)	79 (88%)	11 (12%)	5	24
57	o3	90/90 (100%)	78 (87%)	12 (13%)	4	22
58	O4	95/95 (100%)	80 (84%)	15 (16%)	2	16
58	o4	95/95 (100%)	83 (87%)	12 (13%)	4	23
59	O5	104/104 (100%)	83 (80%)	21 (20%)	1	8
59	o5	103/104 (99%)	77 (75%)	26 (25%)	0	4
60	O6	81/81 (100%)	62 (76%)	19 (24%)	1	5
60	o6	80/81 (99%)	58 (72%)	22 (28%)	0	3
61	O7	70/70 (100%)	54 (77%)	16 (23%)	1	6
61	o7	68/70 (97%)	59 (87%)	9 (13%)	4	22
62	O8	68/68 (100%)	52 (76%)	16 (24%)	1	5
62	o8	67/68 (98%)	57 (85%)	10 (15%)	3	18
63	O9	45/45 (100%)	37 (82%)	8 (18%)	2	12
63	o9	45/45 (100%)	40 (89%)	5 (11%)	6	28
64	Q0	47/47 (100%)	40 (85%)	7 (15%)	3	18
64	q0	47/47 (100%)	40 (85%)	7 (15%)	3	18
65	Q1	23/23 (100%)	19 (83%)	4 (17%)	2	12
65	q1	23/23 (100%)	19 (83%)	4 (17%)	2	12
66	Q2	90/90 (100%)	71 (79%)	19 (21%)	1	7
66	q2	89/90 (99%)	76 (85%)	13 (15%)	3	18
67	Q3	71/71 (100%)	61 (86%)	10 (14%)	3	20
67	q3	71/71 (100%)	58 (82%)	13 (18%)	1	10

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
68	S0	164/173 (95%)	134 (82%)	30 (18%)	1	10
68	s0	165/173 (95%)	138 (84%)	27 (16%)	2	15
69	S1	191/192 (100%)	144 (75%)	47 (25%)	0	5
69	s1	192/192 (100%)	156 (81%)	36 (19%)	1	10
70	S2	176/176 (100%)	137 (78%)	39 (22%)	1	6
70	s2	176/176 (100%)	143 (81%)	33 (19%)	1	10
71	S3	182/182 (100%)	149 (82%)	33 (18%)	1	11
71	s3	182/182 (100%)	148 (81%)	34 (19%)	1	10
72	S4	221/221 (100%)	183 (83%)	38 (17%)	2	13
72	s4	221/221 (100%)	190 (86%)	31 (14%)	3	20
73	S5	173/173 (100%)	148 (86%)	25 (14%)	3	18
73	s5	173/173 (100%)	139 (80%)	34 (20%)	1	8
74	S6	188/201 (94%)	156 (83%)	32 (17%)	2	13
74	s6	187/201 (93%)	157 (84%)	30 (16%)	2	15
75	S7	165/165 (100%)	135 (82%)	30 (18%)	1	11
75	s7	165/165 (100%)	139 (84%)	26 (16%)	2	16
76	S8	150/161 (93%)	130 (87%)	20 (13%)	4	22
76	s8	148/161 (92%)	124 (84%)	24 (16%)	2	15
77	S9	158/158 (100%)	129 (82%)	29 (18%)	1	10
77	s9	158/158 (100%)	135 (85%)	23 (15%)	3	18
78	SM	97/227 (43%)	73 (75%)	24 (25%)	0	5
78	sM	94/227 (41%)	68 (72%)	26 (28%)	0	2
79	SR	259/261 (99%)	226 (87%)	33 (13%)	4	23
79	sR	258/261 (99%)	228 (88%)	30 (12%)	5	27
All	All	18669/19450 (96%)	15436 (83%)	3233 (17%)	2	12

All (3233) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
5	C0	1	MET
5	C0	7	ASP
5	C0	8	ARG
5	C0	20	VAL
5	C0	28	ASN

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Mol	Chain	Res	Type
5	C0	32	HIS
5	C0	46	LEU
5	C0	49	LEU
5	C0	55	VAL
5	C0	56	LYS
5	C0	71	GLU
5	C0	76	LEU
5	C0	78	GLU
5	C0	82	LEU
5	c0	2	LEU
5	c0	5	LYS
5	c0	8	ARG
5	c0	15	LEU
5	c0	20	VAL
5	c0	21	VAL
5	c0	26	ASP
5	c0	27	PHE
5	c0	33	GLU
5	c0	37	THR
5	c0	40	LEU
5	c0	49	LEU
5	c0	55	VAL
5	c0	57	THR
5	c0	71	GLU
5	c0	77	ARG
6	C1	5	LEU
6	C1	8	GLN
6	C1	10	GLU
6	C1	21	ASN
6	C1	27	THR
6	C1	29	LYS
6	C1	40	LEU
6	C1	44	THR
6	C1	54	ILE
6	C1	67	ARG
6	C1	69	LYS
6	C1	74	THR
6	C1	83	THR
6	C1	99	ARG
6	C1	109	VAL
6	C1	132	SER
6	C1	136	ARG

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Mol	Chain	Res	Type
6	C1	140	VAL
6	c1	2	SER
6	c1	5	LEU
6	c1	10	GLU
6	c1	21	ASN
6	c1	26	LYS
6	c1	27	THR
6	c1	30	ARG
6	c1	31	THR
6	c1	32	LYS
6	c1	33	ARG
6	c1	40	LEU
6	c1	44	THR
6	c1	47	THR
6	c1	50	GLU
6	c1	56	LYS
6	c1	60	PHE
6	c1	67	ARG
6	c1	72	THR
6	c1	74	THR
6	c1	80	MET
6	c1	83	THR
6	c1	87	ARG
6	c1	90	TYR
6	c1	99	ARG
6	c1	125	VAL
6	c1	129	ARG
6	c1	132	SER
6	c1	140	VAL
7	C2	28	LEU
7	C2	33	ARG
7	C2	36	LEU
7	C2	43	ARG
7	C2	46	ARG
7	C2	50	LYS
7	C2	52	LEU
7	C2	58	LEU
7	C2	59	LEU
7	C2	61	VAL
7	C2	66	VAL
7	C2	71	ILE
7	C2	74	LEU

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Mol	Chain	Res	Type
7	C2	83	GLU
7	C2	85	LYS
7	C2	89	ILE
7	C2	91	VAL
7	C2	97	LEU
7	C2	103	LEU
7	C2	119	SER
7	C2	121	VAL
7	C2	126	TRP
7	C2	129	GLU
7	C2	132	GLU
7	C2	137	MET
7	C2	138	GLU
7	C2	139	HIS
7	c2	28	LEU
7	c2	36	LEU
7	c2	43	ARG
7	c2	45	LEU
7	c2	58	LEU
7	c2	59	LEU
7	c2	61	VAL
7	c2	62	LEU
7	c2	66	VAL
7	c2	71	ILE
7	c2	74	LEU
7	c2	83	GLU
7	c2	93	ASP
7	c2	97	LEU
7	c2	103	LEU
7	c2	115	VAL
7	c2	116	VAL
7	c2	120	VAL
7	c2	121	VAL
7	c2	125	ASN
7	c2	126	TRP
7	c2	129	GLU
7	c2	132	GLU
7	c2	136	ILE
7	c2	139	HIS
7	c2	140	PHE
8	C3	3	ARG
8	C3	6	SER

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Mol	Chain	Res	Type
8	C3	9	LYS
8	C3	16	ILE
8	C3	27	LYS
8	C3	31	GLU
8	C3	39	LYS
8	C3	42	ARG
8	C3	45	LEU
8	C3	56	ASP
8	C3	58	HIS
8	C3	62	GLN
8	C3	64	ARG
8	C3	67	THR
8	C3	76	LYS
8	C3	88	LEU
8	C3	102	LEU
8	C3	105	ASN
8	C3	115	LEU
8	C3	120	SER
8	C3	125	LEU
8	C3	140	LYS
8	C3	150	VAL
8	C3	151	ASN
8	c3	6	SER
8	c3	16	ILE
8	c3	21	ASN
8	c3	27	LYS
8	c3	28	LEU
8	c3	29	SER
8	c3	64	ARG
8	c3	66	ILE
8	c3	70	LYS
8	c3	84	ILE
8	c3	86	GLU
8	c3	87	ASP
8	c3	94	LYS
8	c3	104	ARG
8	c3	105	ASN
8	c3	115	LEU
8	c3	125	LEU
8	c3	138	ASN
8	c3	139	TRP
8	c3	141	TYR

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Mol	Chain	Res	Type
8	c3	143	SER
8	c3	147	SER
9	C4	13	VAL
9	C4	14	PHE
9	C4	26	THR
9	C4	29	HIS
9	C4	31	THR
9	C4	38	THR
9	C4	39	ILE
9	C4	43	THR
9	C4	51	ASP
9	C4	52	ARG
9	C4	79	VAL
9	C4	81	VAL
9	C4	89	THR
9	C4	92	LYS
9	C4	93	THR
9	C4	102	LEU
9	C4	103	ARG
9	C4	114	ARG
9	C4	127	ARG
9	C4	133	ARG
9	C4	136	ARG
9	C4	137	LEU
9	c4	13	VAL
9	c4	26	THR
9	c4	31	THR
9	c4	33	LEU
9	c4	34	SER
9	c4	42	VAL
9	c4	49	LYS
9	c4	51	ASP
9	c4	61	MET
9	c4	66	ASP
9	c4	79	VAL
9	c4	81	VAL
9	c4	91	THR
9	c4	102	LEU
9	c4	114	ARG
9	c4	119	THR
9	c4	124	ASP
9	c4	132	ARG

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Mol	Chain	Res	Type
9	c4	136	ARG
9	c4	137	LEU
10	C5	12	PHE
10	C5	22	LEU
10	C5	26	LEU
10	C5	27	GLU
10	C5	34	VAL
10	C5	35	LYS
10	C5	36	LEU
10	C5	40	ARG
10	C5	44	ARG
10	C5	47	ARG
10	C5	50	THR
10	C5	51	SER
10	C5	52	LYS
10	C5	69	GLU
10	C5	86	VAL
10	C5	110	GLU
10	C5	121	ILE
10	C5	124	THR
10	C5	128	HIS
10	c5	10	ARG
10	c5	14	THR
10	c5	15	HIS
10	c5	21	ASP
10	c5	24	LYS
10	c5	27	GLU
10	c5	36	LEU
10	c5	44	ARG
10	c5	69	GLU
10	c5	77	ARG
10	c5	107	ILE
10	c5	110	GLU
10	c5	121	ILE
10	c5	122	THR
10	c5	124	THR
10	c5	126	VAL
10	c5	127	ARG
11	C6	4	VAL
11	C6	8	GLN
11	C6	14	LYS
11	C6	15	SER

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Mol	Chain	Res	Type
11	C6	17	THR
11	C6	26	LYS
11	C6	43	ILE
11	C6	44	LEU
11	C6	53	LEU
11	C6	54	LEU
11	C6	57	LEU
11	C6	58	ASP
11	C6	66	ARG
11	C6	68	ARG
11	C6	69	VAL
11	C6	97	VAL
11	C6	98	ASP
11	C6	118	ILE
11	C6	123	ARG
11	C6	128	LYS
11	C6	136	SER
11	C6	137	ARG
11	C6	141	SER
11	c6	17	THR
11	c6	23	LYS
11	c6	28	LEU
11	c6	37	THR
11	c6	40	GLU
11	c6	43	ILE
11	c6	48	VAL
11	c6	53	LEU
11	c6	57	LEU
11	c6	68	ARG
11	c6	69	VAL
11	c6	87	LYS
11	c6	90	VAL
11	c6	94	GLN
11	c6	95	LYS
11	c6	97	VAL
11	c6	98	ASP
11	c6	110	THR
11	c6	113	ASP
11	c6	115	THR
11	c6	116	LEU
11	c6	117	LEU
11	c6	127	LYS

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Mol	Chain	Res	Type
11	c6	128	LYS
11	c6	137	ARG
11	c6	141	SER
11	c6	143	ARG
12	C7	5	ARG
12	C7	6	THR
12	C7	7	LYS
12	C7	19	ARG
12	C7	24	LEU
12	C7	25	THR
12	C7	38	ILE
12	C7	46	LEU
12	C7	49	LYS
12	C7	60	ARG
12	C7	69	ILE
12	C7	72	LYS
12	C7	78	ARG
12	C7	83	GLN
12	C7	85	VAL
12	C7	88	VAL
12	C7	105	GLN
12	C7	115	LEU
12	C7	119	LEU
12	c7	3	ARG
12	c7	8	THR
12	c7	19	ARG
12	c7	29	GLN
12	c7	34	LEU
12	c7	38	ILE
12	c7	46	LEU
12	c7	67	ARG
12	c7	69	ILE
12	c7	78	ARG
12	c7	79	GLU
12	c7	85	VAL
12	c7	104	ASN
12	c7	112	SER
13	C8	3	LEU
13	C8	8	GLN
13	C8	11	PHE
13	C8	14	ILE
13	C8	15	LEU

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Mol	Chain	Res	Type
13	C8	17	LEU
13	C8	21	ASN
13	C8	26	ILE
13	C8	28	ILE
13	C8	32	LEU
13	C8	38	VAL
13	C8	46	VAL
13	C8	55	HIS
13	C8	60	GLU
13	C8	61	LEU
13	C8	68	ARG
13	C8	70	VAL
13	C8	71	GLN
13	C8	74	GLN
13	C8	92	ILE
13	C8	93	THR
13	C8	100	THR
13	C8	107	SER
13	C8	108	LYS
13	C8	110	ARG
13	C8	116	LEU
13	C8	132	ARG
13	C8	133	VAL
13	C8	136	GLN
13	C8	138	THR
13	C8	141	THR
13	C8	143	ARG
13	c8	3	LEU
13	c8	10	SER
13	c8	13	HIS
13	c8	15	LEU
13	c8	17	LEU
13	c8	23	ASP
13	c8	26	ILE
13	c8	28	ILE
13	c8	36	LYS
13	c8	40	ARG
13	c8	43	SER
13	c8	55	HIS
13	c8	61	LEU
13	c8	77	THR
13	c8	85	PHE

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Mol	Chain	Res	Type
13	c8	92	ILE
13	c8	94	ASP
13	c8	100	THR
13	c8	105	VAL
13	c8	116	LEU
13	c8	119	ILE
13	c8	136	GLN
13	c8	138	THR
13	c8	144	ARG
14	C9	5	SER
14	C9	22	LEU
14	C9	28	LEU
14	C9	33	TYR
14	C9	35	ASP
14	C9	36	ILE
14	C9	57	ARG
14	C9	63	ARG
14	C9	67	MET
14	C9	75	LYS
14	C9	84	LYS
14	C9	86	ARG
14	C9	89	ARG
14	C9	94	ILE
14	C9	126	GLU
14	C9	130	ARG
14	C9	131	ASP
14	C9	134	ARG
14	c9	6	VAL
14	c9	20	SER
14	c9	27	LYS
14	c9	28	LEU
14	c9	33	TYR
14	c9	34	VAL
14	c9	36	ILE
14	c9	57	ARG
14	c9	71	VAL
14	c9	75	LYS
14	c9	89	ARG
14	c9	111	ILE
14	c9	123	ARG
14	c9	126	GLU
14	c9	132	LEU

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Mol	Chain	Res	Type
14	c9	135	ILE
14	c9	139	THR
14	c9	140	LEU
14	c9	141	GLU
14	c9	142	GLU
14	c9	143	ASP
15	d0	18	GLN
15	d0	20	ILE
15	d0	22	ILE
15	d0	23	ARG
15	d0	27	THR
15	d0	31	VAL
15	d0	34	LEU
15	d0	44	ASN
15	d0	47	GLN
15	d0	51	VAL
15	d0	57	ARG
15	d0	60	THR
15	d0	70	THR
15	d0	74	GLU
15	d0	77	LYS
15	d0	81	THR
15	d0	99	ILE
15	d0	102	ARG
15	d0	103	ILE
15	d0	105	GLN
15	d0	115	GLU
15	d0	120	SER
15	D0	15	GLN
15	D0	16	GLN
15	D0	17	GLN
15	D0	18	GLN
15	D0	23	ARG
15	D0	25	THR
15	D0	27	THR
15	D0	30	LYS
15	D0	31	VAL
15	D0	34	LEU
15	D0	35	GLU
15	D0	47	GLN
15	D0	48	HIS
15	D0	51	VAL

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Mol	Chain	Res	Type
15	D0	57	ARG
15	D0	61	LYS
15	D0	70	THR
15	D0	74	GLU
15	D0	78	THR
15	D0	89	ARG
15	D0	103	ILE
15	D0	108	ILE
15	D0	109	GLU
16	d1	2	GLU
16	d1	5	LYS
16	d1	10	GLU
16	d1	11	LEU
16	d1	12	TYR
16	d1	32	VAL
16	d1	38	LYS
16	d1	52	THR
16	d1	56	SER
16	d1	68	SER
16	D1	1	MET
16	D1	2	GLU
16	D1	3	ASN
16	D1	5	LYS
16	D1	7	GLN
16	D1	11	LEU
16	D1	41	GLU
16	D1	52	THR
16	D1	76	ASP
16	D1	78	LEU
16	D1	80	LYS
17	d2	6	VAL
17	d2	7	LEU
17	d2	15	ASN
17	d2	16	ASN
17	d2	23	ARG
17	d2	31	SER
17	d2	37	PHE
17	d2	43	LYS
17	d2	57	ARG
17	d2	68	ARG
17	d2	98	GLN
17	d2	103	ILE

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Mol	Chain	Res	Type
17	d2	126	LEU
17	D2	7	LEU
17	D2	24	GLN
17	D2	47	ILE
17	D2	53	ILE
17	D2	56	HIS
17	D2	65	LEU
17	D2	68	ARG
17	D2	76	SER
17	D2	83	ILE
17	D2	87	GLU
17	D2	93	LEU
17	D2	98	GLN
17	D2	103	ILE
17	D2	104	LEU
17	D2	111	MET
17	D2	121	VAL
17	D2	122	SER
17	D2	126	LEU
18	d3	3	LYS
18	d3	9	LEU
18	d3	11	SER
18	d3	14	LYS
18	d3	16	ARG
18	d3	19	ARG
18	d3	47	SER
18	d3	56	LYS
18	d3	73	ARG
18	d3	79	ASN
18	d3	84	THR
18	d3	96	VAL
18	d3	100	ASP
18	d3	103	LEU
18	d3	107	PHE
18	d3	127	VAL
18	d3	130	VAL
18	D3	7	ARG
18	D3	9	LEU
18	D3	16	ARG
18	D3	19	ARG
18	D3	26	GLU
18	D3	28	ASN

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Mol	Chain	Res	Type
18	D3	40	SER
18	D3	43	PHE
18	D3	73	ARG
18	D3	82	LYS
18	D3	83	VAL
18	D3	84	THR
18	D3	94	ASN
18	D3	100	ASP
18	D3	103	LEU
18	D3	107	PHE
18	D3	110	LYS
18	D3	140	LYS
18	D3	144	ARG
19	d4	6	THR
19	d4	10	ARG
19	d4	13	ILE
19	d4	14	SER
19	d4	21	LYS
19	d4	34	ASN
19	d4	35	VAL
19	d4	36	SER
19	d4	43	LYS
19	d4	47	VAL
19	d4	49	LYS
19	d4	58	PHE
19	d4	62	THR
19	d4	77	ASN
19	d4	83	LYS
19	d4	88	THR
19	d4	125	LEU
19	d4	128	LYS
19	d4	133	ASN
19	D4	14	SER
19	D4	17	LEU
19	D4	21	LYS
19	D4	32	ARG
19	D4	34	ASN
19	D4	35	VAL
19	D4	46	GLU
19	D4	47	VAL
19	D4	49	LYS
19	D4	51	GLU

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Mol	Chain	Res	Type
19	D4	57	VAL
19	D4	61	ARG
19	D4	62	THR
19	D4	88	THR
19	D4	96	LEU
19	D4	99	LYS
19	D4	100	VAL
19	D4	102	LYS
19	D4	121	THR
19	D4	124	ARG
19	D4	127	LYS
19	D4	128	LYS
20	d5	37	GLN
20	d5	46	LYS
20	d5	51	LEU
20	d5	53	GLU
20	d5	57	TYR
20	d5	58	ARG
20	d5	69	LEU
20	d5	74	SER
20	d5	81	ARG
20	d5	85	LYS
20	d5	88	ILE
20	d5	93	SER
20	d5	102	THR
20	d5	105	THR
20	D5	38	HIS
20	D5	40	VAL
20	D5	42	LEU
20	D5	44	GLN
20	D5	59	TYR
20	D5	67	ASP
20	D5	68	ARG
20	D5	69	LEU
20	D5	70	LYS
20	D5	71	ILE
20	D5	75	LEU
20	D5	85	LYS
20	D5	88	ILE
20	D5	92	ILE
20	D5	95	HIS
20	D5	102	THR

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Mol	Chain	Res	Type
21	d6	10	ARG
21	d6	12	LYS
21	d6	33	ASP
21	d6	39	MET
21	d6	41	ILE
21	d6	44	ILE
21	d6	53	LEU
21	d6	58	VAL
21	d6	61	GLU
21	d6	82	ARG
21	d6	83	ILE
21	d6	84	VAL
21	d6	85	ARG
21	d6	89	ARG
21	d6	90	GLU
21	D6	7	SER
21	D6	12	LYS
21	D6	18	VAL
21	D6	36	ILE
21	D6	39	MET
21	D6	41	ILE
21	D6	44	ILE
21	D6	45	VAL
21	D6	52	ASP
21	D6	61	GLU
21	D6	64	LEU
21	D6	69	ASN
21	D6	70	LYS
21	D6	74	CYS
21	D6	76	SER
21	D6	83	ILE
21	D6	84	VAL
21	D6	85	ARG
21	D6	90	GLU
21	D6	91	ASP
22	d7	3	LEU
22	d7	4	VAL
22	d7	22	LYS
22	d7	34	ASP
22	d7	37	CYS
22	d7	43	ILE
22	d7	52	THR

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Mol	Chain	Res	Type
22	d7	57	GLU
22	d7	77	THR
22	d7	80	ARG
22	d7	82	LYS
22	D7	3	LEU
22	D7	20	LYS
22	D7	33	LEU
22	D7	34	ASP
22	D7	36	LYS
22	D7	37	CYS
22	D7	40	CYS
22	D7	41	LEU
22	D7	55	THR
22	D7	58	SER
22	D7	62	ILE
23	d8	5	THR
23	d8	7	VAL
23	d8	11	LYS
23	d8	15	VAL
23	d8	19	THR
23	d8	22	ARG
23	d8	28	VAL
23	d8	30	VAL
23	d8	32	PHE
23	d8	36	THR
23	d8	39	THR
23	d8	40	ILE
23	d8	49	ARG
23	d8	54	LEU
23	d8	64	ARG
23	d8	65	ARG
23	D8	5	THR
23	D8	7	VAL
23	D8	8	THR
23	D8	13	ILE
23	D8	14	LYS
23	D8	19	THR
23	D8	30	VAL
23	D8	32	PHE
23	D8	33	LEU
23	D8	36	THR
23	D8	49	ARG

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Mol	Chain	Res	Type
23	D8	52	ASP
23	D8	58	GLU
23	D8	61	ARG
23	D8	65	ARG
24	d9	6	VAL
24	d9	7	TRP
24	d9	12	ARG
24	d9	36	LEU
24	d9	38	ILE
24	d9	53	ASN
24	d9	54	LYS
24	D9	6	VAL
24	D9	8	PHE
24	D9	19	ARG
24	D9	22	ARG
24	D9	30	LEU
24	D9	36	LEU
24	D9	48	ASN
25	e0	13	LYS
25	e0	26	LYS
25	e0	28	LYS
25	e0	29	LYS
25	e0	31	LYS
25	e0	44	PHE
25	e0	54	ARG
25	e0	56	MET
25	e0	62	VAL
25	E0	20	LYS
25	E0	28	LYS
25	E0	29	LYS
25	E0	42	ARG
25	E0	45	VAL
25	E0	47	VAL
25	E0	50	VAL
25	E0	54	ARG
25	E0	56	MET
26	e1	93	HIS
26	e1	97	LYS
26	e1	98	VAL
26	e1	100	LEU
26	e1	106	TYR
26	e1	109	ASP

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Mol	Chain	Res	Type
26	e1	116	LYS
26	e1	118	ARG
26	e1	120	GLU
26	e1	135	HIS
26	e1	141	CYS
26	e1	144	CYS
26	e1	146	SER
26	e1	147	VAL
26	e1	148	TYR
26	e1	150	VAL
26	E1	82	LYS
26	E1	83	LYS
26	E1	85	TYR
26	E1	86	THR
26	E1	91	ILE
26	E1	92	LYS
26	E1	103	LEU
26	E1	107	LYS
26	E1	115	THR
26	E1	119	ARG
26	E1	120	GLU
26	E1	140	TYR
26	E1	146	SER
26	E1	147	VAL
26	E1	148	TYR
26	E1	149	LYS
27	l2	15	ILE
27	l2	23	ARG
27	l2	30	ARG
27	l2	32	LEU
27	l2	44	ILE
27	l2	45	VAL
27	l2	48	ILE
27	l2	70	ARG
27	l2	71	LEU
27	l2	74	GLU
27	l2	79	ASN
27	l2	84	THR
27	l2	96	LEU
27	l2	98	VAL
27	l2	101	VAL
27	l2	107	VAL

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Mol	Chain	Res	Type
27	l2	113	VAL
27	l2	119	LYS
27	l2	128	ARG
27	l2	134	VAL
27	l2	137	ILE
27	l2	147	ARG
27	l2	152	SER
27	l2	155	LYS
27	l2	157	VAL
27	l2	165	VAL
27	l2	179	LEU
27	l2	180	LEU
27	l2	181	LYS
27	l2	190	ARG
27	l2	193	ARG
27	l2	202	VAL
27	l2	224	THR
27	l2	241	ARG
27	l2	247	ARG
27	L2	9	ARG
27	L2	20	THR
27	L2	32	LEU
27	L2	44	ILE
27	L2	45	VAL
27	L2	47	GLN
27	L2	48	ILE
27	L2	72	ARG
27	L2	74	GLU
27	L2	88	ILE
27	L2	95	SER
27	L2	98	VAL
27	L2	101	VAL
27	L2	104	LEU
27	L2	113	VAL
27	L2	119	LYS
27	L2	134	VAL
27	L2	157	VAL
27	L2	158	ILE
27	L2	169	ILE
27	L2	179	LEU
27	L2	180	LEU
27	L2	191	LEU

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Mol	Chain	Res	Type
27	L2	193	ARG
27	L2	202	VAL
27	L2	204	MET
27	L2	223	SER
27	L2	227	ARG
27	L2	230	VAL
27	L2	252	THR
28	l3	3	HIS
28	l3	4	ARG
28	l3	10	ARG
28	l3	17	LEU
28	l3	19	ARG
28	l3	37	ARG
28	l3	39	LYS
28	l3	41	VAL
28	l3	47	LEU
28	l3	50	LYS
28	l3	54	THR
28	l3	55	THR
28	l3	56	ILE
28	l3	73	VAL
28	l3	77	THR
28	l3	81	THR
28	l3	85	VAL
28	l3	102	LEU
28	l3	103	THR
28	l3	114	VAL
28	l3	123	TYR
28	l3	139	GLN
28	l3	145	GLU
28	l3	148	LEU
28	l3	156	SER
28	l3	168	LYS
28	l3	169	THR
28	l3	184	ASN
28	l3	188	ILE
28	l3	192	VAL
28	l3	196	ARG
28	l3	197	GLU
28	l3	202	THR
28	l3	205	VAL
28	l3	218	ILE

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Mol	Chain	Res	Type
28	l3	229	VAL
28	l3	232	ARG
28	l3	238	LEU
28	l3	244	ARG
28	l3	246	LEU
28	l3	248	LYS
28	l3	257	PRO
28	l3	260	VAL
28	l3	304	THR
28	l3	316	GLU
28	l3	319	ASN
28	l3	324	VAL
28	l3	328	ILE
28	l3	332	ARG
28	l3	338	LEU
28	l3	340	LYS
28	l3	347	SER
28	l3	348	ARG
28	l3	355	SER
28	l3	365	PHE
28	l3	367	LYS
28	l3	369	ARG
28	l3	382	THR
28	l3	385	LYS
28	L3	5	LYS
28	L3	7	GLU
28	L3	10	ARG
28	L3	19	ARG
28	L3	20	LYS
28	L3	25	ILE
28	L3	37	ARG
28	L3	39	LYS
28	L3	41	VAL
28	L3	44	THR
28	L3	47	LEU
28	L3	55	THR
28	L3	56	ILE
28	L3	73	VAL
28	L3	85	VAL
28	L3	101	SER
28	L3	102	LEU
28	L3	103	THR

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Mol	Chain	Res	Type
28	L3	110	LEU
28	L3	114	VAL
28	L3	144	ILE
28	L3	156	SER
28	L3	166	ILE
28	L3	169	THR
28	L3	173	GLN
28	L3	188	ILE
28	L3	192	VAL
28	L3	196	ARG
28	L3	202	THR
28	L3	205	VAL
28	L3	206	ASP
28	L3	211	GLN
28	L3	235	THR
28	L3	236	LYS
28	L3	238	LEU
28	L3	241	LYS
28	L3	244	ARG
28	L3	246	LEU
28	L3	252	ILE
28	L3	261	MET
28	L3	284	ARG
28	L3	302	LYS
28	L3	305	ILE
28	L3	319	ASN
28	L3	320	ASP
28	L3	328	ILE
28	L3	332	ARG
28	L3	338	LEU
28	L3	344	THR
28	L3	361	THR
28	L3	365	PHE
28	L3	367	LYS
28	L3	372	THR
28	L3	380	MET
28	L3	386	ASP
28	L3	387	LEU
29	14	3	ARG
29	14	14	GLU
29	14	18	ASN
29	14	22	LEU

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Mol	Chain	Res	Type
29	14	73	ARG
29	14	85	SER
29	14	93	MET
29	14	98	ARG
29	14	99	MET
29	14	103	THR
29	14	120	TYR
29	14	122	THR
29	14	138	ARG
29	14	142	VAL
29	14	145	ILE
29	14	148	ILE
29	14	150	LEU
29	14	153	SER
29	14	156	LEU
29	14	170	LYS
29	14	172	VAL
29	14	177	ASP
29	14	179	LEU
29	14	186	LYS
29	14	187	LEU
29	14	193	LYS
29	14	194	TYR
29	14	203	ARG
29	14	206	LEU
29	14	217	LYS
29	14	220	ARG
29	14	230	VAL
29	14	246	ARG
29	14	256	THR
29	14	258	LEU
29	14	259	ASP
29	14	261	VAL
29	14	265	GLU
29	14	267	VAL
29	14	270	SER
29	14	307	GLN
29	14	310	THR
29	14	313	LEU
29	14	319	LYS
29	14	327	LEU
29	14	342	LYS

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Mol	Chain	Res	Type
29	L4	343	LYS
29	L4	346	LYS
29	L4	347	THR
29	L4	357	GLU
29	L4	359	LEU
29	L4	14	GLU
29	L4	47	ARG
29	L4	54	GLU
29	L4	69	ARG
29	L4	82	THR
29	L4	93	MET
29	L4	98	ARG
29	L4	112	LYS
29	L4	120	TYR
29	L4	124	SER
29	L4	136	LEU
29	L4	138	ARG
29	L4	141	ARG
29	L4	148	ILE
29	L4	153	SER
29	L4	156	LEU
29	L4	170	LYS
29	L4	179	LEU
29	L4	182	LEU
29	L4	187	LEU
29	L4	193	LYS
29	L4	203	ARG
29	L4	206	LEU
29	L4	213	ASN
29	L4	220	ARG
29	L4	222	VAL
29	L4	230	VAL
29	L4	232	SER
29	L4	246	ARG
29	L4	258	LEU
29	L4	259	ASP
29	L4	261	VAL
29	L4	267	VAL
29	L4	270	SER
29	L4	278	SER
29	L4	283	THR
29	L4	287	THR

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Mol	Chain	Res	Type
29	L4	297	SER
29	L4	306	THR
29	L4	307	GLN
29	L4	310	THR
29	L4	313	LEU
29	L4	319	LYS
29	L4	323	VAL
29	L4	327	LEU
29	L4	345	GLU
29	L4	346	LYS
29	L4	347	THR
29	L4	354	VAL
30	15	4	GLN
30	15	5	LYS
30	15	13	SER
30	15	18	THR
30	15	34	LYS
30	15	35	ARG
30	15	51	LEU
30	15	68	THR
30	15	70	THR
30	15	74	VAL
30	15	89	THR
30	15	110	LEU
30	15	112	LYS
30	15	113	LEU
30	15	118	THR
30	15	133	GLU
30	15	144	VAL
30	15	146	LEU
30	15	148	ILE
30	15	152	ARG
30	15	155	THR
30	15	178	ASN
30	15	187	THR
30	15	194	LEU
30	15	211	LEU
30	15	230	ASP
30	15	254	LYS
30	15	258	LYS
30	15	259	LYS
30	15	268	GLU

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Mol	Chain	Res	Type
30	L5	273	ARG
30	L5	5	LYS
30	L5	10	SER
30	L5	13	SER
30	L5	22	ARG
30	L5	23	ARG
30	L5	35	ARG
30	L5	41	LYS
30	L5	45	ASN
30	L5	46	THR
30	L5	50	ARG
30	L5	56	THR
30	L5	69	ILE
30	L5	70	THR
30	L5	75	LEU
30	L5	85	ARG
30	L5	90	HIS
30	L5	92	LEU
30	L5	93	THR
30	L5	95	TRP
30	L5	105	ILE
30	L5	107	ARG
30	L5	109	THR
30	L5	113	LEU
30	L5	118	THR
30	L5	128	GLU
30	L5	131	LEU
30	L5	144	VAL
30	L5	146	LEU
30	L5	148	ILE
30	L5	150	LEU
30	L5	151	GLN
30	L5	152	ARG
30	L5	155	THR
30	L5	159	VAL
30	L5	163	LEU
30	L5	177	GLU
30	L5	185	PHE
30	L5	187	THR
30	L5	188	GLU
30	L5	194	LEU
30	L5	211	LEU

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Mol	Chain	Res	Type
30	L5	222	LEU
30	L5	231	ILE
30	L5	261	THR
30	L5	263	GLU
30	L5	264	GLN
30	L5	273	ARG
30	L5	277	LEU
31	l6	8	LYS
31	l6	20	LYS
31	l6	21	THR
31	l6	46	ARG
31	l6	50	LYS
31	l6	52	VAL
31	l6	62	THR
31	l6	64	LEU
31	l6	65	ILE
31	l6	76	LEU
31	l6	79	VAL
31	l6	82	ARG
31	l6	98	VAL
31	l6	108	LYS
31	l6	128	LYS
31	l6	152	THR
31	l6	155	LEU
31	L6	5	LYS
31	L6	15	VAL
31	L6	21	THR
31	L6	31	ARG
31	L6	48	ARG
31	L6	52	VAL
31	L6	56	LYS
31	L6	59	GLU
31	L6	64	LEU
31	L6	65	ILE
31	L6	79	VAL
31	L6	84	VAL
31	L6	89	THR
31	L6	91	VAL
31	L6	96	VAL
31	L6	98	VAL
31	L6	129	GLU
31	L6	134	ARG

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Mol	Chain	Res	Type
31	L6	146	ILE
31	L6	152	THR
31	L6	167	ASN
32	17	22	THR
32	17	41	ARG
32	17	60	ARG
32	17	77	VAL
32	17	78	GLU
32	17	84	VAL
32	17	87	VAL
32	17	88	ARG
32	17	101	LYS
32	17	108	LEU
32	17	110	ARG
32	17	121	LYS
32	17	124	LEU
32	17	151	ARG
32	17	158	LYS
32	17	164	SER
32	17	173	LEU
32	17	175	LYS
32	17	179	LEU
32	17	184	LEU
32	17	216	VAL
32	17	225	GLN
32	17	229	PHE
32	17	239	LEU
32	L7	25	GLN
32	L7	26	VAL
32	L7	60	ARG
32	L7	82	LYS
32	L7	84	VAL
32	L7	87	VAL
32	L7	92	ILE
32	L7	93	ASN
32	L7	98	LYS
32	L7	101	LYS
32	L7	124	LEU
32	L7	173	LEU
32	L7	179	LEU
32	L7	181	ILE
32	L7	184	LEU

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Mol	Chain	Res	Type
32	L7	208	SER
32	L7	216	VAL
32	L7	239	LEU
33	18	27	THR
33	18	41	GLN
33	18	68	ARG
33	18	79	GLN
33	18	81	THR
33	18	83	ASP
33	18	89	GLU
33	18	95	ASN
33	18	126	SER
33	18	136	LEU
33	18	146	LYS
33	18	156	ASP
33	18	160	ILE
33	18	163	VAL
33	18	169	LEU
33	18	172	LYS
33	18	180	VAL
33	18	185	ARG
33	18	200	LEU
33	18	208	GLU
33	18	213	LYS
33	18	214	LEU
33	18	217	THR
33	18	219	ASP
33	18	230	LYS
33	18	241	LYS
33	18	245	LYS
33	18	248	LYS
33	L8	26	LEU
33	L8	27	THR
33	L8	41	GLN
33	L8	63	LYS
33	L8	74	THR
33	L8	79	GLN
33	L8	83	ASP
33	L8	84	ARG
33	L8	90	THR
33	L8	92	LYS
33	L8	95	ASN

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Mol	Chain	Res	Type
33	L8	132	VAL
33	L8	136	LEU
33	L8	150	LEU
33	L8	163	VAL
33	L8	169	LEU
33	L8	180	VAL
33	L8	181	LYS
33	L8	185	ARG
33	L8	189	LEU
33	L8	197	VAL
33	L8	203	VAL
33	L8	208	GLU
33	L8	214	LEU
33	L8	216	SER
33	L8	232	HIS
33	L8	246	MET
34	19	1	MET
34	19	4	ILE
34	19	5	GLN
34	19	6	THR
34	19	17	THR
34	19	18	VAL
34	19	19	SER
34	19	33	THR
34	19	48	VAL
34	19	55	VAL
34	19	62	ARG
34	19	68	LEU
34	19	69	ARG
34	19	70	THR
34	19	80	THR
34	19	82	VAL
34	19	92	TYR
34	19	105	GLU
34	19	106	LYS
34	19	107	ASP
34	19	123	ILE
34	19	129	ARG
34	19	132	VAL
34	19	138	THR
34	19	140	VAL
34	19	143	GLU

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Mol	Chain	Res	Type
34	l9	144	ILE
34	l9	151	VAL
34	l9	152	GLU
34	l9	157	ASN
34	l9	161	LEU
34	l9	162	GLN
34	l9	164	ILE
34	l9	165	CYS
34	l9	177	ASP
34	l9	179	ILE
34	l9	190	ASP
34	L9	1	MET
34	L9	3	TYR
34	L9	5	GLN
34	L9	9	GLN
34	L9	18	VAL
34	L9	20	ILE
34	L9	22	SER
34	L9	33	THR
34	L9	41	ILE
34	L9	48	VAL
34	L9	52	LEU
34	L9	62	ARG
34	L9	68	LEU
34	L9	69	ARG
34	L9	70	THR
34	L9	82	VAL
34	L9	92	TYR
34	L9	104	VAL
34	L9	130	ASP
34	L9	132	VAL
34	L9	137	SER
34	L9	138	THR
34	L9	139	ASN
34	L9	140	VAL
34	L9	141	LYS
34	L9	146	LEU
34	L9	147	SER
34	L9	149	ASN
34	L9	150	SER
34	L9	151	VAL
34	L9	157	ASN

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Mol	Chain	Res	Type
34	L9	161	LEU
34	L9	162	GLN
34	L9	164	ILE
34	L9	172	ILE
34	L9	173	ARG
34	L9	177	ASP
34	L9	189	GLU
34	L9	190	ASP
35	m0	4	ARG
35	m0	7	ARG
35	m0	24	ARG
35	m0	26	VAL
35	m0	36	LEU
35	m0	48	LEU
35	m0	52	LEU
35	m0	63	GLU
35	m0	74	LYS
35	m0	76	MET
35	m0	87	LEU
35	m0	91	VAL
35	m0	129	VAL
35	m0	144	ASN
35	m0	156	ARG
35	m0	163	GLN
35	m0	168	SER
35	m0	169	LYS
35	m0	174	THR
35	m0	175	ASN
35	m0	177	ASP
35	m0	178	ARG
35	m0	186	GLU
35	m0	200	LEU
35	m0	205	SER
35	m0	215	GLU
35	m0	216	TYR
35	m0	217	PHE
35	M0	3	ARG
35	M0	30	LYS
35	M0	33	ILE
35	M0	40	LYS
35	M0	42	THR
35	M0	48	LEU

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Mol	Chain	Res	Type
35	M0	52	LEU
35	M0	63	GLU
35	M0	74	LYS
35	M0	87	LEU
35	M0	91	VAL
35	M0	116	ARG
35	M0	129	VAL
35	M0	130	ASP
35	M0	139	ARG
35	M0	143	SER
35	M0	146	ASP
35	M0	156	ARG
35	M0	163	GLN
35	M0	165	ILE
35	M0	174	THR
35	M0	191	LYS
35	M0	203	LYS
36	m1	9	MET
36	m1	10	ARG
36	m1	12	LEU
36	m1	30	LEU
36	m1	31	THR
36	m1	34	SER
36	m1	44	THR
36	m1	54	VAL
36	m1	80	LEU
36	m1	87	LYS
36	m1	94	ARG
36	m1	106	ILE
36	m1	107	ASP
36	m1	112	LEU
36	m1	129	VAL
36	m1	130	VAL
36	m1	140	ARG
36	m1	145	LYS
36	m1	147	THR
36	m1	152	HIS
36	m1	158	ASP
36	m1	161	SER
36	m1	172	LEU
36	M1	10	ARG
36	M1	12	LEU

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Mol	Chain	Res	Type
36	M1	13	LYS
36	M1	17	LEU
36	M1	19	LEU
36	M1	23	VAL
36	M1	34	SER
36	M1	44	THR
36	M1	65	ILE
36	M1	80	LEU
36	M1	85	LYS
36	M1	94	ARG
36	M1	106	ILE
36	M1	107	ASP
36	M1	112	LEU
36	M1	115	LYS
36	M1	137	ARG
36	M1	138	VAL
36	M1	140	ARG
36	M1	165	GLN
36	M1	166	LYS
36	M1	173	ASP
36	M1	174	LYS
37	m3	13	HIS
37	m3	16	LYS
37	m3	46	ILE
37	m3	55	ARG
37	m3	63	VAL
37	m3	67	ARG
37	m3	68	LYS
37	m3	69	VAL
37	m3	73	ARG
37	m3	75	PHE
37	m3	76	THR
37	m3	85	LEU
37	m3	100	ARG
37	m3	107	GLU
37	m3	122	LYS
37	m3	123	ILE
37	m3	128	ARG
37	m3	131	LYS
37	m3	149	GLN
37	m3	164	GLU
37	m3	171	ARG

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Mol	Chain	Res	Type
37	m3	176	GLU
37	m3	184	GLU
37	m3	189	GLU
37	m3	194	GLU
37	M3	4	SER
37	M3	5	LYS
37	M3	10	LEU
37	M3	13	HIS
37	M3	23	LYS
37	M3	46	ILE
37	M3	54	LEU
37	M3	55	ARG
37	M3	57	VAL
37	M3	58	VAL
37	M3	59	ARG
37	M3	62	THR
37	M3	67	ARG
37	M3	69	VAL
37	M3	77	LEU
37	M3	85	LEU
37	M3	91	ARG
37	M3	100	ARG
37	M3	107	GLU
37	M3	108	ILE
37	M3	114	GLN
37	M3	124	ILE
37	M3	131	LYS
37	M3	136	GLU
37	M3	137	GLN
37	M3	144	THR
37	M3	147	ILE
37	M3	164	GLU
37	M3	168	ARG
37	M3	171	ARG
37	M3	190	LYS
37	M3	194	GLU
38	m4	2	SER
38	m4	4	ASP
38	m4	10	SER
38	m4	27	GLN
38	m4	41	GLN
38	m4	55	ARG

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Mol	Chain	Res	Type
38	m4	62	GLN
38	m4	64	VAL
38	m4	72	LEU
38	m4	90	VAL
38	m4	98	SER
38	m4	107	GLU
38	m4	108	ARG
38	m4	135	LEU
38	M4	4	ASP
38	M4	5	SER
38	M4	10	SER
38	M4	20	VAL
38	M4	42	LYS
38	M4	47	ASP
38	M4	58	ILE
38	M4	64	VAL
38	M4	102	LYS
38	M4	108	ARG
38	M4	113	THR
38	M4	126	GLN
38	M4	129	TYR
38	M4	133	LYS
39	m5	5	LYS
39	m5	10	LEU
39	m5	12	ARG
39	m5	15	GLN
39	m5	18	VAL
39	m5	22	LEU
39	m5	49	ARG
39	m5	75	VAL
39	m5	85	THR
39	m5	91	GLU
39	m5	96	ARG
39	m5	97	SER
39	m5	98	LEU
39	m5	106	VAL
39	m5	117	ASN
39	m5	138	GLN
39	m5	155	VAL
39	m5	167	THR
39	m5	172	ARG
39	m5	176	LYS

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Mol	Chain	Res	Type
39	m5	183	THR
39	m5	184	LYS
39	m5	188	ARG
39	m5	190	THR
39	m5	194	GLN
39	m5	201	ARG
39	m5	204	LYS
39	M5	15	GLN
39	M5	22	LEU
39	M5	38	ARG
39	M5	50	ARG
39	M5	62	TYR
39	M5	80	THR
39	M5	83	LYS
39	M5	91	GLU
39	M5	92	LEU
39	M5	96	ARG
39	M5	98	LEU
39	M5	104	GLU
39	M5	105	ARG
39	M5	109	ARG
39	M5	133	ILE
39	M5	138	GLN
39	M5	151	ILE
39	M5	159	ARG
39	M5	183	THR
39	M5	194	GLN
39	M5	204	LYS
40	m6	34	VAL
40	m6	40	GLU
40	m6	44	SER
40	m6	58	LEU
40	m6	60	LYS
40	m6	74	ARG
40	m6	78	ARG
40	m6	85	ARG
40	m6	100	GLU
40	m6	106	GLU
40	m6	115	LYS
40	m6	117	ARG
40	m6	119	VAL
40	m6	126	VAL

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Mol	Chain	Res	Type
40	m6	143	THR
40	m6	160	ARG
40	m6	171	LYS
40	m6	172	ARG
40	m6	175	THR
40	m6	182	ASN
40	m6	184	THR
40	m6	197	LEU
40	M6	16	VAL
40	M6	41	LEU
40	M6	44	SER
40	M6	58	LEU
40	M6	59	ARG
40	M6	67	THR
40	M6	78	ARG
40	M6	85	ARG
40	M6	102	LEU
40	M6	106	GLU
40	M6	108	ILE
40	M6	110	PRO
40	M6	116	LYS
40	M6	117	ARG
40	M6	119	VAL
40	M6	122	GLN
40	M6	124	LEU
40	M6	128	ARG
40	M6	143	THR
40	M6	148	LYS
40	M6	160	ARG
40	M6	182	ASN
40	M6	190	VAL
41	m7	7	THR
41	m7	23	ARG
41	m7	24	VAL
41	m7	32	THR
41	m7	41	LEU
41	m7	49	GLU
41	m7	52	LEU
41	m7	56	ARG
41	m7	61	ARG
41	m7	65	SER
41	m7	67	ILE

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Mol	Chain	Res	Type
41	m7	69	ARG
41	m7	74	LYS
41	m7	79	THR
41	m7	80	LYS
41	m7	89	LYS
41	m7	94	LEU
41	m7	114	VAL
41	m7	136	ILE
41	m7	144	SER
41	m7	154	GLU
41	m7	165	VAL
41	m7	169	THR
41	m7	180	LYS
41	m7	181	ARG
41	M7	3	ARG
41	M7	7	THR
41	M7	9	THR
41	M7	24	VAL
41	M7	32	THR
41	M7	36	ILE
41	M7	42	THR
41	M7	52	LEU
41	M7	53	ASP
41	M7	56	ARG
41	M7	61	ARG
41	M7	67	ILE
41	M7	69	ARG
41	M7	70	THR
41	M7	75	GLU
41	M7	111	LYS
41	M7	112	LEU
41	M7	114	VAL
41	M7	124	LYS
41	M7	127	ARG
41	M7	128	ARG
41	M7	142	SER
41	M7	153	LYS
41	M7	154	GLU
41	M7	165	VAL
41	M7	168	LEU
41	M7	180	LYS
41	M7	181	ARG

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Mol	Chain	Res	Type
41	M7	182	ILE
42	m8	7	SER
42	m8	13	SER
42	m8	17	THR
42	m8	26	LEU
42	m8	32	LEU
42	m8	49	LEU
42	m8	57	ILE
42	m8	64	VAL
42	m8	80	THR
42	m8	81	VAL
42	m8	86	THR
42	m8	105	ARG
42	m8	135	GLN
42	m8	138	LEU
42	m8	161	LYS
42	m8	165	ILE
42	m8	171	LYS
42	m8	180	ARG
42	M8	3	ILE
42	M8	8	LYS
42	M8	17	THR
42	M8	21	SER
42	M8	24	VAL
42	M8	26	LEU
42	M8	32	LEU
42	M8	41	ASP
42	M8	49	LEU
42	M8	61	PRO
42	M8	63	SER
42	M8	64	VAL
42	M8	69	ARG
42	M8	86	THR
42	M8	93	ILE
42	M8	122	ILE
42	M8	135	GLN
42	M8	138	LEU
42	M8	140	LEU
42	M8	165	ILE
42	M8	178	ARG
42	M8	179	ARG
42	M8	185	LYS

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Mol	Chain	Res	Type
43	m9	7	GLN
43	m9	9	ARG
43	m9	10	LEU
43	m9	20	ARG
43	m9	36	ASN
43	m9	37	SER
43	m9	43	LYS
43	m9	55	VAL
43	m9	56	THR
43	m9	63	THR
43	m9	70	LYS
43	m9	74	ARG
43	m9	84	THR
43	m9	88	ARG
43	m9	98	ARG
43	m9	99	LEU
43	m9	105	LEU
43	m9	106	LEU
43	m9	126	GLU
43	m9	128	LYS
43	m9	133	LYS
43	m9	138	LEU
43	m9	152	GLU
43	m9	153	LYS
43	m9	162	ARG
43	m9	164	LEU
43	m9	173	ARG
43	M9	5	ARG
43	M9	10	LEU
43	M9	31	GLU
43	M9	41	ILE
43	M9	42	ARG
43	M9	46	LYS
43	M9	57	VAL
43	M9	74	ARG
43	M9	81	ARG
43	M9	86	GLU
43	M9	98	ARG
43	M9	103	ARG
43	M9	110	ARG
43	M9	120	TYR
43	M9	138	LEU

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Mol	Chain	Res	Type
43	M9	164	LEU
43	M9	165	LYS
43	M9	175	GLN
43	M9	182	ASP
43	M9	185	LEU
43	M9	186	LYS
44	n0	17	GLU
44	n0	32	SER
44	n0	45	LEU
44	n0	50	LYS
44	n0	51	VAL
44	n0	73	LYS
44	n0	80	ARG
44	n0	85	SER
44	n0	87	THR
44	n0	97	VAL
44	n0	100	VAL
44	n0	104	GLU
44	n0	136	LYS
44	n0	137	ARG
44	n0	139	TYR
44	n0	148	LEU
44	n0	149	LYS
44	n0	155	ARG
44	n0	160	THR
44	n0	162	THR
44	n0	164	SER
44	n0	167	ARG
44	n0	172	TYR
44	N0	1	MET
44	N0	12	ARG
44	N0	13	ARG
44	N0	16	THR
44	N0	17	GLU
44	N0	21	GLU
44	N0	40	ARG
44	N0	45	LEU
44	N0	49	HIS
44	N0	51	VAL
44	N0	59	VAL
44	N0	61	ILE
44	N0	71	LYS

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Mol	Chain	Res	Type
44	N0	80	ARG
44	N0	87	THR
44	N0	97	VAL
44	N0	113	ARG
44	N0	117	ARG
44	N0	130	GLU
44	N0	136	LYS
44	N0	137	ARG
44	N0	138	GLN
44	N0	142	GLN
44	N0	145	THR
44	N0	155	ARG
44	N0	160	THR
44	N0	164	SER
44	N0	167	ARG
44	N0	172	TYR
45	n1	16	GLN
45	n1	25	VAL
45	n1	26	HIS
45	n1	27	LEU
45	n1	35	LYS
45	n1	55	LYS
45	n1	64	VAL
45	n1	71	SER
45	n1	78	LYS
45	n1	80	VAL
45	n1	83	ARG
45	n1	88	ARG
45	n1	102	ARG
45	n1	103	GLN
45	n1	104	GLU
45	n1	118	GLU
45	n1	124	VAL
45	n1	128	LEU
45	n1	131	GLN
45	n1	139	ARG
45	n1	143	THR
45	n1	149	GLN
45	n1	150	THR
45	N1	12	ARG
45	N1	17	ARG
45	N1	18	ASP

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Mol	Chain	Res	Type
45	N1	25	VAL
45	N1	26	HIS
45	N1	27	LEU
45	N1	35	LYS
45	N1	36	VAL
45	N1	55	LYS
45	N1	64	VAL
45	N1	71	SER
45	N1	75	ILE
45	N1	76	ILE
45	N1	78	LYS
45	N1	79	MET
45	N1	80	VAL
45	N1	83	ARG
45	N1	88	ARG
45	N1	89	LEU
45	N1	93	VAL
45	N1	96	ILE
45	N1	102	ARG
45	N1	103	GLN
45	N1	104	GLU
45	N1	106	LEU
45	N1	126	VAL
45	N1	127	GLN
45	N1	128	LEU
45	N1	131	GLN
45	N1	136	ARG
45	N1	139	ARG
45	N1	143	THR
45	N1	158	THR
45	N1	159	PHE
45	N1	160	ILE
46	n2	11	ILE
46	n2	14	THR
46	n2	21	SER
46	n2	28	PHE
46	n2	29	ASP
46	n2	37	LEU
46	n2	43	VAL
46	n2	50	LEU
46	n2	52	ASN
46	n2	54	VAL

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Mol	Chain	Res	Type
46	n2	55	THR
46	n2	58	GLU
46	n2	62	VAL
46	n2	63	VAL
46	n2	68	THR
46	n2	98	THR
46	n2	100	THR
46	N2	9	GLN
46	N2	27	VAL
46	N2	29	ASP
46	N2	38	ILE
46	N2	39	ASP
46	N2	43	VAL
46	N2	44	GLU
46	N2	52	ASN
46	N2	57	THR
46	N2	59	ASP
46	N2	61	THR
46	N2	66	VAL
46	N2	72	SER
46	N2	88	GLN
46	N2	90	ARG
46	N2	93	ILE
46	N2	100	THR
47	n3	4	ASN
47	n3	13	ILE
47	n3	44	SER
47	n3	58	VAL
47	n3	70	ARG
47	n3	84	SER
47	n3	88	ARG
47	n3	91	VAL
47	N3	4	ASN
47	N3	7	GLN
47	N3	13	ILE
47	N3	23	MET
47	N3	64	LYS
47	N3	69	LEU
47	N3	72	LYS
47	N3	83	LYS
47	N3	91	VAL
47	N3	102	ILE

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Mol	Chain	Res	Type
47	N3	120	LYS
47	N3	125	LEU
47	N3	135	VAL
48	n4	7	SER
48	n4	39	LEU
48	n4	57	LYS
48	n4	63	ILE
48	n4	100	VAL
48	n4	105	ARG
48	n4	126	GLU
48	n4	127	LYS
48	N4	1	MET
48	N4	4	GLU
48	N4	5	ILE
48	N4	19	THR
48	N4	39	LEU
48	N4	43	ARG
48	N4	54	LEU
48	N4	96	LEU
48	N4	105	ARG
48	N4	126	GLU
48	N4	127	LYS
49	n5	24	LEU
49	n5	27	ARG
49	n5	28	THR
49	n5	29	SER
49	n5	34	LEU
49	n5	38	LEU
49	n5	39	LYS
49	n5	40	LEU
49	n5	45	LYS
49	n5	46	TYR
49	n5	51	VAL
49	n5	56	ARG
49	n5	57	LEU
49	n5	59	SER
49	n5	63	ILE
49	n5	68	THR
49	n5	71	THR
49	n5	73	MET
49	n5	74	LYS
49	n5	86	VAL

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Mol	Chain	Res	Type
49	n5	108	LEU
49	n5	109	LYS
49	n5	115	ARG
49	n5	125	ARG
49	n5	133	LEU
49	n5	134	ASP
49	n5	135	ILE
49	n5	137	ASN
49	n5	142	ILE
49	N5	24	LEU
49	N5	27	ARG
49	N5	38	LEU
49	N5	39	LYS
49	N5	40	LEU
49	N5	45	LYS
49	N5	49	LYS
49	N5	51	VAL
49	N5	58	ASP
49	N5	63	ILE
49	N5	73	MET
49	N5	86	VAL
49	N5	92	LYS
49	N5	108	LEU
49	N5	115	ARG
49	N5	125	ARG
49	N5	135	ILE
49	N5	139	ILE
49	N5	142	ILE
50	n6	4	GLN
50	n6	13	ARG
50	n6	17	LYS
50	n6	25	SER
50	n6	37	LYS
50	n6	39	LEU
50	n6	50	ILE
50	n6	51	ARG
50	n6	56	VAL
50	n6	57	LEU
50	n6	74	TYR
50	n6	76	LEU
50	n6	94	SER
50	n6	95	VAL

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Mol	Chain	Res	Type
50	n6	97	ILE
50	n6	103	LYS
50	n6	112	ASP
50	n6	115	ARG
50	n6	120	GLN
50	N6	13	ARG
50	N6	17	LYS
50	N6	32	SER
50	N6	37	LYS
50	N6	42	GLN
50	N6	45	ILE
50	N6	50	ILE
50	N6	51	ARG
50	N6	56	VAL
50	N6	57	LEU
50	N6	70	ILE
50	N6	74	TYR
50	N6	76	LEU
50	N6	80	VAL
50	N6	87	LYS
50	N6	94	SER
50	N6	105	VAL
50	N6	111	LEU
50	N6	115	ARG
50	N6	126	LEU
51	n7	3	LYS
51	n7	14	VAL
51	n7	15	ARG
51	n7	17	ARG
51	n7	30	ASP
51	n7	31	GLU
51	n7	34	LYS
51	n7	36	HIS
51	n7	46	ILE
51	n7	52	LYS
51	n7	72	ILE
51	n7	81	LEU
51	n7	83	THR
51	n7	95	VAL
51	n7	99	GLU
51	n7	100	THR
51	n7	102	GLU

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Mol	Chain	Res	Type
51	n7	121	ARG
51	n7	126	LYS
51	n7	129	TRP
51	n7	134	LEU
51	n7	135	ARG
51	N7	3	LYS
51	N7	17	ARG
51	N7	24	VAL
51	N7	34	LYS
51	N7	46	ILE
51	N7	53	VAL
51	N7	54	THR
51	N7	64	LYS
51	N7	81	LEU
51	N7	83	THR
51	N7	92	PHE
51	N7	98	THR
51	N7	102	GLU
51	N7	103	GLN
51	N7	109	GLU
51	N7	120	GLU
51	N7	121	ARG
51	N7	127	ASN
51	N7	134	LEU
52	n8	4	ARG
52	n8	8	THR
52	n8	27	LYS
52	n8	42	ARG
52	n8	46	ASP
52	n8	60	TYR
52	n8	65	GLN
52	n8	73	LEU
52	n8	82	ILE
52	n8	85	ASP
52	n8	91	LEU
52	n8	97	GLU
52	n8	128	ARG
52	n8	132	LYS
52	n8	133	LEU
52	n8	139	ARG
52	N8	10	LYS
52	N8	40	HIS

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Mol	Chain	Res	Type
52	N8	42	ARG
52	N8	43	ILE
52	N8	46	ASP
52	N8	56	VAL
52	N8	60	TYR
52	N8	72	VAL
52	N8	78	LEU
52	N8	84	GLU
52	N8	88	ASP
52	N8	91	LEU
52	N8	96	LYS
52	N8	120	ASN
52	N8	133	LEU
52	N8	139	ARG
53	n9	8	THR
53	n9	14	ARG
53	n9	33	LYS
53	n9	50	THR
53	N9	7	HIS
53	N9	8	THR
53	N9	14	ARG
53	N9	22	LYS
53	N9	23	LYS
53	N9	25	LYS
53	N9	28	LYS
53	N9	33	LYS
53	N9	50	THR
53	N9	58	LYS
54	o0	6	SER
54	o0	7	GLN
54	o0	18	ILE
54	o0	19	LYS
54	o0	32	LYS
54	o0	34	LEU
54	o0	40	LYS
54	o0	41	LEU
54	o0	61	MET
54	o0	86	ARG
54	o0	87	VAL
54	o0	100	ILE
54	O0	16	LEU
54	O0	32	LYS

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Mol	Chain	Res	Type
54	O0	34	LEU
54	O0	36	GLN
54	O0	40	LYS
54	O0	43	ILE
54	O0	48	THR
54	O0	54	SER
54	O0	61	MET
54	O0	79	THR
54	O0	83	LYS
54	O0	93	LEU
54	O0	100	ILE
55	o1	6	ASP
55	o1	8	VAL
55	o1	13	THR
55	o1	16	LEU
55	o1	26	LYS
55	o1	31	ARG
55	o1	44	MET
55	o1	55	LEU
55	o1	64	VAL
55	o1	76	SER
55	o1	83	GLU
55	o1	89	LEU
55	o1	90	PHE
55	o1	96	VAL
55	o1	100	SER
55	o1	102	LYS
55	o1	106	THR
55	o1	110	GLU
55	O1	6	ASP
55	O1	8	VAL
55	O1	13	THR
55	O1	16	LEU
55	O1	26	LYS
55	O1	31	ARG
55	O1	46	THR
55	O1	47	ASP
55	O1	55	LEU
55	O1	64	VAL
55	O1	79	ARG
55	O1	82	GLU
55	O1	86	LYS

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Mol	Chain	Res	Type
55	O1	89	LEU
55	O1	106	THR
56	o2	19	ARG
56	o2	24	ARG
56	o2	25	TYR
56	o2	33	ARG
56	o2	40	SER
56	o2	51	SER
56	o2	63	THR
56	o2	73	THR
56	o2	75	LEU
56	o2	82	LEU
56	o2	87	MET
56	o2	89	THR
56	o2	123	LYS
56	o2	125	ARG
56	o2	126	LEU
56	o2	128	LEU
56	O2	14	THR
56	O2	19	ARG
56	O2	27	ARG
56	O2	33	ARG
56	O2	51	SER
56	O2	61	LYS
56	O2	67	SER
56	O2	73	THR
56	O2	75	LEU
56	O2	106	VAL
56	O2	125	ARG
56	O2	126	LEU
56	O2	128	LEU
57	o3	19	SER
57	o3	28	SER
57	o3	31	LYS
57	o3	48	ARG
57	o3	57	LYS
57	o3	59	VAL
57	o3	67	MET
57	o3	70	LYS
57	o3	80	VAL
57	o3	81	VAL
57	o3	86	ARG

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Mol	Chain	Res	Type
57	o3	98	VAL
57	O3	3	GLU
57	O3	4	SER
57	O3	15	SER
57	O3	19	SER
57	O3	20	LYS
57	O3	57	LYS
57	O3	59	VAL
57	O3	81	VAL
57	O3	92	LYS
57	O3	98	VAL
57	O3	106	ASN
58	o4	5	VAL
58	o4	20	ILE
58	o4	24	LYS
58	o4	29	ILE
58	o4	31	ARG
58	o4	46	ASP
58	o4	58	ARG
58	o4	71	THR
58	o4	79	SER
58	o4	80	ARG
58	o4	81	CYS
58	o4	88	ARG
58	O4	8	ARG
58	O4	15	THR
58	O4	16	ARG
58	O4	20	ILE
58	O4	24	LYS
58	O4	29	ILE
58	O4	33	GLN
58	O4	44	CYS
58	O4	58	ARG
58	O4	65	VAL
58	O4	71	THR
58	O4	73	SER
58	O4	79	SER
58	O4	81	CYS
58	O4	104	VAL
59	o5	4	VAL
59	o5	15	GLU
59	o5	20	GLN

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Mol	Chain	Res	Type
59	o5	21	LEU
59	o5	27	GLU
59	o5	28	LEU
59	o5	36	LEU
59	o5	37	SER
59	o5	40	SER
59	o5	41	LEU
59	o5	44	ILE
59	o5	45	LYS
59	o5	47	VAL
59	o5	53	CYS
59	o5	57	VAL
59	o5	62	GLN
59	o5	69	LEU
59	o5	79	ASP
59	o5	81	ARG
59	o5	85	THR
59	o5	89	ARG
59	o5	90	ARG
59	o5	94	LYS
59	o5	98	SER
59	o5	107	LYS
59	o5	116	TYR
59	O5	4	VAL
59	O5	13	SER
59	O5	15	GLU
59	O5	20	GLN
59	O5	21	LEU
59	O5	27	GLU
59	O5	31	LEU
59	O5	44	ILE
59	O5	46	THR
59	O5	47	VAL
59	O5	49	LYS
59	O5	71	LYS
59	O5	74	LYS
59	O5	85	THR
59	O5	89	ARG
59	O5	96	GLU
59	O5	100	VAL
59	O5	101	THR
59	O5	104	GLN

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Mol	Chain	Res	Type
59	O5	107	LYS
59	O5	119	LYS
60	o6	9	ILE
60	o6	11	LEU
60	o6	17	VAL
60	o6	21	THR
60	o6	26	ILE
60	o6	29	LYS
60	o6	36	ARG
60	o6	43	LEU
60	o6	45	ARG
60	o6	57	LEU
60	o6	58	ILE
60	o6	60	LEU
60	o6	61	ILE
60	o6	68	ARG
60	o6	75	LYS
60	o6	76	ARG
60	o6	81	THR
60	o6	87	VAL
60	o6	88	GLU
60	o6	90	MET
60	o6	94	ILE
60	o6	98	ARG
60	O6	11	LEU
60	O6	13	LYS
60	O6	17	VAL
60	O6	20	MET
60	O6	21	THR
60	O6	26	ILE
60	O6	29	LYS
60	O6	36	ARG
60	O6	45	ARG
60	O6	57	LEU
60	O6	58	ILE
60	O6	60	LEU
60	O6	62	ARG
60	O6	63	ASN
60	O6	68	ARG
60	O6	76	ARG
60	O6	79	SER
60	O6	81	THR

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Mol	Chain	Res	Type
60	O6	99	ARG
61	o7	17	THR
61	o7	34	CYS
61	o7	36	SER
61	o7	55	ARG
61	o7	59	THR
61	o7	67	LEU
61	o7	68	LYS
61	o7	71	SER
61	o7	80	THR
61	O7	5	THR
61	O7	12	HIS
61	O7	16	HIS
61	O7	17	THR
61	O7	19	CYS
61	O7	24	ARG
61	O7	25	ARG
61	O7	33	THR
61	O7	34	CYS
61	O7	36	SER
61	O7	43	LYS
61	O7	58	THR
61	O7	59	THR
61	O7	67	LEU
61	O7	75	LYS
61	O7	87	SER
62	o8	5	ILE
62	o8	6	THR
62	o8	24	THR
62	o8	41	THR
62	o8	50	SER
62	o8	53	THR
62	o8	61	LYS
62	o8	63	LYS
62	o8	64	LYS
62	o8	65	LEU
62	O8	5	ILE
62	O8	6	THR
62	O8	8	ILE
62	O8	24	THR
62	O8	31	LEU
62	O8	41	THR

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Mol	Chain	Res	Type
62	O8	45	VAL
62	O8	48	SER
62	O8	51	LEU
62	O8	52	TYR
62	O8	53	THR
62	O8	58	ASP
62	O8	64	LYS
62	O8	65	LEU
62	O8	67	GLN
62	O8	77	ARG
63	o9	15	LYS
63	o9	21	ARG
63	o9	23	LEU
63	o9	29	LEU
63	o9	45	ARG
63	O9	4	GLN
63	O9	5	LYS
63	O9	21	ARG
63	O9	23	LEU
63	O9	36	ARG
63	O9	45	ARG
63	O9	49	MET
63	O9	51	ILE
64	q0	78	ILE
64	q0	79	GLU
64	q0	85	LEU
64	q0	112	LYS
64	q0	113	ARG
64	q0	114	LYS
64	q0	127	LEU
64	Q0	85	LEU
64	Q0	92	ASP
64	Q0	94	SER
64	Q0	97	ARG
64	Q0	106	ARG
64	Q0	113	ARG
64	Q0	127	LEU
65	q1	6	ARG
65	q1	9	ARG
65	q1	13	LEU
65	q1	23	ARG
65	Q1	2	ARG

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Mol	Chain	Res	Type
65	Q1	11	ARG
65	Q1	19	LYS
65	Q1	21	ARG
66	q2	7	THR
66	q2	8	ARG
66	q2	34	SER
66	q2	45	ARG
66	q2	61	LYS
66	q2	71	ARG
66	q2	78	LYS
66	q2	83	LEU
66	q2	84	THR
66	q2	85	LEU
66	q2	89	LYS
66	q2	93	LEU
66	q2	104	LEU
66	Q2	8	ARG
66	Q2	9	LYS
66	Q2	20	HIS
66	Q2	29	LYS
66	Q2	34	SER
66	Q2	60	LYS
66	Q2	61	LYS
66	Q2	71	ARG
66	Q2	72	LEU
66	Q2	76	LYS
66	Q2	78	LYS
66	Q2	79	THR
66	Q2	80	ARG
66	Q2	83	LEU
66	Q2	84	THR
66	Q2	85	LEU
66	Q2	93	LEU
66	Q2	104	LEU
66	Q2	105	GLN
67	q3	3	LYS
67	q3	24	ARG
67	q3	36	ARG
67	q3	42	CYS
67	q3	45	LYS
67	q3	46	THR
67	q3	48	LYS

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Mol	Chain	Res	Type
67	q3	54	ILE
67	q3	56	THR
67	q3	57	CYS
67	q3	59	CYS
67	q3	60	CYS
67	q3	80	ARG
67	Q3	7	LYS
67	Q3	11	THR
67	Q3	24	ARG
67	Q3	25	GLN
67	Q3	45	LYS
67	Q3	46	THR
67	Q3	49	ARG
67	Q3	60	CYS
67	Q3	78	THR
67	Q3	91	GLU
68	S0	7	PHE
68	S0	10	THR
68	S0	27	ARG
68	S0	45	VAL
68	S0	50	VAL
68	S0	57	LEU
68	S0	62	ARG
68	S0	76	ILE
68	S0	84	ARG
68	S0	87	LEU
68	S0	88	LYS
68	S0	101	ARG
68	S0	103	THR
68	S0	111	ILE
68	S0	112	THR
68	S0	117	GLU
68	S0	119	ARG
68	S0	123	VAL
68	S0	131	GLN
68	S0	135	GLU
68	S0	139	VAL
68	S0	154	GLU
68	S0	157	ASP
68	S0	165	ARG
68	S0	170	ILE
68	S0	172	LEU

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Mol	Chain	Res	Type
68	S0	177	LEU
68	S0	184	LEU
68	S0	185	ARG
68	S0	200	ASP
68	s0	6	THR
68	s0	8	ASP
68	s0	9	LEU
68	s0	30	GLN
68	s0	45	VAL
68	s0	57	LEU
68	s0	59	LEU
68	s0	62	ARG
68	s0	87	LEU
68	s0	88	LYS
68	s0	93	THR
68	s0	101	ARG
68	s0	103	THR
68	s0	111	ILE
68	s0	119	ARG
68	s0	131	GLN
68	s0	139	VAL
68	s0	157	ASP
68	s0	162	CYS
68	s0	164	ASN
68	s0	167	LYS
68	s0	172	LEU
68	s0	180	GLU
68	s0	185	ARG
68	s0	196	SER
68	s0	202	TYR
68	s0	203	PHE
69	S1	21	VAL
69	S1	22	ASP
69	S1	24	PHE
69	S1	25	THR
69	S1	28	GLU
69	S1	29	TRP
69	S1	30	PHE
69	S1	38	PHE
69	S1	46	THR
69	S1	47	LEU
69	S1	55	LYS

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Mol	Chain	Res	Type
69	S1	58	SER
69	S1	61	LEU
69	S1	64	ARG
69	S1	66	VAL
69	S1	70	LEU
69	S1	74	GLN
69	S1	77	GLU
69	S1	78	ASP
69	S1	81	PHE
69	S1	85	LYS
69	S1	96	LEU
69	S1	97	LEU
69	S1	105	PHE
69	S1	108	ASP
69	S1	111	ARG
69	S1	117	TRP
69	S1	131	ASP
69	S1	135	LEU
69	S1	146	GLN
69	S1	148	ASN
69	S1	149	GLN
69	S1	150	VAL
69	S1	154	SER
69	S1	177	GLN
69	S1	180	THR
69	S1	181	LEU
69	S1	183	GLN
69	S1	184	LEU
69	S1	193	ILE
69	S1	202	LYS
69	S1	214	LYS
69	S1	218	LEU
69	S1	220	GLN
69	S1	222	LYS
69	S1	223	PHE
69	S1	232	HIS
69	s1	21	VAL
69	s1	37	THR
69	s1	40	ASN
69	s1	47	LEU
69	s1	61	LEU
69	s1	62	LYS

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Mol	Chain	Res	Type
69	s1	70	LEU
69	s1	81	PHE
69	s1	82	ARG
69	s1	83	LYS
69	s1	85	LYS
69	s1	88	VAL
69	s1	89	ASP
69	s1	90	GLU
69	s1	91	VAL
69	s1	96	LEU
69	s1	105	PHE
69	s1	108	ASP
69	s1	110	LEU
69	s1	125	VAL
69	s1	150	VAL
69	s1	153	HIS
69	s1	159	SER
69	s1	177	GLN
69	s1	179	SER
69	s1	180	THR
69	s1	181	LEU
69	s1	184	LEU
69	s1	193	ILE
69	s1	203	ASP
69	s1	207	LEU
69	s1	210	ILE
69	s1	212	VAL
69	s1	215	VAL
69	s1	219	LYS
69	s1	222	LYS
70	S2	41	LEU
70	S2	53	ILE
70	S2	58	LEU
70	S2	64	LYS
70	S2	69	ILE
70	S2	72	LEU
70	S2	73	LEU
70	S2	76	LEU
70	S2	77	GLN
70	S2	87	GLN
70	S2	89	GLN
70	S2	95	ARG

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Mol	Chain	Res	Type
70	S2	96	THR
70	S2	97	ARG
70	S2	108	ASN
70	S2	111	VAL
70	S2	117	THR
70	S2	119	LYS
70	S2	134	LEU
70	S2	137	ILE
70	S2	139	ILE
70	S2	140	ARG
70	S2	141	ARG
70	S2	146	THR
70	S2	148	LEU
70	S2	159	THR
70	S2	187	LEU
70	S2	201	ASN
70	S2	206	THR
70	S2	208	GLU
70	S2	218	ILE
70	S2	221	THR
70	S2	224	PHE
70	S2	225	LEU
70	S2	226	THR
70	S2	237	VAL
70	S2	240	LEU
70	S2	246	GLU
70	S2	250	GLN
70	s2	53	ILE
70	s2	55	GLU
70	s2	69	ILE
70	s2	72	LEU
70	s2	76	LEU
70	s2	77	GLN
70	s2	80	VAL
70	s2	81	MET
70	s2	83	ILE
70	s2	87	GLN
70	s2	89	GLN
70	s2	90	THR
70	s2	97	ARG
70	s2	106	ASP
70	s2	111	VAL

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Mol	Chain	Res	Type
70	s2	117	THR
70	s2	139	ILE
70	s2	140	ARG
70	s2	141	ARG
70	s2	148	LEU
70	s2	150	GLN
70	s2	170	ILE
70	s2	185	LYS
70	s2	194	GLU
70	s2	195	ASP
70	s2	206	THR
70	s2	207	LEU
70	s2	218	ILE
70	s2	225	LEU
70	s2	229	LEU
70	s2	233	GLN
70	s2	237	VAL
70	s2	250	GLN
71	S3	4	LEU
71	S3	7	LYS
71	S3	9	ARG
71	S3	10	LYS
71	S3	23	GLU
71	S3	57	ASP
71	S3	65	ARG
71	S3	66	ILE
71	S3	84	ILE
71	S3	92	GLN
71	S3	93	ASP
71	S3	94	ARG
71	S3	103	GLU
71	S3	105	MET
71	S3	111	ASN
71	S3	117	ARG
71	S3	127	MET
71	S3	134	CYS
71	S3	141	LYS
71	S3	142	LEU
71	S3	151	LYS
71	S3	158	ILE
71	S3	170	THR
71	S3	172	THR

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Mol	Chain	Res	Type
71	S3	175	VAL
71	S3	176	LEU
71	S3	187	LYS
71	S3	190	ARG
71	S3	195	SER
71	S3	196	ARG
71	S3	197	THR
71	S3	215	GLU
71	S3	218	LEU
71	s3	4	LEU
71	s3	10	LYS
71	s3	21	LEU
71	s3	26	THR
71	s3	37	VAL
71	s3	40	ARG
71	s3	44	THR
71	s3	55	THR
71	s3	65	ARG
71	s3	69	LEU
71	s3	76	ARG
71	s3	84	ILE
71	s3	89	GLU
71	s3	91	VAL
71	s3	92	GLN
71	s3	94	ARG
71	s3	111	ASN
71	s3	115	ILE
71	s3	117	ARG
71	s3	127	MET
71	s3	148	LYS
71	s3	150	MET
71	s3	158	ILE
71	s3	162	GLN
71	s3	168	ILE
71	s3	178	ARG
71	s3	194	LYS
71	s3	197	THR
71	s3	202	LEU
71	s3	212	LYS
71	s3	213	GLU
71	s3	215	GLU
71	s3	223	LYS

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Mol	Chain	Res	Type
71	s3	225	TYR
72	S4	6	LYS
72	S4	7	LYS
72	S4	9	LEU
72	S4	23	LEU
72	S4	38	LEU
72	S4	39	ARG
72	S4	40	GLU
72	S4	67	GLN
72	S4	77	ARG
72	S4	78	THR
72	S4	92	LEU
72	S4	116	ASP
72	S4	126	VAL
72	S4	129	VAL
72	S4	133	LYS
72	S4	139	VAL
72	S4	146	THR
72	S4	160	VAL
72	S4	164	LEU
72	S4	176	ASP
72	S4	180	LEU
72	S4	181	VAL
72	S4	182	TYR
72	S4	187	ARG
72	S4	192	ILE
72	S4	197	HIS
72	S4	198	LYS
72	S4	211	LYS
72	S4	215	ASP
72	S4	222	LEU
72	S4	226	PHE
72	S4	227	VAL
72	S4	236	ILE
72	S4	240	LYS
72	S4	242	LYS
72	S4	246	LEU
72	S4	256	ARG
72	S4	258	GLN
72	s4	7	LYS
72	s4	9	LEU
72	s4	23	LEU

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Mol	Chain	Res	Type
72	s4	32	SER
72	s4	38	LEU
72	s4	39	ARG
72	s4	42	LEU
72	s4	49	ARG
72	s4	51	ARG
72	s4	67	GLN
72	s4	78	THR
72	s4	95	THR
72	s4	104	ASP
72	s4	111	VAL
72	s4	116	ASP
72	s4	126	VAL
72	s4	131	LEU
72	s4	140	VAL
72	s4	147	ILE
72	s4	148	ARG
72	s4	151	ASP
72	s4	160	VAL
72	s4	180	LEU
72	s4	181	VAL
72	s4	182	TYR
72	s4	195	ILE
72	s4	221	ARG
72	s4	223	ASN
72	s4	227	VAL
72	s4	244	ILE
72	s4	246	LEU
73	S5	23	VAL
73	S5	24	VAL
73	S5	25	LEU
73	S5	32	GLU
73	S5	43	PHE
73	S5	53	VAL
73	S5	65	ARG
73	S5	76	ARG
73	S5	79	ASN
73	S5	89	ILE
73	S5	93	LEU
73	S5	94	THR
73	S5	99	MET
73	S5	100	ASN

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Mol	Chain	Res	Type
73	S5	112	ARG
73	S5	146	THR
73	S5	147	THR
73	S5	156	ARG
73	S5	162	VAL
73	S5	186	ASN
73	S5	194	LEU
73	S5	203	LYS
73	S5	216	GLU
73	S5	219	ARG
73	S5	225	ARG
73	s5	25	LEU
73	s5	27	THR
73	s5	31	GLU
73	s5	32	GLU
73	s5	39	GLU
73	s5	43	PHE
73	s5	51	VAL
73	s5	59	VAL
73	s5	63	GLN
73	s5	64	VAL
73	s5	68	ILE
73	s5	76	ARG
73	s5	84	LYS
73	s5	89	ILE
73	s5	93	LEU
73	s5	94	THR
73	s5	112	ARG
73	s5	125	THR
73	s5	128	ASN
73	s5	130	ILE
73	s5	132	VAL
73	s5	133	VAL
73	s5	148	ARG
73	s5	156	ARG
73	s5	157	ARG
73	s5	161	ASP
73	s5	162	VAL
73	s5	170	GLN
73	s5	187	ILE
73	s5	188	LYS
73	s5	194	LEU

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Mol	Chain	Res	Type
73	s5	203	LYS
73	s5	208	SER
73	s5	225	ARG
74	S6	7	TYR
74	S6	13	GLN
74	S6	21	GLU
74	S6	25	ARG
74	S6	45	PHE
74	S6	58	LYS
74	S6	76	LEU
74	S6	78	THR
74	S6	79	LYS
74	S6	82	SER
74	S6	98	ARG
74	S6	105	ASP
74	S6	109	LEU
74	S6	115	LYS
74	S6	120	GLU
74	S6	124	LEU
74	S6	126	ASP
74	S6	127	THR
74	S6	129	VAL
74	S6	132	ARG
74	S6	133	LEU
74	S6	137	ARG
74	S6	143	LYS
74	S6	151	ASP
74	S6	154	ARG
74	S6	155	ASP
74	S6	163	THR
74	S6	164	LYS
74	S6	177	ARG
74	S6	211	LEU
74	S6	212	LEU
74	S6	216	LEU
74	s6	12	SER
74	s6	15	THR
74	s6	30	LYS
74	s6	31	ARG
74	s6	69	LEU
74	s6	71	THR
74	s6	78	THR

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Mol	Chain	Res	Type
74	s6	93	LYS
74	s6	97	VAL
74	s6	109	LEU
74	s6	111	LEU
74	s6	120	GLU
74	s6	121	LEU
74	s6	122	GLU
74	s6	124	LEU
74	s6	127	THR
74	s6	128	THR
74	s6	129	VAL
74	s6	143	LYS
74	s6	150	GLU
74	s6	151	ASP
74	s6	154	ARG
74	s6	155	ASP
74	s6	169	TYR
74	s6	170	THR
74	s6	177	ARG
74	s6	179	VAL
74	s6	193	LEU
74	s6	215	ARG
74	s6	216	LEU
75	s7	11	GLN
75	s7	30	SER
75	s7	35	LYS
75	s7	41	LEU
75	s7	42	GLN
75	s7	49	ILE
75	s7	50	ASP
75	s7	67	LEU
75	s7	77	LEU
75	s7	86	GLN
75	s7	88	ARG
75	s7	97	ARG
75	s7	105	THR
75	s7	108	GLN
75	s7	109	VAL
75	s7	112	ARG
75	s7	114	ARG
75	s7	116	ARG
75	s7	117	THR

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Mol	Chain	Res	Type
75	s7	126	LEU
75	s7	134	GLU
75	s7	143	LEU
75	s7	144	VAL
75	s7	159	VAL
75	s7	162	ILE
75	s7	185	ILE
75	S7	9	LEU
75	S7	14	THR
75	S7	28	GLU
75	S7	29	ASN
75	S7	37	GLU
75	S7	38	LEU
75	S7	42	GLN
75	S7	46	ILE
75	S7	50	ASP
75	S7	60	ILE
75	S7	64	VAL
75	S7	70	PHE
75	S7	71	HIS
75	S7	75	THR
75	S7	77	LEU
75	S7	85	PHE
75	S7	87	ASP
75	S7	97	ARG
75	S7	114	ARG
75	S7	116	ARG
75	S7	117	THR
75	S7	126	LEU
75	S7	131	PHE
75	S7	136	VAL
75	S7	139	ARG
75	S7	144	VAL
75	S7	163	ASP
75	S7	168	SER
75	S7	181	ILE
75	S7	185	ILE
76	s8	7	SER
76	s8	8	ARG
76	s8	25	ARG
76	s8	28	GLU
76	s8	29	LEU

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Mol	Chain	Res	Type
76	s8	36	THR
76	s8	47	ARG
76	s8	58	LEU
76	s8	60	ILE
76	s8	61	GLU
76	s8	66	SER
76	s8	74	LYS
76	s8	76	THR
76	s8	82	VAL
76	s8	110	ARG
76	s8	111	GLN
76	s8	138	ASN
76	s8	151	LYS
76	s8	152	ILE
76	s8	155	SER
76	s8	168	CYS
76	s8	176	SER
76	s8	183	ILE
76	s8	184	LEU
76	S8	29	LEU
76	S8	36	THR
76	S8	47	ARG
76	S8	49	ARG
76	S8	56	ARG
76	S8	58	LEU
76	S8	66	SER
76	S8	104	ILE
76	S8	123	LYS
76	S8	135	LYS
76	S8	137	LYS
76	S8	138	ASN
76	S8	151	LYS
76	S8	152	ILE
76	S8	164	ARG
76	S8	171	SER
76	S8	184	LEU
76	S8	187	GLU
76	S8	193	LEU
76	S8	196	LEU
77	S9	3	ARG
77	S9	6	ARG
77	S9	7	THR

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Mol	Chain	Res	Type
77	S9	14	THR
77	S9	28	LEU
77	S9	39	LYS
77	S9	49	LEU
77	S9	60	LEU
77	S9	78	ARG
77	S9	79	ARG
77	S9	89	ASP
77	S9	92	LYS
77	S9	93	LEU
77	S9	96	VAL
77	S9	97	LEU
77	S9	99	LEU
77	S9	105	LEU
77	S9	109	LEU
77	S9	110	GLN
77	S9	118	LEU
77	S9	126	ARG
77	S9	130	THR
77	S9	134	ILE
77	S9	138	LYS
77	S9	141	VAL
77	S9	149	ARG
77	S9	161	THR
77	S9	171	ARG
77	S9	180	LYS
77	s9	3	ARG
77	s9	7	THR
77	s9	16	LYS
77	s9	28	LEU
77	s9	39	LYS
77	s9	49	LEU
77	s9	63	ASP
77	s9	78	ARG
77	s9	82	ARG
77	s9	90	LYS
77	s9	101	VAL
77	s9	109	LEU
77	s9	120	LYS
77	s9	130	THR
77	s9	133	HIS
77	s9	134	ILE

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Mol	Chain	Res	Type
77	s9	151	ASP
77	s9	152	SER
77	s9	157	ASP
77	s9	161	THR
77	s9	180	LYS
77	s9	184	SER
77	s9	186	GLU
78	sM	30	THR
78	sM	37	VAL
78	sM	45	SER
78	sM	46	LYS
78	sM	48	ARG
78	sM	50	ASN
78	sM	51	ARG
78	sM	61	ILE
78	sM	68	ARG
78	sM	74	LYS
78	sM	77	THR
78	sM	78	ASP
78	sM	79	SER
78	sM	82	THR
78	sM	84	LYS
78	sM	88	ARG
78	sM	89	ARG
78	sM	91	THR
78	sM	96	ARG
78	sM	97	THR
78	sM	100	THR
78	sM	102	THR
78	sM	105	LYS
78	sM	112	ASP
78	sM	118	SER
78	sM	139	GLU
78	SM	23	LYS
78	SM	27	LYS
78	SM	30	THR
78	SM	34	LYS
78	SM	46	LYS
78	SM	51	ARG
78	SM	61	ILE
78	SM	63	ASP
78	SM	68	ARG

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Mol	Chain	Res	Type
78	SM	70	ASN
78	SM	74	LYS
78	SM	75	ASP
78	SM	76	VAL
78	SM	77	THR
78	SM	84	LYS
78	SM	88	ARG
78	SM	89	ARG
78	SM	91	THR
78	SM	97	THR
78	SM	100	THR
78	SM	102	THR
78	SM	105	LYS
78	SM	116	GLU
78	SM	139	GLU
79	sR	22	SER
79	sR	25	THR
79	sR	29	GLN
79	sR	42	LEU
79	sR	48	THR
79	sR	53	LYS
79	sR	58	VAL
79	sR	59	ARG
79	sR	64	HIS
79	sR	65	SER
79	sR	76	ASP
79	sR	96	THR
79	sR	106	HIS
79	sR	145	LEU
79	sR	163	ASP
79	sR	164	ASP
79	sR	167	VAL
79	sR	176	LYS
79	sR	184	ASN
79	sR	188	ILE
79	sR	202	LEU
79	sR	207	ASP
79	sR	232	TYR
79	sR	265	LEU
79	sR	274	LEU
79	sR	275	ARG
79	sR	297	ASP

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Mol	Chain	Res	Type
79	sR	308	ASN
79	sR	309	VAL
79	sR	319	ASN
79	SR	4	ASN
79	SR	6	VAL
79	SR	14	GLU
79	SR	29	GLN
79	SR	44	SER
79	SR	46	LYS
79	SR	51	ASP
79	SR	52	GLN
79	SR	58	VAL
79	SR	59	ARG
79	SR	66	HIS
79	SR	76	ASP
79	SR	106	HIS
79	SR	117	LYS
79	SR	118	LYS
79	SR	123	ILE
79	SR	136	ILE
79	SR	137	LYS
79	SR	141	LEU
79	SR	153	GLN
79	SR	159	ASN
79	SR	165	ASP
79	SR	184	ASN
79	SR	195	HIS
79	SR	202	LEU
79	SR	207	ASP
79	SR	238	ASP
79	SR	250	TYR
79	SR	266	ASP
79	SR	268	GLN
79	SR	292	LEU
79	SR	308	ASN
79	SR	317	THR

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (56) such sidechains are listed below:

Mol	Chain	Res	Type
5	c0	32	HIS
6	c1	21	ASN

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Mol	Chain	Res	Type
14	c9	25	GLN
14	c9	64	HIS
14	c9	138	GLN
17	d2	24	GLN
17	d2	56	HIS
17	D2	64	GLN
19	d4	22	GLN
24	D9	48	ASN
24	D9	53	ASN
25	e0	17	GLN
27	l2	83	HIS
27	l2	86	GLN
27	l2	194	ASN
30	l5	40	HIS
31	L6	97	ASN
33	L8	145	ASN
33	L8	240	ASN
34	L9	5	GLN
35	M0	14	ASN
36	m1	109	HIS
37	m3	114	GLN
39	m5	138	GLN
39	M5	87	GLN
39	M5	138	GLN
42	m8	58	ASN
45	n1	146	ASN
47	N3	98	ASN
51	n7	57	HIS
52	n8	14	HIS
52	n8	28	HIS
52	n8	64	GLN
52	N8	41	HIS
53	n9	43	HIS
53	N9	45	HIS
56	O2	35	GLN
59	O5	16	GLN
61	o7	12	HIS
63	o9	4	GLN
66	Q2	47	GLN
69	S1	124	ASN
69	S1	157	GLN
69	s1	146	GLN

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Mol	Chain	Res	Type
69	s1	149	GLN
70	s2	89	GLN
70	s2	94	GLN
71	s3	74	GLN
73	s5	37	GLN
74	s6	80	ASN
79	sR	106	HIS
79	sR	182	ASN
79	sR	184	ASN
79	sR	198	ASN
79	SR	195	HIS
79	SR	288	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1	3084/3396 (90%)	644 (20%)	99 (3%)
1	5	3071/3396 (90%)	615 (20%)	70 (2%)
2	2	1767/1800 (98%)	481 (27%)	62 (3%)
2	6	1731/1800 (96%)	411 (23%)	55 (3%)
3	3	120/121 (99%)	17 (14%)	1 (0%)
3	7	120/121 (99%)	15 (12%)	1 (0%)
4	4	157/158 (99%)	32 (20%)	4 (2%)
4	8	157/158 (99%)	33 (21%)	4 (2%)
All	All	10207/10950 (93%)	2248 (22%)	296 (2%)

All (2248) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1	14	U
1	1	16	A
1	1	26	A
1	1	40	A
1	1	43	A
1	1	49	A
1	1	59	G
1	1	60	A
1	1	65	A
1	1	66	A
1	1	74	G
1	1	76	G

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Mol	Chain	Res	Type
1	1	92	G
1	1	93	C
1	1	99	A
1	1	109	A
1	1	110	G
1	1	121	A
1	1	122	A
1	1	132	C
1	1	133	U
1	1	136	G
1	1	156	G
1	1	157	A
1	1	166	C
1	1	169	U
1	1	173	G
1	1	184	U
1	1	187	A
1	1	190	U
1	1	191	U
1	1	192	C
1	1	193	C
1	1	199	A
1	1	200	C
1	1	210	U
1	1	213	A
1	1	214	G
1	1	218	G
1	1	219	A
1	1	220	G
1	1	231	G
1	1	232	G
1	1	235	A
1	1	236	G
1	1	237	G
1	1	238	A
1	1	239	G
1	1	240	U
1	1	241	G
1	1	245	U
1	1	249	U
1	1	250	U
1	1	251	G

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Mol	Chain	Res	Type
1	1	252	U
1	1	253	A
1	1	269	G
1	1	270	U
1	1	283	G
1	1	286	U
1	1	295	A
1	1	296	A
1	1	298	U
1	1	311	C
1	1	315	C
1	1	322	U
1	1	323	A
1	1	329	U
1	1	339	C
1	1	349	A
1	1	350	C
1	1	370	U
1	1	375	A
1	1	376	G
1	1	398	A
1	1	401	U
1	1	402	A
1	1	403	C
1	1	421	G
1	1	422	A
1	1	439	C
1	1	440	A
1	1	495	G
1	1	516	A
1	1	518	G
1	1	520	U
1	1	521	A
1	1	535	G
1	1	543	C
1	1	544	C
1	1	545	U
1	1	546	C
1	1	547	G
1	1	548	G
1	1	551	A
1	1	552	G

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Mol	Chain	Res	Type
1	1	555	U
1	1	556	U
1	1	557	A
1	1	558	U
1	1	559	A
1	1	569	A
1	1	578	A
1	1	579	G
1	1	592	A
1	1	604	G
1	1	609	G
1	1	611	A
1	1	620	U
1	1	621	A
1	1	622	A
1	1	637	C
1	1	638	C
1	1	646	A
1	1	649	A
1	1	654	C
1	1	658	G
1	1	677	A
1	1	681	U
1	1	683	U
1	1	705	A
1	1	712	G
1	1	715	A
1	1	716	A
1	1	727	G
1	1	758	C
1	1	762	U
1	1	764	U
1	1	765	C
1	1	766	U
1	1	767	U
1	1	776	U
1	1	777	U
1	1	781	G
1	1	785	G
1	1	786	A
1	1	801	A
1	1	806	A

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Mol	Chain	Res	Type
1	1	807	A
1	1	808	A
1	1	817	A
1	1	830	A
1	1	849	C
1	1	861	C
1	1	869	G
1	1	874	U
1	1	879	U
1	1	896	A
1	1	907	G
1	1	908	G
1	1	913	A
1	1	914	A
1	1	916	G
1	1	917	A
1	1	921	A
1	1	923	C
1	1	924	G
1	1	937	G
1	1	943	U
1	1	944	C
1	1	953	G
1	1	959	C
1	1	960	U
1	1	974	G
1	1	978	G
1	1	979	U
1	1	980	A
1	1	981	U
1	1	982	C
1	1	993	G
1	1	994	G
1	1	1001	G
1	1	1002	A
1	1	1006	A
1	1	1010	G
1	1	1015	U
1	1	1016	C
1	1	1017	C
1	1	1018	G
1	1	1020	G

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Mol	Chain	Res	Type
1	1	1021	G
1	1	1023	C
1	1	1024	G
1	1	1025	A
1	1	1027	A
1	1	1028	U
1	1	1029	G
1	1	1030	A
1	1	1033	U
1	1	1036	A
1	1	1037	C
1	1	1041	U
1	1	1047	A
1	1	1049	C
1	1	1052	U
1	1	1057	A
1	1	1064	A
1	1	1065	A
1	1	1071	U
1	1	1072	G
1	1	1081	U
1	1	1082	U
1	1	1087	G
1	1	1093	A
1	1	1094	U
1	1	1095	U
1	1	1096	U
1	1	1097	G
1	1	1098	A
1	1	1103	A
1	1	1104	G
1	1	1117	G
1	1	1128	U
1	1	1129	A
1	1	1131	G
1	1	1144	U
1	1	1153	A
1	1	1159	A
1	1	1160	C
1	1	1177	G
1	1	1180	A
1	1	1181	U

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Mol	Chain	Res	Type
1	1	1182	A
1	1	1191	U
1	1	1192	C
1	1	1193	A
1	1	1201	C
1	1	1202	A
1	1	1206	G
1	1	1209	G
1	1	1218	U
1	1	1219	C
1	1	1221	A
1	1	1222	G
1	1	1225	A
1	1	1285	G
1	1	1292	C
1	1	1305	U
1	1	1307	G
1	1	1308	A
1	1	1309	U
1	1	1312	C
1	1	1313	G
1	1	1318	A
1	1	1325	U
1	1	1330	A
1	1	1348	U
1	1	1356	U
1	1	1357	G
1	1	1386	A
1	1	1392	G
1	1	1399	A
1	1	1400	G
1	1	1408	G
1	1	1416	C
1	1	1417	G
1	1	1419	A
1	1	1434	G
1	1	1437	C
1	1	1446	A
1	1	1450	G
1	1	1467	A
1	1	1481	A
1	1	1482	A

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Mol	Chain	Res	Type
1	1	1485	G
1	1	1488	G
1	1	1503	A
1	1	1508	C
1	1	1533	U
1	1	1536	G
1	1	1539	A
1	1	1541	G
1	1	1547	G
1	1	1555	U
1	1	1556	C
1	1	1557	A
1	1	1560	G
1	1	1562	C
1	1	1563	C
1	1	1564	U
1	1	1565	G
1	1	1567	U
1	1	1568	U
1	1	1569	U
1	1	1570	U
1	1	1571	A
1	1	1572	U
1	1	1573	G
1	1	1574	C
1	1	1575	A
1	1	1576	G
1	1	1578	C
1	1	1580	A
1	1	1581	C
1	1	1582	C
1	1	1583	A
1	1	1587	A
1	1	1589	A
1	1	1593	A
1	1	1605	A
1	1	1607	U
1	1	1608	C
1	1	1620	U
1	1	1629	U
1	1	1632	A
1	1	1633	C

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Mol	Chain	Res	Type
1	1	1639	C
1	1	1641	U
1	1	1643	A
1	1	1645	U
1	1	1657	C
1	1	1683	A
1	1	1687	U
1	1	1716	U
1	1	1717	U
1	1	1724	U
1	1	1725	C
1	1	1729	A
1	1	1736	G
1	1	1741	A
1	1	1750	A
1	1	1751	G
1	1	1759	C
1	1	1760	A
1	1	1761	C
1	1	1762	C
1	1	1763	U
1	1	1764	U
1	1	1765	U
1	1	1766	G
1	1	1767	C
1	1	1768	U
1	1	1770	G
1	1	1775	G
1	1	1780	G
1	1	1795	U
1	1	1797	A
1	1	1808	G
1	1	1810	A
1	1	1814	A
1	1	1816	A
1	1	1817	G
1	1	1819	U
1	1	1820	U
1	1	1821	U
1	1	1835	A
1	1	1839	A
1	1	1841	A

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Mol	Chain	Res	Type
1	1	1842	A
1	1	1845	G
1	1	1847	A
1	1	1849	C
1	1	1858	A
1	1	1867	A
1	1	1878	G
1	1	1879	A
1	1	1880	U
1	1	1886	A
1	1	1906	G
1	1	1915	A
1	1	1951	C
1	1	1952	G
1	1	2094	C
1	1	2101	C
1	1	2102	U
1	1	2107	A
1	1	2112	U
1	1	2113	A
1	1	2114	C
1	1	2121	G
1	1	2122	G
1	1	2125	A
1	1	2130	G
1	1	2131	A
1	1	2140	U
1	1	2158	A
1	1	2169	G
1	1	2170	U
1	1	2171	G
1	1	2201	G
1	1	2205	U
1	1	2206	G
1	1	2207	A
1	1	2208	A
1	1	2209	U
1	1	2210	G
1	1	2225	U
1	1	2228	A
1	1	2244	A
1	1	2249	G

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Mol	Chain	Res	Type
1	1	2250	G
1	1	2252	A
1	1	2255	A
1	1	2256	A
1	1	2257	C
1	1	2272	G
1	1	2273	G
1	1	2280	A
1	1	2281	A
1	1	2282	U
1	1	2284	C
1	1	2288	G
1	1	2307	G
1	1	2310	U
1	1	2313	A
1	1	2314	U
1	1	2315	G
1	1	2334	U
1	1	2336	U
1	1	2361	A
1	1	2372	A
1	1	2373	A
1	1	2374	C
1	1	2375	G
1	1	2385	G
1	1	2393	G
1	1	2397	A
1	1	2401	A
1	1	2402	A
1	1	2403	G
1	1	2404	A
1	1	2411	U
1	1	2418	G
1	1	2419	A
1	1	2435	G
1	1	2437	G
1	1	2444	C
1	1	2505	U
1	1	2514	U
1	1	2515	A
1	1	2522	G
1	1	2523	A

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Mol	Chain	Res	Type
1	1	2525	G
1	1	2526	C
1	1	2531	C
1	1	2532	U
1	1	2533	G
1	1	2537	U
1	1	2538	U
1	1	2539	C
1	1	2540	A
1	1	2541	U
1	1	2542	U
1	1	2543	U
1	1	2547	A
1	1	2548	C
1	1	2549	G
1	1	2552	C
1	1	2553	U
1	1	2554	A
1	1	2555	G
1	1	2561	A
1	1	2567	C
1	1	2568	C
1	1	2569	A
1	1	2570	U
1	1	2571	U
1	1	2572	C
1	1	2573	G
1	1	2574	G
1	1	2577	C
1	1	2581	U
1	1	2585	G
1	1	2593	A
1	1	2594	C
1	1	2595	A
1	1	2606	G
1	1	2607	G
1	1	2614	G
1	1	2618	G
1	1	2619	G
1	1	2626	A
1	1	2634	U
1	1	2638	C

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Mol	Chain	Res	Type
1	1	2652	U
1	1	2656	A
1	1	2657	A
1	1	2674	A
1	1	2676	A
1	1	2677	G
1	1	2681	U
1	1	2689	A
1	1	2690	G
1	1	2691	A
1	1	2694	A
1	1	2696	A
1	1	2705	A
1	1	2714	G
1	1	2719	U
1	1	2728	G
1	1	2729	U
1	1	2752	U
1	1	2753	G
1	1	2760	C
1	1	2762	A
1	1	2772	C
1	1	2777	G
1	1	2778	G
1	1	2779	A
1	1	2796	G
1	1	2799	A
1	1	2800	G
1	1	2801	A
1	1	2802	A
1	1	2810	C
1	1	2817	A
1	1	2818	U
1	1	2838	A
1	1	2842	U
1	1	2843	U
1	1	2845	A
1	1	2846	U
1	1	2853	A
1	1	2856	G
1	1	2860	U
1	1	2867	C

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Mol	Chain	Res	Type
1	1	2871	G
1	1	2872	A
1	1	2873	U
1	1	2875	U
1	1	2887	A
1	1	2889	C
1	1	2896	A
1	1	2898	G
1	1	2899	C
1	1	2922	G
1	1	2923	U
1	1	2927	C
1	1	2935	U
1	1	2936	A
1	1	2938	G
1	1	2942	C
1	1	2945	G
1	1	2947	G
1	1	2951	G
1	1	2952	G
1	1	2957	G
1	1	2971	A
1	1	2974	U
1	1	2983	C
1	1	2990	G
1	1	2992	U
1	1	2997	G
1	1	3000	A
1	1	3012	A
1	1	3056	U
1	1	3059	G
1	1	3078	U
1	1	3079	U
1	1	3080	G
1	1	3086	A
1	1	3092	C
1	1	3116	G
1	1	3122	A
1	1	3123	A
1	1	3130	A
1	1	3131	U
1	1	3139	A

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Mol	Chain	Res	Type
1	1	3142	A
1	1	3143	C
1	1	3151	U
1	1	3153	U
1	1	3154	C
1	1	3155	U
1	1	3156	U
1	1	3157	U
1	1	3158	G
1	1	3164	C
1	1	3165	A
1	1	3168	A
1	1	3169	U
1	1	3170	A
1	1	3171	U
1	1	3173	G
1	1	3174	A
1	1	3175	U
1	1	3176	G
1	1	3179	U
1	1	3180	A
1	1	3181	C
1	1	3187	A
1	1	3194	C
1	1	3199	G
1	1	3207	U
1	1	3210	A
1	1	3213	A
1	1	3217	C
1	1	3218	A
1	1	3219	G
1	1	3223	A
1	1	3224	G
1	1	3228	C
1	1	3229	G
1	1	3235	C
1	1	3239	G
1	1	3242	G
1	1	3245	A
1	1	3246	G
1	1	3247	G
1	1	3253	G

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Mol	Chain	Res	Type
1	1	3259	U
1	1	3265	C
1	1	3270	U
1	1	3273	A
1	1	3276	G
1	1	3279	A
1	1	3281	U
1	1	3286	G
1	1	3287	U
1	1	3289	G
1	1	3294	A
1	1	3295	A
1	1	3303	G
1	1	3304	U
1	1	3307	A
1	1	3313	U
1	1	3316	A
1	1	3317	U
1	1	3318	G
1	1	3319	U
1	1	3320	A
1	1	3335	A
1	1	3342	A
1	1	3345	G
1	1	3347	A
1	1	3349	C
1	1	3350	C
1	1	3351	U
1	1	3352	U
1	1	3353	G
1	1	3354	U
1	1	3355	U
1	1	3356	G
1	1	3359	A
1	1	3360	C
1	1	3363	U
1	1	3369	G
1	1	3375	A
1	1	3376	A
1	1	3378	C
1	1	3381	U
1	1	3382	U

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Mol	Chain	Res	Type
1	1	3383	G
1	1	3390	G
2	2	2	A
2	2	4	C
2	2	17	C
2	2	25	C
2	2	26	A
2	2	27	U
2	2	34	G
2	2	39	A
2	2	45	U
2	2	47	A
2	2	50	C
2	2	57	G
2	2	60	U
2	2	67	A
2	2	68	A
2	2	69	G
2	2	72	A
2	2	73	U
2	2	74	U
2	2	75	U
2	2	76	A
2	2	77	U
2	2	99	C
2	2	101	U
2	2	104	A
2	2	114	C
2	2	130	C
2	2	131	C
2	2	132	U
2	2	136	C
2	2	137	U
2	2	140	A
2	2	141	U
2	2	144	U
2	2	145	A
2	2	146	U
2	2	153	G
2	2	158	U
2	2	159	U
2	2	161	U

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Mol	Chain	Res	Type
2	2	178	U
2	2	179	A
2	2	185	U
2	2	186	C
2	2	188	A
2	2	190	C
2	2	191	C
2	2	192	U
2	2	193	U
2	2	194	U
2	2	195	G
2	2	196	G
2	2	197	A
2	2	198	A
2	2	200	A
2	2	217	A
2	2	218	A
2	2	220	A
2	2	228	G
2	2	229	U
2	2	231	U
2	2	233	C
2	2	234	G
2	2	235	G
2	2	236	A
2	2	238	U
2	2	239	C
2	2	240	U
2	2	241	U
2	2	242	U
2	2	249	U
2	2	250	C
2	2	260	U
2	2	261	U
2	2	265	A
2	2	271	A
2	2	272	U
2	2	274	G
2	2	275	C
2	2	276	C
2	2	277	U
2	2	278	U

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Mol	Chain	Res	Type
2	2	279	G
2	2	280	U
2	2	281	G
2	2	288	A
2	2	290	G
2	2	299	A
2	2	309	C
2	2	312	A
2	2	314	C
2	2	316	A
2	2	319	U
2	2	320	U
2	2	321	C
2	2	322	G
2	2	333	A
2	2	337	G
2	2	338	C
2	2	341	A
2	2	352	A
2	2	359	A
2	2	360	A
2	2	361	C
2	2	378	A
2	2	380	U
2	2	400	A
2	2	401	A
2	2	402	C
2	2	404	G
2	2	416	A
2	2	418	G
2	2	423	G
2	2	424	C
2	2	425	A
2	2	426	G
2	2	428	A
2	2	434	G
2	2	437	A
2	2	439	U
2	2	444	C
2	2	448	C
2	2	468	A
2	2	475	A

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Mol	Chain	Res	Type
2	2	477	A
2	2	484	C
2	2	485	A
2	2	488	G
2	2	493	U
2	2	494	U
2	2	495	C
2	2	496	G
2	2	497	G
2	2	498	G
2	2	499	U
2	2	500	C
2	2	501	U
2	2	502	U
2	2	503	G
2	2	504	U
2	2	505	A
2	2	506	A
2	2	507	U
2	2	508	U
2	2	510	G
2	2	511	A
2	2	512	A
2	2	513	U
2	2	514	G
2	2	515	A
2	2	516	G
2	2	519	C
2	2	527	A
2	2	532	U
2	2	535	A
2	2	538	A
2	2	539	G
2	2	541	A
2	2	542	A
2	2	543	C
2	2	544	A
2	2	548	G
2	2	549	G
2	2	555	A
2	2	556	A
2	2	557	G

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Mol	Chain	Res	Type
2	2	558	U
2	2	559	C
2	2	565	C
2	2	570	A
2	2	571	G
2	2	579	A
2	2	580	A
2	2	582	U
2	2	594	A
2	2	595	G
2	2	606	A
2	2	610	G
2	2	611	U
2	2	619	A
2	2	620	A
2	2	622	A
2	2	623	A
2	2	630	A
2	2	635	A
2	2	638	U
2	2	639	U
2	2	640	U
2	2	649	U
2	2	650	U
2	2	653	C
2	2	655	G
2	2	656	G
2	2	657	U
2	2	658	C
2	2	677	G
2	2	679	U
2	2	680	U
2	2	682	C
2	2	684	A
2	2	685	A
2	2	686	C
2	2	690	G
2	2	692	C
2	2	694	U
2	2	696	C
2	2	697	C
2	2	700	C

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Mol	Chain	Res	Type
2	2	701	U
2	2	702	G
2	2	703	G
2	2	704	C
2	2	705	U
2	2	706	A
2	2	707	A
2	2	709	C
2	2	710	U
2	2	712	G
2	2	713	A
2	2	714	G
2	2	717	C
2	2	718	U
2	2	719	U
2	2	720	G
2	2	721	U
2	2	722	G
2	2	723	G
2	2	725	U
2	2	727	U
2	2	728	U
2	2	730	G
2	2	731	C
2	2	732	G
2	2	733	A
2	2	734	A
2	2	735	C
2	2	736	C
2	2	737	A
2	2	738	G
2	2	741	C
2	2	742	U
2	2	743	U
2	2	745	U
2	2	754	A
2	2	755	A
2	2	756	A
2	2	758	U
2	2	765	G
2	2	766	U
2	2	774	A

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Mol	Chain	Res	Type
2	2	775	G
2	2	778	G
2	2	780	A
2	2	781	U
2	2	782	U
2	2	783	G
2	2	784	C
2	2	789	A
2	2	794	U
2	2	795	U
2	2	806	A
2	2	811	A
2	2	812	A
2	2	819	G
2	2	820	U
2	2	821	U
2	2	831	U
2	2	833	U
2	2	856	A
2	2	860	U
2	2	862	A
2	2	863	A
2	2	864	U
2	2	886	U
2	2	896	U
2	2	898	A
2	2	911	U
2	2	912	U
2	2	913	G
2	2	914	G
2	2	921	U
2	2	933	A
2	2	935	U
2	2	942	G
2	2	944	A
2	2	951	A
2	2	960	U
2	2	966	A
2	2	973	A
2	2	985	G
2	2	992	A
2	2	993	A

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Mol	Chain	Res	Type
2	2	997	G
2	2	999	U
2	2	1004	U
2	2	1005	A
2	2	1020	A
2	2	1026	A
2	2	1028	C
2	2	1029	U
2	2	1032	G
2	2	1039	A
2	2	1040	G
2	2	1052	U
2	2	1053	G
2	2	1056	U
2	2	1057	U
2	2	1058	U
2	2	1059	U
2	2	1060	U
2	2	1061	A
2	2	1062	A
2	2	1064	G
2	2	1074	G
2	2	1076	A
2	2	1079	U
2	2	1082	C
2	2	1083	G
2	2	1091	A
2	2	1092	A
2	2	1096	C
2	2	1097	U
2	2	1098	U
2	2	1100	G
2	2	1109	G
2	2	1113	A
2	2	1138	A
2	2	1139	A
2	2	1146	G
2	2	1149	G
2	2	1150	G
2	2	1151	A
2	2	1155	G
2	2	1157	A

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Mol	Chain	Res	Type
2	2	1158	C
2	2	1160	A
2	2	1162	C
2	2	1163	A
2	2	1167	G
2	2	1175	U
2	2	1185	U
2	2	1188	G
2	2	1194	A
2	2	1196	A
2	2	1197	C
2	2	1199	G
2	2	1200	G
2	2	1202	A
2	2	1207	C
2	2	1208	A
2	2	1217	A
2	2	1218	G
2	2	1227	A
2	2	1228	G
2	2	1229	G
2	2	1243	G
2	2	1244	A
2	2	1245	G
2	2	1250	U
2	2	1251	U
2	2	1257	U
2	2	1258	U
2	2	1284	C
2	2	1285	U
2	2	1286	U
2	2	1287	A
2	2	1301	U
2	2	1312	A
2	2	1314	U
2	2	1315	U
2	2	1321	A
2	2	1338	C
2	2	1339	C
2	2	1340	U
2	2	1341	A
2	2	1343	U

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Mol	Chain	Res	Type
2	2	1344	A
2	2	1345	A
2	2	1349	G
2	2	1354	G
2	2	1360	A
2	2	1361	U
2	2	1363	U
2	2	1364	G
2	2	1370	U
2	2	1371	A
2	2	1372	U
2	2	1383	G
2	2	1388	A
2	2	1390	U
2	2	1398	U
2	2	1399	C
2	2	1410	A
2	2	1411	A
2	2	1412	G
2	2	1413	U
2	2	1414	U
2	2	1415	U
2	2	1427	A
2	2	1428	G
2	2	1432	U
2	2	1445	G
2	2	1446	A
2	2	1448	G
2	2	1457	C
2	2	1459	C
2	2	1460	A
2	2	1461	C
2	2	1471	A
2	2	1473	U
2	2	1474	G
2	2	1475	A
2	2	1481	C
2	2	1482	C
2	2	1486	G
2	2	1489	U
2	2	1490	C
2	2	1491	U

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Mol	Chain	Res	Type
2	2	1492	A
2	2	1493	A
2	2	1499	G
2	2	1500	C
2	2	1506	G
2	2	1514	U
2	2	1515	A
2	2	1516	A
2	2	1517	U
2	2	1521	G
2	2	1523	G
2	2	1524	A
2	2	1530	C
2	2	1533	C
2	2	1535	U
2	2	1536	G
2	2	1537	C
2	2	1538	U
2	2	1539	G
2	2	1540	G
2	2	1542	G
2	2	1557	U
2	2	1559	A
2	2	1560	U
2	2	1569	A
2	2	1573	A
2	2	1574	G
2	2	1584	G
2	2	1590	G
2	2	1601	G
2	2	1614	A
2	2	1616	G
2	2	1618	C
2	2	1625	C
2	2	1626	U
2	2	1631	A
2	2	1639	C
2	2	1651	A
2	2	1657	U
2	2	1658	G
2	2	1680	G
2	2	1695	G

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Mol	Chain	Res	Type
2	2	1731	A
2	2	1747	G
2	2	1750	A
2	2	1756	A
2	2	1757	G
2	2	1760	G
2	2	1762	A
2	2	1766	A
2	2	1769	U
2	2	1770	U
2	2	1780	G
2	2	1782	A
2	2	1783	C
2	2	1790	A
2	2	1791	A
2	2	1792	G
2	2	1793	G
2	2	1794	A
2	2	1795	U
2	2	1796	C
2	2	1798	U
3	3	7	G
3	3	13	A
3	3	17	A
3	3	22	A
3	3	41	G
3	3	51	A
3	3	53	U
3	3	54	U
3	3	65	G
3	3	74	C
3	3	76	A
3	3	91	G
3	3	93	C
3	3	95	A
3	3	102	A
3	3	112	G
3	3	121	U
4	4	21	C
4	4	34	U
4	4	35	C
4	4	51	G

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Mol	Chain	Res	Type
4	4	59	A
4	4	62	C
4	4	63	G
4	4	71	A
4	4	79	A
4	4	80	A
4	4	81	U
4	4	82	U
4	4	83	C
4	4	84	C
4	4	86	U
4	4	87	G
4	4	90	U
4	4	95	G
4	4	104	A
4	4	106	C
4	4	111	A
4	4	112	U
4	4	113	U
4	4	125	U
4	4	126	A
4	4	128	U
4	4	138	A
4	4	151	C
4	4	152	G
4	4	155	A
4	4	157	U
4	4	158	U
1	5	6	A
1	5	15	C
1	5	26	A
1	5	40	A
1	5	43	A
1	5	49	A
1	5	60	A
1	5	65	A
1	5	66	A
1	5	68	C
1	5	76	G
1	5	85	A
1	5	89	A
1	5	92	G

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Mol	Chain	Res	Type
1	5	93	C
1	5	96	G
1	5	99	A
1	5	109	A
1	5	110	G
1	5	111	C
1	5	112	U
1	5	113	C
1	5	116	A
1	5	121	A
1	5	122	A
1	5	133	U
1	5	134	U
1	5	135	C
1	5	136	G
1	5	147	U
1	5	150	A
1	5	152	U
1	5	156	G
1	5	157	A
1	5	166	C
1	5	170	G
1	5	175	C
1	5	182	U
1	5	187	A
1	5	190	U
1	5	191	U
1	5	200	C
1	5	212	G
1	5	219	A
1	5	220	G
1	5	240	U
1	5	242	C
1	5	244	G
1	5	248	U
1	5	249	U
1	5	250	U
1	5	251	G
1	5	252	U
1	5	254	A
1	5	269	G
1	5	282	G

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Mol	Chain	Res	Type
1	5	283	G
1	5	284	A
1	5	286	U
1	5	295	A
1	5	305	U
1	5	315	C
1	5	323	A
1	5	329	U
1	5	334	A
1	5	339	C
1	5	349	A
1	5	350	C
1	5	370	U
1	5	376	G
1	5	390	G
1	5	398	A
1	5	399	A
1	5	401	U
1	5	402	A
1	5	403	C
1	5	404	G
1	5	421	G
1	5	422	A
1	5	425	G
1	5	439	C
1	5	440	A
1	5	520	U
1	5	521	A
1	5	542	G
1	5	546	C
1	5	547	G
1	5	548	G
1	5	555	U
1	5	556	U
1	5	557	A
1	5	559	A
1	5	561	C
1	5	569	A
1	5	578	A
1	5	579	G
1	5	581	U
1	5	588	G

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Mol	Chain	Res	Type
1	5	592	A
1	5	594	U
1	5	604	G
1	5	609	G
1	5	611	A
1	5	620	U
1	5	621	A
1	5	622	A
1	5	636	C
1	5	649	A
1	5	654	C
1	5	660	A
1	5	675	C
1	5	677	A
1	5	681	U
1	5	705	A
1	5	712	G
1	5	715	A
1	5	716	A
1	5	719	U
1	5	720	A
1	5	726	G
1	5	727	G
1	5	735	A
1	5	736	A
1	5	758	C
1	5	766	U
1	5	767	U
1	5	776	U
1	5	777	U
1	5	780	A
1	5	781	G
1	5	785	G
1	5	786	A
1	5	806	A
1	5	816	A
1	5	817	A
1	5	824	C
1	5	829	U
1	5	830	A
1	5	846	A
1	5	851	C

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Mol	Chain	Res	Type
1	5	852	U
1	5	856	G
1	5	857	G
1	5	861	C
1	5	869	G
1	5	874	U
1	5	879	U
1	5	883	A
1	5	890	C
1	5	896	A
1	5	907	G
1	5	908	G
1	5	914	A
1	5	916	G
1	5	917	A
1	5	921	A
1	5	923	C
1	5	924	G
1	5	937	G
1	5	943	U
1	5	944	C
1	5	959	C
1	5	960	U
1	5	961	C
1	5	979	U
1	5	980	A
1	5	981	U
1	5	982	C
1	5	994	G
1	5	1000	C
1	5	1001	G
1	5	1002	A
1	5	1003	A
1	5	1006	A
1	5	1010	G
1	5	1014	U
1	5	1015	U
1	5	1017	C
1	5	1021	G
1	5	1022	U
1	5	1023	C
1	5	1026	A

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Mol	Chain	Res	Type
1	5	1027	A
1	5	1028	U
1	5	1029	G
1	5	1030	A
1	5	1047	A
1	5	1049	C
1	5	1064	A
1	5	1065	A
1	5	1071	U
1	5	1072	G
1	5	1079	A
1	5	1080	A
1	5	1081	U
1	5	1082	U
1	5	1085	A
1	5	1087	G
1	5	1093	A
1	5	1094	U
1	5	1095	U
1	5	1096	U
1	5	1097	G
1	5	1098	A
1	5	1102	A
1	5	1103	A
1	5	1104	G
1	5	1117	G
1	5	1129	A
1	5	1131	G
1	5	1152	G
1	5	1153	A
1	5	1159	A
1	5	1160	C
1	5	1177	G
1	5	1178	G
1	5	1180	A
1	5	1181	U
1	5	1182	A
1	5	1191	U
1	5	1192	C
1	5	1196	C
1	5	1200	A
1	5	1201	C

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Mol	Chain	Res	Type
1	5	1202	A
1	5	1209	G
1	5	1212	A
1	5	1220	U
1	5	1221	A
1	5	1222	G
1	5	1225	A
1	5	1281	G
1	5	1284	C
1	5	1285	G
1	5	1286	A
1	5	1305	U
1	5	1307	G
1	5	1308	A
1	5	1309	U
1	5	1313	G
1	5	1329	U
1	5	1330	A
1	5	1347	U
1	5	1348	U
1	5	1355	A
1	5	1356	U
1	5	1357	G
1	5	1385	C
1	5	1386	A
1	5	1399	A
1	5	1400	G
1	5	1408	G
1	5	1416	C
1	5	1419	A
1	5	1431	G
1	5	1434	G
1	5	1437	C
1	5	1446	A
1	5	1450	G
1	5	1479	U
1	5	1481	A
1	5	1482	A
1	5	1484	U
1	5	1495	U
1	5	1503	A
1	5	1508	C

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Mol	Chain	Res	Type
1	5	1533	U
1	5	1536	G
1	5	1549	U
1	5	1554	U
1	5	1555	U
1	5	1556	C
1	5	1557	A
1	5	1560	G
1	5	1562	C
1	5	1563	C
1	5	1564	U
1	5	1565	G
1	5	1571	A
1	5	1572	U
1	5	1574	C
1	5	1575	A
1	5	1578	C
1	5	1580	A
1	5	1581	C
1	5	1582	C
1	5	1583	A
1	5	1587	A
1	5	1589	A
1	5	1593	A
1	5	1607	U
1	5	1608	C
1	5	1620	U
1	5	1629	U
1	5	1639	C
1	5	1643	A
1	5	1644	C
1	5	1645	U
1	5	1655	G
1	5	1657	C
1	5	1658	G
1	5	1662	G
1	5	1683	A
1	5	1716	U
1	5	1717	U
1	5	1724	U
1	5	1725	C
1	5	1736	G

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Mol	Chain	Res	Type
1	5	1750	A
1	5	1751	G
1	5	1756	C
1	5	1759	C
1	5	1760	A
1	5	1761	C
1	5	1769	G
1	5	1770	G
1	5	1780	G
1	5	1797	A
1	5	1813	A
1	5	1814	A
1	5	1816	A
1	5	1817	G
1	5	1818	U
1	5	1820	U
1	5	1821	U
1	5	1839	A
1	5	1841	A
1	5	1842	A
1	5	1846	C
1	5	1849	C
1	5	1850	A
1	5	1864	A
1	5	1879	A
1	5	1880	U
1	5	1885	U
1	5	1886	A
1	5	1894	U
1	5	1896	A
1	5	1906	G
1	5	1926	C
1	5	1952	G
1	5	1953	G
1	5	2100	A
1	5	2101	C
1	5	2102	U
1	5	2112	U
1	5	2113	A
1	5	2121	G
1	5	2122	G
1	5	2131	A

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Mol	Chain	Res	Type
1	5	2140	U
1	5	2158	A
1	5	2159	U
1	5	2169	G
1	5	2176	U
1	5	2178	A
1	5	2179	C
1	5	2201	G
1	5	2204	C
1	5	2205	U
1	5	2206	G
1	5	2207	A
1	5	2208	A
1	5	2209	U
1	5	2210	G
1	5	2212	C
1	5	2223	A
1	5	2225	U
1	5	2228	A
1	5	2229	A
1	5	2244	A
1	5	2248	C
1	5	2249	G
1	5	2250	G
1	5	2252	A
1	5	2253	G
1	5	2255	A
1	5	2256	A
1	5	2257	C
1	5	2258	U
1	5	2260	U
1	5	2268	U
1	5	2269	U
1	5	2272	G
1	5	2273	G
1	5	2281	A
1	5	2282	U
1	5	2288	G
1	5	2306	C
1	5	2307	G
1	5	2308	C
1	5	2310	U

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Mol	Chain	Res	Type
1	5	2313	A
1	5	2315	G
1	5	2318	U
1	5	2334	U
1	5	2336	U
1	5	2372	A
1	5	2373	A
1	5	2374	C
1	5	2375	G
1	5	2385	G
1	5	2393	G
1	5	2397	A
1	5	2398	A
1	5	2401	A
1	5	2402	A
1	5	2403	G
1	5	2404	A
1	5	2411	U
1	5	2414	G
1	5	2418	G
1	5	2419	A
1	5	2434	U
1	5	2435	G
1	5	2437	G
1	5	2439	A
1	5	2440	G
1	5	2441	A
1	5	2505	U
1	5	2508	U
1	5	2510	U
1	5	2511	A
1	5	2512	C
1	5	2513	U
1	5	2514	U
1	5	2515	A
1	5	2522	G
1	5	2523	A
1	5	2524	A
1	5	2526	C
1	5	2538	U
1	5	2539	C
1	5	2540	A

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Mol	Chain	Res	Type
1	5	2541	U
1	5	2542	U
1	5	2543	U
1	5	2544	U
1	5	2545	C
1	5	2547	A
1	5	2549	G
1	5	2550	U
1	5	2552	C
1	5	2555	G
1	5	2566	C
1	5	2567	C
1	5	2568	C
1	5	2569	A
1	5	2570	U
1	5	2571	U
1	5	2572	C
1	5	2573	G
1	5	2574	G
1	5	2575	G
1	5	2584	G
1	5	2585	G
1	5	2589	G
1	5	2593	A
1	5	2594	C
1	5	2598	G
1	5	2600	C
1	5	2606	G
1	5	2607	G
1	5	2614	G
1	5	2640	A
1	5	2652	U
1	5	2656	A
1	5	2657	A
1	5	2662	G
1	5	2663	G
1	5	2667	A
1	5	2668	U
1	5	2674	A
1	5	2677	G
1	5	2683	U
1	5	2689	A

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Mol	Chain	Res	Type
1	5	2690	G
1	5	2691	A
1	5	2694	A
1	5	2695	A
1	5	2696	A
1	5	2714	G
1	5	2728	G
1	5	2729	U
1	5	2737	C
1	5	2752	U
1	5	2753	G
1	5	2762	A
1	5	2771	U
1	5	2772	C
1	5	2773	C
1	5	2778	G
1	5	2779	A
1	5	2796	G
1	5	2799	A
1	5	2800	G
1	5	2801	A
1	5	2810	C
1	5	2814	G
1	5	2817	A
1	5	2818	U
1	5	2821	C
1	5	2845	A
1	5	2853	A
1	5	2856	G
1	5	2867	C
1	5	2871	G
1	5	2872	A
1	5	2873	U
1	5	2887	A
1	5	2889	C
1	5	2896	A
1	5	2899	C
1	5	2910	A
1	5	2923	U
1	5	2929	C
1	5	2935	U
1	5	2936	A

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Mol	Chain	Res	Type
1	5	2942	C
1	5	2945	G
1	5	2947	G
1	5	2954	U
1	5	2957	G
1	5	2971	A
1	5	2979	U
1	5	2983	C
1	5	2990	G
1	5	2995	A
1	5	2996	U
1	5	2997	G
1	5	3049	A
1	5	3056	U
1	5	3059	G
1	5	3078	U
1	5	3079	U
1	5	3080	G
1	5	3086	A
1	5	3087	A
1	5	3092	C
1	5	3093	C
1	5	3122	A
1	5	3127	A
1	5	3129	A
1	5	3131	U
1	5	3142	A
1	5	3143	C
1	5	3150	A
1	5	3151	U
1	5	3153	U
1	5	3154	C
1	5	3155	U
1	5	3156	U
1	5	3157	U
1	5	3158	G
1	5	3170	A
1	5	3171	U
1	5	3172	A
1	5	3173	G
1	5	3174	A
1	5	3176	G

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Mol	Chain	Res	Type
1	5	3179	U
1	5	3181	C
1	5	3187	A
1	5	3196	U
1	5	3198	U
1	5	3206	C
1	5	3207	U
1	5	3217	C
1	5	3218	A
1	5	3219	G
1	5	3224	G
1	5	3229	G
1	5	3235	C
1	5	3239	G
1	5	3244	A
1	5	3245	A
1	5	3246	G
1	5	3247	G
1	5	3249	C
1	5	3253	G
1	5	3259	U
1	5	3268	A
1	5	3269	U
1	5	3270	U
1	5	3271	G
1	5	3273	A
1	5	3276	G
1	5	3277	U
1	5	3279	A
1	5	3281	U
1	5	3285	C
1	5	3294	A
1	5	3304	U
1	5	3316	A
1	5	3317	U
1	5	3318	G
1	5	3319	U
1	5	3335	A
1	5	3341	U
1	5	3342	A
1	5	3345	G
1	5	3351	U

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Mol	Chain	Res	Type
1	5	3352	U
1	5	3354	U
1	5	3355	U
1	5	3356	G
1	5	3363	U
1	5	3368	U
1	5	3369	G
1	5	3378	C
1	5	3383	G
1	5	3386	G
1	5	3389	U
1	5	3395	G
1	5	3396	U
2	6	2	A
2	6	4	C
2	6	17	C
2	6	25	C
2	6	26	A
2	6	27	U
2	6	34	G
2	6	45	U
2	6	46	A
2	6	47	A
2	6	57	G
2	6	60	U
2	6	67	A
2	6	68	A
2	6	69	G
2	6	73	U
2	6	74	U
2	6	75	U
2	6	76	A
2	6	77	U
2	6	78	A
2	6	79	C
2	6	104	A
2	6	114	C
2	6	115	G
2	6	126	A
2	6	129	U
2	6	130	C
2	6	131	C

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Mol	Chain	Res	Type
2	6	132	U
2	6	137	U
2	6	138	A
2	6	140	A
2	6	141	U
2	6	144	U
2	6	145	A
2	6	158	U
2	6	159	U
2	6	166	C
2	6	177	U
2	6	178	U
2	6	179	A
2	6	185	U
2	6	188	A
2	6	189	C
2	6	190	C
2	6	192	U
2	6	193	U
2	6	194	U
2	6	195	G
2	6	197	A
2	6	198	A
2	6	199	G
2	6	200	A
2	6	215	A
2	6	216	U
2	6	217	A
2	6	218	A
2	6	219	A
2	6	223	U
2	6	230	C
2	6	231	U
2	6	232	U
2	6	233	C
2	6	234	G
2	6	235	G
2	6	237	C
2	6	238	U
2	6	239	C
2	6	240	U
2	6	241	U

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Mol	Chain	Res	Type
2	6	242	U
2	6	250	C
2	6	257	A
2	6	260	U
2	6	261	U
2	6	265	A
2	6	271	A
2	6	272	U
2	6	273	G
2	6	276	C
2	6	277	U
2	6	278	U
2	6	280	U
2	6	281	G
2	6	299	A
2	6	314	C
2	6	316	A
2	6	320	U
2	6	321	C
2	6	331	A
2	6	333	A
2	6	337	G
2	6	338	C
2	6	341	A
2	6	352	A
2	6	359	A
2	6	360	A
2	6	361	C
2	6	400	A
2	6	401	A
2	6	402	C
2	6	404	G
2	6	416	A
2	6	417	A
2	6	418	G
2	6	423	G
2	6	424	C
2	6	425	A
2	6	426	G
2	6	434	G
2	6	437	A
2	6	439	U

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Mol	Chain	Res	Type
2	6	444	C
2	6	448	C
2	6	468	A
2	6	475	A
2	6	485	A
2	6	486	G
2	6	487	G
2	6	488	G
2	6	489	C
2	6	490	C
2	6	491	C
2	6	492	A
2	6	493	U
2	6	494	U
2	6	495	C
2	6	496	G
2	6	497	G
2	6	498	G
2	6	500	C
2	6	501	U
2	6	502	U
2	6	504	U
2	6	505	A
2	6	506	A
2	6	507	U
2	6	508	U
2	6	510	G
2	6	511	A
2	6	512	A
2	6	513	U
2	6	514	G
2	6	515	A
2	6	519	C
2	6	527	A
2	6	535	A
2	6	539	G
2	6	540	G
2	6	541	A
2	6	542	A
2	6	543	C
2	6	544	A
2	6	548	G

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Mol	Chain	Res	Type
2	6	549	G
2	6	555	A
2	6	556	A
2	6	557	G
2	6	558	U
2	6	559	C
2	6	565	C
2	6	568	G
2	6	570	A
2	6	574	G
2	6	578	U
2	6	579	A
2	6	580	A
2	6	582	U
2	6	594	A
2	6	595	G
2	6	609	U
2	6	610	G
2	6	611	U
2	6	619	A
2	6	620	A
2	6	621	A
2	6	622	A
2	6	623	A
2	6	624	G
2	6	639	U
2	6	640	U
2	6	652	G
2	6	653	C
2	6	679	U
2	6	680	U
2	6	681	U
2	6	682	C
2	6	684	A
2	6	685	A
2	6	691	C
2	6	694	U
2	6	695	U
2	6	696	C
2	6	733	A
2	6	741	C
2	6	742	U

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Mol	Chain	Res	Type
2	6	754	A
2	6	755	A
2	6	756	A
2	6	765	G
2	6	774	A
2	6	775	G
2	6	779	U
2	6	780	A
2	6	781	U
2	6	782	U
2	6	783	G
2	6	789	A
2	6	793	A
2	6	794	U
2	6	795	U
2	6	806	A
2	6	811	A
2	6	812	A
2	6	819	G
2	6	828	U
2	6	829	A
2	6	833	U
2	6	856	A
2	6	861	U
2	6	862	A
2	6	863	A
2	6	873	U
2	6	876	G
2	6	898	A
2	6	912	U
2	6	913	G
2	6	914	G
2	6	926	A
2	6	933	A
2	6	935	U
2	6	942	G
2	6	951	A
2	6	959	U
2	6	960	U
2	6	966	A
2	6	969	C
2	6	970	A

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Mol	Chain	Res	Type
2	6	971	A
2	6	992	A
2	6	993	A
2	6	995	A
2	6	997	G
2	6	1003	A
2	6	1004	U
2	6	1005	A
2	6	1021	C
2	6	1026	A
2	6	1028	C
2	6	1029	U
2	6	1039	A
2	6	1040	G
2	6	1052	U
2	6	1053	G
2	6	1054	U
2	6	1055	U
2	6	1056	U
2	6	1057	U
2	6	1058	U
2	6	1059	U
2	6	1060	U
2	6	1061	A
2	6	1062	A
2	6	1063	U
2	6	1064	G
2	6	1072	C
2	6	1074	G
2	6	1082	C
2	6	1092	A
2	6	1096	C
2	6	1097	U
2	6	1098	U
2	6	1100	G
2	6	1101	G
2	6	1109	G
2	6	1111	G
2	6	1138	A
2	6	1139	A
2	6	1150	G
2	6	1151	A

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Mol	Chain	Res	Type
2	6	1155	G
2	6	1158	C
2	6	1159	C
2	6	1160	A
2	6	1162	C
2	6	1164	G
2	6	1167	G
2	6	1185	U
2	6	1191	U
2	6	1194	A
2	6	1196	A
2	6	1197	C
2	6	1199	G
2	6	1200	G
2	6	1202	A
2	6	1208	A
2	6	1217	A
2	6	1218	G
2	6	1219	A
2	6	1220	C
2	6	1228	G
2	6	1241	G
2	6	1243	G
2	6	1245	G
2	6	1262	U
2	6	1263	G
2	6	1276	U
2	6	1284	C
2	6	1285	U
2	6	1286	U
2	6	1288	G
2	6	1291	G
2	6	1314	U
2	6	1315	U
2	6	1316	G
2	6	1321	A
2	6	1337	A
2	6	1343	U
2	6	1344	A
2	6	1345	A
2	6	1346	A
2	6	1347	U

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Mol	Chain	Res	Type
2	6	1354	G
2	6	1361	U
2	6	1362	U
2	6	1363	U
2	6	1364	G
2	6	1370	U
2	6	1371	A
2	6	1378	U
2	6	1383	G
2	6	1390	U
2	6	1396	U
2	6	1398	U
2	6	1399	C
2	6	1400	A
2	6	1402	G
2	6	1413	U
2	6	1414	U
2	6	1415	U
2	6	1424	A
2	6	1427	A
2	6	1428	G
2	6	1445	G
2	6	1446	A
2	6	1448	G
2	6	1459	C
2	6	1461	C
2	6	1471	A
2	6	1481	C
2	6	1482	C
2	6	1486	G
2	6	1489	U
2	6	1490	C
2	6	1491	U
2	6	1492	A
2	6	1493	A
2	6	1494	C
2	6	1506	G
2	6	1514	U
2	6	1515	A
2	6	1516	A
2	6	1521	G
2	6	1523	G

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Mol	Chain	Res	Type
2	6	1524	A
2	6	1531	G
2	6	1535	U
2	6	1536	G
2	6	1537	C
2	6	1538	U
2	6	1540	G
2	6	1554	U
2	6	1557	U
2	6	1559	A
2	6	1569	A
2	6	1572	G
2	6	1573	A
2	6	1574	G
2	6	1575	G
2	6	1582	U
2	6	1584	G
2	6	1590	G
2	6	1601	G
2	6	1616	G
2	6	1621	U
2	6	1637	C
2	6	1638	G
2	6	1657	U
2	6	1658	G
2	6	1665	U
2	6	1681	A
2	6	1736	G
2	6	1756	A
2	6	1757	G
2	6	1760	G
2	6	1762	A
2	6	1766	A
2	6	1767	G
2	6	1769	U
2	6	1770	U
2	6	1780	G
2	6	1782	A
2	6	1783	C
2	6	1792	G
2	6	1793	G
2	6	1794	A

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Mol	Chain	Res	Type
2	6	1795	U
2	6	1796	C
2	6	1799	U
2	6	1800	A
3	7	7	G
3	7	22	A
3	7	33	U
3	7	38	U
3	7	54	U
3	7	55	A
3	7	65	G
3	7	73	C
3	7	74	C
3	7	76	A
3	7	93	C
3	7	101	G
3	7	102	A
3	7	103	A
3	7	112	G
4	8	21	C
4	8	22	U
4	8	34	U
4	8	35	C
4	8	48	A
4	8	51	G
4	8	52	A
4	8	59	A
4	8	62	C
4	8	63	G
4	8	79	A
4	8	80	A
4	8	81	U
4	8	82	U
4	8	83	C
4	8	84	C
4	8	86	U
4	8	87	G
4	8	90	U
4	8	95	G
4	8	104	A
4	8	106	C
4	8	111	A

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Mol	Chain	Res	Type
4	8	113	U
4	8	116	G
4	8	125	U
4	8	126	A
4	8	127	U
4	8	138	A
4	8	152	G
4	8	156	U
4	8	157	U
4	8	158	U

All (296) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1	40	A
1	1	43	A
1	1	65	A
1	1	232	G
1	1	239	G
1	1	240	U
1	1	252	U
1	1	282	G
1	1	518	G
1	1	545	U
1	1	546	C
1	1	558	U
1	1	594	U
1	1	636	C
1	1	637	C
1	1	715	A
1	1	763	G
1	1	764	U
1	1	816	A
1	1	873	C
1	1	916	G
1	1	979	U
1	1	981	U
1	1	993	G
1	1	1000	C
1	1	1014	U
1	1	1015	U
1	1	1017	C

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Mol	Chain	Res	Type
1	1	1024	G
1	1	1028	U
1	1	1029	G
1	1	1064	A
1	1	1081	U
1	1	1094	U
1	1	1097	G
1	1	1103	A
1	1	1201	C
1	1	1284	C
1	1	1307	G
1	1	1329	U
1	1	1355	A
1	1	1484	U
1	1	1514	G
1	1	1554	U
1	1	1556	C
1	1	1562	C
1	1	1568	U
1	1	1571	A
1	1	1572	U
1	1	1581	C
1	1	1582	C
1	1	1607	U
1	1	1716	U
1	1	1762	C
1	1	1815	U
1	1	1816	A
1	1	1820	U
1	1	2101	C
1	1	2112	U
1	1	2208	A
1	1	2209	U
1	1	2227	C
1	1	2249	G
1	1	2255	A
1	1	2256	A
1	1	2372	A
1	1	2400	G
1	1	2418	G
1	1	2513	U
1	1	2522	G

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Mol	Chain	Res	Type
1	1	2525	G
1	1	2537	U
1	1	2538	U
1	1	2541	U
1	1	2554	A
1	1	2566	C
1	1	2570	U
1	1	2571	U
1	1	2585	G
1	1	2593	A
1	1	2689	A
1	1	2801	A
1	1	2818	U
1	1	3078	U
1	1	3121	U
1	1	3157	U
1	1	3169	U
1	1	3218	A
1	1	3228	C
1	1	3238	G
1	1	3259	U
1	1	3269	U
1	1	3316	A
1	1	3317	U
1	1	3350	C
1	1	3351	U
1	1	3353	G
1	1	3375	A
1	1	3389	U
2	2	1	U
2	2	25	C
2	2	68	A
2	2	72	A
2	2	73	U
2	2	74	U
2	2	76	A
2	2	103	A
2	2	114	C
2	2	139	C
2	2	144	U
2	2	158	U
2	2	187	G

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Mol	Chain	Res	Type
2	2	232	U
2	2	240	U
2	2	278	U
2	2	280	U
2	2	319	U
2	2	321	C
2	2	417	A
2	2	484	C
2	2	497	G
2	2	499	U
2	2	501	U
2	2	503	G
2	2	512	A
2	2	555	A
2	2	558	U
2	2	622	A
2	2	685	A
2	2	704	C
2	2	720	G
2	2	721	U
2	2	734	A
2	2	755	A
2	2	781	U
2	2	782	U
2	2	794	U
2	2	913	G
2	2	1051	G
2	2	1081	A
2	2	1150	G
2	2	1157	A
2	2	1196	A
2	2	1207	C
2	2	1226	A
2	2	1244	A
2	2	1250	U
2	2	1285	U
2	2	1286	U
2	2	1339	C
2	2	1344	A
2	2	1370	U
2	2	1410	A
2	2	1481	C

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Mol	Chain	Res	Type
2	2	1489	U
2	2	1490	C
2	2	1491	U
2	2	1568	C
2	2	1573	A
2	2	1615	C
2	2	1761	U
3	3	52	G
4	4	83	C
4	4	85	G
4	4	111	A
4	4	125	U
1	5	65	A
1	5	151	A
1	5	282	G
1	5	636	C
1	5	715	A
1	5	726	G
1	5	735	A
1	5	765	C
1	5	816	A
1	5	873	C
1	5	916	G
1	5	979	U
1	5	993	G
1	5	1064	A
1	5	1081	U
1	5	1152	G
1	5	1154	A
1	5	1284	C
1	5	1285	G
1	5	1307	G
1	5	1329	U
1	5	1355	A
1	5	1481	A
1	5	1581	C
1	5	1582	C
1	5	1607	U
1	5	1630	U
1	5	1716	U
1	5	1724	U
1	5	1816	A

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Mol	Chain	Res	Type
1	5	1819	U
1	5	2101	C
1	5	2112	U
1	5	2204	C
1	5	2205	U
1	5	2206	G
1	5	2209	U
1	5	2249	G
1	5	2255	A
1	5	2257	C
1	5	2268	U
1	5	2272	G
1	5	2281	A
1	5	2373	A
1	5	2512	C
1	5	2513	U
1	5	2522	G
1	5	2537	U
1	5	2568	C
1	5	2569	A
1	5	2593	A
1	5	2662	G
1	5	2682	C
1	5	2772	C
1	5	2801	A
1	5	2817	A
1	5	2818	U
1	5	2872	A
1	5	3078	U
1	5	3121	U
1	5	3195	U
1	5	3218	A
1	5	3228	C
1	5	3269	U
1	5	3275	U
1	5	3317	U
1	5	3340	G
1	5	3341	U
1	5	3353	G
1	5	3395	G
2	6	66	U
2	6	75	U

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Mol	Chain	Res	Type
2	6	76	A
2	6	77	U
2	6	78	A
2	6	103	A
2	6	114	C
2	6	130	C
2	6	137	U
2	6	139	C
2	6	158	U
2	6	187	G
2	6	192	U
2	6	217	A
2	6	238	U
2	6	240	U
2	6	272	U
2	6	277	U
2	6	319	U
2	6	417	A
2	6	488	G
2	6	490	C
2	6	512	A
2	6	542	A
2	6	555	A
2	6	557	G
2	6	558	U
2	6	652	G
2	6	694	U
2	6	695	U
2	6	741	C
2	6	755	A
2	6	781	U
2	6	827	C
2	6	856	A
2	6	1051	G
2	6	1058	U
2	6	1097	U
2	6	1196	A
2	6	1207	C
2	6	1227	A
2	6	1284	C
2	6	1344	A
2	6	1346	A

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Mol	Chain	Res	Type
2	6	1413	U
2	6	1481	C
2	6	1489	U
2	6	1493	A
2	6	1535	U
2	6	1568	C
2	6	1573	A
2	6	1615	C
2	6	1620	C
2	6	1637	C
2	6	1657	U
3	7	86	U
4	8	80	A
4	8	81	U
4	8	82	U
4	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 1407 ligands modelled in this entry, 1382 are monoatomic - leaving 25 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	$\# Z > 2$
81	8UZ	1	3894	-	35,35,35	0.34	0	49,52,52	1.41	5 (10%)
81	8UZ	1	3892	-	35,35,35	0.44	0	49,52,52	1.35	4 (8%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
81	8UZ	5	3851	-	35,35,35	0.25	0	49,52,52	1.12	5 (10%)
81	8UZ	6	2061	-	35,35,35	0.36	0	49,52,52	1.51	7 (14%)
81	8UZ	5	3853	-	35,35,35	0.31	0	49,52,52	1.23	6 (12%)
81	8UZ	2	2030	-	35,35,35	0.26	0	49,52,52	1.21	4 (8%)
81	8UZ	1	3886	-	35,35,35	0.37	0	49,52,52	1.28	5 (10%)
81	8UZ	5	3857	-	35,35,35	0.36	0	49,52,52	0.96	3 (6%)
81	8UZ	5	3854	-	35,35,35	0.34	0	49,52,52	1.79	6 (12%)
81	8UZ	2	2031	-	35,35,35	0.37	0	49,52,52	1.02	3 (6%)
81	8UZ	1	3895	-	35,35,35	0.34	0	49,52,52	1.27	7 (14%)
81	8UZ	5	3855	-	35,35,35	0.35	0	49,52,52	1.28	8 (16%)
81	8UZ	1	3887	-	35,35,35	0.42	0	49,52,52	1.30	3 (6%)
81	8UZ	2	2029	-	35,35,35	0.36	0	49,52,52	1.36	6 (12%)
81	8UZ	7	209	-	35,35,35	0.43	0	49,52,52	1.21	6 (12%)
81	8UZ	4	220	-	35,35,35	0.54	0	49,52,52	1.56	8 (16%)
81	8UZ	3	214	-	35,35,35	0.44	0	49,52,52	1.58	7 (14%)
81	8UZ	1	3893	-	35,35,35	0.54	0	49,52,52	0.96	3 (6%)
81	8UZ	1	3890	-	35,35,35	0.35	0	49,52,52	1.32	4 (8%)
81	8UZ	1	3889	-	35,35,35	0.19	0	49,52,52	0.80	2 (4%)
81	8UZ	5	3850	-	35,35,35	0.31	0	49,52,52	1.08	3 (6%)
81	8UZ	1	3891	-	35,35,35	0.36	0	49,52,52	1.37	7 (14%)
81	8UZ	1	3888	-	35,35,35	0.33	0	49,52,52	1.05	3 (6%)
81	8UZ	5	3856	-	35,35,35	0.28	0	49,52,52	1.45	7 (14%)
81	8UZ	5	3852	-	35,35,35	0.36	0	49,52,52	1.23	3 (6%)

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
81	8UZ	1	3894	-	-	3/12/72/72	0/3/3/3
81	8UZ	1	3892	-	-	4/12/72/72	0/3/3/3
81	8UZ	5	3851	-	-	4/12/72/72	0/3/3/3
81	8UZ	6	2061	-	-	5/12/72/72	0/3/3/3
81	8UZ	5	3853	-	-	6/12/72/72	0/3/3/3
81	8UZ	2	2030	-	-	5/12/72/72	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
81	8UZ	1	3886	-	-	4/12/72/72	0/3/3/3
81	8UZ	5	3857	-	-	7/12/72/72	0/3/3/3
81	8UZ	5	3854	-	-	5/12/72/72	0/3/3/3
81	8UZ	2	2031	-	-	3/12/72/72	0/3/3/3
81	8UZ	1	3895	-	-	7/12/72/72	0/3/3/3
81	8UZ	5	3855	-	-	6/12/72/72	0/3/3/3
81	8UZ	1	3887	-	-	9/12/72/72	0/3/3/3
81	8UZ	2	2029	-	-	10/12/72/72	0/3/3/3
81	8UZ	7	209	-	-	7/12/72/72	0/3/3/3
81	8UZ	4	220	-	-	6/12/72/72	0/3/3/3
81	8UZ	3	214	-	-	4/12/72/72	0/3/3/3
81	8UZ	1	3893	-	-	4/12/72/72	0/3/3/3
81	8UZ	1	3890	-	-	6/12/72/72	0/3/3/3
81	8UZ	1	3889	-	-	1/12/72/72	0/3/3/3
81	8UZ	5	3850	-	-	3/12/72/72	0/3/3/3
81	8UZ	1	3891	-	-	8/12/72/72	0/3/3/3
81	8UZ	1	3888	-	-	7/12/72/72	0/3/3/3
81	8UZ	5	3856	-	-	5/12/72/72	0/3/3/3
81	8UZ	5	3852	-	-	3/12/72/72	0/3/3/3

There are no bond length outliers.

All (125) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	5	3854	8UZ	C2-C15-N4	7.37	123.48	110.20
81	5	3854	8UZ	C14-C13-C12	-6.83	96.24	111.06
81	6	2061	8UZ	C2-C15-N4	6.73	122.33	110.20
81	1	3894	8UZ	C2-C15-N4	5.79	120.64	110.20
81	3	214	8UZ	O1-C2-C15	5.52	117.72	108.22
81	1	3887	8UZ	C14-C13-C12	-5.44	99.26	111.06
81	1	3892	8UZ	C2-C15-N4	5.34	119.82	110.20
81	5	3852	8UZ	O1-C2-C15	-5.17	99.31	108.22
81	3	214	8UZ	C14-C13-C12	-5.10	99.98	111.06
81	2	2030	8UZ	C2-C15-N4	5.03	119.26	110.20
81	5	3856	8UZ	C2-C15-N4	4.90	119.03	110.20
81	1	3887	8UZ	C2-C15-N4	4.79	118.84	110.20
81	5	3850	8UZ	O1-C2-C15	4.76	116.41	108.22
81	4	220	8UZ	C2-C15-N4	4.65	118.58	110.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	1	3891	8UZ	O1-C3-C4	4.60	120.15	109.18
81	1	3890	8UZ	C2-C15-N4	4.49	118.29	110.20
81	1	3886	8UZ	C2-C15-N4	4.48	118.27	110.20
81	1	3891	8UZ	C2-C15-N4	4.37	118.07	110.20
81	2	2029	8UZ	C2-C15-N4	4.11	117.62	110.20
81	4	220	8UZ	C9-C14-C13	-4.00	105.03	110.40
81	1	3890	8UZ	O1-C2-C15	3.97	115.05	108.22
81	5	3856	8UZ	C6-C5-C4	-3.89	103.20	111.18
81	1	3895	8UZ	C2-C15-N4	3.88	117.19	110.20
81	4	220	8UZ	C8-C3-C4	3.84	118.33	111.16
81	2	2029	8UZ	C9-C14-C13	3.78	115.47	110.40
81	5	3850	8UZ	C2-C15-N4	3.77	116.99	110.20
81	5	3851	8UZ	O1-C2-C15	3.74	114.65	108.22
81	7	209	8UZ	C2-C15-N4	3.72	116.91	110.20
81	5	3853	8UZ	C2-C15-N4	3.68	116.83	110.20
81	5	3856	8UZ	C14-C13-C12	-3.59	103.26	111.06
81	1	3894	8UZ	O1-C3-C4	3.55	117.64	109.18
81	1	3886	8UZ	C14-C13-C12	-3.48	103.51	111.06
81	1	3892	8UZ	O1-C3-C4	3.46	117.42	109.18
81	5	3854	8UZ	O1-C2-C15	3.41	114.09	108.22
81	1	3893	8UZ	C2-C15-N4	3.40	116.33	110.20
81	5	3852	8UZ	C2-C15-N4	3.35	116.23	110.20
81	1	3888	8UZ	C2-C15-N4	3.34	116.22	110.20
81	1	3890	8UZ	C14-C13-C12	-3.32	103.86	111.06
81	6	2061	8UZ	C9-C14-C13	3.32	114.85	110.40
81	2	2029	8UZ	C14-C13-C12	3.31	118.24	111.06
81	1	3892	8UZ	O1-C2-C15	3.30	113.90	108.22
81	2	2031	8UZ	C8-C3-C4	3.26	117.24	111.16
81	1	3891	8UZ	O3-C8-C7	3.23	115.87	107.28
81	1	3892	8UZ	C14-C13-C12	-3.19	104.13	111.06
81	3	214	8UZ	O-C2-C15	3.19	117.24	110.06
81	7	209	8UZ	O-C2-C15	3.19	117.22	110.06
81	5	3853	8UZ	C9-C14-C13	-3.12	106.20	110.40
81	6	2061	8UZ	O1-C3-C4	3.11	116.60	109.18
81	5	3855	8UZ	C2-C15-N4	3.10	115.79	110.20
81	2	2029	8UZ	O3-C8-C7	3.10	115.53	107.28
81	3	214	8UZ	C2-C15-N4	3.08	115.75	110.20
81	5	3851	8UZ	C2-C15-N4	3.07	115.74	110.20
81	5	3856	8UZ	C8-C7-C6	3.06	117.10	109.63
81	5	3855	8UZ	C14-C13-C12	-3.01	104.52	111.06
81	5	3853	8UZ	O3-C9-C14	2.99	115.85	108.10
81	3	214	8UZ	O1-C3-C4	2.97	116.25	109.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	5	3854	8UZ	C9-O4-C10	2.94	119.45	113.69
81	1	3894	8UZ	O1-C2-C15	2.88	113.17	108.22
81	4	220	8UZ	O3-C8-C7	2.87	114.92	107.28
81	5	3855	8UZ	C8-C7-C6	-2.85	102.68	109.63
81	1	3895	8UZ	C9-O3-C8	2.76	124.80	117.96
81	6	2061	8UZ	O1-C2-C15	2.74	112.94	108.22
81	5	3856	8UZ	C7-C8-C3	2.74	117.92	111.66
81	1	3891	8UZ	O1-C2-C15	2.73	112.91	108.22
81	4	220	8UZ	O3-C9-O4	2.67	118.14	110.67
81	5	3855	8UZ	C5-C6-C7	-2.67	106.01	110.04
81	5	3853	8UZ	C6-C5-C4	-2.64	105.77	111.18
81	6	2061	8UZ	C9-O4-C10	2.63	118.85	113.69
81	5	3855	8UZ	O1-C2-C15	2.63	112.75	108.22
81	2	2031	8UZ	C2-C15-N4	2.63	114.94	110.20
81	1	3895	8UZ	O3-C9-C14	2.62	114.88	108.10
81	5	3855	8UZ	C6-C5-C4	-2.61	105.82	111.18
81	1	3895	8UZ	O1-C2-C15	2.60	112.69	108.22
81	1	3894	8UZ	C9-C14-C13	2.59	113.87	110.40
81	5	3851	8UZ	O1-C3-C4	2.56	115.27	109.18
81	7	209	8UZ	C16-C17-C1	-2.55	105.69	110.24
81	4	220	8UZ	O1-C2-C15	2.54	112.59	108.22
81	5	3857	8UZ	O1-C3-C4	2.53	115.22	109.18
81	2	2029	8UZ	C8-C7-C6	-2.53	103.46	109.63
81	5	3855	8UZ	O2-C7-C8	2.49	116.53	109.94
81	6	2061	8UZ	C17-C16-C15	-2.47	106.83	111.07
81	1	3893	8UZ	C14-C13-C12	2.46	116.39	111.06
81	1	3886	8UZ	C9-O3-C8	2.42	123.96	117.96
81	5	3856	8UZ	C8-C3-C4	2.41	115.67	111.16
81	5	3853	8UZ	C14-C13-C12	-2.40	105.84	111.06
81	3	214	8UZ	C9-O4-C10	2.38	118.37	113.69
81	1	3894	8UZ	C16-C17-C1	2.37	114.47	110.24
81	5	3857	8UZ	C6-C5-C4	2.36	116.02	111.18
81	1	3889	8UZ	C14-C13-C12	-2.34	105.97	111.06
81	5	3856	8UZ	C17-C16-C15	-2.31	107.09	111.07
81	7	209	8UZ	C17-C16-C15	-2.30	107.12	111.07
81	4	220	8UZ	O1-C3-C8	-2.28	101.69	107.48
81	5	3851	8UZ	O-C2-C15	2.27	115.17	110.06
81	2	2030	8UZ	O1-C3-C8	2.26	113.23	107.48
81	5	3855	8UZ	O3-C8-C3	2.25	113.20	107.48
81	2	2030	8UZ	O3-C8-C7	-2.24	101.31	107.28
81	1	3893	8UZ	C6-C5-C4	2.24	115.79	111.18
81	6	2061	8UZ	O4-C9-C14	2.24	115.09	110.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	5	3851	8UZ	C14-C13-C12	-2.22	106.23	111.06
81	1	3895	8UZ	C6-C5-C4	-2.21	106.64	111.18
81	5	3853	8UZ	C9-O3-C8	2.19	123.39	117.96
81	5	3850	8UZ	C14-C13-C12	-2.18	106.32	111.06
81	1	3888	8UZ	C8-C7-C6	2.17	114.92	109.63
81	7	209	8UZ	O1-C2-C15	2.17	111.95	108.22
81	5	3852	8UZ	O-C1-C17	2.17	113.63	109.69
81	1	3891	8UZ	C9-C14-C13	-2.17	107.49	110.40
81	3	214	8UZ	C2-O-C1	2.16	117.93	113.69
81	1	3886	8UZ	O3-C8-C3	2.16	112.96	107.48
81	2	2029	8UZ	O2-C7-C8	2.16	115.66	109.94
81	1	3887	8UZ	O1-C3-C4	2.12	114.23	109.18
81	1	3890	8UZ	O1-C3-C4	2.11	114.21	109.18
81	2	2030	8UZ	O3-C8-C3	2.08	112.75	107.48
81	1	3889	8UZ	O1-C2-C15	-2.07	104.64	108.22
81	1	3891	8UZ	C7-C8-C3	-2.07	106.94	111.66
81	5	3854	8UZ	C8-C3-C4	2.06	115.01	111.16
81	5	3857	8UZ	O-C2-C15	2.06	114.69	110.06
81	5	3854	8UZ	C9-C14-C13	-2.06	107.63	110.40
81	2	2031	8UZ	O3-C8-C3	2.05	112.70	107.48
81	1	3888	8UZ	O1-C3-C4	-2.05	104.28	109.18
81	7	209	8UZ	O9-C17-C1	2.05	114.39	109.30
81	1	3895	8UZ	O3-C8-C7	-2.04	101.84	107.28
81	1	3895	8UZ	C8-C7-C6	2.04	114.62	109.63
81	4	220	8UZ	C14-C13-C12	-2.04	106.62	111.06
81	1	3886	8UZ	O1-C2-C15	2.02	111.70	108.22
81	1	3891	8UZ	O3-C9-C14	2.01	113.32	108.10

There are no chirality outliers.

All (132) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
81	3	214	8UZ	N-C-C1-O
81	3	214	8UZ	C15-C2-O1-C3
81	2	2029	8UZ	N-C-C1-C17
81	2	2029	8UZ	N-C-C1-O
81	2	2029	8UZ	C15-C2-O1-C3
81	1	3890	8UZ	C15-C2-O1-C3
81	5	3854	8UZ	N-C-C1-O
81	5	3854	8UZ	C15-C2-O1-C3
81	1	3888	8UZ	N-C-C1-O
81	1	3895	8UZ	C14-C9-O3-C8

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Mol	Chain	Res	Type	Atoms
81	1	3895	8UZ	N-C-C1-C17
81	1	3895	8UZ	N-C-C1-O
81	4	220	8UZ	N-C-C1-C17
81	4	220	8UZ	N-C-C1-O
81	4	220	8UZ	C15-C2-O1-C3
81	5	3853	8UZ	C14-C9-O3-C8
81	5	3853	8UZ	N-C-C1-O
81	1	3887	8UZ	N-C-C1-C17
81	1	3887	8UZ	N-C-C1-O
81	1	3887	8UZ	C15-C2-O1-C3
81	1	3892	8UZ	C15-C2-O1-C3
81	1	3891	8UZ	C14-C9-O3-C8
81	1	3891	8UZ	N-C-C1-C17
81	1	3891	8UZ	N-C-C1-O
81	1	3891	8UZ	C15-C2-O1-C3
81	1	3886	8UZ	C14-C9-O3-C8
81	5	3855	8UZ	N-C-C1-C17
81	5	3855	8UZ	N-C-C1-O
81	2	2030	8UZ	C14-C9-O3-C8
81	1	3893	8UZ	N-C-C1-C17
81	1	3893	8UZ	N-C-C1-O
81	5	3852	8UZ	N-C-C1-C17
81	5	3857	8UZ	N-C-C1-C17
81	5	3857	8UZ	N-C-C1-O
81	5	3857	8UZ	C4-C3-O1-C2
81	6	2061	8UZ	C15-C2-O1-C3
81	7	209	8UZ	N-C-C1-O
81	7	209	8UZ	C15-C2-O1-C3
81	5	3856	8UZ	N-C-C1-C17
81	5	3856	8UZ	N-C-C1-O
81	5	3856	8UZ	C15-C2-O1-C3
81	2	2029	8UZ	O4-C9-O3-C8
81	5	3854	8UZ	O-C2-O1-C3
81	2	2031	8UZ	O4-C9-O3-C8
81	6	2061	8UZ	O-C2-O1-C3
81	1	3886	8UZ	O4-C9-O3-C8
81	2	2030	8UZ	O4-C9-O3-C8
81	2	2029	8UZ	C14-C9-O3-C8
81	5	3857	8UZ	O4-C9-O3-C8
81	5	3857	8UZ	C14-C9-O3-C8
81	5	3850	8UZ	C12-C10-C11-O5
81	6	2061	8UZ	C14-C9-O3-C8

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Mol	Chain	Res	Type	Atoms
81	1	3887	8UZ	C12-C10-C11-O5
81	5	3850	8UZ	O4-C10-C11-O5
81	1	3894	8UZ	O4-C9-O3-C8
81	1	3887	8UZ	O4-C9-O3-C8
81	1	3887	8UZ	O-C2-O1-C3
81	1	3888	8UZ	O4-C9-O3-C8
81	6	2061	8UZ	O4-C9-O3-C8
81	1	3894	8UZ	C14-C9-O3-C8
81	7	209	8UZ	C12-C10-C11-O5
81	1	3888	8UZ	C14-C9-O3-C8
81	5	3853	8UZ	O4-C10-C11-O5
81	5	3855	8UZ	O4-C10-C11-O5
81	1	3888	8UZ	O-C2-O1-C3
81	1	3890	8UZ	O4-C10-C11-O5
81	7	209	8UZ	O4-C10-C11-O5
81	5	3854	8UZ	O4-C10-C11-O5
81	4	220	8UZ	O4-C10-C11-O5
81	1	3887	8UZ	O4-C10-C11-O5
81	1	3887	8UZ	C14-C9-O3-C8
81	2	2030	8UZ	O4-C10-C11-O5
81	5	3853	8UZ	C12-C10-C11-O5
81	1	3892	8UZ	C14-C9-O3-C8
81	2	2030	8UZ	C12-C10-C11-O5
81	4	220	8UZ	C12-C10-C11-O5
81	1	3890	8UZ	C12-C10-C11-O5
81	5	3854	8UZ	C12-C10-C11-O5
81	1	3892	8UZ	O4-C9-O3-C8
81	1	3891	8UZ	O4-C10-C11-O5
81	2	2031	8UZ	C3-C8-O3-C9
81	5	3853	8UZ	O-C2-O1-C3
81	5	3855	8UZ	C12-C10-C11-O5
81	1	3895	8UZ	O4-C10-C11-O5
81	5	3856	8UZ	O-C2-O1-C3
81	1	3891	8UZ	C8-C3-O1-C2
81	1	3888	8UZ	O4-C10-C11-O5
81	1	3893	8UZ	O4-C10-C11-O5
81	5	3851	8UZ	C12-C10-C11-O5
81	2	2029	8UZ	C8-C3-O1-C2
81	1	3891	8UZ	C12-C10-C11-O5
81	2	2029	8UZ	O4-C10-C11-O5
81	1	3889	8UZ	O4-C10-C11-O5
81	5	3852	8UZ	O4-C10-C11-O5

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Mol	Chain	Res	Type	Atoms
81	5	3851	8UZ	O4-C10-C11-O5
81	5	3853	8UZ	C8-C3-O1-C2
81	1	3894	8UZ	O4-C10-C11-O5
81	5	3850	8UZ	O-C2-O1-C3
81	2	2031	8UZ	C7-C8-O3-C9
81	7	209	8UZ	N-C-C1-C17
81	2	2029	8UZ	C3-C8-O3-C9
81	5	3857	8UZ	C8-C3-O1-C2
81	3	214	8UZ	C3-C8-O3-C9
81	1	3887	8UZ	C8-C3-O1-C2
81	3	214	8UZ	C7-C8-O3-C9
81	5	3857	8UZ	C12-C10-C11-O5
81	2	2029	8UZ	C7-C8-O3-C9
81	1	3895	8UZ	O4-C9-O3-C8
81	4	220	8UZ	C8-C3-O1-C2
81	5	3852	8UZ	C8-C3-O1-C2
81	1	3892	8UZ	N-C-C1-O
81	1	3886	8UZ	C12-C10-C11-O5
81	2	2030	8UZ	N-C-C1-C17
81	1	3895	8UZ	C15-C2-O1-C3
81	1	3888	8UZ	C7-C8-O3-C9
81	7	209	8UZ	C3-C8-O3-C9
81	5	3856	8UZ	C7-C8-O3-C9
81	5	3851	8UZ	O-C2-O1-C3
81	1	3888	8UZ	C3-C8-O3-C9
81	1	3890	8UZ	C14-C9-O3-C8
81	5	3855	8UZ	C7-C8-O3-C9
81	5	3855	8UZ	C3-C8-O3-C9
81	1	3890	8UZ	O-C2-O1-C3
81	6	2061	8UZ	C8-C3-O1-C2
81	7	209	8UZ	C7-C8-O3-C9
81	2	2029	8UZ	C4-C3-O1-C2
81	1	3891	8UZ	C4-C3-O1-C2
81	5	3851	8UZ	C3-C8-O3-C9
81	1	3886	8UZ	N-C-C1-C17
81	1	3890	8UZ	O4-C9-O3-C8
81	1	3893	8UZ	C15-C2-O1-C3
81	1	3895	8UZ	C12-C10-C11-O5

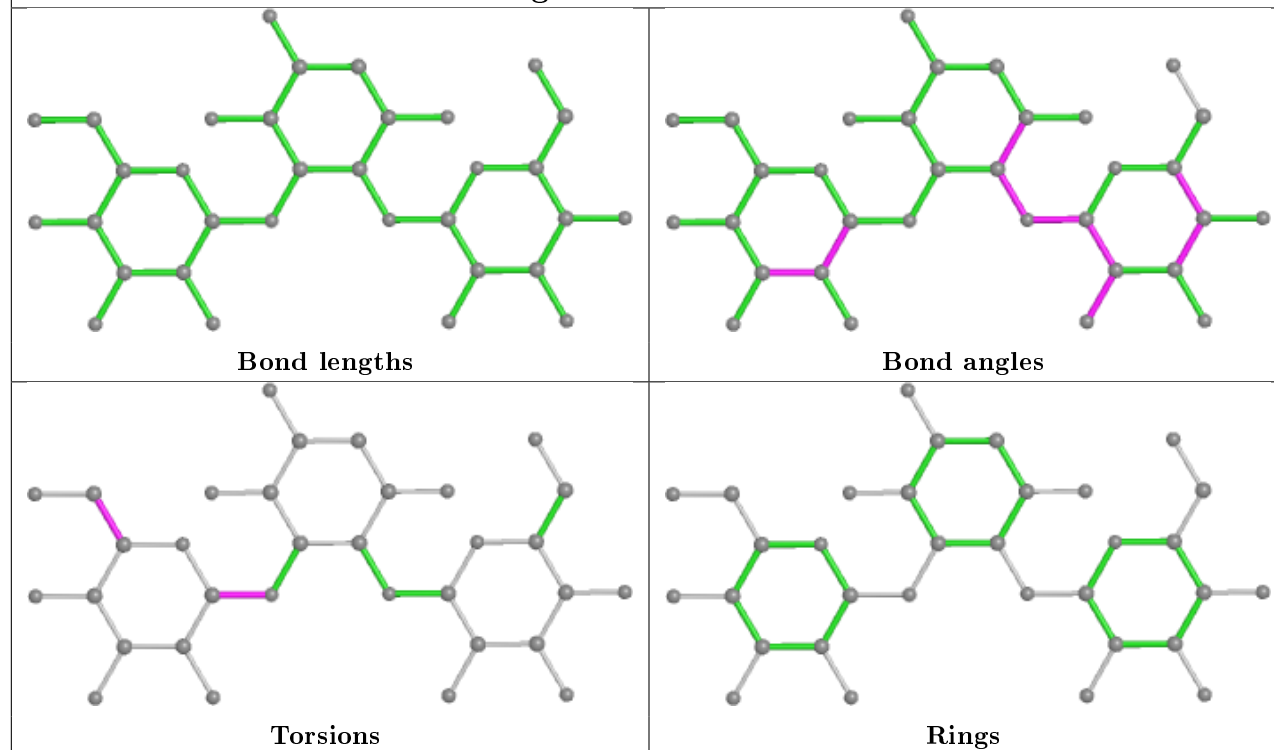
There are no ring outliers.

21 monomers are involved in 48 short contacts:

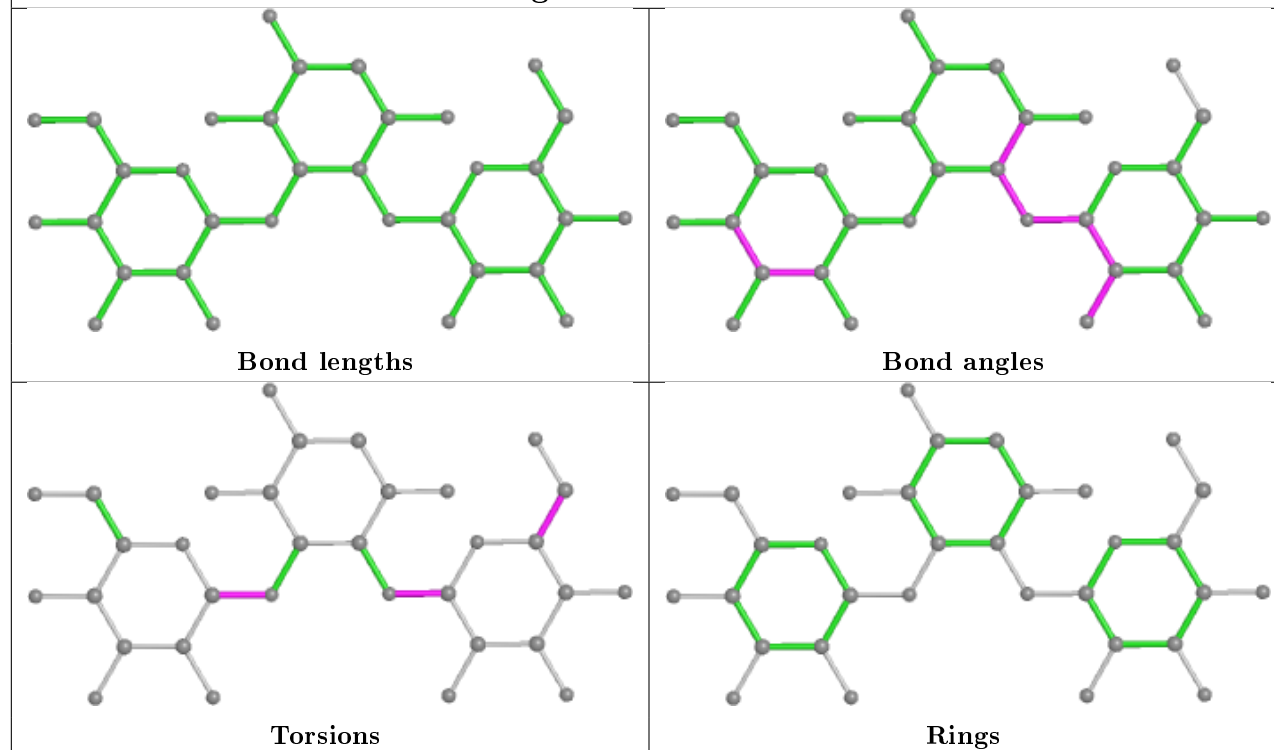
Mol	Chain	Res	Type	Clashes	Symm-Clashes
81	1	3894	8UZ	2	0
81	1	3892	8UZ	2	0
81	5	3851	8UZ	2	0
81	6	2061	8UZ	1	0
81	5	3853	8UZ	2	0
81	2	2030	8UZ	3	0
81	1	3886	8UZ	1	0
81	5	3857	8UZ	1	0
81	5	3854	8UZ	1	0
81	1	3895	8UZ	2	0
81	5	3855	8UZ	5	0
81	1	3887	8UZ	3	0
81	2	2029	8UZ	2	0
81	7	209	8UZ	2	0
81	4	220	8UZ	2	0
81	3	214	8UZ	6	0
81	1	3893	8UZ	4	0
81	1	3890	8UZ	1	0
81	1	3889	8UZ	1	0
81	1	3888	8UZ	4	0
81	5	3852	8UZ	1	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

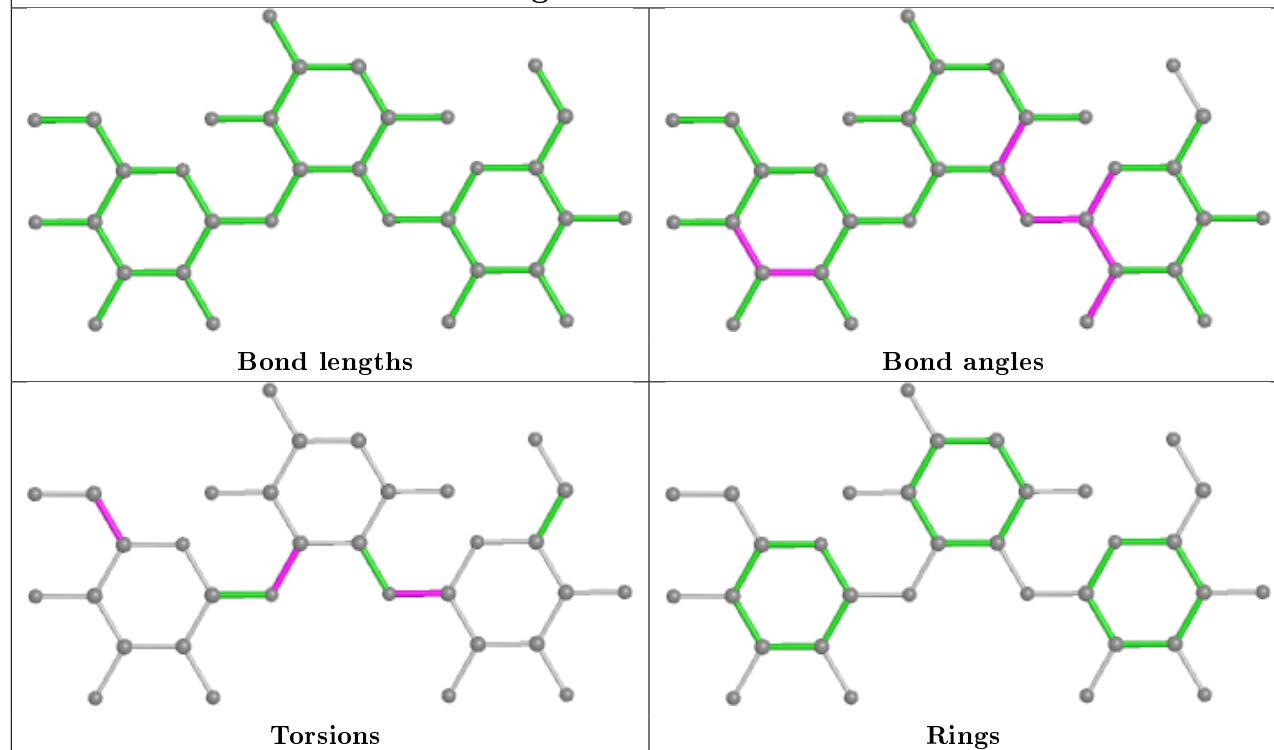
Ligand 8UZ 1 3894



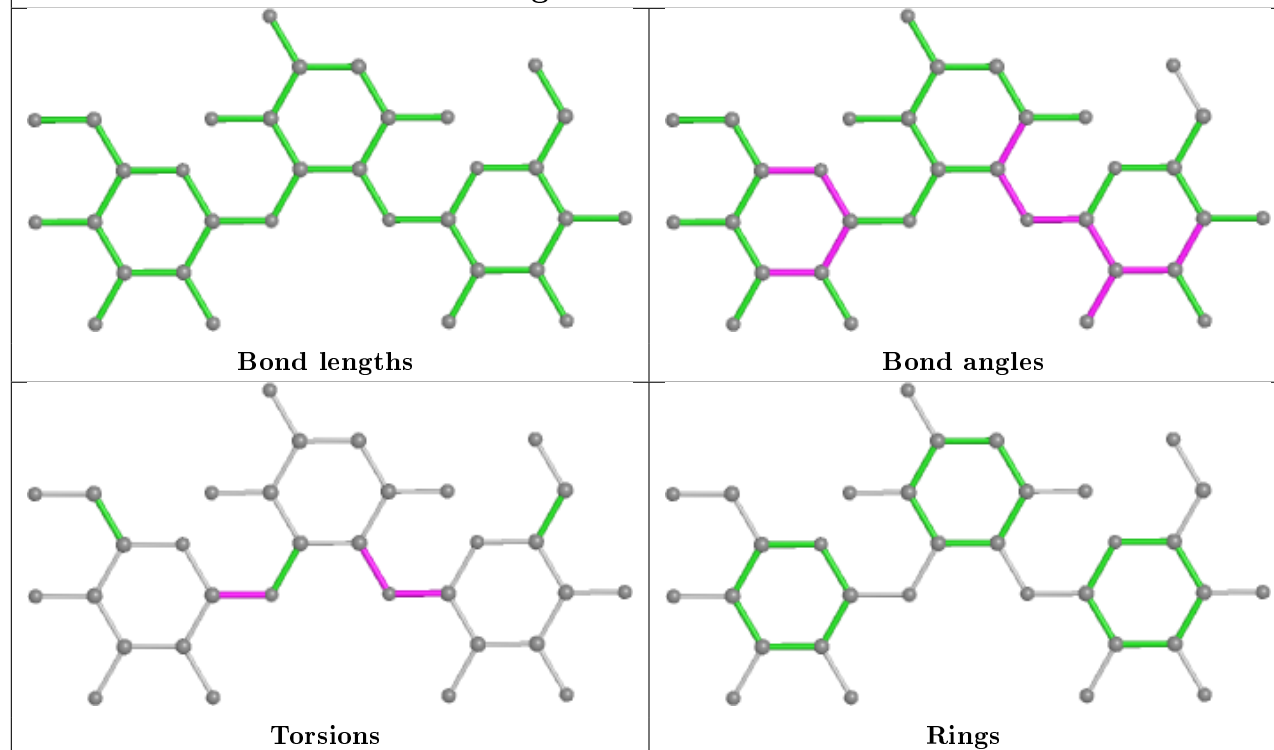
Ligand 8UZ 1 3892

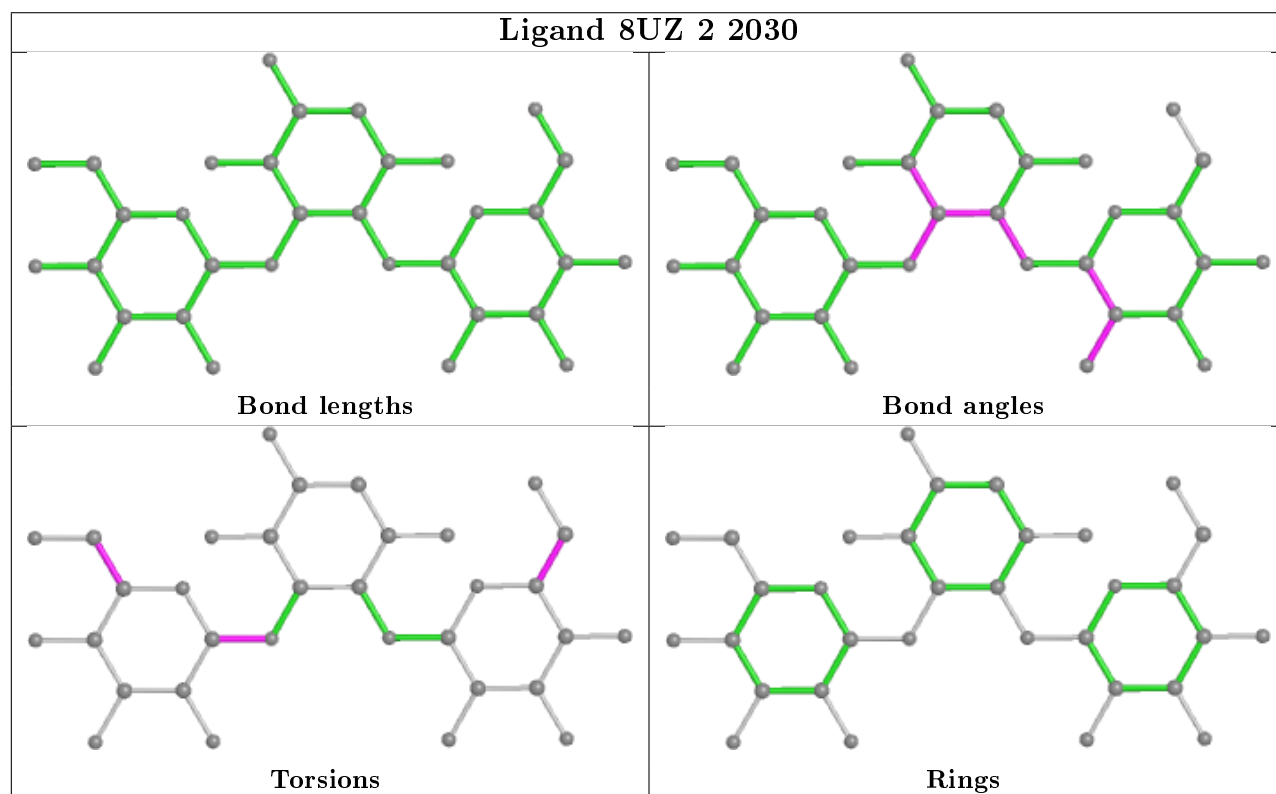
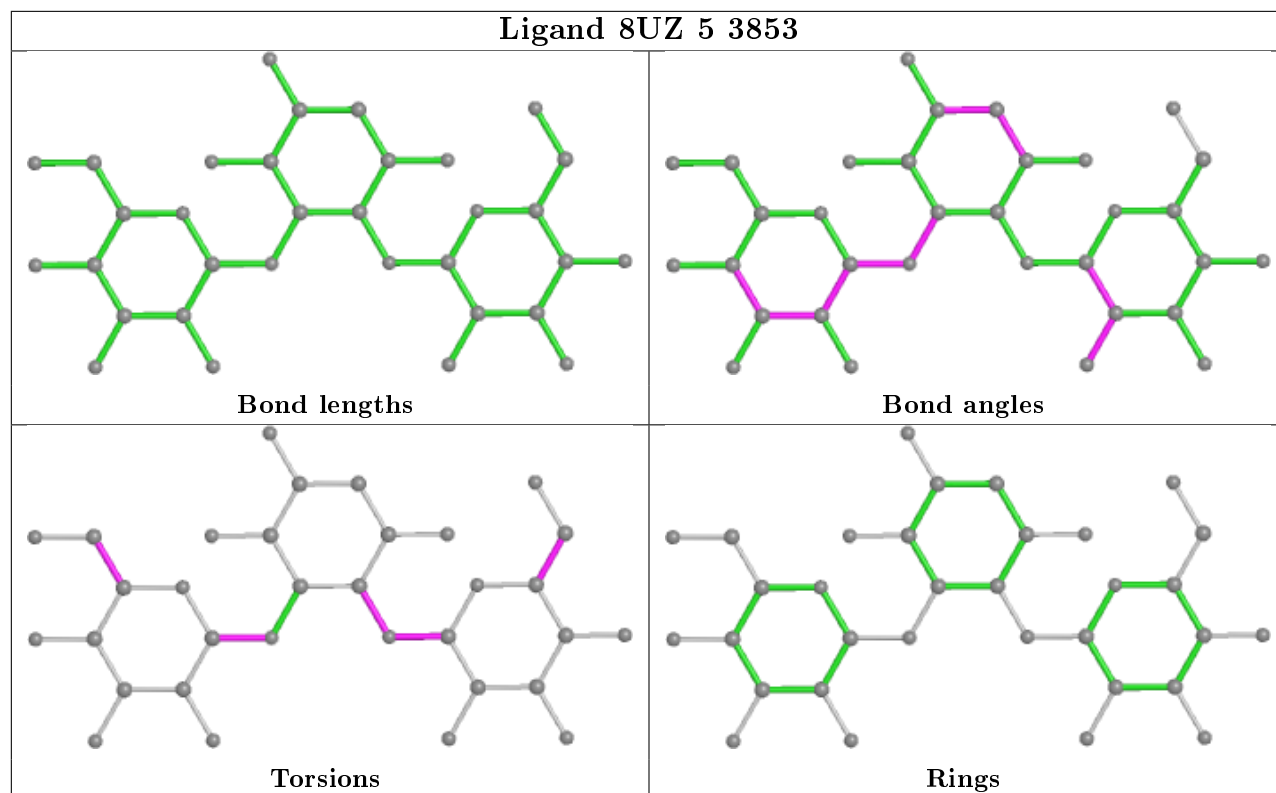


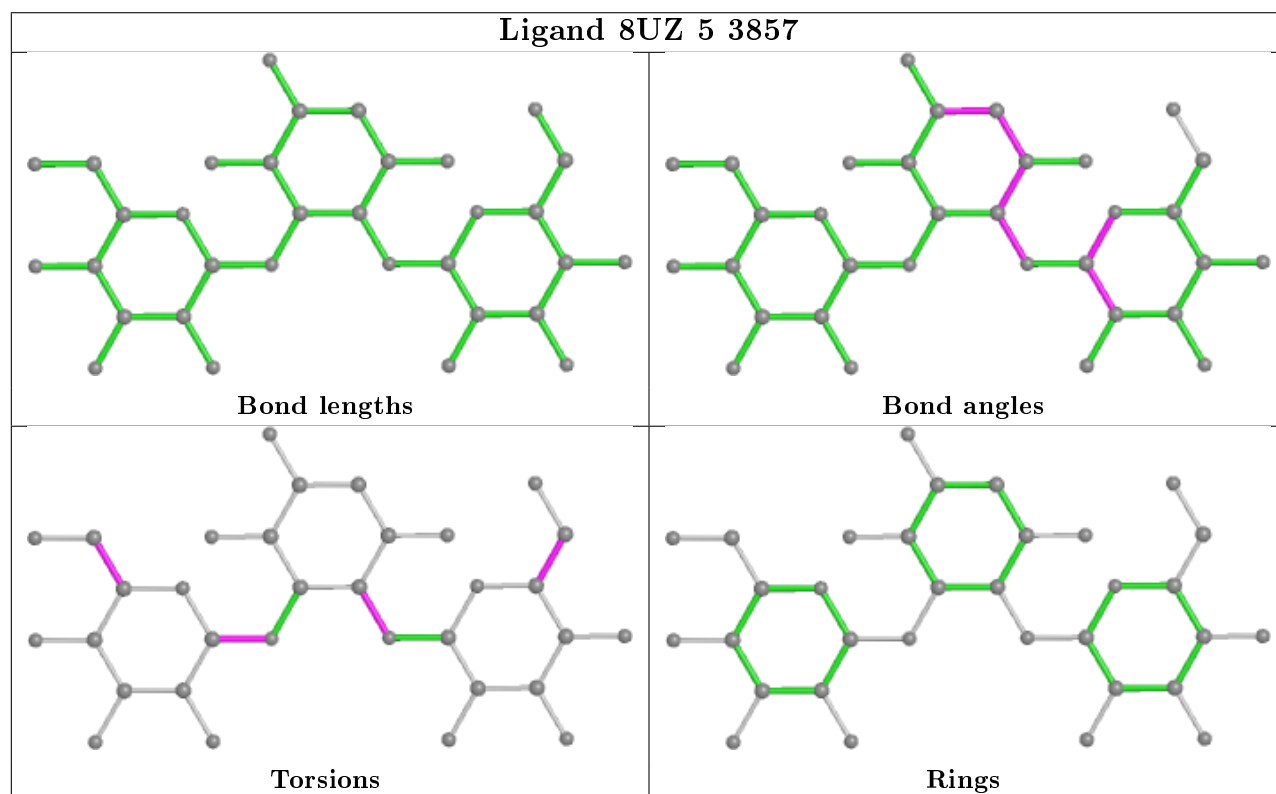
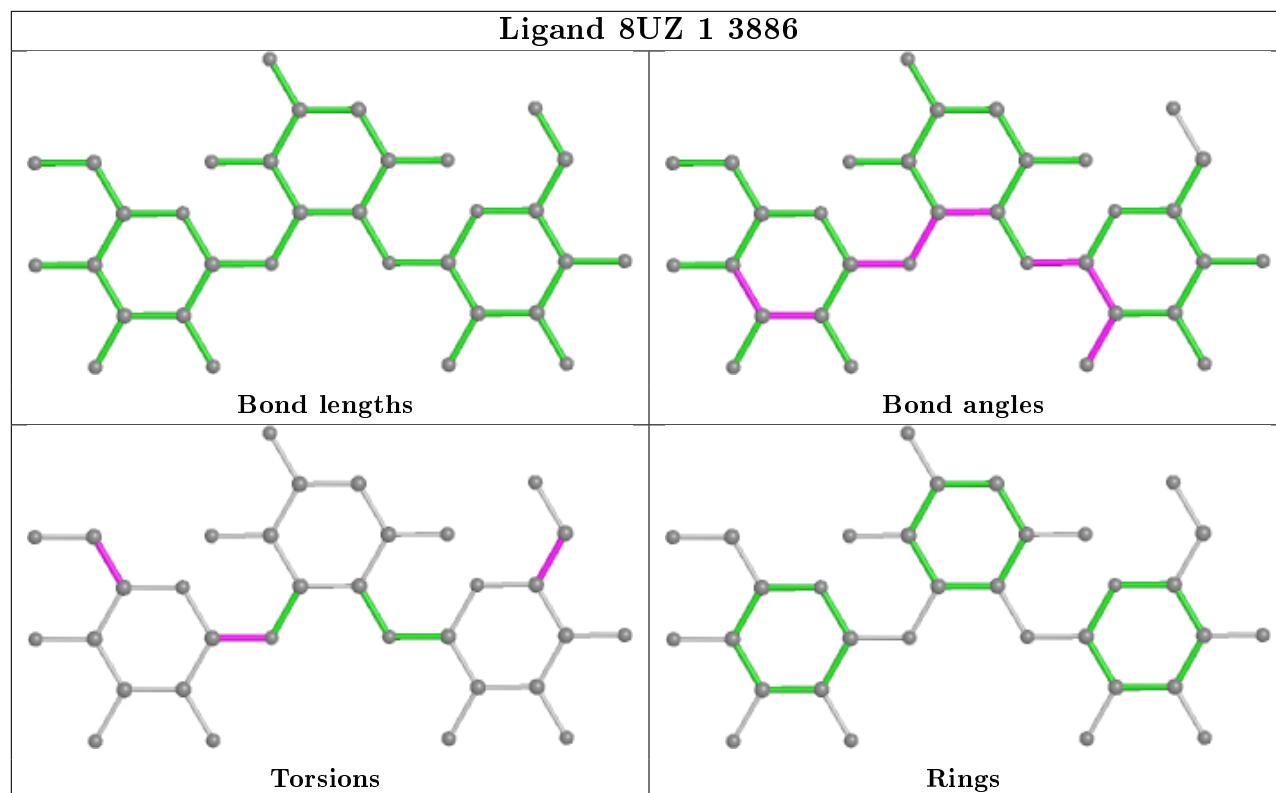
Ligand 8UZ 5 3851

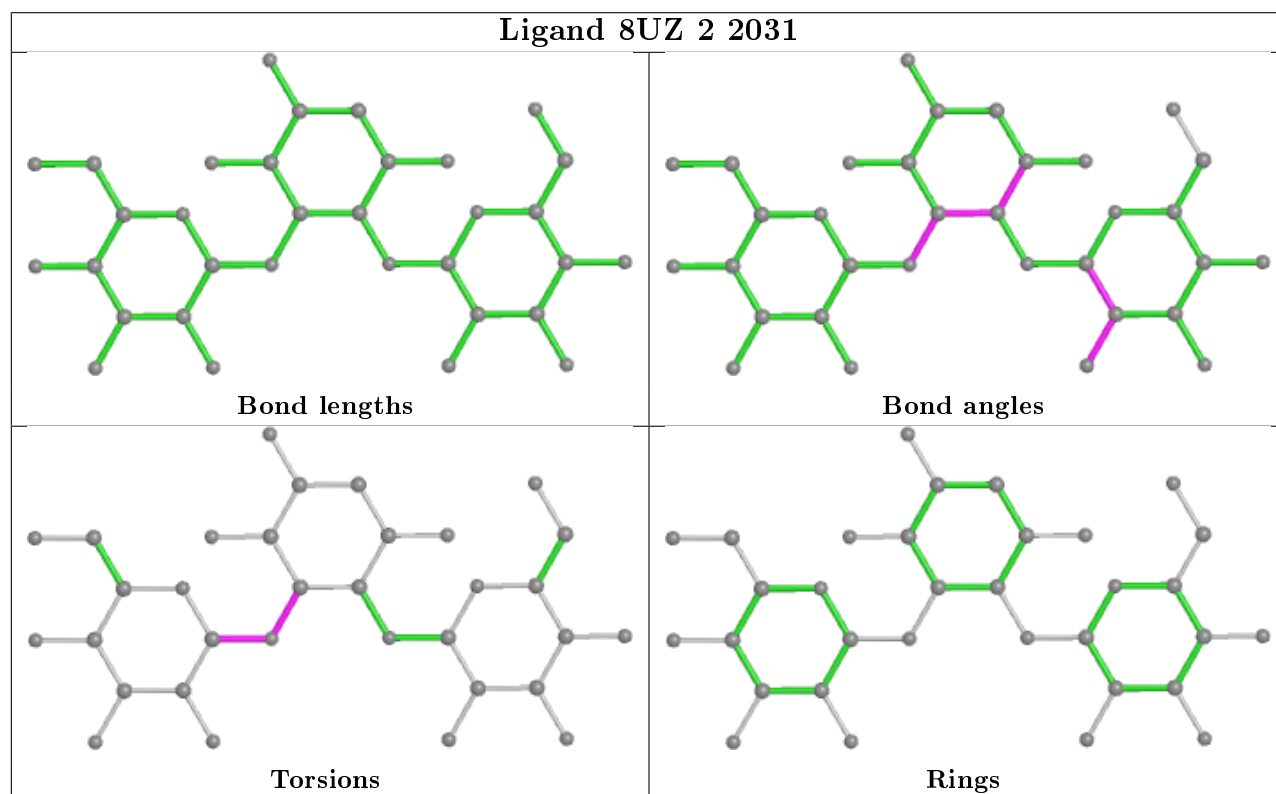
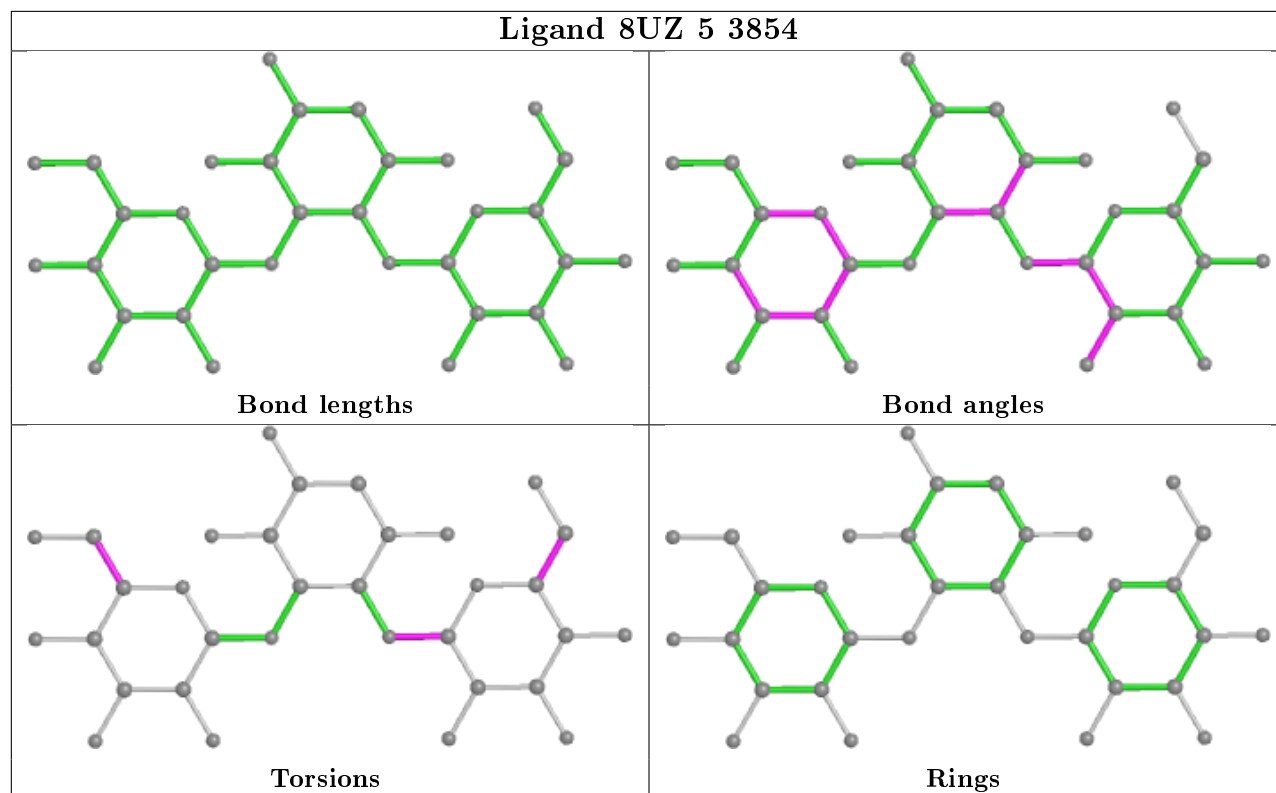


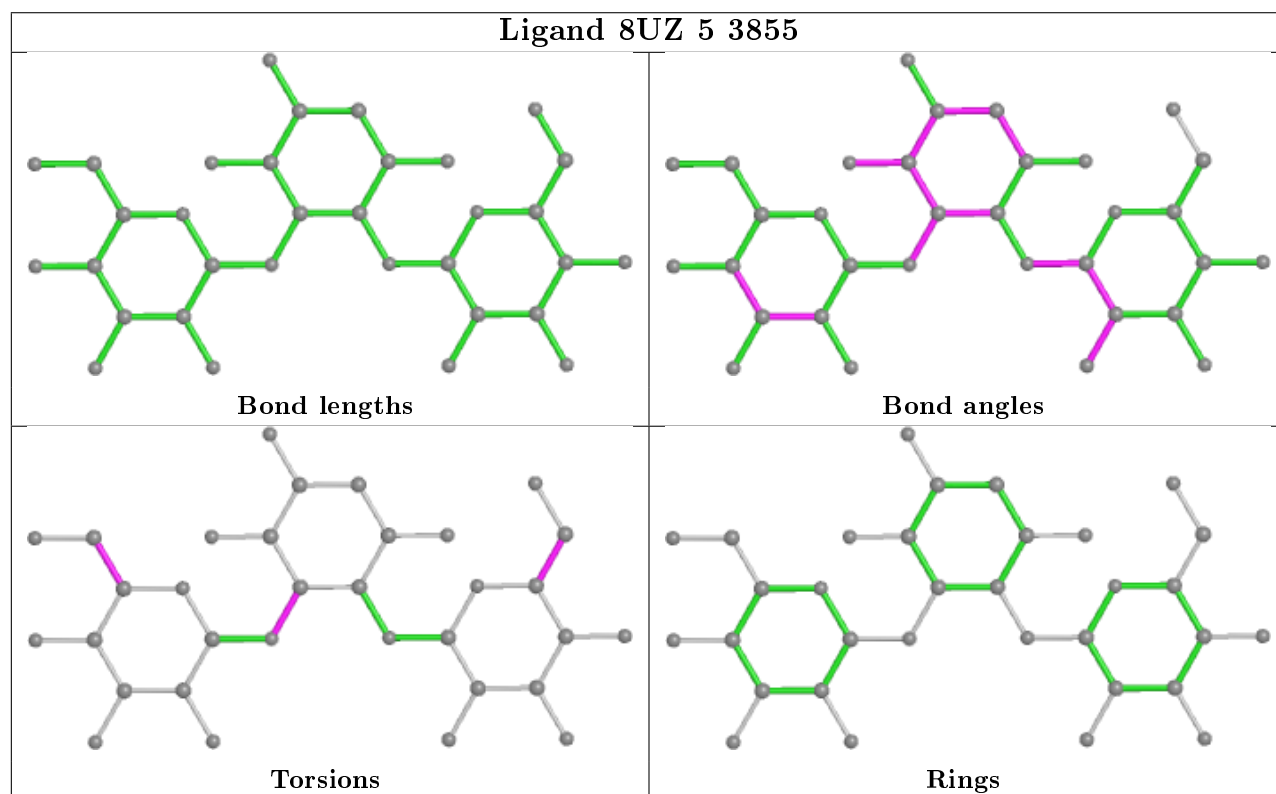
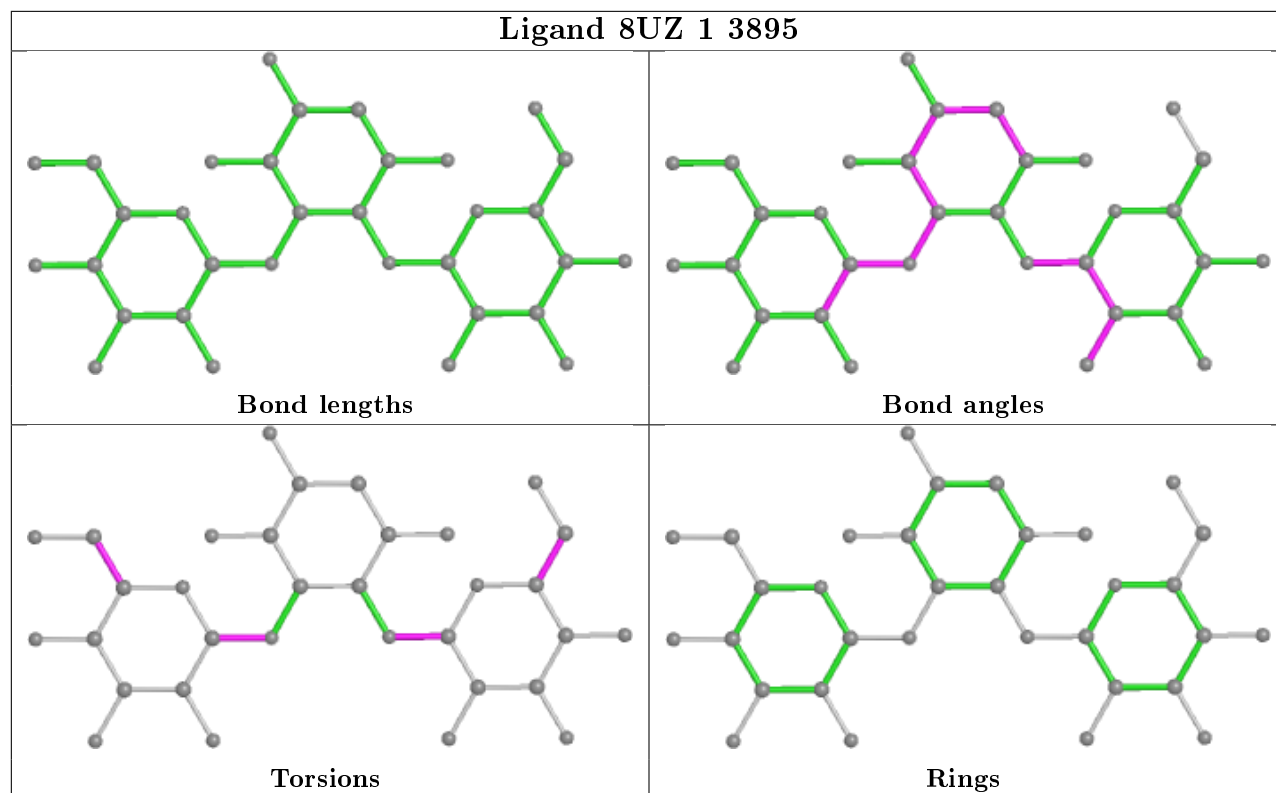
Ligand 8UZ 6 2061

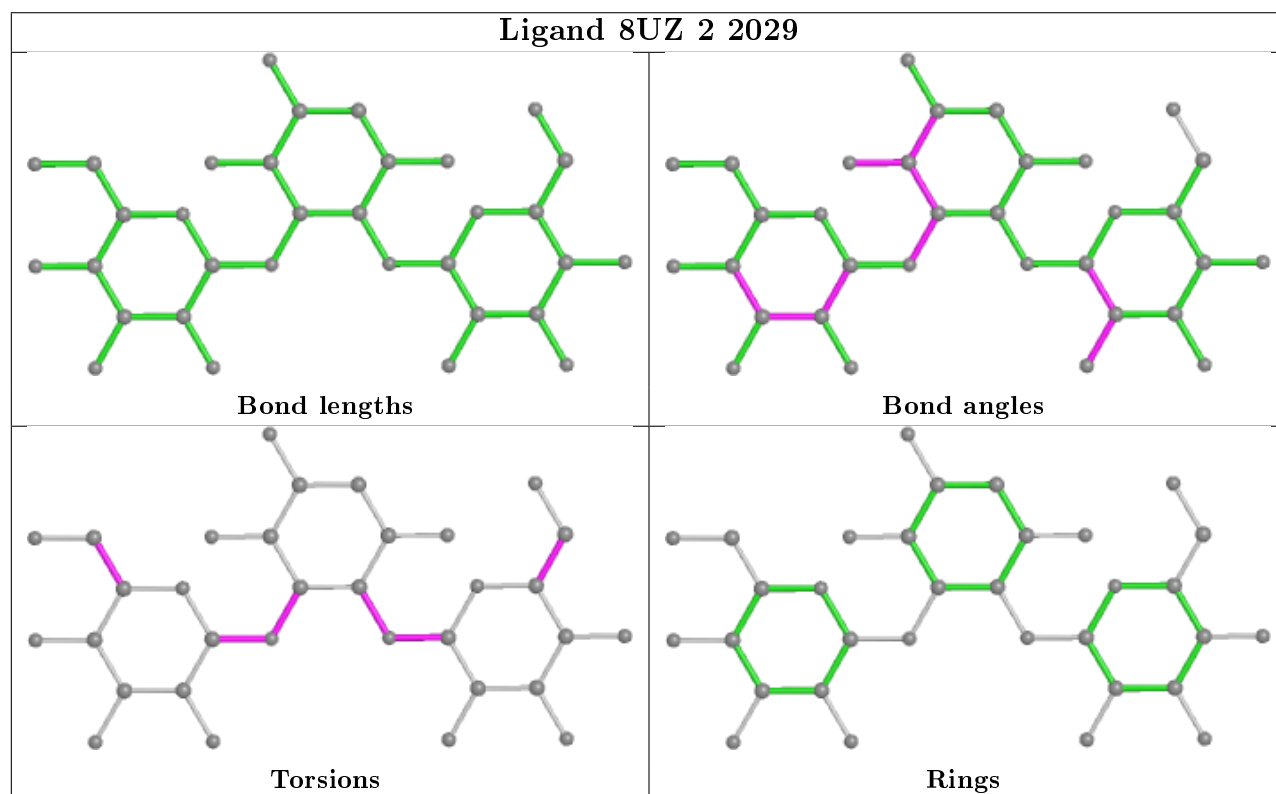
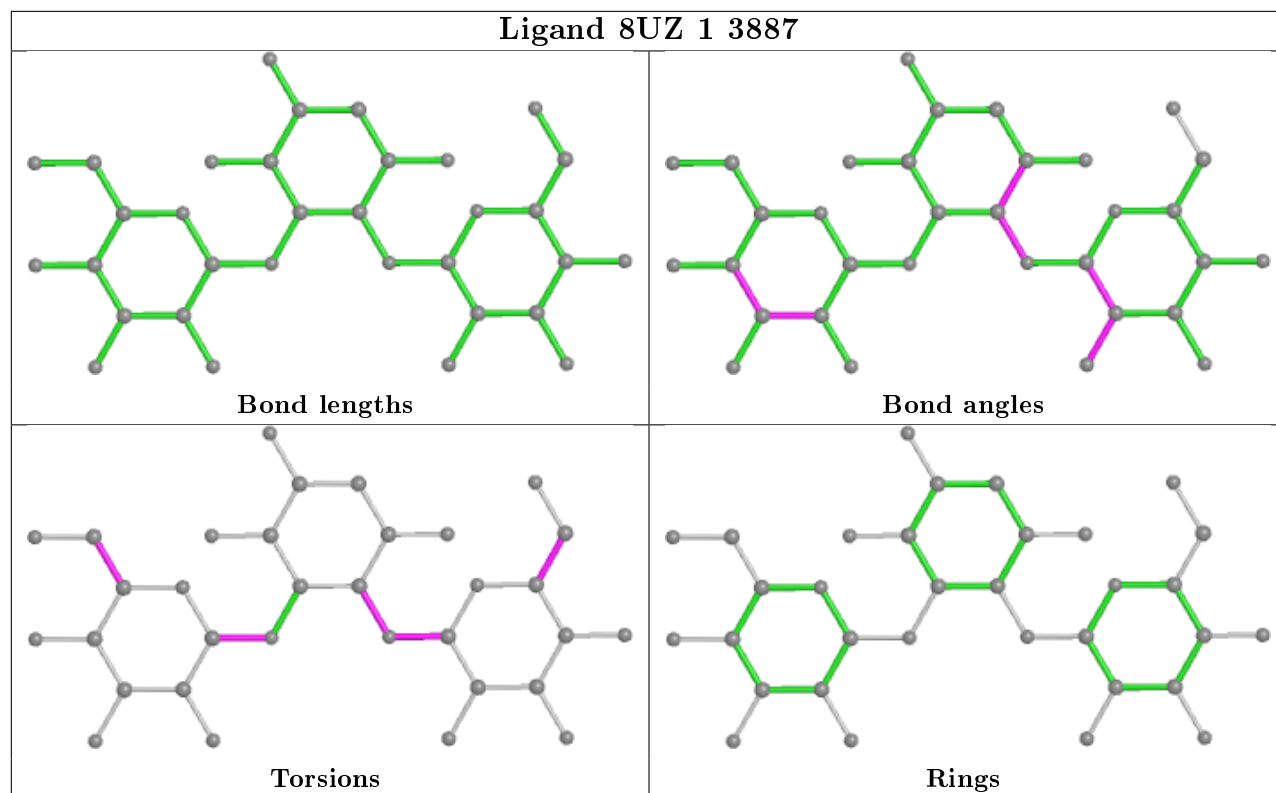




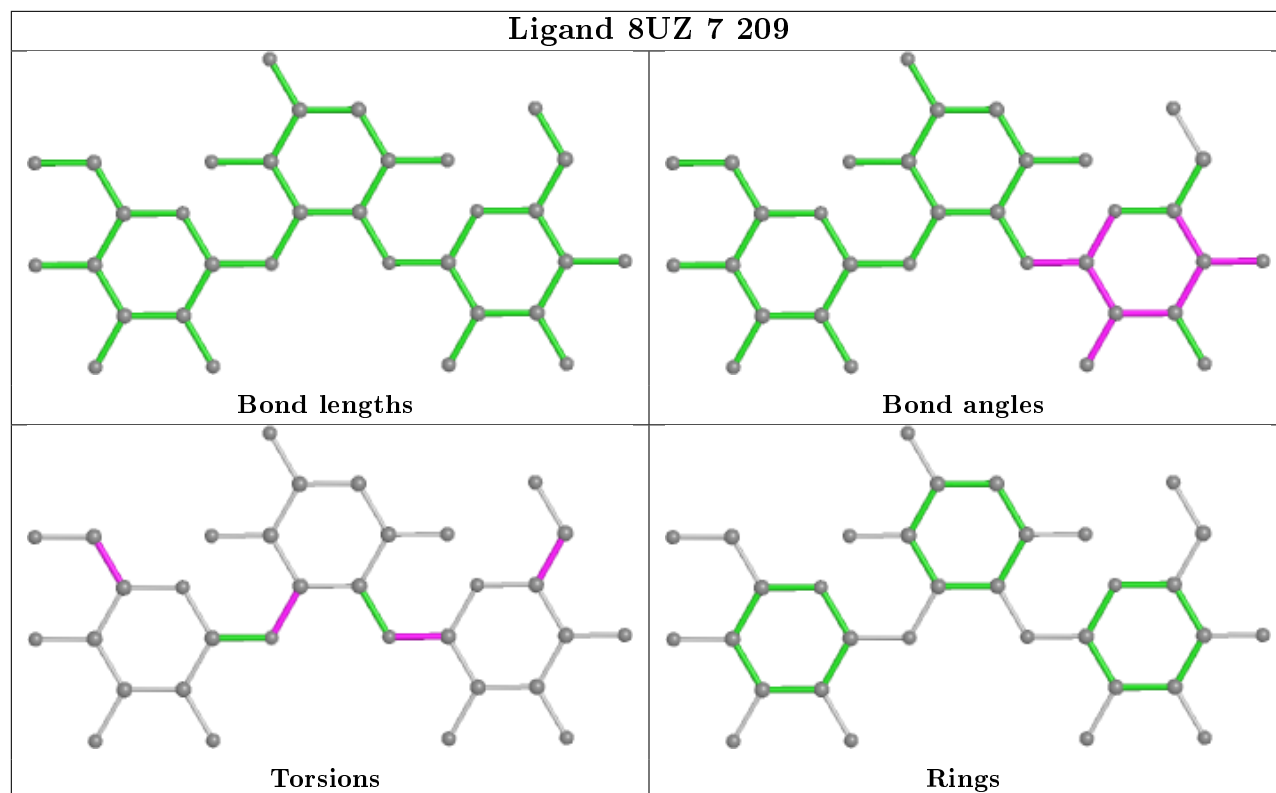




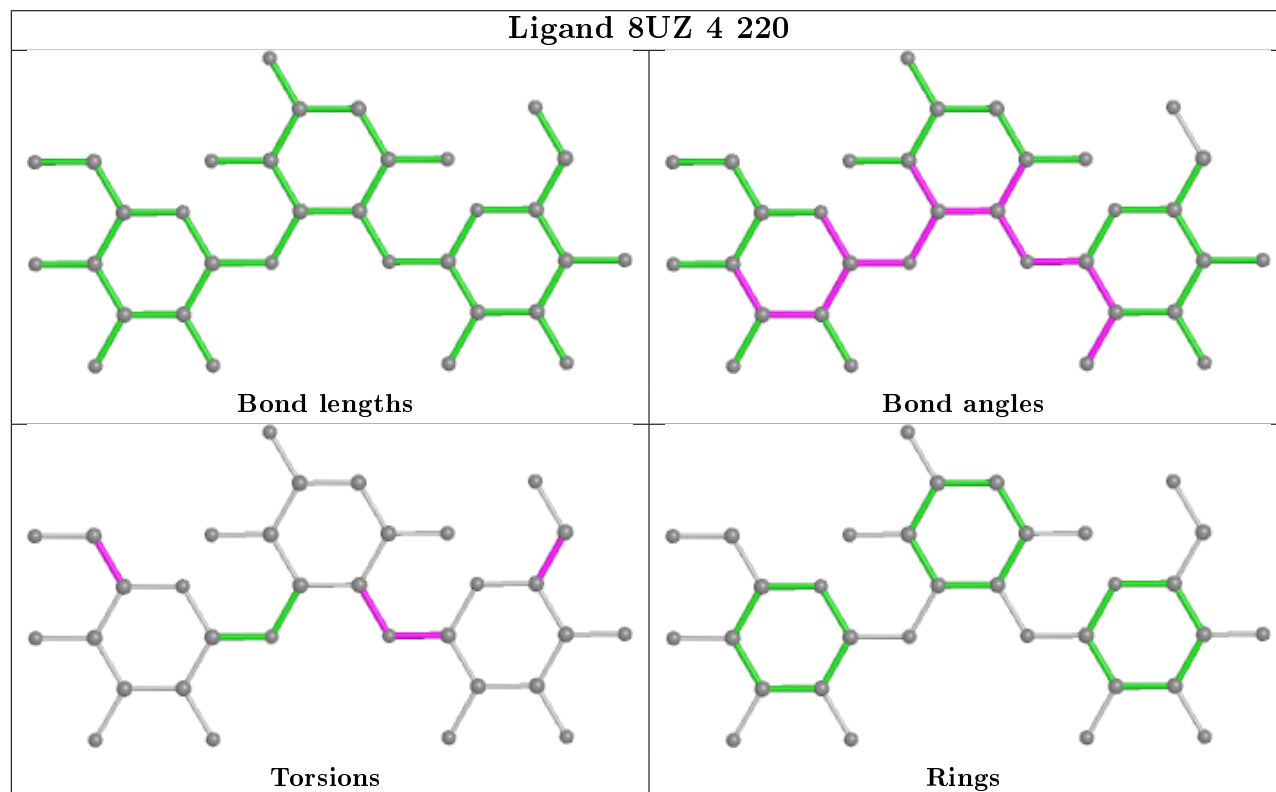




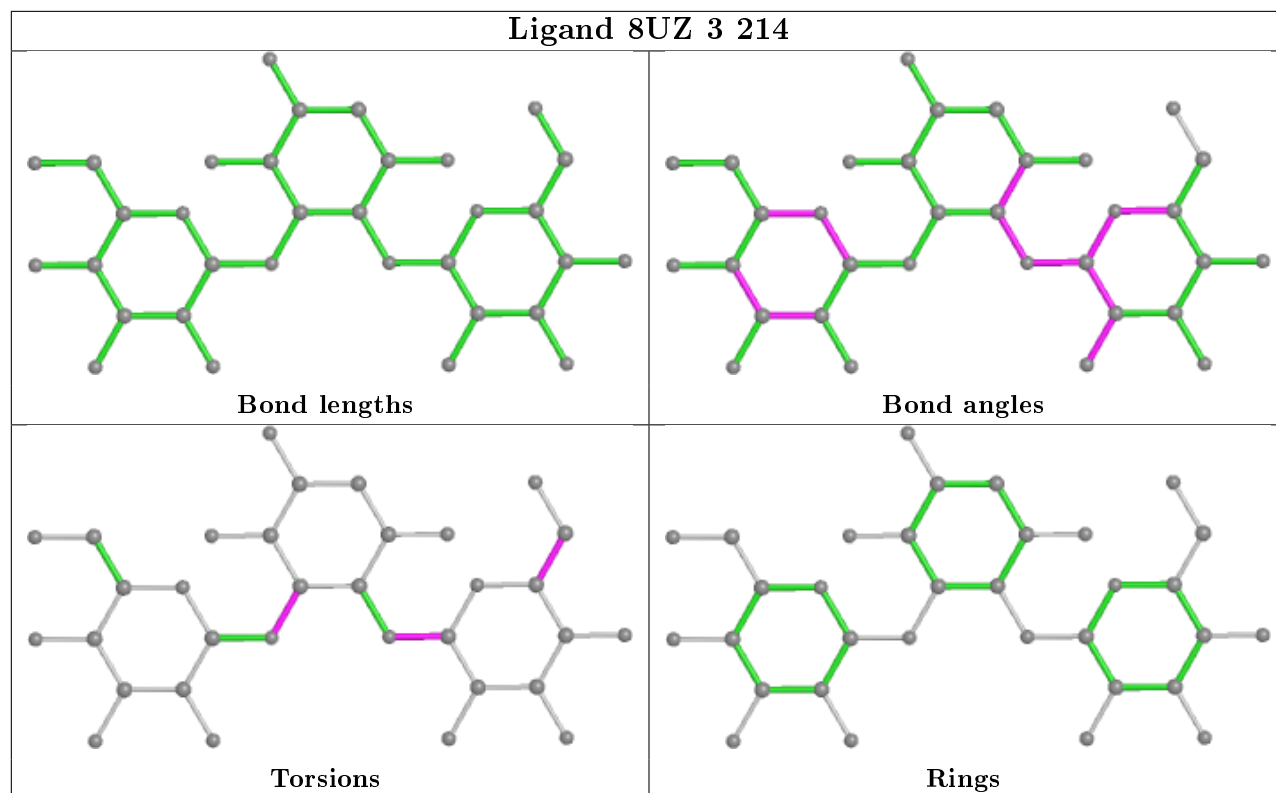
Ligand 8UZ 7 209



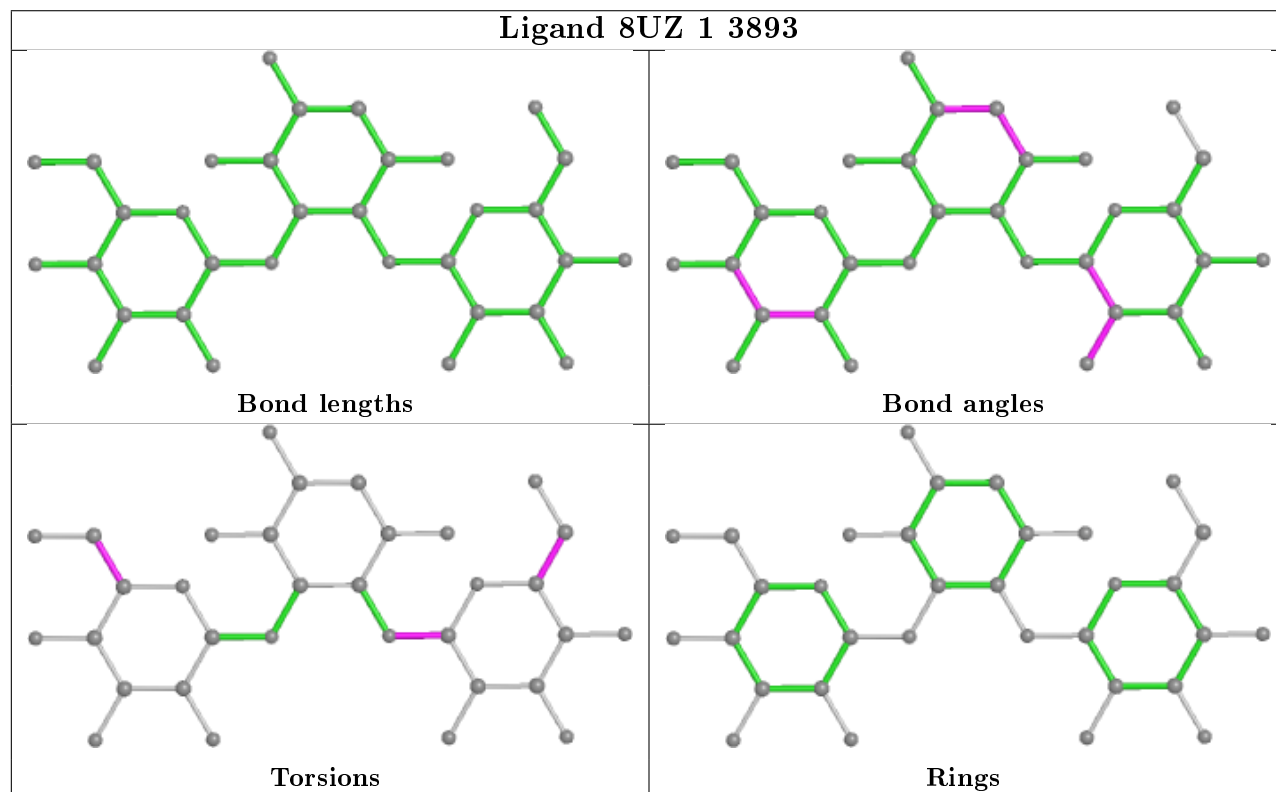
Ligand 8UZ 4 220

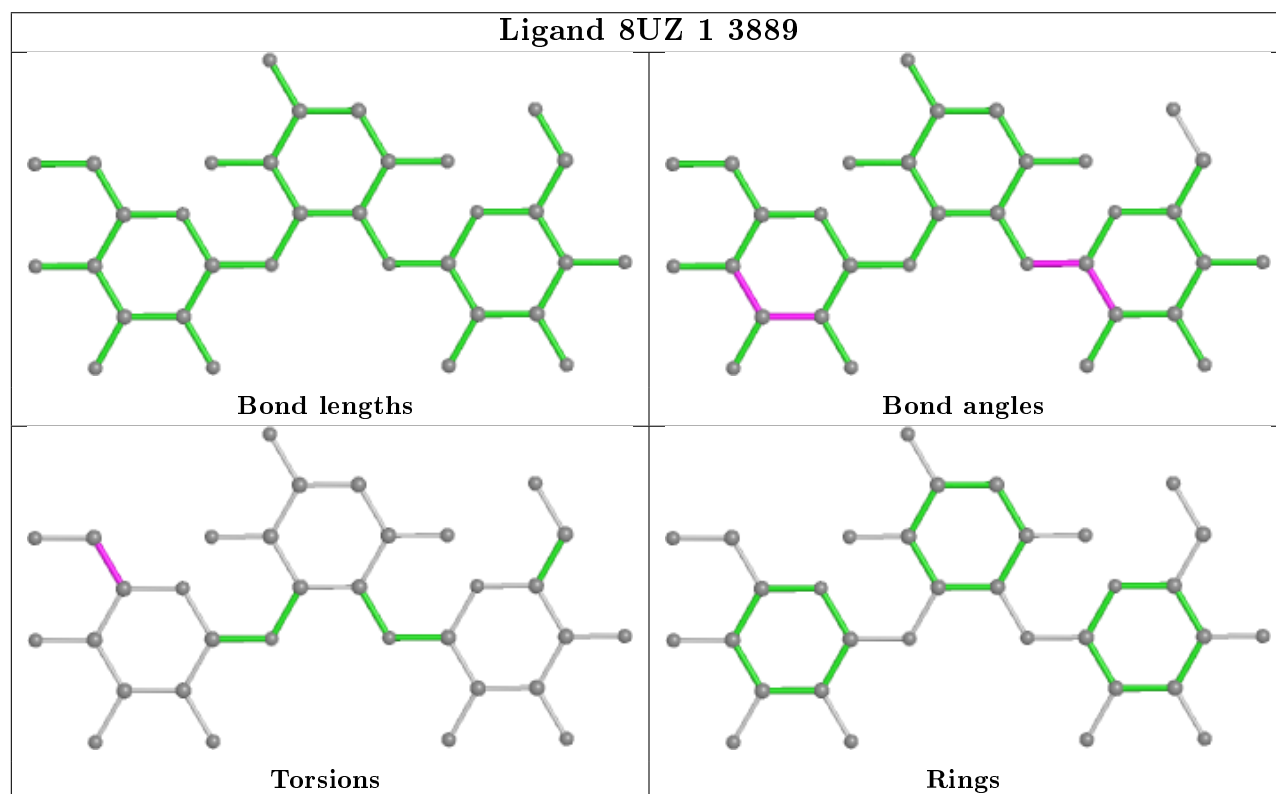
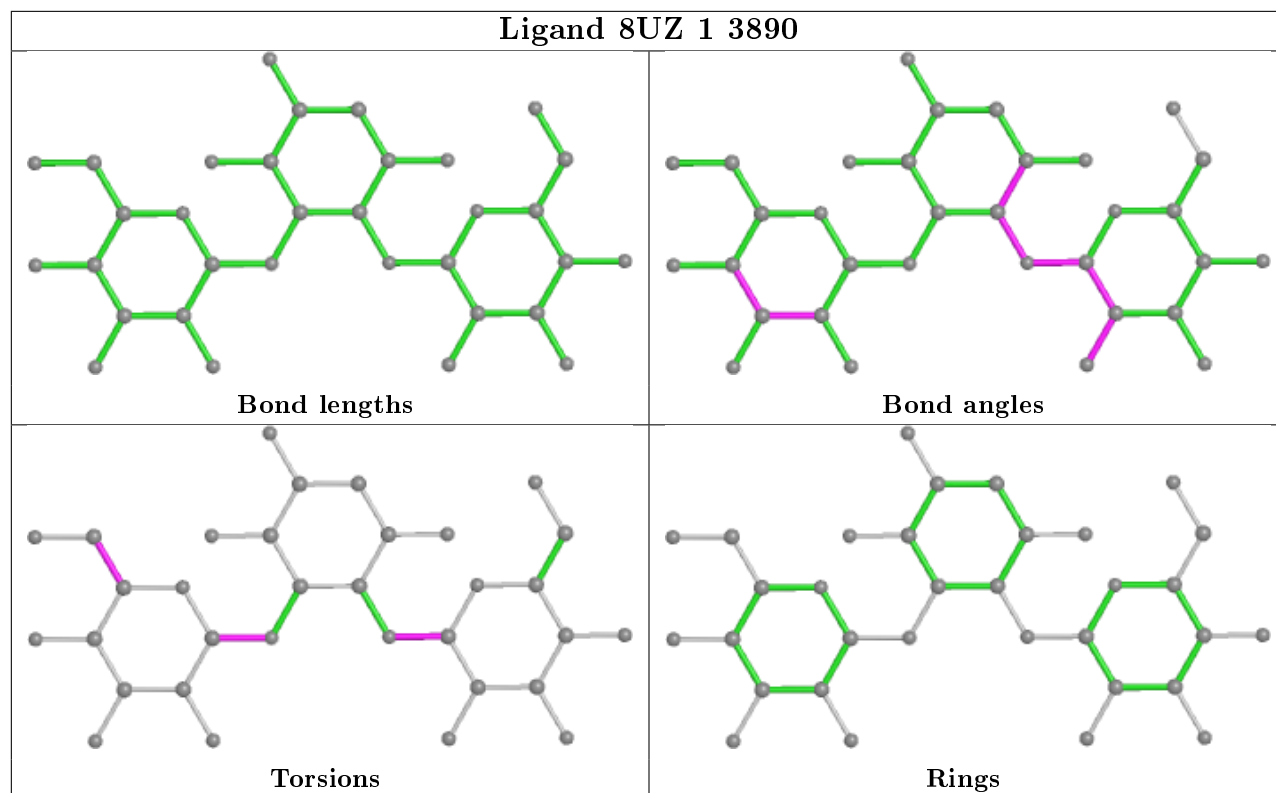


Ligand 8UZ 3 214

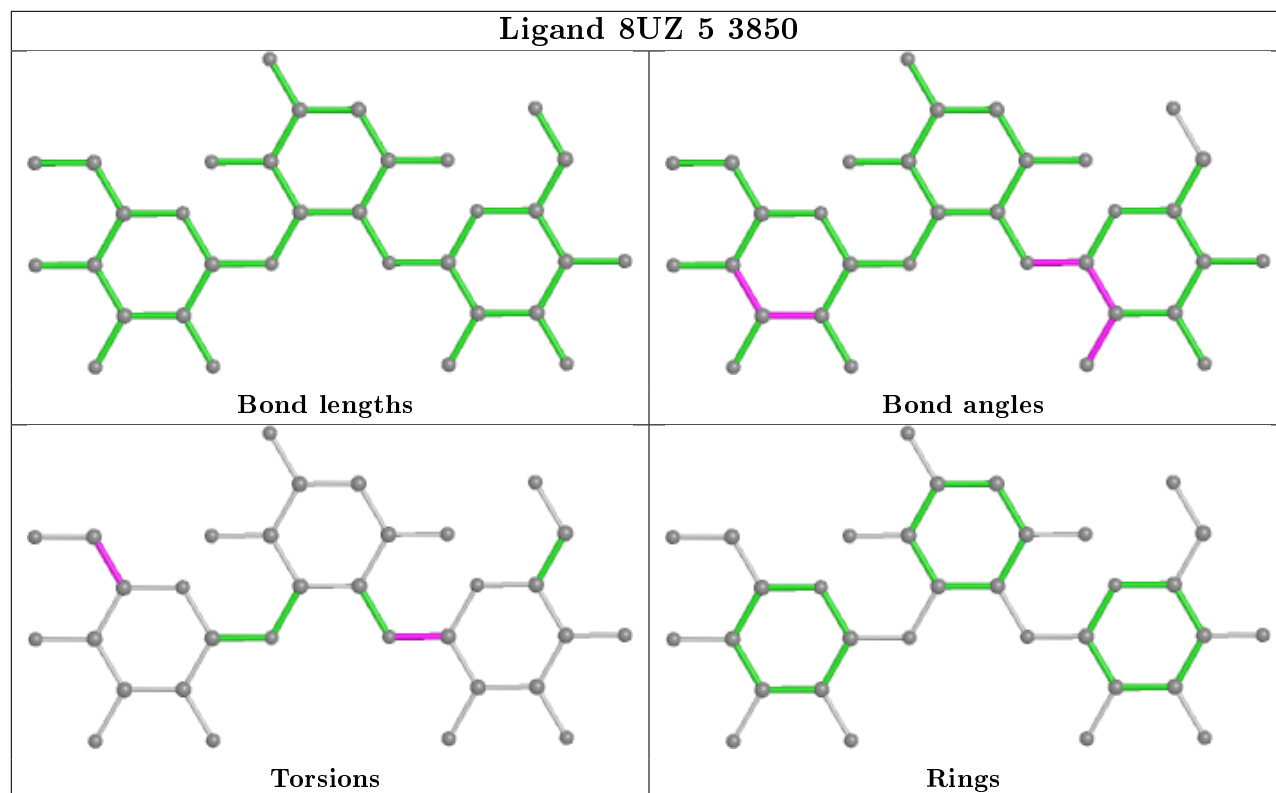


Ligand 8UZ 1 3893

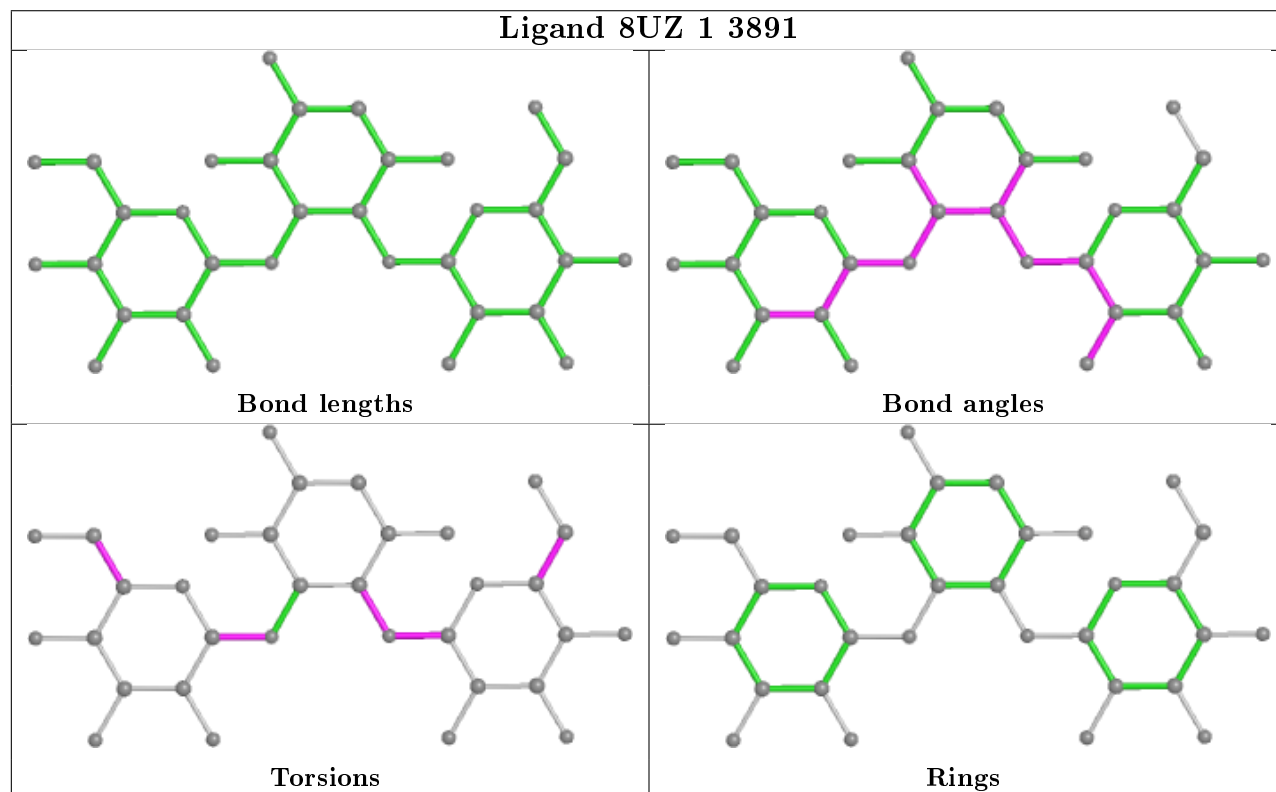


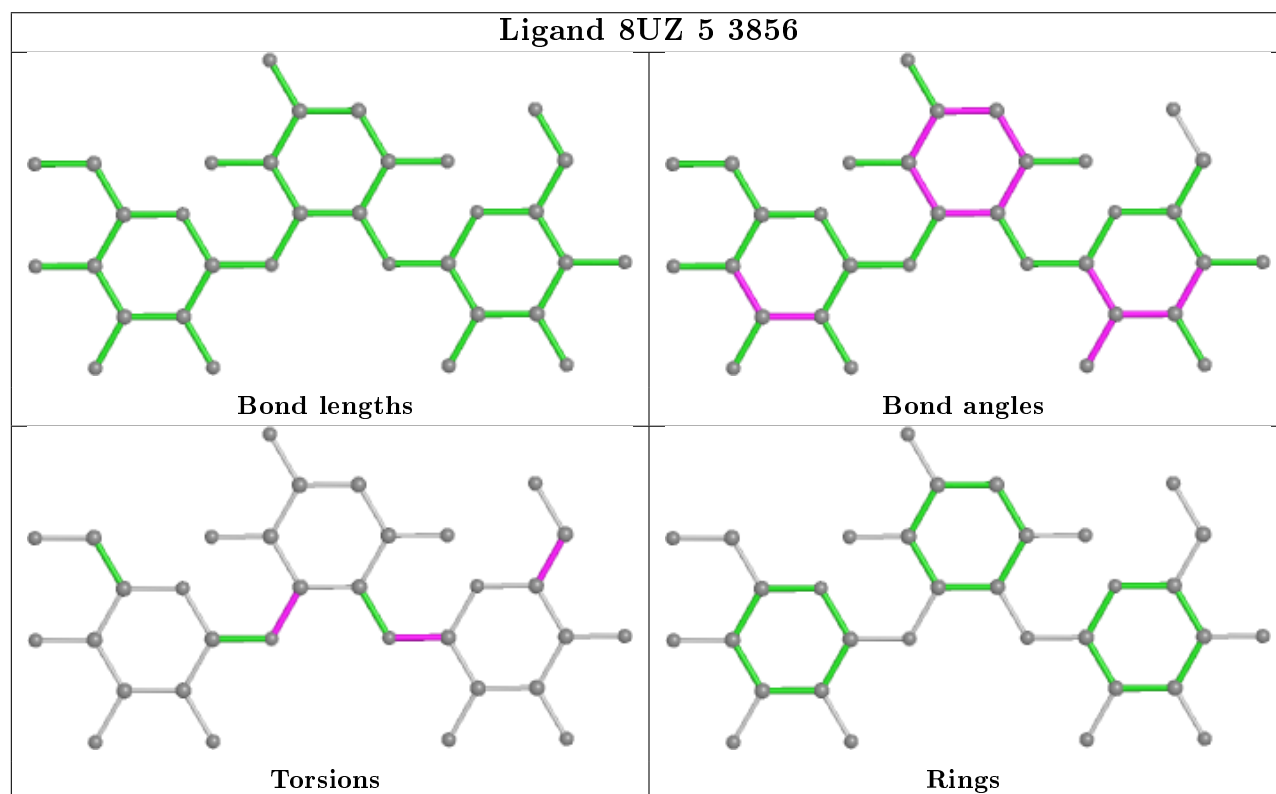
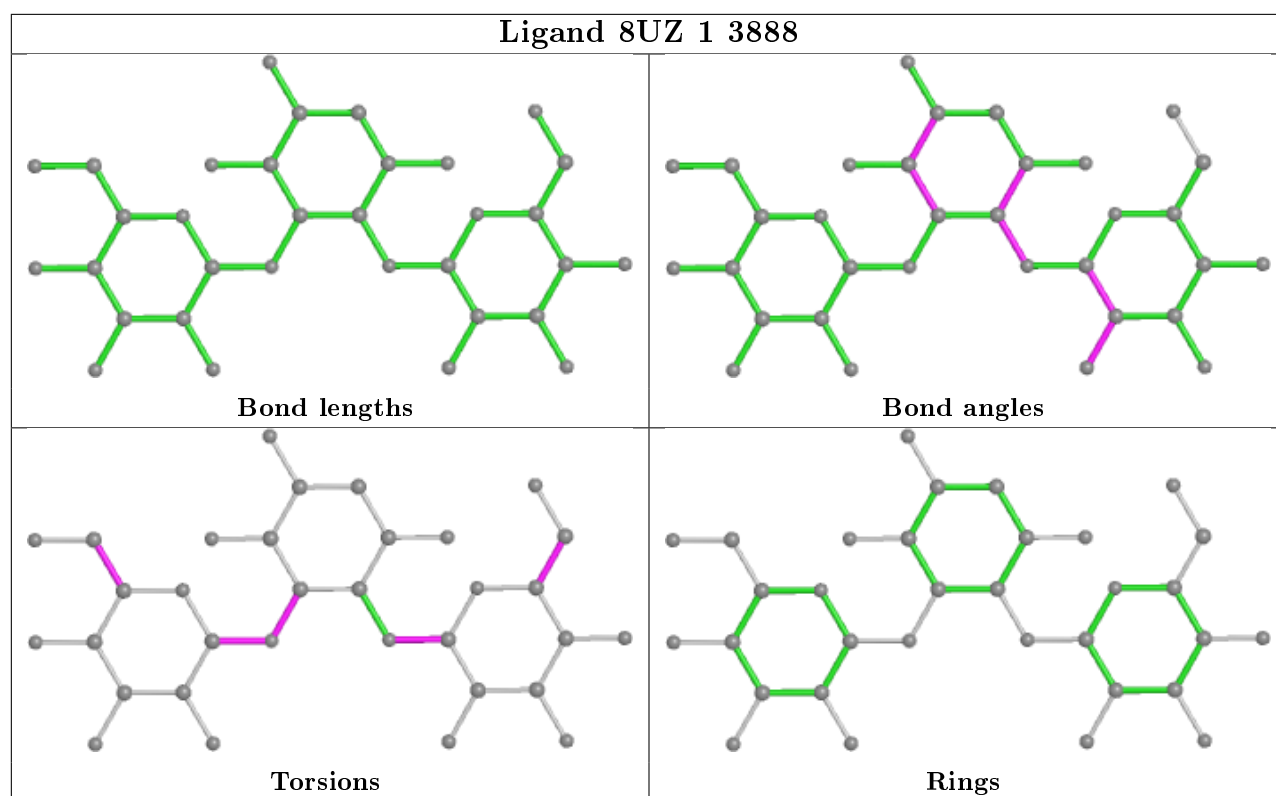


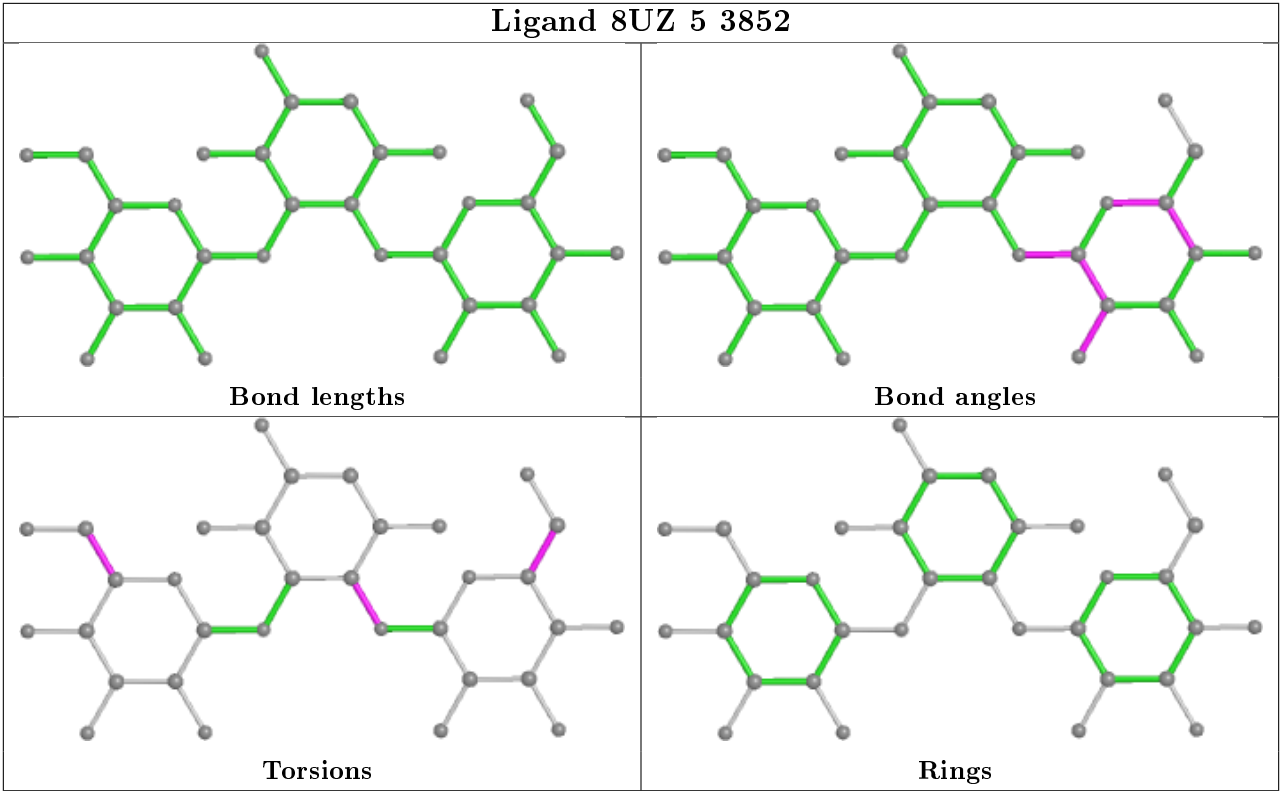
Ligand 8UZ 5 3850



Ligand 8UZ 1 3891







5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

The following chains have linkage breaks:

Mol	Chain	Number of breaks
78	sM	1
50	n6	1
37	M3	1
51	n7	1
1	5	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	5	1017:C	O3'	1018:G	P	6.05
1	sM	50:ASN	C	51:ARG	N	3.56
1	n7	36:HIS	C	37:PRO	N	1.73
1	M3	125:VAL	C	126:PHE	N	1.18
1	n6	99:LEU	C	100:HIS	N	1.17

6 Fit of model and data (i)

6.1 Protein, DNA and RNA chains (i)

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	1	3090/3396 (90%)	-0.01	15 (0%) 91 85	73, 114, 221, 384	0
1	5	3080/3396 (90%)	-0.04	16 (0%) 91 85	75, 122, 223, 357	0
2	2	1770/1800 (98%)	-0.13	46 (2%) 56 43	91, 158, 320, 453	0
2	6	1736/1800 (96%)	-0.26	13 (0%) 87 81	95, 154, 275, 374	0
3	3	121/121 (100%)	-0.51	0 100 100	88, 150, 179, 215	0
3	7	121/121 (100%)	-0.54	0 100 100	90, 171, 210, 226	0
4	4	158/158 (100%)	-0.11	1 (0%) 89 83	82, 126, 196, 327	0
4	8	158/158 (100%)	-0.06	3 (1%) 66 55	88, 138, 203, 271	0
5	C0	96/105 (91%)	1.54	34 (35%) 0 0	138, 198, 247, 261	0
5	c0	93/105 (88%)	0.80	20 (21%) 0 0	161, 209, 265, 317	0
6	C1	154/156 (98%)	1.47	47 (30%) 0 0	114, 150, 268, 325	0
6	c1	146/156 (93%)	0.91	20 (13%) 3 3	103, 137, 199, 244	0
7	C2	119/143 (83%)	2.08	56 (47%) 0 0	207, 274, 323, 343	0
7	c2	124/143 (86%)	1.98	55 (44%) 0 0	215, 274, 321, 343	0
8	C3	150/150 (100%)	0.39	7 (4%) 31 23	120, 171, 208, 232	0
8	c3	150/150 (100%)	0.74	13 (8%) 10 7	117, 157, 195, 229	0
9	C4	127/128 (99%)	0.12	6 (4%) 31 23	111, 171, 218, 250	0
9	c4	128/128 (100%)	1.01	27 (21%) 1 0	126, 185, 232, 278	0
10	C5	124/141 (87%)	0.76	14 (11%) 5 4	139, 185, 244, 296	0
10	c5	125/141 (88%)	0.55	19 (15%) 2 2	132, 180, 239, 260	0
11	C6	141/141 (100%)	1.39	46 (32%) 0 0	113, 175, 232, 275	0
11	c6	141/141 (100%)	1.20	43 (30%) 0 0	124, 171, 219, 243	0
12	C7	120/136 (88%)	0.74	21 (17%) 1 1	127, 192, 251, 284	0
12	c7	121/136 (88%)	0.24	7 (5%) 23 16	135, 186, 246, 340	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	C8	145/145 (100%)	0.65	16 (11%) 5 4	127, 194, 255, 283	0
13	c8	145/145 (100%)	0.48	15 (10%) 6 5	133, 175, 221, 248	0
14	C9	143/143 (100%)	0.51	14 (9%) 7 6	128, 175, 216, 241	0
14	c9	143/143 (100%)	0.53	12 (8%) 11 8	137, 175, 210, 252	0
15	D0	105/107 (98%)	1.46	40 (38%) 0 0	117, 174, 261, 277	0
15	d0	104/107 (97%)	0.51	10 (9%) 8 6	133, 188, 257, 300	0
16	D1	87/87 (100%)	0.66	9 (10%) 6 5	137, 174, 221, 251	0
16	d1	87/87 (100%)	0.67	9 (10%) 6 5	132, 168, 212, 238	0
17	D2	129/129 (100%)	1.09	20 (15%) 2 1	114, 154, 185, 229	0
17	d2	129/129 (100%)	0.77	17 (13%) 3 3	112, 145, 171, 199	0
18	D3	144/144 (100%)	0.49	10 (6%) 16 11	101, 132, 166, 191	0
18	d3	144/144 (100%)	0.50	5 (3%) 44 33	96, 127, 154, 192	0
19	D4	134/134 (100%)	0.50	15 (11%) 5 4	144, 199, 233, 275	0
19	d4	134/134 (100%)	0.25	8 (5%) 21 15	122, 174, 224, 254	0
20	D5	70/70 (100%)	1.36	22 (31%) 0 0	146, 212, 265, 290	0
20	d5	69/70 (98%)	0.68	12 (17%) 1 1	159, 205, 240, 251	0
21	D6	97/97 (100%)	0.77	12 (12%) 4 4	108, 149, 225, 242	0
21	d6	97/97 (100%)	1.32	30 (30%) 0 0	108, 151, 241, 257	0
22	D7	81/81 (100%)	0.32	5 (6%) 20 14	119, 192, 254, 273	0
22	d7	81/81 (100%)	1.01	17 (20%) 1 0	130, 170, 251, 277	0
23	D8	63/63 (100%)	0.99	14 (22%) 0 0	137, 199, 263, 293	0
23	d8	63/63 (100%)	0.55	5 (7%) 12 9	144, 195, 229, 255	0
24	D9	52/53 (98%)	1.32	17 (32%) 0 0	121, 148, 181, 242	0
24	d9	53/53 (100%)	0.67	8 (15%) 2 2	131, 155, 201, 270	0
25	E0	60/61 (98%)	0.80	10 (16%) 1 1	127, 175, 237, 256	0
25	e0	61/61 (100%)	0.57	8 (13%) 3 3	118, 172, 231, 265	0
26	E1	71/73 (97%)	1.71	24 (33%) 0 0	184, 254, 297, 331	0
26	e1	73/73 (100%)	1.50	21 (28%) 0 0	194, 252, 323, 356	0
27	L2	252/252 (100%)	0.29	4 (1%) 72 61	70, 117, 155, 210	0
27	l2	252/252 (100%)	0.29	8 (3%) 47 35	85, 129, 167, 268	0
28	L3	386/386 (100%)	0.47	28 (7%) 15 11	71, 106, 143, 204	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	l3	386/386 (100%)	0.14	4 (1%) 82 73	71, 103, 141, 238	0
29	L4	361/361 (100%)	0.18	3 (0%) 86 78	77, 120, 160, 215	0
29	l4	361/361 (100%)	0.10	4 (1%) 80 71	83, 129, 171, 207	0
30	L5	296/296 (100%)	0.73	42 (14%) 2 2	101, 165, 219, 253	0
30	l5	294/296 (99%)	0.99	62 (21%) 1 0	130, 193, 248, 273	0
31	L6	157/176 (89%)	-0.09	1 (0%) 89 83	87, 119, 160, 180	0
31	l6	157/176 (89%)	0.04	2 (1%) 77 67	82, 112, 171, 222	0
32	L7	222/223 (99%)	0.47	19 (8%) 10 8	83, 113, 169, 245	0
32	l7	223/223 (100%)	0.22	4 (1%) 68 57	77, 113, 161, 269	0
33	L8	233/233 (100%)	0.54	18 (7%) 13 10	124, 171, 236, 295	0
33	l8	231/233 (99%)	0.51	23 (9%) 7 5	134, 182, 244, 323	0
34	L9	191/191 (100%)	0.46	17 (8%) 9 7	85, 123, 158, 208	0
34	l9	191/191 (100%)	0.53	8 (4%) 36 27	82, 116, 147, 226	0
35	M0	211/221 (95%)	0.05	3 (1%) 75 64	82, 111, 181, 250	0
35	m0	209/221 (94%)	0.27	7 (3%) 46 35	89, 118, 180, 278	0
36	M1	169/169 (100%)	0.36	10 (5%) 22 15	123, 155, 188, 203	0
36	m1	169/169 (100%)	0.61	14 (8%) 11 9	136, 183, 219, 250	0
37	M3	193/194 (99%)	-0.04	4 (2%) 63 52	79, 144, 187, 263	0
37	m3	194/194 (100%)	0.28	10 (5%) 27 20	106, 162, 211, 286	0
38	M4	136/137 (99%)	0.24	4 (2%) 51 39	96, 123, 157, 191	0
38	m4	137/137 (100%)	0.05	1 (0%) 87 81	87, 111, 137, 182	0
39	M5	203/203 (100%)	1.06	28 (13%) 2 3	88, 125, 150, 166	0
39	m5	203/203 (100%)	1.11	36 (17%) 1 1	96, 140, 170, 183	0
40	M6	197/197 (100%)	0.17	2 (1%) 82 73	67, 97, 140, 196	0
40	m6	197/197 (100%)	0.09	0 100 100	67, 94, 138, 166	0
41	M7	183/184 (99%)	0.13	4 (2%) 62 50	75, 99, 184, 250	0
41	m7	183/184 (99%)	0.45	4 (2%) 62 50	76, 105, 176, 253	0
42	M8	185/185 (100%)	0.75	24 (12%) 3 3	89, 121, 149, 183	0
42	m8	185/185 (100%)	0.67	27 (14%) 2 2	93, 138, 166, 194	0
43	M9	188/188 (100%)	0.16	10 (5%) 26 20	92, 134, 244, 336	0
43	m9	184/188 (97%)	0.32	12 (6%) 18 12	101, 137, 218, 301	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	N0	172/172 (100%)	0.88	19 (11%) 5 4	88, 115, 150, 188	0
44	n0	171/172 (99%)	0.43	7 (4%) 37 27	81, 108, 139, 189	0
45	N1	159/159 (100%)	1.13	32 (20%) 1 0	94, 126, 187, 212	0
45	n1	159/159 (100%)	1.18	47 (29%) 0 0	100, 136, 187, 244	0
46	N2	100/100 (100%)	0.60	12 (12%) 4 4	126, 172, 211, 237	0
46	n2	98/100 (98%)	0.38	13 (13%) 3 3	139, 180, 223, 247	0
47	N3	136/136 (100%)	0.52	6 (4%) 34 25	69, 105, 149, 254	0
47	n3	135/136 (99%)	0.37	3 (2%) 62 50	72, 101, 135, 178	0
48	N4	130/155 (83%)	1.18	25 (19%) 1 1	88, 171, 291, 313	0
48	n4	130/155 (83%)	0.70	19 (14%) 2 2	93, 180, 259, 294	0
49	N5	121/121 (100%)	0.50	8 (6%) 18 12	105, 138, 175, 245	0
49	n5	120/121 (99%)	1.37	35 (29%) 0 0	113, 150, 191, 229	0
50	N6	126/126 (100%)	0.55	4 (3%) 47 35	96, 127, 164, 209	0
50	n6	122/126 (96%)	0.68	10 (8%) 11 9	104, 144, 177, 183	0
51	N7	135/135 (100%)	0.96	26 (19%) 1 1	143, 184, 224, 242	0
51	n7	135/135 (100%)	0.77	15 (11%) 5 4	137, 187, 227, 253	0
52	N8	148/148 (100%)	0.77	10 (6%) 17 12	79, 123, 170, 199	0
52	n8	148/148 (100%)	0.65	18 (12%) 4 4	90, 144, 188, 213	0
53	N9	58/58 (100%)	1.33	14 (24%) 0 0	82, 135, 196, 215	0
53	n9	56/58 (96%)	1.65	21 (37%) 0 0	91, 158, 203, 245	0
54	O0	97/100 (97%)	0.52	8 (8%) 11 9	138, 162, 212, 221	0
54	o0	100/100 (100%)	0.37	7 (7%) 16 11	128, 165, 222, 241	0
55	O1	109/109 (100%)	0.61	8 (7%) 15 11	81, 119, 186, 224	0
55	o1	109/109 (100%)	0.59	8 (7%) 15 11	89, 124, 204, 257	0
56	O2	127/127 (100%)	0.17	0 100 100	77, 100, 133, 192	0
56	o2	127/127 (100%)	0.35	2 (1%) 72 61	75, 108, 139, 200	0
57	O3	106/106 (100%)	0.16	1 (0%) 84 76	74, 97, 130, 145	0
57	o3	106/106 (100%)	0.30	0 100 100	76, 95, 123, 162	0
58	O4	112/112 (100%)	1.21	25 (22%) 0 0	102, 143, 228, 286	0
58	o4	112/112 (100%)	0.50	11 (9%) 7 6	109, 150, 203, 243	0
59	O5	119/119 (100%)	0.30	3 (2%) 57 45	109, 146, 190, 230	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
59	o5	119/119 (100%)	0.73	12 (10%) 7 5	126, 157, 193, 207	0
60	O6	99/99 (100%)	0.38	5 (5%) 28 21	126, 151, 195, 302	0
60	o6	99/99 (100%)	0.35	8 (8%) 12 9	128, 169, 209, 289	0
61	O7	87/87 (100%)	0.06	0 100 100	80, 104, 186, 209	0
61	o7	83/87 (95%)	0.23	3 (3%) 42 32	91, 119, 150, 202	0
62	O8	77/77 (100%)	0.83	13 (16%) 1 1	132, 168, 205, 227	0
62	o8	77/77 (100%)	1.24	16 (20%) 1 0	150, 180, 220, 227	0
63	O9	50/50 (100%)	0.61	2 (4%) 38 28	94, 117, 133, 144	0
63	o9	50/50 (100%)	1.44	10 (20%) 1 0	108, 125, 145, 153	0
64	Q0	52/52 (100%)	0.07	1 (1%) 66 55	92, 110, 155, 190	0
64	q0	52/52 (100%)	0.30	2 (3%) 40 30	83, 106, 135, 148	0
65	Q1	25/25 (100%)	0.45	0 100 100	96, 115, 136, 144	0
65	q1	25/25 (100%)	0.30	1 (4%) 38 28	102, 117, 148, 156	0
66	Q2	105/105 (100%)	0.88	18 (17%) 1 1	86, 132, 166, 258	0
66	q2	104/105 (99%)	1.14	28 (26%) 0 0	111, 156, 199, 215	0
67	Q3	91/91 (100%)	0.01	0 100 100	88, 127, 175, 217	0
67	q3	91/91 (100%)	0.18	1 (1%) 80 71	79, 131, 176, 210	0
68	S0	206/206 (100%)	0.56	20 (9%) 7 6	128, 178, 224, 271	0
68	s0	206/206 (100%)	0.39	22 (10%) 6 5	133, 174, 214, 262	0
69	S1	214/216 (99%)	0.75	33 (15%) 2 1	138, 201, 253, 279	0
69	s1	216/216 (100%)	1.30	69 (31%) 0 0	139, 202, 254, 312	0
70	S2	217/217 (100%)	0.79	29 (13%) 3 3	120, 161, 202, 244	0
70	s2	217/217 (100%)	0.57	22 (10%) 7 5	114, 155, 195, 226	0
71	S3	223/223 (100%)	1.13	47 (21%) 1 0	113, 166, 236, 306	0
71	s3	223/223 (100%)	0.53	24 (10%) 5 4	137, 174, 236, 267	0
72	S4	260/260 (100%)	1.02	55 (21%) 0 0	131, 181, 213, 254	0
72	s4	260/260 (100%)	0.45	15 (5%) 23 16	109, 159, 203, 253	0
73	S5	206/206 (100%)	1.16	42 (20%) 1 0	125, 189, 236, 278	0
73	s5	206/206 (100%)	0.98	35 (16%) 1 1	145, 185, 230, 264	0
74	S6	226/236 (95%)	0.84	45 (19%) 1 0	125, 186, 246, 272	0
74	s6	218/236 (92%)	0.63	32 (14%) 2 2	111, 162, 216, 258	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
75	S7	184/184 (100%)	0.83	33 (17%)	1	1	154, 208, 268, 305	0
75	s7	184/184 (100%)	0.46	19 (10%)	6	5	133, 195, 250, 297	0
76	S8	188/200 (94%)	1.01	35 (18%)	1	1	113, 154, 219, 291	0
76	s8	185/200 (92%)	0.87	29 (15%)	2	1	101, 142, 204, 250	0
77	S9	185/185 (100%)	0.98	36 (19%)	1	1	129, 186, 240, 279	0
77	s9	185/185 (100%)	0.87	29 (15%)	2	1	119, 169, 223, 263	0
78	SM	159/272 (58%)	0.51	22 (13%)	2	3	117, 185, 279, 371	0
78	sM	131/272 (48%)	0.38	15 (11%)	4	4	129, 182, 270, 311	0
79	SR	318/318 (100%)	1.13	77 (24%)	0	0	164, 221, 281, 318	0
79	sR	316/318 (99%)	0.58	40 (12%)	3	4	143, 199, 251, 293	0
All	All	32778/34100 (96%)	0.41	2743 (8%)	11	8	67, 147, 242, 453	0

All (2743) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
78	SM	19	VAL	12.3
34	l9	191	LEU	12.0
1	5	1565	G	11.1
54	o0	6	SER	10.7
78	SM	18	VAL	9.3
26	e1	106	TYR	9.3
7	c2	62	LEU	8.2
7	c2	97	LEU	8.1
79	SR	212	ALA	8.0
79	SR	213	SER	7.8
78	sM	53	ARG	7.7
44	N0	1	MET	7.5
7	C2	62	LEU	7.4
48	N4	65	GLU	7.3
6	C1	36	LYS	7.0
2	2	709	C	7.0
69	s1	100	PHE	6.9
79	SR	156	VAL	6.9
73	S5	152	GLY	6.8
79	SR	211	ILE	6.7
73	s5	152	GLY	6.7
7	c2	111	ASN	6.7
26	E1	152	ALA	6.7

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Mol	Chain	Res	Type	RSRZ
7	c2	63	VAL	6.6
33	l8	198	ALA	6.6
7	C2	119	SER	6.6
5	C0	22	VAL	6.6
79	SR	32	LEU	6.6
39	M5	2	GLY	6.6
45	N1	34	TYR	6.5
26	E1	145	HIS	6.4
7	c2	104	GLY	6.3
75	S7	93	LEU	6.3
5	C0	23	ALA	6.3
17	D2	122	SER	6.2
75	s7	92	PHE	6.2
13	C8	2	SER	6.2
39	M5	3	ALA	6.1
7	C2	25	GLU	6.0
5	C0	21	VAL	6.0
7	C2	61	VAL	6.0
44	N0	2	ALA	5.9
7	c2	121	VAL	5.9
26	E1	93	HIS	5.8
74	S6	96	SER	5.8
39	m5	3	ALA	5.8
75	s7	93	LEU	5.8
79	SR	178	VAL	5.8
2	2	135	A	5.8
45	n1	66	ASN	5.8
73	s5	153	GLY	5.7
7	c2	90	LYS	5.7
69	s1	212	VAL	5.7
5	c0	23	ALA	5.7
48	N4	99	GLU	5.6
79	SR	204	ALA	5.6
78	SM	170	VAL	5.6
79	SR	25	THR	5.6
48	N4	86	SER	5.6
5	C0	25	LYS	5.6
73	s5	129	PRO	5.6
74	s6	89	ASP	5.6
7	C2	71	ILE	5.6
33	L8	198	ALA	5.5
48	n4	67	VAL	5.5

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Mol	Chain	Res	Type	RSRZ
75	s7	134	GLU	5.5
79	SR	263	PHE	5.5
45	n1	34	TYR	5.5
7	C2	69	ALA	5.5
70	S2	90	THR	5.5
79	SR	210	LEU	5.4
6	c1	4	GLU	5.4
7	c2	102	GLY	5.4
33	l8	199	ALA	5.4
6	C1	150	ASN	5.4
62	o8	5	ILE	5.4
69	s1	89	ASP	5.4
11	C6	132	LYS	5.4
39	m5	58	GLY	5.4
51	N7	11	ALA	5.3
1	1	2539	C	5.3
48	N4	97	LYS	5.3
30	l5	69	ILE	5.3
79	sR	211	ILE	5.3
25	E0	45	VAL	5.3
73	S5	154	ALA	5.3
75	S7	94	ALA	5.2
15	D0	107	THR	5.2
7	c2	28	LEU	5.2
6	C1	152	GLN	5.2
30	l5	127	GLY	5.2
79	SR	252	LEU	5.2
26	e1	107	LYS	5.1
75	S7	47	ARG	5.1
45	n1	77	ASN	5.1
69	S1	156	ALA	5.1
45	n1	65	TYR	5.1
9	c4	135	ARG	5.1
79	SR	192	PHE	5.1
69	s1	140	ILE	5.1
7	c2	119	SER	5.1
24	D9	56	ARG	5.1
7	c2	70	ASN	5.1
7	C2	63	VAL	5.1
9	c4	98	GLY	5.1
74	s6	153	VAL	5.1
79	sR	121	MET	5.1

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Mol	Chain	Res	Type	RSRZ
69	s1	101	HIS	5.0
26	e1	100	LEU	5.0
11	c6	114	ARG	5.0
62	o8	43	PHE	5.0
22	d7	51	GLN	5.0
43	m9	185	LEU	5.0
2	2	721	U	5.0
7	C2	28	LEU	5.0
72	S4	149	TYR	5.0
26	e1	116	LYS	5.0
69	s1	122	GLU	5.0
45	n1	67	VAL	4.9
2	2	729	G	4.9
60	o6	66	GLU	4.9
9	C4	14	PHE	4.9
21	d6	45	VAL	4.9
48	n4	68	ALA	4.9
15	D0	65	ILE	4.8
15	D0	84	MET	4.8
66	q2	72	LEU	4.8
74	s6	88	ARG	4.8
7	C2	29	LYS	4.8
7	C2	33	ARG	4.8
79	SR	115	ILE	4.8
2	2	1709	C	4.8
30	l5	55	PHE	4.8
6	C1	146	ALA	4.8
78	SM	21	PRO	4.8
70	S2	91	ARG	4.8
33	l8	150	LEU	4.8
1	5	2539	C	4.8
48	N4	66	GLU	4.8
58	O4	33	GLN	4.8
69	s1	99	ASN	4.8
7	c2	103	LEU	4.8
23	D8	67	ARG	4.8
48	N4	95	SER	4.8
6	C1	3	THR	4.8
16	d1	55	LEU	4.8
79	sR	33	LEU	4.8
75	S7	48	GLU	4.8
45	n1	78	LYS	4.8

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Mol	Chain	Res	Type	RSRZ
74	S6	156	PHE	4.8
53	n9	43	HIS	4.7
7	c2	115	VAL	4.7
30	L5	62	CYS	4.7
73	s5	37	GLN	4.7
73	S5	71	ALA	4.7
66	q2	81	ALA	4.7
60	O6	100	HIS	4.7
54	o0	105	ALA	4.7
74	S6	88	ARG	4.7
70	S2	97	ARG	4.7
71	s3	148	LYS	4.7
79	SR	203	THR	4.7
72	S4	45	ILE	4.7
73	S5	151	GLY	4.7
35	M0	220	GLN	4.7
46	N2	95	PHE	4.6
23	D8	66	LEU	4.6
39	m5	143	ARG	4.6
48	N4	108	LYS	4.6
5	C0	64	TYR	4.6
15	d0	64	LYS	4.6
24	D9	5	ASN	4.6
7	c2	122	VAL	4.6
39	m5	148	TYR	4.6
77	s9	134	ILE	4.6
26	E1	87	THR	4.6
62	O8	43	PHE	4.6
66	Q2	106	PHE	4.6
13	C8	48	LYS	4.6
11	C6	55	VAL	4.6
73	s5	71	ALA	4.6
77	S9	141	VAL	4.6
11	c6	47	LYS	4.6
17	D2	121	VAL	4.6
15	D0	82	TYR	4.6
45	N1	72	VAL	4.6
7	C2	32	LEU	4.6
54	o0	7	GLN	4.5
15	D0	111	GLY	4.5
7	c2	91	VAL	4.5
7	c2	93	ASP	4.5

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Mol	Chain	Res	Type	RSRZ
77	s9	86	LEU	4.5
7	c2	100	TRP	4.5
79	SR	181	TRP	4.5
26	E1	90	LYS	4.5
30	l5	163	LEU	4.5
53	n9	47	LEU	4.5
79	SR	171	SER	4.5
26	E1	89	LYS	4.5
33	l8	197	VAL	4.5
73	S5	158	GLN	4.5
71	S3	206	VAL	4.5
20	D5	36	ALA	4.5
25	e0	60	PRO	4.5
43	M9	184	LEU	4.4
72	S4	12	LEU	4.4
69	s1	213	ARG	4.4
45	n1	32	LYS	4.4
69	s1	235	GLY	4.4
25	e0	53	LYS	4.4
50	n6	109	LEU	4.4
69	s1	97	LEU	4.4
7	C2	60	VAL	4.4
30	L5	4	GLN	4.4
22	d7	46	VAL	4.4
78	sM	54	PRO	4.4
7	c2	110	GLY	4.4
77	s9	118	LEU	4.4
75	S7	5	GLN	4.4
77	S9	6	ARG	4.4
79	SR	231	MET	4.4
11	c6	44	LEU	4.4
30	L5	38	THR	4.4
7	c2	49	THR	4.4
17	D2	46	TYR	4.4
51	N7	14	VAL	4.3
59	O5	75	TYR	4.3
14	C9	27	LYS	4.3
6	C1	137	PHE	4.3
7	C2	70	ASN	4.3
39	M5	6	TYR	4.3
60	O6	2	THR	4.3
7	C2	89	ILE	4.3

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Mol	Chain	Res	Type	RSRZ
77	S9	2	PRO	4.3
7	c2	92	ALA	4.3
73	s5	80	LYS	4.3
78	SM	176	LYS	4.3
15	d0	65	ILE	4.3
21	d6	73	TYR	4.3
6	C1	151	LYS	4.3
7	c2	109	GLU	4.3
48	n4	66	GLU	4.3
68	S0	107	PHE	4.3
79	sR	79	TYR	4.3
48	n4	90	ILE	4.3
62	o8	40	GLN	4.3
30	l5	61	ILE	4.3
79	SR	193	ILE	4.3
11	C6	54	LEU	4.3
79	SR	7	LEU	4.3
39	M5	123	GLN	4.3
5	C0	41	TYR	4.3
9	c4	102	LEU	4.3
45	N1	67	VAL	4.2
70	S2	96	THR	4.2
74	S6	157	VAL	4.2
66	q2	79	THR	4.2
26	E1	119	ARG	4.2
2	2	493	U	4.2
11	C6	51	PRO	4.2
2	6	239	C	4.2
63	o9	38	ASN	4.2
33	L8	199	ALA	4.2
69	S1	140	ILE	4.2
11	C6	21	HIS	4.2
11	c6	51	PRO	4.2
78	SM	171	PRO	4.2
17	D2	61	ILE	4.2
79	sR	204	ALA	4.2
69	s1	141	ALA	4.2
77	s9	2	PRO	4.2
78	SM	22	PRO	4.2
7	C2	64	SER	4.2
26	e1	108	VAL	4.2
74	S6	179	VAL	4.2

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Mol	Chain	Res	Type	RSRZ
2	2	719	U	4.2
16	D1	33	GLN	4.2
26	e1	99	LYS	4.2
50	n6	108	LYS	4.2
19	D4	119	PHE	4.2
26	e1	134	ASN	4.2
45	N1	92	ARG	4.2
32	L7	135	ALA	4.1
46	n2	95	PHE	4.1
53	n9	39	PHE	4.1
26	E1	109	ASP	4.1
51	n7	41	ALA	4.1
7	C2	36	LEU	4.1
79	SR	33	LEU	4.1
79	SR	190	ALA	4.1
30	l5	49	TYR	4.1
5	C0	45	ALA	4.1
6	C1	149	ALA	4.1
52	N8	149	ALA	4.1
27	l2	252	THR	4.1
20	D5	50	ILE	4.1
43	M9	183	ALA	4.1
58	O4	79	SER	4.1
66	q2	8	ARG	4.1
77	S9	134	ILE	4.1
5	C0	20	VAL	4.1
51	N7	15	ARG	4.1
53	N9	43	HIS	4.1
18	D3	4	GLY	4.1
26	e1	132	LEU	4.1
23	d8	65	ARG	4.1
74	s6	80	ASN	4.1
48	n4	87	LEU	4.1
2	2	697	C	4.1
7	c2	98	GLY	4.1
22	d7	32	PHE	4.1
5	C0	68	LEU	4.1
26	E1	104	SER	4.1
21	d6	83	ILE	4.1
24	D9	27	HIS	4.1
33	l8	132	VAL	4.1
58	o4	3	GLN	4.1

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Mol	Chain	Res	Type	RSRZ
79	sR	32	LEU	4.1
26	e1	118	ARG	4.1
70	s2	90	THR	4.1
39	M5	58	GLY	4.0
71	S3	134	CYS	4.0
72	S4	157	ASN	4.0
7	C2	100	TRP	4.0
79	SR	169	ILE	4.0
22	D7	24	LEU	4.0
34	L9	191	LEU	4.0
45	n1	64	VAL	4.0
76	S8	8	ARG	4.0
58	O4	78	GLY	4.0
58	O4	77	GLY	4.0
60	o6	69	ALA	4.0
48	N4	1	MET	4.0
10	C5	101	ALA	4.0
11	c6	48	VAL	4.0
42	M8	140	LEU	4.0
69	S1	122	GLU	4.0
9	C4	114	ARG	4.0
25	E0	55	ARG	4.0
48	N4	96	LEU	4.0
23	D8	33	LEU	4.0
25	e0	62	VAL	4.0
55	O1	71	LEU	4.0
76	S8	148	ALA	4.0
48	n4	130	SER	4.0
70	s2	224	PHE	4.0
66	q2	25	VAL	4.0
7	c2	42	ALA	4.0
11	c6	138	PHE	4.0
21	d6	44	ILE	4.0
46	N2	69	ALA	4.0
63	o9	2	ALA	4.0
73	s5	44	ASN	4.0
2	2	718	U	4.0
11	c6	57	LEU	4.0
10	C5	125	PRO	4.0
42	m8	169	GLY	4.0
6	c1	147	GLY	4.0
36	m1	91	LEU	4.0

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Mol	Chain	Res	Type	RSRZ
33	l8	131	ALA	4.0
68	S0	120	LEU	3.9
79	SR	222	LEU	3.9
79	SR	234	LEU	3.9
21	d6	38	ARG	3.9
77	S9	13	SER	3.9
71	S3	137	VAL	3.9
2	2	724	C	3.9
70	S2	92	ALA	3.9
69	S1	45	LYS	3.9
2	2	711	U	3.9
70	s2	91	ARG	3.9
7	C2	41	LEU	3.9
73	s5	43	PHE	3.9
79	SR	232	TYR	3.9
14	c9	28	LEU	3.9
39	m5	135	VAL	3.9
58	o4	2	ALA	3.9
72	S4	44	LEU	3.9
78	SM	175	VAL	3.9
53	N9	33	LYS	3.9
69	S1	138	PHE	3.9
42	m8	167	SER	3.9
7	C2	95	LYS	3.9
46	N2	71	PHE	3.9
8	c3	69	ASN	3.9
69	s1	218	LEU	3.9
45	n1	39	ILE	3.9
24	D9	55	PHE	3.9
69	s1	84	ILE	3.9
5	c0	21	VAL	3.9
30	l5	146	LEU	3.9
46	n2	56	VAL	3.9
20	D5	102	THR	3.9
21	d6	17	HIS	3.9
45	n1	90	ASN	3.9
75	S7	91	ILE	3.9
26	E1	132	LEU	3.9
72	S4	154	ILE	3.9
71	s3	150	MET	3.9
69	s1	90	GLU	3.8
79	sR	313	TRP	3.9

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Mol	Chain	Res	Type	RSRZ
11	C6	121	SER	3.8
69	S1	84	ILE	3.8
74	S6	95	LYS	3.8
30	l5	75	LEU	3.8
39	m5	134	LEU	3.8
45	n1	98	HIS	3.8
7	c2	45	LEU	3.8
31	l6	109	GLU	3.8
7	c2	59	LEU	3.8
26	e1	104	SER	3.8
26	E1	86	THR	3.8
73	S5	198	LEU	3.8
5	C0	16	PHE	3.8
46	N2	70	LYS	3.8
69	s1	216	LYS	3.8
77	S9	118	LEU	3.8
79	SR	73	LEU	3.8
13	c8	61	LEU	3.8
15	D0	64	LYS	3.8
20	D5	91	PRO	3.8
63	o9	51	ILE	3.8
76	S8	167	ALA	3.8
7	c2	101	ALA	3.8
52	N8	144	VAL	3.8
21	d6	68	TYR	3.8
50	n6	45	ILE	3.8
79	SR	265	LEU	3.8
11	c6	82	ARG	3.8
73	S5	153	GLY	3.8
7	c2	71	ILE	3.8
16	d1	33	GLN	3.8
72	S4	175	PHE	3.8
78	sM	55	SER	3.8
78	sM	66	ALA	3.8
21	D6	62	TYR	3.8
1	1	2540	A	3.8
7	c2	61	VAL	3.8
51	n7	75	VAL	3.8
39	m5	185	ALA	3.8
51	N7	2	ALA	3.8
79	SR	191	ASP	3.7
51	n7	82	PRO	3.7

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Mol	Chain	Res	Type	RSRZ
59	o5	78	LYS	3.7
11	C6	92	TYR	3.7
10	c5	89	MET	3.7
20	d5	42	LEU	3.7
49	n5	121	LYS	3.7
70	S2	95	ARG	3.7
53	n9	40	ARG	3.7
69	s1	211	HIS	3.7
35	M0	221	ALA	3.7
67	q3	92	ALA	3.7
74	s6	161	GLU	3.7
30	L5	127	GLY	3.7
7	C2	143	GLN	3.7
30	l5	41	LYS	3.7
70	S2	113	LEU	3.7
30	L5	78	ALA	3.7
60	O6	8	ALA	3.7
6	C1	155	LYS	3.7
44	N0	30	PHE	3.7
15	D0	110	PRO	3.7
71	s3	134	CYS	3.7
16	d1	87	ARG	3.7
30	l5	216	GLU	3.7
12	C7	71	PHE	3.7
15	d0	66	SER	3.7
62	O8	40	GLN	3.7
77	s9	156	ILE	3.7
7	C2	128	ALA	3.7
7	C2	68	GLU	3.7
79	sR	7	LEU	3.7
55	O1	14	ILE	3.7
69	s1	121	ILE	3.7
79	sR	314	GLN	3.7
45	N1	91	LEU	3.7
75	s7	129	LEU	3.7
79	SR	241	PHE	3.7
25	e0	2	ALA	3.7
30	l5	137	ASP	3.7
73	S5	155	ALA	3.7
71	s3	152	PHE	3.7
77	s9	105	LEU	3.7
2	2	696	C	3.7

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Mol	Chain	Res	Type	RSRZ
75	S7	98	ILE	3.7
27	L2	71	LEU	3.7
79	SR	254	ALA	3.7
77	s9	37	LYS	3.6
71	S3	16	VAL	3.6
24	D9	50	ILE	3.6
52	N8	109	TYR	3.6
71	S3	184	ILE	3.6
75	s7	91	ILE	3.6
72	S4	48	LEU	3.6
30	l5	38	THR	3.6
73	s5	151	GLY	3.6
1	5	1815	U	3.6
5	c0	25	LYS	3.6
59	O5	2	ALA	3.6
74	s6	133	LEU	3.6
79	sR	263	PHE	3.6
5	c0	64	TYR	3.6
7	C2	90	LYS	3.6
16	d1	54	ALA	3.6
30	L5	31	TYR	3.6
48	n4	82	ILE	3.6
2	6	731	C	3.6
6	C1	43	LYS	3.6
30	l5	181	PRO	3.6
5	C0	28	ASN	3.6
5	C0	54	TYR	3.6
48	n4	65	GLU	3.6
79	SR	208	GLY	3.6
50	n6	73	VAL	3.6
48	n4	85	ALA	3.6
10	C5	109	PRO	3.6
16	D1	22	ARG	3.6
71	S3	50	ILE	3.6
19	D4	17	LEU	3.6
24	D9	36	LEU	3.6
30	l5	48	LYS	3.6
47	N3	100	GLY	3.6
49	n5	62	VAL	3.6
12	C7	125	SER	3.6
26	E1	131	PHE	3.6
12	C7	74	GLN	3.6

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Mol	Chain	Res	Type	RSRZ
49	n5	60	TYR	3.6
14	c9	31	PRO	3.6
72	S4	47	PHE	3.6
42	m8	176	ARG	3.6
77	S9	3	ARG	3.6
53	n9	29	TYR	3.6
77	s9	97	LEU	3.6
11	C6	59	LYS	3.6
39	m5	6	TYR	3.6
73	S5	133	VAL	3.6
30	l5	67	SER	3.6
41	m7	160	ALA	3.6
30	l5	37	VAL	3.6
69	s1	215	VAL	3.6
74	S6	158	ILE	3.6
75	S7	49	ILE	3.6
69	s1	120	LEU	3.6
71	S3	8	LYS	3.5
5	C0	66	TYR	3.5
7	C2	121	VAL	3.5
34	l9	25	VAL	3.5
53	n9	51	ALA	3.5
58	o4	32	ALA	3.5
15	D0	90	TYR	3.5
45	N1	31	LEU	3.5
39	m5	144	ARG	3.5
10	c5	103	ASN	3.5
7	C2	72	ILE	3.5
58	O4	7	PHE	3.5
24	D9	13	ARG	3.5
48	N4	110	LYS	3.5
7	C2	59	LEU	3.5
33	l8	94	PHE	3.5
79	sR	34	LEU	3.5
20	D5	101	TYR	3.5
42	m8	174	ARG	3.5
72	s4	25	GLY	3.5
25	E0	48	THR	3.5
19	d4	119	PHE	3.5
69	s1	139	ALA	3.5
78	SM	20	LEU	3.5
72	S4	138	TYR	3.5

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Mol	Chain	Res	Type	RSRZ
11	C6	39	VAL	3.5
1	1	1581	C	3.5
30	l5	223	PHE	3.5
2	2	277	U	3.5
71	S3	39	VAL	3.5
7	c2	117	GLY	3.5
72	S4	139	VAL	3.5
75	s7	90	VAL	3.5
22	d7	73	LEU	3.5
32	L7	88	ARG	3.5
51	n7	11	ALA	3.5
12	c7	2	GLY	3.5
35	m0	56	GLU	3.5
71	S3	138	VAL	3.5
74	S6	97	VAL	3.5
7	c2	32	LEU	3.5
62	O8	29	LYS	3.5
69	s1	136	ARG	3.5
30	l5	70	THR	3.5
74	S6	166	GLU	3.5
30	L5	34	LYS	3.5
52	N8	79	TRP	3.5
68	s0	174	TRP	3.5
76	s8	38	ILE	3.5
22	d7	49	HIS	3.5
2	2	234	G	3.5
20	D5	54	VAL	3.5
51	N7	65	ARG	3.5
5	c0	66	TYR	3.5
17	D2	69	LEU	3.5
77	S9	86	LEU	3.5
72	s4	69	HIS	3.5
30	L5	60	ILE	3.5
76	S8	67	TRP	3.5
30	l5	42	ALA	3.5
15	D0	66	SER	3.5
30	L5	69	ILE	3.5
66	q2	70	LEU	3.5
74	s6	156	PHE	3.5
7	C2	111	ASN	3.4
51	n7	42	LEU	3.4
2	2	1370	U	3.4

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Mol	Chain	Res	Type	RSRZ
9	c4	14	PHE	3.4
32	L7	134	VAL	3.4
71	s3	136	VAL	3.4
76	S8	156	VAL	3.4
28	L3	47	LEU	3.4
46	N2	105	LEU	3.4
30	l5	34	LYS	3.4
42	m8	186	VAL	3.4
44	N0	136	LYS	3.4
77	S9	85	VAL	3.4
79	SR	233	THR	3.4
15	D0	63	LEU	3.4
16	d1	34	ILE	3.4
34	L9	91	ARG	3.4
46	n2	15	PHE	3.4
53	N9	34	GLY	3.4
73	S5	197	GLU	3.4
12	C7	62	GLN	3.4
16	D1	34	ILE	3.4
73	S5	194	LEU	3.4
74	S6	93	LYS	3.4
77	S9	92	LYS	3.4
24	D9	52	PHE	3.4
45	n1	30	TYR	3.4
30	l5	68	THR	3.4
45	N1	151	LEU	3.4
54	O0	89	VAL	3.4
70	s2	196	VAL	3.4
11	c6	92	TYR	3.4
12	c7	74	GLN	3.4
69	S1	151	LYS	3.4
73	S5	76	ARG	3.4
79	SR	236	ALA	3.4
79	SR	302	PHE	3.4
2	2	1707	A	3.4
73	S5	178	GLY	3.4
77	s9	36	LEU	3.4
79	SR	179	LYS	3.4
16	D1	39	VAL	3.4
32	L7	244	ASN	3.4
54	O0	59	TYR	3.4
17	D2	37	PHE	3.4

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Mol	Chain	Res	Type	RSRZ
45	n1	33	VAL	3.4
72	S4	77	ARG	3.4
45	N1	44	ALA	3.4
71	s3	149	ALA	3.4
73	s5	198	LEU	3.4
74	S6	75	LEU	3.4
77	s9	99	LEU	3.4
66	Q2	24	LYS	3.4
5	c0	62	GLN	3.4
33	l8	34	PHE	3.4
53	n9	32	LEU	3.4
58	O4	30	LEU	3.4
21	d6	67	THR	3.4
76	S8	192	TYR	3.4
69	s1	91	VAL	3.4
77	S9	104	PHE	3.4
10	C5	112	LEU	3.4
44	n0	57	GLU	3.4
69	s1	217	LEU	3.4
6	C1	35	TYR	3.4
73	s5	41	LYS	3.4
9	c4	26	THR	3.4
15	D0	27	THR	3.4
27	L2	72	ARG	3.4
35	m0	55	ASN	3.4
60	o6	68	ARG	3.4
62	o8	2	ALA	3.4
68	s0	75	ALA	3.4
75	S7	105	THR	3.4
26	E1	82	LYS	3.4
30	l5	222	LEU	3.4
37	m3	190	LYS	3.4
53	n9	24	PRO	3.4
79	sR	73	LEU	3.4
1	1	1221	A	3.4
49	n5	123	TYR	3.4
52	N8	124	ILE	3.4
79	SR	253	ALA	3.4
69	s1	138	PHE	3.3
74	s6	162	VAL	3.3
46	N2	93	ILE	3.3
69	s1	113	MET	3.3

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Mol	Chain	Res	Type	RSRZ
46	N2	15	PHE	3.3
72	S4	99	PHE	3.3
66	q2	83	LEU	3.3
9	C4	112	ILE	3.3
30	l5	62	CYS	3.3
20	d5	91	PRO	3.3
15	D0	93	LEU	3.3
63	o9	23	LEU	3.3
2	2	716	C	3.3
11	C6	16	ALA	3.3
25	e0	54	ARG	3.3
53	n9	31	SER	3.3
64	Q0	128	LYS	3.3
77	S9	96	VAL	3.3
14	c9	22	LEU	3.3
45	n1	89	LEU	3.3
7	c2	27	ALA	3.3
17	d2	61	ILE	3.3
7	C2	110	GLY	3.3
11	C6	106	LYS	3.3
15	D0	112	VAL	3.3
45	n1	31	LEU	3.3
12	C7	69	ILE	3.3
9	c4	23	PHE	3.3
74	S6	86	PRO	3.3
74	S6	178	LEU	3.3
7	c2	64	SER	3.3
16	D1	23	ILE	3.3
69	S1	137	ILE	3.3
69	S1	141	ALA	3.3
71	S3	52	ALA	3.3
30	L5	163	LEU	3.3
6	C1	136	ARG	3.3
7	C2	120	VAL	3.3
39	M5	148	TYR	3.3
21	D6	82	ARG	3.3
69	S1	143	THR	3.3
59	o5	120	ALA	3.3
9	c4	92	LYS	3.3
45	n1	35	LYS	3.3
49	n5	66	PRO	3.3
20	D5	71	ILE	3.3

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Mol	Chain	Res	Type	RSRZ
42	m8	96	PHE	3.3
71	s3	188	ILE	3.3
39	M5	141	ALA	3.3
6	C1	73	GLY	3.3
69	s1	70	LEU	3.3
23	d8	67	ARG	3.3
73	S5	157	ARG	3.3
36	M1	122	ILE	3.3
72	S4	137	PRO	3.3
16	d1	1	MET	3.3
70	S2	119	LYS	3.3
73	s5	83	ARG	3.3
53	n9	37	PRO	3.3
69	S1	104	ASP	3.3
11	c6	112	TYR	3.3
74	S6	83	CYS	3.3
28	L3	369	ARG	3.3
48	N4	64	THR	3.3
17	d2	27	ILE	3.3
72	S4	173	ILE	3.3
17	d2	3	ARG	3.3
73	S5	193	THR	3.3
44	N0	135	VAL	3.3
46	N2	28	PHE	3.3
68	S0	122	ILE	3.3
71	s3	25	PHE	3.3
7	c2	52	LEU	3.3
11	c6	20	ALA	3.3
26	e1	105	TYR	3.3
47	n3	81	GLN	3.3
79	sR	252	LEU	3.3
1	1	1565	G	3.3
69	s1	152	ARG	3.3
11	c6	22	VAL	3.3
39	m5	61	ILE	3.3
42	M8	101	VAL	3.3
76	S8	102	VAL	3.3
79	sR	203	THR	3.3
2	6	493	U	3.2
48	N4	71	ARG	3.2
58	o4	33	GLN	3.2
66	q2	82	GLN	3.2

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Mol	Chain	Res	Type	RSRZ
23	D8	45	LYS	3.2
7	c2	22	VAL	3.2
53	n9	35	VAL	3.2
1	1	494	G	3.2
9	c4	60	ALA	3.2
13	c8	3	LEU	3.2
70	S2	86	VAL	3.2
70	S2	98	PHE	3.2
1	1	1569	U	3.2
11	C6	44	LEU	3.2
68	S0	146	LEU	3.2
26	E1	106	TYR	3.2
51	N7	75	VAL	3.2
71	S3	213	GLU	3.2
74	S6	91	GLU	3.2
12	C7	25	THR	3.2
2	6	75	U	3.2
11	C6	48	VAL	3.2
69	s1	231	LEU	3.2
75	S7	138	LYS	3.2
11	c6	55	VAL	3.2
72	S4	70	VAL	3.2
75	S7	108	GLN	3.2
2	2	710	U	3.2
12	C7	70	SER	3.2
72	S4	13	ALA	3.2
16	d1	82	VAL	3.2
30	l5	297	GLN	3.2
73	S5	37	GLN	3.2
23	d8	66	LEU	3.2
76	S8	165	LEU	3.2
11	C6	60	PHE	3.2
45	n1	44	ALA	3.2
11	C6	133	GLY	3.2
8	c3	16	ILE	3.2
20	D5	51	LEU	3.2
22	d7	22	LYS	3.2
25	E0	53	LYS	3.2
28	L3	50	LYS	3.2
2	2	730	G	3.2
7	C2	93	ASP	3.2
30	L5	41	LYS	3.2

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Mol	Chain	Res	Type	RSRZ
76	s8	56	ARG	3.2
58	O4	72	VAL	3.2
76	s8	192	TYR	3.2
45	N1	43	LYS	3.2
7	c2	96	GLN	3.2
9	c4	91	THR	3.2
6	C1	144	ALA	3.2
76	S8	15	GLY	3.2
10	c5	112	LEU	3.2
20	d5	51	LEU	3.2
30	l5	150	LEU	3.2
45	n1	96	ILE	3.2
66	q2	22	GLN	3.2
12	C7	9	VAL	3.2
7	c2	21	GLU	3.2
2	6	492	A	3.2
78	SM	113	ASP	3.2
13	C8	72	ILE	3.2
21	d6	65	PRO	3.2
48	N4	70	LYS	3.2
49	n5	47	ALA	3.2
70	S2	115	ILE	3.2
11	c6	12	LYS	3.2
24	d9	46	LYS	3.2
71	S3	152	PHE	3.2
45	n1	42	ILE	3.2
69	s1	103	MET	3.2
79	SR	225	LEU	3.2
69	S1	153	HIS	3.2
71	S3	170	THR	3.2
32	L7	87	VAL	3.2
53	n9	33	LYS	3.2
53	N9	44	LYS	3.2
79	SR	290	VAL	3.2
22	d7	5	GLN	3.1
63	o9	24	PRO	3.1
6	C1	138	ASN	3.1
72	S4	26	CYS	3.1
18	D3	3	LYS	3.1
54	O0	90	VAL	3.1
58	O4	80	ARG	3.1
6	C1	147	GLY	3.1

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Mol	Chain	Res	Type	RSRZ
2	2	1708	U	3.1
77	S9	93	LEU	3.1
79	SR	226	ALA	3.1
51	N7	131	PHE	3.1
66	q2	91	PHE	3.1
74	s6	131	LYS	3.1
5	c0	22	VAL	3.1
17	d2	68	ARG	3.1
43	m9	49	THR	3.1
5	C0	3	MET	3.1
15	D0	52	LYS	3.1
2	2	723	G	3.1
28	L3	321	PHE	3.1
25	e0	61	SER	3.1
7	C2	107	ASP	3.1
13	C8	146	ALA	3.1
16	D1	54	ALA	3.1
20	d5	41	ILE	3.1
30	l5	60	ILE	3.1
71	S3	171	ALA	3.1
73	S5	121	ILE	3.1
76	s8	44	HIS	3.1
76	S8	200	LYS	3.1
69	S1	100	PHE	3.1
79	SR	251	TRP	3.1
7	C2	52	LEU	3.1
76	S8	166	TYR	3.1
79	SR	34	LEU	3.1
2	2	722	G	3.1
7	c2	66	VAL	3.1
71	S3	25	PHE	3.1
79	sR	251	TRP	3.1
17	D2	85	ASP	3.1
74	s6	93	LYS	3.1
17	D2	128	PHE	3.1
8	c3	151	ASN	3.1
11	C6	123	ARG	3.1
45	N1	24	ALA	3.1
73	s5	130	ILE	3.1
33	L8	165	PHE	3.1
45	n1	74	VAL	3.1
73	S5	148	ARG	3.1

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Mol	Chain	Res	Type	RSRZ
9	c4	126	THR	3.1
11	C6	77	GLN	3.1
59	o5	83	LYS	3.1
7	C2	65	SER	3.1
79	sR	315	VAL	3.1
66	q2	24	LYS	3.1
9	c4	132	ARG	3.1
76	s8	195	ARG	3.1
75	s7	48	GLU	3.1
22	d7	7	LEU	3.1
24	D9	46	LYS	3.1
76	S8	199	LYS	3.1
1	5	1570	U	3.1
10	c5	85	ILE	3.1
7	c2	67	THR	3.1
19	D4	27	VAL	3.1
51	N7	53	VAL	3.1
58	O4	32	ALA	3.1
69	S1	139	ALA	3.1
72	S4	208	VAL	3.1
9	c4	47	LYS	3.1
6	C1	126	GLY	3.1
7	C2	31	VAL	3.1
7	c2	94	ALA	3.1
55	O1	12	TYR	3.1
55	O1	73	LEU	3.1
20	D5	88	ILE	3.1
45	n1	84	TYR	3.1
70	S2	215	PHE	3.1
38	M4	138	ALA	3.1
73	S5	62	VAL	3.1
73	S5	77	TYR	3.1
69	s1	137	ILE	3.1
32	L7	86	VAL	3.0
5	C0	52	LYS	3.0
39	m5	2	GLY	3.0
22	d7	33	LEU	3.0
71	S3	150	MET	3.0
77	S9	20	GLU	3.0
48	N4	12	LYS	3.0
71	s3	135	GLU	3.0
79	sR	202	LEU	3.0

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Mol	Chain	Res	Type	RSRZ
69	s1	46	THR	3.0
71	S3	221	SER	3.0
33	l8	130	TYR	3.0
52	N8	55	LYS	3.0
5	C0	40	LEU	3.0
30	L5	55	PHE	3.0
45	n1	72	VAL	3.0
70	S2	178	ILE	3.0
6	C1	148	LYS	3.0
39	M5	128	LYS	3.0
62	O8	44	LYS	3.0
15	D0	18	GLN	3.0
30	l5	142	PHE	3.0
79	sR	158	PRO	3.0
5	C0	24	LYS	3.0
7	c2	120	VAL	3.0
74	S6	71	THR	3.0
76	S8	117	TYR	3.0
78	SM	85	SER	3.0
11	C6	68	ARG	3.0
77	S9	164	PHE	3.0
11	C6	17	THR	3.0
49	n5	126	LEU	3.0
69	s1	135	LEU	3.0
45	n1	82	ASN	3.0
39	m5	131	GLU	3.0
19	D4	117	LYS	3.0
43	M9	188	ASP	3.0
79	SR	266	ASP	3.0
30	l5	92	LEU	3.0
51	N7	134	LEU	3.0
10	c5	127	ARG	3.0
30	l5	109	THR	3.0
76	s8	97	THR	3.0
15	D0	22	ILE	3.0
77	S9	101	VAL	3.0
11	c6	89	LEU	3.0
68	S0	23	HIS	3.0
68	s0	110	TYR	3.0
76	s8	96	LEU	3.0
11	C6	70	THR	3.0
12	c7	71	PHE	3.0

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Mol	Chain	Res	Type	RSRZ
73	s5	156	ARG	3.0
14	C9	71	VAL	3.0
70	s2	184	VAL	3.0
72	s4	45	ILE	3.0
19	d4	122	GLY	3.0
49	n5	32	PHE	3.0
66	Q2	15	LYS	3.0
69	S1	103	MET	3.0
12	C7	26	LEU	3.0
45	N1	30	TYR	3.0
18	D3	2	GLY	3.0
50	n6	77	LYS	3.0
5	c0	20	VAL	3.0
17	D2	129	VAL	3.0
44	N0	93	GLU	3.0
74	s6	18	ILE	3.0
74	S6	82	SER	3.0
30	l5	171	LEU	3.0
32	L7	112	ASN	3.0
52	N8	110	GLY	3.0
66	q2	51	GLY	3.0
76	S8	22	ARG	3.0
10	C5	85	ILE	3.0
11	c6	21	HIS	3.0
34	l9	99	ILE	3.0
45	n1	80	VAL	3.0
7	c2	88	LEU	3.0
30	l5	143	LYS	3.0
39	m5	62	TYR	3.0
53	N9	41	ARG	3.0
7	C2	123	VAL	3.0
51	N7	23	VAL	3.0
39	m5	57	GLN	3.0
39	m5	63	ARG	3.0
49	n5	141	TYR	3.0
68	S0	174	TRP	3.0
69	S1	213	ARG	3.0
46	N2	27	VAL	3.0
79	SR	136	ILE	3.0
13	c8	12	GLN	3.0
51	N7	22	LYS	3.0
51	N7	4	PHE	3.0

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Mol	Chain	Res	Type	RSRZ
52	n8	53	PHE	3.0
33	L8	99	PRO	3.0
42	M8	99	THR	3.0
69	s1	114	VAL	3.0
11	c6	85	ILE	3.0
7	C2	88	LEU	3.0
11	c6	117	LEU	3.0
36	m1	60	ARG	3.0
43	M9	173	ARG	3.0
71	S3	151	LYS	3.0
71	S3	149	ALA	2.9
71	S3	220	PRO	2.9
79	SR	177	MET	2.9
72	s4	26	CYS	2.9
28	L3	46	PHE	2.9
11	C6	134	ALA	2.9
21	d6	72	HIS	2.9
30	L5	77	ALA	2.9
42	M8	84	VAL	2.9
17	d2	125	ILE	2.9
15	D0	109	GLU	2.9
48	N4	98	PRO	2.9
74	S6	78	THR	2.9
69	s1	43	VAL	2.9
73	s5	68	ILE	2.9
76	S8	152	ILE	2.9
2	2	676	G	2.9
6	c1	5	LEU	2.9
30	l5	128	GLU	2.9
38	M4	37	GLU	2.9
45	n1	91	LEU	2.9
49	N5	40	LEU	2.9
74	S6	76	LEU	2.9
74	s6	149	LYS	2.9
73	S5	69	PHE	2.9
11	C6	36	ILE	2.9
45	N1	95	HIS	2.9
66	Q2	27	GLN	2.9
69	s1	124	ASN	2.9
21	d6	19	LYS	2.9
60	O6	50	LEU	2.9
77	S9	5	PRO	2.9

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Mol	Chain	Res	Type	RSRZ
79	sR	210	LEU	2.9
30	L5	53	VAL	2.9
79	sR	6	VAL	2.9
21	d6	36	ILE	2.9
76	S8	183	ILE	2.9
33	L8	150	LEU	2.9
30	L5	180	PHE	2.9
33	l8	42	PRO	2.9
39	M5	145	ASP	2.9
70	s2	95	ARG	2.9
72	s4	56	LEU	2.9
77	S9	97	LEU	2.9
48	N4	75	THR	2.9
62	o8	6	THR	2.9
71	S3	186	VAL	2.9
73	s5	133	VAL	2.9
79	SR	262	VAL	2.9
11	C6	143	ARG	2.9
17	D2	51	GLU	2.9
69	S1	228	LEU	2.9
5	c0	26	ASP	2.9
79	sR	302	PHE	2.9
11	C6	41	PRO	2.9
6	C1	38	ALA	2.9
71	S3	88	ALA	2.9
51	N7	5	LEU	2.9
59	o5	86	ARG	2.9
74	s6	91	GLU	2.9
21	D6	73	TYR	2.9
45	N1	42	ILE	2.9
14	c9	54	PHE	2.9
2	6	742	U	2.9
11	c6	79	TYR	2.9
46	N2	106	ALA	2.9
68	s0	98	ILE	2.9
69	S1	96	LEU	2.9
79	SR	194	GLY	2.9
15	D0	104	THR	2.9
21	d6	39	MET	2.9
76	s8	95	THR	2.9
30	l5	144	VAL	2.9
16	d1	53	TYR	2.9

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Mol	Chain	Res	Type	RSRZ
66	q2	9	LYS	2.9
22	d7	24	LEU	2.9
26	e1	139	LEU	2.9
41	m7	81	ALA	2.9
69	s1	82	ARG	2.9
39	m5	132	VAL	2.9
45	N1	126	VAL	2.9
77	s9	96	VAL	2.9
30	l5	226	TYR	2.9
37	M3	21	ARG	2.9
49	n5	142	ILE	2.9
78	sM	62	ARG	2.9
11	c6	116	LEU	2.9
33	L8	197	VAL	2.9
46	n2	70	LYS	2.9
48	n4	100	VAL	2.9
74	s6	79	LYS	2.9
1	1	2538	U	2.9
13	c8	125	ILE	2.9
19	d4	7	ILE	2.9
26	E1	91	ILE	2.9
42	M8	76	ALA	2.9
42	M8	124	LEU	2.9
19	d4	123	LYS	2.9
46	n2	13	LYS	2.9
53	N9	42	ASN	2.9
79	sR	294	TRP	2.9
5	C0	65	TYR	2.9
42	m8	170	ARG	2.9
53	N9	47	LEU	2.9
77	S9	119	ALA	2.9
79	SR	220	ILE	2.9
24	D9	33	LYS	2.9
58	O4	5	VAL	2.9
5	C0	35	ILE	2.9
11	C6	81	ILE	2.9
74	s6	109	LEU	2.9
45	N1	32	LYS	2.9
52	n8	56	VAL	2.9
2	2	720	G	2.9
14	C9	28	LEU	2.9
16	d1	8	LEU	2.9

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Mol	Chain	Res	Type	RSRZ
44	N0	29	ILE	2.9
78	SM	16	ASP	2.9
11	c6	7	VAL	2.8
39	m5	43	THR	2.8
69	S1	233	GLY	2.8
72	S4	14	ALA	2.9
72	S4	22	LYS	2.8
41	M7	161	ALA	2.8
78	SM	15	ALA	2.8
48	n4	81	PRO	2.8
69	S1	82	ARG	2.8
2	2	136	C	2.8
2	2	1695	G	2.8
15	D0	86	ILE	2.8
69	S1	207	LEU	2.8
42	m8	87	VAL	2.8
73	s5	134	VAL	2.8
18	d3	141	GLU	2.8
45	n1	83	ARG	2.8
12	c7	53	TYR	2.8
30	l5	51	LEU	2.8
53	n9	23	LYS	2.8
77	S9	10	LYS	2.8
20	D5	60	VAL	2.8
50	N6	79	ALA	2.8
52	n8	64	GLN	2.8
70	S2	112	GLY	2.8
1	1	1563	C	2.8
2	2	731	C	2.8
42	M8	92	ARG	2.8
20	d5	50	ILE	2.8
68	s0	122	ILE	2.8
76	S8	143	TRP	2.8
30	L5	49	TYR	2.8
31	l6	2	SER	2.8
42	M8	85	GLY	2.8
42	M8	102	ALA	2.8
71	S3	9	ARG	2.8
34	L9	189	GLU	2.8
28	L3	359	ILE	2.8
73	s5	42	LEU	2.8
75	S7	154	LEU	2.8

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Mol	Chain	Res	Type	RSRZ
76	s8	83	TYR	2.8
7	c2	116	VAL	2.8
15	D0	116	VAL	2.8
37	m3	2	ALA	2.8
68	S0	73	VAL	2.8
71	S3	51	ARG	2.8
5	c0	24	LYS	2.8
72	S4	101	LEU	2.8
75	S7	153	LEU	2.8
7	c2	23	THR	2.8
47	N3	137	VAL	2.8
52	n8	48	TYR	2.8
66	Q2	25	VAL	2.8
13	C8	123	ARG	2.8
10	c5	56	PHE	2.8
17	D2	27	ILE	2.8
28	l3	140	ASP	2.8
30	l5	64	ILE	2.8
30	L5	61	ILE	2.8
42	m8	153	PHE	2.8
42	M8	96	PHE	2.8
51	n7	134	LEU	2.8
75	S7	60	ILE	2.8
5	c0	37	THR	2.8
5	C0	12	HIS	2.8
30	L5	131	LEU	2.8
36	m1	64	LYS	2.8
7	C2	136	ILE	2.8
43	M9	187	GLU	2.8
48	N4	106	GLU	2.8
53	n9	36	ASP	2.8
62	o8	3	ARG	2.8
69	S1	123	ALA	2.8
70	S2	93	GLY	2.8
49	n5	49	LYS	2.8
53	n9	25	LYS	2.8
62	O8	26	LYS	2.8
69	s1	98	THR	2.8
6	C1	42	PHE	2.8
31	L6	109	GLU	2.8
39	M5	142	ILE	2.8
77	S9	99	LEU	2.8

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Mol	Chain	Res	Type	RSRZ
45	N1	149	GLN	2.8
45	n1	28	SER	2.8
76	S8	83	TYR	2.8
78	SM	17	VAL	2.8
19	d4	128	LYS	2.8
66	Q2	36	PHE	2.8
71	s3	21	LEU	2.8
13	c8	21	ASN	2.8
72	S4	219	VAL	2.8
11	c6	56	GLY	2.8
33	L8	196	ALA	2.8
41	m7	161	ALA	2.8
78	sM	83	LYS	2.8
50	n6	48	LEU	2.8
55	o1	71	LEU	2.8
20	D5	100	ILE	2.8
30	l5	126	GLU	2.8
74	S6	162	VAL	2.8
78	SM	69	ARG	2.8
70	S2	186	LYS	2.8
43	M9	169	ALA	2.8
69	s1	102	GLY	2.8
72	s4	207	LEU	2.8
44	N0	96	ASP	2.8
71	S3	136	VAL	2.8
71	s3	186	VAL	2.8
8	c3	61	THR	2.8
7	C2	104	GLY	2.8
33	L8	169	LEU	2.8
45	N1	125	ALA	2.8
24	d9	56	ARG	2.8
44	N0	121	ILE	2.8
55	O1	75	ILE	2.8
77	S9	148	VAL	2.8
8	C3	141	TYR	2.8
17	d2	37	PHE	2.8
20	D5	62	VAL	2.7
39	M5	135	VAL	2.7
45	N1	25	VAL	2.7
6	C1	127	GLN	2.7
39	M5	57	GLN	2.7
79	SR	79	TYR	2.7

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Mol	Chain	Res	Type	RSRZ
69	S1	46	THR	2.7
75	S7	59	ALA	2.7
75	S7	126	LEU	2.7
23	d8	45	LYS	2.7
43	M9	181	ARG	2.7
77	s9	141	VAL	2.7
76	s8	188	GLU	2.7
11	C6	79	TYR	2.7
7	c2	78	LEU	2.7
9	c4	99	GLN	2.7
12	C7	16	LEU	2.7
42	M8	2	GLY	2.7
49	n5	50	ALA	2.7
73	S5	93	LEU	2.7
13	c8	126	ARG	2.7
14	c9	92	LYS	2.7
15	D0	61	LYS	2.7
48	n4	69	LYS	2.7
68	S0	119	ARG	2.7
53	N9	31	SER	2.7
69	s1	210	ILE	2.7
11	c6	49	TYR	2.7
77	S9	12	TYR	2.7
30	l5	113	LEU	2.7
76	s8	67	TRP	2.7
77	s9	93	LEU	2.7
2	2	717	C	2.7
19	D4	118	ILE	2.7
30	l5	65	ILE	2.7
45	N1	93	VAL	2.7
73	S5	162	VAL	2.7
13	C8	25	ASN	2.7
33	L8	202	GLU	2.7
6	C1	60	PHE	2.7
5	C0	19	GLY	2.7
50	n6	79	ALA	2.7
15	D0	83	GLU	2.7
42	m8	168	THR	2.7
68	s0	97	PRO	2.7
69	s1	228	LEU	2.7
28	L3	48	GLY	2.7
34	L9	134	ILE	2.7

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Mol	Chain	Res	Type	RSRZ
68	s0	54	TRP	2.7
8	c3	141	TYR	2.7
27	l2	76	PHE	2.7
71	s3	24	PHE	2.7
76	S8	182	TYR	2.7
48	N4	109	LEU	2.7
6	C1	33	ARG	2.7
6	c1	2	SER	2.7
8	C3	42	ARG	2.7
19	d4	127	LYS	2.7
49	n5	28	THR	2.7
53	N9	40	ARG	2.7
61	o7	65	ARG	2.7
9	c4	28	VAL	2.7
22	d7	2	VAL	2.7
30	l5	175	HIS	2.7
38	m4	44	VAL	2.7
39	m5	133	ILE	2.7
69	s1	123	ALA	2.7
15	D0	15	GLN	2.7
63	o9	36	ARG	2.7
7	c2	60	VAL	2.7
34	l9	93	VAL	2.7
51	n7	96	VAL	2.7
68	s0	144	ILE	2.7
11	C6	13	LYS	2.7
71	S3	17	PHE	2.7
77	S9	34	PHE	2.7
18	D3	42	PRO	2.7
73	S5	130	ILE	2.7
11	c6	60	PHE	2.7
19	d4	85	PHE	2.7
20	D5	58	ARG	2.7
30	L5	146	LEU	2.7
45	N1	35	LYS	2.7
45	N1	50	LYS	2.7
58	O4	37	LYS	2.7
58	O4	58	ARG	2.7
69	S1	83	LYS	2.7
69	s1	151	LYS	2.7
76	S8	109	PHE	2.7
79	SR	145	LEU	2.7

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Mol	Chain	Res	Type	RSRZ
74	s6	81	VAL	2.7
10	c5	84	ILE	2.7
44	N0	76	GLY	2.7
1	5	3155	U	2.7
6	C1	26	LYS	2.7
10	C5	110	GLU	2.7
62	o8	11	PHE	2.7
70	s2	225	LEU	2.7
72	s4	47	PHE	2.7
58	O4	16	ARG	2.7
58	O4	74	ARG	2.7
12	C7	24	LEU	2.7
16	D1	55	LEU	2.7
17	d2	26	LEU	2.7
27	l2	111	THR	2.7
59	o5	84	LYS	2.7
66	q2	80	ARG	2.7
71	S3	69	LEU	2.7
61	o7	66	TYR	2.7
72	S4	27	TYR	2.7
32	l7	231	ASN	2.7
10	c5	133	ALA	2.7
71	s3	171	ALA	2.7
30	l5	115	LEU	2.7
59	O5	78	LYS	2.7
77	S9	76	LEU	2.7
15	d0	88	LYS	2.7
17	D2	99	PHE	2.7
62	O8	30	LYS	2.7
78	SM	84	LYS	2.7
37	m3	186	ARG	2.7
30	l5	53	VAL	2.7
61	o7	84	SER	2.7
12	C7	8	THR	2.7
23	D8	19	THR	2.7
71	s3	120	TYR	2.7
54	o0	100	ILE	2.7
2	2	714	G	2.7
6	C1	69	LYS	2.7
11	C6	57	LEU	2.6
13	C8	128	PHE	2.7
51	N7	21	LYS	2.7

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Mol	Chain	Res	Type	RSRZ
68	s0	146	LEU	2.6
30	l5	52	VAL	2.6
66	Q2	73	GLU	2.6
2	6	232	U	2.6
8	C3	45	LEU	2.6
17	d2	128	PHE	2.6
25	E0	44	PHE	2.6
35	M0	219	ALA	2.6
41	M7	160	ALA	2.6
46	n2	14	THR	2.6
51	n7	131	PHE	2.6
76	S8	63	GLY	2.6
24	d9	4	GLU	2.6
68	s0	181	VAL	2.6
73	S5	142	PRO	2.6
5	c0	44	LYS	2.6
6	c1	38	ALA	2.6
11	c6	11	GLY	2.6
69	S1	121	ILE	2.6
71	S3	187	LYS	2.6
49	n5	82	LEU	2.6
72	S4	220	THR	2.6
45	N1	94	GLU	2.6
53	N9	24	PRO	2.6
75	S7	95	GLU	2.6
20	d5	46	LYS	2.6
77	S9	156	ILE	2.6
15	D0	23	ARG	2.6
25	E0	54	ARG	2.6
44	N0	4	PHE	2.6
76	s8	113	PHE	2.6
79	sR	246	SER	2.6
36	M1	109	HIS	2.6
69	s1	119	THR	2.6
74	s6	76	LEU	2.6
6	C1	37	ASN	2.6
27	l2	75	ILE	2.6
28	L3	49	TYR	2.6
60	o6	9	ILE	2.6
74	S6	84	TYR	2.6
12	C7	2	GLY	2.6
21	d6	29	SER	2.6

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Mol	Chain	Res	Type	RSRZ
24	d9	12	ARG	2.6
48	n4	95	SER	2.6
42	M8	100	THR	2.6
59	o5	85	THR	2.6
1	5	1582	C	2.6
10	c5	111	MET	2.6
8	C3	78	ASN	2.6
9	c4	27	PHE	2.6
21	d6	85	ARG	2.6
60	O6	78	GLY	2.6
62	O8	28	ASN	2.6
72	S4	200	ARG	2.6
70	s2	154	LEU	2.6
5	C0	56	LYS	2.6
6	C1	105	LYS	2.6
7	C2	126	TRP	2.6
34	L9	86	TYR	2.6
53	n9	27	TYR	2.6
45	n1	88	ARG	2.6
68	s0	76	ILE	2.6
24	D9	23	VAL	2.6
36	m1	62	ASN	2.6
58	O4	18	ASN	2.6
58	O4	39	ALA	2.6
66	q2	27	GLN	2.6
45	n1	97	LYS	2.6
46	n2	67	SER	2.6
79	SR	157	VAL	2.6
79	SR	261	LYS	2.6
30	L5	126	GLU	2.6
6	c1	11	ARG	2.6
69	S1	47	LEU	2.6
21	d6	37	LYS	2.6
53	n9	22	LYS	2.6
62	O8	45	VAL	2.6
1	5	1573	G	2.6
1	5	1953	G	2.6
32	L7	89	ILE	2.6
59	o5	89	ARG	2.6
73	S5	209	TYR	2.6
42	M8	138	LEU	2.6
76	s8	165	LEU	2.6

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Mol	Chain	Res	Type	RSRZ
6	c1	29	LYS	2.6
12	C7	63	LYS	2.6
14	C9	92	LYS	2.6
43	m9	177	VAL	2.6
62	o8	30	LYS	2.6
79	sR	156	VAL	2.6
43	m9	7	GLN	2.6
15	d0	91	ILE	2.6
45	N1	96	ILE	2.6
51	n7	92	PHE	2.6
7	C2	58	LEU	2.6
22	D7	33	LEU	2.6
36	M1	172	LEU	2.6
52	N8	78	LEU	2.6
45	n1	93	VAL	2.6
53	n9	34	GLY	2.6
69	s1	160	HIS	2.6
11	C6	47	LYS	2.6
42	M8	81	VAL	2.6
66	q2	13	LYS	2.6
79	SR	130	THR	2.6
2	6	655	G	2.6
11	C6	52	LEU	2.6
25	E0	46	ASN	2.6
63	o9	7	PHE	2.6
9	C4	15	GLY	2.6
69	S1	212	VAL	2.6
74	s6	90	GLY	2.6
18	D3	117	ILE	2.6
17	D2	41	MET	2.6
33	l8	52	TRP	2.6
75	s7	154	LEU	2.6
30	l5	125	VAL	2.6
45	n1	36	VAL	2.6
71	S3	185	LYS	2.6
77	S9	4	ALA	2.6
11	C6	46	PHE	2.6
14	C9	113	ILE	2.6
15	D0	20	ILE	2.6
30	l5	105	ILE	2.6
36	m1	125	MET	2.6
42	M8	71	LEU	2.6

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Mol	Chain	Res	Type	RSRZ
45	n1	76	ILE	2.6
68	s0	120	LEU	2.6
73	s5	58	LEU	2.6
72	S4	33	ALA	2.6
14	C9	134	ARG	2.6
13	c8	73	MET	2.6
24	d9	34	TYR	2.6
33	l8	152	LEU	2.6
33	l8	162	LEU	2.6
70	S2	87	GLN	2.6
79	SR	170	ILE	2.6
34	L9	90	MET	2.6
51	N7	13	VAL	2.6
11	C6	20	ALA	2.6
13	c8	44	ASN	2.6
2	2	192	U	2.6
13	c8	131	LEU	2.6
21	D6	17	HIS	2.6
75	S7	61	PHE	2.6
12	C7	42	GLN	2.6
42	m8	171	LYS	2.6
49	n5	95	ILE	2.6
63	o9	40	LYS	2.6
13	C8	133	VAL	2.6
68	S0	32	HIS	2.5
73	S5	190	ILE	2.5
2	6	494	U	2.5
13	c8	58	ALA	2.5
36	M1	102	PHE	2.5
22	D7	8	LEU	2.5
23	D8	9	LEU	2.5
49	n5	120	LYS	2.5
75	S7	149	ILE	2.5
5	C0	58	GLN	2.5
26	e1	109	ASP	2.5
72	S4	225	VAL	2.5
72	S4	100	ARG	2.5
62	o8	29	LYS	2.5
20	D5	40	VAL	2.5
6	C1	88	ARG	2.5
52	n8	79	TRP	2.5
28	L3	337	THR	2.5

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Mol	Chain	Res	Type	RSRZ
69	s1	156	ALA	2.5
20	d5	92	ILE	2.5
32	L7	228	SER	2.5
71	S3	12	VAL	2.5
6	C1	34	TRP	2.5
66	Q2	18	ARG	2.5
6	C1	145	ALA	2.5
9	c4	106	ALA	2.5
17	d2	60	LYS	2.5
43	m9	174	ALA	2.5
49	n5	45	LYS	2.5
69	s1	105	PHE	2.5
71	S3	204	ASP	2.5
6	c1	30	ARG	2.5
25	E0	2	ALA	2.5
26	e1	128	ALA	2.5
72	S4	109	PHE	2.5
70	S2	211	LEU	2.5
33	l8	202	GLU	2.5
77	S9	147	MET	2.5
6	c1	141	LYS	2.5
71	S3	200	LYS	2.5
74	S6	64	LYS	2.5
79	SR	223	TRP	2.5
6	c1	140	VAL	2.5
7	c2	89	ILE	2.5
49	N5	24	LEU	2.5
79	sR	193	ILE	2.5
66	q2	11	TYR	2.5
66	q2	21	THR	2.5
68	s0	180	GLU	2.5
71	S3	40	ARG	2.5
6	c1	34	TRP	2.5
7	C2	94	ALA	2.5
10	c5	101	ALA	2.5
29	l4	187	LEU	2.5
34	l9	95	ALA	2.5
51	N7	50	PRO	2.5
2	2	249	U	2.5
46	n2	93	ILE	2.5
62	o8	54	LEU	2.5
6	c1	33	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
13	C8	127	HIS	2.5
49	n5	26	VAL	2.5
51	N7	12	VAL	2.5
26	e1	80	ARG	2.5
26	e1	85	TYR	2.5
45	n1	45	ASN	2.5
62	o8	52	TYR	2.5
73	S5	181	GLU	2.5
5	C0	37	THR	2.5
5	C0	57	THR	2.5
15	d0	67	THR	2.5
19	D4	128	LYS	2.5
24	d9	33	LYS	2.5
1	5	1571	A	2.5
73	s5	69	PHE	2.5
48	N4	125	ALA	2.5
51	n7	81	LEU	2.5
70	s2	92	ALA	2.5
79	SR	180	ALA	2.5
12	C7	41	ILE	2.5
45	n1	63	VAL	2.5
62	o8	25	VAL	2.5
75	s7	62	VAL	2.5
30	L5	198	TYR	2.5
42	m8	164	ARG	2.5
44	N0	122	HIS	2.5
28	L3	365	PHE	2.5
39	M5	181	ASN	2.5
66	Q2	32	LYS	2.5
75	s7	133	THR	2.5
8	c3	57	ALA	2.5
12	C7	13	SER	2.5
18	d3	120	VAL	2.5
43	m9	32	ILE	2.5
70	S2	104	VAL	2.5
5	C0	13	GLN	2.5
1	1	1566	A	2.5
33	L8	177	TYR	2.5
43	m9	53	LYS	2.5
48	n4	91	LYS	2.5
51	N7	31	GLU	2.5
55	o1	110	GLU	2.5

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Mol	Chain	Res	Type	RSRZ
69	s1	153	HIS	2.5
45	n1	46	GLY	2.5
64	q0	92	ASP	2.5
45	N1	29	THR	2.5
75	S7	137	GLY	2.5
11	c6	81	ILE	2.5
11	c6	90	VAL	2.5
17	D2	102	VAL	2.5
71	s3	208	ILE	2.5
76	s8	100	ALA	2.5
55	o1	74	ARG	2.5
71	s3	116	ARG	2.5
45	n1	57	TYR	2.5
50	N6	3	LYS	2.5
52	n8	38	GLN	2.5
74	S6	135	PRO	2.5
33	l8	230	LYS	2.5
6	C1	156	PHE	2.5
69	s1	38	PHE	2.5
45	N1	98	HIS	2.5
9	c4	33	LEU	2.5
34	l9	144	ILE	2.5
39	m5	114	ARG	2.5
49	N5	25	LYS	2.5
74	s6	177	ARG	2.5
79	sR	35	SER	2.5
46	n2	71	PHE	2.5
69	s1	142	PHE	2.5
73	S5	75	GLY	2.5
73	s5	70	VAL	2.5
75	s7	52	ALA	2.5
77	S9	113	VAL	2.5
77	s9	135	ALA	2.5
26	E1	83	LYS	2.5
53	N9	58	LYS	2.5
71	s3	151	LYS	2.5
78	SM	53	ARG	2.5
79	sR	74	THR	2.5
5	C0	62	GLN	2.5
6	c1	97	TYR	2.5
20	d5	101	TYR	2.5
39	m5	59	PHE	2.5

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Mol	Chain	Res	Type	RSRZ
70	s2	215	PHE	2.5
6	C1	66	ILE	2.5
38	M4	15	VAL	2.5
45	N1	88	ARG	2.5
70	s2	115	ILE	2.5
73	s5	62	VAL	2.5
49	N5	121	LYS	2.5
5	C0	75	TYR	2.5
11	c6	10	PHE	2.5
15	D0	92	ASP	2.5
68	s0	107	PHE	2.5
15	d0	24	ILE	2.5
24	d9	54	LYS	2.5
58	O4	9	ARG	2.5
11	C6	120	ASP	2.4
77	s9	34	PHE	2.5
20	D5	47	TYR	2.4
32	l7	149	TYR	2.4
36	m1	167	TYR	2.4
8	c3	14	SER	2.4
25	e0	56	MET	2.4
32	L7	108	LEU	2.4
68	S0	18	LEU	2.4
72	S4	52	LEU	2.4
13	C8	5	VAL	2.4
15	D0	85	ARG	2.4
34	L9	144	ILE	2.4
51	N7	74	VAL	2.4
76	S8	101	ILE	2.4
10	C5	102	PHE	2.4
13	c8	129	TRP	2.4
32	l7	214	TRP	2.4
47	N3	85	TRP	2.4
49	N5	84	PHE	2.4
51	N7	129	TRP	2.4
76	s8	191	PHE	2.4
20	D5	67	ASP	2.4
77	S9	36	LEU	2.4
6	C1	140	VAL	2.4
26	E1	92	LYS	2.4
68	S0	76	ILE	2.4
70	s2	97	ARG	2.4

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Mol	Chain	Res	Type	RSRZ
73	s5	102	ARG	2.4
74	S6	92	ARG	2.4
76	s8	22	ARG	2.4
28	L3	51	ALA	2.4
35	m0	221	ALA	2.4
42	m8	102	ALA	2.4
76	s8	86	SER	2.4
36	m1	163	PHE	2.4
30	L5	30	TYR	2.4
48	N4	107	GLU	2.4
68	S0	36	TYR	2.4
20	D5	98	GLN	2.4
26	E1	94	LYS	2.4
30	L5	143	LYS	2.4
68	s0	74	VAL	2.4
69	S1	152	ARG	2.4
76	S8	123	LYS	2.4
9	c4	15	GLY	2.4
14	c9	62	ALA	2.4
21	d6	43	ASN	2.4
37	m3	3	ILE	2.4
39	m5	183	THR	2.4
45	n1	62	GLY	2.4
49	n5	48	SER	2.4
76	S8	30	GLY	2.4
33	l8	91	PHE	2.4
17	d2	46	TYR	2.4
26	e1	103	LEU	2.4
77	s9	30	LEU	2.4
79	sR	81	LEU	2.4
68	S0	86	VAL	2.4
9	C4	12	GLN	2.4
21	d6	33	ASP	2.4
23	D8	40	ILE	2.4
2	2	733	A	2.4
2	2	1710	U	2.4
4	8	38	U	2.4
28	L3	44	THR	2.4
39	M5	185	ALA	2.4
78	sM	42	ALA	2.4
62	O8	57	ASN	2.4
9	c4	127	ARG	2.4

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Mol	Chain	Res	Type	RSRZ
23	D8	56	LEU	2.4
24	D9	16	LYS	2.4
51	n7	87	LEU	2.4
30	L5	52	VAL	2.4
63	o9	37	TYR	2.4
66	q2	73	GLU	2.4
71	S3	132	LYS	2.4
30	L5	174	PRO	2.4
36	m1	59	ILE	2.4
52	n8	34	MET	2.4
6	C1	118	GLN	2.4
77	s9	158	PHE	2.4
25	e0	22	GLU	2.4
30	l5	44	TYR	2.4
30	L5	173	VAL	2.4
68	s0	119	ARG	2.4
74	S6	109	LEU	2.4
2	2	754	A	2.4
6	c1	66	ILE	2.4
68	s0	170	ILE	2.4
79	SR	221	MET	2.4
76	s8	103	GLN	2.4
5	c0	40	LEU	2.4
11	C6	15	SER	2.4
12	C7	113	LEU	2.4
46	N2	94	ARG	2.4
52	n8	63	LYS	2.4
68	S0	123	VAL	2.4
70	S2	225	LEU	2.4
29	L4	18	ASN	2.4
69	s1	193	ILE	2.4
12	c7	24	LEU	2.4
79	sR	62	LYS	2.4
2	2	726	C	2.4
7	C2	26	ASP	2.4
48	n4	99	GLU	2.4
58	O4	6	THR	2.4
66	Q2	28	TYR	2.4
72	s4	220	THR	2.4
79	SR	209	THR	2.4
10	C5	56	PHE	2.4
13	C8	73	MET	2.4

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Mol	Chain	Res	Type	RSRZ
58	O4	11	ASN	2.4
66	q2	101	GLY	2.4
56	o2	77	ALA	2.4
69	S1	142	PHE	2.4
71	S3	205	ALA	2.4
9	c4	42	VAL	2.4
30	l5	50	ARG	2.4
55	o1	93	VAL	2.4
56	o2	76	VAL	2.4
58	O4	23	VAL	2.4
66	q2	69	VAL	2.4
77	s9	136	VAL	2.4
77	s9	148	VAL	2.4
79	sR	225	LEU	2.4
35	m0	134	ILE	2.4
42	M8	86	THR	2.4
74	S6	180	THR	2.4
40	M6	182	ASN	2.4
52	N8	116	GLY	2.4
77	S9	91	LYS	2.4
35	m0	51	HIS	2.4
39	m5	116	LEU	2.4
7	c2	99	GLU	2.4
39	m5	119	TYR	2.4
15	D0	91	ILE	2.4
58	o4	29	ILE	2.4
78	sM	61	ILE	2.4
2	2	712	G	2.4
21	d6	8	ASN	2.4
30	L5	233	ALA	2.4
39	M5	5	LYS	2.4
39	M5	176	LYS	2.4
76	s8	54	LYS	2.4
76	S8	135	LYS	2.4
2	2	725	U	2.4
7	C2	75	VAL	2.4
11	c6	52	LEU	2.4
53	n9	11	ASN	2.4
66	q2	18	ARG	2.4
13	C8	4	VAL	2.4
17	d2	121	VAL	2.4
43	m9	51	VAL	2.4

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Mol	Chain	Res	Type	RSRZ
6	C1	4	GLU	2.4
30	l5	129	TYR	2.4
76	s8	32	GLN	2.4
11	c6	36	ILE	2.4
68	S0	38	PHE	2.4
75	S7	181	ILE	2.4
76	S8	78	ILE	2.4
2	2	541	A	2.4
28	L3	45	SER	2.4
32	l7	90	LYS	2.4
33	l8	120	LYS	2.4
71	s3	187	LYS	2.4
11	c6	86	ALA	2.4
62	O8	39	ARG	2.4
9	C4	13	VAL	2.4
17	d2	25	VAL	2.4
21	d6	69	ASN	2.4
14	C9	55	TYR	2.4
45	n1	87	LYS	2.4
58	o4	24	LYS	2.4
15	D0	102	ARG	2.4
21	D6	63	ALA	2.4
24	D9	12	ARG	2.4
34	l9	91	ARG	2.4
26	E1	108	VAL	2.4
37	m3	54	LEU	2.4
48	n4	64	THR	2.4
14	C9	18	TYR	2.4
15	D0	24	ILE	2.4
15	D0	87	HIS	2.4
18	D3	107	PHE	2.4
18	D3	118	PRO	2.4
32	L7	90	LYS	2.4
43	m9	52	LYS	2.4
44	N0	129	ILE	2.4
73	s5	72	HIS	2.4
74	s6	16	PHE	2.4
76	s8	43	ILE	2.4
76	s8	65	PHE	2.4
11	c6	133	GLY	2.4
24	D9	22	ARG	2.4
39	m5	186	GLY	2.4

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Mol	Chain	Res	Type	RSRZ
70	S2	163	GLY	2.4
11	C6	105	LEU	2.4
19	D4	25	VAL	2.4
42	m8	175	ALA	2.4
49	n5	57	LEU	2.4
70	S2	103	VAL	2.4
74	S6	77	LEU	2.4
79	SR	230	ALA	2.4
1	5	250	U	2.4
66	q2	7	THR	2.4
28	L3	314	TYR	2.4
21	d6	16	GLY	2.4
39	m5	162	ARG	2.4
39	M5	37	HIS	2.4
72	s4	57	ASN	2.4
6	C1	154	ALA	2.4
60	o6	8	ALA	2.4
73	S5	70	VAL	2.4
15	d0	27	THR	2.4
30	l5	43	LYS	2.4
34	L9	99	ILE	2.3
47	N3	95	PHE	2.4
52	n8	55	LYS	2.4
11	c6	124	PRO	2.3
10	C5	83	MET	2.3
30	l5	182	GLY	2.3
33	L8	152	LEU	2.3
45	N1	77	ASN	2.3
75	S7	53	GLY	2.3
18	D3	122	PHE	2.3
76	S8	86	SER	2.3
11	C6	40	GLU	2.3
28	l3	106	TRP	2.3
77	s9	6	ARG	2.3
26	e1	98	VAL	2.3
35	m0	52	LEU	2.3
5	C0	30	ALA	2.3
39	m5	64	VAL	2.3
53	n9	57	ALA	2.3
39	m5	152	CYS	2.3
1	5	2571	U	2.3
5	C0	27	PHE	2.3

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Mol	Chain	Res	Type	RSRZ
18	d3	11	SER	2.3
54	o0	35	ARG	2.3
7	C2	49	THR	2.3
10	c5	83	MET	2.3
15	D0	50	LEU	2.3
33	L8	162	LEU	2.3
42	m8	166	LEU	2.3
69	s1	37	THR	2.3
74	S6	102	VAL	2.3
77	s9	5	PRO	2.3
12	C7	14	LYS	2.3
9	c4	115	ILE	2.3
12	c7	17	ILE	2.3
2	6	930	A	2.3
17	d2	30	SER	2.3
26	e1	119	ARG	2.3
30	l5	133	GLU	2.3
39	m5	201	ARG	2.3
57	O3	51	TYR	2.3
73	s5	90	ILE	2.3
44	n0	93	GLU	2.3
69	s1	154	SER	2.3
1	5	2306	C	2.3
7	c2	26	ASP	2.3
7	c2	126	TRP	2.3
34	L9	34	LEU	2.3
11	C6	128	LYS	2.3
39	M5	102	ALA	2.3
58	O4	12	PRO	2.3
74	S6	79	LYS	2.3
78	sM	34	LYS	2.3
17	d2	53	ILE	2.3
37	m3	89	TYR	2.3
39	m5	142	ILE	2.3
39	M5	143	ARG	2.3
46	n2	108	TYR	2.3
53	n9	41	ARG	2.3
72	S4	39	ARG	2.3
74	S6	94	ARG	2.3
74	S6	208	TYR	2.3
19	D4	74	LEU	2.3
30	L5	37	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
42	m8	124	LEU	2.3
43	m9	127	SER	2.3
72	S4	207	LEU	2.3
76	S8	70	GLU	2.3
47	N3	16	GLY	2.3
78	sM	110	TRP	2.3
7	C2	73	LYS	2.3
77	s9	94	ASP	2.3
30	L5	223	PHE	2.3
6	C1	30	ARG	2.3
30	L5	244	HIS	2.3
33	L8	130	TYR	2.3
48	N4	47	ARG	2.3
54	o0	44	ILE	2.3
64	q0	77	ILE	2.3
1	1	1762	C	2.3
13	C8	124	GLY	2.3
18	d3	24	TRP	2.3
21	d6	34	LYS	2.3
21	d6	66	LYS	2.3
44	N0	27	MET	2.3
74	S6	54	GLY	2.3
8	c3	26	PHE	2.3
75	S7	150	GLN	2.3
78	sM	52	PRO	2.3
79	sR	253	ALA	2.3
5	C0	79	TYR	2.3
7	c2	24	ILE	2.3
10	c5	121	ILE	2.3
11	C6	82	ARG	2.3
11	c6	68	ARG	2.3
27	L2	70	ARG	2.3
28	L3	80	ASP	2.3
14	c9	66	TYR	2.3
21	D6	18	VAL	2.3
50	n6	111	LEU	2.3
66	Q2	70	LEU	2.3
71	S3	135	GLU	2.3
54	O0	11	ASN	2.3
78	sM	84	LYS	2.3
21	d6	35	ALA	2.3
44	n0	4	PHE	2.3

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Mol	Chain	Res	Type	RSRZ
45	n1	49	GLN	2.3
69	s1	60	ALA	2.3
49	n5	67	ILE	2.3
68	s0	141	ILE	2.3
78	SM	54	PRO	2.3
6	c1	31	THR	2.3
10	c5	9	LYS	2.3
33	L8	211	LEU	2.3
42	M8	83	VAL	2.3
49	n5	124	VAL	2.3
59	o5	80	LEU	2.3
59	o5	96	GLU	2.3
69	s1	207	LEU	2.3
18	D3	71	CYS	2.3
16	D1	87	ARG	2.3
21	d6	15	ARG	2.3
47	N3	81	GLN	2.3
48	N4	90	ILE	2.3
69	s1	165	ARG	2.3
70	s2	183	ALA	2.3
74	S6	85	ARG	2.3
6	c1	139	VAL	2.3
10	C5	124	THR	2.3
10	c5	76	VAL	2.3
15	d0	63	LEU	2.3
51	n7	12	VAL	2.3
71	S3	48	VAL	2.3
65	q1	5	TRP	2.3
79	sR	61	PHE	2.3
79	SR	195	HIS	2.3
14	c9	94	ILE	2.3
76	s8	72	ILE	2.3
24	D9	34	TYR	2.3
53	N9	35	VAL	2.3
71	s3	138	VAL	2.3
72	S4	76	VAL	2.3
75	S7	67	LEU	2.3
76	S8	82	VAL	2.3
76	S8	184	LEU	2.3
79	SR	270	LEU	2.3
6	C1	121	ASP	2.3
32	L7	109	THR	2.3

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Mol	Chain	Res	Type	RSRZ
33	l8	196	ALA	2.3
1	1	1800	A	2.3
38	M4	32	LEU	2.3
39	M5	62	TYR	2.3
43	M9	185	LEU	2.3
51	n7	74	VAL	2.3
74	s6	135	PRO	2.3
77	s9	144	PRO	2.3
77	s9	145	SER	2.3
30	l5	180	PHE	2.3
27	l2	77	ILE	2.3
30	l5	8	LYS	2.3
46	n2	105	LEU	2.3
53	N9	32	LEU	2.3
66	Q2	78	LYS	2.3
70	s2	211	LEU	2.3
71	s3	142	LEU	2.3
68	S0	109	ASN	2.3
77	S9	145	SER	2.3
21	D6	89	ARG	2.3
34	L9	190	ASP	2.3
42	m8	178	ARG	2.3
45	n1	79	MET	2.3
58	O4	10	ARG	2.3
74	s6	145	PHE	2.3
79	sR	72	THR	2.3
27	l2	251	LYS	2.3
49	n5	113	LEU	2.3
73	S5	72	HIS	2.3
30	L5	63	GLN	2.3
7	C2	99	GLU	2.3
2	6	234	G	2.3
23	D8	42	ARG	2.3
30	l5	36	LEU	2.3
34	L9	112	ILE	2.3
39	m5	176	LYS	2.3
44	N0	31	ALA	2.3
51	N7	68	ILE	2.3
62	O8	2	ALA	2.3
71	S3	7	LYS	2.3
73	S5	125	THR	2.3
49	n5	107	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
5	c0	29	GLN	2.3
60	o6	80	PHE	2.3
66	Q2	8	ARG	2.3
73	s5	76	ARG	2.3
74	S6	72	ARG	2.3
74	S6	145	PHE	2.3
11	c6	106	LYS	2.3
46	n2	69	ALA	2.3
51	n7	126	LYS	2.3
75	S7	46	ILE	2.3
20	d5	43	ASP	2.3
36	M1	171	VAL	2.3
50	N6	73	VAL	2.3
14	c9	18	TYR	2.3
66	Q2	54	THR	2.3
33	L8	228	GLU	2.2
44	N0	95	ARG	2.2
66	Q2	80	ARG	2.2
28	L3	309	GLY	2.2
78	SM	52	PRO	2.2
55	O1	93	VAL	2.2
59	o5	88	LEU	2.2
73	s5	97	LEU	2.2
79	sR	301	LEU	2.2
79	SR	244	ALA	2.2
68	S0	121	VAL	2.2
17	D2	101	TYR	2.2
68	s0	157	ASP	2.2
70	s2	140	ARG	2.2
11	C6	124	PRO	2.2
39	m5	184	LYS	2.2
45	n1	103	GLN	2.2
73	S5	204	GLY	2.2
79	SR	206	PRO	2.2
10	c5	86	VAL	2.2
19	D4	7	ILE	2.2
48	N4	20	LEU	2.2
62	O8	27	ILE	2.2
71	s3	206	VAL	2.2
72	S4	147	ILE	2.2
79	sR	223	TRP	2.2
30	L5	44	TYR	2.2

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Mol	Chain	Res	Type	RSRZ
74	S6	98	ARG	2.2
1	5	781	G	2.2
10	C5	71	GLU	2.2
6	C1	59	PRO	2.2
10	c5	132	GLY	2.2
14	C9	65	ILE	2.2
50	n6	70	ILE	2.2
55	o1	75	ILE	2.2
72	S4	31	PRO	2.2
72	S4	56	LEU	2.2
74	s6	83	CYS	2.2
79	sR	157	VAL	2.2
6	C1	11	ARG	2.2
11	C6	66	ARG	2.2
49	n5	46	TYR	2.2
74	s6	92	ARG	2.2
76	s8	21	PHE	2.2
2	2	708	C	2.2
9	c4	128	LYS	2.2
22	d7	70	LYS	2.2
41	m7	80	LYS	2.2
78	SM	174	LYS	2.2
2	2	820	U	2.2
6	C1	63	LEU	2.2
7	c2	75	VAL	2.2
14	C9	124	ILE	2.2
22	d7	26	GLN	2.2
71	s3	140	GLY	2.2
15	D0	118	VAL	2.2
30	l5	134	ALA	2.2
30	L5	150	LEU	2.2
35	m0	152	LEU	2.2
79	sR	180	ALA	2.2
49	n5	56	ARG	2.2
58	o4	10	ARG	2.2
20	D5	85	LYS	2.2
30	L5	27	LYS	2.2
40	M6	42	ASN	2.2
32	L7	114	GLY	2.2
52	n8	37	GLY	2.2
15	D0	56	VAL	2.2
16	D1	47	PRO	2.2

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Mol	Chain	Res	Type	RSRZ
26	e1	102	VAL	2.2
52	n8	78	LEU	2.2
54	O0	42	ILE	2.2
74	s6	75	LEU	2.2
74	s6	97	VAL	2.2
75	s7	126	LEU	2.2
44	n0	88	HIS	2.2
75	s7	63	PRO	2.2
20	D5	97	LYS	2.2
48	N4	102	LYS	2.2
37	m3	95	ILE	2.2
75	S7	99	LEU	2.2
73	S5	117	THR	2.2
79	SR	168	THR	2.2
79	SR	227	ALA	2.2
11	c6	135	ARG	2.2
13	c8	128	PHE	2.2
63	o9	30	ARG	2.2
34	L9	87	LYS	2.2
74	S6	164	LYS	2.2
74	S6	171	LYS	2.2
76	S8	65	PHE	2.2
2	2	657	U	2.2
7	C2	122	VAL	2.2
15	D0	58	LEU	2.2
42	m8	140	LEU	2.2
75	S7	62	VAL	2.2
20	d5	39	ALA	2.2
9	c4	94	PRO	2.2
21	D6	70	LYS	2.2
36	m1	159	THR	2.2
43	m9	182	ASP	2.2
45	N1	69	LYS	2.2
60	o6	2	THR	2.2
70	s2	64	LYS	2.2
76	S8	95	THR	2.2
7	C2	66	VAL	2.2
24	D9	17	GLY	2.2
26	E1	84	VAL	2.2
43	M9	17	VAL	2.2
68	S0	144	ILE	2.2
69	s1	53	GLY	2.2

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Mol	Chain	Res	Type	RSRZ
70	S2	139	ILE	2.2
44	N0	8	GLN	2.2
45	N1	55	LYS	2.2
49	n5	65	GLN	2.2
73	s5	154	ALA	2.2
75	s7	42	GLN	2.2
77	S9	100	LYS	2.2
47	n3	85	TRP	2.2
13	c8	15	LEU	2.2
20	D5	65	LEU	2.2
28	L3	74	GLU	2.2
36	M1	19	LEU	2.2
54	O0	43	ILE	2.2
71	S3	208	ILE	2.2
73	S5	96	SER	2.2
5	c0	38	LYS	2.2
13	c8	48	LYS	2.2
28	L3	308	MET	2.2
23	d8	54	LEU	2.2
28	L3	77	THR	2.2
74	S6	80	ASN	2.2
52	n8	41	HIS	2.2
69	s1	188	LEU	2.2
76	S8	97	THR	2.2
9	c4	22	SER	2.2
24	D9	31	ILE	2.2
30	l5	173	VAL	2.2
30	L5	65	ILE	2.2
39	M5	60	VAL	2.2
42	M8	82	VAL	2.2
72	S4	49	ARG	2.2
7	C2	112	ALA	2.2
17	D2	108	ALA	2.2
14	c9	55	TYR	2.2
74	S6	65	GLN	2.2
30	L5	95	TRP	2.2
7	c2	31	VAL	2.2
19	D4	98	GLU	2.2
30	L5	236	LEU	2.2
42	M8	97	PRO	2.2
37	m3	189	GLU	2.2
49	n5	119	THR	2.2

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Mol	Chain	Res	Type	RSRZ
69	s1	96	LEU	2.2
5	c0	27	PHE	2.2
21	d6	32	LYS	2.2
27	l2	110	GLY	2.2
44	N0	149	LYS	2.2
69	s1	111	ARG	2.2
72	s4	80	THR	2.2
32	L7	219	LYS	2.2
70	s2	116	LYS	2.2
71	S3	156	PHE	2.2
79	SR	235	SER	2.2
8	c3	62	GLN	2.2
36	M1	108	GLU	2.2
43	m9	123	LEU	2.2
70	S2	184	VAL	2.2
70	S2	196	VAL	2.2
71	S3	21	LEU	2.2
7	C2	105	LYS	2.2
42	m8	151	ARG	2.2
62	o8	66	ILE	2.2
36	m1	109	HIS	2.2
42	m8	152	HIS	2.2
71	S3	53	THR	2.2
79	SR	245	PHE	2.2
8	c3	60	VAL	2.2
23	D8	54	LEU	2.2
45	n1	43	LYS	2.2
45	n1	85	LEU	2.2
49	n5	24	LEU	2.2
62	o8	14	LEU	2.2
21	D6	83	ILE	2.2
42	m8	173	GLU	2.2
47	n3	3	GLY	2.2
48	N4	63	ILE	2.2
66	q2	6	LYS	2.2
74	S6	73	ILE	2.2
29	L4	89	ALA	2.2
30	l5	78	ALA	2.2
73	S5	94	THR	2.2
15	d0	82	TYR	2.2
34	L9	146	LEU	2.2
42	M8	62	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
51	N7	51	LEU	2.2
72	S4	130	GLN	2.2
13	C8	69	ILE	2.2
28	L3	209	PHE	2.2
34	l9	41	ILE	2.2
71	s3	184	ILE	2.2
73	s5	79	ASN	2.2
6	c1	88	ARG	2.2
46	n2	65	VAL	2.2
54	O0	25	LEU	2.2
58	o4	23	VAL	2.2
45	N1	58	GLN	2.2
58	O4	31	ARG	2.2
7	C2	102	GLY	2.1
51	N7	118	PHE	2.2
60	o6	65	GLY	2.1
77	s9	104	PHE	2.2
72	s4	31	PRO	2.1
21	D6	35	ALA	2.1
11	C6	127	LYS	2.1
15	D0	26	LEU	2.1
23	D8	11	LYS	2.1
25	E0	49	LEU	2.1
28	L3	336	VAL	2.1
36	m1	49	LYS	2.1
49	N5	38	LEU	2.1
52	N8	63	LYS	2.1
62	O8	25	VAL	2.1
68	s0	158	VAL	2.1
69	s1	64	ARG	2.1
69	s1	143	THR	2.1
76	s8	90	LEU	2.1
19	D4	22	GLN	2.1
69	s1	67	GLU	2.1
72	S4	90	ILE	2.1
2	2	913	G	2.1
11	C6	80	ALA	2.1
72	S4	84	ALA	2.1
74	S6	62	PRO	2.1
76	s8	85	PRO	2.1
5	c0	75	TYR	2.1
11	c6	13	LYS	2.1

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Mol	Chain	Res	Type	RSRZ
20	D5	57	TYR	2.1
27	l2	156	LYS	2.1
48	n4	93	ARG	2.1
70	S2	61	LEU	2.1
28	L3	358	TRP	2.1
29	L4	114	ASN	2.1
37	m3	12	ASN	2.1
69	S1	124	ASN	2.1
77	S9	52	ILE	2.1
10	C5	113	GLY	2.1
4	8	52	A	2.1
33	l8	129	PRO	2.1
6	C1	139	VAL	2.1
22	d7	82	LYS	2.1
49	n5	122	ALA	2.1
70	S2	190	LEU	2.1
72	s4	128	LYS	2.1
73	S5	159	ALA	2.1
23	D8	49	ARG	2.1
26	E1	130	VAL	2.1
30	l5	218	ARG	2.1
55	o1	92	TYR	2.1
66	Q2	72	LEU	2.1
8	C3	16	ILE	2.1
30	l5	56	THR	2.1
34	L9	45	PHE	2.1
69	s1	24	PHE	2.1
2	6	1228	G	2.1
7	c2	25	GLU	2.1
8	C3	62	GLN	2.1
34	L9	59	ASN	2.1
45	N1	70	SER	2.1
52	n8	46	ASP	2.1
77	s9	133	HIS	2.1
52	n8	54	GLY	2.1
5	c0	45	ALA	2.1
12	c7	9	VAL	2.1
17	d2	124	LYS	2.1
41	M7	158	ALA	2.1
42	M8	91	ALA	2.1
20	d5	40	VAL	2.1
22	D7	22	LYS	2.1

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Mol	Chain	Res	Type	RSRZ
13	C8	116	LEU	2.1
26	E1	85	TYR	2.1
39	M5	66	VAL	2.1
51	N7	37	PRO	2.1
70	s2	193	VAL	2.1
28	l3	311	PHE	2.1
33	L8	94	PHE	2.1
55	O1	39	PHE	2.1
73	s5	137	ILE	2.1
8	c3	67	THR	2.1
39	m5	139	HIS	2.1
41	M7	162	GLU	2.1
58	o4	34	HIS	2.1
5	c0	1	MET	2.1
76	s8	41	LYS	2.1
10	c5	125	PRO	2.1
37	M3	22	VAL	2.1
42	m8	52	LEU	2.1
44	N0	80	ARG	2.1
68	S0	97	PRO	2.1
72	S4	140	VAL	2.1
75	S7	140	VAL	2.1
21	d6	79	ILE	2.1
75	s7	60	ILE	2.1
79	SR	186	PHE	2.1
48	n4	92	GLU	2.1
6	C1	24	LYS	2.1
11	C6	91	ALA	2.1
12	C7	35	CYS	2.1
33	L8	163	VAL	2.1
50	n6	35	LEU	2.1
74	s6	77	LEU	2.1
77	S9	128	LEU	2.1
2	6	1151	A	2.1
4	4	80	A	2.1
72	S4	54	TYR	2.1
73	S5	61	TYR	2.1
5	C0	76	LEU	2.1
5	c0	67	THR	2.1
42	m8	179	ARG	2.1
43	M9	189	ALA	2.1
44	n0	31	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
74	S6	177	ARG	2.1
78	SM	51	ARG	2.1
32	L7	205	PHE	2.1
71	S3	79	TYR	2.1
75	S7	142	TYR	2.1
2	2	1523	G	2.1
39	M5	52	GLY	2.1
42	m8	79	LYS	2.1
51	N7	20	GLY	2.1
62	o8	74	LYS	2.1
6	C1	153	PHE	2.1
12	C7	58	MET	2.1
21	d6	18	VAL	2.1
36	m1	54	VAL	2.1
42	m8	101	VAL	2.1
73	S5	156	ARG	2.1
14	C9	14	PHE	2.1
30	L5	109	THR	2.1
39	M5	139	HIS	2.1
66	q2	23	HIS	2.1
75	S7	58	LEU	2.1
76	s8	58	LEU	2.1
79	SR	243	LEU	2.1
66	q2	26	THR	2.1
9	c4	112	ILE	2.1
32	L7	209	ASN	2.1
36	M1	118	PRO	2.1
58	o4	89	ILE	2.1
14	c9	27	LYS	2.1
33	l8	133	LYS	2.1
72	S4	128	LYS	2.1
75	S7	179	LYS	2.1
78	SM	83	LYS	2.1
23	D8	55	VAL	2.1
30	l5	170	GLY	2.1
10	C5	36	LEU	2.1
36	M1	148	VAL	2.1
42	M8	104	LEU	2.1
68	s0	73	VAL	2.1
69	s1	73	LEU	2.1
71	S3	41	VAL	2.1
74	s6	157	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
79	SR	172	ALA	2.1
11	c6	87	LYS	2.1
13	c8	53	ASP	2.1
15	D0	108	ILE	2.1
28	L3	322	ILE	2.1
69	s1	79	HIS	2.1
79	SR	205	SER	2.1
72	S4	71	LYS	2.1
36	m1	132	ASN	2.1
62	o8	28	ASN	2.1
6	C1	135	VAL	2.1
10	c5	116	LEU	2.1
11	C6	19	VAL	2.1
28	l3	87	VAL	2.1
44	n0	135	VAL	2.1
72	s4	139	VAL	2.1
78	sM	88	ARG	2.1
32	L7	243	MET	2.1
54	o0	70	PHE	2.1
63	O9	2	ALA	2.1
76	s8	109	PHE	2.1
28	L3	367	LYS	2.1
72	S4	69	HIS	2.1
5	C0	26	ASP	2.1
49	n5	112	THR	2.1
9	c4	137	LEU	2.1
34	L9	27	VAL	2.1
45	n1	40	VAL	2.1
45	n1	94	GLU	2.1
49	N5	107	VAL	2.1
72	S4	92	LEU	2.1
77	s9	85	VAL	2.1
77	s9	128	LEU	2.1
79	SR	138	GLY	2.1
18	d3	12	ALA	2.1
20	D5	59	TYR	2.1
49	N5	63	ILE	2.1
1	5	3156	U	2.1
9	c4	44	GLY	2.1
11	c6	126	PRO	2.1
28	L3	382	THR	2.1
29	l4	188	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
58	O4	40	THR	2.1
75	s7	96	ARG	2.1
15	D0	62	VAL	2.1
21	d6	84	VAL	2.1
23	D8	28	VAL	2.1
30	L5	201	GLY	2.1
42	m8	62	VAL	2.1
72	S4	123	LEU	2.1
73	S5	161	ASP	2.1
14	C9	54	PHE	2.1
22	d7	50	ALA	2.1
39	m5	130	PHE	2.1
73	S5	48	PHE	2.1
73	s5	155	ALA	2.1
75	s7	70	PHE	2.1
79	SR	257	ALA	2.1
69	s1	219	LYS	2.1
22	D7	51	GLN	2.1
42	M8	174	ARG	2.1
17	d2	129	VAL	2.1
17	D2	120	HIS	2.1
45	N1	33	VAL	2.1
73	S5	132	VAL	2.1
18	D3	116	ASP	2.1
26	e1	86	THR	2.1
1	1	1764	U	2.1
2	2	1414	U	2.1
4	8	36	G	2.1
39	m5	204	LYS	2.1
70	s2	118	ALA	2.1
63	O9	51	ILE	2.1
76	S8	35	ASN	2.1
77	S9	142	ASN	2.1
11	C6	8	GLN	2.1
19	D4	61	ARG	2.1
11	c6	88	GLY	2.1
53	N9	54	LEU	2.1
70	S2	208	GLU	2.1
79	SR	154	VAL	2.1
39	M5	21	PHE	2.1
58	O4	93	PHE	2.1
70	S2	85	PRO	2.1

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Mol	Chain	Res	Type	RSRZ
72	s4	86	PHE	2.1
79	SR	295	SER	2.1
11	C6	110	THR	2.1
45	n1	75	ILE	2.1
49	n5	88	MET	2.1
69	s1	45	LYS	2.1
74	s6	74	LYS	2.1
78	sM	87	THR	2.1
29	l4	280	ILE	2.1
70	s2	178	ILE	2.1
73	s5	77	TYR	2.1
14	C9	70	GLN	2.1
51	n7	14	VAL	2.1
59	o5	104	GLN	2.1
75	S7	180	GLN	2.1
19	D4	85	PHE	2.1
28	L3	12	GLY	2.1
8	c3	23	PRO	2.0
14	C9	64	HIS	2.0
30	l5	164	LYS	2.0
75	s7	43	PHE	2.1
79	sR	192	PHE	2.1
8	C3	124	ARG	2.0
20	d5	100	ILE	2.0
21	D6	36	ILE	2.0
49	n5	90	ALA	2.0
39	M5	203	ARG	2.0
74	S6	155	ASP	2.0
77	s9	17	ARG	2.0
7	C2	103	LEU	2.0
37	m3	97	VAL	2.0
49	n5	111	ASN	2.0
69	s1	88	VAL	2.0
79	SR	301	LEU	2.0
6	c1	13	PHE	2.0
7	C2	117	GLY	2.0
7	c2	29	LYS	2.0
66	Q2	31	GLY	2.0
76	S8	113	PHE	2.0
7	C2	82	PRO	2.0
69	S1	211	HIS	2.0
72	S4	15	PRO	2.0

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Mol	Chain	Res	Type	RSRZ
79	sR	190	ALA	2.0
6	C1	27	THR	2.0
10	c5	123	TYR	2.0
58	o4	8	ARG	2.0
70	s2	198	THR	2.0
36	M1	80	LEU	2.0
39	m5	60	VAL	2.0
52	n8	123	VAL	2.0
74	s6	147	LEU	2.0
22	d7	72	LYS	2.0
33	l8	43	LYS	2.0
69	s1	145	LYS	2.0
73	s5	128	ASN	2.0
78	sM	57	ASN	2.0
1	5	1838	G	2.0
7	c2	20	ALA	2.0
1	5	1017	C	2.0
54	O0	44	ILE	2.0
17	d2	52	TYR	2.0
52	n8	109	TYR	2.0
25	E0	50	VAL	2.0
46	N2	65	VAL	2.0
1	1	1570	U	2.0
26	E1	107	LYS	2.0
27	L2	63	PHE	2.0
39	M5	93	LYS	2.0
66	Q2	13	LYS	2.0
79	SR	42	LEU	2.0
32	L7	91	GLY	2.0
44	n0	63	GLN	2.0
11	c6	137	ARG	2.0
30	l5	139	PRO	2.0
37	M3	18	TRP	2.0
71	S3	116	ARG	2.0
13	C8	45	LEU	2.0
55	o1	108	VAL	2.0
73	s5	132	VAL	2.0
74	s6	111	LEU	2.0
2	2	279	G	2.0
14	c9	25	GLN	2.0
34	L9	85	GLY	2.0
72	S4	25	GLY	2.0

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Mol	Chain	Res	Type	RSRZ
17	D2	68	ARG	2.0
52	n8	26	ARG	2.0
51	N7	77	TYR	2.0
68	s0	195	TRP	2.0
75	S7	135	ILE	2.0
79	sR	172	ALA	2.0
6	c1	20	PHE	2.0
8	c3	53	LEU	2.0
21	D6	72	HIS	2.0
24	d9	16	LYS	2.0
28	L3	79	VAL	2.0
29	l4	219	LEU	2.0
37	M3	14	PHE	2.0
39	m5	140	LYS	2.0
39	M5	125	SER	2.0
52	n8	47	LYS	2.0
68	S0	102	PHE	2.0
73	s5	84	LYS	2.0
2	2	793	A	2.0
30	L5	59	ASP	2.0
45	n1	38	ASP	2.0
72	S4	199	GLU	2.0
11	c6	91	ALA	2.0
42	M8	93	ILE	2.0
49	n5	27	ARG	2.0
55	o1	14	ILE	2.0
59	o5	114	ARG	2.0
69	S1	193	ILE	2.0
72	S4	148	ARG	2.0
75	s7	47	ARG	2.0
79	SR	114	ASP	2.0
6	C1	125	VAL	2.0
10	C5	98	ASN	2.0
15	D0	55	PRO	2.0
5	C0	60	SER	2.0
6	c1	42	PHE	2.0
33	l8	200	LEU	2.0
36	m1	174	LYS	2.0
71	S3	141	LYS	2.0
74	s6	136	LYS	2.0
1	1	1552	G	2.0
22	d7	19	HIS	2.0

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Mol	Chain	Res	Type	RSRZ
50	N6	72	SER	2.0
7	C2	96	GLN	2.0
11	c6	9	THR	2.0
19	D4	121	THR	2.0
21	d6	10	ARG	2.0
17	D2	83	ILE	2.0
30	L5	64	ILE	2.0
30	L5	297	GLN	2.0
66	q2	10	THR	2.0
66	q2	30	ALA	2.0
71	s3	50	ILE	2.0
72	S4	80	THR	2.0
7	C2	37	VAL	2.0
15	D0	97	VAL	2.0
17	D2	119	LYS	2.0
19	D4	96	LEU	2.0
28	L3	338	LEU	2.0
32	L7	117	VAL	2.0
33	l8	163	VAL	2.0
33	L8	151	VAL	2.0
42	m8	155	MET	2.0
70	s2	197	TYR	2.0
72	S4	126	VAL	2.0
72	S4	134	LYS	2.0
72	s4	208	VAL	2.0
74	S6	136	LYS	2.0
69	S1	81	PHE	2.0
19	d4	120	GLY	2.0
26	E1	118	ARG	2.0
48	n4	80	ARG	2.0
55	O1	11	GLU	2.0
71	S3	214	GLU	2.0

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

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

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
80	MG	6	2054	1/1	0.19	0.42	153,153,153,153	0
80	MG	1	3469	1/1	0.24	0.29	104,104,104,104	0
80	MG	1	3737	1/1	0.27	1.02	121,121,121,121	0
80	MG	6	1921	1/1	0.34	0.55	128,128,128,128	0
80	MG	1	3703	1/1	0.35	0.33	108,108,108,108	0
80	MG	5	3598	1/1	0.35	0.51	95,95,95,95	0
80	MG	8	205	1/1	0.42	0.29	102,102,102,102	0
80	MG	5	3603	1/1	0.46	0.53	112,112,112,112	0
80	MG	4	203	1/1	0.47	0.67	108,108,108,108	0
80	MG	7	205	1/1	0.53	0.09	170,170,170,170	0
80	MG	O2	201	1/1	0.54	0.38	84,84,84,84	0
80	MG	1	3441	1/1	0.54	0.86	142,142,142,142	0
80	MG	2	1999	1/1	0.56	0.13	150,150,150,150	0
80	MG	1	3431	1/1	0.56	0.85	87,87,87,87	0
80	MG	1	3856	1/1	0.56	0.41	94,94,94,94	0
80	MG	1	3761	1/1	0.57	0.67	80,80,80,80	0
80	MG	5	3843	1/1	0.58	0.77	89,89,89,89	0
80	MG	6	1989	1/1	0.59	0.35	131,131,131,131	0
80	MG	5	3431	1/1	0.62	1.06	79,79,79,79	0
80	MG	6	1972	1/1	0.62	0.17	134,134,134,134	0
80	MG	2	1989	1/1	0.64	0.23	150,150,150,150	0
80	MG	2	2017	1/1	0.65	0.18	165,165,165,165	0
80	MG	1	3664	1/1	0.66	0.47	102,102,102,102	0
80	MG	4	206	1/1	0.69	0.78	82,82,82,82	0
80	MG	2	1995	1/1	0.69	0.24	126,126,126,126	0
80	MG	5	3650	1/1	0.70	0.78	92,92,92,92	0
80	MG	2	1944	1/1	0.70	1.09	96,96,96,96	0
80	MG	1	3713	1/1	0.70	0.56	96,96,96,96	0
80	MG	6	1968	1/1	0.71	0.09	150,150,150,150	0
80	MG	1	3461	1/1	0.71	0.80	96,96,96,96	0
80	MG	1	3814	1/1	0.71	0.28	104,104,104,104	0
80	MG	1	3544	1/1	0.75	1.17	79,79,79,79	0
80	MG	5	3829	1/1	0.75	1.48	88,88,88,88	0
80	MG	5	3697	1/1	0.77	1.23	98,98,98,98	0
80	MG	1	3808	1/1	0.79	0.27	112,112,112,112	1
82	ZN	e1	501	1/1	0.79	0.06	268,268,268,268	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	5	3473	1/1	0.80	0.14	139,139,139,139	0
80	MG	5	3445	1/1	0.80	0.62	77,77,77,77	0
80	MG	1	3609	1/1	0.80	1.07	98,98,98,98	0
80	MG	2	1988	1/1	0.80	0.12	148,148,148,148	0
80	MG	5	3820	1/1	0.81	0.19	130,130,130,130	0
80	MG	1	3655	1/1	0.81	0.25	89,89,89,89	0
80	MG	5	3605	1/1	0.81	0.17	136,136,136,136	0
80	MG	1	3685	1/1	0.82	0.62	77,77,77,77	0
80	MG	1	3524	1/1	0.82	0.28	114,114,114,114	0
80	MG	6	1973	1/1	0.82	0.12	136,136,136,136	0
80	MG	6	1988	1/1	0.82	0.13	130,130,130,130	0
80	MG	1	3669	1/1	0.82	0.23	115,115,115,115	0
80	MG	5	3778	1/1	0.82	0.19	134,134,134,134	1
80	MG	2	2005	1/1	0.83	0.39	145,145,145,145	0
80	MG	5	3621	1/1	0.83	0.37	81,81,81,81	0
80	MG	L3	401	1/1	0.83	0.31	74,74,74,74	0
80	MG	5	3439	1/1	0.83	0.41	86,86,86,86	0
80	MG	1	3800	1/1	0.83	0.24	107,107,107,107	1
80	MG	1	3718	1/1	0.83	0.49	82,82,82,82	0
80	MG	6	2042	1/1	0.84	0.24	119,119,119,119	0
80	MG	2	1994	1/1	0.84	0.06	174,174,174,174	0
80	MG	6	2051	1/1	0.84	0.11	163,163,163,163	0
80	MG	6	2010	1/1	0.84	0.28	166,166,166,166	0
80	MG	1	3751	1/1	0.85	0.57	71,71,71,71	0
80	MG	5	3737	1/1	0.85	0.26	102,102,102,102	0
80	MG	1	3711	1/1	0.85	0.44	82,82,82,82	0
80	MG	1	3783	1/1	0.85	0.30	95,95,95,95	0
80	MG	3	206	1/1	0.85	0.22	123,123,123,123	0
80	MG	5	3760	1/1	0.85	0.34	96,96,96,96	0
80	MG	5	3519	1/1	0.85	0.66	111,111,111,111	0
80	MG	5	3613	1/1	0.85	0.14	144,144,144,144	0
80	MG	6	2016	1/1	0.85	0.20	137,137,137,137	0
80	MG	1	3822	1/1	0.86	0.12	95,95,95,95	1
80	MG	2	1916	1/1	0.86	0.41	121,121,121,121	0
80	MG	C4	203	1/1	0.86	0.42	107,107,107,107	0
80	MG	5	3654	1/1	0.86	0.56	96,96,96,96	0
80	MG	1	3663	1/1	0.86	0.66	102,102,102,102	0
80	MG	2	1945	1/1	0.86	0.22	117,117,117,117	0
80	MG	5	3833	1/1	0.86	0.30	145,145,145,145	0
80	MG	4	218	1/1	0.86	0.65	122,122,122,122	0
80	MG	6	2023	1/1	0.86	0.25	131,131,131,131	0
80	MG	6	1947	1/1	0.87	0.21	110,110,110,110	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	5	3544	1/1	0.87	0.26	121,121,121,121	0
80	MG	6	2021	1/1	0.87	0.20	146,146,146,146	0
80	MG	5	3470	1/1	0.88	0.11	147,147,147,147	0
80	MG	6	2003	1/1	0.88	0.23	173,173,173,173	0
80	MG	5	3676	1/1	0.88	0.31	96,96,96,96	0
80	MG	5	3477	1/1	0.88	0.16	134,134,134,134	0
80	MG	5	3628	1/1	0.89	0.28	111,111,111,111	0
80	MG	1	3774	1/1	0.89	0.47	95,95,95,95	1
80	MG	6	1969	1/1	0.89	0.17	134,134,134,134	0
80	MG	2	1917	1/1	0.90	0.09	124,124,124,124	0
80	MG	6	2040	1/1	0.90	0.11	117,117,117,117	0
80	MG	1	3732	1/1	0.90	0.65	79,79,79,79	0
80	MG	1	3549	1/1	0.90	0.72	73,73,73,73	0
80	MG	2	1961	1/1	0.90	0.16	131,131,131,131	0
80	MG	2	1991	1/1	0.90	0.30	156,156,156,156	0
80	MG	1	3416	1/1	0.90	0.53	84,84,84,84	0
80	MG	s6	301	1/1	0.90	0.13	119,119,119,119	0
80	MG	5	3567	1/1	0.91	0.46	95,95,95,95	0
80	MG	5	3549	1/1	0.91	0.26	118,118,118,118	0
80	MG	1	3624	1/1	0.91	0.38	91,91,91,91	1
80	MG	4	211	1/1	0.91	0.19	102,102,102,102	0
80	MG	1	3508	1/1	0.91	0.40	120,120,120,120	0
80	MG	5	3680	1/1	0.91	0.12	106,106,106,106	1
80	MG	1	3575	1/1	0.91	0.53	82,82,82,82	0
80	MG	m5	301	1/1	0.91	0.21	125,125,125,125	0
80	MG	6	2043	1/1	0.91	0.26	117,117,117,117	0
80	MG	5	3507	1/1	0.91	0.64	82,82,82,82	0
80	MG	5	3639	1/1	0.92	0.20	109,109,109,109	0
80	MG	2	1950	1/1	0.92	0.30	129,129,129,129	0
80	MG	6	2045	1/1	0.92	0.37	105,105,105,105	0
80	MG	6	2025	1/1	0.92	0.34	115,115,115,115	0
80	MG	5	3596	1/1	0.92	0.30	96,96,96,96	0
80	MG	l3	402	1/1	0.92	0.29	77,77,77,77	0
80	MG	1	3440	1/1	0.92	0.42	105,105,105,105	0
80	MG	6	1926	1/1	0.92	0.16	118,118,118,118	1
81	8UZ	7	209	33/33	0.93	0.18	109,109,109,109	0
80	MG	5	3789	1/1	0.93	0.26	95,95,95,95	0
80	MG	1	3578	1/1	0.93	0.23	102,102,102,102	0
80	MG	6	1934	1/1	0.93	0.41	106,106,106,106	0
80	MG	L2	302	1/1	0.93	0.38	78,78,78,78	0
80	MG	5	3644	1/1	0.93	0.22	96,96,96,96	0
80	MG	6	2059	1/1	0.93	0.39	141,141,141,141	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
81	8UZ	5	3856	33/33	0.94	0.14	121,121,121,121	0
80	MG	2	2004	1/1	0.94	0.17	112,112,112,112	1
80	MG	1	3409	1/1	0.94	0.35	88,88,88,88	0
80	MG	1	3734	1/1	0.94	0.28	85,85,85,85	0
80	MG	2	1954	1/1	0.94	0.36	100,100,100,100	0
80	MG	1	3755	1/1	0.94	0.24	83,83,83,83	0
80	MG	1	3596	1/1	0.94	0.16	98,98,98,98	0
80	MG	1	3495	1/1	0.95	0.28	83,83,83,83	0
80	MG	2	1942	1/1	0.95	0.11	115,115,115,115	0
80	MG	1	3828	1/1	0.95	0.44	83,83,83,83	1
80	MG	1	3619	1/1	0.95	0.42	76,76,76,76	0
80	MG	6	2056	1/1	0.95	0.14	157,157,157,157	0
80	MG	5	3583	1/1	0.95	0.23	97,97,97,97	0
80	MG	5	3612	1/1	0.95	0.13	137,137,137,137	0
80	MG	1	3650	1/1	0.95	0.36	81,81,81,81	0
80	MG	5	3662	1/1	0.95	0.32	95,95,95,95	0
80	MG	1	3560	1/1	0.95	0.35	189,189,189,189	0
80	MG	5	3714	1/1	0.95	0.15	101,101,101,101	0
80	MG	5	3806	1/1	0.95	0.64	97,97,97,97	1
80	MG	1	3459	1/1	0.96	0.09	103,103,103,103	0
80	MG	1	3509	1/1	0.96	0.15	111,111,111,111	0
80	MG	5	3529	1/1	0.96	0.27	82,82,82,82	0
80	MG	1	3746	1/1	0.96	0.20	113,113,113,113	0
80	MG	5	3423	1/1	0.96	0.30	86,86,86,86	0
80	MG	1	3642	1/1	0.96	0.35	79,79,79,79	0
80	MG	5	3510	1/1	0.96	0.33	96,96,96,96	0
80	MG	5	3409	1/1	0.96	0.17	87,87,87,87	0
80	MG	5	3695	1/1	0.96	0.23	86,86,86,86	0
80	MG	1	3512	1/1	0.96	0.57	97,97,97,97	0
80	MG	1	3793	1/1	0.96	0.43	89,89,89,89	1
80	MG	1	3425	1/1	0.96	0.10	117,117,117,117	1
80	MG	5	3805	1/1	0.96	0.08	143,143,143,143	0
80	MG	5	3436	1/1	0.97	0.30	95,95,95,95	1
80	MG	2	1940	1/1	0.97	0.24	115,115,115,115	0
80	MG	1	3638	1/1	0.97	0.50	77,77,77,77	0
80	MG	N3	201	1/1	0.97	0.25	81,81,81,81	0
80	MG	c8	201	1/1	0.97	0.14	145,145,145,145	0
80	MG	1	3636	1/1	0.97	0.27	80,80,80,80	0
80	MG	5	3617	1/1	0.97	0.20	129,129,129,129	0
80	MG	5	3550	1/1	0.97	0.22	127,127,127,127	0
80	MG	1	3633	1/1	0.97	0.27	77,77,77,77	0
80	MG	1	3641	1/1	0.97	0.26	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
80	MG	5	3570	1/1	0.97	0.30	91,91,91,91	0
80	MG	1	3802	1/1	0.97	0.27	104,104,104,104	0
80	MG	6	1961	1/1	0.97	0.10	125,125,125,125	0
80	MG	5	3773	1/1	0.97	0.44	83,83,83,83	0
80	MG	5	3557	1/1	0.97	0.29	108,108,108,108	0
80	MG	1	3644	1/1	0.97	0.34	78,78,78,78	0
80	MG	6	1909	1/1	0.97	0.20	109,109,109,109	0
80	MG	5	3761	1/1	0.97	0.14	110,110,110,110	1
80	MG	6	2036	1/1	0.98	0.21	108,108,108,108	0
80	MG	1	3455	1/1	0.98	0.21	97,97,97,97	0
82	ZN	Q3	501	1/1	0.98	0.12	131,131,131,131	0
80	MG	1	3566	1/1	0.98	0.23	95,95,95,95	0
80	MG	5	3734	1/1	0.98	0.17	112,112,112,112	1
80	MG	5	3535	1/1	0.98	0.14	105,105,105,105	0
80	MG	5	3711	1/1	0.98	0.28	106,106,106,106	0
80	MG	6	1945	1/1	0.98	0.08	143,143,143,143	1
80	MG	1	3530	1/1	0.98	0.34	88,88,88,88	0
80	MG	5	3443	1/1	0.98	0.36	82,82,82,82	0
80	MG	2	1922	1/1	0.98	0.46	118,118,118,118	0
80	MG	4	210	1/1	0.99	0.29	89,89,89,89	0
80	MG	5	3794	1/1	0.99	0.30	95,95,95,95	0
80	MG	1	3496	1/1	0.99	0.15	93,93,93,93	1
80	MG	1	3547	1/1	0.99	0.21	81,81,81,81	0
80	MG	5	3636	1/1	-	-	116,116,116,116	1
80	MG	6	1979	1/1	-0.01	0.45	128,128,128,128	0
80	MG	1	3864	1/1	0.10	0.49	107,107,107,107	0
80	MG	1	3867	1/1	0.16	0.74	107,107,107,107	0
80	MG	2	2022	1/1	0.26	0.90	110,110,110,110	0
80	MG	1	3690	1/1	0.29	0.72	89,89,89,89	0
80	MG	O1	202	1/1	0.34	0.41	123,123,123,123	0
80	MG	1	3792	1/1	0.36	0.12	151,151,151,151	0
80	MG	5	3601	1/1	0.38	0.97	130,130,130,130	0
80	MG	O5	201	1/1	0.45	0.16	123,123,123,123	0
80	MG	5	3566	1/1	0.47	0.28	117,117,117,117	0
80	MG	5	3481	1/1	0.47	0.67	101,101,101,101	0
80	MG	q2	503	1/1	0.48	0.46	111,111,111,111	0
80	MG	1	3851	1/1	0.51	0.22	100,100,100,100	1
80	MG	1	3854	1/1	0.52	0.50	96,96,96,96	0
80	MG	2	2027	1/1	0.52	0.47	107,107,107,107	0
80	MG	n8	201	1/1	0.52	0.79	93,93,93,93	0
80	MG	1	3571	1/1	0.53	0.65	97,97,97,97	0
80	MG	s4	301	1/1	0.54	0.33	135,135,135,135	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	1	3699	1/1	0.54	0.67	80,80,80,80	0
80	MG	2	1977	1/1	0.55	0.70	120,120,120,120	0
80	MG	s0	301	1/1	0.55	0.27	112,112,112,112	0
80	MG	5	3696	1/1	0.56	0.77	83,83,83,83	0
80	MG	1	3551	1/1	0.56	0.79	80,80,80,80	0
80	MG	1	3775	1/1	0.57	0.48	106,106,106,106	1
80	MG	5	3632	1/1	0.57	0.24	125,125,125,125	0
80	MG	d2	201	1/1	0.58	0.71	110,110,110,110	0
80	MG	6	1922	1/1	0.60	0.10	168,168,168,168	0
80	MG	1	3559	1/1	0.60	1.04	104,104,104,104	0
80	MG	5	3725	1/1	0.60	0.44	86,86,86,86	0
80	MG	5	3456	1/1	0.62	0.40	99,99,99,99	0
80	MG	n1	201	1/1	0.62	0.52	110,110,110,110	0
80	MG	5	3721	1/1	0.62	0.35	101,101,101,101	0
80	MG	4	216	1/1	0.62	0.19	134,134,134,134	0
80	MG	m6	201	1/1	0.63	0.59	84,84,84,84	0
80	MG	l5	301	1/1	0.64	0.45	134,134,134,134	0
80	MG	5	3743	1/1	0.64	0.21	144,144,144,144	1
80	MG	1	3740	1/1	0.64	0.52	84,84,84,84	0
80	MG	5	3437	1/1	0.65	1.17	90,90,90,90	0
80	MG	1	3413	1/1	0.67	0.48	87,87,87,87	0
80	MG	5	3614	1/1	0.67	0.81	106,106,106,106	0
80	MG	1	3590	1/1	0.67	0.51	94,94,94,94	0
80	MG	6	1920	1/1	0.67	0.17	133,133,133,133	0
80	MG	2	1929	1/1	0.68	0.27	143,143,143,143	0
80	MG	1	3841	1/1	0.68	0.75	111,111,111,111	0
80	MG	5	3602	1/1	0.69	0.32	145,145,145,145	0
80	MG	6	1915	1/1	0.69	0.50	99,99,99,99	0
80	MG	6	2009	1/1	0.69	0.49	167,167,167,167	0
80	MG	5	3759	1/1	0.69	0.20	118,118,118,118	0
80	MG	1	3817	1/1	0.70	0.21	102,102,102,102	1
80	MG	1	3880	1/1	0.70	0.53	84,84,84,84	0
80	MG	5	3702	1/1	0.70	1.31	99,99,99,99	0
80	MG	6	2033	1/1	0.71	0.63	101,101,101,101	1
80	MG	1	3744	1/1	0.71	0.74	96,96,96,96	0
80	MG	C4	202	1/1	0.72	1.11	129,129,129,129	0
80	MG	5	3573	1/1	0.73	0.23	105,105,105,105	0
80	MG	1	3668	1/1	0.73	0.24	118,118,118,118	0
80	MG	2	1968	1/1	0.73	0.42	123,123,123,123	0
80	MG	6	1904	1/1	0.74	0.68	119,119,119,119	0
80	MG	6	2047	1/1	0.74	0.76	106,106,106,106	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	6	2046	1/1	0.74	0.71	108,108,108,108	0
80	MG	1	3623	1/1	0.74	0.42	93,93,93,93	0
80	MG	1	3667	1/1	0.75	0.41	87,87,87,87	0
80	MG	6	1959	1/1	0.75	0.15	140,140,140,140	0
80	MG	1	3728	1/1	0.75	0.23	84,84,84,84	1
80	MG	5	3748	1/1	0.75	0.39	88,88,88,88	0
80	MG	5	3832	1/1	0.76	0.41	109,109,109,109	0
80	MG	5	3826	1/1	0.76	0.37	82,82,82,82	0
80	MG	7	208	1/1	0.77	0.28	99,99,99,99	1
80	MG	2	1996	1/1	0.77	0.27	142,142,142,142	0
80	MG	5	3781	1/1	0.77	0.25	95,95,95,95	1
80	MG	5	3459	1/1	0.77	0.79	89,89,89,89	0
80	MG	1	3603	1/1	0.77	0.14	113,113,113,113	1
80	MG	5	3660	1/1	0.78	0.13	149,149,149,149	0
80	MG	2	2001	1/1	0.78	0.23	143,143,143,143	0
80	MG	1	3798	1/1	0.78	0.16	114,114,114,114	0
80	MG	1	3468	1/1	0.78	0.24	105,105,105,105	0
80	MG	6	1967	1/1	0.79	0.82	112,112,112,112	0
81	8UZ	5	3852	33/33	0.79	0.33	125,125,125,125	33
80	MG	5	3839	1/1	0.79	0.34	84,84,84,84	0
80	MG	1	3853	1/1	0.79	0.42	90,90,90,90	0
80	MG	1	3525	1/1	0.79	0.23	114,114,114,114	0
80	MG	1	3450	1/1	0.79	0.16	101,101,101,101	1
80	MG	1	3877	1/1	0.80	0.67	90,90,90,90	0
80	MG	1	3780	1/1	0.80	0.37	90,90,90,90	0
80	MG	2	1924	1/1	0.80	0.11	161,161,161,161	0
80	MG	6	1946	1/1	0.80	0.26	111,111,111,111	0
80	MG	2	2023	1/1	0.80	0.24	169,169,169,169	0
80	MG	4	205	1/1	0.80	0.72	89,89,89,89	0
80	MG	1	3861	1/1	0.81	0.22	97,97,97,97	0
80	MG	1	3812	1/1	0.81	0.32	108,108,108,108	1
80	MG	o2	202	1/1	0.81	0.29	94,94,94,94	0
80	MG	5	3744	1/1	0.81	0.49	138,138,138,138	0
81	8UZ	5	3855	33/33	0.81	0.30	138,138,138,138	0
80	MG	5	3797	1/1	0.82	0.42	116,116,116,116	0
80	MG	5	3518	1/1	0.82	0.31	112,112,112,112	0
80	MG	5	3703	1/1	0.82	0.89	83,83,83,83	0
80	MG	1	3456	1/1	0.82	0.72	104,104,104,104	0
80	MG	1	3587	1/1	0.82	0.29	95,95,95,95	0
80	MG	6	2000	1/1	0.82	0.18	139,139,139,139	0
80	MG	1	3446	1/1	0.82	0.36	81,81,81,81	0
80	MG	2	1904	1/1	0.83	0.94	101,101,101,101	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	5	3819	1/1	0.83	0.57	92,92,92,92	0
80	MG	6	1982	1/1	0.83	0.23	171,171,171,171	1
80	MG	2	2011	1/1	0.83	0.09	136,136,136,136	0
80	MG	2	1937	1/1	0.83	0.30	116,116,116,116	0
80	MG	5	3638	1/1	0.83	0.25	106,106,106,106	0
80	MG	1	3729	1/1	0.83	0.40	77,77,77,77	0
80	MG	6	2037	1/1	0.83	0.33	109,109,109,109	0
80	MG	1	3872	1/1	0.84	0.21	122,122,122,122	0
80	MG	6	1963	1/1	0.84	0.71	115,115,115,115	0
80	MG	1	3462	1/1	0.84	0.60	143,143,143,143	0
80	MG	5	3840	1/1	0.84	0.44	95,95,95,95	0
80	MG	5	3708	1/1	0.84	1.03	91,91,91,91	0
80	MG	1	3785	1/1	0.84	0.17	104,104,104,104	1
80	MG	1	3848	1/1	0.84	0.27	93,93,93,93	0
80	MG	M7	204	1/1	0.84	0.44	81,81,81,81	0
81	8UZ	5	3857	33/33	0.85	0.18	133,133,133,133	0
80	MG	5	3688	1/1	0.85	0.23	111,111,111,111	0
80	MG	5	3802	1/1	0.85	0.15	119,119,119,119	0
80	MG	5	3784	1/1	0.85	0.39	106,106,106,106	0
80	MG	6	2039	1/1	0.85	0.11	120,120,120,120	0
80	MG	1	3483	1/1	0.85	0.76	68,68,68,68	0
80	MG	M7	201	1/1	0.85	0.38	75,75,75,75	0
80	MG	5	3559	1/1	0.86	2.05	63,63,63,63	0
80	MG	1	3563	1/1	0.86	0.66	122,122,122,122	0
80	MG	2	2010	1/1	0.86	0.37	114,114,114,114	0
80	MG	1	3589	1/1	0.86	0.39	94,94,94,94	0
80	MG	2	1976	1/1	0.86	0.48	101,101,101,101	0
80	MG	1	3526	1/1	0.86	0.66	84,84,84,84	0
80	MG	6	1950	1/1	0.86	0.40	102,102,102,102	0
80	MG	C8	201	1/1	0.86	0.12	166,166,166,166	0
80	MG	1	3599	1/1	0.87	0.26	165,165,165,165	0
80	MG	1	3720	1/1	0.87	0.41	79,79,79,79	0
80	MG	O7	102	1/1	0.87	0.16	124,124,124,124	0
80	MG	1	3677	1/1	0.87	0.28	76,76,76,76	0
80	MG	5	3593	1/1	0.87	0.95	77,77,77,77	0
80	MG	5	3546	1/1	0.87	0.61	109,109,109,109	0
80	MG	5	3785	1/1	0.87	0.25	103,103,103,103	0
80	MG	5	3751	1/1	0.87	0.98	101,101,101,101	0
80	MG	2	1901	1/1	0.88	0.50	121,121,121,121	0
80	MG	1	3617	1/1	0.88	0.27	93,93,93,93	0
80	MG	5	3512	1/1	0.88	0.34	92,92,92,92	0
80	MG	1	3477	1/1	0.88	0.46	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	5	3606	1/1	0.88	0.13	142,142,142,142	0
80	MG	5	3678	1/1	0.88	0.71	108,108,108,108	0
80	MG	1	3745	1/1	0.88	0.30	105,105,105,105	0
80	MG	1	3428	1/1	0.88	0.26	103,103,103,103	0
80	MG	1	3610	1/1	0.88	0.11	99,99,99,99	1
80	MG	5	3845	1/1	0.89	0.30	74,74,74,74	0
80	MG	5	3484	1/1	0.89	0.38	99,99,99,99	0
80	MG	5	3715	1/1	0.89	0.30	93,93,93,93	0
81	8UZ	2	2030	33/33	0.89	0.27	148,149,149,149	0
80	MG	c3	200	1/1	0.89	0.47	117,117,117,117	0
80	MG	6	2044	1/1	0.89	0.43	129,129,129,129	0
80	MG	6	1985	1/1	0.89	0.22	134,134,134,134	0
80	MG	5	3670	1/1	0.89	0.36	98,98,98,98	0
80	MG	1	3806	1/1	0.90	0.29	93,93,93,93	0
80	MG	2	2028	1/1	0.90	0.06	174,174,174,174	0
80	MG	5	3812	1/1	0.90	0.21	96,96,96,96	0
80	MG	1	3620	1/1	0.90	0.13	116,116,116,116	0
80	MG	5	3562	1/1	0.90	0.22	128,128,128,128	0
80	MG	5	3706	1/1	0.90	0.65	85,85,85,85	0
80	MG	1	3661	1/1	0.90	0.57	93,93,93,93	0
80	MG	1	3561	1/1	0.90	0.27	109,109,109,109	0
80	MG	1	3760	1/1	0.90	0.33	89,89,89,89	0
81	8UZ	1	3893	33/33	0.90	0.24	105,105,105,105	0
80	MG	2	1915	1/1	0.90	0.15	130,130,130,130	0
80	MG	5	3438	1/1	0.90	0.32	88,88,88,88	0
81	8UZ	1	3889	33/33	0.90	0.23	119,119,119,119	0
80	MG	5	3787	1/1	0.90	0.20	109,109,109,109	0
80	MG	1	3847	1/1	0.90	0.27	90,90,90,90	0
80	MG	1	3611	1/1	0.90	0.50	95,95,95,95	0
80	MG	5	3555	1/1	0.91	0.13	130,130,130,130	0
80	MG	1	3879	1/1	0.91	0.24	165,165,165,165	0
80	MG	5	3758	1/1	0.91	0.21	100,100,100,100	1
80	MG	5	3641	1/1	0.91	0.11	117,117,117,117	0
80	MG	2	1993	1/1	0.91	0.12	164,164,164,164	0
80	MG	1	3482	1/1	0.91	0.38	74,74,74,74	0
80	MG	5	3538	1/1	0.91	0.15	115,115,115,115	0
80	MG	1	3675	1/1	0.91	0.06	117,117,117,117	1
80	MG	5	3476	1/1	0.91	0.22	132,132,132,132	0
80	MG	1	3436	1/1	0.91	0.34	88,88,88,88	0
80	MG	5	3526	1/1	0.91	0.32	87,87,87,87	0
81	8UZ	6	2061	33/33	0.92	0.27	135,135,135,135	0
80	MG	1	3582	1/1	0.92	0.14	126,126,126,126	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	5	3548	1/1	0.92	0.12	127,127,127,127	0
81	8UZ	5	3850	33/33	0.92	0.22	114,114,114,114	0
80	MG	1	3749	1/1	0.92	0.33	79,79,79,79	0
80	MG	1	3757	1/1	0.92	0.20	87,87,87,87	0
80	MG	2	1990	1/1	0.92	0.57	114,114,114,114	0
80	MG	5	3824	1/1	0.92	0.09	146,146,146,146	0
80	MG	6	1978	1/1	0.92	0.09	146,146,146,146	0
80	MG	5	3658	1/1	0.92	0.23	103,103,103,103	1
80	MG	2	2016	1/1	0.93	0.42	124,124,124,124	0
80	MG	2	1941	1/1	0.93	0.36	111,111,111,111	0
80	MG	1	3805	1/1	0.93	0.62	89,89,89,89	1
80	MG	5	3765	1/1	0.93	0.34	99,99,99,99	0
80	MG	6	1910	1/1	0.93	0.24	109,109,109,109	0
80	MG	1	3784	1/1	0.93	0.24	102,102,102,102	0
80	MG	5	3769	1/1	0.93	0.23	98,98,98,98	0
80	MG	6	1938	1/1	0.93	0.13	107,107,107,107	0
81	8UZ	5	3851	33/33	0.93	0.17	125,125,125,125	0
80	MG	5	3817	1/1	0.93	0.29	108,108,108,108	1
80	MG	6	1955	1/1	0.93	1.12	89,89,89,89	0
80	MG	6	1994	1/1	0.93	0.12	144,144,144,144	0
80	MG	o7	502	1/1	0.93	0.32	98,98,98,98	0
80	MG	1	3773	1/1	0.93	0.27	92,92,92,92	0
80	MG	14	401	1/1	0.93	0.26	114,114,114,114	1
80	MG	1	3795	1/1	0.94	0.30	103,103,103,103	0
81	8UZ	1	3886	33/33	0.94	0.13	123,123,123,123	0
80	MG	1	3579	1/1	0.94	0.25	129,129,129,129	0
80	MG	1	3528	1/1	0.94	0.48	90,90,90,90	0
80	MG	m0	302	1/1	0.94	0.19	94,94,94,94	0
80	MG	2	1913	1/1	0.94	0.11	125,125,125,125	0
80	MG	5	3541	1/1	0.94	0.16	115,115,115,115	0
80	MG	1	3639	1/1	0.94	0.17	82,82,82,82	0
80	MG	5	3498	1/1	0.94	0.52	99,99,99,99	0
80	MG	6	1993	1/1	0.94	0.10	136,136,136,136	0
80	MG	5	3497	1/1	0.94	0.23	100,100,100,100	0
80	MG	1	3683	1/1	0.94	0.23	81,81,81,81	0
80	MG	5	3757	1/1	0.94	0.12	107,107,107,107	0
80	MG	6	2008	1/1	0.94	0.07	160,160,160,160	0
80	MG	6	2030	1/1	0.94	0.23	130,130,130,130	0
80	MG	1	3444	1/1	0.94	0.27	82,82,82,82	0
80	MG	5	3780	1/1	0.94	0.45	94,94,94,94	1
80	MG	6	2013	1/1	0.94	0.14	130,130,130,130	0
80	MG	2	1914	1/1	0.94	0.15	128,128,128,128	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	5	3616	1/1	0.94	0.15	132,132,132,132	0
80	MG	6	1917	1/1	0.95	0.38	128,128,128,128	0
80	MG	n7	201	1/1	0.95	0.20	148,148,148,148	0
80	MG	5	3753	1/1	0.95	0.22	92,92,92,92	0
80	MG	6	2032	1/1	0.95	0.12	145,145,145,145	0
80	MG	1	3605	1/1	0.95	0.20	116,116,116,116	0
80	MG	1	3682	1/1	0.95	0.23	80,80,80,80	0
80	MG	2	1969	1/1	0.95	0.25	118,118,118,118	0
80	MG	2	1943	1/1	0.95	0.21	112,112,112,112	0
80	MG	5	3496	1/1	0.95	0.43	93,93,93,93	0
80	MG	1	3769	1/1	0.95	0.22	93,93,93,93	0
80	MG	2	1953	1/1	0.95	0.24	113,113,113,113	0
80	MG	1	3420	1/1	0.95	0.36	90,90,90,90	0
80	MG	2	1955	1/1	0.95	0.17	109,109,109,109	0
80	MG	1	3863	1/1	0.95	0.11	99,99,99,99	0
80	MG	2	1981	1/1	0.95	0.12	136,136,136,136	0
80	MG	1	3499	1/1	0.95	0.09	107,107,107,107	0
80	MG	6	1905	1/1	0.95	0.19	122,122,122,122	0
80	MG	1	3447	1/1	0.95	0.23	82,82,82,82	0
80	MG	5	3461	1/1	0.95	0.29	95,95,95,95	0
80	MG	5	3552	1/1	0.96	0.12	139,139,139,139	0
80	MG	5	3486	1/1	0.96	0.14	106,106,106,106	0
80	MG	5	3747	1/1	0.96	0.24	97,97,97,97	0
80	MG	5	3568	1/1	0.96	0.31	98,98,98,98	0
80	MG	1	3666	1/1	0.96	0.27	78,78,78,78	0
80	MG	4	213	1/1	0.96	0.25	105,105,105,105	0
80	MG	2	1956	1/1	0.96	0.21	152,152,152,152	0
80	MG	5	3651	1/1	0.96	0.24	86,86,86,86	1
80	MG	4	208	1/1	0.96	0.26	88,88,88,88	0
80	MG	5	3841	1/1	0.96	0.17	120,120,120,120	0
80	MG	1	3427	1/1	0.96	0.19	110,110,110,110	0
80	MG	1	3421	1/1	0.96	0.24	94,94,94,94	0
80	MG	2	1906	1/1	0.96	0.10	144,144,144,144	0
80	MG	6	1916	1/1	0.96	0.13	113,113,113,113	0
80	MG	5	3419	1/1	0.96	0.30	87,87,87,87	0
80	MG	6	1991	1/1	0.96	0.27	138,138,138,138	0
80	MG	5	3533	1/1	0.96	0.16	91,91,91,91	0
80	MG	4	204	1/1	0.96	0.11	127,127,127,127	0
80	MG	M5	301	1/1	0.96	0.25	88,88,88,88	0
80	MG	1	3411	1/1	0.96	0.30	92,92,92,92	0
80	MG	1	3738	1/1	0.96	0.22	93,93,93,93	0
80	MG	M8	201	1/1	0.96	0.64	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	6	1935	1/1	0.96	0.12	109,109,109,109	0
80	MG	1	3434	1/1	0.96	0.31	80,80,80,80	0
80	MG	3	212	1/1	0.96	0.42	121,121,121,121	1
80	MG	7	201	1/1	0.96	0.05	147,147,147,147	1
80	MG	1	3452	1/1	0.97	0.29	95,95,95,95	0
80	MG	8	202	1/1	0.97	0.12	113,113,113,113	0
80	MG	5	3524	1/1	0.97	0.48	85,85,85,85	0
80	MG	5	3682	1/1	0.97	0.08	113,113,113,113	0
80	MG	5	3404	1/1	0.97	0.38	82,82,82,82	0
80	MG	5	3504	1/1	0.97	0.35	94,94,94,94	0
80	MG	1	3766	1/1	0.97	0.15	159,159,159,159	0
80	MG	2	1963	1/1	0.97	0.18	128,128,128,128	0
80	MG	1	3630	1/1	0.97	0.24	82,82,82,82	0
80	MG	2	1909	1/1	0.97	0.11	133,133,133,133	0
80	MG	o7	503	1/1	0.97	0.19	126,126,126,126	1
80	MG	4	215	1/1	0.97	0.10	111,111,111,111	0
80	MG	1	3594	1/1	0.97	0.16	92,92,92,92	0
80	MG	1	3410	1/1	0.97	0.33	92,92,92,92	0
80	MG	1	3423	1/1	0.97	0.36	102,102,102,102	0
80	MG	8	201	1/1	0.97	0.25	94,94,94,94	0
80	MG	5	3515	1/1	0.97	0.23	106,106,106,106	0
80	MG	5	3571	1/1	0.97	0.14	94,94,94,94	0
80	MG	5	3509	1/1	0.97	0.40	91,91,91,91	0
80	MG	6	1971	1/1	0.97	0.26	133,133,133,133	0
80	MG	O6	201	1/1	0.97	0.36	132,132,132,132	0
80	MG	6	2026	1/1	0.97	0.19	142,142,142,142	0
80	MG	5	3413	1/1	0.97	0.28	98,98,98,98	0
80	MG	5	3525	1/1	0.97	0.40	91,91,91,91	0
80	MG	2	1923	1/1	0.97	0.12	140,140,140,140	0
80	MG	5	3508	1/1	0.98	0.26	96,96,96,96	0
80	MG	5	3416	1/1	0.98	0.21	86,86,86,86	0
80	MG	1	3679	1/1	0.98	0.17	82,82,82,82	0
80	MG	5	3767	1/1	0.98	0.33	89,89,89,89	0
80	MG	5	3653	1/1	0.98	0.36	91,91,91,91	0
80	MG	2	1949	1/1	0.98	0.25	137,137,137,137	0
80	MG	1	3680	1/1	0.98	0.25	79,79,79,79	0
80	MG	1	3535	1/1	0.98	0.34	82,82,82,82	0
80	MG	5	3511	1/1	0.98	0.14	96,96,96,96	0
80	MG	1	3823	1/1	0.98	0.33	79,79,79,79	0
80	MG	2	1957	1/1	0.98	0.14	139,139,139,139	0
80	MG	1	3771	1/1	0.98	0.23	89,89,89,89	1
80	MG	1	3593	1/1	0.98	0.15	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	5	3521	1/1	0.98	0.34	133,133,133,133	0
80	MG	1	3665	1/1	0.98	0.18	82,82,82,82	0
80	MG	3	213	1/1	0.98	0.17	124,124,124,124	0
80	MG	5	3532	1/1	0.98	0.38	84,84,84,84	0
80	MG	1	3545	1/1	0.99	0.34	81,81,81,81	0
80	MG	1	3542	1/1	0.99	0.28	81,81,81,81	0
80	MG	o4	502	1/1	0.99	0.34	136,136,136,136	1
80	MG	2	1939	1/1	0.99	0.24	109,109,109,109	0
80	MG	1	3407	1/1	0.99	0.40	86,86,86,86	0
80	MG	5	3752	1/1	0.99	0.20	91,91,91,91	0
80	MG	1	3481	1/1	0.99	0.29	78,78,78,78	0
80	MG	1	3772	1/1	0.99	0.19	90,90,90,90	0
80	MG	1	3534	1/1	0.99	0.41	77,77,77,77	0
80	MG	1	3586	1/1	0.99	0.17	86,86,86,86	0
80	MG	1	3695	1/1	0.99	0.48	74,74,74,74	0
80	MG	5	3657	1/1	0.99	0.24	93,93,93,93	0
80	MG	1	3465	1/1	1.00	0.18	114,114,114,114	0
80	MG	1	3717	1/1	1.00	0.29	83,83,83,83	0
82	ZN	q0	500	1/1	1.00	0.17	93,93,93,93	0
80	MG	4	219	1/1	-	-	97,97,97,97	1
80	MG	5	3667	1/1	-0.27	0.49	200,200,200,200	0
80	MG	c1	201	1/1	-0.01	0.98	126,126,126,126	0
80	MG	2	2018	1/1	0.00	0.28	138,138,138,138	0
80	MG	6	2060	1/1	0.02	0.51	139,139,139,139	0
80	MG	2	1926	1/1	0.06	0.33	151,151,151,151	0
80	MG	d3	201	1/1	0.12	0.63	122,122,122,122	0
80	MG	2	1997	1/1	0.18	0.34	128,128,128,128	0
80	MG	5	3463	1/1	0.22	2.00	94,94,94,94	0
80	MG	6	1996	1/1	0.24	1.33	119,119,119,119	0
80	MG	c1	202	1/1	0.25	0.54	113,113,113,113	0
80	MG	8	203	1/1	0.27	0.81	105,105,105,105	0
80	MG	1	3670	1/1	0.28	0.37	108,108,108,108	0
80	MG	6	1986	1/1	0.28	0.38	132,132,132,132	0
80	MG	S1	301	1/1	0.29	0.30	172,172,172,172	0
80	MG	1	3523	1/1	0.30	0.40	119,119,119,119	0
80	MG	6	1965	1/1	0.33	0.48	144,144,144,144	0
80	MG	5	3800	1/1	0.33	0.41	122,122,122,122	1
80	MG	5	3640	1/1	0.33	0.94	107,107,107,107	0
80	MG	5	3480	1/1	0.34	0.90	107,107,107,107	0
80	MG	5	3822	1/1	0.36	0.61	102,102,102,102	0
80	MG	1	3799	1/1	0.36	0.12	148,148,148,148	0
80	MG	6	1964	1/1	0.36	0.20	143,143,143,143	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	2	2025	1/1	0.37	0.22	142,142,142,142	0
80	MG	5	3728	1/1	0.39	0.71	87,87,87,87	0
80	MG	6	1913	1/1	0.41	0.68	101,101,101,101	0
80	MG	n6	201	1/1	0.43	1.04	104,104,104,104	0
80	MG	3	203	1/1	0.44	0.20	122,122,122,122	0
80	MG	5	3705	1/1	0.44	1.23	90,90,90,90	0
80	MG	1	3510	1/1	0.44	0.26	142,142,142,142	0
80	MG	6	1957	1/1	0.45	0.36	102,102,102,102	0
80	MG	5	3426	1/1	0.45	0.82	90,90,90,90	0
80	MG	3	201	1/1	0.46	0.40	95,95,95,95	0
80	MG	1	3562	1/1	0.47	0.22	124,124,124,124	0
80	MG	1	3432	1/1	0.47	0.22	140,140,140,140	0
80	MG	1	3782	1/1	0.47	0.22	93,93,93,93	1
80	MG	1	3569	1/1	0.47	0.97	94,94,94,94	0
80	MG	6	1908	1/1	0.47	1.43	99,99,99,99	0
80	MG	3	205	1/1	0.48	0.22	126,126,126,126	0
80	MG	2	2019	1/1	0.48	0.18	125,125,125,125	1
80	MG	1	3564	1/1	0.49	0.52	92,92,92,92	0
80	MG	2	2024	1/1	0.51	0.34	123,123,123,123	0
80	MG	O4	502	1/1	0.52	0.79	104,104,104,104	0
80	MG	1	3517	1/1	0.52	0.76	89,89,89,89	0
80	MG	2	1908	1/1	0.53	0.77	118,118,118,118	0
80	MG	1	3687	1/1	0.54	0.72	79,79,79,79	0
80	MG	5	3701	1/1	0.54	0.63	101,101,101,101	0
80	MG	5	3740	1/1	0.55	0.71	100,100,100,100	0
80	MG	5	3698	1/1	0.55	0.44	105,105,105,105	0
80	MG	6	2029	1/1	0.55	0.33	148,148,148,148	0
80	MG	1	3868	1/1	0.55	0.94	111,111,111,111	0
80	MG	O3	202	1/1	0.56	0.65	93,93,93,93	0
80	MG	5	3643	1/1	0.56	0.36	108,108,108,108	0
80	MG	5	3635	1/1	0.57	0.54	109,109,109,109	0
80	MG	2	2026	1/1	0.57	1.07	103,103,103,103	0
80	MG	5	3811	1/1	0.57	0.34	97,97,97,97	1
80	MG	o3	201	1/1	0.58	0.79	76,76,76,76	0
80	MG	5	3619	1/1	0.58	0.73	99,99,99,99	0
80	MG	6	2038	1/1	0.58	0.47	118,118,118,118	1
80	MG	1	3832	1/1	0.59	0.16	115,115,115,115	1
80	MG	1	3813	1/1	0.59	0.23	123,123,123,123	0
80	MG	Q2	502	1/1	0.59	0.29	126,126,126,126	0
80	MG	1	3550	1/1	0.59	1.57	80,80,80,80	0
80	MG	M6	201	1/1	0.59	0.52	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	5	3783	1/1	0.60	0.18	134,134,134,134	0
80	MG	1	3860	1/1	0.60	0.85	92,92,92,92	0
80	MG	5	3668	1/1	0.60	0.13	154,154,154,154	0
80	MG	5	3669	1/1	0.60	0.34	116,116,116,116	0
80	MG	5	3457	1/1	0.60	1.30	81,81,81,81	0
80	MG	1	3515	1/1	0.60	0.50	101,101,101,101	0
80	MG	1	3834	1/1	0.60	0.14	120,120,120,120	0
80	MG	1	3862	1/1	0.60	0.59	85,85,85,85	0
80	MG	L6	202	1/1	0.61	0.26	101,101,101,101	0
80	MG	8	206	1/1	0.61	0.48	112,112,112,112	0
80	MG	2	2012	1/1	0.61	0.14	173,173,173,173	0
80	MG	1	3763	1/1	0.61	0.53	90,90,90,90	0
80	MG	5	3672	1/1	0.61	0.27	106,106,106,106	0
80	MG	7	202	1/1	0.62	0.10	173,173,173,173	0
80	MG	1	3464	1/1	0.62	0.34	101,101,101,101	0
80	MG	6	2035	1/1	0.62	0.16	113,113,113,113	1
80	MG	5	3691	1/1	0.62	0.37	125,125,125,125	0
80	MG	1	3708	1/1	0.62	0.80	90,90,90,90	0
80	MG	1	3789	1/1	0.62	0.34	102,102,102,102	1
80	MG	5	3444	1/1	0.63	0.36	117,117,117,117	0
80	MG	3	207	1/1	0.63	0.34	129,129,129,129	0
80	MG	6	1995	1/1	0.64	0.51	117,117,117,117	0
80	MG	5	3762	1/1	0.64	0.36	116,116,116,116	1
80	MG	1	3674	1/1	0.64	0.49	101,101,101,101	0
80	MG	1	3608	1/1	0.64	0.40	107,107,107,107	1
80	MG	1	3505	1/1	0.64	0.62	101,101,101,101	0
80	MG	q2	504	1/1	0.64	0.53	94,94,94,94	0
80	MG	5	3803	1/1	0.65	0.19	159,159,159,159	0
80	MG	1	3567	1/1	0.65	0.52	97,97,97,97	0
82	ZN	D7	101	1/1	0.65	0.07	337,337,337,337	0
80	MG	5	3556	1/1	0.65	1.68	86,86,86,86	0
80	MG	2	1973	1/1	0.65	0.60	107,107,107,107	0
80	MG	5	3608	1/1	0.65	0.37	94,94,94,94	0
80	MG	5	3516	1/1	0.65	0.43	116,116,116,116	0
80	MG	5	3722	1/1	0.66	0.28	131,131,131,131	0
80	MG	1	3883	1/1	0.66	0.29	88,88,88,88	0
80	MG	5	3707	1/1	0.66	1.01	99,99,99,99	0
80	MG	6	2048	1/1	0.66	0.16	188,188,188,188	0
80	MG	5	3595	1/1	0.67	0.68	91,91,91,91	0
80	MG	1	3885	1/1	0.67	0.20	124,124,124,124	0
80	MG	5	3779	1/1	0.67	0.12	137,137,137,137	0
80	MG	1	3492	1/1	0.67	0.59	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	5	3565	1/1	0.67	0.53	113,113,113,113	0
80	MG	8	207	1/1	0.68	0.17	129,129,129,129	0
80	MG	1	3598	1/1	0.68	0.42	95,95,95,95	0
80	MG	6	1981	1/1	0.68	0.54	125,125,125,125	0
80	MG	6	2034	1/1	0.69	0.28	139,139,139,139	0
80	MG	5	3464	1/1	0.69	0.70	95,95,95,95	0
80	MG	5	3430	1/1	0.69	0.52	88,88,88,88	0
80	MG	6	1927	1/1	0.69	0.26	114,114,114,114	0
80	MG	5	3471	1/1	0.69	0.45	125,125,125,125	0
80	MG	1	3457	1/1	0.69	0.27	107,107,107,107	0
80	MG	5	3771	1/1	0.69	0.14	127,127,127,127	0
80	MG	6	1939	1/1	0.69	0.82	102,102,102,102	0
80	MG	c7	201	1/1	0.69	0.16	138,138,138,138	0
80	MG	6	2050	1/1	0.70	1.38	104,104,104,104	0
80	MG	1	3580	1/1	0.70	0.48	96,96,96,96	0
80	MG	5	3493	1/1	0.70	0.76	83,83,83,83	0
80	MG	1	3418	1/1	0.70	0.45	74,74,74,74	0
80	MG	5	3834	1/1	0.70	0.47	79,79,79,79	0
80	MG	5	3713	1/1	0.70	0.68	88,88,88,88	0
80	MG	1	3706	1/1	0.71	0.99	88,88,88,88	0
80	MG	1	3712	1/1	0.71	0.46	87,87,87,87	0
80	MG	6	2031	1/1	0.71	0.24	137,137,137,137	1
80	MG	1	3865	1/1	0.71	0.30	185,185,185,185	0
80	MG	5	3766	1/1	0.72	0.17	106,106,106,106	0
80	MG	1	3548	1/1	0.72	0.56	87,87,87,87	0
80	MG	5	3764	1/1	0.72	0.66	101,101,101,101	1
80	MG	1	3829	1/1	0.72	0.65	101,101,101,101	1
80	MG	5	3735	1/1	0.72	0.50	102,102,102,102	0
80	MG	1	3727	1/1	0.72	0.40	79,79,79,79	0
80	MG	1	3659	1/1	0.73	1.39	86,86,86,86	0
80	MG	5	3731	1/1	0.73	0.62	89,89,89,89	0
80	MG	2	2000	1/1	0.73	0.21	130,130,130,130	0
80	MG	5	3483	1/1	0.73	0.33	104,104,104,104	0
80	MG	2	2006	1/1	0.73	0.21	138,138,138,138	0
80	MG	1	3442	1/1	0.73	0.37	132,132,132,132	0
80	MG	5	3491	1/1	0.73	1.00	97,97,97,97	0
80	MG	5	3661	1/1	0.73	0.30	141,141,141,141	0
80	MG	N0	201	1/1	0.73	0.49	88,88,88,88	0
80	MG	5	3774	1/1	0.73	0.12	104,104,104,104	1
80	MG	6	1901	1/1	0.73	1.07	106,106,106,106	0
80	MG	6	1940	1/1	0.73	0.59	112,112,112,112	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	1	3815	1/1	0.73	0.27	133,133,133,133	0
80	MG	5	3738	1/1	0.74	0.81	96,96,96,96	0
80	MG	1	3709	1/1	0.74	0.54	77,77,77,77	0
80	MG	2	1947	1/1	0.74	0.91	91,91,91,91	0
80	MG	4	207	1/1	0.74	0.66	86,86,86,86	0
80	MG	4	214	1/1	0.74	0.62	100,100,100,100	0
80	MG	1	3498	1/1	0.75	0.45	108,108,108,108	0
80	MG	5	3772	1/1	0.75	0.11	152,152,152,152	1
80	MG	2	2008	1/1	0.75	0.17	130,130,130,130	0
80	MG	1	3739	1/1	0.75	0.75	100,100,100,100	0
80	MG	1	3507	1/1	0.75	0.17	139,139,139,139	0
80	MG	5	3736	1/1	0.75	0.49	89,89,89,89	0
80	MG	1	3858	1/1	0.75	0.47	107,107,107,107	0
80	MG	5	3724	1/1	0.75	0.39	118,118,118,118	0
80	MG	6	2041	1/1	0.75	0.70	105,105,105,105	0
80	MG	5	3847	1/1	0.75	0.71	137,137,137,137	0
80	MG	1	3779	1/1	0.75	0.21	108,108,108,108	0
80	MG	6	1992	1/1	0.76	0.23	196,196,196,196	0
80	MG	5	3768	1/1	0.76	0.47	91,91,91,91	1
80	MG	5	3664	1/1	0.76	0.44	81,81,81,81	0
80	MG	o3	202	1/1	0.76	0.35	84,84,84,84	0
80	MG	M0	302	1/1	0.76	0.21	98,98,98,98	0
80	MG	1	3463	1/1	0.76	0.22	106,106,106,106	0
80	MG	l2	302	1/1	0.76	0.38	90,90,90,90	0
80	MG	1	3819	1/1	0.76	0.21	114,114,114,114	0
80	MG	5	3543	1/1	0.76	0.45	112,112,112,112	0
80	MG	5	3551	1/1	0.76	0.18	131,131,131,131	0
80	MG	1	3820	1/1	0.76	0.18	94,94,94,94	1
80	MG	5	3694	1/1	0.77	0.42	98,98,98,98	0
80	MG	5	3539	1/1	0.77	0.30	100,100,100,100	0
80	MG	1	3600	1/1	0.77	0.09	168,168,168,168	1
80	MG	o2	201	1/1	0.77	0.40	85,85,85,85	0
80	MG	5	3478	1/1	0.77	0.35	109,109,109,109	0
80	MG	5	3620	1/1	0.77	0.37	92,92,92,92	0
80	MG	5	3627	1/1	0.77	1.02	97,97,97,97	0
80	MG	1	3658	1/1	0.77	1.05	76,76,76,76	0
80	MG	6	2015	1/1	0.77	0.24	140,140,140,140	0
80	MG	l3	401	1/1	0.77	0.46	83,83,83,83	0
80	MG	1	3448	1/1	0.77	0.74	103,103,103,103	0
80	MG	1	3876	1/1	0.77	0.64	134,134,134,134	0
80	MG	1	3831	1/1	0.77	0.30	146,146,146,146	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	1	3859	1/1	0.77	0.28	103,103,103,103	0
80	MG	2	1927	1/1	0.77	0.04	169,169,169,169	0
80	MG	5	3488	1/1	0.78	0.71	83,83,83,83	0
80	MG	1	3721	1/1	0.78	0.29	83,83,83,83	0
80	MG	5	3796	1/1	0.78	0.21	129,129,129,129	0
80	MG	5	3513	1/1	0.78	0.50	84,84,84,84	0
80	MG	N8	201	1/1	0.78	0.28	116,116,116,116	0
80	MG	1	3576	1/1	0.78	1.29	88,88,88,88	0
80	MG	1	3671	1/1	0.78	0.23	108,108,108,108	0
80	MG	1	3741	1/1	0.78	1.13	101,101,101,101	0
80	MG	5	3733	1/1	0.78	0.21	106,106,106,106	0
80	MG	1	3480	1/1	0.78	0.60	84,84,84,84	0
80	MG	6	1983	1/1	0.79	0.19	146,146,146,146	0
80	MG	5	3506	1/1	0.79	0.56	95,95,95,95	0
80	MG	1	3842	1/1	0.79	0.57	104,104,104,104	0
80	MG	6	1954	1/1	0.79	0.38	119,119,119,119	0
80	MG	O1	201	1/1	0.79	1.10	102,102,102,102	0
80	MG	5	3607	1/1	0.79	0.40	99,99,99,99	0
80	MG	5	3750	1/1	0.79	0.60	92,92,92,92	0
80	MG	5	3604	1/1	0.79	0.15	127,127,127,127	1
80	MG	1	3715	1/1	0.79	0.35	76,76,76,76	0
80	MG	4	202	1/1	0.79	0.48	97,97,97,97	0
80	MG	1	3552	1/1	0.79	0.42	76,76,76,76	0
80	MG	5	3846	1/1	0.79	0.58	116,116,116,116	0
80	MG	1	3506	1/1	0.79	0.10	122,122,122,122	0
80	MG	5	3466	1/1	0.79	1.14	113,113,113,113	0
80	MG	6	1975	1/1	0.80	0.28	136,136,136,136	0
80	MG	6	1903	1/1	0.80	0.29	122,122,122,122	0
80	MG	6	1941	1/1	0.80	0.16	168,168,168,168	0
80	MG	5	3610	1/1	0.80	0.12	115,115,115,115	0
80	MG	5	3588	1/1	0.80	0.54	83,83,83,83	0
80	MG	1	3804	1/1	0.80	0.53	87,87,87,87	1
80	MG	5	3637	1/1	0.80	1.07	108,108,108,108	0
80	MG	1	3504	1/1	0.80	0.71	101,101,101,101	0
80	MG	5	3489	1/1	0.80	1.01	91,91,91,91	0
80	MG	1	3588	1/1	0.80	0.55	95,95,95,95	0
80	MG	1	3809	1/1	0.80	0.29	118,118,118,118	0
80	MG	1	3724	1/1	0.80	0.39	81,81,81,81	0
80	MG	5	3804	1/1	0.80	0.15	167,167,167,167	0
80	MG	1	3827	1/1	0.81	0.67	79,79,79,79	1
80	MG	1	3870	1/1	0.81	0.43	86,86,86,86	0
80	MG	1	3811	1/1	0.81	0.38	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	1	3451	1/1	0.81	0.36	95,95,95,95	0
80	MG	1	3835	1/1	0.81	0.44	87,87,87,87	0
80	MG	6	2014	1/1	0.81	0.40	109,109,109,109	0
80	MG	1	3742	1/1	0.81	0.18	107,107,107,107	0
80	MG	1	3759	1/1	0.81	0.96	76,76,76,76	0
80	MG	1	3514	1/1	0.81	0.31	96,96,96,96	0
80	MG	1	3460	1/1	0.81	0.32	90,90,90,90	0
80	MG	1	3843	1/1	0.81	0.27	104,104,104,104	1
80	MG	5	3592	1/1	0.81	0.58	80,80,80,80	0
80	MG	1	3591	1/1	0.81	0.28	104,104,104,104	0
80	MG	1	3767	1/1	0.81	0.33	77,77,77,77	0
80	MG	2	1964	1/1	0.81	0.56	98,98,98,98	0
80	MG	4	209	1/1	0.81	0.64	87,87,87,87	0
80	MG	m7	202	1/1	0.81	0.33	86,86,86,86	0
80	MG	5	3788	1/1	0.81	0.37	116,116,116,116	1
80	MG	1	3570	1/1	0.82	0.61	96,96,96,96	0
80	MG	5	3522	1/1	0.82	1.02	94,94,94,94	0
80	MG	5	3782	1/1	0.82	0.31	93,93,93,93	1
80	MG	2	1930	1/1	0.82	1.44	89,89,89,89	0
80	MG	5	3723	1/1	0.82	0.28	127,127,127,127	0
80	MG	2	2013	1/1	0.82	0.33	96,96,96,96	0
80	MG	5	3801	1/1	0.82	0.58	109,109,109,109	0
80	MG	2	1951	1/1	0.82	0.34	121,121,121,121	0
80	MG	6	1923	1/1	0.82	0.30	122,122,122,122	0
80	MG	2	1958	1/1	0.82	0.33	112,112,112,112	0
80	MG	1	3614	1/1	0.82	0.30	101,101,101,101	0
80	MG	6	1928	1/1	0.82	0.14	121,121,121,121	1
80	MG	5	3432	1/1	0.82	0.24	86,86,86,86	1
80	MG	2	1978	1/1	0.82	0.07	138,138,138,138	0
80	MG	8	208	1/1	0.82	0.72	80,80,80,80	0
80	MG	2	1946	1/1	0.82	0.38	109,109,109,109	0
80	MG	5	3586	1/1	0.82	0.25	79,79,79,79	0
80	MG	5	3487	1/1	0.83	0.26	106,106,106,106	0
80	MG	6	1966	1/1	0.83	0.13	148,148,148,148	0
82	ZN	E1	501	1/1	0.83	0.04	245,245,245,245	0
80	MG	5	3775	1/1	0.83	0.18	133,133,133,133	1
80	MG	1	3844	1/1	0.83	0.37	98,98,98,98	0
80	MG	2	1905	1/1	0.83	0.25	144,144,144,144	0
80	MG	5	3831	1/1	0.83	0.67	89,89,89,89	0
80	MG	5	3514	1/1	0.83	0.29	93,93,93,93	0
80	MG	6	1956	1/1	0.83	0.51	113,113,113,113	0
80	MG	1	3796	1/1	0.83	0.35	104,104,104,104	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	1	3730	1/1	0.83	0.37	70,70,70,70	0
80	MG	5	3599	1/1	0.83	0.27	97,97,97,97	0
80	MG	5	3517	1/1	0.83	0.17	116,116,116,116	0
80	MG	1	3640	1/1	0.83	0.31	84,84,84,84	1
80	MG	6	2018	1/1	0.83	0.09	167,167,167,167	0
81	8UZ	1	3890	33/33	0.83	0.34	108,108,108,108	33
80	MG	d9	103	1/1	0.83	0.29	152,152,152,152	0
80	MG	M0	301	1/1	0.84	0.12	93,93,93,93	0
81	8UZ	2	2031	33/33	0.84	0.31	123,123,123,123	0
80	MG	5	3558	1/1	0.84	0.74	97,97,97,97	0
80	MG	1	3778	1/1	0.84	0.18	116,116,116,116	0
80	MG	2	1903	1/1	0.84	0.42	115,115,115,115	0
80	MG	7	206	1/1	0.84	0.17	142,142,142,142	0
80	MG	1	3704	1/1	0.84	0.23	94,94,94,94	0
80	MG	s8	301	1/1	0.84	0.25	110,110,110,110	0
80	MG	1	3807	1/1	0.84	0.12	139,139,139,139	0
80	MG	1	3553	1/1	0.84	0.57	90,90,90,90	0
80	MG	L7	302	1/1	0.84	0.47	89,89,89,89	0
80	MG	2	1972	1/1	0.84	0.23	132,132,132,132	0
80	MG	5	3742	1/1	0.85	0.31	92,92,92,92	0
80	MG	5	3553	1/1	0.85	0.13	145,145,145,145	0
80	MG	1	3731	1/1	0.85	0.26	71,71,71,71	0
80	MG	5	3818	1/1	0.85	1.71	91,91,91,91	0
80	MG	5	3693	1/1	0.85	0.10	108,108,108,108	0
80	MG	2	1992	1/1	0.85	0.54	145,145,145,145	0
80	MG	2	2002	1/1	0.85	0.32	120,120,120,120	0
80	MG	5	3624	1/1	0.85	0.57	84,84,84,84	0
80	MG	5	3830	1/1	0.85	0.26	130,130,130,130	0
80	MG	1	3584	1/1	0.85	0.32	88,88,88,88	0
80	MG	5	3835	1/1	0.85	0.48	101,101,101,101	0
80	MG	q2	502	1/1	0.85	0.41	109,109,109,109	0
80	MG	2	1933	1/1	0.85	0.12	137,137,137,137	0
80	MG	5	3547	1/1	0.85	0.29	130,130,130,130	0
80	MG	5	3692	1/1	0.85	0.30	137,137,137,137	0
80	MG	2	1932	1/1	0.85	0.28	120,120,120,120	0
80	MG	L9	201	1/1	0.85	0.29	111,111,111,111	0
80	MG	2	1967	1/1	0.85	0.49	103,103,103,103	0
80	MG	5	3776	1/1	0.85	0.18	107,107,107,107	1
80	MG	5	3501	1/1	0.85	0.51	100,100,100,100	0
80	MG	5	3647	1/1	0.85	0.47	71,71,71,71	0
80	MG	5	3527	1/1	0.86	0.48	93,93,93,93	0
81	8UZ	1	3888	33/33	0.86	0.18	127,127,127,127	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	5	3823	1/1	0.86	0.24	113,113,113,113	0
80	MG	5	3406	1/1	0.86	0.51	79,79,79,79	0
80	MG	L6	203	1/1	0.86	1.03	101,101,101,101	0
80	MG	7	203	1/1	0.86	0.14	172,172,172,172	0
80	MG	5	3609	1/1	0.86	0.13	104,104,104,104	0
80	MG	1	3684	1/1	0.86	0.39	82,82,82,82	0
80	MG	5	3460	1/1	0.86	0.59	95,95,95,95	0
80	MG	1	3833	1/1	0.86	0.36	98,98,98,98	0
80	MG	1	3688	1/1	0.86	0.26	97,97,97,97	0
80	MG	5	3848	1/1	0.86	0.21	138,138,138,138	0
80	MG	2	1928	1/1	0.86	0.42	143,143,143,143	0
80	MG	6	1948	1/1	0.87	0.34	111,111,111,111	0
80	MG	6	1902	1/1	0.87	0.36	111,111,111,111	0
80	MG	6	1987	1/1	0.87	0.09	142,142,142,142	0
80	MG	8	204	1/1	0.87	0.29	109,109,109,109	0
80	MG	1	3443	1/1	0.87	0.44	86,86,86,86	0
80	MG	5	3492	1/1	0.87	0.65	100,100,100,100	0
81	8UZ	1	3894	33/33	0.87	0.34	126,126,126,126	0
80	MG	5	3727	1/1	0.87	0.76	72,72,72,72	0
80	MG	5	3791	1/1	0.88	0.20	111,111,111,111	0
80	MG	2	1980	1/1	0.88	0.15	136,136,136,136	0
81	8UZ	4	220	33/33	0.88	0.31	103,103,103,103	0
80	MG	6	2002	1/1	0.88	0.59	114,114,114,114	0
80	MG	5	3611	1/1	0.88	0.31	111,111,111,111	0
80	MG	5	3469	1/1	0.88	0.10	147,147,147,147	0
80	MG	M5	303	1/1	0.88	0.15	111,111,111,111	0
80	MG	1	3776	1/1	0.88	0.46	108,108,108,108	0
80	MG	1	3555	1/1	0.88	0.23	89,89,89,89	0
80	MG	2	1975	1/1	0.88	0.28	132,132,132,132	0
80	MG	1	3846	1/1	0.88	0.26	91,91,91,91	0
80	MG	5	3585	1/1	0.88	0.46	93,93,93,93	0
80	MG	2	2014	1/1	0.88	0.31	104,104,104,104	0
80	MG	6	1980	1/1	0.88	1.02	116,116,116,116	0
80	MG	1	3673	1/1	0.88	0.55	93,93,93,93	0
80	MG	1	3429	1/1	0.88	0.27	111,111,111,111	0
80	MG	6	1984	1/1	0.88	0.20	136,136,136,136	0
80	MG	5	3792	1/1	0.88	0.21	110,110,110,110	0
80	MG	1	3750	1/1	0.88	1.24	89,89,89,89	0
80	MG	1	3716	1/1	0.88	0.35	84,84,84,84	0
80	MG	1	3866	1/1	0.88	0.23	130,130,130,130	0
80	MG	1	3830	1/1	0.88	0.16	86,86,86,86	0
80	MG	1	3484	1/1	0.89	0.20	84,84,84,84	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	5	3810	1/1	0.89	0.31	83,83,83,83	0
80	MG	2	1971	1/1	0.89	0.37	127,127,127,127	0
80	MG	5	3433	1/1	0.89	0.30	85,85,85,85	0
80	MG	1	3656	1/1	0.89	0.42	97,97,97,97	0
80	MG	1	3449	1/1	0.89	0.32	97,97,97,97	0
80	MG	1	3531	1/1	0.89	0.36	88,88,88,88	1
80	MG	2	1935	1/1	0.89	0.13	144,144,144,144	0
80	MG	1	3628	1/1	0.89	1.11	77,77,77,77	0
80	MG	1	3797	1/1	0.89	0.17	148,148,148,148	0
80	MG	1	3707	1/1	0.89	0.27	83,83,83,83	1
80	MG	1	3884	1/1	0.89	1.09	90,90,90,90	0
80	MG	1	3705	1/1	0.89	0.31	82,82,82,82	0
80	MG	5	3402	1/1	0.89	0.50	73,73,73,73	0
80	MG	5	3465	1/1	0.89	0.22	110,110,110,110	1
80	MG	1	3538	1/1	0.89	0.36	83,83,83,83	0
80	MG	5	3808	1/1	0.89	0.20	99,99,99,99	0
80	MG	5	3689	1/1	0.89	0.27	120,120,120,120	0
80	MG	2	1911	1/1	0.89	0.42	113,113,113,113	0
80	MG	1	3516	1/1	0.89	0.12	97,97,97,97	1
80	MG	1	3852	1/1	0.89	0.72	100,100,100,100	0
80	MG	1	3478	1/1	0.89	0.24	84,84,84,84	0
80	MG	2	2007	1/1	0.89	0.15	140,140,140,140	0
80	MG	5	3597	1/1	0.89	0.25	86,86,86,86	0
80	MG	5	3458	1/1	0.89	0.99	97,97,97,97	0
80	MG	1	3857	1/1	0.89	0.23	123,123,123,123	0
80	MG	l3	403	1/1	0.90	0.17	87,87,87,87	1
80	MG	5	3468	1/1	0.90	0.12	135,135,135,135	0
80	MG	5	3685	1/1	0.90	0.26	95,95,95,95	0
80	MG	1	3554	1/1	0.90	0.29	87,87,87,87	0
80	MG	5	3838	1/1	0.90	0.13	154,154,154,154	0
80	MG	N6	201	1/1	0.90	1.42	103,103,103,103	1
80	MG	5	3629	1/1	0.90	0.19	109,109,109,109	0
80	MG	5	3663	1/1	0.90	0.23	85,85,85,85	1
80	MG	5	3554	1/1	0.90	0.06	151,151,151,151	0
80	MG	5	3770	1/1	0.90	0.59	102,102,102,102	0
80	MG	5	3448	1/1	0.90	0.39	83,83,83,83	0
80	MG	5	3816	1/1	0.90	0.43	66,66,66,66	0
80	MG	1	3646	1/1	0.90	0.25	85,85,85,85	0
80	MG	6	2022	1/1	0.90	0.09	137,137,137,137	0
80	MG	5	3729	1/1	0.90	0.89	81,81,81,81	0
80	MG	1	3503	1/1	0.90	0.18	103,103,103,103	0
80	MG	5	3842	1/1	0.90	0.36	137,137,137,137	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	1	3875	1/1	0.90	0.27	89,89,89,89	0
80	MG	2	1979	1/1	0.90	0.22	144,144,144,144	0
80	MG	SM	302	1/1	0.90	0.28	114,114,114,114	0
80	MG	1	3615	1/1	0.90	0.10	93,93,93,93	1
80	MG	1	3768	1/1	0.90	0.36	69,69,69,69	0
80	MG	1	3621	1/1	0.90	0.09	115,115,115,115	0
80	MG	O7	103	1/1	0.90	0.42	95,95,95,95	1
80	MG	6	1925	1/1	0.90	0.47	118,118,118,118	0
80	MG	5	3665	1/1	0.90	0.18	123,123,123,123	0
80	MG	1	3743	1/1	0.90	0.20	109,109,109,109	0
80	MG	5	3690	1/1	0.90	0.45	112,112,112,112	0
81	8UZ	2	2029	33/33	0.90	0.18	134,134,134,134	0
80	MG	6	1974	1/1	0.90	0.24	137,137,137,137	0
80	MG	3	209	1/1	0.90	0.09	138,138,138,138	0
80	MG	C9	201	1/1	0.91	0.10	152,152,152,152	0
80	MG	5	3844	1/1	0.91	0.36	93,93,93,93	0
80	MG	5	3684	1/1	0.91	0.49	93,93,93,93	0
80	MG	S6	301	1/1	0.91	0.06	172,172,172,172	0
80	MG	6	2028	1/1	0.91	0.43	113,113,113,113	0
80	MG	1	3592	1/1	0.91	0.19	90,90,90,90	0
80	MG	SM	301	1/1	0.91	0.28	123,123,123,123	0
80	MG	2	1974	1/1	0.91	0.17	137,137,137,137	0
80	MG	1	3765	1/1	0.91	0.21	92,92,92,92	0
80	MG	1	3445	1/1	0.91	0.40	79,79,79,79	0
80	MG	5	3704	1/1	0.91	0.70	73,73,73,73	0
80	MG	1	3412	1/1	0.91	0.28	92,92,92,92	0
80	MG	5	3656	1/1	0.91	0.20	88,88,88,88	0
81	8UZ	3	214	33/33	0.91	0.18	99,99,99,99	0
80	MG	6	1958	1/1	0.91	0.62	97,97,97,97	0
81	8UZ	1	3892	33/33	0.91	0.29	110,110,110,110	0
80	MG	1	3488	1/1	0.91	0.40	74,74,74,74	0
80	MG	5	3837	1/1	0.91	0.35	123,123,123,123	0
80	MG	5	3763	1/1	0.91	0.20	89,89,89,89	1
80	MG	1	3634	1/1	0.91	0.21	80,80,80,80	1
80	MG	5	3534	1/1	0.91	0.41	96,96,96,96	0
80	MG	6	2024	1/1	0.91	0.38	101,101,101,101	1
80	MG	1	3404	1/1	0.91	0.77	87,87,87,87	0
80	MG	1	3426	1/1	0.91	0.79	94,94,94,94	0
80	MG	1	3849	1/1	0.91	0.38	74,74,74,74	0
80	MG	1	3881	1/1	0.91	0.18	127,127,127,127	0
80	MG	2	1985	1/1	0.91	0.09	156,156,156,156	0
80	MG	6	1942	1/1	0.91	0.25	129,129,129,129	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	5	3827	1/1	0.91	0.49	91,91,91,91	1
80	MG	1	3539	1/1	0.91	0.39	85,85,85,85	0
80	MG	5	3563	1/1	0.91	0.17	121,121,121,121	0
80	MG	5	3777	1/1	0.91	0.17	124,124,124,124	0
80	MG	6	2004	1/1	0.91	0.35	132,132,132,132	0
80	MG	2	1934	1/1	0.91	0.20	145,145,145,145	0
80	MG	1	3601	1/1	0.92	0.10	114,114,114,114	0
80	MG	1	3777	1/1	0.92	0.12	86,86,86,86	1
80	MG	5	3666	1/1	0.92	0.55	143,143,143,143	0
80	MG	C4	201	1/1	0.92	0.09	144,144,144,144	0
80	MG	6	1998	1/1	0.92	0.06	149,149,149,149	0
80	MG	5	3716	1/1	0.92	0.13	102,102,102,102	0
80	MG	4	212	1/1	0.92	0.36	72,72,72,72	0
80	MG	5	3673	1/1	0.92	0.58	84,84,84,84	0
80	MG	5	3414	1/1	0.92	0.27	94,94,94,94	0
80	MG	5	3428	1/1	0.92	0.45	80,80,80,80	0
80	MG	8	209	1/1	0.92	0.10	117,117,117,117	0
80	MG	5	3825	1/1	0.92	0.15	149,149,149,149	0
80	MG	6	2058	1/1	0.92	0.20	113,113,113,113	0
80	MG	5	3821	1/1	0.92	0.20	145,145,145,145	0
80	MG	1	3788	1/1	0.92	0.21	101,101,101,101	1
81	8UZ	5	3854	33/33	0.92	0.22	117,117,117,117	0
80	MG	2	1952	1/1	0.92	0.20	115,115,115,115	0
80	MG	1	3532	1/1	0.92	0.60	83,83,83,83	0
80	MG	5	3798	1/1	0.92	0.19	130,130,130,130	0
80	MG	5	3542	1/1	0.92	0.30	110,110,110,110	0
80	MG	5	3754	1/1	0.92	0.26	85,85,85,85	0
80	MG	2	1986	1/1	0.92	0.08	144,144,144,144	0
80	MG	6	2001	1/1	0.92	0.18	142,142,142,142	0
80	MG	2	1918	1/1	0.92	0.17	122,122,122,122	0
80	MG	5	3712	1/1	0.92	0.13	92,92,92,92	1
80	MG	3	211	1/1	0.92	0.09	140,140,140,140	0
80	MG	1	3557	1/1	0.92	0.45	88,88,88,88	0
80	MG	1	3702	1/1	0.92	0.32	81,81,81,81	0
80	MG	5	3467	1/1	0.92	0.09	143,143,143,143	0
80	MG	1	3764	1/1	0.92	0.39	92,92,92,92	0
80	MG	5	3417	1/1	0.92	0.18	91,91,91,91	0
80	MG	2	1921	1/1	0.92	0.15	120,120,120,120	0
80	MG	1	3726	1/1	0.92	0.47	72,72,72,72	0
80	MG	1	3689	1/1	0.92	0.18	85,85,85,85	1
80	MG	1	3748	1/1	0.92	0.67	83,83,83,83	0
80	MG	5	3505	1/1	0.92	0.24	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	5	3809	1/1	0.92	0.29	87,87,87,87	0
80	MG	5	3674	1/1	0.92	0.15	133,133,133,133	0
80	MG	2	1987	1/1	0.92	0.07	164,164,164,164	0
80	MG	1	3662	1/1	0.93	0.27	94,94,94,94	0
80	MG	2	1938	1/1	0.93	0.27	116,116,116,116	0
80	MG	2	1910	1/1	0.93	0.11	125,125,125,125	0
80	MG	1	3753	1/1	0.93	0.24	81,81,81,81	0
80	MG	5	3474	1/1	0.93	0.16	148,148,148,148	0
80	MG	5	3717	1/1	0.93	0.11	100,100,100,100	0
80	MG	5	3578	1/1	0.93	0.32	87,87,87,87	0
80	MG	5	3450	1/1	0.93	0.24	88,88,88,88	0
80	MG	1	3758	1/1	0.93	0.37	76,76,76,76	0
80	MG	1	3762	1/1	0.93	0.27	90,90,90,90	0
81	8UZ	5	3853	33/33	0.93	0.21	91,91,91,91	33
80	MG	5	3633	1/1	0.93	0.06	112,112,112,112	0
80	MG	3	202	1/1	0.93	0.31	93,93,93,93	0
81	8UZ	1	3887	33/33	0.93	0.17	120,120,120,120	0
80	MG	5	3442	1/1	0.93	0.51	83,83,83,83	0
80	MG	5	3452	1/1	0.93	0.43	84,84,84,84	0
80	MG	17	301	1/1	0.93	0.34	79,79,79,79	0
80	MG	5	3626	1/1	0.93	0.36	89,89,89,89	0
80	MG	2	1970	1/1	0.93	0.09	133,133,133,133	0
80	MG	1	3787	1/1	0.93	0.44	85,85,85,85	1
80	MG	1	3405	1/1	0.93	0.40	84,84,84,84	0
80	MG	2	1931	1/1	0.93	0.22	116,116,116,116	0
81	8UZ	1	3895	33/33	0.93	0.15	119,119,119,119	0
80	MG	6	2006	1/1	0.93	0.21	136,136,136,136	0
80	MG	1	3501	1/1	0.93	0.12	109,109,109,109	0
80	MG	2	1982	1/1	0.93	0.18	139,139,139,139	0
80	MG	1	3401	1/1	0.93	0.55	84,84,84,84	0
80	MG	6	1937	1/1	0.93	0.18	111,111,111,111	0
80	MG	6	1962	1/1	0.93	0.11	131,131,131,131	0
80	MG	5	3749	1/1	0.93	0.21	108,108,108,108	0
80	MG	5	3659	1/1	0.93	0.15	128,128,128,128	0
80	MG	1	3824	1/1	0.93	0.10	117,117,117,117	0
80	MG	1	3678	1/1	0.93	0.37	79,79,79,79	0
81	8UZ	1	3891	33/33	0.93	0.23	89,89,89,89	0
80	MG	6	1977	1/1	0.93	0.13	142,142,142,142	0
80	MG	5	3490	1/1	0.93	1.22	85,85,85,85	0
80	MG	6	1936	1/1	0.93	0.36	106,106,106,106	0
80	MG	L3	402	1/1	0.93	0.24	86,86,86,86	0
80	MG	M7	203	1/1	0.93	0.24	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	8	210	1/1	0.93	0.43	123,123,123,123	0
80	MG	1	3583	1/1	0.93	0.10	128,128,128,128	0
80	MG	6	1930	1/1	0.94	0.22	117,117,117,117	0
80	MG	5	3579	1/1	0.94	0.34	91,91,91,91	0
80	MG	6	1907	1/1	0.94	0.14	117,117,117,117	0
80	MG	1	3490	1/1	0.94	0.32	81,81,81,81	0
80	MG	5	3528	1/1	0.94	0.23	94,94,94,94	1
80	MG	1	3735	1/1	0.94	0.15	83,83,83,83	0
80	MG	5	3590	1/1	0.94	0.19	79,79,79,79	0
80	MG	1	3417	1/1	0.94	0.26	80,80,80,80	0
80	MG	2	1948	1/1	0.94	0.27	134,134,134,134	0
80	MG	1	3818	1/1	0.94	0.18	81,81,81,81	1
80	MG	1	3837	1/1	0.94	0.36	80,80,80,80	0
80	MG	1	3651	1/1	0.94	0.67	79,79,79,79	0
80	MG	5	3422	1/1	0.94	0.22	90,90,90,90	0
80	MG	6	2027	1/1	0.94	0.23	137,137,137,137	0
80	MG	1	3736	1/1	0.94	0.26	101,101,101,101	0
80	MG	1	3540	1/1	0.94	0.49	84,84,84,84	0
80	MG	c9	201	1/1	0.94	0.07	139,139,139,139	0
80	MG	1	3631	1/1	0.94	0.26	78,78,78,78	1
80	MG	5	3807	1/1	0.94	0.46	97,97,97,97	0
80	MG	2	1936	1/1	0.94	0.15	131,131,131,131	0
80	MG	4	201	1/1	0.94	0.28	100,100,100,100	0
80	MG	4	217	1/1	0.94	0.37	93,93,93,93	0
80	MG	1	3474	1/1	0.94	0.24	83,83,83,83	0
80	MG	2	1984	1/1	0.94	0.12	151,151,151,151	0
80	MG	1	3597	1/1	0.94	0.16	93,93,93,93	0
82	ZN	O4	501	1/1	0.94	0.08	181,181,181,181	0
80	MG	2	2015	1/1	0.94	0.35	126,126,126,126	0
80	MG	5	3741	1/1	0.94	0.34	115,115,115,115	0
80	MG	6	1912	1/1	0.94	0.16	116,116,116,116	0
80	MG	2	1998	1/1	0.94	0.71	118,118,118,118	0
80	MG	1	3649	1/1	0.94	0.22	84,84,84,84	1
80	MG	1	3414	1/1	0.94	0.25	85,85,85,85	0
80	MG	6	2007	1/1	0.94	0.11	144,144,144,144	0
80	MG	5	3479	1/1	0.94	0.32	119,119,119,119	0
80	MG	1	3565	1/1	0.94	0.32	94,94,94,94	0
80	MG	1	3612	1/1	0.94	0.30	94,94,94,94	0
80	MG	2	1912	1/1	0.94	0.11	125,125,125,125	0
80	MG	5	3730	1/1	0.94	0.20	95,95,95,95	1
80	MG	1	3625	1/1	0.94	1.33	96,96,96,96	0
80	MG	6	2055	1/1	0.94	0.34	97,97,97,97	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	5	3434	1/1	0.94	0.10	93,93,93,93	0
80	MG	2	1925	1/1	0.94	0.05	158,158,158,158	0
80	MG	5	3408	1/1	0.94	0.30	81,81,81,81	0
80	MG	1	3681	1/1	0.94	0.26	78,78,78,78	0
80	MG	1	3878	1/1	0.94	0.23	97,97,97,97	0
80	MG	1	3850	1/1	0.94	0.61	76,76,76,76	0
80	MG	5	3540	1/1	0.94	0.15	110,110,110,110	0
80	MG	1	3521	1/1	0.94	0.36	114,114,114,114	0
80	MG	5	3718	1/1	0.94	0.35	97,97,97,97	0
80	MG	5	3655	1/1	0.95	0.28	95,95,95,95	0
80	MG	3	204	1/1	0.95	0.11	127,127,127,127	0
80	MG	1	3422	1/1	0.95	0.27	97,97,97,97	0
80	MG	1	3568	1/1	0.95	0.60	102,102,102,102	0
80	MG	2	1907	1/1	0.95	0.11	168,168,168,168	0
80	MG	1	3838	1/1	0.95	0.34	75,75,75,75	0
80	MG	5	3520	1/1	0.95	0.45	123,123,123,123	0
80	MG	1	3874	1/1	0.95	0.54	89,89,89,89	0
80	MG	2	1902	1/1	0.95	0.18	115,115,115,115	1
80	MG	6	1919	1/1	0.95	0.11	137,137,137,137	0
80	MG	5	3475	1/1	0.95	0.14	146,146,146,146	0
80	MG	L6	201	1/1	0.95	0.11	114,114,114,114	0
80	MG	5	3405	1/1	0.95	0.46	79,79,79,79	0
80	MG	d9	102	1/1	0.95	0.09	171,171,171,171	0
80	MG	5	3412	1/1	0.95	0.10	99,99,99,99	0
80	MG	1	3616	1/1	0.95	0.29	85,85,85,85	0
80	MG	6	1999	1/1	0.95	0.14	146,146,146,146	0
80	MG	6	2017	1/1	0.95	0.07	119,119,119,119	0
80	MG	2	2021	1/1	0.95	0.32	135,135,135,135	0
80	MG	1	3626	1/1	0.95	0.18	104,104,104,104	0
80	MG	1	3430	1/1	0.95	0.17	104,104,104,104	0
80	MG	6	1933	1/1	0.95	0.15	109,109,109,109	0
80	MG	c8	202	1/1	0.95	0.07	149,149,149,149	0
80	MG	5	3679	1/1	0.95	0.19	107,107,107,107	0
80	MG	1	3556	1/1	0.95	0.21	91,91,91,91	0
80	MG	5	3415	1/1	0.95	0.23	92,92,92,92	0
80	MG	5	3683	1/1	0.95	0.31	116,116,116,116	0
80	MG	1	3714	1/1	0.95	0.22	81,81,81,81	0
80	MG	5	3453	1/1	0.95	0.34	88,88,88,88	0
80	MG	1	3821	1/1	0.95	0.17	89,89,89,89	0
80	MG	1	3635	1/1	0.95	0.30	76,76,76,76	0
80	MG	5	3536	1/1	0.95	0.10	106,106,106,106	0
80	MG	2	2003	1/1	0.95	0.24	113,113,113,113	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	5	3503	1/1	0.95	0.39	96,96,96,96	0
80	MG	5	3732	1/1	0.95	0.54	91,91,91,91	0
80	MG	1	3710	1/1	0.95	0.22	84,84,84,84	0
80	MG	1	3604	1/1	0.95	0.12	105,105,105,105	0
80	MG	12	301	1/1	0.95	0.38	93,93,93,93	0
80	MG	1	3855	1/1	0.95	0.20	87,87,87,87	0
80	MG	2	1959	1/1	0.95	0.20	129,129,129,129	0
80	MG	6	1931	1/1	0.95	0.44	107,107,107,107	0
80	MG	1	3543	1/1	0.95	0.54	72,72,72,72	0
80	MG	1	3546	1/1	0.95	0.71	77,77,77,77	0
80	MG	5	3799	1/1	0.95	0.12	110,110,110,110	1
80	MG	N7	201	1/1	0.95	0.34	138,138,138,138	0
80	MG	7	204	1/1	0.95	0.12	170,170,170,170	0
80	MG	5	3575	1/1	0.95	0.14	95,95,95,95	0
80	MG	1	3790	1/1	0.95	0.19	89,89,89,89	1
80	MG	2	1965	1/1	0.95	0.12	127,127,127,127	0
80	MG	2	1962	1/1	0.95	0.19	134,134,134,134	0
80	MG	1	3693	1/1	0.95	0.36	73,73,73,73	0
80	MG	1	3487	1/1	0.95	0.33	83,83,83,83	0
80	MG	1	3415	1/1	0.95	0.27	81,81,81,81	0
80	MG	2	1920	1/1	0.95	0.24	116,116,116,116	0
80	MG	1	3606	1/1	0.95	0.31	97,97,97,97	0
80	MG	5	3499	1/1	0.95	0.63	97,97,97,97	0
80	MG	5	3594	1/1	0.95	0.39	91,91,91,91	0
80	MG	5	3418	1/1	0.95	0.35	79,79,79,79	0
80	MG	1	3810	1/1	0.95	0.22	82,82,82,82	0
80	MG	1	3686	1/1	0.96	0.25	85,85,85,85	0
80	MG	5	3472	1/1	0.96	0.09	130,130,130,130	0
80	MG	1	3424	1/1	0.96	0.20	111,111,111,111	0
80	MG	1	3643	1/1	0.96	0.34	75,75,75,75	0
80	MG	C6	201	1/1	0.96	0.07	173,173,173,173	0
80	MG	1	3752	1/1	0.96	0.23	81,81,81,81	0
80	MG	D2	201	1/1	0.96	0.15	139,139,139,139	0
80	MG	1	3754	1/1	0.96	0.32	80,80,80,80	0
80	MG	1	3439	1/1	0.96	0.06	118,118,118,118	0
80	MG	6	1943	1/1	0.96	0.10	136,136,136,136	0
80	MG	1	3613	1/1	0.96	0.19	99,99,99,99	0
80	MG	5	3589	1/1	0.96	0.20	82,82,82,82	0
80	MG	5	3756	1/1	0.96	0.22	93,93,93,93	0
80	MG	1	3756	1/1	0.96	0.27	76,76,76,76	0
80	MG	1	3694	1/1	0.96	0.15	70,70,70,70	0
80	MG	2	1966	1/1	0.96	0.10	134,134,134,134	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	1	3558	1/1	0.96	0.35	113,113,113,113	0
80	MG	5	3545	1/1	0.96	0.13	130,130,130,130	0
80	MG	1	3825	1/1	0.96	0.22	97,97,97,97	0
80	MG	1	3698	1/1	0.96	0.31	82,82,82,82	0
80	MG	1	3696	1/1	0.96	0.18	86,86,86,86	0
80	MG	5	3630	1/1	0.96	0.13	112,112,112,112	0
80	MG	5	3451	1/1	0.96	0.24	80,80,80,80	0
80	MG	5	3675	1/1	0.96	0.33	96,96,96,96	0
80	MG	1	3475	1/1	0.96	0.30	84,84,84,84	0
80	MG	1	3454	1/1	0.96	0.22	92,92,92,92	0
80	MG	5	3699	1/1	0.96	0.25	97,97,97,97	1
80	MG	5	3494	1/1	0.96	0.24	97,97,97,97	0
80	MG	1	3595	1/1	0.96	0.47	84,84,84,84	0
80	MG	1	3435	1/1	0.96	0.17	103,103,103,103	1
80	MG	1	3458	1/1	0.96	0.07	106,106,106,106	0
80	MG	5	3429	1/1	0.96	0.23	80,80,80,80	0
80	MG	5	3646	1/1	0.96	0.40	85,85,85,85	0
80	MG	1	3466	1/1	0.96	0.09	115,115,115,115	0
80	MG	1	3840	1/1	0.96	0.24	99,99,99,99	0
80	MG	5	3577	1/1	0.96	0.24	96,96,96,96	0
80	MG	2	1919	1/1	0.96	0.27	122,122,122,122	0
80	MG	6	2057	1/1	0.96	0.20	130,130,130,130	0
80	MG	5	3790	1/1	0.96	0.20	90,90,90,90	0
80	MG	1	3647	1/1	0.96	0.41	78,78,78,78	0
80	MG	5	3421	1/1	0.96	0.30	91,91,91,91	0
80	MG	5	3401	1/1	0.96	0.44	77,77,77,77	0
80	MG	6	1932	1/1	0.96	0.26	112,112,112,112	0
80	MG	5	3561	1/1	0.96	0.15	130,130,130,130	0
80	MG	5	3815	1/1	0.96	0.15	97,97,97,97	1
80	MG	6	1997	1/1	0.96	0.33	137,137,137,137	0
80	MG	2	1983	1/1	0.96	0.11	138,138,138,138	0
80	MG	1	3873	1/1	0.96	0.12	135,135,135,135	0
80	MG	7	207	1/1	0.96	0.38	102,102,102,102	0
80	MG	1	3672	1/1	0.96	0.25	103,103,103,103	0
80	MG	1	3803	1/1	0.96	0.57	89,89,89,89	1
80	MG	6	2012	1/1	0.96	0.06	131,131,131,131	0
80	MG	1	3692	1/1	0.96	0.33	79,79,79,79	0
80	MG	1	3479	1/1	0.96	0.31	83,83,83,83	0
80	MG	1	3493	1/1	0.96	0.21	90,90,90,90	1
80	MG	1	3419	1/1	0.96	0.31	81,81,81,81	0
80	MG	5	3719	1/1	0.96	0.84	77,77,77,77	1
80	MG	6	1914	1/1	0.96	0.30	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	2	2020	1/1	0.97	0.32	155,155,155,155	0
80	MG	1	3653	1/1	0.97	0.21	87,87,87,87	0
80	MG	5	3755	1/1	0.97	0.10	90,90,90,90	1
80	MG	1	3723	1/1	0.97	0.28	79,79,79,79	0
80	MG	6	2011	1/1	0.97	0.27	132,132,132,132	0
80	MG	5	3739	1/1	0.97	0.22	96,96,96,96	0
80	MG	1	3676	1/1	0.97	0.31	80,80,80,80	0
80	MG	5	3746	1/1	0.97	0.34	82,82,82,82	0
80	MG	6	2052	1/1	0.97	0.25	179,179,179,179	0
80	MG	1	3518	1/1	0.97	0.25	96,96,96,96	0
80	MG	6	1949	1/1	0.97	0.16	114,114,114,114	0
80	MG	1	3622	1/1	0.97	0.20	110,110,110,110	0
80	MG	5	3531	1/1	0.97	0.38	84,84,84,84	0
80	MG	1	3836	1/1	0.97	0.31	98,98,98,98	0
80	MG	5	3537	1/1	0.97	0.23	105,105,105,105	0
80	MG	1	3511	1/1	0.97	0.19	102,102,102,102	0
80	MG	5	3560	1/1	0.97	0.20	130,130,130,130	0
80	MG	1	3471	1/1	0.97	0.39	89,89,89,89	0
80	MG	5	3523	1/1	0.97	0.30	93,93,93,93	0
80	MG	1	3826	1/1	0.97	0.75	105,105,105,105	0
80	MG	6	1951	1/1	0.97	0.28	102,102,102,102	0
80	MG	1	3632	1/1	0.97	0.08	88,88,88,88	0
80	MG	5	3582	1/1	0.97	0.44	89,89,89,89	0
80	MG	1	3637	1/1	0.97	0.40	70,70,70,70	0
80	MG	1	3657	1/1	0.97	0.30	94,94,94,94	0
82	ZN	q2	501	1/1	0.97	0.14	211,211,211,211	0
80	MG	5	3720	1/1	0.97	0.20	113,113,113,113	0
80	MG	1	3527	1/1	0.97	0.29	86,86,86,86	0
80	MG	5	3745	1/1	0.97	0.19	135,135,135,135	0
80	MG	6	1952	1/1	0.97	0.36	105,105,105,105	0
80	MG	6	1990	1/1	0.97	0.21	153,153,153,153	0
80	MG	1	3770	1/1	0.97	0.11	100,100,100,100	0
80	MG	5	3677	1/1	0.97	0.18	106,106,106,106	0
80	MG	1	3476	1/1	0.97	0.24	82,82,82,82	0
80	MG	6	1918	1/1	0.97	0.06	134,134,134,134	0
80	MG	5	3576	1/1	0.97	0.59	90,90,90,90	0
80	MG	5	3642	1/1	0.97	0.15	106,106,106,106	0
80	MG	5	3446	1/1	0.97	0.10	84,84,84,84	0
80	MG	1	3433	1/1	0.97	0.11	96,96,96,96	0
80	MG	1	3733	1/1	0.97	0.29	73,73,73,73	0
80	MG	5	3530	1/1	0.97	0.14	93,93,93,93	0
80	MG	5	3587	1/1	0.97	0.20	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	1	3467	1/1	0.97	0.17	100,100,100,100	0
80	MG	1	3574	1/1	0.97	0.30	85,85,85,85	0
80	MG	2	2009	1/1	0.97	0.22	132,132,132,132	0
82	ZN	q3	501	1/1	0.97	0.12	138,138,138,138	0
80	MG	1	3494	1/1	0.97	0.45	83,83,83,83	0
80	MG	1	3839	1/1	0.97	0.28	87,87,87,87	0
80	MG	1	3700	1/1	0.97	0.27	81,81,81,81	0
80	MG	1	3473	1/1	0.97	0.61	78,78,78,78	0
80	MG	6	1953	1/1	0.97	0.28	105,105,105,105	0
80	MG	S4	301	1/1	0.97	0.19	135,135,135,135	0
80	MG	1	3581	1/1	0.97	0.18	102,102,102,102	0
80	MG	1	3652	1/1	0.97	0.26	86,86,86,86	0
82	ZN	o4	501	1/1	0.97	0.06	182,182,182,182	0
80	MG	5	3634	1/1	0.97	0.09	150,150,150,150	0
80	MG	m7	201	1/1	0.97	0.22	93,93,93,93	0
80	MG	1	3497	1/1	0.97	0.21	98,98,98,98	0
80	MG	1	3607	1/1	0.97	0.16	102,102,102,102	1
80	MG	5	3709	1/1	0.97	0.19	110,110,110,110	0
80	MG	1	3882	1/1	0.97	0.28	146,146,146,146	0
80	MG	L7	301	1/1	0.97	0.27	83,83,83,83	0
80	MG	1	3725	1/1	0.97	0.18	75,75,75,75	0
80	MG	1	3781	1/1	0.97	0.21	84,84,84,84	1
80	MG	5	3581	1/1	0.97	0.23	100,100,100,100	1
80	MG	1	3486	1/1	0.97	0.40	83,83,83,83	0
80	MG	6	1924	1/1	0.97	0.51	116,116,116,116	0
80	MG	M5	302	1/1	0.97	0.33	97,97,97,97	0
80	MG	5	3648	1/1	0.97	0.30	80,80,80,80	0
80	MG	1	3438	1/1	0.97	0.11	106,106,106,106	0
80	MG	1	3627	1/1	0.97	0.26	80,80,80,80	0
80	MG	1	3791	1/1	0.97	0.22	88,88,88,88	0
80	MG	1	3701	1/1	0.97	0.35	87,87,87,87	0
80	MG	1	3869	1/1	0.97	0.27	165,165,165,165	0
80	MG	1	3871	1/1	0.97	0.23	97,97,97,97	1
80	MG	1	3453	1/1	0.97	0.14	94,94,94,94	0
80	MG	1	3533	1/1	0.97	0.40	82,82,82,82	0
80	MG	6	2005	1/1	0.97	1.06	93,93,93,93	0
80	MG	6	2019	1/1	0.97	0.16	116,116,116,116	0
80	MG	1	3437	1/1	0.98	0.14	103,103,103,103	0
80	MG	1	3585	1/1	0.98	0.26	84,84,84,84	0
80	MG	5	3700	1/1	0.98	0.23	101,101,101,101	0
80	MG	5	3495	1/1	0.98	0.45	92,92,92,92	0
80	MG	5	3441	1/1	0.98	0.19	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	5	3849	1/1	0.98	0.07	150,150,150,150	0
80	MG	5	3631	1/1	0.98	0.20	125,125,125,125	0
80	MG	5	3600	1/1	0.98	0.27	100,100,100,100	0
80	MG	5	3403	1/1	0.98	0.35	82,82,82,82	0
80	MG	1	3522	1/1	0.98	0.06	115,115,115,115	0
80	MG	1	3629	1/1	0.98	0.67	70,70,70,70	0
80	MG	5	3786	1/1	0.98	0.19	104,104,104,104	0
80	MG	5	3622	1/1	0.98	0.25	84,84,84,84	0
80	MG	5	3615	1/1	0.98	0.21	128,128,128,128	0
80	MG	1	3402	1/1	0.98	0.34	91,91,91,91	0
80	MG	6	1929	1/1	0.98	0.12	121,121,121,121	0
80	MG	5	3574	1/1	0.98	0.24	99,99,99,99	0
80	MG	1	3648	1/1	0.98	0.23	77,77,77,77	0
80	MG	6	2020	1/1	0.98	0.11	174,174,174,174	0
80	MG	6	1906	1/1	0.98	0.23	112,112,112,112	0
80	MG	1	3529	1/1	0.98	0.29	85,85,85,85	0
80	MG	5	3681	1/1	0.98	0.07	103,103,103,103	0
80	MG	1	3513	1/1	0.98	0.11	103,103,103,103	1
80	MG	5	3710	1/1	0.98	0.25	105,105,105,105	0
80	MG	5	3793	1/1	0.98	0.29	97,97,97,97	1
80	MG	5	3625	1/1	0.98	0.34	85,85,85,85	0
80	MG	1	3691	1/1	0.98	0.16	81,81,81,81	0
80	MG	1	3816	1/1	0.98	0.43	99,99,99,99	1
80	MG	1	3602	1/1	0.98	0.16	115,115,115,115	0
80	MG	1	3489	1/1	0.98	0.19	78,78,78,78	0
80	MG	3	210	1/1	0.98	0.07	136,136,136,136	0
80	MG	5	3813	1/1	0.98	0.23	87,87,87,87	0
80	MG	6	2053	1/1	0.98	0.42	114,114,114,114	0
80	MG	6	1976	1/1	0.98	0.11	140,140,140,140	0
80	MG	5	3410	1/1	0.98	0.20	90,90,90,90	0
80	MG	6	1944	1/1	0.98	0.08	154,154,154,154	0
80	MG	2	1960	1/1	0.98	0.18	127,127,127,127	0
80	MG	5	3687	1/1	0.98	0.22	103,103,103,103	0
80	MG	5	3411	1/1	0.98	0.15	96,96,96,96	0
80	MG	L2	301	1/1	0.98	0.23	80,80,80,80	0
80	MG	1	3618	1/1	0.98	0.14	85,85,85,85	0
80	MG	O3	201	1/1	0.98	0.25	83,83,83,83	0
80	MG	5	3420	1/1	0.98	0.19	94,94,94,94	1
80	MG	1	3654	1/1	0.98	0.19	95,95,95,95	0
80	MG	5	3564	1/1	0.98	0.23	113,113,113,113	0
80	MG	5	3449	1/1	0.98	0.37	82,82,82,82	0
80	MG	1	3719	1/1	0.98	0.15	87,87,87,87	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	5	3828	1/1	0.98	0.10	111,111,111,111	0
80	MG	1	3406	1/1	0.98	0.24	91,91,91,91	0
80	MG	1	3536	1/1	0.98	0.28	80,80,80,80	0
80	MG	5	3427	1/1	0.98	0.46	79,79,79,79	0
80	MG	1	3722	1/1	0.98	0.20	79,79,79,79	1
80	MG	1	3645	1/1	0.98	0.19	85,85,85,85	0
80	MG	5	3591	1/1	0.98	0.15	86,86,86,86	0
80	MG	1	3502	1/1	0.98	0.17	105,105,105,105	0
80	MG	1	3786	1/1	0.98	0.15	99,99,99,99	0
80	MG	1	3537	1/1	0.98	0.20	85,85,85,85	1
80	MG	5	3569	1/1	0.98	0.23	94,94,94,94	0
80	MG	5	3623	1/1	0.98	0.40	84,84,84,84	0
80	MG	1	3573	1/1	0.98	0.27	85,85,85,85	0
80	MG	1	3801	1/1	0.98	0.08	136,136,136,136	0
80	MG	1	3747	1/1	0.98	0.29	86,86,86,86	0
80	MG	5	3502	1/1	0.98	0.63	94,94,94,94	0
80	MG	1	3519	1/1	0.98	0.15	99,99,99,99	0
80	MG	5	3425	1/1	0.98	0.31	80,80,80,80	0
80	MG	5	3424	1/1	0.98	0.26	85,85,85,85	0
80	MG	m0	301	1/1	0.98	0.29	95,95,95,95	0
80	MG	5	3795	1/1	0.98	0.13	118,118,118,118	0
80	MG	5	3485	1/1	0.98	0.24	107,107,107,107	1
80	MG	1	3794	1/1	0.98	0.20	82,82,82,82	0
80	MG	6	2049	1/1	0.98	0.17	142,142,142,142	0
80	MG	5	3482	1/1	0.98	0.14	106,106,106,106	1
80	MG	1	3491	1/1	0.98	0.24	84,84,84,84	0
80	MG	5	3836	1/1	0.98	0.17	111,111,111,111	0
80	MG	5	3462	1/1	0.98	0.47	95,95,95,95	0
80	MG	3	208	1/1	0.98	0.19	138,138,138,138	0
82	ZN	d6	500	1/1	0.99	0.14	136,136,136,136	0
80	MG	n3	201	1/1	0.99	0.32	81,81,81,81	0
80	MG	6	1960	1/1	0.99	0.35	102,102,102,102	0
80	MG	5	3447	1/1	0.99	0.29	84,84,84,84	0
80	MG	1	3470	1/1	0.99	0.32	90,90,90,90	0
80	MG	1	3485	1/1	0.99	0.44	77,77,77,77	0
80	MG	5	3407	1/1	0.99	0.29	85,85,85,85	0
80	MG	5	3435	1/1	0.99	0.22	95,95,95,95	0
80	MG	1	3577	1/1	0.99	0.23	104,104,104,104	0
82	ZN	D6	500	1/1	0.99	0.14	131,131,131,131	0
80	MG	5	3440	1/1	0.99	0.26	86,86,86,86	0
80	MG	1	3660	1/1	0.99	0.27	103,103,103,103	0
80	MG	1	3572	1/1	0.99	0.38	79,79,79,79	0

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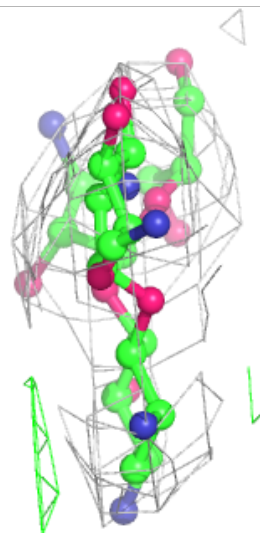
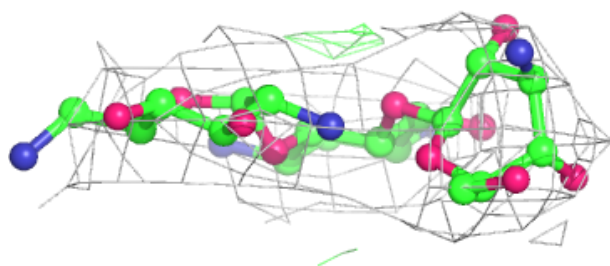
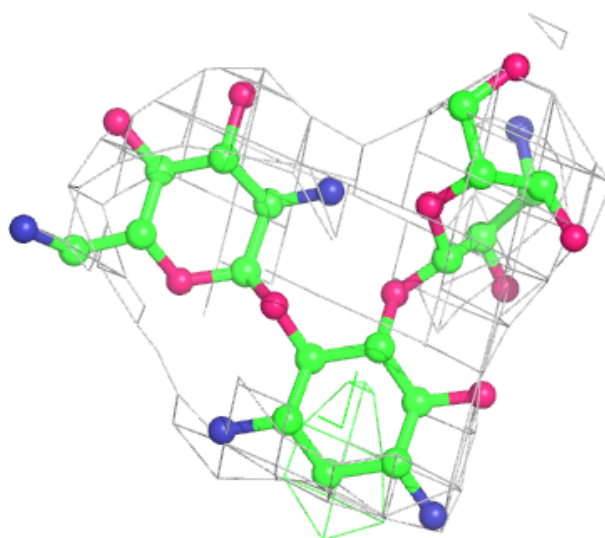
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
80	MG	1	3697	1/1	0.99	0.24	85,85,85,85	0
80	MG	1	3403	1/1	0.99	0.27	89,89,89,89	0
80	MG	1	3472	1/1	0.99	0.30	90,90,90,90	0
80	MG	5	3645	1/1	0.99	0.39	82,82,82,82	0
80	MG	5	3455	1/1	0.99	0.24	96,96,96,96	0
80	MG	1	3408	1/1	0.99	0.40	86,86,86,86	0
80	MG	5	3649	1/1	0.99	0.24	82,82,82,82	1
82	ZN	d9	101	1/1	0.99	0.11	151,151,151,151	0
80	MG	6	1970	1/1	0.99	0.37	134,134,134,134	0
82	ZN	Q2	501	1/1	0.99	0.07	173,173,173,173	0
80	MG	1	3541	1/1	0.99	0.23	82,82,82,82	0
80	MG	5	3686	1/1	0.99	0.20	104,104,104,104	0
80	MG	5	3584	1/1	0.99	0.37	91,91,91,91	0
80	MG	5	3814	1/1	0.99	0.40	78,78,78,78	0
80	MG	1	3520	1/1	0.99	0.14	105,105,105,105	0
80	MG	5	3618	1/1	0.99	0.12	136,136,136,136	0
82	ZN	D9	101	1/1	0.99	0.14	130,130,130,130	0
80	MG	5	3572	1/1	0.99	0.22	97,97,97,97	0
80	MG	5	3726	1/1	0.99	0.39	81,81,81,81	0
80	MG	1	3500	1/1	0.99	0.12	110,110,110,110	0
80	MG	5	3671	1/1	0.99	0.32	100,100,100,100	0
80	MG	5	3580	1/1	0.99	0.36	89,89,89,89	0
80	MG	M7	202	1/1	0.99	0.22	88,88,88,88	1
80	MG	5	3500	1/1	0.99	0.50	100,100,100,100	1
80	MG	5	3454	1/1	0.99	0.36	87,87,87,87	0
80	MG	5	3652	1/1	0.99	0.46	89,89,89,89	0
80	MG	6	1911	1/1	0.99	0.23	105,105,105,105	0
80	MG	1	3845	1/1	1.00	0.10	107,107,107,107	0
82	ZN	o7	501	1/1	1.00	0.23	109,109,109,109	0
82	ZN	Q0	500	1/1	1.00	0.14	105,105,105,105	0
82	ZN	O7	101	1/1	1.00	0.20	99,99,99,99	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

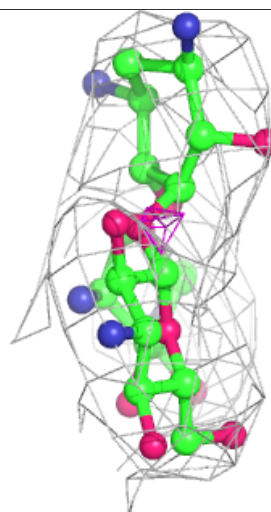
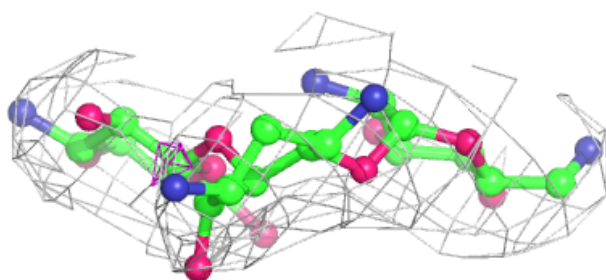
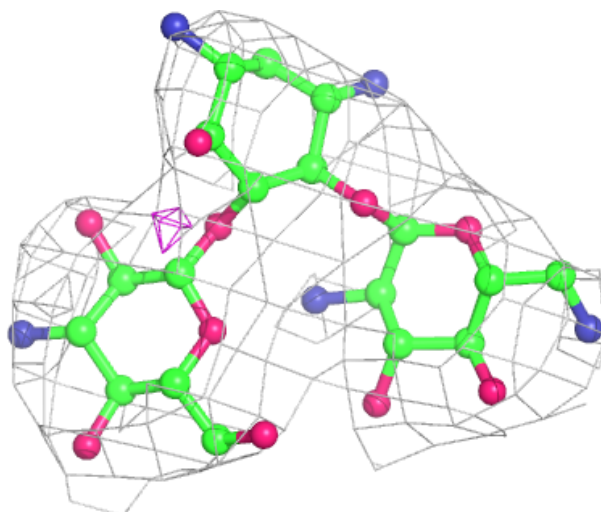
Electron density around 8UZ 7 209:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



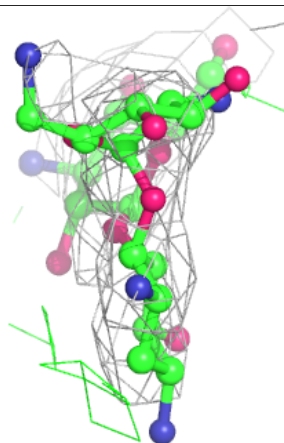
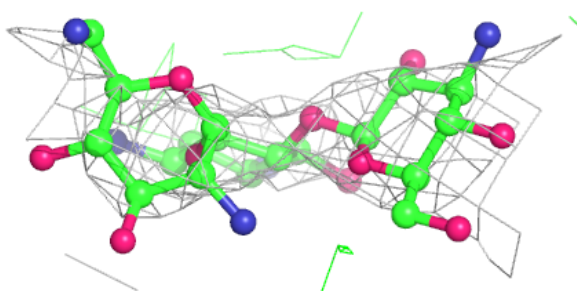
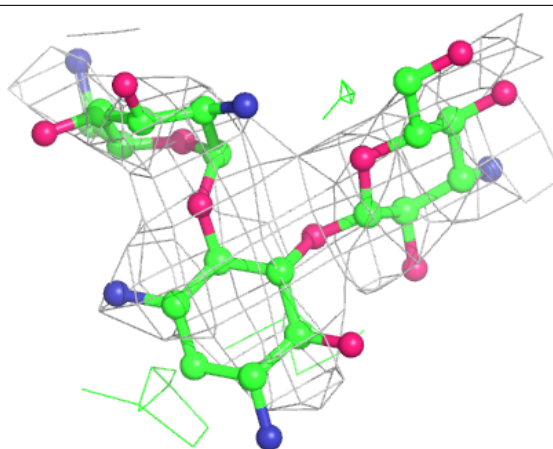
Electron density around 8UZ 5 3856:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



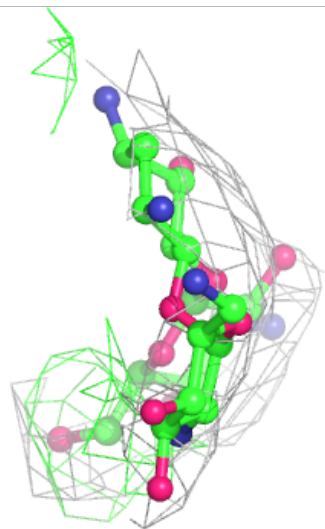
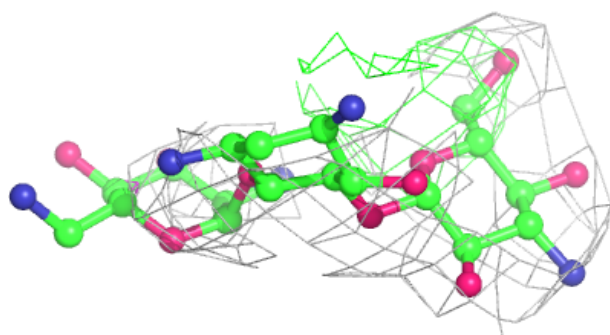
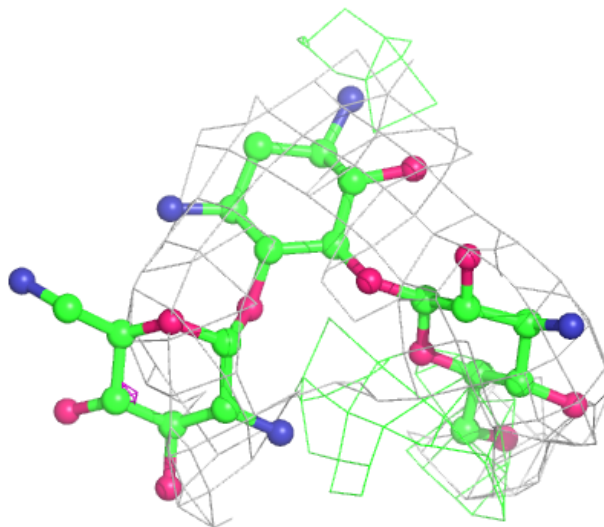
Electron density around 8UZ 5 3852:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



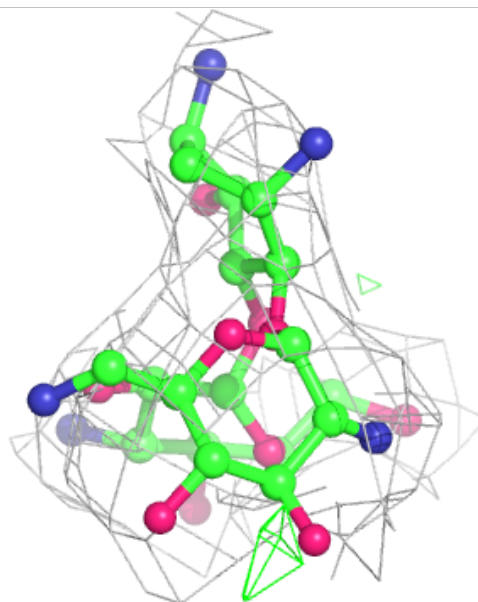
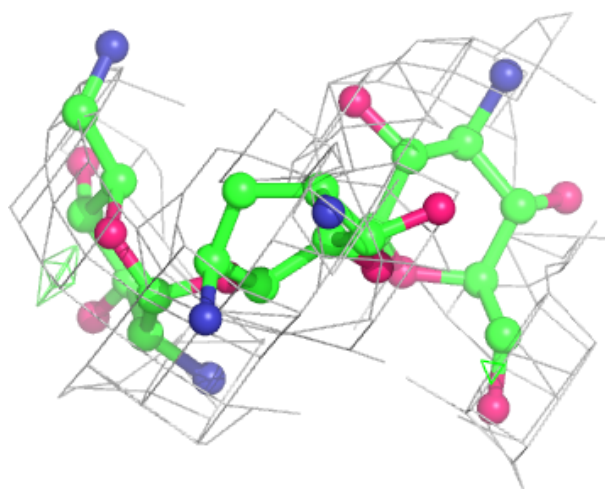
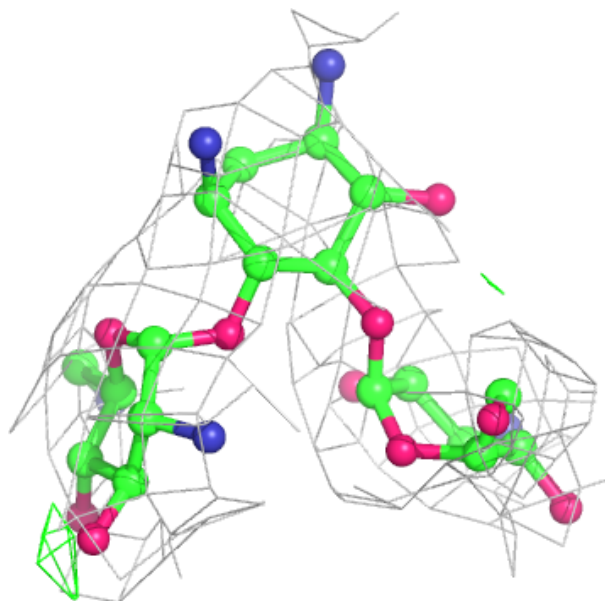
Electron density around 8UZ 5 3855:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



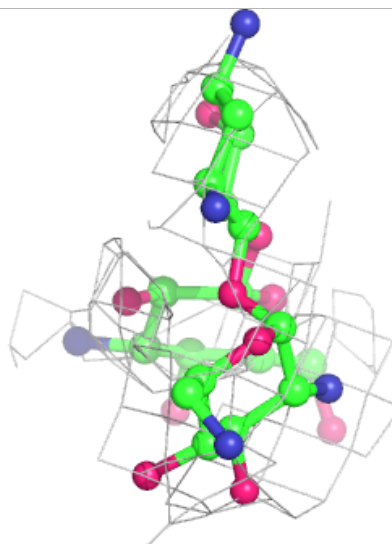
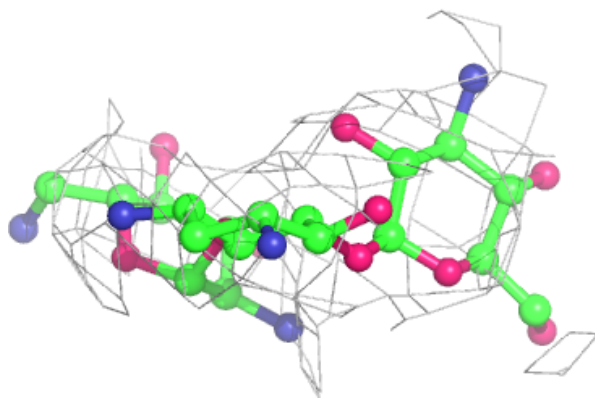
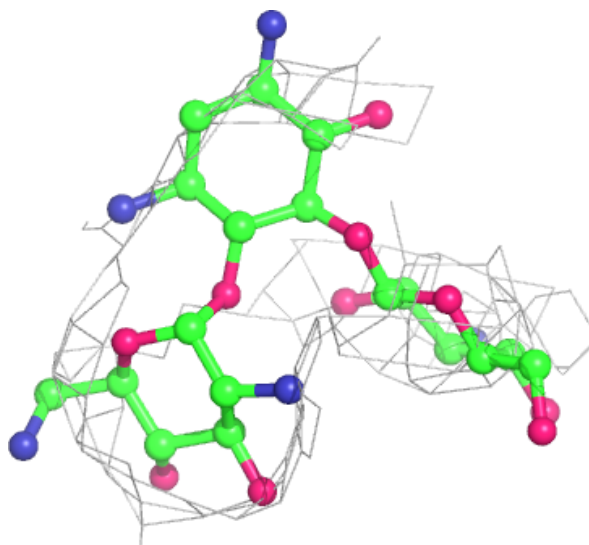
Electron density around 8UZ 5 3857:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



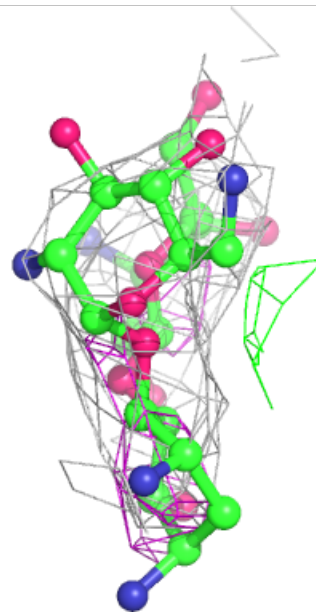
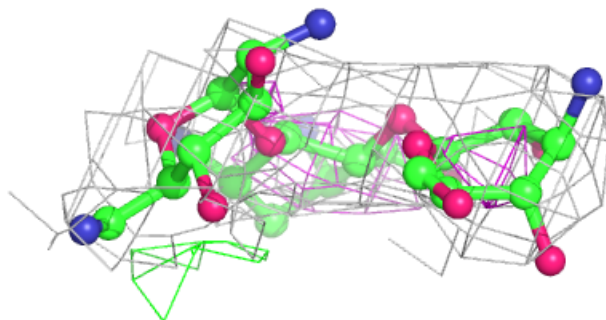
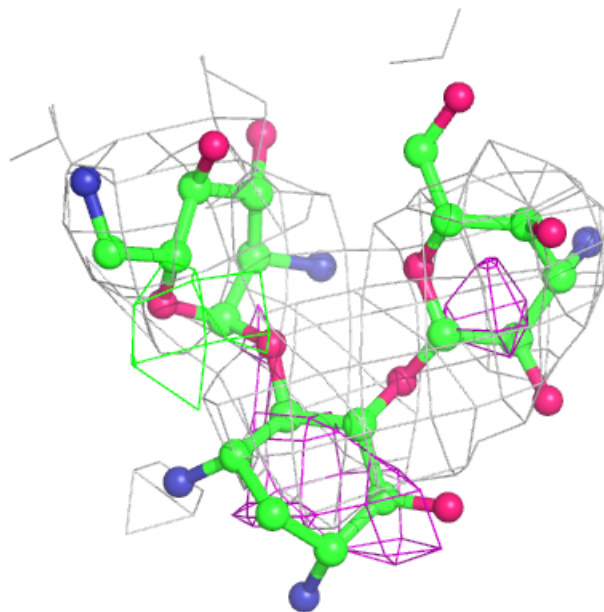
Electron density around 8UZ 2 2030:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



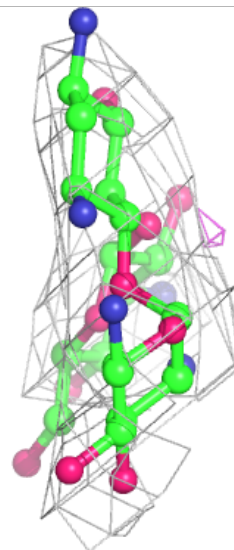
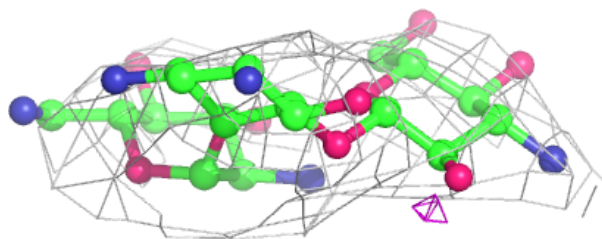
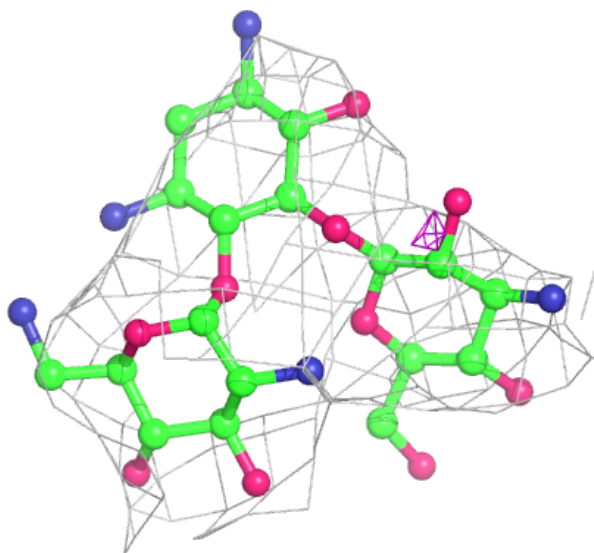
Electron density around 8UZ 1 3893:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



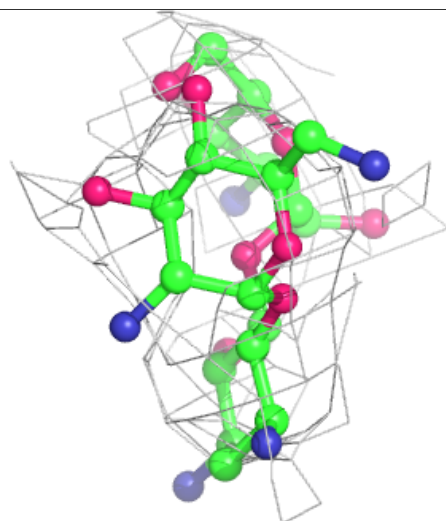
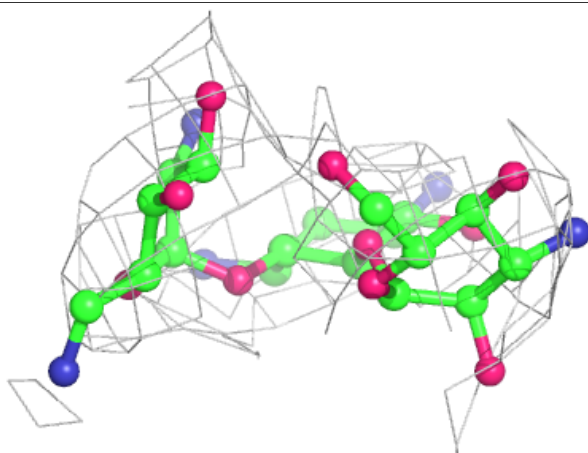
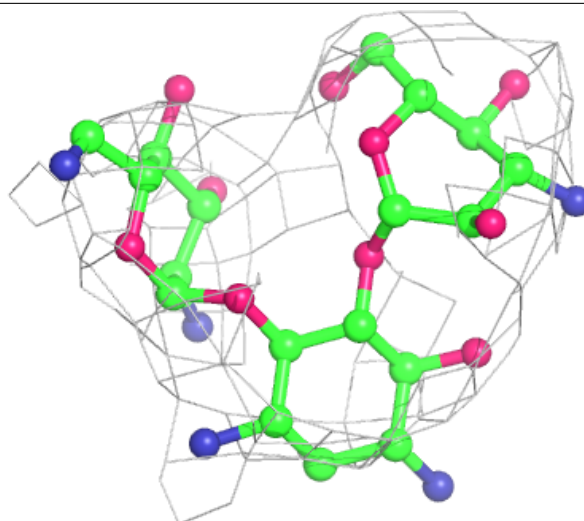
Electron density around 8UZ 1 3889:

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mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



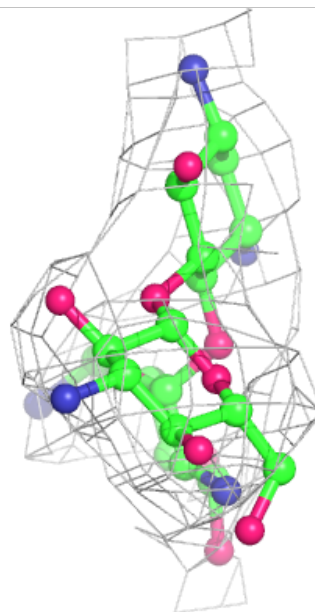
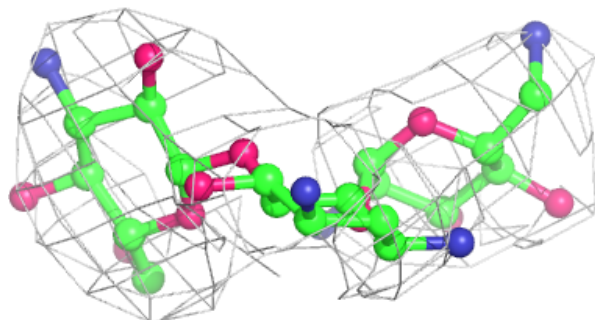
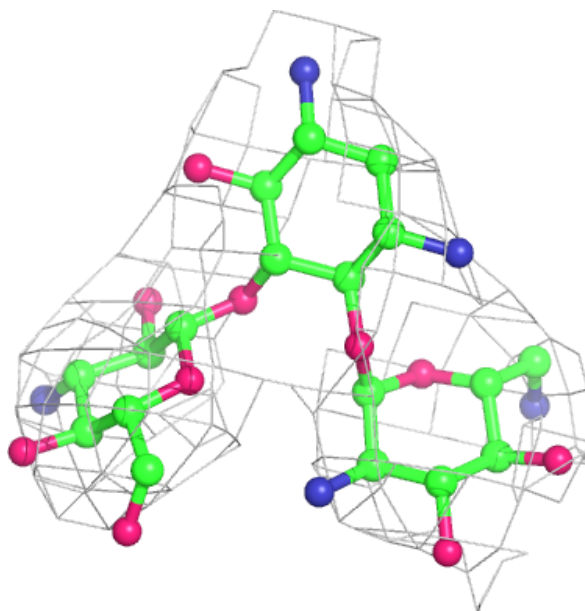
Electron density around 8UZ 6 2061:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



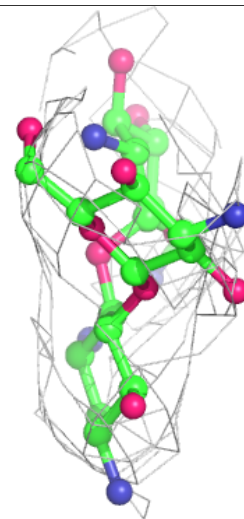
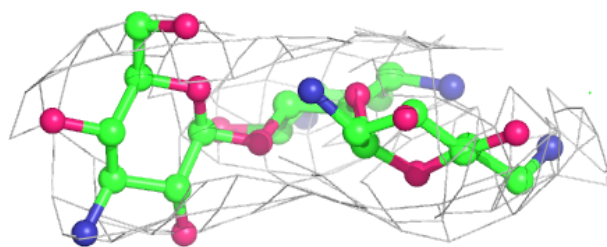
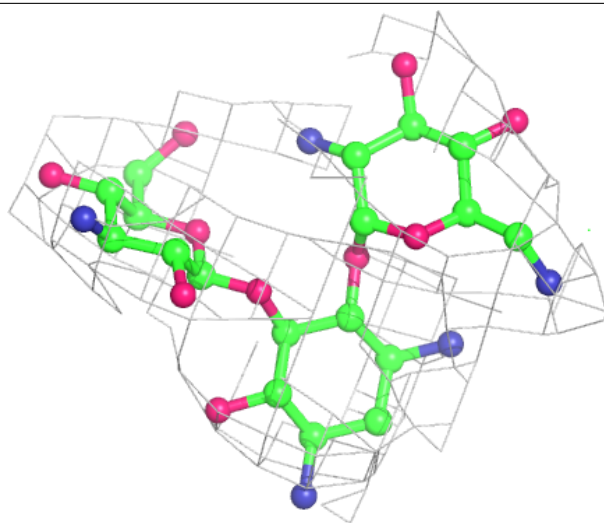
Electron density around 8UZ 5 3850:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



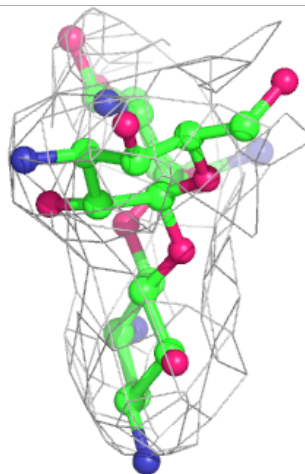
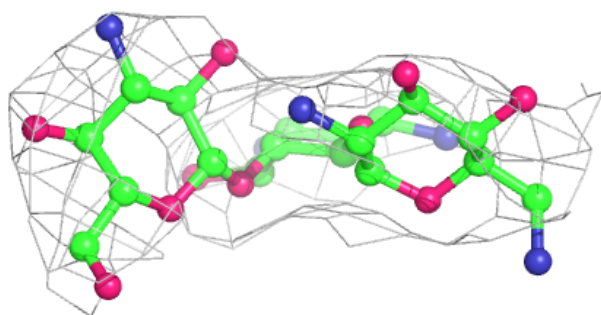
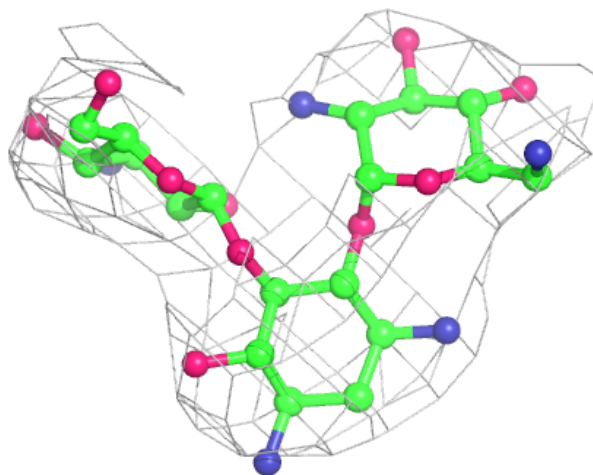
Electron density around 8UZ 5 3851:

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 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



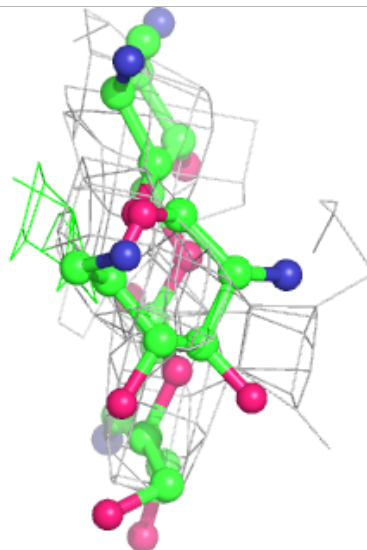
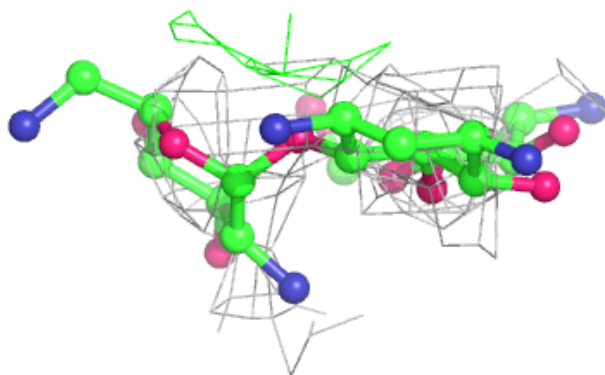
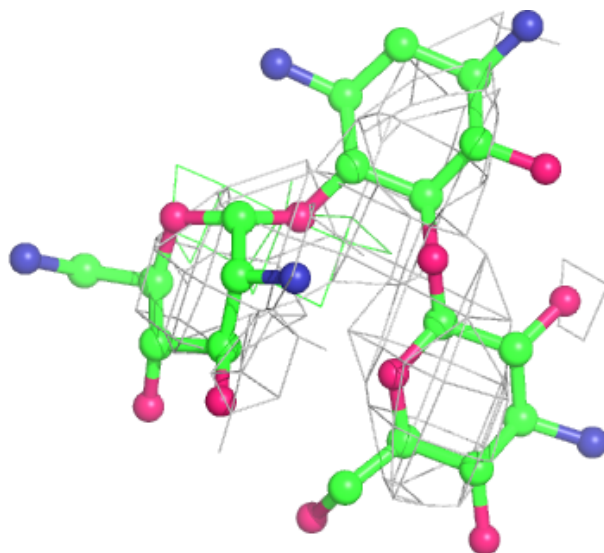
Electron density around 8UZ 1 3886:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



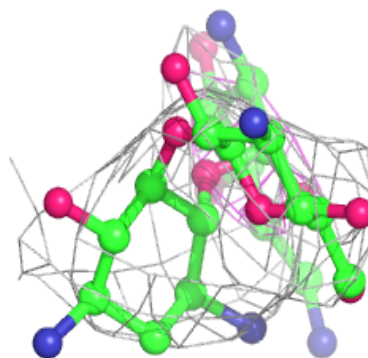
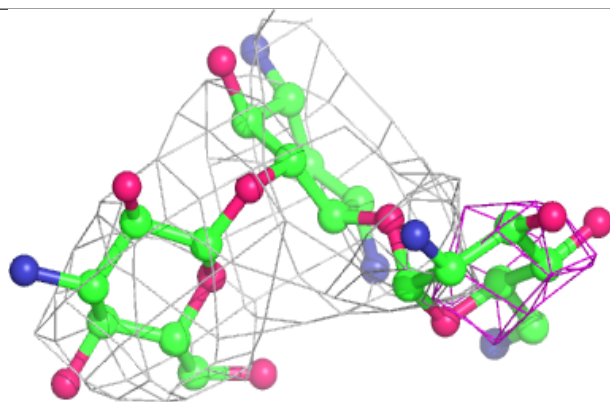
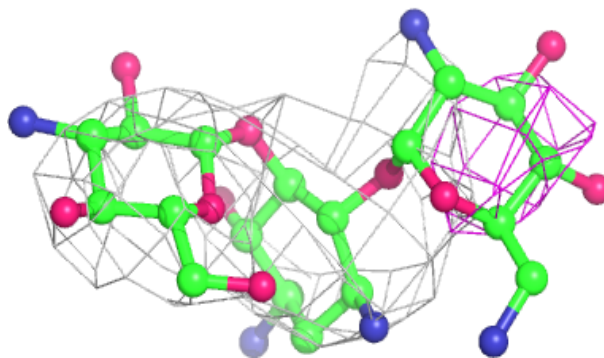
Electron density around 8UZ 1 3890:

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mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



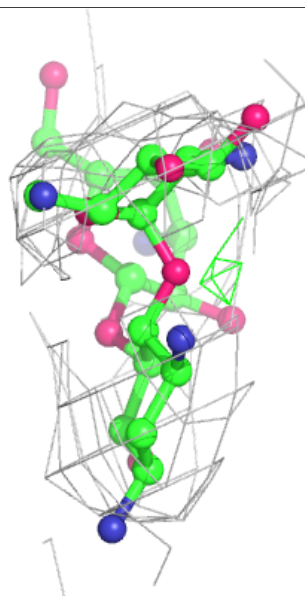
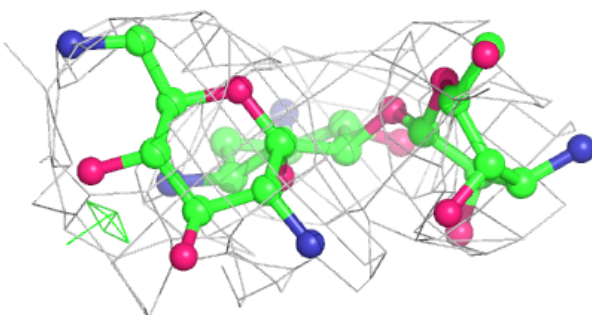
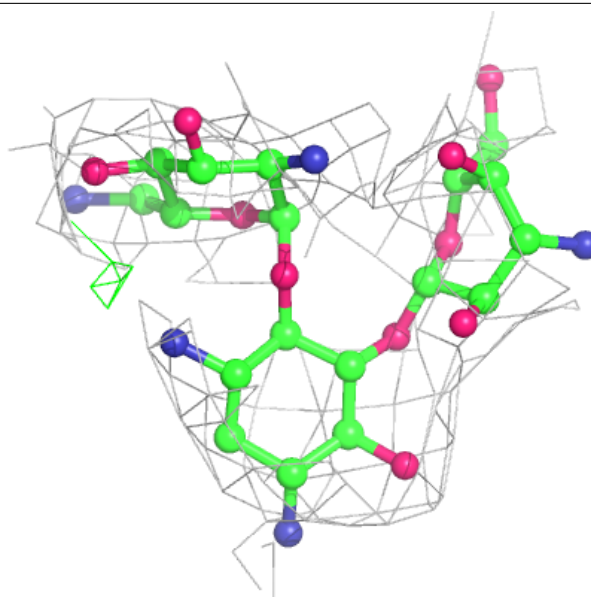
Electron density around 8UZ 2 2031:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



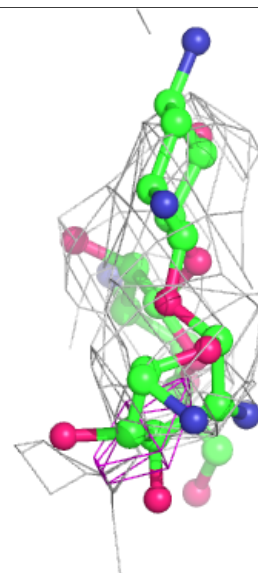
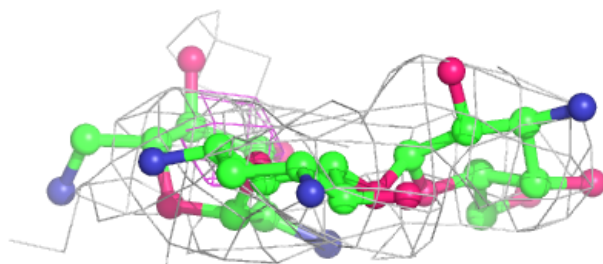
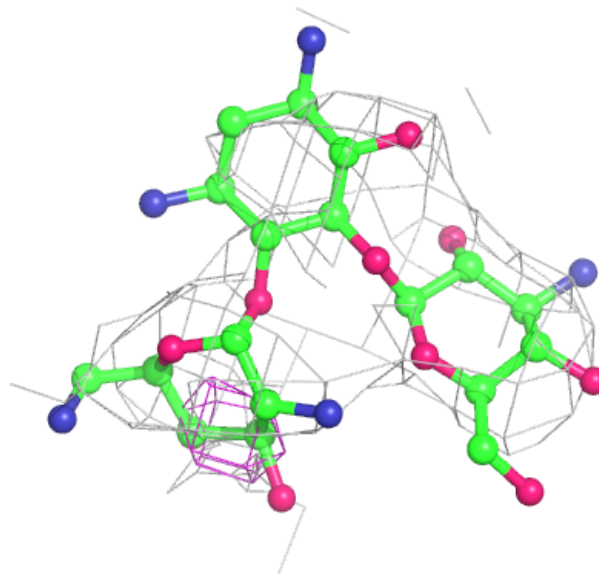
Electron density around 8UZ 1 3888:

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 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



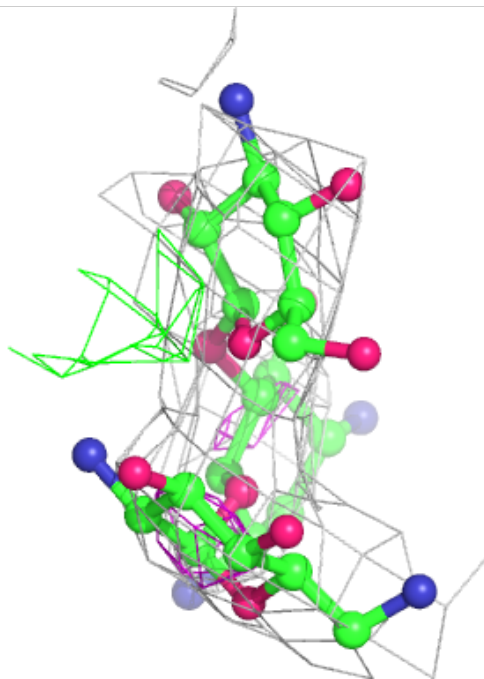
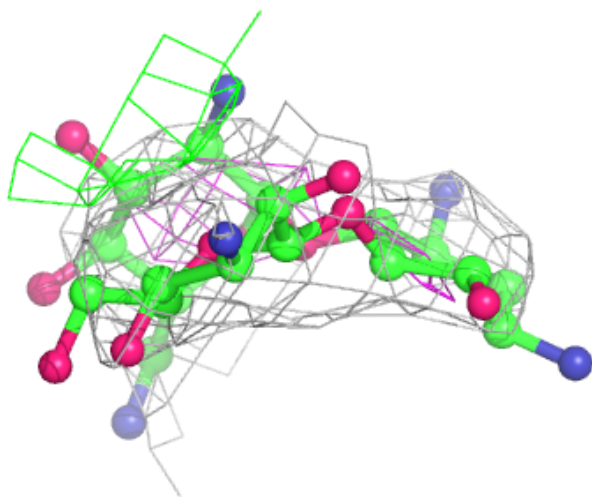
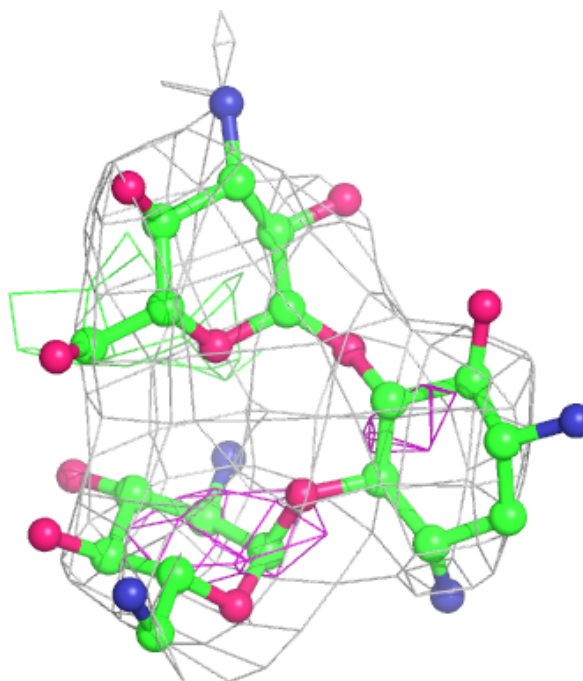
Electron density around 8UZ 1 3894:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



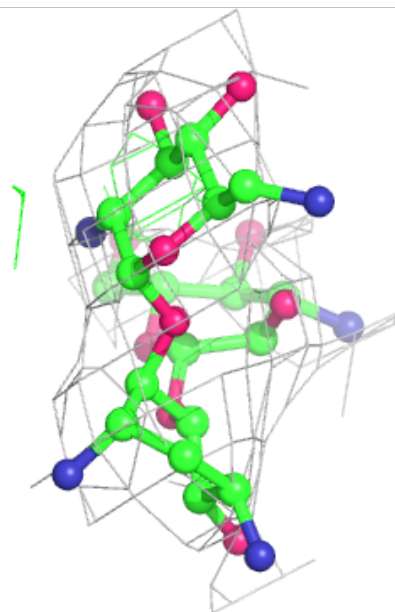
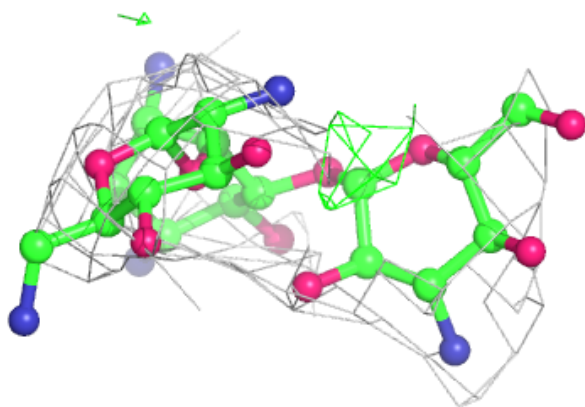
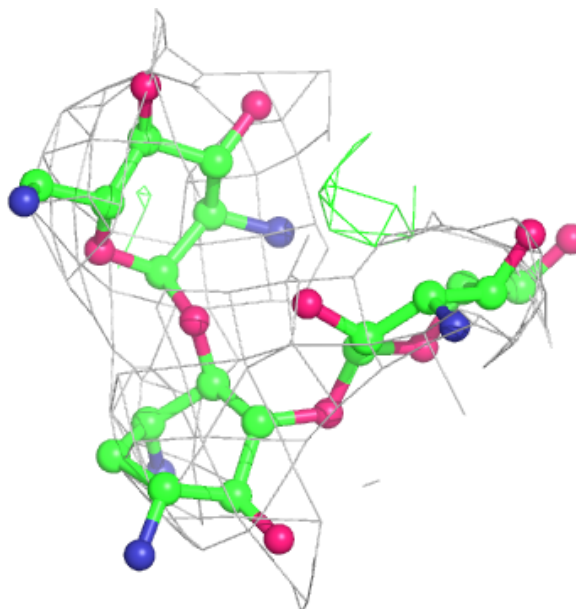
Electron density around 8UZ 4 220:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



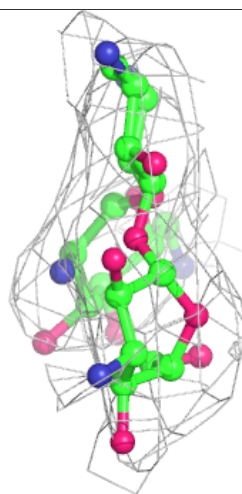
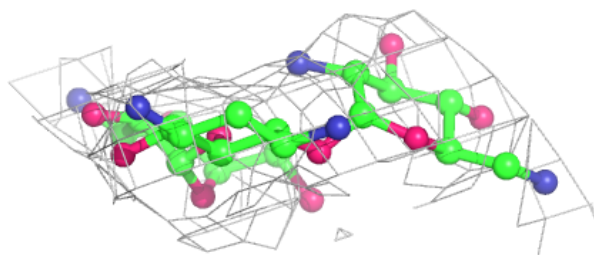
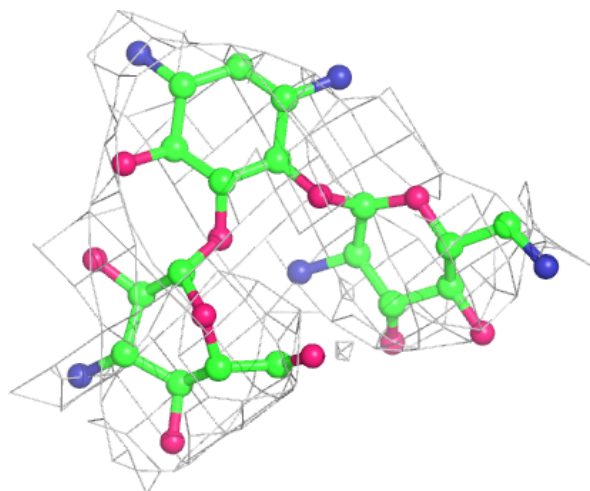
Electron density around 8UZ 2 2029:

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and green (positive)



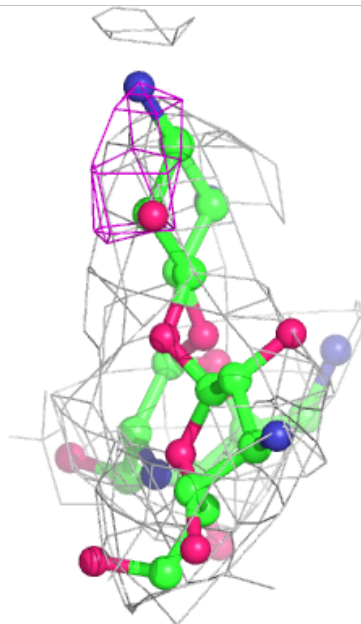
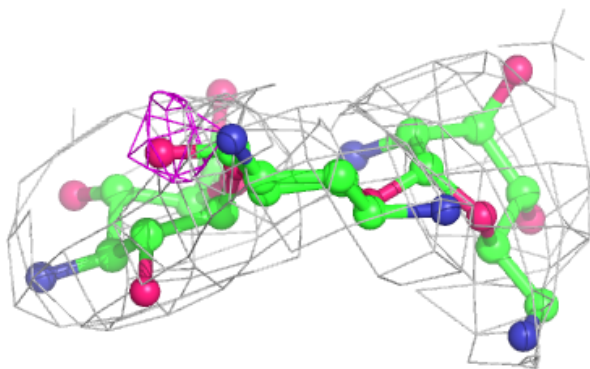
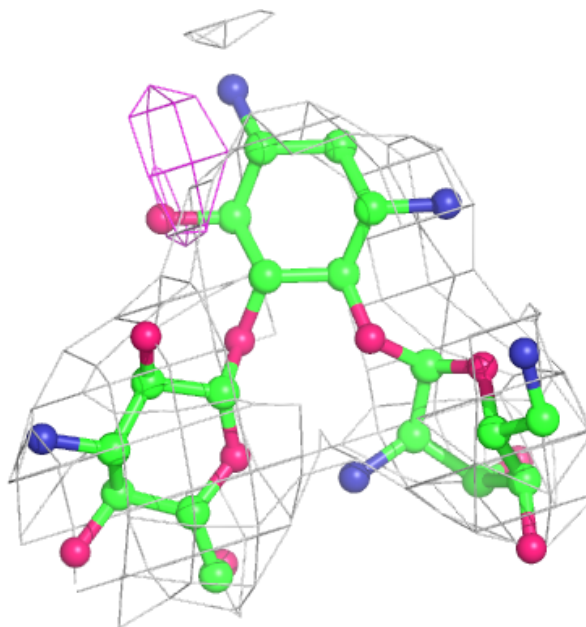
Electron density around 8UZ 3 214:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



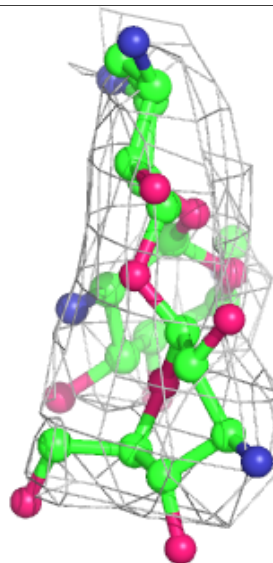
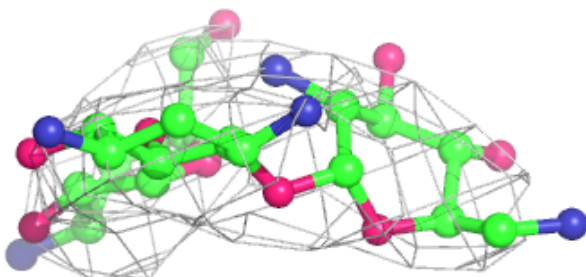
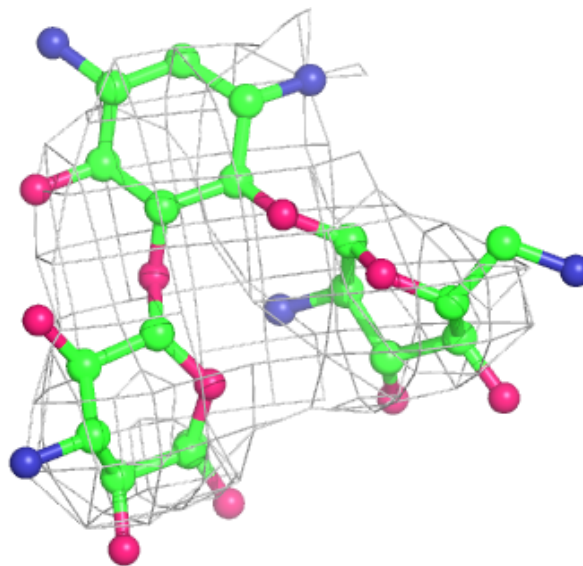
Electron density around 8UZ 1 3892:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



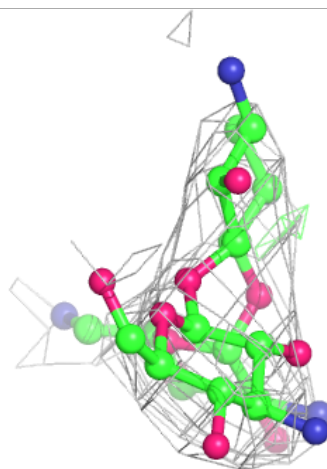
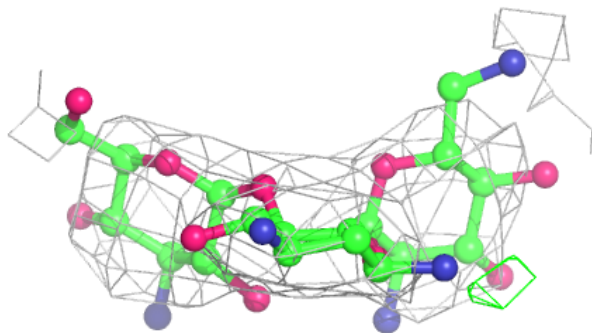
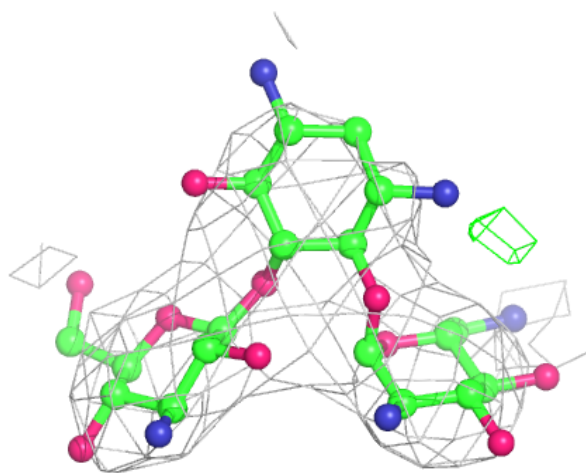
Electron density around 8UZ 5 3854:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



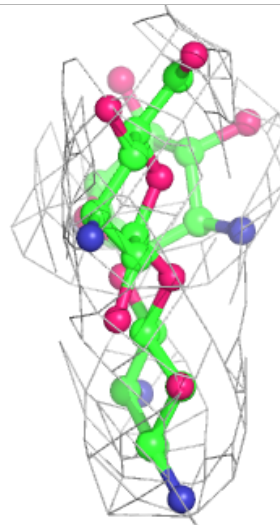
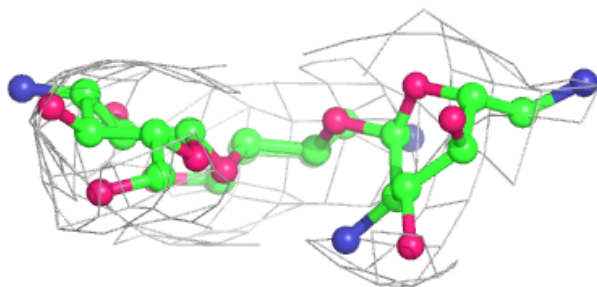
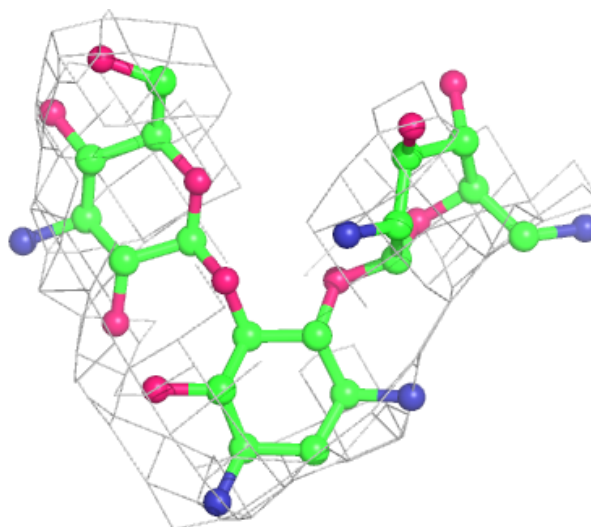
Electron density around 8UZ 5 3853:

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 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



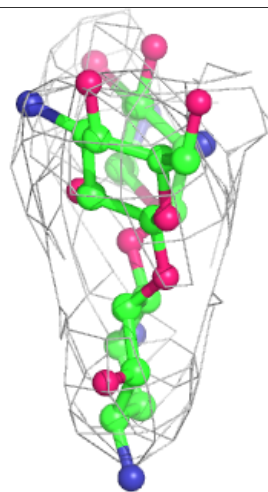
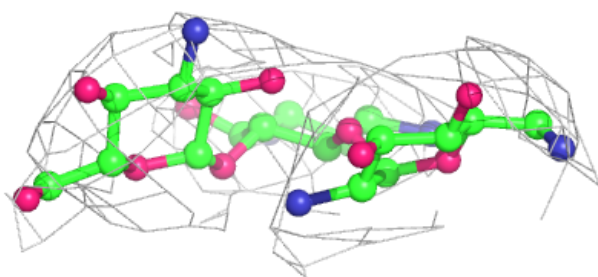
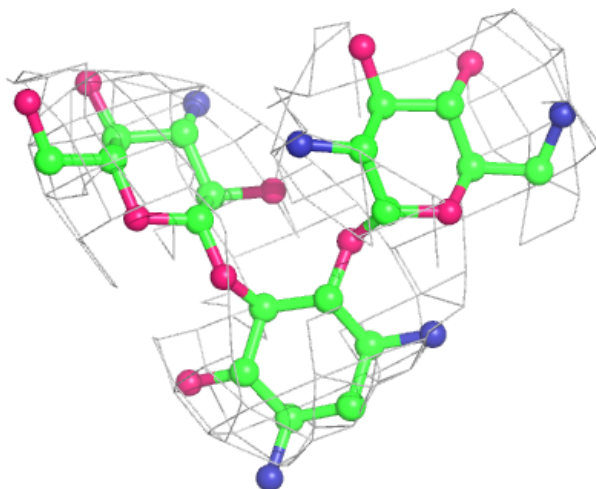
Electron density around 8UZ 1 3887:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



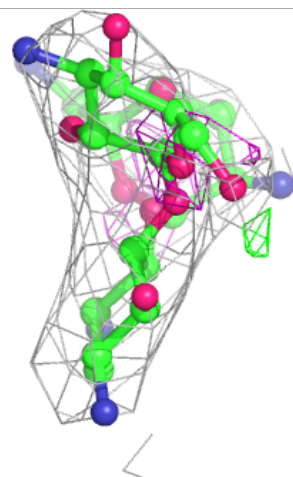
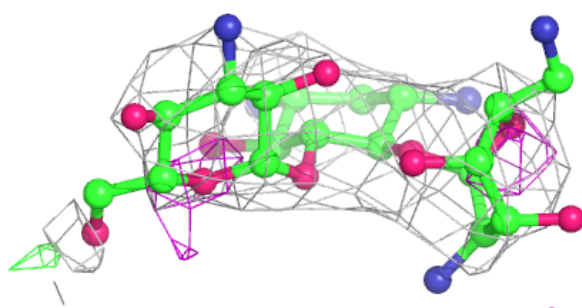
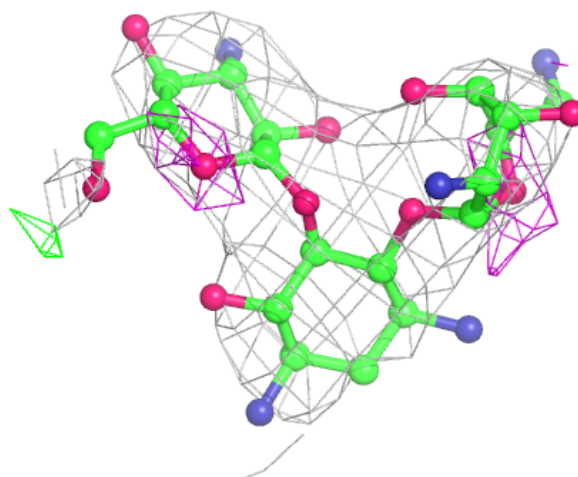
Electron density around 8UZ 1 3895:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around 8UZ 1 3891:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



6.5 Other polymers [i](#)

There are no such residues in this entry.