



Full wwPDB X-ray Structure Validation Report ⓘ

Aug 6, 2026 – 03:53 AM EDT

PDB ID : 8EV6 / pdb_00008ev6
Title : Crystal structure of the Thermus thermophilus 70S ribosome in complex with amikacin, mRNA, and A-, P-, and E-site tRNAs
Authors : Seely, S.M.; Gagnon, M.G.
Deposited on : 2022-10-19
Resolution : 2.95 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 types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.50

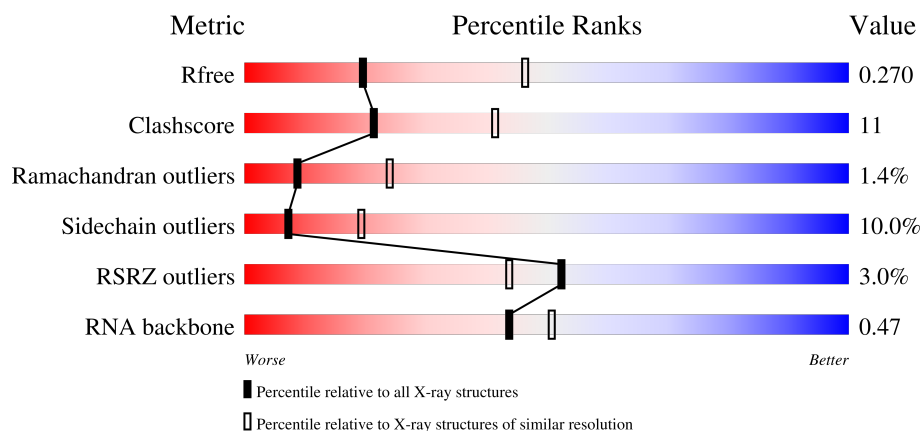
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.95 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}	180053	1159 (2.96-2.92)
Clashscore	190562	1184 (2.96-2.92)
Ramachandran outliers	187476	1131 (2.96-2.92)
Sidechain outliers	187428	1131 (2.96-2.92)
RSRZ outliers	180081	1159 (2.96-2.92)
RNA backbone	3983	1018 (3.14-2.74)

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 of 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	1A	2915	58% 34% 7% .
1	2A	2915	51% 37% 8% .
2	1B	121	60% 35% . .
2	2B	121	37% 51% 11% .

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Mol	Chain	Length	Quality of chain
3	1D	276	
3	2D	276	
4	1E	206	
4	2E	206	
5	1F	210	
5	2F	210	
6	1G	182	
6	2G	182	
7	1H	180	
7	2H	180	
8	1I	148	
8	2I	148	
9	1N	140	
9	2N	140	
10	1O	122	
10	2O	122	
11	1P	150	
11	2P	150	
12	1Q	141	
12	2Q	141	
13	1R	118	
13	2R	118	
14	1S	112	
14	2S	112	
15	1T	146	

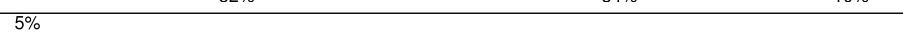
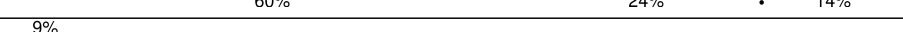
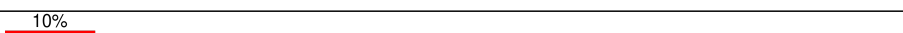
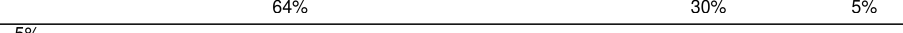
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Mol	Chain	Length	Quality of chain
15	2T	146	
16	1U	118	
16	2U	118	
17	1V	101	
17	2V	101	
18	1W	113	
18	2W	113	
19	1X	96	
19	2X	96	
20	1Y	110	
20	2Y	110	
21	1Z	206	
21	2Z	206	
22	10	85	
22	20	85	
23	11	98	
23	21	98	
24	12	72	
24	22	72	
25	13	60	
25	23	60	
26	14	71	
26	24	71	
27	15	60	
27	25	60	

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Mol	Chain	Length	Quality of chain
28	16	54	
28	26	54	
29	17	49	
29	27	49	
30	18	65	
30	28	65	
31	19	37	
31	29	37	
32	1a	1521	
32	2a	1521	
33	1b	256	
33	2b	256	
34	1c	239	
34	2c	239	
35	1d	209	
35	2d	209	
36	1e	162	
36	2e	162	
37	1f	101	
37	2f	101	
38	1g	156	
38	2g	156	
39	1h	138	
39	2h	138	
40	1i	128	

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Mol	Chain	Length	Quality of chain
40	2i	128	
41	1j	105	
41	2j	105	
42	1k	129	
42	2k	129	
43	1l	132	
43	2l	132	
44	1m	126	
44	2m	126	
45	1n	61	
45	2n	61	
46	1o	89	
46	2o	89	
47	1p	88	
47	2p	88	
48	1q	105	
48	2q	105	
49	1r	88	
49	2r	88	
50	1s	93	
50	2s	93	
51	1t	106	
51	2t	106	
52	1u	27	
52	2u	27	

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Mol	Chain	Length	Quality of chain
53	1v	24	
53	2v	24	
54	1w	76	
54	1y	76	
54	2w	76	
54	2y	76	
55	1x	77	
55	2x	77	

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
54	PSU	2y	55	-	-	X	-
56	MG	1A	3075	-	-	-	X
56	MG	1A	3337	-	-	-	X
56	MG	1a	1609	-	-	-	X
56	MG	1a	1752	-	-	-	X
56	MG	1a	1897	-	-	-	X
56	MG	2a	1739	-	-	-	X
56	MG	2a	1770	-	-	-	X
56	MG	2a	1771	-	-	-	X
59	SF4	1d	303	-	-	X	-

2 Entry composition

There are 60 unique types of molecules in this entry. The entry contains 297993 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 23S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	1A	2871	Total	C	N	O	P	0	0	0
			61851	27530	11572	19878	2871			
1	2A	2800	Total	C	N	O	P	0	0	0
			60322	26848	11284	19390	2800			

- Molecule 2 is a RNA chain called 5S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1B	120	Total	C	N	O	P	0	0	0
			2577	1146	476	835	120			
2	2B	120	Total	C	N	O	P	0	0	0
			2575	1146	476	833	120			

- Molecule 3 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	1D	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			
3	2D	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			

- Molecule 4 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	1E	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			
4	2E	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			

- Molecule 5 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	1F	203	Total	C	N	O	S	0	0	1
			1584	1009	298	275	2			
5	2F	203	Total	C	N	O	S	0	0	1
			1580	1007	297	274	2			

- Molecule 6 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	1G	181	Total	C	N	O	S	0	0	0
			1423	913	253	253	4			
6	2G	181	Total	C	N	O	S	0	0	0
			1428	913	258	253	4			

- Molecule 7 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	1H	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			
7	2H	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			

- Molecule 8 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	1I	146	Total	C	N	O	S	0	0	0
			1097	701	191	204	1			
8	2I	146	Total	C	N	O	S	0	0	0
			1064	681	186	196	1			

- Molecule 9 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	1N	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			
9	2N	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			

- Molecule 10 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1O	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	2O	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 11 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	1P	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			
11	2P	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			

- Molecule 12 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	1Q	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
12	2Q	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 13 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	1R	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
13	2R	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			

- Molecule 14 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	1S	110	Total	C	N	O	0	0	0
			873	550	174	149			
14	2S	110	Total	C	N	O	0	0	0
			870	549	173	148			

- Molecule 15 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	1T	131	Total	C	N	O	S	0	0	0
			1091	680	225	185	1			
15	2T	131	Total	C	N	O	S	0	0	0
			1083	675	224	183	1			

- Molecule 16 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	1U	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			
16	2U	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

- Molecule 17 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	1V	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			
17	2V	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			

- Molecule 18 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	1W	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			
18	2W	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			

- Molecule 19 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	1X	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			
19	2X	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			

- Molecule 20 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	1Y	107	Total	C	N	O	S	0	0	0
			806	517	152	131	6			
20	2Y	107	Total	C	N	O	S	0	0	0
			806	517	152	131	6			

- Molecule 21 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	1Z	154	Total	C	N	O	S	0	0	0
			1240	795	222	220	3			
21	2Z	160	Total	C	N	O	S	0	0	0
			1271	814	228	227	2			

- Molecule 22 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	10	83	Total	C	N	O	S	0	0	0
			653	404	139	109	1			
22	20	83	Total	C	N	O	S	0	0	0
			653	404	139	109	1			

- Molecule 23 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	11	97	Total	C	N	O	S	0	0	0
			755	475	148	131	1			
23	21	97	Total	C	N	O	S	0	0	0
			755	475	148	131	1			

- Molecule 24 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	12	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			
24	22	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			

- Molecule 25 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
25	13	59	Total	C	N	O	0	0	0
			469	298	90	81			
25	23	59	Total	C	N	O	0	0	0
			464	296	90	78			

- Molecule 26 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	14	69	Total	C	N	O	S	0	0	0
			552	349	99	99	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	24	69	Total	C	N	O	S	0	0	0
			532	339	97	91	5			

- Molecule 27 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	15	59	Total	C	N	O	S	0	0	0
			455	285	89	76	5			
27	25	59	Total	C	N	O	S	0	0	0
			455	285	89	76	5			

- Molecule 28 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	16	53	Total	C	N	O	S	0	0	0
			453	281	91	77	4			
28	26	53	Total	C	N	O	S	0	0	0
			449	279	91	75	4			

- Molecule 29 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	17	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			
29	27	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			

- Molecule 30 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	18	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			
30	28	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			

- Molecule 31 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	19	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			
31	29	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			

- Molecule 32 is a RNA chain called 16S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	1a	1500	Total	C	N	O	P	0	0	0
			32246	14358	5975	10413	1500			
32	2a	1503	Total	C	N	O	P	0	0	0
			32327	14396	5990	10438	1503			

- Molecule 33 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	1b	231	Total	C	N	O	S	0	0	0
			1846	1179	331	331	5			
33	2b	231	Total	C	N	O	S	0	0	0
			1825	1167	326	327	5			

- Molecule 34 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	1c	206	Total	C	N	O	S	0	0	0
			1548	973	301	273	1			
34	2c	206	Total	C	N	O	S	0	0	0
			1542	968	300	273	1			

- Molecule 35 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	1d	208	Total	C	N	O	S	0	0	0
			1655	1038	326	284	7			
35	2d	208	Total	C	N	O	S	0	0	0
			1674	1050	333	284	7			

- Molecule 36 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	1e	148	Total	C	N	O	S	0	0	0
			1129	714	213	198	4			
36	2e	148	Total	C	N	O	S	0	0	0
			1133	716	214	199	4			

- Molecule 37 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	1f	100	Total	C	N	O	S	0	0	0
			810	514	144	149	3			
37	2f	100	Total	C	N	O	S	0	0	0
			816	516	146	151	3			

- Molecule 38 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	1g	155	Total	C	N	O	S	0	0	0
			1231	766	243	216	6			
38	2g	155	Total	C	N	O	S	0	0	0
			1235	769	244	216	6			

- Molecule 39 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	1h	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			
39	2h	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			

- Molecule 40 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
40	1i	127	Total	C	N	O	0	0	0
			983	623	193	167			
40	2i	127	Total	C	N	O	0	0	0
			978	619	190	169			

- Molecule 41 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
41	1j	97	Total	C	N	O	0	0	0
			709	440	138	131			
41	2j	96	Total	C	N	O	0	0	0
			714	445	138	131			

- Molecule 42 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	1k	114	Total	C	N	O	S	0	0	0
			829	516	155	155	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	2k	114	Total	C	N	O	S	0	0	0
			833	519	156	155	3			

- Molecule 43 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	1l	122	Total	C	N	O	S	0	0	0
			932	586	185	159	2			
43	2l	122	Total	C	N	O	S	0	0	0
			932	586	185	159	2			

- Molecule 44 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	1m	123	Total	C	N	O	S	0	0	0
			958	592	198	166	2			
44	2m	122	Total	C	N	O	S	0	0	0
			950	586	197	165	2			

- Molecule 45 is a protein called 30S ribosomal protein S14 type Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	1n	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
45	2n	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 46 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	1o	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			
46	2o	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			

- Molecule 47 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	1p	82	Total	C	N	O	S	0	0	0
			681	433	134	113	1			
47	2p	82	Total	C	N	O	S	0	0	0
			677	430	133	113	1			

- Molecule 48 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	1q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			
48	2q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

- Molecule 49 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	1r	68	Total	C	N	O		0	0	0
			555	355	108	92				
49	2r	68	Total	C	N	O		0	0	0
			555	355	108	92				

- Molecule 50 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	1s	83	Total	C	N	O	S	0	0	0
			652	417	120	113	2			
50	2s	83	Total	C	N	O	S	0	0	0
			646	412	119	113	2			

- Molecule 51 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	1t	96	Total	C	N	O	S	0	0	0
			728	446	156	124	2			
51	2t	96	Total	C	N	O	S	0	0	0
			727	446	155	124	2			

- Molecule 52 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	1u	23	Total	C	N	O		0	0	0
			199	122	48	29				
52	2u	23	Total	C	N	O		0	0	0
			199	122	48	29				

- Molecule 53 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	1v	13	Total	C	N	O	P	0	0	0
			277	125	51	88	13			
53	2v	13	Total	C	N	O	P	0	0	0
			277	125	51	88	13			

- Molecule 54 is a RNA chain called A-site and E-site tRNAs.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	1w	74	Total	C	N	O	P	S	0	0
			1592	713	285	518	74	2		
54	1y	74	Total	C	N	O	P	S	0	0
			1585	707	285	518	74	1		
54	2w	72	Total	C	N	O	P	S	0	0
			1544	690	278	502	72	2		
54	2y	73	Total	C	N	O	P	S	0	0
			1565	698	283	510	73	1		

- Molecule 55 is a RNA chain called P-site tRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	1x	76	Total	C	N	O	P	S	0	0
			1625	725	294	529	76	1		
55	2x	76	Total	C	N	O	P	S	0	0
			1625	725	294	529	76	1		

- Molecule 56 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1A	935	Total	Mg	0	0
			935	935		
56	1B	32	Total	Mg	0	0
			32	32		
56	1D	6	Total	Mg	0	0
			6	6		
56	1E	3	Total	Mg	0	0
			3	3		
56	1F	6	Total	Mg	0	0
			6	6		
56	1G	2	Total	Mg	0	0
			2	2		
56	1N	5	Total	Mg	0	0
			5	5		
56	1O	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1P	3	Total 3	Mg 3	0	0
56	1Q	3	Total 3	Mg 3	0	0
56	1R	3	Total 3	Mg 3	0	0
56	1T	1	Total 1	Mg 1	0	0
56	1U	1	Total 1	Mg 1	0	0
56	1V	3	Total 3	Mg 3	0	0
56	1W	4	Total 4	Mg 4	0	0
56	1X	1	Total 1	Mg 1	0	0
56	10	2	Total 2	Mg 2	0	0
56	12	1	Total 1	Mg 1	0	0
56	13	1	Total 1	Mg 1	0	0
56	15	3	Total 3	Mg 3	0	0
56	17	3	Total 3	Mg 3	0	0
56	18	3	Total 3	Mg 3	0	0
56	19	3	Total 3	Mg 3	0	0
56	1a	312	Total 312	Mg 312	0	0
56	1b	1	Total 1	Mg 1	0	0
56	1d	2	Total 2	Mg 2	0	0
56	1e	5	Total 5	Mg 5	0	0
56	1f	3	Total 3	Mg 3	0	0
56	1k	1	Total 1	Mg 1	0	0

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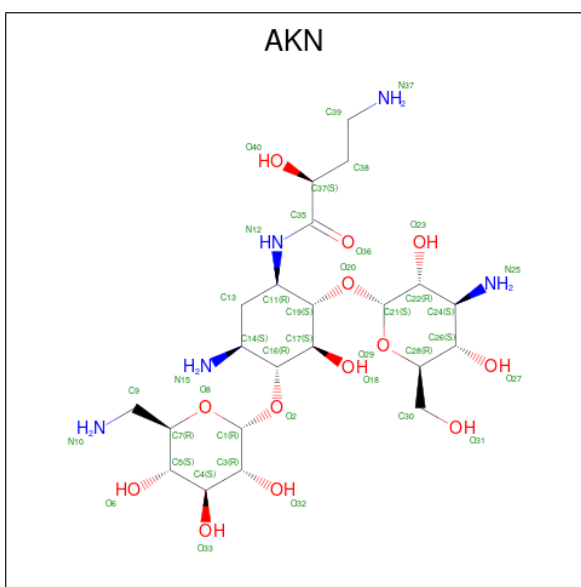
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1l	4	Total 4	Mg 4	0	0
56	1m	2	Total 2	Mg 2	0	0
56	1o	2	Total 2	Mg 2	0	0
56	1p	3	Total 3	Mg 3	0	0
56	1q	1	Total 1	Mg 1	0	0
56	1r	1	Total 1	Mg 1	0	0
56	1v	1	Total 1	Mg 1	0	0
56	1w	2	Total 2	Mg 2	0	0
56	1x	16	Total 16	Mg 16	0	0
56	1y	1	Total 1	Mg 1	0	0
56	2A	575	Total 575	Mg 575	0	0
56	2B	15	Total 15	Mg 15	0	0
56	2D	6	Total 6	Mg 6	0	0
56	2E	3	Total 3	Mg 3	0	0
56	2F	4	Total 4	Mg 4	0	0
56	2G	1	Total 1	Mg 1	0	0
56	2O	1	Total 1	Mg 1	0	0
56	2P	1	Total 1	Mg 1	0	0
56	2Q	3	Total 3	Mg 3	0	0
56	2R	1	Total 1	Mg 1	0	0
56	2T	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	2W	2	Total 2	Mg 2	0	0
56	2Y	1	Total 1	Mg 1	0	0
56	20	1	Total 1	Mg 1	0	0
56	21	1	Total 1	Mg 1	0	0
56	25	1	Total 1	Mg 1	0	0
56	28	1	Total 1	Mg 1	0	0
56	2a	310	Total 310	Mg 310	0	0
56	2b	1	Total 1	Mg 1	0	0
56	2d	1	Total 1	Mg 1	0	0
56	2e	1	Total 1	Mg 1	0	0
56	2g	2	Total 2	Mg 2	0	0
56	2m	1	Total 1	Mg 1	0	0
56	2q	1	Total 1	Mg 1	0	0
56	2t	2	Total 2	Mg 2	0	0
56	2v	3	Total 3	Mg 3	0	0
56	2w	2	Total 2	Mg 2	0	0
56	2x	9	Total 9	Mg 9	0	0

- Molecule 57 is (2S)-N-[(1R,2S,3S,4R,5S)-4-[(2R,3R,4S,5S,6R)-6-(aminomethyl)-3,4,5-tris(oxidanyl)oxan-2-yl]oxy-5-azanyl-2-[(2S,3R,4S,5S,6R)-4-azanyl-6-(hydroxymethyl)-3,5-bis(oxidanyl)oxan-2-yl]oxy-3-oxidanyl-cyclohexyl]-4-azanyl-2-oxidanyl-butanamide (CCD ID: AKN) (formula: C₂₂H₄₃N₅O₁₃) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
57	1A	1	Total 40	C 22	N 5	O 13	0	0
57	1A	1	Total 40	C 22	N 5	O 13	0	0
57	1O	1	Total 40	C 22	N 5	O 13	0	0
57	1a	1	Total 40	C 22	N 5	O 13	0	0
57	1a	1	Total 40	C 22	N 5	O 13	0	0
57	2A	1	Total 40	C 22	N 5	O 13	0	0
57	2O	1	Total 40	C 22	N 5	O 13	0	0
57	2a	1	Total 40	C 22	N 5	O 13	0	0

- Molecule 58 is ZINC ION (CCD ID: ZN) (formula: Zn).

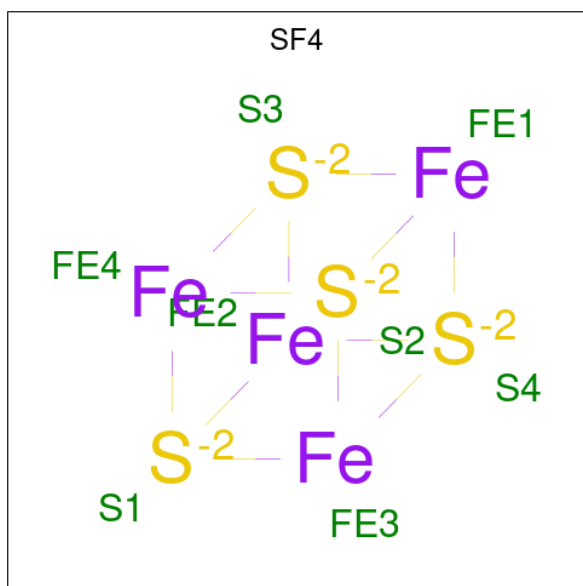
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	1Y	1	Total Zn 1 1	0	0
58	14	1	Total Zn 1 1	0	0
58	15	1	Total Zn 1 1	0	0
58	16	1	Total Zn 1 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	19	1	Total	Zn	0	0
			1	1		
58	1n	1	Total	Zn	0	0
			1	1		
58	2Y	1	Total	Zn	0	0
			1	1		
58	24	1	Total	Zn	0	0
			1	1		
58	25	1	Total	Zn	0	0
			1	1		
58	26	1	Total	Zn	0	0
			1	1		
58	29	1	Total	Zn	0	0
			1	1		
58	2n	1	Total	Zn	0	0
			1	1		

- Molecule 59 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
59	1d	1	Total	Fe	S	0	0
			8	4	4		
59	2d	1	Total	Fe	S	0	0
			8	4	4		

- Molecule 60 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	1A	1124	Total 1124	O 1124	0	0
60	1B	13	Total 13	O 13	0	0
60	1D	17	Total 17	O 17	0	0
60	1E	10	Total 10	O 10	0	0
60	1F	10	Total 10	O 10	0	0
60	1G	2	Total 2	O 2	0	0
60	1H	4	Total 4	O 4	0	0
60	1N	2	Total 2	O 2	0	0
60	1O	4	Total 4	O 4	0	0
60	1P	8	Total 8	O 8	0	0
60	1Q	3	Total 3	O 3	0	0
60	1R	8	Total 8	O 8	0	0
60	1S	2	Total 2	O 2	0	0
60	1T	6	Total 6	O 6	0	0
60	1U	3	Total 3	O 3	0	0
60	1V	3	Total 3	O 3	0	0
60	1W	8	Total 8	O 8	0	0
60	1X	4	Total 4	O 4	0	0
60	1Y	2	Total 2	O 2	0	0
60	1Z	2	Total 2	O 2	0	0
60	10	2	Total 2	O 2	0	0
60	11	2	Total 2	O 2	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	12	4	Total 4	O 4	0	0
60	13	1	Total 1	O 1	0	0
60	14	1	Total 1	O 1	0	0
60	15	2	Total 2	O 2	0	0
60	16	4	Total 4	O 4	0	0
60	17	2	Total 2	O 2	0	0
60	18	5	Total 5	O 5	0	0
60	19	2	Total 2	O 2	0	0
60	1a	298	Total 298	O 298	0	0
60	1d	2	Total 2	O 2	0	0
60	1e	2	Total 2	O 2	0	0
60	1f	3	Total 3	O 3	0	0
60	1h	1	Total 1	O 1	0	0
60	1i	2	Total 2	O 2	0	0
60	1k	1	Total 1	O 1	0	0
60	1l	3	Total 3	O 3	0	0
60	1n	1	Total 1	O 1	0	0
60	1o	1	Total 1	O 1	0	0
60	1p	2	Total 2	O 2	0	0
60	1s	1	Total 1	O 1	0	0
60	1w	3	Total 3	O 3	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	1x	14	Total 14	O 14	0	0
60	1y	2	Total 2	O 2	0	0
60	2A	367	Total 367	O 367	0	0
60	2B	22	Total 22	O 22	0	0
60	2D	7	Total 7	O 7	0	0
60	2E	4	Total 4	O 4	0	0
60	2F	3	Total 3	O 3	0	0
60	2O	2	Total 2	O 2	0	0
60	2P	5	Total 5	O 5	0	0
60	2U	1	Total 1	O 1	0	0
60	2W	2	Total 2	O 2	0	0
60	2X	1	Total 1	O 1	0	0
60	2Y	1	Total 1	O 1	0	0
60	20	3	Total 3	O 3	0	0
60	21	3	Total 3	O 3	0	0
60	25	1	Total 1	O 1	0	0
60	27	2	Total 2	O 2	0	0
60	28	1	Total 1	O 1	0	0
60	29	1	Total 1	O 1	0	0
60	2a	273	Total 273	O 273	0	0
60	2d	3	Total 3	O 3	0	0

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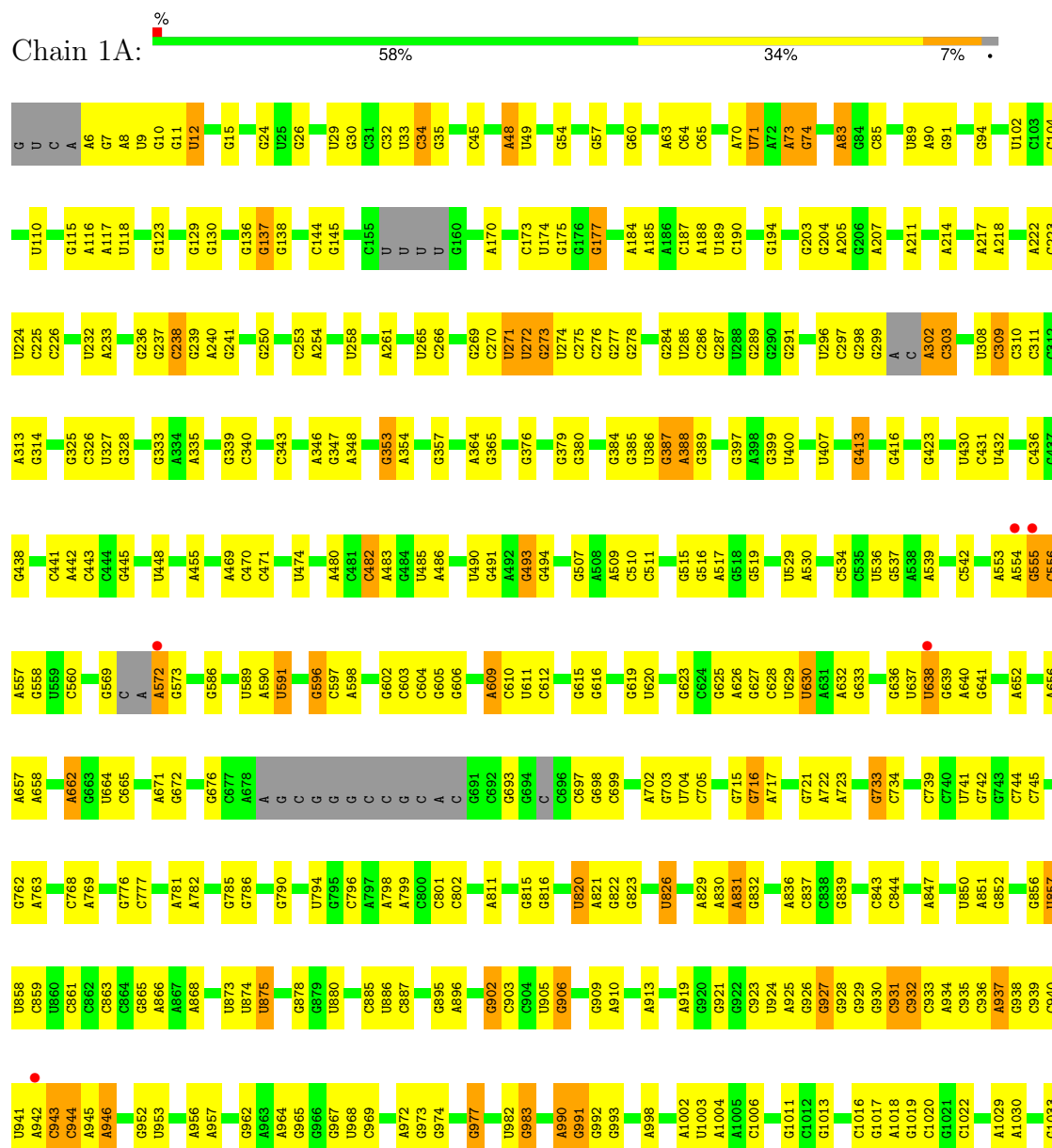
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	2e	2	Total	O	0	0
			2	2		
60	2h	1	Total	O	0	0
			1	1		
60	2i	2	Total	O	0	0
			2	2		
60	2l	2	Total	O	0	0
			2	2		
60	2m	1	Total	O	0	0
			1	1		
60	2n	1	Total	O	0	0
			1	1		
60	2o	2	Total	O	0	0
			2	2		
60	2p	1	Total	O	0	0
			1	1		
60	2q	1	Total	O	0	0
			1	1		
60	2s	1	Total	O	0	0
			1	1		
60	2t	6	Total	O	0	0
			6	6		
60	2v	1	Total	O	0	0
			1	1		
60	2w	1	Total	O	0	0
			1	1		
60	2x	8	Total	O	0	0
			8	8		

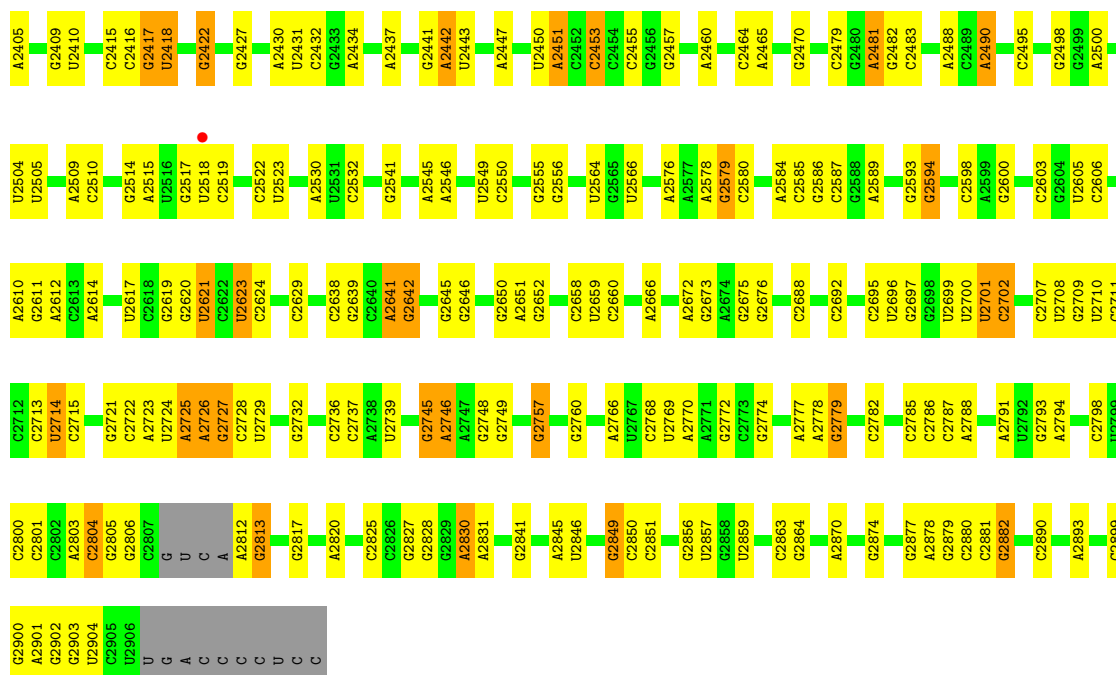
3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide 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.

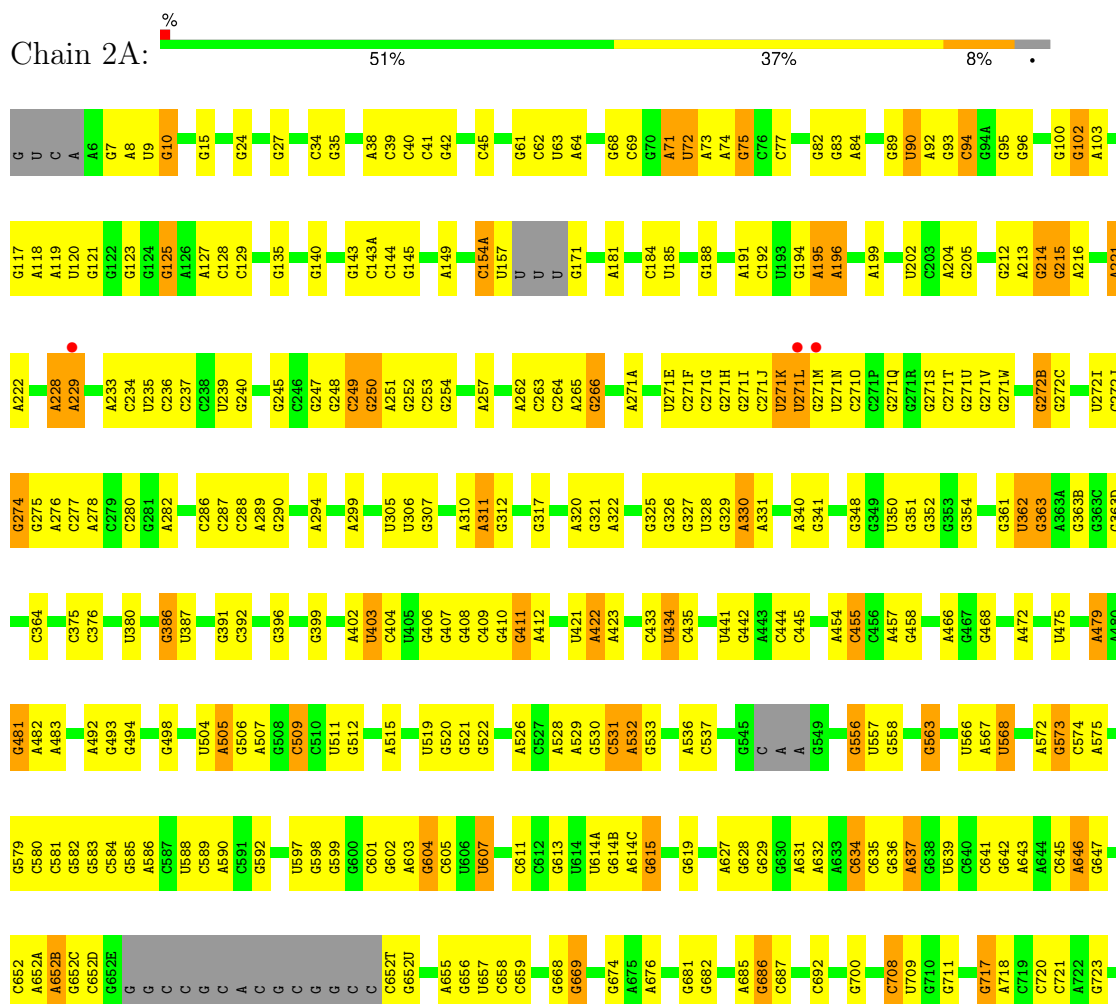
• Molecule 1: 23S Ribosomal RNA



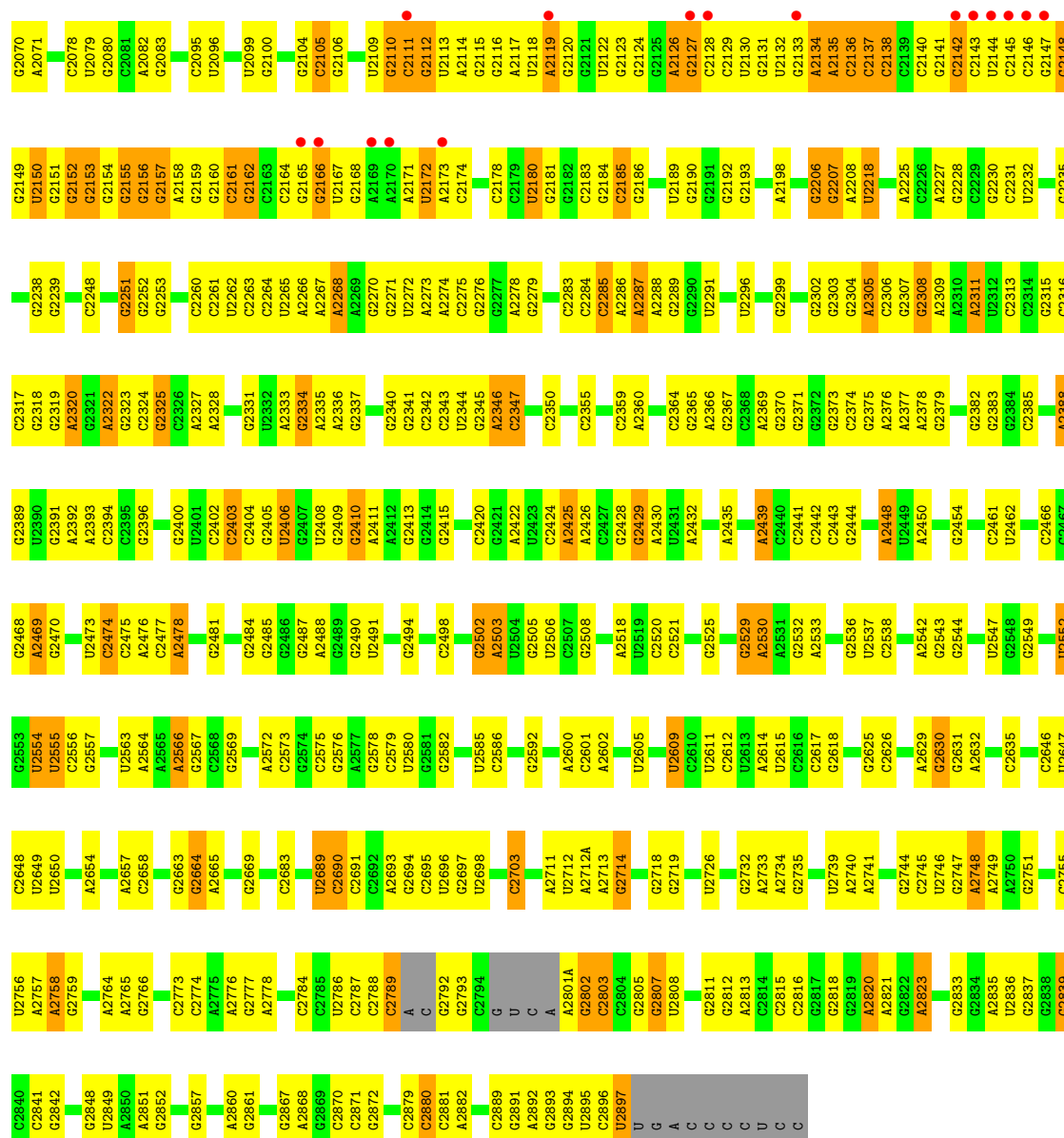
A2317	A2220	C2151	G2045	A1960	G1847	G1743	C1529	G1525	G1417	C1304	G1200	A1115	C1040
G2320	A2224	G2152	A2053	U1961	U1849	G1744	A1630	G1529	U1418	A1310	A1201	A1116	C1041
U2324	G2225	U2154	G2054	U1962	U1849	G1746	A1631	G1529	A1425	A1311	A1202	G1117	A1042
G2327	G2226	G2155	A2055	C1964	G1854	A1747	A1632	A1536	G1426	U1312	G1210	C1118	A1046
C2328	G2227	A2156	C2062	G1970	A1856	G1762	C1633	C1539	A1430	A1314	G1211	C1121	A1047
G2329	G2228	C2158	U2063	U1973	G1857	U1766	A1634	A1540	G1431	C1315	G1212	C1122	G1048
G2330	A2229	C2159	A2064	A1974	C1861	A1766	G1639	A1541	G1432	C1316	G1218	A1123	G1049
G2331	G2230	A1975	C2065	A1974	U1861	A1767	G1641	A1542	C1432	G1317	G1219	U1124	C1050
A2332	G2231	G2161	G2074	G1976	U1864	U1775	U1648	G1546	C1433	U1319	G1220	C1125	C1051
G2333	A2237	C2162	G2074	U1977	U1864	C1776	U1648	C1547	A1438	A1324	G1221	U1127	C1052
A2334	U2245	C2163	C2077	C1984	G1870	G1776	C1653	C1550	A1441	A1324	A1222	U1128	A1056
G2335	G2246	U2166	A2078	U1985	A1878	G1781	A1654	C1551	U1442	C1337	C1224	U1129	G1057
G2337	C2167	G1986	A2079	G1986	U1878	G1781	A1655	C1551	U1443	C1338	C1224	U1129	U1058
G2338	C2168	U1882	A2082	C1989	U1882	G1785	G1659	A1554	C1444	C1339	G1228	A1132	C1059
A2339	G2169	C1989	G2083	G1990	A1884	A1786	A1660	C1555	G1447	U1340	G1231	A1133	U1065
A2340	G2170	C2085	A2084	G1990	A1885	G1787	A1660	A1556	C1448	C1343	G1232	A1134	A1086
G2341	U2255	U2172	C2086	A1991	G1889	A1791	G1665	C1559	U1451	U1346	G1233	G1135	A1087
G2342	U2256	U2173	C2087	A1992	G1890	A1792	G1668	C1561	U1452	A1347	U1233	G1136	G1088
G2343	U2257	A1993	C2088	A1994	G1891	G1794	G1674	U1560	C1453	A1348	G1236	G1137	G1071
G2346	A2258	G2174	G2088	G1995	G1892	G1795	U1675	C1563	U1453	G1349	G1238	G1139	U1072
A2347	G2259	G2175	G2091	C2005	U1895	C1796	U1675	C1564	C1453	C1350	A1239	A1141	A1073
A2348	G2262	G2177	C2100	G2006	G1896	C1796	U1675	C1565	G1462	C1351	G1246	U1142	G1076
G2349	G2263	G2178	U2101	G2006	C1897	C1798	A1679	U1566	C1463	C1351	C1246	U1143	G1076
G2352	U2269	A2180	A2104	A2008	A1898	C1798	A1679	U1566	G1464	A1354	G1248	G1144	U1079
G2353	G2270	G2181	A2104	A2008	A1898	A1804	C1683	A1574	U1465	G1355	G1248	G1145	U1079
C2354	G2271	C2182	G2105	U2013	U1899	U1809	A1684	C1579	U1466	G1356	G1251	U1147	C1084
C2355	G2272	C2183	G2105	G2014	G1910	U1810	C1685	G	G1467	C1360	C1252	C1148	G1085
U2356	G2273	C2184	U2120	U2015	A1911	A1811	U1686	U	G1470	C1361	A1255	C1150	C1086
G2359	U2274	C2185	U2121	A1912	A1912	A1812	C1687	A	G1471	G1370	U1256	U1151	C1087
A2362	A2280	G2186	G2123	C2018	G1921	C1813	G1689	C	G1472	C1373	G1257	G1152	G1090
G2365	A2281	G2187	G2123	G2019	A1922	A1814	U1689	G1584	A1473	C1373	C1263	G1153	A1091
A2372	G2282	G2188	U2124	G2020	A1923	A1815	G1694	G1585	C1474	C1378	C1270	U1154	A1092
G2385	G2283	U2189	C2127	C2021	C1924	A1817	C1695	G1586	G1475	C1379	C1271	C1155	G1093
G2386	A2192	A2193	G2128	A2023	G1928	A1821	A1702	U1587	C1476	G1380	A1272	G1156	A1094
A2393	A2194	U2194	C2130	G2024	G1928	A1822	U1705	C1588	C1477	G1384	A1273	U1159	C1095
C2376	A2195	G2195	U2131	A2027	U1933	A1822	U1705	A1591	G1487	G1385	G1274	G1160	C1098
G2385	C2196	C2199	G2132	C2028	A1934	G1823	A1711	A1592	G1488	U1398	G1275	G1162	C1099
G2386	C2199	C2200	G2133	C2029	A1935	G1824	A1711	A1592	G1488	U1398	G1275	G1162	A1100
A2389	C2200	G2203	U2135	G2032	C1936	U1826	A1716	C1603	G1495	U1399	G1282	A1174	G1102
A2390	G2203	G2204	G2138	U2033	U1939	C1828	C1717	C1604	G1496	A1400	A1288	A1175	A1103
G2391	G2205	C2206	G2142	G2034	C1942	U1830	G1721	A1605	A1497	G1401	G1290	U1176	G1104
G2395	G2206	U2144	U2144	A2036	G1943	G1831	A1723	A1613	G1501	G1404	G1296	U1177	G1105
G2396	G2209	G2145	G2145	U2039	A1949	G1832	U1727	A1616	G1502	A1406	G1296	U1179	U
C2397	C2210	G2146	G2147	A2041	A1950	A1833	U1728	A1616	G1502	A1406	G1299	U1179	G1108
A2402	U2211	G2147	G2147	A2041	G1951	A1834	U1728	U1625	G1512	G1410	A1299	U1179	G1109
G2403	G2212	A2148	G2148	A2042	G1952	A1843	U1740	A1626	G1513	A1411	A1300	G1181	C1110
A2404	G2213	G2149	C2043	C2043	C1741	A1843	C1741	A1627	C1514	G1414	U1301	G1182	U1111
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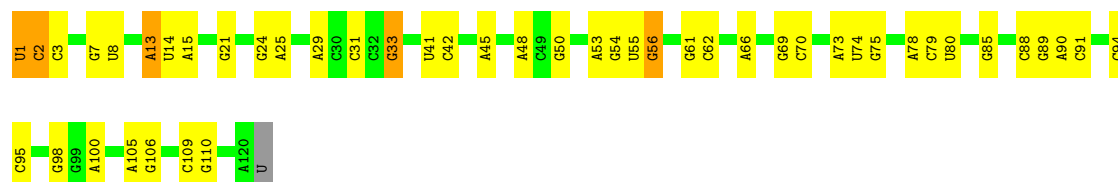
• Molecule 1: 23S Ribosomal RNA



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C1968	A1848	A1762	G1645	C1548	G1466	A1384	U1188	U	G972	A890	A819	G728
A1969	G1646	G1763	G1646	C1551	C1467	G1385	G1203	C	A973	C893	G823	G729
A1970	G1647	G1764	G1648	G1552	C1468	C1386	A1204	C	G974	C894	A824	C730
A1971	G1648	G1765	G1649	C1556	G1470	C1387	U1205	C	C975	U895	C731	
A1972	G1649	G1766	G1650	C1557	A1471	U1389	G1206	A	G975A	A896	U827	U740
C1983	G1651	G1773	G1651	C1558	G1472	A1393	C1207	C	C982	C897	U828	G741
G1984	A1652	G1774	A1652	G1559	G1473	C1399	G1208	A	A983	C898	A829	G742
U1991	G1653	U1775	G1653	A1566	A1477	G1400	G1209	G	G987	A900	G830	G743
G1992	A1654	G1776	A1654	U1569	G1478	U1405	A1210	G	A	A901	G831	G744
C1993	G1657	U1777	G1657	U1578	G1479	U1406	U1211	A	G	C902	A746	G745
U1994	C1658	U1778	G1658	U1579	G1482	U1407	G1218	G	A990	C903	U747	
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G1997	A1668	G1782	A1668	G1581	A1491	C1411	A1220	U	C994	U905	U839	A752
A2001	A1669	A1783	A1669	G1582	C1493	A1412	C1224	G	C995	U906	C840	C753
G2002	C1670	A1785	A1670	C1583	A1494	A1413	G1225	C	A996	U907	C844	C754
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G2011	G1675	A1787	C1675	C1585	A1496	C1417	G1231	A	G997	A911	C756	
G2012	C1676	U1788	C1676	A1586	U1497	G1418	G1232	G	A1000	C912	U847	
A2013	U1677	C1790	U1677	C1587	G1498	G1419	A1237	A	G1005	U913	G848	G763
A2014	G1682	A1791	G1682	C1588	C1499	U1420	G1238	A	C1006	C914	A764	G765
A2015	C1683	U1794	C1683	U1589	G1500	U1421	G1239	G	C1007	A917	G852	
A2019	A1684	G1795	A1684	U1590	C1506	G1422	U1240	C	G1011	A918	G853	U773
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A2061	G1721	G1823	A2061	G1623	C1531	C1445A	U1267	C	G1031	C948	G874	
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G2063	A1723	G1835	A1723	U1628	U1533	G1448	A1269	U	A953	U877	A802	
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A2065	G1746	G1837	A2065	U1632	C1536	G1450	G1271	A	G1036	G956	C806	
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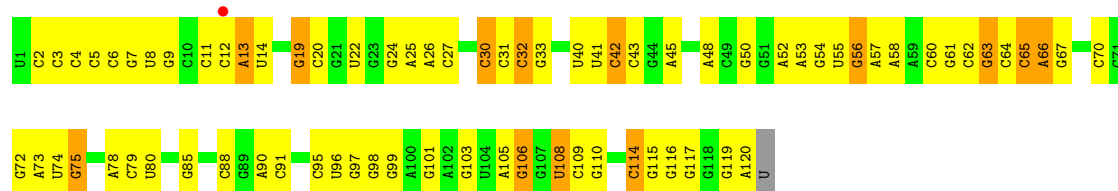


- Molecule 2: 5S Ribosomal RNA

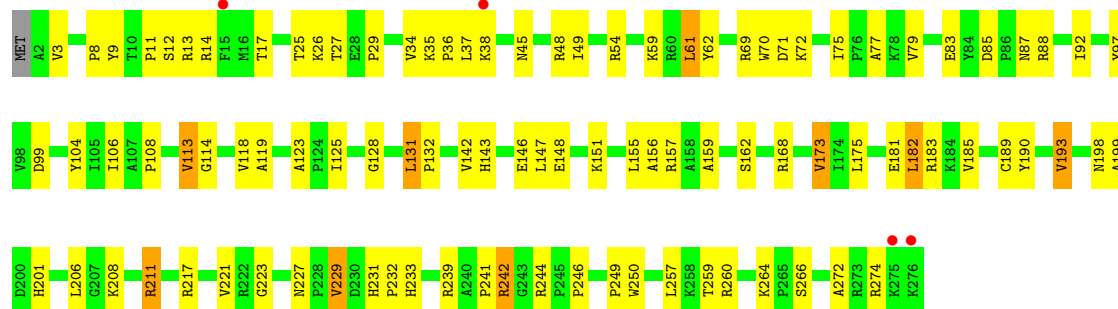


- Molecule 2: 5S Ribosomal RNA

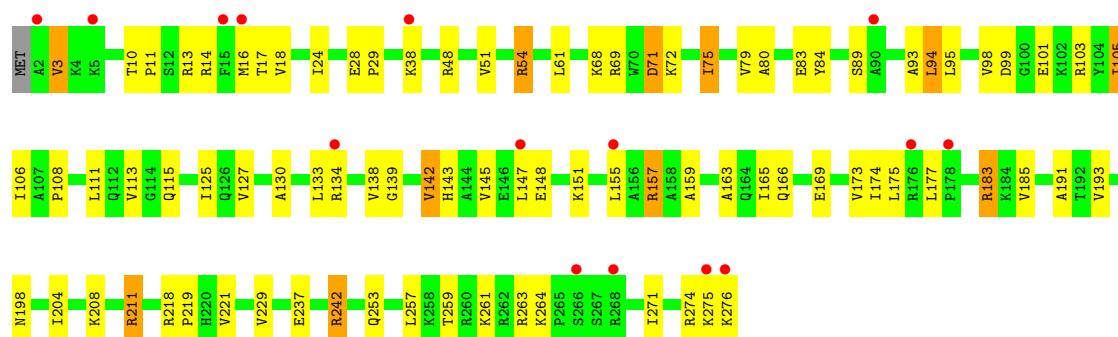




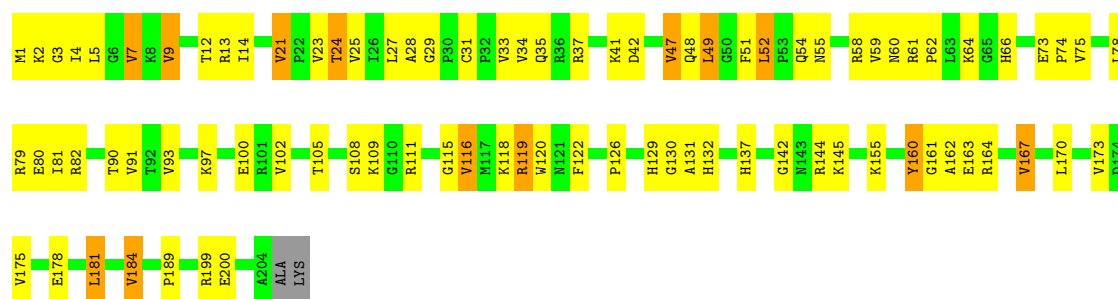
• Molecule 3: 50S ribosomal protein L2



• Molecule 3: 50S ribosomal protein L2

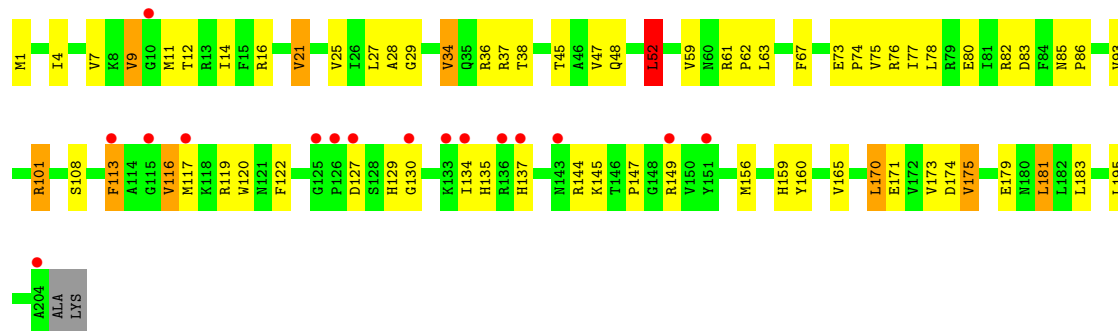


• Molecule 4: 50S ribosomal protein L3



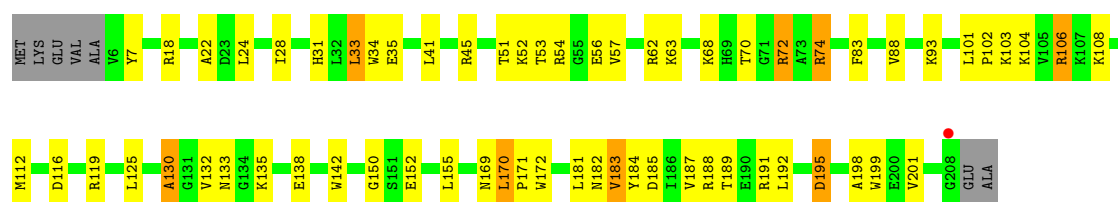
• Molecule 4: 50S ribosomal protein L3

Chain 2E: 



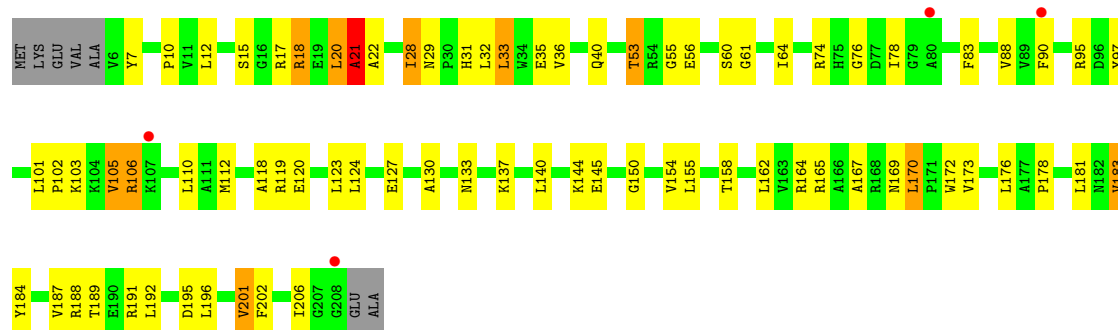
- Molecule 5: 50S ribosomal protein L4

Chain 1F: 



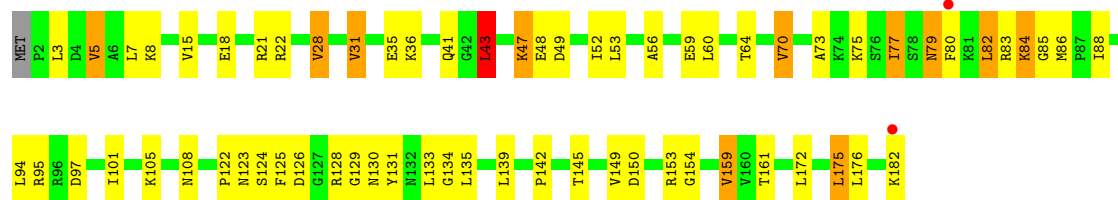
- Molecule 5: 50S ribosomal protein L4

Chain 2F: 

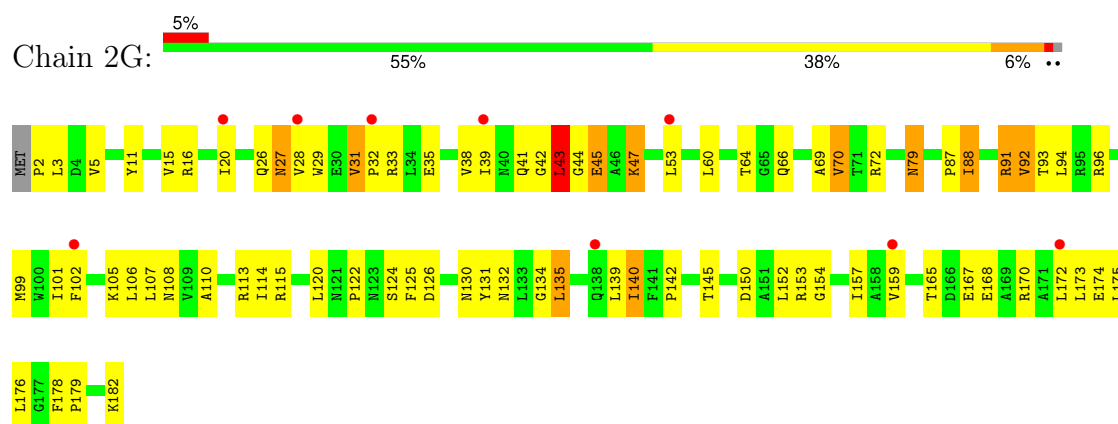


- Molecule 6: 50S ribosomal protein L5

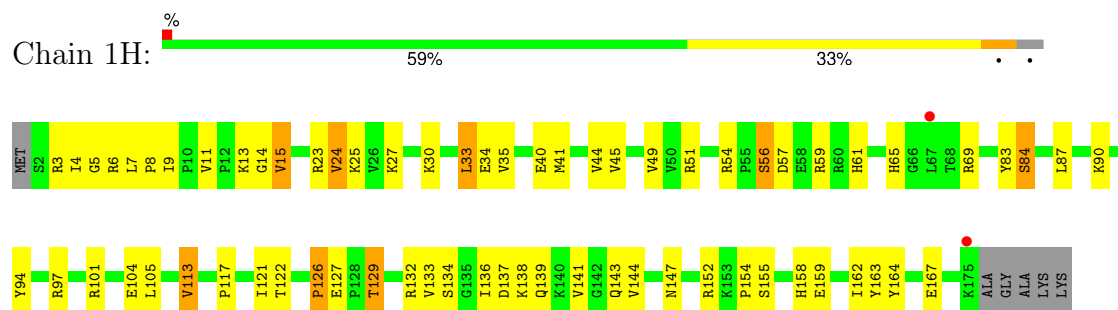
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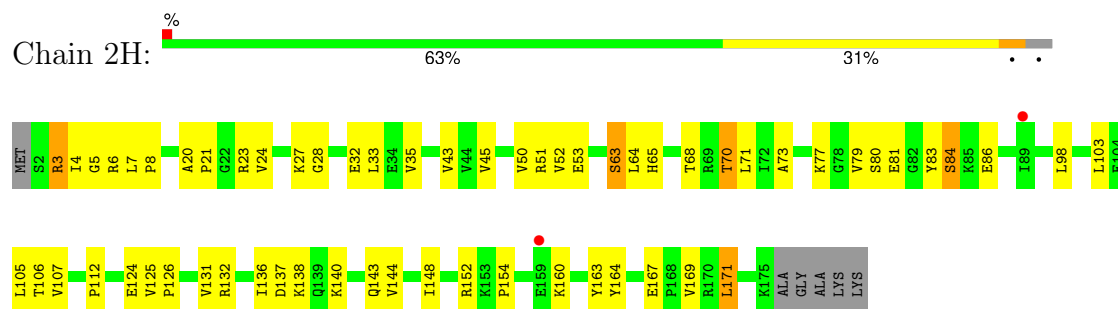
- Molecule 6: 50S ribosomal protein L5



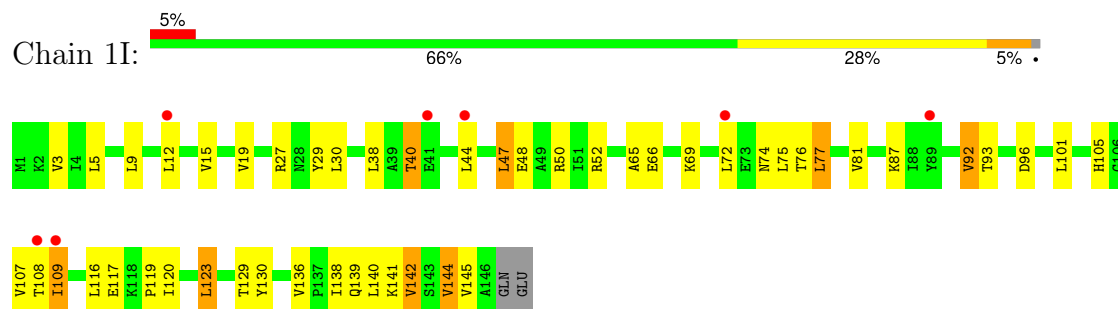
- Molecule 7: 50S ribosomal protein L6



- Molecule 7: 50S ribosomal protein L6

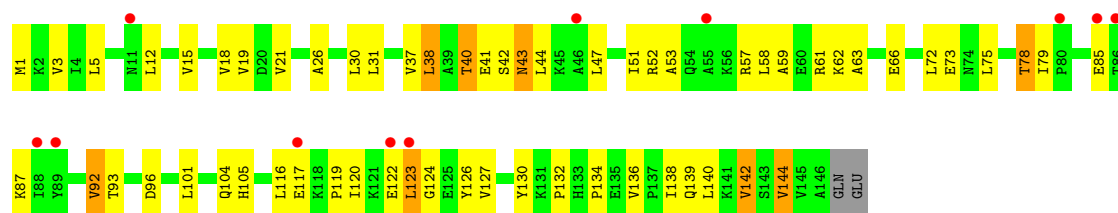


- Molecule 8: 50S ribosomal protein L9

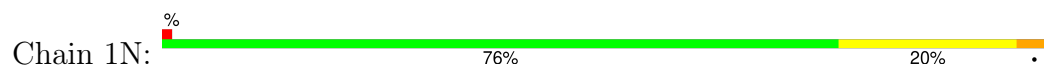


- Molecule 8: 50S ribosomal protein L9

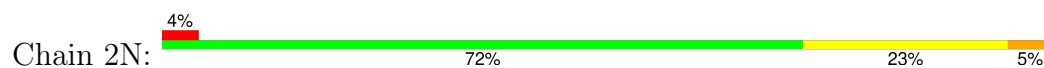




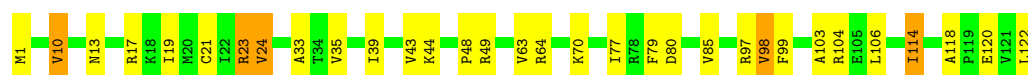
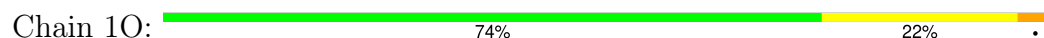
• Molecule 9: 50S ribosomal protein L13



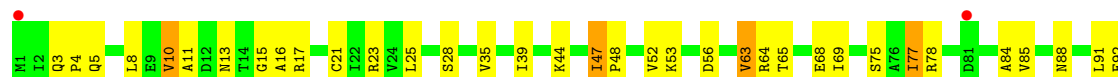
• Molecule 9: 50S ribosomal protein L13



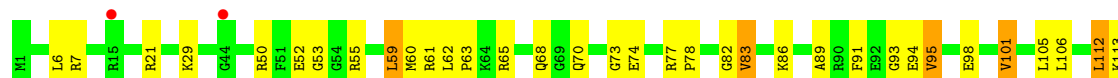
• Molecule 10: 50S ribosomal protein L14

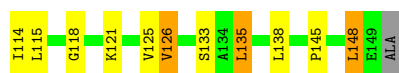


• Molecule 10: 50S ribosomal protein L14

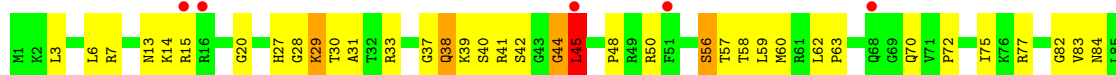


• Molecule 11: 50S ribosomal protein L15

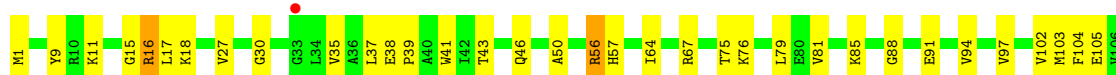




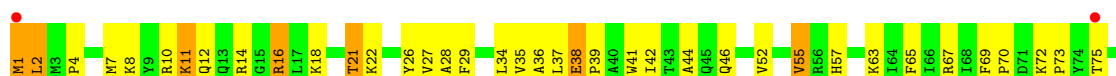
- Molecule 11: 50S ribosomal protein L15



- Molecule 12: 50S ribosomal protein L16



- Molecule 12: 50S ribosomal protein L16



- Molecule 13: 50S ribosomal protein L17

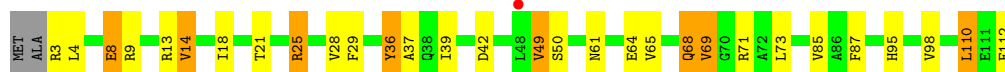


- Molecule 13: 50S ribosomal protein L17

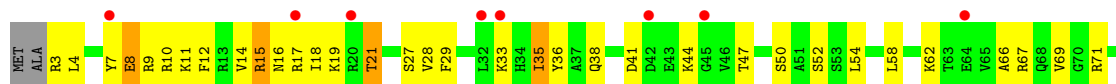




- Molecule 14: 50S ribosomal protein L18



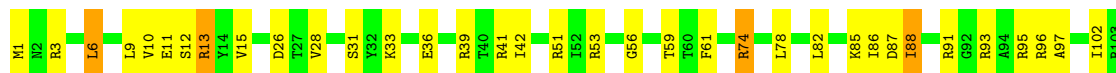
- Molecule 14: 50S ribosomal protein L18



- Molecule 15: 50S ribosomal protein L19

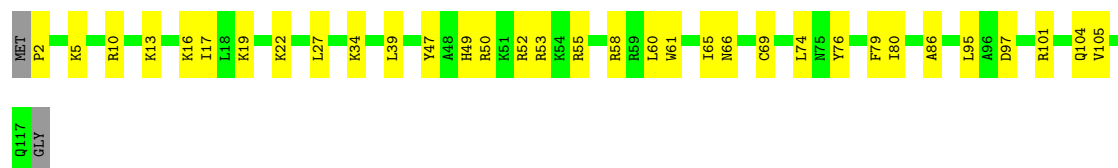


- Molecule 15: 50S ribosomal protein L19



- Molecule 16: 50S ribosomal protein L20

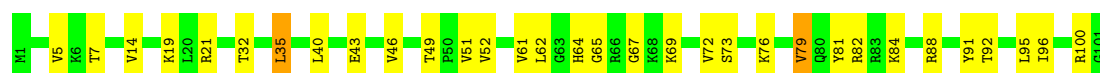




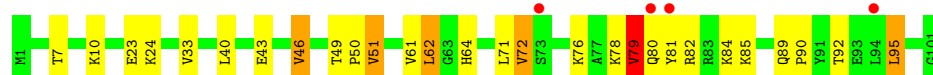
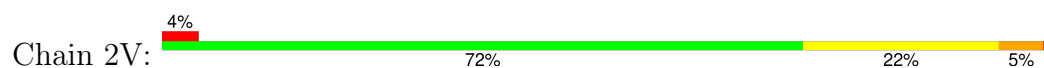
- Molecule 16: 50S ribosomal protein L20



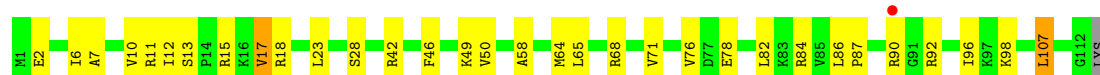
- Molecule 17: 50S ribosomal protein L21



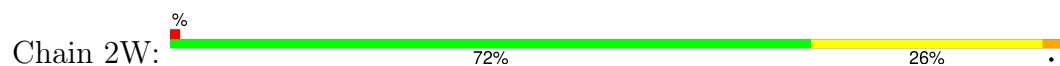
- Molecule 17: 50S ribosomal protein L21



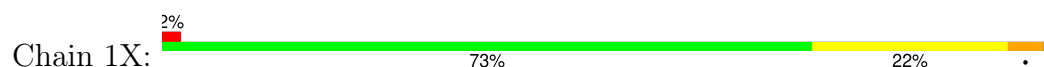
- Molecule 18: 50S ribosomal protein L22



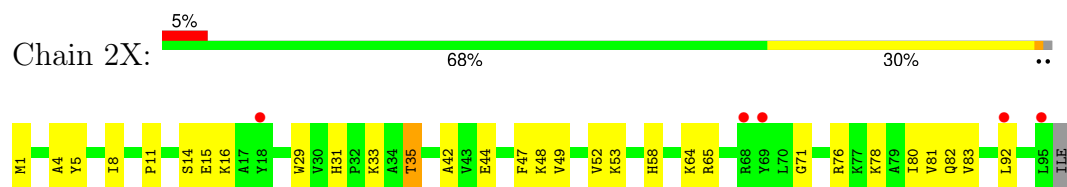
- Molecule 18: 50S ribosomal protein L22



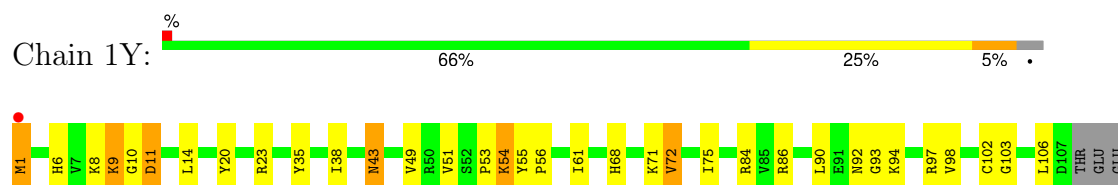
- Molecule 19: 50S ribosomal protein L23



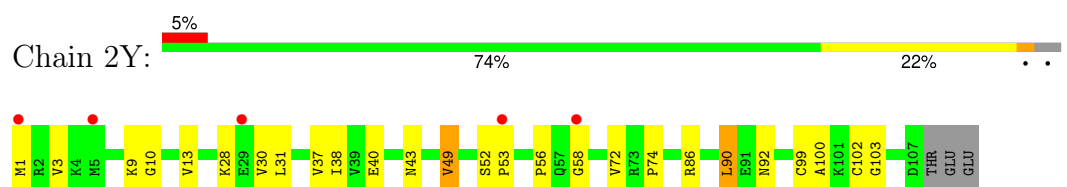
- Molecule 19: 50S ribosomal protein L23



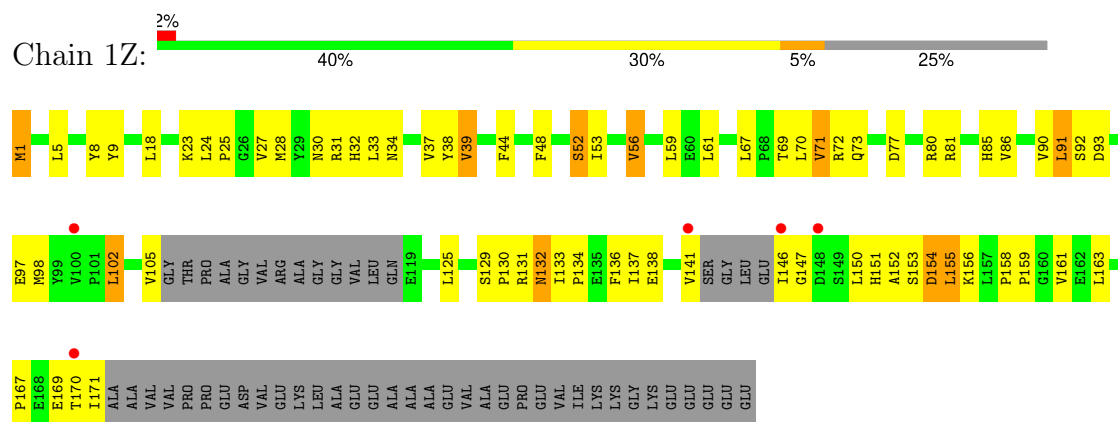
- Molecule 20: 50S ribosomal protein L24



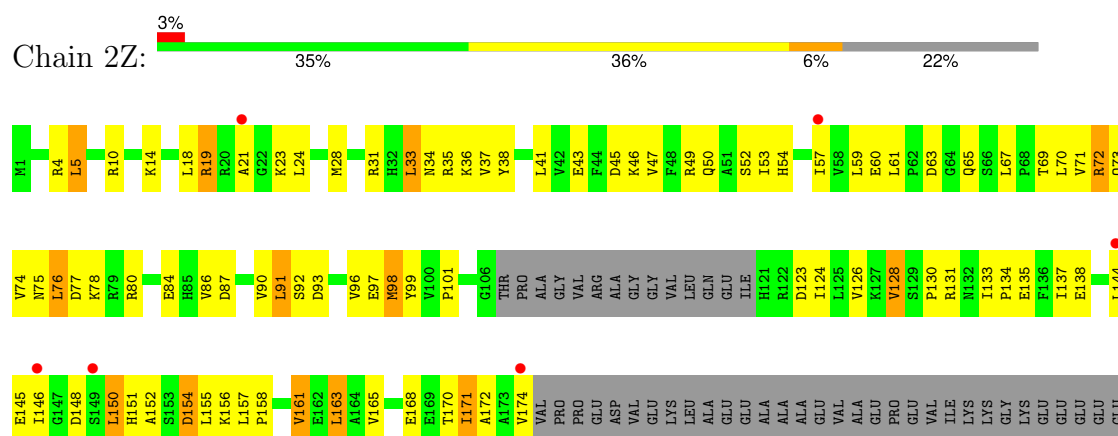
- Molecule 20: 50S ribosomal protein L24



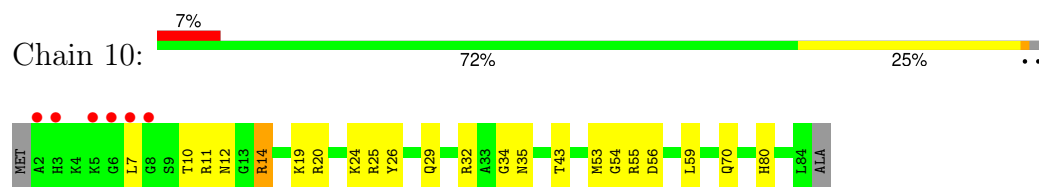
- Molecule 21: 50S ribosomal protein L25



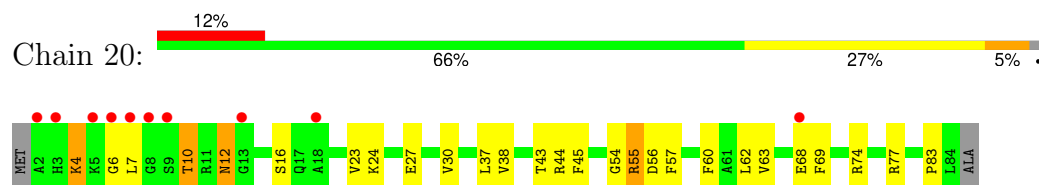
- Molecule 21: 50S ribosomal protein L25



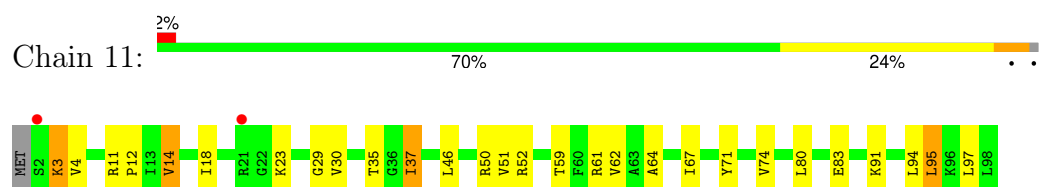
- Molecule 22: 50S ribosomal protein L27



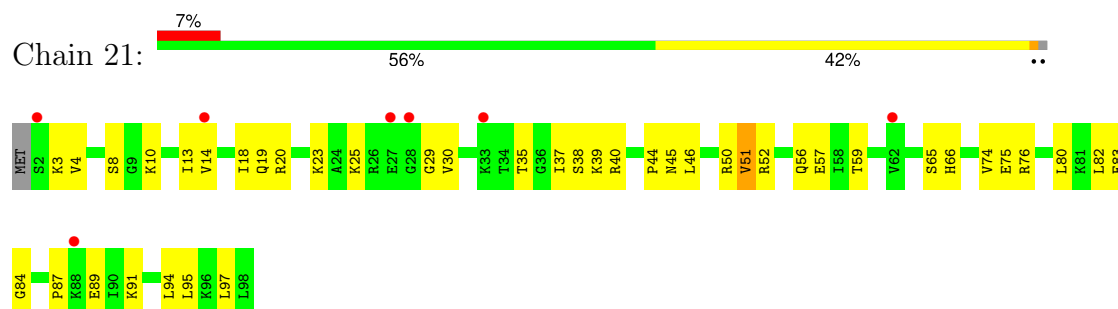
- Molecule 22: 50S ribosomal protein L27



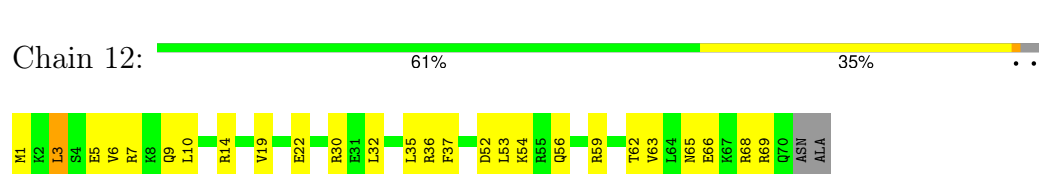
- Molecule 23: 50S ribosomal protein L28



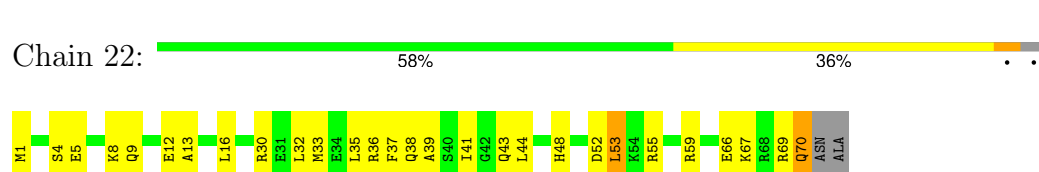
- Molecule 23: 50S ribosomal protein L28



- Molecule 24: 50S ribosomal protein L29



- Molecule 24: 50S ribosomal protein L29

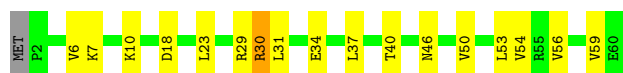


- Molecule 25: 50S ribosomal protein L30





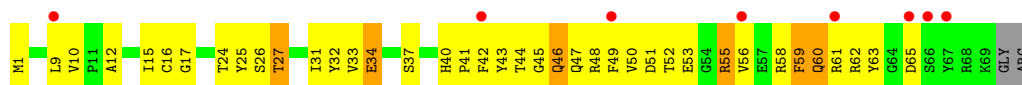
- Molecule 25: 50S ribosomal protein L30



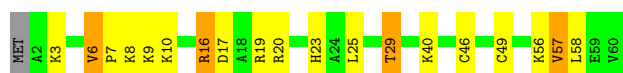
- Molecule 26: 50S ribosomal protein L31



- Molecule 26: 50S ribosomal protein L31



- Molecule 27: 50S ribosomal protein L32



- Molecule 27: 50S ribosomal protein L32



- Molecule 28: 50S ribosomal protein L33

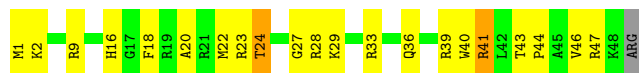


- Molecule 28: 50S ribosomal protein L33





- Molecule 29: 50S ribosomal protein L34



- Molecule 29: 50S ribosomal protein L34



- Molecule 30: 50S ribosomal protein L35



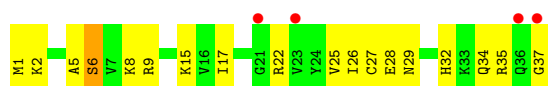
- Molecule 30: 50S ribosomal protein L35



- Molecule 31: 50S ribosomal protein L36

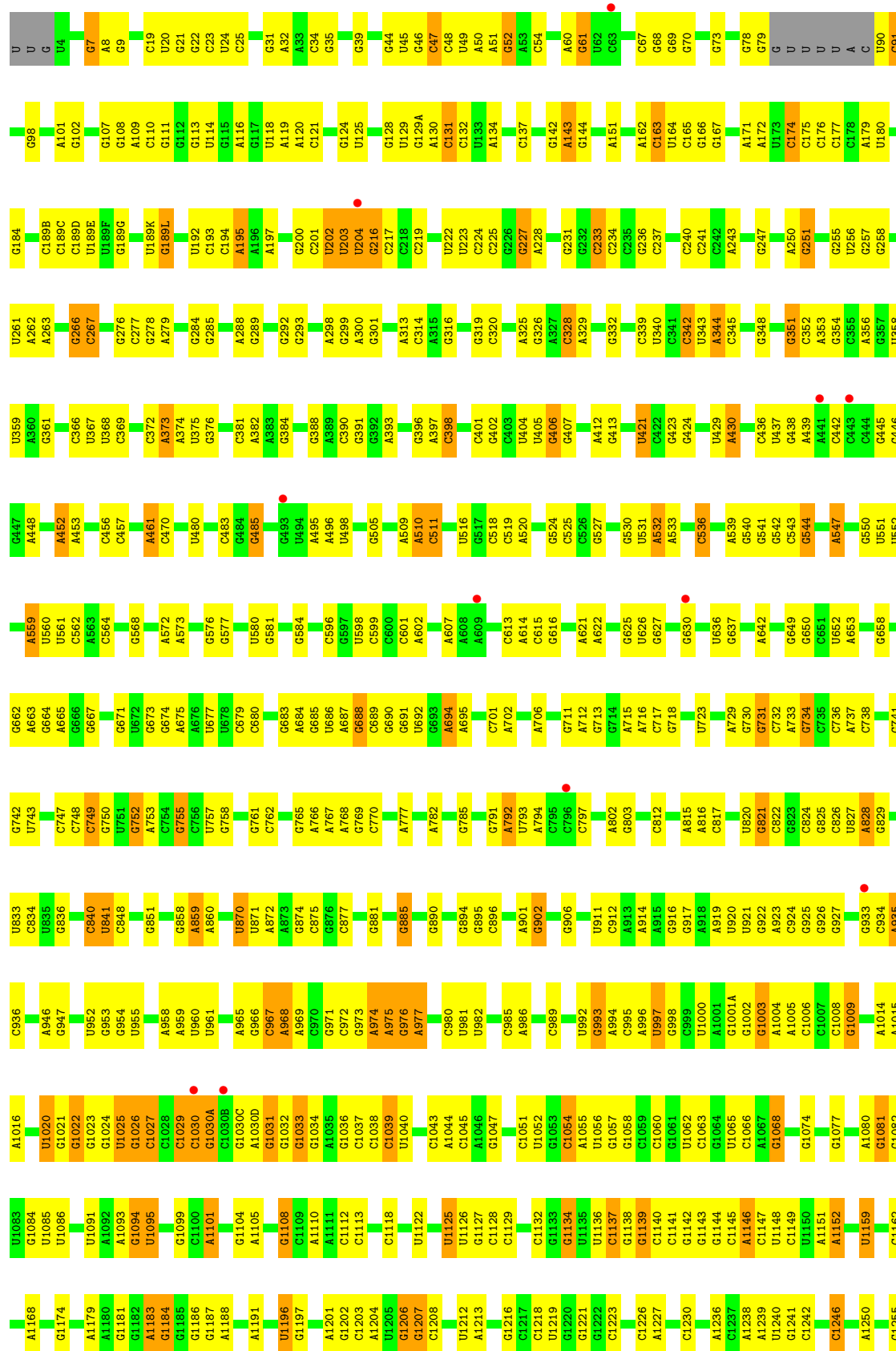


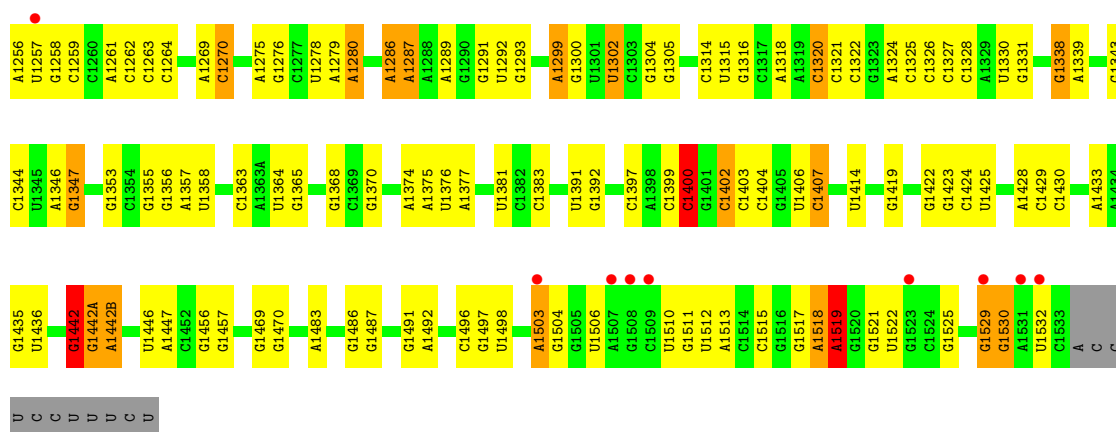
- Molecule 31: 50S ribosomal protein L36



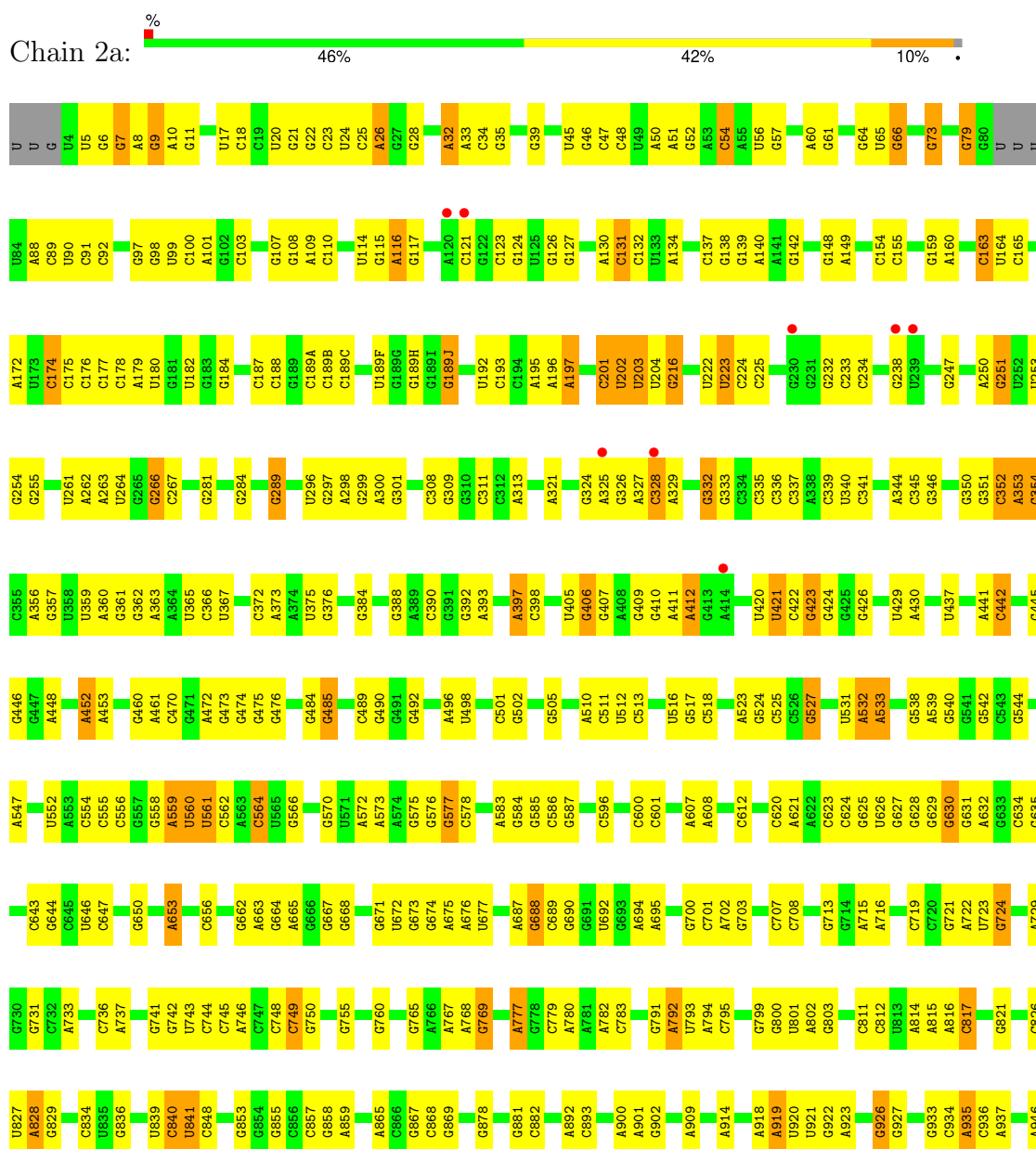
- Molecule 32: 16S Ribosomal RNA

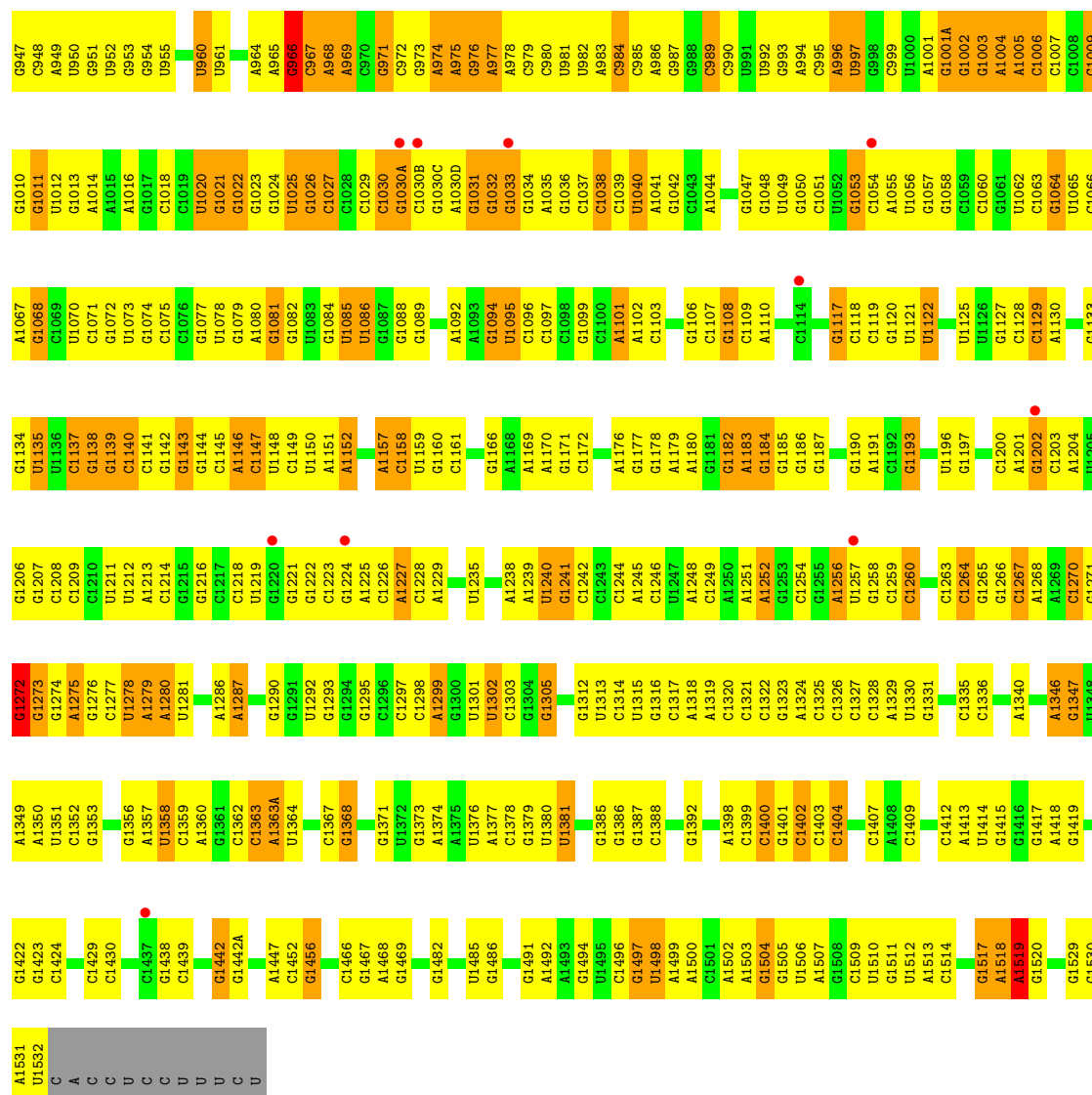




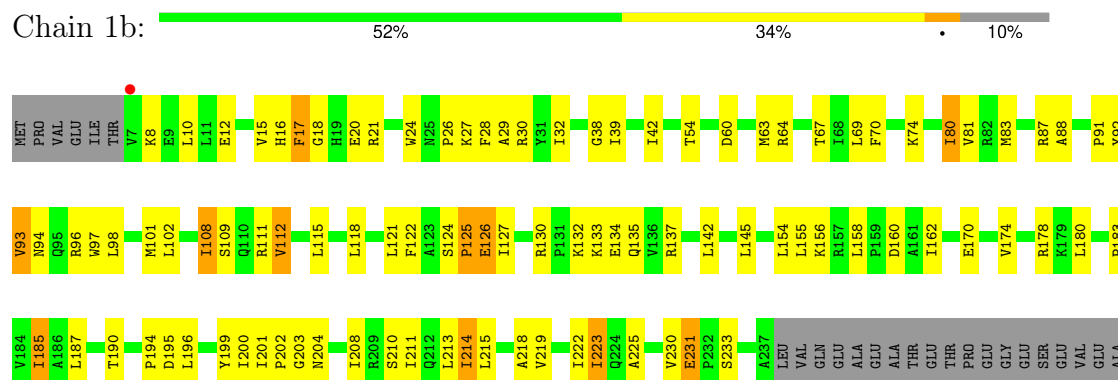


• Molecule 32: 16S Ribosomal RNA

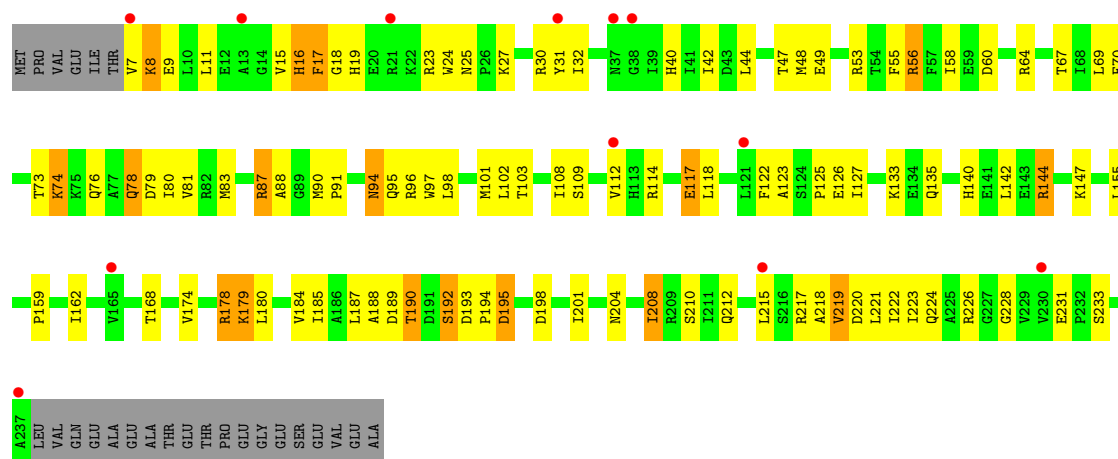




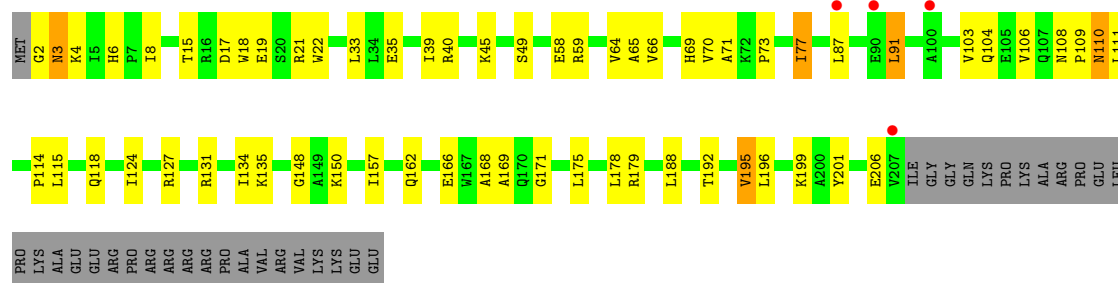
• Molecule 33: 30S ribosomal protein S2



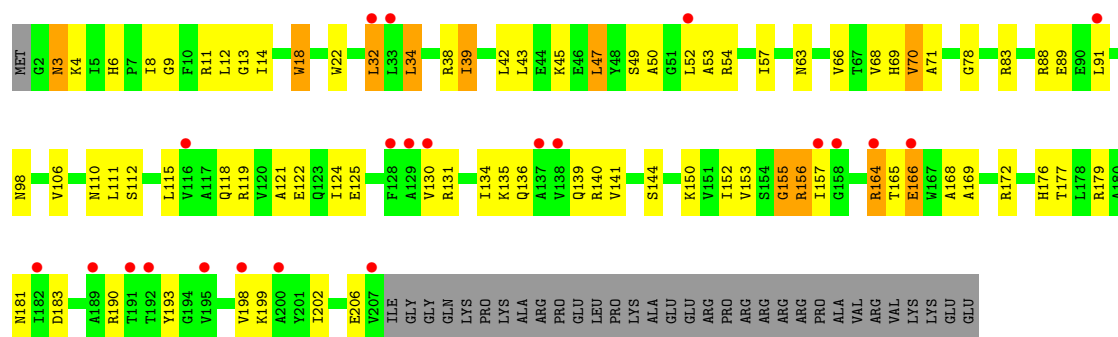
• Molecule 33: 30S ribosomal protein S2



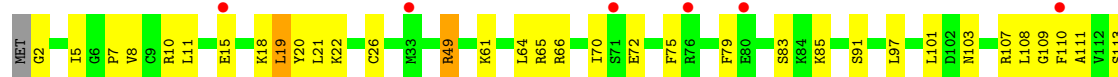
• Molecule 34: 30S ribosomal protein S3

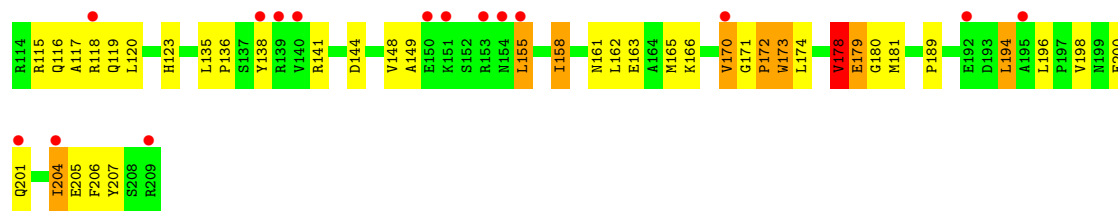


• Molecule 34: 30S ribosomal protein S3

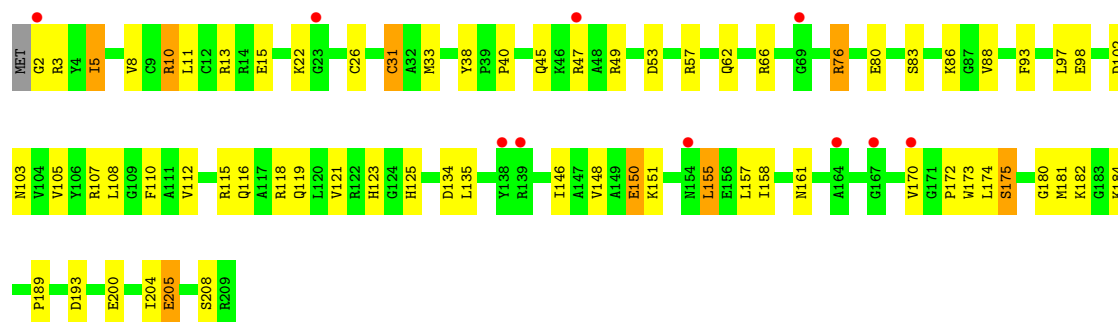


• Molecule 35: 30S ribosomal protein S4

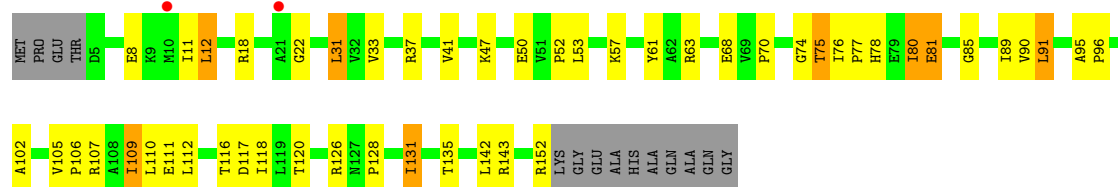




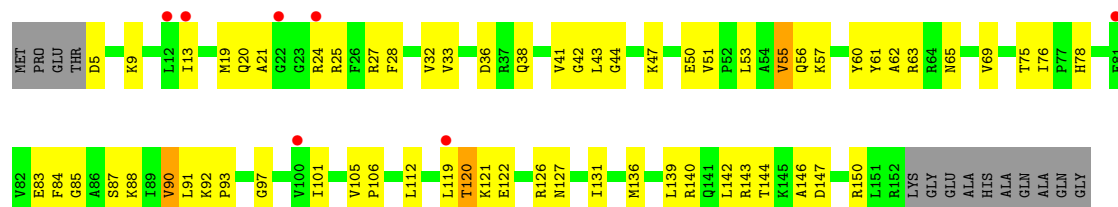
• Molecule 35: 30S ribosomal protein S4



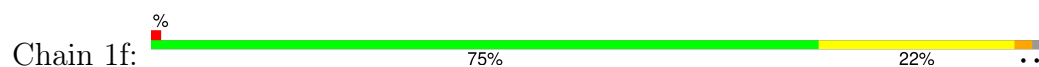
• Molecule 36: 30S ribosomal protein S5



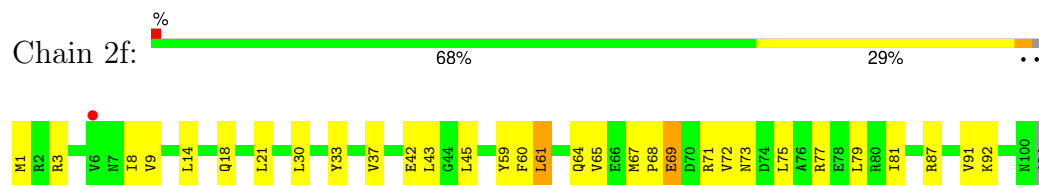
• Molecule 36: 30S ribosomal protein S5



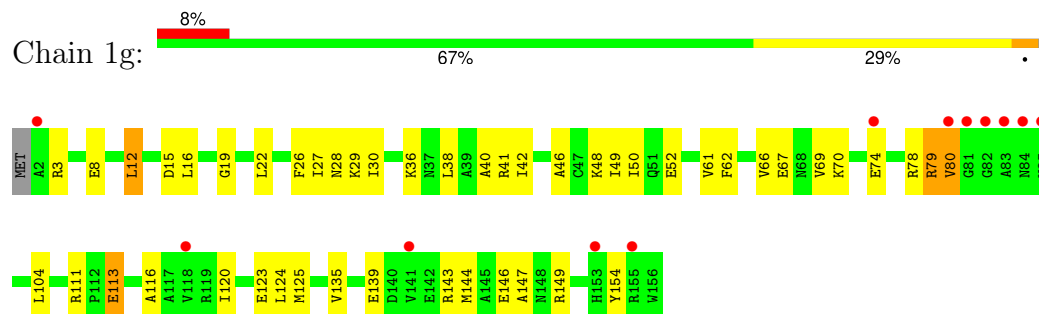
• Molecule 37: 30S ribosomal protein S6



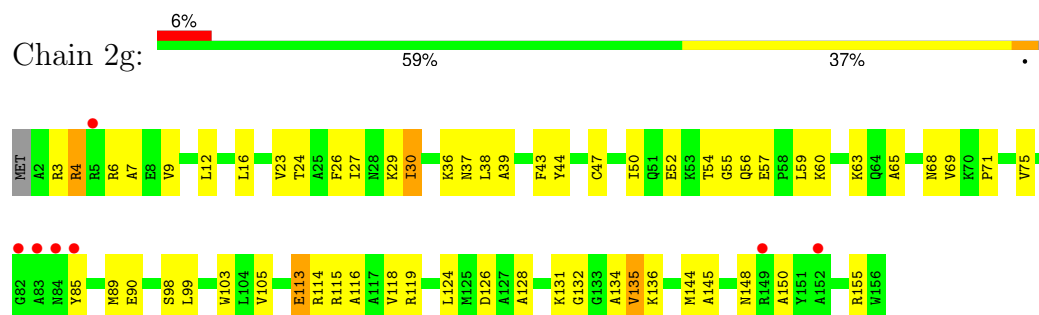
- Molecule 37: 30S ribosomal protein S6



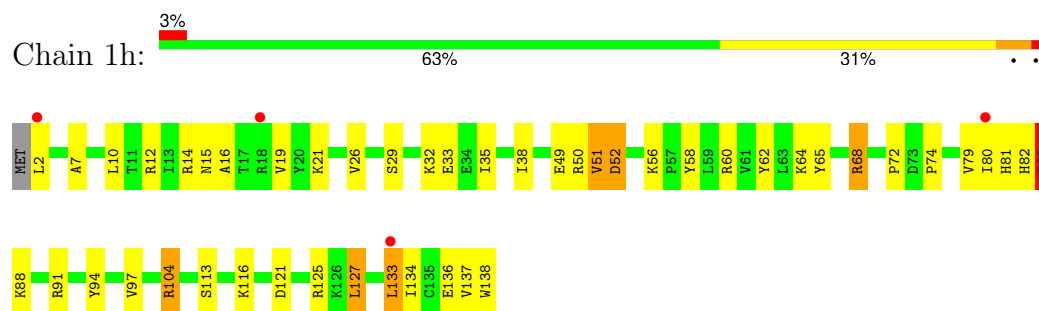
- Molecule 38: 30S ribosomal protein S7



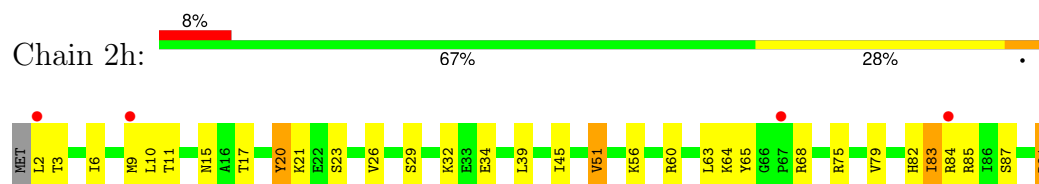
- Molecule 38: 30S ribosomal protein S7



- Molecule 39: 30S ribosomal protein S8



- Molecule 39: 30S ribosomal protein S8

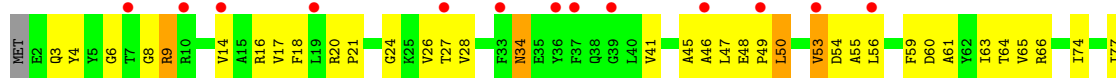




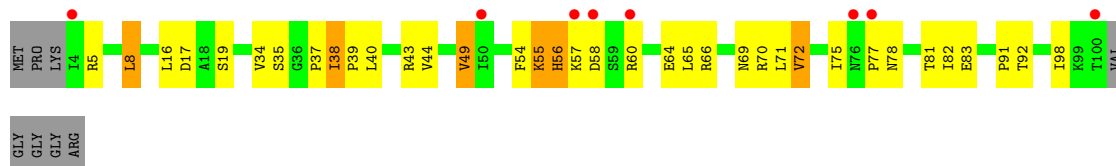
- Molecule 40: 30S ribosomal protein S9



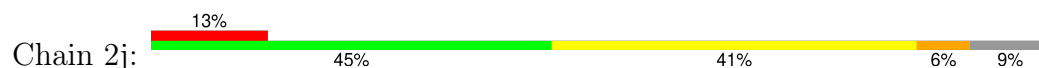
- Molecule 40: 30S ribosomal protein S9



- Molecule 41: 30S ribosomal protein S10

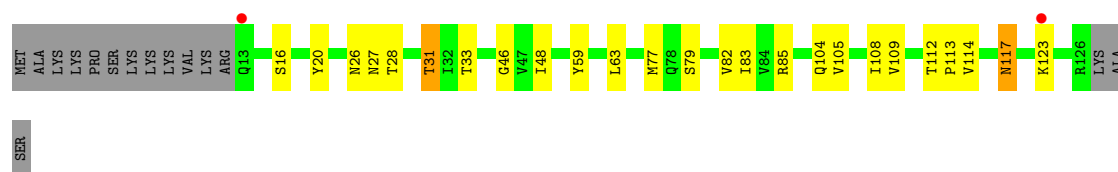


- Molecule 41: 30S ribosomal protein S10

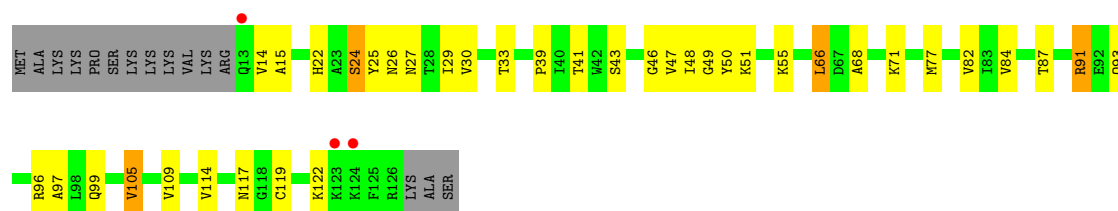


- Molecule 42: 30S ribosomal protein S11

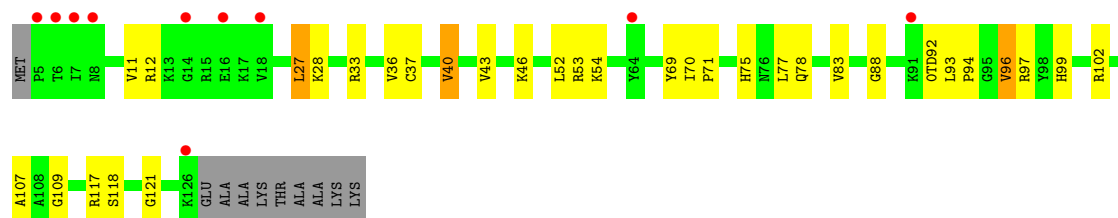




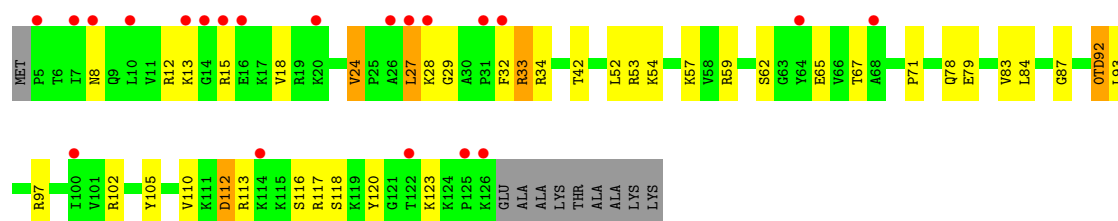
- Molecule 42: 30S ribosomal protein S11



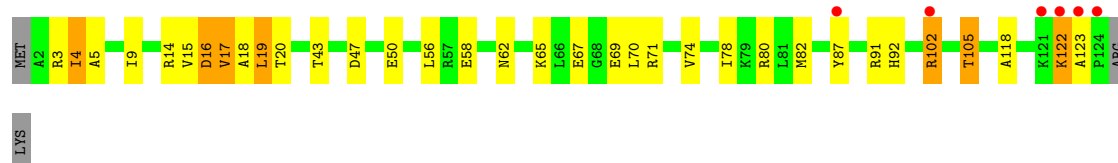
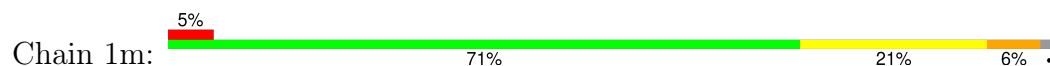
- Molecule 43: 30S ribosomal protein S12



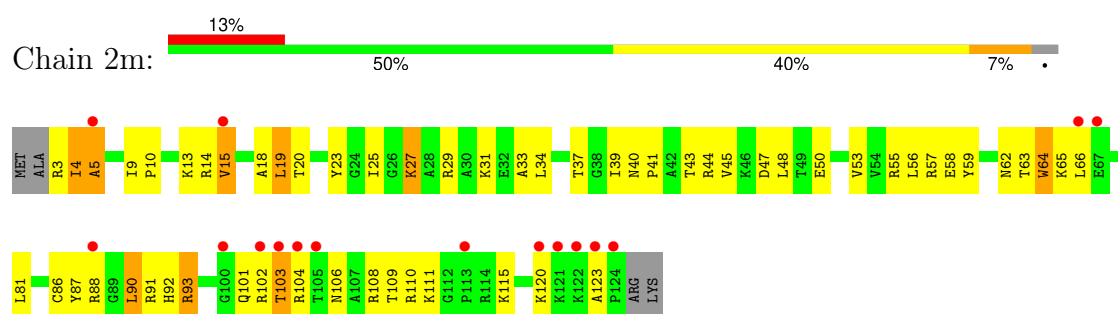
- Molecule 43: 30S ribosomal protein S12



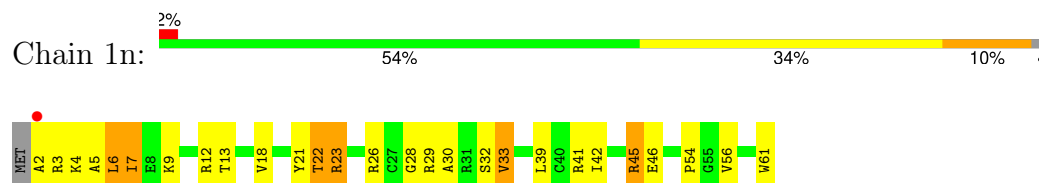
- Molecule 44: 30S ribosomal protein S13



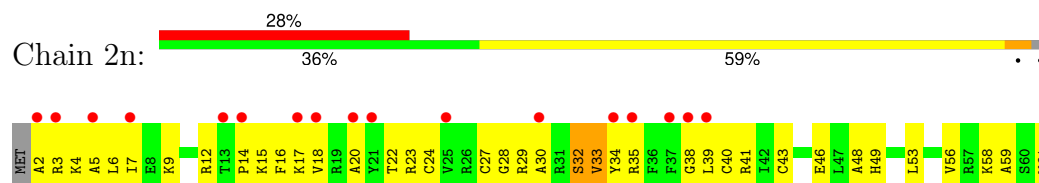
- Molecule 44: 30S ribosomal protein S13



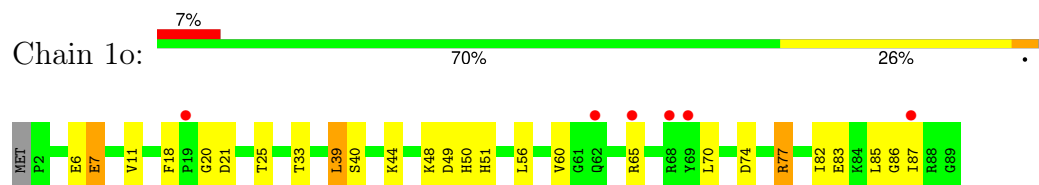
- Molecule 45: 30S ribosomal protein S14 type Z



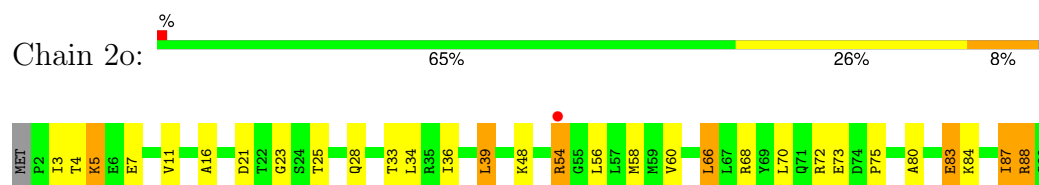
- Molecule 45: 30S ribosomal protein S14 type Z



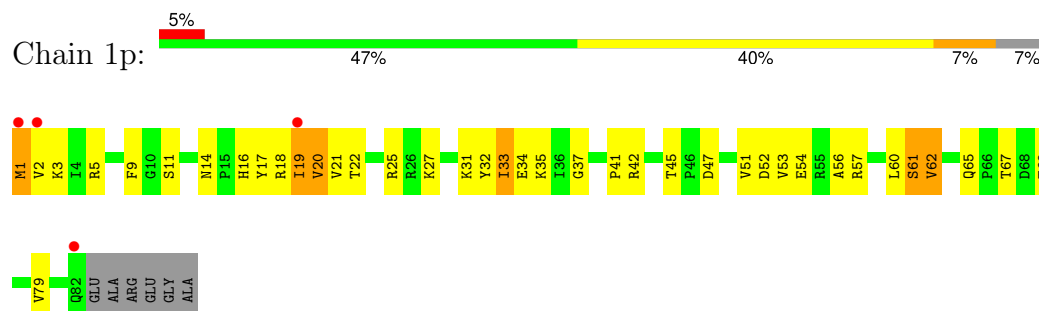
- Molecule 46: 30S ribosomal protein S15



- Molecule 46: 30S ribosomal protein S15

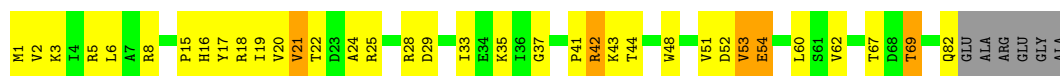


- Molecule 47: 30S ribosomal protein S16



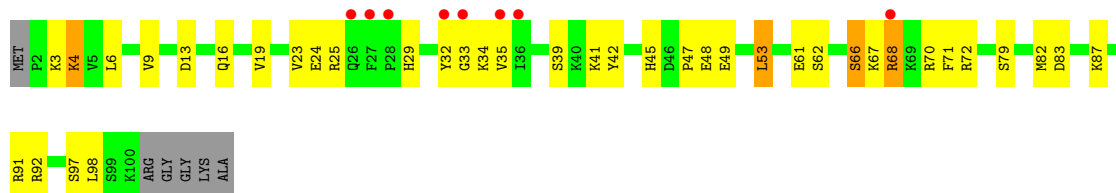
- Molecule 47: 30S ribosomal protein S16

Chain 2p: 



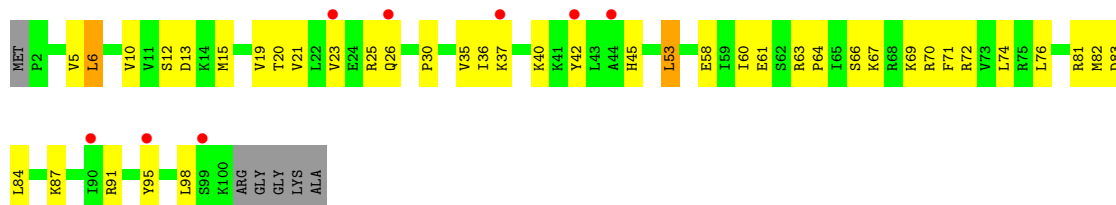
- Molecule 48: 30S ribosomal protein S17

Chain 1q: 



- Molecule 48: 30S ribosomal protein S17

Chain 2q: 



- Molecule 49: 30S ribosomal protein S18

Chain 1r: 

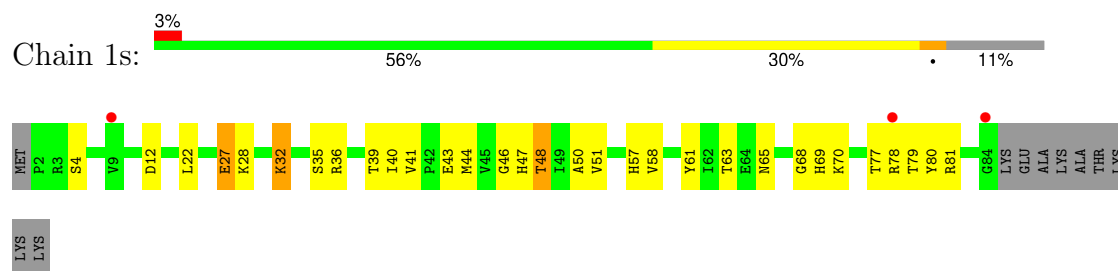


- Molecule 49: 30S ribosomal protein S18

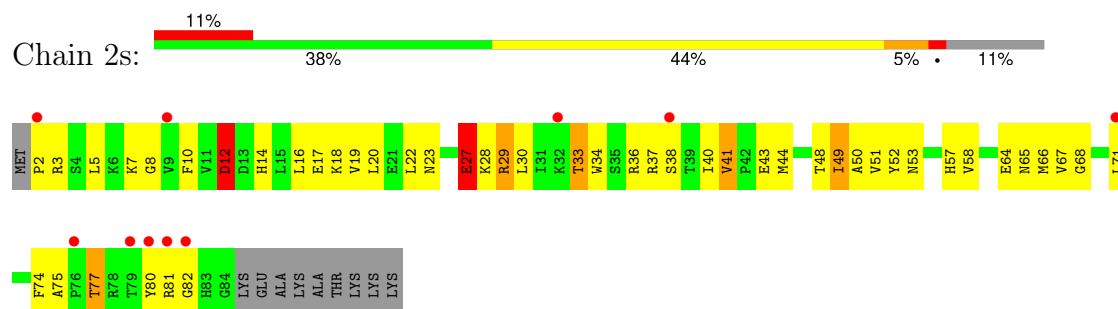
Chain 2r: 



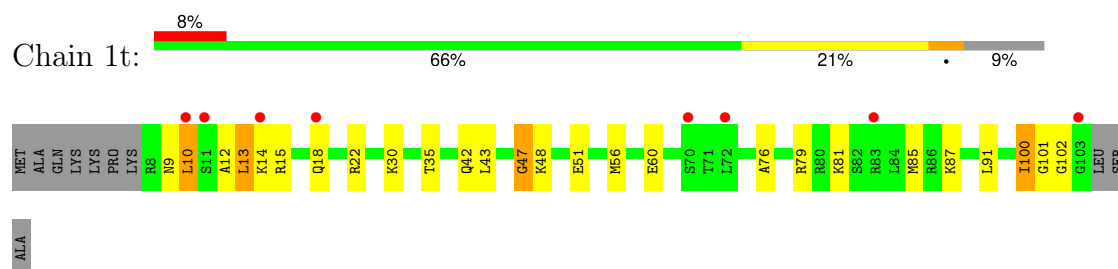
- Molecule 50: 30S ribosomal protein S19



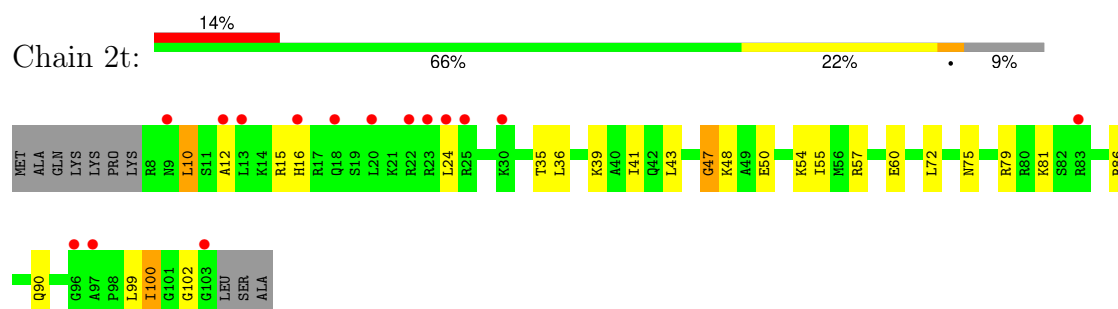
- Molecule 50: 30S ribosomal protein S19



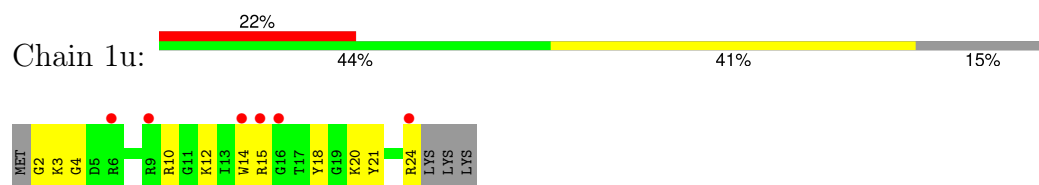
- Molecule 51: 30S ribosomal protein S20



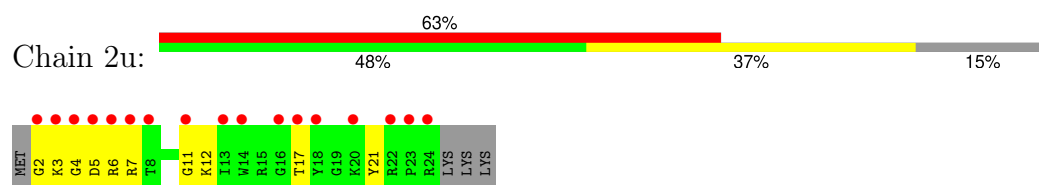
- Molecule 51: 30S ribosomal protein S20



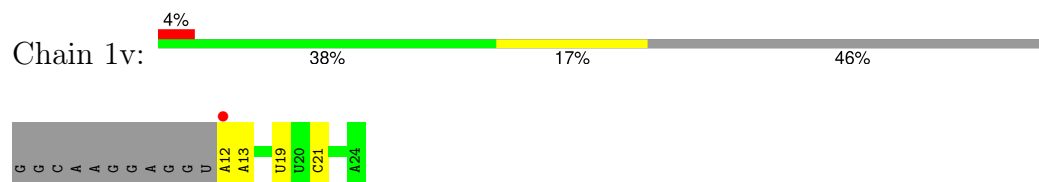
- Molecule 52: 30S ribosomal protein Thx



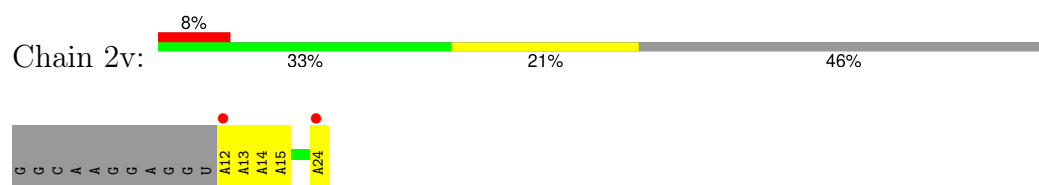
- Molecule 52: 30S ribosomal protein Thx



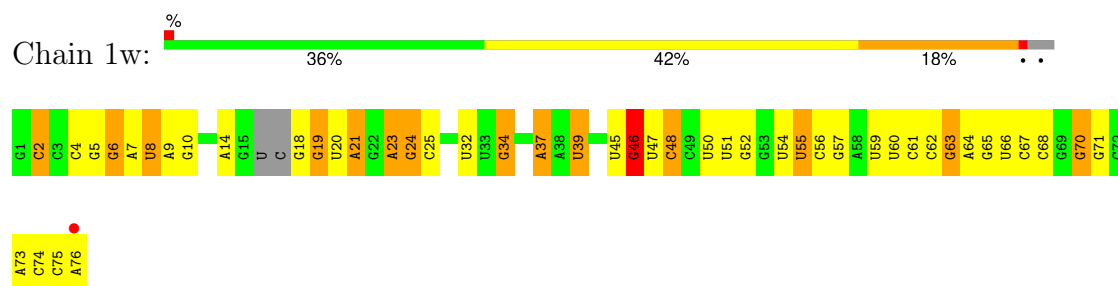
- Molecule 53: mRNA



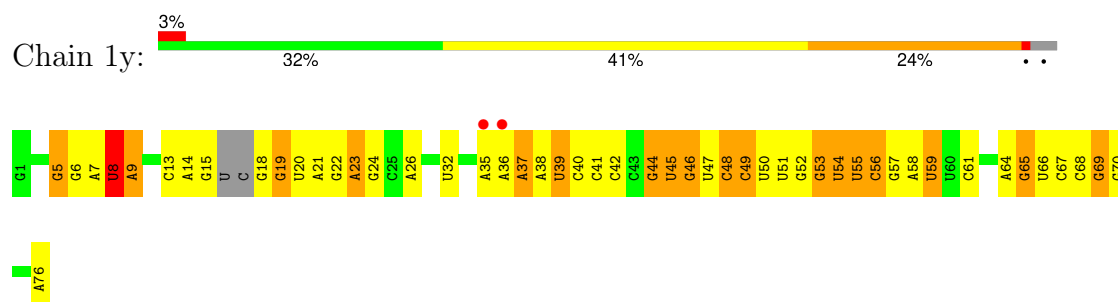
- Molecule 53: mRNA



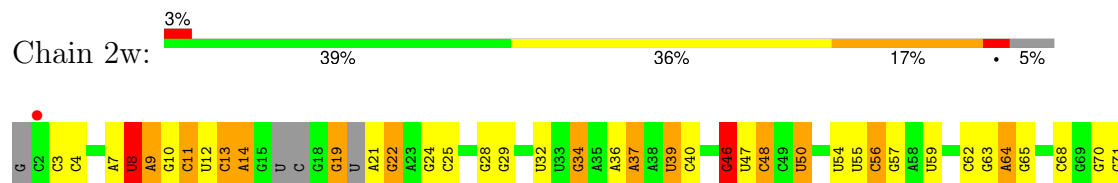
- Molecule 54: A-site and E-site tRNAs

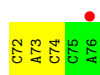


- Molecule 54: A-site and E-site tRNAs



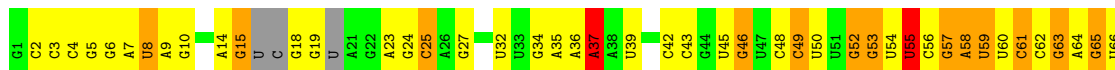
- Molecule 54: A-site and E-site tRNAs





- Molecule 54: A-site and E-site tRNAs

Chain 2y: 29% 46% 18%



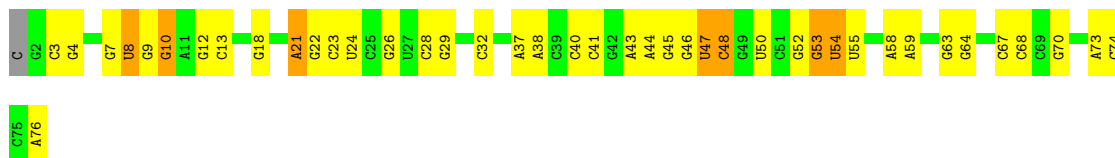
- Molecule 55: P-site tRNA

Chain 1x: 65% 26% 8%



- Molecule 55: P-site tRNA

Chain 2x: 44% 45% 9%



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	210.15Å 446.82Å 620.28Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	151.75 – 2.95 151.75 – 2.95	Depositor EDS
% Data completeness (in resolution range)	98.7 (151.75-2.95) 98.6 (151.75-2.95)	Depositor EDS
R_{merge}	0.28	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.07 (at 2.96Å)	Xtriage
Refinement program	PHENIX 1.14_3260	Depositor
R, R_{free}	0.223 , 0.272 0.223 , 0.270	Depositor DCC
R_{free} test set	60042 reflections (4.94%)	wwPDB-VP
Wilson B-factor (Å ²)	71.7	Xtriage
Anisotropy	0.272	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.27 , 47.9	EDS
L-test for twinning ²	$\langle L \rangle = 0.42$, $\langle L^2 \rangle = 0.24$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.93	EDS
Total number of atoms	297993	wwPDB-VP
Average B, all atoms (Å ²)	73.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.63% 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: 4OC, 2MG, AKN, 5MU, 4SU, 2MA, MG, 2MU, 5MC, SF4, UR3, MIA, PSU, ZN, M2G, MA6, 0TD, OMG, 7MG

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	1A	0.29	0/69006	0.47	1/107704 (0.0%)
1	2A	0.23	0/67293	0.42	1/105034 (0.0%)
2	1B	0.24	0/2882	0.43	0/4494
2	2B	0.22	0/2879	0.41	0/4487
3	1D	0.30	0/2186	0.55	0/2944
3	2D	0.27	0/2186	0.58	1/2944 (0.0%)
4	1E	0.27	0/1592	0.53	0/2149
4	2E	0.24	0/1592	0.47	0/2149
5	1F	0.28	0/1619	0.50	0/2193
5	2F	0.24	0/1615	0.51	2/2188 (0.1%)
6	1G	0.23	0/1448	0.51	1/1957 (0.1%)
6	2G	0.27	0/1453	0.55	0/1963
7	1H	0.25	0/1356	0.45	0/1834
7	2H	0.20	0/1356	0.42	0/1834
8	1I	0.21	0/1112	0.43	0/1514
8	2I	0.19	0/1079	0.46	0/1475
9	1N	0.25	0/1144	0.48	0/1543
9	2N	0.21	0/1144	0.44	0/1543
10	1O	0.28	0/943	0.47	0/1269
10	2O	0.21	0/943	0.50	0/1269
11	1P	0.27	0/1152	0.50	0/1533
11	2P	0.24	0/1152	0.58	4/1533 (0.3%)
12	1Q	0.28	0/1143	0.49	0/1527
12	2Q	0.24	0/1143	0.45	0/1527
13	1R	0.28	0/982	0.52	0/1312
13	2R	0.22	0/982	0.49	0/1312
14	1S	0.25	0/883	0.50	0/1176
14	2S	0.23	0/880	0.46	0/1172
15	1T	0.25	0/1105	0.50	0/1477
15	2T	0.22	0/1097	0.49	0/1468
16	1U	0.29	0/977	0.50	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
16	2U	0.21	0/977	0.43	0/1301
17	1V	0.26	0/782	0.51	0/1049
17	2V	0.20	0/782	0.43	0/1049
18	1W	0.29	0/897	0.50	0/1205
18	2W	0.22	0/897	0.43	0/1205
19	1X	0.27	0/764	0.51	2/1025 (0.2%)
19	2X	0.27	0/764	0.49	0/1025
20	1Y	0.25	0/819	0.50	0/1095
20	2Y	0.20	0/819	0.42	0/1095
21	1Z	0.25	0/1267	0.54	1/1717 (0.1%)
21	2Z	0.23	0/1299	0.50	1/1763 (0.1%)
22	10	0.31	0/662	0.57	0/881
22	20	0.27	0/662	0.57	2/881 (0.2%)
23	11	0.27	0/762	0.46	0/1014
23	21	0.23	0/762	0.43	0/1014
24	12	0.27	0/590	0.48	0/781
24	22	0.20	0/590	0.39	0/781
25	13	0.27	0/474	0.50	0/635
25	23	0.21	0/469	0.46	0/630
26	14	0.29	0/565	0.67	0/761
26	24	0.26	0/545	0.67	0/737
27	15	0.32	0/469	0.55	0/635
27	25	0.23	0/469	0.48	0/635
28	16	0.31	0/460	0.54	0/613
28	26	0.23	0/456	0.46	0/608
29	17	0.30	0/426	0.50	0/561
29	27	0.27	0/426	0.59	0/561
30	18	0.30	0/525	0.50	0/691
30	28	0.24	0/525	0.46	0/691
31	19	0.29	0/310	0.51	0/407
31	29	0.20	0/310	0.47	0/407
32	1a	0.22	0/35795	0.41	1/55864 (0.0%)
32	2a	0.21	0/35886	0.40	2/56005 (0.0%)
33	1b	0.23	0/1881	0.52	0/2542
33	2b	0.22	0/1860	0.49	0/2518
34	1c	0.22	0/1572	0.44	0/2126
34	2c	0.24	0/1566	0.49	1/2119 (0.0%)
35	1d	0.23	0/1685	0.48	0/2262
35	2d	0.21	0/1704	0.44	0/2284
36	1e	0.23	0/1145	0.54	2/1543 (0.1%)
36	2e	0.22	0/1149	0.55	0/1548
37	1f	0.21	0/823	0.43	0/1115
37	2f	0.20	0/829	0.40	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	1g	0.21	0/1250	0.40	0/1679
38	2g	0.20	0/1254	0.45	0/1683
39	1h	0.21	0/1108	0.45	0/1494
39	2h	0.19	0/1108	0.43	0/1494
40	1i	0.23	0/1002	0.51	0/1346
40	2i	0.22	0/997	0.52	0/1343
41	1j	0.20	0/722	0.42	0/982
41	2j	0.23	0/727	0.52	0/988
42	1k	0.20	0/844	0.43	0/1145
42	2k	0.19	0/848	0.43	0/1149
43	1l	0.24	0/937	0.46	0/1260
43	2l	0.29	0/937	0.58	0/1260
44	1m	0.29	0/969	0.52	0/1302
44	2m	0.23	0/961	0.51	0/1291
45	1n	0.21	0/501	0.49	0/664
45	2n	0.23	0/501	0.48	0/664
46	1o	0.22	0/739	0.41	0/985
46	2o	0.21	0/739	0.45	0/985
47	1p	0.20	0/697	0.47	0/939
47	2p	0.22	0/693	0.49	0/935
48	1q	0.21	0/836	0.44	0/1117
48	2q	0.21	0/836	0.46	0/1117
49	1r	0.22	0/560	0.44	0/746
49	2r	0.19	0/560	0.39	0/746
50	1s	0.24	0/667	0.52	0/900
50	2s	0.26	0/661	0.59	0/893
51	1t	0.26	0/730	0.54	0/965
51	2t	0.21	0/729	0.47	0/965
52	1u	0.19	0/203	0.46	0/266
52	2u	0.27	0/203	0.52	0/266
53	1v	0.25	0/310	0.38	0/480
53	2v	0.20	0/310	0.32	0/480
54	1w	0.27	0/1606	0.45	0/2497
54	1y	0.29	1/1606 (0.1%)	0.44	0/2497
54	2w	0.28	1/1556 (0.1%)	0.43	0/2418
54	2y	0.31	0/1583	0.48	0/2459
55	1x	0.29	0/1725	0.44	0/2689
55	2x	0.26	1/1725 (0.1%)	0.43	0/2689
All	All	0.25	3/316683 (0.0%)	0.45	22/474105 (0.0%)

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
21	1Z	0	1
50	2s	0	1
All	All	0	2

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	2x	8	4SU	O3'-P	5.47	1.61	1.56
54	1y	8	4SU	O3'-P	5.37	1.61	1.56
54	2w	8	4SU	O3'-P	5.18	1.61	1.56

All (22) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	2c	155	GLY	N-CA-C	8.62	123.18	110.60
21	1Z	52	SER	CB-CA-C	-7.57	106.78	115.79
21	2Z	63	ASP	N-CA-C	-6.67	105.03	112.57
3	2D	98	VAL	N-CA-C	-6.56	102.85	112.04
6	1G	52	ILE	N-CA-C	-6.31	105.55	112.80
32	2a	1272	G	N1-C2-N2	-5.70	99.11	116.20
11	2P	44	GLY	CA-C-N	5.60	131.79	121.70
11	2P	44	GLY	C-N-CA	5.60	131.79	121.70
22	20	12	ASN	CB-CA-C	-5.53	109.11	117.07
19	1X	94	GLY	CA-C-N	5.45	131.51	121.70
19	1X	94	GLY	C-N-CA	5.45	131.51	121.70
5	2F	21	ALA	CA-C-N	5.38	131.38	121.70
5	2F	21	ALA	C-N-CA	5.38	131.38	121.70
1	1A	2014	G	C2'-C3'-O3'	5.30	117.45	109.50
11	2P	33	ARG	CA-C-N	-5.22	111.98	121.32
11	2P	33	ARG	C-N-CA	-5.22	111.98	121.32
36	1e	22	GLY	CA-C-N	-5.19	114.30	122.92
36	1e	22	GLY	C-N-CA	-5.19	114.30	122.92
22	20	12	ASN	CA-C-O	5.19	120.95	117.94
1	2A	1992	G	C2'-C3'-O3'	5.17	117.26	109.50
32	1a	1442	G	P-O3'-C3'	5.11	125.83	119.70
32	2a	1272	G	N3-C2-N2	5.09	135.16	119.90

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
21	1Z	136	PHE	Peptide
50	2s	27	GLU	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	1A	61851	0	31187	738	0
1	2A	60322	0	30423	850	0
2	1B	2577	0	1305	35	0
2	2B	2575	0	1303	68	0
3	1D	2136	0	2218	71	0
3	2D	2136	0	2218	60	0
4	1E	1559	0	1618	57	0
4	2E	1559	0	1618	54	0
5	1F	1584	0	1625	43	0
5	2F	1580	0	1618	55	0
6	1G	1423	0	1436	37	0
6	2G	1428	0	1438	62	0
7	1H	1330	0	1407	41	0
7	2H	1330	0	1407	36	0
8	1I	1097	0	1140	29	0
8	2I	1064	0	1082	35	0
9	1N	1117	0	1184	20	0
9	2N	1117	0	1184	24	0
10	1O	933	0	996	25	0
10	2O	933	0	996	32	0
11	1P	1135	0	1212	41	0
11	2P	1135	0	1212	45	0
12	1Q	1122	0	1178	29	0
12	2Q	1122	0	1179	44	0
13	1R	968	0	1033	23	0
13	2R	968	0	1033	32	0
14	1S	873	0	927	20	0
14	2S	870	0	923	39	0
15	1T	1091	0	1151	31	0
15	2T	1083	0	1136	31	0
16	1U	959	0	1019	25	0
16	2U	959	0	1019	24	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
17	1V	771	0	830	13	0
17	2V	771	0	830	19	0
18	1W	886	0	940	26	0
18	2W	886	0	940	19	0
19	1X	750	0	814	20	0
19	2X	750	0	814	22	0
20	1Y	806	0	881	18	0
20	2Y	806	0	881	14	0
21	1Z	1240	0	1240	47	0
21	2Z	1271	0	1273	62	0
22	10	653	0	674	22	0
22	20	653	0	674	22	0
23	11	755	0	826	19	0
23	21	755	0	826	29	0
24	12	588	0	643	17	0
24	22	588	0	643	19	0
25	13	469	0	518	11	0
25	23	464	0	514	8	0
26	14	552	0	533	20	0
26	24	532	0	503	28	0
27	15	455	0	465	15	0
27	25	455	0	465	11	0
28	16	453	0	473	13	0
28	26	449	0	469	14	0
29	17	418	0	467	21	0
29	27	418	0	467	13	0
30	18	517	0	582	24	0
30	28	517	0	582	20	0
31	19	307	0	335	6	0
31	29	307	0	335	14	0
32	1a	32246	0	16295	481	0
32	2a	32327	0	16337	642	0
33	1b	1846	0	1867	69	0
33	2b	1825	0	1828	74	0
34	1c	1548	0	1535	42	0
34	2c	1542	0	1517	56	0
35	1d	1655	0	1672	55	0
35	2d	1674	0	1714	46	0
36	1e	1129	0	1185	32	0
36	2e	1133	0	1191	42	0
37	1f	810	0	804	15	0
37	2f	816	0	808	21	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
38	1g	1231	0	1238	36	0
38	2g	1235	0	1249	45	0
39	1h	1088	0	1126	38	0
39	2h	1088	0	1126	30	0
40	1i	983	0	986	38	0
40	2i	978	0	966	38	0
41	1j	709	0	650	20	0
41	2j	714	0	672	32	0
42	1k	829	0	825	12	0
42	2k	833	0	836	21	0
43	1l	932	0	981	17	0
43	2l	932	0	981	27	0
44	1m	958	0	1002	21	0
44	2m	950	0	988	55	0
45	1n	492	0	529	21	0
45	2n	492	0	529	36	0
46	1o	728	0	760	17	0
46	2o	728	0	760	18	0
47	1p	681	0	697	27	0
47	2p	677	0	686	25	0
48	1q	823	0	891	28	0
48	2q	823	0	891	26	0
49	1r	555	0	618	21	0
49	2r	555	0	618	16	0
50	1s	652	0	662	21	0
50	2s	646	0	644	42	0
51	1t	728	0	798	20	0
51	2t	727	0	796	15	0
52	1u	199	0	208	9	0
52	2u	199	0	208	10	0
53	1v	277	0	140	2	0
53	2v	277	0	140	3	0
54	1w	1592	0	819	36	0
54	1y	1585	0	804	40	0
54	2w	1544	0	788	32	0
54	2y	1565	0	795	47	0
55	1x	1625	0	829	13	0
55	2x	1625	0	829	24	0
56	10	2	0	0	0	0
56	12	1	0	0	0	0
56	13	1	0	0	0	0
56	15	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	17	3	0	0	0	0
56	18	3	0	0	0	0
56	19	3	0	0	0	0
56	1A	935	0	0	0	0
56	1B	32	0	0	0	0
56	1D	6	0	0	0	0
56	1E	3	0	0	0	0
56	1F	6	0	0	0	0
56	1G	2	0	0	0	0
56	1N	5	0	0	0	0
56	1O	1	0	0	0	0
56	1P	3	0	0	0	0
56	1Q	3	0	0	0	0
56	1R	3	0	0	0	0
56	1T	1	0	0	0	0
56	1U	1	0	0	0	0
56	1V	3	0	0	0	0
56	1W	4	0	0	0	0
56	1X	1	0	0	0	0
56	1a	312	0	0	0	0
56	1b	1	0	0	0	0
56	1d	2	0	0	0	0
56	1e	5	0	0	0	0
56	1f	3	0	0	0	0
56	1k	1	0	0	0	0
56	1l	4	0	0	0	0
56	1m	2	0	0	0	0
56	1o	2	0	0	0	0
56	1p	3	0	0	0	0
56	1q	1	0	0	0	0
56	1r	1	0	0	0	0
56	1v	1	0	0	0	0
56	1w	2	0	0	0	0
56	1x	16	0	0	0	0
56	1y	1	0	0	0	0
56	20	1	0	0	0	0
56	21	1	0	0	0	0
56	25	1	0	0	0	0
56	28	1	0	0	0	0
56	2A	575	0	0	0	0
56	2B	15	0	0	0	0
56	2D	6	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	2E	3	0	0	0	0
56	2F	4	0	0	0	0
56	2G	1	0	0	0	0
56	2O	1	0	0	0	0
56	2P	1	0	0	0	0
56	2Q	3	0	0	0	0
56	2R	1	0	0	0	0
56	2T	1	0	0	0	0
56	2W	2	0	0	0	0
56	2Y	1	0	0	0	0
56	2a	310	0	0	0	0
56	2b	1	0	0	0	0
56	2d	1	0	0	0	0
56	2e	1	0	0	0	0
56	2g	2	0	0	0	0
56	2m	1	0	0	0	0
56	2q	1	0	0	0	0
56	2t	2	0	0	0	0
56	2v	3	0	0	0	0
56	2w	2	0	0	0	0
56	2x	9	0	0	0	0
57	1A	80	0	86	6	0
57	1O	40	0	43	1	0
57	1a	80	0	86	7	0
57	2A	40	0	43	4	0
57	2O	40	0	43	1	0
57	2a	40	0	43	3	0
58	14	1	0	0	0	0
58	15	1	0	0	0	0
58	16	1	0	0	0	0
58	19	1	0	0	0	0
58	1Y	1	0	0	0	0
58	1n	1	0	0	0	0
58	24	1	0	0	0	0
58	25	1	0	0	0	0
58	26	1	0	0	0	0
58	29	1	0	0	0	0
58	2Y	1	0	0	0	0
58	2n	1	0	0	0	0
59	1d	8	0	0	2	0
59	2d	8	0	0	1	0
60	10	2	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	11	2	0	0	0	0
60	12	4	0	0	0	0
60	13	1	0	0	0	0
60	14	1	0	0	1	0
60	15	2	0	0	0	0
60	16	4	0	0	1	0
60	17	2	0	0	0	0
60	18	5	0	0	0	0
60	19	2	0	0	0	0
60	1A	1124	0	0	54	0
60	1B	13	0	0	0	0
60	1D	17	0	0	0	0
60	1E	10	0	0	2	0
60	1F	10	0	0	0	0
60	1G	2	0	0	0	0
60	1H	4	0	0	3	0
60	1N	2	0	0	0	0
60	1O	4	0	0	0	0
60	1P	8	0	0	2	0
60	1Q	3	0	0	0	0
60	1R	8	0	0	1	0
60	1S	2	0	0	0	0
60	1T	6	0	0	4	0
60	1U	3	0	0	0	0
60	1V	3	0	0	0	0
60	1W	8	0	0	2	0
60	1X	4	0	0	0	0
60	1Y	2	0	0	1	0
60	1Z	2	0	0	0	0
60	1a	298	0	0	13	0
60	1d	2	0	0	0	0
60	1e	2	0	0	0	0
60	1f	3	0	0	0	0
60	1h	1	0	0	1	0
60	1i	2	0	0	0	0
60	1k	1	0	0	0	0
60	1l	3	0	0	0	0
60	1n	1	0	0	0	0
60	1o	1	0	0	0	0
60	1p	2	0	0	1	0
60	1s	1	0	0	0	0
60	1w	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	1x	14	0	0	0	0
60	1y	2	0	0	0	0
60	20	3	0	0	0	0
60	21	3	0	0	0	0
60	25	1	0	0	0	0
60	27	2	0	0	0	0
60	28	1	0	0	0	0
60	29	1	0	0	0	0
60	2A	367	0	0	27	0
60	2B	22	0	0	3	0
60	2D	7	0	0	2	0
60	2E	4	0	0	1	0
60	2F	3	0	0	0	0
60	2O	2	0	0	0	0
60	2P	5	0	0	0	0
60	2U	1	0	0	0	0
60	2W	2	0	0	0	0
60	2X	1	0	0	0	0
60	2Y	1	0	0	0	0
60	2a	273	0	0	25	0
60	2d	3	0	0	0	0
60	2e	2	0	0	0	0
60	2h	1	0	0	0	0
60	2i	2	0	0	0	0
60	2l	2	0	0	0	0
60	2m	1	0	0	0	0
60	2n	1	0	0	1	0
60	2o	2	0	0	0	0
60	2p	1	0	0	0	0
60	2q	1	0	0	0	0
60	2s	1	0	0	1	0
60	2t	6	0	0	0	0
60	2v	1	0	0	0	0
60	2w	1	0	0	0	0
60	2x	8	0	0	0	0
All	All	297993	0	197024	5143	0

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 11.

All (5143) 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)
1:1A:1128:U:H3	1:1A:1132:A:N6	1.41	1.18
1:2A:2138:C:N4	1:2A:2153:G:H1	1.48	1.10
1:1A:1128:U:O4	1:1A:1132:A:N1	1.87	1.07
33:1b:16:HIS:HB2	33:1b:204:ASN:HB3	1.40	1.03
1:2A:2136:C:N4	1:2A:2155:G:H1	1.58	1.01
32:2a:1002:G:H1	32:2a:1038:C:N4	1.59	0.98
54:2w:19:G:H1	54:2w:56:C:H42	1.08	0.98
32:2a:1133:G:H1	32:2a:1141:C:H42	1.11	0.96
1:1A:1099:C:H42	1:1A:1152:G:H1	1.12	0.95
32:2a:1025:U:H3	32:2a:1036:G:H1	1.03	0.95
54:2y:5:G:H1	54:2y:68:C:H42	1.01	0.95
1:1A:1100:A:H61	1:1A:1151:U:H3	1.13	0.94
32:2a:1244:C:H42	32:2a:1293:G:H1	1.05	0.94
32:2a:997:U:H3	32:2a:1044:A:H61	1.12	0.94
1:1A:2160:C:H42	1:1A:2175:G:H1	1.06	0.93
1:1A:929:G:H1	1:1A:940:C:H42	1.17	0.93
54:2y:55:PSU:HN1	54:2y:57:G:H5''	1.31	0.92
32:1a:559:A:H4'	32:1a:560:U:H3'	1.50	0.92
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.02	0.91
32:2a:997:U:H3	32:2a:1044:A:N6	1.68	0.91
1:1A:2160:C:N4	1:1A:2175:G:H1	1.68	0.90
32:2a:559:A:H4'	32:2a:560:U:H3'	1.51	0.90
32:1a:1381:U:H1'	38:1g:79:ARG:HG2	1.53	0.90
54:2y:50:U:H3	54:2y:64:A:H61	1.17	0.90
54:2y:15:G:H22	54:2y:48:C:H42	1.16	0.90
32:2a:953:G:H5'	32:2a:965:A:H61	1.36	0.90
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.06	0.89
2:2B:7:G:H21	14:2S:38:GLN:HE22	1.20	0.88
26:24:40:HIS:HB3	26:24:43:TYR:HB2	1.54	0.88
11:2P:90:ARG:HH12	11:2P:105:LEU:HD11	1.36	0.88
1:1A:2157:A:H5'	1:1A:2182:G:H4'	1.54	0.88
9:2N:123:TYR:HH	9:2N:130:HIS:HE2	1.08	0.87
1:2A:2138:C:N3	1:2A:2153:G:N2	2.21	0.86
11:1P:52:GLU:OE1	11:1P:55:ARG:NH1	2.08	0.86
6:1G:73:ALA:HB3	6:1G:85:GLY:H	1.40	0.86
10:2O:48:PRO:HB3	32:2a:1422:G:H5''	1.56	0.85
42:2k:51:LYS:HA	42:2k:55:LYS:HE3	1.58	0.85
54:2y:5:G:H1	54:2y:68:C:N4	1.74	0.85
54:1w:7:A:H61	54:1w:66:U:H3	1.25	0.85
1:1A:1310:G:OP1	27:15:19:ARG:NH2	2.10	0.84
1:2A:2136:C:N3	1:2A:2155:G:N2	2.26	0.84
32:2a:1002:G:H1	32:2a:1038:C:H42	0.89	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1689:A:H62	1:2A:1698:A:H2	1.26	0.84
4:1E:105:THR:OG1	4:1E:199:ARG:NH2	2.10	0.84
32:2a:148:G:H2'	32:2a:149:A:H8	1.42	0.83
32:2a:677:U:H3	32:2a:713:G:H22	1.23	0.83
54:2w:19:G:N2	54:2w:56:C:N3	2.25	0.83
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.60	0.83
29:27:34:ARG:HH21	29:27:39:ARG:HG2	1.41	0.83
32:2a:1244:C:N4	32:2a:1293:G:H1	1.74	0.83
1:1A:2695:C:O2	10:1O:70:LYS:NZ	2.12	0.83
1:2A:2129:C:H42	1:2A:2159:G:H1	1.20	0.82
40:2i:28:VAL:HG22	40:2i:63:ILE:HB	1.61	0.82
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.59	0.82
33:2b:16:HIS:HB2	33:2b:204:ASN:HB3	1.58	0.82
25:13:10:LYS:NZ	25:13:15:TYR:OH	2.12	0.82
1:2A:299:A:H5''	20:2Y:86:ARG:HH21	1.44	0.82
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.15	0.82
1:1A:1100:A:N6	1:1A:1151:U:H3	1.78	0.81
32:1a:1009:G:O6	32:1a:1020:U:O2	1.98	0.81
32:2a:1128:C:O2	32:2a:1147:C:N4	2.14	0.81
49:2r:32:ARG:HA	49:2r:69:THR:HG21	1.62	0.81
1:1A:2587:C:OP2	60:1A:4007:HOH:O	1.98	0.81
3:2D:125:ILE:HB	37:2f:81:ILE:HD11	1.63	0.81
1:2A:2308:G:O6	1:2A:2311:A:N6	2.13	0.81
32:2a:1182:G:H4'	32:2a:1183:A:H5''	1.63	0.81
54:2w:36:A:H2'	54:2w:37:MIA:H8	1.61	0.81
36:1e:78:HIS:HE1	36:1e:143:ARG:H	1.28	0.81
12:2Q:111:GLU:OE2	12:2Q:133:ARG:NH2	2.14	0.81
32:1a:975:A:H4'	32:1a:976:G:H5''	1.61	0.81
32:2a:1029:C:C4	32:2a:1032:G:N1	2.48	0.81
32:1a:559:A:OP1	36:1e:126:ARG:NH2	2.14	0.81
1:2A:2099:U:H3	1:2A:2190:G:H1	1.26	0.81
1:2A:2136:C:N4	1:2A:2155:G:N1	2.29	0.80
32:1a:664:G:H22	32:1a:741:G:H1	1.28	0.80
1:1A:1098:C:N4	60:1A:4018:HOH:O	2.14	0.80
16:1U:97:ASP:OD1	16:1U:101:ARG:NH1	2.14	0.80
40:2i:9:ARG:HG2	40:2i:14:VAL:HG12	1.63	0.80
1:1A:1111:U:O2	1:1A:1119:A:N6	2.15	0.80
32:2a:1133:G:H1	32:2a:1141:C:N4	1.79	0.80
1:2A:1798:U:H5'	3:2D:259:THR:HG22	1.65	0.79
4:1E:28:ALA:HB3	4:1E:93:VAL:HG12	1.64	0.79
1:2A:125:G:H5''	29:27:19:ARG:HD3	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:2l:57:LYS:HG2	43:2l:67:THR:HG22	1.63	0.79
44:2m:33:ALA:HB1	44:2m:56:LEU:HD11	1.63	0.79
4:1E:167:VAL:HG22	4:1E:170:LEU:HD11	1.64	0.79
1:2A:1815:A:OP2	3:2D:54:ARG:NH2	2.16	0.79
54:2w:19:G:H1	54:2w:56:C:N4	1.81	0.79
20:1Y:92:ASN:HB3	20:1Y:94:LYS:H	1.48	0.79
54:1w:51:U:H3	54:1w:63:G:H1	1.29	0.79
44:2m:34:LEU:HD13	44:2m:41:PRO:HB3	1.65	0.79
7:1H:3:ARG:HH11	7:1H:4:ILE:H	1.30	0.78
2:2B:7:G:H1	2:2B:114:C:H42	1.30	0.78
17:2V:72:VAL:HG13	17:2V:85:LYS:HB2	1.65	0.78
37:2f:67:MET:HE1	37:2f:75:LEU:HD22	1.63	0.78
50:1s:27:GLU:HB2	50:1s:28:LYS:HA	1.66	0.78
1:2A:1153:C:OP1	16:2U:92:ARG:NH2	2.17	0.78
32:2a:363:A:OP2	43:2l:34:ARG:NH1	2.16	0.78
1:1A:2180:A:O2'	1:1A:2181:G:OP2	2.02	0.78
12:2Q:10:ARG:HH22	55:2x:64:G:H4'	1.47	0.78
32:2a:1316:G:H22	32:2a:1319:A:H5''	1.48	0.78
1:1A:1370:G:O6	60:1A:4008:HOH:O	2.02	0.78
22:20:10:THR:HG22	22:20:12:ASN:H	1.48	0.78
54:2y:18:G:N2	54:2y:55:PSU:N3	2.26	0.78
2:2B:103:G:H21	21:2Z:73:GLN:HE22	1.31	0.77
32:2a:1360:A:OP2	45:2n:35:ARG:NH2	2.17	0.77
32:1a:1518:MA6:N6	32:1a:1519:MA6:H103	2.00	0.77
15:1T:16:ARG:HH21	15:1T:19:LEU:HD21	1.50	0.77
4:1E:59:VAL:HG21	4:1E:74:PRO:HB3	1.64	0.77
1:2A:2808:U:O2	1:2A:2892:A:N6	2.18	0.77
54:2y:15:G:H22	54:2y:48:C:N4	1.83	0.77
32:1a:1002:G:H3'	32:1a:1003:G:H4'	1.66	0.77
2:2B:22:U:H3	2:2B:61:G:H1	1.32	0.77
16:2U:66:ASN:HD21	16:2U:70:ARG:HH21	1.33	0.77
1:1A:1099:C:N4	1:1A:1152:G:H1	1.83	0.77
32:1a:1027:C:C2	32:1a:1034:G:N2	2.52	0.77
5:1F:108:LYS:HG2	5:1F:112:MET:HE2	1.67	0.76
36:1e:74:GLY:HA3	36:1e:116:THR:HG22	1.67	0.76
32:2a:8:A:H5'	36:2e:101:ILE:HG22	1.67	0.76
32:1a:877:C:OP1	39:1h:88:LYS:NZ	2.18	0.76
32:2a:975:A:H4'	32:2a:976:G:H5''	1.65	0.76
32:1a:1196:U:H3	34:1c:162:GLN:HE22	1.33	0.76
32:1a:584:G:H5'	48:1q:91:ARG:HH22	1.49	0.76
10:1O:97:ARG:NH1	32:1a:339:C:OP2	2.17	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1226:C:O2'	44:2m:111:LYS:NZ	2.15	0.76
35:2d:57:ARG:HD3	35:2d:205:GLU:HB3	1.66	0.76
54:2y:10:G:H1	54:2y:25:C:H42	1.30	0.76
1:1A:2702:C:OP1	13:1R:17:ARG:NH2	2.19	0.76
1:1A:2158:C:N3	1:1A:2177:G:N2	2.34	0.76
54:1y:50:U:O4	54:1y:64:A:N1	2.19	0.76
1:2A:1920:4OC:HM22	1:2A:1921:G:H5'	1.66	0.76
1:1A:542:C:OP1	27:15:16:ARG:NH2	2.18	0.75
1:1A:2149:G:H1	1:1A:2183:C:H42	1.32	0.75
2:2B:20:C:H42	2:2B:63:G:H1	1.29	0.75
32:2a:1227:A:OP1	50:2s:80:TYR:OH	2.03	0.75
1:1A:638:U:O5'	57:1A:3937:AKN:O33	2.05	0.75
39:1h:10:LEU:HD22	39:1h:83:ILE:HD11	1.69	0.75
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.67	0.75
33:2b:174:VAL:HG13	33:2b:184:VAL:HG11	1.68	0.75
46:2o:25:THR:HG21	46:2o:70:LEU:HB2	1.67	0.75
1:2A:2032:G:N7	60:2A:3618:HOH:O	2.19	0.75
1:2A:2127:G:N2	1:2A:2161:C:C2	2.54	0.75
8:2I:93:THR:H	8:2I:96:ASP:HB2	1.50	0.75
32:2a:983:A:N1	32:2a:1222:G:N2	2.34	0.75
18:1W:92:ARG:NH2	60:1W:301:HOH:O	2.18	0.75
6:2G:38:VAL:HG22	6:2G:93:THR:HG23	1.69	0.75
15:2T:119:LYS:HG2	15:2T:123:GLN:HE21	1.51	0.75
32:2a:1314:C:N4	50:2s:2:PRO:O	2.19	0.75
32:2a:1026:G:O6	32:2a:1036:G:N2	2.20	0.75
2:1B:48:A:H4'	14:1S:95:HIS:HD2	1.50	0.74
7:1H:3:ARG:NH1	7:1H:4:ILE:H	1.85	0.74
1:2A:2784:C:H1'	4:2E:37:ARG:HH12	1.52	0.74
1:2A:2114:A:H62	1:2A:2115:G:H21	1.35	0.74
1:2A:2129:C:N4	1:2A:2159:G:H1	1.85	0.74
12:2Q:1:MET:SD	12:2Q:1:MET:N	2.59	0.74
1:1A:1151:U:H2'	1:1A:1152:G:H8	1.50	0.74
3:1D:37:LEU:HD13	3:1D:62:TYR:HB2	1.69	0.74
44:1m:78:ILE:HG22	44:1m:82:MET:HE2	1.69	0.74
1:2A:2807:G:N1	1:2A:2893:G:O6	2.19	0.74
32:2a:1086:U:H3	32:2a:1099:G:H22	1.32	0.74
1:1A:656:A:OP1	11:1P:65:ARG:NH1	2.20	0.74
32:2a:737:A:H1'	37:2f:73:ASN:HD21	1.53	0.74
37:2f:37:VAL:HA	37:2f:65:VAL:HG12	1.70	0.74
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.70	0.74
1:2A:1015:G:H2'	1:2A:1016:G:H8	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1530:C:O2'	1:2A:1531:C:O5'	2.05	0.73
54:2y:15:G:N2	54:2y:48:C:H42	1.86	0.73
1:1A:1378:G:OP1	60:1A:4009:HOH:O	2.05	0.73
38:1g:50:ILE:HD13	38:1g:125:MET:HG2	1.69	0.73
54:2y:50:U:H3	54:2y:64:A:N6	1.86	0.73
12:1Q:111:GLU:OE2	12:1Q:133:ARG:NH2	2.21	0.73
21:2Z:69:THR:HG22	21:2Z:90:VAL:HA	1.71	0.73
1:1A:2185:C:OP1	1:1A:2187:G:N2	2.21	0.73
1:2A:2036:C:OP1	60:2A:3604:HOH:O	2.06	0.73
1:1A:2772:G:N7	60:1A:4029:HOH:O	2.21	0.73
32:2a:460:G:N2	60:2a:2011:HOH:O	2.20	0.73
35:2d:98:GLU:OE1	35:2d:103:ASN:ND2	2.21	0.73
1:1A:1140:U:H1'	1:1A:1143:U:H5	1.54	0.73
11:1P:59:LEU:HD21	30:18:10:ALA:HA	1.70	0.73
1:1A:2158:C:N4	1:1A:2177:G:N1	2.36	0.73
32:1a:547:A:OP1	60:1a:2004:HOH:O	2.07	0.73
1:2A:1019:U:H3	1:2A:1142(A):A:H62	1.35	0.73
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.54	0.73
38:2g:126:ASP:HB3	38:2g:131:LYS:HB2	1.69	0.73
20:1Y:11:ASP:OD1	20:1Y:11:ASP:N	2.20	0.73
9:2N:42:TRP:HA	9:2N:48:MET:HE1	1.71	0.73
51:2t:10:LEU:HG	51:2t:12:ALA:H	1.54	0.73
32:1a:822:C:OP2	60:1a:2003:HOH:O	2.05	0.73
1:2A:82:G:N1	1:2A:103:A:OP2	2.21	0.73
40:2i:16:ARG:HB2	40:2i:64:THR:HG22	1.70	0.73
7:1H:33:LEU:HD21	7:1H:136:ILE:HG13	1.71	0.72
44:2m:3:ARG:HG2	44:2m:9:ILE:H	1.51	0.72
44:2m:31:LYS:HA	44:2m:34:LEU:HD12	1.69	0.72
1:1A:1016:C:OP2	60:1A:4011:HOH:O	2.07	0.72
32:2a:1128:C:H1'	32:2a:1147:C:H42	1.54	0.72
1:2A:2303:G:O2'	6:2G:132:ASN:ND2	2.21	0.72
48:2q:45:HIS:HB3	48:2q:72:ARG:HG2	1.70	0.72
32:1a:1021:G:O2'	32:1a:1022:G:O5'	2.06	0.72
1:1A:2121:U:H3	1:1A:2212:G:H1	1.37	0.72
1:1A:2331:G:N7	60:1A:4031:HOH:O	2.21	0.72
22:10:11:ARG:O	22:10:14:ARG:NH2	2.23	0.72
1:1A:2034:G:OP1	18:1W:11:ARG:NH2	2.22	0.72
33:1b:91:PRO:HG2	33:1b:155:LEU:HD13	1.72	0.72
32:2a:357:G:O6	60:2a:2005:HOH:O	2.06	0.72
41:2j:47:PHE:N	41:2j:63:PHE:O	2.19	0.72
1:1A:927:G:H2'	1:1A:928:G:H8	1.53	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2227:G:H3'	1:1A:2228:G:C8	2.24	0.72
32:2a:656:C:O2'	46:2o:28:GLN:NE2	2.23	0.72
1:2A:854:G:H2'	1:2A:855:G:H8	1.53	0.72
2:2B:55:U:OP2	60:2B:301:HOH:O	2.08	0.72
38:2g:57:GLU:HG3	38:2g:60:LYS:H	1.54	0.72
40:1i:128:ARG:NH2	55:1x:33:U:OP2	2.23	0.72
1:2A:731:C:OP1	60:2A:3605:HOH:O	2.07	0.72
32:2a:673:G:H2'	32:2a:674:G:C8	2.24	0.72
34:2c:54:ARG:H	34:2c:69:HIS:HB2	1.53	0.72
44:2m:13:LYS:HA	44:2m:44:ARG:HH11	1.54	0.72
13:1R:20:LEU:HD21	13:1R:40:LYS:HD3	1.72	0.71
5:2F:103:LYS:HA	5:2F:106:ARG:HG3	1.70	0.71
40:1i:23:ASN:HB2	40:1i:25:LYS:HD3	1.72	0.71
1:2A:949:C:N4	60:2A:3628:HOH:O	2.23	0.71
1:2A:1434:A:H61	1:2A:1558:A:H62	1.38	0.71
1:1A:63:A:OP1	60:1A:4010:HOH:O	2.07	0.71
33:2b:88:ALA:HB2	33:2b:219:VAL:HG13	1.71	0.71
54:2w:8:4SU:S4	54:2w:13:C:O2'	2.46	0.71
32:1a:980:C:OP1	60:1a:2006:HOH:O	2.08	0.71
10:2O:35:VAL:HG11	10:2O:103:ALA:HB3	1.72	0.71
1:1A:1829:U:OP2	3:1D:274:ARG:NH2	2.22	0.71
4:1E:119:ARG:HD2	4:1E:160:TYR:HB2	1.73	0.71
12:1Q:85:LYS:HD3	22:10:7:LEU:HD12	1.72	0.71
11:2P:39:LYS:HB2	11:2P:45:LEU:HG	1.71	0.71
35:2d:157:LEU:O	35:2d:161:ASN:ND2	2.24	0.71
1:2A:2268:A:OP1	60:2A:3606:HOH:O	2.08	0.71
22:20:27:GLU:HG3	22:20:68:GLU:HA	1.72	0.71
37:1f:97:PHE:HD2	49:1r:31:LEU:HD11	1.55	0.71
32:2a:999:C:N4	60:2a:2014:HOH:O	2.23	0.71
41:2j:40:LEU:HB2	41:2j:69:ASN:HB3	1.73	0.71
1:1A:2899:C:OP2	60:1A:4012:HOH:O	2.08	0.71
32:1a:1033:G:H2'	32:1a:1034:G:H8	1.55	0.71
32:1a:953:G:H5'	32:1a:965:A:H61	1.56	0.71
32:1a:1027:C:C4	32:1a:1034:G:C2	2.78	0.71
33:1b:187:LEU:HA	33:1b:201:ILE:HB	1.73	0.71
38:1g:27:ILE:HD13	38:1g:40:ALA:HA	1.71	0.71
9:2N:32:THR:HG23	9:2N:37:LYS:HB2	1.73	0.70
32:2a:630:G:N7	60:2a:2015:HOH:O	2.23	0.70
32:2a:1055:A:N7	32:2a:1200:C:N4	2.37	0.70
32:2a:1347:G:H22	32:2a:1373:G:H2'	1.55	0.70
1:2A:509:C:OP1	60:2A:3608:HOH:O	2.09	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:882:G:H2'	1:2A:883:G:H8	1.56	0.70
11:2P:50:ARG:HD3	30:28:7:HIS:CD2	2.26	0.70
14:2S:38:GLN:NE2	14:2S:47:THR:OG1	2.21	0.70
39:2h:9:MET:HG3	39:2h:26:VAL:HG11	1.71	0.70
1:1A:2122:G:H1	1:1A:2211:U:H3	1.39	0.70
25:13:39:ASP:OD1	25:13:44:ARG:NH1	2.23	0.70
32:1a:1129:C:OP1	40:1i:66:ARG:NH1	2.24	0.70
47:1p:51:VAL:HG12	47:1p:53:VAL:H	1.55	0.70
54:1w:51:U:H2'	54:1w:52:G:C8	2.27	0.70
1:2A:993:G:N2	17:2V:23:GLU:OE2	2.24	0.70
10:1O:24:VAL:HG12	10:1O:33:ALA:HB2	1.73	0.70
32:1a:1305:G:H22	32:1a:1331:G:H1'	1.56	0.70
39:1h:116:LYS:HD2	39:1h:127:LEU:HG	1.72	0.70
8:2I:43:ASN:ND2	23:21:75:GLU:OE2	2.24	0.70
33:2b:78:GLN:O	33:2b:94:ASN:ND2	2.24	0.70
1:1A:2405:A:H5''	11:1P:63:PRO:HB3	1.72	0.70
3:1D:108:PRO:HB3	3:1D:143:HIS:HE1	1.56	0.70
13:1R:63:ARG:NH1	60:1R:301:HOH:O	2.24	0.70
32:1a:407:G:H5''	35:1d:115:ARG:HG2	1.72	0.70
40:1i:50:LEU:HD13	40:1i:56:LEU:HA	1.73	0.70
12:2Q:141:GLN:NE2	21:2Z:74:VAL:O	2.24	0.70
1:1A:1093:G:H2'	1:1A:1156:G:H22	1.56	0.70
13:1R:33:ARG:NH1	13:1R:115:GLU:OE1	2.25	0.70
1:2A:2343:C:HO2'	1:2A:2373:G:HO2'	1.35	0.70
9:2N:128:HIS:O	9:2N:131:GLN:NE2	2.24	0.70
12:2Q:11:LYS:NZ	12:2Q:88:GLY:O	2.20	0.70
32:2a:1273:G:H3'	32:2a:1274:G:H8	1.57	0.70
1:2A:711:G:N2	1:2A:720:C:O2	2.19	0.70
1:2A:2285:C:OP2	28:26:6:ARG:NH1	2.24	0.70
26:14:16:CYS:HB3	26:14:20:ASN:HB3	1.73	0.70
33:1b:121:LEU:HD11	33:1b:130:ARG:HH22	1.57	0.70
1:2A:307:G:N1	1:2A:310:A:OP2	2.24	0.70
1:2A:1204:A:H2	1:2A:1241:A:H62	1.39	0.70
1:2A:1557:C:OP2	1:2A:1558:A:O2'	2.10	0.70
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	1.73	0.70
32:2a:1047:G:N7	60:2a:2016:HOH:O	2.23	0.70
1:1A:2757:G:N3	60:1A:4043:HOH:O	2.25	0.70
10:1O:35:VAL:HG11	10:1O:103:ALA:HB3	1.74	0.70
32:1a:376:G:H5''	47:1p:5:ARG:HG2	1.74	0.70
32:1a:998:G:H1	32:1a:1043:C:H42	1.40	0.70
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2413:G:H21	11:2P:70:GLN:HE22	1.39	0.70
1:1A:2817:G:N1	1:1A:2902:G:O6	2.19	0.69
18:1W:18:ARG:HG3	18:1W:76:VAL:HB	1.74	0.69
1:2A:604:G:OP1	60:2A:3607:HOH:O	2.08	0.69
1:2A:819:A:OP2	1:2A:1187:G:N2	2.20	0.69
1:1A:325:G:OP2	20:1Y:84:ARG:NH2	2.24	0.69
1:1A:1846:A:OP2	3:1D:54:ARG:NH2	2.25	0.69
1:1A:2376:C:OP1	22:10:55:ARG:NH1	2.24	0.69
38:2g:79:ARG:HD2	38:2g:80:VAL:H	1.57	0.69
1:1A:303:C:H42	1:1A:385:G:H1	1.38	0.69
51:1t:43:LEU:O	51:1t:47:GLY:N	2.16	0.69
1:2A:1224:C:O2	17:2V:85:LYS:NZ	2.25	0.69
34:2c:11:ARG:NH2	34:2c:177:THR:O	2.26	0.69
3:1D:108:PRO:HB3	3:1D:143:HIS:CE1	2.27	0.69
14:1S:25:ARG:NH1	14:1S:42:ASP:OD1	2.25	0.69
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.07	0.69
40:1i:26:VAL:HG13	40:1i:61:ALA:HB3	1.75	0.69
1:2A:2657:A:O3'	7:2H:160:LYS:NZ	2.25	0.69
8:2I:26:ALA:HA	8:2I:30:LEU:HB2	1.74	0.69
32:2a:1469:G:N7	60:2a:2019:HOH:O	2.24	0.69
1:1A:629:U:OP2	5:1F:104:LYS:NZ	2.23	0.69
1:1A:973:G:N7	60:1A:4042:HOH:O	2.24	0.69
8:1I:38:LEU:HG	8:1I:40:THR:HG22	1.74	0.69
1:2A:2393:A:H5''	11:2P:63:PRO:HB3	1.74	0.69
1:2A:2646:C:OP2	1:2A:2732:G:O2'	2.08	0.69
32:2a:1324:A:OP2	60:2a:2006:HOH:O	2.10	0.69
50:2s:19:VAL:O	50:2s:23:ASN:ND2	2.25	0.69
1:2A:848:G:H2'	1:2A:849:A:C8	2.27	0.69
2:2B:33:G:H5'	6:2G:2:PRO:HD3	1.73	0.69
18:1W:23:LEU:HD11	27:15:25:LEU:HB2	1.75	0.69
55:2x:40:C:H2'	55:2x:41:C:H6	1.58	0.69
1:1A:734:C:H5''	29:17:2:LYS:HE2	1.74	0.69
1:1A:1151:U:H2'	1:1A:1152:G:C8	2.28	0.69
6:1G:3:LEU:O	6:1G:8:LYS:NZ	2.23	0.69
24:12:9:GLN:HE22	24:12:56:GLN:HB3	1.57	0.69
32:1a:1110:A:OP2	60:1a:2007:HOH:O	2.11	0.69
54:1w:18:G:O2'	54:1w:57:G:N2	2.22	0.69
1:2A:89:G:H3'	1:2A:90:U:H5''	1.73	0.69
42:2k:99:GLN:HG2	42:2k:105:VAL:HG21	1.72	0.69
44:1m:65:LYS:HB2	44:1m:69:GLU:HG2	1.75	0.69
5:2F:101:LEU:O	5:2F:106:ARG:NH1	2.26	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:2q:66:SER:O	48:2q:70:ARG:NH1	2.26	0.69
54:1w:7:A:N6	54:1w:66:U:H3	1.90	0.69
32:2a:1002:G:N2	32:2a:1038:C:N3	2.34	0.69
34:2c:34:LEU:HD11	34:2c:38:ARG:HH21	1.57	0.69
1:2A:900:A:O2'	1:2A:901:A:OP1	2.12	0.68
1:2A:2252:G:N3	57:2A:3576:AKN:N37	2.41	0.68
10:2O:104:ARG:NH2	15:2T:36:GLU:OE2	2.25	0.68
1:2A:1314:C:OP1	60:2A:3609:HOH:O	2.10	0.68
54:2y:10:G:H1	54:2y:25:C:N4	1.91	0.68
32:2a:513:C:N4	60:2a:2007:HOH:O	2.26	0.68
12:1Q:16:ARG:HG3	12:1Q:18:LYS:HG3	1.75	0.68
34:1c:6:HIS:HD2	34:1c:8:ILE:H	1.39	0.68
54:1y:7:A:O2'	54:1y:49:C:OP2	2.09	0.68
32:2a:1029:C:N3	32:2a:1032:G:N2	2.41	0.68
32:2a:1216:G:H5''	45:2n:5:ALA:HB2	1.74	0.68
32:2a:1316:G:N7	50:2s:7:LYS:NZ	2.41	0.68
3:1D:26:LYS:HB3	3:1D:83:GLU:HG2	1.75	0.68
51:1t:56:MET:HE3	51:1t:85:MET:HG2	1.75	0.68
1:2A:2317:C:N4	1:2A:2318:G:O6	2.27	0.68
1:2A:2820:A:OP2	13:2R:2:ARG:NH2	2.26	0.68
30:28:32:LEU:O	30:28:36:LYS:NZ	2.24	0.68
1:1A:441:C:H2'	1:1A:442:A:H8	1.59	0.68
1:1A:928:G:N2	1:1A:943:C:O2	2.26	0.68
32:2a:1030(A):G:N2	32:2a:1030(D):A:OP2	2.27	0.68
37:2f:30:LEU:HD23	37:2f:75:LEU:HD11	1.75	0.68
17:1V:76:LYS:HB2	17:1V:81:TYR:HB3	1.76	0.68
1:1A:1994:A:H2'	1:1A:1995:G:H8	1.58	0.68
13:1R:24:GLN:HE22	13:1R:36:THR:HG21	1.58	0.68
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.29	0.68
1:1A:1123:A:H2'	1:1A:1124:U:H4'	1.76	0.68
3:1D:125:ILE:HB	37:1f:81:ILE:HD11	1.75	0.68
36:1e:33:VAL:HG13	36:1e:112:LEU:HD12	1.74	0.68
48:1q:6:LEU:HD23	48:1q:23:VAL:HG21	1.75	0.68
1:2A:2012:G:OP1	18:2W:11:ARG:NH2	2.26	0.68
6:2G:122:PRO:HB3	6:2G:170:ARG:HH21	1.59	0.68
13:2R:33:ARG:NH2	27:25:57:VAL:O	2.20	0.68
1:1A:2143:G:H1	1:1A:2199:C:H42	1.39	0.67
1:2A:2014:A:H4'	18:2W:92:ARG:HH21	1.58	0.67
6:1G:5:VAL:HG11	6:1G:101:ILE:HG12	1.76	0.67
32:2a:559:A:OP1	36:2e:126:ARG:NH2	2.27	0.67
37:2f:91:VAL:HG11	49:2r:72:ARG:HH12	1.60	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2308:U:OP2	14:1S:9:ARG:NH2	2.27	0.67
12:2Q:65:PHE:HB2	12:2Q:105:GLU:HB2	1.74	0.67
32:2a:1320:C:N3	50:2s:36:ARG:NH2	2.41	0.67
50:2s:28:LYS:HB3	50:2s:29:ARG:CB	2.25	0.67
1:1A:2328:C:O2'	6:1G:128:ARG:NH2	2.27	0.67
32:1a:1442(B):A:OP2	60:1a:2008:HOH:O	2.12	0.67
38:1g:78:ARG:HG2	38:1g:79:ARG:H	1.59	0.67
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.29	0.67
9:2N:97:ARG:HA	9:2N:100:GLU:HB2	1.76	0.67
32:2a:79:G:H1	32:2a:90:U:H3	1.41	0.67
32:2a:1402:4OC:HM22	32:2a:1403:C:H5'	1.74	0.67
34:2c:9:GLY:HA3	45:2n:49:HIS:HA	1.77	0.67
1:1A:493:G:OP1	29:17:33:ARG:NH1	2.28	0.67
1:2A:987:G:O2'	1:2A:1000:A:N3	2.27	0.67
20:2Y:102:CYS:SG	20:2Y:103:GLY:N	2.67	0.67
1:1A:1417:G:O6	60:1A:4013:HOH:O	2.08	0.67
21:1Z:93:ASP:HB2	21:1Z:131:ARG:HH12	1.59	0.67
28:16:34:LEU:H	28:16:51:GLU:HG2	1.60	0.67
31:19:16:VAL:HG22	31:19:25:VAL:HG22	1.75	0.67
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	1.75	0.67
32:2a:28:G:O2'	32:2a:296:U:OP1	2.12	0.67
41:2j:8:LEU:HB2	41:2j:96:ILE:HG12	1.77	0.67
1:2A:2127:G:N1	1:2A:2161:C:C4	2.63	0.67
1:1A:2272:C:OP1	60:1A:4016:HOH:O	2.12	0.67
1:1A:2451:A:OP1	60:1A:4015:HOH:O	2.12	0.67
35:1d:15:GLU:OE2	35:1d:66:ARG:NH1	2.28	0.67
3:2D:69:ARG:HE	3:2D:130:ALA:HB2	1.58	0.67
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.77	0.67
21:2Z:154:ASP:N	21:2Z:154:ASP:OD1	2.26	0.67
32:2a:64:G:H4'	32:2a:65:U:H3'	1.76	0.67
32:2a:1320:C:H42	50:2s:36:ARG:HE	1.43	0.67
35:1d:178:VAL:O	35:1d:180:GLY:N	2.28	0.67
32:2a:1347:G:N2	32:2a:1373:G:H2'	2.10	0.67
5:1F:155:LEU:HB2	5:1F:189:THR:HG21	1.76	0.66
32:1a:356:A:N3	32:1a:368:U:O2'	2.27	0.66
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.31	0.66
2:2B:4:C:H42	2:2B:117:G:H1	1.43	0.66
4:2E:28:ALA:HB3	4:2E:93:VAL:HG12	1.77	0.66
4:2E:179:GLU:HG3	15:2T:9:LEU:HD21	1.77	0.66
8:2I:116:LEU:HD21	8:2I:119:PRO:HA	1.77	0.66
33:2b:30:ARG:HH21	33:2b:194:PRO:HB2	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1G:101:ILE:HD13	26:14:25:TYR:HB2	1.76	0.66
34:1c:124:ILE:HD12	34:1c:196:LEU:HD12	1.76	0.66
1:2A:2313:C:H4'	6:2G:91:ARG:HG3	1.77	0.66
32:2a:1029:C:N4	32:2a:1032:G:N1	2.43	0.66
39:2h:29:SER:HB3	39:2h:32:LYS:HG3	1.78	0.66
1:1A:554:A:H62	1:1A:2063:U:H3	1.40	0.66
2:1B:75:G:H22	21:1Z:73:GLN:HE22	1.44	0.66
21:1Z:129:SER:HB3	21:1Z:132:ASN:HD21	1.60	0.66
35:1d:79:PHE:HE1	35:1d:204:ILE:HD13	1.59	0.66
32:2a:975:A:N1	41:2j:48:THR:HB	2.11	0.66
36:1e:142:LEU:O	36:1e:143:ARG:NH1	2.27	0.66
1:2A:2394:C:OP2	30:28:30:ARG:NH1	2.28	0.66
34:2c:6:HIS:HD2	34:2c:8:ILE:H	1.41	0.66
32:1a:1346:A:OP1	40:1i:120:ARG:NH1	2.16	0.66
32:2a:1119:C:H2'	32:2a:1120:G:C8	2.31	0.66
32:2a:1239:A:H4'	32:2a:1240:U:H5'	1.78	0.66
1:1A:137:G:N7	60:1A:4054:HOH:O	2.27	0.66
1:1A:1360:C:OP1	60:1A:4009:HOH:O	2.13	0.66
20:1Y:54:LYS:HA	20:1Y:56:PRO:HD3	1.76	0.66
1:2A:1021:A:H62	1:2A:1141:U:H3	1.42	0.66
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.30	0.66
1:2A:2141:G:H2'	1:2A:2142:C:O4'	1.96	0.66
1:2A:2364:C:OP1	22:20:55:ARG:NH1	2.28	0.66
1:2A:1721:G:N2	60:2A:3634:HOH:O	2.28	0.66
55:1x:19:G:H4'	55:1x:20:U:OP2	1.96	0.66
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.57	0.66
32:2a:631:G:H2'	32:2a:632:A:H8	1.59	0.66
54:2y:55:PSU:N1	54:2y:57:G:H5''	2.08	0.66
1:1A:1047:A:OP2	60:1A:4017:HOH:O	2.13	0.66
46:1o:25:THR:HG21	46:1o:70:LEU:HB2	1.78	0.66
1:2A:692:C:O2'	3:2D:38:LYS:NZ	2.29	0.66
1:2A:2734:A:OP2	60:2A:3610:HOH:O	2.14	0.66
41:1j:38:ILE:HG13	41:1j:71:LEU:HB3	1.78	0.66
1:2A:882:G:H2'	1:2A:883:G:C8	2.31	0.66
1:1A:2153:G:H5''	1:1A:2154:U:H3'	1.78	0.65
7:1H:84:SER:OG	7:1H:132:ARG:NH1	2.29	0.65
32:2a:972:C:O2'	41:2j:55:LYS:O	2.13	0.65
1:1A:2856:G:N7	60:1A:4059:HOH:O	2.28	0.65
33:1b:134:GLU:HA	33:1b:137:ARG:HE	1.60	0.65
1:2A:1024:G:HO2'	1:2A:1144:G:HO2'	1.44	0.65
8:2I:78:THR:O	8:2I:104:GLN:NE2	2.26	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:664:G:H22	32:2a:741:G:H1	1.43	0.65
50:2s:41:VAL:HG12	50:2s:44:MET:HG3	1.77	0.65
35:1d:205:GLU:OE2	36:1e:107:ARG:NH1	2.29	0.65
40:1i:46:ALA:HB2	40:1i:74:ILE:HG23	1.77	0.65
1:2A:568:U:H5'	1:2A:945:A:N1	2.11	0.65
1:2A:652(D):C:H42	1:2A:652(U):G:H1	1.43	0.65
1:2A:2152:G:C2	1:2A:2153:G:H1'	2.31	0.65
32:2a:1160:G:OP1	33:2b:133:LYS:NZ	2.29	0.65
1:1A:625:G:O2'	1:1A:702:A:N6	2.28	0.65
32:1a:1027:C:N4	32:1a:1034:G:C6	2.64	0.65
38:1g:46:ALA:HA	38:1g:49:ILE:HD12	1.77	0.65
6:2G:96:ARG:H	6:2G:99:MET:HE2	1.61	0.65
44:2m:25:ILE:HD11	44:2m:66:LEU:HD13	1.78	0.65
1:1A:741:U:OP1	3:1D:59:LYS:NZ	2.29	0.65
5:1F:185:ASP:OD1	5:1F:188:ARG:NH1	2.26	0.65
32:1a:1080:A:OP2	60:1a:2009:HOH:O	2.14	0.65
1:2A:2689:U:OP2	1:2A:2719:G:N2	2.29	0.65
7:2H:43:VAL:HA	7:2H:52:VAL:HG22	1.79	0.65
20:2Y:13:VAL:HG12	20:2Y:74:PRO:HA	1.77	0.65
32:2a:1312:G:H5'	50:2s:5:LEU:HD11	1.77	0.65
1:1A:1776:G:N7	60:1A:4057:HOH:O	2.28	0.65
45:2n:32:SER:O	45:2n:32:SER:OG	2.13	0.65
1:1A:943:C:N3	1:1A:944:C:N4	2.45	0.65
32:1a:677:U:H3	32:1a:713:G:H22	1.45	0.65
54:1w:6:G:H1	54:1w:67:C:H42	1.43	0.65
43:2l:28:LYS:N	43:2l:29:GLY:HA2	2.11	0.65
1:1A:441:C:H2'	1:1A:442:A:C8	2.31	0.65
1:1A:2457:G:OP1	5:1F:74:ARG:NH2	2.29	0.65
17:1V:14:VAL:HB	17:1V:96:ILE:HG13	1.78	0.65
1:2A:1449:A:O2'	1:2A:1529:G:N2	2.28	0.65
32:2a:1228:C:OP1	44:2m:115:LYS:NZ	2.29	0.65
55:2x:7:G:H5''	55:2x:8:4SU:H5	1.78	0.65
47:1p:1:MET:N	60:1p:201:HOH:O	2.29	0.64
51:1t:9:ASN:O	51:1t:10:LEU:HB2	1.96	0.64
1:2A:1011:G:H1	1:2A:1150:C:H42	1.45	0.64
5:2F:167:ALA:HB1	5:2F:173:VAL:HG11	1.79	0.64
18:2W:18:ARG:HG3	18:2W:76:VAL:HB	1.78	0.64
43:1l:53:ARG:HB3	43:1l:69:TYR:HE1	1.60	0.64
1:2A:2138:C:H42	1:2A:2153:G:H1	0.72	0.64
1:2A:2379:G:O2'	14:2S:17:ARG:NH1	2.29	0.64
14:2S:67:ARG:HG2	14:2S:71:ARG:HD2	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1001:A:H2'	32:2a:1001(A):G:C8	2.33	0.64
1:1A:1219:A:H4'	1:1A:1220:U:OP1	1.96	0.64
21:1Z:138:GLU:HB2	21:1Z:156:LYS:HZ3	1.62	0.64
32:1a:1136:U:H5''	32:1a:1137:C:C4	2.31	0.64
34:1c:131:ARG:HH21	34:1c:135:LYS:HE3	1.62	0.64
44:1m:19:LEU:HD21	44:1m:56:LEU:HD21	1.80	0.64
1:2A:2632:A:HO2'	1:2A:2811:G:HO2'	1.41	0.64
14:2S:35:ILE:HG12	14:2S:101:LEU:HD12	1.80	0.64
33:2b:187:LEU:HA	33:2b:201:ILE:HB	1.79	0.64
39:2h:10:LEU:HD22	39:2h:83:ILE:HD11	1.78	0.64
1:1A:2160:C:N3	1:1A:2175:G:N2	2.41	0.64
3:1D:148:GLU:HB2	3:1D:151:LYS:HD2	1.77	0.64
24:12:22:GLU:OE2	24:12:68:ARG:NH2	2.30	0.64
32:1a:1002:G:H3'	32:1a:1003:G:C4'	2.27	0.64
54:1w:4:C:H2'	54:1w:5:G:H8	1.62	0.64
54:1w:51:U:H2'	54:1w:52:G:H8	1.61	0.64
54:1y:8:4SU:H4'	54:1y:48:C:H4'	1.80	0.64
2:2B:7:G:N2	14:2S:38:GLN:HE22	1.93	0.64
5:2F:155:LEU:HB2	5:2F:189:THR:HG21	1.79	0.64
32:2a:289:G:OP2	60:2a:2008:HOH:O	2.13	0.64
32:2a:1089:G:H1	32:2a:1096:C:H42	1.44	0.64
1:1A:232:U:OP1	30:18:6:THR:OG1	2.12	0.64
1:1A:2804:C:H2'	1:1A:2805:G:C8	2.33	0.64
21:1Z:150:LEU:HG	21:1Z:151:HIS:H	1.62	0.64
32:1a:510:A:OP2	35:1d:49:ARG:NH1	2.30	0.64
1:2A:918:A:O2'	2:2B:97:G:N2	2.29	0.64
33:2b:69:LEU:HB3	33:2b:162:ILE:HG22	1.79	0.64
46:2o:11:VAL:HG21	46:2o:34:LEU:HD22	1.78	0.64
32:2a:673:G:O3'	37:2f:87:ARG:NH2	2.31	0.64
26:14:44:THR:O	26:14:46:GLN:N	2.31	0.64
1:2A:1336:A:OP2	19:2X:64:LYS:NZ	2.25	0.64
21:2Z:77:ASP:OD2	21:2Z:80:ARG:NH1	2.31	0.64
32:2a:56:U:H2'	32:2a:57:G:C8	2.32	0.64
32:2a:653:A:O5'	39:2h:56:LYS:NZ	2.30	0.64
32:2a:1228:C:H2'	32:2a:1229:A:H8	1.62	0.64
54:2w:28:G:H2'	54:2w:29:G:O4'	1.98	0.64
1:1A:1653:C:N4	1:1A:1668:G:OP2	2.29	0.64
1:1A:2164:C:N3	1:1A:2171:G:O6	2.31	0.64
32:1a:688:G:H2'	32:1a:689:C:H6	1.63	0.64
1:2A:2345:G:H4'	1:2A:2346:A:H5''	1.78	0.64
7:2H:7:LEU:HD12	7:2H:8:PRO:HD2	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:21:51:VAL:HG11	23:21:74:VAL:HG21	1.78	0.64
32:2a:1318:A:O2'	50:2s:37:ARG:HB2	1.97	0.64
1:1A:638:U:H2'	57:1A:3937:AKN:H2	1.78	0.64
1:1A:2356:U:OP1	28:16:37:ARG:NH1	2.31	0.64
37:1f:37:VAL:HA	37:1f:65:VAL:HG12	1.80	0.64
1:2A:958:U:OP2	12:2Q:14:ARG:NH1	2.31	0.64
46:2o:16:ALA:HB1	46:2o:21:ASP:HB3	1.79	0.64
1:1A:2389:A:H2'	1:1A:2390:A:C8	2.33	0.64
1:1A:2804:C:H2'	1:1A:2805:G:H8	1.63	0.64
2:1B:105:A:OP1	21:1Z:72:ARG:NH1	2.31	0.64
1:2A:2789:C:O3'	60:2A:3611:HOH:O	2.15	0.64
7:2H:86:GLU:OE2	7:2H:132:ARG:NH2	2.30	0.64
33:1b:201:ILE:HG21	33:1b:214:ILE:HG21	1.78	0.63
34:1c:114:PRO:O	34:1c:118:GLN:NE2	2.31	0.63
43:1l:71:PRO:O	43:1l:102:ARG:NH1	2.30	0.63
32:2a:951:G:OP2	44:2m:102:ARG:NH1	2.30	0.63
54:2y:6:G:H1	54:2y:67:C:H42	1.44	0.63
1:1A:2149:G:H1	1:1A:2183:C:N4	1.96	0.63
1:1A:2291:G:N7	22:10:14:ARG:NH1	2.46	0.63
20:1Y:102:CYS:SG	20:1Y:103:GLY:N	2.69	0.63
26:14:16:CYS:SG	26:14:17:GLY:N	2.71	0.63
1:2A:143:G:H4'	19:2X:35:THR:HG21	1.80	0.63
1:2A:1812:A:O2'	60:2A:3612:HOH:O	2.15	0.63
54:2y:18:G:H22	54:2y:55:PSU:HN3	1.41	0.63
1:1A:1959:A:H1'	1:1A:1961:5MU:H72	1.80	0.63
1:1A:2801:C:OP1	4:1E:61:ARG:NH2	2.31	0.63
3:2D:108:PRO:HB3	3:2D:143:HIS:HE1	1.62	0.63
54:2y:67:C:H2'	54:2y:68:C:H6	1.63	0.63
7:1H:121:ILE:HG13	7:1H:144:VAL:HG21	1.81	0.63
50:1s:12:ASP:OD2	50:1s:35:SER:OG	2.13	0.63
32:2a:1009:G:H22	32:2a:1021:G:H1'	1.64	0.63
32:2a:1271:G:N2	32:2a:1272:G:N7	2.47	0.63
1:1A:596:G:O2'	1:1A:597:C:H3'	1.98	0.63
1:1A:2798:C:OP1	4:1E:41:LYS:NZ	2.25	0.63
32:1a:946:A:H2'	32:1a:947:G:C8	2.33	0.63
33:1b:195:ASP:O	39:1h:68:ARG:NH2	2.30	0.63
4:2E:36:ARG:HG2	4:2E:47:VAL:HG12	1.79	0.63
32:2a:815:A:N7	32:2a:1509:C:O2'	2.28	0.63
1:1A:560:C:O3'	16:1U:53:ARG:NH1	2.30	0.63
32:1a:667:G:H4'	46:1o:51:HIS:ND1	2.14	0.63
32:1a:673:G:H2'	32:1a:674:G:C8	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:57:HIS:HD2	12:2Q:117:ALA:HB2	1.64	0.63
32:2a:1286:A:H8	32:2a:1287:A:H4'	1.64	0.63
1:1A:931:C:H42	1:1A:938:G:H1	1.47	0.63
15:1T:51:ARG:NH1	60:1T:302:HOH:O	2.25	0.63
9:2N:38:HIS:NE2	9:2N:50:ASP:OD2	2.30	0.63
7:1H:164:TYR:HB2	7:1H:167:GLU:HB2	1.79	0.63
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.34	0.63
32:1a:1457:G:H5''	51:1t:35:THR:HG21	1.81	0.63
1:2A:307:G:H21	1:2A:330:A:H62	1.46	0.63
47:2p:51:VAL:HG12	47:2p:53:VAL:H	1.64	0.63
8:1I:77:LEU:HB3	8:1I:142:VAL:HG12	1.81	0.63
44:1m:17:VAL:O	44:1m:20:THR:OG1	2.16	0.63
1:2A:858:U:OP1	22:20:44:ARG:NH2	2.31	0.63
1:2A:1507:A:O2'	1:2A:1508:A:O5'	2.17	0.63
7:2H:144:VAL:O	7:2H:148:ILE:HG12	1.98	0.63
8:2I:3:VAL:HG12	8:2I:38:LEU:HA	1.81	0.63
1:1A:1085:G:H1	1:1A:1162:C:H42	1.47	0.62
13:1R:33:ARG:NH2	27:15:57:VAL:O	2.32	0.62
1:2A:1316:U:H2'	1:2A:1317:A:H8	1.64	0.62
20:2Y:30:VAL:HG22	20:2Y:37:VAL:HG12	1.80	0.62
32:2a:1240:U:N3	38:2g:30:ILE:O	2.30	0.62
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.14	0.62
41:2j:8:LEU:HD21	41:2j:20:ALA:HB2	1.81	0.62
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.33	0.62
1:2A:652(B):A:H61	1:2A:655:A:H1'	1.64	0.62
1:2A:878:A:H61	1:2A:899:A:H1'	1.64	0.62
1:2A:2127:G:C2	1:2A:2161:C:N3	2.67	0.62
33:2b:97:TRP:HH2	33:2b:102:LEU:HD13	1.63	0.62
5:2F:140:LEU:HD11	5:2F:170:LEU:HD11	1.80	0.62
40:2i:3:GLN:HG3	40:2i:20:ARG:HE	1.63	0.62
33:1b:16:HIS:HB3	33:1b:210:SER:HB2	1.81	0.62
55:1x:8:4SU:O5'	55:1x:8:4SU:H6	1.99	0.62
11:2P:50:ARG:HD3	30:28:7:HIS:HD2	1.63	0.62
21:2Z:33:LEU:HD21	21:2Z:90:VAL:HG21	1.80	0.62
21:2Z:45:ASP:O	21:2Z:49:ARG:HG2	1.98	0.62
21:2Z:75:ASN:O	21:2Z:84:GLU:N	2.21	0.62
2:1B:8:U:O3'	14:1S:25:ARG:NH2	2.33	0.62
8:1I:129:THR:HG22	8:1I:139:GLN:HE22	1.63	0.62
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.34	0.62
1:2A:674:G:H1'	5:2F:74:ARG:HD3	1.81	0.62
11:2P:38:GLN:HG2	11:2P:45:LEU:H	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:2Y:28:LYS:HB2	20:2Y:40:GLU:HG2	1.80	0.62
34:2c:131:ARG:HH21	34:2c:135:LYS:HE3	1.63	0.62
42:2k:22:HIS:HB3	42:2k:29:ILE:HB	1.80	0.62
11:1P:59:LEU:HD11	30:18:10:ALA:HB2	1.81	0.62
50:1s:43:GLU:OE1	50:1s:43:GLU:N	2.30	0.62
1:2A:2206:G:H5''	1:2A:2207:G:N7	2.13	0.62
54:2y:7:A:O2'	54:2y:49:C:O4'	2.16	0.62
1:1A:1108:G:H1	1:1A:1123:A:H61	1.48	0.62
1:1A:1300:A:N1	60:1A:4066:HOH:O	2.31	0.62
36:1e:68:GLU:HG3	36:1e:70:PRO:HD3	1.80	0.62
1:1A:1444:C:OP1	19:1X:53:LYS:NZ	2.30	0.62
7:1H:94:TYR:OH	7:1H:152:ARG:NH1	2.32	0.62
46:1o:74:ASP:CG	46:1o:77:ARG:HB2	2.25	0.62
1:2A:2050:C:H1'	4:2E:156:MET:HE2	1.81	0.62
3:2D:71:ASP:OD2	3:2D:103:ARG:NH2	2.32	0.62
21:2Z:93:ASP:HA	21:2Z:131:ARG:HH22	1.65	0.62
1:1A:1824:C:OP1	60:1A:4020:HOH:O	2.16	0.62
38:1g:79:ARG:HD2	38:1g:80:VAL:H	1.65	0.62
1:2A:212:G:H2'	1:2A:213:A:O4'	1.99	0.62
1:2A:831:G:O2'	11:2P:38:GLN:OE1	2.17	0.62
1:1A:2701:U:H4'	1:1A:2702:C:H5'	1.81	0.62
12:1Q:37:LEU:HD21	12:1Q:130:LYS:HE2	1.80	0.62
19:1X:57:LEU:HD11	19:1X:78:LYS:HE2	1.82	0.62
32:1a:1399:C:H4'	32:1a:1400:5MC:H5''	1.81	0.62
42:1k:85:ARG:HD3	42:1k:113:PRO:HD3	1.82	0.62
1:2A:1015:G:H2'	1:2A:1016:G:C8	2.33	0.62
1:2A:1652:A:OP1	13:2R:8:ARG:NH1	2.33	0.62
26:24:58:ARG:HD2	50:2s:68:GLY:H	1.64	0.62
32:2a:472:A:N7	60:2a:2011:HOH:O	2.31	0.62
32:2a:1214:C:O2'	60:2a:2009:HOH:O	2.14	0.62
1:1A:1102:G:H4'	1:1A:1132:A:H8	1.65	0.61
1:1A:1140:U:H1'	1:1A:1143:U:C5	2.33	0.61
1:1A:1159:U:H2'	1:1A:1160:G:C8	2.35	0.61
3:1D:85:ASP:OD2	3:1D:88:ARG:NH1	2.32	0.61
1:2A:635:C:O2'	1:2A:639:U:OP1	2.18	0.61
1:2A:2849:U:OP2	15:2T:95:ARG:NH1	2.33	0.61
5:2F:102:PRO:HB2	5:2F:105:VAL:HG23	1.81	0.61
32:2a:1274:G:N2	32:2a:1275:A:N7	2.42	0.61
34:2c:63:ASN:HA	34:2c:98:ASN:H	1.64	0.61
44:2m:33:ALA:O	44:2m:37:THR:OG1	2.17	0.61
48:2q:81:ARG:HB3	48:2q:84:LEU:HD12	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1636:C:H2'	1:2A:1637:A:C8	2.36	0.61
32:2a:426:G:OP1	35:2d:38:TYR:OH	2.11	0.61
1:1A:1087:C:N4	60:1A:4082:HOH:O	2.33	0.61
1:1A:1775:C:N4	60:1A:4057:HOH:O	2.32	0.61
7:1H:25:LYS:HG3	7:1H:34:GLU:HG2	1.82	0.61
32:1a:406:G:H2'	32:1a:407:G:H8	1.64	0.61
45:1n:23:ARG:NH1	45:1n:30:ALA:HB2	2.15	0.61
1:2A:784:A:H5'	1:2A:785:G:OP1	2.00	0.61
12:2Q:29:PHE:HB3	12:2Q:65:PHE:CD2	2.36	0.61
32:2a:390:C:O3'	47:2p:28:ARG:NH2	2.33	0.61
39:2h:20:TYR:HE2	39:2h:75:ARG:HD2	1.62	0.61
1:1A:2555:G:OP2	60:1A:4021:HOH:O	2.16	0.61
6:1G:131:TYR:HB3	6:1G:159:VAL:HG13	1.83	0.61
32:1a:1324:A:OP2	60:1a:2010:HOH:O	2.16	0.61
55:1x:61:C:H2'	55:1x:62:C:H6	1.65	0.61
1:2A:2340:G:H2'	1:2A:2341:G:H8	1.65	0.61
21:2Z:126:VAL:HG12	21:2Z:128:VAL:HB	1.82	0.61
32:2a:1286:A:C8	32:2a:1287:A:H4'	2.35	0.61
54:2w:19:G:N1	54:2w:56:C:N4	2.45	0.61
1:1A:555:G:N1	1:1A:2045:G:OP1	2.26	0.61
1:1A:798:A:H5'	18:1W:90:ARG:HA	1.82	0.61
8:1I:92:VAL:HG11	8:1I:144:VAL:HG11	1.81	0.61
1:2A:1379:A:H4'	1:2A:1380:G:OP2	1.98	0.61
1:2A:2171:A:N3	1:2A:2172:U:N3	2.48	0.61
1:2A:2375:G:O2'	1:2A:2377:A:N7	2.27	0.61
32:2a:1003:G:H2'	32:2a:1004:A:O4'	1.99	0.61
33:2b:87:ARG:NH2	33:2b:220:ASP:OD1	2.33	0.61
40:2i:4:TYR:O	40:2i:18:PHE:HA	2.01	0.61
36:1e:37:ARG:HH12	36:1e:111:GLU:HB3	1.65	0.61
1:2A:117:G:OP2	1:2A:119:A:O2'	2.17	0.61
1:2A:1316:U:H2'	1:2A:1317:A:C8	2.36	0.61
4:2E:47:VAL:HG11	4:2E:86:PRO:HD2	1.82	0.61
15:2T:39:ARG:NH2	32:2a:345:C:OP2	2.33	0.61
17:2V:40:LEU:HB2	17:2V:46:VAL:HG13	1.83	0.61
21:2Z:155:LEU:HB3	21:2Z:157:LEU:HG	1.83	0.61
41:2j:30:SER:O	41:2j:81:THR:OG1	2.19	0.61
1:1A:2340:A:H2'	1:1A:2341:G:C8	2.36	0.61
1:1A:2605:U:H2'	1:1A:2606:C:H6	1.66	0.61
32:1a:542:G:OP1	35:1d:10:ARG:NH2	2.34	0.61
32:1a:662:G:H2'	32:1a:663:A:C8	2.35	0.61
44:1m:16:ASP:OD1	44:1m:16:ASP:N	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:2X:4:ALA:HB1	19:2X:42:ALA:HA	1.83	0.61
26:24:24:THR:OG1	26:24:25:TYR:N	2.34	0.61
1:1A:906:G:O2'	1:1A:962:G:O6	2.11	0.61
12:1Q:76:LYS:HB3	12:1Q:91:GLU:HG3	1.82	0.61
1:2A:83:G:H1	1:2A:102:G:HO2'	1.48	0.61
6:2G:101:ILE:HG22	6:2G:105:LYS:HE2	1.81	0.61
32:2a:501:C:H2'	32:2a:502:G:H8	1.65	0.61
32:2a:1225:A:OP1	44:2m:103:THR:OG1	2.18	0.61
33:2b:218:ALA:O	33:2b:222:ILE:HG23	2.01	0.61
54:2w:11:C:H42	54:2w:24:G:H1	1.48	0.61
54:2y:18:G:N2	54:2y:55:PSU:C4	2.68	0.61
1:1A:1315:A:N7	60:1A:4069:HOH:O	2.31	0.61
32:1a:701:C:OP1	32:1a:702:A:O2'	2.18	0.61
1:2A:1769:G:O2'	1:2A:1958:C:OP1	2.19	0.61
8:2I:122:GLU:O	8:2I:126:TYR:OH	2.16	0.61
32:2a:17:U:H2'	32:2a:18:C:C6	2.36	0.61
32:2a:976:G:H5'	32:2a:1358:U:O2'	2.00	0.61
1:1A:11:G:H2'	1:1A:12:U:H5''	1.82	0.61
1:1A:1834:A:O2'	3:1D:259:THR:HG21	2.01	0.61
33:1b:54:THR:HG21	33:1b:201:ILE:HD11	1.83	0.61
34:1c:108:ASN:HB3	34:1c:111:LEU:HD12	1.83	0.61
1:2A:1031:G:H5''	31:29:8:LYS:HE3	1.83	0.61
1:2A:2635:C:O2'	4:2E:80:GLU:OE2	2.18	0.61
3:2D:75:ILE:HG21	3:2D:99:ASP:HB2	1.82	0.61
10:2O:98:VAL:HG22	10:2O:118:ALA:HA	1.83	0.61
43:2I:32:PHE:HB3	43:2I:84:LEU:HD11	1.81	0.61
1:1A:2339:A:H2'	1:1A:2340:A:C8	2.35	0.60
28:16:13:CYS:SG	28:16:47:THR:HG21	2.41	0.60
32:1a:642:A:N3	39:1h:113:SER:OG	2.34	0.60
54:1w:66:U:H2'	54:1w:67:C:C6	2.35	0.60
32:2a:538:G:O6	60:2a:2007:HOH:O	2.11	0.60
1:2A:646:A:H2'	1:2A:647:G:O4'	2.02	0.60
7:2H:80:SER:OG	7:2H:81:GLU:OE1	2.16	0.60
46:2o:28:GLN:HE21	46:2o:66:LEU:HD21	1.67	0.60
1:1A:129:G:OP1	60:1A:4019:HOH:O	2.16	0.60
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.16	0.60
6:2G:135:LEU:HD21	6:2G:157:ILE:HD12	1.82	0.60
12:2Q:39:PRO:HD3	12:2Q:99:PRO:HG3	1.84	0.60
32:2a:56:U:H2'	32:2a:57:G:H8	1.65	0.60
32:2a:1004:A:H5''	32:2a:1024:G:H22	1.66	0.60
36:2e:92:LYS:HB3	36:2e:119:LEU:HB2	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:2p:48:TRP:CD1	47:2p:48:TRP:H	2.19	0.60
1:1A:2258:G:H2'	1:1A:2259:A:H8	1.65	0.60
32:1a:276:G:O3'	48:1q:68:ARG:NH1	2.35	0.60
32:1a:1144:G:H21	32:1a:1146:A:H62	1.49	0.60
1:1A:964:A:N3	2:1B:80:U:O2'	2.31	0.60
1:2A:740:U:H2'	1:2A:741:G:C8	2.36	0.60
1:2A:1022:G:H22	1:2A:1142(A):A:H2	1.48	0.60
2:2B:7:G:H21	14:2S:38:GLN:NE2	1.94	0.60
32:2a:1118:C:OP1	40:2i:104:ARG:NH1	2.35	0.60
1:1A:611:U:H2'	1:1A:612:C:C6	2.37	0.60
1:1A:1817:A:H1'	1:1A:1960:A:N6	2.16	0.60
8:1I:130:TYR:HB3	8:1I:138:ILE:HB	1.84	0.60
14:1S:14:VAL:O	14:1S:18:ILE:HG12	2.02	0.60
1:2A:1033:U:OP1	31:29:9:ARG:NH2	2.30	0.60
32:2a:544:G:OP1	35:2d:62:GLN:NE2	2.35	0.60
1:1A:1115:A:H1'	1:1A:1142:A:H4'	1.83	0.60
1:1A:2365:G:H1'	22:10:34:GLY:HA3	1.82	0.60
1:2A:807:U:OP2	11:2P:41:ARG:NH2	2.34	0.60
1:2A:1530:C:HO2'	1:2A:1531:C:P	2.24	0.60
6:2G:64:THR:HB	6:2G:94:LEU:HD21	1.84	0.60
20:1Y:35:TYR:OH	60:1Y:601:HOH:O	2.16	0.60
33:1b:200:ILE:HG22	33:1b:202:PRO:HD3	1.83	0.60
42:1k:79:SER:HA	42:1k:104:GLN:HB3	1.83	0.60
54:1w:60:U:H5''	54:1w:61:C:H5	1.66	0.60
32:2a:977:A:O3'	32:2a:980:C:N4	2.33	0.60
32:2a:1020:U:H2'	32:2a:1021:G:H8	1.67	0.60
48:2q:95:TYR:HA	48:2q:98:LEU:HD12	1.83	0.60
1:1A:233:A:H4'	11:1P:74:GLU:HB2	1.84	0.60
1:1A:895:G:H2'	1:1A:896:A:C8	2.36	0.60
32:1a:733:A:O2'	60:1a:2005:HOH:O	2.07	0.60
32:1a:1074:G:O2'	32:1a:1101:A:N1	2.34	0.60
1:2A:2392:A:OP2	30:28:31:HIS:NE2	2.24	0.60
1:2A:2788:C:OP1	4:2E:61:ARG:NH2	2.33	0.60
1:2A:2857:G:N2	1:2A:2860:A:OP2	2.33	0.60
14:2S:27:SER:HA	14:2S:88:ASP:HB3	1.83	0.60
32:2a:953:G:H5'	32:2a:965:A:N6	2.11	0.60
32:2a:1133:G:N2	32:2a:1141:C:N3	2.48	0.60
35:2d:22:LYS:HG2	59:2d:302:SF4:S4	2.42	0.60
37:2f:3:ARG:HD3	37:2f:64:GLN:HE21	1.66	0.60
32:1a:1037:C:H2'	32:1a:1038:C:H6	1.66	0.60
1:2A:458:G:O2'	29:27:39:ARG:HD2	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:854:G:H2'	1:2A:855:G:C8	2.37	0.60
1:2A:2404:C:O3'	11:2P:77:ARG:NH2	2.34	0.60
1:2A:2576:G:O2'	1:2A:2579:C:OP2	2.17	0.60
21:2Z:138:GLU:HB2	21:2Z:156:LYS:HD3	1.84	0.60
32:2a:1020:U:H2'	32:2a:1021:G:C8	2.37	0.60
1:1A:1159:U:H2'	1:1A:1160:G:H8	1.67	0.59
7:1H:3:ARG:NH1	7:1H:5:GLY:H	2.00	0.59
24:12:32:LEU:HD11	24:12:54:LYS:HG2	1.83	0.59
4:2E:77:ILE:HG12	4:2E:195:LEU:HD22	1.83	0.59
7:2H:45:VAL:HG12	7:2H:50:VAL:HG22	1.82	0.59
32:2a:9:G:H2'	32:2a:10:A:C8	2.37	0.59
32:2a:362:G:N2	32:2a:365:U:OP2	2.35	0.59
32:2a:523:A:H61	43:2l:92:OTD:CG	2.15	0.59
1:2A:2749:A:H1'	7:2H:63:SER:HB3	1.85	0.59
32:2a:1027:C:N4	32:2a:1036:G:O6	2.35	0.59
54:2w:50:U:H3	54:2w:64:A:H61	1.50	0.59
54:2y:55:PSU:HN1	54:2y:57:G:C5'	2.12	0.59
54:1y:19:G:N2	54:1y:56:C:N3	2.50	0.59
1:2A:1337:G:H2'	1:2A:1338:G:H8	1.67	0.59
1:2A:2136:C:O2'	1:2A:2137:C:O5'	2.21	0.59
12:2Q:36:ALA:HB2	12:2Q:103:MET:SD	2.42	0.59
31:29:29:ASN:HD22	31:29:32:HIS:CE1	2.19	0.59
50:2s:27:GLU:HB2	50:2s:28:LYS:HA	1.83	0.59
54:2y:7:A:H61	54:2y:66:U:H3	1.49	0.59
54:2y:67:C:H2'	54:2y:68:C:C6	2.37	0.59
1:1A:1825:U:H2'	1:1A:1826:C:H6	1.65	0.59
1:1A:1993:A:C4	3:1D:241:PRO:HD3	2.37	0.59
1:1A:2504:U:H2'	1:1A:2505:U:H6	1.67	0.59
1:1A:2825:C:H5'	27:15:29:THR:HG21	1.85	0.59
48:1q:67:LYS:HA	48:1q:70:ARG:HH12	1.67	0.59
6:2G:179:PRO:HB2	26:24:42:PHE:HE2	1.68	0.59
1:1A:297:C:H2'	1:1A:298:G:H8	1.68	0.59
1:1A:2641:A:O2'	1:1A:2642:G:OP2	2.18	0.59
32:1a:277:C:H5''	48:1q:68:ARG:NH2	2.18	0.59
36:1e:91:LEU:HD12	36:1e:120:THR:HG22	1.84	0.59
24:22:1:MET:N	24:22:52:ASP:OD1	2.28	0.59
1:1A:2175:G:H2'	1:1A:2176:G:C8	2.37	0.59
32:1a:227:G:N7	57:1a:1914:AKN:H35	2.17	0.59
46:1o:70:LEU:HD11	46:1o:77:ARG:HB3	1.84	0.59
1:2A:861:A:N3	2:2B:79:C:O2'	2.32	0.59
1:1A:1766:G:H3'	1:1A:1767:A:H5''	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:262:A:H2'	32:1a:263:A:C8	2.38	0.59
32:1a:1292:U:P	38:1g:41:ARG:HH22	2.24	0.59
40:1i:96:LEU:H	40:1i:98:PRO:HD2	1.68	0.59
1:2A:2291:U:O2'	1:2A:2374:C:O2	2.20	0.59
2:2B:103:G:H21	21:2Z:73:GLN:NE2	1.99	0.59
23:21:44:PRO:O	23:21:46:LEU:N	2.35	0.59
32:2a:947:G:O3'	44:2m:109:THR:OG1	2.19	0.59
35:2d:119:GLN:HG2	35:2d:123:HIS:CD2	2.38	0.59
45:2n:4:LYS:HA	45:2n:7:ILE:HG12	1.85	0.59
1:1A:2623:U:C4	27:15:3:LYS:HG2	2.36	0.59
3:1D:142:VAL:HG23	3:1D:193:VAL:HA	1.84	0.59
21:1Z:53:ILE:HG22	21:1Z:71:VAL:HG12	1.84	0.59
32:1a:193:C:H2'	32:1a:194:C:H6	1.68	0.59
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.83	0.59
32:2a:1409:C:N4	60:2a:2033:HOH:O	2.36	0.59
33:2b:16:HIS:CB	33:2b:210:SER:HB2	2.31	0.59
34:2c:131:ARG:HE	34:2c:135:LYS:HZ2	1.51	0.59
1:1A:1864:U:O2'	1:1A:1991:A:N1	2.31	0.59
1:1A:2416:C:O3'	11:1P:77:ARG:NH2	2.36	0.59
9:1N:62:VAL:HG22	9:1N:66:LYS:HD2	1.85	0.59
32:1a:189(K):U:H2'	32:1a:189(L):G:C8	2.38	0.59
32:1a:448:A:OP2	32:1a:485:G:N1	2.21	0.59
51:1t:60:GLU:HG3	51:1t:81:LYS:HD2	1.85	0.59
54:1w:5:G:H2'	54:1w:6:G:H8	1.68	0.59
14:2S:3:ARG:NH1	14:2S:4:LEU:H	2.01	0.59
40:2i:46:ALA:HB2	40:2i:74:ILE:HG23	1.83	0.59
1:1A:847:A:H8	1:1A:847:A:OP1	1.85	0.59
1:1A:1829:U:H5'	3:1D:259:THR:CG2	2.32	0.59
30:18:26:LYS:HD3	30:18:48:PHE:HB3	1.84	0.59
32:1a:1255:G:N7	41:1j:43:ARG:NH2	2.50	0.59
38:1g:67:GLU:HA	38:1g:70:LYS:HD2	1.84	0.59
1:2A:2690:C:OP1	13:2R:17:ARG:NH2	2.35	0.59
10:2O:88:ASN:HD21	10:2O:92:GLU:HB2	1.67	0.59
32:2a:1075:C:OP1	33:2b:179:LYS:NZ	2.20	0.59
1:1A:2130:C:H2'	1:1A:2131:U:H6	1.66	0.58
6:1G:64:THR:HB	6:1G:94:LEU:HD21	1.84	0.58
28:16:25:LYS:NZ	28:16:51:GLU:OE2	2.29	0.58
54:1w:4:C:H2'	54:1w:5:G:C8	2.38	0.58
1:2A:1300:U:H4'	1:2A:1301:A:H5''	1.84	0.58
1:2A:2051:A:H5'	1:2A:2578:G:O4'	2.03	0.58
22:20:54:GLY:O	22:20:57:PHE:N	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:24:16:CYS:SG	26:24:17:GLY:N	2.76	0.58
32:2a:977:A:O2'	32:2a:981:U:N3	2.36	0.58
32:2a:984:C:H2'	32:2a:985:C:H6	1.68	0.58
51:2t:60:GLU:HG3	51:2t:81:LYS:HD2	1.85	0.58
1:1A:2258:G:H2'	1:1A:2259:A:C8	2.39	0.58
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.85	0.58
1:2A:253:C:OP2	30:28:5:LYS:NZ	2.33	0.58
1:2A:857:C:OP2	22:20:77:ARG:NH2	2.37	0.58
3:2D:108:PRO:HD2	3:2D:111:LEU:HD22	1.85	0.58
35:2d:112:VAL:H	35:2d:116:GLN:NE2	2.01	0.58
54:2y:9:A:H4'	54:2y:46:7MG:H5'	1.85	0.58
32:1a:1125:U:H4'	41:1j:5:ARG:NH2	2.17	0.58
1:2A:2143:C:H2'	1:2A:2144:U:O4'	2.02	0.58
5:2F:184:TYR:CZ	5:2F:188:ARG:HD2	2.39	0.58
33:2b:16:HIS:CG	33:2b:17:PHE:N	2.70	0.58
44:2m:88:ARG:O	44:2m:92:HIS:ND1	2.27	0.58
44:2m:90:LEU:HG	44:2m:93:ARG:HH21	1.68	0.58
1:1A:2297:C:OP2	28:16:6:ARG:NH1	2.36	0.58
1:1A:2576:A:C2	1:1A:2659:U:H4'	2.39	0.58
7:1H:3:ARG:HG2	7:1H:6:ARG:HE	1.67	0.58
32:1a:916:G:H2'	32:1a:917:G:H8	1.68	0.58
32:1a:1126:U:O2	32:1a:1280:A:H2'	2.03	0.58
50:1s:32:LYS:HA	50:1s:50:ALA:HB3	1.84	0.58
1:2A:2096:U:H3	1:2A:2193:G:H1	1.52	0.58
7:2H:51:ARG:NH1	7:2H:53:GLU:OE2	2.37	0.58
32:2a:148:G:H2'	32:2a:149:A:C8	2.32	0.58
32:2a:238:G:P	48:2q:25:ARG:HH22	2.26	0.58
32:2a:376:G:H5''	47:2p:5:ARG:HB2	1.84	0.58
16:1U:76:TYR:CZ	16:1U:80:ILE:HG13	2.39	0.58
32:1a:129(A):G:H4'	32:1a:130:A:H5''	1.86	0.58
32:1a:1221:G:OP1	32:1a:1320:C:N4	2.36	0.58
45:1n:21:TYR:OH	45:1n:23:ARG:NH2	2.36	0.58
1:2A:1203:G:OP2	1:2A:1204:A:O2'	2.20	0.58
1:2A:2812:G:H2'	1:2A:2813:A:C8	2.38	0.58
32:2a:1498:UR3:O4	57:2a:1911:AKN:N37	2.35	0.58
43:2l:24:VAL:HB	43:2l:27:LEU:HD22	1.85	0.58
54:2y:58:A:N3	54:2y:60:U:N3	2.51	0.58
1:1A:742:G:OP1	1:1A:1426:G:O2'	2.21	0.58
4:1E:109:LYS:O	4:1E:111:ARG:NH1	2.36	0.58
14:1S:68:GLN:HG3	14:1S:71:ARG:HH21	1.68	0.58
32:1a:769:G:H4'	32:1a:1513:A:H4'	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:178:ARG:HH22	39:1h:74:PRO:HB3	1.69	0.58
42:1k:82:VAL:HB	42:1k:108:ILE:HG12	1.84	0.58
1:2A:184:C:H2'	1:2A:185:U:C6	2.38	0.58
1:2A:888:C:OP1	44:2m:93:ARG:NH1	2.36	0.58
1:2A:1420:U:O2'	1:2A:1421:G:OP1	2.15	0.58
1:2A:2578:G:OP1	1:2A:2614:A:N6	2.35	0.58
22:20:38:VAL:HG21	22:20:45:PHE:HD2	1.68	0.58
32:2a:1007:C:N3	32:2a:1022:G:O6	2.36	0.58
32:2a:1251:A:H2'	32:2a:1252:A:C8	2.38	0.58
41:2j:6:ILE:HG12	41:2j:98:ILE:HG13	1.85	0.58
1:1A:1128:U:C4	1:1A:1132:A:N1	2.71	0.58
6:1G:101:ILE:HG22	6:1G:105:LYS:HE2	1.86	0.58
16:1U:69:CYS:HB3	16:1U:74:LEU:HD12	1.84	0.58
32:1a:22:G:H2'	32:1a:23:C:H6	1.68	0.58
32:1a:1030(A):G:H1'	32:1a:1031:G:H1	1.68	0.58
1:2A:1225:G:H4'	17:2V:84:LYS:HG2	1.84	0.58
16:2U:49:HIS:HA	16:2U:52:ARG:HB3	1.85	0.58
36:2e:84:PHE:N	36:2e:87:SER:O	2.30	0.58
36:2e:93:PRO:HG2	39:2h:105:ARG:HE	1.69	0.58
1:1A:1111:U:H5''	1:1A:1112:U:OP2	2.04	0.58
2:1B:74:U:H1'	21:1Z:34:ASN:HD21	1.68	0.58
7:1H:9:ILE:HD11	7:1H:69:ARG:HG2	1.85	0.58
11:1P:86:LYS:HB3	11:1P:118:GLY:HA3	1.86	0.58
19:1X:34:ALA:O	19:1X:77:LYS:NZ	2.33	0.58
32:1a:1223:C:OP2	50:1s:78:ARG:NH2	2.32	0.58
33:1b:69:LEU:HB3	33:1b:162:ILE:HG22	1.86	0.58
33:1b:185:ILE:HG22	33:1b:199:TYR:HD2	1.69	0.58
34:1c:58:GLU:H	34:1c:65:ALA:HB3	1.69	0.58
54:1w:66:U:H2'	54:1w:67:C:H6	1.67	0.58
1:2A:7:G:H2'	1:2A:8:A:C8	2.39	0.58
1:2A:531:C:H4'	1:2A:532:A:H5''	1.86	0.58
32:2a:1305:G:H22	32:2a:1331:G:H1'	1.69	0.58
34:2c:134:ILE:HD11	34:2c:153:VAL:HG23	1.85	0.58
41:2j:11:PHE:HE1	41:2j:67:THR:HG22	1.69	0.58
1:1A:1095:C:OP2	60:1A:4022:HOH:O	2.17	0.58
9:1N:14:VAL:HG11	9:1N:138:LEU:HD12	1.86	0.58
26:14:58:ARG:HE	50:1s:68:GLY:HA3	1.69	0.58
32:1a:405:U:O4	35:1d:2:GLY:N	2.37	0.58
1:2A:2155:G:C5	1:2A:2156:G:H1'	2.39	0.58
1:2A:2369:A:H2'	1:2A:2370:G:H8	1.69	0.58
39:2h:21:LYS:O	39:2h:65:TYR:OH	2.11	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:2s:22:LEU:O	50:2s:27:GLU:N	2.36	0.58
15:1T:51:ARG:HB2	15:1T:98:LYS:HD2	1.86	0.58
25:13:8:LEU:HG	25:13:31:LEU:HD23	1.86	0.58
33:1b:158:LEU:HD21	33:1b:180:LEU:HD13	1.86	0.58
1:2A:240:G:O2'	1:2A:257:A:N6	2.33	0.58
1:2A:2156:G:H2'	1:2A:2157:G:C2	2.38	0.58
1:2A:2815:C:H5'	27:25:29:THR:HG21	1.86	0.58
11:2P:95:VAL:HG13	11:2P:125:VAL:HA	1.85	0.58
12:2Q:37:LEU:HD21	12:2Q:130:LYS:HE2	1.84	0.58
32:2a:127:G:N2	48:2q:61:GLU:OE2	2.37	0.58
32:2a:1315:U:O2'	32:2a:1360:A:N3	2.35	0.58
38:2g:78:ARG:HG2	38:2g:79:ARG:H	1.69	0.58
1:1A:1271:G:OP1	17:1V:69:LYS:NZ	2.25	0.57
1:1A:2127:C:H2'	1:1A:2128:G:C8	2.39	0.57
10:1O:48:PRO:HB3	32:1a:1422:G:H5''	1.86	0.57
26:14:58:ARG:NH1	60:14:601:HOH:O	2.23	0.57
32:1a:1077:G:N2	32:1a:1080:A:OP2	2.30	0.57
1:2A:2299:G:N1	1:2A:2318:G:N7	2.52	0.57
47:2p:15:PRO:O	47:2p:16:HIS:ND1	2.37	0.57
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.68	0.57
1:2A:2306:C:H42	6:2G:43:LEU:H	1.51	0.57
18:2W:65:LEU:HD12	18:2W:68:ARG:HD2	1.85	0.57
32:2a:448:A:P	32:2a:485:G:H22	2.26	0.57
32:2a:995:C:H1'	45:2n:4:LYS:HE2	1.86	0.57
3:1D:182:LEU:HB2	3:1D:272:ALA:HB3	1.85	0.57
32:1a:532:A:H2	32:1a:1206:G:H21	1.52	0.57
32:1a:765:G:N1	32:1a:812:C:O2'	2.33	0.57
1:2A:466:A:OP1	29:27:34:ARG:NH1	2.37	0.57
1:2A:479:A:N3	1:2A:481:G:H5''	2.18	0.57
5:2F:28:ILE:HG12	5:2F:112:MET:HB3	1.85	0.57
32:2a:748:C:H4'	32:2a:749:C:O5'	2.04	0.57
32:2a:964:A:N3	32:2a:969:A:O2'	2.34	0.57
32:2a:1203:C:H2'	32:2a:1204:A:C8	2.39	0.57
32:2a:1327:C:OP1	52:2u:12:LYS:NZ	2.36	0.57
32:1a:22:G:H4'	32:1a:885:G:C8	2.39	0.57
32:1a:299:G:H2'	32:1a:300:A:C8	2.40	0.57
32:1a:1086:U:H3	32:1a:1099:G:H22	1.53	0.57
32:1a:1346:A:N1	32:1a:1374:A:H5''	2.19	0.57
45:1n:23:ARG:HH11	45:1n:30:ALA:HB2	1.68	0.57
18:2W:18:ARG:NH1	18:2W:76:VAL:O	2.38	0.57
19:2X:8:ILE:O	24:22:36:ARG:NH2	2.36	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1011:G:H1	32:2a:1018:C:H42	1.52	0.57
46:2o:4:THR:OG1	46:2o:7:GLU:OE1	2.20	0.57
1:1A:71:U:OP1	60:1A:4023:HOH:O	2.17	0.57
23:11:3:LYS:H	23:11:46:LEU:HD12	1.69	0.57
32:1a:171:A:H2'	32:1a:172:A:C8	2.39	0.57
32:1a:1196:U:H3	34:1c:162:GLN:NE2	2.01	0.57
1:2A:897:C:H1'	54:2w:56:C:H5	1.69	0.57
21:2Z:151:HIS:ND1	21:2Z:168:GLU:O	2.30	0.57
32:2a:1119:C:H2'	32:2a:1120:G:H8	1.68	0.57
32:2a:1273:G:H3'	32:2a:1274:G:C8	2.38	0.57
34:2c:43:LEU:HD21	34:2c:91:LEU:HD13	1.86	0.57
35:2d:173:TRP:CD1	35:2d:189:PRO:HG3	2.40	0.57
1:1A:273:G:N2	8:1I:50:ARG:HH12	2.03	0.57
32:1a:1029:C:N3	32:1a:1032:G:O6	2.37	0.57
36:1e:102:ALA:HB1	36:1e:106:PRO:HB2	1.87	0.57
40:1i:43:ALA:HA	40:1i:74:ILE:HD13	1.86	0.57
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.40	0.57
1:2A:2284:C:OP2	28:26:2:ALA:N	2.38	0.57
14:2S:12:PHE:O	14:2S:16:ASN:ND2	2.38	0.57
32:2a:1352:C:H2'	32:2a:1353:G:C8	2.40	0.57
1:1A:715:G:H5'	1:1A:716:G:OP2	2.05	0.57
1:1A:2053:A:C6	1:1A:2510:C:H1'	2.39	0.57
5:1F:116:ASP:OD1	5:1F:119:ARG:NH2	2.37	0.57
10:1O:64:ARG:NH2	10:1O:99:PHE:O	2.37	0.57
22:10:11:ARG:HA	60:10:202:HOH:O	2.05	0.57
32:1a:985:C:H2'	32:1a:986:A:H8	1.69	0.57
1:2A:2141:G:O6	1:2A:2150:U:O2	2.23	0.57
32:2a:34:C:H2'	32:2a:35:G:H8	1.70	0.57
32:2a:103:C:O2'	32:2a:172:A:N1	2.34	0.57
32:2a:163:C:H2'	32:2a:164:U:C6	2.39	0.57
32:2a:411:A:H2'	32:2a:412:A:H4'	1.86	0.57
32:2a:1029:C:C2	32:2a:1032:G:N2	2.65	0.57
35:2d:76:ARG:NE	35:2d:80:GLU:OE2	2.37	0.57
44:2m:58:GLU:O	44:2m:62:ASN:ND2	2.37	0.57
1:1A:2193:A:O2'	1:1A:2194:U:H5''	2.04	0.57
1:1A:2495:C:N3	12:1Q:124:LYS:NZ	2.46	0.57
1:1A:2766:A:N3	31:19:15:LYS:NZ	2.53	0.57
35:1d:65:ARG:HG2	35:1d:70:ILE:HG22	1.86	0.57
1:2A:2151:G:H2'	1:2A:2152:G:H8	1.70	0.57
2:2B:6:C:H2'	2:2B:7:G:C8	2.40	0.57
7:2H:125:VAL:HG12	7:2H:131:VAL:HG22	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:38:GLU:HG3	12:2Q:127:ILE:HG22	1.84	0.57
43:2l:71:PRO:O	43:2l:102:ARG:NH1	2.36	0.57
50:2s:12:ASP:O	50:2s:14:HIS:N	2.38	0.57
1:1A:1098:C:N4	60:1A:4104:HOH:O	2.37	0.57
32:1a:67:C:O2'	32:1a:171:A:N3	2.35	0.57
32:1a:820:U:H4'	32:1a:821:G:OP2	2.04	0.57
32:1a:1030:C:H42	32:1a:1031:G:H1	1.48	0.57
1:2A:492:A:H2'	1:2A:493:G:O4'	2.05	0.57
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.40	0.57
1:2A:1814:G:H4'	3:2D:51:VAL:HG21	1.87	0.57
15:2T:26:ASP:OD1	15:2T:120:ARG:NH2	2.35	0.57
18:2W:88:ARG:NH1	18:2W:94:ASP:OD2	2.36	0.57
21:2Z:126:VAL:HG13	21:2Z:161:VAL:HG23	1.87	0.57
39:2h:6:ILE:HB	39:2h:85:ARG:NH1	2.19	0.57
54:2y:2:C:H2'	54:2y:3:C:H6	1.68	0.57
1:1A:1648:U:O4	60:1A:4014:HOH:O	2.10	0.57
50:1s:51:VAL:O	50:1s:58:VAL:N	2.37	0.57
54:1w:5:G:H2'	54:1w:6:G:C8	2.39	0.57
1:2A:192:C:O2'	1:2A:802:A:N3	2.36	0.57
1:2A:2232:U:P	23:21:40:ARG:HH12	2.27	0.57
2:2B:95:C:N4	60:2B:304:HOH:O	2.37	0.57
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.39	0.57
21:2Z:4:ARG:NH2	21:2Z:60:GLU:OE2	2.28	0.57
29:27:34:ARG:NH2	29:27:39:ARG:HG2	2.16	0.57
32:2a:54:C:N4	32:2a:353:A:OP2	2.36	0.57
32:2a:1134:G:H2'	32:2a:1135:U:H5'	1.85	0.57
33:2b:217:ARG:HA	33:2b:220:ASP:HB2	1.87	0.57
22:10:10:THR:HG22	22:10:12:ASN:H	1.68	0.56
32:1a:376:G:OP2	47:1p:67:THR:HG21	2.05	0.56
38:1g:78:ARG:NH1	38:1g:154:TYR:O	2.38	0.56
43:1l:46:LYS:HD2	43:1l:94:PRO:HG3	1.86	0.56
1:2A:897:C:H1'	54:2w:56:C:C5	2.40	0.56
2:2B:27:C:H5''	14:2S:54:LEU:HD11	1.87	0.56
38:2g:126:ASP:O	38:2g:131:LYS:N	2.36	0.56
43:2l:53:ARG:HG3	43:2l:93:LEU:HD21	1.87	0.56
1:1A:1829:U:H5'	3:1D:259:THR:HG22	1.85	0.56
46:1o:82:ILE:O	46:1o:86:GLY:N	2.38	0.56
1:2A:247:G:H4'	1:2A:386:G:C5	2.39	0.56
1:2A:322:A:OP2	5:2F:169:ASN:HB2	2.05	0.56
1:2A:852:G:H2'	1:2A:853:G:H8	1.70	0.56
1:2A:1187:G:H8	1:2A:1187:G:OP2	1.89	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2P:27:HIS:O	11:2P:31:ALA:HA	2.04	0.56
13:2R:56:LYS:NZ	13:2R:90:ARG:O	2.38	0.56
20:2Y:86:ARG:HD2	20:2Y:100:ALA:HA	1.87	0.56
32:2a:224:C:H2'	32:2a:225:C:C6	2.40	0.56
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.39	0.56
35:2d:15:GLU:OE2	35:2d:66:ARG:NH1	2.38	0.56
1:1A:174:U:H4'	1:1A:207:A:H4'	1.88	0.56
30:18:26:LYS:HG2	30:18:46:ARG:O	2.06	0.56
32:1a:24:U:H2'	32:1a:25:C:C6	2.41	0.56
32:1a:69:G:H2'	32:1a:70:G:C8	2.39	0.56
32:1a:836:G:OP1	49:1r:61:LYS:NZ	2.22	0.56
33:1b:213:LEU:HD22	33:1b:214:ILE:HD13	1.87	0.56
36:1e:78:HIS:HD2	39:1h:104:ARG:HD2	1.70	0.56
40:1i:110:GLU:OE2	40:1i:113:LYS:NZ	2.37	0.56
1:2A:852:G:H2'	1:2A:853:G:C8	2.40	0.56
1:2A:1777:U:H2'	1:2A:1778:U:H6	1.70	0.56
1:2A:2227:A:OP2	60:2A:3614:HOH:O	2.17	0.56
4:2E:119:ARG:HD2	4:2E:160:TYR:HB2	1.86	0.56
6:2G:120:LEU:N	6:2G:179:PRO:O	2.33	0.56
19:2X:11:PRO:HB3	19:2X:92:LEU:HD11	1.86	0.56
29:27:23:ARG:O	29:27:28:ARG:NH1	2.38	0.56
32:2a:999:C:H42	32:2a:1042:G:H1	1.53	0.56
32:2a:1256:A:N1	32:2a:1278:U:H1'	2.20	0.56
32:2a:1272:G:N2	32:2a:1273:G:C8	2.69	0.56
32:2a:1290:G:O2'	38:2g:37:ASN:ND2	2.38	0.56
34:2c:71:ALA:HA	34:2c:106:VAL:HB	1.86	0.56
1:1A:1634:C:H2'	1:1A:1635:C:H6	1.70	0.56
19:1X:11:PRO:HB3	19:1X:92:LEU:HD11	1.88	0.56
32:1a:598:U:H2'	32:1a:599:C:H6	1.71	0.56
43:1l:40:VAL:HG21	43:1l:78:GLN:HA	1.86	0.56
1:2A:236:C:H2'	1:2A:237:C:C6	2.41	0.56
23:21:83:GLU:OE1	23:21:83:GLU:N	2.38	0.56
32:2a:442:C:H42	32:2a:492:G:H1	1.52	0.56
32:2a:1004:A:N6	32:2a:1037:C:O2	2.25	0.56
32:2a:1081:G:N2	60:2a:2038:HOH:O	2.38	0.56
35:2d:8:VAL:HA	35:2d:11:LEU:HD13	1.87	0.56
1:1A:10:G:N2	1:1A:2813:G:OP1	2.35	0.56
32:1a:284:G:H2'	32:1a:285:G:H8	1.71	0.56
32:1a:1025:U:O2	32:1a:1036:G:O6	2.22	0.56
35:1d:173:TRP:CD1	35:1d:173:TRP:H	2.23	0.56
39:1h:51:VAL:HG12	39:1h:52:ASP:H	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:1p:57:ARG:O	47:1p:61:SER:N	2.38	0.56
1:2A:274:G:H2'	1:2A:275:G:H8	1.71	0.56
1:2A:878:A:N6	1:2A:899:A:O2'	2.38	0.56
1:2A:1336:A:H2'	1:2A:1337:G:C8	2.40	0.56
1:2A:1924:C:H4'	55:2x:13:C:O2'	2.04	0.56
1:2A:2355:C:H4'	22:20:24:LYS:HG3	1.87	0.56
1:2A:2394:C:N3	54:2y:76:A:O2'	2.36	0.56
10:2O:97:ARG:HA	10:2O:117:LEU:HD22	1.87	0.56
32:2a:1011:G:H1	32:2a:1018:C:N4	2.03	0.56
33:2b:184:VAL:N	33:2b:198:ASP:OD2	2.35	0.56
34:2c:18:TRP:HE3	34:2c:18:TRP:H	1.53	0.56
38:2g:69:VAL:HG11	38:2g:134:ALA:HB1	1.87	0.56
47:2p:22:THR:HA	47:2p:33:ILE:HG13	1.87	0.56
1:1A:2786:C:H5''	4:1E:164:ARG:HG2	1.87	0.56
5:1F:33:LEU:HB3	11:1P:6:LEU:HD21	1.87	0.56
32:1a:21:G:H2'	32:1a:22:G:C8	2.41	0.56
32:1a:691:G:H2'	32:1a:692:U:C6	2.40	0.56
36:1e:95:ALA:HB1	36:1e:96:PRO:HD2	1.88	0.56
38:1g:22:LEU:HG	38:1g:62:PHE:HE2	1.71	0.56
1:2A:2070:G:H2'	1:2A:2071:A:H8	1.69	0.56
2:2B:52:A:N6	14:2S:33:LYS:HG2	2.20	0.56
5:2F:178:PRO:HB2	5:2F:201:VAL:HG21	1.86	0.56
13:2R:28:LEU:HD23	13:2R:48:VAL:HG21	1.87	0.56
30:28:62:LEU:HB3	30:28:65:GLU:HG2	1.87	0.56
7:1H:7:LEU:HD12	7:1H:8:PRO:HD2	1.86	0.56
10:1O:44:LYS:O	57:1O:202:AKN:H31	2.06	0.56
10:1O:63:VAL:HG12	10:1O:106:LEU:HD11	1.87	0.56
1:2A:1636:C:OP1	60:2A:3613:HOH:O	2.17	0.56
32:2a:921:U:O2	36:2e:19:MET:HB2	2.05	0.56
32:2a:1359:C:H3'	45:2n:35:ARG:HH22	1.71	0.56
38:2g:36:LYS:HA	38:2g:39:ALA:HB3	1.87	0.56
48:2q:53:LEU:HD23	48:2q:82:MET:HE1	1.87	0.56
1:1A:1825:U:H2'	1:1A:1826:C:C6	2.41	0.56
6:1G:150:ASP:N	6:1G:150:ASP:OD1	2.38	0.56
32:1a:118:U:H3'	32:1a:288:A:H61	1.70	0.56
47:1p:52:ASP:O	47:1p:54:GLU:N	2.35	0.56
1:2A:234:C:H2'	1:2A:235:U:H6	1.70	0.56
1:2A:380:U:H5'	23:21:18:ILE:HD12	1.88	0.56
1:2A:586:A:N1	1:2A:809:G:O2'	2.33	0.56
1:2A:668:G:H5'	1:2A:669:G:OP2	2.06	0.56
1:2A:1188:U:H4'	17:2V:79:VAL:HG22	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2105:C:H2'	1:2A:2106:G:H8	1.71	0.56
21:2Z:152:ALA:O	21:2Z:155:LEU:HB2	2.05	0.56
32:2a:715:A:H2'	32:2a:716:A:C8	2.40	0.56
38:2g:89:MET:SD	38:2g:155:ARG:HB2	2.46	0.56
1:1A:831:A:C5	3:1D:229:VAL:HG21	2.40	0.56
1:1A:1425:A:H4'	1:1A:1426:G:OP2	2.06	0.56
1:1A:2348:A:H61	22:10:43:THR:CG2	2.19	0.56
24:12:63:VAL:HA	24:12:66:GLU:HB2	1.87	0.56
5:2F:145:GLU:OE1	5:2F:145:GLU:N	2.39	0.56
32:2a:501:C:H2'	32:2a:502:G:C8	2.41	0.56
32:2a:675:A:O2'	42:2k:114:VAL:O	2.23	0.56
32:2a:1385:G:H2'	32:2a:1386:G:H8	1.70	0.56
33:2b:195:ASP:O	39:2h:68:ARG:NH2	2.39	0.56
1:1A:868:A:O2'	1:1A:991:G:OP2	2.19	0.56
1:1A:1211:U:H2'	1:1A:1212:C:C6	2.41	0.56
1:1A:2158:C:N3	1:1A:2177:G:C2	2.74	0.56
7:1H:40:GLU:OE1	7:1H:61:HIS:NE2	2.39	0.56
35:1d:79:PHE:CE1	35:1d:204:ILE:HD13	2.39	0.56
35:1d:108:LEU:HD11	35:1d:174:LEU:HD22	1.87	0.56
37:1f:33:TYR:HB2	37:1f:75:LEU:HD12	1.87	0.56
54:1w:9:A:O2'	54:1w:10:G:N7	2.38	0.56
1:2A:910:A:H62	12:2Q:12:GLN:HA	1.69	0.56
1:2A:1711:C:H2'	1:2A:1712:C:C6	2.41	0.56
6:2G:11:TYR:HA	6:2G:15:VAL:HB	1.87	0.56
27:25:56:LYS:NZ	27:25:58:LEU:O	2.39	0.56
32:2a:1004:A:C6	32:2a:1037:C:H1'	2.41	0.56
32:2a:1510:U:H2'	32:2a:1511:G:C8	2.40	0.56
33:2b:178:ARG:NH1	33:2b:198:ASP:OD1	2.39	0.56
34:2c:53:ALA:HB2	34:2c:115:LEU:HD11	1.87	0.56
52:2u:2:GLY:O	52:2u:4:GLY:N	2.36	0.56
1:1A:1740:U:H1'	3:1D:14:ARG:NH2	2.22	0.55
7:1H:11:VAL:HG13	7:1H:15:VAL:HG22	1.88	0.55
32:1a:734:G:H5'	60:1a:2005:HOH:O	2.04	0.55
32:1a:1428:A:H2'	32:1a:1429:C:C6	2.41	0.55
41:1j:49:VAL:HG23	45:1n:41:ARG:HB2	1.87	0.55
54:1y:15:G:H22	54:1y:48:C:H42	1.54	0.55
1:2A:2867:G:OP2	15:2T:119:LYS:NZ	2.26	0.55
5:2F:18:ARG:NH1	5:2F:127:GLU:OE2	2.39	0.55
26:24:48:ARG:HG3	26:24:51:ASP:O	2.06	0.55
32:2a:736:C:H2'	32:2a:737:A:C8	2.41	0.55
32:2a:933:G:H2'	60:2a:2067:HOH:O	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1271:G:C2	32:2a:1272:G:N7	2.74	0.55
1:1A:85:C:H4'	1:1A:102:U:H1'	1.88	0.55
1:1A:173:C:H2'	1:1A:174:U:C6	2.41	0.55
1:1A:2701:U:OP2	1:1A:2732:G:N2	2.27	0.55
13:1R:33:ARG:HD2	13:1R:113:LEU:HD13	1.88	0.55
33:1b:174:VAL:O	33:1b:178:ARG:HG2	2.05	0.55
54:1y:55:PSU:N1	54:1y:57:G:OP2	2.40	0.55
1:2A:2127:G:C6	1:2A:2161:C:N4	2.75	0.55
1:2A:2689:U:P	1:2A:2719:G:H22	2.29	0.55
22:20:63:VAL:HG21	22:20:83:PRO:HG3	1.88	0.55
32:2a:630:G:H2'	32:2a:631:G:H8	1.70	0.55
1:1A:615:G:O2'	30:18:4:MET:HG3	2.06	0.55
1:1A:1314:A:H2'	1:1A:1315:A:O4'	2.06	0.55
1:1A:1431:G:O2'	1:1A:1442:U:O2	2.14	0.55
1:1A:2737:C:OP1	4:1E:118:LYS:NZ	2.37	0.55
21:1Z:48:PHE:HE1	21:1Z:71:VAL:HG11	1.70	0.55
24:12:35:LEU:HD12	24:12:53:LEU:HD12	1.88	0.55
36:1e:78:HIS:CD2	39:1h:104:ARG:HD2	2.41	0.55
4:2E:174:ASP:OD1	4:2E:175:VAL:N	2.39	0.55
6:2G:39:ILE:HB	6:2G:92:VAL:HG13	1.89	0.55
32:2a:1264:C:N4	32:2a:1265:G:O6	2.39	0.55
46:2o:39:LEU:HD13	46:2o:56:LEU:HB2	1.86	0.55
1:1A:238:C:O2	30:18:12:LYS:NZ	2.32	0.55
1:1A:265:U:H2'	1:1A:266:C:C6	2.41	0.55
1:1A:610:C:OP2	11:1P:21:ARG:NH2	2.40	0.55
1:1A:698:G:H2'	1:1A:699:C:C6	2.41	0.55
2:1B:41:U:H5	6:1G:70:VAL:H	1.54	0.55
6:1G:129:GLY:O	6:1G:161:THR:OG1	2.23	0.55
18:1W:10:VAL:HG12	18:1W:12:ILE:HG22	1.88	0.55
35:1d:109:GLY:HA3	35:1d:165:MET:HG3	1.88	0.55
1:2A:468:G:N7	29:27:39:ARG:NH2	2.54	0.55
1:2A:1462:C:H4'	1:2A:2703:C:H5'	1.89	0.55
6:2G:115:ARG:HB2	6:2G:115:ARG:HH11	1.70	0.55
6:2G:170:ARG:NH2	6:2G:182:LYS:O	2.40	0.55
11:2P:86:LYS:HB3	11:2P:118:GLY:HA3	1.89	0.55
18:2W:78:GLU:OE2	18:2W:99:ARG:NH1	2.37	0.55
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.87	0.55
32:2a:91:C:H2'	32:2a:92:C:H6	1.71	0.55
32:2a:997:U:O2	32:2a:1044:A:N1	2.38	0.55
32:2a:1004:A:N6	32:2a:1037:C:H1'	2.20	0.55
32:2a:1456:G:O6	51:2t:54:LYS:NZ	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:76:GLN:HB2	33:2b:208:ILE:HD11	1.88	0.55
50:2s:41:VAL:HG13	50:2s:43:GLU:H	1.72	0.55
1:1A:2324:U:H5'	6:1G:88:ILE:HD11	1.88	0.55
4:1E:35:GLN:HB3	4:1E:48:GLN:HB3	1.88	0.55
5:1F:132:VAL:HA	5:1F:138:GLU:HB3	1.89	0.55
32:1a:1004:A:H5'	32:1a:1024:G:H1	1.70	0.55
37:1f:89:MET:HB2	49:1r:76:LEU:HD11	1.89	0.55
1:2A:642:G:H21	1:2A:646:A:H2	1.53	0.55
1:2A:2712:U:H2'	1:2A:2714:G:H5''	1.87	0.55
1:2A:2823:A:OP1	4:2E:113:PHE:HB2	2.06	0.55
13:2R:100:LEU:HD23	13:2R:111:LEU:HB3	1.89	0.55
32:2a:1010:G:H2'	32:2a:1011:G:H8	1.72	0.55
32:2a:1031:G:H2'	32:2a:1032:G:C8	2.42	0.55
37:2f:69:GLU:CD	37:2f:69:GLU:H	2.13	0.55
38:2g:60:LYS:HA	38:2g:63:LYS:HD2	1.88	0.55
54:2y:8:4SU:H1'	54:2y:48:C:H1'	1.89	0.55
3:1D:69:ARG:NH1	3:1D:128:GLY:O	2.33	0.55
19:1X:88:LYS:HE2	19:1X:93:GLU:HG3	1.89	0.55
32:1a:1442:G:O2'	32:1a:1442(A):G:H5'	2.07	0.55
41:1j:8:LEU:HB2	41:1j:16:LEU:HD11	1.89	0.55
2:2B:42:C:C6	6:2G:69:ALA:HB2	2.42	0.55
5:2F:150:GLY:HA2	5:2F:172:TRP:CD2	2.41	0.55
6:2G:108:ASN:HA	26:24:37:SER:HB3	1.89	0.55
12:2Q:34:LEU:HB2	12:2Q:118:LEU:HD22	1.89	0.55
18:2W:71:VAL:HA	18:2W:107:LEU:HD12	1.89	0.55
29:27:12:ARG:NH2	29:27:44:PRO:HB3	2.22	0.55
32:2a:201:C:H42	32:2a:216:G:H1	1.54	0.55
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.42	0.55
51:2t:86:ARG:O	51:2t:90:GLN:HB2	2.06	0.55
55:2x:28:C:H2'	55:2x:29:G:H8	1.71	0.55
1:1A:630:U:OP1	5:1F:102:PRO:HA	2.07	0.55
1:1A:905:U:O2	1:1A:2280:A:H2'	2.07	0.55
7:1H:143:GLN:HG3	7:1H:147:ASN:HD21	1.72	0.55
23:11:18:ILE:HG12	23:11:37:ILE:HG12	1.88	0.55
32:1a:737:A:H2'	32:1a:738:C:C6	2.42	0.55
36:1e:50:GLU:HB2	36:1e:53:LEU:HD13	1.87	0.55
41:1j:40:LEU:HB2	41:1j:69:ASN:HB2	1.88	0.55
54:1y:36:A:H2'	54:1y:37:MIA:O4'	2.07	0.55
1:2A:708:C:H42	1:2A:723:G:H1	1.54	0.55
1:2A:2112:G:H2'	1:2A:2113:U:O4'	2.07	0.55
28:26:10:LEU:HD23	28:26:22:ALA:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:926:G:H22	53:2v:15:A:H3'	1.72	0.55
43:2l:84:LEU:HB2	43:2l:105:TYR:CE2	2.41	0.55
1:1A:939:C:H2'	1:1A:940:C:C6	2.42	0.55
1:1A:2143:G:H1	1:1A:2199:C:N4	2.05	0.55
26:14:54:GLY:N	26:14:55:ARG:HA	2.21	0.55
38:1g:62:PHE:HA	38:1g:124:LEU:HD22	1.89	0.55
39:1h:14:ARG:NH2	39:1h:83:ILE:O	2.34	0.55
5:2F:32:LEU:O	5:2F:36:VAL:HG23	2.07	0.55
23:21:50:ARG:HG2	23:21:59:THR:HG22	1.88	0.55
32:2a:1030:C:H42	32:2a:1031:G:H1	1.55	0.55
32:2a:1109:C:H2'	32:2a:1110:A:O4'	2.07	0.55
1:1A:1218:G:O2'	1:1A:1219:A:O4'	2.24	0.55
1:1A:1451:U:H2'	1:1A:1452:U:C6	2.42	0.55
5:1F:101:LEU:O	5:1F:106:ARG:HD3	2.06	0.55
7:1H:90:LYS:HD3	7:1H:159:GLU:HG2	1.88	0.55
8:1I:75:LEU:O	8:1I:141:LYS:NZ	2.35	0.55
15:1T:74:ARG:HG2	15:1T:76:PHE:CZ	2.42	0.55
20:1Y:20:TYR:CE2	20:1Y:43:ASN:HA	2.42	0.55
32:1a:69:G:H2'	32:1a:70:G:H8	1.72	0.55
5:2F:183:VAL:O	5:2F:187:VAL:HG23	2.07	0.55
8:2I:12:LEU:HD22	8:2I:19:VAL:HG21	1.89	0.55
32:2a:554:C:H2'	32:2a:555:C:H6	1.71	0.55
41:2j:38:ILE:HD11	41:2j:71:LEU:HD23	1.89	0.55
1:1A:1432:C:H2'	1:1A:1433:C:C6	2.42	0.55
1:1A:1451:U:H2'	1:1A:1452:U:H6	1.72	0.55
14:1S:39:ILE:HB	14:1S:49:VAL:HG13	1.88	0.55
1:2A:1566:A:OP1	3:2D:211:ARG:NH1	2.40	0.55
23:21:80:LEU:HD23	23:21:82:LEU:HD21	1.87	0.55
24:22:1:MET:HE3	24:22:5:GLU:HB3	1.88	0.55
32:2a:1301:U:O2'	32:2a:1302:U:H5'	2.07	0.55
54:2y:35:A:H2'	54:2y:36:A:O4'	2.07	0.55
1:1A:1634:C:H2'	1:1A:1635:C:C6	2.42	0.54
1:1A:2603:C:P	3:1D:239:ARG:HG3	2.47	0.54
54:1w:23:A:H3'	54:1w:24:G:H8	1.72	0.54
54:1y:48:C:C2	54:1y:59:U:H1'	2.42	0.54
1:2A:952:G:OP1	12:2Q:16:ARG:NH2	2.39	0.54
1:2A:2315:G:H2'	1:2A:2316:C:C6	2.42	0.54
4:2E:27:LEU:HD22	15:2T:1:MET:HE1	1.87	0.54
8:2I:59:ALA:HA	8:2I:62:LYS:HB2	1.89	0.54
12:2Q:52:VAL:HA	12:2Q:55:VAL:HG13	1.89	0.54
32:2a:174:C:H2'	32:2a:175:C:H6	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:179:ARG:NH1	34:2c:206:GLU:OE1	2.40	0.54
7:1H:113:VAL:N	60:1H:201:HOH:O	2.39	0.54
32:1a:626:U:H2'	32:1a:627:G:H8	1.72	0.54
32:1a:976:G:H5'	32:1a:1358:U:O2'	2.07	0.54
34:1c:87:LEU:O	34:1c:91:LEU:HB2	2.07	0.54
38:1g:12:LEU:HD12	38:1g:12:LEU:H	1.72	0.54
1:2A:729:G:H2'	1:2A:1775:U:H1'	1.89	0.54
9:2N:38:HIS:ND1	9:2N:39:ARG:HG3	2.22	0.54
31:29:15:LYS:HB3	31:29:26:ILE:HG13	1.90	0.54
32:2a:1032:G:H2'	32:2a:1033:G:C8	2.43	0.54
1:1A:1068:G:N7	9:1N:66:LYS:HE2	2.22	0.54
10:1O:120:GLU:OE1	15:1T:67:SER:OG	2.20	0.54
12:1Q:109:VAL:HG13	12:1Q:113:GLN:HB3	1.88	0.54
32:1a:339:C:H2'	32:1a:340:U:C6	2.42	0.54
32:1a:524:G:H2'	32:1a:525:C:C6	2.42	0.54
34:1c:71:ALA:HA	34:1c:106:VAL:HB	1.89	0.54
2:2B:3:C:H2'	2:2B:4:C:C6	2.42	0.54
2:2B:40:U:H1'	2:2B:45:A:H61	1.72	0.54
28:26:34:LEU:HB2	28:26:51:GLU:HB3	1.89	0.54
32:2a:437:U:H5'	35:2d:155:LEU:HD21	1.87	0.54
40:2i:28:VAL:HA	40:2i:63:ILE:O	2.07	0.54
55:2x:47:U:N3	55:2x:50:U:OP1	2.41	0.54
1:1A:63:A:O3'	19:1X:71:GLY:HA3	2.08	0.54
1:1A:1425:A:N7	60:1A:4081:HOH:O	2.33	0.54
11:1P:50:ARG:HH21	30:18:7:HIS:HD2	1.56	0.54
16:1U:17:ILE:HG23	16:1U:39:LEU:HD12	1.87	0.54
1:2A:2260:C:OP1	60:2A:3616:HOH:O	2.18	0.54
4:2E:52:LEU:HB3	4:2E:76:ARG:HD3	1.89	0.54
8:2I:124:GLY:H	8:2I:144:VAL:HG23	1.72	0.54
12:2Q:1:MET:HB2	12:2Q:44:ALA:HB1	1.89	0.54
32:2a:263:A:OP1	51:2t:79:ARG:NH1	2.40	0.54
32:2a:1227:A:OP2	44:2m:111:LYS:HE2	2.08	0.54
39:2h:51:VAL:HG11	39:2h:60:ARG:NH1	2.22	0.54
1:1A:2579:G:H2'	1:1A:2580:C:C6	2.43	0.54
5:1F:135:LYS:HB2	5:1F:138:GLU:CD	2.33	0.54
44:1m:58:GLU:O	44:1m:62:ASN:ND2	2.25	0.54
1:2A:251:A:C5	1:2A:252:G:H1'	2.43	0.54
1:2A:2151:G:H2'	1:2A:2152:G:C8	2.42	0.54
1:2A:2287:A:H61	1:2A:2344:U:H3	1.55	0.54
1:2A:2788:C:H5''	4:2E:61:ARG:HH21	1.71	0.54
4:2E:127:ASP:OD2	60:2E:401:HOH:O	2.18	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:79:ASN:OD1	6:2G:79:ASN:N	2.25	0.54
12:2Q:82:ARG:HE	22:20:4:LYS:HG3	1.71	0.54
32:2a:284:G:N2	60:2a:2026:HOH:O	2.40	0.54
32:2a:865:A:H5'	32:2a:1078:U:C5	2.43	0.54
1:1A:2158:C:N4	1:1A:2177:G:C6	2.75	0.54
1:1A:2434:A:O4'	54:1y:76:A:N6	2.41	0.54
17:1V:5:VAL:HG21	17:1V:35:LEU:HD23	1.90	0.54
32:1a:176:C:H2'	32:1a:177:C:C6	2.42	0.54
32:1a:316:G:OP2	32:1a:351:G:O2'	2.24	0.54
32:1a:1068:G:N7	32:1a:1094:G:H2'	2.23	0.54
48:1q:13:ASP:HA	48:1q:19:VAL:HG12	1.89	0.54
1:2A:656:G:H2'	1:2A:657:U:O4'	2.07	0.54
1:2A:947:G:H2'	1:2A:948:G:C8	2.42	0.54
22:20:38:VAL:HG21	22:20:45:PHE:CD2	2.43	0.54
32:2a:11:G:H1	32:2a:23:C:H42	1.55	0.54
47:2p:43:LYS:HG2	47:2p:48:TRP:CG	2.43	0.54
1:1A:1452:U:H2'	1:1A:1453:C:C6	2.42	0.54
18:1W:71:VAL:HA	18:1W:107:LEU:HD12	1.90	0.54
32:1a:1054:C:C4	32:1a:1196:U:H5	2.25	0.54
35:1d:18:LYS:HG2	59:1d:303:SF4:S1	2.48	0.54
1:2A:896:A:H1'	54:2w:56:C:H5'	1.90	0.54
11:2P:88:LEU:HD22	11:2P:95:VAL:HG21	1.90	0.54
14:2S:14:VAL:O	14:2S:18:ILE:HG12	2.08	0.54
32:2a:882:C:OP2	43:2l:13:LYS:NZ	2.38	0.54
32:2a:923:A:N6	32:2a:1392:G:O6	2.41	0.54
32:2a:1328:C:O2'	44:2m:29:ARG:NE	2.39	0.54
33:2b:16:HIS:HB3	33:2b:210:SER:HB2	1.89	0.54
49:2r:47:THR:O	49:2r:47:THR:OG1	2.21	0.54
54:2w:39:PSU:H2'	54:2w:40:C:C6	2.42	0.54
1:1A:494:G:N7	29:17:39:ARG:NH2	2.52	0.54
1:1A:831:A:N7	3:1D:229:VAL:HG21	2.23	0.54
4:1E:31:CYS:HB3	4:1E:49:LEU:HG	1.90	0.54
6:1G:43:LEU:HD11	6:1G:153:ARG:HD2	1.89	0.54
32:1a:1491:G:C5	57:1a:1913:AKN:H2	2.43	0.54
34:1c:109:PRO:C	34:1c:111:LEU:H	2.15	0.54
1:2A:411:G:C5	11:2P:72:PRO:HB3	2.42	0.54
1:2A:589:C:H2'	1:2A:590:A:C8	2.43	0.54
39:2h:121:ASP:N	39:2h:121:ASP:OD1	2.40	0.54
54:2y:18:G:N1	54:2y:55:PSU:C4	2.71	0.54
1:1A:928:G:C2	1:1A:929:G:H1'	2.43	0.54
1:1A:1827:U:H2'	1:1A:1828:C:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:7:G:H5'	14:1S:29:PHE:CE2	2.43	0.54
4:1E:132:HIS:NE2	60:1E:401:HOH:O	2.29	0.54
19:1X:57:LEU:HD11	19:1X:78:LYS:HG2	1.90	0.54
19:1X:57:LEU:CD1	19:1X:78:LYS:HG2	2.38	0.54
22:10:53:MET:HG3	22:10:59:LEU:HD23	1.89	0.54
32:1a:601:C:H2'	32:1a:602:A:C8	2.43	0.54
32:1a:974:A:OP2	45:1n:29:ARG:NH2	2.40	0.54
33:1b:18:GLY:HA3	33:1b:42:ILE:HG13	1.89	0.54
33:1b:230:VAL:HG22	33:1b:231:GLU:H	1.71	0.54
1:2A:75:G:H4'	24:22:55:ARG:NH1	2.23	0.54
1:2A:2070:G:H2'	1:2A:2071:A:C8	2.43	0.54
32:2a:920:U:H2'	32:2a:921:U:C6	2.43	0.54
34:2c:78:GLY:HA3	34:2c:83:ARG:H	1.72	0.54
44:2m:39:ILE:HD11	44:2m:55:ARG:HD2	1.90	0.54
54:2y:42:C:H2'	54:2y:43:C:H6	1.73	0.54
12:1Q:11:LYS:NZ	12:1Q:88:GLY:O	2.33	0.54
24:12:65:ASN:OD1	24:12:69:ARG:NH1	2.41	0.54
32:1a:613:C:H2'	32:1a:614:A:C8	2.43	0.54
32:1a:1402:4OC:HM22	32:1a:1403:C:H5'	1.89	0.54
39:1h:83:ILE:HG13	39:1h:137:VAL:HG22	1.89	0.54
54:1w:2:C:N3	54:1w:71:G:N2	2.56	0.54
1:2A:607:U:OP1	5:2F:102:PRO:HA	2.08	0.54
1:2A:740:U:H2'	1:2A:741:G:H8	1.72	0.54
1:2A:1116:C:N4	1:2A:1117:G:O6	2.41	0.54
1:2A:1292:U:H2'	1:2A:1293:C:C6	2.43	0.54
3:2D:148:GLU:HB2	3:2D:151:LYS:HD2	1.89	0.54
32:2a:130:A:H5'	48:2q:63:ARG:HH11	1.71	0.54
32:2a:1245:A:H2'	32:2a:1246:C:O4'	2.08	0.54
34:2c:136:GLN:HB3	34:2c:140:ARG:HH12	1.71	0.54
47:2p:21:VAL:HG22	47:2p:33:ILE:HB	1.90	0.54
1:1A:2545:A:H2'	1:1A:2546:A:O4'	2.07	0.53
32:1a:165:C:H2'	32:1a:166:G:H8	1.73	0.53
32:1a:755:G:OP2	46:1o:65:ARG:HD2	2.08	0.53
37:1f:60:PHE:HE2	49:1r:78:LEU:HD21	1.73	0.53
54:1w:2:C:H42	54:1w:71:G:H1	1.56	0.53
1:2A:519:U:H2'	1:2A:520:G:H8	1.73	0.53
1:2A:2784:C:H1'	4:2E:37:ARG:NH1	2.21	0.53
1:2A:2786:U:O2'	4:2E:62:PRO:O	2.24	0.53
10:2O:63:VAL:HG23	10:2O:64:ARG:HG3	1.89	0.53
19:2X:29:TRP:CZ3	19:2X:78:LYS:HB3	2.42	0.53
32:2a:564:C:O2'	39:2h:91:ARG:NH2	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:987:G:H1	32:2a:1218:C:H42	1.56	0.53
32:2a:1040:U:H2'	32:2a:1041:A:H8	1.72	0.53
1:1A:1814:A:N7	60:1A:4084:HOH:O	2.34	0.53
11:1P:91:PHE:O	11:1P:121:LYS:NZ	2.41	0.53
32:1a:134:A:H61	47:1p:25:ARG:HH12	1.55	0.53
32:1a:1338:G:H2'	32:1a:1339:A:C8	2.43	0.53
33:1b:97:TRP:HZ2	33:1b:102:LEU:HD13	1.73	0.53
1:2A:27:G:N2	1:2A:512:G:H1'	2.23	0.53
1:2A:274:G:H2'	1:2A:275:G:C8	2.43	0.53
1:2A:305:U:H2'	1:2A:306:U:C6	2.43	0.53
1:2A:2286:A:OP1	28:26:29:ASN:ND2	2.41	0.53
4:2E:134:ILE:HA	4:2E:137:HIS:CD2	2.43	0.53
32:2a:677:U:O2	32:2a:777:A:O2'	2.19	0.53
32:2a:745:C:H2'	32:2a:746:A:H8	1.73	0.53
32:2a:1346:A:N1	32:2a:1374:A:H5''	2.23	0.53
32:2a:1494:G:N7	57:2a:1911:AKN:N15	2.56	0.53
1:1A:469:A:C5	5:1F:45:ARG:HD2	2.43	0.53
1:1A:1338:U:H2'	1:1A:1339:C:C6	2.43	0.53
1:1A:2850:C:H2'	1:1A:2851:C:C6	2.43	0.53
2:1B:75:G:H22	21:1Z:73:GLN:NE2	2.04	0.53
3:1D:175:LEU:HD12	3:1D:185:VAL:HG21	1.88	0.53
28:16:6:ARG:NH2	60:16:602:HOH:O	2.41	0.53
40:1i:6:GLY:HA3	40:1i:83:ARG:HB3	1.90	0.53
44:1m:123:ALA:HB2	54:1w:39:PSU:H1'	1.90	0.53
1:2A:521:G:H2'	1:2A:522:G:H8	1.72	0.53
1:2A:1593:G:H2'	1:2A:1594:G:H8	1.70	0.53
1:2A:1991:U:H2'	1:2A:1992:G:H5''	1.90	0.53
1:2A:2461:C:H2'	1:2A:2462:U:C6	2.43	0.53
9:2N:99:LEU:O	9:2N:103:VAL:HG23	2.08	0.53
32:2a:562:C:H1'	43:2l:15:ARG:HB3	1.89	0.53
33:2b:91:PRO:HG2	33:2b:155:LEU:HD13	1.90	0.53
34:2c:66:VAL:HG12	34:2c:68:VAL:HG23	1.89	0.53
36:2e:83:GLU:HA	36:2e:88:LYS:HA	1.90	0.53
1:1A:1884:A:H2'	1:1A:1885:A:C8	2.43	0.53
1:1A:2104:A:H2'	1:1A:2105:G:O4'	2.08	0.53
32:1a:176:C:H2'	32:1a:177:C:H6	1.73	0.53
32:1a:1031:G:H2'	32:1a:1032:G:C8	2.44	0.53
32:1a:1187:G:H2'	32:1a:1188:A:C8	2.43	0.53
48:1q:45:HIS:NE2	48:1q:47:PRO:HG3	2.24	0.53
1:2A:191:A:H2'	1:2A:192:C:C6	2.44	0.53
1:2A:641:C:H42	1:2A:647:G:H1	1.55	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1411:C:H42	1:2A:1591:G:H1	1.55	0.53
11:2P:37:GLY:O	11:2P:40:SER:OG	2.25	0.53
21:2Z:52:SER:OG	21:2Z:53:ILE:N	2.35	0.53
32:2a:1133:G:H2'	32:2a:1134:G:C8	2.44	0.53
32:2a:1299:A:H2'	32:2a:1299:A:N3	2.24	0.53
36:2e:122:GLU:O	36:2e:126:ARG:NH1	2.42	0.53
44:2m:15:VAL:HG13	44:2m:45:VAL:HG22	1.90	0.53
1:1A:1785:C:H5	15:1T:96:ARG:NH2	2.06	0.53
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	1.91	0.53
34:1c:175:LEU:HD21	34:1c:201:TYR:HE1	1.73	0.53
54:1y:40:C:H2'	54:1y:41:C:H6	1.73	0.53
1:2A:1653:G:O6	13:2R:11:ASN:ND2	2.41	0.53
1:2A:2454:G:H1'	60:2A:3618:HOH:O	2.09	0.53
1:2A:2454:G:OP1	60:2A:3615:HOH:O	2.18	0.53
4:2E:36:ARG:NH1	4:2E:85:ASN:OD1	2.42	0.53
13:2R:18:LEU:HD21	13:2R:22:ARG:CZ	2.38	0.53
41:2j:32:ALA:HB1	41:2j:33:GLN:HA	1.91	0.53
54:2w:12:U:H3'	54:2w:13:C:H5''	1.89	0.53
1:1A:2352:G:H2'	1:1A:2353:G:H8	1.73	0.53
1:1A:2850:C:H2'	1:1A:2851:C:H6	1.74	0.53
3:1D:85:ASP:HB2	3:1D:92:ILE:HG12	1.90	0.53
4:1E:145:LYS:NZ	60:1E:402:HOH:O	2.41	0.53
12:1Q:57:HIS:CD2	12:1Q:117:ALA:HB2	2.44	0.53
19:1X:31:HIS:CD2	19:1X:33:LYS:H	2.27	0.53
32:1a:998:G:H1	32:1a:1043:C:N4	2.07	0.53
34:1c:59:ARG:HG2	34:1c:64:VAL:HG23	1.91	0.53
34:1c:175:LEU:HD21	34:1c:201:TYR:CE1	2.44	0.53
35:1d:173:TRP:CE3	35:1d:174:LEU:HG	2.42	0.53
1:2A:863:A:H2'	1:2A:864:G:C8	2.44	0.53
11:2P:44:GLY:CA	11:2P:45:LEU:HB2	2.39	0.53
32:2a:137:C:H2'	32:2a:138:G:H8	1.74	0.53
32:2a:1005:A:H5''	32:2a:1006:C:C5	2.44	0.53
41:2j:23:ILE:HD12	41:2j:85:LEU:HD22	1.91	0.53
43:2l:113:ARG:HH21	43:2l:116:SER:HB2	1.74	0.53
1:1A:794:U:O2	1:1A:2036:A:H1'	2.09	0.53
4:1E:119:ARG:HG2	4:1E:120:TRP:CE2	2.44	0.53
32:1a:284:G:H2'	32:1a:285:G:C8	2.43	0.53
32:1a:770:C:OP1	60:1a:2012:HOH:O	2.19	0.53
50:1s:27:GLU:N	50:1s:27:GLU:OE1	2.39	0.53
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.23	0.53
1:2A:2111:C:N4	1:2A:2144:U:O2'	2.32	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:28:GLY:HA3	7:2H:79:VAL:HB	1.90	0.53
40:2i:21:PRO:HA	40:2i:59:PHE:HA	1.89	0.53
49:2r:22:VAL:HA	49:2r:25:THR:HG22	1.91	0.53
1:1A:8:A:H2'	1:1A:9:U:C6	2.44	0.53
1:1A:2205:C:H2'	1:1A:2206:G:H8	1.73	0.53
3:1D:79:VAL:HG12	3:1D:113:VAL:HA	1.91	0.53
20:1Y:92:ASN:N	20:1Y:93:GLY:HA2	2.24	0.53
21:1Z:102:LEU:HD12	21:1Z:137:ILE:HB	1.90	0.53
32:1a:200:G:H1	32:1a:217:C:H42	1.57	0.53
32:1a:692:U:O2'	32:1a:694:A:N7	2.35	0.53
32:1a:933:G:OP2	38:1g:3:ARG:HB2	2.09	0.53
32:1a:1223:C:P	50:1s:78:ARG:HH21	2.31	0.53
44:1m:3:ARG:HG3	44:1m:4:ILE:H	1.73	0.53
1:2A:848:G:OP1	60:2A:3617:HOH:O	2.18	0.53
1:2A:2377:A:H2'	1:2A:2378:A:C8	2.43	0.53
1:2A:2478:A:OP2	31:29:2:LYS:NZ	2.33	0.53
2:2B:54:G:H21	6:2G:29:TRP:HE1	1.57	0.53
6:2G:44:GLY:HA2	6:2G:88:ILE:HB	1.91	0.53
32:2a:631:G:H2'	32:2a:632:A:C8	2.41	0.53
32:2a:1438:G:H2'	32:2a:1439:C:C6	2.43	0.53
32:1a:757:U:H2'	32:1a:758:G:O4'	2.09	0.53
1:2A:90:U:H1'	1:2A:92:A:C8	2.44	0.53
1:2A:1857:G:O2'	1:2A:1885:A:N6	2.40	0.53
1:2A:2185:C:H2'	1:2A:2186:G:O4'	2.09	0.53
2:2B:25:A:H2'	2:2B:26:A:H8	1.72	0.53
2:2B:57:A:C4	6:2G:29:TRP:HB3	2.44	0.53
6:2G:41:GLN:HE21	6:2G:153:ARG:HB3	1.74	0.53
57:2O:202:AKN:O23	57:2O:202:AKN:H43	2.09	0.53
23:21:52:ARG:HH21	23:21:57:GLU:HB2	1.74	0.53
32:2a:17:U:H1'	32:2a:1080:A:N3	2.23	0.53
32:2a:297:G:N2	32:2a:300:A:OP2	2.42	0.53
32:2a:1010:G:H2'	32:2a:1011:G:C8	2.44	0.53
32:2a:1518:MA6:N6	32:2a:1519:MA6:H103	2.23	0.53
1:1A:347:G:C8	5:1F:171:PRO:HG3	2.43	0.53
1:1A:1154:U:H2'	1:1A:1155:C:O4'	2.09	0.53
7:1H:4:ILE:O	7:1H:69:ARG:HD2	2.09	0.53
8:1I:76:THR:HG22	8:1I:141:LYS:HB2	1.91	0.53
21:1Z:28:MET:HE1	21:1Z:61:LEU:HD21	1.91	0.53
32:1a:373:A:H2'	32:1a:374:A:H8	1.74	0.53
32:1a:975:A:H5'	32:1a:975:A:H8	1.74	0.53
33:1b:15:VAL:HG23	33:1b:16:HIS:ND1	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2396:G:OP1	23:21:25:LYS:NZ	2.34	0.53
1:2A:2896:C:H2'	1:2A:2897:U:H6	1.73	0.53
11:2P:100:LEU:HD12	11:2P:112:LEU:HD11	1.91	0.53
12:2Q:85:LYS:HD3	22:20:7:LEU:HD12	1.90	0.53
16:2U:76:TYR:CZ	16:2U:80:ILE:HG13	2.44	0.53
24:22:8:LYS:O	24:22:12:GLU:N	2.37	0.53
32:2a:179:A:H2'	32:2a:180:U:H6	1.74	0.53
32:2a:532:A:N6	32:2a:1206:G:O2'	2.42	0.53
32:2a:1030(A):G:N2	32:2a:1030(C):G:H3'	2.24	0.53
32:2a:1329:A:OP2	52:2u:7:ARG:NH1	2.42	0.53
38:2g:80:VAL:HB	38:2g:85:TYR:HE2	1.73	0.53
45:2n:32:SER:O	45:2n:40:CYS:HA	2.09	0.53
54:2y:6:G:N2	54:2y:67:C:N3	2.56	0.53
1:1A:1099:C:N3	1:1A:1152:G:N2	2.44	0.52
29:17:24:THR:HB	29:17:27:GLY:H	1.74	0.52
32:1a:625:G:H4'	47:1p:16:HIS:CD2	2.44	0.52
32:1a:890:G:O2'	32:1a:906:G:O6	2.21	0.52
40:1i:4:TYR:CE1	40:1i:88:TYR:HA	2.44	0.52
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.25	0.52
1:2A:2532:G:N2	1:2A:2663:G:O2'	2.42	0.52
6:2G:11:TYR:O	6:2G:16:ARG:N	2.42	0.52
10:2O:53:LYS:N	10:2O:56:ASP:OD2	2.34	0.52
22:20:27:GLU:HB2	22:20:69:PHE:HD1	1.74	0.52
32:2a:900:A:H2'	32:2a:901:A:C8	2.43	0.52
32:2a:1170:A:N6	32:2a:1171:G:N3	2.56	0.52
46:2o:87:ILE:O	46:2o:88:ARG:HB3	2.09	0.52
1:1A:1512:G:O2'	1:1A:1592:A:N1	2.39	0.52
8:1I:5:LEU:HD11	8:1I:19:VAL:HG22	1.92	0.52
54:1y:23:A:H2'	54:1y:24:G:C8	2.44	0.52
1:2A:2647:U:H2'	1:2A:2648:C:H6	1.75	0.52
5:2F:33:LEU:HB3	11:2P:6:LEU:HD21	1.90	0.52
6:2G:115:ARG:HB2	6:2G:115:ARG:NH1	2.24	0.52
32:2a:359:U:H2'	32:2a:360:A:C8	2.44	0.52
38:2g:68:ASN:HD22	38:2g:128:ALA:HA	1.74	0.52
54:2y:14:A:O2'	54:2y:15:G:OP1	2.24	0.52
2:1B:54:G:H2'	2:1B:55:U:H6	1.74	0.52
16:1U:19:LYS:O	16:1U:22:LYS:HG3	2.10	0.52
21:1Z:138:GLU:H	21:1Z:156:LYS:NZ	2.07	0.52
32:1a:189(C):C:H2'	32:1a:189(D):C:O4'	2.09	0.52
32:1a:266:G:H2'	32:1a:266:G:N3	2.24	0.52
32:1a:613:C:H2'	32:1a:614:A:H8	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:54:THR:HG23	33:1b:199:TYR:HB3	1.90	0.52
1:2A:249:C:O2	30:28:12:LYS:NZ	2.39	0.52
1:2A:928:G:H8	1:2A:928:G:O5'	1.92	0.52
1:2A:1412:A:H2'	1:2A:1413:G:C8	2.45	0.52
1:2A:1598:C:H2'	1:2A:1599:C:H6	1.73	0.52
1:2A:1790:C:H5''	1:2A:1791:A:OP1	2.09	0.52
1:2A:1839:G:C8	1:2A:1927:A:H1'	2.44	0.52
1:2A:2165:G:H2'	1:2A:2166:G:O4'	2.09	0.52
2:2B:106:G:H5'	21:2Z:31:ARG:HG2	1.92	0.52
22:20:54:GLY:O	22:20:56:ASP:N	2.42	0.52
32:2a:1351:U:H3	32:2a:1371:G:H1	1.58	0.52
34:2c:70:VAL:O	34:2c:106:VAL:N	2.39	0.52
1:1A:1324:A:OP1	13:1R:36:THR:HG22	2.10	0.52
1:1A:2812:A:N3	1:1A:2904:U:H1'	2.25	0.52
18:1W:82:LEU:HD22	18:1W:84:ARG:HH22	1.73	0.52
20:1Y:14:LEU:HB2	20:1Y:75:ILE:HD11	1.91	0.52
39:1h:21:LYS:O	39:1h:65:TYR:OH	2.25	0.52
1:2A:271(E):U:H2'	1:2A:271(F):C:C6	2.45	0.52
32:2a:967:5MC:H2'	32:2a:968:A:C8	2.45	0.52
33:2b:74:LYS:O	33:2b:78:GLN:HG2	2.10	0.52
34:2c:88:ARG:HA	34:2c:91:LEU:HB3	1.92	0.52
40:2i:85:LEU:HB3	40:2i:92:TYR:HD2	1.75	0.52
1:1A:240:A:C5	1:1A:241:G:H1'	2.44	0.52
1:1A:602:G:H2'	1:1A:603:C:C6	2.44	0.52
1:1A:878:G:N2	11:1P:53:GLY:O	2.43	0.52
1:1A:925:A:N6	1:1A:945:A:O2'	2.41	0.52
1:1A:965:G:N2	1:1A:2281:A:OP2	2.40	0.52
35:1d:172:PRO:C	35:1d:174:LEU:H	2.18	0.52
44:1m:87:TYR:O	44:1m:91:ARG:HG2	2.09	0.52
1:2A:2485:G:H5''	12:2Q:46:GLN:HE21	1.75	0.52
7:2H:107:VAL:O	7:2H:152:ARG:NH1	2.42	0.52
32:2a:134:A:H61	47:2p:25:ARG:NH1	2.08	0.52
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.92	0.52
32:2a:1049:U:C5	32:2a:1201:A:H5'	2.44	0.52
32:2a:1305:G:O2'	32:2a:1331:G:N2	2.42	0.52
36:2e:127:ASN:O	36:2e:131:ILE:HG12	2.10	0.52
1:1A:657:A:H2'	1:1A:658:A:C8	2.45	0.52
1:1A:799:A:H3'	29:17:1:MET:HE1	1.91	0.52
1:1A:2124:U:H3	1:1A:2209:G:H1	1.57	0.52
1:1A:2707:C:H2'	1:1A:2708:U:C6	2.44	0.52
10:1O:21:CYS:HB2	10:1O:39:ILE:HD12	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:1X:9:LEU:HA	24:12:36:ARG:HH21	1.74	0.52
32:1a:78:G:C6	32:1a:91:C:N4	2.77	0.52
32:1a:601:C:H2'	32:1a:602:A:H8	1.73	0.52
34:1c:22:TRP:CD1	34:1c:59:ARG:HD2	2.44	0.52
36:1e:12:LEU:HD12	36:1e:128:PRO:HB2	1.91	0.52
37:1f:35:ALA:HB2	37:1f:67:MET:HE2	1.91	0.52
1:2A:2010:G:H5''	18:2W:42:ARG:HB2	1.92	0.52
6:2G:11:TYR:CZ	6:2G:16:ARG:HD3	2.45	0.52
32:2a:625:G:H2'	32:2a:626:U:H6	1.75	0.52
32:2a:1128:C:O2'	32:2a:1147:C:N3	2.36	0.52
32:2a:1385:G:H2'	32:2a:1386:G:C8	2.45	0.52
34:2c:131:ARG:HH11	34:2c:166:GLU:HG2	1.75	0.52
36:2e:144:THR:H	36:2e:147:ASP:HB2	1.75	0.52
39:2h:51:VAL:HG21	39:2h:60:ARG:HB2	1.90	0.52
50:2s:50:ALA:HB1	50:2s:57:HIS:HB3	1.91	0.52
1:1A:515:G:N7	18:1W:49:LYS:NZ	2.57	0.52
1:1A:2482:G:P	12:1Q:56:ARG:HH12	2.32	0.52
32:1a:255:G:H1'	48:1q:16:GLN:OE1	2.10	0.52
32:1a:1030(D):A:H2'	32:1a:1031:G:H4'	1.92	0.52
32:1a:1320:C:H2'	32:1a:1321:C:O4'	2.10	0.52
43:1l:11:VAL:HG13	48:1q:29:HIS:HD2	1.75	0.52
54:1y:51:U:H2'	54:1y:52:G:C8	2.45	0.52
1:2A:1218:C:H42	1:2A:1231:G:H1	1.58	0.52
1:2A:1590:U:H2'	1:2A:1591:G:C8	2.45	0.52
1:2A:1843:C:H5'	3:2D:253:GLN:OE1	2.10	0.52
1:2A:2114:A:N6	1:2A:2115:G:H21	2.03	0.52
1:2A:2744:G:N2	7:2H:143:GLN:OE1	2.41	0.52
2:2B:54:G:H21	6:2G:29:TRP:NE1	2.08	0.52
4:2E:116:VAL:HG13	4:2E:122:PHE:HB2	1.92	0.52
21:2Z:99:TYR:HA	21:2Z:124:ILE:O	2.10	0.52
26:24:41:PRO:HG3	26:24:49:PHE:CZ	2.45	0.52
32:2a:117:G:OP2	60:2a:2008:HOH:O	2.19	0.52
32:2a:137:C:H2'	32:2a:138:G:C8	2.44	0.52
32:2a:584:G:H5'	48:2q:91:ARG:HH22	1.75	0.52
32:2a:1190:G:C5'	34:2c:176:HIS:HE1	2.22	0.52
37:2f:14:LEU:HD22	37:2f:18:GLN:HB2	1.92	0.52
1:1A:1221:G:H1'	1:1A:1222:A:H5''	1.92	0.52
1:1A:2101:U:O3'	23:11:35:THR:OG1	2.28	0.52
2:1B:13:A:N1	2:1B:69:G:O2'	2.38	0.52
2:1B:48:A:H4'	14:1S:95:HIS:CD2	2.37	0.52
32:1a:142:G:H2'	32:1a:143:A:H8	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:328:C:H4'	32:1a:329:A:H5'	1.91	0.52
32:1a:749:C:H2'	32:1a:750:G:H8	1.75	0.52
32:1a:1003:G:C4	32:1a:1004:A:H2	2.27	0.52
32:1a:1529:G:H4'	32:1a:1530:G:OP2	2.09	0.52
39:1h:91:ARG:HD3	48:1q:32:TYR:O	2.10	0.52
1:2A:526:A:O2'	1:2A:2043:C:O2	2.23	0.52
1:2A:863:A:H2'	1:2A:864:G:H8	1.75	0.52
1:2A:2305:A:H5''	6:2G:134:GLY:HA3	1.92	0.52
1:2A:2802:G:H2'	1:2A:2803:C:O4'	2.10	0.52
4:2E:119:ARG:HA	4:2E:160:TYR:CD2	2.44	0.52
10:2O:97:ARG:NH1	32:2a:339:C:OP2	2.42	0.52
14:2S:105:ALA:O	14:2S:110:LEU:HB2	2.10	0.52
32:2a:949:A:H1'	32:2a:1364:U:H3	1.75	0.52
1:1A:1660:A:C6	18:1W:87:PRO:HB3	2.45	0.52
24:12:1:MET:HE3	24:12:5:GLU:HB3	1.92	0.52
26:14:18:CYS:SG	26:14:20:ASN:HB2	2.50	0.52
32:1a:164:U:H2'	32:1a:165:C:C6	2.45	0.52
34:1c:39:ILE:HG23	34:1c:91:LEU:HD11	1.92	0.52
35:1d:118:ARG:HG3	35:1d:136:PRO:HB3	1.92	0.52
1:2A:647:G:H8	1:2A:647:G:O5'	1.93	0.52
1:2A:674:G:OP2	60:2A:3620:HOH:O	2.19	0.52
2:2B:42:C:O2'	6:2G:66:GLN:HG2	2.09	0.52
8:2I:116:LEU:HD11	8:2I:120:ILE:HG13	1.92	0.52
9:2N:58:ASP:OD1	9:2N:58:ASP:N	2.34	0.52
14:2S:11:LYS:HG3	14:2S:91:PRO:HD3	1.90	0.52
15:2T:41:ARG:NH1	32:2a:346:G:OP1	2.40	0.52
32:2a:333:G:H4'	51:2t:16:HIS:CE1	2.44	0.52
32:2a:765:G:N1	32:2a:812:C:O2'	2.40	0.52
32:2a:1089:G:H1	32:2a:1096:C:N4	2.08	0.52
35:2d:47:ARG:HH12	35:2d:49:ARG:HG2	1.75	0.52
40:2i:99:LEU:HB3	40:2i:101:PHE:CE2	2.45	0.52
1:1A:1272:A:OP1	17:1V:84:LYS:NZ	2.36	0.52
1:1A:1466:U:O2'	1:1A:1467:G:OP1	2.25	0.52
1:1A:1633:A:H2'	1:1A:1634:C:C6	2.45	0.52
1:1A:2023:A:H2'	1:1A:2024:G:C8	2.45	0.52
33:1b:201:ILE:O	33:1b:203:GLY:N	2.43	0.52
1:2A:1131:G:O6	1:2A:2040:C:H1'	2.09	0.52
2:2B:14:U:O3'	2:2B:108:U:O2'	2.27	0.52
8:2I:130:TYR:HB3	8:2I:138:ILE:HB	1.91	0.52
19:2X:14:SER:C	19:2X:16:LYS:H	2.18	0.52
32:2a:719:C:O2'	49:2r:49:LYS:HB3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1276:G:H2'	32:2a:1277:C:H6	1.75	0.52
33:2b:97:TRP:CH2	33:2b:102:LEU:HD13	2.43	0.52
34:2c:164:ARG:HG2	34:2c:165:THR:H	1.75	0.52
35:2d:119:GLN:HE21	35:2d:123:HIS:CD2	2.28	0.52
36:2e:5:ASP:N	36:2e:5:ASP:OD1	2.42	0.52
44:2m:10:PRO:HD2	44:2m:18:ALA:HA	1.92	0.52
1:1A:326:C:H2'	1:1A:327:U:H6	1.74	0.51
1:1A:2417:G:O2'	1:1A:2418:U:OP1	2.26	0.51
60:1A:4278:HOH:O	11:1P:7:ARG:HB2	2.10	0.51
6:1G:82:LEU:HD21	6:1G:88:ILE:HG21	1.93	0.51
6:1G:123:ASN:C	6:1G:125:PHE:H	2.18	0.51
32:1a:649:G:H2'	32:1a:650:G:H8	1.75	0.51
32:1a:741:G:H2'	32:1a:742:G:O4'	2.10	0.51
32:1a:785:G:H1	32:1a:797:C:H42	1.57	0.51
33:1b:63:MET:HG3	33:1b:225:ALA:HB1	1.92	0.51
37:1f:30:LEU:HD23	37:1f:75:LEU:HD11	1.92	0.51
41:1j:55:LYS:HG3	41:1j:56:HIS:H	1.76	0.51
44:1m:102:ARG:HE	44:1m:105:THR:HG23	1.76	0.51
1:2A:971:C:H2'	1:2A:972:G:O4'	2.10	0.51
1:2A:1366:A:OP1	23:21:3:LYS:NZ	2.38	0.51
4:2E:9:VAL:HG13	4:2E:25:VAL:O	2.09	0.51
8:2I:130:TYR:HD2	8:2I:138:ILE:HD12	1.74	0.51
54:2w:3:C:N3	54:2w:70:G:O6	2.43	0.51
1:1A:2175:G:H2'	1:1A:2176:G:H8	1.75	0.51
1:1A:2347:A:O2'	1:1A:2348:A:OP2	2.24	0.51
4:1E:2:LYS:HG3	4:1E:200:GLU:HB2	1.92	0.51
26:14:43:TYR:O	26:14:45:GLY:N	2.43	0.51
32:1a:109:A:OP1	60:1a:2013:HOH:O	2.19	0.51
1:2A:1027:A:C2	1:2A:2488:A:H5'	2.45	0.51
1:2A:2466:C:H5''	31:29:6:SER:HB3	1.92	0.51
2:2B:11:C:OP2	2:2B:12:C:N4	2.35	0.51
2:2B:30:C:H2'	2:2B:31:C:H5'	1.93	0.51
2:2B:78:A:OP2	60:2B:302:HOH:O	2.19	0.51
3:2D:218:ARG:HB3	3:2D:219:PRO:HD2	1.91	0.51
21:2Z:92:SER:O	21:2Z:130:PRO:HG3	2.10	0.51
26:24:9:LEU:HD23	26:24:27:THR:HG23	1.92	0.51
32:2a:154:C:H2'	32:2a:155:C:H6	1.76	0.51
32:2a:692:U:O2'	32:2a:694:A:N7	2.40	0.51
32:2a:986:A:N3	50:2s:52:TYR:OH	2.39	0.51
32:2a:1097:C:H1'	32:2a:1170:A:H1'	1.92	0.51
37:2f:1:MET:N	37:2f:69:GLU:OE2	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:2t:35:THR:O	51:2t:39:LYS:N	2.42	0.51
51:2t:50:GLU:HB2	51:2t:99:LEU:HD23	1.92	0.51
1:1A:1414:G:OP1	29:17:28:ARG:NH2	2.44	0.51
1:1A:2257:U:H5''	1:1A:2258:G:H5'	1.92	0.51
5:1F:34:TRP:HA	11:1P:6:LEU:HD13	1.91	0.51
6:1G:75:LYS:HA	6:1G:84:LYS:HG3	1.92	0.51
23:11:23:LYS:HB3	23:11:29:GLY:HA3	1.92	0.51
34:1c:199:LYS:HB3	34:1c:201:TYR:HE2	1.76	0.51
39:1h:7:ALA:HB2	39:1h:85:ARG:HG3	1.91	0.51
54:1y:5:G:H1'	54:1y:69:G:N2	2.25	0.51
1:2A:252:G:OP1	11:2P:50:ARG:NH1	2.41	0.51
1:2A:855:G:O2'	22:20:27:GLU:OE2	2.26	0.51
1:2A:1113:U:H2'	1:2A:1114:G:C8	2.44	0.51
1:2A:1607:C:N4	1:2A:1622:G:OP2	2.40	0.51
1:1A:469:A:N6	5:1F:41:LEU:O	2.43	0.51
1:1A:2707:C:H2'	1:1A:2708:U:H6	1.75	0.51
5:1F:31:HIS:NE2	5:1F:35:GLU:OE2	2.42	0.51
32:1a:767:A:H2'	32:1a:768:A:O4'	2.09	0.51
49:1r:52:PRO:HB2	49:1r:54:ARG:HG2	1.91	0.51
6:2G:41:GLN:HG2	6:2G:43:LEU:HD22	1.93	0.51
32:2a:308:C:H2'	32:2a:309:G:C8	2.46	0.51
33:2b:53:ARG:HA	33:2b:56:ARG:HH11	1.76	0.51
50:2s:10:PHE:HE2	50:2s:37:ARG:HD3	1.75	0.51
52:2u:2:GLY:C	52:2u:4:GLY:H	2.19	0.51
55:2x:3:C:H42	55:2x:70:G:H1	1.58	0.51
1:1A:1102:G:H4'	1:1A:1132:A:C8	2.44	0.51
1:1A:2504:U:H2'	1:1A:2505:U:C6	2.43	0.51
32:1a:396:G:O2'	32:1a:398:C:OP1	2.15	0.51
55:1x:50:U:H2'	55:1x:51:C:C6	2.46	0.51
1:2A:234:C:H2'	1:2A:235:U:C6	2.46	0.51
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.45	0.51
2:2B:66:A:H61	2:2B:109:C:H5''	1.75	0.51
26:24:46:GLN:C	26:24:48:ARG:H	2.18	0.51
32:2a:187:C:H2'	32:2a:188:C:C6	2.46	0.51
32:2a:375:U:OP1	47:2p:69:THR:HG21	2.11	0.51
32:2a:1057:G:H2'	32:2a:1058:G:O4'	2.10	0.51
32:2a:1203:C:H2'	32:2a:1204:A:H8	1.75	0.51
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.24	0.51
34:2c:6:HIS:CG	45:2n:49:HIS:HB3	2.46	0.51
35:2d:105:VAL:HG13	35:2d:110:PHE:HB2	1.93	0.51
55:2x:58:A:H4'	55:2x:59:A:OP1	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:302:A:H2'	1:1A:303:C:C6	2.45	0.51
1:1A:2820:A:N6	1:1A:2900:G:O2'	2.37	0.51
5:1F:184:TYR:O	5:1F:188:ARG:HG3	2.10	0.51
16:1U:47:TYR:HA	16:1U:50:ARG:NH2	2.26	0.51
32:1a:189(B):C:H2'	32:1a:189(C):C:C6	2.46	0.51
32:1a:339:C:H2'	32:1a:340:U:H6	1.76	0.51
32:1a:1027:C:C4	32:1a:1034:G:N1	2.79	0.51
32:1a:1191:A:OP1	34:1c:4:LYS:NZ	2.33	0.51
33:1b:210:SER:O	33:1b:214:ILE:HG12	2.11	0.51
38:1g:146:GLU:O	38:1g:149:ARG:HB2	2.11	0.51
1:2A:62:C:OP1	60:2A:3619:HOH:O	2.19	0.51
1:2A:515:A:H1'	1:2A:581:C:H1'	1.93	0.51
1:2A:2563:U:H4'	10:2O:28:SER:HA	1.91	0.51
32:2a:130:A:N3	32:2a:263:A:O2'	2.42	0.51
40:2i:85:LEU:O	40:2i:89:ASN:N	2.44	0.51
1:1A:104:C:H1'	20:1Y:1:MET:HE2	1.91	0.51
1:1A:1536:A:O2'	3:1D:99:ASP:OD1	2.28	0.51
1:1A:1831:C:OP2	3:1D:183:ARG:NH2	2.42	0.51
4:1E:181:LEU:HD11	15:1T:6:LEU:HD23	1.92	0.51
11:1P:82:GLY:HA2	11:1P:113:LYS:O	2.10	0.51
32:1a:228:A:H4'	47:1p:62:VAL:HG11	1.92	0.51
32:1a:1424:C:H2'	32:1a:1425:U:O4'	2.10	0.51
35:1d:163:GLU:O	35:1d:166:LYS:N	2.42	0.51
42:1k:27:ASN:OD1	42:1k:28:THR:N	2.39	0.51
1:2A:572:A:OP2	17:2V:78:LYS:NZ	2.43	0.51
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.11	0.51
3:2D:13:ARG:NH1	3:2D:16:MET:SD	2.84	0.51
32:2a:1099:G:OP2	33:2b:144:ARG:NH2	2.44	0.51
38:2g:54:THR:O	38:2g:56:GLN:N	2.40	0.51
1:1A:297:C:H2'	1:1A:298:G:C8	2.45	0.51
1:1A:2605:U:H2'	1:1A:2606:C:C6	2.45	0.51
5:1F:130:ALA:H	5:1F:142:TRP:CD1	2.29	0.51
8:1I:3:VAL:HG12	8:1I:38:LEU:HA	1.92	0.51
12:1Q:38:GLU:HG3	12:1Q:127:ILE:HB	1.93	0.51
32:1a:193:C:H2'	32:1a:194:C:C6	2.44	0.51
32:1a:690:G:C6	32:1a:691:G:C6	2.98	0.51
50:1s:48:THR:HG23	50:1s:61:TYR:HD1	1.76	0.51
51:1t:47:GLY:N	51:1t:48:LYS:HB2	2.26	0.51
54:1y:67:C:H2'	54:1y:68:C:C6	2.45	0.51
1:2A:793:A:OP2	1:2A:2071:A:O2'	2.22	0.51
8:2I:93:THR:HG22	8:2I:119:PRO:HB3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:29:1:MET:SD	31:29:35:ARG:N	2.83	0.51
32:2a:662:G:H2'	32:2a:663:A:C8	2.46	0.51
32:2a:743:U:H2'	32:2a:744:C:C6	2.46	0.51
32:2a:1145:C:H4'	32:2a:1146:A:H5'	1.92	0.51
32:2a:1179:A:H2'	32:2a:1180:A:O4'	2.10	0.51
32:2a:1191:A:OP2	34:2c:3:ASN:ND2	2.44	0.51
32:2a:1368:G:OP1	40:2i:111:ARG:NH2	2.43	0.51
1:1A:1911:A:H2'	1:1A:1912:A:C8	2.46	0.51
2:1B:66:A:H61	2:1B:109:C:H5'	1.76	0.51
14:1S:61:ASN:HB3	14:1S:64:GLU:HB2	1.92	0.51
27:15:16:ARG:HG3	27:15:17:ASP:N	2.25	0.51
32:1a:250:A:H4'	32:1a:251:G:O5'	2.11	0.51
34:1c:69:HIS:HA	34:1c:104:GLN:HB3	1.93	0.51
50:1s:63:THR:OG1	50:1s:65:ASN:OD1	2.27	0.51
1:2A:1149:G:H2'	1:2A:1150:C:C6	2.46	0.51
1:2A:1926:U:O2'	1:2A:1928:A:N7	2.36	0.51
2:2B:32:C:H2'	2:2B:33:G:O4'	2.10	0.51
5:2F:184:TYR:HE1	11:2P:3:LEU:HD21	1.76	0.51
26:24:53:GLU:HG2	26:24:55:ARG:H	1.76	0.51
32:2a:707:C:H2'	32:2a:708:C:H6	1.76	0.51
32:2a:977:A:H2'	32:2a:978:A:H5''	1.92	0.51
35:2d:112:VAL:HG22	35:2d:116:GLN:NE2	2.26	0.51
40:2i:50:LEU:HD13	40:2i:56:LEU:HA	1.93	0.51
43:2l:84:LEU:HB2	43:2l:105:TYR:HE2	1.76	0.51
1:1A:887:C:OP2	1:1A:977:G:N2	2.43	0.51
1:1A:1108:G:P	1:1A:1116:A:H1'	2.51	0.51
5:1F:184:TYR:CE2	5:1F:188:ARG:HD2	2.45	0.51
27:15:6:VAL:HG22	27:15:7:PRO:HD2	1.91	0.51
32:1a:626:U:H2'	32:1a:627:G:C8	2.46	0.51
32:1a:974:A:H8	32:1a:974:A:OP1	1.93	0.51
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.25	0.51
34:1c:3:ASN:OD1	34:1c:3:ASN:N	2.43	0.51
39:1h:29:SER:HB3	39:1h:32:LYS:HZ3	1.75	0.51
54:1y:18:G:O2'	54:1y:57:G:O6	2.29	0.51
1:2A:1782:C:H1'	1:2A:2609:U:H5''	1.93	0.51
1:2A:1800:C:OP1	3:2D:264:LYS:NZ	2.32	0.51
8:2I:37:VAL:HG13	8:2I:38:LEU:HD12	1.93	0.51
27:25:33:CYS:HB2	27:25:40:LYS:HD3	1.93	0.51
32:2a:45:U:H2'	32:2a:46:G:H8	1.76	0.51
32:2a:646:U:H2'	32:2a:647:C:C6	2.46	0.51
32:2a:1347:G:HO2'	32:2a:1373:G:H1	1.56	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:801:C:H2'	1:1A:802:C:H6	1.76	0.50
1:1A:821:A:H2'	1:1A:821:A:N3	2.26	0.50
1:1A:1405:A:H2'	1:1A:1406:A:H5'	1.93	0.50
1:1A:1994:A:H2'	1:1A:1995:G:C8	2.43	0.50
28:16:9:LEU:HD13	28:16:51:GLU:HB2	1.93	0.50
32:1a:22:G:H2'	32:1a:23:C:C6	2.46	0.50
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.43	0.50
1:2A:1464:C:H2'	1:2A:1465:G:C8	2.46	0.50
1:2A:1639:U:H2'	1:2A:1640:C:H5''	1.91	0.50
1:2A:2889:C:H2'	1:2A:2891:G:O4'	2.10	0.50
55:2x:53:G:H2'	55:2x:54:5MU:C6	2.45	0.50
1:1A:308:U:H2'	1:1A:309:C:C6	2.46	0.50
3:1D:11:PRO:O	3:1D:14:ARG:HG3	2.10	0.50
13:1R:33:ARG:HD3	13:1R:115:GLU:HB3	1.94	0.50
34:1c:73:PRO:HB3	34:1c:103:VAL:HG11	1.93	0.50
36:1e:33:VAL:HG21	36:1e:109:ILE:HG23	1.93	0.50
44:1m:67:GLU:HG3	44:1m:71:ARG:NH2	2.26	0.50
54:1w:6:G:H1	54:1w:67:C:N4	2.09	0.50
55:1x:61:C:H2'	55:1x:62:C:C6	2.45	0.50
1:2A:307:G:H21	1:2A:330:A:N6	2.09	0.50
1:2A:519:U:H2'	1:2A:520:G:C8	2.46	0.50
1:2A:1591:G:H2'	1:2A:1592:C:C6	2.46	0.50
3:2D:17:THR:O	3:2D:211:ARG:NH2	2.45	0.50
11:2P:98:GLU:O	11:2P:102:ARG:HG3	2.11	0.50
32:2a:114:U:H2'	32:2a:115:G:C8	2.45	0.50
32:2a:976:G:N2	32:2a:1363:C:OP2	2.39	0.50
36:2e:33:VAL:HG13	36:2e:112:LEU:HD12	1.92	0.50
36:2e:93:PRO:HG2	39:2h:105:ARG:NE	2.26	0.50
55:2x:12:G:H2'	55:2x:13:C:O4'	2.10	0.50
1:1A:1231:G:OP1	60:1A:4024:HOH:O	2.20	0.50
1:1A:1821:C:H5''	1:1A:1822:A:OP1	2.11	0.50
1:1A:2143:G:H2'	1:1A:2144:U:C6	2.46	0.50
6:1G:122:PRO:HG3	6:1G:182:LYS:H	1.75	0.50
32:1a:369:C:OP2	32:1a:388:G:N1	2.39	0.50
33:1b:162:ILE:O	33:1b:185:ILE:HG12	2.11	0.50
39:1h:64:LYS:HG2	39:1h:79:VAL:HG21	1.94	0.50
1:2A:1337:G:H2'	1:2A:1338:G:C8	2.47	0.50
1:2A:2218:U:O2	23:21:52:ARG:NH1	2.44	0.50
32:2a:179:A:H2'	32:2a:180:U:C6	2.46	0.50
32:2a:583:A:H2'	32:2a:584:G:O4'	2.11	0.50
32:2a:600:C:H2'	32:2a:601:C:C6	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:607:A:H2'	32:2a:608:A:O4'	2.11	0.50
32:2a:936:C:H2'	32:2a:937:A:O4'	2.12	0.50
32:2a:1075:C:H5''	33:2b:179:LYS:NZ	2.26	0.50
41:2j:46:ARG:HA	41:2j:64:GLU:HA	1.94	0.50
54:2y:5:G:N2	54:2y:68:C:N3	2.49	0.50
1:1A:831:A:O4'	3:1D:227:ASN:ND2	2.45	0.50
1:1A:1813:C:H1'	1:1A:2621:U:H5''	1.94	0.50
1:1A:2086:C:H2'	1:1A:2087:C:C6	2.47	0.50
5:1F:51:THR:O	5:1F:93:LYS:NZ	2.42	0.50
25:13:38:GLU:HB2	25:13:43:ILE:HD12	1.93	0.50
32:1a:664:G:N2	32:1a:741:G:H1	2.04	0.50
35:1d:64:LEU:HB2	35:1d:198:VAL:HG21	1.93	0.50
40:1i:65:VAL:HG11	40:1i:73:GLN:HB3	1.94	0.50
44:1m:15:VAL:O	44:1m:19:LEU:HD22	2.11	0.50
1:2A:271(H):G:H2'	1:2A:271(I):G:H8	1.75	0.50
1:2A:2880:C:O3'	13:2R:90:ARG:NH1	2.44	0.50
28:26:18:ARG:HD3	28:26:42:TRP:CD1	2.46	0.50
32:2a:45:U:H2'	32:2a:46:G:C8	2.47	0.50
32:2a:390:C:H4'	47:2p:28:ARG:HH21	1.76	0.50
32:2a:643:C:H2'	32:2a:644:G:H8	1.75	0.50
32:2a:1118:C:H1'	32:2a:1179:A:C5	2.46	0.50
39:2h:45:ILE:C	39:2h:64:LYS:HE3	2.36	0.50
50:2s:64:GLU:CD	50:2s:64:GLU:H	2.20	0.50
54:2w:39:PSU:H2'	54:2w:40:C:H6	1.76	0.50
54:2w:72:C:H2'	54:2w:73:A:C8	2.46	0.50
1:1A:26:G:H1'	1:1A:539:A:N6	2.26	0.50
1:1A:364:A:H2'	1:1A:365:G:O4'	2.12	0.50
1:1A:2331:G:N2	14:1S:3:ARG:HA	2.26	0.50
14:1S:87:PHE:HB2	14:1S:112:PHE:CE1	2.47	0.50
32:1a:1030:C:N3	32:1a:1031:G:N2	2.60	0.50
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.47	0.50
36:1e:52:PRO:HG2	36:1e:53:LEU:HD12	1.94	0.50
1:2A:154(A):C:H42	1:2A:171:G:H1	1.59	0.50
1:2A:1529:G:O6	1:2A:1541:G:N2	2.44	0.50
1:2A:2820:A:P	13:2R:2:ARG:HH22	2.34	0.50
1:2A:2896:C:H2'	1:2A:2897:U:C6	2.47	0.50
14:2S:14:VAL:HG21	14:2S:90:GLY:O	2.12	0.50
24:22:35:LEU:HD12	24:22:53:LEU:HD12	1.93	0.50
32:2a:841:U:H6	32:2a:841:U:P	2.34	0.50
34:2c:47:LEU:HD12	34:2c:68:VAL:HG11	1.94	0.50
37:2f:91:VAL:HG11	49:2r:72:ARG:NH1	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:776:G:C6	3:1D:208:LYS:HB2	2.47	0.50
1:1A:2127:C:H2'	1:1A:2128:G:H8	1.76	0.50
1:1A:2352:G:H2'	1:1A:2353:G:C8	2.46	0.50
21:1Z:30:ASN:O	21:1Z:32:HIS:N	2.45	0.50
32:1a:430:A:OP2	35:1d:8:VAL:HG12	2.11	0.50
39:1h:51:VAL:HG11	39:1h:60:ARG:HH12	1.76	0.50
48:1q:61:GLU:HA	48:1q:71:PHE:CD1	2.46	0.50
1:2A:422:A:H2'	1:2A:423:A:C8	2.47	0.50
2:2B:19:G:H2'	2:2B:20:C:O4'	2.11	0.50
6:2G:31:VAL:O	6:2G:33:ARG:NH1	2.45	0.50
7:2H:164:TYR:HB2	7:2H:167:GLU:HB2	1.94	0.50
32:2a:123:C:H2'	32:2a:124:G:H8	1.77	0.50
32:2a:768:A:N3	32:2a:1512:U:O2'	2.43	0.50
36:2e:126:ARG:HA	36:2e:131:ILE:HD11	1.92	0.50
38:2g:23:VAL:O	38:2g:27:ILE:HG13	2.12	0.50
1:1A:308:U:H2'	1:1A:309:C:H6	1.76	0.50
1:1A:469:A:H1'	1:1A:1246:C:O4'	2.11	0.50
1:1A:1093:G:H2'	1:1A:1156:G:N2	2.25	0.50
5:1F:152:GLU:OE1	5:1F:191:ARG:HD2	2.11	0.50
32:1a:1325:C:OP1	52:1u:15:ARG:NH2	2.45	0.50
49:1r:45:SER:OG	49:1r:47:THR:HG22	2.12	0.50
1:2A:62:C:H42	1:2A:93:G:H1	1.60	0.50
1:2A:2130:U:H4'	1:2A:2133:G:H4'	1.94	0.50
5:2F:154:VAL:HG22	5:2F:191:ARG:HB2	1.94	0.50
15:2T:102:ILE:HA	15:2T:105:LEU:HD12	1.94	0.50
32:2a:109:A:C6	32:2a:326:G:C6	3.00	0.50
32:2a:560:U:H4'	32:2a:561:U:O5'	2.11	0.50
32:2a:828:A:H2'	32:2a:829:G:O4'	2.12	0.50
33:2b:118:LEU:HD13	33:2b:142:LEU:HB2	1.94	0.50
33:2b:189:ASP:OD1	33:2b:189:ASP:N	2.40	0.50
33:2b:224:GLN:HA	33:2b:228:GLY:O	2.11	0.50
1:1A:909:G:H2'	1:1A:910:A:O4'	2.12	0.50
1:1A:1895:U:OP1	1:1A:2422:G:O2'	2.26	0.50
2:1B:14:U:OP2	2:1B:70:C:O2'	2.25	0.50
18:1W:46:PHE:O	18:1W:50:VAL:HG23	2.12	0.50
32:1a:165:C:H2'	32:1a:166:G:C8	2.47	0.50
33:1b:21:ARG:HG2	33:1b:21:ARG:O	2.12	0.50
38:1g:22:LEU:HG	38:1g:62:PHE:CE2	2.46	0.50
1:2A:1027:A:N6	1:2A:1126:A:C4	2.80	0.50
1:2A:2366:A:H2'	1:2A:2367:G:O4'	2.11	0.50
4:2E:9:VAL:HB	15:2T:3:ARG:HG2	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:147:PRO:HB2	4:2E:149:ARG:HG2	1.93	0.50
10:2O:98:VAL:HG13	10:2O:117:LEU:HB3	1.93	0.50
21:2Z:28:MET:SD	21:2Z:59:LEU:HD12	2.51	0.50
32:2a:643:C:O2'	39:2h:132:GLU:OE1	2.20	0.50
32:2a:978:A:O2'	32:2a:1322:C:N3	2.38	0.50
33:2b:16:HIS:HB2	33:2b:204:ASN:CB	2.37	0.50
33:2b:60:ASP:O	33:2b:64:ARG:HG2	2.12	0.50
33:2b:101:MET:HG2	33:2b:108:ILE:HG21	1.94	0.50
38:2g:12:LEU:HD23	38:2g:24:THR:HG22	1.94	0.50
1:1A:1921:G:N3	1:1A:1921:G:H2'	2.27	0.50
3:1D:123:ALA:HB3	3:1D:131:LEU:HG	1.94	0.50
8:1I:65:ALA:HB1	8:1I:136:VAL:HG11	1.93	0.50
32:1a:184:G:O2'	32:1a:224:C:OP1	2.29	0.50
36:1e:77:PRO:HD2	36:1e:142:LEU:HD22	1.93	0.50
1:2A:71:A:H4'	1:2A:72:U:H5''	1.94	0.50
1:2A:271(A):A:N7	1:2A:271(W):G:N2	2.59	0.50
1:2A:1426:G:OP2	1:2A:1427:A:O2'	2.28	0.50
1:2A:2369:A:H2'	1:2A:2370:G:C8	2.47	0.50
1:2A:2533:A:OP1	1:2A:2665:A:O2'	2.20	0.50
5:2F:33:LEU:HD13	5:2F:112:MET:HE2	1.92	0.50
6:2G:124:SER:HB2	6:2G:131:TYR:CE1	2.47	0.50
11:2P:62:LEU:HD11	30:28:50:LEU:HD11	1.93	0.50
11:2P:84:ASN:CG	11:2P:117:GLU:HB2	2.37	0.50
28:26:6:ARG:NH1	28:26:26:ASN:HB2	2.26	0.50
31:29:15:LYS:HD2	31:29:26:ILE:HD11	1.94	0.50
32:2a:202:U:H3'	32:2a:203:U:C5	2.47	0.50
32:2a:224:C:H2'	32:2a:225:C:H6	1.76	0.50
32:2a:750:G:N3	46:2o:23:GLY:HA3	2.27	0.50
39:2h:87:SER:HB2	39:2h:93:VAL:HB	1.92	0.50
47:2p:52:ASP:O	47:2p:54:GLU:N	2.44	0.50
1:1A:1073:A:C2	1:1A:2500:A:H5'	2.47	0.49
1:1A:2589:A:O4'	27:15:3:LYS:HB2	2.12	0.49
33:1b:60:ASP:O	33:1b:64:ARG:HG2	2.12	0.49
34:1c:19:GLU:HB3	34:1c:40:ARG:NH2	2.27	0.49
48:1q:53:LEU:HD23	48:1q:82:MET:HE1	1.93	0.49
1:2A:588:U:H2'	1:2A:589:C:C6	2.46	0.49
1:2A:1257:C:H4'	5:2F:83:PHE:CD1	2.47	0.49
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.46	0.49
1:2A:1581:G:H2'	1:2A:1582:C:O4'	2.12	0.49
1:2A:1589:C:H2'	1:2A:1590:U:C6	2.46	0.49
1:2A:2420:C:P	30:28:33:ASN:H	2.35	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:3:ARG:HH22	7:2H:5:GLY:HA3	1.77	0.49
13:2R:88:ARG:NH1	13:2R:89:ASP:OD2	2.45	0.49
32:2a:1053:G:H4'	32:2a:1054:C:H3'	1.94	0.49
32:2a:1106:G:H5''	34:2c:172:ARG:HB3	1.94	0.49
32:2a:1144:G:H21	32:2a:1146:A:H62	1.58	0.49
32:2a:1244:C:N3	32:2a:1293:G:N2	2.46	0.49
32:2a:1321:C:H4'	44:2m:87:TYR:CE2	2.47	0.49
1:1A:9:U:H3	1:1A:2641:A:H2	1.61	0.49
1:1A:739:C:O2'	3:1D:38:LYS:NZ	2.45	0.49
1:1A:937:A:H2'	1:1A:938:G:O4'	2.11	0.49
1:1A:2728:C:H2'	1:1A:2729:U:H6	1.77	0.49
1:1A:2859:U:H4'	1:1A:2878:A:C2	2.47	0.49
19:1X:41:ASN:O	19:1X:45:THR:HG23	2.11	0.49
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.47	0.49
54:1y:23:A:H2'	54:1y:24:G:H8	1.77	0.49
1:2A:287:C:H2'	1:2A:288:C:C6	2.47	0.49
1:2A:747:U:O2	1:2A:2014:A:H1'	2.12	0.49
1:2A:2318:G:H21	14:2S:3:ARG:HD3	1.77	0.49
4:2E:4:ILE:HD11	4:2E:29:GLY:HA2	1.94	0.49
33:2b:87:ARG:HH11	33:2b:219:VAL:HG12	1.76	0.49
47:2p:8:ARG:HB3	47:2p:28:ARG:NH1	2.26	0.49
1:1A:611:U:O4	1:1A:717:A:H1'	2.12	0.49
1:1A:1091:A:O2'	1:1A:1093:G:C4	2.64	0.49
1:1A:1296:G:OP2	11:1P:21:ARG:NH1	2.45	0.49
1:1A:1727:U:H2'	1:1A:1728:G:O4'	2.12	0.49
1:1A:2133:C:N3	1:1A:2167:C:O2'	2.44	0.49
8:1I:75:LEU:HD13	8:1I:105:HIS:CE1	2.46	0.49
8:1I:93:THR:H	8:1I:96:ASP:HB2	1.77	0.49
10:1O:104:ARG:NE	15:1T:36:GLU:OE2	2.44	0.49
27:15:49:CYS:O	27:15:56:LYS:NZ	2.35	0.49
32:1a:539:A:H2'	32:1a:540:G:C8	2.47	0.49
32:1a:1376:U:H2'	32:1a:1377:A:C8	2.47	0.49
49:1r:58:LEU:HB3	49:1r:62:GLU:HB3	1.95	0.49
50:1s:28:LYS:NZ	50:1s:46:GLY:O	2.39	0.49
54:1w:48:C:C2	54:1w:59:U:H1'	2.47	0.49
1:2A:728:G:H5''	3:2D:13:ARG:HH21	1.77	0.49
1:2A:956:G:H2'	1:2A:957:A:H2'	1.94	0.49
1:2A:1499:C:H2'	1:2A:1500:G:H8	1.78	0.49
1:2A:2082:A:H2'	1:2A:2083:G:O4'	2.11	0.49
1:2A:2270:G:N7	60:2A:3642:HOH:O	2.35	0.49
1:2A:2563:U:N3	1:2A:2566:A:OP2	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:950:U:H2'	32:2a:951:G:C8	2.47	0.49
32:2a:1085:U:H3'	32:2a:1086:U:C6	2.48	0.49
37:2f:42:GLU:HG3	37:2f:61:LEU:HD12	1.94	0.49
49:2r:52:PRO:HB2	49:2r:54:ARG:HG2	1.94	0.49
55:2x:37:A:H2'	55:2x:38:A:O4'	2.11	0.49
1:1A:880:U:O2	11:1P:55:ARG:NH2	2.44	0.49
1:1A:1898:A:H2'	1:1A:1899:A:C8	2.48	0.49
1:1A:2409:G:OP1	60:1A:4025:HOH:O	2.20	0.49
1:1A:2651:A:H2'	1:1A:2652:G:O4'	2.12	0.49
3:1D:37:LEU:HD22	3:1D:87:ASN:ND2	2.28	0.49
5:1F:52:LYS:HG2	5:1F:56:GLU:HB2	1.94	0.49
19:1X:11:PRO:HD3	24:12:37:PHE:CD2	2.47	0.49
32:1a:406:G:H2'	32:1a:407:G:C8	2.47	0.49
32:1a:1030:C:N3	32:1a:1031:G:C2	2.80	0.49
32:1a:1183:A:O2'	32:1a:1184:G:OP1	2.29	0.49
32:1a:1250:A:H4'	40:1i:68:GLY:N	2.27	0.49
33:1b:30:ARG:HH21	33:1b:194:PRO:HB2	1.77	0.49
34:1c:35:GLU:CD	34:1c:59:ARG:HH22	2.19	0.49
39:1h:121:ASP:HB2	39:1h:125:ARG:NH2	2.27	0.49
44:1m:9:ILE:HB	44:1m:18:ALA:HB1	1.93	0.49
1:2A:602:G:O2'	1:2A:655:A:N6	2.45	0.49
6:2G:179:PRO:HB2	26:24:42:PHE:CE2	2.46	0.49
7:2H:84:SER:HB3	7:2H:132:ARG:HH11	1.78	0.49
12:2Q:26:TYR:O	12:2Q:67:ARG:NH1	2.39	0.49
21:2Z:65:GLN:HB3	21:2Z:67:LEU:HD21	1.93	0.49
27:25:16:ARG:HD2	27:25:17:ASP:OD1	2.13	0.49
32:2a:554:C:H2'	32:2a:555:C:C6	2.47	0.49
32:2a:1491:G:C4	57:2a:1911:AKN:H4	2.48	0.49
34:2c:183:ASP:N	34:2c:202:ILE:O	2.40	0.49
35:2d:200:GLU:O	35:2d:204:ILE:HG12	2.12	0.49
1:1A:1410:G:O5'	23:11:3:LYS:HG3	2.12	0.49
1:1A:1410:G:P	23:11:3:LYS:HG3	2.52	0.49
1:1A:1936:C:H2'	1:1A:1937:5MU:O4'	2.13	0.49
1:1A:2863:C:H2'	1:1A:2864:G:C8	2.47	0.49
7:1H:127:GLU:C	7:1H:129:THR:H	2.21	0.49
32:1a:445:G:H2'	32:1a:446:G:C8	2.47	0.49
32:1a:1084:G:C5	32:1a:1085:U:C4	3.01	0.49
32:1a:1368:G:OP1	40:1i:111:ARG:NH2	2.45	0.49
1:2A:918:A:N3	2:2B:80:U:O2'	2.44	0.49
1:2A:1364:G:P	23:21:3:LYS:HG3	2.52	0.49
1:2A:1518:U:H2'	1:2A:1519:G:O4'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2630:G:H2'	1:2A:2631:G:C8	2.47	0.49
1:2A:2823:A:OP1	4:2E:159:HIS:NE2	2.41	0.49
7:2H:3:ARG:NH2	7:2H:5:GLY:H	2.09	0.49
22:20:37:LEU:HG	22:20:60:PHE:HA	1.93	0.49
32:2a:392:G:H2'	32:2a:393:A:C8	2.47	0.49
32:2a:867:G:OP2	32:2a:867:G:H8	1.95	0.49
32:2a:868:C:H2'	32:2a:869:G:O4'	2.12	0.49
32:2a:1103:C:OP1	33:2b:96:ARG:NH2	2.42	0.49
32:2a:1226:C:OP2	44:2m:91:ARG:NH1	2.40	0.49
1:1A:1560:U:H2'	1:1A:1561:C:H6	1.77	0.49
1:1A:1942:4OC:HM22	1:1A:1943:G:H5'	1.94	0.49
9:1N:129:PRO:O	9:1N:131:GLN:N	2.45	0.49
32:1a:195:A:H1'	32:1a:222:U:O2'	2.13	0.49
32:1a:543:C:C2'	32:1a:544:G:H5'	2.43	0.49
32:1a:916:G:H2'	32:1a:917:G:C8	2.47	0.49
32:1a:1037:C:H2'	32:1a:1038:C:C6	2.46	0.49
1:2A:900:A:HO2'	1:2A:901:A:P	2.34	0.49
1:2A:1471:A:OP2	1:2A:1519:G:N1	2.32	0.49
3:2D:11:PRO:O	3:2D:14:ARG:HG3	2.13	0.49
3:2D:16:MET:HE2	3:2D:208:LYS:HG2	1.95	0.49
4:2E:101:ARG:HD2	4:2E:171:GLU:HA	1.94	0.49
9:2N:43:THR:HG22	9:2N:44:PRO:HD2	1.93	0.49
16:2U:115:ALA:C	16:2U:117:GLN:H	2.20	0.49
20:2Y:56:PRO:C	20:2Y:58:GLY:H	2.21	0.49
32:2a:376:G:H5''	47:2p:5:ARG:HD2	1.95	0.49
32:2a:1170:A:C6	32:2a:1171:G:H1'	2.46	0.49
33:2b:80:ILE:HD11	33:2b:212:GLN:HA	1.95	0.49
41:2j:11:PHE:CE1	41:2j:67:THR:HG22	2.48	0.49
51:2t:57:ARG:HH12	51:2t:100:ILE:HD12	1.78	0.49
1:1A:1112:U:H2'	1:1A:1114:G:OP2	2.12	0.49
3:1D:232:PRO:HB3	3:1D:244:ARG:NH2	2.28	0.49
26:14:28:LYS:HE2	26:14:31:ILE:HD11	1.94	0.49
32:1a:688:G:H2'	32:1a:689:C:C6	2.46	0.49
35:1d:26:CYS:HB3	59:1d:303:SF4:S1	2.52	0.49
1:2A:567:A:OP2	11:2P:29:LYS:NZ	2.31	0.49
3:2D:218:ARG:HD3	60:2D:401:HOH:O	2.11	0.49
6:2G:173:LEU:HB3	6:2G:178:PHE:CG	2.48	0.49
11:2P:82:GLY:HA2	11:2P:113:LYS:O	2.12	0.49
11:2P:97:PRO:HD3	11:2P:126:VAL:O	2.12	0.49
13:2R:33:ARG:HD2	13:2R:115:GLU:HB3	1.95	0.49
21:2Z:46:LYS:O	21:2Z:50:GLN:NE2	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:356:A:OP2	60:2a:2010:HOH:O	2.20	0.49
32:2a:745:C:H2'	32:2a:746:A:C8	2.47	0.49
32:2a:1259:C:C4	32:2a:1260:C:H1'	2.47	0.49
43:2l:53:ARG:NH1	43:2l:92:0TD:OD1	2.41	0.49
54:2y:36:A:H2'	54:2y:37:MIA:O4'	2.12	0.49
1:1A:32:C:O2'	1:1A:33:U:H5'	2.13	0.49
1:1A:286:C:H5'	60:1A:4507:HOH:O	2.13	0.49
1:1A:664:U:H2'	1:1A:665:C:C6	2.48	0.49
1:1A:1109:G:N2	1:1A:1122:C:O2'	2.45	0.49
1:1A:1679:A:N7	60:1A:4089:HOH:O	2.35	0.49
1:1A:1814:A:H5'	1:1A:2620:G:H4'	1.94	0.49
1:1A:2699:U:H2'	1:1A:2700:U:O4'	2.12	0.49
3:1D:146:GLU:HB2	3:1D:189:CYS:HB3	1.94	0.49
10:1O:49:ARG:HH12	32:1a:1423:G:P	2.36	0.49
12:1Q:135:ASP:N	12:1Q:138:ASP:OD2	2.40	0.49
21:1Z:92:SER:O	21:1Z:130:PRO:HG2	2.13	0.49
32:1a:137:C:H1'	47:1p:62:VAL:O	2.12	0.49
32:1a:224:C:H2'	32:1a:225:C:C6	2.48	0.49
32:1a:342:C:H2'	32:1a:343:U:C6	2.47	0.49
32:1a:584:G:H5'	48:1q:91:ARG:NH2	2.21	0.49
32:1a:993:G:H2'	32:1a:995:C:H41	1.77	0.49
34:1c:6:HIS:CD2	34:1c:8:ILE:H	2.26	0.49
54:1y:38:A:H2'	54:1y:39:PSU:O4'	2.12	0.49
1:2A:71:A:N7	19:2X:31:HIS:HE1	2.10	0.49
1:2A:391:G:O2'	1:2A:410:G:OP1	2.26	0.49
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.13	0.49
2:2B:91:C:OP1	12:2Q:16:ARG:HG3	2.13	0.49
6:2G:39:ILE:HD11	6:2G:102:PHE:CZ	2.48	0.49
18:2W:14:PRO:HA	18:2W:17:VAL:HG23	1.93	0.49
32:2a:164:U:H2'	32:2a:165:C:H6	1.78	0.49
38:2g:65:ALA:HB3	38:2g:124:LEU:HD23	1.93	0.49
42:2k:43:SER:HB3	42:2k:68:ALA:HB2	1.93	0.49
44:2m:20:THR:HG21	44:2m:27:LYS:HD2	1.94	0.49
46:2o:80:ALA:HA	46:2o:83:GLU:HG2	1.94	0.49
55:2x:73:A:H5''	55:2x:74:C:H5'	1.94	0.49
1:1A:2044:U:O2'	1:1A:2629:C:H5'	2.12	0.49
1:1A:2262:G:OP1	12:1Q:85:LYS:NZ	2.29	0.49
1:1A:2879:G:H2'	1:1A:2880:C:O4'	2.13	0.49
32:1a:233:C:H2'	32:1a:234:C:H6	1.78	0.49
32:1a:841:U:C4	32:1a:848:C:H1'	2.48	0.49
41:1j:5:ARG:HG3	41:1j:71:LEU:HD11	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1709:U:H2'	1:2A:1710:C:C6	2.48	0.49
1:2A:2649:U:H2'	1:2A:2650:U:C6	2.48	0.49
1:2A:2693:A:H2'	1:2A:2694:G:H8	1.76	0.49
4:2E:135:HIS:H	4:2E:135:HIS:CD2	2.31	0.49
8:2I:41:GLU:HA	8:2I:44:LEU:HB2	1.95	0.49
32:2a:46:G:H2'	32:2a:366:C:C5	2.47	0.49
32:2a:91:C:H2'	32:2a:92:C:C6	2.48	0.49
32:2a:107:G:H2'	32:2a:108:G:O4'	2.12	0.49
32:2a:1227:A:H3'	32:2a:1227:A:N3	2.27	0.49
41:2j:7:LYS:HD2	41:2j:9:ARG:HH12	1.77	0.49
50:2s:80:TYR:O	50:2s:82:GLY:N	2.38	0.49
54:2y:65:G:H2'	54:2y:66:U:C6	2.48	0.49
1:1A:1785:C:H2'	1:1A:1786:A:C8	2.48	0.49
1:1A:2311:G:N2	1:1A:2330:G:H1'	2.28	0.49
10:1O:48:PRO:CB	32:1a:1422:G:H5''	2.43	0.49
13:1R:103:ARG:HD3	13:1R:108:GLY:O	2.13	0.49
14:1S:28:VAL:HG11	14:1S:98:VAL:HG13	1.95	0.49
22:10:26:TYR:N	22:10:29:GLN:OE1	2.29	0.49
32:1a:108:G:N1	51:1t:15:ARG:HG2	2.27	0.49
44:1m:118:ALA:HB2	55:1x:28:C:H4'	1.94	0.49
54:1y:68:C:H2'	54:1y:69:G:H5''	1.95	0.49
1:2A:299:A:H5''	20:2Y:86:ARG:NH2	2.21	0.49
1:2A:776:G:N7	1:2A:793:A:O2'	2.46	0.49
1:2A:882:G:H1	1:2A:894:C:H42	1.61	0.49
1:2A:1161:C:H2'	1:2A:1162:G:C8	2.48	0.49
1:2A:1803:A:N1	1:2A:1822:G:O2'	2.40	0.49
1:2A:2019:A:N7	27:25:9:LYS:HE2	2.28	0.49
1:2A:2117:A:O2'	1:2A:2118:U:H5''	2.13	0.49
1:2A:2137:C:N3	1:2A:2155:G:C6	2.81	0.49
3:2D:68:LYS:O	3:2D:69:ARG:HB2	2.12	0.49
5:2F:53:THR:HG22	5:2F:56:GLU:HG3	1.95	0.49
10:2O:104:ARG:NH1	10:2O:104:ARG:HB2	2.27	0.49
38:2g:115:ARG:HH11	38:2g:118:VAL:HG21	1.77	0.49
41:2j:69:ASN:O	41:2j:70:ARG:NH1	2.34	0.49
1:1A:339:G:H2'	1:1A:340:C:C6	2.48	0.48
1:1A:597:C:N3	4:1E:145:LYS:NZ	2.40	0.48
1:1A:1210:G:H2'	1:1A:1211:U:C6	2.48	0.48
1:1A:2863:C:H2'	1:1A:2864:G:H8	1.77	0.48
21:1Z:24:LEU:HD21	21:1Z:86:VAL:HG13	1.95	0.48
32:1a:237:C:H5''	48:1q:25:ARG:CZ	2.43	0.48
32:1a:1159:U:OP1	33:1b:133:LYS:NZ	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1i:28:VAL:HG22	40:1i:63:ILE:HB	1.94	0.48
47:1p:19:ILE:HG22	47:1p:37:GLY:C	2.38	0.48
49:1r:43:PHE:O	49:1r:51:LEU:HG	2.13	0.48
1:2A:483:A:O2'	20:2Y:49:VAL:O	2.30	0.48
1:2A:1587:A:H2'	1:2A:1588:C:C6	2.48	0.48
7:2H:35:VAL:HG13	7:2H:71:LEU:HD22	1.95	0.48
12:2Q:2:LEU:HD12	12:2Q:69:PHE:HE1	1.78	0.48
14:2S:28:VAL:HG11	14:2S:98:VAL:HG13	1.95	0.48
32:2a:9:G:H2'	32:2a:10:A:H8	1.78	0.48
32:2a:116:A:N1	32:2a:313:A:O2'	2.39	0.48
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.48	0.48
36:2e:76:ILE:HD12	36:2e:142:LEU:HD21	1.94	0.48
1:1A:384:G:H2'	1:1A:385:G:C8	2.47	0.48
1:1A:2713:C:H2'	1:1A:2714:U:H2'	1.94	0.48
4:1E:105:THR:HG1	4:1E:199:ARG:NH2	2.10	0.48
5:1F:7:TYR:HD2	5:1F:24:LEU:HB2	1.78	0.48
10:1O:64:ARG:HB2	10:1O:79:PHE:CG	2.48	0.48
11:1P:50:ARG:HD3	30:18:7:HIS:CD2	2.49	0.48
30:18:62:LEU:HB3	30:18:65:GLU:HG3	1.95	0.48
32:1a:894:G:H2'	32:1a:895:G:O4'	2.13	0.48
32:1a:1343:G:H2'	32:1a:1344:C:C6	2.48	0.48
32:1a:1530:G:H4'	32:1a:1530:G:OP1	2.12	0.48
41:1j:37:PRO:HA	41:1j:72:VAL:HG12	1.94	0.48
45:1n:29:ARG:HD2	45:1n:42:ILE:HD12	1.95	0.48
1:2A:925:C:H2'	1:2A:926:A:H8	1.78	0.48
1:2A:1007:C:OP1	9:2N:37:LYS:NZ	2.45	0.48
1:2A:2184:G:H2'	1:2A:2185:C:C6	2.47	0.48
6:2G:114:ILE:HA	6:2G:140:ILE:HD11	1.96	0.48
32:2a:1092:A:H5''	38:2g:4:ARG:NH1	2.28	0.48
32:2a:1208:C:H2'	32:2a:1209:C:C6	2.49	0.48
32:2a:1254:C:H5''	41:2j:45:ARG:HH21	1.78	0.48
33:2b:114:ARG:HA	33:2b:117:GLU:HB2	1.96	0.48
44:2m:64:TRP:HB2	44:2m:66:LEU:HD21	1.96	0.48
44:2m:101:GLN:OE1	44:2m:101:GLN:N	2.46	0.48
1:1A:83:A:H5'	20:1Y:8:LYS:HG2	1.95	0.48
1:1A:144:C:H2'	1:1A:145:G:C8	2.48	0.48
1:1A:1702:A:O2'	4:1E:115:GLY:HA2	2.12	0.48
3:1D:12:SER:HB3	3:1D:208:LYS:HB3	1.95	0.48
32:1a:1168:A:H8	32:1a:1168:A:OP1	1.96	0.48
39:1h:16:ALA:HB1	39:1h:21:LYS:HB2	1.94	0.48
51:1t:87:LYS:O	51:1t:91:LEU:HG	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:265:A:H1'	1:2A:266:G:O4'	2.14	0.48
1:2A:1011:G:OP2	16:2U:70:ARG:NH2	2.47	0.48
1:2A:1682:G:H2'	1:2A:1683:C:C6	2.48	0.48
1:2A:1777:U:H2'	1:2A:1778:U:C6	2.47	0.48
1:2A:2748:A:H5'	7:2H:4:ILE:HD12	1.95	0.48
12:2Q:10:ARG:NH2	55:2x:64:G:H4'	2.21	0.48
12:2Q:12:GLN:HG2	12:2Q:73:PRO:HD2	1.95	0.48
32:2a:154:C:H2'	32:2a:155:C:C6	2.47	0.48
32:2a:689:C:OP1	42:2k:27:ASN:ND2	2.44	0.48
32:2a:802:A:H3'	32:2a:803:G:H8	1.79	0.48
32:2a:1166:G:N2	32:2a:1170:A:OP2	2.45	0.48
48:2q:10:VAL:HG13	48:2q:19:VAL:HB	1.93	0.48
1:1A:604:C:H2'	1:1A:605:G:C8	2.48	0.48
1:1A:1233:U:H4'	17:1V:79:VAL:HG22	1.94	0.48
1:1A:2205:C:H2'	1:1A:2206:G:C8	2.48	0.48
3:1D:223:GLY:HA3	3:1D:231:HIS:CE1	2.48	0.48
4:1E:4:ILE:HD12	4:1E:91:VAL:HG12	1.96	0.48
32:1a:438:G:H4'	35:1d:123:HIS:CE1	2.48	0.48
32:1a:1263:C:H2'	32:1a:1264:C:C6	2.48	0.48
39:1h:86:ILE:HG13	39:1h:133:LEU:HD22	1.96	0.48
1:2A:631:A:H2'	1:2A:632:A:O4'	2.13	0.48
1:2A:2180:U:H2'	1:2A:2181:G:C8	2.49	0.48
2:2B:43:C:H5'	26:24:1:MET:HG2	1.94	0.48
6:2G:15:VAL:HG13	6:2G:175:LEU:HB3	1.96	0.48
8:2I:3:VAL:O	8:2I:18:VAL:HA	2.13	0.48
10:2O:15:GLY:HA2	10:2O:47:ILE:HD11	1.96	0.48
10:2O:88:ASN:ND2	10:2O:92:GLU:HB2	2.28	0.48
11:2P:95:VAL:HA	11:2P:99:LEU:HD21	1.95	0.48
18:2W:86:LEU:HD22	18:2W:96:ILE:HD11	1.95	0.48
32:2a:35:G:O2'	43:2l:118:SER:O	2.31	0.48
32:2a:251:G:N7	60:2a:2032:HOH:O	2.35	0.48
1:1A:1312:G:O5'	18:1W:15:ARG:NH2	2.46	0.48
1:1A:1952:G:O2'	1:1A:1990:G:O6	2.27	0.48
1:1A:2672:A:H2'	1:1A:2673:G:O4'	2.13	0.48
1:1A:2841:G:P	4:1E:58:ARG:HH21	2.36	0.48
15:1T:31:SER:HB2	15:1T:85:LYS:HG2	1.95	0.48
25:13:59:VAL:O	25:13:60:GLU:HG2	2.13	0.48
32:1a:262:A:C6	32:1a:263:A:C6	3.02	0.48
34:1c:58:GLU:HB3	41:1j:92:THR:HG21	1.95	0.48
38:1g:26:PHE:CE2	38:1g:30:ILE:HD11	2.48	0.48
1:2A:856:C:H2'	1:2A:857:C:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1005:C:H2'	1:2A:1006:C:C6	2.47	0.48
1:2A:1882:C:H2'	1:2A:1883:G:O4'	2.13	0.48
1:2A:1920:4OC:O2'	32:2a:1496:C:H4'	2.12	0.48
1:2A:2712:U:OP1	1:2A:2714:G:H4'	2.13	0.48
15:2T:9:LEU:O	15:2T:12:SER:OG	2.29	0.48
26:24:12:ALA:HB3	26:24:26:SER:HB3	1.95	0.48
32:2a:353:A:H5'	32:2a:353:A:H8	1.77	0.48
32:2a:1260:C:O2	32:2a:1274:G:N2	2.41	0.48
40:2i:26:VAL:HG13	40:2i:61:ALA:HB3	1.95	0.48
42:2k:48:ILE:O	42:2k:50:TYR:N	2.46	0.48
46:2o:56:LEU:O	46:2o:60:VAL:HG23	2.13	0.48
1:1A:236:G:H4'	1:1A:413:G:C5	2.49	0.48
1:1A:2291:G:O6	22:10:14:ARG:HG3	2.13	0.48
1:1A:2348:A:H61	22:10:43:THR:HG22	1.78	0.48
1:1A:2390:A:H2'	14:1S:21:THR:HG21	1.94	0.48
1:1A:2696:U:C4	1:1A:2697:G:N7	2.82	0.48
1:1A:2849:G:N2	13:1R:91:GLN:O	2.36	0.48
10:1O:64:ARG:HD3	10:1O:79:PHE:CD1	2.49	0.48
11:1P:63:PRO:HB2	30:18:30:ARG:NH2	2.29	0.48
30:18:6:THR:HG23	30:18:63:PRO:HD2	1.95	0.48
32:1a:1187:G:H2'	32:1a:1188:A:H8	1.79	0.48
1:2A:1510:G:H2'	1:2A:1511:C:C6	2.48	0.48
1:2A:1600:C:OP1	19:2X:58:HIS:NE2	2.27	0.48
1:2A:2600:A:H2'	1:2A:2601:C:C6	2.47	0.48
14:2S:41:ASP:OD2	14:2S:44:LYS:NZ	2.42	0.48
32:2a:1191:A:OP1	34:2c:4:LYS:HG3	2.13	0.48
32:2a:1275:A:H3'	32:2a:1276:G:H8	1.79	0.48
34:2c:155:GLY:O	34:2c:157:ILE:N	2.46	0.48
35:2d:88:VAL:HA	36:2e:97:GLY:HA3	1.94	0.48
45:2n:59:ALA:HB1	45:2n:61:TRP:HZ3	1.78	0.48
1:1A:2230:U:O4'	23:11:52:ARG:NH2	2.34	0.48
32:1a:404:U:H2'	32:1a:405:U:C6	2.48	0.48
32:1a:1305:G:OP2	52:1u:2:GLY:HA3	2.13	0.48
35:1d:111:ALA:HB2	35:1d:120:LEU:HD12	1.96	0.48
1:2A:340:A:H2'	1:2A:341:G:O4'	2.12	0.48
1:2A:1161:C:H2'	1:2A:1162:G:H8	1.79	0.48
2:2B:7:G:H5'	14:2S:29:PHE:CE2	2.49	0.48
6:2G:125:PHE:CZ	6:2G:170:ARG:HD3	2.49	0.48
10:2O:17:ARG:HH21	10:2O:47:ILE:HG21	1.78	0.48
14:2S:50:SER:O	14:2S:76:LYS:NZ	2.40	0.48
16:2U:66:ASN:ND2	16:2U:70:ARG:HH21	2.06	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:2X:31:HIS:CD2	19:2X:33:LYS:H	2.32	0.48
32:2a:24:U:H2'	32:2a:25:C:C6	2.49	0.48
32:2a:1347:G:H5''	40:2i:107:ARG:HB3	1.96	0.48
33:2b:178:ARG:HE	33:2b:178:ARG:HB3	1.48	0.48
33:2b:219:VAL:HA	33:2b:222:ILE:HG12	1.94	0.48
44:2m:81:LEU:HB3	44:2m:86:CYS:SG	2.53	0.48
1:1A:347:G:OP2	57:1A:3937:AKN:N25	2.47	0.48
1:1A:482:C:H4'	60:1A:4297:HOH:O	2.13	0.48
1:1A:1882:U:H2'	1:1A:1883:C:O4'	2.13	0.48
1:1A:1910:G:N7	60:1A:4090:HOH:O	2.35	0.48
36:1e:105:VAL:HB	36:1e:106:PRO:HD3	1.95	0.48
40:1i:17:VAL:HG11	40:1i:80:GLY:C	2.39	0.48
1:2A:774:A:H2'	1:2A:774:A:N3	2.29	0.48
2:2B:57:A:N3	6:2G:29:TRP:HB3	2.28	0.48
6:2G:47:LYS:HA	6:2G:88:ILE:HG22	1.95	0.48
15:2T:85:LYS:NZ	15:2T:87:ASP:OD2	2.47	0.48
32:2a:1279:A:O2'	32:2a:1281:U:OP2	2.26	0.48
32:2a:1298:C:OP2	38:2g:114:ARG:NH2	2.47	0.48
50:2s:18:LYS:NZ	60:2s:101:HOH:O	2.47	0.48
1:1A:519:G:H4'	18:1W:6:ILE:HB	1.95	0.48
1:1A:553:A:O2'	1:1A:554:A:H5'	2.14	0.48
1:1A:605:G:H2'	1:1A:606:G:C8	2.49	0.48
1:1A:1861:C:OP2	60:1A:4026:HOH:O	2.20	0.48
6:1G:47:LYS:HG3	6:1G:48:GLU:H	1.79	0.48
9:1N:12:ARG:HG2	9:1N:14:VAL:HG23	1.96	0.48
32:1a:381:C:H2'	32:1a:382:A:O4'	2.14	0.48
32:1a:405:U:H5''	32:1a:495:A:H2	1.78	0.48
32:1a:715:A:H2'	32:1a:716:A:C8	2.49	0.48
39:1h:56:LYS:HB2	39:1h:58:TYR:HE2	1.78	0.48
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.95	0.48
1:2A:893:C:H2'	1:2A:894:C:C5	2.49	0.48
1:2A:912:C:OP1	12:2Q:8:LYS:NZ	2.47	0.48
1:2A:2148:G:H2'	1:2A:2149:G:C8	2.49	0.48
5:2F:36:VAL:O	5:2F:40:GLN:HG3	2.14	0.48
11:2P:39:LYS:CB	11:2P:45:LEU:HG	2.43	0.48
32:2a:1228:C:P	44:2m:108:ARG:HH22	2.36	0.48
40:2i:53:VAL:O	40:2i:55:ALA:N	2.47	0.48
15:1T:73:GLU:OE2	15:1T:103:ARG:NE	2.29	0.48
21:1Z:5:LEU:O	21:1Z:59:LEU:HA	2.14	0.48
32:1a:35:G:O2'	43:1l:118:SER:O	2.27	0.48
32:1a:60:A:H4'	32:1a:61:G:H5'	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:110:C:H2'	32:1a:111:G:O4'	2.14	0.48
32:1a:143:A:H5''	32:1a:144:G:H5'	1.96	0.48
32:1a:737:A:H5''	37:1f:92:LYS:HG3	1.96	0.48
54:1w:2:C:N4	54:1w:71:G:H1	2.11	0.48
54:1w:70:G:N3	54:1w:71:G:H1'	2.28	0.48
54:1y:14:A:N6	54:1y:15:G:C6	2.82	0.48
1:2A:717:G:H2'	1:2A:718:A:O4'	2.14	0.48
1:2A:857:C:H4'	22:20:23:VAL:HG21	1.96	0.48
1:2A:1948:G:N3	32:2a:1418:A:H2	2.12	0.48
1:2A:2164:C:C4	1:2A:2165:G:H1'	2.49	0.48
1:2A:2647:U:H2'	1:2A:2648:C:C6	2.49	0.48
2:2B:62:C:H2'	2:2B:63:G:C8	2.48	0.48
7:2H:27:LYS:HZ3	7:2H:32:GLU:HB2	1.79	0.48
10:2O:63:VAL:HG13	10:2O:84:ALA:HA	1.96	0.48
25:23:6:VAL:HG13	25:23:56:VAL:HG22	1.94	0.48
32:2a:196:A:H5''	32:2a:197:A:OP1	2.14	0.48
32:2a:1101:A:H4'	32:2a:1102:A:O5'	2.14	0.48
32:2a:1190:G:H5'	34:2c:176:HIS:HE1	1.79	0.48
32:2a:1316:G:H22	32:2a:1319:A:C5'	2.23	0.48
32:2a:1316:G:H5''	45:2n:17:LYS:HD3	1.95	0.48
33:2b:58:ILE:HG21	33:2b:222:ILE:HG22	1.96	0.48
1:1A:485:U:H5''	29:17:40:TRP:CD2	2.49	0.47
1:1A:992:G:H2'	1:1A:993:G:C8	2.49	0.47
1:1A:1103:A:H61	1:1A:1127:U:H3	1.61	0.47
1:1A:2227:G:H5''	1:1A:2228:G:N7	2.29	0.47
8:1I:40:THR:O	8:1I:44:LEU:HB2	2.14	0.47
10:1O:98:VAL:HG22	10:1O:118:ALA:HA	1.95	0.47
16:1U:49:HIS:HA	16:1U:52:ARG:HB2	1.96	0.47
21:1Z:129:SER:HB3	21:1Z:132:ASN:ND2	2.28	0.47
32:1a:1026:G:C8	32:1a:1027:C:O2	2.66	0.47
32:1a:1054:C:C4	54:1w:34:G:H1'	2.49	0.47
35:1d:7:PRO:HB2	35:1d:10:ARG:HD2	1.96	0.47
38:1g:69:VAL:HG22	38:1g:135:VAL:HG22	1.96	0.47
39:1h:82:HIS:HB3	39:1h:138:TRP:CE2	2.49	0.47
49:1r:52:PRO:O	49:1r:56:THR:HG23	2.14	0.47
1:2A:299:A:N1	1:2A:322:A:O2'	2.40	0.47
1:2A:455:C:N3	1:2A:472:A:H2'	2.29	0.47
1:2A:1153:C:H2'	1:2A:1154:G:O4'	2.14	0.47
1:2A:1386:C:H2'	1:2A:1387:C:C6	2.49	0.47
1:2A:2261:C:C6	22:20:16:SER:HB3	2.49	0.47
1:2A:2841:C:H2'	1:2A:2842:G:C8	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:183:LEU:HD21	15:2T:10:VAL:HG11	1.94	0.47
8:2I:140:LEU:HD22	8:2I:142:VAL:HG22	1.94	0.47
15:2T:11:GLU:O	15:2T:15:VAL:HG23	2.13	0.47
24:22:39:ALA:HB2	24:22:44:LEU:HD23	1.96	0.47
32:2a:164:U:H2'	32:2a:165:C:C6	2.49	0.47
32:2a:736:C:OP1	49:2r:72:ARG:NH2	2.46	0.47
32:2a:1208:C:H2'	32:2a:1209:C:H6	1.77	0.47
43:2l:117:ARG:HB2	43:2l:117:ARG:CZ	2.43	0.47
47:2p:42:ARG:HB3	47:2p:44:THR:HG23	1.95	0.47
1:1A:136:G:H1'	19:1X:41:ASN:ND2	2.28	0.47
1:1A:190:C:O2'	1:1A:240:A:N1	2.44	0.47
1:1A:721:G:O2'	5:1F:74:ARG:HD3	2.14	0.47
1:1A:1809:U:H2'	1:1A:1815:A:N6	2.29	0.47
1:1A:2013:U:H2'	1:1A:2014:G:H5''	1.96	0.47
1:1A:2078:G:C2	1:1A:2079:A:C8	3.02	0.47
21:1Z:69:THR:HG22	21:1Z:90:VAL:HG22	1.96	0.47
32:1a:109:A:C6	32:1a:326:G:C6	3.03	0.47
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.95	0.47
32:1a:1518:MA6:O5'	32:1a:1518:MA6:H8	2.13	0.47
38:1g:28:ASN:HD21	38:1g:36:LYS:HZ1	1.61	0.47
1:2A:392:C:H5''	1:2A:409:C:H5''	1.95	0.47
1:2A:2683:C:OP1	15:2T:53:ARG:NH2	2.46	0.47
12:2Q:42:ILE:HD13	12:2Q:97:VAL:HB	1.96	0.47
32:2a:407:G:OP1	35:2d:115:ARG:HD3	2.15	0.47
32:2a:701:C:O2	32:2a:703:G:N1	2.47	0.47
32:2a:1328:C:OP1	52:2u:21:TYR:OH	2.16	0.47
34:2c:118:GLN:HA	34:2c:121:ALA:HB3	1.96	0.47
35:2d:173:TRP:CZ3	35:2d:193:ASP:HB3	2.49	0.47
40:2i:20:ARG:O	40:2i:60:ASP:N	2.47	0.47
41:2j:25:GLU:OE2	41:2j:29:ARG:NH2	2.47	0.47
1:1A:485:U:H2'	1:1A:486:A:H8	1.79	0.47
1:1A:1011:G:OP1	60:1A:4028:HOH:O	2.20	0.47
1:1A:2317:A:H5''	6:1G:134:GLY:HA3	1.96	0.47
8:1I:48:GLU:HB3	8:1I:52:ARG:HH12	1.78	0.47
32:1a:520:A:N1	32:1a:536:C:H1'	2.29	0.47
41:1j:19:SER:OG	41:1j:91:PRO:HD2	2.14	0.47
1:2A:128:C:H2'	1:2A:129:C:C6	2.49	0.47
1:2A:1239:G:H2'	1:2A:1240:U:O4'	2.13	0.47
1:2A:1833:U:O2'	1:2A:1969:A:N1	2.34	0.47
2:2B:103:G:N2	21:2Z:73:GLN:HE22	2.07	0.47
32:2a:406:G:H5'	35:2d:5:ILE:HD11	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:629:G:H2'	32:2a:630:G:O4'	2.14	0.47
32:2a:677:U:H1'	42:2k:119:CYS:SG	2.53	0.47
32:2a:1030(A):G:H21	32:2a:1030(C):G:H8	1.62	0.47
32:2a:1094:G:O2'	32:2a:1108:G:N1	2.46	0.47
36:2e:57:LYS:HG2	36:2e:61:TYR:CE2	2.49	0.47
1:1A:436:C:H42	1:1A:445:G:H1	1.61	0.47
1:1A:1133:G:H2'	1:1A:1135:G:C8	2.49	0.47
1:1A:1137:G:C6	1:1A:1138:C:C4	3.03	0.47
1:1A:1781:G:O2'	1:1A:2870:A:N1	2.36	0.47
1:1A:2178:G:OP2	1:1A:2178:G:H8	1.98	0.47
15:1T:108:ARG:HG3	15:1T:109:GLU:N	2.30	0.47
20:1Y:92:ASN:CG	20:1Y:94:LYS:HG2	2.39	0.47
32:1a:706:A:H1'	42:1k:31:THR:HG21	1.96	0.47
32:1a:1051:C:H2'	32:1a:1052:U:C6	2.50	0.47
32:1a:1240:U:OP2	38:1g:116:ALA:N	2.46	0.47
57:1a:1914:AKN:H12	57:1a:1914:AKN:O40	2.14	0.47
40:1i:69:GLY:O	40:1i:73:GLN:HG3	2.15	0.47
1:2A:2315:G:H2'	1:2A:2316:C:H6	1.78	0.47
4:2E:119:ARG:HG2	4:2E:120:TRP:NE1	2.29	0.47
5:2F:60:SER:OG	5:2F:61:GLY:N	2.47	0.47
15:2T:88:ILE:HG21	15:2T:91:ARG:NE	2.29	0.47
32:2a:707:C:H2'	32:2a:708:C:C6	2.48	0.47
32:2a:857:C:H2'	32:2a:858:G:O4'	2.14	0.47
32:2a:1321:C:O2'	50:2s:77:THR:HG21	2.14	0.47
33:2b:95:GLN:HG3	33:2b:147:LYS:HE2	1.96	0.47
42:2k:33:THR:HG22	42:2k:39:PRO:HA	1.96	0.47
5:1F:106:ARG:H	5:1F:106:ARG:HG2	1.25	0.47
6:1G:108:ASN:HB3	26:14:22:ILE:HD13	1.96	0.47
11:1P:83:VAL:O	11:1P:115:LEU:N	2.42	0.47
12:1Q:39:PRO:HA	12:1Q:97:VAL:O	2.14	0.47
32:1a:60:A:N1	32:1a:107:G:O2'	2.45	0.47
32:1a:1004:A:C5'	32:1a:1024:G:H1	2.28	0.47
32:1a:1314:C:H2'	32:1a:1315:U:C6	2.50	0.47
57:1a:1914:AKN:H25	57:1a:1914:AKN:H6	1.96	0.47
33:1b:15:VAL:HG21	33:1b:213:LEU:HD12	1.95	0.47
35:1d:141:ARG:HG3	35:1d:144:ASP:OD2	2.14	0.47
40:1i:23:ASN:ND2	40:1i:23:ASN:H	2.11	0.47
47:1p:47:ASP:OD1	47:1p:47:ASP:N	2.47	0.47
54:1y:40:C:H2'	54:1y:41:C:C6	2.50	0.47
1:2A:637:A:OP1	11:2P:133:SER:OG	2.19	0.47
1:2A:855:G:H2'	1:2A:856:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:884:C:H3'	1:2A:885:C:C6	2.49	0.47
1:2A:996:A:H4'	16:2U:91:ASP:OD2	2.15	0.47
1:2A:1041:C:H1'	1:2A:1115:G:N2	2.29	0.47
1:2A:1514:U:H2'	1:2A:1515:G:C8	2.49	0.47
1:2A:2025:C:N4	60:2A:3664:HOH:O	2.46	0.47
1:2A:2271:G:H2'	1:2A:2272:U:H6	1.79	0.47
13:2R:51:LEU:HD22	13:2R:66:VAL:HG13	1.96	0.47
21:2Z:99:TYR:HB3	21:2Z:123:ASP:CG	2.39	0.47
24:22:13:ALA:HA	24:22:16:LEU:HD12	1.96	0.47
32:2a:815:A:H4'	32:2a:817:C:C5	2.50	0.47
32:2a:979:C:OP1	32:2a:1223:C:N4	2.48	0.47
32:2a:1218:C:H2'	32:2a:1219:U:C6	2.49	0.47
1:1A:830:A:H4'	1:1A:2600:G:H4'	1.96	0.47
26:14:49:PHE:HB3	26:14:50:VAL:H	1.53	0.47
32:1a:45:U:H2'	32:1a:46:G:C8	2.49	0.47
32:1a:90:U:H2'	32:1a:91:C:C6	2.49	0.47
32:1a:119:A:H4'	32:1a:120:A:C8	2.49	0.47
32:1a:1060:C:C5	34:1c:2:GLY:HA3	2.50	0.47
39:1h:49:GLU:HG2	39:1h:62:TYR:HE2	1.80	0.47
1:2A:289:A:H2'	1:2A:290:G:O4'	2.15	0.47
1:2A:521:G:H2'	1:2A:522:G:C8	2.49	0.47
1:2A:1507:A:O2'	1:2A:1508:A:H8	1.97	0.47
1:2A:2137:C:O2'	1:2A:2138:C:OP2	2.31	0.47
2:2B:11:C:H3'	2:2B:12:C:C6	2.50	0.47
3:2D:80:ALA:HB3	3:2D:94:LEU:HB3	1.97	0.47
6:2G:39:ILE:HD11	6:2G:102:PHE:CE1	2.50	0.47
8:2I:5:LEU:H	8:2I:5:LEU:HD12	1.80	0.47
11:2P:39:LYS:HD2	11:2P:45:LEU:HD11	1.96	0.47
19:2X:14:SER:O	19:2X:16:LYS:N	2.47	0.47
32:2a:634:C:H2'	32:2a:635:G:H8	1.79	0.47
32:2a:1002:G:C2	32:2a:1003:G:H8	2.32	0.47
32:2a:1330:U:H4'	44:2m:23:TYR:CZ	2.50	0.47
33:2b:17:PHE:HB2	33:2b:44:LEU:HD11	1.97	0.47
33:2b:87:ARG:NH1	33:2b:219:VAL:HG12	2.29	0.47
34:2c:122:GLU:O	34:2c:125:GLU:HG2	2.14	0.47
35:2d:146:ILE:HD12	35:2d:146:ILE:H	1.80	0.47
36:2e:105:VAL:HB	36:2e:106:PRO:HD3	1.97	0.47
39:2h:20:TYR:HD1	39:2h:65:TYR:CD1	2.33	0.47
39:2h:120:THR:H	39:2h:123:GLU:HB2	1.78	0.47
1:1A:1085:G:H1	1:1A:1162:C:N4	2.13	0.47
1:1A:1106:U:N3	1:1A:1108:G:O2'	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1473:A:H4'	1:1A:1474:C:O4'	2.15	0.47
4:1E:105:THR:HG1	4:1E:199:ARG:HH22	1.60	0.47
6:1G:43:LEU:HD23	6:1G:53:LEU:HD22	1.96	0.47
18:1W:65:LEU:HD12	18:1W:68:ARG:HE	1.80	0.47
21:1Z:72:ARG:NH2	21:1Z:97:GLU:O	2.48	0.47
23:11:64:ALA:HA	23:11:67:ILE:HG13	1.96	0.47
28:16:12:GLU:OE2	28:16:17:LYS:HD3	2.14	0.47
32:1a:19:C:H2'	32:1a:20:U:H6	1.80	0.47
32:1a:107:G:H2'	32:1a:108:G:O4'	2.14	0.47
32:1a:1014:A:C2	32:1a:1219:U:H1'	2.49	0.47
33:1b:160:ASP:O	33:1b:183:PRO:HD2	2.15	0.47
34:1c:157:ILE:HD13	34:1c:166:GLU:HB2	1.95	0.47
35:1d:158:ILE:O	35:1d:162:LEU:N	2.38	0.47
39:1h:81:HIS:N	39:1h:138:TRP:O	2.48	0.47
46:1o:18:PHE:O	46:1o:20:GLY:N	2.42	0.47
54:1y:67:C:H2'	54:1y:68:C:H6	1.78	0.47
1:2A:272(B):G:H2'	1:2A:272(C):G:H8	1.79	0.47
1:2A:399:G:OP2	60:2A:3622:HOH:O	2.20	0.47
1:2A:557:U:H2'	1:2A:558:G:H8	1.80	0.47
1:2A:652(B):A:N6	1:2A:655:A:H1'	2.30	0.47
1:2A:1913:A:H4'	1:2A:1914:C:O5'	2.13	0.47
1:2A:2251:OMG:HM23	1:2A:2251:OMG:H1'	1.74	0.47
1:2A:2335:A:C8	1:2A:2337:G:C5	3.03	0.47
1:2A:2630:G:H2'	1:2A:2631:G:H8	1.79	0.47
3:2D:155:LEU:HD23	3:2D:177:LEU:HD22	1.96	0.47
4:2E:144:ARG:HG2	4:2E:145:LYS:H	1.80	0.47
7:2H:20:ALA:HB1	7:2H:21:PRO:HD2	1.95	0.47
8:2I:72:LEU:O	8:2I:75:LEU:HG	2.15	0.47
12:2Q:12:GLN:NE2	12:2Q:72:LYS:HG3	2.29	0.47
12:2Q:111:GLU:O	12:2Q:115:MET:HG2	2.15	0.47
16:2U:66:ASN:OD1	16:2U:70:ARG:NE	2.47	0.47
20:2Y:31:LEU:HD23	20:2Y:31:LEU:HA	1.69	0.47
26:24:15:ILE:HB	26:24:32:TYR:CD1	2.50	0.47
32:2a:73:G:C6	32:2a:97:G:C6	3.03	0.47
32:2a:340:U:H2'	32:2a:341:C:C6	2.49	0.47
32:2a:630:G:H2'	32:2a:631:G:C8	2.48	0.47
32:2a:688:G:H5'	42:2k:46:GLY:C	2.40	0.47
32:2a:741:G:H2'	32:2a:742:G:O4'	2.15	0.47
32:2a:1002:G:N1	32:2a:1003:G:H8	2.12	0.47
32:2a:1120:G:C6	32:2a:1121:U:C4	3.02	0.47
32:2a:1183:A:O2'	32:2a:1185:G:OP2	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1270:C:O2'	32:2a:1313:U:O2'	2.25	0.47
32:2a:1315:U:H2'	32:2a:1316:G:O4'	2.14	0.47
32:2a:1517:G:H3'	32:2a:1518:MA6:H8	1.96	0.47
34:2c:134:ILE:HG22	34:2c:168:ALA:HB3	1.97	0.47
35:2d:200:GLU:OE1	35:2d:200:GLU:N	2.46	0.47
40:2i:8:GLY:HA2	40:2i:79:LEU:HB3	1.96	0.47
44:2m:48:LEU:HD23	44:2m:48:LEU:HA	1.76	0.47
45:2n:9:LYS:HG3	45:2n:12:ARG:HE	1.80	0.47
54:2y:6:G:H1	54:2y:67:C:N4	2.12	0.47
54:2y:15:G:N1	54:2y:48:C:N3	2.53	0.47
1:1A:184:A:N6	1:1A:187:C:OP2	2.48	0.47
1:1A:1810:U:H2'	60:1A:4084:HOH:O	2.15	0.47
1:1A:2830:A:N6	60:1A:4157:HOH:O	2.48	0.47
60:1A:4110:HOH:O	5:1F:53:THR:HG21	2.15	0.47
2:1B:79:C:H2'	2:1B:80:U:O4'	2.15	0.47
3:1D:83:GLU:OE1	3:1D:104:TYR:OH	2.15	0.47
4:1E:5:LEU:HD11	4:1E:79:ARG:HB2	1.97	0.47
11:1P:68:GLN:N	60:1P:301:HOH:O	2.47	0.47
17:1V:64:HIS:ND1	17:1V:92:THR:OG1	2.46	0.47
32:1a:166:G:H2'	32:1a:167:G:C8	2.49	0.47
32:1a:1241:G:H2'	32:1a:1242:C:C6	2.50	0.47
1:2A:573:G:O2'	1:2A:574:C:H3'	2.15	0.47
1:2A:880:G:H2'	1:2A:881:G:H8	1.80	0.47
1:2A:2078:C:C4	1:2A:2079:U:C4	3.03	0.47
1:2A:2697:G:H2'	1:2A:2698:U:O4'	2.15	0.47
4:2E:1:MET:HB3	4:2E:83:ASP:O	2.14	0.47
8:2I:79:ILE:O	8:2I:144:VAL:HA	2.15	0.47
13:2R:26:LYS:HE2	13:2R:70:LEU:O	2.15	0.47
21:2Z:28:MET:HE1	21:2Z:61:LEU:HD21	1.96	0.47
25:23:18:ASP:N	25:23:18:ASP:OD1	2.48	0.47
32:2a:1006:C:H2'	32:2a:1007:C:C6	2.49	0.47
32:2a:1240:U:OP2	38:2g:116:ALA:N	2.46	0.47
32:2a:1502:A:H5'	32:2a:1504:G:N7	2.29	0.47
47:2p:19:ILE:N	47:2p:37:GLY:O	2.47	0.47
1:1A:1524:A:H2'	1:1A:1525:G:O4'	2.14	0.47
1:1A:2402:U:P	30:18:35:GLN:HE22	2.38	0.47
1:1A:2522:C:H2'	1:1A:2523:U:C6	2.50	0.47
2:1B:94:C:H2'	2:1B:95:C:H6	1.79	0.47
8:1I:109:ILE:HD12	8:1I:109:ILE:HA	1.83	0.47
9:1N:44:PRO:HD3	16:1U:60:LEU:HD13	1.97	0.47
9:1N:121:LYS:HD3	9:1N:130:HIS:CE1	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:1R:24:GLN:NE2	13:1R:36:THR:HG21	2.28	0.47
16:1U:76:TYR:CE2	16:1U:80:ILE:HG13	2.50	0.47
32:1a:649:G:H2'	32:1a:650:G:C8	2.50	0.47
32:1a:1095:U:P	32:1a:1108:G:H1	2.37	0.47
37:1f:33:TYR:OH	37:1f:78:GLU:HG3	2.15	0.47
1:2A:375:C:H2'	1:2A:376:C:C6	2.49	0.47
1:2A:1364:G:C8	23:21:3:LYS:HD2	2.50	0.47
1:2A:2123:G:H2'	1:2A:2124:G:C8	2.50	0.47
4:2E:9:VAL:HG22	4:2E:25:VAL:HB	1.96	0.47
4:2E:73:GLU:HG2	4:2E:74:PRO:HD2	1.97	0.47
6:2G:107:LEU:HD11	6:2G:178:PHE:CE1	2.49	0.47
9:2N:123:TYR:OH	9:2N:130:HIS:NE2	2.17	0.47
21:2Z:19:ARG:HE	21:2Z:19:ARG:HB2	1.58	0.47
21:2Z:57:ILE:HD12	21:2Z:71:VAL:HG23	1.97	0.47
32:2a:26:A:N6	32:2a:558:G:O2'	2.47	0.47
32:2a:575:G:O4'	32:2a:881:G:N2	2.47	0.47
32:2a:627:G:H2'	32:2a:628:G:C8	2.49	0.47
32:2a:1054:C:C5	54:2w:34:G:H1'	2.50	0.47
32:2a:1376:U:H2'	32:2a:1377:A:C8	2.50	0.47
35:2d:150:GLU:OE1	35:2d:151:LYS:N	2.48	0.47
45:2n:27:CYS:SG	45:2n:28:GLY:N	2.88	0.47
46:2o:83:GLU:HG3	46:2o:84:LYS:N	2.30	0.47
54:2w:9:A:H5'	54:2w:46:7MG:N3	2.30	0.47
54:2w:48:C:C2	54:2w:59:U:H1'	2.49	0.47
54:2y:52:G:H5'	54:2y:53:G:OP2	2.15	0.47
1:1A:348:A:H5''	57:1A:3937:AKN:N25	2.29	0.47
1:1A:1071:G:C4	1:1A:1180:C:H1'	2.50	0.47
1:1A:1373:C:N4	60:1A:4126:HOH:O	2.43	0.47
1:1A:1385:G:H5''	19:1X:16:LYS:HD3	1.96	0.47
1:1A:2163:G:C6	1:1A:2164:C:C2	3.03	0.47
2:1B:78:A:C2	2:1B:100:A:C4	3.03	0.47
2:1B:94:C:H2'	2:1B:95:C:C6	2.50	0.47
4:1E:9:VAL:HG13	4:1E:25:VAL:O	2.14	0.47
4:1E:97:LYS:HB3	4:1E:97:LYS:HE2	1.74	0.47
7:1H:126:PRO:HB2	7:1H:127:GLU:H	1.60	0.47
32:1a:1429:C:H2'	32:1a:1430:C:C6	2.50	0.47
32:1a:1503:A:C6	53:1v:12:A:H2	2.33	0.47
33:1b:42:ILE:HG21	33:1b:202:PRO:O	2.14	0.47
39:1h:81:HIS:HB2	39:1h:138:TRP:CD1	2.49	0.47
45:1n:9:LYS:HG3	45:1n:12:ARG:NH2	2.30	0.47
50:1s:27:GLU:CB	50:1s:28:LYS:HA	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1628:G:H2'	1:2A:1629:U:C6	2.50	0.47
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.50	0.47
2:2B:25:A:H2'	2:2B:26:A:C8	2.50	0.47
9:2N:69:GLN:O	9:2N:71:ILE:HG13	2.15	0.47
12:2Q:26:TYR:HD1	12:2Q:28:ALA:HB2	1.80	0.47
21:2Z:54:HIS:CD2	21:2Z:101:PRO:HG3	2.50	0.47
32:2a:266:G:H2'	32:2a:266:G:N3	2.30	0.47
32:2a:1193:G:O2'	36:2e:25:ARG:NH2	2.48	0.47
33:2b:16:HIS:CG	33:2b:17:PHE:H	2.33	0.47
34:2c:119:ARG:HE	34:2c:140:ARG:HH21	1.63	0.47
39:2h:34:GLU:HB3	39:2h:118:VAL:HG21	1.97	0.47
42:2k:66:LEU:HD23	42:2k:97:ALA:HB1	1.96	0.47
55:2x:21:A:H62	55:2x:46:G:H2'	1.80	0.47
1:1A:430:U:H4'	1:1A:431:C:H5'	1.96	0.46
2:1B:90:A:C5	2:1B:91:C:H1'	2.50	0.46
4:1E:29:GLY:H	4:1E:93:VAL:CG1	2.29	0.46
7:1H:25:LYS:NZ	7:1H:27:LYS:HE2	2.30	0.46
7:1H:97:ARG:NE	7:1H:104:GLU:OE1	2.47	0.46
8:1I:66:GLU:HA	8:1I:69:LYS:HB3	1.96	0.46
23:11:91:LYS:HG2	23:11:95:LEU:HD22	1.97	0.46
32:1a:519:C:H2'	32:1a:520:A:C8	2.50	0.46
32:1a:1429:C:H2'	32:1a:1430:C:H6	1.79	0.46
47:1p:9:PHE:CE2	47:1p:18:ARG:HD2	2.49	0.46
48:1q:32:TYR:O	48:1q:34:LYS:N	2.40	0.46
54:1y:19:G:N1	54:1y:56:C:N4	2.62	0.46
1:2A:350:U:H2'	1:2A:351:G:O4'	2.14	0.46
1:2A:582:G:H2'	1:2A:583:G:C8	2.50	0.46
1:2A:687:C:H1'	29:27:4:THR:HG22	1.96	0.46
1:2A:748:G:C8	18:2W:89:ALA:HB1	2.50	0.46
1:2A:873:G:O3'	12:2Q:63:LYS:NZ	2.48	0.46
1:2A:1207:C:H2'	1:2A:1208:C:H6	1.78	0.46
1:2A:1477:A:H2'	1:2A:1478:G:O4'	2.15	0.46
1:2A:1533:G:C2	1:2A:1537:G:C6	3.03	0.46
11:2P:20:GLY:HA2	11:2P:28:GLY:HA2	1.96	0.46
28:26:11:LEU:N	28:26:21:TYR:O	2.41	0.46
32:2a:24:U:H2'	32:2a:25:C:H6	1.79	0.46
32:2a:336:C:H2'	32:2a:337:C:C6	2.50	0.46
32:2a:359:U:H2'	32:2a:360:A:H8	1.80	0.46
32:2a:475:G:H2'	32:2a:476:G:H8	1.80	0.46
32:2a:779:C:H2'	32:2a:780:A:O4'	2.15	0.46
32:2a:933:G:C6	32:2a:1385:G:C6	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:182:LYS:HB2	35:2d:182:LYS:HE3	1.72	0.46
1:1A:604:C:H2'	1:1A:605:G:H8	1.80	0.46
1:1A:928:G:H3'	1:1A:929:G:H8	1.81	0.46
1:1A:1057:G:OP2	16:1U:66:ASN:ND2	2.40	0.46
1:1A:1559:C:N4	60:1A:4003:HOH:O	2.47	0.46
1:1A:2040:G:O2'	16:1U:34:LYS:HE2	2.16	0.46
5:1F:53:THR:HG22	5:1F:54:ARG:N	2.29	0.46
21:1Z:98:MET:HE3	21:1Z:98:MET:HB2	1.85	0.46
31:19:7:VAL:HG22	31:19:36:GLN:HG3	1.97	0.46
32:1a:920:U:H2'	32:1a:921:U:C6	2.50	0.46
32:1a:1144:G:N2	32:1a:1146:A:H62	2.13	0.46
32:1a:1286:A:C8	32:1a:1287:A:H4'	2.50	0.46
33:1b:158:LEU:HD12	33:1b:158:LEU:HA	1.74	0.46
48:1q:4:LYS:HD3	48:1q:4:LYS:HA	1.74	0.46
54:1w:75:C:H2'	54:1w:76:A:C4	2.51	0.46
1:2A:494:G:OP1	18:2W:8:ARG:NH1	2.46	0.46
1:2A:584:C:N4	1:2A:585:G:C6	2.83	0.46
1:2A:652(D):C:N4	1:2A:652(U):G:H1	2.11	0.46
1:2A:1423:G:H2'	1:2A:1424:G:H8	1.80	0.46
1:2A:2841:C:H2'	1:2A:2842:G:H8	1.80	0.46
7:2H:103:LEU:HD21	7:2H:105:LEU:HD21	1.97	0.46
12:2Q:18:LYS:O	12:2Q:98:LYS:NZ	2.28	0.46
13:2R:33:ARG:NH1	13:2R:115:GLU:OE1	2.41	0.46
16:2U:27:LEU:HB3	16:2U:31:SER:HB3	1.97	0.46
21:2Z:73:GLN:O	21:2Z:87:ASP:N	2.48	0.46
23:21:23:LYS:HB3	23:21:29:GLY:HA3	1.96	0.46
25:23:10:LYS:HB3	25:23:53:LEU:HA	1.98	0.46
32:2a:1387:G:H2'	32:2a:1388:C:C6	2.50	0.46
34:2c:112:SER:OG	34:2c:115:LEU:HD13	2.15	0.46
43:2l:110:VAL:HG23	43:2l:120:TYR:HB3	1.97	0.46
44:2m:40:ASN:HD22	44:2m:43:THR:HG23	1.80	0.46
51:2t:47:GLY:HA2	51:2t:48:LYS:C	2.41	0.46
51:2t:50:GLU:O	51:2t:100:ILE:HD11	2.16	0.46
1:1A:2274:U:P	22:10:19:LYS:HZ2	2.39	0.46
6:1G:15:VAL:HG22	6:1G:175:LEU:HB3	1.97	0.46
11:1P:70:GLN:O	11:1P:73:GLY:N	2.43	0.46
32:1a:102:G:O2'	32:1a:151:A:N3	2.42	0.46
32:1a:711:G:H2'	32:1a:712:A:C8	2.50	0.46
32:1a:989:C:H42	32:1a:1216:G:H1	1.62	0.46
32:1a:1125:U:H4'	41:1j:5:ARG:HH22	1.79	0.46
32:1a:1511:G:H2'	32:1a:1512:U:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:58:GLU:O	34:1c:65:ALA:N	2.45	0.46
42:1k:77:MET:HE2	42:1k:77:MET:HB2	1.80	0.46
49:1r:23:LYS:NZ	49:1r:62:GLU:OE2	2.43	0.46
54:1w:18:G:N2	54:1w:57:G:H2'	2.30	0.46
1:2A:387:U:OP2	23:21:20:ARG:NH1	2.47	0.46
1:2A:613:G:O2'	1:2A:614(C):A:N1	2.37	0.46
1:2A:877:U:O2'	1:2A:900:A:N6	2.48	0.46
1:2A:1359:A:C2	1:2A:1372:U:O4	2.69	0.46
1:2A:1778:U:H2'	1:2A:1784:A:N6	2.31	0.46
1:2A:2693:A:H2'	1:2A:2694:G:C8	2.50	0.46
11:2P:38:GLN:O	11:2P:39:LYS:HB3	2.16	0.46
32:2a:542:G:OP1	35:2d:10:ARG:NH1	2.43	0.46
32:2a:570:G:O6	32:2a:865:A:N6	2.48	0.46
32:2a:577:G:H2'	32:2a:578:C:H6	1.81	0.46
32:2a:1030:C:N4	32:2a:1031:G:H1	2.13	0.46
32:2a:1295:G:O2'	44:2m:14:ARG:NH1	2.48	0.46
32:2a:1356:G:N2	32:2a:1367:C:O2	2.49	0.46
37:2f:8:ILE:HD11	37:2f:79:LEU:HD13	1.97	0.46
43:2l:42:THR:HG22	43:2l:54:LYS:HA	1.97	0.46
44:2m:39:ILE:HG12	44:2m:55:ARG:NH1	2.30	0.46
44:2m:123:ALA:HB2	54:2w:39:PSU:H1'	1.97	0.46
1:1A:923:C:H2'	1:1A:924:U:O4'	2.14	0.46
1:1A:1343:C:O2'	1:1A:1348:A:N1	2.46	0.46
1:1A:1821:C:H2'	1:1A:1822:A:C5	2.50	0.46
1:1A:2227:G:H3'	1:1A:2228:G:N7	2.30	0.46
1:1A:2250:G:N3	1:1A:2250:G:H2'	2.30	0.46
1:1A:2708:U:H2'	1:1A:2709:G:C8	2.50	0.46
6:1G:18:GLU:OE2	6:1G:22:ARG:HD2	2.15	0.46
11:1P:50:ARG:HH21	30:18:7:HIS:CD2	2.33	0.46
18:1W:11:ARG:HH11	18:1W:11:ARG:C	2.23	0.46
26:14:62:ARG:HA	26:14:62:ARG:HD3	1.78	0.46
28:16:51:GLU:O	28:16:51:GLU:HG3	2.13	0.46
32:1a:108:G:C6	51:1t:15:ARG:HG2	2.51	0.46
32:1a:689:C:OP1	42:1k:27:ASN:ND2	2.46	0.46
33:1b:21:ARG:HB3	33:1b:39:ILE:HG13	1.96	0.46
35:1d:19:LEU:O	35:1d:21:LEU:HG	2.16	0.46
41:1j:49:VAL:CG2	45:1n:41:ARG:HB2	2.46	0.46
54:1y:52:G:H2'	54:1y:53:G:C8	2.51	0.46
1:2A:250:G:C6	1:2A:251:A:C6	3.03	0.46
1:2A:728:G:H4'	3:2D:13:ARG:HE	1.80	0.46
1:2A:755:C:H2'	1:2A:756:C:C6	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2145:C:O2'	1:2A:2147:G:N7	2.46	0.46
6:2G:72:ARG:HG2	6:2G:87:PRO:HA	1.95	0.46
6:2G:110:ALA:HB1	6:2G:140:ILE:HG23	1.97	0.46
10:2O:13:ASN:C	10:2O:15:GLY:H	2.23	0.46
11:2P:88:LEU:HD11	11:2P:114:ILE:HD12	1.97	0.46
25:23:7:LYS:NZ	25:23:34:GLU:OE1	2.45	0.46
27:25:41:PRO:O	27:25:44:THR:OG1	2.31	0.46
32:2a:261:U:H2'	32:2a:263:A:OP2	2.15	0.46
32:2a:1001:A:H2'	32:2a:1001(A):G:H8	1.78	0.46
32:2a:1271:G:H2'	32:2a:1272:G:H5''	1.97	0.46
32:2a:1305:G:H5'	52:2u:4:GLY:HA3	1.96	0.46
32:2a:1381:U:H1'	38:2g:79:ARG:HG2	1.97	0.46
33:2b:109:SER:HA	33:2b:112:VAL:HG23	1.97	0.46
34:2c:6:HIS:HB3	45:2n:49:HIS:ND1	2.30	0.46
47:2p:28:ARG:HG2	47:2p:29:ASP:OD1	2.16	0.46
54:2w:56:C:H2'	54:2w:57:G:O4'	2.15	0.46
55:2x:28:C:H2'	55:2x:29:G:C8	2.51	0.46
1:1A:589:U:H5''	11:1P:29:LYS:HE3	1.96	0.46
1:1A:1337:C:H2'	1:1A:1338:U:H6	1.81	0.46
1:1A:2041:A:O3'	16:1U:27:LEU:HD12	2.15	0.46
1:1A:2133:C:N4	1:1A:2166:U:O2'	2.49	0.46
1:1A:2155:G:H21	1:1A:2156:A:H62	1.63	0.46
1:1A:2453:C:OP2	1:1A:2598:C:O2'	2.32	0.46
2:1B:1:U:HO2'	2:1B:2:C:P	2.38	0.46
6:1G:172:LEU:O	6:1G:176:LEU:HD12	2.15	0.46
7:1H:41:MET:HE1	7:1H:54:ARG:HB3	1.97	0.46
8:1I:75:LEU:HD22	8:1I:105:HIS:CG	2.50	0.46
10:1O:1:MET:HE2	10:1O:1:MET:HB3	1.78	0.46
24:12:52:ASP:O	24:12:56:GLN:HG3	2.16	0.46
31:19:29:ASN:HD22	31:19:32:HIS:CE1	2.33	0.46
32:1a:551:U:H2'	32:1a:552:U:C6	2.51	0.46
32:1a:935:A:O2'	32:1a:1383:C:N3	2.45	0.46
33:1b:109:SER:O	33:1b:112:VAL:HG22	2.16	0.46
35:1d:18:LYS:HD2	35:1d:20:TYR:CZ	2.51	0.46
38:1g:111:ARG:HD2	38:1g:123:GLU:HB2	1.97	0.46
46:1o:7:GLU:H	46:1o:7:GLU:HG3	1.54	0.46
50:1s:22:LEU:HB3	50:1s:27:GLU:HB3	1.97	0.46
54:1y:26:A:H61	54:1y:44:G:H1	1.63	0.46
1:2A:41:C:H2'	1:2A:42:G:H8	1.81	0.46
1:2A:823:G:H2'	1:2A:824:A:C8	2.50	0.46
1:2A:1821:A:H2'	1:2A:1822:G:H8	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2287:A:C8	1:2A:2289:G:C8	3.04	0.46
1:2A:2542:A:H4'	1:2A:2543:G:C8	2.51	0.46
9:2N:12:ARG:HH21	9:2N:14:VAL:HG21	1.79	0.46
14:2S:18:ILE:O	14:2S:21:THR:HG23	2.16	0.46
32:2a:1070:U:H2'	32:2a:1071:C:H6	1.80	0.46
36:2e:60:TYR:O	36:2e:63:ARG:N	2.49	0.46
36:2e:140:ARG:O	36:2e:143:ARG:NH1	2.29	0.46
1:1A:1495:G:H4'	1:1A:1589:A:OP1	2.16	0.46
1:1A:2882:G:H5''	60:1A:4169:HOH:O	2.14	0.46
11:1P:138:LEU:HD23	11:1P:145:PRO:HB3	1.97	0.46
21:1Z:105:VAL:O	21:1Z:141:VAL:HG13	2.16	0.46
23:11:51:VAL:HG11	23:11:74:VAL:HG21	1.98	0.46
32:1a:279:A:C5	48:1q:98:LEU:HD23	2.50	0.46
41:1j:54:PHE:O	41:1j:56:HIS:N	2.48	0.46
1:2A:271(G):C:H2'	1:2A:271(H):G:H8	1.81	0.46
1:2A:628:G:H2'	1:2A:629:G:C8	2.51	0.46
1:2A:2735:G:N7	60:2A:3610:HOH:O	2.36	0.46
4:2E:34:VAL:HG22	4:2E:48:GLN:HG2	1.98	0.46
9:2N:38:HIS:CE1	9:2N:39:ARG:HG3	2.50	0.46
32:2a:139:G:H2'	32:2a:140:A:H8	1.79	0.46
32:2a:176:C:H2'	32:2a:177:C:C6	2.51	0.46
32:2a:1134:G:C2'	32:2a:1135:U:H5'	2.45	0.46
32:2a:1466:C:H2'	32:2a:1467:G:O4'	2.16	0.46
48:2q:58:GLU:O	48:2q:74:LEU:N	2.41	0.46
1:1A:1052:C:O2'	9:1N:106:MET:O	2.26	0.46
1:1A:1432:C:H2'	1:1A:1433:C:H6	1.81	0.46
1:1A:1589:A:OP1	1:1A:1589:A:H8	1.98	0.46
29:17:9:ARG:NH1	29:17:47:ARG:HB2	2.30	0.46
32:1a:1355:G:H2'	32:1a:1356:G:C8	2.51	0.46
33:1b:88:ALA:HB2	33:1b:219:VAL:HG13	1.97	0.46
33:1b:178:ARG:HB3	39:1h:72:PRO:HA	1.97	0.46
36:1e:90:VAL:O	36:1e:120:THR:HA	2.15	0.46
38:1g:74:GLU:HG2	38:1g:91:VAL:HG22	1.97	0.46
39:1h:19:VAL:HG23	39:1h:21:LYS:HG2	1.98	0.46
43:1l:28:LYS:HB2	43:1l:33:ARG:NH2	2.30	0.46
1:2A:287:C:H2'	1:2A:288:C:H6	1.80	0.46
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.51	0.46
2:2B:48:A:H4'	14:2S:95:HIS:HD2	1.80	0.46
8:2I:57:ARG:O	8:2I:61:ARG:HG2	2.15	0.46
21:2Z:72:ARG:NH2	21:2Z:97:GLU:O	2.49	0.46
32:2a:34:C:H2'	32:2a:35:G:C8	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:131:C:H2'	32:2a:132:C:C6	2.51	0.46
32:2a:1496:C:H2'	32:2a:1497:G:C8	2.50	0.46
33:2b:25:ASN:ND2	33:2b:193:ASP:HA	2.31	0.46
34:2c:39:ILE:O	34:2c:43:LEU:HG	2.15	0.46
35:2d:22:LYS:HB2	35:2d:26:CYS:SG	2.56	0.46
37:2f:3:ARG:HD3	37:2f:64:GLN:NE2	2.30	0.46
1:1A:326:C:H2'	1:1A:327:U:C6	2.50	0.46
1:1A:591:U:H5'	1:1A:990:A:N6	2.30	0.46
1:1A:850:U:C4	1:1A:851:A:N7	2.84	0.46
1:1A:2145:G:H2'	1:1A:2146:G:H8	1.80	0.46
1:1A:2180:A:HO2'	1:1A:2181:G:P	2.37	0.46
1:1A:2612:A:H5''	60:1A:4570:HOH:O	2.15	0.46
3:1D:168:ARG:HG2	3:1D:173:VAL:HG12	1.97	0.46
4:1E:14:ILE:HG13	4:1E:21:VAL:HG13	1.97	0.46
7:1H:24:VAL:HG22	7:1H:35:VAL:HB	1.98	0.46
9:1N:58:ASP:OD1	9:1N:58:ASP:N	2.48	0.46
12:1Q:125:LEU:HD12	12:1Q:129:THR:HG21	1.98	0.46
21:1Z:77:ASP:OD2	21:1Z:80:ARG:NH1	2.40	0.46
32:1a:977:A:O2'	32:1a:981:U:N3	2.41	0.46
32:1a:1203:C:H2'	32:1a:1204:A:O4'	2.15	0.46
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.51	0.46
33:1b:132:LYS:HA	33:1b:135:GLN:HB2	1.98	0.46
37:1f:100:ASN:HB2	49:1r:28:GLU:HA	1.98	0.46
38:1g:15:ASP:OD1	38:1g:19:GLY:N	2.49	0.46
49:1r:38:GLU:HA	49:1r:41:LYS:HE3	1.98	0.46
1:2A:445:C:OP1	16:2U:2:PRO:HA	2.15	0.46
1:2A:475:U:HO2'	1:2A:505:A:HO2'	1.59	0.46
1:2A:829:A:N7	1:2A:2248:C:H5'	2.31	0.46
1:2A:1038:C:H42	1:2A:1117:G:H1	1.63	0.46
1:2A:1183:G:H5''	25:23:30:ARG:NH2	2.30	0.46
1:2A:2635:C:H5''	4:2E:78:LEU:O	2.15	0.46
6:2G:173:LEU:O	6:2G:178:PHE:N	2.46	0.46
32:2a:688:G:C6	32:2a:700:G:C2	3.03	0.46
32:2a:1184:G:H2'	32:2a:1185:G:C8	2.51	0.46
32:2a:1292:U:H2'	32:2a:1293:G:O4'	2.16	0.46
32:2a:1335:C:H3'	32:2a:1336:C:H5'	1.98	0.46
36:2e:78:HIS:HE1	36:2e:143:ARG:H	1.63	0.46
38:2g:132:GLY:O	38:2g:136:LYS:HG2	2.15	0.46
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.96	0.46
1:1A:1314:A:C2	1:1A:2035:A:C4	3.04	0.46
1:1A:1640:G:H2'	1:1A:1641:G:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2008:A:OP1	60:1A:4027:HOH:O	2.20	0.46
1:1A:2227:G:H5''	1:1A:2228:G:C5	2.50	0.46
60:1A:4213:HOH:O	13:1R:15:SER:HB3	2.15	0.46
6:1G:97:ASP:O	6:1G:101:ILE:HG13	2.16	0.46
32:1a:1027:C:N4	32:1a:1034:G:N1	2.64	0.46
32:1a:1151:A:O2'	32:1a:1152:A:H8	1.99	0.46
32:1a:1250:A:H4'	40:1i:68:GLY:H	1.79	0.46
32:1a:1258:G:H2'	32:1a:1259:C:H6	1.80	0.46
33:1b:108:ILE:HD13	33:1b:108:ILE:HA	1.82	0.46
35:1d:170:VAL:HG12	35:1d:171:GLY:H	1.80	0.46
40:1i:111:ARG:HG3	40:1i:113:LYS:HE3	1.98	0.46
52:1u:3:LYS:HB3	52:1u:14:TRP:CD1	2.51	0.46
1:2A:658:C:H2'	1:2A:659:C:C6	2.51	0.46
1:2A:1818:U:H2'	3:2D:157:ARG:HD3	1.98	0.46
5:2F:12:LEU:HD12	5:2F:12:LEU:HA	1.77	0.46
7:2H:154:PRO:HB3	7:2H:163:TYR:CE1	2.50	0.46
10:2O:63:VAL:HG11	10:2O:85:VAL:HG23	1.97	0.46
13:2R:118:GLU:CD	13:2R:118:GLU:H	2.24	0.46
32:2a:110:C:O2'	47:2p:25:ARG:O	2.30	0.46
32:2a:826:C:H2'	32:2a:827:U:C6	2.51	0.46
32:2a:1201:A:H4'	32:2a:1202:G:O5'	2.16	0.46
32:2a:1429:C:H2'	32:2a:1430:C:C6	2.51	0.46
34:2c:42:LEU:HA	34:2c:45:LYS:NZ	2.31	0.46
35:2d:175:SER:HB3	35:2d:184:LYS:HB3	1.96	0.46
41:2j:5:ARG:HA	41:2j:73:ASP:OD1	2.16	0.46
1:1A:636:G:N2	1:1A:640:A:O2'	2.49	0.46
1:1A:944:C:H2'	1:1A:945:A:C8	2.51	0.46
1:1A:1017:G:H3'	1:1A:1018:A:H2'	1.97	0.46
1:1A:1101:G:H1	1:1A:1150:C:H42	1.64	0.46
1:1A:1472:G:H2'	1:1A:1473:A:C8	2.51	0.46
1:1A:2178:G:H2'	1:1A:2179:G:C2	2.51	0.46
8:1I:29:TYR:HD2	8:1I:30:LEU:HD23	1.81	0.46
8:1I:72:LEU:HD21	8:1I:107:VAL:HG11	1.98	0.46
8:1I:77:LEU:HG	8:1I:101:LEU:HD13	1.98	0.46
13:1R:26:LYS:HE2	13:1R:70:LEU:O	2.16	0.46
18:1W:86:LEU:HD22	18:1W:96:ILE:HD11	1.98	0.46
32:1a:919:A:O2'	32:1a:1080:A:N1	2.43	0.46
32:1a:1060:C:OP1	45:1n:45:ARG:NH2	2.45	0.46
33:1b:196:LEU:HD12	33:1b:196:LEU:HA	1.79	0.46
34:1c:18:TRP:H	34:1c:18:TRP:HE3	1.64	0.46
36:1e:8:GLU:OE2	36:1e:63:ARG:NH2	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:1n:9:LYS:HG3	45:1n:12:ARG:HH21	1.80	0.46
54:1w:64:A:H2'	54:1w:65:G:O4'	2.17	0.46
1:2A:637:A:C6	1:2A:652:C:H4'	2.51	0.46
1:2A:1288:U:O2'	1:2A:1647:G:N2	2.49	0.46
1:2A:2119:A:N6	1:2A:2171:A:C6	2.84	0.46
13:2R:8:ARG:HD2	13:2R:43:GLU:HG3	1.97	0.46
24:22:1:MET:HE1	24:22:9:GLN:OE1	2.16	0.46
24:22:32:LEU:HD13	24:22:53:LEU:HB3	1.98	0.46
26:24:40:HIS:CE1	26:24:42:PHE:HB3	2.51	0.46
32:2a:555:C:H2'	32:2a:556:C:C6	2.50	0.46
32:2a:952:U:H4'	32:2a:964:A:N1	2.31	0.46
50:2s:33:THR:HG21	50:2s:49:ILE:HD11	1.98	0.46
54:2w:72:C:H2'	54:2w:73:A:H8	1.79	0.46
1:1A:490:U:H2'	1:1A:491:G:O4'	2.15	0.45
1:1A:1985:U:H4'	1:1A:1986:G:OP1	2.16	0.45
4:1E:7:VAL:HG13	4:1E:27:LEU:HB3	1.97	0.45
9:1N:39:ARG:HE	9:1N:39:ARG:HB3	1.31	0.45
11:1P:106:LEU:HD13	11:1P:112:LEU:HD23	1.98	0.45
20:1Y:86:ARG:HB3	20:1Y:98:VAL:HG23	1.97	0.45
32:1a:292:G:N7	32:1a:293:G:H1'	2.31	0.45
32:1a:870:U:H4'	32:1a:871:U:H5''	1.97	0.45
32:1a:1112:C:H1'	34:1c:179:ARG:HH11	1.80	0.45
32:1a:1118:C:H1'	32:1a:1179:A:C5	2.52	0.45
32:1a:1347:G:H5''	40:1i:107:ARG:HB3	1.99	0.45
33:1b:93:VAL:HG21	33:1b:97:TRP:CD1	2.51	0.45
35:1d:65:ARG:HG3	35:1d:75:PHE:CD1	2.51	0.45
1:2A:271(U):G:H2'	1:2A:271(V):G:H8	1.81	0.45
1:2A:2080:G:OP1	23:21:35:THR:OG1	2.28	0.45
6:2G:150:ASP:OD1	6:2G:150:ASP:N	2.49	0.45
20:2Y:90:LEU:HB3	20:2Y:92:ASN:HB3	1.98	0.45
32:2a:623:C:H2'	32:2a:624:C:O4'	2.15	0.45
36:2e:90:VAL:O	36:2e:120:THR:HA	2.16	0.45
40:2i:45:ALA:O	40:2i:48:GLU:HB2	2.16	0.45
41:2j:34:VAL:HG12	41:2j:74:ILE:HD12	1.97	0.45
1:1A:34:C:H5''	1:1A:35:G:OP2	2.16	0.45
1:1A:1115:A:H2'	1:1A:1119:A:N7	2.32	0.45
15:1T:54:ARG:HA	15:1T:59:THR:OG1	2.15	0.45
16:1U:104:GLN:NE2	16:1U:105:VAL:HG23	2.31	0.45
18:1W:12:ILE:HD13	18:1W:17:VAL:HG22	1.98	0.45
22:10:24:LYS:O	22:10:25:ARG:HD3	2.16	0.45
32:1a:390:C:H2'	32:1a:391:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:901:A:C5	32:1a:902:G:H1'	2.51	0.45
32:1a:993:G:O2'	32:1a:994:A:N7	2.49	0.45
35:1d:8:VAL:O	35:1d:11:LEU:HB2	2.16	0.45
35:1d:64:LEU:HD11	35:1d:97:LEU:HD13	1.98	0.45
43:1l:77:LEU:HD21	43:1l:107:ALA:HA	1.97	0.45
1:2A:71:A:H5''	1:2A:73:A:C8	2.51	0.45
1:2A:221:A:N1	1:2A:265:A:O2'	2.49	0.45
1:2A:271(S):G:C6	1:2A:271(T):C:C4	3.04	0.45
1:2A:2408:U:H2'	1:2A:2409:G:C8	2.51	0.45
2:2B:11:C:H3'	2:2B:12:C:H6	1.81	0.45
14:2S:10:ARG:NE	14:2S:91:PRO:O	2.42	0.45
21:2Z:93:ASP:HA	21:2Z:131:ARG:HH12	1.80	0.45
23:21:83:GLU:HA	23:21:84:GLY:HA2	1.63	0.45
32:2a:973:G:H3'	32:2a:974:A:H5''	1.97	0.45
41:2j:42:THR:HG23	41:2j:68:HIS:HA	1.97	0.45
46:2o:54:ARG:O	46:2o:58:MET:HG3	2.16	0.45
1:1A:333:G:N3	1:1A:353:G:O2'	2.46	0.45
1:1A:943:C:H5'	54:1w:56:C:OP1	2.16	0.45
1:1A:1501:U:O2'	1:1A:1502:G:N7	2.44	0.45
1:1A:1685:C:O3'	1:1A:2721:G:N2	2.49	0.45
2:1B:33:G:C2	2:1B:50:G:C2	3.04	0.45
29:17:29:LYS:O	29:17:33:ARG:HG3	2.14	0.45
32:1a:24:U:H2'	32:1a:25:C:H6	1.79	0.45
32:1a:872:A:C8	32:1a:874:G:C8	3.04	0.45
33:1b:24:TRP:CZ3	33:1b:26:PRO:HA	2.51	0.45
49:1r:37:VAL:HG22	49:1r:41:LYS:HE2	1.99	0.45
54:1y:64:A:H2'	54:1y:65:G:C8	2.51	0.45
1:2A:563:G:H21	16:2U:37:GLU:CD	2.24	0.45
1:2A:743:G:OP1	4:2E:130:GLY:HA2	2.16	0.45
1:2A:1614:A:P	1:2A:1614:A:H8	2.40	0.45
1:2A:2041:U:H2'	1:2A:2042:A:C8	2.52	0.45
1:2A:2410:G:H2'	1:2A:2411:A:O4'	2.16	0.45
2:2B:75:G:H22	21:2Z:73:GLN:HE21	1.64	0.45
5:2F:7:TYR:H	5:2F:22:ALA:H	1.63	0.45
5:2F:158:THR:HB	5:2F:195:ASP:HB2	1.98	0.45
12:2Q:41:TRP:HB3	12:2Q:94:VAL:HB	1.98	0.45
33:2b:40:HIS:HB3	33:2b:190:THR:HG21	1.98	0.45
40:2i:49:PRO:HG3	40:2i:101:PHE:HD1	1.81	0.45
44:2m:108:ARG:HA	44:2m:108:ARG:HD3	1.81	0.45
45:2n:12:ARG:HH12	45:2n:14:PRO:HA	1.82	0.45
1:1A:873:U:H4'	11:1P:55:ARG:HB3	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1231:G:H2'	1:1A:1232:G:O4'	2.16	0.45
1:1A:2659:U:H2'	1:1A:2660:C:H6	1.81	0.45
1:1A:2748:G:H2'	1:1A:2749:G:C8	2.51	0.45
32:1a:452:A:H4'	47:1p:72:ARG:NH1	2.31	0.45
32:1a:1008:C:N3	32:1a:1021:G:O6	2.49	0.45
54:1y:9:A:O3'	54:1y:45:U:O2'	2.33	0.45
54:1y:19:G:C4'	54:1y:57:G:H22	2.28	0.45
1:2A:40:C:H2'	1:2A:41:C:C6	2.51	0.45
1:2A:143:G:H2'	1:2A:143(A):C:H6	1.82	0.45
1:2A:631:A:OP2	30:28:47:LYS:NZ	2.39	0.45
1:2A:2322:A:H2'	1:2A:2323:G:O4'	2.16	0.45
1:2A:2345:G:H1'	1:2A:2382:G:H5'	1.97	0.45
2:2B:64:C:H2'	2:2B:65:C:C6	2.51	0.45
5:2F:29:ASN:HB3	5:2F:32:LEU:HB3	1.98	0.45
8:2I:93:THR:N	8:2I:96:ASP:HB2	2.27	0.45
32:2a:222:U:H2'	32:2a:223:U:C6	2.51	0.45
32:2a:1272:G:N2	32:2a:1273:G:C5	2.84	0.45
32:2a:1485:U:H2'	32:2a:1486:G:C8	2.52	0.45
33:2b:8:LYS:HG3	33:2b:9:GLU:H	1.82	0.45
33:2b:223:ILE:O	33:2b:226:ARG:HG2	2.17	0.45
38:2g:79:ARG:CD	38:2g:80:VAL:H	2.26	0.45
43:2l:59:ARG:HA	43:2l:65:GLU:HA	1.98	0.45
1:1A:605:G:H1	1:1A:1304:C:H42	1.63	0.45
1:1A:1228:G:O2'	25:13:29:ARG:NH1	2.49	0.45
1:1A:1447:G:H2'	1:1A:1448:C:O4'	2.16	0.45
1:1A:1470:G:H2'	1:1A:1471:G:O4'	2.16	0.45
1:1A:1495:G:H1'	1:1A:1574:A:N1	2.32	0.45
3:1D:79:VAL:O	3:1D:114:GLY:N	2.43	0.45
6:1G:41:GLN:HG2	6:1G:154:GLY:O	2.17	0.45
8:1I:75:LEU:HD22	8:1I:105:HIS:CD2	2.51	0.45
11:1P:60:MET:HA	30:18:13:ARG:NH1	2.31	0.45
13:1R:92:GLY:HA2	13:1R:94:TYR:CZ	2.52	0.45
18:1W:11:ARG:HE	18:1W:98:LYS:HB3	1.82	0.45
21:1Z:153:SER:HB3	21:1Z:167:PRO:HB3	1.99	0.45
30:18:62:LEU:HB3	30:18:65:GLU:CG	2.47	0.45
32:1a:1068:G:H8	32:1a:1068:G:OP2	1.99	0.45
33:1b:87:ARG:NE	33:1b:233:SER:HB3	2.32	0.45
36:1e:89:ILE:HG21	36:1e:135:THR:HA	1.99	0.45
47:1p:20:VAL:HG21	47:1p:32:TYR:CD2	2.52	0.45
50:1s:40:ILE:HD12	50:1s:69:HIS:HB2	1.99	0.45
54:1w:70:G:C2	54:1w:71:G:H1'	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:93:G:H2'	1:2A:94:C:C6	2.51	0.45
1:2A:579:G:H2'	1:2A:580:C:C6	2.52	0.45
1:2A:2758:A:C2	1:2A:2759:G:H1'	2.51	0.45
5:2F:202:PHE:O	5:2F:206:ILE:HG12	2.16	0.45
6:2G:11:TYR:HB2	6:2G:176:LEU:HD21	1.98	0.45
7:2H:20:ALA:HB3	7:2H:23:ARG:HG3	1.98	0.45
11:2P:14:LYS:HG2	11:2P:15:ARG:N	2.31	0.45
17:2V:10:LYS:NZ	17:2V:23:GLU:OE2	2.49	0.45
26:24:40:HIS:O	26:24:44:THR:HG22	2.17	0.45
32:2a:352:C:O2'	32:2a:354:G:OP1	2.30	0.45
32:2a:405:U:O4	35:2d:2:GLY:N	2.49	0.45
32:2a:909:A:N3	32:2a:1413:A:O2'	2.43	0.45
32:2a:1040:U:C2	32:2a:1041:A:C8	3.04	0.45
32:2a:1054:C:H4'	32:2a:1055:A:O5'	2.16	0.45
32:2a:1129:C:H2'	32:2a:1139:G:N7	2.32	0.45
32:2a:1263:C:C4	32:2a:1272:G:O6	2.70	0.45
36:2e:57:LYS:HG2	36:2e:61:TYR:HE2	1.80	0.45
50:2s:38:SER:HB2	50:2s:71:LEU:HD22	1.99	0.45
1:1A:1550:C:H2'	1:1A:1551:C:C6	2.52	0.45
4:1E:116:VAL:HG13	4:1E:122:PHE:HB2	1.98	0.45
12:1Q:67:ARG:NH1	12:1Q:105:GLU:OE2	2.48	0.45
20:1Y:68:HIS:HB3	20:1Y:71:LYS:HG3	1.98	0.45
32:1a:34:C:H2'	32:1a:35:G:C8	2.51	0.45
32:1a:60:A:OP1	32:1a:111:G:N2	2.49	0.45
32:1a:278:G:OP2	48:1q:92:ARG:NH2	2.50	0.45
32:1a:375:U:OP1	47:1p:69:THR:HG21	2.16	0.45
32:1a:530:G:O6	53:1v:21:C:H1'	2.17	0.45
32:1a:911:U:OP2	43:1l:97:ARG:NH2	2.50	0.45
32:1a:993:G:H2'	32:1a:993:G:N3	2.31	0.45
32:1a:1145:C:H4'	32:1a:1146:A:H5'	1.98	0.45
33:1b:154:LEU:HD12	33:1b:154:LEU:H	1.82	0.45
35:1d:116:GLN:HE22	35:1d:161:ASN:ND2	2.14	0.45
35:1d:173:TRP:CD2	35:1d:189:PRO:HG3	2.51	0.45
45:1n:26:ARG:HH12	45:1n:46:GLU:HB2	1.81	0.45
49:1r:33:ASP:OD2	49:1r:36:ASN:HB2	2.17	0.45
50:1s:44:MET:O	50:1s:47:HIS:HB2	2.17	0.45
1:2A:1268:A:H2'	1:2A:1269:A:O4'	2.16	0.45
1:2A:2055:C:O2	1:2A:2572:A:N6	2.50	0.45
1:2A:2252:G:H21	57:2A:3576:AKN:H45	1.82	0.45
1:2A:2320:A:N3	1:2A:2320:A:H2'	2.32	0.45
1:2A:2508:G:O3'	1:2A:2555:U:H5'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2552:2MU:H6	1:2A:2552:2MU:O5'	2.16	0.45
1:2A:2575:C:H2'	1:2A:2578:G:O6	2.16	0.45
4:2E:11:MET:HE2	4:2E:11:MET:HB3	1.83	0.45
8:2I:63:ALA:HA	8:2I:66:GLU:HB3	1.97	0.45
10:2O:15:GLY:O	10:2O:47:ILE:HG12	2.16	0.45
13:2R:33:ARG:HA	13:2R:114:VAL:O	2.17	0.45
14:2S:62:LYS:O	14:2S:66:ALA:N	2.42	0.45
21:2Z:91:LEU:HD12	21:2Z:91:LEU:HA	1.80	0.45
26:24:59:PHE:HD2	50:2s:64:GLU:HB2	1.82	0.45
32:2a:192:U:H2'	32:2a:193:C:C6	2.51	0.45
32:2a:675:A:H2'	32:2a:676:A:O4'	2.16	0.45
32:2a:1004:A:H1'	32:2a:1038:C:O2	2.17	0.45
32:2a:1518:MA6:C6	32:2a:1519:MA6:H103	2.46	0.45
33:2b:81:VAL:HG22	33:2b:215:LEU:HD21	1.99	0.45
35:2d:3:ARG:HD3	35:2d:118:ARG:NE	2.32	0.45
41:2j:6:ILE:O	41:2j:71:LEU:HD12	2.17	0.45
49:2r:24:ALA:C	49:2r:26:LEU:H	2.25	0.45
54:2w:8:4SU:S4	54:2w:14:A:N7	2.89	0.45
54:2w:8:4SU:HN3	54:2w:14:A:H62	1.64	0.45
1:1A:843:C:H2'	1:1A:844:C:C6	2.51	0.45
1:1A:1058:U:C5	9:1N:28:THR:HG21	2.51	0.45
1:1A:1935:A:H4'	1:1A:1936:C:H5''	1.99	0.45
1:1A:2033:U:OP1	18:1W:42:ARG:NH1	2.47	0.45
1:1A:2245:U:H2'	1:1A:2246:G:C8	2.52	0.45
1:1A:2355:C:O2'	1:1A:2385:G:O2'	2.22	0.45
1:1A:2801:C:P	4:1E:61:ARG:HH21	2.39	0.45
5:1F:72:ARG:HE	5:1F:72:ARG:HB3	1.54	0.45
7:1H:41:MET:HE2	7:1H:65:HIS:HA	1.99	0.45
14:1S:36:TYR:N	14:1S:36:TYR:CD2	2.84	0.45
21:1Z:98:MET:O	21:1Z:125:LEU:HD12	2.15	0.45
24:12:10:LEU:O	24:12:14:ARG:HG3	2.16	0.45
32:1a:881:G:P	43:1l:12:ARG:HH22	2.40	0.45
32:1a:1186:G:H21	45:1n:61:TRP:C	2.25	0.45
33:1b:178:ARG:NH2	39:1h:74:PRO:HB3	2.30	0.45
34:1c:150:LYS:HG3	34:1c:169:ALA:HB2	1.99	0.45
41:1j:39:PRO:HA	41:1j:70:ARG:HD3	1.99	0.45
41:1j:55:LYS:O	41:1j:57:LYS:N	2.50	0.45
1:2A:1591:G:H2'	1:2A:1592:C:H6	1.81	0.45
1:2A:2127:G:C2	1:2A:2161:C:C4	3.05	0.45
9:2N:21:LYS:NZ	9:2N:140:VAL:OXT	2.43	0.45
10:2O:17:ARG:HA	10:2O:17:ARG:HD3	1.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:2T:33:LYS:HB3	15:2T:82:LEU:HD22	1.98	0.45
21:2Z:130:PRO:HA	21:2Z:133:ILE:HG13	1.97	0.45
28:26:11:LEU:HB2	28:26:21:TYR:HB2	1.97	0.45
32:2a:108:G:C6	51:2t:15:ARG:HG2	2.51	0.45
32:2a:791:G:H2'	32:2a:792:A:H5'	1.99	0.45
32:2a:950:U:H2'	32:2a:951:G:H8	1.82	0.45
32:2a:1190:G:H5'	34:2c:176:HIS:CE1	2.52	0.45
33:2b:87:ARG:HH21	33:2b:233:SER:HB3	1.82	0.45
38:2g:144:MET:HE3	38:2g:144:MET:HB3	1.89	0.45
45:2n:23:ARG:NH1	45:2n:30:ALA:HB2	2.31	0.45
48:2q:6:LEU:HG	48:2q:23:VAL:HG11	1.98	0.45
48:2q:84:LEU:HD23	48:2q:87:LYS:NZ	2.31	0.45
1:1A:1123:A:N6	1:1A:1124:U:O2	2.49	0.45
1:1A:1405:A:H2	1:1A:1418:U:O4	1.98	0.45
1:1A:1830:G:O2'	3:1D:181:GLU:OE2	2.33	0.45
1:1A:1849:U:OP2	3:1D:157:ARG:NH2	2.48	0.45
1:1A:2418:U:H2'	1:1A:2418:U:OP2	2.16	0.45
1:1A:2659:U:H2'	1:1A:2660:C:C6	2.52	0.45
1:1A:2856:G:H2'	1:1A:2857:U:O4'	2.17	0.45
6:1G:53:LEU:O	6:1G:56:ALA:N	2.49	0.45
7:1H:83:TYR:CZ	7:1H:138:LYS:HD2	2.52	0.45
11:1P:50:ARG:HD3	30:18:7:HIS:HD2	1.81	0.45
13:1R:72:ASP:O	13:1R:76:VAL:HG23	2.17	0.45
32:1a:236:G:H5''	48:1q:42:TYR:OH	2.17	0.45
32:1a:718:G:H5'	42:1k:117:ASN:HB2	1.98	0.45
32:1a:736:C:H2'	32:1a:737:A:C8	2.52	0.45
32:1a:840:C:H4'	32:1a:841:U:OP1	2.16	0.45
32:1a:1142:G:H2'	32:1a:1143:G:O4'	2.17	0.45
32:1a:1414:U:H3	32:1a:1486:G:H1	1.64	0.45
33:1b:98:LEU:O	33:1b:101:MET:HG3	2.17	0.45
36:1e:11:ILE:HG22	36:1e:12:LEU:HB2	1.99	0.45
1:2A:763:G:H1'	1:2A:765:G:O4'	2.17	0.45
1:2A:807:U:C2	1:2A:808:G:C8	3.05	0.45
1:2A:836:G:C5	1:2A:837:C:C4	3.04	0.45
1:2A:1495:A:H2'	1:2A:1496:A:C8	2.52	0.45
3:2D:72:LYS:HD2	3:2D:103:ARG:NH1	2.31	0.45
3:2D:218:ARG:NH1	60:2D:401:HOH:O	2.41	0.45
6:2G:16:ARG:HA	6:2G:16:ARG:HD2	1.72	0.45
6:2G:32:PRO:HB2	6:2G:172:LEU:HD22	1.98	0.45
6:2G:41:GLN:HG3	6:2G:154:GLY:O	2.16	0.45
23:21:8:SER:HB3	23:21:66:HIS:CD2	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:21:59:THR:O	23:21:91:LYS:NZ	2.49	0.45
26:24:34:GLU:OE1	44:2m:3:ARG:N	2.49	0.45
32:2a:779:C:H5''	42:2k:122:LYS:HG2	1.98	0.45
32:2a:1005:A:OP1	32:2a:1006:C:N4	2.50	0.45
32:2a:1149:C:H2'	32:2a:1150:U:O4'	2.17	0.45
32:2a:1216:G:OP1	45:2n:2:ALA:HA	2.15	0.45
32:2a:1468:A:H2'	32:2a:1469:G:O4'	2.16	0.45
33:2b:25:ASN:HD22	33:2b:193:ASP:HA	1.82	0.45
33:2b:55:PHE:CE1	33:2b:218:ALA:HA	2.51	0.45
36:2e:146:ALA:O	36:2e:150:ARG:HG2	2.17	0.45
1:1A:48:A:H4'	1:1A:49:U:H5''	1.99	0.45
1:1A:177:G:H5'	23:11:14:VAL:HG21	1.99	0.45
1:1A:493:G:P	29:17:33:ARG:HH12	2.40	0.45
1:1A:964:A:H5''	2:1B:98:G:O2'	2.17	0.45
1:1A:1854:G:OP1	3:1D:54:ARG:NH1	2.50	0.45
1:1A:2593:G:H4'	1:1A:2594:G:C8	2.52	0.45
6:1G:79:ASN:OD1	6:1G:79:ASN:N	2.50	0.45
8:1I:48:GLU:HB3	8:1I:52:ARG:NH1	2.32	0.45
9:1N:129:PRO:C	9:1N:131:GLN:H	2.24	0.45
10:1O:104:ARG:CZ	15:1T:34:VAL:HG11	2.47	0.45
18:1W:82:LEU:HD22	18:1W:84:ARG:NH2	2.32	0.45
19:1X:8:ILE:O	24:12:36:ARG:NH2	2.50	0.45
19:1X:24:GLY:O	19:1X:83:VAL:HG22	2.16	0.45
21:1Z:70:LEU:HG	21:1Z:91:LEU:HD21	1.99	0.45
32:1a:7:G:O2'	36:1e:120:THR:O	2.35	0.45
32:1a:343:U:O2'	32:1a:344:A:H2'	2.17	0.45
32:1a:1226:C:H4'	50:1s:80:TYR:OH	2.17	0.45
34:1c:33:LEU:HD21	45:1n:39:LEU:HD11	1.99	0.45
38:1g:120:ILE:HG22	38:1g:124:LEU:HD12	1.99	0.45
47:1p:27:LYS:HE2	47:1p:27:LYS:HB3	1.67	0.45
54:1y:56:C:C2	54:1y:57:G:C8	3.05	0.45
1:2A:123:G:O3'	1:2A:1376:C:H4'	2.17	0.45
1:2A:635:C:H2'	1:2A:636:G:O4'	2.17	0.45
1:2A:903:C:H2'	1:2A:904:C:C6	2.51	0.45
1:2A:990:A:H1'	1:2A:1156:A:N3	2.32	0.45
1:2A:1139:G:O3'	9:2N:24:GLY:HA3	2.17	0.45
1:2A:1417:C:H42	1:2A:1581:G:H1	1.63	0.45
1:2A:2109:U:H2'	1:2A:2110:G:H5'	1.99	0.45
1:2A:2391:G:O2'	1:2A:2422:A:N7	2.50	0.45
1:2A:2502:G:H5''	1:2A:2503:2MA:H5''	1.99	0.45
5:2F:31:HIS:NE2	5:2F:35:GLU:OE2	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:2F:78:ILE:HA	5:2F:83:PHE:CD2	2.51	0.45
15:2T:93:ARG:HB2	15:2T:117:ASP:HA	1.99	0.45
16:2U:104:GLN:NE2	16:2U:105:VAL:HG23	2.32	0.45
19:2X:44:GLU:O	19:2X:48:LYS:N	2.49	0.45
29:27:24:THR:O	29:27:28:ARG:HG3	2.16	0.45
32:2a:627:G:H2'	32:2a:628:G:H8	1.81	0.45
32:2a:1128:C:O2'	32:2a:1129:C:OP1	2.35	0.45
32:2a:1226:C:N4	44:2m:104:ARG:HG3	2.32	0.45
32:2a:1249:C:N4	32:2a:1287:A:H5''	2.32	0.45
32:2a:1275:A:H3'	32:2a:1276:G:C8	2.52	0.45
33:2b:69:LEU:HB2	33:2b:159:PRO:HG2	1.99	0.45
36:2e:76:ILE:O	36:2e:93:PRO:HB3	2.16	0.45
38:2g:29:LYS:HB2	38:2g:105:VAL:HG21	1.99	0.45
38:2g:99:LEU:HD22	38:2g:103:TRP:CZ2	2.52	0.45
43:2l:110:VAL:HB	43:2l:113:ARG:HG2	1.99	0.45
55:2x:47:U:H3'	55:2x:48:C:C5'	2.47	0.45
3:1D:37:LEU:HD22	3:1D:87:ASN:HD21	1.82	0.45
3:1D:118:VAL:HG22	3:1D:119:ALA:H	1.81	0.45
4:1E:60:ASN:O	4:1E:64:LYS:HB2	2.17	0.45
7:1H:56:SER:HB3	7:1H:61:HIS:ND1	2.32	0.45
11:1P:68:GLN:HG3	60:1P:302:HOH:O	2.17	0.45
32:1a:46:G:H2'	32:1a:366:C:C5	2.52	0.45
32:1a:113:G:H2'	32:1a:114:U:H6	1.82	0.45
32:1a:636:U:H2'	32:1a:637:G:H8	1.82	0.45
32:1a:895:G:H2'	32:1a:896:C:C6	2.52	0.45
32:1a:967:5MC:OP2	32:1a:968:A:O2'	2.35	0.45
33:1b:21:ARG:HB3	33:1b:39:ILE:CG1	2.47	0.45
35:1d:178:VAL:HG12	35:1d:179:GLU:H	1.82	0.45
50:1s:39:THR:HA	50:1s:70:LYS:HD3	1.98	0.45
1:2A:506:G:O3'	1:2A:507:A:H8	2.00	0.45
1:2A:1183:G:O2'	25:23:29:ARG:NH1	2.46	0.45
1:2A:1751:C:HO2'	1:2A:2861:G:HO2'	1.48	0.45
12:2Q:75:THR:HA	12:2Q:89:ASN:O	2.17	0.45
21:2Z:72:ARG:HA	21:2Z:72:ARG:HD3	1.73	0.45
32:2a:960:U:H2'	32:2a:960:U:O2	2.16	0.45
32:2a:1012:U:H2'	32:2a:1013:G:C8	2.52	0.45
32:2a:1186:G:H2'	32:2a:1187:G:O4'	2.17	0.45
38:2g:78:ARG:HH21	38:2g:79:ARG:NH1	2.15	0.45
43:2l:8:ASN:O	43:2l:12:ARG:HG3	2.17	0.45
44:2m:120:LYS:HB2	44:2m:120:LYS:HE3	1.87	0.45
48:2q:26:GLN:HE21	48:2q:37:LYS:HD3	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:2t:54:LYS:HE2	51:2t:54:LYS:HB3	1.76	0.45
1:1A:136:G:H1'	19:1X:41:ASN:HD22	1.82	0.44
1:1A:1033:G:O2'	1:1A:1046:A:N3	2.44	0.44
1:1A:1355:G:P	29:17:9:ARG:HD2	2.56	0.44
1:1A:1476:C:H2'	1:1A:1477:U:C6	2.52	0.44
1:1A:2283:G:H5''	22:10:20:ARG:NH1	2.32	0.44
4:1E:160:TYR:HD1	4:1E:161:GLY:N	2.15	0.44
32:1a:44:G:C2	32:1a:45:U:H1'	2.51	0.44
32:1a:828:A:H2'	32:1a:829:G:O4'	2.16	0.44
32:1a:1033:G:H2'	32:1a:1034:G:C8	2.42	0.44
1:2A:77:C:OP1	24:22:59:ARG:HD3	2.17	0.44
1:2A:597:U:H2'	1:2A:598:G:H8	1.82	0.44
1:2A:755:C:H2'	1:2A:756:C:H6	1.81	0.44
1:2A:910:A:C6	1:2A:911:A:C6	3.05	0.44
1:2A:1264:G:H2'	1:2A:2014:A:N6	2.31	0.44
1:2A:1448:G:H4'	1:2A:1542:A:OP1	2.17	0.44
1:2A:2141:G:C2	1:2A:2151:G:H1'	2.52	0.44
1:2A:2265:U:C4	1:2A:2266:A:C5	3.05	0.44
1:2A:2882:A:H5'	13:2R:96:ARG:HG3	1.98	0.44
2:2B:105:A:H5'	2:2B:106:G:OP2	2.17	0.44
3:2D:274:ARG:O	3:2D:275:LYS:HD2	2.17	0.44
19:2X:47:PHE:O	19:2X:49:VAL:HG13	2.17	0.44
32:2a:20:U:H2'	32:2a:21:G:O4'	2.17	0.44
32:2a:489:C:H2'	32:2a:490:G:H8	1.83	0.44
32:2a:688:G:H2'	32:2a:689:C:C6	2.51	0.44
32:2a:1176:A:H2'	32:2a:1177:G:O4'	2.17	0.44
32:2a:1239:A:H4'	32:2a:1240:U:C5'	2.46	0.44
37:2f:91:VAL:HG12	37:2f:92:LYS:O	2.17	0.44
38:2g:79:ARG:HD2	38:2g:80:VAL:N	2.30	0.44
39:2h:6:ILE:HB	39:2h:85:ARG:HH11	1.80	0.44
40:2i:9:ARG:O	40:2i:104:ARG:HG3	2.17	0.44
44:2m:50:GLU:HA	44:2m:53:VAL:HB	1.99	0.44
44:2m:92:HIS:HA	44:2m:110:ARG:HH21	1.82	0.44
48:2q:26:GLN:HG3	48:2q:37:LYS:HG2	2.00	0.44
48:2q:95:TYR:O	48:2q:98:LEU:HB2	2.17	0.44
1:1A:253:C:O2'	1:1A:254:A:H2'	2.16	0.44
1:1A:1312:G:O2'	1:1A:2034:G:O6	2.24	0.44
1:1A:1688:A:H2'	1:1A:1689:G:O4'	2.18	0.44
1:1A:2018:C:H4'	1:1A:2019:G:OP1	2.16	0.44
1:1A:2298:A:H4'	1:1A:2299:A:O4'	2.16	0.44
1:1A:2416:C:C2'	1:1A:2417:G:H5'	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2877:G:OP2	15:1T:119:LYS:NZ	2.30	0.44
4:1E:37:ARG:HD2	4:1E:42:ASP:CG	2.42	0.44
6:1G:36:LYS:HD3	6:1G:95:ARG:NH1	2.33	0.44
7:1H:154:PRO:HB3	7:1H:163:TYR:CE1	2.52	0.44
13:1R:44:LEU:HD22	13:1R:48:VAL:HG23	1.99	0.44
13:1R:100:LEU:HD11	13:1R:113:LEU:HD23	1.99	0.44
18:1W:7:ALA:O	18:1W:10:VAL:HG23	2.17	0.44
21:1Z:154:ASP:OD1	21:1Z:154:ASP:N	2.44	0.44
32:1a:826:C:O2	39:1h:15:ASN:ND2	2.50	0.44
32:1a:989:C:N4	32:1a:1216:G:H1	2.15	0.44
33:1b:93:VAL:HG21	33:1b:97:TRP:HD1	1.81	0.44
1:2A:68:G:H2'	1:2A:69:C:O4'	2.16	0.44
1:2A:196:A:N3	1:2A:196:A:H2'	2.32	0.44
1:2A:1354:A:H5''	3:2D:38:LYS:HD3	1.99	0.44
1:2A:1657:C:H2'	1:2A:1658:C:C6	2.52	0.44
1:2A:2318:G:H21	14:2S:3:ARG:NE	2.15	0.44
7:2H:3:ARG:HD3	7:2H:6:ARG:HH21	1.83	0.44
21:2Z:5:LEU:HD22	21:2Z:47:VAL:HG21	1.98	0.44
21:2Z:156:LYS:HE3	21:2Z:158:PRO:HD3	1.99	0.44
25:23:7:LYS:HZ3	25:23:34:GLU:CD	2.23	0.44
32:2a:441:A:H3'	32:2a:442:C:C6	2.52	0.44
32:2a:841:U:C5	32:2a:848:C:H1'	2.52	0.44
33:2b:24:TRP:CD1	33:2b:24:TRP:H	2.35	0.44
40:2i:17:VAL:HA	40:2i:63:ILE:HG12	1.98	0.44
52:2u:6:ARG:O	52:2u:12:LYS:HE3	2.17	0.44
1:1A:1632:A:H3'	1:1A:1633:A:H8	1.82	0.44
2:1B:24:G:N7	2:1B:56:G:H2'	2.31	0.44
5:1F:195:ASP:HB3	5:1F:198:ALA:H	1.82	0.44
6:1G:126:ASP:HB2	6:1G:130:ASN:H	1.81	0.44
7:1H:133:VAL:HG12	7:1H:141:VAL:HG13	1.99	0.44
8:1I:27:ARG:HD3	23:11:71:TYR:CE2	2.53	0.44
11:1P:135:LEU:HD23	11:1P:135:LEU:HA	1.74	0.44
12:1Q:15:GLY:O	12:1Q:16:ARG:HB2	2.17	0.44
16:1U:74:LEU:HD13	16:1U:79:PHE:HB2	1.99	0.44
21:1Z:48:PHE:CE1	21:1Z:71:VAL:HG11	2.52	0.44
23:11:11:ARG:HG3	23:11:12:PRO:HD2	1.99	0.44
32:1a:134:A:H1'	32:1a:325:A:C5	2.52	0.44
32:1a:1104:G:H2'	32:1a:1105:A:O4'	2.17	0.44
32:1a:1292:U:H2'	32:1a:1293:G:C8	2.52	0.44
35:1d:110:PHE:CE1	35:1d:148:VAL:HG23	2.51	0.44
45:1n:4:LYS:HA	45:1n:7:ILE:HG22	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:154(A):C:N4	1:2A:171:G:H1	2.16	0.44
1:2A:320:A:H4'	1:2A:322:A:N7	2.32	0.44
1:2A:720:C:H2'	1:2A:721:C:C6	2.53	0.44
1:2A:907:U:O2'	12:2Q:101:ARG:NH2	2.50	0.44
1:2A:1266:G:O2'	1:2A:2012:G:O6	2.23	0.44
1:2A:1335:U:OP1	19:2X:65:ARG:NH1	2.50	0.44
1:2A:2051:A:OP1	4:2E:137:HIS:ND1	2.47	0.44
1:2A:2274:A:O2'	1:2A:2276:G:OP1	2.30	0.44
1:2A:2286:A:H4'	1:2A:2287:A:O4'	2.17	0.44
1:2A:2405:G:O2'	1:2A:2406:U:OP1	2.20	0.44
1:2A:2439:A:H5'	1:2A:2439:A:C8	2.52	0.44
1:2A:2881:C:H2'	1:2A:2882:A:O4'	2.17	0.44
2:2B:66:A:N6	2:2B:109:C:H5''	2.32	0.44
3:2D:16:MET:HE1	3:2D:208:LYS:HE2	2.00	0.44
16:2U:86:ALA:O	17:2V:49:THR:HG23	2.17	0.44
20:2Y:52:SER:HB2	20:2Y:53:PRO:HD2	1.98	0.44
21:2Z:35:ARG:HD2	21:2Z:35:ARG:HA	1.83	0.44
32:2a:189(B):C:H2'	32:2a:189(C):C:C6	2.53	0.44
32:2a:202:U:H3'	32:2a:203:U:C6	2.53	0.44
32:2a:233:C:H2'	32:2a:234:C:H6	1.82	0.44
32:2a:300:A:H8	32:2a:300:A:O5'	2.01	0.44
32:2a:1082:G:H1'	60:2a:2038:HOH:O	2.16	0.44
32:2a:1280:A:H8	41:2j:40:LEU:HD22	1.82	0.44
32:2a:1349:A:H2'	32:2a:1350:A:H8	1.82	0.44
38:2g:71:PRO:HD3	38:2g:103:TRP:HZ3	1.83	0.44
45:2n:3:ARG:HG3	45:2n:4:LYS:H	1.83	0.44
47:2p:3:LYS:HG2	47:2p:24:ALA:HB2	1.98	0.44
1:1A:768:C:H2'	1:1A:769:A:H8	1.82	0.44
1:1A:1255:A:H5''	1:1A:1257:G:O4'	2.18	0.44
1:1A:1343:C:OP1	1:1A:2722:C:H4'	2.17	0.44
1:1A:1475:G:H2'	1:1A:1476:C:C6	2.52	0.44
1:1A:2430:A:H2'	1:1A:2431:U:C6	2.51	0.44
1:1A:2432:C:H5'	28:16:54:ILE:HD11	2.00	0.44
14:1S:65:VAL:O	14:1S:69:VAL:HG12	2.17	0.44
15:1T:98:LYS:HB3	15:1T:100:TYR:CE2	2.51	0.44
15:1T:127:ALA:C	15:1T:129:ARG:H	2.25	0.44
16:1U:52:ARG:HA	16:1U:55:ARG:HG3	1.99	0.44
26:14:55:ARG:N	26:14:56:VAL:HA	2.33	0.44
29:17:1:MET:HE2	29:17:1:MET:HB3	1.81	0.44
32:1a:1330:U:O4	32:1a:1331:G:N1	2.50	0.44
32:1a:1521:G:H2'	32:1a:1522:U:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1i:96:LEU:HD23	40:1i:96:LEU:HA	1.82	0.44
43:1l:54:LYS:HG2	43:1l:75:HIS:CD2	2.52	0.44
1:2A:1263:U:H2'	1:2A:1264:G:C8	2.52	0.44
1:2A:1274:A:N3	1:2A:1297:C:H1'	2.33	0.44
1:2A:2408:U:H2'	1:2A:2409:G:H8	1.83	0.44
1:2A:2815:C:H2'	1:2A:2816:C:H6	1.82	0.44
7:2H:137:ASP:HB3	7:2H:140:LYS:HB2	1.99	0.44
9:2N:83:LYS:HD3	9:2N:83:LYS:HA	1.74	0.44
15:2T:6:LEU:O	15:2T:10:VAL:HG23	2.17	0.44
15:2T:127:ALA:C	15:2T:129:ARG:H	2.24	0.44
17:2V:50:PRO:HG2	17:2V:51:VAL:HG12	1.99	0.44
21:2Z:43:GLU:O	21:2Z:47:VAL:HG23	2.18	0.44
21:2Z:171:ILE:H	21:2Z:171:ILE:HG13	1.69	0.44
26:24:34:GLU:HA	44:2m:57:ARG:NH1	2.33	0.44
32:2a:66:G:H8	32:2a:66:G:OP1	2.01	0.44
32:2a:1184:G:H2'	32:2a:1185:G:H8	1.82	0.44
32:2a:1263:C:N3	32:2a:1272:G:O6	2.50	0.44
36:2e:136:MET:HA	36:2e:139:LEU:HD12	2.00	0.44
39:2h:82:HIS:CE1	39:2h:84:ARG:HD3	2.52	0.44
1:1A:1546:G:H2'	1:1A:1547:C:C6	2.52	0.44
1:1A:1563:G:H2'	1:1A:1564:C:C6	2.53	0.44
1:1A:1834:A:HO2'	3:1D:259:THR:HG21	1.82	0.44
1:1A:2193:A:O2'	1:1A:2194:U:H6	2.00	0.44
3:1D:132:PRO:HD3	3:1D:190:TYR:CZ	2.53	0.44
7:1H:83:TYR:CE1	7:1H:138:LYS:HD2	2.53	0.44
9:1N:33:LEU:HD12	9:1N:33:LEU:HA	1.79	0.44
9:1N:73:THR:OG1	9:1N:82:LEU:HD11	2.16	0.44
19:1X:11:PRO:HD3	24:12:37:PHE:CE2	2.52	0.44
21:1Z:25:PRO:O	21:1Z:85:HIS:HA	2.18	0.44
24:12:59:ARG:O	24:12:63:VAL:HG23	2.17	0.44
26:14:63:TYR:N	26:14:63:TYR:CD1	2.85	0.44
32:1a:128:G:O2'	48:1q:3:LYS:NZ	2.44	0.44
32:1a:202:U:H3'	32:1a:203:U:H5	1.83	0.44
32:1a:1216:G:H5''	45:1n:5:ALA:HB2	2.00	0.44
33:1b:28:PHE:CD2	33:1b:190:THR:HA	2.53	0.44
33:1b:125:PRO:O	33:1b:127:ILE:N	2.50	0.44
55:1x:2:G:H2'	55:1x:2:G:N3	2.31	0.44
1:2A:228:A:O2'	1:2A:229:A:H4'	2.18	0.44
1:2A:286:C:H2'	1:2A:287:C:C6	2.52	0.44
1:2A:958:U:O2	2:2B:90:A:O2'	2.30	0.44
1:2A:1131:G:C2	1:2A:1132:A:C4	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1152:C:H2'	1:2A:1153:C:H6	1.82	0.44
1:2A:1319:G:C6	1:2A:1320:C:N4	2.86	0.44
1:2A:2543:G:H2'	1:2A:2544:G:C8	2.53	0.44
1:2A:2848:G:H8	15:2T:97:ALA:HB2	1.83	0.44
14:2S:7:TYR:CZ	14:2S:91:PRO:HG3	2.53	0.44
32:2a:620:C:H2'	32:2a:621:A:O4'	2.18	0.44
32:2a:664:G:N2	32:2a:741:G:H1	2.14	0.44
32:2a:1067:A:H8	32:2a:1067:A:O5'	2.00	0.44
32:2a:1085:U:H3'	32:2a:1086:U:C5	2.53	0.44
32:2a:1134:G:H1	32:2a:1140:C:H42	1.66	0.44
34:2c:150:LYS:HG3	34:2c:169:ALA:HB2	1.98	0.44
35:2d:13:ARG:NH2	35:2d:40:PRO:HA	2.33	0.44
35:2d:102:ASP:OD1	35:2d:102:ASP:N	2.50	0.44
40:2i:6:GLY:HA3	40:2i:80:GLY:O	2.17	0.44
40:2i:127:LYS:O	40:2i:128:ARG:HB3	2.17	0.44
1:1A:144:C:H2'	1:1A:145:G:H8	1.83	0.44
1:1A:1303:C:H4'	5:1F:83:PHE:CE1	2.52	0.44
1:1A:2658:C:OP2	1:1A:2745:G:O2'	2.32	0.44
2:1B:66:A:N6	2:1B:109:C:H5'	2.32	0.44
3:1D:223:GLY:HA3	3:1D:231:HIS:ND1	2.32	0.44
11:1P:98:GLU:O	11:1P:101:VAL:HG12	2.18	0.44
17:1V:21:ARG:HG2	17:1V:91:TYR:CD1	2.53	0.44
32:1a:393:A:H5'	32:1a:483:C:O2'	2.18	0.44
32:1a:841:U:OP2	32:1a:841:U:H6	2.01	0.44
32:1a:1127:G:H5'	32:1a:1280:A:O2'	2.18	0.44
32:1a:1326:C:OP1	52:1u:12:LYS:NZ	2.47	0.44
32:1a:1402:4OC:H2'	32:1a:1403:C:O4'	2.17	0.44
57:1a:1913:AKN:H18	57:1a:1913:AKN:H5	1.83	0.44
35:1d:61:LYS:NZ	35:1d:72:GLU:OE1	2.51	0.44
40:1i:21:PRO:HA	40:1i:59:PHE:HD1	1.82	0.44
51:1t:18:GLN:O	51:1t:22:ARG:HG3	2.17	0.44
1:2A:859:G:N2	1:2A:917:A:OP2	2.51	0.44
1:2A:1429:G:H2'	1:2A:1430:C:C6	2.53	0.44
1:2A:2547:U:O2	10:2O:23:ARG:NH2	2.50	0.44
2:2B:11:C:O5'	2:2B:12:C:H5	2.01	0.44
3:2D:142:VAL:O	3:2D:163:ALA:N	2.47	0.44
5:2F:95:ARG:HD3	5:2F:97:TYR:CZ	2.53	0.44
21:2Z:23:LYS:HB3	21:2Z:38:TYR:CD1	2.52	0.44
32:2a:392:G:OP1	47:2p:8:ARG:NH2	2.51	0.44
32:2a:420:U:H2'	32:2a:422:C:C5	2.53	0.44
32:2a:996:A:H3'	32:2a:997:U:H5''	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1267:C:H5''	32:2a:1268:A:OP2	2.17	0.44
33:2b:19:HIS:HB2	33:2b:204:ASN:CG	2.42	0.44
39:2h:113:SER:HB2	39:2h:134:ILE:HD11	2.00	0.44
41:2j:74:ILE:HD13	41:2j:81:THR:HG21	1.98	0.44
50:2s:3:ARG:NH1	50:2s:7:LYS:HB3	2.33	0.44
1:1A:327:U:H2'	1:1A:328:G:H8	1.83	0.44
1:1A:768:C:H2'	1:1A:769:A:C8	2.53	0.44
1:1A:1659:G:C2	1:1A:1665:G:C5	3.05	0.44
31:19:27:CYS:SG	31:19:28:GLU:N	2.91	0.44
32:1a:194:C:H2'	32:1a:195:A:H5''	1.98	0.44
32:1a:461:A:O2'	32:1a:470:C:H5'	2.18	0.44
32:1a:1261:A:H3'	32:1a:1262:C:C6	2.52	0.44
35:1d:22:LYS:HB2	35:1d:26:CYS:SG	2.58	0.44
35:1d:158:ILE:H	35:1d:158:ILE:HG13	1.45	0.44
1:2A:563:G:H5'	1:2A:572:A:H4'	1.99	0.44
1:2A:1037:G:H2'	1:2A:1038:C:O4'	2.18	0.44
1:2A:1406:U:H2'	1:2A:1407:C:C6	2.53	0.44
1:2A:2261:C:O2'	1:2A:2262:U:H5'	2.18	0.44
1:2A:2484:G:C2	1:2A:2485:G:C8	3.05	0.44
1:2A:2579:C:H2'	1:2A:2580:U:O4'	2.17	0.44
2:2B:90:A:N7	2:2B:91:C:H1'	2.33	0.44
3:2D:79:VAL:HG23	3:2D:115:GLN:O	2.18	0.44
32:2a:1068:G:H8	32:2a:1068:G:OP2	2.00	0.44
32:2a:1176:A:H2'	32:2a:1177:G:C8	2.52	0.44
32:2a:1268:A:N3	32:2a:1326:C:O2'	2.49	0.44
45:2n:18:VAL:C	45:2n:20:ALA:H	2.26	0.44
52:2u:7:ARG:HG2	52:2u:21:TYR:CE2	2.53	0.44
55:2x:53:G:H2'	55:2x:54:5MU:H6	1.82	0.44
1:1A:346:A:OP2	5:1F:169:ASN:HB2	2.18	0.44
1:1A:1091:A:H8	1:1A:1157:A:C6	2.36	0.44
1:1A:1121:C:H2'	1:1A:1122:C:H5'	1.99	0.44
1:1A:2342:G:H2'	1:1A:2343:G:O4'	2.18	0.44
6:1G:142:PRO:HB2	26:14:31:ILE:HG21	2.00	0.44
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.59	0.44
12:1Q:15:GLY:H	12:1Q:41:TRP:HZ2	1.65	0.44
14:1S:37:ALA:HB1	14:1S:73:LEU:HD22	1.98	0.44
16:1U:61:TRP:O	16:1U:65:ILE:HG13	2.17	0.44
20:1Y:92:ASN:HB3	20:1Y:94:LYS:N	2.24	0.44
21:1Z:9:TYR:CZ	21:1Z:61:LEU:HD23	2.53	0.44
21:1Z:152:ALA:HB1	21:1Z:163:LEU:HD11	2.00	0.44
32:1a:189(B):C:H2'	32:1a:189(C):C:H6	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:791:G:O6	32:1a:792:A:N6	2.50	0.44
32:1a:824:C:H2'	32:1a:825:G:C8	2.52	0.44
32:1a:1029:C:H41	32:1a:1030(A):G:N2	2.16	0.44
39:1h:21:LYS:HD3	39:1h:21:LYS:HA	1.86	0.44
40:1i:33:PHE:O	40:1i:36:TYR:N	2.51	0.44
40:1i:48:GLU:OE2	40:1i:51:ARG:HD2	2.18	0.44
54:1y:58:A:O2'	54:1y:59:U:OP1	2.33	0.44
1:2A:253:C:H2'	1:2A:254:G:O4'	2.18	0.44
1:2A:362:U:O2'	1:2A:363:G:H5'	2.18	0.44
1:2A:657:U:H2'	1:2A:658:C:C6	2.53	0.44
1:2A:1527:G:H5''	1:2A:1528:A:OP1	2.17	0.44
1:2A:2615:U:C2	27:25:7:PRO:HA	2.53	0.44
6:2G:106:LEU:O	6:2G:110:ALA:HB3	2.17	0.44
6:2G:120:LEU:HD12	6:2G:178:PHE:HB3	2.00	0.44
8:2I:75:LEU:HD13	8:2I:105:HIS:CD2	2.53	0.44
16:2U:115:ALA:O	16:2U:117:GLN:N	2.51	0.44
19:2X:48:LYS:NZ	24:22:30:ARG:HH22	2.15	0.44
32:2a:524:G:H2'	32:2a:525:C:C6	2.52	0.44
32:2a:1187:G:H5'	40:2i:113:LYS:HE2	2.00	0.44
32:2a:1401:G:C2	32:2a:1402:4OC:H1'	2.53	0.44
33:2b:98:LEU:HB2	33:2b:101:MET:SD	2.58	0.44
33:2b:103:THR:HA	33:2b:180:LEU:HD11	2.00	0.44
34:2c:22:TRP:CH2	34:2c:32:LEU:HB3	2.53	0.44
1:1A:384:G:H2'	1:1A:385:G:H8	1.83	0.44
1:1A:619:G:H2'	1:1A:620:U:O4'	2.18	0.44
1:1A:1684:A:H4'	1:1A:2723:A:O2'	2.18	0.44
1:1A:2269:U:O2'	1:1A:2270:C:H5'	2.18	0.44
1:1A:2372:A:H2'	1:1A:2373:A:O4'	2.18	0.44
57:1A:3936:AKN:H24	57:1A:3936:AKN:H13	1.82	0.44
2:1B:1:U:O2	2:1B:1:U:H2'	2.16	0.44
3:1D:37:LEU:HD12	3:1D:37:LEU:HA	1.85	0.44
9:1N:70:LYS:HB3	9:1N:87:LEU:HB2	2.00	0.44
18:1W:58:ALA:HB1	18:1W:64:MET:HB2	2.00	0.44
21:1Z:24:LEU:HB3	21:1Z:39:VAL:HG22	2.00	0.44
32:1a:233:C:H2'	32:1a:234:C:C6	2.53	0.44
32:1a:256:U:H2'	32:1a:257:G:O4'	2.18	0.44
32:1a:658:G:C2	32:1a:749:C:N3	2.86	0.44
32:1a:674:G:H2'	32:1a:675:A:C8	2.53	0.44
32:1a:1146:A:H2'	32:1a:1147:C:O4'	2.17	0.44
32:1a:1346:A:N6	32:1a:1375:A:OP2	2.43	0.44
33:1b:109:SER:HA	33:1b:112:VAL:HG13	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:28:ASN:HD21	38:1g:36:LYS:NZ	2.16	0.44
48:1q:62:SER:OG	48:1q:72:ARG:HG2	2.18	0.44
1:2A:511:U:C5	1:2A:512:G:C5	3.06	0.44
1:2A:1207:C:H2'	1:2A:1208:C:C6	2.52	0.44
1:2A:1466:G:O2'	1:2A:1546:C:O2'	2.26	0.44
1:2A:1798:U:H5'	3:2D:259:THR:CG2	2.40	0.44
1:2A:2402:C:H1'	1:2A:2403:C:H5	1.83	0.44
1:2A:2413:G:H21	11:2P:70:GLN:NE2	2.11	0.44
1:2A:2663:G:H3'	1:2A:2664:G:H8	1.82	0.44
4:2E:14:ILE:HG13	4:2E:21:VAL:HG13	2.00	0.44
4:2E:108:SER:HB3	4:2E:165:VAL:CG2	2.47	0.44
5:2F:64:ILE:HG23	5:2F:76:GLY:O	2.18	0.44
8:2I:1:MET:N	8:2I:21:VAL:O	2.39	0.44
21:2Z:151:HIS:HD1	21:2Z:168:GLU:C	2.21	0.44
32:2a:421:U:O2'	32:2a:423:G:N7	2.51	0.44
32:2a:1265:G:H2'	32:2a:1266:G:O4'	2.18	0.44
34:2c:47:LEU:HD22	34:2c:50:ALA:HB3	2.00	0.44
34:2c:124:ILE:HG21	34:2c:130:VAL:HG13	1.99	0.44
38:2g:44:TYR:O	38:2g:47:CYS:HB2	2.17	0.44
40:2i:24:GLY:HA2	40:2i:59:PHE:O	2.18	0.44
46:2o:5:LYS:NZ	46:2o:5:LYS:H	2.16	0.44
55:2x:23:C:H2'	55:2x:24:U:C6	2.52	0.44
1:1A:29:U:H2'	1:1A:30:G:C8	2.53	0.43
1:1A:658:A:H1'	1:1A:2415:C:O3'	2.18	0.43
1:1A:733:G:H1	29:17:16:HIS:CD2	2.36	0.43
1:1A:2710:U:H2'	1:1A:2711:C:C6	2.53	0.43
21:1Z:30:ASN:ND2	21:1Z:90:VAL:HB	2.33	0.43
26:14:61:ARG:HG3	26:14:62:ARG:N	2.33	0.43
32:1a:174:C:H2'	32:1a:175:C:H6	1.82	0.43
32:1a:456:C:H2'	32:1a:457:C:H6	1.82	0.43
32:1a:826:C:H4'	39:1h:12:ARG:HG2	2.00	0.43
33:1b:28:PHE:O	33:1b:32:ILE:HG13	2.18	0.43
38:1g:50:ILE:HG12	38:1g:61:VAL:HG11	1.99	0.43
1:2A:311:A:C6	1:2A:328:U:C4	3.06	0.43
1:2A:1434:A:H2'	1:2A:1435:G:C8	2.53	0.43
1:2A:1683:C:H2'	1:2A:1684:C:C6	2.53	0.43
1:2A:2100:G:C6	1:2A:2190:G:C6	3.05	0.43
1:2A:2432:A:C2	23:21:35:THR:HG22	2.53	0.43
1:2A:2747:G:O6	1:2A:2755:C:H5''	2.18	0.43
3:2D:147:LEU:HD13	3:2D:155:LEU:HD11	2.00	0.43
9:2N:138:LEU:HD23	9:2N:138:LEU:HA	1.88	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:146:ILE:HG12	21:2Z:174:VAL:HG22	1.99	0.43
32:2a:32:A:C2	32:2a:33:A:C4	3.06	0.43
32:2a:126:G:O2'	32:2a:634:C:O2'	2.23	0.43
32:2a:437:U:O2	35:2d:119:GLN:NE2	2.51	0.43
32:2a:921:U:O2'	36:2e:19:MET:O	2.25	0.43
32:2a:1121:U:C4	32:2a:1122:U:C4	3.06	0.43
32:2a:1316:G:N2	32:2a:1319:A:H5''	2.24	0.43
32:2a:1328:C:H2'	32:2a:1329:A:O4'	2.18	0.43
36:2e:36:ASP:C	36:2e:38:GLN:H	2.25	0.43
50:2s:66:MET:HB2	50:2s:74:PHE:CZ	2.53	0.43
54:2y:18:G:O6	54:2y:55:PSU:H1'	2.18	0.43
1:1A:271:U:H4'	1:1A:272:U:OP2	2.16	0.43
1:1A:2158:C:N4	1:1A:2177:G:H1	2.14	0.43
1:1A:2372:A:H8	1:1A:2372:A:O5'	2.02	0.43
3:1D:159:ALA:HB1	3:1D:198:ASN:O	2.18	0.43
12:1Q:50:ALA:HB1	12:1Q:121:ALA:HB1	1.99	0.43
15:1T:3:ARG:HD2	60:1T:301:HOH:O	2.18	0.43
21:1Z:156:LYS:HG2	21:1Z:158:PRO:HD3	2.00	0.43
22:10:14:ARG:H	22:10:14:ARG:HG2	1.72	0.43
25:13:23:LEU:HD12	25:13:50:VAL:HG11	2.00	0.43
32:1a:129(A):G:C6	32:1a:189(E):U:H4'	2.53	0.43
32:1a:1139:G:N2	32:1a:1143:G:C6	2.87	0.43
32:1a:1162:C:H42	32:1a:1174:G:H1	1.66	0.43
33:1b:156:LYS:HA	33:1b:156:LYS:HD2	1.68	0.43
35:1d:196:LEU:C	35:1d:198:VAL:H	2.27	0.43
1:2A:944:G:H5''	1:2A:945:A:O5'	2.19	0.43
1:2A:1265:A:C8	1:2A:1267:U:C2	3.07	0.43
1:2A:2307:G:H8	1:2A:2307:G:OP1	2.00	0.43
1:2A:2331:G:O2'	22:20:43:THR:HG22	2.18	0.43
4:2E:117:MET:HE2	4:2E:117:MET:HB3	1.92	0.43
16:2U:81:HIS:HD2	16:2U:84:LYS:HE2	1.83	0.43
24:22:38:GLN:HG2	24:22:43:GLN:O	2.18	0.43
32:2a:1190:G:O2'	34:2c:3:ASN:HB2	2.18	0.43
32:2a:1399:C:H4'	32:2a:1400:5MC:H3'	2.00	0.43
33:2b:79:ASP:O	33:2b:83:MET:HG2	2.18	0.43
34:2c:110:ASN:O	34:2c:141:VAL:HG22	2.18	0.43
41:2j:5:ARG:N	41:2j:99:LYS:O	2.51	0.43
42:2k:15:ALA:HA	42:2k:77:MET:HA	2.00	0.43
50:2s:17:GLU:HA	50:2s:20:LEU:HB2	1.99	0.43
54:2y:63:G:H2'	54:2y:64:A:O4'	2.18	0.43
1:1A:858:U:H2'	11:1P:21:ARG:HA	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:929:G:H4'	54:1w:19:G:C6	2.52	0.43
1:1A:1018:A:H8	1:1A:1018:A:OP1	2.02	0.43
1:1A:1117:G:H1'	1:1A:1135:G:H2'	2.00	0.43
1:1A:1848:G:OP1	3:1D:88:ARG:NH2	2.51	0.43
1:1A:1974:A:C6	1:1A:1975:A:N1	2.86	0.43
1:1A:2182:G:O6	1:1A:2183:C:N4	2.51	0.43
1:1A:2724:U:OP1	1:1A:2727:G:H4'	2.19	0.43
2:1B:31:C:O2'	2:1B:53:A:N1	2.49	0.43
3:1D:29:PRO:HB2	3:1D:34:VAL:HG11	1.99	0.43
4:1E:120:TRP:CD2	4:1E:155:LYS:HG2	2.52	0.43
11:1P:126:VAL:HG12	11:1P:148:LEU:HD22	2.00	0.43
12:1Q:30:GLY:HA2	12:1Q:107:ALA:HB2	2.00	0.43
32:1a:67:C:H2'	32:1a:68:G:C8	2.54	0.43
32:1a:184:G:O4'	32:1a:224:C:H5''	2.18	0.43
32:1a:202:U:H3'	32:1a:203:U:C5	2.53	0.43
32:1a:621:A:H2'	32:1a:622:A:C8	2.53	0.43
32:1a:711:G:H2'	32:1a:712:A:H8	1.82	0.43
32:1a:802:A:H3'	32:1a:803:G:C8	2.54	0.43
32:1a:996:A:H2'	32:1a:997:U:O4'	2.19	0.43
32:1a:1289:A:OP1	52:1u:10:ARG:NH2	2.52	0.43
40:1i:50:LEU:HD23	40:1i:81:ILE:HD11	2.00	0.43
42:1k:59:TYR:CZ	42:1k:63:LEU:HD11	2.53	0.43
54:1y:52:G:H2'	54:1y:53:G:H8	1.83	0.43
1:2A:925:C:H2'	1:2A:926:A:C8	2.53	0.43
1:2A:1279:G:H4'	13:2R:31:HIS:CD2	2.54	0.43
1:2A:2324:C:H5''	1:2A:2325:G:H5'	2.00	0.43
5:2F:123:LEU:HD12	5:2F:124:LEU:H	1.83	0.43
12:2Q:21:THR:HG21	12:2Q:101:ARG:HB2	1.99	0.43
21:2Z:28:MET:O	21:2Z:34:ASN:HA	2.18	0.43
24:22:66:GLU:HG2	24:22:69:ARG:HH22	1.83	0.43
32:2a:324:G:N2	32:2a:326:G:H3'	2.34	0.43
32:2a:539:A:H2'	32:2a:540:G:C8	2.53	0.43
32:2a:935:A:H8	60:2a:2067:HOH:O	2.01	0.43
32:2a:1030(A):G:N2	32:2a:1030(C):G:H8	2.16	0.43
32:2a:1142:G:H3'	32:2a:1143:G:H8	1.83	0.43
32:2a:1378:C:H5''	38:2g:6:ARG:NH2	2.32	0.43
33:2b:32:ILE:HG21	33:2b:40:HIS:CD2	2.54	0.43
34:2c:6:HIS:CD2	34:2c:8:ILE:H	2.29	0.43
48:2q:40:LYS:HD3	48:2q:42:TYR:CZ	2.53	0.43
50:2s:10:PHE:CE2	50:2s:37:ARG:HD3	2.53	0.43
1:1A:275:C:H2'	1:1A:276:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:863:C:O2'	1:1A:977:G:O6	2.36	0.43
1:1A:943:C:H2'	1:1A:944:C:C6	2.53	0.43
1:1A:1603:C:H2'	1:1A:1604:C:C6	2.53	0.43
1:1A:2179:G:H4'	1:1A:2180:A:OP1	2.19	0.43
3:1D:260:ARG:NH2	3:1D:264:LYS:HD3	2.33	0.43
4:1E:24:THR:HG23	4:1E:184:VAL:HG12	2.01	0.43
15:1T:33:LYS:HA	15:1T:42:ILE:HD13	2.00	0.43
15:1T:116:ALA:HB1	15:1T:121:ILE:HD11	2.00	0.43
21:1Z:146:ILE:HA	21:1Z:147:GLY:HA2	1.83	0.43
29:17:18:PHE:CE2	29:17:22:MET:HG3	2.53	0.43
32:1a:1239:A:H62	32:1a:1299:A:N6	2.16	0.43
32:1a:1375:A:O2'	38:1g:29:LYS:NZ	2.51	0.43
35:1d:113:SER:O	35:1d:117:ALA:N	2.43	0.43
36:1e:57:LYS:HG2	36:1e:61:TYR:CE2	2.52	0.43
38:1g:113:GLU:H	38:1g:113:GLU:HG2	1.50	0.43
46:1o:18:PHE:C	46:1o:20:GLY:H	2.26	0.43
54:1y:18:G:H1	54:1y:55:PSU:H1'	1.82	0.43
1:2A:262:A:H2'	1:2A:263:C:O4'	2.18	0.43
1:2A:321:G:H4'	5:2F:165:ARG:O	2.17	0.43
1:2A:2031:A:C6	1:2A:2498:C:H1'	2.54	0.43
1:2A:2144:U:O2'	1:2A:2147:G:O6	2.31	0.43
1:2A:2852:G:OP1	60:2A:3624:HOH:O	2.21	0.43
2:2B:55:U:O2'	6:2G:27:ASN:OD1	2.28	0.43
9:2N:48:MET:HB3	9:2N:48:MET:HE2	1.59	0.43
32:2a:108:G:P	32:2a:326:G:H22	2.41	0.43
32:2a:329:A:C5	32:2a:332:G:C6	3.07	0.43
32:2a:802:A:H3'	32:2a:803:G:C8	2.53	0.43
1:1A:24:G:O2'	18:1W:78:GLU:O	2.31	0.43
1:1A:173:C:H2'	1:1A:174:U:H6	1.84	0.43
1:1A:826:U:OP1	3:1D:49:ILE:HG13	2.18	0.43
1:1A:1049:G:O2'	1:1A:1056:A:N1	2.48	0.43
1:1A:1140:U:H3	1:1A:1142:A:H5'	1.83	0.43
1:1A:2332:A:H2'	1:1A:2332:A:N3	2.34	0.43
1:1A:2849:G:H5'	13:1R:46:GLY:HA2	2.00	0.43
7:1H:3:ARG:HH12	7:1H:5:GLY:H	1.66	0.43
18:1W:12:ILE:HG12	18:1W:13:SER:N	2.32	0.43
20:1Y:97:ARG:HB3	20:1Y:106:LEU:HD12	1.98	0.43
32:1a:456:C:H2'	32:1a:457:C:C6	2.53	0.43
34:1c:134:ILE:HG22	34:1c:168:ALA:HB3	2.00	0.43
38:1g:38:LEU:O	38:1g:42:ILE:HG13	2.18	0.43
38:1g:50:ILE:HD13	38:1g:125:MET:CG	2.45	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:79:ARG:CD	38:1g:80:VAL:H	2.31	0.43
39:1h:2:LEU:N	60:1h:201:HOH:O	2.51	0.43
40:1i:5:TYR:HD1	40:1i:17:VAL:O	2.01	0.43
1:2A:9:U:H3	1:2A:2629:A:H2	1.64	0.43
1:2A:121:G:H4'	1:2A:149:A:H5'	2.00	0.43
1:2A:140:G:N2	1:2A:1596:A:H4'	2.33	0.43
1:2A:184:C:H2'	1:2A:185:U:H6	1.83	0.43
1:2A:441:U:H2'	1:2A:442:G:C8	2.54	0.43
1:2A:816:C:H2'	1:2A:817:C:H6	1.83	0.43
1:2A:1186:G:H2'	1:2A:1187:G:O4'	2.19	0.43
1:2A:1689:A:N6	1:2A:1698:A:H2	2.06	0.43
1:2A:2023:G:H5'	1:2A:2617:C:H4'	2.01	0.43
1:2A:2425:A:H4'	1:2A:2426:A:H5''	2.00	0.43
1:2A:2870:C:H2'	1:2A:2871:C:O4'	2.19	0.43
15:2T:88:ILE:HG21	15:2T:91:ARG:CZ	2.48	0.43
17:2V:76:LYS:HB2	17:2V:81:TYR:HD2	1.84	0.43
25:23:46:ASN:O	25:23:50:VAL:HG22	2.18	0.43
32:2a:115:G:H4'	32:2a:116:A:O5'	2.18	0.43
32:2a:327:A:H1'	32:2a:329:A:O4'	2.18	0.43
32:2a:1518:MA6:H93	32:2a:1519:MA6:H92	1.99	0.43
33:2b:70:PHE:HE2	33:2b:90:MET:HB2	1.83	0.43
36:2e:78:HIS:CD2	39:2h:104:ARG:HD2	2.53	0.43
47:2p:3:LYS:HA	47:2p:3:LYS:HD2	1.88	0.43
49:2r:61:LYS:O	49:2r:65:ILE:HG12	2.18	0.43
50:2s:51:VAL:O	50:2s:58:VAL:N	2.37	0.43
1:1A:276:C:H2'	1:1A:277:G:O4'	2.18	0.43
1:1A:287:G:N7	1:1A:448:U:H2'	2.33	0.43
1:1A:510:C:H2'	1:1A:511:C:C6	2.54	0.43
1:1A:536:U:C5	1:1A:537:G:C5	3.07	0.43
1:1A:623:G:N2	1:1A:628:C:O3'	2.52	0.43
1:1A:1340:U:O2	13:1R:23:ASN:ND2	2.52	0.43
1:1A:1717:C:O2	4:1E:129:HIS:NE2	2.49	0.43
1:1A:1857:G:H4'	3:1D:242:ARG:CZ	2.48	0.43
1:1A:2122:G:C2'	1:1A:2123:G:H5'	2.49	0.43
1:1A:2150:C:H2'	1:1A:2151:C:O4'	2.19	0.43
1:1A:2159:C:H2'	1:1A:2160:C:C6	2.53	0.43
1:1A:2303:U:O2'	1:1A:2386:C:O2	2.33	0.43
11:1P:63:PRO:HD3	30:18:27:THR:HG22	2.01	0.43
12:1Q:17:LEU:HB3	12:1Q:39:PRO:HB2	2.01	0.43
19:1X:43:VAL:HG21	19:1X:81:VAL:HG11	2.01	0.43
32:1a:292:G:C8	32:1a:293:G:H1'	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:922:G:C6	32:1a:923:A:C6	3.06	0.43
32:1a:1269:A:H5'	52:1u:18:TYR:O	2.19	0.43
32:1a:1330:U:H2'	32:1a:1331:G:H5'	2.00	0.43
35:1d:174:LEU:HD23	35:1d:174:LEU:HA	1.80	0.43
36:1e:12:LEU:HB3	36:1e:31:LEU:HB2	2.00	0.43
51:1t:76:ALA:HA	51:1t:79:ARG:NH1	2.33	0.43
1:2A:83:G:O2'	1:2A:102:G:N2	2.52	0.43
1:2A:117:G:C6	1:2A:119:A:C6	3.07	0.43
1:2A:188:G:H5'	23:21:14:VAL:HG21	2.00	0.43
1:2A:195:A:H5''	1:2A:196:A:O5'	2.18	0.43
1:2A:601:C:O2	1:2A:605:C:H4'	2.19	0.43
1:2A:637:A:H2'	11:2P:117:GLU:OE2	2.18	0.43
1:2A:906:G:H2'	1:2A:907:U:O4'	2.19	0.43
1:2A:1328:G:H2'	1:2A:1330:C:C5	2.53	0.43
1:2A:1338:G:O2'	1:2A:1393:A:N1	2.46	0.43
1:2A:1468:C:H2'	1:2A:1469:A:C8	2.54	0.43
1:2A:1479:G:H5'	1:2A:1558:A:H2	1.83	0.43
1:2A:1590:U:H2'	1:2A:1591:G:H8	1.82	0.43
1:2A:2011:U:H2'	1:2A:2012:G:O4'	2.19	0.43
1:2A:2318:G:H21	14:2S:3:ARG:CD	2.31	0.43
1:2A:2468:G:O2'	1:2A:2481:G:N2	2.50	0.43
3:2D:145:VAL:HG13	3:2D:191:ALA:HB2	2.01	0.43
8:2I:38:LEU:HD13	8:2I:40:THR:HG23	1.99	0.43
18:2W:45:TYR:OH	18:2W:49:LYS:NZ	2.47	0.43
20:2Y:9:LYS:HA	20:2Y:10:GLY:HA2	1.54	0.43
26:24:47:GLN:C	26:24:49:PHE:H	2.27	0.43
32:2a:800:G:H8	32:2a:800:G:O5'	2.02	0.43
32:2a:1356:G:H2'	32:2a:1357:A:C8	2.54	0.43
41:2j:49:VAL:HG23	45:2n:41:ARG:HD2	2.01	0.43
42:2k:41:THR:HG21	42:2k:71:LYS:HB2	2.01	0.43
1:1A:343:C:C2	1:1A:357:G:N2	2.86	0.43
1:1A:596:G:HO2'	1:1A:597:C:H3'	1.80	0.43
1:1A:744:C:H2'	1:1A:745:C:C6	2.53	0.43
1:1A:796:C:H5'	1:1A:1317:G:H1'	2.01	0.43
1:1A:887:C:P	1:1A:977:G:H22	2.41	0.43
1:1A:1223:C:H2'	1:1A:1224:C:C6	2.54	0.43
1:1A:1721:G:N3	1:1A:1723:A:N6	2.66	0.43
1:1A:1856:A:H2'	1:1A:1857:G:C8	2.53	0.43
1:1A:2701:U:H5'	1:1A:2701:U:O2	2.19	0.43
4:1E:12:THR:HG21	15:1T:11:GLU:HG2	2.01	0.43
21:1Z:8:TYR:HB2	21:1Z:38:TYR:CZ	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:13:35:ARG:HE	25:13:37:LEU:HD21	1.82	0.43
32:1a:688:G:H5'	42:1k:46:GLY:C	2.43	0.43
32:1a:1057:G:H2'	32:1a:1058:G:O4'	2.19	0.43
37:1f:42:GLU:OE2	37:1f:59:TYR:OH	2.28	0.43
41:1j:81:THR:C	41:1j:83:GLU:H	2.26	0.43
44:1m:80:ARG:HH21	50:1s:69:HIS:HE1	1.67	0.43
47:1p:20:VAL:HG22	47:1p:34:GLU:O	2.19	0.43
47:1p:60:LEU:HD12	47:1p:60:LEU:HA	1.74	0.43
48:1q:66:SER:O	48:1q:70:ARG:NH1	2.51	0.43
49:1r:76:LEU:HD12	49:1r:76:LEU:HA	1.79	0.43
55:1x:20:U:H5''	55:1x:21:A:OP2	2.18	0.43
54:1y:41:C:H2'	54:1y:42:C:C6	2.52	0.43
1:2A:64:A:O3'	19:2X:71:GLY:HA3	2.19	0.43
1:2A:191:A:H2'	1:2A:192:C:H6	1.82	0.43
1:2A:817:C:C2	1:2A:818:G:C8	3.07	0.43
1:2A:1499:C:H2'	1:2A:1500:G:C8	2.54	0.43
1:2A:2897:U:O2	1:2A:2897:U:H2'	2.19	0.43
2:2B:98:G:H3'	2:2B:99:G:H8	1.83	0.43
3:2D:24:ILE:CD1	3:2D:84:TYR:HB2	2.48	0.43
5:2F:184:TYR:CE1	11:2P:3:LEU:HD21	2.54	0.43
32:2a:335:C:H2'	32:2a:336:C:C6	2.54	0.43
32:2a:918:A:H2'	32:2a:919:A:O4'	2.19	0.43
33:2b:15:VAL:HG23	33:2b:16:HIS:HD2	1.83	0.43
39:2h:127:LEU:HD12	39:2h:127:LEU:HA	1.83	0.43
44:2m:59:TYR:O	44:2m:63:THR:OG1	2.30	0.43
45:2n:43:CYS:HA	45:2n:46:GLU:HG3	2.00	0.43
47:2p:18:ARG:HD3	47:2p:35:LYS:HD2	2.01	0.43
53:2v:12:A:N3	53:2v:12:A:H2'	2.32	0.43
1:1A:1897:C:H2'	1:1A:1898:A:O4'	2.19	0.43
1:1A:2027:A:H5''	1:1A:2028:C:OP2	2.19	0.43
1:1A:2327:G:H2'	1:1A:2328:C:C6	2.53	0.43
4:1E:51:PHE:CD2	4:1E:52:LEU:HG	2.53	0.43
5:1F:182:ASN:ND2	5:1F:185:ASP:OD2	2.40	0.43
21:1Z:130:PRO:HA	21:1Z:133:ILE:HG13	2.00	0.43
23:11:3:LYS:HB2	23:11:61:ARG:HH12	1.82	0.43
32:1a:240:C:H2'	32:1a:241:C:C6	2.53	0.43
32:1a:1054:C:C5	54:1w:34:G:H1'	2.54	0.43
34:1c:22:TRP:CZ2	45:1n:54:PRO:HG2	2.53	0.43
34:1c:73:PRO:HB3	34:1c:103:VAL:CG1	2.48	0.43
35:1d:200:GLU:HG2	35:1d:201:GLN:N	2.33	0.43
36:1e:75:THR:HG23	36:1e:76:ILE:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:79:ARG:HH21	38:1g:80:VAL:HA	1.83	0.43
40:1i:96:LEU:HD22	40:1i:101:PHE:HB2	2.01	0.43
41:1j:57:LYS:HE2	41:1j:60:ARG:NH2	2.33	0.43
44:1m:78:ILE:HG23	44:1m:92:HIS:CD2	2.53	0.43
1:2A:361:G:O2'	1:2A:362:U:H5'	2.18	0.43
1:2A:1668:A:O2'	1:2A:1674:G:N7	2.47	0.43
1:2A:1814:G:H2'	1:2A:1815:A:C8	2.54	0.43
1:2A:2342:C:O2'	1:2A:2374:C:OP1	2.35	0.43
1:2A:2370:G:C6	1:2A:2371:G:C6	3.07	0.43
3:2D:133:LEU:HB3	3:2D:173:VAL:HG21	2.01	0.43
4:2E:101:ARG:CZ	4:2E:171:GLU:HB2	2.48	0.43
5:2F:158:THR:O	5:2F:164:ARG:HD3	2.19	0.43
5:2F:195:ASP:OD1	5:2F:196:LEU:N	2.52	0.43
8:2I:130:TYR:CE2	8:2I:132:PRO:HB3	2.53	0.43
11:2P:59:LEU:HD11	30:28:10:ALA:HB2	1.99	0.43
14:2S:8:GLU:H	14:2S:8:GLU:HG2	1.54	0.43
14:2S:35:ILE:HB	14:2S:97:ARG:HH21	1.83	0.43
23:21:94:LEU:O	23:21:97:LEU:HB2	2.19	0.43
27:25:51:TYR:CE2	27:25:56:LYS:HD2	2.54	0.43
32:2a:452:A:HO2'	32:2a:453:A:H8	1.66	0.43
32:2a:512:U:H2'	32:2a:513:C:C6	2.54	0.43
32:2a:671:G:H5'	37:2f:77:ARG:HH22	1.83	0.43
32:2a:839:U:H3'	32:2a:840:C:H6	1.84	0.43
32:2a:1029:C:N4	32:2a:1032:G:C6	2.86	0.43
32:2a:1129:C:OP2	40:2i:66:ARG:NH1	2.52	0.43
32:2a:1133:G:H2'	32:2a:1134:G:H8	1.83	0.43
32:2a:1160:G:H1	32:2a:1176:A:H61	1.66	0.43
32:2a:1235:U:O2'	32:2a:1305:G:O5'	2.36	0.43
34:2c:131:ARG:CZ	36:2e:50:GLU:HG3	2.48	0.43
36:2e:90:VAL:HG23	36:2e:121:LYS:O	2.19	0.43
42:2k:24:SER:OG	42:2k:25:TYR:N	2.52	0.43
54:2w:50:U:H3	54:2w:64:A:N6	2.15	0.43
1:1A:174:U:H2'	1:1A:175:G:H8	1.84	0.43
1:1A:957:A:H2'	12:1Q:9:TYR:OH	2.19	0.43
1:1A:1744:G:OP2	1:1A:1745:A:O2'	2.31	0.43
1:1A:2479:C:H4'	12:1Q:123:HIS:CD2	2.53	0.43
1:1A:2481:A:C2	1:1A:2482:G:H1'	2.54	0.43
1:1A:2692:C:H5'	4:1E:189:PRO:HA	2.01	0.43
12:1Q:79:LEU:HD23	12:1Q:79:LEU:HA	1.64	0.43
16:1U:34:LYS:HA	16:1U:34:LYS:HD3	1.58	0.43
27:15:20:ARG:HG2	27:15:23:HIS:CE1	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:16:6:ARG:NH1	28:16:26:ASN:HB2	2.33	0.43
32:1a:1091:U:H2'	32:1a:1093:A:OP2	2.19	0.43
47:1p:14:ASN:HA	47:1p:42:ARG:NH2	2.34	0.43
47:1p:22:THR:HA	47:1p:33:ILE:HG12	2.00	0.43
54:1w:37:MIA:H162	54:1w:37:MIA:H121	1.81	0.43
55:1x:8:4SU:O2	55:1x:21:A:H2	2.01	0.43
55:1x:37:A:H2'	55:1x:38:A:O4'	2.19	0.43
1:2A:7:G:H2'	1:2A:8:A:H8	1.81	0.43
1:2A:945:A:C4	1:2A:2448:A:C2	3.06	0.43
2:2B:33:G:N3	2:2B:50:G:N2	2.67	0.43
3:2D:159:ALA:HB1	3:2D:198:ASN:O	2.19	0.43
6:2G:126:ASP:HB2	6:2G:130:ASN:HB2	2.00	0.43
30:28:34:TRP:CG	30:28:35:GLN:N	2.86	0.43
31:29:27:CYS:SG	31:29:28:GLU:N	2.92	0.43
32:2a:967:5MC:H2'	32:2a:968:A:N7	2.33	0.43
32:2a:1206:G:O2'	34:2c:193:TYR:HA	2.19	0.43
32:2a:1362:C:H2'	32:2a:1363:C:H5''	2.01	0.43
32:2a:1414:U:H2'	32:2a:1415:G:H8	1.84	0.43
36:2e:44:GLY:HA3	36:2e:62:ALA:HB2	2.00	0.43
36:2e:53:LEU:HA	36:2e:56:GLN:HB2	2.01	0.43
1:1A:386:U:H6	1:1A:386:U:H2'	1.65	0.43
1:1A:416:G:O5'	1:1A:416:G:H8	2.01	0.43
2:1B:88:C:H2'	2:1B:89:G:O4'	2.19	0.43
21:1Z:1:MET:HG3	21:1Z:56:VAL:H	1.84	0.43
25:13:31:LEU:HD23	25:13:31:LEU:HA	1.85	0.43
26:14:55:ARG:N	26:14:56:VAL:CA	2.82	0.43
32:1a:1025:U:C2	32:1a:1036:G:O6	2.71	0.43
32:1a:1148:U:H2'	32:1a:1149:C:O4'	2.19	0.43
51:1t:13:LEU:H	51:1t:13:LEU:HG	1.68	0.43
1:2A:71:A:H5''	1:2A:73:A:N9	2.34	0.43
1:2A:271(Q):G:H5'	8:2I:42:SER:OG	2.19	0.43
1:2A:1152:C:H2'	1:2A:1153:C:C6	2.54	0.43
1:2A:1187:G:H5'	17:2V:81:TYR:CE1	2.53	0.43
1:2A:2180:U:H2'	1:2A:2181:G:H8	1.84	0.43
1:2A:2658:C:N4	60:2A:3632:HOH:O	2.51	0.43
3:2D:28:GLU:HG3	3:2D:29:PRO:HD2	2.01	0.43
7:2H:77:LYS:HE3	7:2H:83:TYR:CE1	2.54	0.43
17:2V:24:LYS:HA	17:2V:92:THR:OG1	2.19	0.43
32:2a:253:U:H2'	32:2a:254:G:H8	1.83	0.43
32:2a:1182:G:H1'	60:2a:2188:HOH:O	2.18	0.43
32:2a:1429:C:H2'	32:2a:1430:C:H6	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1502:A:C8	32:2a:1505:G:N2	2.83	0.43
33:2b:27:LYS:O	33:2b:194:PRO:HG2	2.19	0.43
34:2c:152:ILE:HG12	34:2c:199:LYS:HB2	2.00	0.43
35:2d:76:ARG:O	35:2d:80:GLU:HG2	2.18	0.43
38:2g:148:ASN:C	38:2g:150:ALA:H	2.27	0.43
45:2n:3:ARG:HG3	45:2n:4:LYS:N	2.33	0.43
55:2x:21:A:N6	55:2x:46:G:H2'	2.33	0.43
1:1A:64:C:H2'	1:1A:65:C:H6	1.84	0.42
1:1A:702:A:H2'	1:1A:703:G:O4'	2.18	0.42
1:1A:1091:A:H8	1:1A:1157:A:C5	2.36	0.42
1:1A:1273:G:OP1	16:1U:13:LYS:NZ	2.43	0.42
1:1A:1660:A:N1	18:1W:87:PRO:HB3	2.34	0.42
1:1A:2555:G:H2'	1:1A:2556:G:C8	2.54	0.42
3:1D:77:ALA:HB2	3:1D:97:TYR:CG	2.54	0.42
10:1O:104:ARG:HD3	15:1T:36:GLU:HG3	2.01	0.42
30:18:50:LEU:HD23	30:18:50:LEU:HA	1.92	0.42
32:1a:1038:C:O2'	32:1a:1039:C:H5'	2.19	0.42
32:1a:1051:C:H6	32:1a:1051:C:O5'	2.02	0.42
32:1a:1406:U:H3'	32:1a:1407:5MC:HM53	2.00	0.42
35:1d:155:LEU:HD23	35:1d:155:LEU:HA	1.82	0.42
43:1l:28:LYS:HB2	43:1l:33:ARG:HH21	1.84	0.42
47:1p:56:ALA:HB1	47:1p:74:LEU:HD21	2.01	0.42
54:1w:18:G:H4'	54:1w:60:U:C6	2.54	0.42
1:2A:566:U:P	17:2V:80:GLN:HE21	2.42	0.42
1:2A:1803:A:O2'	3:2D:259:THR:HG21	2.19	0.42
1:2A:1859:A:N6	1:2A:1883:G:O2'	2.51	0.42
1:2A:2129:C:N3	1:2A:2159:G:N2	2.54	0.42
1:2A:2162:G:H4'	1:2A:2172:U:H2'	2.01	0.42
1:2A:2564:A:OP1	1:2A:2648:C:H4'	2.19	0.42
1:2A:2792:G:H2'	1:2A:2792:G:N3	2.34	0.42
3:2D:95:LEU:HD11	3:2D:105:ILE:HG12	1.99	0.42
3:2D:139:GLY:N	3:2D:165:ILE:O	2.50	0.42
5:2F:155:LEU:HD11	5:2F:176:LEU:HD12	2.01	0.42
6:2G:15:VAL:HG13	6:2G:175:LEU:HD23	1.99	0.42
7:2H:137:ASP:OD1	7:2H:138:LYS:N	2.52	0.42
14:2S:92:TYR:HB3	14:2S:98:VAL:HG21	2.01	0.42
32:2a:392:G:H2'	32:2a:393:A:H8	1.81	0.42
32:2a:667:G:H2'	32:2a:668:G:H8	1.84	0.42
32:2a:1088:G:C6	32:2a:1089:G:C5	3.07	0.42
32:2a:1148:U:H2'	32:2a:1149:C:O4'	2.18	0.42
33:2b:118:LEU:O	33:2b:122:PHE:HB3	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:722:A:C8	1:1A:851:A:C6	3.07	0.42
1:1A:925:A:H61	1:1A:945:A:C2'	2.32	0.42
1:1A:2402:U:O2'	1:1A:2403:G:H5'	2.19	0.42
1:1A:2645:G:H2'	1:1A:2646:G:O4'	2.20	0.42
7:1H:105:LEU:N	60:1H:201:HOH:O	2.52	0.42
9:1N:75:TYR:CE2	9:1N:77:GLY:HA2	2.55	0.42
15:1T:51:ARG:HD3	60:1T:302:HOH:O	2.19	0.42
32:1a:421:U:H2'	32:1a:421:U:O2	2.18	0.42
32:1a:782:A:O3'	32:1a:1515:C:H4'	2.18	0.42
32:1a:1015:A:H2'	32:1a:1016:A:C8	2.54	0.42
32:1a:1021:G:C2	32:1a:1022:G:H1'	2.54	0.42
32:1a:1054:C:C4	32:1a:1196:U:C5	3.07	0.42
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.54	0.42
32:1a:1262:C:H2'	32:1a:1263:C:C6	2.54	0.42
51:1t:10:LEU:HD12	51:1t:10:LEU:HA	1.67	0.42
1:2A:271(G):C:H2'	1:2A:271(H):G:C8	2.54	0.42
1:2A:676:A:N1	1:2A:2069:G:O2'	2.50	0.42
1:2A:844:C:OP2	1:2A:845:G:N2	2.52	0.42
2:2B:7:G:H1	2:2B:114:C:N4	2.07	0.42
2:2B:66:A:C2	2:2B:109:C:C4	3.07	0.42
5:2F:10:PRO:HB3	5:2F:17:ARG:NH2	2.34	0.42
5:2F:133:ASN:C	5:2F:162:LEU:HD23	2.44	0.42
10:2O:4:PRO:O	10:2O:5:GLN:HB2	2.19	0.42
11:2P:59:LEU:HD12	30:28:58:ILE:HD13	2.01	0.42
12:2Q:34:LEU:HD11	12:2Q:129:THR:HB	2.00	0.42
13:2R:29:LEU:HD12	13:2R:29:LEU:HA	1.83	0.42
14:2S:15:ARG:HG2	14:2S:19:LYS:HE3	2.02	0.42
18:2W:60:ASN:HD22	18:2W:60:ASN:N	2.17	0.42
32:2a:5:U:H5'	32:2a:6:G:C5	2.54	0.42
32:2a:99:U:H2'	32:2a:100:C:C6	2.53	0.42
32:2a:445:G:H2'	32:2a:446:G:C8	2.54	0.42
32:2a:473:G:H2'	32:2a:474:G:H8	1.84	0.42
32:2a:782:A:C6	32:2a:801:U:C2	3.07	0.42
32:2a:954:G:H2'	32:2a:955:U:O4'	2.19	0.42
32:2a:1001(A):G:H5'	32:2a:1002:G:O5'	2.19	0.42
33:2b:31:TYR:CE2	33:2b:194:PRO:HB3	2.54	0.42
35:2d:31:CYS:SG	35:2d:33:MET:N	2.91	0.42
37:2f:60:PHE:CE2	49:2r:78:LEU:HD21	2.54	0.42
1:1A:399:G:O2'	1:1A:400:U:OP2	2.36	0.42
1:1A:1565:G:C6	1:1A:1566:U:C4	3.07	0.42
1:1A:1949:A:H2'	1:1A:1950:A:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2334:A:H2'	1:1A:2335:G:O4'	2.19	0.42
3:1D:25:THR:OG1	3:1D:26:LYS:N	2.52	0.42
5:1F:133:ASN:N	5:1F:138:GLU:OE1	2.35	0.42
15:1T:26:ASP:O	15:1T:49:VAL:HG13	2.19	0.42
15:1T:108:ARG:NH2	15:1T:112:ARG:HD3	2.34	0.42
21:1Z:93:ASP:CB	21:1Z:131:ARG:HH12	2.29	0.42
32:1a:7:G:H5''	32:1a:298:A:O4'	2.19	0.42
32:1a:194:C:C2'	32:1a:195:A:H5''	2.50	0.42
32:1a:277:C:OP1	48:1q:41:LYS:HE3	2.19	0.42
32:1a:748:C:H4'	32:1a:749:C:O5'	2.20	0.42
32:1a:952:U:H2'	32:1a:953:G:H8	1.83	0.42
32:1a:1261:A:H3'	32:1a:1262:C:H6	1.85	0.42
45:1n:2:ALA:HB1	45:1n:6:LEU:HD22	2.02	0.42
51:1t:13:LEU:HD12	51:1t:14:LYS:N	2.34	0.42
54:1y:8:4SU:H4'	54:1y:48:C:C4'	2.49	0.42
1:2A:433:C:C4	1:2A:434:U:O4	2.73	0.42
1:2A:588:U:H1'	5:2F:90:PHE:HB3	2.01	0.42
1:2A:1243:G:H2'	1:2A:1244:G:O4'	2.19	0.42
1:2A:1472:A:H2'	1:2A:1473:G:H8	1.84	0.42
1:2A:1818:U:OP2	3:2D:157:ARG:NH1	2.52	0.42
1:2A:2109:U:H3	1:2A:2180:U:H3	1.66	0.42
1:2A:2773:C:H2'	1:2A:2774:C:H6	1.85	0.42
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.54	0.42
4:2E:108:SER:HB3	4:2E:165:VAL:HG21	2.01	0.42
7:2H:70:THR:HA	7:2H:73:ALA:HB3	2.01	0.42
9:2N:33:LEU:HD12	9:2N:38:HIS:HD2	1.84	0.42
10:2O:77:ILE:HB	15:2T:74:ARG:HD2	2.02	0.42
21:2Z:36:LYS:HB2	21:2Z:36:LYS:HE3	1.65	0.42
26:24:41:PRO:HG3	26:24:49:PHE:CE2	2.54	0.42
32:2a:255:G:OP1	48:2q:69:LYS:NZ	2.44	0.42
32:2a:1151:A:O2'	32:2a:1152:A:H8	2.02	0.42
32:2a:1169:A:H2'	32:2a:1170:A:C8	2.54	0.42
36:2e:24:ARG:HD2	53:2v:24:A:OP2	2.18	0.42
38:2g:16:LEU:HD22	40:2i:41:VAL:O	2.18	0.42
42:2k:43:SER:HA	42:2k:47:VAL:HG21	2.00	0.42
43:2l:28:LYS:HE3	43:2l:62:SER:HB2	2.01	0.42
45:2n:15:LYS:HD2	45:2n:16:PHE:CE2	2.54	0.42
50:2s:49:ILE:HD13	50:2s:71:LEU:HD11	2.00	0.42
1:1A:187:C:H5'	1:1A:2256:U:OP1	2.19	0.42
1:1A:1040:C:O2'	1:1A:1042:A:OP1	2.25	0.42
1:1A:1102:G:H1'	1:1A:1149:A:H61	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1478:C:H2'	1:1A:1479:U:O4'	2.20	0.42
1:1A:1814:A:OP1	60:1A:4032:HOH:O	2.22	0.42
1:1A:1843:A:O2'	3:1D:45:ASN:N	2.51	0.42
1:1A:1970:G:H1'	32:1a:1483:A:H1'	2.02	0.42
1:1A:1973:U:O2	1:1A:1975:A:H8	2.03	0.42
1:1A:2039:U:O2	27:15:10:LYS:HB2	2.20	0.42
1:1A:2760:G:O6	1:1A:2768:C:H5''	2.19	0.42
2:1B:90:A:N7	2:1B:91:C:H1'	2.34	0.42
6:1G:83:ARG:O	6:1G:86:MET:HG3	2.19	0.42
7:1H:155:SER:OG	7:1H:158:HIS:O	2.34	0.42
10:1O:122:LEU:HD23	10:1O:122:LEU:HA	1.78	0.42
14:1S:110:LEU:HD12	14:1S:110:LEU:HA	1.74	0.42
32:1a:129:U:O2'	32:1a:130:A:H2'	2.18	0.42
32:1a:875:C:O2'	39:1h:14:ARG:HD2	2.19	0.42
32:1a:1304:G:C6	32:1a:1305:G:N1	2.87	0.42
33:1b:70:PHE:O	33:1b:92:TYR:HA	2.19	0.42
38:1g:48:LYS:O	38:1g:52:GLU:HG3	2.19	0.42
47:1p:56:ALA:O	47:1p:60:LEU:HB2	2.19	0.42
1:2A:271(K):U:H4'	1:2A:271(L):U:OP2	2.18	0.42
1:2A:275:G:H2'	1:2A:276:A:O4'	2.19	0.42
1:2A:403:U:H4'	1:2A:404:C:H5'	2.01	0.42
1:2A:619:G:H8	1:2A:619:G:O5'	2.02	0.42
1:2A:2812:G:H2'	1:2A:2813:A:H8	1.84	0.42
3:2D:93:ALA:HB3	3:2D:105:ILE:HG13	2.02	0.42
3:2D:166:GLN:NE2	32:2a:713:G:OP1	2.40	0.42
5:2F:10:PRO:HB3	5:2F:17:ARG:CZ	2.49	0.42
5:2F:118:ALA:C	5:2F:120:GLU:H	2.28	0.42
10:2O:11:ALA:O	10:2O:99:PHE:N	2.48	0.42
26:24:60:GLN:O	26:24:62:ARG:NH1	2.51	0.42
32:2a:974:A:P	45:2n:41:ARG:HH12	2.42	0.42
32:2a:1075:C:H5''	33:2b:179:LYS:HZ2	1.84	0.42
32:2a:1170:A:C5	32:2a:1171:G:H1'	2.54	0.42
32:2a:1380:U:C4	38:2g:3:ARG:HG2	2.54	0.42
38:2g:23:VAL:HG13	38:2g:43:PHE:CE2	2.54	0.42
38:2g:75:VAL:HG13	38:2g:145:ALA:HA	2.02	0.42
54:2y:10:G:N2	54:2y:25:C:N3	2.58	0.42
1:1A:8:A:H2'	1:1A:9:U:H6	1.82	0.42
1:1A:815:G:C6	1:1A:816:G:C5	3.07	0.42
1:1A:868:A:H2'	1:1A:991:G:H5''	2.01	0.42
1:1A:875:U:H4'	1:1A:878:G:N1	2.34	0.42
1:1A:1022:C:H5'	1:1A:1202:A:N6	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1350:C:O2'	1:1A:1351:C:H5'	2.20	0.42
1:1A:1400:A:H2'	1:1A:1401:G:O4'	2.19	0.42
1:1A:1405:A:C2	1:1A:1418:U:O4	2.72	0.42
1:1A:1706:U:O2'	1:1A:2725:A:N1	2.47	0.42
1:1A:1762:G:H8	1:1A:1762:G:O5'	2.02	0.42
1:1A:2696:U:OP1	15:1T:53:ARG:HD3	2.20	0.42
3:1D:147:LEU:HD13	3:1D:155:LEU:HD11	2.02	0.42
6:1G:56:ALA:O	6:1G:59:GLU:HG2	2.20	0.42
16:1U:16:LYS:HB3	16:1U:16:LYS:HE2	1.89	0.42
28:16:11:LEU:HB3	28:16:49:HIS:HB3	2.01	0.42
30:18:61:LEU:C	30:18:63:PRO:HD3	2.44	0.42
32:1a:685:G:O2'	32:1a:686:U:H5'	2.19	0.42
32:1a:731:G:OP2	60:1a:2016:HOH:O	2.22	0.42
32:1a:1246:C:H42	32:1a:1291:G:H1	1.67	0.42
32:1a:1469:G:H2'	32:1a:1470:G:H8	1.84	0.42
36:1e:80:ILE:HG12	36:1e:81:GLU:N	2.34	0.42
37:1f:60:PHE:CE2	49:1r:78:LEU:HD21	2.52	0.42
39:1h:35:ILE:O	39:1h:38:ILE:N	2.53	0.42
54:1w:24:G:C6	54:1w:25:C:C4	3.07	0.42
1:2A:96:G:H4'	24:22:48:HIS:CD2	2.55	0.42
1:2A:144:C:H2'	1:2A:145:G:H8	1.84	0.42
1:2A:681:G:N2	1:2A:797:C:O2	2.52	0.42
1:2A:1292:U:H2'	1:2A:1293:C:H6	1.83	0.42
1:2A:1803:A:H4'	3:2D:259:THR:HG23	2.01	0.42
1:2A:2149:G:C6	1:2A:2150:U:C2	3.07	0.42
1:2A:2227:A:OP1	3:2D:263:ARG:NH1	2.47	0.42
1:2A:2286:A:H8	1:2A:2287:A:C6	2.37	0.42
12:2Q:7:MET:HE2	12:2Q:7:MET:HB3	1.95	0.42
26:24:53:GLU:HG3	26:24:56:VAL:HG12	2.02	0.42
32:2a:437:U:O2'	35:2d:125:HIS:HE1	2.03	0.42
32:2a:472:A:HO2'	47:2p:82:GLN:H	1.64	0.42
32:2a:1095:U:H2'	32:2a:1096:C:C6	2.55	0.42
32:2a:1423:G:H2'	32:2a:1424:C:C6	2.55	0.42
34:2c:13:GLY:C	34:2c:14:ILE:HG13	2.44	0.42
36:2e:20:GLN:NE2	36:2e:21:ALA:O	2.51	0.42
44:2m:40:ASN:ND2	44:2m:43:THR:HG23	2.34	0.42
44:2m:81:LEU:HD22	44:2m:88:ARG:HH12	1.84	0.42
46:2o:33:THR:HA	46:2o:36:ILE:HD12	2.00	0.42
1:1A:517:A:N6	60:1A:4044:HOH:O	2.25	0.42
1:1A:895:G:O6	1:1A:974:G:H2'	2.20	0.42
1:1A:945:A:N3	1:1A:945:A:H2'	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1137:G:C6	1:1A:1147:U:C2	3.07	0.42
1:1A:1742:G:H1'	3:1D:8:PRO:O	2.20	0.42
1:1A:2155:G:N2	1:1A:2156:A:H62	2.18	0.42
1:1A:2481:A:O3'	12:1Q:56:ARG:NH1	2.53	0.42
1:1A:2745:G:H3'	1:1A:2746:A:O4'	2.19	0.42
1:1A:2827:G:O2'	1:1A:2846:U:O2	2.30	0.42
1:1A:2881:C:H5''	1:1A:2882:G:OP1	2.20	0.42
5:1F:7:TYR:CD2	5:1F:24:LEU:HB2	2.55	0.42
12:1Q:43:THR:O	12:1Q:46:GLN:N	2.52	0.42
18:1W:90:ARG:HE	18:1W:90:ARG:HB3	1.73	0.42
26:14:63:TYR:N	26:14:64:GLY:HA2	2.34	0.42
27:15:8:LYS:O	27:15:9:LYS:HD2	2.19	0.42
27:15:16:ARG:O	27:15:20:ARG:HG3	2.20	0.42
29:17:24:THR:O	29:17:28:ARG:HG3	2.20	0.42
29:17:41:ARG:H	29:17:41:ARG:HG2	1.74	0.42
32:1a:192:U:O2'	51:1t:60:GLU:OE1	2.30	0.42
32:1a:924:C:H2'	32:1a:925:G:C8	2.55	0.42
32:1a:1027:C:N3	32:1a:1034:G:N2	2.66	0.42
33:1b:124:SER:HA	33:1b:125:PRO:HA	1.76	0.42
39:1h:83:ILE:HA	39:1h:136:GLU:O	2.19	0.42
40:1i:96:LEU:N	40:1i:98:PRO:HD2	2.33	0.42
49:1r:66:LEU:O	49:1r:70:ILE:HG13	2.19	0.42
1:2A:556:G:C6	1:2A:557:U:C4	3.07	0.42
1:2A:652(A):A:H2'	1:2A:652(A):A:N3	2.33	0.42
1:2A:858:U:O2	1:2A:2268:A:H2'	2.20	0.42
1:2A:902:C:H2'	1:2A:903:C:C6	2.54	0.42
1:2A:1341:U:O2	19:2X:80:ILE:HD12	2.19	0.42
1:2A:1372:U:H2'	1:2A:1373:A:O4'	2.19	0.42
1:2A:1584:C:O2'	1:2A:1586:A:O5'	2.25	0.42
1:2A:2126:A:N6	1:2A:2162:G:O2'	2.39	0.42
1:2A:2403:C:N3	1:2A:2415:G:C2	2.88	0.42
1:2A:2428:G:O2'	11:2P:56:SER:OG	2.37	0.42
3:2D:3:VAL:HA	3:2D:18:VAL:O	2.19	0.42
7:2H:24:VAL:HG22	7:2H:35:VAL:HB	2.01	0.42
7:2H:33:LEU:HD21	7:2H:136:ILE:HB	2.01	0.42
7:2H:169:VAL:HG12	7:2H:171:LEU:HD23	2.00	0.42
15:2T:28:VAL:HG13	15:2T:86:ILE:HG23	2.01	0.42
16:2U:16:LYS:HB3	16:2U:16:LYS:HE2	1.67	0.42
21:2Z:98:MET:O	21:2Z:126:VAL:N	2.53	0.42
32:2a:397:A:H3'	32:2a:397:A:N3	2.35	0.42
32:2a:1267:C:H5	32:2a:1268:A:C5	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1277:C:O2'	32:2a:1279:A:H1'	2.19	0.42
32:2a:1297:C:P	44:2m:44:ARG:HH22	2.42	0.42
32:2a:1305:G:C2	32:2a:1331:G:N3	2.87	0.42
36:2e:9:LYS:HA	36:2e:9:LYS:HD2	1.80	0.42
36:2e:42:GLY:HA2	36:2e:65:ASN:O	2.19	0.42
40:2i:34:ASN:N	40:2i:34:ASN:OD1	2.52	0.42
40:2i:97:LYS:HA	40:2i:102:LEU:HG	2.02	0.42
44:2m:37:THR:HB	44:2m:55:ARG:HD3	2.02	0.42
54:2w:10:G:H2'	54:2w:11:C:C6	2.55	0.42
54:2y:7:A:N6	54:2y:66:U:H3	2.15	0.42
1:1A:170:A:H5''	29:17:36:GLN:NE2	2.35	0.42
1:1A:442:A:H2'	1:1A:443:C:C6	2.55	0.42
1:1A:672:G:O5'	1:1A:672:G:H8	2.01	0.42
1:1A:704:U:H2'	1:1A:705:C:C6	2.55	0.42
1:1A:722:A:OP1	5:1F:63:LYS:NZ	2.41	0.42
1:1A:785:G:C6	1:1A:786:G:C2	3.07	0.42
1:1A:1109:G:C5	1:1A:1110:C:N4	2.87	0.42
1:1A:2128:G:H2'	1:1A:2129:C:C6	2.55	0.42
1:1A:2418:U:H2'	1:1A:2418:U:H6	1.64	0.42
1:1A:2787:C:H2'	1:1A:2788:A:O4'	2.20	0.42
4:1E:119:ARG:HA	4:1E:160:TYR:CD2	2.55	0.42
9:1N:10:GLU:OE2	9:1N:11:PRO:HD2	2.19	0.42
15:1T:3:ARG:NH2	60:1T:301:HOH:O	2.19	0.42
30:18:34:TRP:CG	30:18:35:GLN:N	2.88	0.42
32:1a:107:G:N7	51:1t:15:ARG:NH2	2.57	0.42
32:1a:313:A:H2'	32:1a:314:C:C6	2.54	0.42
32:1a:319:G:H2'	32:1a:320:C:O4'	2.20	0.42
32:1a:532:A:N6	32:1a:1206:G:O2'	2.52	0.42
32:1a:560:U:H6	32:1a:560:U:H2'	1.63	0.42
32:1a:706:A:N3	42:1k:31:THR:HG21	2.34	0.42
32:1a:1030:C:N4	32:1a:1031:G:N1	2.57	0.42
32:1a:1113:C:H1'	34:1c:178:LEU:HD22	2.01	0.42
33:1b:223:ILE:H	33:1b:223:ILE:HG12	1.53	0.42
36:1e:131:ILE:HD13	36:1e:131:ILE:HA	1.85	0.42
46:1o:56:LEU:O	46:1o:60:VAL:HG23	2.20	0.42
47:1p:17:TYR:HE2	47:1p:41:PRO:HG3	1.83	0.42
54:1y:66:U:C4	54:1y:67:C:C4	3.07	0.42
1:2A:127:A:H5''	1:2A:128:C:O4'	2.19	0.42
1:2A:643:A:C8	28:26:44:ARG:NH1	2.88	0.42
1:2A:652(T):C:H2'	1:2A:652(U):G:C8	2.54	0.42
1:2A:1278:A:H5''	13:2R:36:THR:HG22	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1309:G:OP1	29:27:9:ARG:HD2	2.19	0.42
1:2A:1556:C:H2'	1:2A:1557:C:C6	2.54	0.42
1:2A:2263:C:H2'	1:2A:2264:C:O4'	2.20	0.42
1:2A:2552:2MU:C2	1:2A:2554:U:H5'	2.49	0.42
2:2B:13:A:H2'	2:2B:70:C:O2'	2.20	0.42
32:2a:178:C:H2'	32:2a:179:A:H8	1.84	0.42
32:2a:201:C:H5'	32:2a:202:U:OP2	2.20	0.42
32:2a:948:C:P	44:2m:109:THR:HG1	2.43	0.42
32:2a:1157:A:H4'	32:2a:1158:C:O5'	2.20	0.42
32:2a:1179:A:H4'	40:2i:103:THR:HA	2.02	0.42
32:2a:1417:G:C6	32:2a:1482:G:C6	3.08	0.42
40:2i:16:ARG:O	40:2i:63:ILE:HA	2.19	0.42
48:2q:67:LYS:C	48:2q:70:ARG:HH12	2.28	0.42
50:2s:40:ILE:HB	50:2s:67:VAL:O	2.20	0.42
54:2y:58:A:H4'	54:2y:59:U:OP1	2.20	0.42
1:1A:90:A:H2'	1:1A:91:G:H8	1.84	0.42
1:1A:223:C:H2'	1:1A:224:U:C6	2.55	0.42
1:1A:801:C:H2'	1:1A:802:C:C6	2.55	0.42
1:1A:2303:U:H2'	1:1A:2304:C:C6	2.55	0.42
1:1A:2311:G:H2'	1:1A:2312:G:H8	1.83	0.42
3:1D:35:LYS:HB2	3:1D:36:PRO:HD2	2.02	0.42
4:1E:47:VAL:O	4:1E:80:GLU:HA	2.20	0.42
5:1F:22:ALA:HB1	5:1F:199:TRP:HZ2	1.85	0.42
20:1Y:9:LYS:HA	20:1Y:10:GLY:HA2	1.59	0.42
21:1Z:155:LEU:HD13	21:1Z:155:LEU:HA	1.75	0.42
22:10:54:GLY:O	22:10:56:ASP:N	2.52	0.42
32:1a:204:U:H4'	32:1a:216:G:O5'	2.20	0.42
32:1a:679:C:H2'	32:1a:680:C:C6	2.55	0.42
32:1a:1024:G:H2'	32:1a:1025:U:H5''	2.02	0.42
32:1a:1207:2MG:H2'	32:1a:1208:C:C6	2.54	0.42
32:1a:1325:C:H2'	32:1a:1326:C:C6	2.55	0.42
57:1a:1914:AKN:H6	57:1a:1914:AKN:O18	2.19	0.42
33:1b:115:LEU:HD13	33:1b:145:LEU:HB3	2.00	0.42
35:1d:61:LYS:HD2	35:1d:207:TYR:OH	2.20	0.42
46:1o:40:SER:O	46:1o:44:LYS:HG3	2.19	0.42
1:2A:251:A:C4	1:2A:252:G:H1'	2.54	0.42
1:2A:325:G:H2'	1:2A:326:G:O4'	2.20	0.42
1:2A:615:G:OP1	5:2F:40:GLN:NE2	2.52	0.42
1:2A:918:A:C2	2:2B:80:U:H4'	2.54	0.42
1:2A:1540:U:H2'	1:2A:1541:G:O4'	2.20	0.42
1:2A:1598:C:H2'	1:2A:1599:C:C6	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1651:G:OP1	13:2R:37:THR:OG1	2.36	0.42
1:2A:2061:G:H5''	1:2A:2503:2MA:C2	2.50	0.42
1:2A:2266:A:H4'	1:2A:2267:A:C4	2.55	0.42
1:2A:2347:C:O2'	28:26:21:TYR:OH	2.29	0.42
1:2A:2776:A:H4'	1:2A:2777:G:H5''	2.01	0.42
2:2B:60:C:H2'	2:2B:61:G:C8	2.55	0.42
12:2Q:21:THR:O	21:2Z:78:LYS:HD3	2.20	0.42
16:2U:83:LEU:HD12	16:2U:83:LEU:HA	1.84	0.42
32:2a:892:A:O2'	32:2a:1415:G:H4'	2.20	0.42
32:2a:1106:G:H2'	32:2a:1107:C:C6	2.55	0.42
32:2a:1347:G:O2'	32:2a:1373:G:N1	2.51	0.42
37:2f:68:PRO:HB2	37:2f:71:ARG:HG3	2.01	0.42
41:2j:8:LEU:HA	41:2j:96:ILE:HA	2.01	0.42
54:2w:19:G:N2	54:2w:56:C:C2	2.82	0.42
1:1A:136:G:H2'	1:1A:138:G:N7	2.35	0.42
1:1A:919:A:C5	1:1A:952:G:C2	3.08	0.42
1:1A:1542:A:N6	60:1A:4205:HOH:O	2.53	0.42
1:1A:2189:U:O2	1:1A:2189:U:H2'	2.20	0.42
1:1A:2255:U:H2'	1:1A:2256:U:C6	2.55	0.42
1:1A:2874:G:OP1	15:1T:119:LYS:HD2	2.20	0.42
2:1B:2:C:H2'	2:1B:3:C:C6	2.53	0.42
3:1D:199:ALA:C	3:1D:201:HIS:H	2.28	0.42
4:1E:3:GLY:HA3	4:1E:81:ILE:HD12	2.02	0.42
9:1N:48:MET:HE3	9:1N:48:MET:HB3	1.59	0.42
9:1N:138:LEU:HD23	9:1N:138:LEU:HA	1.77	0.42
10:1O:13:ASN:OD1	10:1O:13:ASN:N	2.50	0.42
21:1Z:72:ARG:HA	21:1Z:72:ARG:HD3	1.88	0.42
32:1a:31:G:H21	32:1a:47:C:P	2.43	0.42
32:1a:958:A:C6	32:1a:959:A:N1	2.88	0.42
32:1a:1055:A:C5	32:1a:1206:G:C2	3.08	0.42
32:1a:1304:G:C5	32:1a:1305:G:C6	3.07	0.42
32:1a:1320:C:O2	50:1s:36:ARG:NH2	2.47	0.42
33:1b:211:ILE:H	33:1b:211:ILE:HG13	1.65	0.42
39:1h:134:ILE:HD13	39:1h:134:ILE:HA	1.86	0.42
46:1o:48:LYS:O	46:1o:50:HIS:N	2.52	0.42
1:2A:320:A:OP2	5:2F:137:LYS:NZ	2.52	0.42
1:2A:744:G:H2'	1:2A:745:G:O4'	2.19	0.42
1:2A:863:A:O2'	2:2B:101:G:N3	2.47	0.42
1:2A:924:C:H2'	1:2A:925:C:C6	2.55	0.42
1:2A:1005:C:H2'	1:2A:1006:C:H6	1.85	0.42
1:2A:1637:A:H4'	1:2A:2711:A:O2'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2127:G:O2'	1:2A:2173:A:N3	2.52	0.42
1:2A:2183:C:H2'	1:2A:2184:G:H8	1.85	0.42
1:2A:2556:C:H2'	1:2A:2557:G:O4'	2.20	0.42
8:2I:79:ILE:HD12	8:2I:92:VAL:HG21	2.02	0.42
10:2O:68:GLU:O	10:2O:68:GLU:HG2	2.19	0.42
14:2S:78:LEU:H	14:2S:78:LEU:HG	1.57	0.42
14:2S:80:LEU:HD12	14:2S:80:LEU:HA	1.88	0.42
21:2Z:47:VAL:O	21:2Z:50:GLN:NE2	2.53	0.42
32:2a:1057:G:C5	32:2a:1204:A:C2	3.07	0.42
32:2a:1084:G:H5'	32:2a:1102:A:OP2	2.20	0.42
32:2a:1325:C:H5''	52:2u:17:THR:HG21	2.02	0.42
33:2b:73:THR:HA	33:2b:94:ASN:O	2.20	0.42
33:2b:188:ALA:HB1	33:2b:192:SER:OG	2.19	0.42
35:2d:110:PHE:CE2	35:2d:148:VAL:HG23	2.54	0.42
44:2m:15:VAL:O	44:2m:19:LEU:HD13	2.20	0.42
45:2n:24:CYS:HB3	45:2n:27:CYS:SG	2.60	0.42
55:2x:44:A:H2'	55:2x:45:G:C8	2.54	0.42
1:1A:1002:A:N1	1:1A:2470:G:H4'	2.35	0.42
1:1A:1139:G:H3'	1:1A:1140:U:H5''	2.01	0.42
1:1A:1684:A:H5'	1:1A:1791:A:O2'	2.20	0.42
1:1A:2021:C:H4'	1:1A:2736:C:O2	2.20	0.42
3:1D:9:TYR:CE1	3:1D:13:ARG:HG3	2.55	0.42
3:1D:17:THR:O	3:1D:211:ARG:NH2	2.53	0.42
3:1D:70:TRP:HB3	3:1D:190:TYR:CE2	2.55	0.42
8:1I:120:ILE:H	8:1I:120:ILE:HG13	1.62	0.42
11:1P:77:ARG:HB2	11:1P:78:PRO:HD2	2.02	0.42
12:1Q:85:LYS:N	12:1Q:85:LYS:HD2	2.35	0.42
13:1R:60:LEU:O	13:1R:64:ARG:HG3	2.20	0.42
22:10:10:THR:HG22	22:10:11:ARG:N	2.35	0.42
32:1a:761:G:H2'	32:1a:762:C:O4'	2.19	0.42
32:1a:973:G:H3'	32:1a:974:A:H5''	2.02	0.42
40:1i:21:PRO:HA	40:1i:59:PHE:HA	2.02	0.42
41:1j:65:LEU:HD13	45:1n:56:VAL:HG22	2.02	0.42
43:1l:93:LEU:O	43:1l:96:VAL:HG23	2.19	0.42
44:1m:50:GLU:HG3	44:1m:50:GLU:O	2.19	0.42
47:1p:3:LYS:HA	47:1p:65:GLN:H	1.85	0.42
54:1y:22:G:C2	54:1y:23:A:C5	3.08	0.42
1:2A:601:C:O2'	1:2A:605:C:H5''	2.19	0.42
1:2A:605:C:O2	1:2A:657:U:O2'	2.34	0.42
1:2A:975(A):G:O2'	1:2A:1156:A:N1	2.45	0.42
1:2A:1278:A:C5'	13:2R:36:THR:HG22	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2134:A:H2'	1:2A:2134:A:N3	2.34	0.42
1:2A:2135:A:H2'	1:2A:2136:C:C6	2.55	0.42
1:2A:2442:C:H2'	1:2A:2443:C:H6	1.85	0.42
1:2A:2466:C:H5'	31:29:5:ALA:HB3	2.01	0.42
1:2A:2617:C:H2'	1:2A:2618:G:H8	1.85	0.42
8:2I:53:ALA:O	8:2I:57:ARG:HG2	2.20	0.42
15:2T:13:ARG:H	15:2T:13:ARG:HG3	1.64	0.42
16:2U:11:ARG:O	16:2U:15:LYS:HG3	2.20	0.42
16:2U:55:ARG:H	16:2U:55:ARG:HG2	1.50	0.42
32:2a:339:C:H2'	32:2a:340:U:C6	2.55	0.42
32:2a:795:C:O5'	32:2a:795:C:H6	2.03	0.42
32:2a:989:C:H2'	32:2a:990:C:C6	2.55	0.42
32:2a:1117:G:N2	32:2a:1180:A:O2'	2.51	0.42
33:2b:32:ILE:HD11	33:2b:190:THR:HB	2.02	0.42
34:2c:111:LEU:HD11	34:2c:144:SER:O	2.20	0.42
35:2d:53:ASP:O	35:2d:57:ARG:HG3	2.20	0.42
50:2s:27:GLU:HB2	50:2s:28:LYS:HD3	2.01	0.42
1:1A:239:G:C6	1:1A:240:A:C6	3.08	0.41
1:1A:269:G:N7	1:1A:270:C:N4	2.68	0.41
1:1A:385:G:N1	1:1A:386:U:O4	2.53	0.41
1:1A:762:G:H2'	1:1A:763:A:C8	2.55	0.41
1:1A:1223:C:H2'	1:1A:1224:C:H6	1.85	0.41
1:1A:1822:A:H3'	1:1A:1823:G:H8	1.85	0.41
1:1A:2171:G:C6	1:1A:2172:U:C2	3.08	0.41
2:1B:89:G:C6	2:1B:90:A:C6	3.08	0.41
3:1D:72:LYS:HB3	3:1D:72:LYS:HE3	1.77	0.41
4:1E:126:PRO:HG2	4:1E:131:ALA:HB2	2.02	0.41
4:1E:181:LEU:HD12	4:1E:181:LEU:HA	1.83	0.41
10:1O:10:VAL:HG13	10:1O:17:ARG:C	2.45	0.41
11:1P:6:LEU:HA	11:1P:6:LEU:HD23	1.67	0.41
23:11:50:ARG:HE	23:11:50:ARG:HB2	1.63	0.41
32:1a:827:U:H2'	32:1a:859:A:H61	1.84	0.41
32:1a:911:U:H2'	32:1a:912:C:C6	2.55	0.41
32:1a:1047:G:H5''	45:1n:4:LYS:HD2	2.02	0.41
32:1a:1315:U:H2'	32:1a:1316:G:O4'	2.20	0.41
33:1b:24:TRP:HZ3	33:1b:29:ALA:HB2	1.85	0.41
33:1b:98:LEU:HB2	33:1b:101:MET:CG	2.49	0.41
54:1y:26:A:N6	54:1y:44:G:H1	2.18	0.41
1:2A:312:G:H4'	1:2A:331:A:N3	2.35	0.41
1:2A:681:G:H2'	1:2A:682:G:O4'	2.20	0.41
1:2A:947:G:H2'	1:2A:948:G:H8	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1419:A:C8	1:2A:1421:G:C6	3.07	0.41
1:2A:1479:G:H5'	1:2A:1558:A:C2	2.55	0.41
1:2A:2261:C:H1'	1:2A:2388:A:N3	2.35	0.41
3:2D:68:LYS:O	3:2D:69:ARG:CB	2.68	0.41
3:2D:174:ILE:HG12	3:2D:271:ILE:HD11	2.02	0.41
8:2I:134:PRO:C	8:2I:136:VAL:H	2.27	0.41
15:2T:109:GLU:HG2	15:2T:112:ARG:NH2	2.35	0.41
30:28:8:LYS:HD3	30:28:8:LYS:HA	1.79	0.41
32:2a:232:G:H1'	32:2a:262:A:N1	2.35	0.41
32:2a:560:U:H5'	32:2a:566:G:N2	2.35	0.41
32:2a:782:A:H2'	32:2a:783:C:O4'	2.19	0.41
32:2a:1072:G:H2'	32:2a:1073:U:O4'	2.20	0.41
32:2a:1178:G:OP1	40:2i:93:ARG:NH1	2.53	0.41
32:2a:1221:G:H4'	50:2s:53:ASN:O	2.19	0.41
38:2g:80:VAL:HB	38:2g:85:TYR:CE2	2.53	0.41
47:2p:1:MET:HE2	47:2p:1:MET:HB3	1.88	0.41
54:2y:3:C:N3	54:2y:70:G:O6	2.53	0.41
1:1A:555:G:H4'	1:1A:556:C:OP1	2.20	0.41
1:1A:1404:G:N2	1:1A:1418:U:C5	2.88	0.41
1:1A:2610:A:N7	1:1A:2611:G:H1'	2.35	0.41
1:1A:2728:C:H2'	1:1A:2729:U:C6	2.54	0.41
1:1A:2800:C:H1'	4:1E:62:PRO:HG3	2.03	0.41
5:1F:150:GLY:HA2	5:1F:172:TRP:CE3	2.54	0.41
6:1G:28:VAL:O	6:1G:31:VAL:HG13	2.20	0.41
7:1H:3:ARG:HA	7:1H:3:ARG:HD2	1.83	0.41
7:1H:56:SER:OG	7:1H:57:ASP:N	2.53	0.41
10:1O:85:VAL:HG11	10:1O:114:ILE:HD13	2.02	0.41
12:1Q:43:THR:HG22	12:1Q:94:VAL:HG12	2.01	0.41
32:1a:162:A:N7	32:1a:163:C:H1'	2.35	0.41
32:1a:543:C:H2'	32:1a:544:G:H5'	2.00	0.41
32:1a:985:C:H2'	32:1a:986:A:C8	2.53	0.41
35:1d:61:LYS:HD3	35:1d:206:PHE:CE2	2.55	0.41
35:1d:101:LEU:HB2	35:1d:138:TYR:HB3	2.03	0.41
46:1o:48:LYS:HA	46:1o:48:LYS:HD2	1.77	0.41
1:2A:1219:G:H1	1:2A:1230:C:H42	1.67	0.41
1:2A:1309:G:P	29:27:9:ARG:HD2	2.60	0.41
1:2A:1826:G:H4'	3:2D:242:ARG:CZ	2.50	0.41
1:2A:1857:G:C6	1:2A:1858:G:N1	2.88	0.41
1:2A:1864:U:OP1	1:2A:2410:G:O2'	2.31	0.41
1:2A:2138:C:C4	1:2A:2154:G:C2	3.09	0.41
1:2A:2251:OMG:C8	1:2A:2450:A:H4'	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2394:C:P	30:28:30:ARG:HH12	2.43	0.41
1:2A:2424:C:O2	1:2A:2429:G:O2'	2.30	0.41
1:2A:2473:U:O2	1:2A:2473:U:H2'	2.20	0.41
1:2A:2474:C:H5''	1:2A:2475:C:OP2	2.20	0.41
2:2B:31:C:H4'	6:2G:29:TRP:CZ2	2.55	0.41
4:2E:63:LEU:HD23	4:2E:63:LEU:HA	1.87	0.41
21:2Z:150:LEU:O	21:2Z:171:ILE:HG13	2.20	0.41
23:21:10:LYS:NZ	23:21:65:SER:OG	2.42	0.41
23:21:19:GLN:O	23:21:35:THR:N	2.52	0.41
26:24:15:ILE:HB	26:24:32:TYR:HD1	1.85	0.41
28:26:33:LYS:HD3	28:26:51:GLU:HG2	2.02	0.41
32:2a:123:C:OP1	32:2a:311:C:O2'	2.24	0.41
32:2a:148:G:H1	32:2a:174:C:N4	2.18	0.41
32:2a:189(B):C:C2	32:2a:189(J):G:C2	3.09	0.41
32:2a:360:A:C6	32:2a:361:G:C6	3.08	0.41
32:2a:612:C:O2	32:2a:629:G:N2	2.53	0.41
32:2a:1014:A:H5''	50:2s:14:HIS:CG	2.55	0.41
32:2a:1142:G:H2'	32:2a:1143:G:O4'	2.20	0.41
32:2a:1176:A:H2'	32:2a:1177:G:H8	1.85	0.41
32:2a:1317:C:O2	50:2s:37:ARG:NH1	2.52	0.41
32:2a:1500:A:OP1	60:2a:2012:HOH:O	2.22	0.41
60:2a:2023:HOH:O	45:2n:2:ALA:HB3	2.19	0.41
44:2m:37:THR:O	44:2m:55:ARG:NH1	2.54	0.41
54:2w:11:C:N4	54:2w:24:G:H1	2.14	0.41
55:2x:40:C:H2'	55:2x:41:C:C6	2.46	0.41
1:1A:174:U:H2'	1:1A:175:G:C8	2.56	0.41
1:1A:632:A:H2'	1:1A:633:G:O4'	2.20	0.41
1:1A:865:G:H4'	1:1A:885:C:O3'	2.19	0.41
1:1A:1121:C:O2	1:1A:1122:C:H2'	2.21	0.41
1:1A:1786:A:OP2	15:1T:113:LYS:NZ	2.54	0.41
1:1A:2638:C:H2'	1:1A:2639:G:O4'	2.20	0.41
3:1D:249:PRO:HD2	3:1D:250:TRP:CZ3	2.55	0.41
11:1P:89:ALA:HA	11:1P:121:LYS:HD3	2.03	0.41
21:1Z:9:TYR:OH	21:1Z:61:LEU:HD23	2.20	0.41
22:10:10:THR:HG22	22:10:12:ASN:N	2.34	0.41
32:1a:109:A:H2'	32:1a:326:G:N2	2.35	0.41
32:1a:128:G:O3'	48:1q:3:LYS:NZ	2.53	0.41
32:1a:511:C:N3	32:1a:541:G:N2	2.69	0.41
32:1a:1316:G:H2'	32:1a:1318:A:OP2	2.20	0.41
32:1a:1376:U:OP1	38:1g:98:SER:OG	2.25	0.41
33:1b:12:GLU:O	33:1b:15:VAL:HG22	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:218:ALA:O	33:1b:222:ILE:HG13	2.20	0.41
35:1d:103:ASN:O	35:1d:107:ARG:HG2	2.20	0.41
38:1g:147:ALA:C	38:1g:149:ARG:H	2.28	0.41
40:1i:8:GLY:HA3	40:1i:76:ALA:O	2.21	0.41
49:1r:65:ILE:H	49:1r:65:ILE:HG12	1.66	0.41
1:2A:1013:C:H2'	1:2A:1014:U:H6	1.86	0.41
1:2A:1245:G:OP1	11:2P:13:ASN:ND2	2.53	0.41
1:2A:1277:G:O2'	13:2R:24:GLN:HG2	2.20	0.41
1:2A:2095:C:H2'	1:2A:2096:U:O4'	2.20	0.41
1:2A:2443:C:H2'	1:2A:2444:G:H8	1.85	0.41
4:2E:181:LEU:HD12	4:2E:181:LEU:HA	1.76	0.41
7:2H:64:LEU:O	7:2H:68:THR:OG1	2.31	0.41
7:2H:106:THR:HG22	7:2H:112:PRO:HB3	2.02	0.41
9:2N:20:GLY:HA2	9:2N:61:ARG:HG3	2.03	0.41
14:2S:4:LEU:HD23	14:2S:4:LEU:HA	1.75	0.41
14:2S:110:LEU:HB3	14:2S:112:PHE:CE2	2.55	0.41
15:2T:31:SER:HB3	15:2T:42:ILE:HG23	2.02	0.41
18:2W:17:VAL:HG11	18:2W:103:ILE:HD11	2.02	0.41
22:20:6:GLY:C	22:20:7:LEU:HD23	2.45	0.41
28:26:11:LEU:HD23	28:26:11:LEU:HA	1.85	0.41
32:2a:625:G:H2'	32:2a:626:U:C6	2.55	0.41
32:2a:745:C:H1'	32:2a:836:G:O2'	2.20	0.41
32:2a:946:A:H2'	32:2a:947:G:C8	2.56	0.41
32:2a:1241:G:H2'	32:2a:1242:C:C6	2.55	0.41
33:2b:178:ARG:HH12	39:2h:68:ARG:HH12	1.68	0.41
33:2b:179:LYS:HB3	33:2b:179:LYS:HE2	1.62	0.41
34:2c:111:LEU:HG	34:2c:144:SER:HB3	2.02	0.41
44:2m:4:ILE:HG12	44:2m:5:ALA:H	1.85	0.41
45:2n:6:LEU:HB3	45:2n:23:ARG:NH2	2.35	0.41
50:2s:34:TRP:H	50:2s:34:TRP:HE3	1.68	0.41
1:1A:442:A:H2'	1:1A:443:C:H6	1.86	0.41
1:1A:1248:G:O2'	1:1A:1288:A:N6	2.53	0.41
1:1A:2224:C:H2'	1:1A:2225:U:O4'	2.20	0.41
1:1A:2490:A:H5'	31:19:31:LYS:HD3	2.02	0.41
1:1A:2549:U:H2'	1:1A:2550:C:C6	2.55	0.41
3:1D:233:HIS:NE2	3:1D:246:PRO:HA	2.34	0.41
4:1E:48:GLN:NE2	4:1E:66:HIS:NE2	2.68	0.41
7:1H:101:ARG:NH1	7:1H:117:PRO:HG2	2.36	0.41
8:1I:116:LEU:HD21	8:1I:119:PRO:HA	2.03	0.41
25:13:8:LEU:HG	25:13:31:LEU:CD2	2.49	0.41
27:15:40:LYS:HD3	27:15:46:CYS:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:118:LEU:HB3	33:1b:142:LEU:HD12	2.02	0.41
40:1i:4:TYR:HB2	40:1i:19:LEU:HB2	2.02	0.41
43:1l:27:LEU:HD12	43:1l:27:LEU:HA	1.89	0.41
1:2A:250:G:H5'	11:2P:60:MET:HE1	2.02	0.41
1:2A:1915:5MU:H2'	1:2A:1916:A:O4'	2.19	0.41
1:2A:2041:U:H2'	1:2A:2042:A:H8	1.84	0.41
1:2A:2135:A:OP1	1:2A:2160:G:H1'	2.21	0.41
1:2A:2230:G:C6	1:2A:2231:C:C4	3.09	0.41
1:2A:2252:G:H21	57:2A:3576:AKN:C39	2.33	0.41
1:2A:2271:G:H2'	1:2A:2272:U:C6	2.54	0.41
1:2A:2787:C:H1'	4:2E:62:PRO:HG3	2.02	0.41
3:2D:127:VAL:HA	3:2D:193:VAL:HG23	2.01	0.41
13:2R:24:GLN:OE1	13:2R:36:THR:HG21	2.20	0.41
16:2U:85:LYS:HA	16:2U:85:LYS:HD2	1.85	0.41
21:2Z:70:LEU:HD23	21:2Z:70:LEU:HA	1.76	0.41
21:2Z:77:ASP:CG	21:2Z:80:ARG:HH11	2.27	0.41
32:2a:585:G:OP1	48:2q:37:LYS:NZ	2.29	0.41
32:2a:892:A:H2'	32:2a:893:C:C6	2.55	0.41
32:2a:1137:C:H5''	32:2a:1138:G:OP1	2.21	0.41
33:2b:58:ILE:CG2	33:2b:222:ILE:HG22	2.51	0.41
35:2d:172:PRO:HD2	35:2d:173:TRP:CZ3	2.55	0.41
38:2g:59:LEU:HG	38:2g:63:LYS:HE2	2.02	0.41
38:2g:68:ASN:ND2	38:2g:128:ALA:HA	2.35	0.41
38:2g:69:VAL:HG22	38:2g:135:VAL:HG22	2.01	0.41
40:2i:105:ASP:HB2	40:2i:107:ARG:CG	2.50	0.41
45:2n:34:TYR:O	45:2n:38:GLY:N	2.51	0.41
50:2s:51:VAL:HB	50:2s:75:ALA:HB2	2.02	0.41
51:2t:43:LEU:HD12	51:2t:55:ILE:HG13	2.03	0.41
55:2x:47:U:H3'	55:2x:48:C:H5'	2.03	0.41
54:2y:59:U:H3'	54:2y:60:U:O2	2.20	0.41
1:1A:225:C:H2'	1:1A:226:C:C6	2.55	0.41
1:1A:471:C:OP1	16:1U:2:PRO:HA	2.21	0.41
1:1A:794:U:H4'	60:1W:301:HOH:O	2.21	0.41
1:1A:1140:U:H2'	1:1A:1141:A:C8	2.55	0.41
1:1A:1182:G:H2'	1:1A:1183:G:H8	1.85	0.41
1:1A:1653:C:H4'	1:1A:1654:A:O5'	2.19	0.41
1:1A:1674:G:H2'	1:1A:1675:U:C6	2.56	0.41
4:1E:1:MET:HE3	4:1E:199:ARG:HD2	2.02	0.41
4:1E:119:ARG:HG2	4:1E:120:TRP:NE1	2.35	0.41
7:1H:87:LEU:HD22	7:1H:162:ILE:HG22	2.02	0.41
23:11:35:THR:OG1	23:11:35:THR:O	2.37	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:12:53:LEU:HD23	24:12:53:LEU:HA	1.81	0.41
32:1a:131:C:H2'	32:1a:132:C:C6	2.56	0.41
32:1a:266:G:H4'	32:1a:267:C:C5	2.55	0.41
34:1c:195:VAL:C	34:1c:196:LEU:HD23	2.45	0.41
54:1w:21:A:N6	54:1w:46:7MG:C4	2.89	0.41
54:1w:55:PSU:O2'	54:1w:57:G:N7	2.49	0.41
1:2A:235:U:H2'	1:2A:236:C:C6	2.56	0.41
1:2A:468:G:H5''	5:2F:60:SER:HB2	2.01	0.41
1:2A:685:A:H5''	1:2A:788:A:N6	2.35	0.41
1:2A:864:G:C6	1:2A:865:C:N4	2.89	0.41
1:2A:884:C:H3'	1:2A:885:C:H6	1.85	0.41
1:2A:2274:A:N1	1:2A:2276:G:H1'	2.36	0.41
1:2A:2334:G:O6	22:20:74:ARG:NH1	2.53	0.41
1:2A:2625:G:H2'	1:2A:2626:C:O4'	2.21	0.41
57:2A:3576:AKN:H16	57:2A:3576:AKN:H1	1.79	0.41
2:2B:60:C:H2'	2:2B:61:G:H8	1.86	0.41
2:2B:95:C:H2'	2:2B:96:U:C6	2.55	0.41
3:2D:175:LEU:HD12	3:2D:185:VAL:HG21	2.02	0.41
4:2E:63:LEU:HB3	4:2E:67:PHE:CE2	2.55	0.41
8:2I:73:GLU:HG2	8:2I:139:GLN:O	2.21	0.41
10:2O:120:GLU:OE2	10:2O:122:LEU:HD21	2.20	0.41
11:2P:48:PRO:O	30:28:57:ARG:NH2	2.53	0.41
12:2Q:2:LEU:HD13	12:2Q:2:LEU:HA	1.92	0.41
32:2a:1009:G:N2	32:2a:1021:G:H1'	2.32	0.41
32:2a:1048:G:H1'	60:2a:2009:HOH:O	2.19	0.41
32:2a:1317:C:P	45:2n:17:LYS:HG2	2.61	0.41
37:2f:33:TYR:HD1	37:2f:71:ARG:HB3	1.85	0.41
38:2g:78:ARG:HG2	38:2g:79:ARG:N	2.33	0.41
40:2i:21:PRO:HA	40:2i:59:PHE:HD1	1.84	0.41
41:2j:61:GLU:OE2	45:2n:58:LYS:NZ	2.37	0.41
43:2l:78:GLN:HB2	43:2l:79:GLU:H	1.77	0.41
44:2m:3:ARG:HG2	44:2m:9:ILE:N	2.28	0.41
52:2u:5:ASP:O	52:2u:11:GLY:HA3	2.20	0.41
54:2w:14:A:H61	54:2w:21:A:H2	1.69	0.41
1:1A:73:A:H5'	1:1A:74:G:O4'	2.20	0.41
1:1A:313:A:H2'	1:1A:314:G:O4'	2.20	0.41
1:1A:379:G:H2'	1:1A:380:G:C8	2.56	0.41
1:1A:485:U:H4'	29:17:40:TRP:CZ3	2.56	0.41
1:1A:1356:G:OP2	29:17:9:ARG:NH2	2.52	0.41
1:1A:1464:G:O2'	1:1A:1627:A:N6	2.51	0.41
1:1A:2779:G:H2'	1:1A:2779:G:N3	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1E:12:THR:HG22	4:1E:13:ARG:N	2.36	0.41
6:1G:77:ILE:HD12	6:1G:80:PHE:HD2	1.86	0.41
8:1I:47:LEU:HD23	8:1I:47:LEU:HA	1.78	0.41
11:1P:94:GLU:HG3	11:1P:95:VAL:N	2.35	0.41
23:11:3:LYS:HB3	23:11:4:VAL:H	1.44	0.41
32:1a:179:A:H2'	32:1a:180:U:C6	2.55	0.41
32:1a:231:G:H5''	60:1a:2124:HOH:O	2.20	0.41
32:1a:729:A:H2'	32:1a:730:G:H8	1.85	0.41
33:1b:133:LYS:O	33:1b:137:ARG:HG3	2.21	0.41
34:1c:135:LYS:HE2	36:1e:53:LEU:HD11	2.02	0.41
34:1c:188:LEU:HD11	34:1c:195:VAL:HG13	2.02	0.41
35:1d:173:TRP:CZ3	35:1d:174:LEU:HG	2.56	0.41
43:1l:53:ARG:HB2	43:1l:93:LEU:HD11	2.03	0.41
44:1m:122:LYS:HA	44:1m:122:LYS:HD2	1.82	0.41
1:2A:143:G:H2'	1:2A:143(A):C:C6	2.56	0.41
1:2A:631:A:N3	1:2A:2415:G:O2'	2.49	0.41
1:2A:1551:C:H2'	1:2A:1552:G:O4'	2.20	0.41
1:2A:2364:C:H2'	1:2A:2365:G:O4'	2.20	0.41
1:2A:2529:G:OP2	1:2A:2530:A:H5''	2.21	0.41
1:2A:2572:A:H2'	4:2E:144:ARG:HD3	2.02	0.41
2:2B:24:G:N7	2:2B:56:G:H2'	2.36	0.41
5:2F:110:LEU:HD21	5:2F:181:LEU:HD23	2.03	0.41
6:2G:16:ARG:O	6:2G:20:ILE:HG13	2.21	0.41
6:2G:45:GLU:H	6:2G:45:GLU:HG2	1.46	0.41
6:2G:165:THR:OG1	6:2G:168:GLU:HG3	2.20	0.41
8:2I:31:LEU:HD21	8:2I:38:LEU:HG	2.02	0.41
9:2N:94:HIS:HB2	9:2N:97:ARG:HD2	2.03	0.41
10:2O:10:VAL:HG11	10:2O:16:ALA:CB	2.51	0.41
12:2Q:137:TYR:HB3	21:2Z:76:LEU:HD11	2.03	0.41
17:2V:40:LEU:HB2	17:2V:46:VAL:CG1	2.51	0.41
18:2W:88:ARG:HA	18:2W:88:ARG:HD2	1.76	0.41
32:2a:160:A:H1'	32:2a:344:A:N7	2.35	0.41
32:2a:176:C:H2'	32:2a:177:C:H6	1.86	0.41
32:2a:298:A:H2'	32:2a:299:G:O4'	2.20	0.41
32:2a:517:G:H22	32:2a:533:A:P	2.44	0.41
32:2a:552:U:O3'	43:2l:87:GLY:HA3	2.20	0.41
32:2a:688:G:H5'	42:2k:46:GLY:O	2.21	0.41
32:2a:1224:G:C2	32:2a:1322:C:H4'	2.56	0.41
34:2c:135:LYS:O	34:2c:139:GLN:HB2	2.20	0.41
34:2c:156:ARG:NH1	34:2c:193:TYR:O	2.54	0.41
35:2d:173:TRP:CD1	35:2d:174:LEU:HG	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:180:GLY:O	35:2d:181:MET:HG2	2.20	0.41
39:2h:11:THR:O	39:2h:15:ASN:ND2	2.53	0.41
44:2m:27:LYS:HD2	44:2m:27:LYS:HA	1.73	0.41
44:2m:29:ARG:HD3	44:2m:64:TRP:CD1	2.55	0.41
49:2r:43:PHE:HD1	49:2r:56:THR:HG22	1.85	0.41
55:2x:10:G:N2	55:2x:26:G:H1'	2.35	0.41
1:1A:1016:C:H2'	1:1A:1017:G:O4'	2.21	0.41
1:1A:1136:U:C2	1:1A:1148:C:H1'	2.56	0.41
1:1A:1182:G:H2'	1:1A:1183:G:C8	2.55	0.41
1:1A:1361:C:O2'	1:1A:1438:A:N3	2.51	0.41
1:1A:2584:A:C8	4:1E:144:ARG:HD3	2.56	0.41
4:1E:144:ARG:HG2	4:1E:145:LYS:H	1.86	0.41
7:1H:137:ASP:O	7:1H:141:VAL:HG23	2.20	0.41
9:1N:70:LYS:HE3	9:1N:72:TYR:CZ	2.56	0.41
23:11:3:LYS:HE3	23:11:4:VAL:HG23	2.02	0.41
32:1a:1327:C:H2'	32:1a:1328:C:C6	2.55	0.41
35:1d:180:GLY:C	35:1d:181:MET:HG2	2.46	0.41
47:1p:20:VAL:HG23	47:1p:35:LYS:HA	2.02	0.41
51:1t:30:LYS:HB2	51:1t:30:LYS:HE3	1.91	0.41
51:1t:43:LEU:HD13	51:1t:51:GLU:HB3	2.02	0.41
54:1y:41:C:H2'	54:1y:42:C:H6	1.86	0.41
1:2A:96:G:H4'	24:22:48:HIS:NE2	2.36	0.41
1:2A:214:G:O2'	1:2A:215:G:O4'	2.28	0.41
1:2A:239:U:H2'	1:2A:240:G:O4'	2.21	0.41
1:2A:423:A:H8	1:2A:423:A:O5'	2.02	0.41
1:2A:816:C:H2'	1:2A:817:C:C6	2.56	0.41
1:2A:848:G:H2'	1:2A:849:A:H8	1.82	0.41
1:2A:952:G:C6	1:2A:966:G:C6	3.08	0.41
1:2A:1670:C:O2	4:2E:129:HIS:NE2	2.48	0.41
1:2A:2228:G:OP1	3:2D:261:LYS:HE2	2.20	0.41
2:2B:14:U:OP2	2:2B:70:C:O2'	2.26	0.41
4:2E:59:VAL:HG21	4:2E:74:PRO:HB3	2.03	0.41
5:2F:20:LEU:HG	5:2F:21:ALA:H	1.85	0.41
7:2H:137:ASP:HB3	7:2H:140:LYS:CB	2.50	0.41
21:2Z:98:MET:HE2	21:2Z:99:TYR:O	2.21	0.41
32:2a:448:A:OP2	32:2a:485:G:N1	2.39	0.41
32:2a:586:C:O2'	32:2a:878:G:H4'	2.20	0.41
32:2a:971:G:N2	32:2a:1363(A):A:OP2	2.43	0.41
32:2a:1084:G:C5	32:2a:1085:U:C4	3.09	0.41
32:2a:1402:4OC:H2'	32:2a:1403:C:O4'	2.21	0.41
35:2d:180:GLY:O	35:2d:182:LYS:HG3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2e:28:PHE:O	36:2e:47:LYS:HA	2.20	0.41
36:2e:43:LEU:HD22	36:2e:136:MET:HG3	2.01	0.41
38:2g:26:PHE:O	38:2g:30:ILE:HD12	2.21	0.41
42:2k:93:GLN:HA	42:2k:96:ARG:HG3	2.02	0.41
48:2q:12:SER:HB3	48:2q:20:THR:HB	2.03	0.41
48:2q:13:ASP:C	48:2q:15:MET:H	2.28	0.41
49:2r:53:ARG:HA	49:2r:56:THR:HG1	1.86	0.41
1:1A:310:C:H2'	1:1A:311:C:C6	2.56	0.41
1:1A:781:A:C5	1:1A:782:A:C8	3.09	0.41
1:1A:857:U:H6	1:1A:857:U:O5'	2.04	0.41
1:1A:1091:A:OP1	1:1A:1091:A:H4'	2.20	0.41
1:1A:2177:G:H2'	1:1A:2177:G:N3	2.35	0.41
1:1A:2464:C:H2'	1:1A:2465:A:O4'	2.21	0.41
1:1A:2675:G:C6	1:1A:2676:G:C4	3.09	0.41
4:1E:108:SER:O	4:1E:162:ALA:HA	2.20	0.41
7:1H:152:ARG:HD3	7:1H:152:ARG:HA	1.85	0.41
17:1V:67:GLY:O	17:1V:88:ARG:HG2	2.21	0.41
23:11:94:LEU:O	23:11:97:LEU:HB2	2.21	0.41
24:12:3:LEU:O	24:12:7:ARG:HG3	2.21	0.41
32:1a:49:U:C2	32:1a:361:G:N2	2.89	0.41
32:1a:130:A:N1	32:1a:233:C:H1'	2.36	0.41
32:1a:174:C:H2'	32:1a:175:C:C6	2.55	0.41
32:1a:894:G:C6	32:1a:895:G:C5	3.09	0.41
32:1a:1093:A:N3	32:1a:1095:U:H5'	2.36	0.41
32:1a:1095:U:OP1	32:1a:1108:G:N1	2.48	0.41
32:1a:1270:C:OP2	52:1u:24:ARG:NH2	2.54	0.41
32:1a:1302:U:H5	44:1m:17:VAL:HG21	1.86	0.41
32:1a:1305:G:H5''	52:1u:4:GLY:HA3	2.03	0.41
37:1f:69:GLU:O	37:1f:72:VAL:HG13	2.21	0.41
44:1m:4:ILE:HA	44:1m:5:ALA:HA	1.83	0.41
45:1n:22:THR:HB	45:1n:33:VAL:HG21	2.02	0.41
1:2A:263:C:H2'	1:2A:264:C:O4'	2.21	0.41
1:2A:597:U:H2'	1:2A:598:G:C8	2.55	0.41
1:2A:1336:A:H2'	1:2A:1337:G:H8	1.84	0.41
1:2A:1399:C:H2'	1:2A:1400:G:H8	1.85	0.41
1:2A:1705:G:C6	1:2A:1706:U:C4	3.09	0.41
1:2A:1927:A:OP1	1:2A:1927:A:H8	2.04	0.41
1:2A:2469:A:H5''	1:2A:2470:G:OP2	2.20	0.41
1:2A:2740:A:C6	1:2A:2741:A:C6	3.09	0.41
1:2A:2745:C:C4	1:2A:2746:U:C4	3.08	0.41
4:2E:170:LEU:HD12	4:2E:170:LEU:HA	1.95	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:2O:21:CYS:HB2	10:2O:39:ILE:HD12	2.03	0.41
10:2O:44:LYS:HD3	10:2O:44:LYS:HA	1.82	0.41
12:2Q:4:PRO:HD3	12:2Q:70:PRO:O	2.20	0.41
15:2T:56:GLY:O	15:2T:59:THR:HG22	2.20	0.41
20:2Y:1:MET:HE2	20:2Y:1:MET:HB3	1.93	0.41
21:2Z:21:ALA:O	21:2Z:23:LYS:HG2	2.20	0.41
26:24:62:ARG:HA	26:24:62:ARG:HD3	1.89	0.41
32:2a:7:G:H5'	32:2a:298:A:O4'	2.21	0.41
32:2a:264:U:O2	48:2q:64:PRO:HG2	2.20	0.41
32:2a:352:C:H4'	32:2a:354:G:OP1	2.21	0.41
32:2a:811:C:H4'	32:2a:900:A:N6	2.36	0.41
33:2b:18:GLY:HA3	33:2b:42:ILE:H	1.84	0.41
36:2e:51:VAL:O	36:2e:55:VAL:HG23	2.21	0.41
39:2h:83:ILE:HB	39:2h:137:VAL:HG13	2.03	0.41
42:2k:87:THR:HA	42:2k:91:ARG:CZ	2.51	0.41
46:2o:48:LYS:HD3	46:2o:48:LYS:HA	1.72	0.41
1:1A:6:A:H2'	1:1A:7:G:H8	1.85	0.41
1:1A:261:A:N1	1:1A:291:G:O2'	2.43	0.41
1:1A:603:C:H2'	1:1A:604:C:H6	1.86	0.41
1:1A:630:U:P	5:1F:103:LYS:HG3	2.61	0.41
1:1A:662:A:N1	1:1A:676:G:O2'	2.49	0.41
1:1A:886:U:H1'	1:1A:1236:G:H1'	2.03	0.41
1:1A:902:G:C6	1:1A:903:C:C4	3.09	0.41
1:1A:967:G:H2'	1:1A:968:U:C6	2.56	0.41
1:1A:968:U:H2'	1:1A:969:C:C6	2.56	0.41
1:1A:982:U:H2'	1:1A:983:G:O4'	2.21	0.41
1:1A:1105:G:OP2	1:1A:1106:U:H3'	2.21	0.41
1:1A:1127:U:H2'	1:1A:1128:U:C6	2.55	0.41
1:1A:1686:U:H4'	1:1A:2711:C:H4'	2.03	0.41
1:1A:1797:U:H2'	1:1A:1798:C:H6	1.86	0.41
1:1A:2030:C:H2'	1:1A:2031:G:H8	1.86	0.41
1:1A:2040:G:H2'	1:1A:2041:A:O4'	2.20	0.41
1:1A:2087:C:H2'	1:1A:2088:C:C6	2.56	0.41
1:1A:2650:G:P	4:1E:82:ARG:HH12	2.44	0.41
15:1T:120:ARG:HA	15:1T:123:GLN:HG3	2.02	0.41
28:16:25:LYS:HE3	28:16:27:LYS:HA	2.01	0.41
29:17:16:HIS:HB2	29:17:44:PRO:HG2	2.01	0.41
29:17:20:ALA:HA	29:17:23:ARG:HH21	1.86	0.41
30:18:23:VAL:HG13	30:18:47:LYS:HB3	2.02	0.41
32:1a:8:A:N6	35:1d:205:GLU:O	2.53	0.41
32:1a:67:C:H4'	32:1a:172:A:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:124:G:C6	32:1a:125:U:N3	2.88	0.41
32:1a:261:U:H2'	32:1a:263:A:OP2	2.20	0.41
32:1a:358:U:H2'	32:1a:359:U:C6	2.56	0.41
32:1a:401:C:H2'	32:1a:402:G:C8	2.56	0.41
32:1a:598:U:H4'	39:1h:94:TYR:CG	2.56	0.41
32:1a:652:U:O4	32:1a:752:G:O2'	2.27	0.41
32:1a:683:G:H2'	32:1a:684:A:C8	2.56	0.41
32:1a:1081:G:H2'	32:1a:1082:G:O4'	2.21	0.41
34:1c:45:LYS:HE3	34:1c:45:LYS:HB2	1.91	0.41
34:1c:77:ILE:H	34:1c:77:ILE:HG12	1.58	0.41
36:1e:96:PRO:HA	36:1e:117:ASP:OD2	2.21	0.41
38:1g:144:MET:HB3	38:1g:144:MET:HE2	1.83	0.41
40:1i:43:ALA:O	40:1i:45:ALA:N	2.54	0.41
43:1l:109:GLY:HA3	43:1l:121:GLY:O	2.21	0.41
46:1o:33:THR:HG21	46:1o:85:LEU:HD22	2.03	0.41
55:1x:23:C:H2'	55:1x:24:U:H6	1.85	0.41
1:2A:38:A:H2'	1:2A:39:C:C6	2.56	0.41
1:2A:135:G:H1	1:2A:144:C:H42	1.68	0.41
1:2A:245:G:O6	30:28:8:LYS:NZ	2.49	0.41
1:2A:628:G:H2'	1:2A:629:G:H8	1.85	0.41
1:2A:773:U:O2'	3:2D:48:ARG:HD3	2.20	0.41
1:2A:778:G:C5	1:2A:779:U:C4	3.09	0.41
1:2A:1021:A:C8	1:2A:1021:A:H3'	2.56	0.41
1:2A:1140:C:P	9:2N:66:LYS:HZ3	2.44	0.41
1:2A:1252:G:C2	1:2A:1253:A:C2	3.09	0.41
1:2A:1448:G:H1'	1:2A:1528:A:N1	2.36	0.41
1:2A:1482:G:H1	1:2A:1506:C:H42	1.68	0.41
1:2A:2137:C:N3	1:2A:2155:G:N1	2.69	0.41
1:2A:2536:G:C6	1:2A:2537:U:C4	3.09	0.41
6:2G:142:PRO:O	26:24:31:ILE:HD13	2.21	0.41
14:2S:35:ILE:HB	14:2S:97:ARG:NH2	2.36	0.41
19:2X:11:PRO:HD3	24:22:37:PHE:CD2	2.55	0.41
19:2X:52:VAL:HG12	19:2X:82:GLN:O	2.21	0.41
21:2Z:10:ARG:NE	21:2Z:37:VAL:O	2.36	0.41
22:20:23:VAL:HA	22:20:38:VAL:HG22	2.03	0.41
23:21:30:VAL:HG21	54:2y:76:A:H5''	2.02	0.41
23:21:56:GLN:HE21	23:21:87:PRO:HG3	1.84	0.41
24:22:67:LYS:O	24:22:70:GLN:HB3	2.21	0.41
32:2a:671:G:H2'	32:2a:672:U:O4'	2.21	0.41
32:2a:689:C:P	42:2k:46:GLY:HA3	2.60	0.41
32:2a:881:G:H2'	32:2a:882:C:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:983:A:N3	32:2a:983:A:H3'	2.36	0.41
32:2a:1040:U:H2'	32:2a:1041:A:C8	2.54	0.41
32:2a:1062:U:H2'	32:2a:1063:C:C5	2.56	0.41
32:2a:1074:G:C6	32:2a:1075:C:C4	3.09	0.41
32:2a:1324:A:O4'	32:2a:1362:C:H4'	2.21	0.41
32:2a:1387:G:H2'	32:2a:1388:C:H6	1.85	0.41
37:2f:9:VAL:HA	37:2f:59:TYR:O	2.21	0.41
41:2j:13:HIS:HB3	41:2j:68:HIS:CE1	2.56	0.41
43:2l:53:ARG:CB	43:2l:93:LEU:HD11	2.51	0.41
44:2m:39:ILE:HG12	44:2m:55:ARG:HH11	1.85	0.41
45:2n:33:VAL:HA	45:2n:39:LEU:O	2.21	0.41
49:2r:52:PRO:O	49:2r:56:THR:HG23	2.21	0.41
49:2r:58:LEU:HD13	49:2r:63:GLN:HA	2.03	0.41
49:2r:67:ALA:O	49:2r:71:LYS:HG3	2.21	0.41
1:1A:89:U:H1'	1:1A:90:A:C8	2.55	0.41
1:1A:387:G:H2'	1:1A:388:A:H8	1.86	0.41
1:1A:790:G:OP1	4:1E:130:GLY:HA2	2.21	0.41
1:1A:1056:A:N3	1:1A:1199:C:H1'	2.36	0.41
1:1A:1218:G:OP2	1:1A:1218:G:H2'	2.21	0.41
1:1A:1501:U:OP1	13:1R:77:ARG:NH1	2.36	0.41
1:1A:1639:G:H2'	1:1A:1640:G:C8	2.56	0.41
1:1A:2205:C:HO2'	1:1A:2206:G:P	2.44	0.41
1:1A:2409:G:C6	1:1A:2410:U:C4	3.09	0.41
1:1A:2455:C:OP1	5:1F:68:LYS:HD3	2.21	0.41
2:1B:54:G:H2'	2:1B:55:U:C6	2.55	0.41
5:1F:183:VAL:O	5:1F:187:VAL:HG23	2.21	0.41
13:1R:8:ARG:HG3	13:1R:43:GLU:CG	2.51	0.41
24:12:6:VAL:HG13	24:12:59:ARG:NE	2.36	0.41
25:13:7:LYS:HE3	25:13:32:GLN:NE2	2.36	0.41
32:1a:50:A:H1'	32:1a:52:G:C8	2.55	0.41
32:1a:436:C:H2'	32:1a:437:U:H6	1.86	0.41
32:1a:872:A:C5	32:1a:874:G:C8	3.09	0.41
32:1a:1469:G:H2'	32:1a:1470:G:C8	2.56	0.41
38:1g:139:GLU:O	38:1g:143:ARG:N	2.49	0.41
40:1i:18:PHE:HB2	40:1i:62:TYR:O	2.21	0.41
40:1i:70:LYS:O	40:1i:74:ILE:HG13	2.20	0.41
41:1j:64:GLU:OE2	41:1j:66:ARG:NE	2.54	0.41
43:1l:88:GLY:O	43:1l:99:HIS:HD2	2.04	0.41
48:1q:45:HIS:H	48:1q:72:ARG:HA	1.86	0.41
51:1t:10:LEU:HB3	51:1t:12:ALA:H	1.86	0.41
1:2A:272(B):G:H2'	1:2A:272(C):G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:407:G:H2'	1:2A:408:G:H8	1.86	0.41
1:2A:700:G:O2'	1:2A:1632:A:N3	2.48	0.41
1:2A:806:C:O2	1:2A:2444:G:O2'	2.37	0.41
1:2A:881:G:H21	54:2w:56:C:N4	2.19	0.41
1:2A:1800:C:P	3:2D:183:ARG:HH12	2.44	0.41
1:2A:2128:C:H2'	1:2A:2129:C:O4'	2.21	0.41
1:2A:2320:A:C8	1:2A:2333:A:N6	2.89	0.41
1:2A:2448:A:H5'	60:2A:3778:HOH:O	2.22	0.41
1:2A:2521:C:O2'	1:2A:2564:A:N3	2.47	0.41
1:2A:2694:G:C6	1:2A:2695:C:C4	3.09	0.41
7:2H:98:LEU:HD22	7:2H:124:GLU:HA	2.02	0.41
17:2V:24:LYS:HG3	17:2V:64:HIS:CD2	2.55	0.41
19:2X:29:TRP:CE3	19:2X:78:LYS:HB3	2.56	0.41
26:24:46:GLN:C	26:24:48:ARG:N	2.79	0.41
32:2a:250:A:H4'	32:2a:251:G:O5'	2.21	0.41
32:2a:298:A:C6	32:2a:299:G:C2	3.08	0.41
32:2a:420:U:O2'	32:2a:423:G:O6	2.37	0.41
32:2a:722:A:C8	32:2a:724:G:H1'	2.56	0.41
32:2a:799:G:C6	32:2a:800:G:C4	3.08	0.41
32:2a:994:A:N3	32:2a:994:A:H2'	2.36	0.41
32:2a:1003:G:H3'	32:2a:1003:G:N3	2.36	0.41
32:2a:1023:G:H3'	32:2a:1024:G:H8	1.85	0.41
32:2a:1060:C:H5''	41:2j:51:ARG:HG2	2.03	0.41
32:2a:1064:G:OP1	32:2a:1386:G:H4'	2.21	0.41
32:2a:1381:U:O2'	38:2g:79:ARG:HD3	2.21	0.41
35:2d:93:PHE:CZ	35:2d:97:LEU:HD11	2.56	0.41
40:2i:50:LEU:H	40:2i:50:LEU:HG	1.49	0.41
45:2n:33:VAL:HG21	60:2n:601:HOH:O	2.21	0.41
46:2o:68:ARG:O	46:2o:72:ARG:HG3	2.20	0.41
50:2s:3:ARG:NE	50:2s:8:GLY:O	2.46	0.41
1:1A:572:A:H61	17:1V:19:LYS:H	1.68	0.40
1:1A:606:G:OP2	16:1U:10:ARG:NH1	2.41	0.40
1:1A:609:A:N1	1:1A:856:G:O2'	2.51	0.40
1:1A:861:C:H4'	1:1A:1270:C:O2	2.21	0.40
1:1A:1379:C:H2'	1:1A:1380:G:H8	1.86	0.40
1:1A:2074:G:O4'	4:1E:142:GLY:HA3	2.22	0.40
1:1A:2347:A:C8	1:1A:2349:G:C5	3.10	0.40
1:1A:2639:G:O2'	1:1A:2794:A:N1	2.39	0.40
1:1A:2700:U:OP1	1:1A:2726:A:N6	2.49	0.40
5:1F:62:ARG:HB3	5:1F:62:ARG:NH1	2.35	0.40
7:1H:104:GLU:HG2	60:1H:201:HOH:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1O:23:ARG:HD2	10:1O:23:ARG:HA	1.75	0.40
17:1V:43:GLU:OE1	17:1V:43:GLU:N	2.47	0.40
17:1V:65:GLY:HA3	17:1V:91:TYR:CZ	2.55	0.40
21:1Z:67:LEU:HD23	21:1Z:67:LEU:HA	1.81	0.40
21:1Z:131:ARG:H	21:1Z:131:ARG:HG2	1.69	0.40
22:10:70:GLN:OE1	22:10:80:HIS:NE2	2.53	0.40
32:1a:300:A:O2'	32:1a:564:C:N3	2.43	0.40
32:1a:580:U:H2'	32:1a:581:G:O4'	2.22	0.40
32:1a:742:G:H2'	32:1a:743:U:O4'	2.20	0.40
33:1b:80:ILE:HG12	33:1b:215:LEU:HD23	2.02	0.40
37:1f:21:LEU:O	37:1f:25:ILE:HG13	2.20	0.40
45:1n:23:ARG:HD2	45:1n:28:GLY:O	2.20	0.40
46:1o:82:ILE:HG13	46:1o:83:GLU:N	2.36	0.40
1:2A:280:C:C2	1:2A:361:G:C2	3.09	0.40
1:2A:536:A:H2'	1:2A:537:C:C6	2.56	0.40
1:2A:2015:A:N3	27:25:4:HIS:NE2	2.62	0.40
1:2A:2359:C:H2'	1:2A:2360:A:O4'	2.20	0.40
1:2A:2370:G:H2'	1:2A:2371:G:C8	2.56	0.40
1:2A:2422:A:O4'	54:2y:76:A:N6	2.54	0.40
2:2B:41:U:H5	6:2G:70:VAL:H	1.69	0.40
5:2F:95:ARG:HB3	5:2F:97:TYR:CE2	2.56	0.40
10:2O:25:LEU:HD23	10:2O:25:LEU:HA	1.77	0.40
11:2P:14:LYS:HG2	11:2P:15:ARG:H	1.85	0.40
14:2S:19:LYS:H	14:2S:19:LYS:HG2	1.68	0.40
17:2V:62:LEU:HD21	17:2V:95:LEU:HB2	2.03	0.40
17:2V:89:GLN:HA	17:2V:90:PRO:HD3	1.92	0.40
21:2Z:5:LEU:HB2	21:2Z:47:VAL:HG21	2.02	0.40
28:26:6:ARG:NE	28:26:24:GLU:OE2	2.46	0.40
32:2a:409:G:H2'	32:2a:410:G:O4'	2.21	0.40
32:2a:767:A:H2'	32:2a:768:A:O4'	2.20	0.40
32:2a:814:A:H2'	32:2a:816:A:H5''	2.01	0.40
32:2a:1033:G:H2'	32:2a:1034:G:H8	1.87	0.40
39:2h:17:THR:HG22	39:2h:63:LEU:HD23	2.03	0.40
43:2l:112:ASP:N	43:2l:112:ASP:OD1	2.50	0.40
48:2q:84:LEU:HD23	48:2q:87:LYS:HZ2	1.86	0.40
54:2y:4:C:H2'	54:2y:5:G:H5'	2.03	0.40
1:1A:232:U:OP2	30:18:8:LYS:NZ	2.42	0.40
1:1A:722:A:C6	1:1A:723:A:C6	3.09	0.40
1:1A:930:G:H2'	1:1A:931:C:H5	1.86	0.40
1:1A:931:C:H2'	1:1A:932:C:H4'	2.03	0.40
1:1A:946:A:OP2	1:1A:946:A:H8	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1177:G:O6	1:1A:2062:C:H1'	2.22	0.40
1:1A:1630:A:H4'	1:1A:1632:A:C8	2.56	0.40
1:1A:2346:G:H5'	14:1S:9:ARG:HG2	2.03	0.40
1:1A:2785:C:H2'	1:1A:2786:C:C6	2.56	0.40
5:1F:170:LEU:HD12	5:1F:170:LEU:HA	1.89	0.40
10:1O:19:ILE:HG22	10:1O:43:VAL:HA	2.03	0.40
14:1S:8:GLU:H	14:1S:8:GLU:HG2	1.59	0.40
16:1U:86:ALA:O	17:1V:49:THR:HG23	2.21	0.40
20:1Y:6:HIS:HE1	20:1Y:72:VAL:O	2.04	0.40
32:1a:78:G:N1	32:1a:91:C:C4	2.89	0.40
32:1a:674:G:N2	32:1a:717:C:O2	2.55	0.40
32:1a:954:G:H2'	32:1a:955:U:C6	2.56	0.40
32:1a:1129:C:H5''	40:1i:16:ARG:HH12	1.86	0.40
32:1a:1496:C:N4	57:1a:1913:AKN:H44	2.37	0.40
33:1b:27:LYS:HB2	33:1b:194:PRO:HD2	2.02	0.40
35:1d:148:VAL:HG12	35:1d:149:ALA:O	2.22	0.40
46:1o:7:GLU:O	46:1o:11:VAL:HG23	2.21	0.40
49:1r:24:ALA:C	49:1r:26:LEU:H	2.29	0.40
1:2A:839:U:H2'	1:2A:840:C:C6	2.56	0.40
1:2A:860:U:O2'	1:2A:861:A:H5'	2.21	0.40
1:2A:1125:G:H5'	31:29:37:GLY:HA2	2.03	0.40
1:2A:1623:G:H2'	1:2A:1624:G:H8	1.86	0.40
1:2A:2848:G:C8	15:2T:97:ALA:HB2	2.56	0.40
1:2A:2851:A:O3'	13:2R:64:ARG:NH2	2.55	0.40
5:2F:137:LYS:HE2	5:2F:137:LYS:HB2	1.91	0.40
12:2Q:29:PHE:HB3	12:2Q:65:PHE:CE2	2.56	0.40
13:2R:99:LYS:HA	13:2R:112:ALA:HA	2.03	0.40
30:28:29:LYS:HD3	30:28:44:LYS:C	2.46	0.40
32:2a:922:G:C2	32:2a:923:A:C4	3.09	0.40
32:2a:954:G:H2'	32:2a:955:U:C6	2.56	0.40
33:2b:58:ILE:HD11	33:2b:185:ILE:CD1	2.52	0.40
33:2b:87:ARG:NH2	33:2b:233:SER:HB3	2.36	0.40
34:2c:124:ILE:HG13	34:2c:125:GLU:N	2.36	0.40
41:2j:16:LEU:HB3	41:2j:70:ARG:HG3	2.03	0.40
45:2n:48:ALA:HB2	45:2n:53:LEU:HD12	2.04	0.40
47:2p:17:TYR:HE2	47:2p:41:PRO:HG3	1.86	0.40
54:2y:60:U:O2'	54:2y:61:C:H5'	2.21	0.40
1:1A:656:A:N3	1:1A:2427:G:O2'	2.49	0.40
1:1A:776:G:O5'	3:1D:208:LYS:NZ	2.55	0.40
1:1A:992:G:O2'	1:1A:1030:A:N1	2.50	0.40
1:1A:1251:G:C5	1:1A:1252:C:C4	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1354:A:H2'	1:1A:1355:G:O4'	2.21	0.40
1:1A:2619:G:H2'	1:1A:2620:G:O4'	2.21	0.40
1:1A:2688:C:O2	1:1A:2745:G:N2	2.54	0.40
2:1B:2:C:H2'	2:1B:3:C:H6	1.85	0.40
3:1D:61:LEU:HD12	3:1D:61:LEU:HA	1.84	0.40
3:1D:75:ILE:HG21	3:1D:99:ASP:HB2	2.03	0.40
6:1G:126:ASP:CB	6:1G:130:ASN:H	2.34	0.40
8:1I:123:LEU:HD12	8:1I:123:LEU:HA	1.90	0.40
15:1T:116:ALA:HB1	15:1T:121:ILE:CD1	2.51	0.40
16:1U:50:ARG:HB2	16:1U:53:ARG:NH2	2.36	0.40
22:10:19:LYS:HA	22:10:19:LYS:HD3	1.92	0.40
26:14:40:HIS:HB3	26:14:43:TYR:HD2	1.87	0.40
32:1a:453:A:O4'	47:1p:72:ARG:HD3	2.20	0.40
32:1a:1030:C:N4	32:1a:1031:G:H1	2.15	0.40
32:1a:1128:C:H4'	32:1a:1148:U:O2	2.21	0.40
32:1a:1134:G:H2'	32:1a:1134:G:N3	2.37	0.40
32:1a:1162:C:N4	32:1a:1174:G:H1	2.19	0.40
32:1a:1183:A:O2'	32:1a:1184:G:H5''	2.21	0.40
32:1a:1328:C:OP1	52:1u:21:TYR:OH	2.32	0.40
33:1b:16:HIS:CG	33:1b:17:PHE:N	2.89	0.40
33:1b:24:TRP:CD1	33:1b:24:TRP:H	2.39	0.40
35:1d:111:ALA:HA	35:1d:116:GLN:NE2	2.37	0.40
35:1d:194:LEU:HD13	35:1d:194:LEU:HA	1.91	0.40
48:1q:24:GLU:HA	48:1q:39:SER:HA	2.03	0.40
48:1q:83:ASP:O	48:1q:87:LYS:HG2	2.21	0.40
1:2A:10:G:H1'	1:2A:2801(A):A:H62	1.87	0.40
1:2A:194:G:C2	1:2A:202:U:H1'	2.56	0.40
1:2A:686:G:O5'	29:27:11:LYS:NZ	2.50	0.40
1:2A:1364:G:OP2	23:21:3:LYS:HG3	2.21	0.40
1:2A:1797:C:H4'	3:2D:257:LEU:O	2.21	0.40
1:2A:2232:U:OP1	23:21:40:ARG:NH1	2.53	0.40
1:2A:2443:C:H2'	1:2A:2444:G:C8	2.57	0.40
1:2A:2695:C:H2'	1:2A:2696:U:C6	2.57	0.40
2:2B:20:C:N4	2:2B:63:G:H1	2.07	0.40
4:2E:16:ARG:NH1	4:2E:171:GLU:OE2	2.45	0.40
8:2I:123:LEU:HD12	8:2I:123:LEU:HA	1.88	0.40
10:2O:35:VAL:HG22	10:2O:65:THR:HG23	2.02	0.40
16:2U:89:GLU:HB2	17:2V:50:PRO:CB	2.52	0.40
19:2X:5:TYR:HD1	24:22:33:MET:SD	2.44	0.40
30:28:32:LEU:HA	30:28:32:LEU:HD12	1.84	0.40
31:29:22:ARG:NH1	31:29:35:ARG:HD2	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:107:G:C2	32:2a:108:G:H1'	2.56	0.40
32:2a:134:A:H1'	32:2a:325:A:C5	2.57	0.40
34:2c:52:LEU:HD12	34:2c:52:LEU:HA	1.86	0.40
35:2d:108:LEU:HB3	35:2d:110:PHE:CE1	2.56	0.40
39:2h:64:LYS:HB2	39:2h:79:VAL:HG21	2.03	0.40
43:2l:33:ARG:HD3	43:2l:33:ARG:HA	1.75	0.40
50:2s:49:ILE:H	50:2s:49:ILE:HG22	1.62	0.40
51:2t:36:LEU:HD23	51:2t:36:LEU:HA	1.86	0.40
1:1A:129:G:C2	1:1A:130:G:C8	3.10	0.40
1:1A:299:G:O5'	1:1A:299:G:H8	2.04	0.40
1:1A:516:G:N2	1:1A:517:A:H1'	2.37	0.40
1:1A:820:U:O2'	3:1D:48:ARG:HD3	2.21	0.40
1:1A:1317:G:OP2	60:1A:4034:HOH:O	2.22	0.40
1:1A:1487:G:C2	1:1A:1488:G:C5	3.09	0.40
1:1A:1683:C:H2'	1:1A:1684:A:C8	2.55	0.40
1:1A:2087:C:OP1	57:1A:3936:AKN:H46	2.21	0.40
1:1A:2100:C:H2'	1:1A:2101:U:C6	2.56	0.40
1:1A:2442:A:H2'	1:1A:2442:A:N3	2.37	0.40
2:1B:1:U:O2'	2:1B:2:C:OP1	2.34	0.40
2:1B:61:G:C6	2:1B:62:C:C4	3.09	0.40
16:1U:58:ARG:HA	16:1U:61:TRP:CE3	2.57	0.40
19:1X:65:ARG:HB2	19:1X:70:LEU:HD23	2.02	0.40
22:10:32:ARG:H	22:10:35:ASN:CG	2.28	0.40
32:1a:113:G:H2'	32:1a:114:U:C6	2.57	0.40
32:1a:406:G:H21	35:1d:119:GLN:HE22	1.69	0.40
32:1a:614:A:H2'	32:1a:615:C:O4'	2.22	0.40
32:1a:731:G:OP1	32:1a:766:A:H1'	2.22	0.40
33:1b:21:ARG:HB2	33:1b:38:GLY:O	2.21	0.40
44:1m:15:VAL:HG13	44:1m:43:THR:O	2.22	0.40
49:1r:40:LEU:O	49:1r:43:PHE:N	2.45	0.40
55:1x:45:G:H8	55:1x:45:G:O5'	2.04	0.40
54:1y:58:A:O2'	54:1y:59:U:P	2.79	0.40
1:2A:24:G:O2'	18:2W:77:ASP:HB3	2.20	0.40
1:2A:41:C:H2'	1:2A:42:G:C8	2.56	0.40
1:2A:634:C:H2'	1:2A:635:C:C6	2.56	0.40
1:2A:927:G:H2'	1:2A:928:G:O4'	2.21	0.40
1:2A:1129:A:N1	1:2A:2569:G:O2'	2.41	0.40
1:2A:1496:A:H8	1:2A:1496:A:OP2	2.05	0.40
1:2A:1649:G:N3	13:2R:107:ASP:HB2	2.36	0.40
1:2A:2106:G:C6	1:2A:2184:G:C6	3.09	0.40
15:2T:61:PHE:HE2	15:2T:78:LEU:HA	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:98:MET:HE3	21:2Z:98:MET:HB2	1.67	0.40
21:2Z:145:GLU:H	21:2Z:148:ASP:HB2	1.86	0.40
31:29:17:ILE:HD12	31:29:17:ILE:HA	1.95	0.40
32:2a:328:C:H4'	32:2a:329:A:H5'	2.03	0.40
32:2a:952:U:O4	44:2m:104:ARG:HD3	2.20	0.40
32:2a:966:M2G:HM23	32:2a:967:5MC:H1'	2.03	0.40
32:2a:1218:C:OP2	45:2n:9:LYS:NZ	2.54	0.40
32:2a:1226:C:H4'	50:2s:80:TYR:CZ	2.57	0.40
35:2d:121:VAL:O	35:2d:134:ASP:HA	2.22	0.40
45:2n:27:CYS:SG	45:2n:29:ARG:HG3	2.62	0.40
48:2q:5:VAL:HG22	48:2q:60:ILE:HG13	2.04	0.40
48:2q:61:GLU:HA	48:2q:71:PHE:CD1	2.57	0.40
54:2w:21:A:O2'	54:2w:22:G:OP1	2.35	0.40
55:2x:43:A:H2'	55:2x:44:A:C8	2.57	0.40
1:1A:284:G:C2	1:1A:285:U:O4	2.75	0.40
2:1B:41:U:H5	6:1G:70:VAL:N	2.17	0.40
4:1E:54:GLN:OE1	4:1E:55:ASN:N	2.49	0.40
11:1P:62:LEU:O	30:18:13:ARG:HD3	2.21	0.40
12:1Q:103:MET:HB2	12:1Q:104:PHE:CD2	2.56	0.40
21:1Z:23:LYS:HA	21:1Z:23:LYS:HD3	1.98	0.40
21:1Z:27:VAL:HG22	21:1Z:28:MET:H	1.87	0.40
21:1Z:44:PHE:CZ	21:1Z:86:VAL:HG11	2.56	0.40
32:1a:625:G:H2'	32:1a:626:U:C6	2.56	0.40
32:1a:731:G:H2'	32:1a:732:C:H6	1.87	0.40
32:1a:1187:G:H5'	40:1i:113:LYS:HE2	2.04	0.40
32:1a:1292:U:H2'	32:1a:1293:G:H8	1.85	0.40
32:1a:1325:C:H2'	32:1a:1326:C:H6	1.85	0.40
34:1c:148:GLY:HA2	34:1c:171:GLY:HA3	2.03	0.40
39:1h:33:GLU:OE2	39:1h:50:ARG:NE	2.54	0.40
42:1k:20:TYR:CZ	42:1k:83:ILE:HD13	2.57	0.40
46:1o:39:LEU:HD23	46:1o:39:LEU:HA	1.89	0.40
48:1q:48:GLU:O	48:1q:49:GLU:C	2.65	0.40
51:1t:100:ILE:HB	51:1t:101:GLY:H	1.65	0.40
54:1y:7:A:OP1	54:1y:8:4SU:H5	2.21	0.40
54:1y:58:A:HO2'	54:1y:59:U:P	2.44	0.40
1:2A:964:C:O2'	1:2A:2273:A:N3	2.40	0.40
1:2A:1651:G:H5'	13:2R:39:PRO:HG2	2.04	0.40
1:2A:2135:A:C8	1:2A:2136:C:H5	2.39	0.40
1:2A:2144:U:H1'	1:2A:2148:G:N2	2.36	0.40
1:2A:2252:G:H2'	1:2A:2253:G:C8	2.57	0.40
1:2A:2388:A:C8	1:2A:2389:G:C5	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2849:U:H4'	1:2A:2868:A:C2	2.56	0.40
2:2B:115:G:H2'	2:2B:116:G:O4'	2.22	0.40
3:2D:101:GLU:OE2	3:2D:103:ARG:NH1	2.55	0.40
5:2F:33:LEU:HD12	5:2F:33:LEU:HA	1.80	0.40
6:2G:39:ILE:HG12	6:2G:157:ILE:HG12	2.02	0.40
16:2U:101:ARG:O	16:2U:103:PRO:HD3	2.21	0.40
21:2Z:163:LEU:HG	21:2Z:165:VAL:HG22	2.04	0.40
21:2Z:171:ILE:HD12	21:2Z:172:ALA:N	2.37	0.40
32:2a:60:A:H4'	32:2a:61:G:O5'	2.21	0.40
32:2a:299:G:H2'	32:2a:300:A:C8	2.57	0.40
32:2a:1002:G:C2	32:2a:1003:G:C8	3.10	0.40
32:2a:1070:U:H2'	32:2a:1071:C:C6	2.57	0.40
38:2g:113:GLU:O	38:2g:119:ARG:HD3	2.21	0.40
40:2i:77:ILE:O	40:2i:81:ILE:HG12	2.21	0.40
42:2k:99:GLN:H	42:2k:99:GLN:HG3	1.71	0.40
46:2o:73:GLU:O	46:2o:75:PRO:HD3	2.22	0.40
50:2s:50:ALA:HA	50:2s:58:VAL:O	2.21	0.40

There are no symmetry-related clashes.

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	
3	1D	273/276 (99%)	247 (90%)	24 (9%)	2 (1%)	18	40
3	2D	273/276 (99%)	250 (92%)	22 (8%)	1 (0%)	30	54
4	1E	202/206 (98%)	186 (92%)	14 (7%)	2 (1%)	12	31
4	2E	202/206 (98%)	187 (93%)	13 (6%)	2 (1%)	12	31
5	1F	201/210 (96%)	195 (97%)	5 (2%)	1 (0%)	24	49
5	2F	201/210 (96%)	187 (93%)	11 (6%)	3 (2%)	8	23
6	1G	179/182 (98%)	165 (92%)	9 (5%)	5 (3%)	4	10

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
6	2G	179/182 (98%)	154 (86%)	22 (12%)	3 (2%)	7	20
7	1H	172/180 (96%)	158 (92%)	12 (7%)	2 (1%)	10	27
7	2H	172/180 (96%)	153 (89%)	17 (10%)	2 (1%)	10	27
8	1I	144/148 (97%)	130 (90%)	14 (10%)	0	100	100
8	2I	144/148 (97%)	118 (82%)	23 (16%)	3 (2%)	5	15
9	1N	138/140 (99%)	130 (94%)	7 (5%)	1 (1%)	18	40
9	2N	138/140 (99%)	131 (95%)	7 (5%)	0	100	100
10	1O	120/122 (98%)	114 (95%)	6 (5%)	0	100	100
10	2O	120/122 (98%)	109 (91%)	11 (9%)	0	100	100
11	1P	147/150 (98%)	136 (92%)	10 (7%)	1 (1%)	18	40
11	2P	147/150 (98%)	128 (87%)	16 (11%)	3 (2%)	6	17
12	1Q	139/141 (99%)	126 (91%)	12 (9%)	1 (1%)	18	40
12	2Q	139/141 (99%)	129 (93%)	8 (6%)	2 (1%)	9	24
13	1R	116/118 (98%)	108 (93%)	6 (5%)	2 (2%)	7	20
13	2R	116/118 (98%)	101 (87%)	14 (12%)	1 (1%)	14	34
14	1S	108/112 (96%)	97 (90%)	10 (9%)	1 (1%)	14	34
14	2S	108/112 (96%)	95 (88%)	11 (10%)	2 (2%)	6	17
15	1T	129/146 (88%)	121 (94%)	8 (6%)	0	100	100
15	2T	129/146 (88%)	117 (91%)	12 (9%)	0	100	100
16	1U	114/118 (97%)	112 (98%)	2 (2%)	0	100	100
16	2U	114/118 (97%)	109 (96%)	3 (3%)	2 (2%)	6	19
17	1V	99/101 (98%)	91 (92%)	7 (7%)	1 (1%)	12	31
17	2V	99/101 (98%)	94 (95%)	4 (4%)	1 (1%)	12	31
18	1W	110/113 (97%)	108 (98%)	2 (2%)	0	100	100
18	2W	110/113 (97%)	105 (96%)	5 (4%)	0	100	100
19	1X	93/96 (97%)	87 (94%)	6 (6%)	0	100	100
19	2X	93/96 (97%)	82 (88%)	10 (11%)	1 (1%)	11	29
20	1Y	105/110 (96%)	93 (89%)	9 (9%)	3 (3%)	3	9
20	2Y	105/110 (96%)	93 (89%)	11 (10%)	1 (1%)	12	31
21	1Z	148/206 (72%)	131 (88%)	14 (10%)	3 (2%)	6	17
21	2Z	156/206 (76%)	124 (80%)	30 (19%)	2 (1%)	9	25

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
22	10	81/85 (95%)	74 (91%)	7 (9%)	0	100	100
22	20	81/85 (95%)	71 (88%)	7 (9%)	3 (4%)	2	6
23	11	95/98 (97%)	87 (92%)	8 (8%)	0	100	100
23	21	95/98 (97%)	90 (95%)	4 (4%)	1 (1%)	11	29
24	12	68/72 (94%)	67 (98%)	1 (2%)	0	100	100
24	22	68/72 (94%)	62 (91%)	6 (9%)	0	100	100
25	13	57/60 (95%)	53 (93%)	4 (7%)	0	100	100
25	23	57/60 (95%)	53 (93%)	3 (5%)	1 (2%)	6	19
26	14	67/71 (94%)	52 (78%)	7 (10%)	8 (12%)	0	0
26	24	67/71 (94%)	50 (75%)	11 (16%)	6 (9%)	0	1
27	15	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
27	25	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
28	16	51/54 (94%)	49 (96%)	2 (4%)	0	100	100
28	26	51/54 (94%)	46 (90%)	5 (10%)	0	100	100
29	17	46/49 (94%)	44 (96%)	2 (4%)	0	100	100
29	27	46/49 (94%)	40 (87%)	5 (11%)	1 (2%)	5	15
30	18	62/65 (95%)	55 (89%)	7 (11%)	0	100	100
30	28	62/65 (95%)	57 (92%)	4 (6%)	1 (2%)	7	21
31	19	35/37 (95%)	34 (97%)	1 (3%)	0	100	100
31	29	35/37 (95%)	35 (100%)	0	0	100	100
33	1b	229/256 (90%)	194 (85%)	29 (13%)	6 (3%)	4	12
33	2b	229/256 (90%)	194 (85%)	28 (12%)	7 (3%)	3	8
34	1c	204/239 (85%)	177 (87%)	25 (12%)	2 (1%)	12	31
34	2c	204/239 (85%)	168 (82%)	31 (15%)	5 (2%)	4	12
35	1d	206/209 (99%)	188 (91%)	13 (6%)	5 (2%)	4	13
35	2d	206/209 (99%)	190 (92%)	15 (7%)	1 (0%)	24	49
36	1e	146/162 (90%)	126 (86%)	19 (13%)	1 (1%)	18	40
36	2e	146/162 (90%)	131 (90%)	12 (8%)	3 (2%)	5	15
37	1f	98/101 (97%)	90 (92%)	7 (7%)	1 (1%)	12	31
37	2f	98/101 (97%)	93 (95%)	5 (5%)	0	100	100
38	1g	153/156 (98%)	140 (92%)	12 (8%)	1 (1%)	18	40

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
38	2g	153/156 (98%)	137 (90%)	11 (7%)	5 (3%)	3	7
39	1h	135/138 (98%)	126 (93%)	8 (6%)	1 (1%)	18	40
39	2h	135/138 (98%)	125 (93%)	9 (7%)	1 (1%)	18	40
40	1i	125/128 (98%)	106 (85%)	19 (15%)	0	100	100
40	2i	125/128 (98%)	109 (87%)	15 (12%)	1 (1%)	16	36
41	1j	95/105 (90%)	83 (87%)	6 (6%)	6 (6%)	1	2
41	2j	94/105 (90%)	76 (81%)	10 (11%)	8 (8%)	0	1
42	1k	112/129 (87%)	104 (93%)	7 (6%)	1 (1%)	14	34
42	2k	112/129 (87%)	97 (87%)	11 (10%)	4 (4%)	2	6
43	1l	119/132 (90%)	109 (92%)	10 (8%)	0	100	100
43	2l	119/132 (90%)	95 (80%)	24 (20%)	0	100	100
44	1m	121/126 (96%)	106 (88%)	15 (12%)	0	100	100
44	2m	120/126 (95%)	101 (84%)	17 (14%)	2 (2%)	7	20
45	1n	58/61 (95%)	52 (90%)	6 (10%)	0	100	100
45	2n	58/61 (95%)	50 (86%)	8 (14%)	0	100	100
46	1o	86/89 (97%)	76 (88%)	9 (10%)	1 (1%)	10	27
46	2o	86/89 (97%)	74 (86%)	11 (13%)	1 (1%)	10	27
47	1p	80/88 (91%)	72 (90%)	7 (9%)	1 (1%)	9	25
47	2p	80/88 (91%)	71 (89%)	8 (10%)	1 (1%)	9	25
48	1q	97/105 (92%)	91 (94%)	5 (5%)	1 (1%)	12	31
48	2q	97/105 (92%)	84 (87%)	12 (12%)	1 (1%)	12	31
49	1r	66/88 (75%)	60 (91%)	6 (9%)	0	100	100
49	2r	66/88 (75%)	60 (91%)	6 (9%)	0	100	100
50	1s	81/93 (87%)	69 (85%)	10 (12%)	2 (2%)	4	12
50	2s	81/93 (87%)	67 (83%)	10 (12%)	4 (5%)	1	3
51	1t	94/106 (89%)	81 (86%)	9 (10%)	4 (4%)	2	4
51	2t	94/106 (89%)	83 (88%)	7 (7%)	4 (4%)	2	4
52	1u	21/27 (78%)	20 (95%)	1 (5%)	0	100	100
52	2u	21/27 (78%)	17 (81%)	3 (14%)	1 (5%)	2	3
All	All	11370/12128 (94%)	10221 (90%)	992 (9%)	157 (1%)	9	24

All (157) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	1F	130	ALA
12	1Q	16	ARG
26	14	45	GLY
26	14	53	GLU
33	1b	10	LEU
33	1b	17	PHE
35	1d	173	TRP
41	1j	55	LYS
41	1j	56	HIS
51	1t	10	LEU
51	1t	100	ILE
5	2F	130	ALA
13	2R	14	SER
26	24	45	GLY
26	24	55	ARG
29	27	46	VAL
33	2b	17	PHE
33	2b	123	ALA
38	2g	4	ARG
40	2i	54	ASP
41	2j	75	ILE
41	2j	84	GLN
44	2m	4	ILE
50	2s	81	ARG
51	2t	100	ILE
52	2u	3	LYS
6	1G	84	LYS
7	1H	126	PRO
13	1R	2	ARG
21	1Z	31	ARG
26	14	44	THR
26	14	62	ARG
33	1b	126	GLU
35	1d	178	VAL
35	1d	179	GLU
46	1o	49	ASP
47	1p	31	LYS
50	1s	81	ARG
6	2G	42	GLY
6	2G	47	LYS
7	2H	126	PRO
8	2I	40	THR
11	2P	29	LYS

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Mol	Chain	Res	Type
11	2P	38	GLN
12	2Q	27	VAL
12	2Q	88	GLY
16	2U	116	ALA
17	2V	79	VAL
19	2X	15	GLU
22	20	55	ARG
26	24	65	ASP
33	2b	78	GLN
34	2c	18	TRP
34	2c	156	ARG
42	2k	49	GLY
51	2t	10	LEU
3	1D	3	VAL
4	1E	100	GLU
6	1G	49	ASP
6	1G	124	SER
9	1N	88	GLU
13	1R	107	ASP
14	1S	13	ARG
17	1V	100	ARG
20	1Y	54	LYS
26	14	46	GLN
33	1b	231	GLU
41	1j	78	ASN
51	1t	47	GLY
6	2G	43	LEU
8	2I	85	GLU
11	2P	45	LEU
14	2S	84	GLN
16	2U	115	ALA
22	20	4	LYS
23	21	45	ASN
26	24	46	GLN
26	24	52	THR
26	24	61	ARG
33	2b	8	LYS
33	2b	125	PRO
33	2b	231	GLU
34	2c	3	ASN
41	2j	55	LYS
41	2j	78	ASN

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Mol	Chain	Res	Type
42	2k	91	ARG
4	1E	52	LEU
6	1G	47	LYS
20	1Y	51	VAL
21	1Z	134	PRO
26	14	47	GLN
34	1c	110	ASN
35	1d	85	LYS
36	1e	85	GLY
37	1f	40	VAL
48	1q	33	GLY
50	1s	27	GLU
51	1t	102	GLY
3	2D	3	VAL
4	2E	52	LEU
4	2E	113	PHE
8	2I	117	GLU
14	2S	94	TYR
20	2Y	43	ASN
25	23	59	VAL
33	2b	16	HIS
36	2e	27	ARG
38	2g	7	ALA
38	2g	80	VAL
39	2h	20	TYR
41	2j	83	GLU
42	2k	117	ASN
46	2o	88	ARG
3	1D	156	ALA
6	1G	43	LEU
7	1H	59	ARG
26	14	56	VAL
26	14	57	GLU
39	1h	83	ILE
5	2F	21	ALA
7	2H	65	HIS
21	2Z	134	PRO
21	2Z	163	LEU
34	2c	12	LEU
34	2c	181	ASN
44	2m	5	ALA
11	1P	93	GLY

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Mol	Chain	Res	Type
33	1b	20	GLU
38	1g	80	VAL
41	1j	77	PRO
5	2F	119	ARG
30	28	53	PRO
38	2g	55	GLY
42	2k	105	VAL
50	2s	12	ASP
50	2s	27	GLU
50	2s	29	ARG
21	1Z	159	PRO
34	1c	66	VAL
41	2j	39	PRO
41	2j	77	PRO
20	1Y	53	PRO
22	20	30	VAL
36	2e	69	VAL
38	2g	50	ILE
47	2p	53	VAL
48	2q	30	PRO
51	2t	47	GLY
41	1j	75	ILE
36	2e	85	GLY
51	2t	102	GLY
41	1j	82	ILE
42	1k	105	VAL
35	2d	5	ILE
41	2j	91	PRO
35	1d	172	PRO
33	1b	125	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	1D	215/218 (99%)	197 (92%)	18 (8%)	10	25

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	2D	215/218 (99%)	191 (89%)	24 (11%)	6	16
4	1E	164/166 (99%)	139 (85%)	25 (15%)	3	8
4	2E	164/166 (99%)	148 (90%)	16 (10%)	7	20
5	1F	160/166 (96%)	144 (90%)	16 (10%)	7	19
5	2F	159/166 (96%)	145 (91%)	14 (9%)	9	23
6	1G	143/156 (92%)	124 (87%)	19 (13%)	4	11
6	2G	143/156 (92%)	118 (82%)	25 (18%)	2	4
7	1H	144/148 (97%)	128 (89%)	16 (11%)	6	16
7	2H	144/148 (97%)	139 (96%)	5 (4%)	32	56
8	1I	113/124 (91%)	95 (84%)	18 (16%)	2	7
8	2I	105/124 (85%)	90 (86%)	15 (14%)	3	9
9	1N	118/119 (99%)	106 (90%)	12 (10%)	7	19
9	2N	118/119 (99%)	104 (88%)	14 (12%)	5	14
10	1O	100/100 (100%)	93 (93%)	7 (7%)	14	32
10	2O	100/100 (100%)	88 (88%)	12 (12%)	5	14
11	1P	115/116 (99%)	102 (89%)	13 (11%)	5	16
11	2P	115/116 (99%)	100 (87%)	15 (13%)	4	11
12	1Q	111/111 (100%)	101 (91%)	10 (9%)	9	23
12	2Q	111/111 (100%)	97 (87%)	14 (13%)	4	12
13	1R	101/101 (100%)	86 (85%)	15 (15%)	3	8
13	2R	101/101 (100%)	89 (88%)	12 (12%)	5	14
14	1S	86/88 (98%)	75 (87%)	11 (13%)	4	12
14	2S	85/88 (97%)	75 (88%)	10 (12%)	5	14
15	1T	115/127 (91%)	108 (94%)	7 (6%)	17	38
15	2T	113/127 (89%)	106 (94%)	7 (6%)	16	37
16	1U	93/94 (99%)	91 (98%)	2 (2%)	45	69
16	2U	93/94 (99%)	89 (96%)	4 (4%)	26	51
17	1V	80/82 (98%)	66 (82%)	14 (18%)	2	4
17	2V	80/82 (98%)	68 (85%)	12 (15%)	3	8
18	1W	90/92 (98%)	86 (96%)	4 (4%)	25	50
18	2W	90/92 (98%)	82 (91%)	8 (9%)	9	23

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
19	1X	77/78 (99%)	72 (94%)	5 (6%)	15	35
19	2X	77/78 (99%)	72 (94%)	5 (6%)	15	35
20	1Y	85/91 (93%)	74 (87%)	11 (13%)	4	12
20	2Y	85/91 (93%)	79 (93%)	6 (7%)	13	31
21	1Z	135/179 (75%)	117 (87%)	18 (13%)	4	11
21	2Z	137/179 (76%)	115 (84%)	22 (16%)	2	7
22	10	65/67 (97%)	64 (98%)	1 (2%)	57	75
22	20	65/67 (97%)	63 (97%)	2 (3%)	35	60
23	11	80/83 (96%)	71 (89%)	9 (11%)	5	16
23	21	80/83 (96%)	71 (89%)	9 (11%)	5	16
24	12	65/67 (97%)	61 (94%)	4 (6%)	16	37
24	22	65/67 (97%)	61 (94%)	4 (6%)	16	37
25	13	51/52 (98%)	42 (82%)	9 (18%)	2	4
25	23	50/52 (96%)	44 (88%)	6 (12%)	5	14
26	14	59/63 (94%)	50 (85%)	9 (15%)	3	8
26	24	53/63 (84%)	45 (85%)	8 (15%)	3	8
27	15	50/52 (96%)	45 (90%)	5 (10%)	7	19
27	25	50/52 (96%)	46 (92%)	4 (8%)	11	27
28	16	51/52 (98%)	46 (90%)	5 (10%)	7	20
28	26	50/52 (96%)	45 (90%)	5 (10%)	7	19
29	17	41/42 (98%)	37 (90%)	4 (10%)	7	20
29	27	41/42 (98%)	37 (90%)	4 (10%)	7	20
30	18	54/55 (98%)	52 (96%)	2 (4%)	30	55
30	28	54/55 (98%)	51 (94%)	3 (6%)	19	41
31	19	34/34 (100%)	34 (100%)	0	100	100
31	29	34/34 (100%)	33 (97%)	1 (3%)	37	62
33	1b	192/220 (87%)	173 (90%)	19 (10%)	7	19
33	2b	187/220 (85%)	161 (86%)	26 (14%)	3	9
34	1c	142/188 (76%)	128 (90%)	14 (10%)	7	19
34	2c	140/188 (74%)	128 (91%)	12 (9%)	10	24
35	1d	169/181 (93%)	157 (93%)	12 (7%)	13	31

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
35	2d	173/181 (96%)	158 (91%)	15 (9%)	9	24
36	1e	113/123 (92%)	101 (89%)	12 (11%)	6	18
36	2e	114/123 (93%)	106 (93%)	8 (7%)	14	32
37	1f	84/90 (93%)	79 (94%)	5 (6%)	17	38
37	2f	85/90 (94%)	79 (93%)	6 (7%)	13	31
38	1g	119/127 (94%)	111 (93%)	8 (7%)	15	34
38	2g	120/127 (94%)	112 (93%)	8 (7%)	15	34
39	1h	114/119 (96%)	104 (91%)	10 (9%)	9	23
39	2h	114/119 (96%)	106 (93%)	8 (7%)	14	32
40	1i	90/99 (91%)	80 (89%)	10 (11%)	6	16
40	2i	89/99 (90%)	76 (85%)	13 (15%)	3	8
41	1j	66/92 (72%)	56 (85%)	10 (15%)	3	8
41	2j	69/92 (75%)	63 (91%)	6 (9%)	9	24
42	1k	82/99 (83%)	72 (88%)	10 (12%)	5	13
42	2k	83/99 (84%)	75 (90%)	8 (10%)	8	21
43	1l	96/108 (89%)	86 (90%)	10 (10%)	7	18
43	2l	96/108 (89%)	87 (91%)	9 (9%)	8	21
44	1m	93/101 (92%)	82 (88%)	11 (12%)	5	14
44	2m	92/101 (91%)	82 (89%)	10 (11%)	6	17
45	1n	49/50 (98%)	39 (80%)	10 (20%)	1	2
45	2n	49/50 (98%)	45 (92%)	4 (8%)	10	26
46	1o	78/80 (98%)	72 (92%)	6 (8%)	12	28
46	2o	78/80 (98%)	71 (91%)	7 (9%)	9	23
47	1p	69/74 (93%)	58 (84%)	11 (16%)	2	7
47	2p	68/74 (92%)	58 (85%)	10 (15%)	3	8
48	1q	94/97 (97%)	86 (92%)	8 (8%)	10	24
48	2q	94/97 (97%)	87 (93%)	7 (7%)	13	30
49	1r	59/77 (77%)	52 (88%)	7 (12%)	5	14
49	2r	59/77 (77%)	53 (90%)	6 (10%)	7	19
50	1s	69/80 (86%)	63 (91%)	6 (9%)	9	24
50	2s	67/80 (84%)	58 (87%)	9 (13%)	4	10

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
51	1t	70/82 (85%)	68 (97%)	2 (3%)	37	62
51	2t	70/82 (85%)	66 (94%)	4 (6%)	18	41
52	1u	18/22 (82%)	17 (94%)	1 (6%)	19	41
52	2u	18/22 (82%)	18 (100%)	0	100	100
All	All	9303/10064 (92%)	8370 (90%)	933 (10%)	7	19

All (933) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	27	THR
3	1D	61	LEU
3	1D	71	ASP
3	1D	106	ILE
3	1D	113	VAL
3	1D	131	LEU
3	1D	162	SER
3	1D	173	VAL
3	1D	182	LEU
3	1D	193	VAL
3	1D	206	LEU
3	1D	211	ARG
3	1D	217	ARG
3	1D	221	VAL
3	1D	229	VAL
3	1D	242	ARG
3	1D	257	LEU
3	1D	266	SER
4	1E	7	VAL
4	1E	9	VAL
4	1E	21	VAL
4	1E	23	VAL
4	1E	24	THR
4	1E	33	VAL
4	1E	34	VAL
4	1E	47	VAL
4	1E	49	LEU
4	1E	73	GLU
4	1E	75	VAL
4	1E	78	LEU
4	1E	90	THR
4	1E	102	VAL

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Mol	Chain	Res	Type
4	1E	116	VAL
4	1E	119	ARG
4	1E	137	HIS
4	1E	160	TYR
4	1E	163	GLU
4	1E	167	VAL
4	1E	173	VAL
4	1E	175	VAL
4	1E	178	GLU
4	1E	181	LEU
4	1E	184	VAL
5	1F	18	ARG
5	1F	28	ILE
5	1F	33	LEU
5	1F	57	VAL
5	1F	70	THR
5	1F	72	ARG
5	1F	74	ARG
5	1F	88	VAL
5	1F	106	ARG
5	1F	125	LEU
5	1F	170	LEU
5	1F	181	LEU
5	1F	183	VAL
5	1F	192	LEU
5	1F	195	ASP
5	1F	201	VAL
6	1G	5	VAL
6	1G	7	LEU
6	1G	21	ARG
6	1G	28	VAL
6	1G	31	VAL
6	1G	35	GLU
6	1G	43	LEU
6	1G	60	LEU
6	1G	70	VAL
6	1G	77	ILE
6	1G	79	ASN
6	1G	82	LEU
6	1G	133	LEU
6	1G	135	LEU
6	1G	139	LEU

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Mol	Chain	Res	Type
6	1G	145	THR
6	1G	149	VAL
6	1G	159	VAL
6	1G	175	LEU
7	1H	15	VAL
7	1H	23	ARG
7	1H	24	VAL
7	1H	30	LYS
7	1H	33	LEU
7	1H	44	VAL
7	1H	45	VAL
7	1H	49	VAL
7	1H	51	ARG
7	1H	56	SER
7	1H	84	SER
7	1H	113	VAL
7	1H	122	THR
7	1H	129	THR
7	1H	134	SER
7	1H	139	GLN
8	1I	9	LEU
8	1I	12	LEU
8	1I	15	VAL
8	1I	40	THR
8	1I	47	LEU
8	1I	74	ASN
8	1I	77	LEU
8	1I	81	VAL
8	1I	87	LYS
8	1I	92	VAL
8	1I	108	THR
8	1I	109	ILE
8	1I	117	GLU
8	1I	123	LEU
8	1I	140	LEU
8	1I	142	VAL
8	1I	144	VAL
8	1I	145	VAL
9	1N	28	THR
9	1N	32	THR
9	1N	33	LEU
9	1N	34	LEU

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Mol	Chain	Res	Type
9	1N	39	ARG
9	1N	46	VAL
9	1N	48	MET
9	1N	53	VAL
9	1N	55	VAL
9	1N	67	LEU
9	1N	88	GLU
9	1N	99	LEU
10	1O	10	VAL
10	1O	23	ARG
10	1O	24	VAL
10	1O	77	ILE
10	1O	80	ASP
10	1O	98	VAL
10	1O	114	ILE
11	1P	59	LEU
11	1P	61	ARG
11	1P	83	VAL
11	1P	95	VAL
11	1P	101	VAL
11	1P	105	LEU
11	1P	112	LEU
11	1P	114	ILE
11	1P	125	VAL
11	1P	126	VAL
11	1P	133	SER
11	1P	135	LEU
11	1P	148	LEU
12	1Q	1	MET
12	1Q	27	VAL
12	1Q	35	VAL
12	1Q	56	ARG
12	1Q	64	ILE
12	1Q	75	THR
12	1Q	81	VAL
12	1Q	102	VAL
12	1Q	109	VAL
12	1Q	110	THR
13	1R	6	SER
13	1R	8	ARG
13	1R	24	GLN
13	1R	29	LEU

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Mol	Chain	Res	Type
13	1R	44	LEU
13	1R	54	LEU
13	1R	64	ARG
13	1R	65	LEU
13	1R	67	LEU
13	1R	75	LEU
13	1R	79	LEU
13	1R	95	THR
13	1R	100	LEU
13	1R	111	LEU
13	1R	114	VAL
14	1S	4	LEU
14	1S	8	GLU
14	1S	14	VAL
14	1S	25	ARG
14	1S	36	TYR
14	1S	49	VAL
14	1S	50	SER
14	1S	68	GLN
14	1S	69	VAL
14	1S	85	VAL
14	1S	110	LEU
15	1T	28	VAL
15	1T	49	VAL
15	1T	51	ARG
15	1T	70	VAL
15	1T	89	VAL
15	1T	96	ARG
15	1T	128	GLU
16	1U	5	LYS
16	1U	95	LEU
17	1V	7	THR
17	1V	32	THR
17	1V	35	LEU
17	1V	40	LEU
17	1V	46	VAL
17	1V	51	VAL
17	1V	52	VAL
17	1V	61	VAL
17	1V	62	LEU
17	1V	72	VAL
17	1V	73	SER

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Mol	Chain	Res	Type
17	1V	79	VAL
17	1V	82	ARG
17	1V	95	LEU
18	1W	2	GLU
18	1W	17	VAL
18	1W	28	SER
18	1W	107	LEU
19	1X	43	VAL
19	1X	52	VAL
19	1X	81	VAL
19	1X	88	LYS
19	1X	92	LEU
20	1Y	1	MET
20	1Y	9	LYS
20	1Y	11	ASP
20	1Y	23	ARG
20	1Y	38	ILE
20	1Y	43	ASN
20	1Y	49	VAL
20	1Y	55	TYR
20	1Y	61	ILE
20	1Y	72	VAL
20	1Y	90	LEU
21	1Z	1	MET
21	1Z	18	LEU
21	1Z	33	LEU
21	1Z	37	VAL
21	1Z	39	VAL
21	1Z	52	SER
21	1Z	56	VAL
21	1Z	71	VAL
21	1Z	81	ARG
21	1Z	91	LEU
21	1Z	102	LEU
21	1Z	132	ASN
21	1Z	154	ASP
21	1Z	155	LEU
21	1Z	161	VAL
21	1Z	169	GLU
21	1Z	170	THR
21	1Z	171	ILE
22	10	14	ARG

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Mol	Chain	Res	Type
23	11	3	LYS
23	11	14	VAL
23	11	30	VAL
23	11	37	ILE
23	11	59	THR
23	11	62	VAL
23	11	80	LEU
23	11	83	GLU
23	11	95	LEU
24	12	3	LEU
24	12	19	VAL
24	12	30	ARG
24	12	62	THR
25	13	6	VAL
25	13	7	LYS
25	13	31	LEU
25	13	34	GLU
25	13	35	ARG
25	13	36	VAL
25	13	54	VAL
25	13	56	VAL
25	13	58	VAL
26	14	1	MET
26	14	23	GLU
26	14	28	LYS
26	14	49	PHE
26	14	50	VAL
26	14	53	GLU
26	14	56	VAL
26	14	60	GLN
26	14	66	SER
27	15	6	VAL
27	15	16	ARG
27	15	29	THR
27	15	57	VAL
27	15	58	LEU
28	16	6	ARG
28	16	9	LEU
28	16	47	THR
28	16	48	VAL
28	16	51	GLU
29	17	24	THR

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Mol	Chain	Res	Type
29	17	41	ARG
29	17	43	THR
29	17	46	VAL
30	18	6	THR
30	18	50	LEU
33	1b	8	LYS
33	1b	67	THR
33	1b	74	LYS
33	1b	80	ILE
33	1b	81	VAL
33	1b	83	MET
33	1b	93	VAL
33	1b	94	ASN
33	1b	96	ARG
33	1b	108	ILE
33	1b	111	ARG
33	1b	112	VAL
33	1b	122	PHE
33	1b	126	GLU
33	1b	170	GLU
33	1b	185	ILE
33	1b	208	ILE
33	1b	214	ILE
33	1b	223	ILE
34	1c	3	ASN
34	1c	15	THR
34	1c	17	ASP
34	1c	21	ARG
34	1c	49	SER
34	1c	70	VAL
34	1c	77	ILE
34	1c	91	LEU
34	1c	110	ASN
34	1c	115	LEU
34	1c	127	ARG
34	1c	192	THR
34	1c	195	VAL
34	1c	206	GLU
35	1d	5	ILE
35	1d	19	LEU
35	1d	49	ARG
35	1d	83	SER

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Mol	Chain	Res	Type
35	1d	91	SER
35	1d	135	LEU
35	1d	155	LEU
35	1d	158	ILE
35	1d	170	VAL
35	1d	178	VAL
35	1d	194	LEU
35	1d	204	ILE
36	1e	12	LEU
36	1e	18	ARG
36	1e	31	LEU
36	1e	41	VAL
36	1e	47	LYS
36	1e	75	THR
36	1e	80	ILE
36	1e	81	GLU
36	1e	91	LEU
36	1e	109	ILE
36	1e	131	ILE
36	1e	152	ARG
37	1f	1	MET
37	1f	19	LEU
37	1f	40	VAL
37	1f	55	ASP
37	1f	72	VAL
38	1g	8	GLU
38	1g	12	LEU
38	1g	16	LEU
38	1g	66	VAL
38	1g	79	ARG
38	1g	91	VAL
38	1g	104	LEU
38	1g	113	GLU
39	1h	26	VAL
39	1h	51	VAL
39	1h	52	ASP
39	1h	68	ARG
39	1h	80	ILE
39	1h	83	ILE
39	1h	97	VAL
39	1h	104	ARG
39	1h	127	LEU

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Mol	Chain	Res	Type
39	1h	133	LEU
40	1i	23	ASN
40	1i	64	THR
40	1i	83	ARG
40	1i	89	ASN
40	1i	92	TYR
40	1i	96	LEU
40	1i	108	VAL
40	1i	109	VAL
40	1i	113	LYS
40	1i	128	ARG
41	1j	8	LEU
41	1j	17	ASP
41	1j	34	VAL
41	1j	35	SER
41	1j	38	ILE
41	1j	44	VAL
41	1j	49	VAL
41	1j	58	ASP
41	1j	72	VAL
41	1j	98	ILE
42	1k	16	SER
42	1k	26	ASN
42	1k	31	THR
42	1k	33	THR
42	1k	48	ILE
42	1k	109	VAL
42	1k	112	THR
42	1k	114	VAL
42	1k	117	ASN
42	1k	123	LYS
43	1l	27	LEU
43	1l	36	VAL
43	1l	37	CYS
43	1l	40	VAL
43	1l	43	VAL
43	1l	52	LEU
43	1l	70	ILE
43	1l	83	VAL
43	1l	96	VAL
43	1l	117	ARG
44	1m	4	ILE

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Mol	Chain	Res	Type
44	1m	14	ARG
44	1m	16	ASP
44	1m	17	VAL
44	1m	19	LEU
44	1m	47	ASP
44	1m	70	LEU
44	1m	74	VAL
44	1m	102	ARG
44	1m	105	THR
44	1m	122	LYS
45	1n	3	ARG
45	1n	6	LEU
45	1n	7	ILE
45	1n	13	THR
45	1n	18	VAL
45	1n	22	THR
45	1n	23	ARG
45	1n	32	SER
45	1n	33	VAL
45	1n	45	ARG
46	1o	6	GLU
46	1o	7	GLU
46	1o	21	ASP
46	1o	39	LEU
46	1o	77	ARG
46	1o	87	ILE
47	1p	1	MET
47	1p	2	VAL
47	1p	11	SER
47	1p	19	ILE
47	1p	20	VAL
47	1p	21	VAL
47	1p	33	ILE
47	1p	45	THR
47	1p	61	SER
47	1p	62	VAL
47	1p	79	VAL
48	1q	4	LYS
48	1q	9	VAL
48	1q	35	VAL
48	1q	53	LEU
48	1q	66	SER

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Mol	Chain	Res	Type
48	1q	68	ARG
48	1q	79	SER
48	1q	97	SER
49	1r	26	LEU
49	1r	31	LEU
49	1r	47	THR
49	1r	56	THR
49	1r	65	ILE
49	1r	76	LEU
49	1r	85	LEU
50	1s	4	SER
50	1s	32	LYS
50	1s	41	VAL
50	1s	48	THR
50	1s	77	THR
50	1s	79	THR
51	1t	13	LEU
51	1t	42	GLN
52	1u	20	LYS
3	2D	10	THR
3	2D	54	ARG
3	2D	61	LEU
3	2D	71	ASP
3	2D	75	ILE
3	2D	83	GLU
3	2D	89	SER
3	2D	94	LEU
3	2D	105	ILE
3	2D	106	ILE
3	2D	113	VAL
3	2D	134	ARG
3	2D	138	VAL
3	2D	142	VAL
3	2D	157	ARG
3	2D	169	GLU
3	2D	183	ARG
3	2D	204	ILE
3	2D	211	ARG
3	2D	221	VAL
3	2D	229	VAL
3	2D	237	GLU
3	2D	242	ARG

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Mol	Chain	Res	Type
3	2D	276	LYS
4	2E	7	VAL
4	2E	9	VAL
4	2E	12	THR
4	2E	21	VAL
4	2E	34	VAL
4	2E	38	THR
4	2E	45	THR
4	2E	52	LEU
4	2E	75	VAL
4	2E	82	ARG
4	2E	101	ARG
4	2E	116	VAL
4	2E	170	LEU
4	2E	173	VAL
4	2E	175	VAL
4	2E	181	LEU
5	2F	15	SER
5	2F	18	ARG
5	2F	20	LEU
5	2F	28	ILE
5	2F	33	LEU
5	2F	53	THR
5	2F	88	VAL
5	2F	105	VAL
5	2F	106	ARG
5	2F	144	LYS
5	2F	170	LEU
5	2F	183	VAL
5	2F	192	LEU
5	2F	201	VAL
6	2G	3	LEU
6	2G	5	VAL
6	2G	26	GLN
6	2G	27	ASN
6	2G	28	VAL
6	2G	31	VAL
6	2G	35	GLU
6	2G	43	LEU
6	2G	45	GLU
6	2G	53	LEU
6	2G	60	LEU

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Mol	Chain	Res	Type
6	2G	70	VAL
6	2G	79	ASN
6	2G	88	ILE
6	2G	91	ARG
6	2G	92	VAL
6	2G	113	ARG
6	2G	135	LEU
6	2G	139	LEU
6	2G	140	ILE
6	2G	145	THR
6	2G	152	LEU
6	2G	159	VAL
6	2G	167	GLU
6	2G	174	GLU
7	2H	3	ARG
7	2H	63	SER
7	2H	70	THR
7	2H	84	SER
7	2H	171	LEU
8	2I	15	VAL
8	2I	38	LEU
8	2I	43	ASN
8	2I	47	LEU
8	2I	51	ILE
8	2I	52	ARG
8	2I	58	LEU
8	2I	78	THR
8	2I	87	LYS
8	2I	92	VAL
8	2I	101	LEU
8	2I	123	LEU
8	2I	127	VAL
8	2I	142	VAL
8	2I	144	VAL
9	2N	14	VAL
9	2N	28	THR
9	2N	33	LEU
9	2N	34	LEU
9	2N	38	HIS
9	2N	43	THR
9	2N	46	VAL
9	2N	58	ASP

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Mol	Chain	Res	Type
9	2N	60	ILE
9	2N	62	VAL
9	2N	67	LEU
9	2N	87	LEU
9	2N	99	LEU
9	2N	140	VAL
10	2O	3	GLN
10	2O	8	LEU
10	2O	10	VAL
10	2O	47	ILE
10	2O	52	VAL
10	2O	63	VAL
10	2O	69	ILE
10	2O	75	SER
10	2O	77	ILE
10	2O	78	ARG
10	2O	91	LEU
10	2O	98	VAL
11	2P	7	ARG
11	2P	30	THR
11	2P	42	SER
11	2P	45	LEU
11	2P	56	SER
11	2P	57	THR
11	2P	58	THR
11	2P	75	ILE
11	2P	83	VAL
11	2P	95	VAL
11	2P	100	LEU
11	2P	112	LEU
11	2P	133	SER
11	2P	135	LEU
11	2P	148	LEU
12	2Q	1	MET
12	2Q	2	LEU
12	2Q	11	LYS
12	2Q	16	ARG
12	2Q	21	THR
12	2Q	22	LYS
12	2Q	35	VAL
12	2Q	38	GLU
12	2Q	55	VAL

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Mol	Chain	Res	Type
12	2Q	109	VAL
12	2Q	110	THR
12	2Q	127	ILE
12	2Q	132	VAL
12	2Q	139	GLU
13	2R	18	LEU
13	2R	27	SER
13	2R	29	LEU
13	2R	44	LEU
13	2R	54	LEU
13	2R	60	LEU
13	2R	65	LEU
13	2R	100	LEU
13	2R	111	LEU
13	2R	113	LEU
13	2R	114	VAL
13	2R	118	GLU
14	2S	8	GLU
14	2S	15	ARG
14	2S	21	THR
14	2S	35	ILE
14	2S	36	TYR
14	2S	52	SER
14	2S	58	LEU
14	2S	69	VAL
14	2S	78	LEU
14	2S	110	LEU
15	2T	6	LEU
15	2T	13	ARG
15	2T	51	ARG
15	2T	74	ARG
15	2T	88	ILE
15	2T	96	ARG
15	2T	108	ARG
16	2U	55	ARG
16	2U	60	LEU
16	2U	74	LEU
16	2U	95	LEU
17	2V	7	THR
17	2V	33	VAL
17	2V	43	GLU
17	2V	46	VAL

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Mol	Chain	Res	Type
17	2V	51	VAL
17	2V	61	VAL
17	2V	62	LEU
17	2V	71	LEU
17	2V	72	VAL
17	2V	79	VAL
17	2V	82	ARG
17	2V	95	LEU
18	2W	1	MET
18	2W	17	VAL
18	2W	23	LEU
18	2W	28	SER
18	2W	67	ASP
18	2W	100	THR
18	2W	106	ILE
18	2W	107	LEU
19	2X	1	MET
19	2X	35	THR
19	2X	76	ARG
19	2X	81	VAL
19	2X	83	VAL
20	2Y	3	VAL
20	2Y	38	ILE
20	2Y	49	VAL
20	2Y	72	VAL
20	2Y	90	LEU
20	2Y	99	CYS
21	2Z	5	LEU
21	2Z	14	LYS
21	2Z	18	LEU
21	2Z	19	ARG
21	2Z	24	LEU
21	2Z	33	LEU
21	2Z	41	LEU
21	2Z	72	ARG
21	2Z	76	LEU
21	2Z	86	VAL
21	2Z	91	LEU
21	2Z	96	VAL
21	2Z	98	MET
21	2Z	128	VAL
21	2Z	135	GLU

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Mol	Chain	Res	Type
21	2Z	137	ILE
21	2Z	144	LEU
21	2Z	150	LEU
21	2Z	154	ASP
21	2Z	161	VAL
21	2Z	170	THR
21	2Z	171	ILE
22	20	10	THR
22	20	62	LEU
23	21	4	VAL
23	21	13	ILE
23	21	37	ILE
23	21	38	SER
23	21	39	LYS
23	21	51	VAL
23	21	76	ARG
23	21	89	GLU
23	21	95	LEU
24	22	4	SER
24	22	41	ILE
24	22	53	LEU
24	22	70	GLN
25	23	23	LEU
25	23	30	ARG
25	23	31	LEU
25	23	37	LEU
25	23	40	THR
25	23	54	VAL
26	24	10	VAL
26	24	27	THR
26	24	33	VAL
26	24	34	GLU
26	24	50	VAL
26	24	59	PHE
26	24	60	GLN
26	24	63	TYR
27	25	6	VAL
27	25	16	ARG
27	25	29	THR
27	25	58	LEU
28	26	6	ARG
28	26	9	LEU

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Mol	Chain	Res	Type
28	26	13	CYS
28	26	44	ARG
28	26	48	VAL
29	27	29	LYS
29	27	39	ARG
29	27	41	ARG
29	27	43	THR
30	28	15	LYS
30	28	32	LEU
30	28	49	VAL
31	29	6	SER
33	2b	7	VAL
33	2b	11	LEU
33	2b	23	ARG
33	2b	47	THR
33	2b	48	MET
33	2b	49	GLU
33	2b	56	ARG
33	2b	67	THR
33	2b	74	LYS
33	2b	87	ARG
33	2b	94	ASN
33	2b	117	GLU
33	2b	126	GLU
33	2b	127	ILE
33	2b	135	GLN
33	2b	140	HIS
33	2b	144	ARG
33	2b	168	THR
33	2b	178	ARG
33	2b	179	LYS
33	2b	190	THR
33	2b	192	SER
33	2b	195	ASP
33	2b	208	ILE
33	2b	219	VAL
33	2b	221	LEU
34	2c	32	LEU
34	2c	34	LEU
34	2c	39	ILE
34	2c	47	LEU
34	2c	49	SER

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Mol	Chain	Res	Type
34	2c	57	ILE
34	2c	70	VAL
34	2c	89	GLU
34	2c	164	ARG
34	2c	166	GLU
34	2c	190	ARG
34	2c	198	VAL
35	2d	10	ARG
35	2d	31	CYS
35	2d	45	GLN
35	2d	76	ARG
35	2d	83	SER
35	2d	86	LYS
35	2d	107	ARG
35	2d	135	LEU
35	2d	150	GLU
35	2d	155	LEU
35	2d	158	ILE
35	2d	170	VAL
35	2d	175	SER
35	2d	205	GLU
35	2d	208	SER
36	2e	13	ILE
36	2e	32	VAL
36	2e	41	VAL
36	2e	55	VAL
36	2e	75	THR
36	2e	90	VAL
36	2e	91	LEU
36	2e	120	THR
37	2f	21	LEU
37	2f	43	LEU
37	2f	45	LEU
37	2f	61	LEU
37	2f	69	GLU
37	2f	72	VAL
38	2g	9	VAL
38	2g	30	ILE
38	2g	38	LEU
38	2g	52	GLU
38	2g	90	GLU
38	2g	98	SER

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Mol	Chain	Res	Type
38	2g	113	GLU
38	2g	135	VAL
39	2h	2	LEU
39	2h	3	THR
39	2h	23	SER
39	2h	39	LEU
39	2h	51	VAL
39	2h	83	ILE
39	2h	91	ARG
39	2h	137	VAL
40	2i	9	ARG
40	2i	27	THR
40	2i	34	ASN
40	2i	47	LEU
40	2i	50	LEU
40	2i	53	VAL
40	2i	65	VAL
40	2i	86	VAL
40	2i	89	ASN
40	2i	93	ARG
40	2i	102	LEU
40	2i	107	ARG
40	2i	108	VAL
41	2j	8	LEU
41	2j	23	ILE
41	2j	49	VAL
41	2j	74	ILE
41	2j	98	ILE
41	2j	100	THR
42	2k	14	VAL
42	2k	24	SER
42	2k	26	ASN
42	2k	30	VAL
42	2k	66	LEU
42	2k	82	VAL
42	2k	84	VAL
42	2k	109	VAL
43	2l	18	VAL
43	2l	24	VAL
43	2l	27	LEU
43	2l	33	ARG
43	2l	52	LEU

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Mol	Chain	Res	Type
43	2l	83	VAL
43	2l	97	ARG
43	2l	112	ASP
43	2l	123	LYS
44	2m	15	VAL
44	2m	19	LEU
44	2m	27	LYS
44	2m	47	ASP
44	2m	64	TRP
44	2m	65	LYS
44	2m	90	LEU
44	2m	93	ARG
44	2m	103	THR
44	2m	106	ASN
45	2n	22	THR
45	2n	32	SER
45	2n	33	VAL
45	2n	56	VAL
46	2o	3	ILE
46	2o	5	LYS
46	2o	39	LEU
46	2o	54	ARG
46	2o	66	LEU
46	2o	83	GLU
46	2o	87	ILE
47	2p	2	VAL
47	2p	6	LEU
47	2p	20	VAL
47	2p	21	VAL
47	2p	42	ARG
47	2p	54	GLU
47	2p	60	LEU
47	2p	62	VAL
47	2p	67	THR
47	2p	69	THR
48	2q	6	LEU
48	2q	21	VAL
48	2q	35	VAL
48	2q	36	ILE
48	2q	53	LEU
48	2q	76	LEU
48	2q	83	ASP

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Mol	Chain	Res	Type
49	2r	26	LEU
49	2r	37	VAL
49	2r	47	THR
49	2r	54	ARG
49	2r	59	SER
49	2r	85	LEU
50	2s	12	ASP
50	2s	16	LEU
50	2s	30	LEU
50	2s	33	THR
50	2s	41	VAL
50	2s	48	THR
50	2s	49	ILE
50	2s	65	ASN
50	2s	77	THR
51	2t	24	LEU
51	2t	41	ILE
51	2t	72	LEU
51	2t	75	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (160) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	116	GLN
3	1D	126	GLN
3	1D	201	HIS
3	1D	227	ASN
4	1E	48	GLN
4	1E	85	ASN
4	1E	121	ASN
4	1E	132	HIS
5	1F	69	HIS
5	1F	203	GLN
6	1G	26	GLN
6	1G	40	ASN
7	1H	139	GLN
7	1H	147	ASN
8	1I	105	HIS
9	1N	128	HIS
10	1O	5	GLN
11	1P	27	HIS
11	1P	84	ASN

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Mol	Chain	Res	Type
12	1Q	57	HIS
12	1Q	89	ASN
12	1Q	123	HIS
13	1R	24	GLN
13	1R	50	HIS
13	1R	71	GLN
14	1S	61	ASN
14	1S	68	GLN
14	1S	95	HIS
15	1T	58	ASN
15	1T	84	GLN
19	1X	31	HIS
19	1X	82	GLN
21	1Z	34	ASN
21	1Z	54	HIS
21	1Z	132	ASN
21	1Z	151	HIS
23	11	16	ASN
23	11	56	GLN
24	12	38	GLN
24	12	56	GLN
25	13	32	GLN
27	15	23	HIS
30	18	35	GLN
31	19	32	HIS
33	1b	40	HIS
33	1b	78	GLN
33	1b	94	ASN
33	1b	140	HIS
33	1b	212	GLN
34	1c	6	HIS
34	1c	108	ASN
34	1c	118	GLN
34	1c	162	GLN
35	1d	42	GLN
35	1d	43	HIS
35	1d	77	ASN
35	1d	116	GLN
35	1d	119	GLN
35	1d	123	HIS
36	1e	78	HIS
36	1e	141	GLN

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Mol	Chain	Res	Type
37	1f	100	ASN
38	1g	13	GLN
38	1g	28	ASN
38	1g	51	GLN
40	1i	23	ASN
40	1i	31	GLN
40	1i	73	GLN
40	1i	117	HIS
40	1i	124	GLN
42	1k	116	HIS
43	1l	99	HIS
44	1m	12	ASN
47	1p	16	HIS
48	1q	26	GLN
50	1s	69	HIS
50	1s	83	HIS
51	1t	16	HIS
51	1t	42	GLN
51	1t	73	HIS
51	1t	75	ASN
3	2D	227	ASN
4	2E	35	GLN
5	2F	69	HIS
5	2F	75	HIS
5	2F	160	ASN
5	2F	203	GLN
9	2N	56	ASN
9	2N	94	HIS
9	2N	101	HIS
9	2N	131	GLN
10	2O	5	GLN
12	2Q	12	GLN
12	2Q	13	GLN
12	2Q	89	ASN
13	2R	61	HIS
13	2R	71	GLN
14	2S	38	GLN
14	2S	68	GLN
15	2T	43	GLN
15	2T	84	GLN
15	2T	123	GLN
16	2U	72	HIS

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Mol	Chain	Res	Type
17	2V	64	HIS
19	2X	31	HIS
20	2Y	6	HIS
21	2Z	32	HIS
21	2Z	34	ASN
21	2Z	73	GLN
21	2Z	121	HIS
23	21	56	GLN
24	22	38	GLN
24	22	70	GLN
26	24	40	HIS
26	24	46	GLN
33	2b	40	HIS
33	2b	78	GLN
33	2b	95	GLN
33	2b	140	HIS
33	2b	212	GLN
34	2c	6	HIS
34	2c	37	GLN
34	2c	108	ASN
34	2c	162	GLN
34	2c	181	ASN
35	2d	45	GLN
35	2d	77	ASN
35	2d	116	GLN
35	2d	119	GLN
35	2d	123	HIS
35	2d	125	HIS
35	2d	161	ASN
35	2d	201	GLN
36	2e	78	HIS
36	2e	141	GLN
37	2f	13	ASN
37	2f	64	GLN
37	2f	73	ASN
38	2g	37	ASN
38	2g	86	GLN
38	2g	122	HIS
38	2g	148	ASN
39	2h	82	HIS
40	2i	3	GLN
40	2i	124	GLN

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Mol	Chain	Res	Type
41	2j	13	HIS
41	2j	68	HIS
42	2k	22	HIS
43	2l	78	GLN
43	2l	80	HIS
44	2m	77	ASN
46	2o	28	GLN
49	2r	63	GLN
50	2s	23	ASN
50	2s	47	HIS
50	2s	69	HIS
51	2t	16	HIS
51	2t	73	HIS
51	2t	75	ASN
51	2t	90	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2863/2915 (98%)	461 (16%)	36 (1%)
1	2A	2791/2915 (95%)	518 (18%)	26 (0%)
2	1B	120/121 (99%)	14 (11%)	1 (0%)
2	2B	118/121 (97%)	28 (23%)	0
32	1a	1497/1521 (98%)	256 (17%)	0
32	2a	1501/1521 (98%)	280 (18%)	0
53	1v	12/24 (50%)	2 (16%)	0
53	2v	12/24 (50%)	2 (16%)	0
54	1w	72/76 (94%)	21 (29%)	0
54	1y	72/76 (94%)	24 (33%)	0
54	2w	69/76 (90%)	23 (33%)	0
54	2y	70/76 (92%)	24 (34%)	0
55	1x	75/77 (97%)	12 (16%)	0
55	2x	75/77 (97%)	14 (18%)	0
All	All	9347/9620 (97%)	1679 (17%)	63 (0%)

All (1679) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	12	U
1	1A	15	G
1	1A	34	C

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Mol	Chain	Res	Type
1	1A	45	C
1	1A	48	A
1	1A	54	G
1	1A	57	G
1	1A	60	G
1	1A	70	A
1	1A	71	U
1	1A	73	A
1	1A	74	G
1	1A	83	A
1	1A	94	G
1	1A	110	U
1	1A	116	A
1	1A	117	A
1	1A	118	U
1	1A	123	G
1	1A	137	G
1	1A	177	G
1	1A	185	A
1	1A	188	A
1	1A	189	U
1	1A	194	G
1	1A	203	G
1	1A	204	G
1	1A	205	A
1	1A	211	A
1	1A	214	A
1	1A	217	A
1	1A	218	A
1	1A	222	A
1	1A	237	G
1	1A	238	C
1	1A	250	G
1	1A	258	U
1	1A	272	U
1	1A	273	G
1	1A	274	U
1	1A	278	G
1	1A	289	G
1	1A	296	U
1	1A	303	C
1	1A	309	C

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Mol	Chain	Res	Type
1	1A	335	A
1	1A	353	G
1	1A	354	A
1	1A	376	G
1	1A	387	G
1	1A	388	A
1	1A	389	G
1	1A	397	G
1	1A	407	U
1	1A	413	G
1	1A	423	G
1	1A	432	U
1	1A	438	G
1	1A	455	A
1	1A	470	C
1	1A	474	U
1	1A	480	A
1	1A	482	C
1	1A	483	A
1	1A	493	G
1	1A	507	G
1	1A	529	U
1	1A	530	A
1	1A	534	C
1	1A	555	G
1	1A	556	C
1	1A	557	A
1	1A	558	G
1	1A	569	G
1	1A	573	G
1	1A	586	G
1	1A	590	A
1	1A	591	U
1	1A	596	G
1	1A	598	A
1	1A	609	A
1	1A	616	G
1	1A	626	A
1	1A	627	G
1	1A	630	U
1	1A	637	U
1	1A	638	U

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Mol	Chain	Res	Type
1	1A	639	G
1	1A	641	G
1	1A	652	A
1	1A	662	A
1	1A	671	A
1	1A	693	G
1	1A	697	C
1	1A	716	G
1	1A	733	G
1	1A	777	C
1	1A	811	A
1	1A	822	G
1	1A	823	G
1	1A	826	U
1	1A	829	A
1	1A	831	A
1	1A	832	G
1	1A	836	A
1	1A	837	C
1	1A	839	G
1	1A	852	G
1	1A	857	U
1	1A	859	C
1	1A	866	A
1	1A	874	U
1	1A	875	U
1	1A	902	G
1	1A	906	G
1	1A	921	G
1	1A	926	G
1	1A	927	G
1	1A	931	C
1	1A	932	C
1	1A	933	C
1	1A	934	A
1	1A	935	C
1	1A	936	C
1	1A	937	A
1	1A	942	A
1	1A	943	C
1	1A	944	C
1	1A	946	A

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Mol	Chain	Res	Type
1	1A	953	U
1	1A	956	A
1	1A	972	A
1	1A	977	G
1	1A	983	G
1	1A	990	A
1	1A	991	G
1	1A	998	A
1	1A	1003	U
1	1A	1004	A
1	1A	1006	C
1	1A	1013	G
1	1A	1019	G
1	1A	1020	C
1	1A	1029	A
1	1A	1042	A
1	1A	1051	C
1	1A	1058	U
1	1A	1059	C
1	1A	1068	G
1	1A	1071	G
1	1A	1072	U
1	1A	1073	A
1	1A	1076	G
1	1A	1079	U
1	1A	1084	C
1	1A	1090	G
1	1A	1091	A
1	1A	1092	A
1	1A	1093	G
1	1A	1094	A
1	1A	1100	A
1	1A	1101	G
1	1A	1104	G
1	1A	1112	U
1	1A	1114	G
1	1A	1116	A
1	1A	1117	G
1	1A	1119	A
1	1A	1120	G
1	1A	1121	C
1	1A	1122	C

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Mol	Chain	Res	Type
1	1A	1124	U
1	1A	1125	C
1	1A	1127	U
1	1A	1129	U
1	1A	1132	A
1	1A	1134	A
1	1A	1135	G
1	1A	1136	U
1	1A	1140	U
1	1A	1142	A
1	1A	1147	U
1	1A	1149	A
1	1A	1153	G
1	1A	1154	U
1	1A	1155	C
1	1A	1157	A
1	1A	1158	G
1	1A	1162	C
1	1A	1174	A
1	1A	1176	U
1	1A	1178	A
1	1A	1180	C
1	1A	1181	G
1	1A	1217	G
1	1A	1218	G
1	1A	1219	A
1	1A	1220	U
1	1A	1221	G
1	1A	1222	A
1	1A	1223	C
1	1A	1239	A
1	1A	1256	U
1	1A	1263	C
1	1A	1274	G
1	1A	1275	G
1	1A	1282	G
1	1A	1290	G
1	1A	1296	G
1	1A	1299	A
1	1A	1302	G
1	1A	1317	G
1	1A	1318	A

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Mol	Chain	Res	Type
1	1A	1319	U
1	1A	1346	U
1	1A	1347	A
1	1A	1349	G
1	1A	1384	G
1	1A	1398	U
1	1A	1405	A
1	1A	1406	A
1	1A	1411	A
1	1A	1426	G
1	1A	1430	A
1	1A	1431	G
1	1A	1432	C
1	1A	1441	A
1	1A	1442	U
1	1A	1462	G
1	1A	1463	C
1	1A	1466	U
1	1A	1467	G
1	1A	1468	G
1	1A	1474	C
1	1A	1497	G
1	1A	1502	G
1	1A	1514	C
1	1A	1525	G
1	1A	1529	G
1	1A	1539	C
1	1A	1540	A
1	1A	1546	G
1	1A	1554	A
1	1A	1555	C
1	1A	1556	A
1	1A	1586	G
1	1A	1588	G
1	1A	1590	C
1	1A	1605	A
1	1A	1606	G
1	1A	1613	A
1	1A	1616	A
1	1A	1625	U
1	1A	1627	A
1	1A	1628	G

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Mol	Chain	Res	Type
1	1A	1631	C
1	1A	1632	A
1	1A	1654	A
1	1A	1655	A
1	1A	1694	G
1	1A	1695	C
1	1A	1706	U
1	1A	1711	A
1	1A	1716	A
1	1A	1721	G
1	1A	1742	G
1	1A	1743	G
1	1A	1747	A
1	1A	1748	A
1	1A	1767	A
1	1A	1787	G
1	1A	1793	A
1	1A	1794	G
1	1A	1795	G
1	1A	1804	A
1	1A	1811	A
1	1A	1822	A
1	1A	1831	C
1	1A	1832	G
1	1A	1847	G
1	1A	1870	G
1	1A	1878	A
1	1A	1889	G
1	1A	1892	G
1	1A	1899	A
1	1A	1922	A
1	1A	1924	C
1	1A	1928	G
1	1A	1951	G
1	1A	1952	G
1	1A	1959	A
1	1A	1960	A
1	1A	1963	C
1	1A	1977	U
1	1A	1985	U
1	1A	1986	G
1	1A	1989	C

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Mol	Chain	Res	Type
1	1A	1992	A
1	1A	1993	A
1	1A	1994	A
1	1A	2005	C
1	1A	2006	G
1	1A	2014	G
1	1A	2015	U
1	1A	2019	G
1	1A	2042	A
1	1A	2045	G
1	1A	2053	A
1	1A	2055	A
1	1A	2065	C
1	1A	2074	G
1	1A	2077	C
1	1A	2078	G
1	1A	2082	A
1	1A	2083	G
1	1A	2084	A
1	1A	2091	G
1	1A	2120	U
1	1A	2123	G
1	1A	2127	C
1	1A	2129	C
1	1A	2130	C
1	1A	2132	G
1	1A	2135	U
1	1A	2138	G
1	1A	2142	G
1	1A	2143	G
1	1A	2148	A
1	1A	2149	G
1	1A	2151	C
1	1A	2152	U
1	1A	2153	G
1	1A	2154	U
1	1A	2155	G
1	1A	2156	A
1	1A	2157	A
1	1A	2158	C
1	1A	2162	C
1	1A	2164	C

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Mol	Chain	Res	Type
1	1A	2165	C
1	1A	2166	U
1	1A	2168	C
1	1A	2169	G
1	1A	2172	U
1	1A	2173	G
1	1A	2178	G
1	1A	2179	G
1	1A	2180	A
1	1A	2181	G
1	1A	2187	G
1	1A	2188	G
1	1A	2189	U
1	1A	2193	A
1	1A	2194	U
1	1A	2196	C
1	1A	2200	C
1	1A	2203	G
1	1A	2204	G
1	1A	2206	G
1	1A	2210	C
1	1A	2214	G
1	1A	2220	A
1	1A	2227	G
1	1A	2228	G
1	1A	2229	A
1	1A	2230	U
1	1A	2231	G
1	1A	2237	A
1	1A	2250	G
1	1A	2251	G
1	1A	2281	A
1	1A	2290	A
1	1A	2292	G
1	1A	2295	C
1	1A	2299	A
1	1A	2310	A
1	1A	2317	A
1	1A	2320	G
1	1A	2324	U
1	1A	2332	A
1	1A	2337	G

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Mol	Chain	Res	Type
1	1A	2346	G
1	1A	2347	A
1	1A	2348	A
1	1A	2359	C
1	1A	2362	C
1	1A	2373	A
1	1A	2391	G
1	1A	2395	G
1	1A	2397	C
1	1A	2403	G
1	1A	2417	G
1	1A	2418	U
1	1A	2422	G
1	1A	2437	A
1	1A	2441	G
1	1A	2442	A
1	1A	2443	U
1	1A	2447	A
1	1A	2450	U
1	1A	2451	A
1	1A	2453	C
1	1A	2460	A
1	1A	2481	A
1	1A	2483	C
1	1A	2488	A
1	1A	2490	A
1	1A	2498	G
1	1A	2509	A
1	1A	2514	G
1	1A	2517	G
1	1A	2518	U
1	1A	2519	C
1	1A	2530	A
1	1A	2532	C
1	1A	2541	G
1	1A	2566	U
1	1A	2578	A
1	1A	2579	G
1	1A	2585	C
1	1A	2586	G
1	1A	2594	G
1	1A	2614	A

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Mol	Chain	Res	Type
1	1A	2621	U
1	1A	2623	U
1	1A	2641	A
1	1A	2642	G
1	1A	2666	A
1	1A	2701	U
1	1A	2702	C
1	1A	2714	U
1	1A	2715	C
1	1A	2725	A
1	1A	2726	A
1	1A	2727	G
1	1A	2739	U
1	1A	2745	G
1	1A	2746	A
1	1A	2757	G
1	1A	2770	A
1	1A	2774	G
1	1A	2777	A
1	1A	2778	A
1	1A	2779	G
1	1A	2782	C
1	1A	2791	A
1	1A	2793	G
1	1A	2803	A
1	1A	2804	C
1	1A	2806	G
1	1A	2813	G
1	1A	2828	G
1	1A	2830	A
1	1A	2831	A
1	1A	2845	A
1	1A	2849	G
1	1A	2882	G
1	1A	2890	C
1	1A	2893	A
1	1A	2901	A
1	1A	2903	G
2	1B	2	C
2	1B	13	A
2	1B	15	A
2	1B	21	G

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Mol	Chain	Res	Type
2	1B	25	A
2	1B	29	A
2	1B	33	G
2	1B	42	C
2	1B	45	A
2	1B	56	G
2	1B	73	A
2	1B	85	G
2	1B	106	G
2	1B	110	G
32	1a	7	G
32	1a	9	G
32	1a	32	A
32	1a	39	G
32	1a	47	C
32	1a	48	C
32	1a	51	A
32	1a	52	G
32	1a	54	C
32	1a	61	G
32	1a	73	G
32	1a	79	G
32	1a	91	C
32	1a	98	G
32	1a	101	A
32	1a	116	A
32	1a	121	C
32	1a	131	C
32	1a	143	A
32	1a	163	C
32	1a	174	C
32	1a	189(G)	G
32	1a	189(L)	G
32	1a	195	A
32	1a	197	A
32	1a	201	C
32	1a	202	U
32	1a	203	U
32	1a	204	U
32	1a	216	G
32	1a	219	C
32	1a	223	U

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Mol	Chain	Res	Type
32	1a	227	G
32	1a	233	C
32	1a	243	A
32	1a	247	G
32	1a	251	G
32	1a	258	G
32	1a	266	G
32	1a	267	C
32	1a	289	G
32	1a	301	G
32	1a	328	C
32	1a	332	G
32	1a	342	C
32	1a	344	A
32	1a	345	C
32	1a	348	G
32	1a	351	G
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	367	U
32	1a	372	C
32	1a	373	A
32	1a	384	G
32	1a	397	A
32	1a	398	C
32	1a	406	G
32	1a	412	A
32	1a	413	G
32	1a	421	U
32	1a	423	G
32	1a	424	G
32	1a	429	U
32	1a	430	A
32	1a	439	A
32	1a	442	C
32	1a	452	A
32	1a	461	A
32	1a	480	U
32	1a	485	G
32	1a	496	A
32	1a	498	U

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Mol	Chain	Res	Type
32	1a	505	G
32	1a	509	A
32	1a	510	A
32	1a	511	C
32	1a	518	C
32	1a	531	U
32	1a	532	A
32	1a	533	A
32	1a	536	C
32	1a	544	G
32	1a	547	A
32	1a	550	G
32	1a	559	A
32	1a	561	U
32	1a	562	C
32	1a	568	G
32	1a	572	A
32	1a	573	A
32	1a	576	G
32	1a	577	G
32	1a	596	C
32	1a	607	A
32	1a	616	G
32	1a	630	G
32	1a	653	A
32	1a	665	A
32	1a	671	G
32	1a	687	A
32	1a	688	G
32	1a	694	A
32	1a	695	A
32	1a	723	U
32	1a	731	G
32	1a	734	G
32	1a	747	C
32	1a	749	C
32	1a	752	G
32	1a	753	A
32	1a	755	G
32	1a	777	A
32	1a	792	A
32	1a	793	U

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Mol	Chain	Res	Type
32	1a	794	A
32	1a	815	A
32	1a	816	A
32	1a	817	C
32	1a	821	G
32	1a	828	A
32	1a	833	U
32	1a	834	C
32	1a	840	C
32	1a	841	U
32	1a	851	G
32	1a	858	G
32	1a	859	A
32	1a	860	A
32	1a	870	U
32	1a	885	G
32	1a	902	G
32	1a	914	A
32	1a	926	G
32	1a	927	G
32	1a	934	C
32	1a	935	A
32	1a	936	C
32	1a	960	U
32	1a	961	U
32	1a	968	A
32	1a	969	A
32	1a	971	G
32	1a	972	C
32	1a	974	A
32	1a	975	A
32	1a	976	G
32	1a	977	A
32	1a	982	U
32	1a	992	U
32	1a	993	G
32	1a	997	U
32	1a	1000	U
32	1a	1001(A)	G
32	1a	1003	G
32	1a	1005	A
32	1a	1006	C

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Mol	Chain	Res	Type
32	1a	1009	G
32	1a	1020	U
32	1a	1022	G
32	1a	1023	G
32	1a	1025	U
32	1a	1026	G
32	1a	1027	C
32	1a	1029	C
32	1a	1030	C
32	1a	1030(A)	G
32	1a	1030(C)	G
32	1a	1031	G
32	1a	1033	G
32	1a	1039	C
32	1a	1040	U
32	1a	1044	A
32	1a	1045	C
32	1a	1054	C
32	1a	1056	U
32	1a	1065	U
32	1a	1066	C
32	1a	1068	G
32	1a	1081	G
32	1a	1094	G
32	1a	1095	U
32	1a	1101	A
32	1a	1108	G
32	1a	1122	U
32	1a	1125	U
32	1a	1132	C
32	1a	1134	G
32	1a	1137	C
32	1a	1138	G
32	1a	1139	G
32	1a	1140	C
32	1a	1141	C
32	1a	1146	A
32	1a	1152	A
32	1a	1159	U
32	1a	1181	G
32	1a	1183	A
32	1a	1184	G

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Mol	Chain	Res	Type
32	1a	1196	U
32	1a	1197	G
32	1a	1201	A
32	1a	1202	G
32	1a	1206	G
32	1a	1212	U
32	1a	1213	A
32	1a	1227	A
32	1a	1230	C
32	1a	1236	A
32	1a	1238	A
32	1a	1246	C
32	1a	1256	A
32	1a	1257	U
32	1a	1270	C
32	1a	1275	A
32	1a	1276	G
32	1a	1278	U
32	1a	1279	A
32	1a	1280	A
32	1a	1286	A
32	1a	1287	A
32	1a	1299	A
32	1a	1300	G
32	1a	1302	U
32	1a	1320	C
32	1a	1322	C
32	1a	1338	G
32	1a	1347	G
32	1a	1353	G
32	1a	1363	C
32	1a	1364	U
32	1a	1365	G
32	1a	1370	G
32	1a	1397	C
32	1a	1400	5MC
32	1a	1419	G
32	1a	1433	A
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1442(B)	A
32	1a	1446	U

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Mol	Chain	Res	Type
32	1a	1447	A
32	1a	1456	G
32	1a	1487	G
32	1a	1492	A
32	1a	1497	G
32	1a	1503	A
32	1a	1504	G
32	1a	1506	U
32	1a	1517	G
32	1a	1519	MA6
32	1a	1525	G
32	1a	1529	G
32	1a	1530	G
32	1a	1532	U
53	1v	13	A
53	1v	19	U
54	1w	2	C
54	1w	6	G
54	1w	8	4SU
54	1w	14	A
54	1w	19	G
54	1w	20	U
54	1w	21	A
54	1w	23	A
54	1w	24	G
54	1w	34	G
54	1w	45	U
54	1w	46	7MG
54	1w	47	U
54	1w	48	C
54	1w	50	U
54	1w	62	C
54	1w	63	G
54	1w	68	C
54	1w	70	G
54	1w	73	A
54	1w	74	C
55	1x	6	G
55	1x	9	G
55	1x	18	G
55	1x	20	U
55	1x	21	A

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Mol	Chain	Res	Type
55	1x	25	C
55	1x	32	5MC
55	1x	47	U
55	1x	55	PSU
55	1x	61	C
55	1x	69	C
55	1x	76	A
54	1y	5	G
54	1y	6	G
54	1y	8	4SU
54	1y	9	A
54	1y	13	C
54	1y	19	G
54	1y	20	U
54	1y	21	A
54	1y	23	A
54	1y	35	A
54	1y	44	G
54	1y	45	U
54	1y	46	7MG
54	1y	47	U
54	1y	48	C
54	1y	49	C
54	1y	53	G
54	1y	54	5MU
54	1y	56	C
54	1y	59	U
54	1y	61	C
54	1y	65	G
54	1y	69	G
54	1y	70	G
1	2A	10	G
1	2A	15	G
1	2A	34	C
1	2A	35	G
1	2A	45	C
1	2A	61	G
1	2A	63	U
1	2A	71	A
1	2A	72	U
1	2A	74	A
1	2A	75	G

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Mol	Chain	Res	Type
1	2A	84	A
1	2A	90	U
1	2A	94	C
1	2A	95	G
1	2A	100	G
1	2A	102	G
1	2A	118	A
1	2A	120	U
1	2A	125	G
1	2A	154(A)	C
1	2A	157	U
1	2A	181	A
1	2A	195	A
1	2A	196	A
1	2A	199	A
1	2A	204	A
1	2A	205	G
1	2A	214	G
1	2A	215	G
1	2A	216	A
1	2A	221	A
1	2A	222	A
1	2A	228	A
1	2A	229	A
1	2A	233	A
1	2A	248	G
1	2A	249	C
1	2A	250	G
1	2A	266	G
1	2A	271(J)	C
1	2A	271(K)	U
1	2A	271(L)	U
1	2A	271(M)	G
1	2A	271(N)	U
1	2A	271(O)	C
1	2A	272(B)	G
1	2A	272(I)	U
1	2A	272(J)	C
1	2A	274	G
1	2A	277	C
1	2A	278	A
1	2A	282	A

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Mol	Chain	Res	Type
1	2A	294	A
1	2A	311	A
1	2A	317	G
1	2A	327	G
1	2A	329	G
1	2A	330	A
1	2A	348	G
1	2A	352	G
1	2A	354	G
1	2A	362	U
1	2A	363	G
1	2A	363(B)	G
1	2A	363(D)	G
1	2A	364	C
1	2A	386	G
1	2A	396	G
1	2A	402	A
1	2A	403	U
1	2A	406	G
1	2A	411	G
1	2A	412	A
1	2A	421	U
1	2A	422	A
1	2A	434	U
1	2A	435	C
1	2A	444	C
1	2A	454	A
1	2A	455	C
1	2A	457	A
1	2A	479	A
1	2A	481	G
1	2A	482	A
1	2A	498	G
1	2A	504	U
1	2A	505	A
1	2A	509	C
1	2A	528	A
1	2A	529	A
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	533	G

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Mol	Chain	Res	Type
1	2A	556	G
1	2A	563	G
1	2A	568	U
1	2A	573	G
1	2A	575	A
1	2A	592	G
1	2A	599	G
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	611	C
1	2A	614(A)	U
1	2A	614(B)	G
1	2A	615	G
1	2A	627	A
1	2A	634	C
1	2A	637	A
1	2A	645	C
1	2A	646	A
1	2A	652(B)	A
1	2A	652(C)	G
1	2A	669	G
1	2A	686	G
1	2A	708	C
1	2A	709	U
1	2A	717	G
1	2A	726	G
1	2A	730	C
1	2A	752	A
1	2A	753	C
1	2A	764	A
1	2A	775	G
1	2A	776	G
1	2A	782	A
1	2A	784	A
1	2A	785	G
1	2A	790	C
1	2A	792	G
1	2A	805	G
1	2A	812	C
1	2A	819	A
1	2A	827	U

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Mol	Chain	Res	Type
1	2A	828	U
1	2A	847	U
1	2A	857	C
1	2A	859	G
1	2A	866	A
1	2A	869	G
1	2A	872	A
1	2A	874	G
1	2A	875	G
1	2A	878	A
1	2A	879	G
1	2A	880	G
1	2A	884	C
1	2A	886	C
1	2A	887	A
1	2A	888	C
1	2A	889	C
1	2A	890	A
1	2A	893	C
1	2A	894	C
1	2A	896	A
1	2A	900	A
1	2A	901	A
1	2A	910	A
1	2A	914	C
1	2A	917	A
1	2A	933	A
1	2A	938	G
1	2A	941	A
1	2A	945	A
1	2A	946	G
1	2A	953	A
1	2A	958	U
1	2A	959	A
1	2A	961	C
1	2A	974	G
1	2A	975	C
1	2A	982	C
1	2A	983	A
1	2A	996	A
1	2A	997	G
1	2A	1012	U

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Mol	Chain	Res	Type
1	2A	1013	C
1	2A	1017	G
1	2A	1020	A
1	2A	1022	G
1	2A	1025	G
1	2A	1026	U
1	2A	1033	U
1	2A	1036	G
1	2A	1038	C
1	2A	1039	G
1	2A	1043	C
1	2A	1114	G
1	2A	1116	C
1	2A	1128	A
1	2A	1130	U
1	2A	1135	C
1	2A	1136	G
1	2A	1139	G
1	2A	1143	A
1	2A	1144	G
1	2A	1166	C
1	2A	1169	G
1	2A	1171	G
1	2A	1188	U
1	2A	1205	U
1	2A	1210	A
1	2A	1211	U
1	2A	1220	A
1	2A	1237	A
1	2A	1240	U
1	2A	1248	G
1	2A	1250	G
1	2A	1253	A
1	2A	1256	G
1	2A	1271	G
1	2A	1272	A
1	2A	1273	U
1	2A	1287	A
1	2A	1300	U
1	2A	1301	A
1	2A	1306	C
1	2A	1314	C

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Mol	Chain	Res	Type
1	2A	1345	C
1	2A	1352	U
1	2A	1355	G
1	2A	1359	A
1	2A	1360	A
1	2A	1365	A
1	2A	1368	G
1	2A	1370	C
1	2A	1374	G
1	2A	1378	A
1	2A	1380	G
1	2A	1384	A
1	2A	1385	G
1	2A	1386	C
1	2A	1411	C
1	2A	1416	G
1	2A	1417	C
1	2A	1420	U
1	2A	1421	G
1	2A	1427	A
1	2A	1428	C
1	2A	1432	C
1	2A	1437	C
1	2A	1441	G
1	2A	1445	A
1	2A	1445(A)	C
1	2A	1449	A
1	2A	1450	G
1	2A	1455	G
1	2A	1460	A
1	2A	1461	G
1	2A	1467	C
1	2A	1471	A
1	2A	1472	A
1	2A	1482	G
1	2A	1490	A
1	2A	1493	C
1	2A	1496	A
1	2A	1497	U
1	2A	1508	A
1	2A	1509	C
1	2A	1509(A)	A

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Mol	Chain	Res	Type
1	2A	1514	U
1	2A	1531	C
1	2A	1532	C
1	2A	1541	G
1	2A	1542	A
1	2A	1543	C
1	2A	1547	C
1	2A	1558	A
1	2A	1559	G
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1580	A
1	2A	1584	C
1	2A	1586	A
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A
1	2A	1616	A
1	2A	1640	C
1	2A	1645	G
1	2A	1648	C
1	2A	1654	A
1	2A	1663	C
1	2A	1674	G
1	2A	1675	C
1	2A	1688	U
1	2A	1696	G
1	2A	1700	A
1	2A	1701	A
1	2A	1703	G
1	2A	1721	G
1	2A	1722	A
1	2A	1739	U
1	2A	1740	G
1	2A	1746	G
1	2A	1756	G
1	2A	1758	G
1	2A	1762	A
1	2A	1763	G
1	2A	1764	G
1	2A	1769	G

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Mol	Chain	Res	Type
1	2A	1773	A
1	2A	1780	A
1	2A	1782	C
1	2A	1786	A
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1811	G
1	2A	1812	A
1	2A	1816	G
1	2A	1829	A
1	2A	1835	G
1	2A	1847	A
1	2A	1848	A
1	2A	1857	G
1	2A	1877	A
1	2A	1878	G
1	2A	1900	A
1	2A	1906	G
1	2A	1913	A
1	2A	1914	C
1	2A	1927	A
1	2A	1929	G
1	2A	1930	G
1	2A	1936	A
1	2A	1937	A
1	2A	1938	A
1	2A	1955	U
1	2A	1963	U
1	2A	1967	C
1	2A	1969	A
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1983	C
1	2A	1984	G
1	2A	1992	G
1	2A	1993	U
1	2A	1996	C
1	2A	1997	G
1	2A	2023	G
1	2A	2031	A

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Mol	Chain	Res	Type
1	2A	2032	G
1	2A	2033	A
1	2A	2043	C
1	2A	2051	A
1	2A	2055	C
1	2A	2056	G
1	2A	2060	A
1	2A	2061	G
1	2A	2062	A
1	2A	2067	G
1	2A	2069	G
1	2A	2104	G
1	2A	2105	C
1	2A	2110	G
1	2A	2111	C
1	2A	2112	G
1	2A	2116	G
1	2A	2119	A
1	2A	2120	G
1	2A	2122	U
1	2A	2126	A
1	2A	2127	G
1	2A	2131	G
1	2A	2132	U
1	2A	2134	A
1	2A	2135	A
1	2A	2136	C
1	2A	2137	C
1	2A	2138	C
1	2A	2140	C
1	2A	2142	C
1	2A	2146	C
1	2A	2148	G
1	2A	2150	U
1	2A	2152	G
1	2A	2153	G
1	2A	2155	G
1	2A	2156	G
1	2A	2157	G
1	2A	2158	A
1	2A	2161	C
1	2A	2162	G

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Mol	Chain	Res	Type
1	2A	2166	G
1	2A	2167	U
1	2A	2168	G
1	2A	2172	U
1	2A	2174	C
1	2A	2178	C
1	2A	2180	U
1	2A	2185	C
1	2A	2189	U
1	2A	2192	G
1	2A	2198	A
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2218	U
1	2A	2225	A
1	2A	2235	G
1	2A	2238	G
1	2A	2239	G
1	2A	2268	A
1	2A	2275	C
1	2A	2278	A
1	2A	2279	G
1	2A	2283	C
1	2A	2285	C
1	2A	2287	A
1	2A	2288	A
1	2A	2302	G
1	2A	2304	G
1	2A	2305	A
1	2A	2308	G
1	2A	2309	A
1	2A	2311	A
1	2A	2319	G
1	2A	2320	A
1	2A	2322	A
1	2A	2325	G
1	2A	2334	G
1	2A	2336	A
1	2A	2346	A
1	2A	2347	C
1	2A	2350	C

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Mol	Chain	Res	Type
1	2A	2376	A
1	2A	2383	G
1	2A	2385	C
1	2A	2388	A
1	2A	2400	G
1	2A	2403	C
1	2A	2406	U
1	2A	2410	G
1	2A	2425	A
1	2A	2429	G
1	2A	2430	A
1	2A	2435	A
1	2A	2439	A
1	2A	2441	C
1	2A	2448	A
1	2A	2469	A
1	2A	2474	C
1	2A	2476	A
1	2A	2477	C
1	2A	2478	A
1	2A	2487	G
1	2A	2490	G
1	2A	2491	U
1	2A	2494	G
1	2A	2502	G
1	2A	2505	G
1	2A	2506	U
1	2A	2518	A
1	2A	2520	C
1	2A	2525	G
1	2A	2529	G
1	2A	2530	A
1	2A	2549	G
1	2A	2554	U
1	2A	2555	U
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C
1	2A	2582	G
1	2A	2585	U
1	2A	2586	C
1	2A	2592	G

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Mol	Chain	Res	Type
1	2A	2602	A
1	2A	2609	U
1	2A	2611	U
1	2A	2612	C
1	2A	2630	G
1	2A	2654	A
1	2A	2664	G
1	2A	2669	G
1	2A	2689	U
1	2A	2690	C
1	2A	2691	C
1	2A	2703	C
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2718	G
1	2A	2726	U
1	2A	2733	A
1	2A	2739	U
1	2A	2748	A
1	2A	2751	G
1	2A	2757	A
1	2A	2758	A
1	2A	2764	A
1	2A	2765	A
1	2A	2766	G
1	2A	2778	A
1	2A	2789	C
1	2A	2793	G
1	2A	2802	G
1	2A	2803	C
1	2A	2807	G
1	2A	2818	G
1	2A	2820	A
1	2A	2821	A
1	2A	2823	A
1	2A	2833	G
1	2A	2835	A
1	2A	2839	G
1	2A	2872	G
1	2A	2879	C
1	2A	2880	C

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Mol	Chain	Res	Type
1	2A	2894	G
1	2A	2895	U
1	2A	2897	U
2	2B	2	C
2	2B	5	C
2	2B	8	U
2	2B	9	G
2	2B	13	A
2	2B	19	G
2	2B	30	C
2	2B	32	C
2	2B	42	C
2	2B	53	A
2	2B	56	G
2	2B	58	A
2	2B	63	G
2	2B	65	C
2	2B	66	A
2	2B	67	G
2	2B	72	G
2	2B	73	A
2	2B	74	U
2	2B	75	G
2	2B	85	G
2	2B	88	C
2	2B	106	G
2	2B	108	U
2	2B	110	G
2	2B	114	C
2	2B	119	G
2	2B	120	A
32	2a	7	G
32	2a	9	G
32	2a	22	G
32	2a	26	A
32	2a	32	A
32	2a	39	G
32	2a	47	C
32	2a	48	C
32	2a	50	A
32	2a	51	A
32	2a	52	G

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Mol	Chain	Res	Type
32	2a	54	C
32	2a	66	G
32	2a	73	G
32	2a	79	G
32	2a	88	A
32	2a	89	C
32	2a	98	G
32	2a	101	A
32	2a	116	A
32	2a	121	C
32	2a	131	C
32	2a	142	G
32	2a	159	G
32	2a	163	C
32	2a	174	C
32	2a	182	U
32	2a	184	G
32	2a	189(A)	C
32	2a	189(F)	U
32	2a	189(H)	G
32	2a	189(J)	G
32	2a	195	A
32	2a	197	A
32	2a	201	C
32	2a	202	U
32	2a	203	U
32	2a	204	U
32	2a	216	G
32	2a	223	U
32	2a	247	G
32	2a	251	G
32	2a	266	G
32	2a	267	C
32	2a	281	G
32	2a	289	G
32	2a	301	G
32	2a	321	A
32	2a	328	C
32	2a	332	G
32	2a	350	G
32	2a	351	G
32	2a	352	C

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Mol	Chain	Res	Type
32	2a	353	A
32	2a	354	G
32	2a	367	U
32	2a	372	C
32	2a	373	A
32	2a	384	G
32	2a	388	G
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	412	A
32	2a	421	U
32	2a	423	G
32	2a	424	G
32	2a	429	U
32	2a	430	A
32	2a	442	C
32	2a	452	A
32	2a	461	A
32	2a	470	C
32	2a	484	G
32	2a	485	G
32	2a	496	A
32	2a	498	U
32	2a	505	G
32	2a	510	A
32	2a	511	C
32	2a	518	C
32	2a	527	7MG
32	2a	531	U
32	2a	532	A
32	2a	533	A
32	2a	547	A
32	2a	559	A
32	2a	560	U
32	2a	561	U
32	2a	564	C
32	2a	572	A
32	2a	573	A
32	2a	576	G
32	2a	577	G
32	2a	587	G

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Mol	Chain	Res	Type
32	2a	596	C
32	2a	630	G
32	2a	650	G
32	2a	653	A
32	2a	665	A
32	2a	687	A
32	2a	688	G
32	2a	690	G
32	2a	695	A
32	2a	702	A
32	2a	721	G
32	2a	723	U
32	2a	724	G
32	2a	729	A
32	2a	731	G
32	2a	733	A
32	2a	749	C
32	2a	755	G
32	2a	760	G
32	2a	769	G
32	2a	777	A
32	2a	792	A
32	2a	793	U
32	2a	794	A
32	2a	817	C
32	2a	821	G
32	2a	828	A
32	2a	834	C
32	2a	840	C
32	2a	841	U
32	2a	853	G
32	2a	855	G
32	2a	859	A
32	2a	902	G
32	2a	914	A
32	2a	919	A
32	2a	926	G
32	2a	927	G
32	2a	934	C
32	2a	935	A
32	2a	960	U
32	2a	961	U

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Mol	Chain	Res	Type
32	2a	966	M2G
32	2a	968	A
32	2a	969	A
32	2a	971	G
32	2a	974	A
32	2a	975	A
32	2a	976	G
32	2a	977	A
32	2a	982	U
32	2a	984	C
32	2a	989	C
32	2a	992	U
32	2a	993	G
32	2a	996	A
32	2a	997	U
32	2a	1001(A)	G
32	2a	1002	G
32	2a	1003	G
32	2a	1004	A
32	2a	1005	A
32	2a	1006	C
32	2a	1009	G
32	2a	1011	G
32	2a	1016	A
32	2a	1020	U
32	2a	1021	G
32	2a	1022	G
32	2a	1025	U
32	2a	1026	G
32	2a	1027	C
32	2a	1030	C
32	2a	1030(A)	G
32	2a	1030(B)	C
32	2a	1031	G
32	2a	1032	G
32	2a	1033	G
32	2a	1035	A
32	2a	1038	C
32	2a	1039	C
32	2a	1040	U
32	2a	1050	G
32	2a	1051	C

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Mol	Chain	Res	Type
32	2a	1053	G
32	2a	1056	U
32	2a	1064	G
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1077	G
32	2a	1079	G
32	2a	1081	G
32	2a	1085	U
32	2a	1086	U
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A
32	2a	1108	G
32	2a	1117	G
32	2a	1122	U
32	2a	1125	U
32	2a	1127	G
32	2a	1129	C
32	2a	1130	A
32	2a	1135	U
32	2a	1137	C
32	2a	1138	G
32	2a	1139	G
32	2a	1140	C
32	2a	1143	G
32	2a	1146	A
32	2a	1147	C
32	2a	1152	A
32	2a	1157	A
32	2a	1158	C
32	2a	1159	U
32	2a	1161	C
32	2a	1172	C
32	2a	1182	G
32	2a	1183	A
32	2a	1184	G
32	2a	1193	G
32	2a	1196	U
32	2a	1197	G
32	2a	1202	G

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Mol	Chain	Res	Type
32	2a	1211	U
32	2a	1212	U
32	2a	1213	A
32	2a	1227	A
32	2a	1238	A
32	2a	1240	U
32	2a	1241	G
32	2a	1248	A
32	2a	1252	A
32	2a	1256	A
32	2a	1257	U
32	2a	1258	G
32	2a	1260	C
32	2a	1264	C
32	2a	1267	C
32	2a	1270	C
32	2a	1272	G
32	2a	1273	G
32	2a	1275	A
32	2a	1278	U
32	2a	1279	A
32	2a	1280	A
32	2a	1287	A
32	2a	1299	A
32	2a	1302	U
32	2a	1303	C
32	2a	1305	G
32	2a	1323	G
32	2a	1340	A
32	2a	1346	A
32	2a	1347	G
32	2a	1358	U
32	2a	1363	C
32	2a	1363(A)	A
32	2a	1368	G
32	2a	1379	G
32	2a	1381	U
32	2a	1398	A
32	2a	1404	5MC
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G

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Mol	Chain	Res	Type
32	2a	1447	A
32	2a	1452	C
32	2a	1456	G
32	2a	1492	A
32	2a	1497	G
32	2a	1499	A
32	2a	1503	A
32	2a	1504	G
32	2a	1506	U
32	2a	1507	A
32	2a	1517	G
32	2a	1519	MA6
32	2a	1520	G
32	2a	1529	G
32	2a	1530	G
32	2a	1531	A
32	2a	1532	U
53	2v	13	A
53	2v	14	A
54	2w	4	C
54	2w	7	A
54	2w	8	4SU
54	2w	9	A
54	2w	11	C
54	2w	13	C
54	2w	14	A
54	2w	19	G
54	2w	22	G
54	2w	25	C
54	2w	34	G
54	2w	46	7MG
54	2w	47	U
54	2w	48	C
54	2w	50	U
54	2w	56	C
54	2w	62	C
54	2w	63	G
54	2w	64	A
54	2w	65	G
54	2w	68	C
54	2w	71	G
54	2w	74	C

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Mol	Chain	Res	Type
55	2x	4	G
55	2x	9	G
55	2x	10	G
55	2x	18	G
55	2x	21	A
55	2x	22	G
55	2x	47	U
55	2x	48	C
55	2x	52	G
55	2x	53	G
55	2x	63	G
55	2x	67	C
55	2x	68	C
55	2x	76	A
54	2y	15	G
54	2y	19	G
54	2y	23	A
54	2y	24	G
54	2y	25	C
54	2y	27	G
54	2y	34	G
54	2y	37	MIA
54	2y	45	U
54	2y	49	C
54	2y	52	G
54	2y	53	G
54	2y	55	PSU
54	2y	56	C
54	2y	57	G
54	2y	58	A
54	2y	59	U
54	2y	61	C
54	2y	62	C
54	2y	63	G
54	2y	65	G
54	2y	69	G
54	2y	70	G
54	2y	73	A

All (63) RNA pucker outliers are listed below:

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Mol	Chain	Res	Type
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Mol	Chain	Res	Type
1	1A	115	G
1	1A	185	A
1	1A	271	U
1	1A	302	A
1	1A	509	A
1	1A	572	A
1	1A	820	U
1	1A	913	A
1	1A	941	U
1	1A	1065	U
1	1A	1067	A
1	1A	1093	G
1	1A	1119	A
1	1A	1124	U
1	1A	1201	A
1	1A	1219	A
1	1A	1220	U
1	1A	1221	G
1	1A	1255	A
1	1A	1425	A
1	1A	1466	U
1	1A	1554	A
1	1A	1654	A
1	1A	2014	G
1	1A	2156	A
1	1A	2180	A
1	1A	2192	A
1	1A	2203	G
1	1A	2205	C
1	1A	2418	U
1	1A	2442	A
1	1A	2450	U
1	1A	2624	C
1	1A	2641	A
1	1A	2701	U
1	1A	2769	U
2	1B	1	U
1	2A	34	C
1	2A	195	A
1	2A	228	A
1	2A	266	G

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Mol	Chain	Res	Type
1	2A	271(M)	G
1	2A	277	C
1	2A	528	A
1	2A	752	A
1	2A	774	A
1	2A	856	C
1	2A	900	A
1	2A	1210	A
1	2A	1378	A
1	2A	1379	A
1	2A	1420	U
1	2A	1442	G
1	2A	1530	C
1	2A	1608	A
1	2A	1653	G
1	2A	1913	A
1	2A	1992	G
1	2A	2119	A
1	2A	2126	A
1	2A	2439	A
1	2A	2689	U
1	2A	2756	U

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

84 non-standard protein/DNA/RNA residues are modelled in this entry.

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
1	2MU	2A	2552	56,1	19,22,24	1.25	2 (10%)	25,31,36	2.12	6 (24%)
55	5MC	1x	32	55	19,22,23	1.73	3 (15%)	26,32,35	1.27	3 (11%)
1	4OC	1A	1942	1	19,22,24	0.84	0	25,31,35	0.88	0
1	5MU	1A	1937	1	19,22,23	1.43	5 (26%)	27,32,35	2.27	5 (18%)
54	MIA	1w	37	54	28,31,32	2.34	7 (25%)	38,44,47	2.76	14 (36%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
54	7MG	2w	46	54	23,26,27	1.38	3 (13%)	27,39,42	2.51	7 (25%)
1	2MU	1A	2564	56,1	19,22,24	1.19	2 (10%)	25,31,36	2.10	6 (24%)
32	PSU	1a	516	32,56	18,21,22	1.35	2 (11%)	21,30,33	1.98	4 (19%)
55	4SU	2x	8	56,55	18,21,22	2.07	6 (33%)	25,30,33	1.53	5 (20%)
1	2MA	1A	2515	56,1	22,25,26	1.45	3 (13%)	32,37,40	2.42	7 (21%)
54	4SU	1w	8	54	18,21,22	1.73	4 (22%)	25,30,33	2.31	4 (16%)
32	MA6	2a	1519	32	23,26,27	1.58	4 (17%)	33,38,41	2.37	11 (33%)
54	5MU	1w	54	54	19,22,23	1.40	5 (26%)	27,32,35	1.79	5 (18%)
1	PSU	1A	2617	1	18,21,22	1.40	3 (16%)	21,30,33	2.03	4 (19%)
32	MA6	1a	1519	32	23,26,27	1.50	4 (17%)	33,38,41	2.45	15 (45%)
32	5MC	2a	1407	32	19,22,23	1.49	3 (15%)	26,32,35	1.22	3 (11%)
43	0TD	2l	92	43	8,9,10	4.52	1 (12%)	6,11,13	3.71	3 (50%)
32	5MC	2a	1400	32	19,22,23	1.48	3 (15%)	26,32,35	1.19	3 (11%)
32	5MC	2a	967	32	19,22,23	1.62	2 (10%)	26,32,35	1.05	1 (3%)
1	5MU	1A	1961	56,1	19,22,23	1.33	4 (21%)	27,32,35	2.33	6 (22%)
32	5MC	1a	1407	32	19,22,23	1.44	3 (15%)	26,32,35	1.15	2 (7%)
54	7MG	2y	46	54	23,26,27	1.45	4 (17%)	27,39,42	2.80	7 (25%)
32	2MG	2a	1207	32	23,26,27	1.24	4 (17%)	33,38,41	2.19	8 (24%)
1	5MU	2A	1939	56,1	19,22,23	1.43	6 (31%)	27,32,35	2.14	5 (18%)
54	PSU	2y	32	54	18,21,22	1.34	2 (11%)	21,30,33	1.94	4 (19%)
55	5MU	2x	54	55	19,22,23	1.43	6 (31%)	27,32,35	1.86	6 (22%)
54	PSU	1w	55	54	18,21,22	1.47	2 (11%)	21,30,33	1.97	3 (14%)
54	7MG	1y	46	54	23,26,27	1.35	4 (17%)	27,39,42	2.60	6 (22%)
1	PSU	1A	1939	1	18,21,22	1.39	3 (16%)	21,30,33	1.93	3 (14%)
1	5MC	1A	1964	1	19,22,23	1.28	2 (10%)	26,32,35	1.10	2 (7%)
32	4OC	2a	1402	32	20,23,24	0.76	0	25,32,35	1.09	2 (8%)
32	M2G	1a	966	32	24,27,28	1.32	3 (12%)	33,40,43	1.85	5 (15%)
32	4OC	1a	1402	32	20,23,24	0.76	0	25,32,35	1.08	2 (8%)
1	PSU	2A	1911	1	18,21,22	1.34	2 (11%)	21,30,33	1.87	4 (19%)
1	PSU	2A	2605	1	18,21,22	1.42	3 (16%)	21,30,33	1.98	5 (23%)
1	5MC	1A	1984	56,1	19,22,23	1.52	3 (15%)	26,32,35	1.17	2 (7%)
32	5MC	1a	1400	32	19,22,23	1.56	3 (15%)	26,32,35	1.11	2 (7%)
32	5MC	1a	967	32	19,22,23	1.59	2 (10%)	26,32,35	1.12	2 (7%)
54	MIA	2y	37	54	21,24,32	1.59	3 (14%)	30,35,47	2.10	9 (30%)
54	PSU	1w	39	54	18,21,22	1.32	2 (11%)	21,30,33	2.06	4 (19%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
54	7MG	1w	46	54	23,26,27	1.48	3 (13%)	27,39,42	2.48	5 (18%)
1	OMG	1A	2263	55,56,1	23,26,27	1.28	3 (13%)	32,38,41	2.06	4 (12%)
32	7MG	1a	527	32	23,26,27	1.42	5 (21%)	27,39,42	2.51	5 (18%)
54	4SU	1y	8	54	18,21,22	1.73	4 (22%)	25,30,33	1.88	6 (24%)
54	PSU	1y	55	54	18,21,22	1.34	2 (11%)	21,30,33	2.12	5 (23%)
1	5MC	2A	1942	1	19,22,23	1.77	3 (15%)	26,32,35	1.34	4 (15%)
55	4SU	1x	8	56,55	18,21,22	2.17	4 (22%)	25,30,33	1.55	4 (16%)
1	OMG	2A	2251	55,1	23,26,27	1.23	3 (13%)	32,38,41	1.96	5 (15%)
54	PSU	2y	39	54	18,21,22	1.37	2 (11%)	21,30,33	1.96	3 (14%)
1	5MU	2A	1915	1	19,22,23	1.49	6 (31%)	27,32,35	2.24	5 (18%)
54	PSU	2y	55	54	18,21,22	1.33	3 (16%)	21,30,33	1.92	5 (23%)
54	PSU	1w	32	54	18,21,22	1.37	2 (11%)	21,30,33	1.83	4 (19%)
1	PSU	1A	1933	1	18,21,22	1.45	3 (16%)	21,30,33	2.07	4 (19%)
32	MA6	2a	1518	32	23,26,27	1.60	5 (21%)	33,38,41	2.33	12 (36%)
54	MIA	2w	37	54	24,27,32	2.13	6 (25%)	32,39,47	2.24	10 (31%)
54	5MU	1y	54	54	19,22,23	1.57	6 (31%)	27,32,35	1.96	6 (22%)
54	MIA	1y	37	54	21,24,32	1.63	3 (14%)	30,35,47	2.01	10 (33%)
43	0TD	1l	92	43	8,9,10	4.45	1 (12%)	6,11,13	4.93	2 (33%)
55	PSU	2x	55	55	18,21,22	1.37	2 (11%)	21,30,33	1.98	4 (19%)
32	7MG	2a	527	32	23,26,27	1.35	3 (13%)	27,39,42	2.57	7 (25%)
1	2MA	2A	2503	56,1	22,25,26	1.50	5 (22%)	32,37,40	2.21	9 (28%)
32	UR3	2a	1498	32	19,22,23	1.01	1 (5%)	26,32,35	1.90	3 (11%)
54	4SU	2w	8	54	18,21,22	1.75	4 (22%)	25,30,33	2.47	5 (20%)
32	M2G	2a	966	32	24,27,28	1.31	4 (16%)	33,40,43	1.88	5 (15%)
54	PSU	1y	39	54	18,21,22	1.43	2 (11%)	21,30,33	1.87	4 (19%)
1	PSU	2A	1917	1	18,21,22	1.39	2 (11%)	21,30,33	2.14	5 (23%)
32	5MC	2a	1404	32	19,22,23	1.76	3 (15%)	26,32,35	1.26	3 (11%)
54	5MU	2y	54	54	19,22,23	1.49	4 (21%)	27,32,35	2.14	9 (33%)
54	PSU	2w	32	54	18,21,22	1.39	3 (16%)	21,30,33	1.95	3 (14%)
54	PSU	2w	39	54	18,21,22	1.43	3 (16%)	21,30,33	1.71	4 (19%)
54	PSU	1y	32	54	18,21,22	1.41	3 (16%)	21,30,33	1.87	4 (19%)
54	PSU	2w	55	54	18,21,22	1.40	2 (11%)	21,30,33	2.06	3 (14%)
55	PSU	1x	55	55	18,21,22	1.35	2 (11%)	21,30,33	2.05	4 (19%)
32	2MG	1a	1207	32	23,26,27	1.26	2 (8%)	33,38,41	2.21	7 (21%)
55	5MC	2x	32	55	19,22,23	1.65	3 (15%)	26,32,35	1.24	3 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	MA6	1a	1518	32	23,26,27	1.53	4 (17%)	33,38,41	2.32	13 (39%)
32	PSU	2a	516	32	18,21,22	1.33	2 (11%)	21,30,33	1.95	5 (23%)
54	4SU	2y	8	54	18,21,22	1.87	4 (22%)	25,30,33	2.25	5 (20%)
1	4OC	2A	1920	1	19,22,24	0.81	0	25,31,35	0.94	1 (4%)
54	5MU	2w	54	54	19,22,23	1.39	6 (31%)	27,32,35	1.86	6 (22%)
55	5MU	1x	54	55	19,22,23	1.35	5 (26%)	27,32,35	1.91	6 (22%)
32	5MC	1a	1404	32	19,22,23	1.55	3 (15%)	26,32,35	1.19	2 (7%)
32	UR3	1a	1498	32	19,22,23	1.04	1 (5%)	26,32,35	1.84	3 (11%)
1	5MC	2A	1962	56,1	19,22,23	1.48	3 (15%)	26,32,35	1.23	4 (15%)

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
1	2MU	2A	2552	56,1	-	0/9/27/28	0/2/2/2
55	5MC	1x	32	55	-	0/7/25/26	0/2/2/2
1	4OC	1A	1942	1	-	1/9/27/30	0/2/2/2
1	5MU	1A	1937	1	-	0/7/25/26	0/2/2/2
54	MIA	1w	37	54	-	3/15/33/34	0/3/3/3
54	7MG	2w	46	54	-	3/7/37/38	0/3/3/3
1	2MU	1A	2564	56,1	-	0/9/27/28	0/2/2/2
32	PSU	1a	516	32,56	-	0/7/25/26	0/2/2/2
55	4SU	2x	8	56,55	-	1/7/25/26	0/2/2/2
1	2MA	1A	2515	56,1	-	0/7/25/26	0/3/3/3
54	4SU	1w	8	54	-	0/7/25/26	0/2/2/2
32	MA6	2a	1519	32	-	4/11/29/30	0/3/3/3
54	5MU	1w	54	54	-	0/7/25/26	0/2/2/2
1	PSU	1A	2617	1	-	2/7/25/26	0/2/2/2
32	MA6	1a	1519	32	-	3/11/29/30	0/3/3/3
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
43	0TD	2l	92	43	-	3/7/12/14	-
32	5MC	2a	1400	32	-	0/7/25/26	0/2/2/2
32	5MC	2a	967	32	-	1/7/25/26	0/2/2/2
1	5MU	1A	1961	56,1	-	0/7/25/26	0/2/2/2
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
54	7MG	2y	46	54	-	3/7/37/38	0/3/3/3
32	2MG	2a	1207	32	-	3/9/27/28	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	5MU	2A	1939	56,1	-	0/7/25/26	0/2/2/2
54	PSU	2y	32	54	-	1/7/25/26	0/2/2/2
55	5MU	2x	54	55	-	0/7/25/26	0/2/2/2
54	PSU	1w	55	54	-	2/7/25/26	0/2/2/2
54	7MG	1y	46	54	-	2/7/37/38	0/3/3/3
1	PSU	1A	1939	1	-	0/7/25/26	0/2/2/2
1	5MC	1A	1964	1	-	0/7/25/26	0/2/2/2
32	4OC	2a	1402	32	-	2/9/29/30	0/2/2/2
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
32	4OC	1a	1402	32	-	1/9/29/30	0/2/2/2
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
1	5MC	1A	1984	56,1	-	0/7/25/26	0/2/2/2
32	5MC	1a	1400	32	-	2/7/25/26	0/2/2/2
32	5MC	1a	967	32	-	2/7/25/26	0/2/2/2
54	MIA	2y	37	54	-	3/7/25/34	0/3/3/3
54	PSU	1w	39	54	-	0/7/25/26	0/2/2/2
54	7MG	1w	46	54	-	2/7/37/38	0/3/3/3
1	OMG	1A	2263	55,56,1	-	0/9/27/28	0/3/3/3
32	7MG	1a	527	32	-	3/7/37/38	0/3/3/3
54	4SU	1y	8	54	-	3/7/25/26	0/2/2/2
54	PSU	1y	55	54	-	1/7/25/26	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
55	4SU	1x	8	56,55	-	0/7/25/26	0/2/2/2
1	OMG	2A	2251	55,1	-	0/9/27/28	0/3/3/3
54	PSU	2y	39	54	-	0/7/25/26	0/2/2/2
1	5MU	2A	1915	1	-	0/7/25/26	0/2/2/2
54	PSU	2y	55	54	-	2/7/25/26	0/2/2/2
54	PSU	1w	32	54	-	0/7/25/26	0/2/2/2
1	PSU	1A	1933	1	-	0/7/25/26	0/2/2/2
32	MA6	2a	1518	32	-	3/11/29/30	0/3/3/3
54	MIA	2w	37	54	-	2/11/29/34	0/3/3/3
54	5MU	1y	54	54	-	3/7/25/26	0/2/2/2
54	MIA	1y	37	54	-	1/7/25/34	0/3/3/3
43	0TD	1l	92	43	-	1/7/12/14	-
55	PSU	2x	55	55	-	0/7/25/26	0/2/2/2
32	7MG	2a	527	32	-	3/7/37/38	0/3/3/3
1	2MA	2A	2503	56,1	-	1/7/25/26	0/3/3/3
32	UR3	2a	1498	32	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
54	4SU	2w	8	54	-	0/7/25/26	0/2/2/2
32	M2G	2a	966	32	-	0/11/29/30	0/3/3/3
54	PSU	1y	39	54	-	0/7/25/26	0/2/2/2
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
32	5MC	2a	1404	32	-	2/7/25/26	0/2/2/2
54	5MU	2y	54	54	-	2/7/25/26	0/2/2/2
54	PSU	2w	32	54	-	0/7/25/26	0/2/2/2
54	PSU	2w	39	54	-	0/7/25/26	0/2/2/2
54	PSU	1y	32	54	-	0/7/25/26	0/2/2/2
54	PSU	2w	55	54	-	0/7/25/26	0/2/2/2
55	PSU	1x	55	55	-	1/7/25/26	0/2/2/2
32	2MG	1a	1207	32	-	0/9/27/28	0/3/3/3
55	5MC	2x	32	55	-	0/7/25/26	0/2/2/2
32	MA6	1a	1518	32	-	2/11/29/30	0/3/3/3
32	PSU	2a	516	32	-	0/7/25/26	0/2/2/2
54	4SU	2y	8	54	-	0/7/25/26	0/2/2/2
1	4OC	2A	1920	1	-	1/9/27/30	0/2/2/2
54	5MU	2w	54	54	-	0/7/25/26	0/2/2/2
55	5MU	1x	54	55	-	0/7/25/26	0/2/2/2
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
1	5MC	2A	1962	56,1	-	1/7/25/26	0/2/2/2

All (263) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	2l	92	0TD	CB-SB	-12.40	1.69	1.82
43	1l	92	0TD	CB-SB	-12.22	1.69	1.82
54	1w	37	MIA	C2-S10	-7.37	1.69	1.75
54	2w	37	MIA	C2-S10	-6.94	1.70	1.75
54	1w	37	MIA	C13-C14	6.73	1.52	1.32
1	2A	1942	5MC	C5-C4	6.54	1.49	1.44
32	2a	1404	5MC	C5-C4	6.44	1.49	1.44
55	1x	32	5MC	C5-C4	6.16	1.48	1.44
55	2x	32	5MC	C5-C4	5.87	1.48	1.44
32	2a	967	5MC	C5-C4	5.82	1.48	1.44
32	1a	967	5MC	C5-C4	5.65	1.48	1.44
32	1a	1404	5MC	C5-C4	5.54	1.48	1.44
32	1a	1400	5MC	C5-C4	5.48	1.48	1.44
1	1A	1984	5MC	C5-C4	5.17	1.48	1.44
1	2A	1962	5MC	C5-C4	5.13	1.48	1.44
32	2a	1400	5MC	C5-C4	5.07	1.48	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	1y	37	MIA	C5-C4	5.05	1.48	1.39
54	2y	8	4SU	C4-S4	-5.03	1.59	1.68
54	2y	37	MIA	C5-C4	5.01	1.48	1.39
32	2a	1518	MA6	C5-C4	5.01	1.48	1.39
32	2a	1519	MA6	C5-C4	5.00	1.48	1.39
32	2a	1407	5MC	C5-C4	4.97	1.47	1.44
54	2w	8	4SU	C4-S4	-4.96	1.59	1.68
55	1x	8	4SU	C4-S4	-4.91	1.60	1.68
54	2w	37	MIA	C5-C4	4.89	1.47	1.39
32	1a	1407	5MC	C5-C4	4.86	1.47	1.44
55	1x	8	4SU	C4-N3	-4.79	1.32	1.37
54	1w	8	4SU	C4-S4	-4.76	1.60	1.68
55	2x	8	4SU	C4-N3	-4.73	1.32	1.37
32	1a	1518	MA6	C5-C4	4.71	1.47	1.39
32	1a	1519	MA6	C5-C4	4.50	1.47	1.39
55	2x	8	4SU	C4-S4	-4.47	1.60	1.68
1	2A	2503	2MA	C5-C4	4.39	1.46	1.39
54	1w	37	MIA	C5-C4	4.39	1.46	1.39
54	1y	8	4SU	C4-S4	-4.37	1.61	1.68
1	1A	2515	2MA	C5-C4	4.28	1.46	1.39
54	1w	55	PSU	C6-C5	4.25	1.40	1.35
54	1y	32	PSU	C6-C5	4.16	1.39	1.35
54	1y	39	PSU	C6-C5	4.16	1.39	1.35
54	2w	55	PSU	C6-C5	4.15	1.39	1.35
54	1w	46	7MG	C4-N9	-4.02	1.32	1.37
1	1A	1964	5MC	C5-C4	4.00	1.47	1.44
55	1x	8	4SU	C5-C4	-3.91	1.37	1.42
54	2w	39	PSU	C6-C5	3.90	1.39	1.35
32	2a	527	7MG	C4-N9	-3.88	1.33	1.37
54	1w	32	PSU	C6-C5	3.82	1.39	1.35
55	2x	55	PSU	C6-C5	3.82	1.39	1.35
54	2y	46	7MG	C5-C4	3.79	1.49	1.37
54	2y	32	PSU	C6-C5	3.78	1.39	1.35
54	2w	46	7MG	C4-N9	-3.74	1.33	1.37
54	2y	39	PSU	C6-C5	3.71	1.39	1.35
1	2A	1911	PSU	C6-C5	3.66	1.39	1.35
1	1A	1933	PSU	C6-C5	3.63	1.39	1.35
54	2w	32	PSU	C6-C5	3.62	1.39	1.35
55	1x	55	PSU	C6-C5	3.57	1.39	1.35
55	1x	8	4SU	C2-N3	-3.57	1.31	1.38
32	1a	527	7MG	C5-C4	3.53	1.48	1.37
32	2a	516	PSU	C6-C5	3.52	1.39	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	1y	46	7MG	C5-C4	3.51	1.48	1.37
1	1A	1939	PSU	C6-C5	3.51	1.39	1.35
54	1y	55	PSU	C6-C5	3.50	1.39	1.35
1	2A	2605	PSU	C6-C5	3.44	1.39	1.35
54	1y	8	4SU	C4-N3	-3.43	1.34	1.37
1	2A	1917	PSU	C6-C5	3.41	1.39	1.35
32	1a	516	PSU	C6-C5	3.37	1.39	1.35
54	2y	54	5MU	C2-N1	3.36	1.43	1.38
54	1w	46	7MG	C5-C4	3.32	1.47	1.37
32	2a	966	M2G	C5-C4	3.31	1.47	1.38
54	1w	39	PSU	C6-C5	3.30	1.38	1.35
54	2w	46	7MG	C5-C4	3.24	1.47	1.37
1	2A	2251	OMG	C5-C4	3.20	1.47	1.38
55	1x	32	5MC	C6-C5	3.20	1.39	1.34
32	2a	1518	MA6	C5-C6	3.17	1.49	1.41
1	1A	2263	OMG	C5-C4	3.17	1.47	1.38
32	2a	1207	2MG	C5-C4	3.15	1.47	1.38
55	2x	8	4SU	C5-C4	-3.14	1.38	1.42
55	2x	8	4SU	C2-N3	-3.12	1.32	1.38
54	1y	54	5MU	C6-C5	3.11	1.39	1.34
1	1A	2515	2MA	C5-N7	-3.10	1.33	1.39
32	1a	966	M2G	C5-C4	3.08	1.47	1.38
32	1a	527	7MG	C4-N9	-3.05	1.34	1.37
32	2a	1519	MA6	C5-C6	3.03	1.49	1.41
32	2a	527	7MG	C5-C4	3.03	1.47	1.37
55	2x	54	5MU	C6-C5	2.98	1.39	1.34
54	1y	37	MIA	C5-C6	2.98	1.49	1.41
1	1A	2617	PSU	C6-C5	2.98	1.38	1.35
1	1A	1937	5MU	C6-C5	2.97	1.39	1.34
32	2a	1404	5MC	C6-C5	2.97	1.39	1.34
32	1a	967	5MC	C6-C5	2.96	1.39	1.34
54	1y	54	5MU	C2-N1	2.96	1.43	1.38
32	1a	1518	MA6	C5-C6	2.96	1.49	1.41
54	2w	37	MIA	C5-C6	2.95	1.49	1.41
32	1a	1207	2MG	C5-C4	2.94	1.46	1.38
54	2y	55	PSU	C6-C5	2.93	1.38	1.35
54	2y	8	4SU	C4-N3	-2.91	1.34	1.37
32	2a	1407	5MC	C6-C5	2.88	1.39	1.34
1	2A	1915	5MU	C6-C5	2.85	1.39	1.34
1	2A	2251	OMG	C6-N1	-2.85	1.33	1.38
1	2A	1915	5MU	C2-N1	2.84	1.42	1.38
54	2y	8	4SU	C5-C4	-2.83	1.39	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2263	OMG	C6-N1	-2.83	1.33	1.38
1	2A	2605	PSU	C4-N3	-2.80	1.33	1.38
32	1a	1519	MA6	C5-C6	2.80	1.48	1.41
32	1a	966	M2G	C2-N2	2.80	1.40	1.35
54	1w	8	4SU	C4-N3	-2.80	1.34	1.37
54	1w	54	5MU	C4-N3	-2.79	1.33	1.38
32	1a	966	M2G	C6-N1	-2.78	1.33	1.38
54	2y	37	MIA	C5-C6	2.77	1.48	1.41
1	1A	2617	PSU	C4-N3	-2.76	1.33	1.38
1	1A	1933	PSU	C4-N3	-2.75	1.33	1.38
1	1A	1961	5MU	C6-C5	2.75	1.39	1.34
55	2x	32	5MC	C6-C5	2.74	1.39	1.34
32	2a	967	5MC	C6-C5	2.74	1.39	1.34
54	2w	8	4SU	C4-N3	-2.73	1.34	1.37
1	1A	2263	OMG	C5-N7	-2.73	1.33	1.39
54	1w	54	5MU	C6-C5	2.71	1.39	1.34
1	1A	1964	5MC	C6-C5	2.71	1.39	1.34
54	2y	8	4SU	C2-N1	2.71	1.42	1.38
54	2w	39	PSU	C4-N3	-2.71	1.33	1.38
32	1a	1400	5MC	C6-C5	2.70	1.39	1.34
1	2A	1942	5MC	C6-C5	2.69	1.39	1.34
54	1y	54	5MU	C4-N3	-2.69	1.33	1.38
1	1A	1984	5MC	C6-C5	2.69	1.39	1.34
1	2A	1917	PSU	C4-N3	-2.68	1.33	1.38
32	2a	966	M2G	C2-N2	2.68	1.40	1.35
1	1A	2564	2MU	C4-N3	-2.68	1.34	1.38
1	1A	1937	5MU	C4-N3	-2.67	1.33	1.38
54	1w	37	MIA	C5-C6	2.67	1.48	1.41
32	1a	1407	5MC	C6-C5	2.67	1.39	1.34
54	1y	54	5MU	C4-C5	2.67	1.49	1.44
32	2a	1400	5MC	C6-C5	2.67	1.39	1.34
32	1a	1207	2MG	C6-N1	-2.66	1.33	1.38
54	2w	8	4SU	C2-N1	2.66	1.42	1.38
54	1w	46	7MG	C6-N1	-2.64	1.33	1.38
32	1a	527	7MG	C8-N9	2.63	1.47	1.45
54	2y	54	5MU	C6-C5	2.63	1.38	1.34
55	1x	54	5MU	C6-C5	2.62	1.38	1.34
54	1y	37	MIA	C8-N7	2.62	1.36	1.31
1	2A	1915	5MU	C4-C5	2.62	1.49	1.44
55	1x	55	PSU	C4-N3	-2.61	1.34	1.38
1	2A	1915	5MU	C4-N3	-2.61	1.34	1.38
1	2A	1939	5MU	C4-N3	-2.60	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	1939	5MU	C6-C5	2.60	1.38	1.34
54	2w	54	5MU	C6-C5	2.59	1.38	1.34
1	2A	1962	5MC	C6-N1	-2.58	1.33	1.38
54	2y	46	7MG	C8-N9	2.57	1.47	1.45
1	2A	2503	2MA	C5-C6	2.57	1.48	1.41
1	2A	2503	2MA	C8-N7	2.55	1.36	1.31
32	2a	966	M2G	C6-N1	-2.55	1.34	1.38
54	1w	55	PSU	C4-N3	-2.55	1.34	1.38
55	2x	54	5MU	C4-N3	-2.54	1.34	1.38
1	1A	1937	5MU	C2-N1	2.54	1.42	1.38
54	2y	46	7MG	C6-N1	-2.53	1.34	1.38
54	1y	39	PSU	C4-N3	-2.53	1.34	1.38
54	2y	54	5MU	C4-C5	2.53	1.48	1.44
1	1A	1939	PSU	C4-N3	-2.48	1.34	1.38
32	1a	1498	UR3	C2-N1	2.48	1.41	1.38
1	2A	2552	2MU	C5-C4	2.48	1.49	1.43
54	2y	39	PSU	C4-N3	-2.47	1.34	1.38
1	1A	1961	5MU	C4-N3	-2.47	1.34	1.38
55	1x	54	5MU	C4-N3	-2.46	1.34	1.38
54	1y	55	PSU	C4-N3	-2.46	1.34	1.38
54	1w	39	PSU	C4-N3	-2.45	1.34	1.38
54	1w	32	PSU	C4-N3	-2.45	1.34	1.38
32	1a	1518	MA6	C4-N9	-2.44	1.32	1.37
54	1w	37	MIA	C5-N7	-2.44	1.34	1.39
32	2a	527	7MG	C6-N1	-2.44	1.34	1.38
1	2A	2503	2MA	C5-N7	-2.43	1.34	1.39
54	2y	55	PSU	C4-N3	-2.42	1.34	1.38
54	2w	54	5MU	C4-N3	-2.42	1.34	1.38
1	2A	2605	PSU	C2-N3	-2.41	1.33	1.37
32	2a	1207	2MG	C6-N1	-2.40	1.34	1.38
1	2A	2552	2MU	C4-N3	-2.40	1.34	1.38
54	1y	46	7MG	C4-N9	-2.40	1.34	1.37
1	2A	1939	5MU	C2-N1	2.39	1.42	1.38
1	1A	1937	5MU	C2-N3	-2.39	1.33	1.38
54	1w	8	4SU	C2-N1	2.38	1.42	1.38
54	2y	54	5MU	C4-N3	-2.38	1.34	1.38
54	1w	8	4SU	C5-C4	-2.38	1.39	1.42
1	1A	2617	PSU	C2-N3	-2.37	1.33	1.37
1	2A	1911	PSU	C4-N3	-2.37	1.34	1.38
1	2A	1939	5MU	C4-C5	2.37	1.48	1.44
54	2w	55	PSU	C4-N3	-2.36	1.34	1.38
55	2x	55	PSU	C4-N3	-2.36	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	1984	5MC	C6-N1	-2.36	1.34	1.38
32	1a	1407	5MC	C6-N1	-2.34	1.34	1.38
54	1y	8	4SU	C5-C4	-2.34	1.39	1.42
54	2w	32	PSU	C4-N3	-2.33	1.34	1.38
1	2A	1939	5MU	C6-N1	-2.33	1.34	1.38
32	2a	1518	MA6	C8-N7	2.32	1.36	1.31
1	2A	2503	2MA	C4-N9	-2.32	1.32	1.37
54	1y	32	PSU	C4-N3	-2.32	1.34	1.38
54	2w	54	5MU	C4-C5	2.31	1.48	1.44
1	2A	1942	5MC	C6-N1	-2.31	1.34	1.38
1	1A	1961	5MU	C6-N1	-2.31	1.34	1.38
54	2y	37	MIA	C8-N7	2.31	1.36	1.31
32	1a	1518	MA6	C8-N7	2.30	1.36	1.31
55	2x	54	5MU	C4-C5	2.30	1.48	1.44
54	1w	54	5MU	C2-N3	-2.30	1.34	1.38
32	1a	1400	5MC	C6-N1	-2.30	1.34	1.38
55	2x	32	5MC	C6-N1	-2.29	1.34	1.38
54	1w	37	MIA	C4-N9	-2.29	1.32	1.37
54	2w	8	4SU	C5-C4	-2.29	1.39	1.42
54	1y	46	7MG	C6-N1	-2.29	1.34	1.38
55	1x	54	5MU	C6-N1	-2.28	1.34	1.38
32	2a	1498	UR3	C2-N1	2.28	1.41	1.38
32	1a	1404	5MC	C6-N1	-2.27	1.34	1.38
54	2w	37	MIA	C5-N7	-2.27	1.34	1.39
32	1a	1404	5MC	C6-C5	2.26	1.38	1.34
32	2a	516	PSU	C4-N3	-2.26	1.34	1.38
1	2A	1915	5MU	C6-N1	-2.25	1.34	1.38
54	2w	54	5MU	C2-N1	2.25	1.42	1.38
1	2A	1939	5MU	C2-N3	-2.25	1.34	1.38
32	1a	516	PSU	C4-N3	-2.24	1.34	1.38
54	2y	32	PSU	C4-N3	-2.23	1.34	1.38
32	2a	966	M2G	C5-N7	-2.21	1.34	1.39
54	2y	55	PSU	C2-N1	-2.21	1.33	1.36
54	1w	37	MIA	C8-N7	2.21	1.35	1.31
32	1a	1519	MA6	C8-N7	2.20	1.35	1.31
54	1y	54	5MU	C2-N3	-2.18	1.34	1.38
32	2a	1519	MA6	C8-N7	2.18	1.35	1.31
32	2a	1407	5MC	C6-N1	-2.17	1.34	1.38
32	2a	1207	2MG	C5-N7	-2.17	1.34	1.39
55	2x	54	5MU	C2-N1	2.17	1.41	1.38
54	2w	37	MIA	C8-N7	2.16	1.35	1.31
1	2A	1962	5MC	C6-C5	2.16	1.38	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	1518	MA6	C5-N7	-2.16	1.35	1.39
32	1a	1519	MA6	C5-N7	-2.15	1.35	1.39
32	2a	1519	MA6	C5-N7	-2.14	1.35	1.39
1	1A	2515	2MA	C8-N7	2.13	1.35	1.31
32	2a	1400	5MC	C6-N1	-2.13	1.34	1.38
54	1y	46	7MG	C8-N9	2.13	1.47	1.45
55	1x	32	5MC	C6-N1	-2.13	1.34	1.38
1	1A	1933	PSU	C2-N3	-2.12	1.34	1.37
32	1a	527	7MG	C6-N1	-2.12	1.34	1.38
55	2x	54	5MU	C2-N3	-2.11	1.34	1.38
54	2y	46	7MG	C2-N3	2.11	1.38	1.33
54	1y	54	5MU	C6-N1	-2.11	1.34	1.38
1	1A	1961	5MU	C2-N3	-2.10	1.34	1.38
54	1w	54	5MU	C4-C5	2.10	1.48	1.44
54	2w	54	5MU	C2-N3	-2.09	1.34	1.38
54	2w	54	5MU	C6-N1	-2.08	1.34	1.38
32	1a	527	7MG	C5-C6	2.07	1.48	1.43
1	1A	1937	5MU	C4-C5	2.07	1.48	1.44
55	2x	54	5MU	C6-N1	-2.07	1.34	1.38
1	2A	2251	OMG	C5-N7	-2.07	1.34	1.39
55	1x	54	5MU	C2-N3	-2.06	1.34	1.38
55	2x	8	4SU	O2-C2	2.06	1.26	1.23
54	2w	39	PSU	C2-N3	-2.05	1.34	1.37
54	2w	37	MIA	C4-N9	-2.05	1.33	1.37
54	1w	54	5MU	C2-N1	2.04	1.41	1.38
55	2x	8	4SU	C2-N1	2.04	1.41	1.38
54	1y	8	4SU	C6-C5	2.04	1.39	1.35
55	1x	54	5MU	C2-N1	2.03	1.41	1.38
32	2a	1404	5MC	C6-N1	-2.03	1.34	1.38
54	1y	32	PSU	C4-C5	2.02	1.49	1.44
1	2A	1915	5MU	C2-N3	-2.02	1.34	1.38
1	1A	2564	2MU	C5-C4	2.01	1.48	1.43
54	2w	32	PSU	C4-C5	2.01	1.49	1.44
1	1A	1939	PSU	C2-N3	-2.01	1.34	1.37
54	2w	46	7MG	C6-N1	-2.00	1.35	1.38
32	2a	1207	2MG	C2-N3	2.00	1.35	1.32
32	2a	1518	MA6	C6-N6	2.00	1.42	1.36

All (421) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	1l	92	0TD	CSB-SB-CB	11.53	123.08	102.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2y	46	7MG	N9-C4-N3	10.09	140.24	125.46
54	1w	37	MIA	C12-C13-C14	-9.70	109.61	127.01
54	1y	46	7MG	N9-C4-N3	9.08	138.76	125.46
1	1A	2515	2MA	C5-C4-N3	-8.79	117.92	127.18
54	1w	46	7MG	N9-C4-N3	8.57	138.02	125.46
32	2a	527	7MG	N9-C4-N3	8.46	137.86	125.46
32	1a	527	7MG	N9-C4-N3	8.44	137.82	125.46
43	2l	92	0TD	CSB-SB-CB	-8.18	87.65	102.36
54	2w	46	7MG	N9-C4-N3	8.08	137.31	125.46
1	2A	2503	2MA	C5-C4-N3	-7.78	118.99	127.18
32	2a	1498	UR3	C4-N3-C2	-7.74	118.35	124.58
54	2w	8	4SU	C4-N3-C2	-7.72	119.91	127.31
54	2w	37	MIA	C5-C4-N3	-7.34	119.44	127.18
32	1a	1498	UR3	C4-N3-C2	-7.34	118.67	124.58
1	1A	2515	2MA	N3-C4-N9	7.22	136.15	126.99
54	1w	37	MIA	C5-C4-N3	-7.17	119.62	127.18
32	1a	1207	2MG	C2-N3-C4	7.16	120.96	112.00
54	1w	8	4SU	C4-N3-C2	-7.09	120.52	127.31
32	2a	1207	2MG	C2-N3-C4	6.98	120.73	112.00
1	1A	2263	OMG	C5-C4-N3	-6.86	117.47	128.39
1	2A	1917	PSU	N1-C2-N3	6.68	122.22	115.17
54	1y	55	PSU	N1-C2-N3	6.57	122.10	115.17
1	1A	1933	PSU	N1-C2-N3	6.37	121.89	115.17
32	2a	966	M2G	C5-C4-N3	-6.36	118.27	128.39
54	2w	55	PSU	N1-C2-N3	6.33	121.85	115.17
54	1w	39	PSU	N1-C2-N3	6.32	121.83	115.17
54	2w	8	4SU	C5-C4-N3	6.30	120.61	114.75
55	1x	55	PSU	N1-C2-N3	6.28	121.79	115.17
1	2A	2251	OMG	C5-C4-N3	-6.25	118.45	128.39
54	1w	55	PSU	N1-C2-N3	6.20	121.71	115.17
54	2y	8	4SU	C4-N3-C2	-6.20	121.37	127.31
55	2x	55	PSU	N1-C2-N3	6.18	121.69	115.17
54	2w	32	PSU	N1-C2-N3	6.11	121.61	115.17
32	2a	1519	MA6	C5-C4-N3	-6.08	118.34	126.72
32	2a	1207	2MG	C5-C4-N3	-6.08	118.72	128.39
54	1w	8	4SU	C5-C4-N3	6.06	120.38	114.75
54	2y	39	PSU	N1-C2-N3	6.04	121.54	115.17
32	2a	527	7MG	N9-C8-N7	-6.03	94.83	103.37
54	2y	8	4SU	C5-C4-N3	6.02	120.35	114.75
1	2A	2605	PSU	N1-C2-N3	6.01	121.51	115.17
32	1a	966	M2G	C5-C4-N3	-6.01	118.83	128.39
54	2y	32	PSU	N1-C2-N3	6.00	121.50	115.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	2617	PSU	N1-C2-N3	5.94	121.44	115.17
32	2a	516	PSU	N1-C2-N3	5.94	121.44	115.17
32	1a	516	PSU	N1-C2-N3	5.94	121.43	115.17
54	1y	39	PSU	N1-C2-N3	5.92	121.42	115.17
1	1A	1939	PSU	N1-C2-N3	5.84	121.33	115.17
54	2w	37	MIA	N3-C4-N9	5.75	134.28	126.99
54	2y	46	7MG	C5-C4-N3	-5.73	117.37	128.13
54	1y	32	PSU	N1-C2-N3	5.73	121.21	115.17
32	2a	1518	MA6	C5-C4-N3	-5.73	118.83	126.72
1	1A	1937	5MU	C5-C4-N3	5.68	120.26	115.32
32	1a	1207	2MG	C5-C4-N3	-5.67	119.36	128.39
1	2A	2552	2MU	N3-C2-N1	5.63	122.22	114.89
1	1A	1961	5MU	C4-N3-C2	-5.59	120.01	127.34
1	2A	2552	2MU	C4-N3-C2	-5.58	119.68	126.61
1	1A	2564	2MU	N3-C2-N1	5.57	122.15	114.89
1	2A	1915	5MU	C4-N3-C2	-5.56	120.05	127.34
54	2y	37	MIA	C5-C4-N3	-5.53	119.11	126.72
54	1w	32	PSU	N1-C2-N3	5.52	120.99	115.17
54	1y	8	4SU	C4-N3-C2	-5.50	122.05	127.31
32	1a	1519	MA6	C5-C4-N3	-5.48	119.17	126.72
1	1A	1961	5MU	O4-C4-C5	-5.48	118.65	124.92
1	2A	1911	PSU	N1-C2-N3	5.46	120.93	115.17
54	1y	37	MIA	C5-C4-N3	-5.45	119.21	126.72
54	2w	46	7MG	N9-C8-N7	-5.43	95.68	103.37
1	1A	1937	5MU	C4-N3-C2	-5.42	120.23	127.34
1	1A	2263	OMG	N9-C4-N3	5.40	136.76	125.95
54	2y	55	PSU	N1-C2-N3	5.40	120.86	115.17
54	1w	46	7MG	N9-C8-N7	-5.39	95.74	103.37
1	2A	1915	5MU	N3-C2-N1	5.28	121.77	114.89
1	2A	2503	2MA	N3-C4-N9	5.27	133.68	126.99
1	2A	1939	5MU	C4-N3-C2	-5.27	120.43	127.34
54	1y	46	7MG	N9-C8-N7	-5.26	95.93	103.37
54	2w	39	PSU	N1-C2-N3	5.25	120.71	115.17
32	1a	527	7MG	C5-C4-N3	-5.23	118.30	128.13
54	1w	37	MIA	N3-C4-N9	5.22	133.61	126.99
1	1A	1937	5MU	O4-C4-C5	-5.21	118.96	124.92
32	2a	966	M2G	N9-C4-N3	5.21	136.37	125.95
54	1y	46	7MG	C5-C4-N3	-5.14	118.47	128.13
1	1A	1961	5MU	N3-C2-N1	5.12	121.56	114.89
1	2A	1939	5MU	C5-C4-N3	5.12	119.77	115.32
1	1A	2564	2MU	C4-N3-C2	-5.07	120.32	126.61
1	1A	2263	OMG	C2-N3-C4	5.06	121.02	112.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	1937	5MU	N3-C2-N1	4.97	121.37	114.89
32	1a	527	7MG	N9-C8-N7	-4.94	96.37	103.37
54	2y	37	MIA	N3-C4-N9	4.93	135.56	127.17
54	1y	54	5MU	N3-C2-N1	4.89	121.26	114.89
54	2w	46	7MG	C5-C4-N3	-4.88	118.97	128.13
1	2A	1915	5MU	C5-C4-N3	4.84	119.53	115.32
54	2y	46	7MG	C2-N3-C4	4.81	120.58	112.30
55	2x	54	5MU	N3-C2-N1	4.80	121.15	114.89
32	2a	1519	MA6	N3-C4-N9	4.79	135.31	127.17
32	2a	527	7MG	C5-C4-N3	-4.77	119.18	128.13
1	2A	2251	OMG	C2-N3-C4	4.73	120.45	112.30
54	1y	54	5MU	C4-N3-C2	-4.73	121.14	127.34
32	1a	1518	MA6	C2-N1-C6	4.72	123.35	111.83
54	2y	46	7MG	N9-C8-N7	-4.71	96.71	103.37
55	1x	8	4SU	C6-C5-C4	-4.70	115.88	119.95
32	1a	1518	MA6	C5-C4-N3	-4.69	120.26	126.72
54	1w	46	7MG	C5-C4-N3	-4.68	119.34	128.13
55	1x	54	5MU	N3-C2-N1	4.67	120.97	114.89
32	1a	1518	MA6	C9-N6-C6	-4.66	108.66	120.52
1	1A	1961	5MU	C5-C4-N3	4.65	119.37	115.32
54	2y	8	4SU	C5-C4-S4	-4.54	119.12	124.31
32	2a	1518	MA6	C9-N6-C6	-4.54	108.98	120.52
1	2A	1939	5MU	N3-C2-N1	4.52	120.78	114.89
1	2A	2251	OMG	N9-C4-N3	4.52	134.98	125.95
54	2y	54	5MU	C5-C4-N3	4.51	119.24	115.32
32	1a	966	M2G	N9-C4-N3	4.50	134.96	125.95
32	1a	1519	MA6	C2-N1-C6	4.49	122.79	111.83
32	2a	1518	MA6	C2-N1-C6	4.49	122.79	111.83
54	2w	46	7MG	C2-N3-C4	4.48	120.01	112.30
32	1a	527	7MG	C2-N3-C4	4.46	119.97	112.30
32	1a	1519	MA6	N3-C4-N9	4.45	134.73	127.17
54	2y	54	5MU	C4-N3-C2	-4.44	121.52	127.34
55	1x	54	5MU	O4-C4-C5	-4.38	119.90	124.92
55	1x	55	PSU	C4-N3-C2	-4.36	120.36	126.37
54	1w	54	5MU	C5-C4-N3	4.35	119.11	115.32
1	1A	1961	5MU	C5-C6-N1	-4.35	118.59	123.31
55	2x	54	5MU	C4-N3-C2	-4.35	121.64	127.34
54	1y	46	7MG	C2-N3-C4	4.34	119.77	112.30
32	2a	1518	MA6	C4-C5-N7	-4.31	105.65	110.58
54	1y	8	4SU	N3-C2-N1	4.29	120.47	114.89
54	1y	37	MIA	N3-C4-N9	4.28	134.44	127.17
32	1a	966	M2G	C2-N3-C4	4.27	120.40	112.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2w	54	5MU	C4-N3-C2	-4.26	121.75	127.34
32	2a	1519	MA6	C9-N6-C6	-4.25	109.71	120.52
54	2w	8	4SU	N3-C2-N1	4.24	120.41	114.89
54	1y	54	5MU	C5-C4-N3	4.23	119.00	115.32
32	2a	966	M2G	C2-N3-C4	4.23	120.33	112.51
32	1a	1518	MA6	C4-C5-N7	-4.22	105.75	110.58
32	2a	1519	MA6	C2-N1-C6	4.22	122.14	111.83
32	1a	1519	MA6	N1-C2-N3	-4.22	122.20	128.58
54	2w	54	5MU	C5-C4-N3	4.21	118.98	115.32
1	2A	1917	PSU	C4-N3-C2	-4.20	120.59	126.37
54	1w	39	PSU	C4-N3-C2	-4.19	120.60	126.37
55	1x	54	5MU	C4-N3-C2	-4.18	121.85	127.34
54	2y	54	5MU	N3-C2-N1	4.17	120.32	114.89
1	2A	1915	5MU	O4-C4-C5	-4.17	120.15	124.92
1	1A	2617	PSU	C4-N3-C2	-4.16	120.63	126.37
54	1w	37	MIA	C16-C14-C13	-4.15	110.21	122.66
54	1w	8	4SU	N3-C2-N1	4.14	120.28	114.89
1	2A	2605	PSU	C4-N3-C2	-4.13	120.69	126.37
54	1w	54	5MU	C4-N3-C2	-4.11	121.94	127.34
32	2a	1518	MA6	N3-C4-N9	4.11	134.16	127.17
32	1a	1207	2MG	C6-C5-N7	4.11	137.76	130.29
55	2x	55	PSU	C4-N3-C2	-4.10	120.72	126.37
54	2w	8	4SU	C5-C4-S4	-4.10	119.62	124.31
54	1w	8	4SU	C5-C4-S4	-4.05	119.67	124.31
32	1a	1498	UR3	C5-C4-N3	4.05	120.38	115.04
54	2y	54	5MU	O4-C4-C5	-4.03	120.30	124.92
32	2a	1207	2MG	N9-C4-N3	4.03	134.02	125.95
55	2x	8	4SU	C1'-N1-C2	4.01	124.79	117.59
1	1A	1939	PSU	C4-N3-C2	-4.01	120.85	126.37
1	2A	2503	2MA	C4-C5-N7	-3.99	106.02	110.58
32	1a	1519	MA6	C2-N3-C4	3.97	121.54	111.83
1	2A	1939	5MU	C5-C6-N1	-3.97	119.00	123.31
1	2A	1939	5MU	O4-C4-C5	-3.97	120.38	124.92
32	1a	516	PSU	C4-N3-C2	-3.96	120.91	126.37
54	1w	37	MIA	C15-C14-C13	-3.95	110.81	122.66
32	2a	516	PSU	C4-N3-C2	-3.95	120.94	126.37
1	2A	1917	PSU	O2-C2-N1	-3.95	118.72	122.79
54	2y	55	PSU	C4-N3-C2	-3.94	120.94	126.37
54	2w	55	PSU	C4-N3-C2	-3.94	120.94	126.37
1	1A	1933	PSU	C4-N3-C2	-3.93	120.95	126.37
54	1y	8	4SU	C5-C4-N3	3.93	118.41	114.75
54	1w	54	5MU	N3-C2-N1	3.92	119.99	114.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	1y	55	PSU	O2-C2-N1	-3.92	118.75	122.79
54	2y	55	PSU	O2-C2-N1	-3.91	118.76	122.79
32	1a	1519	MA6	C4-C5-N7	-3.90	106.12	110.58
54	2w	54	5MU	N3-C2-N1	3.89	119.95	114.89
54	2y	39	PSU	C4-N3-C2	-3.88	121.02	126.37
32	2a	1519	MA6	C4-C5-N7	-3.88	106.14	110.58
32	2a	527	7MG	C2-N3-C4	3.88	118.98	112.30
54	2y	32	PSU	C4-N3-C2	-3.86	121.06	126.37
54	1y	55	PSU	C4-N3-C2	-3.85	121.07	126.37
1	2A	2552	2MU	O2-C2-N1	-3.80	117.84	122.80
54	1w	46	7MG	C2-N3-C4	3.80	118.85	112.30
32	1a	1207	2MG	N9-C4-N3	3.79	133.52	125.95
1	2A	1915	5MU	C5-C6-N1	-3.78	119.21	123.31
54	2y	37	MIA	N3-C2-N1	-3.78	122.87	128.58
32	2a	1519	MA6	C2-N3-C4	3.77	121.03	111.83
54	1w	37	MIA	C4-C5-N7	-3.75	106.29	110.58
1	1A	2515	2MA	N6-C6-N1	3.74	122.07	117.03
54	2w	54	5MU	O4-C4-C5	-3.74	120.64	124.92
1	2A	1911	PSU	C4-N3-C2	-3.72	121.24	126.37
32	2a	1518	MA6	C2-N3-C4	3.71	120.90	111.83
1	1A	2564	2MU	O2-C2-N1	-3.70	117.98	122.80
54	1w	54	5MU	O4-C4-C5	-3.69	120.70	124.92
32	1a	1407	5MC	C5-C4-N3	-3.68	117.98	121.75
54	1y	37	MIA	N3-C2-N1	-3.67	123.02	128.58
32	1a	516	PSU	O2-C2-N1	-3.67	119.00	122.79
32	1a	1519	MA6	C9-N6-C6	-3.65	111.22	120.52
54	2w	32	PSU	O2-C2-N1	-3.65	119.02	122.79
54	2w	32	PSU	C4-N3-C2	-3.65	121.34	126.37
54	1w	32	PSU	O2-C2-N1	-3.64	119.03	122.79
54	1y	37	MIA	C2-N3-C4	3.64	120.73	111.83
54	1y	37	MIA	C4-C5-N7	-3.64	106.42	110.58
54	2y	37	MIA	C2-N3-C4	3.63	120.71	111.83
55	2x	54	5MU	O4-C4-C5	-3.63	120.77	124.92
1	1A	1937	5MU	C5-C6-N1	-3.60	119.40	123.31
1	1A	1933	PSU	O2-C2-N1	-3.59	119.08	122.79
54	2w	55	PSU	O2-C2-N1	-3.58	119.09	122.79
32	1a	967	5MC	C5-C6-N1	-3.57	119.43	123.31
32	1a	1404	5MC	C5-C6-N1	-3.57	119.44	123.31
32	1a	1518	MA6	N1-C2-N3	-3.56	123.19	128.58
54	1w	37	MIA	C6-C5-N7	3.56	136.31	132.43
32	1a	1400	5MC	C5-C6-N1	-3.56	119.45	123.31
54	2y	8	4SU	N3-C2-N1	3.55	119.52	114.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	1984	5MC	C5-C4-N3	-3.55	118.11	121.75
54	2w	37	MIA	C4-C5-N7	-3.51	106.57	110.58
55	1x	8	4SU	C5-C4-N3	3.51	118.01	114.75
32	1a	1518	MA6	N3-C4-N9	3.50	133.12	127.17
54	2y	54	5MU	C1'-N1-C2	3.49	123.86	117.59
54	1w	55	PSU	C4-N3-C2	-3.47	121.58	126.37
54	1y	32	PSU	C4-N3-C2	-3.47	121.59	126.37
1	1A	2564	2MU	O4-C4-C5	-3.47	119.18	125.16
32	2a	1404	5MC	C5-C4-N3	-3.47	118.20	121.75
55	2x	54	5MU	C5-C4-N3	3.47	118.34	115.32
54	2y	37	MIA	C4-N9-C8	3.47	109.38	105.74
54	1y	39	PSU	C4-N3-C2	-3.46	121.60	126.37
54	1w	39	PSU	O2-C2-N1	-3.44	119.24	122.79
32	2a	1207	2MG	C6-C5-N7	3.43	136.54	130.29
54	1y	54	5MU	C5-C6-N1	-3.43	119.59	123.31
54	2y	39	PSU	O2-C2-N1	-3.43	119.25	122.79
32	1a	1518	MA6	C2-N3-C4	3.41	120.16	111.83
54	2w	37	MIA	C6-C5-N7	3.40	136.14	132.43
54	1y	54	5MU	O4-C4-C5	-3.40	121.03	124.92
32	1a	1518	MA6	C4-N9-C8	3.39	109.30	105.74
32	2a	967	5MC	C5-C6-N1	-3.39	119.63	123.31
32	2a	1498	UR3	C5-C4-N3	3.39	119.50	115.04
54	1y	32	PSU	O2-C2-N1	-3.38	119.30	122.79
1	1A	1961	5MU	O2-C2-N1	-3.37	118.41	122.80
55	1x	32	5MC	C5-C6-N1	-3.36	119.66	123.31
32	2a	516	PSU	O2-C2-N1	-3.36	119.32	122.79
1	2A	1942	5MC	C5-C4-N3	-3.35	118.32	121.75
54	1w	54	5MU	C5-C6-N1	-3.35	119.67	123.31
54	1w	32	PSU	C4-N3-C2	-3.35	121.76	126.37
32	2a	1518	MA6	N1-C2-N3	-3.32	123.56	128.58
54	2y	54	5MU	C1'-N1-C6	-3.31	115.70	121.15
32	2a	1407	5MC	C5-C4-N3	-3.30	118.37	121.75
32	1a	1519	MA6	C4-N9-C8	3.30	109.21	105.74
54	2w	37	MIA	C2-N3-C4	3.29	120.90	112.29
55	2x	32	5MC	C5-C6-N1	-3.26	119.77	123.31
55	1x	54	5MU	C5-C4-N3	3.25	118.14	115.32
54	2w	54	5MU	C5-C6-N1	-3.25	119.79	123.31
54	1w	55	PSU	O2-C2-N1	-3.24	119.44	122.79
54	2w	39	PSU	C4-N3-C2	-3.23	121.92	126.37
32	1a	966	M2G	C6-C5-N7	3.23	136.17	130.29
54	1w	37	MIA	C2-N3-C4	3.23	120.74	112.29
55	1x	32	5MC	C5-C4-N3	-3.22	118.46	121.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	2x	54	5MU	C5-C6-N1	-3.21	119.83	123.31
1	2A	2552	2MU	O4-C4-C5	-3.19	119.65	125.16
1	2A	2251	OMG	C6-C5-N7	3.19	136.10	130.29
32	2a	1519	MA6	N1-C2-N3	-3.18	123.77	128.58
32	1a	1207	2MG	C4-C5-N7	-3.18	105.64	110.67
55	2x	8	4SU	C5-C4-N3	3.16	117.69	114.75
1	2A	1911	PSU	O2-C2-N1	-3.16	119.53	122.79
32	2a	1400	5MC	C5-C6-N1	-3.15	119.89	123.31
54	2y	37	MIA	C4-C5-N7	-3.12	107.02	110.58
1	2A	2552	2MU	C5-C4-N3	3.11	119.16	114.80
54	2y	32	PSU	O2-C2-N1	-3.11	119.58	122.79
1	1A	2617	PSU	O2-C2-N1	-3.11	119.58	122.79
54	2y	46	7MG	C5-C4-N9	-3.09	102.38	106.33
55	2x	32	5MC	C5-C4-N3	-3.08	118.60	121.75
32	1a	1519	MA6	C5-N7-C8	3.07	108.27	103.45
32	2a	1407	5MC	C5-C6-N1	-3.06	119.99	123.31
55	2x	55	PSU	O2-C2-N1	-3.05	119.64	122.79
1	2A	1942	5MC	C5-C6-N1	-3.05	120.00	123.31
1	1A	1964	5MC	C5-C6-N1	-3.03	120.02	123.31
1	2A	1962	5MC	C5-C6-N1	-3.03	120.03	123.31
1	1A	1939	PSU	O2-C2-N1	-3.02	119.68	122.79
43	2l	92	0TD	OD2-CG-CB	3.00	119.64	113.15
55	2x	8	4SU	O2-C2-N1	2.97	126.67	122.80
32	2a	1207	2MG	C4-C5-N7	-2.95	106.00	110.67
55	1x	55	PSU	O2-C2-N1	-2.92	119.77	122.79
54	1w	46	7MG	C5-C4-N9	-2.90	102.61	106.33
1	1A	1984	5MC	C5-C6-N1	-2.90	120.16	123.31
32	2a	1518	MA6	C5-N7-C8	2.90	108.01	103.45
32	1a	1518	MA6	C5-N7-C8	2.88	107.97	103.45
32	1a	1519	MA6	N1-C6-N6	2.87	120.35	116.86
55	1x	32	5MC	O2-C2-N3	-2.84	117.86	122.33
1	2A	1962	5MC	C5-C4-N3	-2.83	118.85	121.75
1	1A	2564	2MU	C5-C4-N3	2.80	118.72	114.80
54	1y	8	4SU	C5-C4-S4	-2.80	121.11	124.31
32	1a	1518	MA6	C6-C5-N7	2.80	137.90	133.43
54	1y	46	7MG	C5-C4-N9	-2.79	102.76	106.33
32	2a	1404	5MC	C5-C6-N1	-2.78	120.29	123.31
1	2A	2251	OMG	C4-C5-N7	-2.78	106.26	110.67
1	2A	1942	5MC	O2-C2-N3	-2.76	117.98	122.33
55	2x	8	4SU	C6-C5-C4	-2.74	117.58	119.95
54	1y	37	MIA	C4-N9-C8	2.73	108.60	105.74
32	2a	1519	MA6	N1-C6-N6	2.71	120.15	116.86

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	1207	2MG	N1-C2-N2	2.70	119.32	116.56
32	2a	1404	5MC	O2-C2-N3	-2.70	118.07	122.33
32	2a	1519	MA6	C5-N7-C8	2.69	107.68	103.45
54	2y	54	5MU	O2-C2-N3	-2.68	116.55	121.49
1	2A	2503	2MA	C2-N1-C6	2.68	122.22	118.10
32	1a	527	7MG	C5-C6-N1	2.68	115.65	110.94
54	1y	37	MIA	C5-N7-C8	2.67	107.65	103.45
54	2y	54	5MU	C5-C6-N1	-2.67	120.42	123.31
32	2a	1519	MA6	C10-N6-C6	-2.66	113.76	120.52
32	1a	966	M2G	C4-C5-N7	-2.66	106.46	110.67
32	1a	1519	MA6	C10-N6-C6	-2.66	113.77	120.52
32	1a	967	5MC	C5-C4-N3	-2.65	119.03	121.75
32	2a	527	7MG	C5-C4-N9	-2.65	102.94	106.33
1	1A	2515	2MA	C4-C5-N7	-2.63	107.57	110.58
55	1x	8	4SU	C1'-N1-C2	2.63	122.31	117.59
54	1w	37	MIA	C5-N7-C8	2.63	107.58	103.45
1	1A	2263	OMG	O6-C6-C5	-2.62	119.61	126.53
32	1a	1518	MA6	C10-N6-C6	-2.62	113.86	120.52
1	1A	2617	PSU	C6-C5-C4	-2.61	116.41	118.17
1	2A	2503	2MA	C5-N7-C8	2.61	107.55	103.45
32	2a	1518	MA6	C10-N6-C9	-2.61	107.81	116.18
32	1a	1519	MA6	N9-C8-N7	-2.59	110.27	113.94
54	2w	37	MIA	C4-N9-C8	2.58	108.45	105.74
54	2w	46	7MG	C5-C6-N1	2.58	115.48	110.94
32	1a	1518	MA6	C10-N6-C9	-2.57	107.92	116.18
32	2a	527	7MG	C5-C6-N1	2.57	115.47	110.94
54	1w	37	MIA	C2-N1-C6	2.57	122.41	117.54
1	1A	2515	2MA	C2-N1-C6	2.56	122.04	118.10
54	1w	37	MIA	C4-N9-C8	2.56	108.42	105.74
43	1l	92	0TD	OD2-CG-CB	2.55	118.67	113.15
54	2y	37	MIA	C5-N7-C8	2.55	107.45	103.45
1	1A	1964	5MC	C5-C4-N3	-2.54	119.15	121.75
54	2w	37	MIA	C2-N1-C6	2.53	122.35	117.54
1	2A	2503	2MA	N6-C6-N1	2.53	120.44	117.03
55	1x	54	5MU	C5-C6-N1	-2.53	120.57	123.31
32	1a	1518	MA6	N9-C8-N7	-2.53	110.35	113.94
32	1a	1400	5MC	C5-C4-N3	-2.52	119.17	121.75
55	1x	55	PSU	C5-C6-N1	-2.52	118.65	122.14
32	1a	1519	MA6	C6-C5-N7	2.51	137.45	133.43
32	2a	1519	MA6	C4-N9-C8	2.51	108.37	105.74
32	1a	1402	4OC	C6-C5-C4	2.51	120.02	117.00
1	2A	1942	5MC	CM5-C5-C6	-2.50	119.46	122.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1402	4OC	C6-C5-C4	2.47	119.98	117.00
1	2A	2503	2MA	C6-C5-N7	2.45	136.82	132.09
32	2a	1518	MA6	C10-N6-C6	-2.45	114.30	120.52
32	2a	1402	4OC	O2-C2-N3	-2.44	118.48	122.33
55	1x	8	4SU	O2-C2-N1	2.43	125.96	122.80
1	1A	1933	PSU	C6-C5-C4	-2.43	116.53	118.17
1	2A	1917	PSU	C5-C6-N1	-2.42	118.78	122.14
55	2x	8	4SU	C1'-N1-C6	-2.42	115.62	120.78
54	1w	37	MIA	N6-C6-N1	2.41	121.57	118.33
1	2A	1911	PSU	C6-C5-C4	-2.41	116.55	118.17
54	2w	8	4SU	C1'-N1-C2	2.40	121.91	117.59
54	2w	37	MIA	N3-C2-N1	-2.40	122.62	127.00
54	2w	37	MIA	C5-N7-C8	2.38	107.20	103.45
54	2y	54	5MU	C5M-C5-C4	2.38	121.32	118.78
54	1w	39	PSU	C5-C6-N1	-2.36	118.87	122.14
32	2a	966	M2G	C6-C5-N7	2.34	134.55	130.29
54	1w	37	MIA	N3-C2-N1	-2.34	122.73	127.00
54	1y	39	PSU	O2-C2-N1	-2.34	120.38	122.79
54	1y	46	7MG	C5-C6-N1	2.31	115.01	110.94
32	1a	1519	MA6	C5-C6-N6	-2.30	121.70	125.33
54	1y	37	MIA	C6-C5-N7	2.29	136.51	132.09
55	1x	54	5MU	O2-C2-N1	-2.29	119.82	122.80
1	1A	2515	2MA	C5-N7-C8	2.29	107.04	103.45
32	2a	966	M2G	O6-C6-C5	-2.28	120.50	126.53
32	2a	1207	2MG	N1-C2-N2	2.27	118.88	116.56
32	2a	1207	2MG	N2-C2-N3	-2.25	117.64	120.51
32	2a	1498	UR3	C3U-N3-C4	2.25	120.99	117.87
1	2A	1962	5MC	C1'-N1-C6	-2.24	117.46	121.15
32	1a	1404	5MC	C1'-N1-C6	-2.23	117.47	121.15
32	1a	516	PSU	O4'-C1'-C2'	2.23	108.24	105.15
32	1a	1207	2MG	C8-N7-C5	2.22	108.22	104.26
1	2A	2503	2MA	C4-N9-C8	2.22	108.07	105.74
55	2x	54	5MU	O2-C2-N1	-2.21	119.92	122.80
1	2A	2605	PSU	O2-C2-N3	-2.21	117.94	121.86
32	2a	1518	MA6	C6-C5-N7	2.20	136.94	133.43
32	2a	1400	5MC	C5-C4-N3	-2.20	119.50	121.75
54	2y	8	4SU	C1'-N1-C2	2.20	121.54	117.59
54	2y	37	MIA	N9-C8-N7	-2.19	110.82	113.94
54	1y	54	5MU	O2-C2-N3	-2.19	117.44	121.49
32	2a	1407	5MC	O2-C2-N3	-2.19	118.88	122.33
55	2x	32	5MC	O2-C2-N3	-2.19	118.88	122.33
54	2w	54	5MU	C5M-C5-C4	2.18	121.11	118.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2y	55	PSU	C6-C5-C4	-2.17	116.71	118.17
54	2y	37	MIA	C2-N1-C6	2.17	122.29	118.73
54	2y	46	7MG	C5-C6-N1	2.17	114.75	110.94
32	1a	1498	UR3	C3U-N3-C2	2.16	121.10	117.33
1	2A	2605	PSU	O2-C2-N1	-2.16	120.56	122.79
32	2a	1518	MA6	C4-N9-C8	2.16	108.01	105.74
54	1y	55	PSU	O4'-C1'-C2'	2.15	108.13	105.15
32	2a	516	PSU	C5-C6-N1	-2.15	119.16	122.14
54	2w	39	PSU	O2-C2-N3	-2.14	118.06	121.86
32	1a	1519	MA6	C2'-C1'-N9	-2.13	108.02	113.30
54	1w	37	MIA	N9-C8-N7	-2.12	110.94	113.94
54	2w	46	7MG	O6-C6-C5	-2.11	122.44	127.62
32	2a	527	7MG	O6-C6-C5	-2.11	122.44	127.62
1	2A	1962	5MC	CM5-C5-C6	-2.11	120.00	122.85
54	2y	32	PSU	O4'-C1'-C2'	2.10	108.06	105.15
54	1y	32	PSU	C6-C5-C4	-2.09	116.77	118.17
1	1A	2564	2MU	C2'-C1'-N1	-2.09	110.28	114.24
54	1y	8	4SU	C1'-N1-C2	2.08	121.33	117.59
54	1y	37	MIA	N9-C8-N7	-2.08	110.99	113.94
54	2y	55	PSU	O4'-C1'-C2'	2.08	108.03	105.15
1	2A	2605	PSU	C5-C6-N1	-2.07	119.26	122.14
54	1y	39	PSU	O2-C2-N3	-2.06	118.20	121.86
1	2A	2503	2MA	N9-C8-N7	-2.06	111.02	113.94
1	1A	2515	2MA	C4-N9-C8	2.06	107.90	105.74
54	2w	46	7MG	C5-C4-N9	-2.06	103.70	106.33
32	2a	1400	5MC	O2-C2-N3	-2.06	119.09	122.33
1	2A	1920	4OC	O2-C2-N3	-2.05	119.10	122.33
43	2l	92	0TD	OD1-CG-CB	-2.04	118.16	122.44
32	2a	516	PSU	O4'-C1'-C2'	2.04	107.98	105.15
54	2w	37	MIA	C12-N6-C6	-2.04	120.96	122.85
54	1y	37	MIA	C2-N1-C6	2.04	122.08	118.73
54	1w	32	PSU	C6-C5-C4	-2.04	116.80	118.17
32	2a	1207	2MG	C2-N1-C6	-2.03	122.09	124.55
54	1y	8	4SU	C6-N1-C2	-2.03	118.53	121.00
1	2A	2552	2MU	C2'-C1'-N1	-2.03	110.39	114.24
32	1a	1402	4OC	CM4-N4-C4	-2.02	118.50	122.45
54	2w	39	PSU	C6-C5-C4	-2.02	116.81	118.17
1	2A	1917	PSU	O4'-C1'-C2'	2.02	107.94	105.15
32	1a	1407	5MC	C5-C6-N1	-2.01	121.13	123.31
54	1y	55	PSU	C5-C6-N1	-2.01	119.35	122.14
54	2y	46	7MG	C4-C5-N7	2.01	107.75	105.38
55	2x	55	PSU	C5-C6-N1	-2.00	119.36	122.14

There are no chirality outliers.

All (76) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
32	1a	1400	5MC	O4'-C4'-C5'-O5'
32	1a	1519	MA6	O4'-C4'-C5'-O5'
54	1w	37	MIA	N1-C2-S10-C11
54	1w	37	MIA	N3-C2-S10-C11
54	1w	37	MIA	C12-C13-C14-C16
54	1y	46	7MG	C4'-C5'-O5'-P
54	1y	54	5MU	O4'-C4'-C5'-O5'
32	2a	1207	2MG	N1-C2-N2-CM2
32	2a	1207	2MG	N3-C2-N2-CM2
32	2a	1518	MA6	C5-C6-N6-C9
32	2a	1519	MA6	O4'-C4'-C5'-O5'
43	2l	92	0TD	O-C-CA-CB
54	2y	55	PSU	C2'-C1'-C5-C6
54	2y	55	PSU	O4'-C1'-C5-C6
32	1a	1400	5MC	C3'-C4'-C5'-O5'
32	2a	527	7MG	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
54	2y	37	MIA	C3'-C4'-C5'-O5'
54	1y	8	4SU	C3'-C4'-C5'-O5'
54	1y	8	4SU	O4'-C4'-C5'-O5'
54	1y	54	5MU	C3'-C4'-C5'-O5'
32	2a	1402	4OC	O4'-C4'-C5'-O5'
54	2w	46	7MG	O4'-C4'-C5'-O5'
54	2w	46	7MG	C3'-C4'-C5'-O5'
32	2a	1518	MA6	N1-C6-N6-C9
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	1a	967	5MC	O4'-C4'-C5'-O5'
32	2a	527	7MG	O4'-C4'-C5'-O5'
54	2y	37	MIA	O4'-C4'-C5'-O5'
54	2y	46	7MG	O4'-C1'-N9-C4
32	1a	1518	MA6	C5-C6-N6-C9
32	1a	1518	MA6	C5-C6-N6-C10
32	2a	1519	MA6	C5-C6-N6-C10
32	1a	527	7MG	C3'-C4'-C5'-O5'
32	2a	1404	5MC	O4'-C4'-C5'-O5'
32	2a	1404	5MC	C3'-C4'-C5'-O5'
32	1a	1402	4OC	O4'-C4'-C5'-O5'
54	2y	32	PSU	O4'-C4'-C5'-O5'
32	2a	1402	4OC	C3'-C4'-C5'-O5'
32	1a	1519	MA6	C5-C6-N6-C10

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Mol	Chain	Res	Type	Atoms
54	1w	46	7MG	C2'-C1'-N9-C8
54	2y	46	7MG	C2'-C1'-N9-C8
43	1l	92	0TD	CG-CB-SB-CSB
43	2l	92	0TD	CG-CB-SB-CSB
32	2a	1207	2MG	O4'-C4'-C5'-O5'
32	2a	1519	MA6	C4'-C5'-O5'-P
1	1A	2617	PSU	O4'-C1'-C5-C4
54	1w	55	PSU	O4'-C1'-C5-C4
55	1x	55	PSU	O4'-C1'-C5-C4
54	1y	55	PSU	O4'-C1'-C5-C4
54	1y	46	7MG	C2'-C1'-N9-C8
54	2y	46	7MG	O4'-C1'-N9-C8
32	1a	527	7MG	O4'-C4'-C5'-O5'
1	2A	2503	2MA	O4'-C4'-C5'-O5'
32	2a	1518	MA6	C5-C6-N6-C10
1	2A	1920	4OC	C3'-C2'-O2'-CM2
32	1a	527	7MG	C4'-C5'-O5'-P
32	2a	527	7MG	C4'-C5'-O5'-P
1	2A	1962	5MC	O4'-C4'-C5'-O5'
54	2w	37	MIA	N1-C2-S10-C11
54	1w	46	7MG	O4'-C1'-N9-C8
54	1y	8	4SU	C4'-C5'-O5'-P
54	2y	37	MIA	C4'-C5'-O5'-P
54	2w	46	7MG	C2'-C1'-N9-C8
43	2l	92	0TD	CA-CB-SB-CSB
54	2y	54	5MU	C2'-C1'-N1-C6
1	1A	2617	PSU	O4'-C1'-C5-C6
54	1w	55	PSU	O4'-C1'-C5-C6
54	2y	54	5MU	C2'-C1'-N1-C2
54	2w	37	MIA	N3-C2-S10-C11
1	1A	1942	4OC	C3'-C2'-O2'-CM2
32	1a	967	5MC	C3'-C4'-C5'-O5'
32	2a	967	5MC	O4'-C4'-C5'-O5'
55	2x	8	4SU	C2'-C1'-N1-C2
54	1y	54	5MU	C4'-C5'-O5'-P
54	1y	37	MIA	C3'-C4'-C5'-O5'

There are no ring outliers.

42 monomers are involved in 69 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	2A	2552	2MU	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	1A	1942	4OC	1	0
1	1A	1937	5MU	1	0
54	1w	37	MIA	1	0
54	2w	46	7MG	1	0
55	2x	8	4SU	1	0
32	2a	1519	MA6	3	0
32	1a	1519	MA6	1	0
43	2l	92	0TD	2	0
32	2a	1400	5MC	1	0
32	2a	967	5MC	3	0
1	1A	1961	5MU	1	0
32	1a	1407	5MC	1	0
54	2y	46	7MG	1	0
55	2x	54	5MU	2	0
54	1w	55	PSU	1	0
32	2a	1402	4OC	3	0
32	1a	1402	4OC	2	0
32	1a	1400	5MC	1	0
32	1a	967	5MC	1	0
54	2y	37	MIA	1	0
54	1w	39	PSU	1	0
54	1w	46	7MG	1	0
54	1y	8	4SU	3	0
54	1y	55	PSU	2	0
55	1x	8	4SU	2	0
1	2A	2251	OMG	2	0
1	2A	1915	5MU	1	0
54	2y	55	PSU	8	0
32	2a	1518	MA6	4	0
54	2w	37	MIA	1	0
54	1y	37	MIA	1	0
1	2A	2503	2MA	2	0
32	2a	1498	UR3	1	0
54	2w	8	4SU	3	0
32	2a	966	M2G	1	0
54	1y	39	PSU	1	0
54	2w	39	PSU	3	0
32	1a	1207	2MG	1	0
32	1a	1518	MA6	2	0
54	2y	8	4SU	1	0
1	2A	1920	4OC	2	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2355 ligands modelled in this entry, 2345 are monoatomic - leaving 10 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
57	AKN	1O	202	-	41,42,42	2.06	11 (26%)	55,61,61	1.39	3 (5%)
57	AKN	2O	202	-	41,42,42	2.01	11 (26%)	55,61,61	1.44	8 (14%)
57	AKN	1A	3936	-	41,42,42	1.94	9 (21%)	55,61,61	1.27	8 (14%)
59	SF4	2d	302	35	0,12,12	-	-	-	-	-
57	AKN	2a	1911	-	41,42,42	1.99	10 (24%)	55,61,61	1.47	6 (10%)
57	AKN	2A	3576	-	41,42,42	1.96	10 (24%)	55,61,61	1.12	4 (7%)
57	AKN	1a	1914	-	41,42,42	2.12	13 (31%)	55,61,61	2.28	14 (25%)
57	AKN	1A	3937	-	41,42,42	1.90	10 (24%)	55,61,61	1.62	12 (21%)
59	SF4	1d	303	35	0,12,12	-	-	-	-	-
57	AKN	1a	1913	-	41,42,42	2.07	12 (29%)	55,61,61	1.47	10 (18%)

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
57	AKN	1O	202	-	-	10/23/83/83	0/3/3/3
57	AKN	2O	202	-	-	8/23/83/83	0/3/3/3
57	AKN	1A	3936	-	-	4/23/83/83	0/3/3/3
59	SF4	2d	302	35	-	-	0/6/5/5
57	AKN	2a	1911	-	-	3/23/83/83	0/3/3/3
57	AKN	2A	3576	-	-	9/23/83/83	0/3/3/3
57	AKN	1a	1914	-	-	19/23/83/83	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	AKN	1A	3937	-	-	7/23/83/83	0/3/3/3
59	SF4	1d	303	35	-	-	0/6/5/5
57	AKN	1a	1913	-	-	4/23/83/83	0/3/3/3

All (86) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	1a	1914	AKN	C35-N12	6.30	1.47	1.34
57	1O	202	AKN	C35-N12	6.19	1.47	1.34
57	2a	1911	AKN	C35-N12	6.08	1.47	1.34
57	2O	202	AKN	C35-N12	6.07	1.47	1.34
57	2A	3576	AKN	C35-N12	5.98	1.46	1.34
57	1a	1913	AKN	C35-N12	5.93	1.46	1.34
57	1A	3936	AKN	C35-N12	5.86	1.46	1.34
57	1A	3937	AKN	C35-N12	5.73	1.46	1.34
57	1a	1913	AKN	C22-C24	-5.29	1.46	1.53
57	2a	1911	AKN	C22-C24	-5.21	1.47	1.53
57	1O	202	AKN	C24-N25	5.00	1.54	1.47
57	1A	3936	AKN	C22-C24	-4.99	1.47	1.53
57	1A	3937	AKN	C24-N25	4.98	1.54	1.47
57	1a	1914	AKN	C24-N25	4.97	1.54	1.47
57	1A	3936	AKN	C24-N25	4.96	1.54	1.47
57	2O	202	AKN	C22-C24	-4.94	1.47	1.53
57	2A	3576	AKN	C24-N25	4.85	1.54	1.47
57	2O	202	AKN	C24-N25	4.83	1.54	1.47
57	1O	202	AKN	C22-C24	-4.74	1.47	1.53
57	2a	1911	AKN	C24-N25	4.62	1.54	1.47
57	1a	1913	AKN	C24-N25	4.58	1.54	1.47
57	2A	3576	AKN	C22-C24	-4.51	1.47	1.53
57	1a	1914	AKN	C22-C24	-4.46	1.47	1.53
57	1a	1913	AKN	C26-C24	-4.43	1.48	1.53
57	2a	1911	AKN	C26-C24	-4.18	1.48	1.53
57	1a	1914	AKN	C26-C24	-4.09	1.48	1.53
57	2A	3576	AKN	C26-C24	-3.86	1.48	1.53
57	1O	202	AKN	C37-C35	3.55	1.56	1.52
57	1O	202	AKN	C26-C24	-3.50	1.49	1.53
57	1A	3937	AKN	C22-C24	-3.44	1.49	1.53
57	2O	202	AKN	C26-C24	-3.44	1.49	1.53
57	1A	3936	AKN	C26-C24	-3.41	1.49	1.53
57	1A	3937	AKN	C38-C39	3.33	1.63	1.52
57	1O	202	AKN	C38-C39	3.24	1.62	1.52
57	1a	1913	AKN	C38-C39	3.19	1.62	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	2O	202	AKN	C38-C39	3.18	1.62	1.52
57	1a	1914	AKN	C38-C39	3.13	1.62	1.52
57	2A	3576	AKN	C38-C39	3.12	1.62	1.52
57	1A	3937	AKN	C26-C24	-3.10	1.49	1.53
57	2a	1911	AKN	C38-C39	3.10	1.62	1.52
57	1A	3936	AKN	C38-C39	3.06	1.62	1.52
57	1O	202	AKN	O29-C21	2.97	1.49	1.41
57	1a	1914	AKN	C37-C35	2.96	1.56	1.52
57	1a	1914	AKN	O29-C21	2.90	1.49	1.41
57	2O	202	AKN	O29-C21	2.89	1.49	1.41
57	2a	1911	AKN	O29-C21	2.80	1.49	1.41
57	1a	1913	AKN	O40-C37	-2.77	1.36	1.42
57	1a	1913	AKN	O29-C21	2.76	1.48	1.41
57	1A	3936	AKN	O29-C21	2.74	1.48	1.41
57	1a	1914	AKN	O8-C7	2.72	1.51	1.44
57	1A	3937	AKN	O29-C21	2.59	1.48	1.41
57	1a	1913	AKN	C5-C4	-2.58	1.45	1.52
57	2A	3576	AKN	O36-C35	-2.56	1.18	1.23
57	1A	3937	AKN	O40-C37	-2.55	1.37	1.42
57	2O	202	AKN	O40-C37	-2.55	1.37	1.42
57	1A	3937	AKN	O8-C7	2.55	1.50	1.44
57	1O	202	AKN	O8-C7	2.54	1.50	1.44
57	1a	1913	AKN	O36-C35	-2.53	1.18	1.23
57	2A	3576	AKN	O29-C21	2.49	1.48	1.41
57	2A	3576	AKN	C5-C4	-2.48	1.45	1.52
57	1a	1914	AKN	O36-C35	-2.48	1.18	1.23
57	2A	3576	AKN	O40-C37	-2.45	1.37	1.42
57	2O	202	AKN	O36-C35	-2.45	1.18	1.23
57	1a	1913	AKN	O8-C7	2.41	1.50	1.44
57	2O	202	AKN	O8-C7	2.41	1.50	1.44
57	1A	3937	AKN	O36-C35	-2.34	1.18	1.23
57	1O	202	AKN	C5-C4	-2.33	1.46	1.52
57	2a	1911	AKN	C37-C35	2.32	1.55	1.52
57	1a	1914	AKN	O40-C37	-2.27	1.38	1.42
57	1A	3936	AKN	C5-C4	-2.26	1.46	1.52
57	2O	202	AKN	C5-C4	-2.23	1.46	1.52
57	2a	1911	AKN	O33-C4	2.22	1.48	1.43
57	1a	1913	AKN	C37-C35	2.21	1.55	1.52
57	1A	3936	AKN	O36-C35	-2.20	1.19	1.23
57	1O	202	AKN	O40-C37	-2.19	1.38	1.42
57	2O	202	AKN	O33-C4	2.16	1.48	1.43
57	1A	3936	AKN	O33-C4	2.14	1.48	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	1a	1914	AKN	C5-C4	-2.14	1.46	1.52
57	1a	1913	AKN	O33-C4	2.13	1.48	1.43
57	2a	1911	AKN	O40-C37	-2.13	1.38	1.42
57	1a	1914	AKN	C13-C11	2.12	1.56	1.53
57	2A	3576	AKN	O33-C4	2.07	1.48	1.43
57	2a	1911	AKN	O36-C35	-2.04	1.19	1.23
57	1O	202	AKN	O36-C35	-2.04	1.19	1.23
57	1a	1914	AKN	O33-C4	2.02	1.48	1.43
57	1A	3937	AKN	C5-C4	-2.01	1.47	1.52

All (65) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	1a	1914	AKN	O20-C19-C17	7.45	126.16	107.23
57	1a	1914	AKN	C17-C19-C11	-7.20	98.62	111.18
57	2a	1911	AKN	C13-C11-N12	-6.15	101.38	110.78
57	1a	1914	AKN	O2-C16-C17	5.65	121.58	107.23
57	1O	202	AKN	C19-C11-N12	5.15	118.98	110.57
57	1A	3937	AKN	O2-C16-C17	4.63	118.99	107.23
57	1a	1914	AKN	O20-C21-C22	4.31	118.69	108.09
57	1a	1914	AKN	C21-C22-C24	4.09	115.89	110.40
57	1a	1913	AKN	C19-C17-C16	3.89	117.00	109.11
57	2A	3576	AKN	C21-O20-C19	-3.73	109.14	117.98
57	2O	202	AKN	C11-N12-C35	-3.73	116.76	123.25
57	1O	202	AKN	C11-N12-C35	3.69	129.67	123.25
57	2a	1911	AKN	C21-O20-C19	-3.66	109.29	117.98
57	1A	3937	AKN	O20-C19-C17	3.57	116.31	107.23
57	1O	202	AKN	C19-C17-C16	3.57	116.34	109.11
57	1a	1914	AKN	O29-C28-C26	3.55	116.09	109.70
57	2O	202	AKN	O29-C28-C26	3.46	115.94	109.70
57	1a	1913	AKN	C13-C11-N12	-3.45	105.50	110.78
57	1A	3937	AKN	C21-C22-C24	3.45	115.03	110.40
57	2O	202	AKN	C17-C19-C11	-3.31	105.41	111.18
57	1A	3936	AKN	C21-C22-C24	3.21	114.71	110.40
57	1A	3936	AKN	C39-C38-C37	-3.12	108.25	112.52
57	1a	1914	AKN	C30-C28-C26	-3.10	105.41	113.02
57	1A	3937	AKN	C11-N12-C35	-3.06	117.92	123.25
57	2O	202	AKN	C1-O2-C16	-3.04	110.78	117.98
57	2a	1911	AKN	O2-C16-C14	-2.92	102.22	109.18
57	2A	3576	AKN	C11-N12-C35	2.89	128.28	123.25
57	1a	1914	AKN	O18-C17-C16	2.85	117.24	109.94
57	1a	1913	AKN	C11-N12-C35	-2.85	118.29	123.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	2A	3576	AKN	C13-C11-N12	2.82	115.09	110.78
57	1a	1913	AKN	O36-C35-N12	-2.80	117.94	122.96
57	1A	3937	AKN	C19-C17-C16	-2.77	103.49	109.11
57	1a	1914	AKN	O8-C7-C9	2.76	111.37	106.07
57	2a	1911	AKN	C1-O8-C7	-2.74	108.36	113.72
57	1A	3937	AKN	C4-C5-C7	-2.71	105.32	110.23
57	1a	1914	AKN	O36-C35-N12	-2.70	118.12	122.96
57	2O	202	AKN	C28-C26-C24	2.66	113.61	110.67
57	2O	202	AKN	C21-O20-C19	-2.59	111.83	117.98
57	1A	3937	AKN	C21-O20-C19	-2.57	111.88	117.98
57	2a	1911	AKN	O2-C1-C3	-2.42	102.14	108.09
57	1A	3937	AKN	O20-C21-C22	2.41	114.02	108.09
57	2a	1911	AKN	C19-C17-C16	2.39	113.96	109.11
57	1a	1913	AKN	C4-C5-C7	-2.39	105.90	110.23
57	2O	202	AKN	O8-C7-C5	2.39	114.00	109.70
57	1a	1913	AKN	O8-C1-C3	2.39	115.27	110.37
57	1A	3936	AKN	C13-C11-N12	2.37	114.40	110.78
57	1a	1913	AKN	C21-O20-C19	-2.36	112.38	117.98
57	1a	1914	AKN	C19-C17-C16	-2.34	104.36	109.11
57	1a	1914	AKN	C9-C7-C5	-2.28	107.46	112.80
57	1a	1914	AKN	O18-C17-C19	2.28	115.78	109.94
57	2A	3576	AKN	C1-O2-C16	-2.27	112.61	117.98
57	1A	3937	AKN	C17-C19-C11	-2.25	107.25	111.18
57	1A	3937	AKN	O8-C7-C9	2.23	110.36	106.07
57	1A	3936	AKN	O29-C21-C22	2.22	114.93	110.37
57	1a	1914	AKN	C21-O20-C19	2.21	123.23	117.98
57	1a	1913	AKN	C1-O2-C16	-2.19	112.78	117.98
57	1a	1913	AKN	O8-C7-C9	2.17	110.23	106.07
57	1A	3936	AKN	C21-O20-C19	-2.16	112.85	117.98
57	1A	3936	AKN	C28-C26-C24	2.12	113.01	110.67
57	1A	3937	AKN	C21-O29-C28	-2.11	109.61	113.72
57	1a	1913	AKN	O27-C26-C24	-2.08	106.49	110.22
57	1A	3936	AKN	C1-O2-C16	-2.07	113.06	117.98
57	1A	3937	AKN	O2-C1-C3	2.06	113.16	108.09
57	1A	3936	AKN	C22-C24-N25	-2.03	106.90	111.05
57	2O	202	AKN	C19-C11-N12	2.01	113.86	110.57

There are no chirality outliers.

All (64) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
57	1A	3937	AKN	N12-C35-C37-O40

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Mol	Chain	Res	Type	Atoms
57	1A	3937	AKN	O40-C37-C38-C39
57	1A	3937	AKN	C37-C38-C39-N37
57	1O	202	AKN	N12-C35-C37-C38
57	1O	202	AKN	O36-C35-C37-C38
57	1O	202	AKN	O40-C37-C38-C39
57	1a	1913	AKN	C5-C7-C9-N10
57	1a	1914	AKN	C5-C7-C9-N10
57	1a	1914	AKN	O8-C7-C9-N10
57	1a	1914	AKN	C37-C35-N12-C11
57	1a	1914	AKN	N12-C35-C37-O40
57	1a	1914	AKN	O36-C35-C37-O40
57	1a	1914	AKN	O40-C37-C38-C39
57	1a	1914	AKN	C37-C38-C39-N37
57	2A	3576	AKN	C14-C16-O2-C1
57	2A	3576	AKN	C13-C11-N12-C35
57	2A	3576	AKN	N12-C35-C37-O40
57	2A	3576	AKN	O36-C35-C37-O40
57	2A	3576	AKN	O40-C37-C38-C39
57	2O	202	AKN	C35-C37-C38-C39
57	2O	202	AKN	O40-C37-C38-C39
57	1A	3937	AKN	C17-C16-O2-C1
57	1a	1914	AKN	C17-C19-O20-C21
57	1O	202	AKN	O8-C1-O2-C16
57	1a	1914	AKN	O29-C21-O20-C19
57	1a	1914	AKN	C22-C21-O20-C19
57	1a	1914	AKN	C17-C16-O2-C1
57	1O	202	AKN	O29-C28-C30-O31
57	1a	1914	AKN	O29-C28-C30-O31
57	1a	1914	AKN	C26-C28-C30-O31
57	1O	202	AKN	C26-C28-C30-O31
57	1a	1913	AKN	O8-C1-O2-C16
57	1a	1914	AKN	O8-C1-O2-C16
57	1a	1914	AKN	O36-C35-N12-C11
57	1A	3936	AKN	C17-C16-O2-C1
57	1A	3937	AKN	C3-C1-O2-C16
57	2A	3576	AKN	C17-C16-O2-C1
57	2O	202	AKN	O29-C28-C30-O31
57	1A	3937	AKN	O8-C1-O2-C16
57	1O	202	AKN	C19-C11-N12-C35
57	2O	202	AKN	O8-C1-O2-C16
57	2a	1911	AKN	C26-C28-C30-O31
57	2a	1911	AKN	O29-C28-C30-O31

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Mol	Chain	Res	Type	Atoms
57	1a	1914	AKN	C35-C37-C38-C39
57	2A	3576	AKN	C35-C37-C38-C39
57	2a	1911	AKN	C17-C16-O2-C1
57	1A	3936	AKN	N12-C35-C37-O40
57	1O	202	AKN	N12-C35-C37-O40
57	1a	1913	AKN	C37-C38-C39-N37
57	2O	202	AKN	C37-C38-C39-N37
57	1A	3937	AKN	O36-C35-C37-O40
57	2O	202	AKN	C3-C1-O2-C16
57	2A	3576	AKN	C26-C28-C30-O31
57	1A	3936	AKN	O40-C37-C38-C39
57	2O	202	AKN	O8-C7-C9-N10
57	1a	1914	AKN	C3-C1-O2-C16
57	1O	202	AKN	C17-C16-O2-C1
57	2A	3576	AKN	O29-C28-C30-O31
57	1a	1914	AKN	O36-C35-C37-C38
57	1a	1914	AKN	N12-C35-C37-C38
57	1a	1913	AKN	C3-C1-O2-C16
57	1O	202	AKN	C37-C38-C39-N37
57	2O	202	AKN	O36-C35-C37-O40
57	1A	3936	AKN	C14-C16-O2-C1

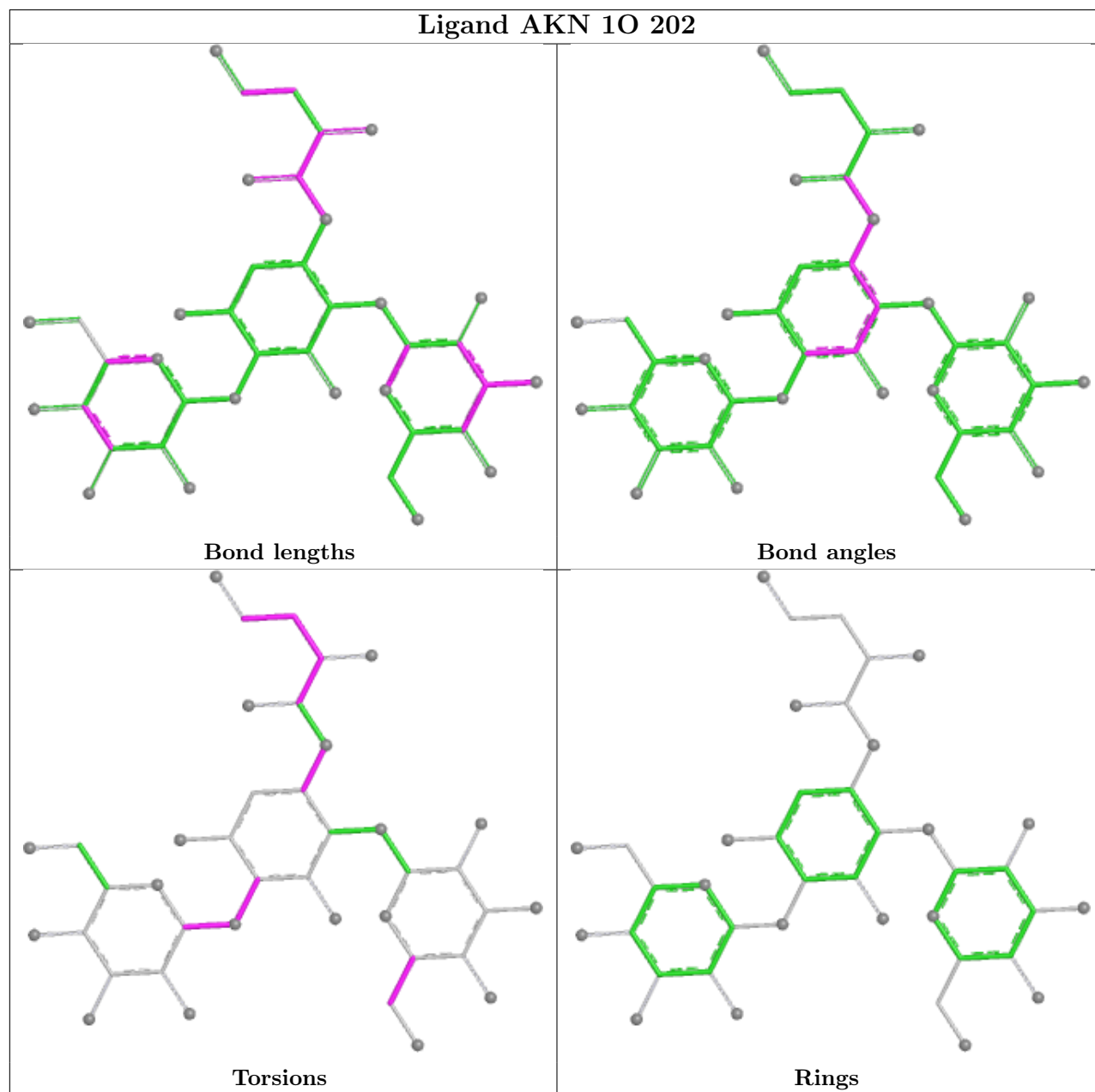
There are no ring outliers.

10 monomers are involved in 25 short contacts:

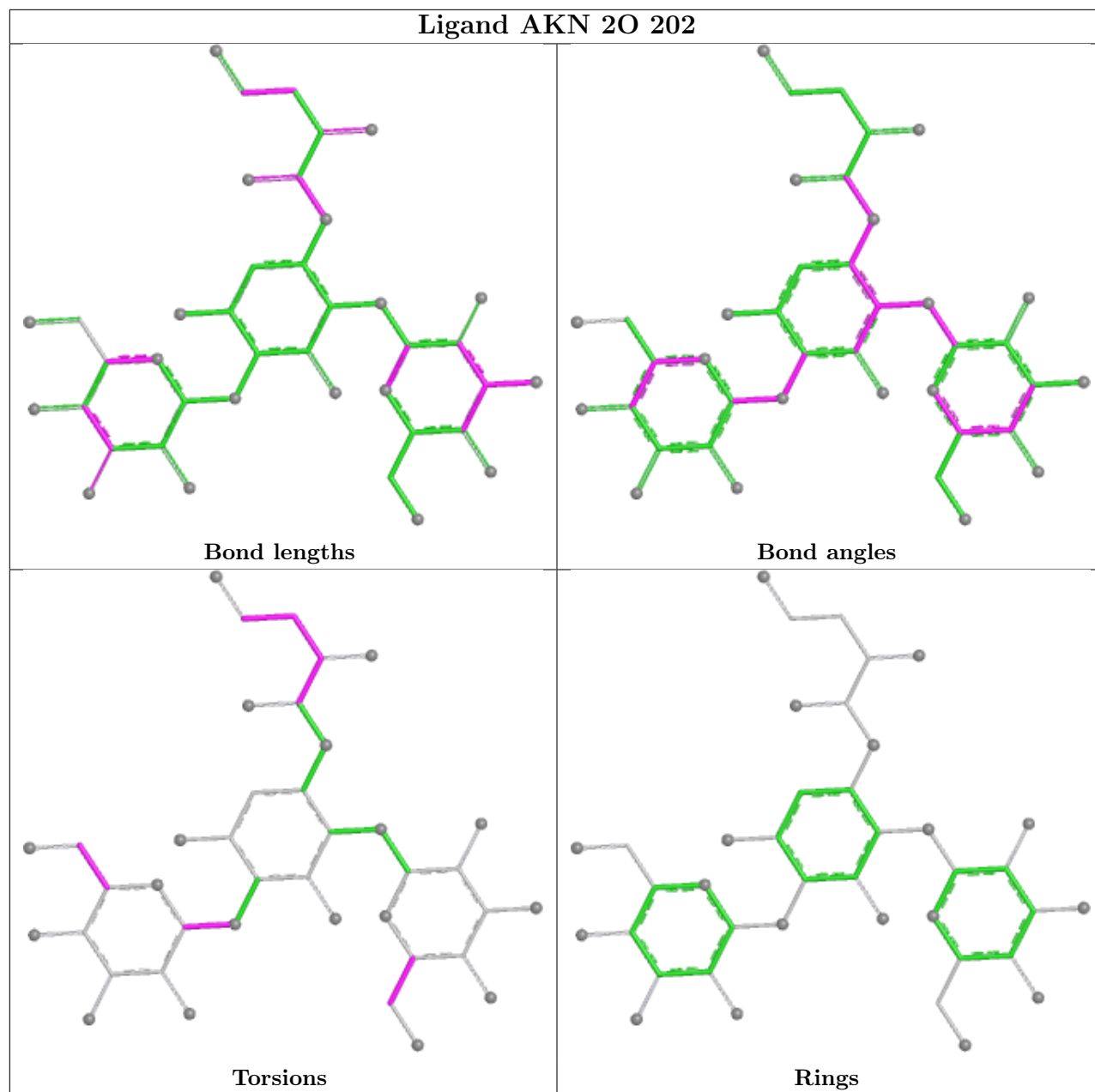
Mol	Chain	Res	Type	Clashes	Symm-Clashes
57	1O	202	AKN	1	0
57	2O	202	AKN	1	0
57	1A	3936	AKN	2	0
59	2d	302	SF4	1	0
57	2a	1911	AKN	3	0
57	2A	3576	AKN	4	0
57	1a	1914	AKN	4	0
57	1A	3937	AKN	4	0
59	1d	303	SF4	2	0
57	1a	1913	AKN	3	0

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.

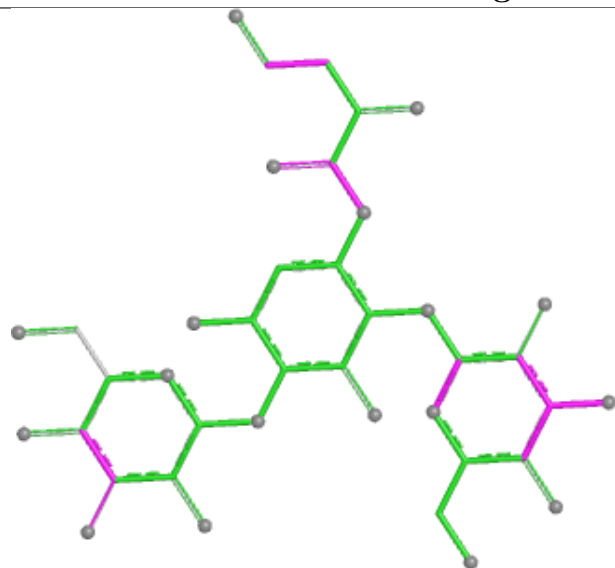
Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD 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.



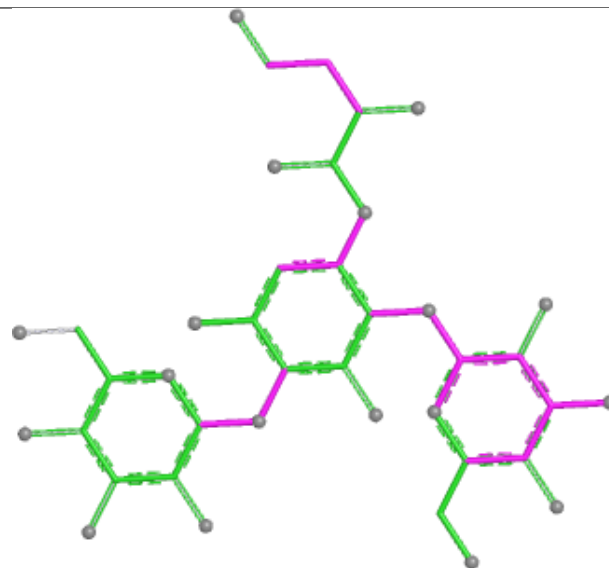
Ligand AKN 2O 202



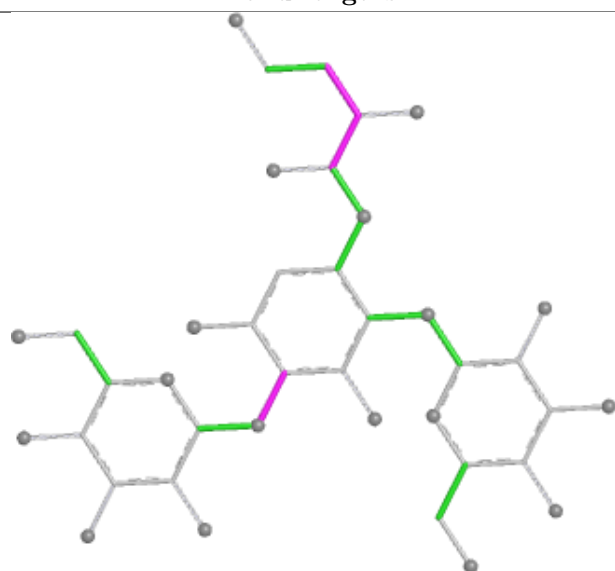
Ligand AKN 1A 3936



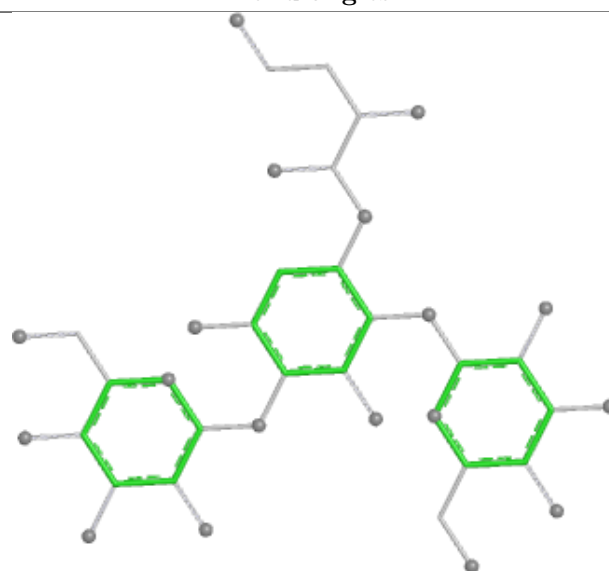
Bond lengths



Bond angles

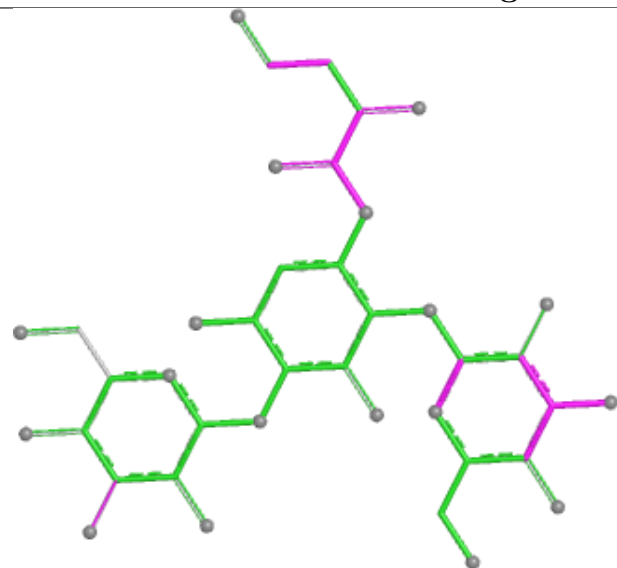


Torsions

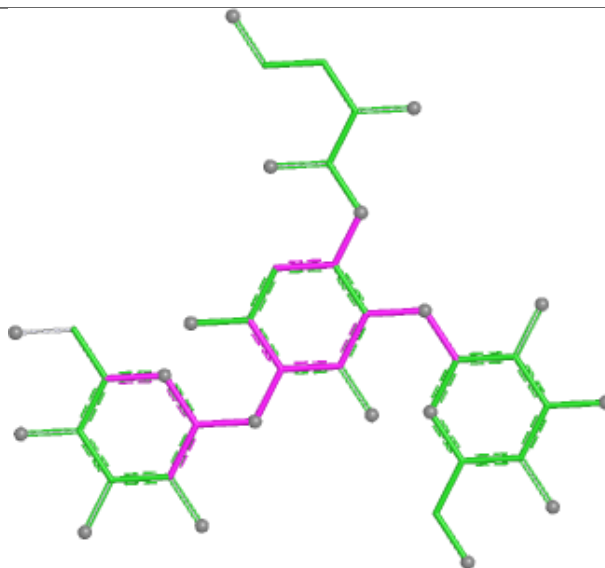


Rings

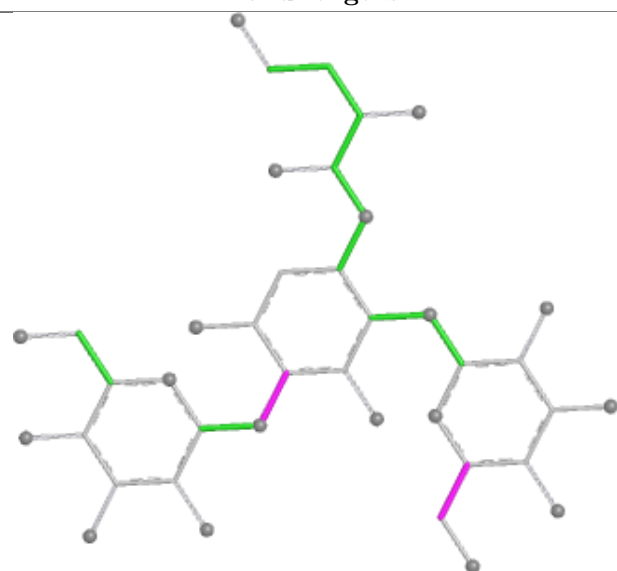
Ligand AKN 2a 1911



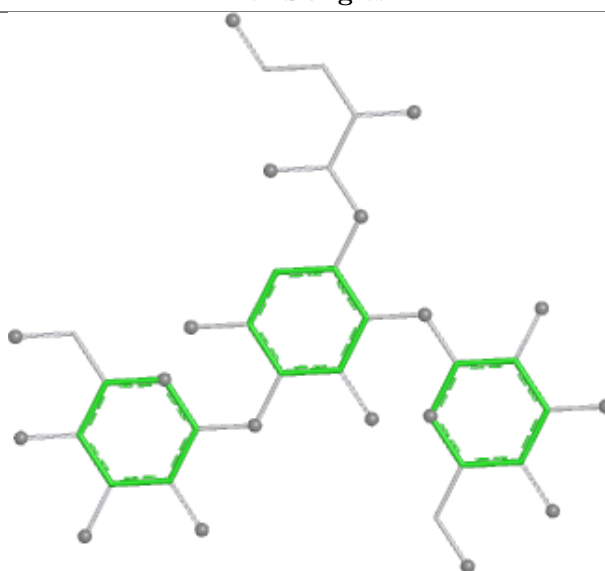
Bond lengths



Bond angles

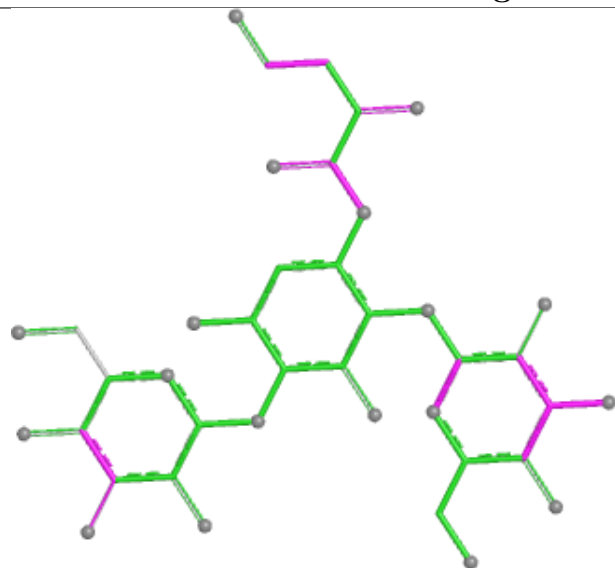


Torsions

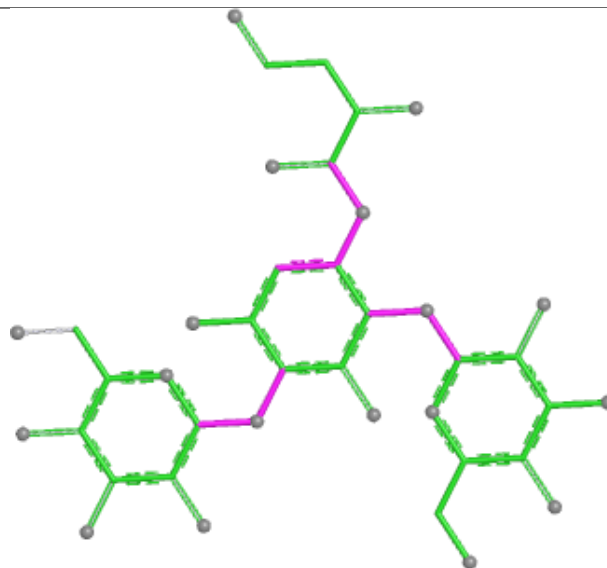


Rings

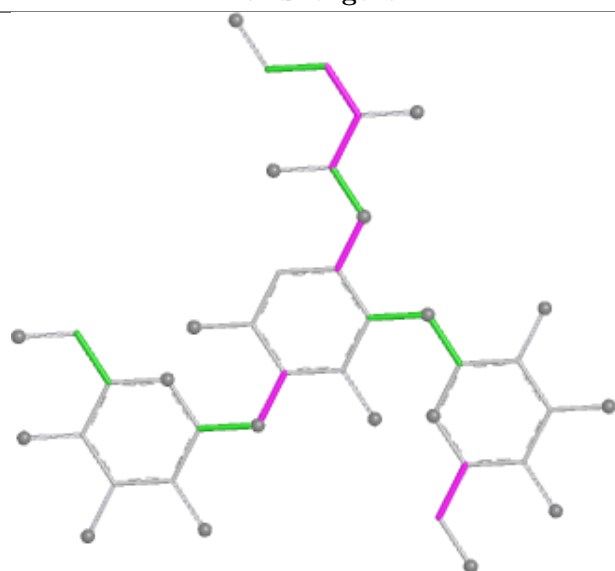
Ligand AKN 2A 3576



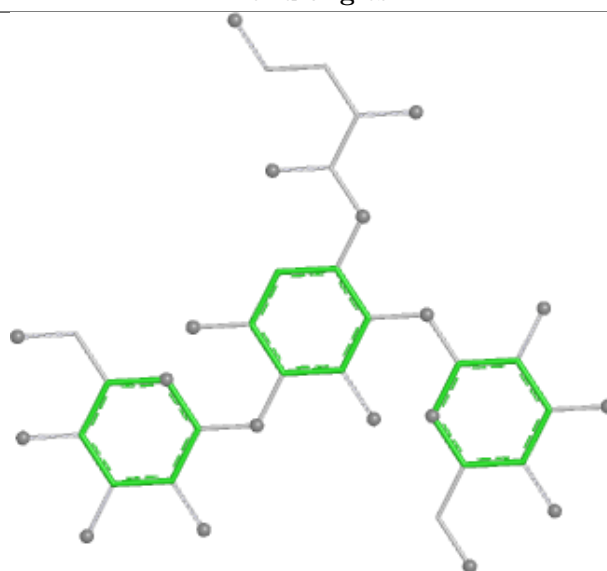
Bond lengths



Bond angles

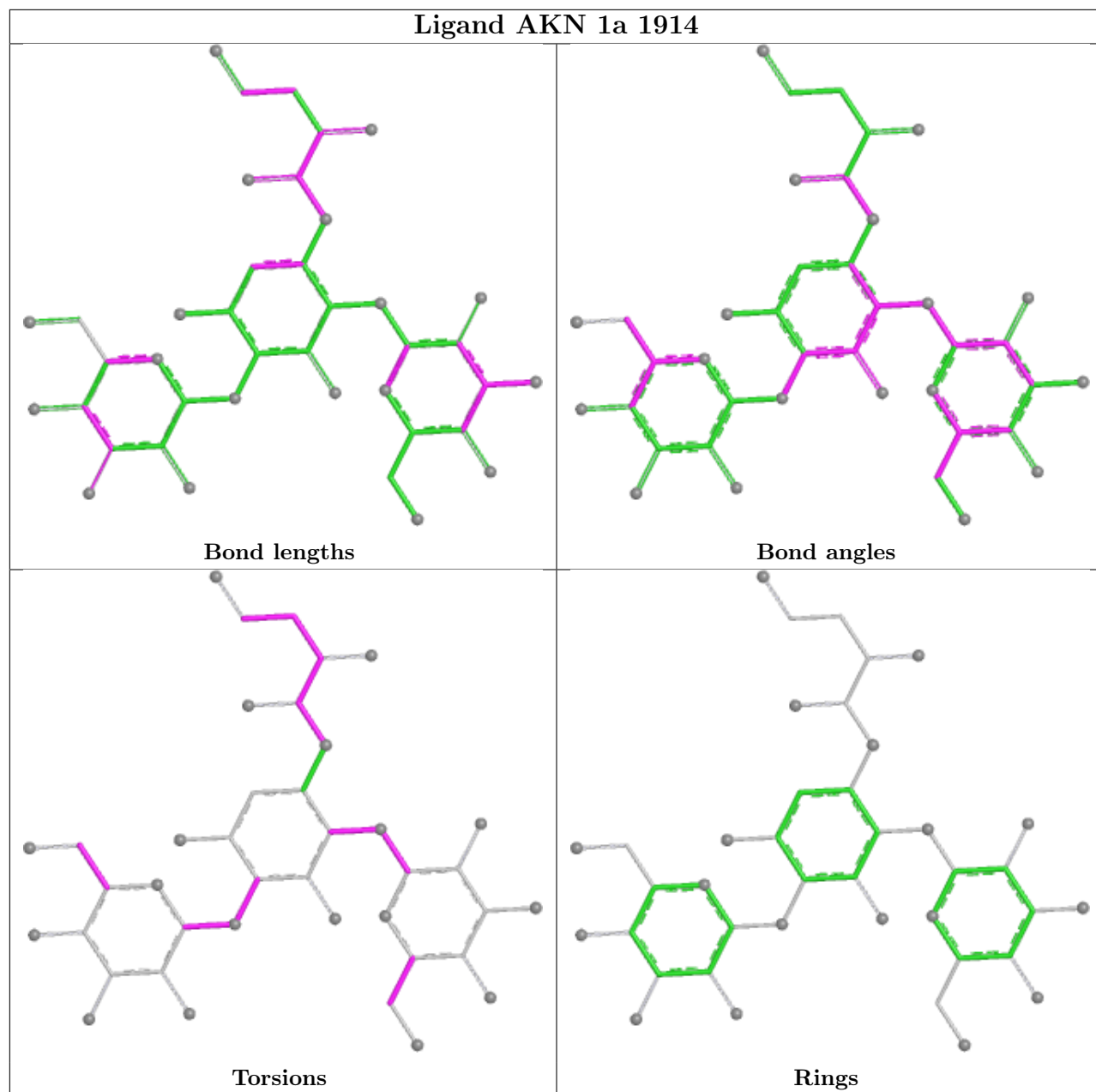


Torsions

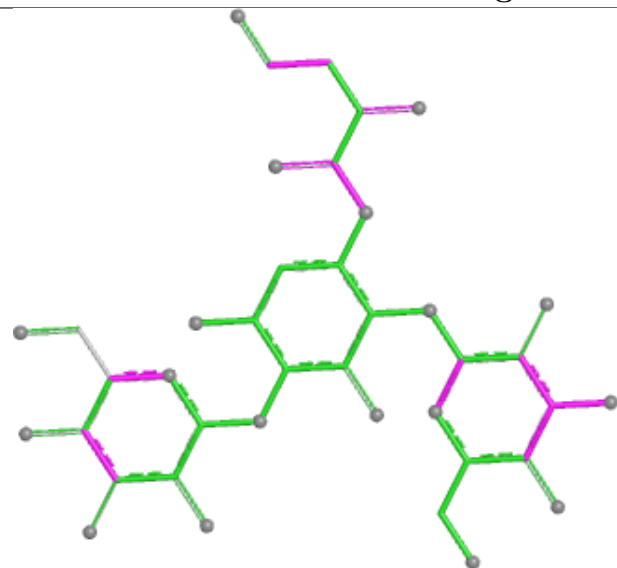


Rings

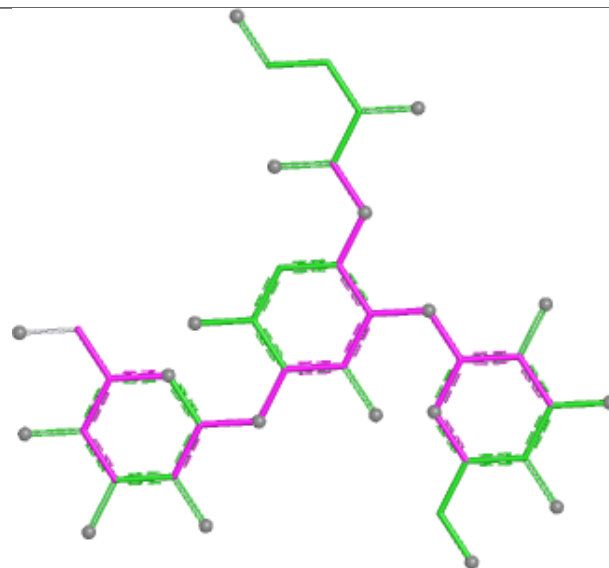
Ligand AKN 1a 1914



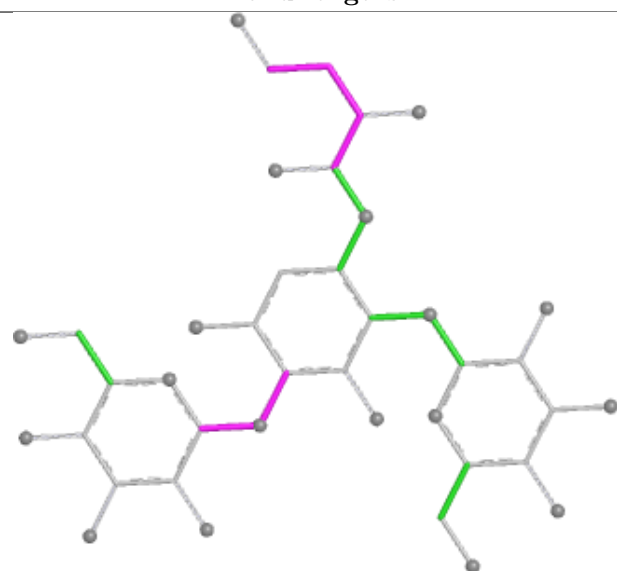
Ligand AKN 1A 3937



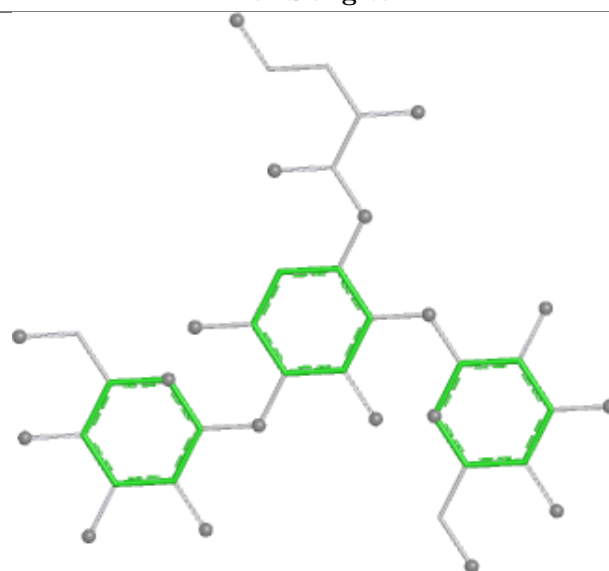
Bond lengths



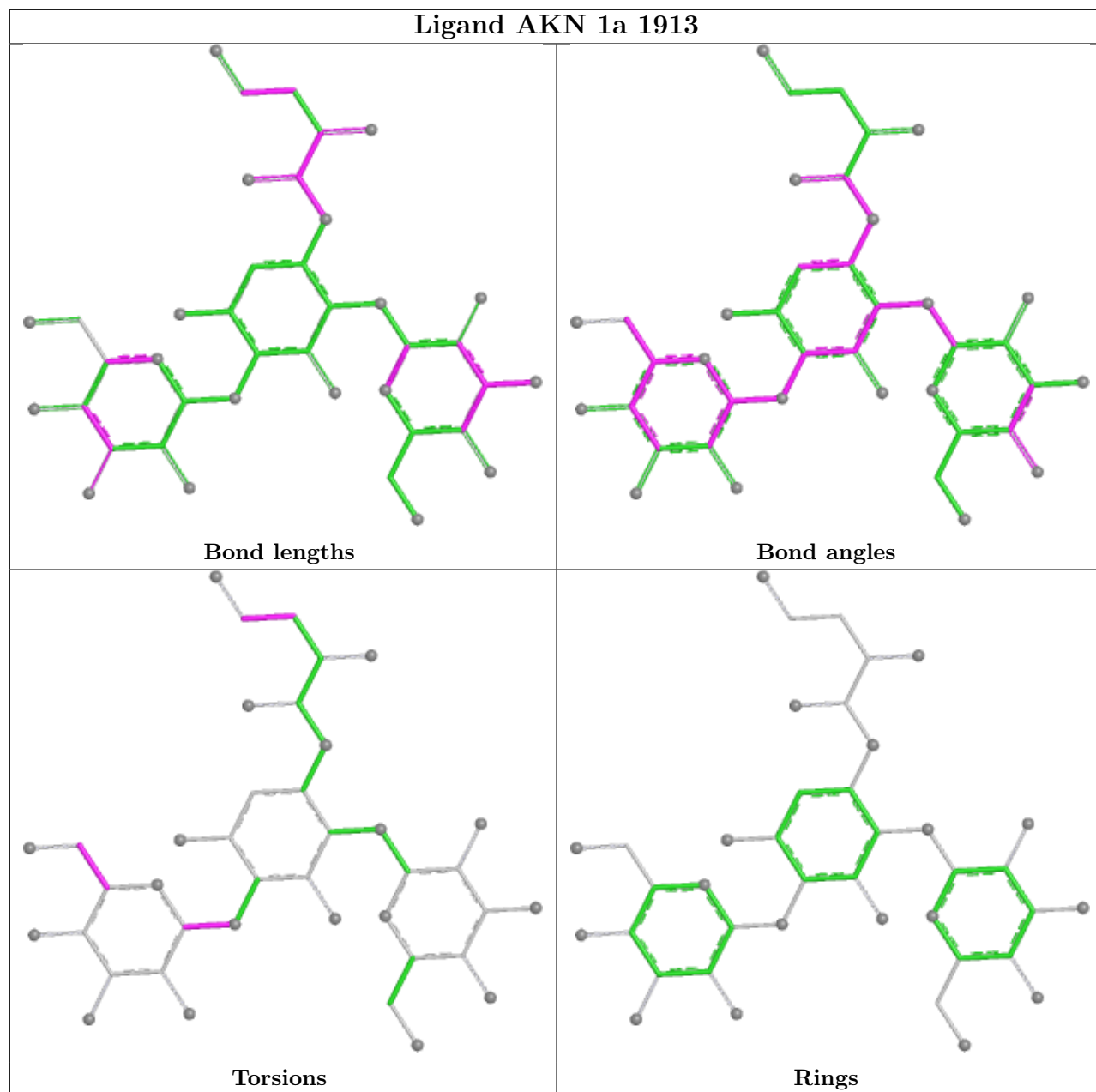
Bond angles



Torsions



Rings



5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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	1A	2860/2915 (98%)	-0.56	16 (0%) 85 81	26, 47, 115, 136	0
1	2A	2789/2915 (95%)	-0.26	25 (0%) 81 75	39, 71, 115, 136	0
2	1B	120/121 (99%)	-0.67	0 100 100	37, 60, 77, 107	0
2	2B	120/121 (99%)	0.19	1 (0%) 82 77	74, 95, 108, 119	0
3	1D	275/276 (99%)	0.15	4 (1%) 72 65	29, 47, 62, 83	0
3	2D	275/276 (99%)	0.39	15 (5%) 30 25	39, 60, 76, 94	0
4	1E	204/206 (99%)	-0.38	0 100 100	30, 50, 71, 91	0
4	2E	204/206 (99%)	0.49	16 (7%) 19 16	45, 73, 88, 96	0
5	1F	203/210 (96%)	-0.21	1 (0%) 87 83	27, 50, 78, 100	0
5	2F	203/210 (96%)	0.14	4 (1%) 65 56	47, 79, 98, 105	0
6	1G	181/182 (99%)	0.12	2 (1%) 78 72	50, 68, 87, 101	0
6	2G	181/182 (99%)	0.69	9 (4%) 34 27	80, 95, 105, 117	0
7	1H	174/180 (96%)	0.03	2 (1%) 78 72	49, 68, 80, 90	0
7	2H	174/180 (96%)	0.41	2 (1%) 78 72	84, 101, 113, 117	0
8	1I	146/148 (98%)	0.27	7 (4%) 35 29	56, 86, 100, 103	0
8	2I	146/148 (98%)	0.77	11 (7%) 20 17	67, 87, 102, 107	0
9	1N	140/140 (100%)	-0.16	1 (0%) 84 79	36, 49, 77, 91	0
9	2N	140/140 (100%)	0.58	6 (4%) 40 31	57, 80, 94, 102	0
10	1O	122/122 (100%)	-0.09	0 100 100	38, 51, 68, 76	0
10	2O	122/122 (100%)	0.06	2 (1%) 70 62	55, 70, 83, 93	0
11	1P	149/150 (99%)	0.05	2 (1%) 75 68	27, 56, 80, 89	0
11	2P	149/150 (99%)	0.53	6 (4%) 42 34	49, 82, 101, 107	0
12	1Q	141/141 (100%)	-0.22	1 (0%) 84 79	36, 51, 64, 84	0
12	2Q	141/141 (100%)	0.46	5 (3%) 47 39	62, 81, 94, 99	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	1R	118/118 (100%)	-0.09	0 100 100	34, 44, 59, 75	0
13	2R	118/118 (100%)	0.17	3 (2%) 58 49	52, 63, 77, 84	0
14	1S	110/112 (98%)	-0.03	1 (0%) 81 75	45, 58, 73, 82	0
14	2S	110/112 (98%)	0.98	9 (8%) 17 15	74, 89, 98, 102	0
15	1T	131/146 (89%)	0.04	6 (4%) 37 30	42, 57, 84, 98	0
15	2T	131/146 (89%)	0.35	3 (2%) 61 52	60, 74, 97, 105	0
16	1U	116/118 (98%)	-0.16	0 100 100	30, 41, 61, 75	0
16	2U	116/118 (98%)	0.33	2 (1%) 69 61	56, 77, 92, 98	0
17	1V	101/101 (100%)	-0.31	0 100 100	32, 49, 67, 83	0
17	2V	101/101 (100%)	0.26	4 (3%) 42 34	52, 88, 98, 104	0
18	1W	112/113 (99%)	-0.11	1 (0%) 81 75	31, 42, 61, 89	0
18	2W	112/113 (99%)	0.27	1 (0%) 81 75	50, 62, 80, 106	0
19	1X	95/96 (98%)	-0.02	2 (2%) 63 54	34, 49, 69, 85	0
19	2X	95/96 (98%)	0.50	5 (5%) 32 26	51, 72, 85, 93	0
20	1Y	107/110 (97%)	0.05	1 (0%) 81 75	47, 61, 83, 95	0
20	2Y	107/110 (97%)	0.46	5 (4%) 36 29	73, 86, 97, 106	0
21	1Z	154/206 (74%)	0.38	5 (3%) 50 42	50, 73, 97, 112	0
21	2Z	160/206 (77%)	0.54	6 (3%) 44 36	81, 99, 113, 119	0
22	10	83/85 (97%)	0.34	6 (7%) 21 19	36, 48, 78, 98	0
22	20	83/85 (97%)	0.90	10 (12%) 9 8	61, 74, 92, 100	0
23	11	97/98 (98%)	0.18	2 (2%) 63 54	36, 52, 81, 89	0
23	21	97/98 (98%)	0.84	7 (7%) 21 19	48, 66, 92, 96	0
24	12	70/72 (97%)	-0.06	0 100 100	40, 59, 70, 95	0
24	22	70/72 (97%)	0.18	0 100 100	67, 84, 93, 95	0
25	13	59/60 (98%)	-0.24	1 (1%) 69 61	32, 45, 69, 96	0
25	23	59/60 (98%)	0.16	0 100 100	66, 79, 96, 101	0
26	14	69/71 (97%)	0.32	1 (1%) 73 66	64, 85, 108, 112	0
26	24	69/71 (97%)	0.77	8 (11%) 9 9	91, 104, 114, 120	0
27	15	59/60 (98%)	-0.17	0 100 100	29, 43, 57, 71	0
27	25	59/60 (98%)	0.14	0 100 100	51, 65, 83, 87	0
28	16	53/54 (98%)	-0.18	0 100 100	42, 47, 61, 73	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	26	53/54 (98%)	0.51	3 (5%) 29 24	57, 70, 78, 86	0
29	17	48/49 (97%)	-0.10	0 100 100	30, 37, 72, 79	0
29	27	48/49 (97%)	0.13	1 (2%) 63 54	41, 51, 71, 87	0
30	18	64/65 (98%)	-0.02	0 100 100	32, 44, 51, 65	0
30	28	64/65 (98%)	0.65	3 (4%) 36 29	56, 66, 76, 80	0
31	19	37/37 (100%)	-0.22	0 100 100	43, 50, 68, 79	0
31	29	37/37 (100%)	0.71	4 (10%) 11 10	75, 84, 94, 97	0
32	1a	1488/1521 (97%)	-0.12	20 (1%) 75 68	45, 76, 112, 134	0
32	2a	1491/1521 (98%)	0.04	18 (1%) 76 70	65, 92, 116, 137	0
33	1b	231/256 (90%)	0.17	1 (0%) 88 86	73, 94, 110, 119	0
33	2b	231/256 (90%)	0.68	12 (5%) 33 27	96, 107, 113, 123	0
34	1c	206/239 (86%)	0.12	4 (1%) 66 58	66, 80, 96, 106	0
34	2c	206/239 (86%)	0.77	22 (10%) 11 10	85, 102, 109, 117	0
35	1d	208/209 (99%)	0.86	21 (10%) 12 11	66, 83, 95, 102	0
35	2d	208/209 (99%)	0.64	10 (4%) 35 29	73, 89, 101, 107	0
36	1e	148/162 (91%)	0.22	2 (1%) 73 66	59, 75, 87, 108	0
36	2e	148/162 (91%)	0.68	7 (4%) 36 29	83, 95, 104, 111	0
37	1f	100/101 (99%)	0.23	1 (1%) 79 74	64, 78, 90, 95	0
37	2f	100/101 (99%)	0.21	1 (1%) 79 74	72, 85, 96, 106	0
38	1g	155/156 (99%)	0.49	12 (7%) 19 17	65, 81, 98, 111	0
38	2g	155/156 (99%)	0.48	9 (5%) 29 23	85, 96, 106, 114	0
39	1h	137/138 (99%)	0.29	4 (2%) 53 44	65, 78, 90, 95	0
39	2h	137/138 (99%)	0.77	11 (8%) 18 16	87, 96, 103, 110	0
40	1i	127/128 (99%)	0.71	16 (12%) 8 8	63, 87, 99, 103	0
40	2i	127/128 (99%)	1.34	27 (21%) 2 2	89, 103, 110, 114	0
41	1j	97/105 (92%)	0.84	8 (8%) 17 15	64, 90, 105, 112	0
41	2j	96/105 (91%)	1.15	14 (14%) 6 6	91, 105, 111, 116	0
42	1k	114/129 (88%)	0.23	2 (1%) 67 59	58, 77, 89, 94	0
42	2k	114/129 (88%)	0.35	3 (2%) 57 48	75, 89, 99, 104	0
43	1l	121/132 (91%)	0.49	10 (8%) 17 15	51, 63, 79, 95	0
43	2l	121/132 (91%)	1.07	21 (17%) 4 3	63, 81, 92, 100	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	1m	123/126 (97%)	0.52	6 (4%) 35 28	60, 77, 89, 99	0
44	2m	122/126 (96%)	1.06	16 (13%) 7 7	80, 99, 109, 117	0
45	1n	60/61 (98%)	0.46	1 (1%) 69 61	63, 74, 84, 89	0
45	2n	60/61 (98%)	1.72	17 (28%) 1 1	88, 101, 107, 108	0
46	1o	88/89 (98%)	0.57	6 (6%) 23 20	59, 75, 89, 100	0
46	2o	88/89 (98%)	0.23	1 (1%) 78 72	72, 87, 99, 102	0
47	1p	82/88 (93%)	0.71	4 (4%) 35 28	70, 82, 92, 96	0
47	2p	82/88 (93%)	0.11	0 100 100	72, 84, 96, 105	0
48	1q	99/105 (94%)	0.62	8 (8%) 18 15	64, 80, 92, 101	0
48	2q	99/105 (94%)	0.82	8 (8%) 18 15	74, 86, 98, 105	0
49	1r	68/88 (77%)	0.17	0 100 100	67, 76, 91, 96	0
49	2r	68/88 (77%)	0.12	1 (1%) 72 65	76, 90, 98, 105	0
50	1s	83/93 (89%)	0.35	3 (3%) 46 38	68, 80, 92, 98	0
50	2s	83/93 (89%)	1.15	10 (12%) 9 8	88, 102, 111, 118	0
51	1t	96/106 (90%)	0.61	8 (8%) 17 15	70, 82, 94, 103	0
51	2t	96/106 (90%)	0.86	15 (15%) 5 5	70, 85, 101, 106	0
52	1u	23/27 (85%)	1.35	6 (26%) 1 1	69, 76, 81, 90	0
52	2u	23/27 (85%)	2.33	17 (73%) 0 0	91, 96, 100, 102	0
53	1v	13/24 (54%)	0.33	1 (7%) 19 17	56, 68, 91, 118	0
53	2v	13/24 (54%)	1.06	2 (15%) 5 5	79, 94, 117, 126	0
54	1w	67/76 (88%)	-0.01	1 (1%) 72 65	65, 102, 124, 129	0
54	1y	67/76 (88%)	0.21	2 (2%) 52 44	49, 111, 120, 137	0
54	2w	65/76 (85%)	0.47	2 (3%) 51 43	88, 116, 128, 134	0
54	2y	66/76 (86%)	0.18	0 100 100	67, 119, 126, 129	0
55	1x	72/77 (93%)	-0.34	0 100 100	47, 69, 94, 105	0
55	2x	72/77 (93%)	-0.21	0 100 100	63, 92, 104, 118	0
All	All	20875/21748 (95%)	0.09	629 (3%) 52 44	26, 76, 109, 137	0

All (629) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
44	2m	124	PRO	8.5
22	10	8	GLY	8.1

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Mol	Chain	Res	Type	RSRZ
23	21	2	SER	8.0
22	10	7	LEU	6.8
45	2n	39	LEU	6.5
44	1m	124	PRO	6.3
45	2n	38	GLY	6.2
9	2N	44	PRO	6.2
23	21	28	GLY	5.9
38	2g	81	GLY	5.9
44	2m	123	ALA	5.7
23	11	2	SER	5.5
38	1g	82	GLY	5.5
44	2m	122	LYS	5.3
44	2m	102	ARG	5.3
22	10	6	GLY	5.3
43	2l	28	LYS	5.0
38	1g	80	VAL	5.0
36	2e	22	GLY	4.9
50	2s	82	GLY	4.8
43	1l	126	LYS	4.7
43	2l	26	ALA	4.7
50	2s	2	PRO	4.7
36	2e	13	ILE	4.7
40	1i	126	SER	4.7
51	2t	24	LEU	4.6
22	20	9	SER	4.6
40	1i	115	GLY	4.6
32	1a	1531	A	4.6
32	1a	204	U	4.6
21	1Z	141	VAL	4.5
48	1q	33	GLY	4.5
20	2Y	1	MET	4.5
1	2A	2145	C	4.4
1	2A	2146	C	4.4
41	2j	47	PHE	4.3
4	2E	115	GLY	4.3
22	20	8	GLY	4.3
50	2s	80	TYR	4.3
38	1g	85	TYR	4.2
4	2E	137	HIS	4.2
11	1P	15	ARG	4.2
43	1l	16	GLU	4.2
43	2l	7	ILE	4.2

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Mol	Chain	Res	Type	RSRZ
44	1m	123	ALA	4.2
39	2h	112	LEU	4.2
45	2n	25	VAL	4.2
40	1i	114	TYR	4.1
20	1Y	1	MET	4.1
43	1l	6	THR	4.1
19	2X	92	LEU	4.1
38	1g	84	ASN	4.0
35	1d	154	ASN	4.0
34	2c	130	VAL	4.0
1	2A	883	G	4.0
43	2l	64	TYR	3.9
3	1D	276	LYS	3.9
34	2c	129	ALA	3.9
40	2i	102	LEU	3.9
53	2v	24	A	3.9
39	2h	131	GLY	3.9
22	10	3	HIS	3.9
4	2E	149	ARG	3.8
41	1j	60	ARG	3.8
46	1o	65	ARG	3.8
40	2i	127	LYS	3.8
40	1i	121	ARG	3.8
45	2n	34	TYR	3.8
33	1b	7	VAL	3.8
1	1A	554	A	3.8
22	20	7	LEU	3.7
32	1a	1532	U	3.7
34	1c	87	LEU	3.7
41	2j	63	PHE	3.7
6	2G	28	VAL	3.7
15	1T	130	ALA	3.7
52	2u	14	TRP	3.7
41	1j	58	ASP	3.6
44	2m	5	ALA	3.6
1	2A	1536	C	3.6
39	1h	18	ARG	3.6
8	1I	89	TYR	3.6
1	1A	1140	U	3.6
35	2d	47	ARG	3.6
40	1i	128	ARG	3.6
14	2S	45	GLY	3.6

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Mol	Chain	Res	Type	RSRZ
40	1i	125	TYR	3.6
32	1a	1529	G	3.6
32	2a	238	G	3.6
3	2D	275	LYS	3.6
22	20	5	LYS	3.6
8	2I	85	GLU	3.6
35	1d	151	LYS	3.5
38	1g	153	HIS	3.5
45	1n	2	ALA	3.5
52	2u	6	ARG	3.5
51	1t	103	GLY	3.5
40	2i	96	LEU	3.5
38	2g	85	TYR	3.5
9	2N	45	ASN	3.5
3	2D	38	LYS	3.5
44	1m	87	TYR	3.5
8	2I	55	ALA	3.5
1	1A	1139	G	3.5
40	2i	117	HIS	3.5
48	1q	27	PHE	3.5
50	2s	9	VAL	3.5
46	1o	87	ILE	3.4
32	1a	1508	G	3.4
43	2l	126	LYS	3.4
15	1T	131	ALA	3.4
51	2t	9	ASN	3.4
40	1i	113	LYS	3.4
4	2E	136	ARG	3.4
40	2i	128	ARG	3.4
48	2q	42	TYR	3.4
11	2P	51	PHE	3.4
43	1l	7	ILE	3.4
51	1t	83	ARG	3.4
22	10	5	LYS	3.4
1	1A	1072	U	3.3
3	2D	276	LYS	3.3
40	1i	119	ALA	3.3
41	2j	65	LEU	3.3
51	1t	18	GLN	3.3
32	1a	1509	C	3.3
45	2n	2	ALA	3.3
45	2n	35	ARG	3.3

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Mol	Chain	Res	Type	RSRZ
14	2S	33	LYS	3.3
51	2t	30	LYS	3.3
34	2c	137	ALA	3.3
32	2a	1030(B)	C	3.3
23	2l	14	VAL	3.3
33	2b	7	VAL	3.3
39	2h	95	VAL	3.3
1	2A	1171	G	3.3
4	2E	204	ALA	3.2
35	1d	201	GLN	3.2
1	2A	2111	C	3.2
22	20	2	ALA	3.2
52	2u	11	GLY	3.2
1	2A	2128	C	3.2
1	2A	2143	C	3.2
4	2E	127	ASP	3.2
4	2E	134	ILE	3.2
1	2A	1026	U	3.2
38	2g	84	ASN	3.2
14	2S	32	LEU	3.2
45	2n	20	ALA	3.2
45	2n	30	ALA	3.2
43	2l	32	PHE	3.2
1	2A	229	A	3.2
54	1y	35	A	3.2
4	2E	133	LYS	3.1
52	2u	16	GLY	3.1
50	1s	78	ARG	3.1
40	2i	36	TYR	3.1
17	2V	73	SER	3.1
1	2A	2147	G	3.1
40	2i	14	VAL	3.1
31	29	37	GLY	3.1
8	2l	122	GLU	3.1
33	2b	215	LEU	3.1
41	2j	32	ALA	3.1
31	29	21	GLY	3.1
43	2l	14	GLY	3.1
32	2a	1030(A)	G	3.1
32	2a	1202	G	3.1
44	2m	105	THR	3.1
5	2F	80	ALA	3.0

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Mol	Chain	Res	Type	RSRZ
43	2l	5	PRO	3.0
46	1o	19	PRO	3.0
43	2l	68	ALA	3.0
48	1q	35	VAL	3.0
41	2j	19	SER	3.0
13	2R	9	LYS	3.0
11	2P	45	LEU	3.0
34	2c	182	ILE	3.0
35	2d	69	GLY	3.0
38	2g	82	GLY	3.0
44	2m	104	ARG	3.0
26	24	65	ASP	3.0
41	2j	8	LEU	3.0
51	2t	97	ALA	3.0
3	2D	5	LYS	3.0
43	2l	100	ILE	3.0
50	1s	84	GLY	3.0
14	2S	20	ARG	2.9
43	2l	16	GLU	2.9
45	2n	14	PRO	2.9
52	2u	5	ASP	2.9
41	1j	76	ASN	2.9
26	24	66	SER	2.9
36	2e	100	VAL	2.9
40	1i	13	ALA	2.9
34	2c	128	PHE	2.9
48	2q	23	VAL	2.9
35	1d	76	ARG	2.9
52	2u	24	ARG	2.9
21	1Z	146	ILE	2.9
40	2i	100	GLY	2.9
51	2t	103	GLY	2.9
45	2n	18	VAL	2.9
35	1d	153	ARG	2.9
32	2a	239	U	2.9
29	27	48	LYS	2.9
41	1j	57	LYS	2.9
44	1m	121	LYS	2.9
44	2m	121	LYS	2.9
32	1a	1503	A	2.9
53	1v	12	A	2.9
43	2l	122	THR	2.9

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Mol	Chain	Res	Type	RSRZ
3	2D	178	PRO	2.8
1	2A	2144	U	2.8
32	2a	1257	U	2.8
19	2X	18	TYR	2.8
44	1m	122	LYS	2.8
43	2l	8	ASN	2.8
45	2n	3	ARG	2.8
51	2t	25	ARG	2.8
38	2g	80	VAL	2.8
22	20	3	HIS	2.8
39	1h	2	LEU	2.8
48	2q	99	SER	2.8
1	2A	2173	A	2.8
35	1d	80	GLU	2.8
3	1D	275	LYS	2.8
44	2m	120	LYS	2.8
22	20	13	GLY	2.8
1	2A	271(M)	G	2.8
50	1s	9	VAL	2.8
6	1G	80	PHE	2.8
33	2b	237	ALA	2.8
35	2d	138	TYR	2.8
9	2N	43	THR	2.8
1	2A	884	C	2.8
22	10	2	ALA	2.7
32	2a	325	A	2.7
37	1f	19	LEU	2.7
41	2j	74	ILE	2.7
45	2n	7	ILE	2.7
39	2h	9	MET	2.7
42	2k	124	LYS	2.7
8	2l	86	THR	2.7
35	2d	2	GLY	2.7
34	2c	32	LEU	2.7
4	2E	125	GLY	2.7
5	2F	208	GLY	2.7
43	1l	14	GLY	2.7
35	1d	209	ARG	2.7
50	2s	81	ARG	2.7
51	2t	23	ARG	2.7
12	2Q	104	PHE	2.7
15	2T	131	ALA	2.7

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Mol	Chain	Res	Type	RSRZ
35	2d	164	ALA	2.7
45	2n	5	ALA	2.7
54	1y	36	A	2.7
25	13	2	PRO	2.7
39	2h	67	PRO	2.7
43	1l	5	PRO	2.7
1	1A	1584	G	2.7
42	1k	13	GLN	2.7
6	2G	159	VAL	2.7
34	2c	207	VAL	2.7
34	2c	189	ALA	2.7
32	1a	796	C	2.7
36	2e	24	ARG	2.7
32	1a	1257	U	2.7
38	1g	74	GLU	2.7
21	2Z	21	ALA	2.6
32	1a	933	G	2.6
51	2t	16	HIS	2.6
44	1m	102	ARG	2.6
32	2a	121	C	2.6
51	2t	96	GLY	2.6
8	1I	72	LEU	2.6
23	2l	88	LYS	2.6
54	2w	76	A	2.6
40	2i	46	ALA	2.6
34	2c	158	GLY	2.6
41	1j	100	THR	2.6
19	1X	92	LEU	2.6
35	2d	170	VAL	2.6
36	2e	119	LEU	2.6
43	1l	8	ASN	2.6
34	2c	166	GLU	2.6
26	24	49	PHE	2.6
35	1d	195	ALA	2.6
7	1H	175	LYS	2.6
45	2n	13	THR	2.6
8	1I	109	ILE	2.6
41	1j	4	ILE	2.6
51	2t	18	GLN	2.6
26	24	42	PHE	2.6
40	2i	101	PHE	2.6
13	2R	105	ARG	2.6

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Mol	Chain	Res	Type	RSRZ
5	1F	208	GLY	2.6
40	2i	39	GLY	2.6
40	2i	49	PRO	2.6
6	2G	53	LEU	2.6
9	2N	73	THR	2.6
52	2u	17	THR	2.6
40	1i	122	ALA	2.6
1	2A	2166	G	2.5
15	1T	111	ARG	2.5
52	1u	15	ARG	2.5
38	1g	81	GLY	2.5
41	1j	77	PRO	2.5
53	2v	12	A	2.5
8	2I	89	TYR	2.5
39	2h	2	LEU	2.5
39	1h	80	ILE	2.5
40	2i	53	VAL	2.5
52	2u	8	THR	2.5
3	2D	90	ALA	2.5
40	2i	82	ALA	2.5
14	2S	42	ASP	2.5
39	2h	84	ARG	2.5
45	2n	17	LYS	2.5
32	1a	493	G	2.5
32	2a	1033	G	2.5
1	1A	1138	C	2.5
32	2a	328	C	2.5
39	2h	133	LEU	2.5
44	2m	100	GLY	2.5
52	2u	2	GLY	2.5
28	26	5	VAL	2.5
35	1d	204	ILE	2.5
45	2n	37	PHE	2.5
40	2i	106	ALA	2.5
23	11	21	ARG	2.5
48	1q	68	ARG	2.5
11	2P	109	GLY	2.5
52	1u	14	TRP	2.5
1	1A	555	G	2.5
48	1q	32	TYR	2.5
11	2P	68	GLN	2.5
15	2T	130	ALA	2.5

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Mol	Chain	Res	Type	RSRZ
15	1T	115	ARG	2.5
15	1T	125	ARG	2.5
46	1o	68	ARG	2.5
52	1u	24	ARG	2.5
14	1S	48	LEU	2.5
43	2l	31	PRO	2.5
6	2G	20	ILE	2.5
52	2u	4	GLY	2.5
38	1g	141	VAL	2.5
11	2P	15	ARG	2.5
36	1e	21	ALA	2.5
40	2i	10	ARG	2.5
51	2t	83	ARG	2.5
26	14	69	LYS	2.5
32	2a	1114	C	2.5
1	2A	2127	G	2.5
3	2D	155	LEU	2.4
52	2u	13	ILE	2.4
12	1Q	33	GLY	2.4
38	2g	149	ARG	2.4
40	1i	2	GLU	2.4
6	2G	138	GLN	2.4
35	1d	138	TYR	2.4
40	1i	127	LYS	2.4
48	1q	26	GLN	2.4
51	1t	14	LYS	2.4
54	2w	2	C	2.4
48	1q	28	PRO	2.4
34	2c	198	VAL	2.4
16	2U	11	ARG	2.4
41	2j	55	LYS	2.4
30	28	64	TYR	2.4
48	2q	95	TYR	2.4
44	2m	103	THR	2.4
34	2c	91	LEU	2.4
50	2s	71	LEU	2.4
8	2I	11	ASN	2.4
35	2d	154	ASN	2.4
30	28	16	ILE	2.4
35	1d	140	VAL	2.4
43	2l	15	ARG	2.4
52	2u	3	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
5	2F	90	PHE	2.4
38	2g	83	ALA	2.4
4	2E	117	MET	2.4
21	2Z	144	LEU	2.4
20	2Y	58	GLY	2.4
33	2b	165	VAL	2.4
18	1W	90	ARG	2.4
42	2k	13	GLN	2.4
51	1t	70	SER	2.4
1	1A	638	U	2.4
41	2j	100	THR	2.4
19	2X	95	LEU	2.4
33	2b	121	LEU	2.4
9	2N	5	VAL	2.3
33	2b	230	VAL	2.3
34	2c	195	VAL	2.3
48	2q	37	LYS	2.3
4	2E	130	GLY	2.3
20	2Y	29	GLU	2.3
36	2e	81	GLU	2.3
1	2A	2142	C	2.3
48	2q	26	GLN	2.3
36	1e	10	MET	2.3
4	2E	151	TYR	2.3
26	24	67	TYR	2.3
5	2F	107	LYS	2.3
43	1l	91	LYS	2.3
9	1N	54	VAL	2.3
32	2a	230	G	2.3
34	1c	207	VAL	2.3
12	2Q	80	GLU	2.3
34	1c	90	GLU	2.3
47	1p	1	MET	2.3
51	1t	10	LEU	2.3
21	1Z	170	THR	2.3
32	1a	1030(B)	C	2.3
34	2c	191	THR	2.3
34	2c	192	THR	2.3
23	21	33	LYS	2.3
30	28	29	LYS	2.3
38	2g	5	ARG	2.3
50	2s	76	PRO	2.3

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Mol	Chain	Res	Type	RSRZ
44	2m	15	VAL	2.3
41	2j	78	ASN	2.3
6	2G	102	PHE	2.3
14	2S	64	GLU	2.3
8	2I	123	LEU	2.3
50	2s	38	SER	2.3
3	2D	176	ARG	2.3
1	1A	1144	A	2.3
31	29	23	VAL	2.3
4	2E	113	PHE	2.3
40	2i	37	PHE	2.3
7	1H	67	LEU	2.3
17	2V	80	GLN	2.3
21	1Z	148	ASP	2.3
34	2c	157	ILE	2.3
14	2S	17	ARG	2.3
4	2E	126	PRO	2.3
39	2h	94	TYR	2.3
38	1g	118	VAL	2.3
1	1A	2518	U	2.3
1	2A	2119	A	2.2
32	1a	609	A	2.2
8	2I	117	GLU	2.2
33	2b	37	ASN	2.2
41	2j	76	ASN	2.2
51	2t	20	LEU	2.2
43	2l	20	LYS	2.2
52	2u	20	LYS	2.2
10	2O	81	ASP	2.2
8	2I	88	ILE	2.2
19	2X	68	ARG	2.2
21	1Z	100	VAL	2.2
40	2i	109	VAL	2.2
52	2u	23	PRO	2.2
14	2S	7	TYR	2.2
33	2b	31	TYR	2.2
35	2d	167	GLY	2.2
3	1D	15	PHE	2.2
20	2Y	5	MET	2.2
35	1d	110	PHE	2.2
40	2i	33	PHE	2.2
1	1A	1142	A	2.2

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Mol	Chain	Res	Type	RSRZ
3	2D	147	LEU	2.2
16	2U	60	LEU	2.2
43	2I	10	LEU	2.2
54	1w	76	A	2.2
6	2G	39	ILE	2.2
3	2D	268	ARG	2.2
34	2c	164	ARG	2.2
52	2u	7	ARG	2.2
21	2Z	174	VAL	2.2
26	24	56	VAL	2.2
50	2s	79	THR	2.2
14	2S	92	TYR	2.2
46	1o	69	TYR	2.2
15	1T	25	GLY	2.2
40	1i	39	GLY	2.2
1	2A	2133	G	2.2
3	2D	2	ALA	2.2
40	2i	97	LYS	2.2
22	20	68	GLU	2.2
35	1d	15	GLU	2.2
39	2h	99	GLU	2.2
35	1d	139	ARG	2.2
52	1u	9	ARG	2.2
1	2A	2169	A	2.2
32	2a	1054	C	2.2
37	2f	6	VAL	2.2
43	2I	125	PRO	2.2
8	1I	108	THR	2.2
40	2i	125	TYR	2.2
52	1u	16	GLY	2.2
52	2u	18	TYR	2.2
43	2I	13	LYS	2.2
34	2c	52	LEU	2.2
36	2e	12	LEU	2.2
43	2I	27	LEU	2.2
51	2t	12	ALA	2.2
21	2Z	146	ILE	2.2
46	2o	54	ARG	2.2
52	2u	22	ARG	2.2
1	2A	1042	G	2.2
1	2A	2165	G	2.2
32	1a	630	G	2.2

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Mol	Chain	Res	Type	RSRZ
1	1A	942	A	2.2
1	1A	1141	A	2.2
8	2I	80	PRO	2.2
32	1a	441	A	2.2
35	1d	170	VAL	2.2
43	1l	18	VAL	2.2
2	2B	12	C	2.2
26	24	9	LEU	2.2
40	2i	56	LEU	2.2
51	2t	13	LEU	2.2
28	26	4	GLU	2.2
26	24	61	ARG	2.1
38	1g	155	ARG	2.1
40	1i	120	ARG	2.1
51	2t	22	ARG	2.1
40	1i	124	GLN	2.1
1	2A	271(L)	U	2.1
47	1p	2	VAL	2.1
1	2A	2170	A	2.1
1	1A	1146	C	2.1
3	2D	15	PHE	2.1
8	1I	12	LEU	2.1
43	1l	64	TYR	2.1
3	2D	134	ARG	2.1
13	2R	17	ARG	2.1
35	1d	118	ARG	2.1
21	2Z	57	ILE	2.1
20	2Y	53	PRO	2.1
34	2c	116	VAL	2.1
12	2Q	1	MET	2.1
12	2Q	103	MET	2.1
44	2m	113	PRO	2.1
43	2l	114	LYS	2.1
40	2i	7	THR	2.1
40	2i	27	THR	2.1
39	1h	133	LEU	2.1
1	1A	572	A	2.1
32	1a	1507	A	2.1
32	2a	120	A	2.1
32	2a	414	A	2.1
33	2b	21	ARG	2.1
38	2g	152	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
40	2i	119	ALA	2.1
23	2l	27	GLU	2.1
32	2a	1220	G	2.1
41	1j	50	ILE	2.1
44	2m	67	GLU	2.1
48	2q	90	ILE	2.1
32	1a	443	C	2.1
31	29	36	GLN	2.1
47	1p	82	GLN	2.1
10	2O	1	MET	2.1
17	2V	94	LEU	2.1
22	20	6	GLY	2.1
34	2c	33	LEU	2.1
39	2h	128	GLY	2.1
40	2i	19	LEU	2.1
41	2j	71	LEU	2.1
12	2Q	75	THR	2.1
18	2W	92	ARG	2.1
28	26	42	TRP	2.1
52	1u	6	ARG	2.1
7	2H	89	ILE	2.1
8	2I	46	ALA	2.1
22	20	18	ALA	2.1
38	1g	2	ALA	2.1
38	1g	83	ALA	2.1
35	1d	192	GLU	2.1
45	2n	21	TYR	2.1
3	2D	266	SER	2.1
51	1t	11	SER	2.1
1	1A	1579	C	2.1
3	1D	38	LYS	2.1
6	1G	182	LYS	2.1
32	1a	63	C	2.1
32	1a	1030	C	2.1
23	2l	62	VAL	2.1
34	2c	138	VAL	2.1
8	1I	44	LEU	2.1
35	1d	155	LEU	2.1
33	2b	38	GLY	2.1
35	2d	23	GLY	2.1
11	2P	16	ARG	2.1
44	2m	88	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
34	1c	100	ALA	2.1
48	2q	44	ALA	2.1
35	1d	33	MET	2.0
46	1o	62	GLN	2.0
33	2b	112	VAL	2.0
4	2E	143	ASN	2.0
6	2G	172	LEU	2.0
19	1X	95	LEU	2.0
32	2a	1437	C	2.0
11	1P	44	GLY	2.0
32	1a	1523	G	2.0
32	2a	1224	G	2.0
40	1i	66	ARG	2.0
35	1d	150	GLU	2.0
40	2i	110	GLU	2.0
19	2X	69	TYR	2.0
42	1k	123	LYS	2.0
42	2k	123	LYS	2.0
9	2N	140	VAL	2.0
21	2Z	149	SER	2.0
35	1d	71	SER	2.0
6	2G	32	PRO	2.0
44	2m	66	LEU	2.0
51	1t	72	LEU	2.0
15	2T	104	ASN	2.0
35	2d	139	ARG	2.0
4	2E	10	GLY	2.0
41	2j	50	ILE	2.0
47	1p	19	ILE	2.0
48	1q	36	ILE	2.0
33	2b	13	ALA	2.0
34	2c	200	ALA	2.0
41	2j	20	ALA	2.0
7	2H	159	GLU	2.0
8	1I	41	GLU	2.0
49	2r	46	GLU	2.0
50	2s	32	LYS	2.0
3	2D	16	MET	2.0
17	2V	81	TYR	2.0

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

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($\text{\AA}^2$)	Q<0.9
54	7MG	2w	46	24/25	0.53	0.11	106,118,134,152	0
54	7MG	1y	46	24/25	0.54	0.12	108,116,129,134	0
54	7MG	1w	46	24/25	0.63	0.12	93,103,126,142	0
54	5MU	1y	54	21/22	0.65	0.11	101,110,119,130	0
54	PSU	2y	32	20/21	0.65	0.13	91,110,120,121	0
54	5MU	2y	54	21/22	0.65	0.13	110,119,130,143	0
54	MIA	2y	37	22/30	0.67	0.11	98,109,118,131	0
54	4SU	1y	8	20/21	0.71	0.11	105,113,126,129	0
54	4SU	2y	8	20/21	0.74	0.11	110,120,126,128	0
54	PSU	1y	55	20/21	0.74	0.11	108,115,127,131	0
54	7MG	2y	46	24/25	0.75	0.10	116,124,130,143	0
54	PSU	2w	55	20/21	0.76	0.09	95,105,114,117	0
54	4SU	1w	8	20/21	0.77	0.09	99,103,117,119	0
54	PSU	2y	55	20/21	0.77	0.12	113,126,131,134	0
54	4SU	2w	8	20/21	0.79	0.10	109,121,129,137	0
54	PSU	2y	39	20/21	0.82	0.09	96,104,108,110	0
55	PSU	2x	55	20/21	0.83	0.09	86,93,107,108	0
54	MIA	1y	37	22/30	0.83	0.10	86,96,100,103	0
55	5MU	2x	54	21/22	0.85	0.09	88,96,101,104	0
54	PSU	1w	55	20/21	0.85	0.08	62,87,97,97	0
55	4SU	2x	8	20/21	0.85	0.11	75,91,102,103	0
32	PSU	2a	516	20/21	0.87	0.12	69,89,97,100	0
32	2MG	2a	1207	24/25	0.87	0.14	97,103,108,110	0
55	PSU	1x	55	20/21	0.87	0.10	71,76,84,87	0
54	5MU	2w	54	21/22	0.88	0.07	86,95,101,111	0
55	5MU	1x	54	21/22	0.89	0.10	72,77,80,83	0
1	5MU	2A	1915	21/22	0.89	0.10	76,81,87,88	0
54	PSU	1y	32	20/21	0.90	0.08	85,97,104,105	0
54	PSU	1y	39	20/21	0.90	0.09	72,93,98,109	0
32	5MC	2a	967	21/22	0.91	0.14	84,92,97,104	0
1	PSU	2A	1917	20/21	0.91	0.08	70,79,86,96	0
54	PSU	1w	32	20/21	0.91	0.10	69,79,86,86	0
32	M2G	2a	966	25/26	0.91	0.15	75,88,98,103	0
54	PSU	2w	32	20/21	0.92	0.12	92,102,106,113	0
54	PSU	2w	39	20/21	0.92	0.12	86,97,103,103	0
55	4SU	1x	8	20/21	0.92	0.09	60,68,78,81	0
32	4OC	2a	1402	22/23	0.92	0.12	73,84,89,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
32	7MG	2a	527	24/25	0.92	0.12	69,77,84,87	0
32	PSU	1a	516	20/21	0.93	0.08	51,66,70,72	0
1	5MU	1A	1937	21/22	0.93	0.11	59,66,71,72	0
55	5MC	2x	32	21/22	0.93	0.11	78,86,91,92	0
54	MIA	2w	37	25/30	0.94	0.12	77,89,99,103	0
1	PSU	2A	1911	20/21	0.94	0.07	69,81,84,90	0
55	5MC	1x	32	21/22	0.94	0.15	63,69,76,78	0
32	5MC	2a	1407	21/22	0.94	0.09	70,76,77,78	0
32	MA6	2a	1518	24/25	0.94	0.12	67,80,85,86	0
43	0TD	2l	92	10/11	0.94	0.10	74,78,82,90	0
54	5MU	1w	54	21/22	0.94	0.07	66,74,81,83	0
1	5MC	2A	1942	21/22	0.94	0.08	53,68,74,78	0
32	7MG	1a	527	24/25	0.95	0.08	45,53,60,63	0
32	2MG	1a	1207	24/25	0.95	0.07	65,74,79,81	0
32	5MC	2a	1400	21/22	0.95	0.13	79,84,90,91	0
32	UR3	1a	1498	21/22	0.95	0.14	44,51,54,59	0
32	5MC	2a	1404	21/22	0.95	0.10	69,78,82,83	0
1	5MU	2A	1939	21/22	0.95	0.07	51,56,62,67	0
32	UR3	2a	1498	21/22	0.95	0.11	60,75,80,82	0
32	MA6	1a	1519	24/25	0.95	0.13	47,51,57,64	0
32	MA6	2a	1519	24/25	0.95	0.11	66,78,84,88	0
1	5MC	2A	1962	21/22	0.95	0.09	56,61,73,81	0
1	OMG	2A	2251	24/25	0.95	0.08	49,58,60,65	0
43	0TD	1l	92	10/11	0.95	0.12	57,59,63,66	0
1	PSU	1A	1939	20/21	0.95	0.10	47,59,66,66	0
1	PSU	1A	1933	20/21	0.95	0.09	42,52,58,60	0
32	5MC	1a	967	21/22	0.96	0.13	57,62,67,70	0
1	5MC	1A	1964	21/22	0.96	0.08	44,52,57,61	0
32	5MC	1a	1400	21/22	0.96	0.11	52,57,63,72	0
32	5MC	1a	1407	21/22	0.96	0.11	48,53,57,62	0
1	2MA	1A	2515	23/24	0.96	0.09	27,32,37,41	0
32	MA6	1a	1518	24/25	0.96	0.11	41,49,53,56	0
1	4OC	2A	1920	21/23	0.96	0.08	70,74,83,84	0
1	PSU	1A	2617	20/21	0.96	0.07	36,39,43,47	0
1	4OC	1A	1942	21/23	0.96	0.11	48,60,64,65	0
1	5MU	1A	1961	21/22	0.96	0.08	37,47,50,60	0
32	M2G	1a	966	25/26	0.96	0.12	50,59,65,74	0
1	2MA	2A	2503	23/24	0.96	0.10	37,46,49,51	0
1	2MU	2A	2552	21/23	0.96	0.07	43,52,60,64	0
1	PSU	2A	2605	20/21	0.96	0.08	36,52,60,62	0
54	PSU	1w	39	20/21	0.96	0.08	56,73,81,88	0
32	5MC	1a	1404	21/22	0.97	0.11	46,54,57,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
1	5MC	1A	1984	21/22	0.97	0.07	33,48,55,62	0
54	MIA	1w	37	29/30	0.97	0.09	53,62,74,77	0
32	4OC	1a	1402	22/23	0.97	0.07	51,59,62,66	0
1	OMG	1A	2263	24/25	0.98	0.07	30,35,43,50	0
1	2MU	1A	2564	21/23	0.98	0.06	36,41,46,52	0

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

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($\text{\AA}^2$)	Q<0.9
56	MG	1A	3897	1/1	0.26	0.12	76,76,76,76	0
56	MG	2a	1649	1/1	0.28	0.24	87,87,87,87	0
56	MG	2A	3537	1/1	0.32	0.23	90,90,90,90	0
56	MG	1A	3558	1/1	0.32	0.21	113,113,113,113	0
56	MG	2a	1830	1/1	0.35	0.23	100,100,100,100	0
56	MG	1A	3815	1/1	0.36	0.23	89,89,89,89	0
56	MG	1a	1901	1/1	0.42	0.26	80,80,80,80	0
56	MG	1a	1777	1/1	0.45	0.28	88,88,88,88	0
56	MG	2a	1904	1/1	0.45	0.29	94,94,94,94	0
56	MG	1a	1907	1/1	0.46	0.30	93,93,93,93	0
56	MG	2A	3182	1/1	0.46	0.28	92,92,92,92	0
56	MG	1a	1709	1/1	0.47	0.22	85,85,85,85	0
56	MG	2a	1796	1/1	0.50	0.33	81,81,81,81	0
56	MG	1A	3286	1/1	0.51	0.17	82,82,82,82	0
56	MG	1a	1613	1/1	0.51	0.26	97,97,97,97	0
56	MG	1a	1702	1/1	0.52	0.22	97,97,97,97	0
56	MG	1a	1866	1/1	0.52	0.34	77,77,77,77	0
56	MG	2a	1887	1/1	0.53	0.16	103,103,103,103	0
56	MG	1a	1611	1/1	0.53	0.22	98,98,98,98	0
56	MG	1A	3880	1/1	0.54	0.14	63,63,63,63	0
56	MG	2A	3533	1/1	0.55	0.18	88,88,88,88	0
56	MG	1A	3063	1/1	0.56	0.20	78,78,78,78	0
56	MG	1B	227	1/1	0.56	0.35	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3546	1/1	0.57	0.19	69,69,69,69	0
56	MG	2A	3526	1/1	0.57	0.21	101,101,101,101	0
56	MG	2B	214	1/1	0.57	0.18	95,95,95,95	0
56	MG	2a	1618	1/1	0.57	0.14	132,132,132,132	0
56	MG	2a	1638	1/1	0.57	0.39	92,92,92,92	0
56	MG	1A	3701	1/1	0.58	0.34	92,92,92,92	0
56	MG	2a	1762	1/1	0.58	0.28	91,91,91,91	0
56	MG	1A	3861	1/1	0.59	0.24	75,75,75,75	0
56	MG	1A	3764	1/1	0.60	0.24	70,70,70,70	0
56	MG	1a	1796	1/1	0.60	0.20	104,104,104,104	0
56	MG	2A	3475	1/1	0.60	0.25	84,84,84,84	0
56	MG	2a	1683	1/1	0.61	0.12	110,110,110,110	0
56	MG	2A	3118	1/1	0.61	0.13	93,93,93,93	0
56	MG	1a	1872	1/1	0.61	0.11	89,89,89,89	0
56	MG	1a	1873	1/1	0.61	0.11	85,85,85,85	0
56	MG	2a	1842	1/1	0.61	0.19	97,97,97,97	0
56	MG	1a	1776	1/1	0.61	0.35	65,65,65,65	0
56	MG	1A	3934	1/1	0.61	0.20	99,99,99,99	0
56	MG	1A	3820	1/1	0.62	0.20	84,84,84,84	0
56	MG	2a	1826	1/1	0.62	0.16	87,87,87,87	0
56	MG	1A	3923	1/1	0.63	0.37	57,57,57,57	0
56	MG	1A	3798	1/1	0.63	0.18	78,78,78,78	0
56	MG	1A	3228	1/1	0.63	0.16	79,79,79,79	0
56	MG	1l	204	1/1	0.63	0.13	68,68,68,68	0
56	MG	1A	3337	1/1	0.63	0.41	57,57,57,57	0
56	MG	2B	210	1/1	0.63	0.18	90,90,90,90	0
56	MG	1A	3075	1/1	0.64	0.41	78,78,78,78	0
56	MG	2a	1782	1/1	0.64	0.09	76,76,76,76	0
56	MG	1F	306	1/1	0.64	0.21	70,70,70,70	0
56	MG	2A	3263	1/1	0.64	0.34	66,66,66,66	0
56	MG	1a	1609	1/1	0.64	0.61	98,98,98,98	0
56	MG	2A	3514	1/1	0.64	0.10	87,87,87,87	0
56	MG	1A	3537	1/1	0.64	0.30	108,108,108,108	0
56	MG	2a	1893	1/1	0.64	0.13	82,82,82,82	0
56	MG	1w	101	1/1	0.64	0.14	83,83,83,83	0
56	MG	1A	3222	1/1	0.65	0.14	80,80,80,80	0
56	MG	1A	3042	1/1	0.65	0.20	86,86,86,86	0
56	MG	2a	1705	1/1	0.65	0.13	68,68,68,68	0
56	MG	2a	1752	1/1	0.65	0.09	77,77,77,77	0
56	MG	1A	3587	1/1	0.65	0.25	71,71,71,71	0
56	MG	1A	3830	1/1	0.65	0.20	72,72,72,72	0
56	MG	1a	1770	1/1	0.65	0.34	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1e	202	1/1	0.65	0.12	87,87,87,87	0
56	MG	1D	303	1/1	0.65	0.29	68,68,68,68	0
56	MG	1A	3536	1/1	0.65	0.18	54,54,54,54	0
56	MG	2a	1605	1/1	0.65	0.14	93,93,93,93	0
56	MG	1A	3230	1/1	0.65	0.20	93,93,93,93	0
56	MG	1a	1829	1/1	0.65	0.17	87,87,87,87	0
56	MG	1A	3823	1/1	0.66	0.27	78,78,78,78	0
56	MG	1A	3354	1/1	0.66	0.28	71,71,71,71	0
56	MG	2a	1829	1/1	0.66	0.16	87,87,87,87	0
56	MG	1a	1878	1/1	0.66	0.15	84,84,84,84	0
56	MG	2B	213	1/1	0.66	0.19	83,83,83,83	0
56	MG	1A	3580	1/1	0.66	0.32	76,76,76,76	0
56	MG	1x	103	1/1	0.66	0.13	83,83,83,83	0
56	MG	2A	3082	1/1	0.66	0.32	72,72,72,72	0
56	MG	1a	1765	1/1	0.67	0.35	78,78,78,78	0
56	MG	1A	3258	1/1	0.67	0.18	78,78,78,78	0
56	MG	2a	1874	1/1	0.67	0.21	67,67,67,67	0
56	MG	2a	1804	1/1	0.67	0.28	78,78,78,78	0
56	MG	1A	3693	1/1	0.67	0.11	80,80,80,80	0
56	MG	1A	3875	1/1	0.67	0.18	77,77,77,77	0
56	MG	1a	1876	1/1	0.68	0.09	102,102,102,102	0
56	MG	2A	3478	1/1	0.68	0.29	76,76,76,76	0
56	MG	2a	1631	1/1	0.68	0.28	90,90,90,90	0
56	MG	1A	3229	1/1	0.68	0.25	84,84,84,84	0
56	MG	1A	3295	1/1	0.69	0.18	87,87,87,87	0
56	MG	1d	301	1/1	0.69	0.17	86,86,86,86	0
56	MG	1B	209	1/1	0.69	0.24	61,61,61,61	0
56	MG	1a	1742	1/1	0.69	0.14	78,78,78,78	0
56	MG	2a	1889	1/1	0.69	0.17	87,87,87,87	0
56	MG	2a	1720	1/1	0.69	0.16	96,96,96,96	0
56	MG	2A	3506	1/1	0.69	0.15	75,75,75,75	0
56	MG	2a	1674	1/1	0.70	0.23	79,79,79,79	0
56	MG	1m	202	1/1	0.70	0.24	87,87,87,87	0
56	MG	2A	3114	1/1	0.70	0.27	80,80,80,80	0
56	MG	2A	3493	1/1	0.70	0.17	92,92,92,92	0
56	MG	1A	3849	1/1	0.70	0.16	86,86,86,86	0
56	MG	2A	3134	1/1	0.70	0.09	93,93,93,93	0
56	MG	1A	3860	1/1	0.70	0.11	75,75,75,75	0
56	MG	2A	3196	1/1	0.70	0.16	87,87,87,87	0
56	MG	1x	116	1/1	0.70	0.10	90,90,90,90	0
56	MG	2b	301	1/1	0.70	0.21	89,89,89,89	0
56	MG	2a	1709	1/1	0.71	0.28	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	1878	1/1	0.71	0.17	96,96,96,96	0
56	MG	2a	1613	1/1	0.71	0.15	80,80,80,80	0
56	MG	1d	302	1/1	0.71	0.17	81,81,81,81	0
56	MG	2A	3003	1/1	0.71	0.16	86,86,86,86	0
56	MG	2a	1774	1/1	0.71	0.15	70,70,70,70	0
56	MG	1A	3325	1/1	0.71	0.16	82,82,82,82	0
56	MG	1F	302	1/1	0.72	0.32	58,58,58,58	0
56	MG	1a	1845	1/1	0.72	0.18	107,107,107,107	0
56	MG	1a	1856	1/1	0.72	0.07	80,80,80,80	0
56	MG	2A	3187	1/1	0.72	0.19	77,77,77,77	0
56	MG	1A	3281	1/1	0.72	0.12	89,89,89,89	0
56	MG	2A	3197	1/1	0.72	0.12	78,78,78,78	0
56	MG	2A	3204	1/1	0.72	0.34	80,80,80,80	0
56	MG	1A	3879	1/1	0.72	0.14	96,96,96,96	0
56	MG	2A	3417	1/1	0.72	0.29	77,77,77,77	0
56	MG	2A	3447	1/1	0.72	0.28	50,50,50,50	0
56	MG	1A	3785	1/1	0.72	0.18	67,67,67,67	0
56	MG	1a	1874	1/1	0.72	0.26	79,79,79,79	0
56	MG	1A	3894	1/1	0.72	0.20	71,71,71,71	0
56	MG	2a	1685	1/1	0.72	0.18	83,83,83,83	0
56	MG	2a	1892	1/1	0.72	0.14	90,90,90,90	0
56	MG	1a	1618	1/1	0.72	0.15	65,65,65,65	0
56	MG	1A	3818	1/1	0.72	0.22	77,77,77,77	0
56	MG	1a	1811	1/1	0.72	0.23	62,62,62,62	0
56	MG	1B	218	1/1	0.73	0.26	68,68,68,68	0
56	MG	2a	1615	1/1	0.73	0.16	83,83,83,83	0
56	MG	1a	1911	1/1	0.73	0.09	80,80,80,80	0
56	MG	2a	1619	1/1	0.73	0.24	90,90,90,90	0
56	MG	1A	3593	1/1	0.73	0.16	75,75,75,75	0
56	MG	1B	206	1/1	0.73	0.33	79,79,79,79	0
56	MG	1a	1879	1/1	0.73	0.10	67,67,67,67	0
56	MG	1a	1883	1/1	0.73	0.12	74,74,74,74	0
56	MG	2a	1800	1/1	0.73	0.32	75,75,75,75	0
56	MG	2Q	201	1/1	0.73	0.14	81,81,81,81	0
56	MG	1A	3825	1/1	0.73	0.14	78,78,78,78	0
56	MG	2A	3044	1/1	0.74	0.24	71,71,71,71	0
56	MG	2A	3067	1/1	0.74	0.27	66,66,66,66	0
56	MG	2a	1832	1/1	0.74	0.28	61,61,61,61	0
56	MG	15	103	1/1	0.74	0.17	79,79,79,79	0
56	MG	1A	3535	1/1	0.74	0.34	56,56,56,56	0
56	MG	1a	1837	1/1	0.74	0.13	77,77,77,77	0
56	MG	1x	105	1/1	0.74	0.24	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1764	1/1	0.74	0.20	89,89,89,89	0
56	MG	1A	3789	1/1	0.74	0.14	80,80,80,80	0
56	MG	2A	3036	1/1	0.74	0.13	81,81,81,81	0
56	MG	2a	1607	1/1	0.74	0.15	90,90,90,90	0
56	MG	2a	1691	1/1	0.74	0.18	102,102,102,102	0
56	MG	2a	1625	1/1	0.75	0.23	88,88,88,88	0
56	MG	1A	3713	1/1	0.75	0.09	80,80,80,80	0
56	MG	1P	201	1/1	0.75	0.12	67,67,67,67	0
56	MG	2A	3064	1/1	0.75	0.20	84,84,84,84	0
56	MG	2a	1658	1/1	0.75	0.12	93,93,93,93	0
56	MG	2a	1662	1/1	0.75	0.26	73,73,73,73	0
56	MG	1a	1789	1/1	0.75	0.22	82,82,82,82	0
56	MG	2a	1680	1/1	0.75	0.20	85,85,85,85	0
56	MG	1a	1705	1/1	0.75	0.07	108,108,108,108	0
56	MG	2a	1840	1/1	0.75	0.26	77,77,77,77	0
56	MG	1a	1706	1/1	0.75	0.14	63,63,63,63	0
56	MG	1A	3795	1/1	0.75	0.23	76,76,76,76	0
56	MG	2a	1695	1/1	0.75	0.33	81,81,81,81	0
56	MG	1A	3257	1/1	0.75	0.19	86,86,86,86	0
56	MG	1A	3706	1/1	0.75	0.31	76,76,76,76	0
56	MG	2A	3510	1/1	0.75	0.10	75,75,75,75	0
56	MG	2a	1745	1/1	0.75	0.21	82,82,82,82	0
56	MG	1A	3788	1/1	0.75	0.13	90,90,90,90	0
56	MG	1a	1617	1/1	0.75	0.11	97,97,97,97	0
56	MG	1a	1897	1/1	0.76	0.70	71,71,71,71	0
56	MG	2A	3346	1/1	0.76	0.13	86,86,86,86	0
56	MG	1a	1900	1/1	0.76	0.21	88,88,88,88	0
56	MG	2a	1758	1/1	0.76	0.11	86,86,86,86	0
56	MG	2A	3440	1/1	0.76	0.20	64,64,64,64	0
56	MG	1A	3547	1/1	0.76	0.24	66,66,66,66	0
56	MG	2a	1780	1/1	0.76	0.24	89,89,89,89	0
56	MG	2A	3454	1/1	0.76	0.18	75,75,75,75	0
56	MG	2A	3468	1/1	0.76	0.13	69,69,69,69	0
56	MG	2a	1620	1/1	0.76	0.23	87,87,87,87	0
56	MG	1A	3552	1/1	0.76	0.29	76,76,76,76	0
56	MG	2a	1626	1/1	0.76	0.28	70,70,70,70	0
56	MG	1A	3111	1/1	0.76	0.20	67,67,67,67	0
56	MG	1A	3204	1/1	0.76	0.18	71,71,71,71	0
56	MG	2A	3505	1/1	0.76	0.13	91,91,91,91	0
56	MG	2A	3106	1/1	0.76	0.14	69,69,69,69	0
56	MG	1A	3586	1/1	0.76	0.20	74,74,74,74	0
56	MG	2a	1869	1/1	0.76	0.16	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3845	1/1	0.76	0.17	82,82,82,82	0
56	MG	2A	3516	1/1	0.76	0.14	80,80,80,80	0
56	MG	1a	1721	1/1	0.76	0.23	70,70,70,70	0
56	MG	1A	3243	1/1	0.76	0.09	88,88,88,88	0
56	MG	1a	1615	1/1	0.76	0.16	69,69,69,69	0
56	MG	1a	1844	1/1	0.76	0.09	72,72,72,72	0
56	MG	1a	1887	1/1	0.76	0.10	89,89,89,89	0
56	MG	1a	1892	1/1	0.76	0.26	73,73,73,73	0
56	MG	2w	101	1/1	0.76	0.12	73,73,73,73	0
56	MG	1a	1867	1/1	0.77	0.19	69,69,69,69	0
56	MG	1A	3783	1/1	0.77	0.20	74,74,74,74	0
56	MG	1A	3801	1/1	0.77	0.10	90,90,90,90	0
56	MG	1A	3339	1/1	0.77	0.12	71,71,71,71	0
56	MG	1A	3293	1/1	0.77	0.19	75,75,75,75	0
56	MG	1A	3856	1/1	0.77	0.20	66,66,66,66	0
56	MG	2a	1835	1/1	0.77	0.32	70,70,70,70	0
56	MG	2a	1837	1/1	0.77	0.33	67,67,67,67	0
56	MG	2A	3520	1/1	0.77	0.09	94,94,94,94	0
56	MG	2a	1716	1/1	0.77	0.20	99,99,99,99	0
56	MG	1a	1722	1/1	0.77	0.18	79,79,79,79	0
56	MG	1E	303	1/1	0.77	0.26	65,65,65,65	0
56	MG	1a	1752	1/1	0.77	0.41	62,62,62,62	0
56	MG	2A	3543	1/1	0.77	0.13	91,91,91,91	0
56	MG	2A	3464	1/1	0.77	0.11	76,76,76,76	0
56	MG	2a	1771	1/1	0.77	0.47	75,75,75,75	0
56	MG	1A	3726	1/1	0.77	0.24	72,72,72,72	0
56	MG	1A	3221	1/1	0.77	0.23	76,76,76,76	0
56	MG	2a	1665	1/1	0.77	0.37	87,87,87,87	0
56	MG	2t	201	1/1	0.77	0.20	69,69,69,69	0
56	MG	1a	1698	1/1	0.77	0.26	94,94,94,94	0
56	MG	1a	1798	1/1	0.78	0.13	80,80,80,80	0
56	MG	1a	1804	1/1	0.78	0.18	65,65,65,65	0
56	MG	2A	3553	1/1	0.78	0.22	75,75,75,75	0
56	MG	2A	3570	1/1	0.78	0.12	81,81,81,81	0
56	MG	2A	3232	1/1	0.78	0.09	65,65,65,65	0
56	MG	2B	211	1/1	0.78	0.18	78,78,78,78	0
56	MG	1A	3892	1/1	0.78	0.09	98,98,98,98	0
56	MG	2A	3325	1/1	0.78	0.11	89,89,89,89	0
56	MG	1A	3787	1/1	0.78	0.14	78,78,78,78	0
56	MG	2A	3371	1/1	0.78	0.19	91,91,91,91	0
56	MG	1A	3227	1/1	0.78	0.12	62,62,62,62	0
56	MG	2A	3424	1/1	0.78	0.12	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1841	1/1	0.78	0.13	82,82,82,82	0
56	MG	2A	3043	1/1	0.78	0.18	58,58,58,58	0
56	MG	1a	1755	1/1	0.78	0.22	87,87,87,87	0
56	MG	2A	3052	1/1	0.78	0.17	64,64,64,64	0
56	MG	2A	3466	1/1	0.78	0.20	77,77,77,77	0
56	MG	1a	1641	1/1	0.78	0.31	76,76,76,76	0
56	MG	1A	3868	1/1	0.78	0.11	87,87,87,87	0
56	MG	1a	1908	1/1	0.78	0.25	63,63,63,63	0
56	MG	2a	1644	1/1	0.78	0.28	74,74,74,74	0
56	MG	2A	3084	1/1	0.78	0.14	90,90,90,90	0
56	MG	2a	1653	1/1	0.78	0.29	67,67,67,67	0
56	MG	2A	3086	1/1	0.78	0.32	78,78,78,78	0
56	MG	2a	1660	1/1	0.78	0.28	78,78,78,78	0
56	MG	1A	3870	1/1	0.78	0.14	58,58,58,58	0
56	MG	1A	3101	1/1	0.78	0.15	94,94,94,94	0
56	MG	2a	1673	1/1	0.78	0.20	76,76,76,76	0
56	MG	1A	3349	1/1	0.78	0.24	60,60,60,60	0
56	MG	1A	3650	1/1	0.78	0.30	66,66,66,66	0
56	MG	1e	204	1/1	0.78	0.20	84,84,84,84	0
56	MG	1A	3888	1/1	0.78	0.13	72,72,72,72	0
56	MG	2A	3531	1/1	0.78	0.12	89,89,89,89	0
56	MG	1a	1797	1/1	0.78	0.22	67,67,67,67	0
56	MG	2a	1769	1/1	0.79	0.09	90,90,90,90	0
56	MG	1A	3420	1/1	0.79	0.31	56,56,56,56	0
56	MG	1A	3130	1/1	0.79	0.15	73,73,73,73	0
56	MG	1A	3565	1/1	0.79	0.11	60,60,60,60	0
56	MG	2A	3545	1/1	0.79	0.20	68,68,68,68	0
56	MG	1A	3827	1/1	0.79	0.12	63,63,63,63	0
56	MG	2A	3462	1/1	0.79	0.13	89,89,89,89	0
56	MG	2B	205	1/1	0.79	0.14	81,81,81,81	0
56	MG	2a	1810	1/1	0.79	0.33	58,58,58,58	0
56	MG	1A	3811	1/1	0.79	0.09	93,93,93,93	0
56	MG	1x	106	1/1	0.79	0.33	92,92,92,92	0
56	MG	1a	1785	1/1	0.79	0.16	79,79,79,79	0
56	MG	2A	3190	1/1	0.79	0.11	75,75,75,75	0
56	MG	1a	1904	1/1	0.79	0.06	100,100,100,100	0
56	MG	1a	1716	1/1	0.79	0.24	82,82,82,82	0
56	MG	1A	3873	1/1	0.79	0.13	71,71,71,71	0
56	MG	1a	1910	1/1	0.79	0.10	96,96,96,96	0
56	MG	2a	1701	1/1	0.79	0.19	83,83,83,83	0
56	MG	1A	3592	1/1	0.79	0.12	73,73,73,73	0
56	MG	2A	3512	1/1	0.79	0.25	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1726	1/1	0.79	0.16	69,69,69,69	0
56	MG	1A	3765	1/1	0.79	0.20	57,57,57,57	0
56	MG	2a	1891	1/1	0.79	0.18	76,76,76,76	0
56	MG	2a	1727	1/1	0.79	0.10	69,69,69,69	0
56	MG	2a	1732	1/1	0.79	0.12	88,88,88,88	0
56	MG	2a	1903	1/1	0.79	0.11	93,93,93,93	0
56	MG	2a	1621	1/1	0.79	0.18	100,100,100,100	0
56	MG	1a	1659	1/1	0.79	0.28	57,57,57,57	0
56	MG	2A	3415	1/1	0.79	0.28	48,48,48,48	0
56	MG	1a	1693	1/1	0.79	0.12	84,84,84,84	0
56	MG	2a	1610	1/1	0.80	0.27	78,78,78,78	0
56	MG	2a	1739	1/1	0.80	0.46	98,98,98,98	0
56	MG	2A	3199	1/1	0.80	0.21	67,67,67,67	0
56	MG	1a	1795	1/1	0.80	0.17	71,71,71,71	0
56	MG	2A	3208	1/1	0.80	0.18	51,51,51,51	0
56	MG	2A	3224	1/1	0.80	0.13	73,73,73,73	0
56	MG	2a	1768	1/1	0.80	0.32	79,79,79,79	0
56	MG	1a	1634	1/1	0.80	0.17	70,70,70,70	0
56	MG	2a	1770	1/1	0.80	0.41	84,84,84,84	0
56	MG	1A	3359	1/1	0.80	0.11	62,62,62,62	0
56	MG	2a	1622	1/1	0.80	0.24	83,83,83,83	0
56	MG	1A	3391	1/1	0.80	0.18	36,36,36,36	0
56	MG	15	102	1/1	0.80	0.17	48,48,48,48	0
56	MG	1A	3002	1/1	0.80	0.16	62,62,62,62	0
56	MG	2A	3391	1/1	0.80	0.23	78,78,78,78	0
56	MG	2A	3532	1/1	0.80	0.21	52,52,52,52	0
56	MG	1a	1827	1/1	0.80	0.17	79,79,79,79	0
56	MG	2A	3535	1/1	0.80	0.12	90,90,90,90	0
56	MG	1A	3441	1/1	0.80	0.25	64,64,64,64	0
56	MG	1A	3004	1/1	0.80	0.13	78,78,78,78	0
56	MG	2A	3112	1/1	0.80	0.22	65,65,65,65	0
56	MG	2A	3547	1/1	0.80	0.12	89,89,89,89	0
56	MG	2a	1671	1/1	0.80	0.14	62,62,62,62	0
56	MG	1q	201	1/1	0.80	0.27	82,82,82,82	0
56	MG	2A	3569	1/1	0.80	0.18	88,88,88,88	0
56	MG	2a	1860	1/1	0.80	0.15	83,83,83,83	0
56	MG	2a	1868	1/1	0.80	0.26	96,96,96,96	0
56	MG	1A	3348	1/1	0.80	0.21	72,72,72,72	0
56	MG	1a	1896	1/1	0.80	0.54	80,80,80,80	0
56	MG	2B	207	1/1	0.80	0.19	77,77,77,77	0
56	MG	2a	1886	1/1	0.80	0.15	103,103,103,103	0
56	MG	1A	3299	1/1	0.80	0.17	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1713	1/1	0.80	0.24	67,67,67,67	0
56	MG	2B	212	1/1	0.80	0.24	75,75,75,75	0
56	MG	1a	1846	1/1	0.80	0.24	74,74,74,74	0
56	MG	2A	3469	1/1	0.80	0.14	76,76,76,76	0
56	MG	2a	1712	1/1	0.80	0.19	64,64,64,64	0
56	MG	2A	3470	1/1	0.80	0.20	59,59,59,59	0
56	MG	1A	3895	1/1	0.80	0.13	79,79,79,79	0
56	MG	2a	1722	1/1	0.80	0.08	74,74,74,74	0
56	MG	1A	3176	1/1	0.80	0.23	66,66,66,66	0
56	MG	2x	101	1/1	0.80	0.23	77,77,77,77	0
56	MG	1A	3799	1/1	0.81	0.10	69,69,69,69	0
56	MG	1B	219	1/1	0.81	0.23	69,69,69,69	0
56	MG	1A	3467	1/1	0.81	0.20	49,49,49,49	0
56	MG	2A	3002	1/1	0.81	0.12	70,70,70,70	0
56	MG	1a	1619	1/1	0.81	0.10	58,58,58,58	0
56	MG	2A	3024	1/1	0.81	0.27	78,78,78,78	0
56	MG	1a	1899	1/1	0.81	0.10	77,77,77,77	0
56	MG	2A	3525	1/1	0.81	0.20	82,82,82,82	0
56	MG	2A	3286	1/1	0.81	0.32	53,53,53,53	0
56	MG	1A	3890	1/1	0.81	0.10	78,78,78,78	0
56	MG	1a	1754	1/1	0.81	0.41	79,79,79,79	0
56	MG	2a	1643	1/1	0.81	0.20	76,76,76,76	0
56	MG	2A	3367	1/1	0.81	0.28	66,66,66,66	0
56	MG	2A	3370	1/1	0.81	0.16	52,52,52,52	0
56	MG	1A	3202	1/1	0.81	0.10	83,83,83,83	0
56	MG	2A	3055	1/1	0.81	0.26	70,70,70,70	0
56	MG	1a	1763	1/1	0.81	0.22	81,81,81,81	0
56	MG	1A	3314	1/1	0.81	0.20	77,77,77,77	0
56	MG	1a	1851	1/1	0.81	0.11	74,74,74,74	0
56	MG	2A	3560	1/1	0.81	0.24	90,90,90,90	0
56	MG	2A	3565	1/1	0.81	0.13	72,72,72,72	0
56	MG	2A	3425	1/1	0.81	0.27	81,81,81,81	0
56	MG	1a	1681	1/1	0.81	0.26	67,67,67,67	0
56	MG	2a	1847	1/1	0.81	0.16	84,84,84,84	0
56	MG	1a	1689	1/1	0.81	0.11	72,72,72,72	0
56	MG	2B	206	1/1	0.81	0.14	78,78,78,78	0
56	MG	2a	1690	1/1	0.81	0.18	97,97,97,97	0
56	MG	1A	3393	1/1	0.81	0.14	57,57,57,57	0
56	MG	2B	208	1/1	0.81	0.14	70,70,70,70	0
56	MG	2a	1881	1/1	0.81	0.15	89,89,89,89	0
56	MG	1A	3584	1/1	0.81	0.14	69,69,69,69	0
56	MG	1R	202	1/1	0.81	0.15	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	1708	1/1	0.81	0.33	79,79,79,79	0
56	MG	1l	201	1/1	0.81	0.17	73,73,73,73	0
56	MG	1A	3915	1/1	0.81	0.24	64,64,64,64	0
56	MG	2A	3138	1/1	0.81	0.30	68,68,68,68	0
56	MG	1A	3540	1/1	0.81	0.10	67,67,67,67	0
56	MG	2W	202	1/1	0.81	0.20	71,71,71,71	0
56	MG	1A	3792	1/1	0.81	0.13	51,51,51,51	0
56	MG	1A	3297	1/1	0.81	0.27	78,78,78,78	0
56	MG	2a	1738	1/1	0.81	0.34	77,77,77,77	0
56	MG	1A	3298	1/1	0.81	0.10	73,73,73,73	0
56	MG	2A	3012	1/1	0.82	0.26	68,68,68,68	0
56	MG	2a	1767	1/1	0.82	0.27	85,85,85,85	0
56	MG	2A	3019	1/1	0.82	0.22	61,61,61,61	0
56	MG	2A	3540	1/1	0.82	0.09	79,79,79,79	0
56	MG	2A	3139	1/1	0.82	0.25	75,75,75,75	0
56	MG	2A	3153	1/1	0.82	0.12	77,77,77,77	0
56	MG	2A	3441	1/1	0.82	0.24	71,71,71,71	0
56	MG	2A	3165	1/1	0.82	0.14	64,64,64,64	0
56	MG	2A	3555	1/1	0.82	0.12	83,83,83,83	0
56	MG	13	101	1/1	0.82	0.15	82,82,82,82	0
56	MG	2A	3183	1/1	0.82	0.22	78,78,78,78	0
56	MG	2a	1801	1/1	0.82	0.36	67,67,67,67	0
56	MG	1A	3578	1/1	0.82	0.13	77,77,77,77	0
56	MG	2a	1807	1/1	0.82	0.16	67,67,67,67	0
56	MG	1a	1840	1/1	0.82	0.16	69,69,69,69	0
56	MG	2a	1817	1/1	0.82	0.27	68,68,68,68	0
56	MG	1A	3045	1/1	0.82	0.10	72,72,72,72	0
56	MG	1a	1780	1/1	0.82	0.11	91,91,91,91	0
56	MG	1A	3211	1/1	0.82	0.25	40,40,40,40	0
56	MG	2A	3473	1/1	0.82	0.29	60,60,60,60	0
56	MG	2A	3061	1/1	0.82	0.18	85,85,85,85	0
56	MG	1B	231	1/1	0.82	0.17	83,83,83,83	0
56	MG	2A	3484	1/1	0.82	0.23	85,85,85,85	0
56	MG	2a	1694	1/1	0.82	0.14	73,73,73,73	0
56	MG	2A	3218	1/1	0.82	0.19	66,66,66,66	0
56	MG	2a	1851	1/1	0.82	0.15	80,80,80,80	0
56	MG	2a	1854	1/1	0.82	0.23	75,75,75,75	0
56	MG	2a	1858	1/1	0.82	0.16	106,106,106,106	0
56	MG	2a	1700	1/1	0.82	0.29	78,78,78,78	0
56	MG	2a	1864	1/1	0.82	0.12	79,79,79,79	0
56	MG	1A	3585	1/1	0.82	0.14	65,65,65,65	0
56	MG	2G	201	1/1	0.82	0.20	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3071	1/1	0.82	0.25	62,62,62,62	0
56	MG	1A	3084	1/1	0.82	0.25	82,82,82,82	0
56	MG	2a	1879	1/1	0.82	0.07	104,104,104,104	0
56	MG	1A	3086	1/1	0.82	0.15	62,62,62,62	0
56	MG	1A	3851	1/1	0.82	0.09	66,66,66,66	0
56	MG	1A	3725	1/1	0.82	0.14	75,75,75,75	0
56	MG	2a	1721	1/1	0.82	0.07	72,72,72,72	0
56	MG	2A	3348	1/1	0.82	0.34	65,65,65,65	0
56	MG	2A	3107	1/1	0.82	0.25	69,69,69,69	0
56	MG	1A	3066	1/1	0.82	0.23	39,39,39,39	0
56	MG	2A	3527	1/1	0.82	0.11	74,74,74,74	0
56	MG	1a	1819	1/1	0.82	0.17	82,82,82,82	0
56	MG	1a	1766	1/1	0.82	0.20	71,71,71,71	0
56	MG	2A	3132	1/1	0.82	0.22	47,47,47,47	0
56	MG	2v	102	1/1	0.82	0.22	66,66,66,66	0
56	MG	2A	3534	1/1	0.82	0.22	69,69,69,69	0
56	MG	2a	1761	1/1	0.82	0.11	94,94,94,94	0
57	AKN	1A	3937	40/40	0.82	0.10	46,66,84,92	0
56	MG	1w	102	1/1	0.83	0.13	101,101,101,101	0
56	MG	1A	3841	1/1	0.83	0.12	69,69,69,69	0
56	MG	2A	3175	1/1	0.83	0.14	73,73,73,73	0
56	MG	2a	1764	1/1	0.83	0.23	81,81,81,81	0
56	MG	2a	1766	1/1	0.83	0.16	92,92,92,92	0
56	MG	1A	3074	1/1	0.83	0.21	67,67,67,67	0
56	MG	1A	3389	1/1	0.83	0.09	56,56,56,56	0
56	MG	1a	1880	1/1	0.83	0.10	67,67,67,67	0
56	MG	1A	3142	1/1	0.83	0.31	72,72,72,72	0
56	MG	1W	204	1/1	0.83	0.39	62,62,62,62	0
56	MG	1a	1890	1/1	0.83	0.24	77,77,77,77	0
56	MG	1A	3736	1/1	0.83	0.22	71,71,71,71	0
56	MG	1a	1893	1/1	0.83	0.19	72,72,72,72	0
56	MG	2a	1627	1/1	0.83	0.17	62,62,62,62	0
56	MG	1a	1894	1/1	0.83	0.21	81,81,81,81	0
56	MG	1A	3902	1/1	0.83	0.19	45,45,45,45	0
56	MG	2A	3222	1/1	0.83	0.30	68,68,68,68	0
56	MG	1A	3545	1/1	0.83	0.17	62,62,62,62	0
56	MG	1A	3338	1/1	0.83	0.20	53,53,53,53	0
56	MG	2A	3245	1/1	0.83	0.30	39,39,39,39	0
56	MG	2A	3246	1/1	0.83	0.34	67,67,67,67	0
56	MG	1A	3046	1/1	0.83	0.06	82,82,82,82	0
56	MG	2A	3057	1/1	0.83	0.23	75,75,75,75	0
56	MG	2A	3293	1/1	0.83	0.28	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3317	1/1	0.83	0.19	88,88,88,88	0
56	MG	1B	204	1/1	0.83	0.15	56,56,56,56	0
56	MG	1A	3869	1/1	0.83	0.11	63,63,63,63	0
56	MG	1A	3292	1/1	0.83	0.21	67,67,67,67	0
56	MG	1A	3463	1/1	0.83	0.25	57,57,57,57	0
56	MG	1A	3311	1/1	0.83	0.11	71,71,71,71	0
56	MG	1a	1620	1/1	0.83	0.14	71,71,71,71	0
56	MG	2a	1855	1/1	0.83	0.08	95,95,95,95	0
56	MG	2A	3375	1/1	0.83	0.39	72,72,72,72	0
56	MG	2a	1692	1/1	0.83	0.20	83,83,83,83	0
56	MG	2A	3387	1/1	0.83	0.26	56,56,56,56	0
56	MG	2A	3563	1/1	0.83	0.20	70,70,70,70	0
56	MG	1A	3217	1/1	0.83	0.17	48,48,48,48	0
56	MG	2a	1871	1/1	0.83	0.08	81,81,81,81	0
56	MG	2a	1873	1/1	0.83	0.10	97,97,97,97	0
56	MG	2A	3392	1/1	0.83	0.25	53,53,53,53	0
56	MG	2a	1877	1/1	0.83	0.15	75,75,75,75	0
56	MG	2A	3103	1/1	0.83	0.24	61,61,61,61	0
56	MG	1a	1637	1/1	0.83	0.15	67,67,67,67	0
56	MG	1a	1853	1/1	0.83	0.10	65,65,65,65	0
56	MG	2A	3111	1/1	0.83	0.22	73,73,73,73	0
56	MG	2A	3434	1/1	0.83	0.10	84,84,84,84	0
56	MG	2a	1888	1/1	0.83	0.09	90,90,90,90	0
56	MG	1A	3579	1/1	0.83	0.16	61,61,61,61	0
56	MG	1f	203	1/1	0.83	0.17	83,83,83,83	0
56	MG	1a	1769	1/1	0.83	0.09	93,93,93,93	0
56	MG	2a	1725	1/1	0.83	0.27	82,82,82,82	0
56	MG	2A	3126	1/1	0.83	0.27	54,54,54,54	0
56	MG	1A	3885	1/1	0.83	0.11	63,63,63,63	0
56	MG	1D	305	1/1	0.83	0.17	77,77,77,77	0
56	MG	2A	3465	1/1	0.83	0.11	84,84,84,84	0
56	MG	2a	1741	1/1	0.83	0.07	87,87,87,87	0
56	MG	1a	1682	1/1	0.83	0.15	68,68,68,68	0
56	MG	2a	1747	1/1	0.83	0.09	76,76,76,76	0
56	MG	1A	3836	1/1	0.83	0.14	72,72,72,72	0
56	MG	1a	1677	1/1	0.84	0.47	80,80,80,80	0
56	MG	1B	226	1/1	0.84	0.28	57,57,57,57	0
56	MG	1A	3822	1/1	0.84	0.13	63,63,63,63	0
56	MG	1B	230	1/1	0.84	0.12	66,66,66,66	0
56	MG	2A	3513	1/1	0.84	0.12	65,65,65,65	0
56	MG	1a	1799	1/1	0.84	0.19	70,70,70,70	0
56	MG	1A	3564	1/1	0.84	0.21	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3519	1/1	0.84	0.08	94,94,94,94	0
56	MG	2a	1775	1/1	0.84	0.18	72,72,72,72	0
56	MG	1A	3877	1/1	0.84	0.14	62,62,62,62	0
56	MG	2A	3290	1/1	0.84	0.32	45,45,45,45	0
56	MG	2A	3079	1/1	0.84	0.08	54,54,54,54	0
56	MG	2A	3304	1/1	0.84	0.18	65,65,65,65	0
56	MG	2A	3528	1/1	0.84	0.12	89,89,89,89	0
56	MG	1a	1816	1/1	0.84	0.16	57,57,57,57	0
56	MG	2a	1655	1/1	0.84	0.17	86,86,86,86	0
56	MG	1A	3306	1/1	0.84	0.16	49,49,49,49	0
56	MG	1A	3573	1/1	0.84	0.12	55,55,55,55	0
56	MG	2a	1661	1/1	0.84	0.24	59,59,59,59	0
56	MG	1A	3883	1/1	0.84	0.15	58,58,58,58	0
56	MG	2A	3355	1/1	0.84	0.18	62,62,62,62	0
56	MG	1F	305	1/1	0.84	0.14	78,78,78,78	0
56	MG	1A	3161	1/1	0.84	0.12	50,50,50,50	0
56	MG	1A	3833	1/1	0.84	0.20	52,52,52,52	0
56	MG	2a	1675	1/1	0.84	0.09	101,101,101,101	0
56	MG	1A	3794	1/1	0.84	0.08	70,70,70,70	0
56	MG	2A	3546	1/1	0.84	0.14	95,95,95,95	0
56	MG	1A	3891	1/1	0.84	0.12	85,85,85,85	0
56	MG	2a	1688	1/1	0.84	0.19	92,92,92,92	0
56	MG	1A	3213	1/1	0.84	0.12	53,53,53,53	0
56	MG	1a	1728	1/1	0.84	0.12	60,60,60,60	0
56	MG	2A	3395	1/1	0.84	0.25	60,60,60,60	0
56	MG	2A	3127	1/1	0.84	0.33	61,61,61,61	0
56	MG	2a	1865	1/1	0.84	0.12	85,85,85,85	0
56	MG	2A	3564	1/1	0.84	0.12	62,62,62,62	0
56	MG	1A	3174	1/1	0.84	0.08	85,85,85,85	0
56	MG	1a	1855	1/1	0.84	0.12	70,70,70,70	0
56	MG	2a	1872	1/1	0.84	0.08	80,80,80,80	0
56	MG	1A	3024	1/1	0.84	0.13	69,69,69,69	0
56	MG	1A	3251	1/1	0.84	0.25	64,64,64,64	0
56	MG	2A	3140	1/1	0.84	0.23	58,58,58,58	0
56	MG	1A	3854	1/1	0.84	0.12	86,86,86,86	0
56	MG	1A	3903	1/1	0.84	0.31	56,56,56,56	0
56	MG	1a	1614	1/1	0.84	0.13	87,87,87,87	0
56	MG	2a	1883	1/1	0.84	0.06	94,94,94,94	0
56	MG	2A	3179	1/1	0.84	0.18	66,66,66,66	0
56	MG	1A	3908	1/1	0.84	0.15	27,27,27,27	0
56	MG	1A	3254	1/1	0.84	0.09	70,70,70,70	0
56	MG	1A	3859	1/1	0.84	0.19	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3814	1/1	0.84	0.13	78,78,78,78	0
56	MG	2a	1735	1/1	0.84	0.17	83,83,83,83	0
56	MG	1A	3088	1/1	0.84	0.13	55,55,55,55	0
56	MG	1A	3866	1/1	0.84	0.13	97,97,97,97	0
56	MG	1a	1886	1/1	0.84	0.11	86,86,86,86	0
56	MG	1A	3816	1/1	0.84	0.13	68,68,68,68	0
56	MG	1A	3555	1/1	0.84	0.15	58,58,58,58	0
56	MG	2a	1611	1/1	0.84	0.23	76,76,76,76	0
56	MG	2A	3212	1/1	0.84	0.08	59,59,59,59	0
56	MG	2w	102	1/1	0.84	0.20	85,85,85,85	0
56	MG	1A	3147	1/1	0.84	0.24	42,42,42,42	0
56	MG	2x	102	1/1	0.84	0.17	83,83,83,83	0
56	MG	2a	1616	1/1	0.84	0.14	88,88,88,88	0
56	MG	1A	3452	1/1	0.85	0.36	63,63,63,63	0
56	MG	1a	1699	1/1	0.85	0.17	72,72,72,72	0
56	MG	2A	3427	1/1	0.85	0.14	68,68,68,68	0
56	MG	1A	3831	1/1	0.85	0.12	92,92,92,92	0
56	MG	1A	3080	1/1	0.85	0.17	61,61,61,61	0
56	MG	1A	3224	1/1	0.85	0.14	58,58,58,58	0
56	MG	1A	3470	1/1	0.85	0.16	40,40,40,40	0
56	MG	1a	1711	1/1	0.85	0.24	68,68,68,68	0
56	MG	1A	3478	1/1	0.85	0.40	74,74,74,74	0
56	MG	2A	3463	1/1	0.85	0.23	74,74,74,74	0
56	MG	1A	3534	1/1	0.85	0.09	50,50,50,50	0
56	MG	2A	3150	1/1	0.85	0.19	59,59,59,59	0
56	MG	1A	3205	1/1	0.85	0.16	62,62,62,62	0
56	MG	2A	3161	1/1	0.85	0.26	78,78,78,78	0
56	MG	1p	101	1/1	0.85	0.63	79,79,79,79	0
56	MG	1A	3036	1/1	0.85	0.07	51,51,51,51	0
56	MG	1r	101	1/1	0.85	0.21	70,70,70,70	0
56	MG	1a	1847	1/1	0.85	0.09	66,66,66,66	0
56	MG	1A	3017	1/1	0.85	0.16	66,66,66,66	0
56	MG	2a	1623	1/1	0.85	0.14	103,103,103,103	0
56	MG	2A	3481	1/1	0.85	0.07	69,69,69,69	0
56	MG	19	102	1/1	0.85	0.14	67,67,67,67	0
56	MG	2A	3485	1/1	0.85	0.15	88,88,88,88	0
56	MG	1A	3538	1/1	0.85	0.10	70,70,70,70	0
56	MG	2A	3498	1/1	0.85	0.12	75,75,75,75	0
56	MG	2A	3194	1/1	0.85	0.14	85,85,85,85	0
56	MG	1A	3912	1/1	0.85	0.15	62,62,62,62	0
56	MG	1x	112	1/1	0.85	0.14	83,83,83,83	0
56	MG	1A	3283	1/1	0.85	0.10	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3657	1/1	0.85	0.17	55,55,55,55	0
56	MG	1a	1759	1/1	0.85	0.17	78,78,78,78	0
56	MG	2A	3008	1/1	0.85	0.30	53,53,53,53	0
56	MG	2A	3517	1/1	0.85	0.10	73,73,73,73	0
56	MG	2A	3011	1/1	0.85	0.22	73,73,73,73	0
56	MG	2a	1663	1/1	0.85	0.14	79,79,79,79	0
56	MG	1a	1760	1/1	0.85	0.30	45,45,45,45	0
56	MG	2a	1667	1/1	0.85	0.10	89,89,89,89	0
56	MG	1A	3933	1/1	0.85	0.35	85,85,85,85	0
56	MG	1A	3681	1/1	0.85	0.13	54,54,54,54	0
56	MG	1A	3364	1/1	0.85	0.07	74,74,74,74	0
56	MG	2A	3037	1/1	0.85	0.14	57,57,57,57	0
56	MG	2A	3254	1/1	0.85	0.20	62,62,62,62	0
56	MG	1A	3386	1/1	0.85	0.12	46,46,46,46	0
56	MG	2A	3264	1/1	0.85	0.33	54,54,54,54	0
56	MG	2A	3275	1/1	0.85	0.28	44,44,44,44	0
56	MG	1A	3312	1/1	0.85	0.10	72,72,72,72	0
56	MG	1A	3872	1/1	0.85	0.14	64,64,64,64	0
56	MG	1a	1884	1/1	0.85	0.07	85,85,85,85	0
56	MG	1A	3390	1/1	0.85	0.15	62,62,62,62	0
56	MG	2a	1880	1/1	0.85	0.07	91,91,91,91	0
56	MG	2A	3059	1/1	0.85	0.13	91,91,91,91	0
56	MG	1B	224	1/1	0.85	0.35	65,65,65,65	0
56	MG	1A	3134	1/1	0.85	0.15	63,63,63,63	0
56	MG	2A	3551	1/1	0.85	0.15	69,69,69,69	0
56	MG	1a	1662	1/1	0.85	0.17	63,63,63,63	0
56	MG	1a	1664	1/1	0.85	0.23	65,65,65,65	0
56	MG	1A	3232	1/1	0.85	0.22	60,60,60,60	0
56	MG	1A	3878	1/1	0.85	0.13	71,71,71,71	0
56	MG	1A	3333	1/1	0.85	0.23	57,57,57,57	0
56	MG	1A	3762	1/1	0.85	0.11	48,48,48,48	0
56	MG	2A	3089	1/1	0.85	0.29	59,59,59,59	0
56	MG	1A	3043	1/1	0.85	0.18	95,95,95,95	0
56	MG	2B	202	1/1	0.85	0.14	81,81,81,81	0
56	MG	1a	1800	1/1	0.85	0.08	68,68,68,68	0
56	MG	1a	1802	1/1	0.85	0.17	88,88,88,88	0
56	MG	2a	1737	1/1	0.85	0.20	63,63,63,63	0
56	MG	1a	1697	1/1	0.85	0.14	74,74,74,74	0
56	MG	2A	3416	1/1	0.85	0.11	65,65,65,65	0
56	MG	1a	1809	1/1	0.85	0.15	83,83,83,83	0
56	MG	1A	3132	1/1	0.86	0.15	80,80,80,80	0
56	MG	2A	3144	1/1	0.86	0.29	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	1636	1/1	0.86	0.10	93,93,93,93	0
56	MG	1A	3321	1/1	0.86	0.17	65,65,65,65	0
56	MG	1A	3561	1/1	0.86	0.09	72,72,72,72	0
56	MG	1A	3422	1/1	0.86	0.19	61,61,61,61	0
56	MG	1A	3797	1/1	0.86	0.24	80,80,80,80	0
56	MG	2a	1651	1/1	0.86	0.12	92,92,92,92	0
56	MG	1A	3927	1/1	0.86	0.13	84,84,84,84	0
56	MG	1a	1767	1/1	0.86	0.12	71,71,71,71	0
56	MG	2a	1797	1/1	0.86	0.37	68,68,68,68	0
56	MG	1a	1696	1/1	0.86	0.07	50,50,50,50	0
56	MG	1A	3195	1/1	0.86	0.28	56,56,56,56	0
56	MG	1A	3570	1/1	0.86	0.18	61,61,61,61	0
56	MG	1A	3837	1/1	0.86	0.08	60,60,60,60	0
56	MG	1A	3839	1/1	0.86	0.16	55,55,55,55	0
56	MG	2A	3433	1/1	0.86	0.46	64,64,64,64	0
56	MG	2a	1818	1/1	0.86	0.18	73,73,73,73	0
56	MG	2A	3548	1/1	0.86	0.14	88,88,88,88	0
56	MG	2a	1668	1/1	0.86	0.27	61,61,61,61	0
56	MG	2a	1670	1/1	0.86	0.15	88,88,88,88	0
56	MG	1A	3642	1/1	0.86	0.08	42,42,42,42	0
56	MG	2A	3435	1/1	0.86	0.21	69,69,69,69	0
56	MG	1A	3803	1/1	0.86	0.10	55,55,55,55	0
56	MG	1e	205	1/1	0.86	0.13	69,69,69,69	0
56	MG	2A	3443	1/1	0.86	0.18	69,69,69,69	0
56	MG	2a	1843	1/1	0.86	0.10	65,65,65,65	0
56	MG	1A	3029	1/1	0.86	0.31	48,48,48,48	0
56	MG	2A	3452	1/1	0.86	0.21	70,70,70,70	0
56	MG	2A	3078	1/1	0.86	0.30	62,62,62,62	0
56	MG	1A	3778	1/1	0.86	0.26	60,60,60,60	0
56	MG	2a	1856	1/1	0.86	0.13	66,66,66,66	0
56	MG	2a	1857	1/1	0.86	0.13	63,63,63,63	0
56	MG	2A	3214	1/1	0.86	0.17	74,74,74,74	0
56	MG	1A	3853	1/1	0.86	0.09	84,84,84,84	0
56	MG	1A	3782	1/1	0.86	0.17	75,75,75,75	0
56	MG	2A	3085	1/1	0.86	0.28	65,65,65,65	0
56	MG	2A	3229	1/1	0.86	0.21	70,70,70,70	0
56	MG	2A	3231	1/1	0.86	0.12	82,82,82,82	0
56	MG	1A	3454	1/1	0.86	0.32	45,45,45,45	0
56	MG	1p	103	1/1	0.86	0.48	86,86,86,86	0
56	MG	1A	3458	1/1	0.86	0.18	45,45,45,45	0
56	MG	1A	3553	1/1	0.86	0.22	58,58,58,58	0
56	MG	2A	3479	1/1	0.86	0.13	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2O	201	1/1	0.86	0.17	67,67,67,67	0
56	MG	1a	1727	1/1	0.86	0.08	83,83,83,83	0
56	MG	1D	304	1/1	0.86	0.35	50,50,50,50	0
56	MG	1A	3896	1/1	0.86	0.13	69,69,69,69	0
56	MG	1a	1812	1/1	0.86	0.12	83,83,83,83	0
56	MG	1a	1888	1/1	0.86	0.20	84,84,84,84	0
56	MG	2a	1734	1/1	0.86	0.16	78,78,78,78	0
56	MG	1x	108	1/1	0.86	0.34	64,64,64,64	0
56	MG	1A	3821	1/1	0.86	0.12	64,64,64,64	0
56	MG	2a	1614	1/1	0.86	0.16	86,86,86,86	0
56	MG	2A	3131	1/1	0.86	0.25	60,60,60,60	0
56	MG	1a	1891	1/1	0.86	0.26	85,85,85,85	0
56	MG	2a	1894	1/1	0.86	0.09	82,82,82,82	0
56	MG	2a	1895	1/1	0.86	0.24	54,54,54,54	0
56	MG	2a	1898	1/1	0.86	0.18	78,78,78,78	0
56	MG	2A	3335	1/1	0.86	0.33	44,44,44,44	0
56	MG	2A	3133	1/1	0.86	0.11	72,72,72,72	0
56	MG	2a	1749	1/1	0.86	0.11	77,77,77,77	0
56	MG	2a	1750	1/1	0.86	0.32	68,68,68,68	0
56	MG	1A	3581	1/1	0.86	0.18	71,71,71,71	0
56	MG	1a	1822	1/1	0.86	0.12	63,63,63,63	0
56	MG	2A	3363	1/1	0.86	0.42	55,55,55,55	0
56	MG	2A	3366	1/1	0.86	0.23	47,47,47,47	0
56	MG	2A	3524	1/1	0.86	0.10	86,86,86,86	0
56	MG	1a	1663	1/1	0.86	0.14	60,60,60,60	0
56	MG	1A	3424	1/1	0.87	0.23	24,24,24,24	0
56	MG	1b	301	1/1	0.87	0.19	84,84,84,84	0
56	MG	1A	3881	1/1	0.87	0.11	71,71,71,71	0
56	MG	2A	3189	1/1	0.87	0.26	72,72,72,72	0
56	MG	1a	1860	1/1	0.87	0.16	70,70,70,70	0
56	MG	1a	1710	1/1	0.87	0.14	82,82,82,82	0
56	MG	1A	3924	1/1	0.87	0.17	69,69,69,69	0
56	MG	1a	1870	1/1	0.87	0.13	82,82,82,82	0
56	MG	1A	3006	1/1	0.87	0.14	67,67,67,67	0
56	MG	1A	3065	1/1	0.87	0.31	72,72,72,72	0
56	MG	1a	1639	1/1	0.87	0.25	69,69,69,69	0
56	MG	1A	3659	1/1	0.87	0.15	77,77,77,77	0
56	MG	2a	1816	1/1	0.87	0.26	62,62,62,62	0
56	MG	1a	1877	1/1	0.87	0.07	71,71,71,71	0
56	MG	1a	1642	1/1	0.87	0.27	65,65,65,65	0
56	MG	2A	3221	1/1	0.87	0.21	72,72,72,72	0
56	MG	1N	202	1/1	0.87	0.09	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	1677	1/1	0.87	0.24	70,70,70,70	0
56	MG	2A	3105	1/1	0.87	0.15	79,79,79,79	0
56	MG	1a	1807	1/1	0.87	0.10	72,72,72,72	0
56	MG	1A	3802	1/1	0.87	0.12	82,82,82,82	0
56	MG	2A	3109	1/1	0.87	0.25	70,70,70,70	0
56	MG	1A	3832	1/1	0.87	0.07	88,88,88,88	0
56	MG	1A	3282	1/1	0.87	0.09	90,90,90,90	0
56	MG	2A	3248	1/1	0.87	0.31	43,43,43,43	0
56	MG	1a	1666	1/1	0.87	0.21	65,65,65,65	0
56	MG	1a	1674	1/1	0.87	0.31	51,51,51,51	0
56	MG	2a	1696	1/1	0.87	0.57	68,68,68,68	0
56	MG	2A	3120	1/1	0.87	0.21	50,50,50,50	0
56	MG	2A	3123	1/1	0.87	0.24	58,58,58,58	0
56	MG	2A	3278	1/1	0.87	0.33	44,44,44,44	0
56	MG	1a	1889	1/1	0.87	0.10	74,74,74,74	0
56	MG	2F	301	1/1	0.87	0.07	50,50,50,50	0
56	MG	2a	1711	1/1	0.87	0.11	74,74,74,74	0
56	MG	2a	1867	1/1	0.87	0.08	62,62,62,62	0
56	MG	1A	3560	1/1	0.87	0.09	63,63,63,63	0
56	MG	2a	1715	1/1	0.87	0.10	86,86,86,86	0
56	MG	2a	1870	1/1	0.87	0.14	72,72,72,72	0
56	MG	1a	1826	1/1	0.87	0.08	53,53,53,53	0
56	MG	2A	3294	1/1	0.87	0.29	58,58,58,58	0
56	MG	2A	3301	1/1	0.87	0.33	54,54,54,54	0
56	MG	2A	3496	1/1	0.87	0.24	75,75,75,75	0
56	MG	2a	1876	1/1	0.87	0.18	82,82,82,82	0
56	MG	2a	1606	1/1	0.87	0.18	67,67,67,67	0
56	MG	2A	3497	1/1	0.87	0.07	88,88,88,88	0
56	MG	2a	1731	1/1	0.87	0.06	96,96,96,96	0
56	MG	1a	1680	1/1	0.87	0.24	67,67,67,67	0
56	MG	2A	3500	1/1	0.87	0.18	58,58,58,58	0
56	MG	2A	3306	1/1	0.87	0.34	38,38,38,38	0
56	MG	2a	1885	1/1	0.87	0.12	84,84,84,84	0
56	MG	1a	1828	1/1	0.87	0.08	85,85,85,85	0
56	MG	1A	3010	1/1	0.87	0.16	72,72,72,72	0
56	MG	2A	3330	1/1	0.87	0.30	54,54,54,54	0
56	MG	1B	220	1/1	0.87	0.22	42,42,42,42	0
56	MG	2a	1890	1/1	0.87	0.13	105,105,105,105	0
56	MG	1A	3322	1/1	0.87	0.18	54,54,54,54	0
56	MG	2A	3515	1/1	0.87	0.19	67,67,67,67	0
56	MG	1a	1604	1/1	0.87	0.26	56,56,56,56	0
56	MG	1A	3708	1/1	0.87	0.17	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3071	1/1	0.87	0.16	70,70,70,70	0
56	MG	2a	1754	1/1	0.87	0.05	83,83,83,83	0
56	MG	2a	1755	1/1	0.87	0.21	73,73,73,73	0
56	MG	1a	1902	1/1	0.87	0.19	83,83,83,83	0
56	MG	2A	3158	1/1	0.87	0.18	70,70,70,70	0
56	MG	2d	301	1/1	0.87	0.07	82,82,82,82	0
56	MG	2m	201	1/1	0.87	0.27	80,80,80,80	0
56	MG	1A	3355	1/1	0.87	0.18	58,58,58,58	0
56	MG	2t	202	1/1	0.87	0.12	79,79,79,79	0
56	MG	1A	3206	1/1	0.87	0.22	59,59,59,59	0
56	MG	1B	232	1/1	0.87	0.13	78,78,78,78	0
56	MG	2A	3377	1/1	0.87	0.23	74,74,74,74	0
56	MG	2A	3530	1/1	0.87	0.27	68,68,68,68	0
56	MG	2A	3177	1/1	0.87	0.20	77,77,77,77	0
56	MG	1A	3623	1/1	0.87	0.10	52,52,52,52	0
56	MG	2A	3053	1/1	0.88	0.17	44,44,44,44	0
56	MG	1A	3012	1/1	0.88	0.21	54,54,54,54	0
56	MG	1A	3884	1/1	0.88	0.15	69,69,69,69	0
56	MG	2A	3226	1/1	0.88	0.26	44,44,44,44	0
56	MG	1A	3138	1/1	0.88	0.23	71,71,71,71	0
56	MG	1A	3287	1/1	0.88	0.34	69,69,69,69	0
56	MG	2A	3489	1/1	0.88	0.28	69,69,69,69	0
56	MG	1A	3594	1/1	0.88	0.11	76,76,76,76	0
56	MG	2a	1773	1/1	0.88	0.08	72,72,72,72	0
56	MG	2A	3065	1/1	0.88	0.21	59,59,59,59	0
56	MG	1A	3598	1/1	0.88	0.12	47,47,47,47	0
56	MG	2A	3247	1/1	0.88	0.22	51,51,51,51	0
56	MG	1A	3032	1/1	0.88	0.20	58,58,58,58	0
56	MG	2a	1786	1/1	0.88	0.10	70,70,70,70	0
56	MG	2A	3251	1/1	0.88	0.21	55,55,55,55	0
56	MG	1A	3843	1/1	0.88	0.07	68,68,68,68	0
56	MG	1A	3436	1/1	0.88	0.16	70,70,70,70	0
56	MG	1a	1806	1/1	0.88	0.55	80,80,80,80	0
56	MG	2a	1650	1/1	0.88	0.24	56,56,56,56	0
56	MG	2a	1806	1/1	0.88	0.22	63,63,63,63	0
56	MG	1A	3440	1/1	0.88	0.26	58,58,58,58	0
56	MG	1A	3068	1/1	0.88	0.25	44,44,44,44	0
56	MG	2a	1812	1/1	0.88	0.27	61,61,61,61	0
56	MG	2a	1813	1/1	0.88	0.16	61,61,61,61	0
56	MG	2A	3281	1/1	0.88	0.30	38,38,38,38	0
56	MG	1A	3556	1/1	0.88	0.11	70,70,70,70	0
56	MG	10	102	1/1	0.88	0.13	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	1821	1/1	0.88	0.08	82,82,82,82	0
56	MG	2A	3090	1/1	0.88	0.26	61,61,61,61	0
56	MG	2A	3102	1/1	0.88	0.26	61,61,61,61	0
56	MG	12	101	1/1	0.88	0.09	68,68,68,68	0
56	MG	1a	1818	1/1	0.88	0.23	56,56,56,56	0
56	MG	1A	3236	1/1	0.88	0.10	65,65,65,65	0
56	MG	1a	1909	1/1	0.88	0.11	85,85,85,85	0
56	MG	2A	3323	1/1	0.88	0.09	87,87,87,87	0
56	MG	1A	3686	1/1	0.88	0.10	68,68,68,68	0
56	MG	1a	1823	1/1	0.88	0.12	79,79,79,79	0
56	MG	2A	3331	1/1	0.88	0.42	60,60,60,60	0
56	MG	2a	1849	1/1	0.88	0.15	81,81,81,81	0
56	MG	1A	3034	1/1	0.88	0.32	65,65,65,65	0
56	MG	18	101	1/1	0.88	0.29	58,58,58,58	0
56	MG	18	102	1/1	0.88	0.07	60,60,60,60	0
56	MG	1A	3248	1/1	0.88	0.12	62,62,62,62	0
56	MG	2A	3356	1/1	0.88	0.16	56,56,56,56	0
56	MG	2a	1687	1/1	0.88	0.10	97,97,97,97	0
56	MG	1a	1717	1/1	0.88	0.07	100,100,100,100	0
56	MG	2a	1861	1/1	0.88	0.14	91,91,91,91	0
56	MG	1a	1603	1/1	0.88	0.15	61,61,61,61	0
56	MG	1A	3014	1/1	0.88	0.23	64,64,64,64	0
56	MG	1a	1605	1/1	0.88	0.23	66,66,66,66	0
56	MG	1a	1607	1/1	0.88	0.13	77,77,77,77	0
56	MG	1A	3865	1/1	0.88	0.09	61,61,61,61	0
56	MG	1a	1729	1/1	0.88	0.18	72,72,72,72	0
56	MG	2a	1698	1/1	0.88	0.07	70,70,70,70	0
56	MG	1A	3061	1/1	0.88	0.24	75,75,75,75	0
56	MG	1A	3932	1/1	0.88	0.12	62,62,62,62	0
56	MG	1A	3181	1/1	0.88	0.13	35,35,35,35	0
56	MG	1A	3374	1/1	0.88	0.18	44,44,44,44	0
56	MG	2A	3401	1/1	0.88	0.25	39,39,39,39	0
56	MG	2A	3149	1/1	0.88	0.25	74,74,74,74	0
56	MG	1A	3523	1/1	0.88	0.12	61,61,61,61	0
56	MG	1a	1862	1/1	0.88	0.16	70,70,70,70	0
56	MG	1A	3532	1/1	0.88	0.11	69,69,69,69	0
56	MG	1A	3743	1/1	0.88	0.17	57,57,57,57	0
56	MG	1a	1869	1/1	0.88	0.16	96,96,96,96	0
56	MG	1B	212	1/1	0.88	0.28	74,74,74,74	0
56	MG	2a	1723	1/1	0.88	0.18	71,71,71,71	0
56	MG	1a	1871	1/1	0.88	0.23	59,59,59,59	0
56	MG	1B	213	1/1	0.88	0.26	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3874	1/1	0.88	0.08	57,57,57,57	0
56	MG	2A	3004	1/1	0.88	0.19	65,65,65,65	0
56	MG	1A	3382	1/1	0.88	0.29	51,51,51,51	0
56	MG	2D	306	1/1	0.88	0.09	57,57,57,57	0
56	MG	2A	3009	1/1	0.88	0.11	60,60,60,60	0
56	MG	2A	3010	1/1	0.88	0.16	64,64,64,64	0
56	MG	1A	3876	1/1	0.88	0.16	71,71,71,71	0
56	MG	1A	3184	1/1	0.88	0.30	48,48,48,48	0
56	MG	1a	1771	1/1	0.88	0.10	89,89,89,89	0
56	MG	1a	1775	1/1	0.88	0.12	90,90,90,90	0
56	MG	2a	1748	1/1	0.88	0.10	83,83,83,83	0
56	MG	1A	3267	1/1	0.88	0.12	62,62,62,62	0
56	MG	1A	3770	1/1	0.88	0.22	58,58,58,58	0
56	MG	2A	3467	1/1	0.88	0.33	66,66,66,66	0
56	MG	2a	1753	1/1	0.88	0.06	79,79,79,79	0
56	MG	2A	3211	1/1	0.88	0.08	74,74,74,74	0
56	MG	1A	3193	1/1	0.88	0.13	58,58,58,58	0
56	MG	2a	1757	1/1	0.88	0.22	66,66,66,66	0
56	MG	1a	1885	1/1	0.88	0.10	77,77,77,77	0
56	MG	2x	106	1/1	0.88	0.17	72,72,72,72	0
56	MG	1A	3040	1/1	0.88	0.16	67,67,67,67	0
56	MG	2a	1719	1/1	0.89	0.11	82,82,82,82	0
56	MG	1A	3840	1/1	0.89	0.10	69,69,69,69	0
56	MG	1a	1616	1/1	0.89	0.22	86,86,86,86	0
56	MG	2A	3066	1/1	0.89	0.17	76,76,76,76	0
56	MG	1A	3749	1/1	0.89	0.12	42,42,42,42	0
56	MG	2A	3287	1/1	0.89	0.37	40,40,40,40	0
56	MG	1A	3758	1/1	0.89	0.18	72,72,72,72	0
56	MG	2A	3073	1/1	0.89	0.17	49,49,49,49	0
56	MG	1A	3562	1/1	0.89	0.09	71,71,71,71	0
56	MG	2A	3541	1/1	0.89	0.08	90,90,90,90	0
56	MG	2A	3298	1/1	0.89	0.09	78,78,78,78	0
56	MG	2a	1736	1/1	0.89	0.10	89,89,89,89	0
56	MG	1A	3016	1/1	0.89	0.28	47,47,47,47	0
56	MG	1a	1624	1/1	0.89	0.10	49,49,49,49	0
56	MG	1a	1628	1/1	0.89	0.24	89,89,89,89	0
56	MG	2a	1740	1/1	0.89	0.06	79,79,79,79	0
56	MG	1A	3163	1/1	0.89	0.29	39,39,39,39	0
56	MG	2A	3322	1/1	0.89	0.08	77,77,77,77	0
56	MG	2A	3552	1/1	0.89	0.15	77,77,77,77	0
56	MG	1a	1774	1/1	0.89	0.07	79,79,79,79	0
56	MG	2A	3554	1/1	0.89	0.07	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3766	1/1	0.89	0.19	56,56,56,56	0
56	MG	1A	3252	1/1	0.89	0.09	59,59,59,59	0
56	MG	2A	3561	1/1	0.89	0.19	88,88,88,88	0
56	MG	1A	3169	1/1	0.89	0.11	68,68,68,68	0
56	MG	1a	1778	1/1	0.89	0.07	71,71,71,71	0
56	MG	2A	3339	1/1	0.89	0.22	66,66,66,66	0
56	MG	1a	1779	1/1	0.89	0.10	87,87,87,87	0
56	MG	1A	3577	1/1	0.89	0.13	54,54,54,54	0
56	MG	2A	3351	1/1	0.89	0.28	57,57,57,57	0
56	MG	1a	1784	1/1	0.89	0.22	63,63,63,63	0
56	MG	1a	1644	1/1	0.89	0.10	61,61,61,61	0
56	MG	2A	3357	1/1	0.89	0.31	42,42,42,42	0
56	MG	1a	1648	1/1	0.89	0.13	68,68,68,68	0
56	MG	1a	1794	1/1	0.89	0.14	63,63,63,63	0
56	MG	1a	1649	1/1	0.89	0.21	66,66,66,66	0
56	MG	1a	1906	1/1	0.89	0.17	84,84,84,84	0
56	MG	2A	3119	1/1	0.89	0.16	73,73,73,73	0
56	MG	2A	3374	1/1	0.89	0.22	67,67,67,67	0
56	MG	2D	303	1/1	0.89	0.07	44,44,44,44	0
56	MG	2D	305	1/1	0.89	0.10	70,70,70,70	0
56	MG	1a	1652	1/1	0.89	0.19	64,64,64,64	0
56	MG	2A	3376	1/1	0.89	0.28	58,58,58,58	0
56	MG	1A	3058	1/1	0.89	0.27	64,64,64,64	0
56	MG	1A	3473	1/1	0.89	0.24	56,56,56,56	0
56	MG	2a	1798	1/1	0.89	0.31	55,55,55,55	0
56	MG	2a	1799	1/1	0.89	0.42	56,56,56,56	0
56	MG	1A	3477	1/1	0.89	0.31	57,57,57,57	0
56	MG	2A	3130	1/1	0.89	0.29	60,60,60,60	0
56	MG	2I	101	1/1	0.89	0.13	72,72,72,72	0
56	MG	1A	3308	1/1	0.89	0.08	56,56,56,56	0
56	MG	2A	3397	1/1	0.89	0.19	32,32,32,32	0
56	MG	1A	3479	1/1	0.89	0.21	57,57,57,57	0
56	MG	1a	1669	1/1	0.89	0.20	58,58,58,58	0
56	MG	1A	3790	1/1	0.89	0.11	65,65,65,65	0
56	MG	2a	1814	1/1	0.89	0.25	50,50,50,50	0
56	MG	2A	3137	1/1	0.89	0.14	63,63,63,63	0
56	MG	1A	3484	1/1	0.89	0.16	64,64,64,64	0
56	MG	1A	3490	1/1	0.89	0.15	50,50,50,50	0
56	MG	2a	1819	1/1	0.89	0.15	60,60,60,60	0
56	MG	1A	3494	1/1	0.89	0.34	50,50,50,50	0
56	MG	2a	1824	1/1	0.89	0.09	83,83,83,83	0
56	MG	1A	3500	1/1	0.89	0.41	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1688	1/1	0.89	0.11	68,68,68,68	0
56	MG	1A	3376	1/1	0.89	0.31	43,43,43,43	0
56	MG	2A	3437	1/1	0.89	0.07	87,87,87,87	0
56	MG	2a	1834	1/1	0.89	0.21	73,73,73,73	0
56	MG	2A	3152	1/1	0.89	0.15	60,60,60,60	0
56	MG	1a	1692	1/1	0.89	0.15	62,62,62,62	0
56	MG	1A	3524	1/1	0.89	0.07	57,57,57,57	0
56	MG	1a	1694	1/1	0.89	0.25	64,64,64,64	0
56	MG	2A	3163	1/1	0.89	0.35	55,55,55,55	0
56	MG	1a	1825	1/1	0.89	0.13	58,58,58,58	0
56	MG	2A	3457	1/1	0.89	0.18	64,64,64,64	0
56	MG	2a	1850	1/1	0.89	0.28	67,67,67,67	0
56	MG	2A	3169	1/1	0.89	0.08	72,72,72,72	0
56	MG	2a	1640	1/1	0.89	0.09	58,58,58,58	0
56	MG	2A	3171	1/1	0.89	0.12	88,88,88,88	0
56	MG	1A	3013	1/1	0.89	0.14	84,84,84,84	0
56	MG	1A	3615	1/1	0.89	0.13	47,47,47,47	0
56	MG	1A	3620	1/1	0.89	0.21	42,42,42,42	0
56	MG	1A	3265	1/1	0.89	0.07	57,57,57,57	0
56	MG	1N	204	1/1	0.89	0.08	56,56,56,56	0
56	MG	2a	1862	1/1	0.89	0.11	75,75,75,75	0
56	MG	1A	3626	1/1	0.89	0.14	58,58,58,58	0
56	MG	1A	3108	1/1	0.89	0.12	62,62,62,62	0
56	MG	2A	3471	1/1	0.89	0.22	67,67,67,67	0
56	MG	1A	3317	1/1	0.89	0.19	52,52,52,52	0
56	MG	1A	3319	1/1	0.89	0.17	77,77,77,77	0
56	MG	2A	3477	1/1	0.89	0.20	58,58,58,58	0
56	MG	1y	101	1/1	0.89	0.17	67,67,67,67	0
56	MG	1A	3819	1/1	0.89	0.15	55,55,55,55	0
56	MG	1A	3278	1/1	0.89	0.13	54,54,54,54	0
56	MG	2A	3203	1/1	0.89	0.09	66,66,66,66	0
56	MG	1A	3395	1/1	0.89	0.25	43,43,43,43	0
56	MG	2A	3486	1/1	0.89	0.24	50,50,50,50	0
56	MG	1A	3400	1/1	0.89	0.20	34,34,34,34	0
56	MG	2A	3491	1/1	0.89	0.11	70,70,70,70	0
56	MG	2a	1676	1/1	0.89	0.11	72,72,72,72	0
56	MG	1a	1719	1/1	0.89	0.07	54,54,54,54	0
56	MG	2a	1678	1/1	0.89	0.08	85,85,85,85	0
56	MG	1A	3041	1/1	0.89	0.14	56,56,56,56	0
56	MG	1a	1857	1/1	0.89	0.20	66,66,66,66	0
56	MG	2a	1684	1/1	0.89	0.19	86,86,86,86	0
56	MG	1A	3188	1/1	0.89	0.21	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1725	1/1	0.89	0.12	57,57,57,57	0
56	MG	1A	3826	1/1	0.89	0.05	92,92,92,92	0
56	MG	2a	1689	1/1	0.89	0.06	94,94,94,94	0
56	MG	2A	3033	1/1	0.89	0.14	52,52,52,52	0
56	MG	2A	3507	1/1	0.89	0.18	62,62,62,62	0
56	MG	1A	3237	1/1	0.89	0.08	61,61,61,61	0
56	MG	1A	3239	1/1	0.89	0.30	61,61,61,61	0
56	MG	1A	3240	1/1	0.89	0.10	75,75,75,75	0
56	MG	1a	1733	1/1	0.89	0.15	51,51,51,51	0
56	MG	2a	1697	1/1	0.89	0.21	68,68,68,68	0
56	MG	2A	3243	1/1	0.89	0.24	42,42,42,42	0
56	MG	2A	3049	1/1	0.89	0.16	75,75,75,75	0
56	MG	1A	3112	1/1	0.89	0.14	62,62,62,62	0
56	MG	1A	3443	1/1	0.89	0.07	39,39,39,39	0
56	MG	2a	1707	1/1	0.89	0.25	74,74,74,74	0
56	MG	1a	1753	1/1	0.89	0.36	50,50,50,50	0
56	MG	1A	3728	1/1	0.89	0.13	68,68,68,68	0
56	MG	1A	3451	1/1	0.89	0.25	40,40,40,40	0
56	MG	2A	3262	1/1	0.89	0.28	50,50,50,50	0
56	MG	1A	3246	1/1	0.89	0.17	63,63,63,63	0
56	MG	2A	3062	1/1	0.89	0.12	68,68,68,68	0
56	MG	2x	109	1/1	0.89	0.13	86,86,86,86	0
56	MG	2a	1717	1/1	0.89	0.25	67,67,67,67	0
57	AKN	1a	1914	40/40	0.89	0.11	62,75,81,88	0
57	AKN	2O	202	40/40	0.89	0.09	56,66,76,82	0
56	MG	1A	3266	1/1	0.90	0.24	57,57,57,57	0
56	MG	1a	1627	1/1	0.90	0.07	63,63,63,63	0
56	MG	2a	1728	1/1	0.90	0.06	87,87,87,87	0
56	MG	1A	3126	1/1	0.90	0.12	74,74,74,74	0
56	MG	1A	3274	1/1	0.90	0.20	70,70,70,70	0
56	MG	1A	3275	1/1	0.90	0.16	52,52,52,52	0
56	MG	1a	1768	1/1	0.90	0.08	100,100,100,100	0
56	MG	1a	1638	1/1	0.90	0.08	55,55,55,55	0
56	MG	1A	3023	1/1	0.90	0.09	60,60,60,60	0
56	MG	1B	205	1/1	0.90	0.27	58,58,58,58	0
56	MG	1a	1772	1/1	0.90	0.05	94,94,94,94	0
56	MG	1A	3191	1/1	0.90	0.29	49,49,49,49	0
56	MG	2A	3549	1/1	0.90	0.09	82,82,82,82	0
56	MG	1A	3192	1/1	0.90	0.26	39,39,39,39	0
56	MG	2A	3329	1/1	0.90	0.23	63,63,63,63	0
56	MG	1A	3025	1/1	0.90	0.06	46,46,46,46	0
56	MG	1A	3568	1/1	0.90	0.22	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1651	1/1	0.90	0.07	56,56,56,56	0
56	MG	1B	214	1/1	0.90	0.21	64,64,64,64	0
56	MG	2A	3342	1/1	0.90	0.23	41,41,41,41	0
56	MG	2A	3562	1/1	0.90	0.22	65,65,65,65	0
56	MG	1a	1655	1/1	0.90	0.13	58,58,58,58	0
56	MG	2A	3116	1/1	0.90	0.22	55,55,55,55	0
56	MG	1B	216	1/1	0.90	0.07	76,76,76,76	0
56	MG	1a	1660	1/1	0.90	0.13	67,67,67,67	0
56	MG	1A	3285	1/1	0.90	0.14	50,50,50,50	0
56	MG	2A	3571	1/1	0.90	0.06	70,70,70,70	0
56	MG	1a	1905	1/1	0.90	0.14	69,69,69,69	0
56	MG	1a	1793	1/1	0.90	0.16	70,70,70,70	0
56	MG	1A	3092	1/1	0.90	0.20	40,40,40,40	0
56	MG	1A	3200	1/1	0.90	0.10	59,59,59,59	0
56	MG	1a	1665	1/1	0.90	0.24	71,71,71,71	0
56	MG	1A	3356	1/1	0.90	0.07	65,65,65,65	0
56	MG	1A	3780	1/1	0.90	0.15	61,61,61,61	0
56	MG	1a	1670	1/1	0.90	0.22	59,59,59,59	0
56	MG	1a	1673	1/1	0.90	0.17	41,41,41,41	0
56	MG	2a	1778	1/1	0.90	0.14	82,82,82,82	0
56	MG	1A	3062	1/1	0.90	0.33	22,22,22,22	0
56	MG	2D	302	1/1	0.90	0.22	82,82,82,82	0
56	MG	2A	3382	1/1	0.90	0.26	62,62,62,62	0
56	MG	2a	1787	1/1	0.90	0.23	70,70,70,70	0
56	MG	2a	1788	1/1	0.90	0.33	63,63,63,63	0
56	MG	2a	1789	1/1	0.90	0.28	45,45,45,45	0
56	MG	2A	3384	1/1	0.90	0.16	59,59,59,59	0
56	MG	2A	3385	1/1	0.90	0.27	51,51,51,51	0
56	MG	1A	3203	1/1	0.90	0.27	48,48,48,48	0
56	MG	1A	3483	1/1	0.90	0.28	59,59,59,59	0
56	MG	1A	3294	1/1	0.90	0.15	58,58,58,58	0
56	MG	2A	3393	1/1	0.90	0.36	56,56,56,56	0
56	MG	1a	1808	1/1	0.90	0.06	64,64,64,64	0
56	MG	1D	302	1/1	0.90	0.32	51,51,51,51	0
56	MG	1a	1686	1/1	0.90	0.06	103,103,103,103	0
56	MG	2A	3403	1/1	0.90	0.09	56,56,56,56	0
56	MG	2a	1811	1/1	0.90	0.11	74,74,74,74	0
56	MG	2A	3407	1/1	0.90	0.34	36,36,36,36	0
56	MG	2A	3411	1/1	0.90	0.22	69,69,69,69	0
56	MG	1A	3485	1/1	0.90	0.25	55,55,55,55	0
56	MG	2A	3154	1/1	0.90	0.11	67,67,67,67	0
56	MG	1a	1813	1/1	0.90	0.09	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3421	1/1	0.90	0.20	57,57,57,57	0
56	MG	1A	3103	1/1	0.90	0.21	48,48,48,48	0
56	MG	2a	1820	1/1	0.90	0.07	84,84,84,84	0
56	MG	1A	3296	1/1	0.90	0.10	64,64,64,64	0
56	MG	1A	3591	1/1	0.90	0.17	50,50,50,50	0
56	MG	2A	3428	1/1	0.90	0.16	47,47,47,47	0
56	MG	1v	101	1/1	0.90	0.12	69,69,69,69	0
56	MG	1A	3241	1/1	0.90	0.06	51,51,51,51	0
56	MG	2A	3173	1/1	0.90	0.27	71,71,71,71	0
56	MG	1a	1695	1/1	0.90	0.20	68,68,68,68	0
56	MG	1A	3507	1/1	0.90	0.34	37,37,37,37	0
56	MG	2A	3178	1/1	0.90	0.11	54,54,54,54	0
56	MG	1A	3511	1/1	0.90	0.19	34,34,34,34	0
56	MG	2a	1632	1/1	0.90	0.13	75,75,75,75	0
56	MG	2a	1634	1/1	0.90	0.20	73,73,73,73	0
56	MG	1A	3516	1/1	0.90	0.27	48,48,48,48	0
56	MG	2a	1848	1/1	0.90	0.15	70,70,70,70	0
56	MG	1A	3600	1/1	0.90	0.11	82,82,82,82	0
56	MG	2A	3185	1/1	0.90	0.08	77,77,77,77	0
56	MG	1A	3521	1/1	0.90	0.28	46,46,46,46	0
56	MG	2A	3459	1/1	0.90	0.09	71,71,71,71	0
56	MG	2A	3460	1/1	0.90	0.12	68,68,68,68	0
56	MG	1a	1830	1/1	0.90	0.08	61,61,61,61	0
56	MG	1a	1832	1/1	0.90	0.12	70,70,70,70	0
56	MG	1a	1836	1/1	0.90	0.10	69,69,69,69	0
56	MG	2a	1859	1/1	0.90	0.08	87,87,87,87	0
56	MG	1A	3038	1/1	0.90	0.18	66,66,66,66	0
56	MG	1A	3056	1/1	0.90	0.14	52,52,52,52	0
56	MG	1a	1707	1/1	0.90	0.21	56,56,56,56	0
56	MG	1A	3805	1/1	0.90	0.11	47,47,47,47	0
56	MG	1A	3057	1/1	0.90	0.33	57,57,57,57	0
56	MG	2A	3206	1/1	0.90	0.13	69,69,69,69	0
56	MG	1A	3813	1/1	0.90	0.20	56,56,56,56	0
56	MG	1A	3634	1/1	0.90	0.10	49,49,49,49	0
56	MG	1a	1848	1/1	0.90	0.31	73,73,73,73	0
56	MG	1a	1715	1/1	0.90	0.08	74,74,74,74	0
56	MG	2A	3027	1/1	0.90	0.20	72,72,72,72	0
56	MG	1A	3117	1/1	0.90	0.26	59,59,59,59	0
56	MG	1A	3118	1/1	0.90	0.29	63,63,63,63	0
56	MG	1A	3398	1/1	0.90	0.15	26,26,26,26	0
56	MG	1A	3218	1/1	0.90	0.14	52,52,52,52	0
56	MG	2A	3228	1/1	0.90	0.17	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3488	1/1	0.90	0.16	56,56,56,56	0
56	MG	1A	3893	1/1	0.90	0.15	50,50,50,50	0
56	MG	2A	3230	1/1	0.90	0.07	73,73,73,73	0
56	MG	2A	3492	1/1	0.90	0.09	69,69,69,69	0
56	MG	2A	3045	1/1	0.90	0.16	59,59,59,59	0
56	MG	2A	3494	1/1	0.90	0.21	58,58,58,58	0
56	MG	2A	3495	1/1	0.90	0.33	49,49,49,49	0
56	MG	1A	3401	1/1	0.90	0.24	39,39,39,39	0
56	MG	2A	3234	1/1	0.90	0.28	53,53,53,53	0
56	MG	2A	3241	1/1	0.90	0.30	33,33,33,33	0
56	MG	2A	3050	1/1	0.90	0.12	39,39,39,39	0
56	MG	2A	3503	1/1	0.90	0.22	60,60,60,60	0
56	MG	1a	1863	1/1	0.90	0.07	72,72,72,72	0
56	MG	1A	3406	1/1	0.90	0.21	35,35,35,35	0
56	MG	1A	3408	1/1	0.90	0.27	33,33,33,33	0
56	MG	2a	1897	1/1	0.90	0.08	76,76,76,76	0
56	MG	1A	3219	1/1	0.90	0.14	57,57,57,57	0
56	MG	2a	1899	1/1	0.90	0.23	51,51,51,51	0
56	MG	2a	1902	1/1	0.90	0.10	102,102,102,102	0
56	MG	1A	3704	1/1	0.90	0.12	48,48,48,48	0
56	MG	2A	3252	1/1	0.90	0.32	35,35,35,35	0
56	MG	2a	1907	1/1	0.90	0.13	89,89,89,89	0
56	MG	1A	3122	1/1	0.90	0.08	59,59,59,59	0
56	MG	1A	3318	1/1	0.90	0.08	57,57,57,57	0
56	MG	1A	3828	1/1	0.90	0.09	54,54,54,54	0
56	MG	1A	3709	1/1	0.90	0.10	65,65,65,65	0
56	MG	1A	3916	1/1	0.90	0.25	37,37,37,37	0
56	MG	2v	101	1/1	0.90	0.25	72,72,72,72	0
56	MG	2A	3277	1/1	0.90	0.29	48,48,48,48	0
56	MG	1A	3922	1/1	0.90	0.13	59,59,59,59	0
56	MG	2A	3280	1/1	0.90	0.24	46,46,46,46	0
56	MG	1A	3124	1/1	0.90	0.13	73,73,73,73	0
56	MG	2A	3282	1/1	0.90	0.24	32,32,32,32	0
56	MG	2A	3283	1/1	0.90	0.29	38,38,38,38	0
56	MG	2x	108	1/1	0.90	0.14	55,55,55,55	0
56	MG	2A	3284	1/1	0.90	0.32	33,33,33,33	0
56	MG	2A	3285	1/1	0.90	0.25	76,76,76,76	0
56	MG	1A	3716	1/1	0.90	0.09	67,67,67,67	0
56	MG	2a	1724	1/1	0.90	0.10	80,80,80,80	0
56	MG	1A	3930	1/1	0.91	0.18	47,47,47,47	0
56	MG	2A	3058	1/1	0.91	0.17	45,45,45,45	0
56	MG	1A	3848	1/1	0.91	0.08	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	1759	1/1	0.91	0.24	62,62,62,62	0
56	MG	2a	1760	1/1	0.91	0.18	78,78,78,78	0
56	MG	2F	304	1/1	0.91	0.07	74,74,74,74	0
56	MG	1A	3597	1/1	0.91	0.09	58,58,58,58	0
56	MG	1a	1810	1/1	0.91	0.18	61,61,61,61	0
56	MG	2a	1765	1/1	0.91	0.20	76,76,76,76	0
56	MG	2P	201	1/1	0.91	0.07	102,102,102,102	0
56	MG	2A	3063	1/1	0.91	0.23	39,39,39,39	0
56	MG	1a	1898	1/1	0.91	0.36	52,52,52,52	0
56	MG	1A	3438	1/1	0.91	0.25	63,63,63,63	0
56	MG	2a	1604	1/1	0.91	0.10	67,67,67,67	0
56	MG	1A	3300	1/1	0.91	0.09	66,66,66,66	0
56	MG	2A	3455	1/1	0.91	0.11	76,76,76,76	0
56	MG	1a	1712	1/1	0.91	0.36	78,78,78,78	0
56	MG	1A	3304	1/1	0.91	0.13	58,58,58,58	0
56	MG	1A	3617	1/1	0.91	0.05	36,36,36,36	0
56	MG	1A	3175	1/1	0.91	0.21	69,69,69,69	0
56	MG	2a	1781	1/1	0.91	0.20	71,71,71,71	0
56	MG	1A	3446	1/1	0.91	0.14	31,31,31,31	0
56	MG	1a	1625	1/1	0.91	0.14	47,47,47,47	0
56	MG	2A	3083	1/1	0.91	0.21	56,56,56,56	0
56	MG	1A	3541	1/1	0.91	0.16	61,61,61,61	0
56	MG	1A	3279	1/1	0.91	0.13	68,68,68,68	0
56	MG	2a	1791	1/1	0.91	0.12	73,73,73,73	0
56	MG	2a	1793	1/1	0.91	0.19	60,60,60,60	0
56	MG	1A	3360	1/1	0.91	0.27	69,69,69,69	0
56	MG	2A	3258	1/1	0.91	0.29	56,56,56,56	0
56	MG	1A	3645	1/1	0.91	0.10	58,58,58,58	0
56	MG	1A	3280	1/1	0.91	0.15	74,74,74,74	0
56	MG	2A	3100	1/1	0.91	0.18	52,52,52,52	0
56	MG	2A	3267	1/1	0.91	0.16	76,76,76,76	0
56	MG	2A	3270	1/1	0.91	0.26	41,41,41,41	0
56	MG	1A	3365	1/1	0.91	0.20	65,65,65,65	0
56	MG	2A	3276	1/1	0.91	0.25	46,46,46,46	0
56	MG	2a	1809	1/1	0.91	0.15	77,77,77,77	0
56	MG	1A	3462	1/1	0.91	0.24	53,53,53,53	0
56	MG	2a	1635	1/1	0.91	0.17	64,64,64,64	0
56	MG	1A	3372	1/1	0.91	0.14	51,51,51,51	0
56	MG	2A	3279	1/1	0.91	0.27	33,33,33,33	0
56	MG	1A	3466	1/1	0.91	0.21	44,44,44,44	0
56	MG	2A	3487	1/1	0.91	0.11	64,64,64,64	0
56	MG	1a	1838	1/1	0.91	0.07	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	1647	1/1	0.91	0.18	65,65,65,65	0
56	MG	1a	1745	1/1	0.91	0.21	55,55,55,55	0
56	MG	1A	3806	1/1	0.91	0.10	46,46,46,46	0
56	MG	1A	3048	1/1	0.91	0.17	42,42,42,42	0
56	MG	1A	3223	1/1	0.91	0.14	72,72,72,72	0
56	MG	1o	101	1/1	0.91	0.06	71,71,71,71	0
56	MG	2a	1656	1/1	0.91	0.09	74,74,74,74	0
56	MG	1A	3471	1/1	0.91	0.27	29,29,29,29	0
56	MG	1A	3381	1/1	0.91	0.12	58,58,58,58	0
56	MG	2a	1833	1/1	0.91	0.17	92,92,92,92	0
56	MG	1A	3180	1/1	0.91	0.27	26,26,26,26	0
56	MG	1a	1850	1/1	0.91	0.28	78,78,78,78	0
56	MG	2A	3124	1/1	0.91	0.17	58,58,58,58	0
56	MG	1A	3123	1/1	0.91	0.16	45,45,45,45	0
56	MG	2A	3303	1/1	0.91	0.21	51,51,51,51	0
56	MG	1A	3710	1/1	0.91	0.09	59,59,59,59	0
56	MG	2a	1846	1/1	0.91	0.07	59,59,59,59	0
56	MG	1F	301	1/1	0.91	0.15	42,42,42,42	0
56	MG	2A	3316	1/1	0.91	0.32	53,53,53,53	0
56	MG	2a	1672	1/1	0.91	0.08	78,78,78,78	0
56	MG	1x	101	1/1	0.91	0.11	75,75,75,75	0
56	MG	2A	3320	1/1	0.91	0.05	86,86,86,86	0
56	MG	1A	3091	1/1	0.91	0.10	34,34,34,34	0
56	MG	1x	104	1/1	0.91	0.06	69,69,69,69	0
56	MG	2A	3324	1/1	0.91	0.17	60,60,60,60	0
56	MG	1A	3158	1/1	0.91	0.30	27,27,27,27	0
56	MG	1A	3571	1/1	0.91	0.12	73,73,73,73	0
56	MG	2a	1682	1/1	0.91	0.17	65,65,65,65	0
56	MG	1A	3256	1/1	0.91	0.15	62,62,62,62	0
56	MG	1x	110	1/1	0.91	0.12	65,65,65,65	0
56	MG	1A	3324	1/1	0.91	0.10	53,53,53,53	0
56	MG	1x	113	1/1	0.91	0.30	81,81,81,81	0
56	MG	2A	3341	1/1	0.91	0.43	52,52,52,52	0
56	MG	2A	3147	1/1	0.91	0.12	55,55,55,55	0
56	MG	1x	114	1/1	0.91	0.15	64,64,64,64	0
56	MG	1x	115	1/1	0.91	0.07	80,80,80,80	0
56	MG	1a	1864	1/1	0.91	0.11	56,56,56,56	0
56	MG	1a	1671	1/1	0.91	0.24	43,43,43,43	0
56	MG	1A	3027	1/1	0.91	0.56	48,48,48,48	0
56	MG	1A	3098	1/1	0.91	0.14	47,47,47,47	0
56	MG	1A	3497	1/1	0.91	0.21	27,27,27,27	0
56	MG	2A	3539	1/1	0.91	0.08	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1678	1/1	0.91	0.15	42,42,42,42	0
56	MG	1a	1679	1/1	0.91	0.34	60,60,60,60	0
56	MG	2a	1703	1/1	0.91	0.09	86,86,86,86	0
56	MG	2a	1704	1/1	0.91	0.09	60,60,60,60	0
56	MG	2A	3369	1/1	0.91	0.05	83,83,83,83	0
56	MG	2a	1882	1/1	0.91	0.16	65,65,65,65	0
56	MG	1A	3335	1/1	0.91	0.23	63,63,63,63	0
56	MG	1A	3233	1/1	0.91	0.10	47,47,47,47	0
56	MG	1A	3214	1/1	0.91	0.09	76,76,76,76	0
56	MG	2A	3174	1/1	0.91	0.11	48,48,48,48	0
56	MG	2A	3013	1/1	0.91	0.30	53,53,53,53	0
56	MG	2A	3016	1/1	0.91	0.13	52,52,52,52	0
56	MG	2A	3018	1/1	0.91	0.10	55,55,55,55	0
56	MG	1A	3100	1/1	0.91	0.16	66,66,66,66	0
56	MG	2A	3021	1/1	0.91	0.17	52,52,52,52	0
56	MG	2A	3022	1/1	0.91	0.20	60,60,60,60	0
56	MG	2A	3390	1/1	0.91	0.19	81,81,81,81	0
56	MG	1A	3835	1/1	0.91	0.10	70,70,70,70	0
56	MG	17	103	1/1	0.91	0.14	51,51,51,51	0
56	MG	1A	3906	1/1	0.91	0.25	37,37,37,37	0
56	MG	2A	3035	1/1	0.91	0.14	50,50,50,50	0
56	MG	2a	1900	1/1	0.91	0.10	74,74,74,74	0
56	MG	2A	3192	1/1	0.91	0.14	72,72,72,72	0
56	MG	1A	3342	1/1	0.91	0.08	39,39,39,39	0
56	MG	1A	3087	1/1	0.91	0.20	49,49,49,49	0
56	MG	2A	3042	1/1	0.91	0.10	66,66,66,66	0
56	MG	2a	1909	1/1	0.91	0.10	73,73,73,73	0
56	MG	2a	1910	1/1	0.91	0.10	63,63,63,63	0
56	MG	2A	3572	1/1	0.91	0.07	58,58,58,58	0
56	MG	2A	3573	1/1	0.91	0.09	63,63,63,63	0
56	MG	2A	3574	1/1	0.91	0.08	56,56,56,56	0
56	MG	2A	3198	1/1	0.91	0.09	83,83,83,83	0
56	MG	1a	1602	1/1	0.91	0.23	60,60,60,60	0
56	MG	1A	3772	1/1	0.91	0.23	58,58,58,58	0
56	MG	1A	3773	1/1	0.91	0.18	50,50,50,50	0
56	MG	2v	103	1/1	0.91	0.21	67,67,67,67	0
56	MG	2A	3046	1/1	0.91	0.18	67,67,67,67	0
56	MG	2a	1743	1/1	0.91	0.13	80,80,80,80	0
56	MG	2A	3423	1/1	0.91	0.21	44,44,44,44	0
56	MG	1A	3199	1/1	0.91	0.15	83,83,83,83	0
56	MG	2x	105	1/1	0.91	0.07	93,93,93,93	0
56	MG	1A	3842	1/1	0.91	0.16	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1701	1/1	0.91	0.20	69,69,69,69	0
56	MG	1A	3431	1/1	0.91	0.18	43,43,43,43	0
56	MG	2D	301	1/1	0.91	0.37	59,59,59,59	0
56	MG	2A	3429	1/1	0.91	0.10	71,71,71,71	0
56	MG	1A	3352	1/1	0.91	0.22	42,42,42,42	0
57	AKN	2a	1911	40/40	0.91	0.14	65,73,78,83	0
56	MG	2A	3307	1/1	0.92	0.19	51,51,51,51	0
56	MG	2A	3308	1/1	0.92	0.32	38,38,38,38	0
56	MG	1A	3151	1/1	0.92	0.20	27,27,27,27	0
56	MG	1A	3090	1/1	0.92	0.17	52,52,52,52	0
56	MG	1A	3073	1/1	0.92	0.20	50,50,50,50	0
56	MG	2A	3321	1/1	0.92	0.07	75,75,75,75	0
56	MG	1A	3444	1/1	0.92	0.31	45,45,45,45	0
56	MG	1A	3197	1/1	0.92	0.06	81,81,81,81	0
56	MG	1A	3711	1/1	0.92	0.17	60,60,60,60	0
56	MG	2A	3550	1/1	0.92	0.08	71,71,71,71	0
56	MG	1A	3198	1/1	0.92	0.16	66,66,66,66	0
56	MG	2A	3122	1/1	0.92	0.07	44,44,44,44	0
56	MG	1A	3838	1/1	0.92	0.08	62,62,62,62	0
56	MG	2a	1751	1/1	0.92	0.10	89,89,89,89	0
56	MG	1e	203	1/1	0.92	0.09	67,67,67,67	0
56	MG	1A	3715	1/1	0.92	0.15	45,45,45,45	0
56	MG	2A	3556	1/1	0.92	0.06	71,71,71,71	0
56	MG	1A	3226	1/1	0.92	0.15	59,59,59,59	0
56	MG	1B	222	1/1	0.92	0.13	62,62,62,62	0
56	MG	1k	201	1/1	0.92	0.07	69,69,69,69	0
56	MG	1A	3719	1/1	0.92	0.22	43,43,43,43	0
56	MG	1A	3260	1/1	0.92	0.08	42,42,42,42	0
56	MG	1A	3261	1/1	0.92	0.06	68,68,68,68	0
56	MG	2A	3354	1/1	0.92	0.17	45,45,45,45	0
56	MG	1A	3727	1/1	0.92	0.07	63,63,63,63	0
56	MG	1A	3021	1/1	0.92	0.18	69,69,69,69	0
56	MG	1p	102	1/1	0.92	0.07	85,85,85,85	0
56	MG	2A	3361	1/1	0.92	0.29	38,38,38,38	0
56	MG	1A	3037	1/1	0.92	0.11	42,42,42,42	0
56	MG	2B	201	1/1	0.92	0.07	64,64,64,64	0
56	MG	2A	3141	1/1	0.92	0.20	40,40,40,40	0
56	MG	1a	1685	1/1	0.92	0.14	47,47,47,47	0
56	MG	2a	1772	1/1	0.92	0.13	81,81,81,81	0
56	MG	1A	3563	1/1	0.92	0.09	60,60,60,60	0
56	MG	1a	1687	1/1	0.92	0.07	61,61,61,61	0
56	MG	1A	3747	1/1	0.92	0.18	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	1776	1/1	0.92	0.10	91,91,91,91	0
56	MG	1A	3309	1/1	0.92	0.16	73,73,73,73	0
56	MG	1a	1690	1/1	0.92	0.09	64,64,64,64	0
56	MG	1A	3201	1/1	0.92	0.06	88,88,88,88	0
56	MG	2A	3155	1/1	0.92	0.19	60,60,60,60	0
56	MG	2A	3381	1/1	0.92	0.16	45,45,45,45	0
56	MG	2A	3157	1/1	0.92	0.11	94,94,94,94	0
56	MG	1A	3468	1/1	0.92	0.23	52,52,52,52	0
56	MG	1A	3377	1/1	0.92	0.14	66,66,66,66	0
56	MG	1A	3378	1/1	0.92	0.24	48,48,48,48	0
56	MG	2A	3389	1/1	0.92	0.14	51,51,51,51	0
56	MG	2E	302	1/1	0.92	0.31	43,43,43,43	0
56	MG	2A	3164	1/1	0.92	0.25	65,65,65,65	0
56	MG	1A	3272	1/1	0.92	0.13	45,45,45,45	0
56	MG	2A	3168	1/1	0.92	0.10	80,80,80,80	0
56	MG	1x	109	1/1	0.92	0.23	48,48,48,48	0
56	MG	1A	3475	1/1	0.92	0.14	32,32,32,32	0
56	MG	1x	111	1/1	0.92	0.07	76,76,76,76	0
56	MG	2a	1805	1/1	0.92	0.07	82,82,82,82	0
56	MG	1A	3313	1/1	0.92	0.11	54,54,54,54	0
56	MG	2A	3402	1/1	0.92	0.22	42,42,42,42	0
56	MG	2a	1808	1/1	0.92	0.22	65,65,65,65	0
56	MG	1A	3384	1/1	0.92	0.20	59,59,59,59	0
56	MG	2A	3406	1/1	0.92	0.29	42,42,42,42	0
56	MG	2A	3176	1/1	0.92	0.06	79,79,79,79	0
56	MG	2A	3408	1/1	0.92	0.39	57,57,57,57	0
56	MG	1A	3077	1/1	0.92	0.10	34,34,34,34	0
56	MG	2A	3412	1/1	0.92	0.14	75,75,75,75	0
56	MG	2a	1815	1/1	0.92	0.14	79,79,79,79	0
56	MG	1R	201	1/1	0.92	0.19	27,27,27,27	0
56	MG	1a	1839	1/1	0.92	0.11	52,52,52,52	0
56	MG	2A	3181	1/1	0.92	0.07	93,93,93,93	0
56	MG	2A	3418	1/1	0.92	0.18	53,53,53,53	0
56	MG	1A	3871	1/1	0.92	0.09	67,67,67,67	0
56	MG	1A	3388	1/1	0.92	0.24	59,59,59,59	0
56	MG	1a	1842	1/1	0.92	0.07	97,97,97,97	0
56	MG	2a	1825	1/1	0.92	0.06	106,106,106,106	0
56	MG	1a	1843	1/1	0.92	0.14	79,79,79,79	0
56	MG	1A	3231	1/1	0.92	0.09	94,94,94,94	0
56	MG	1A	3276	1/1	0.92	0.16	58,58,58,58	0
56	MG	1A	3050	1/1	0.92	0.07	37,37,37,37	0
56	MG	1A	3786	1/1	0.92	0.05	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3008	1/1	0.92	0.07	55,55,55,55	0
56	MG	2a	1628	1/1	0.92	0.20	52,52,52,52	0
56	MG	17	101	1/1	0.92	0.10	45,45,45,45	0
56	MG	2a	1839	1/1	0.92	0.20	77,77,77,77	0
56	MG	2A	3014	1/1	0.92	0.34	57,57,57,57	0
56	MG	2A	3438	1/1	0.92	0.22	65,65,65,65	0
56	MG	1A	3588	1/1	0.92	0.09	60,60,60,60	0
56	MG	1A	3394	1/1	0.92	0.17	46,46,46,46	0
56	MG	1a	1854	1/1	0.92	0.17	61,61,61,61	0
56	MG	2A	3205	1/1	0.92	0.08	63,63,63,63	0
56	MG	2A	3450	1/1	0.92	0.17	76,76,76,76	0
56	MG	1A	3499	1/1	0.92	0.19	39,39,39,39	0
56	MG	1a	1718	1/1	0.92	0.06	97,97,97,97	0
56	MG	19	101	1/1	0.92	0.28	49,49,49,49	0
56	MG	1a	1858	1/1	0.92	0.11	79,79,79,79	0
56	MG	2A	3458	1/1	0.92	0.09	92,92,92,92	0
56	MG	2a	1652	1/1	0.92	0.15	60,60,60,60	0
56	MG	2A	3213	1/1	0.92	0.11	67,67,67,67	0
56	MG	2a	1654	1/1	0.92	0.22	54,54,54,54	0
56	MG	2A	3029	1/1	0.92	0.09	76,76,76,76	0
56	MG	2A	3216	1/1	0.92	0.14	64,64,64,64	0
56	MG	2A	3030	1/1	0.92	0.19	42,42,42,42	0
56	MG	2A	3220	1/1	0.92	0.09	57,57,57,57	0
56	MG	2A	3031	1/1	0.92	0.14	65,65,65,65	0
56	MG	1a	1859	1/1	0.92	0.19	70,70,70,70	0
56	MG	1A	3234	1/1	0.92	0.10	53,53,53,53	0
56	MG	2a	1664	1/1	0.92	0.09	78,78,78,78	0
56	MG	1A	3793	1/1	0.92	0.21	65,65,65,65	0
56	MG	2A	3227	1/1	0.92	0.29	57,57,57,57	0
56	MG	1A	3177	1/1	0.92	0.10	54,54,54,54	0
56	MG	1A	3044	1/1	0.92	0.12	60,60,60,60	0
56	MG	1a	1865	1/1	0.92	0.15	82,82,82,82	0
56	MG	2a	1875	1/1	0.92	0.06	49,49,49,49	0
56	MG	1A	3887	1/1	0.92	0.19	67,67,67,67	0
56	MG	1A	3796	1/1	0.92	0.17	58,58,58,58	0
56	MG	1A	3513	1/1	0.92	0.29	42,42,42,42	0
56	MG	1A	3208	1/1	0.92	0.12	48,48,48,48	0
56	MG	1a	1740	1/1	0.92	0.12	65,65,65,65	0
56	MG	1A	3520	1/1	0.92	0.28	24,24,24,24	0
56	MG	1a	1744	1/1	0.92	0.24	31,31,31,31	0
56	MG	2A	3054	1/1	0.92	0.37	64,64,64,64	0
56	MG	1A	3334	1/1	0.92	0.23	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1749	1/1	0.92	0.11	51,51,51,51	0
56	MG	1A	3035	1/1	0.92	0.10	52,52,52,52	0
56	MG	1A	3415	1/1	0.92	0.24	49,49,49,49	0
56	MG	1A	3526	1/1	0.92	0.23	42,42,42,42	0
56	MG	1A	3531	1/1	0.92	0.24	33,33,33,33	0
56	MG	1A	3639	1/1	0.92	0.08	54,54,54,54	0
56	MG	1A	3139	1/1	0.92	0.12	56,56,56,56	0
56	MG	2A	3265	1/1	0.92	0.30	35,35,35,35	0
56	MG	1a	1622	1/1	0.92	0.14	37,37,37,37	0
56	MG	1A	3185	1/1	0.92	0.17	49,49,49,49	0
56	MG	2A	3273	1/1	0.92	0.35	37,37,37,37	0
56	MG	1A	3648	1/1	0.92	0.10	56,56,56,56	0
56	MG	1A	3909	1/1	0.92	0.28	63,63,63,63	0
56	MG	1A	3290	1/1	0.92	0.05	81,81,81,81	0
56	MG	2a	1901	1/1	0.92	0.26	49,49,49,49	0
56	MG	1a	1630	1/1	0.92	0.10	79,79,79,79	0
56	MG	1A	3429	1/1	0.92	0.17	29,29,29,29	0
56	MG	1A	3060	1/1	0.92	0.09	45,45,45,45	0
56	MG	1A	3921	1/1	0.92	0.20	32,32,32,32	0
56	MG	1A	3664	1/1	0.92	0.08	35,35,35,35	0
56	MG	2a	1706	1/1	0.92	0.10	91,91,91,91	0
56	MG	1A	3665	1/1	0.92	0.10	51,51,51,51	0
56	MG	1A	3679	1/1	0.92	0.08	35,35,35,35	0
56	MG	2g	202	1/1	0.92	0.08	91,91,91,91	0
56	MG	1A	3926	1/1	0.92	0.17	61,61,61,61	0
56	MG	1A	3434	1/1	0.92	0.22	64,64,64,64	0
56	MG	2A	3095	1/1	0.92	0.28	61,61,61,61	0
56	MG	2A	3522	1/1	0.92	0.10	73,73,73,73	0
56	MG	1A	3824	1/1	0.92	0.18	58,58,58,58	0
56	MG	2A	3291	1/1	0.92	0.25	35,35,35,35	0
56	MG	1a	1650	1/1	0.92	0.29	55,55,55,55	0
56	MG	1A	3539	1/1	0.92	0.11	69,69,69,69	0
56	MG	2A	3295	1/1	0.92	0.27	43,43,43,43	0
56	MG	2A	3529	1/1	0.92	0.11	60,60,60,60	0
56	MG	2A	3296	1/1	0.92	0.19	38,38,38,38	0
56	MG	2A	3104	1/1	0.92	0.22	43,43,43,43	0
56	MG	2A	3300	1/1	0.92	0.22	39,39,39,39	0
56	MG	1A	3347	1/1	0.92	0.28	31,31,31,31	0
56	MG	1A	3699	1/1	0.92	0.11	42,42,42,42	0
56	MG	1A	3089	1/1	0.92	0.22	49,49,49,49	0
56	MG	2A	3536	1/1	0.92	0.05	88,88,88,88	0
56	MG	1a	1792	1/1	0.92	0.20	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3333	1/1	0.93	0.24	36,36,36,36	0
56	MG	1A	3116	1/1	0.93	0.09	67,67,67,67	0
56	MG	1A	3291	1/1	0.93	0.09	51,51,51,51	0
56	MG	1a	1601	1/1	0.93	0.06	72,72,72,72	0
56	MG	2A	3544	1/1	0.93	0.13	65,65,65,65	0
56	MG	1A	3889	1/1	0.93	0.10	52,52,52,52	0
56	MG	2A	3343	1/1	0.93	0.28	28,28,28,28	0
56	MG	2A	3159	1/1	0.93	0.16	50,50,50,50	0
56	MG	2A	3347	1/1	0.93	0.14	37,37,37,37	0
56	MG	1A	3677	1/1	0.93	0.10	36,36,36,36	0
56	MG	1A	3804	1/1	0.93	0.10	55,55,55,55	0
56	MG	2a	1746	1/1	0.93	0.16	68,68,68,68	0
56	MG	1A	3550	1/1	0.93	0.14	68,68,68,68	0
56	MG	1A	3551	1/1	0.93	0.13	57,57,57,57	0
56	MG	2A	3166	1/1	0.93	0.17	65,65,65,65	0
56	MG	1A	3326	1/1	0.93	0.29	46,46,46,46	0
56	MG	2A	3358	1/1	0.93	0.09	37,37,37,37	0
56	MG	1A	3688	1/1	0.93	0.07	28,28,28,28	0
56	MG	1a	1612	1/1	0.93	0.05	57,57,57,57	0
56	MG	2A	3364	1/1	0.93	0.15	46,46,46,46	0
56	MG	2A	3172	1/1	0.93	0.06	60,60,60,60	0
56	MG	1A	3691	1/1	0.93	0.09	37,37,37,37	0
56	MG	1A	3469	1/1	0.93	0.27	44,44,44,44	0
56	MG	1A	3264	1/1	0.93	0.12	70,70,70,70	0
56	MG	1A	3171	1/1	0.93	0.07	51,51,51,51	0
56	MG	2A	3373	1/1	0.93	0.30	45,45,45,45	0
56	MG	1a	1732	1/1	0.93	0.35	68,68,68,68	0
56	MG	1a	1861	1/1	0.93	0.20	62,62,62,62	0
56	MG	2A	3020	1/1	0.93	0.08	55,55,55,55	0
56	MG	1A	3703	1/1	0.93	0.06	31,31,31,31	0
56	MG	1A	3907	1/1	0.93	0.11	48,48,48,48	0
56	MG	2A	3023	1/1	0.93	0.11	62,62,62,62	0
56	MG	2B	203	1/1	0.93	0.25	54,54,54,54	0
56	MG	2A	3184	1/1	0.93	0.16	57,57,57,57	0
56	MG	1A	3172	1/1	0.93	0.31	22,22,22,22	0
56	MG	2A	3186	1/1	0.93	0.15	45,45,45,45	0
56	MG	2A	3388	1/1	0.93	0.23	36,36,36,36	0
56	MG	2B	209	1/1	0.93	0.33	56,56,56,56	0
56	MG	1A	3474	1/1	0.93	0.19	49,49,49,49	0
56	MG	1a	1621	1/1	0.93	0.10	71,71,71,71	0
56	MG	1a	1746	1/1	0.93	0.17	46,46,46,46	0
56	MG	2a	1779	1/1	0.93	0.14	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3191	1/1	0.93	0.16	60,60,60,60	0
56	MG	1a	1868	1/1	0.93	0.10	62,62,62,62	0
56	MG	1A	3028	1/1	0.93	0.10	66,66,66,66	0
56	MG	2a	1783	1/1	0.93	0.06	70,70,70,70	0
56	MG	1a	1750	1/1	0.93	0.23	41,41,41,41	0
56	MG	1A	3268	1/1	0.93	0.23	65,65,65,65	0
56	MG	1A	3397	1/1	0.93	0.24	28,28,28,28	0
56	MG	1a	1626	1/1	0.93	0.06	55,55,55,55	0
56	MG	1A	3918	1/1	0.93	0.20	68,68,68,68	0
56	MG	2E	303	1/1	0.93	0.18	47,47,47,47	0
56	MG	1A	3271	1/1	0.93	0.14	45,45,45,45	0
56	MG	1A	3480	1/1	0.93	0.25	47,47,47,47	0
56	MG	1a	1762	1/1	0.93	0.23	58,58,58,58	0
56	MG	1a	1631	1/1	0.93	0.07	56,56,56,56	0
56	MG	2A	3209	1/1	0.93	0.09	59,59,59,59	0
56	MG	1a	1633	1/1	0.93	0.07	39,39,39,39	0
56	MG	2a	1803	1/1	0.93	0.16	46,46,46,46	0
56	MG	1a	1882	1/1	0.93	0.11	74,74,74,74	0
56	MG	20	101	1/1	0.93	0.30	55,55,55,55	0
56	MG	1A	3714	1/1	0.93	0.09	45,45,45,45	0
56	MG	25	101	1/1	0.93	0.19	56,56,56,56	0
56	MG	2a	1601	1/1	0.93	0.08	78,78,78,78	0
56	MG	2a	1602	1/1	0.93	0.10	67,67,67,67	0
56	MG	2A	3419	1/1	0.93	0.17	37,37,37,37	0
56	MG	2A	3420	1/1	0.93	0.10	66,66,66,66	0
56	MG	1A	3341	1/1	0.93	0.06	59,59,59,59	0
56	MG	1A	3141	1/1	0.93	0.10	58,58,58,58	0
56	MG	2A	3217	1/1	0.93	0.13	66,66,66,66	0
56	MG	1A	3273	1/1	0.93	0.17	63,63,63,63	0
56	MG	2a	1612	1/1	0.93	0.09	68,68,68,68	0
56	MG	2A	3426	1/1	0.93	0.08	68,68,68,68	0
56	MG	1a	1640	1/1	0.93	0.07	59,59,59,59	0
56	MG	1A	3486	1/1	0.93	0.14	32,32,32,32	0
56	MG	1A	3487	1/1	0.93	0.12	39,39,39,39	0
56	MG	2a	1617	1/1	0.93	0.05	103,103,103,103	0
56	MG	2A	3430	1/1	0.93	0.21	58,58,58,58	0
56	MG	2A	3432	1/1	0.93	0.17	47,47,47,47	0
56	MG	1A	3127	1/1	0.93	0.21	58,58,58,58	0
56	MG	2a	1828	1/1	0.93	0.10	77,77,77,77	0
56	MG	1a	1646	1/1	0.93	0.14	62,62,62,62	0
56	MG	1A	3493	1/1	0.93	0.26	35,35,35,35	0
56	MG	1B	202	1/1	0.93	0.20	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3302	1/1	0.93	0.17	46,46,46,46	0
56	MG	1A	3738	1/1	0.93	0.07	29,29,29,29	0
56	MG	2A	3070	1/1	0.93	0.17	56,56,56,56	0
56	MG	2a	1836	1/1	0.93	0.17	61,61,61,61	0
56	MG	2A	3442	1/1	0.93	0.14	70,70,70,70	0
56	MG	2a	1838	1/1	0.93	0.11	60,60,60,60	0
56	MG	1A	3739	1/1	0.93	0.10	35,35,35,35	0
56	MG	2A	3233	1/1	0.93	0.13	36,36,36,36	0
56	MG	2a	1633	1/1	0.93	0.18	71,71,71,71	0
56	MG	1A	3496	1/1	0.93	0.17	37,37,37,37	0
56	MG	2A	3237	1/1	0.93	0.17	50,50,50,50	0
56	MG	2A	3076	1/1	0.93	0.09	49,49,49,49	0
56	MG	2A	3242	1/1	0.93	0.21	42,42,42,42	0
56	MG	2A	3456	1/1	0.93	0.16	73,73,73,73	0
56	MG	2a	1641	1/1	0.93	0.07	85,85,85,85	0
56	MG	1a	1656	1/1	0.93	0.16	55,55,55,55	0
56	MG	1A	3418	1/1	0.93	0.22	39,39,39,39	0
56	MG	2A	3080	1/1	0.93	0.22	64,64,64,64	0
56	MG	2a	1648	1/1	0.93	0.14	60,60,60,60	0
56	MG	1A	3145	1/1	0.93	0.19	44,44,44,44	0
56	MG	1A	3179	1/1	0.93	0.28	34,34,34,34	0
56	MG	1A	3019	1/1	0.93	0.19	67,67,67,67	0
56	MG	1A	3846	1/1	0.93	0.09	63,63,63,63	0
56	MG	1A	3763	1/1	0.93	0.17	46,46,46,46	0
56	MG	2A	3255	1/1	0.93	0.11	56,56,56,56	0
56	MG	2a	1863	1/1	0.93	0.10	72,72,72,72	0
56	MG	2A	3256	1/1	0.93	0.23	30,30,30,30	0
56	MG	1A	3131	1/1	0.93	0.19	48,48,48,48	0
56	MG	2a	1657	1/1	0.93	0.25	59,59,59,59	0
56	MG	1A	3850	1/1	0.93	0.15	66,66,66,66	0
56	MG	2A	3094	1/1	0.93	0.17	47,47,47,47	0
56	MG	1A	3154	1/1	0.93	0.08	53,53,53,53	0
56	MG	2A	3099	1/1	0.93	0.11	87,87,87,87	0
56	MG	2A	3474	1/1	0.93	0.07	64,64,64,64	0
56	MG	1A	3514	1/1	0.93	0.28	34,34,34,34	0
56	MG	2A	3269	1/1	0.93	0.23	38,38,38,38	0
56	MG	1A	3768	1/1	0.93	0.19	69,69,69,69	0
56	MG	2A	3272	1/1	0.93	0.29	46,46,46,46	0
56	MG	1B	228	1/1	0.93	0.09	79,79,79,79	0
56	MG	2A	3483	1/1	0.93	0.10	73,73,73,73	0
56	MG	2A	3274	1/1	0.93	0.22	35,35,35,35	0
56	MG	1A	3769	1/1	0.93	0.12	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3857	1/1	0.93	0.18	63,63,63,63	0
56	MG	1A	3157	1/1	0.93	0.19	34,34,34,34	0
56	MG	1A	3207	1/1	0.93	0.07	43,43,43,43	0
56	MG	2A	3108	1/1	0.93	0.25	47,47,47,47	0
56	MG	1A	3039	1/1	0.93	0.27	60,60,60,60	0
56	MG	1A	3863	1/1	0.93	0.22	75,75,75,75	0
56	MG	1A	3864	1/1	0.93	0.10	65,65,65,65	0
56	MG	2A	3113	1/1	0.93	0.20	82,82,82,82	0
56	MG	1A	3366	1/1	0.93	0.17	51,51,51,51	0
56	MG	2A	3115	1/1	0.93	0.18	57,57,57,57	0
56	MG	2a	1686	1/1	0.93	0.09	85,85,85,85	0
56	MG	1A	3367	1/1	0.93	0.21	28,28,28,28	0
56	MG	1l	202	1/1	0.93	0.18	65,65,65,65	0
56	MG	2A	3288	1/1	0.93	0.36	51,51,51,51	0
56	MG	2a	1896	1/1	0.93	0.31	51,51,51,51	0
56	MG	2A	3502	1/1	0.93	0.36	56,56,56,56	0
56	MG	1a	1814	1/1	0.93	0.08	48,48,48,48	0
56	MG	1A	3867	1/1	0.93	0.06	64,64,64,64	0
56	MG	2A	3292	1/1	0.93	0.19	45,45,45,45	0
56	MG	1a	1817	1/1	0.93	0.11	84,84,84,84	0
56	MG	1A	3609	1/1	0.93	0.15	52,52,52,52	0
56	MG	2A	3511	1/1	0.93	0.07	65,65,65,65	0
56	MG	1A	3368	1/1	0.93	0.09	53,53,53,53	0
56	MG	1A	3784	1/1	0.93	0.08	67,67,67,67	0
56	MG	1A	3315	1/1	0.93	0.07	52,52,52,52	0
56	MG	2A	3129	1/1	0.93	0.15	50,50,50,50	0
56	MG	1A	3284	1/1	0.93	0.18	53,53,53,53	0
56	MG	1A	3450	1/1	0.93	0.22	48,48,48,48	0
56	MG	2e	201	1/1	0.93	0.08	78,78,78,78	0
56	MG	2g	201	1/1	0.93	0.07	83,83,83,83	0
56	MG	2A	3518	1/1	0.93	0.06	68,68,68,68	0
56	MG	1A	3079	1/1	0.93	0.11	46,46,46,46	0
56	MG	1A	3259	1/1	0.93	0.06	55,55,55,55	0
56	MG	1A	3320	1/1	0.93	0.18	62,62,62,62	0
56	MG	2A	3523	1/1	0.93	0.07	68,68,68,68	0
56	MG	1x	102	1/1	0.93	0.10	60,60,60,60	0
56	MG	2A	3315	1/1	0.93	0.10	68,68,68,68	0
56	MG	1A	3456	1/1	0.93	0.22	50,50,50,50	0
56	MG	1A	3457	1/1	0.93	0.15	45,45,45,45	0
56	MG	1a	1834	1/1	0.93	0.09	80,80,80,80	0
56	MG	1A	3646	1/1	0.93	0.05	59,59,59,59	0
56	MG	2x	103	1/1	0.93	0.11	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2x	104	1/1	0.93	0.06	80,80,80,80	0
56	MG	1a	1704	1/1	0.93	0.17	68,68,68,68	0
56	MG	1A	3136	1/1	0.93	0.08	55,55,55,55	0
56	MG	2A	3148	1/1	0.93	0.18	43,43,43,43	0
56	MG	1A	3289	1/1	0.93	0.12	57,57,57,57	0
56	MG	1A	3544	1/1	0.93	0.20	70,70,70,70	0
56	MG	1A	3658	1/1	0.93	0.08	37,37,37,37	0
56	MG	1A	3323	1/1	0.93	0.14	81,81,81,81	0
56	MG	2A	3332	1/1	0.93	0.16	70,70,70,70	0
56	MG	1A	3064	1/1	0.94	0.18	28,28,28,28	0
56	MG	2a	1729	1/1	0.94	0.13	69,69,69,69	0
56	MG	2a	1730	1/1	0.94	0.13	69,69,69,69	0
56	MG	2A	3336	1/1	0.94	0.13	51,51,51,51	0
56	MG	1A	3081	1/1	0.94	0.15	31,31,31,31	0
56	MG	2a	1733	1/1	0.94	0.09	59,59,59,59	0
56	MG	1A	3774	1/1	0.94	0.10	47,47,47,47	0
56	MG	1N	205	1/1	0.94	0.07	72,72,72,72	0
56	MG	1O	201	1/1	0.94	0.15	61,61,61,61	0
56	MG	2A	3542	1/1	0.94	0.06	57,57,57,57	0
56	MG	1a	1833	1/1	0.94	0.19	43,43,43,43	0
56	MG	1A	3301	1/1	0.94	0.27	50,50,50,50	0
56	MG	1P	203	1/1	0.94	0.10	61,61,61,61	0
56	MG	2A	3005	1/1	0.94	0.19	57,57,57,57	0
56	MG	1A	3336	1/1	0.94	0.07	55,55,55,55	0
56	MG	2a	1744	1/1	0.94	0.09	91,91,91,91	0
56	MG	1A	3459	1/1	0.94	0.40	49,49,49,49	0
56	MG	1V	201	1/1	0.94	0.08	46,46,46,46	0
56	MG	1a	1700	1/1	0.94	0.15	57,57,57,57	0
56	MG	1V	203	1/1	0.94	0.18	62,62,62,62	0
56	MG	1A	3627	1/1	0.94	0.06	49,49,49,49	0
56	MG	2A	3362	1/1	0.94	0.26	43,43,43,43	0
56	MG	1a	1703	1/1	0.94	0.16	65,65,65,65	0
56	MG	1A	3631	1/1	0.94	0.12	49,49,49,49	0
56	MG	1A	3460	1/1	0.94	0.25	25,25,25,25	0
56	MG	1A	3129	1/1	0.94	0.24	58,58,58,58	0
56	MG	2A	3368	1/1	0.94	0.23	58,58,58,58	0
56	MG	2a	1756	1/1	0.94	0.07	56,56,56,56	0
56	MG	1A	3303	1/1	0.94	0.11	46,46,46,46	0
56	MG	1A	3149	1/1	0.94	0.10	65,65,65,65	0
56	MG	1A	3305	1/1	0.94	0.05	49,49,49,49	0
56	MG	2A	3372	1/1	0.94	0.18	68,68,68,68	0
56	MG	2A	3566	1/1	0.94	0.07	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3082	1/1	0.94	0.16	35,35,35,35	0
56	MG	2a	1763	1/1	0.94	0.13	68,68,68,68	0
56	MG	1A	3343	1/1	0.94	0.07	56,56,56,56	0
56	MG	2A	3025	1/1	0.94	0.21	50,50,50,50	0
56	MG	2A	3026	1/1	0.94	0.05	40,40,40,40	0
56	MG	2A	3188	1/1	0.94	0.12	53,53,53,53	0
56	MG	2A	3378	1/1	0.94	0.24	58,58,58,58	0
56	MG	2A	3379	1/1	0.94	0.29	51,51,51,51	0
56	MG	1A	3653	1/1	0.94	0.08	53,53,53,53	0
56	MG	18	103	1/1	0.94	0.16	65,65,65,65	0
56	MG	2B	204	1/1	0.94	0.07	79,79,79,79	0
56	MG	2A	3383	1/1	0.94	0.22	54,54,54,54	0
56	MG	1A	3344	1/1	0.94	0.11	54,54,54,54	0
56	MG	1A	3399	1/1	0.94	0.12	47,47,47,47	0
56	MG	2A	3386	1/1	0.94	0.15	45,45,45,45	0
56	MG	19	103	1/1	0.94	0.10	67,67,67,67	0
56	MG	2A	3034	1/1	0.94	0.18	57,57,57,57	0
56	MG	1A	3472	1/1	0.94	0.12	57,57,57,57	0
56	MG	1A	3661	1/1	0.94	0.10	25,25,25,25	0
56	MG	1A	3548	1/1	0.94	0.08	29,29,29,29	0
56	MG	2A	3202	1/1	0.94	0.08	74,74,74,74	0
56	MG	2A	3039	1/1	0.94	0.27	58,58,58,58	0
56	MG	1a	1724	1/1	0.94	0.06	64,64,64,64	0
56	MG	2A	3396	1/1	0.94	0.07	62,62,62,62	0
56	MG	1A	3549	1/1	0.94	0.06	55,55,55,55	0
56	MG	2A	3399	1/1	0.94	0.14	50,50,50,50	0
56	MG	2a	1792	1/1	0.94	0.23	49,49,49,49	0
56	MG	1A	3800	1/1	0.94	0.17	57,57,57,57	0
56	MG	1a	1606	1/1	0.94	0.30	57,57,57,57	0
56	MG	1A	3676	1/1	0.94	0.06	41,41,41,41	0
56	MG	2F	303	1/1	0.94	0.15	62,62,62,62	0
56	MG	2A	3047	1/1	0.94	0.10	66,66,66,66	0
56	MG	1A	3307	1/1	0.94	0.09	61,61,61,61	0
56	MG	1a	1730	1/1	0.94	0.04	97,97,97,97	0
56	MG	2a	1802	1/1	0.94	0.15	75,75,75,75	0
56	MG	2A	3409	1/1	0.94	0.15	57,57,57,57	0
56	MG	1A	3182	1/1	0.94	0.27	51,51,51,51	0
56	MG	2R	201	1/1	0.94	0.21	42,42,42,42	0
56	MG	2T	201	1/1	0.94	0.09	42,42,42,42	0
56	MG	2A	3215	1/1	0.94	0.09	85,85,85,85	0
56	MG	2Y	201	1/1	0.94	0.14	63,63,63,63	0
56	MG	2A	3414	1/1	0.94	0.17	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3680	1/1	0.94	0.16	57,57,57,57	0
56	MG	1a	1736	1/1	0.94	0.17	51,51,51,51	0
56	MG	1a	1739	1/1	0.94	0.20	42,42,42,42	0
56	MG	1A	3007	1/1	0.94	0.16	72,72,72,72	0
56	MG	1A	3685	1/1	0.94	0.08	48,48,48,48	0
56	MG	1a	1875	1/1	0.94	0.10	69,69,69,69	0
56	MG	1a	1743	1/1	0.94	0.09	64,64,64,64	0
56	MG	2A	3225	1/1	0.94	0.13	68,68,68,68	0
56	MG	2a	1608	1/1	0.94	0.08	81,81,81,81	0
56	MG	1A	3807	1/1	0.94	0.09	51,51,51,51	0
56	MG	1A	3809	1/1	0.94	0.17	48,48,48,48	0
56	MG	1A	3094	1/1	0.94	0.11	35,35,35,35	0
56	MG	2a	1822	1/1	0.94	0.28	59,59,59,59	0
56	MG	1a	1748	1/1	0.94	0.14	47,47,47,47	0
56	MG	1A	3411	1/1	0.94	0.28	24,24,24,24	0
56	MG	1A	3095	1/1	0.94	0.09	30,30,30,30	0
56	MG	1A	3557	1/1	0.94	0.05	49,49,49,49	0
56	MG	2A	3431	1/1	0.94	0.22	29,29,29,29	0
56	MG	1A	3694	1/1	0.94	0.07	76,76,76,76	0
56	MG	2A	3072	1/1	0.94	0.16	49,49,49,49	0
56	MG	2A	3236	1/1	0.94	0.17	42,42,42,42	0
56	MG	1A	3911	1/1	0.94	0.23	45,45,45,45	0
56	MG	2A	3436	1/1	0.94	0.07	80,80,80,80	0
56	MG	2A	3240	1/1	0.94	0.19	50,50,50,50	0
56	MG	2a	1624	1/1	0.94	0.06	98,98,98,98	0
56	MG	2A	3074	1/1	0.94	0.31	51,51,51,51	0
56	MG	1a	1623	1/1	0.94	0.14	52,52,52,52	0
56	MG	2A	3077	1/1	0.94	0.30	51,51,51,51	0
56	MG	1A	3817	1/1	0.94	0.12	53,53,53,53	0
56	MG	1A	3913	1/1	0.94	0.10	48,48,48,48	0
56	MG	2A	3445	1/1	0.94	0.08	79,79,79,79	0
56	MG	1A	3698	1/1	0.94	0.08	25,25,25,25	0
56	MG	1A	3263	1/1	0.94	0.21	70,70,70,70	0
56	MG	2A	3249	1/1	0.94	0.30	34,34,34,34	0
56	MG	2A	3250	1/1	0.94	0.21	39,39,39,39	0
56	MG	1A	3482	1/1	0.94	0.15	38,38,38,38	0
56	MG	2a	1853	1/1	0.94	0.14	75,75,75,75	0
56	MG	1A	3190	1/1	0.94	0.12	63,63,63,63	0
56	MG	1A	3358	1/1	0.94	0.25	29,29,29,29	0
56	MG	1A	3288	1/1	0.94	0.17	64,64,64,64	0
56	MG	2A	3087	1/1	0.94	0.14	47,47,47,47	0
56	MG	2a	1646	1/1	0.94	0.05	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3257	1/1	0.94	0.16	59,59,59,59	0
56	MG	2A	3461	1/1	0.94	0.11	59,59,59,59	0
56	MG	1A	3427	1/1	0.94	0.19	27,27,27,27	0
56	MG	2A	3260	1/1	0.94	0.20	58,58,58,58	0
56	MG	1a	1635	1/1	0.94	0.08	58,58,58,58	0
56	MG	1A	3428	1/1	0.94	0.22	43,43,43,43	0
56	MG	1A	3567	1/1	0.94	0.09	67,67,67,67	0
56	MG	1A	3928	1/1	0.94	0.26	71,71,71,71	0
56	MG	1a	1773	1/1	0.94	0.05	94,94,94,94	0
56	MG	2A	3101	1/1	0.94	0.15	65,65,65,65	0
56	MG	1A	3135	1/1	0.94	0.11	61,61,61,61	0
56	MG	1A	3096	1/1	0.94	0.18	44,44,44,44	0
56	MG	2a	1659	1/1	0.94	0.23	46,46,46,46	0
56	MG	1A	3432	1/1	0.94	0.15	34,34,34,34	0
56	MG	1A	3572	1/1	0.94	0.17	69,69,69,69	0
56	MG	1B	201	1/1	0.94	0.08	75,75,75,75	0
56	MG	1a	1647	1/1	0.94	0.11	44,44,44,44	0
56	MG	1A	3495	1/1	0.94	0.18	32,32,32,32	0
56	MG	1A	3575	1/1	0.94	0.08	60,60,60,60	0
56	MG	1A	3720	1/1	0.94	0.07	59,59,59,59	0
56	MG	2A	3482	1/1	0.94	0.15	34,34,34,34	0
56	MG	1A	3137	1/1	0.94	0.18	57,57,57,57	0
56	MG	1a	1790	1/1	0.94	0.13	73,73,73,73	0
56	MG	1A	3194	1/1	0.94	0.13	23,23,23,23	0
56	MG	2a	1884	1/1	0.94	0.08	75,75,75,75	0
56	MG	1a	1654	1/1	0.94	0.07	66,66,66,66	0
56	MG	1A	3269	1/1	0.94	0.14	70,70,70,70	0
56	MG	1A	3015	1/1	0.94	0.14	67,67,67,67	0
56	MG	1A	3735	1/1	0.94	0.06	66,66,66,66	0
56	MG	1B	215	1/1	0.94	0.08	59,59,59,59	0
56	MG	2A	3121	1/1	0.94	0.18	34,34,34,34	0
56	MG	2A	3289	1/1	0.94	0.31	33,33,33,33	0
56	MG	2a	1681	1/1	0.94	0.12	72,72,72,72	0
56	MG	1a	1661	1/1	0.94	0.13	64,64,64,64	0
56	MG	1A	3501	1/1	0.94	0.24	22,22,22,22	0
56	MG	1A	3737	1/1	0.94	0.10	51,51,51,51	0
56	MG	2A	3125	1/1	0.94	0.09	37,37,37,37	0
56	MG	1a	1801	1/1	0.94	0.13	70,70,70,70	0
56	MG	2A	3499	1/1	0.94	0.24	58,58,58,58	0
56	MG	1A	3503	1/1	0.94	0.28	27,27,27,27	0
56	MG	2A	3128	1/1	0.94	0.25	59,59,59,59	0
56	MG	1o	102	1/1	0.94	0.12	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3504	1/1	0.94	0.10	70,70,70,70	0
56	MG	2A	3299	1/1	0.94	0.21	39,39,39,39	0
56	MG	1a	1803	1/1	0.94	0.14	70,70,70,70	0
56	MG	1A	3504	1/1	0.94	0.19	58,58,58,58	0
56	MG	2a	1908	1/1	0.94	0.14	70,70,70,70	0
56	MG	1A	3741	1/1	0.94	0.19	46,46,46,46	0
56	MG	1A	3506	1/1	0.94	0.25	23,23,23,23	0
56	MG	1A	3051	1/1	0.94	0.11	50,50,50,50	0
56	MG	1A	3140	1/1	0.94	0.05	74,74,74,74	0
56	MG	1a	1672	1/1	0.94	0.32	51,51,51,51	0
56	MG	2A	3310	1/1	0.94	0.14	49,49,49,49	0
56	MG	2A	3311	1/1	0.94	0.35	32,32,32,32	0
56	MG	2A	3314	1/1	0.94	0.21	40,40,40,40	0
56	MG	2q	201	1/1	0.94	0.14	82,82,82,82	0
56	MG	1A	3059	1/1	0.94	0.07	33,33,33,33	0
56	MG	1A	3759	1/1	0.94	0.09	56,56,56,56	0
56	MG	1A	3249	1/1	0.94	0.06	48,48,48,48	0
56	MG	2A	3521	1/1	0.94	0.08	69,69,69,69	0
56	MG	2a	1710	1/1	0.94	0.06	63,63,63,63	0
56	MG	2A	3319	1/1	0.94	0.40	36,36,36,36	0
56	MG	2A	3142	1/1	0.94	0.14	38,38,38,38	0
56	MG	2a	1714	1/1	0.94	0.07	88,88,88,88	0
56	MG	2A	3143	1/1	0.94	0.19	43,43,43,43	0
56	MG	1A	3449	1/1	0.94	0.23	34,34,34,34	0
56	MG	1A	3328	1/1	0.94	0.18	52,52,52,52	0
56	MG	1A	3858	1/1	0.94	0.07	68,68,68,68	0
56	MG	1A	3330	1/1	0.94	0.10	41,41,41,41	0
56	MG	2A	3328	1/1	0.94	0.34	50,50,50,50	0
56	MG	1A	3522	1/1	0.94	0.14	27,27,27,27	0
56	MG	1A	3331	1/1	0.94	0.20	52,52,52,52	0
57	AKN	1O	202	40/40	0.94	0.08	43,52,59,65	0
57	AKN	1a	1913	40/40	0.94	0.08	44,55,62,63	0
56	MG	1A	3453	1/1	0.94	0.19	39,39,39,39	0
57	AKN	2A	3576	40/40	0.94	0.08	41,54,64,67	0
56	MG	1A	3613	1/1	0.94	0.12	40,40,40,40	0
56	MG	1A	3771	1/1	0.94	0.16	46,46,46,46	0
56	MG	1A	3697	1/1	0.95	0.07	41,41,41,41	0
56	MG	1A	3238	1/1	0.95	0.07	57,57,57,57	0
56	MG	2A	3266	1/1	0.95	0.20	46,46,46,46	0
56	MG	1A	3508	1/1	0.95	0.20	58,58,58,58	0
56	MG	2A	3268	1/1	0.95	0.22	34,34,34,34	0
56	MG	1A	3102	1/1	0.95	0.07	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3117	1/1	0.95	0.08	47,47,47,47	0
56	MG	17	102	1/1	0.95	0.10	31,31,31,31	0
56	MG	1A	3512	1/1	0.95	0.09	59,59,59,59	0
56	MG	2Q	203	1/1	0.95	0.22	58,58,58,58	0
56	MG	1A	3162	1/1	0.95	0.24	28,28,28,28	0
56	MG	1A	3808	1/1	0.95	0.05	56,56,56,56	0
56	MG	1A	3215	1/1	0.95	0.08	59,59,59,59	0
56	MG	1A	3515	1/1	0.95	0.20	34,34,34,34	0
56	MG	1A	3812	1/1	0.95	0.18	39,39,39,39	0
56	MG	1A	3216	1/1	0.95	0.04	40,40,40,40	0
56	MG	1A	3518	1/1	0.95	0.20	70,70,70,70	0
56	MG	2A	3448	1/1	0.95	0.24	59,59,59,59	0
56	MG	2a	1777	1/1	0.95	0.09	83,83,83,83	0
56	MG	2A	3449	1/1	0.95	0.05	53,53,53,53	0
56	MG	2a	1603	1/1	0.95	0.09	80,80,80,80	0
56	MG	1A	3277	1/1	0.95	0.22	42,42,42,42	0
56	MG	2A	3451	1/1	0.95	0.22	55,55,55,55	0
56	MG	1x	107	1/1	0.95	0.27	69,69,69,69	0
56	MG	2A	3453	1/1	0.95	0.16	57,57,57,57	0
56	MG	1a	1708	1/1	0.95	0.05	64,64,64,64	0
56	MG	2a	1609	1/1	0.95	0.33	71,71,71,71	0
56	MG	1A	3245	1/1	0.95	0.07	52,52,52,52	0
56	MG	1A	3003	1/1	0.95	0.18	53,53,53,53	0
56	MG	1A	3247	1/1	0.95	0.08	56,56,56,56	0
56	MG	1A	3590	1/1	0.95	0.12	45,45,45,45	0
56	MG	1a	1835	1/1	0.95	0.08	74,74,74,74	0
56	MG	1A	3346	1/1	0.95	0.21	23,23,23,23	0
56	MG	1A	3525	1/1	0.95	0.12	64,64,64,64	0
56	MG	1A	3722	1/1	0.95	0.07	63,63,63,63	0
56	MG	1A	3724	1/1	0.95	0.07	60,60,60,60	0
56	MG	2A	3001	1/1	0.95	0.09	69,69,69,69	0
56	MG	1A	3167	1/1	0.95	0.11	68,68,68,68	0
56	MG	1A	3527	1/1	0.95	0.15	74,74,74,74	0
56	MG	1A	3919	1/1	0.95	0.07	43,43,43,43	0
56	MG	1A	3920	1/1	0.95	0.06	38,38,38,38	0
56	MG	2A	3006	1/1	0.95	0.13	54,54,54,54	0
56	MG	1a	1723	1/1	0.95	0.27	65,65,65,65	0
56	MG	1A	3596	1/1	0.95	0.06	47,47,47,47	0
56	MG	2A	3472	1/1	0.95	0.11	67,67,67,67	0
56	MG	2A	3151	1/1	0.95	0.20	52,52,52,52	0
56	MG	1A	3105	1/1	0.95	0.18	33,33,33,33	0
56	MG	2A	3305	1/1	0.95	0.43	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3476	1/1	0.95	0.13	49,49,49,49	0
56	MG	1A	3730	1/1	0.95	0.08	44,44,44,44	0
56	MG	1A	3465	1/1	0.95	0.13	32,32,32,32	0
56	MG	1A	3533	1/1	0.95	0.15	50,50,50,50	0
56	MG	1A	3220	1/1	0.95	0.07	61,61,61,61	0
56	MG	2A	3015	1/1	0.95	0.15	56,56,56,56	0
56	MG	1a	1852	1/1	0.95	0.08	68,68,68,68	0
56	MG	2a	1642	1/1	0.95	0.27	56,56,56,56	0
56	MG	2A	3017	1/1	0.95	0.09	55,55,55,55	0
56	MG	1A	3351	1/1	0.95	0.19	22,22,22,22	0
56	MG	1a	1731	1/1	0.95	0.10	57,57,57,57	0
56	MG	1A	3026	1/1	0.95	0.13	61,61,61,61	0
56	MG	1A	3403	1/1	0.95	0.18	28,28,28,28	0
56	MG	2A	3167	1/1	0.95	0.15	67,67,67,67	0
56	MG	1a	1734	1/1	0.95	0.12	70,70,70,70	0
56	MG	1a	1735	1/1	0.95	0.10	46,46,46,46	0
56	MG	2A	3170	1/1	0.95	0.33	51,51,51,51	0
56	MG	2a	1831	1/1	0.95	0.11	67,67,67,67	0
56	MG	1A	3405	1/1	0.95	0.15	29,29,29,29	0
56	MG	2A	3326	1/1	0.95	0.09	76,76,76,76	0
56	MG	2A	3327	1/1	0.95	0.13	59,59,59,59	0
56	MG	1a	1737	1/1	0.95	0.10	56,56,56,56	0
56	MG	1A	3353	1/1	0.95	0.11	60,60,60,60	0
56	MG	1A	3109	1/1	0.95	0.23	35,35,35,35	0
56	MG	1a	1741	1/1	0.95	0.14	54,54,54,54	0
56	MG	2A	3501	1/1	0.95	0.18	47,47,47,47	0
56	MG	1a	1629	1/1	0.95	0.05	69,69,69,69	0
56	MG	1A	3755	1/1	0.95	0.11	42,42,42,42	0
56	MG	2A	3032	1/1	0.95	0.09	41,41,41,41	0
56	MG	2a	1844	1/1	0.95	0.11	64,64,64,64	0
56	MG	2a	1845	1/1	0.95	0.07	94,94,94,94	0
56	MG	1A	3756	1/1	0.95	0.14	36,36,36,36	0
56	MG	2A	3338	1/1	0.95	0.14	74,74,74,74	0
56	MG	1A	3173	1/1	0.95	0.23	24,24,24,24	0
56	MG	2A	3340	1/1	0.95	0.13	55,55,55,55	0
56	MG	2a	1669	1/1	0.95	0.12	91,91,91,91	0
56	MG	1A	3412	1/1	0.95	0.25	35,35,35,35	0
56	MG	1B	208	1/1	0.95	0.18	53,53,53,53	0
56	MG	1A	3844	1/1	0.95	0.12	69,69,69,69	0
56	MG	2A	3344	1/1	0.95	0.14	39,39,39,39	0
56	MG	2A	3038	1/1	0.95	0.09	69,69,69,69	0
56	MG	1B	211	1/1	0.95	0.14	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3040	1/1	0.95	0.15	34,34,34,34	0
56	MG	2A	3349	1/1	0.95	0.24	32,32,32,32	0
56	MG	2A	3350	1/1	0.95	0.16	44,44,44,44	0
56	MG	1A	3632	1/1	0.95	0.11	44,44,44,44	0
56	MG	2A	3352	1/1	0.95	0.25	21,21,21,21	0
56	MG	2A	3353	1/1	0.95	0.29	30,30,30,30	0
56	MG	1A	3633	1/1	0.95	0.07	43,43,43,43	0
56	MG	1A	3847	1/1	0.95	0.06	56,56,56,56	0
56	MG	2a	1866	1/1	0.95	0.10	63,63,63,63	0
56	MG	1A	3110	1/1	0.95	0.17	42,42,42,42	0
56	MG	1a	1757	1/1	0.95	0.11	73,73,73,73	0
56	MG	1a	1643	1/1	0.95	0.07	66,66,66,66	0
56	MG	2A	3359	1/1	0.95	0.27	31,31,31,31	0
56	MG	1A	3638	1/1	0.95	0.11	29,29,29,29	0
56	MG	1a	1761	1/1	0.95	0.08	63,63,63,63	0
56	MG	1a	1645	1/1	0.95	0.13	57,57,57,57	0
56	MG	1A	3416	1/1	0.95	0.11	38,38,38,38	0
56	MG	2a	1693	1/1	0.95	0.06	97,97,97,97	0
56	MG	2A	3201	1/1	0.95	0.08	53,53,53,53	0
56	MG	1A	3767	1/1	0.95	0.16	57,57,57,57	0
56	MG	1A	3852	1/1	0.95	0.10	64,64,64,64	0
56	MG	1A	3640	1/1	0.95	0.12	53,53,53,53	0
56	MG	1B	223	1/1	0.95	0.07	44,44,44,44	0
56	MG	2a	1699	1/1	0.95	0.18	84,84,84,84	0
56	MG	1A	3030	1/1	0.95	0.05	56,56,56,56	0
56	MG	2A	3060	1/1	0.95	0.06	40,40,40,40	0
56	MG	1A	3146	1/1	0.95	0.08	56,56,56,56	0
56	MG	2A	3210	1/1	0.95	0.07	53,53,53,53	0
56	MG	1A	3047	1/1	0.95	0.38	64,64,64,64	0
56	MG	1A	3361	1/1	0.95	0.17	59,59,59,59	0
56	MG	1A	3362	1/1	0.95	0.25	53,53,53,53	0
56	MG	1A	3114	1/1	0.95	0.15	28,28,28,28	0
56	MG	1A	3655	1/1	0.95	0.16	52,52,52,52	0
56	MG	1A	3150	1/1	0.95	0.10	59,59,59,59	0
56	MG	2A	3069	1/1	0.95	0.13	48,48,48,48	0
56	MG	1a	1895	1/1	0.95	0.04	65,65,65,65	0
56	MG	1A	3781	1/1	0.95	0.19	54,54,54,54	0
56	MG	1A	3554	1/1	0.95	0.12	64,64,64,64	0
56	MG	1A	3430	1/1	0.95	0.13	35,35,35,35	0
56	MG	1D	306	1/1	0.95	0.06	58,58,58,58	0
56	MG	1A	3660	1/1	0.95	0.08	42,42,42,42	0
56	MG	1A	3133	1/1	0.95	0.17	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3557	1/1	0.95	0.16	42,42,42,42	0
56	MG	2A	3558	1/1	0.95	0.18	53,53,53,53	0
56	MG	1A	3662	1/1	0.95	0.08	40,40,40,40	0
56	MG	1a	1786	1/1	0.95	0.04	73,73,73,73	0
56	MG	1a	1787	1/1	0.95	0.35	51,51,51,51	0
56	MG	2a	1726	1/1	0.95	0.08	65,65,65,65	0
56	MG	2A	3081	1/1	0.95	0.14	62,62,62,62	0
56	MG	1a	1788	1/1	0.95	0.04	99,99,99,99	0
56	MG	1A	3099	1/1	0.95	0.10	31,31,31,31	0
56	MG	1A	3183	1/1	0.95	0.05	52,52,52,52	0
56	MG	1N	201	1/1	0.95	0.08	47,47,47,47	0
56	MG	1A	3435	1/1	0.95	0.21	42,42,42,42	0
56	MG	1A	3370	1/1	0.95	0.07	60,60,60,60	0
56	MG	1a	1912	1/1	0.95	0.04	79,79,79,79	0
56	MG	1A	3791	1/1	0.95	0.09	70,70,70,70	0
56	MG	2A	3091	1/1	0.95	0.10	74,74,74,74	0
56	MG	2A	3575	1/1	0.95	0.09	78,78,78,78	0
56	MG	1A	3678	1/1	0.95	0.06	35,35,35,35	0
56	MG	1A	3327	1/1	0.95	0.17	51,51,51,51	0
56	MG	2A	3096	1/1	0.95	0.09	42,42,42,42	0
56	MG	1P	202	1/1	0.95	0.18	60,60,60,60	0
56	MG	2a	1742	1/1	0.95	0.09	76,76,76,76	0
56	MG	2A	3413	1/1	0.95	0.08	72,72,72,72	0
56	MG	1A	3031	1/1	0.95	0.14	64,64,64,64	0
56	MG	1a	1683	1/1	0.95	0.13	77,77,77,77	0
56	MG	1Q	201	1/1	0.95	0.22	56,56,56,56	0
56	MG	1f	201	1/1	0.95	0.11	57,57,57,57	0
56	MG	1A	3375	1/1	0.95	0.15	26,26,26,26	0
56	MG	1A	3235	1/1	0.95	0.04	69,69,69,69	0
56	MG	1A	3005	1/1	0.95	0.09	42,42,42,42	0
56	MG	1A	3445	1/1	0.95	0.30	52,52,52,52	0
57	AKN	1A	3936	40/40	0.95	0.07	23,36,46,48	0
56	MG	1A	3569	1/1	0.95	0.05	79,79,79,79	0
56	MG	1a	1691	1/1	0.95	0.10	69,69,69,69	0
56	MG	2A	3259	1/1	0.95	0.20	72,72,72,72	0
56	MG	2A	3110	1/1	0.95	0.08	58,58,58,58	0
56	MG	1A	3270	1/1	0.95	0.09	56,56,56,56	0
56	MG	1A	3187	1/1	0.95	0.10	57,57,57,57	0
56	MG	2E	301	1/1	0.95	0.10	52,52,52,52	0
58	ZN	2n	501	1/1	0.95	0.08	111,111,111,111	0
56	MG	1A	3731	1/1	0.96	0.05	54,54,54,54	0
56	MG	1A	3732	1/1	0.96	0.07	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3170	1/1	0.96	0.21	63,63,63,63	0
56	MG	1A	3054	1/1	0.96	0.11	53,53,53,53	0
56	MG	2Q	202	1/1	0.96	0.06	72,72,72,72	0
56	MG	1B	210	1/1	0.96	0.08	55,55,55,55	0
56	MG	1A	3619	1/1	0.96	0.08	53,53,53,53	0
56	MG	1A	3018	1/1	0.96	0.20	42,42,42,42	0
56	MG	2W	201	1/1	0.96	0.09	54,54,54,54	0
56	MG	1A	3622	1/1	0.96	0.10	59,59,59,59	0
56	MG	1A	3001	1/1	0.96	0.16	26,26,26,26	0
56	MG	2A	3444	1/1	0.96	0.08	45,45,45,45	0
56	MG	1a	1653	1/1	0.96	0.08	72,72,72,72	0
56	MG	2A	3446	1/1	0.96	0.25	50,50,50,50	0
56	MG	1A	3742	1/1	0.96	0.05	53,53,53,53	0
56	MG	1m	201	1/1	0.96	0.09	57,57,57,57	0
56	MG	1A	3417	1/1	0.96	0.12	47,47,47,47	0
56	MG	1B	217	1/1	0.96	0.23	56,56,56,56	0
56	MG	1A	3329	1/1	0.96	0.20	32,32,32,32	0
56	MG	1A	3748	1/1	0.96	0.23	48,48,48,48	0
56	MG	1A	3125	1/1	0.96	0.11	40,40,40,40	0
56	MG	1A	3751	1/1	0.96	0.14	47,47,47,47	0
56	MG	1A	3752	1/1	0.96	0.05	24,24,24,24	0
56	MG	1A	3754	1/1	0.96	0.07	57,57,57,57	0
56	MG	1B	225	1/1	0.96	0.20	58,58,58,58	0
56	MG	1A	3421	1/1	0.96	0.29	37,37,37,37	0
56	MG	1A	3076	1/1	0.96	0.12	51,51,51,51	0
56	MG	1A	3369	1/1	0.96	0.08	63,63,63,63	0
56	MG	1A	3635	1/1	0.96	0.14	53,53,53,53	0
56	MG	2a	1794	1/1	0.96	0.10	58,58,58,58	0
56	MG	2a	1795	1/1	0.96	0.31	47,47,47,47	0
56	MG	1A	3637	1/1	0.96	0.06	31,31,31,31	0
56	MG	1A	3425	1/1	0.96	0.22	42,42,42,42	0
56	MG	1A	3481	1/1	0.96	0.14	41,41,41,41	0
56	MG	2A	3136	1/1	0.96	0.12	42,42,42,42	0
56	MG	1A	3426	1/1	0.96	0.09	33,33,33,33	0
56	MG	1A	3641	1/1	0.96	0.05	57,57,57,57	0
56	MG	1A	3049	1/1	0.96	0.10	48,48,48,48	0
56	MG	2A	3297	1/1	0.96	0.04	71,71,71,71	0
56	MG	1A	3644	1/1	0.96	0.15	59,59,59,59	0
56	MG	1A	3862	1/1	0.96	0.09	47,47,47,47	0
56	MG	1A	3148	1/1	0.96	0.11	59,59,59,59	0
56	MG	1A	3078	1/1	0.96	0.15	41,41,41,41	0
56	MG	1a	1815	1/1	0.96	0.16	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	1630	1/1	0.96	0.22	59,59,59,59	0
56	MG	2A	3145	1/1	0.96	0.19	37,37,37,37	0
56	MG	1a	1684	1/1	0.96	0.12	56,56,56,56	0
56	MG	1F	303	1/1	0.96	0.06	50,50,50,50	0
56	MG	1F	304	1/1	0.96	0.17	58,58,58,58	0
56	MG	1A	3033	1/1	0.96	0.17	64,64,64,64	0
56	MG	2A	3480	1/1	0.96	0.04	54,54,54,54	0
56	MG	2a	1637	1/1	0.96	0.09	60,60,60,60	0
56	MG	2A	3309	1/1	0.96	0.12	36,36,36,36	0
56	MG	1a	1820	1/1	0.96	0.10	43,43,43,43	0
56	MG	1a	1821	1/1	0.96	0.10	55,55,55,55	0
56	MG	1A	3649	1/1	0.96	0.09	81,81,81,81	0
56	MG	1G	201	1/1	0.96	0.14	40,40,40,40	0
56	MG	1G	202	1/1	0.96	0.19	37,37,37,37	0
56	MG	2A	3156	1/1	0.96	0.05	73,73,73,73	0
56	MG	1A	3093	1/1	0.96	0.16	42,42,42,42	0
56	MG	2A	3007	1/1	0.96	0.06	46,46,46,46	0
56	MG	2a	1827	1/1	0.96	0.04	65,65,65,65	0
56	MG	2A	3490	1/1	0.96	0.07	72,72,72,72	0
56	MG	1A	3652	1/1	0.96	0.06	38,38,38,38	0
56	MG	2A	3160	1/1	0.96	0.13	57,57,57,57	0
56	MG	1A	3776	1/1	0.96	0.10	16,16,16,16	0
56	MG	2A	3162	1/1	0.96	0.07	76,76,76,76	0
56	MG	1A	3777	1/1	0.96	0.08	60,60,60,60	0
56	MG	1A	3489	1/1	0.96	0.08	49,49,49,49	0
56	MG	1A	3654	1/1	0.96	0.10	41,41,41,41	0
56	MG	1A	3209	1/1	0.96	0.20	60,60,60,60	0
56	MG	1A	3492	1/1	0.96	0.20	27,27,27,27	0
56	MG	1A	3433	1/1	0.96	0.10	35,35,35,35	0
56	MG	1Q	203	1/1	0.96	0.11	71,71,71,71	0
56	MG	1A	3020	1/1	0.96	0.06	45,45,45,45	0
56	MG	2a	1841	1/1	0.96	0.10	66,66,66,66	0
56	MG	1A	3379	1/1	0.96	0.16	56,56,56,56	0
56	MG	1T	201	1/1	0.96	0.08	53,53,53,53	0
56	MG	1U	201	1/1	0.96	0.07	38,38,38,38	0
56	MG	1A	3340	1/1	0.96	0.16	45,45,45,45	0
56	MG	1V	202	1/1	0.96	0.16	52,52,52,52	0
56	MG	2A	3509	1/1	0.96	0.10	46,46,46,46	0
56	MG	1A	3437	1/1	0.96	0.14	46,46,46,46	0
56	MG	1W	201	1/1	0.96	0.24	61,61,61,61	0
56	MG	1W	202	1/1	0.96	0.19	43,43,43,43	0
56	MG	1A	3242	1/1	0.96	0.18	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	1852	1/1	0.96	0.10	79,79,79,79	0
56	MG	2A	3180	1/1	0.96	0.05	61,61,61,61	0
56	MG	1X	101	1/1	0.96	0.10	44,44,44,44	0
56	MG	1A	3383	1/1	0.96	0.07	53,53,53,53	0
56	MG	1a	1849	1/1	0.96	0.08	75,75,75,75	0
56	MG	1A	3882	1/1	0.96	0.06	48,48,48,48	0
56	MG	1a	1714	1/1	0.96	0.10	58,58,58,58	0
56	MG	2a	1679	1/1	0.96	0.09	66,66,66,66	0
56	MG	1A	3069	1/1	0.96	0.13	32,32,32,32	0
56	MG	15	101	1/1	0.96	0.17	31,31,31,31	0
56	MG	1A	3442	1/1	0.96	0.07	33,33,33,33	0
56	MG	1A	3385	1/1	0.96	0.08	56,56,56,56	0
56	MG	1A	3886	1/1	0.96	0.05	76,76,76,76	0
56	MG	1a	1720	1/1	0.96	0.08	88,88,88,88	0
56	MG	1A	3244	1/1	0.96	0.10	61,61,61,61	0
56	MG	1A	3113	1/1	0.96	0.05	43,43,43,43	0
56	MG	1A	3345	1/1	0.96	0.09	53,53,53,53	0
56	MG	1A	3682	1/1	0.96	0.06	52,52,52,52	0
56	MG	1A	3447	1/1	0.96	0.15	35,35,35,35	0
56	MG	1A	3576	1/1	0.96	0.07	56,56,56,56	0
56	MG	2A	3200	1/1	0.96	0.12	64,64,64,64	0
56	MG	2A	3365	1/1	0.96	0.38	33,33,33,33	0
56	MG	1A	3159	1/1	0.96	0.27	34,34,34,34	0
56	MG	1A	3690	1/1	0.96	0.06	58,58,58,58	0
56	MG	2A	3048	1/1	0.96	0.11	66,66,66,66	0
56	MG	1A	3186	1/1	0.96	0.08	59,59,59,59	0
56	MG	2A	3538	1/1	0.96	0.07	65,65,65,65	0
56	MG	1A	3392	1/1	0.96	0.28	33,33,33,33	0
56	MG	1A	3053	1/1	0.96	0.05	40,40,40,40	0
56	MG	2A	3207	1/1	0.96	0.07	71,71,71,71	0
56	MG	2a	1702	1/1	0.96	0.04	75,75,75,75	0
56	MG	1A	3898	1/1	0.96	0.10	46,46,46,46	0
56	MG	1A	3899	1/1	0.96	0.14	50,50,50,50	0
56	MG	1A	3901	1/1	0.96	0.23	40,40,40,40	0
56	MG	2A	3056	1/1	0.96	0.08	53,53,53,53	0
56	MG	1A	3097	1/1	0.96	0.13	42,42,42,42	0
56	MG	1a	1608	1/1	0.96	0.06	66,66,66,66	0
56	MG	1A	3582	1/1	0.96	0.07	70,70,70,70	0
56	MG	2A	3380	1/1	0.96	0.26	42,42,42,42	0
56	MG	1a	1738	1/1	0.96	0.24	52,52,52,52	0
56	MG	1a	1610	1/1	0.96	0.07	68,68,68,68	0
56	MG	1A	3905	1/1	0.96	0.22	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3583	1/1	0.96	0.09	64,64,64,64	0
56	MG	1A	3189	1/1	0.96	0.08	55,55,55,55	0
56	MG	1A	3702	1/1	0.96	0.05	29,29,29,29	0
56	MG	1a	1881	1/1	0.96	0.12	64,64,64,64	0
56	MG	2A	3223	1/1	0.96	0.06	54,54,54,54	0
56	MG	1A	3519	1/1	0.96	0.12	60,60,60,60	0
56	MG	1A	3810	1/1	0.96	0.20	48,48,48,48	0
56	MG	1A	3072	1/1	0.96	0.15	49,49,49,49	0
56	MG	1a	1747	1/1	0.96	0.17	21,21,21,21	0
56	MG	1A	3164	1/1	0.96	0.23	31,31,31,31	0
56	MG	2A	3394	1/1	0.96	0.34	56,56,56,56	0
56	MG	1A	3914	1/1	0.96	0.14	42,42,42,42	0
56	MG	1A	3165	1/1	0.96	0.17	18,18,18,18	0
56	MG	2A	3568	1/1	0.96	0.09	67,67,67,67	0
56	MG	1a	1751	1/1	0.96	0.29	49,49,49,49	0
56	MG	2A	3398	1/1	0.96	0.19	44,44,44,44	0
56	MG	1A	3166	1/1	0.96	0.15	30,30,30,30	0
56	MG	1A	3085	1/1	0.96	0.11	37,37,37,37	0
56	MG	1A	3461	1/1	0.96	0.18	21,21,21,21	0
56	MG	2A	3235	1/1	0.96	0.28	50,50,50,50	0
56	MG	1A	3712	1/1	0.96	0.05	65,65,65,65	0
56	MG	1a	1756	1/1	0.96	0.09	67,67,67,67	0
56	MG	2A	3238	1/1	0.96	0.21	40,40,40,40	0
56	MG	1A	3357	1/1	0.96	0.08	49,49,49,49	0
56	MG	1a	1758	1/1	0.96	0.07	63,63,63,63	0
56	MG	1A	3168	1/1	0.96	0.23	29,29,29,29	0
56	MG	1A	3595	1/1	0.96	0.07	53,53,53,53	0
56	MG	1A	3529	1/1	0.96	0.20	50,50,50,50	0
56	MG	1A	3925	1/1	0.96	0.14	40,40,40,40	0
56	MG	1A	3718	1/1	0.96	0.06	68,68,68,68	0
56	MG	1A	3464	1/1	0.96	0.26	45,45,45,45	0
56	MG	1a	1903	1/1	0.96	0.12	62,62,62,62	0
56	MG	2A	3092	1/1	0.96	0.14	39,39,39,39	0
56	MG	1a	1632	1/1	0.96	0.20	47,47,47,47	0
56	MG	1A	3196	1/1	0.96	0.18	59,59,59,59	0
56	MG	2x	107	1/1	0.96	0.10	66,66,66,66	0
56	MG	2A	3253	1/1	0.96	0.13	45,45,45,45	0
56	MG	1A	3599	1/1	0.96	0.19	69,69,69,69	0
56	MG	1A	3119	1/1	0.96	0.07	41,41,41,41	0
56	MG	1A	3606	1/1	0.96	0.05	34,34,34,34	0
56	MG	1A	3409	1/1	0.96	0.08	32,32,32,32	0
56	MG	1A	3935	1/1	0.96	0.11	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3611	1/1	0.96	0.08	25,25,25,25	0
56	MG	1A	3410	1/1	0.96	0.24	30,30,30,30	0
56	MG	2A	3261	1/1	0.96	0.16	81,81,81,81	0
56	MG	1B	203	1/1	0.96	0.11	51,51,51,51	0
56	MG	1A	3614	1/1	0.96	0.06	57,57,57,57	0
56	MG	2a	1823	1/1	0.97	0.05	89,89,89,89	0
56	MG	1a	1782	1/1	0.97	0.04	70,70,70,70	0
56	MG	1a	1783	1/1	0.97	0.05	67,67,67,67	0
56	MG	1A	3402	1/1	0.97	0.23	40,40,40,40	0
56	MG	2A	3088	1/1	0.97	0.06	39,39,39,39	0
56	MG	1A	3624	1/1	0.97	0.06	34,34,34,34	0
56	MG	1A	3574	1/1	0.97	0.05	81,81,81,81	0
56	MG	1A	3695	1/1	0.97	0.07	32,32,32,32	0
56	MG	1E	301	1/1	0.97	0.11	46,46,46,46	0
56	MG	1A	3834	1/1	0.97	0.13	58,58,58,58	0
56	MG	1A	3900	1/1	0.97	0.07	62,62,62,62	0
56	MG	1a	1791	1/1	0.97	0.10	75,75,75,75	0
56	MG	2A	3097	1/1	0.97	0.23	46,46,46,46	0
56	MG	2A	3098	1/1	0.97	0.14	41,41,41,41	0
56	MG	28	101	1/1	0.97	0.20	49,49,49,49	0
56	MG	2a	1718	1/1	0.97	0.04	87,87,87,87	0
56	MG	2A	3193	1/1	0.97	0.03	56,56,56,56	0
56	MG	1A	3121	1/1	0.97	0.25	49,49,49,49	0
56	MG	2A	3508	1/1	0.97	0.06	55,55,55,55	0
56	MG	2A	3195	1/1	0.97	0.10	58,58,58,58	0
56	MG	1A	3628	1/1	0.97	0.05	33,33,33,33	0
56	MG	1A	3404	1/1	0.97	0.23	39,39,39,39	0
56	MG	2A	3405	1/1	0.97	0.27	43,43,43,43	0
56	MG	1A	3904	1/1	0.97	0.11	38,38,38,38	0
56	MG	1A	3700	1/1	0.97	0.12	33,33,33,33	0
56	MG	1A	3380	1/1	0.97	0.06	43,43,43,43	0
56	MG	1A	3498	1/1	0.97	0.25	24,24,24,24	0
56	MG	2A	3410	1/1	0.97	0.26	26,26,26,26	0
56	MG	1a	1636	1/1	0.97	0.08	74,74,74,74	0
56	MG	2A	3302	1/1	0.97	0.19	32,32,32,32	0
56	MG	1A	3160	1/1	0.97	0.16	25,25,25,25	0
56	MG	1A	3115	1/1	0.97	0.04	42,42,42,42	0
56	MG	1N	203	1/1	0.97	0.04	37,37,37,37	0
56	MG	1A	3910	1/1	0.97	0.04	48,48,48,48	0
56	MG	1A	3705	1/1	0.97	0.14	58,58,58,58	0
56	MG	1A	3779	1/1	0.97	0.04	39,39,39,39	0
56	MG	1A	3636	1/1	0.97	0.04	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3707	1/1	0.97	0.08	32,32,32,32	0
56	MG	1A	3067	1/1	0.97	0.05	35,35,35,35	0
56	MG	2A	3422	1/1	0.97	0.18	36,36,36,36	0
56	MG	2A	3312	1/1	0.97	0.34	32,32,32,32	0
56	MG	1A	3542	1/1	0.97	0.05	68,68,68,68	0
56	MG	1A	3917	1/1	0.97	0.11	53,53,53,53	0
56	MG	1A	3502	1/1	0.97	0.18	23,23,23,23	0
56	MG	2a	1629	1/1	0.97	0.06	69,69,69,69	0
56	MG	1A	3363	1/1	0.97	0.06	72,72,72,72	0
56	MG	1A	3439	1/1	0.97	0.22	48,48,48,48	0
56	MG	1A	3144	1/1	0.97	0.22	44,44,44,44	0
56	MG	2A	3028	1/1	0.97	0.05	53,53,53,53	0
56	MG	2A	3219	1/1	0.97	0.12	67,67,67,67	0
56	MG	1A	3643	1/1	0.97	0.09	40,40,40,40	0
56	MG	1A	3316	1/1	0.97	0.10	47,47,47,47	0
56	MG	1A	3855	1/1	0.97	0.10	67,67,67,67	0
56	MG	1A	3413	1/1	0.97	0.26	28,28,28,28	0
56	MG	2a	1639	1/1	0.97	0.04	42,42,42,42	0
56	MG	1A	3717	1/1	0.97	0.09	41,41,41,41	0
56	MG	1a	1658	1/1	0.97	0.13	35,35,35,35	0
56	MG	1W	203	1/1	0.97	0.12	46,46,46,46	0
56	MG	2A	3439	1/1	0.97	0.12	52,52,52,52	0
56	MG	1A	3509	1/1	0.97	0.07	40,40,40,40	0
56	MG	1a	1824	1/1	0.97	0.04	57,57,57,57	0
56	MG	1A	3387	1/1	0.97	0.04	49,49,49,49	0
56	MG	10	101	1/1	0.97	0.05	47,47,47,47	0
56	MG	1A	3332	1/1	0.97	0.06	53,53,53,53	0
56	MG	2A	3041	1/1	0.97	0.04	70,70,70,70	0
56	MG	2A	3337	1/1	0.97	0.11	52,52,52,52	0
56	MG	1A	3152	1/1	0.97	0.29	28,28,28,28	0
56	MG	1A	3651	1/1	0.97	0.20	58,58,58,58	0
56	MG	1A	3350	1/1	0.97	0.20	49,49,49,49	0
56	MG	1a	1831	1/1	0.97	0.12	43,43,43,43	0
56	MG	1a	1668	1/1	0.97	0.13	64,64,64,64	0
56	MG	2A	3559	1/1	0.97	0.19	39,39,39,39	0
56	MG	1e	201	1/1	0.97	0.05	46,46,46,46	0
56	MG	2A	3239	1/1	0.97	0.18	39,39,39,39	0
56	MG	2A	3345	1/1	0.97	0.28	40,40,40,40	0
56	MG	1A	3419	1/1	0.97	0.23	35,35,35,35	0
56	MG	1A	3448	1/1	0.97	0.11	40,40,40,40	0
56	MG	1A	3210	1/1	0.97	0.23	49,49,49,49	0
56	MG	2A	3146	1/1	0.97	0.18	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3567	1/1	0.97	0.11	62,62,62,62	0
56	MG	2a	1666	1/1	0.97	0.04	74,74,74,74	0
56	MG	2A	3244	1/1	0.97	0.17	34,34,34,34	0
56	MG	2a	1905	1/1	0.97	0.04	63,63,63,63	0
56	MG	2a	1906	1/1	0.97	0.08	96,96,96,96	0
56	MG	1A	3153	1/1	0.97	0.25	23,23,23,23	0
56	MG	1A	3371	1/1	0.97	0.20	23,23,23,23	0
56	MG	1f	202	1/1	0.97	0.06	77,77,77,77	0
56	MG	2a	1790	1/1	0.97	0.15	39,39,39,39	0
56	MG	1A	3423	1/1	0.97	0.13	28,28,28,28	0
56	MG	1a	1676	1/1	0.97	0.13	58,58,58,58	0
56	MG	1A	3734	1/1	0.97	0.12	40,40,40,40	0
56	MG	1A	3602	1/1	0.97	0.08	31,31,31,31	0
56	MG	1A	3604	1/1	0.97	0.11	58,58,58,58	0
56	MG	1A	3605	1/1	0.97	0.05	52,52,52,52	0
56	MG	1A	3055	1/1	0.97	0.17	44,44,44,44	0
56	MG	1A	3607	1/1	0.97	0.06	50,50,50,50	0
56	MG	1A	3667	1/1	0.97	0.05	24,24,24,24	0
56	MG	1A	3670	1/1	0.97	0.11	47,47,47,47	0
56	MG	1A	3673	1/1	0.97	0.06	27,27,27,27	0
56	MG	1A	3674	1/1	0.97	0.05	26,26,26,26	0
56	MG	1A	3608	1/1	0.97	0.10	38,38,38,38	0
56	MG	2A	3068	1/1	0.97	0.29	59,59,59,59	0
56	MG	1A	3373	1/1	0.97	0.17	27,27,27,27	0
56	MG	1A	3750	1/1	0.97	0.12	42,42,42,42	0
56	MG	1A	3455	1/1	0.97	0.23	42,42,42,42	0
56	MG	1B	221	1/1	0.97	0.29	43,43,43,43	0
56	MG	2B	215	1/1	0.97	0.11	62,62,62,62	0
56	MG	1A	3156	1/1	0.97	0.08	59,59,59,59	0
56	MG	1A	3488	1/1	0.97	0.05	37,37,37,37	0
56	MG	2A	3075	1/1	0.97	0.34	66,66,66,66	0
56	MG	2D	304	1/1	0.97	0.09	33,33,33,33	0
56	MG	1A	3052	1/1	0.97	0.05	36,36,36,36	0
56	MG	1A	3616	1/1	0.97	0.10	46,46,46,46	0
56	MG	1A	3757	1/1	0.97	0.09	59,59,59,59	0
56	MG	1A	3255	1/1	0.97	0.05	50,50,50,50	0
56	MG	1A	3491	1/1	0.97	0.15	41,41,41,41	0
56	MG	1A	3761	1/1	0.97	0.11	61,61,61,61	0
56	MG	1A	3070	1/1	0.97	0.10	39,39,39,39	0
56	MG	1A	3689	1/1	0.97	0.08	46,46,46,46	0
58	ZN	24	501	1/1	0.97	0.10	138,138,138,138	0
56	MG	1A	3310	1/1	0.97	0.16	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3011	1/1	0.98	0.04	42,42,42,42	0
56	MG	1A	3829	1/1	0.98	0.09	51,51,51,51	0
56	MG	2a	1645	1/1	0.98	0.04	75,75,75,75	0
56	MG	2A	3318	1/1	0.98	0.27	36,36,36,36	0
56	MG	1A	3143	1/1	0.98	0.12	26,26,26,26	0
56	MG	1A	3543	1/1	0.98	0.08	61,61,61,61	0
56	MG	1a	1675	1/1	0.98	0.28	41,41,41,41	0
56	MG	1A	3630	1/1	0.98	0.08	32,32,32,32	0
56	MG	1A	3663	1/1	0.98	0.05	25,25,25,25	0
56	MG	1A	3396	1/1	0.98	0.11	19,19,19,19	0
56	MG	1A	3753	1/1	0.98	0.07	29,29,29,29	0
56	MG	2a	1713	1/1	0.98	0.06	69,69,69,69	0
56	MG	2A	3271	1/1	0.98	0.08	45,45,45,45	0
56	MG	1A	3022	1/1	0.98	0.04	59,59,59,59	0
56	MG	1A	3414	1/1	0.98	0.30	46,46,46,46	0
56	MG	1A	3212	1/1	0.98	0.11	56,56,56,56	0
56	MG	1A	3083	1/1	0.98	0.18	40,40,40,40	0
56	MG	1A	3009	1/1	0.98	0.03	70,70,70,70	0
56	MG	1l	203	1/1	0.98	0.05	60,60,60,60	0
56	MG	1D	301	1/1	0.98	0.14	26,26,26,26	0
56	MG	1A	3603	1/1	0.98	0.04	43,43,43,43	0
56	MG	1A	3505	1/1	0.98	0.10	27,27,27,27	0
56	MG	1A	3225	1/1	0.98	0.05	56,56,56,56	0
56	MG	1A	3528	1/1	0.98	0.05	49,49,49,49	0
56	MG	1A	3178	1/1	0.98	0.09	55,55,55,55	0
56	MG	1A	3530	1/1	0.98	0.05	41,41,41,41	0
56	MG	1A	3929	1/1	0.98	0.07	53,53,53,53	0
56	MG	1A	3262	1/1	0.98	0.08	45,45,45,45	0
56	MG	1A	3684	1/1	0.98	0.05	47,47,47,47	0
56	MG	1A	3128	1/1	0.98	0.06	35,35,35,35	0
56	MG	1A	3510	1/1	0.98	0.32	53,53,53,53	0
56	MG	1A	3250	1/1	0.98	0.10	57,57,57,57	0
56	MG	2A	3404	1/1	0.98	0.13	37,37,37,37	0
56	MG	1A	3647	1/1	0.98	0.06	63,63,63,63	0
56	MG	2A	3135	1/1	0.98	0.15	30,30,30,30	0
56	MG	1A	3155	1/1	0.98	0.24	40,40,40,40	0
56	MG	1A	3729	1/1	0.98	0.06	47,47,47,47	0
56	MG	1A	3407	1/1	0.98	0.12	39,39,39,39	0
56	MG	1A	3775	1/1	0.98	0.04	67,67,67,67	0
56	MG	1A	3692	1/1	0.98	0.06	19,19,19,19	0
56	MG	1B	207	1/1	0.98	0.03	54,54,54,54	0
56	MG	1A	3476	1/1	0.98	0.25	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1657	1/1	0.98	0.06	54,54,54,54	0
56	MG	1A	3618	1/1	0.98	0.06	31,31,31,31	0
56	MG	2A	3093	1/1	0.98	0.10	42,42,42,42	0
56	MG	1A	3106	1/1	0.98	0.06	42,42,42,42	0
56	MG	2A	3360	1/1	0.98	0.14	40,40,40,40	0
56	MG	1A	3696	1/1	0.98	0.07	44,44,44,44	0
56	MG	1A	3589	1/1	0.98	0.04	54,54,54,54	0
56	MG	1A	3621	1/1	0.98	0.05	62,62,62,62	0
56	MG	1Q	202	1/1	0.98	0.06	18,18,18,18	0
56	MG	1A	3253	1/1	0.98	0.06	49,49,49,49	0
56	MG	1A	3740	1/1	0.98	0.04	54,54,54,54	0
56	MG	1A	3656	1/1	0.98	0.05	54,54,54,54	0
56	MG	2A	3051	1/1	0.98	0.04	42,42,42,42	0
56	MG	1R	203	1/1	0.98	0.06	59,59,59,59	0
56	MG	2A	3313	1/1	0.98	0.27	36,36,36,36	0
56	MG	1A	3517	1/1	0.98	0.29	19,19,19,19	0
56	MG	2F	302	1/1	0.98	0.07	60,60,60,60	0
58	ZN	29	501	1/1	0.98	0.05	92,92,92,92	0
56	MG	1A	3566	1/1	0.98	0.10	70,70,70,70	0
56	MG	2a	1785	1/1	0.99	0.03	71,71,71,71	0
56	MG	1a	1805	1/1	0.99	0.10	41,41,41,41	0
56	MG	1A	3668	1/1	0.99	0.07	31,31,31,31	0
56	MG	1A	3683	1/1	0.99	0.03	32,32,32,32	0
56	MG	1E	302	1/1	0.99	0.26	22,22,22,22	0
56	MG	1a	1781	1/1	0.99	0.04	53,53,53,53	0
56	MG	1A	3669	1/1	0.99	0.03	21,21,21,21	0
56	MG	1A	3107	1/1	0.99	0.03	34,34,34,34	0
56	MG	1A	3733	1/1	0.99	0.03	21,21,21,21	0
56	MG	1A	3931	1/1	0.99	0.10	36,36,36,36	0
56	MG	1A	3671	1/1	0.99	0.06	45,45,45,45	0
56	MG	2A	3334	1/1	0.99	0.06	44,44,44,44	0
56	MG	1A	3687	1/1	0.99	0.03	37,37,37,37	0
56	MG	1A	3672	1/1	0.99	0.06	34,34,34,34	0
56	MG	1A	3120	1/1	0.99	0.06	43,43,43,43	0
56	MG	1A	3629	1/1	0.99	0.03	25,25,25,25	0
56	MG	1A	3760	1/1	0.99	0.10	46,46,46,46	0
56	MG	1A	3721	1/1	0.99	0.04	35,35,35,35	0
56	MG	1A	3559	1/1	0.99	0.04	41,41,41,41	0
56	MG	2A	3400	1/1	0.99	0.34	28,28,28,28	0
56	MG	1A	3723	1/1	0.99	0.03	33,33,33,33	0
56	MG	1B	229	1/1	0.99	0.07	33,33,33,33	0
56	MG	1A	3610	1/1	0.99	0.06	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3104	1/1	0.99	0.09	39,39,39,39	0
56	MG	1a	1667	1/1	0.99	0.10	60,60,60,60	0
56	MG	1A	3744	1/1	0.99	0.03	43,43,43,43	0
56	MG	1A	3745	1/1	0.99	0.05	47,47,47,47	0
56	MG	1A	3746	1/1	0.99	0.07	37,37,37,37	0
56	MG	1A	3625	1/1	0.99	0.04	47,47,47,47	0
58	ZN	1Y	501	1/1	0.99	0.02	81,81,81,81	0
58	ZN	14	501	1/1	0.99	0.04	114,114,114,114	0
58	ZN	16	501	1/1	0.99	0.05	58,58,58,58	0
58	ZN	1n	501	1/1	0.99	0.02	63,63,63,63	0
58	ZN	2Y	202	1/1	0.99	0.02	109,109,109,109	0
56	MG	1A	3666	1/1	0.99	0.06	36,36,36,36	0
58	ZN	25	102	1/1	0.99	0.06	74,74,74,74	0
56	MG	1A	3601	1/1	0.99	0.15	36,36,36,36	0
56	MG	2a	1784	1/1	0.99	0.03	77,77,77,77	0
59	SF4	1d	303	8/8	0.99	0.05	64,71,77,78	0
59	SF4	2d	302	8/8	0.99	0.03	71,89,99,107	0
58	ZN	26	501	1/1	1.00	0.02	73,73,73,73	0
56	MG	1A	3675	1/1	1.00	0.02	33,33,33,33	0
58	ZN	15	104	1/1	1.00	0.11	80,80,80,80	0
56	MG	1A	3612	1/1	1.00	0.03	35,35,35,35	0
58	ZN	19	104	1/1	1.00	0.05	59,59,59,59	0

6.5 Other polymers [i](#)

There are no such residues in this entry.