



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 7, 2026 – 03:14 AM UTC

PDB ID : 9B00 / pdb_00009b00
Title : Crystal structure of the wild-type *Thermus thermophilus* 70S ribosome in complex with berberine analog of chloramphenicol CAM-BER, mRNA, deacylated A- and E-site tRNA^{phe}, and deacylated P-site tRNA^{met} at 2.80Å resolution
Authors : Batool, Z.; Pavlova, J.A.; Paranjpe, M.N.; Tereshchenkov, A.G.; Lukianov, D.A.; Osterman, I.A.; Bogdanov, A.A.; Sumbatyan, N.V.; Polikanov, Y.S.
Deposited on : 2024-03-11
Resolution : 2.80 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](#) ①) were used in the production of this report:

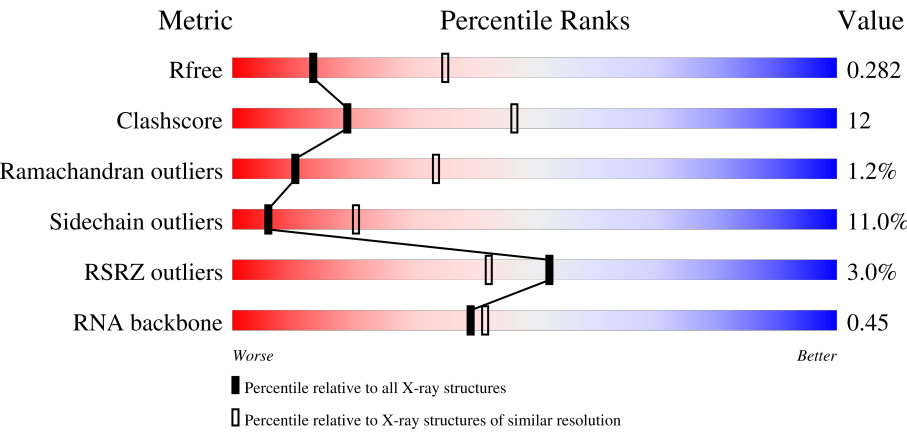
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 2.80 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.



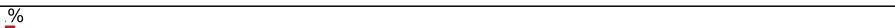
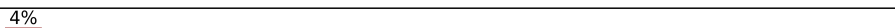
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R _{free}	180053	3866 (2.80-2.80)
Clashscore	190562	4276 (2.80-2.80)
Ramachandran outliers	187476	4196 (2.80-2.80)
Sidechain outliers	187428	4198 (2.80-2.80)
RSRZ outliers	180081	3869 (2.80-2.80)
RNA backbone	3983	1114 (3.00-2.60)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments 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	2% 54% 36% 8% .
1	2A	2915	% 47% 41% 8% .
2	1B	121	60% 37% ..
2	2B	121	% 31% 55% 14% .

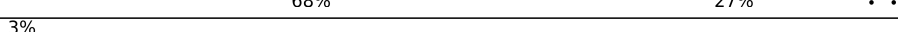
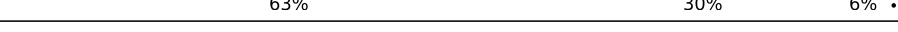
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Mol	Chain	Length	Quality of chain
3	1D	276	
3	2D	276	
4	1E	206	
4	2E	206	
5	1F	210	
5	2F	210	
6	1G	182	
6	2G	182	
7	1H	180	
7	2H	180	
8	1I	148	
8	2I	148	
9	1N	140	
9	2N	140	
10	1O	122	
10	2O	122	
11	1P	150	
11	2P	150	
12	1Q	141	
12	2Q	141	
13	1R	118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

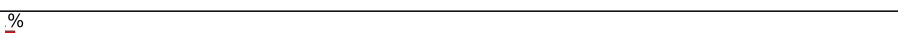
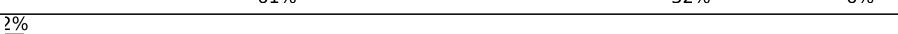
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Mol	Chain	Length	Quality of chain
15	2T	146	
16	1U	118	
16	2U	118	
17	1V	101	
17	2V	101	
18	1W	113	
18	2W	113	
19	1X	96	
19	2X	96	
20	1Y	110	
20	2Y	110	
21	1Z	206	
21	2Z	206	
22	10	85	
22	20	85	
23	11	98	
23	21	98	
24	12	72	
24	22	72	
25	13	60	
25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

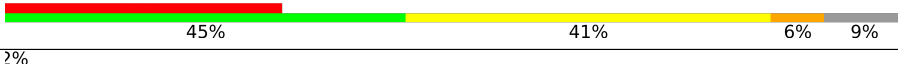
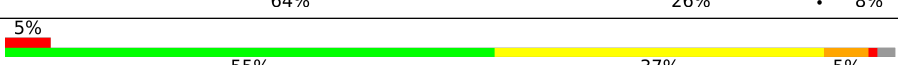
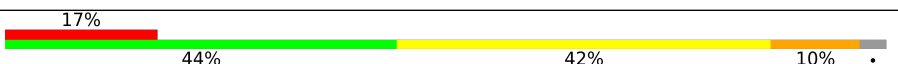
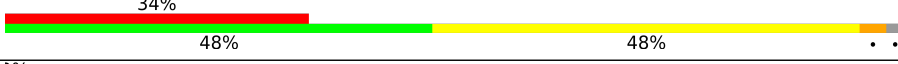
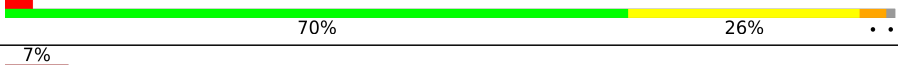
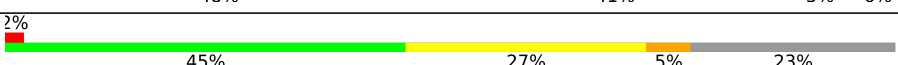
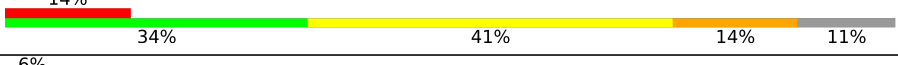
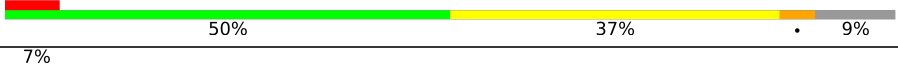
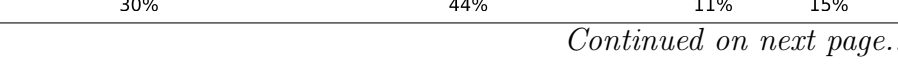
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Mol	Chain	Length	Quality of chain
28	16	54	
28	26	54	
29	17	49	
29	27	49	
30	18	65	
30	28	65	
31	19	37	
31	29	37	
32	1a	1521	
32	2a	1521	
33	1b	256	
33	2b	256	
34	1c	239	
34	2c	239	
35	1d	209	
35	2d	209	
36	1e	162	
36	2e	162	
37	1f	101	
37	2f	101	
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
56	MG	2v	102	-	-	-	X
56	MG	2v	103	-	-	-	X
60	SF4	1d	302	-	-	X	-
60	SF4	2d	302	-	-	X	-

2 Entry composition

There are 61 unique types of molecules in this entry. The entry contains 299897 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
			61852	27531	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	0
			1587	1011	298	276	2			
5	2F	203	Total	C	N	O	S	0	0	0
			1583	1009	297	275	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 MF-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 Deacylated tRNAphe.

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

- Molecule 55 is a RNA chain called P-site Deacylated tRNAmet.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
55	1x	76	Total	C	N	O	P	S	0	0	0
			1625	725	294	529	76	1			
55	2x	76	Total	C	N	O	P	S	0	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	1083	Total	Mg	0	0
			1083	1083		
56	1B	38	Total	Mg	0	0
			38	38		
56	1D	11	Total	Mg	0	0
			11	11		
56	1E	12	Total	Mg	0	0
			12	12		
56	1F	13	Total	Mg	0	0
			13	13		
56	1G	4	Total	Mg	0	0
			4	4		
56	1H	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1N	5	Total 5	Mg 5	0	0
56	1O	3	Total 3	Mg 3	0	0
56	1P	7	Total 7	Mg 7	0	0
56	1Q	6	Total 6	Mg 6	0	0
56	1R	5	Total 5	Mg 5	0	0
56	1S	3	Total 3	Mg 3	0	0
56	1T	3	Total 3	Mg 3	0	0
56	1U	8	Total 8	Mg 8	0	0
56	1V	8	Total 8	Mg 8	0	0
56	1W	7	Total 7	Mg 7	0	0
56	1X	6	Total 6	Mg 6	0	0
56	1Y	3	Total 3	Mg 3	0	0
56	1Z	3	Total 3	Mg 3	0	0
56	10	7	Total 7	Mg 7	0	0
56	11	6	Total 6	Mg 6	0	0
56	12	1	Total 1	Mg 1	0	0
56	13	4	Total 4	Mg 4	0	0
56	14	1	Total 1	Mg 1	0	0
56	15	5	Total 5	Mg 5	0	0
56	16	2	Total 2	Mg 2	0	0
56	17	6	Total 6	Mg 6	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	18	3	Total 3	Mg 3	0	0
56	19	2	Total 2	Mg 2	0	0
56	1a	226	Total 226	Mg 226	0	0
56	1b	1	Total 1	Mg 1	0	0
56	1d	1	Total 1	Mg 1	0	0
56	1e	1	Total 1	Mg 1	0	0
56	1f	2	Total 2	Mg 2	0	0
56	1k	1	Total 1	Mg 1	0	0
56	1l	2	Total 2	Mg 2	0	0
56	1m	1	Total 1	Mg 1	0	0
56	1n	2	Total 2	Mg 2	0	0
56	1t	1	Total 1	Mg 1	0	0
56	1w	7	Total 7	Mg 7	0	0
56	1x	12	Total 12	Mg 12	0	0
56	1y	1	Total 1	Mg 1	0	0
56	2A	849	Total 849	Mg 849	0	0
56	2B	20	Total 20	Mg 20	0	0
56	2D	5	Total 5	Mg 5	0	0
56	2E	7	Total 7	Mg 7	0	0
56	2F	7	Total 7	Mg 7	0	0
56	2G	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	2N	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	1	Total 1	Mg 1	0	0
56	2R	1	Total 1	Mg 1	0	0
56	2T	4	Total 4	Mg 4	0	0
56	2U	1	Total 1	Mg 1	0	0
56	2V	2	Total 2	Mg 2	0	0
56	2X	2	Total 2	Mg 2	0	0
56	2Y	1	Total 1	Mg 1	0	0
56	2Z	1	Total 1	Mg 1	0	0
56	20	2	Total 2	Mg 2	0	0
56	21	3	Total 3	Mg 3	0	0
56	23	2	Total 2	Mg 2	0	0
56	25	2	Total 2	Mg 2	0	0
56	27	4	Total 4	Mg 4	0	0
56	28	6	Total 6	Mg 6	0	0
56	2a	246	Total 246	Mg 246	0	0
56	2d	1	Total 1	Mg 1	0	0
56	2e	2	Total 2	Mg 2	0	0
56	2f	2	Total 2	Mg 2	0	0

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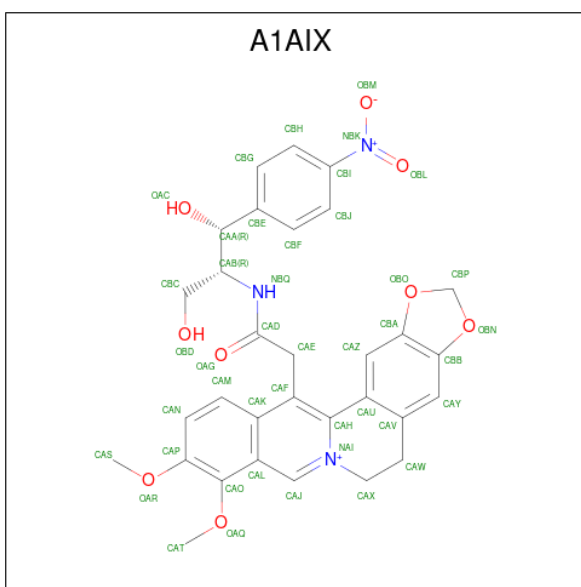
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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	2g	1	Total Mg 1 1	0	0
56	2j	1	Total Mg 1 1	0	0
56	2l	4	Total Mg 4 4	0	0
56	2q	3	Total Mg 3 3	0	0
56	2t	1	Total Mg 1 1	0	0
56	2v	3	Total Mg 3 3	0	0
56	2w	1	Total Mg 1 1	0	0
56	2x	6	Total Mg 6 6	0	0
56	2y	4	Total Mg 4 4	0	0

- Molecule 57 is POTASSIUM ION (CCD ID: K) (formula: K).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	1A	1	Total K 1 1	0	0
57	2A	1	Total K 1 1	0	0

- Molecule 58 is 13-(2-([(1R,2R)-1,3-dihydroxy-1-(4-nitrophenyl)propan-2-yl]amino)-2-oxoethyl)-9,10-dimethoxy-5,6-dihydro-2H-[1,3]dioxolo[4,5-g]isoquinolino[3,2-a]isoquinolin-7-ium (CCD ID: A1AIX) (formula: C₃₁H₃₀N₃O₉) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
58	1A	1	Total 43	C 31	N 3	O 9	0	0
58	2A	1	Total 43	C 31	N 3	O 9	0	0

- Molecule 59 is ZINC ION (CCD ID: ZN) (formula: Zn).

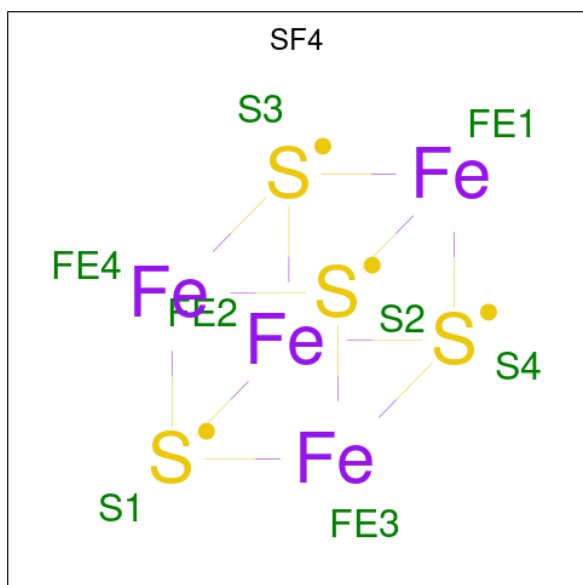
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	1Y	1	Total Zn 1 1	0	0
59	14	1	Total Zn 1 1	0	0
59	15	1	Total Zn 1 1	0	0
59	16	1	Total Zn 1 1	0	0
59	19	1	Total Zn 1 1	0	0
59	1n	1	Total Zn 1 1	0	0
59	2Y	1	Total Zn 1 1	0	0
59	24	1	Total Zn 1 1	0	0
59	25	1	Total Zn 1 1	0	0
59	26	1	Total Zn 1 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	29	1	Total	Zn	0	0
			1	1		
59	2n	1	Total	Zn	0	0
			1	1		

- Molecule 60 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
60	1d	1	Total	Fe	S	0	0
			8	4	4		
60	2d	1	Total	Fe	S	0	0
			8	4	4		

- Molecule 61 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	1A	1901	Total	O	0	0
			1901	1901		
61	1B	57	Total	O	0	0
			57	57		
61	1D	27	Total	O	0	0
			27	27		
61	1E	19	Total	O	0	0
			19	19		
61	1F	15	Total	O	0	0
			15	15		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	1G	3	Total 3	O 3	0	0
61	1N	3	Total 3	O 3	0	0
61	1O	4	Total 4	O 4	0	0
61	1P	21	Total 21	O 21	0	0
61	1Q	8	Total 8	O 8	0	0
61	1R	12	Total 12	O 12	0	0
61	1S	3	Total 3	O 3	0	0
61	1T	7	Total 7	O 7	0	0
61	1U	11	Total 11	O 11	0	0
61	1V	5	Total 5	O 5	0	0
61	1W	10	Total 10	O 10	0	0
61	1X	4	Total 4	O 4	0	0
61	1Y	2	Total 2	O 2	0	0
61	1Z	1	Total 1	O 1	0	0
61	10	9	Total 9	O 9	0	0
61	11	6	Total 6	O 6	0	0
61	12	3	Total 3	O 3	0	0
61	13	4	Total 4	O 4	0	0
61	15	6	Total 6	O 6	0	0
61	16	2	Total 2	O 2	0	0
61	17	10	Total 10	O 10	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	18	8	Total O 8 8	0	0
61	1a	364	Total O 364 364	0	0
61	1b	1	Total O 1 1	0	0
61	1d	1	Total O 1 1	0	0
61	1e	2	Total O 2 2	0	0
61	1i	1	Total O 1 1	0	0
61	1l	7	Total O 7 7	0	0
61	1o	1	Total O 1 1	0	0
61	1q	2	Total O 2 2	0	0
61	1u	1	Total O 1 1	0	0
61	1v	5	Total O 5 5	0	0
61	1w	7	Total O 7 7	0	0
61	1x	10	Total O 10 10	0	0
61	1y	1	Total O 1 1	0	0
61	2A	1097	Total O 1097 1097	0	0
61	2B	22	Total O 22 22	0	0
61	2D	19	Total O 19 19	0	0
61	2E	13	Total O 13 13	0	0
61	2F	13	Total O 13 13	0	0
61	2I	1	Total O 1 1	0	0
61	2N	1	Total O 1 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	2O	2	Total 2	O 2	0	0
61	2P	11	Total 11	O 11	0	0
61	2Q	1	Total 1	O 1	0	0
61	2R	5	Total 5	O 5	0	0
61	2T	3	Total 3	O 3	0	0
61	2U	2	Total 2	O 2	0	0
61	2V	1	Total 1	O 1	0	0
61	2W	1	Total 1	O 1	0	0
61	2X	2	Total 2	O 2	0	0
61	2Y	2	Total 2	O 2	0	0
61	2Z	1	Total 1	O 1	0	0
61	20	6	Total 6	O 6	0	0
61	21	7	Total 7	O 7	0	0
61	23	1	Total 1	O 1	0	0
61	26	1	Total 1	O 1	0	0
61	27	2	Total 2	O 2	0	0
61	28	4	Total 4	O 4	0	0
61	29	1	Total 1	O 1	0	0
61	2a	260	Total 260	O 260	0	0
61	2c	1	Total 1	O 1	0	0
61	2d	3	Total 3	O 3	0	0

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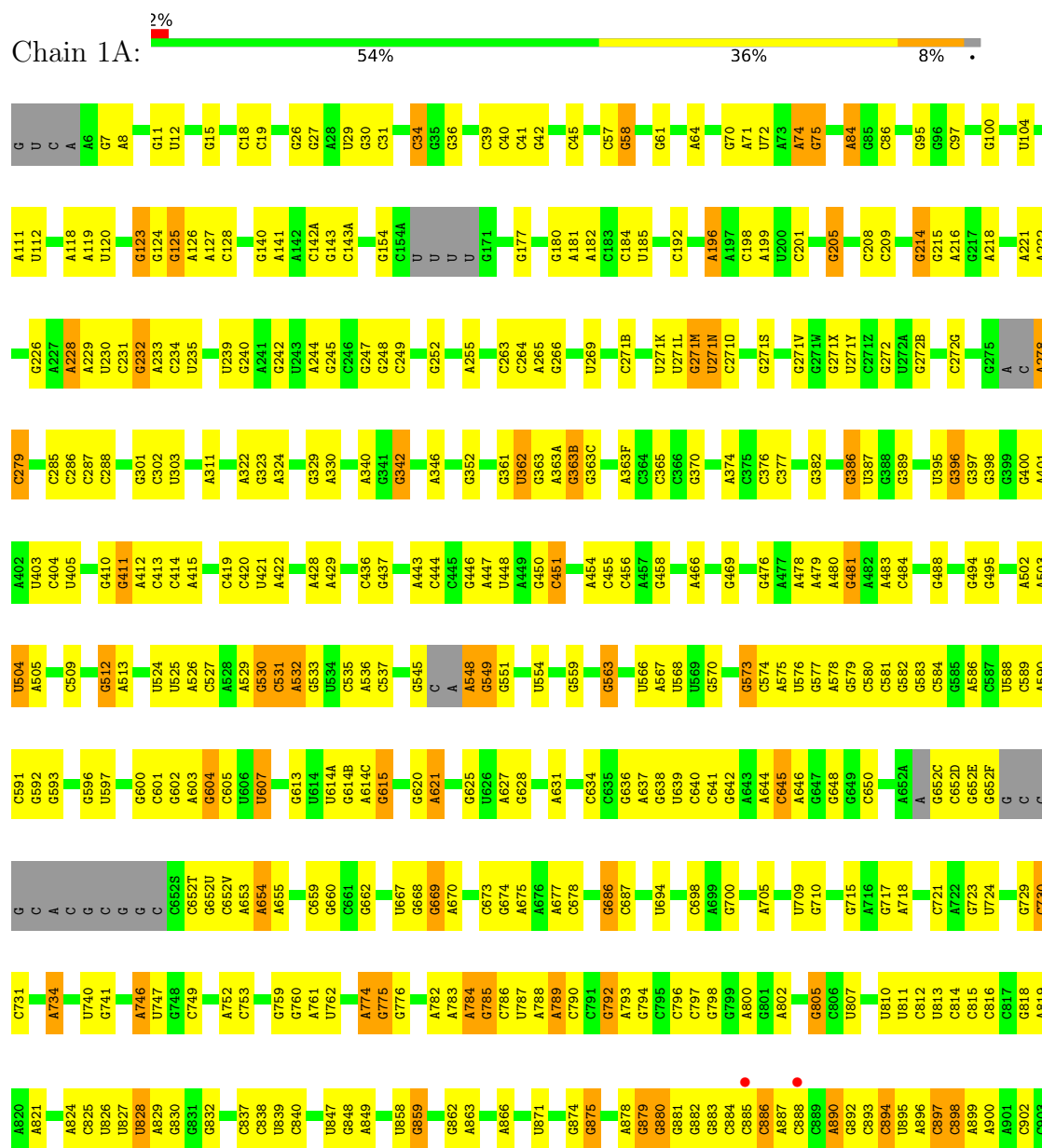
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	2e	2	Total 2	O 2	0	0
61	2j	2	Total 2	O 2	0	0
61	2l	2	Total 2	O 2	0	0
61	2q	1	Total 1	O 1	0	0
61	2r	2	Total 2	O 2	0	0
61	2t	2	Total 2	O 2	0	0
61	2v	2	Total 2	O 2	0	0
61	2w	2	Total 2	O 2	0	0
61	2x	3	Total 3	O 3	0	0
61	2y	2	Total 2	O 2	0	0

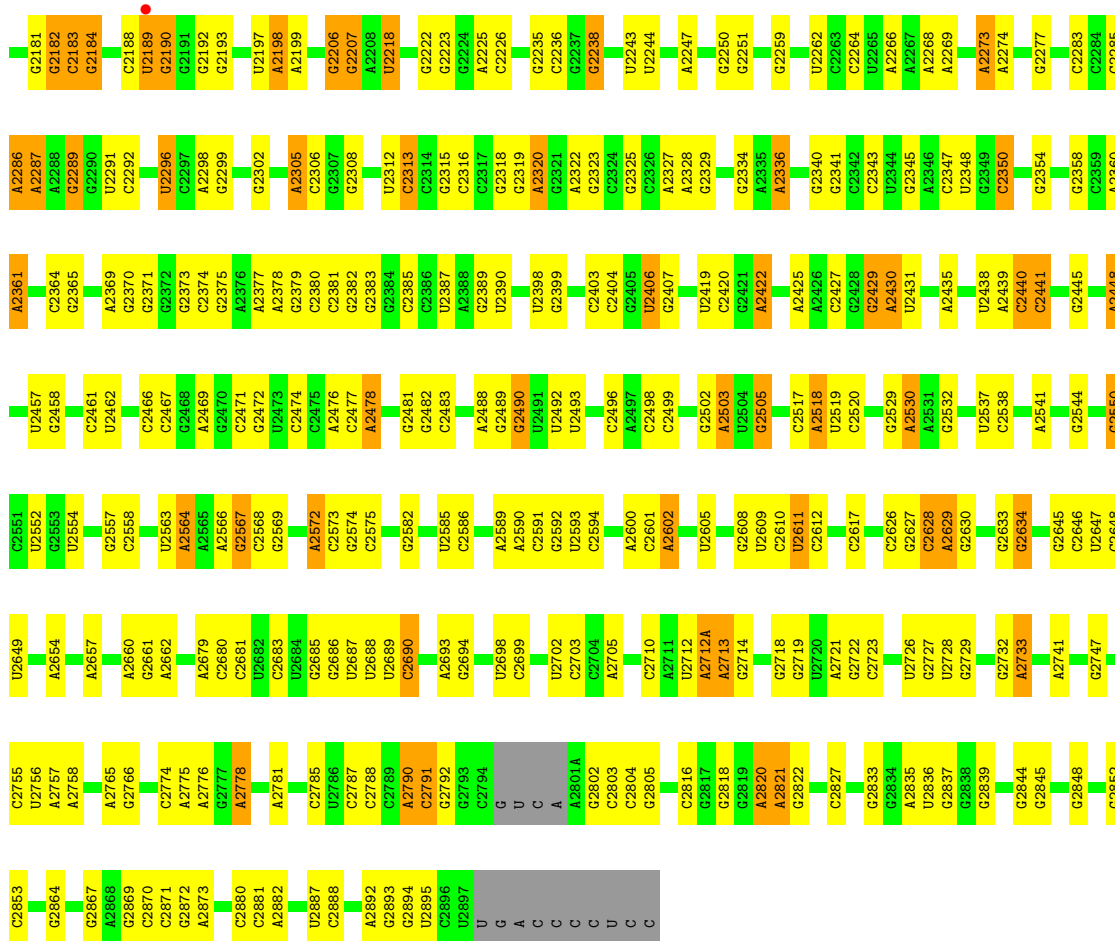
3 Residue-property plots [i](#)

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



U2118	C2043	A1952	G1858	G1774	A1664	A1566	G1473	G1371	A1268	G1154	G1079	G1002	C904
A2119	C2044	A1953	G1859	U1775	A1665	A1567	C1474	U1372	A1269	A1155	C1080	G1003	U905
G2120	G2049	U1954	G1865	G1776	G1666	A1568	G1475	A1373	C1270	G1164	U1081	A1010	G906
U2121	C2050	U1955	C1866	U1777	G1667	A1569	G1482	C1374	A1271	U1165	U1082	G1011	U907
G2123	A2051	C1962	A1876	U1778	A1668	A1570	G1484	C1375	A1272	C1166	A1084	U1012	A910
G2124	G2052	U1963	A1877	U1779	A1669	A1571	G1484	C1376	A1273	G1171	A1085	C1013	A911
C2125	G2053	G1964	A1878	A1780	C1670	A1572	A1480	G1377	A1274	G1171	A1086	A1020	G916
A2126	A2054	C1879	C1782	C1781	U1671	U1578	C1493	G1381	G1279	G1173	A1087	G1021	A918
G2127	C2055	G1882	A1783	A1784	G1674	A1579	C1494	A1384	G1280	U1175	A1088	G1022	A918
C2128	G2056	C1883	A1785	C1675	A1680	A1580	A1495	G1385	G1281	U1176	A1089	U1025	U922
A2057	A2057	A1883	A1786	A1676	G1682	A1581	U1497	C1386	U1282	A1177	G1091	U1026	C923
C2058	A2058	A1884	A1787	U1680	C1683	G1581	U1503	G1387	G1283	C1178	C1092	A1027	A926
U2130	A2059	C1886	U1789	U1681	A1586	C1587	G1500	G1388	A1286	C1179	U1094	U1033	G932
G2131	A2060	C1887	C1790	G1681	A1587	C1588	U1503	A1393	U1287	G1183	A1095	U1034	G938
U2132	G2061	A1888	A1791	G1682	A1588	C1589	C1504	A1394	U1288	G1184	A1096	C1038	A945
A2134	A2062	A1889	A1792	C1683	A1589	U1590	C1505	A1395	U1289	G1185	U1097	G1039	A946
C2136	A1981	A1890	C1684	C1684	U1591	C1592	A1507	U1396	C1293	G1186	A1098	C1040	G947
U2137	A1986	U1898	U1794	U1688	G1591	C1593	A1508	C1399	C1297	U1188	G1099	C1041	G947
C2138	U2068	G1899	C1795	U1692	G1592	G1594	A1509	U1405	U1300	C1200	A1103	C1042	G948
G2069	G2069	U1900	C1797	U1693	G1594	G1595	A1509A	U1406	A1301	C1201	C1104	C1043	G952
G2070	A2071	G1903	U1798	C1694	G1595	C1598	A1509B	C1407	A1302	U1205	U1105	G1044	A953
C2072	U1993	G1906	C1800	G1695	C1598	A1503	U1519	G1416	G1310	A1220	A1110	A1045	G954
C2073	C1996	U1911	A1802	G1696	A1503	C1507	U1519	G1417	G1315	A1226	A1111	G1047	G955
U2074	G1997	A1912	A1803	U1700	A1508	A1610	A1528	U1420	C1320	G1229	G1112	G1051	U959
U2075	U2076	A1913	A1804	A1701	A1509	A1611	A1528	G1421	G1324	G1230	U1113	C1052	A960
G2147	A2001	A1914	U1805	G1702	A1508	C1617	C1530	G1428	G1324	G1231	G1115	A1054	C961
C2148	G2002	C1915	U1810	G1703	A1508	G1627	C1532	G1429	U1328	G1236	G1116	G1055	G962
G2149	A2005	A1916	G1811	U1706	A1508	U1629	U1537	G1430	G1332	G1237	G1117	G1056	U963
U2150	G2010	U1917	G1812	U1707	A1508	G1629	U1537	U1431	G1337	G1239	A1057	A1057	C971
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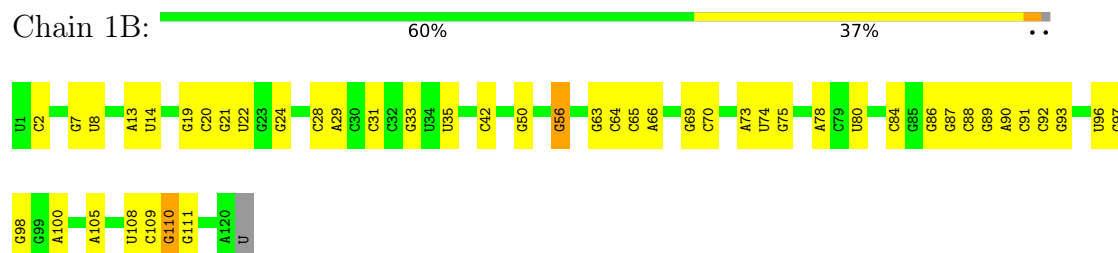




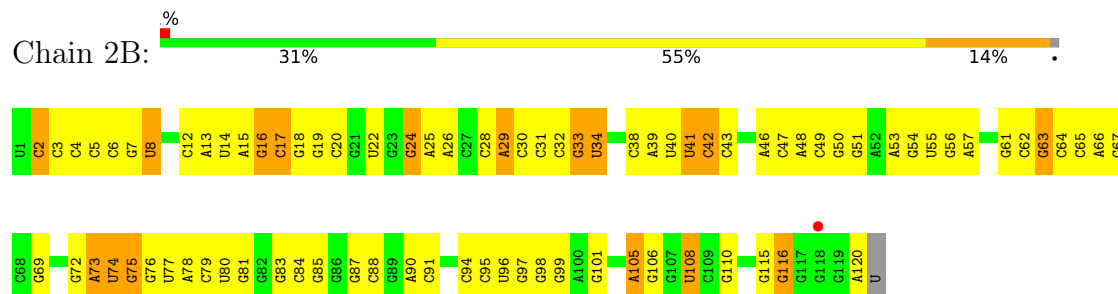
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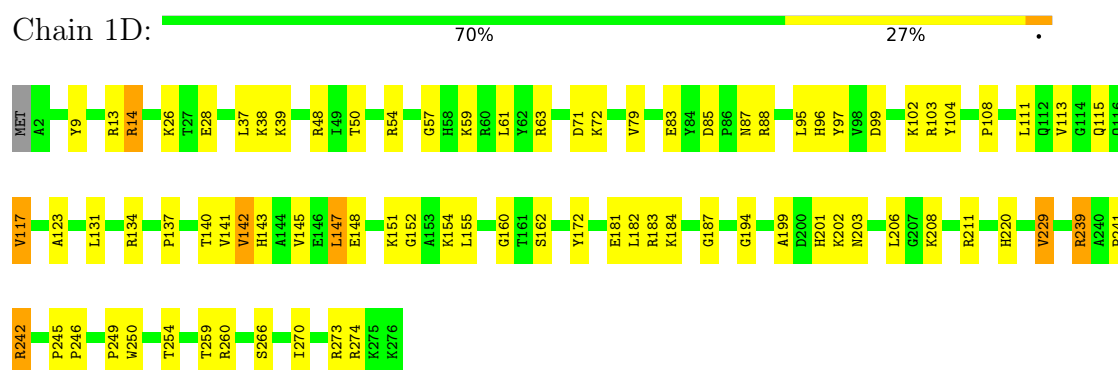
• Molecule 2: 5S Ribosomal RNA



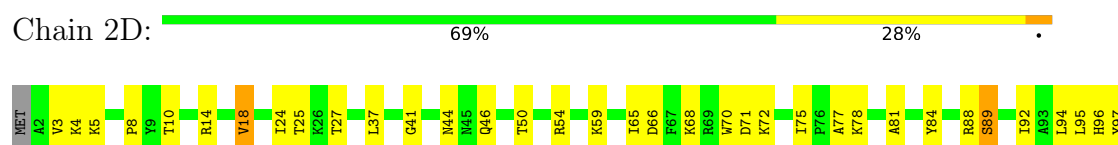
• Molecule 2: 5S Ribosomal RNA

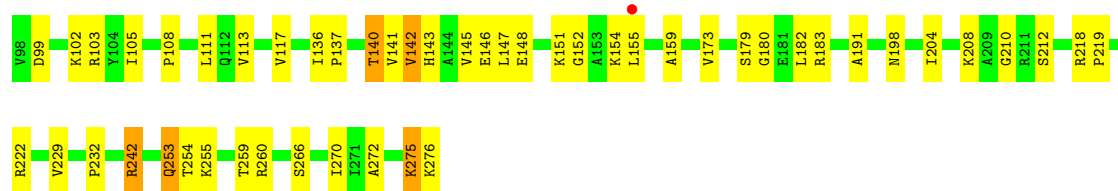


• Molecule 3: 50S ribosomal protein L2



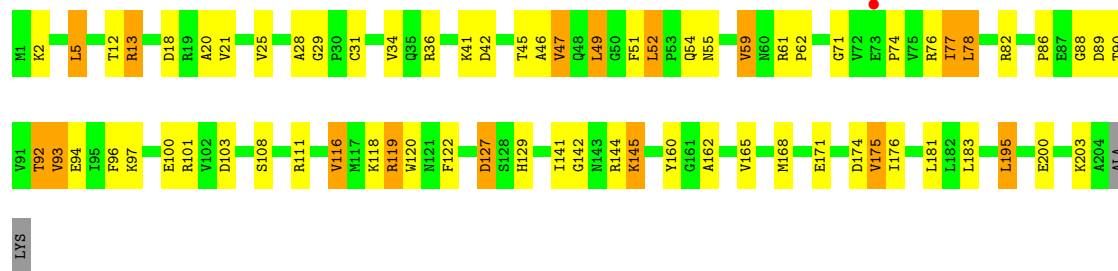
• Molecule 3: 50S ribosomal protein L2





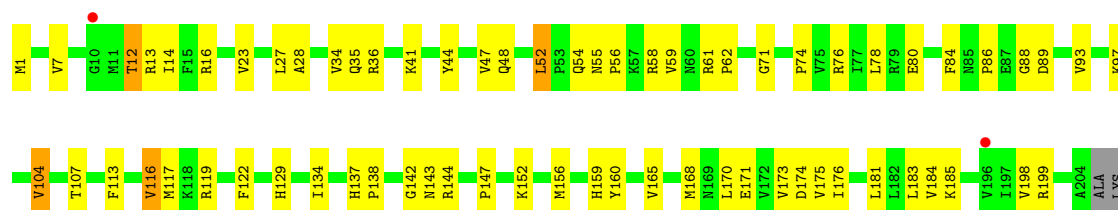
• Molecule 4: 50S ribosomal protein L3

Chain 1E: 65% 26% 8% .



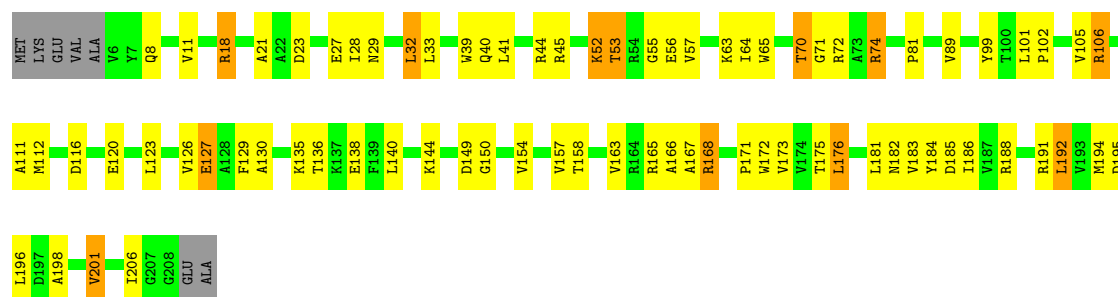
• Molecule 4: 50S ribosomal protein L3

Chain 2E: 66% 31% . .



• Molecule 5: 50S ribosomal protein L4

Chain 1F: 60% 31% 6% .



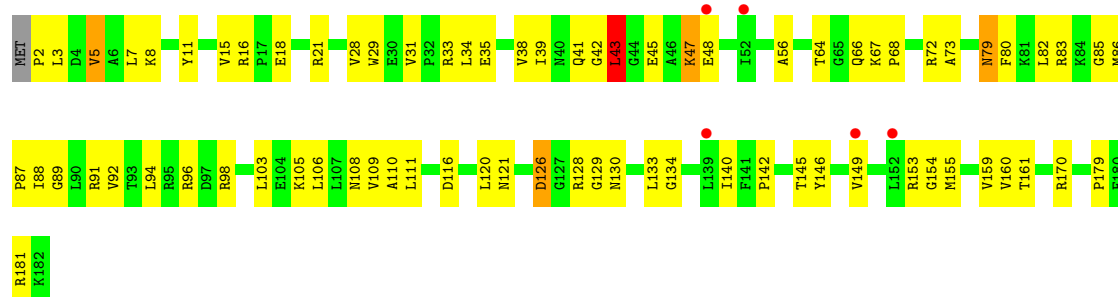
• Molecule 5: 50S ribosomal protein L4

Chain 2F: 59% 33% . .



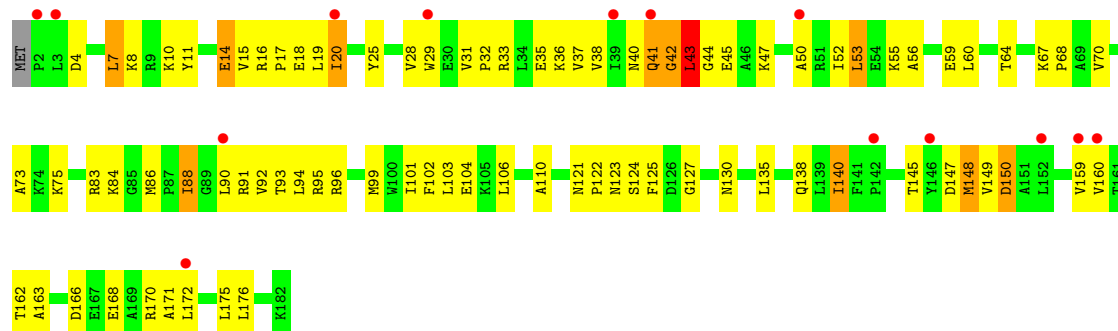
• Molecule 6: 50S ribosomal protein L5

Chain 1G: 3% 58% 38%



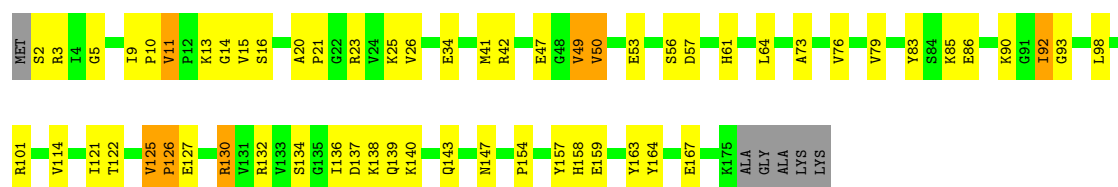
• Molecule 6: 50S ribosomal protein L5

Chain 2G: 8% 52% 41% 5%



• Molecule 7: 50S ribosomal protein L6

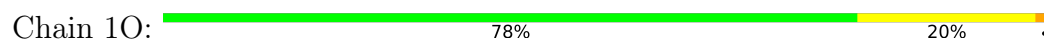
Chain 1H: 63% 29%



• Molecule 7: 50S ribosomal protein L6



- Molecule 10: 50S ribosomal protein L14



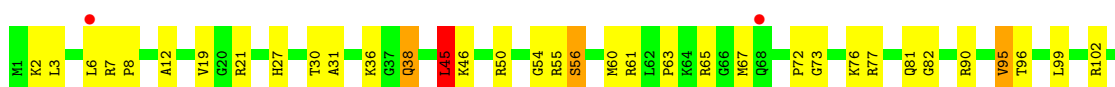
- Molecule 10: 50S ribosomal protein L14



- Molecule 11: 50S ribosomal protein L15



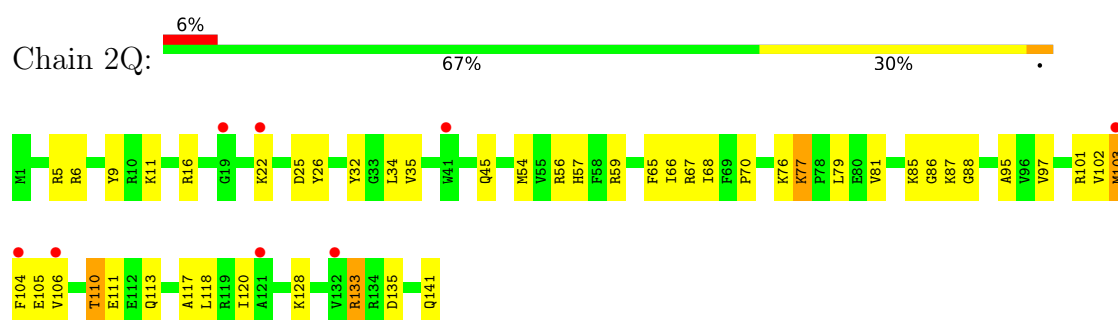
- Molecule 11: 50S ribosomal protein L15



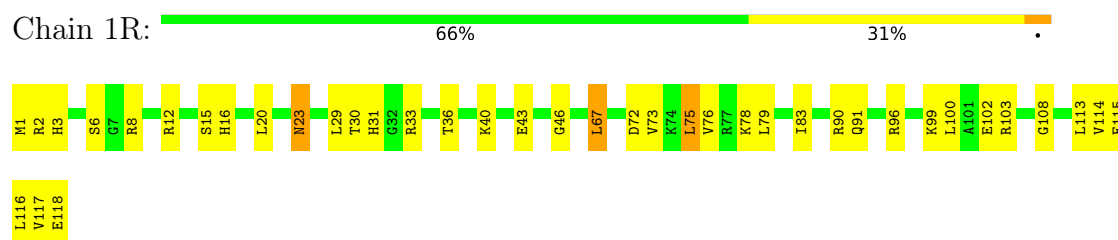
- Molecule 12: 50S ribosomal protein L16



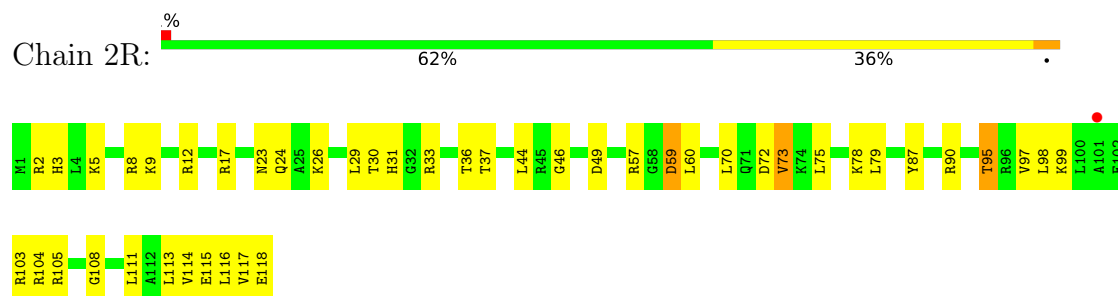
- Molecule 12: 50S ribosomal protein L16



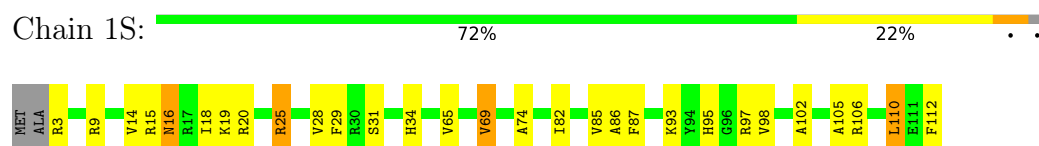
- Molecule 13: 50S ribosomal protein L17



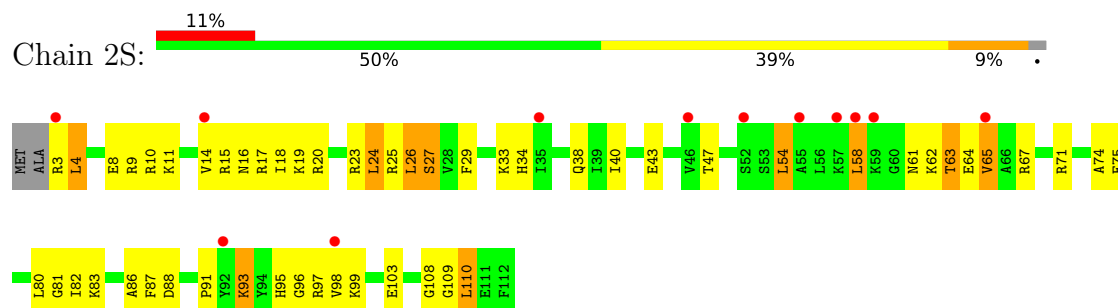
- Molecule 13: 50S ribosomal protein L17



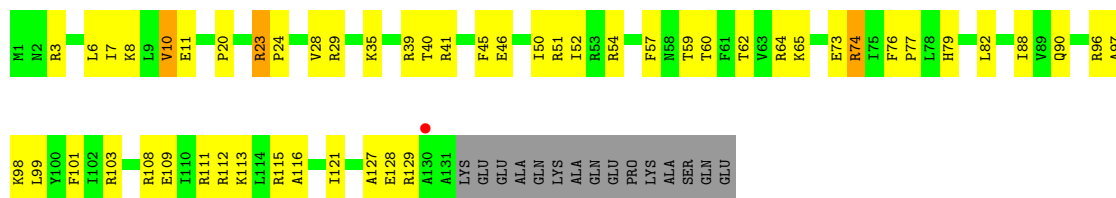
- Molecule 14: 50S ribosomal protein L18



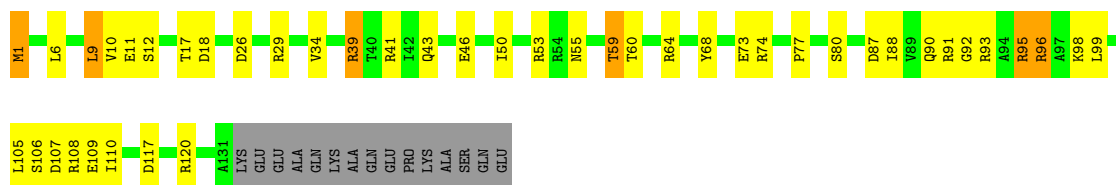
- Molecule 14: 50S ribosomal protein L18



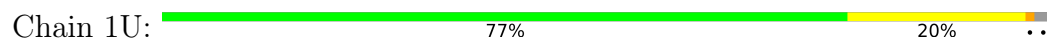
- Molecule 15: 50S ribosomal protein L19



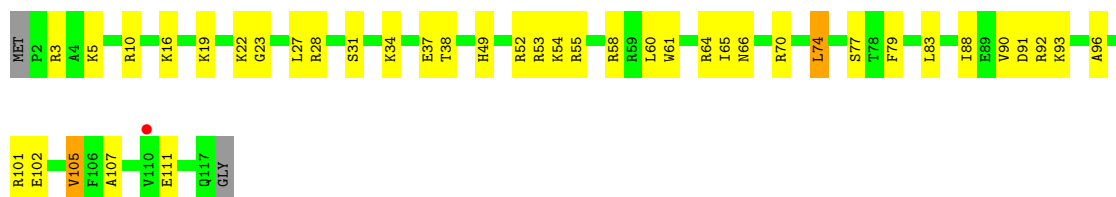
- Molecule 15: 50S ribosomal protein L19



- Molecule 16: 50S ribosomal protein L20



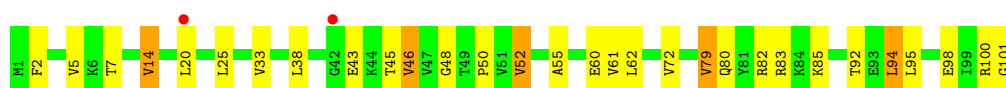
- Molecule 16: 50S ribosomal protein L20



- Molecule 17: 50S ribosomal protein L21



- Molecule 17: 50S ribosomal protein L21



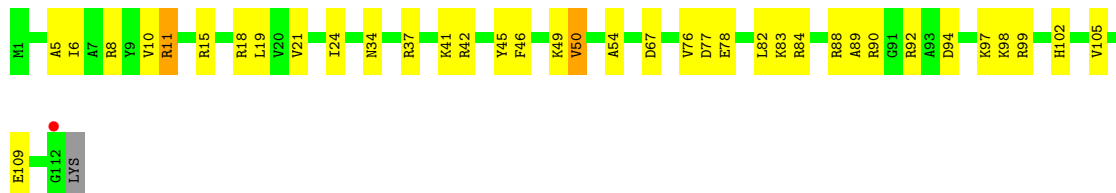
- Molecule 18: 50S ribosomal protein L22

Chain 1W:  73% 23% ..



- Molecule 18: 50S ribosomal protein L22

Chain 2W:  66% 31% ..



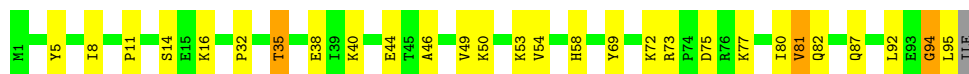
- Molecule 19: 50S ribosomal protein L23

Chain 1X:  70% 27% ..



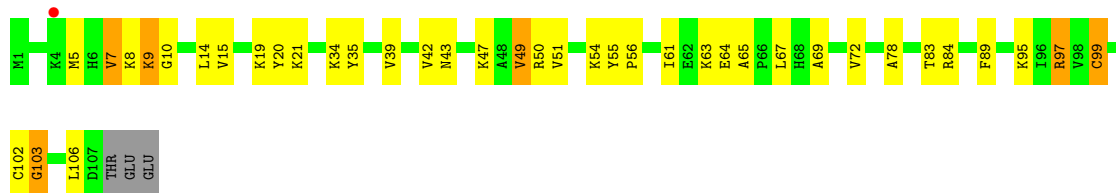
- Molecule 19: 50S ribosomal protein L23

Chain 2X:  70% 26% ..



- Molecule 20: 50S ribosomal protein L24

Chain 1Y:  62% 30% 5% .



- Molecule 20: 50S ribosomal protein L24

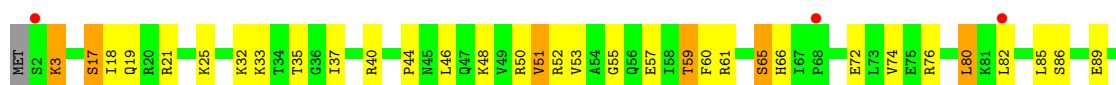
Chain 2Y:  58% 35% .







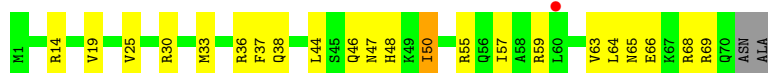
- Molecule 23: 50S ribosomal protein L28



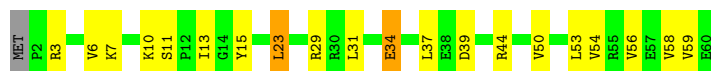
- Molecule 24: 50S ribosomal protein L29



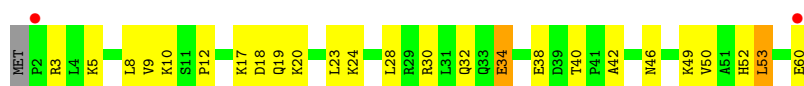
- Molecule 24: 50S ribosomal protein L29



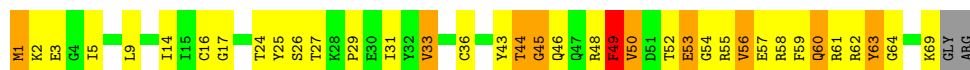
- Molecule 25: 50S ribosomal protein L30



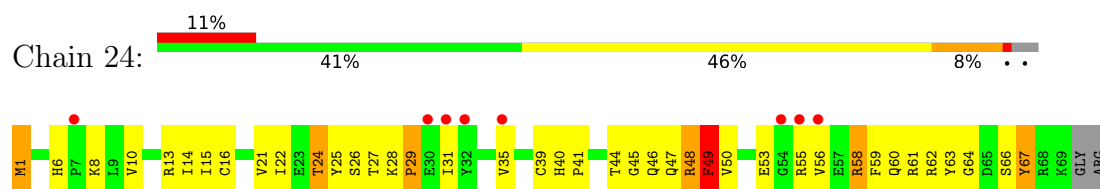
- Molecule 25: 50S ribosomal protein L30



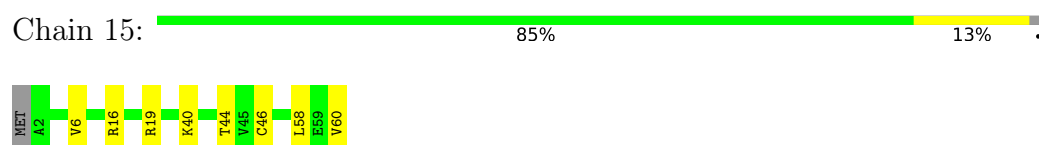
- Molecule 26: 50S ribosomal protein L31



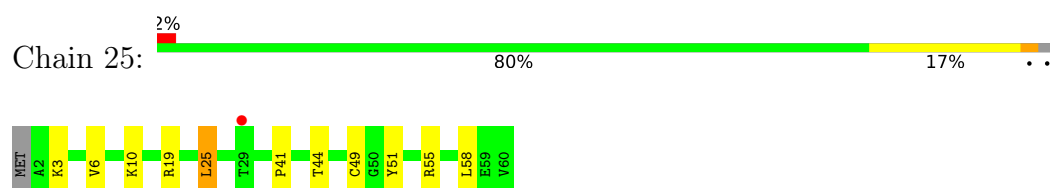
- Molecule 26: 50S ribosomal protein L31



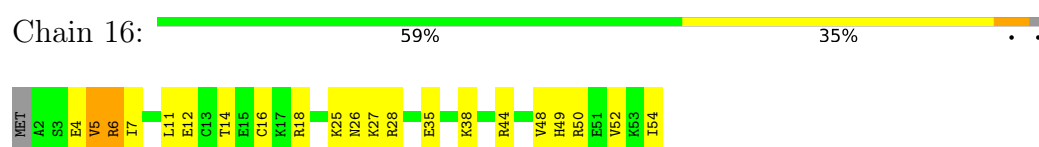
- Molecule 27: 50S ribosomal protein L32



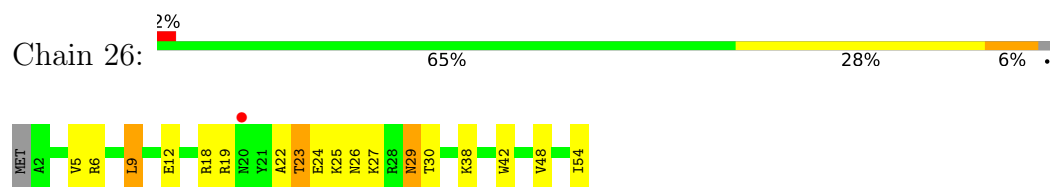
- Molecule 27: 50S ribosomal protein L32



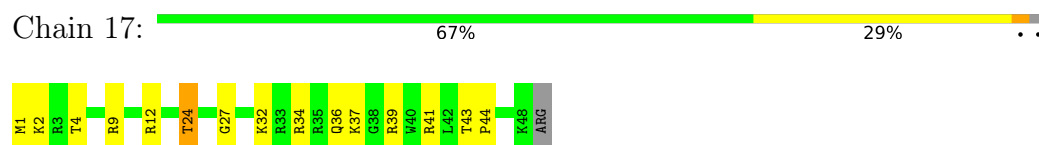
- Molecule 28: 50S ribosomal protein L33



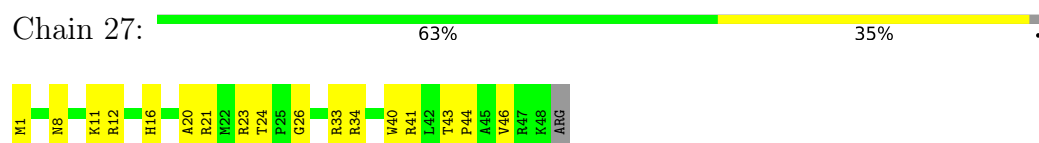
- Molecule 28: 50S ribosomal protein L33



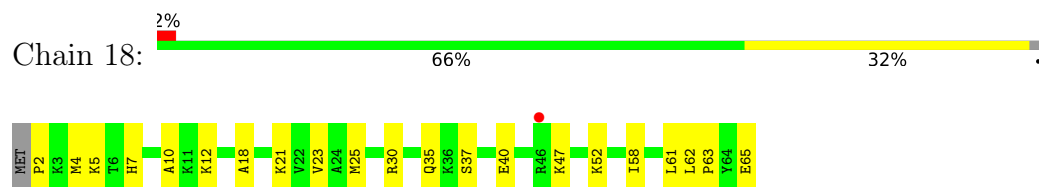
- Molecule 29: 50S ribosomal protein L34



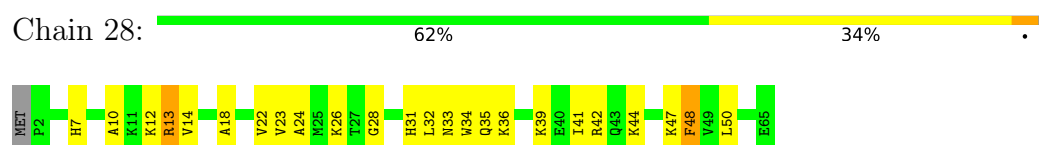
- Molecule 29: 50S ribosomal protein L34



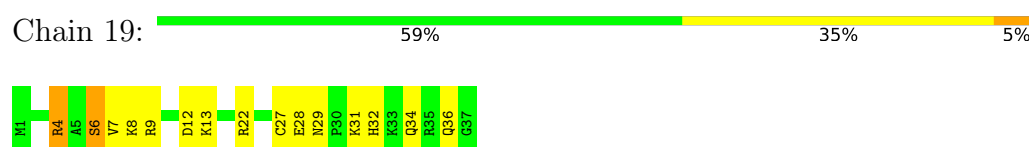
- Molecule 30: 50S ribosomal protein L35



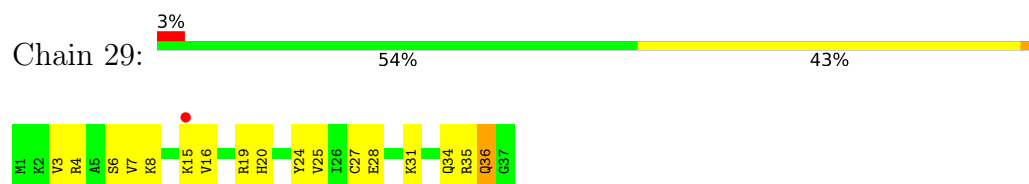
- Molecule 30: 50S ribosomal protein L35



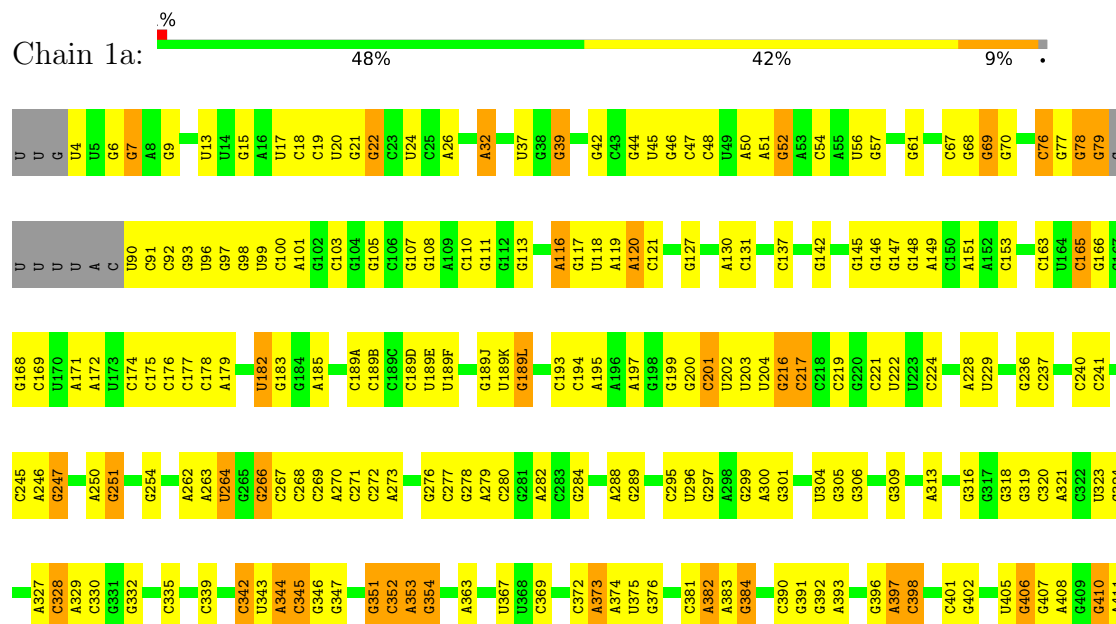
- Molecule 31: 50S ribosomal protein L36

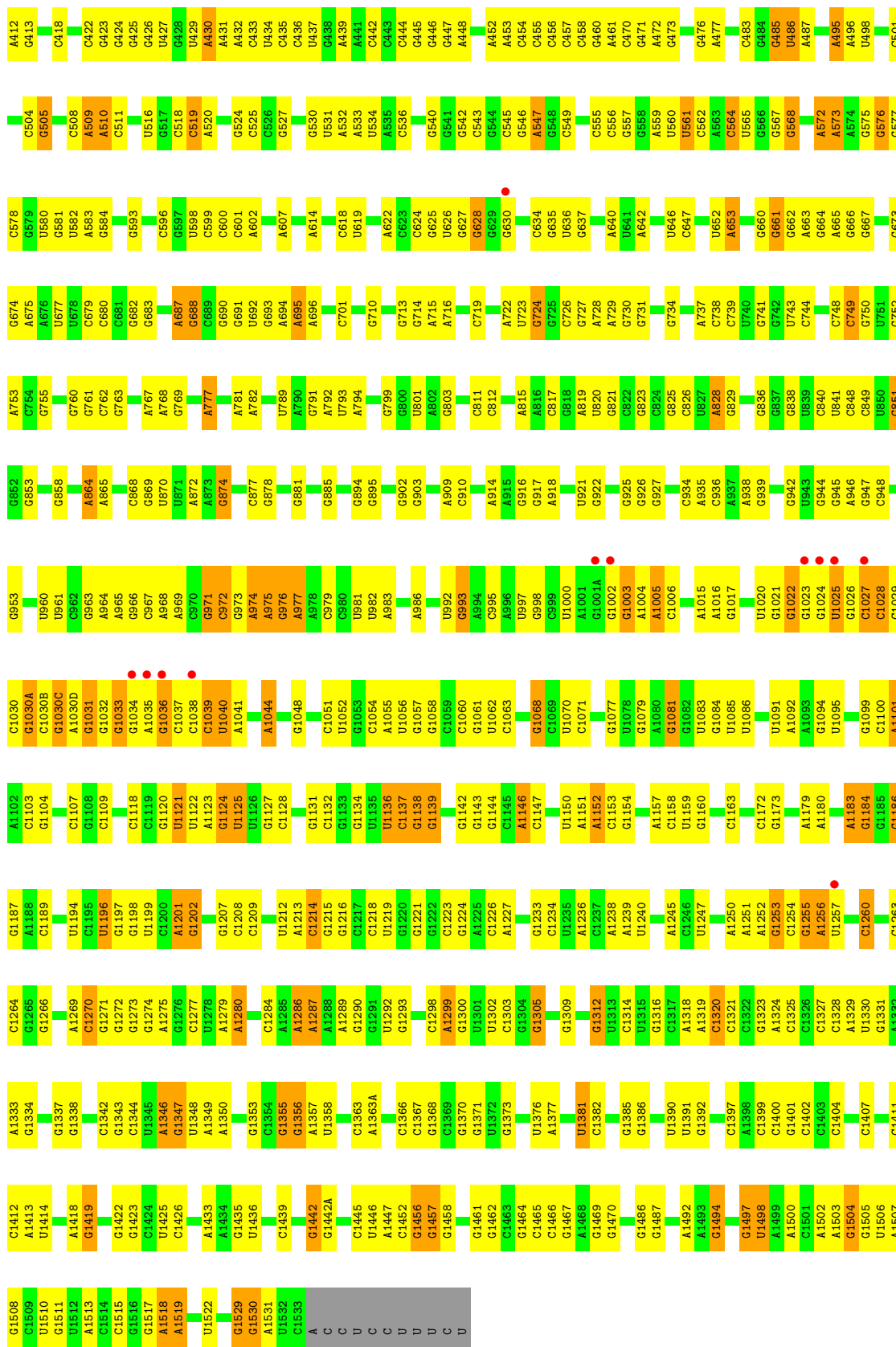


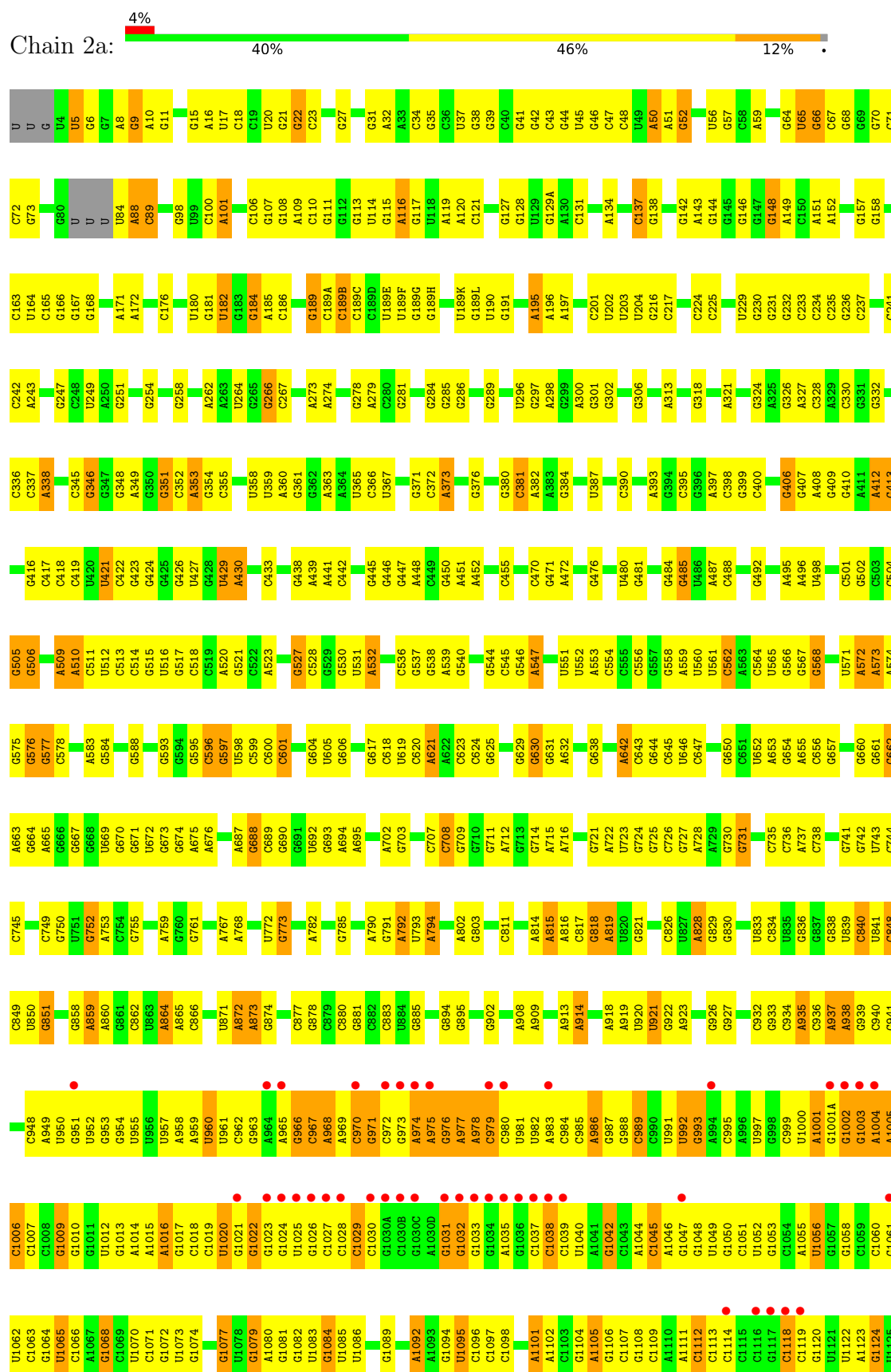
- Molecule 31: 50S ribosomal protein L36

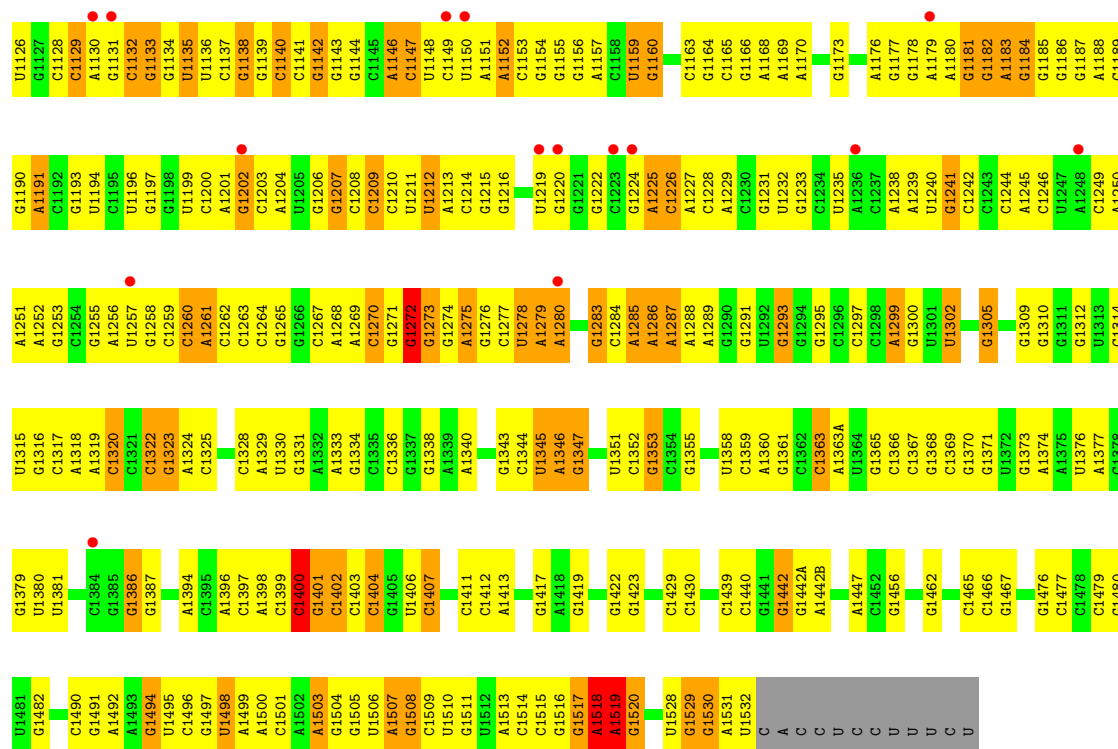


- Molecule 32: 16S Ribosomal RNA

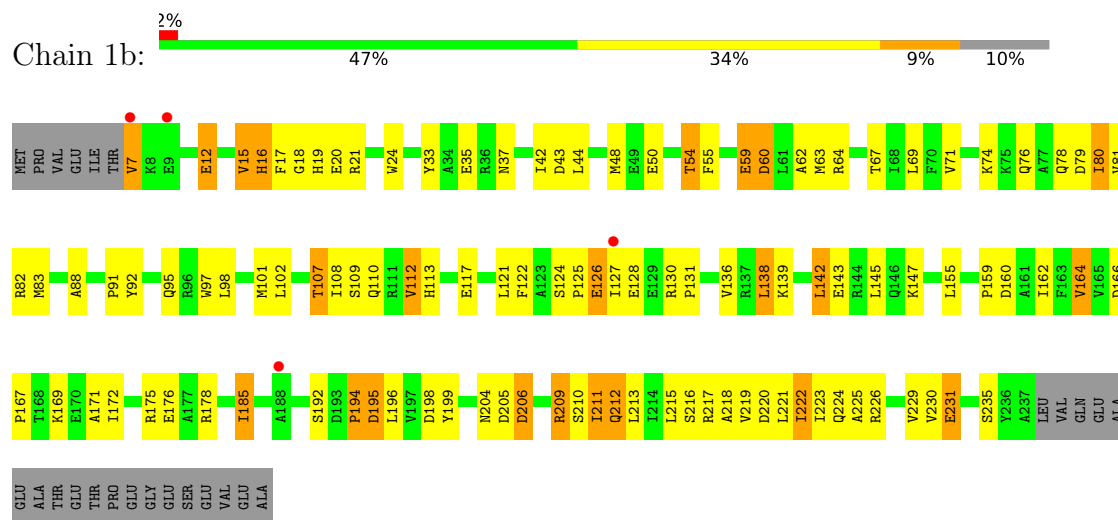




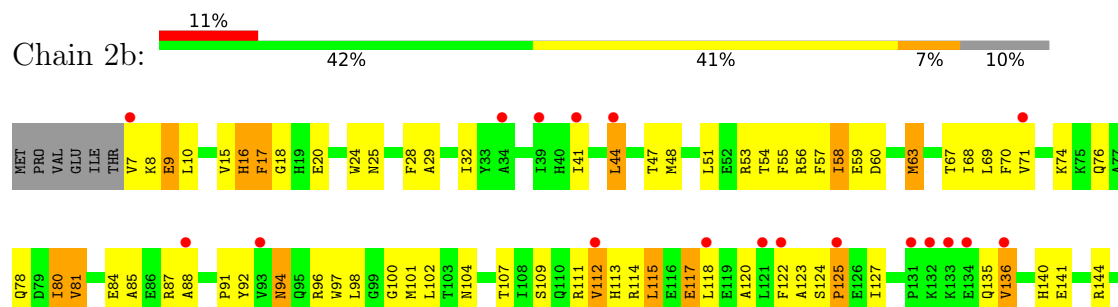


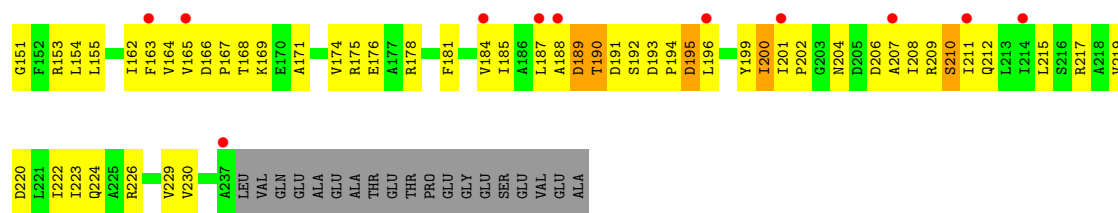


• Molecule 33: 30S ribosomal protein S2

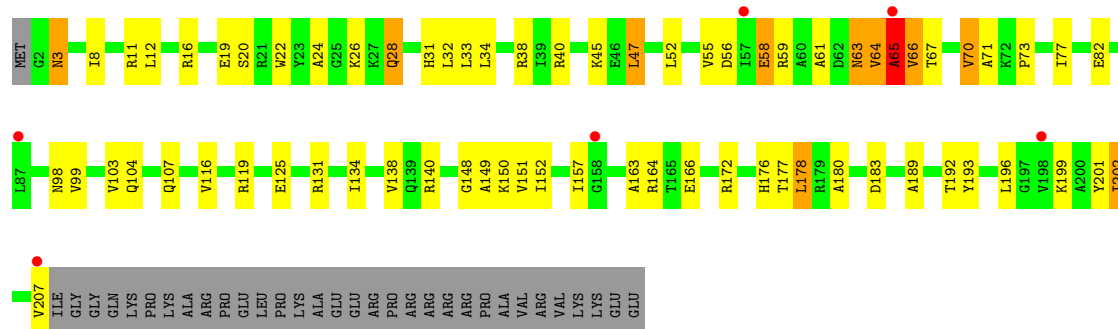


• Molecule 33: 30S ribosomal protein S2

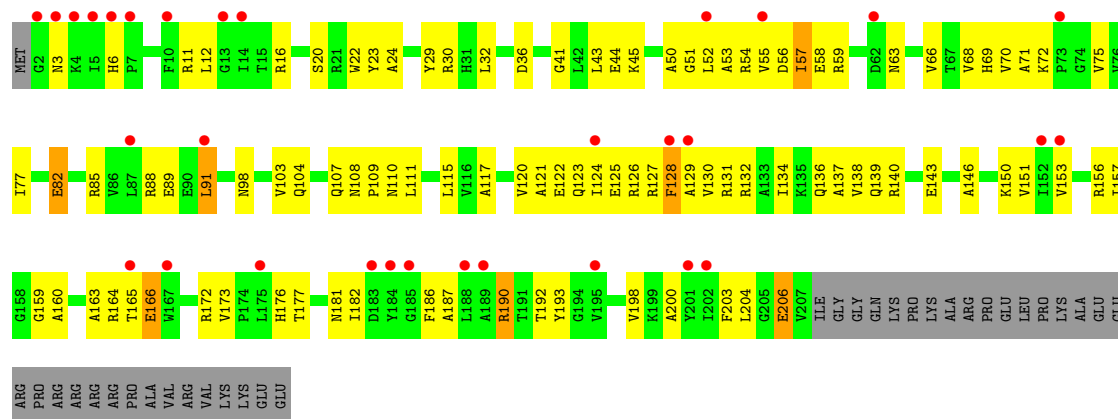




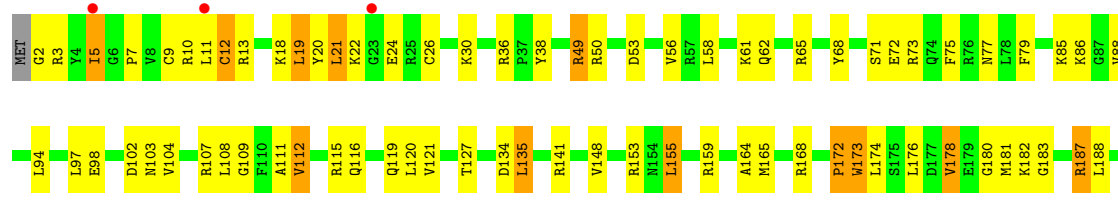
• Molecule 34: 30S ribosomal protein S3

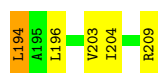


• Molecule 34: 30S ribosomal protein S3

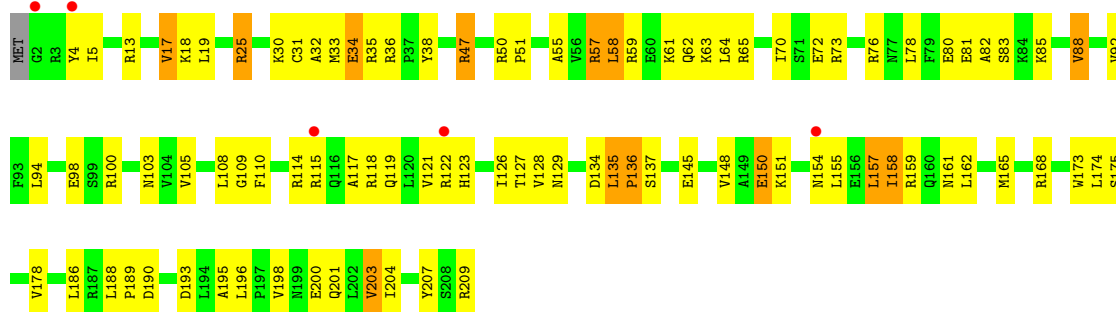


• Molecule 35: 30S ribosomal protein S4

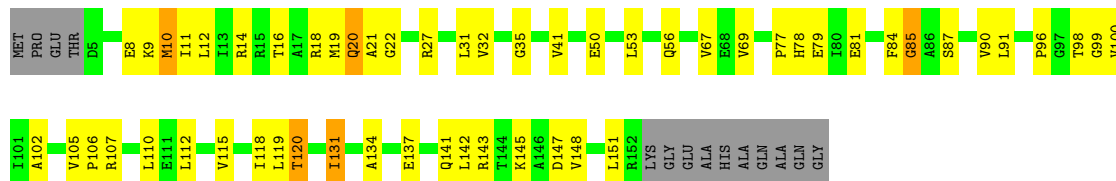




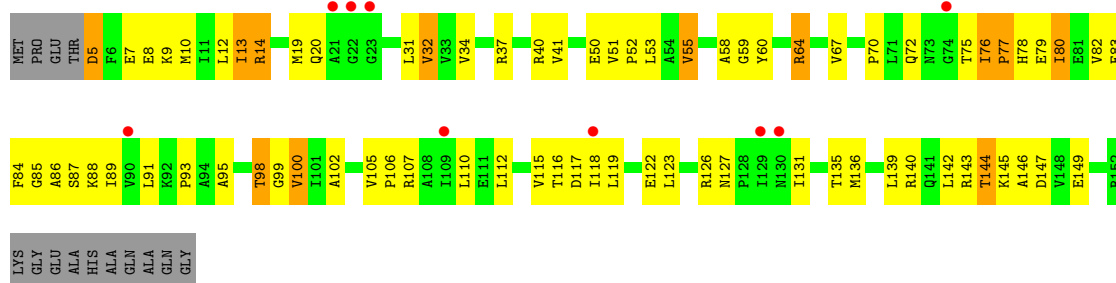
- Molecule 35: 30S ribosomal protein S4



- Molecule 36: 30S ribosomal protein S5



- Molecule 36: 30S ribosomal protein S5



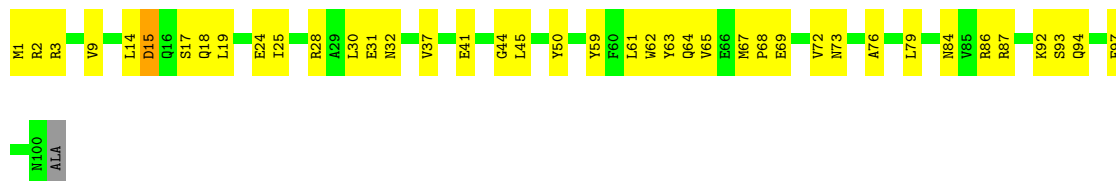
- Molecule 37: 30S ribosomal protein S6





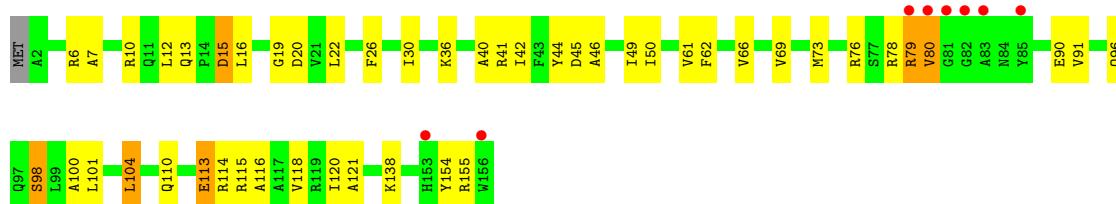
• Molecule 37: 30S ribosomal protein S6

Chain 2f: 59% 39% ..



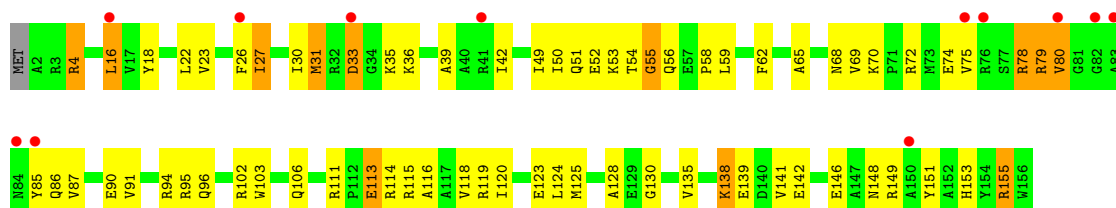
• Molecule 38: 30S ribosomal protein S7

Chain 1g: 5% 69% 27% ..



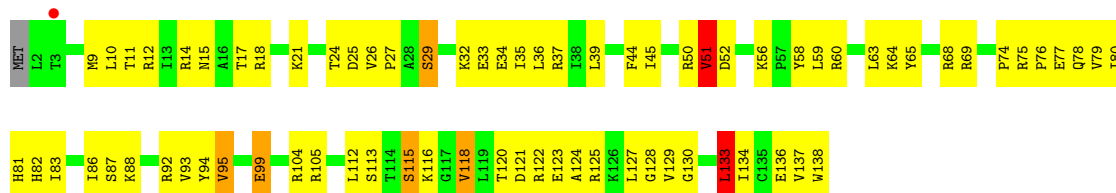
• Molecule 38: 30S ribosomal protein S7

Chain 2g: 8% 54% 37% 8% .



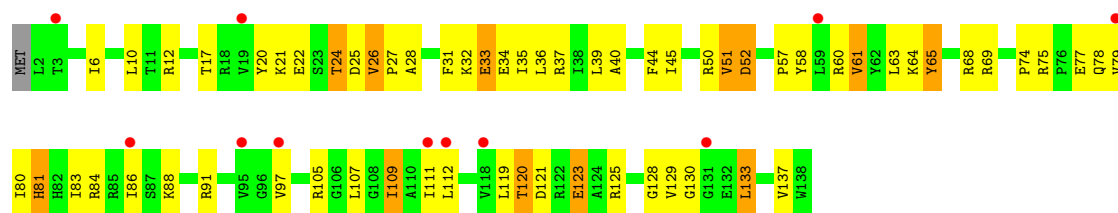
• Molecule 39: 30S ribosomal protein S8

Chain 1h: % 45% 49% ..

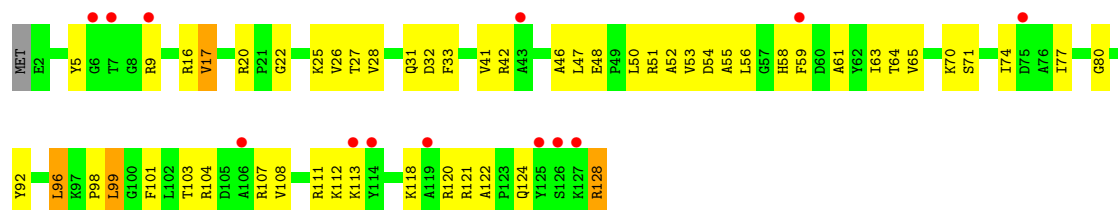


• Molecule 39: 30S ribosomal protein S8

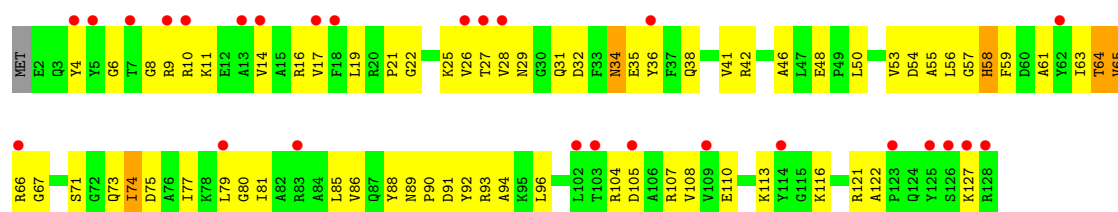
Chain 2h: 8% 54% 37% 9% .



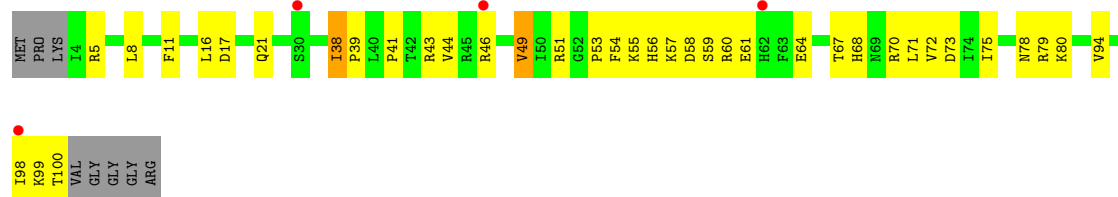
• Molecule 40: 30S ribosomal protein S9



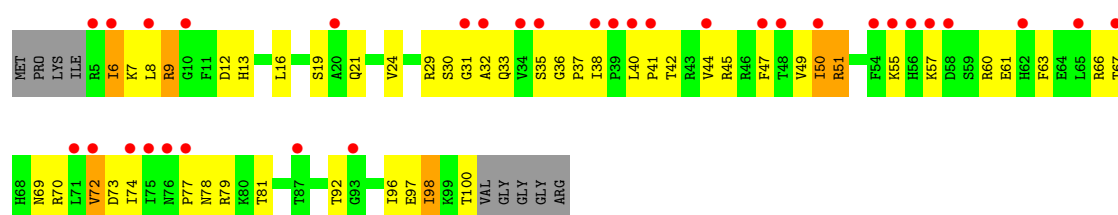
• Molecule 40: 30S ribosomal protein S9



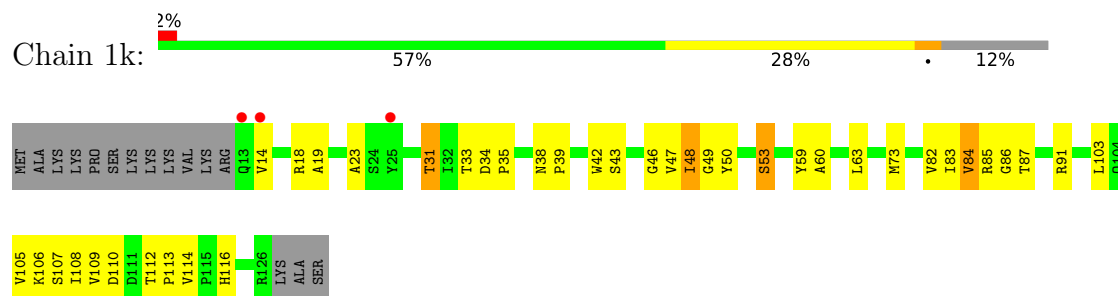
• Molecule 41: 30S ribosomal protein S10



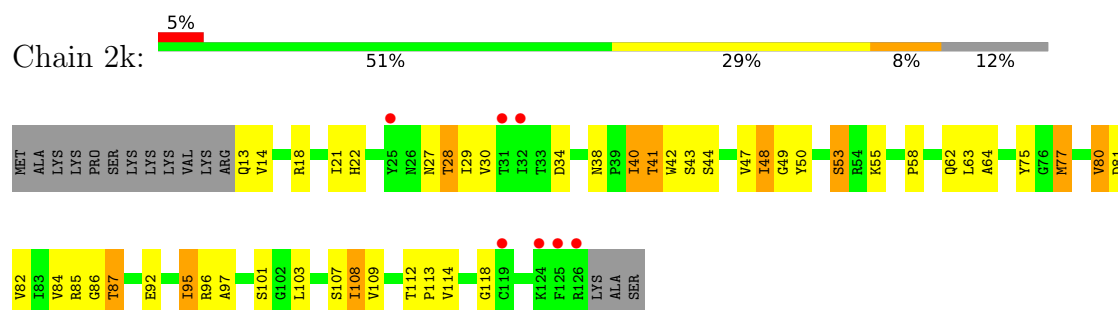
• Molecule 41: 30S ribosomal protein S10



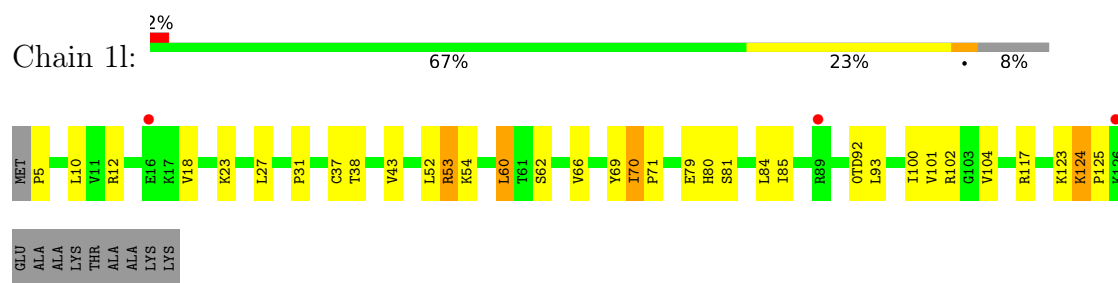
- Molecule 42: 30S ribosomal protein S11



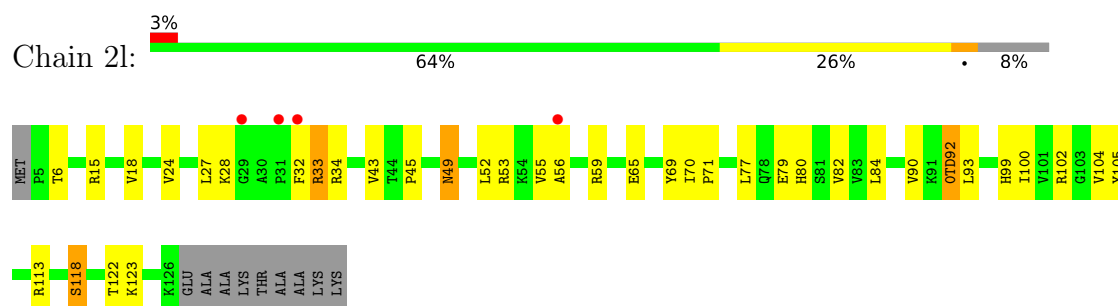
- Molecule 42: 30S ribosomal protein S11



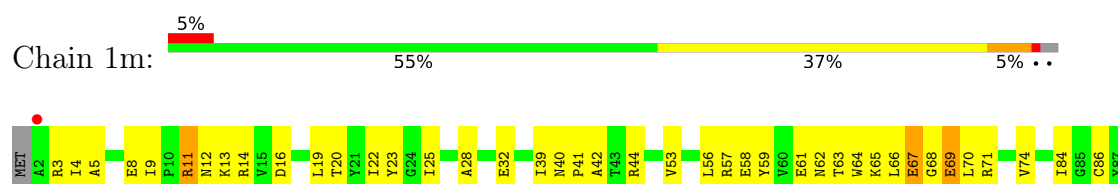
- Molecule 43: 30S ribosomal protein S12



- Molecule 43: 30S ribosomal protein S12

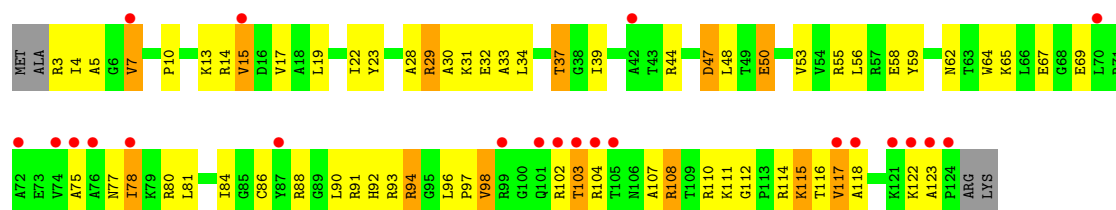


- Molecule 44: 30S ribosomal protein S13

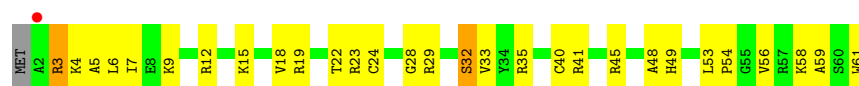




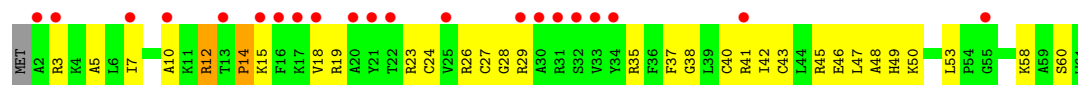
- Molecule 44: 30S ribosomal protein S13



- Molecule 45: 30S ribosomal protein S14 type Z



- Molecule 45: 30S ribosomal protein S14 type Z



- Molecule 46: 30S ribosomal protein S15

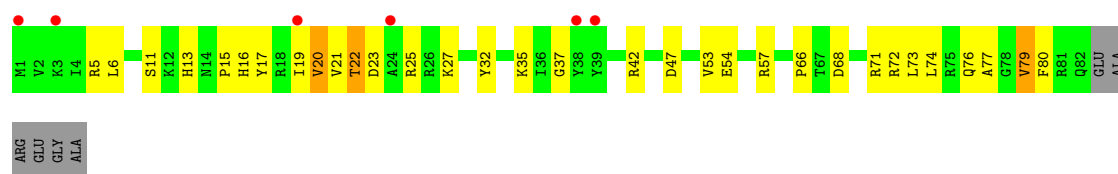


- Molecule 46: 30S ribosomal protein S15



- Molecule 47: 30S ribosomal protein S16





- Molecule 47: 30S ribosomal protein S16



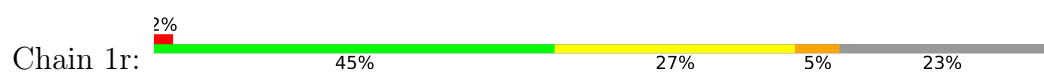
- Molecule 48: 30S ribosomal protein S17



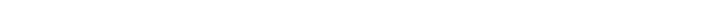
- Molecule 48: 30S ribosomal protein S17

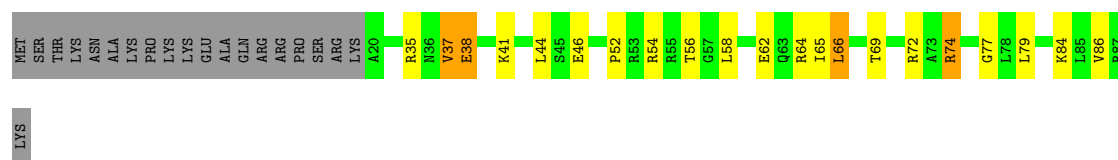


- Molecule 49: 30S ribosomal protein S18

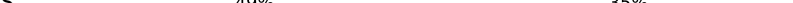


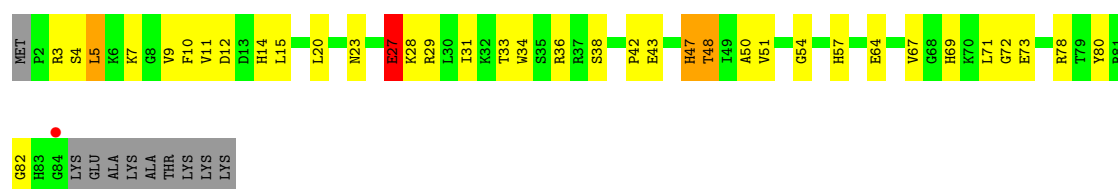
- Molecule 49: 30S ribosomal protein S18

Chain 2r:  53% 19% 5% 23%

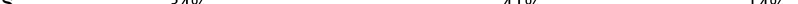


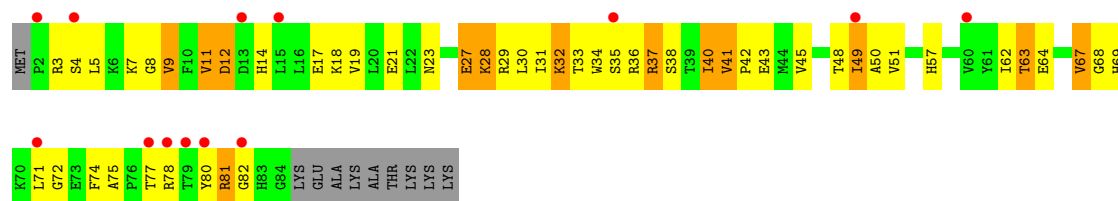
- Molecule 50: 30S ribosomal protein S19

Chain 1s:  %

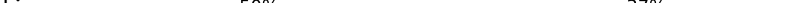


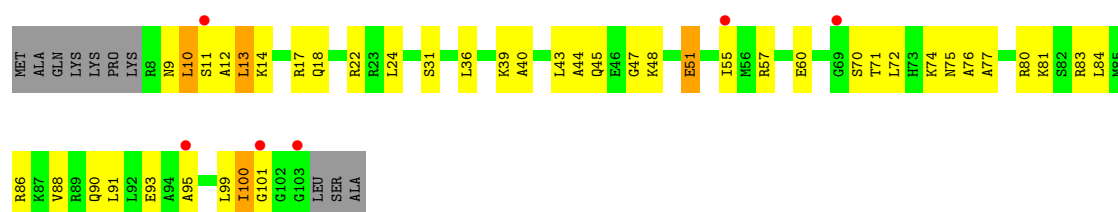
- Molecule 50: 30S ribosomal protein S19

Chain 2s: 

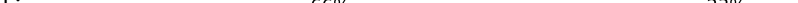


- Molecule 51: 30S ribosomal protein S20

Chain 1t: 

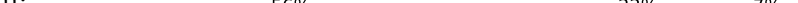


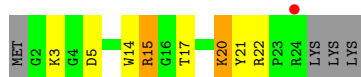
- Molecule 51: 30S ribosomal protein S20

Chain 2t: 



- Molecule 52: 30S ribosomal protein Thx

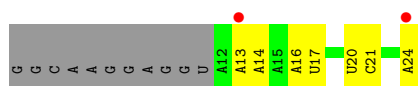
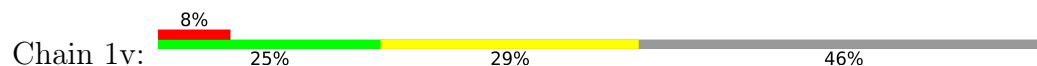
Chain 1u: 



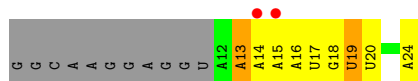
- Molecule 52: 30S ribosomal protein Thx



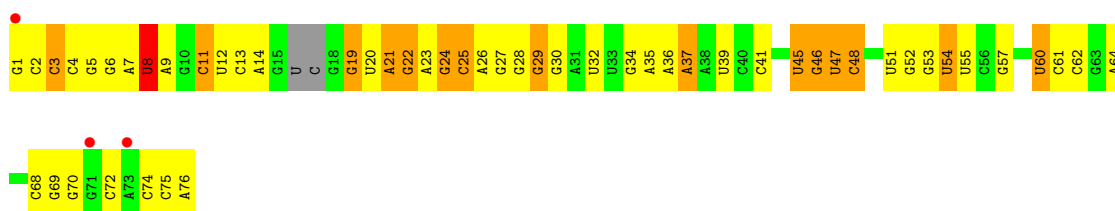
- Molecule 53: MF-mRNA



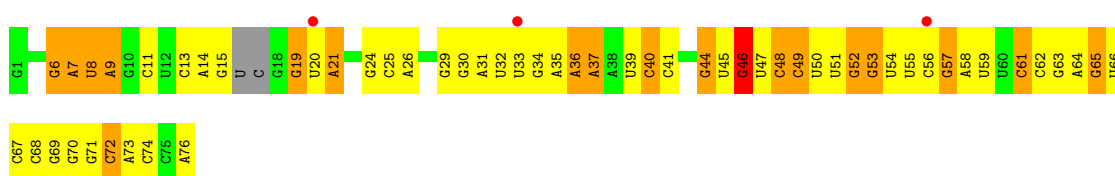
- Molecule 53: MF-mRNA



- Molecule 54: A-site and E-site Deacylated tRNAphe

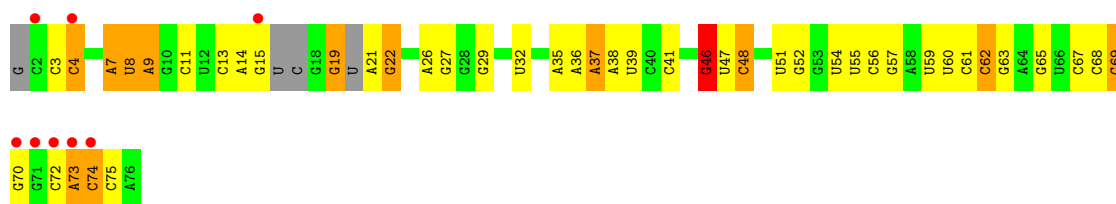


- Molecule 54: A-site and E-site Deacylated tRNAphe

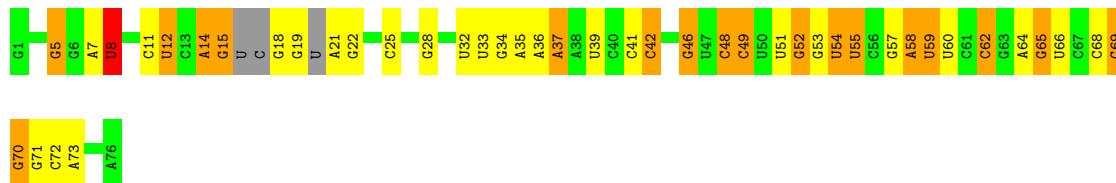


- Molecule 54: A-site and E-site Deacylated tRNAphe

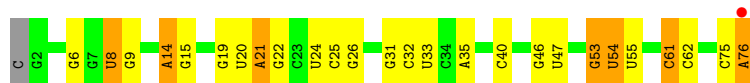




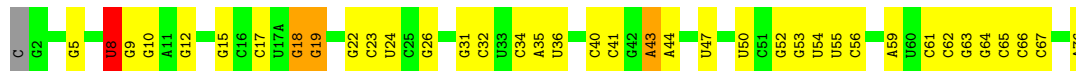
- Molecule 54: A-site and E-site Deacylated tRNA^{phe}



- Molecule 55: P-site Deacylated tRNA^{met}



- Molecule 55: P-site Deacylated tRNA^{met}



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	208.47Å 447.66Å 619.05Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	124.26 – 2.80 124.26 – 2.80	Depositor EDS
% Data completeness (in resolution range)	98.6 (124.26-2.80) 98.6 (124.26-2.80)	Depositor EDS
R_{merge}	0.20	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.23 (at 2.82Å)	Xtriage
Refinement program	PHENIX 1.8.2	Depositor
R, R_{free}	0.229 , 0.284 0.229 , 0.282	Depositor DCC
R_{free} test set	69396 reflections (4.95%)	wwPDB-VP
Wilson B-factor (Å ²)	60.3	Xtriage
Anisotropy	0.287	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.28 , 51.6	EDS
L-test for twinning ²	$\langle L \rangle = 0.38$, $\langle L^2 \rangle = 0.20$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.92	EDS
Total number of atoms	299897	wwPDB-VP
Average B, all atoms (Å ²)	61.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.57% 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: OMU, MG, 4OC, M2G, 4SU, G7M, 2MA, OMG, MIA, 0TD, PSU, SF4, 5MC, 2MG, UR3, 5MU, MA6, K, OMC, A1AIX, ZN

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	0.30	0/69011	0.48	0/107720
1	2A	0.23	0/67295	0.41	1/105042 (0.0%)
2	1B	0.25	0/2882	0.43	0/4494
2	2B	0.20	0/2879	0.38	0/4487
3	1D	0.29	0/2186	0.53	0/2944
3	2D	0.23	0/2186	0.48	1/2944 (0.0%)
4	1E	0.28	0/1592	0.54	1/2149 (0.0%)
4	2E	0.23	0/1592	0.47	0/2149
5	1F	0.29	0/1622	0.49	0/2196
5	2F	0.22	0/1618	0.48	2/2191 (0.1%)
6	1G	0.24	0/1448	0.51	1/1957 (0.1%)
6	2G	0.20	0/1453	0.46	0/1963
7	1H	0.23	0/1356	0.45	0/1834
7	2H	0.20	0/1356	0.43	0/1834
8	1I	0.20	0/1112	0.41	0/1514
8	2I	0.19	0/1079	0.44	0/1475
9	1N	0.26	0/1144	0.48	0/1543
9	2N	0.20	0/1144	0.42	0/1543
10	1O	0.28	0/943	0.51	0/1269
10	2O	0.21	0/943	0.47	0/1269
11	1P	0.29	0/1152	0.58	0/1533
11	2P	0.22	0/1152	0.49	0/1533
12	1Q	0.31	0/1143	0.52	0/1527
12	2Q	0.22	0/1143	0.43	0/1527
13	1R	0.30	0/982	0.52	0/1312
13	2R	0.24	0/982	0.45	0/1312
14	1S	0.26	0/883	0.50	0/1176
14	2S	0.20	0/880	0.48	0/1172
15	1T	0.26	0/1105	0.53	0/1477
15	2T	0.22	0/1097	0.47	0/1468
16	1U	0.31	0/977	0.49	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
16	2U	0.20	0/977	0.38	0/1301
17	1V	0.28	0/782	0.47	0/1049
17	2V	0.21	0/782	0.46	0/1049
18	1W	0.31	0/897	0.50	0/1205
18	2W	0.24	0/897	0.45	0/1205
19	1X	0.28	0/764	0.54	0/1025
19	2X	0.21	0/764	0.52	2/1025 (0.2%)
20	1Y	0.24	0/819	0.48	0/1095
20	2Y	0.23	0/819	0.47	1/1095 (0.1%)
21	1Z	0.24	0/1267	0.47	0/1717
21	2Z	0.23	0/1299	0.47	0/1763
22	10	0.26	0/662	0.48	0/881
22	20	0.22	0/662	0.43	0/881
23	11	0.30	0/762	0.49	0/1014
23	21	0.23	0/762	0.43	0/1014
24	12	0.24	0/590	0.46	0/781
24	22	0.20	0/590	0.39	0/781
25	13	0.28	0/474	0.47	0/635
25	23	0.21	0/469	0.44	0/630
26	14	0.26	0/565	0.52	0/761
26	24	0.25	0/545	0.52	0/737
27	15	0.30	0/469	0.56	0/635
27	25	0.28	0/469	0.47	0/635
28	16	0.27	0/460	0.47	0/613
28	26	0.21	0/456	0.44	0/608
29	17	0.34	0/426	0.55	0/561
29	27	0.25	0/426	0.55	0/561
30	18	0.30	0/525	0.53	0/691
30	28	0.22	0/525	0.44	0/691
31	19	0.26	0/310	0.47	0/407
31	29	0.20	0/310	0.41	0/407
32	1a	0.21	0/35795	0.39	0/55864
32	2a	0.20	0/35886	0.38	2/56005 (0.0%)
33	1b	0.24	0/1881	0.53	0/2542
33	2b	0.26	0/1860	0.55	2/2518 (0.1%)
34	1c	0.24	0/1572	0.50	2/2126 (0.1%)
34	2c	0.23	0/1566	0.53	2/2119 (0.1%)
35	1d	0.22	0/1685	0.46	0/2262
35	2d	0.20	0/1704	0.44	0/2284
36	1e	0.24	0/1145	0.45	0/1543
36	2e	0.19	0/1149	0.46	0/1548
37	1f	0.21	0/823	0.44	0/1115
37	2f	0.20	0/829	0.42	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	1g	0.21	0/1250	0.49	0/1679
38	2g	0.22	0/1254	0.48	0/1683
39	1h	0.23	0/1108	0.45	0/1494
39	2h	0.22	0/1108	0.46	0/1494
40	1i	0.22	0/1002	0.48	0/1346
40	2i	0.25	0/997	0.52	0/1343
41	1j	0.24	0/722	0.51	0/982
41	2j	0.28	0/727	0.45	0/988
42	1k	0.18	0/844	0.44	0/1145
42	2k	0.20	0/848	0.46	0/1149
43	1l	0.23	0/937	0.43	0/1260
43	2l	0.20	0/937	0.45	0/1260
44	1m	0.22	0/969	0.47	0/1302
44	2m	0.24	0/961	0.48	0/1291
45	1n	0.21	0/501	0.45	0/664
45	2n	0.20	0/501	0.42	0/664
46	1o	0.20	0/739	0.40	0/985
46	2o	0.18	0/739	0.39	0/985
47	1p	0.20	0/697	0.44	0/939
47	2p	0.19	0/693	0.43	0/935
48	1q	0.21	0/836	0.48	0/1117
48	2q	0.21	0/836	0.47	0/1117
49	1r	0.24	0/560	0.56	1/746 (0.1%)
49	2r	0.18	0/560	0.45	0/746
50	1s	0.19	0/667	0.45	0/900
50	2s	0.27	0/661	0.61	0/893
51	1t	0.21	0/730	0.47	0/965
51	2t	0.21	0/729	0.44	0/965
52	1u	0.24	0/203	0.44	0/266
52	2u	0.20	0/203	0.50	0/266
53	1v	0.24	0/310	0.39	0/480
53	2v	0.22	0/310	0.36	0/480
54	1w	0.31	2/1606 (0.1%)	0.45	0/2497
54	1y	0.30	1/1606 (0.1%)	0.43	0/2497
54	2w	0.32	2/1556 (0.1%)	0.42	0/2418
54	2y	0.31	2/1583 (0.1%)	0.41	0/2459
55	1x	0.27	0/1725	0.43	0/2689
55	2x	0.26	1/1725 (0.1%)	0.41	0/2689
All	All	0.25	8/316696 (0.0%)	0.44	18/474135 (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
29	27	0	1

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	1w	46	G7M	O3'-P	5.57	1.61	1.56
54	2y	46	G7M	O3'-P	5.50	1.61	1.56
54	2w	46	G7M	O3'-P	5.46	1.61	1.56
55	2x	8	4SU	O3'-P	5.36	1.61	1.56
54	2w	8	4SU	O3'-P	5.26	1.61	1.56
54	2y	8	4SU	O3'-P	5.17	1.61	1.56
54	1y	46	G7M	O3'-P	5.07	1.61	1.56
54	1w	8	4SU	O3'-P	5.06	1.61	1.56

All (18) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	1r	32	ARG	N-CA-C	-8.13	105.35	114.62
34	2c	126	ARG	N-CA-C	-6.71	105.08	113.20
34	2c	75	VAL	N-CA-C	-5.94	105.97	112.80
34	1c	65	ALA	CA-C-N	5.88	132.56	121.97
34	1c	65	ALA	C-N-CA	5.88	132.56	121.97
6	1G	96	ARG	CB-CA-C	-5.82	109.84	116.54
1	2A	1992	G	C2'-C3'-O3'	5.69	118.04	109.50
20	2Y	19	LYS	N-CA-C	-5.69	106.41	113.19
32	2a	1272	G	N1-C2-N2	-5.48	99.76	116.20
5	2F	21	ALA	CA-C-N	5.35	131.32	121.70
5	2F	21	ALA	C-N-CA	5.35	131.32	121.70
33	2b	80	ILE	CA-C-N	-5.34	117.69	123.08
33	2b	80	ILE	C-N-CA	-5.34	117.69	123.08
19	2X	94	GLY	CA-C-N	5.29	131.23	121.70
19	2X	94	GLY	C-N-CA	5.29	131.23	121.70
3	2D	41	GLY	N-CA-C	-5.19	106.88	114.61
32	2a	1272	G	N3-C2-N2	5.05	135.04	119.90
4	1E	93	VAL	N-CA-C	-5.01	106.49	113.00

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
29	27	46	VAL	Peptide

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1A	61852	0	31194	891	0
1	2A	60322	0	30424	985	1
2	1B	2577	0	1305	30	0
2	2B	2575	0	1303	62	0
3	1D	2136	0	2218	63	0
3	2D	2136	0	2218	54	0
4	1E	1559	0	1618	48	0
4	2E	1559	0	1618	50	0
5	1F	1587	0	1628	46	0
5	2F	1583	0	1621	51	0
6	1G	1423	0	1436	50	0
6	2G	1428	0	1438	70	0
7	1H	1330	0	1407	34	0
7	2H	1330	0	1407	36	0
8	1I	1097	0	1140	27	0
8	2I	1064	0	1082	46	0
9	1N	1117	0	1184	23	0
9	2N	1117	0	1184	39	0
10	1O	933	0	996	18	0
10	2O	933	0	996	22	0
11	1P	1135	0	1212	48	0
11	2P	1135	0	1212	34	0
12	1Q	1122	0	1178	29	0
12	2Q	1122	0	1179	33	0
13	1R	968	0	1033	26	0
13	2R	968	0	1033	35	0
14	1S	873	0	927	21	0
14	2S	870	0	923	43	0
15	1T	1091	0	1151	36	0
15	2T	1083	0	1136	34	0
16	1U	959	0	1019	20	0
16	2U	959	0	1019	30	0
17	1V	771	0	830	14	0
17	2V	771	0	830	16	0
18	1W	886	0	940	19	0
18	2W	886	0	940	21	0
19	1X	750	0	814	22	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	2X	750	0	814	21	0
20	1Y	806	0	881	24	0
20	2Y	806	0	881	27	0
21	1Z	1240	0	1240	42	0
21	2Z	1271	0	1273	55	0
22	10	653	0	674	10	0
22	20	653	0	674	27	0
23	11	755	0	826	18	0
23	21	755	0	826	31	0
24	12	588	0	643	16	0
24	22	588	0	643	14	0
25	13	469	0	518	9	0
25	23	464	0	514	16	0
26	14	552	0	533	30	0
26	24	532	0	503	29	0
27	15	455	0	465	4	0
27	25	455	0	465	8	0
28	16	453	0	473	12	0
28	26	449	0	469	14	0
29	17	418	0	467	12	0
29	27	418	0	467	11	0
30	18	517	0	582	22	0
30	28	517	0	582	22	0
31	19	307	0	335	10	0
31	29	307	0	335	13	0
32	1a	32246	0	16294	544	0
32	2a	32327	0	16338	656	1
33	1b	1846	0	1867	75	0
33	2b	1825	0	1828	89	0
34	1c	1548	0	1535	48	0
34	2c	1542	0	1517	71	0
35	1d	1655	0	1672	66	0
35	2d	1674	0	1714	73	0
36	1e	1129	0	1185	46	0
36	2e	1133	0	1191	57	0
37	1f	810	0	804	26	0
37	2f	816	0	808	23	0
38	1g	1231	0	1238	29	0
38	2g	1235	0	1249	48	0
39	1h	1088	0	1126	51	0
39	2h	1088	0	1126	47	0
40	1i	983	0	986	40	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
40	2i	978	0	966	56	0
41	1j	709	0	650	31	0
41	2j	714	0	672	34	0
42	1k	829	0	825	23	0
42	2k	833	0	836	27	0
43	1l	932	0	979	21	0
43	2l	932	0	980	23	0
44	1m	958	0	1002	31	0
44	2m	950	0	988	56	0
45	1n	492	0	529	25	0
45	2n	492	0	529	31	0
46	1o	728	0	760	19	0
46	2o	728	0	760	18	0
47	1p	681	0	697	23	0
47	2p	677	0	686	22	0
48	1q	823	0	891	27	0
48	2q	823	0	891	30	0
49	1r	555	0	618	16	0
49	2r	555	0	618	14	0
50	1s	652	0	662	31	0
50	2s	646	0	644	39	0
51	1t	728	0	798	28	0
51	2t	727	0	796	14	0
52	1u	199	0	208	7	0
52	2u	199	0	208	15	0
53	1v	277	0	140	3	0
53	2v	277	0	140	8	0
54	1w	1592	0	818	32	0
54	1y	1585	0	803	42	0
54	2w	1544	0	785	29	0
54	2y	1565	0	794	30	0
55	1x	1625	0	829	19	0
55	2x	1625	0	829	20	0
56	10	7	0	0	0	0
56	11	6	0	0	0	0
56	12	1	0	0	0	0
56	13	4	0	0	0	0
56	14	1	0	0	0	0
56	15	5	0	0	0	0
56	16	2	0	0	0	0
56	17	6	0	0	0	0
56	18	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	19	2	0	0	0	0
56	1A	1083	0	0	0	0
56	1B	38	0	0	0	0
56	1D	11	0	0	0	0
56	1E	12	0	0	0	0
56	1F	13	0	0	0	0
56	1G	4	0	0	0	0
56	1H	1	0	0	0	0
56	1N	5	0	0	0	0
56	1O	3	0	0	0	0
56	1P	7	0	0	0	0
56	1Q	6	0	0	0	0
56	1R	5	0	0	0	0
56	1S	3	0	0	0	0
56	1T	3	0	0	0	0
56	1U	8	0	0	0	0
56	1V	8	0	0	0	0
56	1W	7	0	0	0	0
56	1X	6	0	0	0	0
56	1Y	3	0	0	0	0
56	1Z	3	0	0	0	0
56	1a	226	0	0	0	0
56	1b	1	0	0	0	0
56	1d	1	0	0	0	0
56	1e	1	0	0	0	0
56	1f	2	0	0	0	0
56	1k	1	0	0	0	0
56	1l	2	0	0	0	0
56	1m	1	0	0	0	0
56	1n	2	0	0	0	0
56	1t	1	0	0	0	0
56	1w	7	0	0	0	0
56	1x	12	0	0	0	0
56	1y	1	0	0	0	0
56	20	2	0	0	0	0
56	21	3	0	0	0	0
56	23	2	0	0	0	0
56	25	2	0	0	0	0
56	27	4	0	0	0	0
56	28	6	0	0	0	0
56	2A	849	0	0	0	0
56	2B	20	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	2D	5	0	0	0	0
56	2E	7	0	0	0	0
56	2F	7	0	0	0	0
56	2G	1	0	0	0	0
56	2N	1	0	0	0	0
56	2O	1	0	0	0	0
56	2P	1	0	0	0	0
56	2Q	1	0	0	0	0
56	2R	1	0	0	0	0
56	2T	4	0	0	0	0
56	2U	1	0	0	0	0
56	2V	2	0	0	0	0
56	2X	2	0	0	0	0
56	2Y	1	0	0	0	0
56	2Z	1	0	0	0	0
56	2a	246	0	0	0	0
56	2d	1	0	0	0	0
56	2e	2	0	0	0	0
56	2f	2	0	0	0	0
56	2g	1	0	0	0	0
56	2j	1	0	0	0	0
56	2l	4	0	0	0	0
56	2q	3	0	0	0	0
56	2t	1	0	0	0	0
56	2v	3	0	0	0	0
56	2w	1	0	0	0	0
56	2x	6	0	0	0	0
56	2y	4	0	0	0	0
57	1A	1	0	0	0	0
57	2A	1	0	0	0	0
58	1A	43	0	0	1	0
58	2A	43	0	0	1	0
59	14	1	0	0	0	0
59	15	1	0	0	0	0
59	16	1	0	0	0	0
59	19	1	0	0	0	0
59	1Y	1	0	0	0	0
59	1n	1	0	0	0	0
59	24	1	0	0	0	0
59	25	1	0	0	0	0
59	26	1	0	0	0	0
59	29	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	2Y	1	0	0	0	0
59	2n	1	0	0	0	0
60	1d	8	0	0	3	0
60	2d	8	0	0	2	0
61	10	9	0	0	1	0
61	11	6	0	0	0	0
61	12	3	0	0	0	0
61	13	4	0	0	0	0
61	15	6	0	0	0	0
61	16	2	0	0	0	0
61	17	10	0	0	0	0
61	18	8	0	0	0	0
61	1A	1901	0	0	148	0
61	1B	57	0	0	1	0
61	1D	27	0	0	1	0
61	1E	19	0	0	2	0
61	1F	15	0	0	3	0
61	1G	3	0	0	0	0
61	1N	3	0	0	0	0
61	1O	4	0	0	0	0
61	1P	21	0	0	1	0
61	1Q	8	0	0	0	0
61	1R	12	0	0	0	0
61	1S	3	0	0	0	0
61	1T	7	0	0	0	0
61	1U	11	0	0	0	0
61	1V	5	0	0	0	0
61	1W	10	0	0	2	0
61	1X	4	0	0	0	0
61	1Y	2	0	0	1	0
61	1Z	1	0	0	0	0
61	1a	364	0	0	34	0
61	1b	1	0	0	0	0
61	1d	1	0	0	0	0
61	1e	2	0	0	0	0
61	1i	1	0	0	0	0
61	1l	7	0	0	0	0
61	1o	1	0	0	1	0
61	1q	2	0	0	0	0
61	1u	1	0	0	1	0
61	1v	5	0	0	0	0
61	1w	7	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
61	1x	10	0	0	0	0
61	1y	1	0	0	0	0
61	20	6	0	0	0	0
61	21	7	0	0	2	0
61	23	1	0	0	0	0
61	26	1	0	0	1	0
61	27	2	0	0	0	0
61	28	4	0	0	0	0
61	29	1	0	0	0	0
61	2A	1097	0	0	113	0
61	2B	22	0	0	1	0
61	2D	19	0	0	1	0
61	2E	13	0	0	0	0
61	2F	13	0	0	0	0
61	2I	1	0	0	0	0
61	2N	1	0	0	0	0
61	2O	2	0	0	0	0
61	2P	11	0	0	1	0
61	2Q	1	0	0	0	0
61	2R	5	0	0	0	0
61	2T	3	0	0	0	0
61	2U	2	0	0	0	0
61	2V	1	0	0	0	0
61	2W	1	0	0	0	0
61	2X	2	0	0	1	0
61	2Y	2	0	0	0	0
61	2Z	1	0	0	0	0
61	2a	260	0	0	22	0
61	2c	1	0	0	0	0
61	2d	3	0	0	0	0
61	2e	2	0	0	0	0
61	2j	2	0	0	0	0
61	2l	2	0	0	0	0
61	2q	1	0	0	0	0
61	2r	2	0	0	1	0
61	2t	2	0	0	0	0
61	2v	2	0	0	0	0
61	2w	2	0	0	1	0
61	2x	3	0	0	0	0
61	2y	2	0	0	0	0
All	All	299897	0	196685	5623	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including

hydrogen atoms). The all-atom clashscore for this structure is 12.

All (5623) 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:1082:U:H3	1:1A:1086:A:N6	1.25	1.34
32:2a:1310:G:H5'	44:2m:77:ASN:HD21	1.27	0.96
54:1y:49:C:H42	54:1y:65:G:H1	1.13	0.95
1:1A:2499:C:OP1	61:1A:6106:HOH:O	1.83	0.95
1:1A:1082:U:N3	1:1A:1086:A:N6	2.08	0.95
34:2c:125:GLU:HB2	34:2c:190:ARG:HH21	1.30	0.95
1:1A:1082:U:O4	1:1A:1086:A:N1	2.02	0.92
32:2a:950:U:H3	32:2a:1231:G:H1	1.18	0.92
1:1A:2285:C:OP2	28:16:6:ARG:NH1	2.03	0.92
11:1P:63:PRO:HB2	30:18:30:ARG:HH21	1.35	0.91
1:1A:2407:G:OP1	61:1A:6107:HOH:O	1.89	0.90
32:2a:1089:G:H1	32:2a:1096:C:H42	1.19	0.90
1:1A:2128:C:N4	1:1A:2160:G:H1	1.68	0.90
54:2y:18:G:N2	54:2y:55:PSU:N3	2.21	0.89
1:2A:2127:G:H1	1:2A:2161:C:N4	1.71	0.88
29:17:24:THR:HG22	29:17:27:GLY:H	1.35	0.88
1:2A:805:G:OP1	61:2A:3909:HOH:O	1.91	0.88
1:1A:631:A:OP1	11:1P:65:ARG:NH1	2.06	0.88
1:1A:2106:G:H1	1:1A:2183:C:H42	1.20	0.87
32:2a:1029:C:N4	32:2a:1032:G:H1	1.73	0.86
1:1A:181:A:H5''	29:17:36:GLN:HE21	1.41	0.85
1:2A:2690:C:OP1	13:2R:17:ARG:NH2	2.09	0.85
32:2a:1314:C:OP2	50:2s:4:SER:OG	1.94	0.85
1:1A:1670:C:OP2	61:1A:6109:HOH:O	1.95	0.85
32:1a:510:A:OP2	35:1d:49:ARG:NH1	2.10	0.85
50:2s:49:ILE:HG22	50:2s:62:ILE:HD11	1.59	0.85
1:1A:2128:C:N3	1:1A:2160:G:N2	2.25	0.85
54:2w:4:C:H42	54:2w:69:G:H1	1.23	0.84
40:2i:46:ALA:HB2	40:2i:74:ILE:HG23	1.59	0.84
32:2a:1203:C:H2'	32:2a:1204:A:H8	1.41	0.84
1:1A:2683:C:O2	10:1O:70:LYS:NZ	2.11	0.84
1:1A:947:G:OP2	61:1A:6110:HOH:O	1.95	0.84
1:2A:1153:C:OP1	16:2U:92:ARG:NH2	2.11	0.84
1:1A:1013:C:OP2	61:1A:6108:HOH:O	1.94	0.83
10:2O:48:PRO:HB3	32:2a:1422:G:H5''	1.60	0.83
3:2D:180:GLY:HA3	3:2D:275:LYS:HG2	1.58	0.82
1:2A:1204:A:H2	1:2A:1241:A:H62	1.24	0.82
1:1A:2014:A:N1	61:1A:6152:HOH:O	2.12	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:2T:105:LEU:HB2	15:2T:110:ILE:HG13	1.61	0.82
32:2a:1149:C:O2'	32:2a:1280:A:N1	2.13	0.82
1:2A:570:G:O6	61:2A:3910:HOH:O	1.98	0.82
17:2V:62:LEU:HD11	17:2V:95:LEU:HB2	1.62	0.82
20:1Y:43:ASN:HB3	20:1Y:65:ALA:HB3	1.62	0.82
34:2c:88:ARG:HA	34:2c:91:LEU:HD13	1.62	0.81
1:1A:990:A:OP2	61:1A:6112:HOH:O	1.97	0.81
21:1Z:1:MET:HB3	21:1Z:55:HIS:HB3	1.62	0.81
1:1A:1603:A:OP1	61:1A:6111:HOH:O	1.97	0.81
2:2B:22:U:H3	2:2B:61:G:H1	1.28	0.81
1:1A:1041:C:H42	1:1A:1114:G:H1	1.27	0.81
32:1a:944:G:OP1	61:1a:1905:HOH:O	1.97	0.81
1:2A:2137:C:N4	1:2A:2154:G:H1	1.78	0.81
1:2A:1604:C:OP1	61:2A:3912:HOH:O	1.99	0.81
44:2m:14:ARG:HA	44:2m:44:ARG:HA	1.61	0.81
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.16	0.80
40:1i:28:VAL:HG22	40:1i:63:ILE:HB	1.63	0.80
1:2A:1693:U:O2'	3:2D:14:ARG:NH2	2.12	0.80
34:2c:44:GLU:HA	34:2c:52:LEU:HD23	1.63	0.80
1:1A:2079:U:OP1	23:11:21:ARG:NH2	2.15	0.80
8:2I:59:ALA:HA	8:2I:62:LYS:HB2	1.63	0.80
14:2S:67:ARG:HG2	14:2S:71:ARG:HD2	1.64	0.80
1:1A:2028:U:O4	61:1A:6113:HOH:O	1.98	0.80
47:1p:22:THR:OG1	47:1p:23:ASP:N	2.12	0.80
1:1A:1865:G:OP1	61:1A:6115:HOH:O	1.99	0.80
33:1b:15:VAL:HG11	33:1b:213:LEU:HD13	1.64	0.80
1:2A:582:G:OP2	61:2A:3911:HOH:O	1.98	0.80
54:2y:18:G:H22	54:2y:55:PSU:HN3	1.28	0.80
1:1A:382:G:O6	61:1A:6116:HOH:O	2.00	0.80
49:1r:21:LYS:NZ	49:1r:54:ARG:O	2.15	0.80
1:1A:993:G:OP1	16:1U:50:ARG:NH2	2.15	0.80
1:1A:1062:G:H22	1:1A:1077:A:H61	1.30	0.80
1:1A:568:U:O4	61:1A:6114:HOH:O	1.98	0.80
1:1A:2099:U:H3	1:1A:2190:G:H1	1.30	0.80
1:2A:568:U:O4	61:2A:3914:HOH:O	2.00	0.79
1:2A:2589:A:OP1	61:2A:3913:HOH:O	1.99	0.79
8:2I:3:VAL:HG12	8:2I:38:LEU:HA	1.65	0.79
41:2j:42:THR:HG22	41:2j:66:ARG:HB2	1.63	0.79
1:2A:2127:G:N2	1:2A:2161:C:N3	2.30	0.79
4:1E:77:ILE:HD12	4:1E:195:LEU:HD13	1.62	0.79
1:2A:198:C:OP2	61:2A:3916:HOH:O	2.01	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1264:G:OP1	27:15:19:ARG:NH2	2.15	0.79
1:2A:2857:G:N2	1:2A:2860:A:OP2	2.16	0.79
52:1u:5:ASP:OD2	61:1u:101:HOH:O	2.02	0.78
1:2A:453:C:OP1	61:2A:3915:HOH:O	2.00	0.78
32:1a:664:G:H22	32:1a:741:G:H1	1.28	0.78
54:1y:26:A:H61	54:1y:44:G:H1	1.31	0.78
32:1a:148:G:H2'	32:1a:149:A:H8	1.48	0.78
32:2a:1123:A:H4'	41:2j:36:GLY:HA3	1.65	0.78
1:2A:1762:A:N1	61:2A:3971:HOH:O	2.16	0.78
1:1A:973:A:OP2	61:1A:6114:HOH:O	2.02	0.77
1:1A:1010:A:OP2	61:1A:6117:HOH:O	2.02	0.77
1:1A:1315:C:OP2	61:1A:6118:HOH:O	2.03	0.77
1:2A:2110:G:OP1	1:2A:2118:U:N3	2.16	0.77
23:11:18:ILE:HG12	23:11:37:ILE:HG23	1.66	0.77
32:1a:953:G:H5'	32:1a:965:A:H61	1.47	0.77
1:2A:1022:G:H22	1:2A:1142(A):A:H2	1.30	0.77
21:2Z:156:LYS:HE3	21:2Z:158:PRO:HD3	1.66	0.77
42:2k:22:HIS:HB3	42:2k:29:ILE:HB	1.67	0.77
30:18:62:LEU:HB3	30:18:65:GLU:HG2	1.65	0.77
32:2a:1286:A:H8	32:2a:1287:A:H4'	1.49	0.77
32:2a:673:G:H2'	32:2a:674:G:C8	2.20	0.77
32:2a:1060:C:H5'	45:2n:45:ARG:HH12	1.50	0.77
48:2q:66:SER:O	48:2q:70:ARG:NH1	2.18	0.77
1:2A:1772:G:OP1	61:2A:3917:HOH:O	2.02	0.77
54:1y:19:G:C6	54:1y:56:C:N4	2.53	0.77
1:2A:2518:A:OP2	61:2A:3918:HOH:O	2.02	0.77
12:1Q:10:ARG:HH11	12:1Q:11:LYS:HE2	1.50	0.76
32:1a:24:U:OP1	43:1l:23:LYS:NZ	2.18	0.76
1:1A:2128:C:N4	1:1A:2160:G:N1	2.32	0.76
1:2A:2138:C:H42	1:2A:2153:G:H1	1.33	0.76
3:2D:232:PRO:O	61:2D:401:HOH:O	2.03	0.76
1:2A:2364:C:OP1	22:20:55:ARG:NH1	2.19	0.76
21:2Z:10:ARG:NH2	21:2Z:26:GLY:O	2.18	0.76
1:1A:400:G:N7	61:1A:6194:HOH:O	2.18	0.76
54:2y:7:A:H61	54:2y:66:U:H3	1.34	0.76
1:1A:2136:C:N3	1:1A:2155:G:C2	2.54	0.76
1:1A:2723:C:OP1	13:1R:3:HIS:ND1	2.14	0.76
43:1l:71:PRO:O	43:1l:102:ARG:NH1	2.19	0.76
44:1m:65:LYS:HB2	44:1m:69:GLU:HG2	1.67	0.76
54:2y:52:G:H1	54:2y:62:C:H42	1.33	0.76
1:1A:1185:C:OP2	61:1A:6121:HOH:O	2.04	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:504:C:OP1	61:1a:1906:HOH:O	2.02	0.76
32:1a:1314:C:OP2	50:1s:4:SER:OG	2.04	0.76
1:2A:217:G:OP2	61:2A:3919:HOH:O	2.02	0.76
34:2c:120:VAL:HG21	34:2c:137:ALA:HB2	1.67	0.76
1:1A:1186:G:OP2	61:1A:6112:HOH:O	2.04	0.76
5:1F:116:ASP:OD2	11:1P:1:MET:N	2.18	0.76
46:1o:74:ASP:HB3	46:1o:77:ARG:HB2	1.67	0.76
32:1a:975:A:H4'	32:1a:976:G:H5''	1.66	0.75
54:1y:49:C:N4	54:1y:65:G:H1	1.84	0.75
1:2A:2592:G:OP1	61:2A:3920:HOH:O	2.03	0.75
32:2a:501:C:H2'	32:2a:502:G:C8	2.22	0.75
32:2a:1507:A:N6	32:2a:1528:U:O4	2.16	0.75
44:2m:33:ALA:O	44:2m:37:THR:OG1	2.04	0.75
1:1A:2118:U:O4	1:1A:2148:G:N2	2.19	0.75
48:1q:66:SER:O	48:1q:70:ARG:NH1	2.18	0.75
1:2A:973:A:OP2	61:2A:3914:HOH:O	2.05	0.75
1:1A:642:G:OP1	61:1A:6120:HOH:O	2.03	0.75
1:2A:449:A:N7	61:2A:3988:HOH:O	2.20	0.75
1:1A:792:G:O6	61:1A:6119:HOH:O	2.03	0.75
8:1I:77:LEU:HB2	8:1I:142:VAL:HG12	1.67	0.75
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.20	0.75
1:2A:1780:A:N7	61:2A:3985:HOH:O	2.19	0.75
34:2c:52:LEU:HD13	34:2c:68:VAL:HG13	1.68	0.75
1:1A:1053:C:H42	1:1A:1106:G:H1	1.35	0.75
17:1V:98:GLU:OE2	17:1V:100:ARG:NH1	2.17	0.75
44:2m:37:THR:O	44:2m:55:ARG:NH1	2.20	0.75
34:2c:58:GLU:HB3	41:2j:92:THR:HG21	1.68	0.74
32:1a:1101:A:N6	33:1b:176:GLU:OE2	2.19	0.74
12:2Q:34:LEU:HB2	12:2Q:118:LEU:HD22	1.70	0.74
32:2a:976:G:N2	32:2a:1363:C:OP2	2.19	0.74
1:1A:1996:C:OP1	10:1O:31:LYS:NZ	2.20	0.74
38:1g:73:MET:HG2	38:1g:90:GLU:HA	1.68	0.74
1:2A:500:G:N1	1:2A:503:A:OP2	2.17	0.74
47:2p:8:ARG:HE	47:2p:15:PRO:HB3	1.51	0.74
32:1a:536:C:OP2	61:1a:1907:HOH:O	2.06	0.74
32:2a:1251:A:HO2'	32:2a:1369:C:HO2'	1.32	0.74
1:1A:790:C:OP2	61:1A:6123:HOH:O	2.05	0.74
32:1a:1027:C:C2	32:1a:1034:G:N2	2.50	0.74
1:2A:195:A:N7	61:2A:3916:HOH:O	2.20	0.74
1:2A:301:G:OP2	20:2Y:84:ARG:NH2	2.21	0.74
32:2a:1271:G:N2	32:2a:1272:G:N7	2.36	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:1y:8:4SU:O2'	54:1y:21:A:N1	2.20	0.74
7:2H:3:ARG:HH12	7:2H:6:ARG:H	1.35	0.74
1:1A:1292:U:H2'	1:1A:1293:C:C6	2.22	0.74
33:2b:60:ASP:HA	33:2b:63:MET:HB2	1.69	0.74
1:1A:271(M):G:H21	8:1I:50:ARG:HH12	1.34	0.73
1:1A:955:C:OP1	12:1Q:87:LYS:NZ	2.21	0.73
32:1a:838:G:H1	32:1a:848:C:H42	1.34	0.73
32:1a:1381:U:H1'	38:1g:79:ARG:HG2	1.68	0.73
32:2a:794:A:OP1	61:2a:3303:HOH:O	2.06	0.73
1:1A:998:C:OP1	61:1A:6124:HOH:O	2.06	0.73
18:2W:34:ASN:OD1	18:2W:37:ARG:NH1	2.21	0.73
1:1A:1633:G:OP2	61:1A:6122:HOH:O	2.05	0.73
5:1F:165:ARG:HA	5:1F:168:ARG:HD2	1.69	0.73
1:2A:2577:A:OP1	61:2A:3923:HOH:O	2.06	0.73
32:2a:953:G:N7	44:2m:104:ARG:NH2	2.37	0.73
32:1a:171:A:H2'	32:1a:172:A:H8	1.53	0.73
1:1A:668:G:N7	61:1A:6212:HOH:O	2.22	0.73
44:1m:3:ARG:NH2	44:1m:9:ILE:O	2.20	0.73
1:1A:759:G:OP1	61:1A:6126:HOH:O	2.06	0.73
34:1c:19:GLU:O	34:1c:40:ARG:NH2	2.22	0.73
1:2A:2239:G:OP2	61:2A:3922:HOH:O	2.06	0.73
32:1a:1150:U:H4'	41:1j:41:PRO:HG3	1.71	0.73
39:1h:120:THR:H	39:1h:123:GLU:HB2	1.51	0.73
1:2A:81:G:O6	61:2A:3921:HOH:O	2.05	0.73
1:2A:1253:A:N7	61:2A:3992:HOH:O	2.21	0.73
1:2A:1600:C:OP1	19:2X:58:HIS:NE2	2.17	0.73
34:1c:47:LEU:HD22	34:1c:70:VAL:HG21	1.70	0.73
1:2A:1633:G:OP2	61:2A:3924:HOH:O	2.07	0.73
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	1.71	0.73
23:21:50:ARG:HG2	23:21:59:THR:HG23	1.69	0.73
32:2a:64:G:H4'	32:2a:65:U:H3'	1.70	0.73
32:1a:573:A:OP2	61:1a:1910:HOH:O	2.07	0.72
1:2A:2127:G:N1	1:2A:2161:C:N4	2.34	0.72
54:2y:18:G:N2	54:2y:55:PSU:HN3	1.85	0.72
36:2e:140:ARG:O	36:2e:143:ARG:NH1	2.20	0.72
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.69	0.72
23:11:59:THR:O	23:11:91:LYS:NZ	2.22	0.72
1:1A:422:A:OP2	61:1A:6128:HOH:O	2.07	0.72
1:1A:1054:A:N6	1:1A:1105:U:H3	1.88	0.72
1:2A:2837:G:N7	61:2A:3999:HOH:O	2.21	0.72
32:2a:545:C:OP1	35:2d:61:LYS:NZ	2.21	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2010:G:H5''	18:2W:42:ARG:HB2	1.71	0.72
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.55	0.72
1:1A:1076:C:O2'	1:1A:1077:A:N7	2.23	0.72
1:1A:1364:G:OP2	23:11:3:LYS:HG3	1.90	0.72
1:1A:2419:U:O4	61:1A:6127:HOH:O	2.07	0.72
32:1a:964:A:OP1	61:1a:1908:HOH:O	2.06	0.72
33:1b:88:ALA:O	33:1b:226:ARG:NH1	2.21	0.72
40:2i:28:VAL:HG22	40:2i:63:ILE:HB	1.71	0.72
54:2y:33:U:O2'	54:2y:36:A:N6	2.22	0.72
1:1A:1039:G:H1	1:1A:1116:C:H42	1.37	0.72
1:2A:925:C:H2'	1:2A:926:A:H8	1.54	0.72
21:2Z:72:ARG:NH1	21:2Z:97:GLU:O	2.22	0.72
1:1A:615:G:OP1	5:1F:40:GLN:NE2	2.22	0.72
1:1A:2519:U:OP2	61:1A:6131:HOH:O	2.08	0.72
8:1I:38:LEU:HG	8:1I:40:THR:HG22	1.72	0.72
1:2A:974:G:OP1	1:2A:1187:G:O2'	2.08	0.72
33:2b:78:GLN:O	33:2b:94:ASN:ND2	2.22	0.72
32:1a:330:C:O2	61:1a:1909:HOH:O	2.07	0.72
1:2A:248:G:OP1	61:2A:3926:HOH:O	2.08	0.72
13:2R:97:VAL:HG22	13:2R:114:VAL:HG22	1.71	0.72
32:1a:572:A:OP2	61:1a:1910:HOH:O	2.08	0.72
1:2A:2099:U:H3	1:2A:2190:G:H1	1.38	0.72
38:2g:52:GLU:HG2	38:2g:53:LYS:H	1.55	0.72
45:2n:26:ARG:HD3	45:2n:43:CYS:HB3	1.71	0.72
1:1A:1153:C:OP2	61:1A:6130:HOH:O	2.08	0.71
1:2A:1356:G:OP1	61:2A:3928:HOH:O	2.08	0.71
33:2b:74:LYS:O	33:2b:78:GLN:NE2	2.20	0.71
1:1A:272(G):C:H42	1:1A:363(C):G:H1	1.38	0.71
20:1Y:102:CYS:SG	20:1Y:103:GLY:N	2.61	0.71
32:1a:1083:U:OP1	61:1a:1911:HOH:O	2.08	0.71
32:2a:877:C:OP1	39:2h:88:LYS:NZ	2.17	0.71
32:1a:1131:G:OP1	40:1i:20:ARG:NH2	2.22	0.71
32:2a:576:G:OP1	61:2a:3304:HOH:O	2.07	0.71
1:1A:301:G:OP2	20:1Y:84:ARG:NH2	2.23	0.71
1:1A:1266:G:O5'	18:1W:15:ARG:NH2	2.24	0.71
15:2T:92:GLY:O	15:2T:120:ARG:NH2	2.23	0.71
44:2m:91:ARG:HB2	44:2m:98:VAL:HG13	1.71	0.71
32:1a:1325:C:OP1	52:1u:15:ARG:NH1	2.22	0.71
1:2A:1800:C:OP2	3:2D:183:ARG:NH2	2.23	0.71
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.26	0.71
1:1A:2044:C:OP1	61:1A:6134:HOH:O	2.09	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2106:G:H1	1:1A:2183:C:N4	1.87	0.71
32:1a:674:G:H2'	32:1a:675:A:H8	1.53	0.71
1:2A:1434:A:H61	1:2A:1558:A:H62	1.35	0.71
1:2A:2499:C:OP2	61:2A:3925:HOH:O	2.07	0.71
2:2B:15:A:OP2	2:2B:69:G:N2	2.23	0.71
1:1A:2130:U:H2'	1:1A:2158:A:H61	1.56	0.71
1:1A:2131:G:H5''	1:1A:2132:U:H3'	1.73	0.71
1:1A:2140:C:H2'	1:1A:2141:G:H8	1.55	0.71
4:1E:176:ILE:HB	4:1E:181:LEU:HB2	1.72	0.71
25:13:7:LYS:HB2	25:13:34:GLU:HG3	1.70	0.71
25:13:10:LYS:NZ	25:13:15:TYR:OH	2.24	0.71
54:1w:29:G:H1	54:1w:41:C:H42	1.37	0.71
32:2a:1182:G:H4'	32:2a:1183:A:H5'	1.73	0.71
1:1A:1341:U:OP2	1:1A:1394:U:O2'	2.07	0.71
1:1A:1452:A:OP2	61:1A:6132:HOH:O	2.08	0.71
1:1A:1482:G:H2'	1:1A:1484:G:H8	1.55	0.71
1:1A:2741:A:OP1	31:19:22:ARG:NH2	2.24	0.71
1:2A:821:A:N1	61:2A:4014:HOH:O	2.23	0.71
5:1F:53:THR:HG22	5:1F:55:GLY:H	1.56	0.71
1:2A:2049:G:OP2	61:2A:3929:HOH:O	2.09	0.71
23:21:32:LYS:O	61:21:201:HOH:O	2.08	0.71
1:1A:2517:C:OP1	61:1A:6129:HOH:O	2.08	0.70
32:1a:505:G:N7	61:1a:1933:HOH:O	2.22	0.70
32:1a:812:C:N3	61:1a:1932:HOH:O	2.22	0.70
32:2a:974:A:OP2	45:2n:29:ARG:NH2	2.24	0.70
32:2a:1089:G:H1	32:2a:1096:C:N4	1.89	0.70
1:1A:1139:G:OP2	9:1N:70:LYS:NZ	2.24	0.70
1:1A:2467:C:H4'	12:1Q:123:HIS:CD2	2.25	0.70
32:2a:176:C:OP1	51:2t:29:LYS:NZ	2.24	0.70
1:1A:2136:C:N3	1:1A:2155:G:N2	2.38	0.70
1:1A:2602:A:OP1	61:1A:6133:HOH:O	2.08	0.70
1:2A:733:G:OP2	61:2A:3927:HOH:O	2.08	0.70
1:2A:2218:U:N3	23:21:55:GLY:O	2.25	0.70
19:2X:8:ILE:O	24:22:36:ARG:NH2	2.24	0.70
32:2a:811:C:N4	61:2a:3322:HOH:O	2.24	0.70
1:2A:122:G:N3	61:2A:4026:HOH:O	2.24	0.70
16:2U:105:VAL:HG13	17:2V:45:THR:HB	1.71	0.70
32:2a:376:G:H1	32:2a:387:U:H3	1.35	0.70
41:2j:44:VAL:HG22	41:2j:66:ARG:HB3	1.73	0.70
3:1D:260:ARG:HH22	3:1D:266:SER:HB2	1.55	0.70
32:1a:1194:U:H4'	36:1e:22:GLY:HA2	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:26:23:THR:OG1	28:26:24:GLU:N	2.24	0.70
32:2a:782:A:OP1	61:2a:3303:HOH:O	2.09	0.70
41:2j:30:SER:O	41:2j:81:THR:OG1	2.07	0.70
1:1A:588:U:H2'	1:1A:589:C:C6	2.27	0.70
1:1A:962:G:OP1	61:1A:6135:HOH:O	2.09	0.70
1:2A:789:A:N1	61:2A:4019:HOH:O	2.23	0.70
1:2A:1833:U:OP1	61:2A:3934:HOH:O	2.10	0.70
37:2f:97:PHE:HE2	49:2r:62:GLU:HG2	1.56	0.70
32:1a:945:G:OP1	61:1a:1912:HOH:O	2.10	0.70
1:2A:1671:U:OP2	61:2A:3930:HOH:O	2.09	0.70
1:2A:2683:C:O2	10:2O:70:LYS:NZ	2.22	0.70
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.72	0.70
32:2a:1183:A:H3'	32:2a:1184:G:H5''	1.72	0.70
42:2k:48:ILE:O	42:2k:50:TYR:N	2.25	0.70
6:1G:126:ASP:HB3	6:1G:128:ARG:H	1.56	0.70
32:1a:972:C:O2'	41:1j:55:LYS:O	2.10	0.70
1:2A:2137:C:H42	1:2A:2154:G:H1	1.39	0.70
1:2A:2572:A:OP1	1:2A:2574:G:O2'	2.09	0.70
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.74	0.70
1:1A:1986:A:OP1	61:1A:6136:HOH:O	2.09	0.70
6:2G:145:THR:HG22	6:2G:147:ASP:H	1.56	0.70
33:1b:122:PHE:HE2	33:1b:138:LEU:HB2	1.56	0.69
1:2A:1019:U:H3	1:2A:1142(A):A:H62	1.40	0.69
4:2E:36:ARG:NH2	4:2E:88:GLY:O	2.24	0.69
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.07	0.69
1:2A:2393:A:O2'	30:28:13:ARG:NH2	2.25	0.69
1:1A:279:C:H42	1:1A:361:G:H1	1.38	0.69
1:1A:1083:U:H3	1:1A:1085:A:H5''	1.55	0.69
1:2A:1652:A:OP1	13:2R:8:ARG:NH1	2.25	0.69
12:2Q:11:LYS:NZ	12:2Q:88:GLY:O	2.22	0.69
40:2i:26:VAL:HG13	40:2i:61:ALA:HB3	1.74	0.69
1:2A:2042:A:OP1	61:2A:3932:HOH:O	2.09	0.69
6:2G:4:ASP:HA	6:2G:8:LYS:HE3	1.74	0.69
1:1A:1064:C:H1'	1:1A:1076:C:H5	1.57	0.69
1:2A:981:A:OP1	61:2A:3933:HOH:O	2.10	0.69
1:1A:731:C:OP2	61:1A:6140:HOH:O	2.10	0.69
32:1a:79:G:O6	32:1a:90:U:O2	2.10	0.69
1:2A:862:G:OP2	61:2A:3936:HOH:O	2.10	0.69
1:2A:787:U:OP2	61:2A:3935:HOH:O	2.10	0.69
1:1A:784:A:OP2	61:1A:6138:HOH:O	2.10	0.69
1:1A:787:U:OP1	61:1A:6123:HOH:O	2.09	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:832:G:OP1	61:1A:6143:HOH:O	2.11	0.69
1:1A:1267:U:OP1	61:1A:6142:HOH:O	2.11	0.69
4:1E:28:ALA:HB3	4:1E:93:VAL:HG12	1.75	0.69
32:1a:545:C:OP1	35:1d:61:LYS:NZ	2.24	0.69
49:1r:70:ILE:HG23	49:1r:79:LEU:HD23	1.74	0.69
1:2A:1783:A:N7	61:2A:4040:HOH:O	2.26	0.69
1:2A:2049:G:N7	61:2A:4030:HOH:O	2.24	0.69
54:2w:4:C:N4	54:2w:69:G:H1	1.91	0.69
1:1A:2136:C:N4	1:1A:2155:G:N1	2.39	0.69
3:1D:147:LEU:HD22	3:1D:155:LEU:HD11	1.74	0.69
5:1F:157:VAL:HB	5:1F:194:MET:HG2	1.75	0.69
32:2a:593:G:N2	61:2a:3318:HOH:O	2.21	0.69
32:2a:1105:A:H2'	32:2a:1106:G:H8	1.57	0.69
7:1H:98:LEU:HG	7:1H:125:VAL:HG23	1.72	0.69
34:1c:138:VAL:HG23	34:1c:149:ALA:HB3	1.74	0.69
1:2A:2224:G:OP2	61:2A:3938:HOH:O	2.11	0.69
32:2a:1129:C:O2'	32:2a:1130:A:N7	2.26	0.69
12:1Q:43:THR:HG22	12:1Q:94:VAL:HG12	1.75	0.68
32:1a:316:G:OP2	32:1a:351:G:O2'	2.11	0.68
32:1a:1390:U:OP1	61:1a:1913:HOH:O	2.10	0.68
32:2a:278:G:OP2	48:2q:41:LYS:NZ	2.21	0.68
1:1A:2049:G:N7	61:1A:6234:HOH:O	2.25	0.68
1:1A:2100:G:H1	1:1A:2189:U:H3	1.39	0.68
32:2a:1077:G:N2	32:2a:1080:A:OP2	2.22	0.68
1:1A:802:A:OP1	61:1A:6139:HOH:O	2.10	0.68
54:1w:60:U:H5''	54:1w:61:C:H5	1.57	0.68
1:1A:792:G:OP2	61:1A:6146:HOH:O	2.11	0.68
1:1A:1669:A:OP2	61:1A:6109:HOH:O	2.10	0.68
1:1A:2575:C:OP2	61:1A:6145:HOH:O	2.11	0.68
1:2A:563:G:O6	61:2A:3931:HOH:O	2.09	0.68
1:2A:880:G:H2'	1:2A:881:G:H8	1.59	0.68
1:2A:2552:OMU:OP2	61:2A:3937:HOH:O	2.10	0.68
2:2B:2:C:H2'	2:2B:3:C:H6	1.57	0.68
31:29:16:VAL:HG22	31:29:25:VAL:HG22	1.74	0.68
39:2h:10:LEU:HD22	39:2h:83:ILE:HD11	1.75	0.68
24:12:22:GLU:OE2	24:12:68:ARG:NH2	2.25	0.68
1:2A:1333:C:OP2	61:2A:3939:HOH:O	2.11	0.68
39:2h:64:LYS:HG2	39:2h:79:VAL:HG21	1.74	0.68
1:1A:1786:A:H1'	1:1A:1938:A:N6	2.08	0.68
2:1B:89:G:OP1	61:1B:301:HOH:O	2.10	0.68
5:1F:71:GLY:O	61:1F:401:HOH:O	2.11	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:21:50:ARG:NH1	23:21:57:GLU:OE2	2.26	0.68
32:2a:1351:U:H3	32:2a:1371:G:H1	1.40	0.68
1:1A:1701:A:OP2	61:1A:6149:HOH:O	2.12	0.68
1:1A:2404:C:O3'	11:1P:77:ARG:NH2	2.26	0.68
32:1a:1256:A:OP2	34:1c:26:LYS:NZ	2.22	0.68
32:1a:1505:G:OP2	61:1a:1915:HOH:O	2.11	0.68
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.29	0.68
6:2G:56:ALA:HA	6:2G:59:GLU:HG2	1.75	0.68
32:2a:393:A:OP1	61:2a:3305:HOH:O	2.10	0.68
2:1B:92:C:OP1	21:1Z:79:ARG:NH1	2.26	0.68
15:1T:116:ALA:HB1	15:1T:121:ILE:HD11	1.76	0.68
32:1a:1025:U:O2	32:1a:1036:G:O6	2.12	0.68
32:1a:1292:U:OP2	38:1g:41:ARG:NH2	2.26	0.68
1:2A:2576:G:OP1	61:2A:3923:HOH:O	2.10	0.68
2:2B:42:C:O2'	6:2G:67:LYS:O	2.08	0.68
6:2G:122:PRO:HB3	6:2G:170:ARG:HE	1.59	0.68
32:2a:504:C:OP1	61:2a:3306:HOH:O	2.12	0.68
1:1A:2592:G:OP1	61:1A:6144:HOH:O	2.11	0.68
6:1G:72:ARG:HH12	6:1G:87:PRO:HG3	1.58	0.68
1:2A:1327:C:OP2	61:2A:3943:HOH:O	2.12	0.68
1:2A:2345:G:H4'	1:2A:2346:A:H5''	1.76	0.68
32:2a:407:G:H5''	35:2d:115:ARG:HB3	1.74	0.68
1:2A:827:U:OP1	61:2A:3941:HOH:O	2.11	0.68
1:2A:968:G:H5'	25:23:17:LYS:HE2	1.75	0.68
1:2A:1420:U:O2'	1:2A:1421:G:OP1	2.11	0.68
32:2a:975:A:H4'	32:2a:976:G:H5''	1.74	0.68
1:1A:818:G:OP2	61:1A:6150:HOH:O	2.12	0.67
32:1a:153:C:H42	32:1a:169:C:H42	1.41	0.67
33:1b:16:HIS:HB2	33:1b:204:ASN:HB3	1.74	0.67
1:2A:987:G:O2'	1:2A:1000:A:N3	2.25	0.67
1:2A:1775:U:OP1	61:2A:3950:HOH:O	2.12	0.67
1:2A:2318:G:H21	14:2S:3:ARG:NE	1.91	0.67
50:2s:18:LYS:HB3	50:2s:31:ILE:HD13	1.76	0.67
1:1A:84:A:H5''	20:1Y:8:LYS:HG2	1.76	0.67
1:1A:249:C:O2	30:18:12:LYS:NZ	2.23	0.67
1:1A:1054:A:H61	1:1A:1105:U:H3	1.41	0.67
15:1T:60:THR:HG22	15:1T:77:PRO:HA	1.76	0.67
32:2a:1316:G:N7	50:2s:7:LYS:NZ	2.41	0.67
44:2m:91:ARG:HD2	44:2m:96:LEU:HB2	1.75	0.67
1:1A:805:G:OP1	61:1A:6154:HOH:O	2.12	0.67
1:1A:1670:C:O2	4:1E:129:HIS:NE2	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:586:A:N1	1:2A:809:G:O2'	2.27	0.67
1:1A:1069:A:H5'	1:1A:1070:A:H8	1.59	0.67
32:1a:1202:G:O4'	45:1n:29:ARG:NH1	2.27	0.67
32:2a:406:G:H5'	35:2d:5:ILE:HD11	1.76	0.67
36:2e:80:ILE:HG23	36:2e:91:LEU:HB2	1.75	0.67
52:2u:2:GLY:O	52:2u:4:GLY:N	2.22	0.67
1:1A:674:G:OP2	61:1A:6151:HOH:O	2.12	0.67
1:1A:1071:G:H1'	1:1A:1089:G:H2'	1.75	0.67
1:1A:1301:A:OP1	61:1A:6148:HOH:O	2.12	0.67
1:1A:1671:U:O4	61:1A:6109:HOH:O	2.07	0.67
1:2A:253:C:O2'	61:2A:3946:HOH:O	2.12	0.67
40:2i:105:ASP:HB2	40:2i:107:ARG:HG3	1.75	0.67
44:2m:3:ARG:N	44:2m:7:VAL:O	2.27	0.67
1:1A:2574:G:OP1	61:1A:6158:HOH:O	2.13	0.67
42:1k:85:ARG:HD3	42:1k:113:PRO:HD3	1.75	0.67
1:2A:1828:G:OP1	61:2A:3945:HOH:O	2.12	0.67
11:2P:56:SER:HB2	11:2P:61:ARG:HD2	1.77	0.67
30:28:14:VAL:HG12	30:28:24:ALA:HB2	1.76	0.67
5:1F:52:LYS:HG2	5:1F:56:GLU:HB2	1.76	0.67
9:2N:96:GLU:CD	9:2N:96:GLU:H	2.03	0.67
9:2N:128:HIS:O	9:2N:131:GLN:NE2	2.28	0.67
32:2a:737:A:H1'	37:2f:73:ASN:HD21	1.59	0.67
37:2f:24:GLU:O	37:2f:28:ARG:N	2.22	0.67
6:1G:66:GLN:HG2	26:14:1:MET:HE1	1.77	0.67
23:21:76:ARG:HB2	23:21:97:LEU:HD13	1.75	0.67
32:2a:977:A:O2'	32:2a:980:C:N4	2.27	0.67
32:2a:1029:C:N4	32:2a:1032:G:N1	2.42	0.67
51:2t:10:LEU:HG	51:2t:12:ALA:H	1.60	0.67
7:1H:92:ILE:HG23	7:1H:93:GLY:H	1.60	0.67
54:1y:19:G:C2	54:1y:56:C:N3	2.63	0.67
1:2A:1568:G:N7	61:2A:4053:HOH:O	2.28	0.67
1:1A:376:C:OP2	61:1A:6162:HOH:O	2.13	0.67
1:1A:2206:G:H3'	1:1A:2207:G:C8	2.30	0.67
17:1V:43:GLU:OE1	17:1V:43:GLU:N	2.28	0.67
32:1a:406:G:H21	35:1d:119:GLN:HE22	1.43	0.67
1:1A:674:G:H1'	5:1F:74:ARG:HD2	1.76	0.66
1:2A:890:A:H2'	1:2A:892:G:C8	2.30	0.66
39:2h:97:VAL:HG21	39:2h:128:GLY:HA2	1.77	0.66
1:1A:387:U:O4	61:1A:6137:HOH:O	2.10	0.66
32:1a:803:G:OP1	61:1a:1917:HOH:O	2.13	0.66
4:1E:127:ASP:OD2	61:1E:401:HOH:O	2.14	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1221:G:OP1	32:1a:1320:C:N4	2.29	0.66
1:2A:1667:G:O6	61:2A:3940:HOH:O	2.11	0.66
1:2A:2705:A:OP2	61:2A:3951:HOH:O	2.13	0.66
35:2d:100:ARG:NH2	35:2d:136:PRO:O	2.28	0.66
1:1A:198:C:OP2	61:1A:6165:HOH:O	2.14	0.66
32:1a:76:C:H42	32:1a:93:G:H1	1.43	0.66
42:1k:34:ASP:OD1	42:1k:38:ASN:N	2.27	0.66
1:1A:192:C:OP1	61:1A:6153:HOH:O	2.12	0.66
32:1a:1035:A:H2'	32:1a:1036:G:H21	1.60	0.66
45:1n:3:ARG:HA	45:1n:3:ARG:HE	1.59	0.66
1:2A:747:U:H1'	18:2W:92:ARG:HH22	1.58	0.66
1:2A:818:G:OP2	61:2A:3956:HOH:O	2.14	0.66
1:2A:2431:U:OP1	61:2A:3944:HOH:O	2.12	0.66
32:2a:976:G:H5'	32:2a:1358:U:O2'	1.95	0.66
1:1A:411:G:OP1	61:1A:6107:HOH:O	2.12	0.66
32:1a:171:A:H2'	32:1a:172:A:C8	2.31	0.66
34:1c:131:ARG:HH11	34:1c:166:GLU:HG3	1.61	0.66
1:2A:1779:U:OP2	61:2A:3954:HOH:O	2.13	0.66
1:1A:1164:G:H2'	1:1A:1165:U:C6	2.31	0.66
11:1P:37:GLY:O	11:1P:40:SER:OG	2.14	0.66
32:1a:410:G:OP1	35:1d:30:LYS:NZ	2.27	0.66
4:2E:116:VAL:HG21	4:2E:138:PRO:HB3	1.78	0.66
1:1A:1371:G:O6	61:1A:6156:HOH:O	2.12	0.66
1:2A:1336:A:H2'	1:2A:1337:G:C8	2.31	0.66
1:2A:2646:C:OP2	1:2A:2732:G:O2'	2.13	0.66
1:1A:2222:G:OP2	61:1A:6171:HOH:O	2.14	0.66
1:1A:2719:G:OP2	61:1A:6155:HOH:O	2.12	0.66
11:1P:39:LYS:HB2	11:1P:45:LEU:HD13	1.77	0.66
32:1a:1021:G:O2'	32:1a:1022:G:O5'	2.14	0.66
1:2A:1774:C:OP1	61:2A:3948:HOH:O	2.12	0.66
22:20:10:THR:HG22	22:20:12:ASN:H	1.61	0.66
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.76	0.66
32:2a:1226:C:OP2	44:2m:91:ARG:NH1	2.28	0.66
32:2a:1401:G:OP1	53:2v:18:G:O2'	2.11	0.66
47:2p:5:ARG:HH21	47:2p:28:ARG:HA	1.61	0.66
1:1A:847:U:OP2	61:1A:6161:HOH:O	2.13	0.66
1:1A:1062:G:H22	1:1A:1077:A:N6	1.93	0.66
1:1A:1629:U:OP1	61:1A:6167:HOH:O	2.14	0.66
1:1A:2243:U:OP1	61:1A:6168:HOH:O	2.14	0.66
12:1Q:11:LYS:NZ	12:1Q:88:GLY:O	2.29	0.66
21:1Z:104:PHE:HA	21:1Z:139:VAL:HG22	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:110:THR:HB	12:2Q:113:GLN:H	1.61	0.66
32:2a:1128:C:H1'	32:2a:1147:C:H42	1.59	0.66
32:2a:1129:C:H1'	32:2a:1146:A:H61	1.61	0.66
33:2b:91:PRO:HG3	33:2b:154:LEU:HG	1.78	0.66
38:2g:72:ARG:NH2	38:2g:142:GLU:OE2	2.29	0.66
44:2m:58:GLU:O	44:2m:62:ASN:ND2	2.29	0.66
1:1A:1342:A:OP2	61:1A:6166:HOH:O	2.14	0.65
21:1Z:150:LEU:HG	21:1Z:151:HIS:H	1.60	0.65
32:1a:224:C:OP1	51:1t:74:LYS:NZ	2.21	0.65
32:1a:1500:A:OP2	61:1a:1916:HOH:O	2.12	0.65
43:1l:84:LEU:HB3	43:1l:104:VAL:HG21	1.78	0.65
1:2A:304:G:O6	61:2A:3947:HOH:O	2.12	0.65
13:2R:57:ARG:NH2	13:2R:59:ASP:OD1	2.26	0.65
1:1A:639:U:O4	61:1A:6141:HOH:O	2.11	0.65
1:1A:1406:U:H2'	1:1A:1407:C:C6	2.30	0.65
1:1A:1778:U:OP1	61:1A:6157:HOH:O	2.12	0.65
1:1A:2169:A:H1'	54:1y:56:C:H5'	1.77	0.65
1:1A:2820:A:OP1	61:1A:6159:HOH:O	2.13	0.65
1:2A:1446:C:H42	1:2A:1465:G:H1	1.43	0.65
25:23:5:LYS:NZ	25:23:34:GLU:OE2	2.28	0.65
32:2a:558:G:OP1	61:2a:3310:HOH:O	2.15	0.65
32:2a:1029:C:N3	32:2a:1032:G:N2	2.39	0.65
1:1A:798:G:O6	61:1A:6147:HOH:O	2.12	0.65
1:2A:2114:A:H62	1:2A:2115:G:H21	1.42	0.65
1:2A:2314:C:H5'	6:2G:38:VAL:HG21	1.78	0.65
1:2A:2879:C:OP2	61:2A:3952:HOH:O	2.13	0.65
12:2Q:57:HIS:HD2	12:2Q:117:ALA:HB2	1.61	0.65
32:2a:1029:C:N4	32:2a:1031:G:O6	2.29	0.65
1:1A:2722:G:OP2	61:1A:6170:HOH:O	2.14	0.65
32:1a:406:G:N7	32:1a:495:A:O2'	2.27	0.65
39:1h:34:GLU:HB3	39:1h:118:VAL:HG21	1.78	0.65
1:2A:2375:G:N2	1:2A:2378:A:OP2	2.29	0.65
32:2a:735:C:H2'	32:2a:736:C:H6	1.61	0.65
32:1a:111:G:H5''	47:1p:27:LYS:HG2	1.78	0.65
40:1i:65:VAL:HG11	40:1i:77:ILE:HD11	1.78	0.65
46:1o:82:ILE:O	46:1o:86:GLY:N	2.28	0.65
9:2N:38:HIS:NE2	9:2N:50:ASP:OD2	2.27	0.65
9:2N:137:LYS:NZ	9:2N:139:GLU:OE2	2.26	0.65
12:2Q:97:VAL:HG11	12:2Q:103:MET:HE3	1.79	0.65
32:2a:617:G:OP2	61:2a:3309:HOH:O	2.15	0.65
32:2a:1320:C:N3	50:2s:36:ARG:NH2	2.45	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1396:A:OP2	61:2a:3308:HOH:O	2.15	0.65
1:1A:11:G:H2'	1:1A:12:U:H5'	1.77	0.65
1:1A:272:G:N7	1:1A:421:U:H2'	2.11	0.65
1:1A:882:G:H1	1:1A:894:C:H42	1.45	0.65
1:1A:2431:U:OP2	61:1A:6163:HOH:O	2.13	0.65
44:1m:53:VAL:HG12	44:1m:57:ARG:HH12	1.61	0.65
1:2A:1918:A:O2'	1:2A:1920:OMC:N4	2.30	0.65
1:2A:2268:A:OP1	61:2A:3960:HOH:O	2.15	0.65
1:2A:2499:C:OP1	61:2A:3910:HOH:O	2.15	0.65
32:2a:1105:A:H2'	32:2a:1106:G:C8	2.31	0.65
1:1A:641:C:O2'	1:1A:2350:C:OP1	2.10	0.65
1:1A:1174:A:H4'	1:1A:1175:U:OP1	1.94	0.65
1:1A:1509(A):A:H3'	1:1A:1509(B):A:H8	1.62	0.65
1:2A:386:G:O3'	61:2A:3953:HOH:O	2.13	0.65
1:2A:2140:C:N4	1:2A:2151:G:H1	1.95	0.65
5:2F:101:LEU:O	5:2F:106:ARG:NH1	2.29	0.65
42:2k:43:SER:HA	42:2k:47:VAL:HG21	1.79	0.65
7:1H:122:THR:O	7:1H:134:SER:OG	2.14	0.65
17:1V:76:LYS:HB2	17:1V:81:TYR:HB3	1.77	0.65
32:1a:1005:A:OP2	32:1a:1024:G:N2	2.30	0.65
6:2G:127:GLY:N	6:2G:166:ASP:OD1	2.26	0.65
21:2Z:39:VAL:HG21	21:2Z:44:PHE:HD1	1.62	0.65
1:1A:1359:A:H2'	1:1A:1360:A:H5'	1.79	0.65
1:1A:1381:G:N7	61:1A:6282:HOH:O	2.30	0.65
32:1a:1189:C:OP1	41:1j:51:ARG:NH2	2.22	0.65
4:2E:16:ARG:NH1	4:2E:171:GLU:OE2	2.28	0.65
36:2e:10:MET:HE2	36:2e:55:VAL:HG21	1.78	0.65
40:2i:64:THR:OG1	40:2i:66:ARG:NH2	2.29	0.65
32:1a:1015:A:N3	32:1a:1218:C:O2'	2.30	0.65
1:2A:1784:A:OP1	61:2A:3959:HOH:O	2.14	0.65
4:2E:47:VAL:HG11	4:2E:86:PRO:HD2	1.78	0.65
18:2W:18:ARG:HG2	18:2W:76:VAL:HB	1.79	0.65
34:2c:11:ARG:NH2	34:2c:177:THR:O	2.30	0.65
35:1d:173:TRP:CD1	35:1d:173:TRP:H	2.15	0.64
39:1h:10:LEU:HD22	39:1h:83:ILE:HD11	1.79	0.64
1:2A:861:A:N3	2:2B:79:C:O2'	2.28	0.64
1:2A:1183:G:H5''	25:23:30:ARG:NH2	2.11	0.64
1:2A:1795:C:O2	3:2D:255:LYS:NZ	2.26	0.64
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.32	0.64
32:1a:1277:C:O2'	32:1a:1279:A:H1'	1.98	0.64
1:2A:249:C:O2	30:28:12:LYS:NZ	2.29	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:141:GLN:NE2	21:2Z:74:VAL:O	2.31	0.64
48:2q:46:ASP:OD2	48:2q:50:LYS:N	2.29	0.64
1:1A:450:G:OP2	61:1A:6173:HOH:O	2.15	0.64
9:1N:73:THR:HB	9:1N:82:LEU:HD11	1.78	0.64
32:1a:1120:G:H1	32:1a:1153:C:H42	1.45	0.64
48:1q:13:ASP:HA	48:1q:19:VAL:HG12	1.80	0.64
1:2A:1335:U:O4	61:2A:3942:HOH:O	2.12	0.64
1:2A:1971:A:OP1	61:2A:3966:HOH:O	2.15	0.64
11:2P:19:VAL:HG12	11:2P:27:HIS:HB3	1.79	0.64
32:2a:1058:G:H1	32:2a:1199:U:H3	1.45	0.64
32:2a:1295:G:O2'	44:2m:14:ARG:NH1	2.31	0.64
1:1A:648:G:O6	61:1A:6141:HOH:O	2.11	0.64
1:1A:1332:G:OP1	61:1A:6118:HOH:O	2.15	0.64
5:1F:101:LEU:O	5:1F:106:ARG:NH1	2.30	0.64
34:1c:3:ASN:OD1	34:1c:3:ASN:N	2.31	0.64
1:2A:1782:C:OP1	61:2A:3964:HOH:O	2.15	0.64
1:2A:2782:G:OP2	61:2A:3958:HOH:O	2.14	0.64
9:2N:62:VAL:HG22	9:2N:66:LYS:HD2	1.78	0.64
32:2a:1270:C:OP2	52:2u:24:ARG:NH2	2.30	0.64
36:2e:5:ASP:N	36:2e:5:ASP:OD1	2.30	0.64
32:1a:472:A:H5''	47:1p:80:PHE:HB3	1.77	0.64
32:1a:584:G:O6	61:1a:1918:HOH:O	2.15	0.64
32:1a:1347:G:C8	40:1i:107:ARG:HB3	2.32	0.64
1:2A:2299:G:N1	1:2A:2318:G:N7	2.46	0.64
18:2W:88:ARG:NH1	18:2W:94:ASP:OD2	2.30	0.64
19:2X:32:PRO:HA	19:2X:77:LYS:HD2	1.79	0.64
32:2a:426:G:OP1	35:2d:38:TYR:OH	2.14	0.64
32:2a:932:C:H5''	38:2g:4:ARG:HE	1.63	0.64
1:1A:1069:A:H5'	1:1A:1070:A:C8	2.32	0.64
25:13:10:LYS:HB3	25:13:53:LEU:HA	1.79	0.64
32:1a:1186:G:H21	45:1n:61:TRP:C	2.06	0.64
32:1a:1346:A:O2'	38:1g:10:ARG:NH2	2.29	0.64
32:2a:596:C:OP2	61:2a:3311:HOH:O	2.15	0.64
32:2a:1505:G:O2'	53:2v:13:A:O2'	2.15	0.64
44:2m:107:ALA:HB3	44:2m:111:LYS:HE3	1.80	0.64
1:1A:2070:G:N3	61:1A:6281:HOH:O	2.30	0.64
1:1A:2123:G:H2'	1:1A:2124:G:H8	1.62	0.64
1:2A:1713:U:H2'	1:2A:1714:G:H8	1.63	0.64
1:2A:2847:U:OP1	15:2T:98:LYS:NZ	2.31	0.64
25:23:10:LYS:HB3	25:23:53:LEU:HA	1.80	0.64
32:2a:660:G:H1	32:2a:745:C:H42	1.46	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:81:VAL:O	33:2b:85:ALA:N	2.29	0.64
1:1A:414:C:H2'	1:1A:415:A:C8	2.33	0.64
1:1A:529:A:OP2	9:1N:114:ARG:NH2	2.30	0.64
1:1A:668:G:OP2	61:1A:6174:HOH:O	2.15	0.64
1:1A:1226:A:OP1	17:1V:84:LYS:NZ	2.26	0.64
32:1a:437:U:H5'	35:1d:155:LEU:HD21	1.80	0.64
32:1a:1223:C:OP2	50:1s:78:ARG:NH2	2.28	0.64
38:1g:79:ARG:HD2	38:1g:80:VAL:H	1.63	0.64
1:2A:1423:G:H2'	1:2A:1424:G:C8	2.32	0.64
1:2A:2318:G:H21	14:2S:3:ARG:HE	1.45	0.64
11:2P:50:ARG:HD3	30:28:7:HIS:CD2	2.32	0.64
7:1H:20:ALA:HB3	7:1H:23:ARG:HB2	1.80	0.64
15:1T:73:GLU:OE2	15:1T:103:ARG:NE	2.26	0.64
32:1a:118:U:O4	61:1a:1914:HOH:O	2.11	0.64
33:1b:74:LYS:NZ	33:1b:205:ASP:O	2.30	0.64
49:1r:52:PRO:HB2	49:1r:54:ARG:HG2	1.79	0.64
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.24	0.64
1:2A:2693:A:H2'	1:2A:2694:G:H8	1.63	0.64
1:2A:2751:G:H5'	7:2H:2:SER:HA	1.80	0.64
5:2F:103:LYS:HA	5:2F:106:ARG:HG3	1.79	0.64
33:2b:88:ALA:HB2	33:2b:219:VAL:HG13	1.78	0.64
37:2f:14:LEU:HD22	37:2f:18:GLN:HB3	1.79	0.64
1:1A:675:A:OP1	5:1F:63:LYS:NZ	2.28	0.64
1:1A:2478:A:H5'	31:19:31:LYS:HD3	1.79	0.64
19:1X:54:VAL:HG22	19:1X:81:VAL:HG12	1.78	0.64
30:18:37:SER:O	30:18:40:GLU:N	2.29	0.64
34:1c:52:LEU:HD21	34:1c:55:VAL:HG23	1.80	0.64
1:2A:995:C:OP2	16:2U:54:LYS:NZ	2.30	0.64
1:2A:1514:U:H2'	1:2A:1515:G:C8	2.32	0.64
1:2A:2064:C:OP2	61:2A:3963:HOH:O	2.15	0.64
19:2X:35:THR:HG23	19:2X:38:GLU:HB2	1.80	0.64
37:2f:41:GLU:OE2	49:2r:35:ARG:NH2	2.30	0.64
44:2m:122:LYS:HG3	44:2m:123:ALA:H	1.62	0.64
31:19:27:CYS:SG	31:19:28:GLU:N	2.71	0.63
32:1a:67:C:H2'	32:1a:68:G:C8	2.33	0.63
32:1a:1318:A:OP1	50:1s:7:LYS:NZ	2.24	0.63
45:1n:9:LYS:HG2	45:1n:12:ARG:HH21	1.61	0.63
1:1A:1045:A:H1'	1:1A:1047:G:N3	2.13	0.63
1:1A:2163:C:OP1	1:1A:2165:G:N2	2.31	0.63
32:1a:801:U:OP1	61:1a:1919:HOH:O	2.15	0.63
32:1a:1031:G:H2'	32:1a:1032:G:C8	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1303:C:OP2	61:1a:1920:HOH:O	2.15	0.63
1:2A:1603:A:OP1	61:2A:3957:HOH:O	2.14	0.63
32:2a:1148:U:H1'	40:2i:66:ARG:HH11	1.61	0.63
32:2a:1289:A:OP2	52:2u:9:ARG:NH2	2.30	0.63
40:2i:21:PRO:HA	40:2i:59:PHE:HA	1.81	0.63
2:1B:105:A:OP1	21:1Z:72:ARG:NH1	2.31	0.63
3:1D:183:ARG:HG3	3:1D:270:ILE:HD13	1.79	0.63
33:1b:166:ASP:HB3	33:1b:169:LYS:HB2	1.80	0.63
40:1i:128:ARG:NH1	55:1x:35:A:OP2	2.31	0.63
54:1w:23:A:H3'	54:1w:24:G:H8	1.62	0.63
1:2A:854:G:H2'	1:2A:855:G:H8	1.62	0.63
1:2A:2574:G:N2	4:2E:142:GLY:O	2.31	0.63
33:2b:178:ARG:HH22	39:2h:68:ARG:HH22	1.45	0.63
42:2k:27:ASN:OD1	42:2k:28:THR:N	2.27	0.63
1:1A:796:C:H2'	1:1A:797:C:C6	2.33	0.63
1:1A:1038:C:H42	1:1A:1117:G:H1	1.46	0.63
21:1Z:52:SER:C	21:1Z:54:HIS:H	2.07	0.63
1:2A:1627:G:OP2	61:2A:3965:HOH:O	2.15	0.63
1:2A:2401:U:OP1	28:26:18:ARG:NH2	2.30	0.63
8:2I:4:ILE:HG21	8:2I:47:LEU:HD22	1.80	0.63
32:2a:35:G:O2'	43:2l:118:SER:O	2.15	0.63
32:2a:407:G:OP1	35:2d:115:ARG:NH2	2.31	0.63
32:2a:544:G:OP1	35:2d:62:GLN:NE2	2.32	0.63
32:2a:1529:G:H4'	32:2a:1530:G:OP2	1.98	0.63
42:2k:92:GLU:OE1	42:2k:96:ARG:NH2	2.32	0.63
26:14:61:ARG:HH21	50:1s:9:VAL:HG11	1.63	0.63
1:2A:1713:U:H2'	1:2A:1714:G:C8	2.34	0.63
32:2a:11:G:H1	32:2a:23:C:H42	1.45	0.63
32:2a:235:C:H2'	32:2a:236:G:H8	1.63	0.63
32:2a:1353:G:H1	32:2a:1369:C:H42	1.46	0.63
33:2b:54:THR:HA	33:2b:199:TYR:HD1	1.64	0.63
36:2e:32:VAL:HG11	36:2e:59:GLY:HA2	1.80	0.63
39:2h:34:GLU:OE1	39:2h:37:ARG:NH1	2.30	0.63
44:2m:23:TYR:HB3	44:2m:67:GLU:HA	1.78	0.63
1:2A:1658:C:OP1	61:2A:3968:HOH:O	2.15	0.63
6:2G:7:LEU:HD13	6:2G:104:GLU:HA	1.81	0.63
32:2a:656:C:O2'	46:2o:28:GLN:OE1	2.16	0.63
45:2n:23:ARG:NH1	45:2n:28:GLY:O	2.32	0.63
1:1A:668:G:H5'	1:1A:669:G:OP2	1.99	0.63
1:1A:1253:A:N7	61:1A:6239:HOH:O	2.31	0.63
13:1R:20:LEU:HD21	13:1R:40:LYS:HD3	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1Z:156:LYS:HD2	21:1Z:158:PRO:HD3	1.81	0.63
15:2T:60:THR:HG22	15:2T:77:PRO:HA	1.79	0.63
32:2a:9:G:H2'	32:2a:10:A:H8	1.62	0.63
32:1a:864:A:OP1	61:1a:1922:HOH:O	2.16	0.63
40:1i:52:ALA:HB2	40:1i:99:LEU:HD12	1.80	0.63
1:2A:606:U:OP2	5:2F:104:LYS:NZ	2.32	0.63
1:2A:1035:U:H5''	7:2H:59:ARG:HD3	1.81	0.63
32:2a:1111:A:N1	34:2c:177:THR:OG1	2.29	0.63
1:1A:2430:A:OP1	61:1A:6177:HOH:O	2.16	0.63
32:1a:7:G:O2'	36:1e:120:THR:O	2.16	0.63
32:1a:376:G:H5''	47:1p:5:ARG:HB3	1.79	0.63
39:1h:27:PRO:O	39:1h:32:LYS:NZ	2.20	0.63
48:1q:67:LYS:O	48:1q:68:ARG:HB2	1.98	0.63
32:2a:1310:G:H5'	44:2m:77:ASN:ND2	2.08	0.63
1:1A:730:C:H3'	61:1A:6140:HOH:O	1.99	0.62
1:1A:1120:G:O6	61:1A:6172:HOH:O	2.14	0.62
1:1A:2608:G:N7	61:1A:6288:HOH:O	2.30	0.62
10:1O:48:PRO:HB3	32:1a:1422:G:H5''	1.81	0.62
32:1a:110:C:O2'	47:1p:25:ARG:O	2.16	0.62
38:1g:115:ARG:HH11	38:1g:118:VAL:HG21	1.64	0.62
1:2A:860:U:H1'	1:2A:2268:A:H5'	1.81	0.62
32:2a:406:G:H21	35:2d:119:GLN:HE22	1.48	0.62
32:2a:1118:C:N3	32:2a:1156:G:N2	2.47	0.62
33:2b:8:LYS:HG2	33:2b:217:ARG:HG3	1.81	0.62
33:2b:185:ILE:HG22	33:2b:199:TYR:HB2	1.81	0.62
40:2i:55:ALA:HA	40:2i:58:HIS:HD2	1.62	0.62
1:1A:2441:C:OP2	1:1A:2586:C:O2'	2.17	0.62
1:1A:2646:C:OP2	1:1A:2732:G:O2'	2.17	0.62
32:1a:542:G:P	35:1d:10:ARG:HH22	2.22	0.62
33:1b:142:LEU:HA	33:1b:145:LEU:HD12	1.80	0.62
1:2A:1986:A:OP1	61:2A:3969:HOH:O	2.15	0.62
17:2V:43:GLU:OE1	17:2V:43:GLU:N	2.32	0.62
32:2a:1251:A:O2'	32:2a:1369:C:O2'	2.11	0.62
1:1A:1529:G:H2'	1:1A:1530:C:O4'	2.00	0.62
5:2F:167:ALA:HB1	5:2F:173:VAL:HG11	1.81	0.62
32:2a:708:C:H2'	32:2a:709:G:H8	1.64	0.62
35:2d:76:ARG:NE	35:2d:80:GLU:OE2	2.28	0.62
39:2h:36:LEU:HA	39:2h:39:LEU:HD12	1.81	0.62
40:2i:110:GLU:OE2	40:2i:113:LYS:NZ	2.32	0.62
16:1U:28:ARG:NH1	16:1U:38:THR:OG1	2.32	0.62
32:1a:328:C:H4'	32:1a:329:A:H5'	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:335:C:O2'	32:1a:1433:A:N3	2.30	0.62
32:1a:976:G:H5'	32:1a:1358:U:O2'	1.98	0.62
33:1b:62:ALA:HB2	33:1b:222:ILE:HG22	1.81	0.62
5:2F:102:PRO:HB2	5:2F:105:VAL:HG23	1.82	0.62
14:2S:25:ARG:O	14:2S:40:ILE:N	2.29	0.62
32:2a:1118:C:OP1	40:2i:104:ARG:NH1	2.30	0.62
1:1A:976:C:OP1	61:1A:6178:HOH:O	2.16	0.62
1:1A:1889:A:H2'	1:1A:1890:A:C8	2.35	0.62
1:1A:2101:G:H1	1:1A:2188:C:H42	1.47	0.62
3:2D:218:ARG:HB3	3:2D:219:PRO:HD2	1.80	0.62
32:2a:559:A:OP2	36:2e:126:ARG:NH2	2.31	0.62
50:1s:27:GLU:HB2	50:1s:28:LYS:HG3	1.80	0.62
1:2A:1639:U:H2'	1:2A:1640:C:H5''	1.82	0.62
1:2A:2183:C:H2'	1:2A:2184:G:H8	1.65	0.62
21:2Z:153:SER:HB2	21:2Z:167:PRO:HB3	1.81	0.62
1:1A:1636:C:H2'	1:1A:1637:A:C8	2.34	0.62
32:1a:1226:C:O2'	44:1m:111:LYS:NZ	2.32	0.62
1:2A:89:G:H3'	1:2A:90:U:H5''	1.81	0.62
1:2A:918:A:H2	2:2B:81:G:H5'	1.63	0.62
16:2U:28:ARG:NH1	16:2U:38:THR:OG1	2.29	0.62
32:2a:546:G:OP1	35:2d:73:ARG:HG2	1.99	0.62
39:2h:86:ILE:HG21	39:2h:133:LEU:HD13	1.81	0.62
32:1a:542:G:OP1	35:1d:10:ARG:NH2	2.32	0.62
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.34	0.62
38:1g:79:ARG:HD2	38:1g:80:VAL:N	2.15	0.62
1:2A:947:G:H2'	1:2A:948:G:C8	2.34	0.62
1:2A:1939:5MU:OP1	1:2A:2604:U:O2'	2.17	0.62
13:2R:98:LEU:HD12	13:2R:113:LEU:HD11	1.80	0.62
34:2c:41:GLY:O	34:2c:45:LYS:NZ	2.32	0.62
33:1b:74:LYS:HB3	33:1b:169:LYS:HE3	1.81	0.62
1:2A:2630:G:H2'	1:2A:2631:G:C8	2.35	0.62
23:21:80:LEU:HD12	23:21:82:LEU:HD11	1.80	0.62
36:2e:83:GLU:HA	36:2e:88:LYS:HA	1.82	0.62
1:1A:729:G:C6	3:1D:208:LYS:HB2	2.35	0.62
1:1A:2012:G:OP2	18:1W:16:LYS:NZ	2.33	0.62
1:1A:2096:U:H3	1:1A:2193:G:H1	1.48	0.62
11:1P:50:ARG:HH21	30:18:7:HIS:HD2	1.46	0.62
32:1a:1118:C:OP1	40:1i:104:ARG:NH1	2.32	0.62
32:1a:1305:G:H22	32:1a:1331:G:H1'	1.64	0.62
1:2A:2393:A:H5''	11:2P:63:PRO:HB3	1.81	0.62
2:2B:24:G:O2'	2:2B:56:G:N7	2.30	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:35:VAL:HG22	12:2Q:102:VAL:HG22	1.81	0.62
32:2a:189(K):U:H2'	32:2a:189(L):G:C8	2.34	0.62
32:2a:1049:U:O4	45:2n:3:ARG:NH1	2.31	0.62
35:2d:157:LEU:O	35:2d:161:ASN:ND2	2.24	0.62
1:1A:436:C:H2'	1:1A:437:G:C8	2.34	0.61
32:1a:455:C:H42	32:1a:476:G:H1	1.48	0.61
32:1a:501:C:OP1	43:1l:117:ARG:NH2	2.32	0.61
35:1d:94:LEU:HA	35:1d:97:LEU:HD12	1.81	0.61
36:2e:77:PRO:HG2	36:2e:142:LEU:HD22	1.82	0.61
37:2f:76:ALA:HA	37:2f:79:LEU:HD12	1.81	0.61
35:1d:7:PRO:HB2	35:1d:10:ARG:HD2	1.81	0.61
45:1n:4:LYS:HE3	45:1n:7:ILE:HD12	1.81	0.61
1:2A:277:C:H4'	1:2A:278:A:C8	2.35	0.61
1:2A:893:C:H2'	1:2A:894:C:C5	2.36	0.61
3:2D:145:VAL:HG13	3:2D:191:ALA:HB2	1.81	0.61
20:2Y:29:GLU:HB3	20:2Y:38:ILE:HD12	1.82	0.61
32:2a:692:U:O2'	32:2a:694:A:N7	2.30	0.61
32:2a:921:U:O2	36:2e:19:MET:HB2	2.00	0.61
1:1A:184:C:H2'	1:1A:185:U:C6	2.34	0.61
5:1F:127:GLU:HG2	5:1F:196:LEU:HD12	1.82	0.61
1:2A:2756:U:H3	1:2A:2758:A:H62	1.49	0.61
22:20:54:GLY:O	22:20:57:PHE:N	2.33	0.61
32:2a:1124:G:H4'	41:2j:38:ILE:HD11	1.82	0.61
35:2d:121:VAL:HG22	35:2d:126:ILE:HG13	1.82	0.61
1:1A:1588:C:H2'	1:1A:1589:C:H6	1.63	0.61
6:1G:79:ASN:OD1	6:1G:79:ASN:N	2.33	0.61
32:1a:1366:C:O2'	41:1j:60:ARG:NH2	2.33	0.61
48:1q:95:TYR:HA	48:1q:98:LEU:HD22	1.81	0.61
1:2A:500:G:H22	1:2A:503:A:H5'	1.66	0.61
1:2A:794:G:H2'	1:2A:795:C:C6	2.36	0.61
1:2A:855:G:O6	61:2A:3961:HOH:O	2.15	0.61
1:2A:958:U:O2	2:2B:90:A:O2'	2.15	0.61
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.36	0.61
14:2S:14:VAL:O	14:2S:18:ILE:HG12	2.00	0.61
36:2e:75:THR:HA	36:2e:115:VAL:HG23	1.83	0.61
1:1A:639:U:H2'	1:1A:640:C:C6	2.35	0.61
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	1.83	0.61
36:2e:8:GLU:HG2	36:2e:34:VAL:HG23	1.81	0.61
50:2s:38:SER:HB2	50:2s:71:LEU:HD22	1.82	0.61
1:1A:570:G:O6	61:1A:6106:HOH:O	2.12	0.61
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:39:LYS:NZ	3:1D:57:GLY:O	2.33	0.61
33:1b:18:GLY:HA3	33:1b:42:ILE:HG13	1.82	0.61
1:2A:1607:C:N4	1:2A:1622:G:OP2	2.31	0.61
32:2a:707:C:OP1	42:2k:85:ARG:NH1	2.34	0.61
32:2a:1295:G:O2'	32:2a:1302:U:O4	2.14	0.61
35:2d:82:ALA:HB1	35:2d:92:VAL:HG13	1.81	0.61
35:2d:162:LEU:HA	35:2d:165:MET:HB2	1.83	0.61
50:2s:41:VAL:HG13	50:2s:43:GLU:H	1.66	0.61
1:1A:1609:A:N1	61:1A:6294:HOH:O	2.31	0.61
32:1a:1144:G:N2	32:1a:1146:A:H62	1.99	0.61
32:1a:1224:G:OP1	61:1a:1921:HOH:O	2.16	0.61
50:1s:20:LEU:HD23	50:1s:23:ASN:HD22	1.65	0.61
1:2A:764:A:H5''	3:2D:210:GLY:HA2	1.82	0.61
1:2A:969:U:O4	61:2A:3967:HOH:O	2.15	0.61
2:2B:87:G:N2	2:2B:90:A:OP2	2.33	0.61
34:2c:130:VAL:HB	34:2c:157:ILE:HG23	1.83	0.61
32:1a:1368:G:OP1	40:1i:111:ARG:NH2	2.34	0.61
1:2A:1557:C:OP2	1:2A:1558:A:O2'	2.18	0.61
19:2X:32:PRO:O	19:2X:77:LYS:NZ	2.30	0.61
1:1A:636:G:O2'	1:1A:638:G:O2'	2.18	0.61
1:1A:687:C:H5''	29:17:2:LYS:HE2	1.82	0.61
4:1E:47:VAL:HG11	4:1E:86:PRO:HD2	1.82	0.61
32:1a:45:U:H2'	32:1a:46:G:C8	2.36	0.61
32:1a:580:U:H3	32:1a:761:G:H1	1.48	0.61
33:1b:59:GLU:HG2	33:1b:225:ALA:HB2	1.82	0.61
1:2A:307:G:H21	1:2A:330:A:H62	1.47	0.61
1:2A:2689:U:OP2	1:2A:2719:G:N2	2.33	0.61
21:2Z:130:PRO:HA	21:2Z:133:ILE:HG13	1.82	0.61
32:2a:624:C:H2'	32:2a:625:G:H8	1.66	0.61
32:2a:953:G:H5'	32:2a:965:A:H61	1.66	0.61
1:1A:1498:C:OP1	61:1A:6175:HOH:O	2.15	0.61
1:1A:1798:U:H5'	3:1D:259:THR:HG22	1.82	0.61
7:1H:86:GLU:HG3	7:1H:132:ARG:HH21	1.64	0.61
1:2A:286:C:H42	1:2A:355:G:H1	1.49	0.61
1:2A:1297:C:OP2	61:2A:3970:HOH:O	2.16	0.61
1:2A:1823:G:OP1	3:2D:54:ARG:NH1	2.33	0.61
5:2F:28:ILE:HG13	5:2F:112:MET:HG2	1.81	0.61
20:2Y:98:VAL:HG12	20:2Y:105:ALA:HA	1.83	0.61
42:2k:77:MET:HE3	42:2k:80:VAL:HG12	1.83	0.61
10:1O:105:GLU:OE1	10:1O:105:GLU:N	2.32	0.60
32:1a:1226:C:H2'	44:1m:103:THR:HB	1.81	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:1h:34:GLU:OE1	39:1h:37:ARG:NH1	2.34	0.60
1:1A:2328:A:H2'	1:1A:2329:G:C8	2.36	0.60
11:1P:59:LEU:HD11	30:18:10:ALA:HA	1.83	0.60
32:1a:1255:G:N7	41:1j:43:ARG:NH2	2.49	0.60
32:1a:1456:G:O3'	51:1t:39:LYS:NZ	2.34	0.60
54:1w:76:A:OP1	61:1w:201:HOH:O	2.15	0.60
1:2A:631:A:OP1	11:2P:65:ARG:NH1	2.33	0.60
1:2A:2114:A:N6	1:2A:2115:G:H21	2.00	0.60
36:2e:102:ALA:HB1	36:2e:106:PRO:HB2	1.82	0.60
1:1A:1186:G:OP1	61:1A:6183:HOH:O	2.17	0.60
6:1G:43:LEU:HB2	6:1G:89:GLY:HA2	1.82	0.60
7:1H:90:LYS:NZ	7:1H:159:GLU:OE2	2.23	0.60
21:1Z:69:THR:HG22	21:1Z:90:VAL:HA	1.83	0.60
32:1a:1030(B):C:H2'	32:1a:1030(C):G:H5'	1.83	0.60
1:2A:2533:A:OP1	1:2A:2665:A:O2'	2.19	0.60
32:2a:532:A:N6	32:2a:1206:G:O2'	2.34	0.60
32:2a:1122:U:H2'	32:2a:1123:A:C8	2.36	0.60
47:2p:19:ILE:HD13	47:2p:51:VAL:HG22	1.83	0.60
52:2u:5:ASP:O	52:2u:11:GLY:HA3	2.02	0.60
1:1A:365:C:OP2	61:1A:6176:HOH:O	2.16	0.60
1:1A:1060:U:H3	1:1A:1088:A:H8	1.48	0.60
1:1A:1693:U:O2'	3:1D:14:ARG:NH2	2.34	0.60
6:1G:105:LYS:NZ	26:14:25:TYR:O	2.26	0.60
13:1R:33:ARG:NH2	13:1R:115:GLU:OE1	2.27	0.60
33:1b:82:ARG:NH1	33:1b:92:TYR:OH	2.34	0.60
48:1q:18:THR:OG1	48:1q:69:LYS:NZ	2.29	0.60
54:1y:26:A:N6	54:1y:44:G:H1	1.99	0.60
1:2A:1636:C:H2'	1:2A:1637:A:C8	2.36	0.60
1:1A:2023:G:H5'	1:1A:2617:C:H4'	1.82	0.60
1:2A:307:G:N1	1:2A:310:A:OP2	2.35	0.60
1:2A:1754:C:OP1	15:2T:96:ARG:NH1	2.35	0.60
1:2A:2377:A:H2'	1:2A:2378:A:C8	2.36	0.60
2:2B:3:C:H2'	2:2B:4:C:C6	2.37	0.60
32:2a:196:A:OP1	51:2t:68:LYS:NZ	2.25	0.60
32:2a:1190:G:H5''	34:2c:176:HIS:CE1	2.36	0.60
1:1A:2103:C:H2'	1:1A:2104:G:C8	2.36	0.60
1:1A:2537:U:H2'	1:1A:2538:C:C6	2.37	0.60
1:1A:2848:G:C8	15:1T:97:ALA:HB2	2.36	0.60
15:1T:74:ARG:HG2	15:1T:76:PHE:CZ	2.36	0.60
1:2A:2299:G:H2'	1:2A:2300:G:H8	1.65	0.60
33:2b:80:ILE:HD13	33:2b:211:ILE:HB	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:201:GLN:HE22	36:2e:100:VAL:HG22	1.67	0.60
55:2x:8:4SU:O5'	55:2x:8:4SU:H6	2.00	0.60
1:1A:1087:G:H1	1:1A:1102:C:H42	1.49	0.60
32:1a:1209:C:O2'	32:1a:1214:C:N4	2.34	0.60
32:1a:1518:MA6:H93	32:1a:1519:MA6:H92	1.84	0.60
34:1c:63:ASN:HA	34:1c:98:ASN:HB2	1.83	0.60
54:1y:66:U:H2'	54:1y:67:C:C6	2.37	0.60
32:2a:1108:G:O6	61:2a:3307:HOH:O	2.14	0.60
32:2a:1286:A:C8	32:2a:1287:A:H4'	2.35	0.60
1:1A:1263:U:OP1	27:15:16:ARG:NH1	2.35	0.60
1:1A:1991:U:H2'	1:1A:1992:G:H5''	1.84	0.60
1:2A:1269:A:OP1	61:2A:3974:HOH:O	2.16	0.60
3:2D:4:LYS:HB2	3:2D:18:VAL:HG23	1.84	0.60
32:2a:409:G:H1	32:2a:433:C:H42	1.47	0.60
32:2a:1347:G:HO2'	32:2a:1373:G:H1	1.49	0.60
35:2d:150:GLU:OE1	35:2d:151:LYS:N	2.25	0.60
1:1A:64:A:C5	19:1X:66:LEU:HD22	2.37	0.60
1:1A:1187:G:H5''	17:1V:81:TYR:CE1	2.37	0.60
32:1a:405:U:OP2	35:1d:3:ARG:NH1	2.35	0.60
34:1c:59:ARG:HG3	34:1c:64:VAL:HB	1.84	0.60
6:2G:145:THR:HB	6:2G:148:MET:HG2	1.83	0.60
32:2a:1151:A:O2'	32:2a:1152:A:O5'	2.19	0.60
1:1A:1554:A:N6	61:1A:6326:HOH:O	2.35	0.60
26:14:55:ARG:H	26:14:56:VAL:HA	1.65	0.60
32:1a:1030(D):A:H62	32:1a:1031:G:H21	1.48	0.60
1:2A:1388:G:H2'	1:2A:1389:G:H8	1.66	0.60
1:2A:2079:U:OP1	23:21:21:ARG:NH2	2.34	0.60
19:2X:44:GLU:OE2	61:2X:201:HOH:O	2.16	0.60
34:2c:159:GLY:HA2	34:2c:193:TYR:CZ	2.36	0.60
1:1A:1300:U:H4'	1:1A:1301:A:H5''	1.84	0.59
17:1V:14:VAL:HB	17:1V:96:ILE:HG13	1.83	0.59
32:1a:727:G:N2	32:1a:730:G:OP2	2.23	0.59
51:1t:43:LEU:O	51:1t:47:GLY:N	2.32	0.59
6:2G:37:VAL:HG21	6:2G:103:LEU:HD21	1.84	0.59
32:2a:1068:G:N2	32:2a:1191:A:N3	2.41	0.59
1:1A:527:C:OP1	61:1A:6180:HOH:O	2.16	0.59
1:1A:1918:A:N6	61:1A:6219:HOH:O	2.35	0.59
1:1A:2316:C:O2'	6:1G:128:ARG:NH2	2.35	0.59
26:14:24:THR:OG1	26:14:25:TYR:N	2.30	0.59
32:1a:1125:U:H4'	41:1j:5:ARG:HH22	1.67	0.59
47:1p:15:PRO:HD2	47:1p:42:ARG:HD3	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:760:G:OP1	61:2A:3973:HOH:O	2.16	0.59
34:2c:124:ILE:HB	34:2c:130:VAL:HG22	1.84	0.59
44:2m:108:ARG:NH1	44:2m:112:GLY:O	2.36	0.59
46:2o:54:ARG:HG2	46:2o:58:MET:HE2	1.84	0.59
1:1A:2816:C:O3'	13:1R:99:LYS:NZ	2.35	0.59
2:1B:13:A:N1	2:1B:69:G:O2'	2.27	0.59
8:1I:77:LEU:HD11	8:1I:101:LEU:HD22	1.84	0.59
1:2A:80:G:O2'	1:2A:294:A:N1	2.31	0.59
1:2A:1022:G:N2	1:2A:1142(A):A:H2	2.00	0.59
1:2A:2392:A:OP2	30:28:31:HIS:NE2	2.22	0.59
1:2A:2431:U:OP2	61:2A:3976:HOH:O	2.17	0.59
11:2P:54:GLY:O	61:2P:301:HOH:O	2.17	0.59
32:2a:1179:A:OP2	40:2i:93:ARG:NH2	2.35	0.59
1:1A:1094:U:N3	1:1A:1097:U:OP2	2.30	0.59
6:1G:47:LYS:NZ	6:1G:80:PHE:O	2.29	0.59
22:10:11:ARG:O	22:10:14:ARG:NH2	2.34	0.59
31:19:32:HIS:O	31:19:34:GLN:HG3	2.02	0.59
47:1p:20:VAL:HG23	47:1p:35:LYS:HA	1.85	0.59
1:2A:2379:G:O2'	14:2S:17:ARG:NH1	2.28	0.59
1:2A:2785:C:OP1	4:2E:41:LYS:NZ	2.35	0.59
2:2B:54:G:H21	6:2G:29:TRP:HZ2	1.49	0.59
6:2G:50:ALA:O	6:2G:52:ILE:N	2.26	0.59
32:2a:1166:G:N2	32:2a:1170:A:OP2	2.35	0.59
32:2a:1376:U:H2'	32:2a:1377:A:C8	2.38	0.59
33:2b:115:LEU:HD13	33:2b:153:ARG:HH11	1.66	0.59
33:1b:167:PRO:O	33:1b:171:ALA:N	2.35	0.59
35:1d:173:TRP:HB3	35:1d:187:ARG:HG3	1.85	0.59
39:1h:29:SER:HB3	39:1h:32:LYS:HD3	1.84	0.59
41:1j:78:ASN:O	41:1j:80:LYS:N	2.32	0.59
54:1w:9:A:N3	54:1w:45:U:H2'	2.16	0.59
1:2A:1038:C:H42	1:2A:1117:G:H1	1.50	0.59
2:2B:75:G:H22	21:2Z:73:GLN:NE2	2.01	0.59
32:2a:662:G:H2'	32:2a:663:A:C8	2.37	0.59
36:2e:84:PHE:O	36:2e:86:ALA:N	2.36	0.59
1:1A:1823:G:OP1	3:1D:54:ARG:NH1	2.36	0.59
7:1H:137:ASP:HB3	7:1H:140:LYS:HB2	1.85	0.59
32:1a:877:C:OP1	39:1h:88:LYS:NZ	2.19	0.59
50:1s:15:LEU:HD13	50:1s:33:THR:HB	1.84	0.59
1:2A:27:G:N2	1:2A:512:G:H1'	2.18	0.59
1:2A:2134:A:H62	1:2A:2157:G:H4'	1.68	0.59
32:2a:429:U:OP1	35:2d:13:ARG:NH1	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:2n:24:CYS:HB3	45:2n:29:ARG:H	1.67	0.59
1:1A:1762:A:H2'	61:1A:7622:HOH:O	2.01	0.59
21:1Z:138:GLU:N	21:1Z:156:LYS:HZ1	2.01	0.59
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.38	0.59
1:2A:2320:A:H1'	1:2A:2321:G:C2	2.37	0.59
32:2a:1004:A:N6	32:2a:1037:C:O2	2.24	0.59
34:2c:30:ARG:HE	45:2n:38:GLY:HA3	1.68	0.59
1:1A:602:G:O2'	1:1A:655:A:N6	2.35	0.59
1:1A:2114:A:N6	1:1A:2119:A:N7	2.50	0.59
1:1A:2140:C:H2'	1:1A:2141:G:C8	2.37	0.59
12:1Q:42:ILE:O	12:1Q:95:ALA:N	2.36	0.59
32:1a:1309:G:OP1	44:1m:88:ARG:NH2	2.31	0.59
38:1g:78:ARG:NH1	38:1g:154:TYR:O	2.36	0.59
6:2G:19:LEU:HB3	6:2G:25:TYR:HE2	1.68	0.59
32:2a:1528:U:H4'	32:2a:1529:G:H21	1.67	0.59
38:2g:153:HIS:CE1	42:2k:58:PRO:HD2	2.37	0.59
54:2y:5:G:H1	54:2y:68:C:H42	1.50	0.59
7:1H:56:SER:OG	7:1H:57:ASP:N	2.35	0.59
32:2a:107:G:H2'	32:2a:108:G:O4'	2.03	0.59
36:2e:100:VAL:O	36:2e:107:ARG:NH1	2.28	0.59
1:2A:604:G:OP2	11:2P:90:ARG:NH1	2.36	0.59
1:2A:646:A:H2'	1:2A:647:G:O4'	2.03	0.59
1:2A:2497:A:O2'	61:2A:3979:HOH:O	2.17	0.59
2:2B:101:G:OP2	61:2B:301:HOH:O	2.17	0.59
32:2a:46:G:H2'	32:2a:366:C:C5	2.38	0.59
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.37	0.58
1:1A:2848:G:H8	15:1T:97:ALA:HB2	1.68	0.58
32:1a:148:G:H2'	32:1a:149:A:C8	2.36	0.58
1:2A:1891:G:O6	61:2A:3962:HOH:O	2.15	0.58
22:20:53:MET:HG2	22:20:57:PHE:HA	1.85	0.58
1:1A:271(M):G:N2	8:1I:50:ARG:HH12	2.01	0.58
1:1A:816:C:OP2	61:1A:6184:HOH:O	2.17	0.58
1:1A:1062:G:H2'	1:1A:1063:G:C8	2.38	0.58
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.38	0.58
12:2Q:54:MET:HE1	12:2Q:104:PHE:HB3	1.84	0.58
30:28:22:VAL:HG12	30:28:50:LEU:HD12	1.85	0.58
32:2a:539:A:H2'	32:2a:540:G:C8	2.38	0.58
32:2a:1259:C:C4	32:2a:1260:C:H1'	2.38	0.58
33:2b:162:ILE:HD11	33:2b:184:VAL:HG22	1.85	0.58
1:1A:2105:C:H2'	1:1A:2106:G:C8	2.38	0.58
3:1D:96:HIS:HD2	3:1D:102:LYS:HG2	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:12:14:ARG:O	24:12:67:LYS:NZ	2.29	0.58
32:1a:1508:G:OP1	61:1a:1924:HOH:O	2.17	0.58
35:1d:102:ASP:OD1	35:1d:103:ASN:N	2.36	0.58
46:1o:39:LEU:HD13	46:1o:56:LEU:HB2	1.85	0.58
1:2A:2232:U:P	23:21:40:ARG:HH12	2.25	0.58
10:2O:77:ILE:HB	15:2T:74:ARG:HH11	1.67	0.58
11:2P:121:LYS:HB3	11:2P:123:LEU:HD13	1.83	0.58
32:2a:359:U:H2'	32:2a:360:A:H8	1.67	0.58
32:2a:512:U:H2'	32:2a:513:C:H6	1.67	0.58
32:2a:838:G:H1	32:2a:848:C:H42	1.49	0.58
35:2d:32:ALA:O	35:2d:36:ARG:N	2.27	0.58
1:1A:1028:A:N6	1:1A:1125:G:H2'	2.19	0.58
1:1A:2710:C:O2'	61:1A:6169:HOH:O	2.14	0.58
32:1a:509:A:OP2	61:1a:1923:HOH:O	2.17	0.58
32:2a:1406:U:H3'	32:2a:1407:5MC:HM53	1.84	0.58
42:2k:62:GLN:HG3	42:2k:97:ALA:HB2	1.85	0.58
46:2o:29:VAL:HG13	46:2o:63:ARG:HG3	1.84	0.58
61:1A:6133:HOH:O	55:1x:75:C:OP1	2.17	0.58
32:1a:7:G:H2'	36:1e:119:LEU:HD22	1.85	0.58
32:1a:269:C:H2'	32:1a:270:A:C8	2.38	0.58
33:1b:80:ILE:HD12	33:1b:211:ILE:HG22	1.85	0.58
36:1e:98:THR:OG1	36:1e:99:GLY:N	2.34	0.58
48:1q:31:LEU:HD23	48:1q:32:TYR:CZ	2.38	0.58
50:1s:43:GLU:OE1	50:1s:43:GLU:N	2.37	0.58
54:1w:8:4SU:O5'	54:1w:8:4SU:H6	2.04	0.58
54:1w:60:U:H5''	54:1w:61:C:C5	2.37	0.58
1:2A:2079:U:O3'	23:21:35:THR:OG1	2.22	0.58
32:2a:547:A:OP1	61:2a:3314:HOH:O	2.17	0.58
32:2a:839:U:H3'	32:2a:840:C:H5'	1.84	0.58
47:2p:53:VAL:HG23	47:2p:79:VAL:HG22	1.85	0.58
1:1A:2022:U:O2'	1:1A:2617:C:H5'	2.03	0.58
32:1a:17:U:H2'	32:1a:18:C:C6	2.38	0.58
40:1i:99:LEU:HB3	40:1i:101:PHE:CE2	2.38	0.58
1:2A:2136:C:N3	1:2A:2155:G:N2	2.47	0.58
1:2A:2286:A:OP1	28:26:29:ASN:ND2	2.37	0.58
32:2a:1004:A:C6	32:2a:1037:C:H1'	2.39	0.58
36:2e:91:LEU:HD12	36:2e:118:ILE:HD11	1.86	0.58
38:2g:72:ARG:NH2	38:2g:138:LYS:HZ1	2.01	0.58
1:1A:582:G:H2'	1:1A:583:G:C8	2.38	0.58
1:1A:2774:C:OP2	61:1A:6189:HOH:O	2.17	0.58
6:1G:121:ASN:HD22	6:1G:181:ARG:HH22	1.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:1H:101:ARG:NH2	7:1H:122:THR:OG1	2.37	0.58
24:12:28:LYS:HD2	24:12:53:LEU:HD21	1.85	0.58
34:1c:24:ALA:HB2	34:1c:32:LEU:HD22	1.86	0.58
25:23:8:LEU:HB2	25:23:28:LEU:HD13	1.86	0.58
32:2a:455:C:H42	32:2a:476:G:H1	1.52	0.58
32:2a:1239:A:H62	32:2a:1299:A:N6	2.02	0.58
18:1W:34:ASN:OD1	18:1W:37:ARG:NH1	2.33	0.58
20:1Y:43:ASN:HD22	20:1Y:67:LEU:HG	1.68	0.58
32:1a:69:G:H2'	32:1a:70:G:C8	2.38	0.58
32:1a:117:G:OP2	61:1a:1925:HOH:O	2.17	0.58
34:1c:152:ILE:HB	34:1c:199:LYS:HB2	1.86	0.58
39:2h:36:LEU:HD22	39:2h:61:VAL:HG11	1.85	0.58
49:2r:52:PRO:HB2	49:2r:54:ARG:HG2	1.85	0.58
1:1A:882:G:H4'	54:1w:19:G:C6	2.39	0.58
1:1A:1827:C:C2'	1:1A:1828:G:H5'	2.34	0.58
7:1H:164:TYR:HB2	7:1H:167:GLU:HB2	1.86	0.58
32:1a:165:C:H2'	32:1a:166:G:H8	1.68	0.58
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.19	0.58
42:1k:14:VAL:HG21	42:1k:35:PRO:HD3	1.86	0.58
42:1k:48:ILE:HG21	42:1k:63:LEU:HD13	1.86	0.58
6:2G:53:LEU:HB3	6:2G:56:ALA:HB3	1.86	0.58
32:2a:359:U:H2'	32:2a:360:A:C8	2.39	0.58
32:2a:588:G:OP2	61:2a:3312:HOH:O	2.16	0.58
1:1A:1338:G:O2'	1:1A:1393:A:N1	2.34	0.58
1:1A:1509(A):A:H3'	1:1A:1509(B):A:C8	2.39	0.58
1:1A:1792:G:O2'	1:1A:1830:C:OP1	2.22	0.58
13:1R:117:VAL:HG12	13:1R:118:GLU:H	1.68	0.58
32:1a:636:U:H2'	32:1a:637:G:H8	1.69	0.58
34:1c:150:LYS:HE2	34:1c:152:ILE:HD11	1.86	0.58
54:1y:52:G:H1	54:1y:62:C:H42	1.51	0.58
1:2A:1645:G:H5''	1:2A:1646:C:H5'	1.85	0.58
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.38	0.58
38:2g:26:PHE:O	38:2g:30:ILE:HG12	2.04	0.58
39:2h:25:ASP:HB3	39:2h:58:TYR:CD1	2.39	0.58
51:2t:56:MET:HE3	51:2t:85:MET:HG2	1.86	0.58
1:1A:956:G:H2'	1:1A:957:A:H2'	1.85	0.57
1:1A:2429:G:O6	11:1P:61:ARG:NH2	2.31	0.57
32:1a:642:A:N3	39:1h:113:SER:OG	2.30	0.57
43:1l:52:LEU:O	43:1l:54:LYS:NZ	2.25	0.57
1:2A:2360:A:H5''	30:28:48:PHE:HZ	1.67	0.57
13:2R:103:ARG:NH1	13:2R:108:GLY:O	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:17:VAL:HG12	35:2d:19:LEU:HD12	1.86	0.57
38:2g:54:THR:O	38:2g:56:GLN:N	2.37	0.57
54:2y:7:A:N6	54:2y:66:U:H3	2.02	0.57
1:1A:863:A:N7	61:1A:6306:HOH:O	2.33	0.57
1:1A:1082:U:H3	1:1A:1086:A:H61	0.62	0.57
1:1A:2788:C:OP1	4:1E:61:ARG:NH2	2.37	0.57
3:1D:108:PRO:HB3	3:1D:143:HIS:CE1	2.39	0.57
15:1T:97:ALA:O	15:1T:98:LYS:NZ	2.37	0.57
40:1i:46:ALA:HB2	40:1i:74:ILE:HG23	1.86	0.57
46:1o:28:GLN:HA	46:1o:31:LEU:HD12	1.85	0.57
1:2A:2429:G:N7	11:2P:56:SER:OG	2.36	0.57
32:2a:972:C:O2'	41:2j:55:LYS:O	2.22	0.57
32:2a:1263:C:C4	32:2a:1272:G:O6	2.57	0.57
33:2b:48:MET:HA	33:2b:51:LEU:HB2	1.87	0.57
33:2b:223:ILE:HA	33:2b:226:ARG:HG2	1.87	0.57
50:2s:63:THR:OG1	50:2s:64:GLU:N	2.35	0.57
1:1A:821:A:O2'	1:1A:946:G:OP2	2.20	0.57
1:1A:1283:G:N2	1:1A:1286:A:OP2	2.34	0.57
8:1I:3:VAL:HG12	8:1I:38:LEU:HA	1.87	0.57
1:2A:1031:G:H21	31:29:36:GLN:HE22	1.50	0.57
10:2O:24:VAL:HG13	10:2O:33:ALA:HB2	1.86	0.57
21:2Z:97:GLU:HA	21:2Z:126:VAL:O	2.04	0.57
22:20:12:ASN:O	22:20:14:ARG:N	2.33	0.57
26:24:1:MET:HG2	26:24:6:HIS:CD2	2.39	0.57
32:2a:9:G:H2'	32:2a:10:A:C8	2.38	0.57
32:2a:1309:G:O3'	44:2m:77:ASN:ND2	2.37	0.57
32:2a:1373:G:H4'	38:2g:31:MET:HE1	1.86	0.57
6:1G:64:THR:HB	6:1G:94:LEU:HD21	1.86	0.57
32:1a:674:G:H2'	32:1a:675:A:C8	2.38	0.57
39:1h:77:GLU:HG2	39:1h:78:GLN:H	1.69	0.57
1:2A:509:C:OP1	61:2A:3980:HOH:O	2.17	0.57
32:2a:171:A:H2'	32:2a:172:A:C8	2.39	0.57
32:2a:1002:G:N2	32:2a:1038:C:N3	2.52	0.57
1:1A:760:G:OP1	61:1A:6190:HOH:O	2.17	0.57
1:1A:1482:G:H2'	1:1A:1484:G:C8	2.39	0.57
1:1A:1992:G:OP1	61:1A:6182:HOH:O	2.16	0.57
2:1B:42:C:OP2	26:14:2:LYS:NZ	2.33	0.57
6:1G:83:ARG:O	6:1G:86:MET:HG3	2.04	0.57
7:1H:56:SER:HB3	7:1H:61:HIS:ND1	2.20	0.57
11:1P:63:PRO:HG2	30:18:25:MET:HB2	1.87	0.57
54:1y:63:G:H2'	54:1y:64:A:C8	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1647:G:OP1	61:2A:3972:HOH:O	2.16	0.57
2:2B:38:C:H2'	2:2B:39:A:H8	1.68	0.57
8:2I:130:TYR:HB3	8:2I:138:ILE:HB	1.85	0.57
1:1A:2564:A:C2	1:1A:2647:U:H4'	2.39	0.57
3:1D:71:ASP:HB2	3:1D:103:ARG:HH12	1.70	0.57
42:1k:43:SER:HA	42:1k:47:VAL:HG21	1.87	0.57
54:1y:29:G:H1	54:1y:41:C:H42	1.53	0.57
1:2A:674:G:O2'	5:2F:67:GLN:NE2	2.33	0.57
1:2A:2419:U:H2'	1:2A:2420:C:C6	2.39	0.57
4:2E:48:GLN:HA	4:2E:80:GLU:HA	1.86	0.57
9:2N:26:LEU:HD23	9:2N:60:ILE:HD11	1.87	0.57
26:24:53:GLU:HG2	26:24:55:ARG:H	1.69	0.57
32:2a:1131:G:H1	32:2a:1143:G:H21	1.52	0.57
32:2a:1165:C:H2'	32:2a:1166:G:O4'	2.04	0.57
33:2b:24:TRP:CD1	33:2b:24:TRP:H	2.23	0.57
38:2g:22:LEU:HG	38:2g:62:PHE:HE2	1.69	0.57
1:1A:2477:C:O2	31:19:4:ARG:NH2	2.37	0.57
32:1a:864:A:H2'	32:1a:865:A:C8	2.39	0.57
44:1m:14:ARG:NH2	44:1m:41:PRO:O	2.37	0.57
1:2A:955:C:OP1	12:2Q:87:LYS:NZ	2.33	0.57
1:2A:2105:C:H2'	1:2A:2106:G:C8	2.38	0.57
1:2A:2176:A:H2'	1:2A:2177:C:C6	2.40	0.57
1:2A:2524:G:O6	61:2A:3955:HOH:O	2.14	0.57
22:20:21:LEU:HD11	22:20:41:ARG:HG2	1.85	0.57
32:2a:137:C:H2'	32:2a:138:G:C8	2.39	0.57
1:1A:443:A:N6	5:1F:41:LEU:O	2.37	0.57
1:1A:793:A:O2'	61:1A:6186:HOH:O	2.17	0.57
3:1D:260:ARG:NH2	3:1D:266:SER:HB2	2.19	0.57
9:1N:60:ILE:O	9:1N:61:ARG:NH1	2.37	0.57
32:1a:236:G:H5''	48:1q:42:TYR:OH	2.04	0.57
37:1f:8:ILE:HD11	37:1f:79:LEU:HD13	1.86	0.57
40:1i:112:LYS:NZ	40:1i:113:LYS:O	2.38	0.57
1:2A:277:C:H4'	1:2A:278:A:H8	1.69	0.57
6:2G:11:TYR:HA	6:2G:15:VAL:HB	1.87	0.57
32:2a:559:A:H4'	32:2a:560:U:H3'	1.87	0.57
32:2a:1271:G:C2	32:2a:1272:G:N7	2.73	0.57
34:2c:164:ARG:NH2	34:2c:166:GLU:OE1	2.38	0.57
35:2d:50:ARG:HD2	35:2d:51:PRO:HD2	1.85	0.57
1:1A:2076:U:OP2	1:1A:2238:G:N2	2.31	0.57
1:1A:2532:G:O2'	1:1A:2657:A:N1	2.37	0.57
1:1A:2870:C:H2'	1:1A:2871:C:O4'	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:55:ARG:N	26:14:56:VAL:HA	2.18	0.57
32:1a:405:U:O4	35:1d:2:GLY:N	2.38	0.57
32:1a:1316:G:H4'	45:1n:18:VAL:HG11	1.86	0.57
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.39	0.57
38:1g:15:ASP:OD1	38:1g:19:GLY:N	2.38	0.57
50:1s:69:HIS:ND1	50:1s:73:GLU:OE2	2.33	0.57
1:2A:747:U:H1'	18:2W:92:ARG:NH2	2.20	0.57
26:24:61:ARG:HH12	50:2s:9:VAL:HG11	1.68	0.57
32:2a:417:C:H2'	32:2a:418:C:C6	2.40	0.57
48:2q:26:GLN:HG2	48:2q:37:LYS:HG2	1.87	0.57
6:1G:116:ASP:OD2	44:1m:68:GLY:HA3	2.05	0.57
32:1a:973:G:H3'	32:1a:974:A:H5''	1.87	0.57
51:1t:10:LEU:HD13	51:1t:11:SER:H	1.70	0.57
1:2A:792:G:O6	61:2A:3949:HOH:O	2.12	0.57
1:2A:1278:A:OP1	13:2R:36:THR:HG23	2.04	0.57
1:2A:2889:C:H2'	1:2A:2891:G:O4'	2.04	0.57
16:2U:49:HIS:HA	16:2U:52:ARG:HB2	1.86	0.57
32:2a:1272:G:N2	32:2a:1273:G:C8	2.72	0.57
32:2a:1347:G:O2'	32:2a:1373:G:N1	2.35	0.57
39:2h:51:VAL:HG11	39:2h:60:ARG:HH12	1.70	0.57
1:1A:1930:G:O2'	1:1A:1968:G:O6	2.21	0.56
1:1A:2074:U:H2'	1:1A:2075:U:C6	2.40	0.56
1:1A:2264:C:N4	22:10:15:ASP:OD2	2.33	0.56
32:1a:1245:A:H61	32:1a:1292:U:H3	1.52	0.56
32:1a:1318:A:H4'	50:1s:10:PHE:CZ	2.40	0.56
38:1g:91:VAL:O	38:1g:96:GLN:NE2	2.34	0.56
1:2A:1149:G:H2'	1:2A:1150:C:C6	2.40	0.56
1:2A:1683:C:O2'	61:2A:3977:HOH:O	2.17	0.56
1:2A:1821:A:H2'	1:2A:1822:G:C8	2.39	0.56
1:2A:2682:U:O2'	4:2E:13:ARG:HG3	2.05	0.56
16:2U:34:LYS:NZ	16:2U:37:GLU:OE1	2.36	0.56
29:27:24:THR:HG22	29:27:26:GLY:H	1.70	0.56
32:2a:617:G:H1	32:2a:623:C:H42	1.53	0.56
32:2a:785:G:OP2	61:2a:3313:HOH:O	2.17	0.56
32:2a:993:G:H1	32:2a:1045:C:H42	1.53	0.56
41:2j:47:PHE:HB2	41:2j:63:PHE:HB2	1.85	0.56
42:2k:86:GLY:N	42:2k:112:THR:OG1	2.37	0.56
44:2m:84:ILE:HG13	44:2m:86:CYS:HB2	1.86	0.56
48:2q:43:LEU:HD12	48:2q:68:ARG:HB3	1.87	0.56
54:2y:52:G:H1	54:2y:62:C:N4	2.01	0.56
1:1A:97:C:OP1	24:12:2:LYS:HE2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:588:U:OP2	61:1A:6187:HOH:O	2.17	0.56
4:1E:25:VAL:HG22	4:1E:183:LEU:HD22	1.87	0.56
1:2A:84:A:H5'	20:2Y:8:LYS:HG2	1.86	0.56
1:2A:2470:G:O6	1:2A:2481:G:N2	2.38	0.56
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.20	0.56
36:2e:122:GLU:O	36:2e:126:ARG:NH1	2.38	0.56
39:2h:51:VAL:HG12	39:2h:52:ASP:H	1.70	0.56
49:2r:38:GLU:HA	49:2r:41:LYS:HE2	1.87	0.56
1:1A:1827:C:H2'	1:1A:1828:G:H5'	1.86	0.56
1:1A:1981:A:OP1	61:1A:6193:HOH:O	2.18	0.56
1:1A:2109:U:H2'	1:1A:2110:G:H5'	1.87	0.56
1:1A:2573:C:H3'	61:1A:6158:HOH:O	2.04	0.56
14:1S:34:HIS:O	14:1S:97:ARG:NH2	2.39	0.56
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.41	0.56
33:1b:185:ILE:HG22	33:1b:199:TYR:HB2	1.88	0.56
1:2A:271(H):G:H2'	1:2A:271(I):G:C8	2.41	0.56
1:2A:1388:G:H2'	1:2A:1389:G:C8	2.40	0.56
1:2A:1530:C:O2'	1:2A:1531:C:O5'	2.20	0.56
1:2A:2818:G:OP1	1:2A:2837:G:O2'	2.16	0.56
5:2F:155:LEU:HB2	5:2F:189:THR:HG21	1.86	0.56
10:2O:78:ARG:HG2	15:2T:73:GLU:HB2	1.87	0.56
26:24:24:THR:OG1	26:24:25:TYR:N	2.27	0.56
32:2a:501:C:H2'	32:2a:502:G:H8	1.68	0.56
32:2a:664:G:H22	32:2a:741:G:H1	1.51	0.56
39:2h:17:THR:HA	39:2h:65:TYR:HE1	1.70	0.56
42:2k:34:ASP:HB3	42:2k:40:ILE:HD11	1.88	0.56
44:2m:107:ALA:O	44:2m:111:LYS:N	2.30	0.56
48:2q:57:VAL:HG12	48:2q:76:LEU:HA	1.86	0.56
1:1A:218:A:C2	1:1A:235:U:H4'	2.40	0.56
1:1A:245:G:O5'	11:1P:73:GLY:HA2	2.05	0.56
1:1A:1069:A:O2'	1:1A:1073:A:OP1	2.21	0.56
1:1A:1297:C:OP1	1:1A:2710:C:H4'	2.06	0.56
32:1a:189(K):U:H2'	32:1a:189(L):G:C8	2.41	0.56
32:1a:1036:G:H5''	32:1a:1037:C:C5	2.39	0.56
48:1q:22:LEU:HD11	48:1q:39:SER:HB3	1.86	0.56
1:2A:947:G:OP1	61:2A:3981:HOH:O	2.17	0.56
1:2A:1695:G:N7	3:2D:14:ARG:NH2	2.52	0.56
1:2A:2576:G:O2'	1:2A:2579:C:OP2	2.21	0.56
12:2Q:45:GLN:N	12:2Q:45:GLN:OE1	2.38	0.56
21:2Z:98:MET:O	21:2Z:126:VAL:N	2.31	0.56
32:2a:371:G:O2'	32:2a:373:A:N7	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1261:A:O2'	32:2a:1283:G:OP1	2.24	0.56
54:2w:21:A:O2'	54:2w:22:G:OP1	2.24	0.56
1:1A:1075:C:H2'	1:1A:1076:C:H2'	1.88	0.56
1:1A:1453:U:O2'	1:1A:1455:G:N7	2.38	0.56
34:1c:119:ARG:HE	34:1c:140:ARG:NH2	2.04	0.56
39:1h:95:VAL:HG23	39:1h:99:GLU:HG3	1.88	0.56
54:1w:29:G:H1	54:1w:41:C:N4	2.03	0.56
1:2A:2160:G:H5'	1:2A:2161:C:OP2	2.06	0.56
6:2G:55:LYS:O	6:2G:59:GLU:N	2.19	0.56
8:2I:4:ILE:HG23	8:2I:18:VAL:HG22	1.86	0.56
19:2X:11:PRO:HB3	19:2X:92:LEU:HD11	1.88	0.56
32:2a:1064:G:O2'	32:2a:1190:G:N2	2.38	0.56
32:2a:1106:G:H5''	34:2c:172:ARG:HB3	1.87	0.56
32:2a:1277:C:O2'	32:2a:1279:A:H1'	2.06	0.56
40:2i:9:ARG:H	40:2i:79:LEU:HD23	1.69	0.56
1:1A:436:C:H2'	1:1A:437:G:H8	1.71	0.56
1:1A:2259:G:N7	61:1A:6308:HOH:O	2.33	0.56
19:1X:31:HIS:CD2	19:1X:33:LYS:H	2.22	0.56
26:14:59:PHE:HD1	26:14:60:GLN:HG2	1.70	0.56
32:1a:1070:U:OP1	36:1e:18:ARG:NH2	2.37	0.56
32:1a:1320:C:H2'	32:1a:1321:C:O4'	2.06	0.56
1:2A:848:G:H2'	1:2A:849:A:C8	2.40	0.56
1:2A:1423:G:H2'	1:2A:1424:G:H8	1.68	0.56
1:2A:2396:G:OP1	23:21:25:LYS:NZ	2.38	0.56
1:2A:2408:U:H2'	1:2A:2409:G:C8	2.41	0.56
22:20:18:ALA:O	22:20:20:ARG:NH1	2.37	0.56
32:2a:1235:U:O2'	32:2a:1305:G:O5'	2.23	0.56
38:2g:142:GLU:O	38:2g:146:GLU:N	2.37	0.56
1:1A:1506:C:H2'	1:1A:1507:A:H8	1.71	0.56
32:1a:601:C:H2'	32:1a:602:A:H8	1.70	0.56
32:1a:976:G:OP1	45:1n:32:SER:N	2.35	0.56
32:1a:1373:G:H5''	38:1g:36:LYS:HE2	1.87	0.56
37:1f:94:GLN:HB3	49:1r:32:ARG:HH11	1.71	0.56
1:2A:1260:G:O6	61:2A:3978:HOH:O	2.17	0.56
1:2A:1316:U:H2'	1:2A:1317:A:H8	1.70	0.56
1:2A:1593:G:H2'	1:2A:1594:G:H8	1.70	0.56
1:2A:1648:C:OP1	61:2A:3972:HOH:O	2.17	0.56
4:2E:12:THR:HG21	15:2T:11:GLU:HG2	1.88	0.56
4:2E:36:ARG:HG2	4:2E:47:VAL:HG12	1.87	0.56
32:2a:266:G:H2'	32:2a:266:G:N3	2.20	0.56
32:2a:920:U:H2'	32:2a:921:U:C6	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:2g:31:MET:HE1	38:2g:36:LYS:HB2	1.87	0.56
41:2j:50:ILE:O	45:2n:41:ARG:NH1	2.38	0.56
1:1A:667:U:O2	30:18:2:PRO:HD2	2.05	0.56
1:1A:789:A:H5''	61:1A:6384:HOH:O	2.04	0.56
1:1A:1654:A:OP2	13:1R:1:MET:N	2.32	0.56
10:1O:36:GLY:HA3	10:1O:109:LYS:HD2	1.87	0.56
33:1b:101:MET:HA	33:1b:108:ILE:HD12	1.87	0.56
39:1h:83:ILE:HG13	39:1h:137:VAL:HG22	1.87	0.56
1:2A:212:G:H2'	1:2A:213:A:O4'	2.06	0.56
12:2Q:81:VAL:HG12	22:20:5:LYS:HD3	1.88	0.56
28:26:6:ARG:NH1	28:26:26:ASN:HB2	2.21	0.56
32:2a:735:C:H2'	32:2a:736:C:C6	2.40	0.56
32:2a:1274:G:N2	32:2a:1275:A:N7	2.52	0.56
44:2m:50:GLU:HA	44:2m:53:VAL:HG22	1.88	0.56
1:1A:880:G:H2'	1:1A:881:G:C8	2.41	0.56
1:1A:2541:A:OP2	61:1A:6192:HOH:O	2.18	0.56
26:14:16:CYS:SG	26:14:17:GLY:N	2.79	0.56
32:1a:1414:U:H3	32:1a:1486:G:H1	1.54	0.56
33:1b:113:HIS:O	33:1b:117:GLU:N	2.36	0.56
34:1c:71:ALA:O	34:1c:73:PRO:HD3	2.06	0.56
41:1j:55:LYS:O	41:1j:57:LYS:N	2.39	0.56
54:1w:25:C:H2'	54:1w:26:A:H8	1.71	0.56
1:2A:466:A:OP1	29:27:34:ARG:NH1	2.38	0.56
1:2A:2050:C:H1'	4:2E:156:MET:HE2	1.87	0.56
1:2A:2849:U:H4'	1:2A:2868:A:C2	2.41	0.56
4:2E:56:PRO:HG3	4:2E:74:PRO:HG2	1.87	0.56
32:2a:643:C:H2'	32:2a:644:G:H8	1.70	0.56
33:2b:174:VAL:HG12	33:2b:184:VAL:HG11	1.87	0.56
1:1A:226:G:H21	1:1A:228:A:H62	1.54	0.56
1:1A:1418:G:O2'	1:1A:1580:A:N6	2.37	0.56
1:1A:2161:C:O2'	1:1A:2162:G:H5''	2.06	0.56
4:1E:18:ASP:HB3	15:1T:82:LEU:HD11	1.88	0.56
26:14:44:THR:O	26:14:46:GLN:N	2.39	0.56
35:1d:172:PRO:C	35:1d:174:LEU:H	2.13	0.56
37:1f:30:LEU:HB3	37:1f:35:ALA:HB3	1.87	0.56
52:1u:3:LYS:HD3	52:1u:14:TRP:CD1	2.40	0.56
1:2A:1218:C:H42	1:2A:1231:G:H1	1.54	0.56
1:2A:1580:A:H3'	1:2A:1581:G:H8	1.71	0.56
1:2A:1908:C:O2	55:2x:12:G:H4'	2.05	0.56
1:2A:2404:C:O3'	11:2P:77:ARG:NH2	2.38	0.56
6:2G:15:VAL:HG22	6:2G:175:LEU:HB3	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:2R:36:THR:HG22	13:2R:37:THR:H	1.71	0.56
32:2a:978:A:H4'	32:2a:1322:C:N3	2.21	0.56
44:2m:14:ARG:HB2	44:2m:17:VAL:HG22	1.87	0.56
48:2q:53:LEU:HD23	48:2q:85:VAL:HG11	1.88	0.56
54:2w:29:G:H1	54:2w:41:C:H42	1.53	0.56
7:1H:3:ARG:NH2	7:1H:5:GLY:H	2.04	0.55
21:1Z:138:GLU:H	21:1Z:156:LYS:HZ1	1.53	0.55
32:1a:319:G:H2'	32:1a:320:C:O4'	2.06	0.55
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.41	0.55
35:1d:98:GLU:OE1	35:1d:103:ASN:ND2	2.36	0.55
48:1q:75:ARG:NH1	48:1q:76:LEU:O	2.39	0.55
1:2A:1474:C:H2'	1:2A:1475:G:C8	2.41	0.55
6:2G:68:PRO:HB3	6:2G:92:VAL:HB	1.88	0.55
6:2G:121:ASN:HD22	6:2G:122:PRO:HD2	1.71	0.55
32:2a:373:A:O2'	32:2a:451:A:N7	2.40	0.55
32:2a:1263:C:N3	32:2a:1272:G:O6	2.38	0.55
1:1A:218:A:N6	61:1A:6363:HOH:O	2.38	0.55
1:1A:2155:G:H2'	1:1A:2155:G:N3	2.21	0.55
3:1D:115:GLN:HE21	3:1D:117:VAL:HG12	1.71	0.55
21:1Z:52:SER:O	21:1Z:54:HIS:N	2.38	0.55
30:18:23:VAL:HG11	30:18:47:LYS:HD3	1.87	0.55
32:1a:1349:A:H5''	40:1i:121:ARG:HB2	1.89	0.55
51:1t:45:GLN:HA	51:1t:91:LEU:HD22	1.87	0.55
1:2A:375:C:H2'	1:2A:376:C:C6	2.41	0.55
1:2A:709:U:H2'	1:2A:710:G:C8	2.41	0.55
9:2N:80:GLY:O	9:2N:82:LEU:N	2.36	0.55
32:2a:43:C:OP1	61:2a:3316:HOH:O	2.18	0.55
37:2f:69:GLU:CD	37:2f:69:GLU:H	2.15	0.55
42:2k:82:VAL:HB	42:2k:108:ILE:HG23	1.87	0.55
1:1A:530:G:N1	1:1A:2023:G:OP1	2.29	0.55
1:1A:952:G:OP1	12:1Q:16:ARG:NH2	2.40	0.55
1:1A:2438:U:O2'	1:1A:2440:C:OP1	2.24	0.55
61:1A:6799:HOH:O	13:1R:15:SER:HB3	2.04	0.55
24:12:10:LEU:HB3	24:12:14:ARG:NH1	2.21	0.55
32:1a:673:G:H2'	32:1a:674:G:C8	2.41	0.55
40:1i:128:ARG:NH2	55:1x:33:U:OP2	2.39	0.55
1:2A:1159:U:H2'	1:2A:1160:G:H8	1.71	0.55
6:2G:64:THR:HB	6:2G:94:LEU:HD21	1.87	0.55
11:2P:95:VAL:HG13	11:2P:125:VAL:HG12	1.88	0.55
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.88	0.55
25:23:12:PRO:HB2	25:23:20:LYS:HG2	1.86	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:114:ARG:HA	33:2b:117:GLU:HB2	1.87	0.55
44:2m:81:LEU:HD22	44:2m:88:ARG:HD3	1.88	0.55
1:1A:871:U:OP2	12:1Q:5:ARG:NH1	2.39	0.55
28:16:6:ARG:NH1	28:16:26:ASN:HB2	2.21	0.55
32:1a:1081:G:OP2	36:1e:16:THR:OG1	2.24	0.55
33:1b:69:LEU:HB3	33:1b:162:ILE:HG22	1.89	0.55
1:2A:2406:U:N3	11:2P:73:GLY:O	2.31	0.55
1:2A:2788:C:OP1	4:2E:61:ARG:NH2	2.40	0.55
21:2Z:4:ARG:NH2	21:2Z:66:SER:OG	2.39	0.55
32:2a:862:C:H1'	32:2a:874:G:H5''	1.88	0.55
33:2b:55:PHE:O	33:2b:59:GLU:N	2.39	0.55
33:2b:223:ILE:HG22	33:2b:226:ARG:HH11	1.71	0.55
39:2h:28:ALA:HB3	39:2h:57:PRO:HB2	1.89	0.55
1:1A:662:G:H5''	11:1P:16:ARG:HG2	1.88	0.55
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.42	0.55
8:1I:6:LEU:HG	8:1I:36:ALA:HA	1.87	0.55
15:1T:127:ALA:C	15:1T:129:ARG:H	2.14	0.55
35:1d:19:LEU:HB3	35:1d:21:LEU:HD13	1.88	0.55
44:1m:91:ARG:HB2	44:1m:98:VAL:HG13	1.87	0.55
51:1t:83:ARG:HA	51:1t:86:ARG:HH11	1.71	0.55
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.07	0.55
1:2A:2472:G:H2'	1:2A:2475:C:H42	1.71	0.55
1:2A:2693:A:H2'	1:2A:2694:G:C8	2.42	0.55
1:2A:2753:A:N3	31:29:15:LYS:NZ	2.48	0.55
11:2P:3:LEU:HD23	11:2P:6:LEU:HD12	1.88	0.55
13:2R:26:LYS:HE2	13:2R:70:LEU:HA	1.89	0.55
32:2a:1255:G:OP2	41:2j:45:ARG:NH2	2.38	0.55
38:2g:113:GLU:HG3	38:2g:119:ARG:HG2	1.88	0.55
43:2l:71:PRO:O	43:2l:102:ARG:NH1	2.39	0.55
1:1A:278:A:H2'	1:1A:279:C:C6	2.42	0.55
1:1A:323:G:C8	5:1F:171:PRO:HG3	2.42	0.55
1:1A:530:G:H4'	1:1A:531:C:OP1	2.06	0.55
1:1A:2296:U:OP2	14:1S:9:ARG:NH2	2.40	0.55
26:14:61:ARG:HH11	50:1s:42:PRO:HD3	1.72	0.55
32:1a:1136:U:H5''	32:1a:1137:C:C2	2.41	0.55
1:2A:565:C:H2'	1:2A:566:U:O4'	2.07	0.55
1:2A:796:C:H2'	1:2A:797:C:C6	2.41	0.55
1:2A:1276:A:O2'	13:2R:12:ARG:NH2	2.34	0.55
1:2A:2136:C:C4	1:2A:2155:G:N1	2.70	0.55
3:2D:8:PRO:HB3	3:2D:14:ARG:HG2	1.88	0.55
3:2D:260:ARG:HH22	3:2D:266:SER:HB2	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:2h:31:PHE:O	39:2h:35:ILE:HG12	2.06	0.55
48:2q:58:GLU:OE2	48:2q:75:ARG:NH2	2.40	0.55
1:1A:29:U:H2'	1:1A:30:G:C8	2.41	0.55
1:1A:1174:A:H1'	1:1A:1175:U:H5''	1.89	0.55
1:1A:2466:C:H5''	31:19:6:SER:HB3	1.87	0.55
19:1X:34:ALA:O	19:1X:77:LYS:NZ	2.39	0.55
41:1j:16:LEU:HD21	41:1j:70:ARG:HG2	1.88	0.55
42:1k:31:THR:HA	42:1k:42:TRP:HA	1.89	0.55
1:2A:900:A:H3'	1:2A:901:A:H8	1.71	0.55
9:2N:4:TYR:HB2	16:2U:101:ARG:NH1	2.22	0.55
32:2a:8:A:C6	35:2d:209:ARG:HB2	2.42	0.55
32:2a:117:G:OP2	61:2a:3315:HOH:O	2.18	0.55
32:2a:137:C:H2'	32:2a:138:G:H8	1.71	0.55
26:14:16:CYS:HB2	26:14:36:CYS:HB3	1.88	0.55
1:2A:531:C:H4'	1:2A:532:A:H5''	1.88	0.55
1:2A:2138:C:N4	1:2A:2153:G:H1	2.00	0.55
1:2A:2343:C:O2'	1:2A:2373:G:O2'	2.20	0.55
1:2A:2630:G:H1	1:2A:2788:C:H42	1.55	0.55
1:2A:2802:G:H2'	1:2A:2803:C:O4'	2.06	0.55
6:2G:15:VAL:HG13	6:2G:175:LEU:HD13	1.88	0.55
21:2Z:30:ASN:HB3	21:2Z:90:VAL:HG23	1.89	0.55
32:2a:1347:G:N2	32:2a:1374:A:O5'	2.38	0.55
32:2a:1490:C:H2'	32:2a:1491:G:O4'	2.06	0.55
44:2m:86:CYS:SG	44:2m:88:ARG:HG3	2.47	0.55
44:2m:94:ARG:HB3	44:2m:96:LEU:HG	1.88	0.55
54:2y:18:G:N1	54:2y:55:PSU:C4	2.75	0.55
1:1A:376:C:OP1	61:1A:6191:HOH:O	2.17	0.55
1:1A:710:G:H1	1:1A:721:C:H42	1.55	0.55
1:1A:1798:U:OP2	3:1D:274:ARG:NH2	2.32	0.55
1:1A:2589:A:OP1	61:1A:6138:HOH:O	2.18	0.55
5:1F:167:ALA:HB1	5:1F:173:VAL:HG11	1.89	0.55
9:1N:42:TRP:CH2	9:1N:44:PRO:HB3	2.42	0.55
11:1P:124:LYS:HA	11:1P:144:GLU:HB3	1.87	0.55
35:1d:12:CYS:HB3	35:1d:19:LEU:H	1.72	0.55
1:2A:910:A:N3	1:2A:2264:C:O2'	2.36	0.55
26:24:40:HIS:CD2	26:24:41:PRO:HD2	2.41	0.55
28:26:12:GLU:OE2	28:26:19:ARG:NH1	2.40	0.55
32:2a:1118:C:H1'	32:2a:1179:A:C5	2.42	0.55
33:2b:28:PHE:HD1	33:2b:194:PRO:HG3	1.72	0.55
34:2c:85:ARG:O	34:2c:89:GLU:N	2.40	0.55
38:2g:148:ASN:HD22	38:2g:151:TYR:HE2	1.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:2n:37:PHE:HE1	45:2n:53:LEU:HD22	1.71	0.55
47:2p:8:ARG:NE	47:2p:15:PRO:HB3	2.18	0.55
1:1A:1828:G:H8	1:1A:1828:G:OP2	1.89	0.55
1:1A:2250:G:OP1	12:1Q:85:LYS:NZ	2.34	0.55
1:1A:2390:U:P	30:18:35:GLN:HE22	2.30	0.55
6:1G:5:VAL:HG13	6:1G:8:LYS:HE2	1.89	0.55
10:1O:2:ILE:HD12	10:1O:6:THR:HG21	1.89	0.55
12:1Q:106:VAL:HG21	12:1Q:114:ALA:HB1	1.88	0.55
32:1a:297:G:H4'	32:1a:557:G:H4'	1.88	0.55
32:1a:903:G:OP2	61:1a:1927:HOH:O	2.18	0.55
32:1a:1002:G:H3'	32:1a:1003:G:H4'	1.89	0.55
32:1a:1350:A:N7	40:1i:118:LYS:NZ	2.54	0.55
35:1d:178:VAL:C	35:1d:180:GLY:H	2.14	0.55
47:1p:53:VAL:HG13	47:1p:79:VAL:HG13	1.88	0.55
1:2A:740:U:H2'	1:2A:741:G:C8	2.41	0.55
1:2A:1133:U:O2	1:2A:1137:G:H5'	2.07	0.55
1:2A:2126:A:N6	1:2A:2163:C:O4'	2.36	0.55
3:2D:81:ALA:O	3:2D:94:LEU:N	2.27	0.55
4:2E:104:VAL:HG13	4:2E:198:VAL:HG22	1.88	0.55
4:2E:119:ARG:HD2	4:2E:160:TYR:HB2	1.87	0.55
6:2G:150:ASP:OD1	6:2G:150:ASP:N	2.40	0.55
9:2N:42:TRP:HA	9:2N:48:MET:SD	2.48	0.55
32:2a:22:G:H4'	32:2a:885:G:C8	2.42	0.55
39:2h:21:LYS:O	39:2h:65:TYR:OH	2.24	0.55
46:2o:58:MET:O	46:2o:62:GLN:N	2.39	0.55
46:2o:64:ARG:HA	46:2o:67:LEU:HB2	1.88	0.55
1:1A:2461:C:H2'	1:1A:2462:U:C6	2.42	0.54
15:1T:3:ARG:HA	15:1T:6:LEU:HD12	1.89	0.54
26:14:16:CYS:HA	26:14:33:VAL:HG12	1.89	0.54
32:1a:509:A:H2'	32:1a:510:A:C8	2.43	0.54
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.88	0.54
1:2A:1991:U:H2'	1:2A:1992:G:H5''	1.87	0.54
5:2F:172:TRP:H	5:2F:172:TRP:CD1	2.25	0.54
7:2H:144:VAL:O	7:2H:148:ILE:HG13	2.07	0.54
32:2a:273:A:H1'	48:2q:16:GLN:HE21	1.70	0.54
32:2a:573:A:N3	32:2a:883:C:O2'	2.39	0.54
33:2b:74:LYS:NZ	33:2b:166:ASP:OD2	2.36	0.54
36:2e:70:PRO:HG2	36:2e:144:THR:HG22	1.88	0.54
38:2g:42:ILE:HG22	38:2g:120:ILE:HD12	1.88	0.54
40:2i:4:TYR:HB2	40:2i:19:LEU:HB2	1.88	0.54
1:1A:700:G:O2'	1:1A:1632:A:N3	2.32	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:825:C:O2	11:1P:55:ARG:NH1	2.39	0.54
32:1a:270:A:H2'	32:1a:271:C:C6	2.42	0.54
32:1a:1086:U:H3	32:1a:1099:G:H22	1.53	0.54
33:1b:60:ASP:HA	33:1b:63:MET:HE3	1.90	0.54
36:1e:50:GLU:HB2	36:1e:53:LEU:HD13	1.90	0.54
1:2A:906:G:O2'	12:2Q:67:ARG:NH2	2.28	0.54
1:2A:2391:G:O2'	1:2A:2422:A:N7	2.40	0.54
2:2B:62:C:H2'	2:2B:63:G:C8	2.43	0.54
9:2N:67:LEU:O	9:2N:88:GLU:HG3	2.08	0.54
10:2O:65:THR:OG1	10:2O:67:LYS:O	2.26	0.54
32:2a:8:A:N6	35:2d:209:ARG:HB2	2.22	0.54
41:2j:6:ILE:HG12	41:2j:98:ILE:HG13	1.88	0.54
44:2m:31:LYS:HA	44:2m:34:LEU:HB2	1.89	0.54
45:2n:10:ALA:HB2	45:2n:23:ARG:HD2	1.88	0.54
54:2w:52:G:H1	54:2w:62:C:H42	1.56	0.54
1:1A:1165:U:H2'	1:1A:1166:C:C6	2.42	0.54
1:1A:2123:G:H2'	1:1A:2124:G:C8	2.42	0.54
1:1A:2530:A:O2'	1:1A:2532:G:OP2	2.18	0.54
5:1F:195:ASP:HB3	5:1F:198:ALA:H	1.71	0.54
12:1Q:85:LYS:HG2	22:10:7:LEU:HB3	1.89	0.54
32:1a:858:G:OP2	61:1a:1928:HOH:O	2.18	0.54
1:2A:668:G:H5'	1:2A:669:G:OP2	2.08	0.54
1:2A:1592:C:H2'	1:2A:1593:G:H8	1.72	0.54
1:2A:2233:U:H2'	1:2A:2234:G:C8	2.43	0.54
1:2A:2552:OMU:H6	1:2A:2552:OMU:O5'	2.07	0.54
11:2P:95:VAL:HA	11:2P:99:LEU:HD23	1.90	0.54
32:2a:537:G:H5''	43:2l:113:ARG:NH1	2.23	0.54
1:1A:1051:G:H2'	1:1A:1052:C:O4'	2.07	0.54
1:1A:1279:G:H4'	13:1R:31:HIS:CD2	2.42	0.54
1:1A:2010:G:H5''	18:1W:42:ARG:HB2	1.89	0.54
1:1A:2028:U:H2'	1:1A:2029:G:O4'	2.08	0.54
1:1A:2134:A:N6	1:1A:2156:G:O2'	2.40	0.54
1:1A:2183:C:O2'	1:1A:2184:G:OP1	2.23	0.54
1:1A:2364:C:H2'	1:1A:2365:G:O4'	2.06	0.54
32:1a:626:U:H2'	32:1a:627:G:C8	2.42	0.54
1:2A:2408:U:H2'	1:2A:2409:G:H8	1.72	0.54
32:2a:736:C:H2'	32:2a:737:A:C8	2.43	0.54
32:2a:1003:G:H2'	32:2a:1004:A:O4'	2.07	0.54
32:2a:1095:U:OP2	61:2a:3307:HOH:O	2.19	0.54
32:2a:1261:A:H5'	32:2a:1284:C:OP1	2.07	0.54
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:189:ASP:N	33:2b:189:ASP:OD1	2.39	0.54
38:2g:65:ALA:O	38:2g:69:VAL:HG23	2.08	0.54
40:2i:29:ASN:ND2	40:2i:65:VAL:O	2.40	0.54
48:2q:6:LEU:O	48:2q:58:GLU:HA	2.07	0.54
50:2s:11:VAL:HG12	50:2s:12:ASP:H	1.72	0.54
1:1A:2445:G:OP1	5:1F:74:ARG:NH2	2.41	0.54
18:1W:1:MET:HE2	18:1W:62:HIS:HB3	1.89	0.54
25:13:3:ARG:HB2	25:13:59:VAL:HG23	1.87	0.54
32:1a:1219:U:OP1	45:1n:19:ARG:NH1	2.34	0.54
33:1b:162:ILE:O	33:1b:185:ILE:HG12	2.07	0.54
9:2N:58:ASP:N	9:2N:58:ASP:OD1	2.41	0.54
9:2N:97:ARG:HA	9:2N:100:GLU:HB2	1.88	0.54
32:2a:235:C:H2'	32:2a:236:G:C8	2.43	0.54
38:2g:146:GLU:OE2	38:2g:149:ARG:NE	2.41	0.54
1:1A:1337:G:OP2	19:1X:73:ARG:NH2	2.37	0.54
1:1A:2032:G:H1'	4:1E:145:LYS:HD3	1.90	0.54
1:1A:2313:C:H4'	6:1G:91:ARG:HG3	1.89	0.54
9:1N:112:LEU:O	9:1N:116:LEU:HG	2.07	0.54
14:1S:16:ASN:HA	14:1S:19:LYS:HD2	1.90	0.54
16:1U:72:HIS:O	16:1U:114:LYS:NZ	2.40	0.54
34:1c:157:ILE:HD13	34:1c:166:GLU:HB2	1.90	0.54
1:2A:1230:C:H2'	1:2A:1231:G:C8	2.43	0.54
1:2A:1527:G:O2'	1:2A:1544:A:N6	2.35	0.54
1:2A:1913:A:N6	54:2w:38:A:H5'	2.23	0.54
23:21:48:LYS:HA	23:21:60:PHE:O	2.08	0.54
1:1A:64:A:O3'	19:1X:71:GLY:HA3	2.08	0.54
1:1A:709:U:H2'	1:1A:710:G:C8	2.43	0.54
4:1E:13:ARG:HD2	4:1E:20:ALA:HB1	1.88	0.54
32:1a:1425:U:H2'	32:1a:1426:C:C6	2.42	0.54
36:1e:20:GLN:NE2	36:1e:21:ALA:O	2.41	0.54
54:1y:53:G:H1	54:1y:61:C:H42	1.56	0.54
1:2A:724:U:H2'	1:2A:725:G:O4'	2.07	0.54
1:2A:2420:C:H5'	28:26:54:ILE:HD11	1.88	0.54
5:2F:53:THR:HG23	5:2F:55:GLY:N	2.21	0.54
14:2S:15:ARG:HB3	14:2S:19:LYS:NZ	2.23	0.54
32:2a:264:U:O2'	48:2q:64:PRO:O	2.25	0.54
32:2a:895:G:O6	61:2a:3317:HOH:O	2.18	0.54
34:2c:24:ALA:HB3	34:2c:29:TYR:HD1	1.73	0.54
35:2d:64:LEU:HB2	35:2d:198:VAL:HG21	1.89	0.54
35:2d:88:VAL:O	35:2d:92:VAL:HG12	2.08	0.54
35:2d:105:VAL:HG13	35:2d:110:PHE:HB2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:2j:49:VAL:HG11	45:2n:45:ARG:HB2	1.89	0.54
1:1A:1054:A:C6	1:1A:1055:G:C6	2.96	0.54
1:1A:1324:G:O6	61:1A:6188:HOH:O	2.17	0.54
1:1A:2218:U:O4'	23:11:52:ARG:NH2	2.39	0.54
33:1b:212:GLN:HE22	33:1b:235:SER:HA	1.72	0.54
34:1c:152:ILE:HD12	34:1c:201:TYR:HE2	1.72	0.54
1:2A:274:G:H2'	1:2A:275:G:C8	2.42	0.54
1:2A:2730:C:O2'	4:2E:168:MET:O	2.24	0.54
4:2E:181:LEU:HD21	15:2T:6:LEU:HD22	1.90	0.54
13:2R:104:ARG:HG3	13:2R:111:LEU:HD21	1.90	0.54
20:2Y:51:VAL:HG12	20:2Y:58:GLY:HA3	1.89	0.54
32:2a:1347:G:H22	32:2a:1374:A:P	2.31	0.54
32:2a:1355:G:H1	32:2a:1367:C:H42	1.55	0.54
36:2e:95:ALA:O	36:2e:98:THR:OG1	2.25	0.54
42:1k:59:TYR:CZ	42:1k:63:LEU:HD21	2.43	0.54
1:2A:615:G:OP1	5:2F:40:GLN:NE2	2.40	0.54
1:2A:887:A:O2'	1:2A:888:C:H3'	2.08	0.54
1:2A:920:G:H2'	1:2A:921:G:H8	1.73	0.54
1:2A:1012:U:OP2	16:2U:70:ARG:NH2	2.38	0.54
1:2A:2321:G:H22	1:2A:2333:A:N6	2.05	0.54
32:2a:938:A:N3	32:2a:1376:U:O2'	2.39	0.54
32:2a:1245:A:H2'	32:2a:1246:C:O4'	2.08	0.54
46:2o:55:GLY:HA2	46:2o:58:MET:HG3	1.89	0.54
54:2y:14:A:H61	54:2y:21:A:H2	1.56	0.54
1:1A:621:A:OP2	11:1P:108:LYS:NZ	2.40	0.54
10:1O:59:LYS:NZ	10:1O:89:ASN:OD1	2.40	0.54
15:1T:50:ILE:HD13	15:1T:64:ARG:HB2	1.90	0.54
26:14:43:TYR:O	26:14:45:GLY:N	2.41	0.54
28:16:26:ASN:HD21	28:16:28:ARG:NH2	2.05	0.54
29:17:12:ARG:NH2	29:17:44:PRO:HB3	2.23	0.54
32:1a:971:G:N2	32:1a:1363(A):A:OP2	2.28	0.54
32:1a:1292:U:H2'	32:1a:1293:G:C8	2.42	0.54
1:2A:2104:G:H1	1:2A:2185:C:H42	1.55	0.54
21:2Z:171:ILE:HD12	21:2Z:172:ALA:H	1.72	0.54
50:2s:69:HIS:HB2	50:2s:74:PHE:CZ	2.43	0.54
1:1A:2206:G:H5''	1:1A:2207:G:N7	2.23	0.53
32:1a:103:C:OP2	51:1t:14:LYS:HD2	2.07	0.53
32:1a:406:G:H1	32:1a:436:C:H42	1.54	0.53
32:1a:687:A:H2'	32:1a:701:C:H41	1.73	0.53
32:1a:715:A:H2'	32:1a:716:A:C8	2.43	0.53
39:1h:21:LYS:O	39:1h:65:TYR:OH	2.16	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:1p:74:LEU:HA	47:1p:77:ALA:HB3	1.90	0.53
1:2A:81:G:HO2'	1:2A:295:G:HO2'	1.44	0.53
1:2A:1024:G:HO2'	1:2A:1144:G:HO2'	1.56	0.53
1:2A:2198:A:OP1	8:2I:33:ARG:NH2	2.41	0.53
5:2F:107:LYS:HG3	5:2F:206:ILE:HA	1.90	0.53
9:2N:67:LEU:H	9:2N:67:LEU:HD12	1.73	0.53
23:21:3:LYS:HB2	23:21:61:ARG:HH12	1.73	0.53
32:2a:23:C:OP2	32:2a:561:U:N3	2.37	0.53
32:2a:446:G:H1	32:2a:488:C:H42	1.54	0.53
32:2a:1002:G:N3	32:2a:1003:G:H1'	2.23	0.53
41:2j:8:LEU:HG	41:2j:96:ILE:HG23	1.90	0.53
1:1A:142(A):C:H2'	1:1A:143:G:O4'	2.08	0.53
1:1A:247:G:H4'	1:1A:386:G:C5	2.43	0.53
1:1A:271(M):G:H21	8:1I:50:ARG:NH1	2.05	0.53
1:1A:1670:C:OP1	61:1A:6198:HOH:O	2.19	0.53
1:1A:1814:G:O3'	3:1D:54:ARG:NH2	2.41	0.53
1:1A:2648:C:H2'	1:1A:2649:U:C6	2.43	0.53
1:1A:2690:C:N4	1:1A:2713:A:H1'	2.23	0.53
6:1G:11:TYR:HA	6:1G:15:VAL:HB	1.90	0.53
24:12:25:VAL:HG13	24:12:57:ILE:HG23	1.89	0.53
32:1a:127:G:OP1	32:1a:635:G:H1'	2.08	0.53
1:2A:1965:C:H3'	1:2A:1966:A:H2'	1.90	0.53
5:2F:20:LEU:HD23	5:2F:22:ALA:HB2	1.90	0.53
5:2F:181:LEU:HG	5:2F:186:ILE:HD11	1.90	0.53
21:2Z:53:ILE:HG22	21:2Z:71:VAL:HB	1.91	0.53
32:2a:971:G:H1	32:2a:1363(A):A:H5'	1.73	0.53
32:2a:983:A:N1	32:2a:1222:G:N2	2.55	0.53
32:2a:1065:U:H3	32:2a:1109:C:H5''	1.73	0.53
32:2a:1343:G:O2'	40:2i:121:ARG:HD2	2.08	0.53
44:2m:19:LEU:HD21	44:2m:56:LEU:HD21	1.90	0.53
45:2n:29:ARG:HB3	45:2n:40:CYS:HB3	1.90	0.53
1:1A:279:C:N4	1:1A:361:G:H1	2.06	0.53
1:1A:1053:C:N4	1:1A:1106:G:H1	2.03	0.53
12:1Q:18:LYS:O	12:1Q:98:LYS:NZ	2.24	0.53
1:2A:1378:A:O2'	1:2A:1380:G:N7	2.29	0.53
1:2A:2032:G:OP2	1:2A:2454:G:O2'	2.17	0.53
1:2A:2311:A:O2'	6:2G:88:ILE:HD12	2.09	0.53
3:2D:65:ILE:HD12	3:2D:92:ILE:HG21	1.90	0.53
16:2U:88:ILE:HG22	16:2U:90:VAL:HG23	1.90	0.53
32:2a:619:U:N3	35:2d:134:ASP:OD1	2.30	0.53
32:2a:1004:A:N6	32:2a:1037:C:H1'	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1272:G:N2	32:2a:1273:G:N7	2.55	0.53
34:2c:127:ARG:HH12	34:2c:190:ARG:HH22	1.56	0.53
50:2s:28:LYS:HB3	50:2s:29:ARG:HA	1.89	0.53
55:2x:66:C:H2'	55:2x:67:C:O4'	2.08	0.53
1:1A:878:A:N6	1:1A:899:A:O2'	2.25	0.53
3:1D:85:ASP:OD2	3:1D:88:ARG:NH1	2.38	0.53
32:1a:1327:C:H2'	32:1a:1328:C:C6	2.44	0.53
34:1c:134:ILE:HG23	34:1c:151:VAL:HB	1.90	0.53
34:1c:183:ASP:HB3	34:1c:202:ILE:HB	1.91	0.53
38:1g:114:ARG:HB2	38:1g:115:ARG:NH2	2.23	0.53
1:2A:62:C:H42	1:2A:93:G:H1	1.55	0.53
1:2A:117:G:OP2	1:2A:119:A:O2'	2.23	0.53
1:2A:1432:C:H42	1:2A:1561:G:H1	1.54	0.53
5:2F:158:THR:HB	5:2F:195:ASP:HB2	1.91	0.53
9:2N:4:TYR:HB2	16:2U:101:ARG:HH12	1.73	0.53
32:2a:664:G:OP1	49:2r:64:ARG:NE	2.32	0.53
32:2a:1134:G:C4	32:2a:1135:U:H1'	2.43	0.53
35:2d:72:GLU:OE2	35:2d:207:TYR:OH	2.26	0.53
1:1A:875:G:H1	1:1A:902:C:H42	1.57	0.53
1:1A:2747:G:O6	1:1A:2755:C:H5''	2.08	0.53
18:1W:7:ALA:HB2	18:1W:50:VAL:HG22	1.91	0.53
21:1Z:93:ASP:OD1	21:1Z:93:ASP:N	2.41	0.53
32:1a:1298:C:C4	38:1g:114:ARG:HD2	2.44	0.53
35:1d:26:CYS:HB3	60:1d:302:SF4:S1	2.49	0.53
1:2A:363:G:H2'	1:2A:363(A):A:C8	2.43	0.53
1:2A:721:C:H2'	1:2A:722:A:C8	2.43	0.53
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.71	0.53
1:2A:2705:A:O2'	1:2A:2852:G:OP1	2.20	0.53
6:2G:32:PRO:HB2	6:2G:172:LEU:HD13	1.90	0.53
8:2I:81:VAL:O	8:2I:146:ALA:HA	2.08	0.53
32:2a:6:G:H4'	32:2a:298:A:H4'	1.91	0.53
32:2a:17:U:H2'	32:2a:18:C:C6	2.44	0.53
32:2a:1108:G:H5'	34:2c:176:HIS:CD2	2.43	0.53
33:2b:80:ILE:HD12	33:2b:208:ILE:HG23	1.91	0.53
33:2b:118:LEU:O	33:2b:122:PHE:HB3	2.08	0.53
34:2c:11:ARG:HG2	34:2c:16:ARG:HB2	1.91	0.53
34:2c:69:HIS:CE1	34:2c:104:GLN:HG2	2.44	0.53
34:2c:129:ALA:HB3	34:2c:132:ARG:HB3	1.91	0.53
40:2i:34:ASN:O	40:2i:38:GLN:HB2	2.08	0.53
1:1A:577:G:O2'	1:1A:1254:A:OP1	2.26	0.53
1:1A:1028:A:H61	1:1A:1125:G:H2'	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1937:A:H1'	1:1A:1939:5MU:H72	1.90	0.53
13:1R:8:ARG:HG3	13:1R:43:GLU:CD	2.34	0.53
32:1a:299:G:O5'	32:1a:299:G:H8	1.91	0.53
32:1a:1172:C:H2'	32:1a:1173:G:C8	2.43	0.53
39:1h:12:ARG:NH1	39:1h:25:ASP:O	2.42	0.53
1:2A:143:G:H2'	1:2A:143(A):C:C6	2.44	0.53
1:2A:576:U:H2'	1:2A:577:G:C8	2.43	0.53
1:2A:1647:G:H3'	1:2A:1647:G:OP2	2.09	0.53
2:2B:24:G:N3	2:2B:26:A:N6	2.56	0.53
32:2a:1010:G:N2	32:2a:1020:U:O2'	2.42	0.53
1:1A:1039:G:H1	1:1A:1116:C:N4	2.05	0.53
1:1A:1518:U:H2'	1:1A:1519:G:O4'	2.08	0.53
11:1P:29:LYS:HD3	11:1P:30:THR:HG23	1.90	0.53
17:1V:74:LYS:HB2	17:1V:83:ARG:HB2	1.90	0.53
32:1a:677:U:H3	32:1a:713:G:H22	1.56	0.53
39:1h:86:ILE:HG21	39:1h:133:LEU:HD13	1.90	0.53
55:1x:21:A:H61	55:1x:46:G:H2'	1.73	0.53
1:2A:469:G:OP2	61:2A:3982:HOH:O	2.18	0.53
1:2A:880:G:H2'	1:2A:881:G:C8	2.42	0.53
1:2A:2689:U:P	1:2A:2719:G:H22	2.32	0.53
1:2A:2698:U:H2'	1:2A:2699:C:C6	2.43	0.53
6:2G:171:ALA:O	6:2G:175:LEU:N	2.39	0.53
18:2W:41:LYS:HE3	27:25:25:LEU:HD11	1.90	0.53
33:2b:97:TRP:HH2	33:2b:102:LEU:HD13	1.73	0.53
38:2g:33:ASP:HB2	38:2g:35:LYS:HG3	1.90	0.53
1:1A:36:G:N3	1:1A:450:G:O2'	2.41	0.53
1:1A:1342:A:O2'	1:1A:1344:G:OP2	2.24	0.53
1:1A:2661:G:H2'	1:1A:2662:A:C8	2.44	0.53
1:1A:2732:G:H3'	1:1A:2733:A:O4'	2.09	0.53
9:1N:62:VAL:HG22	9:1N:66:LYS:HD2	1.91	0.53
19:1X:26:TYR:HB3	19:1X:92:LEU:HD22	1.90	0.53
32:1a:99:U:H2'	32:1a:100:C:C6	2.44	0.53
1:2A:1352:U:OP2	61:2A:3983:HOH:O	2.19	0.53
4:2E:28:ALA:HB3	4:2E:93:VAL:HG12	1.91	0.53
6:2G:29:TRP:O	6:2G:33:ARG:NH1	2.42	0.53
9:2N:38:HIS:CE1	9:2N:39:ARG:HG3	2.43	0.53
15:2T:105:LEU:HB3	15:2T:109:GLU:HB2	1.91	0.53
19:2X:50:LYS:N	19:2X:87:GLN:OE1	2.34	0.53
32:2a:909:A:N3	32:2a:1413:A:O2'	2.33	0.53
32:2a:1203:C:OP1	45:2n:3:ARG:NE	2.42	0.53
42:2k:48:ILE:HD11	42:2k:64:ALA:HA	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:2s:77:THR:HG23	50:2s:78:ARG:HG2	1.91	0.53
1:1A:2492:U:H2'	1:1A:2493:U:C6	2.44	0.53
7:1H:139:GLN:O	7:1H:139:GLN:NE2	2.42	0.53
18:1W:4:LYS:HD3	18:1W:6:ILE:HD11	1.91	0.53
32:1a:430:A:OP1	35:1d:9:CYS:HB2	2.08	0.53
55:1x:61:C:H2'	55:1x:62:C:H6	1.74	0.53
1:2A:1450:G:H2'	1:2A:1450(A):C:C6	2.44	0.53
1:2A:1608:A:H1'	1:2A:1610:A:OP2	2.09	0.53
1:2A:2649:U:H2'	1:2A:2650:U:C6	2.44	0.53
1:2A:2727:G:O2'	10:2O:70:LYS:NZ	2.42	0.53
6:2G:15:VAL:HG21	6:2G:176:LEU:HD23	1.91	0.53
32:2a:737:A:H2'	32:2a:738:C:C6	2.44	0.53
32:2a:1114:C:O2'	45:2n:60:SER:O	2.20	0.53
32:2a:1496:C:H2'	32:2a:1497:G:C8	2.44	0.53
35:2d:173:TRP:CD2	35:2d:189:PRO:HB3	2.44	0.53
39:2h:120:THR:HG23	39:2h:123:GLU:HB2	1.90	0.53
40:2i:17:VAL:HA	40:2i:63:ILE:HG12	1.89	0.53
1:1A:234:C:H2'	1:1A:235:U:C6	2.43	0.53
1:1A:586:A:H5'	5:1F:89:VAL:HG21	1.91	0.53
1:1A:807:U:OP2	11:1P:41:ARG:NH2	2.41	0.53
1:1A:946:G:OP1	61:1A:6199:HOH:O	2.19	0.53
1:1A:2334:G:H5'	14:1S:9:ARG:HG2	1.90	0.53
4:1E:119:ARG:HD2	4:1E:160:TYR:HB2	1.91	0.53
7:1H:154:PRO:HB3	7:1H:163:TYR:CZ	2.44	0.53
18:1W:46:PHE:O	18:1W:50:VAL:HG23	2.09	0.53
32:1a:342:C:H2'	32:1a:343:U:O4'	2.08	0.53
33:1b:60:ASP:O	33:1b:64:ARG:HG2	2.09	0.53
40:1i:48:GLU:HA	40:1i:51:ARG:HD3	1.90	0.53
44:1m:20:THR:C	44:1m:22:ILE:H	2.17	0.53
1:2A:271(L):U:H5'	8:2I:50:ARG:HH11	1.73	0.53
1:2A:2126:A:H61	1:2A:2162:G:C2'	2.22	0.53
1:2A:2701:C:H2'	1:2A:2702:U:H2'	1.91	0.53
6:2G:93:THR:HG22	6:2G:95:ARG:HG3	1.91	0.53
14:2S:99:LYS:NZ	14:2S:103:GLU:OE1	2.24	0.53
32:2a:56:U:H2'	32:2a:57:G:C8	2.44	0.53
32:2a:1002:G:N1	32:2a:1038:C:N4	2.57	0.53
32:2a:1101:A:H62	33:2b:175:ARG:HH22	1.57	0.53
32:2a:1203:C:H2'	32:2a:1204:A:C8	2.31	0.53
32:2a:1509:C:H2'	32:2a:1510:U:O4'	2.09	0.53
33:2b:114:ARG:HD2	33:2b:117:GLU:HB3	1.90	0.53
40:2i:86:VAL:HG23	40:2i:96:LEU:HD12	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:89:ASN:C	40:2i:91:ASP:H	2.16	0.53
50:2s:80:TYR:O	50:2s:81:ARG:HG2	2.09	0.53
54:2y:28:G:H1	54:2y:42:C:H42	1.55	0.53
1:1A:443:A:H1'	1:1A:1201:C:O4'	2.09	0.52
1:1A:1269:A:OP2	61:1A:6197:HOH:O	2.19	0.52
1:1A:1594:G:H2'	1:1A:1595:G:C8	2.44	0.52
10:1O:97:ARG:NH1	32:1a:339:C:OP2	2.42	0.52
42:1k:48:ILE:O	42:1k:50:TYR:N	2.41	0.52
55:1x:21:A:N6	55:1x:46:G:H2'	2.24	0.52
1:2A:2468:G:N2	1:2A:2481:G:H1'	2.24	0.52
3:2D:182:LEU:HB2	3:2D:272:ALA:HB3	1.89	0.52
32:2a:1202:G:H1'	45:2n:29:ARG:HD2	1.91	0.52
32:2a:1317:C:O2	50:2s:37:ARG:NH2	2.34	0.52
42:2k:81:ASP:OD1	42:2k:107:SER:OG	2.24	0.52
1:1A:687:C:H1'	29:17:4:THR:HG22	1.91	0.52
1:1A:848:G:H2'	1:1A:849:A:C8	2.44	0.52
1:1A:1593:G:H2'	1:1A:1594:G:C8	2.44	0.52
23:11:53:VAL:HG22	23:11:74:VAL:HG13	1.91	0.52
25:13:39:ASP:OD1	25:13:44:ARG:NH1	2.42	0.52
32:1a:21:G:H2'	32:1a:22:G:C8	2.44	0.52
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.44	0.52
32:1a:1319:A:OP2	50:1s:3:ARG:NH1	2.40	0.52
36:1e:67:VAL:HG13	36:1e:69:VAL:HG23	1.91	0.52
37:1f:23:LYS:HA	37:1f:26:ILE:HD12	1.91	0.52
51:1t:10:LEU:HD12	51:1t:12:ALA:H	1.74	0.52
51:1t:60:GLU:HG3	51:1t:81:LYS:HD2	1.91	0.52
1:2A:10:G:H2'	1:2A:11:G:C8	2.45	0.52
1:2A:1030:G:OP2	12:2Q:128:LYS:NZ	2.42	0.52
1:2A:1296:G:OP1	1:2A:2709:G:O2'	2.25	0.52
1:2A:1336:A:H2'	1:2A:1337:G:H8	1.74	0.52
1:2A:1660:C:H2'	1:2A:1661:G:H8	1.74	0.52
2:2B:38:C:O4'	14:2S:95:HIS:NE2	2.41	0.52
8:2I:31:LEU:HD21	8:2I:38:LEU:HG	1.91	0.52
23:21:17:SER:O	23:21:17:SER:OG	2.27	0.52
32:2a:629:G:H2'	32:2a:630:G:O4'	2.10	0.52
32:2a:711:G:H2'	32:2a:712:A:H8	1.74	0.52
32:2a:872:A:O2'	32:2a:873:A:H5''	2.09	0.52
32:2a:1264:C:H42	32:2a:1271:G:H1	1.57	0.52
32:2a:1328:C:O2'	44:2m:29:ARG:NH2	2.42	0.52
35:2d:165:MET:SD	35:2d:168:ARG:HB2	2.49	0.52
44:2m:92:HIS:HA	44:2m:110:ARG:HH21	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:61:LEU:O	3:1D:63:ARG:NH1	2.41	0.52
4:1E:168:MET:HE2	4:1E:203:LYS:HG2	1.91	0.52
9:1N:30:ILE:O	9:1N:34:LEU:HG	2.08	0.52
32:1a:728:A:H2'	32:1a:729:A:C8	2.44	0.52
32:1a:1320:C:C4	50:1s:36:ARG:HB2	2.45	0.52
32:1a:1385:G:H2'	32:1a:1386:G:H8	1.74	0.52
34:1c:11:ARG:NH2	34:1c:177:THR:O	2.42	0.52
35:1d:68:TYR:HE2	35:1d:97:LEU:HD13	1.74	0.52
42:1k:91:ARG:NH1	42:1k:110:ASP:OD1	2.42	0.52
54:1y:51:U:H3	54:1y:63:G:H1	1.57	0.52
1:2A:674:G:H1'	5:2F:74:ARG:HD3	1.91	0.52
8:2I:125:GLU:OE1	8:2I:143:SER:OG	2.18	0.52
26:24:45:GLY:C	26:24:47:GLN:H	2.18	0.52
33:2b:165:VAL:HG23	33:2b:187:LEU:HB3	1.89	0.52
34:2c:63:ASN:HA	34:2c:98:ASN:H	1.73	0.52
34:2c:136:GLN:HA	34:2c:139:GLN:HB3	1.90	0.52
37:2f:37:VAL:HA	37:2f:65:VAL:HG12	1.90	0.52
1:1A:686:G:N2	1:1A:788:A:H61	2.07	0.52
1:1A:2126:A:H4'	1:1A:2127:G:OP1	2.10	0.52
1:1A:2235:G:H2'	1:1A:2236:C:C6	2.44	0.52
20:1Y:39:VAL:HB	20:1Y:42:VAL:HB	1.92	0.52
33:1b:155:LEU:HD21	33:1b:159:PRO:HD3	1.91	0.52
54:1y:34:G:H2'	54:1y:35:A:O4'	2.09	0.52
54:1y:47:U:O2'	54:1y:50:U:OP1	2.17	0.52
1:2A:271(H):G:H2'	1:2A:271(I):G:H8	1.74	0.52
1:2A:775:G:O3'	61:2A:3984:HOH:O	2.19	0.52
1:2A:1754:C:H5	15:2T:96:ARG:NH2	2.07	0.52
1:2A:2313:C:H2'	1:2A:2314:C:H6	1.75	0.52
1:2A:2317:C:H2'	1:2A:2318:G:H5'	1.92	0.52
3:2D:72:LYS:HB3	3:2D:75:ILE:HD12	1.91	0.52
32:2a:113:G:N3	32:2a:353:A:O2'	2.43	0.52
32:2a:661:G:H1	32:2a:744:C:H42	1.58	0.52
32:2a:1352:C:H2'	32:2a:1353:G:C8	2.44	0.52
33:2b:178:ARG:HH12	39:2h:68:ARG:HH22	1.57	0.52
34:2c:70:VAL:HG12	34:2c:72:LYS:H	1.73	0.52
35:2d:108:LEU:HD21	35:2d:174:LEU:HB3	1.91	0.52
37:2f:28:ARG:O	37:2f:32:ASN:ND2	2.28	0.52
41:2j:8:LEU:HA	41:2j:96:ILE:HA	1.90	0.52
48:2q:87:LYS:O	48:2q:91:ARG:HG3	2.10	0.52
1:1A:659:C:H2'	1:1A:660:G:H8	1.73	0.52
1:1A:1588:C:H2'	1:1A:1589:C:C6	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:16:5:VAL:HG11	28:16:28:ARG:HH21	1.75	0.52
1:2A:310:A:H1'	1:2A:311:A:H2'	1.91	0.52
1:2A:854:G:H2'	1:2A:855:G:C8	2.43	0.52
1:2A:1697:G:OP2	1:2A:1698:A:O2'	2.22	0.52
1:2A:1803:A:O2'	3:2D:259:THR:HG21	2.09	0.52
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.45	0.52
3:2D:108:PRO:HD2	3:2D:111:LEU:HD22	1.90	0.52
5:2F:18:ARG:NH1	5:2F:127:GLU:OE2	2.41	0.52
32:2a:1216:G:H5''	45:2n:5:ALA:HB2	1.90	0.52
32:2a:1318:A:O2'	50:2s:37:ARG:HB2	2.10	0.52
32:2a:1318:A:OP1	50:2s:3:ARG:NH2	2.43	0.52
50:2s:30:LEU:HD23	50:2s:31:ILE:N	2.25	0.52
1:1A:583:G:OP2	16:1U:10:ARG:NH1	2.40	0.52
14:1S:93:LYS:HG2	14:1S:95:HIS:HB3	1.90	0.52
32:1a:299:G:H2'	32:1a:300:A:C8	2.45	0.52
32:1a:582:U:H2'	32:1a:583:A:C8	2.44	0.52
32:1a:1212:U:H4'	32:1a:1213:A:C8	2.44	0.52
37:1f:75:LEU:O	37:1f:79:LEU:HG	2.09	0.52
43:1l:5:PRO:HG2	43:1l:10:LEU:HD21	1.92	0.52
47:1p:66:PRO:HG2	47:1p:71:ARG:HE	1.75	0.52
49:1r:38:GLU:HA	49:1r:41:LYS:HE2	1.91	0.52
1:2A:2128:C:H4'	1:2A:2174:C:H4'	1.92	0.52
1:2A:2816:C:O3'	13:2R:99:LYS:NZ	2.43	0.52
29:27:24:THR:HG22	29:27:26:GLY:N	2.25	0.52
32:2a:836:G:H1	32:2a:850:U:H3	1.58	0.52
32:2a:1305:G:H5'	52:2u:4:GLY:HA3	1.91	0.52
33:2b:54:THR:HA	33:2b:199:TYR:CD1	2.45	0.52
43:2l:56:ALA:HB2	43:2l:70:ILE:HD11	1.91	0.52
1:1A:800:A:H8	1:1A:800:A:OP1	1.93	0.52
1:1A:2492:U:H2'	1:1A:2493:U:H6	1.75	0.52
2:1B:66:A:H61	2:1B:108:U:H2'	1.74	0.52
15:1T:29:ARG:HG3	15:1T:46:GLU:HB2	1.92	0.52
28:16:35:GLU:CD	28:16:50:ARG:HH22	2.17	0.52
32:1a:92:C:H2'	32:1a:93:G:C8	2.45	0.52
32:1a:1107:C:OP1	34:1c:172:ARG:HB2	2.10	0.52
55:1x:8:4SU:O5'	55:1x:8:4SU:H6	2.09	0.52
1:2A:759:G:H2'	1:2A:760:G:C8	2.45	0.52
1:2A:1592:C:H2'	1:2A:1593:G:C8	2.44	0.52
1:2A:1666:G:H4'	10:2O:6:THR:HG23	1.92	0.52
3:2D:275:LYS:HD2	3:2D:276:LYS:HB2	1.92	0.52
7:2H:3:ARG:HB3	7:2H:3:ARG:HH11	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:72:LEU:HD21	8:2I:107:VAL:HG11	1.92	0.52
9:2N:15:LEU:HD23	9:2N:137:LYS:HD2	1.92	0.52
12:2Q:85:LYS:HG2	22:20:7:LEU:HB3	1.92	0.52
14:2S:15:ARG:HE	14:2S:88:ASP:CG	2.16	0.52
15:2T:26:ASP:OD2	15:2T:120:ARG:NH1	2.36	0.52
15:2T:106:SER:N	15:2T:109:GLU:OE1	2.38	0.52
35:2d:135:LEU:C	35:2d:137:SER:H	2.18	0.52
41:2j:8:LEU:HB2	41:2j:70:ARG:HB2	1.90	0.52
1:1A:2031:A:C6	1:1A:2498:C:H1'	2.45	0.52
3:1D:9:TYR:CE1	3:1D:13:ARG:HG3	2.45	0.52
10:1O:10:VAL:HG11	10:1O:16:ALA:HB3	1.91	0.52
20:1Y:7:VAL:HG21	20:1Y:72:VAL:HG23	1.91	0.52
26:14:59:PHE:CD1	26:14:60:GLN:HG2	2.45	0.52
32:1a:352:C:O2'	32:1a:354:G:OP1	2.26	0.52
33:1b:16:HIS:HD2	33:1b:204:ASN:H	1.56	0.52
43:1l:117:ARG:NE	43:1l:123:LYS:O	2.43	0.52
1:2A:275:G:H2'	1:2A:276:A:O4'	2.09	0.52
1:2A:2445:G:P	5:2F:74:ARG:HH22	2.33	0.52
9:2N:12:ARG:HD3	9:2N:14:VAL:HG13	1.92	0.52
16:2U:19:LYS:O	16:2U:22:LYS:HG3	2.10	0.52
34:2c:16:ARG:NH1	34:2c:181:ASN:OD1	2.42	0.52
34:2c:123:GLN:O	34:2c:128:PHE:HB2	2.09	0.52
36:2e:89:ILE:HG12	36:2e:135:THR:HG22	1.91	0.52
40:2i:85:LEU:HB3	40:2i:92:TYR:HD2	1.75	0.52
1:1A:601:C:O2'	1:1A:605:C:OP1	2.22	0.52
1:1A:922:U:H2'	1:1A:923:C:C6	2.45	0.52
1:1A:1783:A:H5'	1:1A:2608:G:H4'	1.92	0.52
1:1A:2375:G:O2'	1:1A:2377:A:N7	2.37	0.52
32:1a:279:A:C6	48:1q:98:LEU:HD23	2.45	0.52
48:1q:60:ILE:HG22	48:1q:74:LEU:HB2	1.92	0.52
1:2A:601:C:O2'	1:2A:605:C:H5''	2.09	0.52
1:2A:901:A:H2'	1:2A:902:C:O4'	2.09	0.52
1:2A:1550:C:OP1	1:2A:1720:U:O2'	2.19	0.52
1:2A:1843:C:H5'	3:2D:253:GLN:OE1	2.09	0.52
3:2D:68:LYS:C	3:2D:70:TRP:H	2.18	0.52
4:2E:143:ASN:HD22	4:2E:147:PRO:HD3	1.75	0.52
6:2G:32:PRO:HB2	6:2G:172:LEU:CD1	2.40	0.52
9:2N:72:TYR:HE2	9:2N:87:LEU:HD13	1.74	0.52
32:2a:714:G:H2'	32:2a:715:A:C8	2.45	0.52
44:2m:117:VAL:HG22	44:2m:118:ALA:H	1.75	0.52
1:1A:1709:U:H2'	1:1A:1710:C:C6	2.46	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2406:U:OP1	61:1A:6201:HOH:O	2.19	0.52
4:1E:42:ASP:O	61:1E:402:HOH:O	2.19	0.52
14:1S:87:PHE:HB2	14:1S:112:PHE:CE1	2.45	0.52
28:16:12:GLU:OE1	28:16:52:VAL:HG11	2.10	0.52
32:1a:299:G:C6	32:1a:300:A:C6	2.98	0.52
32:1a:509:A:N3	32:1a:543:C:O2'	2.35	0.52
32:1a:1005:A:H4'	32:1a:1038:C:H1'	1.92	0.52
32:1a:1036:G:H3'	32:1a:1037:C:C6	2.45	0.52
33:1b:194:PRO:O	33:1b:196:LEU:N	2.43	0.52
36:1e:78:HIS:HE1	36:1e:143:ARG:H	1.58	0.52
40:1i:53:VAL:O	40:1i:55:ALA:N	2.43	0.52
55:1x:21:A:H3'	55:1x:46:G:O6	2.09	0.52
54:1y:63:G:H2'	54:1y:64:A:H8	1.74	0.52
1:2A:774:A:H2'	1:2A:774:A:N3	2.23	0.52
1:2A:947:G:H2'	1:2A:948:G:H8	1.73	0.52
1:2A:1295:C:H2'	1:2A:1296:G:H8	1.75	0.52
1:2A:2124:G:O6	1:2A:2125:G:N2	2.43	0.52
22:20:48:GLY:HA3	22:20:80:HIS:ND1	2.24	0.52
33:2b:100:GLY:N	33:2b:176:GLU:OE2	2.37	0.52
1:1A:180:G:OP2	29:17:32:LYS:HE2	2.09	0.51
1:1A:593:G:H4'	30:18:4:MET:HE2	1.92	0.51
1:1A:2345:G:N3	1:1A:2381:C:H2'	2.25	0.51
1:1A:2448:A:OP1	61:1A:6106:HOH:O	2.19	0.51
1:1A:2683:C:H4'	4:1E:13:ARG:NH2	2.25	0.51
1:1A:2791:C:H2'	1:1A:2792:G:H8	1.75	0.51
20:1Y:89:PHE:CE1	20:1Y:95:LYS:HB2	2.46	0.51
26:14:14:ILE:HG12	26:14:31:ILE:HB	1.91	0.51
32:1a:1247:U:H3	32:1a:1290:G:H1	1.57	0.51
46:1o:6:GLU:OE1	46:1o:6:GLU:N	2.43	0.51
1:2A:20:C:OP1	16:2U:22:LYS:NZ	2.27	0.51
1:2A:218:A:C2	1:2A:235:U:H4'	2.45	0.51
1:2A:290:G:H1	1:2A:350:U:H3	1.57	0.51
1:2A:568:U:H5'	1:2A:945:A:C6	2.44	0.51
1:2A:1479:G:H1	1:2A:1512:U:H3	1.58	0.51
1:2A:1689:A:H62	1:2A:1698:A:H2	1.59	0.51
4:2E:174:ASP:OD1	4:2E:175:VAL:N	2.43	0.51
32:2a:381:C:H2'	32:2a:382:A:O4'	2.10	0.51
32:2a:1119:C:H2'	32:2a:1120:G:H8	1.75	0.51
32:2a:1479:C:H2'	32:2a:1480:G:H8	1.74	0.51
34:2c:125:GLU:C	34:2c:127:ARG:H	2.18	0.51
35:2d:129:ASN:ND2	35:2d:145:GLU:H	2.08	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:2g:135:VAL:HA	38:2g:138:LYS:HB3	1.92	0.51
39:2h:6:ILE:O	39:2h:10:LEU:HG	2.10	0.51
48:2q:82:MET:HA	48:2q:85:VAL:HG23	1.92	0.51
1:1A:2053:G:OP1	61:1A:6200:HOH:O	2.19	0.51
1:1A:2839:G:H5'	13:1R:46:GLY:HA2	1.92	0.51
32:1a:1172:C:H2'	32:1a:1173:G:H8	1.75	0.51
33:1b:97:TRP:CZ2	33:1b:102:LEU:HD13	2.45	0.51
44:1m:11:ARG:C	44:1m:13:LYS:H	2.19	0.51
1:2A:918:A:O2'	2:2B:97:G:N2	2.41	0.51
1:2A:1171:G:H1	1:2A:1178:C:H42	1.58	0.51
1:2A:2188:C:H5'	1:2A:2189:U:OP2	2.10	0.51
1:2A:2343:C:O3'	1:2A:2373:G:H4'	2.11	0.51
1:2A:2823:A:OP1	4:2E:113:PHE:HB2	2.10	0.51
8:2I:116:LEU:HD11	8:2I:120:ILE:HD11	1.93	0.51
32:2a:984:C:H2'	32:2a:985:C:C6	2.46	0.51
34:2c:182:ILE:HG22	34:2c:203:PHE:CD1	2.46	0.51
38:2g:74:GLU:OE2	38:2g:95:ARG:NE	2.43	0.51
1:1A:911:A:H2'	12:1Q:9:TYR:OH	2.10	0.51
1:1A:2286:A:H4'	1:1A:2287:A:O4'	2.10	0.51
13:1R:12:ARG:HG2	13:1R:16:HIS:CG	2.45	0.51
32:1a:767:A:H2'	32:1a:768:A:O4'	2.10	0.51
35:1d:79:PHE:HE1	35:1d:204:ILE:HG12	1.75	0.51
37:1f:11:ASN:HB3	37:1f:14:LEU:HG	1.92	0.51
39:1h:86:ILE:HG22	39:1h:93:VAL:HG21	1.91	0.51
1:2A:568:U:H5'	1:2A:945:A:N1	2.26	0.51
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.74	0.51
1:2A:2361:A:OP2	30:28:26:LYS:NZ	2.39	0.51
1:2A:2557:G:H2'	1:2A:2558:C:C6	2.45	0.51
14:2S:15:ARG:NE	14:2S:88:ASP:OD2	2.34	0.51
20:2Y:44:ILE:HA	20:2Y:63:LYS:O	2.11	0.51
23:21:3:LYS:HB2	23:21:61:ARG:HH22	1.74	0.51
45:2n:27:CYS:SG	45:2n:29:ARG:HB2	2.50	0.51
1:1A:625:G:O6	11:1P:107:LYS:NZ	2.43	0.51
1:1A:959:A:N3	1:1A:2457:U:O2'	2.38	0.51
1:1A:1137:G:H2'	1:1A:1138:G:C8	2.45	0.51
1:1A:2206:G:H3'	1:1A:2207:G:H8	1.75	0.51
6:1G:47:LYS:HG3	6:1G:48:GLU:H	1.76	0.51
32:1a:407:G:OP2	35:1d:115:ARG:NH1	2.43	0.51
32:1a:524:G:H2'	32:1a:525:C:C6	2.45	0.51
32:1a:737:A:H2'	32:1a:738:C:C6	2.46	0.51
32:1a:838:G:H1	32:1a:848:C:N4	2.06	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1348:U:H4'	40:1i:120:ARG:HD2	1.93	0.51
33:1b:178:ARG:NH1	33:1b:198:ASP:OD1	2.43	0.51
33:1b:204:ASN:OD1	33:1b:205:ASP:N	2.43	0.51
51:1t:47:GLY:HA2	51:1t:48:LYS:C	2.36	0.51
54:1y:36:A:H2'	54:1y:37:MIA:O4'	2.10	0.51
1:2A:19:C:H2'	1:2A:20:C:C6	2.46	0.51
1:2A:925:C:H2'	1:2A:926:A:C8	2.39	0.51
1:2A:2134:A:H1'	1:2A:2158:A:C4	2.45	0.51
13:2R:95:THR:HG23	13:2R:116:LEU:HD23	1.93	0.51
15:2T:77:PRO:HB2	15:2T:80:SER:HB2	1.92	0.51
23:21:65:SER:HB2	23:21:66:HIS:ND1	2.26	0.51
26:24:50:VAL:HG11	44:2m:64:TRP:HA	1.93	0.51
32:2a:301:G:H2'	32:2a:302:G:H8	1.76	0.51
32:2a:646:U:H2'	32:2a:647:C:C6	2.46	0.51
32:2a:939:G:H5'	38:2g:102:ARG:CZ	2.41	0.51
32:2a:1132:C:H2'	32:2a:1133:G:H8	1.75	0.51
32:2a:1133:G:H2'	32:2a:1134:G:C8	2.45	0.51
32:2a:1147:C:O2	40:2i:16:ARG:NH1	2.44	0.51
33:2b:15:VAL:HG12	33:2b:209:ARG:HB3	1.92	0.51
38:2g:68:ASN:ND2	38:2g:128:ALA:O	2.42	0.51
54:2w:19:G:H1	54:2w:56:C:H42	1.58	0.51
1:1A:205:G:O6	23:11:39:LYS:NZ	2.39	0.51
1:1A:1377:G:N7	61:1A:6312:HOH:O	2.34	0.51
3:1D:239:ARG:NH2	61:1D:401:HOH:O	2.18	0.51
11:1P:50:ARG:HH21	30:18:7:HIS:CD2	2.27	0.51
14:1S:31:SER:O	14:1S:97:ARG:NH2	2.31	0.51
36:1e:9:LYS:HB2	36:1e:112:LEU:HD11	1.93	0.51
1:2A:892:G:H3'	1:2A:893:C:C5'	2.41	0.51
1:2A:957:A:H5'	12:2Q:76:LYS:HG3	1.92	0.51
1:2A:1230:C:H2'	1:2A:1231:G:H8	1.75	0.51
8:2I:41:GLU:HA	8:2I:44:LEU:HB3	1.93	0.51
12:2Q:111:GLU:OE1	12:2Q:133:ARG:NH2	2.43	0.51
15:2T:50:ILE:HB	15:2T:99:LEU:HB2	1.93	0.51
32:2a:242:C:H2'	32:2a:243:A:H5'	1.92	0.51
38:2g:115:ARG:O	38:2g:118:VAL:HG12	2.11	0.51
42:2k:87:THR:O	42:2k:87:THR:OG1	2.17	0.51
48:2q:40:LYS:HD3	48:2q:42:TYR:CZ	2.46	0.51
51:2t:47:GLY:HA2	51:2t:48:LYS:C	2.36	0.51
1:1A:483:A:O2'	20:1Y:49:VAL:O	2.28	0.51
1:1A:1183:G:O2'	25:13:29:ARG:NH1	2.42	0.51
1:1A:1292:U:H2'	1:1A:1293:C:H6	1.73	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1401:G:O6	61:1a:1926:HOH:O	2.18	0.51
39:1h:36:LEU:HA	39:1h:39:LEU:HD12	1.93	0.51
54:1y:68:C:H2'	54:1y:69:G:H8	1.75	0.51
1:2A:289:A:H3'	1:2A:290:G:H8	1.76	0.51
1:2A:1637:A:H4'	1:2A:2711:A:O2'	2.11	0.51
1:2A:2252:G:H2'	1:2A:2253:G:C8	2.46	0.51
16:2U:102:GLU:HG3	17:2V:2:PHE:CE2	2.45	0.51
32:2a:416:G:H1	32:2a:427:U:H3	1.58	0.51
32:2a:664:G:N2	32:2a:741:G:H1	2.09	0.51
36:2e:7:GLU:OE2	36:2e:37:ARG:NH2	2.40	0.51
37:2f:2:ARG:HD2	37:2f:92:LYS:HE2	1.92	0.51
39:2h:33:GLU:HA	39:2h:36:LEU:HD12	1.93	0.51
1:1A:652(U):G:H2'	1:1A:652(V):C:C6	2.46	0.51
3:1D:83:GLU:OE1	3:1D:104:TYR:OH	2.19	0.51
32:1a:175:C:H2'	32:1a:176:C:C6	2.46	0.51
32:1a:1142:G:H2'	32:1a:1143:G:O4'	2.10	0.51
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.46	0.51
38:1g:46:ALA:HA	38:1g:49:ILE:HD12	1.93	0.51
44:1m:122:LYS:HG3	44:1m:123:ALA:H	1.75	0.51
1:2A:271(V):G:H2'	1:2A:271(W):G:O4'	2.10	0.51
1:2A:1999:C:H5''	1:2A:2723:C:O2'	2.09	0.51
13:2R:2:ARG:NH1	13:2R:5:LYS:O	2.44	0.51
32:2a:376:G:OP2	47:2p:67:THR:HG21	2.10	0.51
32:2a:984:C:H2'	32:2a:985:C:H6	1.75	0.51
32:2a:1284:C:H3'	32:2a:1285:A:C8	2.46	0.51
32:2a:1328:C:O2'	44:2m:29:ARG:NE	2.43	0.51
35:2d:65:ARG:HG3	35:2d:70:ILE:HG23	1.91	0.51
1:1A:717:G:H2'	1:1A:718:A:O4'	2.11	0.51
1:1A:1971:A:H5'	1:1A:1972:A:H5''	1.93	0.51
21:1Z:136:PHE:O	21:1Z:137:ILE:HG13	2.11	0.51
32:1a:693:G:OP2	61:1a:1929:HOH:O	2.20	0.51
32:1a:1016:A:H2'	32:1a:1017:G:O4'	2.11	0.51
32:1a:1376:U:H2'	32:1a:1377:A:C8	2.46	0.51
47:1p:19:ILE:N	47:1p:37:GLY:O	2.44	0.51
1:2A:1011:G:OP2	16:2U:66:ASN:ND2	2.40	0.51
2:2B:2:C:H2'	2:2B:3:C:C6	2.42	0.51
12:2Q:85:LYS:HD3	22:20:7:LEU:HD22	1.93	0.51
17:2V:25:LEU:HB2	17:2V:92:THR:HG21	1.93	0.51
32:2a:487:A:H2'	32:2a:488:C:O4'	2.11	0.51
6:1G:109:VAL:HG11	26:14:14:ILE:HG21	1.92	0.51
32:1a:560:U:O2'	32:1a:561:U:OP2	2.22	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:909:A:H2'	32:1a:910:C:O4'	2.10	0.51
32:1a:1125:U:H4'	41:1j:5:ARG:NH2	2.25	0.51
32:1a:1411:C:N4	61:1a:1970:HOH:O	2.43	0.51
32:1a:1531:A:H8	32:1a:1531:A:O5'	1.94	0.51
33:1b:16:HIS:HB2	33:1b:204:ASN:CB	2.40	0.51
48:1q:86:GLU:O	48:1q:90:ILE:HB	2.11	0.51
1:2A:410:G:H1	1:2A:417:C:H42	1.58	0.51
1:2A:565:C:H5''	17:2V:80:GLN:HE22	1.75	0.51
1:2A:1037:G:H1	1:2A:1118:C:H42	1.59	0.51
1:2A:1416:G:H1'	1:2A:1417:C:C6	2.46	0.51
18:2W:45:TYR:CZ	18:2W:49:LYS:HE3	2.46	0.51
18:2W:77:ASP:HB2	18:2W:102:HIS:HB2	1.91	0.51
32:2a:109:A:H5'	32:2a:110:C:H5	1.76	0.51
32:2a:814:A:H2'	32:2a:816:A:H5''	1.92	0.51
38:2g:42:ILE:HD13	38:2g:116:ALA:HB3	1.93	0.51
1:1A:342:G:N7	61:1A:6320:HOH:O	2.34	0.51
1:1A:570:G:H2'	1:1A:2030:A:N7	2.26	0.51
32:1a:1054:C:C4	54:1w:34:G:H1'	2.46	0.51
40:1i:53:VAL:C	40:1i:55:ALA:H	2.18	0.51
1:2A:1815:A:OP2	3:2D:54:ARG:NH2	2.44	0.51
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.26	0.51
1:2A:2065:C:H2'	1:2A:2066:C:C6	2.46	0.51
1:2A:2115:G:O2'	1:2A:2117:A:N7	2.38	0.51
8:2I:48:GLU:HA	8:2I:51:ILE:HG22	1.93	0.51
32:2a:447:G:O6	32:2a:485:G:O2'	2.20	0.51
32:2a:707:C:H5''	42:2k:85:ARG:HH12	1.76	0.51
32:2a:973:G:H3'	32:2a:974:A:H5''	1.93	0.51
32:2a:1004:A:H2'	32:2a:1005:A:H5'	1.93	0.51
35:2d:103:ASN:OD1	35:2d:114:ARG:NE	2.30	0.51
1:1A:1012:U:OP1	16:1U:75:ASN:ND2	2.39	0.50
1:1A:1105:U:N3	1:1A:1106:G:N7	2.58	0.50
1:1A:1138:G:N3	9:1N:106:MET:HE2	2.26	0.50
1:1A:1740:G:H2'	1:1A:1741:A:H8	1.75	0.50
7:1H:11:VAL:HG13	7:1H:15:VAL:HG22	1.92	0.50
32:1a:396:G:O2'	32:1a:398:C:OP1	2.26	0.50
32:1a:1079:G:O3'	36:1e:14:ARG:NH2	2.44	0.50
32:1a:1240:U:OP2	38:1g:116:ALA:N	2.44	0.50
35:1d:26:CYS:CB	60:1d:302:SF4:S1	2.98	0.50
50:1s:38:SER:HB2	50:1s:71:LEU:HD12	1.94	0.50
1:2A:579:G:H2'	1:2A:580:C:C6	2.47	0.50
1:2A:759:G:H2'	1:2A:760:G:H8	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:817:C:O2'	1:2A:839:U:H5''	2.11	0.50
1:2A:1462:C:H4'	1:2A:2703:C:H5'	1.93	0.50
32:2a:410:G:OP1	35:2d:30:LYS:NZ	2.25	0.50
48:2q:67:LYS:HA	48:2q:70:ARG:HH12	1.76	0.50
1:1A:466:A:OP1	29:17:34:ARG:NH1	2.44	0.50
1:1A:1508:A:O2'	1:1A:1509:C:OP1	2.25	0.50
1:1A:1720:U:H2'	1:1A:1721:G:O4'	2.11	0.50
1:1A:1794:U:H2'	1:1A:1795:C:H6	1.75	0.50
4:1E:116:VAL:HG13	4:1E:122:PHE:HB2	1.93	0.50
32:1a:946:A:H2'	32:1a:947:G:C8	2.46	0.50
32:1a:1347:G:O2'	32:1a:1373:G:O6	2.20	0.50
33:1b:67:THR:HG23	33:1b:91:PRO:HD2	1.92	0.50
37:1f:44:GLY:HA2	37:1f:59:TYR:CE2	2.47	0.50
51:1t:47:GLY:N	51:1t:48:LYS:HB2	2.27	0.50
1:2A:662:G:H2'	1:2A:663:G:H8	1.75	0.50
1:2A:730:C:OP2	61:2A:3986:HOH:O	2.19	0.50
1:2A:2171:A:H1'	1:2A:2172:U:C6	2.46	0.50
1:2A:2306:C:N4	6:2G:42:GLY:O	2.44	0.50
2:2B:7:G:H21	14:2S:38:GLN:HE22	1.60	0.50
6:2G:102:PHE:O	6:2G:106:LEU:N	2.45	0.50
32:2a:1152:A:H2'	32:2a:1153:C:C6	2.46	0.50
33:2b:92:TYR:N	33:2b:151:GLY:O	2.30	0.50
36:2e:105:VAL:HB	36:2e:106:PRO:HD3	1.92	0.50
1:1A:27:G:N2	1:1A:512:G:H1'	2.26	0.50
1:1A:1062:G:P	1:1A:1070:A:H1'	2.52	0.50
1:1A:1178:C:H2'	1:1A:1179:C:C6	2.46	0.50
1:1A:2336:A:H61	22:10:43:THR:CG2	2.24	0.50
3:1D:206:LEU:O	3:1D:211:ARG:HD3	2.12	0.50
5:1F:150:GLY:HA2	5:1F:172:TRP:CD2	2.46	0.50
6:1G:126:ASP:HB2	6:1G:130:ASN:H	1.76	0.50
32:1a:90:U:O2	32:1a:90:U:H2'	2.11	0.50
32:1a:347:G:OP2	61:1a:1930:HOH:O	2.20	0.50
32:1a:582:U:H2'	32:1a:583:A:H8	1.76	0.50
32:1a:600:C:H2'	32:1a:601:C:C6	2.46	0.50
32:1a:1226:C:H4'	50:1s:80:TYR:CZ	2.46	0.50
32:1a:1530:G:H2'	32:1a:1531:A:C8	2.46	0.50
36:1e:100:VAL:O	36:1e:107:ARG:NH1	2.44	0.50
38:1g:45:ASP:O	38:1g:49:ILE:HG13	2.11	0.50
1:2A:872:A:OP1	12:2Q:5:ARG:NH2	2.45	0.50
1:2A:1614:A:P	1:2A:1614:A:H8	2.34	0.50
9:2N:47:ALA:HB2	9:2N:112:LEU:HD11	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1268:A:O2'	52:2u:19:GLY:HA2	2.12	0.50
33:2b:165:VAL:HG23	33:2b:187:LEU:HD22	1.94	0.50
33:2b:187:LEU:HG	33:2b:201:ILE:HB	1.93	0.50
35:2d:98:GLU:HA	35:2d:103:ASN:ND2	2.26	0.50
35:2d:109:GLY:HA3	35:2d:165:MET:HE3	1.93	0.50
1:1A:947:G:H2'	1:1A:948:G:C8	2.46	0.50
6:1G:142:PRO:HB2	26:14:31:ILE:HG21	1.92	0.50
15:1T:57:PHE:HA	15:1T:79:HIS:HD2	1.76	0.50
41:1j:5:ARG:HH21	41:1j:73:ASP:CG	2.19	0.50
44:1m:59:TYR:O	44:1m:63:THR:OG1	2.22	0.50
46:1o:56:LEU:O	46:1o:60:VAL:HG23	2.11	0.50
1:2A:322:A:OP2	5:2F:169:ASN:HB2	2.11	0.50
1:2A:622:G:OP2	11:2P:108:LYS:NZ	2.36	0.50
1:2A:707:G:H2'	1:2A:708:C:O4'	2.12	0.50
1:2A:2631:G:H1	1:2A:2787:C:H42	1.59	0.50
5:2F:161:GLU:O	5:2F:165:ARG:N	2.29	0.50
21:2Z:19:ARG:NH1	21:2Z:84:GLU:O	2.44	0.50
21:2Z:100:VAL:HB	21:2Z:126:VAL:HG21	1.94	0.50
23:21:51:VAL:HG11	23:21:74:VAL:HG21	1.94	0.50
32:2a:412:A:O4'	35:2d:35:ARG:NH2	2.43	0.50
32:2a:866:C:O2'	32:2a:919:A:OP1	2.21	0.50
32:2a:1518:MA6:H93	32:2a:1519:MA6:H92	1.93	0.50
52:2u:12:LYS:HB3	52:2u:17:THR:O	2.11	0.50
1:1A:1587:A:H2'	1:1A:1588:C:C6	2.46	0.50
1:1A:2646:C:H2'	1:1A:2647:U:O4'	2.11	0.50
4:1E:5:LEU:HD12	4:1E:51:PHE:HB2	1.94	0.50
5:1F:184:TYR:CE2	5:1F:188:ARG:HD2	2.46	0.50
13:1R:100:LEU:HD21	13:1R:113:LEU:HD23	1.93	0.50
32:1a:1239:A:H62	32:1a:1299:A:H62	1.59	0.50
44:1m:12:ASN:O	44:1m:44:ARG:HD2	2.12	0.50
48:1q:51:TYR:HE1	48:1q:76:LEU:HB2	1.76	0.50
1:2A:1015:G:H2'	1:2A:1016:G:C8	2.47	0.50
1:2A:1015:G:H2'	1:2A:1016:G:H8	1.76	0.50
1:2A:1265:A:H61	1:2A:2013:A:H5''	1.76	0.50
1:2A:1798:U:H5'	3:2D:259:THR:CG2	2.41	0.50
1:2A:1919:A:N1	32:2a:1495:U:O2'	2.35	0.50
1:2A:2065:C:H2'	1:2A:2066:C:H6	1.75	0.50
1:2A:2162:G:H4'	1:2A:2172:U:H2'	1.92	0.50
1:2A:2564:A:C2	1:2A:2647:U:H4'	2.47	0.50
5:2F:95:ARG:NH1	5:2F:97:TYR:OH	2.45	0.50
5:2F:178:PRO:HB2	5:2F:201:VAL:HG21	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:1:MET:HE3	8:2I:23:PRO:HB3	1.93	0.50
16:2U:66:ASN:O	16:2U:70:ARG:HG3	2.11	0.50
32:2a:921:U:O2'	36:2e:19:MET:O	2.29	0.50
32:2a:1002:G:H1	32:2a:1038:C:N4	2.08	0.50
33:2b:187:LEU:HA	33:2b:201:ILE:HB	1.93	0.50
34:2c:111:LEU:HD21	34:2c:146:ALA:HB2	1.94	0.50
35:2d:200:GLU:O	35:2d:204:ILE:HG12	2.12	0.50
38:2g:111:ARG:HE	38:2g:123:GLU:HB2	1.75	0.50
44:2m:10:PRO:HB2	44:2m:13:LYS:HD2	1.93	0.50
1:1A:458:G:O2'	1:1A:469:G:O6	2.22	0.50
1:1A:1490:A:O2'	3:1D:99:ASP:OD1	2.29	0.50
1:1A:1828:G:OP1	61:1A:6195:HOH:O	2.18	0.50
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.26	0.50
1:1A:2126:A:C2	1:1A:2127:G:H1'	2.47	0.50
13:1R:30:THR:OG1	13:1R:75:LEU:HD11	2.11	0.50
32:1a:692:U:O2'	32:1a:694:A:N7	2.35	0.50
36:1e:100:VAL:HA	36:1e:118:ILE:HG22	1.94	0.50
44:1m:84:ILE:HD11	44:1m:86:CYS:HB3	1.93	0.50
54:1w:4:C:H2'	54:1w:5:G:H8	1.77	0.50
1:2A:195:A:H61	1:2A:198:C:H3'	1.76	0.50
2:2B:74:U:H2'	2:2B:75:G:O4'	2.11	0.50
7:2H:103:LEU:HG	7:2H:105:LEU:HG	1.94	0.50
14:2S:16:ASN:O	14:2S:20:ARG:HG2	2.10	0.50
19:2X:14:SER:C	19:2X:16:LYS:H	2.18	0.50
28:26:18:ARG:HD3	28:26:42:TRP:CE2	2.46	0.50
30:28:26:LYS:HB2	30:28:44:LYS:O	2.12	0.50
32:2a:109:A:H2'	32:2a:326:G:N2	2.26	0.50
32:2a:991:U:C4	32:2a:1212:U:H1'	2.47	0.50
32:2a:1181:G:H4'	32:2a:1182:G:OP1	2.11	0.50
36:2e:60:TYR:CE2	36:2e:64:ARG:HD3	2.47	0.50
1:1A:370:G:OP2	61:1A:6128:HOH:O	2.18	0.50
1:1A:443:A:N7	5:1F:45:ARG:HG2	2.27	0.50
1:1A:740:U:H2'	1:1A:741:G:C8	2.47	0.50
1:1A:1798:U:H5'	3:1D:259:THR:CG2	2.40	0.50
1:1A:2728:U:H2'	1:1A:2729:G:C8	2.46	0.50
1:1A:2821:A:C2	1:1A:2822:G:C4	3.00	0.50
32:1a:710:G:H5''	37:1f:54:LYS:HE2	1.94	0.50
32:1a:1504:G:OP1	32:1a:1507:A:H4'	2.11	0.50
38:1g:26:PHE:CE2	38:1g:30:ILE:HD11	2.47	0.50
1:2A:93:G:H2'	1:2A:94:C:C6	2.46	0.50
1:2A:2430:A:OP1	61:2A:3941:HOH:O	2.20	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2787:C:H1'	4:2E:62:PRO:HG3	1.94	0.50
2:2B:28:C:H2'	2:2B:29:A:C8	2.47	0.50
15:2T:26:ASP:CG	15:2T:120:ARG:HH12	2.17	0.50
16:2U:74:LEU:HD13	16:2U:79:PHE:HB2	1.94	0.50
17:2V:72:VAL:HB	17:2V:85:LYS:HB3	1.94	0.50
25:23:3:ARG:HG2	25:23:60:GLU:H	1.77	0.50
26:24:14:ILE:HD12	26:24:31:ILE:HB	1.93	0.50
32:2a:127:G:N2	48:2q:61:GLU:OE2	2.43	0.50
32:2a:1151:A:H5''	41:2j:42:THR:OG1	2.12	0.50
32:2a:1201:A:H4'	32:2a:1202:G:O5'	2.11	0.50
32:2a:1373:G:H4'	38:2g:31:MET:CE	2.41	0.50
33:2b:136:VAL:O	33:2b:140:HIS:HB2	2.10	0.50
33:2b:187:LEU:HD23	33:2b:188:ALA:N	2.27	0.50
1:1A:479:A:N3	1:1A:481:G:H5''	2.26	0.50
4:1E:183:LEU:HD21	15:1T:10:VAL:HG21	1.94	0.50
5:1F:39:TRP:HB2	5:1F:99:TYR:CE1	2.47	0.50
9:1N:75:TYR:CE2	9:1N:77:GLY:HA2	2.46	0.50
11:1P:64:LYS:O	30:18:30:ARG:NH2	2.45	0.50
11:1P:126:VAL:HG12	11:1P:148:LEU:HD22	1.94	0.50
32:1a:555:C:H2'	32:1a:556:C:C6	2.47	0.50
32:1a:662:G:H2'	32:1a:663:A:C8	2.47	0.50
32:1a:1183:A:O2'	32:1a:1184:G:OP1	2.28	0.50
38:1g:100:ALA:O	38:1g:104:LEU:HB2	2.12	0.50
46:1o:18:PHE:CE2	46:1o:21:ASP:HB2	2.47	0.50
1:2A:2398:U:H2'	1:2A:2399:G:C8	2.47	0.50
2:2B:40:U:O2'	2:2B:41:U:H5'	2.11	0.50
5:2F:11:VAL:HG22	5:2F:125:LEU:HD12	1.94	0.50
5:2F:13:SER:C	5:2F:15:SER:H	2.19	0.50
7:2H:164:TYR:HB2	7:2H:167:GLU:HB2	1.93	0.50
21:2Z:73:GLN:O	21:2Z:87:ASP:N	2.37	0.50
25:23:46:ASN:O	25:23:50:VAL:HG22	2.11	0.50
32:2a:358:U:H2'	32:2a:359:U:C6	2.46	0.50
32:2a:1260:C:P	32:2a:1284:C:H4'	2.51	0.50
36:2e:110:LEU:O	36:2e:115:VAL:HG12	2.11	0.50
47:2p:1:MET:O	47:2p:24:ALA:N	2.38	0.50
54:2y:69:G:H5'	54:2y:70:G:OP2	2.12	0.50
1:1A:403:U:H3'	61:1A:6755:HOH:O	2.11	0.50
1:1A:414:C:H2'	1:1A:415:A:H8	1.76	0.50
1:1A:1952:A:C6	1:1A:1953:A:N1	2.80	0.50
17:1V:72:VAL:HB	17:1V:85:LYS:HB3	1.93	0.50
19:1X:1:MET:HE1	24:12:26:ARG:HH21	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:153:C:N4	32:1a:169:C:H42	2.10	0.50
32:1a:1422:G:H2'	32:1a:1423:G:H8	1.77	0.50
33:1b:219:VAL:O	33:1b:222:ILE:HG13	2.12	0.50
39:1h:116:LYS:HD3	39:1h:127:LEU:HD23	1.92	0.50
1:2A:903:C:H2'	1:2A:904:C:C6	2.46	0.50
1:2A:1366:A:H2'	1:2A:1367:A:O4'	2.12	0.50
1:2A:1798:U:H5'	3:2D:259:THR:HG23	1.93	0.50
1:2A:2131:G:H4'	1:2A:2132:U:H3'	1.93	0.50
1:2A:2483:C:H2'	1:2A:2484:G:O4'	2.12	0.50
32:2a:922:G:H2'	32:2a:923:A:C8	2.46	0.50
44:2m:92:HIS:CD2	44:2m:98:VAL:HG21	2.46	0.50
54:2y:36:A:H2'	54:2y:37:MIA:O4'	2.12	0.50
1:1A:2660:A:H2'	1:1A:2661:G:O4'	2.12	0.49
14:1S:20:ARG:NH2	22:10:51:VAL:O	2.41	0.49
18:1W:92:ARG:NH1	61:1W:301:HOH:O	2.44	0.49
32:1a:201:C:H42	32:1a:216:G:H1	1.58	0.49
32:1a:427:U:OP2	35:1d:36:ARG:NH1	2.45	0.49
32:1a:865:A:H2	32:1a:918:A:H4'	1.77	0.49
36:1e:12:LEU:HB3	36:1e:31:LEU:HB3	1.94	0.49
37:1f:76:ALA:O	37:1f:80:ARG:HG3	2.12	0.49
43:1l:79:GLU:HG2	43:1l:80:HIS:CD2	2.47	0.49
1:2A:192:C:O2'	1:2A:802:A:N3	2.38	0.49
1:2A:686:G:OP2	61:2A:3987:HOH:O	2.20	0.49
1:2A:805:G:OP2	1:2A:806:C:N4	2.42	0.49
1:2A:1292:U:H2'	1:2A:1293:C:C6	2.47	0.49
1:2A:1340:U:OP1	19:2X:16:LYS:NZ	2.44	0.49
1:2A:2140:C:H42	1:2A:2151:G:H1	1.58	0.49
4:2E:89:ASP:OD1	4:2E:89:ASP:N	2.45	0.49
20:2Y:54:LYS:C	20:2Y:56:PRO:HD3	2.37	0.49
32:2a:1114:C:H42	32:2a:1186:G:H1	1.59	0.49
33:2b:165:VAL:HA	33:2b:187:LEU:HB3	1.94	0.49
33:2b:168:THR:OG1	33:2b:191:ASP:O	2.23	0.49
36:2e:145:LYS:O	36:2e:149:GLU:N	2.34	0.49
38:2g:52:GLU:HG2	38:2g:53:LYS:N	2.25	0.49
39:2h:44:PHE:HB3	39:2h:80:ILE:HD11	1.94	0.49
1:1A:180:G:N1	1:1A:214:G:N7	2.58	0.49
1:1A:1658:C:OP1	61:1A:6196:HOH:O	2.18	0.49
1:1A:2128:C:C2	1:1A:2160:G:N2	2.77	0.49
1:1A:2698:U:H2'	1:1A:2699:C:C6	2.48	0.49
5:1F:168:ARG:HB2	5:1F:175:THR:HG21	1.94	0.49
17:1V:23:GLU:OE1	17:1V:89:GLN:NE2	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:445:G:H2'	32:1a:446:G:C8	2.47	0.49
32:1a:1060:C:OP1	45:1n:45:ARG:NH2	2.43	0.49
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.47	0.49
1:2A:1262:A:H2	27:25:10:LYS:HD2	1.77	0.49
1:2A:1385:G:O2'	1:2A:1396:U:O2	2.21	0.49
2:2B:83:G:H1	2:2B:94:C:H42	1.58	0.49
3:2D:148:GLU:HB2	3:2D:151:LYS:HD2	1.93	0.49
4:2E:116:VAL:HG13	4:2E:122:PHE:HB2	1.94	0.49
32:2a:1265:G:C2	32:2a:1271:G:C2	3.00	0.49
38:2g:18:TYR:HB3	38:2g:59:LEU:HD22	1.94	0.49
4:1E:31:CYS:HB3	4:1E:49:LEU:HG	1.93	0.49
4:1E:119:ARG:HG2	4:1E:120:TRP:CE2	2.48	0.49
9:1N:66:LYS:O	9:1N:70:LYS:HB3	2.12	0.49
11:1P:8:PRO:HB2	11:1P:12:ALA:HB3	1.94	0.49
32:1a:390:C:H2'	32:1a:391:G:C8	2.47	0.49
32:1a:434:U:H2'	32:1a:435:C:C6	2.47	0.49
39:1h:86:ILE:HD12	39:1h:133:LEU:HD22	1.94	0.49
42:1k:50:TYR:CD2	42:1k:60:ALA:HB2	2.48	0.49
48:1q:53:LEU:HD23	48:1q:82:MET:HE1	1.94	0.49
1:2A:271(G):C:H2'	1:2A:271(H):G:H8	1.77	0.49
1:2A:583:G:OP2	16:2U:10:ARG:NH1	2.46	0.49
1:2A:2137:C:N3	1:2A:2154:G:N2	2.50	0.49
1:2A:2365:G:N7	30:28:39:LYS:NZ	2.46	0.49
1:2A:2712:U:OP1	1:2A:2714:G:H4'	2.12	0.49
1:2A:2823:A:OP1	4:2E:159:HIS:NE2	2.46	0.49
7:2H:10:PRO:HA	7:2H:49:VAL:HG23	1.93	0.49
32:2a:438:G:H4'	35:2d:123:HIS:ND1	2.27	0.49
32:2a:660:G:H2'	32:2a:661:G:C8	2.47	0.49
32:2a:940:C:H2'	32:2a:941:G:C8	2.47	0.49
32:2a:1402:4OC:H6	32:2a:1402:4OC:O5'	2.13	0.49
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.47	0.49
41:2j:51:ARG:HD3	45:2n:45:ARG:NH2	2.28	0.49
55:2x:15:G:H2'	55:2x:59:A:N1	2.27	0.49
1:1A:185:U:H4'	1:1A:218:A:H4'	1.94	0.49
1:1A:234:C:H2'	1:1A:235:U:H6	1.77	0.49
1:1A:397:G:H2'	1:1A:398:G:C8	2.46	0.49
4:1E:111:ARG:HG2	4:1E:118:LYS:HD3	1.94	0.49
6:1G:129:GLY:O	6:1G:161:THR:OG1	2.30	0.49
10:1O:64:ARG:HD2	10:1O:79:PHE:CD1	2.47	0.49
35:1d:111:ALA:HB2	35:1d:120:LEU:HD12	1.94	0.49
39:1h:35:ILE:HD11	39:1h:134:ILE:HG21	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:1w:27:G:H2'	54:1w:28:G:H8	1.77	0.49
1:2A:90:U:H1'	1:2A:92:A:C8	2.46	0.49
1:2A:195:A:H2'	1:2A:198:C:H41	1.77	0.49
1:2A:524:U:H2'	1:2A:525:U:C6	2.47	0.49
1:2A:1796:U:H2'	1:2A:1797:C:H6	1.77	0.49
8:2I:116:LEU:HD21	8:2I:120:ILE:HG12	1.92	0.49
32:2a:336:C:H2'	32:2a:337:C:C6	2.48	0.49
33:2b:16:HIS:O	33:2b:18:GLY:N	2.46	0.49
34:2c:121:ALA:HB2	34:2c:198:VAL:HG21	1.95	0.49
44:2m:28:ALA:C	44:2m:30:ALA:H	2.20	0.49
1:1A:484:C:OP1	20:1Y:51:VAL:HG22	2.12	0.49
1:1A:880:G:H1	1:1A:897:C:H42	1.60	0.49
1:1A:1785:A:OP1	61:1A:6203:HOH:O	2.20	0.49
2:1B:87:G:N2	2:1B:90:A:OP2	2.34	0.49
5:1F:41:LEU:HA	5:1F:44:ARG:HD3	1.94	0.49
8:1I:1:MET:N	8:1I:21:VAL:O	2.26	0.49
32:1a:262:A:H5''	51:1t:76:ALA:HB2	1.94	0.49
32:1a:457:C:H2'	32:1a:458:C:H6	1.78	0.49
1:2A:241:A:H8	1:2A:241:A:OP1	1.95	0.49
1:2A:1567:A:OP2	3:2D:84:TYR:OH	2.23	0.49
6:2G:35:GLU:HB3	6:2G:160:VAL:HG23	1.94	0.49
14:2S:15:ARG:HB3	14:2S:19:LYS:HZ2	1.77	0.49
23:21:19:GLN:NE2	61:21:202:HOH:O	2.45	0.49
26:24:10:VAL:N	26:24:26:SER:O	2.35	0.49
32:2a:1226:C:H5''	44:2m:103:THR:HG21	1.93	0.49
50:2s:33:THR:HG22	50:2s:49:ILE:HD11	1.94	0.49
1:1A:287:C:H2'	1:1A:288:C:H6	1.77	0.49
1:1A:818:G:H5'	1:1A:839:U:OP1	2.13	0.49
1:1A:1790:C:H2'	1:1A:1791:A:C5	2.48	0.49
1:1A:1794:U:H2'	1:1A:1795:C:C6	2.47	0.49
7:1H:143:GLN:HG3	7:1H:147:ASN:HD21	1.76	0.49
9:1N:58:ASP:OD1	9:1N:58:ASP:N	2.44	0.49
12:1Q:111:GLU:OE2	12:1Q:133:ARG:NH2	2.45	0.49
32:1a:67:C:H2'	32:1a:68:G:H8	1.76	0.49
32:1a:598:U:H4'	39:1h:94:TYR:CG	2.48	0.49
32:1a:1084:G:C5	32:1a:1085:U:C4	3.00	0.49
36:1e:137:GLU:OE2	36:1e:141:GLN:NE2	2.46	0.49
39:1h:44:PHE:HD1	39:1h:80:ILE:HG12	1.76	0.49
46:1o:68:ARG:NH1	61:1o:101:HOH:O	2.45	0.49
1:2A:80:G:H1	1:2A:106:C:H42	1.59	0.49
1:2A:686:G:C2	29:27:11:LYS:HE3	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:66:ILE:HG12	12:2Q:104:PHE:CD1	2.48	0.49
20:2Y:73:ARG:HH21	20:2Y:83:THR:C	2.21	0.49
32:2a:111:G:O5'	32:2a:111:G:H8	1.96	0.49
32:2a:301:G:H2'	32:2a:302:G:C8	2.47	0.49
32:2a:1338:G:H21	55:2x:41:C:H1'	1.78	0.49
38:2g:51:GLN:O	38:2g:55:GLY:HA2	2.12	0.49
39:2h:69:ARG:NE	39:2h:75:ARG:O	2.44	0.49
1:1A:143:G:H1'	19:1X:37:THR:HG21	1.94	0.49
1:1A:531:C:H4'	1:1A:532:A:H5''	1.94	0.49
1:1A:1740:G:H2'	1:1A:1741:A:C8	2.47	0.49
1:1A:1789:A:H5''	3:1D:220:HIS:O	2.13	0.49
13:1R:78:LYS:O	13:1R:83:ILE:HG13	2.12	0.49
20:1Y:8:LYS:HD3	20:1Y:97:ARG:NH1	2.28	0.49
33:1b:59:GLU:HG3	33:1b:221:LEU:HG	1.94	0.49
33:1b:109:SER:HA	33:1b:112:VAL:HG13	1.95	0.49
1:2A:271(K):U:O2	8:2I:50:ARG:HD3	2.11	0.49
1:2A:2136:C:N4	1:2A:2155:G:N1	2.60	0.49
1:2A:2505:G:OP2	58:2A:3851:A1AIX:OBD	2.30	0.49
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.48	0.49
1:2A:2661:G:H2'	1:2A:2662:A:C8	2.48	0.49
2:2B:42:C:C4	2:2B:43:C:C4	3.01	0.49
29:27:20:ALA:HA	29:27:23:ARG:HH21	1.78	0.49
32:2a:523:A:H61	43:2l:92:0TD:CG	2.26	0.49
32:2a:936:C:H2'	32:2a:937:A:O4'	2.11	0.49
32:2a:957:U:H2'	32:2a:959:A:OP2	2.13	0.49
32:2a:1080:A:H5'	36:2e:14:ARG:NH2	2.28	0.49
39:2h:24:THR:HG22	39:2h:61:VAL:HG23	1.95	0.49
44:2m:10:PRO:O	44:2m:13:LYS:HB2	2.12	0.49
1:1A:2503:2MA:O2'	1:1A:2505:G:OP2	2.21	0.49
6:1G:72:ARG:NH1	6:1G:87:PRO:HG3	2.25	0.49
13:1R:29:LEU:HD22	13:1R:79:LEU:HD13	1.93	0.49
32:1a:426:G:OP1	35:1d:38:TYR:OH	2.22	0.49
39:1h:33:GLU:HG3	39:1h:59:LEU:HD11	1.95	0.49
50:1s:34:TRP:CE2	50:1s:57:HIS:HE1	2.31	0.49
1:2A:1912:A:O2'	32:2a:1494:G:O2'	2.30	0.49
1:2A:2150:U:H2'	1:2A:2151:G:H8	1.76	0.49
1:2A:2156:G:H2'	1:2A:2157:G:C5	2.47	0.49
1:2A:2345:G:N3	1:2A:2381:C:H2'	2.27	0.49
14:2S:25:ARG:HB3	14:2S:40:ILE:HB	1.94	0.49
15:2T:55:ASN:H	15:2T:59:THR:HB	1.77	0.49
16:2U:27:LEU:O	16:2U:31:SER:N	2.32	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:53:ILE:HA	21:2Z:71:VAL:HG23	1.93	0.49
24:22:33:MET:HG3	24:22:36:ARG:NH2	2.27	0.49
34:2c:66:VAL:HG12	34:2c:68:VAL:HG23	1.95	0.49
40:2i:31:GLN:HB2	40:2i:36:TYR:HB2	1.93	0.49
50:2s:3:ARG:NH1	50:2s:8:GLY:H	2.11	0.49
1:1A:607:U:OP1	5:1F:102:PRO:HA	2.13	0.49
1:1A:1139:G:H5'	9:1N:70:LYS:HZ1	1.77	0.49
1:1A:2139:C:C2	1:1A:2153:G:C2	3.01	0.49
1:1A:2206:G:OP2	1:1A:2206:G:H4'	2.11	0.49
1:1A:2790:A:H3'	1:1A:2790:A:N3	2.27	0.49
11:1P:101:VAL:HG23	11:1P:106:LEU:O	2.13	0.49
20:1Y:34:LYS:NZ	61:1Y:301:HOH:O	2.32	0.49
32:1a:79:G:O6	32:1a:90:U:C2	2.65	0.49
1:2A:196:A:N3	1:2A:196:A:H2'	2.28	0.49
1:2A:1364:G:OP2	23:21:3:LYS:HG3	2.13	0.49
1:2A:1464:C:H2'	1:2A:1465:G:C8	2.48	0.49
1:2A:2364:C:H2'	1:2A:2365:G:O4'	2.12	0.49
32:2a:818:G:N2	32:2a:873:A:OP1	2.45	0.49
32:2a:1406:U:O2	32:2a:1517:G:N2	2.44	0.49
1:1A:86:C:H4'	1:1A:104:U:H1'	1.94	0.49
1:1A:1692:U:H2'	1:1A:1694:C:C5	2.48	0.49
1:1A:2518:A:O5'	61:1A:6131:HOH:O	2.20	0.49
1:1A:2557:G:H2'	1:1A:2558:C:C6	2.48	0.49
1:1A:2727:G:O2'	10:1O:70:LYS:NZ	2.46	0.49
2:1B:8:U:O3'	14:1S:25:ARG:NH2	2.46	0.49
21:1Z:52:SER:O	21:1Z:52:SER:OG	2.26	0.49
32:1a:1292:U:H2'	32:1a:1293:G:H8	1.77	0.49
34:1c:22:TRP:CH2	45:1n:54:PRO:HG2	2.48	0.49
42:1k:19:ALA:HB3	42:1k:82:VAL:HG22	1.93	0.49
42:1k:73:MET:HG2	42:1k:103:LEU:HD21	1.94	0.49
50:1s:80:TYR:CE2	50:1s:82:GLY:HA2	2.48	0.49
1:2A:2329:G:N2	22:20:41:ARG:HB3	2.28	0.49
1:2A:2335:A:C8	1:2A:2337:G:C5	3.01	0.49
5:2F:113:ALA:HB1	5:2F:186:ILE:HG21	1.95	0.49
5:2F:184:TYR:O	5:2F:188:ARG:HB2	2.13	0.49
7:2H:154:PRO:HB3	7:2H:163:TYR:CE1	2.47	0.49
17:2V:46:VAL:HG13	17:2V:52:VAL:HG11	1.95	0.49
32:2a:106:C:N4	61:2a:3344:HOH:O	2.45	0.49
32:2a:583:A:H2'	32:2a:584:G:O4'	2.13	0.49
32:2a:988:G:H2'	32:2a:989:C:O4'	2.13	0.49
32:2a:1104:G:H5'	33:2b:111:ARG:HE	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1318:A:H5''	50:2s:3:ARG:HD2	1.95	0.49
33:2b:47:THR:O	33:2b:51:LEU:N	2.46	0.49
35:2d:128:VAL:HG12	35:2d:129:ASN:HD22	1.77	0.49
40:2i:67:GLY:N	40:2i:73:GLN:HE21	2.11	0.49
46:2o:24:SER:O	46:2o:27:VAL:N	2.46	0.49
54:2w:13:C:N3	54:2w:22:G:O6	2.46	0.49
1:1A:239:U:H2'	1:1A:240:G:O4'	2.12	0.48
1:1A:815:C:H2'	1:1A:816:C:C6	2.48	0.48
1:1A:1038:C:N4	1:1A:1117:G:H1	2.09	0.48
1:1A:1062:G:N2	1:1A:1077:A:H61	2.07	0.48
1:1A:1119:C:N4	61:1A:6449:HOH:O	2.46	0.48
1:1A:1235:G:C6	1:1A:1236:G:N1	2.81	0.48
1:1A:2086:U:H2'	1:1A:2087:G:H8	1.78	0.48
6:1G:18:GLU:OE2	6:1G:21:ARG:NH1	2.43	0.48
32:1a:69:G:H1	32:1a:100:C:H42	1.61	0.48
32:1a:76:C:N4	32:1a:93:G:H1	2.09	0.48
32:1a:646:U:H2'	32:1a:647:C:C6	2.48	0.48
35:1d:108:LEU:HD12	35:1d:174:LEU:HD13	1.95	0.48
37:1f:13:ASN:ND2	37:1f:55:ASP:OD1	2.46	0.48
40:1i:42:ARG:NH1	40:1i:71:SER:OG	2.46	0.48
1:2A:236:C:H2'	1:2A:237:C:C6	2.47	0.48
1:2A:312:G:H4'	1:2A:331:A:N3	2.28	0.48
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.46	0.48
9:2N:15:LEU:N	9:2N:136:GLU:O	2.40	0.48
22:20:52:GLY:O	22:20:59:LEU:HA	2.12	0.48
27:25:41:PRO:O	27:25:44:THR:OG1	2.31	0.48
32:2a:395:C:N4	61:2a:3345:HOH:O	2.46	0.48
32:2a:448:A:P	32:2a:485:G:H22	2.35	0.48
32:2a:815:A:N7	32:2a:1509:C:O2'	2.42	0.48
32:2a:1149:C:H2'	32:2a:1150:U:C6	2.48	0.48
32:2a:1429:C:H2'	32:2a:1430:C:C6	2.48	0.48
35:2d:47:ARG:HB2	35:2d:47:ARG:HH11	1.78	0.48
37:2f:3:ARG:HB3	37:2f:93:SER:HB2	1.95	0.48
39:2h:33:GLU:O	39:2h:36:LEU:N	2.40	0.48
46:2o:39:LEU:HB3	46:2o:56:LEU:HD13	1.95	0.48
1:1A:397:G:H2'	1:1A:398:G:H8	1.77	0.48
1:1A:813:U:H2'	1:1A:814:C:C6	2.48	0.48
1:1A:858:U:O2	1:1A:2268:A:H2'	2.13	0.48
1:1A:1087:G:H2'	1:1A:1089:G:C8	2.48	0.48
1:1A:1137:G:H2'	1:1A:1138:G:H8	1.78	0.48
14:1S:15:ARG:HB3	14:1S:19:LYS:HE2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1Z:53:ILE:HG22	21:1Z:71:VAL:HG12	1.94	0.48
32:1a:1124:G:H4'	41:1j:38:ILE:HD13	1.95	0.48
1:2A:234:C:H2'	1:2A:235:U:C6	2.48	0.48
1:2A:1325:G:OP1	1:2A:1647:G:O2'	2.29	0.48
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.48	0.48
2:2B:17:C:H2'	2:2B:18:G:O4'	2.14	0.48
2:2B:55:U:H2'	2:2B:56:G:C8	2.48	0.48
2:2B:66:A:N6	2:2B:108:U:H3'	2.28	0.48
32:2a:688:G:H2'	32:2a:689:C:H6	1.77	0.48
32:2a:1082:G:H2'	32:2a:1083:U:O4'	2.13	0.48
32:2a:1518:MA6:H93	32:2a:1519:MA6:C9	2.43	0.48
33:2b:178:ARG:HH22	39:2h:68:ARG:HH12	1.61	0.48
40:2i:8:GLY:HA2	40:2i:79:LEU:HD23	1.95	0.48
54:2w:56:C:H2'	54:2w:57:G:O4'	2.13	0.48
1:1A:818:G:H4'	1:1A:838:C:O3'	2.13	0.48
1:1A:1474:C:H2'	1:1A:1475:G:C8	2.49	0.48
27:15:40:LYS:HD2	27:15:46:CYS:HA	1.96	0.48
32:1a:1201:A:H4'	32:1a:1202:G:O5'	2.14	0.48
43:1l:54:LYS:HD2	43:1l:54:LYS:N	2.28	0.48
54:1w:23:A:H3'	54:1w:24:G:C8	2.47	0.48
1:2A:647:G:H8	1:2A:647:G:O5'	1.96	0.48
8:2I:23:PRO:O	8:2I:27:ARG:HG3	2.13	0.48
11:2P:82:GLY:HA2	11:2P:113:LYS:O	2.13	0.48
32:2a:577:G:H2'	32:2a:578:C:H6	1.78	0.48
32:2a:932:C:H2'	32:2a:933:G:C8	2.47	0.48
32:2a:1530:G:OP1	32:2a:1530:G:H4'	2.12	0.48
33:2b:8:LYS:NZ	33:2b:51:LEU:HD13	2.28	0.48
33:2b:17:PHE:HA	33:2b:44:LEU:HD11	1.95	0.48
35:2d:4:TYR:O	35:2d:115:ARG:NH1	2.46	0.48
38:2g:16:LEU:HD12	38:2g:16:LEU:H	1.78	0.48
1:1A:1082:U:O4	1:1A:1086:A:C6	2.65	0.48
1:1A:1441:G:H2'	1:1A:1442:G:H8	1.77	0.48
1:1A:2291:U:O2'	1:1A:2374:C:O2	2.30	0.48
1:1A:2787:C:H1'	4:1E:62:PRO:HG3	1.95	0.48
5:1F:129:PHE:CD2	5:1F:163:VAL:HG21	2.48	0.48
7:1H:10:PRO:HA	7:1H:49:VAL:HG22	1.95	0.48
15:1T:20:PRO:HB2	15:1T:88:ILE:HD11	1.96	0.48
32:1a:1039:C:H2'	32:1a:1040:U:C6	2.48	0.48
32:1a:1048:G:OP1	45:1n:3:ARG:HB3	2.12	0.48
32:1a:1163:C:H42	32:1a:1173:G:H1	1.61	0.48
39:1h:17:THR:HG22	39:1h:63:LEU:HD23	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:1j:38:ILE:HG13	41:1j:71:LEU:HB3	1.95	0.48
54:1y:48:C:H6	54:1y:48:C:OP1	1.97	0.48
1:2A:763:G:H2'	1:2A:765:G:OP2	2.12	0.48
1:2A:902:C:H2'	1:2A:903:C:C6	2.48	0.48
1:2A:918:A:C2	2:2B:81:G:H5'	2.47	0.48
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.13	0.48
8:2I:40:THR:OG1	8:2I:41:GLU:N	2.44	0.48
9:2N:4:TYR:O	16:2U:64:ARG:NH2	2.33	0.48
32:2a:438:G:H4'	35:2d:123:HIS:CE1	2.48	0.48
32:2a:450:G:H4'	47:2p:41:PRO:HB2	1.95	0.48
32:2a:1142:G:H2'	32:2a:1143:G:O4'	2.14	0.48
40:2i:77:ILE:O	40:2i:81:ILE:HG13	2.14	0.48
54:2w:51:U:H2'	54:2w:52:G:H8	1.79	0.48
1:1A:184:C:H2'	1:1A:185:U:H6	1.77	0.48
1:1A:503:A:H4'	1:1A:504:U:H5''	1.96	0.48
1:1A:576:U:H2'	1:1A:577:G:C8	2.48	0.48
1:1A:652(U):G:H2'	1:1A:652(V):C:H6	1.77	0.48
1:1A:2633:G:H2'	1:1A:2634:G:O4'	2.14	0.48
32:1a:545:C:H2'	32:1a:546:G:O4'	2.14	0.48
42:1k:33:THR:HA	42:1k:39:PRO:HA	1.96	0.48
43:1l:70:ILE:HG23	43:1l:100:ILE:HD12	1.94	0.48
45:1n:6:LEU:HD22	45:1n:23:ARG:HH21	1.78	0.48
1:2A:271(G):C:H2'	1:2A:271(H):G:C8	2.47	0.48
1:2A:297:C:OP2	61:2A:3990:HOH:O	2.20	0.48
1:2A:652(C):G:N2	1:2A:653:A:H1'	2.29	0.48
1:2A:864:G:H1'	1:2A:914:C:N4	2.28	0.48
1:2A:918:A:N3	2:2B:80:U:O2'	2.44	0.48
1:2A:1319:G:C6	1:2A:1320:C:N4	2.82	0.48
1:2A:1636:C:H2'	1:2A:1637:A:H8	1.76	0.48
1:2A:1802:A:N1	1:2A:1822:G:H1'	2.29	0.48
4:2E:34:VAL:HB	4:2E:48:GLN:HE21	1.77	0.48
21:2Z:171:ILE:H	21:2Z:171:ILE:HG13	1.46	0.48
22:20:2:ALA:N	61:2w:201:HOH:O	2.46	0.48
26:24:58:ARG:HH21	44:2m:80:ARG:HH22	1.61	0.48
32:2a:59:A:H5''	32:2a:387:U:H5''	1.96	0.48
32:2a:302:G:O2'	32:2a:556:C:H5''	2.14	0.48
32:2a:954:G:H2'	32:2a:955:U:O4'	2.12	0.48
1:1A:604:G:OP2	11:1P:90:ARG:NH1	2.45	0.48
3:1D:137:PRO:HG2	3:1D:140:THR:HG21	1.94	0.48
12:1Q:16:ARG:HG2	12:1Q:18:LYS:HG3	1.95	0.48
12:1Q:136:ALA:HA	12:1Q:139:GLU:HB2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1Z:7:ALA:HB2	21:1Z:59:LEU:HD22	1.94	0.48
32:1a:1035:A:N3	32:1a:1036:G:N2	2.62	0.48
32:1a:1118:C:OP1	40:1i:9:ARG:NH1	2.45	0.48
33:1b:97:TRP:HZ2	33:1b:102:LEU:HD13	1.78	0.48
41:1j:11:PHE:HE1	41:1j:67:THR:HG22	1.79	0.48
54:1y:19:G:N2	54:1y:56:C:N3	2.61	0.48
1:2A:141:A:H8	1:2A:1408:C:HO2'	1.61	0.48
1:2A:607:U:OP1	5:2F:102:PRO:HA	2.13	0.48
1:2A:1821:A:H2'	1:2A:1822:G:H8	1.78	0.48
1:2A:2425:A:H4'	1:2A:2426:A:H5''	1.95	0.48
32:2a:604:G:H2'	32:2a:605:U:O4'	2.14	0.48
32:2a:1053:G:N7	32:2a:1200:C:H5''	2.28	0.48
33:2b:70:PHE:HE1	33:2b:163:PHE:HD1	1.61	0.48
34:2c:110:ASN:OD1	34:2c:140:ARG:NH2	2.47	0.48
41:2j:51:ARG:NH2	41:2j:61:GLU:OE2	2.47	0.48
44:2m:91:ARG:NE	44:2m:97:PRO:O	2.47	0.48
54:2w:73:A:O2'	54:2w:74:C:O5'	2.30	0.48
1:1A:535:C:O3'	16:1U:53:ARG:NH1	2.45	0.48
1:1A:875:G:O2'	21:1Z:151:HIS:HE1	1.96	0.48
1:1A:2098:U:H2'	1:1A:2099:U:O4'	2.12	0.48
1:1A:2165:G:H2'	1:1A:2166:G:C4	2.49	0.48
20:1Y:20:TYR:CE2	20:1Y:43:ASN:HA	2.49	0.48
32:1a:178:C:H2'	32:1a:179:A:H8	1.79	0.48
32:1a:1151:A:HO2'	32:1a:1152:A:H8	1.58	0.48
32:1a:1342:C:H1'	40:1i:124:GLN:HE21	1.79	0.48
54:1w:25:C:H2'	54:1w:26:A:C8	2.49	0.48
1:2A:729:G:O5'	3:2D:208:LYS:NZ	2.46	0.48
1:2A:890:A:H2'	1:2A:892:G:H8	1.74	0.48
1:2A:1471:A:H3'	1:2A:1472:A:H8	1.79	0.48
1:2A:2002:G:OP2	13:2R:9:LYS:NZ	2.45	0.48
1:2A:2625:G:O6	61:2A:3975:HOH:O	2.17	0.48
12:2Q:65:PHE:HB2	12:2Q:105:GLU:HB2	1.95	0.48
14:2S:38:GLN:NE2	14:2S:47:THR:OG1	2.42	0.48
18:2W:46:PHE:O	18:2W:50:VAL:HG22	2.14	0.48
40:2i:50:LEU:HD13	40:2i:56:LEU:HA	1.95	0.48
55:2x:50:U:H3	55:2x:64:G:H1	1.60	0.48
1:1A:11:G:C2'	1:1A:12:U:H5'	2.42	0.48
1:1A:218:A:H2	1:1A:235:U:H4'	1.76	0.48
1:1A:579:G:H2'	1:1A:580:C:C6	2.49	0.48
1:1A:1711:C:H2'	1:1A:1712:C:C6	2.49	0.48
1:1A:2679:A:H4'	4:1E:165:VAL:HG11	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2791:C:H2'	1:1A:2792:G:C8	2.49	0.48
8:1I:127:VAL:HA	8:1I:140:LEU:O	2.14	0.48
9:1N:26:LEU:O	9:1N:30:ILE:HG13	2.13	0.48
15:1T:45:PHE:HA	15:1T:65:LYS:HZ3	1.78	0.48
32:1a:739:C:HO2'	46:1o:42:HIS:HD1	1.57	0.48
40:1i:96:LEU:H	40:1i:98:PRO:HD2	1.78	0.48
1:2A:8:A:H2'	1:2A:9:U:C6	2.48	0.48
1:2A:234:C:H2'	1:2A:235:U:H6	1.79	0.48
1:2A:574:C:OP2	61:2A:3989:HOH:O	2.20	0.48
1:2A:882:G:H1	1:2A:894:C:H42	1.60	0.48
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.47	0.48
1:2A:2030:A:H4'	1:2A:2031:A:C8	2.48	0.48
1:2A:2723:C:OP1	13:2R:3:HIS:ND1	2.23	0.48
2:2B:98:G:H3'	2:2B:99:G:H8	1.79	0.48
6:2G:73:ALA:HB3	6:2G:84:LYS:HA	1.95	0.48
25:23:50:VAL:HB	25:23:53:LEU:HD12	1.96	0.48
32:2a:952:U:H2'	32:2a:953:G:C8	2.49	0.48
33:2b:76:GLN:NE2	33:2b:206:ASP:O	2.46	0.48
34:2c:20:SER:HB3	34:2c:22:TRP:HE1	1.79	0.48
34:2c:50:ALA:HB1	34:2c:70:VAL:HG11	1.96	0.48
38:2g:74:GLU:HG2	38:2g:91:VAL:HG22	1.96	0.48
54:2y:68:C:H2'	54:2y:69:G:O4'	2.13	0.48
1:1A:64:A:C4	19:1X:66:LEU:HD22	2.49	0.48
1:1A:749:C:H4'	1:1A:1271:G:N3	2.29	0.48
1:1A:994:C:OP1	16:1U:53:ARG:NH2	2.45	0.48
1:1A:1268:A:H2'	1:1A:1269:A:O4'	2.14	0.48
1:1A:2573:C:OP1	61:1A:6145:HOH:O	2.20	0.48
9:1N:23:LEU:HA	9:1N:60:ILE:HD11	1.96	0.48
19:1X:11:PRO:HG2	19:1X:13:LEU:HD21	1.96	0.48
24:12:3:LEU:O	24:12:7:ARG:HG3	2.13	0.48
32:1a:50:A:H1'	32:1a:52:G:C8	2.49	0.48
32:1a:276:G:O3'	48:1q:68:ARG:NH1	2.47	0.48
32:1a:501:C:H1'	32:1a:549:C:H1'	1.96	0.48
32:1a:520:A:N1	32:1a:536:C:H1'	2.29	0.48
36:1e:102:ALA:HB1	36:1e:106:PRO:HB2	1.96	0.48
44:1m:19:LEU:HD11	44:1m:56:LEU:HD21	1.95	0.48
1:2A:1364:G:OP2	23:21:61:ARG:NH1	2.47	0.48
1:2A:2051:A:H5'	1:2A:2578:G:O4'	2.13	0.48
1:2A:2571:C:H5''	1:2A:2572:A:H5''	1.96	0.48
1:2A:2697:G:H2'	1:2A:2698:U:O4'	2.14	0.48
6:2G:36:LYS:HD3	6:2G:95:ARG:NH2	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:2O:67:LYS:NZ	10:2O:68:GLU:OE2	2.30	0.48
21:2Z:23:LYS:HD3	21:2Z:40:ASP:HA	1.95	0.48
32:2a:67:C:H2'	32:2a:68:G:C8	2.49	0.48
32:2a:1048:G:OP1	45:2n:3:ARG:HB3	2.14	0.48
32:2a:1411:C:H2'	32:2a:1412:C:C6	2.48	0.48
36:2e:144:THR:HG23	36:2e:147:ASP:OD1	2.14	0.48
54:2y:18:G:N2	54:2y:55:PSU:C4	2.80	0.48
1:1A:7:G:H2'	1:1A:8:A:O4'	2.14	0.48
1:1A:1274:A:N3	1:1A:1297:C:H1'	2.29	0.48
1:1A:1669:A:H5''	1:1A:2550:G:OP1	2.14	0.48
1:1A:2626:C:H2'	1:1A:2627:G:O4'	2.14	0.48
2:1B:88:C:H2'	2:1B:89:G:O4'	2.14	0.48
5:1F:32:LEU:HD11	5:1F:105:VAL:HG13	1.96	0.48
15:1T:41:ARG:NE	32:1a:346:G:H4'	2.29	0.48
37:1f:33:TYR:OH	37:1f:78:GLU:HG3	2.14	0.48
41:1j:5:ARG:O	41:1j:99:LYS:N	2.45	0.48
43:1l:37:CYS:SG	43:1l:81:SER:HB2	2.54	0.48
54:1w:51:U:H2'	54:1w:52:G:H8	1.78	0.48
1:2A:751:A:H5'	18:2W:90:ARG:HA	1.95	0.48
1:2A:1016:G:H1	1:2A:1146:C:H42	1.62	0.48
1:2A:2378:A:H4'	14:2S:23:ARG:CZ	2.44	0.48
20:2Y:20:TYR:HB3	20:2Y:23:ARG:HG3	1.95	0.48
27:25:49:CYS:SG	27:25:51:TYR:HB2	2.54	0.48
32:2a:41:G:H2'	32:2a:42:G:C8	2.48	0.48
32:2a:407:G:H2'	32:2a:408:A:C8	2.49	0.48
32:2a:829:G:H2'	32:2a:830:G:H8	1.79	0.48
32:2a:1122:U:H2'	32:2a:1123:A:H8	1.77	0.48
38:2g:85:TYR:O	38:2g:86:GLN:NE2	2.46	0.48
1:1A:1608:A:H1'	1:1A:1610:A:OP2	2.14	0.47
6:1G:106:LEU:HA	6:1G:110:ALA:HB3	1.95	0.47
15:1T:111:ARG:NH2	32:1a:1464:G:OP2	2.42	0.47
32:1a:262:A:C6	32:1a:263:A:C6	3.02	0.47
32:1a:601:C:H2'	32:1a:602:A:C8	2.49	0.47
33:1b:155:LEU:HD11	33:1b:159:PRO:HG3	1.95	0.47
1:2A:29:U:H2'	1:2A:30:G:C8	2.49	0.47
1:2A:582:G:H2'	1:2A:583:G:C8	2.49	0.47
1:2A:2038:G:H2'	1:2A:2039:C:O4'	2.14	0.47
1:2A:2095:C:H2'	1:2A:2096:U:C6	2.49	0.47
3:2D:81:ALA:H	3:2D:94:LEU:HB3	1.79	0.47
4:2E:54:GLN:OE1	4:2E:55:ASN:N	2.41	0.47
6:2G:15:VAL:HA	6:2G:175:LEU:HD22	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:2O:20:MET:HE3	10:2O:44:LYS:HE3	1.96	0.47
23:21:92:LYS:HB2	23:21:92:LYS:HE3	1.80	0.47
26:24:49:PHE:HB3	26:24:50:VAL:H	1.57	0.47
32:2a:599:C:H4'	39:2h:130:GLY:HA3	1.96	0.47
32:2a:1479:C:H2'	32:2a:1480:G:C8	2.48	0.47
34:2c:206:GLU:CD	34:2c:206:GLU:H	2.22	0.47
40:2i:42:ARG:HD3	40:2i:71:SER:OG	2.14	0.47
1:1A:226:G:N2	1:1A:228:A:H62	2.12	0.47
1:1A:271(X):G:C2	1:1A:271(Y):U:O4	2.67	0.47
1:1A:2262:U:OP1	1:1A:2387:U:O2'	2.29	0.47
14:1S:106:ARG:HE	14:1S:112:PHE:C	2.22	0.47
21:1Z:1:MET:HG2	21:1Z:55:HIS:ND1	2.29	0.47
32:1a:447:G:O6	32:1a:485:G:O2'	2.30	0.47
32:1a:1146:A:H2'	32:1a:1147:C:O4'	2.13	0.47
36:1e:78:HIS:CD2	39:1h:104:ARG:HD2	2.49	0.47
40:1i:26:VAL:HG12	40:1i:61:ALA:HB3	1.95	0.47
1:2A:307:G:H21	1:2A:330:A:N6	2.12	0.47
1:2A:1495:A:H2'	1:2A:1496:A:C8	2.49	0.47
1:2A:1864:U:OP1	1:2A:2410:G:O2'	2.25	0.47
1:2A:2744:G:N2	7:2H:143:GLN:OE1	2.46	0.47
8:2I:63:ALA:HA	8:2I:66:GLU:HB2	1.96	0.47
20:2Y:53:PRO:C	20:2Y:55:TYR:H	2.22	0.47
32:2a:968:A:C4	32:2a:1062:U:H4'	2.50	0.47
32:2a:1073:U:O2'	33:2b:104:ASN:OD1	2.18	0.47
32:2a:1186:G:H4'	40:2i:110:GLU:CD	2.39	0.47
32:2a:1317:C:H2'	32:2a:1318:A:O4'	2.14	0.47
33:2b:217:ARG:HA	33:2b:220:ASP:HB2	1.96	0.47
35:2d:200:GLU:O	35:2d:203:VAL:HG23	2.14	0.47
36:2e:88:LYS:HD3	36:2e:123:LEU:HB2	1.96	0.47
42:2k:53:SER:C	42:2k:55:LYS:H	2.22	0.47
55:2x:43:A:H2'	55:2x:44:A:C8	2.49	0.47
1:1A:84:A:C5'	20:1Y:8:LYS:HG2	2.43	0.47
1:1A:783:A:O2'	1:1A:785:G:OP1	2.27	0.47
1:1A:828:U:C5	1:1A:2247:A:H4'	2.49	0.47
1:1A:1188:U:H4'	17:1V:79:VAL:HG22	1.96	0.47
1:1A:1791:A:OP2	1:1A:1791:A:H8	1.97	0.47
12:1Q:14:ARG:HG2	12:1Q:41:TRP:HH2	1.78	0.47
21:1Z:52:SER:C	21:1Z:54:HIS:N	2.72	0.47
35:1d:18:LYS:HG2	60:1d:302:SF4:S1	2.54	0.47
43:1l:70:ILE:HG12	43:1l:100:ILE:HD12	1.96	0.47
1:2A:996:A:H5'	16:2U:93:LYS:HD3	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2615:U:OP1	61:2A:3991:HOH:O	2.20	0.47
1:2A:2619:C:OP1	4:2E:152:LYS:NZ	2.38	0.47
4:2E:1:MET:HE3	4:2E:199:ARG:HD2	1.96	0.47
8:2I:26:ALA:HB1	8:2I:31:LEU:HD13	1.96	0.47
30:28:10:ALA:O	30:28:14:VAL:HG22	2.14	0.47
32:2a:336:C:H2'	32:2a:337:C:H6	1.79	0.47
32:2a:971:G:OP2	32:2a:1231:G:N2	2.29	0.47
32:2a:1241:G:H2'	32:2a:1242:C:C6	2.49	0.47
40:2i:53:VAL:HG23	40:2i:55:ALA:H	1.80	0.47
54:2y:58:A:O2'	54:2y:60:U:OP2	2.23	0.47
1:1A:1113:U:H2'	1:1A:1114:G:H8	1.77	0.47
1:1A:2127:G:O6	1:1A:2161:C:C4	2.67	0.47
1:1A:2343:C:O2'	1:1A:2373:G:O2'	2.32	0.47
3:1D:202:LYS:HG3	3:1D:203:ASN:OD1	2.15	0.47
5:1F:8:GLN:HE22	5:1F:21:ALA:HB2	1.79	0.47
32:1a:344:A:H4'	32:1a:345:C:OP2	2.13	0.47
32:1a:373:A:H2'	32:1a:374:A:H8	1.79	0.47
1:2A:794:G:H2'	1:2A:795:C:H6	1.75	0.47
1:2A:1012:U:O4	9:2N:28:THR:HG21	2.15	0.47
1:2A:1324:G:O2'	1:2A:1326:U:OP2	2.33	0.47
1:2A:1824:G:N3	3:2D:254:THR:OG1	2.47	0.47
1:2A:2100:G:C6	1:2A:2190:G:C6	3.03	0.47
1:2A:2112:G:C2	1:2A:2113:U:H1'	2.50	0.47
1:2A:2577:A:OP2	27:25:3:LYS:NZ	2.47	0.47
4:2E:59:VAL:HG21	4:2E:74:PRO:HB3	1.95	0.47
5:2F:64:ILE:HG21	5:2F:78:ILE:HG23	1.96	0.47
6:2G:106:LEU:O	6:2G:110:ALA:HB3	2.15	0.47
32:2a:15:G:H2'	32:2a:16:A:C8	2.50	0.47
32:2a:660:G:H1	32:2a:745:C:N4	2.10	0.47
32:2a:711:G:H2'	32:2a:712:A:C8	2.49	0.47
32:2a:1083:U:H5''	32:2a:1084:G:OP2	2.15	0.47
32:2a:1251:A:OP1	40:2i:67:GLY:HA2	2.14	0.47
32:2a:1314:C:H2'	32:2a:1315:U:C6	2.50	0.47
32:2a:1519:MA6:H5''	32:2a:1520:G:OP2	2.13	0.47
38:2g:79:ARG:HH21	38:2g:80:VAL:HA	1.80	0.47
40:2i:116:LYS:HD2	40:2i:122:ALA:HA	1.96	0.47
1:1A:2104:G:H2'	1:1A:2105:C:O4'	2.15	0.47
1:1A:2134:A:O2'	1:1A:2135:A:OP1	2.26	0.47
1:1A:2199:A:N1	1:1A:2226:C:N4	2.62	0.47
1:1A:2348:U:O4	1:1A:2382:G:N1	2.48	0.47
1:1A:2887:U:H2'	1:1A:2888:C:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:1T:7:ILE:HG22	15:1T:11:GLU:OE1	2.14	0.47
16:1U:19:LYS:O	16:1U:22:LYS:HG3	2.14	0.47
20:1Y:35:TYR:CE2	20:1Y:69:ALA:HB3	2.50	0.47
32:1a:20:U:H5'	32:1a:572:A:N6	2.29	0.47
32:1a:453:A:O2'	47:1p:68:ASP:O	2.32	0.47
32:1a:749:C:H2'	32:1a:750:G:H8	1.80	0.47
32:1a:1068:G:H8	32:1a:1068:G:OP2	1.97	0.47
32:1a:1320:C:N4	50:1s:36:ARG:HB2	2.30	0.47
32:1a:1333:A:H2'	32:1a:1334:G:O4'	2.14	0.47
32:1a:1391:U:H2'	32:1a:1392:G:H8	1.80	0.47
33:1b:76:GLN:H	33:1b:76:GLN:CD	2.21	0.47
37:1f:99:ALA:O	49:1r:28:GLU:HA	2.14	0.47
42:1k:59:TYR:CE2	42:1k:63:LEU:HD11	2.48	0.47
44:1m:97:PRO:HA	44:1m:110:ARG:HD3	1.96	0.47
54:1w:27:G:H2'	54:1w:28:G:C8	2.49	0.47
1:2A:10:G:O2'	1:2A:2801(A):A:N7	2.38	0.47
1:2A:571:A:N6	1:2A:2499:C:O3'	2.45	0.47
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.50	0.47
1:2A:2110:G:C2	1:2A:2120:G:H1'	2.50	0.47
12:2Q:68:ILE:HG22	12:2Q:101:ARG:HE	1.78	0.47
18:2W:5:ALA:HB3	18:2W:54:ALA:HB2	1.96	0.47
30:28:26:LYS:HD3	30:28:48:PHE:HB3	1.95	0.47
32:2a:108:G:C6	51:2t:15:ARG:HG2	2.50	0.47
32:2a:1328:C:OP1	52:2u:21:TYR:OH	2.19	0.47
33:2b:84:GLU:OE1	33:2b:87:ARG:NH1	2.47	0.47
33:2b:98:LEU:HB2	33:2b:101:MET:HE3	1.95	0.47
33:2b:188:ALA:HB1	33:2b:192:SER:HB2	1.95	0.47
39:2h:36:LEU:O	39:2h:40:ALA:N	2.42	0.47
1:1A:458:G:O2'	29:17:39:ARG:HD3	2.14	0.47
1:1A:774:A:N3	1:1A:774:A:H2'	2.29	0.47
1:1A:2059:A:H1'	61:1A:7508:HOH:O	2.13	0.47
1:1A:2223:G:OP1	3:1D:172:TYR:OH	2.27	0.47
14:1S:87:PHE:HB2	14:1S:112:PHE:CD1	2.49	0.47
32:1a:22:G:H4'	32:1a:885:G:C8	2.49	0.47
32:1a:193:C:H2'	32:1a:194:C:H6	1.79	0.47
37:1f:69:GLU:H	37:1f:69:GLU:CD	2.22	0.47
40:1i:5:TYR:HE1	40:1i:16:ARG:HB3	1.80	0.47
47:1p:15:PRO:HD2	47:1p:42:ARG:CD	2.45	0.47
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.97	0.47
52:1u:17:THR:O	52:1u:22:ARG:NH1	2.42	0.47
1:2A:84:A:N1	1:2A:98:G:O2'	2.41	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:265:A:C8	1:2A:266:G:H1'	2.49	0.47
1:2A:438:G:H2'	1:2A:440:G:C8	2.49	0.47
1:2A:764:A:N1	1:2A:1789:A:O2'	2.41	0.47
1:2A:2432:A:C8	23:21:33:LYS:HD2	2.50	0.47
1:2A:2456:C:N4	61:2A:4049:HOH:O	2.48	0.47
7:2H:13:LYS:HA	7:2H:14:GLY:HA2	1.57	0.47
7:2H:86:GLU:HA	7:2H:131:VAL:O	2.13	0.47
8:2I:3:VAL:HA	8:2I:39:ALA:H	1.80	0.47
11:2P:8:PRO:HB2	11:2P:12:ALA:HB3	1.96	0.47
15:2T:18:ASP:OD1	15:2T:18:ASP:N	2.48	0.47
32:2a:833:U:H2'	32:2a:834:C:C6	2.50	0.47
32:2a:859:A:H2'	32:2a:860:A:O4'	2.15	0.47
32:2a:935:A:H2'	32:2a:936:C:C6	2.49	0.47
32:2a:937:A:N6	32:2a:1345:U:O4	2.47	0.47
34:2c:6:HIS:HB3	45:2n:49:HIS:CD2	2.49	0.47
34:2c:127:ARG:NH1	34:2c:190:ARG:HH22	2.11	0.47
36:2e:84:PHE:N	36:2e:87:SER:O	2.42	0.47
53:2v:14:A:C5	54:2y:34:G:C6	3.03	0.47
1:1A:271(B):C:N4	1:1A:271(V):G:H1	2.12	0.47
1:1A:271(M):G:O2'	1:1A:271(N):U:H5''	2.15	0.47
1:1A:613:G:N2	1:1A:614(C):A:O2'	2.48	0.47
1:1A:1054:A:N6	1:1A:1105:U:N3	2.54	0.47
1:1A:1680:U:H2'	1:1A:1681:G:O4'	2.15	0.47
1:1A:1692:U:O2'	1:1A:1693:U:H2'	2.14	0.47
1:1A:1932:A:H2'	1:1A:1933:G:O4'	2.15	0.47
1:1A:2072:G:N2	61:1A:6455:HOH:O	2.47	0.47
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.54	0.47
32:1a:375:U:H5''	47:1p:6:LEU:HD12	1.97	0.47
32:1a:407:G:H5''	35:1d:115:ARG:HB3	1.97	0.47
32:1a:640:A:O2'	39:1h:115:SER:O	2.32	0.47
32:1a:1270:C:H2'	32:1a:1271:G:C8	2.49	0.47
34:1c:116:VAL:HG21	34:1c:202:ILE:HD11	1.96	0.47
35:1d:109:GLY:HA3	35:1d:165:MET:HG3	1.97	0.47
36:1e:53:LEU:O	36:1e:56:GLN:HG2	2.14	0.47
36:1e:106:PRO:O	36:1e:110:LEU:HG	2.15	0.47
49:1r:59:SER:OG	49:1r:60:ALA:N	2.43	0.47
54:1y:9:A:H5'	54:1y:46:G7M:N3	2.29	0.47
1:2A:191:A:H2'	1:2A:192:C:C6	2.49	0.47
1:2A:748:G:C8	18:2W:89:ALA:HB1	2.50	0.47
1:2A:851:U:H5'	25:23:49:LYS:HD2	1.97	0.47
1:2A:1466:G:O2'	1:2A:1546:C:O2'	2.23	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1653:G:H3'	13:2R:2:ARG:HD3	1.97	0.47
1:2A:1826:G:H4'	3:2D:242:ARG:CZ	2.45	0.47
1:2A:1921:G:H2'	1:2A:1922:G:H8	1.79	0.47
1:2A:2064:C:H2'	1:2A:2065:C:C6	2.50	0.47
1:2A:2130:U:H2'	1:2A:2158:A:H61	1.78	0.47
1:2A:2507:C:H4'	54:2w:75:C:O2'	2.14	0.47
2:2B:64:C:H2'	2:2B:65:C:C6	2.50	0.47
6:2G:60:LEU:HD22	6:2G:68:PRO:HG3	1.96	0.47
6:2G:64:THR:HG22	6:2G:94:LEU:HD11	1.96	0.47
14:2S:33:LYS:HB3	14:2S:34:HIS:HD2	1.79	0.47
21:2Z:44:PHE:HE1	21:2Z:86:VAL:HG11	1.79	0.47
22:20:10:THR:HG22	22:20:12:ASN:N	2.26	0.47
32:2a:324:G:OP1	51:2t:70:SER:HB2	2.14	0.47
32:2a:724:G:C2	32:2a:725:G:C8	3.02	0.47
32:2a:966:M2G:HM22	55:2x:34:C:H5'	1.97	0.47
32:2a:1013:G:N2	32:2a:1016:A:OP2	2.43	0.47
32:2a:1047:G:H1	32:2a:1210:C:H42	1.61	0.47
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.50	0.47
32:2a:1276:G:H2'	32:2a:1277:C:O4'	2.15	0.47
33:2b:69:LEU:HB3	33:2b:162:ILE:HG22	1.96	0.47
33:2b:193:ASP:HB3	33:2b:196:LEU:HB2	1.97	0.47
33:2b:222:ILE:HG13	33:2b:223:ILE:H	1.80	0.47
34:2c:127:ARG:HH22	34:2c:192:THR:HG23	1.80	0.47
34:2c:164:ARG:HG2	34:2c:165:THR:H	1.80	0.47
35:2d:18:LYS:NZ	35:2d:34:GLU:OE1	2.47	0.47
35:2d:33:MET:HB2	60:2d:302:SF4:S2	2.55	0.47
36:2e:41:VAL:H	36:2e:67:VAL:HG12	1.80	0.47
36:2e:143:ARG:NE	39:2h:77:GLU:OE2	2.48	0.47
38:2g:22:LEU:HG	38:2g:62:PHE:CE2	2.48	0.47
40:2i:88:TYR:CD2	40:2i:89:ASN:HB2	2.49	0.47
41:2j:12:ASP:OD1	41:2j:13:HIS:N	2.47	0.47
42:2k:92:GLU:O	42:2k:96:ARG:HG2	2.15	0.47
45:2n:3:ARG:O	45:2n:7:ILE:HG13	2.15	0.47
45:2n:48:ALA:HB2	45:2n:53:LEU:HD12	1.97	0.47
50:2s:80:TYR:O	50:2s:82:GLY:N	2.42	0.47
53:2v:15:A:H8	53:2v:15:A:O5'	1.96	0.47
1:1A:602:G:O6	61:1A:6160:HOH:O	2.13	0.47
1:1A:1152:C:H1'	16:1U:77:SER:HB3	1.97	0.47
1:1A:2114:A:H2'	1:1A:2115:G:O4'	2.15	0.47
1:1A:2145:C:H3'	1:1A:2146:C:H5'	1.96	0.47
25:13:31:LEU:HD23	25:13:31:LEU:HA	1.71	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:660:G:H2'	32:1a:661:G:O4'	2.14	0.47
32:1a:963:G:H5'	61:1a:2086:HOH:O	2.14	0.47
32:1a:1029:C:H41	32:1a:1030(A):G:H21	1.62	0.47
1:2A:229:A:H5'	1:2A:230:U:OP1	2.14	0.47
1:2A:271(O):C:H2'	1:2A:271(P):C:C6	2.49	0.47
1:2A:1710:C:H2'	1:2A:1711:C:C6	2.50	0.47
1:2A:2773:C:H2'	1:2A:2774:C:H6	1.80	0.47
6:2G:68:PRO:HG2	6:2G:90:LEU:HD22	1.97	0.47
18:2W:6:ILE:HG22	18:2W:8:ARG:HG3	1.96	0.47
23:21:18:ILE:HG12	23:21:37:ILE:HG23	1.97	0.47
32:2a:148:G:H2'	32:2a:149:A:H8	1.80	0.47
32:2a:1123:A:O2'	41:2j:38:ILE:HG13	2.15	0.47
32:2a:1176:A:H2'	32:2a:1177:G:C8	2.49	0.47
32:2a:1201:A:H1'	32:2a:1202:G:OP2	2.15	0.47
37:2f:50:TYR:CE2	49:2r:77:GLY:HA2	2.49	0.47
38:2g:103:TRP:CH2	38:2g:141:VAL:HG21	2.50	0.47
41:2j:57:LYS:O	41:2j:60:ARG:NE	2.42	0.47
1:1A:960:A:C8	1:1A:962:G:C8	3.03	0.47
1:1A:1048:A:OP2	1:1A:1110:G:N2	2.32	0.47
1:1A:1062:G:N2	1:1A:1088:A:C6	2.83	0.47
19:1X:88:LYS:HB3	19:1X:88:LYS:HE2	1.66	0.47
32:1a:130:A:OP2	48:1q:63:ARG:NE	2.31	0.47
32:1a:228:A:H2'	32:1a:229:U:O4'	2.15	0.47
32:1a:245:C:C2	32:1a:284:G:C2	3.03	0.47
32:1a:812:C:OP1	32:1a:903:G:H1'	2.15	0.47
32:1a:1263:C:H2'	32:1a:1264:C:C6	2.49	0.47
32:1a:1422:G:H2'	32:1a:1423:G:C8	2.50	0.47
39:1h:81:HIS:ND1	39:1h:138:TRP:OXT	2.39	0.47
55:1x:53:G:H3'	55:1x:54:5MU:H73	1.97	0.47
1:2A:79:G:H2'	1:2A:80:G:H8	1.80	0.47
1:2A:1140:C:OP1	9:2N:23:LEU:HB3	2.15	0.47
1:2A:2206:G:H3'	1:2A:2207:G:N7	2.30	0.47
1:2A:2218:U:O2	23:21:52:ARG:NH1	2.47	0.47
4:2E:52:LEU:HB3	4:2E:76:ARG:HD3	1.97	0.47
21:2Z:5:LEU:O	21:2Z:59:LEU:HA	2.15	0.47
21:2Z:23:LYS:HB3	21:2Z:38:TYR:CD1	2.50	0.47
23:21:53:VAL:HG22	23:21:74:VAL:HG13	1.97	0.47
24:22:64:LEU:O	24:22:68:ARG:HG3	2.15	0.47
32:2a:56:U:H2'	32:2a:57:G:H8	1.79	0.47
32:2a:967:5MC:H2'	32:2a:968:A:C8	2.49	0.47
33:2b:195:ASP:OD1	33:2b:195:ASP:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:2n:42:ILE:O	45:2n:46:GLU:HG3	2.15	0.47
54:2w:73:A:H4'	54:2w:74:C:H5'	1.96	0.47
1:1A:302:C:H2'	1:1A:303:U:H6	1.79	0.47
1:1A:1474:C:H2'	1:1A:1475:G:H8	1.79	0.47
1:1A:1766:U:H2'	1:1A:1767:C:H6	1.79	0.47
3:1D:148:GLU:HB2	3:1D:151:LYS:HD2	1.97	0.47
6:1G:120:LEU:N	6:1G:179:PRO:O	2.46	0.47
11:1P:64:LYS:HZ1	30:18:12:LYS:HD3	1.79	0.47
13:1R:103:ARG:HD3	13:1R:108:GLY:O	2.15	0.47
15:1T:112:ARG:HG3	15:1T:115:ARG:NH2	2.30	0.47
21:1Z:72:ARG:HD3	21:1Z:72:ARG:HA	1.70	0.47
32:1a:78:G:H8	32:1a:78:G:OP2	1.98	0.47
32:1a:272:C:H2'	32:1a:273:A:C8	2.50	0.47
32:1a:575:G:H4'	32:1a:576:G:H5''	1.97	0.47
32:1a:819:A:H4'	32:1a:820:U:OP2	2.15	0.47
32:1a:972:C:OP2	41:1j:57:LYS:NZ	2.35	0.47
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.50	0.47
32:1a:1327:C:H5''	52:1u:20:LYS:HE2	1.96	0.47
33:1b:12:GLU:O	33:1b:15:VAL:HG22	2.14	0.47
36:1e:35:GLY:HA3	36:1e:112:LEU:HB3	1.97	0.47
41:1j:17:ASP:OD1	41:1j:70:ARG:NE	2.47	0.47
54:1y:72:C:H2'	54:1y:73:A:O4'	2.15	0.47
1:2A:900:A:H3'	1:2A:901:A:C8	2.49	0.47
1:2A:1239:G:H2'	1:2A:1240:U:O4'	2.14	0.47
1:2A:1670:C:O2	4:2E:129:HIS:NE2	2.45	0.47
1:2A:2016:U:H2'	1:2A:2017:U:C6	2.50	0.47
1:2A:2240:C:OP2	61:2A:3993:HOH:O	2.21	0.47
1:2A:2282:G:H4'	1:2A:2389:G:O2'	2.14	0.47
19:2X:46:ALA:HA	24:22:30:ARG:HH12	1.80	0.47
32:2a:254:G:OP1	48:2q:66:SER:OG	2.32	0.47
32:2a:750:G:N3	46:2o:23:GLY:HA3	2.29	0.47
32:2a:922:G:N3	32:2a:1398:A:H2	2.13	0.47
32:2a:1228:C:H2'	32:2a:1229:A:H8	1.79	0.47
32:2a:1272:G:N2	32:2a:1273:G:C5	2.83	0.47
38:2g:102:ARG:HG2	38:2g:106:GLN:NE2	2.30	0.47
40:2i:85:LEU:HB3	40:2i:92:TYR:CD2	2.49	0.47
47:2p:17:TYR:HD2	47:2p:39:TYR:HD2	1.61	0.47
1:1A:614(C):A:C8	5:1F:176:LEU:HD21	2.51	0.46
2:1B:14:U:OP2	2:1B:70:C:O2'	2.28	0.46
4:1E:36:ARG:NH2	4:1E:88:GLY:O	2.48	0.46
8:1I:109:ILE:HG23	8:1I:130:TYR:CZ	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:19:8:LYS:O	31:19:34:GLN:NE2	2.36	0.46
32:1a:1100:C:N4	32:1a:1103:C:OP1	2.48	0.46
33:1b:16:HIS:HB3	33:1b:210:SER:HB2	1.98	0.46
35:1d:65:ARG:HD2	35:1d:72:GLU:HA	1.97	0.46
36:1e:10:MET:HA	36:1e:32:VAL:HG22	1.97	0.46
54:1y:40:C:H2'	54:1y:41:C:H6	1.80	0.46
1:2A:1288:U:O2'	1:2A:1647:G:N2	2.48	0.46
1:2A:1974:C:OP2	61:2A:3994:HOH:O	2.21	0.46
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.50	0.46
2:2B:19:G:H2'	2:2B:20:C:O4'	2.15	0.46
7:2H:56:SER:HB2	7:2H:61:HIS:ND1	2.30	0.46
7:2H:87:LEU:HD22	7:2H:162:ILE:HG22	1.96	0.46
8:2I:120:ILE:HG21	8:2I:126:TYR:CZ	2.50	0.46
20:2Y:6:HIS:ND1	20:2Y:7:VAL:HG23	2.30	0.46
32:2a:512:U:H2'	32:2a:513:C:C6	2.49	0.46
32:2a:767:A:H2'	32:2a:768:A:O4'	2.15	0.46
32:2a:826:C:H42	32:2a:874:G:H1	1.63	0.46
32:2a:1101:A:H4'	32:2a:1102:A:O5'	2.14	0.46
34:2c:181:ASN:ND2	34:2c:204:LEU:HD12	2.30	0.46
40:2i:50:LEU:HA	40:2i:53:VAL:HG22	1.97	0.46
1:1A:39:C:H2'	1:1A:40:C:C6	2.50	0.46
1:1A:221:A:N1	1:1A:265:A:O2'	2.48	0.46
1:1A:389:G:H8	1:1A:389:G:O5'	1.98	0.46
1:1A:659:C:H2'	1:1A:660:G:C8	2.49	0.46
3:1D:37:LEU:HD22	3:1D:87:ASN:HD21	1.80	0.46
8:1I:12:LEU:HD23	8:1I:12:LEU:HA	1.72	0.46
32:1a:279:A:OP1	32:1a:280:C:O2'	2.28	0.46
32:1a:627:G:O2'	32:1a:628:G:H5'	2.15	0.46
32:1a:1216:G:H5''	45:1n:5:ALA:CB	2.45	0.46
33:1b:69:LEU:HB2	33:1b:159:PRO:HG2	1.96	0.46
51:1t:14:LYS:HE3	51:1t:18:GLN:NE2	2.31	0.46
54:1w:69:G:N3	54:1w:69:G:H2'	2.30	0.46
1:2A:723:G:H2'	1:2A:724:U:O4'	2.16	0.46
1:2A:740:U:H2'	1:2A:741:G:H8	1.79	0.46
1:2A:1847:A:H3'	1:2A:1848:A:H5'	1.97	0.46
1:2A:2287:A:C8	1:2A:2289:G:C8	3.03	0.46
1:2A:2849:U:OP2	15:2T:95:ARG:HG2	2.15	0.46
8:2I:38:LEU:O	8:2I:40:THR:N	2.48	0.46
10:2O:71:ARG:NH1	10:2O:122:LEU:OXT	2.35	0.46
21:2Z:94:GLU:H	21:2Z:94:GLU:CD	2.24	0.46
22:20:21:LEU:CD1	22:20:41:ARG:HG2	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:11:G:H1	32:2a:23:C:N4	2.13	0.46
32:2a:324:G:N1	32:2a:327:A:OP2	2.48	0.46
32:2a:1278:U:H5'	32:2a:1279:A:OP1	2.16	0.46
34:2c:52:LEU:HD12	34:2c:53:ALA:N	2.30	0.46
35:2d:58:LEU:O	35:2d:62:GLN:HG2	2.16	0.46
35:2d:154:ASN:O	35:2d:159:ARG:NH2	2.48	0.46
36:2e:136:MET:HA	36:2e:139:LEU:HD12	1.97	0.46
40:2i:48:GLU:O	40:2i:50:LEU:N	2.48	0.46
43:2l:45:PRO:HB2	43:2l:92:0TD:SB	2.55	0.46
44:2m:5:ALA:HB3	44:2m:22:ILE:HD13	1.96	0.46
50:2s:51:VAL:HB	50:2s:75:ALA:HB2	1.97	0.46
54:2y:8:4SU:H1'	54:2y:48:C:H1'	1.96	0.46
1:1A:252:G:P	11:1P:50:ARG:HH12	2.38	0.46
1:1A:1078:U:H3	1:1A:1089:G:H5'	1.81	0.46
23:11:8:SER:HB3	23:11:66:HIS:CD2	2.50	0.46
26:14:48:ARG:HD3	26:14:48:ARG:HA	1.58	0.46
30:18:61:LEU:C	30:18:63:PRO:HD3	2.40	0.46
32:1a:1051:C:H2'	32:1a:1052:U:C6	2.51	0.46
32:1a:1109:C:P	34:1c:176:HIS:HD1	2.37	0.46
36:1e:85:GLY:C	36:1e:87:SER:H	2.23	0.46
1:2A:402:A:C2'	1:2A:403:U:H5'	2.45	0.46
1:2A:1186:G:H2'	1:2A:1187:G:O4'	2.15	0.46
1:2A:1434:A:H2'	1:2A:1435:G:C8	2.50	0.46
1:2A:1477:A:H2'	1:2A:1478:G:O4'	2.15	0.46
1:2A:2119:A:N6	1:2A:2170:A:N7	2.64	0.46
2:2B:80:U:H2'	2:2B:81:G:C8	2.51	0.46
26:24:15:ILE:HG22	26:24:16:CYS:H	1.80	0.46
32:2a:181:G:H4'	32:2a:182:U:H5'	1.97	0.46
32:2a:631:G:H2'	32:2a:632:A:C8	2.50	0.46
32:2a:790:A:C6	32:2a:791:G:C6	3.03	0.46
32:2a:1386:G:C2	32:2a:1387:G:C8	3.03	0.46
39:2h:45:ILE:HG22	39:2h:63:LEU:HA	1.98	0.46
48:2q:81:ARG:HB3	48:2q:84:LEU:HG	1.97	0.46
1:1A:559:G:H22	16:1U:49:HIS:CE1	2.34	0.46
1:1A:1683:C:H2'	1:1A:1684:C:C6	2.50	0.46
1:1A:1820:U:C4	3:1D:160:GLY:HA3	2.51	0.46
1:1A:2336:A:H61	22:10:43:THR:HG22	1.80	0.46
3:1D:108:PRO:HB3	3:1D:143:HIS:HE1	1.80	0.46
5:1F:72:ARG:O	61:1F:402:HOH:O	2.20	0.46
20:1Y:15:VAL:O	20:1Y:21:LYS:HA	2.15	0.46
21:1Z:67:LEU:HB3	21:1Z:90:VAL:HG13	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:324:G:P	51:1t:22:ARG:HE	2.39	0.46
32:1a:636:U:H2'	32:1a:637:G:C8	2.50	0.46
32:1a:1029:C:H41	32:1a:1030(A):G:N2	2.13	0.46
32:1a:1057:G:H2'	32:1a:1058:G:O4'	2.15	0.46
33:1b:220:ASP:O	33:1b:224:GLN:HG3	2.15	0.46
36:1e:84:PHE:HB2	36:1e:134:ALA:HB2	1.96	0.46
54:1w:75:C:H2'	54:1w:76:A:C4	2.51	0.46
1:2A:332:A:O2'	1:2A:334:C:OP2	2.23	0.46
1:2A:2138:C:H2'	1:2A:2139:C:O4'	2.15	0.46
1:2A:2312:U:O2'	6:2G:40:ASN:OD1	2.24	0.46
2:2B:24:G:H4'	2:2B:25:A:C8	2.50	0.46
4:2E:35:GLN:O	4:2E:48:GLN:N	2.47	0.46
12:2Q:81:VAL:HB	22:20:7:LEU:HD21	1.96	0.46
25:23:40:THR:HG22	25:23:42:ALA:H	1.81	0.46
28:26:22:ALA:O	61:26:601:HOH:O	2.19	0.46
32:2a:186:C:H5'	51:2t:78:ALA:HB1	1.98	0.46
32:2a:977:A:H1'	32:2a:981:U:H3	1.79	0.46
32:2a:1119:C:H2'	32:2a:1120:G:C8	2.50	0.46
32:2a:1346:A:N1	32:2a:1374:A:H5''	2.29	0.46
33:2b:153:ARG:C	33:2b:155:LEU:H	2.24	0.46
41:2j:35:SER:HB3	41:2j:73:ASP:HB2	1.96	0.46
1:1A:1495:A:H2'	1:1A:1496:A:C8	2.50	0.46
1:1A:2080:G:OP1	23:11:35:THR:HG21	2.16	0.46
1:1A:2360:A:H2'	1:1A:2361:A:O4'	2.15	0.46
1:1A:2482:G:O2'	54:1w:64:A:O2'	2.34	0.46
6:1G:43:LEU:HD11	6:1G:153:ARG:HD2	1.98	0.46
32:1a:6:G:H22	36:1e:98:THR:HG22	1.81	0.46
32:1a:37:U:O2'	32:1a:547:A:N1	2.45	0.46
32:1a:695:A:OP2	42:1k:53:SER:OG	2.33	0.46
32:1a:1127:G:H5'	32:1a:1280:A:O2'	2.15	0.46
33:1b:128:GLU:C	33:1b:130:ARG:H	2.24	0.46
41:1j:57:LYS:C	41:1j:59:SER:H	2.23	0.46
1:2A:1178:C:H2'	1:2A:1179:C:C6	2.50	0.46
1:2A:1779:U:H2'	61:2A:4040:HOH:O	2.15	0.46
1:2A:1851:U:H2'	1:2A:1852:C:O4'	2.15	0.46
1:2A:1858:G:N2	1:2A:1883:G:H2'	2.30	0.46
1:2A:2105:C:H2'	1:2A:2106:G:H8	1.81	0.46
2:2B:50:G:OP1	14:2S:63:THR:N	2.45	0.46
9:2N:115:ARG:HA	9:2N:118:LYS:HE3	1.98	0.46
10:2O:8:LEU:HD22	10:2O:84:ALA:HB2	1.98	0.46
12:2Q:77:LYS:HE2	12:2Q:86:GLY:O	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:24:64:GLY:C	26:24:66:SER:H	2.24	0.46
32:2a:20:U:H2'	32:2a:21:G:O4'	2.16	0.46
32:2a:976:G:N7	32:2a:1359:C:H1'	2.31	0.46
32:2a:1159:U:O4'	32:2a:1182:G:N2	2.49	0.46
40:2i:81:ILE:O	40:2i:85:LEU:HG	2.15	0.46
41:2j:31:GLY:HA3	41:2j:81:THR:OG1	2.15	0.46
1:1A:2291:U:H2'	1:1A:2292:C:C6	2.51	0.46
1:1A:2648:C:H2'	1:1A:2649:U:H6	1.81	0.46
12:1Q:57:HIS:HD2	12:1Q:117:ALA:HB2	1.80	0.46
16:1U:110:VAL:HG12	16:1U:114:LYS:HD2	1.97	0.46
19:1X:29:TRP:CZ3	19:1X:78:LYS:HB3	2.50	0.46
32:1a:119:A:H4'	32:1a:120:A:C8	2.50	0.46
32:1a:572:A:N3	32:1a:917:G:H1'	2.30	0.46
41:1j:49:VAL:HG23	45:1n:41:ARG:HB2	1.96	0.46
44:1m:53:VAL:HG12	44:1m:57:ARG:NH1	2.29	0.46
1:2A:250:G:C6	1:2A:251:A:C6	3.04	0.46
1:2A:515:A:H1'	1:2A:581:C:H1'	1.97	0.46
1:2A:833:U:O2	11:2P:55:ARG:NH1	2.48	0.46
1:2A:1316:U:H2'	1:2A:1317:A:C8	2.49	0.46
1:2A:1423:G:H1	1:2A:1575:C:H42	1.63	0.46
1:2A:1430:C:H2'	1:2A:1431:U:C6	2.51	0.46
1:2A:2373:G:H2'	1:2A:2374:C:O4'	2.16	0.46
1:2A:2461:C:H2'	1:2A:2462:U:C6	2.50	0.46
2:2B:18:G:H2'	2:2B:19:G:C8	2.51	0.46
3:2D:96:HIS:CD2	3:2D:102:LYS:HG2	2.51	0.46
7:2H:3:ARG:NH1	7:2H:6:ARG:H	2.07	0.46
11:2P:19:VAL:HB	11:2P:31:ALA:HA	1.97	0.46
16:2U:107:ALA:O	16:2U:111:GLU:HG2	2.16	0.46
32:2a:296:U:H3	32:2a:301:G:H1	1.62	0.46
32:2a:471:G:H2'	32:2a:472:A:C8	2.50	0.46
32:2a:642:A:H2'	32:2a:643:C:C6	2.50	0.46
32:2a:1259:C:C5	32:2a:1260:C:H1'	2.51	0.46
38:2g:50:ILE:HD11	38:2g:58:PRO:HA	1.98	0.46
47:2p:58:TYR:O	47:2p:62:VAL:HG22	2.16	0.46
54:2w:9:A:H5'	54:2w:46:G7M:H1'	1.98	0.46
1:1A:143:G:H2'	1:1A:143(A):C:C6	2.51	0.46
1:1A:859:G:O2'	1:1A:916:G:O6	2.28	0.46
1:1A:1876:A:H2'	1:1A:1877:A:C8	2.51	0.46
1:1A:2687:U:H2'	1:1A:2688:U:O4'	2.16	0.46
4:1E:34:VAL:HG21	4:1E:78:LEU:HD11	1.97	0.46
16:1U:110:VAL:O	16:1U:114:LYS:HG3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:1Y:9:LYS:HA	20:1Y:10:GLY:HA2	1.60	0.46
32:1a:277:C:P	48:1q:68:ARG:HH12	2.38	0.46
32:1a:1289:A:N1	32:1a:1371:G:O2'	2.42	0.46
32:1a:1343:G:H4'	40:1i:122:ALA:HB3	1.98	0.46
33:1b:50:GLU:O	33:1b:54:THR:OG1	2.32	0.46
35:1d:53:ASP:O	35:1d:56:VAL:HG22	2.16	0.46
35:1d:153:ARG:O	35:1d:159:ARG:NE	2.47	0.46
48:1q:29:HIS:CE1	48:1q:32:TYR:HD2	2.33	0.46
50:1s:11:VAL:HG12	50:1s:12:ASP:H	1.80	0.46
1:2A:975(A):G:O2'	1:2A:1156:A:N1	2.42	0.46
1:2A:1178:C:H2'	1:2A:1179:C:H6	1.81	0.46
1:2A:2127:G:O2'	1:2A:2173:A:N3	2.48	0.46
1:2A:2274:A:C5	1:2A:2276:G:C8	3.04	0.46
1:2A:2320:A:N3	1:2A:2320:A:H2'	2.30	0.46
2:2B:38:C:H2'	2:2B:39:A:C8	2.50	0.46
2:2B:49:C:H2'	2:2B:50:G:C8	2.51	0.46
2:2B:56:G:H4'	2:2B:57:A:C8	2.50	0.46
4:2E:23:VAL:HG21	4:2E:183:LEU:HD23	1.98	0.46
6:2G:17:PRO:HA	6:2G:20:ILE:HD11	1.98	0.46
20:2Y:37:VAL:O	20:2Y:67:LEU:N	2.38	0.46
21:2Z:99:TYR:HA	21:2Z:124:ILE:O	2.14	0.46
21:2Z:121:HIS:N	21:2Z:172:ALA:HB2	2.30	0.46
32:2a:772:U:H2'	32:2a:773:G:O4'	2.16	0.46
32:2a:1400:5MC:H4'	53:2v:18:G:C5	2.50	0.46
35:2d:157:LEU:HD13	35:2d:161:ASN:ND2	2.31	0.46
39:2h:12:ARG:NH1	39:2h:27:PRO:HD3	2.31	0.46
44:2m:81:LEU:HB3	44:2m:88:ARG:HB2	1.97	0.46
50:2s:64:GLU:O	50:2s:67:VAL:HG12	2.16	0.46
1:1A:41:C:H2'	1:1A:42:G:C8	2.51	0.46
1:1A:125:G:N2	29:17:9:ARG:HB3	2.31	0.46
1:1A:826:U:H4'	11:1P:55:ARG:HB3	1.98	0.46
1:1A:2019:A:H5''	16:1U:27:LEU:HD12	1.97	0.46
1:1A:2803:C:H2'	1:1A:2804:C:C6	2.51	0.46
5:1F:111:ALA:HB2	5:1F:206:ILE:HG21	1.98	0.46
8:1I:77:LEU:HB3	8:1I:79:ILE:HD11	1.98	0.46
9:1N:137:LYS:HE2	9:1N:139:GLU:OE2	2.15	0.46
19:1X:56:THR:HB	19:1X:77:LYS:HE2	1.98	0.46
23:11:89:GLU:HA	23:11:92:LYS:HE2	1.97	0.46
34:1c:34:LEU:HD21	34:1c:38:ARG:HH11	1.81	0.46
36:1e:90:VAL:O	36:1e:120:THR:HA	2.16	0.46
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:1h:124:ALA:O	39:1h:128:GLY:N	2.49	0.46
47:1p:47:ASP:OD1	47:1p:47:ASP:N	2.47	0.46
1:2A:588:U:H2'	1:2A:589:C:C6	2.51	0.46
1:2A:819:A:C4	1:2A:1189:A:C2	3.04	0.46
1:2A:920:G:H2'	1:2A:921:G:C8	2.50	0.46
1:2A:923:C:H2'	1:2A:924:C:C6	2.51	0.46
1:2A:2870:C:H2'	1:2A:2871:C:O4'	2.16	0.46
2:2B:90:A:N7	2:2B:91:C:H1'	2.30	0.46
8:2I:93:THR:HG22	8:2I:119:PRO:HG3	1.97	0.46
13:2R:98:LEU:HB2	13:2R:113:LEU:HG	1.97	0.46
14:2S:27:SER:HA	14:2S:88:ASP:HB3	1.98	0.46
14:2S:34:HIS:CE1	14:2S:54:LEU:HD12	2.51	0.46
26:24:48:ARG:HD2	26:24:48:ARG:HA	1.70	0.46
32:2a:848:C:H2'	32:2a:849:C:O4'	2.15	0.46
33:2b:178:ARG:NH2	39:2h:68:ARG:HH22	2.13	0.46
39:2h:51:VAL:HG21	39:2h:60:ARG:HB2	1.97	0.46
1:1A:526:A:OP1	61:1A:6180:HOH:O	2.20	0.46
1:1A:1173:G:N1	1:1A:1176:G:OP2	2.42	0.46
1:1A:1594:G:H2'	1:1A:1595:G:H8	1.81	0.46
1:1A:2005:A:H5''	61:1A:6197:HOH:O	2.15	0.46
12:1Q:56:ARG:HA	12:1Q:56:ARG:HE	1.81	0.46
12:1Q:57:HIS:CD2	12:1Q:117:ALA:HB2	2.51	0.46
14:1S:28:VAL:HG11	14:1S:98:VAL:HG13	1.97	0.46
20:1Y:19:LYS:HB3	20:1Y:19:LYS:HE2	1.61	0.46
21:1Z:63:ASP:OD1	21:1Z:64:GLY:N	2.49	0.46
23:11:46:LEU:HD23	23:11:62:VAL:C	2.41	0.46
32:1a:666:G:H5'	32:1a:726:C:H1'	1.98	0.46
32:1a:1025:U:C2	32:1a:1036:G:O6	2.68	0.46
34:1c:65:ALA:O	34:1c:66:VAL:HG22	2.15	0.46
37:1f:44:GLY:HA2	37:1f:59:TYR:CD2	2.50	0.46
37:1f:64:GLN:HE21	37:1f:65:VAL:N	2.12	0.46
41:1j:57:LYS:O	41:1j:59:SER:N	2.48	0.46
43:1l:101:VAL:O	43:1l:104:VAL:HG22	2.15	0.46
54:1w:21:A:H2'	54:1w:22:G:C8	2.50	0.46
1:2A:239:U:H2'	1:2A:240:G:O4'	2.16	0.46
1:2A:1202:C:H42	1:2A:1243:G:H1	1.64	0.46
1:2A:1670:C:OP1	61:2A:3930:HOH:O	2.21	0.46
1:2A:2507:C:O2'	54:2w:74:C:N4	2.48	0.46
24:22:25:VAL:HG13	24:22:57:ILE:HG23	1.98	0.46
32:2a:297:G:N2	32:2a:300:A:OP2	2.49	0.46
32:2a:562:C:H1'	43:2l:15:ARG:HD2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1148:U:H5'	40:2i:16:ARG:HD2	1.96	0.46
32:2a:1279:A:H5''	32:2a:1280:A:OP1	2.16	0.46
32:2a:1328:C:H2'	32:2a:1329:A:O4'	2.16	0.46
33:2b:57:PHE:HB2	33:2b:199:TYR:CE1	2.50	0.46
47:2p:8:ARG:HB3	47:2p:28:ARG:NH1	2.31	0.46
48:2q:67:LYS:O	48:2q:68:ARG:HB2	2.15	0.46
50:2s:19:VAL:O	50:2s:23:ASN:ND2	2.48	0.46
52:2u:6:ARG:HG2	52:2u:15:ARG:HD2	1.97	0.46
1:1A:600:G:N2	1:1A:605:C:O3'	2.49	0.46
1:1A:995:C:OP2	16:1U:54:LYS:NZ	2.44	0.46
1:1A:2051:A:H4'	4:1E:141:ILE:HG12	1.98	0.46
1:1A:2705:A:O2'	1:1A:2852:G:OP1	2.31	0.46
32:1a:828:A:H2'	32:1a:829:G:O4'	2.15	0.46
32:1a:1035:A:H2'	32:1a:1036:G:N2	2.29	0.46
32:1a:1120:G:H1	32:1a:1153:C:N4	2.12	0.46
33:1b:78:GLN:OE1	33:1b:95:GLN:NE2	2.49	0.46
34:1c:183:ASP:N	34:1c:202:ILE:O	2.43	0.46
39:1h:33:GLU:OE2	39:1h:50:ARG:NH1	2.49	0.46
41:1j:64:GLU:HG2	45:1n:59:ALA:HB2	1.97	0.46
54:1y:6:G:O6	54:1y:7:A:N6	2.48	0.46
1:2A:265:A:H1'	1:2A:266:G:O4'	2.16	0.46
1:2A:274:G:H2'	1:2A:275:G:H8	1.80	0.46
1:2A:1181:C:H2'	1:2A:1182:A:C8	2.50	0.46
1:2A:2313:C:H2'	1:2A:2314:C:C6	2.51	0.46
6:2G:44:GLY:N	6:2G:88:ILE:O	2.46	0.46
6:2G:123:ASN:C	6:2G:125:PHE:H	2.24	0.46
21:2Z:59:LEU:HD12	21:2Z:69:THR:HG21	1.97	0.46
32:2a:577:G:H2'	32:2a:578:C:C6	2.51	0.46
32:2a:722:A:C8	32:2a:724:G:H1'	2.51	0.46
35:2d:81:GLU:O	35:2d:85:LYS:HB2	2.16	0.46
35:2d:129:ASN:HD21	35:2d:145:GLU:H	1.64	0.46
36:2e:12:LEU:HD12	36:2e:13:ILE:H	1.81	0.46
43:2l:53:ARG:HG3	43:2l:93:LEU:HD21	1.98	0.46
55:2x:18:G:O2'	55:2x:19:G:H5'	2.15	0.46
1:1A:2867:G:N7	15:1T:23:ARG:HD2	2.30	0.45
6:1G:43:LEU:C	6:1G:45:GLU:H	2.24	0.45
8:1I:54:GLN:C	8:1I:56:LYS:H	2.23	0.45
32:1a:263:A:H2'	32:1a:264:U:C6	2.51	0.45
32:1a:288:A:H3'	61:1a:1914:HOH:O	2.16	0.45
32:1a:737:A:H2'	32:1a:738:C:H6	1.80	0.45
32:1a:1342:C:O2'	40:1i:124:GLN:HG3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:95:GLN:HG3	33:1b:147:LYS:O	2.17	0.45
44:1m:58:GLU:O	44:1m:62:ASN:ND2	2.41	0.45
51:1t:14:LYS:HA	51:1t:17:ARG:HE	1.81	0.45
1:2A:39:C:H42	1:2A:440:G:H1	1.63	0.45
1:2A:335:C:H4'	20:2Y:73:ARG:HD2	1.98	0.45
1:2A:565:C:OP1	17:2V:82:ARG:NH2	2.47	0.45
1:2A:729:G:C6	3:2D:208:LYS:HB2	2.51	0.45
1:2A:1409:C:H2'	1:2A:1410:G:C8	2.51	0.45
1:2A:1412:A:H2'	1:2A:1413:G:C8	2.52	0.45
1:2A:1680:U:H2'	1:2A:1681:G:O4'	2.16	0.45
1:2A:1826:G:H2'	1:2A:1827:C:C6	2.51	0.45
3:2D:137:PRO:O	3:2D:140:THR:OG1	2.33	0.45
4:2E:134:ILE:HA	4:2E:137:HIS:CD2	2.51	0.45
10:2O:2:ILE:HG21	10:2O:8:LEU:HD11	1.97	0.45
17:2V:55:ALA:HA	17:2V:101:GLY:HA2	1.98	0.45
18:2W:82:LEU:HD22	18:2W:84:ARG:HH22	1.81	0.45
21:2Z:30:ASN:HA	21:2Z:89:PHE:HE1	1.81	0.45
22:20:72:ARG:HD3	22:20:78:TYR:CD2	2.51	0.45
32:2a:406:G:H21	35:2d:119:GLN:NE2	2.12	0.45
32:2a:1002:G:C2	32:2a:1003:G:H1'	2.51	0.45
33:2b:28:PHE:CD1	33:2b:194:PRO:HG3	2.50	0.45
33:2b:187:LEU:HD23	33:2b:188:ALA:H	1.82	0.45
45:2n:29:ARG:HD3	45:2n:40:CYS:SG	2.56	0.45
51:2t:16:HIS:O	51:2t:19:SER:OG	2.19	0.45
1:1A:524:U:H2'	1:1A:525:U:C6	2.52	0.45
1:1A:573:G:O2'	1:1A:574:C:H3'	2.15	0.45
1:1A:583:G:OP2	16:1U:10:ARG:HD2	2.16	0.45
1:1A:1062:G:C8	1:1A:1088:A:H2'	2.51	0.45
1:1A:2197:U:H1'	1:1A:2198:A:C8	2.51	0.45
1:1A:2420:C:H5'	28:16:54:ILE:HD11	1.97	0.45
1:1A:2611:U:H5'	1:1A:2611:U:H6	1.81	0.45
4:1E:46:ALA:HB2	4:1E:82:ARG:HA	1.98	0.45
6:1G:39:ILE:HD13	6:1G:64:THR:HG21	1.98	0.45
32:1a:6:G:H2'	36:1e:119:LEU:HD11	1.99	0.45
32:1a:45:U:H2'	32:1a:46:G:H8	1.82	0.45
32:1a:182:U:C4	32:1a:183:G:H1'	2.51	0.45
32:1a:189(A):C:H2'	32:1a:189(B):C:H6	1.80	0.45
32:1a:677:U:O2	32:1a:777:A:O2'	2.34	0.45
32:1a:791:G:N2	32:1a:1497:G:O3'	2.45	0.45
35:1d:10:ARG:HG2	35:1d:11:LEU:HD12	1.97	0.45
38:1g:30:ILE:HD13	38:1g:120:ILE:HD13	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:852:G:H2'	1:2A:853:G:C8	2.51	0.45
1:2A:922:U:H2'	1:2A:923:C:C6	2.51	0.45
1:2A:1022:G:C6	1:2A:1140:C:C4	3.04	0.45
1:2A:1028:A:H2'	1:2A:1029:A:C8	2.52	0.45
1:2A:1364:G:C8	23:21:3:LYS:HD2	2.51	0.45
1:2A:2183:C:H2'	1:2A:2184:G:C8	2.48	0.45
1:2A:2437:U:O2'	1:2A:2438:U:H5'	2.15	0.45
1:2A:2679:A:H4'	4:2E:165:VAL:HG11	1.98	0.45
11:2P:6:LEU:HD23	11:2P:6:LEU:HA	1.84	0.45
31:29:27:CYS:SG	31:29:28:GLU:N	2.89	0.45
32:2a:662:G:H1	32:2a:743:U:H3	1.63	0.45
32:2a:894:G:H2'	32:2a:895:G:C8	2.51	0.45
32:2a:1289:A:OP1	52:2u:10:ARG:NH2	2.45	0.45
36:2e:40:ARG:HD3	36:2e:67:VAL:O	2.15	0.45
37:2f:30:LEU:HD11	37:2f:63:TYR:HD1	1.80	0.45
40:2i:9:ARG:O	40:2i:104:ARG:HG3	2.17	0.45
40:2i:57:GLY:C	40:2i:59:PHE:H	2.23	0.45
48:2q:87:LYS:O	48:2q:90:ILE:HG22	2.16	0.45
1:1A:410:G:OP2	61:1A:6205:HOH:O	2.20	0.45
1:1A:2134:A:N3	1:1A:2159:G:H1'	2.32	0.45
1:1A:2790:A:H5'	1:1A:2893:G:H21	1.82	0.45
3:1D:152:GLY:O	3:1D:154:LYS:HG2	2.17	0.45
4:1E:13:ARG:CD	4:1E:20:ALA:HB1	2.47	0.45
12:1Q:29:PHE:HB3	12:1Q:65:PHE:CE1	2.52	0.45
32:1a:1060:C:P	45:1n:45:ARG:HH22	2.38	0.45
33:1b:55:PHE:HD1	33:1b:221:LEU:HD13	1.81	0.45
36:1e:53:LEU:H	36:1e:53:LEU:HD12	1.81	0.45
36:1e:77:PRO:HD2	36:1e:142:LEU:HD13	1.97	0.45
39:1h:112:LEU:HA	39:1h:134:ILE:H	1.79	0.45
1:2A:195:A:H2'	1:2A:198:C:N4	2.31	0.45
1:2A:292:C:H2'	1:2A:293:U:C6	2.51	0.45
1:2A:446:G:OP1	16:2U:3:ARG:NH1	2.49	0.45
1:2A:867:C:H2'	1:2A:868:U:H6	1.81	0.45
1:2A:921:G:H2'	1:2A:922:U:C6	2.51	0.45
1:2A:1587:A:H2'	1:2A:1588:C:C6	2.51	0.45
1:2A:2342:C:N4	61:2A:4009:HOH:O	2.49	0.45
6:2G:83:ARG:N	6:2G:86:MET:SD	2.90	0.45
32:2a:736:C:OP1	49:2r:72:ARG:NH2	2.43	0.45
32:2a:1178:G:OP1	40:2i:93:ARG:NE	2.49	0.45
39:2h:121:ASP:N	39:2h:121:ASP:OD1	2.49	0.45
48:2q:45:HIS:HB2	48:2q:69:LYS:HE3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:2t:40:ALA:HB2	51:2t:55:ILE:HG22	1.98	0.45
1:1A:95:G:H4'	24:12:45:SER:O	2.16	0.45
1:1A:124:G:OP1	1:1A:1376:C:O2'	2.29	0.45
1:1A:376:C:H2'	1:1A:377:C:C6	2.51	0.45
1:1A:879:G:H3'	1:1A:880:G:C8	2.51	0.45
1:1A:1069:A:C4	1:1A:1073:A:C8	3.04	0.45
1:1A:2298:A:H2'	1:1A:2299:G:O4'	2.15	0.45
3:1D:95:LEU:O	3:1D:102:LYS:HA	2.15	0.45
8:1I:129:THR:HA	8:1I:138:ILE:O	2.17	0.45
19:1X:31:HIS:HD2	19:1X:33:LYS:H	1.64	0.45
21:1Z:75:ASN:O	21:1Z:84:GLU:HG3	2.16	0.45
21:1Z:146:ILE:HA	21:1Z:147:GLY:HA2	1.58	0.45
23:1I:22:GLY:O	23:1I:32:LYS:NZ	2.34	0.45
32:1a:1461:G:H2'	32:1a:1462:G:H8	1.82	0.45
33:1b:195:ASP:O	39:1h:68:ARG:NH2	2.50	0.45
33:1b:209:ARG:HB3	33:1b:209:ARG:HH11	1.82	0.45
34:1c:125:GLU:HG3	34:1c:189:ALA:HB1	1.97	0.45
42:1k:107:SER:O	42:1k:108:ILE:HG13	2.17	0.45
1:2A:857:C:OP2	22:20:77:ARG:NH2	2.48	0.45
1:2A:1805:U:O2	3:2D:50:THR:HB	2.16	0.45
1:2A:1856:G:H1	1:2A:1886:C:H42	1.65	0.45
1:2A:2821:A:H2'	1:2A:2822:G:C8	2.52	0.45
12:2Q:85:LYS:HD3	22:20:7:LEU:HD13	1.99	0.45
13:2R:30:THR:HG22	13:2R:31:HIS:CD2	2.52	0.45
32:2a:233:C:H2'	32:2a:234:C:H6	1.81	0.45
32:2a:571:U:OP1	32:2a:819:A:O2'	2.32	0.45
32:2a:624:C:H2'	32:2a:625:G:C8	2.49	0.45
32:2a:932:C:H2'	32:2a:933:G:H8	1.82	0.45
32:2a:1049:U:C5	32:2a:1201:A:H5'	2.52	0.45
32:2a:1228:C:OP1	44:2m:115:LYS:NZ	2.41	0.45
32:2a:1403:C:H1'	32:2a:1500:A:N1	2.31	0.45
33:2b:144:ARG:HA	33:2b:144:ARG:HD2	1.83	0.45
36:2e:102:ALA:H	36:2e:107:ARG:NH2	2.14	0.45
39:2h:121:ASP:HB2	39:2h:125:ARG:NH2	2.32	0.45
42:2k:21:ILE:HD12	42:2k:84:VAL:HG22	1.99	0.45
46:2o:43:LEU:HD13	46:2o:53:HIS:CD2	2.51	0.45
47:2p:12:LYS:HG2	47:2p:13:HIS:CD2	2.51	0.45
1:1A:242:G:C8	30:18:5:LYS:HG3	2.52	0.45
1:1A:395:U:O2'	1:1A:396:G:N7	2.45	0.45
1:1A:419:C:H2'	1:1A:420:C:O4'	2.16	0.45
1:1A:620:G:N3	1:1A:620:G:H5'	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2590:A:N7	61:1A:6342:HOH:O	2.36	0.45
15:1T:45:PHE:CE1	15:1T:65:LYS:HE2	2.51	0.45
21:1Z:153:SER:HA	21:1Z:167:PRO:HB3	1.99	0.45
32:1a:304:U:H2'	32:1a:305:G:C8	2.52	0.45
32:1a:667:G:H4'	46:1o:51:HIS:ND1	2.31	0.45
32:1a:1251:A:H2'	32:1a:1252:A:C8	2.52	0.45
35:1d:172:PRO:O	35:1d:174:LEU:N	2.48	0.45
40:1i:111:ARG:HD2	45:1n:61:TRP:OXT	2.16	0.45
42:1k:106:LYS:O	42:1k:107:SER:HB2	2.16	0.45
48:1q:58:GLU:O	48:1q:74:LEU:N	2.44	0.45
54:1y:71:G:O2'	54:1y:72:C:H5'	2.16	0.45
1:2A:300:A:OP1	20:2Y:86:ARG:NH2	2.37	0.45
1:2A:855:G:C6	1:2A:856:C:N4	2.85	0.45
1:2A:881:G:H21	54:2w:56:C:N4	2.14	0.45
1:2A:2489:G:O6	1:2A:2490:G:N1	2.50	0.45
2:2B:7:G:H4'	14:2S:29:PHE:CG	2.52	0.45
3:2D:77:ALA:HB2	3:2D:97:TYR:CD1	2.52	0.45
8:2I:55:ALA:HA	8:2I:58:LEU:HB3	1.98	0.45
14:2S:11:LYS:HG3	14:2S:91:PRO:HD3	1.97	0.45
15:2T:9:LEU:O	15:2T:12:SER:OG	2.31	0.45
32:2a:119:A:H4'	32:2a:120:A:C8	2.52	0.45
32:2a:184:G:H2'	32:2a:185:A:H8	1.79	0.45
32:2a:407:G:H2'	32:2a:408:A:H8	1.81	0.45
32:2a:662:G:H2'	32:2a:663:A:H8	1.82	0.45
32:2a:671:G:H2'	32:2a:672:U:O4'	2.16	0.45
32:2a:979:C:O2	45:2n:19:ARG:HG2	2.16	0.45
32:2a:1366:C:H2'	32:2a:1367:C:C6	2.52	0.45
32:2a:1402:4OC:H2'	32:2a:1403:C:O4'	2.17	0.45
37:2f:62:TRP:CH2	37:2f:64:GLN:HB2	2.52	0.45
43:2l:69:TYR:HB3	43:2l:99:HIS:ND1	2.32	0.45
48:2q:22:LEU:HD13	48:2q:41:LYS:HG2	1.99	0.45
1:1A:26:G:C6	1:1A:27:G:N1	2.85	0.45
1:1A:127:A:H5''	1:1A:128:C:O4'	2.17	0.45
1:1A:590:A:H2'	1:1A:591:C:O4'	2.17	0.45
1:1A:753:C:OP1	29:17:1:MET:HE3	2.17	0.45
1:1A:784:A:H5'	1:1A:785:G:OP1	2.16	0.45
1:1A:2142:C:H2'	1:1A:2143:C:C6	2.51	0.45
1:1A:2298:A:N6	1:1A:2318:G:O2'	2.46	0.45
1:1A:2429:G:N7	11:1P:56:SER:OG	2.46	0.45
1:1A:2721:A:N3	61:1A:6334:HOH:O	2.36	0.45
1:1A:2774:C:H2'	1:1A:2775:A:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:134:ARG:HB3	3:1D:187:GLY:HA3	1.99	0.45
7:1H:73:ALA:HA	7:1H:76:VAL:HG12	1.97	0.45
18:1W:5:ALA:C	18:1W:6:ILE:HG13	2.41	0.45
26:14:53:GLU:H	26:14:53:GLU:HG3	1.56	0.45
26:14:63:TYR:N	26:14:64:GLY:HA2	2.30	0.45
32:1a:96:U:H2'	32:1a:97:G:C8	2.52	0.45
32:1a:445:G:H2'	32:1a:446:G:H8	1.82	0.45
32:1a:530:G:O6	53:1v:21:C:H1'	2.16	0.45
32:1a:1233:G:H2'	32:1a:1234:C:C6	2.50	0.45
32:1a:1385:G:H2'	32:1a:1386:G:C8	2.52	0.45
33:1b:139:LYS:O	33:1b:143:GLU:HG3	2.16	0.45
35:1d:173:TRP:CE3	35:1d:174:LEU:HG	2.51	0.45
1:2A:195:A:OP1	11:2P:46:LYS:HE2	2.16	0.45
1:2A:1429:G:H2'	1:2A:1430:C:C6	2.51	0.45
1:2A:1456:G:OP2	61:2A:4001:HOH:O	2.21	0.45
1:2A:2722:G:H2'	1:2A:2723:C:C6	2.52	0.45
2:2B:80:U:H2'	2:2B:81:G:N7	2.32	0.45
14:2S:61:ASN:O	14:2S:65:VAL:HG13	2.16	0.45
15:2T:64:ARG:HD2	15:2T:73:GLU:HG2	1.98	0.45
31:29:3:VAL:HA	31:29:35:ARG:O	2.16	0.45
32:2a:115:G:H4'	32:2a:116:A:O5'	2.16	0.45
32:2a:1060:C:H2'	32:2a:1061:G:H8	1.82	0.45
33:2b:178:ARG:NH1	39:2h:74:PRO:HG3	2.32	0.45
34:2c:124:ILE:HG22	34:2c:130:VAL:HA	1.99	0.45
36:2e:127:ASN:O	36:2e:131:ILE:HG13	2.17	0.45
50:2s:35:SER:O	50:2s:71:LEU:HD23	2.17	0.45
51:2t:72:LEU:HD12	51:2t:72:LEU:HA	1.85	0.45
1:1A:322:A:H5'	1:1A:340:A:H1'	1.98	0.45
1:1A:761:A:N7	61:1A:6336:HOH:O	2.36	0.45
1:1A:1045:A:OP1	1:1A:1046:A:H5'	2.17	0.45
1:1A:1062:G:C2	1:1A:1063:G:C5	3.04	0.45
1:1A:2131:G:N2	1:1A:2158:A:N1	2.64	0.45
1:1A:2820:A:OP2	13:1R:2:ARG:NH2	2.50	0.45
2:1B:19:G:H2'	2:1B:20:C:O4'	2.16	0.45
2:1B:28:C:H2'	2:1B:29:A:O4'	2.17	0.45
6:1G:67:LYS:HE3	6:1G:68:PRO:O	2.16	0.45
7:1H:26:VAL:HG12	7:1H:79:VAL:HG21	1.97	0.45
8:1I:75:LEU:HD13	8:1I:105:HIS:CE1	2.52	0.45
12:1Q:59:ARG:C	12:1Q:61:GLY:H	2.25	0.45
13:1R:67:LEU:HD13	13:1R:76:VAL:HG21	1.99	0.45
32:1a:176:C:H2'	32:1a:177:C:H6	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:599:C:H4'	39:1h:130:GLY:C	2.42	0.45
32:1a:688:G:H5'	42:1k:46:GLY:C	2.42	0.45
32:1a:977:A:O2'	32:1a:979:C:OP2	2.33	0.45
32:1a:1273:G:H5'	32:1a:1274:G:OP2	2.15	0.45
35:1d:112:VAL:H	35:1d:116:GLN:NE2	2.15	0.45
35:1d:164:ALA:O	35:1d:168:ARG:HG3	2.16	0.45
36:1e:118:ILE:HG12	36:1e:119:LEU:H	1.81	0.45
40:1i:17:VAL:HG11	40:1i:80:GLY:C	2.41	0.45
54:1w:9:A:C8	54:1w:11:C:N4	2.85	0.45
54:1w:9:A:H1'	54:1w:45:U:O2'	2.17	0.45
54:1w:51:U:H2'	54:1w:52:G:C8	2.51	0.45
1:2A:272(D):G:H1	1:2A:364:C:H42	1.65	0.45
1:2A:639:U:H2'	1:2A:640:C:C6	2.52	0.45
1:2A:801:G:O6	5:2F:53:THR:OG1	2.34	0.45
1:2A:971:C:H2'	1:2A:972:G:O4'	2.17	0.45
1:2A:1308:A:H2'	1:2A:1309:G:O4'	2.17	0.45
1:2A:1710:C:H2'	1:2A:1711:C:H6	1.81	0.45
1:2A:2303:G:H2'	1:2A:2304:G:O4'	2.17	0.45
2:2B:46:A:H2'	2:2B:47:C:C6	2.52	0.45
4:2E:176:ILE:HB	4:2E:181:LEU:HB2	1.98	0.45
7:2H:11:VAL:HG13	7:2H:15:VAL:HG23	1.97	0.45
14:2S:62:LYS:HB3	14:2S:97:ARG:NE	2.32	0.45
21:2Z:44:PHE:CD2	21:2Z:48:PHE:HB2	2.52	0.45
26:24:60:GLN:O	26:24:62:ARG:NH2	2.50	0.45
32:2a:1466:C:H2'	32:2a:1467:G:O4'	2.16	0.45
33:2b:16:HIS:CE1	33:2b:18:GLY:H	2.34	0.45
39:2h:25:ASP:HB3	39:2h:58:TYR:HD1	1.79	0.45
40:2i:19:LEU:HB3	40:2i:59:PHE:CD1	2.51	0.45
1:1A:271(B):C:H42	1:1A:271(V):G:H1	1.64	0.45
1:1A:287:C:H2'	1:1A:288:C:C6	2.52	0.45
1:1A:478:A:C6	1:1A:480:A:C6	3.05	0.45
1:1A:1364:G:OP1	23:11:2:SER:HA	2.16	0.45
1:1A:1547:C:H2'	1:1A:1548:C:C6	2.52	0.45
1:1A:2014:A:H2'	1:1A:2015:A:C8	2.52	0.45
32:1a:520:A:H61	32:1a:533:A:H61	1.64	0.45
32:1a:719:C:H1'	49:1r:49:LYS:HB3	1.99	0.45
32:1a:1070:U:H2'	32:1a:1071:C:H6	1.80	0.45
32:1a:1323:G:H2'	32:1a:1324:A:C8	2.51	0.45
32:1a:1425:U:H2'	32:1a:1426:C:H6	1.82	0.45
35:1d:61:LYS:HA	35:1d:203:VAL:HG22	1.98	0.45
35:1d:111:ALA:HB1	35:1d:116:GLN:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:1w:2:C:H2'	54:1w:3:C:C6	2.51	0.45
55:1x:31:G:C2	55:1x:40:C:C2	3.05	0.45
1:2A:297:C:H2'	1:2A:298:G:O4'	2.16	0.45
1:2A:484:C:H2'	1:2A:485:C:C6	2.52	0.45
1:2A:698:C:O2'	1:2A:734:A:N6	2.49	0.45
1:2A:907:U:HO2'	12:2Q:101:ARG:HH22	1.63	0.45
1:2A:1152:C:H2'	1:2A:1153:C:H6	1.82	0.45
1:2A:1978:A:H2'	1:2A:1979:C:O4'	2.16	0.45
1:2A:2231:C:H2'	1:2A:2232:U:O4'	2.16	0.45
7:2H:3:ARG:HH11	7:2H:3:ARG:CB	2.30	0.45
7:2H:121:ILE:HD11	7:2H:140:LYS:HG2	1.99	0.45
13:2R:49:ASP:OD1	13:2R:95:THR:OG1	2.35	0.45
18:2W:77:ASP:O	18:2W:102:HIS:N	2.38	0.45
32:2a:45:U:H2'	32:2a:46:G:C8	2.52	0.45
32:2a:544:G:OP1	35:2d:59:ARG:NH2	2.48	0.45
32:2a:1068:G:H8	32:2a:1068:G:OP2	2.00	0.45
32:2a:1178:G:H2'	32:2a:1180:A:OP2	2.16	0.45
32:2a:1316:G:H22	32:2a:1319:A:H5'	1.81	0.45
36:2e:76:ILE:HG12	36:2e:118:ILE:HD12	1.99	0.45
38:2g:27:ILE:HG22	38:2g:39:ALA:HB1	1.98	0.45
44:2m:92:HIS:HA	44:2m:110:ARG:NH2	2.31	0.45
49:2r:65:ILE:HG23	61:2r:102:HOH:O	2.17	0.45
54:2w:8:4SU:S4	54:2w:13:C:O2'	2.64	0.45
54:2w:36:A:H2'	54:2w:37:MIA:H8	1.98	0.45
1:1A:596:G:H2'	1:1A:597:U:O4'	2.16	0.45
1:1A:1803:A:O2'	3:1D:259:THR:HG21	2.17	0.45
2:1B:86:G:H1	2:1B:91:C:H42	1.65	0.45
5:1F:64:ILE:HD12	5:1F:65:TRP:CZ3	2.52	0.45
6:1G:41:GLN:HG2	6:1G:154:GLY:O	2.17	0.45
6:1G:66:GLN:OE1	6:1G:98:ARG:NE	2.45	0.45
11:1P:44:GLY:HA2	61:1P:315:HOH:O	2.17	0.45
32:1a:519:C:H2'	32:1a:520:A:C8	2.51	0.45
32:1a:545:C:OP2	35:1d:62:GLN:NE2	2.46	0.45
33:1b:19:HIS:CD2	33:1b:20:GLU:HG3	2.52	0.45
1:2A:2261:C:C5	22:20:16:SER:HB3	2.52	0.45
4:2E:56:PRO:C	4:2E:58:ARG:H	2.25	0.45
4:2E:117:MET:HE2	4:2E:117:MET:HB3	1.77	0.45
7:2H:11:VAL:HB	7:2H:48:GLY:C	2.42	0.45
18:2W:19:LEU:HB3	27:25:25:LEU:HD12	1.99	0.45
26:24:41:PRO:HG3	26:24:49:PHE:CE2	2.51	0.45
28:26:6:ARG:HH12	28:26:26:ASN:HB2	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:142:G:O2'	32:2a:195:A:N6	2.50	0.45
32:2a:716:A:H1'	42:2k:118:GLY:HA2	1.99	0.45
32:2a:1095:U:H2'	32:2a:1096:C:O4'	2.17	0.45
32:2a:1316:G:N2	32:2a:1319:A:H5'	2.32	0.45
32:2a:1516:G:N1	32:2a:1519:MA6:OP2	2.50	0.45
33:2b:28:PHE:CD2	33:2b:190:THR:HA	2.52	0.45
36:2e:79:GLU:OE1	36:2e:79:GLU:N	2.37	0.45
37:2f:15:ASP:OD1	37:2f:17:SER:N	2.36	0.45
40:2i:6:GLY:HA3	40:2i:80:GLY:O	2.17	0.45
43:2l:59:ARG:HA	43:2l:65:GLU:HA	1.99	0.45
1:1A:249:C:HO2'	11:1P:64:LYS:HZ2	1.58	0.45
1:1A:302:C:H2'	1:1A:303:U:C6	2.51	0.45
1:1A:694:U:OP1	3:1D:59:LYS:NZ	2.38	0.45
1:1A:1499:C:H2'	1:1A:1500:G:H8	1.81	0.45
1:1A:2024:G:O6	61:1A:6202:HOH:O	2.20	0.45
1:1A:2483:C:N3	12:1Q:124:LYS:NZ	2.57	0.45
1:1A:2685:G:H5'	10:1O:68:GLU:OE2	2.16	0.45
7:1H:157:TYR:C	7:1H:158:HIS:HD1	2.25	0.45
8:1I:41:GLU:HA	8:1I:44:LEU:HB2	1.98	0.45
15:1T:39:ARG:HH21	32:1a:345:C:H5'	1.82	0.45
32:1a:193:C:H2'	32:1a:194:C:C6	2.52	0.45
32:1a:381:C:H2'	32:1a:382:A:O4'	2.16	0.45
32:1a:782:A:O3'	32:1a:1515:C:H4'	2.17	0.45
32:1a:848:C:H2'	32:1a:849:C:H6	1.82	0.45
32:1a:1118:C:OP1	40:1i:9:ARG:HD2	2.17	0.45
33:1b:212:GLN:NE2	33:1b:235:SER:HA	2.30	0.45
38:1g:113:GLU:H	38:1g:113:GLU:HG2	1.49	0.45
1:2A:1031:G:H5''	31:29:8:LYS:HE3	1.99	0.45
1:2A:1331:A:H2'	1:2A:1333:C:H5	1.82	0.45
3:2D:136:ILE:HD13	3:2D:142:VAL:HG21	1.99	0.45
5:2F:36:VAL:O	5:2F:40:GLN:HG3	2.17	0.45
6:2G:110:ALA:O	6:2G:140:ILE:HG23	2.17	0.45
8:2I:85:GLU:HG3	8:2I:86:THR:HG23	1.99	0.45
26:24:53:GLU:HG2	26:24:55:ARG:N	2.31	0.45
26:24:67:TYR:HD2	50:2s:9:VAL:HB	1.82	0.45
32:2a:157:G:H1	32:2a:164:U:H3	1.64	0.45
35:2d:157:LEU:HD22	35:2d:157:LEU:HA	1.82	0.45
37:2f:67:MET:HE3	37:2f:72:VAL:HA	1.98	0.45
42:2k:13:GLN:HA	42:2k:75:TYR:O	2.17	0.45
42:2k:34:ASP:OD2	42:2k:38:ASN:HB2	2.16	0.45
51:2t:67:ALA:HB2	51:2t:77:ALA:HB2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:2w:9:A:OP2	54:2w:13:C:N4	2.39	0.45
1:1A:1176:G:H4'	1:1A:1177:A:OP1	2.16	0.44
1:1A:2052:G:O4'	4:1E:142:GLY:HA3	2.17	0.44
8:1I:40:THR:O	8:1I:44:LEU:HB2	2.17	0.44
11:1P:59:LEU:HD13	30:18:58:ILE:HD13	1.98	0.44
17:1V:34:GLU:HB3	17:1V:56:SER:OG	2.17	0.44
20:1Y:83:THR:HG21	20:1Y:99:CYS:HB2	1.99	0.44
21:1Z:150:LEU:O	21:1Z:171:ILE:HG12	2.17	0.44
32:1a:39:G:N7	32:1a:547:A:H2'	2.33	0.44
32:1a:266:G:H2'	32:1a:266:G:N3	2.32	0.44
32:1a:472:A:H4'	47:1p:80:PHE:O	2.18	0.44
32:1a:986:A:H1'	50:1s:54:GLY:O	2.17	0.44
32:1a:1179:A:H2'	32:1a:1180:A:O4'	2.17	0.44
33:1b:33:TYR:HB2	33:1b:43:ASP:HB2	1.99	0.44
33:1b:124:SER:HA	33:1b:125:PRO:HA	1.71	0.44
1:2A:35:G:H2'	1:2A:36:G:O4'	2.17	0.44
1:2A:251:A:C5	1:2A:252:G:H1'	2.52	0.44
1:2A:581:C:H2'	1:2A:582:G:C8	2.52	0.44
1:2A:1248:G:C5	16:2U:3:ARG:HB2	2.51	0.44
1:2A:1547:C:H2'	1:2A:1548:C:C6	2.52	0.44
1:2A:2135:A:C4	1:2A:2136:C:H5	2.36	0.44
2:2B:32:C:H2'	2:2B:33:G:O4'	2.18	0.44
4:2E:183:LEU:HD21	15:2T:10:VAL:HG11	1.99	0.44
7:2H:83:TYR:CE2	7:2H:138:LYS:HB2	2.52	0.44
14:2S:58:LEU:H	14:2S:58:LEU:HG	1.61	0.44
15:2T:43:GLN:HG3	32:2a:346:G:OP2	2.18	0.44
18:2W:11:ARG:NH1	18:2W:98:LYS:HB3	2.32	0.44
21:2Z:39:VAL:HG21	21:2Z:44:PHE:CD1	2.49	0.44
32:2a:302:G:N3	32:2a:556:C:H4'	2.31	0.44
32:2a:413:G:H22	32:2a:429:U:H5''	1.82	0.44
32:2a:1112:C:N3	34:2c:177:THR:HA	2.32	0.44
32:2a:1439:C:H42	32:2a:1462:G:H1	1.63	0.44
33:2b:16:HIS:ND1	33:2b:204:ASN:HB2	2.32	0.44
45:2n:14:PRO:HB2	45:2n:15:LYS:H	1.64	0.44
49:2r:37:VAL:O	49:2r:41:LYS:N	2.38	0.44
1:1A:361:G:C2'	1:1A:362:U:H5'	2.47	0.44
1:1A:786:C:H5''	1:1A:1780:A:C8	2.53	0.44
1:1A:828:U:H2'	1:1A:829:A:C8	2.52	0.44
1:1A:1020:A:N1	1:1A:1141:U:O2'	2.50	0.44
1:1A:1087:G:H1	1:1A:1102:C:N4	2.15	0.44
1:1A:2135:A:H61	1:1A:2156:G:H4'	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2712:U:H1'	1:1A:2712(A):A:C8	2.53	0.44
1:1A:2869:G:H2'	1:1A:2870:C:O4'	2.16	0.44
2:1B:87:G:N2	2:1B:89:G:H3'	2.31	0.44
4:1E:2:LYS:HG2	4:1E:200:GLU:HB2	1.99	0.44
6:1G:111:LEU:HD13	6:1G:120:LEU:HD21	1.99	0.44
15:1T:99:LEU:HD22	15:1T:101:PHE:HE2	1.82	0.44
18:1W:78:GLU:OE2	18:1W:99:ARG:NH1	2.42	0.44
21:1Z:15:PRO:O	21:1Z:19:ARG:HG3	2.18	0.44
21:1Z:44:PHE:CE1	21:1Z:86:VAL:HG11	2.52	0.44
32:1a:456:C:H2'	32:1a:457:C:C6	2.53	0.44
32:1a:1469:G:H2'	32:1a:1470:G:C8	2.52	0.44
34:1c:193:TYR:HE1	34:1c:196:LEU:HD11	1.81	0.44
36:1e:11:ILE:HB	36:1e:31:LEU:HD12	1.99	0.44
36:1e:78:HIS:HD2	39:1h:104:ARG:HD2	1.80	0.44
36:1e:81:GLU:HG2	36:1e:90:VAL:HG22	2.00	0.44
38:1g:40:ALA:HB1	38:1g:44:TYR:HE2	1.82	0.44
55:1x:8:4SU:O2	55:1x:21:A:H2	1.99	0.44
1:2A:271(R):G:H2'	1:2A:271(S):G:H8	1.81	0.44
1:2A:271(T):C:H2'	1:2A:271(U):G:H8	1.82	0.44
1:2A:385:C:O2'	1:2A:388:G:N2	2.51	0.44
1:2A:392:C:H5''	1:2A:409:C:H5''	1.99	0.44
1:2A:928:G:H8	1:2A:928:G:O5'	1.99	0.44
1:2A:1412:A:H2'	1:2A:1413:G:H8	1.81	0.44
1:2A:2319:G:N2	14:2S:3:ARG:HH11	2.15	0.44
1:2A:2721:A:OP1	61:2A:3998:HOH:O	2.21	0.44
3:2D:71:ASP:HB2	3:2D:103:ARG:HH12	1.81	0.44
7:2H:143:GLN:HE21	7:2H:147:ASN:ND2	2.16	0.44
8:2I:5:LEU:HD12	8:2I:17:GLN:O	2.17	0.44
9:2N:34:LEU:O	9:2N:49:GLY:HA3	2.16	0.44
15:2T:29:ARG:NH2	15:2T:46:GLU:OE1	2.51	0.44
32:2a:184:G:H2'	32:2a:185:A:C8	2.52	0.44
32:2a:673:G:O3'	37:2f:87:ARG:NH2	2.50	0.44
32:2a:1302:U:O4	44:2m:14:ARG:NH1	2.50	0.44
34:2c:30:ARG:NE	45:2n:38:GLY:HA3	2.31	0.44
42:2k:77:MET:HG3	42:2k:103:LEU:HD13	1.99	0.44
55:2x:35:A:H2'	55:2x:36:U:C6	2.52	0.44
1:1A:196:A:O4'	11:1P:46:LYS:HE3	2.17	0.44
1:1A:536:A:H2'	1:1A:537:C:C6	2.52	0.44
1:1A:1503:U:H2'	1:1A:1504:C:C6	2.52	0.44
1:1A:1789:A:H2'	1:1A:1790:C:O4'	2.18	0.44
1:1A:2319:G:H22	14:1S:3:ARG:HD3	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1E:2:LYS:HG2	4:1E:2:LYS:H	1.62	0.44
14:1S:74:ALA:HB2	14:1S:105:ALA:HA	1.99	0.44
14:1S:87:PHE:CE1	14:1S:102:ALA:HB2	2.52	0.44
16:1U:108:GLU:O	16:1U:112:ARG:HG2	2.17	0.44
19:1X:12:VAL:HG22	19:1X:29:TRP:CE2	2.52	0.44
32:1a:79:G:C6	32:1a:90:U:O2	2.69	0.44
32:1a:593:G:H1	32:1a:646:U:H3	1.63	0.44
32:1a:1060:C:H2'	32:1a:1061:G:H8	1.82	0.44
54:1y:52:G:H1	54:1y:62:C:N4	2.16	0.44
1:2A:510:C:H2'	1:2A:511:U:O4'	2.17	0.44
1:2A:705:A:H2'	1:2A:706:A:O4'	2.17	0.44
1:2A:1036:G:OP1	7:2H:59:ARG:HG3	2.17	0.44
1:2A:1341:U:O2	19:2X:80:ILE:HD12	2.18	0.44
1:2A:1359:A:C2	1:2A:1372:U:O4	2.70	0.44
1:2A:1374:G:H2'	1:2A:1375:C:C6	2.51	0.44
1:2A:1557:C:H5''	1:2A:1558:A:OP2	2.17	0.44
1:2A:1946:U:H2'	1:2A:1947:C:C6	2.52	0.44
1:2A:2106:G:H2'	1:2A:2107:C:O4'	2.17	0.44
1:2A:2328:A:H2'	1:2A:2329:G:C8	2.52	0.44
13:2R:87:TYR:OH	13:2R:117:VAL:O	2.23	0.44
20:2Y:68:HIS:CE1	20:2Y:70:SER:HB3	2.52	0.44
22:20:38:VAL:HB	22:20:59:LEU:HD12	1.99	0.44
26:24:15:ILE:HD13	26:24:21:VAL:HG13	1.99	0.44
26:24:50:VAL:HG21	44:2m:64:TRP:C	2.42	0.44
26:24:62:ARG:HA	26:24:62:ARG:NE	2.33	0.44
32:2a:999:C:H42	32:2a:1042:G:H1	1.65	0.44
33:2b:171:ALA:O	33:2b:174:VAL:HG22	2.17	0.44
39:2h:97:VAL:HB	39:2h:129:VAL:C	2.42	0.44
54:2y:65:G:H2'	54:2y:66:U:C6	2.51	0.44
1:1A:1239:G:H2'	1:1A:1240:U:O4'	2.17	0.44
1:1A:1358:G:O2'	1:1A:1373:A:N6	2.47	0.44
1:1A:1466:G:O2'	1:1A:1546:C:O2'	2.23	0.44
3:1D:199:ALA:C	3:1D:201:HIS:H	2.26	0.44
6:1G:73:ALA:HB3	6:1G:85:GLY:H	1.82	0.44
9:1N:40:PRO:HB3	16:1U:68:ALA:HB2	2.00	0.44
13:1R:23:ASN:OD1	13:1R:23:ASN:N	2.49	0.44
22:10:10:THR:HA	61:10:203:HOH:O	2.17	0.44
26:14:26:SER:OG	26:14:27:THR:N	2.50	0.44
32:1a:189(D):C:H2'	32:1a:189(E):U:O4'	2.18	0.44
32:1a:216:G:H2'	32:1a:217:C:C6	2.52	0.44
32:1a:295:C:H2'	32:1a:296:U:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:224:GLN:HG2	33:1b:229:VAL:HG22	2.00	0.44
35:1d:121:VAL:O	35:1d:134:ASP:HA	2.18	0.44
44:1m:39:ILE:HD12	44:1m:56:LEU:HD13	2.00	0.44
49:1r:66:LEU:O	49:1r:70:ILE:HG13	2.18	0.44
1:2A:10:G:H2'	1:2A:11:G:H8	1.81	0.44
1:2A:422:A:H2'	1:2A:423:A:C8	2.52	0.44
1:2A:1031:G:N2	31:29:36:GLN:HE22	2.15	0.44
1:2A:1999:C:O2	1:2A:2687:U:O2'	2.25	0.44
1:2A:2528:U:H2'	1:2A:2530:A:O5'	2.18	0.44
1:2A:2820:A:O2'	1:2A:2821:A:OP1	2.34	0.44
7:2H:125:VAL:HG22	7:2H:131:VAL:HG22	2.00	0.44
9:2N:18:ALA:HB1	9:2N:60:ILE:HD12	2.00	0.44
10:2O:22:ILE:HD11	10:2O:40:VAL:HG12	1.99	0.44
12:2Q:54:MET:SD	12:2Q:118:LEU:HD23	2.57	0.44
12:2Q:135:ASP:OD2	21:2Z:49:ARG:NH1	2.51	0.44
20:2Y:74:PRO:O	20:2Y:82:PRO:HA	2.16	0.44
28:26:9:LEU:HA	28:26:54:ILE:HB	1.98	0.44
32:2a:688:G:H2'	32:2a:689:C:C6	2.52	0.44
32:2a:814:A:H5'	32:2a:1511:G:H4'	2.00	0.44
32:2a:992:U:H3	32:2a:1044:A:H62	1.66	0.44
34:2c:82:GLU:HA	34:2c:85:ARG:HB2	1.99	0.44
36:2e:52:PRO:HG2	36:2e:53:LEU:HD12	1.99	0.44
40:2i:11:LYS:HA	40:2i:108:VAL:HG12	2.00	0.44
43:2l:24:VAL:HB	43:2l:27:LEU:HD12	2.00	0.44
55:2x:23:C:H2'	55:2x:24:U:C6	2.52	0.44
1:1A:374:A:C2	1:1A:401:A:C4	3.06	0.44
1:1A:1541:G:H2'	1:1A:1542:A:C8	2.52	0.44
1:1A:2101:G:H1	1:1A:2188:C:N4	2.13	0.44
6:1G:16:ARG:NH2	6:1G:28:VAL:O	2.40	0.44
21:1Z:80:ARG:HB3	21:1Z:82:ARG:HD3	1.99	0.44
23:11:23:LYS:HG3	54:1y:74:C:H5'	1.98	0.44
27:15:40:LYS:HE3	27:15:44:THR:O	2.18	0.44
32:1a:130:A:N3	32:1a:263:A:O2'	2.45	0.44
32:1a:619:U:C2	35:1d:135:LEU:HD22	2.52	0.44
32:1a:737:A:OP1	37:1f:92:LYS:N	2.34	0.44
32:1a:1445:C:H42	32:1a:1457:G:H1	1.65	0.44
34:1c:26:LYS:HB2	34:1c:26:LYS:HE3	1.75	0.44
36:1e:96:PRO:O	36:1e:98:THR:N	2.48	0.44
54:1y:46:G7M:O2'	54:1y:48:C:OP2	2.36	0.44
1:2A:493:G:H2'	1:2A:494:G:O4'	2.17	0.44
1:2A:814:C:OP1	17:2V:83:ARG:HA	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:817:C:H2'	1:2A:818:G:O4'	2.17	0.44
1:2A:864:G:OP2	12:2Q:22:LYS:HE3	2.18	0.44
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.33	0.44
1:2A:1388:G:H4'	1:2A:1525:G:O2'	2.16	0.44
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.32	0.44
1:2A:2393:A:H2'	1:2A:2394:C:O4'	2.18	0.44
1:2A:2732:G:H3'	1:2A:2733:A:O4'	2.17	0.44
1:2A:2774:C:H2'	1:2A:2775:A:O4'	2.17	0.44
1:2A:2865:U:C4	1:2A:2866:U:C4	3.05	0.44
4:2E:7:VAL:HG13	4:2E:27:LEU:HB3	1.99	0.44
8:2I:72:LEU:HD21	8:2I:107:VAL:HG21	1.99	0.44
13:2R:33:ARG:NH2	13:2R:115:GLU:OE1	2.48	0.44
13:2R:118:GLU:CD	13:2R:118:GLU:H	2.26	0.44
18:2W:21:VAL:O	18:2W:24:ILE:HG12	2.18	0.44
21:2Z:146:ILE:HA	21:2Z:174:VAL:O	2.18	0.44
32:2a:669:U:H2'	32:2a:670:G:H8	1.83	0.44
32:2a:1072:G:C2	32:2a:1104:G:C2	3.06	0.44
32:2a:1500:A:H5''	32:2a:1508:G:H5'	2.00	0.44
34:2c:125:GLU:HB2	34:2c:190:ARG:NH2	2.14	0.44
36:2e:78:HIS:HB3	39:2h:107:LEU:HD13	1.98	0.44
43:2l:49:ASN:N	43:2l:49:ASN:OD1	2.51	0.44
1:1A:1266:G:O2'	1:1A:2012:G:O6	2.23	0.44
1:1A:1419:A:C8	1:1A:1421:G:C6	3.05	0.44
1:1A:1721:G:O2'	1:1A:1740:G:O6	2.35	0.44
1:1A:1799:G:O2'	3:1D:181:GLU:OE2	2.29	0.44
1:1A:2171:A:O2'	1:1A:2172:U:H5''	2.18	0.44
1:1A:2340:G:H2'	1:1A:2341:G:H8	1.83	0.44
1:1A:2881:C:H2'	1:1A:2882:A:O4'	2.17	0.44
15:1T:8:LYS:HB3	15:1T:8:LYS:HE2	1.44	0.44
15:1T:29:ARG:HA	15:1T:46:GLU:HA	2.00	0.44
15:1T:51:ARG:HB3	15:1T:62:THR:HB	1.99	0.44
32:1a:26:A:N3	35:1d:209:ARG:NH2	2.65	0.44
32:1a:279:A:C5	48:1q:98:LEU:HD23	2.53	0.44
32:1a:1327:C:H2'	32:1a:1328:C:H6	1.82	0.44
39:1h:9:MET:HG3	39:1h:26:VAL:HG21	1.99	0.44
44:1m:67:GLU:HG3	44:1m:71:ARG:NH2	2.32	0.44
54:1w:1:G:H2'	54:1w:2:C:O4'	2.17	0.44
1:2A:1115:G:C6	1:2A:1116:C:C4	3.05	0.44
1:2A:2507:C:H2'	1:2A:2508:G:O4'	2.17	0.44
1:2A:2843:G:H1	1:2A:2874:C:H42	1.65	0.44
2:2B:76:G:H2'	2:2B:77:U:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2D:89:SER:O	3:2D:198:ASN:ND2	2.50	0.44
4:2E:174:ASP:HB3	4:2E:183:LEU:HD13	2.00	0.44
8:2I:84:GLY:H	8:2I:87:LYS:HE2	1.82	0.44
32:2a:620:C:H2'	32:2a:621:A:O4'	2.18	0.44
32:2a:707:C:O2'	32:2a:708:C:H5'	2.17	0.44
32:2a:836:G:C6	32:2a:851:G:C6	3.06	0.44
32:2a:1018:C:H2'	32:2a:1019:C:O4'	2.18	0.44
32:2a:1163:C:H2'	32:2a:1164:G:C8	2.52	0.44
32:2a:1422:G:H2'	32:2a:1423:G:C8	2.53	0.44
1:1A:231:C:H2'	1:1A:232:G:O4'	2.17	0.44
1:1A:678:C:H5''	61:1A:7536:HOH:O	2.17	0.44
1:1A:1286:A:C6	1:1A:1329:U:C2	3.06	0.44
2:1B:110:G:H2'	2:1B:111:G:H8	1.82	0.44
6:1G:35:GLU:HB3	6:1G:160:VAL:HG12	2.00	0.44
7:1H:73:ALA:O	7:1H:76:VAL:HG12	2.18	0.44
7:1H:127:GLU:HG3	7:1H:130:ARG:HE	1.83	0.44
12:1Q:2:LEU:HD22	12:1Q:69:PHE:CE1	2.53	0.44
32:1a:42:G:O2'	32:1a:622:A:N1	2.47	0.44
32:1a:580:U:H2'	32:1a:581:G:O4'	2.17	0.44
32:1a:925:G:H1'	32:1a:1502:A:C4	2.51	0.44
32:1a:1266:G:N2	32:1a:1269:A:OP2	2.44	0.44
32:1a:1466:C:H2'	32:1a:1467:G:O4'	2.18	0.44
33:1b:7:VAL:O	33:1b:217:ARG:HD3	2.18	0.44
35:1d:194:LEU:HB3	35:1d:196:LEU:HG	2.00	0.44
44:1m:106:ASN:HB2	44:1m:107:ALA:H	1.42	0.44
46:1o:9:GLN:O	46:1o:13:GLN:HG3	2.18	0.44
46:1o:37:ASN:OD1	46:1o:37:ASN:N	2.50	0.44
55:1x:61:C:H2'	55:1x:62:C:C6	2.52	0.44
1:2A:995:C:O2	9:2N:3:THR:OG1	2.29	0.44
1:2A:1342:A:C6	1:2A:1345:C:C2	3.06	0.44
1:2A:1703:G:H2'	1:2A:1704:G:H8	1.83	0.44
1:2A:1769:G:O2'	1:2A:1958:C:OP1	2.31	0.44
1:2A:1923:U:O2'	55:2x:12:G:H1'	2.18	0.44
1:2A:2076:U:OP2	1:2A:2238:G:N2	2.48	0.44
1:2A:2080:G:H2'	1:2A:2081:C:H6	1.82	0.44
1:2A:2251:OMG:HM23	1:2A:2251:OMG:H1'	1.69	0.44
1:2A:2647:U:H2'	1:2A:2648:C:C6	2.52	0.44
1:2A:2893:G:H5''	1:2A:2894:G:O4'	2.18	0.44
5:2F:112:MET:HE3	5:2F:112:MET:HB2	1.71	0.44
9:2N:42:TRP:CH2	9:2N:44:PRO:HB3	2.53	0.44
10:2O:35:VAL:HG13	10:2O:65:THR:HG23	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2P:45:LEU:HA	11:2P:45:LEU:HD12	1.75	0.44
16:2U:65:ILE:HG13	16:2U:96:ALA:HB2	2.00	0.44
19:2X:5:TYR:CE2	24:22:30:ARG:HB2	2.52	0.44
19:2X:11:PRO:HD3	24:22:37:PHE:CD2	2.53	0.44
32:2a:605:U:H2'	32:2a:606:G:O4'	2.18	0.44
32:2a:1169:A:H2'	32:2a:1170:A:O4'	2.18	0.44
32:2a:1219:U:O2'	50:2s:34:TRP:O	2.21	0.44
33:2b:154:LEU:H	33:2b:154:LEU:HD23	1.81	0.44
36:2e:31:LEU:HD23	36:2e:31:LEU:HA	1.80	0.44
37:2f:84:ASN:O	37:2f:86:ARG:HG3	2.18	0.44
46:2o:43:LEU:HD13	46:2o:53:HIS:HD2	1.83	0.44
48:2q:25:ARG:HG2	48:2q:38:ARG:O	2.18	0.44
48:2q:40:LYS:HD3	48:2q:42:TYR:OH	2.18	0.44
51:2t:54:LYS:HB3	51:2t:54:LYS:HE2	1.79	0.44
1:1A:100:G:H21	24:12:7:ARG:HH12	1.66	0.44
1:1A:551:G:O2'	1:1A:1220:A:N3	2.50	0.44
1:1A:650:C:OP1	30:18:21:LYS:NZ	2.51	0.44
1:1A:752:A:N7	1:1A:1781:C:C2	2.86	0.44
1:1A:2645:G:H4'	1:1A:2732:G:O3'	2.18	0.44
5:1F:149:ASP:OD1	5:1F:149:ASP:N	2.51	0.44
11:1P:52:GLU:HG3	11:1P:57:THR:HG22	1.98	0.44
11:1P:106:LEU:HD22	11:1P:112:LEU:HD13	1.99	0.44
14:1S:85:VAL:HG22	14:1S:86:ALA:H	1.83	0.44
15:1T:29:ARG:HB2	15:1T:46:GLU:HG3	2.00	0.44
32:1a:486:U:H2'	32:1a:487:A:H8	1.82	0.44
32:1a:1529:G:H4'	32:1a:1530:G:OP2	2.18	0.44
33:1b:230:VAL:HG12	33:1b:231:GLU:H	1.83	0.44
54:1w:36:A:H2'	54:1w:37:MIA:H8	2.00	0.44
1:2A:1475:G:C2	1:2A:1517:G:C2	3.06	0.44
1:2A:1941:C:N4	1:2A:1965:C:H5'	2.32	0.44
1:2A:2067:G:O2'	1:2A:2069:G:H5'	2.17	0.44
1:2A:2116:G:O6	1:2A:2162:G:H5''	2.17	0.44
1:2A:2528:U:O2'	1:2A:2530:A:OP1	2.33	0.44
2:2B:72:G:O2'	2:2B:105:A:N6	2.50	0.44
5:2F:149:ASP:OD1	5:2F:149:ASP:N	2.41	0.44
6:2G:11:TYR:OH	6:2G:16:ARG:HD3	2.18	0.44
20:2Y:7:VAL:CG1	20:2Y:27:VAL:HG21	2.47	0.44
32:2a:1051:C:H2'	32:2a:1052:U:C6	2.53	0.44
32:2a:1070:U:H2'	32:2a:1071:C:H6	1.83	0.44
32:2a:1288:A:H2'	32:2a:1289:A:O4'	2.17	0.44
33:2b:32:ILE:HD11	33:2b:190:THR:HB	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:2h:78:GLN:O	39:2h:81:HIS:NE2	2.51	0.44
40:2i:89:ASN:O	40:2i:91:ASP:N	2.51	0.44
1:1A:100:G:H21	24:12:7:ARG:NH1	2.16	0.44
1:1A:421:U:OP1	61:1A:6207:HOH:O	2.21	0.44
1:1A:588:U:O4	1:1A:670:A:H1'	2.18	0.44
1:1A:918:A:H5''	2:1B:98:G:O2'	2.18	0.44
1:1A:1022:G:N7	9:1N:66:LYS:HE2	2.33	0.44
1:1A:2086:U:H2'	1:1A:2087:G:C8	2.53	0.44
1:1A:2305:A:H5''	6:1G:134:GLY:HA3	2.00	0.44
1:1A:2471:C:H2'	1:1A:2472:G:O4'	2.17	0.44
21:1Z:150:LEU:HB3	21:1Z:171:ILE:HD11	1.99	0.44
32:1a:15:G:H1'	36:1e:19:MET:HE2	2.00	0.44
32:1a:836:G:C6	32:1a:851:G:C6	3.06	0.44
32:1a:921:U:O2	36:1e:19:MET:HB2	2.18	0.44
32:1a:1092:A:N3	32:1a:1183:A:N6	2.66	0.44
33:1b:16:HIS:CD2	33:1b:204:ASN:H	2.35	0.44
40:1i:22:GLY:H	40:1i:59:PHE:HA	1.82	0.44
55:1x:25:C:H2'	55:1x:26:G:O4'	2.18	0.44
54:1y:7:A:O2'	54:1y:49:C:OP2	2.18	0.44
1:2A:628:G:H5''	30:28:18:ALA:HB2	1.99	0.44
1:2A:662:G:H2'	1:2A:663:G:C8	2.53	0.44
1:2A:674:G:N3	5:2F:74:ARG:NH1	2.66	0.44
1:2A:1016:G:H2'	1:2A:1017:G:O4'	2.18	0.44
1:2A:1512:U:H2'	1:2A:1513:C:C6	2.53	0.44
1:2A:1817:G:C6	1:2A:1818:U:C4	3.05	0.44
1:2A:1923:U:H5''	55:2x:24:U:O2'	2.17	0.44
1:2A:2360:A:H2'	1:2A:2361:A:O4'	2.17	0.44
1:2A:2406:U:C2	11:2P:72:PRO:HG2	2.53	0.44
1:2A:2584:U:H2'	1:2A:2585:U:C6	2.53	0.44
1:2A:2659:G:N2	1:2A:2662:A:OP2	2.51	0.44
3:2D:95:LEU:HD23	3:2D:95:LEU:HA	1.84	0.44
6:2G:41:GLN:O	6:2G:43:LEU:N	2.51	0.44
21:2Z:155:LEU:HB3	21:2Z:156:LYS:H	1.65	0.44
32:2a:923:A:O2'	32:2a:1398:A:H2'	2.17	0.44
32:2a:1062:U:O4	34:2c:3:ASN:HB3	2.18	0.44
32:2a:1189:C:O2'	34:2c:176:HIS:HB3	2.18	0.44
32:2a:1220:G:O3'	50:2s:36:ARG:HD3	2.18	0.44
32:2a:1305:G:OP1	52:2u:2:GLY:HA3	2.18	0.44
32:2a:1315:U:O2'	32:2a:1360:A:N3	2.47	0.44
35:2d:76:ARG:O	35:2d:80:GLU:HG2	2.18	0.44
35:2d:98:GLU:HA	35:2d:103:ASN:HD22	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2f:61:LEU:HB3	37:2f:63:TYR:CE2	2.53	0.44
1:1A:811:U:H2'	11:1P:21:ARG:HA	1.99	0.43
1:1A:1177:A:OP1	1:1A:1177:A:H2'	2.18	0.43
1:1A:2693:A:H2'	1:1A:2694:G:H8	1.82	0.43
1:1A:2712:U:O2'	1:1A:2712(A):A:OP2	2.33	0.43
3:1D:26:LYS:NZ	3:1D:28:GLU:O	2.45	0.43
3:1D:141:VAL:CG1	3:1D:162:SER:HB3	2.47	0.43
7:1H:25:LYS:HG3	7:1H:34:GLU:HG2	2.00	0.43
12:1Q:2:LEU:HD22	12:1Q:69:PHE:HE1	1.83	0.43
22:10:50:ASN:HB3	22:10:63:VAL:HG22	1.98	0.43
32:1a:397:A:H3'	32:1a:397:A:N3	2.33	0.43
32:1a:1121:U:H2'	32:1a:1122:U:H6	1.82	0.43
32:1a:1137:C:H5'	32:1a:1138:G:C5	2.53	0.43
32:1a:1239:A:H62	32:1a:1299:A:N6	2.16	0.43
32:1a:1498:UR3:O2'	53:1v:17:U:OP1	2.30	0.43
36:1e:11:ILE:N	36:1e:31:LEU:O	2.51	0.43
39:1h:56:LYS:HB2	39:1h:58:TYR:HE2	1.83	0.43
39:1h:64:LYS:HG2	39:1h:79:VAL:HG21	1.99	0.43
55:1x:14:A:C6	55:1x:22:G:C5	3.06	0.43
1:2A:532:A:OP1	1:2A:561:G:N2	2.43	0.43
1:2A:1027:A:C2	1:2A:2488:A:H5'	2.53	0.43
1:2A:2061:G:H5''	1:2A:2503:2MA:C2	2.48	0.43
1:2A:2845:G:H2'	1:2A:2846:G:C8	2.53	0.43
5:2F:132:VAL:HG22	5:2F:139:PHE:HA	1.99	0.43
9:2N:21:LYS:HD2	9:2N:26:LEU:HD22	1.98	0.43
21:2Z:151:HIS:O	21:2Z:171:ILE:HG12	2.17	0.43
26:24:44:THR:O	26:24:46:GLN:N	2.48	0.43
32:2a:50:A:H4'	32:2a:52:G:OP1	2.17	0.43
32:2a:419:C:OP1	32:2a:513:C:O2'	2.29	0.43
32:2a:829:G:H2'	32:2a:830:G:C8	2.52	0.43
32:2a:939:G:H1	32:2a:1344:C:H42	1.66	0.43
32:2a:985:C:H2'	32:2a:986:A:C8	2.53	0.43
32:2a:1000:U:H2'	32:2a:1001:A:C8	2.53	0.43
33:2b:47:THR:HG23	33:2b:202:PRO:HD2	1.99	0.43
35:2d:18:LYS:HG3	60:2d:302:SF4:S1	2.58	0.43
41:2j:32:ALA:HA	41:2j:33:GLN:HA	1.67	0.43
55:2x:40:C:H2'	55:2x:41:C:H6	1.83	0.43
1:1A:27:G:C2	1:1A:512:G:N3	2.85	0.43
1:1A:488:G:O2'	18:1W:49:LYS:NZ	2.46	0.43
1:1A:563:G:H22	1:1A:578:A:H2	1.65	0.43
1:1A:1042:G:C6	1:1A:1043:C:C4	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1568:G:OP1	3:1D:63:ARG:NH1	2.44	0.43
1:1A:2147:G:H3'	1:1A:2147:G:N3	2.33	0.43
1:1A:2176:A:H2'	1:1A:2177:C:C6	2.53	0.43
1:1A:2422:A:O4'	54:1y:76:A:N6	2.51	0.43
2:1B:7:G:H5'	14:1S:29:PHE:CE2	2.54	0.43
4:1E:103:ASP:OD2	4:1E:168:MET:HE3	2.18	0.43
32:1a:4:U:O4	39:1h:105:ARG:HG2	2.17	0.43
32:1a:13:U:O2'	61:1a:1931:HOH:O	2.21	0.43
32:1a:383:A:C5	32:1a:384:G:H1'	2.54	0.43
32:1a:624:C:H2'	32:1a:625:G:C8	2.53	0.43
33:1b:110:GLN:HG2	33:1b:110:GLN:O	2.17	0.43
33:1b:195:ASP:O	39:1h:74:PRO:HG3	2.18	0.43
44:1m:86:CYS:O	44:1m:90:LEU:HD12	2.18	0.43
51:1t:13:LEU:HD12	51:1t:14:LYS:N	2.33	0.43
1:2A:61:G:H5'	24:22:50:ILE:HG21	2.00	0.43
1:2A:247:G:H4'	1:2A:386:G:C5	2.53	0.43
1:2A:709:U:H2'	1:2A:710:G:H8	1.82	0.43
1:2A:1469:A:H2'	1:2A:1470:G:O4'	2.18	0.43
4:2E:23:VAL:HG12	4:2E:173:VAL:HG21	1.98	0.43
6:2G:11:TYR:CZ	6:2G:16:ARG:HD3	2.53	0.43
7:2H:11:VAL:HG13	7:2H:15:VAL:CG2	2.48	0.43
8:2I:4:ILE:HG12	8:2I:39:ALA:HB2	1.99	0.43
8:2I:43:ASN:N	8:2I:43:ASN:OD1	2.48	0.43
32:2a:726:C:H2'	32:2a:727:G:C8	2.53	0.43
32:2a:1123:A:H1'	41:2j:37:PRO:O	2.18	0.43
34:2c:54:ARG:HB2	34:2c:69:HIS:CD2	2.52	0.43
38:2g:49:ILE:HA	38:2g:52:GLU:OE2	2.17	0.43
47:2p:21:VAL:HG22	47:2p:33:ILE:HB	2.00	0.43
1:1A:36:G:H4'	1:1A:451:C:C2	2.54	0.43
1:1A:570:G:H2'	1:1A:2030:A:C5	2.53	0.43
1:1A:581:C:H2'	1:1A:582:G:C8	2.54	0.43
1:1A:879:G:H3'	1:1A:880:G:H8	1.83	0.43
1:1A:957:A:N1	1:1A:2458:G:H4'	2.33	0.43
1:1A:1429:G:H2'	1:1A:1430:C:C6	2.53	0.43
1:1A:1815:A:H5'	1:1A:1817:G:H1'	2.01	0.43
1:1A:1918:A:O2'	1:1A:1919:A:N7	2.43	0.43
1:1A:2250:G:O2'	1:1A:2496:C:OP1	2.32	0.43
1:1A:2693:A:H2'	1:1A:2694:G:C8	2.53	0.43
1:1A:2844:G:H2'	1:1A:2845:G:O4'	2.19	0.43
3:1D:72:LYS:HD3	3:1D:97:TYR:CE1	2.53	0.43
4:1E:52:LEU:HB2	4:1E:76:ARG:HB2	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:54:GLN:O	8:1I:58:LEU:N	2.50	0.43
8:1I:109:ILE:HD13	8:1I:109:ILE:HA	1.84	0.43
21:1Z:48:PHE:CE1	21:1Z:52:SER:HA	2.54	0.43
24:12:38:GLN:NE2	24:12:43:GLN:O	2.51	0.43
32:1a:324:G:OP1	51:1t:22:ARG:NH2	2.51	0.43
32:1a:393:A:OP1	47:1p:13:HIS:HE1	2.01	0.43
32:1a:407:G:H2'	32:1a:408:A:C8	2.53	0.43
32:1a:789:U:O2'	32:1a:791:G:N7	2.37	0.43
32:1a:1052:U:O2'	32:1a:1055:A:OP2	2.22	0.43
32:1a:1330:U:H4'	44:1m:23:TYR:CZ	2.54	0.43
34:1c:52:LEU:HA	34:1c:70:VAL:HG22	2.01	0.43
47:1p:21:VAL:O	47:1p:32:TYR:HB2	2.18	0.43
49:1r:58:LEU:HB2	49:1r:63:GLN:NE2	2.33	0.43
1:2A:686:G:N2	1:2A:788:A:H61	2.16	0.43
1:2A:1657:C:H2'	1:2A:1658:C:C6	2.52	0.43
1:2A:2262:U:H4'	1:2A:2328:A:C2	2.54	0.43
5:2F:110:LEU:HD21	5:2F:181:LEU:HD23	2.00	0.43
6:2G:33:ARG:NH2	6:2G:162:THR:OG1	2.51	0.43
6:2G:106:LEU:HA	6:2G:110:ALA:HB3	2.01	0.43
15:2T:39:ARG:NH2	15:2T:41:ARG:HD3	2.33	0.43
26:24:46:GLN:C	26:24:48:ARG:H	2.26	0.43
32:2a:232:G:H1'	32:2a:262:A:N1	2.33	0.43
32:2a:502:G:OP1	43:2l:118:SER:N	2.31	0.43
32:2a:948:C:H2'	32:2a:949:A:H8	1.84	0.43
41:2j:16:LEU:HD13	41:2j:70:ARG:HG2	2.00	0.43
1:1A:495:G:H1'	18:1W:57:ASN:OD1	2.18	0.43
1:1A:893:C:H2'	1:1A:894:C:C6	2.53	0.43
1:1A:918:A:N3	2:1B:80:U:O2'	2.50	0.43
1:1A:971:C:H2'	1:1A:972:G:O4'	2.18	0.43
1:1A:1590:U:H2'	1:1A:1591:G:C8	2.53	0.43
1:1A:2489:G:C6	1:1A:2490:G:N1	2.87	0.43
2:1B:21:G:H2'	2:1B:22:U:O4'	2.18	0.43
32:1a:247:G:O2'	32:1a:282:A:N1	2.47	0.43
32:1a:323:U:H2'	32:1a:324:G:O4'	2.18	0.43
32:1a:713:G:H2'	32:1a:714:G:C8	2.54	0.43
35:1d:104:VAL:HA	35:1d:107:ARG:HB2	2.01	0.43
39:1h:82:HIS:NE2	39:1h:136:GLU:OE2	2.51	0.43
1:2A:77:C:OP1	24:22:59:ARG:NE	2.47	0.43
1:2A:483:A:H3'	1:2A:484:C:C6	2.53	0.43
1:2A:924:C:H2'	1:2A:925:C:C6	2.53	0.43
1:2A:1915:5MU:H2'	1:2A:1916:A:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2123:G:H2'	1:2A:2124:G:C8	2.53	0.43
1:2A:2655:G:H1'	1:2A:2656:U:H5	1.83	0.43
2:2B:14:U:H1'	2:2B:108:U:O2'	2.19	0.43
3:2D:5:LYS:HE2	3:2D:5:LYS:HB3	1.82	0.43
6:2G:16:ARG:O	6:2G:20:ILE:HG12	2.19	0.43
30:28:32:LEU:O	30:28:36:LYS:HE3	2.18	0.43
32:2a:190:U:H2'	32:2a:191:G:C8	2.54	0.43
32:2a:578:C:O2'	32:2a:728:A:N3	2.40	0.43
32:2a:1299:A:H2'	32:2a:1299:A:N3	2.33	0.43
32:2a:1363(A):A:H1'	32:2a:1365:G:N7	2.33	0.43
34:2c:117:ALA:HB2	34:2c:200:ALA:HB2	2.00	0.43
38:2g:155:ARG:O	38:2g:155:ARG:HG2	2.17	0.43
42:2k:43:SER:OG	42:2k:44:SER:N	2.51	0.43
44:2m:33:ALA:HA	44:2m:59:TYR:OH	2.18	0.43
45:2n:47:LEU:HA	45:2n:50:LYS:HB2	2.01	0.43
55:2x:61:C:H2'	55:2x:62:C:H6	1.83	0.43
1:1A:34:C:N4	1:1A:447:A:H61	2.17	0.43
1:1A:476:G:H4'	1:1A:502:A:N1	2.33	0.43
1:1A:1878:G:H2'	1:1A:1879:C:C6	2.53	0.43
1:1A:2126:A:H2	1:1A:2127:G:H1'	1.82	0.43
3:1D:141:VAL:HG12	3:1D:142:VAL:H	1.82	0.43
5:1F:123:LEU:HD12	5:1F:192:LEU:HB3	2.00	0.43
5:1F:181:LEU:HD11	5:1F:186:ILE:HD11	1.99	0.43
10:1O:13:ASN:ND2	32:1a:339:C:OP1	2.43	0.43
13:1R:96:ARG:NH2	13:1R:117:VAL:HG13	2.33	0.43
17:1V:98:GLU:OE2	17:1V:100:ARG:HD3	2.18	0.43
32:1a:44:G:C6	32:1a:45:U:C2	3.07	0.43
32:1a:743:U:H2'	32:1a:744:C:C6	2.53	0.43
32:1a:781:A:H4'	32:1a:1522:U:O2'	2.18	0.43
32:1a:938:A:C6	32:1a:939:G:C5	3.07	0.43
32:1a:1139:G:N2	32:1a:1143:G:C6	2.86	0.43
32:1a:1273:G:H3'	32:1a:1274:G:H8	1.82	0.43
38:1g:42:ILE:HG22	38:1g:120:ILE:HD12	2.00	0.43
39:1h:11:THR:HG22	39:1h:15:ASN:HD21	1.83	0.43
48:1q:57:VAL:HG12	48:1q:76:LEU:HA	2.01	0.43
1:2A:64:A:H2	19:2X:69:TYR:HD2	1.67	0.43
1:2A:816:C:N4	1:2A:1192:G:O6	2.52	0.43
1:2A:1450:G:H1	1:2A:1462:C:H42	1.66	0.43
1:2A:1568:G:H4'	3:2D:59:LYS:HD2	2.01	0.43
1:2A:1777:U:H2'	1:2A:1778:U:C6	2.53	0.43
1:2A:1927:A:H2'	1:2A:1928:A:C8	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2031:A:C6	1:2A:2498:C:H1'	2.53	0.43
1:2A:2055:C:O2	1:2A:2572:A:N6	2.52	0.43
1:2A:2872:G:O2'	1:2A:2873:A:H5'	2.18	0.43
5:2F:144:LYS:C	5:2F:146:ALA:H	2.27	0.43
6:2G:10:LYS:HG3	6:2G:14:GLU:OE1	2.18	0.43
9:2N:43:THR:HG22	9:2N:44:PRO:HD2	2.01	0.43
10:2O:14:THR:O	10:2O:52:VAL:HG22	2.18	0.43
14:2S:62:LYS:HD2	14:2S:97:ARG:NH1	2.34	0.43
15:2T:41:ARG:NH1	32:2a:346:G:OP1	2.52	0.43
17:2V:94:LEU:HD23	17:2V:94:LEU:HA	1.73	0.43
32:2a:233:C:H2'	32:2a:234:C:C6	2.53	0.43
32:2a:418:C:H2'	32:2a:419:C:C6	2.54	0.43
32:2a:429:U:H1'	32:2a:430:A:H5''	2.00	0.43
32:2a:505:G:H2'	32:2a:506:G:C8	2.54	0.43
32:2a:1305:G:H22	32:2a:1331:G:H1'	1.83	0.43
32:2a:1353:G:H1	32:2a:1369:C:N4	2.13	0.43
32:2a:1510:U:H2'	32:2a:1511:G:C8	2.54	0.43
46:2o:78:TYR:CZ	46:2o:82:ILE:HD13	2.53	0.43
53:2v:19:U:H2'	53:2v:20:U:H6	1.82	0.43
1:1A:74:A:H5'	1:1A:75:G:O4'	2.18	0.43
1:1A:890:A:H2'	1:1A:892:G:O4'	2.19	0.43
1:1A:1268:A:C2	1:1A:2013:A:C4	3.06	0.43
1:1A:1598:C:H5''	19:1X:36:LYS:HB2	2.01	0.43
5:1F:29:ASN:HB3	5:1F:112:MET:HE1	2.00	0.43
32:1a:146:G:H2'	32:1a:147:G:C8	2.53	0.43
34:1c:34:LEU:HG	34:1c:38:ARG:HD2	2.00	0.43
36:1e:105:VAL:HB	36:1e:106:PRO:HD3	1.99	0.43
41:1j:61:GLU:OE2	45:1n:58:LYS:HD2	2.19	0.43
44:1m:40:ASN:C	44:1m:42:ALA:H	2.26	0.43
50:1s:67:VAL:O	50:1s:69:HIS:N	2.52	0.43
1:2A:143(A):C:H4'	19:2X:38:GLU:OE2	2.18	0.43
1:2A:629:G:H5''	1:2A:650:C:O2'	2.18	0.43
1:2A:811:U:H2'	11:2P:21:ARG:HA	2.01	0.43
1:2A:2316:C:H2'	1:2A:2317:C:C6	2.54	0.43
1:2A:2319:G:H22	14:2S:3:ARG:NH1	2.16	0.43
4:2E:54:GLN:HE22	4:2E:76:ARG:NH1	2.17	0.43
8:2I:37:VAL:HG12	8:2I:38:LEU:H	1.84	0.43
10:2O:34:THR:OG1	10:2O:35:VAL:N	2.52	0.43
11:2P:38:GLN:HG2	11:2P:45:LEU:H	1.83	0.43
19:2X:44:GLU:HG2	19:2X:49:VAL:O	2.19	0.43
20:2Y:68:HIS:ND1	20:2Y:70:SER:HB3	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:167:G:H2'	32:2a:168:G:H8	1.83	0.43
32:2a:991:U:C5	32:2a:1212:U:H1'	2.53	0.43
44:2m:92:HIS:NE2	44:2m:98:VAL:HG11	2.33	0.43
44:2m:108:ARG:HA	44:2m:112:GLY:H	1.83	0.43
55:2x:10:G:N2	55:2x:26:G:H1'	2.32	0.43
1:1A:403:U:H4'	1:1A:404:C:H5'	2.01	0.43
1:1A:824:A:H1'	1:1A:2358:G:N7	2.34	0.43
1:1A:837:C:N4	61:1A:6515:HOH:O	2.51	0.43
1:1A:971:C:O2'	1:1A:983:A:N3	2.47	0.43
1:1A:1385:G:H1'	1:1A:1386:C:C6	2.53	0.43
1:1A:1903:G:OP1	3:1D:241:PRO:HB2	2.19	0.43
1:1A:2572:A:OP1	1:1A:2574:G:O2'	2.34	0.43
1:1A:2776:A:C6	1:1A:2778:A:C6	3.07	0.43
6:1G:18:GLU:HA	6:1G:21:ARG:HG2	2.01	0.43
17:1V:19:LYS:HA	17:1V:94:LEU:O	2.18	0.43
18:1W:75:TYR:CZ	18:1W:104:THR:HG21	2.54	0.43
20:1Y:51:VAL:HA	20:1Y:55:TYR:O	2.18	0.43
32:1a:176:C:H2'	32:1a:177:C:C6	2.53	0.43
32:1a:418:C:H1'	32:1a:540:G:O2'	2.19	0.43
32:1a:690:G:C6	32:1a:691:G:C6	3.07	0.43
32:1a:696:A:H8	32:1a:696:A:O5'	2.02	0.43
32:1a:1253:G:C6	32:1a:1254:C:C4	3.07	0.43
33:1b:15:VAL:HG12	33:1b:209:ARG:HH12	1.83	0.43
35:1d:194:LEU:HD13	35:1d:194:LEU:HA	1.73	0.43
39:1h:112:LEU:HB3	39:1h:133:LEU:HA	2.01	0.43
46:1o:17:ARG:H	46:1o:17:ARG:HG2	1.52	0.43
48:1q:41:LYS:HD3	48:1q:88:TYR:CE1	2.54	0.43
1:2A:892:G:H3'	1:2A:893:C:H5''	2.01	0.43
1:2A:1425:G:C6	1:2A:1426:G:C6	3.07	0.43
1:2A:2503:2MA:OP2	61:2A:4002:HOH:O	2.21	0.43
6:2G:28:VAL:HA	6:2G:31:VAL:HG23	2.01	0.43
7:2H:89:ILE:HD11	7:2H:131:VAL:HG23	1.99	0.43
20:2Y:73:ARG:NH2	20:2Y:84:ARG:HG3	2.33	0.43
21:2Z:71:VAL:HG13	21:2Z:88:PHE:CE1	2.54	0.43
22:20:25:ARG:HB3	22:20:67:VAL:HG21	1.99	0.43
26:24:13:ARG:HA	26:24:22:ILE:O	2.18	0.43
35:2d:31:CYS:SG	35:2d:33:MET:HB3	2.59	0.43
35:2d:105:VAL:HB	35:2d:117:ALA:HB1	2.01	0.43
36:2e:93:PRO:HG2	39:2h:105:ARG:NE	2.33	0.43
54:2w:26:A:H2'	54:2w:27:G:C8	2.54	0.43
54:2y:7:A:O2'	54:2y:49:C:O4'	2.35	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:2y:22:G:N7	54:2y:46:G7M:N2	2.64	0.43
54:2y:58:A:H4'	54:2y:59:U:OP1	2.17	0.43
1:1A:18:C:O2'	1:1A:554:U:OP1	2.35	0.43
1:1A:458:G:C8	29:17:37:LYS:HG2	2.53	0.43
1:1A:862:G:H2'	1:1A:863:A:O4'	2.18	0.43
1:1A:882:G:N2	1:1A:894:C:N3	2.56	0.43
1:1A:987:G:N7	61:1A:6338:HOH:O	2.36	0.43
1:1A:1426:G:O2'	1:1A:1572:A:N6	2.47	0.43
1:1A:1826:G:H4'	3:1D:242:ARG:CZ	2.48	0.43
1:1A:1849:G:H2'	1:1A:1850:G:H8	1.84	0.43
1:1A:2025:C:H2'	1:1A:2026:C:C6	2.54	0.43
1:1A:2156:G:H2'	1:1A:2157:G:C2	2.54	0.43
1:1A:2647:U:H2'	1:1A:2648:C:C6	2.54	0.43
3:1D:182:LEU:HD23	3:1D:182:LEU:HA	1.88	0.43
9:1N:39:ARG:HH21	9:1N:41:ASP:CG	2.24	0.43
32:1a:458:C:H2'	32:1a:460:G:O4'	2.19	0.43
32:1a:682:G:H2'	32:1a:683:G:O4'	2.19	0.43
32:1a:762:C:H2'	32:1a:763:G:C8	2.54	0.43
32:1a:781:A:H4'	32:1a:1522:U:HO2'	1.84	0.43
32:1a:1399:C:O2	32:1a:1502:A:N6	2.52	0.43
34:1c:8:ILE:HG22	34:1c:16:ARG:HG3	2.01	0.43
34:1c:178:LEU:C	34:1c:180:ALA:H	2.27	0.43
35:1d:65:ARG:NH1	35:1d:72:GLU:HB2	2.34	0.43
35:1d:108:LEU:HD11	35:1d:174:LEU:HD22	2.01	0.43
39:1h:121:ASP:HB2	39:1h:125:ARG:HH21	1.84	0.43
42:1k:84:VAL:CG1	42:1k:91:ARG:HD2	2.49	0.43
1:2A:480:A:OP2	20:2Y:47:LYS:HD3	2.19	0.43
1:2A:563:G:H21	16:2U:37:GLU:CD	2.26	0.43
1:2A:1003:G:N2	1:2A:1153:C:C2	2.87	0.43
1:2A:1022:G:N7	9:2N:66:LYS:HE2	2.34	0.43
1:2A:1703:G:H2'	1:2A:1704:G:C8	2.54	0.43
1:2A:1788:C:OP1	3:2D:222:ARG:NH2	2.52	0.43
1:2A:1818:U:O2'	3:2D:154:LYS:O	2.33	0.43
1:2A:1894:C:H2'	1:2A:1895:C:H6	1.83	0.43
1:2A:1933:G:H2'	1:2A:1934:C:O4'	2.19	0.43
4:2E:44:TYR:OH	4:2E:80:GLU:OE1	2.36	0.43
6:2G:125:PHE:HB3	6:2G:166:ASP:CG	2.43	0.43
10:2O:104:ARG:NH1	10:2O:104:ARG:HB2	2.33	0.43
11:2P:60:MET:O	30:28:13:ARG:NH2	2.50	0.43
11:2P:81:GLN:OE1	11:2P:106:LEU:HD12	2.19	0.43
23:21:72:GLU:O	23:21:76:ARG:HG2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:337:C:H2'	32:2a:338:A:C8	2.53	0.43
32:2a:572:A:OP1	61:2a:3319:HOH:O	2.21	0.43
32:2a:654:G:H2'	32:2a:655:A:O4'	2.18	0.43
32:2a:1123:A:H4'	41:2j:37:PRO:HD2	2.01	0.43
32:2a:1134:G:C2	32:2a:1135:U:H1'	2.54	0.43
32:2a:1244:C:H42	32:2a:1293:G:H1	1.67	0.43
33:2b:91:PRO:HG2	33:2b:155:LEU:HD13	2.01	0.43
33:2b:207:ALA:O	33:2b:211:ILE:HG13	2.19	0.43
36:2e:50:GLU:HB3	36:2e:52:PRO:HD2	2.00	0.43
47:2p:5:ARG:NH2	47:2p:28:ARG:HA	2.31	0.43
1:1A:581:C:H2'	1:1A:582:G:H8	1.84	0.43
1:1A:910:A:N1	1:1A:2277:G:H1'	2.34	0.43
1:1A:1124:C:H1'	31:19:36:GLN:OE1	2.19	0.43
1:1A:2107:C:H42	1:1A:2182:G:H1	1.65	0.43
1:1A:2151:G:H2'	1:1A:2152:G:C8	2.54	0.43
5:1F:185:ASP:OD1	5:1F:188:ARG:HD3	2.19	0.43
13:1R:8:ARG:HG3	13:1R:43:GLU:OE2	2.19	0.43
15:1T:35:LYS:HB3	15:1T:35:LYS:HE2	1.68	0.43
20:1Y:54:LYS:C	20:1Y:56:PRO:HD3	2.44	0.43
26:14:49:PHE:HB3	26:14:50:VAL:H	1.45	0.43
32:1a:427:U:OP1	35:1d:13:ARG:NH1	2.47	0.43
32:1a:881:G:P	43:1l:12:ARG:HH22	2.41	0.43
32:1a:1418:A:H5''	32:1a:1419:G:OP2	2.19	0.43
35:1d:22:LYS:HB2	35:1d:26:CYS:SG	2.59	0.43
35:1d:68:TYR:OH	35:1d:98:GLU:OE2	2.25	0.43
39:1h:51:VAL:HG21	39:1h:60:ARG:HH11	1.83	0.43
41:1j:53:PRO:O	45:1n:41:ARG:NH2	2.51	0.43
51:1t:40:ALA:HB2	51:1t:55:ILE:HG22	2.01	0.43
54:1y:15:G:N2	54:1y:21:A:N3	2.67	0.43
1:2A:71:A:H5''	1:2A:73:A:N9	2.33	0.43
1:2A:459:U:H5''	29:27:40:TRP:CD2	2.54	0.43
1:2A:635:C:O2	1:2A:639:U:H5''	2.19	0.43
1:2A:947:G:N2	1:2A:971:C:C2	2.87	0.43
1:2A:1360:A:N6	1:2A:1371:G:O2'	2.41	0.43
1:2A:2131:G:C8	1:2A:2133:G:C2	3.07	0.43
1:2A:2567:G:H2'	1:2A:2568:C:C6	2.53	0.43
2:2B:31:C:H42	2:2B:51:G:H1	1.66	0.43
21:2Z:44:PHE:CZ	21:2Z:86:VAL:HG21	2.53	0.43
22:20:15:ASP:OD1	22:20:16:SER:N	2.40	0.43
24:22:63:VAL:HA	24:22:66:GLU:HB2	2.01	0.43
32:2a:528:C:H41	43:2l:49:ASN:ND2	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:530:G:N3	54:2w:35:A:O2'	2.46	0.43
32:2a:567:G:H2'	32:2a:568:G:O4'	2.18	0.43
33:2b:167:PRO:HG2	33:2b:192:SER:HB3	1.99	0.43
35:2d:155:LEU:HA	35:2d:155:LEU:HD23	1.78	0.43
40:2i:25:LYS:HE2	40:2i:25:LYS:HA	2.01	0.43
43:2l:69:TYR:HE2	43:2l:71:PRO:HA	1.83	0.43
43:2l:79:GLU:HG2	43:2l:80:HIS:CD2	2.54	0.43
50:2s:30:LEU:HD21	50:2s:32:LYS:HD3	2.00	0.43
54:2w:68:C:H2'	54:2w:69:G:C8	2.54	0.43
54:2y:14:A:N1	54:2y:15:G:N2	2.67	0.43
1:1A:1775:U:OP1	61:1A:6208:HOH:O	2.21	0.43
1:1A:2124:G:H1	1:1A:2174:C:H42	1.66	0.43
61:1A:6872:HOH:O	4:1E:145:LYS:HE2	2.19	0.43
5:1F:154:VAL:HG22	5:1F:191:ARG:HB2	2.01	0.43
5:1F:185:ASP:HA	5:1F:188:ARG:HB2	2.00	0.43
7:1H:20:ALA:HB1	7:1H:21:PRO:HD2	2.00	0.43
16:1U:92:ARG:HA	16:1U:95:LEU:HB2	1.99	0.43
32:1a:246:A:N1	32:1a:278:G:O2'	2.45	0.43
32:1a:401:C:H2'	32:1a:402:G:C8	2.54	0.43
32:1a:431:A:H2'	32:1a:432:A:O4'	2.19	0.43
32:1a:1037:C:H2'	32:1a:1038:C:H6	1.83	0.43
32:1a:1215:G:C2	32:1a:1216:G:C8	3.07	0.43
32:1a:1239:A:C4	32:1a:1298:C:N4	2.87	0.43
39:1h:14:ARG:O	39:1h:18:ARG:HG3	2.19	0.43
46:1o:11:VAL:HG21	46:1o:34:LEU:HD22	2.01	0.43
50:1s:28:LYS:HB3	50:1s:29:ARG:H	1.64	0.43
51:1t:44:ALA:HB2	51:1t:88:VAL:HG13	2.00	0.43
51:1t:71:THR:O	51:1t:72:LEU:HD23	2.19	0.43
1:2A:79:G:H2'	1:2A:80:G:C8	2.54	0.43
1:2A:223:A:N1	1:2A:407:G:O2'	2.47	0.43
1:2A:600:G:O3'	5:2F:108:LYS:HE3	2.19	0.43
1:2A:648:G:O2'	1:2A:2351:G:OP1	2.22	0.43
1:2A:856:C:HO2'	1:2A:857:C:P	2.41	0.43
1:2A:887:A:H4'	1:2A:888:C:C5	2.53	0.43
1:2A:964:C:O2'	1:2A:2273:A:N3	2.45	0.43
1:2A:1378:A:O2'	1:2A:1379:A:H5''	2.19	0.43
1:2A:1445(A):C:H42	1:2A:1466:G:H1	1.67	0.43
1:2A:1721:G:H5'	1:2A:1722:A:OP2	2.19	0.43
1:2A:2149:G:H2'	1:2A:2150:U:O4'	2.19	0.43
1:2A:2286:A:H4'	1:2A:2287:A:O4'	2.19	0.43
1:2A:2398:U:H2'	1:2A:2399:G:H8	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:11:TYR:O	6:2G:15:VAL:HB	2.19	0.43
7:2H:70:THR:HA	7:2H:73:ALA:HB3	2.00	0.43
11:2P:2:LYS:HG2	11:2P:3:LEU:N	2.34	0.43
21:2Z:57:ILE:O	21:2Z:69:THR:N	2.50	0.43
21:2Z:144:LEU:HD23	21:2Z:174:VAL:HG12	2.00	0.43
22:20:36:ILE:HD13	22:20:60:PHE:HB3	2.01	0.43
24:22:65:ASN:O	24:22:69:ARG:NH1	2.52	0.43
28:26:29:ASN:OD1	28:26:29:ASN:N	2.52	0.43
32:2a:114:U:H2'	32:2a:115:G:C8	2.53	0.43
32:2a:224:C:H2'	32:2a:225:C:H6	1.84	0.43
32:2a:241:C:C2	32:2a:286:G:C2	3.07	0.43
32:2a:596:C:H2'	32:2a:597:G:O4'	2.19	0.43
32:2a:1014:A:H2	32:2a:1219:U:H1'	1.84	0.43
32:2a:1417:G:C6	32:2a:1482:G:C6	3.07	0.43
32:2a:1422:G:H2'	32:2a:1423:G:H8	1.83	0.43
54:2w:8:4SU:H1'	54:2w:48:C:H1'	2.00	0.43
55:2x:61:C:H2'	55:2x:62:C:C6	2.54	0.43
1:1A:1059:G:H8	1:1A:1060:U:H2'	1.84	0.42
1:1A:1085:A:HO2'	1:1A:1104:C:HO2'	1.66	0.42
1:1A:1396:U:H6	1:1A:1396:U:H2'	1.72	0.42
1:1A:2136:C:N4	1:1A:2155:G:H1	2.16	0.42
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.54	0.42
2:1B:24:G:N7	2:1B:56:G:H2'	2.34	0.42
6:1G:130:ASN:OD1	6:1G:160:VAL:HG13	2.19	0.42
8:1I:37:VAL:HG12	8:1I:38:LEU:HD23	2.01	0.42
21:1Z:126:VAL:HG12	21:1Z:128:VAL:HB	2.01	0.42
21:1Z:158:PRO:O	21:1Z:161:VAL:HG22	2.19	0.42
22:10:56:ASP:OD1	22:10:58:THR:OG1	2.36	0.42
23:11:50:ARG:HG2	23:11:59:THR:HG23	2.01	0.42
24:12:61:LEU:HA	24:12:61:LEU:HD23	1.83	0.42
32:1a:652:U:O4	32:1a:752:G:O2'	2.33	0.42
32:1a:848:C:H2'	32:1a:849:C:C6	2.54	0.42
34:1c:178:LEU:HD13	34:1c:178:LEU:HA	1.80	0.42
35:1d:165:MET:HB3	35:1d:176:LEU:HD13	2.01	0.42
45:1n:33:VAL:HA	45:1n:40:CYS:HA	2.01	0.42
1:2A:1858:G:H21	1:2A:1883:G:H2'	1.84	0.42
1:2A:2375:G:O2'	1:2A:2377:A:N7	2.43	0.42
6:2G:7:LEU:HD22	6:2G:104:GLU:N	2.33	0.42
6:2G:96:ARG:O	6:2G:99:MET:HB3	2.18	0.42
13:2R:44:LEU:HD12	13:2R:44:LEU:HA	1.90	0.42
25:23:18:ASP:OD1	25:23:19:GLN:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:26:25:LYS:NZ	28:26:30:THR:O	2.49	0.42
32:2a:509:A:H5'	35:2d:55:ALA:HB2	2.00	0.42
32:2a:951:G:O2'	32:2a:970:C:O2'	2.37	0.42
32:2a:1206:G:C6	32:2a:1207:2MG:C5	3.07	0.42
41:2j:7:LYS:HG2	41:2j:9:ARG:HH12	1.84	0.42
43:2l:28:LYS:HB2	43:2l:33:ARG:HH21	1.84	0.42
49:2r:52:PRO:O	49:2r:56:THR:HG23	2.19	0.42
53:2v:16:A:H2'	53:2v:17:U:O4'	2.19	0.42
1:1A:1337:G:H2'	1:1A:1338:G:O4'	2.19	0.42
1:1A:2369:A:H2'	1:1A:2370:G:H8	1.84	0.42
7:1H:83:TYR:CE2	7:1H:138:LYS:HB2	2.54	0.42
11:1P:81:GLN:OE1	11:1P:106:LEU:HD12	2.19	0.42
18:1W:24:ILE:HG13	18:1W:71:VAL:HG11	2.01	0.42
21:1Z:128:VAL:HG23	21:1Z:161:VAL:HG12	2.00	0.42
32:1a:113:G:N3	32:1a:353:A:O2'	2.52	0.42
32:1a:868:C:H2'	32:1a:869:G:O4'	2.18	0.42
32:1a:942:G:H21	40:1i:124:GLN:HE22	1.68	0.42
32:1a:1486:G:H2'	32:1a:1487:G:C8	2.54	0.42
34:1c:61:ALA:C	34:1c:63:ASN:H	2.27	0.42
50:1s:31:ILE:O	50:1s:50:ALA:N	2.40	0.42
54:1y:57:G:H2'	54:1y:57:G:N3	2.34	0.42
1:2A:127:A:H5''	1:2A:128:C:O4'	2.19	0.42
1:2A:185:U:H2'	1:2A:186:G:H8	1.84	0.42
1:2A:956:G:H2'	1:2A:957:A:H2'	2.01	0.42
1:2A:996:A:H4'	16:2U:91:ASP:OD2	2.19	0.42
1:2A:1130:U:O2	1:2A:2025:C:H5''	2.19	0.42
1:2A:1152:C:H2'	1:2A:1153:C:C6	2.53	0.42
1:2A:1161:C:H2'	1:2A:1162:G:C8	2.53	0.42
1:2A:1439:A:H2'	1:2A:1440:G:O4'	2.19	0.42
1:2A:1581:G:H2'	1:2A:1582:C:O4'	2.19	0.42
1:2A:2307:G:H8	1:2A:2307:G:OP1	2.02	0.42
1:2A:2470:G:C2	1:2A:2471:C:C6	3.07	0.42
1:2A:2512:C:H2'	1:2A:2513:G:O4'	2.19	0.42
2:2B:7:G:H2'	2:2B:8:U:O4'	2.19	0.42
8:2I:50:ARG:O	8:2I:54:GLN:N	2.52	0.42
10:2O:63:VAL:HG12	10:2O:106:LEU:HD21	2.00	0.42
21:2Z:137:ILE:HA	21:2Z:156:LYS:NZ	2.34	0.42
32:2a:576:G:N2	32:2a:759:A:OP1	2.49	0.42
32:2a:707:C:H2'	32:2a:708:C:C6	2.54	0.42
32:2a:1005:A:OP2	32:2a:1006:C:N4	2.52	0.42
32:2a:1028:C:H2'	32:2a:1029:C:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1138:G:O2'	32:2a:1140:C:OP1	2.37	0.42
33:2b:24:TRP:H	33:2b:24:TRP:HD1	1.64	0.42
34:2c:36:ASP:OD1	34:2c:57:ILE:HG12	2.18	0.42
47:2p:8:ARG:HH21	47:2p:15:PRO:HG3	1.84	0.42
54:2w:51:U:H3	54:2w:63:G:H1	1.66	0.42
1:1A:41:C:H2'	1:1A:42:G:H8	1.85	0.42
1:1A:698:C:O2'	1:1A:734:A:N6	2.52	0.42
1:1A:1674:G:H1'	1:1A:1676:A:N6	2.33	0.42
1:1A:2628:C:H5''	1:1A:2629:A:O5'	2.19	0.42
4:1E:97:LYS:O	4:1E:100:GLU:HG3	2.19	0.42
4:1E:119:ARG:HG2	4:1E:120:TRP:NE1	2.33	0.42
8:1I:124:GLY:H	8:1I:144:VAL:HG23	1.83	0.42
20:1Y:99:CYS:HB2	20:1Y:106:LEU:HD21	2.02	0.42
32:1a:116:A:H61	32:1a:313:A:H1'	1.84	0.42
32:1a:1061:G:H1'	41:1j:56:HIS:CE1	2.54	0.42
43:1l:53:ARG:HB2	43:1l:93:LEU:HD11	2.01	0.42
51:1t:100:ILE:HG13	51:1t:101:GLY:H	1.84	0.42
1:2A:118:A:OP2	1:2A:119:A:H2'	2.20	0.42
1:2A:227:A:H61	1:2A:410:G:H21	1.68	0.42
1:2A:251:A:H2'	1:2A:252:G:O4'	2.18	0.42
1:2A:1467:C:C5	1:2A:1546:C:H2'	2.54	0.42
1:2A:1676:A:H2'	1:2A:1677:A:O4'	2.19	0.42
1:2A:1921:G:H2'	1:2A:1922:G:C8	2.55	0.42
1:2A:2265:U:C4	1:2A:2266:A:C5	3.08	0.42
1:2A:2427:C:H5''	1:2A:2428:G:OP1	2.19	0.42
1:2A:2745:C:C4	1:2A:2746:U:C4	3.06	0.42
2:2B:8:U:O3'	14:2S:25:ARG:NH2	2.39	0.42
5:2F:41:LEU:O	5:2F:44:ARG:HG2	2.19	0.42
6:2G:25:TYR:CD2	6:2G:31:VAL:HG22	2.54	0.42
9:2N:12:ARG:HB3	9:2N:50:ASP:OD1	2.19	0.42
15:2T:53:ARG:HG3	15:2T:53:ARG:O	2.19	0.42
20:2Y:37:VAL:N	20:2Y:67:LEU:O	2.39	0.42
21:2Z:1:MET:O	21:2Z:55:HIS:ND1	2.42	0.42
21:2Z:53:ILE:O	21:2Z:70:LEU:HD11	2.19	0.42
21:2Z:70:LEU:HD12	21:2Z:71:VAL:H	1.84	0.42
32:2a:27:G:H8	32:2a:27:G:O5'	2.01	0.42
32:2a:390:C:O3'	47:2p:28:ARG:NH2	2.53	0.42
32:2a:571:U:O2	32:2a:918:A:H5'	2.19	0.42
32:2a:1225:A:H2'	32:2a:1226:C:C5	2.54	0.42
35:2d:173:TRP:CZ3	35:2d:193:ASP:HB3	2.54	0.42
41:2j:16:LEU:HD23	41:2j:16:LEU:HA	1.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:2k:41:THR:OG1	42:2k:42:TRP:N	2.51	0.42
1:1A:548:A:H4'	1:1A:549:G:OP2	2.20	0.42
1:1A:783:A:N3	1:1A:783:A:H2'	2.33	0.42
1:1A:1432:C:H2'	1:1A:1433:U:O4'	2.18	0.42
1:1A:1886:C:H2'	1:1A:1887:C:H6	1.84	0.42
1:1A:2461:C:H2'	1:1A:2462:U:H6	1.84	0.42
1:1A:2853:C:H42	1:1A:2864:G:H1	1.65	0.42
14:1S:82:ILE:HG22	14:1S:110:LEU:HD11	2.02	0.42
18:1W:65:LEU:HB2	18:1W:68:ARG:HB2	2.01	0.42
21:1Z:8:TYR:CD2	21:1Z:8:TYR:N	2.87	0.42
26:14:61:ARG:NH2	50:1s:9:VAL:HG21	2.35	0.42
30:18:23:VAL:HG13	30:18:47:LYS:HB3	2.01	0.42
30:18:25:MET:HE3	30:18:25:MET:HB3	1.86	0.42
32:1a:363:A:C6	43:1l:31:PRO:HD2	2.54	0.42
32:1a:872:A:C8	32:1a:874:G:C8	3.07	0.42
32:1a:1054:C:C4	32:1a:1196:U:H5	2.35	0.42
32:1a:1118:C:H1'	32:1a:1179:A:C5	2.54	0.42
39:1h:127:LEU:O	39:1h:129:VAL:HG13	2.19	0.42
43:1l:60:LEU:HD11	43:1l:66:VAL:HG22	2.01	0.42
47:1p:6:LEU:HB3	47:1p:17:TYR:CD1	2.54	0.42
51:1t:57:ARG:NH1	51:1t:101:GLY:O	2.53	0.42
54:1y:56:C:H2'	54:1y:57:G:O4'	2.19	0.42
1:2A:584:C:H2'	1:2A:585:G:O4'	2.19	0.42
1:2A:862:G:H2'	1:2A:863:A:O4'	2.19	0.42
1:2A:1036:G:H2'	1:2A:1037:G:O4'	2.20	0.42
1:2A:1294:U:O2	13:2R:23:ASN:ND2	2.53	0.42
1:2A:1364:G:P	23:21:3:LYS:HG3	2.58	0.42
15:2T:108:ARG:NH2	32:2a:1465:C:OP2	2.52	0.42
32:2a:164:U:H2'	32:2a:165:C:H6	1.84	0.42
32:2a:284:G:H2'	32:2a:285:G:C8	2.55	0.42
32:2a:645:C:H2'	32:2a:646:U:O4'	2.20	0.42
32:2a:730:G:C5	32:2a:731:G:H1'	2.54	0.42
40:2i:50:LEU:HB2	40:2i:55:ALA:O	2.19	0.42
42:2k:85:ARG:HD3	42:2k:113:PRO:HD3	2.02	0.42
54:2y:64:A:C2'	54:2y:65:G:H5'	2.50	0.42
1:1A:1085:A:O2'	1:1A:1104:C:O2'	2.35	0.42
1:1A:2023:G:H4'	1:1A:2617:C:O3'	2.19	0.42
1:1A:2111:C:C2	1:1A:2118:U:H5'	2.55	0.42
1:1A:2111:C:O2	1:1A:2118:U:H5'	2.19	0.42
1:1A:2593:U:H2'	1:1A:2594:C:C6	2.55	0.42
2:1B:74:U:H2'	2:1B:75:G:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:78:A:C2	2:1B:100:A:C4	3.08	0.42
3:1D:38:LYS:C	3:1D:38:LYS:HD3	2.44	0.42
8:1I:87:LYS:HD3	8:1I:87:LYS:H	1.82	0.42
15:1T:57:PHE:HA	15:1T:79:HIS:CD2	2.55	0.42
15:1T:127:ALA:C	15:1T:129:ARG:N	2.78	0.42
19:1X:94:GLY:N	19:1X:95:LEU:HB2	2.35	0.42
32:1a:19:C:H4'	32:1a:864:A:O4'	2.19	0.42
32:1a:237:C:H5''	48:1q:25:ARG:NH2	2.34	0.42
32:1a:457:C:H2'	32:1a:458:C:C6	2.54	0.42
32:1a:530:G:N3	54:1w:35:A:O2'	2.44	0.42
32:1a:679:C:H2'	32:1a:680:C:C6	2.55	0.42
32:1a:1121:U:H2'	32:1a:1122:U:C6	2.53	0.42
34:1c:148:GLY:HA3	34:1c:172:ARG:O	2.19	0.42
36:1e:131:ILE:HD13	36:1e:131:ILE:HA	1.80	0.42
38:1g:78:ARG:HE	38:1g:79:ARG:NH1	2.17	0.42
46:1o:11:VAL:HG12	46:1o:30:ALA:HB1	2.01	0.42
46:1o:88:ARG:NE	46:1o:88:ARG:HA	2.34	0.42
47:1p:54:GLU:O	47:1p:57:ARG:HB3	2.19	0.42
48:1q:10:VAL:HA	48:1q:20:THR:O	2.19	0.42
50:1s:12:ASP:C	50:1s:14:HIS:H	2.26	0.42
1:2A:27:G:C2	1:2A:512:G:N3	2.87	0.42
1:2A:236:C:H2'	1:2A:237:C:H6	1.83	0.42
1:2A:466:A:H5'	29:27:21:ARG:NH2	2.35	0.42
1:2A:1164:G:H2'	1:2A:1165:U:O4'	2.19	0.42
1:2A:1551:C:H2'	1:2A:1552:G:O4'	2.19	0.42
1:2A:1814:G:H2'	1:2A:1815:A:C8	2.55	0.42
32:2a:71:C:H2'	32:2a:72:C:O4'	2.19	0.42
32:2a:109:A:C6	32:2a:326:G:C6	3.07	0.42
32:2a:571:U:O4	32:2a:864:A:N6	2.52	0.42
32:2a:742:G:OP2	46:2o:35:ARG:NH2	2.51	0.42
35:2d:25:ARG:O	35:2d:31:CYS:HB2	2.19	0.42
35:2d:63:LYS:HD2	35:2d:198:VAL:HG22	2.00	0.42
43:2l:32:PHE:HB3	43:2l:84:LEU:HD11	2.01	0.42
50:2s:17:GLU:HG2	50:2s:21:GLU:OE2	2.19	0.42
54:2w:68:C:H2'	54:2w:69:G:H8	1.84	0.42
1:1A:1252:G:C2	1:1A:1253:A:C2	3.08	0.42
1:1A:1399:C:OP1	19:1X:25:LYS:NZ	2.53	0.42
1:1A:2001:A:H2'	1:1A:2002:G:C8	2.54	0.42
1:1A:2066:C:O2'	1:1A:2067:G:H5'	2.19	0.42
1:1A:2370:G:C6	1:1A:2371:G:C6	3.08	0.42
1:1A:2836:U:H2'	1:1A:2837:G:C8	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:108:PRO:HD2	3:1D:111:LEU:HD22	2.01	0.42
8:1I:95:LYS:NZ	8:1I:99:GLU:OE2	2.34	0.42
21:1Z:11:GLU:HA	21:1Z:36:LYS:HE3	2.01	0.42
23:11:73:LEU:HD23	23:11:73:LEU:HA	1.93	0.42
32:1a:300:A:O2'	32:1a:564:C:N3	2.48	0.42
32:1a:673:G:O3'	37:1f:87:ARG:NH2	2.52	0.42
32:1a:748:C:H1'	32:1a:749:C:OP2	2.19	0.42
32:1a:1260:C:O5'	32:1a:1284:C:H4'	2.20	0.42
32:1a:1456:G:H22	51:1t:51:GLU:CD	2.28	0.42
36:1e:110:LEU:HB3	36:1e:115:VAL:HB	2.01	0.42
41:1j:54:PHE:CD2	41:1j:55:LYS:HB3	2.55	0.42
42:1k:59:TYR:O	42:1k:63:LEU:HG	2.20	0.42
44:1m:5:ALA:HA	44:1m:61:GLU:OE2	2.20	0.42
44:1m:108:ARG:HD3	44:1m:108:ARG:HA	1.65	0.42
45:1n:24:CYS:HB3	45:1n:28:GLY:H	1.84	0.42
47:1p:13:HIS:C	47:1p:15:PRO:HD3	2.44	0.42
49:1r:73:ALA:HB3	49:1r:79:LEU:HD22	2.00	0.42
51:1t:43:LEU:HD22	51:1t:48:LYS:HD2	2.01	0.42
51:1t:77:ALA:HA	51:1t:80:ARG:HB2	2.02	0.42
54:1y:19:G:N1	54:1y:56:C:N4	2.67	0.42
1:2A:137:C:N4	1:2A:139:G:O6	2.52	0.42
1:2A:272:G:N7	1:2A:421:U:H2'	2.34	0.42
1:2A:1324:G:O6	61:2A:4000:HOH:O	2.21	0.42
1:2A:2074:U:H2'	1:2A:2075:U:C6	2.55	0.42
6:2G:163:ALA:HB1	6:2G:168:GLU:HB2	2.02	0.42
9:2N:131:GLN:H	9:2N:131:GLN:HG2	1.64	0.42
13:2R:2:ARG:HA	13:2R:5:LYS:HD2	2.02	0.42
14:2S:26:LEU:HD22	14:2S:87:PHE:CD1	2.54	0.42
18:2W:78:GLU:OE2	18:2W:99:ARG:HD3	2.20	0.42
25:23:24:LYS:HB2	25:23:24:LYS:HE3	1.89	0.42
30:28:34:TRP:CG	30:28:35:GLN:N	2.87	0.42
32:2a:66:G:H8	32:2a:66:G:OP1	2.03	0.42
32:2a:537:G:H2'	32:2a:538:G:H8	1.85	0.42
32:2a:921:U:H2'	32:2a:922:G:O4'	2.20	0.42
32:2a:922:G:C6	32:2a:923:A:C6	3.08	0.42
32:2a:1073:U:H2'	32:2a:1074:G:H8	1.85	0.42
32:2a:1142:G:H3'	32:2a:1143:G:H8	1.84	0.42
32:2a:1273:G:C6	32:2a:1274:G:C4	3.08	0.42
32:2a:1352:C:OP1	52:2u:3:LYS:NZ	2.38	0.42
33:2b:210:SER:C	33:2b:212:GLN:H	2.28	0.42
34:2c:111:LEU:HD23	34:2c:111:LEU:HA	1.80	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:195:ALA:O	35:2d:196:LEU:HD23	2.19	0.42
39:2h:121:ASP:O	39:2h:125:ARG:NE	2.52	0.42
41:2j:40:LEU:HB2	41:2j:69:ASN:HB2	2.01	0.42
46:2o:9:GLN:O	46:2o:13:GLN:HG3	2.20	0.42
1:1A:897:C:H2'	1:1A:898:C:C6	2.55	0.42
1:1A:2567:G:H2'	1:1A:2568:C:C6	2.55	0.42
1:1A:2585:U:C4	58:1A:4085:A1AIX:OBN	2.72	0.42
2:1B:96:U:H2'	2:1B:97:G:C8	2.55	0.42
2:1B:110:G:H2'	2:1B:111:G:C8	2.55	0.42
4:1E:54:GLN:OE1	4:1E:55:ASN:N	2.46	0.42
4:1E:92:THR:C	4:1E:94:GLU:H	2.27	0.42
9:1N:34:LEU:O	9:1N:49:GLY:HA3	2.19	0.42
11:1P:101:VAL:HG21	11:1P:108:LYS:HG2	2.02	0.42
13:1R:72:ASP:O	13:1R:76:VAL:HG23	2.20	0.42
31:19:12:ASP:OD1	31:19:13:LYS:N	2.53	0.42
32:1a:722:A:N6	32:1a:724:G:C2	2.88	0.42
32:1a:945:G:N1	32:1a:1337:G:C2	2.88	0.42
35:1d:108:LEU:HD21	35:1d:183:GLY:HA3	2.01	0.42
40:1i:47:LEU:HB3	40:1i:50:LEU:HD11	2.01	0.42
41:1j:55:LYS:HE3	41:1j:56:HIS:CE1	2.55	0.42
1:2A:521:G:H2'	1:2A:522:G:H8	1.84	0.42
1:2A:1580:A:H3'	1:2A:1581:G:C8	2.52	0.42
3:2D:159:ALA:HB1	3:2D:198:ASN:O	2.20	0.42
5:2F:51:THR:HG21	5:2F:91:GLY:HA3	2.00	0.42
8:2I:130:TYR:CE2	8:2I:132:PRO:HB3	2.55	0.42
21:2Z:104:PHE:CD2	21:2Z:139:VAL:HB	2.54	0.42
32:2a:88:A:H5''	32:2a:89:C:C5	2.55	0.42
32:2a:553:A:H2'	32:2a:554:C:C6	2.55	0.42
32:2a:1006:C:C4	32:2a:1007:C:C4	3.08	0.42
34:2c:122:GLU:HA	34:2c:125:GLU:OE2	2.19	0.42
36:2e:9:LYS:HB2	36:2e:112:LEU:HD11	2.01	0.42
37:2f:61:LEU:HD22	37:2f:63:TYR:HE2	1.83	0.42
41:2j:47:PHE:CZ	45:2n:37:PHE:HE2	2.38	0.42
55:2x:17:C:OP2	55:2x:18:G:H5''	2.20	0.42
1:1A:1287:A:C5	1:1A:1288:U:C4	3.08	0.42
4:1E:59:VAL:HG21	4:1E:74:PRO:HB3	2.02	0.42
11:1P:38:GLN:O	11:1P:40:SER:N	2.46	0.42
20:1Y:5:MET:HE2	20:1Y:5:MET:HB2	1.67	0.42
26:14:9:LEU:HD23	26:14:9:LEU:HA	1.88	0.42
26:14:58:ARG:O	26:14:61:ARG:HG2	2.19	0.42
32:1a:200:G:H1	32:1a:217:C:H42	1.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:432:A:H3'	32:1a:433:C:H6	1.84	0.42
32:1a:472:A:H2'	32:1a:473:G:O4'	2.20	0.42
32:1a:1025:U:O2	32:1a:1036:G:C6	2.71	0.42
32:1a:1318:A:H5''	50:1s:3:ARG:NH1	2.35	0.42
32:1a:1329:A:P	44:1m:28:ALA:HB3	2.60	0.42
33:1b:67:THR:HG22	33:1b:159:PRO:HB3	2.02	0.42
34:1c:58:GLU:O	34:1c:64:VAL:HG23	2.20	0.42
35:1d:178:VAL:C	35:1d:180:GLY:N	2.78	0.42
39:1h:69:ARG:HG3	39:1h:76:PRO:HA	2.02	0.42
42:1k:48:ILE:C	42:1k:50:TYR:H	2.28	0.42
47:1p:15:PRO:O	47:1p:16:HIS:ND1	2.53	0.42
52:1u:20:LYS:HE2	52:1u:20:LYS:HB3	1.85	0.42
1:2A:61:G:H8	1:2A:61:G:O5'	2.03	0.42
1:2A:394:A:N6	1:2A:395:U:O4	2.52	0.42
1:2A:580:C:H2'	1:2A:581:C:C6	2.55	0.42
1:2A:661:C:H2'	1:2A:662:G:C8	2.55	0.42
1:2A:996:A:N6	1:2A:1160:G:C6	2.87	0.42
1:2A:1203:G:OP2	1:2A:1204:A:O2'	2.25	0.42
1:2A:1561:G:H2'	1:2A:1562:A:C8	2.54	0.42
1:2A:1636:C:OP2	61:2A:3997:HOH:O	2.21	0.42
1:2A:1682:G:H2'	1:2A:1683:C:C6	2.54	0.42
1:2A:2422:A:N7	30:28:31:HIS:HE1	2.17	0.42
1:2A:2692:C:H1'	1:2A:2847:U:H1'	2.01	0.42
2:2B:30:C:H2'	2:2B:31:C:H5'	2.02	0.42
3:2D:78:LYS:HE3	3:2D:78:LYS:HB2	1.90	0.42
6:2G:11:TYR:HB2	6:2G:176:LEU:HD21	2.02	0.42
7:2H:3:ARG:NH1	7:2H:4:ILE:H	2.18	0.42
20:2Y:52:SER:HB2	20:2Y:53:PRO:HD2	2.02	0.42
21:2Z:35:ARG:HD2	21:2Z:35:ARG:HA	1.76	0.42
21:2Z:157:LEU:HB3	21:2Z:161:VAL:HG13	2.02	0.42
32:2a:878:G:OP1	39:2h:88:LYS:HB3	2.19	0.42
32:2a:1005:A:H8	32:2a:1024:G:H21	1.68	0.42
32:2a:1232:U:H2'	32:2a:1233:G:O4'	2.20	0.42
32:2a:1268:A:H2'	32:2a:1269:A:C8	2.54	0.42
32:2a:1330:U:H4'	44:2m:23:TYR:CE1	2.54	0.42
38:2g:16:LEU:HD22	40:2i:41:VAL:O	2.20	0.42
42:2k:95:ILE:H	42:2k:95:ILE:HG13	1.52	0.42
47:2p:28:ARG:HG2	47:2p:29:ASP:OD1	2.19	0.42
1:1A:1010:A:N3	1:1A:1153:C:H1'	2.34	0.42
1:1A:1047:G:N2	1:1A:1110:G:O2'	2.52	0.42
1:1A:1173:G:OP2	1:1A:1173:G:H2'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1472:A:H2'	1:1A:1473:G:O4'	2.20	0.42
1:1A:1810:A:H2'	1:1A:1811:G:O4'	2.19	0.42
1:1A:1838:C:C2	1:1A:1898:U:C4	3.08	0.42
1:1A:1913:A:C8	32:1a:1494:G:H4'	2.54	0.42
1:1A:2183:C:H2'	1:1A:2184:G:H8	1.84	0.42
1:1A:2322:A:H2'	1:1A:2323:G:O4'	2.19	0.42
3:1D:123:ALA:HB3	3:1D:131:LEU:HG	2.02	0.42
4:1E:29:GLY:H	4:1E:93:VAL:CG1	2.33	0.42
7:1H:101:ARG:NH2	7:1H:121:ILE:O	2.53	0.42
8:1I:92:VAL:HG11	8:1I:144:VAL:HG11	2.02	0.42
10:1O:34:THR:OG1	10:1O:35:VAL:N	2.52	0.42
32:1a:947:G:H2'	32:1a:948:C:C6	2.55	0.42
32:1a:1342:C:H1'	40:1i:124:GLN:NE2	2.35	0.42
34:1c:131:ARG:NH1	34:1c:166:GLU:HG3	2.31	0.42
36:1e:151:LEU:HA	36:1e:151:LEU:HD23	1.85	0.42
40:1i:96:LEU:HD22	40:1i:96:LEU:HA	1.86	0.42
51:1t:36:LEU:O	51:1t:40:ALA:N	2.40	0.42
54:1w:4:C:H2'	54:1w:5:G:C8	2.55	0.42
1:2A:196:A:O2'	1:2A:805:G:O6	2.25	0.42
1:2A:271(K):U:O2	8:2I:50:ARG:NH2	2.52	0.42
1:2A:322:A:OP1	5:2F:168:ARG:HD2	2.20	0.42
1:2A:627:A:O4'	1:2A:637:A:N6	2.52	0.42
1:2A:823:G:C2'	1:2A:824:A:H5'	2.50	0.42
1:2A:949:C:N4	61:2A:4188:HOH:O	2.52	0.42
1:2A:1523:U:H2'	1:2A:1524:G:H8	1.84	0.42
1:2A:1788:C:C2	1:2A:1789:A:C8	3.07	0.42
1:2A:1954:G:O2'	1:2A:1956:U:O4	2.34	0.42
1:2A:2467:C:OP1	31:29:6:SER:OG	2.30	0.42
6:2G:75:LYS:HA	6:2G:84:LYS:HB3	2.00	0.42
7:2H:3:ARG:HA	7:2H:3:ARG:HD2	1.30	0.42
20:2Y:18:GLY:C	20:2Y:20:TYR:H	2.27	0.42
24:22:38:GLN:HG2	24:22:44:LEU:HB2	2.01	0.42
30:28:28:GLY:O	30:28:36:LYS:NZ	2.50	0.42
32:2a:134:A:H61	47:2p:25:ARG:HH12	1.68	0.42
32:2a:565:U:OP2	32:2a:566:G:O2'	2.23	0.42
32:2a:600:C:H2'	32:2a:601:C:C6	2.54	0.42
32:2a:1000:U:H2'	32:2a:1001:A:H8	1.85	0.42
32:2a:1071:C:O2'	32:2a:1072:G:H5'	2.20	0.42
32:2a:1228:C:OP1	44:2m:114:ARG:HA	2.20	0.42
32:2a:1274:G:H2'	32:2a:1275:A:H5''	2.01	0.42
33:2b:211:ILE:HG22	33:2b:215:LEU:HD22	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:47:ARG:HB2	35:2d:47:ARG:NH1	2.34	0.42
36:2e:93:PRO:HG2	39:2h:105:ARG:HE	1.84	0.42
38:2g:70:LYS:HB3	38:2g:96:GLN:HG2	2.01	0.42
39:2h:111:ILE:HG23	39:2h:119:LEU:O	2.20	0.42
46:2o:58:MET:H	46:2o:58:MET:HG2	1.45	0.42
47:2p:17:TYR:HD2	47:2p:39:TYR:CD2	2.38	0.42
49:2r:58:LEU:HD11	49:2r:66:LEU:HD13	2.02	0.42
1:1A:30:G:H2'	1:1A:31:C:C6	2.55	0.42
1:1A:953:A:O2'	1:1A:2266:A:OP2	2.32	0.42
1:1A:1054:A:C5	1:1A:1055:G:C6	3.07	0.42
1:1A:1164:G:H2'	1:1A:1165:U:H6	1.82	0.42
1:1A:1509:C:OP1	1:1A:1509:C:H3'	2.20	0.42
1:1A:2130:U:H2'	1:1A:2158:A:N6	2.29	0.42
1:1A:2880:C:O3'	13:1R:90:ARG:NH1	2.52	0.42
2:1B:19:G:H1	2:1B:64:C:H42	1.68	0.42
3:1D:115:GLN:NE2	3:1D:117:VAL:HG12	2.34	0.42
6:1G:146:TYR:HD2	6:1G:146:TYR:O	2.02	0.42
7:1H:42:ARG:HD2	7:1H:53:GLU:OE2	2.19	0.42
13:1R:117:VAL:HG12	13:1R:118:GLU:N	2.34	0.42
23:11:5:CYS:HA	23:11:46:LEU:HD21	2.02	0.42
28:16:11:LEU:HB3	28:16:49:HIS:HB3	2.01	0.42
32:1a:272:C:H2'	32:1a:273:A:H8	1.85	0.42
32:1a:454:C:H41	32:1a:477:A:H2	1.66	0.42
32:1a:614:A:OP1	35:1d:85:LYS:HE2	2.20	0.42
32:1a:769:G:H4'	32:1a:1513:A:H4'	2.02	0.42
32:1a:1272:G:H2'	32:1a:1273:G:O4'	2.19	0.42
33:1b:172:ILE:HA	33:1b:175:ARG:NH1	2.35	0.42
34:1c:157:ILE:HD12	34:1c:164:ARG:HB3	2.01	0.42
1:2A:1450(A):C:N4	1:2A:1451:C:H41	2.18	0.42
1:2A:1811:G:H2'	1:2A:1812:A:O4'	2.19	0.42
1:2A:2162:G:O2'	1:2A:2172:U:H5'	2.20	0.42
1:2A:2291:U:H2'	1:2A:2292:C:C6	2.55	0.42
1:2A:2320:A:H1'	1:2A:2321:G:N2	2.35	0.42
1:2A:2489:G:C6	1:2A:2490:G:N1	2.87	0.42
1:2A:2526:G:H2'	1:2A:2527:C:C6	2.55	0.42
6:2G:43:LEU:C	6:2G:45:GLU:H	2.27	0.42
8:2I:41:GLU:O	8:2I:45:LYS:HB2	2.20	0.42
11:2P:118:GLY:O	11:2P:137:LYS:NZ	2.41	0.42
12:2Q:32:TYR:HH	12:2Q:111:GLU:CD	2.27	0.42
21:2Z:30:ASN:HA	21:2Z:89:PHE:CE1	2.54	0.42
32:2a:165:C:H2'	32:2a:166:G:H8	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:189:G:H5'	32:2a:189(A):C:OP2	2.20	0.42
32:2a:237:C:H5''	48:2q:25:ARG:CZ	2.50	0.42
43:2l:34:ARG:HE	43:2l:34:ARG:HB3	1.59	0.42
50:2s:23:ASN:HA	50:2s:27:GLU:HG2	2.02	0.42
54:2y:5:G:H1	54:2y:68:C:N4	2.15	0.42
54:2y:64:A:H2'	54:2y:65:G:H5'	2.02	0.42
1:1A:973:A:H5'	1:1A:1188:U:H1'	2.01	0.41
1:1A:2398:U:H2'	1:1A:2399:G:H8	1.84	0.41
2:1B:89:G:C6	2:1B:90:A:C6	3.08	0.41
3:1D:141:VAL:HG12	3:1D:142:VAL:N	2.35	0.41
10:1O:21:CYS:HB2	10:1O:39:ILE:HD12	2.02	0.41
14:1S:65:VAL:O	14:1S:69:VAL:HG13	2.20	0.41
15:1T:54:ARG:HA	15:1T:59:THR:OG1	2.19	0.41
18:1W:42:ARG:NH1	61:1W:302:HOH:O	2.53	0.41
18:1W:87:PRO:O	18:1W:88:ARG:HD2	2.20	0.41
21:1Z:7:ALA:HA	21:1Z:39:VAL:HG12	2.01	0.41
21:1Z:92:SER:O	21:1Z:130:PRO:HG2	2.20	0.41
32:1a:250:A:H4'	32:1a:251:G:O5'	2.19	0.41
32:1a:653:A:OP1	39:1h:56:LYS:NZ	2.51	0.41
32:1a:1038:C:H2'	32:1a:1039:C:C6	2.55	0.41
40:1i:70:LYS:O	40:1i:74:ILE:HG13	2.20	0.41
43:1l:54:LYS:O	43:1l:70:ILE:HG13	2.20	0.41
51:1t:90:GLN:HA	51:1t:93:GLU:HG2	2.02	0.41
1:2A:643:A:N1	1:2A:2369:A:O2'	2.51	0.41
1:2A:738:G:H3'	1:2A:739:G:C8	2.55	0.41
1:2A:839:U:H1'	1:2A:1191:G:H1'	2.02	0.41
1:2A:849:A:H2	25:23:24:LYS:HB3	1.84	0.41
1:2A:879:G:H2'	1:2A:879:G:N3	2.35	0.41
1:2A:1993:U:H2'	1:2A:1994:C:O4'	2.20	0.41
1:2A:2059:A:O2'	5:2F:69:HIS:HD2	2.02	0.41
1:2A:2103:C:H2'	1:2A:2104:G:O4'	2.20	0.41
1:2A:2155:G:N7	1:2A:2156:G:H1'	2.35	0.41
1:2A:2543:G:H2'	1:2A:2544:G:C8	2.55	0.41
2:2B:95:C:H2'	2:2B:96:U:C6	2.54	0.41
5:2F:65:TRP:CZ2	5:2F:75:HIS:HD2	2.37	0.41
8:2I:50:ARG:HA	8:2I:53:ALA:HB3	2.02	0.41
13:2R:30:THR:O	13:2R:78:LYS:NZ	2.53	0.41
31:29:19:ARG:HB2	31:29:24:TYR:CD2	2.55	0.41
32:2a:70:G:C6	32:2a:71:C:C4	3.08	0.41
32:2a:360:A:H2'	32:2a:361:G:C8	2.55	0.41
32:2a:399:G:H2'	32:2a:400:C:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:421:U:H4'	32:2a:422:C:OP2	2.19	0.41
32:2a:660:G:H2'	32:2a:661:G:H8	1.85	0.41
32:2a:1077:G:N2	32:2a:1079:G:H3'	2.35	0.41
34:2c:23:TYR:OH	41:2j:9:ARG:HG2	2.20	0.41
34:2c:70:VAL:CG1	34:2c:72:LYS:H	2.33	0.41
34:2c:71:ALA:HB1	34:2c:109:PRO:HB3	2.02	0.41
36:2e:75:THR:HB	36:2e:117:ASP:HB2	2.02	0.41
36:2e:82:VAL:O	36:2e:89:ILE:HG22	2.20	0.41
44:2m:93:ARG:HE	44:2m:93:ARG:HB2	1.56	0.41
47:2p:22:THR:HA	47:2p:33:ILE:HG13	2.02	0.41
50:2s:32:LYS:HB3	50:2s:50:ALA:HB3	2.02	0.41
1:1A:57:C:H2'	1:1A:58:G:O4'	2.21	0.41
1:1A:263:C:H2'	1:1A:264:C:O4'	2.20	0.41
1:1A:628:G:H5''	30:18:18:ALA:HB2	2.00	0.41
1:1A:1526:G:C6	1:1A:1527:G:C2	3.08	0.41
1:1A:1996:C:H4'	1:1A:1997:G:OP1	2.19	0.41
1:1A:2183:C:HO2'	1:1A:2184:G:P	2.42	0.41
1:1A:2306:C:N4	6:1G:42:GLY:O	2.47	0.41
3:1D:48:ARG:O	3:1D:50:THR:HG23	2.20	0.41
4:1E:92:THR:C	4:1E:94:GLU:N	2.78	0.41
6:1G:73:ALA:HA	6:1G:88:ILE:HD11	2.02	0.41
7:1H:9:ILE:HB	7:1H:50:VAL:O	2.20	0.41
28:16:38:LYS:HE3	28:16:38:LYS:HB3	1.85	0.41
32:1a:146:G:C2	32:1a:147:G:C4	3.08	0.41
33:1b:107:THR:O	33:1b:110:GLN:HB3	2.20	0.41
35:1d:3:ARG:O	35:1d:5:ILE:HG23	2.20	0.41
54:1w:53:G:H2'	54:1w:54:5MU:C6	2.56	0.41
54:1y:8:4SU:O2'	54:1y:46:G7M:N2	2.53	0.41
54:1y:24:G:H2'	54:1y:25:C:C6	2.55	0.41
1:2A:911:A:H2'	12:2Q:9:TYR:OH	2.19	0.41
1:2A:1019:U:O2'	1:2A:1021:A:H2	2.02	0.41
1:2A:1394:U:H2'	1:2A:1395:A:O4'	2.20	0.41
1:2A:1631:C:H2'	61:2A:4473:HOH:O	2.20	0.41
1:2A:2108:C:H42	1:2A:2181:G:H1	1.68	0.41
2:2B:16:G:N3	2:2B:16:G:H2'	2.34	0.41
3:2D:24:ILE:HD13	3:2D:84:TYR:HB2	2.02	0.41
5:2F:123:LEU:HD11	5:2F:194:MET:HE3	2.02	0.41
5:2F:129:PHE:CD2	5:2F:163:VAL:HG11	2.55	0.41
7:2H:124:GLU:O	7:2H:126:PRO:HD3	2.20	0.41
9:2N:78:TYR:O	9:2N:80:GLY:N	2.53	0.41
13:2R:72:ASP:HB3	13:2R:75:LEU:HB3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:2Y:28:LYS:HD2	20:2Y:40:GLU:CD	2.45	0.41
32:2a:6:G:H22	36:2e:98:THR:HG23	1.85	0.41
32:2a:127:G:O2'	48:2q:2:PRO:O	2.37	0.41
32:2a:1228:C:H2'	32:2a:1229:A:C8	2.55	0.41
32:2a:1325:C:H5''	52:2u:17:THR:HG21	2.01	0.41
32:2a:1376:U:O5'	38:2g:94:ARG:NH2	2.52	0.41
33:2b:29:ALA:HA	33:2b:32:ILE:HD12	2.02	0.41
34:2c:156:ARG:HB3	34:2c:160:ALA:O	2.19	0.41
38:2g:16:LEU:HD13	40:2i:41:VAL:HG22	2.01	0.41
41:2j:35:SER:O	41:2j:72:VAL:HG23	2.20	0.41
49:2r:74:ARG:H	49:2r:74:ARG:HG3	1.55	0.41
1:1A:839:U:H2'	1:1A:840:C:C6	2.55	0.41
1:1A:1200:C:H2'	1:1A:1201:C:C6	2.55	0.41
1:1A:1310:G:OP2	29:17:9:ARG:NE	2.37	0.41
1:1A:2320:A:H2'	1:1A:2320:A:N3	2.36	0.41
1:1A:2379:G:H2'	1:1A:2380:C:C6	2.54	0.41
6:1G:7:LEU:HD23	6:1G:7:LEU:HA	1.87	0.41
7:1H:41:MET:HE3	7:1H:64:LEU:HB2	2.02	0.41
11:1P:29:LYS:CD	11:1P:30:THR:HG23	2.49	0.41
24:12:60:LEU:HD23	24:12:60:LEU:HA	1.89	0.41
26:14:59:PHE:HD2	50:1s:64:GLU:HB3	1.85	0.41
28:16:25:LYS:HE3	28:16:27:LYS:HA	2.01	0.41
32:1a:392:G:H2'	32:1a:393:A:C8	2.55	0.41
32:1a:825:G:H2'	32:1a:826:C:C6	2.55	0.41
32:1a:973:G:OP1	41:1j:57:LYS:NZ	2.50	0.41
33:1b:71:VAL:HB	33:1b:164:VAL:HG13	2.02	0.41
33:1b:212:GLN:O	33:1b:216:SER:HB3	2.20	0.41
34:1c:73:PRO:HB3	34:1c:103:VAL:HG11	2.03	0.41
37:1f:89:MET:HB2	49:1r:76:LEU:HD21	2.02	0.41
37:1f:96:PRO:HB3	49:1r:30:ASP:CG	2.44	0.41
38:1g:69:VAL:C	38:1g:138:LYS:HD2	2.44	0.41
41:1j:39:PRO:HA	41:1j:70:ARG:HD3	2.02	0.41
1:2A:99:U:H4'	1:2A:100:G:H5'	2.02	0.41
1:2A:110:G:C2	1:2A:111:A:C8	3.07	0.41
1:2A:361:G:O6	61:2A:4007:HOH:O	2.22	0.41
1:2A:458:G:O2'	1:2A:469:G:O6	2.38	0.41
1:2A:601:C:O2	1:2A:605:C:H4'	2.21	0.41
1:2A:747:U:O2	1:2A:2014:A:H1'	2.20	0.41
1:2A:1331:A:H2'	1:2A:1333:C:C5	2.55	0.41
1:2A:1342:A:O2'	1:2A:1344:G:OP2	2.30	0.41
1:2A:2139:C:H42	1:2A:2152:G:H1	1.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2D:77:ALA:HA	3:2D:97:TYR:HA	2.03	0.41
5:2F:143:ALA:HB1	5:2F:148:LEU:HB2	2.02	0.41
7:2H:140:LYS:HE3	7:2H:140:LYS:HB2	1.88	0.41
8:2I:65:ALA:HB1	8:2I:136:VAL:HG11	2.03	0.41
23:21:46:LEU:HD23	23:21:46:LEU:HA	1.88	0.41
28:26:38:LYS:HE3	28:26:38:LYS:HB3	1.89	0.41
31:29:6:SER:OG	31:29:6:SER:O	2.38	0.41
32:2a:189(B):C:H2'	32:2a:189(C):C:C6	2.56	0.41
32:2a:446:G:H2'	32:2a:447:G:O4'	2.21	0.41
32:2a:598:U:H2'	32:2a:599:C:H6	1.86	0.41
32:2a:913:A:H4'	32:2a:914:A:O5'	2.19	0.41
32:2a:986:A:H2'	32:2a:987:G:C8	2.55	0.41
32:2a:1098:C:H4'	32:2a:1168:A:H2	1.85	0.41
32:2a:1264:C:C4	32:2a:1272:G:O6	2.73	0.41
32:2a:1503:A:N3	53:2v:13:A:N6	2.67	0.41
41:2j:7:LYS:O	41:2j:97:GLU:N	2.33	0.41
43:2l:77:LEU:HD23	43:2l:77:LEU:HA	1.90	0.41
54:2w:48:C:C4	54:2w:59:U:C2	3.09	0.41
1:1A:70:G:H5''	1:1A:112:U:O2	2.19	0.41
1:1A:244:A:C2	1:1A:255:A:C4	3.08	0.41
1:1A:652(C):G:H1	1:1A:652(V):C:H42	1.67	0.41
1:1A:686:G:H21	1:1A:788:A:H61	1.67	0.41
1:1A:784:A:C5	3:1D:229:VAL:HG21	2.55	0.41
1:1A:1002:G:H2'	1:1A:1003:G:O4'	2.20	0.41
1:1A:1057:A:N6	1:1A:1087:G:OP2	2.54	0.41
1:1A:1230:C:H2'	1:1A:1231:G:C8	2.55	0.41
1:1A:1361:G:N2	1:1A:1371:G:H1'	2.36	0.41
1:1A:1607:C:H4'	1:1A:1608:A:O5'	2.20	0.41
1:1A:1639:U:O2'	1:1A:2699:C:H4'	2.20	0.41
1:1A:2056:G:C2	1:1A:2057:A:C8	3.09	0.41
61:1A:6749:HOH:O	55:1x:76:A:H1'	2.21	0.41
5:1F:70:THR:HG23	61:1F:402:HOH:O	2.18	0.41
12:1Q:20:ALA:HB2	21:1Z:79:ARG:HG3	2.02	0.41
12:1Q:81:VAL:HB	22:10:7:LEU:HD21	2.02	0.41
13:1R:79:LEU:HD12	13:1R:83:ILE:HB	2.02	0.41
14:1S:110:LEU:HD12	14:1S:110:LEU:HA	1.70	0.41
32:1a:18:C:H2'	32:1a:19:C:O4'	2.21	0.41
32:1a:240:C:H2'	32:1a:241:C:C6	2.56	0.41
32:1a:418:C:H42	32:1a:425:G:H1	1.67	0.41
32:1a:448:A:OP2	32:1a:485:G:N1	2.33	0.41
32:1a:762:C:H2'	32:1a:763:G:H8	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:894:G:C6	32:1a:895:G:C5	3.09	0.41
32:1a:974:A:P	45:1n:29:ARG:HH21	2.43	0.41
32:1a:1033:G:H2'	32:1a:1034:G:H8	1.85	0.41
32:1a:1060:C:H2'	32:1a:1061:G:C8	2.56	0.41
32:1a:1103:C:H2'	32:1a:1104:G:O4'	2.20	0.41
33:1b:24:TRP:H	33:1b:24:TRP:CD1	2.39	0.41
34:1c:131:ARG:HA	34:1c:134:ILE:HD12	2.02	0.41
35:1d:148:VAL:HB	35:1d:181:MET:HB3	2.03	0.41
35:1d:182:LYS:HB2	35:1d:182:LYS:HE3	1.89	0.41
39:1h:87:SER:OG	39:1h:92:ARG:HA	2.21	0.41
54:1y:6:G:C6	54:1y:7:A:C6	3.08	0.41
1:2A:656:G:H2'	1:2A:657:U:O4'	2.20	0.41
1:2A:1039:G:C6	1:2A:1040:C:C4	3.08	0.41
1:2A:1826:G:H2'	1:2A:1827:C:H6	1.86	0.41
1:2A:2097:C:H2'	1:2A:2098:U:O4'	2.20	0.41
1:2A:2378:A:O2'	14:2S:23:ARG:HD2	2.21	0.41
1:2A:2600:A:H2'	1:2A:2601:C:C6	2.55	0.41
2:2B:48:A:H5'	14:2S:93:LYS:HD2	2.02	0.41
9:2N:123:TYR:CE2	9:2N:129:PRO:HD2	2.55	0.41
13:2R:29:LEU:HD22	13:2R:79:LEU:HD13	2.03	0.41
14:2S:24:LEU:O	14:2S:86:ALA:N	2.39	0.41
14:2S:62:LYS:HE3	14:2S:62:LYS:HB2	1.91	0.41
20:2Y:6:HIS:HE1	20:2Y:72:VAL:O	2.04	0.41
32:2a:151:A:H2'	32:2a:152:A:O4'	2.20	0.41
32:2a:976:G:C8	32:2a:1359:C:H1'	2.55	0.41
32:2a:1012:U:H2'	32:2a:1013:G:C8	2.55	0.41
32:2a:1056:U:O5'	34:2c:163:ALA:HB2	2.20	0.41
32:2a:1267:C:H1'	52:2u:20:LYS:NZ	2.34	0.41
34:2c:51:GLY:O	34:2c:70:VAL:HA	2.21	0.41
34:2c:190:ARG:NE	34:2c:190:ARG:O	2.53	0.41
35:2d:122:ARG:HA	35:2d:122:ARG:HD2	1.84	0.41
44:2m:44:ARG:HB2	44:2m:47:ASP:OD2	2.20	0.41
45:2n:24:CYS:O	45:2n:28:GLY:N	2.44	0.41
50:2s:81:ARG:HE	50:2s:81:ARG:HB3	1.70	0.41
1:1A:111:A:O3'	24:12:65:ASN:ND2	2.54	0.41
1:1A:208:C:H2'	1:1A:209:C:C6	2.56	0.41
1:1A:631:A:H1'	11:1P:66:GLY:HA2	2.01	0.41
1:1A:652(C):G:N2	1:1A:653:A:H1'	2.36	0.41
1:1A:746:A:HO2'	1:1A:2611:U:HO2'	1.63	0.41
1:1A:886:C:O2'	1:1A:890:A:N6	2.54	0.41
1:1A:1025:G:C4	1:1A:1135:C:H1'	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1357:U:H2'	1:1A:1358:G:O4'	2.20	0.41
1:1A:1641:A:N6	1:1A:1642:G:C2	2.89	0.41
1:1A:1665:A:H2'	1:1A:1666:G:O4'	2.20	0.41
1:1A:2389:G:H5''	1:1A:2390:U:O4'	2.21	0.41
1:1A:2590:A:H2'	1:1A:2591:C:C6	2.55	0.41
4:1E:174:ASP:OD1	4:1E:175:VAL:N	2.54	0.41
16:1U:33:ARG:O	16:1U:37:GLU:HG3	2.20	0.41
17:1V:74:LYS:O	17:1V:82:ARG:HA	2.20	0.41
32:1a:998:G:C6	32:1a:1044:A:C6	3.08	0.41
32:1a:1469:G:H2'	32:1a:1470:G:H8	1.86	0.41
33:1b:98:LEU:HB3	33:1b:101:MET:HG3	2.02	0.41
38:1g:22:LEU:HG	38:1g:62:PHE:CE2	2.56	0.41
40:1i:50:LEU:HB2	40:1i:55:ALA:O	2.20	0.41
41:1j:49:VAL:HG21	45:1n:41:ARG:O	2.21	0.41
48:1q:50:LYS:H	48:1q:50:LYS:HG2	1.70	0.41
54:1w:47:U:H5'	54:1w:48:C:H5'	2.03	0.41
1:2A:1510:G:H2'	1:2A:1511:C:C6	2.55	0.41
1:2A:2117:A:N6	1:2A:2171:A:N1	2.68	0.41
5:2F:170:LEU:HD22	5:2F:172:TRP:NE1	2.35	0.41
8:2I:45:LYS:O	8:2I:49:ALA:N	2.54	0.41
11:2P:67:MET:HE3	11:2P:67:MET:HB2	1.94	0.41
14:2S:3:ARG:NH1	14:2S:4:LEU:H	2.18	0.41
19:2X:54:VAL:HG22	19:2X:81:VAL:HG12	2.03	0.41
21:2Z:31:ARG:HG3	21:2Z:32:HIS:CD2	2.56	0.41
21:2Z:36:LYS:HB3	21:2Z:36:LYS:HE2	1.94	0.41
25:23:9:VAL:HG12	25:23:32:GLN:HE22	1.85	0.41
32:2a:509:A:H4'	32:2a:510:A:OP1	2.20	0.41
32:2a:864:A:H2'	32:2a:865:A:C8	2.56	0.41
33:2b:70:PHE:CD1	33:2b:163:PHE:HB3	2.55	0.41
35:2d:57:ARG:HH22	36:2e:107:ARG:HD2	1.85	0.41
39:2h:20:TYR:HA	39:2h:65:TYR:CZ	2.55	0.41
54:2y:11:C:H2'	54:2y:12:U:C6	2.56	0.41
1:1A:263:C:O2'	1:1A:429:A:N3	2.53	0.41
1:1A:1178:C:H2'	1:1A:1179:C:H6	1.83	0.41
1:1A:1843:C:H2'	1:1A:1844:C:C6	2.56	0.41
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.55	0.41
3:1D:143:HIS:HD1	3:1D:194:GLY:C	2.27	0.41
4:1E:94:GLU:C	4:1E:96:PHE:H	2.29	0.41
5:1F:11:VAL:HB	5:1F:18:ARG:HG3	2.03	0.41
6:1G:56:ALA:HB2	6:1G:153:ARG:NE	2.35	0.41
6:1G:155:MET:HE2	6:1G:155:MET:HB3	1.92	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:18:7:HIS:HB3	30:18:61:LEU:HB3	2.01	0.41
31:19:29:ASN:HB3	31:19:32:HIS:ND1	2.36	0.41
32:1a:406:G:H1	32:1a:436:C:N4	2.17	0.41
32:1a:1187:G:H4'	40:1i:111:ARG:HH11	1.84	0.41
32:1a:1218:C:OP2	45:1n:9:LYS:NZ	2.39	0.41
32:1a:1270:C:H2'	32:1a:1271:G:H8	1.86	0.41
33:1b:178:ARG:HH22	39:1h:74:PRO:HB3	1.86	0.41
43:1l:124:LYS:HA	43:1l:125:PRO:HD3	1.94	0.41
44:1m:3:ARG:NE	44:1m:8:GLU:OE2	2.54	0.41
1:2A:96:G:H4'	24:22:48:HIS:CD2	2.56	0.41
1:2A:465:G:OP1	29:27:12:ARG:NH2	2.52	0.41
1:2A:597:U:H2'	1:2A:598:G:C8	2.55	0.41
1:2A:1161:C:H2'	1:2A:1162:G:H8	1.86	0.41
1:2A:1257:C:H2'	1:2A:1258:C:C6	2.56	0.41
1:2A:1322:A:N1	1:2A:1333:C:O2'	2.44	0.41
1:2A:1394:U:C4	1:2A:1395:A:C5	3.08	0.41
1:2A:1889:A:H1'	1:2A:2087:G:O4'	2.20	0.41
1:2A:2359:C:H2'	1:2A:2360:A:O4'	2.20	0.41
1:2A:2376:A:H3'	1:2A:2377:A:H8	1.86	0.41
1:2A:2529:G:O6	31:29:31:LYS:NZ	2.53	0.41
1:2A:2594:C:H2'	1:2A:2595:G:C8	2.56	0.41
16:2U:58:ARG:HA	16:2U:61:TRP:CE3	2.56	0.41
32:2a:409:G:H1	32:2a:433:C:N4	2.17	0.41
32:2a:551:U:H2'	32:2a:552:U:C6	2.55	0.41
32:2a:652:U:O4	32:2a:752:G:O2'	2.22	0.41
32:2a:667:G:O2'	46:2o:49:ASP:OD1	2.32	0.41
32:2a:1297:C:O2'	38:2g:114:ARG:NH1	2.54	0.41
32:2a:1323:G:H2'	32:2a:1324:A:C8	2.56	0.41
34:2c:130:VAL:O	34:2c:134:ILE:HG12	2.20	0.41
38:2g:27:ILE:O	38:2g:31:MET:N	2.53	0.41
44:2m:15:VAL:HG11	44:2m:48:LEU:HD11	2.01	0.41
46:2o:48:LYS:HD3	46:2o:48:LYS:HA	1.71	0.41
54:2y:53:G:H3'	54:2y:54:5MU:H73	2.01	0.41
1:1A:653:A:H2'	1:1A:654:A:O4'	2.21	0.41
1:1A:1042:G:H1	1:1A:1113:U:H3	1.69	0.41
1:1A:1667:G:O2'	1:1A:1991:U:O4	2.31	0.41
1:1A:2469:A:O2'	12:1Q:56:ARG:HD3	2.21	0.41
1:1A:2788:C:P	4:1E:61:ARG:HH21	2.44	0.41
2:1B:66:A:H61	2:1B:109:C:H5''	1.85	0.41
3:1D:249:PRO:HD2	3:1D:250:TRP:CZ3	2.55	0.41
4:1E:101:ARG:NH2	4:1E:171:GLU:HB2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:198:ALA:HA	5:1F:201:VAL:HG13	2.03	0.41
9:1N:13:TRP:CE2	9:1N:133:GLN:HG2	2.56	0.41
9:1N:138:LEU:HD23	9:1N:138:LEU:HA	1.85	0.41
11:1P:45:LEU:HA	11:1P:45:LEU:HD12	1.79	0.41
12:1Q:1:MET:HE2	12:1Q:48:GLU:HG2	2.03	0.41
15:1T:108:ARG:HG3	15:1T:109:GLU:N	2.35	0.41
18:1W:11:ARG:HA	18:1W:100:THR:HG22	2.02	0.41
32:1a:32:A:OP1	32:1a:398:C:H1'	2.20	0.41
32:1a:567:G:H2'	32:1a:568:G:O4'	2.20	0.41
32:1a:1366:C:H2'	32:1a:1367:C:C6	2.56	0.41
32:1a:1376:U:OP1	38:1g:98:SER:OG	2.30	0.41
34:1c:34:LEU:O	34:1c:38:ARG:HG3	2.21	0.41
37:1f:67:MET:HE1	37:1f:75:LEU:HD13	2.02	0.41
40:1i:32:ASP:OD1	40:1i:33:PHE:N	2.54	0.41
45:1n:48:ALA:HB2	45:1n:53:LEU:HD12	2.03	0.41
50:1s:47:HIS:HB3	50:1s:48:THR:H	1.68	0.41
54:1y:40:C:H2'	54:1y:41:C:C6	2.55	0.41
1:2A:27:G:H22	1:2A:512:G:H1'	1.85	0.41
1:2A:171:G:H2'	1:2A:172:C:C6	2.55	0.41
1:2A:570:G:H2'	1:2A:2030:A:N7	2.35	0.41
1:2A:1472:A:H2'	1:2A:1473:G:H8	1.85	0.41
1:2A:1688:U:H2'	1:2A:1698:A:N6	2.36	0.41
1:2A:1799:G:N7	3:2D:179:SER:OG	2.53	0.41
1:2A:1848:A:C4	1:2A:1849:G:C8	3.08	0.41
1:2A:2461:C:H2'	1:2A:2462:U:H6	1.86	0.41
1:2A:2752:C:OP2	7:2H:4:ILE:HD11	2.20	0.41
1:2A:2854:G:H2'	1:2A:2855:C:C6	2.56	0.41
2:2B:33:G:C6	2:2B:34:U:C4	3.08	0.41
2:2B:73:A:C6	2:2B:74:U:C2	3.09	0.41
10:2O:36:GLY:HA3	10:2O:109:LYS:HG3	2.02	0.41
10:2O:119:PRO:HB2	15:2T:68:TYR:CE2	2.56	0.41
11:2P:114:ILE:HD13	11:2P:114:ILE:HA	1.95	0.41
11:2P:121:LYS:O	11:2P:123:LEU:N	2.53	0.41
12:2Q:70:PRO:HA	12:2Q:95:ALA:HB2	2.02	0.41
21:2Z:158:PRO:HA	21:2Z:159:PRO:HD3	1.95	0.41
23:21:44:PRO:O	23:21:46:LEU:N	2.54	0.41
24:22:33:MET:O	24:22:37:PHE:HD1	2.04	0.41
30:28:33:ASN:HA	30:28:36:LYS:HD2	2.02	0.41
32:2a:108:G:OP1	32:2a:326:G:N2	2.50	0.41
32:2a:116:A:H61	32:2a:313:A:H1'	1.85	0.41
32:2a:129(A):G:N2	32:2a:189(F):U:H5''	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:134:A:H61	47:2p:25:ARG:NH1	2.19	0.41
32:2a:514:C:H2'	32:2a:515:G:C8	2.56	0.41
32:2a:520:A:OP1	43:2l:52:LEU:HB2	2.20	0.41
32:2a:1017:G:H2'	32:2a:1018:C:C6	2.56	0.41
32:2a:1097:C:H1'	32:2a:1170:A:H1'	2.02	0.41
32:2a:1287:A:H2'	32:2a:1288:A:C8	2.56	0.41
33:2b:188:ALA:HB1	33:2b:192:SER:CB	2.50	0.41
40:2i:89:ASN:C	40:2i:91:ASP:N	2.78	0.41
48:2q:92:ARG:HD3	48:2q:95:TYR:CE2	2.55	0.41
49:2r:58:LEU:HD22	49:2r:62:GLU:HB3	2.02	0.41
50:2s:5:LEU:C	50:2s:7:LYS:H	2.28	0.41
52:2u:10:ARG:HE	52:2u:10:ARG:HB2	1.47	0.41
1:1A:18:C:H2'	1:1A:19:C:C6	2.56	0.41
1:1A:123:G:OP2	61:1A:6211:HOH:O	2.22	0.41
1:1A:285:C:H2'	1:1A:286:C:C6	2.56	0.41
1:1A:363(A):A:H2'	1:1A:363(B):G:C8	2.56	0.41
1:1A:810:U:C4	11:1P:29:LYS:O	2.73	0.41
1:1A:972:G:C6	1:1A:973:A:C6	3.09	0.41
1:1A:1174:A:H1'	1:1A:1175:U:C5'	2.51	0.41
1:1A:1923:U:OP1	55:1x:24:U:O2'	2.36	0.41
1:1A:2037:G:H2'	1:1A:2038:G:C8	2.55	0.41
1:1A:2600:A:H2'	1:1A:2601:C:H6	1.86	0.41
1:1A:2627:G:O2'	1:1A:2781:A:N1	2.52	0.41
1:1A:2785:C:OP1	4:1E:41:LYS:HE3	2.21	0.41
1:1A:2827:C:H6	1:1A:2827:C:O5'	2.04	0.41
5:1F:135:LYS:HB2	5:1F:138:GLU:CD	2.46	0.41
6:1G:34:LEU:HD23	6:1G:161:THR:HG22	2.02	0.41
6:1G:98:ARG:CZ	26:14:1:MET:HE3	2.51	0.41
23:11:12:PRO:HB2	23:11:41:ARG:NH2	2.35	0.41
32:1a:865:A:C2	32:1a:918:A:H4'	2.54	0.41
32:1a:1027:C:H5''	32:1a:1028:C:OP2	2.21	0.41
32:1a:1316:G:N2	32:1a:1318:A:H3'	2.36	0.41
32:1a:1328:C:OP1	52:1u:21:TYR:OH	2.34	0.41
33:1b:16:HIS:HD2	33:1b:204:ASN:N	2.18	0.41
33:1b:19:HIS:NE2	33:1b:206:ASP:HB2	2.35	0.41
33:1b:55:PHE:CE1	33:1b:218:ALA:HA	2.55	0.41
33:1b:79:ASP:O	33:1b:83:MET:HG2	2.19	0.41
34:1c:64:VAL:O	34:1c:99:VAL:HA	2.19	0.41
38:1g:46:ALA:HB1	38:1g:121:ALA:HB2	2.01	0.41
39:1h:12:ARG:HD2	39:1h:26:VAL:HG22	2.02	0.41
44:1m:16:ASP:OD1	44:1m:16:ASP:N	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:1y:46:G7M:H8	54:1y:46:G7M:H2'	1.82	0.41
1:2A:815:C:H2'	1:2A:816:C:H6	1.85	0.41
1:2A:1295:C:H2'	1:2A:1296:G:C8	2.55	0.41
1:2A:1379:A:H4'	1:2A:1380:G:OP2	2.21	0.41
1:2A:2143:C:H42	1:2A:2148:G:H1	1.68	0.41
1:2A:2356:C:H2'	1:2A:2357:U:O4'	2.21	0.41
6:2G:44:GLY:HA2	6:2G:88:ILE:HG22	2.02	0.41
7:2H:90:LYS:HB2	7:2H:163:TYR:CE2	2.56	0.41
7:2H:92:ILE:HG23	7:2H:93:GLY:H	1.85	0.41
8:2I:58:LEU:HD23	8:2I:59:ALA:N	2.36	0.41
15:2T:41:ARG:HH12	32:2a:346:G:P	2.43	0.41
17:2V:60:GLU:N	17:2V:95:LEU:O	2.48	0.41
21:2Z:73:GLN:H	21:2Z:87:ASP:HB2	1.85	0.41
22:20:25:ARG:HD3	22:20:25:ARG:HA	1.82	0.41
25:23:52:HIS:CD2	25:23:53:LEU:HG	2.56	0.41
32:2a:128:G:O2'	48:2q:3:LYS:HE2	2.20	0.41
32:2a:417:C:H2'	32:2a:418:C:H6	1.84	0.41
32:2a:790:A:H61	32:2a:1498:UR3:P	2.43	0.41
32:2a:802:A:H3'	32:2a:803:G:H8	1.86	0.41
32:2a:1184:G:H2'	32:2a:1185:G:H8	1.85	0.41
32:2a:1322:C:O5'	32:2a:1322:C:H6	2.04	0.41
33:2b:8:LYS:HZ2	33:2b:51:LEU:HD13	1.85	0.41
34:2c:24:ALA:HB3	34:2c:29:TYR:CD1	2.54	0.41
36:2e:32:VAL:HB	36:2e:58:ALA:HB1	2.03	0.41
37:2f:1:MET:HE1	37:2f:68:PRO:HG3	2.03	0.41
37:2f:44:GLY:HA2	37:2f:59:TYR:CZ	2.56	0.41
43:2l:53:ARG:CB	43:2l:93:LEU:HD11	2.51	0.41
1:1A:446:G:OP1	16:1U:3:ARG:NH1	2.53	0.41
1:1A:566:U:H2'	1:1A:567:A:O4'	2.21	0.41
1:1A:705:A:H1'	3:1D:9:TYR:CE2	2.56	0.41
1:1A:904:C:H2'	1:1A:905:U:C6	2.56	0.41
1:1A:1085:A:H3'	1:1A:1086:A:C2	2.56	0.41
1:1A:1136:G:O2'	1:1A:2038:G:O2'	2.25	0.41
1:1A:1272:A:H3'	1:1A:1273:U:H5''	2.01	0.41
1:1A:1374:G:H2'	1:1A:1375:C:C6	2.56	0.41
1:1A:1527:G:H5''	1:1A:1528:A:OP1	2.21	0.41
1:1A:1614:A:OP1	1:1A:1617:C:N4	2.54	0.41
1:1A:1706:U:OP1	61:1A:6210:HOH:O	2.22	0.41
1:1A:1949:G:C6	1:1A:1950:G:C6	3.09	0.41
1:1A:2375:G:N2	1:1A:2378:A:OP2	2.43	0.41
1:1A:2572:A:C8	4:1E:144:ARG:HD3	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2680:C:H2'	1:1A:2681:C:C6	2.56	0.41
2:1B:33:G:C2	2:1B:50:G:C2	3.09	0.41
4:1E:108:SER:O	4:1E:162:ALA:HA	2.21	0.41
5:1F:126:VAL:HG21	5:1F:129:PHE:CE1	2.56	0.41
6:1G:39:ILE:HB	6:1G:92:VAL:HG12	2.02	0.41
7:1H:85:LYS:HB2	7:1H:85:LYS:HE3	1.87	0.41
7:1H:125:VAL:HG12	7:1H:127:GLU:O	2.20	0.41
7:1H:126:PRO:HB2	7:1H:130:ARG:HH21	1.85	0.41
10:1O:43:VAL:HG12	10:1O:54:GLU:HA	2.02	0.41
11:1P:28:GLY:O	11:1P:30:THR:N	2.54	0.41
11:1P:87:ASP:O	11:1P:88:LEU:HD23	2.20	0.41
15:1T:113:LYS:HA	15:1T:113:LYS:HD3	1.94	0.41
19:1X:50:LYS:HB3	19:1X:87:GLN:OE1	2.21	0.41
19:1X:94:GLY:H	19:1X:95:LEU:HB2	1.85	0.41
21:1Z:35:ARG:HD2	21:1Z:35:ARG:HA	1.87	0.41
28:16:6:ARG:HH12	28:16:26:ASN:HB2	1.86	0.41
32:1a:107:G:H2'	32:1a:108:G:O4'	2.21	0.41
32:1a:221:C:H2'	32:1a:222:U:H6	1.86	0.41
32:1a:300:A:H1'	32:1a:565:U:O2	2.21	0.41
32:1a:309:G:O2'	32:1a:607:A:N1	2.53	0.41
32:1a:823:G:C2	32:1a:878:G:C2	3.09	0.41
32:1a:921:U:H2'	32:1a:922:G:O4'	2.21	0.41
32:1a:922:G:H4'	36:1e:20:GLN:HA	2.03	0.41
32:1a:936:C:H1'	32:1a:1382:C:N4	2.36	0.41
32:1a:1027:C:N4	32:1a:1034:G:H1	2.18	0.41
32:1a:1255:G:H2'	32:1a:1279:A:H62	1.85	0.41
32:1a:1286:A:C8	32:1a:1287:A:H4'	2.54	0.41
32:1a:1439:C:H42	32:1a:1462:G:H1	1.68	0.41
32:1a:1465:C:H2'	32:1a:1466:C:O4'	2.21	0.41
33:1b:155:LEU:HD12	33:1b:155:LEU:HA	1.79	0.41
35:1d:65:ARG:HG3	35:1d:75:PHE:CD1	2.56	0.41
35:1d:159:ARG:HE	35:1d:181:MET:HE1	1.86	0.41
36:1e:27:ARG:NH1	36:1e:27:ARG:HB2	2.36	0.41
36:1e:145:LYS:O	36:1e:148:VAL:HG22	2.21	0.41
37:1f:4:TYR:OH	37:1f:69:GLU:HA	2.20	0.41
37:1f:21:LEU:O	37:1f:25:ILE:HG12	2.21	0.41
39:1h:134:ILE:HD13	39:1h:134:ILE:HA	1.82	0.41
46:1o:78:TYR:O	46:1o:82:ILE:HG12	2.21	0.41
48:1q:43:LEU:HB2	48:1q:68:ARG:O	2.21	0.41
50:1s:36:ARG:HB3	50:1s:72:GLY:HA3	2.03	0.41
53:1v:16:A:H2'	53:1v:17:U:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:1x:15:G:N2	55:1x:21:A:N3	2.69	0.41
54:1y:19:G:C5	54:1y:56:C:N4	2.83	0.41
1:2A:18:C:H4'	16:2U:23:GLY:O	2.20	0.41
1:2A:184:C:H2'	1:2A:185:U:C6	2.55	0.41
1:2A:271(I):G:C5	1:2A:271(J):C:C4	3.09	0.41
1:2A:309:G:N3	1:2A:329:G:O2'	2.53	0.41
1:2A:320:A:H4'	1:2A:322:A:C8	2.55	0.41
1:2A:520:G:H2'	1:2A:521:G:C8	2.55	0.41
1:2A:587:C:P	11:2P:21:ARG:HH22	2.43	0.41
1:2A:657:U:H2'	1:2A:658:C:C6	2.56	0.41
1:2A:1152:C:H4'	16:2U:77:SER:HA	2.03	0.41
1:2A:1224:C:O2'	17:2V:85:LYS:HA	2.21	0.41
1:2A:1252:G:C2	1:2A:1253:A:C2	3.08	0.41
1:2A:1327:C:O2'	13:2R:105:ARG:NH1	2.54	0.41
1:2A:1614:A:OP1	61:2A:4004:HOH:O	2.22	0.41
1:2A:1655:A:N6	1:2A:2005:A:O2'	2.54	0.41
1:2A:1862:G:C2	1:2A:1863:G:C5	3.08	0.41
1:2A:2126:A:N3	1:2A:2127:G:H1'	2.36	0.41
1:2A:2206:G:H5''	1:2A:2207:G:N7	2.36	0.41
1:2A:2378:A:H4'	14:2S:23:ARG:NH1	2.36	0.41
1:2A:2382:G:H21	30:28:42:ARG:NH2	2.19	0.41
1:2A:2888:C:H2'	1:2A:2889:C:C6	2.56	0.41
2:2B:75:G:N3	21:2Z:85:HIS:CE1	2.89	0.41
2:2B:115:G:H2'	2:2B:116:G:O4'	2.20	0.41
3:2D:66:ASP:HB3	3:2D:105:ILE:HG22	2.03	0.41
3:2D:68:LYS:O	3:2D:70:TRP:N	2.49	0.41
4:2E:47:VAL:HG22	4:2E:84:PHE:HB3	2.01	0.41
4:2E:170:LEU:HD22	4:2E:185:LYS:O	2.21	0.41
4:2E:181:LEU:HD23	4:2E:181:LEU:HA	1.79	0.41
7:2H:137:ASP:O	7:2H:141:VAL:HG22	2.21	0.41
9:2N:12:ARG:HB3	9:2N:50:ASP:CG	2.46	0.41
9:2N:131:GLN:O	9:2N:134:ARG:HG3	2.20	0.41
15:2T:88:ILE:HG21	15:2T:91:ARG:NE	2.36	0.41
21:2Z:10:ARG:NE	21:2Z:37:VAL:O	2.54	0.41
21:2Z:150:LEU:HD13	21:2Z:150:LEU:HA	1.87	0.41
23:21:85:LEU:HD22	23:21:89:GLU:HB3	2.01	0.41
26:24:8:LYS:O	26:24:27:THR:HG22	2.21	0.41
30:28:23:VAL:HG21	30:28:47:LYS:HB3	2.01	0.41
32:2a:5:U:H5'	32:2a:6:G:C5	2.56	0.41
32:2a:34:C:H2'	32:2a:35:G:C8	2.56	0.41
32:2a:44:G:H1'	32:2a:399:G:N2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:100:C:H2'	32:2a:101:A:C8	2.56	0.41
32:2a:229:U:H2'	32:2a:230:G:O4'	2.21	0.41
32:2a:595:G:H1'	32:2a:596:C:H5	1.86	0.41
32:2a:971:G:N2	32:2a:1363(A):A:OP2	2.53	0.41
32:2a:1014:A:H2'	32:2a:1015:A:C8	2.56	0.41
32:2a:1022:G:H2'	32:2a:1023:G:C8	2.55	0.41
32:2a:1071:C:H42	32:2a:1104:G:H1	1.69	0.41
32:2a:1102:A:H8	32:2a:1102:A:OP2	2.04	0.41
32:2a:1160:G:H1	32:2a:1176:A:H61	1.69	0.41
32:2a:1187:G:C2	32:2a:1188:A:C4	3.08	0.41
32:2a:1208:C:H2'	32:2a:1209:C:O4'	2.21	0.41
32:2a:1252:A:H2'	32:2a:1253:G:O4'	2.20	0.41
32:2a:1271:G:N2	32:2a:1272:G:C8	2.89	0.41
32:2a:1376:U:H2'	32:2a:1377:A:H8	1.82	0.41
32:2a:1476:G:C6	32:2a:1477:C:C4	3.09	0.41
33:2b:28:PHE:CG	33:2b:190:THR:HA	2.56	0.41
33:2b:112:VAL:C	33:2b:114:ARG:H	2.28	0.41
34:2c:186:PHE:CG	34:2c:187:ALA:N	2.89	0.41
35:2d:148:VAL:HG11	35:2d:158:ILE:HD12	2.02	0.41
35:2d:201:GLN:NE2	36:2e:99:GLY:HA2	2.36	0.41
36:2e:98:THR:HG22	36:2e:99:GLY:H	1.86	0.41
38:2g:90:GLU:CD	38:2g:90:GLU:H	2.29	0.41
40:2i:38:GLN:OE1	40:2i:38:GLN:HA	2.21	0.41
47:2p:23:ASP:OD1	47:2p:24:ALA:N	2.53	0.41
48:2q:22:LEU:HD11	48:2q:39:SER:HB3	2.03	0.41
50:2s:36:ARG:HB3	50:2s:72:GLY:HA3	2.03	0.41
54:2w:51:U:H2'	54:2w:52:G:C8	2.56	0.41
1:1A:673:C:H5''	5:1F:81:PRO:HD2	2.03	0.41
1:1A:715:G:C2	46:1o:56:LEU:HD21	2.56	0.41
1:1A:747:U:O2	1:1A:2014:A:H1'	2.21	0.41
1:1A:775:G:C4	1:1A:794:G:C8	3.09	0.41
1:1A:785:G:C5	1:1A:786:C:C5	3.09	0.41
1:1A:1093:G:H3'	1:1A:1094:U:H5''	2.03	0.41
1:1A:1385:G:H4'	1:1A:1386:C:OP1	2.21	0.41
1:1A:1636:C:H2'	1:1A:1637:A:H8	1.84	0.41
1:1A:1790:C:H5''	1:1A:1791:A:OP1	2.21	0.41
1:1A:1936:A:OP1	1:1A:1937:A:H5'	2.21	0.41
1:1A:2136:C:C2	1:1A:2155:G:N2	2.89	0.41
5:1F:136:THR:HA	5:1F:166:ALA:O	2.20	0.41
5:1F:182:ASN:ND2	5:1F:185:ASP:OD2	2.39	0.41
19:1X:84:ALA:HB3	19:1X:87:GLN:OE1	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:1Y:89:PHE:HE1	20:1Y:95:LYS:HB2	1.83	0.41
21:1Z:68:PRO:O	21:1Z:91:LEU:HD12	2.21	0.41
25:13:11:SER:OG	25:13:13:ILE:HD12	2.21	0.41
26:14:54:GLY:HA2	26:14:55:ARG:HA	1.55	0.41
32:1a:56:U:H2'	32:1a:57:G:C8	2.55	0.41
32:1a:444:C:H2'	32:1a:445:G:C8	2.55	0.41
32:1a:1056:U:OP1	34:1c:163:ALA:N	2.52	0.41
32:1a:1120:G:H2'	32:1a:1121:U:C6	2.56	0.41
33:1b:121:LEU:HA	33:1b:126:GLU:HG3	2.03	0.41
35:1d:18:LYS:HD2	35:1d:20:TYR:CE1	2.55	0.41
35:1d:164:ALA:HB1	35:1d:168:ARG:HE	1.85	0.41
42:1k:23:ALA:O	42:1k:86:GLY:HA3	2.21	0.41
43:1l:27:LEU:HD23	43:1l:27:LEU:HA	1.89	0.41
44:1m:22:ILE:HG21	44:1m:66:LEU:HD13	2.02	0.41
55:1x:61:C:O2'	55:1x:62:C:H5'	2.21	0.41
1:2A:654:A:H2	1:2A:655:A:N1	2.18	0.41
1:2A:729:G:O2'	1:2A:763:G:H4'	2.20	0.41
1:2A:863:A:H2'	1:2A:864:G:C8	2.56	0.41
1:2A:1266:G:O2'	1:2A:2012:G:O6	2.39	0.41
1:2A:1453:U:H5	13:2R:73:VAL:HG13	1.86	0.41
1:2A:2161:C:H2'	1:2A:2162:G:O4'	2.21	0.41
1:2A:2617:C:H2'	1:2A:2618:G:O4'	2.21	0.41
1:2A:2741:A:H2'	1:2A:2742:C:O4'	2.21	0.41
2:2B:78:A:H2'	2:2B:79:C:O4'	2.21	0.41
5:2F:150:GLY:HA2	5:2F:172:TRP:CD2	2.55	0.41
6:2G:59:GLU:OE2	6:2G:138:GLN:NE2	2.54	0.41
6:2G:99:MET:O	6:2G:103:LEU:HG	2.19	0.41
7:2H:3:ARG:HH12	7:2H:5:GLY:N	2.20	0.41
9:2N:99:LEU:O	9:2N:103:VAL:HG23	2.21	0.41
10:2O:88:ASN:HD21	10:2O:92:GLU:HB2	1.86	0.41
14:2S:10:ARG:NH2	14:2S:91:PRO:HB2	2.36	0.41
17:2V:48:GLY:HA2	17:2V:52:VAL:HG13	2.02	0.41
21:2Z:53:ILE:CD1	21:2Z:99:TYR:HB2	2.50	0.41
32:2a:189(A):C:H2'	32:2a:189(B):C:C6	2.56	0.41
32:2a:445:G:C2	32:2a:446:G:C4	3.09	0.41
32:2a:782:A:O3'	32:2a:1515:C:H4'	2.21	0.41
32:2a:791:G:N2	32:2a:1497:G:H4'	2.35	0.41
32:2a:1009:G:H21	32:2a:1010:G:H1'	1.86	0.41
32:2a:1055:A:C5	32:2a:1206:G:C2	3.09	0.41
32:2a:1153:C:H2'	32:2a:1154:G:C8	2.56	0.41
32:2a:1361:G:O5'	32:2a:1361:G:H8	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1404:5MC:O2	32:2a:1519:MA6:O2'	2.27	0.41
34:2c:108:ASN:O	34:2c:111:LEU:HB2	2.21	0.41
34:2c:131:ARG:HD3	34:2c:166:GLU:OE1	2.21	0.41
40:2i:4:TYR:CZ	40:2i:88:TYR:HD1	2.39	0.41
40:2i:34:ASN:OD1	40:2i:34:ASN:N	2.51	0.41
45:2n:12:ARG:HH22	45:2n:14:PRO:HB3	1.86	0.41
46:2o:39:LEU:HD23	46:2o:39:LEU:HA	1.84	0.41
50:2s:40:ILE:HB	50:2s:67:VAL:O	2.21	0.41
54:2w:7:A:N6	54:2w:65:G:O6	2.54	0.41
1:1A:631:A:OP1	11:1P:65:ARG:HD3	2.21	0.40
1:1A:1066:U:O2	1:1A:1068:G:H5''	2.20	0.40
1:1A:1668:A:O2'	1:1A:1674:G:N7	2.38	0.40
1:1A:1820:U:C2	3:1D:202:LYS:HE3	2.56	0.40
1:1A:2070:G:H2'	1:1A:2071:A:C8	2.57	0.40
1:1A:2340:G:H2'	1:1A:2341:G:C8	2.56	0.40
9:1N:70:LYS:O	9:1N:86:PRO:HA	2.21	0.40
11:1P:38:GLN:C	11:1P:40:SER:H	2.27	0.40
26:14:57:GLU:HA	26:14:58:ARG:HA	1.79	0.40
32:1a:240:C:H2'	32:1a:241:C:H6	1.85	0.40
32:1a:1027:C:C4	32:1a:1034:G:N1	2.87	0.40
32:1a:1355:G:H2'	32:1a:1356:G:C8	2.56	0.40
34:1c:56:ASP:HB2	34:1c:67:THR:HB	2.03	0.40
34:1c:193:TYR:CE1	34:1c:196:LEU:HD11	2.55	0.40
37:1f:14:LEU:HD22	37:1f:18:GLN:HB3	2.02	0.40
38:1g:79:ARG:NH2	38:1g:80:VAL:HG22	2.36	0.40
39:1h:36:LEU:HD23	39:1h:39:LEU:HD12	2.02	0.40
43:1l:69:TYR:HE2	43:1l:71:PRO:HA	1.85	0.40
49:1r:47:THR:O	49:1r:83:GLU:N	2.49	0.40
1:2A:124:G:OP1	1:2A:1376:C:O2'	2.37	0.40
1:2A:300:A:H1'	1:2A:319:C:H1'	2.02	0.40
1:2A:362:U:H4'	1:2A:363:G:OP1	2.21	0.40
1:2A:1354:A:H2'	1:2A:1355:G:O4'	2.21	0.40
1:2A:1639:U:C2'	1:2A:1640:C:H5''	2.49	0.40
1:2A:1857:G:C6	1:2A:1858:G:N1	2.89	0.40
4:2E:27:LEU:HD22	15:2T:1:MET:SD	2.61	0.40
7:2H:117:PRO:HA	7:2H:118:PRO:HD3	1.94	0.40
8:2I:87:LYS:HA	8:2I:122:GLU:HA	2.02	0.40
17:2V:5:VAL:HG13	17:2V:14:VAL:HG21	2.03	0.40
26:24:58:ARG:NH1	50:2s:68:GLY:HA3	2.36	0.40
32:2a:37:U:H2'	32:2a:38:G:H8	1.86	0.40
32:2a:88:A:H5''	32:2a:89:C:C6	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:338:A:H61	32:2a:351:G:H1	1.69	0.40
32:2a:407:G:OP1	35:2d:115:ARG:HD3	2.20	0.40
32:2a:833:U:H2'	32:2a:834:C:H6	1.86	0.40
32:2a:1333:A:H2'	32:2a:1334:G:O4'	2.20	0.40
32:2a:1394:A:N6	32:2a:1501:C:H5'	2.37	0.40
33:2b:47:THR:OG1	33:2b:202:PRO:HG2	2.22	0.40
33:2b:120:ALA:O	33:2b:125:PRO:HD2	2.21	0.40
34:2c:131:ARG:NH2	36:2e:50:GLU:HG3	2.36	0.40
34:2c:164:ARG:O	34:2c:165:THR:OG1	2.30	0.40
35:2d:119:GLN:HG2	35:2d:123:HIS:HD2	1.86	0.40
36:2e:53:LEU:HD12	36:2e:53:LEU:H	1.86	0.40
38:2g:78:ARG:HD3	38:2g:79:ARG:H	1.85	0.40
44:2m:15:VAL:O	44:2m:19:LEU:HD13	2.21	0.40
44:2m:28:ALA:C	44:2m:30:ALA:N	2.79	0.40
54:2w:19:G:N2	54:2w:56:C:N3	2.69	0.40
1:1A:226:G:C2	1:1A:228:A:N6	2.90	0.40
1:1A:1063:G:C5	1:1A:1064:C:N4	2.89	0.40
1:1A:1072:C:H5''	1:1A:1073:A:OP1	2.20	0.40
1:1A:1242:A:N1	11:1P:2:LYS:NZ	2.63	0.40
1:1A:1385:G:O2'	1:1A:1396:U:O2	2.34	0.40
1:1A:1570:A:H2'	1:1A:1571:A:C8	2.57	0.40
1:1A:1688:U:H1'	1:1A:1701:A:C6	2.56	0.40
1:1A:1945:G:H2'	1:1A:1946:U:C6	2.55	0.40
1:1A:1997:G:H4'	61:1A:6341:HOH:O	2.21	0.40
1:1A:2287:A:C8	1:1A:2289:G:C8	3.09	0.40
3:1D:145:VAL:O	3:1D:155:LEU:HD12	2.20	0.40
3:1D:184:LYS:HE2	3:1D:184:LYS:HB3	1.80	0.40
3:1D:245:PRO:HA	3:1D:246:PRO:HD3	1.95	0.40
24:12:2:LYS:HB2	24:12:5:GLU:HG3	2.02	0.40
25:13:23:LEU:HD13	25:13:50:VAL:HG11	2.03	0.40
28:16:16:CYS:SG	28:16:18:ARG:NH1	2.94	0.40
32:1a:578:C:H42	32:1a:763:G:H1	1.68	0.40
32:1a:811:C:N4	61:1a:1932:HOH:O	2.53	0.40
32:1a:942:G:H21	40:1i:124:GLN:NE2	2.19	0.40
32:1a:946:A:O2'	32:1a:1333:A:N3	2.38	0.40
32:1a:1253:G:C2	32:1a:1254:C:C2	3.09	0.40
33:1b:91:PRO:HG2	33:1b:155:LEU:HD13	2.02	0.40
34:1c:12:LEU:HD23	34:1c:12:LEU:HA	1.85	0.40
46:1o:8:LYS:O	46:1o:12:ILE:HG13	2.20	0.40
49:1r:68:LYS:HE2	49:1r:68:LYS:HB2	1.91	0.40
51:1t:99:LEU:HA	51:1t:100:ILE:HA	1.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:1x:24:U:H2'	55:1x:25:C:O4'	2.21	0.40
1:2A:93:G:H2'	1:2A:94:C:H6	1.85	0.40
1:2A:271(T):C:H2'	1:2A:271(U):G:C8	2.56	0.40
1:2A:322:A:P	5:2F:169:ASN:HB2	2.62	0.40
1:2A:443:A:N7	5:2F:45:ARG:HG2	2.36	0.40
1:2A:467:G:OP1	29:27:33:ARG:NH1	2.54	0.40
1:2A:829:A:C8	1:2A:2248:C:H5'	2.56	0.40
1:2A:1512:U:H2'	1:2A:1513:C:H6	1.86	0.40
1:2A:1714:G:H1	1:2A:1745(A):C:H42	1.69	0.40
1:2A:2018:G:H2'	1:2A:2019:A:O4'	2.21	0.40
1:2A:2131:G:C8	1:2A:2133:G:N3	2.89	0.40
1:2A:2259:G:H1'	1:2A:2427:C:H2'	2.03	0.40
1:2A:2313:C:H4'	6:2G:91:ARG:HG3	2.03	0.40
1:2A:2809:A:C6	1:2A:2810:A:C6	3.08	0.40
1:2A:2880:C:O3'	13:2R:90:ARG:NH1	2.53	0.40
2:2B:6:C:C2	2:2B:116:G:N2	2.88	0.40
3:2D:44:ASN:HD21	3:2D:46:GLN:CD	2.29	0.40
6:2G:122:PRO:HB3	6:2G:170:ARG:HH21	1.86	0.40
8:2I:66:GLU:OE1	8:2I:69:LYS:HD3	2.20	0.40
9:2N:14:VAL:C	9:2N:135:PRO:HB2	2.46	0.40
14:2S:110:LEU:HD12	14:2S:110:LEU:HA	1.81	0.40
15:2T:90:GLN:HG3	15:2T:91:ARG:N	2.36	0.40
19:2X:72:LYS:HG2	19:2X:73:ARG:O	2.21	0.40
21:2Z:74:VAL:HA	21:2Z:85:HIS:O	2.21	0.40
23:21:76:ARG:HG2	23:21:76:ARG:H	1.55	0.40
28:26:5:VAL:HA	28:26:27:LYS:HE2	2.03	0.40
32:2a:142:G:H2'	32:2a:143:A:C8	2.56	0.40
32:2a:792:A:O2'	32:2a:794:A:N7	2.42	0.40
32:2a:959:A:H3'	32:2a:960:U:H5''	2.03	0.40
32:2a:1144:G:H21	32:2a:1146:A:H62	1.68	0.40
32:2a:1273:G:H5'	32:2a:1274:G:OP2	2.20	0.40
32:2a:1411:C:H2'	32:2a:1412:C:H6	1.85	0.40
33:2b:24:TRP:CD1	33:2b:24:TRP:N	2.88	0.40
33:2b:58:ILE:H	33:2b:58:ILE:HG13	1.65	0.40
37:2f:9:VAL:HA	37:2f:59:TYR:O	2.21	0.40
40:2i:32:ASP:O	40:2i:35:GLU:N	2.47	0.40
44:2m:78:ILE:HG12	44:2m:92:HIS:CE1	2.56	0.40
49:2r:44:LEU:HD11	49:2r:79:LEU:HD23	2.04	0.40
55:2x:65:C:H2'	55:2x:66:C:H6	1.86	0.40
54:2y:69:G:C6	54:2y:70:G:C5	3.09	0.40
1:1A:644:A:H4'	1:1A:645:C:C5	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:723:G:H2'	1:1A:724:U:O4'	2.21	0.40
1:1A:1027:A:C2	1:1A:2488:A:H5'	2.56	0.40
1:1A:1504:C:H2'	1:1A:1505:C:C6	2.57	0.40
1:1A:1803:A:H4'	3:1D:259:THR:HG23	2.02	0.40
1:1A:2066:C:H5''	61:1A:7222:HOH:O	2.20	0.40
1:1A:2302:G:C6	1:1A:2315:G:C6	3.09	0.40
6:1G:28:VAL:HG23	6:1G:29:TRP:CD1	2.57	0.40
11:1P:38:GLN:O	11:1P:39:LYS:HB3	2.21	0.40
15:1T:46:GLU:H	15:1T:65:LYS:HZ3	1.69	0.40
32:1a:942:G:C2	32:1a:1342:C:C2	3.09	0.40
32:1a:1152:A:OP1	41:1j:68:HIS:ND1	2.55	0.40
32:1a:1312:G:H5'	50:1s:5:LEU:HD21	2.03	0.40
32:1a:1343:G:H1'	40:1i:121:ARG:NH1	2.36	0.40
37:1f:87:ARG:HD3	37:1f:87:ARG:HA	1.85	0.40
54:1w:35:A:H2'	54:1w:36:A:O4'	2.21	0.40
1:2A:263:C:H2'	1:2A:264:C:O4'	2.21	0.40
1:2A:1131:G:O6	1:2A:2040:C:H1'	2.20	0.40
1:2A:1165:U:H2'	1:2A:1166:C:C6	2.56	0.40
1:2A:1351:C:O3'	1:2A:1571:A:O2'	2.39	0.40
1:2A:1567:A:O4'	1:2A:1568:G:C2	2.74	0.40
1:2A:2336:A:H61	22:20:43:THR:HG22	1.86	0.40
1:2A:2734:A:H2'	1:2A:2735:G:O4'	2.21	0.40
6:2G:110:ALA:HA	6:2G:140:ILE:O	2.21	0.40
8:2I:79:ILE:HB	8:2I:144:VAL:HG12	2.04	0.40
14:2S:74:ALA:CB	14:2S:108:GLY:HA3	2.51	0.40
15:2T:6:LEU:O	15:2T:10:VAL:HG23	2.22	0.40
26:24:50:VAL:HB	44:2m:65:LYS:HB3	2.03	0.40
29:27:8:ASN:HB3	29:27:11:LYS:HB3	2.03	0.40
32:2a:157:G:H2'	32:2a:158:G:O4'	2.20	0.40
32:2a:675:A:H2'	32:2a:676:A:O4'	2.21	0.40
32:2a:828:A:H2'	32:2a:829:G:O4'	2.21	0.40
32:2a:1015:A:O2'	32:2a:1219:U:H5'	2.21	0.40
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.35	0.40
38:2g:23:VAL:O	38:2g:27:ILE:HG13	2.21	0.40
39:2h:26:VAL:HG12	39:2h:32:LYS:NZ	2.37	0.40
40:2i:22:GLY:H	40:2i:59:PHE:HA	1.86	0.40
1:1A:228:A:H2'	1:1A:230:U:O4'	2.21	0.40
1:1A:1448:G:H1'	1:1A:1528:A:N1	2.37	0.40
1:1A:1805:U:O2	3:1D:50:THR:HB	2.20	0.40
2:1B:33:G:H5'	6:1G:2:PRO:HD3	2.03	0.40
3:1D:79:VAL:CG1	3:1D:113:VAL:HA	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1G:103:LEU:HD23	6:1G:103:LEU:HA	1.68	0.40
8:1I:60:GLU:C	8:1I:62:LYS:H	2.28	0.40
10:1O:111:PHE:HB3	10:1O:114:ILE:HG13	2.03	0.40
13:1R:29:LEU:HD23	13:1R:116:LEU:HD11	2.03	0.40
32:1a:675:A:H1'	42:1k:116:HIS:CD2	2.57	0.40
32:1a:993:G:H2'	32:1a:995:C:H41	1.87	0.40
32:1a:1003:G:H2'	32:1a:1004:A:N3	2.36	0.40
32:1a:1198:G:H2'	32:1a:1199:U:C6	2.56	0.40
32:1a:1464:G:H2'	32:1a:1465:C:C6	2.56	0.40
34:1c:28:GLN:HA	34:1c:31:HIS:ND1	2.37	0.40
37:1f:8:ILE:HG22	37:1f:10:LEU:HD22	2.03	0.40
38:1g:6:ARG:HG2	38:1g:7:ALA:N	2.37	0.40
41:1j:11:PHE:CE1	41:1j:67:THR:HG22	2.56	0.40
47:1p:73:LEU:HD23	47:1p:73:LEU:HA	1.90	0.40
54:1y:29:G:H2'	54:1y:30:G:C8	2.57	0.40
1:2A:275:G:H3'	1:2A:276:A:H8	1.86	0.40
1:2A:339:U:O5'	1:2A:339:U:H6	2.05	0.40
1:2A:384:U:H2'	1:2A:385:C:H6	1.86	0.40
1:2A:476:G:N1	1:2A:479:A:OP2	2.52	0.40
1:2A:702:G:C2	1:2A:731:C:C2	3.09	0.40
1:2A:1572:A:H5'	61:2A:4174:HOH:O	2.22	0.40
1:2A:1833:U:O2'	1:2A:1969:A:N1	2.37	0.40
1:2A:2017:U:O2	27:25:10:LYS:HB2	2.21	0.40
1:2A:2151:G:H2'	1:2A:2152:G:C8	2.57	0.40
1:2A:2757:A:OP2	31:29:20:HIS:HA	2.22	0.40
3:2D:146:GLU:HG2	3:2D:152:GLY:C	2.46	0.40
4:2E:36:ARG:HH12	4:2E:86:PRO:HD2	1.86	0.40
6:2G:125:PHE:HB3	6:2G:166:ASP:OD1	2.21	0.40
13:2R:9:LYS:O	13:2R:17:ARG:HD3	2.21	0.40
26:24:28:LYS:HA	26:24:29:PRO:HD3	1.94	0.40
32:2a:520:A:C2	32:2a:536:C:H1'	2.57	0.40
32:2a:552:U:H1'	43:2l:32:PHE:CZ	2.56	0.40
32:2a:971:G:H3'	32:2a:971:G:OP1	2.22	0.40
32:2a:1092:A:N3	32:2a:1183:A:N6	2.69	0.40
32:2a:1224:G:H1	32:2a:1363:C:N4	2.20	0.40
34:2c:12:LEU:HD23	34:2c:12:LEU:HA	1.89	0.40
34:2c:32:LEU:HD11	34:2c:59:ARG:NH1	2.36	0.40
39:2h:109:ILE:HG23	39:2h:137:VAL:O	2.22	0.40
40:2i:94:ALA:C	40:2i:96:LEU:H	2.29	0.40
55:2x:52:G:C2	55:2x:53:G:C8	3.09	0.40
1:1A:1094:U:H1'	1:1A:1097:U:C4	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1129:A:N1	1:1A:2569:G:O2'	2.53	0.40
1:1A:1499:C:H2'	1:1A:1500:G:C8	2.57	0.40
1:1A:1882:C:H2'	1:1A:1883:G:O4'	2.22	0.40
1:1A:2259:G:H1'	1:1A:2427:C:C2	2.57	0.40
1:1A:2544:G:H1'	1:1A:2646:C:H4'	2.04	0.40
2:1B:31:C:H4'	6:1G:29:TRP:CH2	2.57	0.40
7:1H:143:GLN:O	7:1H:147:ASN:ND2	2.55	0.40
10:1O:17:ARG:HA	10:1O:17:ARG:HD3	1.80	0.40
21:1Z:52:SER:O	21:1Z:53:ILE:HG12	2.22	0.40
32:1a:254:G:O2'	48:1q:16:GLN:O	2.32	0.40
32:1a:444:C:H2'	32:1a:445:G:H8	1.86	0.40
32:1a:534:U:O5'	32:1a:534:U:H6	2.04	0.40
32:1a:546:G:OP1	35:1d:73:ARG:N	2.54	0.40
32:1a:1273:G:H3'	32:1a:1274:G:C8	2.57	0.40
36:1e:118:ILE:HG12	36:1e:119:LEU:N	2.37	0.40
37:1f:89:MET:HE2	37:1f:89:MET:HB3	1.93	0.40
1:2A:272(H):C:H2'	1:2A:272(I):U:C6	2.56	0.40
1:2A:402:A:H2'	1:2A:403:U:H5'	2.04	0.40
1:2A:645:C:H5''	1:2A:646:A:OP2	2.21	0.40
1:2A:875:G:H2'	1:2A:876:C:C6	2.57	0.40
1:2A:1518:U:H2'	1:2A:1519:G:O4'	2.21	0.40
1:2A:1523:U:H2'	1:2A:1524:G:C8	2.56	0.40
1:2A:1942:5MC:C4	1:2A:1943:U:C4	3.10	0.40
1:2A:2319:G:H22	14:2S:3:ARG:HH11	1.70	0.40
1:2A:2403:C:N3	1:2A:2415:G:C2	2.89	0.40
1:2A:2728:U:H2'	1:2A:2729:G:C8	2.57	0.40
2:2B:2:C:O2'	2:2B:3:C:H5'	2.21	0.40
6:2G:38:VAL:HG12	6:2G:93:THR:HA	2.03	0.40
8:2I:31:LEU:N	8:2I:32:PRO:HD2	2.36	0.40
8:2I:93:THR:O	8:2I:97:ILE:HG13	2.22	0.40
11:2P:2:LYS:HG2	11:2P:3:LEU:H	1.86	0.40
12:2Q:26:TYR:O	12:2Q:67:ARG:NH1	2.51	0.40
12:2Q:57:HIS:CD2	12:2Q:117:ALA:HB2	2.50	0.40
13:2R:33:ARG:HB2	13:2R:115:GLU:HB3	2.04	0.40
14:2S:10:ARG:NH2	14:2S:91:PRO:O	2.52	0.40
19:2X:94:GLY:N	19:2X:95:LEU:HB2	2.36	0.40
20:2Y:9:LYS:HA	20:2Y:10:GLY:HA2	1.52	0.40
20:2Y:55:TYR:N	20:2Y:56:PRO:HD3	2.37	0.40
26:24:15:ILE:H	26:24:15:ILE:HG12	1.67	0.40
29:27:16:HIS:HB3	29:27:44:PRO:HG2	2.03	0.40
30:28:23:VAL:CG2	30:28:47:LYS:HB3	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:880:C:H2'	32:2a:881:G:H8	1.85	0.40
32:2a:937:A:H3'	32:2a:938:A:H8	1.86	0.40
32:2a:940:C:H2'	32:2a:941:G:H8	1.86	0.40
33:2b:200:ILE:HG22	33:2b:202:PRO:HD3	2.03	0.40
36:2e:146:ALA:HA	36:2e:149:GLU:HB2	2.03	0.40
40:2i:4:TYR:CE1	40:2i:88:TYR:HA	2.57	0.40
48:2q:15:MET:HB3	48:2q:18:THR:HB	2.03	0.40
50:2s:42:PRO:HG3	50:2s:67:VAL:HG21	2.04	0.40
51:2t:13:LEU:O	51:2t:17:ARG:HG2	2.22	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:279:C:O2'	32:2a:84:U:O2'[3_754]	2.09	0.11

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%)	249 (91%)	24 (9%)	0	100	100
3	2D	273/276 (99%)	247 (90%)	26 (10%)	0	100	100
4	1E	202/206 (98%)	184 (91%)	16 (8%)	2 (1%)	12	38
4	2E	202/206 (98%)	187 (93%)	12 (6%)	3 (2%)	8	28
5	1F	201/210 (96%)	196 (98%)	4 (2%)	1 (0%)	24	55
5	2F	201/210 (96%)	180 (90%)	20 (10%)	1 (0%)	24	55
6	1G	179/182 (98%)	164 (92%)	13 (7%)	2 (1%)	11	36
6	2G	179/182 (98%)	162 (90%)	14 (8%)	3 (2%)	7	25
7	1H	172/180 (96%)	158 (92%)	11 (6%)	3 (2%)	7	25

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
7	2H	172/180 (96%)	151 (88%)	19 (11%)	2 (1%)	10	34
8	1I	144/148 (97%)	121 (84%)	22 (15%)	1 (1%)	18	47
8	2I	144/148 (97%)	114 (79%)	27 (19%)	3 (2%)	5	20
9	1N	138/140 (99%)	129 (94%)	8 (6%)	1 (1%)	18	47
9	2N	138/140 (99%)	120 (87%)	15 (11%)	3 (2%)	5	19
10	1O	120/122 (98%)	112 (93%)	8 (7%)	0	100	100
10	2O	120/122 (98%)	108 (90%)	11 (9%)	1 (1%)	16	44
11	1P	147/150 (98%)	126 (86%)	17 (12%)	4 (3%)	4	15
11	2P	147/150 (98%)	133 (90%)	10 (7%)	4 (3%)	4	15
12	1Q	139/141 (99%)	127 (91%)	11 (8%)	1 (1%)	18	47
12	2Q	139/141 (99%)	125 (90%)	14 (10%)	0	100	100
13	1R	116/118 (98%)	111 (96%)	5 (4%)	0	100	100
13	2R	116/118 (98%)	104 (90%)	12 (10%)	0	100	100
14	1S	108/112 (96%)	96 (89%)	12 (11%)	0	100	100
14	2S	108/112 (96%)	95 (88%)	10 (9%)	3 (3%)	4	14
15	1T	129/146 (88%)	120 (93%)	9 (7%)	0	100	100
15	2T	129/146 (88%)	118 (92%)	10 (8%)	1 (1%)	16	44
16	1U	114/118 (97%)	110 (96%)	4 (4%)	0	100	100
16	2U	114/118 (97%)	111 (97%)	3 (3%)	0	100	100
17	1V	99/101 (98%)	91 (92%)	7 (7%)	1 (1%)	12	38
17	2V	99/101 (98%)	90 (91%)	6 (6%)	3 (3%)	3	12
18	1W	110/113 (97%)	106 (96%)	4 (4%)	0	100	100
18	2W	110/113 (97%)	105 (96%)	5 (4%)	0	100	100
19	1X	93/96 (97%)	87 (94%)	5 (5%)	1 (1%)	11	36
19	2X	93/96 (97%)	83 (89%)	10 (11%)	0	100	100
20	1Y	105/110 (96%)	96 (91%)	7 (7%)	2 (2%)	6	22
20	2Y	105/110 (96%)	98 (93%)	6 (6%)	1 (1%)	12	38
21	1Z	148/206 (72%)	126 (85%)	20 (14%)	2 (1%)	9	30
21	2Z	156/206 (76%)	116 (74%)	37 (24%)	3 (2%)	6	22
22	10	81/85 (95%)	78 (96%)	3 (4%)	0	100	100
22	20	81/85 (95%)	74 (91%)	6 (7%)	1 (1%)	10	34

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
23	11	95/98 (97%)	91 (96%)	3 (3%)	1 (1%)	11	36
23	21	95/98 (97%)	91 (96%)	3 (3%)	1 (1%)	11	36
24	12	68/72 (94%)	65 (96%)	3 (4%)	0	100	100
24	22	68/72 (94%)	66 (97%)	2 (3%)	0	100	100
25	13	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
25	23	57/60 (95%)	53 (93%)	3 (5%)	1 (2%)	6	23
26	14	67/71 (94%)	50 (75%)	12 (18%)	5 (8%)	1	2
26	24	67/71 (94%)	51 (76%)	12 (18%)	4 (6%)	1	3
27	15	57/60 (95%)	52 (91%)	5 (9%)	0	100	100
27	25	57/60 (95%)	52 (91%)	5 (9%)	0	100	100
28	16	51/54 (94%)	49 (96%)	2 (4%)	0	100	100
28	26	51/54 (94%)	44 (86%)	7 (14%)	0	100	100
29	17	46/49 (94%)	45 (98%)	1 (2%)	0	100	100
29	27	46/49 (94%)	45 (98%)	1 (2%)	0	100	100
30	18	62/65 (95%)	57 (92%)	5 (8%)	0	100	100
30	28	62/65 (95%)	57 (92%)	5 (8%)	0	100	100
31	19	35/37 (95%)	35 (100%)	0	0	100	100
31	29	35/37 (95%)	33 (94%)	2 (6%)	0	100	100
33	1b	229/256 (90%)	181 (79%)	41 (18%)	7 (3%)	3	12
33	2b	229/256 (90%)	176 (77%)	47 (20%)	6 (3%)	4	15
34	1c	204/239 (85%)	178 (87%)	23 (11%)	3 (2%)	8	28
34	2c	204/239 (85%)	161 (79%)	41 (20%)	2 (1%)	12	38
35	1d	206/209 (99%)	187 (91%)	15 (7%)	4 (2%)	6	22
35	2d	206/209 (99%)	186 (90%)	19 (9%)	1 (0%)	24	55
36	1e	146/162 (90%)	126 (86%)	19 (13%)	1 (1%)	18	47
36	2e	146/162 (90%)	124 (85%)	20 (14%)	2 (1%)	9	30
37	1f	98/101 (97%)	89 (91%)	8 (8%)	1 (1%)	12	38
37	2f	98/101 (97%)	92 (94%)	6 (6%)	0	100	100
38	1g	153/156 (98%)	132 (86%)	20 (13%)	1 (1%)	18	47
38	2g	153/156 (98%)	132 (86%)	17 (11%)	4 (3%)	4	15
39	1h	135/138 (98%)	117 (87%)	15 (11%)	3 (2%)	5	19

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
39	2h	135/138 (98%)	119 (88%)	16 (12%)	0	100	100
40	1i	125/128 (98%)	108 (86%)	15 (12%)	2 (2%)	7	27
40	2i	125/128 (98%)	98 (78%)	24 (19%)	3 (2%)	4	17
41	1j	95/105 (90%)	79 (83%)	13 (14%)	3 (3%)	3	11
41	2j	94/105 (90%)	74 (79%)	13 (14%)	7 (7%)	1	2
42	1k	112/129 (87%)	101 (90%)	9 (8%)	2 (2%)	6	23
42	2k	112/129 (87%)	97 (87%)	14 (12%)	1 (1%)	14	41
43	1l	119/132 (90%)	108 (91%)	11 (9%)	0	100	100
43	2l	119/132 (90%)	105 (88%)	13 (11%)	1 (1%)	16	44
44	1m	121/126 (96%)	102 (84%)	17 (14%)	2 (2%)	7	25
44	2m	120/126 (95%)	99 (82%)	17 (14%)	4 (3%)	3	11
45	1n	58/61 (95%)	51 (88%)	7 (12%)	0	100	100
45	2n	58/61 (95%)	50 (86%)	6 (10%)	2 (3%)	3	11
46	1o	86/89 (97%)	79 (92%)	6 (7%)	1 (1%)	10	34
46	2o	86/89 (97%)	78 (91%)	7 (8%)	1 (1%)	10	34
47	1p	80/88 (91%)	67 (84%)	13 (16%)	0	100	100
47	2p	80/88 (91%)	73 (91%)	7 (9%)	0	100	100
48	1q	97/105 (92%)	84 (87%)	12 (12%)	1 (1%)	12	38
48	2q	97/105 (92%)	87 (90%)	8 (8%)	2 (2%)	5	20
49	1r	66/88 (75%)	58 (88%)	8 (12%)	0	100	100
49	2r	66/88 (75%)	60 (91%)	6 (9%)	0	100	100
50	1s	81/93 (87%)	68 (84%)	11 (14%)	2 (2%)	4	16
50	2s	81/93 (87%)	63 (78%)	17 (21%)	1 (1%)	10	34
51	1t	94/106 (89%)	81 (86%)	11 (12%)	2 (2%)	5	20
51	2t	94/106 (89%)	85 (90%)	8 (8%)	1 (1%)	11	36
52	1u	21/27 (78%)	19 (90%)	2 (10%)	0	100	100
52	2u	21/27 (78%)	16 (76%)	3 (14%)	2 (10%)	0	1
All	All	11370/12128 (94%)	10088 (89%)	1142 (10%)	140 (1%)	10	34

All (140) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	1F	130	ALA

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Mol	Chain	Res	Type
6	1G	43	LEU
11	1P	36	LYS
11	1P	38	GLN
21	1Z	53	ILE
23	11	3	LYS
26	14	45	GLY
26	14	49	PHE
33	1b	17	PHE
33	1b	126	GLU
34	1c	66	VAL
35	1d	173	TRP
38	1g	80	VAL
41	1j	79	ARG
44	1m	67	GLU
44	1m	106	ASN
14	2S	81	GLY
17	2V	100	ARG
33	2b	17	PHE
38	2g	55	GLY
38	2g	80	VAL
42	2k	49	GLY
52	2u	3	LYS
6	1G	47	LYS
7	1H	47	GLU
26	14	62	ARG
33	1b	131	PRO
33	1b	195	ASP
34	1c	65	ALA
36	1e	85	GLY
37	1f	87	ARG
39	1h	133	LEU
40	1i	54	ASP
41	1j	75	ILE
42	1k	105	VAL
48	1q	68	ARG
4	2E	71	GLY
5	2F	130	ALA
6	2G	42	GLY
7	2H	126	PRO
8	2I	10	GLU
8	2I	40	THR
9	2N	64	GLY

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Mol	Chain	Res	Type
11	2P	36	LYS
14	2S	96	GLY
21	2Z	161	VAL
23	21	3	LYS
26	24	48	ARG
26	24	49	PHE
34	2c	107	GLN
36	2e	77	PRO
36	2e	85	GLY
43	2l	105	TYR
45	2n	14	PRO
46	2o	87	ILE
48	2q	68	ARG
4	1E	71	GLY
19	1X	67	GLY
20	1Y	78	ALA
21	1Z	51	ALA
26	14	44	THR
33	1b	231	GLU
46	1o	88	ARG
4	2E	52	LEU
4	2E	144	ARG
6	2G	124	SER
8	2I	39	ALA
9	2N	79	PRO
10	2O	5	GLN
15	2T	117	ASP
26	24	39	CYS
33	2b	9	GLU
33	2b	20	GLU
34	2c	91	LEU
38	2g	4	ARG
41	2j	41	PRO
41	2j	51	ARG
41	2j	77	PRO
41	2j	79	ARG
44	2m	75	ALA
50	2s	81	ARG
4	1E	52	LEU
7	1H	92	ILE
9	1N	2	LYS
12	1Q	60	ARG

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Mol	Chain	Res	Type
40	1i	56	LEU
6	2G	43	LEU
9	2N	81	GLY
14	2S	109	GLY
17	2V	79	VAL
20	2Y	43	ASN
21	2Z	144	LEU
25	23	38	GLU
41	2j	29	ARG
44	2m	29	ARG
44	2m	117	VAL
8	1I	12	LEU
11	1P	45	LEU
33	1b	16	HIS
34	1c	107	GLN
41	1j	58	ASP
50	1s	27	GLU
50	1s	47	HIS
11	2P	38	GLN
21	2Z	52	SER
26	24	29	PRO
33	2b	113	HIS
33	2b	123	ALA
33	2b	125	PRO
40	2i	10	ARG
40	2i	58	HIS
41	2j	78	ASN
45	2n	12	ARG
48	2q	67	LYS
52	2u	4	GLY
17	1V	79	VAL
35	1d	88	VAL
39	1h	115	SER
51	1t	95	ALA
11	2P	45	LEU
35	2d	136	PRO
51	2t	47	GLY
11	1P	93	GLY
35	1d	172	PRO
7	2H	169	VAL
11	2P	122	PRO
22	20	13	GLY

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Mol	Chain	Res	Type
38	2g	130	GLY
7	1H	126	PRO
42	1k	49	GLY
51	1t	100	ILE
41	2j	24	VAL
40	2i	90	PRO
26	14	29	PRO
33	1b	194	PRO
35	1d	50	ARG
39	1h	51	VAL
20	1Y	103	GLY
44	2m	7	VAL
17	2V	50	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%)	206 (96%)	9 (4%)	26	61
3	2D	215/218 (99%)	191 (89%)	24 (11%)	6	19
4	1E	164/166 (99%)	145 (88%)	19 (12%)	5	18
4	2E	164/166 (99%)	156 (95%)	8 (5%)	22	55
5	1F	160/166 (96%)	138 (86%)	22 (14%)	3	12
5	2F	159/166 (96%)	143 (90%)	16 (10%)	7	23
6	1G	143/156 (92%)	127 (89%)	16 (11%)	6	19
6	2G	143/156 (92%)	125 (87%)	18 (13%)	4	15
7	1H	144/148 (97%)	135 (94%)	9 (6%)	16	45
7	2H	144/148 (97%)	127 (88%)	17 (12%)	5	17
8	1I	113/124 (91%)	89 (79%)	24 (21%)	1	4
8	2I	105/124 (85%)	82 (78%)	23 (22%)	1	3
9	1N	118/119 (99%)	112 (95%)	6 (5%)	21	54
9	2N	118/119 (99%)	103 (87%)	15 (13%)	4	15

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
10	1O	100/100 (100%)	97 (97%)	3 (3%)	36	72
10	2O	100/100 (100%)	97 (97%)	3 (3%)	36	72
11	1P	115/116 (99%)	102 (89%)	13 (11%)	5	19
11	2P	115/116 (99%)	104 (90%)	11 (10%)	8	26
12	1Q	111/111 (100%)	99 (89%)	12 (11%)	6	21
12	2Q	111/111 (100%)	99 (89%)	12 (11%)	6	21
13	1R	101/101 (100%)	92 (91%)	9 (9%)	9	29
13	2R	101/101 (100%)	96 (95%)	5 (5%)	22	54
14	1S	86/88 (98%)	80 (93%)	6 (7%)	14	40
14	2S	85/88 (97%)	67 (79%)	18 (21%)	1	4
15	1T	115/127 (91%)	107 (93%)	8 (7%)	14	40
15	2T	113/127 (89%)	102 (90%)	11 (10%)	8	25
16	1U	93/94 (99%)	90 (97%)	3 (3%)	34	70
16	2U	93/94 (99%)	86 (92%)	7 (8%)	12	37
17	1V	80/82 (98%)	72 (90%)	8 (10%)	7	24
17	2V	80/82 (98%)	69 (86%)	11 (14%)	3	12
18	1W	90/92 (98%)	84 (93%)	6 (7%)	15	42
18	2W	90/92 (98%)	82 (91%)	8 (9%)	9	29
19	1X	77/78 (99%)	75 (97%)	2 (3%)	40	75
19	2X	77/78 (99%)	73 (95%)	4 (5%)	21	53
20	1Y	85/91 (93%)	74 (87%)	11 (13%)	4	14
20	2Y	85/91 (93%)	76 (89%)	9 (11%)	6	22
21	1Z	135/179 (75%)	115 (85%)	20 (15%)	3	10
21	2Z	137/179 (76%)	113 (82%)	24 (18%)	2	7
22	10	65/67 (97%)	60 (92%)	5 (8%)	12	36
22	20	65/67 (97%)	60 (92%)	5 (8%)	12	36
23	11	80/83 (96%)	73 (91%)	7 (9%)	9	29
23	21	80/83 (96%)	74 (92%)	6 (8%)	12	37
24	12	65/67 (97%)	62 (95%)	3 (5%)	24	58
24	22	65/67 (97%)	59 (91%)	6 (9%)	8	27
25	13	51/52 (98%)	44 (86%)	7 (14%)	3	13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
25	23	50/52 (96%)	47 (94%)	3 (6%)	17	47
26	14	59/63 (94%)	47 (80%)	12 (20%)	1	4
26	24	53/63 (84%)	44 (83%)	9 (17%)	2	7
27	15	50/52 (96%)	47 (94%)	3 (6%)	17	47
27	25	50/52 (96%)	46 (92%)	4 (8%)	11	34
28	16	51/52 (98%)	44 (86%)	7 (14%)	3	13
28	26	50/52 (96%)	46 (92%)	4 (8%)	11	34
29	17	41/42 (98%)	38 (93%)	3 (7%)	13	38
29	27	41/42 (98%)	38 (93%)	3 (7%)	13	38
30	18	54/55 (98%)	53 (98%)	1 (2%)	50	81
30	28	54/55 (98%)	51 (94%)	3 (6%)	19	50
31	19	34/34 (100%)	30 (88%)	4 (12%)	5	17
31	29	34/34 (100%)	31 (91%)	3 (9%)	9	29
33	1b	192/220 (87%)	162 (84%)	30 (16%)	2	9
33	2b	187/220 (85%)	149 (80%)	38 (20%)	1	4
34	1c	142/188 (76%)	125 (88%)	17 (12%)	5	17
34	2c	140/188 (74%)	122 (87%)	18 (13%)	4	14
35	1d	169/181 (93%)	150 (89%)	19 (11%)	6	19
35	2d	173/181 (96%)	151 (87%)	22 (13%)	4	15
36	1e	113/123 (92%)	104 (92%)	9 (8%)	11	34
36	2e	114/123 (93%)	99 (87%)	15 (13%)	4	14
37	1f	84/90 (93%)	71 (84%)	13 (16%)	2	9
37	2f	85/90 (94%)	79 (93%)	6 (7%)	13	39
38	1g	119/127 (94%)	103 (87%)	16 (13%)	4	13
38	2g	120/127 (94%)	106 (88%)	14 (12%)	5	18
39	1h	114/119 (96%)	103 (90%)	11 (10%)	8	26
39	2h	114/119 (96%)	97 (85%)	17 (15%)	3	10
40	1i	90/99 (91%)	77 (86%)	13 (14%)	3	11
40	2i	89/99 (90%)	80 (90%)	9 (10%)	7	23
41	1j	66/92 (72%)	56 (85%)	10 (15%)	3	10
41	2j	69/92 (75%)	59 (86%)	10 (14%)	3	11

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
42	1k	82/99 (83%)	72 (88%)	10 (12%)	5	16
42	2k	83/99 (84%)	66 (80%)	17 (20%)	1	4
43	1l	96/108 (89%)	87 (91%)	9 (9%)	8	27
43	2l	96/108 (89%)	83 (86%)	13 (14%)	4	13
44	1m	93/101 (92%)	81 (87%)	12 (13%)	4	14
44	2m	92/101 (91%)	75 (82%)	17 (18%)	1	6
45	1n	49/50 (98%)	42 (86%)	7 (14%)	3	11
45	2n	49/50 (98%)	46 (94%)	3 (6%)	17	46
46	1o	78/80 (98%)	72 (92%)	6 (8%)	12	36
46	2o	78/80 (98%)	73 (94%)	5 (6%)	16	44
47	1p	69/74 (93%)	63 (91%)	6 (9%)	9	30
47	2p	68/74 (92%)	60 (88%)	8 (12%)	5	17
48	1q	94/97 (97%)	84 (89%)	10 (11%)	6	22
48	2q	94/97 (97%)	80 (85%)	14 (15%)	3	10
49	1r	59/77 (77%)	50 (85%)	9 (15%)	3	10
49	2r	59/77 (77%)	51 (86%)	8 (14%)	3	13
50	1s	69/80 (86%)	65 (94%)	4 (6%)	18	49
50	2s	67/80 (84%)	51 (76%)	16 (24%)	1	3
51	1t	70/82 (85%)	61 (87%)	9 (13%)	4	14
51	2t	70/82 (85%)	64 (91%)	6 (9%)	10	31
52	1u	18/22 (82%)	16 (89%)	2 (11%)	6	20
52	2u	18/22 (82%)	17 (94%)	1 (6%)	19	50
All	All	9303/10064 (92%)	8276 (89%)	1027 (11%)	6	20

All (1027) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	14	ARG
3	1D	117	VAL
3	1D	142	VAL
3	1D	147	LEU
3	1D	229	VAL
3	1D	239	ARG
3	1D	242	ARG

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Mol	Chain	Res	Type
3	1D	254	THR
3	1D	273	ARG
4	1E	5	LEU
4	1E	12	THR
4	1E	13	ARG
4	1E	21	VAL
4	1E	45	THR
4	1E	47	VAL
4	1E	49	LEU
4	1E	59	VAL
4	1E	77	ILE
4	1E	78	LEU
4	1E	89	ASP
4	1E	90	THR
4	1E	92	THR
4	1E	116	VAL
4	1E	119	ARG
4	1E	127	ASP
4	1E	145	LYS
4	1E	175	VAL
4	1E	195	LEU
5	1F	18	ARG
5	1F	23	ASP
5	1F	27	GLU
5	1F	28	ILE
5	1F	32	LEU
5	1F	33	LEU
5	1F	52	LYS
5	1F	53	THR
5	1F	57	VAL
5	1F	70	THR
5	1F	74	ARG
5	1F	106	ARG
5	1F	120	GLU
5	1F	127	GLU
5	1F	140	LEU
5	1F	144	LYS
5	1F	158	THR
5	1F	168	ARG
5	1F	176	LEU
5	1F	183	VAL
5	1F	192	LEU

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Mol	Chain	Res	Type
5	1F	201	VAL
6	1G	3	LEU
6	1G	5	VAL
6	1G	31	VAL
6	1G	33	ARG
6	1G	38	VAL
6	1G	43	LEU
6	1G	79	ASN
6	1G	82	LEU
6	1G	108	ASN
6	1G	126	ASP
6	1G	133	LEU
6	1G	140	ILE
6	1G	145	THR
6	1G	149	VAL
6	1G	159	VAL
6	1G	170	ARG
7	1H	2	SER
7	1H	11	VAL
7	1H	16	SER
7	1H	49	VAL
7	1H	50	VAL
7	1H	114	VAL
7	1H	125	VAL
7	1H	130	ARG
7	1H	136	ILE
8	1I	9	LEU
8	1I	10	GLU
8	1I	19	VAL
8	1I	20	ASP
8	1I	27	ARG
8	1I	31	LEU
8	1I	37	VAL
8	1I	40	THR
8	1I	41	GLU
8	1I	47	LEU
8	1I	57	ARG
8	1I	58	LEU
8	1I	86	THR
8	1I	87	LYS
8	1I	92	VAL
8	1I	101	LEU

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Mol	Chain	Res	Type
8	1I	107	VAL
8	1I	109	ILE
8	1I	116	LEU
8	1I	129	THR
8	1I	133	HIS
8	1I	140	LEU
8	1I	143	SER
8	1I	144	VAL
9	1N	28	THR
9	1N	32	THR
9	1N	46	VAL
9	1N	62	VAL
9	1N	112	LEU
9	1N	140	VAL
10	1O	21	CYS
10	1O	114	ILE
10	1O	120	GLU
11	1P	3	LEU
11	1P	45	LEU
11	1P	46	LYS
11	1P	57	THR
11	1P	65	ARG
11	1P	70	GLN
11	1P	74	GLU
11	1P	90	ARG
11	1P	95	VAL
11	1P	96	THR
11	1P	133	SER
11	1P	135	LEU
11	1P	149	GLU
12	1Q	7	MET
12	1Q	8	LYS
12	1Q	11	LYS
12	1Q	38	GLU
12	1Q	66	ILE
12	1Q	80	GLU
12	1Q	85	LYS
12	1Q	97	VAL
12	1Q	109	VAL
12	1Q	110	THR
12	1Q	115	MET
12	1Q	138	ASP

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Mol	Chain	Res	Type
13	1R	6	SER
13	1R	23	ASN
13	1R	36	THR
13	1R	67	LEU
13	1R	73	VAL
13	1R	75	LEU
13	1R	91	GLN
13	1R	102	GLU
13	1R	114	VAL
14	1S	14	VAL
14	1S	16	ASN
14	1S	18	ILE
14	1S	25	ARG
14	1S	69	VAL
14	1S	110	LEU
15	1T	10	VAL
15	1T	23	ARG
15	1T	28	VAL
15	1T	40	THR
15	1T	74	ARG
15	1T	90	GLN
15	1T	96	ARG
15	1T	128	GLU
16	1U	74	LEU
16	1U	77	SER
16	1U	83	LEU
17	1V	1	MET
17	1V	20	LEU
17	1V	32	THR
17	1V	52	VAL
17	1V	53	GLU
17	1V	61	VAL
17	1V	79	VAL
17	1V	85	LYS
18	1W	4	LYS
18	1W	6	ILE
18	1W	11	ARG
18	1W	17	VAL
18	1W	63	ASP
18	1W	68	ARG
19	1X	66	LEU
19	1X	88	LYS

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Mol	Chain	Res	Type
20	1Y	7	VAL
20	1Y	9	LYS
20	1Y	14	LEU
20	1Y	47	LYS
20	1Y	49	VAL
20	1Y	50	ARG
20	1Y	61	ILE
20	1Y	63	LYS
20	1Y	64	GLU
20	1Y	97	ARG
20	1Y	99	CYS
21	1Z	8	TYR
21	1Z	28	MET
21	1Z	33	LEU
21	1Z	53	ILE
21	1Z	56	VAL
21	1Z	61	LEU
21	1Z	73	GLN
21	1Z	80	ARG
21	1Z	84	GLU
21	1Z	86	VAL
21	1Z	91	LEU
21	1Z	93	ASP
21	1Z	128	VAL
21	1Z	137	ILE
21	1Z	138	GLU
21	1Z	153	SER
21	1Z	154	ASP
21	1Z	155	LEU
21	1Z	156	LYS
21	1Z	170	THR
22	10	4	LYS
22	10	7	LEU
22	10	10	THR
22	10	37	LEU
22	10	68	GLU
23	11	35	THR
23	11	37	ILE
23	11	51	VAL
23	11	59	THR
23	11	65	SER
23	11	80	LEU

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Mol	Chain	Res	Type
23	11	81	LYS
24	12	3	LEU
24	12	40	SER
24	12	53	LEU
25	13	6	VAL
25	13	23	LEU
25	13	34	GLU
25	13	37	LEU
25	13	54	VAL
25	13	56	VAL
25	13	58	VAL
26	14	1	MET
26	14	3	GLU
26	14	5	ILE
26	14	33	VAL
26	14	49	PHE
26	14	50	VAL
26	14	52	THR
26	14	53	GLU
26	14	56	VAL
26	14	60	GLN
26	14	63	TYR
26	14	69	LYS
27	15	6	VAL
27	15	58	LEU
27	15	60	VAL
28	16	4	GLU
28	16	5	VAL
28	16	6	ARG
28	16	7	ILE
28	16	14	THR
28	16	44	ARG
28	16	48	VAL
29	17	24	THR
29	17	41	ARG
29	17	43	THR
30	18	52	LYS
31	19	4	ARG
31	19	6	SER
31	19	7	VAL
31	19	9	ARG
33	1b	7	VAL

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Mol	Chain	Res	Type
33	1b	12	GLU
33	1b	15	VAL
33	1b	21	ARG
33	1b	35	GLU
33	1b	37	ASN
33	1b	44	LEU
33	1b	48	MET
33	1b	54	THR
33	1b	59	GLU
33	1b	60	ASP
33	1b	80	ILE
33	1b	81	VAL
33	1b	107	THR
33	1b	112	VAL
33	1b	127	ILE
33	1b	136	VAL
33	1b	138	LEU
33	1b	142	LEU
33	1b	160	ASP
33	1b	164	VAL
33	1b	185	ILE
33	1b	192	SER
33	1b	206	ASP
33	1b	209	ARG
33	1b	211	ILE
33	1b	212	GLN
33	1b	215	LEU
33	1b	222	ILE
33	1b	223	ILE
34	1c	3	ASN
34	1c	20	SER
34	1c	28	GLN
34	1c	33	LEU
34	1c	45	LYS
34	1c	47	LEU
34	1c	58	GLU
34	1c	63	ASN
34	1c	64	VAL
34	1c	70	VAL
34	1c	77	ILE
34	1c	82	GLU
34	1c	104	GLN

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Mol	Chain	Res	Type
34	1c	178	LEU
34	1c	192	THR
34	1c	202	ILE
34	1c	207	VAL
35	1d	5	ILE
35	1d	12	CYS
35	1d	19	LEU
35	1d	21	LEU
35	1d	24	GLU
35	1d	49	ARG
35	1d	58	LEU
35	1d	71	SER
35	1d	77	ASN
35	1d	86	LYS
35	1d	112	VAL
35	1d	127	THR
35	1d	135	LEU
35	1d	141	ARG
35	1d	155	LEU
35	1d	178	VAL
35	1d	187	ARG
35	1d	188	LEU
35	1d	194	LEU
36	1e	8	GLU
36	1e	10	MET
36	1e	20	GLN
36	1e	41	VAL
36	1e	79	GLU
36	1e	91	LEU
36	1e	120	THR
36	1e	131	ILE
36	1e	147	ASP
37	1f	2	ARG
37	1f	15	ASP
37	1f	31	GLU
37	1f	36	ARG
37	1f	40	VAL
37	1f	45	LEU
37	1f	48	LEU
37	1f	55	ASP
37	1f	66	GLU
37	1f	72	VAL

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Mol	Chain	Res	Type
37	1f	78	GLU
37	1f	87	ARG
37	1f	98	LEU
38	1g	12	LEU
38	1g	13	GLN
38	1g	15	ASP
38	1g	16	LEU
38	1g	20	ASP
38	1g	50	ILE
38	1g	61	VAL
38	1g	66	VAL
38	1g	76	ARG
38	1g	79	ARG
38	1g	98	SER
38	1g	101	LEU
38	1g	104	LEU
38	1g	110	GLN
38	1g	113	GLU
38	1g	155	ARG
39	1h	24	THR
39	1h	29	SER
39	1h	45	ILE
39	1h	51	VAL
39	1h	52	ASP
39	1h	75	ARG
39	1h	95	VAL
39	1h	99	GLU
39	1h	118	VAL
39	1h	122	ARG
39	1h	133	LEU
40	1i	17	VAL
40	1i	25	LYS
40	1i	27	THR
40	1i	31	GLN
40	1i	41	VAL
40	1i	58	HIS
40	1i	64	THR
40	1i	92	TYR
40	1i	96	LEU
40	1i	99	LEU
40	1i	103	THR
40	1i	108	VAL

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Mol	Chain	Res	Type
40	1i	128	ARG
41	1j	8	LEU
41	1j	21	GLN
41	1j	38	ILE
41	1j	44	VAL
41	1j	46	ARG
41	1j	49	VAL
41	1j	72	VAL
41	1j	94	VAL
41	1j	98	ILE
41	1j	100	THR
42	1k	18	ARG
42	1k	31	THR
42	1k	48	ILE
42	1k	53	SER
42	1k	83	ILE
42	1k	84	VAL
42	1k	87	THR
42	1k	109	VAL
42	1k	112	THR
42	1k	114	VAL
43	1l	18	VAL
43	1l	38	THR
43	1l	43	VAL
43	1l	53	ARG
43	1l	60	LEU
43	1l	62	SER
43	1l	70	ILE
43	1l	85	ILE
43	1l	124	LYS
44	1m	4	ILE
44	1m	11	ARG
44	1m	25	ILE
44	1m	32	GLU
44	1m	64	TRP
44	1m	69	GLU
44	1m	70	LEU
44	1m	74	VAL
44	1m	98	VAL
44	1m	103	THR
44	1m	106	ASN
44	1m	122	LYS

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Mol	Chain	Res	Type
45	1n	3	ARG
45	1n	15	LYS
45	1n	22	THR
45	1n	32	SER
45	1n	35	ARG
45	1n	49	HIS
45	1n	56	VAL
46	1o	11	VAL
46	1o	37	ASN
46	1o	39	LEU
46	1o	45	VAL
46	1o	74	ASP
46	1o	88	ARG
47	1p	11	SER
47	1p	20	VAL
47	1p	22	THR
47	1p	72	ARG
47	1p	76	GLN
47	1p	79	VAL
48	1q	9	VAL
48	1q	14	LYS
48	1q	35	VAL
48	1q	52	LYS
48	1q	60	ILE
48	1q	63	ARG
48	1q	85	VAL
48	1q	90	ILE
48	1q	97	SER
48	1q	98	LEU
49	1r	31	LEU
49	1r	35	ARG
49	1r	37	VAL
49	1r	38	GLU
49	1r	53	ARG
49	1r	56	THR
49	1r	59	SER
49	1r	66	LEU
49	1r	84	LYS
50	1s	5	LEU
50	1s	27	GLU
50	1s	48	THR
50	1s	51	VAL

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Mol	Chain	Res	Type
51	1t	9	ASN
51	1t	10	LEU
51	1t	13	LEU
51	1t	24	LEU
51	1t	31	SER
51	1t	51	GLU
51	1t	70	SER
51	1t	75	ASN
51	1t	84	LEU
52	1u	15	ARG
52	1u	20	LYS
3	2D	3	VAL
3	2D	10	THR
3	2D	18	VAL
3	2D	25	THR
3	2D	27	THR
3	2D	37	LEU
3	2D	88	ARG
3	2D	89	SER
3	2D	99	ASP
3	2D	113	VAL
3	2D	117	VAL
3	2D	140	THR
3	2D	141	VAL
3	2D	142	VAL
3	2D	147	LEU
3	2D	155	LEU
3	2D	173	VAL
3	2D	204	ILE
3	2D	212	SER
3	2D	229	VAL
3	2D	242	ARG
3	2D	253	GLN
3	2D	270	ILE
3	2D	275	LYS
4	2E	12	THR
4	2E	14	ILE
4	2E	78	LEU
4	2E	97	LYS
4	2E	104	VAL
4	2E	107	THR
4	2E	116	VAL

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Mol	Chain	Res	Type
4	2E	184	VAL
5	2F	18	ARG
5	2F	20	LEU
5	2F	24	LEU
5	2F	28	ILE
5	2F	37	VAL
5	2F	95	ARG
5	2F	100	THR
5	2F	105	VAL
5	2F	112	MET
5	2F	119	ARG
5	2F	153	SER
5	2F	154	VAL
5	2F	163	VAL
5	2F	183	VAL
5	2F	192	LEU
5	2F	194	MET
6	2G	7	LEU
6	2G	14	GLU
6	2G	18	GLU
6	2G	20	ILE
6	2G	41	GLN
6	2G	43	LEU
6	2G	47	LYS
6	2G	53	LEU
6	2G	70	VAL
6	2G	88	ILE
6	2G	101	ILE
6	2G	130	ASN
6	2G	135	LEU
6	2G	140	ILE
6	2G	148	MET
6	2G	149	VAL
6	2G	150	ASP
6	2G	159	VAL
7	2H	2	SER
7	2H	3	ARG
7	2H	16	SER
7	2H	18	GLU
7	2H	24	VAL
7	2H	26	VAL
7	2H	45	VAL

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Mol	Chain	Res	Type
7	2H	49	VAL
7	2H	50	VAL
7	2H	51	ARG
7	2H	70	THR
7	2H	71	LEU
7	2H	76	VAL
7	2H	104	GLU
7	2H	115	VAL
7	2H	134	SER
7	2H	139	GLN
8	2I	4	ILE
8	2I	5	LEU
8	2I	12	LEU
8	2I	14	ASP
8	2I	15	VAL
8	2I	38	LEU
8	2I	43	ASN
8	2I	58	LEU
8	2I	66	GLU
8	2I	75	LEU
8	2I	81	VAL
8	2I	82	ARG
8	2I	85	GLU
8	2I	87	LYS
8	2I	92	VAL
8	2I	107	VAL
8	2I	108	THR
8	2I	117	GLU
8	2I	125	GLU
8	2I	126	TYR
8	2I	127	VAL
8	2I	133	HIS
8	2I	144	VAL
9	2N	10	GLU
9	2N	12	ARG
9	2N	14	VAL
9	2N	15	LEU
9	2N	32	THR
9	2N	38	HIS
9	2N	43	THR
9	2N	60	ILE
9	2N	62	VAL

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Mol	Chain	Res	Type
9	2N	63	THR
9	2N	67	LEU
9	2N	84	LYS
9	2N	85	ILE
9	2N	90	MET
9	2N	138	LEU
10	2O	53	LYS
10	2O	58	VAL
10	2O	78	ARG
11	2P	7	ARG
11	2P	30	THR
11	2P	45	LEU
11	2P	56	SER
11	2P	76	LYS
11	2P	95	VAL
11	2P	96	THR
11	2P	102	ARG
11	2P	105	LEU
11	2P	106	LEU
11	2P	149	GLU
12	2Q	6	ARG
12	2Q	16	ARG
12	2Q	25	ASP
12	2Q	56	ARG
12	2Q	59	ARG
12	2Q	77	LYS
12	2Q	79	LEU
12	2Q	103	MET
12	2Q	106	VAL
12	2Q	110	THR
12	2Q	120	ILE
12	2Q	133	ARG
13	2R	24	GLN
13	2R	59	ASP
13	2R	60	LEU
13	2R	73	VAL
13	2R	95	THR
14	2S	4	LEU
14	2S	8	GLU
14	2S	24	LEU
14	2S	26	LEU
14	2S	27	SER

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Mol	Chain	Res	Type
14	2S	43	GLU
14	2S	54	LEU
14	2S	58	LEU
14	2S	63	THR
14	2S	64	GLU
14	2S	65	VAL
14	2S	75	GLU
14	2S	80	LEU
14	2S	82	ILE
14	2S	83	LYS
14	2S	93	LYS
14	2S	98	VAL
14	2S	110	LEU
15	2T	1	MET
15	2T	9	LEU
15	2T	17	THR
15	2T	34	VAL
15	2T	39	ARG
15	2T	59	THR
15	2T	87	ASP
15	2T	93	ARG
15	2T	95	ARG
15	2T	96	ARG
15	2T	107	ASP
16	2U	5	LYS
16	2U	16	LYS
16	2U	55	ARG
16	2U	60	LEU
16	2U	74	LEU
16	2U	83	LEU
16	2U	105	VAL
17	2V	7	THR
17	2V	14	VAL
17	2V	20	LEU
17	2V	33	VAL
17	2V	38	LEU
17	2V	46	VAL
17	2V	52	VAL
17	2V	61	VAL
17	2V	79	VAL
17	2V	94	LEU
17	2V	98	GLU

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Mol	Chain	Res	Type
18	2W	10	VAL
18	2W	11	ARG
18	2W	50	VAL
18	2W	67	ASP
18	2W	83	LYS
18	2W	97	LYS
18	2W	105	VAL
18	2W	109	GLU
19	2X	35	THR
19	2X	40	LYS
19	2X	75	ASP
19	2X	81	VAL
20	2Y	37	VAL
20	2Y	49	VAL
20	2Y	62	GLU
20	2Y	70	SER
20	2Y	72	VAL
20	2Y	83	THR
20	2Y	85	VAL
20	2Y	91	GLU
20	2Y	97	ARG
21	2Z	5	LEU
21	2Z	33	LEU
21	2Z	42	VAL
21	2Z	50	GLN
21	2Z	53	ILE
21	2Z	60	GLU
21	2Z	63	ASP
21	2Z	66	SER
21	2Z	67	LEU
21	2Z	71	VAL
21	2Z	72	ARG
21	2Z	76	LEU
21	2Z	93	ASP
21	2Z	124	ILE
21	2Z	133	ILE
21	2Z	135	GLU
21	2Z	137	ILE
21	2Z	150	LEU
21	2Z	151	HIS
21	2Z	154	ASP
21	2Z	155	LEU

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Mol	Chain	Res	Type
21	2Z	161	VAL
21	2Z	170	THR
21	2Z	171	ILE
22	20	7	LEU
22	20	11	ARG
22	20	55	ARG
22	20	67	VAL
22	20	68	GLU
23	21	17	SER
23	21	51	VAL
23	21	59	THR
23	21	65	SER
23	21	80	LEU
23	21	86	SER
24	22	14	ARG
24	22	19	VAL
24	22	46	GLN
24	22	47	ASN
24	22	50	ILE
24	22	55	ARG
25	23	23	LEU
25	23	34	GLU
25	23	53	LEU
26	24	1	MET
26	24	24	THR
26	24	35	VAL
26	24	49	PHE
26	24	56	VAL
26	24	58	ARG
26	24	59	PHE
26	24	63	TYR
26	24	67	TYR
27	25	6	VAL
27	25	25	LEU
27	25	55	ARG
27	25	58	LEU
28	26	9	LEU
28	26	23	THR
28	26	29	ASN
28	26	48	VAL
29	27	1	MET
29	27	41	ARG

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Mol	Chain	Res	Type
29	27	43	THR
30	28	13	ARG
30	28	41	ILE
30	28	48	PHE
31	29	4	ARG
31	29	7	VAL
31	29	36	GLN
33	2b	7	VAL
33	2b	9	GLU
33	2b	10	LEU
33	2b	16	HIS
33	2b	25	ASN
33	2b	41	ILE
33	2b	44	LEU
33	2b	53	ARG
33	2b	56	ARG
33	2b	58	ILE
33	2b	63	MET
33	2b	67	THR
33	2b	68	ILE
33	2b	71	VAL
33	2b	81	VAL
33	2b	94	ASN
33	2b	96	ARG
33	2b	107	THR
33	2b	109	SER
33	2b	112	VAL
33	2b	115	LEU
33	2b	117	GLU
33	2b	124	SER
33	2b	127	ILE
33	2b	135	GLN
33	2b	136	VAL
33	2b	141	GLU
33	2b	164	VAL
33	2b	169	LYS
33	2b	181	PHE
33	2b	189	ASP
33	2b	190	THR
33	2b	195	ASP
33	2b	200	ILE
33	2b	210	SER

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Mol	Chain	Res	Type
33	2b	224	GLN
33	2b	229	VAL
33	2b	230	VAL
34	2c	43	LEU
34	2c	55	VAL
34	2c	56	ASP
34	2c	57	ILE
34	2c	77	ILE
34	2c	82	GLU
34	2c	103	VAL
34	2c	115	LEU
34	2c	128	PHE
34	2c	138	VAL
34	2c	143	GLU
34	2c	150	LYS
34	2c	151	VAL
34	2c	153	VAL
34	2c	166	GLU
34	2c	173	VAL
34	2c	190	ARG
34	2c	206	GLU
35	2d	17	VAL
35	2d	25	ARG
35	2d	34	GLU
35	2d	47	ARG
35	2d	57	ARG
35	2d	58	LEU
35	2d	78	LEU
35	2d	83	SER
35	2d	88	VAL
35	2d	94	LEU
35	2d	118	ARG
35	2d	127	THR
35	2d	135	LEU
35	2d	150	GLU
35	2d	157	LEU
35	2d	158	ILE
35	2d	175	SER
35	2d	178	VAL
35	2d	186	LEU
35	2d	188	LEU
35	2d	190	ASP

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Mol	Chain	Res	Type
35	2d	203	VAL
36	2e	5	ASP
36	2e	13	ILE
36	2e	14	ARG
36	2e	32	VAL
36	2e	51	VAL
36	2e	55	VAL
36	2e	64	ARG
36	2e	72	GLN
36	2e	76	ILE
36	2e	80	ILE
36	2e	98	THR
36	2e	100	VAL
36	2e	116	THR
36	2e	119	LEU
36	2e	144	THR
37	2f	15	ASP
37	2f	19	LEU
37	2f	25	ILE
37	2f	31	GLU
37	2f	45	LEU
37	2f	94	GLN
38	2g	16	LEU
38	2g	27	ILE
38	2g	31	MET
38	2g	33	ASP
38	2g	75	VAL
38	2g	78	ARG
38	2g	79	ARG
38	2g	87	VAL
38	2g	113	GLU
38	2g	124	LEU
38	2g	125	MET
38	2g	138	LYS
38	2g	139	GLU
38	2g	155	ARG
39	2h	22	GLU
39	2h	24	THR
39	2h	26	VAL
39	2h	33	GLU
39	2h	50	ARG
39	2h	51	VAL

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Mol	Chain	Res	Type
39	2h	52	ASP
39	2h	61	VAL
39	2h	65	TYR
39	2h	81	HIS
39	2h	84	ARG
39	2h	91	ARG
39	2h	109	ILE
39	2h	112	LEU
39	2h	120	THR
39	2h	123	GLU
39	2h	133	LEU
40	2i	14	VAL
40	2i	27	THR
40	2i	34	ASN
40	2i	54	ASP
40	2i	64	THR
40	2i	65	VAL
40	2i	74	ILE
40	2i	75	ASP
40	2i	127	LYS
41	2j	6	ILE
41	2j	9	ARG
41	2j	19	SER
41	2j	21	GLN
41	2j	50	ILE
41	2j	67	THR
41	2j	72	VAL
41	2j	74	ILE
41	2j	98	ILE
41	2j	100	THR
42	2k	14	VAL
42	2k	18	ARG
42	2k	28	THR
42	2k	30	VAL
42	2k	40	ILE
42	2k	41	THR
42	2k	48	ILE
42	2k	53	SER
42	2k	63	LEU
42	2k	77	MET
42	2k	80	VAL
42	2k	87	THR

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Mol	Chain	Res	Type
42	2k	95	ILE
42	2k	101	SER
42	2k	108	ILE
42	2k	109	VAL
42	2k	114	VAL
43	2l	6	THR
43	2l	18	VAL
43	2l	33	ARG
43	2l	43	VAL
43	2l	49	ASN
43	2l	55	VAL
43	2l	82	VAL
43	2l	90	VAL
43	2l	100	ILE
43	2l	104	VAL
43	2l	118	SER
43	2l	122	THR
43	2l	123	LYS
44	2m	4	ILE
44	2m	15	VAL
44	2m	32	GLU
44	2m	37	THR
44	2m	39	ILE
44	2m	47	ASP
44	2m	50	GLU
44	2m	69	GLU
44	2m	78	ILE
44	2m	90	LEU
44	2m	94	ARG
44	2m	98	VAL
44	2m	102	ARG
44	2m	103	THR
44	2m	108	ARG
44	2m	115	LYS
44	2m	116	THR
45	2n	18	VAL
45	2n	35	ARG
45	2n	58	LYS
46	2o	4	THR
46	2o	24	SER
46	2o	27	VAL
46	2o	58	MET

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Mol	Chain	Res	Type
46	2o	88	ARG
47	2p	2	VAL
47	2p	19	ILE
47	2p	20	VAL
47	2p	21	VAL
47	2p	45	THR
47	2p	60	LEU
47	2p	69	THR
47	2p	76	GLN
48	2q	5	VAL
48	2q	7	THR
48	2q	9	VAL
48	2q	24	GLU
48	2q	53	LEU
48	2q	59	ILE
48	2q	60	ILE
48	2q	65	ILE
48	2q	66	SER
48	2q	68	ARG
48	2q	85	VAL
48	2q	89	LEU
48	2q	90	ILE
48	2q	97	SER
49	2r	37	VAL
49	2r	38	GLU
49	2r	46	GLU
49	2r	66	LEU
49	2r	69	THR
49	2r	74	ARG
49	2r	84	LYS
49	2r	86	VAL
50	2s	9	VAL
50	2s	11	VAL
50	2s	12	ASP
50	2s	14	HIS
50	2s	27	GLU
50	2s	28	LYS
50	2s	32	LYS
50	2s	37	ARG
50	2s	40	ILE
50	2s	41	VAL
50	2s	45	VAL

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Mol	Chain	Res	Type
50	2s	48	THR
50	2s	49	ILE
50	2s	57	HIS
50	2s	63	THR
50	2s	67	VAL
51	2t	24	LEU
51	2t	30	LYS
51	2t	31	SER
51	2t	46	GLU
51	2t	56	MET
51	2t	93	GLU
52	2u	10	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (143) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	87	ASN
3	1D	96	HIS
3	1D	115	GLN
3	1D	164	GLN
3	1D	227	ASN
4	1E	137	HIS
5	1F	8	GLN
6	1G	26	GLN
6	1G	41	GLN
7	1H	139	GLN
7	1H	147	ASN
8	1I	11	ASN
8	1I	133	HIS
9	1N	94	HIS
10	1O	3	GLN
12	1Q	57	HIS
12	1Q	123	HIS
13	1R	71	GLN
14	1S	68	GLN
15	1T	79	HIS
15	1T	84	GLN
16	1U	94	ASN
19	1X	31	HIS
19	1X	82	GLN
20	1Y	6	HIS
21	1Z	73	GLN

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Mol	Chain	Res	Type
21	1Z	132	ASN
21	1Z	151	HIS
22	10	17	GLN
23	11	56	GLN
24	12	43	GLN
24	12	46	GLN
27	15	22	HIS
29	17	36	GLN
30	18	35	GLN
33	1b	37	ASN
33	1b	78	GLN
33	1b	95	GLN
33	1b	212	GLN
34	1c	28	GLN
34	1c	37	GLN
34	1c	162	GLN
34	1c	170	GLN
35	1d	42	GLN
35	1d	116	GLN
35	1d	119	GLN
35	1d	125	HIS
36	1e	78	HIS
36	1e	141	GLN
37	1f	18	GLN
37	1f	57	GLN
37	1f	64	GLN
37	1f	73	ASN
37	1f	100	ASN
38	1g	13	GLN
38	1g	28	ASN
40	1i	31	GLN
40	1i	34	ASN
40	1i	73	GLN
40	1i	124	GLN
41	1j	56	HIS
41	1j	62	HIS
43	1l	99	HIS
44	1m	77	ASN
44	1m	106	ASN
46	1o	9	GLN
46	1o	46	HIS
46	1o	62	GLN

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Mol	Chain	Res	Type
47	1p	13	HIS
47	1p	76	GLN
49	1r	63	GLN
50	1s	23	ASN
50	1s	57	HIS
51	1t	16	HIS
3	2D	87	ASN
3	2D	115	GLN
3	2D	164	GLN
4	2E	48	GLN
5	2F	69	HIS
6	2G	26	GLN
6	2G	41	GLN
6	2G	121	ASN
7	2H	111	HIS
8	2I	74	ASN
8	2I	133	HIS
12	2Q	57	HIS
13	2R	13	HIS
14	2S	38	GLN
15	2T	43	GLN
15	2T	84	GLN
16	2U	94	ASN
17	2V	80	GLN
19	2X	82	GLN
20	2Y	6	HIS
20	2Y	43	ASN
21	2Z	73	GLN
21	2Z	121	HIS
21	2Z	151	HIS
23	21	56	GLN
24	22	46	GLN
29	27	36	GLN
30	28	35	GLN
31	29	20	HIS
31	29	36	GLN
33	2b	76	GLN
33	2b	212	GLN
34	2c	37	GLN
34	2c	69	HIS
34	2c	102	ASN
34	2c	139	GLN

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Mol	Chain	Res	Type
34	2c	162	GLN
35	2d	42	GLN
35	2d	45	GLN
35	2d	74	GLN
35	2d	116	GLN
35	2d	119	GLN
35	2d	125	HIS
35	2d	129	ASN
35	2d	201	GLN
36	2e	20	GLN
36	2e	38	GLN
37	2f	64	GLN
37	2f	73	ASN
37	2f	100	ASN
38	2g	28	ASN
38	2g	86	GLN
38	2g	109	ASN
39	2h	82	HIS
40	2i	58	HIS
40	2i	117	HIS
41	2j	21	GLN
42	2k	104	GLN
42	2k	117	ASN
43	2l	9	GLN
43	2l	78	GLN
44	2m	77	ASN
45	2n	52	GLN
46	2o	53	HIS
47	2p	13	HIS
49	2r	63	GLN
50	2s	69	HIS
50	2s	83	HIS
51	2t	73	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2864/2915 (98%)	491 (17%)	22 (0%)
1	2A	2791/2915 (95%)	527 (18%)	22 (0%)
2	1B	119/121 (98%)	9 (7%)	0
2	2B	118/121 (97%)	28 (23%)	0

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
32	1a	1497/1521 (98%)	279 (18%)	0
32	2a	1501/1521 (98%)	361 (24%)	0
53	1v	12/24 (50%)	4 (33%)	0
53	2v	12/24 (50%)	3 (25%)	0
54	1w	72/76 (94%)	27 (37%)	0
54	1y	72/76 (94%)	27 (37%)	0
54	2w	69/76 (90%)	21 (30%)	0
54	2y	70/76 (92%)	24 (34%)	0
55	1x	75/77 (97%)	10 (13%)	0
55	2x	75/77 (97%)	12 (16%)	0
All	All	9347/9620 (97%)	1823 (19%)	44 (0%)

All (1823) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	15	G
1	1A	34	C
1	1A	45	C
1	1A	58	G
1	1A	61	G
1	1A	71	A
1	1A	72	U
1	1A	74	A
1	1A	75	G
1	1A	84	A
1	1A	118	A
1	1A	119	A
1	1A	120	U
1	1A	123	G
1	1A	125	G
1	1A	126	A
1	1A	140	G
1	1A	141	A
1	1A	154	G
1	1A	177	G
1	1A	182	A
1	1A	196	A
1	1A	199	A
1	1A	201	C
1	1A	205	G
1	1A	214	G
1	1A	215	G

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Mol	Chain	Res	Type
1	1A	216	A
1	1A	222	A
1	1A	228	A
1	1A	229	A
1	1A	232	G
1	1A	233	A
1	1A	248	G
1	1A	269	U
1	1A	271(K)	U
1	1A	271(L)	U
1	1A	271(M)	G
1	1A	271(N)	U
1	1A	271(O)	C
1	1A	271(S)	G
1	1A	272(B)	G
1	1A	279	C
1	1A	311	A
1	1A	324	A
1	1A	329	G
1	1A	330	A
1	1A	342	G
1	1A	346	A
1	1A	352	G
1	1A	362	U
1	1A	363	G
1	1A	363(B)	G
1	1A	363(F)	A
1	1A	386	G
1	1A	396	G
1	1A	405	U
1	1A	411	G
1	1A	412	A
1	1A	413	C
1	1A	428	A
1	1A	444	C
1	1A	448	U
1	1A	451	C
1	1A	454	A
1	1A	455	C
1	1A	456	C
1	1A	481	G
1	1A	494	G

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Mol	Chain	Res	Type
1	1A	504	U
1	1A	505	A
1	1A	509	C
1	1A	512	G
1	1A	513	A
1	1A	530	G
1	1A	531	C
1	1A	532	A
1	1A	533	G
1	1A	545	G
1	1A	549	G
1	1A	563	G
1	1A	573	G
1	1A	575	A
1	1A	584	C
1	1A	592	G
1	1A	603	A
1	1A	604	G
1	1A	607	U
1	1A	614(A)	U
1	1A	614(B)	G
1	1A	615	G
1	1A	621	A
1	1A	627	A
1	1A	634	C
1	1A	637	A
1	1A	645	C
1	1A	646	A
1	1A	652(D)	C
1	1A	652(E)	G
1	1A	652(F)	G
1	1A	652(T)	C
1	1A	654	A
1	1A	669	G
1	1A	677	A
1	1A	686	G
1	1A	730	C
1	1A	734	A
1	1A	762	U
1	1A	775	G
1	1A	776	G
1	1A	782	A

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Mol	Chain	Res	Type
1	1A	784	A
1	1A	785	G
1	1A	789	A
1	1A	792	G
1	1A	805	G
1	1A	812	C
1	1A	819	A
1	1A	827	U
1	1A	828	U
1	1A	830	G
1	1A	859	G
1	1A	866	A
1	1A	874	G
1	1A	875	G
1	1A	879	G
1	1A	880	G
1	1A	883	G
1	1A	884	C
1	1A	885	C
1	1A	886	C
1	1A	887	A
1	1A	888	C
1	1A	890	A
1	1A	894	C
1	1A	895	U
1	1A	896	A
1	1A	897	C
1	1A	898	C
1	1A	900	A
1	1A	907	U
1	1A	910	A
1	1A	926	A
1	1A	932	G
1	1A	938	G
1	1A	945	A
1	1A	946	G
1	1A	953	A
1	1A	959	A
1	1A	961	C
1	1A	963	U
1	1A	974	G
1	1A	975	C

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Mol	Chain	Res	Type
1	1A	983	A
1	1A	996	A
1	1A	1012	U
1	1A	1013	C
1	1A	1022	G
1	1A	1025	G
1	1A	1026	U
1	1A	1027	A
1	1A	1033	U
1	1A	1034	G
1	1A	1038	C
1	1A	1040	C
1	1A	1042	G
1	1A	1044	G
1	1A	1045	A
1	1A	1046	A
1	1A	1047	G
1	1A	1054	A
1	1A	1055	G
1	1A	1058	G
1	1A	1059	G
1	1A	1063	G
1	1A	1068	G
1	1A	1071	G
1	1A	1073	A
1	1A	1075	C
1	1A	1076	C
1	1A	1078	U
1	1A	1079	C
1	1A	1081	U
1	1A	1082	U
1	1A	1085	A
1	1A	1088	A
1	1A	1089	G
1	1A	1090	U
1	1A	1091	G
1	1A	1092	C
1	1A	1094	U
1	1A	1098	A
1	1A	1101	U
1	1A	1104	C
1	1A	1105	U

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Mol	Chain	Res	Type
1	1A	1110	G
1	1A	1111	A
1	1A	1112	G
1	1A	1116	C
1	1A	1129	A
1	1A	1130	U
1	1A	1135	C
1	1A	1136	G
1	1A	1142	U
1	1A	1149	G
1	1A	1155	A
1	1A	1171	G
1	1A	1173	G
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1177	A
1	1A	1178	C
1	1A	1183	G
1	1A	1205	U
1	1A	1229	G
1	1A	1237	A
1	1A	1244	G
1	1A	1248	G
1	1A	1252	G
1	1A	1253	A
1	1A	1256	G
1	1A	1267	U
1	1A	1271	G
1	1A	1272	A
1	1A	1273	U
1	1A	1281	G
1	1A	1286	A
1	1A	1300	U
1	1A	1301	A
1	1A	1303	G
1	1A	1320	C
1	1A	1342	A
1	1A	1345	C
1	1A	1352	U
1	1A	1359	A
1	1A	1360	A

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Mol	Chain	Res	Type
1	1A	1365	A
1	1A	1384	A
1	1A	1385	G
1	1A	1386	C
1	1A	1388	G
1	1A	1394	U
1	1A	1395	A
1	1A	1396	U
1	1A	1416	G
1	1A	1417	C
1	1A	1420	U
1	1A	1421	G
1	1A	1428	C
1	1A	1429	G
1	1A	1445	A
1	1A	1450	G
1	1A	1455	G
1	1A	1467	C
1	1A	1482	G
1	1A	1484	G
1	1A	1490	A
1	1A	1493	C
1	1A	1494	A
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1525	G
1	1A	1539	G
1	1A	1540	U
1	1A	1543	C
1	1A	1558	A
1	1A	1559	G
1	1A	1566	A
1	1A	1569	A
1	1A	1578	U
1	1A	1580	A
1	1A	1581	G
1	1A	1584	C
1	1A	1586	A
1	1A	1608	A
1	1A	1610	A
1	1A	1627	G
1	1A	1647	G

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Mol	Chain	Res	Type
1	1A	1648	C
1	1A	1664	A
1	1A	1670	C
1	1A	1674	G
1	1A	1684	C
1	1A	1688	U
1	1A	1696	G
1	1A	1700	A
1	1A	1701	A
1	1A	1703	G
1	1A	1722	A
1	1A	1746	G
1	1A	1756	G
1	1A	1761	C
1	1A	1763	G
1	1A	1764	G
1	1A	1773	A
1	1A	1777	U
1	1A	1780	A
1	1A	1782	C
1	1A	1791	A
1	1A	1800	C
1	1A	1801	G
1	1A	1816	G
1	1A	1828	G
1	1A	1829	A
1	1A	1839	G
1	1A	1847	A
1	1A	1850	G
1	1A	1858	G
1	1A	1877	A
1	1A	1878	G
1	1A	1889	A
1	1A	1900	A
1	1A	1906	G
1	1A	1919	A
1	1A	1920	OMC
1	1A	1929	G
1	1A	1930	G
1	1A	1932	A
1	1A	1937	A
1	1A	1938	A

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Mol	Chain	Res	Type
1	1A	1941	C
1	1A	1945	G
1	1A	1955	U
1	1A	1962	5MC
1	1A	1963	U
1	1A	1965	C
1	1A	1967	C
1	1A	1970	A
1	1A	1971	A
1	1A	1972	A
1	1A	1990	C
1	1A	1993	U
1	1A	1997	G
1	1A	2023	G
1	1A	2031	A
1	1A	2032	G
1	1A	2033	A
1	1A	2042	A
1	1A	2043	C
1	1A	2049	G
1	1A	2051	A
1	1A	2055	C
1	1A	2056	G
1	1A	2060	A
1	1A	2061	G
1	1A	2062	A
1	1A	2069	G
1	1A	2093	G
1	1A	2099	U
1	1A	2100	G
1	1A	2102	U
1	1A	2108	C
1	1A	2110	G
1	1A	2113	U
1	1A	2114	A
1	1A	2116	G
1	1A	2117	A
1	1A	2118	U
1	1A	2119	A
1	1A	2120	G
1	1A	2121	G
1	1A	2127	G

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Mol	Chain	Res	Type
1	1A	2131	G
1	1A	2132	U
1	1A	2133	G
1	1A	2134	A
1	1A	2135	A
1	1A	2136	C
1	1A	2137	C
1	1A	2140	C
1	1A	2142	C
1	1A	2144	U
1	1A	2146	C
1	1A	2147	G
1	1A	2150	U
1	1A	2151	G
1	1A	2156	G
1	1A	2157	G
1	1A	2158	A
1	1A	2159	G
1	1A	2162	G
1	1A	2163	C
1	1A	2166	G
1	1A	2171	A
1	1A	2172	U
1	1A	2173	A
1	1A	2174	C
1	1A	2181	G
1	1A	2182	G
1	1A	2183	C
1	1A	2184	G
1	1A	2189	U
1	1A	2190	G
1	1A	2192	G
1	1A	2198	A
1	1A	2206	G
1	1A	2207	G
1	1A	2218	U
1	1A	2225	A
1	1A	2238	G
1	1A	2269	A
1	1A	2273	A
1	1A	2283	C
1	1A	2286	A

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Mol	Chain	Res	Type
1	1A	2287	A
1	1A	2289	G
1	1A	2296	U
1	1A	2305	A
1	1A	2308	G
1	1A	2312	U
1	1A	2313	C
1	1A	2320	A
1	1A	2325	G
1	1A	2336	A
1	1A	2347	C
1	1A	2350	C
1	1A	2354	G
1	1A	2361	A
1	1A	2383	G
1	1A	2385	C
1	1A	2403	C
1	1A	2406	U
1	1A	2422	A
1	1A	2425	A
1	1A	2429	G
1	1A	2430	A
1	1A	2435	A
1	1A	2439	A
1	1A	2440	C
1	1A	2441	C
1	1A	2448	A
1	1A	2474	C
1	1A	2476	A
1	1A	2478	A
1	1A	2481	G
1	1A	2490	G
1	1A	2502	G
1	1A	2505	G
1	1A	2518	A
1	1A	2520	C
1	1A	2529	G
1	1A	2530	A
1	1A	2550	G
1	1A	2554	U
1	1A	2563	U
1	1A	2564	A

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Mol	Chain	Res	Type
1	1A	2566	A
1	1A	2567	G
1	1A	2572	A
1	1A	2582	G
1	1A	2602	A
1	1A	2609	U
1	1A	2610	C
1	1A	2611	U
1	1A	2612	C
1	1A	2628	C
1	1A	2629	A
1	1A	2630	G
1	1A	2634	G
1	1A	2654	A
1	1A	2686	G
1	1A	2689	U
1	1A	2690	C
1	1A	2702	U
1	1A	2703	C
1	1A	2712(A)	A
1	1A	2713	A
1	1A	2714	G
1	1A	2718	G
1	1A	2726	U
1	1A	2733	A
1	1A	2757	A
1	1A	2758	A
1	1A	2765	A
1	1A	2766	G
1	1A	2778	A
1	1A	2790	A
1	1A	2791	C
1	1A	2802	G
1	1A	2805	G
1	1A	2818	G
1	1A	2820	A
1	1A	2821	A
1	1A	2833	G
1	1A	2835	A
1	1A	2872	G
1	1A	2873	A
1	1A	2892	A

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Mol	Chain	Res	Type
1	1A	2894	G
1	1A	2895	U
2	1B	2	C
2	1B	35	U
2	1B	56	G
2	1B	63	G
2	1B	65	C
2	1B	73	A
2	1B	84	C
2	1B	93	G
2	1B	110	G
32	1a	7	G
32	1a	9	G
32	1a	22	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	69	G
32	1a	76	C
32	1a	77	G
32	1a	78	G
32	1a	79	G
32	1a	91	C
32	1a	98	G
32	1a	101	A
32	1a	105	G
32	1a	116	A
32	1a	120	A
32	1a	121	C
32	1a	131	C
32	1a	137	C
32	1a	142	G
32	1a	145	G
32	1a	151	A
32	1a	163	C
32	1a	165	C
32	1a	168	G

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Mol	Chain	Res	Type
32	1a	174	C
32	1a	182	U
32	1a	185	A
32	1a	189(F)	U
32	1a	189(J)	G
32	1a	189(L)	G
32	1a	195	A
32	1a	197	A
32	1a	199	G
32	1a	201	C
32	1a	202	U
32	1a	203	U
32	1a	204	U
32	1a	216	G
32	1a	217	C
32	1a	219	C
32	1a	247	G
32	1a	251	G
32	1a	264	U
32	1a	266	G
32	1a	267	C
32	1a	268	C
32	1a	289	G
32	1a	301	G
32	1a	306	G
32	1a	318	G
32	1a	321	A
32	1a	327	A
32	1a	328	C
32	1a	332	G
32	1a	342	C
32	1a	344	A
32	1a	345	C
32	1a	351	G
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	367	U
32	1a	369	C
32	1a	372	C
32	1a	373	A
32	1a	382	A

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Mol	Chain	Res	Type
32	1a	384	G
32	1a	397	A
32	1a	398	C
32	1a	406	G
32	1a	410	G
32	1a	411	A
32	1a	412	A
32	1a	413	G
32	1a	422	C
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	470	C
32	1a	471	G
32	1a	483	C
32	1a	485	G
32	1a	486	U
32	1a	495	A
32	1a	496	A
32	1a	498	U
32	1a	505	G
32	1a	508	C
32	1a	509	A
32	1a	510	A
32	1a	511	C
32	1a	518	C
32	1a	519	C
32	1a	531	U
32	1a	532	A
32	1a	547	A
32	1a	559	A
32	1a	561	U
32	1a	562	C
32	1a	564	C
32	1a	568	G
32	1a	572	A
32	1a	573	A

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Mol	Chain	Res	Type
32	1a	576	G
32	1a	577	G
32	1a	596	C
32	1a	618	C
32	1a	628	G
32	1a	630	G
32	1a	634	C
32	1a	653	A
32	1a	661	G
32	1a	665	A
32	1a	687	A
32	1a	688	G
32	1a	695	A
32	1a	723	U
32	1a	724	G
32	1a	731	G
32	1a	734	G
32	1a	749	C
32	1a	753	A
32	1a	755	G
32	1a	760	G
32	1a	777	A
32	1a	792	A
32	1a	793	U
32	1a	794	A
32	1a	799	G
32	1a	815	A
32	1a	817	C
32	1a	821	G
32	1a	828	A
32	1a	840	C
32	1a	841	U
32	1a	851	G
32	1a	853	G
32	1a	864	A
32	1a	870	U
32	1a	874	G
32	1a	902	G
32	1a	914	A
32	1a	916	G
32	1a	926	G
32	1a	927	G

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Mol	Chain	Res	Type
32	1a	934	C
32	1a	935	A
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	981	U
32	1a	982	U
32	1a	983	A
32	1a	992	U
32	1a	993	G
32	1a	997	U
32	1a	1000	U
32	1a	1003	G
32	1a	1005	A
32	1a	1006	C
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	1028	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	1036	G
32	1a	1039	C
32	1a	1040	U
32	1a	1041	A
32	1a	1044	A
32	1a	1068	G
32	1a	1077	G
32	1a	1081	G

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Mol	Chain	Res	Type
32	1a	1091	U
32	1a	1094	G
32	1a	1095	U
32	1a	1101	A
32	1a	1121	U
32	1a	1123	A
32	1a	1124	G
32	1a	1125	U
32	1a	1128	C
32	1a	1132	C
32	1a	1134	G
32	1a	1136	U
32	1a	1137	C
32	1a	1138	G
32	1a	1139	G
32	1a	1146	A
32	1a	1152	A
32	1a	1154	G
32	1a	1157	A
32	1a	1158	C
32	1a	1159	U
32	1a	1160	G
32	1a	1183	A
32	1a	1184	G
32	1a	1186	G
32	1a	1196	U
32	1a	1197	G
32	1a	1201	A
32	1a	1202	G
32	1a	1208	C
32	1a	1214	C
32	1a	1227	A
32	1a	1236	A
32	1a	1238	A
32	1a	1250	A
32	1a	1253	G
32	1a	1255	G
32	1a	1256	A
32	1a	1257	U
32	1a	1260	C
32	1a	1270	C
32	1a	1275	A

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Mol	Chain	Res	Type
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	1305	G
32	1a	1312	G
32	1a	1320	C
32	1a	1338	G
32	1a	1344	C
32	1a	1346	A
32	1a	1347	G
32	1a	1353	G
32	1a	1355	G
32	1a	1356	G
32	1a	1363	C
32	1a	1370	G
32	1a	1381	U
32	1a	1397	C
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1446	U
32	1a	1447	A
32	1a	1452	C
32	1a	1456	G
32	1a	1457	G
32	1a	1458	G
32	1a	1492	A
32	1a	1494	G
32	1a	1497	G
32	1a	1503	A
32	1a	1504	G
32	1a	1506	U
32	1a	1517	G
32	1a	1529	G
32	1a	1530	G
53	1v	13	A
53	1v	14	A
53	1v	20	U
53	1v	24	A

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Mol	Chain	Res	Type
54	1w	3	C
54	1w	6	G
54	1w	7	A
54	1w	8	4SU
54	1w	11	C
54	1w	12	U
54	1w	13	C
54	1w	14	A
54	1w	19	G
54	1w	20	U
54	1w	21	A
54	1w	22	G
54	1w	24	G
54	1w	25	C
54	1w	29	G
54	1w	30	G
54	1w	45	U
54	1w	46	G7M
54	1w	47	U
54	1w	48	C
54	1w	57	G
54	1w	60	U
54	1w	62	C
54	1w	68	C
54	1w	70	G
54	1w	72	C
54	1w	74	C
55	1x	6	G
55	1x	9	G
55	1x	14	A
55	1x	19	G
55	1x	20	U
55	1x	21	A
55	1x	47	U
55	1x	53	G
55	1x	61	C
55	1x	76	A
54	1y	6	G
54	1y	7	A
54	1y	9	A
54	1y	11	C
54	1y	13	C

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Mol	Chain	Res	Type
54	1y	14	A
54	1y	19	G
54	1y	20	U
54	1y	21	A
54	1y	31	A
54	1y	33	U
54	1y	36	A
54	1y	40	C
54	1y	44	G
54	1y	45	U
54	1y	46	G7M
54	1y	48	C
54	1y	49	C
54	1y	52	G
54	1y	53	G
54	1y	57	G
54	1y	58	A
54	1y	59	U
54	1y	61	C
54	1y	65	G
54	1y	70	G
54	1y	72	C
1	2A	14	A
1	2A	15	G
1	2A	34	C
1	2A	35	G
1	2A	45	C
1	2A	51	G
1	2A	55	G
1	2A	63	U
1	2A	64	A
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	84	A
1	2A	90	U
1	2A	95	G
1	2A	100	G
1	2A	102	G
1	2A	118	A
1	2A	120	U
1	2A	131	G

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Mol	Chain	Res	Type
1	2A	141	A
1	2A	154(A)	C
1	2A	173	G
1	2A	196	A
1	2A	199	A
1	2A	205	G
1	2A	214	G
1	2A	216	A
1	2A	222	A
1	2A	225	A
1	2A	228	A
1	2A	229	A
1	2A	230	U
1	2A	233	A
1	2A	245	G
1	2A	248	G
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	275	G
1	2A	276	A
1	2A	277	C
1	2A	278	A
1	2A	283	A
1	2A	289	A
1	2A	292	C
1	2A	308	G
1	2A	311	A
1	2A	312	G
1	2A	316	C
1	2A	317	G
1	2A	324	A
1	2A	329	G
1	2A	330	A
1	2A	333	G
1	2A	342	G

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Mol	Chain	Res	Type
1	2A	352	G
1	2A	354	G
1	2A	357	A
1	2A	360	G
1	2A	372	G
1	2A	386	G
1	2A	396	G
1	2A	403	U
1	2A	405	U
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	455	C
1	2A	457	A
1	2A	481	G
1	2A	488	G
1	2A	503	A
1	2A	504	U
1	2A	505	A
1	2A	509	C
1	2A	527	C
1	2A	528	A
1	2A	529	A
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	545	G
1	2A	563	G
1	2A	567	A
1	2A	568	U
1	2A	573	G
1	2A	575	A
1	2A	588	U
1	2A	599	G
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	614(A)	U

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Mol	Chain	Res	Type
1	2A	614(B)	G
1	2A	614(C)	A
1	2A	615	G
1	2A	616	G
1	2A	627	A
1	2A	634	C
1	2A	637	A
1	2A	639	U
1	2A	645	C
1	2A	648	G
1	2A	652(B)	A
1	2A	652(C)	G
1	2A	652(D)	C
1	2A	652(U)	G
1	2A	661	C
1	2A	668	G
1	2A	669	G
1	2A	686	G
1	2A	702	G
1	2A	726	G
1	2A	730	C
1	2A	750	A
1	2A	753	C
1	2A	764	A
1	2A	771	G
1	2A	774	A
1	2A	775	G
1	2A	776	G
1	2A	779	U
1	2A	782	A
1	2A	784	A
1	2A	785	G
1	2A	792	G
1	2A	805	G
1	2A	811	U
1	2A	812	C
1	2A	819	A
1	2A	824	A
1	2A	827	U
1	2A	828	U
1	2A	831	G
1	2A	846	C

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Mol	Chain	Res	Type
1	2A	847	U
1	2A	857	C
1	2A	859	G
1	2A	874	G
1	2A	878	A
1	2A	879	G
1	2A	880	G
1	2A	882	G
1	2A	884	C
1	2A	886	C
1	2A	887	A
1	2A	888	C
1	2A	889	C
1	2A	892	G
1	2A	893	C
1	2A	894	C
1	2A	896	A
1	2A	897	C
1	2A	900	A
1	2A	901	A
1	2A	903	C
1	2A	904	C
1	2A	910	A
1	2A	914	C
1	2A	915	C
1	2A	917	A
1	2A	932	G
1	2A	941	A
1	2A	945	A
1	2A	946	G
1	2A	959	A
1	2A	961	C
1	2A	964	C
1	2A	967	C
1	2A	974	G
1	2A	975	C
1	2A	980	A
1	2A	983	A
1	2A	996	A
1	2A	1002	G
1	2A	1005	C
1	2A	1010	A

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Mol	Chain	Res	Type
1	2A	1012	U
1	2A	1013	C
1	2A	1017	G
1	2A	1020	A
1	2A	1022	G
1	2A	1023	U
1	2A	1025	G
1	2A	1026	U
1	2A	1027	A
1	2A	1033	U
1	2A	1034	G
1	2A	1035	U
1	2A	1037	G
1	2A	1038	C
1	2A	1039	G
1	2A	1041	C
1	2A	1043	C
1	2A	1114	G
1	2A	1115	G
1	2A	1116	C
1	2A	1122	G
1	2A	1126	A
1	2A	1128	A
1	2A	1129	A
1	2A	1130	U
1	2A	1132	A
1	2A	1135	C
1	2A	1136	G
1	2A	1137	G
1	2A	1139	G
1	2A	1141	U
1	2A	1142(A)	A
1	2A	1171	G
1	2A	1195	G
1	2A	1206	G
1	2A	1210	A
1	2A	1211	U
1	2A	1220	A
1	2A	1229	G
1	2A	1236	G
1	2A	1237	A
1	2A	1244	G

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Mol	Chain	Res	Type
1	2A	1250	G
1	2A	1253	A
1	2A	1256	G
1	2A	1268	A
1	2A	1271	G
1	2A	1272	A
1	2A	1273	U
1	2A	1285	G
1	2A	1300	U
1	2A	1301	A
1	2A	1314	C
1	2A	1332	G
1	2A	1352	U
1	2A	1359	A
1	2A	1360	A
1	2A	1365	A
1	2A	1368	G
1	2A	1370	C
1	2A	1378	A
1	2A	1379	A
1	2A	1384	A
1	2A	1385	G
1	2A	1386	C
1	2A	1395	A
1	2A	1411	C
1	2A	1416	G
1	2A	1417	C
1	2A	1421	G
1	2A	1425	G
1	2A	1426	G
1	2A	1427	A
1	2A	1428	C
1	2A	1437	C
1	2A	1445	A
1	2A	1449	A
1	2A	1450	G
1	2A	1452	A
1	2A	1453	U
1	2A	1455	G
1	2A	1459	G
1	2A	1460	A
1	2A	1461	G

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Mol	Chain	Res	Type
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	1494	A
1	2A	1496	A
1	2A	1497	U
1	2A	1506	C
1	2A	1509	C
1	2A	1509(A)	A
1	2A	1531	C
1	2A	1532	C
1	2A	1539	G
1	2A	1542	A
1	2A	1543	C
1	2A	1547	C
1	2A	1558	A
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1580	A
1	2A	1584	C
1	2A	1608	A
1	2A	1610	A
1	2A	1634	A
1	2A	1640	C
1	2A	1648	C
1	2A	1654	A
1	2A	1664	A
1	2A	1674	G
1	2A	1675	C
1	2A	1680	U
1	2A	1682	G
1	2A	1696	G
1	2A	1700	A
1	2A	1701	A
1	2A	1706	U
1	2A	1721	G
1	2A	1722	A
1	2A	1739	U

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Mol	Chain	Res	Type
1	2A	1740	G
1	2A	1745(A)	C
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	1773	A
1	2A	1780	A
1	2A	1782	C
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	1820	U
1	2A	1835	G
1	2A	1847	A
1	2A	1848	A
1	2A	1857	G
1	2A	1861	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	1926	U
1	2A	1929	G
1	2A	1930	G
1	2A	1936	A
1	2A	1937	A
1	2A	1938	A
1	2A	1952	A
1	2A	1955	U
1	2A	1963	U
1	2A	1965	C
1	2A	1966	A
1	2A	1967	C
1	2A	1970	A

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Mol	Chain	Res	Type
1	2A	1971	A
1	2A	1972	A
1	2A	1984	G
1	2A	1993	U
1	2A	1997	G
1	2A	2020	A
1	2A	2023	G
1	2A	2031	A
1	2A	2033	A
1	2A	2036	C
1	2A	2043	C
1	2A	2055	C
1	2A	2056	G
1	2A	2060	A
1	2A	2061	G
1	2A	2069	G
1	2A	2093	G
1	2A	2099	U
1	2A	2101	G
1	2A	2110	G
1	2A	2111	C
1	2A	2115	G
1	2A	2116	G
1	2A	2117	A
1	2A	2118	U
1	2A	2119	A
1	2A	2120	G
1	2A	2122	U
1	2A	2125	G
1	2A	2126	A
1	2A	2127	G
1	2A	2131	G
1	2A	2132	U
1	2A	2133	G
1	2A	2134	A
1	2A	2135	A
1	2A	2137	C
1	2A	2138	C
1	2A	2139	C
1	2A	2140	C
1	2A	2141	G
1	2A	2142	C

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Mol	Chain	Res	Type
1	2A	2146	C
1	2A	2148	G
1	2A	2149	G
1	2A	2150	U
1	2A	2156	G
1	2A	2157	G
1	2A	2158	A
1	2A	2161	C
1	2A	2165	G
1	2A	2166	G
1	2A	2167	U
1	2A	2168	G
1	2A	2171	A
1	2A	2172	U
1	2A	2174	C
1	2A	2178	C
1	2A	2181	G
1	2A	2188	C
1	2A	2189	U
1	2A	2191	G
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	2238	G
1	2A	2239	G
1	2A	2259	G
1	2A	2273	A
1	2A	2275	C
1	2A	2278	A
1	2A	2283	C
1	2A	2287	A
1	2A	2288	A
1	2A	2305	A
1	2A	2307	G
1	2A	2308	G
1	2A	2309	A
1	2A	2311	A
1	2A	2319	G

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Mol	Chain	Res	Type
1	2A	2320	A
1	2A	2325	G
1	2A	2327	A
1	2A	2334	G
1	2A	2336	A
1	2A	2346	A
1	2A	2347	C
1	2A	2376	A
1	2A	2383	G
1	2A	2385	C
1	2A	2387	U
1	2A	2406	U
1	2A	2410	G
1	2A	2425	A
1	2A	2428	G
1	2A	2429	G
1	2A	2430	A
1	2A	2431	U
1	2A	2435	A
1	2A	2439	A
1	2A	2441	C
1	2A	2445	G
1	2A	2448	A
1	2A	2449	U
1	2A	2459	A
1	2A	2465	C
1	2A	2469	A
1	2A	2476	A
1	2A	2480	C
1	2A	2481	G
1	2A	2486	G
1	2A	2489	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	2507	C
1	2A	2518	A
1	2A	2520	C
1	2A	2529	G

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Mol	Chain	Res	Type
1	2A	2554	U
1	2A	2555	U
1	2A	2564	A
1	2A	2566	A
1	2A	2567	G
1	2A	2582	G
1	2A	2602	A
1	2A	2609	U
1	2A	2611	U
1	2A	2612	C
1	2A	2630	G
1	2A	2679	A
1	2A	2689	U
1	2A	2690	C
1	2A	2691	C
1	2A	2702	U
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	2751	G
1	2A	2752	C
1	2A	2758	A
1	2A	2761	G
1	2A	2764	A
1	2A	2765	A
1	2A	2778	A
1	2A	2780	G
1	2A	2789	C
1	2A	2793	G
1	2A	2807	G
1	2A	2808	U
1	2A	2820	A
1	2A	2821	A
1	2A	2835	A
1	2A	2872	G
1	2A	2873	A
1	2A	2880	C
1	2A	2892	A

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Mol	Chain	Res	Type
1	2A	2894	G
1	2A	2896	C
1	2A	2897	U
2	2B	2	C
2	2B	5	C
2	2B	8	U
2	2B	12	C
2	2B	13	A
2	2B	16	G
2	2B	17	C
2	2B	24	G
2	2B	29	A
2	2B	33	G
2	2B	34	U
2	2B	41	U
2	2B	42	C
2	2B	53	A
2	2B	63	G
2	2B	67	G
2	2B	73	A
2	2B	74	U
2	2B	75	G
2	2B	84	C
2	2B	85	G
2	2B	88	C
2	2B	105	A
2	2B	106	G
2	2B	108	U
2	2B	110	G
2	2B	116	G
2	2B	120	A
32	2a	5	U
32	2a	9	G
32	2a	22	G
32	2a	31	G
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	65	U
32	2a	66	G
32	2a	73	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	137	C
32	2a	144	G
32	2a	146	G
32	2a	148	G
32	2a	163	C
32	2a	180	U
32	2a	182	U
32	2a	184	G
32	2a	189	G
32	2a	189(B)	C
32	2a	189(E)	U
32	2a	189(G)	G
32	2a	189(H)	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	217	C
32	2a	231	G
32	2a	247	G
32	2a	249	U
32	2a	251	G
32	2a	258	G
32	2a	266	G
32	2a	267	C
32	2a	274	A
32	2a	279	A
32	2a	281	G
32	2a	289	G

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Mol	Chain	Res	Type
32	2a	306	G
32	2a	318	G
32	2a	321	A
32	2a	328	C
32	2a	330	C
32	2a	332	G
32	2a	338	A
32	2a	345	C
32	2a	346	G
32	2a	348	G
32	2a	349	A
32	2a	351	G
32	2a	352	C
32	2a	353	A
32	2a	354	G
32	2a	355	C
32	2a	363	A
32	2a	365	U
32	2a	367	U
32	2a	372	C
32	2a	373	A
32	2a	380	G
32	2a	381	C
32	2a	384	G
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	412	A
32	2a	413	G
32	2a	421	U
32	2a	423	G
32	2a	424	G
32	2a	429	U
32	2a	430	A
32	2a	439	A
32	2a	441	A
32	2a	442	C
32	2a	452	A
32	2a	470	C
32	2a	480	U
32	2a	481	G
32	2a	484	G

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Mol	Chain	Res	Type
32	2a	485	G
32	2a	492	G
32	2a	495	A
32	2a	496	A
32	2a	498	U
32	2a	505	G
32	2a	506	G
32	2a	509	A
32	2a	510	A
32	2a	511	C
32	2a	517	G
32	2a	518	C
32	2a	521	G
32	2a	527	G7M
32	2a	531	U
32	2a	532	A
32	2a	547	A
32	2a	562	C
32	2a	564	C
32	2a	568	G
32	2a	572	A
32	2a	573	A
32	2a	574	A
32	2a	575	G
32	2a	576	G
32	2a	577	G
32	2a	596	C
32	2a	597	G
32	2a	601	C
32	2a	618	C
32	2a	621	A
32	2a	630	G
32	2a	638	G
32	2a	642	A
32	2a	650	G
32	2a	653	A
32	2a	657	G
32	2a	662	G
32	2a	665	A
32	2a	687	A
32	2a	688	G
32	2a	690	G

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Mol	Chain	Res	Type
32	2a	693	G
32	2a	695	A
32	2a	702	A
32	2a	703	G
32	2a	708	C
32	2a	721	G
32	2a	723	U
32	2a	731	G
32	2a	749	C
32	2a	752	G
32	2a	753	A
32	2a	755	G
32	2a	761	G
32	2a	773	G
32	2a	792	A
32	2a	793	U
32	2a	794	A
32	2a	815	A
32	2a	817	C
32	2a	818	G
32	2a	819	A
32	2a	821	G
32	2a	828	A
32	2a	840	C
32	2a	841	U
32	2a	848	C
32	2a	851	G
32	2a	858	G
32	2a	859	A
32	2a	864	A
32	2a	871	U
32	2a	872	A
32	2a	873	A
32	2a	902	G
32	2a	908	A
32	2a	914	A
32	2a	921	U
32	2a	926	G
32	2a	927	G
32	2a	934	C
32	2a	935	A
32	2a	937	A

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Mol	Chain	Res	Type
32	2a	938	A
32	2a	958	A
32	2a	960	U
32	2a	961	U
32	2a	962	C
32	2a	963	G
32	2a	968	A
32	2a	969	A
32	2a	970	C
32	2a	971	G
32	2a	974	A
32	2a	975	A
32	2a	976	G
32	2a	977	A
32	2a	978	A
32	2a	979	C
32	2a	982	U
32	2a	986	A
32	2a	989	C
32	2a	992	U
32	2a	993	G
32	2a	995	C
32	2a	997	U
32	2a	1001	A
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	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	1029	C
32	2a	1030	C
32	2a	1031	G
32	2a	1032	G

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Mol	Chain	Res	Type
32	2a	1033	G
32	2a	1035	A
32	2a	1038	C
32	2a	1039	C
32	2a	1040	U
32	2a	1042	G
32	2a	1045	C
32	2a	1046	A
32	2a	1050	G
32	2a	1056	U
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	1084	G
32	2a	1085	U
32	2a	1086	U
32	2a	1092	A
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A
32	2a	1105	A
32	2a	1107	C
32	2a	1112	C
32	2a	1113	C
32	2a	1118	C
32	2a	1124	G
32	2a	1126	U
32	2a	1129	C
32	2a	1132	C
32	2a	1133	G
32	2a	1135	U
32	2a	1136	U
32	2a	1137	C
32	2a	1138	G
32	2a	1139	G
32	2a	1140	C
32	2a	1141	C
32	2a	1142	G
32	2a	1146	A

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Mol	Chain	Res	Type
32	2a	1147	C
32	2a	1152	A
32	2a	1155	G
32	2a	1157	A
32	2a	1159	U
32	2a	1160	G
32	2a	1173	G
32	2a	1181	G
32	2a	1182	G
32	2a	1183	A
32	2a	1184	G
32	2a	1191	A
32	2a	1193	G
32	2a	1194	U
32	2a	1196	U
32	2a	1197	G
32	2a	1202	G
32	2a	1209	C
32	2a	1211	U
32	2a	1212	U
32	2a	1213	A
32	2a	1214	C
32	2a	1215	G
32	2a	1225	A
32	2a	1226	C
32	2a	1227	A
32	2a	1238	A
32	2a	1240	U
32	2a	1241	G
32	2a	1249	C
32	2a	1250	A
32	2a	1256	A
32	2a	1257	U
32	2a	1258	G
32	2a	1260	C
32	2a	1261	A
32	2a	1262	C
32	2a	1270	C
32	2a	1272	G
32	2a	1273	G
32	2a	1275	A
32	2a	1278	U

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Mol	Chain	Res	Type
32	2a	1279	A
32	2a	1280	A
32	2a	1283	G
32	2a	1285	A
32	2a	1286	A
32	2a	1287	A
32	2a	1291	G
32	2a	1293	G
32	2a	1299	A
32	2a	1300	G
32	2a	1302	U
32	2a	1305	G
32	2a	1312	G
32	2a	1320	C
32	2a	1322	C
32	2a	1323	G
32	2a	1336	C
32	2a	1340	A
32	2a	1345	U
32	2a	1346	A
32	2a	1347	G
32	2a	1353	G
32	2a	1363	C
32	2a	1368	G
32	2a	1370	G
32	2a	1379	G
32	2a	1380	U
32	2a	1381	U
32	2a	1386	G
32	2a	1397	C
32	2a	1399	C
32	2a	1400	5MC
32	2a	1401	G
32	2a	1419	G
32	2a	1440	C
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1442(B)	A
32	2a	1447	A
32	2a	1456	G
32	2a	1492	A
32	2a	1494	G

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Mol	Chain	Res	Type
32	2a	1499	A
32	2a	1503	A
32	2a	1504	G
32	2a	1506	U
32	2a	1507	A
32	2a	1508	G
32	2a	1517	G
32	2a	1518	MA6
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	19	U
53	2v	24	A
54	2w	3	C
54	2w	4	C
54	2w	7	A
54	2w	9	A
54	2w	11	C
54	2w	14	A
54	2w	15	G
54	2w	19	G
54	2w	22	G
54	2w	46	G7M
54	2w	47	U
54	2w	48	C
54	2w	60	U
54	2w	61	C
54	2w	62	C
54	2w	67	C
54	2w	69	G
54	2w	70	G
54	2w	72	C
54	2w	73	A
54	2w	74	C
55	2x	5	G
55	2x	8	4SU
55	2x	9	G
55	2x	18	G

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Mol	Chain	Res	Type
55	2x	19	G
55	2x	22	G
55	2x	31	G
55	2x	43	A
55	2x	47	U
55	2x	56	C
55	2x	63	G
55	2x	76	A
54	2y	5	G
54	2y	8	4SU
54	2y	12	U
54	2y	14	A
54	2y	15	G
54	2y	19	G
54	2y	25	C
54	2y	35	A
54	2y	41	C
54	2y	42	C
54	2y	48	C
54	2y	49	C
54	2y	51	U
54	2y	52	G
54	2y	57	G
54	2y	58	A
54	2y	59	U
54	2y	62	C
54	2y	65	G
54	2y	69	G
54	2y	70	G
54	2y	71	G
54	2y	72	C
54	2y	73	A

All (44) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	196	A
1	1A	266	G
1	1A	278	A
1	1A	548	A
1	1A	746	A
1	1A	774	A

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Mol	Chain	Res	Type
1	1A	827	U
1	1A	1033	U
1	1A	1067	A
1	1A	1174	A
1	1A	1176	G
1	1A	1442	G
1	1A	1508	A
1	1A	1992	G
1	1A	2126	A
1	1A	2134	A
1	1A	2181	G
1	1A	2183	C
1	1A	2406	U
1	1A	2422	A
1	1A	2439	A
1	1A	2756	U
1	2A	196	A
1	2A	228	A
1	2A	266	G
1	2A	271(M)	G
1	2A	277	C
1	2A	752	A
1	2A	856	C
1	2A	1026	U
1	2A	1210	A
1	2A	1420	U
1	2A	1460	A
1	2A	1509	C
1	2A	1529	G
1	2A	1530	C
1	2A	1653	G
1	2A	1913	A
1	2A	1935	G
1	2A	1992	G
1	2A	2119	A
1	2A	2126	A
1	2A	2430	A
1	2A	2689	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$
55	PSU	1x	55	55	18,21,22	1.40	2 (11%)	21,30,33	2.03	3 (14%)
32	MA6	1a	1519	32	23,26,27	0.42	0	33,38,41	2.12	9 (27%)
55	PSU	2x	55	55	18,21,22	1.37	2 (11%)	21,30,33	1.95	4 (19%)
1	5MC	2A	1962	1,56	19,22,23	1.62	3 (15%)	26,32,35	1.16	2 (7%)
32	UR3	1a	1498	32	19,22,23	0.99	1 (5%)	26,32,35	1.79	3 (11%)
32	G7M	2a	527	32,56	23,26,27	1.47	4 (17%)	34,39,42	1.67	5 (14%)
1	PSU	2A	1911	1	18,21,22	1.40	2 (11%)	21,30,33	1.92	4 (19%)
54	PSU	2y	55	54	18,21,22	1.37	3 (16%)	21,30,33	2.00	4 (19%)
1	2MA	2A	2503	1	22,25,26	1.45	5 (22%)	32,37,40	2.20	9 (28%)
55	4SU	1x	8	55	18,21,22	2.12	4 (22%)	25,30,33	1.49	5 (20%)
1	OMU	1A	2552	1,56	19,22,23	1.29	2 (10%)	25,31,34	1.89	4 (16%)
54	5MU	1w	54	54	19,22,23	1.37	4 (21%)	27,32,35	1.93	7 (25%)
1	5MU	2A	1915	1	19,22,23	1.47	6 (31%)	27,32,35	2.08	5 (18%)
32	5MC	1a	1404	32	19,22,23	1.70	3 (15%)	26,32,35	1.18	3 (11%)
32	4OC	2a	1402	32,56	20,23,24	0.79	0	25,32,35	1.00	1 (4%)
32	5MC	1a	1407	32	19,22,23	1.57	3 (15%)	26,32,35	1.10	2 (7%)
1	PSU	1A	1911	1	18,21,22	1.47	2 (11%)	21,30,33	2.05	3 (14%)
1	OMG	1A	2251	55,1,56	23,26,27	1.21	3 (13%)	32,38,41	2.16	8 (25%)
1	PSU	2A	1917	1	18,21,22	1.40	3 (16%)	21,30,33	2.07	3 (14%)
1	5MC	2A	1942	1	19,22,23	1.71	3 (15%)	26,32,35	1.14	3 (11%)
54	G7M	2y	46	54	23,26,27	1.60	3 (13%)	34,39,42	1.75	3 (8%)
54	PSU	2w	39	54	18,21,22	1.33	2 (11%)	21,30,33	1.89	3 (14%)
1	OMC	2A	1920	1	19,22,23	0.76	0	25,31,34	0.85	1 (4%)
55	4SU	2x	8	55	18,21,22	2.04	6 (33%)	25,30,33	1.57	6 (24%)
54	PSU	1w	55	54	18,21,22	1.41	2 (11%)	21,30,33	1.94	4 (19%)
54	4SU	2y	8	54	18,21,22	1.80	4 (22%)	25,30,33	2.46	6 (24%)
1	5MC	1A	1942	1	19,22,23	1.47	3 (15%)	26,32,35	1.23	2 (7%)
32	MA6	2a	1518	32	23,26,27	0.45	0	33,38,41	2.09	9 (27%)
32	PSU	2a	516	32	18,21,22	1.34	2 (11%)	21,30,33	1.91	4 (19%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	5MC	2a	1404	32	19,22,23	1.72	3 (15%)	26,32,35	1.16	3 (11%)
55	5MU	2x	54	55	19,22,23	1.42	5 (26%)	27,32,35	2.12	6 (22%)
54	G7M	1w	46	54	23,26,27	1.52	3 (13%)	34,39,42	1.78	5 (14%)
1	PSU	2A	2605	1	18,21,22	1.40	3 (16%)	21,30,33	1.97	4 (19%)
1	5MU	2A	1939	1	19,22,23	1.44	5 (26%)	27,32,35	2.25	6 (22%)
55	5MC	1x	32	55	19,22,23	1.64	3 (15%)	26,32,35	1.21	2 (7%)
54	G7M	2w	46	54	23,26,27	1.44	4 (17%)	34,39,42	1.72	5 (14%)
32	5MC	2a	967	32	19,22,23	1.74	3 (15%)	26,32,35	1.12	3 (11%)
54	PSU	1w	32	54,56	18,21,22	1.36	2 (11%)	21,30,33	1.92	3 (14%)
32	5MC	1a	967	32	19,22,23	1.60	3 (15%)	26,32,35	1.11	2 (7%)
54	PSU	1y	55	54	18,21,22	1.41	2 (11%)	21,30,33	2.02	3 (14%)
55	5MU	1x	54	55	19,22,23	1.39	5 (26%)	27,32,35	1.98	8 (29%)
32	M2G	2a	966	32	24,27,28	1.31	4 (16%)	33,40,43	1.86	6 (18%)
54	PSU	2w	55	54	18,21,22	1.38	2 (11%)	21,30,33	1.97	3 (14%)
1	PSU	1A	2605	1,56	18,21,22	1.44	4 (22%)	21,30,33	2.08	4 (19%)
54	PSU	2y	39	54	18,21,22	1.37	2 (11%)	21,30,33	1.83	3 (14%)
32	G7M	1a	527	32,56	23,26,27	1.54	4 (17%)	34,39,42	1.65	4 (11%)
1	5MU	1A	1939	1,56	19,22,23	1.53	6 (31%)	27,32,35	2.37	5 (18%)
54	MIA	1y	37	54	21,24,32	1.62	4 (19%)	30,35,47	2.11	7 (23%)
54	4SU	1w	8	54	18,21,22	1.83	5 (27%)	25,30,33	1.87	4 (16%)
32	PSU	1a	516	32	18,21,22	1.40	3 (16%)	21,30,33	1.96	4 (19%)
32	MA6	1a	1518	32	23,26,27	0.39	0	33,38,41	2.06	10 (30%)
54	MIA	2y	37	54	21,24,32	1.64	3 (14%)	30,35,47	2.00	8 (26%)
32	5MC	2a	1407	32	19,22,23	1.56	3 (15%)	26,32,35	1.13	3 (11%)
43	0TD	1l	92	43	8,9,10	4.64	1 (12%)	6,11,13	5.39	2 (33%)
1	2MA	1A	2503	1,56	22,25,26	1.43	4 (18%)	32,37,40	2.35	9 (28%)
1	5MC	1A	1962	1,56	19,22,23	1.59	3 (15%)	26,32,35	1.13	3 (11%)
54	PSU	1y	32	54	18,21,22	1.37	3 (16%)	21,30,33	1.94	4 (19%)
54	PSU	1y	39	54	18,21,22	1.44	2 (11%)	21,30,33	1.70	3 (14%)
32	4OC	1a	1402	32	20,23,24	0.74	0	25,32,35	0.95	1 (4%)
55	5MC	2x	32	55	19,22,23	1.59	3 (15%)	26,32,35	1.30	3 (11%)
43	0TD	2l	92	43	8,9,10	4.46	1 (12%)	6,11,13	7.25	2 (33%)
54	PSU	1w	39	54	18,21,22	1.32	2 (11%)	21,30,33	1.88	3 (14%)
54	PSU	2w	32	54	18,21,22	1.36	2 (11%)	21,30,33	2.09	5 (23%)
54	G7M	1y	46	54	23,26,27	1.68	3 (13%)	34,39,42	1.99	4 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	UR3	2a	1498	32	19,22,23	1.05	1 (5%)	26,32,35	1.81	4 (15%)
32	5MC	1a	1400	32	19,22,23	1.55	3 (15%)	26,32,35	1.09	2 (7%)
54	MIA	1w	37	54	28,31,32	2.21	6 (21%)	38,44,47	2.72	13 (34%)
1	5MU	1A	1915	1	19,22,23	1.43	5 (26%)	27,32,35	2.01	6 (22%)
32	5MC	2a	1400	32	19,22,23	1.76	2 (10%)	26,32,35	1.26	4 (15%)
32	M2G	1a	966	32	24,27,28	1.35	4 (16%)	33,40,43	1.91	6 (18%)
54	4SU	1y	8	54	18,21,22	1.79	5 (27%)	25,30,33	1.75	5 (20%)
32	2MG	1a	1207	32	23,26,27	1.26	2 (8%)	33,38,41	2.19	8 (24%)
54	4SU	2w	8	54	18,21,22	1.69	4 (22%)	25,30,33	2.02	5 (20%)
32	MA6	2a	1519	32	23,26,27	0.43	0	33,38,41	2.19	10 (30%)
1	PSU	1A	1917	1	18,21,22	1.37	2 (11%)	21,30,33	2.16	6 (28%)
1	OMG	2A	2251	55,1,56	23,26,27	1.22	3 (13%)	32,38,41	1.98	7 (21%)
32	2MG	2a	1207	32	23,26,27	1.24	3 (13%)	33,38,41	2.22	7 (21%)
54	5MU	2w	54	54	19,22,23	1.42	4 (21%)	27,32,35	1.82	6 (22%)
54	MIA	2w	37	54,53	24,27,32	2.16	5 (20%)	32,39,47	2.67	10 (31%)
54	PSU	2y	32	54	18,21,22	1.39	2 (11%)	21,30,33	2.01	4 (19%)
54	5MU	1y	54	54	19,22,23	1.39	4 (21%)	27,32,35	1.86	5 (18%)
54	5MU	2y	54	54	19,22,23	1.36	4 (21%)	27,32,35	1.86	7 (25%)
1	OMC	1A	1920	1	19,22,23	0.81	0	25,31,34	1.02	1 (4%)
1	OMU	2A	2552	1,56	19,22,23	1.25	3 (15%)	25,31,34	1.82	5 (20%)

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
55	PSU	1x	55	55	-	0/7/25/26	0/2/2/2
32	MA6	1a	1519	32	-	3/11/29/30	0/3/3/3
55	PSU	2x	55	55	-	0/7/25/26	0/2/2/2
1	5MC	2A	1962	1,56	-	0/7/25/26	0/2/2/2
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
32	G7M	2a	527	32,56	-	3/7/25/26	0/3/3/3
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
54	PSU	2y	55	54	-	2/7/25/26	0/2/2/2
1	2MA	2A	2503	1	-	1/7/25/26	0/3/3/3
55	4SU	1x	8	55	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	OMU	1A	2552	1,56	-	0/9/27/28	0/2/2/2
54	5MU	1w	54	54	-	0/7/25/26	0/2/2/2
1	5MU	2A	1915	1	-	0/7/25/26	0/2/2/2
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
32	4OC	2a	1402	32,56	-	1/9/29/30	0/2/2/2
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
1	OMG	1A	2251	55,1,56	-	1/9/27/28	0/3/3/3
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
54	G7M	2y	46	54	-	0/7/25/26	0/3/3/3
54	PSU	2w	39	54	-	0/7/25/26	0/2/2/2
1	OMC	2A	1920	1	-	1/9/27/28	0/2/2/2
55	4SU	2x	8	55	-	0/7/25/26	0/2/2/2
54	PSU	1w	55	54	-	0/7/25/26	0/2/2/2
54	4SU	2y	8	54	-	4/7/25/26	0/2/2/2
1	5MC	1A	1942	1	-	0/7/25/26	0/2/2/2
32	MA6	2a	1518	32	-	2/11/29/30	0/3/3/3
32	PSU	2a	516	32	-	0/7/25/26	0/2/2/2
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2
55	5MU	2x	54	55	-	0/7/25/26	0/2/2/2
54	G7M	1w	46	54	-	3/7/25/26	0/3/3/3
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
1	5MU	2A	1939	1	-	0/7/25/26	0/2/2/2
55	5MC	1x	32	55	-	0/7/25/26	0/2/2/2
54	G7M	2w	46	54	-	2/7/25/26	0/3/3/3
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
54	PSU	1w	32	54,56	-	0/7/25/26	0/2/2/2
32	5MC	1a	967	32	-	2/7/25/26	0/2/2/2
54	PSU	1y	55	54	-	2/7/25/26	0/2/2/2
55	5MU	1x	54	55	-	0/7/25/26	0/2/2/2
32	M2G	2a	966	32	-	0/11/29/30	0/3/3/3
54	PSU	2w	55	54	-	0/7/25/26	0/2/2/2
1	PSU	1A	2605	1,56	-	0/7/25/26	0/2/2/2
54	PSU	2y	39	54	-	0/7/25/26	0/2/2/2
32	G7M	1a	527	32,56	-	2/7/25/26	0/3/3/3
1	5MU	1A	1939	1,56	-	0/7/25/26	0/2/2/2
54	MIA	1y	37	54	-	3/7/25/34	0/3/3/3
54	4SU	1w	8	54	-	0/7/25/26	0/2/2/2
32	PSU	1a	516	32	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	MA6	1a	1518	32	-	0/11/29/30	0/3/3/3
54	MIA	2y	37	54	-	2/7/25/34	0/3/3/3
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
43	0TD	1l	92	43	-	3/7/12/14	-
1	2MA	1A	2503	1,56	-	0/7/25/26	0/3/3/3
1	5MC	1A	1962	1,56	-	0/7/25/26	0/2/2/2
54	PSU	1y	32	54	-	0/7/25/26	0/2/2/2
54	PSU	1y	39	54	-	0/7/25/26	0/2/2/2
32	4OC	1a	1402	32	-	1/9/29/30	0/2/2/2
55	5MC	2x	32	55	-	0/7/25/26	0/2/2/2
43	0TD	2l	92	43	-	2/7/12/14	-
54	PSU	1w	39	54	-	0/7/25/26	0/2/2/2
54	PSU	2w	32	54	-	0/7/25/26	0/2/2/2
54	G7M	1y	46	54	-	1/7/25/26	0/3/3/3
32	UR3	2a	1498	32	-	2/7/25/26	0/2/2/2
32	5MC	1a	1400	32	-	1/7/25/26	0/2/2/2
54	MIA	1w	37	54	-	3/15/33/34	0/3/3/3
1	5MU	1A	1915	1	-	0/7/25/26	0/2/2/2
32	5MC	2a	1400	32	-	6/7/25/26	0/2/2/2
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
54	4SU	1y	8	54	-	0/7/25/26	0/2/2/2
32	2MG	1a	1207	32	-	0/9/27/28	0/3/3/3
54	4SU	2w	8	54	-	0/7/25/26	0/2/2/2
32	MA6	2a	1519	32	-	3/11/29/30	0/3/3/3
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2
1	OMG	2A	2251	55,1,56	-	1/9/27/28	0/3/3/3
32	2MG	2a	1207	32	-	2/9/27/28	0/3/3/3
54	5MU	2w	54	54	-	0/7/25/26	0/2/2/2
54	MIA	2w	37	54,53	-	2/11/29/34	0/3/3/3
54	PSU	2y	32	54	-	0/7/25/26	0/2/2/2
54	5MU	1y	54	54	-	0/7/25/26	0/2/2/2
54	5MU	2y	54	54	-	0/7/25/26	0/2/2/2
1	OMC	1A	1920	1	-	1/9/27/28	0/2/2/2
1	OMU	2A	2552	1,56	-	0/9/27/28	0/2/2/2

All (244) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	1l	92	0TD	CB-SB	-12.72	1.69	1.82
43	2l	92	0TD	CB-SB	-12.23	1.69	1.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	2w	37	MIA	C2-S10	-7.15	1.69	1.75
54	1w	37	MIA	C13-C14	6.92	1.53	1.32
32	2a	967	5MC	C5-C4	6.44	1.49	1.44
32	2a	1400	5MC	C5-C4	6.39	1.49	1.44
32	1a	1404	5MC	C5-C4	6.32	1.48	1.44
32	2a	1404	5MC	C5-C4	6.30	1.48	1.44
1	2A	1942	5MC	C5-C4	6.22	1.48	1.44
55	1x	32	5MC	C5-C4	5.89	1.48	1.44
1	2A	1962	5MC	C5-C4	5.80	1.48	1.44
32	1a	967	5MC	C5-C4	5.67	1.48	1.44
1	1A	1962	5MC	C5-C4	5.64	1.48	1.44
32	2a	1407	5MC	C5-C4	5.60	1.48	1.44
32	1a	1407	5MC	C5-C4	5.56	1.48	1.44
32	1a	1400	5MC	C5-C4	5.49	1.48	1.44
55	2x	32	5MC	C5-C4	5.48	1.48	1.44
54	1w	37	MIA	C2-S10	-5.30	1.71	1.75
54	1y	37	MIA	C5-C4	5.21	1.48	1.39
54	2y	37	MIA	C5-C4	5.17	1.48	1.39
54	2w	37	MIA	C5-C4	5.15	1.48	1.39
1	1A	1942	5MC	C5-C4	5.05	1.47	1.44
54	1y	46	G7M	C5-N7	-5.01	1.33	1.39
54	2y	8	4SU	C4-S4	-4.84	1.60	1.68
55	1x	8	4SU	C4-N3	-4.83	1.32	1.37
54	1w	8	4SU	C4-S4	-4.82	1.60	1.68
54	1w	37	MIA	C5-C4	4.82	1.47	1.39
32	1a	527	G7M	C5-N7	-4.56	1.33	1.39
54	1y	8	4SU	C4-S4	-4.52	1.60	1.68
55	1x	8	4SU	C4-S4	-4.51	1.60	1.68
54	2y	46	G7M	C5-N7	-4.49	1.34	1.39
32	2a	527	G7M	C5-N7	-4.44	1.34	1.39
55	2x	8	4SU	C4-N3	-4.42	1.33	1.37
54	1w	46	G7M	C5-N7	-4.37	1.34	1.39
54	2w	8	4SU	C4-S4	-4.36	1.61	1.68
55	2x	8	4SU	C4-S4	-4.34	1.61	1.68
1	2A	2503	2MA	C5-C4	4.21	1.46	1.39
54	2w	46	G7M	C5-N7	-4.15	1.34	1.39
54	1w	55	PSU	C6-C5	4.13	1.39	1.35
54	2y	32	PSU	C6-C5	4.10	1.39	1.35
54	1y	55	PSU	C6-C5	4.08	1.39	1.35
54	1y	39	PSU	C6-C5	4.02	1.39	1.35
55	1x	55	PSU	C6-C5	3.97	1.39	1.35
1	1A	2503	2MA	C5-C4	3.94	1.46	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	2w	55	PSU	C6-C5	3.87	1.39	1.35
1	1A	1911	PSU	C6-C5	3.84	1.39	1.35
54	2w	32	PSU	C6-C5	3.83	1.39	1.35
54	2w	39	PSU	C6-C5	3.81	1.39	1.35
54	2y	39	PSU	C6-C5	3.75	1.39	1.35
54	2y	46	G7M	C5-C4	3.69	1.47	1.38
55	2x	55	PSU	C6-C5	3.69	1.39	1.35
54	1y	46	G7M	C5-C4	3.67	1.47	1.38
54	1y	32	PSU	C6-C5	3.65	1.39	1.35
55	1x	8	4SU	C2-N3	-3.62	1.31	1.38
32	2a	516	PSU	C6-C5	3.59	1.39	1.35
1	2A	1911	PSU	C6-C5	3.59	1.39	1.35
1	1A	1917	PSU	C6-C5	3.54	1.39	1.35
54	1w	32	PSU	C6-C5	3.50	1.39	1.35
54	1w	46	G7M	C5-C4	3.50	1.47	1.38
55	2x	8	4SU	C5-C4	-3.48	1.38	1.42
55	1x	8	4SU	C5-C4	-3.44	1.38	1.42
54	1w	39	PSU	C6-C5	3.44	1.39	1.35
1	2A	1917	PSU	C6-C5	3.43	1.39	1.35
32	1a	527	G7M	C5-C4	3.43	1.46	1.38
1	1A	2552	OMU	C4-N3	-3.43	1.32	1.38
1	2A	2605	PSU	C6-C5	3.39	1.39	1.35
32	2a	966	M2G	C5-C4	3.29	1.47	1.38
1	1A	1939	5MU	C4-N3	-3.28	1.32	1.38
54	1w	8	4SU	C4-N3	-3.27	1.34	1.37
32	1a	516	PSU	C6-C5	3.25	1.38	1.35
54	2y	55	PSU	C6-C5	3.24	1.38	1.35
32	1a	966	M2G	C5-C4	3.24	1.47	1.38
32	2a	527	G7M	C5-C4	3.17	1.46	1.38
32	2a	1207	2MG	C5-C4	3.17	1.47	1.38
54	1y	8	4SU	C4-N3	-3.16	1.34	1.37
54	2w	37	MIA	C5-C6	3.15	1.49	1.41
54	2w	46	G7M	C5-C4	3.15	1.46	1.38
1	2A	2251	OMG	C5-C4	3.10	1.47	1.38
55	2x	32	5MC	C6-C5	3.06	1.39	1.34
32	1a	1207	2MG	C5-C4	3.06	1.47	1.38
1	2A	1942	5MC	C6-C5	3.05	1.39	1.34
1	2A	2552	OMU	C4-N3	-3.04	1.33	1.38
54	2y	37	MIA	C5-C6	3.04	1.49	1.41
1	1A	2605	PSU	C4-N3	-3.03	1.33	1.38
32	2a	1404	5MC	C6-C5	2.96	1.39	1.34
1	2A	2605	PSU	C4-N3	-2.95	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2605	PSU	C6-C5	2.95	1.38	1.35
1	2A	1915	5MU	C6-C5	2.94	1.39	1.34
32	1a	966	M2G	C2-N2	2.94	1.40	1.35
54	2y	8	4SU	C2-N1	2.92	1.43	1.38
32	2a	966	M2G	C2-N2	2.91	1.40	1.35
1	1A	2251	OMG	C5-C4	2.90	1.46	1.38
54	1y	37	MIA	C5-C6	2.88	1.49	1.41
1	2A	1939	5MU	C4-N3	-2.88	1.33	1.38
54	2y	8	4SU	C5-C4	-2.87	1.39	1.42
54	2w	54	5MU	C6-C5	2.87	1.39	1.34
32	1a	967	5MC	C6-C5	2.85	1.39	1.34
55	1x	32	5MC	C6-C5	2.85	1.39	1.34
54	1w	54	5MU	C6-C5	2.83	1.39	1.34
54	1w	8	4SU	C5-C4	-2.83	1.39	1.42
54	1y	39	PSU	C4-N3	-2.82	1.33	1.38
1	1A	1911	PSU	C4-N3	-2.82	1.33	1.38
54	2y	54	5MU	C6-C5	2.81	1.39	1.34
1	1A	1942	5MC	C6-C5	2.79	1.39	1.34
54	2y	8	4SU	C4-N3	-2.79	1.34	1.37
1	1A	1915	5MU	C6-C5	2.78	1.39	1.34
1	2A	1915	5MU	C4-N3	-2.78	1.33	1.38
55	2x	54	5MU	C6-C5	2.77	1.39	1.34
32	2a	1400	5MC	C6-C5	2.76	1.39	1.34
32	1a	1400	5MC	C6-C5	2.76	1.39	1.34
54	1w	37	MIA	C5-C6	2.75	1.48	1.41
1	1A	1939	5MU	C6-C5	2.73	1.39	1.34
54	2w	8	4SU	C4-N3	-2.71	1.34	1.37
1	2A	1939	5MU	C6-N1	-2.70	1.33	1.38
54	1y	54	5MU	C6-C5	2.70	1.39	1.34
54	1y	46	G7M	C6-N1	-2.70	1.33	1.38
32	1a	1407	5MC	C6-C5	2.70	1.39	1.34
1	2A	2251	OMG	C6-N1	-2.69	1.33	1.38
1	2A	1939	5MU	C6-C5	2.69	1.39	1.34
55	2x	8	4SU	O2-C2	2.69	1.27	1.23
32	1a	1207	2MG	C6-N1	-2.68	1.33	1.38
1	1A	1939	5MU	C2-N3	-2.68	1.33	1.38
55	1x	54	5MU	C4-N3	-2.67	1.33	1.38
32	2a	967	5MC	C6-C5	2.67	1.39	1.34
54	1y	8	4SU	C2-N1	2.66	1.42	1.38
1	1A	1917	PSU	C4-N3	-2.66	1.33	1.38
32	1a	966	M2G	C6-N1	-2.66	1.33	1.38
32	1a	516	PSU	C4-N3	-2.65	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	1917	PSU	C4-N3	-2.65	1.33	1.38
1	1A	1915	5MU	C2-N1	2.62	1.42	1.38
1	1A	2251	OMG	C6-N1	-2.61	1.34	1.38
1	1A	1939	5MU	C6-N1	-2.60	1.33	1.38
1	2A	2503	2MA	C5-N7	-2.59	1.34	1.39
1	2A	1915	5MU	C2-N1	2.57	1.42	1.38
55	1x	54	5MU	C4-C5	2.57	1.49	1.44
55	1x	54	5MU	C6-C5	2.56	1.38	1.34
1	2A	1962	5MC	C6-C5	2.56	1.38	1.34
1	1A	1915	5MU	C4-N3	-2.56	1.34	1.38
54	2y	37	MIA	C8-N7	2.55	1.36	1.31
1	1A	1962	5MC	C6-C5	2.54	1.38	1.34
1	2A	1911	PSU	C4-N3	-2.54	1.34	1.38
54	2w	54	5MU	C4-C5	2.54	1.49	1.44
55	2x	8	4SU	C2-N1	2.54	1.42	1.38
54	2w	8	4SU	C2-N1	2.53	1.42	1.38
1	1A	2552	OMU	C2-N3	-2.53	1.33	1.38
54	1y	54	5MU	C4-N3	-2.53	1.34	1.38
55	2x	54	5MU	C4-C5	2.51	1.48	1.44
1	1A	2503	2MA	C5-C6	2.51	1.48	1.41
54	1y	54	5MU	C2-N1	2.49	1.42	1.38
54	1w	32	PSU	C4-N3	-2.49	1.34	1.38
54	1w	54	5MU	C4-N3	-2.49	1.34	1.38
54	2y	39	PSU	C4-N3	-2.49	1.34	1.38
55	2x	54	5MU	C2-N1	2.49	1.42	1.38
1	2A	1962	5MC	C6-N1	-2.48	1.33	1.38
54	1w	39	PSU	C4-N3	-2.48	1.34	1.38
1	2A	2552	OMU	C2-N3	-2.47	1.33	1.38
1	2A	2503	2MA	C4-N9	-2.47	1.32	1.37
1	1A	2503	2MA	C4-N9	-2.45	1.32	1.37
55	2x	55	PSU	C4-N3	-2.45	1.34	1.38
1	2A	2605	PSU	C2-N3	-2.45	1.33	1.37
54	2w	32	PSU	C4-N3	-2.43	1.34	1.38
54	2y	46	G7M	C6-N1	-2.43	1.34	1.38
54	2w	8	4SU	C5-C4	-2.42	1.39	1.42
54	1w	54	5MU	C4-C5	2.42	1.48	1.44
54	2w	55	PSU	C4-N3	-2.42	1.34	1.38
32	2a	1498	UR3	C2-N1	2.40	1.41	1.38
1	1A	1915	5MU	C4-C5	2.40	1.48	1.44
32	2a	1407	5MC	C6-C5	2.40	1.38	1.34
55	2x	54	5MU	C4-N3	-2.40	1.34	1.38
54	1y	32	PSU	C4-N3	-2.39	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	2y	54	5MU	C4-N3	-2.39	1.34	1.38
54	1y	8	4SU	C5-C4	-2.38	1.39	1.42
1	1A	1962	5MC	C6-N1	-2.38	1.34	1.38
54	1y	55	PSU	C4-N3	-2.38	1.34	1.38
1	1A	2605	PSU	C2-N3	-2.37	1.33	1.37
1	1A	2503	2MA	C5-N7	-2.35	1.34	1.39
54	1y	37	MIA	C8-N7	2.35	1.36	1.31
32	2a	516	PSU	C4-N3	-2.35	1.34	1.38
54	2w	54	5MU	C2-N1	2.34	1.42	1.38
32	2a	1207	2MG	C6-N1	-2.34	1.34	1.38
54	2y	55	PSU	C4-N3	-2.34	1.34	1.38
1	1A	1939	5MU	C4-C5	2.32	1.48	1.44
32	1a	1404	5MC	C6-N1	-2.31	1.34	1.38
54	2y	54	5MU	C2-N1	2.31	1.42	1.38
32	2a	966	M2G	C6-N1	-2.30	1.34	1.38
1	2A	2503	2MA	C5-C6	2.30	1.47	1.41
32	2a	1207	2MG	C4-N9	-2.30	1.32	1.38
32	1a	527	G7M	C6-N1	-2.30	1.34	1.38
1	1A	1942	5MC	C6-N1	-2.30	1.34	1.38
32	2a	527	G7M	C6-N1	-2.30	1.34	1.38
54	1w	37	MIA	C8-N7	2.29	1.36	1.31
1	2A	1939	5MU	C2-N3	-2.29	1.34	1.38
1	2A	1915	5MU	C4-C5	2.29	1.48	1.44
55	1x	32	5MC	C6-N1	-2.28	1.34	1.38
1	2A	1939	5MU	C4-C5	2.27	1.48	1.44
55	1x	54	5MU	C6-N1	-2.27	1.34	1.38
54	2w	54	5MU	C4-N3	-2.27	1.34	1.38
54	2w	37	MIA	C8-N7	2.26	1.36	1.31
32	2a	1407	5MC	C6-N1	-2.26	1.34	1.38
54	1w	55	PSU	C4-N3	-2.25	1.34	1.38
54	1w	37	MIA	C5-N7	-2.24	1.35	1.39
32	1a	1404	5MC	C6-C5	2.22	1.38	1.34
55	2x	8	4SU	C2-N3	-2.22	1.34	1.38
54	2y	54	5MU	C4-C5	2.20	1.48	1.44
1	1A	2251	OMG	C5-N7	-2.20	1.34	1.39
1	2A	1915	5MU	C2-N3	-2.20	1.34	1.38
1	1A	1939	5MU	C2-N1	2.17	1.41	1.38
1	2A	1942	5MC	C6-N1	-2.17	1.34	1.38
54	2w	39	PSU	C4-N3	-2.16	1.34	1.38
54	1w	46	G7M	C5-C6	2.16	1.49	1.43
32	1a	967	5MC	C6-N1	-2.16	1.34	1.38
1	2A	2251	OMG	C5-N7	-2.15	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	1a	1407	5MC	C6-N1	-2.15	1.34	1.38
32	1a	1400	5MC	C6-N1	-2.15	1.34	1.38
54	1y	37	MIA	C5-N7	-2.14	1.35	1.39
54	2w	46	G7M	C5-C6	2.13	1.49	1.43
54	1w	8	4SU	C2-N3	-2.13	1.34	1.38
32	2a	967	5MC	C6-N1	-2.13	1.34	1.38
32	2a	1404	5MC	C6-N1	-2.13	1.34	1.38
1	2A	1915	5MU	C6-N1	-2.13	1.34	1.38
1	2A	1917	PSU	C2-N3	-2.12	1.34	1.37
54	1y	54	5MU	C4-C5	2.12	1.48	1.44
54	2y	55	PSU	C2-N1	-2.12	1.33	1.36
54	1w	8	4SU	C2-N1	2.12	1.41	1.38
55	2x	54	5MU	C6-N1	-2.11	1.34	1.38
55	1x	54	5MU	C2-N3	-2.11	1.34	1.38
1	2A	2503	2MA	C8-N7	2.11	1.35	1.31
54	2w	37	MIA	C5-N7	-2.11	1.35	1.39
32	1a	966	M2G	C5-N7	-2.09	1.34	1.39
54	2y	32	PSU	C4-N3	-2.08	1.35	1.38
54	1w	54	5MU	C6-N1	-2.07	1.34	1.38
32	1a	516	PSU	C2-N3	-2.06	1.34	1.37
55	1x	55	PSU	C4-N3	-2.06	1.35	1.38
32	1a	527	G7M	C5-C6	2.05	1.48	1.43
1	1A	2605	PSU	C2-N1	-2.05	1.34	1.36
54	1y	32	PSU	C4-C5	2.05	1.50	1.44
54	2w	46	G7M	C4-N9	-2.04	1.32	1.38
1	2A	2552	OMU	C5-C4	-2.04	1.39	1.43
32	2a	527	G7M	C5-C6	2.04	1.48	1.43
54	1y	8	4SU	C6-C5	2.03	1.39	1.35
1	1A	1915	5MU	C2-N3	-2.03	1.34	1.38
32	1a	1498	UR3	C2-N1	2.02	1.41	1.38
32	2a	966	M2G	C5-N7	-2.02	1.35	1.39
55	2x	32	5MC	C6-N1	-2.01	1.34	1.38

All (396) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	2l	92	0TD	CSB-SB-CB	-17.47	70.96	102.36
43	1l	92	0TD	CSB-SB-CB	-12.65	79.62	102.36
54	2w	37	MIA	C5-C4-N3	-8.55	118.17	127.18
54	1w	37	MIA	C12-C13-C14	-8.12	112.44	127.01
54	1w	37	MIA	C5-C4-N3	-8.09	118.66	127.18
1	1A	2503	2MA	C5-C4-N3	-7.55	119.23	127.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	2503	2MA	C5-C4-N3	-7.26	119.54	127.18
32	1a	1498	UR3	C4-N3-C2	-6.99	118.95	124.58
32	1a	1207	2MG	C2-N3-C4	6.90	120.64	112.00
32	2a	1498	UR3	C4-N3-C2	-6.83	119.09	124.58
1	1A	1917	PSU	N1-C2-N3	6.70	122.24	115.17
1	1A	2251	OMG	C5-C4-N3	-6.69	117.74	128.39
54	1y	46	G7M	N9-C4-N3	6.62	139.19	125.95
1	2A	1917	PSU	N1-C2-N3	6.61	122.14	115.17
54	2y	8	4SU	C4-N3-C2	-6.57	121.02	127.31
54	1w	37	MIA	N3-C4-N9	6.56	135.32	126.99
54	2w	37	MIA	N3-C4-N9	6.46	135.19	126.99
1	1A	2605	PSU	N1-C2-N3	6.44	121.97	115.17
54	1y	37	MIA	C5-C4-N3	-6.44	117.86	126.72
1	1A	1911	PSU	N1-C2-N3	6.43	121.95	115.17
32	2a	1207	2MG	C2-N3-C4	6.38	119.98	112.00
54	2w	37	MIA	C11-S10-C2	-6.35	97.49	102.25
54	1y	55	PSU	N1-C2-N3	6.33	121.84	115.17
55	1x	55	PSU	N1-C2-N3	6.29	121.80	115.17
32	1a	966	M2G	C5-C4-N3	-6.26	118.42	128.39
1	2A	2251	OMG	C5-C4-N3	-6.25	118.44	128.39
54	2w	32	PSU	N1-C2-N3	6.23	121.74	115.17
1	1A	2503	2MA	N3-C4-N9	6.22	134.88	126.99
32	1a	516	PSU	N1-C2-N3	6.21	121.72	115.17
55	2x	55	PSU	N1-C2-N3	6.16	121.66	115.17
32	2a	966	M2G	C5-C4-N3	-6.15	118.60	128.39
54	2w	55	PSU	N1-C2-N3	6.15	121.65	115.17
54	2y	32	PSU	N1-C2-N3	6.11	121.61	115.17
1	2A	2605	PSU	N1-C2-N3	6.06	121.56	115.17
54	1w	32	PSU	N1-C2-N3	5.99	121.49	115.17
1	1A	1939	5MU	C4-N3-C2	-5.97	119.51	127.34
54	1w	55	PSU	N1-C2-N3	5.97	121.46	115.17
1	2A	2503	2MA	N3-C4-N9	5.84	134.41	126.99
54	1w	39	PSU	N1-C2-N3	5.84	121.33	115.17
54	2y	46	G7M	N9-C4-N3	5.77	137.49	125.95
54	1y	32	PSU	N1-C2-N3	5.76	121.24	115.17
54	2y	8	4SU	C5-C4-N3	5.76	120.11	114.75
54	2y	55	PSU	N1-C2-N3	5.75	121.23	115.17
1	2A	1911	PSU	N1-C2-N3	5.74	121.22	115.17
1	1A	1939	5MU	C5-C4-N3	5.74	120.31	115.32
54	1y	46	G7M	C5-C4-N3	-5.73	117.33	128.15
32	1a	1207	2MG	C5-C4-N3	-5.71	119.31	128.39
32	2a	516	PSU	N1-C2-N3	5.69	121.17	115.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2w	8	4SU	C4-N3-C2	-5.63	121.92	127.31
54	2w	39	PSU	N1-C2-N3	5.62	121.10	115.17
54	2y	37	MIA	C5-C4-N3	-5.58	119.03	126.72
54	1w	46	G7M	C5-C4-N3	-5.54	117.68	128.15
54	1w	46	G7M	N9-C4-N3	5.53	137.01	125.95
1	1A	2251	OMG	C2-N3-C4	5.53	121.82	112.30
54	2y	39	PSU	N1-C2-N3	5.51	120.98	115.17
1	2A	1939	5MU	C4-N3-C2	-5.51	120.12	127.34
54	1y	39	PSU	N1-C2-N3	5.42	120.89	115.17
1	1A	2552	OMU	N3-C2-N1	5.38	121.90	114.89
32	1a	527	G7M	N9-C4-N3	5.27	136.48	125.95
54	2y	46	G7M	C5-C4-N3	-5.26	118.21	128.15
1	2A	1915	5MU	N3-C2-N1	5.25	121.73	114.89
32	2a	1519	MA6	C5-C4-N3	-5.25	119.49	126.72
32	2a	1207	2MG	C5-C4-N3	-5.25	120.03	128.39
1	1A	1939	5MU	N3-C2-N1	5.25	121.72	114.89
32	2a	527	G7M	N9-C4-N3	5.24	136.43	125.95
1	2A	1939	5MU	N3-C2-N1	5.22	121.69	114.89
55	2x	54	5MU	C4-N3-C2	-5.18	120.55	127.34
32	1a	527	G7M	C5-C4-N3	-5.14	118.43	128.15
32	2a	527	G7M	C5-C4-N3	-5.13	118.46	128.15
54	1y	37	MIA	N3-C4-N9	5.12	135.87	127.17
1	1A	2251	OMG	N9-C4-N3	5.09	136.12	125.95
1	2A	2251	OMG	C2-N3-C4	5.06	121.01	112.30
54	1y	46	G7M	C2-N3-C4	5.06	121.01	112.30
1	2A	1915	5MU	C4-N3-C2	-5.06	120.71	127.34
32	2a	1518	MA6	N1-C2-N3	-5.04	120.95	128.58
54	1w	8	4SU	C5-C4-N3	5.00	119.40	114.75
55	2x	54	5MU	N3-C2-N1	4.93	121.30	114.89
1	1A	1939	5MU	C5-C6-N1	-4.92	117.97	123.31
55	1x	54	5MU	N3-C2-N1	4.90	121.27	114.89
32	1a	1519	MA6	N1-C2-N3	-4.90	121.17	128.58
1	1A	1915	5MU	N3-C2-N1	4.88	121.25	114.89
54	2w	46	G7M	C5-C4-N3	-4.84	119.00	128.15
54	1w	46	G7M	C2-N3-C4	4.82	120.61	112.30
1	1A	2552	OMU	C4-N3-C2	-4.80	120.65	126.61
32	2a	1519	MA6	N1-C2-N3	-4.80	121.32	128.58
1	1A	1915	5MU	C4-N3-C2	-4.79	121.05	127.34
54	1w	8	4SU	C4-N3-C2	-4.79	122.72	127.31
32	1a	966	M2G	N9-C4-N3	4.78	135.52	125.95
1	2A	1939	5MU	C5-C6-N1	-4.76	118.14	123.31
1	2A	2552	OMU	C4-N3-C2	-4.76	120.70	126.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1518	MA6	C5-C4-N3	-4.76	120.16	126.72
54	1w	54	5MU	N3-C2-N1	4.75	121.08	114.89
54	2y	8	4SU	C5-C4-S4	-4.74	118.90	124.31
54	2y	46	G7M	C2-N3-C4	4.73	120.45	112.30
32	1a	1518	MA6	C5-C4-N3	-4.72	120.21	126.72
54	2w	46	G7M	N9-C4-N3	4.68	135.31	125.95
1	2A	2552	OMU	N3-C2-N1	4.67	120.98	114.89
54	2w	46	G7M	C2-N3-C4	4.67	120.34	112.30
54	1y	8	4SU	C4-N3-C2	-4.65	122.86	127.31
1	2A	2251	OMG	N9-C4-N3	4.61	135.17	125.95
55	2x	8	4SU	C1'-N1-C2	4.58	125.83	117.59
32	2a	966	M2G	N9-C4-N3	4.57	135.09	125.95
54	1w	54	5MU	C4-N3-C2	-4.55	121.37	127.34
32	2a	527	G7M	C2-N3-C4	4.54	120.11	112.30
1	2A	1915	5MU	C5-C4-N3	4.53	119.26	115.32
54	2y	8	4SU	C1'-N1-C2	4.53	125.72	117.59
1	1A	1917	PSU	C4-N3-C2	-4.51	120.15	126.37
54	2w	8	4SU	C5-C4-N3	4.51	118.95	114.75
32	2a	966	M2G	C2-N3-C4	4.51	120.85	112.51
32	1a	1518	MA6	N1-C2-N3	-4.50	121.76	128.58
54	1y	8	4SU	C5-C4-N3	4.49	118.93	114.75
55	1x	54	5MU	C4-N3-C2	-4.47	121.48	127.34
1	1A	1915	5MU	C5-C4-N3	4.46	119.20	115.32
54	1y	54	5MU	C5-C4-N3	4.45	119.19	115.32
32	1a	966	M2G	C2-N3-C4	4.44	120.72	112.51
32	1a	527	G7M	C2-N3-C4	4.43	119.92	112.30
32	1a	1519	MA6	C5-C4-N3	-4.40	120.66	126.72
54	2w	32	PSU	C4-N3-C2	-4.37	120.35	126.37
32	2a	1519	MA6	C4-C5-N7	-4.37	105.59	110.58
55	2x	54	5MU	C5-C4-N3	4.31	119.07	115.32
54	2y	37	MIA	N3-C4-N9	4.31	134.49	127.17
54	1y	54	5MU	C4-N3-C2	-4.26	121.76	127.34
1	1A	2605	PSU	C4-N3-C2	-4.24	120.54	126.37
54	2y	54	5MU	O4-C4-C5	-4.23	120.08	124.92
1	2A	1939	5MU	C5-C4-N3	4.22	118.99	115.32
54	1w	37	MIA	C15-C14-C13	-4.21	110.01	122.66
54	2w	54	5MU	C4-N3-C2	-4.17	121.87	127.34
32	2a	1207	2MG	C6-C5-N7	4.15	137.84	130.29
1	2A	1917	PSU	C4-N3-C2	-4.10	120.72	126.37
32	1a	1519	MA6	C5-N7-C8	4.10	109.89	103.45
55	2x	54	5MU	O4-C4-C5	-4.09	120.24	124.92
32	2a	1519	MA6	C5-N7-C8	4.07	109.85	103.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1207	2MG	N1-C2-N2	4.06	120.71	116.56
54	1y	54	5MU	O4-C4-C5	-4.06	120.28	124.92
55	1x	55	PSU	O2-C2-N1	-4.05	118.61	122.79
1	2A	2605	PSU	C4-N3-C2	-4.04	120.81	126.37
54	2w	8	4SU	N3-C2-N1	4.04	120.14	114.89
32	1a	1519	MA6	C4-C5-N7	-4.03	105.97	110.58
55	2x	55	PSU	C4-N3-C2	-4.02	120.83	126.37
32	1a	1207	2MG	C6-C5-N7	4.02	137.61	130.29
54	2w	54	5MU	C5-C4-N3	4.02	118.82	115.32
54	2w	54	5MU	N3-C2-N1	4.00	120.10	114.89
54	2y	54	5MU	C4-N3-C2	-3.98	122.12	127.34
54	1y	54	5MU	N3-C2-N1	3.98	120.07	114.89
54	2y	54	5MU	N3-C2-N1	3.98	120.07	114.89
32	1a	1518	MA6	C2-N1-C6	3.97	121.53	111.83
54	2y	32	PSU	O2-C2-N1	-3.95	118.71	122.79
1	2A	1962	5MC	C5-C6-N1	-3.95	119.02	123.31
32	1a	1519	MA6	C2-N1-C6	3.94	121.46	111.83
54	1y	55	PSU	O2-C2-N1	-3.94	118.73	122.79
54	2y	54	5MU	C5-C4-N3	3.93	118.74	115.32
32	2a	1518	MA6	C2-N1-C6	3.91	121.39	111.83
32	1a	516	PSU	C4-N3-C2	-3.91	120.98	126.37
55	2x	54	5MU	C5-C6-N1	-3.91	119.07	123.31
54	1w	54	5MU	C5-C4-N3	3.91	118.72	115.32
32	2a	1207	2MG	N2-C2-N3	-3.91	115.53	120.51
32	1a	1518	MA6	C4-C5-N7	-3.88	106.14	110.58
1	2A	1939	5MU	O4-C4-C5	-3.87	120.49	124.92
55	1x	32	5MC	C5-C6-N1	-3.86	119.12	123.31
32	2a	516	PSU	C4-N3-C2	-3.86	121.06	126.37
54	2w	55	PSU	C4-N3-C2	-3.86	121.06	126.37
54	2y	8	4SU	N3-C2-N1	3.85	119.90	114.89
32	1a	1498	UR3	C5-C4-N3	3.85	120.11	115.04
54	2w	54	5MU	O4-C4-C5	-3.81	120.56	124.92
54	2w	39	PSU	C4-N3-C2	-3.81	121.12	126.37
1	1A	1911	PSU	C4-N3-C2	-3.81	121.13	126.37
54	2y	37	MIA	C4-C5-N7	-3.81	106.23	110.58
54	1w	39	PSU	C4-N3-C2	-3.80	121.14	126.37
54	1y	32	PSU	C4-N3-C2	-3.80	121.14	126.37
32	2a	1518	MA6	C5-N7-C8	3.79	109.40	103.45
32	2a	1519	MA6	C2-N3-C4	3.78	121.07	111.83
54	2y	32	PSU	C4-N3-C2	-3.78	121.17	126.37
54	2y	55	PSU	C6-C5-C4	-3.78	115.62	118.17
1	1A	1939	5MU	O4-C4-C5	-3.78	120.60	124.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	1w	32	PSU	C4-N3-C2	-3.76	121.19	126.37
1	2A	1911	PSU	C4-N3-C2	-3.76	121.19	126.37
54	1y	37	MIA	C2-N3-C4	3.75	120.99	111.83
32	2a	1518	MA6	C4-C5-N7	-3.73	106.31	110.58
1	2A	1915	5MU	O4-C4-C5	-3.73	120.65	124.92
1	1A	1942	5MC	C5-C6-N1	-3.72	119.27	123.31
1	1A	1911	PSU	O2-C2-N1	-3.71	118.96	122.79
32	1a	1518	MA6	C5-N7-C8	3.71	109.28	103.45
54	2w	8	4SU	C5-C4-S4	-3.70	120.08	124.31
54	1y	55	PSU	C4-N3-C2	-3.70	121.28	126.37
32	2a	1519	MA6	C2-N1-C6	3.69	120.85	111.83
55	1x	55	PSU	C4-N3-C2	-3.69	121.29	126.37
1	1A	2503	2MA	C4-N9-C8	3.69	109.61	105.74
54	1w	54	5MU	O4-C4-C5	-3.69	120.70	124.92
54	2w	37	MIA	C4-C5-N7	-3.68	106.37	110.58
32	2a	1404	5MC	C5-C6-N1	-3.67	119.33	123.31
32	1a	1519	MA6	N9-C8-N7	-3.66	108.74	113.94
1	1A	1915	5MU	O4-C4-C5	-3.66	120.73	124.92
54	1w	55	PSU	C4-N3-C2	-3.65	121.34	126.37
32	2a	1518	MA6	C2-N3-C4	3.65	120.74	111.83
32	1a	1207	2MG	N9-C4-N3	3.64	133.23	125.95
54	2y	55	PSU	O2-C2-N1	-3.63	119.04	122.79
1	2A	1939	5MU	O2-C2-N1	-3.63	118.07	122.80
54	1w	37	MIA	C2-N3-C4	3.61	121.75	112.29
54	2y	37	MIA	C2-N3-C4	3.57	120.56	111.83
1	2A	2552	OMU	C5-C4-N3	3.57	119.80	114.80
55	1x	8	4SU	C6-C5-C4	-3.56	116.87	119.95
54	1y	37	MIA	C4-C5-N7	-3.53	106.55	110.58
54	1w	32	PSU	O2-C2-N1	-3.52	119.15	122.79
54	1y	32	PSU	O2-C2-N1	-3.52	119.16	122.79
1	1A	2503	2MA	N6-C6-N1	3.51	121.77	117.03
54	2w	37	MIA	C2-N3-C4	3.48	121.40	112.29
1	2A	1911	PSU	O2-C2-N1	-3.46	119.22	122.79
54	1w	37	MIA	C16-C14-C13	-3.46	112.28	122.66
54	2w	32	PSU	O2-C2-N1	-3.45	119.23	122.79
1	2A	2503	2MA	N6-C6-N1	3.45	121.69	117.03
54	1w	8	4SU	C5-C4-S4	-3.45	120.36	124.31
32	1a	1519	MA6	C2-N3-C4	3.45	120.25	111.83
32	2a	1207	2MG	C4-C5-N7	-3.45	105.21	110.67
32	1a	967	5MC	C5-C6-N1	-3.44	119.58	123.31
32	2a	967	5MC	C5-C6-N1	-3.43	119.59	123.31
1	2A	1917	PSU	O2-C2-N1	-3.40	119.28	122.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2y	39	PSU	C4-N3-C2	-3.38	121.71	126.37
1	1A	2503	2MA	C4-C5-N7	-3.38	106.72	110.58
54	1w	8	4SU	N3-C2-N1	3.35	119.26	114.89
54	2y	37	MIA	N3-C2-N1	-3.34	123.52	128.58
32	2a	1519	MA6	N9-C8-N7	-3.32	109.23	113.94
54	1w	55	PSU	O2-C2-N1	-3.31	119.38	122.79
32	2a	1518	MA6	N9-C8-N7	-3.30	109.25	113.94
55	1x	54	5MU	C5-C4-N3	3.30	118.19	115.32
32	1a	1518	MA6	C2-N3-C4	3.28	119.84	111.83
54	1y	8	4SU	N3-C2-N1	3.27	119.15	114.89
1	1A	1962	5MC	C5-C4-N3	-3.27	118.41	121.75
54	2y	55	PSU	C4-N3-C2	-3.23	121.93	126.37
55	1x	8	4SU	O2-C2-N1	3.22	126.98	122.80
1	1A	2552	OMU	C5-C4-N3	3.20	119.28	114.80
55	2x	32	5MC	C5-C6-N1	-3.20	119.84	123.31
1	1A	1917	PSU	O2-C2-N1	-3.20	119.49	122.79
32	1a	1207	2MG	C4-C5-N7	-3.20	105.61	110.67
1	2A	1942	5MC	C5-C6-N1	-3.20	119.84	123.31
55	1x	54	5MU	C5-C6-N1	-3.20	119.84	123.31
1	2A	2503	2MA	C4-C5-N7	-3.19	106.94	110.58
1	2A	2251	OMG	C6-C5-N7	3.18	136.08	130.29
32	2a	516	PSU	O2-C2-N1	-3.17	119.52	122.79
54	2w	37	MIA	C6-C5-N7	3.17	135.88	132.43
1	2A	1915	5MU	C5-C6-N1	-3.16	119.88	123.31
54	1y	37	MIA	N3-C2-N1	-3.16	123.80	128.58
32	1a	966	M2G	C6-C5-N7	3.15	136.02	130.29
32	1a	1518	MA6	C4-C5-C6	3.15	119.17	115.91
55	2x	32	5MC	C5-C4-N3	-3.14	118.54	121.75
1	2A	2503	2MA	C4-N9-C8	3.13	109.03	105.74
54	1w	39	PSU	O2-C2-N1	-3.12	119.57	122.79
32	1a	1404	5MC	C5-C6-N1	-3.12	119.92	123.31
1	2A	2552	OMU	O2-C2-N1	-3.12	118.74	122.80
1	1A	2605	PSU	O2-C2-N1	-3.11	119.58	122.79
54	1w	37	MIA	C4-C5-N7	-3.11	107.02	110.58
54	2w	39	PSU	O2-C2-N1	-3.10	119.59	122.79
32	1a	1407	5MC	C5-C6-N1	-3.09	119.95	123.31
1	1A	1942	5MC	C5-C4-N3	-3.09	118.58	121.75
55	1x	54	5MU	C5M-C5-C4	3.09	122.08	118.78
32	2a	966	M2G	C6-C5-N7	3.09	135.91	130.29
54	1y	39	PSU	C4-N3-C2	-3.08	122.12	126.37
55	1x	54	5MU	O2-C2-N1	-3.08	118.79	122.80
32	2a	1407	5MC	C5-C6-N1	-3.07	119.97	123.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1498	UR3	C5-C4-N3	3.06	119.07	115.04
32	1a	1518	MA6	N9-C8-N7	-3.06	109.60	113.94
1	1A	2251	OMG	C6-C5-N7	3.05	135.85	130.29
55	1x	32	5MC	C5-C4-N3	-3.05	118.63	121.75
1	2A	1942	5MC	C5-C4-N3	-3.04	118.64	121.75
32	1a	516	PSU	O2-C2-N1	-3.04	119.66	122.79
55	2x	8	4SU	C6-C5-C4	-3.03	117.33	119.95
32	2a	1407	5MC	C5-C4-N3	-3.01	118.67	121.75
54	1y	8	4SU	C5-C4-S4	-3.00	120.88	124.31
54	2w	55	PSU	O2-C2-N1	-2.99	119.70	122.79
54	2w	54	5MU	C5-C6-N1	-2.98	120.08	123.31
55	2x	32	5MC	O2-C2-N3	-2.96	117.66	122.33
54	2w	8	4SU	C1'-N1-C2	2.93	122.86	117.59
32	2a	1518	MA6	N3-C4-N9	2.93	132.15	127.17
55	1x	8	4SU	C1'-N1-C2	2.92	122.84	117.59
32	2a	1519	MA6	N3-C4-N9	2.92	132.14	127.17
54	1w	37	MIA	N3-C2-N1	-2.92	121.67	127.00
32	2a	1400	5MC	C5-C4-N3	-2.92	118.76	121.75
55	1x	8	4SU	C5-C4-N3	2.91	117.46	114.75
54	1w	54	5MU	C5-C6-N1	-2.90	120.16	123.31
55	1x	54	5MU	O4-C4-C5	-2.88	121.62	124.92
54	2y	39	PSU	O2-C2-N1	-2.88	119.82	122.79
32	1a	1400	5MC	C5-C4-N3	-2.86	118.82	121.75
32	2a	1207	2MG	N9-C4-N3	2.86	131.67	125.95
54	2w	37	MIA	C12-N6-C6	-2.85	120.20	122.85
32	1a	1407	5MC	C5-C4-N3	-2.83	118.85	121.75
1	2A	2503	2MA	C2-N1-C6	2.82	122.43	118.10
54	1w	54	5MU	O2-C2-N1	-2.82	119.13	122.80
32	2a	1498	UR3	C3U-N3-C4	2.82	121.78	117.87
43	1l	92	0TD	OD2-CG-CB	2.82	119.24	113.15
55	2x	55	PSU	O2-C2-N1	-2.82	119.88	122.79
32	2a	1400	5MC	O2-C2-N3	-2.81	117.90	122.33
1	1A	1920	OMC	O2-C2-N3	-2.81	117.90	122.33
1	1A	2503	2MA	C2-N1-C6	2.79	122.39	118.10
1	1A	1915	5MU	C5-C6-N1	-2.78	120.29	123.31
32	1a	967	5MC	C5-C4-N3	-2.78	118.90	121.75
54	1y	54	5MU	C5-C6-N1	-2.76	120.31	123.31
55	2x	8	4SU	C5-C4-N3	2.75	117.31	114.75
32	2a	1519	MA6	C4-C5-C6	2.75	118.75	115.91
54	1w	37	MIA	C6-C5-N7	2.74	135.42	132.43
54	2w	46	G7M	O6-C6-C5	-2.74	121.90	128.01
1	1A	2552	OMU	O2-C2-N1	-2.73	119.25	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	1518	MA6	N3-C4-N9	2.72	131.79	127.17
55	1x	54	5MU	C5M-C5-C6	-2.69	119.21	122.85
32	1a	1498	UR3	C3U-N3-C2	2.68	122.01	117.33
54	2y	37	MIA	C5-N7-C8	2.68	107.67	103.45
32	1a	1404	5MC	C5-C4-N3	-2.68	119.00	121.75
32	2a	1404	5MC	C5-C4-N3	-2.68	119.01	121.75
54	1y	37	MIA	C5-N7-C8	2.67	107.65	103.45
54	1w	37	MIA	C2-N1-C6	2.67	122.61	117.54
32	1a	1404	5MC	CM5-C5-C6	-2.67	119.24	122.85
32	1a	1207	2MG	N1-C2-N2	2.67	119.28	116.56
1	1A	2503	2MA	N9-C8-N7	-2.66	110.16	113.94
1	1A	2503	2MA	C5-N7-C8	2.65	107.62	103.45
32	1a	1519	MA6	N3-C4-N9	2.65	131.67	127.17
54	2y	54	5MU	C5-C6-N1	-2.62	120.47	123.31
54	2y	37	MIA	C4-N9-C8	2.57	108.44	105.74
54	1w	37	MIA	N6-C6-N1	2.57	121.78	118.33
55	2x	8	4SU	C6-N1-C2	-2.57	117.88	121.00
1	1A	2251	OMG	C4-C5-N7	-2.55	106.63	110.67
32	2a	966	M2G	C4-C5-N7	-2.53	106.65	110.67
32	1a	966	M2G	C4-C5-N7	-2.51	106.70	110.67
54	2w	37	MIA	C5-N7-C8	2.50	107.38	103.45
54	1w	37	MIA	C4-N9-C8	2.50	108.36	105.74
54	1w	46	G7M	O6-C6-C5	-2.49	122.44	128.01
1	2A	2251	OMG	C4-C5-N7	-2.49	106.72	110.67
32	1a	1400	5MC	C5-C6-N1	-2.48	120.62	123.31
32	2a	967	5MC	C5-C4-N3	-2.48	119.22	121.75
1	2A	2605	PSU	O2-C2-N3	-2.47	117.47	121.86
1	1A	1962	5MC	C5-C6-N1	-2.47	120.64	123.31
54	2y	8	4SU	C1'-N1-C6	-2.45	115.53	120.78
54	1y	32	PSU	C6-C5-C4	-2.42	116.54	118.17
54	1y	8	4SU	C1'-N1-C2	2.42	121.93	117.59
32	2a	1518	MA6	C4-C5-C6	2.41	118.40	115.91
1	2A	2503	2MA	C5-N7-C8	2.40	107.22	103.45
1	2A	2552	OMU	O4-C4-C5	-2.39	121.04	125.16
1	2A	2605	PSU	C5-C6-N1	-2.38	118.83	122.14
32	2a	527	G7M	O6-C6-C5	-2.36	122.73	128.01
32	2a	1519	MA6	C5-C4-N9	2.35	108.37	105.81
43	2l	92	0TD	OD2-CG-CB	2.35	118.23	113.15
1	1A	2605	PSU	C5-C6-N1	-2.35	118.88	122.14
1	2A	1962	5MC	C5-C4-N3	-2.34	119.36	121.75
54	1w	37	MIA	C5-N7-C8	2.32	107.09	103.45
1	1A	2251	OMG	O6-C6-C5	-2.31	120.44	126.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2w	46	G7M	C5-C6-N1	2.30	116.59	111.84
1	1A	1917	PSU	C5-C6-N1	-2.29	118.96	122.14
32	2a	1400	5MC	C5-C6-N1	-2.29	120.83	123.31
54	2y	37	MIA	C6-C5-N7	2.28	136.48	132.09
1	1A	2503	2MA	C6-C5-N7	2.28	136.48	132.09
55	2x	8	4SU	O2-C2-N1	2.28	125.76	122.80
54	1w	46	G7M	C5-C6-N1	2.27	116.53	111.84
54	2y	54	5MU	C1'-N1-C2	2.26	121.64	117.59
32	1a	1402	4OC	C6-C5-C4	2.26	119.72	117.00
1	2A	1911	PSU	C6-C5-C4	-2.25	116.66	118.17
1	1A	2251	OMG	C5-C6-N1	2.24	118.96	113.25
1	2A	2503	2MA	N9-C8-N7	-2.24	110.76	113.94
55	2x	54	5MU	O2-C2-N1	-2.23	119.89	122.80
32	2a	516	PSU	O4'-C1'-C2'	2.22	108.23	105.15
32	2a	1498	UR3	C1'-N1-C2	2.21	120.65	117.04
54	2w	37	MIA	C2-N1-C6	2.20	121.71	117.54
32	1a	1207	2MG	N2-C2-N3	-2.18	117.73	120.51
32	1a	527	G7M	O6-C6-C5	-2.18	123.15	128.01
54	1y	46	G7M	O6-C6-C5	-2.17	123.17	128.01
32	2a	1400	5MC	C1'-N1-C6	-2.17	117.58	121.15
1	1A	1962	5MC	CM5-C5-C6	-2.17	119.92	122.85
1	1A	2251	OMG	CM2-O2'-C2'	-2.16	108.94	114.47
32	2a	966	M2G	O6-C6-C5	-2.15	120.86	126.53
54	1y	39	PSU	O2-C2-N3	-2.14	118.06	121.86
1	2A	1942	5MC	O2-C2-N3	-2.14	118.95	122.33
54	2y	54	5MU	C1'-N1-C6	-2.14	117.63	121.15
32	1a	1519	MA6	C4-C5-C6	2.13	118.11	115.91
1	1A	1915	5MU	C5M-C5-C4	2.12	121.05	118.78
54	2y	32	PSU	O4'-C1'-C2'	2.12	108.09	105.15
54	2w	37	MIA	N3-C2-N1	-2.12	123.13	127.00
55	2x	8	4SU	C1'-N1-C6	-2.11	116.27	120.78
32	2a	1404	5MC	O2-C2-N3	-2.11	119.00	122.33
54	2w	54	5MU	C5M-C5-C4	2.11	121.03	118.78
54	2w	32	PSU	C6-C5-C4	-2.10	116.75	118.17
54	1w	55	PSU	C6-C5-C4	-2.10	116.76	118.17
1	2A	2251	OMG	O6-C6-C5	-2.10	121.00	126.53
55	1x	8	4SU	O2-C2-N3	-2.09	117.64	121.49
1	1A	1917	PSU	O4'-C1'-C2'	2.09	108.04	105.15
32	1a	1207	2MG	C8-N7-C5	2.09	107.98	104.26
1	2A	2503	2MA	C6-C5-N7	2.09	136.11	132.09
55	2x	55	PSU	C5-C6-N1	-2.08	119.25	122.14
54	1w	54	5MU	C5M-C5-C4	2.08	121.00	118.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1402	4OC	C6-C5-C4	2.08	119.50	117.00
54	1y	37	MIA	C4-N9-C8	2.06	107.90	105.74
32	1a	516	PSU	O4'-C1'-C2'	2.06	108.00	105.15
1	2A	2251	OMG	C5-C6-N1	2.04	118.44	113.25
54	2w	32	PSU	C5-C6-N1	-2.03	119.32	122.14
1	2A	1920	OMC	O2-C2-N3	-2.03	119.13	122.33
32	1a	966	M2G	O6-C6-C5	-2.02	121.19	126.53
1	1A	1917	PSU	O2-C2-N3	-2.02	118.27	121.86
32	2a	527	G7M	C5-C6-N1	2.01	115.99	111.84
32	2a	967	5MC	O2-C2-N3	-2.01	119.16	122.33
32	2a	1407	5MC	CM5-C5-C6	-2.01	120.14	122.85
32	1a	1518	MA6	C5-C4-N9	2.00	107.99	105.81

There are no chirality outliers.

All (62) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
43	1l	92	0TD	CG-CB-SB-CSB
54	1w	37	MIA	N1-C2-S10-C11
54	1w	37	MIA	N3-C2-S10-C11
54	1w	37	MIA	C12-C13-C14-C16
1	2A	2251	OMG	C1'-C2'-O2'-CM2
32	2a	1207	2MG	N1-C2-N2-CM2
32	2a	1207	2MG	N3-C2-N2-CM2
32	2a	1400	5MC	O4'-C4'-C5'-O5'
32	2a	1400	5MC	C2'-C1'-N1-C2
32	2a	1400	5MC	C2'-C1'-N1-C6
32	2a	1518	MA6	O4'-C4'-C5'-O5'
32	2a	1518	MA6	C3'-C4'-C5'-O5'
32	2a	1519	MA6	O4'-C4'-C5'-O5'
54	2w	37	MIA	N1-C2-S10-C11
54	2w	37	MIA	N3-C2-S10-C11
54	2w	46	G7M	O4'-C4'-C5'-O5'
54	2w	46	G7M	C3'-C4'-C5'-O5'
32	2a	527	G7M	C3'-C4'-C5'-O5'
32	2a	1498	UR3	O4'-C4'-C5'-O5'
32	1a	967	5MC	O4'-C4'-C5'-O5'
32	1a	1519	MA6	O4'-C4'-C5'-O5'
32	2a	1400	5MC	C3'-C4'-C5'-O5'
54	2y	37	MIA	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
32	1a	527	G7M	C3'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
32	2a	527	G7M	O4'-C4'-C5'-O5'
32	2a	1498	UR3	C3'-C4'-C5'-O5'
54	1w	46	G7M	O4'-C4'-C5'-O5'
54	1w	46	G7M	C3'-C4'-C5'-O5'
54	2y	37	MIA	O4'-C4'-C5'-O5'
32	2a	1400	5MC	O4'-C1'-N1-C6
54	1y	37	MIA	C3'-C4'-C5'-O5'
32	2a	1400	5MC	O4'-C1'-N1-C2
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	1a	527	G7M	O4'-C4'-C5'-O5'
32	2a	1402	4OC	O4'-C4'-C5'-O5'
43	1l	92	0TD	SB-CB-CG-OD1
43	2l	92	0TD	SB-CB-CG-OD1
54	1y	46	G7M	C4'-C5'-O5'-P
54	1y	55	PSU	O4'-C1'-C5-C4
54	2y	8	4SU	C3'-C4'-C5'-O5'
54	1y	37	MIA	C4'-C5'-O5'-P
32	2a	527	G7M	C4'-C5'-O5'-P
32	2a	1519	MA6	C4'-C5'-O5'-P
54	2y	8	4SU	C2'-C1'-N1-C6
32	1a	967	5MC	C3'-C4'-C5'-O5'
32	1a	1400	5MC	O4'-C4'-C5'-O5'
54	1w	46	G7M	C4'-C5'-O5'-P
43	1l	92	0TD	CA-CB-SB-CSB
54	2y	8	4SU	C2'-C1'-N1-C2
54	1y	55	PSU	O4'-C1'-C5-C6
54	2y	55	PSU	O4'-C1'-C5-C6
1	2A	2503	2MA	O4'-C4'-C5'-O5'
43	2l	92	0TD	CG-CB-SB-CSB
54	2y	55	PSU	C2'-C1'-C5-C6
1	1A	2251	OMG	C4'-C5'-O5'-P
54	1y	37	MIA	O4'-C4'-C5'-O5'
54	2y	8	4SU	O4'-C4'-C5'-O5'
32	1a	1402	4OC	O4'-C4'-C5'-O5'
32	1a	1519	MA6	C4'-C5'-O5'-P
1	1A	1920	OMC	C2'-C1'-N1-C2
1	2A	1920	OMC	C2'-C1'-N1-C2

There are no ring outliers.

40 monomers are involved in 54 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	1a	1519	MA6	1	0
32	1a	1498	UR3	1	0
54	2y	55	PSU	5	0
1	2A	2503	2MA	2	0
55	1x	8	4SU	2	0
54	1w	54	5MU	1	0
1	2A	1915	5MU	1	0
32	2a	1402	4OC	2	0
1	2A	1942	5MC	1	0
54	2y	46	G7M	1	0
1	2A	1920	OMC	1	0
55	2x	8	4SU	1	0
54	2y	8	4SU	1	0
32	2a	1518	MA6	2	0
32	2a	1404	5MC	1	0
1	2A	1939	5MU	1	0
54	2w	46	G7M	1	0
32	2a	967	5MC	1	0
55	1x	54	5MU	1	0
32	2a	966	M2G	1	0
1	1A	1939	5MU	1	0
54	1y	37	MIA	1	0
54	1w	8	4SU	1	0
32	1a	1518	MA6	1	0
54	2y	37	MIA	1	0
32	2a	1407	5MC	1	0
1	1A	2503	2MA	1	0
43	2l	92	0TD	2	0
54	1y	46	G7M	4	0
32	2a	1498	UR3	1	0
54	1w	37	MIA	1	0
32	2a	1400	5MC	1	0
54	1y	8	4SU	2	0
54	2w	8	4SU	2	0
32	2a	1519	MA6	5	0
1	2A	2251	OMG	1	0
32	2a	1207	2MG	1	0
54	2w	37	MIA	1	0
54	2y	54	5MU	1	0
1	2A	2552	OMU	2	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2741 ligands modelled in this entry, 2737 are monoatomic - leaving 4 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	$\# Z > 2$
60	SF4	1d	302	35	0,12,12	-	-	-		
58	A1AIX	2A	3851	-	48,48,48	3.59	13 (27%)	61,70,70	1.78	12 (19%)
60	SF4	2d	302	35	0,12,12	-	-	-		
58	A1AIX	1A	4085	-	48,48,48	2.63	12 (25%)	61,70,70	1.60	12 (19%)

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
60	SF4	1d	302	35	-	-	0/6/5/5
58	A1AIX	2A	3851	-	-	4/24/41/41	0/6/6/6
60	SF4	2d	302	35	-	-	0/6/5/5
58	A1AIX	1A	4085	-	-	2/24/41/41	0/6/6/6

All (25) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	2A	3851	A1AIX	OBL-NBK	18.11	1.54	1.22
58	1A	4085	A1AIX	OBL-NBK	8.89	1.38	1.22
58	2A	3851	A1AIX	CBE-CAA	-8.76	1.39	1.51
58	2A	3851	A1AIX	CAW-CAV	-8.21	1.37	1.51
58	1A	4085	A1AIX	CBE-CAA	-8.09	1.40	1.51
58	1A	4085	A1AIX	CAW-CAV	-8.01	1.37	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	2A	3851	A1AIX	CAJ-NAI	5.20	1.38	1.33
58	2A	3851	A1AIX	CBI-NBK	-4.84	1.33	1.45
58	1A	4085	A1AIX	CBI-NBK	-4.23	1.35	1.45
58	1A	4085	A1AIX	CAJ-NAI	4.01	1.37	1.33
58	1A	4085	A1AIX	CAU-CAH	-4.01	1.40	1.47
58	2A	3851	A1AIX	CAU-CAH	-3.89	1.41	1.47
58	1A	4085	A1AIX	CAZ-CBA	-3.48	1.32	1.38
58	2A	3851	A1AIX	CAE-CAF	-3.47	1.41	1.51
58	2A	3851	A1AIX	CAZ-CBA	-3.39	1.33	1.38
58	1A	4085	A1AIX	CAY-CBB	-3.27	1.33	1.38
58	1A	4085	A1AIX	CAE-CAF	-3.27	1.42	1.51
58	2A	3851	A1AIX	CAY-CBB	-3.13	1.33	1.38
58	1A	4085	A1AIX	CBB-CBA	-2.41	1.33	1.39
58	2A	3851	A1AIX	CAL-CAK	-2.28	1.39	1.43
58	2A	3851	A1AIX	CBB-CBA	-2.23	1.33	1.39
58	1A	4085	A1AIX	CAO-CAL	-2.23	1.38	1.43
58	2A	3851	A1AIX	CAO-CAL	-2.20	1.38	1.43
58	2A	3851	A1AIX	OBM-NBK	2.16	1.49	1.35
58	1A	4085	A1AIX	CAL-CAK	-2.09	1.39	1.43

All (24) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	2A	3851	A1AIX	CAS-OAR-CAP	-6.38	108.16	117.51
58	2A	3851	A1AIX	CAX-CAW-CAV	-5.49	102.73	109.95
58	1A	4085	A1AIX	CAX-CAW-CAV	-4.38	104.18	109.95
58	1A	4085	A1AIX	CAS-OAR-CAP	-4.17	111.40	117.51
58	2A	3851	A1AIX	CAL-CAJ-NAI	-3.87	119.56	121.81
58	1A	4085	A1AIX	CAL-CAJ-NAI	-3.72	119.65	121.81
58	1A	4085	A1AIX	CAU-CAH-NAI	-3.53	112.56	116.78
58	2A	3851	A1AIX	CAU-CAH-NAI	-3.50	112.59	116.78
58	2A	3851	A1AIX	CBC-CAB-NBQ	3.24	114.40	109.28
58	1A	4085	A1AIX	CAX-NAI-CAJ	-3.08	115.33	118.27
58	1A	4085	A1AIX	CAZ-CAU-CAV	-3.03	115.11	119.18
58	2A	3851	A1AIX	CAE-CAF-CAK	-2.87	114.95	121.43
58	2A	3851	A1AIX	CAZ-CAU-CAV	-2.79	115.43	119.18
58	1A	4085	A1AIX	CAX-NAI-CAH	2.72	121.88	118.62
58	1A	4085	A1AIX	CAH-CAU-CAV	2.55	121.40	117.20
58	2A	3851	A1AIX	CAH-CAU-CAV	2.49	121.29	117.20
58	2A	3851	A1AIX	CBE-CAA-CAB	-2.46	107.31	111.72
58	1A	4085	A1AIX	CAJ-CAL-CAO	-2.38	119.39	121.55
58	1A	4085	A1AIX	CBP-OBO-CBA	-2.37	102.14	105.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	2A	3851	A1AIX	CBP-OBO-CBA	-2.26	102.30	105.32
58	2A	3851	A1AIX	CBP-OBN-CBB	-2.25	102.31	105.32
58	1A	4085	A1AIX	CAE-CAF-CAK	-2.23	116.38	121.43
58	1A	4085	A1AIX	OBO-CBP-OBN	-2.23	104.59	108.09
58	2A	3851	A1AIX	OBO-CBP-OBN	-2.08	104.83	108.09

There are no chirality outliers.

All (6) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
58	1A	4085	A1AIX	NBQ-CAB-CBC-OB
58	2A	3851	A1AIX	CAO-CAP-OAR-CAS
58	1A	4085	A1AIX	CAA-CAB-CBC-OB
58	2A	3851	A1AIX	CAN-CAP-OAR-CAS
58	2A	3851	A1AIX	NBQ-CAB-CBC-OB
58	2A	3851	A1AIX	CAA-CAB-CBC-OB

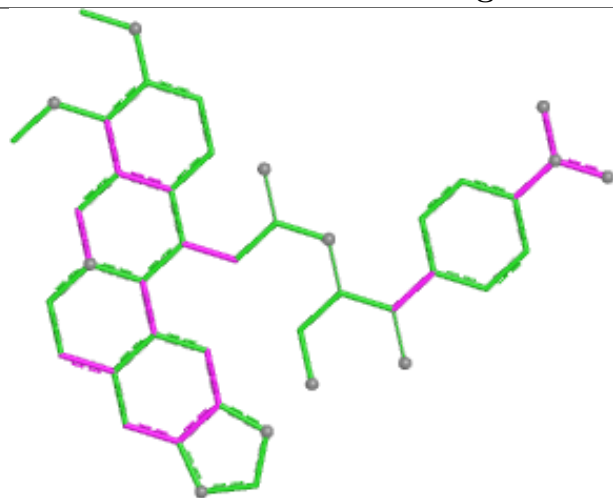
There are no ring outliers.

4 monomers are involved in 7 short contacts:

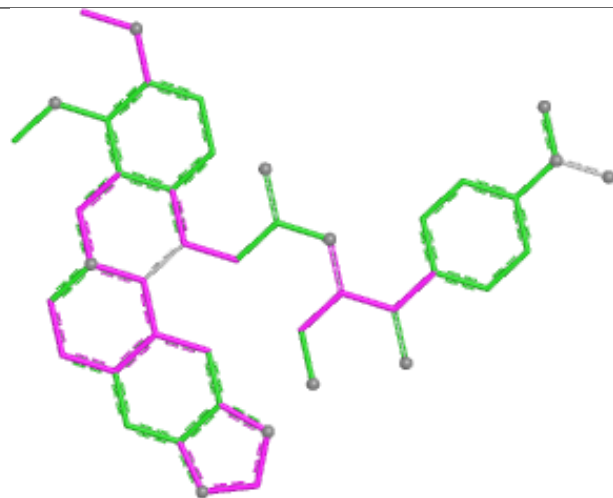
Mol	Chain	Res	Type	Clashes	Symm-Clashes
60	1d	302	SF4	3	0
58	2A	3851	A1AIX	1	0
60	2d	302	SF4	2	0
58	1A	4085	A1AIX	1	0

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

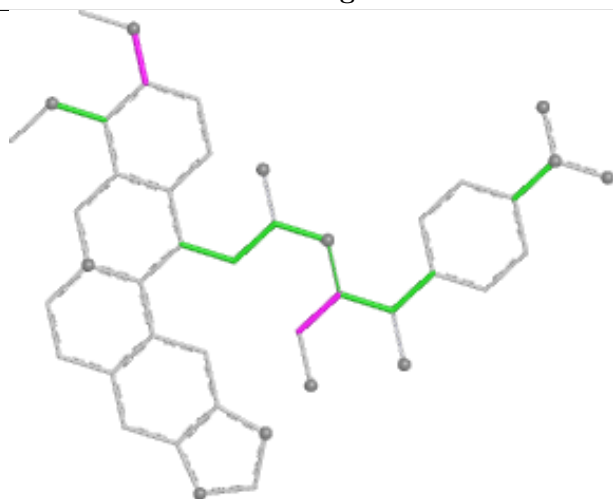
Ligand A1AIX 2A 3851



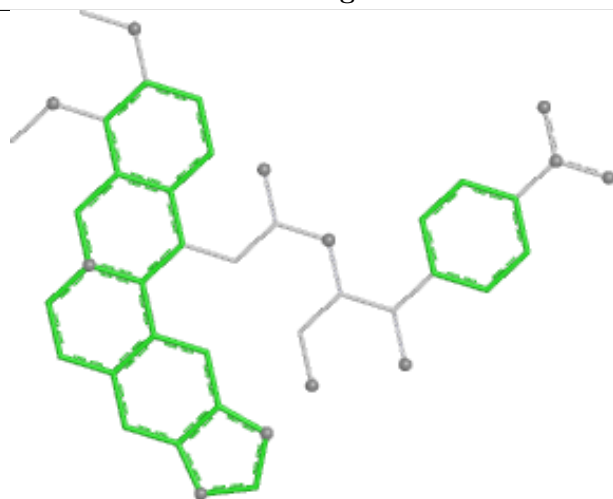
Bond lengths



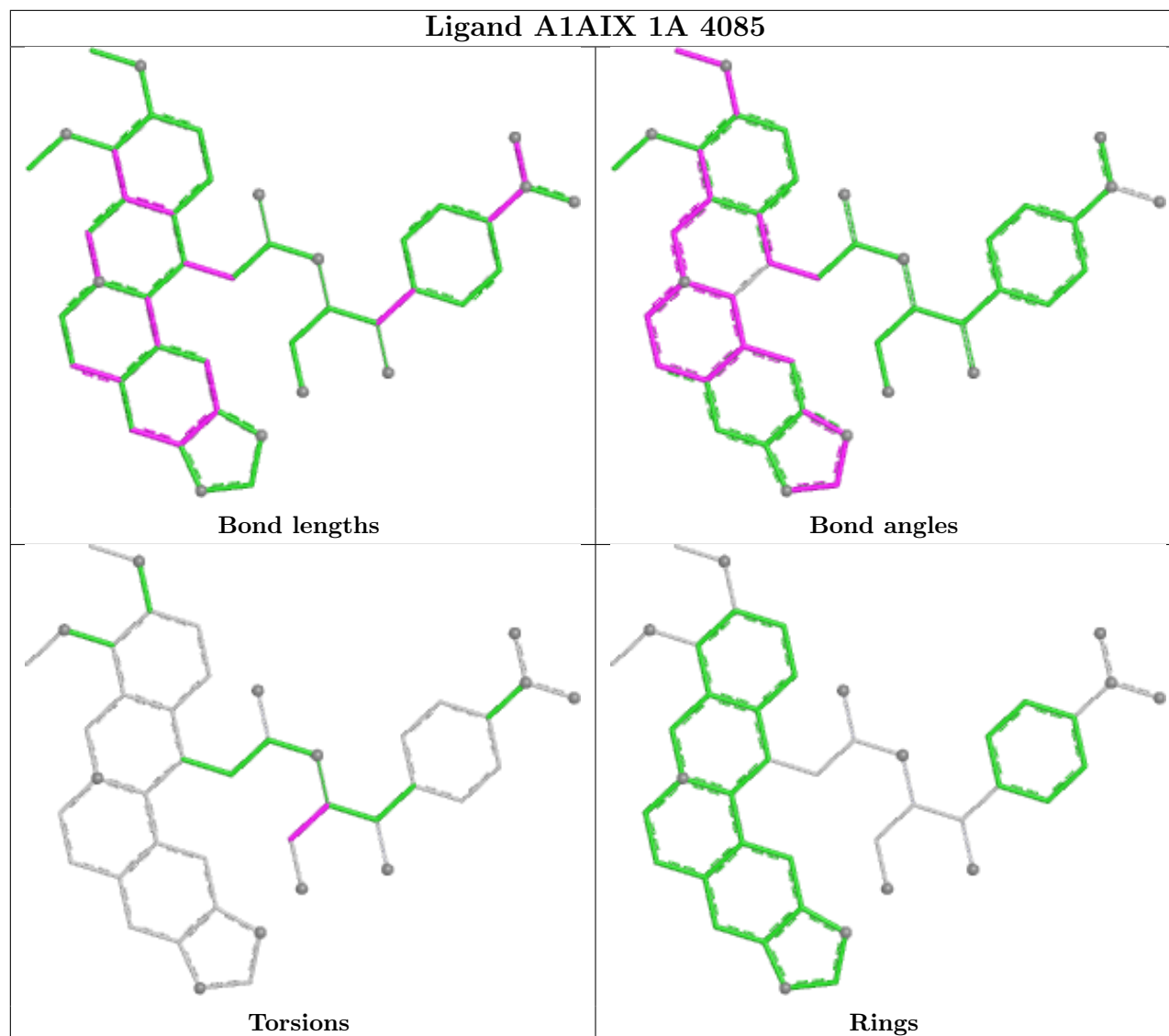
Bond angles



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%)	-0.57	46 (1%) 70 61	16, 36, 96, 109	0
1	2A	2789/2915 (95%)	-0.12	42 (1%) 72 63	33, 60, 93, 107	0
2	1B	120/121 (99%)	-0.59	0 100 100	25, 45, 60, 87	0
2	2B	120/121 (99%)	0.60	1 (0%) 82 75	62, 82, 91, 100	0
3	1D	275/276 (99%)	-0.28	0 100 100	18, 36, 51, 70	0
3	2D	275/276 (99%)	0.21	1 (0%) 88 84	35, 54, 67, 78	0
4	1E	204/206 (99%)	-0.10	1 (0%) 87 82	19, 42, 61, 69	0
4	2E	204/206 (99%)	0.17	2 (0%) 79 72	35, 61, 72, 83	0
5	1F	203/210 (96%)	-0.21	0 100 100	19, 43, 68, 84	0
5	2F	203/210 (96%)	0.22	2 (0%) 79 72	34, 67, 78, 83	0
6	1G	181/182 (99%)	0.20	5 (2%) 55 45	36, 55, 70, 86	0
6	2G	181/182 (99%)	0.97	14 (7%) 19 14	71, 81, 87, 90	0
7	1H	174/180 (96%)	-0.13	0 100 100	34, 53, 67, 72	0
7	2H	174/180 (96%)	0.73	13 (7%) 20 15	67, 81, 90, 98	0
8	1I	146/148 (98%)	0.28	2 (1%) 73 64	45, 72, 80, 87	0
8	2I	146/148 (98%)	0.75	4 (2%) 56 46	58, 75, 83, 89	0
9	1N	140/140 (100%)	-0.17	1 (0%) 84 77	26, 39, 59, 72	0
9	2N	140/140 (100%)	0.53	6 (4%) 40 31	42, 67, 76, 82	0
10	1O	122/122 (100%)	-0.17	0 100 100	26, 41, 57, 63	0
10	2O	122/122 (100%)	0.19	0 100 100	47, 60, 69, 76	0
11	1P	149/150 (99%)	0.04	1 (0%) 84 77	21, 46, 69, 80	0
11	2P	149/150 (99%)	0.37	2 (1%) 75 66	40, 69, 81, 89	0
12	1Q	141/141 (100%)	-0.27	0 100 100	27, 40, 53, 73	0
12	2Q	141/141 (100%)	0.76	8 (5%) 29 22	49, 68, 78, 86	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	1R	118/118 (100%)	-0.28	0 100 100	26, 35, 51, 57	0
13	2R	118/118 (100%)	0.14	1 (0%) 82 75	41, 52, 64, 73	0
14	1S	110/112 (98%)	0.00	0 100 100	33, 46, 58, 66	0
14	2S	110/112 (98%)	1.08	12 (10%) 10 8	62, 74, 82, 87	0
15	1T	131/146 (89%)	0.02	1 (0%) 82 75	33, 47, 66, 75	0
15	2T	131/146 (89%)	0.28	0 100 100	49, 62, 75, 82	0
16	1U	116/118 (98%)	-0.30	0 100 100	20, 32, 49, 64	0
16	2U	116/118 (98%)	0.24	1 (0%) 81 74	44, 65, 76, 88	0
17	1V	101/101 (100%)	-0.35	0 100 100	20, 42, 57, 68	0
17	2V	101/101 (100%)	0.43	2 (1%) 65 56	48, 72, 80, 84	0
18	1W	112/113 (99%)	-0.37	0 100 100	23, 32, 52, 76	0
18	2W	112/113 (99%)	0.14	1 (0%) 81 74	38, 51, 68, 92	0
19	1X	95/96 (98%)	-0.38	1 (1%) 78 70	21, 36, 58, 82	0
19	2X	95/96 (98%)	0.35	0 100 100	44, 60, 69, 71	0
20	1Y	107/110 (97%)	0.22	1 (0%) 81 74	36, 51, 69, 77	0
20	2Y	107/110 (97%)	0.71	4 (3%) 45 36	62, 73, 82, 89	0
21	1Z	154/206 (74%)	0.41	7 (4%) 38 30	40, 58, 79, 85	0
21	2Z	160/206 (77%)	0.81	9 (5%) 30 23	68, 80, 87, 94	0
22	10	83/85 (97%)	-0.09	3 (3%) 46 37	27, 38, 61, 81	0
22	20	83/85 (97%)	0.75	5 (6%) 27 21	53, 64, 78, 84	0
23	11	97/98 (98%)	-0.04	1 (1%) 79 72	22, 43, 67, 70	0
23	21	97/98 (98%)	0.35	3 (3%) 51 41	41, 58, 75, 83	0
24	12	70/72 (97%)	-0.28	0 100 100	32, 48, 60, 71	0
24	22	70/72 (97%)	0.37	1 (1%) 73 64	58, 69, 76, 85	0
25	13	59/60 (98%)	-0.32	0 100 100	26, 35, 62, 70	0
25	23	59/60 (98%)	0.27	2 (3%) 48 39	51, 67, 81, 90	0
26	14	69/71 (97%)	0.27	0 100 100	46, 70, 86, 87	0
26	24	69/71 (97%)	0.94	8 (11%) 9 7	75, 87, 95, 104	0
27	15	59/60 (98%)	-0.34	0 100 100	20, 34, 53, 65	0
27	25	59/60 (98%)	0.15	1 (1%) 69 60	34, 53, 67, 77	0
28	16	53/54 (98%)	-0.43	0 100 100	29, 39, 51, 57	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	26	53/54 (98%)	0.53	1 (1%) 66 57	50, 62, 68, 75	0
29	17	48/49 (97%)	-0.39	0 100 100	22, 26, 50, 62	0
29	27	48/49 (97%)	-0.05	0 100 100	32, 42, 58, 68	0
30	18	64/65 (98%)	-0.31	1 (1%) 70 61	24, 33, 41, 49	0
30	28	64/65 (98%)	0.47	0 100 100	47, 56, 65, 72	0
31	19	37/37 (100%)	-0.25	0 100 100	31, 40, 53, 62	0
31	29	37/37 (100%)	0.96	1 (2%) 56 46	62, 71, 84, 90	0
32	1a	1488/1521 (97%)	-0.00	12 (0%) 82 75	34, 69, 93, 106	0
32	2a	1491/1521 (98%)	0.41	58 (3%) 43 34	59, 82, 98, 107	0
33	1b	231/256 (90%)	0.53	4 (1%) 69 60	61, 78, 85, 89	0
33	2b	231/256 (90%)	1.08	29 (12%) 8 6	73, 87, 92, 97	0
34	1c	206/239 (86%)	0.48	6 (2%) 53 43	62, 72, 82, 88	0
34	2c	206/239 (86%)	1.10	31 (15%) 5 4	74, 85, 92, 94	0
35	1d	208/209 (99%)	0.57	3 (1%) 73 64	58, 72, 80, 86	0
35	2d	208/209 (99%)	0.66	5 (2%) 59 49	65, 76, 84, 88	0
36	1e	148/162 (91%)	0.28	0 100 100	53, 65, 74, 86	0
36	2e	148/162 (91%)	0.65	9 (6%) 27 20	71, 81, 87, 90	0
37	1f	100/101 (99%)	0.16	1 (1%) 79 72	54, 67, 77, 82	0
37	2f	100/101 (99%)	0.20	0 100 100	66, 75, 82, 90	0
38	1g	155/156 (99%)	0.43	8 (5%) 33 25	55, 70, 82, 100	0
38	2g	155/156 (99%)	0.86	12 (7%) 19 14	70, 82, 89, 93	0
39	1h	137/138 (99%)	0.38	1 (0%) 84 77	52, 68, 74, 78	0
39	2h	137/138 (99%)	1.01	11 (8%) 18 13	71, 81, 86, 90	0
40	1i	127/128 (99%)	0.77	13 (10%) 12 9	51, 74, 83, 89	0
40	2i	127/128 (99%)	1.29	27 (21%) 2 2	78, 86, 92, 94	0
41	1j	97/105 (92%)	0.77	4 (4%) 41 33	57, 76, 85, 88	0
41	2j	96/105 (91%)	1.67	33 (34%) 1 1	73, 86, 92, 100	0
42	1k	114/129 (88%)	0.34	3 (2%) 57 47	47, 65, 76, 82	0
42	2k	114/129 (88%)	0.65	7 (6%) 27 20	68, 78, 84, 86	0
43	1l	121/132 (91%)	0.27	3 (2%) 58 48	48, 58, 68, 76	0
43	2l	121/132 (91%)	0.67	4 (3%) 49 39	60, 72, 81, 85	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	1m	123/126 (97%)	0.40	6 (4%) 35 27	55, 68, 76, 81	0
44	2m	122/126 (96%)	1.32	22 (18%) 3 3	69, 83, 88, 92	0
45	1n	60/61 (98%)	0.65	1 (1%) 69 60	62, 68, 74, 76	0
45	2n	60/61 (98%)	1.84	21 (35%) 1 0	79, 87, 92, 94	0
46	1o	88/89 (98%)	0.50	2 (2%) 61 51	52, 64, 74, 82	0
46	2o	88/89 (98%)	0.42	3 (3%) 48 39	62, 77, 83, 85	0
47	1p	82/88 (93%)	1.08	6 (7%) 21 15	61, 73, 81, 86	0
47	2p	82/88 (93%)	0.83	4 (4%) 35 27	56, 70, 81, 82	0
48	1q	99/105 (94%)	0.73	1 (1%) 79 72	53, 66, 73, 76	0
48	2q	99/105 (94%)	0.45	1 (1%) 79 72	66, 74, 82, 87	0
49	1r	68/88 (77%)	0.24	2 (2%) 53 43	57, 68, 78, 83	0
49	2r	68/88 (77%)	0.29	0 100 100	68, 77, 82, 87	0
50	1s	83/93 (89%)	0.30	1 (1%) 76 68	60, 71, 80, 91	0
50	2s	83/93 (89%)	1.31	13 (15%) 5 4	78, 86, 92, 94	0
51	1t	96/106 (90%)	0.60	6 (6%) 26 19	60, 70, 78, 88	0
51	2t	96/106 (90%)	0.52	7 (7%) 21 15	57, 72, 82, 86	0
52	1u	23/27 (85%)	0.53	1 (4%) 40 31	59, 65, 71, 74	0
52	2u	23/27 (85%)	0.73	0 100 100	78, 81, 86, 91	0
53	1v	13/24 (54%)	0.79	2 (15%) 5 4	48, 68, 90, 99	0
53	2v	13/24 (54%)	1.20	2 (15%) 5 4	78, 89, 99, 99	0
54	1w	67/76 (88%)	0.63	3 (4%) 38 30	66, 94, 103, 107	0
54	1y	67/76 (88%)	0.80	3 (4%) 38 30	46, 96, 102, 104	0
54	2w	65/76 (85%)	0.97	8 (12%) 8 6	75, 98, 104, 107	0
54	2y	66/76 (86%)	0.80	0 100 100	63, 99, 104, 106	0
55	1x	72/77 (93%)	-0.03	1 (1%) 73 64	34, 60, 77, 89	0
55	2x	72/77 (93%)	0.37	0 100 100	60, 81, 92, 94	0
All	All	20875/21748 (95%)	0.16	618 (2%) 52 42	16, 65, 91, 109	0

All (618) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
44	2m	124	PRO	6.3
45	2n	2	ALA	5.4

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Mol	Chain	Res	Type	RSRZ
44	2m	123	ALA	5.3
1	1A	2115	G	5.1
22	10	6	GLY	4.9
6	2G	20	ILE	4.8
50	2s	82	GLY	4.7
12	2Q	104	PHE	4.5
40	2i	102	LEU	4.5
21	1Z	141	VAL	4.4
1	1A	2114	A	4.4
44	1m	122	LYS	4.4
39	1h	3	THR	4.3
38	2g	80	VAL	4.3
44	2m	102	ARG	4.3
41	2j	47	PHE	4.3
50	2s	79	THR	4.2
41	2j	55	LYS	4.2
51	1t	69	GLY	4.1
21	1Z	146	ILE	4.1
38	2g	84	ASN	4.0
40	2i	14	VAL	4.0
40	2i	9	ARG	4.0
34	2c	2	GLY	4.0
44	2m	103	THR	4.0
44	2m	105	THR	3.9
36	2e	22	GLY	3.9
38	1g	82	GLY	3.9
44	1m	124	PRO	3.9
51	1t	103	GLY	3.9
1	1A	2113	U	3.9
38	2g	82	GLY	3.8
32	2a	1149	C	3.8
47	1p	24	ALA	3.8
23	11	2	SER	3.8
45	2n	16	PHE	3.8
41	2j	38	ILE	3.8
1	1A	1078	U	3.8
45	2n	34	TYR	3.8
40	2i	125	TYR	3.7
32	2a	1030(A)	G	3.7
21	2Z	150	LEU	3.7
40	2i	123	PRO	3.7
45	1n	2	ALA	3.7

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Mol	Chain	Res	Type	RSRZ
7	2H	43	VAL	3.7
45	2n	18	VAL	3.7
1	1A	2117	A	3.7
34	2c	188	LEU	3.7
45	2n	20	ALA	3.7
33	2b	165	VAL	3.7
33	2b	187	LEU	3.6
1	1A	2112	G	3.6
44	1m	123	ALA	3.6
22	20	71	ASP	3.6
33	2b	163	PHE	3.6
1	1A	2174	C	3.6
1	2A	2146	C	3.6
32	2a	1033	G	3.6
41	2j	77	PRO	3.6
44	1m	121	LYS	3.5
32	2a	951	G	3.5
40	2i	126	SER	3.5
32	2a	1032	G	3.5
1	1A	1057	A	3.5
38	2g	85	TYR	3.5
32	2a	1220	G	3.5
44	2m	121	LYS	3.5
1	1A	1094	U	3.4
49	1r	78	LEU	3.4
43	1l	16	GLU	3.4
1	1A	1095	A	3.4
32	2a	1034	G	3.4
40	1i	7	THR	3.4
42	2k	124	LYS	3.3
14	2S	3	ARG	3.3
23	21	68	PRO	3.3
41	2j	65	LEU	3.3
1	1A	2169	A	3.3
21	2Z	174	VAL	3.3
11	2P	68	GLN	3.3
39	2h	3	THR	3.2
45	2n	30	ALA	3.2
1	1A	2159	G	3.2
1	2A	2110	G	3.2
12	2Q	103	MET	3.2
50	2s	49	ILE	3.2

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Mol	Chain	Res	Type	RSRZ
44	2m	118	ALA	3.2
1	2A	883	G	3.2
32	1a	1023	G	3.2
54	2w	73	A	3.1
12	2Q	22	LYS	3.1
21	2Z	146	ILE	3.1
41	1j	98	ILE	3.1
26	24	56	VAL	3.1
1	2A	2109	U	3.1
34	2c	13	GLY	3.1
33	1b	188	ALA	3.1
1	1A	1087	G	3.1
32	2a	973	G	3.1
40	2i	17	VAL	3.1
45	2n	22	THR	3.1
34	1c	65	ALA	3.1
45	2n	33	VAL	3.1
45	2n	32	SER	3.1
39	2h	59	LEU	3.1
32	2a	994	A	3.0
1	2A	2133	G	3.0
32	2a	1030(B)	C	3.0
38	1g	85	TYR	3.0
53	2v	14	A	3.0
38	2g	75	VAL	3.0
1	1A	2116	G	3.0
38	1g	81	GLY	3.0
40	1i	9	ARG	3.0
45	2n	7	ILE	3.0
50	2s	77	THR	3.0
39	2h	79	VAL	3.0
34	2c	5	ILE	3.0
45	2n	29	ARG	3.0
42	1k	13	GLN	3.0
1	2A	2319	G	3.0
32	2a	1024	G	3.0
45	2n	3	ARG	2.9
42	2k	32	ILE	2.9
12	2Q	19	GLY	2.9
32	2a	1224	G	2.9
32	2a	1038	C	2.9
41	2j	50	ILE	2.9

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Mol	Chain	Res	Type	RSRZ
36	2e	23	GLY	2.9
40	2i	5	TYR	2.9
40	2i	62	TYR	2.9
12	2Q	121	ALA	2.9
33	2b	93	VAL	2.9
38	1g	83	ALA	2.9
40	1i	106	ALA	2.9
14	2S	58	LEU	2.9
47	2p	48	TRP	2.9
44	2m	101	GLN	2.9
41	2j	56	HIS	2.9
39	2h	86	ILE	2.9
34	2c	87	LEU	2.9
1	1A	2111	C	2.9
32	2a	1030	C	2.9
1	1A	1060	U	2.9
1	1A	2121	G	2.9
6	2G	2	PRO	2.9
14	2S	46	VAL	2.9
1	1A	2119	A	2.9
34	1c	87	LEU	2.9
1	1A	2161	C	2.8
1	2A	2145	C	2.8
32	2a	1027	C	2.8
1	1A	2160	G	2.8
7	2H	2	SER	2.8
1	2A	2119	A	2.8
42	2k	119	CYS	2.8
6	2G	39	ILE	2.8
40	2i	7	THR	2.8
33	2b	131	PRO	2.8
45	2n	21	TYR	2.8
33	2b	121	LEU	2.8
39	2h	112	LEU	2.8
7	2H	41	MET	2.8
1	2A	2112	G	2.8
35	2d	115	ARG	2.8
38	1g	156	TRP	2.8
40	2i	10	ARG	2.8
32	2a	1119	C	2.8
18	2W	112	GLY	2.8
22	20	68	GLU	2.7

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Mol	Chain	Res	Type	RSRZ
44	2m	104	ARG	2.7
37	1f	88	VAL	2.7
38	1g	80	VAL	2.7
1	1A	1077	A	2.7
1	1A	2168	G	2.7
1	2A	896	A	2.7
44	2m	42	ALA	2.7
34	2c	202	ILE	2.7
23	2l	2	SER	2.7
34	2c	185	GLY	2.7
41	2j	72	VAL	2.7
9	2N	23	LEU	2.7
33	2b	34	ALA	2.7
33	2b	118	LEU	2.7
38	1g	153	HIS	2.7
40	1i	113	LYS	2.7
1	1A	2130	U	2.7
41	2j	58	ASP	2.7
50	1s	84	GLY	2.7
40	2i	66	ARG	2.7
51	1t	11	SER	2.7
1	1A	2145	C	2.7
1	2A	2174	C	2.7
19	1X	95	LEU	2.7
41	2j	54	PHE	2.7
41	2j	62	HIS	2.7
1	1A	1059	G	2.7
8	1I	117	GLU	2.7
54	2w	72	C	2.7
35	2d	2	GLY	2.7
1	2A	2155	G	2.6
7	2H	61	HIS	2.6
43	2l	29	GLY	2.6
50	2s	2	PRO	2.6
8	2I	3	VAL	2.6
41	2j	74	ILE	2.6
21	2Z	172	ALA	2.6
34	2c	129	ALA	2.6
40	1i	126	SER	2.6
32	2a	1021	G	2.6
48	1q	28	PRO	2.6
33	2b	132	LYS	2.6

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Mol	Chain	Res	Type	RSRZ
6	2G	3	LEU	2.6
14	2S	98	VAL	2.6
22	10	7	LEU	2.6
41	2j	76	ASN	2.6
42	1k	14	VAL	2.6
15	1T	130	ALA	2.6
40	2i	18	PHE	2.6
45	2n	31	ARG	2.6
41	2j	93	GLY	2.6
1	1A	2166	G	2.6
32	2a	1031	G	2.6
32	2a	1036	G	2.6
33	2b	39	ILE	2.6
34	1c	198	VAL	2.6
54	2w	71	G	2.6
6	2G	41	GLN	2.6
33	2b	207	ALA	2.6
43	2l	56	ALA	2.6
1	1A	1100	C	2.6
1	2A	2138	C	2.6
32	2a	972	C	2.6
32	1a	1257	U	2.6
32	2a	1035	A	2.6
32	2a	1130	A	2.6
53	1v	24	A	2.6
22	10	8	GLY	2.6
35	2d	4	TYR	2.6
40	2i	36	TYR	2.6
41	2j	40	LEU	2.6
33	2b	134	GLU	2.6
32	1a	1001(A)	G	2.5
7	2H	60	ARG	2.5
40	2i	128	ARG	2.5
42	2k	126	ARG	2.5
1	2A	2169	A	2.5
20	2Y	59	GLY	2.5
35	1d	11	LEU	2.5
34	2c	55	VAL	2.5
44	2m	74	VAL	2.5
44	2m	117	VAL	2.5
45	2n	25	VAL	2.5
33	2b	237	ALA	2.5

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Mol	Chain	Res	Type	RSRZ
1	1A	2167	U	2.5
54	2w	70	G	2.5
1	1A	888	C	2.5
1	1A	2142	C	2.5
33	2b	44	LEU	2.5
41	2j	8	LEU	2.5
9	1N	140	VAL	2.5
36	2e	109	ILE	2.5
40	2i	26	VAL	2.5
41	2j	44	VAL	2.5
32	2a	1280	A	2.5
21	2Z	88	PHE	2.5
44	2m	122	LYS	2.5
32	2a	1219	U	2.5
21	1Z	150	LEU	2.5
26	24	7	PRO	2.5
33	2b	196	LEU	2.5
41	2j	31	GLY	2.5
51	1t	55	ILE	2.5
14	2S	65	VAL	2.5
1	1A	885	C	2.5
32	2a	970	C	2.5
1	2A	2115	G	2.5
7	2H	94	TYR	2.5
42	2k	31	THR	2.5
1	2A	1847	A	2.5
54	1w	73	A	2.5
11	2P	6	LEU	2.5
33	2b	214	ILE	2.5
33	1b	7	VAL	2.5
44	2m	72	ALA	2.5
50	2s	78	ARG	2.5
1	1A	2120	G	2.5
2	2B	118	G	2.5
32	2a	1001(A)	G	2.5
41	2j	71	LEU	2.4
49	1r	40	LEU	2.4
41	2j	41	PRO	2.4
36	2e	74	GLY	2.4
1	2A	2144	U	2.4
32	2a	1150	U	2.4
5	2F	90	PHE	2.4

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Mol	Chain	Res	Type	RSRZ
40	1i	59	PHE	2.4
42	2k	125	PHE	2.4
41	2j	57	LYS	2.4
47	2p	39	TYR	2.4
1	2A	280	C	2.4
21	1Z	133	ILE	2.4
47	1p	19	ILE	2.4
16	2U	110	VAL	2.4
35	1d	23	GLY	2.4
21	2Z	149	SER	2.4
30	18	46	ARG	2.4
41	2j	5	ARG	2.4
45	2n	41	ARG	2.4
1	1A	1081	U	2.4
40	1i	114	TYR	2.4
44	2m	87	TYR	2.4
40	2i	27	THR	2.4
5	2F	181	LEU	2.4
34	2c	91	LEU	2.4
44	2m	78	ILE	2.4
45	2n	17	LYS	2.4
4	1E	73	GLU	2.4
32	2a	1117	G	2.4
54	1w	1	G	2.4
1	1A	1065	U	2.4
42	2k	25	TYR	2.4
51	2t	10	LEU	2.4
34	1c	57	ILE	2.4
36	2e	130	ASN	2.4
39	2h	95	VAL	2.4
32	1a	1027	C	2.4
34	2c	167	TRP	2.4
1	1A	1537	G	2.4
26	24	32	TYR	2.4
32	1a	630	G	2.4
32	1a	1002	G	2.4
32	2a	1003	G	2.4
34	2c	165	THR	2.4
47	1p	1	MET	2.4
54	1w	71	G	2.4
34	2c	195	VAL	2.3
41	2j	34	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
39	2h	131	GLY	2.3
32	2a	1114	C	2.3
1	1A	2173	A	2.3
32	2a	965	A	2.3
6	2G	146	TYR	2.3
34	2c	184	TYR	2.3
40	2i	103	THR	2.3
41	1j	62	HIS	2.3
41	2j	67	THR	2.3
34	2c	124	ILE	2.3
9	2N	44	PRO	2.3
20	1Y	4	LYS	2.3
43	2l	31	PRO	2.3
1	2A	882	G	2.3
33	2b	136	VAL	2.3
25	23	60	GLU	2.3
40	1i	43	ALA	2.3
6	1G	152	LEU	2.3
6	2G	172	LEU	2.3
50	2s	71	LEU	2.3
32	1a	1038	C	2.3
1	1A	1096	A	2.3
32	2a	974	A	2.3
41	2j	6	ILE	2.3
47	1p	38	TYR	2.3
47	2p	38	TYR	2.3
53	2v	15	A	2.3
40	2i	83	ARG	2.3
1	2A	2147	G	2.3
32	2a	1002	G	2.3
33	1b	9	GLU	2.3
40	2i	13	ALA	2.3
44	2m	76	ALA	2.3
45	2n	10	ALA	2.3
51	1t	95	ALA	2.3
41	2j	35	SER	2.3
50	2s	35	SER	2.3
38	2g	76	ARG	2.3
43	1l	89	ARG	2.3
7	2H	17	VAL	2.3
40	2i	109	VAL	2.3
32	1a	1025	U	2.3

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Mol	Chain	Res	Type	RSRZ
34	2c	10	PHE	2.3
38	2g	26	PHE	2.3
48	2q	44	ALA	2.3
34	2c	52	LEU	2.3
50	2s	15	LEU	2.3
22	20	3	HIS	2.3
32	2a	1131	G	2.3
32	2a	1202	G	2.3
27	25	29	THR	2.3
45	2n	13	THR	2.3
47	1p	39	TYR	2.3
4	2E	196	VAL	2.3
4	2E	10	GLY	2.3
1	1A	2164	C	2.2
1	2A	2803	C	2.2
32	2a	1384	C	2.2
33	2b	122	PHE	2.2
41	2j	20	ALA	2.2
40	1i	75	ASP	2.2
50	2s	13	ASP	2.2
21	2Z	171	ILE	2.2
41	1j	46	ARG	2.2
1	1A	1058	G	2.2
1	1A	2141	G	2.2
1	2A	2120	G	2.2
43	2l	32	PHE	2.2
6	2G	50	ALA	2.2
1	1A	1064	C	2.2
32	2a	980	C	2.2
32	2a	1004	A	2.2
32	2a	1039	C	2.2
32	2a	1116	C	2.2
35	2d	154	ASN	2.2
45	2n	15	LYS	2.2
33	2b	201	ILE	2.2
41	2j	75	ILE	2.2
35	2d	122	ARG	2.2
33	2b	7	VAL	2.2
41	2j	87	THR	2.2
50	2s	80	TYR	2.2
14	2S	57	LYS	2.2
21	1Z	119	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
21	2Z	155	LEU	2.2
38	2g	150	ALA	2.2
40	1i	127	LYS	2.2
40	2i	127	LYS	2.2
43	1l	126	LYS	2.2
54	1y	20	U	2.2
35	1d	5	ILE	2.2
1	2A	2134	A	2.2
32	1a	1035	A	2.2
32	2a	983	A	2.2
54	2w	4	C	2.2
40	2i	105	ASP	2.2
8	2l	18	VAL	2.2
33	2b	112	VAL	2.2
39	2h	97	VAL	2.2
20	2Y	58	GLY	2.2
40	1i	125	TYR	2.2
41	2j	10	GLY	2.2
45	2n	55	GLY	2.2
50	2s	4	SER	2.2
47	1p	3	LYS	2.2
6	1G	139	LEU	2.2
8	1I	146	ALA	2.2
44	2m	75	ALA	2.2
36	2e	118	ILE	2.2
38	2g	41	ARG	2.2
52	1u	24	ARG	2.2
34	2c	3	ASN	2.2
1	1A	1055	G	2.2
32	2a	1023	G	2.2
34	2c	6	HIS	2.2
7	2H	35	VAL	2.2
7	2H	55	PRO	2.2
25	23	2	PRO	2.2
32	2a	1248	A	2.2
38	2g	33	ASP	2.2
41	2j	39	PRO	2.2
1	2A	2111	C	2.2
32	2a	1223	C	2.2
54	2w	2	C	2.2
9	2N	83	LYS	2.2
17	2V	42	GLY	2.2

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Mol	Chain	Res	Type	RSRZ
33	2b	133	LYS	2.2
34	1c	158	GLY	2.2
51	2t	69	GLY	2.2
3	2D	155	LEU	2.2
7	2H	64	LEU	2.2
24	22	60	LEU	2.2
41	1j	30	SER	2.2
34	2c	189	ALA	2.2
7	2H	136	ILE	2.1
46	2o	87	ILE	2.1
9	2N	45	ASN	2.1
9	2N	9	VAL	2.1
34	2c	153	VAL	2.1
40	2i	28	VAL	2.1
1	2A	2154	G	2.1
20	2Y	54	LYS	2.1
32	1a	1024	G	2.1
32	1a	1036	G	2.1
32	2a	1061	G	2.1
32	2a	1179	A	2.1
41	2j	48	THR	2.1
22	20	7	LEU	2.1
22	20	69	PHE	2.1
54	1y	56	C	2.1
8	2I	53	ALA	2.1
33	2b	88	ALA	2.1
46	1o	65	ARG	2.1
34	2c	152	ILE	2.1
1	2A	2118	U	2.1
6	1G	149	VAL	2.1
6	2G	160	VAL	2.1
32	2a	1257	U	2.1
34	1c	207	VAL	2.1
34	2c	7	PRO	2.1
34	2c	73	PRO	2.1
39	2h	19	VAL	2.1
46	2o	75	PRO	2.1
14	2S	59	LYS	2.1
26	24	54	GLY	2.1
1	2A	2117	A	2.1
14	2S	92	TYR	2.1
26	24	55	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
32	2a	964	A	2.1
40	2i	4	TYR	2.1
41	2j	32	ALA	2.1
55	1x	76	A	2.1
1	1A	2157	G	2.1
1	2A	2128	C	2.1
14	2S	52	SER	2.1
32	2a	1026	G	2.1
36	2e	129	ILE	2.1
9	2N	8	GLN	2.1
7	2H	11	VAL	2.1
12	2Q	132	VAL	2.1
33	2b	71	VAL	2.1
44	1m	106	ASN	2.1
32	2a	1025	U	2.1
6	2G	90	LEU	2.1
34	2c	175	LEU	2.1
6	2G	29	TRP	2.1
38	1g	79	ARG	2.1
6	1G	52	ILE	2.1
13	2R	101	ALA	2.1
21	2Z	152	ALA	2.1
26	24	30	GLU	2.1
26	24	31	ILE	2.1
33	1b	127	ILE	2.1
36	2e	21	ALA	2.1
39	2h	111	ILE	2.1
40	1i	119	ALA	2.1
32	2a	1236	A	2.1
1	2A	884	C	2.1
1	2A	2159	G	2.1
6	2G	159	VAL	2.1
8	2I	37	VAL	2.1
14	2S	14	VAL	2.1
31	29	15	LYS	2.1
32	2a	1047	G	2.1
34	2c	4	LYS	2.1
54	2w	74	C	2.1
36	2e	90	VAL	2.1
6	2G	142	PRO	2.1
33	2b	125	PRO	2.1
28	26	20	ASN	2.1

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Mol	Chain	Res	Type	RSRZ
6	2G	152	LEU	2.1
17	2V	20	LEU	2.1
23	2I	82	LEU	2.1
54	1y	33	U	2.1
20	2Y	50	ARG	2.1
21	1Z	69	THR	2.1
44	2m	99	ARG	2.1
12	2Q	41	TRP	2.1
14	2S	35	ILE	2.1
14	2S	55	ALA	2.1
51	2t	66	ALA	2.1
51	2t	11	SER	2.0
51	2t	74	LYS	2.0
1	2A	2114	A	2.0
26	24	35	VAL	2.0
33	2b	184	VAL	2.0
46	2o	60	VAL	2.0
53	1v	13	A	2.0
1	1A	2175	C	2.0
32	2a	1118	C	2.0
38	2g	16	LEU	2.0
1	1A	2125	G	2.0
1	2A	2104	G	2.0
1	2A	2166	G	2.0
1	2A	2802	G	2.0
32	1a	1034	G	2.0
34	2c	128	PHE	2.0
40	1i	6	GLY	2.0
51	1t	101	GLY	2.0
1	1A	2189	U	2.0
33	2b	211	ILE	2.0
34	2c	14	ILE	2.0
33	2b	188	ALA	2.0
34	2c	183	ASP	2.0
44	1m	2	ALA	2.0
6	1G	48	GLU	2.0
40	2i	114	TYR	2.0
39	2h	118	VAL	2.0
44	2m	15	VAL	2.0
1	2A	2126	A	2.0
1	2A	2170	A	2.0
32	2a	975	A	2.0

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Mol	Chain	Res	Type	RSRZ
40	2i	79	LEU	2.0
44	2m	70	LEU	2.0
51	2t	9	ASN	2.0
11	1P	44	GLY	2.0
51	2t	103	GLY	2.0
1	2A	2143	C	2.0
1	2A	2297	C	2.0
1	2A	2804	C	2.0
21	1Z	171	ILE	2.0
32	2a	979	C	2.0
32	2a	1028	C	2.0
32	2a	1037	C	2.0
33	2b	41	ILE	2.0
7	2H	165	ALA	2.0
38	2g	83	ALA	2.0
34	2c	62	ASP	2.0
47	2p	29	ASP	2.0
1	2A	2123	G	2.0
1	2A	2125	G	2.0
1	2A	2127	G	2.0
32	2a	1030(C)	G	2.0
54	2w	15	G	2.0
34	2c	201	TYR	2.0
42	1k	25	TYR	2.0
46	1o	69	TYR	2.0
12	2Q	106	VAL	2.0
44	2m	7	VAL	2.0
50	2s	60	VAL	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(Å ²)	Q<0.9
54	G7M	2y	46	24/25	0.45	0.15	94,102,109,118	0
54	G7M	1w	46	24/25	0.50	0.14	83,93,109,114	0
54	G7M	2w	46	24/25	0.56	0.12	85,95,104,116	0
54	PSU	2y	39	20/21	0.64	0.16	89,97,108,118	0
54	MIA	1y	37	22/30	0.65	0.16	79,88,96,113	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	PSU	2y	55	20/21	0.66	0.11	93,99,105,111	0
54	G7M	1y	46	24/25	0.67	0.13	91,101,105,120	0
54	4SU	2y	8	20/21	0.68	0.12	83,102,109,114	0
54	5MU	2w	54	21/22	0.68	0.13	78,90,94,98	0
54	4SU	1y	8	20/21	0.70	0.11	94,98,110,117	0
54	PSU	1y	55	20/21	0.70	0.13	87,96,109,113	0
54	PSU	2y	32	20/21	0.71	0.14	86,96,102,112	0
54	4SU	2w	8	20/21	0.72	0.12	87,101,105,107	0
54	PSU	2w	55	20/21	0.73	0.11	81,94,101,107	0
54	5MU	2y	54	21/22	0.75	0.11	88,98,104,112	0
54	4SU	1w	8	20/21	0.76	0.10	86,91,98,106	0
55	4SU	2x	8	20/21	0.76	0.13	79,87,104,106	0
54	PSU	1y	32	20/21	0.77	0.14	82,91,106,106	0
54	MIA	2y	37	22/30	0.77	0.12	81,92,105,113	0
54	5MU	1y	54	21/22	0.78	0.12	85,94,101,105	0
54	PSU	1w	55	20/21	0.78	0.10	78,90,93,96	0
54	PSU	1y	39	20/21	0.80	0.13	79,90,97,97	0
1	5MU	2A	1915	21/22	0.81	0.12	74,82,91,95	0
32	PSU	2a	516	20/21	0.82	0.12	82,87,94,99	0
54	MIA	2w	37	25/30	0.83	0.14	81,91,93,97	0
54	PSU	2w	39	20/21	0.84	0.13	79,89,93,93	0
54	PSU	2w	32	20/21	0.85	0.16	89,94,104,108	0
32	2MG	2a	1207	24/25	0.85	0.13	80,87,94,98	0
55	PSU	2x	55	20/21	0.87	0.09	72,78,91,94	0
55	5MU	2x	54	21/22	0.87	0.10	70,81,89,95	0
32	5MC	2a	967	21/22	0.88	0.20	68,76,86,92	0
54	5MU	1w	54	21/22	0.88	0.08	72,79,87,93	0
32	4OC	2a	1402	22/23	0.88	0.15	66,75,79,80	0
32	M2G	2a	966	25/26	0.88	0.19	66,73,95,101	0
55	PSU	1x	55	20/21	0.89	0.09	55,61,68,74	0
54	PSU	1w	32	20/21	0.89	0.13	75,81,89,94	0
32	G7M	2a	527	24/25	0.89	0.12	65,73,80,82	0
1	5MU	1A	1915	21/22	0.90	0.10	54,63,67,75	0
32	5MC	2a	1400	21/22	0.90	0.17	76,82,87,90	0
55	5MC	2x	32	21/22	0.90	0.12	70,77,80,85	0
54	MIA	1w	37	29/30	0.90	0.13	58,71,76,76	0
55	5MU	1x	54	21/22	0.91	0.09	54,61,69,72	0
1	PSU	2A	1917	20/21	0.91	0.10	60,73,83,84	0
1	OMC	2A	1920	21/22	0.91	0.12	64,72,74,74	0
1	PSU	2A	1911	20/21	0.91	0.10	55,69,77,78	0
32	5MC	2a	1404	21/22	0.92	0.12	64,69,75,78	0
32	5MC	2a	1407	21/22	0.92	0.11	65,72,76,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
32	PSU	1a	516	20/21	0.92	0.09	61,68,73,79	0
43	0TD	1l	92	10/11	0.92	0.15	54,59,65,77	0
54	PSU	1w	39	20/21	0.93	0.09	68,78,83,84	0
32	UR3	2a	1498	21/22	0.93	0.12	57,67,72,83	0
43	0TD	2l	92	10/11	0.93	0.11	63,71,75,77	0
1	5MC	2A	1962	21/22	0.94	0.11	45,57,64,68	0
32	5MC	1a	1404	21/22	0.94	0.11	34,48,54,60	0
55	4SU	1x	8	20/21	0.94	0.10	56,61,73,73	0
55	5MC	1x	32	21/22	0.94	0.10	55,59,64,67	0
32	2MG	1a	1207	24/25	0.94	0.09	63,70,73,75	0
32	G7M	1a	527	24/25	0.95	0.10	46,53,60,64	0
32	M2G	1a	966	25/26	0.95	0.11	40,54,58,61	0
1	PSU	1A	1917	20/21	0.95	0.08	44,57,61,63	0
32	MA6	2a	1519	24/25	0.96	0.11	61,71,76,77	0
32	5MC	1a	1400	21/22	0.96	0.12	42,52,57,58	0
32	4OC	1a	1402	22/23	0.96	0.10	47,49,54,61	0
1	PSU	1A	1911	20/21	0.96	0.08	37,53,62,62	0
32	MA6	1a	1518	24/25	0.96	0.09	38,41,47,49	0
1	OMG	2A	2251	24/25	0.96	0.08	38,45,48,51	0
1	PSU	2A	2605	20/21	0.96	0.07	36,41,48,48	0
32	5MC	1a	967	21/22	0.96	0.10	48,57,64,69	0
1	5MC	1A	1942	21/22	0.96	0.09	32,39,43,52	0
32	MA6	2a	1518	24/25	0.96	0.10	60,69,74,75	0
32	UR3	1a	1498	21/22	0.97	0.07	38,41,46,48	0
1	2MA	2A	2503	23/24	0.97	0.09	35,39,42,49	0
1	OMU	2A	2552	21/22	0.97	0.06	37,42,51,53	0
1	OMU	1A	2552	21/22	0.97	0.07	21,26,34,41	0
1	5MU	2A	1939	21/22	0.97	0.08	33,41,45,48	0
1	5MC	2A	1942	21/22	0.97	0.10	39,59,62,70	0
32	MA6	1a	1519	24/25	0.97	0.07	36,43,49,51	0
1	2MA	1A	2503	23/24	0.98	0.06	18,24,28,29	0
1	5MU	1A	1939	21/22	0.98	0.06	25,29,36,42	0
1	PSU	1A	2605	20/21	0.98	0.07	25,31,36,39	0
1	OMC	1A	1920	21/22	0.98	0.08	35,49,55,58	0
1	5MC	1A	1962	21/22	0.98	0.08	33,40,44,52	0
32	5MC	1a	1407	21/22	0.98	0.08	30,46,50,53	0
1	OMG	1A	2251	24/25	0.98	0.06	12,27,34,36	0

6.3 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

6.4 Ligands ⓘ

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	MG	1A	4032	1/1	0.48	0.33	70,70,70,70	0
56	MG	1a	1649	1/1	0.50	0.31	85,85,85,85	0
56	MG	1A	3673	1/1	0.56	0.26	66,66,66,66	0
56	MG	2A	3799	1/1	0.57	0.14	73,73,73,73	0
56	MG	2A	3735	1/1	0.63	0.22	73,73,73,73	0
56	MG	1B	230	1/1	0.64	0.23	76,76,76,76	0
56	MG	2A	3039	1/1	0.64	0.20	75,75,75,75	0
56	MG	2A	3369	1/1	0.65	0.16	65,65,65,65	0
56	MG	2a	3048	1/1	0.65	0.22	76,76,76,76	0
56	MG	2a	3035	1/1	0.66	0.29	75,75,75,75	0
56	MG	1A	4030	1/1	0.66	0.23	99,99,99,99	0
56	MG	2v	102	1/1	0.66	0.41	74,74,74,74	0
56	MG	2A	3090	1/1	0.67	0.14	77,77,77,77	0
56	MG	1A	3237	1/1	0.68	0.28	70,70,70,70	0
56	MG	2B	216	1/1	0.69	0.18	69,69,69,69	0
56	MG	2a	3128	1/1	0.69	0.29	82,82,82,82	0
56	MG	1A	3373	1/1	0.69	0.26	62,62,62,62	0
56	MG	2A	3183	1/1	0.70	0.26	83,83,83,83	0
56	MG	2a	3112	1/1	0.70	0.15	62,62,62,62	0
56	MG	2A	3337	1/1	0.71	0.23	65,65,65,65	0
56	MG	2A	3297	1/1	0.71	0.13	76,76,76,76	0
56	MG	1Q	204	1/1	0.72	0.18	67,67,67,67	0
56	MG	2A	3332	1/1	0.72	0.16	66,66,66,66	0
56	MG	1a	1625	1/1	0.72	0.28	68,68,68,68	0
56	MG	2a	3212	1/1	0.72	0.19	84,84,84,84	0
56	MG	2a	3243	1/1	0.72	0.24	68,68,68,68	0
56	MG	1A	3847	1/1	0.72	0.16	63,63,63,63	0
56	MG	1B	234	1/1	0.73	0.20	79,79,79,79	0
56	MG	2a	3042	1/1	0.73	0.15	75,75,75,75	0
56	MG	2A	3597	1/1	0.73	0.18	71,71,71,71	0
56	MG	2A	3642	1/1	0.73	0.16	66,66,66,66	0
56	MG	2A	3083	1/1	0.73	0.24	64,64,64,64	0
56	MG	1A	3218	1/1	0.73	0.14	47,47,47,47	0
56	MG	2A	3145	1/1	0.73	0.27	71,71,71,71	0
56	MG	2B	220	1/1	0.73	0.23	77,77,77,77	0
56	MG	2a	3199	1/1	0.74	0.22	85,85,85,85	0
56	MG	2a	3208	1/1	0.74	0.12	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	2a	3017	1/1	0.74	0.20	76,76,76,76	0
56	MG	2a	3223	1/1	0.74	0.16	82,82,82,82	0
56	MG	2a	3049	1/1	0.74	0.25	80,80,80,80	0
56	MG	2a	3135	1/1	0.74	0.28	76,76,76,76	0
56	MG	2A	3237	1/1	0.75	0.18	63,63,63,63	0
56	MG	2A	3634	1/1	0.75	0.27	66,66,66,66	0
56	MG	1a	1656	1/1	0.75	0.23	62,62,62,62	0
56	MG	2A	3729	1/1	0.75	0.15	87,87,87,87	0
56	MG	1w	105	1/1	0.75	0.11	78,78,78,78	0
56	MG	1A	3970	1/1	0.75	0.12	50,50,50,50	0
56	MG	2a	3239	1/1	0.75	0.23	69,69,69,69	0
56	MG	2a	3084	1/1	0.75	0.10	81,81,81,81	0
56	MG	2A	3044	1/1	0.75	0.17	69,69,69,69	0
56	MG	2a	3109	1/1	0.76	0.30	77,77,77,77	0
56	MG	1A	3092	1/1	0.76	0.16	59,59,59,59	0
56	MG	2A	3143	1/1	0.76	0.18	63,63,63,63	0
56	MG	1A	3383	1/1	0.76	0.37	68,68,68,68	0
56	MG	1a	1650	1/1	0.76	0.23	78,78,78,78	0
56	MG	2A	3204	1/1	0.76	0.34	66,66,66,66	0
56	MG	1A	3944	1/1	0.76	0.20	34,34,34,34	0
56	MG	2A	3282	1/1	0.76	0.21	57,57,57,57	0
56	MG	2A	3286	1/1	0.76	0.14	67,67,67,67	0
56	MG	2a	3051	1/1	0.76	0.14	77,77,77,77	0
56	MG	2A	3296	1/1	0.76	0.13	72,72,72,72	0
56	MG	1a	1632	1/1	0.77	0.32	60,60,60,60	0
56	MG	1A	3848	1/1	0.77	0.13	51,51,51,51	0
56	MG	2a	3113	1/1	0.77	0.17	77,77,77,77	0
56	MG	2A	3641	1/1	0.77	0.16	66,66,66,66	0
56	MG	2a	3029	1/1	0.77	0.25	87,87,87,87	0
56	MG	2a	3166	1/1	0.77	0.15	52,52,52,52	0
56	MG	1A	3912	1/1	0.77	0.26	56,56,56,56	0
56	MG	1A	4043	1/1	0.77	0.15	66,66,66,66	0
56	MG	2A	3275	1/1	0.77	0.14	66,66,66,66	0
56	MG	1A	4055	1/1	0.77	0.21	53,53,53,53	0
56	MG	2A	3820	1/1	0.77	0.12	77,77,77,77	0
56	MG	2A	3826	1/1	0.77	0.19	54,54,54,54	0
56	MG	2a	3108	1/1	0.77	0.30	71,71,71,71	0
56	MG	1A	4056	1/1	0.78	0.21	69,69,69,69	0
56	MG	1A	3786	1/1	0.78	0.24	57,57,57,57	0
56	MG	1A	3783	1/1	0.78	0.16	61,61,61,61	0
56	MG	1a	1764	1/1	0.78	0.12	75,75,75,75	0
56	MG	2A	3603	1/1	0.78	0.13	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	1770	1/1	0.78	0.16	64,64,64,64	0
56	MG	2j	201	1/1	0.78	0.23	81,81,81,81	0
56	MG	2a	3194	1/1	0.78	0.21	71,71,71,71	0
56	MG	2A	3563	1/1	0.79	0.28	77,77,77,77	0
56	MG	1a	1655	1/1	0.79	0.23	63,63,63,63	0
56	MG	2A	3305	1/1	0.79	0.12	61,61,61,61	0
56	MG	2A	3609	1/1	0.79	0.22	66,66,66,66	0
56	MG	2A	3621	1/1	0.79	0.19	65,65,65,65	0
56	MG	2A	3836	1/1	0.79	0.14	61,61,61,61	0
56	MG	1a	1781	1/1	0.79	0.10	70,70,70,70	0
56	MG	1A	3471	1/1	0.79	0.11	56,56,56,56	0
56	MG	1A	3603	1/1	0.79	0.14	61,61,61,61	0
56	MG	2a	3020	1/1	0.79	0.21	69,69,69,69	0
56	MG	2v	101	1/1	0.79	0.15	78,78,78,78	0
56	MG	2A	3655	1/1	0.79	0.21	74,74,74,74	0
56	MG	2v	103	1/1	0.79	0.46	72,72,72,72	0
56	MG	2A	3397	1/1	0.80	0.15	63,63,63,63	0
56	MG	2a	3100	1/1	0.80	0.19	80,80,80,80	0
56	MG	2A	3731	1/1	0.80	0.10	84,84,84,84	0
56	MG	2A	3520	1/1	0.80	0.12	41,41,41,41	0
56	MG	2A	3781	1/1	0.80	0.14	87,87,87,87	0
56	MG	2A	3085	1/1	0.80	0.12	76,76,76,76	0
56	MG	2A	3570	1/1	0.80	0.21	56,56,56,56	0
56	MG	2A	3582	1/1	0.80	0.16	33,33,33,33	0
56	MG	2a	3158	1/1	0.80	0.11	80,80,80,80	0
56	MG	1A	3388	1/1	0.80	0.22	46,46,46,46	0
56	MG	2a	3186	1/1	0.80	0.16	80,80,80,80	0
56	MG	2A	3846	1/1	0.80	0.18	68,68,68,68	0
56	MG	2a	3198	1/1	0.80	0.26	78,78,78,78	0
56	MG	1A	3988	1/1	0.80	0.12	33,33,33,33	0
56	MG	2a	3204	1/1	0.80	0.30	77,77,77,77	0
56	MG	1A	3274	1/1	0.80	0.25	44,44,44,44	0
56	MG	2A	3613	1/1	0.80	0.19	66,66,66,66	0
56	MG	2A	3153	1/1	0.80	0.21	62,62,62,62	0
56	MG	2a	3235	1/1	0.80	0.13	76,76,76,76	0
56	MG	2a	3238	1/1	0.80	0.15	74,74,74,74	0
56	MG	2A	3630	1/1	0.80	0.09	63,63,63,63	0
56	MG	1a	1666	1/1	0.80	0.28	69,69,69,69	0
56	MG	1a	1738	1/1	0.80	0.20	78,78,78,78	0
56	MG	1G	204	1/1	0.80	0.22	56,56,56,56	0
56	MG	2A	3266	1/1	0.80	0.21	65,65,65,65	0
56	MG	2A	3689	1/1	0.80	0.22	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	3311	1/1	0.81	0.27	57,57,57,57	0
56	MG	2A	3806	1/1	0.81	0.24	61,61,61,61	0
56	MG	2A	3253	1/1	0.81	0.10	48,48,48,48	0
56	MG	2a	3123	1/1	0.81	0.19	66,66,66,66	0
56	MG	2a	3127	1/1	0.81	0.24	66,66,66,66	0
56	MG	2A	3335	1/1	0.81	0.17	69,69,69,69	0
56	MG	2A	3095	1/1	0.81	0.24	60,60,60,60	0
56	MG	2a	3141	1/1	0.81	0.22	73,73,73,73	0
56	MG	2a	3157	1/1	0.81	0.14	80,80,80,80	0
56	MG	2A	3267	1/1	0.81	0.14	53,53,53,53	0
56	MG	2B	209	1/1	0.81	0.12	67,67,67,67	0
56	MG	2B	213	1/1	0.81	0.16	69,69,69,69	0
56	MG	2B	215	1/1	0.81	0.21	69,69,69,69	0
56	MG	2A	3376	1/1	0.81	0.20	65,65,65,65	0
56	MG	1A	3913	1/1	0.81	0.14	19,19,19,19	0
56	MG	1a	1763	1/1	0.81	0.15	76,76,76,76	0
56	MG	2A	3554	1/1	0.81	0.15	74,74,74,74	0
56	MG	2a	3211	1/1	0.81	0.12	73,73,73,73	0
56	MG	2A	3660	1/1	0.81	0.12	52,52,52,52	0
56	MG	2A	3687	1/1	0.81	0.19	73,73,73,73	0
56	MG	1A	3230	1/1	0.81	0.10	60,60,60,60	0
56	MG	2A	3713	1/1	0.81	0.19	60,60,60,60	0
56	MG	1A	3488	1/1	0.81	0.17	49,49,49,49	0
56	MG	1A	3792	1/1	0.81	0.13	56,56,56,56	0
56	MG	2a	3065	1/1	0.81	0.35	65,65,65,65	0
56	MG	2A	3593	1/1	0.81	0.14	48,48,48,48	0
56	MG	1a	1812	1/1	0.81	0.11	58,58,58,58	0
56	MG	2A	3788	1/1	0.81	0.14	54,54,54,54	0
56	MG	2A	3076	1/1	0.82	0.26	64,64,64,64	0
56	MG	1A	3683	1/1	0.82	0.19	66,66,66,66	0
56	MG	2A	3504	1/1	0.82	0.22	48,48,48,48	0
56	MG	2a	3203	1/1	0.82	0.17	71,71,71,71	0
56	MG	1a	1696	1/1	0.82	0.15	55,55,55,55	0
56	MG	2A	3550	1/1	0.82	0.11	46,46,46,46	0
56	MG	2a	3209	1/1	0.82	0.20	76,76,76,76	0
56	MG	2a	3115	1/1	0.82	0.19	74,74,74,74	0
56	MG	2a	3118	1/1	0.82	0.14	72,72,72,72	0
56	MG	2a	3214	1/1	0.82	0.28	75,75,75,75	0
56	MG	2A	3300	1/1	0.82	0.30	66,66,66,66	0
56	MG	1a	1703	1/1	0.82	0.23	69,69,69,69	0
56	MG	1Y	203	1/1	0.82	0.08	54,54,54,54	0
56	MG	2A	3821	1/1	0.82	0.18	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	2A	3007	1/1	0.82	0.23	62,62,62,62	0
56	MG	1A	3187	1/1	0.82	0.15	70,70,70,70	0
56	MG	2l	202	1/1	0.82	0.23	70,70,70,70	0
56	MG	2A	3845	1/1	0.82	0.22	78,78,78,78	0
56	MG	1A	4076	1/1	0.82	0.10	31,31,31,31	0
56	MG	2A	3283	1/1	0.82	0.26	61,61,61,61	0
56	MG	1a	1813	1/1	0.83	0.21	56,56,56,56	0
56	MG	2a	3142	1/1	0.83	0.19	65,65,65,65	0
56	MG	2a	3147	1/1	0.83	0.10	92,92,92,92	0
56	MG	2a	3022	1/1	0.83	0.16	62,62,62,62	0
56	MG	1a	1745	1/1	0.83	0.22	70,70,70,70	0
56	MG	2A	3624	1/1	0.83	0.11	54,54,54,54	0
56	MG	2a	3039	1/1	0.83	0.33	76,76,76,76	0
56	MG	2A	3437	1/1	0.83	0.23	62,62,62,62	0
56	MG	1a	1748	1/1	0.83	0.13	65,65,65,65	0
56	MG	2A	3022	1/1	0.83	0.21	70,70,70,70	0
56	MG	1A	3411	1/1	0.83	0.13	55,55,55,55	0
56	MG	2a	3060	1/1	0.83	0.15	82,82,82,82	0
56	MG	2A	3198	1/1	0.83	0.28	69,69,69,69	0
56	MG	2A	3842	1/1	0.83	0.25	66,66,66,66	0
56	MG	2a	3089	1/1	0.83	0.14	69,69,69,69	0
56	MG	2a	3096	1/1	0.83	0.17	78,78,78,78	0
56	MG	1B	235	1/1	0.83	0.12	61,61,61,61	0
56	MG	2a	3215	1/1	0.83	0.14	66,66,66,66	0
56	MG	2a	3222	1/1	0.83	0.09	83,83,83,83	0
56	MG	2A	3227	1/1	0.83	0.28	61,61,61,61	0
56	MG	2a	3231	1/1	0.83	0.16	70,70,70,70	0
56	MG	1A	3322	1/1	0.83	0.17	56,56,56,56	0
56	MG	2a	3236	1/1	0.83	0.09	60,60,60,60	0
56	MG	2A	3692	1/1	0.83	0.12	48,48,48,48	0
56	MG	2A	3249	1/1	0.83	0.15	70,70,70,70	0
56	MG	1a	1773	1/1	0.83	0.10	72,72,72,72	0
56	MG	1A	3171	1/1	0.83	0.23	66,66,66,66	0
56	MG	2a	3007	1/1	0.83	0.30	67,67,67,67	0
56	MG	2a	3009	1/1	0.83	0.28	69,69,69,69	0
56	MG	2a	3010	1/1	0.83	0.17	72,72,72,72	0
56	MG	1A	3982	1/1	0.83	0.09	30,30,30,30	0
56	MG	1a	1643	1/1	0.84	0.16	61,61,61,61	0
56	MG	1A	3777	1/1	0.84	0.13	38,38,38,38	0
56	MG	2B	205	1/1	0.84	0.20	71,71,71,71	0
56	MG	2a	3122	1/1	0.84	0.26	60,60,60,60	0
56	MG	1A	4061	1/1	0.84	0.24	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	2B	212	1/1	0.84	0.12	64,64,64,64	0
56	MG	2A	3310	1/1	0.84	0.11	56,56,56,56	0
56	MG	1a	1782	1/1	0.84	0.13	57,57,57,57	0
56	MG	1A	3917	1/1	0.84	0.20	52,52,52,52	0
56	MG	2B	217	1/1	0.84	0.09	63,63,63,63	0
56	MG	2A	3196	1/1	0.84	0.16	58,58,58,58	0
56	MG	2a	3152	1/1	0.84	0.17	66,66,66,66	0
56	MG	27	104	1/1	0.84	0.18	60,60,60,60	0
56	MG	2a	3005	1/1	0.84	0.23	67,67,67,67	0
56	MG	1A	3550	1/1	0.84	0.34	42,42,42,42	0
56	MG	1A	3585	1/1	0.84	0.17	43,43,43,43	0
56	MG	1A	3465	1/1	0.84	0.14	65,65,65,65	0
56	MG	1A	3831	1/1	0.84	0.13	26,26,26,26	0
56	MG	2A	3411	1/1	0.84	0.13	53,53,53,53	0
56	MG	2A	3416	1/1	0.84	0.18	73,73,73,73	0
56	MG	2A	3426	1/1	0.84	0.34	55,55,55,55	0
56	MG	2A	3429	1/1	0.84	0.23	56,56,56,56	0
56	MG	2a	3037	1/1	0.84	0.32	70,70,70,70	0
56	MG	1a	1724	1/1	0.84	0.19	52,52,52,52	0
56	MG	1A	3624	1/1	0.84	0.11	44,44,44,44	0
56	MG	2A	3047	1/1	0.84	0.17	63,63,63,63	0
56	MG	2A	3741	1/1	0.84	0.09	44,44,44,44	0
56	MG	2A	3525	1/1	0.84	0.16	69,69,69,69	0
56	MG	2A	3539	1/1	0.84	0.13	60,60,60,60	0
56	MG	2A	3058	1/1	0.84	0.20	68,68,68,68	0
56	MG	2a	3234	1/1	0.84	0.14	73,73,73,73	0
56	MG	2a	3073	1/1	0.84	0.19	72,72,72,72	0
56	MG	2A	3271	1/1	0.84	0.17	57,57,57,57	0
56	MG	2a	3087	1/1	0.84	0.33	58,58,58,58	0
56	MG	1A	3083	1/1	0.84	0.15	44,44,44,44	0
56	MG	2a	3095	1/1	0.84	0.14	68,68,68,68	0
56	MG	2A	3082	1/1	0.84	0.11	61,61,61,61	0
56	MG	10	104	1/1	0.84	0.16	63,63,63,63	0
56	MG	2A	3835	1/1	0.84	0.12	70,70,70,70	0
56	MG	1A	3900	1/1	0.84	0.12	60,60,60,60	0
56	MG	1A	3371	1/1	0.84	0.12	58,58,58,58	0
56	MG	2x	106	1/1	0.84	0.29	70,70,70,70	0
56	MG	2y	102	1/1	0.84	0.16	81,81,81,81	0
56	MG	1A	3212	1/1	0.85	0.23	53,53,53,53	0
56	MG	1B	214	1/1	0.85	0.27	45,45,45,45	0
56	MG	1B	219	1/1	0.85	0.11	34,34,34,34	0
56	MG	1B	229	1/1	0.85	0.11	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	3573	1/1	0.85	0.12	51,51,51,51	0
56	MG	2A	3086	1/1	0.85	0.09	76,76,76,76	0
56	MG	1A	3564	1/1	0.85	0.20	48,48,48,48	0
56	MG	2A	3293	1/1	0.85	0.24	64,64,64,64	0
56	MG	1a	1659	1/1	0.85	0.15	66,66,66,66	0
56	MG	2A	3112	1/1	0.85	0.23	52,52,52,52	0
56	MG	1A	4018	1/1	0.85	0.17	83,83,83,83	0
56	MG	2a	3136	1/1	0.85	0.39	71,71,71,71	0
56	MG	1A	3088	1/1	0.85	0.12	42,42,42,42	0
56	MG	2F	305	1/1	0.85	0.18	61,61,61,61	0
56	MG	2A	3151	1/1	0.85	0.07	77,77,77,77	0
56	MG	1x	110	1/1	0.85	0.20	65,65,65,65	0
56	MG	2a	3154	1/1	0.85	0.16	75,75,75,75	0
56	MG	2a	3006	1/1	0.85	0.17	66,66,66,66	0
56	MG	2A	3175	1/1	0.85	0.10	50,50,50,50	0
56	MG	2A	3177	1/1	0.85	0.10	58,58,58,58	0
56	MG	2A	3001	1/1	0.85	0.28	47,47,47,47	0
56	MG	2A	3347	1/1	0.85	0.08	64,64,64,64	0
56	MG	2A	3360	1/1	0.85	0.23	43,43,43,43	0
56	MG	1A	3599	1/1	0.85	0.10	45,45,45,45	0
56	MG	1A	3201	1/1	0.85	0.17	59,59,59,59	0
56	MG	2A	3389	1/1	0.85	0.13	67,67,67,67	0
56	MG	2A	3706	1/1	0.85	0.11	48,48,48,48	0
56	MG	1A	3366	1/1	0.85	0.16	61,61,61,61	0
56	MG	2A	3221	1/1	0.85	0.09	68,68,68,68	0
56	MG	2a	3045	1/1	0.85	0.15	66,66,66,66	0
56	MG	1A	3963	1/1	0.85	0.11	72,72,72,72	0
56	MG	2A	3236	1/1	0.85	0.07	59,59,59,59	0
56	MG	1A	3540	1/1	0.85	0.30	55,55,55,55	0
56	MG	2a	3053	1/1	0.85	0.09	73,73,73,73	0
56	MG	2a	3059	1/1	0.85	0.19	65,65,65,65	0
56	MG	2A	3050	1/1	0.85	0.20	55,55,55,55	0
56	MG	2A	3452	1/1	0.85	0.27	78,78,78,78	0
56	MG	2a	3067	1/1	0.85	0.11	67,67,67,67	0
56	MG	2a	3070	1/1	0.85	0.27	59,59,59,59	0
56	MG	2A	3469	1/1	0.85	0.12	49,49,49,49	0
56	MG	2A	3250	1/1	0.85	0.20	74,74,74,74	0
56	MG	2A	3251	1/1	0.85	0.10	65,65,65,65	0
56	MG	2A	3052	1/1	0.85	0.18	64,64,64,64	0
56	MG	2A	3822	1/1	0.85	0.29	61,61,61,61	0
56	MG	1A	4072	1/1	0.85	0.18	62,62,62,62	0
56	MG	2a	3098	1/1	0.85	0.15	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	2A	3548	1/1	0.85	0.11	55,55,55,55	0
56	MG	2a	3105	1/1	0.85	0.10	67,67,67,67	0
56	MG	2y	103	1/1	0.85	0.28	79,79,79,79	0
56	MG	1a	1727	1/1	0.86	0.14	59,59,59,59	0
56	MG	1A	3916	1/1	0.86	0.10	59,59,59,59	0
56	MG	1a	1616	1/1	0.86	0.20	66,66,66,66	0
56	MG	1A	3223	1/1	0.86	0.14	46,46,46,46	0
56	MG	1A	3329	1/1	0.86	0.08	40,40,40,40	0
56	MG	2A	3468	1/1	0.86	0.17	53,53,53,53	0
56	MG	1A	3948	1/1	0.86	0.14	77,77,77,77	0
56	MG	2A	3483	1/1	0.86	0.24	65,65,65,65	0
56	MG	1a	1645	1/1	0.86	0.15	54,54,54,54	0
56	MG	2a	3110	1/1	0.86	0.16	70,70,70,70	0
56	MG	2A	3254	1/1	0.86	0.18	58,58,58,58	0
56	MG	2A	3523	1/1	0.86	0.11	57,57,57,57	0
56	MG	2A	3255	1/1	0.86	0.24	60,60,60,60	0
56	MG	2A	3838	1/1	0.86	0.21	60,60,60,60	0
56	MG	2A	3265	1/1	0.86	0.19	59,59,59,59	0
56	MG	2A	3546	1/1	0.86	0.16	61,61,61,61	0
56	MG	1A	3394	1/1	0.86	0.18	55,55,55,55	0
56	MG	2A	3847	1/1	0.86	0.35	73,73,73,73	0
56	MG	2a	3132	1/1	0.86	0.37	65,65,65,65	0
56	MG	2B	202	1/1	0.86	0.12	69,69,69,69	0
56	MG	1A	3263	1/1	0.86	0.31	67,67,67,67	0
56	MG	1A	3828	1/1	0.86	0.11	51,51,51,51	0
56	MG	2A	3555	1/1	0.86	0.09	55,55,55,55	0
56	MG	1A	3119	1/1	0.86	0.06	75,75,75,75	0
56	MG	1A	3302	1/1	0.86	0.08	47,47,47,47	0
56	MG	2A	3114	1/1	0.86	0.23	68,68,68,68	0
56	MG	2A	3133	1/1	0.86	0.15	68,68,68,68	0
56	MG	2A	3142	1/1	0.86	0.23	74,74,74,74	0
56	MG	2E	306	1/1	0.86	0.09	40,40,40,40	0
56	MG	2a	3183	1/1	0.86	0.18	76,76,76,76	0
56	MG	1w	104	1/1	0.86	0.10	82,82,82,82	0
56	MG	2a	3190	1/1	0.86	0.21	67,67,67,67	0
56	MG	1a	1660	1/1	0.86	0.11	54,54,54,54	0
56	MG	1x	102	1/1	0.86	0.26	60,60,60,60	0
56	MG	1x	104	1/1	0.86	0.31	66,66,66,66	0
56	MG	1A	3473	1/1	0.86	0.23	63,63,63,63	0
56	MG	1a	1675	1/1	0.86	0.28	55,55,55,55	0
56	MG	1A	3378	1/1	0.86	0.21	55,55,55,55	0
56	MG	2A	3188	1/1	0.86	0.15	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	3192	1/1	0.86	0.12	68,68,68,68	0
56	MG	2A	3339	1/1	0.86	0.18	65,65,65,65	0
56	MG	2A	3649	1/1	0.86	0.11	68,68,68,68	0
56	MG	2A	3346	1/1	0.86	0.07	65,65,65,65	0
56	MG	2a	3218	1/1	0.86	0.21	77,77,77,77	0
56	MG	2a	3220	1/1	0.86	0.13	71,71,71,71	0
56	MG	2a	3036	1/1	0.86	0.25	70,70,70,70	0
56	MG	1A	3533	1/1	0.86	0.16	56,56,56,56	0
56	MG	2a	3227	1/1	0.86	0.15	67,67,67,67	0
56	MG	2A	3674	1/1	0.86	0.14	80,80,80,80	0
56	MG	2a	3040	1/1	0.86	0.10	56,56,56,56	0
56	MG	2A	3677	1/1	0.86	0.11	59,59,59,59	0
56	MG	2A	3678	1/1	0.86	0.11	60,60,60,60	0
56	MG	2A	3028	1/1	0.86	0.29	59,59,59,59	0
56	MG	1a	1705	1/1	0.86	0.11	51,51,51,51	0
56	MG	2A	3211	1/1	0.86	0.15	57,57,57,57	0
56	MG	2A	3697	1/1	0.86	0.28	59,59,59,59	0
56	MG	2A	3698	1/1	0.86	0.11	75,75,75,75	0
56	MG	2A	3384	1/1	0.86	0.21	60,60,60,60	0
56	MG	2A	3214	1/1	0.86	0.11	68,68,68,68	0
56	MG	2A	3716	1/1	0.86	0.13	90,90,90,90	0
56	MG	2A	3726	1/1	0.86	0.08	57,57,57,57	0
56	MG	2A	3215	1/1	0.86	0.28	73,73,73,73	0
56	MG	1A	3774	1/1	0.86	0.10	27,27,27,27	0
56	MG	1a	1689	1/1	0.87	0.16	57,57,57,57	0
56	MG	2A	3276	1/1	0.87	0.11	52,52,52,52	0
56	MG	2A	3647	1/1	0.87	0.10	56,56,56,56	0
56	MG	1B	226	1/1	0.87	0.15	63,63,63,63	0
56	MG	2a	3063	1/1	0.87	0.20	65,65,65,65	0
56	MG	2A	3653	1/1	0.87	0.12	43,43,43,43	0
56	MG	1A	3663	1/1	0.87	0.18	63,63,63,63	0
56	MG	2a	3069	1/1	0.87	0.21	73,73,73,73	0
56	MG	2A	3075	1/1	0.87	0.15	55,55,55,55	0
56	MG	1A	3665	1/1	0.87	0.12	34,34,34,34	0
56	MG	2a	3082	1/1	0.87	0.25	63,63,63,63	0
56	MG	1a	1707	1/1	0.87	0.15	63,63,63,63	0
56	MG	1B	232	1/1	0.87	0.10	55,55,55,55	0
56	MG	1A	3419	1/1	0.87	0.17	65,65,65,65	0
56	MG	1A	3422	1/1	0.87	0.14	59,59,59,59	0
56	MG	2A	3306	1/1	0.87	0.18	68,68,68,68	0
56	MG	1a	1741	1/1	0.87	0.15	78,78,78,78	0
56	MG	1D	311	1/1	0.87	0.10	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3111	1/1	0.87	0.19	67,67,67,67	0
56	MG	2a	3106	1/1	0.87	0.16	74,74,74,74	0
56	MG	2A	3710	1/1	0.87	0.18	68,68,68,68	0
56	MG	1A	3727	1/1	0.87	0.10	17,17,17,17	0
56	MG	1a	1757	1/1	0.87	0.18	64,64,64,64	0
56	MG	1A	3732	1/1	0.87	0.10	65,65,65,65	0
56	MG	2A	3135	1/1	0.87	0.18	53,53,53,53	0
56	MG	1A	3545	1/1	0.87	0.21	55,55,55,55	0
56	MG	2a	3116	1/1	0.87	0.09	79,79,79,79	0
56	MG	1A	3301	1/1	0.87	0.10	42,42,42,42	0
56	MG	2a	3120	1/1	0.87	0.23	60,60,60,60	0
56	MG	2A	3364	1/1	0.87	0.23	56,56,56,56	0
56	MG	2A	3759	1/1	0.87	0.15	49,49,49,49	0
56	MG	1A	3268	1/1	0.87	0.35	62,62,62,62	0
56	MG	1a	1777	1/1	0.87	0.11	50,50,50,50	0
56	MG	2A	3380	1/1	0.87	0.17	63,63,63,63	0
56	MG	1a	1619	1/1	0.87	0.21	47,47,47,47	0
56	MG	2A	3813	1/1	0.87	0.25	63,63,63,63	0
56	MG	1A	3566	1/1	0.87	0.09	40,40,40,40	0
56	MG	1a	1810	1/1	0.87	0.23	58,58,58,58	0
56	MG	1A	3571	1/1	0.87	0.10	24,24,24,24	0
56	MG	2A	3186	1/1	0.87	0.11	47,47,47,47	0
56	MG	2A	3424	1/1	0.87	0.10	51,51,51,51	0
56	MG	1A	3798	1/1	0.87	0.13	65,65,65,65	0
56	MG	1a	1818	1/1	0.87	0.18	60,60,60,60	0
56	MG	1a	1823	1/1	0.87	0.24	53,53,53,53	0
56	MG	2a	3180	1/1	0.87	0.19	57,57,57,57	0
56	MG	2A	3197	1/1	0.87	0.26	62,62,62,62	0
56	MG	2A	3463	1/1	0.87	0.19	57,57,57,57	0
56	MG	2a	3187	1/1	0.87	0.24	70,70,70,70	0
56	MG	1a	1824	1/1	0.87	0.18	52,52,52,52	0
56	MG	2a	3193	1/1	0.87	0.12	65,65,65,65	0
56	MG	1a	1826	1/1	0.87	0.18	49,49,49,49	0
56	MG	2A	3480	1/1	0.87	0.14	57,57,57,57	0
56	MG	2B	208	1/1	0.87	0.13	64,64,64,64	0
56	MG	1b	301	1/1	0.87	0.17	76,76,76,76	0
56	MG	2A	3213	1/1	0.87	0.12	61,61,61,61	0
56	MG	2A	3516	1/1	0.87	0.22	58,58,58,58	0
56	MG	1k	201	1/1	0.87	0.22	55,55,55,55	0
56	MG	1A	3335	1/1	0.87	0.26	49,49,49,49	0
56	MG	2A	3217	1/1	0.87	0.26	56,56,56,56	0
56	MG	2A	3218	1/1	0.87	0.37	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	3543	1/1	0.87	0.10	65,65,65,65	0
56	MG	2A	3544	1/1	0.87	0.12	35,35,35,35	0
56	MG	1A	3830	1/1	0.87	0.18	60,60,60,60	0
56	MG	1A	3342	1/1	0.87	0.09	44,44,44,44	0
56	MG	1A	3525	1/1	0.87	0.17	62,62,62,62	0
56	MG	1x	107	1/1	0.87	0.25	60,60,60,60	0
56	MG	2A	3240	1/1	0.87	0.17	57,57,57,57	0
56	MG	2A	3247	1/1	0.87	0.13	51,51,51,51	0
56	MG	1A	3532	1/1	0.87	0.26	60,60,60,60	0
56	MG	1A	3894	1/1	0.87	0.09	59,59,59,59	0
56	MG	1A	3635	1/1	0.87	0.16	27,27,27,27	0
56	MG	2A	3584	1/1	0.87	0.11	47,47,47,47	0
56	MG	1a	1662	1/1	0.87	0.25	73,73,73,73	0
56	MG	2d	301	1/1	0.87	0.23	58,58,58,58	0
56	MG	2e	202	1/1	0.87	0.20	57,57,57,57	0
56	MG	2g	201	1/1	0.87	0.12	74,74,74,74	0
56	MG	2A	3023	1/1	0.87	0.11	52,52,52,52	0
56	MG	2l	201	1/1	0.87	0.17	72,72,72,72	0
56	MG	1a	1665	1/1	0.87	0.22	64,64,64,64	0
56	MG	1A	3657	1/1	0.87	0.20	49,49,49,49	0
56	MG	2A	3041	1/1	0.87	0.13	55,55,55,55	0
56	MG	1a	1671	1/1	0.87	0.22	65,65,65,65	0
56	MG	2w	101	1/1	0.87	0.26	74,74,74,74	0
56	MG	2A	3268	1/1	0.87	0.13	72,72,72,72	0
56	MG	2A	3269	1/1	0.87	0.07	69,69,69,69	0
56	MG	1B	222	1/1	0.87	0.13	68,68,68,68	0
56	MG	2a	3068	1/1	0.88	0.17	41,41,41,41	0
56	MG	2A	3078	1/1	0.88	0.17	56,56,56,56	0
56	MG	2A	3425	1/1	0.88	0.27	44,44,44,44	0
56	MG	1A	3620	1/1	0.88	0.08	25,25,25,25	0
56	MG	1A	3935	1/1	0.88	0.08	25,25,25,25	0
56	MG	2A	3430	1/1	0.88	0.10	49,49,49,49	0
56	MG	2a	3086	1/1	0.88	0.17	50,50,50,50	0
56	MG	1a	1785	1/1	0.88	0.14	68,68,68,68	0
56	MG	1a	1801	1/1	0.88	0.12	80,80,80,80	0
56	MG	2A	3458	1/1	0.88	0.12	51,51,51,51	0
56	MG	2A	3461	1/1	0.88	0.15	69,69,69,69	0
56	MG	1A	3356	1/1	0.88	0.17	40,40,40,40	0
56	MG	1A	3286	1/1	0.88	0.10	51,51,51,51	0
56	MG	2A	3099	1/1	0.88	0.17	57,57,57,57	0
56	MG	2A	3796	1/1	0.88	0.12	50,50,50,50	0
56	MG	2A	3472	1/1	0.88	0.11	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	3552	1/1	0.88	0.17	45,45,45,45	0
56	MG	2A	3811	1/1	0.88	0.11	49,49,49,49	0
56	MG	1A	3295	1/1	0.88	0.10	58,58,58,58	0
56	MG	2A	3819	1/1	0.88	0.12	74,74,74,74	0
56	MG	1A	3806	1/1	0.88	0.22	47,47,47,47	0
56	MG	2A	3514	1/1	0.88	0.09	34,34,34,34	0
56	MG	2A	3132	1/1	0.88	0.16	63,63,63,63	0
56	MG	1a	1673	1/1	0.88	0.12	66,66,66,66	0
56	MG	2A	3831	1/1	0.88	0.20	53,53,53,53	0
56	MG	2A	3521	1/1	0.88	0.14	45,45,45,45	0
56	MG	1A	3814	1/1	0.88	0.15	63,63,63,63	0
56	MG	1A	4012	1/1	0.88	0.12	26,26,26,26	0
56	MG	2A	3536	1/1	0.88	0.22	59,59,59,59	0
56	MG	2A	3280	1/1	0.88	0.15	55,55,55,55	0
56	MG	1O	202	1/1	0.88	0.13	67,67,67,67	0
56	MG	1A	3513	1/1	0.88	0.14	36,36,36,36	0
56	MG	1V	207	1/1	0.88	0.09	48,48,48,48	0
56	MG	2a	3145	1/1	0.88	0.11	91,91,91,91	0
56	MG	1A	3666	1/1	0.88	0.12	46,46,46,46	0
56	MG	2B	207	1/1	0.88	0.07	65,65,65,65	0
56	MG	1a	1711	1/1	0.88	0.19	61,61,61,61	0
56	MG	1a	1722	1/1	0.88	0.29	58,58,58,58	0
56	MG	1A	3070	1/1	0.88	0.22	52,52,52,52	0
56	MG	2A	3302	1/1	0.88	0.09	64,64,64,64	0
56	MG	2a	3168	1/1	0.88	0.12	73,73,73,73	0
56	MG	1A	4033	1/1	0.88	0.12	81,81,81,81	0
56	MG	2a	3181	1/1	0.88	0.20	68,68,68,68	0
56	MG	2A	3004	1/1	0.88	0.21	61,61,61,61	0
56	MG	1a	1617	1/1	0.88	0.11	64,64,64,64	0
56	MG	2A	3194	1/1	0.88	0.26	72,72,72,72	0
56	MG	2a	3189	1/1	0.88	0.13	91,91,91,91	0
56	MG	2E	302	1/1	0.88	0.12	55,55,55,55	0
56	MG	2A	3314	1/1	0.88	0.09	65,65,65,65	0
56	MG	2E	307	1/1	0.88	0.09	59,59,59,59	0
56	MG	1A	3679	1/1	0.88	0.13	46,46,46,46	0
56	MG	2F	307	1/1	0.88	0.10	56,56,56,56	0
56	MG	2a	3200	1/1	0.88	0.10	70,70,70,70	0
56	MG	2N	201	1/1	0.88	0.11	69,69,69,69	0
56	MG	2R	201	1/1	0.88	0.13	58,58,58,58	0
56	MG	2a	3205	1/1	0.88	0.25	62,62,62,62	0
56	MG	1a	1622	1/1	0.88	0.14	65,65,65,65	0
56	MG	1A	3102	1/1	0.88	0.09	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1755	1/1	0.88	0.08	58,58,58,58	0
56	MG	2A	3615	1/1	0.88	0.35	55,55,55,55	0
56	MG	1A	3865	1/1	0.88	0.18	60,60,60,60	0
56	MG	1A	3723	1/1	0.88	0.11	41,41,41,41	0
56	MG	2a	3012	1/1	0.88	0.31	76,76,76,76	0
56	MG	2a	3219	1/1	0.88	0.25	63,63,63,63	0
56	MG	2a	3013	1/1	0.88	0.23	63,63,63,63	0
56	MG	2A	3352	1/1	0.88	0.12	60,60,60,60	0
56	MG	2a	3018	1/1	0.88	0.19	60,60,60,60	0
56	MG	2A	3357	1/1	0.88	0.21	49,49,49,49	0
56	MG	2A	3640	1/1	0.88	0.16	68,68,68,68	0
56	MG	2A	3358	1/1	0.88	0.22	57,57,57,57	0
56	MG	1A	3724	1/1	0.88	0.11	56,56,56,56	0
56	MG	1a	1768	1/1	0.88	0.13	67,67,67,67	0
56	MG	2a	3237	1/1	0.88	0.14	63,63,63,63	0
56	MG	1A	3598	1/1	0.88	0.11	40,40,40,40	0
56	MG	2A	3057	1/1	0.88	0.19	52,52,52,52	0
56	MG	2A	3378	1/1	0.88	0.15	46,46,46,46	0
56	MG	1a	1771	1/1	0.88	0.10	54,54,54,54	0
56	MG	2e	201	1/1	0.88	0.08	75,75,75,75	0
56	MG	2A	3383	1/1	0.88	0.23	46,46,46,46	0
56	MG	2a	3047	1/1	0.88	0.16	73,73,73,73	0
56	MG	2A	3222	1/1	0.88	0.08	46,46,46,46	0
56	MG	2A	3064	1/1	0.88	0.13	56,56,56,56	0
56	MG	1A	3427	1/1	0.88	0.24	36,36,36,36	0
56	MG	2t	201	1/1	0.88	0.24	60,60,60,60	0
56	MG	2A	3410	1/1	0.88	0.23	43,43,43,43	0
56	MG	2A	3690	1/1	0.88	0.12	70,70,70,70	0
56	MG	1A	3354	1/1	0.88	0.18	63,63,63,63	0
56	MG	2A	3695	1/1	0.88	0.09	41,41,41,41	0
56	MG	2a	3064	1/1	0.88	0.09	61,61,61,61	0
56	MG	2A	3077	1/1	0.88	0.05	50,50,50,50	0
56	MG	2A	3417	1/1	0.88	0.13	52,52,52,52	0
57	K	2A	3399	1/1	0.88	0.11	73,73,73,73	0
56	MG	1A	3451	1/1	0.89	0.08	46,46,46,46	0
56	MG	1A	3872	1/1	0.89	0.10	31,31,31,31	0
56	MG	1A	3561	1/1	0.89	0.19	62,62,62,62	0
56	MG	2A	3003	1/1	0.89	0.28	60,60,60,60	0
56	MG	1A	3185	1/1	0.89	0.12	34,34,34,34	0
56	MG	2A	3408	1/1	0.89	0.25	55,55,55,55	0
56	MG	2a	3071	1/1	0.89	0.15	60,60,60,60	0
56	MG	1a	1695	1/1	0.89	0.22	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	3078	1/1	0.89	0.19	64,64,64,64	0
56	MG	1A	3469	1/1	0.89	0.17	42,42,42,42	0
56	MG	1A	3328	1/1	0.89	0.39	42,42,42,42	0
56	MG	1A	3581	1/1	0.89	0.12	50,50,50,50	0
56	MG	1A	3747	1/1	0.89	0.18	78,78,78,78	0
56	MG	2A	3734	1/1	0.89	0.18	60,60,60,60	0
56	MG	2a	3094	1/1	0.89	0.16	69,69,69,69	0
56	MG	1a	1708	1/1	0.89	0.20	50,50,50,50	0
56	MG	2A	3740	1/1	0.89	0.16	70,70,70,70	0
56	MG	1A	3770	1/1	0.89	0.07	43,43,43,43	0
56	MG	1a	1717	1/1	0.89	0.32	60,60,60,60	0
56	MG	2A	3232	1/1	0.89	0.09	48,48,48,48	0
56	MG	2A	3233	1/1	0.89	0.10	49,49,49,49	0
56	MG	2A	3793	1/1	0.89	0.12	55,55,55,55	0
56	MG	1A	3942	1/1	0.89	0.08	22,22,22,22	0
56	MG	2A	3455	1/1	0.89	0.14	59,59,59,59	0
56	MG	1A	3279	1/1	0.89	0.14	51,51,51,51	0
56	MG	1A	3587	1/1	0.89	0.12	57,57,57,57	0
56	MG	2a	3114	1/1	0.89	0.13	78,78,78,78	0
56	MG	1A	3962	1/1	0.89	0.09	56,56,56,56	0
56	MG	2A	3817	1/1	0.89	0.23	55,55,55,55	0
56	MG	2A	3063	1/1	0.89	0.09	48,48,48,48	0
56	MG	1A	3379	1/1	0.89	0.19	57,57,57,57	0
56	MG	2A	3068	1/1	0.89	0.34	65,65,65,65	0
56	MG	2A	3072	1/1	0.89	0.13	60,60,60,60	0
56	MG	2a	3124	1/1	0.89	0.23	68,68,68,68	0
56	MG	2A	3824	1/1	0.89	0.09	59,59,59,59	0
56	MG	1Q	205	1/1	0.89	0.12	57,57,57,57	0
56	MG	2A	3495	1/1	0.89	0.10	42,42,42,42	0
56	MG	1S	202	1/1	0.89	0.11	44,44,44,44	0
56	MG	1A	3491	1/1	0.89	0.16	54,54,54,54	0
56	MG	1A	3508	1/1	0.89	0.13	42,42,42,42	0
56	MG	2A	3840	1/1	0.89	0.14	60,60,60,60	0
56	MG	1Z	302	1/1	0.89	0.07	47,47,47,47	0
56	MG	1A	3509	1/1	0.89	0.25	51,51,51,51	0
56	MG	17	105	1/1	0.89	0.14	58,58,58,58	0
56	MG	2A	3270	1/1	0.89	0.11	63,63,63,63	0
56	MG	1a	1608	1/1	0.89	0.16	53,53,53,53	0
56	MG	2B	203	1/1	0.89	0.13	73,73,73,73	0
56	MG	2B	204	1/1	0.89	0.10	70,70,70,70	0
56	MG	1A	3990	1/1	0.89	0.07	41,41,41,41	0
56	MG	1A	3057	1/1	0.89	0.18	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	3096	1/1	0.89	0.19	51,51,51,51	0
56	MG	1A	3241	1/1	0.89	0.13	42,42,42,42	0
56	MG	2B	210	1/1	0.89	0.11	50,50,50,50	0
56	MG	2B	211	1/1	0.89	0.19	72,72,72,72	0
56	MG	2a	3188	1/1	0.89	0.17	81,81,81,81	0
56	MG	1a	1620	1/1	0.89	0.29	68,68,68,68	0
56	MG	2A	3284	1/1	0.89	0.34	57,57,57,57	0
56	MG	2B	214	1/1	0.89	0.09	67,67,67,67	0
56	MG	1A	4019	1/1	0.89	0.10	49,49,49,49	0
56	MG	2A	3291	1/1	0.89	0.11	55,55,55,55	0
56	MG	1A	4025	1/1	0.89	0.22	32,32,32,32	0
56	MG	1A	4027	1/1	0.89	0.22	45,45,45,45	0
56	MG	2a	3201	1/1	0.89	0.15	74,74,74,74	0
56	MG	1a	1635	1/1	0.89	0.25	51,51,51,51	0
56	MG	2A	3578	1/1	0.89	0.21	66,66,66,66	0
56	MG	1A	3346	1/1	0.89	0.08	49,49,49,49	0
56	MG	1A	3023	1/1	0.89	0.07	37,37,37,37	0
56	MG	2A	3585	1/1	0.89	0.12	49,49,49,49	0
56	MG	2A	3591	1/1	0.89	0.18	66,66,66,66	0
56	MG	1A	3227	1/1	0.89	0.13	44,44,44,44	0
56	MG	2A	3144	1/1	0.89	0.10	47,47,47,47	0
56	MG	28	105	1/1	0.89	0.15	65,65,65,65	0
56	MG	2A	3602	1/1	0.89	0.14	69,69,69,69	0
56	MG	2A	3307	1/1	0.89	0.14	59,59,59,59	0
56	MG	2A	3608	1/1	0.89	0.10	49,49,49,49	0
56	MG	1A	3838	1/1	0.89	0.10	16,16,16,16	0
56	MG	2A	3147	1/1	0.89	0.14	49,49,49,49	0
56	MG	1a	1652	1/1	0.89	0.16	46,46,46,46	0
56	MG	2A	3324	1/1	0.89	0.27	69,69,69,69	0
56	MG	2a	3016	1/1	0.89	0.12	50,50,50,50	0
56	MG	1A	3321	1/1	0.89	0.14	48,48,48,48	0
56	MG	2A	3163	1/1	0.89	0.11	50,50,50,50	0
56	MG	2a	3019	1/1	0.89	0.14	61,61,61,61	0
56	MG	2A	3633	1/1	0.89	0.09	51,51,51,51	0
56	MG	2A	3165	1/1	0.89	0.27	65,65,65,65	0
56	MG	2A	3167	1/1	0.89	0.30	65,65,65,65	0
56	MG	2A	3170	1/1	0.89	0.18	68,68,68,68	0
56	MG	2A	3171	1/1	0.89	0.21	65,65,65,65	0
56	MG	2A	3349	1/1	0.89	0.10	45,45,45,45	0
56	MG	2A	3172	1/1	0.89	0.15	65,65,65,65	0
56	MG	2A	3355	1/1	0.89	0.19	63,63,63,63	0
56	MG	2a	3041	1/1	0.89	0.17	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	1A	3367	1/1	0.89	0.13	56,56,56,56	0
56	MG	2q	202	1/1	0.89	0.14	76,76,76,76	0
56	MG	2q	203	1/1	0.89	0.10	62,62,62,62	0
56	MG	1e	3101	1/1	0.89	0.08	69,69,69,69	0
56	MG	2A	3664	1/1	0.89	0.10	36,36,36,36	0
56	MG	2A	3669	1/1	0.89	0.24	63,63,63,63	0
56	MG	1A	4058	1/1	0.89	0.16	60,60,60,60	0
56	MG	1A	3858	1/1	0.89	0.28	29,29,29,29	0
56	MG	1A	4063	1/1	0.89	0.16	68,68,68,68	0
56	MG	2A	3373	1/1	0.89	0.12	65,65,65,65	0
56	MG	1A	4069	1/1	0.89	0.11	43,43,43,43	0
56	MG	1A	3863	1/1	0.89	0.18	26,26,26,26	0
56	MG	1A	3920	1/1	0.90	0.14	52,52,52,52	0
56	MG	1A	3922	1/1	0.90	0.09	56,56,56,56	0
56	MG	1A	3930	1/1	0.90	0.14	25,25,25,25	0
56	MG	2A	3149	1/1	0.90	0.07	59,59,59,59	0
56	MG	2A	3663	1/1	0.90	0.15	59,59,59,59	0
56	MG	1A	3447	1/1	0.90	0.09	49,49,49,49	0
56	MG	1A	3312	1/1	0.90	0.20	40,40,40,40	0
56	MG	2A	3350	1/1	0.90	0.09	53,53,53,53	0
56	MG	2a	3054	1/1	0.90	0.09	70,70,70,70	0
56	MG	1A	3754	1/1	0.90	0.10	48,48,48,48	0
56	MG	1A	3562	1/1	0.90	0.19	40,40,40,40	0
56	MG	2A	3166	1/1	0.90	0.16	60,60,60,60	0
56	MG	1a	1783	1/1	0.90	0.09	59,59,59,59	0
56	MG	1l	101	1/1	0.90	0.22	40,40,40,40	0
56	MG	1A	3463	1/1	0.90	0.12	54,54,54,54	0
56	MG	2A	3367	1/1	0.90	0.29	62,62,62,62	0
56	MG	18	102	1/1	0.90	0.13	30,30,30,30	0
56	MG	2A	3371	1/1	0.90	0.26	56,56,56,56	0
56	MG	1A	3002	1/1	0.90	0.12	44,44,44,44	0
56	MG	1A	3781	1/1	0.90	0.10	51,51,51,51	0
56	MG	1A	3971	1/1	0.90	0.15	61,61,61,61	0
56	MG	2a	3081	1/1	0.90	0.19	79,79,79,79	0
56	MG	1a	1618	1/1	0.90	0.24	49,49,49,49	0
56	MG	2A	3720	1/1	0.90	0.09	54,54,54,54	0
56	MG	1A	3468	1/1	0.90	0.14	41,41,41,41	0
56	MG	2A	3191	1/1	0.90	0.16	39,39,39,39	0
56	MG	1A	3784	1/1	0.90	0.10	29,29,29,29	0
56	MG	1A	3785	1/1	0.90	0.08	34,34,34,34	0
56	MG	2A	3404	1/1	0.90	0.06	61,61,61,61	0
56	MG	1A	3999	1/1	0.90	0.11	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	1a	1626	1/1	0.90	0.22	61,61,61,61	0
56	MG	2A	3742	1/1	0.90	0.09	59,59,59,59	0
56	MG	2a	3103	1/1	0.90	0.16	68,68,68,68	0
56	MG	2a	3104	1/1	0.90	0.19	60,60,60,60	0
56	MG	1a	1629	1/1	0.90	0.10	53,53,53,53	0
56	MG	1A	3107	1/1	0.90	0.21	46,46,46,46	0
56	MG	2A	3206	1/1	0.90	0.17	67,67,67,67	0
56	MG	1A	3372	1/1	0.90	0.10	48,48,48,48	0
56	MG	2A	3795	1/1	0.90	0.15	69,69,69,69	0
56	MG	2a	3111	1/1	0.90	0.10	74,74,74,74	0
56	MG	1A	3797	1/1	0.90	0.12	38,38,38,38	0
56	MG	1A	3327	1/1	0.90	0.20	51,51,51,51	0
56	MG	2A	3803	1/1	0.90	0.10	52,52,52,52	0
56	MG	2A	3805	1/1	0.90	0.10	58,58,58,58	0
56	MG	1x	109	1/1	0.90	0.17	72,72,72,72	0
56	MG	1A	3799	1/1	0.90	0.12	49,49,49,49	0
56	MG	1A	4029	1/1	0.90	0.12	58,58,58,58	0
56	MG	1A	3486	1/1	0.90	0.10	58,58,58,58	0
56	MG	1a	1653	1/1	0.90	0.08	64,64,64,64	0
56	MG	2A	3457	1/1	0.90	0.09	65,65,65,65	0
56	MG	1a	1654	1/1	0.90	0.15	63,63,63,63	0
56	MG	2A	3228	1/1	0.90	0.13	66,66,66,66	0
56	MG	2A	3231	1/1	0.90	0.19	62,62,62,62	0
56	MG	2A	3825	1/1	0.90	0.29	65,65,65,65	0
56	MG	2A	3019	1/1	0.90	0.10	55,55,55,55	0
56	MG	2a	3138	1/1	0.90	0.28	76,76,76,76	0
56	MG	2A	3830	1/1	0.90	0.20	58,58,58,58	0
56	MG	1A	3808	1/1	0.90	0.25	34,34,34,34	0
56	MG	2A	3832	1/1	0.90	0.15	58,58,58,58	0
56	MG	1A	3113	1/1	0.90	0.16	56,56,56,56	0
56	MG	1A	3815	1/1	0.90	0.11	36,36,36,36	0
56	MG	1A	3823	1/1	0.90	0.37	45,45,45,45	0
56	MG	2A	3245	1/1	0.90	0.09	54,54,54,54	0
56	MG	1A	3601	1/1	0.90	0.11	22,22,22,22	0
56	MG	1A	3047	1/1	0.90	0.20	31,31,31,31	0
56	MG	2A	3515	1/1	0.90	0.10	40,40,40,40	0
56	MG	2A	3046	1/1	0.90	0.20	69,69,69,69	0
56	MG	1A	3503	1/1	0.90	0.18	57,57,57,57	0
56	MG	1A	3332	1/1	0.90	0.30	44,44,44,44	0
56	MG	1A	3384	1/1	0.90	0.35	67,67,67,67	0
56	MG	1A	4071	1/1	0.90	0.12	65,65,65,65	0
56	MG	2A	3532	1/1	0.90	0.12	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	3258	1/1	0.90	0.14	60,60,60,60	0
56	MG	1a	1682	1/1	0.90	0.27	57,57,57,57	0
56	MG	1A	3512	1/1	0.90	0.16	60,60,60,60	0
56	MG	1a	1692	1/1	0.90	0.13	59,59,59,59	0
56	MG	2A	3545	1/1	0.90	0.20	62,62,62,62	0
56	MG	1a	1694	1/1	0.90	0.20	61,61,61,61	0
56	MG	1A	3135	1/1	0.90	0.39	30,30,30,30	0
56	MG	1A	4078	1/1	0.90	0.13	52,52,52,52	0
56	MG	2a	3202	1/1	0.90	0.17	58,58,58,58	0
56	MG	2A	3553	1/1	0.90	0.08	63,63,63,63	0
56	MG	1A	3521	1/1	0.90	0.14	40,40,40,40	0
56	MG	2A	3273	1/1	0.90	0.15	64,64,64,64	0
56	MG	2a	3206	1/1	0.90	0.17	56,56,56,56	0
56	MG	2D	302	1/1	0.90	0.09	42,42,42,42	0
56	MG	2A	3562	1/1	0.90	0.14	39,39,39,39	0
56	MG	1A	3338	1/1	0.90	0.21	42,42,42,42	0
56	MG	1A	3866	1/1	0.90	0.08	35,35,35,35	0
56	MG	2F	302	1/1	0.90	0.16	42,42,42,42	0
56	MG	1A	3672	1/1	0.90	0.09	69,69,69,69	0
56	MG	1A	3878	1/1	0.90	0.15	41,41,41,41	0
56	MG	1a	1715	1/1	0.90	0.21	58,58,58,58	0
56	MG	2O	201	1/1	0.90	0.10	58,58,58,58	0
56	MG	1A	3527	1/1	0.90	0.09	50,50,50,50	0
56	MG	20	102	1/1	0.90	0.11	52,52,52,52	0
56	MG	2a	3224	1/1	0.90	0.09	52,52,52,52	0
56	MG	1a	1718	1/1	0.90	0.14	54,54,54,54	0
56	MG	28	101	1/1	0.90	0.22	66,66,66,66	0
56	MG	2a	3233	1/1	0.90	0.13	53,53,53,53	0
56	MG	2A	3091	1/1	0.90	0.12	56,56,56,56	0
56	MG	1A	3403	1/1	0.90	0.12	59,59,59,59	0
56	MG	2A	3295	1/1	0.90	0.13	80,80,80,80	0
56	MG	1A	3907	1/1	0.90	0.08	22,22,22,22	0
56	MG	2a	3008	1/1	0.90	0.17	62,62,62,62	0
56	MG	1A	3225	1/1	0.90	0.11	56,56,56,56	0
56	MG	2A	3298	1/1	0.90	0.10	53,53,53,53	0
56	MG	2A	3100	1/1	0.90	0.16	39,39,39,39	0
56	MG	1A	3091	1/1	0.90	0.13	44,44,44,44	0
56	MG	1E	308	1/1	0.90	0.17	55,55,55,55	0
56	MG	2f	201	1/1	0.90	0.11	66,66,66,66	0
56	MG	1F	311	1/1	0.90	0.18	42,42,42,42	0
56	MG	2A	3120	1/1	0.90	0.18	55,55,55,55	0
56	MG	1F	312	1/1	0.90	0.11	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	3632	1/1	0.90	0.21	57,57,57,57	0
56	MG	2l	203	1/1	0.90	0.09	72,72,72,72	0
56	MG	2q	201	1/1	0.90	0.07	61,61,61,61	0
56	MG	2a	3021	1/1	0.90	0.16	56,56,56,56	0
56	MG	1A	3179	1/1	0.90	0.14	50,50,50,50	0
56	MG	2a	3028	1/1	0.90	0.12	79,79,79,79	0
56	MG	1N	204	1/1	0.90	0.11	50,50,50,50	0
56	MG	2a	3032	1/1	0.90	0.23	60,60,60,60	0
56	MG	2a	3033	1/1	0.90	0.15	59,59,59,59	0
56	MG	2A	3638	1/1	0.90	0.18	62,62,62,62	0
56	MG	2A	3315	1/1	0.90	0.12	46,46,46,46	0
56	MG	1A	3077	1/1	0.90	0.11	36,36,36,36	0
56	MG	2A	3330	1/1	0.90	0.23	53,53,53,53	0
56	MG	1P	207	1/1	0.90	0.14	37,37,37,37	0
56	MG	1A	3933	1/1	0.91	0.09	23,23,23,23	0
56	MG	1A	3418	1/1	0.91	0.15	56,56,56,56	0
56	MG	2A	3285	1/1	0.91	0.07	64,64,64,64	0
56	MG	1A	3126	1/1	0.91	0.14	42,42,42,42	0
56	MG	2A	3290	1/1	0.91	0.12	47,47,47,47	0
56	MG	1a	1714	1/1	0.91	0.25	63,63,63,63	0
56	MG	1A	3005	1/1	0.91	0.12	55,55,55,55	0
56	MG	1A	3305	1/1	0.91	0.10	29,29,29,29	0
56	MG	2A	3606	1/1	0.91	0.10	36,36,36,36	0
56	MG	2A	3607	1/1	0.91	0.15	57,57,57,57	0
56	MG	1A	3954	1/1	0.91	0.10	31,31,31,31	0
56	MG	2a	3030	1/1	0.91	0.22	46,46,46,46	0
56	MG	1a	1720	1/1	0.91	0.32	58,58,58,58	0
56	MG	1A	3522	1/1	0.91	0.14	32,32,32,32	0
56	MG	2a	3034	1/1	0.91	0.17	74,74,74,74	0
56	MG	2A	3102	1/1	0.91	0.23	41,41,41,41	0
56	MG	2A	3618	1/1	0.91	0.15	61,61,61,61	0
56	MG	2A	3619	1/1	0.91	0.09	47,47,47,47	0
56	MG	1A	3523	1/1	0.91	0.21	54,54,54,54	0
56	MG	2A	3622	1/1	0.91	0.07	40,40,40,40	0
56	MG	1A	3966	1/1	0.91	0.07	71,71,71,71	0
56	MG	2A	3113	1/1	0.91	0.09	55,55,55,55	0
56	MG	1A	3968	1/1	0.91	0.07	55,55,55,55	0
56	MG	2a	3046	1/1	0.91	0.11	60,60,60,60	0
56	MG	2A	3308	1/1	0.91	0.10	54,54,54,54	0
56	MG	1A	3438	1/1	0.91	0.11	62,62,62,62	0
56	MG	2A	3129	1/1	0.91	0.13	62,62,62,62	0
56	MG	2A	3131	1/1	0.91	0.24	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1S	203	1/1	0.91	0.15	57,57,57,57	0
56	MG	2A	3316	1/1	0.91	0.08	46,46,46,46	0
56	MG	1A	3639	1/1	0.91	0.09	56,56,56,56	0
56	MG	2A	3325	1/1	0.91	0.15	65,65,65,65	0
56	MG	1a	1753	1/1	0.91	0.08	69,69,69,69	0
56	MG	2A	3140	1/1	0.91	0.08	57,57,57,57	0
56	MG	1W	203	1/1	0.91	0.21	64,64,64,64	0
56	MG	1A	3310	1/1	0.91	0.10	39,39,39,39	0
56	MG	1A	3986	1/1	0.91	0.10	30,30,30,30	0
56	MG	2A	3340	1/1	0.91	0.45	74,74,74,74	0
56	MG	2A	3341	1/1	0.91	0.10	53,53,53,53	0
56	MG	10	101	1/1	0.91	0.06	25,25,25,25	0
56	MG	1A	3658	1/1	0.91	0.08	27,27,27,27	0
56	MG	2a	3077	1/1	0.91	0.10	57,57,57,57	0
56	MG	2A	3680	1/1	0.91	0.09	75,75,75,75	0
56	MG	1A	3811	1/1	0.91	0.07	50,50,50,50	0
56	MG	1A	3528	1/1	0.91	0.07	53,53,53,53	0
56	MG	1A	4000	1/1	0.91	0.12	46,46,46,46	0
56	MG	2A	3157	1/1	0.91	0.17	65,65,65,65	0
56	MG	2A	3356	1/1	0.91	0.17	41,41,41,41	0
56	MG	2a	3088	1/1	0.91	0.08	50,50,50,50	0
56	MG	19	101	1/1	0.91	0.11	53,53,53,53	0
56	MG	1a	1606	1/1	0.91	0.08	66,66,66,66	0
56	MG	2A	3701	1/1	0.91	0.15	63,63,63,63	0
56	MG	2A	3702	1/1	0.91	0.18	58,58,58,58	0
56	MG	1a	1607	1/1	0.91	0.13	36,36,36,36	0
56	MG	2a	3099	1/1	0.91	0.11	69,69,69,69	0
56	MG	1A	4011	1/1	0.91	0.13	44,44,44,44	0
56	MG	1A	3530	1/1	0.91	0.16	59,59,59,59	0
56	MG	1a	1786	1/1	0.91	0.12	56,56,56,56	0
56	MG	2A	3717	1/1	0.91	0.12	57,57,57,57	0
56	MG	1a	1792	1/1	0.91	0.07	69,69,69,69	0
56	MG	2A	3174	1/1	0.91	0.22	55,55,55,55	0
56	MG	1a	1795	1/1	0.91	0.07	78,78,78,78	0
56	MG	1A	3146	1/1	0.91	0.21	57,57,57,57	0
56	MG	1A	3825	1/1	0.91	0.36	21,21,21,21	0
56	MG	2A	3381	1/1	0.91	0.15	44,44,44,44	0
56	MG	1A	3316	1/1	0.91	0.09	35,35,35,35	0
56	MG	1A	3538	1/1	0.91	0.15	41,41,41,41	0
56	MG	2A	3385	1/1	0.91	0.26	53,53,53,53	0
56	MG	2A	3745	1/1	0.91	0.17	59,59,59,59	0
56	MG	2A	3750	1/1	0.91	0.10	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	3189	1/1	0.91	0.25	60,60,60,60	0
56	MG	2A	3760	1/1	0.91	0.09	53,53,53,53	0
56	MG	2A	3773	1/1	0.91	0.09	47,47,47,47	0
56	MG	2A	3391	1/1	0.91	0.18	55,55,55,55	0
56	MG	1a	1815	1/1	0.91	0.15	73,73,73,73	0
56	MG	2A	3403	1/1	0.91	0.08	57,57,57,57	0
56	MG	2a	3130	1/1	0.91	0.22	60,60,60,60	0
56	MG	1A	3677	1/1	0.91	0.09	33,33,33,33	0
56	MG	2a	3133	1/1	0.91	0.11	67,67,67,67	0
56	MG	1a	1624	1/1	0.91	0.29	56,56,56,56	0
56	MG	2A	3409	1/1	0.91	0.14	46,46,46,46	0
56	MG	2A	3801	1/1	0.91	0.12	44,44,44,44	0
56	MG	1A	3464	1/1	0.91	0.06	51,51,51,51	0
56	MG	2A	3804	1/1	0.91	0.07	55,55,55,55	0
56	MG	2a	3143	1/1	0.91	0.10	70,70,70,70	0
56	MG	1A	4031	1/1	0.91	0.11	58,58,58,58	0
56	MG	1A	3840	1/1	0.91	0.07	33,33,33,33	0
56	MG	1A	3153	1/1	0.91	0.19	57,57,57,57	0
56	MG	2A	3205	1/1	0.91	0.08	48,48,48,48	0
56	MG	2A	3814	1/1	0.91	0.10	51,51,51,51	0
56	MG	1a	1634	1/1	0.91	0.11	62,62,62,62	0
56	MG	2a	3159	1/1	0.91	0.13	69,69,69,69	0
56	MG	1n	102	1/1	0.91	0.13	54,54,54,54	0
56	MG	2A	3212	1/1	0.91	0.15	49,49,49,49	0
56	MG	1w	101	1/1	0.91	0.08	66,66,66,66	0
56	MG	2A	3431	1/1	0.91	0.13	50,50,50,50	0
56	MG	1A	4036	1/1	0.91	0.12	46,46,46,46	0
56	MG	1a	1640	1/1	0.91	0.08	71,71,71,71	0
56	MG	2A	3454	1/1	0.91	0.12	54,54,54,54	0
56	MG	2A	3829	1/1	0.91	0.05	67,67,67,67	0
56	MG	1A	3691	1/1	0.91	0.14	49,49,49,49	0
56	MG	1A	4047	1/1	0.91	0.12	40,40,40,40	0
56	MG	2a	3191	1/1	0.91	0.15	67,67,67,67	0
56	MG	1a	1648	1/1	0.91	0.13	53,53,53,53	0
56	MG	2A	3460	1/1	0.91	0.16	54,54,54,54	0
56	MG	1A	3702	1/1	0.91	0.09	23,23,23,23	0
56	MG	1A	3707	1/1	0.91	0.08	64,64,64,64	0
56	MG	2A	3839	1/1	0.91	0.14	47,47,47,47	0
56	MG	2A	3464	1/1	0.91	0.15	38,38,38,38	0
56	MG	1x	112	1/1	0.91	0.27	57,57,57,57	0
56	MG	2A	3843	1/1	0.91	0.15	46,46,46,46	0
56	MG	1A	3001	1/1	0.91	0.08	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	3390	1/1	0.91	0.27	47,47,47,47	0
56	MG	2A	3474	1/1	0.91	0.09	46,46,46,46	0
56	MG	1A	3392	1/1	0.91	0.12	47,47,47,47	0
56	MG	1A	3874	1/1	0.91	0.12	47,47,47,47	0
56	MG	2A	3490	1/1	0.91	0.08	39,39,39,39	0
56	MG	2A	3014	1/1	0.91	0.07	45,45,45,45	0
56	MG	2B	206	1/1	0.91	0.13	70,70,70,70	0
56	MG	2A	3498	1/1	0.91	0.07	51,51,51,51	0
56	MG	1A	3358	1/1	0.91	0.17	47,47,47,47	0
56	MG	1A	3742	1/1	0.91	0.07	33,33,33,33	0
56	MG	1A	3399	1/1	0.91	0.12	58,58,58,58	0
56	MG	2a	3221	1/1	0.91	0.24	62,62,62,62	0
56	MG	1A	4077	1/1	0.91	0.09	37,37,37,37	0
56	MG	2A	3519	1/1	0.91	0.14	64,64,64,64	0
56	MG	1a	1664	1/1	0.91	0.18	43,43,43,43	0
56	MG	1A	3905	1/1	0.91	0.07	42,42,42,42	0
56	MG	1A	4079	1/1	0.91	0.17	41,41,41,41	0
56	MG	1A	4082	1/1	0.91	0.29	57,57,57,57	0
56	MG	1A	3487	1/1	0.91	0.11	54,54,54,54	0
56	MG	1A	3756	1/1	0.91	0.07	57,57,57,57	0
56	MG	2A	3261	1/1	0.91	0.18	54,54,54,54	0
56	MG	2E	301	1/1	0.91	0.09	47,47,47,47	0
56	MG	2A	3262	1/1	0.91	0.09	60,60,60,60	0
56	MG	2E	303	1/1	0.91	0.14	47,47,47,47	0
56	MG	2a	3241	1/1	0.91	0.19	64,64,64,64	0
56	MG	1a	1676	1/1	0.91	0.25	52,52,52,52	0
56	MG	1a	1677	1/1	0.91	0.31	51,51,51,51	0
56	MG	1A	3757	1/1	0.91	0.06	40,40,40,40	0
56	MG	1a	1683	1/1	0.91	0.29	59,59,59,59	0
56	MG	1A	3764	1/1	0.91	0.09	34,34,34,34	0
56	MG	1A	3401	1/1	0.91	0.10	46,46,46,46	0
56	MG	1A	3214	1/1	0.91	0.14	42,42,42,42	0
56	MG	1A	3405	1/1	0.91	0.13	40,40,40,40	0
56	MG	2V	201	1/1	0.91	0.14	54,54,54,54	0
56	MG	2A	3557	1/1	0.91	0.09	44,44,44,44	0
56	MG	2I	204	1/1	0.91	0.14	55,55,55,55	0
56	MG	23	101	1/1	0.91	0.08	42,42,42,42	0
56	MG	25	102	1/1	0.91	0.26	61,61,61,61	0
56	MG	1A	3928	1/1	0.91	0.10	67,67,67,67	0
56	MG	1A	3238	1/1	0.91	0.07	42,42,42,42	0
56	MG	28	102	1/1	0.91	0.20	56,56,56,56	0
56	MG	2A	3565	1/1	0.91	0.16	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	2A	3279	1/1	0.91	0.14	54,54,54,54	0
56	MG	1a	1704	1/1	0.91	0.20	49,49,49,49	0
56	MG	2x	102	1/1	0.91	0.29	59,59,59,59	0
56	MG	2x	103	1/1	0.91	0.12	66,66,66,66	0
56	MG	2A	3574	1/1	0.91	0.07	43,43,43,43	0
56	MG	1D	310	1/1	0.91	0.12	46,46,46,46	0
56	MG	2A	3580	1/1	0.91	0.17	44,44,44,44	0
56	MG	2A	3581	1/1	0.91	0.09	34,34,34,34	0
56	MG	2A	3600	1/1	0.92	0.22	55,55,55,55	0
56	MG	1a	1687	1/1	0.92	0.19	55,55,55,55	0
56	MG	1A	3040	1/1	0.92	0.31	35,35,35,35	0
56	MG	2a	3011	1/1	0.92	0.27	73,73,73,73	0
56	MG	1a	1690	1/1	0.92	0.14	57,57,57,57	0
56	MG	1a	1691	1/1	0.92	0.11	42,42,42,42	0
56	MG	2a	3015	1/1	0.92	0.12	77,77,77,77	0
56	MG	1A	3406	1/1	0.92	0.09	49,49,49,49	0
56	MG	1A	3157	1/1	0.92	0.32	33,33,33,33	0
56	MG	1A	3412	1/1	0.92	0.06	50,50,50,50	0
56	MG	1B	238	1/1	0.92	0.17	48,48,48,48	0
56	MG	1D	301	1/1	0.92	0.08	43,43,43,43	0
56	MG	1D	308	1/1	0.92	0.10	32,32,32,32	0
56	MG	2A	3620	1/1	0.92	0.08	55,55,55,55	0
56	MG	2a	3026	1/1	0.92	0.09	51,51,51,51	0
56	MG	2A	3097	1/1	0.92	0.11	70,70,70,70	0
56	MG	1A	3537	1/1	0.92	0.15	36,36,36,36	0
56	MG	1A	3414	1/1	0.92	0.11	35,35,35,35	0
56	MG	2a	3031	1/1	0.92	0.14	64,64,64,64	0
56	MG	2A	3312	1/1	0.92	0.16	58,58,58,58	0
56	MG	2A	3631	1/1	0.92	0.09	48,48,48,48	0
56	MG	1A	3755	1/1	0.92	0.08	33,33,33,33	0
56	MG	2A	3105	1/1	0.92	0.24	46,46,46,46	0
56	MG	2A	3106	1/1	0.92	0.21	49,49,49,49	0
56	MG	2A	3637	1/1	0.92	0.12	51,51,51,51	0
56	MG	2A	3317	1/1	0.92	0.21	43,43,43,43	0
56	MG	2A	3318	1/1	0.92	0.17	49,49,49,49	0
56	MG	1E	311	1/1	0.92	0.11	50,50,50,50	0
56	MG	1F	310	1/1	0.92	0.21	36,36,36,36	0
56	MG	2a	3043	1/1	0.92	0.17	63,63,63,63	0
56	MG	1A	3239	1/1	0.92	0.14	46,46,46,46	0
56	MG	1A	3164	1/1	0.92	0.19	40,40,40,40	0
56	MG	2A	3652	1/1	0.92	0.14	37,37,37,37	0
56	MG	2A	3117	1/1	0.92	0.11	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	3420	1/1	0.92	0.07	59,59,59,59	0
56	MG	2A	3659	1/1	0.92	0.08	53,53,53,53	0
56	MG	2A	3122	1/1	0.92	0.11	57,57,57,57	0
56	MG	1N	201	1/1	0.92	0.24	50,50,50,50	0
56	MG	2a	3056	1/1	0.92	0.12	77,77,77,77	0
56	MG	2A	3130	1/1	0.92	0.08	47,47,47,47	0
56	MG	2A	3344	1/1	0.92	0.15	66,66,66,66	0
56	MG	2a	3062	1/1	0.92	0.09	61,61,61,61	0
56	MG	2A	3673	1/1	0.92	0.09	52,52,52,52	0
56	MG	1A	3333	1/1	0.92	0.15	43,43,43,43	0
56	MG	1A	3773	1/1	0.92	0.07	34,34,34,34	0
56	MG	2A	3348	1/1	0.92	0.06	58,58,58,58	0
56	MG	1O	203	1/1	0.92	0.13	60,60,60,60	0
56	MG	1A	3423	1/1	0.92	0.16	73,73,73,73	0
56	MG	1A	3776	1/1	0.92	0.07	29,29,29,29	0
56	MG	1A	3242	1/1	0.92	0.18	37,37,37,37	0
56	MG	1A	3780	1/1	0.92	0.11	54,54,54,54	0
56	MG	2A	3693	1/1	0.92	0.09	47,47,47,47	0
56	MG	1A	3430	1/1	0.92	0.10	62,62,62,62	0
56	MG	2a	3079	1/1	0.92	0.18	72,72,72,72	0
56	MG	2a	3080	1/1	0.92	0.15	57,57,57,57	0
56	MG	2A	3696	1/1	0.92	0.16	58,58,58,58	0
56	MG	1V	205	1/1	0.92	0.11	35,35,35,35	0
56	MG	1A	3969	1/1	0.92	0.09	63,63,63,63	0
56	MG	1A	3782	1/1	0.92	0.10	50,50,50,50	0
56	MG	1Y	201	1/1	0.92	0.08	49,49,49,49	0
56	MG	2A	3703	1/1	0.92	0.09	50,50,50,50	0
56	MG	1A	3433	1/1	0.92	0.19	51,51,51,51	0
56	MG	2a	3090	1/1	0.92	0.16	67,67,67,67	0
56	MG	2a	3091	1/1	0.92	0.23	59,59,59,59	0
56	MG	2a	3092	1/1	0.92	0.15	59,59,59,59	0
56	MG	2a	3093	1/1	0.92	0.09	44,44,44,44	0
56	MG	2A	3707	1/1	0.92	0.06	51,51,51,51	0
56	MG	1A	3977	1/1	0.92	0.12	60,60,60,60	0
56	MG	2A	3711	1/1	0.92	0.14	51,51,51,51	0
56	MG	2A	3372	1/1	0.92	0.26	54,54,54,54	0
56	MG	2A	3714	1/1	0.92	0.11	76,76,76,76	0
56	MG	1A	3980	1/1	0.92	0.09	55,55,55,55	0
56	MG	1O	103	1/1	0.92	0.11	50,50,50,50	0
56	MG	2A	3719	1/1	0.92	0.09	58,58,58,58	0
56	MG	1A	3568	1/1	0.92	0.11	29,29,29,29	0
56	MG	1A	3041	1/1	0.92	0.08	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	2a	3107	1/1	0.92	0.16	62,62,62,62	0
56	MG	2A	3168	1/1	0.92	0.16	49,49,49,49	0
56	MG	12	101	1/1	0.92	0.09	40,40,40,40	0
56	MG	15	105	1/1	0.92	0.08	54,54,54,54	0
56	MG	1A	3267	1/1	0.92	0.17	45,45,45,45	0
56	MG	2A	3737	1/1	0.92	0.10	70,70,70,70	0
56	MG	2A	3387	1/1	0.92	0.24	57,57,57,57	0
56	MG	1A	3583	1/1	0.92	0.13	40,40,40,40	0
56	MG	1A	3017	1/1	0.92	0.13	38,38,38,38	0
56	MG	2A	3393	1/1	0.92	0.17	49,49,49,49	0
56	MG	1A	3272	1/1	0.92	0.30	52,52,52,52	0
56	MG	2A	3402	1/1	0.92	0.12	44,44,44,44	0
56	MG	2a	3121	1/1	0.92	0.23	49,49,49,49	0
56	MG	2A	3180	1/1	0.92	0.16	60,60,60,60	0
56	MG	2A	3769	1/1	0.92	0.09	41,41,41,41	0
56	MG	2A	3772	1/1	0.92	0.09	56,56,56,56	0
56	MG	2a	3125	1/1	0.92	0.24	48,48,48,48	0
56	MG	1A	4001	1/1	0.92	0.11	40,40,40,40	0
56	MG	2A	3406	1/1	0.92	0.10	60,60,60,60	0
56	MG	2A	3784	1/1	0.92	0.10	49,49,49,49	0
56	MG	1a	1804	1/1	0.92	0.09	63,63,63,63	0
56	MG	1A	3051	1/1	0.92	0.12	41,41,41,41	0
56	MG	1a	1811	1/1	0.92	0.26	80,80,80,80	0
56	MG	1a	1609	1/1	0.92	0.16	55,55,55,55	0
56	MG	1a	1611	1/1	0.92	0.11	50,50,50,50	0
56	MG	1a	1615	1/1	0.92	0.08	57,57,57,57	0
56	MG	2A	3802	1/1	0.92	0.13	46,46,46,46	0
56	MG	1A	3054	1/1	0.92	0.11	45,45,45,45	0
56	MG	1a	1822	1/1	0.92	0.12	48,48,48,48	0
56	MG	1A	3285	1/1	0.92	0.18	35,35,35,35	0
56	MG	1A	3193	1/1	0.92	0.06	49,49,49,49	0
56	MG	2A	3810	1/1	0.92	0.13	27,27,27,27	0
56	MG	1A	3604	1/1	0.92	0.09	57,57,57,57	0
56	MG	1A	3618	1/1	0.92	0.17	38,38,38,38	0
56	MG	1A	3294	1/1	0.92	0.13	42,42,42,42	0
56	MG	2a	3160	1/1	0.92	0.07	69,69,69,69	0
56	MG	2A	3815	1/1	0.92	0.13	53,53,53,53	0
56	MG	2A	3816	1/1	0.92	0.11	45,45,45,45	0
56	MG	2a	3173	1/1	0.92	0.11	72,72,72,72	0
56	MG	2a	3177	1/1	0.92	0.09	74,74,74,74	0
56	MG	2A	3444	1/1	0.92	0.30	57,57,57,57	0
56	MG	1A	3106	1/1	0.92	0.14	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1n	101	1/1	0.92	0.38	60,60,60,60	0
56	MG	1A	3632	1/1	0.92	0.09	25,25,25,25	0
56	MG	1A	3475	1/1	0.92	0.21	45,45,45,45	0
56	MG	1A	3296	1/1	0.92	0.20	53,53,53,53	0
56	MG	1A	3834	1/1	0.92	0.09	31,31,31,31	0
56	MG	2A	3219	1/1	0.92	0.20	63,63,63,63	0
56	MG	1A	4038	1/1	0.92	0.07	64,64,64,64	0
56	MG	1A	4039	1/1	0.92	0.11	65,65,65,65	0
56	MG	2A	3223	1/1	0.92	0.04	52,52,52,52	0
56	MG	2a	3197	1/1	0.92	0.13	66,66,66,66	0
56	MG	2A	3224	1/1	0.92	0.09	41,41,41,41	0
56	MG	1A	3298	1/1	0.92	0.06	30,30,30,30	0
56	MG	1x	108	1/1	0.92	0.12	53,53,53,53	0
56	MG	2A	3837	1/1	0.92	0.17	35,35,35,35	0
56	MG	1A	3055	1/1	0.92	0.09	40,40,40,40	0
56	MG	1A	3843	1/1	0.92	0.12	51,51,51,51	0
56	MG	1A	3022	1/1	0.92	0.16	26,26,26,26	0
56	MG	2A	3235	1/1	0.92	0.20	72,72,72,72	0
56	MG	1y	101	1/1	0.92	0.10	62,62,62,62	0
56	MG	2a	3207	1/1	0.92	0.17	66,66,66,66	0
56	MG	1A	3496	1/1	0.92	0.17	41,41,41,41	0
56	MG	2A	3506	1/1	0.92	0.08	36,36,36,36	0
56	MG	1A	3854	1/1	0.92	0.08	37,37,37,37	0
56	MG	2A	3850	1/1	0.92	0.12	81,81,81,81	0
56	MG	1A	3010	1/1	0.92	0.14	39,39,39,39	0
56	MG	1A	3072	1/1	0.92	0.23	32,32,32,32	0
56	MG	2a	3217	1/1	0.92	0.11	75,75,75,75	0
56	MG	2A	3518	1/1	0.92	0.09	52,52,52,52	0
56	MG	2A	3013	1/1	0.92	0.11	45,45,45,45	0
56	MG	1A	3311	1/1	0.92	0.11	36,36,36,36	0
56	MG	2A	3016	1/1	0.92	0.10	46,46,46,46	0
56	MG	2A	3252	1/1	0.92	0.20	61,61,61,61	0
56	MG	2A	3017	1/1	0.92	0.16	50,50,50,50	0
56	MG	2A	3528	1/1	0.92	0.09	45,45,45,45	0
56	MG	1A	3391	1/1	0.92	0.05	45,45,45,45	0
56	MG	2A	3535	1/1	0.92	0.06	62,62,62,62	0
56	MG	1A	3032	1/1	0.92	0.09	38,38,38,38	0
56	MG	2A	3256	1/1	0.92	0.27	55,55,55,55	0
56	MG	1a	1658	1/1	0.92	0.14	65,65,65,65	0
56	MG	1A	3315	1/1	0.92	0.19	40,40,40,40	0
56	MG	2A	3034	1/1	0.92	0.12	34,34,34,34	0
56	MG	2A	3035	1/1	0.92	0.15	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	1A	3395	1/1	0.92	0.22	45,45,45,45	0
56	MG	2D	304	1/1	0.92	0.12	51,51,51,51	0
56	MG	2a	3242	1/1	0.92	0.28	64,64,64,64	0
56	MG	2A	3040	1/1	0.92	0.10	66,66,66,66	0
56	MG	2a	3244	1/1	0.92	0.14	90,90,90,90	0
56	MG	2a	3246	1/1	0.92	0.19	70,70,70,70	0
56	MG	1A	3891	1/1	0.92	0.08	55,55,55,55	0
56	MG	1a	1663	1/1	0.92	0.15	46,46,46,46	0
56	MG	1A	4080	1/1	0.92	0.15	56,56,56,56	0
56	MG	1A	3892	1/1	0.92	0.08	58,58,58,58	0
56	MG	1B	208	1/1	0.92	0.22	63,63,63,63	0
56	MG	2F	304	1/1	0.92	0.13	42,42,42,42	0
56	MG	2A	3274	1/1	0.92	0.22	58,58,58,58	0
56	MG	1a	1668	1/1	0.92	0.07	71,71,71,71	0
56	MG	2G	201	1/1	0.92	0.13	62,62,62,62	0
56	MG	2A	3054	1/1	0.92	0.18	43,43,43,43	0
56	MG	2A	3571	1/1	0.92	0.11	40,40,40,40	0
56	MG	2A	3278	1/1	0.92	0.08	39,39,39,39	0
56	MG	2A	3055	1/1	0.92	0.08	45,45,45,45	0
56	MG	1A	3078	1/1	0.92	0.15	30,30,30,30	0
56	MG	1B	216	1/1	0.92	0.08	44,44,44,44	0
56	MG	1A	3147	1/1	0.92	0.32	55,55,55,55	0
56	MG	1A	3721	1/1	0.92	0.15	33,33,33,33	0
56	MG	1B	225	1/1	0.92	0.10	45,45,45,45	0
56	MG	1A	3722	1/1	0.92	0.10	31,31,31,31	0
56	MG	1A	3233	1/1	0.92	0.07	42,42,42,42	0
56	MG	2x	104	1/1	0.92	0.27	72,72,72,72	0
56	MG	2a	3001	1/1	0.92	0.11	53,53,53,53	0
56	MG	2y	101	1/1	0.92	0.18	57,57,57,57	0
56	MG	1a	1685	1/1	0.92	0.12	56,56,56,56	0
56	MG	2A	3292	1/1	0.92	0.09	46,46,46,46	0
56	MG	2y	104	1/1	0.92	0.17	60,60,60,60	0
56	MG	2A	3598	1/1	0.92	0.11	56,56,56,56	0
56	MG	2A	3220	1/1	0.93	0.05	47,47,47,47	0
56	MG	1A	3997	1/1	0.93	0.10	45,45,45,45	0
56	MG	1A	3554	1/1	0.93	0.09	29,29,29,29	0
56	MG	1A	3341	1/1	0.93	0.10	43,43,43,43	0
56	MG	2A	3541	1/1	0.93	0.06	33,33,33,33	0
56	MG	1A	3207	1/1	0.93	0.08	44,44,44,44	0
56	MG	2T	202	1/1	0.93	0.11	52,52,52,52	0
56	MG	2A	3225	1/1	0.93	0.07	50,50,50,50	0
56	MG	2Z	301	1/1	0.93	0.24	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	1f	202	1/1	0.93	0.09	59,59,59,59	0
56	MG	1A	3344	1/1	0.93	0.06	25,25,25,25	0
56	MG	1A	3064	1/1	0.93	0.12	45,45,45,45	0
56	MG	1A	3348	1/1	0.93	0.11	41,41,41,41	0
56	MG	1A	3434	1/1	0.93	0.17	50,50,50,50	0
56	MG	1w	103	1/1	0.93	0.15	61,61,61,61	0
56	MG	1A	4022	1/1	0.93	0.08	39,39,39,39	0
56	MG	1a	1623	1/1	0.93	0.27	58,58,58,58	0
56	MG	1A	3572	1/1	0.93	0.07	45,45,45,45	0
56	MG	2A	3241	1/1	0.93	0.19	59,59,59,59	0
56	MG	2A	3244	1/1	0.93	0.08	47,47,47,47	0
56	MG	1A	3437	1/1	0.93	0.16	43,43,43,43	0
56	MG	1x	106	1/1	0.93	0.20	44,44,44,44	0
56	MG	2A	3248	1/1	0.93	0.27	62,62,62,62	0
56	MG	1A	3796	1/1	0.93	0.11	45,45,45,45	0
56	MG	1A	3020	1/1	0.93	0.06	35,35,35,35	0
56	MG	1a	1630	1/1	0.93	0.23	56,56,56,56	0
56	MG	1A	3288	1/1	0.93	0.09	43,43,43,43	0
56	MG	1a	1633	1/1	0.93	0.19	58,58,58,58	0
56	MG	1A	3151	1/1	0.93	0.10	41,41,41,41	0
56	MG	1A	3454	1/1	0.93	0.06	45,45,45,45	0
56	MG	1a	1638	1/1	0.93	0.12	53,53,53,53	0
56	MG	1A	3461	1/1	0.93	0.07	40,40,40,40	0
56	MG	2A	3595	1/1	0.93	0.15	47,47,47,47	0
56	MG	2A	3596	1/1	0.93	0.07	55,55,55,55	0
56	MG	2a	3023	1/1	0.93	0.09	54,54,54,54	0
56	MG	1A	3359	1/1	0.93	0.10	51,51,51,51	0
56	MG	2a	3027	1/1	0.93	0.35	69,69,69,69	0
56	MG	1a	1644	1/1	0.93	0.18	56,56,56,56	0
56	MG	2A	3599	1/1	0.93	0.21	73,73,73,73	0
56	MG	1A	3812	1/1	0.93	0.12	36,36,36,36	0
56	MG	1A	3361	1/1	0.93	0.08	41,41,41,41	0
56	MG	1A	4044	1/1	0.93	0.11	55,55,55,55	0
56	MG	1A	3220	1/1	0.93	0.07	35,35,35,35	0
56	MG	1a	1651	1/1	0.93	0.11	59,59,59,59	0
56	MG	1A	4051	1/1	0.93	0.09	43,43,43,43	0
56	MG	2A	3026	1/1	0.93	0.09	64,64,64,64	0
56	MG	2A	3611	1/1	0.93	0.10	66,66,66,66	0
56	MG	2a	3038	1/1	0.93	0.16	64,64,64,64	0
56	MG	2A	3272	1/1	0.93	0.08	54,54,54,54	0
56	MG	1A	3816	1/1	0.93	0.16	39,39,39,39	0
56	MG	2A	3032	1/1	0.93	0.08	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3033	1/1	0.93	0.10	43,43,43,43	0
56	MG	1A	3818	1/1	0.93	0.10	31,31,31,31	0
56	MG	1A	3222	1/1	0.93	0.22	51,51,51,51	0
56	MG	2A	3037	1/1	0.93	0.32	68,68,68,68	0
56	MG	2A	3623	1/1	0.93	0.15	64,64,64,64	0
56	MG	1A	3619	1/1	0.93	0.08	36,36,36,36	0
56	MG	2A	3626	1/1	0.93	0.16	65,65,65,65	0
56	MG	2A	3629	1/1	0.93	0.12	65,65,65,65	0
56	MG	1A	3368	1/1	0.93	0.19	60,60,60,60	0
56	MG	1A	3152	1/1	0.93	0.15	43,43,43,43	0
56	MG	2a	3055	1/1	0.93	0.16	66,66,66,66	0
56	MG	2A	3042	1/1	0.93	0.22	58,58,58,58	0
56	MG	1A	3048	1/1	0.93	0.09	32,32,32,32	0
56	MG	1A	3226	1/1	0.93	0.07	47,47,47,47	0
56	MG	2a	3061	1/1	0.93	0.07	66,66,66,66	0
56	MG	1A	3835	1/1	0.93	0.10	40,40,40,40	0
56	MG	1A	3374	1/1	0.93	0.14	47,47,47,47	0
56	MG	2A	3639	1/1	0.93	0.09	64,64,64,64	0
56	MG	1A	3304	1/1	0.93	0.30	36,36,36,36	0
56	MG	2A	3053	1/1	0.93	0.17	65,65,65,65	0
56	MG	1A	3033	1/1	0.93	0.10	30,30,30,30	0
56	MG	2A	3645	1/1	0.93	0.15	30,30,30,30	0
56	MG	1A	3490	1/1	0.93	0.10	31,31,31,31	0
56	MG	1A	3024	1/1	0.93	0.11	41,41,41,41	0
56	MG	2A	3650	1/1	0.93	0.06	64,64,64,64	0
56	MG	1a	1672	1/1	0.93	0.21	64,64,64,64	0
56	MG	2A	3059	1/1	0.93	0.07	46,46,46,46	0
56	MG	1B	201	1/1	0.93	0.10	58,58,58,58	0
56	MG	2A	3657	1/1	0.93	0.12	53,53,53,53	0
56	MG	2A	3304	1/1	0.93	0.09	39,39,39,39	0
56	MG	1A	3849	1/1	0.93	0.09	42,42,42,42	0
56	MG	2a	3083	1/1	0.93	0.13	66,66,66,66	0
56	MG	2A	3662	1/1	0.93	0.11	40,40,40,40	0
56	MG	2A	3065	1/1	0.93	0.08	56,56,56,56	0
56	MG	1B	212	1/1	0.93	0.16	54,54,54,54	0
56	MG	2A	3666	1/1	0.93	0.08	69,69,69,69	0
56	MG	2A	3069	1/1	0.93	0.10	42,42,42,42	0
56	MG	2A	3672	1/1	0.93	0.08	43,43,43,43	0
56	MG	1A	3114	1/1	0.93	0.05	28,28,28,28	0
56	MG	2A	3073	1/1	0.93	0.11	57,57,57,57	0
56	MG	2A	3675	1/1	0.93	0.09	53,53,53,53	0
56	MG	1a	1679	1/1	0.93	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	1B	215	1/1	0.93	0.12	58,58,58,58	0
56	MG	2A	3679	1/1	0.93	0.15	52,52,52,52	0
56	MG	1A	3667	1/1	0.93	0.07	33,33,33,33	0
56	MG	2A	3682	1/1	0.93	0.07	57,57,57,57	0
56	MG	2A	3686	1/1	0.93	0.10	61,61,61,61	0
56	MG	1A	3670	1/1	0.93	0.15	56,56,56,56	0
56	MG	2A	3080	1/1	0.93	0.06	45,45,45,45	0
56	MG	2A	3081	1/1	0.93	0.08	47,47,47,47	0
56	MG	2A	3320	1/1	0.93	0.08	73,73,73,73	0
56	MG	1a	1686	1/1	0.93	0.25	55,55,55,55	0
56	MG	1A	3173	1/1	0.93	0.23	42,42,42,42	0
56	MG	2A	3084	1/1	0.93	0.11	47,47,47,47	0
56	MG	1B	223	1/1	0.93	0.18	48,48,48,48	0
56	MG	1A	3504	1/1	0.93	0.15	43,43,43,43	0
56	MG	2A	3088	1/1	0.93	0.18	36,36,36,36	0
56	MG	2A	3089	1/1	0.93	0.11	46,46,46,46	0
56	MG	1A	3389	1/1	0.93	0.28	33,33,33,33	0
56	MG	1A	3678	1/1	0.93	0.11	48,48,48,48	0
56	MG	2A	3343	1/1	0.93	0.12	63,63,63,63	0
56	MG	2A	3093	1/1	0.93	0.25	48,48,48,48	0
56	MG	2a	3119	1/1	0.93	0.31	52,52,52,52	0
56	MG	2A	3345	1/1	0.93	0.07	71,71,71,71	0
56	MG	2A	3094	1/1	0.93	0.14	51,51,51,51	0
56	MG	1A	3118	1/1	0.93	0.08	29,29,29,29	0
56	MG	1A	3889	1/1	0.93	0.12	20,20,20,20	0
56	MG	1A	3183	1/1	0.93	0.08	43,43,43,43	0
56	MG	1a	1698	1/1	0.93	0.42	69,69,69,69	0
56	MG	2A	3351	1/1	0.93	0.10	50,50,50,50	0
56	MG	2A	3721	1/1	0.93	0.07	73,73,73,73	0
56	MG	2A	3722	1/1	0.93	0.07	67,67,67,67	0
56	MG	2A	3723	1/1	0.93	0.07	39,39,39,39	0
56	MG	1a	1700	1/1	0.93	0.15	32,32,32,32	0
56	MG	1A	3690	1/1	0.93	0.13	60,60,60,60	0
56	MG	2A	3730	1/1	0.93	0.13	54,54,54,54	0
56	MG	2A	3103	1/1	0.93	0.10	45,45,45,45	0
56	MG	2a	3139	1/1	0.93	0.12	61,61,61,61	0
56	MG	2a	3140	1/1	0.93	0.14	64,64,64,64	0
56	MG	1A	3317	1/1	0.93	0.24	50,50,50,50	0
56	MG	1A	3897	1/1	0.93	0.08	55,55,55,55	0
56	MG	2A	3359	1/1	0.93	0.19	49,49,49,49	0
56	MG	2a	3144	1/1	0.93	0.20	55,55,55,55	0
56	MG	2A	3739	1/1	0.93	0.09	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	1D	305	1/1	0.93	0.13	26,26,26,26	0
56	MG	1A	3692	1/1	0.93	0.09	40,40,40,40	0
56	MG	1a	1709	1/1	0.93	0.18	55,55,55,55	0
56	MG	2a	3155	1/1	0.93	0.06	93,93,93,93	0
56	MG	1A	3517	1/1	0.93	0.22	43,43,43,43	0
56	MG	2A	3370	1/1	0.93	0.29	62,62,62,62	0
56	MG	2A	3751	1/1	0.93	0.09	55,55,55,55	0
56	MG	2A	3758	1/1	0.93	0.08	33,33,33,33	0
56	MG	1A	3703	1/1	0.93	0.17	65,65,65,65	0
56	MG	1A	3028	1/1	0.93	0.08	28,28,28,28	0
56	MG	2a	3171	1/1	0.93	0.07	73,73,73,73	0
56	MG	2a	3172	1/1	0.93	0.11	82,82,82,82	0
56	MG	2A	3768	1/1	0.93	0.08	65,65,65,65	0
56	MG	2a	3175	1/1	0.93	0.11	58,58,58,58	0
56	MG	1A	3715	1/1	0.93	0.09	15,15,15,15	0
56	MG	2A	3125	1/1	0.93	0.16	44,44,44,44	0
56	MG	1A	3719	1/1	0.93	0.11	29,29,29,29	0
56	MG	1A	3720	1/1	0.93	0.10	29,29,29,29	0
56	MG	2a	3185	1/1	0.93	0.17	73,73,73,73	0
56	MG	2A	3783	1/1	0.93	0.13	40,40,40,40	0
56	MG	1A	3121	1/1	0.93	0.12	34,34,34,34	0
56	MG	1a	1723	1/1	0.93	0.14	63,63,63,63	0
56	MG	1A	3398	1/1	0.93	0.18	29,29,29,29	0
56	MG	1A	3923	1/1	0.93	0.09	59,59,59,59	0
56	MG	2A	3138	1/1	0.93	0.14	61,61,61,61	0
56	MG	2A	3139	1/1	0.93	0.07	48,48,48,48	0
56	MG	1a	1728	1/1	0.93	0.10	61,61,61,61	0
56	MG	1a	1729	1/1	0.93	0.21	62,62,62,62	0
56	MG	2A	3394	1/1	0.93	0.07	61,61,61,61	0
56	MG	1a	1732	1/1	0.93	0.07	62,62,62,62	0
56	MG	2A	3398	1/1	0.93	0.22	42,42,42,42	0
56	MG	1a	1735	1/1	0.93	0.12	42,42,42,42	0
56	MG	1A	3524	1/1	0.93	0.14	39,39,39,39	0
56	MG	1A	3325	1/1	0.93	0.15	48,48,48,48	0
56	MG	1A	3725	1/1	0.93	0.10	35,35,35,35	0
56	MG	1a	1747	1/1	0.93	0.17	58,58,58,58	0
56	MG	2A	3152	1/1	0.93	0.10	40,40,40,40	0
56	MG	1A	3253	1/1	0.93	0.25	31,31,31,31	0
56	MG	1a	1752	1/1	0.93	0.22	47,47,47,47	0
56	MG	2A	3414	1/1	0.93	0.10	63,63,63,63	0
56	MG	2A	3415	1/1	0.93	0.20	49,49,49,49	0
56	MG	1A	3191	1/1	0.93	0.09	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3733	1/1	0.93	0.09	43,43,43,43	0
56	MG	2A	3823	1/1	0.93	0.14	50,50,50,50	0
56	MG	1a	1756	1/1	0.93	0.21	71,71,71,71	0
56	MG	1A	3736	1/1	0.93	0.09	26,26,26,26	0
56	MG	1A	3951	1/1	0.93	0.09	44,44,44,44	0
56	MG	2A	3827	1/1	0.93	0.10	60,60,60,60	0
56	MG	2A	3828	1/1	0.93	0.08	52,52,52,52	0
56	MG	1A	3952	1/1	0.93	0.06	24,24,24,24	0
56	MG	1A	3739	1/1	0.93	0.08	22,22,22,22	0
56	MG	1a	1769	1/1	0.93	0.09	47,47,47,47	0
56	MG	2A	3433	1/1	0.93	0.14	48,48,48,48	0
56	MG	2a	3228	1/1	0.93	0.11	73,73,73,73	0
56	MG	2a	3230	1/1	0.93	0.07	66,66,66,66	0
56	MG	2A	3434	1/1	0.93	0.10	53,53,53,53	0
56	MG	2A	3435	1/1	0.93	0.12	55,55,55,55	0
56	MG	2A	3173	1/1	0.93	0.24	54,54,54,54	0
56	MG	2A	3441	1/1	0.93	0.11	63,63,63,63	0
56	MG	1A	3043	1/1	0.93	0.10	31,31,31,31	0
56	MG	1A	3331	1/1	0.93	0.14	47,47,47,47	0
56	MG	1A	3194	1/1	0.93	0.30	57,57,57,57	0
56	MG	2A	3179	1/1	0.93	0.08	53,53,53,53	0
56	MG	2a	3240	1/1	0.93	0.20	62,62,62,62	0
56	MG	1A	3063	1/1	0.93	0.05	27,27,27,27	0
56	MG	1a	1780	1/1	0.93	0.08	56,56,56,56	0
56	MG	2A	3184	1/1	0.93	0.13	55,55,55,55	0
56	MG	1A	3202	1/1	0.93	0.17	50,50,50,50	0
56	MG	2B	201	1/1	0.93	0.26	60,60,60,60	0
56	MG	1A	3415	1/1	0.93	0.07	56,56,56,56	0
56	MG	1A	3758	1/1	0.93	0.11	49,49,49,49	0
56	MG	2A	3465	1/1	0.93	0.15	64,64,64,64	0
56	MG	2A	3190	1/1	0.93	0.12	37,37,37,37	0
56	MG	2f	202	1/1	0.93	0.07	51,51,51,51	0
56	MG	1A	3544	1/1	0.93	0.17	43,43,43,43	0
56	MG	1A	3767	1/1	0.93	0.12	50,50,50,50	0
56	MG	14	101	1/1	0.93	0.12	57,57,57,57	0
56	MG	15	102	1/1	0.93	0.18	35,35,35,35	0
56	MG	1A	3337	1/1	0.93	0.36	50,50,50,50	0
56	MG	16	102	1/1	0.93	0.16	46,46,46,46	0
56	MG	2A	3493	1/1	0.93	0.07	49,49,49,49	0
56	MG	2A	3200	1/1	0.93	0.10	45,45,45,45	0
56	MG	2A	3201	1/1	0.93	0.27	41,41,41,41	0
56	MG	2A	3202	1/1	0.93	0.13	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	1A	3984	1/1	0.93	0.07	49,49,49,49	0
56	MG	1A	3546	1/1	0.93	0.11	39,39,39,39	0
56	MG	1A	3275	1/1	0.93	0.08	41,41,41,41	0
56	MG	1a	1601	1/1	0.93	0.24	59,59,59,59	0
56	MG	2x	101	1/1	0.93	0.17	65,65,65,65	0
56	MG	2A	3517	1/1	0.93	0.12	48,48,48,48	0
56	MG	1a	1602	1/1	0.93	0.15	45,45,45,45	0
56	MG	1a	1816	1/1	0.93	0.17	55,55,55,55	0
56	MG	1a	1817	1/1	0.93	0.19	40,40,40,40	0
56	MG	1A	3339	1/1	0.93	0.07	40,40,40,40	0
56	MG	1a	1821	1/1	0.93	0.14	57,57,57,57	0
56	MG	2F	301	1/1	0.93	0.12	43,43,43,43	0
56	MG	1A	3991	1/1	0.93	0.07	43,43,43,43	0
56	MG	1A	3994	1/1	0.93	0.09	40,40,40,40	0
56	MG	2T	203	1/1	0.94	0.09	39,39,39,39	0
56	MG	1A	4064	1/1	0.94	0.10	38,38,38,38	0
56	MG	2V	202	1/1	0.94	0.08	53,53,53,53	0
56	MG	2Y	201	1/1	0.94	0.12	43,43,43,43	0
56	MG	1A	4065	1/1	0.94	0.14	35,35,35,35	0
56	MG	1a	1657	1/1	0.94	0.10	60,60,60,60	0
56	MG	2I	103	1/1	0.94	0.15	61,61,61,61	0
56	MG	1A	3209	1/1	0.94	0.17	48,48,48,48	0
56	MG	1A	3669	1/1	0.94	0.08	57,57,57,57	0
56	MG	1A	3844	1/1	0.94	0.11	48,48,48,48	0
56	MG	2A	3038	1/1	0.94	0.13	52,52,52,52	0
56	MG	1A	4075	1/1	0.94	0.10	34,34,34,34	0
56	MG	1A	3299	1/1	0.94	0.18	40,40,40,40	0
56	MG	1A	3300	1/1	0.94	0.10	50,50,50,50	0
56	MG	2a	3002	1/1	0.94	0.05	52,52,52,52	0
56	MG	2A	3586	1/1	0.94	0.11	47,47,47,47	0
56	MG	2A	3590	1/1	0.94	0.11	51,51,51,51	0
56	MG	1A	3117	1/1	0.94	0.07	54,54,54,54	0
56	MG	1A	3850	1/1	0.94	0.09	27,27,27,27	0
56	MG	2A	3045	1/1	0.94	0.11	55,55,55,55	0
56	MG	1a	1667	1/1	0.94	0.10	55,55,55,55	0
56	MG	1A	3515	1/1	0.94	0.16	41,41,41,41	0
56	MG	1a	1669	1/1	0.94	0.14	46,46,46,46	0
56	MG	2A	3277	1/1	0.94	0.06	51,51,51,51	0
56	MG	2a	3014	1/1	0.94	0.14	62,62,62,62	0
56	MG	1A	3350	1/1	0.94	0.12	47,47,47,47	0
56	MG	1A	4084	1/1	0.94	0.19	45,45,45,45	0
56	MG	1A	3859	1/1	0.94	0.26	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3604	1/1	0.94	0.15	54,54,54,54	0
56	MG	2A	3605	1/1	0.94	0.09	50,50,50,50	0
56	MG	1A	3519	1/1	0.94	0.11	44,44,44,44	0
56	MG	2A	3056	1/1	0.94	0.33	66,66,66,66	0
56	MG	1A	3353	1/1	0.94	0.47	42,42,42,42	0
56	MG	1A	3416	1/1	0.94	0.11	36,36,36,36	0
56	MG	1A	3244	1/1	0.94	0.14	37,37,37,37	0
56	MG	2A	3289	1/1	0.94	0.18	73,73,73,73	0
56	MG	2A	3061	1/1	0.94	0.10	46,46,46,46	0
56	MG	1A	3303	1/1	0.94	0.07	38,38,38,38	0
56	MG	1A	3875	1/1	0.94	0.08	53,53,53,53	0
56	MG	1A	3696	1/1	0.94	0.07	55,55,55,55	0
56	MG	1A	3245	1/1	0.94	0.06	35,35,35,35	0
56	MG	1A	3526	1/1	0.94	0.10	37,37,37,37	0
56	MG	1a	1688	1/1	0.94	0.14	41,41,41,41	0
56	MG	1A	3705	1/1	0.94	0.06	38,38,38,38	0
56	MG	2A	3625	1/1	0.94	0.13	49,49,49,49	0
56	MG	2A	3074	1/1	0.94	0.19	48,48,48,48	0
56	MG	2A	3628	1/1	0.94	0.20	61,61,61,61	0
56	MG	1A	3421	1/1	0.94	0.09	48,48,48,48	0
56	MG	2A	3303	1/1	0.94	0.17	58,58,58,58	0
56	MG	1A	3248	1/1	0.94	0.21	46,46,46,46	0
56	MG	1A	3529	1/1	0.94	0.14	46,46,46,46	0
56	MG	1B	233	1/1	0.94	0.07	52,52,52,52	0
56	MG	2A	3079	1/1	0.94	0.12	44,44,44,44	0
56	MG	1A	3306	1/1	0.94	0.12	48,48,48,48	0
56	MG	2A	3309	1/1	0.94	0.07	52,52,52,52	0
56	MG	1A	3362	1/1	0.94	0.14	36,36,36,36	0
56	MG	1A	3037	1/1	0.94	0.15	47,47,47,47	0
56	MG	1A	3258	1/1	0.94	0.07	53,53,53,53	0
56	MG	2a	3052	1/1	0.94	0.14	48,48,48,48	0
56	MG	1a	1701	1/1	0.94	0.26	55,55,55,55	0
56	MG	2A	3644	1/1	0.94	0.08	58,58,58,58	0
56	MG	1A	3217	1/1	0.94	0.23	33,33,33,33	0
56	MG	1A	3435	1/1	0.94	0.23	46,46,46,46	0
56	MG	2A	3648	1/1	0.94	0.17	71,71,71,71	0
56	MG	2A	3087	1/1	0.94	0.16	42,42,42,42	0
56	MG	1A	3919	1/1	0.94	0.07	66,66,66,66	0
56	MG	1A	3726	1/1	0.94	0.07	23,23,23,23	0
56	MG	2A	3321	1/1	0.94	0.06	34,34,34,34	0
56	MG	2A	3322	1/1	0.94	0.07	63,63,63,63	0
56	MG	2A	3323	1/1	0.94	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	3066	1/1	0.94	0.17	53,53,53,53	0
56	MG	1E	306	1/1	0.94	0.09	37,37,37,37	0
56	MG	1A	3921	1/1	0.94	0.09	38,38,38,38	0
56	MG	2A	3661	1/1	0.94	0.08	56,56,56,56	0
56	MG	2A	3328	1/1	0.94	0.17	60,60,60,60	0
56	MG	1E	309	1/1	0.94	0.07	22,22,22,22	0
56	MG	2a	3072	1/1	0.94	0.15	70,70,70,70	0
56	MG	1A	3541	1/1	0.94	0.12	43,43,43,43	0
56	MG	2a	3074	1/1	0.94	0.17	68,68,68,68	0
56	MG	1F	309	1/1	0.94	0.13	50,50,50,50	0
56	MG	1A	3436	1/1	0.94	0.07	31,31,31,31	0
56	MG	1A	3927	1/1	0.94	0.12	60,60,60,60	0
56	MG	1A	3264	1/1	0.94	0.12	51,51,51,51	0
56	MG	1F	313	1/1	0.94	0.06	41,41,41,41	0
56	MG	2A	3342	1/1	0.94	0.20	42,42,42,42	0
56	MG	2A	3101	1/1	0.94	0.25	56,56,56,56	0
56	MG	1G	202	1/1	0.94	0.21	53,53,53,53	0
56	MG	2a	3085	1/1	0.94	0.20	59,59,59,59	0
56	MG	1A	3074	1/1	0.94	0.12	29,29,29,29	0
56	MG	1a	1726	1/1	0.94	0.26	55,55,55,55	0
56	MG	1A	3439	1/1	0.94	0.06	48,48,48,48	0
56	MG	2A	3108	1/1	0.94	0.08	67,67,67,67	0
56	MG	1N	202	1/1	0.94	0.07	33,33,33,33	0
56	MG	1A	3445	1/1	0.94	0.14	52,52,52,52	0
56	MG	1O	201	1/1	0.94	0.06	46,46,46,46	0
56	MG	1a	1733	1/1	0.94	0.06	56,56,56,56	0
56	MG	1A	3936	1/1	0.94	0.19	44,44,44,44	0
56	MG	1A	3937	1/1	0.94	0.10	60,60,60,60	0
56	MG	1P	205	1/1	0.94	0.08	42,42,42,42	0
56	MG	1A	3941	1/1	0.94	0.07	25,25,25,25	0
56	MG	1a	1746	1/1	0.94	0.10	51,51,51,51	0
56	MG	1Q	201	1/1	0.94	0.12	33,33,33,33	0
56	MG	2a	3101	1/1	0.94	0.06	35,35,35,35	0
56	MG	2a	3102	1/1	0.94	0.10	59,59,59,59	0
56	MG	2A	3362	1/1	0.94	0.28	48,48,48,48	0
56	MG	2A	3363	1/1	0.94	0.32	59,59,59,59	0
56	MG	2A	3704	1/1	0.94	0.08	35,35,35,35	0
56	MG	1A	3746	1/1	0.94	0.12	23,23,23,23	0
56	MG	1A	3094	1/1	0.94	0.10	38,38,38,38	0
56	MG	1R	202	1/1	0.94	0.11	45,45,45,45	0
56	MG	1a	1754	1/1	0.94	0.12	43,43,43,43	0
56	MG	2A	3712	1/1	0.94	0.07	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	1A	3752	1/1	0.94	0.13	29,29,29,29	0
56	MG	1A	3753	1/1	0.94	0.08	21,21,21,21	0
56	MG	1T	202	1/1	0.94	0.08	35,35,35,35	0
56	MG	1V	201	1/1	0.94	0.11	32,32,32,32	0
56	MG	2A	3377	1/1	0.94	0.06	33,33,33,33	0
56	MG	1A	3555	1/1	0.94	0.09	40,40,40,40	0
56	MG	1a	1765	1/1	0.94	0.17	68,68,68,68	0
56	MG	1V	206	1/1	0.94	0.10	33,33,33,33	0
56	MG	1A	3560	1/1	0.94	0.18	49,49,49,49	0
56	MG	1W	201	1/1	0.94	0.07	35,35,35,35	0
56	MG	1A	3449	1/1	0.94	0.08	33,33,33,33	0
56	MG	1A	3450	1/1	0.94	0.11	32,32,32,32	0
56	MG	1Y	202	1/1	0.94	0.11	47,47,47,47	0
56	MG	2A	3156	1/1	0.94	0.14	40,40,40,40	0
56	MG	1a	1778	1/1	0.94	0.14	67,67,67,67	0
56	MG	2A	3159	1/1	0.94	0.10	51,51,51,51	0
56	MG	2A	3160	1/1	0.94	0.13	46,46,46,46	0
56	MG	1A	3270	1/1	0.94	0.14	37,37,37,37	0
56	MG	1A	3565	1/1	0.94	0.06	23,23,23,23	0
56	MG	1A	3375	1/1	0.94	0.20	60,60,60,60	0
56	MG	2A	3743	1/1	0.94	0.09	64,64,64,64	0
56	MG	2A	3744	1/1	0.94	0.08	44,44,44,44	0
56	MG	1A	3456	1/1	0.94	0.30	33,33,33,33	0
56	MG	2A	3748	1/1	0.94	0.10	63,63,63,63	0
56	MG	1A	3569	1/1	0.94	0.08	17,17,17,17	0
56	MG	2A	3407	1/1	0.94	0.23	73,73,73,73	0
56	MG	2A	3757	1/1	0.94	0.07	43,43,43,43	0
56	MG	1A	3377	1/1	0.94	0.07	42,42,42,42	0
56	MG	1a	1787	1/1	0.94	0.08	45,45,45,45	0
56	MG	1a	1788	1/1	0.94	0.09	73,73,73,73	0
56	MG	2a	3148	1/1	0.94	0.05	86,86,86,86	0
56	MG	1l	106	1/1	0.94	0.09	40,40,40,40	0
56	MG	1A	3096	1/1	0.94	0.21	37,37,37,37	0
56	MG	2A	3770	1/1	0.94	0.10	46,46,46,46	0
56	MG	1a	1799	1/1	0.94	0.07	79,79,79,79	0
56	MG	1a	1800	1/1	0.94	0.12	81,81,81,81	0
56	MG	2A	3777	1/1	0.94	0.06	58,58,58,58	0
56	MG	2A	3178	1/1	0.94	0.17	62,62,62,62	0
56	MG	2a	3161	1/1	0.94	0.18	65,65,65,65	0
56	MG	2A	3419	1/1	0.94	0.09	44,44,44,44	0
56	MG	2A	3420	1/1	0.94	0.06	50,50,50,50	0
56	MG	2A	3421	1/1	0.94	0.14	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	3791	1/1	0.94	0.12	52,52,52,52	0
56	MG	2A	3422	1/1	0.94	0.08	62,62,62,62	0
56	MG	1A	3981	1/1	0.94	0.08	39,39,39,39	0
56	MG	1a	1803	1/1	0.94	0.10	77,77,77,77	0
56	MG	2A	3798	1/1	0.94	0.07	46,46,46,46	0
56	MG	2A	3181	1/1	0.94	0.09	57,57,57,57	0
56	MG	2A	3427	1/1	0.94	0.32	64,64,64,64	0
56	MG	2A	3428	1/1	0.94	0.25	58,58,58,58	0
56	MG	2A	3182	1/1	0.94	0.12	44,44,44,44	0
56	MG	1A	3324	1/1	0.94	0.09	42,42,42,42	0
56	MG	1A	3778	1/1	0.94	0.14	33,33,33,33	0
56	MG	2A	3185	1/1	0.94	0.11	57,57,57,57	0
56	MG	2A	3809	1/1	0.94	0.10	44,44,44,44	0
56	MG	1A	3382	1/1	0.94	0.12	46,46,46,46	0
56	MG	1A	3062	1/1	0.94	0.15	47,47,47,47	0
56	MG	1A	3140	1/1	0.94	0.11	50,50,50,50	0
56	MG	2a	3195	1/1	0.94	0.18	62,62,62,62	0
56	MG	2A	3439	1/1	0.94	0.14	59,59,59,59	0
56	MG	1A	3588	1/1	0.94	0.06	23,23,23,23	0
56	MG	1A	3595	1/1	0.94	0.07	40,40,40,40	0
56	MG	1A	3995	1/1	0.94	0.09	43,43,43,43	0
56	MG	1A	3470	1/1	0.94	0.14	33,33,33,33	0
56	MG	1a	1819	1/1	0.94	0.13	53,53,53,53	0
56	MG	1A	3104	1/1	0.94	0.08	44,44,44,44	0
56	MG	1A	3788	1/1	0.94	0.12	50,50,50,50	0
56	MG	2A	3199	1/1	0.94	0.20	43,43,43,43	0
56	MG	1A	3789	1/1	0.94	0.08	29,29,29,29	0
56	MG	2A	3462	1/1	0.94	0.08	43,43,43,43	0
56	MG	1A	4004	1/1	0.94	0.13	55,55,55,55	0
56	MG	1a	1825	1/1	0.94	0.09	51,51,51,51	0
56	MG	1A	3281	1/1	0.94	0.14	45,45,45,45	0
56	MG	1A	3283	1/1	0.94	0.18	45,45,45,45	0
56	MG	1A	4016	1/1	0.94	0.05	26,26,26,26	0
56	MG	2A	3470	1/1	0.94	0.16	58,58,58,58	0
56	MG	2A	3208	1/1	0.94	0.11	40,40,40,40	0
56	MG	2A	3833	1/1	0.94	0.17	49,49,49,49	0
56	MG	1A	3482	1/1	0.94	0.25	50,50,50,50	0
56	MG	2A	3479	1/1	0.94	0.11	52,52,52,52	0
56	MG	1A	3606	1/1	0.94	0.08	34,34,34,34	0
56	MG	1l	202	1/1	0.94	0.10	61,61,61,61	0
56	MG	1A	3614	1/1	0.94	0.07	37,37,37,37	0
56	MG	1a	1621	1/1	0.94	0.28	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	3225	1/1	0.94	0.08	57,57,57,57	0
56	MG	2A	3494	1/1	0.94	0.13	65,65,65,65	0
56	MG	2A	3216	1/1	0.94	0.13	66,66,66,66	0
56	MG	1A	3617	1/1	0.94	0.09	45,45,45,45	0
56	MG	1A	3483	1/1	0.94	0.26	56,56,56,56	0
56	MG	1A	3485	1/1	0.94	0.12	47,47,47,47	0
56	MG	2A	3507	1/1	0.94	0.19	43,43,43,43	0
56	MG	2A	3511	1/1	0.94	0.08	51,51,51,51	0
56	MG	1A	3009	1/1	0.94	0.06	46,46,46,46	0
56	MG	1A	3079	1/1	0.94	0.23	34,34,34,34	0
56	MG	1a	1628	1/1	0.94	0.21	59,59,59,59	0
56	MG	1A	3110	1/1	0.94	0.15	38,38,38,38	0
56	MG	1A	3489	1/1	0.94	0.33	29,29,29,29	0
56	MG	1A	4035	1/1	0.94	0.08	32,32,32,32	0
56	MG	1A	3637	1/1	0.94	0.06	25,25,25,25	0
56	MG	1A	4037	1/1	0.94	0.08	49,49,49,49	0
56	MG	2A	3229	1/1	0.94	0.16	42,42,42,42	0
56	MG	2a	3245	1/1	0.94	0.20	63,63,63,63	0
56	MG	2A	3524	1/1	0.94	0.13	50,50,50,50	0
56	MG	1A	3336	1/1	0.94	0.08	41,41,41,41	0
56	MG	1A	3640	1/1	0.94	0.12	40,40,40,40	0
56	MG	1a	1639	1/1	0.94	0.12	59,59,59,59	0
56	MG	2A	3234	1/1	0.94	0.09	51,51,51,51	0
56	MG	1A	4041	1/1	0.94	0.10	52,52,52,52	0
56	MG	1A	4042	1/1	0.94	0.14	52,52,52,52	0
56	MG	2B	218	1/1	0.94	0.09	63,63,63,63	0
56	MG	2B	219	1/1	0.94	0.15	67,67,67,67	0
56	MG	1A	3827	1/1	0.94	0.13	55,55,55,55	0
56	MG	2A	3542	1/1	0.94	0.06	61,61,61,61	0
56	MG	2A	3012	1/1	0.94	0.09	53,53,53,53	0
56	MG	1A	3643	1/1	0.94	0.11	43,43,43,43	0
56	MG	1A	3291	1/1	0.94	0.20	54,54,54,54	0
56	MG	1A	3036	1/1	0.94	0.32	34,34,34,34	0
56	MG	2E	305	1/1	0.94	0.13	40,40,40,40	0
56	MG	2A	3547	1/1	0.94	0.16	45,45,45,45	0
56	MG	1A	3203	1/1	0.94	0.15	50,50,50,50	0
56	MG	2A	3549	1/1	0.94	0.14	49,49,49,49	0
56	MG	2A	3018	1/1	0.94	0.08	42,42,42,42	0
56	MG	1A	3056	1/1	0.94	0.09	31,31,31,31	0
56	MG	2A	3021	1/1	0.94	0.13	43,43,43,43	0
56	MG	2F	306	1/1	0.94	0.12	42,42,42,42	0
56	MG	1A	3836	1/1	0.94	0.10	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3507	1/1	0.94	0.38	43,43,43,43	0
56	MG	2A	3559	1/1	0.94	0.08	54,54,54,54	0
56	MG	2A	3024	1/1	0.94	0.07	40,40,40,40	0
56	MG	2P	201	1/1	0.94	0.12	51,51,51,51	0
56	MG	1A	3839	1/1	0.94	0.06	20,20,20,20	0
56	MG	2A	3027	1/1	0.94	0.18	64,64,64,64	0
58	A1AIX	2A	3851	43/43	0.94	0.12	43,53,66,72	0
56	MG	2A	3583	1/1	0.95	0.08	62,62,62,62	0
56	MG	1A	3845	1/1	0.95	0.08	38,38,38,38	0
56	MG	1A	3219	1/1	0.95	0.15	37,37,37,37	0
56	MG	1A	4070	1/1	0.95	0.08	42,42,42,42	0
56	MG	2I	102	1/1	0.95	0.13	44,44,44,44	0
56	MG	2A	3589	1/1	0.95	0.09	53,53,53,53	0
56	MG	1A	3086	1/1	0.95	0.15	38,38,38,38	0
56	MG	1A	3221	1/1	0.95	0.10	46,46,46,46	0
56	MG	27	101	1/1	0.95	0.12	41,41,41,41	0
56	MG	27	102	1/1	0.95	0.08	45,45,45,45	0
56	MG	27	103	1/1	0.95	0.07	53,53,53,53	0
56	MG	1A	3025	1/1	0.95	0.08	57,57,57,57	0
56	MG	2A	3594	1/1	0.95	0.17	37,37,37,37	0
56	MG	1A	3851	1/1	0.95	0.13	55,55,55,55	0
56	MG	1a	1661	1/1	0.95	0.19	52,52,52,52	0
56	MG	28	106	1/1	0.95	0.27	72,72,72,72	0
56	MG	1A	3852	1/1	0.95	0.16	31,31,31,31	0
56	MG	1A	3290	1/1	0.95	0.09	42,42,42,42	0
56	MG	2A	3288	1/1	0.95	0.16	54,54,54,54	0
56	MG	2A	3049	1/1	0.95	0.19	58,58,58,58	0
56	MG	1A	3172	1/1	0.95	0.06	23,23,23,23	0
56	MG	1A	3351	1/1	0.95	0.30	31,31,31,31	0
56	MG	1A	3068	1/1	0.95	0.21	36,36,36,36	0
56	MG	1A	3864	1/1	0.95	0.11	46,46,46,46	0
56	MG	1A	3174	1/1	0.95	0.06	42,42,42,42	0
56	MG	1B	202	1/1	0.95	0.12	45,45,45,45	0
56	MG	1B	203	1/1	0.95	0.15	48,48,48,48	0
56	MG	1B	205	1/1	0.95	0.23	51,51,51,51	0
56	MG	2A	3299	1/1	0.95	0.07	55,55,55,55	0
56	MG	1A	3693	1/1	0.95	0.07	55,55,55,55	0
56	MG	1a	1674	1/1	0.95	0.12	55,55,55,55	0
56	MG	2A	3616	1/1	0.95	0.08	48,48,48,48	0
56	MG	1B	209	1/1	0.95	0.07	42,42,42,42	0
56	MG	1A	3869	1/1	0.95	0.06	39,39,39,39	0
56	MG	1B	213	1/1	0.95	0.08	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	1678	1/1	0.95	0.22	42,42,42,42	0
56	MG	1A	3428	1/1	0.95	0.25	37,37,37,37	0
56	MG	2a	3025	1/1	0.95	0.10	59,59,59,59	0
56	MG	1A	3699	1/1	0.95	0.10	19,19,19,19	0
56	MG	1A	3355	1/1	0.95	0.22	30,30,30,30	0
56	MG	1A	3178	1/1	0.95	0.07	39,39,39,39	0
56	MG	1A	3882	1/1	0.95	0.08	43,43,43,43	0
56	MG	1A	3536	1/1	0.95	0.17	46,46,46,46	0
56	MG	2A	3313	1/1	0.95	0.13	55,55,55,55	0
56	MG	1A	3297	1/1	0.95	0.08	39,39,39,39	0
56	MG	1A	3229	1/1	0.95	0.06	32,32,32,32	0
56	MG	1B	228	1/1	0.95	0.06	31,31,31,31	0
56	MG	1A	3718	1/1	0.95	0.09	21,21,21,21	0
56	MG	1A	3896	1/1	0.95	0.08	68,68,68,68	0
56	MG	2A	3319	1/1	0.95	0.08	70,70,70,70	0
56	MG	1B	231	1/1	0.95	0.09	56,56,56,56	0
56	MG	1A	3038	1/1	0.95	0.11	30,30,30,30	0
56	MG	1A	3231	1/1	0.95	0.08	50,50,50,50	0
56	MG	1a	1697	1/1	0.95	0.17	48,48,48,48	0
56	MG	1A	3542	1/1	0.95	0.15	50,50,50,50	0
56	MG	1a	1699	1/1	0.95	0.15	47,47,47,47	0
56	MG	2a	3044	1/1	0.95	0.09	59,59,59,59	0
56	MG	1A	3543	1/1	0.95	0.13	35,35,35,35	0
56	MG	2A	3646	1/1	0.95	0.06	52,52,52,52	0
56	MG	2A	3329	1/1	0.95	0.15	42,42,42,42	0
56	MG	1A	3908	1/1	0.95	0.05	44,44,44,44	0
56	MG	1A	3363	1/1	0.95	0.17	41,41,41,41	0
56	MG	1A	3365	1/1	0.95	0.07	49,49,49,49	0
56	MG	1D	307	1/1	0.95	0.09	37,37,37,37	0
56	MG	1A	3914	1/1	0.95	0.11	45,45,45,45	0
56	MG	1A	3441	1/1	0.95	0.08	51,51,51,51	0
56	MG	1A	3444	1/1	0.95	0.22	24,24,24,24	0
56	MG	1E	304	1/1	0.95	0.25	28,28,28,28	0
56	MG	2a	3057	1/1	0.95	0.27	60,60,60,60	0
56	MG	1a	1712	1/1	0.95	0.24	54,54,54,54	0
56	MG	1A	3093	1/1	0.95	0.18	56,56,56,56	0
56	MG	1A	3729	1/1	0.95	0.08	27,27,27,27	0
56	MG	1a	1716	1/1	0.95	0.26	59,59,59,59	0
56	MG	1A	3731	1/1	0.95	0.06	36,36,36,36	0
56	MG	1A	3234	1/1	0.95	0.05	40,40,40,40	0
56	MG	1a	1719	1/1	0.95	0.19	47,47,47,47	0
56	MG	2A	3107	1/1	0.95	0.14	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	1F	302	1/1	0.95	0.10	28,28,28,28	0
56	MG	1a	1721	1/1	0.95	0.09	60,60,60,60	0
56	MG	2A	3354	1/1	0.95	0.14	39,39,39,39	0
56	MG	1F	303	1/1	0.95	0.21	29,29,29,29	0
56	MG	1A	3184	1/1	0.95	0.12	21,21,21,21	0
56	MG	1A	3026	1/1	0.95	0.20	64,64,64,64	0
56	MG	1A	3737	1/1	0.95	0.07	41,41,41,41	0
56	MG	1A	3049	1/1	0.95	0.12	42,42,42,42	0
56	MG	2a	3075	1/1	0.95	0.15	57,57,57,57	0
56	MG	2a	3076	1/1	0.95	0.14	65,65,65,65	0
56	MG	2A	3684	1/1	0.95	0.06	57,57,57,57	0
56	MG	1A	3453	1/1	0.95	0.08	58,58,58,58	0
56	MG	1A	3563	1/1	0.95	0.10	53,53,53,53	0
56	MG	2A	3127	1/1	0.95	0.21	36,36,36,36	0
56	MG	2A	3128	1/1	0.95	0.08	41,41,41,41	0
56	MG	1A	3188	1/1	0.95	0.13	36,36,36,36	0
56	MG	2A	3368	1/1	0.95	0.16	42,42,42,42	0
56	MG	2A	3694	1/1	0.95	0.21	46,46,46,46	0
56	MG	1A	3307	1/1	0.95	0.13	43,43,43,43	0
56	MG	1A	3938	1/1	0.95	0.07	31,31,31,31	0
56	MG	1a	1737	1/1	0.95	0.14	50,50,50,50	0
56	MG	1N	203	1/1	0.95	0.09	40,40,40,40	0
56	MG	1a	1740	1/1	0.95	0.06	64,64,64,64	0
56	MG	1A	3458	1/1	0.95	0.10	58,58,58,58	0
56	MG	1A	3567	1/1	0.95	0.07	38,38,38,38	0
56	MG	1A	3460	1/1	0.95	0.10	51,51,51,51	0
56	MG	2A	3379	1/1	0.95	0.15	42,42,42,42	0
56	MG	1A	3189	1/1	0.95	0.08	36,36,36,36	0
56	MG	2A	3709	1/1	0.95	0.10	60,60,60,60	0
56	MG	1P	204	1/1	0.95	0.23	31,31,31,31	0
56	MG	2A	3382	1/1	0.95	0.11	38,38,38,38	0
56	MG	1A	3462	1/1	0.95	0.10	40,40,40,40	0
56	MG	1A	3190	1/1	0.95	0.12	26,26,26,26	0
56	MG	1A	3953	1/1	0.95	0.09	24,24,24,24	0
56	MG	1A	3761	1/1	0.95	0.07	39,39,39,39	0
56	MG	1A	3580	1/1	0.95	0.09	28,28,28,28	0
56	MG	2A	3390	1/1	0.95	0.28	48,48,48,48	0
56	MG	1R	201	1/1	0.95	0.20	38,38,38,38	0
56	MG	2A	3392	1/1	0.95	0.22	48,48,48,48	0
56	MG	1a	1761	1/1	0.95	0.14	41,41,41,41	0
56	MG	1A	3134	1/1	0.95	0.08	30,30,30,30	0
56	MG	2A	3724	1/1	0.95	0.09	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	2A	3396	1/1	0.95	0.09	46,46,46,46	0
56	MG	2A	3727	1/1	0.95	0.06	60,60,60,60	0
56	MG	1R	203	1/1	0.95	0.12	37,37,37,37	0
56	MG	2A	3158	1/1	0.95	0.09	30,30,30,30	0
56	MG	1S	201	1/1	0.95	0.14	40,40,40,40	0
56	MG	1A	3314	1/1	0.95	0.18	51,51,51,51	0
56	MG	2A	3162	1/1	0.95	0.10	42,42,42,42	0
56	MG	2a	3117	1/1	0.95	0.12	69,69,69,69	0
56	MG	1A	3771	1/1	0.95	0.07	38,38,38,38	0
56	MG	2A	3164	1/1	0.95	0.08	50,50,50,50	0
56	MG	1A	3772	1/1	0.95	0.05	18,18,18,18	0
56	MG	1U	203	1/1	0.95	0.21	39,39,39,39	0
56	MG	1a	1772	1/1	0.95	0.07	71,71,71,71	0
56	MG	1A	3380	1/1	0.95	0.21	51,51,51,51	0
56	MG	2A	3413	1/1	0.95	0.08	35,35,35,35	0
56	MG	1a	1774	1/1	0.95	0.07	60,60,60,60	0
56	MG	2A	3746	1/1	0.95	0.07	54,54,54,54	0
56	MG	1a	1775	1/1	0.95	0.06	86,86,86,86	0
56	MG	2a	3129	1/1	0.95	0.29	51,51,51,51	0
56	MG	1a	1776	1/1	0.95	0.10	74,74,74,74	0
56	MG	1A	3381	1/1	0.95	0.12	38,38,38,38	0
56	MG	2A	3756	1/1	0.95	0.07	45,45,45,45	0
56	MG	1A	3973	1/1	0.95	0.11	47,47,47,47	0
56	MG	1A	3098	1/1	0.95	0.08	34,34,34,34	0
56	MG	2a	3137	1/1	0.95	0.19	55,55,55,55	0
56	MG	1A	3251	1/1	0.95	0.09	28,28,28,28	0
56	MG	1W	202	1/1	0.95	0.26	49,49,49,49	0
56	MG	2A	3761	1/1	0.95	0.09	39,39,39,39	0
56	MG	2A	3767	1/1	0.95	0.08	59,59,59,59	0
56	MG	1A	3597	1/1	0.95	0.06	18,18,18,18	0
56	MG	1X	102	1/1	0.95	0.29	33,33,33,33	0
56	MG	1A	3099	1/1	0.95	0.22	39,39,39,39	0
56	MG	1A	3983	1/1	0.95	0.11	58,58,58,58	0
56	MG	1A	3386	1/1	0.95	0.06	39,39,39,39	0
56	MG	2A	3775	1/1	0.95	0.11	63,63,63,63	0
56	MG	2a	3149	1/1	0.95	0.07	70,70,70,70	0
56	MG	2a	3150	1/1	0.95	0.06	78,78,78,78	0
56	MG	1Z	301	1/1	0.95	0.06	50,50,50,50	0
56	MG	1a	1794	1/1	0.95	0.10	52,52,52,52	0
56	MG	1A	3985	1/1	0.95	0.07	51,51,51,51	0
56	MG	2A	3187	1/1	0.95	0.05	43,43,43,43	0
56	MG	1A	3387	1/1	0.95	0.07	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	1A	3318	1/1	0.95	0.09	41,41,41,41	0
56	MG	2A	3792	1/1	0.95	0.15	47,47,47,47	0
56	MG	1A	3256	1/1	0.95	0.07	32,32,32,32	0
56	MG	1a	1802	1/1	0.95	0.06	64,64,64,64	0
56	MG	2a	3167	1/1	0.95	0.05	75,75,75,75	0
56	MG	10	105	1/1	0.95	0.07	48,48,48,48	0
56	MG	2a	3170	1/1	0.95	0.09	79,79,79,79	0
56	MG	2A	3797	1/1	0.95	0.06	47,47,47,47	0
56	MG	2A	3443	1/1	0.95	0.19	49,49,49,49	0
56	MG	1A	3195	1/1	0.95	0.10	35,35,35,35	0
56	MG	2A	3445	1/1	0.95	0.29	59,59,59,59	0
56	MG	2A	3449	1/1	0.95	0.08	54,54,54,54	0
56	MG	2A	3451	1/1	0.95	0.13	47,47,47,47	0
56	MG	2A	3195	1/1	0.95	0.23	42,42,42,42	0
56	MG	2a	3182	1/1	0.95	0.14	54,54,54,54	0
56	MG	1a	1805	1/1	0.95	0.06	51,51,51,51	0
56	MG	2a	3184	1/1	0.95	0.10	59,59,59,59	0
56	MG	11	102	1/1	0.95	0.11	45,45,45,45	0
56	MG	2A	3808	1/1	0.95	0.12	71,71,71,71	0
56	MG	11	105	1/1	0.95	0.09	61,61,61,61	0
56	MG	1A	3607	1/1	0.95	0.08	39,39,39,39	0
56	MG	1A	3609	1/1	0.95	0.13	39,39,39,39	0
56	MG	2A	3812	1/1	0.95	0.05	38,38,38,38	0
56	MG	1A	3996	1/1	0.95	0.08	18,18,18,18	0
56	MG	1A	3259	1/1	0.95	0.17	32,32,32,32	0
56	MG	1A	3790	1/1	0.95	0.07	34,34,34,34	0
56	MG	16	101	1/1	0.95	0.08	48,48,48,48	0
56	MG	1A	3262	1/1	0.95	0.06	46,46,46,46	0
56	MG	2A	3207	1/1	0.95	0.10	52,52,52,52	0
56	MG	17	104	1/1	0.95	0.07	32,32,32,32	0
56	MG	2A	3210	1/1	0.95	0.21	54,54,54,54	0
56	MG	1A	3199	1/1	0.95	0.09	52,52,52,52	0
56	MG	1A	3141	1/1	0.95	0.21	21,21,21,21	0
56	MG	1A	4007	1/1	0.95	0.09	12,12,12,12	0
56	MG	19	102	1/1	0.95	0.19	50,50,50,50	0
56	MG	2A	3481	1/1	0.95	0.08	35,35,35,35	0
56	MG	2A	3482	1/1	0.95	0.10	64,64,64,64	0
56	MG	1A	4008	1/1	0.95	0.07	34,34,34,34	0
56	MG	2A	3487	1/1	0.95	0.08	54,54,54,54	0
56	MG	1A	3396	1/1	0.95	0.08	35,35,35,35	0
56	MG	2a	3210	1/1	0.95	0.06	64,64,64,64	0
56	MG	1d	301	1/1	0.95	0.06	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1605	1/1	0.95	0.14	59,59,59,59	0
56	MG	1A	3492	1/1	0.95	0.11	32,32,32,32	0
56	MG	1A	4013	1/1	0.95	0.07	46,46,46,46	0
56	MG	2a	3216	1/1	0.95	0.14	65,65,65,65	0
56	MG	1A	4014	1/1	0.95	0.12	61,61,61,61	0
56	MG	1A	3629	1/1	0.95	0.10	20,20,20,20	0
56	MG	1A	4017	1/1	0.95	0.08	41,41,41,41	0
56	MG	2A	3509	1/1	0.95	0.09	58,58,58,58	0
56	MG	1a	1614	1/1	0.95	0.08	49,49,49,49	0
56	MG	1A	3397	1/1	0.95	0.35	44,44,44,44	0
56	MG	2A	3226	1/1	0.95	0.06	40,40,40,40	0
56	MG	1A	3145	1/1	0.95	0.38	35,35,35,35	0
56	MG	1A	3076	1/1	0.95	0.16	30,30,30,30	0
56	MG	1w	106	1/1	0.95	0.07	64,64,64,64	0
56	MG	2A	3849	1/1	0.95	0.09	35,35,35,35	0
56	MG	1A	3638	1/1	0.95	0.06	31,31,31,31	0
56	MG	1x	103	1/1	0.95	0.12	41,41,41,41	0
56	MG	2a	3232	1/1	0.95	0.07	55,55,55,55	0
56	MG	1A	4026	1/1	0.95	0.14	48,48,48,48	0
56	MG	1A	3506	1/1	0.95	0.11	32,32,32,32	0
56	MG	1A	3058	1/1	0.95	0.14	37,37,37,37	0
56	MG	1A	3817	1/1	0.95	0.07	29,29,29,29	0
56	MG	1A	3402	1/1	0.95	0.09	51,51,51,51	0
56	MG	1A	3820	1/1	0.95	0.12	18,18,18,18	0
56	MG	2A	3534	1/1	0.95	0.12	43,43,43,43	0
56	MG	1A	3645	1/1	0.95	0.06	38,38,38,38	0
56	MG	2A	3243	1/1	0.95	0.06	41,41,41,41	0
56	MG	1A	3824	1/1	0.95	0.24	29,29,29,29	0
56	MG	1A	3649	1/1	0.95	0.06	20,20,20,20	0
56	MG	1A	3826	1/1	0.95	0.15	33,33,33,33	0
56	MG	1A	3651	1/1	0.95	0.05	21,21,21,21	0
56	MG	2A	3005	1/1	0.95	0.19	41,41,41,41	0
56	MG	1A	3653	1/1	0.95	0.06	20,20,20,20	0
56	MG	1A	3829	1/1	0.95	0.08	55,55,55,55	0
56	MG	1A	3656	1/1	0.95	0.07	14,14,14,14	0
56	MG	1A	3061	1/1	0.95	0.23	51,51,51,51	0
56	MG	1a	1636	1/1	0.95	0.17	44,44,44,44	0
56	MG	1A	3510	1/1	0.95	0.36	27,27,27,27	0
56	MG	2D	303	1/1	0.95	0.09	30,30,30,30	0
56	MG	1A	4046	1/1	0.95	0.10	59,59,59,59	0
56	MG	1A	3659	1/1	0.95	0.05	42,42,42,42	0
56	MG	2A	3260	1/1	0.95	0.10	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1642	1/1	0.95	0.13	43,43,43,43	0
56	MG	2A	3558	1/1	0.95	0.11	59,59,59,59	0
56	MG	1A	3016	1/1	0.95	0.13	31,31,31,31	0
56	MG	2A	3560	1/1	0.95	0.16	42,42,42,42	0
56	MG	1A	3052	1/1	0.95	0.16	33,33,33,33	0
56	MG	1A	3514	1/1	0.95	0.19	49,49,49,49	0
56	MG	1a	1647	1/1	0.95	0.06	54,54,54,54	0
56	MG	2A	3566	1/1	0.95	0.07	42,42,42,42	0
56	MG	2A	3568	1/1	0.95	0.11	50,50,50,50	0
56	MG	2A	3569	1/1	0.95	0.07	43,43,43,43	0
56	MG	1A	3276	1/1	0.95	0.05	52,52,52,52	0
56	MG	1A	4059	1/1	0.95	0.09	41,41,41,41	0
56	MG	2A	3031	1/1	0.95	0.12	53,53,53,53	0
56	MG	1A	3841	1/1	0.95	0.06	21,21,21,21	0
56	MG	1A	4062	1/1	0.95	0.10	50,50,50,50	0
56	MG	2T	201	1/1	0.95	0.08	55,55,55,55	0
56	MG	1A	3111	1/1	0.95	0.11	31,31,31,31	0
56	MG	1A	3162	1/1	0.95	0.08	32,32,32,32	0
56	MG	2T	204	1/1	0.95	0.27	67,67,67,67	0
58	A1AIX	1A	4085	43/43	0.95	0.11	22,41,58,59	0
56	MG	2A	3036	1/1	0.95	0.06	52,52,52,52	0
59	ZN	14	102	1/1	0.95	0.11	98,98,98,98	0
56	MG	1A	3957	1/1	0.96	0.06	37,37,37,37	0
56	MG	20	101	1/1	0.96	0.07	60,60,60,60	0
56	MG	1a	1706	1/1	0.96	0.18	39,39,39,39	0
56	MG	1A	3961	1/1	0.96	0.05	54,54,54,54	0
56	MG	1A	3289	1/1	0.96	0.16	39,39,39,39	0
56	MG	1A	3610	1/1	0.96	0.09	51,51,51,51	0
56	MG	25	101	1/1	0.96	0.15	45,45,45,45	0
56	MG	2A	3601	1/1	0.96	0.06	54,54,54,54	0
56	MG	1A	3964	1/1	0.96	0.08	49,49,49,49	0
56	MG	1A	3611	1/1	0.96	0.07	33,33,33,33	0
56	MG	1A	3613	1/1	0.96	0.06	37,37,37,37	0
56	MG	1A	3495	1/1	0.96	0.21	48,48,48,48	0
56	MG	1A	3232	1/1	0.96	0.19	46,46,46,46	0
56	MG	1A	3500	1/1	0.96	0.09	27,27,27,27	0
56	MG	28	104	1/1	0.96	0.08	51,51,51,51	0
56	MG	1P	202	1/1	0.96	0.19	29,29,29,29	0
56	MG	1A	3408	1/1	0.96	0.08	38,38,38,38	0
56	MG	1A	3410	1/1	0.96	0.33	37,37,37,37	0
56	MG	2A	3612	1/1	0.96	0.06	52,52,52,52	0
56	MG	2a	3004	1/1	0.96	0.12	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	1A	3787	1/1	0.96	0.07	41,41,41,41	0
56	MG	1A	3621	1/1	0.96	0.05	21,21,21,21	0
56	MG	2A	3092	1/1	0.96	0.10	50,50,50,50	0
56	MG	2A	3617	1/1	0.96	0.06	55,55,55,55	0
56	MG	1Q	203	1/1	0.96	0.04	39,39,39,39	0
56	MG	1A	3345	1/1	0.96	0.43	37,37,37,37	0
56	MG	1A	3626	1/1	0.96	0.06	34,34,34,34	0
56	MG	1Q	206	1/1	0.96	0.10	42,42,42,42	0
56	MG	1A	3087	1/1	0.96	0.10	36,36,36,36	0
56	MG	2A	3327	1/1	0.96	0.18	46,46,46,46	0
56	MG	2A	3098	1/1	0.96	0.18	59,59,59,59	0
56	MG	1A	3795	1/1	0.96	0.07	42,42,42,42	0
56	MG	1a	1730	1/1	0.96	0.10	50,50,50,50	0
56	MG	2A	3331	1/1	0.96	0.13	56,56,56,56	0
56	MG	1A	3413	1/1	0.96	0.08	35,35,35,35	0
56	MG	2A	3333	1/1	0.96	0.05	57,57,57,57	0
56	MG	1R	204	1/1	0.96	0.09	19,19,19,19	0
56	MG	1R	205	1/1	0.96	0.07	39,39,39,39	0
56	MG	1A	3634	1/1	0.96	0.07	23,23,23,23	0
56	MG	1A	3347	1/1	0.96	0.17	37,37,37,37	0
56	MG	2A	3635	1/1	0.96	0.06	63,63,63,63	0
56	MG	1a	1739	1/1	0.96	0.09	56,56,56,56	0
56	MG	1A	3292	1/1	0.96	0.18	44,44,44,44	0
56	MG	2A	3110	1/1	0.96	0.13	50,50,50,50	0
56	MG	1A	3801	1/1	0.96	0.09	29,29,29,29	0
56	MG	1A	3802	1/1	0.96	0.11	57,57,57,57	0
56	MG	1U	204	1/1	0.96	0.16	39,39,39,39	0
56	MG	1A	3803	1/1	0.96	0.04	48,48,48,48	0
56	MG	2A	3115	1/1	0.96	0.04	50,50,50,50	0
56	MG	2A	3116	1/1	0.96	0.07	36,36,36,36	0
56	MG	1A	3804	1/1	0.96	0.08	22,22,22,22	0
56	MG	2A	3119	1/1	0.96	0.09	41,41,41,41	0
56	MG	1a	1749	1/1	0.96	0.12	56,56,56,56	0
56	MG	2A	3353	1/1	0.96	0.06	48,48,48,48	0
56	MG	1a	1750	1/1	0.96	0.06	61,61,61,61	0
56	MG	2A	3123	1/1	0.96	0.17	38,38,38,38	0
56	MG	1a	1751	1/1	0.96	0.10	52,52,52,52	0
56	MG	2A	3656	1/1	0.96	0.11	49,49,49,49	0
56	MG	2A	3126	1/1	0.96	0.12	44,44,44,44	0
56	MG	2A	3658	1/1	0.96	0.04	46,46,46,46	0
56	MG	1A	3998	1/1	0.96	0.05	44,44,44,44	0
56	MG	1A	3511	1/1	0.96	0.07	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	3293	1/1	0.96	0.17	44,44,44,44	0
56	MG	2A	3361	1/1	0.96	0.09	48,48,48,48	0
56	MG	2a	3050	1/1	0.96	0.05	69,69,69,69	0
56	MG	1A	3417	1/1	0.96	0.16	36,36,36,36	0
56	MG	1A	3641	1/1	0.96	0.05	30,30,30,30	0
56	MG	1W	205	1/1	0.96	0.05	35,35,35,35	0
56	MG	2A	3668	1/1	0.96	0.08	58,58,58,58	0
56	MG	1A	3101	1/1	0.96	0.24	24,24,24,24	0
56	MG	2A	3670	1/1	0.96	0.07	58,58,58,58	0
56	MG	2A	3671	1/1	0.96	0.25	75,75,75,75	0
56	MG	2a	3058	1/1	0.96	0.19	73,73,73,73	0
56	MG	1a	1762	1/1	0.96	0.11	59,59,59,59	0
56	MG	2A	3137	1/1	0.96	0.16	57,57,57,57	0
56	MG	1X	106	1/1	0.96	0.10	46,46,46,46	0
56	MG	1A	3192	1/1	0.96	0.08	39,39,39,39	0
56	MG	1A	3648	1/1	0.96	0.11	32,32,32,32	0
56	MG	2A	3141	1/1	0.96	0.05	46,46,46,46	0
56	MG	2A	3374	1/1	0.96	0.37	53,53,53,53	0
56	MG	2A	3375	1/1	0.96	0.14	65,65,65,65	0
56	MG	2A	3681	1/1	0.96	0.05	69,69,69,69	0
56	MG	1A	3516	1/1	0.96	0.07	40,40,40,40	0
56	MG	1A	3155	1/1	0.96	0.13	36,36,36,36	0
56	MG	2A	3685	1/1	0.96	0.12	46,46,46,46	0
56	MG	1A	3042	1/1	0.96	0.08	35,35,35,35	0
56	MG	1Z	303	1/1	0.96	0.12	48,48,48,48	0
56	MG	2A	3146	1/1	0.96	0.22	45,45,45,45	0
56	MG	1A	4015	1/1	0.96	0.06	22,22,22,22	0
56	MG	2A	3691	1/1	0.96	0.08	55,55,55,55	0
56	MG	2A	3148	1/1	0.96	0.17	45,45,45,45	0
56	MG	1A	3821	1/1	0.96	0.06	33,33,33,33	0
56	MG	1A	3158	1/1	0.96	0.21	36,36,36,36	0
56	MG	1A	3159	1/1	0.96	0.05	36,36,36,36	0
56	MG	10	106	1/1	0.96	0.12	60,60,60,60	0
56	MG	2A	3155	1/1	0.96	0.11	42,42,42,42	0
56	MG	10	107	1/1	0.96	0.12	55,55,55,55	0
56	MG	2A	3699	1/1	0.96	0.10	57,57,57,57	0
56	MG	2A	3700	1/1	0.96	0.11	57,57,57,57	0
56	MG	1A	3425	1/1	0.96	0.19	39,39,39,39	0
56	MG	1A	4021	1/1	0.96	0.11	37,37,37,37	0
56	MG	11	103	1/1	0.96	0.05	33,33,33,33	0
56	MG	1A	3200	1/1	0.96	0.11	34,34,34,34	0
56	MG	2A	3395	1/1	0.96	0.12	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	2A	3161	1/1	0.96	0.10	55,55,55,55	0
56	MG	1A	4023	1/1	0.96	0.10	35,35,35,35	0
56	MG	1A	3662	1/1	0.96	0.07	17,17,17,17	0
56	MG	2A	3400	1/1	0.96	0.12	27,27,27,27	0
56	MG	2A	3401	1/1	0.96	0.10	46,46,46,46	0
56	MG	1A	3360	1/1	0.96	0.09	48,48,48,48	0
56	MG	1A	3429	1/1	0.96	0.11	43,43,43,43	0
56	MG	2a	3097	1/1	0.96	0.19	62,62,62,62	0
56	MG	15	104	1/1	0.96	0.24	49,49,49,49	0
56	MG	2A	3405	1/1	0.96	0.05	33,33,33,33	0
56	MG	1a	1789	1/1	0.96	0.06	63,63,63,63	0
56	MG	1a	1791	1/1	0.96	0.11	56,56,56,56	0
56	MG	2A	3169	1/1	0.96	0.06	71,71,71,71	0
56	MG	1A	3090	1/1	0.96	0.12	42,42,42,42	0
56	MG	1A	3431	1/1	0.96	0.10	46,46,46,46	0
56	MG	1A	3124	1/1	0.96	0.07	34,34,34,34	0
56	MG	2A	3725	1/1	0.96	0.08	59,59,59,59	0
56	MG	2A	3412	1/1	0.96	0.13	53,53,53,53	0
56	MG	17	103	1/1	0.96	0.06	37,37,37,37	0
56	MG	1A	3166	1/1	0.96	0.10	53,53,53,53	0
56	MG	1A	3671	1/1	0.96	0.07	40,40,40,40	0
56	MG	1A	3204	1/1	0.96	0.11	51,51,51,51	0
56	MG	2A	3732	1/1	0.96	0.09	56,56,56,56	0
56	MG	1A	3254	1/1	0.96	0.14	50,50,50,50	0
56	MG	2A	3418	1/1	0.96	0.25	46,46,46,46	0
56	MG	1A	3535	1/1	0.96	0.07	36,36,36,36	0
56	MG	2A	3738	1/1	0.96	0.14	72,72,72,72	0
56	MG	1A	3255	1/1	0.96	0.12	30,30,30,30	0
56	MG	1a	1806	1/1	0.96	0.09	59,59,59,59	0
56	MG	1a	1807	1/1	0.96	0.06	65,65,65,65	0
56	MG	1a	1808	1/1	0.96	0.06	58,58,58,58	0
56	MG	1A	3169	1/1	0.96	0.06	32,32,32,32	0
56	MG	1a	1604	1/1	0.96	0.12	56,56,56,56	0
56	MG	1A	3309	1/1	0.96	0.07	29,29,29,29	0
56	MG	1A	3687	1/1	0.96	0.05	38,38,38,38	0
56	MG	2A	3747	1/1	0.96	0.04	43,43,43,43	0
56	MG	2a	3126	1/1	0.96	0.06	42,42,42,42	0
56	MG	1A	3846	1/1	0.96	0.06	32,32,32,32	0
56	MG	1A	3105	1/1	0.96	0.06	36,36,36,36	0
56	MG	1A	3131	1/1	0.96	0.04	46,46,46,46	0
56	MG	2A	3752	1/1	0.96	0.06	41,41,41,41	0
56	MG	2A	3754	1/1	0.96	0.10	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	3260	1/1	0.96	0.08	19,19,19,19	0
56	MG	2a	3134	1/1	0.96	0.14	50,50,50,50	0
56	MG	1a	1612	1/1	0.96	0.06	52,52,52,52	0
56	MG	1a	1820	1/1	0.96	0.05	50,50,50,50	0
56	MG	2A	3436	1/1	0.96	0.33	56,56,56,56	0
56	MG	1A	4050	1/1	0.96	0.05	45,45,45,45	0
56	MG	1A	3446	1/1	0.96	0.05	40,40,40,40	0
56	MG	2A	3764	1/1	0.96	0.06	47,47,47,47	0
56	MG	1A	3694	1/1	0.96	0.11	38,38,38,38	0
56	MG	1A	3313	1/1	0.96	0.15	28,28,28,28	0
56	MG	1A	4057	1/1	0.96	0.17	50,50,50,50	0
56	MG	1A	3853	1/1	0.96	0.10	65,65,65,65	0
56	MG	2A	3447	1/1	0.96	0.17	51,51,51,51	0
56	MG	1A	3697	1/1	0.96	0.07	49,49,49,49	0
56	MG	2A	3450	1/1	0.96	0.05	51,51,51,51	0
56	MG	1A	4060	1/1	0.96	0.12	29,29,29,29	0
56	MG	2A	3203	1/1	0.96	0.20	47,47,47,47	0
56	MG	2a	3151	1/1	0.96	0.08	67,67,67,67	0
56	MG	1A	3261	1/1	0.96	0.11	41,41,41,41	0
56	MG	1A	3213	1/1	0.96	0.10	41,41,41,41	0
56	MG	2A	3785	1/1	0.96	0.06	43,43,43,43	0
56	MG	2A	3787	1/1	0.96	0.13	32,32,32,32	0
56	MG	1A	3547	1/1	0.96	0.07	45,45,45,45	0
56	MG	2A	3789	1/1	0.96	0.07	53,53,53,53	0
56	MG	2A	3790	1/1	0.96	0.18	53,53,53,53	0
56	MG	1A	3008	1/1	0.96	0.04	23,23,23,23	0
56	MG	1m	3001	1/1	0.96	0.07	60,60,60,60	0
56	MG	2A	3209	1/1	0.96	0.09	46,46,46,46	0
56	MG	2A	3794	1/1	0.96	0.06	56,56,56,56	0
56	MG	2a	3169	1/1	0.96	0.05	74,74,74,74	0
56	MG	1A	3452	1/1	0.96	0.12	37,37,37,37	0
56	MG	1A	4067	1/1	0.96	0.06	40,40,40,40	0
56	MG	1t	201	1/1	0.96	0.24	49,49,49,49	0
56	MG	1A	4068	1/1	0.96	0.06	27,27,27,27	0
56	MG	1A	3714	1/1	0.96	0.05	44,44,44,44	0
56	MG	1A	3867	1/1	0.96	0.05	60,60,60,60	0
56	MG	2a	3178	1/1	0.96	0.13	53,53,53,53	0
56	MG	2a	3179	1/1	0.96	0.11	52,52,52,52	0
56	MG	1A	3868	1/1	0.96	0.13	37,37,37,37	0
56	MG	1A	3044	1/1	0.96	0.07	25,25,25,25	0
56	MG	1x	101	1/1	0.96	0.06	51,51,51,51	0
56	MG	2A	3478	1/1	0.96	0.09	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3265	1/1	0.96	0.05	37,37,37,37	0
56	MG	1A	3873	1/1	0.96	0.06	33,33,33,33	0
56	MG	1a	1637	1/1	0.96	0.13	44,44,44,44	0
56	MG	1A	3557	1/1	0.96	0.07	30,30,30,30	0
56	MG	1A	3319	1/1	0.96	0.08	37,37,37,37	0
56	MG	2A	3485	1/1	0.96	0.08	53,53,53,53	0
56	MG	1A	3876	1/1	0.96	0.07	41,41,41,41	0
56	MG	2A	3488	1/1	0.96	0.12	55,55,55,55	0
56	MG	2a	3192	1/1	0.96	0.13	57,57,57,57	0
56	MG	1a	1641	1/1	0.96	0.04	41,41,41,41	0
56	MG	1A	3457	1/1	0.96	0.18	32,32,32,32	0
56	MG	1A	3879	1/1	0.96	0.06	68,68,68,68	0
56	MG	1A	3175	1/1	0.96	0.28	28,28,28,28	0
56	MG	1A	3883	1/1	0.96	0.12	44,44,44,44	0
56	MG	2A	3502	1/1	0.96	0.10	40,40,40,40	0
56	MG	2A	3002	1/1	0.96	0.19	44,44,44,44	0
56	MG	1a	1646	1/1	0.96	0.09	69,69,69,69	0
56	MG	1A	3888	1/1	0.96	0.05	12,12,12,12	0
56	MG	1A	3177	1/1	0.96	0.21	54,54,54,54	0
56	MG	2A	3510	1/1	0.96	0.06	46,46,46,46	0
56	MG	2A	3006	1/1	0.96	0.14	47,47,47,47	0
56	MG	2A	3512	1/1	0.96	0.07	43,43,43,43	0
56	MG	1A	3385	1/1	0.96	0.07	35,35,35,35	0
56	MG	2A	3008	1/1	0.96	0.07	58,58,58,58	0
56	MG	1B	207	1/1	0.96	0.17	41,41,41,41	0
56	MG	1A	3323	1/1	0.96	0.06	42,42,42,42	0
56	MG	2A	3242	1/1	0.96	0.05	45,45,45,45	0
56	MG	2A	3834	1/1	0.96	0.09	49,49,49,49	0
56	MG	1A	3109	1/1	0.96	0.07	22,22,22,22	0
56	MG	1A	3081	1/1	0.96	0.23	38,38,38,38	0
56	MG	1A	3273	1/1	0.96	0.05	41,41,41,41	0
56	MG	1A	3730	1/1	0.96	0.09	14,14,14,14	0
56	MG	1A	3901	1/1	0.96	0.07	51,51,51,51	0
56	MG	1A	3182	1/1	0.96	0.09	34,34,34,34	0
56	MG	2A	3526	1/1	0.96	0.08	24,24,24,24	0
56	MG	1A	3082	1/1	0.96	0.16	50,50,50,50	0
56	MG	2A	3530	1/1	0.96	0.08	51,51,51,51	0
56	MG	1B	220	1/1	0.96	0.04	27,27,27,27	0
56	MG	1A	3075	1/1	0.96	0.14	25,25,25,25	0
56	MG	2A	3848	1/1	0.96	0.10	40,40,40,40	0
56	MG	1A	3911	1/1	0.96	0.08	26,26,26,26	0
56	MG	1A	3734	1/1	0.96	0.07	20,20,20,20	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	3229	1/1	0.96	0.06	87,87,87,87	0
56	MG	1A	3575	1/1	0.96	0.08	41,41,41,41	0
56	MG	2A	3540	1/1	0.96	0.09	38,38,38,38	0
56	MG	1A	3578	1/1	0.96	0.13	12,12,12,12	0
56	MG	2A	3257	1/1	0.96	0.29	61,61,61,61	0
56	MG	1A	3393	1/1	0.96	0.18	32,32,32,32	0
56	MG	1A	3278	1/1	0.96	0.14	42,42,42,42	0
56	MG	1A	3745	1/1	0.96	0.07	43,43,43,43	0
56	MG	1A	3582	1/1	0.96	0.10	28,28,28,28	0
56	MG	1A	3050	1/1	0.96	0.09	55,55,55,55	0
56	MG	1A	3477	1/1	0.96	0.25	52,52,52,52	0
56	MG	1A	3479	1/1	0.96	0.08	18,18,18,18	0
56	MG	1A	3481	1/1	0.96	0.07	44,44,44,44	0
56	MG	2A	3551	1/1	0.96	0.05	61,61,61,61	0
56	MG	1A	3592	1/1	0.96	0.05	17,17,17,17	0
56	MG	1D	302	1/1	0.96	0.09	30,30,30,30	0
56	MG	1A	3594	1/1	0.96	0.10	21,21,21,21	0
56	MG	2A	3043	1/1	0.96	0.18	34,34,34,34	0
56	MG	1D	306	1/1	0.96	0.10	35,35,35,35	0
56	MG	1A	3932	1/1	0.96	0.07	28,28,28,28	0
56	MG	1A	3334	1/1	0.96	0.07	40,40,40,40	0
56	MG	1A	3596	1/1	0.96	0.07	24,24,24,24	0
56	MG	1A	3186	1/1	0.96	0.15	35,35,35,35	0
56	MG	1E	302	1/1	0.96	0.27	34,34,34,34	0
56	MG	1E	303	1/1	0.96	0.15	39,39,39,39	0
56	MG	1A	3282	1/1	0.96	0.09	48,48,48,48	0
56	MG	1A	3766	1/1	0.96	0.06	47,47,47,47	0
56	MG	2E	304	1/1	0.96	0.07	51,51,51,51	0
56	MG	1E	307	1/1	0.96	0.08	34,34,34,34	0
56	MG	1A	3228	1/1	0.96	0.18	52,52,52,52	0
56	MG	1A	3768	1/1	0.96	0.11	59,59,59,59	0
56	MG	1A	3400	1/1	0.96	0.10	26,26,26,26	0
56	MG	1a	1693	1/1	0.96	0.21	47,47,47,47	0
56	MG	2A	3579	1/1	0.96	0.11	36,36,36,36	0
56	MG	1E	312	1/1	0.96	0.21	45,45,45,45	0
56	MG	2A	3062	1/1	0.96	0.07	47,47,47,47	0
56	MG	1A	3148	1/1	0.96	0.07	39,39,39,39	0
56	MG	1A	3950	1/1	0.96	0.11	53,53,53,53	0
56	MG	1F	304	1/1	0.96	0.07	26,26,26,26	0
56	MG	2A	3066	1/1	0.96	0.11	32,32,32,32	0
56	MG	1F	306	1/1	0.96	0.10	24,24,24,24	0
56	MG	2x	105	1/1	0.96	0.10	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2Q	201	1/1	0.96	0.16	44,44,44,44	0
56	MG	2A	3587	1/1	0.96	0.12	41,41,41,41	0
56	MG	2A	3588	1/1	0.96	0.08	52,52,52,52	0
56	MG	1F	308	1/1	0.96	0.08	42,42,42,42	0
56	MG	2A	3070	1/1	0.96	0.09	56,56,56,56	0
57	K	1A	3497	1/1	0.96	0.08	67,67,67,67	0
56	MG	1A	3150	1/1	0.96	0.05	23,23,23,23	0
56	MG	1A	3115	1/1	0.96	0.12	23,23,23,23	0
56	MG	1A	3404	1/1	0.96	0.21	54,54,54,54	0
56	MG	1A	3608	1/1	0.96	0.07	27,27,27,27	0
56	MG	2A	3121	1/1	0.97	0.12	39,39,39,39	0
56	MG	1A	3877	1/1	0.97	0.06	28,28,28,28	0
56	MG	1a	1766	1/1	0.97	0.05	63,63,63,63	0
56	MG	2A	3124	1/1	0.97	0.10	43,43,43,43	0
56	MG	1A	3235	1/1	0.97	0.17	55,55,55,55	0
56	MG	1A	3030	1/1	0.97	0.23	30,30,30,30	0
56	MG	1A	4048	1/1	0.97	0.04	46,46,46,46	0
56	MG	1A	4049	1/1	0.97	0.16	41,41,41,41	0
56	MG	1A	3750	1/1	0.97	0.07	17,17,17,17	0
56	MG	1A	3116	1/1	0.97	0.23	42,42,42,42	0
56	MG	2a	3003	1/1	0.97	0.12	56,56,56,56	0
56	MG	1A	4053	1/1	0.97	0.12	33,33,33,33	0
56	MG	1A	4054	1/1	0.97	0.13	48,48,48,48	0
56	MG	2A	3636	1/1	0.97	0.07	48,48,48,48	0
56	MG	1A	3886	1/1	0.97	0.09	45,45,45,45	0
56	MG	2A	3134	1/1	0.97	0.07	56,56,56,56	0
56	MG	13	102	1/1	0.97	0.09	38,38,38,38	0
56	MG	13	104	1/1	0.97	0.05	30,30,30,30	0
56	MG	1A	3053	1/1	0.97	0.06	33,33,33,33	0
56	MG	15	101	1/1	0.97	0.10	34,34,34,34	0
56	MG	1A	3455	1/1	0.97	0.17	31,31,31,31	0
56	MG	15	103	1/1	0.97	0.17	40,40,40,40	0
56	MG	1a	1784	1/1	0.97	0.06	62,62,62,62	0
56	MG	1A	3343	1/1	0.97	0.04	30,30,30,30	0
56	MG	1A	3011	1/1	0.97	0.08	30,30,30,30	0
56	MG	1A	3622	1/1	0.97	0.07	16,16,16,16	0
56	MG	1A	3895	1/1	0.97	0.05	77,77,77,77	0
56	MG	17	101	1/1	0.97	0.09	33,33,33,33	0
56	MG	1a	1790	1/1	0.97	0.04	65,65,65,65	0
56	MG	2A	3654	1/1	0.97	0.09	50,50,50,50	0
56	MG	1A	3623	1/1	0.97	0.08	51,51,51,51	0
56	MG	2a	3024	1/1	0.97	0.19	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	3759	1/1	0.97	0.04	19,19,19,19	0
56	MG	1A	3898	1/1	0.97	0.04	43,43,43,43	0
56	MG	1A	3531	1/1	0.97	0.30	52,52,52,52	0
56	MG	18	103	1/1	0.97	0.06	30,30,30,30	0
56	MG	1A	4066	1/1	0.97	0.08	36,36,36,36	0
56	MG	1A	3196	1/1	0.97	0.18	27,27,27,27	0
56	MG	1A	3903	1/1	0.97	0.08	43,43,43,43	0
56	MG	1A	3904	1/1	0.97	0.04	30,30,30,30	0
56	MG	1A	3243	1/1	0.97	0.18	33,33,33,33	0
56	MG	2A	3665	1/1	0.97	0.07	48,48,48,48	0
56	MG	2A	3386	1/1	0.97	0.30	47,47,47,47	0
56	MG	1A	3906	1/1	0.97	0.05	49,49,49,49	0
56	MG	2A	3388	1/1	0.97	0.24	53,53,53,53	0
56	MG	1A	3630	1/1	0.97	0.05	37,37,37,37	0
56	MG	1A	4073	1/1	0.97	0.13	45,45,45,45	0
56	MG	1A	3631	1/1	0.97	0.08	43,43,43,43	0
56	MG	1a	1809	1/1	0.97	0.17	48,48,48,48	0
56	MG	1A	3909	1/1	0.97	0.10	55,55,55,55	0
56	MG	1a	1610	1/1	0.97	0.05	59,59,59,59	0
56	MG	2A	3676	1/1	0.97	0.04	42,42,42,42	0
56	MG	1A	3910	1/1	0.97	0.07	44,44,44,44	0
56	MG	1A	3769	1/1	0.97	0.04	25,25,25,25	0
56	MG	1a	1613	1/1	0.97	0.12	55,55,55,55	0
56	MG	1A	3534	1/1	0.97	0.06	42,42,42,42	0
56	MG	1A	3198	1/1	0.97	0.07	38,38,38,38	0
56	MG	1A	3160	1/1	0.97	0.14	33,33,33,33	0
56	MG	1A	3161	1/1	0.97	0.06	19,19,19,19	0
56	MG	1A	3012	1/1	0.97	0.27	22,22,22,22	0
56	MG	2A	3176	1/1	0.97	0.12	42,42,42,42	0
56	MG	1A	3918	1/1	0.97	0.07	65,65,65,65	0
56	MG	2A	3688	1/1	0.97	0.12	66,66,66,66	0
56	MG	1A	3775	1/1	0.97	0.13	34,34,34,34	0
56	MG	1A	3539	1/1	0.97	0.15	41,41,41,41	0
56	MG	1B	206	1/1	0.97	0.05	38,38,38,38	0
56	MG	1A	3352	1/1	0.97	0.29	32,32,32,32	0
56	MG	1A	3467	1/1	0.97	0.08	39,39,39,39	0
56	MG	1A	3779	1/1	0.97	0.05	35,35,35,35	0
56	MG	1B	210	1/1	0.97	0.09	42,42,42,42	0
56	MG	1a	1627	1/1	0.97	0.08	32,32,32,32	0
56	MG	1f	201	1/1	0.97	0.15	50,50,50,50	0
56	MG	1B	211	1/1	0.97	0.08	34,34,34,34	0
56	MG	1A	3925	1/1	0.97	0.05	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	3926	1/1	0.97	0.05	55,55,55,55	0
56	MG	1A	3034	1/1	0.97	0.11	19,19,19,19	0
56	MG	1A	3165	1/1	0.97	0.10	39,39,39,39	0
56	MG	1A	3122	1/1	0.97	0.09	46,46,46,46	0
56	MG	2A	3193	1/1	0.97	0.07	47,47,47,47	0
56	MG	2A	3705	1/1	0.97	0.05	38,38,38,38	0
56	MG	1B	217	1/1	0.97	0.06	41,41,41,41	0
56	MG	2A	3423	1/1	0.97	0.07	61,61,61,61	0
56	MG	2A	3708	1/1	0.97	0.05	61,61,61,61	0
56	MG	1A	3931	1/1	0.97	0.05	19,19,19,19	0
56	MG	1w	102	1/1	0.97	0.07	62,62,62,62	0
56	MG	1A	3205	1/1	0.97	0.17	31,31,31,31	0
56	MG	1A	3472	1/1	0.97	0.10	32,32,32,32	0
56	MG	1A	3934	1/1	0.97	0.08	23,23,23,23	0
56	MG	1B	224	1/1	0.97	0.09	44,44,44,44	0
56	MG	1w	107	1/1	0.97	0.07	66,66,66,66	0
56	MG	1A	3167	1/1	0.97	0.16	53,53,53,53	0
56	MG	2A	3718	1/1	0.97	0.05	51,51,51,51	0
56	MG	1A	3548	1/1	0.97	0.14	46,46,46,46	0
56	MG	1B	227	1/1	0.97	0.05	26,26,26,26	0
56	MG	1A	3549	1/1	0.97	0.10	49,49,49,49	0
56	MG	1x	105	1/1	0.97	0.14	45,45,45,45	0
56	MG	1A	3123	1/1	0.97	0.10	29,29,29,29	0
56	MG	1A	3940	1/1	0.97	0.04	40,40,40,40	0
56	MG	2A	3440	1/1	0.97	0.12	56,56,56,56	0
56	MG	1A	3476	1/1	0.97	0.24	45,45,45,45	0
56	MG	2A	3442	1/1	0.97	0.22	46,46,46,46	0
56	MG	2A	3728	1/1	0.97	0.07	71,71,71,71	0
56	MG	1A	3553	1/1	0.97	0.14	32,32,32,32	0
56	MG	1A	3791	1/1	0.97	0.19	52,52,52,52	0
56	MG	1x	111	1/1	0.97	0.09	45,45,45,45	0
56	MG	2A	3446	1/1	0.97	0.17	53,53,53,53	0
56	MG	1A	3947	1/1	0.97	0.05	50,50,50,50	0
56	MG	2A	3448	1/1	0.97	0.05	42,42,42,42	0
56	MG	1A	3210	1/1	0.97	0.15	28,28,28,28	0
56	MG	1A	3211	1/1	0.97	0.11	24,24,24,24	0
56	MG	1A	3556	1/1	0.97	0.13	36,36,36,36	0
56	MG	1A	3480	1/1	0.97	0.14	30,30,30,30	0
56	MG	1D	303	1/1	0.97	0.04	23,23,23,23	0
56	MG	1A	3668	1/1	0.97	0.07	37,37,37,37	0
56	MG	1A	3559	1/1	0.97	0.14	36,36,36,36	0
56	MG	1A	3046	1/1	0.97	0.13	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3459	1/1	0.97	0.14	40,40,40,40	0
56	MG	1A	3958	1/1	0.97	0.05	27,27,27,27	0
56	MG	2A	3009	1/1	0.97	0.04	44,44,44,44	0
56	MG	2A	3010	1/1	0.97	0.09	45,45,45,45	0
56	MG	2A	3011	1/1	0.97	0.11	46,46,46,46	0
56	MG	1A	3125	1/1	0.97	0.15	35,35,35,35	0
56	MG	1A	3018	1/1	0.97	0.06	35,35,35,35	0
56	MG	2A	3467	1/1	0.97	0.08	66,66,66,66	0
56	MG	2A	3755	1/1	0.97	0.06	34,34,34,34	0
56	MG	1E	301	1/1	0.97	0.15	29,29,29,29	0
56	MG	1A	3215	1/1	0.97	0.23	23,23,23,23	0
56	MG	2A	3230	1/1	0.97	0.09	52,52,52,52	0
56	MG	1A	3127	1/1	0.97	0.18	31,31,31,31	0
56	MG	2A	3473	1/1	0.97	0.05	44,44,44,44	0
56	MG	1A	3100	1/1	0.97	0.26	32,32,32,32	0
56	MG	2A	3763	1/1	0.97	0.08	62,62,62,62	0
56	MG	2A	3476	1/1	0.97	0.05	33,33,33,33	0
56	MG	2A	3765	1/1	0.97	0.05	50,50,50,50	0
56	MG	2A	3766	1/1	0.97	0.07	37,37,37,37	0
56	MG	2A	3477	1/1	0.97	0.04	45,45,45,45	0
56	MG	1E	305	1/1	0.97	0.12	35,35,35,35	0
56	MG	2A	3020	1/1	0.97	0.07	41,41,41,41	0
56	MG	2a	3131	1/1	0.97	0.23	49,49,49,49	0
56	MG	1A	3269	1/1	0.97	0.09	27,27,27,27	0
56	MG	1A	3682	1/1	0.97	0.11	38,38,38,38	0
56	MG	1A	3176	1/1	0.97	0.13	29,29,29,29	0
56	MG	2A	3238	1/1	0.97	0.17	56,56,56,56	0
56	MG	2A	3239	1/1	0.97	0.05	37,37,37,37	0
56	MG	2A	3486	1/1	0.97	0.06	41,41,41,41	0
56	MG	2A	3782	1/1	0.97	0.04	45,45,45,45	0
56	MG	1a	1670	1/1	0.97	0.13	52,52,52,52	0
56	MG	1A	3685	1/1	0.97	0.04	41,41,41,41	0
56	MG	1E	310	1/1	0.97	0.10	18,18,18,18	0
56	MG	2A	3786	1/1	0.97	0.09	36,36,36,36	0
56	MG	2A	3492	1/1	0.97	0.06	37,37,37,37	0
56	MG	1A	3686	1/1	0.97	0.06	47,47,47,47	0
56	MG	2A	3029	1/1	0.97	0.04	44,44,44,44	0
56	MG	2A	3030	1/1	0.97	0.12	42,42,42,42	0
56	MG	2A	3496	1/1	0.97	0.07	48,48,48,48	0
56	MG	2A	3246	1/1	0.97	0.08	44,44,44,44	0
56	MG	2A	3499	1/1	0.97	0.09	25,25,25,25	0
56	MG	1A	3976	1/1	0.97	0.04	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	2A	3503	1/1	0.97	0.10	41,41,41,41	0
56	MG	2a	3153	1/1	0.97	0.05	76,76,76,76	0
56	MG	1F	301	1/1	0.97	0.17	28,28,28,28	0
56	MG	2A	3505	1/1	0.97	0.08	43,43,43,43	0
56	MG	2a	3156	1/1	0.97	0.04	78,78,78,78	0
56	MG	1A	3133	1/1	0.97	0.21	30,30,30,30	0
56	MG	1A	3979	1/1	0.97	0.06	54,54,54,54	0
56	MG	2A	3508	1/1	0.97	0.10	65,65,65,65	0
56	MG	1A	3426	1/1	0.97	0.10	52,52,52,52	0
56	MG	1A	3819	1/1	0.97	0.16	50,50,50,50	0
56	MG	2a	3163	1/1	0.97	0.05	79,79,79,79	0
56	MG	2a	3164	1/1	0.97	0.06	44,44,44,44	0
56	MG	1a	1681	1/1	0.97	0.08	39,39,39,39	0
56	MG	1F	307	1/1	0.97	0.19	30,30,30,30	0
56	MG	1A	3570	1/1	0.97	0.05	48,48,48,48	0
56	MG	2A	3807	1/1	0.97	0.08	50,50,50,50	0
56	MG	1A	3059	1/1	0.97	0.16	35,35,35,35	0
56	MG	1A	3493	1/1	0.97	0.18	36,36,36,36	0
56	MG	1A	3494	1/1	0.97	0.10	40,40,40,40	0
56	MG	2A	3259	1/1	0.97	0.07	61,61,61,61	0
56	MG	2a	3174	1/1	0.97	0.14	55,55,55,55	0
56	MG	1A	3695	1/1	0.97	0.06	49,49,49,49	0
56	MG	1A	3987	1/1	0.97	0.13	28,28,28,28	0
56	MG	1A	3576	1/1	0.97	0.05	27,27,27,27	0
56	MG	2A	3263	1/1	0.97	0.07	55,55,55,55	0
56	MG	2A	3264	1/1	0.97	0.09	57,57,57,57	0
56	MG	1G	203	1/1	0.97	0.12	31,31,31,31	0
56	MG	2A	3818	1/1	0.97	0.17	46,46,46,46	0
56	MG	1A	3577	1/1	0.97	0.06	36,36,36,36	0
56	MG	2A	3527	1/1	0.97	0.04	59,59,59,59	0
56	MG	2A	3048	1/1	0.97	0.07	42,42,42,42	0
56	MG	2A	3529	1/1	0.97	0.06	48,48,48,48	0
56	MG	1H	201	1/1	0.97	0.14	32,32,32,32	0
56	MG	1A	3698	1/1	0.97	0.04	41,41,41,41	0
56	MG	2A	3051	1/1	0.97	0.09	38,38,38,38	0
56	MG	1A	3993	1/1	0.97	0.05	21,21,21,21	0
56	MG	1A	3320	1/1	0.97	0.13	41,41,41,41	0
56	MG	2A	3537	1/1	0.97	0.04	39,39,39,39	0
56	MG	1A	3700	1/1	0.97	0.07	29,29,29,29	0
56	MG	1A	3376	1/1	0.97	0.04	28,28,28,28	0
56	MG	1A	3499	1/1	0.97	0.15	27,27,27,27	0
56	MG	2a	3196	1/1	0.97	0.10	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	1A	3704	1/1	0.97	0.06	39,39,39,39	0
56	MG	1P	201	1/1	0.97	0.06	28,28,28,28	0
56	MG	1a	1702	1/1	0.97	0.05	50,50,50,50	0
56	MG	2A	3060	1/1	0.97	0.07	39,39,39,39	0
56	MG	1A	3060	1/1	0.97	0.11	37,37,37,37	0
56	MG	2A	3281	1/1	0.97	0.06	46,46,46,46	0
56	MG	1A	3837	1/1	0.97	0.08	35,35,35,35	0
56	MG	1A	3180	1/1	0.97	0.14	26,26,26,26	0
56	MG	1A	4002	1/1	0.97	0.05	22,22,22,22	0
56	MG	2A	3841	1/1	0.97	0.07	50,50,50,50	0
56	MG	1A	3711	1/1	0.97	0.06	39,39,39,39	0
56	MG	1A	3713	1/1	0.97	0.17	44,44,44,44	0
56	MG	2A	3844	1/1	0.97	0.07	53,53,53,53	0
56	MG	1A	3103	1/1	0.97	0.10	26,26,26,26	0
56	MG	1A	3842	1/1	0.97	0.07	24,24,24,24	0
56	MG	2A	3556	1/1	0.97	0.08	27,27,27,27	0
56	MG	2a	3213	1/1	0.97	0.06	64,64,64,64	0
56	MG	1A	3505	1/1	0.97	0.18	42,42,42,42	0
56	MG	2A	3071	1/1	0.97	0.06	53,53,53,53	0
56	MG	1a	1713	1/1	0.97	0.21	48,48,48,48	0
56	MG	1A	3716	1/1	0.97	0.09	40,40,40,40	0
56	MG	2A	3561	1/1	0.97	0.05	39,39,39,39	0
56	MG	2A	3294	1/1	0.97	0.19	54,54,54,54	0
56	MG	1A	3277	1/1	0.97	0.20	45,45,45,45	0
56	MG	2A	3564	1/1	0.97	0.15	37,37,37,37	0
56	MG	1A	3590	1/1	0.97	0.03	26,26,26,26	0
56	MG	1A	3591	1/1	0.97	0.05	31,31,31,31	0
56	MG	1A	3080	1/1	0.97	0.12	19,19,19,19	0
56	MG	1A	3326	1/1	0.97	0.11	49,49,49,49	0
56	MG	1A	3013	1/1	0.97	0.08	27,27,27,27	0
56	MG	2A	3301	1/1	0.97	0.07	39,39,39,39	0
56	MG	2A	3572	1/1	0.97	0.07	54,54,54,54	0
56	MG	1A	3280	1/1	0.97	0.13	31,31,31,31	0
56	MG	1T	201	1/1	0.97	0.05	56,56,56,56	0
56	MG	2A	3576	1/1	0.97	0.08	40,40,40,40	0
56	MG	2A	3577	1/1	0.97	0.14	54,54,54,54	0
56	MG	1A	3015	1/1	0.97	0.17	47,47,47,47	0
56	MG	1T	203	1/1	0.97	0.07	24,24,24,24	0
56	MG	1a	1725	1/1	0.97	0.11	44,44,44,44	0
56	MG	1A	3440	1/1	0.97	0.11	50,50,50,50	0
56	MG	1A	3039	1/1	0.97	0.06	31,31,31,31	0
56	MG	1U	205	1/1	0.97	0.13	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	1U	208	1/1	0.97	0.34	30,30,30,30	0
56	MG	2D	305	1/1	0.97	0.14	57,57,57,57	0
56	MG	1A	3857	1/1	0.97	0.10	40,40,40,40	0
56	MG	1V	202	1/1	0.97	0.37	38,38,38,38	0
56	MG	1V	203	1/1	0.97	0.11	31,31,31,31	0
56	MG	1a	1734	1/1	0.97	0.05	41,41,41,41	0
56	MG	1A	3728	1/1	0.97	0.07	59,59,59,59	0
56	MG	1A	4028	1/1	0.97	0.14	45,45,45,45	0
56	MG	1A	3443	1/1	0.97	0.09	53,53,53,53	0
56	MG	1V	208	1/1	0.97	0.12	30,30,30,30	0
56	MG	1A	3029	1/1	0.97	0.14	24,24,24,24	0
56	MG	2F	303	1/1	0.97	0.06	46,46,46,46	0
56	MG	1A	3284	1/1	0.97	0.19	42,42,42,42	0
56	MG	1a	1742	1/1	0.97	0.06	43,43,43,43	0
56	MG	1A	3605	1/1	0.97	0.16	31,31,31,31	0
56	MG	1W	204	1/1	0.97	0.10	26,26,26,26	0
56	MG	1A	3065	1/1	0.97	0.09	26,26,26,26	0
56	MG	1W	207	1/1	0.97	0.11	26,26,26,26	0
56	MG	2A	3104	1/1	0.97	0.16	67,67,67,67	0
56	MG	1X	101	1/1	0.97	0.04	29,29,29,29	0
56	MG	1A	4034	1/1	0.97	0.07	33,33,33,33	0
56	MG	1X	103	1/1	0.97	0.06	35,35,35,35	0
56	MG	1A	3518	1/1	0.97	0.08	29,29,29,29	0
56	MG	2A	3109	1/1	0.97	0.04	59,59,59,59	0
56	MG	1A	3066	1/1	0.97	0.12	18,18,18,18	0
56	MG	2A	3334	1/1	0.97	0.14	52,52,52,52	0
56	MG	1A	3448	1/1	0.97	0.10	51,51,51,51	0
56	MG	2A	3336	1/1	0.97	0.06	49,49,49,49	0
56	MG	2X	101	1/1	0.97	0.07	62,62,62,62	0
56	MG	2X	102	1/1	0.97	0.12	53,53,53,53	0
56	MG	1A	3089	1/1	0.97	0.15	23,23,23,23	0
56	MG	2A	3338	1/1	0.97	0.06	34,34,34,34	0
56	MG	1A	3741	1/1	0.97	0.07	41,41,41,41	0
56	MG	1A	4040	1/1	0.97	0.12	47,47,47,47	0
56	MG	1a	1759	1/1	0.97	0.05	53,53,53,53	0
56	MG	1A	3067	1/1	0.97	0.19	29,29,29,29	0
56	MG	1A	3744	1/1	0.97	0.04	40,40,40,40	0
56	MG	23	102	1/1	0.97	0.04	59,59,59,59	0
56	MG	2A	3118	1/1	0.97	0.28	41,41,41,41	0
56	MG	10	102	1/1	0.97	0.10	39,39,39,39	0
56	MG	1A	3612	1/1	0.97	0.10	31,31,31,31	0
59	ZN	24	501	1/1	0.97	0.11	127,127,127,127	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3438	1/1	0.98	0.05	36,36,36,36	0
56	MG	1A	3208	1/1	0.98	0.06	44,44,44,44	0
56	MG	1A	3929	1/1	0.98	0.06	50,50,50,50	0
56	MG	1A	3625	1/1	0.98	0.07	33,33,33,33	0
56	MG	1A	3502	1/1	0.98	0.15	31,31,31,31	0
56	MG	2A	3627	1/1	0.98	0.08	60,60,60,60	0
56	MG	1A	3628	1/1	0.98	0.04	14,14,14,14	0
56	MG	1A	3136	1/1	0.98	0.12	29,29,29,29	0
56	MG	1A	3240	1/1	0.98	0.07	33,33,33,33	0
56	MG	1A	3357	1/1	0.98	0.10	29,29,29,29	0
56	MG	1A	3822	1/1	0.98	0.09	36,36,36,36	0
56	MG	1U	201	1/1	0.98	0.12	30,30,30,30	0
56	MG	1U	202	1/1	0.98	0.22	30,30,30,30	0
56	MG	1A	3137	1/1	0.98	0.14	25,25,25,25	0
56	MG	2A	3287	1/1	0.98	0.07	58,58,58,58	0
56	MG	1l	201	1/1	0.98	0.06	61,61,61,61	0
56	MG	1A	3633	1/1	0.98	0.13	18,18,18,18	0
56	MG	1A	3939	1/1	0.98	0.08	35,35,35,35	0
56	MG	2A	3456	1/1	0.98	0.05	50,50,50,50	0
56	MG	1U	206	1/1	0.98	0.15	30,30,30,30	0
56	MG	1U	207	1/1	0.98	0.34	28,28,28,28	0
56	MG	2A	3643	1/1	0.98	0.05	55,55,55,55	0
56	MG	1A	3138	1/1	0.98	0.05	27,27,27,27	0
56	MG	2A	3136	1/1	0.98	0.04	40,40,40,40	0
56	MG	1a	1680	1/1	0.98	0.23	40,40,40,40	0
56	MG	1A	3139	1/1	0.98	0.06	43,43,43,43	0
56	MG	1A	3004	1/1	0.98	0.03	24,24,24,24	0
56	MG	1A	3943	1/1	0.98	0.10	18,18,18,18	0
56	MG	1a	1684	1/1	0.98	0.22	51,51,51,51	0
56	MG	1V	204	1/1	0.98	0.21	28,28,28,28	0
56	MG	1A	3084	1/1	0.98	0.11	32,32,32,32	0
56	MG	1A	3407	1/1	0.98	0.06	40,40,40,40	0
56	MG	1A	4074	1/1	0.98	0.10	49,49,49,49	0
56	MG	2A	3471	1/1	0.98	0.11	40,40,40,40	0
56	MG	1A	3246	1/1	0.98	0.14	22,22,22,22	0
56	MG	1A	3409	1/1	0.98	0.06	37,37,37,37	0
56	MG	1A	3247	1/1	0.98	0.06	49,49,49,49	0
56	MG	2A	3475	1/1	0.98	0.04	44,44,44,44	0
56	MG	1A	3459	1/1	0.98	0.10	15,15,15,15	0
56	MG	2A	3150	1/1	0.98	0.04	39,39,39,39	0
56	MG	1A	3646	1/1	0.98	0.04	24,24,24,24	0
56	MG	1A	3647	1/1	0.98	0.04	18,18,18,18	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1W	206	1/1	0.98	0.06	31,31,31,31	0
56	MG	2A	3154	1/1	0.98	0.04	45,45,45,45	0
56	MG	1A	4081	1/1	0.98	0.05	26,26,26,26	0
56	MG	1A	3955	1/1	0.98	0.06	16,16,16,16	0
56	MG	2A	3484	1/1	0.98	0.05	37,37,37,37	0
56	MG	1A	3573	1/1	0.98	0.04	20,20,20,20	0
56	MG	1A	3163	1/1	0.98	0.03	35,35,35,35	0
56	MG	1X	104	1/1	0.98	0.04	33,33,33,33	0
56	MG	1X	105	1/1	0.98	0.03	31,31,31,31	0
56	MG	2A	3489	1/1	0.98	0.05	46,46,46,46	0
56	MG	1A	3740	1/1	0.98	0.05	41,41,41,41	0
56	MG	1A	3650	1/1	0.98	0.04	12,12,12,12	0
56	MG	1B	204	1/1	0.98	0.03	32,32,32,32	0
56	MG	2D	301	1/1	0.98	0.07	54,54,54,54	0
56	MG	1A	3287	1/1	0.98	0.13	33,33,33,33	0
56	MG	1A	3743	1/1	0.98	0.04	45,45,45,45	0
56	MG	1A	3965	1/1	0.98	0.11	49,49,49,49	0
56	MG	2A	3497	1/1	0.98	0.06	37,37,37,37	0
56	MG	2A	3683	1/1	0.98	0.13	44,44,44,44	0
56	MG	1A	3652	1/1	0.98	0.06	52,52,52,52	0
56	MG	2a	3146	1/1	0.98	0.06	63,63,63,63	0
56	MG	2A	3326	1/1	0.98	0.07	50,50,50,50	0
56	MG	2A	3500	1/1	0.98	0.08	32,32,32,32	0
56	MG	2A	3501	1/1	0.98	0.08	43,43,43,43	0
56	MG	1A	3967	1/1	0.98	0.03	49,49,49,49	0
56	MG	1a	1710	1/1	0.98	0.25	47,47,47,47	0
56	MG	1A	3250	1/1	0.98	0.20	25,25,25,25	0
56	MG	1A	3654	1/1	0.98	0.06	30,30,30,30	0
56	MG	1A	3655	1/1	0.98	0.04	30,30,30,30	0
56	MG	1A	3748	1/1	0.98	0.07	39,39,39,39	0
56	MG	1A	3749	1/1	0.98	0.10	45,45,45,45	0
56	MG	1A	3369	1/1	0.98	0.10	37,37,37,37	0
56	MG	1A	3751	1/1	0.98	0.06	18,18,18,18	0
56	MG	1A	3978	1/1	0.98	0.07	45,45,45,45	0
56	MG	1B	218	1/1	0.98	0.08	33,33,33,33	0
56	MG	2A	3513	1/1	0.98	0.06	39,39,39,39	0
56	MG	11	104	1/1	0.98	0.04	43,43,43,43	0
56	MG	1A	3370	1/1	0.98	0.06	31,31,31,31	0
56	MG	1A	3216	1/1	0.98	0.20	31,31,31,31	0
56	MG	2A	3025	1/1	0.98	0.06	56,56,56,56	0
56	MG	1A	3466	1/1	0.98	0.11	48,48,48,48	0
56	MG	13	101	1/1	0.98	0.08	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3856	1/1	0.98	0.06	31,31,31,31	0
56	MG	2U	201	1/1	0.98	0.04	63,63,63,63	0
56	MG	13	103	1/1	0.98	0.12	44,44,44,44	0
56	MG	1A	3660	1/1	0.98	0.08	21,21,21,21	0
56	MG	1A	3661	1/1	0.98	0.05	12,12,12,12	0
56	MG	1A	3252	1/1	0.98	0.12	29,29,29,29	0
56	MG	1A	3862	1/1	0.98	0.07	17,17,17,17	0
56	MG	1a	1731	1/1	0.98	0.04	50,50,50,50	0
56	MG	1A	3584	1/1	0.98	0.04	27,27,27,27	0
56	MG	1A	3664	1/1	0.98	0.10	22,22,22,22	0
56	MG	21	101	1/1	0.98	0.22	54,54,54,54	0
56	MG	2A	3715	1/1	0.98	0.04	53,53,53,53	0
56	MG	1A	3989	1/1	0.98	0.04	33,33,33,33	0
56	MG	1A	3760	1/1	0.98	0.07	26,26,26,26	0
56	MG	1a	1736	1/1	0.98	0.07	41,41,41,41	0
56	MG	1A	3142	1/1	0.98	0.12	26,26,26,26	0
56	MG	1A	3992	1/1	0.98	0.10	22,22,22,22	0
56	MG	17	102	1/1	0.98	0.05	25,25,25,25	0
56	MG	1A	3763	1/1	0.98	0.18	22,22,22,22	0
56	MG	1A	3586	1/1	0.98	0.11	34,34,34,34	0
56	MG	1B	236	1/1	0.98	0.04	35,35,35,35	0
56	MG	17	106	1/1	0.98	0.03	44,44,44,44	0
56	MG	18	101	1/1	0.98	0.04	32,32,32,32	0
56	MG	28	103	1/1	0.98	0.11	43,43,43,43	0
56	MG	1A	3765	1/1	0.98	0.04	43,43,43,43	0
56	MG	2A	3366	1/1	0.98	0.09	32,32,32,32	0
56	MG	1A	3330	1/1	0.98	0.04	38,38,38,38	0
56	MG	1A	3143	1/1	0.98	0.08	27,27,27,27	0
56	MG	1A	3144	1/1	0.98	0.07	32,32,32,32	0
56	MG	1D	304	1/1	0.98	0.09	28,28,28,28	0
56	MG	2A	3733	1/1	0.98	0.06	42,42,42,42	0
56	MG	1A	3003	1/1	0.98	0.06	28,28,28,28	0
56	MG	1A	3168	1/1	0.98	0.05	31,31,31,31	0
56	MG	2A	3552	1/1	0.98	0.09	47,47,47,47	0
56	MG	1A	3474	1/1	0.98	0.15	31,31,31,31	0
56	MG	1A	3006	1/1	0.98	0.06	38,38,38,38	0
56	MG	1D	309	1/1	0.98	0.12	14,14,14,14	0
56	MG	1A	3674	1/1	0.98	0.04	17,17,17,17	0
56	MG	1A	3676	1/1	0.98	0.04	45,45,45,45	0
56	MG	1A	3031	1/1	0.98	0.21	34,34,34,34	0
56	MG	1A	4010	1/1	0.98	0.03	28,28,28,28	0
56	MG	1A	3884	1/1	0.98	0.07	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3885	1/1	0.98	0.07	44,44,44,44	0
56	MG	1A	3129	1/1	0.98	0.09	16,16,16,16	0
56	MG	1A	3478	1/1	0.98	0.28	34,34,34,34	0
56	MG	2A	3749	1/1	0.98	0.07	45,45,45,45	0
56	MG	1a	1767	1/1	0.98	0.06	50,50,50,50	0
56	MG	2A	3067	1/1	0.98	0.11	53,53,53,53	0
56	MG	1A	3197	1/1	0.98	0.05	44,44,44,44	0
56	MG	2A	3753	1/1	0.98	0.07	63,63,63,63	0
56	MG	2A	3567	1/1	0.98	0.07	42,42,42,42	0
56	MG	1A	3890	1/1	0.98	0.06	44,44,44,44	0
56	MG	1A	3600	1/1	0.98	0.08	51,51,51,51	0
56	MG	1A	3684	1/1	0.98	0.06	45,45,45,45	0
56	MG	1A	3149	1/1	0.98	0.12	31,31,31,31	0
56	MG	2a	3226	1/1	0.98	0.10	46,46,46,46	0
56	MG	1A	4020	1/1	0.98	0.03	39,39,39,39	0
56	MG	1A	3602	1/1	0.98	0.06	17,17,17,17	0
56	MG	1A	3340	1/1	0.98	0.05	33,33,33,33	0
56	MG	2A	3575	1/1	0.98	0.05	51,51,51,51	0
56	MG	1A	3095	1/1	0.98	0.20	27,27,27,27	0
56	MG	1A	4024	1/1	0.98	0.13	39,39,39,39	0
56	MG	1F	305	1/1	0.98	0.05	47,47,47,47	0
56	MG	1a	1779	1/1	0.98	0.05	60,60,60,60	0
56	MG	1A	3432	1/1	0.98	0.04	31,31,31,31	0
56	MG	1A	3484	1/1	0.98	0.11	33,33,33,33	0
56	MG	1A	3132	1/1	0.98	0.12	28,28,28,28	0
56	MG	2A	3771	1/1	0.98	0.05	33,33,33,33	0
56	MG	1A	3902	1/1	0.98	0.04	37,37,37,37	0
56	MG	1a	1631	1/1	0.98	0.26	42,42,42,42	0
56	MG	1A	3266	1/1	0.98	0.11	26,26,26,26	0
56	MG	2A	3776	1/1	0.98	0.08	65,65,65,65	0
56	MG	1A	3120	1/1	0.98	0.18	33,33,33,33	0
56	MG	2A	3778	1/1	0.98	0.06	58,58,58,58	0
56	MG	2A	3779	1/1	0.98	0.04	56,56,56,56	0
56	MG	2A	3780	1/1	0.98	0.04	24,24,24,24	0
56	MG	1A	3112	1/1	0.98	0.05	23,23,23,23	0
56	MG	1A	3154	1/1	0.98	0.07	45,45,45,45	0
56	MG	1G	201	1/1	0.98	0.06	34,34,34,34	0
56	MG	1A	3007	1/1	0.98	0.04	21,21,21,21	0
56	MG	1A	3793	1/1	0.98	0.05	39,39,39,39	0
56	MG	2A	3592	1/1	0.98	0.12	39,39,39,39	0
56	MG	1A	3794	1/1	0.98	0.06	35,35,35,35	0
56	MG	1a	1793	1/1	0.98	0.04	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	3271	1/1	0.98	0.16	43,43,43,43	0
56	MG	1A	3349	1/1	0.98	0.04	44,44,44,44	0
56	MG	1A	3701	1/1	0.98	0.05	42,42,42,42	0
56	MG	1A	3616	1/1	0.98	0.04	37,37,37,37	0
56	MG	1A	3156	1/1	0.98	0.08	30,30,30,30	0
56	MG	1N	205	1/1	0.98	0.03	33,33,33,33	0
56	MG	1A	3915	1/1	0.98	0.07	45,45,45,45	0
56	MG	1A	3551	1/1	0.98	0.13	35,35,35,35	0
56	MG	1A	3442	1/1	0.98	0.15	32,32,32,32	0
56	MG	1A	3706	1/1	0.98	0.04	26,26,26,26	0
56	MG	1A	4045	1/1	0.98	0.04	34,34,34,34	0
56	MG	2A	3800	1/1	0.98	0.11	53,53,53,53	0
56	MG	1P	203	1/1	0.98	0.19	23,23,23,23	0
56	MG	1A	3206	1/1	0.98	0.12	33,33,33,33	0
56	MG	1A	3709	1/1	0.98	0.06	29,29,29,29	0
56	MG	1P	206	1/1	0.98	0.05	31,31,31,31	0
56	MG	2A	3610	1/1	0.98	0.05	53,53,53,53	0
56	MG	1A	3236	1/1	0.98	0.13	59,59,59,59	0
56	MG	1A	3810	1/1	0.98	0.09	44,44,44,44	0
56	MG	1a	1814	1/1	0.98	0.05	49,49,49,49	0
56	MG	1A	3712	1/1	0.98	0.11	52,52,52,52	0
56	MG	2A	3432	1/1	0.98	0.05	42,42,42,42	0
56	MG	1A	3924	1/1	0.98	0.08	58,58,58,58	0
56	MG	1A	4052	1/1	0.98	0.04	36,36,36,36	0
56	MG	1A	3498	1/1	0.98	0.05	43,43,43,43	0
56	MG	1A	3813	1/1	0.98	0.04	40,40,40,40	0
56	MG	1A	3181	1/1	0.98	0.09	29,29,29,29	0
59	ZN	29	501	1/1	0.98	0.04	81,81,81,81	0
60	SF4	2d	302	8/8	0.98	0.04	67,80,92,98	0
56	MG	1A	3809	1/1	0.99	0.06	34,34,34,34	0
56	MG	1A	3520	1/1	0.99	0.19	35,35,35,35	0
56	MG	1A	3045	1/1	0.99	0.07	22,22,22,22	0
56	MG	1A	3972	1/1	0.99	0.04	51,51,51,51	0
56	MG	1A	3593	1/1	0.99	0.06	19,19,19,19	0
56	MG	1A	3974	1/1	0.99	0.06	38,38,38,38	0
56	MG	1A	3308	1/1	0.99	0.06	28,28,28,28	0
56	MG	1A	3501	1/1	0.99	0.12	23,23,23,23	0
56	MG	1A	3257	1/1	0.99	0.11	26,26,26,26	0
56	MG	2A	3365	1/1	0.99	0.05	36,36,36,36	0
56	MG	2A	3522	1/1	0.99	0.03	32,32,32,32	0
56	MG	1B	221	1/1	0.99	0.03	28,28,28,28	0
56	MG	1A	3364	1/1	0.99	0.09	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3130	1/1	0.99	0.09	40,40,40,40	0
56	MG	1A	3627	1/1	0.99	0.05	22,22,22,22	0
56	MG	1A	3735	1/1	0.99	0.03	20,20,20,20	0
56	MG	1A	3170	1/1	0.99	0.09	37,37,37,37	0
56	MG	1A	3870	1/1	0.99	0.04	46,46,46,46	0
56	MG	1A	3871	1/1	0.99	0.04	44,44,44,44	0
56	MG	2A	3614	1/1	0.99	0.04	46,46,46,46	0
56	MG	2A	3531	1/1	0.99	0.03	44,44,44,44	0
56	MG	1A	3424	1/1	0.99	0.06	37,37,37,37	0
56	MG	2A	3533	1/1	0.99	0.03	57,57,57,57	0
56	MG	1A	3738	1/1	0.99	0.06	34,34,34,34	0
56	MG	2A	3453	1/1	0.99	0.04	56,56,56,56	0
56	MG	1Q	202	1/1	0.99	0.04	29,29,29,29	0
56	MG	1A	3574	1/1	0.99	0.09	30,30,30,30	0
56	MG	2A	3538	1/1	0.99	0.03	52,52,52,52	0
56	MG	1A	3097	1/1	0.99	0.04	32,32,32,32	0
56	MG	1A	3108	1/1	0.99	0.08	28,28,28,28	0
56	MG	1A	3071	1/1	0.99	0.08	19,19,19,19	0
56	MG	1A	3035	1/1	0.99	0.14	34,34,34,34	0
56	MG	1A	3579	1/1	0.99	0.05	26,26,26,26	0
56	MG	1B	237	1/1	0.99	0.04	31,31,31,31	0
56	MG	1A	3880	1/1	0.99	0.05	30,30,30,30	0
56	MG	1A	3881	1/1	0.99	0.03	25,25,25,25	0
56	MG	1A	3636	1/1	0.99	0.06	20,20,20,20	0
56	MG	1A	3073	1/1	0.99	0.12	28,28,28,28	0
56	MG	2A	3466	1/1	0.99	0.07	41,41,41,41	0
56	MG	1a	1796	1/1	0.99	0.07	37,37,37,37	0
56	MG	1a	1797	1/1	0.99	0.04	64,64,64,64	0
56	MG	1a	1798	1/1	0.99	0.04	50,50,50,50	0
56	MG	2A	3015	1/1	0.99	0.07	68,68,68,68	0
56	MG	1A	3027	1/1	0.99	0.15	22,22,22,22	0
56	MG	1A	3832	1/1	0.99	0.04	23,23,23,23	0
56	MG	1A	3833	1/1	0.99	0.03	24,24,24,24	0
56	MG	1A	3887	1/1	0.99	0.04	40,40,40,40	0
56	MG	1A	3249	1/1	0.99	0.10	32,32,32,32	0
56	MG	1A	4003	1/1	0.99	0.06	42,42,42,42	0
56	MG	1A	3710	1/1	0.99	0.04	20,20,20,20	0
56	MG	1A	4005	1/1	0.99	0.05	40,40,40,40	0
56	MG	1A	3558	1/1	0.99	0.04	39,39,39,39	0
56	MG	1A	3021	1/1	0.99	0.03	17,17,17,17	0
56	MG	1A	4009	1/1	0.99	0.06	19,19,19,19	0
56	MG	1A	3945	1/1	0.99	0.09	12,12,12,12	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3736	1/1	0.99	0.03	60,60,60,60	0
56	MG	1a	1603	1/1	0.99	0.03	49,49,49,49	0
56	MG	1A	3946	1/1	0.99	0.03	33,33,33,33	0
56	MG	1A	3642	1/1	0.99	0.06	18,18,18,18	0
56	MG	2a	3165	1/1	0.99	0.04	66,66,66,66	0
56	MG	1A	3675	1/1	0.99	0.03	27,27,27,27	0
56	MG	1A	3949	1/1	0.99	0.02	51,51,51,51	0
56	MG	1A	3019	1/1	0.99	0.04	17,17,17,17	0
56	MG	1a	1743	1/1	0.99	0.04	33,33,33,33	0
56	MG	1a	1744	1/1	0.99	0.08	36,36,36,36	0
56	MG	2A	3491	1/1	0.99	0.04	38,38,38,38	0
56	MG	1A	3644	1/1	0.99	0.03	20,20,20,20	0
56	MG	1A	3717	1/1	0.99	0.06	35,35,35,35	0
56	MG	1A	3085	1/1	0.99	0.07	16,16,16,16	0
56	MG	1A	3899	1/1	0.99	0.04	51,51,51,51	0
56	MG	2a	3176	1/1	0.99	0.04	65,65,65,65	0
56	MG	1A	3014	1/1	0.99	0.07	30,30,30,30	0
56	MG	1A	4083	1/1	0.99	0.05	42,42,42,42	0
56	MG	1A	3956	1/1	0.99	0.03	17,17,17,17	0
56	MG	2A	3667	1/1	0.99	0.04	34,34,34,34	0
56	MG	1A	3680	1/1	0.99	0.06	22,22,22,22	0
56	MG	1A	3800	1/1	0.99	0.06	12,12,12,12	0
56	MG	1A	3960	1/1	0.99	0.06	42,42,42,42	0
56	MG	1A	3681	1/1	0.99	0.04	43,43,43,43	0
56	MG	1A	3615	1/1	0.99	0.04	26,26,26,26	0
56	MG	1A	3762	1/1	0.99	0.03	27,27,27,27	0
56	MG	1a	1758	1/1	0.99	0.09	65,65,65,65	0
56	MG	1A	3128	1/1	0.99	0.03	24,24,24,24	0
56	MG	2A	3762	1/1	0.99	0.08	40,40,40,40	0
56	MG	1a	1760	1/1	0.99	0.04	36,36,36,36	0
59	ZN	1Y	204	1/1	0.99	0.03	84,84,84,84	0
56	MG	1A	3805	1/1	0.99	0.07	31,31,31,31	0
59	ZN	15	106	1/1	0.99	0.07	52,52,52,52	0
59	ZN	1n	103	1/1	0.99	0.03	60,60,60,60	0
59	ZN	2Y	202	1/1	0.99	0.06	109,109,109,109	0
56	MG	1A	3589	1/1	0.99	0.04	39,39,39,39	0
59	ZN	25	103	1/1	0.99	0.03	69,69,69,69	0
59	ZN	26	501	1/1	0.99	0.05	67,67,67,67	0
56	MG	1A	3807	1/1	0.99	0.04	35,35,35,35	0
59	ZN	2n	501	1/1	0.99	0.03	98,98,98,98	0
60	SF4	1d	302	8/8	0.99	0.03	59,68,73,74	0
56	MG	1A	3224	1/1	0.99	0.13	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	3689	1/1	1.00	0.04	13,13,13,13	0
56	MG	1A	3708	1/1	1.00	0.01	31,31,31,31	0
56	MG	1A	3975	1/1	1.00	0.03	17,17,17,17	0
56	MG	1A	4006	1/1	1.00	0.03	35,35,35,35	0
56	MG	1A	3893	1/1	1.00	0.03	42,42,42,42	0
59	ZN	16	103	1/1	1.00	0.01	40,40,40,40	0
59	ZN	19	103	1/1	1.00	0.04	43,43,43,43	0
56	MG	1A	3069	1/1	1.00	0.05	23,23,23,23	0
56	MG	2A	3651	1/1	1.00	0.09	31,31,31,31	0
56	MG	1A	3959	1/1	1.00	0.03	24,24,24,24	0
56	MG	1A	3688	1/1	1.00	0.01	20,20,20,20	0
56	MG	2A	3774	1/1	1.00	0.03	33,33,33,33	0
56	MG	2a	3162	1/1	1.00	0.05	44,44,44,44	0
56	MG	1A	3860	1/1	1.00	0.03	26,26,26,26	0
56	MG	1A	3861	1/1	1.00	0.02	24,24,24,24	0
56	MG	1A	3855	1/1	1.00	0.04	36,36,36,36	0

6.5 Other polymers [i](#)

There are no such residues in this entry.