Full wwPDB X-ray Structure Validation Report ⓘ

Jun 17, 2025 – 08:07 PM EDT

PDB ID	:	9O3H / pdb_00009o3h
Title	:	Crystal structure of the wild-type Thermus thermophilus 70S ribosome in complex with macrolide erythromycin, mRNA, aminoacylated A-site Lys-tRNAlys, P-site fMRC-peptidyl-tRNAmet, and deacylated E-site tRNAlys at 2.65A resolution
Authors	:	Syroegin, E.A.; Aleksandrova, E.V.; Kruglov, A.A.; Paranjpe, M.N.; Svetlov, M.S.; Polikanov, Y.S.
Deposited on	:	2025-04-07
Resolution	:	2.65 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

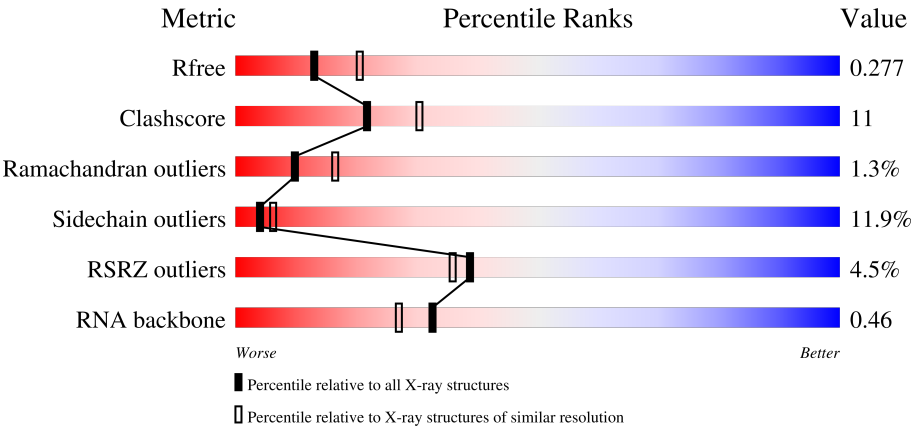
MolProbity	:	4-5-2 with Phenix2.0rc1
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0rc1
EDS	:	3.0
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.006 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)

1 Overall quality at a glance

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

The reported resolution of this entry is 2.65 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}	164625	1003 (2.66-2.66)
Clashscore	180529	1063 (2.66-2.66)
Ramachandran outliers	177936	1052 (2.66-2.66)
Sidechain outliers	177891	1052 (2.66-2.66)
RSRZ outliers	164620	1003 (2.66-2.66)
RNA backbone	3690	1015 (2.90-2.42)

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 <=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	4% 59% 32% 7% •
1	2A	2915	3% 53% 36% 8% •

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Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.44

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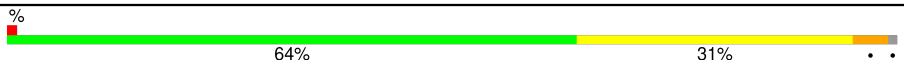
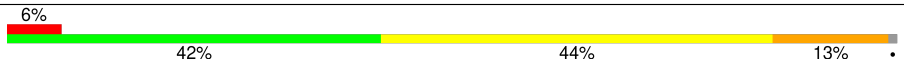
Mol	Chain	Length	Quality of chain
2	1B	121	
2	2B	121	
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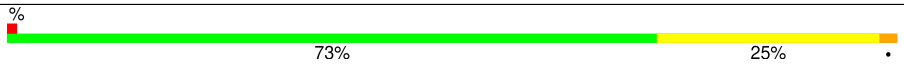
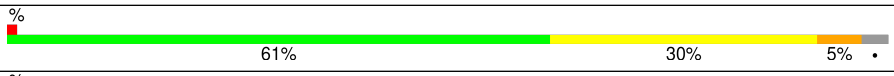
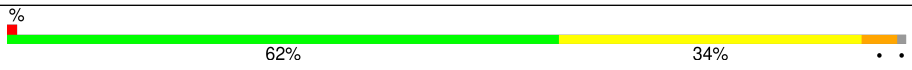
3	2D	276	
4	1E	206	
4	2E	206	
5	1F	210	
5	2F	210	
6	1G	182	
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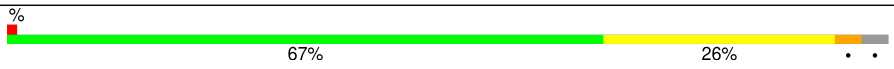
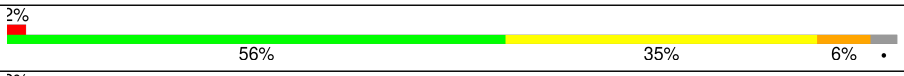
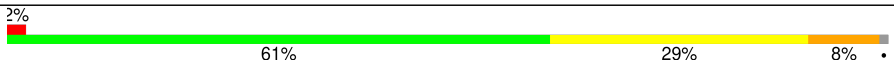
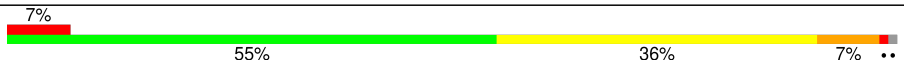
7	1H	180	
7	2H	180	
8	1I	148	
8	2I	148	
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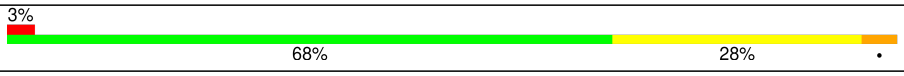
9	2N	140	
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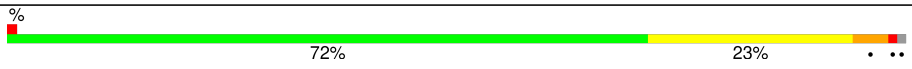
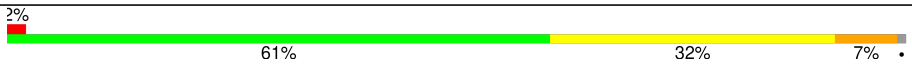
10	2O	122	
11	1P	150	
11	2P	150	
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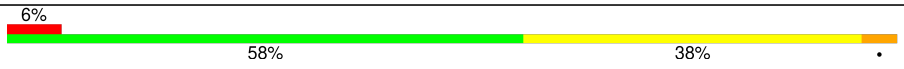
12	2Q	141	
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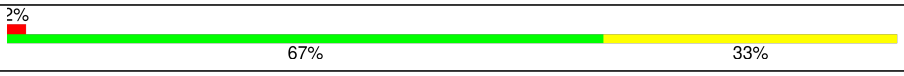
13	2R	118	
14	1S	112	

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Mol	Chain	Length	Quality of chain
14	2S	112	13% 38% 50% 11%
15	1T	146	% 60% 27% 10%
15	2T	146	% 55% 31% 10%
16	1U	118	72% 23%
16	2U	118	69% 25%
17	1V	101	74% 23%
17	2V	101	3% 69% 25% 5%
18	1W	113	78% 19%
18	2W	113	% 83% 15%
19	1X	96	% 76% 21%
19	2X	96	4% 66% 31%
20	1Y	110	70% 22% 5%
20	2Y	110	9% 58% 34% 5%
21	1Z	206	4% 41% 28% 6% 25%
21	2Z	206	6% 38% 32% 7% 22%
22	10	85	7% 73% 21%
22	20	85	11% 72% 24%
23	11	98	% 69% 27%
23	21	98	3% 63% 34%
24	12	72	69% 24%
24	22	72	60% 35%
25	13	60	2% 63% 30% 5%
25	23	60	2% 53% 40% 5%
26	14	71	3% 42% 42% 11%
26	24	71	8% 49% 38% 8%

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Mol	Chain	Length	Quality of chain
27	15	60	2% 77% 18%
27	25	60	68% 25% 5%
28	16	54	63% 30% 6%
28	26	54	4% 67% 26% 6%
29	17	49	71% 27%
29	27	49	2% 65% 33%
30	18	65	71% 28%
30	28	65	65% 31%
31	19	37	3% 81% 19%
31	29	37	5% 46% 54%
32	1a	1521	2% 52% 40% 6%
32	2a	1521	5% 43% 44% 11%
33	1b	256	6% 45% 38% 7% 10%
33	2b	256	16% 40% 41% 9% 10%
34	1c	239	% 55% 28% 14%
34	2c	239	12% 43% 35% 8% 14%
35	1d	209	6% 67% 28% 5%
35	2d	209	3% 54% 41%
36	1e	162	% 53% 33% 5% 9%
36	2e	162	6% 46% 36% 10% 9%
37	1f	101	% 70% 25%
37	2f	101	% 64% 29% 6%
38	1g	156	9% 69% 24% 5%
38	2g	156	14% 53% 41% 6%
39	1h	138	% 57% 38% 5%

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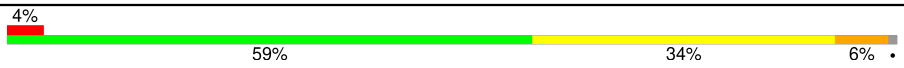
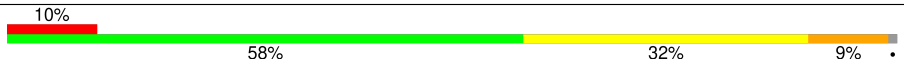
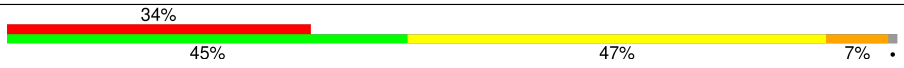
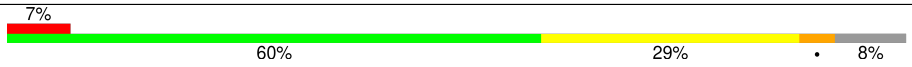
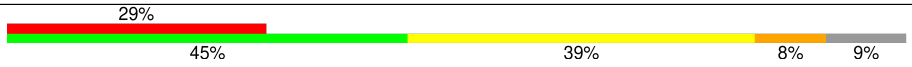
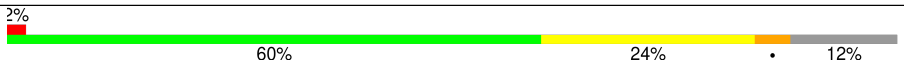
Mol	Chain	Length	Quality of chain
39	2h	138	
40	1i	128	
40	2i	128	
41	1j	105	
41	2j	105	
42	1k	129	
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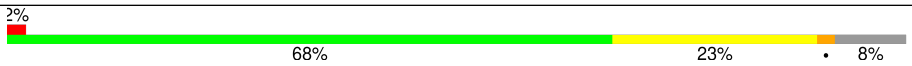
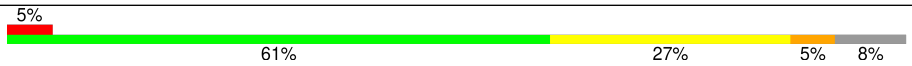
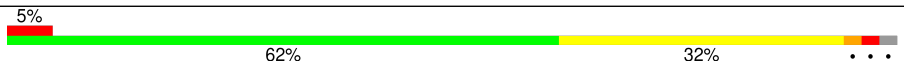
43	1l	132	
43	2l	132	
44	1m	126	
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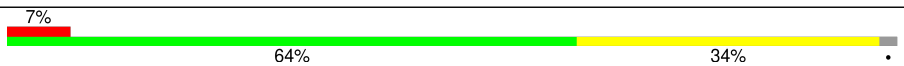
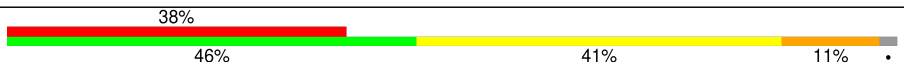
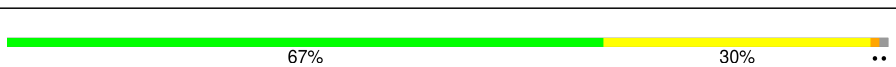
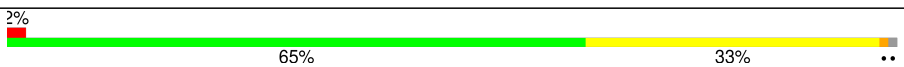
45	1n	61	
45	2n	61	
46	1o	89	
46	2o	89	
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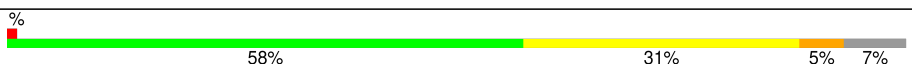
47	2p	88	
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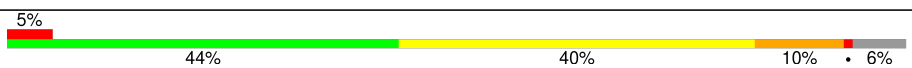
48	2q	105	
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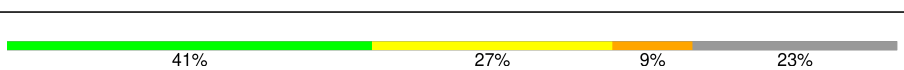
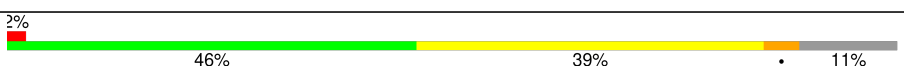
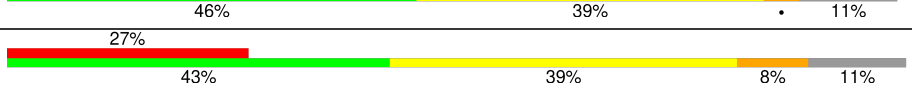
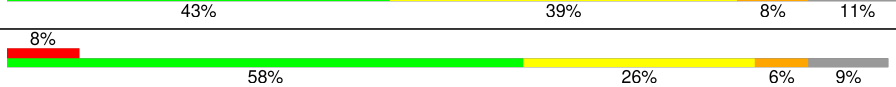
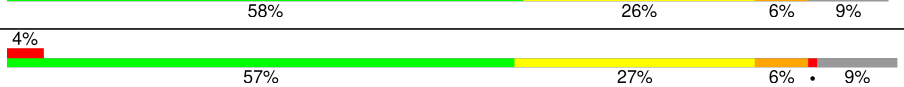
49	2r	88	
50	1s	93	
50	2s	93	
51	1t	106	
51	2t	106	

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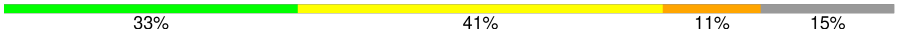
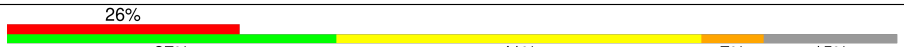
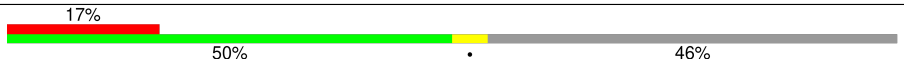
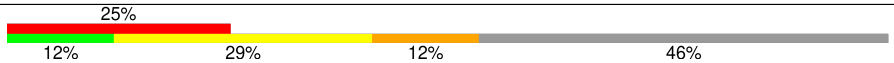
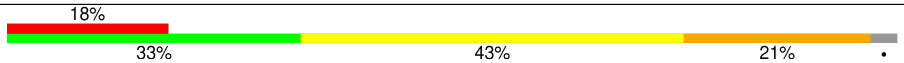
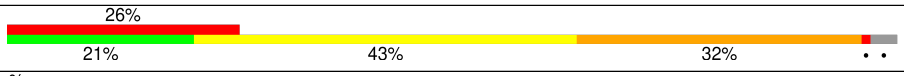
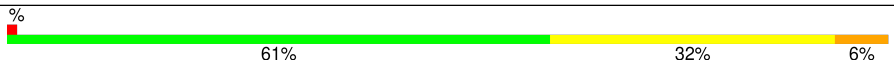
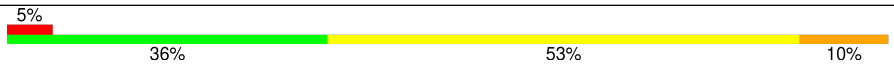
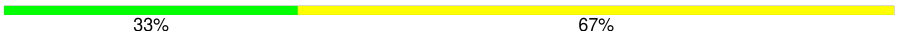
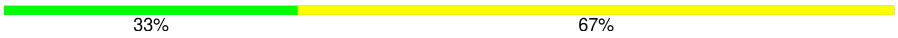
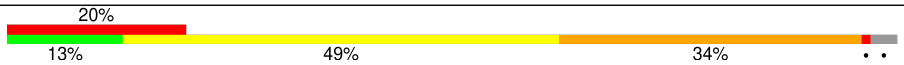
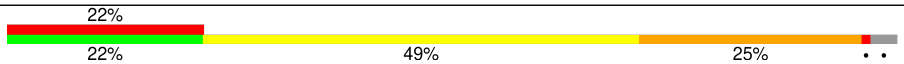
Mol	Chain	Length	Quality of chain
52	1u	27	
52	2u	27	
53	1v	24	
53	2v	24	
54	1w	76	
54	2w	76	
55	1x	77	
55	2x	77	
56	1z	3	
56	2z	3	
57	1y	76	
57	2y	76	

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
62	SF4	2d	303	-	-	X	-

2 Entry composition

There are 63 unique types of molecules in this entry. The entry contains 299863 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	1
			1584	1009	298	275	2			
5	2F	203	Total	C	N	O	S	0	0	1
			1580	1007	297	274	2			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- 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 MET-LYS-mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	1v	13	Total	C	N	O	P	0	0	0
			283	128	59	83	13			
53	2v	13	Total	C	N	O	P	0	0	0
			283	128	59	83	13			

- Molecule 54 is a RNA chain called A-site Aminoacyl-tRNA Lys-tRNAlys.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
54	1w	74	Total	C	N	O	P	S	0	0	0
			1599	718	282	524	74	1			
54	2w	74	Total	C	N	O	P	S	0	0	0
			1599	718	282	524	74	1			

- Molecule 55 is a RNA chain called P-site Peptidyl-tRNA fMRC-tRNAcys RNA-part.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
55	1x	77	Total	C	N	O	P	S	0	0	0
			1646	734	298	536	77	1			
55	2x	77	Total	C	N	O	P	S	0	0	0
			1646	734	298	536	77	1			

- Molecule 56 is a protein called P-site Peptidyl-tRNA fMRC-tRNAcys Peptide-part.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	1z	3	Total	C	N	O	S	0	0	0
			27	15	6	4	2			
56	2z	3	Total	C	N	O	S	0	0	0
			27	15	6	4	2			

- Molecule 57 is a RNA chain called E-site Deacylated tRNAlys.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
57	1y	74	Total	C	N	O	P	S	0	0	0
			1577	705	277	520	74	1			
57	2y	74	Total	C	N	O	P	S	0	0	0
			1577	705	277	520	74	1			

- Molecule 58 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	1A	1102	Total	Mg	0	0
			1102	1102		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	1B	36	Total Mg 36 36	0	0
58	1D	14	Total Mg 14 14	0	0
58	1E	14	Total Mg 14 14	0	0
58	1F	12	Total Mg 12 12	0	0
58	1G	5	Total Mg 5 5	0	0
58	1H	1	Total Mg 1 1	0	0
58	1I	1	Total Mg 1 1	0	0
58	1N	4	Total Mg 4 4	0	0
58	1O	5	Total Mg 5 5	0	0
58	1P	4	Total Mg 4 4	0	0
58	1Q	8	Total Mg 8 8	0	0
58	1R	3	Total Mg 3 3	0	0
58	1S	3	Total Mg 3 3	0	0
58	1T	2	Total Mg 2 2	0	0
58	1U	11	Total Mg 11 11	0	0
58	1V	7	Total Mg 7 7	0	0
58	1W	7	Total Mg 7 7	0	0
58	1X	5	Total Mg 5 5	0	0
58	1Y	3	Total Mg 3 3	0	0
58	1Z	3	Total Mg 3 3	0	0
58	10	8	Total Mg 8 8	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	11	6	Total Mg 6 6	0	0
58	12	2	Total Mg 2 2	0	0
58	13	6	Total Mg 6 6	0	0
58	15	10	Total Mg 10 10	0	0
58	16	1	Total Mg 1 1	0	0
58	17	5	Total Mg 5 5	0	0
58	18	7	Total Mg 7 7	0	0
58	19	1	Total Mg 1 1	0	0
58	1a	215	Total Mg 215 215	0	0
58	1b	1	Total Mg 1 1	0	0
58	1d	1	Total Mg 1 1	0	0
58	1e	1	Total Mg 1 1	0	0
58	1f	2	Total Mg 2 2	0	0
58	1l	2	Total Mg 2 2	0	0
58	1m	2	Total Mg 2 2	0	0
58	1n	2	Total Mg 2 2	0	0
58	1s	1	Total Mg 1 1	0	0
58	1t	1	Total Mg 1 1	0	0
58	1v	1	Total Mg 1 1	0	0
58	1w	6	Total Mg 6 6	0	0
58	1x	11	Total Mg 11 11	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	2A	858	Total Mg 858 858	0	0
58	2B	20	Total Mg 20 20	0	0
58	2D	9	Total Mg 9 9	0	0
58	2E	7	Total Mg 7 7	0	0
58	2F	6	Total Mg 6 6	0	0
58	2G	1	Total Mg 1 1	0	0
58	2O	2	Total Mg 2 2	0	0
58	2P	2	Total Mg 2 2	0	0
58	2Q	2	Total Mg 2 2	0	0
58	2R	1	Total Mg 1 1	0	0
58	2T	2	Total Mg 2 2	0	0
58	2U	2	Total Mg 2 2	0	0
58	2V	2	Total Mg 2 2	0	0
58	2W	4	Total Mg 4 4	0	0
58	2X	2	Total Mg 2 2	0	0
58	2Y	1	Total Mg 1 1	0	0
58	2Z	1	Total Mg 1 1	0	0
58	20	3	Total Mg 3 3	0	0
58	23	4	Total Mg 4 4	0	0
58	25	6	Total Mg 6 6	0	0
58	26	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	27	3	Total Mg 3 3	0	0
58	28	4	Total Mg 4 4	0	0
58	2a	230	Total Mg 230 230	0	0
58	2d	2	Total Mg 2 2	0	0
58	2e	2	Total Mg 2 2	0	0
58	2f	2	Total Mg 2 2	0	0
58	2g	1	Total Mg 1 1	0	0
58	2i	1	Total Mg 1 1	0	0
58	2j	2	Total Mg 2 2	0	0
58	2k	1	Total Mg 1 1	0	0
58	2l	6	Total Mg 6 6	0	0
58	2q	2	Total Mg 2 2	0	0
58	2r	1	Total Mg 1 1	0	0
58	2t	1	Total Mg 1 1	0	0
58	2v	5	Total Mg 5 5	0	0
58	2w	2	Total Mg 2 2	0	0
58	2x	5	Total Mg 5 5	0	0
58	2y	1	Total Mg 1 1	0	0

- Molecule 59 is POTASSIUM ION (CCD ID: K) (formula: K).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	1A	1	Total K 1 1	0	0

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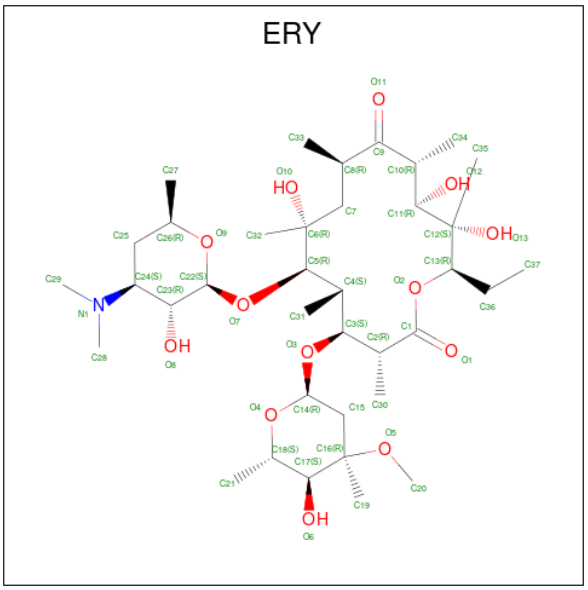
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	2x	1	Total K 1 1	0	0

- Molecule 60 is ERYTHROMYCIN A (CCD ID: ERY) (formula: $C_{37}H_{67}NO_{13}$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1A	1	Total C N O 51 37 1 13	0	0
60	2A	1	Total C N O 51 37 1 13	0	0

- Molecule 61 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	1Y	1	Total Zn 1 1	0	0
61	14	1	Total Zn 1 1	0	0
61	15	1	Total Zn 1 1	0	0
61	16	1	Total Zn 1 1	0	0
61	19	1	Total Zn 1 1	0	0
61	1n	1	Total Zn 1 1	0	0

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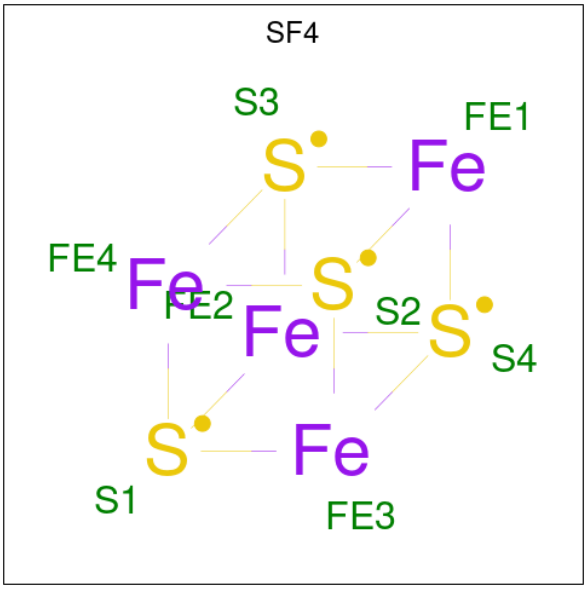
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	2Y	1	Total Zn 1 1	0	0
61	24	1	Total Zn 1 1	0	0
61	25	1	Total Zn 1 1	0	0
61	26	1	Total Zn 1 1	0	0
61	29	1	Total Zn 1 1	0	0
61	2n	1	Total Zn 1 1	0	0

- Molecule 62 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	1d	1	Total Fe S 8 4 4	0	0
62	2d	1	Total Fe S 8 4 4	0	0

- Molecule 63 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	1A	1896	Total O 1896 1896	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	1B	61	Total O 61 61	0	0
63	1D	25	Total O 25 25	0	0
63	1E	30	Total O 30 30	0	0
63	1F	17	Total O 17 17	0	0
63	1G	3	Total O 3 3	0	0
63	1H	2	Total O 2 2	0	0
63	1N	4	Total O 4 4	0	0
63	1O	5	Total O 5 5	0	0
63	1P	25	Total O 25 25	0	0
63	1Q	7	Total O 7 7	0	0
63	1R	16	Total O 16 16	0	0
63	1S	3	Total O 3 3	0	0
63	1T	5	Total O 5 5	0	0
63	1U	14	Total O 14 14	0	0
63	1V	9	Total O 9 9	0	0
63	1W	6	Total O 6 6	0	0
63	1X	8	Total O 8 8	0	0
63	1Y	5	Total O 5 5	0	0
63	1Z	1	Total O 1 1	0	0
63	10	13	Total O 13 13	0	0
63	11	9	Total O 9 9	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	12	3	Total O 3 3	0	0
63	13	6	Total O 6 6	0	0
63	14	1	Total O 1 1	0	0
63	15	5	Total O 5 5	0	0
63	16	3	Total O 3 3	0	0
63	17	8	Total O 8 8	0	0
63	18	10	Total O 10 10	0	0
63	1a	305	Total O 305 305	0	0
63	1b	1	Total O 1 1	0	0
63	1e	1	Total O 1 1	0	0
63	1f	1	Total O 1 1	0	0
63	1i	1	Total O 1 1	0	0
63	1l	4	Total O 4 4	0	0
63	1q	2	Total O 2 2	0	0
63	1u	1	Total O 1 1	0	0
63	1v	5	Total O 5 5	0	0
63	1w	6	Total O 6 6	0	0
63	1x	5	Total O 5 5	0	0
63	1y	1	Total O 1 1	0	0
63	2A	992	Total O 992 992	0	0
63	2B	19	Total O 19 19	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	2D	20	Total O 20 20	0	0
63	2E	13	Total O 13 13	0	0
63	2F	14	Total O 14 14	0	0
63	2N	1	Total O 1 1	0	0
63	2O	2	Total O 2 2	0	0
63	2P	7	Total O 7 7	0	0
63	2Q	1	Total O 1 1	0	0
63	2R	3	Total O 3 3	0	0
63	2T	5	Total O 5 5	0	0
63	2U	3	Total O 3 3	0	0
63	2W	2	Total O 2 2	0	0
63	2X	2	Total O 2 2	0	0
63	2Y	1	Total O 1 1	0	0
63	2Z	1	Total O 1 1	0	0
63	20	2	Total O 2 2	0	0
63	21	6	Total O 6 6	0	0
63	25	1	Total O 1 1	0	0
63	27	3	Total O 3 3	0	0
63	28	2	Total O 2 2	0	0
63	29	1	Total O 1 1	0	0
63	2a	172	Total O 172 172	0	0

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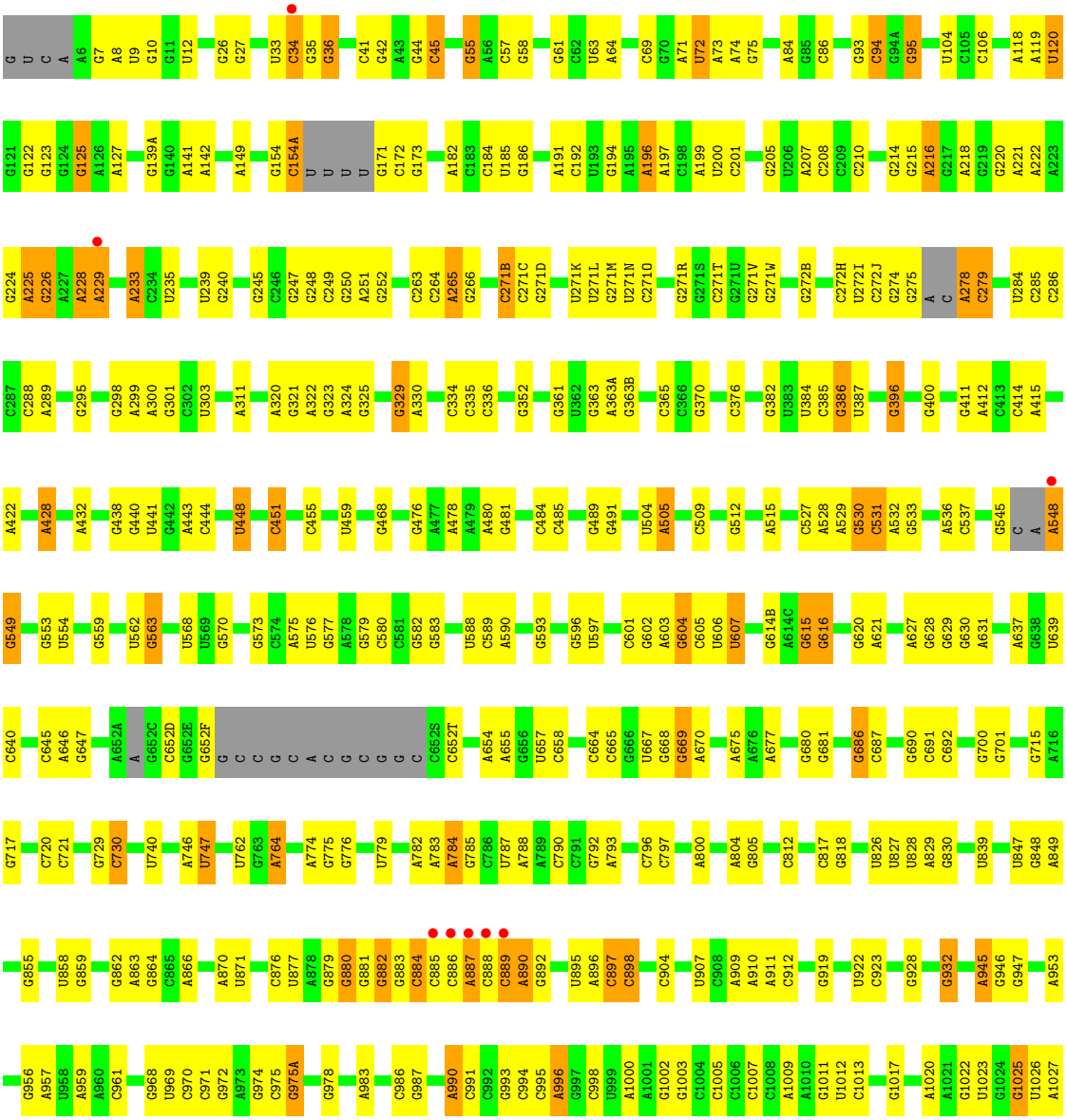
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	2e	1	Total O 1 1	0	0
63	2g	1	Total O 1 1	0	0
63	2j	2	Total O 2 2	0	0
63	2l	3	Total O 3 3	0	0
63	2p	3	Total O 3 3	0	0
63	2r	1	Total O 1 1	0	0
63	2t	1	Total O 1 1	0	0
63	2v	2	Total O 2 2	0	0
63	2w	1	Total O 1 1	0	0
63	2x	2	Total O 2 2	0	0

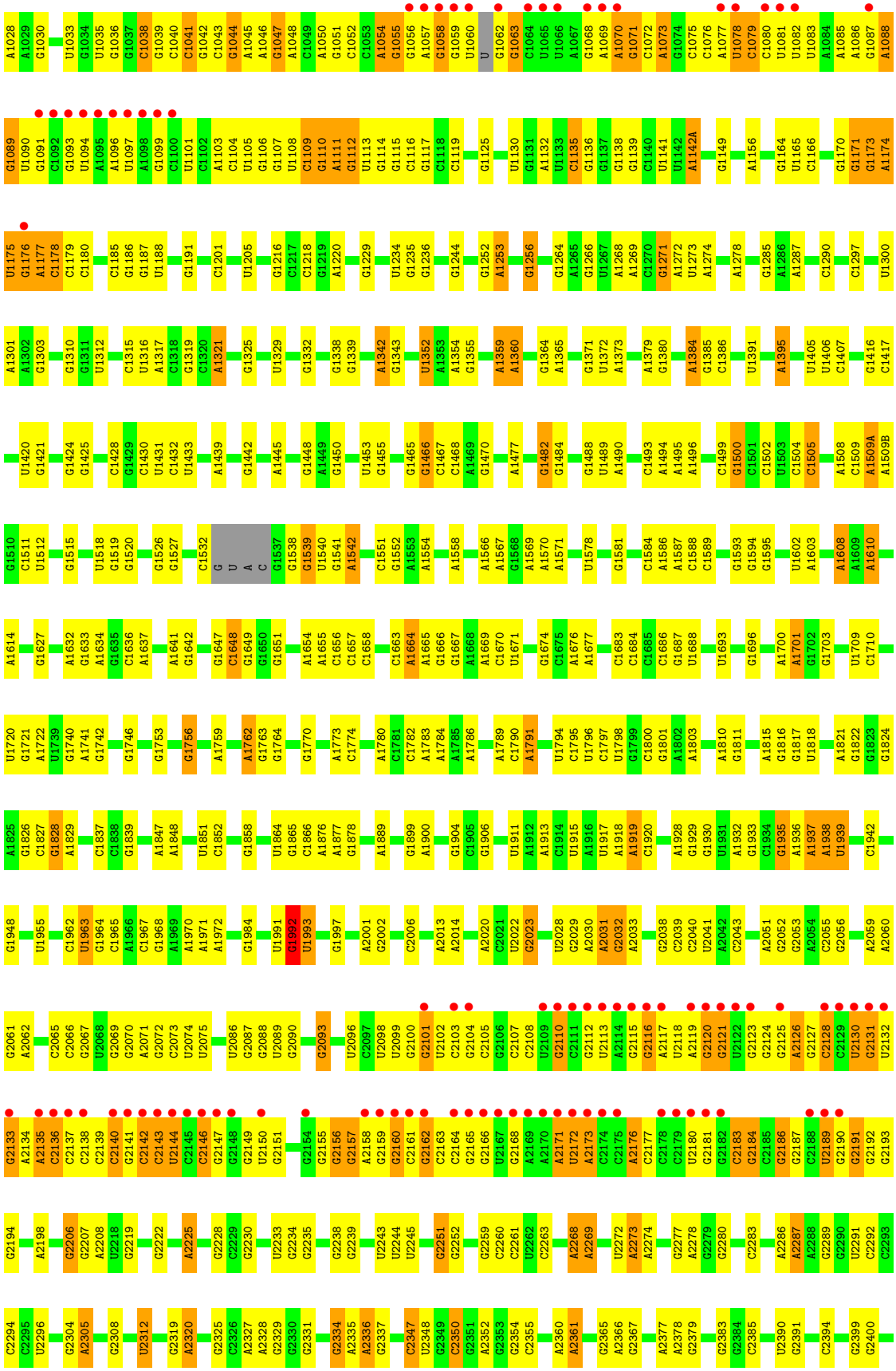
3 Residue-property plots (i)

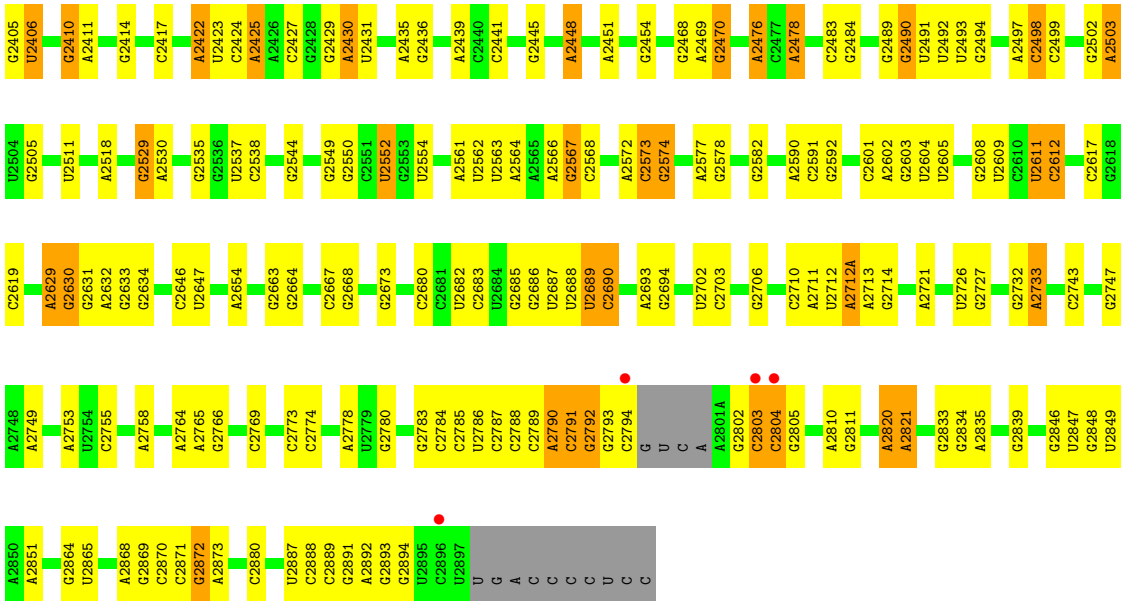
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

Chain 1A:

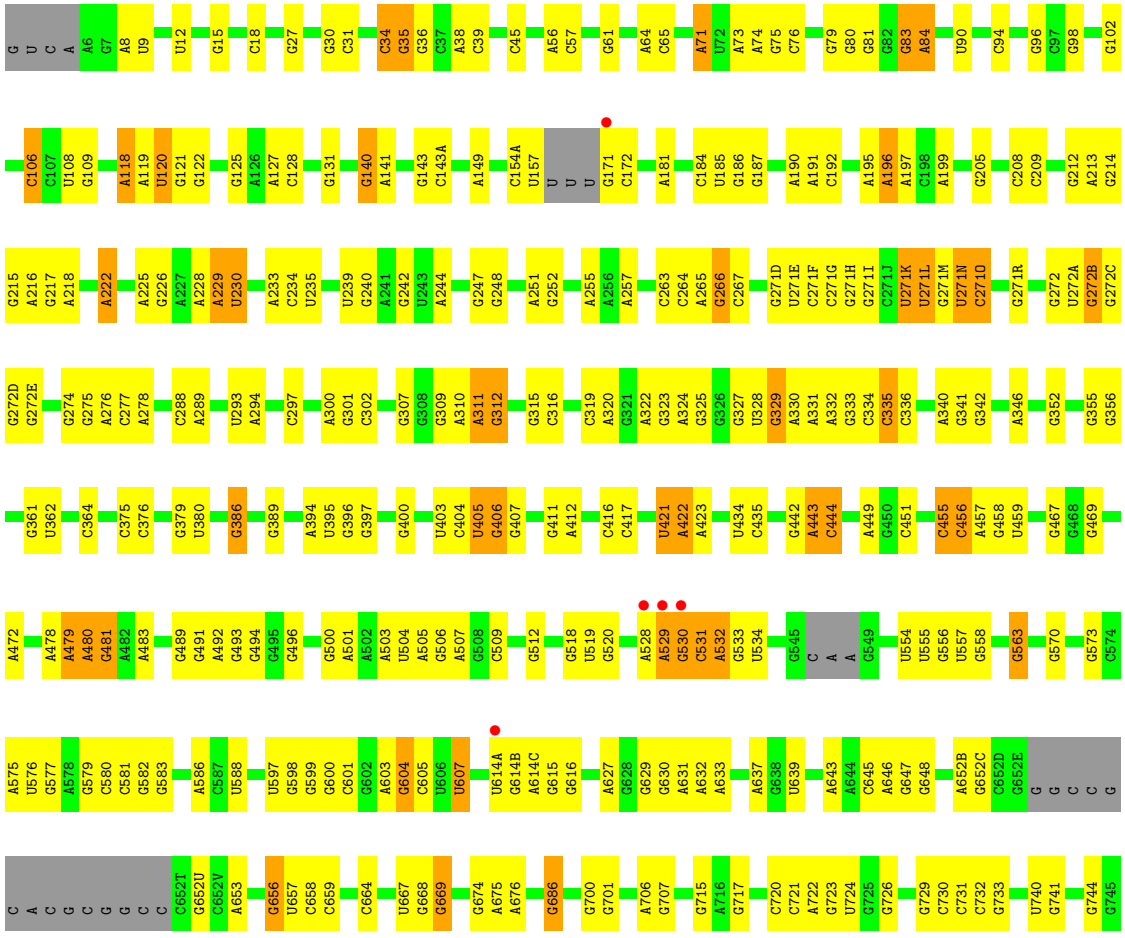


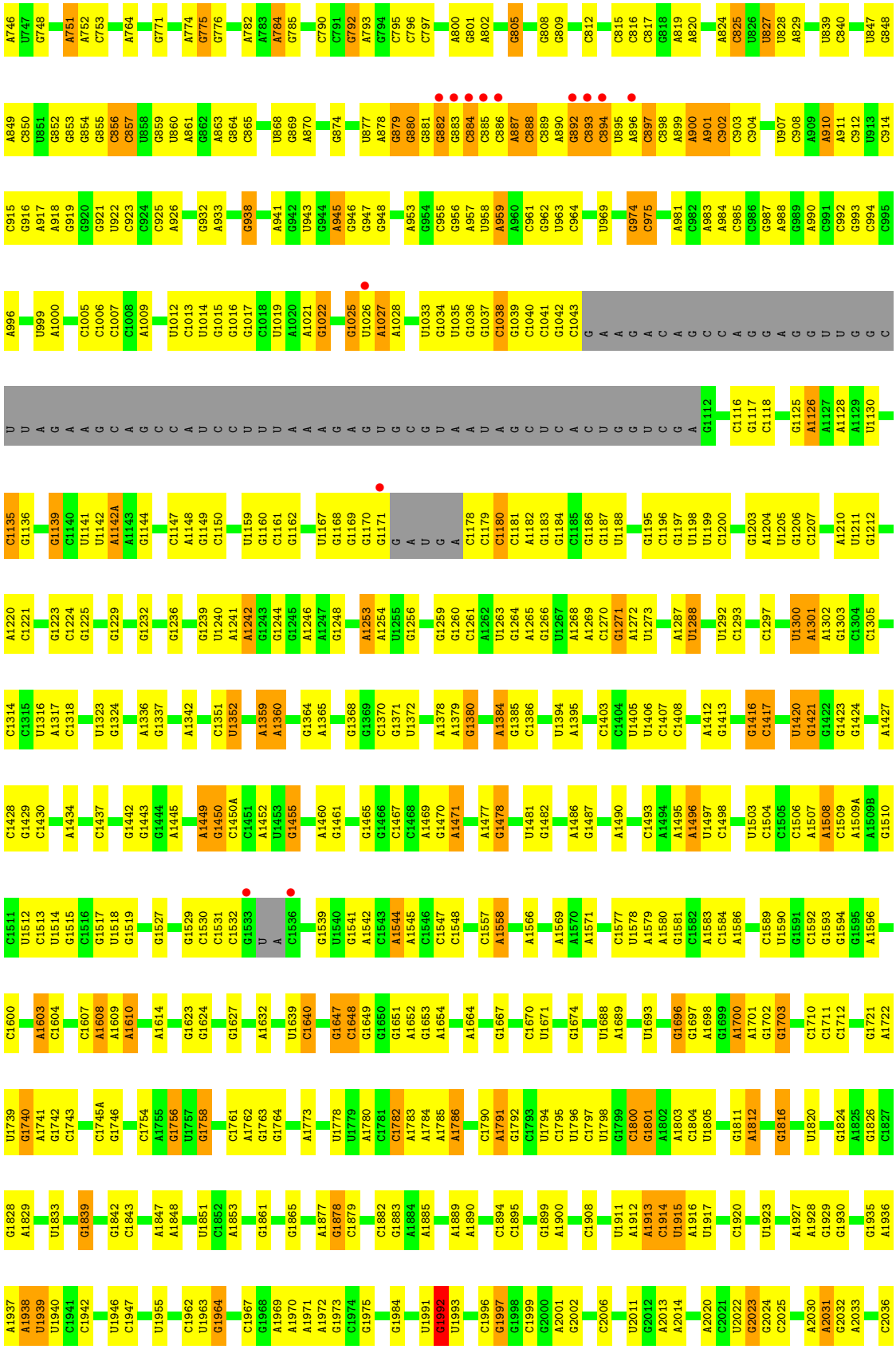


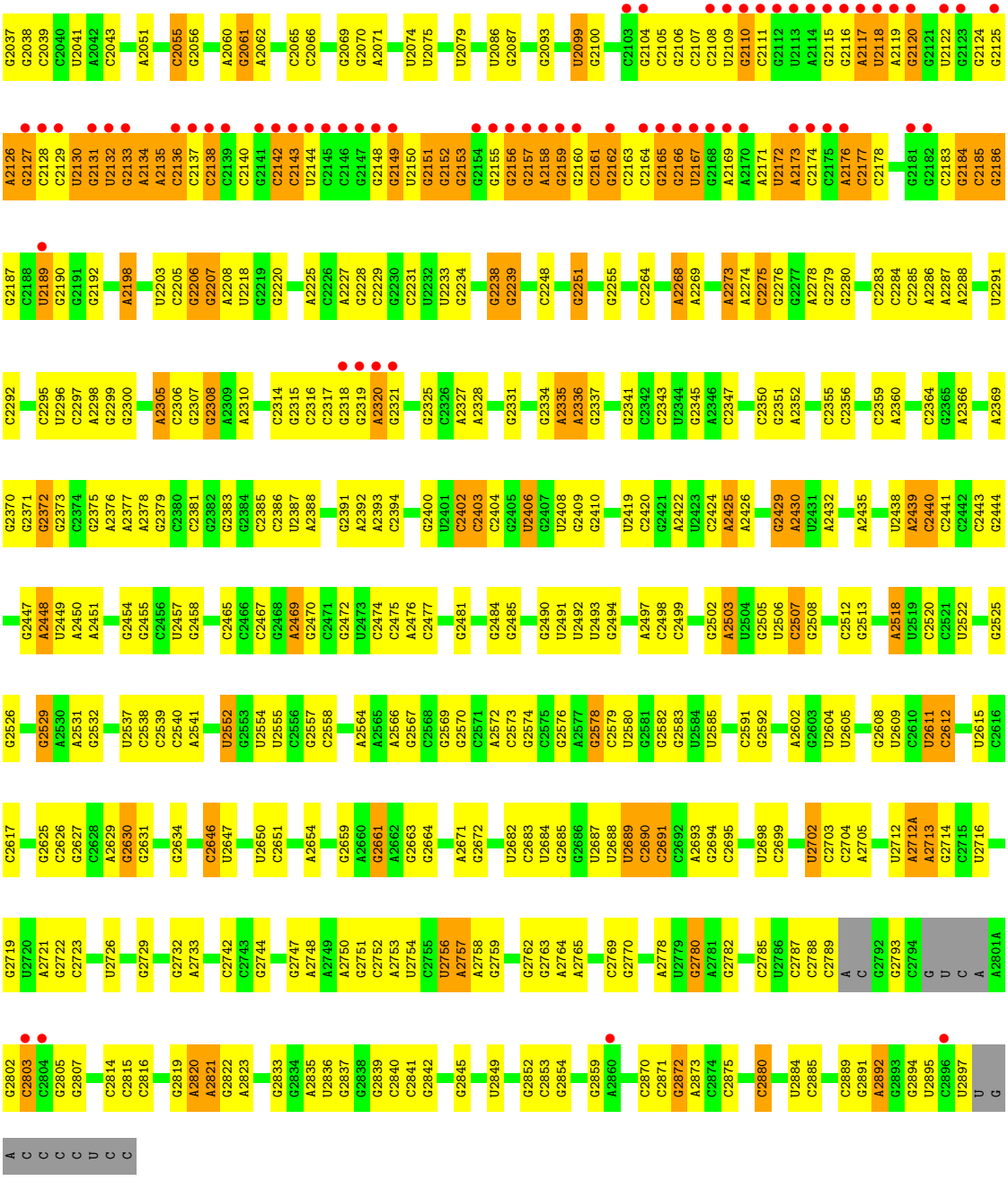


• Molecule 1: 23S Ribosomal RNA

Chain 2A:

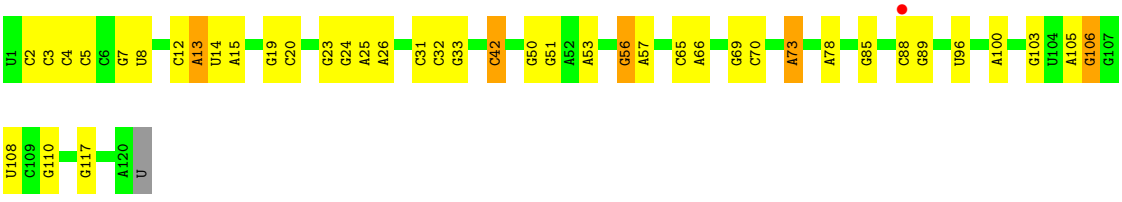






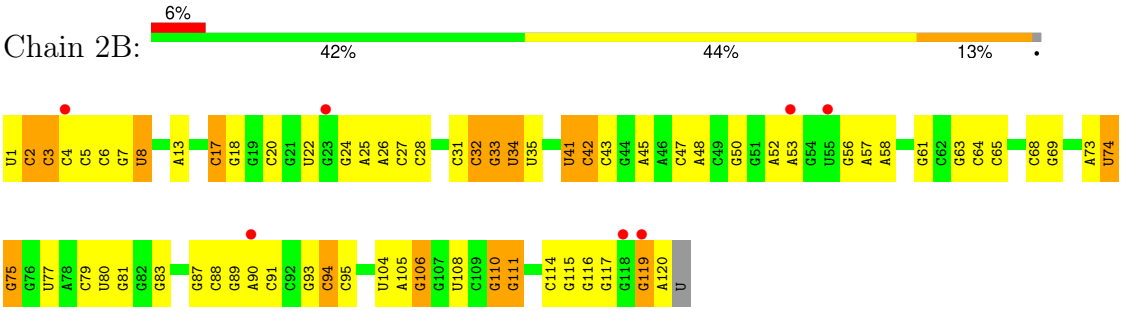
• Molecule 2: 5S Ribosomal RNA

Chain 1B:



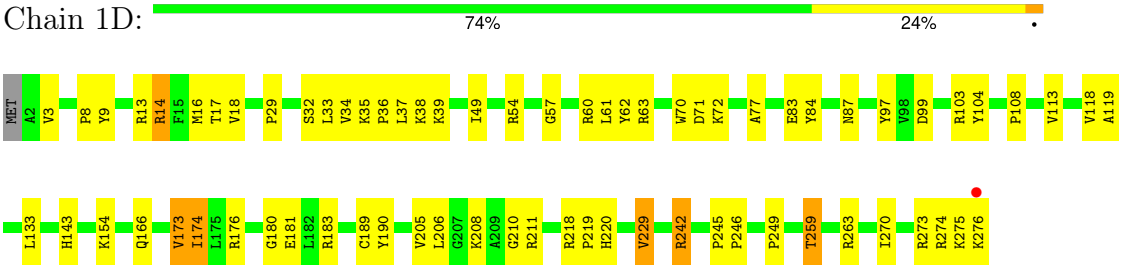
• Molecule 2: 5S Ribosomal RNA

Chain 2B:



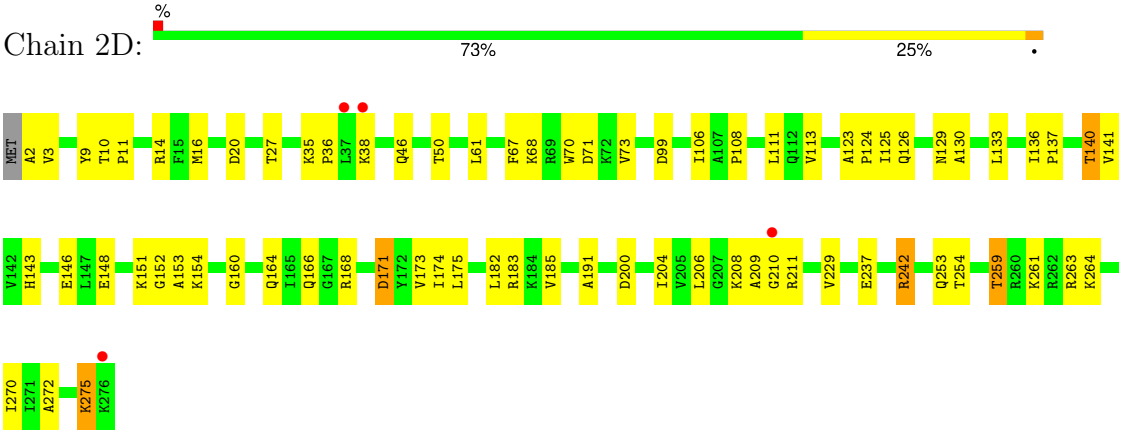
• Molecule 3: 50S ribosomal protein L2

Chain 1D:



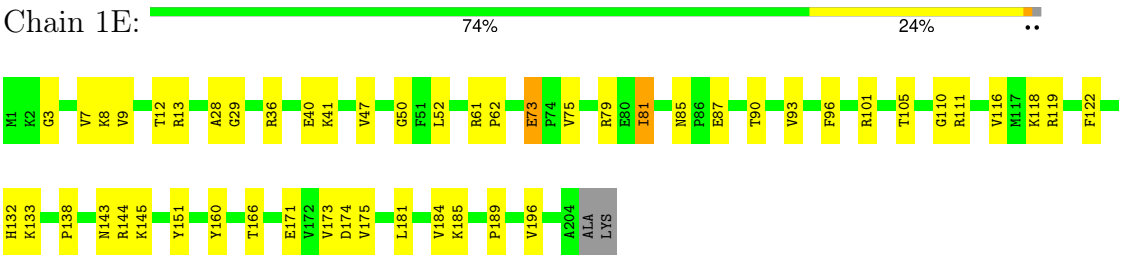
• Molecule 3: 50S ribosomal protein L2

Chain 2D:



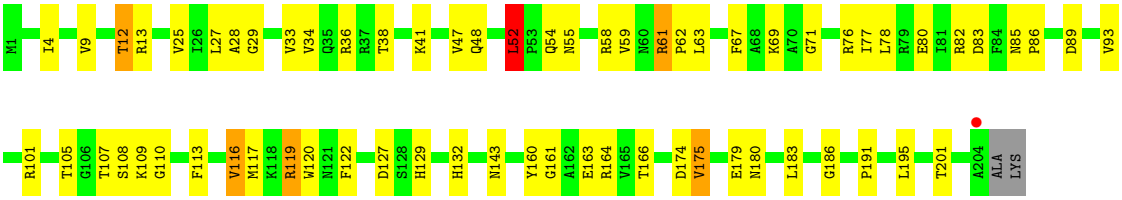
• Molecule 4: 50S ribosomal protein L3

Chain 1E:



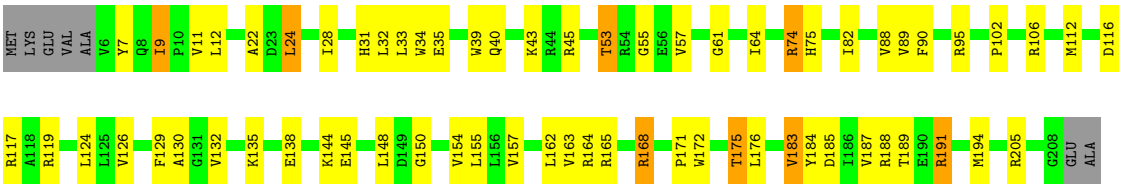
• Molecule 4: 50S ribosomal protein L3

Chain 2E:



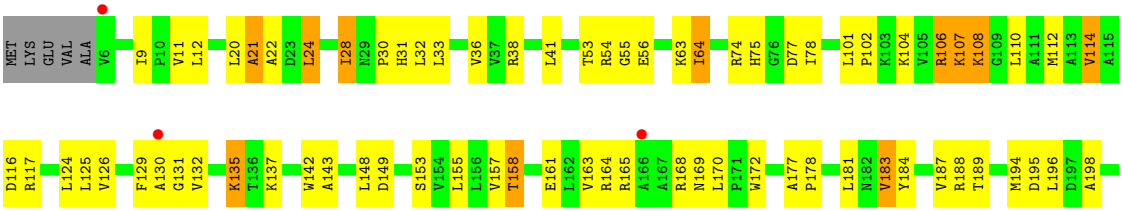
• Molecule 5: 50S ribosomal protein L4

Chain 1F:



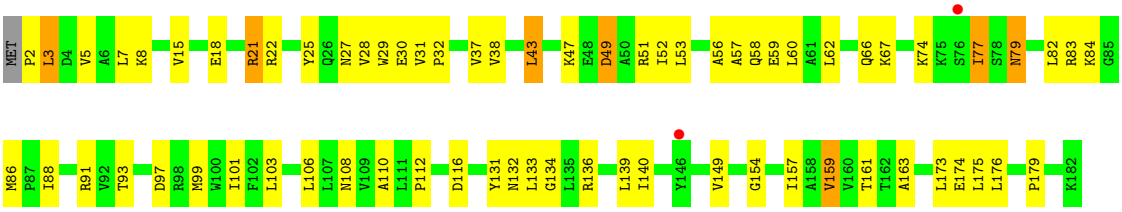
• Molecule 5: 50S ribosomal protein L4

Chain 2F:



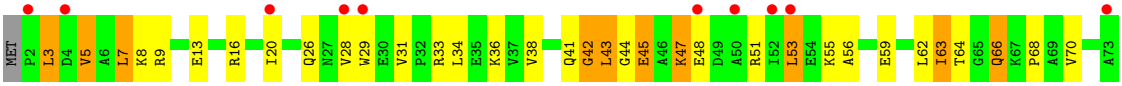
• Molecule 6: 50S ribosomal protein L5

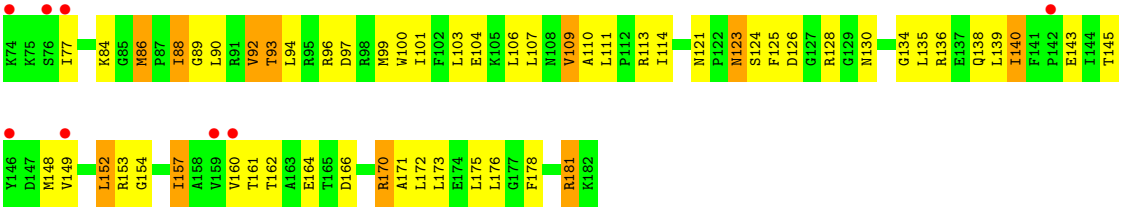
Chain 1G:



• Molecule 6: 50S ribosomal protein L5

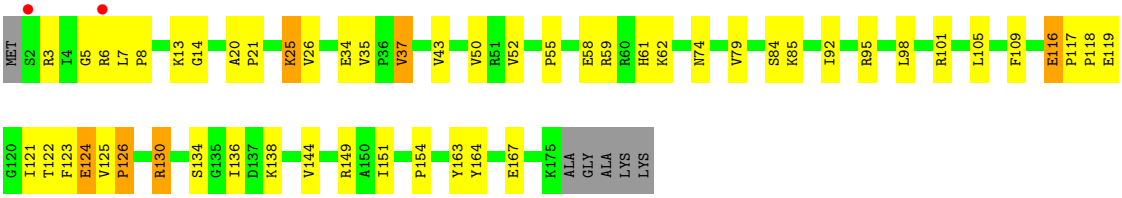
Chain 2G:





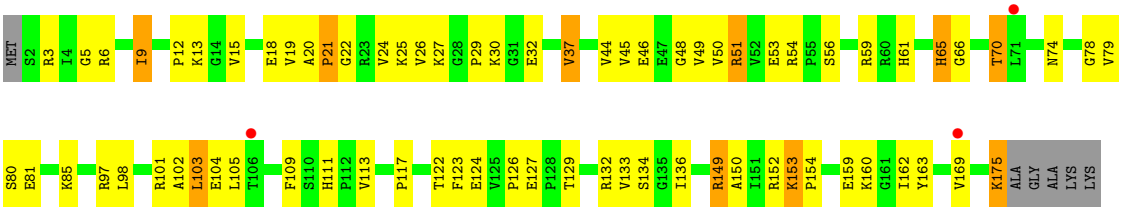
• Molecule 7: 50S ribosomal protein L6

Chain 1H:



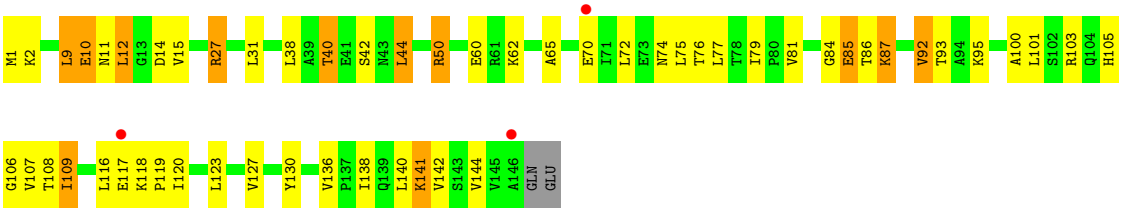
• Molecule 7: 50S ribosomal protein L6

Chain 2H:



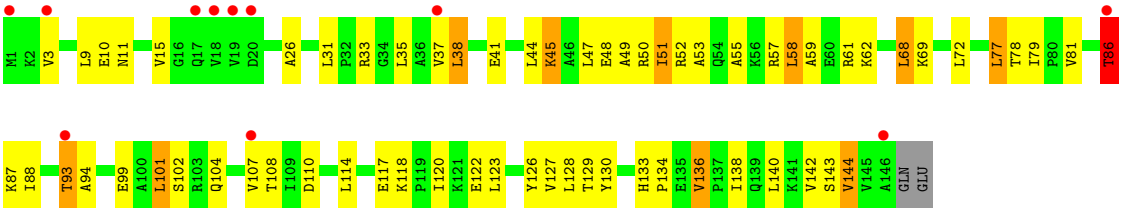
• Molecule 8: 50S ribosomal protein L9

Chain 1I:



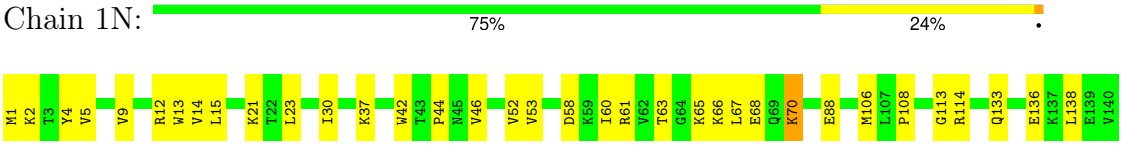
• Molecule 8: 50S ribosomal protein L9

Chain 2I:



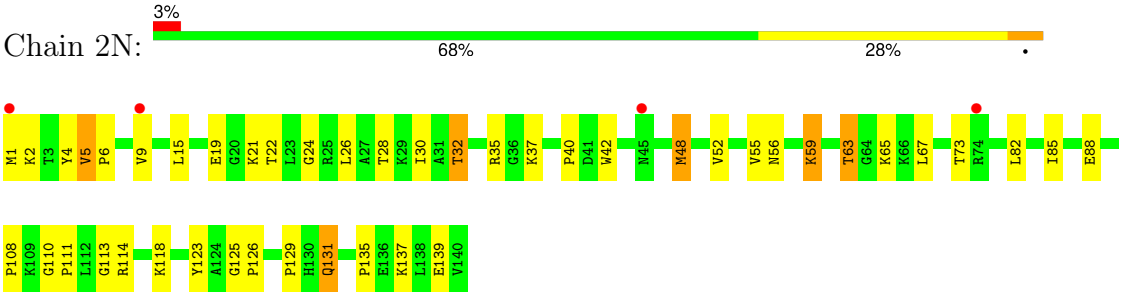
• Molecule 9: 50S ribosomal protein L13

Chain 1N:



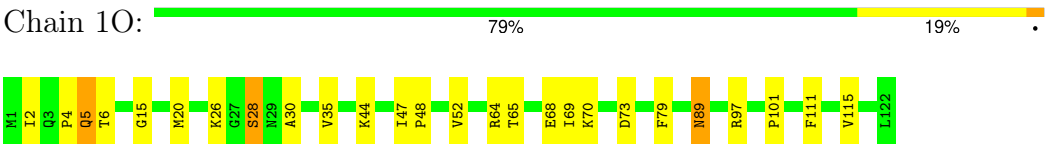
• Molecule 9: 50S ribosomal protein L13

Chain 2N:



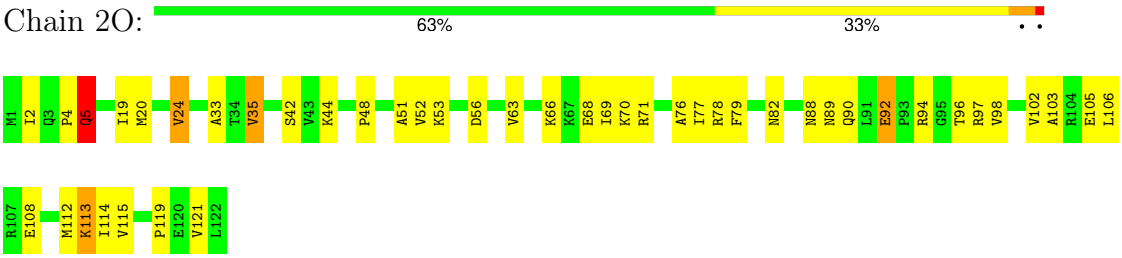
• Molecule 10: 50S ribosomal protein L14

Chain 1O:



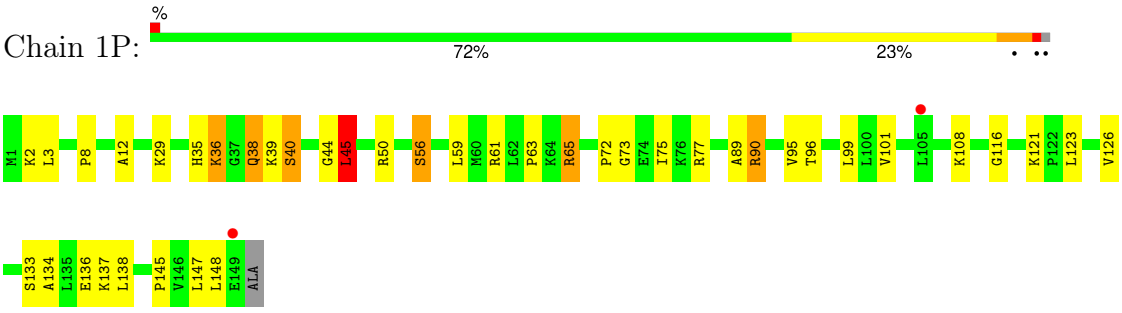
• Molecule 10: 50S ribosomal protein L14

Chain 2O:



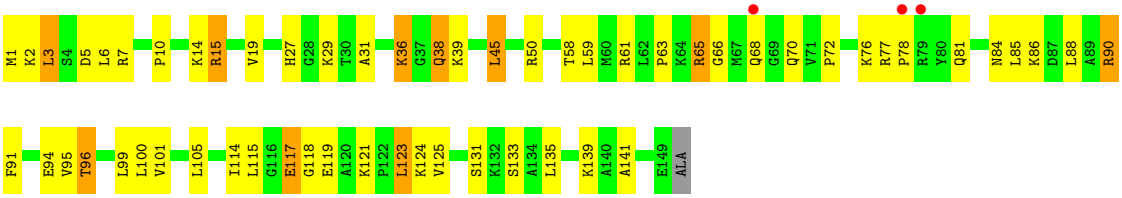
• Molecule 11: 50S ribosomal protein L15

Chain 1P:



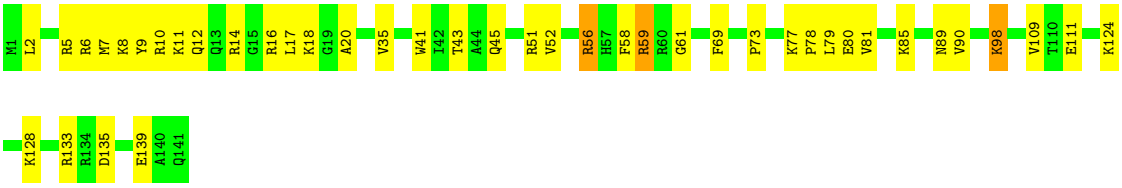
• Molecule 11: 50S ribosomal protein L15

Chain 2P:



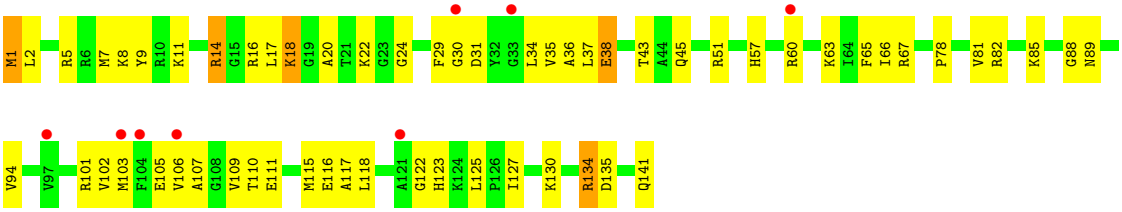
• Molecule 12: 50S ribosomal protein L16

Chain 1Q:



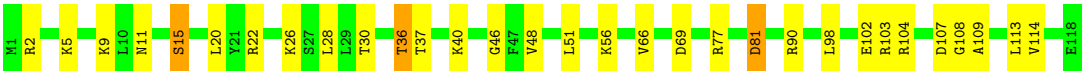
• Molecule 12: 50S ribosomal protein L16

Chain 2Q:



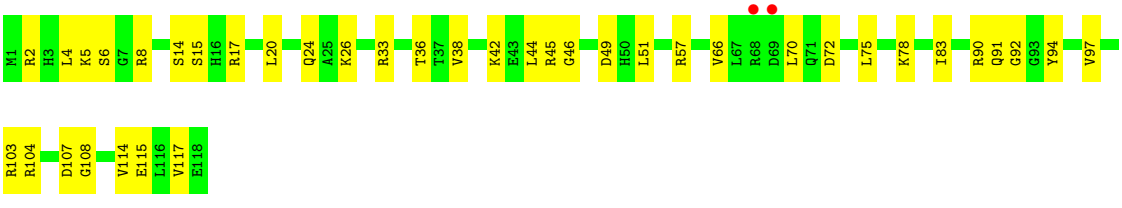
• Molecule 13: 50S ribosomal protein L17

Chain 1R:



• Molecule 13: 50S ribosomal protein L17

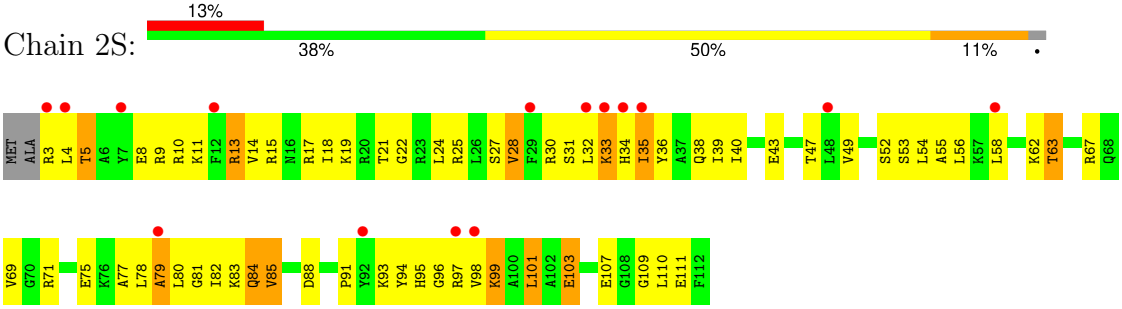
Chain 2R:



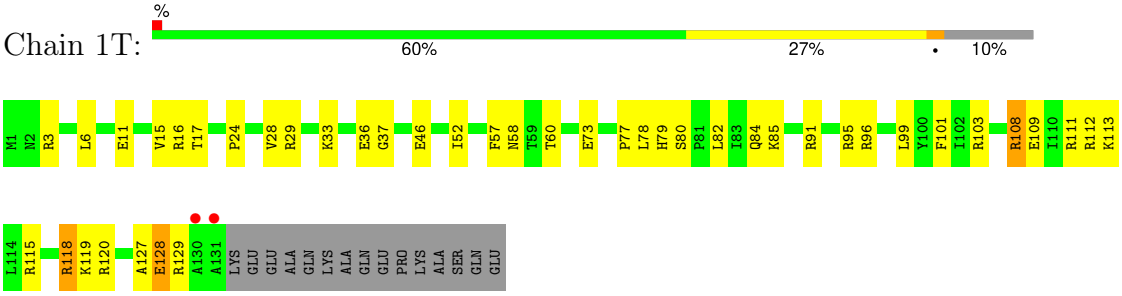
• Molecule 14: 50S ribosomal protein L18

Chain 1S:

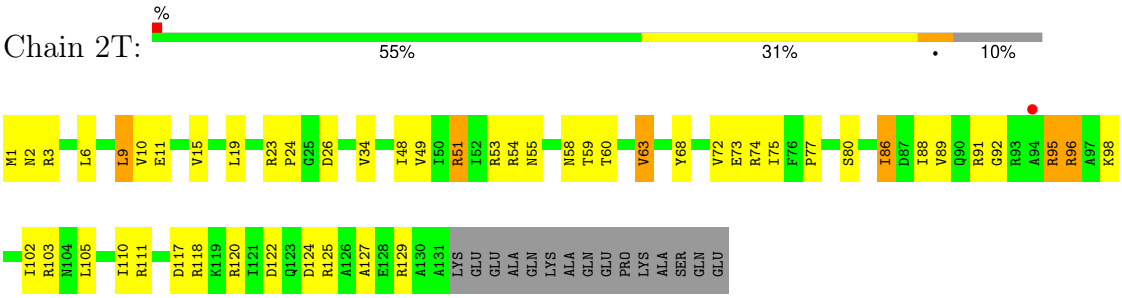
• Molecule 14: 50S ribosomal protein L18



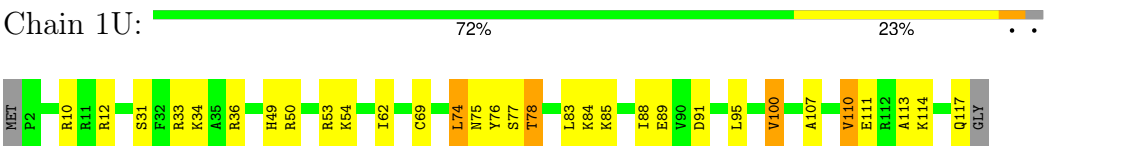
• Molecule 15: 50S ribosomal protein L19



• Molecule 15: 50S ribosomal protein L19



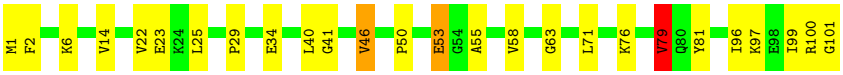
• Molecule 16: 50S ribosomal protein L20



• Molecule 16: 50S ribosomal protein L20

• Molecule 17: 50S ribosomal protein L21

Chain 1V:

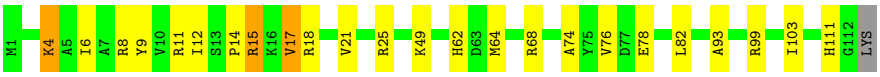


• Molecule 17: 50S ribosomal protein L21

Chain 2V:

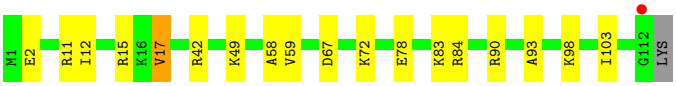
• Molecule 18: 50S ribosomal protein L22

Chain 1W:



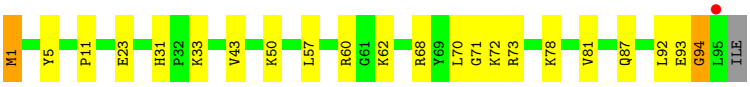
• Molecule 18: 50S ribosomal protein L22

Chain 2W:



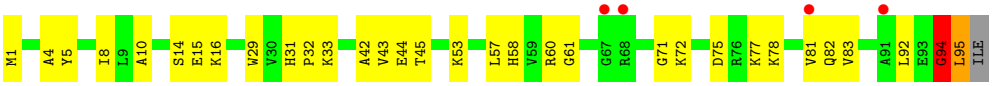
• Molecule 19: 50S ribosomal protein L23

Chain 1X:



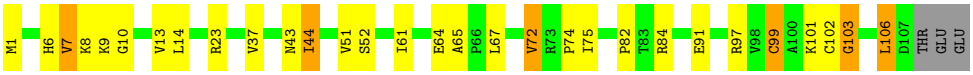
• Molecule 19: 50S ribosomal protein L23

Chain 2X:



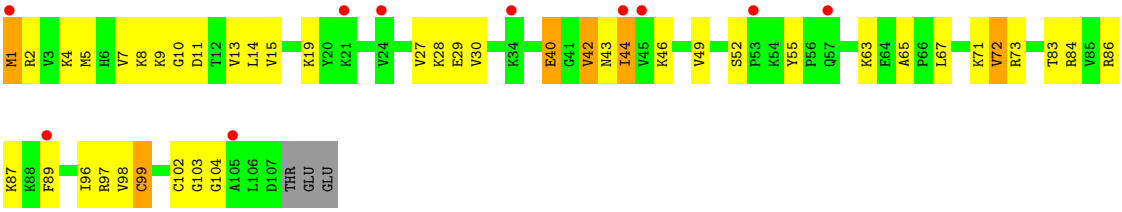
• Molecule 20: 50S ribosomal protein L24

Chain 1Y:



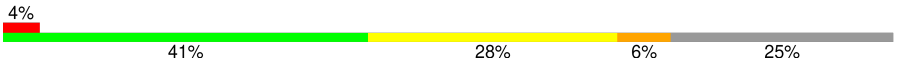
• Molecule 20: 50S ribosomal protein L24

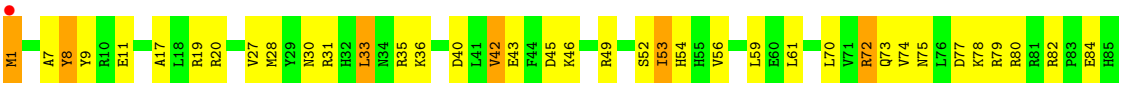
Chain 2Y:

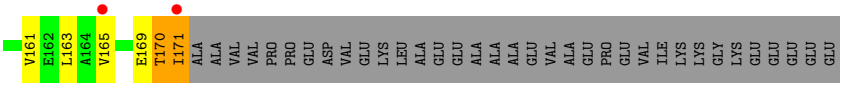


• Molecule 21: 50S ribosomal protein L25

Chain 1Z:

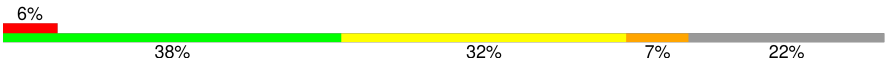


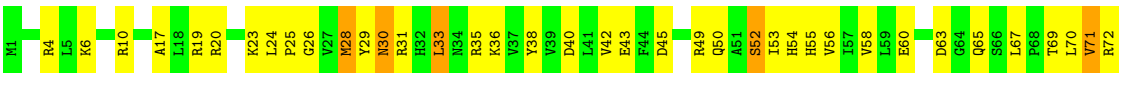


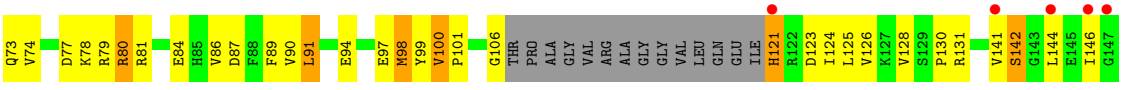


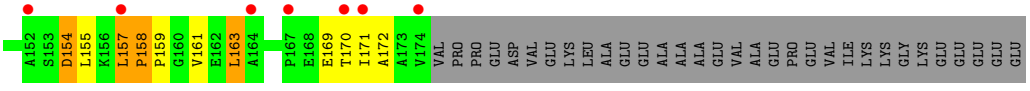
• Molecule 21: 50S ribosomal protein L25

Chain 2Z:







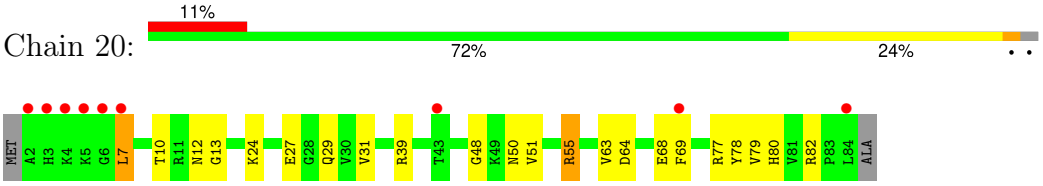


• Molecule 22: 50S ribosomal protein L27

Chain 10:

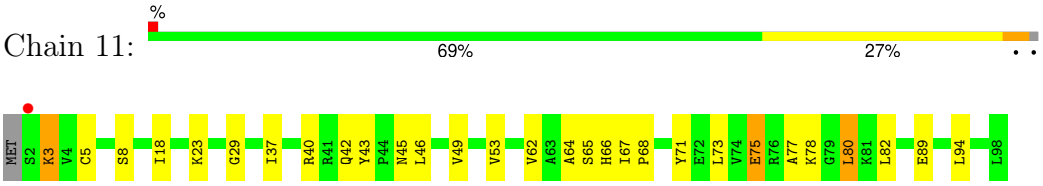
• Molecule 22: 50S ribosomal protein L27

Chain 20:



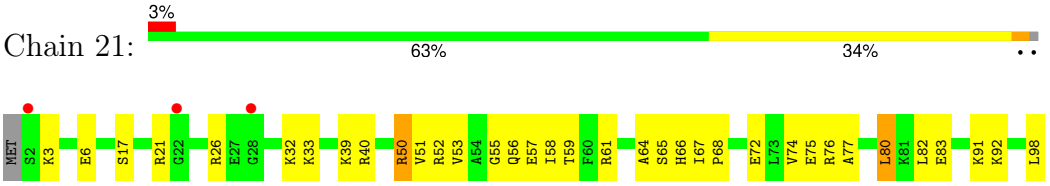
• Molecule 23: 50S ribosomal protein L28

Chain 11:



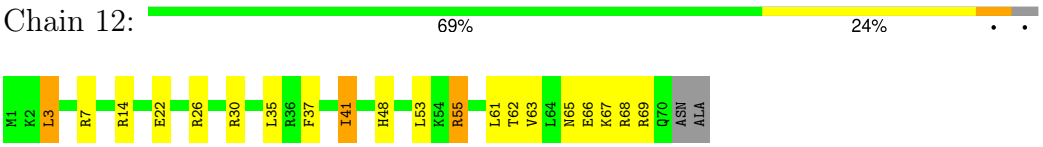
• Molecule 23: 50S ribosomal protein L28

Chain 21:



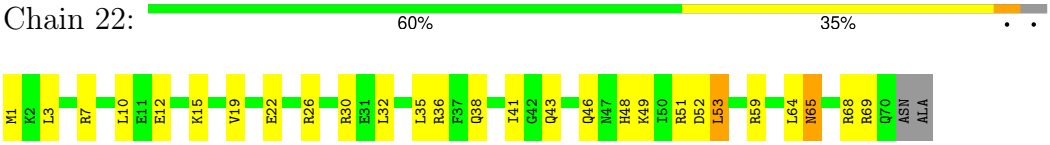
• Molecule 24: 50S ribosomal protein L29

Chain 12:



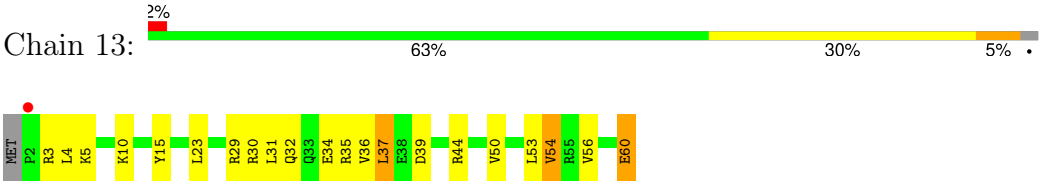
• Molecule 24: 50S ribosomal protein L29

Chain 22:



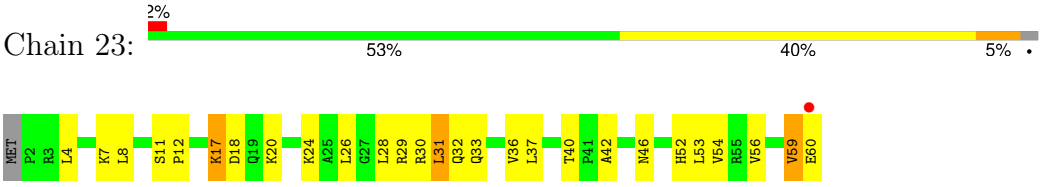
• Molecule 25: 50S ribosomal protein L30

Chain 13:



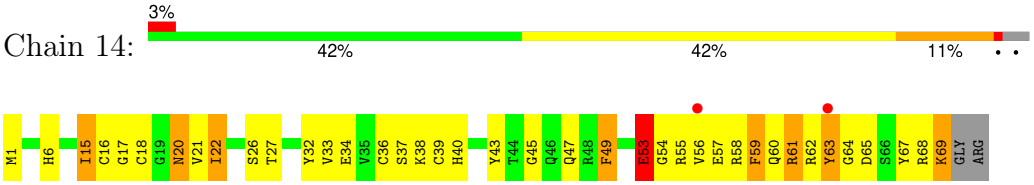
• Molecule 25: 50S ribosomal protein L30

Chain 23:



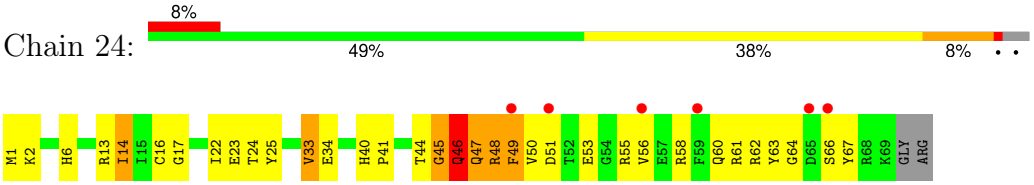
• Molecule 26: 50S ribosomal protein L31

Chain 14:



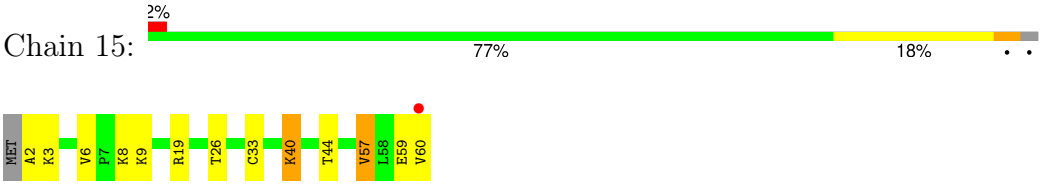
• Molecule 26: 50S ribosomal protein L31

Chain 24:



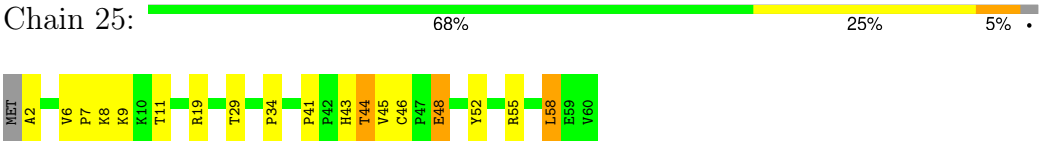
• Molecule 27: 50S ribosomal protein L32

Chain 15:



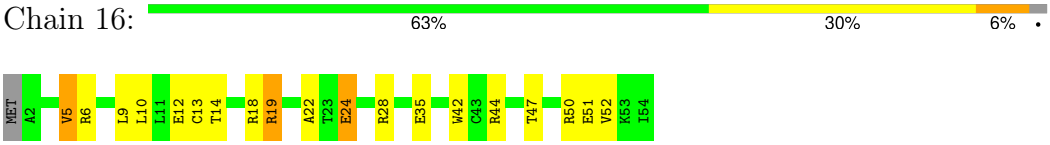
• Molecule 27: 50S ribosomal protein L32

Chain 25:



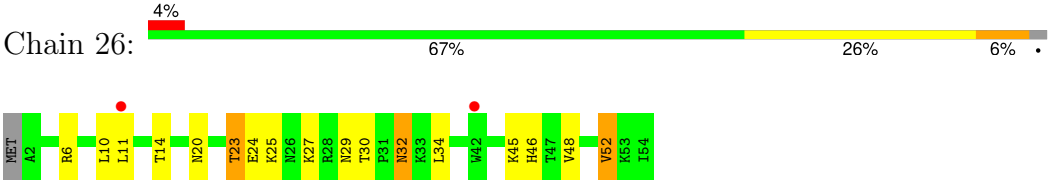
• Molecule 28: 50S ribosomal protein L33

Chain 16:



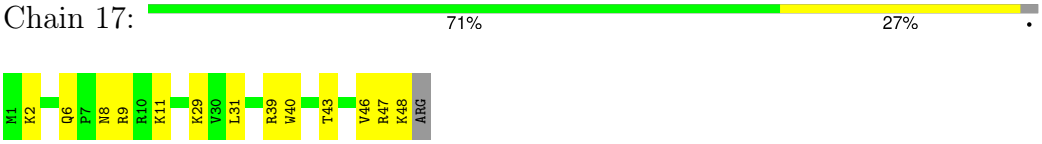
• Molecule 28: 50S ribosomal protein L33

Chain 26:



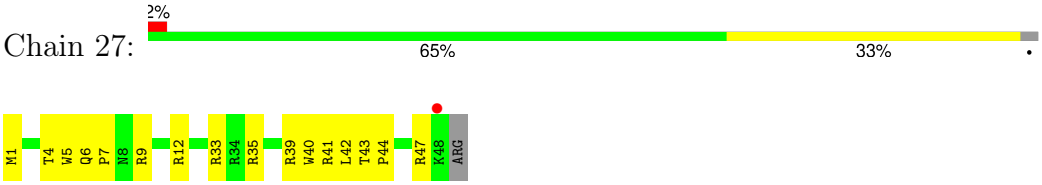
• Molecule 29: 50S ribosomal protein L34

Chain 17:



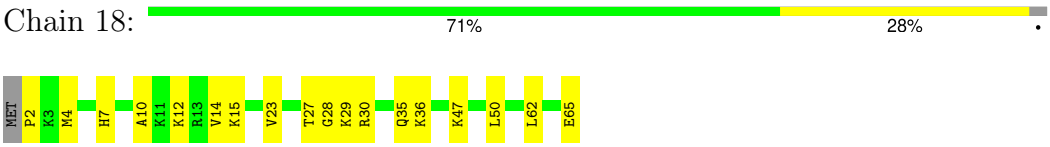
• Molecule 29: 50S ribosomal protein L34

Chain 27:



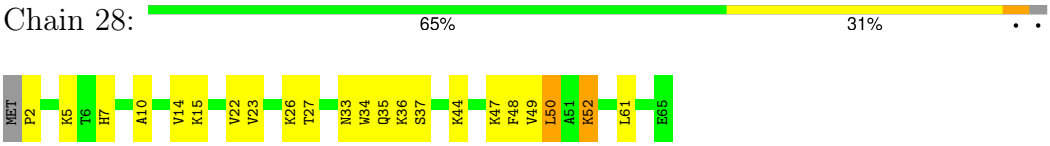
• Molecule 30: 50S ribosomal protein L35

Chain 18:



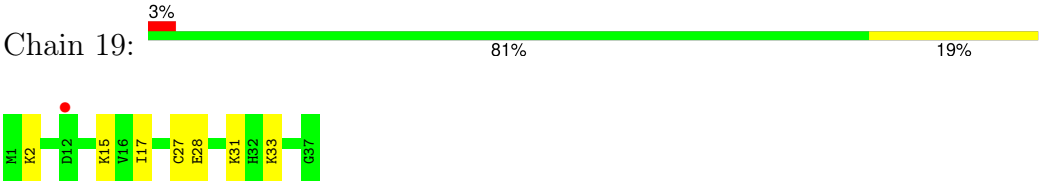
• Molecule 30: 50S ribosomal protein L35

Chain 28:



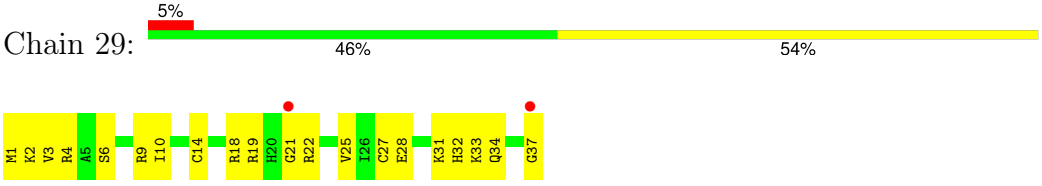
• Molecule 31: 50S ribosomal protein L36

Chain 19:



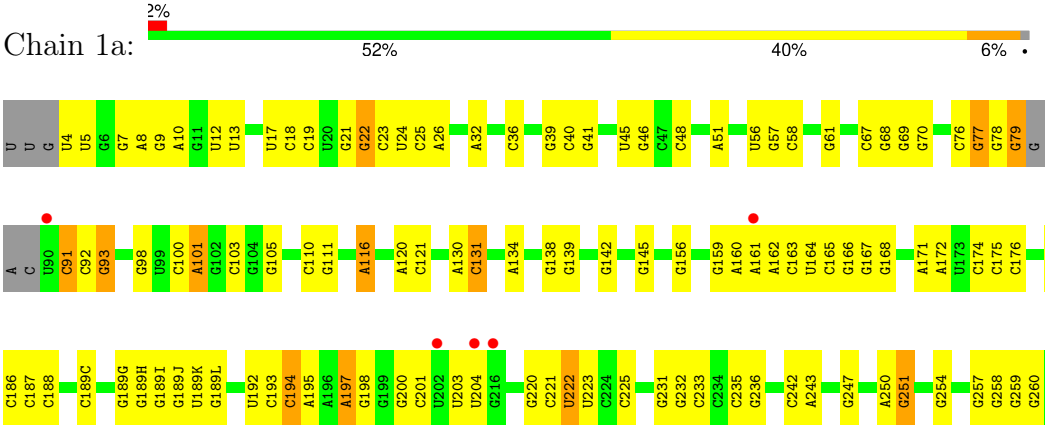
• Molecule 31: 50S ribosomal protein L36

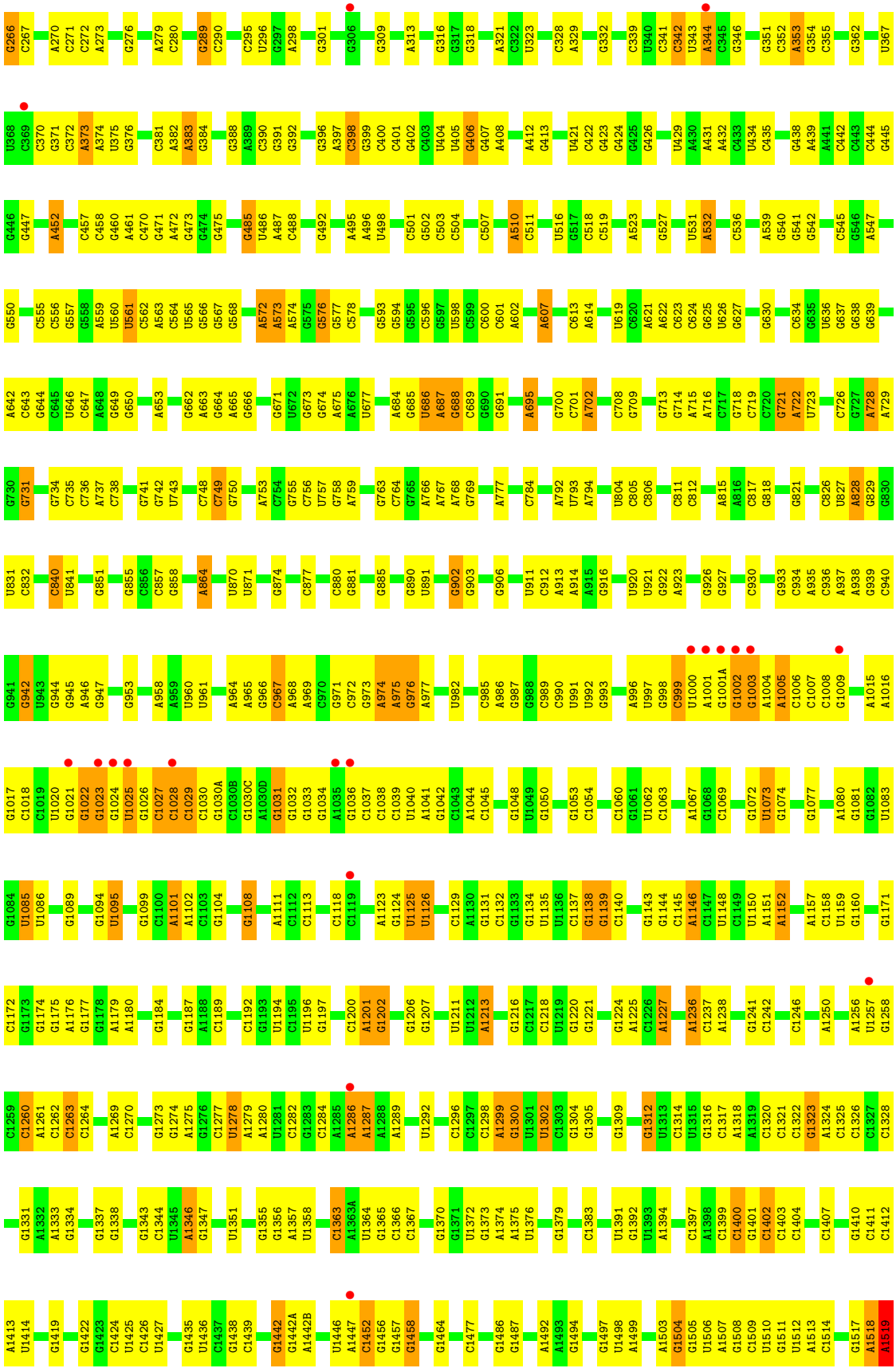
Chain 29:

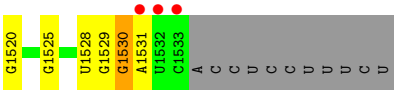


• Molecule 32: 16S Ribosomal RNA

Chain 1a:

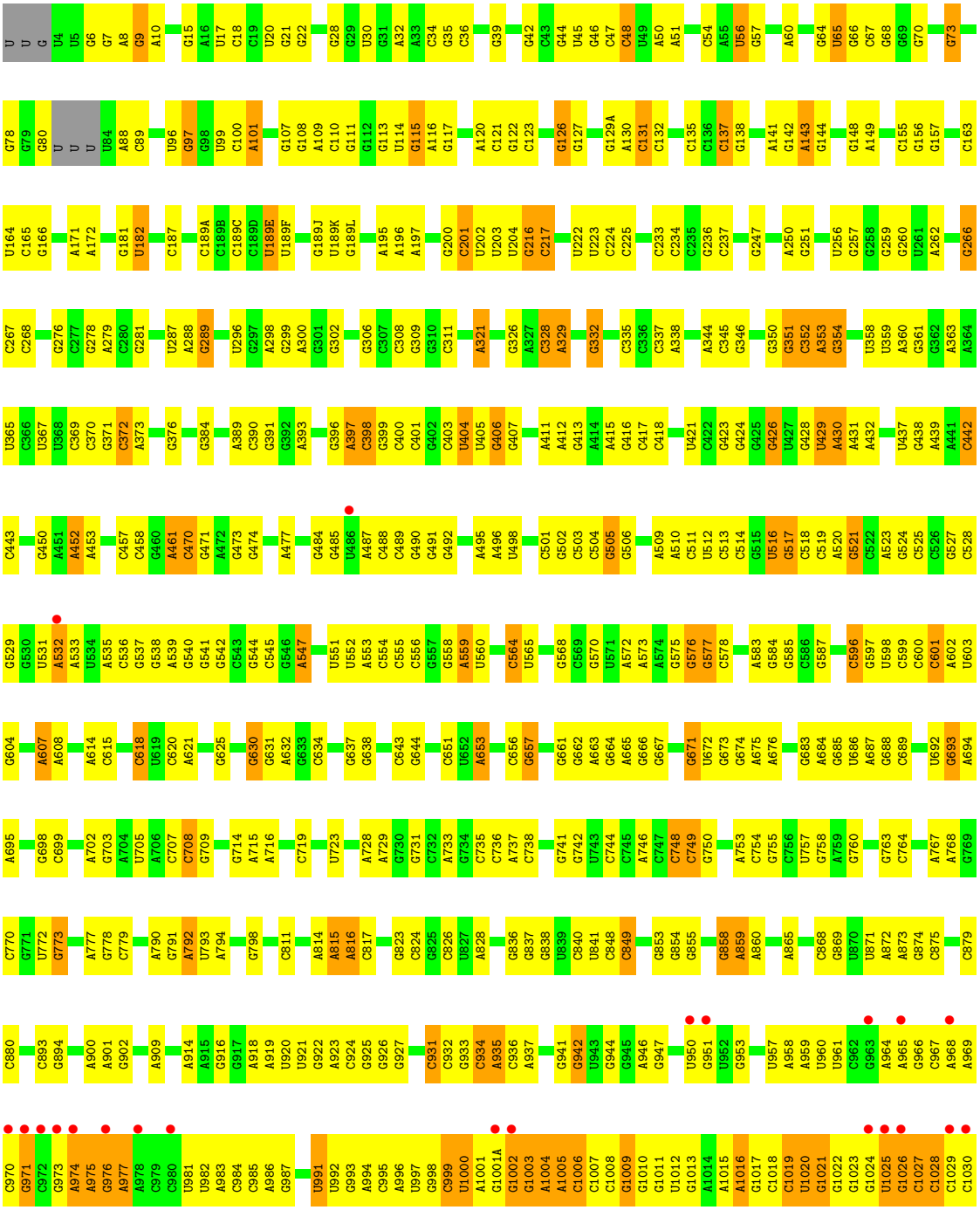


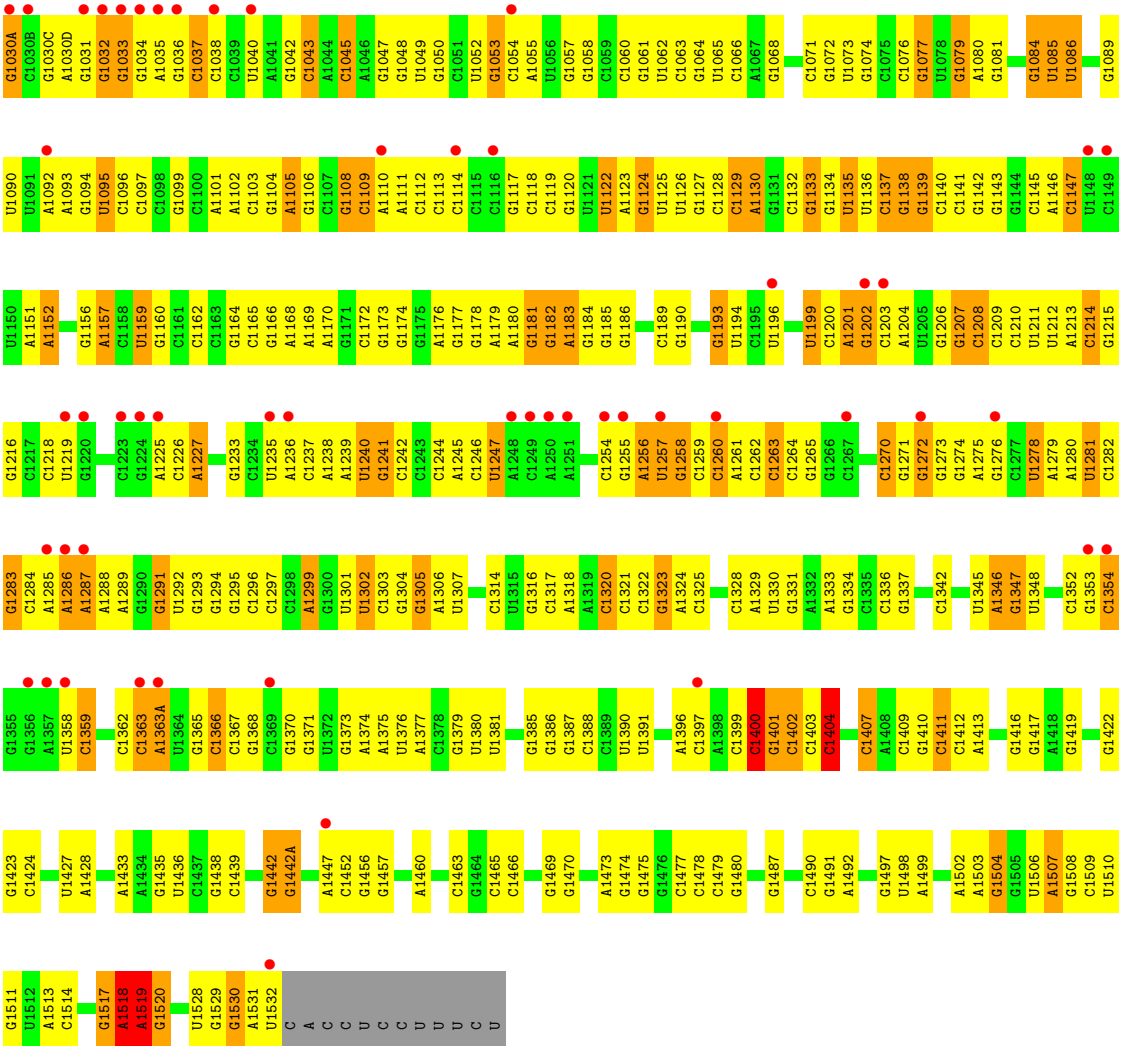

G266 C267 A270 C271 C272 A273 G276 A279 C280 G289 C290 C295 U296 G297 A298 G301 G306 G309 A313 G316 G317 G318 A321 C322 U323 C328 A329 G332 C339 U340 C341 C342 U343 A344 C345 G346 G351 C352 A353 G354 C355 G362 U367
U368 C369 C370 G371 C372 A373 A374 U375 G376 C381 A382 A383 G384 G388 A389 C390 G391 G392 G396 A397 C398 G399 C400 C401 G402 C403 U404 U405 G406 G407 A408 A412 G413 U421 C422 G423 G424 G425 G426 U429 A430 A431 A432 C433 U434 C435 G438 A439 A441 C442 C443 C444 G445
G446 G447 A452 C457 C458 G460 A461 C470 G471 A472 G473 G474 G475 G485 U486 A487 C488 G492 A495 A496 U498 C501 G502 C503 C504 C507 A510 C511 U516 G517 C518 C519 A523 G527 U531 A532 C536 A539 G540 G541 G542 C545 G546 A547
G550 C555 C556 G557 G558 A559 U560 U561 C562 A563 C564 U565 G566 G567 G568 A572 A573 A574 G575 G576 G577 C578 G593 G594 G595 C596 G597 U598 C599 C600 C601 A602 A607 C613 A614 U619 C620 A621 A622 C623 C624 G625 U626 G627 G630 C634 G635 U636 G637 G638 G639
A642 C643 G644 C645 U646 C647 A648 G649 G650 A653 G662 A663 G664 A665 G666 G671 U672 G673 G674 A675 A676 U677 A684 G685 U686 A687 G688 C689 G690 G691 A695 G700 C701 A702 C708 G709 G713 G714 A715 A716 C717 G718 C719 C720 G721 A722 U723 C726 G727 A728 A729
G730 G731 G734 C735 C736 A737 C738 G741 G742 U743 C748 G749 G750 A753 C754 G755 C756 U757 G758 A759 G763 C764 G765 A766 A767 A768 G769 A777 C784 A792 U793 A794 U804 C805 C806 C811 C812 A815 A816 C817 G818 G821 C826 U827 A828 G829 G830
U831 C832 C840 U841 G851 G855 C856 C857 G858 A864 U870 U871 G874 C877 C880 G881 G885 G890 U891 G902 G903 G906 U911 C912 A913 A914 A915 G916 U920 U921 G922 A923 G926 G927 C930 G933 C934 A935 C936 A937 A938 G939 C940
G941 G942 U943 G944 G945 A946 G947 G953 A958 A959 U960 U961 A964 A965 G966 C967 A968 A969 C970 G971 G972 G973 A974 A975 G976 A977 U982 C985 A986 G987 G988 C989 C990 U991 U992 G993 A996 U997 G998 C999 U1000 A1001 G1001A G1002 G1003 A1004 A1005 C1006 C1007 C1008 G1009 A1015 A1016
G1017 C1018 C1019 U1020 G1021 G1022 G1023 G1024 U1025 G1026 C1027 C1028 C1029 C1030 C1030A C1030B G1030C A1030D G1031 G1032 G1033 G1034 A1035 G1036 C1037 C1038 C1039 U1040 A1041 G1042 C1043 A1044 C1045 G1048 U1049 G1050 G1053 C1054 C1060 G1061 U1062 C1063 A1067 G1068 C1069 G1072 U1073 G1074 G1077 A1080 G1081 G1082 U1083
G1084 U1085 U1086 G1089 G1094 U1095 G1099 C1100 A1101 A1102 C1103 G1104 G1108 A1111 C1112 C1113 C1118 C1119 A1123 G1124 U1125 U1126 C1129 A1130 G1131 C1132 G1133 G1134 U1135 U1136 C1137 G1138 G1139 C1140 G1143 G1144 C1145 A1146 C1147 U1148 C1149 U1150 A1151 A1152 A1157 C1158 U1159 G1160 G1171
C1172 G1173 G1174 G1175 A1176 G1177 G1178 A1179 A1180 G1184 G1187 A1188 C1189 C1192 G1193 U1194 C1195 U1196 G1197 C1200 A1201 G1202 G1206 G1207 U1211 U1212 A1213 G1216 C1217 C1218 U1219 G1220 G1221 G1224 A1225 C1226 A1227 A1236 C1237 A1238 G1241 C1242 C1246 A1250 A1256 U1257 G1258
C1259 C1260 A1261 C1262 C1263 C1264 A1269 C1270 G1273 G1274 A1275 G1276 C1277 U1278 A1279 A1280 U1281 C1282 G1283 C1284 A1285 A1286 A1287 A1288 A1289 U1292 C1296 C1297 C1298 A1299 G1300 U1301 U1302 C1303 G1304 G1305 G1309 G1312 U1313 C1314 U1315 G1316 C1317 A1318 A1319 C1320 C1321 C1322 G1323 A1324 C1325 C1326 C1327 C1328
G1331 A1332 A1333 G1334 G1337 G1338 G1343 C1344 U1345 A1346 G1347 U1351 G1355 G1356 A1357 U1358 C1363 A1363A U1364 G1365 C1366 C1367 G1370 G1371 U1372 G1373 A1374 A1375 U1376 G1379 C1383 U1391 G1392 U1393 A1394 C1397 A1398 C1399 C1400 G1401 C1402 C1403 C1404 C1407 G1410 C1411 C1412
A1413 U1414 G1419 G1422 G1423 C1424 U1425 C1426 U1427 G1435 U1436 C1437 G1438 C1439 G1442 G1442A A1442B U1446 A1447 C1452 G1456 G1457 G1458 G1464 C1477 G1486 G1487 A1492 A1493 G1494 G1497 U1498 A1499 A1503 G1504 G1505 U1506 A1507 G1508 C1509 U1510 G1511 U1512 A1513 C1514 G1517 A1518 A1519



• Molecule 32: 16S Ribosomal RNA

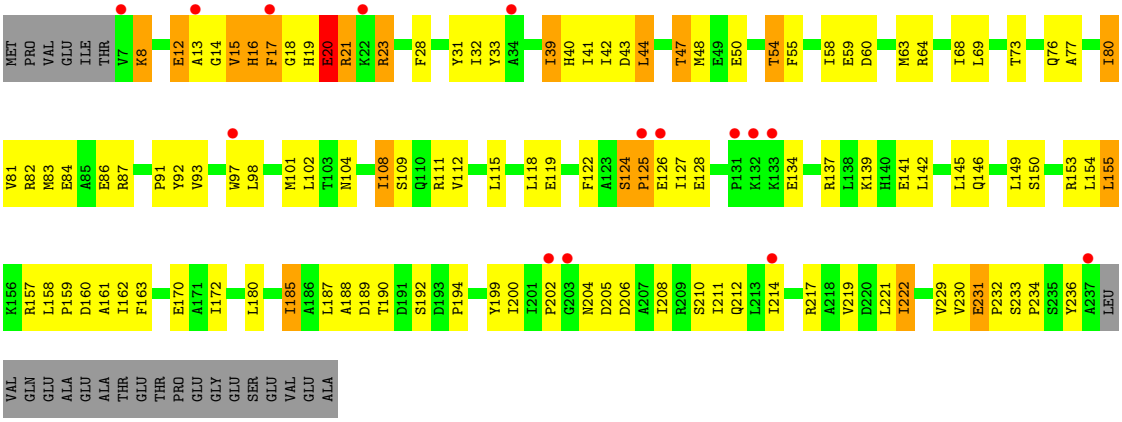
Chain 2a:





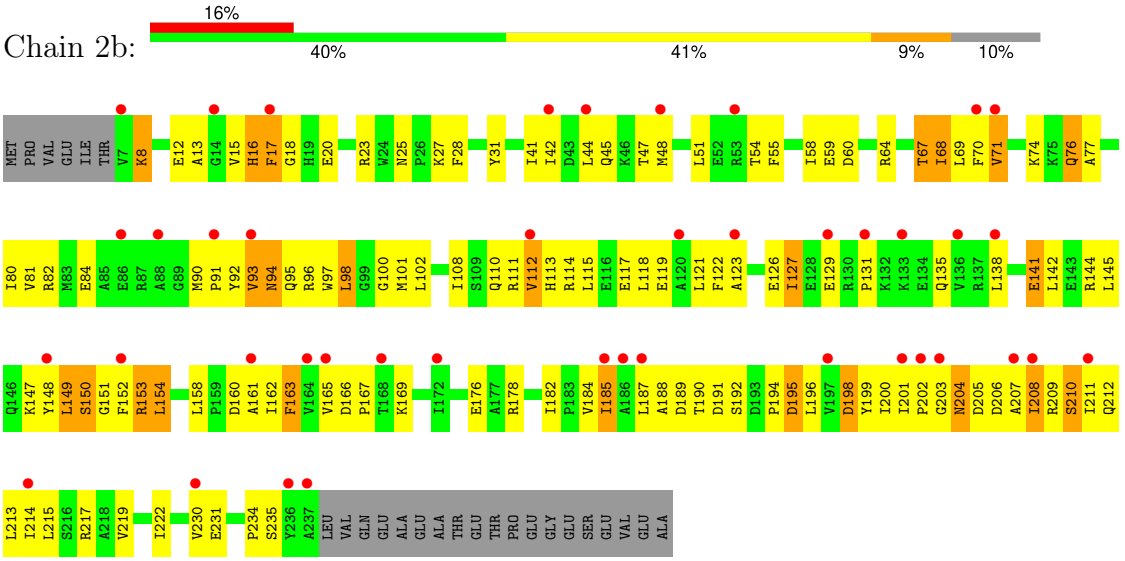
• Molecule 33: 30S ribosomal protein S2

Chain 1b:



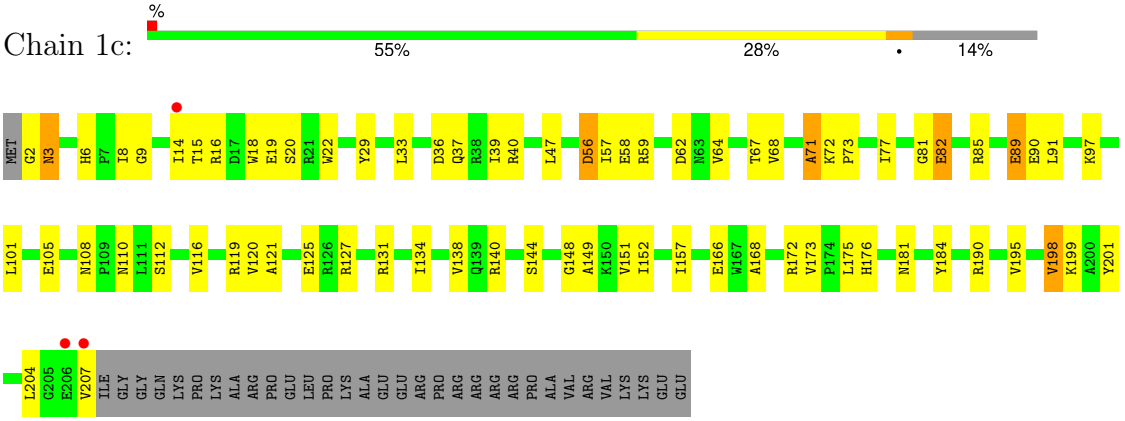
• Molecule 33: 30S ribosomal protein S2

Chain 2b:



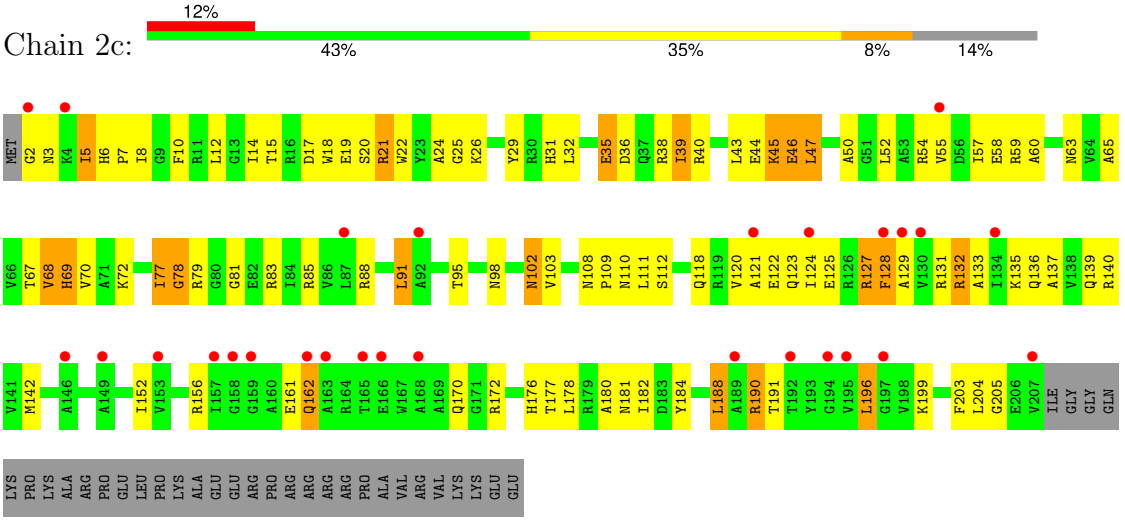
• Molecule 34: 30S ribosomal protein S3

Chain 1c:



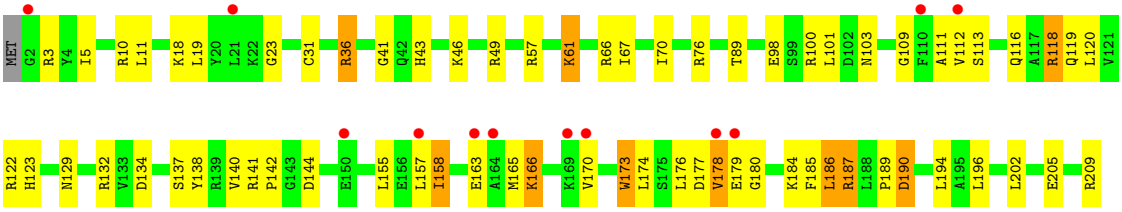
• Molecule 34: 30S ribosomal protein S3

Chain 2c:



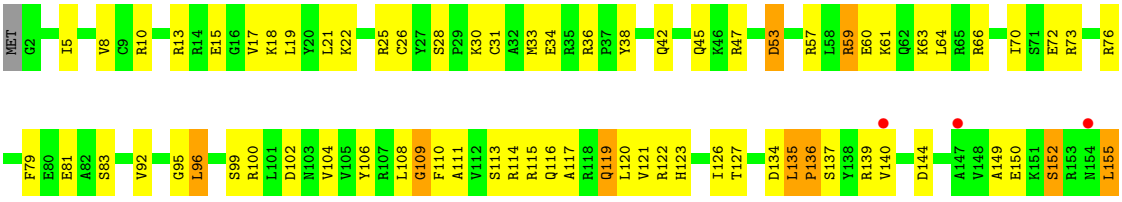
• Molecule 35: 30S ribosomal protein S4

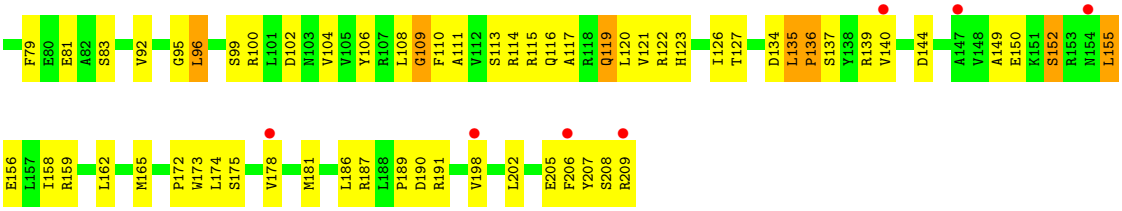
Chain 1d:



• Molecule 35: 30S ribosomal protein S4

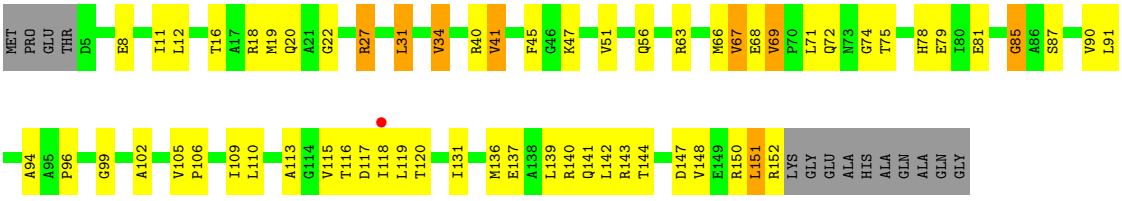
Chain 2d:





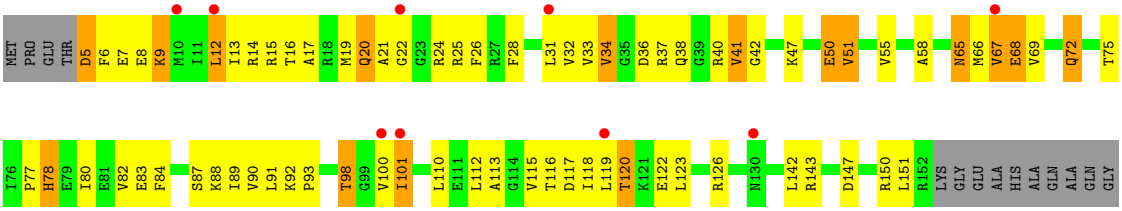
• Molecule 36: 30S ribosomal protein S5

Chain 1e:



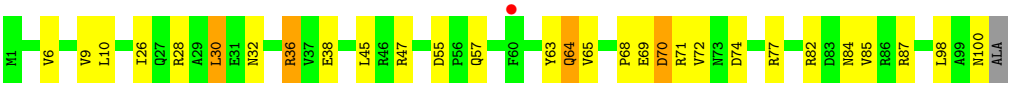
• Molecule 36: 30S ribosomal protein S5

Chain 2e:



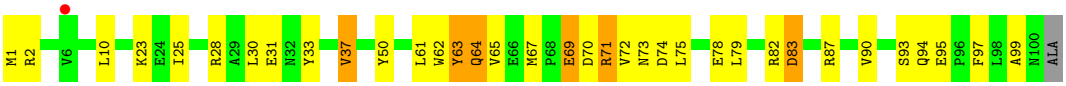
• Molecule 37: 30S ribosomal protein S6

Chain 1f:



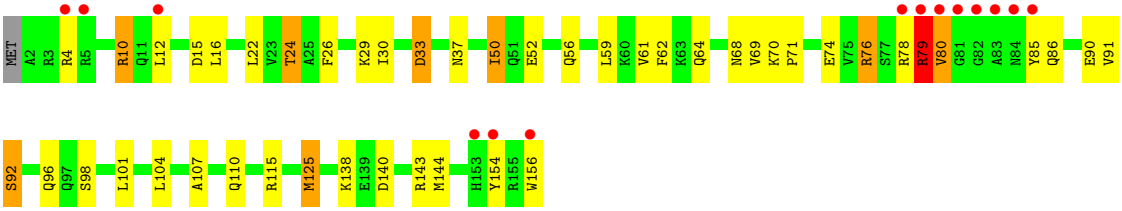
• Molecule 37: 30S ribosomal protein S6

Chain 2f:



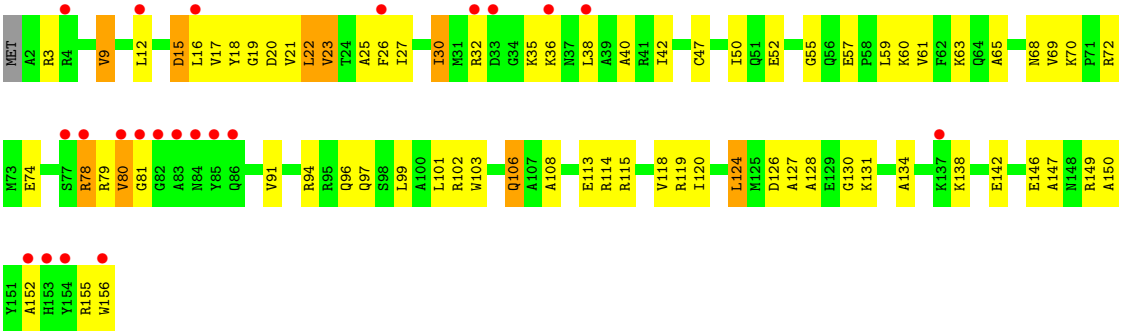
• Molecule 38: 30S ribosomal protein S7

Chain 1g:



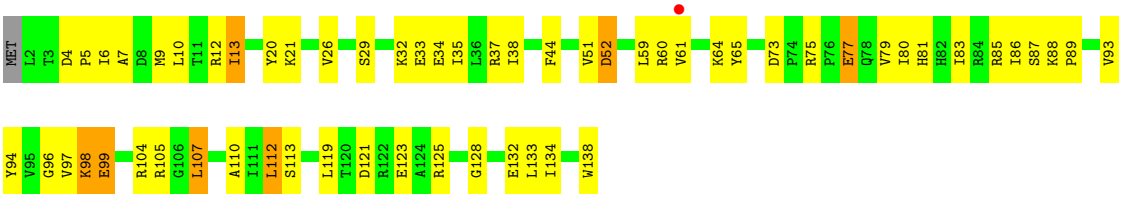
• Molecule 38: 30S ribosomal protein S7

Chain 2g:



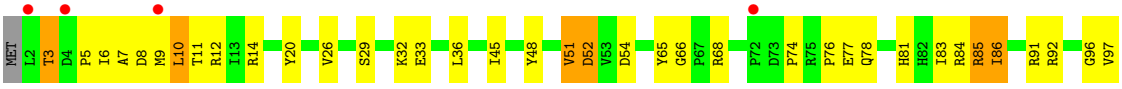
• Molecule 39: 30S ribosomal protein S8

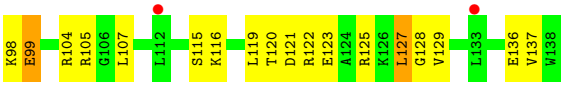
Chain 1h:



• Molecule 39: 30S ribosomal protein S8

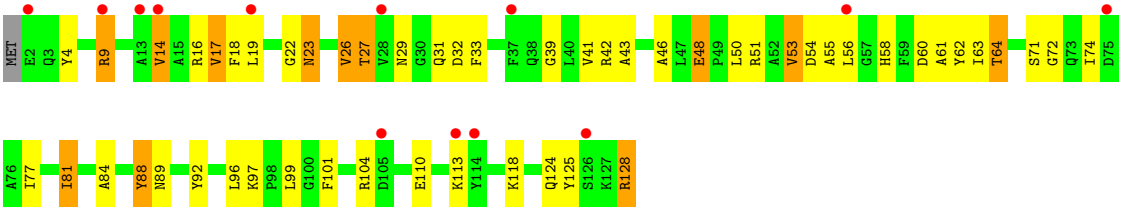
Chain 2h:





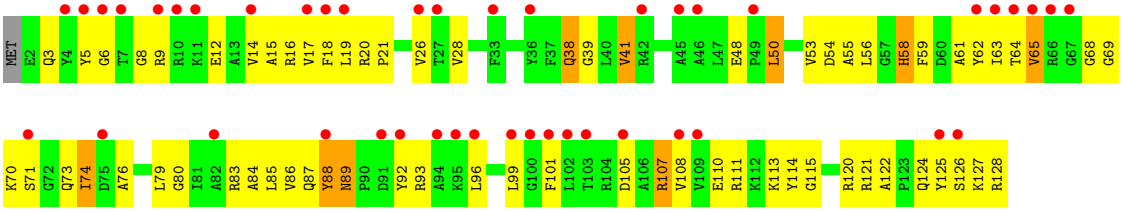
• Molecule 40: 30S ribosomal protein S9

Chain 1i:



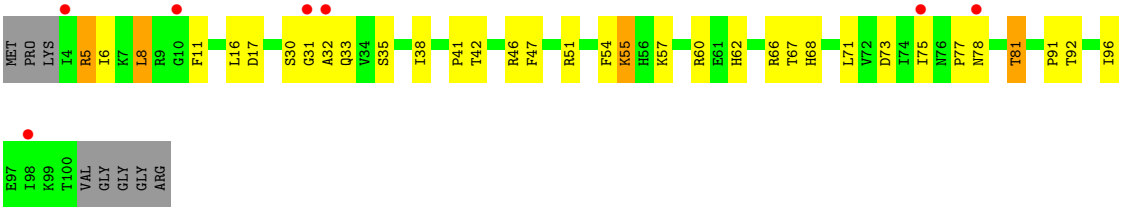
• Molecule 40: 30S ribosomal protein S9

Chain 2i:



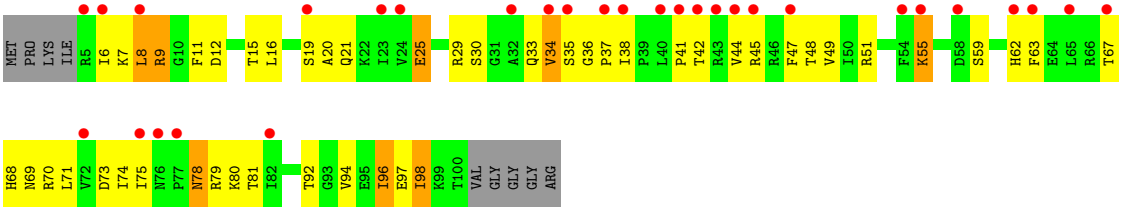
• Molecule 41: 30S ribosomal protein S10

Chain 1j:



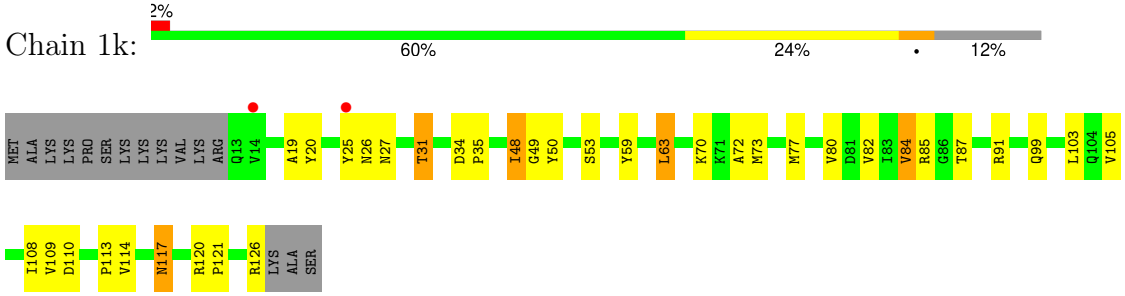
• Molecule 41: 30S ribosomal protein S10

Chain 2j:



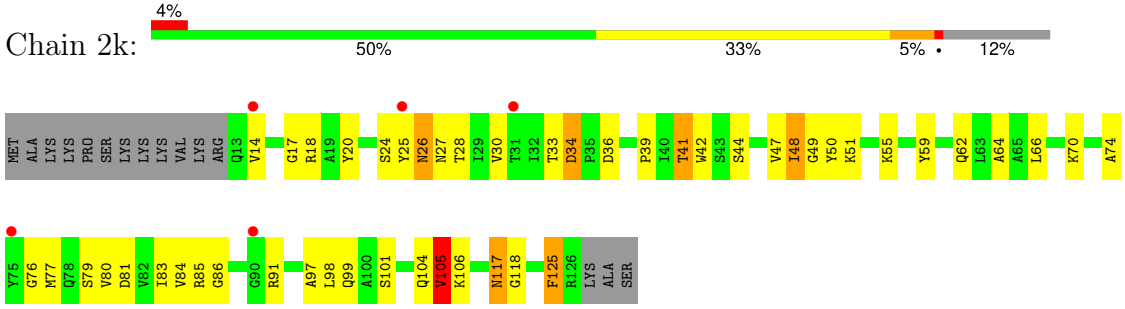
• Molecule 42: 30S ribosomal protein S11

Chain 1k:



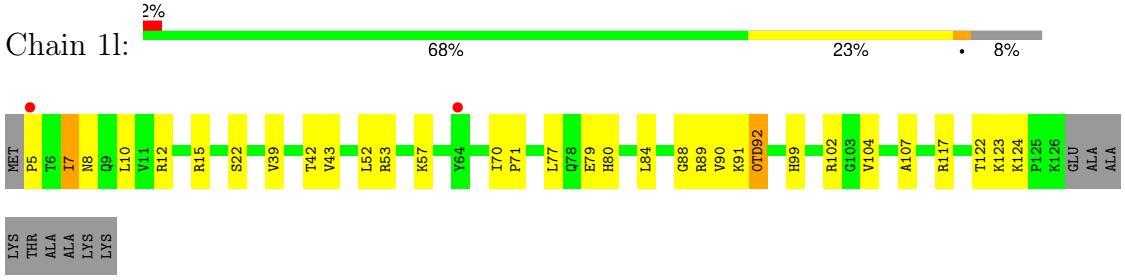
• Molecule 42: 30S ribosomal protein S11

Chain 2k:



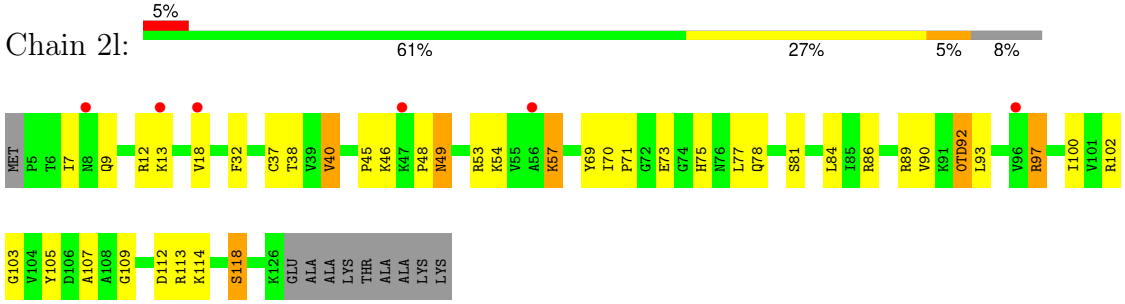
• Molecule 43: 30S ribosomal protein S12

Chain 1l:



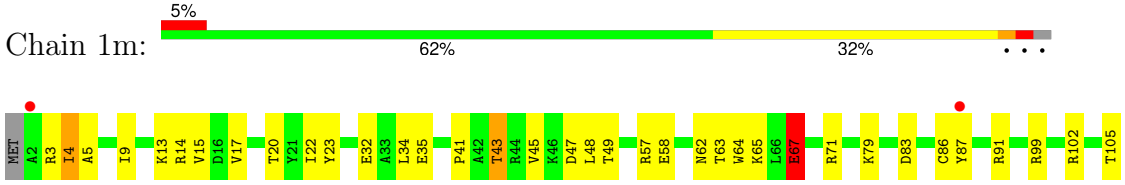
• Molecule 43: 30S ribosomal protein S12

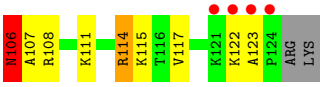
Chain 2l:



• Molecule 44: 30S ribosomal protein S13

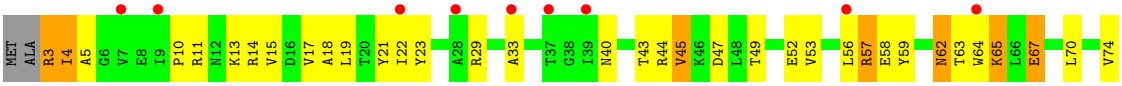
Chain 1m:

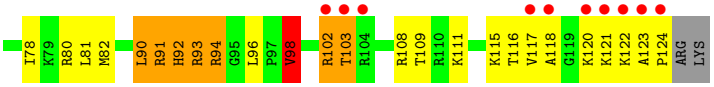




• Molecule 44: 30S ribosomal protein S13

Chain 2m:



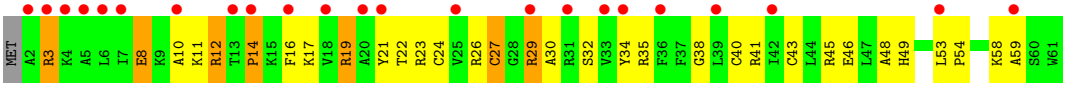


• Molecule 45: 30S ribosomal protein S14 type Z

Chain 1n:

• Molecule 45: 30S ribosomal protein S14 type Z

Chain 2n:

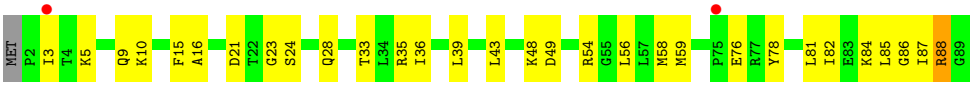


• Molecule 46: 30S ribosomal protein S15

Chain 1o:

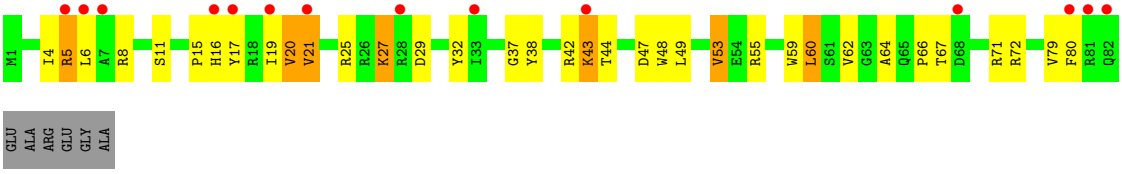
• Molecule 46: 30S ribosomal protein S15

Chain 2o:

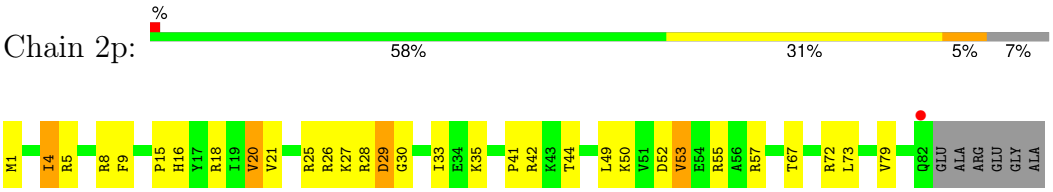


• Molecule 47: 30S ribosomal protein S16

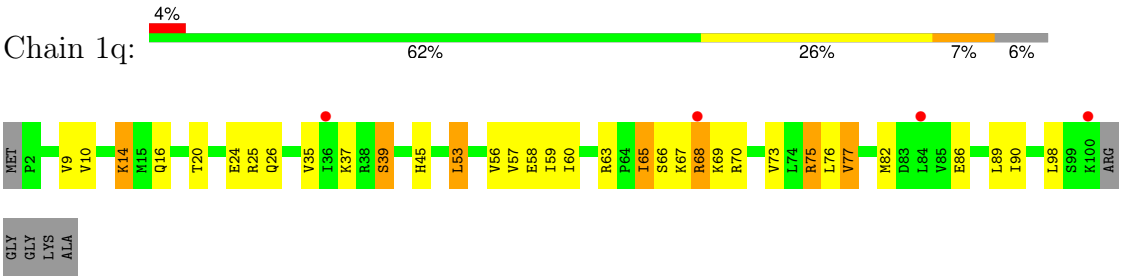
Chain 1p:



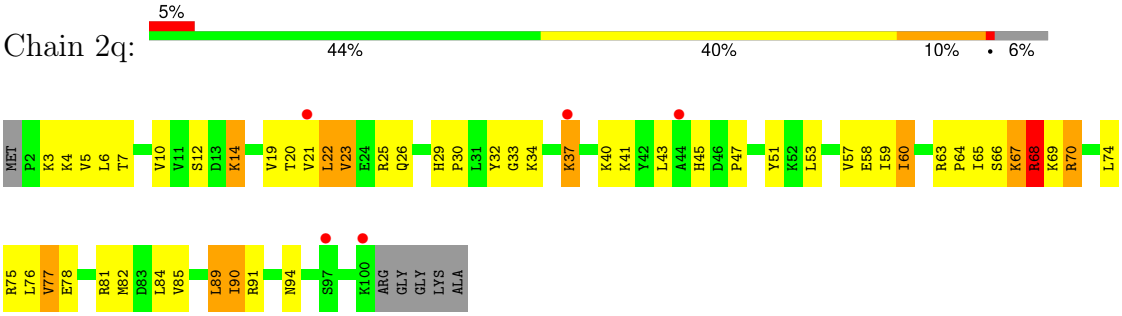
• Molecule 47: 30S ribosomal protein S16



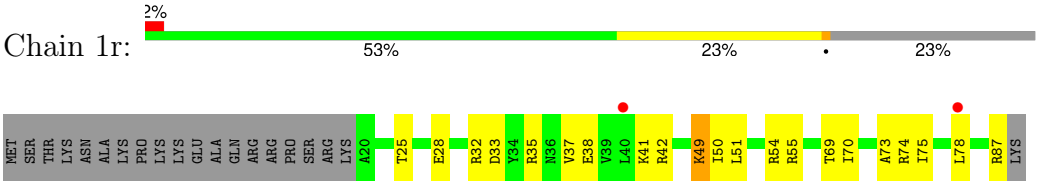
• Molecule 48: 30S ribosomal protein S17



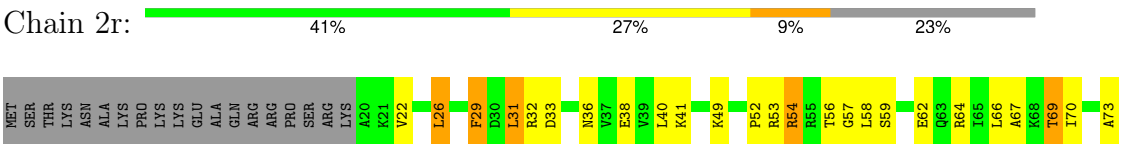
• Molecule 48: 30S ribosomal protein S17

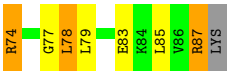


• Molecule 49: 30S ribosomal protein S18



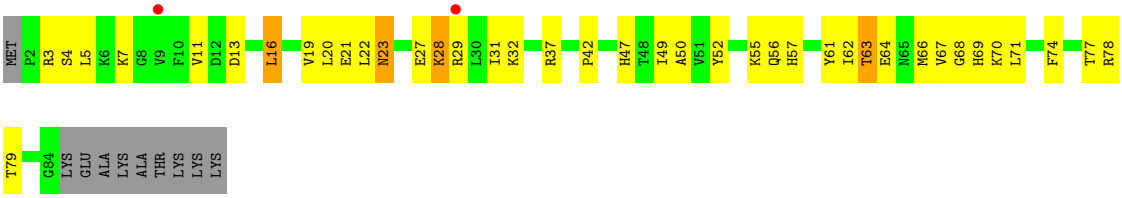
• Molecule 49: 30S ribosomal protein S18





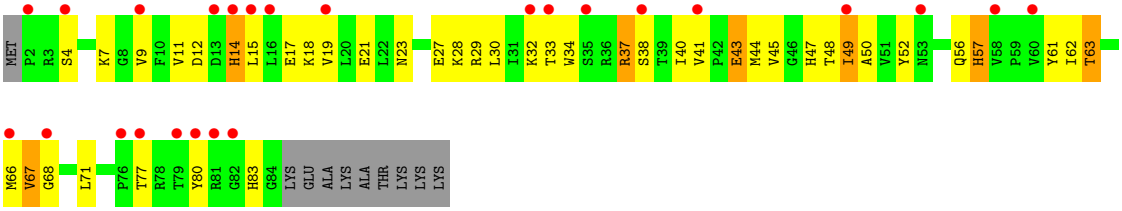
• Molecule 50: 30S ribosomal protein S19

Chain 1s:



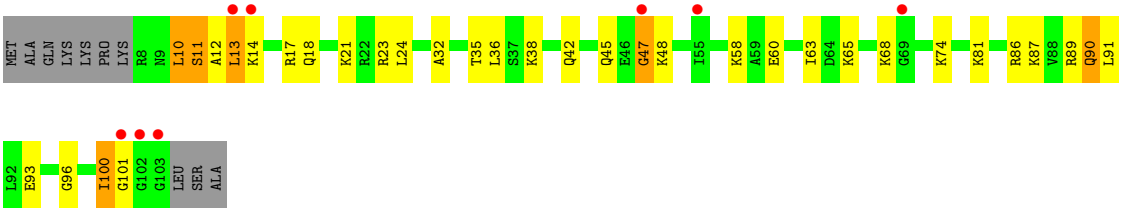
• Molecule 50: 30S ribosomal protein S19

Chain 2s:



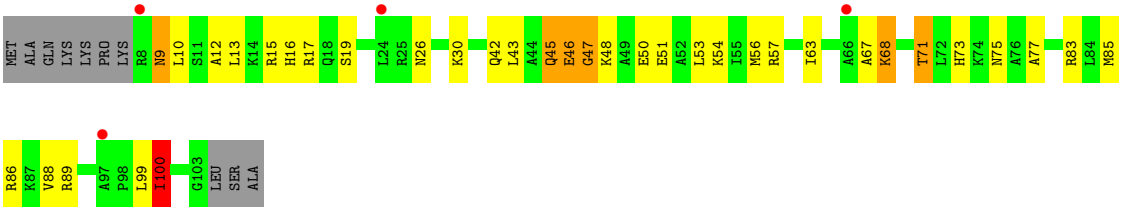
• Molecule 51: 30S ribosomal protein S20

Chain 1t:



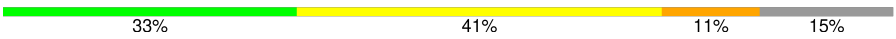
• Molecule 51: 30S ribosomal protein S20

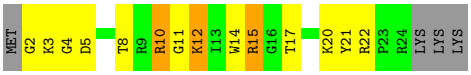
Chain 2t:



• Molecule 52: 30S ribosomal protein Thx

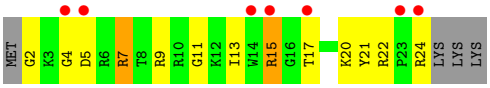
Chain 1u:





• Molecule 52: 30S ribosomal protein Thx

Chain 2u:

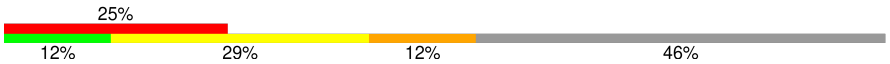


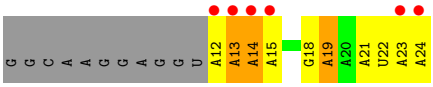
• Molecule 53: MET-LYS-mRNA

Chain 1v:

• Molecule 53: MET-LYS-mRNA

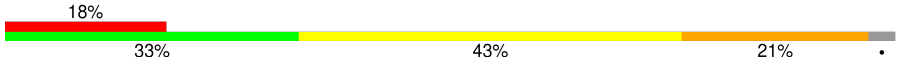
Chain 2v:

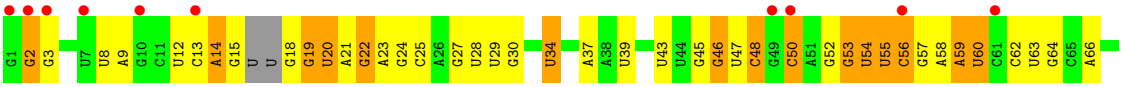


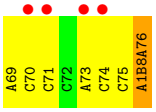


• Molecule 54: A-site Aminoacyl-tRNA Lys-tRNAlys

Chain 1w:

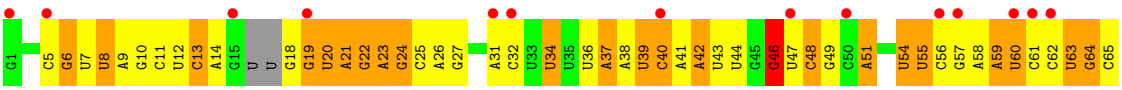


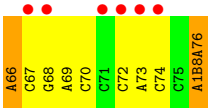




• Molecule 54: A-site Aminoacyl-tRNA Lys-tRNAlys

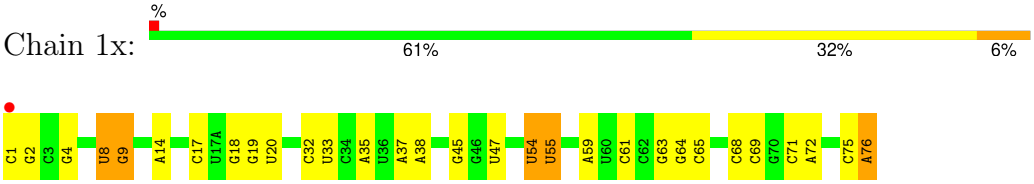
Chain 2w:





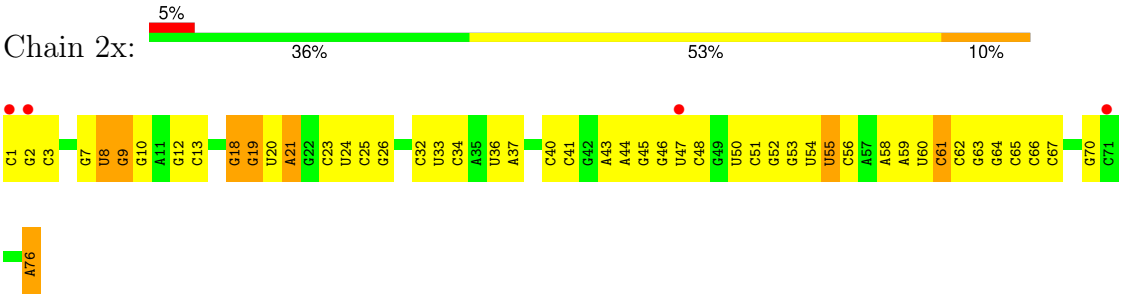
• Molecule 55: P-site Peptidyl-tRNA fMRC-tRNAcys RNA-part

Chain 1x:



• Molecule 55: P-site Peptidyl-tRNA fMRC-tRNAcys RNA-part

Chain 2x:



• Molecule 56: P-site Peptidyl-tRNA fMRC-tRNAcys Peptide-part

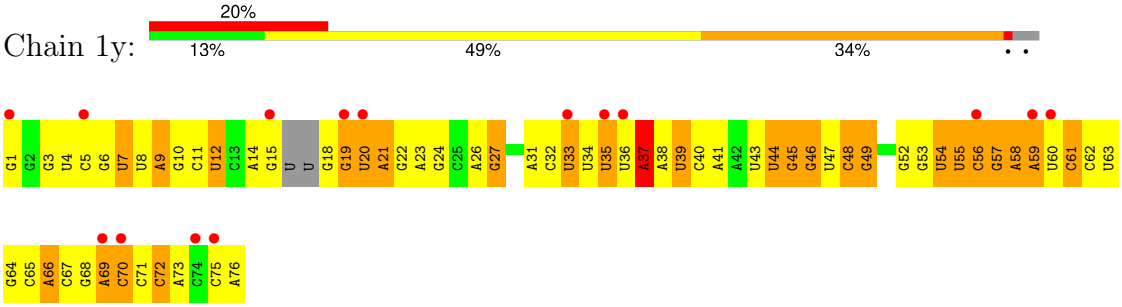
Chain 1z:

• Molecule 56: P-site Peptidyl-tRNA fMRC-tRNAcys Peptide-part

Chain 2z:

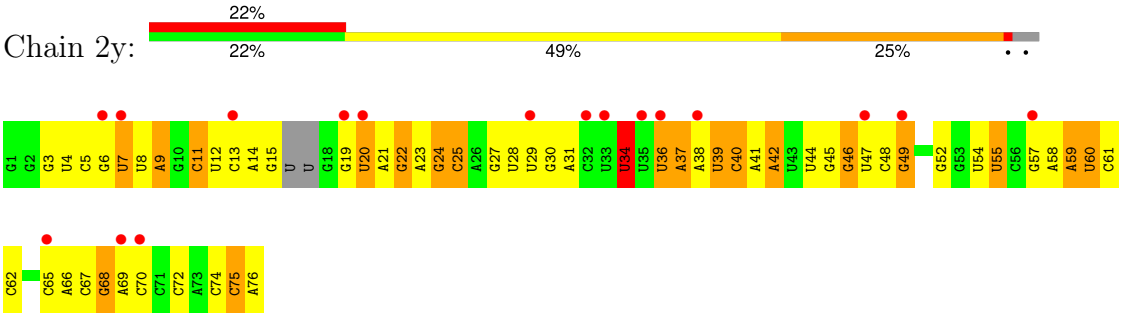
• Molecule 57: E-site Deacylated tRNAlys

Chain 1y:



• Molecule 57: E-site Deacylated tRNAlys

Chain 2y:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	209.26Å 449.45Å 619.10Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	124.44 – 2.65 124.44 – 2.65	Depositor EDS
% Data completeness (in resolution range)	99.3 (124.44-2.65) 99.3 (124.44-2.65)	Depositor EDS
R_{merge}	0.23	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.22 (at 2.65Å)	Xtriage
Refinement program	PHENIX 1.17.1	Depositor
R, R_{free}	0.225 , 0.276 0.226 , 0.277	Depositor DCC
R_{free} test set	83626 reflections (5.02%)	wwPDB-VP
Wilson B-factor (Å^2)	54.1	Xtriage
Anisotropy	0.177	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.30 , 55.3	EDS
L-test for twinning[2]	$< \|L\| > = 0.37$, $< L^2 > = 0.19$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.91	EDS
Total number of atoms	299863	wwPDB-VP
Average B, all atoms (Å^2)	58.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.61% of the height of the origin peak. No significant pseudotranslation is detected.*

[1]Intensities estimated from amplitudes.

[2]Theoretical values of $< |L| >$, $< L^2 >$ 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: OMC, MG, MA6, ERY, 4OC, M2G, 5MU, T6A, G7M, 5MC, 2MA, UR3, SF4, OMU, U8U, ZN, OMG, 4SU, 2MG, 0TD, K, PSU, 8AN, FME, A1B8A

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	1A	0.29	1/69011 (0.0%)	0.47	1/107720 (0.0%)
1	2A	0.21	0/67295	0.40	1/105042 (0.0%)
2	1B	0.22	0/2882	0.41	0/4494
2	2B	0.19	0/2879	0.37	0/4487
3	1D	0.27	0/2186	0.49	0/2944
3	2D	0.23	0/2186	0.46	0/2944
4	1E	0.27	0/1592	0.50	0/2149
4	2E	0.21	0/1592	0.42	0/2149
5	1F	0.26	0/1619	0.47	0/2193
5	2F	0.21	0/1615	0.47	2/2188 (0.1%)
6	1G	0.22	0/1448	0.47	1/1957 (0.1%)
6	2G	0.21	0/1453	0.47	0/1963
7	1H	0.22	0/1356	0.43	0/1834
7	2H	0.19	0/1356	0.42	0/1834
8	1I	0.20	0/1112	0.43	0/1514
8	2I	0.20	0/1079	0.45	1/1475 (0.1%)
9	1N	0.25	0/1144	0.48	0/1543
9	2N	0.20	0/1144	0.41	0/1543
10	1O	0.28	0/943	0.47	0/1269
10	2O	0.23	0/943	0.48	0/1269
11	1P	0.26	0/1152	0.55	0/1533
11	2P	0.22	0/1152	0.50	0/1533
12	1Q	0.27	0/1143	0.51	0/1527
12	2Q	0.19	0/1143	0.43	0/1527
13	1R	0.28	0/982	0.49	0/1312
13	2R	0.21	0/982	0.47	0/1312
14	1S	0.22	0/883	0.47	0/1176
14	2S	0.20	0/880	0.45	0/1172
15	1T	0.25	0/1105	0.48	0/1477
15	2T	0.20	0/1097	0.44	0/1468
16	1U	0.28	0/977	0.46	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
16	2U	0.22	0/977	0.45	0/1301
17	1V	0.25	0/782	0.49	0/1049
17	2V	0.20	0/782	0.43	0/1049
18	1W	0.28	0/897	0.47	0/1205
18	2W	0.21	0/897	0.42	0/1205
19	1X	0.28	0/764	0.56	2/1025 (0.2%)
19	2X	0.27	0/764	0.59	2/1025 (0.2%)
20	1Y	0.23	0/819	0.50	0/1095
20	2Y	0.21	0/819	0.45	0/1095
21	1Z	0.24	0/1267	0.49	0/1717
21	2Z	0.22	0/1299	0.42	0/1763
22	10	0.27	0/662	0.52	0/881
22	20	0.21	0/662	0.43	0/881
23	11	0.27	0/762	0.45	0/1014
23	21	0.23	0/762	0.41	0/1014
24	12	0.25	0/590	0.49	0/781
24	22	0.20	0/590	0.38	0/781
25	13	0.24	0/474	0.43	0/635
25	23	0.18	0/469	0.39	0/630
26	14	0.24	0/565	0.56	0/761
26	24	0.26	0/545	0.54	0/737
27	15	0.34	0/469	0.58	0/635
27	25	0.21	0/469	0.44	0/635
28	16	0.26	0/460	0.48	0/613
28	26	0.20	0/456	0.44	0/608
29	17	0.30	0/426	0.54	0/561
29	27	0.25	0/426	0.50	0/561
30	18	0.26	0/525	0.50	0/691
30	28	0.22	0/525	0.41	0/691
31	19	0.29	0/310	0.54	0/407
31	29	0.20	0/310	0.42	0/407
32	1a	0.20	0/35795	0.39	0/55864
32	2a	0.20	0/35886	0.38	0/56005
33	1b	0.22	0/1881	0.49	0/2542
33	2b	0.24	0/1860	0.52	0/2518
34	1c	0.19	0/1572	0.40	0/2126
34	2c	0.25	0/1566	0.55	1/2119 (0.0%)
35	1d	0.21	0/1685	0.45	0/2262
35	2d	0.20	0/1704	0.45	0/2284
36	1e	0.22	0/1145	0.45	0/1543
36	2e	0.24	0/1149	0.54	2/1548 (0.1%)
37	1f	0.19	0/823	0.39	0/1115
37	2f	0.20	0/829	0.43	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	1g	0.20	0/1250	0.43	0/1679
38	2g	0.22	0/1254	0.42	0/1683
39	1h	0.21	0/1108	0.44	0/1494
39	2h	0.21	0/1108	0.44	0/1494
40	1i	0.26	0/1002	0.55	1/1346 (0.1%)
40	2i	0.24	0/997	0.52	0/1343
41	1j	0.20	0/722	0.44	0/982
41	2j	0.23	0/727	0.47	0/988
42	1k	0.18	0/844	0.39	0/1145
42	2k	0.20	0/848	0.47	1/1149 (0.1%)
43	1l	0.21	0/937	0.44	0/1260
43	2l	0.21	0/937	0.46	0/1260
44	1m	0.20	0/969	0.52	0/1302
44	2m	0.22	0/961	0.47	0/1291
45	1n	0.19	0/501	0.42	0/664
45	2n	0.20	0/501	0.43	0/664
46	1o	0.19	0/739	0.42	0/985
46	2o	0.20	0/739	0.43	0/985
47	1p	0.22	0/697	0.51	0/939
47	2p	0.20	0/693	0.51	0/935
48	1q	0.20	0/836	0.51	1/1117 (0.1%)
48	2q	0.20	0/836	0.45	0/1117
49	1r	0.20	0/560	0.45	0/746
49	2r	0.19	0/560	0.40	0/746
50	1s	0.21	0/667	0.49	0/900
50	2s	0.25	0/661	0.58	0/893
51	1t	0.21	0/730	0.48	0/965
51	2t	0.21	0/729	0.47	0/965
52	1u	0.20	0/203	0.47	0/266
52	2u	0.22	0/203	0.46	0/266
53	1v	0.20	0/319	0.35	0/495
53	2v	0.24	0/319	0.43	0/495
54	1w	0.31	2/1593 (0.1%)	0.40	0/2474
54	2w	0.33	2/1593 (0.1%)	0.45	0/2474
55	1x	0.25	0/1723	0.40	0/2684
55	2x	0.24	0/1723	0.39	0/2684
56	1z	0.70	0/16	0.46	0/19
56	2z	0.41	0/16	0.72	0/19
57	1y	0.31	0/1618	0.45	0/2513
57	2y	0.33	2/1618 (0.1%)	0.51	0/2513
All	All	0.24	7/316807 (0.0%)	0.43	16/474290 (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
33	1b	0	1

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2552	OMU	O3'-P	5.68	1.61	1.56
57	2y	46	G7M	O3'-P	5.54	1.61	1.56
54	2w	37	T6A	O3'-P	5.53	1.61	1.56
54	2w	46	G7M	O3'-P	5.48	1.61	1.56
57	2y	37	T6A	O3'-P	5.44	1.61	1.56
54	1w	46	G7M	O3'-P	5.29	1.61	1.56
54	1w	37	T6A	O3'-P	5.24	1.61	1.56

All (16) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
40	1i	88	TYR	N-CA-C	-8.51	104.92	114.62
34	2c	78	GLY	N-CA-C	7.53	120.39	111.35
19	2X	94	GLY	CA-C-N	7.35	134.93	121.70
19	2X	94	GLY	C-N-CA	7.35	134.93	121.70
48	1q	77	VAL	N-CA-C	-7.03	105.93	112.96
8	2I	86	THR	N-CA-C	-5.97	107.81	114.62
6	1G	52	ILE	N-CA-C	-5.95	105.55	112.98
36	2e	50	GLU	CA-C-N	5.70	124.89	120.33
36	2e	50	GLU	C-N-CA	5.70	124.89	120.33
5	2F	21	ALA	CA-C-N	5.49	131.58	121.70
5	2F	21	ALA	C-N-CA	5.49	131.58	121.70
1	1A	1992	G	C2'-C3'-O3'	5.33	117.49	109.50
42	2k	25	TYR	N-CA-C	-5.29	107.12	113.21
1	2A	1992	G	C2'-C3'-O3'	5.03	117.04	109.50
19	1X	94	GLY	CA-C-N	5.00	130.71	121.70
19	1X	94	GLY	C-N-CA	5.00	130.71	121.70

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
33	1b	20	GLU	Peptide

5.2 Too-close contacts (i)

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	31195	711	0
1	2A	60322	0	30427	806	0
2	1B	2577	0	1305	29	0
2	2B	2575	0	1303	57	0
3	1D	2136	0	2218	59	0
3	2D	2136	0	2218	48	0
4	1E	1559	0	1617	31	0
4	2E	1559	0	1618	44	0
5	1F	1584	0	1625	50	0
5	2F	1580	0	1619	51	0
6	1G	1423	0	1436	41	0
6	2G	1428	0	1438	65	0
7	1H	1330	0	1407	33	0
7	2H	1330	0	1407	45	0
8	1I	1097	0	1140	33	0
8	2I	1064	0	1082	36	0
9	1N	1117	0	1184	19	0
9	2N	1117	0	1184	31	0
10	1O	933	0	996	17	0
10	2O	933	0	996	31	0
11	1P	1135	0	1212	30	0
11	2P	1135	0	1212	46	0
12	1Q	1122	0	1179	33	0
12	2Q	1122	0	1179	45	0
13	1R	968	0	1033	22	0
13	2R	968	0	1033	23	0
14	1S	873	0	927	31	0
14	2S	870	0	923	58	0
15	1T	1091	0	1151	29	0
15	2T	1083	0	1136	39	0
16	1U	959	0	1018	22	0
16	2U	959	0	1019	26	0
17	1V	771	0	830	13	0
17	2V	771	0	829	20	0
18	1W	886	0	940	13	0
18	2W	886	0	940	12	0
19	1X	750	0	814	14	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	2X	750	0	814	23	0
20	1Y	806	0	881	16	0
20	2Y	806	0	881	24	0
21	1Z	1240	0	1240	43	0
21	2Z	1271	0	1273	59	0
22	10	653	0	674	19	0
22	20	653	0	674	18	0
23	11	755	0	826	20	0
23	21	755	0	826	25	0
24	12	588	0	643	13	0
24	22	588	0	643	18	0
25	13	469	0	518	11	0
25	23	464	0	514	16	0
26	14	552	0	533	30	0
26	24	532	0	503	36	0
27	15	455	0	465	8	0
27	25	455	0	465	12	0
28	16	453	0	473	10	0
28	26	449	0	469	9	0
29	17	418	0	467	11	0
29	27	418	0	467	10	0
30	18	517	0	582	16	0
30	28	517	0	582	17	0
31	19	307	0	335	5	0
31	29	307	0	335	12	0
32	1a	32246	0	16293	427	0
32	2a	32327	0	16338	623	0
33	1b	1846	0	1867	69	0
33	2b	1825	0	1828	95	0
34	1c	1548	0	1535	46	0
34	2c	1542	0	1517	76	0
35	1d	1655	0	1672	46	0
35	2d	1674	0	1714	68	0
36	1e	1129	0	1185	44	0
36	2e	1133	0	1191	52	0
37	1f	810	0	804	15	0
37	2f	816	0	808	25	0
38	1g	1231	0	1238	32	0
38	2g	1235	0	1249	48	0
39	1h	1088	0	1126	43	0
39	2h	1088	0	1126	38	0
40	1i	983	0	986	45	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
40	2i	978	0	966	52	0
41	1j	709	0	650	27	0
41	2j	714	0	672	39	0
42	1k	829	0	825	22	0
42	2k	833	0	834	30	0
43	1l	932	0	981	20	0
43	2l	932	0	981	24	0
44	1m	958	0	1002	23	0
44	2m	950	0	988	50	0
45	1n	492	0	529	17	0
45	2n	492	0	529	26	0
46	1o	728	0	760	14	0
46	2o	728	0	760	21	0
47	1p	681	0	697	24	0
47	2p	677	0	686	22	0
48	1q	823	0	891	22	0
48	2q	823	0	891	39	0
49	1r	555	0	618	14	0
49	2r	555	0	618	24	0
50	1s	652	0	662	27	0
50	2s	646	0	644	28	0
51	1t	728	0	798	28	0
51	2t	727	0	796	23	0
52	1u	199	0	208	13	0
52	2u	199	0	208	12	0
53	1v	283	0	141	0	0
53	2v	283	0	142	9	0
54	1w	1599	0	800	29	0
54	2w	1599	0	801	49	0
55	1x	1646	0	839	16	0
55	2x	1646	0	837	34	0
56	1z	27	0	28	3	0
56	2z	27	0	28	3	0
57	1y	1577	0	799	45	0
57	2y	1577	0	798	34	0
58	10	8	0	0	0	0
58	11	6	0	0	0	0
58	12	2	0	0	0	0
58	13	6	0	0	0	0
58	15	10	0	0	0	0
58	16	1	0	0	0	0
58	17	5	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	18	7	0	0	0	0
58	19	1	0	0	0	0
58	1A	1102	0	0	0	0
58	1B	36	0	0	0	0
58	1D	14	0	0	0	0
58	1E	14	0	0	0	0
58	1F	12	0	0	0	0
58	1G	5	0	0	0	0
58	1H	1	0	0	0	0
58	1I	1	0	0	0	0
58	1N	4	0	0	0	0
58	1O	5	0	0	0	0
58	1P	4	0	0	0	0
58	1Q	8	0	0	0	0
58	1R	3	0	0	0	0
58	1S	3	0	0	0	0
58	1T	2	0	0	0	0
58	1U	11	0	0	0	0
58	1V	7	0	0	0	0
58	1W	7	0	0	0	0
58	1X	5	0	0	0	0
58	1Y	3	0	0	0	0
58	1Z	3	0	0	0	0
58	1a	215	0	0	0	0
58	1b	1	0	0	0	0
58	1d	1	0	0	0	0
58	1e	1	0	0	0	0
58	1f	2	0	0	0	0
58	1l	2	0	0	0	0
58	1m	2	0	0	0	0
58	1n	2	0	0	0	0
58	1s	1	0	0	0	0
58	1t	1	0	0	0	0
58	1v	1	0	0	0	0
58	1w	6	0	0	0	0
58	1x	11	0	0	0	0
58	20	3	0	0	0	0
58	23	4	0	0	0	0
58	25	6	0	0	0	0
58	26	1	0	0	0	0
58	27	3	0	0	0	0
58	28	4	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	2A	858	0	0	0	0
58	2B	20	0	0	0	0
58	2D	9	0	0	0	0
58	2E	7	0	0	0	0
58	2F	6	0	0	0	0
58	2G	1	0	0	0	0
58	2O	2	0	0	0	0
58	2P	2	0	0	0	0
58	2Q	2	0	0	0	0
58	2R	1	0	0	0	0
58	2T	2	0	0	0	0
58	2U	2	0	0	0	0
58	2V	2	0	0	0	0
58	2W	4	0	0	0	0
58	2X	2	0	0	0	0
58	2Y	1	0	0	0	0
58	2Z	1	0	0	0	0
58	2a	230	0	0	0	0
58	2d	2	0	0	0	0
58	2e	2	0	0	0	0
58	2f	2	0	0	0	0
58	2g	1	0	0	0	0
58	2i	1	0	0	0	0
58	2j	2	0	0	0	0
58	2k	1	0	0	0	0
58	2l	6	0	0	0	0
58	2q	2	0	0	0	0
58	2r	1	0	0	0	0
58	2t	1	0	0	0	0
58	2v	5	0	0	0	0
58	2w	2	0	0	0	0
58	2x	5	0	0	0	0
58	2y	1	0	0	0	0
59	1A	1	0	0	0	0
59	2x	1	0	0	0	0
60	1A	51	0	67	4	0
60	2A	51	0	67	2	0
61	14	1	0	0	0	0
61	15	1	0	0	0	0
61	16	1	0	0	0	0
61	19	1	0	0	0	0
61	1Y	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
61	1n	1	0	0	0	0
61	24	1	0	0	0	0
61	25	1	0	0	0	0
61	26	1	0	0	0	0
61	29	1	0	0	0	0
61	2Y	1	0	0	0	0
61	2n	1	0	0	0	0
62	1d	8	0	0	1	0
62	2d	8	0	0	2	0
63	10	13	0	0	2	0
63	11	9	0	0	0	0
63	12	3	0	0	1	0
63	13	6	0	0	1	0
63	14	1	0	0	0	0
63	15	5	0	0	0	0
63	16	3	0	0	0	0
63	17	8	0	0	0	0
63	18	10	0	0	1	0
63	1A	1896	0	0	95	0
63	1B	61	0	0	4	0
63	1D	25	0	0	2	0
63	1E	30	0	0	3	0
63	1F	17	0	0	2	0
63	1G	3	0	0	0	0
63	1H	2	0	0	0	0
63	1N	4	0	0	0	0
63	1O	5	0	0	0	0
63	1P	25	0	0	1	0
63	1Q	7	0	0	0	0
63	1R	16	0	0	4	0
63	1S	3	0	0	0	0
63	1T	5	0	0	0	0
63	1U	14	0	0	0	0
63	1V	9	0	0	0	0
63	1W	6	0	0	0	0
63	1X	8	0	0	0	0
63	1Y	5	0	0	0	0
63	1Z	1	0	0	0	0
63	1a	305	0	0	21	0
63	1b	1	0	0	0	0
63	1e	1	0	0	0	0
63	1f	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
63	1i	1	0	0	0	0
63	1l	4	0	0	0	0
63	1q	2	0	0	0	0
63	1u	1	0	0	0	0
63	1v	5	0	0	0	0
63	1w	6	0	0	0	0
63	1x	5	0	0	0	0
63	1y	1	0	0	0	0
63	20	2	0	0	0	0
63	21	6	0	0	1	0
63	25	1	0	0	1	0
63	27	3	0	0	0	0
63	28	2	0	0	0	0
63	29	1	0	0	0	0
63	2A	992	0	0	91	0
63	2B	19	0	0	0	0
63	2D	20	0	0	1	0
63	2E	13	0	0	2	0
63	2F	14	0	0	0	0
63	2N	1	0	0	0	0
63	2O	2	0	0	0	0
63	2P	7	0	0	0	0
63	2Q	1	0	0	0	0
63	2R	3	0	0	0	0
63	2T	5	0	0	0	0
63	2U	3	0	0	0	0
63	2W	2	0	0	0	0
63	2X	2	0	0	2	0
63	2Y	1	0	0	0	0
63	2Z	1	0	0	0	0
63	2a	172	0	0	23	0
63	2e	1	0	0	0	0
63	2g	1	0	0	0	0
63	2j	2	0	0	1	0
63	2l	3	0	0	0	0
63	2p	3	0	0	0	0
63	2r	1	0	0	0	0
63	2t	1	0	0	0	0
63	2v	2	0	0	0	0
63	2w	1	0	0	0	0
63	2x	2	0	0	0	0
All	All	299863	0	196891	5069	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 11.

All (5069) 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	1.21	1.38
54:2w:51:A:N6	54:2w:63:U:C4	2.23	1.05
1:1A:1082:U:O4	1:1A:1086:A:N1	1.94	1.00
54:2w:51:A:N6	54:2w:63:U:N3	2.12	0.98
57:1y:4:U:H3	57:1y:69:A:N6	1.64	0.96
57:1y:4:U:H3	57:1y:69:A:H61	0.97	0.96
1:1A:2499:C:OP1	63:1A:4202:HOH:O	1.87	0.92
32:2a:1399:C:H4'	32:2a:1400:5MC:H5'	1.50	0.91
1:2A:1183:G:H5"	25:23:30:ARG:HH22	1.37	0.90
22:10:10:THR:HG22	22:10:12:ASN:H	1.37	0.89
10:2O:48:PRO:HB3	32:2a:1422:G:H5"	1.56	0.88
26:24:53:GLU:HG2	26:24:55:ARG:H	1.39	0.88
34:2c:156:ARG:HH21	34:2c:161:GLU:HA	1.38	0.88
40:1i:17:VAL:HG21	40:1i:81:ILE:HG22	1.57	0.87
32:2a:1162:C:H42	32:2a:1174:G:H1	1.22	0.87
46:2o:36:ILE:HG13	46:2o:59:MET:HE2	1.57	0.86
1:2A:2162:G:H4'	1:2A:2172:U:H2'	1.55	0.86
34:2c:58:GLU:HB3	41:2j:92:THR:HG21	1.58	0.85
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.10	0.85
1:1A:2136:C:N3	1:1A:2155:G:C2	2.45	0.85
34:2c:125:GLU:HB2	34:2c:190:ARG:HH21	1.41	0.84
1:2A:1204:A:H2	1:2A:1241:A:H62	1.26	0.84
32:2a:1004:A:H5"	32:2a:1024:G:H22	1.43	0.84
1:1A:1186:G:OP2	63:1A:4203:HOH:O	1.94	0.84
17:1V:55:ALA:HA	17:1V:101:GLY:HA2	1.59	0.84
1:1A:2096:U:H3	1:1A:2193:G:H1	1.26	0.84
1:2A:1798:U:H5'	3:2D:259:THR:HG22	1.60	0.83
44:2m:123:ALA:HB3	54:2w:39:PSU:H4'	1.57	0.83
1:2A:2138:C:H42	1:2A:2153:G:H1	1.27	0.82
32:2a:1128:C:H1'	32:2a:1147:C:H42	1.45	0.82
1:1A:993:G:OP1	16:1U:50:ARG:NH2	2.11	0.82
33:2b:54:THR:HG22	33:2b:199:TYR:HB3	1.61	0.82
10:1O:48:PRO:HB3	32:1a:1422:G:H5"	1.61	0.82
46:1o:74:ASP:HB3	46:1o:77:ARG:HB2	1.61	0.82
42:2k:33:THR:HA	42:2k:39:PRO:HA	1.61	0.82
20:1Y:102:CYS:SG	20:1Y:103:GLY:N	2.53	0.81
1:1A:2319:G:H22	14:1S:3:ARG:HD3	1.45	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:219:VAL:HA	33:2b:222:ILE:HG12	1.61	0.81
57:2y:22:G:N7	57:2y:46:G7M:N2	2.27	0.81
1:1A:1062:G:H22	1:1A:1077:A:H61	1.29	0.81
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.14	0.81
10:2O:35:VAL:HG11	10:2O:103:ALA:HB3	1.62	0.81
34:2c:58:GLU:HB2	34:2c:65:ALA:HB3	1.63	0.81
22:20:10:THR:HG22	22:20:12:ASN:H	1.43	0.80
1:1A:2821:A:OP2	63:1R:301:HOH:O	1.99	0.80
32:2a:737:A:H1'	37:2f:73:ASN:HD21	1.45	0.80
41:2j:47:PHE:HB2	41:2j:63:PHE:HB2	1.63	0.80
8:1I:77:LEU:HB3	8:1I:142:VAL:HG12	1.62	0.80
1:2A:601:C:O2'	5:2F:104:LYS:NZ	2.14	0.80
1:2A:1022:G:H22	1:2A:1142(A):A:H2	1.29	0.80
1:1A:631:A:OP1	11:1P:65:ARG:NH1	2.13	0.80
26:14:16:CYS:SG	26:14:17:GLY:N	2.51	0.80
42:1k:48:ILE:HD12	42:1k:63:LEU:HB2	1.61	0.80
32:2a:1025:U:H3	32:2a:1036:G:H1	1.24	0.80
34:1c:19:GLU:O	34:1c:40:ARG:NH2	2.15	0.79
26:14:55:ARG:H	26:14:56:VAL:HA	1.45	0.79
32:1a:1499:A:OP2	63:1a:1901:HOH:O	1.99	0.79
33:1b:77:ALA:HB2	33:1b:211:ILE:HD13	1.62	0.79
36:2e:122:GLU:O	36:2e:126:ARG:NH1	2.16	0.79
1:1A:1315:C:OP2	63:1A:4204:HOH:O	1.99	0.79
1:2A:731:C:OP2	63:2A:3903:HOH:O	2.00	0.79
1:2A:1689:A:H62	1:2A:1698:A:H2	1.29	0.79
33:2b:95:GLN:HG3	33:2b:147:LYS:HG2	1.64	0.79
1:2A:2117:A:H61	1:2A:2166:G:H1	1.29	0.79
4:2E:119:ARG:HD3	4:2E:160:TYR:HB2	1.62	0.79
32:1a:376:G:H5"	47:1p:5:ARG:HB3	1.65	0.78
1:2A:2110:G:OP1	1:2A:2118:U:N3	2.16	0.78
32:1a:501:C:OP1	43:1l:117:ARG:NH2	2.15	0.78
6:1G:161:THR:HG22	6:1G:163:ALA:H	1.47	0.78
32:1a:159:G:O2'	32:1a:161:A:N7	2.17	0.78
36:1e:144:THR:H	36:1e:147:ASP:HB2	1.48	0.78
43:1l:71:PRO:O	43:1l:102:ARG:NH1	2.16	0.78
48:2q:57:VAL:HG12	48:2q:76:LEU:HA	1.66	0.78
4:1E:122:PHE:O	63:1E:402:HOH:O	2.02	0.78
40:1i:128:ARG:NH2	55:1x:33:U:OP2	2.17	0.78
1:2A:2286:A:H3'	28:26:30:THR:HG21	1.63	0.78
1:1A:1082:U:N3	1:1A:1086:A:N6	2.03	0.77
36:1e:78:HIS:HD2	39:1h:104:ARG:HD2	1.47	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1133:G:H1	32:2a:1141:C:H42	1.29	0.77
1:1A:1798:U:H5'	3:1D:259:THR:HG22	1.63	0.77
1:2A:1007:C:OP1	9:2N:35:ARG:NH1	2.17	0.77
1:1A:2427:C:OP1	63:1A:4205:HOH:O	2.03	0.77
5:1F:53:THR:HG22	5:1F:55:GLY:H	1.48	0.77
1:2A:962:G:OP1	63:2A:3904:HOH:O	2.01	0.77
1:2A:1604:C:OP1	63:2A:3905:HOH:O	2.01	0.77
1:1A:604:G:OP2	11:1P:90:ARG:NH2	2.18	0.77
32:1a:1505:G:OP2	63:1a:1901:HOH:O	2.01	0.77
1:2A:805:G:OP1	63:2A:3907:HOH:O	2.03	0.77
47:2p:15:PRO:HD2	47:2p:42:ARG:HD2	1.67	0.77
6:1G:49:ASP:N	6:1G:49:ASP:OD1	2.16	0.77
39:1h:21:LYS:O	39:1h:65:TYR:OH	2.02	0.77
26:24:46:GLN:HG3	26:24:48:ARG:H	1.48	0.77
54:1w:50:C:H42	54:1w:64:G:H1	1.31	0.77
1:2A:2439:A:N6	55:2x:76:8AN:O1P	2.18	0.77
32:2a:1517:G:H2'	32:2a:1518:MA6:H8	1.67	0.76
7:1H:7:LEU:HD12	7:1H:8:PRO:HD2	1.67	0.76
1:2A:882:G:H22	1:2A:894:C:H42	1.33	0.76
1:2A:570:G:O6	63:2A:3906:HOH:O	2.02	0.76
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.68	0.76
18:1W:78:GLU:OE2	18:1W:99:ARG:NH1	2.18	0.76
35:2d:122:ARG:NH1	35:2d:134:ASP:O	2.17	0.76
1:1A:1264:G:OP1	27:15:19:ARG:NH2	2.19	0.76
14:1S:67:ARG:HD2	14:1S:71:ARG:HH21	1.50	0.76
1:2A:2062:A:OP1	63:2A:3908:HOH:O	2.03	0.76
14:2S:62:LYS:HB3	14:2S:97:ARG:HD2	1.68	0.76
19:2X:94:GLY:HA3	19:2X:95:LEU:HB2	1.66	0.76
1:1A:1671:U:O4	63:1A:4206:HOH:O	2.04	0.76
4:1E:105:THR:HG1	4:1E:166:THR:HG1	1.27	0.76
15:1T:77:PRO:HG2	15:1T:80:SER:HB2	1.65	0.76
1:1A:2683:C:O2	10:1O:70:LYS:NZ	2.15	0.75
54:2w:51:A:C6	54:2w:63:U:N3	2.54	0.75
4:2E:47:VAL:HG11	4:2E:86:PRO:HD2	1.68	0.75
32:2a:953:G:H5'	32:2a:965:A:H61	1.50	0.75
40:2i:3:GLN:HG3	40:2i:20:ARG:HD2	1.67	0.75
1:2A:1420:U:O2'	1:2A:1421:G:OP1	2.04	0.75
40:2i:128:ARG:NH2	55:2x:33:U:OP2	2.18	0.75
2:2B:41:U:H5	6:2G:70:VAL:H	1.35	0.75
32:2a:1105:A:H2'	32:2a:1106:G:H8	1.49	0.75
14:2S:99:LYS:NZ	14:2S:103:GLU:OE2	2.20	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:545:C:OP1	35:2d:61:LYS:NZ	2.20	0.75
38:2g:152:ALA:O	38:2g:155:ARG:NH1	2.20	0.75
32:2a:438:G:N1	32:2a:495:A:OP2	2.16	0.75
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.69	0.75
51:1t:90:GLN:HE21	51:1t:90:GLN:H	1.33	0.75
32:2a:299:G:O6	63:2a:1901:HOH:O	2.03	0.75
1:2A:1324:G:N7	63:2A:3965:HOH:O	2.19	0.74
1:2A:1696:G:N7	63:2A:3960:HOH:O	2.19	0.74
3:2D:108:PRO:HB3	3:2D:143:HIS:HE1	1.51	0.74
32:1a:542:G:OP1	35:1d:10:ARG:NH2	2.19	0.74
1:2A:1015:G:H2'	1:2A:1016:G:H8	1.50	0.74
1:1A:677:A:OP1	63:1A:4207:HOH:O	2.04	0.74
22:10:27:GLU:HG3	22:10:68:GLU:HA	1.70	0.74
1:2A:2104:G:H1	1:2A:2185:C:H42	1.33	0.74
1:2A:2683:C:O2	10:2O:70:LYS:NZ	2.15	0.74
39:1h:98:LYS:H	39:1h:98:LYS:HE2	1.51	0.74
48:1q:66:SER:O	48:1q:70:ARG:NH1	2.20	0.74
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.20	0.74
1:1A:2128:C:N3	1:1A:2160:G:N2	2.34	0.74
5:2F:101:LEU:O	5:2F:106:ARG:NH1	2.19	0.74
15:2T:117:ASP:OD2	15:2T:120:ARG:NE	2.19	0.74
42:2k:99:GLN:HG2	42:2k:105:VAL:HG21	1.70	0.74
1:1A:1058:G:H1	1:1A:1080:C:H42	1.35	0.74
2:1B:106:G:H5'	21:1Z:31:ARG:HG2	1.68	0.74
18:1W:25:ARG:NH2	18:1W:74:ALA:O	2.19	0.74
32:2a:1105:A:H2'	32:2a:1106:G:C8	2.23	0.74
1:1A:1865:G:OP1	63:1A:4210:HOH:O	2.06	0.74
32:1a:975:A:H4'	32:1a:976:G:H5"	1.70	0.74
32:1a:1054:C:OP2	63:1a:1902:HOH:O	2.04	0.74
1:2A:131:G:OP1	63:2A:3909:HOH:O	2.05	0.74
1:2A:981:A:OP1	63:2A:3911:HOH:O	2.06	0.74
32:2a:117:G:OP2	63:2a:1902:HOH:O	2.06	0.74
34:2c:70:VAL:HG12	34:2c:72:LYS:H	1.53	0.74
1:1A:1342:A:OP2	63:1A:4209:HOH:O	2.05	0.74
32:2a:1106:G:H5"	34:2c:172:ARG:HB3	1.68	0.74
55:2x:40:C:H2'	55:2x:41:C:H6	1.53	0.74
1:2A:1342:A:OP2	63:2A:3912:HOH:O	2.06	0.73
1:1A:1007:C:OP2	63:1A:4211:HOH:O	2.06	0.73
1:1A:990:A:OP2	63:1A:4203:HOH:O	2.04	0.73
32:2a:1189:C:HO2'	34:2c:176:HIS:HD1	1.32	0.73
26:14:58:ARG:HG2	50:1s:68:GLY:H	1.52	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:912:C:OP1	12:2Q:8:LYS:NZ	2.21	0.73
1:2A:2343:C:HO2'	1:2A:2373:G:HO2'	1.31	0.73
1:1A:2006:C:OP1	63:1A:4212:HOH:O	2.07	0.73
1:2A:631:A:OP1	11:2P:65:ARG:NH1	2.22	0.73
1:2A:2683:C:OP1	15:2T:53:ARG:NH2	2.22	0.73
2:2B:7:G:H21	14:2S:38:GLN:HE22	1.36	0.73
1:1A:2448:A:OP1	63:1A:4202:HOH:O	2.06	0.73
4:2E:36:ARG:NH1	4:2E:85:ASN:OD1	2.21	0.73
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	1.70	0.73
1:1A:1654:A:OP2	63:1A:4208:HOH:O	2.05	0.73
32:2a:673:G:H2'	32:2a:674:G:C8	2.23	0.73
33:2b:74:LYS:NZ	33:2b:206:ASP:OD1	2.21	0.73
5:2F:32:LEU:HD13	5:2F:112:MET:HE1	1.71	0.73
32:2a:931:C:H42	32:2a:1386:G:H1	1.37	0.73
1:1A:1071:G:H1'	1:1A:1089:G:H2'	1.70	0.72
1:2A:792:G:O6	63:2A:3910:HOH:O	2.05	0.72
1:1A:1077:A:H2'	1:1A:1078:U:H4'	1.72	0.72
36:1e:137:GLU:HG3	36:1e:141:GLN:HE21	1.53	0.72
1:1A:1669:A:OP2	63:1A:4206:HOH:O	2.06	0.72
1:1A:1670:C:OP2	63:1A:4206:HOH:O	2.08	0.72
35:1d:101:LEU:HB2	35:1d:138:TYR:HB3	1.70	0.72
39:1h:51:VAL:HG12	39:1h:52:ASP:H	1.55	0.72
13:2R:103:ARG:NH1	13:2R:108:GLY:O	2.23	0.72
32:2a:964:A:O2'	41:2j:55:LYS:NZ	2.21	0.72
1:2A:297:C:OP2	63:2A:3913:HOH:O	2.07	0.72
32:2a:1346:A:H61	32:2a:1374:A:H3'	1.53	0.72
45:2n:26:ARG:HD3	45:2n:43:CYS:HB3	1.69	0.72
54:2w:18:G:O2'	54:2w:57:G:N2	2.23	0.72
1:1A:1602:U:O4	63:1A:4209:HOH:O	2.07	0.72
32:2a:1348:U:H4'	40:2i:120:ARG:HG3	1.72	0.72
32:1a:1118:C:OP1	40:1i:104:ARG:NH1	2.22	0.72
2:2B:48:A:OP2	14:2S:30:ARG:NH2	2.22	0.72
24:12:22:GLU:OE2	24:12:68:ARG:NH2	2.23	0.72
32:1a:7:G:H2'	36:1e:119:LEU:HD12	1.72	0.72
1:2A:2364:C:OP1	22:20:55:ARG:NH1	2.23	0.72
32:2a:9:G:H2'	32:2a:10:A:H8	1.54	0.72
1:1A:2706:G:N7	63:1A:4259:HOH:O	2.21	0.72
11:1P:89:ALA:HA	11:1P:121:LYS:HD3	1.72	0.72
1:2A:1253:A:OP1	63:2A:3914:HOH:O	2.08	0.72
32:2a:393:A:OP1	63:2a:1903:HOH:O	2.07	0.72
1:1A:991:C:OP2	63:1A:4203:HOH:O	2.07	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1818:U:O4	3:1D:154:LYS:NZ	2.23	0.71
42:2k:18:ARG:HD2	42:2k:83:ILE:HD11	1.72	0.71
57:2y:48:C:H2'	57:2y:59:A:H1'	1.72	0.71
14:2S:67:ARG:HG2	14:2S:71:ARG:HD2	1.71	0.71
1:1A:505:A:OP2	63:1A:4213:HOH:O	2.07	0.71
12:2Q:122:GLY:HA2	12:2Q:125:LEU:HD12	1.72	0.71
38:2g:146:GLU:OE2	38:2g:149:ARG:NE	2.23	0.71
35:2d:187:ARG:NH1	35:2d:190:ASP:OD1	2.23	0.71
36:2e:5:ASP:N	36:2e:5:ASP:OD1	2.19	0.71
43:2l:32:PHE:HB3	43:2l:84:LEU:HD11	1.72	0.71
47:2p:21:VAL:HG23	47:2p:33:ILE:HB	1.72	0.71
1:2A:2498:C:OP2	63:2A:3915:HOH:O	2.08	0.71
4:2E:76:ARG:NH1	63:2E:402:HOH:O	2.22	0.71
1:1A:376:C:OP1	63:1A:4217:HOH:O	2.09	0.71
1:1A:2550:G:OP1	63:1A:4206:HOH:O	2.07	0.71
1:2A:1785:A:N6	63:2A:3981:HOH:O	2.23	0.71
40:2i:21:PRO:HA	40:2i:59:PHE:HA	1.73	0.71
32:1a:1224:G:OP1	63:1a:1903:HOH:O	2.08	0.71
1:1A:1038:C:H42	1:1A:1117:G:H1	1.39	0.71
1:2A:1937:A:H1'	1:2A:1939:5MU:H72	1.73	0.71
32:2a:64:G:H4'	32:2a:65:U:H3'	1.71	0.71
1:1A:912:C:OP1	12:1Q:9:TYR:OH	2.09	0.71
32:2a:542:G:OP1	35:2d:10:ARG:NH2	2.24	0.71
32:2a:1181:G:O2'	32:2a:1182:G:N7	2.22	0.71
12:1Q:111:GLU:OE2	12:1Q:133:ARG:NH2	2.18	0.71
32:1a:426:G:OP1	35:1d:36:ARG:NH1	2.24	0.71
1:1A:2135:A:H61	1:1A:2156:G:H4'	1.56	0.70
11:1P:35:HIS:O	63:1P:301:HOH:O	2.08	0.70
32:1a:664:G:H22	32:1a:741:G:H1	1.39	0.70
33:1b:21:ARG:H	33:1b:23:ARG:HD3	1.56	0.70
1:2A:120:U:OP2	63:2A:3916:HOH:O	2.09	0.70
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.55	0.70
32:2a:196:A:OP1	51:2t:68:LYS:NZ	2.20	0.70
1:1A:1352:U:OP1	63:1A:4215:HOH:O	2.09	0.70
11:2P:39:LYS:HB2	11:2P:45:LEU:HD13	1.71	0.70
1:1A:527:C:OP1	63:1A:4220:HOH:O	2.10	0.70
33:1b:16:HIS:HB2	33:1b:204:ASN:HB3	1.72	0.70
32:2a:470:C:OP1	63:2a:1904:HOH:O	2.09	0.70
19:2X:94:GLY:CA	19:2X:95:LEU:HB2	2.21	0.70
32:2a:113:G:H1'	32:2a:354:G:H5'	1.71	0.70
32:2a:559:A:OP1	36:2e:126:ARG:NH2	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:2s:63:THR:H	50:2s:66:MET:HG2	1.56	0.70
1:1A:2693:A:H2'	1:1A:2694:G:H8	1.57	0.70
1:1A:1634:A:OP2	63:1A:4219:HOH:O	2.10	0.70
25:13:10:LYS:NZ	25:13:15:TYR:OH	2.25	0.70
8:2I:50:ARG:HA	8:2I:53:ALA:HB3	1.74	0.70
14:1S:20:ARG:NH2	22:10:51:VAL:O	2.25	0.70
19:1X:1:MET:HE1	24:12:26:ARG:HH21	1.56	0.70
1:1A:1468:C:OP1	63:1A:4221:HOH:O	2.10	0.70
34:1c:36:ASP:OD1	34:1c:59:ARG:NH2	2.25	0.70
5:2F:116:ASP:OD2	11:2P:1:MET:N	2.24	0.70
1:1A:1637:A:OP2	63:1A:4223:HOH:O	2.10	0.70
1:1A:2629:A:O2'	1:1A:2630:G:OP2	2.07	0.70
32:1a:36:C:OP1	43:1l:123:LYS:NZ	2.23	0.70
40:1i:17:VAL:HG11	40:1i:81:ILE:HA	1.72	0.70
9:2N:32:THR:HG22	9:2N:37:LYS:HD3	1.74	0.70
32:2a:1376:U:H2'	32:2a:1377:A:H8	1.56	0.70
44:2m:82:MET:HE2	44:2m:92:HIS:HB3	1.72	0.70
32:1a:353:A:N7	63:1a:1923:HOH:O	2.26	0.69
3:2D:171:ASP:OD1	3:2D:171:ASP:N	2.25	0.69
23:21:32:LYS:O	63:21:101:HOH:O	2.08	0.69
1:1A:1648:C:OP1	63:1A:4218:HOH:O	2.09	0.69
32:1a:945:G:OP1	63:1a:1904:HOH:O	2.11	0.69
33:1b:83:MET:HG2	33:1b:234:PRO:HG3	1.74	0.69
1:2A:880:G:N1	1:2A:898:C:O2	2.24	0.69
1:2A:974:G:OP1	1:2A:1187:G:O2'	2.06	0.69
1:2A:2055:C:N3	63:2A:3985:HOH:O	2.24	0.69
1:2A:2138:C:N4	1:2A:2153:G:H1	1.89	0.69
11:2P:63:PRO:HD3	30:28:27:THR:HG22	1.73	0.69
1:1A:422:A:OP2	63:1A:4216:HOH:O	2.09	0.69
1:1A:2128:C:N4	1:1A:2160:G:N1	2.40	0.69
1:2A:1816:G:O6	3:2D:35:LYS:NZ	2.24	0.69
34:2c:20:SER:HB3	34:2c:22:TRP:HE1	1.56	0.69
32:1a:674:G:H2'	32:1a:675:A:H8	1.57	0.69
44:1m:105:THR:HG22	44:1m:106:ASN:H	1.57	0.69
1:2A:2705:A:OP2	63:2A:3920:HOH:O	2.11	0.69
32:2a:1271:G:N2	32:2a:1272:G:N7	2.40	0.69
39:2h:7:ALA:O	39:2h:11:THR:OG1	2.09	0.69
1:1A:1633:G:O6	63:1A:4214:HOH:O	2.08	0.69
1:2A:1246:A:OP1	5:2F:38:ARG:NH2	2.24	0.69
1:2A:1352:U:OP2	63:2A:3919:HOH:O	2.10	0.69
6:2G:166:ASP:O	6:2G:170:ARG:N	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:157:VAL:HB	5:1F:194:MET:HG2	1.75	0.69
8:1I:93:THR:HG22	8:1I:119:PRO:HB3	1.74	0.69
23:11:77:ALA:HB1	23:11:82:LEU:HD11	1.74	0.69
1:2A:888:C:OP1	44:2m:93:ARG:NH1	2.24	0.69
14:2S:71:ARG:NH1	14:2S:107:GLU:OE1	2.26	0.69
32:2a:576:G:OP1	63:2a:1905:HOH:O	2.09	0.69
5:1F:116:ASP:OD1	5:1F:119:ARG:NH2	2.26	0.69
11:1P:116:GLY:O	11:1P:137:LYS:NZ	2.24	0.69
24:12:14:ARG:O	24:12:67:LYS:NZ	2.21	0.69
25:13:30:ARG:NH2	63:13:201:HOH:O	2.25	0.69
27:15:40:LYS:NZ	27:15:44:THR:O	2.25	0.69
32:1a:404:U:OP1	35:1d:118:ARG:NH1	2.26	0.69
1:2A:1452:A:OP2	63:2A:3921:HOH:O	2.11	0.69
1:2A:2066:C:OP1	63:2A:3922:HOH:O	2.11	0.69
32:2a:558:G:OP1	63:2a:1901:HOH:O	2.11	0.69
32:2a:1278:U:H4'	32:2a:1279:A:H5'	1.75	0.69
1:1A:1693:U:O2'	3:1D:14:ARG:NH2	2.26	0.69
1:1A:2128:C:N4	1:1A:2160:G:H1	1.90	0.69
2:2B:3:C:H2'	2:2B:4:C:C6	2.28	0.69
32:2a:583:A:O2'	48:2q:91:ARG:NH2	2.25	0.69
15:1T:127:ALA:C	15:1T:129:ARG:H	2.00	0.69
51:1t:10:LEU:HB3	51:1t:12:ALA:H	1.57	0.69
6:2G:43:LEU:HD11	6:2G:153:ARG:HG2	1.74	0.69
32:2a:815:A:N7	32:2a:1509:C:O2'	2.26	0.69
32:2a:1057:G:H4'	34:2c:196:LEU:HA	1.73	0.69
2:2B:90:A:C5	2:2B:91:C:H1'	2.28	0.68
33:2b:69:LEU:HB3	33:2b:162:ILE:HG22	1.74	0.68
39:2h:119:LEU:HB3	39:2h:123:GLU:HB3	1.75	0.68
1:1A:303:U:O4	63:1A:4222:HOH:O	2.10	0.68
4:1E:3:GLY:HA3	4:1E:81:ILE:HG12	1.75	0.68
32:1a:562:C:H1'	43:1l:15:ARG:HB3	1.74	0.68
1:2A:860:U:H1'	1:2A:2268:A:H5'	1.74	0.68
25:23:30:ARG:HB2	25:23:33:GLN:HB2	1.74	0.68
32:2a:1274:G:N2	32:2a:1275:A:N7	2.38	0.68
1:1A:301:G:OP2	20:1Y:84:ARG:NH2	2.27	0.68
3:1D:133:LEU:HB3	3:1D:173:VAL:HG21	1.74	0.68
33:1b:84:GLU:OE1	33:1b:87:ARG:NH1	2.26	0.68
41:1j:35:SER:HB3	41:1j:73:ASP:HB2	1.74	0.68
1:2A:2518:A:OP2	63:2A:3917:HOH:O	2.10	0.68
32:2a:1226:C:O2'	44:2m:111:LYS:NZ	2.23	0.68
54:2w:19:G:N2	54:2w:56:C:N3	2.41	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:1Q:18:LYS:O	12:1Q:98:LYS:NZ	2.27	0.68
1:2A:563:G:OP2	63:2A:3923:HOH:O	2.11	0.68
19:2X:44:GLU:OE1	63:2X:201:HOH:O	2.10	0.68
32:2a:656:C:O2'	46:2o:28:GLN:OE1	2.10	0.68
1:1A:2136:C:C2	1:1A:2155:G:N2	2.61	0.68
32:1a:601:C:H2'	32:1a:602:A:H8	1.57	0.68
43:1l:39:VAL:HG12	43:1l:57:LYS:HB2	1.75	0.68
57:1y:1:G:H1	57:1y:72:C:H42	1.42	0.68
1:2A:2130:U:H2'	1:2A:2158:A:H61	1.59	0.68
5:2F:178:PRO:HB3	5:2F:198:ALA:HA	1.76	0.68
26:24:67:TYR:HD2	50:2s:9:VAL:HB	1.58	0.68
1:1A:621:A:OP2	11:1P:108:LYS:NZ	2.27	0.68
1:1A:1027:A:N3	63:1A:4295:HOH:O	2.27	0.68
21:1Z:72:ARG:NH2	21:1Z:97:GLU:O	2.26	0.68
1:2A:81:G:H21	20:2Y:1:MET:HE3	1.58	0.68
34:2c:88:ARG:HA	34:2c:91:LEU:HD13	1.74	0.68
1:1A:2038:G:O6	63:1A:4224:HOH:O	2.10	0.68
12:2Q:31:ASP:OD1	12:2Q:134:ARG:NH1	2.26	0.68
42:2k:48:ILE:O	42:2k:50:TYR:N	2.26	0.68
1:1A:2235:G:N7	63:1A:4297:HOH:O	2.27	0.68
14:1S:25:ARG:NH1	14:1S:42:ASP:OD1	2.26	0.68
1:2A:195:A:N7	63:2A:3992:HOH:O	2.25	0.68
1:2A:2319:G:H22	14:2S:3:ARG:HE	1.42	0.68
1:2A:2579:C:OP1	63:2A:3926:HOH:O	2.12	0.68
38:2g:138:LYS:NZ	38:2g:142:GLU:OE2	2.26	0.68
57:2y:29:U:H3	57:2y:41:A:H61	1.41	0.68
1:1A:2067:G:N7	63:1A:4283:HOH:O	2.26	0.67
1:2A:1434:A:H61	1:2A:1558:A:H62	1.41	0.67
1:2A:1647:G:OP1	63:2A:3918:HOH:O	2.10	0.67
37:1f:100:ASN:HB2	49:1r:28:GLU:HA	1.77	0.67
40:1i:110:GLU:OE2	40:1i:113:LYS:NZ	2.27	0.67
1:2A:1455:G:OP2	63:2A:3924:HOH:O	2.11	0.67
14:2S:56:LEU:HB3	14:2S:58:LEU:HG	1.76	0.67
32:2a:403:C:N4	63:2a:1921:HOH:O	2.26	0.67
1:1A:382:G:OP2	63:1A:4225:HOH:O	2.12	0.67
1:1A:1058:G:H1	1:1A:1080:C:N4	1.92	0.67
6:1G:79:ASN:OD1	6:1G:79:ASN:N	2.25	0.67
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.28	0.67
1:2A:1648:C:OP1	63:2A:3918:HOH:O	2.11	0.67
32:1a:560:U:O2'	32:1a:561:U:OP2	2.10	0.67
33:1b:84:GLU:HA	33:1b:87:ARG:HD3	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:2w:19:G:OP1	54:2w:59:A:N6	2.27	0.67
1:1A:1023:U:OP2	63:1A:4226:HOH:O	2.12	0.67
23:11:18:ILE:HG12	23:11:37:ILE:HG23	1.77	0.67
32:1a:708:C:H2'	32:1a:709:G:H8	1.59	0.67
40:1i:26:VAL:HG12	40:1i:61:ALA:HB3	1.75	0.67
50:2s:52:TYR:HD1	50:2s:57:HIS:HD2	1.43	0.67
1:1A:2712:U:O2'	1:1A:2712(A):A:OP2	2.13	0.67
14:1S:34:HIS:O	14:1S:97:ARG:NH2	2.27	0.67
32:1a:56:U:H2'	32:1a:57:G:C8	2.29	0.67
32:1a:903:G:OP1	63:1a:1905:HOH:O	2.11	0.67
42:1k:121:PRO:HG2	42:1k:126:ARG:HG2	1.75	0.67
1:2A:467:G:OP1	29:27:33:ARG:NH1	2.27	0.67
1:1A:855:G:N7	63:1A:4287:HOH:O	2.26	0.67
2:1B:105:A:OP1	21:1Z:72:ARG:NH1	2.28	0.67
34:1c:3:ASN:OD1	34:1c:3:ASN:N	2.26	0.67
34:1c:152:ILE:HB	34:1c:199:LYS:HB2	1.77	0.67
1:2A:2286:A:OP1	28:26:29:ASN:ND2	2.27	0.67
1:1A:1036:G:N2	1:1A:1119:C:O2	2.18	0.67
1:1A:2646:C:OP2	1:1A:2732:G:O2'	2.13	0.67
21:1Z:102:LEU:HD11	21:1Z:124:ILE:HB	1.75	0.67
26:14:55:ARG:N	26:14:56:VAL:HA	2.10	0.67
46:1o:25:THR:HG21	46:1o:70:LEU:HB2	1.76	0.67
1:2A:1514:U:H2'	1:2A:1515:G:C8	2.30	0.67
35:2d:104:VAL:HG21	35:2d:140:VAL:HG21	1.76	0.67
41:2j:98:ILE:O	63:2j:301:HOH:O	2.12	0.67
1:1A:1937:A:H1'	1:1A:1939:5MU:H72	1.76	0.67
1:1A:2136:C:N3	1:1A:2155:G:N2	2.42	0.67
6:1G:18:GLU:HG2	6:1G:175:LEU:HD21	1.75	0.67
1:2A:332:A:O2'	1:2A:334:C:OP2	2.11	0.67
32:2a:976:G:P	45:2n:32:SER:H	2.17	0.67
33:2b:16:HIS:HE1	33:2b:42:ILE:HD12	1.60	0.67
40:2i:79:LEU:HG	40:2i:83:ARG:HD2	1.77	0.67
18:1W:4:LYS:HD2	18:1W:6:ILE:HD11	1.77	0.66
32:1a:343:U:O2'	32:1a:346:G:O6	2.14	0.66
15:2T:60:THR:HG22	15:2T:77:PRO:HA	1.77	0.66
33:2b:12:GLU:HA	33:2b:213:LEU:HD11	1.77	0.66
33:2b:178:ARG:HH22	39:2h:68:ARG:HH22	1.42	0.66
5:1F:89:VAL:O	63:1F:402:HOH:O	2.12	0.66
1:2A:975:C:OP1	63:2A:3925:HOH:O	2.12	0.66
1:2A:2131:G:H4'	1:2A:2132:U:H3'	1.78	0.66
40:2i:110:GLU:OE2	40:2i:113:LYS:NZ	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1054:A:H61	1:1A:1105:U:H3	1.43	0.66
1:1A:2099:U:H3	1:1A:2190:G:H1	1.42	0.66
1:1A:2849:U:OP2	15:1T:95:ARG:NH1	2.28	0.66
28:16:13:CYS:SG	28:16:47:THR:HG21	2.34	0.66
46:1o:87:ILE:HG22	46:1o:88:ARG:H	1.60	0.66
1:2A:1159:U:H2'	1:2A:1160:G:H8	1.58	0.66
1:2A:1269:A:OP1	63:2A:3928:HOH:O	2.13	0.66
1:2A:1271:G:OP2	63:2A:3918:HOH:O	2.14	0.66
32:2a:537:G:H5"	43:2l:113:ARG:HH12	1.61	0.66
1:1A:762:U:OP1	63:1A:4228:HOH:O	2.14	0.66
1:1A:887:A:N1	1:1A:890:A:H5"	2.09	0.66
1:1A:1395:A:OP1	63:1A:4229:HOH:O	2.14	0.66
44:2m:13:LYS:O	44:2m:45:VAL:N	2.24	0.66
1:2A:2552:OMU:OP2	63:2A:3930:HOH:O	2.14	0.66
8:2I:9:LEU:HD21	8:2I:35:LEU:HD23	1.77	0.66
23:21:83:GLU:OE1	23:21:83:GLU:N	2.29	0.66
32:2a:533:A:O2'	32:2a:535:A:OP2	2.14	0.66
33:2b:100:GLY:N	33:2b:176:GLU:OE2	2.27	0.66
34:2c:20:SER:OG	34:2c:40:ARG:NH1	2.28	0.66
50:2s:38:SER:HB2	50:2s:71:LEU:HD22	1.76	0.66
7:1H:126:PRO:HG2	7:1H:130:ARG:HH21	1.60	0.66
44:1m:23:TYR:HB3	44:1m:67:GLU:HA	1.77	0.66
1:2A:1394:U:OP1	63:2A:3905:HOH:O	2.14	0.66
17:2V:40:LEU:HB2	17:2V:46:VAL:HG12	1.78	0.66
21:2Z:63:ASP:OD1	21:2Z:65:GLN:NE2	2.28	0.66
32:2a:521:G:H4'	43:2l:73:GLU:HG2	1.76	0.66
32:2a:1133:G:H2'	32:2a:1134:G:H8	1.61	0.66
32:1a:964:A:OP1	63:1a:1906:HOH:O	2.13	0.66
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.29	0.66
32:2a:1162:C:N4	32:2a:1174:G:H1	1.92	0.66
50:2s:49:ILE:HG22	50:2s:62:ILE:HD11	1.78	0.66
1:1A:1325:G:OP1	63:1A:4227:HOH:O	2.13	0.66
1:2A:963:U:OP2	63:2A:3904:HOH:O	2.13	0.66
1:2A:2499:C:OP2	63:2A:3915:HOH:O	2.13	0.66
32:1a:673:G:H2'	32:1a:674:G:C8	2.30	0.66
32:2a:401:C:OP2	35:2d:73:ARG:NH2	2.28	0.66
32:2a:707:C:H2'	32:2a:708:C:C6	2.31	0.66
33:2b:74:LYS:NZ	33:2b:205:ASP:O	2.28	0.66
41:2j:8:LEU:HB3	41:2j:96:ILE:HG23	1.78	0.66
43:2l:71:PRO:O	43:2l:102:ARG:NH1	2.29	0.66
54:2w:51:A:N6	54:2w:63:U:C2	2.64	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1E:119:ARG:HD3	4:1E:160:TYR:HB2	1.77	0.65
1:2A:938:G:OP2	30:28:52:LYS:NZ	2.26	0.65
8:2I:3:VAL:HG12	8:2I:38:LEU:HA	1.78	0.65
17:2V:43:GLU:OE1	17:2V:43:GLU:N	2.29	0.65
32:2a:278:G:OP2	48:2q:41:LYS:NZ	2.29	0.65
41:2j:6:ILE:HG12	41:2j:98:ILE:HG22	1.78	0.65
1:1A:1069:A:H4'	1:1A:1070:A:H5"	1.78	0.65
1:1A:2136:C:N4	1:1A:2155:G:N1	2.45	0.65
37:1f:28:ARG:O	37:1f:32:ASN:ND2	2.28	0.65
1:2A:1183:G:H5"	25:23:30:ARG:NH2	2.09	0.65
1:2A:2849:U:OP2	15:2T:95:ARG:NH1	2.28	0.65
34:2c:50:ALA:HB1	34:2c:70:VAL:HG11	1.76	0.65
19:1X:57:LEU:HD11	19:1X:78:LYS:HE2	1.77	0.65
36:1e:94:ALA:HB2	36:1e:119:LEU:HD23	1.79	0.65
38:1g:78:ARG:HH21	38:1g:79:ARG:HH11	1.44	0.65
51:1t:87:LYS:O	51:1t:91:LEU:HG	1.95	0.65
1:2A:83:G:H1	1:2A:102:G:HO2'	1.42	0.65
1:2A:1254:A:OP2	63:2A:3929:HOH:O	2.13	0.65
11:2P:50:ARG:HD3	30:28:7:HIS:CD2	2.31	0.65
37:2f:33:TYR:HE2	37:2f:78:GLU:HG2	1.60	0.65
45:2n:48:ALA:HB2	45:2n:53:LEU:HD12	1.79	0.65
46:2o:54:ARG:HG2	46:2o:58:MET:HE2	1.78	0.65
6:1G:53:LEU:O	6:1G:57:ALA:N	2.29	0.65
2:2B:2:C:H2'	2:2B:3:C:H6	1.61	0.65
13:2R:97:VAL:HG22	13:2R:114:VAL:HG22	1.77	0.65
32:2a:1263:C:N3	32:2a:1272:G:O6	2.29	0.65
2:1B:117:G:N7	63:1B:304:HOH:O	2.30	0.65
14:1S:85:VAL:HG11	14:1S:110:LEU:HG	1.79	0.65
54:1w:27:G:H1	54:1w:43:U:H3	1.44	0.65
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.61	0.65
17:2V:62:LEU:HD11	17:2V:95:LEU:HB2	1.77	0.65
32:2a:406:G:N2	35:2d:119:GLN:OE1	2.28	0.65
1:1A:1647:G:OP1	63:1A:4218:HOH:O	2.15	0.65
8:1I:31:LEU:HD21	8:1I:38:LEU:HD22	1.78	0.65
32:1a:557:G:OP1	63:1a:1907:HOH:O	2.13	0.65
32:2a:492:G:OP2	63:2a:1906:HOH:O	2.13	0.65
32:2a:1345:U:OP2	63:2a:1909:HOH:O	2.15	0.65
1:1A:1058:G:N2	1:1A:1080:C:N3	2.42	0.65
1:1A:1815:A:OP2	3:1D:54:ARG:NH2	2.28	0.65
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.31	0.65
1:2A:1927:A:H2'	1:2A:1928:A:C8	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:97:ASP:HA	6:2G:100:TRP:HD1	1.60	0.65
21:2Z:52:SER:OG	21:2Z:53:ILE:N	2.30	0.65
32:2a:1048:G:N2	32:2a:1214:C:O2	2.27	0.65
1:1A:2206:G:H3'	1:1A:2207:G:C8	2.30	0.65
1:1A:2552:OMU:OP2	63:1A:4232:HOH:O	2.14	0.65
33:2b:198:ASP:N	33:2b:198:ASP:OD1	2.29	0.65
54:2w:20:U:H4'	54:2w:21:A:H5'	1.78	0.65
1:1A:1993:U:OP2	63:1A:4230:HOH:O	2.14	0.65
1:1A:2693:A:H2'	1:1A:2694:G:C8	2.32	0.65
1:2A:217:G:OP2	63:2A:3927:HOH:O	2.13	0.65
32:2a:289:G:OP2	63:2a:1902:HOH:O	2.13	0.65
1:1A:2023:G:H5'	1:1A:2617:C:H4'	1.77	0.65
36:1e:8:GLU:OE2	36:1e:63:ARG:NH2	2.29	0.65
1:2A:764:A:H5"	3:2D:210:GLY:HA2	1.78	0.65
32:2a:1286:A:C8	32:2a:1287:A:H4'	2.31	0.65
35:2d:15:GLU:OE2	35:2d:66:ARG:NH1	2.30	0.65
40:2i:105:ASP:HB2	40:2i:107:ARG:HG3	1.77	0.65
41:2j:42:THR:HG22	41:2j:68:HIS:HA	1.78	0.65
3:2D:237:GLU:OE2	63:2D:401:HOH:O	2.14	0.64
10:2O:76:ALA:HB3	15:2T:75:ILE:HB	1.77	0.64
40:1i:53:VAL:O	40:1i:55:ALA:N	2.30	0.64
1:2A:1265:A:OP2	63:2A:3933:HOH:O	2.14	0.64
1:2A:1973:G:OP1	63:2A:3935:HOH:O	2.15	0.64
14:2S:27:SER:HA	14:2S:88:ASP:HB3	1.78	0.64
44:2m:10:PRO:HD2	44:2m:18:ALA:HB1	1.78	0.64
1:1A:2163:C:OP1	1:1A:2171:A:O2'	2.15	0.64
32:1a:858:G:OP2	63:1a:1909:HOH:O	2.15	0.64
1:2A:2592:G:OP1	63:2A:3931:HOH:O	2.14	0.64
12:2Q:43:THR:HA	12:2Q:94:VAL:HG12	1.80	0.64
32:2a:48:C:OP2	63:2a:1908:HOH:O	2.15	0.64
32:2a:1026:G:O6	32:2a:1036:G:N2	2.31	0.64
1:2A:1199:U:O2'	63:2A:3932:HOH:O	2.14	0.64
1:2A:1242:A:N1	11:2P:2:LYS:NZ	2.42	0.64
1:2A:2572:A:OP1	1:2A:2574:G:O2'	2.14	0.64
20:1Y:82:PRO:O	20:1Y:101:LYS:NZ	2.29	0.64
46:1o:56:LEU:HA	46:1o:59:MET:HE2	1.79	0.64
1:2A:1790:C:H4'	3:2D:209:ALA:HB2	1.79	0.64
1:2A:1938:A:OP2	63:2A:3936:HOH:O	2.15	0.64
40:2i:8:GLY:HA2	40:2i:79:LEU:HD23	1.79	0.64
1:1A:1664:A:OP1	63:1A:4233:HOH:O	2.15	0.64
1:2A:948:G:OP1	63:2A:3904:HOH:O	2.15	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1800:C:OP2	3:2D:183:ARG:NH2	2.30	0.64
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.31	0.64
5:2F:30:PRO:HB3	11:2P:1:MET:HE1	1.79	0.64
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.33	0.64
1:2A:2630:G:H2'	1:2A:2631:G:H8	1.63	0.64
33:2b:77:ALA:HA	33:2b:80:ILE:HG22	1.78	0.64
33:2b:97:TRP:HH2	33:2b:102:LEU:HG	1.62	0.64
32:1a:421:U:O4	34:1c:127:ARG:NH2	2.28	0.64
32:2a:142:G:H2'	32:2a:143:A:C8	2.33	0.64
1:1A:272(J):C:H2'	1:1A:274:G:H8	1.63	0.64
1:1A:1253:A:OP1	63:1A:4234:HOH:O	2.15	0.64
15:1T:73:GLU:OE2	15:1T:103:ARG:NE	2.30	0.64
18:1W:12:ILE:HD13	18:1W:17:VAL:HG13	1.80	0.64
34:2c:142:MET:HG3	34:2c:170:GLN:HB3	1.79	0.64
32:1a:573:A:N1	63:1a:1933:HOH:O	2.29	0.64
32:1a:1145:C:H4'	32:1a:1146:A:H5'	1.79	0.64
33:1b:92:TYR:HH	33:1b:150:SER:HG	1.46	0.64
1:2A:84:A:N1	1:2A:98:G:O2'	2.29	0.64
32:2a:1263:C:C4	32:2a:1272:G:O6	2.50	0.64
1:2A:1025:G:C4	1:2A:1135:C:H1'	2.34	0.63
1:2A:1025:G:O2'	63:2A:3934:HOH:O	2.15	0.63
1:2A:2630:G:H2'	1:2A:2631:G:C8	2.32	0.63
3:2D:137:PRO:O	3:2D:140:THR:OG1	2.12	0.63
32:2a:1297:C:OP2	44:2m:44:ARG:NH2	2.31	0.63
32:1a:1302:U:C5	44:1m:17:VAL:HG11	2.34	0.63
1:2A:301:G:OP2	20:2Y:84:ARG:NH2	2.31	0.63
1:2A:852:G:H2'	1:2A:853:G:H8	1.61	0.63
11:2P:84:ASN:OD1	11:2P:117:GLU:N	2.31	0.63
32:2a:142:G:H2'	32:2a:143:A:H8	1.62	0.63
32:2a:533:A:OP1	63:2a:1912:HOH:O	2.16	0.63
36:2e:8:GLU:HG2	36:2e:34:VAL:HG23	1.81	0.63
37:2f:99:ALA:HB3	49:2r:29:PHE:HE1	1.63	0.63
32:1a:864:A:OP1	63:1a:1908:HOH:O	2.15	0.63
1:2A:2130:U:H3	1:2A:2159:G:H1	1.47	0.63
8:2I:55:ALA:HA	8:2I:58:LEU:HB3	1.80	0.63
32:2a:1396:A:OP2	63:2a:1911:HOH:O	2.15	0.63
40:2i:50:LEU:HD13	40:2i:56:LEU:HA	1.80	0.63
1:1A:2810:A:N6	1:1A:2891:G:O2'	2.30	0.63
32:1a:67:C:H4'	32:1a:172:A:H1'	1.80	0.63
39:1h:51:VAL:HG21	39:1h:60:ARG:HB2	1.79	0.63
1:2A:731:C:OP1	63:2A:3938:HOH:O	2.16	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:59:VAL:HG13	4:2E:63:LEU:HB2	1.80	0.63
26:24:44:THR:O	26:24:46:GLN:N	2.30	0.63
33:1b:142:LEU:HD11	33:1b:146:GLN:HE21	1.64	0.63
1:2A:2377:A:H2'	1:2A:2378:A:C8	2.34	0.63
1:2A:2690:C:OP1	13:2R:17:ARG:NH2	2.31	0.63
4:2E:54:GLN:OE1	4:2E:55:ASN:N	2.32	0.63
28:26:23:THR:OG1	28:26:24:GLU:N	2.27	0.63
4:1E:36:ARG:NH1	4:1E:85:ASN:OD1	2.32	0.63
4:1E:181:LEU:HD21	15:1T:6:LEU:HD22	1.80	0.63
32:1a:942:G:H21	40:1i:124:GLN:NE2	1.97	0.63
32:1a:1278:U:H5'	32:1a:1279:A:O4'	1.98	0.63
5:2F:64:ILE:HD11	5:2F:75:HIS:HB2	1.80	0.63
50:2s:17:GLU:O	50:2s:21:GLU:N	2.27	0.63
1:1A:1075:C:H2'	1:1A:1076:C:H2'	1.79	0.63
1:1A:2483:C:N3	12:1Q:124:LYS:NZ	2.45	0.63
32:2a:998:G:H1	32:2a:1043:C:H42	1.45	0.63
32:2a:1275:A:H3'	32:2a:1276:G:H8	1.64	0.63
1:1A:2101:G:H2'	1:1A:2102:U:H6	1.64	0.63
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.33	0.63
41:1j:5:ARG:NH2	41:1j:73:ASP:OD2	2.25	0.63
9:2N:19:GLU:HG3	9:2N:59:LYS:HD2	1.80	0.63
32:2a:1118:C:N3	32:2a:1156:G:N2	2.47	0.63
14:1S:62:LYS:HB3	14:1S:97:ARG:HD2	1.80	0.62
10:2O:2:ILE:HB	10:2O:33:ALA:HB3	1.79	0.62
32:2a:201:C:H42	32:2a:216:G:H1	1.46	0.62
45:2n:16:PHE:HB2	45:2n:19:ARG:HG3	1.81	0.62
1:1A:1939:5MU:OP1	1:1A:2604:U:O2'	2.14	0.62
32:1a:1131:G:H1	32:1a:1143:G:H21	1.47	0.62
36:1e:148:VAL:HG11	39:1h:107:LEU:HB3	1.81	0.62
6:2G:152:LEU:H	6:2G:152:LEU:HD12	1.65	0.62
35:2d:173:TRP:CD2	35:2d:189:PRO:HB3	2.34	0.62
44:2m:23:TYR:HB3	44:2m:67:GLU:HA	1.81	0.62
46:2o:87:ILE:HG22	46:2o:88:ARG:H	1.64	0.62
39:1h:13:ILE:HD11	39:1h:61:VAL:HG11	1.81	0.62
1:2A:648:G:O2'	1:2A:2351:G:OP1	2.14	0.62
1:2A:2166:G:H3'	1:2A:2167:U:H5"	1.81	0.62
1:2A:2880:C:O3'	13:2R:90:ARG:NH1	2.33	0.62
14:2S:25:ARG:HB3	14:2S:40:ILE:HB	1.79	0.62
32:2a:54:C:N4	32:2a:353:A:OP2	2.28	0.62
1:1A:1062:G:H22	1:1A:1077:A:N6	1.95	0.62
33:1b:28:PHE:CD1	33:1b:190:THR:HA	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:2X:72:LYS:NZ	19:2X:75:ASP:OD1	2.28	0.62
1:1A:154(A):C:H42	1:1A:171:G:H1	1.48	0.62
13:2R:51:LEU:HD22	13:2R:66:VAL:HG13	1.80	0.62
32:2a:538:G:H5"	43:2l:114:LYS:HB2	1.79	0.62
1:1A:1453:U:OP1	13:1R:77:ARG:NH1	2.29	0.62
21:1Z:52:SER:O	21:1Z:54:HIS:N	2.31	0.62
1:2A:1603:A:OP1	63:2A:3940:HOH:O	2.16	0.62
41:2j:12:ASP:O	41:2j:15:THR:OG1	2.17	0.62
50:2s:33:THR:HG21	50:2s:49:ILE:HD11	1.80	0.62
32:2a:130:A:H5'	48:2q:63:ARG:NH1	2.14	0.62
37:2f:37:VAL:HA	37:2f:65:VAL:HG12	1.80	0.62
55:2x:3:C:H42	55:2x:70:G:H1	1.46	0.62
1:1A:2164:C:OP2	1:1A:2165:G:N2	2.33	0.62
1:1A:2312:U:H5'	6:1G:88:ILE:HD11	1.81	0.62
2:1B:33:G:H5'	6:1G:2:PRO:HD3	1.81	0.62
3:1D:8:PRO:HB3	3:1D:14:ARG:HG2	1.81	0.62
13:1R:28:LEU:HD23	13:1R:48:VAL:HG21	1.82	0.62
44:1m:58:GLU:O	44:1m:62:ASN:ND2	2.31	0.62
48:1q:66:SER:OG	48:1q:67:LYS:N	2.33	0.62
57:1y:66:A:H2'	57:1y:67:C:C6	2.34	0.62
1:2A:1141:U:OP2	9:2N:63:THR:OG1	2.13	0.62
1:2A:2099:U:H3	1:2A:2190:G:H1	1.48	0.62
2:2B:48:A:H4'	14:2S:95:HIS:HD2	1.65	0.62
32:2a:662:G:O2'	32:2a:836:G:OP1	2.18	0.62
1:1A:1321:A:N1	63:1A:4323:HOH:O	2.31	0.62
38:1g:78:ARG:HG3	38:1g:79:ARG:H	1.65	0.62
41:1j:38:ILE:HD11	41:1j:71:LEU:HD23	1.80	0.62
57:1y:71:C:H2'	57:1y:72:C:C6	2.34	0.62
1:2A:1688:U:O2	1:2A:1700:A:H5'	2.00	0.62
26:24:14:ILE:HG22	26:24:22:ILE:HD13	1.82	0.62
57:2y:14:A:N6	57:2y:48:C:O2	2.32	0.62
33:1b:122:PHE:HE2	33:1b:139:LYS:HD2	1.65	0.62
40:1i:46:ALA:HB2	40:1i:74:ILE:HG23	1.81	0.62
1:2A:307:G:N1	1:2A:310:A:OP2	2.31	0.62
1:2A:2117:A:N6	1:2A:2166:G:H1	1.97	0.62
6:2G:44:GLY:N	6:2G:88:ILE:O	2.32	0.62
40:2i:5:TYR:O	40:2i:87:GLN:NE2	2.33	0.62
40:1i:42:ARG:NH1	40:1i:71:SER:OG	2.34	0.61
4:2E:29:GLY:H	4:2E:180:ASN:HB3	1.64	0.61
23:21:80:LEU:HD23	23:21:82:LEU:HD21	1.81	0.61
32:2a:984:C:H2'	32:2a:985:C:H6	1.63	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:2y:65:C:N3	57:2y:66:A:N6	2.48	0.61
32:1a:316:G:OP2	32:1a:351:G:O2'	2.18	0.61
6:2G:109:VAL:HG11	26:24:33:VAL:HG21	1.81	0.61
8:2I:99:GLU:O	8:2I:102:SER:OG	2.18	0.61
33:2b:8:LYS:HB3	33:2b:217:ARG:HG3	1.82	0.61
35:2d:57:ARG:NH1	35:2d:205:GLU:OE2	2.32	0.61
55:2x:7:G:H5"	55:2x:8:4SU:H5	1.82	0.61
57:2y:66:A:H2'	57:2y:67:C:O4'	2.00	0.61
1:1A:2422:A:O4'	57:1y:76:A:N6	2.33	0.61
32:1a:1150:U:H4'	41:1j:41:PRO:HG3	1.82	0.61
32:1a:1402:4OC:HM22	32:1a:1403:C:H5'	1.82	0.61
41:1j:30:SER:HB3	41:1j:81:THR:HG23	1.81	0.61
56:1z:1:FME:HCN	56:1z:2:ARG:HG3	1.82	0.61
1:2A:61:G:OP1	24:22:51:ARG:NH2	2.31	0.61
1:2A:379:G:N7	63:2A:4027:HOH:O	2.31	0.61
1:2A:882:G:H22	1:2A:894:C:N4	1.98	0.61
12:2Q:82:ARG:H	22:20:7:LEU:HD11	1.65	0.61
27:25:41:PRO:O	27:25:44:THR:OG1	2.18	0.61
32:2a:1166:G:N2	32:2a:1170:A:OP2	2.32	0.61
44:2m:15:VAL:O	44:2m:19:LEU:HG	1.99	0.61
21:1Z:139:VAL:HG12	21:1Z:140:ASP:H	1.64	0.61
40:1i:23:ASN:OD1	40:1i:23:ASN:N	2.33	0.61
46:1o:35:ARG:NH1	46:1o:59:MET:SD	2.74	0.61
1:2A:1184:G:OP1	25:23:29:ARG:NH1	2.33	0.61
3:2D:2:ALA:N	3:2D:200:ASP:OD2	2.33	0.61
6:2G:68:PRO:HA	6:2G:92:VAL:HB	1.83	0.61
32:2a:1010:G:N2	32:2a:1020:U:O2'	2.34	0.61
34:2c:52:LEU:HD13	34:2c:68:VAL:HG13	1.82	0.61
57:2y:59:A:H5"	57:2y:60:U:C5	2.35	0.61
1:1A:1174:A:H4'	1:1A:1175:U:OP1	2.00	0.61
1:2A:884:C:H3'	1:2A:885:C:H6	1.65	0.61
1:2A:890:A:H2'	1:2A:892:G:H8	1.66	0.61
33:2b:165:VAL:HG23	33:2b:166:ASP:H	1.65	0.61
1:1A:2305:A:H5"	6:1G:134:GLY:HA3	1.82	0.61
1:1A:2478:A:H5'	31:19:31:LYS:HD3	1.82	0.61
24:12:55:ARG:NH2	63:12:201:HOH:O	2.29	0.61
32:1a:276:G:O2'	48:1q:68:ARG:NH1	2.33	0.61
32:1a:674:G:H2'	32:1a:675:A:C8	2.36	0.61
1:2A:994:C:OP2	16:2U:54:LYS:NZ	2.33	0.61
1:2A:2393:A:H5"	11:2P:63:PRO:HB3	1.81	0.61
32:2a:742:G:OP1	46:2o:35:ARG:NH2	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:279:C:H42	1:1A:361:G:H1	1.48	0.61
1:1A:2130:U:O2'	1:1A:2131:G:N2	2.33	0.61
1:1A:2331:G:O2'	1:1A:2336:A:N1	2.28	0.61
34:1c:8:ILE:HD13	34:1c:184:TYR:HB3	1.81	0.61
1:2A:2712(A):A:OP2	63:2A:3941:HOH:O	2.16	0.61
32:1a:1314:C:OP2	50:1s:4:SER:OG	2.13	0.61
1:2A:839:U:H2'	1:2A:840:C:C6	2.36	0.61
7:2H:51:ARG:HH12	7:2H:53:GLU:HG3	1.66	0.61
1:1A:249:C:O2	30:18:12:LYS:NZ	2.29	0.61
1:1A:1077:A:C5	1:1A:1078:U:H1'	2.36	0.61
26:14:58:ARG:O	26:14:61:ARG:N	2.26	0.61
1:2A:197:A:N6	1:2A:2430:A:O2'	2.34	0.61
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.36	0.61
11:2P:50:ARG:HD3	30:28:7:HIS:HD2	1.65	0.61
32:2a:450:G:H4'	47:2p:41:PRO:HB2	1.83	0.61
32:2a:542:G:P	35:2d:10:ARG:HH22	2.24	0.61
32:2a:1264:C:H42	32:2a:1271:G:H1	1.49	0.61
34:2c:67:THR:HG23	34:2c:102:ASN:HB3	1.81	0.61
34:2c:136:GLN:HA	34:2c:139:GLN:HB3	1.83	0.61
46:2o:16:ALA:HB1	46:2o:21:ASP:HB3	1.83	0.61
57:2y:12:U:H3	57:2y:23:A:H61	1.49	0.61
1:1A:880:G:H2'	1:1A:881:G:H8	1.66	0.61
1:1A:1041:C:H42	1:1A:1114:G:H1	1.49	0.61
1:2A:1021:A:H62	1:2A:1141:U:H3	1.49	0.61
19:2X:43:VAL:HG21	19:2X:81:VAL:HG11	1.83	0.61
21:2Z:54:HIS:HB3	21:2Z:101:PRO:HD3	1.83	0.61
47:2p:28:ARG:NH1	47:2p:29:ASP:OD1	2.34	0.61
1:1A:476:G:OP1	63:1A:4239:HOH:O	2.16	0.60
12:1Q:78:PRO:HG2	12:1Q:81:VAL:HG11	1.81	0.60
54:1w:50:C:N4	54:1w:64:G:H1	1.99	0.60
1:1A:1588:C:H2'	1:1A:1589:C:H6	1.65	0.60
11:1P:50:ARG:HD3	30:18:7:HIS:CD2	2.35	0.60
54:1w:2:G:H2'	54:1w:3:G:C8	2.36	0.60
1:2A:122:G:N3	63:2A:4028:HOH:O	2.31	0.60
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.81	0.60
12:2Q:85:LYS:HD3	22:20:7:LEU:HD22	1.82	0.60
20:2Y:83:THR:HG21	20:2Y:99:CYS:HB2	1.83	0.60
28:26:32:ASN:N	28:26:32:ASN:OD1	2.33	0.60
32:2a:417:C:H2'	32:2a:418:C:H6	1.65	0.60
32:2a:643:C:H2'	32:2a:644:G:H8	1.65	0.60
32:2a:770:C:OP1	63:2a:1913:HOH:O	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:626:U:H2'	32:1a:627:G:C8	2.36	0.60
32:1a:811:C:N4	63:1a:1940:HOH:O	2.33	0.60
32:1a:1221:G:OP1	32:1a:1320:C:N4	2.34	0.60
1:2A:852:G:H2'	1:2A:853:G:C8	2.36	0.60
1:2A:2576:G:OP1	63:2A:3939:HOH:O	2.16	0.60
1:2A:2690:C:OP2	13:2R:14:SER:HB3	2.01	0.60
6:2G:44:GLY:HA2	6:2G:88:ILE:HG22	1.83	0.60
14:2S:18:ILE:O	14:2S:21:THR:OG1	2.19	0.60
32:2a:838:G:H1	32:2a:848:C:H42	1.50	0.60
32:2a:1097:C:O2'	32:2a:1169:A:N3	2.32	0.60
1:1A:123:G:OP2	63:1A:4236:HOH:O	2.16	0.60
1:1A:1786:A:H1'	1:1A:1938:A:N6	2.15	0.60
32:1a:718:G:H5'	42:1k:117:ASN:HB2	1.82	0.60
41:1j:57:LYS:HE2	41:1j:60:ARG:NH2	2.16	0.60
50:1s:32:LYS:HA	50:1s:50:ALA:HB3	1.81	0.60
1:2A:1592:C:H2'	1:2A:1593:G:H8	1.66	0.60
9:2N:30:ILE:HG23	9:2N:52:VAL:HG11	1.83	0.60
12:2Q:38:GLU:HG3	12:2Q:127:ILE:HB	1.82	0.60
32:2a:504:C:OP1	63:2a:1910:HOH:O	2.15	0.60
32:2a:1240:U:N3	38:2g:30:ILE:O	2.27	0.60
32:2a:1376:U:H2'	32:2a:1377:A:C8	2.36	0.60
33:2b:187:LEU:HA	33:2b:201:ILE:HB	1.84	0.60
51:1t:90:GLN:HE21	51:1t:90:GLN:N	2.00	0.60
37:2f:1:MET:N	37:2f:69:GLU:OE2	2.34	0.60
41:2j:47:PHE:N	41:2j:63:PHE:O	2.22	0.60
51:2t:43:LEU:O	51:2t:47:GLY:N	2.30	0.60
1:2A:271(L):U:H5'	8:2I:50:ARG:HH11	1.67	0.60
24:22:22:GLU:OE2	24:22:68:ARG:NH2	2.34	0.60
32:2a:9:G:H2'	32:2a:10:A:C8	2.36	0.60
32:2a:407:G:OP1	35:2d:115:ARG:NH2	2.34	0.60
32:2a:984:C:H2'	32:2a:985:C:C6	2.35	0.60
32:2a:1133:G:H1	32:2a:1141:C:N4	1.97	0.60
21:1Z:52:SER:C	21:1Z:54:HIS:H	2.09	0.60
1:1A:817:C:OP1	63:1A:4241:HOH:O	2.17	0.60
1:1A:2222:G:OP2	63:1A:4237:HOH:O	2.16	0.60
32:1a:1346:A:O2'	38:1g:10:ARG:NH2	2.35	0.60
32:1a:1372:U:OP1	40:1i:72:GLY:N	2.33	0.60
1:2A:143:G:H2'	1:2A:143(A):C:C6	2.37	0.60
12:2Q:135:ASP:HB3	21:2Z:49:ARG:HH12	1.65	0.60
54:2w:51:A:N6	54:2w:63:U:C5	2.69	0.60
10:1O:97:ARG:NH1	32:1a:339:C:OP2	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:6:HIS:HD2	34:1c:8:ILE:H	1.50	0.60
36:1e:78:HIS:HE1	36:1e:142:LEU:HA	1.66	0.60
48:1q:57:VAL:HG12	48:1q:76:LEU:HA	1.83	0.60
1:2A:850:C:H5"	25:23:18:ASP:HB2	1.82	0.60
1:2A:1352:U:OP1	63:2A:3944:HOH:O	2.17	0.60
3:2D:148:GLU:HB2	3:2D:151:LYS:HD2	1.84	0.60
21:2Z:45:ASP:OD1	21:2Z:49:ARG:NE	2.35	0.60
32:2a:986:A:N3	50:2s:52:TYR:OH	2.34	0.60
46:2o:5:LYS:O	46:2o:9:GLN:HG2	2.01	0.60
55:2x:23:C:H2'	55:2x:24:U:C6	2.36	0.60
1:1A:428:A:OP1	63:1A:4238:HOH:O	2.16	0.60
8:1I:130:TYR:HB3	8:1I:138:ILE:HB	1.83	0.60
21:1Z:31:ARG:NH2	21:1Z:94:GLU:OE2	2.31	0.60
32:1a:1073:U:O2	33:1b:104:ASN:ND2	2.35	0.60
1:2A:848:G:H2'	1:2A:849:A:C8	2.37	0.60
1:2A:884:C:H3'	1:2A:885:C:C6	2.37	0.60
1:2A:2314:C:H5'	6:2G:38:VAL:HG21	1.83	0.60
4:2E:67:PHE:O	4:2E:71:GLY:N	2.34	0.60
1:1A:729:G:C6	3:1D:208:LYS:HB2	2.37	0.59
1:1A:880:G:H2'	1:1A:881:G:C8	2.36	0.59
1:1A:2544:G:N7	63:1A:4339:HOH:O	2.32	0.59
32:1a:601:C:H2'	32:1a:602:A:C8	2.37	0.59
32:1a:636:U:H2'	32:1a:637:G:H8	1.67	0.59
1:2A:2105:C:H2'	1:2A:2106:G:C8	2.37	0.59
1:2A:2299:G:H2'	1:2A:2300:G:H8	1.67	0.59
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.36	0.59
6:2G:38:VAL:HG12	6:2G:93:THR:HB	1.82	0.59
32:2a:537:G:H5"	43:2l:113:ARG:NH1	2.17	0.59
32:2a:1089:G:H1	32:2a:1096:C:H42	1.50	0.59
32:2a:1279:A:O2'	32:2a:1281:U:OP2	2.20	0.59
35:2d:72:GLU:OE2	35:2d:207:TYR:OH	2.20	0.59
1:1A:1588:C:H2'	1:1A:1589:C:C6	2.37	0.59
24:12:65:ASN:OD1	24:12:69:ARG:NH1	2.34	0.59
26:14:15:ILE:O	26:14:33:VAL:N	2.35	0.59
32:1a:447:G:O6	32:1a:485:G:O2'	2.20	0.59
33:1b:16:HIS:HB3	33:1b:210:SER:HB2	1.83	0.59
1:2A:902:C:H2'	1:2A:903:C:C6	2.37	0.59
1:2A:2467:C:H4'	12:2Q:123:HIS:CD2	2.37	0.59
24:22:64:LEU:HD11	24:22:68:ARG:HE	1.67	0.59
32:2a:1255:G:OP1	41:2j:45:ARG:NH2	2.35	0.59
32:2a:1401:G:OP1	53:2v:18:G:O2'	2.19	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1417:G:O6	63:2a:1907:HOH:O	2.13	0.59
43:2l:37:CYS:HB2	43:2l:81:SER:H	1.67	0.59
1:1A:987:G:O2'	1:1A:1000:A:N3	2.31	0.59
1:1A:1332:G:OP1	63:1A:4204:HOH:O	2.16	0.59
3:1D:108:PRO:HB3	3:1D:143:HIS:CE1	2.37	0.59
8:1I:116:LEU:HD21	8:1I:119:PRO:HA	1.83	0.59
40:1i:63:ILE:HG21	40:1i:77:ILE:HG12	1.84	0.59
1:2A:2140:C:N3	1:2A:2151:G:O6	2.36	0.59
26:24:40:HIS:HD2	26:24:41:PRO:HD2	1.67	0.59
32:2a:975:A:H5"	32:2a:1363(A):A:H62	1.66	0.59
32:2a:1104:G:H4'	33:2b:111:ARG:HE	1.66	0.59
32:2a:1194:U:H4'	36:2e:22:GLY:HA2	1.84	0.59
6:1G:67:LYS:H	26:14:6:HIS:CE1	2.19	0.59
32:1a:1135:U:O2'	32:1a:1138:G:O6	2.16	0.59
1:2A:2104:G:H1	1:2A:2185:C:N4	2.00	0.59
27:25:2:ALA:N	63:25:201:HOH:O	2.36	0.59
32:2a:259:G:OP2	51:2t:83:ARG:NH1	2.34	0.59
39:2h:83:ILE:HG13	39:2h:137:VAL:HG22	1.83	0.59
42:2k:48:ILE:HD11	42:2k:64:ALA:HA	1.83	0.59
44:2m:33:ALA:HB1	44:2m:59:TYR:HE2	1.68	0.59
1:1A:1482:G:H2'	1:1A:1484:G:H8	1.68	0.59
21:1Z:11:GLU:O	21:1Z:36:LYS:NZ	2.25	0.59
21:1Z:93:ASP:HB3	21:1Z:131:ARG:HH22	1.67	0.59
32:1a:1187:G:N3	45:1n:60:SER:OG	2.35	0.59
34:1c:15:THR:HG21	34:1c:181:ASN:HA	1.85	0.59
1:2A:271(G):C:H2'	1:2A:271(H):G:H8	1.67	0.59
1:2A:987:G:O2'	1:2A:1000:A:N3	2.30	0.59
1:1A:882:G:H4'	54:1w:19:G:O6	2.01	0.59
2:1B:12:C:H2'	22:10:73:GLY:HA3	1.85	0.59
32:1a:401:C:H2'	32:1a:402:G:C8	2.37	0.59
51:1t:86:ARG:O	51:1t:90:GLN:NE2	2.34	0.59
1:2A:1754:C:OP1	15:2T:96:ARG:NH1	2.35	0.59
11:2P:1:MET:HE2	11:2P:5:ASP:HB3	1.85	0.59
1:1A:64:A:O3'	19:1X:71:GLY:HA3	2.02	0.59
13:1R:20:LEU:HD21	13:1R:40:LYS:HD3	1.84	0.59
36:1e:78:HIS:CE1	36:1e:143:ARG:H	2.21	0.59
40:1i:27:THR:HG23	40:1i:62:TYR:HA	1.85	0.59
1:2A:557:U:H2'	1:2A:558:G:H8	1.66	0.59
1:2A:583:G:N7	63:2A:4022:HOH:O	2.30	0.59
1:2A:658:C:H2'	1:2A:659:C:C6	2.37	0.59
1:2A:918:A:C2	2:2B:81:G:H5'	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:945:A:OP2	63:2A:3946:HOH:O	2.17	0.59
1:2A:2356:C:OP1	22:20:24:LYS:NZ	2.31	0.59
32:2a:222:U:H2'	32:2a:223:U:C6	2.37	0.59
32:2a:953:G:H5'	32:2a:965:A:N6	2.16	0.59
32:2a:1004:A:C6	32:2a:1037:C:H1'	2.38	0.59
1:1A:1364:G:OP2	23:11:3:LYS:HG3	2.03	0.59
32:1a:642:A:N3	39:1h:113:SER:OG	2.30	0.59
32:1a:1320:C:OP1	50:1s:70:LYS:NZ	2.25	0.59
1:2A:1507:A:O2'	1:2A:1508:A:O5'	2.20	0.59
32:2a:559:A:H4'	32:2a:560:U:H3'	1.84	0.59
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.85	0.59
3:1D:37:LEU:HD12	3:1D:62:TYR:HB2	1.85	0.59
26:14:53:GLU:OE2	44:1m:65:LYS:NZ	2.35	0.59
1:2A:252:G:OP1	11:2P:50:ARG:NH1	2.33	0.59
1:2A:2693:A:H2'	1:2A:2694:G:H8	1.68	0.59
36:2e:83:GLU:HA	36:2e:88:LYS:HA	1.84	0.59
40:2i:26:VAL:HG13	40:2i:61:ALA:HB3	1.83	0.59
45:2n:8:GLU:HA	45:2n:11:LYS:HE2	1.85	0.59
54:2w:31:A:H2'	54:2w:32:C:H5'	1.84	0.59
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.37	0.59
32:1a:373:A:H2'	32:1a:374:A:H8	1.67	0.59
2:2B:27:C:H5"	14:2S:54:LEU:HD11	1.85	0.59
14:2S:80:LEU:O	14:2S:82:ILE:N	2.35	0.59
15:2T:127:ALA:C	15:2T:129:ARG:H	2.09	0.59
32:2a:663:A:O3'	49:2r:64:ARG:NH2	2.33	0.59
41:2j:34:VAL:HG12	41:2j:74:ILE:HA	1.85	0.59
47:2p:18:ARG:HD3	47:2p:35:LYS:HD2	1.84	0.59
1:1A:826:U:OP1	63:1A:4205:HOH:O	2.17	0.58
32:1a:689:C:OP1	42:1k:27:ASN:ND2	2.35	0.58
32:1a:829:G:O6	63:1a:1911:HOH:O	2.17	0.58
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.18	0.58
35:1d:11:LEU:HG	35:1d:66:ARG:HD3	1.85	0.58
32:2a:1102:A:O3'	33:2b:96:ARG:NH2	2.35	0.58
46:2o:39:LEU:HG	46:2o:56:LEU:HD12	1.85	0.58
1:1A:272(J):C:H2'	1:1A:274:G:C8	2.38	0.58
1:1A:1271:G:OP2	63:1A:4218:HOH:O	2.17	0.58
1:1A:2101:G:H2'	1:1A:2102:U:C6	2.38	0.58
6:1G:18:GLU:HG3	6:1G:22:ARG:HD2	1.82	0.58
6:1G:21:ARG:HA	6:1G:21:ARG:NE	2.17	0.58
1:2A:80:G:H1	1:2A:106:C:H42	1.51	0.58
1:2A:1423:G:H2'	1:2A:1424:G:H8	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2239:G:OP2	63:2A:3943:HOH:O	2.17	0.58
21:2Z:54:HIS:O	21:2Z:55:HIS:ND1	2.35	0.58
21:2Z:121:HIS:N	21:2Z:171:ILE:O	2.36	0.58
32:2a:1003:G:H2'	32:2a:1004:A:O4'	2.03	0.58
4:1E:101:ARG:NH2	4:1E:171:GLU:HB2	2.18	0.58
8:2I:31:LEU:HD21	8:2I:38:LEU:HG	1.85	0.58
8:2I:101:LEU:HB2	8:2I:107:VAL:HG23	1.85	0.58
32:2a:662:G:H2'	32:2a:663:A:C8	2.38	0.58
32:2a:1411:C:H2'	32:2a:1412:C:C6	2.38	0.58
34:2c:152:ILE:HD11	34:2c:199:LYS:HZ2	1.69	0.58
6:1G:38:VAL:HG22	6:1G:93:THR:HG23	1.85	0.58
28:16:9:LEU:HD13	28:16:51:GLU:HG3	1.85	0.58
32:1a:7:G:H5"	32:1a:298:A:O4'	2.03	0.58
32:1a:184:G:O2'	51:1t:74:LYS:NZ	2.36	0.58
32:1a:362:G:N7	63:1a:1937:HOH:O	2.32	0.58
42:1k:91:ARG:NH1	42:1k:110:ASP:OD1	2.36	0.58
1:2A:1149:G:H2'	1:2A:1150:C:C6	2.39	0.58
5:2F:155:LEU:HB2	5:2F:189:THR:HG21	1.84	0.58
17:2V:76:LYS:HB2	17:2V:81:TYR:HD2	1.68	0.58
18:2W:2:GLU:OE2	18:2W:72:LYS:NZ	2.21	0.58
1:1A:529:A:OP2	9:1N:114:ARG:NH2	2.35	0.58
1:1A:602:G:O2'	1:1A:655:A:N6	2.36	0.58
54:1w:21:A:H5'	54:1w:22:G:OP2	2.02	0.58
16:2U:17:ILE:HA	16:2U:20:LEU:HD12	1.86	0.58
20:2Y:43:ASN:HB2	20:2Y:67:LEU:HD21	1.85	0.58
32:2a:1119:C:H2'	32:2a:1120:G:H8	1.68	0.58
33:2b:150:SER:OG	33:2b:151:GLY:N	2.37	0.58
1:1A:890:A:H2'	1:1A:892:G:O4'	2.03	0.58
1:1A:1439:A:OP1	63:1A:4221:HOH:O	2.16	0.58
3:1D:34:VAL:HG12	3:1D:63:ARG:HG3	1.84	0.58
6:1G:27:ASN:HB3	6:1G:30:GLU:HG3	1.85	0.58
33:1b:44:LEU:HA	33:1b:47:THR:HB	1.85	0.58
38:1g:79:ARG:CZ	38:1g:80:VAL:HG22	2.34	0.58
39:1h:96:GLY:H	39:1h:99:GLU:CD	2.10	0.58
1:2A:271(R):G:OP1	23:21:76:ARG:NH1	2.32	0.58
1:2A:1627:G:OP1	63:2A:3945:HOH:O	2.17	0.58
1:2A:2722:G:H5'	13:2R:4:LEU:HD12	1.85	0.58
32:2a:942:G:N2	40:2i:124:GLN:OE1	2.34	0.58
32:2a:1402:4OC:HM22	32:2a:1403:C:H5'	1.84	0.58
11:1P:126:VAL:HG12	11:1P:148:LEU:HD13	1.85	0.58
32:1a:976:G:H5'	32:1a:1358:U:O2'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:12:LEU:HB3	36:1e:31:LEU:HB3	1.85	0.58
50:1s:31:ILE:O	50:1s:50:ALA:N	2.36	0.58
57:1y:33:U:H2'	57:1y:35:U:OP2	2.04	0.58
32:2a:473:G:H2'	32:2a:474:G:H8	1.68	0.58
32:2a:1002:G:H1	32:2a:1038:C:H42	1.50	0.58
32:2a:1294:G:H2'	32:2a:1295:G:C8	2.39	0.58
37:2f:99:ALA:HB3	49:2r:29:PHE:CE1	2.39	0.58
1:1A:998:C:OP1	63:1A:4240:HOH:O	2.16	0.58
1:1A:1058:G:N2	1:1A:1081:U:O2	2.36	0.58
1:1A:2629:A:HO2'	1:1A:2630:G:P	2.25	0.58
7:1H:98:LEU:HD11	7:1H:124:GLU:HA	1.85	0.58
1:2A:784:A:OP2	63:2A:3948:HOH:O	2.17	0.58
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.39	0.58
1:2A:2837:G:N7	63:2A:4035:HOH:O	2.32	0.58
26:24:46:GLN:C	26:24:48:ARG:H	2.10	0.58
32:2a:708:C:OP1	42:2k:85:ARG:NH2	2.35	0.58
33:2b:187:LEU:HD13	33:2b:214:ILE:HG21	1.86	0.58
38:2g:72:ARG:NH2	38:2g:142:GLU:OE2	2.36	0.58
53:2v:23:A:H4'	53:2v:24:A:H5'	1.86	0.58
1:1A:295:G:H4'	20:1Y:1:MET:HE3	1.85	0.58
1:1A:1062:G:H8	1:1A:1070:A:H4'	1.69	0.58
35:1d:122:ARG:NH1	35:1d:134:ASP:O	2.36	0.58
35:1d:129:ASN:ND2	35:1d:144:ASP:OD2	2.30	0.58
48:1q:53:LEU:HD23	48:1q:82:MET:HE1	1.86	0.58
1:2A:892:G:H2'	1:2A:893:C:H4'	1.85	0.58
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	1.85	0.58
5:2F:33:LEU:HD21	5:2F:112:MET:HB3	1.86	0.58
21:2Z:33:LEU:HD21	21:2Z:90:VAL:HG21	1.86	0.58
25:23:12:PRO:HB2	25:23:20:LYS:HG2	1.84	0.58
1:1A:588:U:H2'	1:1A:589:C:C6	2.39	0.58
1:1A:2646:C:H2'	1:1A:2647:U:O4'	2.04	0.58
6:1G:3:LEU:O	6:1G:8:LYS:NZ	2.24	0.58
20:1Y:14:LEU:HB2	20:1Y:75:ILE:HD11	1.85	0.58
21:1Z:150:LEU:HD12	21:1Z:154:ASP:HB2	1.85	0.58
1:2A:2659:G:O2'	1:2A:2661:G:N7	2.31	0.58
4:2E:55:ASN:HB3	4:2E:58:ARG:HG3	1.86	0.58
32:2a:1330:U:H4'	44:2m:23:TYR:CZ	2.39	0.58
1:1A:2790:A:H5'	1:1A:2893:G:H21	1.68	0.57
32:1a:159:G:N2	32:1a:162:A:OP2	2.37	0.57
1:2A:2273:A:H2'	1:2A:2274:A:C8	2.39	0.57
2:2B:24:G:N3	2:2B:26:A:N6	2.52	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:149:ARG:NH1	7:2H:162:ILE:O	2.37	0.57
1:1A:2133:G:N1	1:1A:2157:G:H1'	2.19	0.57
1:1A:2791:C:H2'	1:1A:2792:G:C8	2.39	0.57
34:1c:58:GLU:HB3	41:1j:92:THR:HG21	1.85	0.57
54:1w:76:A1B8A:N	55:1x:76:8AN:H2'	2.19	0.57
1:2A:947:G:O6	63:2A:3947:HOH:O	2.17	0.57
33:2b:91:PRO:HG3	33:2b:154:LEU:HB2	1.85	0.57
41:2j:94:VAL:HG12	41:2j:96:ILE:HG12	1.86	0.57
57:2y:4:U:H2'	57:2y:5:C:H5'	1.86	0.57
1:1A:2124:G:H3'	1:1A:2125:G:H8	1.69	0.57
1:1A:2155:G:H2'	1:1A:2155:G:N3	2.19	0.57
1:1A:2612:C:OP2	27:15:2:ALA:N	2.37	0.57
6:1G:106:LEU:HA	6:1G:110:ALA:HB3	1.86	0.57
32:1a:691:G:OP2	42:1k:26:ASN:ND2	2.35	0.57
1:2A:1801:G:OP2	3:2D:154:LYS:NZ	2.37	0.57
9:2N:4:TYR:O	16:2U:64:ARG:NH2	2.31	0.57
20:2Y:28:LYS:NZ	20:2Y:40:GLU:OE2	2.25	0.57
32:2a:539:A:H2'	32:2a:540:G:C8	2.39	0.57
40:2i:8:GLY:O	40:2i:15:ALA:N	2.34	0.57
1:1A:387:U:O4	63:1A:4235:HOH:O	2.16	0.57
8:1I:65:ALA:HB1	8:1I:136:VAL:HG11	1.86	0.57
8:1I:72:LEU:HD21	8:1I:107:VAL:HG11	1.87	0.57
17:1V:14:VAL:HB	17:1V:96:ILE:HG13	1.86	0.57
1:2A:1384:A:N3	1:2A:1405:U:H1'	2.20	0.57
2:2B:6:C:H42	2:2B:115:G:H1	1.50	0.57
6:2G:135:LEU:HG	6:2G:157:ILE:HD11	1.87	0.57
12:2Q:34:LEU:HB2	12:2Q:118:LEU:HD22	1.85	0.57
43:2l:54:LYS:HB3	43:2l:70:ILE:HD12	1.85	0.57
1:1A:2144:U:H3'	1:1A:2146:C:H42	1.69	0.57
2:1B:24:G:N7	2:1B:56:G:H2'	2.19	0.57
3:1D:71:ASP:HB2	3:1D:103:ARG:HH12	1.68	0.57
32:1a:270:A:H2'	32:1a:271:C:C6	2.39	0.57
1:2A:271(G):C:H2'	1:2A:271(H):G:C8	2.39	0.57
1:2A:2841:C:H2'	1:2A:2842:G:C8	2.39	0.57
7:2H:105:LEU:HB2	7:2H:113:VAL:HB	1.85	0.57
54:2w:23:A:H3'	54:2w:24:G:H8	1.69	0.57
1:1A:1740:G:H2'	1:1A:1741:A:C8	2.40	0.57
32:1a:1227:A:O3'	44:1m:115:LYS:NZ	2.37	0.57
34:1c:108:ASN:ND2	34:1c:144:SER:OG	2.37	0.57
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.05	0.57
1:2A:2131:G:H8	1:2A:2133:G:N3	2.02	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:119:ARG:HG2	4:2E:120:TRP:CD1	2.40	0.57
20:2Y:15:VAL:HG21	20:2Y:42:VAL:HG11	1.87	0.57
44:2m:108:ARG:HH12	44:2m:111:LYS:HD2	1.69	0.57
3:1D:183:ARG:HG3	3:1D:270:ILE:HD13	1.86	0.57
5:1F:144:LYS:HD2	5:1F:145:GLU:HG2	1.87	0.57
1:2A:1019:U:H3	1:2A:1142(A):A:H62	1.51	0.57
34:2c:77:ILE:HG13	34:2c:78:GLY:H	1.70	0.57
12:1Q:10:ARG:HH11	12:1Q:11:LYS:HE2	1.69	0.57
32:1a:545:C:OP1	35:1d:61:LYS:NZ	2.37	0.57
33:1b:32:ILE:HG21	33:1b:40:HIS:HD2	1.70	0.57
1:2A:1651:G:H2'	1:2A:1652:A:O4'	2.05	0.57
1:2A:1803:A:O2'	3:2D:259:THR:HG21	2.04	0.57
5:2F:33:LEU:HB3	11:2P:6:LEU:HD21	1.87	0.57
21:2Z:79:ARG:HD2	21:2Z:80:ARG:HH22	1.68	0.57
28:26:6:ARG:HH21	28:26:24:GLU:HG3	1.69	0.57
32:2a:901:A:O2'	32:2a:1513:A:OP1	2.15	0.57
32:2a:1086:U:H3	32:2a:1099:G:H22	1.53	0.57
33:2b:45:GLN:HA	33:2b:48:MET:HE3	1.86	0.57
34:2c:129:ALA:HB3	34:2c:132:ARG:HD2	1.85	0.57
41:2j:8:LEU:HD11	41:2j:20:ALA:HB2	1.87	0.57
57:2y:11:C:H42	57:2y:24:G:H1	1.53	0.57
57:2y:30:G:H2'	57:2y:31:A:H8	1.70	0.57
5:1F:39:TRP:CH2	5:1F:106:ARG:HD3	2.40	0.57
41:1j:8:LEU:HD22	41:1j:96:ILE:HG22	1.87	0.57
57:1y:72:C:H2'	57:1y:73:A:O4'	2.05	0.57
1:2A:2402:C:H1'	1:2A:2403:C:H5	1.69	0.57
3:2D:123:ALA:HB1	3:2D:129:ASN:HD22	1.68	0.57
5:2F:184:TYR:CZ	5:2F:188:ARG:HD2	2.40	0.57
24:22:35:LEU:HD22	24:22:53:LEU:HD12	1.87	0.57
48:2q:45:HIS:HB2	48:2q:65:ILE:HD13	1.85	0.57
1:1A:570:G:H2'	1:1A:2030:A:C5	2.39	0.57
1:1A:582:G:H2'	1:1A:583:G:C8	2.39	0.57
1:1A:1185:C:OP2	63:1A:4242:HOH:O	2.17	0.57
1:1A:2328:A:H2'	1:1A:2329:G:C8	2.39	0.57
1:1A:2667:C:H1'	7:1H:109:PHE:CD1	2.40	0.57
7:1H:149:ARG:NH1	7:1H:167:GLU:OE1	2.29	0.57
23:11:53:VAL:HG11	23:11:94:LEU:HD21	1.87	0.57
28:16:18:ARG:HD2	28:16:42:TRP:CD1	2.39	0.57
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.86	0.57
1:2A:2889:C:H2'	1:2A:2891:G:O4'	2.05	0.57
33:2b:92:TYR:N	33:2b:151:GLY:O	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:47:LEU:HB3	34:2c:52:LEU:HB2	1.87	0.57
35:2d:15:GLU:OE2	35:2d:59:ARG:NH1	2.38	0.57
32:1a:1414:U:H3	32:1a:1486:G:H1	1.53	0.56
35:1d:98:GLU:OE1	35:1d:103:ASN:ND2	2.28	0.56
1:2A:729:G:C6	3:2D:208:LYS:HB2	2.39	0.56
1:2A:2497:A:O2'	63:2A:3949:HOH:O	2.18	0.56
21:2Z:6:LYS:NZ	21:2Z:43:GLU:OE2	2.23	0.56
48:2q:53:LEU:HD23	48:2q:82:MET:HE1	1.87	0.56
4:1E:9:VAL:HG13	15:1T:3:ARG:HG2	1.86	0.56
1:2A:2430:A:H2'	1:2A:2430:A:N3	2.20	0.56
21:2Z:121:HIS:ND1	21:2Z:123:ASP:O	2.36	0.56
32:2a:859:A:H2'	32:2a:860:A:O4'	2.05	0.56
50:2s:40:ILE:HB	50:2s:67:VAL:O	2.05	0.56
55:2x:23:C:H2'	55:2x:24:U:H6	1.70	0.56
1:1A:800:A:H8	1:1A:800:A:OP1	1.88	0.56
1:1A:2032:G:OP2	1:1A:2454:G:O2'	2.23	0.56
1:1A:2787:C:H1'	4:1E:62:PRO:HG3	1.85	0.56
2:1B:42:C:OP1	6:1G:67:LYS:NZ	2.38	0.56
8:1I:9:LEU:HD12	8:1I:12:LEU:HD12	1.87	0.56
21:1Z:19:ARG:NH2	21:1Z:84:GLU:O	2.37	0.56
32:1a:110:C:O2'	47:1p:25:ARG:O	2.23	0.56
32:1a:189(K):U:H2'	32:1a:189(L):G:C8	2.41	0.56
32:1a:1458:G:OP1	51:1t:35:THR:OG1	2.14	0.56
36:1e:78:HIS:HE1	36:1e:143:ARG:H	1.53	0.56
1:2A:1782:C:O2	1:2A:2608:G:O2'	2.21	0.56
1:2A:1833:U:O2'	1:2A:1969:A:N1	2.31	0.56
1:2A:2198:A:OP1	8:2I:33:ARG:NH2	2.38	0.56
1:2A:2394:C:N3	57:2y:76:A:O2'	2.30	0.56
1:2A:2821:A:H2'	1:2A:2822:G:C8	2.40	0.56
2:2B:50:G:OP1	14:2S:63:THR:N	2.38	0.56
10:2O:88:ASN:HD21	10:2O:90:GLN:HB2	1.69	0.56
12:2Q:1:MET:SD	12:2Q:1:MET:N	2.74	0.56
12:2Q:20:ALA:HB2	21:2Z:79:ARG:HE	1.69	0.56
32:2a:67:C:H2'	32:2a:68:G:C8	2.40	0.56
32:2a:1193:G:O2'	36:2e:25:ARG:NH2	2.38	0.56
32:2a:1294:G:H2'	32:2a:1295:G:H8	1.71	0.56
33:2b:149:LEU:HD23	33:2b:152:PHE:HB3	1.87	0.56
35:2d:81:GLU:OE2	35:2d:139:ARG:NH1	2.35	0.56
40:2i:127:LYS:HE3	40:2i:128:ARG:HH12	1.69	0.56
1:1A:1025:G:C4	1:1A:1135:C:H1'	2.40	0.56
25:13:35:ARG:HB3	25:13:37:LEU:HD21	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:1r:73:ALA:HB1	49:1r:78:LEU:HB2	1.86	0.56
2:2B:106:G:OP1	21:2Z:31:ARG:HB3	2.06	0.56
32:2a:837:G:H2'	32:2a:838:G:C8	2.40	0.56
40:2i:28:VAL:HG13	40:2i:63:ILE:HB	1.88	0.56
51:2t:10:LEU:HB3	51:2t:12:ALA:H	1.69	0.56
1:1A:848:G:O6	1:1A:928:G:H2'	2.04	0.56
1:1A:1171:G:OP2	1:1A:1174:A:N6	2.38	0.56
4:1E:79:ARG:NE	63:1E:408:HOH:O	2.39	0.56
5:1F:154:VAL:HG22	5:1F:191:ARG:HG3	1.86	0.56
6:1G:8:LYS:NZ	6:1G:97:ASP:OD1	2.36	0.56
12:1Q:10:ARG:HH12	12:1Q:90:VAL:H	1.52	0.56
33:1b:28:PHE:CE2	33:1b:31:TYR:HB2	2.41	0.56
39:1h:97:VAL:HG21	39:1h:128:GLY:HA2	1.87	0.56
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.40	0.56
3:2D:108:PRO:HG2	3:2D:111:LEU:HB2	1.87	0.56
6:2G:53:LEU:HB3	6:2G:56:ALA:HB3	1.86	0.56
21:2Z:154:ASP:OD1	21:2Z:154:ASP:N	2.30	0.56
38:2g:20:ASP:HB3	38:2g:23:VAL:HB	1.88	0.56
51:2t:85:MET:HA	51:2t:88:VAL:HG22	1.86	0.56
54:2w:72:C:H2'	54:2w:73:A:H8	1.71	0.56
4:1E:110:GLY:O	63:1R:301:HOH:O	2.18	0.56
12:1Q:10:ARG:NH1	12:1Q:90:VAL:H	2.03	0.56
13:1R:15:SER:OG	63:1R:302:HOH:O	2.11	0.56
19:1X:60:ARG:HH22	29:17:47:ARG:NH2	2.03	0.56
32:1a:972:C:O2'	41:1j:55:LYS:O	2.24	0.56
33:1b:69:LEU:HD13	33:1b:155:LEU:HD22	1.87	0.56
42:1k:84:VAL:HG23	42:1k:110:ASP:HA	1.87	0.56
1:2A:557:U:H2'	1:2A:558:G:C8	2.41	0.56
1:2A:746:A:HO2'	1:2A:2611:U:HO2'	1.54	0.56
1:2A:839:U:H2'	1:2A:840:C:H6	1.69	0.56
1:2A:900:A:H3'	1:2A:901:A:H8	1.70	0.56
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.41	0.56
1:2A:1671:U:OP2	63:2A:3950:HOH:O	2.18	0.56
1:2A:1996:C:H4'	1:2A:1997:G:OP1	2.05	0.56
4:2E:27:LEU:HD22	15:2T:1:MET:SD	2.45	0.56
32:2a:918:A:H2'	32:2a:919:A:C8	2.40	0.56
44:2m:14:ARG:HA	44:2m:44:ARG:HA	1.88	0.56
1:1A:2002:G:OP2	13:1R:9:LYS:NZ	2.38	0.56
57:1y:7:U:O2'	57:1y:49:G:OP2	2.17	0.56
1:2A:271(H):G:H2'	1:2A:271(I):G:H8	1.71	0.56
1:2A:400:G:O6	63:2A:3937:HOH:O	2.15	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2100:G:H1	1:2A:2189:U:H3	1.51	0.56
12:2Q:65:PHE:HB2	12:2Q:105:GLU:HB2	1.88	0.56
32:2a:171:A:H2'	32:2a:172:A:C8	2.40	0.56
32:2a:501:C:H2'	32:2a:502:G:H8	1.69	0.56
1:1A:1062:G:H2'	1:1A:1063:G:C8	2.41	0.56
42:1k:72:ALA:HB1	42:1k:77:MET:HG3	1.86	0.56
7:2H:124:GLU:HB2	7:2H:132:ARG:HB3	1.86	0.56
14:2S:35:ILE:HD11	14:2S:101:LEU:HD13	1.88	0.56
15:2T:26:ASP:OD1	15:2T:120:ARG:NH2	2.32	0.56
24:22:1:MET:N	24:22:52:ASP:OD2	2.29	0.56
32:2a:428:G:OP2	35:2d:10:ARG:NH1	2.39	0.56
33:2b:178:ARG:HH12	39:2h:68:ARG:HH22	1.54	0.56
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.40	0.56
14:1S:52:SER:HB2	14:1S:55:ALA:H	1.71	0.56
39:1h:86:ILE:HD12	39:1h:133:LEU:HD22	1.87	0.56
1:2A:577:G:O2'	1:2A:1254:A:OP1	2.22	0.56
1:2A:2759:G:OP2	63:2A:3951:HOH:O	2.18	0.56
4:2E:127:ASP:OD2	63:2E:401:HOH:O	2.18	0.56
7:2H:154:PRO:HB3	7:2H:163:TYR:CE1	2.41	0.56
11:2P:94:GLU:HG3	11:2P:124:LYS:HE2	1.87	0.56
21:2Z:28:MET:HE1	21:2Z:67:LEU:HD12	1.87	0.56
24:22:41:ILE:HG13	24:22:43:GLN:HG2	1.87	0.56
26:24:61:ARG:NH1	26:24:62:ARG:O	2.39	0.56
32:2a:692:U:O2'	32:2a:694:A:N7	2.31	0.56
32:2a:971:G:H1	32:2a:1363(A):A:H5'	1.71	0.56
36:2e:92:LYS:HB3	36:2e:119:LEU:HB2	1.87	0.56
47:2p:15:PRO:O	47:2p:16:HIS:ND1	2.38	0.56
1:1A:1509(A):A:H3'	1:1A:1509(B):A:H8	1.71	0.56
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.41	0.56
2:1B:4:C:H2'	2:1B:5:C:C6	2.41	0.56
32:1a:735:C:H2'	32:1a:736:C:H6	1.71	0.56
40:1i:50:LEU:HD13	40:1i:56:LEU:HA	1.87	0.56
25:23:26:LEU:HD21	25:23:46:ASN:HB2	1.87	0.56
32:2a:977:A:O2'	32:2a:981:U:N3	2.39	0.56
32:2a:1132:C:H2'	32:2a:1133:G:C8	2.41	0.56
32:2a:1292:U:H5'	40:2i:38:GLN:HE21	1.71	0.56
33:2b:15:VAL:HG12	33:2b:16:HIS:HB3	1.88	0.56
38:2g:68:ASN:ND2	38:2g:127:ALA:O	2.36	0.56
1:1A:639:U:H2'	1:1A:640:C:C6	2.42	0.55
1:1A:1165:U:H2'	1:1A:1166:C:C6	2.41	0.55
1:1A:1188:U:H4'	17:1V:79:VAL:HG22	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2336:A:H61	22:10:43:THR:CG2	2.19	0.55
33:1b:82:ARG:NH1	33:1b:86:GLU:OE2	2.38	0.55
36:1e:91:LEU:HB3	36:1e:118:ILE:HD11	1.88	0.55
1:2A:643:A:N1	1:2A:2369:A:O2'	2.33	0.55
3:2D:108:PRO:HD2	3:2D:111:LEU:HD22	1.86	0.55
5:2F:165:ARG:HG2	5:2F:168:ARG:NH2	2.21	0.55
7:2H:9:ILE:HB	7:2H:50:VAL:HB	1.88	0.55
31:29:27:CYS:SG	31:29:28:GLU:N	2.79	0.55
32:2a:1271:G:C2	32:2a:1272:G:N7	2.74	0.55
33:2b:158:LEU:HD23	33:2b:182:ILE:HD11	1.89	0.55
57:2y:9:A:H4'	57:2y:46:G7M:H5'	1.87	0.55
1:1A:1062:G:C8	1:1A:1070:A:H4'	2.41	0.55
12:1Q:52:VAL:HG13	54:1w:53:G:H5"	1.88	0.55
32:1a:708:C:H2'	32:1a:709:G:C8	2.39	0.55
33:1b:82:ARG:NH1	33:1b:92:TYR:OH	2.39	0.55
40:1i:4:TYR:CG	40:1i:88:TYR:HB2	2.42	0.55
6:2G:171:ALA:O	6:2G:175:LEU:N	2.32	0.55
21:2Z:53:ILE:HA	21:2Z:71:VAL:HG23	1.87	0.55
21:2Z:171:ILE:HG13	21:2Z:172:ALA:H	1.72	0.55
32:2a:404:U:H2'	32:2a:405:U:C6	2.42	0.55
32:2a:411:A:OP1	35:2d:30:LYS:NZ	2.31	0.55
32:2a:1530:G:OP1	32:2a:1530:G:H4'	2.04	0.55
36:2e:7:GLU:OE1	36:2e:37:ARG:NH2	2.38	0.55
1:1A:1866:C:H2'	1:1A:1876:A:O4'	2.05	0.55
32:1a:719:C:H1'	49:1r:49:LYS:HB3	1.89	0.55
32:1a:1237:C:O2'	32:1a:1300:G:N2	2.35	0.55
32:1a:1355:G:H2'	32:1a:1356:G:C8	2.40	0.55
50:1s:11:VAL:HG11	50:1s:16:LEU:HB2	1.88	0.55
55:1x:68:C:H2'	55:1x:69:C:C6	2.41	0.55
1:2A:271(E):U:H2'	1:2A:271(F):C:C6	2.40	0.55
2:2B:104:U:O2'	21:2Z:29:TYR:OH	2.09	0.55
32:2a:936:C:H2'	32:2a:937:A:O4'	2.06	0.55
32:2a:951:G:N7	44:2m:102:ARG:NH2	2.54	0.55
1:1A:1057:A:H61	1:1A:1081:U:H3	1.55	0.55
1:1A:2379:G:O2'	14:1S:17:ARG:NH2	2.39	0.55
11:1P:39:LYS:HB2	11:1P:45:LEU:HD13	1.87	0.55
15:1T:15:VAL:HA	15:1T:79:HIS:HD2	1.71	0.55
57:1y:48:C:N4	57:1y:59:A:O4'	2.40	0.55
2:2B:117:G:H5'	14:2S:55:ALA:HB2	1.88	0.55
14:2S:69:VAL:HG13	14:2S:101:LEU:HD12	1.88	0.55
33:2b:15:VAL:HG22	33:2b:209:ARG:HD2	1.86	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:2j:16:LEU:O	41:2j:20:ALA:N	2.35	0.55
1:1A:2469:A:O3'	12:1Q:56:ARG:NH1	2.39	0.55
1:1A:2484:G:O2'	12:1Q:124:LYS:O	2.20	0.55
8:1I:40:THR:O	8:1I:44:LEU:HB2	2.06	0.55
14:1S:61:ASN:HB3	14:1S:64:GLU:HB2	1.89	0.55
1:2A:208:C:H2'	1:2A:209:C:H6	1.71	0.55
32:2a:438:G:H4'	35:2d:123:HIS:ND1	2.22	0.55
32:2a:501:C:H2'	32:2a:502:G:C8	2.41	0.55
32:2a:1411:C:H2'	32:2a:1412:C:H6	1.70	0.55
33:2b:71:VAL:HG13	33:2b:93:VAL:HG13	1.89	0.55
38:2g:78:ARG:HE	38:2g:79:ARG:HG3	1.72	0.55
44:2m:59:TYR:O	44:2m:63:THR:OG1	2.24	0.55
3:1D:17:THR:HG1	3:1D:205:VAL:H	1.54	0.55
32:1a:922:G:H4'	36:1e:20:GLN:HA	1.88	0.55
32:1a:1027:C:H5"	32:1a:1028:C:OP2	2.07	0.55
33:1b:54:THR:HG23	33:1b:199:TYR:HB3	1.89	0.55
36:1e:18:ARG:HH11	36:1e:27:ARG:HH12	1.54	0.55
1:2A:251:A:C5	1:2A:252:G:H1'	2.42	0.55
1:2A:827:U:OP1	63:2A:3956:HOH:O	2.18	0.55
1:2A:893:C:H2'	1:2A:894:C:C4	2.41	0.55
6:2G:47:LYS:HG3	6:2G:48:GLU:H	1.71	0.55
32:2a:661:G:H1	32:2a:744:C:H42	1.54	0.55
32:2a:1517:G:N7	32:2a:1518:MA6:H103	2.22	0.55
51:2t:57:ARG:HH12	51:2t:100:ILE:HD12	1.70	0.55
1:1A:221:A:N1	1:1A:265:A:O2'	2.35	0.55
1:1A:2564:A:C2	1:1A:2647:U:H4'	2.42	0.55
10:1O:2:ILE:HD12	10:1O:6:THR:HG21	1.88	0.55
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.89	0.55
1:2A:1592:C:H2'	1:2A:1593:G:C8	2.41	0.55
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.42	0.55
5:2F:64:ILE:HG21	5:2F:78:ILE:HG23	1.89	0.55
33:1b:28:PHE:HE2	33:1b:31:TYR:HB2	1.72	0.55
46:1o:8:LYS:HE3	46:1o:31:LEU:HD22	1.89	0.55
48:1q:67:LYS:O	48:1q:68:ARG:HB2	2.06	0.55
1:2A:320:A:O2'	1:2A:322:A:OP2	2.21	0.55
1:2A:2143:C:H42	1:2A:2148:G:H1	1.54	0.55
2:2B:48:A:H4'	14:2S:95:HIS:CD2	2.42	0.55
4:2E:174:ASP:OD1	4:2E:175:VAL:N	2.39	0.55
11:2P:39:LYS:HG3	11:2P:45:LEU:HD22	1.88	0.55
13:2R:42:LYS:HB3	13:2R:45:ARG:HH21	1.72	0.55
41:2j:36:GLY:O	41:2j:38:ILE:HD12	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2131:G:H5'	1:1A:2133:G:C8	2.41	0.55
1:1A:2143:C:H2'	1:1A:2144:U:O4'	2.07	0.55
18:1W:6:ILE:HA	18:1W:103:ILE:O	2.07	0.55
32:1a:757:U:H2'	32:1a:758:G:O4'	2.07	0.55
1:2A:2295:C:H5	14:2S:13:ARG:HH22	1.53	0.55
1:2A:2451:A:N7	63:2A:4045:HOH:O	2.33	0.55
32:2a:991:U:O2'	32:2a:1212:U:N3	2.40	0.55
32:2a:996:A:N1	32:2a:1045:C:O2'	2.38	0.55
32:2a:1244:C:H42	32:2a:1293:G:H1	1.55	0.55
34:2c:44:GLU:HA	34:2c:52:LEU:HD23	1.89	0.55
35:2d:61:LYS:NZ	35:2d:72:GLU:OE1	2.29	0.55
1:1A:2839:G:H5'	13:1R:46:GLY:HA2	1.88	0.55
32:1a:472:A:H5"	47:1p:80:PHE:HB3	1.89	0.55
32:1a:953:G:H5'	32:1a:965:A:H61	1.72	0.55
54:1w:76:A1B8A:NZ	56:1z:2:ARG:HB3	2.22	0.55
1:2A:271(D):G:H2'	1:2A:271(E):U:C6	2.42	0.55
1:2A:586:A:N1	1:2A:809:G:O2'	2.26	0.55
1:2A:2805:G:H2'	1:2A:2807:G:H8	1.72	0.55
15:2T:118:ARG:HG2	32:2a:1442(A):G:C8	2.42	0.55
32:2a:34:C:H2'	32:2a:35:G:C8	2.41	0.55
32:2a:1004:A:N6	32:2a:1037:C:O2	2.23	0.55
35:2d:64:LEU:HB2	35:2d:198:VAL:HG11	1.88	0.55
43:2l:38:THR:OG1	43:2l:57:LYS:O	2.20	0.55
54:2w:43:U:H2'	54:2w:44:U:C6	2.42	0.55
1:1A:839:U:H1'	1:1A:1191:G:H1'	1.89	0.54
21:1Z:45:ASP:CG	21:1Z:49:ARG:HE	2.15	0.54
32:1a:1351:U:O4	40:1i:118:LYS:NZ	2.31	0.54
36:1e:67:VAL:HG21	36:1e:140:ARG:HG2	1.88	0.54
1:2A:8:A:H2'	1:2A:9:U:H6	1.71	0.54
15:2T:102:ILE:HA	15:2T:105:LEU:HG	1.89	0.54
18:2W:12:ILE:HD13	18:2W:17:VAL:HG13	1.89	0.54
21:2Z:106:GLY:HA3	21:2Z:141:VAL:HB	1.90	0.54
32:2a:1104:G:H4'	33:2b:111:ARG:HH21	1.72	0.54
44:2m:4:ILE:HD13	44:2m:22:ILE:HG13	1.87	0.54
5:1F:12:LEU:HD12	5:1F:124:LEU:HD21	1.88	0.54
11:1P:63:PRO:HD3	30:18:27:THR:HG22	1.88	0.54
32:1a:973:G:H3'	32:1a:974:A:H5"	1.89	0.54
34:1c:131:ARG:HH11	34:1c:166:GLU:HG3	1.72	0.54
54:1w:15:G:N2	54:1w:21:A:N3	2.56	0.54
14:2S:38:GLN:HG2	14:2S:47:THR:HG21	1.89	0.54
21:2Z:91:LEU:HB3	21:2Z:130:PRO:HG3	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:24:67:TYR:OH	50:2s:43:GLU:OE1	2.22	0.54
50:2s:30:LEU:HA	50:2s:48:THR:O	2.06	0.54
55:2x:10:G:N2	55:2x:26:G:H1'	2.22	0.54
1:1A:576:U:H2'	1:1A:577:G:C8	2.42	0.54
1:1A:897:C:H5'	54:1w:56:C:OP1	2.06	0.54
1:1A:2136:C:N4	1:1A:2155:G:C6	2.75	0.54
16:1U:75:ASN:OD1	16:1U:78:THR:OG1	2.21	0.54
1:2A:2176:A:H2'	1:2A:2177:C:C6	2.43	0.54
1:2A:2557:G:H2'	1:2A:2558:C:H6	1.72	0.54
1:2A:2721:A:OP1	63:2A:3955:HOH:O	2.18	0.54
3:2D:166:GLN:HB2	3:2D:174:ILE:HG22	1.90	0.54
29:27:9:ARG:CZ	29:27:47:ARG:HD3	2.38	0.54
32:2a:1316:G:N2	32:2a:1318:A:H3'	2.22	0.54
32:1a:92:C:H2'	32:1a:93:G:C8	2.43	0.54
33:1b:189:ASP:N	33:1b:205:ASP:OD2	2.40	0.54
35:1d:18:LYS:HG2	62:1d:302:SF4:S1	2.47	0.54
46:1o:55:GLY:HA2	46:1o:58:MET:HE3	1.89	0.54
1:2A:911:A:N6	12:2Q:11:LYS:O	2.38	0.54
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.89	0.54
32:2a:9:G:OP1	36:2e:122:GLU:N	2.41	0.54
32:2a:921:U:O2'	36:2e:19:MET:O	2.20	0.54
32:2a:1134:G:C2	32:2a:1135:U:H1'	2.43	0.54
55:2x:61:C:H2'	55:2x:62:C:H6	1.72	0.54
1:1A:271(W):G:O6	63:1A:4231:HOH:O	2.14	0.54
1:1A:1762:A:H2'	63:1A:5650:HOH:O	2.07	0.54
7:1H:149:ARG:HH12	7:1H:167:GLU:CD	2.13	0.54
32:1a:985:C:H2'	32:1a:986:A:C8	2.42	0.54
38:1g:22:LEU:HG	38:1g:62:PHE:HE2	1.72	0.54
38:1g:33:ASP:OD1	38:1g:33:ASP:N	2.40	0.54
57:1y:26:A:N6	57:1y:44:U:H3	2.05	0.54
1:2A:492:A:H2'	1:2A:493:G:O4'	2.08	0.54
1:2A:1791:A:N6	1:2A:1828:G:O2'	2.38	0.54
3:2D:183:ARG:HG3	3:2D:270:ILE:HG12	1.88	0.54
6:2G:43:LEU:HD12	6:2G:45:GLU:HG3	1.90	0.54
7:2H:22:GLY:C	7:2H:37:VAL:HG22	2.33	0.54
24:22:12:GLU:HA	24:22:15:LYS:HD2	1.90	0.54
32:2a:70:G:H1	32:2a:99:U:H3	1.54	0.54
32:2a:404:U:H2'	32:2a:405:U:H6	1.73	0.54
32:2a:1033:G:H2'	32:2a:1034:G:C8	2.43	0.54
32:2a:1133:G:H2'	32:2a:1134:G:C8	2.41	0.54
32:2a:1347:G:C8	40:2i:107:ARG:HB2	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:668:G:N7	63:1A:4350:HOH:O	2.34	0.54
5:1F:53:THR:CG2	5:1F:55:GLY:H	2.19	0.54
32:1a:56:U:H2'	32:1a:57:G:H8	1.72	0.54
32:1a:1277:C:O2'	32:1a:1279:A:H1'	2.08	0.54
34:1c:82:GLU:HG3	34:1c:85:ARG:HH21	1.72	0.54
38:1g:15:ASP:HB3	38:1g:24:THR:HG23	1.88	0.54
43:1l:5:PRO:HG2	43:1l:10:LEU:HD21	1.90	0.54
1:2A:121:G:H4'	1:2A:149:A:H5'	1.88	0.54
1:2A:1324:G:O6	63:2A:3954:HOH:O	2.18	0.54
1:2A:2788:C:OP1	4:2E:61:ARG:NH2	2.41	0.54
21:2Z:77:ASP:OD1	21:2Z:80:ARG:NH1	2.38	0.54
32:2a:664:G:H22	32:2a:741:G:H1	1.53	0.54
32:2a:1189:C:O2'	34:2c:176:HIS:ND1	2.27	0.54
44:2m:22:ILE:HG23	44:2m:67:GLU:HB2	1.89	0.54
45:2n:23:ARG:HH12	45:2n:30:ALA:HB2	1.72	0.54
1:1A:448:U:H5'	63:1A:4991:HOH:O	2.07	0.54
1:1A:1784:A:OP2	63:1A:4244:HOH:O	2.19	0.54
1:1A:2022:U:O2'	1:1A:2617:C:H5'	2.08	0.54
32:1a:40:C:H2'	32:1a:41:G:H8	1.71	0.54
32:1a:1305:G:OP1	52:1u:2:GLY:N	2.40	0.54
36:1e:78:HIS:CD2	39:1h:104:ARG:HD2	2.34	0.54
2:2B:105:A:H5'	2:2B:106:G:OP2	2.08	0.54
32:2a:537:G:H2'	32:2a:538:G:C8	2.42	0.54
44:2m:3:ARG:HH22	44:2m:11:ARG:HG3	1.73	0.54
1:1A:2889:C:H2'	1:1A:2891:G:O4'	2.08	0.54
4:1E:28:ALA:HB3	4:1E:93:VAL:HG12	1.90	0.54
13:1R:98:LEU:HD12	27:15:57:VAL:HG11	1.89	0.54
32:1a:666:G:H5'	32:1a:726:C:H1'	1.88	0.54
32:1a:721:G:H4'	32:1a:722:A:O4'	2.07	0.54
1:2A:796:C:H2'	1:2A:797:C:C6	2.43	0.54
20:2Y:102:CYS:SG	20:2Y:103:GLY:N	2.80	0.54
32:2a:547:A:OP1	63:2a:1914:HOH:O	2.18	0.54
32:2a:728:A:H2'	32:2a:729:A:C8	2.43	0.54
32:1a:1320:C:H2'	32:1a:1321:C:O4'	2.08	0.54
36:1e:18:ARG:NH1	36:1e:27:ARG:HH12	2.05	0.54
1:2A:108:U:H2'	1:2A:109:G:H8	1.73	0.54
1:2A:108:U:H2'	1:2A:109:G:C8	2.43	0.54
1:2A:740:U:H2'	1:2A:741:G:C8	2.43	0.54
1:2A:1851:U:O2'	57:2y:72:C:OP1	2.26	0.54
19:2X:44:GLU:OE2	63:2X:202:HOH:O	2.18	0.54
32:2a:126:G:O2'	32:2a:634:C:O2'	2.18	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:2k:27:ASN:OD1	42:2k:28:THR:N	2.36	0.54
51:2t:73:HIS:CE1	51:2t:75:ASN:HD22	2.26	0.54
54:2w:19:G:C2	54:2w:56:C:N3	2.76	0.54
1:1A:1770:G:OP1	63:1A:4243:HOH:O	2.18	0.54
12:1Q:16:ARG:HG3	12:1Q:17:LEU:H	1.73	0.54
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.22	0.54
1:2A:2134:A:N6	1:2A:2157:G:O3'	2.41	0.54
1:2A:2203:U:H2'	1:2A:2205:C:C6	2.43	0.54
4:2E:48:GLN:HA	4:2E:80:GLU:HA	1.90	0.54
32:2a:123:C:OP1	32:2a:311:C:O2'	2.23	0.54
32:2a:1245:A:H61	32:2a:1292:U:H3	1.56	0.54
43:2l:53:ARG:HD2	43:2l:93:LEU:HD21	1.89	0.54
57:2y:7:U:H2'	57:2y:49:G:C8	2.43	0.54
1:1A:1028:A:N6	1:1A:1125:G:H2'	2.24	0.53
1:1A:2497:A:H5"	63:1A:4483:HOH:O	2.09	0.53
1:1A:2747:G:OP1	7:1H:138:LYS:NZ	2.41	0.53
8:1I:38:LEU:HD23	8:1I:38:LEU:H	1.72	0.53
28:16:5:VAL:HG11	28:16:28:ARG:NH2	2.22	0.53
36:1e:137:GLU:HG3	36:1e:141:GLN:NE2	2.19	0.53
46:1o:54:ARG:HG2	46:1o:58:MET:HE2	1.89	0.53
1:2A:1179:C:H2'	1:2A:1180:C:C6	2.43	0.53
1:2A:1248:G:C2	16:2U:3:ARG:HD2	2.43	0.53
32:2a:603:U:H2'	32:2a:604:G:H8	1.73	0.53
32:2a:694:A:H1'	57:2y:37:T6A:H2	1.72	0.53
32:2a:1329:A:OP2	52:2u:7:ARG:NH1	2.40	0.53
1:1A:1079:C:N4	1:1A:1088:A:O4'	2.42	0.53
2:1B:13:A:N1	2:1B:69:G:O2'	2.41	0.53
10:1O:20:MET:HE3	10:1O:44:LYS:HE3	1.91	0.53
32:1a:167:G:H2'	32:1a:168:G:H8	1.74	0.53
32:1a:944:G:O6	32:1a:1337:G:H8	1.91	0.53
32:1a:1355:G:H2'	32:1a:1356:G:H8	1.73	0.53
42:1k:77:MET:HB3	42:1k:103:LEU:HD21	1.91	0.53
1:2A:674:G:H1'	5:2F:74:ARG:HD3	1.89	0.53
1:2A:922:U:H2'	1:2A:923:C:C6	2.44	0.53
1:2A:2148:G:H2'	1:2A:2149:G:C8	2.43	0.53
2:2B:43:C:OP1	26:24:6:HIS:NE2	2.32	0.53
3:2D:133:LEU:HB3	3:2D:173:VAL:HG21	1.90	0.53
9:2N:40:PRO:HB3	16:2U:68:ALA:HB2	1.90	0.53
11:2P:59:LEU:HD11	30:28:10:ALA:HA	1.90	0.53
14:2S:25:ARG:HD3	14:2S:40:ILE:HB	1.91	0.53
32:2a:985:C:H2'	32:2a:986:A:H8	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:2h:96:GLY:N	39:2h:99:GLU:OE1	2.40	0.53
17:1V:29:PRO:HG3	17:1V:63:GLY:HA2	1.90	0.53
26:14:18:CYS:SG	26:14:20:ASN:HB3	2.48	0.53
57:1y:35:U:H2'	57:1y:36:U:C6	2.42	0.53
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.23	0.53
1:2A:2447:G:N2	1:2A:2450:A:OP2	2.41	0.53
3:2D:206:LEU:O	3:2D:211:ARG:HD3	2.08	0.53
12:2Q:11:LYS:NZ	12:2Q:88:GLY:O	2.33	0.53
26:24:67:TYR:CD2	50:2s:9:VAL:HB	2.42	0.53
32:2a:537:G:H2'	32:2a:538:G:H8	1.73	0.53
32:2a:925:G:H1'	32:2a:1502:A:C4	2.43	0.53
33:2b:97:TRP:CH2	33:2b:102:LEU:HG	2.44	0.53
39:2h:116:LYS:HD3	39:2h:127:LEU:HG	1.89	0.53
49:2r:73:ALA:HB1	49:2r:78:LEU:HD12	1.90	0.53
55:2x:64:G:H2'	55:2x:65:C:C6	2.43	0.53
1:1A:1266:G:O4'	18:1W:15:ARG:NH2	2.42	0.53
5:1F:102:PRO:O	5:1F:106:ARG:HG3	2.07	0.53
11:1P:59:LEU:HD21	30:18:10:ALA:HB2	1.91	0.53
25:13:4:LEU:O	25:13:36:VAL:HA	2.08	0.53
40:1i:9:ARG:HD2	40:1i:104:ARG:HH12	1.73	0.53
40:1i:53:VAL:HG22	40:1i:96:LEU:HD21	1.89	0.53
11:2P:14:LYS:HG2	11:2P:15:ARG:H	1.73	0.53
30:28:26:LYS:HD3	30:28:48:PHE:HB3	1.89	0.53
32:2a:1385:G:H2'	32:2a:1386:G:C8	2.43	0.53
38:2g:99:LEU:HD23	38:2g:102:ARG:HH12	1.72	0.53
48:2q:85:VAL:HG12	48:2q:89:LEU:HD22	1.90	0.53
1:1A:601:C:O2'	1:1A:605:C:OP1	2.23	0.53
6:1G:3:LEU:HD11	6:1G:101:ILE:HD11	1.89	0.53
6:1G:21:ARG:HG2	6:1G:21:ARG:HH11	1.72	0.53
15:1T:127:ALA:C	15:1T:129:ARG:N	2.66	0.53
32:1a:17:U:H2'	32:1a:18:C:C6	2.44	0.53
32:1a:1129:C:H5"	40:1i:16:ARG:HH22	1.72	0.53
33:1b:21:ARG:N	33:1b:23:ARG:HD3	2.22	0.53
42:1k:82:VAL:HB	42:1k:108:ILE:HG12	1.90	0.53
1:2A:2615:U:C2	27:25:7:PRO:HA	2.43	0.53
16:2U:117:GLN:HA	16:2U:117:GLN:HE21	1.73	0.53
32:2a:1208:C:H2'	32:2a:1209:C:C6	2.43	0.53
32:2a:1270:C:OP2	52:2u:24:ARG:NH2	2.40	0.53
32:2a:1346:A:N1	32:2a:1374:A:H5"	2.24	0.53
33:2b:185:ILE:HB	33:2b:199:TYR:HB2	1.91	0.53
1:1A:1007:C:OP1	9:1N:37:LYS:NZ	2.32	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1918:A:N6	63:1A:4424:HOH:O	2.41	0.53
1:1A:2028:U:H2'	1:1A:2029:G:O4'	2.08	0.53
1:1A:2417:C:OP1	11:1P:65:ARG:NH2	2.41	0.53
32:1a:769:G:H4'	32:1a:1513:A:H4'	1.90	0.53
32:1a:1074:G:O2'	32:1a:1101:A:N1	2.32	0.53
33:1b:84:GLU:HB3	33:1b:219:VAL:HG21	1.90	0.53
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.90	0.53
1:2A:675:A:OP1	5:2F:63:LYS:NZ	2.38	0.53
1:2A:722:A:H2'	1:2A:723:G:C8	2.44	0.53
1:2A:1503:U:H2'	1:2A:1504:C:C6	2.43	0.53
1:2A:2079:U:OP1	23:21:21:ARG:NH2	2.42	0.53
1:2A:2126:A:N6	1:2A:2163:C:O4'	2.42	0.53
12:2Q:18:LYS:HE2	12:2Q:18:LYS:H	1.74	0.53
16:2U:49:HIS:HA	16:2U:52:ARG:HB2	1.89	0.53
26:24:64:GLY:C	26:24:66:SER:H	2.16	0.53
27:25:46:CYS:SG	27:25:48:GLU:HG2	2.48	0.53
32:2a:130:A:H5'	48:2q:63:ARG:HH11	1.72	0.53
32:2a:909:A:N3	32:2a:1413:A:O2'	2.39	0.53
32:2a:994:A:C5	32:2a:1216:G:H4'	2.43	0.53
38:2g:18:TYR:HB3	38:2g:59:LEU:HD22	1.89	0.53
44:2m:91:ARG:HB2	44:2m:98:VAL:HG13	1.90	0.53
1:1A:1641:A:H2'	1:1A:1642:G:O4'	2.09	0.53
1:1A:1876:A:H2'	1:1A:1877:A:C8	2.43	0.53
3:1D:29:PRO:HB2	3:1D:34:VAL:HG11	1.90	0.53
8:1I:87:LYS:HD3	8:1I:87:LYS:H	1.72	0.53
26:14:61:ARG:NH1	50:1s:42:PRO:HD3	2.24	0.53
37:1f:69:GLU:H	37:1f:69:GLU:CD	2.17	0.53
40:1i:53:VAL:HG11	40:1i:92:TYR:CE1	2.44	0.53
1:2A:271(H):G:H2'	1:2A:271(I):G:C8	2.43	0.53
1:2A:479:A:H4'	1:2A:480:A:OP1	2.07	0.53
2:2B:75:G:N2	21:2Z:87:ASP:OD2	2.42	0.53
6:2G:5:VAL:HG23	6:2G:7:LEU:H	1.73	0.53
27:25:45:VAL:HG11	27:25:58:LEU:HD13	1.89	0.53
32:2a:532:A:H2'	32:2a:532:A:N3	2.23	0.53
34:2c:32:LEU:O	34:2c:36:ASP:HB2	2.09	0.53
1:1A:1105:U:H2'	1:1A:1106:G:H8	1.72	0.53
1:1A:2687:U:H2'	1:1A:2688:U:O4'	2.09	0.53
21:1Z:151:HIS:CD2	21:1Z:170:THR:HA	2.44	0.53
32:1a:7:G:O2'	36:1e:120:THR:O	2.27	0.53
32:1a:750:G:N3	46:1o:23:GLY:HA3	2.24	0.53
32:1a:877:C:OP1	39:1h:88:LYS:NZ	2.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1125:U:H4'	41:1j:5:ARG:HH22	1.74	0.53
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.42	0.53
33:1b:60:ASP:HA	33:1b:63:MET:HE3	1.91	0.53
38:1g:78:ARG:HD3	38:1g:156:TRP:HZ3	1.73	0.53
38:1g:78:ARG:HD3	38:1g:156:TRP:CZ3	2.43	0.53
39:1h:73:ASP:OD1	39:1h:75:ARG:NE	2.42	0.53
1:2A:83:G:N1	1:2A:102:G:O2'	2.36	0.53
2:2B:75:G:H22	21:2Z:73:GLN:NE2	2.06	0.53
9:2N:56:ASN:HD21	9:2N:126:PRO:HA	1.74	0.53
23:21:52:ARG:NH2	23:21:57:GLU:HB2	2.24	0.53
30:28:33:ASN:HA	30:28:36:LYS:HD2	1.89	0.53
36:2e:17:ALA:HA	36:2e:26:PHE:HA	1.91	0.53
39:2h:10:LEU:HD13	39:2h:83:ILE:HG12	1.90	0.53
1:1A:764:A:H5"	3:1D:210:GLY:CA	2.39	0.53
1:1A:2053:G:OP1	4:1E:144:ARG:HG3	2.08	0.53
32:1a:396:G:O2'	32:1a:398:C:OP1	2.19	0.53
32:1a:1273:G:H3'	32:1a:1274:G:H8	1.73	0.53
36:1e:74:GLY:HA3	36:1e:116:THR:HG22	1.91	0.53
40:1i:128:ARG:NH1	55:1x:35:A:OP2	2.42	0.53
52:1u:14:TRP:HZ3	52:1u:15:ARG:HH21	1.55	0.53
1:2A:36:G:OP1	63:2A:3959:HOH:O	2.19	0.53
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.44	0.53
1:2A:2529:G:O6	31:29:31:LYS:NZ	2.41	0.53
4:2E:52:LEU:O	4:2E:76:ARG:N	2.36	0.53
11:2P:121:LYS:HD3	11:2P:123:LEU:HD11	1.90	0.53
23:21:50:ARG:HA	23:21:59:THR:HA	1.90	0.53
32:2a:7:G:O2'	36:2e:120:THR:O	2.27	0.53
32:2a:1103:C:H5'	33:2b:98:LEU:HD11	1.89	0.53
53:2v:19:A:N7	54:2w:37:T6A:H153	2.24	0.53
1:1A:620:G:N3	1:1A:620:G:H5'	2.24	0.53
1:1A:884:C:H42	1:1A:892:G:H1	1.55	0.53
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.43	0.53
5:1F:117:ARG:NH2	5:1F:189:THR:O	2.40	0.53
13:1R:2:ARG:HA	13:1R:5:LYS:HD2	1.91	0.53
21:1Z:78:LYS:H	21:1Z:78:LYS:HD2	1.73	0.53
32:1a:399:G:H2'	32:1a:400:C:C6	2.44	0.53
32:1a:976:G:N2	32:1a:1363:C:OP2	2.37	0.53
32:1a:1260:C:OP1	32:1a:1284:C:O2'	2.27	0.53
33:1b:58:ILE:HB	33:1b:221:LEU:HD23	1.91	0.53
1:2A:240:G:O2'	1:2A:257:A:N6	2.38	0.53
1:2A:271(K):U:O2	8:2I:50:ARG:HD3	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:577:G:O6	63:2A:3953:HOH:O	2.18	0.53
1:2A:1794:U:H2'	1:2A:1795:C:H6	1.74	0.53
1:2A:2355:C:H1'	22:20:39:ARG:HH21	1.74	0.53
32:2a:7:G:H5'	32:2a:298:A:O4'	2.09	0.53
32:2a:708:C:H2'	32:2a:709:G:H8	1.74	0.53
32:2a:1164:G:H2'	32:2a:1165:C:H6	1.74	0.53
32:2a:1359:C:O2'	32:2a:1362:C:N4	2.41	0.53
35:2d:79:PHE:O	35:2d:83:SER:OG	2.27	0.53
52:2u:5:ASP:O	52:2u:11:GLY:HA3	2.09	0.53
1:1A:615:G:OP1	5:1F:40:GLN:HG2	2.09	0.52
1:1A:2183:C:H2'	1:1A:2184:G:H8	1.73	0.52
1:1A:2567:G:H2'	1:1A:2568:C:C6	2.43	0.52
38:1g:78:ARG:HG3	38:1g:80:VAL:HG23	1.91	0.52
44:1m:102:ARG:NH2	44:1m:105:THR:OG1	2.43	0.52
57:1y:57:G:H2'	57:1y:58:A:H5'	1.90	0.52
1:2A:2206:G:H3'	1:2A:2207:G:N7	2.24	0.52
1:2A:2299:G:N1	1:2A:2318:G:N7	2.57	0.52
2:2B:32:C:H2'	2:2B:33:G:O4'	2.09	0.52
32:2a:457:C:H2'	32:2a:458:C:C6	2.44	0.52
37:2f:97:PHE:HE2	49:2r:62:GLU:HG2	1.74	0.52
39:2h:20:TYR:HA	39:2h:65:TYR:CZ	2.44	0.52
54:2w:72:C:H2'	54:2w:73:A:C8	2.44	0.52
1:1A:796:C:H2'	1:1A:797:C:C6	2.45	0.52
1:1A:1009:A:OP2	9:1N:37:LYS:NZ	2.41	0.52
3:1D:61:LEU:O	3:1D:63:ARG:NH1	2.42	0.52
32:1a:444:C:H2'	32:1a:445:G:H8	1.74	0.52
32:1a:695:A:OP2	42:1k:53:SER:N	2.40	0.52
35:1d:100:ARG:HG2	35:1d:137:SER:HA	1.91	0.52
48:1q:45:HIS:HB2	48:1q:65:ILE:HD13	1.90	0.52
1:2A:1486:A:H2'	1:2A:1487:G:H8	1.75	0.52
32:2a:1203:C:H2'	32:2a:1204:A:H8	1.74	0.52
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.44	0.52
33:2b:178:ARG:NH2	39:2h:68:ARG:HH22	2.07	0.52
37:2f:67:MET:HE3	37:2f:72:VAL:HG22	1.90	0.52
1:1A:184:C:H2'	1:1A:185:U:C6	2.44	0.52
1:2A:582:G:H2'	1:2A:583:G:C8	2.43	0.52
1:2A:1762:A:N1	63:2A:4049:HOH:O	2.34	0.52
4:2E:48:GLN:HE21	4:2E:78:LEU:HD22	1.74	0.52
5:2F:172:TRP:H	5:2F:172:TRP:CD1	2.26	0.52
8:2I:110:ASP:N	8:2I:130:TYR:OH	2.42	0.52
14:2S:14:VAL:O	14:2S:18:ILE:HG12	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:2X:4:ALA:HB1	19:2X:42:ALA:HA	1.91	0.52
23:21:77:ALA:HB1	23:21:82:LEU:HD11	1.91	0.52
33:2b:96:ARG:HG2	33:2b:98:LEU:HD22	1.91	0.52
35:2d:102:ASP:HB3	35:2d:136:PRO:HB3	1.91	0.52
1:1A:55:G:O2'	1:1A:127:A:N1	2.30	0.52
1:1A:321:G:N3	5:1F:165:ARG:HD2	2.23	0.52
1:1A:911:A:H2'	12:1Q:9:TYR:OH	2.09	0.52
1:1A:1372:U:H2'	1:1A:1373:A:O4'	2.09	0.52
32:1a:341:C:H2'	32:1a:342:C:C6	2.44	0.52
32:1a:985:C:H2'	32:1a:986:A:H8	1.74	0.52
32:1a:1025:U:O2	32:1a:1036:G:O6	2.26	0.52
32:1a:1067:A:N1	32:1a:1108:G:O2'	2.40	0.52
32:1a:1069:C:O2'	32:1a:1192:C:H1'	2.10	0.52
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.45	0.52
52:1u:5:ASP:O	52:1u:8:THR:HG22	2.10	0.52
1:2A:1178:C:H2'	1:2A:1179:C:C6	2.44	0.52
1:2A:2189:U:H2'	1:2A:2190:G:C8	2.44	0.52
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.09	0.52
5:2F:32:LEU:O	5:2F:36:VAL:HG23	2.09	0.52
6:2G:172:LEU:O	6:2G:176:LEU:N	2.40	0.52
9:2N:55:VAL:HG23	9:2N:56:ASN:HD22	1.74	0.52
16:2U:104:GLN:NE2	16:2U:105:VAL:HG23	2.25	0.52
17:2V:16:PRO:HD3	17:2V:99:ILE:HD11	1.91	0.52
32:2a:750:G:N2	46:2o:23:GLY:O	2.36	0.52
35:2d:18:LYS:HG3	35:2d:33:MET:HG2	1.92	0.52
40:2i:6:GLY:HA3	40:2i:80:GLY:O	2.10	0.52
46:2o:33:THR:HG21	46:2o:85:LEU:HD22	1.91	0.52
1:1A:2277:G:OP2	22:10:10:THR:HG21	2.09	0.52
1:1A:2563:U:H4'	10:1O:28:SER:HA	1.91	0.52
32:1a:381:C:H2'	32:1a:382:A:O4'	2.10	0.52
37:1f:26:ILE:O	37:1f:30:LEU:HG	2.10	0.52
40:1i:56:LEU:HD23	40:1i:56:LEU:H	1.73	0.52
42:1k:59:TYR:CZ	42:1k:63:LEU:HD21	2.45	0.52
49:1r:25:THR:O	49:1r:42:ARG:NH2	2.42	0.52
50:1s:11:VAL:C	50:1s:13:ASP:H	2.18	0.52
1:2A:1865:G:N2	1:2A:1877:A:OP2	2.33	0.52
1:2A:2513:G:N2	4:2E:143:ASN:OD1	2.42	0.52
1:2A:2682:U:O2'	15:2T:58:ASN:ND2	2.42	0.52
10:2O:77:ILE:HD12	15:2T:74:ARG:HD2	1.91	0.52
32:2a:1239:A:H62	32:2a:1299:A:N6	2.07	0.52
32:2a:1380:U:C4	38:2g:3:ARG:HG2	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:108:LEU:HD21	35:2d:174:LEU:HB3	1.91	0.52
7:1H:101:ARG:HH22	7:1H:122:THR:HA	1.74	0.52
32:1a:111:G:H5"	47:1p:27:LYS:HB3	1.92	0.52
32:1a:134:A:H61	47:1p:25:ARG:HH12	1.57	0.52
32:1a:946:A:OP1	44:1m:114:ARG:NH2	2.42	0.52
32:1a:1111:A:N6	34:1c:176:HIS:O	2.43	0.52
32:1a:1438:G:H2'	32:1a:1439:C:C6	2.45	0.52
34:1c:82:GLU:HG3	34:1c:85:ARG:HE	1.73	0.52
39:1h:7:ALA:HB2	39:1h:85:ARG:HD3	1.90	0.52
40:1i:9:ARG:HD2	40:1i:104:ARG:NH1	2.24	0.52
42:1k:19:ALA:HB3	42:1k:82:VAL:HA	1.91	0.52
1:2A:31:C:OP1	63:2A:3962:HOH:O	2.19	0.52
1:2A:208:C:H2'	1:2A:209:C:C6	2.45	0.52
5:2F:24:LEU:HD21	5:2F:114:VAL:HG23	1.92	0.52
32:2a:516:PSU:O2'	32:2a:519:C:N3	2.40	0.52
32:2a:1129:C:O2'	32:2a:1130:A:N7	2.35	0.52
34:2c:131:ARG:HH21	34:2c:135:LYS:HZ2	1.58	0.52
1:1A:995:C:OP2	16:1U:54:LYS:NZ	2.33	0.52
1:1A:2319:G:N1	14:1S:3:ARG:HA	2.24	0.52
7:1H:118:PRO:HD2	7:1H:121:ILE:HB	1.91	0.52
1:2A:323:G:HO2'	1:2A:1205:U:H3	1.57	0.52
1:2A:1203:G:OP2	1:2A:1204:A:O2'	2.23	0.52
1:2A:2305:A:H5"	6:2G:134:GLY:HA3	1.91	0.52
2:2B:1:U:O2'	2:2B:2:C:O5'	2.25	0.52
9:2N:15:LEU:HB2	9:2N:135:PRO:HB2	1.91	0.52
31:29:4:ARG:HD2	31:29:6:SER:O	2.09	0.52
32:2a:986:A:H2'	32:2a:987:G:O4'	2.09	0.52
32:2a:1005:A:H3'	32:2a:1006:C:C6	2.45	0.52
32:2a:1314:C:OP2	50:2s:4:SER:OG	2.18	0.52
35:2d:121:VAL:HG22	35:2d:126:ILE:HG13	1.90	0.52
54:2w:13:C:N3	54:2w:22:G:O6	2.42	0.52
1:1A:1048:A:N1	1:1A:1112:G:O2'	2.31	0.52
1:1A:2168:G:N2	1:1A:2171:A:N7	2.56	0.52
1:1A:2390:U:P	30:18:35:GLN:HE22	2.33	0.52
9:1N:13:TRP:CE2	9:1N:133:GLN:HG2	2.45	0.52
32:1a:192:U:O2'	51:1t:60:GLU:OE1	2.21	0.52
35:1d:173:TRP:CD2	35:1d:189:PRO:HG3	2.44	0.52
36:1e:78:HIS:CE1	36:1e:142:LEU:HA	2.44	0.52
1:2A:1423:G:H2'	1:2A:1424:G:C8	2.44	0.52
1:2A:2693:A:H2'	1:2A:2694:G:C8	2.45	0.52
2:2B:119:G:H3'	2:2B:120:A:C8	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:114:ILE:HA	6:2G:140:ILE:HD11	1.92	0.52
10:2O:77:ILE:HB	15:2T:74:ARG:HH11	1.74	0.52
12:2Q:16:ARG:HG3	12:2Q:17:LEU:H	1.75	0.52
14:2S:39:ILE:HB	14:2S:49:VAL:HB	1.91	0.52
32:2a:376:G:H5"	47:2p:5:ARG:HB2	1.92	0.52
35:2d:61:LYS:HD3	35:2d:206:PHE:CE2	2.44	0.52
38:2g:126:ASP:O	38:2g:130:GLY:N	2.37	0.52
1:1A:922:U:H2'	1:1A:923:C:C6	2.45	0.52
1:1A:1062:G:N2	1:1A:1077:A:H61	2.03	0.52
1:1A:1991:U:H2'	1:1A:1992:G:H5"	1.91	0.52
16:1U:83:LEU:HD22	16:1U:88:ILE:HD12	1.92	0.52
21:1Z:99:TYR:HB3	21:1Z:123:ASP:HB2	1.92	0.52
26:14:54:GLY:N	26:14:55:ARG:HA	2.25	0.52
41:1j:5:ARG:HB2	41:1j:73:ASP:OD1	2.09	0.52
1:2A:2105:C:H2'	1:2A:2106:G:H8	1.73	0.52
1:2A:2503:2MA:C8	60:2A:3859:ERY:H282	2.40	0.52
1:2A:2823:A:OP1	4:2E:113:PHE:HB2	2.10	0.52
7:2H:25:LYS:HG2	7:2H:27:LYS:HE3	1.92	0.52
8:2I:117:GLU:HG3	8:2I:118:LYS:H	1.74	0.52
12:2Q:36:ALA:HB2	12:2Q:103:MET:SD	2.50	0.52
16:2U:88:ILE:HG22	16:2U:90:VAL:HG22	1.91	0.52
21:2Z:98:MET:O	21:2Z:126:VAL:HG22	2.10	0.52
32:2a:222:U:H2'	32:2a:223:U:H6	1.75	0.52
32:2a:998:G:H1	32:2a:1043:C:N4	2.08	0.52
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.45	0.52
32:2a:1114:C:H42	32:2a:1186:G:H1	1.57	0.52
44:2m:117:VAL:HG22	44:2m:118:ALA:H	1.75	0.52
1:1A:686:G:H8	29:17:6:GLN:O	1.92	0.52
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.92	0.52
32:1a:460:G:H21	32:1a:472:A:H62	1.57	0.52
32:1a:1236:A:OP1	52:1u:2:GLY:N	2.42	0.52
34:1c:134:ILE:HG23	34:1c:151:VAL:HB	1.93	0.52
39:1h:121:ASP:OD1	39:1h:121:ASP:N	2.43	0.52
1:2A:1652:A:OP1	13:2R:8:ARG:NH1	2.41	0.52
1:2A:2165:G:H1	1:2A:2171:A:H8	1.58	0.52
9:2N:123:TYR:CZ	9:2N:129:PRO:HD2	2.45	0.52
19:2X:14:SER:C	19:2X:16:LYS:H	2.16	0.52
32:2a:437:U:OP1	35:2d:155:LEU:HD21	2.09	0.52
32:2a:931:C:N4	32:2a:1386:G:H1	2.05	0.52
32:2a:1176:A:H2'	32:2a:1177:G:C8	2.45	0.52
32:2a:1241:G:H2'	32:2a:1242:C:C6	2.46	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1317:C:O2	50:2s:37:ARG:NH2	2.43	0.52
36:2e:6:PHE:HB3	36:2e:34:VAL:HG22	1.92	0.52
44:2m:14:ARG:HB2	44:2m:17:VAL:HG22	1.91	0.52
1:1A:2189:U:H2'	1:1A:2190:G:C8	2.45	0.51
2:1B:31:C:O2'	2:1B:53:A:N1	2.39	0.51
32:1a:406:G:H5'	35:1d:5:ILE:HD12	1.92	0.51
32:1a:560:U:HO2'	32:1a:561:U:P	2.31	0.51
32:1a:911:U:H2'	32:1a:912:C:H6	1.75	0.51
1:2A:479:A:N3	1:2A:481:G:H5"	2.25	0.51
1:2A:1481:U:H3	1:2A:1510:G:H1	1.56	0.51
32:2a:957:U:O2'	32:2a:959:A:N7	2.36	0.51
38:2g:50:ILE:HD12	38:2g:61:VAL:HB	1.92	0.51
51:2t:42:GLN:O	51:2t:45:GLN:HB3	2.10	0.51
1:1A:8:A:H2'	1:1A:9:U:C6	2.45	0.51
32:1a:1060:C:OP1	45:1n:45:ARG:NH2	2.43	0.51
32:1a:1125:U:H4'	41:1j:5:ARG:NH2	2.25	0.51
39:1h:10:LEU:HB3	39:1h:83:ILE:HG12	1.92	0.51
57:1y:59:A:H3'	57:1y:60:U:C6	2.45	0.51
1:2A:192:C:O2'	1:2A:802:A:N3	2.41	0.51
6:2G:55:LYS:O	6:2G:59:GLU:N	2.26	0.51
10:2O:63:VAL:HB	10:2O:102:VAL:HG12	1.91	0.51
32:2a:107:G:H2'	32:2a:108:G:O4'	2.10	0.51
32:2a:110:C:O2'	47:2p:25:ARG:O	2.26	0.51
32:2a:354:G:O2'	32:2a:389:A:OP1	2.28	0.51
40:2i:70:LYS:O	40:2i:74:ILE:N	2.41	0.51
1:1A:1798:U:H5'	3:1D:259:THR:CG2	2.38	0.51
1:1A:2361:A:OP1	30:18:27:THR:OG1	2.22	0.51
5:1F:64:ILE:HD11	5:1F:75:HIS:HB2	1.92	0.51
6:1G:173:LEU:HA	6:1G:176:LEU:HD12	1.91	0.51
14:1S:27:SER:HA	14:1S:88:ASP:HB3	1.92	0.51
32:1a:10:A:HO2'	32:1a:507:C:HO2'	1.55	0.51
1:2A:598:G:O2'	5:2F:31:HIS:NE2	2.37	0.51
1:2A:1141:U:H2'	9:2N:63:THR:HG21	1.92	0.51
1:2A:1608:A:H1'	1:2A:1610:A:OP2	2.10	0.51
7:2H:24:VAL:HG13	7:2H:37:VAL:HG11	1.91	0.51
8:2I:48:GLU:HG3	8:2I:52:ARG:NH1	2.26	0.51
10:2O:112:MET:N	10:2O:112:MET:SD	2.84	0.51
14:2S:84:GLN:H	14:2S:111:GLU:HB2	1.75	0.51
30:28:7:HIS:HB3	30:28:61:LEU:HB3	1.92	0.51
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.92	0.51
32:2a:757:U:H2'	32:2a:758:G:O4'	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:920:U:H2'	32:2a:921:U:C6	2.45	0.51
32:2a:1123:A:H4'	41:2j:37:PRO:HD2	1.92	0.51
32:2a:1347:G:H5"	40:2i:107:ARG:HB3	1.92	0.51
1:1A:2110:G:C2	1:1A:2120:G:H1'	2.45	0.51
1:1A:2430:A:N3	1:1A:2430:A:H2'	2.25	0.51
1:1A:2667:C:H1'	7:1H:109:PHE:HD1	1.75	0.51
7:1H:55:PRO:HG2	7:1H:61:HIS:CE1	2.45	0.51
14:1S:39:ILE:HB	14:1S:49:VAL:HG12	1.91	0.51
30:18:28:GLY:O	30:18:36:LYS:NZ	2.40	0.51
32:1a:701:C:OP1	32:1a:702:A:O2'	2.26	0.51
35:1d:165:MET:HE3	35:1d:176:LEU:HD22	1.93	0.51
40:1i:16:ARG:HB2	40:1i:64:THR:HG22	1.93	0.51
1:2A:1946:U:H2'	1:2A:1947:C:C6	2.46	0.51
1:2A:2127:G:N2	1:2A:2173:A:O2'	2.42	0.51
3:2D:136:ILE:O	3:2D:168:ARG:NH2	2.42	0.51
10:2O:4:PRO:O	10:2O:5:GLN:HB2	2.10	0.51
10:2O:20:MET:HE3	10:2O:44:LYS:HE3	1.93	0.51
15:2T:88:ILE:HG21	15:2T:91:ARG:NE	2.26	0.51
21:2Z:77:ASP:CG	21:2Z:80:ARG:HH11	2.18	0.51
23:21:50:ARG:HD2	23:21:57:GLU:OE2	2.11	0.51
32:2a:426:G:OP1	35:2d:36:ARG:NH1	2.43	0.51
32:2a:875:C:O2'	39:2h:14:ARG:HD2	2.10	0.51
32:2a:985:C:H2'	32:2a:986:A:C8	2.46	0.51
47:2p:8:ARG:NH2	47:2p:15:PRO:HG3	2.25	0.51
48:2q:67:LYS:O	48:2q:68:ARG:HB2	2.10	0.51
1:1A:263:C:H2'	1:1A:264:C:O4'	2.10	0.51
1:1A:1216:G:P	16:1U:12:ARG:HH21	2.34	0.51
1:1A:1552:G:N7	63:1A:4352:HOH:O	2.34	0.51
1:1A:1803:A:H4'	3:1D:259:THR:HG23	1.92	0.51
11:1P:8:PRO:HB2	11:1P:12:ALA:HB3	1.91	0.51
17:1V:76:LYS:HB2	17:1V:81:TYR:HB3	1.91	0.51
25:13:5:LYS:NZ	25:13:34:GLU:OE1	2.43	0.51
33:1b:16:HIS:CG	33:1b:17:PHE:N	2.79	0.51
34:1c:148:GLY:HA3	34:1c:172:ARG:O	2.10	0.51
44:1m:15:VAL:HG11	44:1m:48:LEU:HD21	1.93	0.51
1:2A:604:G:OP2	11:2P:90:ARG:NH2	2.40	0.51
1:2A:751:A:H5'	18:2W:90:ARG:HA	1.92	0.51
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.46	0.51
1:2A:1412:A:H2'	1:2A:1413:G:C8	2.45	0.51
2:2B:24:G:H4'	2:2B:25:A:C8	2.46	0.51
2:2B:42:C:O2'	6:2G:66:GLN:HG2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:41:GLN:O	6:2G:43:LEU:N	2.43	0.51
9:2N:19:GLU:HA	9:2N:59:LYS:HB3	1.92	0.51
12:2Q:60:ARG:NH1	54:2w:54:5MU:OP2	2.43	0.51
29:27:12:ARG:NH2	29:27:44:PRO:HB3	2.25	0.51
32:2a:359:U:H2'	32:2a:360:A:C8	2.46	0.51
32:2a:1286:A:H8	32:2a:1287:A:H4'	1.73	0.51
57:2y:48:C:C4	57:2y:59:A:H8	2.29	0.51
1:1A:2743:C:OP1	31:19:33:LYS:NZ	2.34	0.51
32:1a:272:C:H2'	32:1a:273:A:C8	2.46	0.51
32:1a:1023:G:H3'	32:1a:1024:G:H8	1.74	0.51
32:1a:1151:A:O2'	32:1a:1152:A:H8	1.94	0.51
1:2A:1223:G:N2	1:2A:1225:G:H3'	2.26	0.51
1:2A:2690:C:N4	1:2A:2713:A:H1'	2.25	0.51
1:2A:2782:G:OP2	63:2A:3958:HOH:O	2.18	0.51
32:2a:369:C:H2'	32:2a:370:C:H6	1.75	0.51
32:2a:1052:U:O2'	32:2a:1055:A:OP2	2.18	0.51
32:2a:1079:G:O3'	36:2e:14:ARG:NH2	2.43	0.51
32:2a:1244:C:H2'	32:2a:1245:A:O4'	2.11	0.51
33:2b:8:LYS:HD2	33:2b:217:ARG:HB3	1.91	0.51
43:2l:40:VAL:HG21	43:2l:78:GLN:HA	1.93	0.51
57:2y:30:G:H2'	57:2y:31:A:C8	2.45	0.51
1:1A:414:C:H2'	1:1A:415:A:C8	2.45	0.51
1:1A:1187:G:H5"	17:1V:81:TYR:CE1	2.46	0.51
1:1A:2727:G:O2'	10:1O:70:LYS:NZ	2.41	0.51
16:1U:107:ALA:O	16:1U:110:VAL:HG22	2.10	0.51
21:1Z:152:ALA:HB1	21:1Z:163:LEU:HD11	1.93	0.51
41:1j:62:HIS:HB3	45:1n:59:ALA:HB3	1.93	0.51
1:2A:2650:U:H2'	1:2A:2651:C:C6	2.46	0.51
4:2E:34:VAL:HG21	4:2E:78:LEU:HD21	1.92	0.51
10:2O:24:VAL:HG13	10:2O:33:ALA:HB2	1.92	0.51
13:2R:72:ASP:HB3	13:2R:75:LEU:HB3	1.92	0.51
21:2Z:91:LEU:HD22	21:2Z:91:LEU:H	1.75	0.51
26:24:58:ARG:CD	50:2s:68:GLY:H	2.23	0.51
31:29:14:CYS:HA	31:29:27:CYS:HB2	1.93	0.51
32:2a:1138:G:C6	32:2a:1140:C:H1'	2.46	0.51
36:2e:84:PHE:N	36:2e:87:SER:O	2.42	0.51
37:2f:62:TRP:CH2	37:2f:64:GLN:HB2	2.45	0.51
40:2i:70:LYS:HA	40:2i:73:GLN:HB2	1.93	0.51
41:2j:9:ARG:O	41:2j:16:LEU:HD21	2.10	0.51
49:2r:26:LEU:HD22	49:2r:29:PHE:HD2	1.75	0.51
1:1A:2125:G:H1	1:1A:2172:U:P	2.33	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2887:U:H2'	1:1A:2888:C:C6	2.46	0.51
4:1E:29:GLY:HA3	63:1E:405:HOH:O	2.09	0.51
21:1Z:92:SER:O	21:1Z:94:GLU:N	2.44	0.51
39:1h:9:MET:HG3	39:1h:26:VAL:HG21	1.93	0.51
1:2A:2086:U:H2'	1:2A:2087:G:C8	2.46	0.51
1:2A:2780:G:OP2	9:2N:118:LYS:HD3	2.11	0.51
3:2D:36:PRO:HA	3:2D:61:LEU:HD23	1.93	0.51
21:2Z:79:ARG:HD2	21:2Z:80:ARG:NH2	2.26	0.51
32:2a:1060:C:C5	34:2c:2:GLY:HA3	2.46	0.51
34:2c:125:GLU:OE1	34:2c:190:ARG:NE	2.42	0.51
36:2e:75:THR:OG1	36:2e:117:ASP:O	2.27	0.51
40:2i:28:VAL:HG22	40:2i:63:ILE:HD12	1.92	0.51
40:2i:125:TYR:HD2	40:2i:126:SER:N	2.09	0.51
51:2t:16:HIS:O	51:2t:19:SER:OG	2.23	0.51
1:1A:668:G:H5'	1:1A:669:G:OP2	2.10	0.51
1:1A:2147:G:H3'	1:1A:2147:G:N3	2.26	0.51
5:1F:31:HIS:NE2	5:1F:35:GLU:OE2	2.42	0.51
17:1V:2:PHE:CE2	17:1V:41:GLY:HA3	2.46	0.51
32:1a:576:G:O6	32:1a:880:C:O2'	2.25	0.51
35:1d:98:GLU:O	35:1d:103:ASN:ND2	2.44	0.51
42:1k:70:LYS:HA	42:1k:73:MET:HE2	1.92	0.51
47:1p:20:VAL:HG21	47:1p:32:TYR:CD2	2.45	0.51
54:1w:2:G:H2'	54:1w:3:G:H8	1.74	0.51
1:2A:2406:U:C2	11:2P:72:PRO:HG2	2.46	0.51
2:2B:2:C:H2'	2:2B:3:C:C6	2.42	0.51
4:2E:4:ILE:HD13	4:2E:28:ALA:HB1	1.92	0.51
32:2a:34:C:H2'	32:2a:35:G:H8	1.76	0.51
32:2a:693:G:H2'	32:2a:694:A:C8	2.46	0.51
32:2a:1095:U:OP2	63:2a:1916:HOH:O	2.19	0.51
32:2a:1142:G:H3'	32:2a:1143:G:H8	1.75	0.51
33:2b:16:HIS:CG	33:2b:17:PHE:N	2.78	0.51
44:2m:78:ILE:HG12	44:2m:92:HIS:CE1	2.45	0.51
47:2p:53:VAL:HG12	47:2p:79:VAL:HG22	1.92	0.51
1:1A:590:A:OP1	5:1F:95:ARG:NH2	2.27	0.51
1:1A:1316:U:H2'	1:1A:1317:A:C8	2.45	0.51
1:1A:1465:G:H2'	1:1A:1466:G:H8	1.76	0.51
1:1A:1803:A:O2'	3:1D:259:THR:HG21	2.11	0.51
32:1a:735:C:H2'	32:1a:736:C:C6	2.46	0.51
32:1a:1113:C:O2'	34:1c:14:ILE:HD11	2.11	0.51
2:2B:17:C:H2'	2:2B:18:G:O4'	2.11	0.51
7:2H:97:ARG:O	7:2H:103:LEU:HB2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:101:ARG:HH22	7:2H:122:THR:HA	1.76	0.51
32:2a:266:G:H5"	32:2a:268:C:H41	1.75	0.51
32:2a:1112:C:N3	34:2c:178:LEU:HD12	2.26	0.51
37:2f:75:LEU:O	37:2f:79:LEU:HG	2.10	0.51
43:2l:103:GLY:N	43:2l:107:ALA:O	2.29	0.51
1:1A:536:A:H2'	1:1A:537:C:C6	2.46	0.50
40:1i:96:LEU:HD13	40:1i:101:PHE:HD2	1.76	0.50
1:2A:335:C:H4'	20:2Y:73:ARG:HD2	1.92	0.50
1:2A:1812:A:OP2	63:2A:3957:HOH:O	2.18	0.50
1:2A:2408:U:H2'	1:2A:2409:G:C8	2.46	0.50
1:2A:2689:U:P	1:2A:2719:G:H22	2.35	0.50
20:2Y:2:ARG:NH1	20:2Y:4:LYS:HA	2.26	0.50
26:24:58:ARG:HH21	44:2m:80:ARG:HH22	1.59	0.50
32:2a:1272:G:N2	32:2a:1273:G:N7	2.58	0.50
32:2a:1490:C:H2'	32:2a:1491:G:O4'	2.12	0.50
40:2i:15:ALA:HB2	40:2i:65:VAL:HG23	1.92	0.50
45:2n:16:PHE:HD2	45:2n:19:ARG:HD2	1.76	0.50
13:1R:2:ARG:HG2	13:1R:5:LYS:HB2	1.93	0.50
32:1a:4:U:O4	39:1h:105:ARG:HG2	2.10	0.50
32:1a:911:U:H2'	32:1a:912:C:C6	2.46	0.50
34:1c:6:HIS:CD2	34:1c:8:ILE:H	2.29	0.50
34:1c:36:ASP:OD1	34:1c:57:ILE:HG21	2.11	0.50
39:1h:94:TYR:CE1	39:1h:132:GLU:HB2	2.46	0.50
1:2A:483:A:O2'	20:2Y:49:VAL:O	2.28	0.50
1:2A:1420:U:H2'	1:2A:1421:G:H5'	1.93	0.50
1:2A:1783:A:H5'	1:2A:2608:G:H4'	1.93	0.50
1:2A:1791:A:H3'	1:2A:1792:G:H8	1.76	0.50
21:2Z:53:ILE:HD11	21:2Z:99:TYR:HB2	1.94	0.50
32:2a:302:G:N3	32:2a:556:C:H4'	2.27	0.50
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.26	0.50
36:2e:78:HIS:CD2	39:2h:104:ARG:HD2	2.46	0.50
52:2u:5:ASP:C	52:2u:11:GLY:HA3	2.36	0.50
1:1A:1603:A:OP1	63:1A:4229:HOH:O	2.19	0.50
7:1H:121:ILE:HG13	7:1H:144:VAL:HG21	1.94	0.50
11:1P:89:ALA:O	11:1P:121:LYS:NZ	2.39	0.50
32:1a:272:C:H2'	32:1a:273:A:H8	1.76	0.50
32:1a:921:U:O2	36:1e:19:MET:HB2	2.11	0.50
32:1a:1530:G:H2'	32:1a:1531:A:C8	2.46	0.50
33:1b:8:LYS:O	33:1b:217:ARG:NH1	2.42	0.50
1:2A:212:G:H2'	1:2A:213:A:O4'	2.11	0.50
1:2A:1186:G:H2'	1:2A:1187:G:O4'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1030(A):G:N2	32:2a:1030(C):G:H3'	2.26	0.50
32:2a:1400:5MC:H6	32:2a:1400:5MC:H5"	1.76	0.50
39:2h:33:GLU:HA	39:2h:36:LEU:HD12	1.93	0.50
46:2o:21:ASP:OD1	46:2o:24:SER:HB3	2.11	0.50
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.46	0.50
1:1A:1287:A:N1	1:1A:1648:C:O2'	2.43	0.50
6:1G:15:VAL:HG22	6:1G:175:LEU:HB3	1.91	0.50
7:1H:116:GLU:HG3	7:1H:117:PRO:HD2	1.93	0.50
13:1R:22:ARG:HG2	13:1R:69:ASP:HB3	1.93	0.50
32:1a:458:C:H42	32:1a:473:G:H1	1.58	0.50
32:1a:1086:U:H3	32:1a:1099:G:H22	1.60	0.50
35:1d:3:ARG:HD3	35:1d:118:ARG:NH1	2.26	0.50
39:1h:9:MET:SD	39:1h:26:VAL:HG11	2.52	0.50
57:1y:18:G:H1	57:1y:55:PSU:H1'	1.75	0.50
1:2A:676:A:H1'	1:2A:2443:C:H1'	1.93	0.50
2:2B:93:G:OP1	21:2Z:79:ARG:NH2	2.44	0.50
6:2G:70:VAL:HA	6:2G:90:LEU:HD23	1.93	0.50
7:2H:20:ALA:HB1	7:2H:21:PRO:HD2	1.92	0.50
14:2S:35:ILE:H	14:2S:53:SER:HB3	1.76	0.50
17:2V:62:LEU:HD21	17:2V:95:LEU:HB2	1.92	0.50
24:22:3:LEU:O	24:22:7:ARG:HG3	2.12	0.50
32:2a:524:G:H2'	32:2a:525:C:C6	2.47	0.50
32:2a:1053:G:N7	32:2a:1200:C:H5"	2.26	0.50
53:2v:19:A:H61	54:2w:36:U:H3	1.58	0.50
1:1A:996:A:H4'	16:1U:91:ASP:OD2	2.12	0.50
1:1A:2140:C:H2'	1:1A:2141:G:C8	2.47	0.50
1:1A:2347:C:H2'	1:1A:2348:U:C6	2.46	0.50
11:1P:138:LEU:HD23	11:1P:145:PRO:HB3	1.94	0.50
13:1R:56:LYS:NZ	13:1R:90:ARG:O	2.43	0.50
28:16:35:GLU:OE1	28:16:50:ARG:NH1	2.44	0.50
32:1a:160:A:H1'	32:1a:344:A:C8	2.47	0.50
32:1a:828:A:H2'	32:1a:829:G:O4'	2.10	0.50
36:1e:71:LEU:HD11	36:1e:113:ALA:O	2.12	0.50
38:1g:37:ASN:ND2	40:1i:39:GLY:O	2.32	0.50
1:2A:489:G:N7	18:2W:49:LYS:NZ	2.59	0.50
1:2A:646:A:H2'	1:2A:647:G:O4'	2.11	0.50
1:2A:1946:U:H2'	1:2A:1947:C:H6	1.75	0.50
1:2A:2134:A:OP2	1:2A:2157:G:N2	2.44	0.50
32:2a:975:A:H4'	32:2a:976:G:H5"	1.94	0.50
39:2h:97:VAL:HG21	39:2h:128:GLY:HA2	1.93	0.50
1:1A:484:C:OP1	20:1Y:51:VAL:HG22	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:956:G:H2'	1:1A:957:A:H2'	1.93	0.50
14:1S:23:ARG:HB2	14:1S:86:ALA:HB2	1.94	0.50
26:14:33:VAL:HG12	26:14:34:GLU:H	1.77	0.50
28:16:6:ARG:HD3	28:16:24:GLU:OE2	2.12	0.50
32:1a:13:U:OP1	63:1a:1913:HOH:O	2.19	0.50
32:1a:1048:G:OP1	45:1n:3:ARG:HB3	2.11	0.50
36:1e:105:VAL:HB	36:1e:106:PRO:HD3	1.93	0.50
43:1l:77:LEU:HD21	43:1l:107:ALA:HA	1.94	0.50
52:1u:12:LYS:HB2	52:1u:22:ARG:HD2	1.93	0.50
1:2A:247:G:H4'	1:2A:386:G:C5	2.46	0.50
1:2A:459:U:H5"	29:27:40:TRP:CD2	2.47	0.50
1:2A:2206:G:H5"	1:2A:2207:G:N7	2.26	0.50
5:2F:132:VAL:HG11	5:2F:163:VAL:HA	1.93	0.50
7:2H:103:LEU:HD23	7:2H:123:PHE:CD2	2.46	0.50
8:2I:93:THR:HG22	8:2I:94:ALA:H	1.77	0.50
18:2W:83:LYS:O	18:2W:84:ARG:HD3	2.12	0.50
35:2d:150:GLU:N	35:2d:150:GLU:OE2	2.44	0.50
38:2g:79:ARG:NH2	38:2g:81:GLY:H	2.10	0.50
41:2j:29:ARG:HH21	41:2j:30:SER:HB3	1.76	0.50
42:2k:20:TYR:CZ	42:2k:83:ILE:HD13	2.46	0.50
1:1A:1827:C:C2'	1:1A:1828:G:H5'	2.42	0.50
1:1A:2070:G:H2'	1:1A:2071:A:C8	2.47	0.50
36:1e:8:GLU:HG2	36:1e:34:VAL:HG23	1.94	0.50
39:1h:10:LEU:HD22	39:1h:83:ILE:HD11	1.94	0.50
1:2A:1697:G:OP2	1:2A:1698:A:O2'	2.22	0.50
6:2G:68:PRO:HB2	6:2G:90:LEU:HB3	1.93	0.50
7:2H:159:GLU:HG2	7:2H:169:VAL:HG11	1.94	0.50
11:2P:19:VAL:HA	11:2P:27:HIS:HB3	1.94	0.50
14:2S:38:GLN:HB3	14:2S:40:ILE:HD11	1.93	0.50
32:2a:719:C:O2'	49:2r:49:LYS:HB3	2.10	0.50
32:2a:933:G:N2	32:2a:935:A:O4'	2.44	0.50
32:2a:1018:C:H2'	32:2a:1019:C:O4'	2.10	0.50
32:2a:1265:G:C4	32:2a:1271:G:N2	2.80	0.50
32:2a:1329:A:OP2	52:2u:7:ARG:NH2	2.44	0.50
33:2b:92:TYR:CE2	33:2b:151:GLY:HA3	2.46	0.50
35:2d:36:ARG:HD2	35:2d:38:TYR:OH	2.12	0.50
54:2w:41:A:H2'	54:2w:42:A:H8	1.76	0.50
1:1A:1020:A:N1	1:1A:1141:U:O2'	2.43	0.50
1:1A:1108:U:H2'	1:1A:1109:C:O4'	2.11	0.50
1:1A:2337:G:OP1	63:1A:4248:HOH:O	2.20	0.50
1:1A:2492:U:H2'	1:1A:2493:U:H6	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:84:GLY:O	8:1I:86:THR:N	2.44	0.50
26:14:63:TYR:N	26:14:64:GLY:HA2	2.26	0.50
32:1a:458:C:H2'	32:1a:460:G:O4'	2.12	0.50
32:1a:643:C:H2'	32:1a:644:G:H8	1.75	0.50
46:1o:3:ILE:HG22	46:1o:38:ARG:HE	1.77	0.50
1:2A:480:A:O2'	20:2Y:46:LYS:O	2.28	0.50
1:2A:555:U:O2'	1:2A:556:G:N7	2.42	0.50
1:2A:1035:U:H5"	7:2H:59:ARG:HD3	1.94	0.50
1:2A:2379:G:O2'	14:2S:17:ARG:NH1	2.34	0.50
21:2Z:141:VAL:HG13	21:2Z:144:LEU:HB3	1.94	0.50
24:22:65:ASN:HD21	24:22:69:ARG:HD3	1.76	0.50
33:2b:55:PHE:O	33:2b:59:GLU:N	2.33	0.50
40:2i:17:VAL:HA	40:2i:63:ILE:HG23	1.94	0.50
1:1A:365:C:OP2	63:1A:4249:HOH:O	2.20	0.50
1:1A:570:G:O6	63:1A:4202:HOH:O	2.17	0.50
1:1A:1038:C:N4	1:1A:1117:G:H1	2.09	0.50
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.26	0.50
1:1A:2161:C:O2'	1:1A:2162:G:H8	1.95	0.50
1:1A:2445:G:OP1	5:1F:74:ARG:NH2	2.45	0.50
1:1A:2537:U:H2'	1:1A:2538:C:C6	2.46	0.50
21:1Z:52:SER:O	21:1Z:54:HIS:ND1	2.44	0.50
32:1a:1005:A:OP2	32:1a:1024:G:N2	2.45	0.50
32:1a:1028:C:H2'	32:1a:1029:C:O4'	2.12	0.50
32:1a:1438:G:H2'	32:1a:1439:C:H6	1.77	0.50
1:2A:2316:C:O2'	6:2G:128:ARG:NH2	2.43	0.50
1:2A:2386:C:H2'	1:2A:2387:U:C6	2.47	0.50
4:2E:183:LEU:HD21	15:2T:10:VAL:HG11	1.94	0.50
5:2F:53:THR:HG23	5:2F:55:GLY:N	2.24	0.50
6:2G:106:LEU:HA	6:2G:110:ALA:HB3	1.92	0.50
10:2O:2:ILE:O	10:2O:33:ALA:N	2.41	0.50
12:2Q:89:ASN:HB2	55:2x:1:C:N3	2.27	0.50
32:2a:473:G:H2'	32:2a:474:G:C8	2.45	0.50
32:2a:544:G:OP1	35:2d:59:ARG:NH2	2.42	0.50
32:2a:942:G:C2	32:2a:1342:C:C2	3.00	0.50
32:2a:1272:G:N2	32:2a:1273:G:C5	2.80	0.50
47:2p:53:VAL:O	47:2p:57:ARG:HG3	2.12	0.50
53:2v:22:U:H2'	53:2v:23:A:H8	1.76	0.50
57:2y:29:U:H3	57:2y:41:A:N6	2.08	0.50
1:1A:947:G:OP2	63:1A:4246:HOH:O	2.19	0.49
1:1A:2492:U:H2'	1:1A:2493:U:C6	2.47	0.49
22:10:9:SER:O	63:10:201:HOH:O	2.19	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1504:G:OP1	32:1a:1507:A:H4'	2.12	0.49
1:2A:190:A:OP2	23:21:39:LYS:HE3	2.12	0.49
1:2A:1147:C:H2'	1:2A:1148:A:C8	2.46	0.49
1:2A:1297:C:O2'	1:2A:1302:A:N1	2.43	0.49
1:2A:2540:C:H2'	1:2A:2541:A:O4'	2.12	0.49
3:2D:11:PRO:O	3:2D:14:ARG:HG3	2.12	0.49
3:2D:141:VAL:HG22	3:2D:164:GLN:HE21	1.76	0.49
12:2Q:57:HIS:HD2	12:2Q:117:ALA:HB2	1.76	0.49
19:2X:31:HIS:CD2	19:2X:33:LYS:H	2.29	0.49
32:2a:1235:U:O2'	32:2a:1305:G:O5'	2.28	0.49
42:2k:86:GLY:O	42:2k:91:ARG:NH1	2.45	0.49
54:2w:51:A:N6	54:2w:64:G:C8	2.80	0.49
55:2x:40:C:H2'	55:2x:41:C:C6	2.40	0.49
1:1A:443:A:H1'	1:1A:1201:C:O4'	2.11	0.49
1:1A:1173:G:OP2	1:1A:1173:G:H2'	2.12	0.49
1:1A:2086:U:H2'	1:1A:2087:G:H8	1.76	0.49
6:1G:131:TYR:HB3	6:1G:159:VAL:HG13	1.94	0.49
26:14:34:GLU:N	26:14:34:GLU:OE1	2.46	0.49
30:18:30:ARG:NH1	63:18:202:HOH:O	2.44	0.49
32:1a:12:U:O4	63:1a:1910:HOH:O	2.16	0.49
32:1a:67:C:H2'	32:1a:68:G:C8	2.47	0.49
32:1a:731:G:H5'	32:1a:766:A:H4'	1.94	0.49
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.47	0.49
34:1c:18:TRP:H	34:1c:18:TRP:HE3	1.60	0.49
51:1t:89:ARG:O	51:1t:93:GLU:HG2	2.12	0.49
1:2A:1015:G:H2'	1:2A:1016:G:C8	2.39	0.49
1:2A:2557:G:H2'	1:2A:2558:C:C6	2.46	0.49
1:2A:2807:G:H1	1:2A:2892:A:H62	1.59	0.49
4:2E:119:ARG:HG2	4:2E:120:TRP:NE1	2.28	0.49
6:2G:33:ARG:HE	6:2G:162:THR:HG21	1.76	0.49
13:2R:33:ARG:NH2	13:2R:115:GLU:OE1	2.27	0.49
21:2Z:17:ALA:HA	21:2Z:20:ARG:HH11	1.76	0.49
32:2a:1002:G:C2	32:2a:1003:G:H1'	2.46	0.49
32:2a:1012:U:H2'	32:2a:1013:G:C8	2.48	0.49
32:2a:1129:C:H2'	32:2a:1139:G:N7	2.27	0.49
32:2a:1263:C:H3'	32:2a:1263:C:H6	1.77	0.49
32:2a:1325:C:H5"	52:2u:17:THR:HG21	1.92	0.49
40:2i:9:ARG:HG2	40:2i:14:VAL:HA	1.94	0.49
44:2m:4:ILE:HG23	44:2m:5:ALA:H	1.77	0.49
1:1A:1268:A:C2	1:1A:2013:A:C4	3.01	0.49
1:1A:1541:G:H3'	1:1A:1542:A:H2'	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1827:C:H2'	1:1A:1828:G:H5'	1.93	0.49
1:1A:2136:C:C4	1:1A:2155:G:C2	3.00	0.49
1:1A:2667:C:H2'	1:1A:2668:G:O4'	2.11	0.49
13:1R:36:THR:HG22	13:1R:37:THR:H	1.75	0.49
32:1a:222:U:H2'	32:1a:223:U:C6	2.47	0.49
32:1a:235:C:H2'	32:1a:236:G:H8	1.77	0.49
46:1o:84:LYS:O	46:1o:84:LYS:HD3	2.12	0.49
1:2A:879:G:H3'	1:2A:880:G:H8	1.78	0.49
1:2A:897:C:H5"	54:2w:56:C:OP1	2.12	0.49
1:2A:2070:G:H2'	1:2A:2071:A:C8	2.47	0.49
1:2A:2295:C:H41	14:2S:13:ARG:HH12	1.61	0.49
4:2E:109:LYS:HE2	4:2E:191:PRO:HB3	1.93	0.49
6:2G:36:LYS:HG2	6:2G:160:VAL:HB	1.94	0.49
32:2a:200:G:H1	32:2a:217:C:H42	1.58	0.49
32:2a:868:C:H2'	32:2a:869:G:O4'	2.12	0.49
32:2a:975:A:N1	41:2j:48:THR:HB	2.27	0.49
34:2c:12:LEU:HB3	34:2c:18:TRP:CH2	2.47	0.49
34:2c:17:ASP:HB3	34:2c:21:ARG:HH11	1.76	0.49
35:2d:25:ARG:NE	35:2d:30:LYS:O	2.42	0.49
41:2j:9:ARG:NH2	41:2j:69:ASN:OD1	2.44	0.49
51:2t:53:LEU:HD12	51:2t:100:ILE:HG13	1.94	0.49
1:1A:41:C:H2'	1:1A:42:G:O4'	2.12	0.49
1:1A:226:G:H21	1:1A:228:A:H62	1.60	0.49
1:1A:484:C:H2'	1:1A:485:C:C6	2.47	0.49
1:1A:630:G:OP1	30:18:47:LYS:NZ	2.44	0.49
1:1A:1078:U:H5'	1:1A:1079:C:OP1	2.12	0.49
1:1A:2286:A:H4'	1:1A:2287:A:O4'	2.12	0.49
1:1A:2334:G:H5'	14:1S:9:ARG:HG2	1.94	0.49
39:1h:44:PHE:HB3	39:1h:80:ILE:HG12	1.94	0.49
40:1i:48:GLU:HA	40:1i:51:ARG:HD3	1.94	0.49
1:2A:324:A:H2'	1:2A:325:G:O4'	2.13	0.49
1:2A:863:A:H2'	1:2A:864:G:C8	2.47	0.49
1:2A:2074:U:H2'	1:2A:2075:U:C6	2.47	0.49
2:2B:57:A:C4	6:2G:29:TRP:HB3	2.48	0.49
4:2E:28:ALA:HB3	4:2E:93:VAL:HG12	1.95	0.49
5:2F:143:ALA:HB1	5:2F:148:LEU:HB2	1.92	0.49
6:2G:113:ARG:NH2	6:2G:139:LEU:O	2.45	0.49
7:2H:98:LEU:HA	7:2H:103:LEU:HA	1.94	0.49
26:24:46:GLN:O	26:24:48:ARG:N	2.46	0.49
32:2a:735:C:H2'	32:2a:736:C:H6	1.77	0.49
38:2g:97:GLN:O	38:2g:101:LEU:N	2.36	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:607:U:OP1	5:1F:102:PRO:HA	2.12	0.49
1:1A:1055:G:H1	1:1A:1104:C:H42	1.60	0.49
1:1A:1636:C:H2'	1:1A:1637:A:C8	2.47	0.49
1:1A:1919:A:H8	1:1A:1919:A:O5'	1.95	0.49
1:1A:2747:G:O6	1:1A:2755:C:H5"	2.13	0.49
13:1R:51:LEU:HD22	13:1R:66:VAL:HG13	1.94	0.49
32:1a:40:C:H2'	32:1a:41:G:C8	2.47	0.49
32:1a:186:C:H2'	32:1a:187:C:C6	2.47	0.49
32:1a:1513:A:H2'	32:1a:1514:C:C6	2.47	0.49
33:1b:19:HIS:NE2	33:1b:206:ASP:HB2	2.28	0.49
35:1d:173:TRP:CD1	35:1d:173:TRP:H	2.30	0.49
40:1i:9:ARG:HB2	40:1i:9:ARG:HH11	1.77	0.49
57:1y:9:A:H1'	57:1y:45:G:H2'	1.93	0.49
1:2A:271(L):U:H5'	8:2I:50:ARG:NH1	2.27	0.49
1:2A:1371:G:H2'	1:2A:1372:U:H5	1.77	0.49
1:2A:1486:A:H2'	1:2A:1487:G:C8	2.46	0.49
1:2A:2404:C:O3'	11:2P:77:ARG:NH2	2.43	0.49
1:2A:2802:G:H2'	1:2A:2803:C:O4'	2.12	0.49
11:2P:95:VAL:HG13	11:2P:100:LEU:HD21	1.95	0.49
14:2S:38:GLN:NE2	14:2S:47:THR:OG1	2.46	0.49
21:2Z:23:LYS:HB3	21:2Z:38:TYR:CD1	2.47	0.49
32:2a:429:U:H1'	32:2a:430:A:H5"	1.95	0.49
32:2a:716:A:N3	42:2k:118:GLY:HA2	2.28	0.49
32:2a:735:C:H2'	32:2a:736:C:C6	2.47	0.49
32:2a:1076:C:H2'	32:2a:1077:G:O4'	2.12	0.49
35:2d:119:GLN:HG3	35:2d:123:HIS:HD2	1.77	0.49
41:2j:62:HIS:O	45:2n:59:ALA:N	2.40	0.49
55:2x:61:C:H2'	55:2x:62:C:C6	2.48	0.49
1:1A:7:G:H2'	1:1A:8:A:O4'	2.11	0.49
1:1A:764:A:H5"	3:1D:210:GLY:HA2	1.95	0.49
1:1A:847:U:OP2	63:1A:4247:HOH:O	2.20	0.49
1:1A:2788:C:OP1	4:1E:61:ARG:NH2	2.34	0.49
32:1a:1101:A:H4'	32:1a:1102:A:O5'	2.12	0.49
32:1a:1263:C:H2'	32:1a:1264:C:C6	2.47	0.49
48:1q:26:GLN:HE21	48:1q:37:LYS:HE3	1.76	0.49
1:2A:302:C:P	20:2Y:73:ARG:HH12	2.35	0.49
1:2A:2448:A:OP1	63:2A:3906:HOH:O	2.20	0.49
7:2H:70:THR:O	7:2H:74:ASN:N	2.41	0.49
25:23:59:VAL:HG12	25:23:60:GLU:H	1.75	0.49
32:2a:137:C:H2'	32:2a:138:G:H8	1.78	0.49
32:2a:689:C:H4'	32:2a:705:U:H1'	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:19:LEU:O	35:2d:21:LEU:HG	2.13	0.49
40:2i:85:LEU:HA	40:2i:88:TYR:HB3	1.94	0.49
41:2j:9:ARG:HH22	41:2j:69:ASN:CG	2.19	0.49
45:2n:34:TYR:O	45:2n:38:GLY:N	2.39	0.49
48:2q:66:SER:HB3	48:2q:69:LYS:HB2	1.94	0.49
1:1A:818:G:H5'	1:1A:839:U:OP1	2.12	0.49
1:1A:1051:G:H2'	1:1A:1052:C:O4'	2.13	0.49
1:1A:1178:C:H2'	1:1A:1179:C:C6	2.48	0.49
1:1A:1343:G:O2'	1:1A:1384:A:N1	2.39	0.49
1:1A:1352:U:OP2	63:1A:4250:HOH:O	2.20	0.49
3:1D:206:LEU:HD22	3:1D:211:ARG:HG2	1.94	0.49
3:1D:274:ARG:NH1	63:1D:404:HOH:O	2.46	0.49
18:1W:68:ARG:NH1	18:1W:111:HIS:HA	2.28	0.49
32:1a:8:A:N1	35:1d:57:ARG:NH1	2.61	0.49
32:1a:1144:G:N2	32:1a:1146:A:H62	2.11	0.49
32:1a:1151:A:O2'	32:1a:1152:A:O5'	2.28	0.49
32:1a:1218:C:OP2	45:1n:9:LYS:NZ	2.45	0.49
54:1w:18:G:N2	54:1w:57:G:H2'	2.28	0.49
57:1y:27:G:H1	57:1y:43:U:H3	1.60	0.49
1:2A:607:U:OP1	5:2F:102:PRO:HA	2.12	0.49
1:2A:1161:C:H2'	1:2A:1162:G:C8	2.48	0.49
1:2A:2317:C:N4	1:2A:2318:G:O6	2.45	0.49
1:2A:2756:U:H5"	31:29:19:ARG:HA	1.95	0.49
32:2a:921:U:O2	36:2e:19:MET:HB2	2.12	0.49
33:2b:76:GLN:HB2	33:2b:208:ILE:HG12	1.93	0.49
38:2g:97:GLN:HE21	38:2g:101:LEU:HG	1.77	0.49
39:2h:66:GLY:N	39:2h:77:GLU:O	2.39	0.49
46:2o:82:ILE:HG22	46:2o:87:ILE:HB	1.94	0.49
49:2r:38:GLU:HG3	49:2r:41:LYS:HE2	1.93	0.49
1:1A:1176:G:H4'	1:1A:1177:A:OP1	2.12	0.49
1:1A:2100:G:H1	1:1A:2189:U:H3	1.60	0.49
6:1G:77:ILE:HG12	6:1G:82:LEU:HB3	1.93	0.49
19:1X:11:PRO:HD3	24:12:37:PHE:CE1	2.48	0.49
40:1i:17:VAL:HG23	40:1i:63:ILE:HG23	1.95	0.49
49:1r:51:LEU:HD13	49:1r:55:ARG:HB3	1.94	0.49
1:2A:993:G:OP1	16:2U:50:ARG:NH2	2.45	0.49
1:2A:2507:C:H2'	1:2A:2508:G:O4'	2.11	0.49
6:2G:106:LEU:HG	6:2G:111:LEU:CD1	2.43	0.49
12:2Q:89:ASN:HB2	55:2x:1:C:C4	2.48	0.49
14:2S:11:LYS:HE3	14:2S:15:ARG:HH21	1.77	0.49
17:2V:19:LYS:N	17:2V:19:LYS:HE3	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:23:40:THR:HG22	25:23:42:ALA:H	1.76	0.49
32:2a:96:U:H2'	32:2a:97:G:C8	2.48	0.49
32:2a:1002:G:C6	32:2a:1003:G:H8	2.30	0.49
32:2a:1062:U:O4	34:2c:3:ASN:HB3	2.13	0.49
32:2a:1218:C:H2'	32:2a:1219:U:C6	2.48	0.49
37:2f:97:PHE:CE2	49:2r:62:GLU:HG2	2.47	0.49
44:2m:15:VAL:HA	44:2m:45:VAL:HG23	1.95	0.49
55:2x:43:A:H2'	55:2x:44:A:C8	2.47	0.49
1:1A:583:G:OP2	16:1U:10:ARG:HD2	2.13	0.49
1:1A:687:C:H5"	29:17:2:LYS:HE2	1.94	0.49
1:1A:2171:A:O2'	1:1A:2172:U:H5"	2.13	0.49
6:1G:56:ALA:HA	6:1G:59:GLU:CD	2.38	0.49
6:1G:66:GLN:NE2	6:1G:93:THR:O	2.41	0.49
32:1a:1083:U:O4	63:1a:1912:HOH:O	2.19	0.49
32:1a:1302:U:OP1	44:1m:13:LYS:NZ	2.45	0.49
38:1g:107:ALA:HA	38:1g:110:GLN:HG3	1.93	0.49
44:1m:34:LEU:HD13	44:1m:41:PRO:HA	1.95	0.49
48:1q:66:SER:H	48:1q:69:LYS:HB2	1.78	0.49
1:2A:375:C:H2'	1:2A:376:C:C6	2.48	0.49
1:2A:1038:C:H42	1:2A:1117:G:H1	1.60	0.49
1:2A:1518:U:H2'	1:2A:1519:G:O4'	2.13	0.49
1:2A:1711:C:H2'	1:2A:1712:C:H6	1.78	0.49
4:2E:9:VAL:HG13	15:2T:3:ARG:HG2	1.94	0.49
7:2H:66:GLY:O	7:2H:70:THR:OG1	2.31	0.49
8:2I:37:VAL:HG12	8:2I:38:LEU:HD12	1.94	0.49
22:20:68:GLU:HG3	22:20:82:ARG:NE	2.27	0.49
23:21:65:SER:OG	23:21:66:HIS:ND1	2.35	0.49
26:24:45:GLY:C	26:24:47:GLN:H	2.21	0.49
32:2a:67:C:H2'	32:2a:68:G:H8	1.77	0.49
32:2a:583:A:H2'	32:2a:584:G:O4'	2.12	0.49
32:2a:598:U:H2'	32:2a:599:C:C6	2.48	0.49
32:2a:974:A:OP2	45:2n:29:ARG:NH2	2.46	0.49
32:2a:1033:G:H2'	32:2a:1034:G:H8	1.76	0.49
32:2a:1502:A:H5'	32:2a:1504:G:N7	2.28	0.49
32:2a:1510:U:H2'	32:2a:1511:G:C8	2.48	0.49
33:2b:92:TYR:CZ	33:2b:151:GLY:HA3	2.48	0.49
33:2b:98:LEU:HB2	33:2b:101:MET:HE3	1.95	0.49
33:2b:203:GLY:O	33:2b:205:ASP:N	2.45	0.49
37:2f:2:ARG:NE	37:2f:69:GLU:HG2	2.27	0.49
47:2p:5:ARG:HH21	47:2p:28:ARG:HA	1.77	0.49
48:2q:32:TYR:O	48:2q:34:LYS:N	2.44	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:72:U:H5'	24:12:61:LEU:HD12	1.95	0.49
1:1A:2144:U:H3'	1:1A:2146:C:N4	2.28	0.49
19:1X:5:TYR:CZ	24:12:30:ARG:HB2	2.48	0.49
21:1Z:151:HIS:HA	21:1Z:171:ILE:HG23	1.95	0.49
32:1a:45:U:H2'	32:1a:46:G:C8	2.48	0.49
32:1a:565:U:H3'	32:1a:566:G:H2'	1.95	0.49
33:1b:18:GLY:HA3	33:1b:42:ILE:HG13	1.95	0.49
35:1d:166:LYS:NZ	35:1d:179:GLU:OE2	2.45	0.49
35:1d:173:TRP:CE3	35:1d:174:LEU:HG	2.47	0.49
36:1e:41:VAL:HG23	36:1e:67:VAL:HG12	1.95	0.49
57:1y:1:G:H1	57:1y:72:C:N4	2.09	0.49
57:1y:69:A:H3'	57:1y:70:C:H5"	1.95	0.49
1:2A:956:G:H2'	1:2A:957:A:H2'	1.93	0.49
1:2A:1125:G:H5'	31:29:37:GLY:HA2	1.95	0.49
1:2A:1498:C:O4'	1:2A:1577:C:H4'	2.13	0.49
9:2N:131:GLN:H	9:2N:131:GLN:HG2	1.39	0.49
14:2S:67:ARG:HD3	14:2S:71:ARG:NH1	2.28	0.49
17:2V:2:PHE:CZ	17:2V:41:GLY:HA3	2.47	0.49
21:2Z:97:GLU:HB3	21:2Z:125:LEU:HD11	1.95	0.49
24:22:32:LEU:HA	24:22:53:LEU:HD13	1.94	0.49
26:24:58:ARG:HD2	50:2s:68:GLY:H	1.77	0.49
32:2a:233:C:H2'	32:2a:234:C:H6	1.77	0.49
33:2b:95:GLN:HB2	33:2b:148:TYR:HA	1.95	0.49
35:2d:173:TRP:HB2	35:2d:187:ARG:HG3	1.95	0.49
39:2h:9:MET:SD	39:2h:32:LYS:HD3	2.52	0.49
47:2p:28:ARG:HG2	47:2p:29:ASP:OD1	2.13	0.49
54:2w:23:A:H3'	54:2w:24:G:C8	2.48	0.49
1:1A:848:G:H2'	1:1A:849:A:C8	2.48	0.48
1:1A:1054:A:N6	1:1A:1105:U:H3	2.07	0.48
1:1A:1424:G:H2'	1:1A:1425:G:O4'	2.13	0.48
1:1A:2126:A:N6	1:1A:2162:G:O2'	2.46	0.48
1:1A:2791:C:H2'	1:1A:2792:G:H8	1.77	0.48
28:16:10:LEU:HD23	28:16:22:ALA:HB2	1.94	0.48
32:1a:662:G:H2'	32:1a:663:A:C8	2.48	0.48
33:1b:20:GLU:HA	33:1b:23:ARG:NH1	2.28	0.48
34:1c:173:VAL:HG12	34:1c:175:LEU:HG	1.94	0.48
1:2A:600:G:O6	63:2A:3952:HOH:O	2.18	0.48
1:2A:1649:G:O2'	13:2R:107:ASP:OD2	2.30	0.48
1:2A:1824:G:N3	3:2D:254:THR:OG1	2.46	0.48
14:2S:5:THR:HG23	14:2S:8:GLU:HG3	1.94	0.48
21:2Z:40:ASP:OD2	21:2Z:43:GLU:N	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:519:C:H2'	32:2a:520:A:O4'	2.13	0.48
32:2a:1254:C:H42	32:2a:1283:G:H1	1.60	0.48
32:2a:1257:U:O4	45:2n:17:LYS:NZ	2.46	0.48
32:2a:1330:U:H4'	44:2m:23:TYR:CE1	2.48	0.48
33:2b:67:THR:N	33:2b:160:ASP:OD2	2.46	0.48
34:2c:131:ARG:HH21	34:2c:135:LYS:NZ	2.11	0.48
51:2t:9:ASN:OD1	51:2t:9:ASN:N	2.45	0.48
8:1I:79:ILE:HG22	8:1I:81:VAL:HG13	1.95	0.48
21:1Z:40:ASP:OD2	21:1Z:42:VAL:HG13	2.13	0.48
22:10:43:THR:O	22:10:43:THR:HG23	2.13	0.48
32:1a:1194:U:H4'	36:1e:22:GLY:HA2	1.95	0.48
34:1c:131:ARG:NH1	34:1c:166:GLU:HG3	2.28	0.48
1:2A:218:A:C2	1:2A:235:U:H4'	2.48	0.48
1:2A:265:A:C8	1:2A:266:G:H1'	2.49	0.48
1:2A:801:G:O6	5:2F:53:THR:OG1	2.30	0.48
1:2A:1882:C:H2'	1:2A:1883:G:O4'	2.13	0.48
1:2A:2183:C:H2'	1:2A:2184:G:C8	2.48	0.48
1:2A:2203:U:H2'	1:2A:2205:C:H6	1.76	0.48
1:2A:2284:C:O2'	1:2A:2288:A:N1	2.45	0.48
24:22:46:GLN:HB2	24:22:49:LYS:HD3	1.94	0.48
29:27:5:TRP:CD1	29:27:7:PRO:HD3	2.48	0.48
32:2a:1026:G:H5'	32:2a:1027:C:O5'	2.13	0.48
34:2c:7:PRO:HG2	34:2c:184:TYR:HB2	1.95	0.48
35:2d:175:SER:HB3	35:2d:186:LEU:HD11	1.94	0.48
39:2h:20:TYR:CE1	39:2h:76:PRO:HG2	2.48	0.48
48:2q:22:LEU:HD12	48:2q:41:LYS:HG2	1.95	0.48
55:2x:36:U:H2'	55:2x:37:A:C8	2.48	0.48
1:1A:968:G:H2'	1:1A:969:U:C6	2.47	0.48
60:1A:4104:ERY:H321	60:1A:4104:ERY:H8	1.63	0.48
5:1F:135:LYS:HB2	5:1F:138:GLU:HG3	1.95	0.48
5:1F:164:ARG:HD2	5:1F:175:THR:HG23	1.94	0.48
16:1U:113:ALA:O	16:1U:117:GLN:HG2	2.14	0.48
26:14:57:GLU:HB3	26:14:58:ARG:HD2	1.94	0.48
32:1a:116:A:H61	32:1a:313:A:H1'	1.78	0.48
32:1a:444:C:H2'	32:1a:445:G:C8	2.48	0.48
32:1a:625:G:H4'	47:1p:16:HIS:CG	2.48	0.48
41:1j:11:PHE:HE1	41:1j:67:THR:HG22	1.78	0.48
51:1t:90:GLN:H	51:1t:90:GLN:NE2	2.08	0.48
54:1w:15:G:H2'	54:1w:59:A:N1	2.28	0.48
57:1y:38:A:H2'	57:1y:39:PSU:O4'	2.13	0.48
1:2A:30:G:H2'	1:2A:31:C:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1443:G:H1	1:2A:1548:C:H42	1.60	0.48
1:2A:1991:U:H2'	1:2A:1992:G:H5"	1.96	0.48
1:2A:2819:G:O6	63:2A:3967:HOH:O	2.20	0.48
14:2S:67:ARG:HH11	14:2S:71:ARG:NH1	2.11	0.48
32:2a:1373:G:H5"	38:2g:36:LYS:HB2	1.96	0.48
38:2g:22:LEU:HA	38:2g:25:ALA:HB3	1.94	0.48
40:2i:8:GLY:HA2	40:2i:79:LEU:HB3	1.95	0.48
42:2k:51:LYS:HA	42:2k:55:LYS:HE2	1.96	0.48
1:1A:657:U:H2'	1:1A:658:C:C6	2.49	0.48
1:1A:787:U:H5"	1:1A:788:A:H5'	1.95	0.48
2:1B:88:C:H2'	2:1B:89:G:O4'	2.14	0.48
3:1D:180:GLY:HA3	3:1D:275:LYS:HD2	1.94	0.48
6:1G:56:ALA:O	6:1G:59:GLU:HG2	2.13	0.48
7:1H:164:TYR:HB2	7:1H:167:GLU:HB2	1.94	0.48
39:1h:6:ILE:HD12	39:1h:35:ILE:HD12	1.96	0.48
44:1m:20:THR:C	44:1m:22:ILE:H	2.21	0.48
1:2A:686:G:H8	29:27:6:GLN:O	1.96	0.48
1:2A:1287:A:H8	13:2R:104:ARG:HD3	1.79	0.48
1:2A:2142:C:H2'	1:2A:2143:C:C6	2.49	0.48
1:2A:2444:G:OP2	63:2A:3968:HOH:O	2.20	0.48
8:2I:81:VAL:HG21	8:2I:88:ILE:HG12	1.96	0.48
26:24:50:VAL:HG11	44:2m:64:TRP:HA	1.95	0.48
32:2a:35:G:O2'	43:2l:118:SER:O	2.31	0.48
32:2a:685:G:C2	32:2a:686:U:C4	3.01	0.48
32:2a:1095:U:H2'	32:2a:1096:C:O4'	2.13	0.48
32:2a:1168:A:H8	32:2a:1168:A:OP1	1.96	0.48
33:2b:178:ARG:HH12	39:2h:68:ARG:NH2	2.11	0.48
34:2c:131:ARG:NH2	36:2e:50:GLU:HG3	2.28	0.48
1:1A:2090:G:N2	23:11:45:ASN:OD1	2.35	0.48
1:1A:2193:G:H2'	1:1A:2194:G:H8	1.78	0.48
1:1A:2378:A:H2'	14:1S:21:THR:HG21	1.95	0.48
10:1O:64:ARG:HD2	10:1O:79:PHE:CD1	2.48	0.48
12:1Q:85:LYS:HG2	22:10:7:LEU:HB3	1.95	0.48
14:1S:34:HIS:ND1	14:1S:53:SER:OG	2.40	0.48
32:1a:767:A:H2'	32:1a:768:A:O4'	2.14	0.48
35:1d:23:GLY:HA3	35:1d:112:VAL:HG22	1.94	0.48
39:1h:119:LEU:HB3	39:1h:123:GLU:HB3	1.95	0.48
41:1j:47:PHE:CZ	45:1n:37:PHE:HE2	2.31	0.48
1:2A:1527:G:O2'	1:2A:1544:A:N6	2.33	0.48
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.28	0.48
1:2A:2522:U:O2'	1:2A:2647:U:OP1	2.23	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2684:U:OP1	15:2T:53:ARG:HD3	2.14	0.48
2:2B:77:U:OP1	21:2Z:19:ARG:NH2	2.46	0.48
4:2E:12:THR:HG22	4:2E:13:ARG:H	1.78	0.48
8:2I:59:ALA:HA	8:2I:62:LYS:HG2	1.95	0.48
14:2S:15:ARG:O	14:2S:19:LYS:HG2	2.14	0.48
14:2S:24:LEU:HB3	14:2S:85:VAL:HG23	1.96	0.48
32:2a:971:G:N1	32:2a:1363(A):A:H5'	2.27	0.48
32:2a:999:C:H42	32:2a:1042:G:H1	1.59	0.48
32:2a:1015:A:O2'	32:2a:1219:U:H5'	2.13	0.48
32:2a:1423:G:H2'	32:2a:1424:C:C6	2.48	0.48
32:2a:1473:A:H2'	32:2a:1474:G:O4'	2.13	0.48
33:2b:118:LEU:HG	33:2b:122:PHE:HB2	1.94	0.48
33:2b:126:GLU:CD	33:2b:126:GLU:H	2.21	0.48
34:2c:125:GLU:C	34:2c:127:ARG:H	2.21	0.48
36:2e:15:ARG:HG3	36:2e:28:PHE:CZ	2.48	0.48
40:2i:3:GLN:HE21	40:2i:20:ARG:NH1	2.11	0.48
49:2r:52:PRO:HB2	49:2r:54:ARG:HG2	1.94	0.48
49:2r:66:LEU:O	49:2r:70:ILE:HG13	2.13	0.48
1:1A:400:G:N7	63:1A:4359:HOH:O	2.35	0.48
1:1A:855:G:O2'	22:10:27:GLU:OE2	2.25	0.48
6:1G:74:LYS:O	6:1G:84:LYS:HG3	2.14	0.48
47:1p:53:VAL:HG12	47:1p:79:VAL:HG22	1.96	0.48
54:1w:48:C:C2	54:1w:59:A:H1'	2.49	0.48
1:2A:288:C:H2'	1:2A:289:A:H8	1.79	0.48
1:2A:361:G:O2'	1:2A:362:U:H5'	2.13	0.48
1:2A:1292:U:H2'	1:2A:1293:C:C6	2.48	0.48
1:2A:2104:G:H2'	1:2A:2105:C:C6	2.49	0.48
1:2A:2135:A:C8	1:2A:2136:C:H5	2.32	0.48
3:2D:16:MET:HG3	3:2D:206:LEU:O	2.14	0.48
6:2G:123:ASN:OD1	6:2G:123:ASN:N	2.47	0.48
21:2Z:101:PRO:HA	21:2Z:123:ASP:HA	1.95	0.48
32:2a:46:G:O2'	32:2a:365:U:H1'	2.14	0.48
32:2a:971:G:OP1	32:2a:971:G:H3'	2.14	0.48
32:2a:1058:G:H1	32:2a:1199:U:H3	1.62	0.48
32:2a:1289:A:P	52:2u:9:ARG:HH22	2.37	0.48
33:2b:31:TYR:CE2	33:2b:200:ILE:HG21	2.48	0.48
33:2b:60:ASP:O	33:2b:64:ARG:N	2.47	0.48
38:2g:99:LEU:HD23	38:2g:102:ARG:NH1	2.29	0.48
46:2o:82:ILE:O	46:2o:86:GLY:N	2.46	0.48
1:1A:897:C:N3	1:1A:898:C:N4	2.60	0.48
1:1A:1216:G:OP2	16:1U:12:ARG:NH2	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1567:A:OP2	3:1D:84:TYR:OH	2.24	0.48
63:1A:4757:HOH:O	11:1P:44:GLY:HA2	2.13	0.48
6:1G:83:ARG:N	6:1G:86:MET:SD	2.74	0.48
12:1Q:20:ALA:HB2	21:1Z:79:ARG:HG3	1.96	0.48
32:1a:406:G:H21	35:1d:119:GLN:HE22	1.62	0.48
38:1g:26:PHE:O	38:1g:30:ILE:HG13	2.14	0.48
1:2A:300:A:OP2	20:2Y:86:ARG:NH1	2.29	0.48
1:2A:576:U:H2'	1:2A:577:G:C8	2.48	0.48
19:2X:5:TYR:CZ	24:22:30:ARG:HB2	2.49	0.48
21:2Z:158:PRO:O	21:2Z:161:VAL:HG12	2.14	0.48
32:2a:417:C:H2'	32:2a:418:C:C6	2.46	0.48
33:2b:16:HIS:CE1	33:2b:42:ILE:HD12	2.46	0.48
36:2e:41:VAL:O	36:2e:66:MET:HA	2.14	0.48
42:2k:44:SER:H	42:2k:47:VAL:HB	1.78	0.48
44:2m:4:ILE:HD12	44:2m:19:LEU:HD22	1.95	0.48
1:1A:185:U:H4'	1:1A:218:A:H4'	1.96	0.48
1:1A:1371:G:H2'	1:1A:1372:U:H5	1.79	0.48
1:1A:2296:U:OP2	14:1S:9:ARG:NH2	2.43	0.48
17:1V:40:LEU:HB2	17:1V:46:VAL:HG13	1.94	0.48
17:1V:58:VAL:O	17:1V:97:LYS:HB2	2.13	0.48
32:1a:1025:U:C2	32:1a:1036:G:O6	2.67	0.48
32:1a:1305:G:H22	32:1a:1331:G:H1'	1.78	0.48
33:1b:230:VAL:HG12	33:1b:232:PRO:HD2	1.96	0.48
36:1e:106:PRO:HA	36:1e:109:ILE:HD12	1.95	0.48
42:1k:20:TYR:HB2	42:1k:31:THR:HG23	1.94	0.48
1:2A:322:A:OP2	5:2F:169:ASN:HB2	2.14	0.48
1:2A:1034:G:N7	63:2A:4053:HOH:O	2.35	0.48
1:2A:1147:C:H2'	1:2A:1148:A:H8	1.79	0.48
1:2A:1589:C:H2'	1:2A:1590:U:C6	2.49	0.48
1:2A:2787:C:H1'	4:2E:62:PRO:HG3	1.94	0.48
1:2A:2845:G:H5"	15:2T:54:ARG:O	2.14	0.48
6:2G:63:ILE:HD13	6:2G:143:GLU:HB2	1.94	0.48
8:2I:123:LEU:HB2	8:2I:144:VAL:HB	1.95	0.48
15:2T:19:LEU:HD22	15:2T:86:ILE:HB	1.95	0.48
32:2a:56:U:H2'	32:2a:57:G:H8	1.78	0.48
32:2a:429:U:H3	32:2a:431:A:H62	1.62	0.48
32:2a:1073:U:H2'	32:2a:1074:G:H8	1.78	0.48
32:2a:1206:G:H2'	32:2a:1207:2MG:O4'	2.14	0.48
32:2a:1260:C:P	32:2a:1284:C:H4'	2.53	0.48
34:2c:162:GLN:NE2	53:2v:24:A:O3'	2.43	0.48
1:1A:194:G:N7	63:1A:4360:HOH:O	2.35	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:975(A):G:O2'	1:1A:1156:A:N1	2.45	0.48
1:1A:1551:C:OP2	63:1A:4256:HOH:O	2.20	0.48
15:1T:29:ARG:HB2	15:1T:46:GLU:HG3	1.96	0.48
32:1a:185:A:H2'	32:1a:186:C:C6	2.48	0.48
37:1f:6:VAL:HB	37:1f:63:TYR:HB2	1.95	0.48
51:1t:14:LYS:HA	51:1t:17:ARG:HE	1.79	0.48
1:2A:443:A:H5"	1:2A:444:C:OP1	2.14	0.48
1:2A:2186:G:C2	1:2A:2187:G:C8	3.02	0.48
3:2D:67:PHE:HD1	3:2D:153:ALA:HB3	1.79	0.48
6:2G:41:GLN:HG2	6:2G:154:GLY:O	2.14	0.48
7:2H:56:SER:HB2	7:2H:61:HIS:ND1	2.28	0.48
12:2Q:135:ASP:HB3	21:2Z:49:ARG:NH1	2.29	0.48
32:2a:1179:A:H2'	32:2a:1180:A:O4'	2.14	0.48
33:2b:44:LEU:H	33:2b:44:LEU:HD12	1.78	0.48
34:2c:31:HIS:O	34:2c:35:GLU:HB3	2.13	0.48
42:2k:17:GLY:HA3	42:2k:77:MET:HE1	1.96	0.48
48:2q:12:SER:HB3	48:2q:20:THR:HB	1.96	0.48
1:1A:692:C:O2'	3:1D:38:LYS:NZ	2.41	0.48
1:1A:715:G:C2	46:1o:56:LEU:HD21	2.49	0.48
1:1A:2031:A:C6	1:1A:2498:C:H1'	2.48	0.48
1:1A:2206:G:H5"	1:1A:2207:G:N7	2.28	0.48
1:1A:2252:G:O6	22:10:4:LYS:HD2	2.14	0.48
1:1A:2865:U:OP2	15:1T:119:LYS:NZ	2.47	0.48
5:1F:155:LEU:HD11	5:1F:176:LEU:HD12	1.96	0.48
8:1I:75:LEU:HD22	8:1I:105:HIS:CG	2.49	0.48
32:1a:600:C:H2'	32:1a:601:C:C6	2.49	0.48
32:1a:1022:G:H3'	32:1a:1023:G:C8	2.48	0.48
43:1l:7:ILE:HD12	43:1l:10:LEU:HD12	1.95	0.48
43:1l:90:VAL:O	43:1l:92:0TD:N	2.47	0.48
1:2A:1913:A:N6	54:2w:38:A:H5'	2.29	0.48
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.49	0.48
2:2B:6:C:N4	2:2B:115:G:H1	2.11	0.48
5:2F:12:LEU:HD12	5:2F:124:LEU:HD21	1.96	0.48
7:2H:3:ARG:NH2	7:2H:5:GLY:H	2.12	0.48
32:2a:1004:A:N6	32:2a:1037:C:H1'	2.29	0.48
32:2a:1291:G:O3'	40:2i:39:GLY:HA3	2.14	0.48
33:2b:18:GLY:HA2	33:2b:42:ILE:HG13	1.95	0.48
33:2b:95:GLN:HB3	33:2b:148:TYR:CD1	2.48	0.48
37:2f:25:ILE:HD13	37:2f:82:ARG:HD2	1.96	0.48
37:2f:61:LEU:HB3	37:2f:63:TYR:HE2	1.78	0.48
1:1A:197:A:N6	1:1A:2430:A:O2'	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:793:A:OP2	1:1A:2071:A:O2'	2.30	0.47
1:1A:1359:A:H2'	1:1A:1360:A:H5'	1.95	0.47
10:1O:73:ASP:HB2	15:1T:82:LEU:HD13	1.96	0.47
33:1b:12:GLU:OE2	33:1b:13:ALA:N	2.47	0.47
35:1d:43:HIS:HA	35:1d:46:LYS:HE3	1.96	0.47
1:2A:403:U:H4'	1:2A:404:C:H5'	1.96	0.47
1:2A:857:C:OP2	22:20:77:ARG:NH2	2.47	0.47
1:2A:1200:C:H5'	63:2A:3932:HOH:O	2.14	0.47
1:2A:1790:C:H5"	1:2A:1791:A:OP1	2.13	0.47
2:2B:28:C:H5"	14:2S:31:SER:HB3	1.96	0.47
12:2Q:141:GLN:NE2	21:2Z:74:VAL:O	2.47	0.47
32:2a:129(A):G:C6	32:2a:189(E):U:H4'	2.49	0.47
41:2j:6:ILE:HG22	41:2j:8:LEU:HD22	1.95	0.47
49:2r:33:ASP:OD2	49:2r:36:ASN:HB2	2.13	0.47
1:1A:272(H):C:H42	1:1A:363(B):G:H1	1.62	0.47
1:1A:863:A:H2'	1:1A:864:G:H8	1.79	0.47
1:1A:971:C:H2'	1:1A:972:G:O4'	2.14	0.47
1:1A:1932:A:H2'	1:1A:1933:G:O4'	2.14	0.47
1:1A:2176:A:H2'	1:1A:2177:C:C6	2.49	0.47
8:1I:38:LEU:HG	8:1I:40:THR:HG22	1.95	0.47
12:1Q:78:PRO:HD3	55:1x:1:C:C2	2.49	0.47
15:1T:84:GLN:HG2	15:1T:85:LYS:HG2	1.95	0.47
32:1a:1017:G:H2'	32:1a:1018:C:C6	2.49	0.47
32:1a:1021:G:O2'	32:1a:1022:G:O5'	2.32	0.47
35:1d:111:ALA:HB2	35:1d:120:LEU:HD12	1.95	0.47
39:1h:87:SER:HB2	39:1h:93:VAL:H	1.79	0.47
41:1j:5:ARG:HH21	41:1j:73:ASP:CG	2.18	0.47
1:2A:1842:G:O2'	3:2D:253:GLN:OE1	2.28	0.47
8:2I:69:LYS:HE2	8:2I:138:ILE:HG12	1.96	0.47
13:2R:24:GLN:HB3	13:2R:44:LEU:HD22	1.95	0.47
19:2X:8:ILE:O	24:22:36:ARG:NH2	2.46	0.47
23:21:72:GLU:O	23:21:76:ARG:HG2	2.14	0.47
32:2a:56:U:H2'	32:2a:57:G:C8	2.49	0.47
35:2d:111:ALA:HA	35:2d:116:GLN:HE21	1.79	0.47
35:2d:119:GLN:HG3	35:2d:123:HIS:CD2	2.49	0.47
48:2q:45:HIS:NE2	48:2q:47:PRO:HG3	2.29	0.47
1:1A:730:C:H3'	63:1A:4461:HOH:O	2.13	0.47
1:1A:1470:G:N2	1:1A:1520:G:OP2	2.30	0.47
1:1A:1614:A:P	1:1A:1614:A:H8	2.37	0.47
1:1A:2206:G:H5"	1:1A:2207:G:C5	2.50	0.47
1:1A:2633:G:H2'	1:1A:2634:G:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:1X:72:LYS:HE3	19:1X:73:ARG:O	2.14	0.47
32:1a:130:A:O2'	32:1a:131:C:O5'	2.25	0.47
33:1b:19:HIS:CE1	33:1b:20:GLU:HG3	2.49	0.47
33:1b:80:ILE:O	33:1b:84:GLU:HG2	2.13	0.47
34:1c:39:ILE:HG23	34:1c:91:LEU:HD11	1.95	0.47
42:1k:99:GLN:HG2	42:1k:105:VAL:HG21	1.96	0.47
54:1w:63:U:H2'	54:1w:64:G:C8	2.50	0.47
1:2A:506:G:O3'	1:2A:507:A:H8	1.97	0.47
1:2A:861:A:N6	1:2A:916:G:O2'	2.48	0.47
1:2A:864:G:OP2	12:2Q:22:LYS:HE3	2.14	0.47
1:2A:894:C:O2'	1:2A:895:U:H5"	2.14	0.47
1:2A:1204:A:H5'	1:2A:1206:G:H1'	1.96	0.47
1:2A:1266:G:O4'	18:2W:15:ARG:NH2	2.47	0.47
1:2A:2320:A:N3	1:2A:2320:A:H2'	2.28	0.47
2:2B:2:C:O2'	2:2B:3:C:H5'	2.14	0.47
5:2F:129:PHE:O	5:2F:131:GLY:N	2.46	0.47
6:2G:138:GLN:OE1	6:2G:138:GLN:N	2.47	0.47
32:2a:64:G:C4'	32:2a:65:U:H3'	2.42	0.47
32:2a:328:C:H4'	32:2a:329:A:H5'	1.97	0.47
32:2a:601:C:H2'	32:2a:602:A:C8	2.49	0.47
34:2c:152:ILE:HD11	34:2c:199:LYS:NZ	2.29	0.47
40:2i:88:TYR:HD2	40:2i:89:ASN:HB2	1.79	0.47
46:2o:87:ILE:HG22	46:2o:88:ARG:N	2.29	0.47
50:2s:33:THR:HG22	50:2s:50:ALA:O	2.15	0.47
1:1A:271(B):C:H42	1:1A:271(V):G:H1	1.62	0.47
1:1A:593:G:H4'	30:18:4:MET:HE2	1.95	0.47
1:1A:2630:G:H2'	1:1A:2631:G:C8	2.49	0.47
23:11:64:ALA:HA	23:11:67:ILE:HG13	1.96	0.47
32:1a:1004:A:H5"	32:1a:1025:U:H5	1.78	0.47
32:1a:1095:U:P	32:1a:1108:G:H1	2.37	0.47
32:1a:1277:C:H1'	32:1a:1282:C:O2	2.14	0.47
33:1b:59:GLU:HB2	33:1b:221:LEU:HD21	1.96	0.47
34:1c:138:VAL:HG13	34:1c:149:ALA:HB3	1.96	0.47
35:1d:18:LYS:HE2	35:1d:31:CYS:SG	2.54	0.47
36:1e:72:GLN:O	36:1e:75:THR:HG22	2.15	0.47
46:1o:24:SER:O	46:1o:28:GLN:HG3	2.14	0.47
51:1t:11:SER:O	51:1t:11:SER:OG	2.32	0.47
55:1x:8:4SU:O5'	55:1x:8:4SU:H6	2.15	0.47
1:2A:275:G:H2'	1:2A:276:A:O4'	2.13	0.47
1:2A:774:A:H2'	1:2A:774:A:N3	2.29	0.47
1:2A:793:A:OP2	1:2A:2071:A:O2'	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:117:MET:HE2	4:2E:117:MET:HB3	1.74	0.47
12:2Q:30:GLY:HA2	12:2Q:107:ALA:HB2	1.95	0.47
13:2R:2:ARG:NH1	13:2R:5:LYS:O	2.47	0.47
32:2a:359:U:H2'	32:2a:360:A:H8	1.80	0.47
32:2a:737:A:H2'	32:2a:738:C:C6	2.49	0.47
32:2a:826:C:H42	32:2a:874:G:H1	1.61	0.47
32:2a:946:A:H2'	32:2a:947:G:C8	2.50	0.47
45:2n:12:ARG:HE	45:2n:12:ARG:HB3	1.49	0.47
55:2x:58:A:H4'	55:2x:59:A:OP1	2.15	0.47
1:1A:95:G:O2'	24:12:48:HIS:ND1	2.38	0.47
1:1A:2086:U:H2'	1:1A:2087:G:C8	2.49	0.47
1:1A:2121:G:H1	1:1A:2177:C:H42	1.62	0.47
4:1E:132:HIS:CE1	4:1E:133:LYS:HD3	2.48	0.47
32:1a:138:G:H1	32:1a:225:C:H42	1.62	0.47
32:1a:1015:A:H2'	32:1a:1016:A:C8	2.49	0.47
32:1a:1261:A:H3'	32:1a:1262:C:C6	2.50	0.47
38:1g:143:ARG:HH11	38:1g:143:ARG:HB2	1.79	0.47
1:2A:493:G:H2'	1:2A:494:G:O4'	2.13	0.47
1:2A:668:G:H5'	1:2A:669:G:OP2	2.14	0.47
12:2Q:35:VAL:HG22	12:2Q:102:VAL:HG22	1.96	0.47
15:2T:77:PRO:HB2	15:2T:80:SER:HB2	1.96	0.47
20:2Y:11:ASP:O	20:2Y:27:VAL:HG23	2.14	0.47
32:2a:1288:A:N1	32:2a:1371:G:H1'	2.29	0.47
35:2d:172:PRO:HD2	35:2d:173:TRP:CZ3	2.49	0.47
40:2i:54:ASP:O	40:2i:56:LEU:N	2.44	0.47
49:2r:67:ALA:HA	49:2r:70:ILE:HD12	1.97	0.47
1:1A:329:G:OP1	63:1A:4253:HOH:O	2.20	0.47
1:1A:994:C:OP1	16:1U:53:ARG:NH2	2.47	0.47
1:1A:1056:G:H5"	1:1A:1057:A:H5'	1.96	0.47
1:1A:1686:C:H2'	1:1A:1687:G:O4'	2.15	0.47
1:1A:2065:C:H2'	1:1A:2066:C:C6	2.49	0.47
3:1D:18:VAL:HG12	3:1D:211:ARG:NH2	2.29	0.47
5:1F:53:THR:HG22	5:1F:55:GLY:N	2.25	0.47
6:1G:58:GLN:O	6:1G:62:LEU:HG	2.15	0.47
6:1G:179:PRO:HG3	26:14:43:TYR:OH	2.15	0.47
7:1H:105:LEU:HD12	7:1H:151:ILE:HD12	1.97	0.47
11:1P:38:GLN:HG2	11:1P:45:LEU:H	1.78	0.47
19:1X:31:HIS:HD2	19:1X:33:LYS:HB2	1.78	0.47
21:1Z:151:HIS:HB3	21:1Z:169:GLU:O	2.14	0.47
32:1a:189(H):G:H2'	32:1a:189(I):G:H8	1.79	0.47
32:1a:232:G:H2'	32:1a:233:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:1h:110:ALA:HB3	39:1h:121:ASP:HB3	1.95	0.47
1:2A:2023:G:H5'	1:2A:2617:C:H4'	1.97	0.47
1:2A:2130:U:H2'	1:2A:2158:A:N6	2.29	0.47
1:2A:2687:U:H2'	1:2A:2688:U:O4'	2.15	0.47
1:2A:2712:U:H2'	1:2A:2714:G:H5"	1.95	0.47
4:2E:9:VAL:HB	4:2E:25:VAL:HB	1.95	0.47
6:2G:101:ILE:HD12	26:24:25:TYR:HB2	1.96	0.47
10:2O:119:PRO:HB2	15:2T:68:TYR:CE2	2.49	0.47
32:2a:165:C:H2'	32:2a:166:G:H8	1.79	0.47
32:2a:1031:G:H2'	32:2a:1032:G:C8	2.50	0.47
36:2e:36:ASP:O	36:2e:38:GLN:N	2.43	0.47
38:2g:65:ALA:HB1	38:2g:127:ALA:HB3	1.96	0.47
44:2m:29:ARG:HD3	44:2m:64:TRP:CD2	2.48	0.47
54:2w:5:C:H2'	54:2w:6:G:H8	1.79	0.47
1:1A:1044:G:H1'	1:1A:1048:A:H1'	1.96	0.47
1:1A:1570:A:H2'	1:1A:1571:A:C8	2.50	0.47
1:1A:1587:A:H2'	1:1A:1588:C:C6	2.50	0.47
1:1A:1720:U:H2'	1:1A:1721:G:O4'	2.15	0.47
1:1A:2001:A:H2'	1:1A:2002:G:C8	2.50	0.47
1:1A:2230:G:O3'	23:11:43:TYR:HB2	2.15	0.47
1:1A:2785:C:H2'	1:1A:2786:U:O4'	2.15	0.47
1:1A:2872:G:H5"	63:1A:4896:HOH:O	2.15	0.47
2:1B:2:C:H2'	2:1B:3:C:C6	2.49	0.47
2:1B:8:U:O3'	14:1S:25:ARG:NH2	2.48	0.47
2:1B:23:G:O6	63:1B:301:HOH:O	2.19	0.47
2:1B:25:A:OP1	63:1B:302:HOH:O	2.20	0.47
19:1X:92:LEU:O	19:1X:94:GLY:N	2.47	0.47
24:12:63:VAL:HA	24:12:66:GLU:HB2	1.95	0.47
32:1a:167:G:H2'	32:1a:168:G:C8	2.49	0.47
32:1a:250:A:H4'	32:1a:251:G:O5'	2.13	0.47
32:1a:401:C:H2'	32:1a:402:G:H8	1.77	0.47
32:1a:405:U:H5"	32:1a:495:A:H2	1.79	0.47
32:1a:431:A:H2'	32:1a:432:A:O4'	2.15	0.47
32:1a:532:A:N6	32:1a:1206:G:O2'	2.47	0.47
32:1a:986:A:H2'	32:1a:987:G:C8	2.50	0.47
32:1a:1077:G:N2	32:1a:1080:A:OP2	2.41	0.47
32:1a:1424:C:H2'	32:1a:1425:U:O4'	2.14	0.47
38:1g:86:GLN:NE2	57:1y:31:A:N3	2.63	0.47
38:1g:98:SER:HA	38:1g:101:LEU:HD12	1.96	0.47
43:1l:79:GLU:HG2	43:1l:80:HIS:CE1	2.50	0.47
51:1t:47:GLY:N	51:1t:48:LYS:HB2	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:1y:56:C:H2'	57:1y:57:G:O4'	2.15	0.47
1:2A:18:C:O2'	1:2A:554:U:OP1	2.30	0.47
1:2A:71:A:H5"	1:2A:73:A:C8	2.50	0.47
1:2A:84:A:H5"	20:2Y:8:LYS:HE3	1.97	0.47
1:2A:127:A:H5"	1:2A:128:C:C6	2.49	0.47
1:2A:222:A:H3'	1:2A:421:U:H5'	1.97	0.47
1:2A:272(E):G:C2	1:2A:364:C:C2	3.03	0.47
1:2A:458:G:O2'	29:27:39:ARG:HD3	2.14	0.47
1:2A:1507:A:O2'	1:2A:1508:A:O4'	2.33	0.47
1:2A:1890:A:OP2	63:2A:3969:HOH:O	2.21	0.47
2:2B:22:U:H3	2:2B:61:G:H1	1.62	0.47
7:2H:26:VAL:O	7:2H:79:VAL:HG11	2.15	0.47
14:2S:67:ARG:HH11	14:2S:71:ARG:HH12	1.61	0.47
15:2T:73:GLU:OE2	15:2T:103:ARG:NE	2.35	0.47
21:2Z:4:ARG:HA	21:2Z:58:VAL:H	1.78	0.47
21:2Z:10:ARG:NH2	21:2Z:26:GLY:O	2.47	0.47
32:2a:403:C:O2'	32:2a:404:U:H5'	2.14	0.47
32:2a:452:A:H4'	47:2p:72:ARG:HE	1.80	0.47
32:2a:597:G:OP2	63:2a:1918:HOH:O	2.20	0.47
32:2a:918:A:H2'	32:2a:919:A:H8	1.77	0.47
32:2a:1004:A:N3	32:2a:1038:C:C2	2.83	0.47
32:2a:1202:G:H1'	45:2n:29:ARG:HD2	1.96	0.47
32:2a:1264:C:N4	32:2a:1271:G:H1	2.12	0.47
32:2a:1342:C:H4'	40:2i:125:TYR:HB3	1.96	0.47
32:2a:1397:C:OP2	36:2e:24:ARG:NH1	2.48	0.47
32:2a:1479:C:H2'	32:2a:1480:G:H8	1.78	0.47
38:2g:115:ARG:HG3	38:2g:118:VAL:H	1.80	0.47
39:2h:29:SER:HB3	39:2h:32:LYS:HG3	1.97	0.47
40:2i:19:LEU:HD12	40:2i:84:ALA:HB3	1.95	0.47
40:2i:54:ASP:C	40:2i:56:LEU:H	2.22	0.47
43:2l:69:TYR:CD1	43:2l:90:VAL:HG21	2.49	0.47
45:2n:10:ALA:HB2	45:2n:21:TYR:CZ	2.49	0.47
48:2q:21:VAL:HG21	48:2q:59:ILE:HG21	1.95	0.47
3:1D:83:GLU:OE1	3:1D:104:TYR:OH	2.23	0.47
11:1P:121:LYS:O	11:1P:123:LEU:N	2.47	0.47
20:1Y:43:ASN:HB3	20:1Y:65:ALA:HB3	1.96	0.47
32:1a:1241:G:H2'	32:1a:1242:C:C6	2.50	0.47
33:1b:125:PRO:O	33:1b:127:ILE:N	2.47	0.47
48:1q:45:HIS:CD2	48:1q:65:ILE:HG21	2.49	0.47
54:1w:13:C:H2'	54:1w:14:A:H5"	1.97	0.47
57:1y:10:G:N2	57:1y:26:A:H1'	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1019:U:O2'	1:2A:1021:A:H2	1.98	0.47
7:2H:3:ARG:HG2	7:2H:6:ARG:HE	1.80	0.47
21:2Z:28:MET:O	21:2Z:35:ARG:N	2.35	0.47
22:20:68:GLU:HG3	22:20:82:ARG:HE	1.80	0.47
32:2a:540:G:H2'	32:2a:541:G:O4'	2.14	0.47
32:2a:944:G:OP1	63:2a:1919:HOH:O	2.21	0.47
32:2a:1469:G:H2'	32:2a:1470:G:C8	2.50	0.47
33:2b:81:VAL:HB	33:2b:94:ASN:HD21	1.80	0.47
35:2d:22:LYS:HB2	35:2d:26:CYS:SG	2.55	0.47
35:2d:135:LEU:C	35:2d:137:SER:H	2.22	0.47
50:2s:19:VAL:O	50:2s:23:ASN:ND2	2.48	0.47
1:1A:489:G:N7	18:1W:49:LYS:NZ	2.62	0.47
1:1A:1364:G:N7	23:11:3:LYS:HD2	2.29	0.47
1:1A:2134:A:N7	1:1A:2156:G:O2'	2.48	0.47
1:1A:2136:C:C4	1:1A:2155:G:N1	2.82	0.47
1:1A:2680:C:H5'	4:1E:189:PRO:HA	1.97	0.47
5:1F:32:LEU:HB3	5:1F:112:MET:HE1	1.97	0.47
7:1H:101:ARG:HH12	7:1H:123:PHE:H	1.63	0.47
26:14:16:CYS:HB2	26:14:36:CYS:HB3	1.96	0.47
33:1b:219:VAL:HA	33:1b:222:ILE:HG13	1.96	0.47
47:1p:6:LEU:HB3	47:1p:17:TYR:CD1	2.50	0.47
8:2I:77:LEU:HD21	8:2I:101:LEU:HB3	1.97	0.47
32:2a:1054:C:H42	54:2w:34:U8U:HA2	1.80	0.47
33:2b:167:PRO:HD3	33:2b:187:LEU:O	2.15	0.47
33:2b:192:SER:O	33:2b:194:PRO:HD3	2.15	0.47
49:2r:31:LEU:HD23	49:2r:31:LEU:H	1.80	0.47
1:1A:298:G:H5"	1:1A:299:A:OP1	2.14	0.47
1:1A:1111:A:N3	1:1A:1112:G:H1'	2.29	0.47
1:1A:1774:C:O5'	1:1A:1774:C:H6	1.98	0.47
1:1A:2163:C:OP1	1:1A:2165:G:N2	2.48	0.47
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.57	0.47
15:1T:60:THR:HG22	15:1T:77:PRO:HA	1.96	0.47
32:1a:171:A:H2'	32:1a:172:A:C8	2.50	0.47
32:1a:1004:A:H5"	32:1a:1025:U:C5	2.50	0.47
32:1a:1201:A:H4'	32:1a:1202:G:O5'	2.15	0.47
1:2A:30:G:C5	1:2A:31:C:C4	3.03	0.47
1:2A:918:A:C6	1:2A:919:G:H1'	2.50	0.47
1:2A:1541:G:OP2	1:2A:1542:A:O2'	2.30	0.47
1:2A:2051:A:H5'	1:2A:2578:G:O4'	2.15	0.47
60:2A:3859:ERY:H321	60:2A:3859:ERY:H333	1.97	0.47
2:2B:87:G:N2	2:2B:90:A:OP2	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:23:11:SER:HA	25:23:31:LEU:HD21	1.96	0.47
34:2c:5:ILE:HD12	34:2c:6:HIS:H	1.80	0.47
34:2c:181:ASN:N	34:2c:205:GLY:O	2.44	0.47
35:2d:162:LEU:HG	35:2d:181:MET:SD	2.55	0.47
37:2f:61:LEU:HB3	37:2f:63:TYR:CE2	2.49	0.47
37:2f:83:ASP:N	37:2f:83:ASP:OD1	2.48	0.47
46:2o:43:LEU:HD12	46:2o:56:LEU:HD13	1.96	0.47
51:2t:54:LYS:HA	51:2t:57:ARG:CZ	2.44	0.47
1:1A:271(D):G:H1	1:1A:271(T):C:H42	1.64	0.46
1:1A:1354:A:H2'	1:1A:1355:G:O4'	2.16	0.46
1:1A:2470:G:O6	1:1A:2476:A:O2'	2.27	0.46
7:1H:43:VAL:HG22	7:1H:52:VAL:HG22	1.97	0.46
8:1I:107:VAL:HG12	8:1I:109:ILE:HG12	1.96	0.46
32:1a:939:G:C6	32:1a:940:C:C4	3.03	0.46
32:1a:1273:G:H3'	32:1a:1274:G:C8	2.50	0.46
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.96	0.46
32:1a:1296:C:H4'	32:1a:1302:U:C4	2.50	0.46
32:1a:1375:A:H4'	38:1g:29:LYS:HD3	1.98	0.46
35:1d:132:ARG:NH1	35:1d:134:ASP:OD2	2.48	0.46
37:1f:47:ARG:HA	37:1f:57:GLN:HB3	1.97	0.46
41:1j:35:SER:HB3	41:1j:73:ASP:CB	2.45	0.46
50:1s:61:TYR:CE2	50:1s:63:THR:HG23	2.50	0.46
1:2A:700:G:H2'	1:2A:701:G:O4'	2.14	0.46
1:2A:1670:C:O2	4:2E:129:HIS:NE2	2.48	0.46
1:2A:2885:C:O2'	27:25:34:PRO:HG3	2.15	0.46
16:2U:83:LEU:CD2	16:2U:88:ILE:HB	2.45	0.46
32:2a:131:C:H2'	32:2a:132:C:C6	2.50	0.46
32:2a:407:G:H5"	35:2d:115:ARG:HB3	1.97	0.46
32:2a:1323:G:H2'	32:2a:1324:A:C8	2.50	0.46
48:2q:45:HIS:CD2	48:2q:47:PRO:HG3	2.50	0.46
54:2w:13:C:O2'	54:2w:14:A:H5"	2.15	0.46
1:1A:323:G:H1'	1:1A:1205:U:O2	2.15	0.46
1:1A:363(A):A:H2'	1:1A:363(B):G:C8	2.51	0.46
1:1A:740:U:OP2	63:1A:4244:HOH:O	2.20	0.46
1:1A:2186:G:H2'	1:1A:2187:G:H5'	1.97	0.46
1:1A:2207:G:H4'	1:1A:2208:A:OP2	2.15	0.46
2:1B:33:G:C2	2:1B:50:G:C2	3.04	0.46
3:1D:72:LYS:NZ	3:1D:99:ASP:OD2	2.42	0.46
5:1F:34:TRP:CE3	5:1F:35:GLU:HG2	2.50	0.46
32:1a:406:G:H2'	32:1a:407:G:H8	1.80	0.46
32:1a:1457:G:H5"	51:1t:35:THR:HG21	1.95	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:112:VAL:H	35:1d:116:GLN:NE2	2.13	0.46
40:1i:4:TYR:O	40:1i:19:LEU:HB2	2.15	0.46
1:2A:1853:A:N1	1:2A:2087:G:H1'	2.29	0.46
1:2A:2526:G:H5'	1:2A:2742:C:O2'	2.15	0.46
1:2A:2756:U:H1'	1:2A:2757:A:H5"	1.97	0.46
4:2E:116:VAL:HG13	4:2E:122:PHE:HB2	1.96	0.46
7:2H:13:LYS:HA	7:2H:15:VAL:H	1.79	0.46
10:2O:76:ALA:O	15:2T:74:ARG:HG3	2.14	0.46
32:2a:585:G:O2'	32:2a:879:C:OP1	2.30	0.46
32:2a:1009:G:H22	32:2a:1021:G:H1'	1.79	0.46
32:2a:1299:A:H2'	32:2a:1299:A:N3	2.30	0.46
33:2b:13:ALA:C	33:2b:15:VAL:H	2.22	0.46
36:2e:72:GLN:O	36:2e:75:THR:HG22	2.16	0.46
38:2g:59:LEU:O	38:2g:63:LYS:HG3	2.16	0.46
44:2m:10:PRO:HG2	44:2m:21:TYR:CD1	2.49	0.46
51:2t:47:GLY:HA2	51:2t:48:LYS:C	2.40	0.46
1:1A:747:U:O2	1:1A:2014:A:H1'	2.15	0.46
1:1A:1036:G:OP2	7:1H:59:ARG:HD2	2.15	0.46
1:1A:1047:G:H2'	1:1A:1110:G:H22	1.80	0.46
1:1A:2124:G:H3'	1:1A:2125:G:C8	2.50	0.46
1:1A:2804:C:H2'	1:1A:2805:G:H8	1.81	0.46
7:1H:35:VAL:HG12	7:1H:37:VAL:HG12	1.95	0.46
30:18:23:VAL:HG13	30:18:47:LYS:HB3	1.96	0.46
32:1a:626:U:H2'	32:1a:627:G:H8	1.78	0.46
32:1a:1025:U:O2	32:1a:1036:G:C6	2.69	0.46
32:1a:1305:G:H5"	52:1u:4:GLY:HA3	1.96	0.46
37:1f:68:PRO:HG2	37:1f:71:ARG:HD2	1.97	0.46
39:1h:98:LYS:H	39:1h:98:LYS:CE	2.25	0.46
40:1i:55:ALA:HA	40:1i:58:HIS:CD2	2.50	0.46
50:1s:66:MET:HB2	50:1s:74:PHE:CZ	2.50	0.46
1:2A:106:C:O2	1:2A:294:A:O2'	2.33	0.46
1:2A:271(D):G:H2'	1:2A:271(E):U:H6	1.79	0.46
1:2A:340:A:H2'	1:2A:341:G:O4'	2.15	0.46
1:2A:903:C:H2'	1:2A:904:C:C6	2.50	0.46
1:2A:1040:C:H6	1:2A:1040:C:O5'	1.98	0.46
1:2A:1878:G:H2'	1:2A:1879:C:C6	2.50	0.46
1:2A:2375:G:N2	1:2A:2378:A:OP2	2.36	0.46
7:2H:3:ARG:HH22	7:2H:65:HIS:HB3	1.81	0.46
11:2P:90:ARG:H	11:2P:90:ARG:HG3	1.45	0.46
32:2a:553:A:H2'	32:2a:554:C:C6	2.50	0.46
32:2a:630:G:H2'	32:2a:631:G:C8	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:630:G:H2'	32:2a:631:G:H8	1.80	0.46
32:2a:1270:C:H2'	32:2a:1271:G:O4'	2.15	0.46
34:2c:6:HIS:ND1	45:2n:49:HIS:HB3	2.30	0.46
35:2d:22:LYS:O	35:2d:113:SER:HB3	2.16	0.46
38:2g:150:ALA:HA	42:2k:59:TYR:HB3	1.98	0.46
41:2j:7:LYS:HG3	41:2j:70:ARG:O	2.15	0.46
57:2y:41:A:H5'	57:2y:42:A:OP2	2.15	0.46
1:1A:1310:G:OP2	29:17:9:ARG:NE	2.40	0.46
1:1A:1406:U:H2'	1:1A:1407:C:C6	2.50	0.46
1:1A:2405:G:O2'	1:1A:2411:A:N6	2.49	0.46
60:1A:4104:ERY:H71	60:1A:4104:ERY:H4	1.75	0.46
3:1D:70:TRP:HB3	3:1D:190:TYR:CE2	2.51	0.46
12:1Q:51:ARG:HH22	54:1w:54:5MU:H5"	1.81	0.46
16:1U:89:GLU:HG3	17:1V:50:PRO:HB3	1.97	0.46
32:1a:266:G:H2'	32:1a:266:G:N3	2.31	0.46
32:1a:408:A:OP1	35:1d:113:SER:OG	2.32	0.46
32:1a:646:U:H2'	32:1a:647:C:C6	2.50	0.46
32:1a:763:G:H2'	32:1a:764:C:C6	2.50	0.46
32:1a:1323:G:H2'	32:1a:1324:A:C8	2.50	0.46
33:1b:124:SER:HA	33:1b:125:PRO:HA	1.66	0.46
36:1e:90:VAL:O	36:1e:120:THR:HA	2.16	0.46
1:2A:2331:G:O2'	1:2A:2336:A:N1	2.38	0.46
2:2B:7:G:H21	14:2S:38:GLN:NE2	2.10	0.46
5:2F:157:VAL:HB	5:2F:194:MET:HG2	1.96	0.46
6:2G:41:GLN:O	6:2G:43:LEU:HD22	2.15	0.46
9:2N:5:VAL:HG22	9:2N:6:PRO:HD2	1.97	0.46
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.30	0.46
32:2a:1385:G:H2'	32:2a:1386:G:H8	1.77	0.46
34:2c:120:VAL:HG12	34:2c:133:ALA:HB1	1.97	0.46
1:1A:69:C:O2	1:1A:73:A:O2'	2.31	0.46
1:1A:1047:G:H2'	1:1A:1110:G:H1	1.79	0.46
1:1A:2125:G:N1	1:1A:2172:U:OP1	2.49	0.46
4:1E:174:ASP:OD1	4:1E:175:VAL:N	2.49	0.46
8:1I:72:LEU:HB3	8:1I:140:LEU:HD13	1.97	0.46
9:1N:4:TYR:CD2	16:1U:100:VAL:HG11	2.50	0.46
12:1Q:10:ARG:HD3	12:1Q:11:LYS:HE2	1.98	0.46
32:1a:21:G:H2'	32:1a:22:G:C8	2.50	0.46
32:1a:540:G:H2'	32:1a:541:G:O4'	2.14	0.46
32:1a:619:U:N3	35:1d:134:ASP:OD1	2.43	0.46
32:1a:920:U:H2'	32:1a:921:U:C6	2.49	0.46
38:1g:74:GLU:HG2	38:1g:91:VAL:HG22	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:1n:24:CYS:HB2	45:1n:40:CYS:HB3	1.97	0.46
55:1x:54:5MU:H2'	55:1x:55:PSU:O4'	2.15	0.46
1:2A:1580:A:H3'	1:2A:1581:G:H8	1.81	0.46
1:2A:2065:C:H2'	1:2A:2066:C:C6	2.50	0.46
1:2A:2284:C:H2'	1:2A:2285:C:C6	2.51	0.46
2:2B:42:C:C4	2:2B:43:C:C4	3.03	0.46
6:2G:3:LEU:HD22	26:24:25:TYR:CZ	2.51	0.46
8:2I:26:ALA:HB1	8:2I:31:LEU:HD13	1.98	0.46
19:2X:10:ALA:O	19:2X:29:TRP:N	2.41	0.46
21:2Z:30:ASN:HB3	21:2Z:90:VAL:HB	1.98	0.46
26:24:46:GLN:C	26:24:48:ARG:N	2.73	0.46
32:2a:551:U:H2'	32:2a:552:U:C6	2.50	0.46
32:2a:1157:A:H61	32:2a:1178:G:H21	1.63	0.46
34:2c:137:ALA:HA	34:2c:140:ARG:HH11	1.80	0.46
35:2d:57:ARG:NH1	35:2d:205:GLU:HB3	2.30	0.46
36:2e:89:ILE:HD12	36:2e:89:ILE:HA	1.83	0.46
38:2g:35:LYS:HE2	38:2g:38:LEU:HD23	1.97	0.46
47:2p:27:LYS:HG3	47:2p:30:GLY:HA3	1.97	0.46
54:2w:41:A:H2'	54:2w:42:A:C8	2.51	0.46
1:1A:530:G:H4'	1:1A:531:C:OP1	2.16	0.46
1:1A:2352:A:N6	1:1A:2365:G:O2'	2.49	0.46
1:1A:2849:U:H4'	1:1A:2868:A:C2	2.51	0.46
23:11:71:TYR:O	23:11:75:GLU:HG2	2.15	0.46
32:1a:138:G:H2'	32:1a:139:G:C8	2.51	0.46
32:1a:734:G:H21	49:1r:75:ILE:HD11	1.80	0.46
33:1b:101:MET:HA	33:1b:108:ILE:HD12	1.97	0.46
52:1u:3:LYS:HD3	52:1u:14:TRP:CD1	2.51	0.46
54:1w:34:U8U:H6	54:1w:34:U8U:O5'	2.14	0.46
1:2A:416:C:H2'	1:2A:417:C:C6	2.51	0.46
1:2A:459:U:H4'	29:27:40:TRP:CZ3	2.51	0.46
1:2A:746:A:H2'	1:2A:2612:C:H5"	1.98	0.46
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.30	0.46
1:2A:2492:U:H2'	1:2A:2493:U:H6	1.80	0.46
7:2H:29:PRO:HD2	7:2H:80:SER:HA	1.96	0.46
9:2N:110:GLY:O	9:2N:114:ARG:HG3	2.16	0.46
22:20:69:PHE:CE2	22:20:79:VAL:HG22	2.51	0.46
28:26:25:LYS:HE3	28:26:27:LYS:HA	1.98	0.46
32:2a:607:A:H2'	32:2a:608:A:O4'	2.15	0.46
32:2a:631:G:H2'	32:2a:632:A:C8	2.51	0.46
32:2a:838:G:H1	32:2a:848:C:N4	2.12	0.46
32:2a:941:G:H2'	32:2a:942:G:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1207:2MG:C2'	32:2a:1208:C:H5'	2.46	0.46
35:2d:191:ARG:NH1	35:2d:191:ARG:O	2.49	0.46
38:2g:57:GLU:HG3	38:2g:60:LYS:H	1.81	0.46
1:1A:93:G:H2'	1:1A:94:C:C6	2.51	0.46
1:1A:335:C:H2'	1:1A:336:C:H6	1.80	0.46
1:1A:1338:G:N7	19:1X:62:LYS:NZ	2.62	0.46
1:1A:2263:C:OP2	63:1A:4254:HOH:O	2.20	0.46
1:1A:2451:A:O2'	54:1w:76:A1B8A:N	2.48	0.46
6:1G:25:TYR:CZ	6:1G:32:PRO:HD3	2.51	0.46
23:11:73:LEU:HD23	23:11:73:LEU:HA	1.73	0.46
25:13:39:ASP:OD1	25:13:44:ARG:NH1	2.49	0.46
32:1a:175:C:H2'	32:1a:176:C:C6	2.51	0.46
32:1a:1027:C:C2	32:1a:1034:G:N2	2.81	0.46
36:1e:102:ALA:HA	36:1e:120:THR:OG1	2.15	0.46
57:1y:14:A:C2	57:1y:15:G:H1'	2.51	0.46
1:2A:8:A:H2'	1:2A:9:U:C6	2.50	0.46
1:2A:140:G:N2	1:2A:1596:A:H4'	2.31	0.46
1:2A:1711:C:H2'	1:2A:1712:C:C6	2.51	0.46
1:2A:2011:U:OP1	18:2W:42:ARG:NH1	2.47	0.46
1:2A:2238:G:H5"	63:2A:4618:HOH:O	2.15	0.46
2:2B:41:U:H5	6:2G:70:VAL:N	2.10	0.46
11:2P:2:LYS:HG2	11:2P:3:LEU:N	2.31	0.46
21:2Z:30:ASN:HA	21:2Z:89:PHE:HE1	1.80	0.46
26:24:13:ARG:HG2	26:24:23:GLU:HG2	1.97	0.46
32:2a:189(K):U:H2'	32:2a:189(L):G:C8	2.50	0.46
32:2a:237:C:O3'	48:2q:25:ARG:NH2	2.49	0.46
32:2a:737:A:H5'	37:2f:90:VAL:O	2.16	0.46
32:2a:858:G:O6	32:2a:869:G:H3'	2.16	0.46
32:2a:1176:A:H2'	32:2a:1177:G:H8	1.81	0.46
32:2a:1226:C:H4'	50:2s:80:TYR:CZ	2.51	0.46
32:2a:1367:C:OP1	40:2i:115:GLY:N	2.43	0.46
33:2b:16:HIS:O	33:2b:18:GLY:N	2.49	0.46
33:2b:70:PHE:HE1	33:2b:90:MET:HB2	1.80	0.46
34:2c:79:ARG:C	34:2c:81:GLY:H	2.23	0.46
41:2j:38:ILE:HB	41:2j:71:LEU:HB3	1.97	0.46
1:1A:1649:G:O2'	13:1R:107:ASP:OD2	2.26	0.46
1:1A:1791:A:H5'	3:1D:206:LEU:HD12	1.97	0.46
4:1E:73:GLU:H	4:1E:73:GLU:HG3	1.49	0.46
21:1Z:7:ALA:HB2	21:1Z:59:LEU:HD22	1.97	0.46
26:14:59:PHE:HD2	50:1s:64:GLU:HB3	1.81	0.46
32:1a:189(K):U:H2'	32:1a:189(L):G:H8	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:804:U:H5”	32:1a:805:C:OP2	2.16	0.46
32:1a:812:C:N3	63:1a:1940:HOH:O	2.36	0.46
32:1a:1202:G:O4’	45:1n:29:ARG:NH1	2.48	0.46
33:1b:115:LEU:O	33:1b:119:GLU:N	2.49	0.46
41:1j:11:PHE:CE1	41:1j:67:THR:HG22	2.51	0.46
48:1q:58:GLU:OE1	48:1q:75:ARG:NH2	2.48	0.46
1:2A:229:A:H4’	1:2A:230:U:O5’	2.14	0.46
1:2A:2031:A:N3	1:2A:2455:G:O2’	2.41	0.46
1:2A:2492:U:H2’	1:2A:2493:U:C6	2.51	0.46
5:2F:117:ARG:NH2	5:2F:187:VAL:HA	2.31	0.46
12:2Q:81:VAL:HB	22:20:7:LEU:HD21	1.97	0.46
25:23:52:HIS:CD2	25:23:53:LEU:HG	2.51	0.46
32:2a:109:A:C6	32:2a:326:G:C6	3.03	0.46
32:2a:397:A:H3’	32:2a:397:A:N3	2.31	0.46
34:2c:45:LYS:H	34:2c:45:LYS:HG2	1.55	0.46
35:2d:108:LEU:O	35:2d:110:PHE:N	2.49	0.46
50:2s:23:ASN:OD1	50:2s:47:HIS:HE1	1.99	0.46
57:2y:52:G:H1	57:2y:62:C:H42	1.64	0.46
57:2y:65:C:H2’	57:2y:66:A:N7	2.30	0.46
1:1A:278:A:H2’	1:1A:279:C:C6	2.51	0.46
1:1A:323:G:C8	5:1F:171:PRO:HG3	2.51	0.46
1:1A:657:U:H2’	1:1A:658:C:H6	1.81	0.46
1:1A:2689:U:H4’	1:1A:2690:C:O5’	2.15	0.46
3:1D:133:LEU:N	3:1D:189:CYS:O	2.45	0.46
14:1S:26:LEU:HB2	14:1S:85:VAL:CG2	2.46	0.46
32:1a:235:C:H5’	48:1q:70:ARG:HG3	1.97	0.46
32:1a:685:G:C2	32:1a:686:U:C4	3.04	0.46
32:1a:1001(A):G:H2’	32:1a:1002:G:O4’	2.16	0.46
35:1d:109:GLY:HA3	35:1d:165:MET:HG3	1.98	0.46
1:2A:877:U:H3	1:2A:899:A:H2	1.63	0.46
1:2A:1420:U:HO2’	1:2A:1421:G:P	2.36	0.46
2:2B:114:C:H2’	2:2B:115:G:C8	2.51	0.46
4:2E:105:THR:HG21	4:2E:164:ARG:CZ	2.45	0.46
6:2G:103:LEU:O	6:2G:107:LEU:HG	2.16	0.46
16:2U:46:ALA:O	16:2U:50:ARG:N	2.48	0.46
16:2U:76:TYR:CZ	16:2U:80:ILE:HG13	2.51	0.46
26:24:16:CYS:SG	26:24:17:GLY:N	2.89	0.46
27:25:52:TYR:O	27:25:55:ARG:HG2	2.16	0.46
32:2a:120:A:C6	32:2a:122:G:C2	3.04	0.46
32:2a:738:C:H5”	37:2f:69:GLU:HB3	1.98	0.46
32:2a:1109:C:H2’	32:2a:1110:A:O4’	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1371:G:O3'	40:2i:69:GLY:HA3	2.16	0.46
32:2a:1438:G:H2'	32:2a:1439:C:C6	2.50	0.46
33:2b:114:ARG:HA	33:2b:117:GLU:HB3	1.98	0.46
38:2g:113:GLU:HG3	38:2g:118:VAL:HG12	1.98	0.46
1:1A:1252:G:N7	16:1U:36:ARG:NH1	2.59	0.46
1:1A:1815:A:P	3:1D:54:ARG:HH22	2.38	0.46
1:1A:2112:G:H1'	57:1y:19:G:O2'	2.16	0.46
14:1S:14:VAL:O	14:1S:18:ILE:HG12	2.16	0.46
15:1T:11:GLU:HG2	15:1T:57:PHE:CD2	2.51	0.46
19:1X:60:ARG:HH22	29:17:47:ARG:HH21	1.63	0.46
20:1Y:7:VAL:HG21	20:1Y:72:VAL:HG12	1.98	0.46
36:1e:45:PHE:CE2	36:1e:47:LYS:HE3	2.51	0.46
1:2A:1199:U:H2'	1:2A:1200:C:C6	2.51	0.46
1:2A:2227:A:H5"	3:2D:263:ARG:NH1	2.31	0.46
1:2A:2747:G:H1	1:2A:2754:U:H2'	1.81	0.46
7:2H:109:PHE:CZ	7:2H:152:ARG:HD3	2.51	0.46
15:2T:51:ARG:HG3	15:2T:98:LYS:HD3	1.98	0.46
21:2Z:157:LEU:HD21	21:2Z:163:LEU:HB2	1.98	0.46
32:2a:157:G:H1	32:2a:164:U:H3	1.64	0.46
32:2a:664:G:P	49:2r:64:ARG:HH21	2.39	0.46
39:2h:84:ARG:HH12	39:2h:86:ILE:HA	1.81	0.46
1:1A:396:G:H1'	23:11:42:GLN:HB3	1.98	0.45
1:1A:862:G:H2'	1:1A:863:A:O4'	2.15	0.45
1:1A:2291:U:H2'	1:1A:2292:C:C6	2.51	0.45
1:1A:2685:G:H5'	10:1O:68:GLU:OE2	2.16	0.45
2:1B:25:A:H2'	2:1B:26:A:O4'	2.16	0.45
3:1D:35:LYS:HB2	3:1D:36:PRO:HD2	1.98	0.45
5:1F:39:TRP:O	5:1F:43:LYS:HG2	2.15	0.45
7:1H:3:ARG:HG2	7:1H:6:ARG:HB2	1.97	0.45
7:1H:20:ALA:HB1	7:1H:21:PRO:HD2	1.98	0.45
12:1Q:89:ASN:HB2	55:1x:1:C:N3	2.30	0.45
32:1a:748:C:H4'	32:1a:749:C:O5'	2.15	0.45
32:1a:1038:C:H2'	32:1a:1039:C:C6	2.51	0.45
32:1a:1518:MA6:H93	32:1a:1519:MA6:H92	1.98	0.45
33:1b:19:HIS:HA	33:1b:39:ILE:HG23	1.98	0.45
37:1f:38:GLU:HB2	37:1f:64:GLN:HG2	1.98	0.45
39:1h:33:GLU:HG2	39:1h:59:LEU:HD11	1.97	0.45
39:1h:121:ASP:O	39:1h:125:ARG:HG3	2.15	0.45
57:1y:67:C:H2'	57:1y:68:G:O4'	2.16	0.45
1:2A:272(B):G:H2'	1:2A:272(C):G:C8	2.51	0.45
1:2A:746:A:O2'	1:2A:2611:U:O2'	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:921:G:C6	1:2A:922:U:C4	3.03	0.45
1:2A:2138:C:N3	1:2A:2153:G:N2	2.56	0.45
1:2A:2151:G:N2	1:2A:2152:G:H1'	2.30	0.45
1:2A:2299:G:H2'	1:2A:2300:G:C8	2.49	0.45
2:2B:50:G:P	14:2S:62:LYS:HB2	2.56	0.45
7:2H:150:ALA:HA	7:2H:153:LYS:HG2	1.98	0.45
21:2Z:45:ASP:O	21:2Z:49:ARG:HG2	2.15	0.45
25:23:4:LEU:O	25:23:36:VAL:HA	2.16	0.45
26:24:46:GLN:NE2	26:24:48:ARG:HG2	2.31	0.45
30:28:23:VAL:HG22	30:28:47:LYS:HB3	1.98	0.45
32:2a:256:U:H2'	32:2a:257:G:C8	2.51	0.45
32:2a:457:C:H2'	32:2a:458:C:H6	1.80	0.45
32:2a:523:A:H61	43:2l:92:0TD:CG	2.29	0.45
32:2a:637:G:H2'	32:2a:638:G:C8	2.52	0.45
33:2b:212:GLN:NE2	33:2b:234:PRO:O	2.50	0.45
34:2c:123:GLN:O	34:2c:128:PHE:HB2	2.16	0.45
45:2n:12:ARG:HD2	45:2n:14:PRO:HA	1.97	0.45
47:2p:4:ILE:HA	47:2p:20:VAL:O	2.16	0.45
50:2s:61:TYR:HE2	50:2s:63:THR:HG23	1.80	0.45
57:2y:39:PSU:H2'	57:2y:40:C:O4'	2.16	0.45
1:1A:228:A:H8	1:1A:229:A:H5'	1.80	0.45
1:1A:2051:A:H5'	1:1A:2578:G:O4'	2.16	0.45
2:1B:57:A:H1'	6:1G:29:TRP:HB2	1.97	0.45
5:1F:7:TYR:CD2	5:1F:24:LEU:HB2	2.51	0.45
8:1I:116:LEU:HD11	8:1I:120:ILE:HG13	1.99	0.45
21:1Z:74:VAL:HG22	21:1Z:86:VAL:HG23	1.97	0.45
32:1a:188:C:H1'	51:1t:89:ARG:HH11	1.81	0.45
32:1a:621:A:H2'	32:1a:622:A:C8	2.51	0.45
32:1a:1125:U:O2	32:1a:1126:U:O2'	2.24	0.45
32:1a:1316:G:N2	32:1a:1318:A:H3'	2.32	0.45
35:1d:178:VAL:C	35:1d:180:GLY:H	2.24	0.45
44:1m:87:TYR:O	44:1m:91:ARG:HG2	2.15	0.45
50:1s:27:GLU:HB2	50:1s:28:LYS:HB3	1.99	0.45
51:1t:10:LEU:HD13	51:1t:11:SER:H	1.81	0.45
1:2A:580:C:H2'	1:2A:581:C:C6	2.51	0.45
1:2A:1394:U:C4	1:2A:1395:A:C5	3.04	0.45
1:2A:2172:U:H3'	1:2A:2173:A:H5'	1.98	0.45
1:2A:2318:G:H21	14:2S:3:ARG:CD	2.30	0.45
1:2A:2438:U:O2'	1:2A:2440:C:OP1	2.28	0.45
6:2G:125:PHE:HB3	6:2G:166:ASP:CG	2.41	0.45
11:2P:88:LEU:HD11	11:2P:114:ILE:HD12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:6:G:N2	36:2e:98:THR:HG23	2.31	0.45
32:2a:45:U:H2'	32:2a:46:G:C8	2.51	0.45
32:2a:114:U:H2'	32:2a:115:G:C8	2.52	0.45
32:2a:1064:G:OP1	32:2a:1386:G:H4'	2.17	0.45
33:2b:16:HIS:C	33:2b:18:GLY:H	2.23	0.45
36:2e:20:GLN:NE2	36:2e:21:ALA:O	2.46	0.45
38:2g:26:PHE:O	38:2g:30:ILE:HG12	2.16	0.45
42:2k:98:LEU:O	42:2k:101:SER:OG	2.21	0.45
54:2w:9:A:H4'	54:2w:46:G7M:H1'	1.99	0.45
1:1A:596:G:H2'	1:1A:597:U:H6	1.82	0.45
3:1D:275:LYS:HG3	3:1D:276:LYS:HG3	1.98	0.45
7:1H:154:PRO:HB3	7:1H:163:TYR:CZ	2.52	0.45
8:1I:27:ARG:HD3	23:11:71:TYR:CE2	2.51	0.45
25:13:31:LEU:HD23	25:13:31:LEU:HA	1.78	0.45
32:1a:193:C:H2'	32:1a:194:C:C6	2.52	0.45
32:1a:232:G:H2'	32:1a:233:C:H6	1.80	0.45
32:1a:438:G:H4'	35:1d:123:HIS:CE1	2.51	0.45
32:1a:460:G:N2	32:1a:472:A:H62	2.15	0.45
32:1a:563:A:H2'	32:1a:567:G:C8	2.52	0.45
32:1a:946:A:H2'	32:1a:947:G:C8	2.51	0.45
40:1i:22:GLY:HA3	40:1i:60:ASP:CG	2.41	0.45
57:1y:20:U:O3'	57:1y:21:A:H4'	2.16	0.45
1:2A:902:C:H2'	1:2A:903:C:H6	1.80	0.45
1:2A:918:A:C5	1:2A:919:G:H1'	2.52	0.45
1:2A:1449:A:O2'	1:2A:1529:G:N2	2.32	0.45
1:2A:1623:G:H2'	1:2A:1624:G:H8	1.80	0.45
1:2A:2375:G:O2'	1:2A:2377:A:N7	2.45	0.45
16:2U:97:ASP:OD1	16:2U:101:ARG:HD2	2.16	0.45
20:2Y:43:ASN:O	20:2Y:65:ALA:N	2.45	0.45
20:2Y:98:VAL:HA	20:2Y:104:GLY:O	2.16	0.45
26:24:24:THR:OG1	26:24:25:TYR:N	2.44	0.45
32:2a:587:G:N1	32:2a:754:C:OP2	2.44	0.45
32:2a:790:A:N1	32:2a:1497:G:H5"	2.31	0.45
32:2a:950:U:OP2	44:2m:102:ARG:HD3	2.16	0.45
32:2a:1122:U:C2	32:2a:1123:A:C8	3.04	0.45
32:2a:1122:U:N3	32:2a:1123:A:N7	2.64	0.45
32:2a:1134:G:C6	32:2a:1135:U:H1'	2.51	0.45
32:2a:1519:MA6:H5"	32:2a:1520:G:OP2	2.16	0.45
35:2d:59:ARG:NH1	35:2d:59:ARG:HA	2.30	0.45
35:2d:109:GLY:HA2	35:2d:165:MET:HE3	1.98	0.45
44:2m:13:LYS:HA	44:2m:44:ARG:HD2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:29:ARG:HD3	44:2m:64:TRP:CE2	2.50	0.45
51:2t:50:GLU:O	51:2t:100:ILE:HD11	2.17	0.45
54:2w:39:PSU:H2'	54:2w:40:C:C6	2.51	0.45
54:2w:51:A:C6	54:2w:63:U:C4	2.99	0.45
57:2y:59:A:H5"	57:2y:60:U:H5	1.81	0.45
1:1A:284:U:H2'	1:1A:285:C:H6	1.79	0.45
1:1A:1179:C:H2'	1:1A:1180:C:H6	1.82	0.45
1:1A:1431:U:H2'	1:1A:1432:C:C6	2.52	0.45
1:1A:2870:C:H2'	1:1A:2871:C:O4'	2.17	0.45
3:1D:60:ARG:HD3	3:1D:87:ASN:ND2	2.32	0.45
5:1F:129:PHE:CD2	5:1F:163:VAL:HG21	2.51	0.45
10:1O:65:THR:OG1	10:1O:69:ILE:HD11	2.16	0.45
22:10:36:ILE:HD13	22:10:58:THR:HG21	1.98	0.45
24:12:41:ILE:H	24:12:41:ILE:HG12	1.59	0.45
32:1a:26:A:O2'	35:1d:209:ARG:NH2	2.50	0.45
32:1a:79:G:H1'	32:1a:91:C:O2	2.15	0.45
32:1a:164:U:H2'	32:1a:165:C:C6	2.51	0.45
32:1a:715:A:H2'	32:1a:716:A:C8	2.51	0.45
33:1b:47:THR:HA	33:1b:50:GLU:HB2	1.98	0.45
33:1b:162:ILE:O	33:1b:185:ILE:HG12	2.16	0.45
34:1c:6:HIS:CD2	34:1c:9:GLY:H	2.34	0.45
38:1g:71:PRO:HB3	38:1g:138:LYS:HG3	1.99	0.45
39:1h:64:LYS:HD2	39:1h:79:VAL:HG21	1.99	0.45
1:2A:184:C:H2'	1:2A:185:U:C6	2.51	0.45
1:2A:817:C:O2'	1:2A:839:U:H5"	2.15	0.45
1:2A:969:U:OP1	25:23:17:LYS:N	2.45	0.45
1:2A:1364:G:P	23:21:3:LYS:HG3	2.57	0.45
1:2A:1710:C:H2'	1:2A:1711:C:C6	2.50	0.45
1:2A:1805:U:O2	3:2D:50:THR:HB	2.16	0.45
1:2A:2291:U:H2'	1:2A:2292:C:C6	2.51	0.45
10:2O:92:GLU:H	10:2O:92:GLU:HG3	1.52	0.45
16:2U:88:ILE:HG23	17:2V:48:GLY:O	2.17	0.45
26:24:1:MET:HE2	26:24:6:HIS:CE1	2.51	0.45
32:2a:736:C:H2'	32:2a:737:A:C8	2.52	0.45
32:2a:767:A:H2'	32:2a:768:A:O4'	2.17	0.45
32:2a:1190:G:O2'	34:2c:3:ASN:HB2	2.16	0.45
33:2b:188:ALA:HB1	33:2b:192:SER:HB2	1.98	0.45
36:2e:113:ALA:HB3	36:2e:115:VAL:HG23	1.97	0.45
1:1A:288:C:H2'	1:1A:289:A:H8	1.81	0.45
1:1A:919:G:N2	1:1A:2269:A:OP2	2.46	0.45
1:1A:1060:U:N3	1:1A:1088:A:C8	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1759:A:N3	63:1A:4371:HOH:O	2.36	0.45
3:1D:37:LEU:HD13	3:1D:87:ASN:ND2	2.31	0.45
9:1N:30:ILE:HG23	9:1N:52:VAL:HG11	1.98	0.45
15:1T:118:ARG:HD3	15:1T:118:ARG:HA	1.74	0.45
16:1U:69:CYS:HB3	16:1U:74:LEU:HD13	1.98	0.45
20:1Y:9:LYS:HA	20:1Y:10:GLY:HA2	1.63	0.45
32:1a:613:C:H2'	32:1a:614:A:H8	1.80	0.45
32:1a:662:G:H2'	32:1a:663:A:H8	1.82	0.45
36:1e:12:LEU:HB3	36:1e:31:LEU:CB	2.47	0.45
38:1g:50:ILE:HD11	38:1g:125:MET:HG3	1.98	0.45
38:1g:76:ARG:HD3	38:1g:156:TRP:HZ2	1.80	0.45
57:1y:18:G:N1	57:1y:55:PSU:H1'	2.31	0.45
1:2A:80:G:H1	1:2A:106:C:N4	2.14	0.45
1:2A:186:G:H2'	1:2A:187:G:H8	1.82	0.45
1:2A:191:A:H2'	1:2A:192:C:C6	2.52	0.45
1:2A:1040:C:H2'	1:2A:1041:C:C6	2.52	0.45
1:2A:1239:G:H2'	1:2A:1240:U:O4'	2.15	0.45
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.49	0.45
1:2A:1927:A:C6	1:2A:1928:A:C6	3.05	0.45
1:2A:2469:A:C2	1:2A:2470:G:H1'	2.52	0.45
1:2A:2820:A:O2'	4:2E:191:PRO:HG3	2.16	0.45
5:2F:28:ILE:HG22	5:2F:112:MET:HG2	1.99	0.45
11:2P:81:GLN:NE2	11:2P:105:LEU:O	2.50	0.45
14:2S:10:ARG:NH2	14:2S:91:PRO:O	2.41	0.45
21:2Z:69:THR:HG22	21:2Z:90:VAL:HG22	1.98	0.45
32:2a:1079:G:OP2	32:2a:1079:G:H8	1.99	0.45
32:2a:1128:C:O2'	32:2a:1129:C:OP1	2.30	0.45
33:2b:178:ARG:NH1	39:2h:74:PRO:HG3	2.31	0.45
41:2j:8:LEU:HG	41:2j:70:ARG:HB2	1.99	0.45
54:2w:26:A:H2'	54:2w:27:G:C8	2.52	0.45
1:1A:606:U:H4'	1:1A:658:C:H4'	1.98	0.45
1:1A:628:G:H2'	1:1A:629:G:C8	2.52	0.45
1:1A:700:G:O2'	1:1A:1632:A:N3	2.44	0.45
1:1A:2611:U:C4	27:15:3:LYS:HG2	2.51	0.45
1:1A:2682:U:O2'	15:1T:58:ASN:ND2	2.50	0.45
17:1V:1:MET:HB3	17:1V:99:ILE:HD12	1.98	0.45
32:1a:254:G:O2'	48:1q:16:GLN:O	2.35	0.45
32:1a:600:C:H42	32:1a:638:G:H1	1.64	0.45
33:1b:12:GLU:C	33:1b:14:GLY:H	2.24	0.45
36:1e:116:THR:HG23	36:1e:117:ASP:OD2	2.15	0.45
1:2A:1378:A:O2'	1:2A:1380:G:N7	2.43	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2205:C:H1'	1:2A:2220:G:N2	2.32	0.45
1:2A:2625:G:O6	63:2A:3961:HOH:O	2.19	0.45
1:2A:2650:U:H2'	1:2A:2651:C:H6	1.80	0.45
21:2Z:17:ALA:HA	21:2Z:20:ARG:NH1	2.31	0.45
21:2Z:72:ARG:HH22	21:2Z:97:GLU:HB2	1.82	0.45
32:2a:17:U:H2'	32:2a:18:C:C6	2.52	0.45
32:2a:600:C:H2'	32:2a:601:C:C6	2.52	0.45
32:2a:837:G:H2'	32:2a:838:G:H8	1.81	0.45
32:2a:1089:G:H1	32:2a:1096:C:N4	2.13	0.45
32:2a:1119:C:H2'	32:2a:1120:G:C8	2.51	0.45
32:2a:1352:C:H2'	32:2a:1353:G:C8	2.52	0.45
34:2c:122:GLU:HA	34:2c:125:GLU:OE2	2.15	0.45
35:2d:13:ARG:HB3	35:2d:38:TYR:O	2.17	0.45
39:2h:121:ASP:HB2	39:2h:125:ARG:NH1	2.32	0.45
51:2t:56:MET:SD	51:2t:88:VAL:HG21	2.57	0.45
1:1A:247:G:H4'	1:1A:386:G:C5	2.51	0.45
1:1A:1268:A:H2'	1:1A:1269:A:O4'	2.16	0.45
2:1B:50:G:OP1	14:1S:63:THR:OG1	2.30	0.45
3:1D:39:LYS:NZ	3:1D:57:GLY:O	2.49	0.45
6:1G:37:VAL:HG23	6:1G:99:MET:HG3	1.98	0.45
16:1U:107:ALA:O	16:1U:111:GLU:HG2	2.17	0.45
20:1Y:8:LYS:HD3	20:1Y:97:ARG:NH1	2.32	0.45
32:1a:134:A:H61	47:1p:25:ARG:NH1	2.14	0.45
32:1a:741:G:H2'	32:1a:742:G:O4'	2.16	0.45
40:1i:89:ASN:HB3	40:1i:92:TYR:CG	2.52	0.45
1:2A:2532:G:H1'	1:2A:2663:G:N2	2.31	0.45
1:2A:2814:C:HO2'	27:25:29:THR:HG1	1.64	0.45
7:2H:26:VAL:O	7:2H:32:GLU:HA	2.15	0.45
9:2N:42:TRP:HA	9:2N:48:MET:SD	2.56	0.45
12:2Q:63:LYS:HE2	12:2Q:65:PHE:CZ	2.51	0.45
19:2X:32:PRO:HA	19:2X:77:LYS:HD2	1.98	0.45
32:2a:60:A:N1	32:2a:107:G:O2'	2.50	0.45
32:2a:442:C:H42	32:2a:492:G:H1	1.64	0.45
32:2a:516:PSU:C2	32:2a:517:G:C6	3.05	0.45
32:2a:1275:A:H3'	32:2a:1276:G:C8	2.48	0.45
32:2a:1465:C:H2'	32:2a:1466:C:O4'	2.17	0.45
38:2g:115:ARG:HH11	38:2g:118:VAL:HG21	1.82	0.45
42:2k:80:VAL:O	42:2k:106:LYS:N	2.48	0.45
54:2w:76:A1B8A:NZ	56:2z:2:ARG:HD2	2.31	0.45
1:1A:196:A:H2'	1:1A:196:A:N3	2.32	0.45
1:1A:579:G:H2'	1:1A:580:C:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:141:LYS:NZ	8:1I:141:LYS:H	2.15	0.45
12:1Q:85:LYS:N	12:1Q:85:LYS:HD2	2.32	0.45
18:1W:8:ARG:NH2	18:1W:9:TYR:OH	2.50	0.45
21:1Z:17:ALA:HA	21:1Z:20:ARG:NH1	2.32	0.45
32:1a:1041:A:H2'	32:1a:1042:G:O4'	2.17	0.45
32:1a:1053:G:N7	32:1a:1200:C:H5"	2.32	0.45
32:1a:1399:C:H4'	32:1a:1400:5MC:H5"	1.99	0.45
42:1k:34:ASP:HB2	42:1k:35:PRO:HD2	1.99	0.45
51:1t:58:LYS:HA	51:1t:58:LYS:HD2	1.77	0.45
1:2A:311:A:C6	1:2A:328:U:C4	3.05	0.45
1:2A:1455:G:OP2	63:2A:3971:HOH:O	2.21	0.45
1:2A:2469:A:H3'	1:2A:2470:G:H8	1.81	0.45
3:2D:146:GLU:HG2	3:2D:152:GLY:C	2.41	0.45
5:2F:107:LYS:HG2	5:2F:108:LYS:N	2.32	0.45
9:2N:24:GLY:O	9:2N:28:THR:HG23	2.16	0.45
10:2O:88:ASN:CG	10:2O:90:GLN:H	2.24	0.45
11:2P:65:ARG:HG3	11:2P:66:GLY:N	2.32	0.45
15:2T:11:GLU:O	15:2T:15:VAL:HG23	2.17	0.45
18:2W:12:ILE:HG13	18:2W:42:ARG:NH1	2.32	0.45
21:2Z:24:LEU:HD12	21:2Z:25:PRO:HD2	1.98	0.45
23:21:52:ARG:HG3	23:21:56:GLN:O	2.17	0.45
30:28:22:VAL:HG12	30:28:50:LEU:HD12	1.99	0.45
32:2a:689:C:OP2	42:2k:55:LYS:NZ	2.36	0.45
32:2a:991:U:C4	32:2a:1212:U:H1'	2.52	0.45
32:2a:1256:A:OP1	34:2c:26:LYS:NZ	2.49	0.45
32:2a:1400:5MC:N4	55:2x:34:C:H1'	2.32	0.45
33:2b:16:HIS:ND1	33:2b:204:ASN:HB2	2.31	0.45
33:2b:195:ASP:OD1	33:2b:195:ASP:N	2.48	0.45
38:2g:108:ALA:O	38:2g:119:ARG:HD2	2.16	0.45
40:2i:8:GLY:HA3	40:2i:76:ALA:O	2.17	0.45
42:2k:62:GLN:HG3	42:2k:97:ALA:HB2	1.99	0.45
48:2q:51:TYR:CD1	48:2q:57:VAL:HG11	2.52	0.45
54:2w:7:U:H3'	54:2w:8:U:C5'	2.46	0.45
1:1A:1057:A:N6	1:1A:1087:G:OP2	2.41	0.45
1:1A:1790:C:H2'	1:1A:1791:A:C5	2.52	0.45
1:1A:2406:U:H2'	1:1A:2406:U:OP2	2.17	0.45
1:1A:2786:U:O2'	4:1E:62:PRO:O	2.32	0.45
2:1B:96:U:O4	63:1B:303:HOH:O	2.21	0.45
3:1D:77:ALA:HB2	3:1D:97:TYR:CD1	2.52	0.45
13:1R:104:ARG:HD2	13:1R:109:ALA:HB3	1.98	0.45
16:1U:34:LYS:HA	16:1U:34:LYS:HD2	1.56	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:1Y:6:HIS:H	20:1Y:6:HIS:CD2	2.35	0.45
21:1Z:8:TYR:CD2	21:1Z:8:TYR:N	2.85	0.45
23:11:23:LYS:HB3	23:11:29:GLY:HA3	1.98	0.45
32:1a:279:A:C5	48:1q:98:LEU:HD23	2.52	0.45
32:1a:831:U:H2'	32:1a:832:C:C6	2.51	0.45
33:1b:69:LEU:HD12	33:1b:91:PRO:HB2	1.98	0.45
34:1c:40:ARG:NH1	45:1n:52:GLN:OE1	2.49	0.45
1:2A:898:C:H2'	1:2A:899:A:O4'	2.17	0.45
1:2A:903:C:H2'	1:2A:904:C:H6	1.82	0.45
1:2A:918:A:N3	2:2B:80:U:O2'	2.50	0.45
1:2A:1820:U:C4	3:2D:160:GLY:HA3	2.52	0.45
1:2A:2646:C:OP2	1:2A:2732:G:O2'	2.35	0.45
1:2A:2689:U:OP2	1:2A:2719:G:N2	2.49	0.45
5:2F:130:ALA:HB3	5:2F:142:TRP:HD1	1.82	0.45
6:2G:66:GLN:HB3	6:2G:92:VAL:HG21	1.99	0.45
7:2H:30:LYS:HE3	7:2H:81:GLU:C	2.41	0.45
7:2H:46:GLU:O	7:2H:48:GLY:N	2.48	0.45
7:2H:103:LEU:HD12	7:2H:104:GLU:O	2.16	0.45
9:2N:67:LEU:HB3	9:2N:88:GLU:HG3	1.99	0.45
17:2V:55:ALA:HA	17:2V:101:GLY:HA2	1.99	0.45
20:2Y:52:SER:OG	20:2Y:55:TYR:HB2	2.17	0.45
22:20:50:ASN:HB3	22:20:63:VAL:HG22	1.98	0.45
29:27:35:ARG:HG2	29:27:42:LEU:HD21	1.99	0.45
32:2a:44:G:O6	63:2a:1917:HOH:O	2.20	0.45
32:2a:338:A:H2	32:2a:351:G:H22	1.64	0.45
32:2a:614:A:H2'	32:2a:615:C:C6	2.52	0.45
32:2a:651:C:N4	32:2a:753:A:OP2	2.48	0.45
32:2a:920:U:H2'	32:2a:921:U:H6	1.82	0.45
32:2a:1000:U:H2'	32:2a:1001:A:O4'	2.16	0.45
33:2b:67:THR:O	33:2b:68:ILE:HG13	2.16	0.45
35:2d:156:GLU:OE1	35:2d:159:ARG:NH2	2.45	0.45
36:2e:143:ARG:HB3	36:2e:147:ASP:HB2	1.99	0.45
36:2e:147:ASP:O	36:2e:151:LEU:HG	2.17	0.45
40:2i:9:ARG:HD2	40:2i:14:VAL:HG12	1.99	0.45
43:2l:89:ARG:HA	43:2l:97:ARG:HA	1.99	0.45
44:2m:94:ARG:HB3	44:2m:96:LEU:HG	1.99	0.45
54:2w:51:A:C8	54:2w:64:G:C2	3.04	0.45
1:1A:120:U:H5"	1:1A:122:G:OP2	2.17	0.45
1:1A:185:U:H2'	1:1A:186:G:H8	1.82	0.45
1:1A:226:G:N2	1:1A:228:A:H62	2.14	0.45
1:1A:528:A:O2'	1:1A:529:A:H5'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:675:A:C8	1:1A:804:A:C6	3.05	0.45
1:1A:1482:G:H2'	1:1A:1484:G:C8	2.51	0.45
1:1A:1904:G:O2'	1:1A:1928:A:N1	2.47	0.45
1:1A:2103:C:H42	1:1A:2186:G:H1	1.65	0.45
1:1A:2115:G:H2'	1:1A:2116:G:H2'	1.99	0.45
3:1D:17:THR:OG1	3:1D:205:VAL:N	2.31	0.45
9:1N:58:ASP:OD1	9:1N:58:ASP:N	2.48	0.45
12:1Q:2:LEU:HD22	12:1Q:69:PHE:CE1	2.51	0.45
14:1S:52:SER:O	14:1S:56:LEU:HG	2.16	0.45
28:16:12:GLU:OE1	28:16:19:ARG:NH1	2.50	0.45
32:1a:262:A:C6	32:1a:263:A:C6	3.04	0.45
32:1a:1002:G:H3'	32:1a:1003:G:C4'	2.46	0.45
32:1a:1174:G:H2'	32:1a:1175:G:H8	1.82	0.45
34:1c:121:ALA:O	34:1c:125:GLU:HG3	2.17	0.45
42:1k:108:ILE:HB	49:1r:87:ARG:HD3	1.99	0.45
47:1p:66:PRO:HG2	47:1p:71:ARG:HE	1.82	0.45
57:1y:22:G:H2'	57:1y:23:A:C8	2.52	0.45
1:2A:1204:A:N6	1:2A:1240:U:H2'	2.31	0.45
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.52	0.45
1:2A:2685:G:O6	63:2A:3966:HOH:O	2.20	0.45
1:2A:2722:G:H2'	1:2A:2723:C:C6	2.52	0.45
6:2G:96:ARG:O	6:2G:99:MET:HB3	2.16	0.45
15:2T:23:ARG:HD3	15:2T:120:ARG:NH1	2.32	0.45
19:2X:92:LEU:HA	19:2X:92:LEU:HD23	1.73	0.45
32:2a:625:G:OP1	47:2p:9:PHE:HB3	2.17	0.45
32:2a:778:G:H2'	32:2a:779:C:O4'	2.17	0.45
32:2a:1263:C:C2	32:2a:1272:G:O6	2.69	0.45
32:2a:1320:C:H2'	32:2a:1321:C:O4'	2.17	0.45
34:2c:14:ILE:HG22	34:2c:15:THR:HG23	1.99	0.45
34:2c:25:GLY:O	34:2c:29:TYR:HB2	2.16	0.45
34:2c:63:ASN:HB3	34:2c:98:ASN:HD22	1.81	0.45
36:2e:143:ARG:HH21	39:2h:77:GLU:CD	2.24	0.45
56:2z:1:FME:HCN	56:2z:2:ARG:HG2	1.98	0.45
57:2y:67:C:H2'	57:2y:68:G:C8	2.52	0.45
1:1A:1518:U:H2'	1:1A:1519:G:O4'	2.17	0.44
1:1A:2093:G:C6	1:1A:2225:A:C8	3.05	0.44
1:1A:2749:A:O3'	7:1H:62:LYS:NZ	2.50	0.44
1:1A:2820:A:OP2	13:1R:2:ARG:NH2	2.50	0.44
8:1I:50:ARG:HE	8:1I:50:ARG:HB3	1.33	0.44
32:1a:22:G:H4'	32:1a:885:G:C8	2.53	0.44
32:1a:756:C:H2'	32:1a:757:U:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:112:SER:O	34:1c:116:VAL:HG23	2.17	0.44
48:1q:56:VAL:O	48:1q:77:VAL:HB	2.17	0.44
57:1y:52:G:H1	57:1y:62:C:H42	1.64	0.44
1:2A:579:G:H2'	1:2A:580:C:C6	2.53	0.44
1:2A:1778:U:H2'	1:2A:1784:A:N6	2.32	0.44
1:2A:2156:G:H2'	1:2A:2157:G:C6	2.52	0.44
1:2A:2161:C:H3'	1:2A:2162:G:H8	1.81	0.44
10:2O:71:ARG:NE	10:2O:105:GLU:OE2	2.50	0.44
15:2T:55:ASN:H	15:2T:59:THR:HB	1.82	0.44
32:2a:28:G:O2'	32:2a:296:U:OP1	2.30	0.44
32:2a:973:G:H3'	32:2a:974:A:H5"	1.99	0.44
32:2a:1316:G:O6	50:2s:7:LYS:HD2	2.16	0.44
33:2b:165:VAL:O	33:2b:187:LEU:HB3	2.17	0.44
34:2c:118:GLN:HA	34:2c:121:ALA:HB3	1.97	0.44
35:2d:38:TYR:CE1	35:2d:45:GLN:HG3	2.51	0.44
46:2o:87:ILE:O	46:2o:88:ARG:HB3	2.17	0.44
48:2q:90:ILE:O	48:2q:94:ASN:N	2.37	0.44
49:2r:85:LEU:HD23	49:2r:87:ARG:HH11	1.82	0.44
51:2t:54:LYS:HE2	51:2t:54:LYS:HB3	1.52	0.44
55:2x:3:C:N4	55:2x:70:G:H1	2.12	0.44
1:1A:220:G:O2'	1:1A:233:A:N3	2.47	0.44
1:1A:969:U:H2'	1:1A:970:C:C6	2.52	0.44
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.52	0.44
2:1B:19:G:H2'	2:1B:20:C:O4'	2.17	0.44
11:1P:38:GLN:O	11:1P:39:LYS:HB3	2.18	0.44
11:1P:63:PRO:HB2	30:18:30:ARG:NH2	2.32	0.44
32:1a:662:G:H1	32:1a:743:U:H3	1.65	0.44
32:1a:1401:G:C2	32:1a:1402:4OC:H1'	2.53	0.44
35:1d:112:VAL:H	35:1d:116:GLN:HE21	1.65	0.44
39:1h:112:LEU:HA	39:1h:134:ILE:HG12	1.98	0.44
1:2A:1199:U:H2'	1:2A:1200:C:H6	1.82	0.44
7:2H:74:ASN:O	7:2H:78:GLY:N	2.42	0.44
12:2Q:78:PRO:HG2	12:2Q:81:VAL:HG11	2.00	0.44
19:2X:1:MET:HE1	24:22:22:GLU:HB3	1.98	0.44
32:2a:390:C:H2'	32:2a:391:G:C8	2.52	0.44
32:2a:620:C:H2'	32:2a:621:A:O4'	2.17	0.44
32:2a:742:G:P	46:2o:35:ARG:HH21	2.40	0.44
32:2a:1427:U:H2'	32:2a:1428:A:C8	2.51	0.44
33:2b:51:LEU:O	33:2b:55:PHE:HB2	2.17	0.44
38:2g:106:GLN:H	38:2g:106:GLN:HG2	1.40	0.44
44:2m:123:ALA:HB1	44:2m:124:PRO:HD2	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:2w:11:C:H2'	54:2w:12:U:C6	2.53	0.44
54:2w:48:C:N3	54:2w:59:A:H1'	2.32	0.44
1:1A:764:A:H5"	3:1D:210:GLY:HA3	2.00	0.44
1:1A:784:A:C6	3:1D:229:VAL:HG11	2.52	0.44
1:1A:1045:A:H1'	1:1A:1047:G:N3	2.32	0.44
1:1A:1504:C:H2'	1:1A:1505:C:C6	2.52	0.44
5:1F:11:VAL:HG12	5:1F:12:LEU:H	1.82	0.44
10:1O:89:ASN:ND2	10:1O:89:ASN:H	2.10	0.44
26:14:40:HIS:HB3	26:14:43:TYR:HB2	2.00	0.44
27:15:33:CYS:HB2	27:15:40:LYS:HD3	1.99	0.44
32:1a:404:U:H2'	32:1a:405:U:C6	2.52	0.44
32:1a:574:A:OP2	63:1a:1914:HOH:O	2.21	0.44
32:1a:857:C:H2'	32:1a:858:G:O4'	2.18	0.44
33:1b:200:ILE:HG22	33:1b:202:PRO:HD3	1.98	0.44
34:1c:6:HIS:HD2	34:1c:8:ILE:N	2.14	0.44
38:1g:64:GLN:HE21	38:1g:68:ASN:HD21	1.65	0.44
38:1g:76:ARG:HD3	38:1g:156:TRP:CZ2	2.52	0.44
44:1m:79:LYS:NZ	44:1m:83:ASP:OD2	2.37	0.44
55:1x:37:A:H2'	55:1x:38:A:O4'	2.18	0.44
1:2A:27:G:N2	1:2A:512:G:H1'	2.31	0.44
1:2A:2065:C:H2'	1:2A:2066:C:H6	1.81	0.44
11:2P:95:VAL:HB	11:2P:125:VAL:HG12	1.98	0.44
15:2T:24:PRO:HA	15:2T:49:VAL:HG12	1.98	0.44
32:2a:656:C:H2'	32:2a:657:G:O4'	2.16	0.44
32:2a:1049:U:OP1	45:2n:3:ARG:HB2	2.17	0.44
32:2a:1108:G:O6	63:2a:1916:HOH:O	2.20	0.44
32:2a:1353:G:H2'	32:2a:1354:C:C6	2.52	0.44
35:2d:106:TYR:HB2	35:2d:117:ALA:HB2	2.00	0.44
37:2f:50:TYR:CE2	49:2r:77:GLY:HA2	2.52	0.44
38:2g:113:GLU:HG3	38:2g:118:VAL:CG1	2.48	0.44
38:2g:120:ILE:O	38:2g:124:LEU:HB2	2.17	0.44
53:2v:12:A:H5"	53:2v:13:A:OP1	2.17	0.44
1:1A:218:A:C2	1:1A:235:U:H4'	2.52	0.44
1:1A:1256:G:O2'	5:1F:75:HIS:HE1	2.00	0.44
1:1A:1655:A:H3'	1:1A:1656:C:C6	2.52	0.44
1:1A:2319:G:H1	14:1S:3:ARG:HA	1.82	0.44
1:1A:2406:U:C2	11:1P:72:PRO:HG2	2.52	0.44
2:1B:73:A:C4	2:1B:105:A:C2	3.06	0.44
3:1D:13:ARG:HA	3:1D:13:ARG:HD3	1.72	0.44
5:1F:135:LYS:HB2	5:1F:138:GLU:CD	2.42	0.44
8:1I:100:ALA:HA	8:1I:103:ARG:NH1	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:1T:108:ARG:HG3	15:1T:109:GLU:N	2.26	0.44
15:1T:111:ARG:NH2	32:1a:1464:G:OP2	2.50	0.44
24:12:3:LEU:O	24:12:7:ARG:HG3	2.17	0.44
34:1c:33:LEU:O	34:1c:37:GLN:HG2	2.18	0.44
35:1d:186:LEU:HD13	35:1d:186:LEU:HA	1.82	0.44
35:1d:202:LEU:HA	35:1d:205:GLU:HB2	1.99	0.44
42:1k:85:ARG:HD3	42:1k:113:PRO:HD3	1.99	0.44
43:1l:117:ARG:HB3	43:1l:122:THR:HB	1.99	0.44
55:1x:33:U:O2'	55:1x:35:A:N7	2.41	0.44
1:2A:34:C:H2'	1:2A:35:G:H5'	1.98	0.44
1:2A:1263:U:C4	1:2A:1264:G:C6	3.05	0.44
1:2A:1740:G:H2'	1:2A:1741:A:C8	2.53	0.44
4:2E:82:ARG:HG3	4:2E:83:ASP:OD2	2.18	0.44
4:2E:179:GLU:HG3	15:2T:9:LEU:HD21	1.98	0.44
5:2F:54:ARG:NH2	5:2F:77:ASP:OD1	2.51	0.44
6:2G:138:GLN:HE22	6:2G:152:LEU:HA	1.82	0.44
7:2H:51:ARG:HH12	7:2H:53:GLU:CG	2.31	0.44
9:2N:108:PRO:O	9:2N:113:GLY:HA3	2.16	0.44
14:2S:10:ARG:HA	14:2S:13:ARG:HG2	1.98	0.44
32:2a:947:G:O3'	44:2m:109:THR:OG1	2.35	0.44
32:2a:976:G:N2	32:2a:1363:C:OP2	2.48	0.44
34:2c:17:ASP:HB3	34:2c:21:ARG:NH1	2.32	0.44
34:2c:46:GLU:CD	34:2c:46:GLU:H	2.24	0.44
40:2i:50:LEU:H	40:2i:50:LEU:HG	1.62	0.44
48:2q:58:GLU:OE2	48:2q:75:ARG:NH2	2.50	0.44
57:2y:28:U:H2'	57:2y:29:U:C6	2.53	0.44
1:1A:191:A:H2'	1:1A:192:C:C6	2.53	0.44
1:1A:2131:G:C2	1:1A:2133:G:C2	3.05	0.44
1:1A:2171:A:H1'	1:1A:2172:U:O4'	2.18	0.44
1:1A:2193:G:H2'	1:1A:2194:G:C8	2.52	0.44
1:1A:2228:G:P	3:1D:263:ARG:HH12	2.41	0.44
21:1Z:33:LEU:HD12	21:1Z:35:ARG:HG2	1.99	0.44
32:1a:719:C:O2'	49:1r:50:ILE:O	2.32	0.44
44:1m:4:ILE:HD12	44:1m:57:ARG:HA	1.99	0.44
47:1p:48:TRP:CD1	47:1p:48:TRP:H	2.34	0.44
51:1t:65:LYS:O	51:1t:68:LYS:HB2	2.18	0.44
1:2A:239:U:H2'	1:2A:240:G:O4'	2.18	0.44
1:2A:271(N):U:O2'	1:2A:271(O):C:H5'	2.17	0.44
1:2A:272(B):G:H2'	1:2A:272(C):G:H8	1.82	0.44
1:2A:1181:C:H2'	1:2A:1182:A:C8	2.52	0.44
1:2A:1449:A:N6	1:2A:1450:G:C2	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1791:A:H3'	1:2A:1792:G:C8	2.52	0.44
1:2A:2251:OMG:HM23	1:2A:2251:OMG:H1'	1.68	0.44
1:2A:2335:A:C8	1:2A:2337:G:C5	3.05	0.44
17:2V:20:LEU:HD12	17:2V:20:LEU:HA	1.78	0.44
24:22:10:LEU:HD21	24:22:59:ARG:HG2	1.98	0.44
31:29:10:ILE:HD12	31:29:32:HIS:HA	1.99	0.44
32:2a:596:C:H3'	32:2a:596:C:OP2	2.17	0.44
32:2a:737:A:H4'	37:2f:72:VAL:HG11	1.99	0.44
32:2a:1005:A:H3'	32:2a:1006:C:H6	1.83	0.44
32:2a:1190:G:H5'	34:2c:176:HIS:CE1	2.52	0.44
32:2a:1206:G:C6	32:2a:1207:2MG:C5	3.05	0.44
33:2b:141:GLU:O	33:2b:145:LEU:HD12	2.18	0.44
40:2i:86:VAL:HG11	40:2i:93:ARG:HE	1.81	0.44
42:2k:48:ILE:C	42:2k:50:TYR:H	2.22	0.44
43:2l:70:ILE:HG21	43:2l:75:HIS:CD2	2.53	0.44
1:1A:57:C:H2'	1:1A:58:G:O4'	2.18	0.44
1:1A:1035:U:H2'	1:1A:1036:G:C8	2.53	0.44
1:1A:1657:C:H2'	1:1A:1658:C:C6	2.53	0.44
1:1A:2108:C:H42	1:1A:2181:G:H1	1.64	0.44
9:1N:108:PRO:O	9:1N:113:GLY:HA3	2.18	0.44
32:1a:198:G:C5	32:1a:220:G:C2	3.06	0.44
32:1a:649:G:H2'	32:1a:650:G:H8	1.83	0.44
32:1a:1187:G:H5'	40:1i:113:LYS:HE2	1.98	0.44
32:1a:1216:G:H5"	45:1n:5:ALA:HB2	2.00	0.44
32:1a:1525:G:P	42:1k:120:ARG:HH22	2.39	0.44
32:1a:1530:G:H4'	32:1a:1530:G:OP1	2.17	0.44
40:1i:32:ASP:OD1	40:1i:33:PHE:N	2.50	0.44
41:1j:38:ILE:HG13	41:1j:71:LEU:HB3	1.99	0.44
1:2A:667:U:O2	30:28:2:PRO:HD2	2.18	0.44
1:2A:700:G:O2'	1:2A:1632:A:N3	2.49	0.44
1:2A:808:G:OP2	11:2P:36:LYS:HE2	2.18	0.44
1:2A:1786:A:C4	1:2A:1938:A:C6	3.06	0.44
1:2A:2320:A:H1'	1:2A:2321:G:C2	2.53	0.44
1:2A:2626:C:H2'	1:2A:2627:G:O4'	2.17	0.44
5:2F:28:ILE:HA	5:2F:112:MET:HG2	1.99	0.44
14:2S:33:LYS:HB3	14:2S:34:HIS:HD2	1.83	0.44
25:23:8:LEU:HB2	25:23:28:LEU:HD22	1.99	0.44
32:2a:148:G:H2'	32:2a:149:A:H8	1.82	0.44
32:2a:1151:A:O2'	32:2a:1152:A:O4'	2.30	0.44
32:2a:1239:A:H62	32:2a:1299:A:H62	1.66	0.44
32:2a:1404:5MC:O2	32:2a:1519:MA6:O2'	2.25	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.53	0.44
41:2j:9:ARG:HH12	41:2j:69:ASN:HA	1.82	0.44
1:1A:106:C:H1'	20:1Y:1:MET:HE2	2.00	0.44
1:1A:251:A:C5	1:1A:252:G:H1'	2.52	0.44
1:1A:568:U:H5'	1:1A:945:A:N6	2.33	0.44
1:1A:630:G:OP2	30:18:15:LYS:NZ	2.43	0.44
1:1A:1477:A:C2	1:1A:1515:G:C2	3.06	0.44
1:1A:1593:G:H2'	1:1A:1594:G:C8	2.53	0.44
1:1A:1709:U:H2'	1:1A:1710:C:C6	2.52	0.44
1:1A:1796:U:H2'	1:1A:1797:C:H6	1.82	0.44
1:1A:2577:A:H5'	27:15:3:LYS:HD2	2.00	0.44
7:1H:105:LEU:HD23	7:1H:105:LEU:HA	1.75	0.44
32:1a:736:C:H2'	32:1a:737:A:C8	2.53	0.44
32:1a:975:A:H5'	32:1a:975:A:H8	1.82	0.44
32:1a:990:C:N4	32:1a:991:U:O4	2.50	0.44
34:1c:62:ASP:HA	34:1c:97:LYS:HD3	1.99	0.44
36:1e:69:VAL:HG11	36:1e:113:ALA:HB1	2.00	0.44
36:1e:136:MET:O	36:1e:139:LEU:N	2.51	0.44
43:1l:89:ARG:HE	43:1l:89:ARG:HB2	1.66	0.44
54:1w:58:A:H1'	54:1w:60:U:O2	2.17	0.44
1:2A:196:A:O2'	1:2A:805:G:O6	2.27	0.44
1:2A:315:G:H2'	1:2A:316:C:C6	2.53	0.44
1:2A:1287:A:C5	1:2A:1288:U:C4	3.06	0.44
1:2A:1359:A:H2'	1:2A:1360:A:H5'	1.99	0.44
1:2A:1406:U:H2'	1:2A:1407:C:C6	2.51	0.44
1:2A:1429:G:H2'	1:2A:1430:C:C6	2.53	0.44
1:2A:1803:A:H2'	1:2A:1804:C:O4'	2.17	0.44
1:2A:2319:G:N2	14:2S:3:ARG:HE	2.11	0.44
4:2E:33:VAL:HG22	4:2E:89:ASP:O	2.18	0.44
10:2O:98:VAL:HG21	10:2O:114:ILE:HG23	1.99	0.44
32:2a:399:G:H2'	32:2a:400:C:C6	2.52	0.44
32:2a:859:A:OP2	32:2a:869:G:N2	2.46	0.44
32:2a:933:G:C6	32:2a:1385:G:C6	3.06	0.44
32:2a:1135:U:H3'	32:2a:1137:C:C4	2.52	0.44
32:2a:1273:G:C6	32:2a:1274:G:C4	3.05	0.44
33:2b:211:ILE:O	33:2b:215:LEU:HB2	2.17	0.44
36:2e:9:LYS:HD3	36:2e:9:LYS:HA	1.74	0.44
48:2q:64:PRO:HB3	48:2q:70:ARG:NH1	2.33	0.44
51:2t:13:LEU:O	51:2t:17:ARG:HG2	2.18	0.44
1:1A:489:G:H2'	1:1A:491:G:O4'	2.18	0.44
1:1A:1072:C:O5'	1:1A:1072:C:H6	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1179:C:H2'	1:1A:1180:C:C6	2.53	0.44
1:1A:1359:A:C2	1:1A:1372:U:O4	2.71	0.44
1:1A:1608:A:H1'	1:1A:1610:A:OP2	2.17	0.44
1:1A:2023:G:H4'	1:1A:2617:C:O3'	2.18	0.44
4:1E:50:GLY:HA3	4:1E:75:VAL:HG21	2.00	0.44
7:1H:98:LEU:HG	7:1H:125:VAL:HG23	1.99	0.44
8:1I:117:GLU:HG3	8:1I:118:LYS:H	1.83	0.44
14:1S:28:VAL:HG11	14:1S:98:VAL:HG13	2.00	0.44
15:1T:113:LYS:HA	15:1T:113:LYS:HD3	1.80	0.44
32:1a:130:A:N3	32:1a:263:A:O2'	2.40	0.44
32:1a:967:5MC:H4'	40:1i:125:TYR:HE1	1.83	0.44
32:1a:1309:G:N7	44:1m:99:ARG:NH2	2.59	0.44
32:1a:1452:C:H4'	32:1a:1457:G:C8	2.53	0.44
33:1b:82:ARG:HD2	33:1b:92:TYR:OH	2.18	0.44
39:1h:34:GLU:OE1	39:1h:37:ARG:NH1	2.38	0.44
39:1h:81:HIS:ND1	39:1h:138:TRP:OXT	2.42	0.44
47:1p:47:ASP:OD1	47:1p:47:ASP:N	2.51	0.44
49:1r:37:VAL:HG22	49:1r:78:LEU:HB3	2.00	0.44
55:1x:75:C:H2'	55:1x:76:8AN:H1'	1.99	0.44
57:1y:31:A:H2'	57:1y:32:C:O4'	2.18	0.44
1:2A:529:A:H62	1:2A:2041:U:H3	1.64	0.44
1:2A:706:A:H2'	1:2A:707:G:O4'	2.18	0.44
1:2A:984:A:H5"	1:2A:985:C:H5	1.81	0.44
1:2A:2345:G:N3	1:2A:2381:C:H2'	2.32	0.44
1:2A:2691:C:OP2	63:2A:3973:HOH:O	2.21	0.44
7:2H:53:GLU:HA	7:2H:65:HIS:HE2	1.82	0.44
8:2I:47:LEU:O	8:2I:51:ILE:HB	2.18	0.44
13:2R:26:LYS:HE2	13:2R:70:LEU:O	2.18	0.44
15:2T:92:GLY:O	15:2T:120:ARG:NH2	2.51	0.44
16:2U:8:VAL:O	16:2U:12:ARG:HG3	2.18	0.44
26:24:46:GLN:HG3	26:24:48:ARG:N	2.26	0.44
26:24:61:ARG:HA	26:24:61:ARG:HD2	1.87	0.44
32:2a:352:C:H4'	32:2a:354:G:OP1	2.18	0.44
32:2a:975:A:H5"	32:2a:1363(A):A:N6	2.32	0.44
32:2a:1208:C:H2'	32:2a:1209:C:H6	1.81	0.44
32:2a:1376:U:P	38:2g:94:ARG:HH22	2.41	0.44
41:2j:51:ARG:HG2	45:2n:45:ARG:NH2	2.33	0.44
42:2k:117:ASN:HD22	42:2k:117:ASN:N	2.15	0.44
48:2q:26:GLN:NE2	48:2q:37:LYS:HE3	2.32	0.44
50:2s:18:LYS:HA	50:2s:21:GLU:HG2	2.00	0.44
1:1A:36:G:H4'	1:1A:451:C:C2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:125:G:N2	29:17:48:LYS:HA	2.32	0.44
1:1A:2183:C:H2'	1:1A:2184:G:C8	2.53	0.44
2:1B:78:A:C2	2:1B:100:A:C4	3.06	0.44
5:1F:126:VAL:HG21	5:1F:129:PHE:CZ	2.53	0.44
15:1T:127:ALA:O	15:1T:129:ARG:N	2.51	0.44
20:1Y:44:ILE:H	20:1Y:44:ILE:HG13	1.46	0.44
21:1Z:93:ASP:CB	21:1Z:131:ARG:HH22	2.29	0.44
22:10:10:THR:HA	63:10:208:HOH:O	2.17	0.44
23:11:65:SER:OG	23:11:66:HIS:ND1	2.36	0.44
32:1a:92:C:H2'	32:1a:93:G:H8	1.83	0.44
32:1a:156:G:C6	32:1a:166:G:C6	3.06	0.44
32:1a:1039:C:H2'	32:1a:1040:U:C6	2.53	0.44
32:1a:1318:A:H5"	50:1s:3:ARG:NH1	2.33	0.44
33:1b:102:LEU:HB3	33:1b:180:LEU:CD1	2.48	0.44
33:1b:188:ALA:HB1	33:1b:192:SER:HB2	2.00	0.44
33:1b:192:SER:O	33:1b:194:PRO:HD3	2.18	0.44
35:1d:67:ILE:HD13	35:1d:196:LEU:HD22	2.00	0.44
35:1d:166:LYS:HB2	35:1d:166:LYS:HE3	1.70	0.44
57:1y:8:U:O2'	57:1y:48:C:O4'	2.36	0.44
1:2A:288:C:H2'	1:2A:289:A:C8	2.53	0.44
1:2A:887:A:H4'	1:2A:888:C:H5	1.82	0.44
1:2A:925:C:H2'	1:2A:926:A:H8	1.83	0.44
8:2I:122:GLU:O	8:2I:126:TYR:OH	2.20	0.44
12:2Q:78:PRO:HD3	55:2x:1:C:N3	2.32	0.44
13:2R:38:VAL:O	13:2R:42:LYS:HG3	2.18	0.44
16:2U:105:VAL:HG22	17:2V:45:THR:HG23	1.99	0.44
18:2W:17:VAL:HG11	18:2W:103:ILE:HD11	2.00	0.44
32:2a:15:G:H4'	36:2e:24:ARG:HH21	1.83	0.44
32:2a:487:A:H2'	32:2a:488:C:O4'	2.18	0.44
32:2a:1247:U:H1'	32:2a:1291:G:N2	2.33	0.44
32:2a:1399:C:C4'	32:2a:1400:5MC:H5'	2.36	0.44
48:2q:4:LYS:HE2	48:2q:6:LEU:HD21	2.00	0.44
55:2x:43:A:C2	55:2x:44:A:C4	3.06	0.44
1:1A:284:U:H2'	1:1A:285:C:C6	2.52	0.43
1:1A:667:U:O2	30:18:2:PRO:HD2	2.17	0.43
1:1A:1359:A:H2	1:1A:1372:U:O4	2.01	0.43
1:1A:1379:A:H4'	1:1A:1380:G:OP2	2.18	0.43
1:1A:2059:A:H61	60:1A:4104:ERY:H283	1.82	0.43
1:1A:2355:C:H1'	22:10:39:ARG:HH21	1.83	0.43
18:1W:62:HIS:O	18:1W:64:MET:HG3	2.18	0.43
32:1a:1171:G:H2'	32:1a:1172:C:C6	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:1j:54:PHE:CE2	41:1j:55:LYS:HD3	2.53	0.43
43:1l:84:LEU:HB3	43:1l:104:VAL:HG11	1.99	0.43
43:1l:88:GLY:O	43:1l:99:HIS:HD2	2.01	0.43
44:1m:15:VAL:HG13	44:1m:43:THR:O	2.18	0.43
44:1m:122:LYS:HD2	44:1m:123:ALA:H	1.83	0.43
57:1y:55:PSU:C4	57:1y:57:G:H5'	2.53	0.43
1:2A:56:A:H2'	1:2A:57:C:O4'	2.18	0.43
1:2A:775:G:O3'	63:2A:3975:HOH:O	2.21	0.43
1:2A:2203:U:H4'	3:2D:151:LYS:HG2	1.99	0.43
1:2A:2275:C:H6	1:2A:2275:C:H5'	1.83	0.43
1:2A:2872:G:O2'	1:2A:2873:A:H5'	2.18	0.43
2:2B:110:G:H2'	2:2B:111:G:C8	2.52	0.43
3:2D:124:PRO:O	3:2D:126:GLN:N	2.50	0.43
3:2D:182:LEU:HB2	3:2D:272:ALA:H	1.83	0.43
3:2D:182:LEU:HB2	3:2D:272:ALA:HB3	2.00	0.43
7:2H:160:LYS:N	7:2H:163:TYR:OH	2.51	0.43
8:2I:86:THR:O	8:2I:123:LEU:HD23	2.18	0.43
12:2Q:51:ARG:HD3	12:2Q:66:ILE:HD11	1.98	0.43
32:2a:8:A:H8	36:2e:101:ILE:HG22	1.82	0.43
32:2a:155:C:H2'	32:2a:156:G:C8	2.53	0.43
32:2a:1010:G:N2	32:2a:1020:U:H1'	2.33	0.43
32:2a:1080:A:H5"	32:2a:1081:G:OP2	2.18	0.43
32:2a:1203:C:H2'	32:2a:1204:A:C8	2.53	0.43
32:2a:1239:A:H4'	32:2a:1240:U:H5'	2.00	0.43
33:2b:48:MET:HA	33:2b:51:LEU:HB2	2.00	0.43
39:2h:91:ARG:HB2	43:2l:7:ILE:HG21	2.00	0.43
41:2j:16:LEU:HB3	41:2j:70:ARG:HG3	2.00	0.43
42:2k:66:LEU:O	42:2k:70:LYS:HG3	2.17	0.43
1:1A:320:A:H4'	1:1A:322:A:C8	2.53	0.43
1:1A:871:U:P	12:1Q:5:ARG:HE	2.41	0.43
1:1A:1011:G:OP1	16:1U:77:SER:OG	2.31	0.43
1:1A:2172:U:H3'	1:1A:2173:A:C5'	2.48	0.43
1:1A:2869:G:H2'	1:1A:2870:C:O4'	2.18	0.43
2:1B:14:U:OP2	2:1B:70:C:O2'	2.29	0.43
6:1G:108:ASN:HD22	26:14:22:ILE:HG21	1.83	0.43
20:1Y:7:VAL:HG21	20:1Y:72:VAL:CG1	2.48	0.43
21:1Z:1:MET:HE1	21:1Z:133:ILE:O	2.18	0.43
21:1Z:80:ARG:HB3	21:1Z:82:ARG:HD3	2.00	0.43
23:11:80:LEU:HB3	23:11:82:LEU:HG	2.00	0.43
32:1a:375:U:C2	32:1a:376:G:C8	3.07	0.43
32:1a:1508:G:H2'	32:1a:1509:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1q:14:LYS:HD2	48:1q:14:LYS:HA	1.88	0.43
51:1t:13:LEU:HD12	51:1t:14:LYS:N	2.32	0.43
57:1y:63:U:H2'	57:1y:64:G:C8	2.52	0.43
1:2A:108:U:OP1	1:2A:293:U:O2'	2.36	0.43
1:2A:1224:C:HO2'	17:2V:85:LYS:HA	1.84	0.43
1:2A:1259:G:H2'	1:2A:1260:G:C8	2.53	0.43
1:2A:1471:A:H2'	1:2A:1471:A:N3	2.33	0.43
1:2A:2162:G:H4'	1:2A:2172:U:C2'	2.37	0.43
1:2A:2531:A:N7	7:2H:175:LYS:HD2	2.33	0.43
5:2F:126:VAL:O	5:2F:196:LEU:HG	2.18	0.43
5:2F:184:TYR:CE2	5:2F:188:ARG:HD2	2.53	0.43
6:2G:5:VAL:HG13	6:2G:8:LYS:NZ	2.33	0.43
7:2H:109:PHE:C	7:2H:111:HIS:H	2.27	0.43
11:2P:85:LEU:HG	11:2P:115:LEU:O	2.18	0.43
20:2Y:13:VAL:HB	20:2Y:72:VAL:HG13	2.00	0.43
26:24:48:ARG:HD3	26:24:48:ARG:HA	1.83	0.43
32:2a:473:G:C2	32:2a:474:G:C5	3.06	0.43
32:2a:772:U:H2'	32:2a:773:G:O4'	2.18	0.43
33:2b:112:VAL:HG12	33:2b:113:HIS:ND1	2.34	0.43
33:2b:119:GLU:CD	33:2b:153:ARG:HH12	2.25	0.43
34:2c:6:HIS:HD2	34:2c:7:PRO:HD2	1.83	0.43
34:2c:8:ILE:C	34:2c:10:PHE:H	2.25	0.43
36:2e:40:ARG:CZ	36:2e:68:GLU:HA	2.48	0.43
1:1A:26:G:H1'	1:1A:515:A:H61	1.82	0.43
1:1A:654:A:N7	63:1A:4355:HOH:O	2.35	0.43
1:1A:690:G:H2'	1:1A:691:C:C6	2.54	0.43
1:1A:1824:G:O3'	3:1D:249:PRO:HD3	2.19	0.43
1:1A:1826:G:H4'	3:1D:242:ARG:CZ	2.48	0.43
1:1A:2140:C:H2'	1:1A:2141:G:H8	1.84	0.43
1:1A:2142:C:H2'	1:1A:2143:C:C6	2.52	0.43
3:1D:166:GLN:HB2	3:1D:174:ILE:HG22	2.00	0.43
4:1E:96:PHE:O	4:1E:175:VAL:HG21	2.18	0.43
5:1F:172:TRP:CD1	5:1F:172:TRP:H	2.35	0.43
5:1F:183:VAL:O	5:1F:187:VAL:HG23	2.18	0.43
17:1V:22:VAL:HG23	17:1V:23:GLU:O	2.17	0.43
24:12:61:LEU:HA	24:12:61:LEU:HD23	1.77	0.43
32:1a:76:C:N4	32:1a:77:G:O6	2.51	0.43
32:1a:103:C:O2'	32:1a:172:A:N1	2.35	0.43
32:1a:452:A:H4'	47:1p:72:ARG:NH1	2.32	0.43
32:1a:922:G:H2'	32:1a:923:A:C8	2.53	0.43
32:1a:1007:C:H2'	32:1a:1008:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:181:ASN:ND2	34:1c:204:LEU:HD12	2.33	0.43
46:1o:8:LYS:O	46:1o:12:ILE:HG13	2.17	0.43
1:2A:2037:G:H2'	1:2A:2038:G:C8	2.54	0.43
1:2A:2106:G:H2'	1:2A:2107:C:O4'	2.17	0.43
1:2A:2853:C:H2'	1:2A:2854:G:H8	1.83	0.43
3:2D:68:LYS:C	3:2D:70:TRP:H	2.27	0.43
5:2F:164:ARG:O	5:2F:168:ARG:HB2	2.19	0.43
23:21:52:ARG:NH1	23:21:55:GLY:O	2.51	0.43
30:28:26:LYS:HD2	30:28:26:LYS:HA	1.81	0.43
32:2a:431:A:H2'	32:2a:432:A:O4'	2.18	0.43
32:2a:489:C:H2'	32:2a:490:G:C8	2.53	0.43
32:2a:853:G:C2	32:2a:854:G:C8	3.07	0.43
32:2a:934:C:H5"	63:2a:1909:HOH:O	2.18	0.43
32:2a:1025:U:OP1	32:2a:1025:U:H4'	2.18	0.43
32:2a:1201:A:H4'	32:2a:1202:G:O5'	2.17	0.43
35:2d:208:SER:HB2	36:2e:101:ILE:HD12	2.00	0.43
39:2h:127:LEU:HD13	39:2h:127:LEU:HA	1.84	0.43
41:2j:78:ASN:O	41:2j:80:LYS:N	2.52	0.43
42:2k:41:THR:OG1	42:2k:42:TRP:N	2.52	0.43
55:2x:25:C:H2'	55:2x:26:G:O4'	2.18	0.43
57:2y:12:U:H3	57:2y:23:A:N6	2.14	0.43
1:1A:863:A:H2'	1:1A:864:G:C8	2.53	0.43
1:1A:1079:C:C4	1:1A:1088:A:N3	2.87	0.43
1:1A:1448:G:H4'	1:1A:1542:A:OP1	2.18	0.43
1:1A:1936:A:OP1	1:1A:1937:A:H5'	2.19	0.43
1:1A:2377:A:H2'	1:1A:2378:A:C8	2.52	0.43
7:1H:3:ARG:CZ	7:1H:5:GLY:H	2.32	0.43
21:1Z:137:ILE:HA	21:1Z:156:LYS:HZ3	1.82	0.43
21:1Z:138:GLU:H	21:1Z:156:LYS:HZ3	1.65	0.43
31:19:2:LYS:HE2	31:19:31:LYS:O	2.18	0.43
32:1a:262:A:H2'	32:1a:263:A:C8	2.53	0.43
32:1a:1157:A:H4'	32:1a:1158:C:O5'	2.19	0.43
32:1a:1298:C:H4'	32:1a:1299:A:C4	2.53	0.43
32:1a:1525:G:OP1	42:1k:120:ARG:NH2	2.51	0.43
32:1a:1531:A:H8	32:1a:1531:A:O5'	2.01	0.43
35:1d:155:LEU:HB3	35:1d:158:ILE:HD11	2.00	0.43
37:1f:100:ASN:HB2	49:1r:28:GLU:CA	2.46	0.43
38:1g:71:PRO:HA	38:1g:138:LYS:HE3	2.00	0.43
42:1k:48:ILE:O	42:1k:50:TYR:N	2.40	0.43
1:2A:389:G:O6	11:2P:70:GLN:HB2	2.18	0.43
1:2A:907:U:O2'	12:2Q:101:ARG:NH2	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1142:U:O5'	1:2A:1142:U:H6	2.00	0.43
1:2A:1223:G:O6	17:2V:69:LYS:NZ	2.51	0.43
1:2A:1912:A:N1	32:2a:1407:5MC:O2'	2.46	0.43
1:2A:2704:C:H2'	1:2A:2705:A:O4'	2.19	0.43
5:2F:110:LEU:HD21	5:2F:181:LEU:HD23	2.01	0.43
8:2I:120:ILE:HD11	8:2I:128:LEU:HD11	1.99	0.43
14:2S:56:LEU:C	14:2S:58:LEU:H	2.26	0.43
21:2Z:74:VAL:HG23	21:2Z:86:VAL:HA	2.00	0.43
21:2Z:98:MET:HE2	21:2Z:98:MET:HB2	1.87	0.43
32:2a:35:G:C6	32:2a:36:C:N4	2.86	0.43
32:2a:299:G:H2'	32:2a:300:A:C8	2.53	0.43
32:2a:1079:G:H2'	32:2a:1080:A:C8	2.52	0.43
32:2a:1084:G:H3'	32:2a:1085:U:H2'	1.99	0.43
39:2h:12:ARG:HD2	39:2h:26:VAL:HG22	2.00	0.43
42:2k:74:ALA:C	42:2k:76:GLY:H	2.27	0.43
43:2l:102:ARG:HB3	43:2l:109:GLY:HA2	1.99	0.43
48:2q:81:ARG:HD2	48:2q:81:ARG:HA	1.87	0.43
1:1A:210:C:OP2	29:17:29:LYS:NZ	2.51	0.43
1:1A:320:A:H4'	1:1A:322:A:N7	2.34	0.43
1:1A:858:U:O2	1:1A:2268:A:H2'	2.17	0.43
1:1A:1073:A:OP2	1:1A:1096:A:H5'	2.18	0.43
1:1A:1364:G:P	23:11:3:LYS:HG3	2.59	0.43
1:1A:2090:G:H21	23:11:45:ASN:CG	2.25	0.43
1:1A:2511:U:O2'	4:1E:138:PRO:O	2.32	0.43
5:1F:61:GLY:O	63:1F:403:HOH:O	2.21	0.43
6:1G:112:PRO:HG3	26:14:43:TYR:CE2	2.54	0.43
21:1Z:27:VAL:HG22	21:1Z:28:MET:H	1.84	0.43
28:16:5:VAL:HG11	28:16:28:ARG:HH21	1.83	0.43
32:1a:197:A:C6	32:1a:221:C:H4'	2.54	0.43
32:1a:982:U:H5"	45:1n:6:LEU:HD11	2.00	0.43
32:1a:989:C:H42	32:1a:1216:G:H1	1.67	0.43
32:1a:1312:G:N2	32:1a:1326:C:C2	2.86	0.43
32:1a:1317:C:H2'	32:1a:1318:A:O4'	2.19	0.43
34:1c:56:ASP:HB2	34:1c:67:THR:HB	2.01	0.43
36:1e:85:GLY:C	36:1e:87:SER:H	2.26	0.43
1:2A:143:G:H2'	1:2A:143(A):C:H6	1.82	0.43
1:2A:1161:C:H2'	1:2A:1162:G:H8	1.83	0.43
1:2A:2131:G:C8	1:2A:2133:G:N3	2.86	0.43
1:2A:2569:G:C2	1:2A:2570:G:C8	3.06	0.43
9:2N:73:THR:HB	9:2N:82:LEU:HD11	2.00	0.43
14:2S:36:TYR:CD1	14:2S:52:SER:HB2	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:28:26:LYS:HB2	30:28:44:LYS:O	2.18	0.43
31:29:2:LYS:HE2	31:29:31:LYS:O	2.19	0.43
32:2a:976:G:N7	32:2a:1359:C:H1'	2.33	0.43
32:2a:1071:C:H2'	32:2a:1072:G:C8	2.52	0.43
32:2a:1207:2MG:O2'	32:2a:1208:C:H5'	2.19	0.43
32:2a:1517:G:H2'	32:2a:1518:MA6:C8	2.44	0.43
34:2c:54:ARG:HB2	34:2c:69:HIS:CD2	2.53	0.43
34:2c:188:LEU:HD12	34:2c:188:LEU:HA	1.74	0.43
50:2s:32:LYS:HD2	50:2s:34:TRP:CH2	2.52	0.43
1:1A:1253:A:OP1	63:1A:4258:HOH:O	2.21	0.43
1:1A:1948:G:O6	63:1A:4251:HOH:O	2.20	0.43
1:1A:2163:C:OP2	1:1A:2164:C:N4	2.51	0.43
1:1A:2394:C:N3	57:1y:76:A:O2'	2.45	0.43
9:1N:14:VAL:HB	9:1N:138:LEU:HG	2.01	0.43
23:11:5:CYS:SG	23:11:8:SER:HB3	2.58	0.43
57:1y:71:C:H2'	57:1y:72:C:H6	1.81	0.43
1:2A:242:G:C8	30:28:5:LYS:HG2	2.54	0.43
1:2A:422:A:H2'	1:2A:423:A:C8	2.54	0.43
1:2A:1316:U:H2'	1:2A:1317:A:C8	2.53	0.43
1:2A:1359:A:N3	1:2A:1359:A:H5'	2.33	0.43
1:2A:1495:A:H2'	1:2A:1496:A:C8	2.53	0.43
1:2A:2308:G:O2'	1:2A:2310:A:N7	2.43	0.43
1:2A:2359:C:H2'	1:2A:2360:A:O4'	2.18	0.43
1:2A:2425:A:H4'	1:2A:2426:A:H5"	2.01	0.43
1:2A:2884:U:P	27:25:43:HIS:HE2	2.41	0.43
6:2G:28:VAL:HA	6:2G:31:VAL:HG23	1.99	0.43
7:2H:15:VAL:HG22	7:2H:29:PRO:HD3	1.99	0.43
8:2I:77:LEU:HB2	8:2I:142:VAL:HG22	2.01	0.43
12:2Q:37:LEU:HD21	12:2Q:130:LYS:HE2	2.00	0.43
12:2Q:57:HIS:NE2	12:2Q:116:GLU:HG2	2.33	0.43
21:2Z:28:MET:HB2	21:2Z:35:ARG:HB2	1.99	0.43
32:2a:564:C:C4	32:2a:565:U:C4	3.07	0.43
32:2a:618:C:N4	32:2a:621:A:N7	2.66	0.43
32:2a:1111:A:N1	34:2c:177:THR:OG1	2.46	0.43
32:2a:1282:C:O5'	32:2a:1282:C:H6	2.02	0.43
32:2a:1371:G:OP1	40:2i:12:GLU:HB3	2.19	0.43
33:2b:68:ILE:HG12	33:2b:161:ALA:HB3	2.00	0.43
38:2g:78:ARG:HG3	38:2g:156:TRP:CZ3	2.54	0.43
51:2t:12:ALA:HA	51:2t:15:ARG:HB2	2.00	0.43
1:1A:779:U:OP1	3:1D:49:ILE:HG13	2.19	0.43
1:1A:904:C:O2'	21:1Z:169:GLU:OE2	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2572:A:N7	4:1E:145:LYS:HB2	2.34	0.43
1:1A:2601:C:H2'	1:1A:2603:G:C8	2.54	0.43
1:1A:2803:C:O2'	1:1A:2804:C:H5'	2.19	0.43
7:1H:74:ASN:ND2	7:1H:138:LYS:HD3	2.33	0.43
11:1P:56:SER:HB2	11:1P:61:ARG:HD2	2.00	0.43
14:1S:110:LEU:HD12	14:1S:110:LEU:HA	1.90	0.43
21:1Z:101:PRO:HA	21:1Z:123:ASP:HA	2.01	0.43
29:17:8:ASN:HB3	29:17:11:LYS:HB3	2.00	0.43
32:1a:870:U:H4'	32:1a:871:U:H5"	2.01	0.43
38:1g:78:ARG:NH1	38:1g:154:TYR:O	2.51	0.43
47:1p:19:ILE:N	47:1p:37:GLY:O	2.52	0.43
48:1q:58:GLU:HG3	48:1q:77:VAL:HG21	2.00	0.43
1:2A:141:A:C8	1:2A:1408:C:O2'	2.70	0.43
1:2A:478:A:N1	1:2A:500:G:H4'	2.34	0.43
1:2A:817:C:O2'	1:2A:839:U:OP1	2.28	0.43
1:2A:992:C:OP1	16:2U:47:TYR:OH	2.25	0.43
1:2A:1477:A:H2'	1:2A:1478:G:O4'	2.18	0.43
1:2A:1710:C:H5'	1:2A:2859:G:H1'	2.01	0.43
1:2A:2274:A:N1	1:2A:2276:G:H1'	2.33	0.43
1:2A:2370:G:C6	1:2A:2371:G:C6	3.07	0.43
1:2A:2705:A:O2'	1:2A:2852:G:OP1	2.31	0.43
1:2A:2870:C:H2'	1:2A:2871:C:O4'	2.18	0.43
19:2X:57:LEU:HD11	19:2X:78:LYS:HE3	2.01	0.43
32:2a:20:U:H2'	32:2a:21:G:O4'	2.18	0.43
32:2a:748:C:H1'	32:2a:749:C:OP2	2.18	0.43
32:2a:1005:A:H5"	32:2a:1006:C:H5	1.83	0.43
32:2a:1016:A:H2'	32:2a:1017:G:O4'	2.19	0.43
32:2a:1164:G:H2'	32:2a:1165:C:C6	2.54	0.43
32:2a:1237:C:H42	32:2a:1337:G:H1	1.66	0.43
33:2b:41:ILE:HD13	33:2b:41:ILE:HA	1.87	0.43
33:2b:185:ILE:CG2	33:2b:199:TYR:HB2	2.49	0.43
34:2c:180:ALA:HB1	34:2c:203:PHE:HE1	1.83	0.43
39:2h:6:ILE:HB	39:2h:85:ARG:NH2	2.33	0.43
51:2t:26:ASN:HA	51:2t:71:THR:HG23	2.00	0.43
1:1A:34:C:H5"	1:1A:35:G:OP2	2.17	0.43
1:1A:562:U:O2'	1:1A:563:G:OP2	2.28	0.43
1:1A:647:G:H8	1:1A:647:G:O5'	2.01	0.43
2:1B:14:U:O2	2:1B:108:U:H4'	2.19	0.43
5:1F:150:GLY:HA2	5:1F:172:TRP:CD2	2.53	0.43
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	1.99	0.43
19:1X:31:HIS:CD2	19:1X:33:LYS:HB2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:59:PHE:CD2	50:1s:64:GLU:HB3	2.54	0.43
32:1a:58:C:O2'	32:1a:388:G:N7	2.35	0.43
32:1a:485:G:O2'	32:1a:486:U:OP2	2.37	0.43
32:1a:593:G:H2'	32:1a:594:G:O4'	2.18	0.43
32:1a:826:C:H5'	39:1h:12:ARG:NH2	2.34	0.43
33:1b:134:GLU:HA	33:1b:137:ARG:HE	1.83	0.43
34:1c:29:TYR:OH	45:1n:54:PRO:O	2.35	0.43
47:1p:4:ILE:HG13	47:1p:64:ALA:HB1	2.00	0.43
50:1s:28:LYS:HB3	50:1s:47:HIS:HD2	1.82	0.43
1:2A:531:C:H4'	1:2A:532:A:H5"	2.01	0.43
1:2A:2450:A:OP1	1:2A:2497:A:O2'	2.31	0.43
6:2G:64:THR:HB	6:2G:94:LEU:HD21	2.00	0.43
8:2I:38:LEU:HD11	23:21:75:GLU:HG3	2.00	0.43
32:2a:360:A:H2'	32:2a:361:G:C8	2.54	0.43
32:2a:502:G:OP1	43:2l:118:SER:HB3	2.18	0.43
32:2a:1137:C:O2	32:2a:1138:G:N2	2.52	0.43
38:2g:15:ASP:OD1	38:2g:19:GLY:N	2.52	0.43
38:2g:40:ALA:HB1	40:2i:41:VAL:HG11	2.01	0.43
41:2j:78:ASN:O	41:2j:81:THR:N	2.44	0.43
42:2k:18:ARG:HG2	42:2k:81:ASP:HB2	2.00	0.43
44:2m:81:LEU:HD12	44:2m:92:HIS:CE1	2.54	0.43
48:2q:58:GLU:OE1	48:2q:75:ARG:NE	2.51	0.43
50:2s:12:ASP:O	50:2s:14:HIS:N	2.47	0.43
55:2x:21:A:N6	55:2x:46:G:C8	2.87	0.43
1:1A:870:A:OP1	12:1Q:6:ARG:NE	2.52	0.43
1:1A:1339:G:N2	1:1A:1603:A:H1'	2.34	0.43
1:1A:1432:C:H2'	1:1A:1433:U:O4'	2.19	0.43
1:1A:1720:U:H3	1:1A:1742:G:H1	1.65	0.43
1:1A:2272:U:H5"	1:1A:2273:A:OP1	2.19	0.43
1:1A:2336:A:H61	22:10:43:THR:HG21	1.84	0.43
8:1I:77:LEU:HD21	8:1I:100:ALA:HB3	2.01	0.43
11:1P:2:LYS:HG2	11:1P:3:LEU:N	2.34	0.43
13:1R:81:ASP:N	13:1R:81:ASP:OD1	2.51	0.43
32:1a:309:G:O2'	32:1a:607:A:N1	2.51	0.43
32:1a:578:C:O2'	32:1a:728:A:N3	2.43	0.43
32:1a:902:G:H2'	32:1a:903:G:H8	1.84	0.43
32:1a:938:A:HO2'	32:1a:1376:U:HO2'	1.60	0.43
32:1a:1328:C:OP1	52:1u:21:TYR:OH	2.27	0.43
33:1b:112:VAL:HG12	33:1b:149:LEU:HD13	2.01	0.43
33:1b:158:LEU:HA	33:1b:159:PRO:HD3	1.91	0.43
36:1e:147:ASP:O	36:1e:151:LEU:HD12	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1i:128:ARG:HD2	55:1x:35:A:OP1	2.19	0.43
48:1q:26:GLN:HG2	48:1q:37:LYS:HG2	2.00	0.43
50:1s:71:LEU:HA	50:1s:71:LEU:HD23	1.83	0.43
1:2A:601:C:O2'	1:2A:605:C:H5"	2.18	0.43
1:2A:1323:U:OP1	18:2W:98:LYS:NZ	2.41	0.43
1:2A:1783:A:OP2	63:2A:3974:HOH:O	2.21	0.43
1:2A:2032:G:OP2	1:2A:2454:G:O2'	2.35	0.43
1:2A:2134:A:H2'	1:2A:2134:A:N3	2.34	0.43
3:2D:130:ALA:HA	3:2D:191:ALA:O	2.19	0.43
4:2E:101:ARG:C	4:2E:201:THR:HB	2.44	0.43
5:2F:177:ALA:HB1	5:2F:178:PRO:HD2	2.00	0.43
6:2G:106:LEU:O	6:2G:110:ALA:HB3	2.19	0.43
6:2G:107:LEU:HD21	6:2G:178:PHE:CZ	2.53	0.43
6:2G:110:ALA:HA	6:2G:140:ILE:O	2.19	0.43
10:2O:102:VAL:HB	10:2O:106:LEU:HD12	2.01	0.43
11:2P:85:LEU:HA	11:2P:88:LEU:HD12	2.01	0.43
14:2S:4:LEU:HD22	14:2S:8:GLU:OE2	2.19	0.43
16:2U:52:ARG:HA	16:2U:55:ARG:HD3	2.00	0.43
22:20:12:ASN:HB3	22:20:13:GLY:H	1.66	0.43
32:2a:148:G:H2'	32:2a:149:A:C8	2.53	0.43
32:2a:1118:C:H1'	32:2a:1179:A:C4	2.54	0.43
32:2a:1479:C:H2'	32:2a:1480:G:C8	2.53	0.43
41:2j:7:LYS:HA	41:2j:70:ARG:O	2.19	0.43
57:2y:48:C:H2'	57:2y:59:A:C1'	2.43	0.43
1:1A:239:U:H2'	1:1A:240:G:O4'	2.19	0.43
1:1A:582:G:H2'	1:1A:583:G:H8	1.81	0.43
1:1A:680:G:H2'	1:1A:681:G:C8	2.54	0.43
1:1A:1030:G:OP2	12:1Q:128:LYS:NZ	2.51	0.43
1:1A:1041:C:N4	1:1A:1114:G:H1	2.15	0.43
1:1A:1062:G:O5'	1:1A:1070:A:O2'	2.37	0.43
1:1A:1489:U:HO2'	1:1A:1490:A:H8	1.64	0.43
1:1A:1688:U:H1'	1:1A:1701:A:C6	2.54	0.43
1:1A:2591:C:H2'	1:1A:2592:G:C8	2.54	0.43
1:1A:2619:C:H4'	4:1E:151:TYR:O	2.18	0.43
3:1D:206:LEU:HD23	3:1D:206:LEU:HA	1.82	0.43
8:1I:109:ILE:HA	8:1I:109:ILE:HD13	1.66	0.43
14:1S:11:LYS:HG2	14:1S:15:ARG:NH1	2.34	0.43
17:1V:25:LEU:HD23	17:1V:25:LEU:HA	1.80	0.43
25:13:3:ARG:NE	25:13:60:GLU:OE1	2.51	0.43
32:1a:259:G:H2'	32:1a:260:G:O4'	2.19	0.43
32:1a:938:A:C6	32:1a:939:G:C5	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:1n:33:VAL:HA	45:1n:40:CYS:HA	2.00	0.43
1:2A:629:G:H1'	1:2A:639:U:H1'	2.00	0.43
1:2A:911:A:H2'	12:2Q:9:TYR:OH	2.18	0.43
1:2A:1198:U:H2'	1:2A:1199:U:C6	2.54	0.43
1:2A:2531:A:C8	7:2H:175:LYS:HD2	2.54	0.43
1:2A:2853:C:H2'	1:2A:2854:G:C8	2.54	0.43
11:2P:90:ARG:HD2	11:2P:91:PHE:CE2	2.53	0.43
12:2Q:22:LYS:O	21:2Z:78:LYS:NZ	2.40	0.43
12:2Q:29:PHE:HB2	12:2Q:105:GLU:OE1	2.19	0.43
28:26:10:LEU:HB2	28:26:52:VAL:HG13	2.01	0.43
32:2a:371:G:H2'	32:2a:372:C:O4'	2.19	0.43
32:2a:675:A:H2'	32:2a:676:A:O4'	2.18	0.43
32:2a:1151:A:HO2'	32:2a:1152:A:H8	1.66	0.43
32:2a:1226:C:H6	44:2m:103:THR:HB	1.84	0.43
32:2a:1295:G:H21	32:2a:1302:U:H3	1.67	0.43
32:2a:1365:G:H2'	32:2a:1366:C:O4'	2.18	0.43
32:2a:1371:G:H5"	40:2i:68:GLY:HA2	2.01	0.43
33:2b:84:GLU:O	33:2b:219:VAL:HG21	2.18	0.43
34:2c:22:TRP:CZ2	45:2n:54:PRO:HG3	2.54	0.43
48:2q:29:HIS:N	48:2q:34:LYS:O	2.41	0.43
1:1A:1266:G:H3'	63:1A:4329:HOH:O	2.19	0.42
1:1A:1511:C:H2'	1:1A:1512:U:H6	1.84	0.42
1:1A:2245:U:O2'	1:1A:2436:G:OP2	2.32	0.42
1:1A:2572:A:O5'	1:1A:2574:G:H4'	2.19	0.42
1:1A:2710:C:H2'	1:1A:2711:A:C8	2.54	0.42
5:1F:184:TYR:CE2	5:1F:188:ARG:HD2	2.54	0.42
32:1a:1007:C:N3	32:1a:1022:G:O6	2.52	0.42
32:1a:1023:G:H3'	32:1a:1024:G:C8	2.54	0.42
33:1b:115:LEU:HD21	33:1b:153:ARG:HH11	1.84	0.42
34:1c:175:LEU:HD21	34:1c:201:TYR:HD1	1.84	0.42
40:1i:4:TYR:O	40:1i:84:ALA:HB1	2.19	0.42
40:1i:77:ILE:O	40:1i:81:ILE:HG23	2.19	0.42
50:1s:20:LEU:HA	50:1s:20:LEU:HD23	1.74	0.42
51:1t:100:ILE:HB	51:1t:101:GLY:H	1.56	0.42
57:1y:11:C:H2'	57:1y:12:U:O4'	2.18	0.42
57:1y:53:G:H2'	57:1y:54:5MU:C6	2.54	0.42
57:1y:53:G:H2'	57:1y:54:5MU:H6	1.84	0.42
1:2A:990:A:C6	1:2A:1186:G:H1'	2.54	0.42
1:2A:1270:C:H5"	1:2A:1271:G:O5'	2.18	0.42
1:2A:1607:C:H5"	1:2A:1608:A:H5'	2.01	0.42
1:2A:2685:G:H5'	10:2O:68:GLU:OE2	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:83:G:H1	2:2B:94:C:H42	1.67	0.42
8:2I:78:THR:O	8:2I:104:GLN:NE2	2.51	0.42
16:2U:74:LEU:HD13	16:2U:79:PHE:HB2	2.02	0.42
17:2V:24:LYS:HB3	17:2V:24:LYS:HE2	1.61	0.42
17:2V:52:VAL:HB	17:2V:55:ALA:HB3	2.01	0.42
22:20:78:TYR:HB3	22:20:80:HIS:NE2	2.34	0.42
23:21:68:PRO:O	23:21:72:GLU:HB2	2.19	0.42
32:2a:110:C:H2'	32:2a:111:G:O4'	2.19	0.42
32:2a:335:C:O2'	32:2a:1433:A:N3	2.50	0.42
32:2a:570:G:O6	32:2a:865:A:N6	2.52	0.42
32:2a:1296:C:H5'	44:2m:14:ARG:HH11	1.83	0.42
32:2a:1333:A:H3'	32:2a:1334:G:H8	1.83	0.42
36:2e:42:GLY:HA2	36:2e:65:ASN:O	2.19	0.42
38:2g:69:VAL:HG11	38:2g:134:ALA:HB1	2.00	0.42
39:2h:120:THR:OG1	39:2h:123:GLU:HB2	2.19	0.42
40:2i:18:PHE:HD2	40:2i:62:TYR:HD2	1.67	0.42
42:2k:79:SER:HB3	42:2k:104:GLN:HE21	1.82	0.42
47:2p:26:ARG:HG3	47:2p:27:LYS:N	2.33	0.42
48:2q:23:VAL:HG11	48:2q:59:ILE:HD11	2.01	0.42
54:2w:13:C:O2'	54:2w:14:A:H8	2.02	0.42
54:2w:64:G:C2	54:2w:65:C:C2	3.07	0.42
55:2x:55:PSU:N3	55:2x:58:A:OP2	2.38	0.42
1:1A:1274:A:N3	1:1A:1297:C:H1'	2.34	0.42
1:1A:2561:A:H2'	1:1A:2562:U:O4'	2.19	0.42
5:1F:184:TYR:O	5:1F:188:ARG:HG3	2.19	0.42
8:1I:84:GLY:O	8:1I:85:GLU:C	2.62	0.42
14:1S:11:LYS:HG3	14:1S:91:PRO:HD3	2.01	0.42
32:1a:280:C:N3	48:1q:39:SER:OG	2.45	0.42
32:1a:382:A:H2'	32:1a:383:A:C8	2.53	0.42
32:1a:677:U:H3	32:1a:713:G:H22	1.66	0.42
32:1a:958:A:C2	50:1s:55:LYS:HB2	2.54	0.42
48:1q:86:GLU:O	48:1q:90:ILE:HG13	2.18	0.42
50:1s:49:ILE:HG13	50:1s:62:ILE:HD11	2.01	0.42
1:2A:265:A:H1'	1:2A:266:G:O4'	2.19	0.42
1:2A:1264:G:H2'	1:2A:2014:A:N6	2.34	0.42
1:2A:1693:U:O2'	3:2D:14:ARG:NH2	2.53	0.42
1:2A:1843:C:H5'	3:2D:253:GLN:OE1	2.19	0.42
1:2A:2305:A:H1'	6:2G:136:ARG:HG2	2.00	0.42
1:2A:2694:G:C6	1:2A:2695:C:C4	3.07	0.42
8:2I:45:LYS:O	8:2I:49:ALA:N	2.49	0.42
11:2P:96:THR:HG23	11:2P:99:LEU:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:99:TYR:HA	21:2Z:124:ILE:O	2.19	0.42
26:24:34:GLU:CB	44:2m:57:ARG:HH21	2.32	0.42
32:2a:416:G:C5	32:2a:417:C:C4	3.07	0.42
32:2a:587:G:N2	32:2a:754:C:OP2	2.52	0.42
34:2c:22:TRP:HZ3	34:2c:24:ALA:HB2	1.82	0.42
34:2c:180:ALA:HB1	34:2c:203:PHE:CE1	2.54	0.42
36:2e:51:VAL:O	36:2e:55:VAL:HG23	2.20	0.42
38:2g:103:TRP:HA	38:2g:106:GLN:HG3	1.99	0.42
47:2p:4:ILE:HG23	47:2p:21:VAL:HG12	2.02	0.42
57:2y:36:U:H2'	57:2y:37:T6A:H8	1.85	0.42
1:1A:1022:G:C6	1:1A:1141:U:C5	3.06	0.42
1:1A:1171:G:N3	1:1A:1171:G:H2'	2.34	0.42
1:1A:1269:A:OP1	63:1A:4261:HOH:O	2.22	0.42
1:1A:1430:C:H2'	1:1A:1431:U:C6	2.54	0.42
1:1A:2366:A:H2'	1:1A:2367:G:O4'	2.19	0.42
1:1A:2632:A:O2'	1:1A:2811:G:O2'	2.35	0.42
3:1D:9:TYR:CE1	3:1D:13:ARG:HG3	2.53	0.42
7:1H:26:VAL:HG12	7:1H:79:VAL:HG21	2.01	0.42
9:1N:63:THR:O	9:1N:66:LYS:HG3	2.18	0.42
16:1U:62:ILE:HG23	16:1U:76:TYR:CE1	2.55	0.42
32:1a:392:G:OP1	47:1p:8:ARG:NH2	2.49	0.42
32:1a:728:A:H2'	32:1a:729:A:C8	2.54	0.42
32:1a:936:C:H2'	32:1a:937:A:O4'	2.20	0.42
32:1a:1333:A:H2'	32:1a:1334:G:O4'	2.19	0.42
32:1a:1372:U:H2'	32:1a:1373:G:O4'	2.19	0.42
33:1b:163:PHE:HD1	33:1b:185:ILE:HD11	1.84	0.42
34:1c:175:LEU:HD21	34:1c:201:TYR:CD1	2.54	0.42
39:1h:81:HIS:HB2	39:1h:138:TRP:CD1	2.54	0.42
44:1m:4:ILE:HA	44:1m:5:ALA:HA	1.68	0.42
47:1p:55:ARG:HH21	47:1p:59:TRP:NE1	2.18	0.42
54:1w:53:G:H2'	54:1w:54:5MU:O4'	2.19	0.42
57:1y:19:G:C6	57:1y:56:C:N4	2.88	0.42
1:2A:96:G:H4'	24:22:48:HIS:CD2	2.54	0.42
1:2A:581:C:H2'	1:2A:582:G:C8	2.54	0.42
1:2A:597:U:H2'	1:2A:598:G:H8	1.84	0.42
1:2A:868:U:O2'	12:2Q:8:LYS:HE3	2.19	0.42
1:2A:881:G:H3'	1:2A:882:G:C8	2.54	0.42
1:2A:958:U:O2	2:2B:90:A:O2'	2.32	0.42
1:2A:1009:A:OP2	9:2N:37:LYS:NZ	2.51	0.42
1:2A:1037:G:H2'	1:2A:1038:C:O4'	2.19	0.42
1:2A:1639:U:H2'	1:2A:1640:C:H5"	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2564:A:C2	1:2A:2647:U:H4'	2.54	0.42
2:2B:74:U:H2'	2:2B:75:G:O4'	2.19	0.42
5:2F:11:VAL:HG22	5:2F:125:LEU:HD12	2.01	0.42
8:2I:77:LEU:HD13	8:2I:79:ILE:HD11	2.00	0.42
10:2O:68:GLU:HB3	10:2O:78:ARG:HB2	2.00	0.42
31:29:18:ARG:HG3	31:29:22:ARG:O	2.19	0.42
32:2a:321:A:H2	32:2a:332:G:H22	1.67	0.42
32:2a:1061:G:H5"	41:2j:59:SER:HB3	2.01	0.42
32:2a:1225:A:H2'	32:2a:1226:C:C5	2.54	0.42
37:2f:71:ARG:HA	37:2f:74:ASP:OD2	2.18	0.42
41:2j:63:PHE:HD1	45:2n:58:LYS:HA	1.84	0.42
44:2m:90:LEU:HA	44:2m:93:ARG:NE	2.34	0.42
50:2s:28:LYS:HB3	50:2s:29:ARG:HA	2.01	0.42
1:1A:216:A:C4	1:1A:432:A:C2	3.08	0.42
1:1A:245:G:O5'	11:1P:73:GLY:HA2	2.20	0.42
1:1A:897:C:H5'	54:1w:56:C:P	2.59	0.42
1:1A:2233:U:H2'	1:1A:2234:G:C8	2.54	0.42
1:1A:2848:G:H3'	15:1T:95:ARG:O	2.19	0.42
7:1H:124:GLU:OE1	7:1H:134:SER:OG	2.37	0.42
18:1W:18:ARG:HG2	18:1W:76:VAL:HB	2.01	0.42
22:10:70:GLN:HG2	22:10:72:ARG:HG3	2.02	0.42
26:14:62:ARG:HB3	26:14:63:TYR:H	1.59	0.42
32:1a:504:C:OP1	63:1a:1915:HOH:O	2.21	0.42
32:1a:555:C:H2'	32:1a:556:C:C6	2.54	0.42
52:1u:8:THR:HG23	52:1u:11:GLY:H	1.84	0.42
1:2A:882:G:N2	1:2A:883:G:O6	2.53	0.42
1:2A:910:A:C6	1:2A:911:A:C6	3.07	0.42
1:2A:2110:G:C2	1:2A:2120:G:H1'	2.53	0.42
1:2A:2273:A:H2'	1:2A:2274:A:H8	1.84	0.42
1:2A:2402:C:H1'	1:2A:2403:C:C5	2.52	0.42
1:2A:2579:C:H2'	1:2A:2580:U:O4'	2.20	0.42
2:2B:7:G:H2'	2:2B:8:U:O4'	2.18	0.42
3:2D:9:TYR:CD1	3:2D:10:THR:HG23	2.55	0.42
5:2F:77:ASP:OD1	5:2F:77:ASP:N	2.49	0.42
14:2S:15:ARG:HB3	14:2S:19:LYS:HE3	2.01	0.42
23:21:3:LYS:HB2	23:21:61:ARG:HH22	1.85	0.42
25:23:7:LYS:NZ	25:23:32:GLN:O	2.40	0.42
32:2a:114:U:O2'	32:2a:115:G:H5'	2.20	0.42
32:2a:337:C:H2'	32:2a:338:A:C8	2.54	0.42
32:2a:603:U:H2'	32:2a:604:G:C8	2.53	0.42
32:2a:1477:C:H2'	32:2a:1478:C:H6	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1507:A:H61	32:2a:1528:U:H3	1.66	0.42
36:2e:6:PHE:CE1	36:2e:36:ASP:HB3	2.55	0.42
39:2h:78:GLN:O	39:2h:81:HIS:NE2	2.52	0.42
40:2i:99:LEU:HB3	40:2i:101:PHE:HE2	1.83	0.42
42:2k:24:SER:C	42:2k:26:ASN:H	2.28	0.42
43:2l:12:ARG:HH21	43:2l:13:LYS:HE3	1.85	0.42
45:2n:32:SER:O	45:2n:40:CYS:HA	2.19	0.42
48:2q:53:LEU:HD12	48:2q:53:LEU:HA	1.87	0.42
48:2q:60:ILE:HG22	48:2q:74:LEU:HB2	2.01	0.42
49:2r:32:ARG:HA	49:2r:69:THR:HG21	2.00	0.42
54:2w:7:U:H3'	54:2w:8:U:H5"	2.01	0.42
57:2y:22:G:N7	57:2y:46:G7M:C2	2.82	0.42
1:1A:224:G:H2'	1:1A:225:A:O4'	2.19	0.42
1:1A:285:C:H2'	1:1A:286:C:C6	2.53	0.42
1:1A:1594:G:H2'	1:1A:1595:G:O4'	2.19	0.42
1:1A:1655:A:H3'	1:1A:1656:C:H6	1.84	0.42
1:1A:2391:G:O6	1:1A:2425:A:H8	2.02	0.42
9:1N:12:ARG:HG2	9:1N:14:VAL:HG13	2.02	0.42
9:1N:66:LYS:O	9:1N:70:LYS:HB3	2.20	0.42
21:1Z:9:TYR:HE1	21:1Z:28:MET:HE1	1.85	0.42
29:17:31:LEU:HD23	29:17:31:LEU:HA	1.87	0.42
32:1a:390:C:H2'	32:1a:391:G:C8	2.54	0.42
32:1a:1060:C:C5	34:1c:2:GLY:HA3	2.54	0.42
32:1a:1366:C:H2'	32:1a:1367:C:C6	2.53	0.42
33:1b:44:LEU:O	33:1b:48:MET:N	2.43	0.42
36:1e:67:VAL:CG2	36:1e:140:ARG:HG2	2.49	0.42
48:1q:59:ILE:HG22	48:1q:73:VAL:HA	2.02	0.42
50:1s:52:TYR:HA	50:1s:56:GLN:O	2.18	0.42
1:2A:824:A:H2'	1:2A:825:C:O4'	2.20	0.42
1:2A:955:C:OP2	12:2Q:14:ARG:HG3	2.19	0.42
1:2A:1027:A:C6	1:2A:1126:A:C4	3.08	0.42
1:2A:1908:C:O2	55:2x:12:G:H4'	2.19	0.42
1:2A:1923:U:OP1	55:2x:24:U:O2'	2.35	0.42
1:2A:2663:G:H3'	1:2A:2664:G:H8	1.84	0.42
1:2A:2785:C:OP1	4:2E:41:LYS:NZ	2.53	0.42
10:2O:97:ARG:HE	10:2O:97:ARG:HB3	1.50	0.42
26:24:60:GLN:O	26:24:62:ARG:NH2	2.51	0.42
30:28:34:TRP:CG	30:28:35:GLN:N	2.87	0.42
32:2a:618:C:N4	32:2a:621:A:C8	2.87	0.42
32:2a:673:G:O3'	37:2f:87:ARG:NH2	2.52	0.42
32:2a:1017:G:H2'	32:2a:1018:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1183:A:O2'	32:2a:1185:G:OP2	2.38	0.42
32:2a:1287:A:H2'	32:2a:1288:A:C8	2.55	0.42
35:2d:114:ARG:HA	35:2d:117:ALA:HB3	2.02	0.42
40:2i:59:PHE:HZ	40:2i:88:TYR:CE1	2.38	0.42
49:2r:38:GLU:HA	49:2r:41:LYS:HE2	2.01	0.42
54:2w:54:5MU:H2'	54:2w:55:PSU:O4'	2.19	0.42
55:2x:8:4SU:O5'	55:2x:8:4SU:H6	2.19	0.42
1:1A:871:U:OP2	12:1Q:5:ARG:NE	2.49	0.42
1:1A:1044:G:H5'	1:1A:1045:A:OP2	2.20	0.42
1:1A:1285:G:C5	1:1A:1329:U:C4	3.08	0.42
1:1A:1526:G:C6	1:1A:1527:G:C2	3.07	0.42
1:1A:2251:OMG:H1'	1:1A:2251:OMG:HM23	1.81	0.42
1:1A:2494:G:O2'	12:1Q:80:GLU:HA	2.20	0.42
1:1A:2784:C:H2'	1:1A:2785:C:C6	2.55	0.42
2:1B:66:A:H61	2:1B:108:U:H2'	1.84	0.42
3:1D:218:ARG:HB3	3:1D:219:PRO:HD2	2.01	0.42
7:1H:121:ILE:HD13	7:1H:121:ILE:HA	1.94	0.42
8:1I:10:GLU:O	8:1I:12:LEU:N	2.52	0.42
10:1O:64:ARG:HD3	10:1O:101:PRO:O	2.20	0.42
21:1Z:77:ASP:OD2	21:1Z:80:ARG:NH1	2.49	0.42
27:15:8:LYS:O	27:15:9:LYS:HD2	2.20	0.42
28:16:12:GLU:OE1	28:16:52:VAL:HG11	2.20	0.42
32:1a:370:C:H2'	32:1a:371:G:C8	2.54	0.42
32:1a:1410:G:H2'	32:1a:1411:C:C6	2.54	0.42
35:1d:184:LYS:HE2	35:1d:184:LYS:HB3	1.89	0.42
45:1n:15:LYS:HG2	45:1n:16:PHE:CE2	2.54	0.42
50:1s:3:ARG:NH2	50:1s:7:LYS:HE2	2.35	0.42
51:1t:63:ILE:HG21	51:1t:81:LYS:HG3	2.02	0.42
1:2A:80:G:O2'	1:2A:294:A:N1	2.51	0.42
1:2A:856:C:O2'	1:2A:857:C:OP1	2.32	0.42
1:2A:861:A:N3	2:2B:79:C:O2'	2.46	0.42
1:2A:1139:G:O3'	9:2N:24:GLY:HA3	2.20	0.42
1:2A:2391:G:O6	1:2A:2425:A:H8	2.02	0.42
1:2A:2512:C:H2'	1:2A:2513:G:O4'	2.19	0.42
1:2A:2698:U:H2'	1:2A:2699:C:C6	2.55	0.42
1:2A:2712:U:OP1	1:2A:2714:G:H4'	2.19	0.42
1:2A:2836:U:H2'	1:2A:2837:G:H8	1.84	0.42
6:2G:9:ARG:O	6:2G:13:GLU:HB2	2.20	0.42
16:2U:48:ALA:O	16:2U:52:ARG:HG3	2.17	0.42
19:2X:5:TYR:OH	24:22:30:ARG:NH1	2.52	0.42
21:2Z:4:ARG:HG2	21:2Z:58:VAL:HB	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:187:C:O2'	51:2t:89:ARG:NH2	2.42	0.42
32:2a:505:G:H2'	32:2a:506:G:C8	2.54	0.42
32:2a:1151:A:O2'	32:2a:1152:A:H8	2.03	0.42
34:2c:120:VAL:O	34:2c:124:ILE:HG12	2.18	0.42
35:2d:59:ARG:O	35:2d:63:LYS:HB2	2.20	0.42
35:2d:92:VAL:O	35:2d:96:LEU:HD22	2.20	0.42
35:2d:120:LEU:HD23	35:2d:120:LEU:HA	1.85	0.42
39:2h:33:GLU:O	39:2h:36:LEU:N	2.50	0.42
44:2m:123:ALA:CB	54:2w:39:PSU:H4'	2.39	0.42
48:2q:5:VAL:HG22	48:2q:60:ILE:HB	2.02	0.42
1:1A:588:U:O4	1:1A:670:A:H1'	2.19	0.42
1:1A:1103:A:H2'	1:1A:1104:C:O4'	2.19	0.42
1:1A:1252:G:N3	16:1U:33:ARG:HG2	2.34	0.42
1:1A:1614:A:C2	18:1W:93:ALA:HB2	2.54	0.42
1:1A:1651:G:O6	63:1A:4255:HOH:O	2.20	0.42
1:1A:2304:G:H22	1:1A:2312:U:H3	1.66	0.42
1:1A:2573:C:N4	54:1w:75:C:O2'	2.52	0.42
1:1A:2773:C:H2'	1:1A:2774:C:H6	1.83	0.42
3:1D:274:ARG:HD3	63:1D:404:HOH:O	2.20	0.42
4:1E:111:ARG:HG2	4:1E:118:LYS:HD3	2.02	0.42
21:1Z:40:ASP:HB3	21:1Z:43:GLU:HB2	2.02	0.42
34:1c:120:VAL:HB	34:1c:198:VAL:HG11	2.01	0.42
47:1p:60:LEU:HD12	47:1p:60:LEU:HA	1.73	0.42
48:1q:10:VAL:HA	48:1q:20:THR:O	2.20	0.42
50:1s:22:LEU:HD21	50:1s:29:ARG:H	1.84	0.42
50:1s:31:ILE:HB	50:1s:49:ILE:HG23	2.01	0.42
54:1w:28:U:H2'	54:1w:29:U:C6	2.55	0.42
54:1w:29:U:H2'	54:1w:30:G:C8	2.55	0.42
54:1w:54:5MU:H2'	54:1w:55:PSU:O4'	2.19	0.42
57:1y:26:A:H61	57:1y:44:U:H3	1.65	0.42
57:1y:36:U:C4	57:1y:37:T6A:C4	3.07	0.42
1:2A:910:A:H2	1:2A:2264:C:O2	2.02	0.42
1:2A:921:G:H4'	1:2A:2269:A:C5	2.55	0.42
1:2A:974:G:C6	1:2A:1186:G:C6	3.08	0.42
1:2A:1351:C:O2'	1:2A:1571:A:N3	2.45	0.42
1:2A:1761:C:H2'	1:2A:1762:A:H5"	2.02	0.42
1:2A:2228:G:C6	1:2A:2229:C:C4	3.07	0.42
2:2B:33:G:C6	2:2B:34:U:C4	3.07	0.42
3:2D:261:LYS:HB3	3:2D:264:LYS:HG3	2.00	0.42
6:2G:121:ASN:HB3	6:2G:124:SER:HB2	2.01	0.42
10:2O:66:LYS:N	10:2O:82:ASN:OD1	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:2S:110:LEU:HA	14:2S:110:LEU:HD23	1.74	0.42
16:2U:107:ALA:O	16:2U:111:GLU:HG2	2.20	0.42
22:20:48:GLY:H	22:20:51:VAL:HB	1.84	0.42
26:24:13:ARG:HA	26:24:22:ILE:O	2.19	0.42
32:2a:141:A:H1'	32:2a:182:U:O2	2.20	0.42
32:2a:224:C:H2'	32:2a:225:C:H6	1.84	0.42
32:2a:1193:G:H4'	36:2e:25:ARG:NH2	2.35	0.42
32:2a:1375:A:H2'	32:2a:1376:U:O4'	2.19	0.42
44:2m:120:LYS:HG3	44:2m:121:LYS:H	1.84	0.42
1:1A:86:C:H4'	1:1A:104:U:H1'	2.02	0.42
1:1A:478:A:C6	1:1A:480:A:C6	3.07	0.42
1:1A:548:A:H1'	1:1A:549:G:OP1	2.20	0.42
1:1A:1790:C:H5"	1:1A:1791:A:OP1	2.19	0.42
1:1A:2052:G:H4'	4:1E:143:ASN:O	2.19	0.42
1:1A:2663:G:C6	1:1A:2664:G:C4	3.08	0.42
1:1A:2732:G:H3'	1:1A:2733:A:O4'	2.20	0.42
2:1B:103:G:H21	21:1Z:73:GLN:HE22	1.68	0.42
12:1Q:59:ARG:HD3	12:1Q:59:ARG:N	2.34	0.42
13:1R:11:ASN:ND2	63:1R:307:HOH:O	2.52	0.42
30:18:50:LEU:HD23	30:18:50:LEU:HA	1.89	0.42
32:1a:68:G:H2'	32:1a:69:G:O4'	2.19	0.42
32:1a:197:A:C5	32:1a:221:C:H4'	2.55	0.42
32:1a:295:C:H2'	32:1a:296:U:O4'	2.20	0.42
32:1a:323:U:H5'	51:1t:23:ARG:HB2	2.02	0.42
32:1a:687:A:N1	32:1a:700:G:O2'	2.47	0.42
32:1a:1236:A:O2'	32:1a:1304:G:H4'	2.20	0.42
32:1a:1289:A:OP1	52:1u:10:ARG:NH2	2.53	0.42
33:1b:12:GLU:O	33:1b:15:VAL:HG22	2.20	0.42
35:1d:122:ARG:HA	35:1d:122:ARG:HD2	1.75	0.42
38:1g:26:PHE:CD2	38:1g:30:ILE:HD11	2.55	0.42
39:1h:4:ASP:OD2	39:1h:89:PRO:HD3	2.19	0.42
40:1i:9:ARG:HB3	40:1i:104:ARG:NH1	2.34	0.42
47:1p:15:PRO:O	47:1p:16:HIS:ND1	2.53	0.42
51:1t:47:GLY:HA2	51:1t:48:LYS:C	2.45	0.42
1:2A:118:A:C8	1:2A:119:A:C8	3.08	0.42
1:2A:405:U:H4'	1:2A:406:G:OP2	2.19	0.42
1:2A:879:G:H2'	1:2A:879:G:N3	2.35	0.42
1:2A:1268:A:C2	1:2A:2013:A:C4	3.08	0.42
1:2A:1364:G:OP2	23:21:61:ARG:NH1	2.52	0.42
1:2A:1647:G:P	1:2A:1647:G:H3'	2.59	0.42
1:2A:1702:G:H2'	1:2A:1703:G:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2308:G:H3'	1:2A:2310:A:OP2	2.20	0.42
2:2B:94:C:H2'	2:2B:95:C:C6	2.55	0.42
9:2N:59:LYS:HB2	9:2N:59:LYS:HE3	1.77	0.42
17:2V:5:VAL:HG13	17:2V:14:VAL:HG21	2.01	0.42
23:21:53:VAL:HG22	23:21:74:VAL:HG13	2.02	0.42
32:2a:555:C:H2'	32:2a:556:C:C6	2.55	0.42
32:2a:708:C:O2'	32:2a:709:G:H5'	2.19	0.42
32:2a:1124:G:H4'	41:2j:38:ILE:HD11	2.01	0.42
33:2b:188:ALA:O	33:2b:202:PRO:HA	2.19	0.42
34:2c:20:SER:HA	34:2c:57:ILE:HB	2.01	0.42
42:2k:34:ASP:OD1	42:2k:36:ASP:N	2.53	0.42
54:2w:7:U:H6	54:2w:7:U:H5"	1.85	0.42
1:1A:720:C:H2'	1:1A:721:C:C6	2.55	0.42
1:1A:909:A:H2'	1:1A:912:C:C5	2.55	0.42
1:1A:1002:G:H2'	1:1A:1003:G:O4'	2.20	0.42
1:1A:1164:G:H2'	1:1A:1165:U:C6	2.55	0.42
1:1A:1963:U:H4'	1:1A:1964:G:OP1	2.20	0.42
1:1A:2489:G:C6	1:1A:2490:G:N1	2.87	0.42
4:1E:173:VAL:CG2	4:1E:185:LYS:HB2	2.50	0.42
22:10:27:GLU:HB2	22:10:69:PHE:HD1	1.85	0.42
32:1a:289:G:C6	32:1a:290:C:N4	2.87	0.42
32:1a:737:A:H2'	32:1a:738:C:C6	2.55	0.42
32:1a:890:G:O2'	32:1a:906:G:O6	2.33	0.42
32:1a:1104:G:O5'	33:1b:111:ARG:HD2	2.20	0.42
33:1b:118:LEU:HD11	33:1b:141:GLU:OE1	2.19	0.42
35:1d:142:PRO:HA	35:1d:185:PHE:HD2	1.85	0.42
55:1x:64:G:H2'	55:1x:65:C:C6	2.55	0.42
1:2A:605:C:O2	1:2A:657:U:O2'	2.36	0.42
1:2A:1036:G:P	7:2H:59:ARG:HD2	2.59	0.42
1:2A:1999:C:H4'	1:2A:2723:C:O2	2.19	0.42
1:2A:2156:G:H2'	1:2A:2157:G:C5	2.54	0.42
5:2F:170:LEU:HD13	5:2F:172:TRP:NE1	2.35	0.42
7:2H:102:ALA:HA	7:2H:117:PRO:HD3	2.01	0.42
11:2P:77:ARG:HB2	11:2P:78:PRO:HD2	2.02	0.42
12:2Q:24:GLY:HA2	12:2Q:67:ARG:NH2	2.35	0.42
15:2T:111:ARG:NH1	32:2a:1463:C:OP1	2.53	0.42
23:21:52:ARG:HA	23:21:56:GLN:O	2.20	0.42
26:24:50:VAL:HB	44:2m:65:LYS:HB2	2.01	0.42
32:2a:109:A:H5'	32:2a:110:C:C5	2.54	0.42
32:2a:848:C:H2'	32:2a:849:C:O4'	2.20	0.42
32:2a:1010:G:H2'	32:2a:1011:G:H8	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1182:G:H4'	32:2a:1183:A:H5"	2.01	0.42
32:2a:1304:G:C6	32:2a:1305:G:N1	2.87	0.42
32:2a:1347:G:H8	40:2i:107:ARG:HB2	1.85	0.42
36:2e:93:PRO:HG2	39:2h:105:ARG:NH1	2.35	0.42
48:2q:89:LEU:HD12	48:2q:89:LEU:HA	1.89	0.42
54:2w:66:A:C6	54:2w:67:C:C2	3.08	0.42
1:1A:363(A):A:H2'	1:1A:363(B):G:H8	1.85	0.42
1:1A:438:G:H2'	1:1A:440:G:C8	2.54	0.42
1:1A:1138:G:N3	9:1N:106:MET:HE2	2.34	0.42
1:1A:1676:A:H2'	1:1A:1677:A:O4'	2.20	0.42
3:1D:180:GLY:HA3	3:1D:275:LYS:HB3	2.02	0.42
5:1F:165:ARG:HA	5:1F:168:ARG:HD2	2.02	0.42
6:1G:47:LYS:O	6:1G:86:MET:HE2	2.20	0.42
14:1S:25:ARG:O	14:1S:39:ILE:HA	2.20	0.42
30:18:62:LEU:HB3	30:18:65:GLU:HG2	2.01	0.42
32:1a:684:A:H2'	32:1a:685:G:O4'	2.20	0.42
32:1a:1002:G:H3'	32:1a:1003:G:H4'	2.02	0.42
32:1a:1273:G:C2	32:1a:1274:G:H1'	2.55	0.42
34:1c:110:ASN:ND2	34:1c:140:ARG:HB3	2.35	0.42
36:1e:40:ARG:HA	36:1e:40:ARG:HD2	1.88	0.42
38:1g:92:SER:O	38:1g:96:GLN:HG3	2.20	0.42
40:1i:99:LEU:HD23	40:1i:99:LEU:HA	1.82	0.42
45:1n:14:PRO:HG2	45:1n:16:PHE:O	2.20	0.42
54:1w:76:A1B8A:NZ	56:1z:2:ARG:CZ	2.83	0.42
1:2A:630:G:OP2	30:28:15:LYS:HE2	2.20	0.42
1:2A:1600:C:OP1	19:2X:58:HIS:NE2	2.50	0.42
1:2A:2492:U:O5'	1:2A:2492:U:H6	2.03	0.42
1:2A:2769:C:H2'	1:2A:2770:G:O4'	2.19	0.42
2:2B:3:C:H2'	2:2B:4:C:H6	1.79	0.42
8:2I:41:GLU:HA	8:2I:44:LEU:HB3	2.02	0.42
8:2I:133:HIS:ND1	8:2I:134:PRO:O	2.53	0.42
20:2Y:8:LYS:HD3	20:2Y:97:ARG:NH1	2.35	0.42
27:25:8:LYS:HG3	27:25:9:LYS:HG2	2.01	0.42
32:2a:224:C:H2'	32:2a:225:C:C6	2.55	0.42
32:2a:266:G:H2'	32:2a:266:G:N3	2.35	0.42
32:2a:528:C:H5'	32:2a:529:G:OP2	2.20	0.42
32:2a:1347:G:H22	32:2a:1374:A:P	2.42	0.42
34:2c:137:ALA:HA	34:2c:140:ARG:NH1	2.35	0.42
35:2d:135:LEU:O	35:2d:137:SER:N	2.51	0.42
38:2g:70:LYS:C	38:2g:138:LYS:HD2	2.45	0.42
55:2x:59:A:H2'	55:2x:60:U:H5'	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:321:G:C2	5:1F:165:ARG:HD2	2.54	0.41
1:1A:2753:A:N3	31:19:15:LYS:NZ	2.61	0.41
1:1A:2849:U:P	15:1T:95:ARG:HH12	2.43	0.41
4:1E:28:ALA:HB3	4:1E:93:VAL:CG1	2.50	0.41
5:1F:89:VAL:HG12	5:1F:90:PHE:CD2	2.55	0.41
11:1P:134:ALA:O	11:1P:138:LEU:HB2	2.20	0.41
22:10:11:ARG:HH12	55:1x:63:G:H5'	1.85	0.41
32:1a:487:A:H2'	32:1a:488:C:O4'	2.19	0.41
32:1a:539:A:H2'	32:1a:540:G:C8	2.54	0.41
32:1a:1080:A:H5"	32:1a:1081:G:OP2	2.19	0.41
32:1a:1148:U:O2'	40:1i:14:VAL:HG21	2.19	0.41
32:1a:1343:G:H2'	32:1a:1344:C:C6	2.55	0.41
34:1c:22:TRP:CZ2	45:1n:54:PRO:HG2	2.54	0.41
37:1f:9:VAL:HB	37:1f:87:ARG:HB2	2.01	0.41
37:1f:74:ASP:OD1	37:1f:77:ARG:NH1	2.52	0.41
41:1j:31:GLY:HA3	41:1j:32:ALA:HA	1.66	0.41
1:2A:918:A:H2	2:2B:81:G:H5'	1.81	0.41
1:2A:1167:U:H2'	1:2A:1168:G:O4'	2.20	0.41
1:2A:2024:G:H2'	1:2A:2025:C:H6	1.84	0.41
1:2A:2539:C:H4'	31:29:3:VAL:HG21	2.02	0.41
1:2A:2788:C:N4	1:2A:2789:C:H41	2.18	0.41
11:2P:115:LEU:HD23	11:2P:115:LEU:HA	1.78	0.41
12:2Q:111:GLU:O	12:2Q:115:MET:HG2	2.20	0.41
13:2R:38:VAL:HG12	13:2R:42:LYS:HD2	2.01	0.41
14:2S:24:LEU:HA	14:2S:24:LEU:HD23	1.78	0.41
15:2T:6:LEU:O	15:2T:10:VAL:HG23	2.19	0.41
17:2V:95:LEU:HD23	17:2V:96:ILE:O	2.20	0.41
32:2a:259:G:H2'	32:2a:260:G:O4'	2.19	0.41
32:2a:657:G:H1'	32:2a:750:G:N2	2.35	0.41
32:2a:983:A:H2	32:2a:984:C:C6	2.38	0.41
32:2a:1047:G:H1	32:2a:1210:C:H42	1.67	0.41
32:2a:1390:U:H2'	32:2a:1391:U:C6	2.54	0.41
33:2b:27:LYS:HB3	33:2b:194:PRO:HD2	2.01	0.41
35:2d:100:ARG:NH2	35:2d:102:ASP:OD2	2.39	0.41
35:2d:149:ALA:O	35:2d:152:SER:N	2.45	0.41
36:2e:41:VAL:O	36:2e:67:VAL:HG22	2.20	0.41
42:2k:51:LYS:HE2	42:2k:51:LYS:HB2	1.86	0.41
49:2r:58:LEU:HD23	49:2r:58:LEU:HA	1.92	0.41
52:2u:2:GLY:O	52:2u:5:ASP:N	2.48	0.41
54:2w:18:G:H4'	54:2w:60:U:N3	2.35	0.41
55:2x:9:G:N3	55:2x:45:G:H2'	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:2x:19:G:H5”	55:2x:60:U:O4	2.19	0.41
57:2y:24:G:H2’	57:2y:25:C:C6	2.55	0.41
1:1A:1665:A:H2’	1:1A:1666:G:O4’	2.20	0.41
1:1A:2335:A:C8	1:1A:2337:G:C5	3.08	0.41
5:1F:34:TRP:NE1	11:1P:8:PRO:HD3	2.35	0.41
6:1G:136:ARG:HA	6:1G:154:GLY:HA3	2.02	0.41
12:1Q:12:GLN:HG3	12:1Q:73:PRO:HD2	2.02	0.41
20:1Y:13:VAL:HG12	20:1Y:74:PRO:HA	2.02	0.41
25:13:50:VAL:O	25:13:54:VAL:HB	2.20	0.41
26:14:61:ARG:HD3	50:1s:67:VAL:HG12	2.02	0.41
32:1a:1060:C:H5”	41:1j:51:ARG:HG2	2.03	0.41
32:1a:1413:A:C6	32:1a:1414:U:C4	3.08	0.41
33:1b:109:SER:O	33:1b:112:VAL:HG22	2.19	0.41
34:1c:71:ALA:O	34:1c:73:PRO:HD3	2.20	0.41
41:1j:6:ILE:O	41:1j:71:LEU:HD12	2.20	0.41
51:1t:13:LEU:H	51:1t:13:LEU:HG	1.49	0.41
1:2A:272:G:H4’	1:2A:272(A):U:H5”	2.01	0.41
1:2A:1939:5MU:OP1	1:2A:2604:U:O2’	2.37	0.41
1:2A:2268:A:OP1	63:2A:3977:HOH:O	2.22	0.41
1:2A:2472:G:H2’	1:2A:2475:C:H42	1.84	0.41
1:2A:2752:C:H2’	1:2A:2753:A:O4’	2.20	0.41
6:2G:43:LEU:C	6:2G:45:GLU:H	2.28	0.41
6:2G:121:ASN:HA	6:2G:181:ARG:HH21	1.85	0.41
9:2N:56:ASN:ND2	9:2N:126:PRO:HA	2.35	0.41
10:2O:51:ALA:O	10:2O:94:ARG:NH2	2.52	0.41
13:2R:92:GLY:HA2	13:2R:94:TYR:CZ	2.55	0.41
14:2S:28:VAL:HG21	14:2S:101:LEU:HD22	2.01	0.41
32:2a:308:C:H2’	32:2a:309:G:H8	1.85	0.41
32:2a:1387:G:H2’	32:2a:1388:C:C6	2.56	0.41
33:2b:178:ARG:NH1	39:2h:68:ARG:HH22	2.16	0.41
35:2d:31:CYS:HB2	62:2d:303:SF4:S3	2.59	0.41
38:2g:65:ALA:HB2	38:2g:128:ALA:HB2	2.02	0.41
38:2g:147:ALA:C	38:2g:149:ARG:H	2.27	0.41
42:2k:104:GLN:HG2	42:2k:106:LYS:HG3	2.02	0.41
44:2m:40:ASN:ND2	44:2m:43:THR:HG23	2.34	0.41
52:2u:5:ASP:C	52:2u:7:ARG:H	2.29	0.41
1:1A:300:A:H2’	1:1A:334:C:H1’	2.03	0.41
1:1A:459:U:H5”	29:17:40:TRP:CD2	2.56	0.41
1:1A:553:G:H2’	1:1A:554:U:O4’	2.20	0.41
1:1A:1141:U:H4’	1:1A:1142(A):A:O4’	2.20	0.41
1:1A:1264:G:O5’	1:1A:1264:G:H8	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2107:C:H2'	1:1A:2108:C:C6	2.55	0.41
8:1I:70:GLU:O	8:1I:74:ASN:ND2	2.52	0.41
9:1N:60:ILE:HG13	9:1N:61:ARG:H	1.85	0.41
11:1P:38:GLN:O	11:1P:40:SER:N	2.46	0.41
12:1Q:14:ARG:HB3	12:1Q:41:TRP:HH2	1.84	0.41
14:1S:10:ARG:O	14:1S:14:VAL:HG13	2.21	0.41
19:1X:11:PRO:CB	19:1X:92:LEU:HD21	2.51	0.41
20:1Y:99:CYS:HB2	20:1Y:106:LEU:HD11	2.02	0.41
26:14:15:ILE:HD12	26:14:32:TYR:CE1	2.55	0.41
26:14:26:SER:OG	26:14:27:THR:N	2.52	0.41
32:1a:23:C:OP2	32:1a:561:U:N3	2.44	0.41
32:1a:542:G:H5'	35:1d:41:GLY:HA3	2.03	0.41
32:1a:572:A:C2	32:1a:864:A:C6	3.08	0.41
32:1a:1085:U:H5"	32:1a:1086:U:H5	1.85	0.41
38:1g:144:MET:HE2	38:1g:144:MET:HB3	1.87	0.41
47:1p:4:ILE:C	47:1p:5:ARG:HG3	2.44	0.41
1:2A:881:G:C2	1:2A:882:G:H1'	2.54	0.41
1:2A:2305:A:H2'	1:2A:2306:C:O4'	2.20	0.41
1:2A:2671:A:H2'	1:2A:2672:G:O4'	2.20	0.41
2:2B:42:C:N3	6:2G:93:THR:HG23	2.35	0.41
3:2D:175:LEU:HD12	3:2D:185:VAL:HG21	2.01	0.41
4:2E:77:ILE:HD13	4:2E:77:ILE:HA	1.90	0.41
5:2F:104:LYS:HA	5:2F:107:LYS:HD2	2.02	0.41
6:2G:42:GLY:HA2	6:2G:89:GLY:HA3	2.01	0.41
6:2G:86:MET:H	6:2G:86:MET:HG3	1.58	0.41
8:2I:77:LEU:O	8:2I:143:SER:N	2.50	0.41
11:2P:86:LYS:HB3	11:2P:118:GLY:HA3	2.01	0.41
13:2R:78:LYS:HE2	13:2R:83:ILE:HD11	2.02	0.41
32:2a:181:G:N2	32:2a:182:U:O4	2.36	0.41
32:2a:397:A:N7	32:2a:547:A:O2'	2.43	0.41
32:2a:671:G:H2'	32:2a:672:U:O4'	2.20	0.41
32:2a:1002:G:N3	32:2a:1003:G:H1'	2.34	0.41
32:2a:1240:U:N3	38:2g:30:ILE:HG22	2.36	0.41
32:2a:1305:G:H5'	52:2u:4:GLY:HA3	2.02	0.41
34:2c:63:ASN:HB3	34:2c:98:ASN:ND2	2.35	0.41
36:2e:78:HIS:HE1	36:2e:142:LEU:HD23	1.84	0.41
41:2j:11:PHE:HE1	41:2j:67:THR:HG22	1.84	0.41
44:2m:49:THR:O	44:2m:53:VAL:HG13	2.19	0.41
49:2r:53:ARG:O	49:2r:57:GLY:N	2.47	0.41
55:2x:18:G:C2	55:2x:58:A:C5	3.08	0.41
55:2x:50:U:H2'	55:2x:51:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:250:G:C6	1:1A:251:A:C6	3.09	0.41
1:1A:1234:U:H2'	1:1A:1235:G:O4'	2.20	0.41
1:1A:1935:G:H1'	1:1A:1964:G:N2	2.36	0.41
1:1A:2072:G:H2'	1:1A:2073:C:O4'	2.20	0.41
1:1A:2846:G:H2'	1:1A:2847:U:O4'	2.20	0.41
63:1A:5276:HOH:O	9:1N:63:THR:HB	2.21	0.41
3:1D:33:LEU:HD23	3:1D:33:LEU:HA	1.84	0.41
4:1E:40:GLU:OE1	4:1E:40:GLU:N	2.50	0.41
8:1I:14:ASP:CG	8:1I:15:VAL:N	2.78	0.41
11:1P:138:LEU:HD12	11:1P:138:LEU:HA	1.87	0.41
32:1a:100:C:H2'	32:1a:101:A:C8	2.56	0.41
32:1a:714:G:H2'	32:1a:715:A:C8	2.55	0.41
52:1u:17:THR:O	52:1u:22:ARG:NH1	2.47	0.41
1:2A:458:G:O2'	1:2A:469:G:O6	2.35	0.41
1:2A:1196:C:H2'	1:2A:1197:G:C8	2.55	0.41
1:2A:1316:U:H2'	1:2A:1317:A:H8	1.83	0.41
1:2A:1503:U:H2'	1:2A:1504:C:H6	1.84	0.41
5:2F:137:LYS:H	5:2F:137:LYS:HG2	1.70	0.41
7:2H:18:GLU:HG2	7:2H:19:VAL:O	2.19	0.41
14:2S:94:TYR:CE2	14:2S:99:LYS:HD2	2.55	0.41
16:2U:83:LEU:HD23	16:2U:88:ILE:HB	2.02	0.41
19:2X:61:GLY:O	19:2X:72:LYS:HE2	2.20	0.41
32:2a:396:G:O2'	32:2a:398:C:OP1	2.26	0.41
32:2a:512:U:H2'	32:2a:513:C:C6	2.55	0.41
32:2a:583:A:N6	32:2a:758:G:O2'	2.52	0.41
32:2a:957:U:H2'	32:2a:959:A:OP2	2.21	0.41
32:2a:1227:A:H3'	32:2a:1227:A:N3	2.35	0.41
33:2b:28:PHE:CG	33:2b:190:THR:HA	2.55	0.41
34:2c:19:GLU:HB3	34:2c:40:ARG:HH22	1.85	0.41
36:2e:33:VAL:HG13	36:2e:112:LEU:HD12	2.02	0.41
41:2j:15:THR:HB	41:2j:94:VAL:HG23	2.02	0.41
51:2t:46:GLU:H	51:2t:46:GLU:HG3	1.62	0.41
54:2w:51:A:C5	54:2w:64:G:C4	3.08	0.41
1:1A:44:G:H5"	1:1A:45:C:OP1	2.20	0.41
1:1A:185:U:H2'	1:1A:186:G:C8	2.55	0.41
1:1A:1312:U:O4	19:1X:60:ARG:HD3	2.20	0.41
1:1A:1721:G:H1'	1:1A:1741:A:H61	1.86	0.41
1:1A:1821:A:H2'	1:1A:1822:G:C8	2.55	0.41
7:1H:55:PRO:HG2	7:1H:61:HIS:ND1	2.35	0.41
15:1T:91:ARG:HD2	15:1T:120:ARG:NH1	2.35	0.41
15:1T:112:ARG:HG3	15:1T:115:ARG:NH2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:56:VAL:HB	26:14:60:GLN:HG3	2.02	0.41
32:1a:933:G:OP1	38:1g:4:ARG:NH2	2.51	0.41
33:1b:98:LEU:HD12	33:1b:101:MET:HE3	2.02	0.41
33:1b:118:LEU:HD12	33:1b:145:LEU:HD12	2.02	0.41
36:1e:110:LEU:HB3	36:1e:115:VAL:HB	2.02	0.41
38:1g:70:LYS:O	38:1g:138:LYS:NZ	2.35	0.41
44:1m:108:ARG:HA	44:1m:108:ARG:HD3	1.66	0.41
47:1p:38:TYR:O	47:1p:49:LEU:HD22	2.20	0.41
54:1w:20:U:H4'	54:1w:21:A:O4'	2.19	0.41
1:2A:489:G:H2'	1:2A:491:G:O4'	2.19	0.41
1:2A:881:G:H3'	1:2A:882:G:H8	1.86	0.41
1:2A:1450:G:H2'	1:2A:1450(A):C:C6	2.56	0.41
1:2A:1557:C:H5"	1:2A:1558:A:OP2	2.20	0.41
1:2A:2526:G:HO2'	31:29:1:MET:HB2	1.85	0.41
15:2T:125:ARG:HE	15:2T:125:ARG:HB3	1.51	0.41
22:20:29:GLN:O	22:20:31:VAL:HG13	2.19	0.41
23:21:59:THR:O	23:21:91:LYS:NZ	2.50	0.41
32:2a:135:C:O2	47:2p:1:MET:HB3	2.20	0.41
32:2a:653:A:H5"	32:2a:653:A:N3	2.35	0.41
32:2a:791:G:C6	32:2a:792:A:N7	2.88	0.41
32:2a:1002:G:H1	32:2a:1038:C:N4	2.17	0.41
32:2a:1202:G:H1'	45:2n:29:ARG:HH11	1.84	0.41
32:2a:1469:G:H2'	32:2a:1470:G:H8	1.84	0.41
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.55	0.41
33:2b:135:GLN:HE21	33:2b:135:GLN:HB3	1.62	0.41
33:2b:163:PHE:CD2	33:2b:185:ILE:HG12	2.56	0.41
33:2b:204:ASN:HB3	33:2b:210:SER:HB2	2.01	0.41
35:2d:95:GLY:O	35:2d:99:SER:N	2.50	0.41
36:2e:78:HIS:CD2	39:2h:107:LEU:HD12	2.56	0.41
40:2i:121:ARG:NH1	40:2i:122:ALA:O	2.54	0.41
48:2q:57:VAL:HA	48:2q:77:VAL:HG23	2.02	0.41
1:1A:172:C:H2'	1:1A:173:G:O4'	2.20	0.41
1:1A:384:U:H2'	1:1A:385:C:H6	1.85	0.41
1:1A:443:A:C6	5:1F:45:ARG:HD2	2.55	0.41
1:1A:1050:A:H2'	1:1A:1051:G:O4'	2.21	0.41
1:1A:1325:G:OP1	1:1A:1647:G:O2'	2.29	0.41
1:1A:1753:G:N1	1:1A:1756:G:OP2	2.53	0.41
1:1A:2040:C:H2'	1:1A:2041:U:O4'	2.20	0.41
1:1A:2070:G:H2'	1:1A:2071:A:H8	1.85	0.41
1:1A:2287:A:O2'	1:1A:2289:G:N7	2.52	0.41
1:1A:2336:A:H61	22:10:43:THR:HG22	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2851:A:H8	1:1A:2851:A:O5'	2.02	0.41
6:1G:51:ARG:C	6:1G:53:LEU:H	2.28	0.41
32:1a:523:A:H61	43:1l:92:0TD:CG	2.33	0.41
32:1a:881:G:P	43:1l:12:ARG:HH22	2.44	0.41
33:1b:68:ILE:HD13	33:1b:161:ALA:HB3	2.03	0.41
34:1c:89:GLU:OE1	34:1c:90:GLU:N	2.54	0.41
50:1s:67:VAL:C	50:1s:69:HIS:H	2.28	0.41
57:1y:53:G:N2	57:1y:61:C:N3	2.68	0.41
1:2A:76:C:O2'	24:22:59:ARG:HA	2.21	0.41
1:2A:244:A:C2	1:2A:255:A:C4	3.08	0.41
1:2A:720:C:H2'	1:2A:721:C:C6	2.55	0.41
1:2A:748:G:O6	1:2A:751:A:H5"	2.20	0.41
1:2A:800:A:H8	1:2A:800:A:OP1	2.04	0.41
1:2A:1913:A:H4'	1:2A:1914:C:O5'	2.20	0.41
1:2A:2061:G:H5"	1:2A:2503:2MA:C2	2.50	0.41
1:2A:2158:A:O2'	1:2A:2159:G:OP2	2.33	0.41
1:2A:2164:C:H2'	1:2A:2165:G:H5'	2.02	0.41
1:2A:2702:U:H4'	1:2A:2703:C:OP1	2.20	0.41
2:2B:47:C:O2'	14:2S:93:LYS:HE2	2.19	0.41
2:2B:91:C:H5'	12:2Q:18:LYS:HA	2.02	0.41
6:2G:43:LEU:HD11	6:2G:153:ARG:CG	2.48	0.41
10:2O:79:PHE:CD1	15:2T:72:VAL:HG12	2.55	0.41
10:2O:113:LYS:HA	10:2O:113:LYS:HD3	1.87	0.41
21:2Z:159:PRO:HA	21:2Z:161:VAL:H	1.85	0.41
26:24:51:ASP:CB	44:2m:65:LYS:HD3	2.50	0.41
32:2a:1057:G:C4	32:2a:1204:A:C2	3.08	0.41
32:2a:1258:G:H8	32:2a:1258:G:OP2	2.04	0.41
33:2b:207:ALA:O	33:2b:211:ILE:HG13	2.20	0.41
34:2c:58:GLU:O	34:2c:59:ARG:HD3	2.21	0.41
35:2d:31:CYS:CB	62:2d:303:SF4:S3	3.09	0.41
44:2m:13:LYS:HA	44:2m:44:ARG:HH11	1.85	0.41
48:2q:10:VAL:HG13	48:2q:19:VAL:HB	2.01	0.41
49:2r:22:VAL:HB	49:2r:56:THR:HA	2.03	0.41
57:2y:20:U:O2'	57:2y:22:G:OP1	2.39	0.41
1:1A:27:G:C2	1:1A:512:G:N3	2.89	0.41
1:1A:862:G:N2	63:1A:4577:HOH:O	2.54	0.41
1:1A:876:C:H2'	1:1A:877:U:O4'	2.20	0.41
1:1A:1651:G:N7	13:1R:11:ASN:ND2	2.67	0.41
1:1A:1783:A:H5'	1:1A:2608:G:H4'	2.01	0.41
1:1A:2074:U:H2'	1:1A:2075:U:C6	2.56	0.41
1:1A:2139:C:H2'	1:1A:2140:C:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2320:A:H2'	1:1A:2320:A:N3	2.36	0.41
1:1A:2484:G:H1'	12:1Q:124:LYS:HD2	2.02	0.41
2:1B:31:C:H4'	6:1G:29:TRP:CH2	2.56	0.41
3:1D:176:ARG:NH2	32:1a:713:G:OP1	2.54	0.41
8:1I:10:GLU:H	8:1I:10:GLU:HG3	1.54	0.41
9:1N:42:TRP:CH2	9:1N:44:PRO:HB3	2.55	0.41
10:1O:15:GLY:O	10:1O:47:ILE:HG12	2.20	0.41
11:1P:35:HIS:O	11:1P:36:LYS:O	2.39	0.41
15:1T:99:LEU:HD22	15:1T:101:PHE:HE2	1.86	0.41
15:1T:99:LEU:HD22	15:1T:101:PHE:CE2	2.56	0.41
32:1a:1031:G:H2'	32:1a:1032:G:C8	2.55	0.41
33:1b:115:LEU:HD12	33:1b:145:LEU:HB3	2.03	0.41
37:1f:70:ASP:OD1	37:1f:70:ASP:N	2.34	0.41
44:1m:107:ALA:HB3	44:1m:111:LYS:HD3	2.03	0.41
47:1p:42:ARG:O	47:1p:43:LYS:HB2	2.21	0.41
1:2A:38:A:H2'	1:2A:39:C:C6	2.55	0.41
1:2A:329:G:N7	20:2Y:71:LYS:NZ	2.69	0.41
1:2A:656:G:H2'	1:2A:657:U:O4'	2.20	0.41
1:2A:732:C:H2'	1:2A:733:G:O4'	2.20	0.41
1:2A:1915:5MU:H2'	1:2A:1916:A:O4'	2.20	0.41
1:2A:2030:A:H4'	1:2A:2031:A:C8	2.56	0.41
1:2A:2136:C:N4	1:2A:2155:G:N1	2.69	0.41
1:2A:2392:A:N3	11:2P:61:ARG:HG2	2.35	0.41
1:2A:2837:G:H21	13:2R:45:ARG:HH12	1.68	0.41
11:2P:19:VAL:HB	11:2P:31:ALA:HA	2.02	0.41
32:2a:73:G:H1	32:2a:96:U:H3	1.67	0.41
32:2a:667:G:O2'	46:2o:49:ASP:OD1	2.23	0.41
32:2a:714:G:H2'	32:2a:715:A:C8	2.56	0.41
32:2a:1027:C:H3'	32:2a:1028:C:C6	2.55	0.41
32:2a:1095:U:OP1	32:2a:1108:G:N2	2.49	0.41
32:2a:1114:C:N4	32:2a:1186:G:H1	2.18	0.41
32:2a:1401:G:C2	32:2a:1402:4OC:H1'	2.56	0.41
36:2e:32:VAL:HB	36:2e:58:ALA:HB1	2.02	0.41
39:2h:51:VAL:HG12	39:2h:52:ASP:H	1.85	0.41
39:2h:116:LYS:HD2	39:2h:129:VAL:HG11	2.02	0.41
43:2l:49:ASN:N	43:2l:49:ASN:OD1	2.52	0.41
48:2q:29:HIS:CG	48:2q:30:PRO:HD2	2.56	0.41
55:2x:64:G:H2'	55:2x:65:C:H6	1.85	0.41
1:1A:559:G:H22	16:1U:49:HIS:CE1	2.39	0.41
1:1A:1082:U:C4	1:1A:1086:A:N1	2.82	0.41
1:1A:1278:A:OP1	13:1R:36:THR:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2360:A:H8	1:1A:2360:A:O5'	2.03	0.41
1:1A:2629:A:H1'	1:1A:2630:G:O5'	2.21	0.41
21:1Z:75:ASN:O	21:1Z:84:GLU:HG2	2.20	0.41
23:11:23:LYS:HE3	23:11:23:LYS:HB2	1.67	0.41
23:11:67:ILE:N	23:11:68:PRO:HD2	2.35	0.41
31:19:27:CYS:SG	31:19:28:GLU:N	2.94	0.41
32:1a:19:C:H4'	32:1a:864:A:O4'	2.20	0.41
32:1a:222:U:H2'	32:1a:223:U:H6	1.86	0.41
32:1a:636:U:H2'	32:1a:637:G:C8	2.50	0.41
32:1a:997:U:H2'	32:1a:998:G:H8	1.86	0.41
32:1a:1016:A:H2'	32:1a:1017:G:O4'	2.20	0.41
32:1a:1033:G:H2'	32:1a:1034:G:C8	2.56	0.41
32:1a:1050:G:H2'	32:1a:1050:G:N3	2.36	0.41
32:1a:1176:A:H2'	32:1a:1177:G:C8	2.56	0.41
32:1a:1179:A:H2'	32:1a:1180:A:O4'	2.20	0.41
32:1a:1325:C:H2'	32:1a:1326:C:H6	1.86	0.41
32:1a:1511:G:H2'	32:1a:1512:U:O4'	2.21	0.41
33:1b:47:THR:OG1	33:1b:202:PRO:HG2	2.21	0.41
40:1i:43:ALA:HA	40:1i:74:ILE:HD13	2.03	0.41
49:1r:70:ILE:HG22	49:1r:74:ARG:HD2	2.03	0.41
51:1t:32:ALA:O	51:1t:36:LEU:HG	2.21	0.41
1:2A:196:A:H2'	1:2A:196:A:N3	2.36	0.41
1:2A:263:C:H2'	1:2A:264:C:O4'	2.21	0.41
1:2A:302:C:OP2	20:2Y:73:ARG:NH1	2.53	0.41
1:2A:723:G:H2'	1:2A:724:U:O4'	2.21	0.41
1:2A:854:G:H2'	1:2A:855:G:C8	2.56	0.41
1:2A:1517:G:H2'	1:2A:1518:U:O4'	2.21	0.41
1:2A:1614:A:C2	18:2W:93:ALA:HB2	2.55	0.41
1:2A:1756:G:H4'	1:2A:1758:G:O4'	2.20	0.41
1:2A:1839:G:C8	1:2A:1927:A:H1'	2.56	0.41
1:2A:2126:A:H4'	1:2A:2127:G:OP1	2.18	0.41
1:2A:2143:C:H2'	1:2A:2144:U:O4'	2.21	0.41
1:2A:2591:C:H2'	1:2A:2592:G:C8	2.55	0.41
2:2B:43:C:C4	2:2B:45:A:N6	2.89	0.41
6:2G:33:ARG:O	6:2G:34:LEU:HD23	2.21	0.41
7:2H:30:LYS:N	7:2H:79:VAL:O	2.44	0.41
27:25:45:VAL:HA	27:25:52:TYR:HB2	2.03	0.41
32:2a:513:C:H2'	32:2a:514:C:C6	2.56	0.41
32:2a:707:C:OP1	42:2k:85:ARG:NH1	2.54	0.41
32:2a:922:G:C2	32:2a:923:A:C4	3.09	0.41
32:2a:1118:C:C2	32:2a:1156:G:N2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1122:U:O2'	32:2a:1123:A:H5'	2.20	0.41
33:2b:115:LEU:HD13	33:2b:153:ARG:HD2	2.03	0.41
33:2b:211:ILE:HG22	33:2b:215:LEU:HD22	2.02	0.41
34:2c:39:ILE:H	34:2c:39:ILE:HG13	1.49	0.41
34:2c:118:GLN:HA	34:2c:121:ALA:CB	2.51	0.41
43:2l:9:GLN:O	43:2l:13:LYS:N	2.51	0.41
49:2r:74:ARG:HG2	49:2r:79:LEU:HB2	2.03	0.41
1:1A:141:A:C6	1:1A:142:A:N1	2.89	0.41
1:1A:324:A:H2'	1:1A:325:G:O4'	2.21	0.41
1:1A:440:G:H2'	1:1A:441:U:O4'	2.21	0.41
1:1A:978:G:C2	1:1A:986:C:C2	3.09	0.41
1:1A:1114:G:H2'	1:1A:1115:G:O4'	2.21	0.41
1:1A:1499:C:C2'	1:1A:1500:G:H5'	2.51	0.41
1:1A:1810:A:H2'	1:1A:1811:G:O4'	2.21	0.41
1:1A:1848:A:C6	32:1a:702:A:C6	3.09	0.41
1:1A:2259:G:C8	1:1A:2427:C:C4	3.09	0.41
1:1A:2260:C:H2'	1:1A:2261:C:H6	1.86	0.41
3:1D:13:ARG:HD3	3:1D:16:MET:HE3	2.02	0.41
3:1D:245:PRO:HA	3:1D:246:PRO:HD3	1.93	0.41
5:1F:9:ILE:HD13	5:1F:22:ALA:HB3	2.01	0.41
5:1F:148:LEU:CD2	5:1F:191:ARG:HH11	2.33	0.41
7:1H:25:LYS:HG3	7:1H:34:GLU:HG2	2.02	0.41
8:1I:101:LEU:O	8:1I:106:GLY:N	2.54	0.41
10:1O:111:PHE:O	10:1O:115:VAL:HG23	2.20	0.41
15:1T:16:ARG:H	15:1T:79:HIS:CD2	2.38	0.41
15:1T:78:LEU:HD23	15:1T:79:HIS:CE1	2.56	0.41
16:1U:110:VAL:O	16:1U:114:LYS:HG3	2.21	0.41
32:1a:160:A:H2'	32:1a:161:A:O4'	2.21	0.41
32:1a:242:C:H2'	32:1a:243:A:H5'	2.02	0.41
32:1a:502:G:C2	32:1a:503:C:C2	3.08	0.41
32:1a:510:A:OP2	35:1d:49:ARG:NH1	2.54	0.41
32:1a:623:C:H2'	32:1a:624:C:O4'	2.21	0.41
32:1a:999:C:H42	32:1a:1042:G:H1	1.69	0.41
32:1a:1260:C:O5'	32:1a:1284:C:H4'	2.20	0.41
33:1b:33:TYR:HB2	33:1b:43:ASP:HB2	2.02	0.41
33:1b:76:GLN:HG2	33:1b:206:ASP:O	2.21	0.41
37:1f:36:ARG:O	37:1f:65:VAL:HA	2.20	0.41
37:1f:82:ARG:HB2	37:1f:85:VAL:HG23	2.03	0.41
39:1h:51:VAL:HG12	39:1h:52:ASP:N	2.30	0.41
39:1h:87:SER:HB3	39:1h:133:LEU:O	2.21	0.41
41:1j:8:LEU:HB2	41:1j:16:LEU:HD11	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:1n:26:ARG:HH11	45:1n:43:CYS:HB3	1.86	0.41
47:1p:21:VAL:HG21	47:1p:59:TRP:CD1	2.56	0.41
50:1s:23:ASN:OD1	50:1s:23:ASN:N	2.54	0.41
52:1u:2:GLY:O	52:1u:5:ASP:N	2.52	0.41
55:1x:9:G:N3	55:1x:45:G:H2'	2.36	0.41
57:1y:54:5MU:H2'	57:1y:55:PSU:O4'	2.21	0.41
1:2A:171:G:H2'	1:2A:172:C:C6	2.56	0.41
1:2A:234:C:H2'	1:2A:235:U:C6	2.54	0.41
1:2A:312:G:H4'	1:2A:331:A:N3	2.36	0.41
1:2A:394:A:C6	1:2A:395:U:C4	3.08	0.41
1:2A:455:C:N3	1:2A:472:A:H2'	2.36	0.41
1:2A:558:G:OP1	9:2N:111:PRO:HD2	2.21	0.41
1:2A:632:A:H2'	1:2A:633:A:C8	2.56	0.41
1:2A:795:C:H2'	1:2A:796:C:C6	2.55	0.41
1:2A:829:A:N7	1:2A:2248:C:H5'	2.36	0.41
1:2A:855:G:O2'	22:20:27:GLU:OE2	2.21	0.41
1:2A:933:A:OP1	25:23:24:LYS:NZ	2.53	0.41
1:2A:947:G:H2'	1:2A:948:G:C8	2.55	0.41
1:2A:1188:U:H4'	17:2V:79:VAL:HG22	2.03	0.41
1:2A:1449:A:N6	1:2A:1450:G:N3	2.68	0.41
1:2A:2006:C:H6	1:2A:2006:C:O5'	2.03	0.41
1:2A:2484:G:C2	1:2A:2485:G:C8	3.08	0.41
1:2A:2762:G:H2'	1:2A:2763:G:O4'	2.21	0.41
1:2A:2815:C:H2'	1:2A:2816:C:C6	2.55	0.41
3:2D:2:ALA:N	3:2D:20:ASP:OD2	2.54	0.41
3:2D:208:LYS:HE3	3:2D:210:GLY:HA3	2.03	0.41
6:2G:106:LEU:HA	6:2G:110:ALA:CB	2.50	0.41
8:2I:133:HIS:O	8:2I:136:VAL:HG23	2.21	0.41
11:2P:38:GLN:O	11:2P:39:LYS:HB3	2.20	0.41
12:2Q:51:ARG:HB2	12:2Q:66:ILE:HD11	2.03	0.41
19:2X:14:SER:C	19:2X:16:LYS:N	2.77	0.41
32:2a:236:G:OP1	48:2q:40:LYS:NZ	2.54	0.41
32:2a:461:A:O2'	32:2a:470:C:H5'	2.21	0.41
32:2a:577:G:H2'	32:2a:578:C:H6	1.86	0.41
32:2a:683:G:H2'	32:2a:684:A:C8	2.55	0.41
32:2a:698:G:H2'	32:2a:699:C:C6	2.56	0.41
32:2a:893:C:H2'	32:2a:894:G:H8	1.85	0.41
32:2a:1122:U:H2'	32:2a:1123:A:H8	1.86	0.41
32:2a:1134:G:N1	32:2a:1135:U:H1'	2.36	0.41
32:2a:1172:C:H2'	32:2a:1173:G:C8	2.55	0.41
32:2a:1301:U:O2'	32:2a:1302:U:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:47:LEU:HD13	34:2c:52:LEU:HD22	2.02	0.41
36:2e:17:ALA:HB2	36:2e:26:PHE:HD1	1.85	0.41
37:2f:23:LYS:HB3	37:2f:23:LYS:HE2	1.86	0.41
40:2i:58:HIS:ND1	40:2i:58:HIS:N	2.68	0.41
44:2m:58:GLU:O	44:2m:62:ASN:ND2	2.54	0.41
45:2n:24:CYS:C	45:2n:26:ARG:H	2.27	0.41
46:2o:48:LYS:HA	46:2o:48:LYS:HD3	1.85	0.41
48:2q:69:LYS:HB3	48:2q:69:LYS:HE2	1.86	0.41
49:2r:36:ASN:O	49:2r:40:LEU:HG	2.19	0.41
50:2s:32:LYS:HD2	50:2s:34:TRP:HH2	1.86	0.41
50:2s:43:GLU:O	50:2s:45:VAL:HG12	2.21	0.41
53:2v:14:A:H62	57:2y:34:U8U:HN3	1.68	0.41
54:2w:51:A:N7	54:2w:64:G:C6	2.89	0.41
1:1A:887:A:H1'	1:1A:889:C:OP1	2.21	0.41
1:1A:1864:U:OP1	1:1A:2410:G:O2'	2.25	0.41
1:1A:2243:U:OP1	63:1A:4260:HOH:O	2.21	0.41
1:1A:2399:G:C6	1:1A:2400:G:C5	3.08	0.41
12:1Q:135:ASP:O	12:1Q:139:GLU:HG3	2.20	0.41
18:1W:14:PRO:HG2	18:1W:78:GLU:OE1	2.21	0.41
26:14:15:ILE:HG21	26:14:32:TYR:HD1	1.86	0.41
32:1a:1072:G:C6	32:1a:1073:U:C4	3.09	0.41
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.56	0.41
33:1b:55:PHE:CD1	33:1b:221:LEU:HD22	2.56	0.41
38:1g:50:ILE:HD13	38:1g:50:ILE:HA	1.88	0.41
41:1j:33:GLN:O	41:1j:75:ILE:N	2.46	0.41
1:2A:500:G:N1	1:2A:503:A:OP2	2.53	0.41
1:2A:987:G:H2'	1:2A:988:A:O4'	2.20	0.41
1:2A:1005:C:H2'	1:2A:1006:C:C6	2.56	0.41
1:2A:1469:A:H2'	1:2A:1470:G:O4'	2.20	0.41
1:2A:2419:U:H2'	1:2A:2420:C:C6	2.56	0.41
1:2A:2729:G:O2'	4:2E:186:GLY:HA3	2.21	0.41
1:2A:2819:G:H2'	1:2A:2821:A:N7	2.36	0.41
4:2E:108:SER:OG	4:2E:163:GLU:HG2	2.21	0.41
6:2G:43:LEU:HD13	6:2G:43:LEU:HA	1.85	0.41
6:2G:64:THR:HA	6:2G:94:LEU:HD11	2.02	0.41
7:2H:53:GLU:CA	7:2H:65:HIS:HE2	2.34	0.41
7:2H:54:ARG:HG2	7:2H:65:HIS:CE1	2.56	0.41
20:2Y:44:ILE:HA	20:2Y:63:LYS:O	2.20	0.41
21:2Z:79:ARG:HB2	21:2Z:80:ARG:NH1	2.35	0.41
23:21:64:ALA:HA	23:21:67:ILE:HG13	2.02	0.41
32:2a:262:A:H4'	51:2t:75:ASN:HB2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:308:C:H2'	32:2a:309:G:C8	2.55	0.41
32:2a:698:G:H2'	32:2a:699:C:H6	1.86	0.41
32:2a:811:C:H4'	32:2a:900:A:N6	2.36	0.41
32:2a:1151:A:O2'	32:2a:1152:A:O5'	2.38	0.41
32:2a:1159:U:O4'	32:2a:1182:G:N2	2.54	0.41
33:2b:144:ARG:NH2	33:2b:148:TYR:OH	2.54	0.41
33:2b:162:ILE:O	33:2b:185:ILE:HD13	2.22	0.41
34:2c:109:PRO:C	34:2c:111:LEU:H	2.28	0.41
36:2e:12:LEU:HB3	36:2e:31:LEU:HB3	2.03	0.41
36:2e:80:ILE:HD12	39:2h:104:ARG:NH2	2.36	0.41
38:2g:74:GLU:HG2	38:2g:91:VAL:HG22	2.02	0.41
41:2j:21:GLN:HE22	41:2j:25:GLU:HB2	1.86	0.41
45:2n:27:CYS:SG	45:2n:29:ARG:HB2	2.61	0.41
1:1A:817:C:H4'	1:1A:932:G:C5	2.57	0.40
1:1A:1488:G:N2	1:1A:1502:C:C2	2.89	0.40
1:1A:1538:G:O2'	1:1A:1539:G:H5'	2.21	0.40
1:1A:1664:A:H1'	1:1A:2685:G:O2'	2.21	0.40
1:1A:2126:A:H62	1:1A:2163:C:H4'	1.86	0.40
1:1A:2350:C:OP2	63:1A:4257:HOH:O	2.21	0.40
1:1A:2503:2MA:C8	60:1A:4104:ERY:H282	2.51	0.40
6:1G:132:ASN:HA	6:1G:157:ILE:O	2.21	0.40
12:1Q:45:GLN:OE1	12:1Q:45:GLN:N	2.51	0.40
21:1Z:137:ILE:HA	21:1Z:156:LYS:NZ	2.35	0.40
26:14:37:SER:O	26:14:39:CYS:N	2.54	0.40
32:1a:8:A:N6	35:1d:205:GLU:O	2.54	0.40
32:1a:598:U:H4'	39:1h:94:TYR:CD2	2.56	0.40
32:1a:688:G:H2'	32:1a:689:C:C6	2.57	0.40
32:1a:1426:C:H2'	32:1a:1427:U:C6	2.57	0.40
33:1b:33:TYR:N	33:1b:41:ILE:O	2.40	0.40
37:1f:10:LEU:HD23	37:1f:84:ASN:O	2.21	0.40
39:1h:5:PRO:O	39:1h:32:LYS:HE2	2.21	0.40
52:1u:20:LYS:HB3	52:1u:20:LYS:HE2	1.84	0.40
57:1y:70:C:H2'	57:1y:71:C:O4'	2.21	0.40
1:2A:64:A:O3'	19:2X:71:GLY:HA3	2.21	0.40
1:2A:300:A:H1'	1:2A:319:C:H1'	2.03	0.40
1:2A:355:G:H2'	1:2A:356:G:H8	1.85	0.40
1:2A:815:C:H2'	1:2A:816:C:C6	2.56	0.40
1:2A:870:A:C2	1:2A:908:C:C2	3.10	0.40
1:2A:1754:C:N3	1:2A:2716:U:O2'	2.55	0.40
1:2A:2372:G:H1'	28:26:46:HIS:CE1	2.55	0.40
5:2F:158:THR:O	5:2F:164:ARG:HD3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:2N:21:LYS:NZ	9:2N:26:LEU:HD13	2.36	0.40
9:2N:48:MET:HE2	9:2N:48:MET:HB2	1.79	0.40
9:2N:56:ASN:HA	9:2N:125:GLY:H	1.87	0.40
10:2O:24:VAL:CG1	10:2O:33:ALA:HB2	2.51	0.40
11:2P:14:LYS:HG2	11:2P:15:ARG:N	2.35	0.40
11:2P:86:LYS:HG2	11:2P:117:GLU:O	2.22	0.40
11:2P:139:LYS:C	11:2P:141:ALA:H	2.27	0.40
17:2V:40:LEU:HD21	17:2V:101:GLY:HA3	2.03	0.40
28:26:10:LEU:O	28:26:11:LEU:HD23	2.21	0.40
32:2a:1004:A:N1	32:2a:1037:C:C2	2.89	0.40
32:2a:1201:A:H1'	32:2a:1202:G:OP2	2.21	0.40
32:2a:1306:A:H2'	32:2a:1307:U:O4'	2.22	0.40
32:2a:1328:C:OP1	52:2u:21:TYR:OH	2.31	0.40
34:2c:57:ILE:HG23	34:2c:59:ARG:HE	1.85	0.40
36:2e:110:LEU:HD13	36:2e:118:ILE:HG21	2.03	0.40
38:2g:9:VAL:HG23	38:2g:94:ARG:HE	1.85	0.40
40:2i:16:ARG:HB2	40:2i:64:THR:HG22	2.02	0.40
44:2m:70:LEU:O	44:2m:74:VAL:HG23	2.21	0.40
46:2o:15:PHE:CZ	46:2o:84:LYS:HD2	2.55	0.40
47:2p:49:LEU:HD23	47:2p:50:LYS:N	2.36	0.40
48:2q:3:LYS:HD3	48:2q:60:ILE:HD11	2.03	0.40
52:2u:15:ARG:H	52:2u:15:ARG:HG2	1.54	0.40
1:1A:1177:A:H8	1:1A:1177:A:O5'	2.04	0.40
1:1A:1794:U:H2'	1:1A:1795:C:C6	2.56	0.40
1:1A:1837:C:OP1	32:1a:784:C:H4'	2.20	0.40
1:1A:1851:U:H2'	1:1A:1852:C:O4'	2.22	0.40
1:1A:2190:G:C2	1:1A:2191:G:C8	3.09	0.40
3:1D:16:MET:HE2	3:1D:16:MET:HB2	1.89	0.40
4:1E:13:ARG:O	4:1E:13:ARG:HG3	2.21	0.40
6:1G:21:ARG:HG2	6:1G:21:ARG:NH1	2.36	0.40
10:1O:26:LYS:O	10:1O:30:ALA:HB2	2.21	0.40
13:1R:22:ARG:O	13:1R:26:LYS:HG3	2.22	0.40
21:1Z:30:ASN:OD1	21:1Z:33:LEU:HD23	2.20	0.40
32:1a:24:U:H2'	32:1a:25:C:C6	2.56	0.40
32:1a:434:U:H2'	32:1a:435:C:C6	2.55	0.40
32:1a:1111:A:H61	34:1c:176:HIS:C	2.29	0.40
38:1g:69:VAL:C	38:1g:138:LYS:HD2	2.46	0.40
39:1h:20:TYR:HA	39:1h:65:TYR:CZ	2.57	0.40
43:1l:42:THR:HA	43:1l:53:ARG:O	2.21	0.40
44:1m:67:GLU:HG3	44:1m:71:ARG:NH2	2.36	0.40
51:1t:13:LEU:O	51:1t:17:ARG:HG3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1300:U:H4'	1:2A:1301:A:H5"	2.03	0.40
1:2A:1336:A:H2'	1:2A:1337:G:C8	2.57	0.40
1:2A:1826:G:H4'	3:2D:242:ARG:CZ	2.52	0.40
1:2A:2424:C:O2	1:2A:2429:G:O2'	2.22	0.40
1:2A:2432:A:C8	23:21:33:LYS:HD2	2.57	0.40
2:2B:31:C:N4	14:2S:32:LEU:HD13	2.36	0.40
6:2G:93:THR:O	6:2G:93:THR:OG1	2.39	0.40
8:2I:68:LEU:HD23	8:2I:72:LEU:HD23	2.03	0.40
10:2O:53:LYS:N	10:2O:56:ASP:OD2	2.31	0.40
14:2S:77:ALA:O	14:2S:79:ALA:N	2.55	0.40
15:2T:48:ILE:O	15:2T:63:VAL:HA	2.20	0.40
23:21:51:VAL:N	23:21:58:ILE:O	2.50	0.40
32:2a:814:A:H2'	32:2a:816:A:H5"	2.02	0.40
32:2a:1104:G:H4'	33:2b:111:ARG:NH2	2.36	0.40
32:2a:1157:A:H61	32:2a:1178:G:N2	2.19	0.40
35:2d:156:GLU:O	35:2d:159:ARG:HB2	2.21	0.40
37:2f:30:LEU:HD22	37:2f:75:LEU:HD21	2.04	0.40
38:2g:79:ARG:O	38:2g:80:VAL:C	2.65	0.40
40:2i:92:TYR:O	40:2i:96:LEU:HB2	2.20	0.40
43:2l:48:PRO:HB3	53:2v:21:A:H4'	2.03	0.40
57:2y:74:C:H2'	57:2y:75:C:C6	2.56	0.40
1:1A:207:A:H2'	1:1A:208:C:O4'	2.20	0.40
1:1A:443:A:C5	5:1F:45:ARG:HD2	2.57	0.40
1:1A:484:C:H2'	1:1A:485:C:H6	1.84	0.40
1:1A:616:G:H5'	5:1F:205:ARG:HD3	2.02	0.40
1:1A:664:C:H2'	1:1A:665:C:H6	1.86	0.40
1:1A:1076:C:O2'	1:1A:1077:A:N7	2.52	0.40
1:1A:1256:G:H1'	5:1F:82:ILE:HD11	2.03	0.40
1:1A:1683:C:H2'	1:1A:1684:C:C6	2.56	0.40
1:1A:1789:A:H5"	3:1D:220:HIS:O	2.21	0.40
2:1B:7:G:H5'	14:1S:29:PHE:CE2	2.57	0.40
5:1F:34:TRP:CE2	11:1P:8:PRO:HD3	2.57	0.40
8:1I:92:VAL:HG11	8:1I:144:VAL:HG11	2.04	0.40
9:1N:15:LEU:HD12	9:1N:53:VAL:HB	2.03	0.40
13:1R:103:ARG:HD3	13:1R:108:GLY:O	2.21	0.40
25:13:15:TYR:CE2	25:13:53:LEU:HD21	2.56	0.40
32:1a:598:U:H4'	39:1h:94:TYR:CG	2.57	0.40
32:1a:1189:C:P	41:1j:51:ARG:HH22	2.44	0.40
32:1a:1211:U:H4'	32:1a:1213:A:O4'	2.21	0.40
35:1d:187:ARG:NH2	35:1d:190:ASP:OD1	2.35	0.40
41:1j:16:LEU:HD23	41:1j:68:HIS:HB2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:1l:8:ASN:O	43:1l:12:ARG:HG3	2.21	0.40
44:1m:45:VAL:C	44:1m:47:ASP:H	2.29	0.40
49:1r:38:GLU:HA	49:1r:41:LYS:HE3	2.03	0.40
51:1t:18:GLN:HA	51:1t:21:LYS:HD2	2.03	0.40
51:1t:45:GLN:HB2	51:1t:91:LEU:HD13	2.03	0.40
55:1x:71:C:H2'	55:1x:72:A:O4'	2.20	0.40
1:2A:65:C:O2'	1:2A:456:C:N3	2.48	0.40
1:2A:534:U:H5'	16:2U:42:ALA:HB1	2.03	0.40
1:2A:820:A:H1'	1:2A:943:U:H1'	2.02	0.40
1:2A:864:G:C6	1:2A:865:C:N4	2.89	0.40
1:2A:2233:U:H2'	1:2A:2234:G:C8	2.56	0.40
1:2A:2291:U:O4	63:2A:3942:HOH:O	2.16	0.40
1:2A:2583:G:OP2	63:2A:3972:HOH:O	2.21	0.40
13:2R:104:ARG:HD2	13:2R:107:ASP:OD1	2.21	0.40
15:2T:105:LEU:HB2	15:2T:110:ILE:HG13	2.02	0.40
21:2Z:100:VAL:HA	21:2Z:101:PRO:HD3	1.91	0.40
32:2a:8:A:N6	35:2d:209:ARG:HB2	2.37	0.40
32:2a:358:U:H2'	32:2a:359:U:C6	2.56	0.40
32:2a:502:G:H2'	32:2a:503:C:O4'	2.21	0.40
32:2a:823:G:H2'	32:2a:824:C:O4'	2.21	0.40
32:2a:1241:G:H2'	32:2a:1242:C:H6	1.87	0.40
35:2d:53:ASP:O	35:2d:57:ARG:NE	2.54	0.40
37:2f:28:ARG:HA	37:2f:31:GLU:HG2	2.03	0.40
38:2g:72:ARG:HA	38:2g:96:GLN:HE21	1.86	0.40
39:2h:3:THR:O	39:2h:5:PRO:HD3	2.20	0.40
55:2x:66:C:H2'	55:2x:67:C:C6	2.56	0.40
1:1A:428:A:H8	1:1A:428:A:OP2	2.04	0.40
1:1A:468:G:N7	29:17:39:ARG:NH2	2.65	0.40
1:1A:2088:G:C6	1:1A:2089:U:C4	3.09	0.40
1:1A:2103:C:H2'	1:1A:2104:G:O4'	2.22	0.40
3:1D:118:VAL:HG22	3:1D:119:ALA:H	1.86	0.40
10:1O:4:PRO:O	10:1O:5:GLN:HB2	2.22	0.40
26:14:68:ARG:HD3	26:14:69:LYS:N	2.36	0.40
32:1a:638:G:H2'	32:1a:639:G:O4'	2.22	0.40
32:1a:1139:G:N2	32:1a:1143:G:C6	2.90	0.40
32:1a:1356:G:H2'	32:1a:1357:A:H8	1.83	0.40
34:1c:157:ILE:HD13	34:1c:166:GLU:HB2	2.04	0.40
1:2A:272(D):G:C2	1:2A:272(E):G:C8	3.10	0.40
1:2A:309:G:N3	1:2A:329:G:O2'	2.50	0.40
1:2A:518:G:H2'	1:2A:519:U:C6	2.57	0.40
1:2A:519:U:H2'	1:2A:520:G:H8	1.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:900:A:H3'	1:2A:901:A:C8	2.53	0.40
1:2A:1287:A:C6	1:2A:1288:U:C4	3.10	0.40
1:2A:1512:U:H2'	1:2A:1513:C:C6	2.57	0.40
1:2A:1935:G:H1'	1:2A:1964:G:N2	2.37	0.40
1:2A:2255:G:OP2	63:2A:3978:HOH:O	2.22	0.40
1:2A:2295:C:H41	14:2S:13:ARG:NH1	2.18	0.40
2:2B:68:C:H2'	2:2B:69:G:H8	1.85	0.40
4:2E:110:GLY:HA2	4:2E:161:GLY:HA3	2.03	0.40
5:2F:53:THR:N	5:2F:56:GLU:OE1	2.41	0.40
5:2F:183:VAL:O	5:2F:187:VAL:HG23	2.22	0.40
9:2N:4:TYR:HB2	16:2U:101:ARG:NH1	2.36	0.40
11:2P:50:ARG:HG2	30:28:61:LEU:HD11	2.02	0.40
15:2T:122:ASP:O	15:2T:125:ARG:HG2	2.22	0.40
19:2X:60:ARG:NH2	29:27:47:ARG:HH21	2.19	0.40
20:2Y:9:LYS:HA	20:2Y:10:GLY:HA2	1.50	0.40
22:20:10:THR:HG22	22:20:12:ASN:N	2.23	0.40
32:2a:100:C:H2'	32:2a:101:A:C8	2.57	0.40
32:2a:276:G:OP1	48:2q:12:SER:OG	2.24	0.40
32:2a:1089:G:C6	32:2a:1090:U:C4	3.10	0.40
32:2a:1095:U:P	32:2a:1108:G:H1	2.44	0.40
32:2a:1259:C:C4	32:2a:1260:C:H1'	2.57	0.40
33:2b:25:ASN:OD1	33:2b:27:LYS:HB2	2.21	0.40
33:2b:127:ILE:C	33:2b:129:GLU:H	2.29	0.40
46:2o:78:TYR:O	46:2o:82:ILE:HG12	2.21	0.40
47:2p:52:ASP:CG	47:2p:55:ARG:HG2	2.46	0.40
48:2q:14:LYS:HB3	48:2q:14:LYS:HE3	1.88	0.40
51:2t:67:ALA:HB2	51:2t:77:ALA:HB2	2.03	0.40
1:1A:720:C:H2'	1:1A:721:C:H6	1.86	0.40
1:1A:1495:A:C6	1:1A:1496:A:C6	3.10	0.40
1:1A:2529:G:H5"	1:1A:2530:A:H5"	2.02	0.40
1:1A:2590:A:H2'	1:1A:2591:C:H6	1.87	0.40
9:1N:23:LEU:HA	9:1N:60:ILE:HD11	2.03	0.40
9:1N:67:LEU:O	9:1N:88:GLU:HG3	2.21	0.40
12:1Q:58:PHE:HB3	12:1Q:61:GLY:O	2.22	0.40
25:13:23:LEU:HD23	25:13:50:VAL:HG21	2.03	0.40
32:1a:840:C:H6	32:1a:840:C:H2'	1.69	0.40
32:1a:1346:A:N1	32:1a:1374:A:H5"	2.36	0.40
34:1c:8:ILE:HG13	34:1c:16:ARG:NE	2.36	0.40
34:1c:134:ILE:HG22	34:1c:168:ALA:HB3	2.02	0.40
36:1e:41:VAL:O	36:1e:66:MET:HA	2.22	0.40
36:1e:99:GLY:N	36:1e:117:ASP:OD1	2.40	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1i:18:PHE:HB2	40:1i:62:TYR:O	2.22	0.40
43:1l:79:GLU:HG2	43:1l:80:HIS:ND1	2.36	0.40
43:1l:117:ARG:NH2	43:1l:124:LYS:HB2	2.36	0.40
49:1r:55:ARG:HD2	49:1r:55:ARG:HA	1.97	0.40
1:2A:397:G:H1'	1:2A:2231:C:O2'	2.21	0.40
1:2A:530:G:C5	1:2A:2022:U:H5"	2.56	0.40
1:2A:744:G:OP1	4:2E:132:HIS:ND1	2.54	0.40
1:2A:959:A:N3	1:2A:2457:U:O2'	2.48	0.40
1:2A:1260:G:C6	1:2A:1261:C:C4	3.10	0.40
1:2A:1416:G:O2'	1:2A:1417:C:OP2	2.31	0.40
1:2A:1742:G:C5	1:2A:1743:C:C4	3.09	0.40
1:2A:1894:C:H2'	1:2A:1895:C:C6	2.57	0.40
1:2A:2115:G:O2'	1:2A:2117:A:N7	2.32	0.40
1:2A:2284:C:H2'	1:2A:2285:C:H6	1.86	0.40
1:2A:2875:C:O2'	15:2T:2:ASN:OD1	2.40	0.40
5:2F:135:LYS:HA	5:2F:135:LYS:HD2	1.85	0.40
11:2P:6:LEU:HD23	11:2P:6:LEU:HA	1.81	0.40
12:2Q:45:GLN:OE1	12:2Q:45:GLN:N	2.48	0.40
26:24:49:PHE:HD1	26:24:49:PHE:HA	1.69	0.40
32:2a:287:U:H2'	32:2a:288:A:C8	2.56	0.40
32:2a:309:G:O2'	32:2a:607:A:N1	2.54	0.40
32:2a:489:C:H2'	32:2a:490:G:H8	1.87	0.40
32:2a:1278:U:H6	32:2a:1278:U:H2'	1.72	0.40
33:2b:178:ARG:HH22	39:2h:68:ARG:HH12	1.68	0.40
34:2c:83:ARG:C	34:2c:85:ARG:H	2.30	0.40
35:2d:152:SER:O	35:2d:155:LEU:HB2	2.21	0.40
38:2g:42:ILE:HG22	38:2g:120:ILE:HD12	2.03	0.40
38:2g:106:GLN:HE21	38:2g:106:GLN:HB3	1.56	0.40
45:2n:24:CYS:HA	45:2n:38:GLY:O	2.22	0.40
54:2w:76:A1B8A:CE	56:2z:2:ARG:HD2	2.51	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
3	1D	273/276 (99%)	257 (94%)	16 (6%)	0	100 100
3	2D	273/276 (99%)	250 (92%)	20 (7%)	3 (1%)	12 19
4	1E	202/206 (98%)	190 (94%)	11 (5%)	1 (0%)	25 40
4	2E	202/206 (98%)	188 (93%)	13 (6%)	1 (0%)	25 40
5	1F	201/210 (96%)	195 (97%)	5 (2%)	1 (0%)	25 40
5	2F	201/210 (96%)	183 (91%)	17 (8%)	1 (0%)	25 40
6	1G	179/182 (98%)	154 (86%)	24 (13%)	1 (1%)	22 35
6	2G	179/182 (98%)	150 (84%)	24 (13%)	5 (3%)	4 6
7	1H	172/180 (96%)	157 (91%)	14 (8%)	1 (1%)	22 35
7	2H	172/180 (96%)	149 (87%)	20 (12%)	3 (2%)	7 12
8	1I	144/148 (97%)	129 (90%)	13 (9%)	2 (1%)	9 15
8	2I	144/148 (97%)	123 (85%)	20 (14%)	1 (1%)	19 31
9	1N	138/140 (99%)	131 (95%)	6 (4%)	1 (1%)	19 31
9	2N	138/140 (99%)	130 (94%)	7 (5%)	1 (1%)	19 31
10	1O	120/122 (98%)	110 (92%)	9 (8%)	1 (1%)	16 28
10	2O	120/122 (98%)	105 (88%)	14 (12%)	1 (1%)	16 28
11	1P	147/150 (98%)	132 (90%)	11 (8%)	4 (3%)	4 6
11	2P	147/150 (98%)	127 (86%)	17 (12%)	3 (2%)	6 10
12	1Q	139/141 (99%)	129 (93%)	10 (7%)	0	100 100
12	2Q	139/141 (99%)	126 (91%)	13 (9%)	0	100 100
13	1R	116/118 (98%)	109 (94%)	7 (6%)	0	100 100
13	2R	116/118 (98%)	108 (93%)	8 (7%)	0	100 100
14	1S	108/112 (96%)	101 (94%)	7 (6%)	0	100 100
14	2S	108/112 (96%)	95 (88%)	7 (6%)	6 (6%)	1 2
15	1T	129/146 (88%)	120 (93%)	7 (5%)	2 (2%)	8 13
15	2T	129/146 (88%)	119 (92%)	10 (8%)	0	100 100
16	1U	114/118 (97%)	114 (100%)	0	0	100 100
16	2U	114/118 (97%)	109 (96%)	5 (4%)	0	100 100
17	1V	99/101 (98%)	84 (85%)	12 (12%)	3 (3%)	3 5
17	2V	99/101 (98%)	91 (92%)	5 (5%)	3 (3%)	3 5

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
18	1W	110/113 (97%)	108 (98%)	2 (2%)	0	100 100
18	2W	110/113 (97%)	106 (96%)	3 (3%)	1 (1%)	14 25
19	1X	93/96 (97%)	87 (94%)	5 (5%)	1 (1%)	12 19
19	2X	93/96 (97%)	81 (87%)	10 (11%)	2 (2%)	5 9
20	1Y	105/110 (96%)	97 (92%)	6 (6%)	2 (2%)	6 11
20	2Y	105/110 (96%)	98 (93%)	7 (7%)	0	100 100
21	1Z	148/206 (72%)	130 (88%)	16 (11%)	2 (1%)	9 15
21	2Z	156/206 (76%)	123 (79%)	28 (18%)	5 (3%)	3 5
22	10	81/85 (95%)	76 (94%)	5 (6%)	0	100 100
22	20	81/85 (95%)	73 (90%)	8 (10%)	0	100 100
23	11	95/98 (97%)	91 (96%)	3 (3%)	1 (1%)	12 19
23	21	95/98 (97%)	88 (93%)	7 (7%)	0	100 100
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%)	55 (96%)	2 (4%)	0	100 100
25	23	57/60 (95%)	52 (91%)	5 (9%)	0	100 100
26	14	67/71 (94%)	46 (69%)	15 (22%)	6 (9%)	0 0
26	24	67/71 (94%)	46 (69%)	18 (27%)	3 (4%)	2 2
27	15	57/60 (95%)	54 (95%)	3 (5%)	0	100 100
27	25	57/60 (95%)	50 (88%)	7 (12%)	0	100 100
28	16	51/54 (94%)	49 (96%)	2 (4%)	0	100 100
28	26	51/54 (94%)	46 (90%)	5 (10%)	0	100 100
29	17	46/49 (94%)	46 (100%)	0	0	100 100
29	27	46/49 (94%)	46 (100%)	0	0	100 100
30	18	62/65 (95%)	60 (97%)	2 (3%)	0	100 100
30	28	62/65 (95%)	60 (97%)	2 (3%)	0	100 100
31	19	35/37 (95%)	35 (100%)	0	0	100 100
31	29	35/37 (95%)	31 (89%)	3 (9%)	1 (3%)	3 6
33	1b	229/256 (90%)	196 (86%)	24 (10%)	9 (4%)	2 4
33	2b	229/256 (90%)	183 (80%)	39 (17%)	7 (3%)	3 5
34	1c	204/239 (85%)	177 (87%)	25 (12%)	2 (1%)	13 21

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
34	2c	204/239 (85%)	159 (78%)	39 (19%)	6 (3%)	3 6
35	1d	206/209 (99%)	185 (90%)	19 (9%)	2 (1%)	13 21
35	2d	206/209 (99%)	176 (85%)	27 (13%)	3 (2%)	8 14
36	1e	146/162 (90%)	129 (88%)	14 (10%)	3 (2%)	5 10
36	2e	146/162 (90%)	122 (84%)	21 (14%)	3 (2%)	5 10
37	1f	98/101 (97%)	92 (94%)	6 (6%)	0	100 100
37	2f	98/101 (97%)	92 (94%)	6 (6%)	0	100 100
38	1g	153/156 (98%)	130 (85%)	21 (14%)	2 (1%)	10 16
38	2g	153/156 (98%)	124 (81%)	26 (17%)	3 (2%)	6 10
39	1h	135/138 (98%)	122 (90%)	12 (9%)	1 (1%)	19 31
39	2h	135/138 (98%)	120 (89%)	15 (11%)	0	100 100
40	1i	125/128 (98%)	107 (86%)	17 (14%)	1 (1%)	16 28
40	2i	125/128 (98%)	107 (86%)	16 (13%)	2 (2%)	8 13
41	1j	95/105 (90%)	76 (80%)	16 (17%)	3 (3%)	3 5
41	2j	94/105 (90%)	77 (82%)	13 (14%)	4 (4%)	2 3
42	1k	112/129 (87%)	104 (93%)	7 (6%)	1 (1%)	14 25
42	2k	112/129 (87%)	94 (84%)	14 (12%)	4 (4%)	3 4
43	1l	119/132 (90%)	113 (95%)	5 (4%)	1 (1%)	16 28
43	2l	119/132 (90%)	101 (85%)	16 (13%)	2 (2%)	7 12
44	1m	121/126 (96%)	107 (88%)	12 (10%)	2 (2%)	7 12
44	2m	120/126 (95%)	100 (83%)	19 (16%)	1 (1%)	16 28
45	1n	58/61 (95%)	56 (97%)	2 (3%)	0	100 100
45	2n	58/61 (95%)	47 (81%)	9 (16%)	2 (3%)	3 4
46	1o	86/89 (97%)	79 (92%)	7 (8%)	0	100 100
46	2o	86/89 (97%)	79 (92%)	6 (7%)	1 (1%)	11 18
47	1p	80/88 (91%)	69 (86%)	11 (14%)	0	100 100
47	2p	80/88 (91%)	73 (91%)	7 (9%)	0	100 100
48	1q	97/105 (92%)	91 (94%)	5 (5%)	1 (1%)	13 21
48	2q	97/105 (92%)	84 (87%)	9 (9%)	4 (4%)	2 3
49	1r	66/88 (75%)	56 (85%)	9 (14%)	1 (2%)	8 14
49	2r	66/88 (75%)	63 (96%)	2 (3%)	1 (2%)	8 14

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
50	1s	81/93 (87%)	69 (85%)	12 (15%)	0	100 100
50	2s	81/93 (87%)	63 (78%)	16 (20%)	2 (2%)	4 7
51	1t	94/106 (89%)	84 (89%)	7 (7%)	3 (3%)	3 5
51	2t	94/106 (89%)	82 (87%)	8 (8%)	4 (4%)	2 3
52	1u	21/27 (78%)	18 (86%)	3 (14%)	0	100 100
52	2u	21/27 (78%)	17 (81%)	4 (19%)	0	100 100
56	1z	1/3 (33%)	0	1 (100%)	0	100 100
56	2z	1/3 (33%)	0	1 (100%)	0	100 100
All	All	11372/12134 (94%)	10153 (89%)	1069 (9%)	150 (1%)	10 16

All (150) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
7	1H	126	PRO
8	1I	85	GLU
11	1P	36	LYS
19	1X	93	GLU
21	1Z	53	ILE
21	1Z	93	ASP
40	1i	54	ASP
44	1m	67	GLU
7	2H	126	PRO
11	2P	36	LYS
14	2S	81	GLY
33	2b	17	PHE
33	2b	123	ALA
33	2b	204	ASN
38	2g	80	VAL
45	2n	14	PRO
5	1F	130	ALA
8	1I	11	ASN
17	1V	53	GLU
17	1V	79	VAL
23	1l	3	LYS
26	14	49	PHE
26	14	53	GLU
26	14	59	PHE
33	1b	8	LYS
33	1b	155	LEU

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Mol	Chain	Res	Type
34	1c	81	GLY
36	1e	85	GLY
38	1g	52	GLU
51	1t	100	ILE
6	2G	42	GLY
6	2G	126	ASP
8	2I	10	GLU
10	2O	5	GLN
14	2S	96	GLY
19	2X	94	GLY
21	2Z	146	ILE
26	24	45	GLY
26	24	47	GLN
34	2c	60	ALA
34	2c	95	THR
35	2d	144	ASP
36	2e	77	PRO
36	2e	98	THR
42	2k	49	GLY
42	2k	125	PHE
48	2q	67	LYS
48	2q	68	ARG
50	2s	44	MET
51	2t	99	LEU
4	1E	52	LEU
11	1P	29	LYS
11	1P	38	GLN
11	1P	45	LEU
33	1b	17	PHE
33	1b	20	GLU
33	1b	126	GLU
34	1c	71	ALA
35	1d	163	GLU
36	1e	96	PRO
43	1l	91	LYS
48	1q	68	ARG
3	2D	275	LYS
6	2G	47	LYS
6	2G	164	GLU
11	2P	38	GLN
14	2S	84	GLN
17	2V	100	ARG

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Mol	Chain	Res	Type
33	2b	20	GLU
34	2c	91	LEU
45	2n	27	CYS
48	2q	33	GLY
51	2t	47	GLY
6	1G	43	LEU
9	1N	2	LYS
15	1T	37	GLY
15	1T	128	GLU
20	1Y	103	GLY
33	1b	124	SER
35	1d	173	TRP
41	1j	77	PRO
41	1j	78	ASN
4	2E	52	LEU
9	2N	2	LYS
17	2V	79	VAL
19	2X	15	GLU
21	2Z	52	SER
40	2i	55	ALA
40	2i	88	TYR
41	2j	75	ILE
43	2l	105	TYR
46	2o	88	ARG
26	14	38	LYS
33	1b	16	HIS
36	1e	69	VAL
38	1g	79	ARG
39	1h	77	GLU
44	1m	106	ASN
49	1r	33	ASP
3	2D	38	LYS
5	2F	195	ASP
6	2G	104	GLU
21	2Z	142	SER
21	2Z	158	PRO
26	24	46	GLN
34	2c	43	LEU
36	2e	123	LEU
38	2g	55	GLY
41	2j	41	PRO
41	2j	78	ASN

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Mol	Chain	Res	Type
41	2j	79	ARG
48	2q	14	LYS
49	2r	59	SER
51	2t	68	LYS
10	1O	5	GLN
17	1V	100	ARG
26	14	47	GLN
33	1b	231	GLU
51	1t	96	GLY
7	2H	12	PRO
14	2S	79	ALA
18	2W	58	ALA
21	2Z	60	GLU
33	2b	153	ARG
35	2d	136	PRO
38	2g	17	VAL
51	1t	47	GLY
7	2H	21	PRO
14	2S	109	GLY
35	2d	109	GLY
41	1j	91	PRO
42	1k	49	GLY
11	2P	10	PRO
33	2b	131	PRO
34	2c	77	ILE
42	2k	105	VAL
50	2s	67	VAL
43	2l	45	PRO
44	2m	98	VAL
26	14	45	GLY
14	2S	22	GLY
17	2V	50	PRO
34	2c	108	ASN
42	2k	34	ASP
51	2t	100	ILE
20	1Y	52	SER
3	2D	125	ILE
31	29	21	GLY
33	2b	231	GLU
33	1b	125	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	1D	215/218 (99%)	204 (95%)	11 (5%)	20 34
3	2D	215/218 (99%)	200 (93%)	15 (7%)	12 21
4	1E	164/166 (99%)	152 (93%)	12 (7%)	11 19
4	2E	164/166 (99%)	153 (93%)	11 (7%)	13 22
5	1F	160/166 (96%)	146 (91%)	14 (9%)	8 12
5	2F	159/166 (96%)	142 (89%)	17 (11%)	5 8
6	1G	143/156 (92%)	123 (86%)	20 (14%)	3 4
6	2G	143/156 (92%)	111 (78%)	32 (22%)	1 0
7	1H	144/148 (97%)	131 (91%)	13 (9%)	8 12
7	2H	144/148 (97%)	126 (88%)	18 (12%)	3 5
8	1I	113/124 (91%)	92 (81%)	21 (19%)	1 1
8	2I	105/124 (85%)	84 (80%)	21 (20%)	1 1
9	1N	118/119 (99%)	109 (92%)	9 (8%)	11 18
9	2N	118/119 (99%)	105 (89%)	13 (11%)	5 8
10	1O	100/100 (100%)	96 (96%)	4 (4%)	27 44
10	2O	100/100 (100%)	88 (88%)	12 (12%)	4 6
11	1P	115/116 (99%)	101 (88%)	14 (12%)	4 6
11	2P	115/116 (99%)	97 (84%)	18 (16%)	2 2
12	1Q	111/111 (100%)	101 (91%)	10 (9%)	8 12
12	2Q	111/111 (100%)	100 (90%)	11 (10%)	6 10
13	1R	101/101 (100%)	94 (93%)	7 (7%)	13 21
13	2R	101/101 (100%)	93 (92%)	8 (8%)	10 17
14	1S	86/88 (98%)	74 (86%)	12 (14%)	3 4
14	2S	85/88 (97%)	70 (82%)	15 (18%)	1 2
15	1T	115/127 (91%)	107 (93%)	8 (7%)	12 21
15	2T	113/127 (89%)	104 (92%)	9 (8%)	10 16

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
16	1U	93/94 (99%)	85 (91%)	8 (9%)	8 13
16	2U	93/94 (99%)	85 (91%)	8 (9%)	8 13
17	1V	80/82 (98%)	74 (92%)	6 (8%)	11 19
17	2V	80/82 (98%)	70 (88%)	10 (12%)	3 5
18	1W	90/92 (98%)	84 (93%)	6 (7%)	13 22
18	2W	90/92 (98%)	85 (94%)	5 (6%)	17 30
19	1X	77/78 (99%)	69 (90%)	8 (10%)	5 9
19	2X	77/78 (99%)	74 (96%)	3 (4%)	27 45
20	1Y	85/91 (93%)	74 (87%)	11 (13%)	3 5
20	2Y	85/91 (93%)	70 (82%)	15 (18%)	1 2
21	1Z	135/179 (75%)	112 (83%)	23 (17%)	1 2
21	2Z	137/179 (76%)	111 (81%)	26 (19%)	1 1
22	10	65/67 (97%)	58 (89%)	7 (11%)	5 8
22	20	65/67 (97%)	62 (95%)	3 (5%)	23 38
23	11	80/83 (96%)	72 (90%)	8 (10%)	6 10
23	21	80/83 (96%)	72 (90%)	8 (10%)	6 10
24	12	65/67 (97%)	59 (91%)	6 (9%)	7 12
24	22	65/67 (97%)	60 (92%)	5 (8%)	10 17
25	13	51/52 (98%)	45 (88%)	6 (12%)	4 6
25	23	50/52 (96%)	44 (88%)	6 (12%)	4 6
26	14	59/63 (94%)	47 (80%)	12 (20%)	1 1
26	24	53/63 (84%)	45 (85%)	8 (15%)	2 3
27	15	50/52 (96%)	44 (88%)	6 (12%)	4 6
27	25	50/52 (96%)	45 (90%)	5 (10%)	6 10
28	16	51/52 (98%)	46 (90%)	5 (10%)	6 10
28	26	50/52 (96%)	42 (84%)	8 (16%)	2 2
29	17	41/42 (98%)	39 (95%)	2 (5%)	21 36
29	27	41/42 (98%)	37 (90%)	4 (10%)	6 10
30	18	54/55 (98%)	52 (96%)	2 (4%)	29 48
30	28	54/55 (98%)	49 (91%)	5 (9%)	7 11
31	19	34/34 (100%)	33 (97%)	1 (3%)	37 58

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
31	29	34/34 (100%)	32 (94%)	2 (6%)	16 28
33	1b	192/220 (87%)	161 (84%)	31 (16%)	2 2
33	2b	187/220 (85%)	150 (80%)	37 (20%)	1 1
34	1c	142/188 (76%)	125 (88%)	17 (12%)	4 6
34	2c	140/188 (74%)	115 (82%)	25 (18%)	1 2
35	1d	169/181 (93%)	150 (89%)	19 (11%)	5 8
35	2d	173/181 (96%)	152 (88%)	21 (12%)	4 6
36	1e	113/123 (92%)	97 (86%)	16 (14%)	2 4
36	2e	114/123 (93%)	90 (79%)	24 (21%)	1 0
37	1f	84/90 (93%)	76 (90%)	8 (10%)	7 11
37	2f	85/90 (94%)	74 (87%)	11 (13%)	3 5
38	1g	119/127 (94%)	100 (84%)	19 (16%)	2 2
38	2g	120/127 (94%)	103 (86%)	17 (14%)	2 4
39	1h	114/119 (96%)	105 (92%)	9 (8%)	10 17
39	2h	114/119 (96%)	97 (85%)	17 (15%)	2 3
40	1i	90/99 (91%)	75 (83%)	15 (17%)	2 2
40	2i	89/99 (90%)	75 (84%)	14 (16%)	2 2
41	1j	66/92 (72%)	58 (88%)	8 (12%)	4 6
41	2j	69/92 (75%)	56 (81%)	13 (19%)	1 1
42	1k	82/99 (83%)	72 (88%)	10 (12%)	4 6
42	2k	83/99 (84%)	74 (89%)	9 (11%)	5 8
43	1l	96/108 (89%)	91 (95%)	5 (5%)	19 33
43	2l	96/108 (89%)	85 (88%)	11 (12%)	4 6
44	1m	93/101 (92%)	78 (84%)	15 (16%)	2 2
44	2m	92/101 (91%)	71 (77%)	21 (23%)	0 0
45	1n	49/50 (98%)	47 (96%)	2 (4%)	26 43
45	2n	49/50 (98%)	41 (84%)	8 (16%)	2 2
46	1o	78/80 (98%)	70 (90%)	8 (10%)	6 9
46	2o	78/80 (98%)	74 (95%)	4 (5%)	20 34
47	1p	69/74 (93%)	57 (83%)	12 (17%)	1 2
47	2p	68/74 (92%)	61 (90%)	7 (10%)	6 9

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
48	1q	94/97 (97%)	82 (87%)	12 (13%)	3 5
48	2q	94/97 (97%)	81 (86%)	13 (14%)	3 4
49	1r	59/77 (77%)	56 (95%)	3 (5%)	20 34
49	2r	59/77 (77%)	50 (85%)	9 (15%)	2 3
50	1s	69/80 (86%)	58 (84%)	11 (16%)	2 2
50	2s	67/80 (84%)	54 (81%)	13 (19%)	1 1
51	1t	70/82 (85%)	63 (90%)	7 (10%)	6 10
51	2t	70/82 (85%)	61 (87%)	9 (13%)	3 5
52	1u	18/22 (82%)	15 (83%)	3 (17%)	2 2
52	2u	18/22 (82%)	13 (72%)	5 (28%)	0 0
56	1z	2/2 (100%)	2 (100%)	0	100 100
56	2z	2/2 (100%)	2 (100%)	0	100 100
All	All	9307/10068 (92%)	8196 (88%)	1111 (12%)	4 6

All (1111) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	3	VAL
3	1D	14	ARG
3	1D	32	SER
3	1D	113	VAL
3	1D	173	VAL
3	1D	174	ILE
3	1D	181	GLU
3	1D	229	VAL
3	1D	242	ARG
3	1D	259	THR
3	1D	273	ARG
4	1E	7	VAL
4	1E	8	LYS
4	1E	12	THR
4	1E	41	LYS
4	1E	47	VAL
4	1E	73	GLU
4	1E	81	ILE
4	1E	87	GLU
4	1E	90	THR
4	1E	116	VAL

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Mol	Chain	Res	Type
4	1E	184	VAL
4	1E	196	VAL
5	1F	9	ILE
5	1F	24	LEU
5	1F	28	ILE
5	1F	33	LEU
5	1F	53	THR
5	1F	57	VAL
5	1F	74	ARG
5	1F	88	VAL
5	1F	132	VAL
5	1F	162	LEU
5	1F	168	ARG
5	1F	175	THR
5	1F	183	VAL
5	1F	191	ARG
6	1G	3	LEU
6	1G	5	VAL
6	1G	7	LEU
6	1G	21	ARG
6	1G	28	VAL
6	1G	31	VAL
6	1G	43	LEU
6	1G	49	ASP
6	1G	60	LEU
6	1G	77	ILE
6	1G	79	ASN
6	1G	91	ARG
6	1G	103	LEU
6	1G	116	ASP
6	1G	133	LEU
6	1G	139	LEU
6	1G	140	ILE
6	1G	149	VAL
6	1G	159	VAL
6	1G	174	GLU
7	1H	25	LYS
7	1H	37	VAL
7	1H	50	VAL
7	1H	58	GLU
7	1H	84	SER
7	1H	85	LYS

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Mol	Chain	Res	Type
7	1H	92	ILE
7	1H	95	ARG
7	1H	116	GLU
7	1H	119	GLU
7	1H	124	GLU
7	1H	130	ARG
7	1H	136	ILE
8	1I	1	MET
8	1I	2	LYS
8	1I	9	LEU
8	1I	10	GLU
8	1I	12	LEU
8	1I	27	ARG
8	1I	40	THR
8	1I	42	SER
8	1I	44	LEU
8	1I	50	ARG
8	1I	60	GLU
8	1I	62	LYS
8	1I	76	THR
8	1I	87	LYS
8	1I	92	VAL
8	1I	95	LYS
8	1I	108	THR
8	1I	109	ILE
8	1I	123	LEU
8	1I	127	VAL
8	1I	141	LYS
9	1N	1	MET
9	1N	5	VAL
9	1N	9	VAL
9	1N	21	LYS
9	1N	46	VAL
9	1N	65	LYS
9	1N	68	GLU
9	1N	70	LYS
9	1N	136	GLU
10	1O	28	SER
10	1O	35	VAL
10	1O	52	VAL
10	1O	89	ASN
11	1P	40	SER

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Mol	Chain	Res	Type
11	1P	45	LEU
11	1P	56	SER
11	1P	65	ARG
11	1P	75	ILE
11	1P	77	ARG
11	1P	90	ARG
11	1P	95	VAL
11	1P	96	THR
11	1P	99	LEU
11	1P	101	VAL
11	1P	133	SER
11	1P	136	GLU
11	1P	147	LEU
12	1Q	7	MET
12	1Q	8	LYS
12	1Q	35	VAL
12	1Q	43	THR
12	1Q	56	ARG
12	1Q	59	ARG
12	1Q	77	LYS
12	1Q	79	LEU
12	1Q	98	LYS
12	1Q	109	VAL
13	1R	15	SER
13	1R	30	THR
13	1R	36	THR
13	1R	81	ASP
13	1R	102	GLU
13	1R	113	LEU
13	1R	114	VAL
14	1S	8	GLU
14	1S	14	VAL
14	1S	33	LYS
14	1S	36	TYR
14	1S	46	VAL
14	1S	52	SER
14	1S	57	LYS
14	1S	69	VAL
14	1S	78	LEU
14	1S	80	LEU
14	1S	85	VAL
14	1S	110	LEU

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Mol	Chain	Res	Type
15	1T	17	THR
15	1T	28	VAL
15	1T	33	LYS
15	1T	36	GLU
15	1T	96	ARG
15	1T	108	ARG
15	1T	118	ARG
15	1T	128	GLU
16	1U	31	SER
16	1U	74	LEU
16	1U	78	THR
16	1U	84	LYS
16	1U	85	LYS
16	1U	95	LEU
16	1U	100	VAL
16	1U	110	VAL
17	1V	6	LYS
17	1V	34	GLU
17	1V	46	VAL
17	1V	53	GLU
17	1V	71	LEU
17	1V	79	VAL
18	1W	4	LYS
18	1W	11	ARG
18	1W	15	ARG
18	1W	17	VAL
18	1W	21	VAL
18	1W	82	LEU
19	1X	1	MET
19	1X	23	GLU
19	1X	43	VAL
19	1X	50	LYS
19	1X	68	ARG
19	1X	70	LEU
19	1X	81	VAL
19	1X	87	GLN
20	1Y	7	VAL
20	1Y	23	ARG
20	1Y	37	VAL
20	1Y	44	ILE
20	1Y	61	ILE
20	1Y	64	GLU

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Mol	Chain	Res	Type
20	1Y	67	LEU
20	1Y	72	VAL
20	1Y	91	GLU
20	1Y	99	CYS
20	1Y	106	LEU
21	1Z	1	MET
21	1Z	8	TYR
21	1Z	33	LEU
21	1Z	42	VAL
21	1Z	46	LYS
21	1Z	53	ILE
21	1Z	56	VAL
21	1Z	61	LEU
21	1Z	70	LEU
21	1Z	72	ARG
21	1Z	104	PHE
21	1Z	119	GLU
21	1Z	123	ASP
21	1Z	124	ILE
21	1Z	128	VAL
21	1Z	135	GLU
21	1Z	139	VAL
21	1Z	140	ASP
21	1Z	153	SER
21	1Z	161	VAL
21	1Z	165	VAL
21	1Z	170	THR
21	1Z	171	ILE
22	10	7	LEU
22	10	11	ARG
22	10	36	ILE
22	10	53	MET
22	10	55	ARG
22	10	63	VAL
22	10	74	ARG
23	11	40	ARG
23	11	46	LEU
23	11	49	VAL
23	11	62	VAL
23	11	75	GLU
23	11	78	LYS
23	11	80	LEU

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Mol	Chain	Res	Type
23	11	89	GLU
24	12	3	LEU
24	12	35	LEU
24	12	41	ILE
24	12	53	LEU
24	12	55	ARG
24	12	62	THR
25	13	29	ARG
25	13	32	GLN
25	13	37	LEU
25	13	54	VAL
25	13	56	VAL
25	13	60	GLU
26	14	1	MET
26	14	15	ILE
26	14	20	ASN
26	14	21	VAL
26	14	22	ILE
26	14	49	PHE
26	14	53	GLU
26	14	61	ARG
26	14	63	TYR
26	14	65	ASP
26	14	67	TYR
26	14	69	LYS
27	15	6	VAL
27	15	26	THR
27	15	40	LYS
27	15	57	VAL
27	15	59	GLU
27	15	60	VAL
28	16	5	VAL
28	16	14	THR
28	16	19	ARG
28	16	24	GLU
28	16	44	ARG
29	17	43	THR
29	17	46	VAL
30	18	14	VAL
30	18	29	LYS
31	19	17	ILE
33	1b	12	GLU

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Mol	Chain	Res	Type
33	1b	15	VAL
33	1b	21	ARG
33	1b	23	ARG
33	1b	39	ILE
33	1b	44	LEU
33	1b	47	THR
33	1b	54	THR
33	1b	64	ARG
33	1b	73	THR
33	1b	80	ILE
33	1b	81	VAL
33	1b	93	VAL
33	1b	97	TRP
33	1b	108	ILE
33	1b	128	GLU
33	1b	154	LEU
33	1b	157	ARG
33	1b	160	ASP
33	1b	170	GLU
33	1b	172	ILE
33	1b	185	ILE
33	1b	187	LEU
33	1b	208	ILE
33	1b	212	GLN
33	1b	214	ILE
33	1b	222	ILE
33	1b	229	VAL
33	1b	231	GLU
33	1b	233	SER
33	1b	236	TYR
34	1c	3	ASN
34	1c	20	SER
34	1c	47	LEU
34	1c	56	ASP
34	1c	64	VAL
34	1c	68	VAL
34	1c	72	LYS
34	1c	77	ILE
34	1c	82	GLU
34	1c	89	GLU
34	1c	101	LEU
34	1c	105	GLU

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Mol	Chain	Res	Type
34	1c	119	ARG
34	1c	190	ARG
34	1c	195	VAL
34	1c	198	VAL
34	1c	207	VAL
35	1d	19	LEU
35	1d	36	ARG
35	1d	61	LYS
35	1d	70	ILE
35	1d	76	ARG
35	1d	89	THR
35	1d	118	ARG
35	1d	140	VAL
35	1d	141	ARG
35	1d	157	LEU
35	1d	158	ILE
35	1d	166	LYS
35	1d	170	VAL
35	1d	177	ASP
35	1d	178	VAL
35	1d	186	LEU
35	1d	187	ARG
35	1d	190	ASP
35	1d	194	LEU
36	1e	11	ILE
36	1e	16	THR
36	1e	27	ARG
36	1e	31	LEU
36	1e	34	VAL
36	1e	41	VAL
36	1e	51	VAL
36	1e	56	GLN
36	1e	67	VAL
36	1e	68	GLU
36	1e	79	GLU
36	1e	81	GLU
36	1e	131	ILE
36	1e	150	ARG
36	1e	151	LEU
36	1e	152	ARG
37	1f	30	LEU
37	1f	36	ARG

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Mol	Chain	Res	Type
37	1f	45	LEU
37	1f	55	ASP
37	1f	64	GLN
37	1f	70	ASP
37	1f	72	VAL
37	1f	98	LEU
38	1g	10	ARG
38	1g	12	LEU
38	1g	16	LEU
38	1g	24	THR
38	1g	33	ASP
38	1g	50	ILE
38	1g	56	GLN
38	1g	59	LEU
38	1g	61	VAL
38	1g	76	ARG
38	1g	79	ARG
38	1g	80	VAL
38	1g	85	TYR
38	1g	90	GLU
38	1g	92	SER
38	1g	104	LEU
38	1g	115	ARG
38	1g	125	MET
38	1g	140	ASP
39	1h	13	ILE
39	1h	29	SER
39	1h	38	ILE
39	1h	52	ASP
39	1h	77	GLU
39	1h	98	LYS
39	1h	99	GLU
39	1h	107	LEU
39	1h	112	LEU
40	1i	9	ARG
40	1i	14	VAL
40	1i	17	VAL
40	1i	23	ASN
40	1i	26	VAL
40	1i	27	THR
40	1i	29	ASN
40	1i	31	GLN

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Mol	Chain	Res	Type
40	1i	41	VAL
40	1i	48	GLU
40	1i	53	VAL
40	1i	64	THR
40	1i	81	ILE
40	1i	97	LYS
40	1i	128	ARG
41	1j	5	ARG
41	1j	8	LEU
41	1j	17	ASP
41	1j	42	THR
41	1j	46	ARG
41	1j	55	LYS
41	1j	66	ARG
41	1j	81	THR
42	1k	25	TYR
42	1k	31	THR
42	1k	48	ILE
42	1k	63	LEU
42	1k	80	VAL
42	1k	84	VAL
42	1k	87	THR
42	1k	109	VAL
42	1k	114	VAL
42	1k	117	ASN
43	1l	7	ILE
43	1l	22	SER
43	1l	43	VAL
43	1l	52	LEU
43	1l	70	ILE
44	1m	3	ARG
44	1m	4	ILE
44	1m	9	ILE
44	1m	14	ARG
44	1m	32	GLU
44	1m	35	GLU
44	1m	43	THR
44	1m	49	THR
44	1m	63	THR
44	1m	64	TRP
44	1m	67	GLU
44	1m	86	CYS

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Mol	Chain	Res	Type
44	1m	106	ASN
44	1m	114	ARG
44	1m	117	VAL
45	1n	50	LYS
45	1n	58	LYS
46	1o	6	GLU
46	1o	11	VAL
46	1o	26	GLU
46	1o	27	VAL
46	1o	45	VAL
46	1o	48	LYS
46	1o	76	GLU
46	1o	84	LYS
47	1p	5	ARG
47	1p	11	SER
47	1p	20	VAL
47	1p	21	VAL
47	1p	27	LYS
47	1p	29	ASP
47	1p	43	LYS
47	1p	44	THR
47	1p	53	VAL
47	1p	60	LEU
47	1p	62	VAL
47	1p	67	THR
48	1q	9	VAL
48	1q	14	LYS
48	1q	24	GLU
48	1q	25	ARG
48	1q	35	VAL
48	1q	39	SER
48	1q	53	LEU
48	1q	60	ILE
48	1q	63	ARG
48	1q	65	ILE
48	1q	75	ARG
48	1q	89	LEU
49	1r	35	ARG
49	1r	49	LYS
49	1r	54	ARG
50	1s	5	LEU
50	1s	16	LEU

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Mol	Chain	Res	Type
50	1s	19	VAL
50	1s	21	GLU
50	1s	23	ASN
50	1s	28	LYS
50	1s	37	ARG
50	1s	63	THR
50	1s	77	THR
50	1s	78	ARG
50	1s	79	THR
51	1t	10	LEU
51	1t	11	SER
51	1t	13	LEU
51	1t	24	LEU
51	1t	38	LYS
51	1t	42	GLN
51	1t	90	GLN
52	1u	10	ARG
52	1u	12	LYS
52	1u	15	ARG
3	2D	3	VAL
3	2D	27	THR
3	2D	46	GLN
3	2D	71	ASP
3	2D	73	VAL
3	2D	99	ASP
3	2D	106	ILE
3	2D	113	VAL
3	2D	140	THR
3	2D	171	ASP
3	2D	204	ILE
3	2D	229	VAL
3	2D	242	ARG
3	2D	259	THR
3	2D	275	LYS
4	2E	12	THR
4	2E	38	THR
4	2E	52	LEU
4	2E	61	ARG
4	2E	69	LYS
4	2E	107	THR
4	2E	116	VAL
4	2E	119	ARG

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Mol	Chain	Res	Type
4	2E	166	THR
4	2E	175	VAL
4	2E	195	LEU
5	2F	9	ILE
5	2F	20	LEU
5	2F	24	LEU
5	2F	28	ILE
5	2F	41	LEU
5	2F	64	ILE
5	2F	106	ARG
5	2F	107	LYS
5	2F	108	LYS
5	2F	114	VAL
5	2F	135	LYS
5	2F	149	ASP
5	2F	153	SER
5	2F	158	THR
5	2F	161	GLU
5	2F	183	VAL
5	2F	201	VAL
6	2G	3	LEU
6	2G	5	VAL
6	2G	7	LEU
6	2G	16	ARG
6	2G	20	ILE
6	2G	26	GLN
6	2G	43	LEU
6	2G	45	GLU
6	2G	51	ARG
6	2G	53	LEU
6	2G	62	LEU
6	2G	63	ILE
6	2G	66	GLN
6	2G	77	ILE
6	2G	84	LYS
6	2G	86	MET
6	2G	88	ILE
6	2G	92	VAL
6	2G	93	THR
6	2G	109	VAL
6	2G	123	ASN
6	2G	130	ASN

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Mol	Chain	Res	Type
6	2G	140	ILE
6	2G	145	THR
6	2G	148	MET
6	2G	149	VAL
6	2G	152	LEU
6	2G	157	ILE
6	2G	161	THR
6	2G	170	ARG
6	2G	173	LEU
6	2G	181	ARG
7	2H	9	ILE
7	2H	37	VAL
7	2H	44	VAL
7	2H	45	VAL
7	2H	49	VAL
7	2H	51	ARG
7	2H	65	HIS
7	2H	70	THR
7	2H	85	LYS
7	2H	103	LEU
7	2H	127	GLU
7	2H	129	THR
7	2H	133	VAL
7	2H	134	SER
7	2H	136	ILE
7	2H	149	ARG
7	2H	153	LYS
7	2H	175	LYS
8	2I	11	ASN
8	2I	15	VAL
8	2I	38	LEU
8	2I	45	LYS
8	2I	51	ILE
8	2I	57	ARG
8	2I	58	LEU
8	2I	61	ARG
8	2I	68	LEU
8	2I	77	LEU
8	2I	86	THR
8	2I	87	LYS
8	2I	93	THR
8	2I	101	LEU

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Mol	Chain	Res	Type
8	2I	108	THR
8	2I	114	LEU
8	2I	127	VAL
8	2I	129	THR
8	2I	136	VAL
8	2I	140	LEU
8	2I	144	VAL
9	2N	1	MET
9	2N	5	VAL
9	2N	9	VAL
9	2N	22	THR
9	2N	32	THR
9	2N	48	MET
9	2N	59	LYS
9	2N	63	THR
9	2N	65	LYS
9	2N	85	ILE
9	2N	131	GLN
9	2N	137	LYS
9	2N	139	GLU
10	2O	5	GLN
10	2O	19	ILE
10	2O	24	VAL
10	2O	35	VAL
10	2O	42	SER
10	2O	52	VAL
10	2O	69	ILE
10	2O	89	ASN
10	2O	92	GLU
10	2O	96	THR
10	2O	108	GLU
10	2O	113	LYS
11	2P	3	LEU
11	2P	7	ARG
11	2P	15	ARG
11	2P	29	LYS
11	2P	45	LEU
11	2P	58	THR
11	2P	65	ARG
11	2P	68	GLN
11	2P	76	LYS
11	2P	90	ARG

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Mol	Chain	Res	Type
11	2P	96	THR
11	2P	101	VAL
11	2P	117	GLU
11	2P	119	GLU
11	2P	123	LEU
11	2P	131	SER
11	2P	133	SER
11	2P	135	LEU
12	2Q	1	MET
12	2Q	2	LEU
12	2Q	5	ARG
12	2Q	7	MET
12	2Q	14	ARG
12	2Q	18	LYS
12	2Q	38	GLU
12	2Q	106	VAL
12	2Q	109	VAL
12	2Q	110	THR
12	2Q	134	ARG
13	2R	6	SER
13	2R	15	SER
13	2R	20	LEU
13	2R	36	THR
13	2R	49	ASP
13	2R	57	ARG
13	2R	91	GLN
13	2R	117	VAL
14	2S	5	THR
14	2S	13	ARG
14	2S	28	VAL
14	2S	33	LYS
14	2S	35	ILE
14	2S	43	GLU
14	2S	63	THR
14	2S	75	GLU
14	2S	78	LEU
14	2S	83	LYS
14	2S	85	VAL
14	2S	98	VAL
14	2S	99	LYS
14	2S	101	LEU
14	2S	103	GLU

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Mol	Chain	Res	Type
15	2T	9	LEU
15	2T	34	VAL
15	2T	51	ARG
15	2T	63	VAL
15	2T	86	ILE
15	2T	89	VAL
15	2T	95	ARG
15	2T	96	ARG
15	2T	124	ASP
16	2U	9	VAL
16	2U	17	ILE
16	2U	59	ARG
16	2U	74	LEU
16	2U	83	LEU
16	2U	90	VAL
16	2U	110	VAL
16	2U	117	GLN
17	2V	7	THR
17	2V	14	VAL
17	2V	19	LYS
17	2V	33	VAL
17	2V	40	LEU
17	2V	51	VAL
17	2V	79	VAL
17	2V	85	LYS
17	2V	98	GLU
17	2V	100	ARG
18	2W	11	ARG
18	2W	17	VAL
18	2W	59	VAL
18	2W	67	ASP
18	2W	78	GLU
19	2X	45	THR
19	2X	83	VAL
19	2X	95	LEU
20	2Y	1	MET
20	2Y	5	MET
20	2Y	7	VAL
20	2Y	14	LEU
20	2Y	19	LYS
20	2Y	29	GLU
20	2Y	30	VAL

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Mol	Chain	Res	Type
20	2Y	40	GLU
20	2Y	42	VAL
20	2Y	44	ILE
20	2Y	72	VAL
20	2Y	87	LYS
20	2Y	89	PHE
20	2Y	96	ILE
20	2Y	99	CYS
21	2Z	28	MET
21	2Z	30	ASN
21	2Z	33	LEU
21	2Z	36	LYS
21	2Z	42	VAL
21	2Z	50	GLN
21	2Z	56	VAL
21	2Z	70	LEU
21	2Z	71	VAL
21	2Z	80	ARG
21	2Z	81	ARG
21	2Z	84	GLU
21	2Z	91	LEU
21	2Z	94	GLU
21	2Z	98	MET
21	2Z	100	VAL
21	2Z	121	HIS
21	2Z	128	VAL
21	2Z	131	ARG
21	2Z	142	SER
21	2Z	154	ASP
21	2Z	155	LEU
21	2Z	157	LEU
21	2Z	163	LEU
21	2Z	169	GLU
21	2Z	170	THR
22	20	7	LEU
22	20	55	ARG
22	20	64	ASP
23	21	6	GLU
23	21	17	SER
23	21	26	ARG
23	21	40	ARG
23	21	50	ARG

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Mol	Chain	Res	Type
23	21	80	LEU
23	21	92	LYS
23	21	98	LEU
24	22	19	VAL
24	22	26	ARG
24	22	38	GLN
24	22	53	LEU
24	22	65	ASN
25	23	17	LYS
25	23	31	LEU
25	23	37	LEU
25	23	54	VAL
25	23	56	VAL
25	23	59	VAL
26	24	2	LYS
26	24	14	ILE
26	24	33	VAL
26	24	46	GLN
26	24	48	ARG
26	24	49	PHE
26	24	56	VAL
26	24	63	TYR
27	25	6	VAL
27	25	11	THR
27	25	44	THR
27	25	48	GLU
27	25	58	LEU
28	26	14	THR
28	26	20	ASN
28	26	23	THR
28	26	32	ASN
28	26	34	LEU
28	26	45	LYS
28	26	48	VAL
28	26	52	VAL
29	27	1	MET
29	27	4	THR
29	27	41	ARG
29	27	43	THR
30	28	14	VAL
30	28	37	SER
30	28	49	VAL

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Mol	Chain	Res	Type
30	28	50	LEU
30	28	52	LYS
31	29	9	ARG
31	29	33	LYS
33	2b	8	LYS
33	2b	16	HIS
33	2b	23	ARG
33	2b	47	THR
33	2b	58	ILE
33	2b	67	THR
33	2b	68	ILE
33	2b	71	VAL
33	2b	76	GLN
33	2b	82	ARG
33	2b	93	VAL
33	2b	94	ASN
33	2b	98	LEU
33	2b	108	ILE
33	2b	110	GLN
33	2b	112	VAL
33	2b	121	LEU
33	2b	127	ILE
33	2b	138	LEU
33	2b	141	GLU
33	2b	142	LEU
33	2b	149	LEU
33	2b	150	SER
33	2b	154	LEU
33	2b	163	PHE
33	2b	169	LYS
33	2b	184	VAL
33	2b	185	ILE
33	2b	189	ASP
33	2b	191	ASP
33	2b	195	ASP
33	2b	196	LEU
33	2b	198	ASP
33	2b	208	ILE
33	2b	210	SER
33	2b	230	VAL
33	2b	235	SER
34	2c	5	ILE

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Mol	Chain	Res	Type
34	2c	21	ARG
34	2c	35	GLU
34	2c	38	ARG
34	2c	39	ILE
34	2c	45	LYS
34	2c	46	GLU
34	2c	47	LEU
34	2c	55	VAL
34	2c	68	VAL
34	2c	69	HIS
34	2c	102	ASN
34	2c	103	VAL
34	2c	110	ASN
34	2c	112	SER
34	2c	127	ARG
34	2c	128	PHE
34	2c	132	ARG
34	2c	162	GLN
34	2c	182	ILE
34	2c	188	LEU
34	2c	190	ARG
34	2c	191	THR
34	2c	196	LEU
34	2c	204	LEU
35	2d	5	ILE
35	2d	8	VAL
35	2d	17	VAL
35	2d	28	SER
35	2d	34	GLU
35	2d	42	GLN
35	2d	47	ARG
35	2d	53	ASP
35	2d	59	ARG
35	2d	60	GLU
35	2d	70	ILE
35	2d	76	ARG
35	2d	96	LEU
35	2d	119	GLN
35	2d	127	THR
35	2d	135	LEU
35	2d	152	SER
35	2d	155	LEU

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Mol	Chain	Res	Type
35	2d	158	ILE
35	2d	178	VAL
35	2d	202	LEU
36	2e	5	ASP
36	2e	9	LYS
36	2e	12	LEU
36	2e	13	ILE
36	2e	16	THR
36	2e	20	GLN
36	2e	34	VAL
36	2e	41	VAL
36	2e	47	LYS
36	2e	51	VAL
36	2e	65	ASN
36	2e	67	VAL
36	2e	68	GLU
36	2e	69	VAL
36	2e	72	GLN
36	2e	78	HIS
36	2e	82	VAL
36	2e	90	VAL
36	2e	91	LEU
36	2e	100	VAL
36	2e	101	ILE
36	2e	116	THR
36	2e	120	THR
36	2e	150	ARG
37	2f	10	LEU
37	2f	37	VAL
37	2f	63	TYR
37	2f	64	GLN
37	2f	69	GLU
37	2f	70	ASP
37	2f	71	ARG
37	2f	83	ASP
37	2f	93	SER
37	2f	94	GLN
37	2f	95	GLU
38	2g	9	VAL
38	2g	12	LEU
38	2g	15	ASP
38	2g	16	LEU

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Mol	Chain	Res	Type
38	2g	21	VAL
38	2g	22	LEU
38	2g	23	VAL
38	2g	27	ILE
38	2g	30	ILE
38	2g	32	ARG
38	2g	47	CYS
38	2g	52	GLU
38	2g	78	ARG
38	2g	106	GLN
38	2g	114	ARG
38	2g	124	LEU
38	2g	131	LYS
39	2h	3	THR
39	2h	8	ASP
39	2h	10	LEU
39	2h	45	ILE
39	2h	48	TYR
39	2h	51	VAL
39	2h	52	ASP
39	2h	54	ASP
39	2h	85	ARG
39	2h	86	ILE
39	2h	92	ARG
39	2h	98	LYS
39	2h	99	GLU
39	2h	115	SER
39	2h	122	ARG
39	2h	127	LEU
39	2h	136	GLU
40	2i	38	GLN
40	2i	41	VAL
40	2i	48	GLU
40	2i	50	LEU
40	2i	53	VAL
40	2i	58	HIS
40	2i	65	VAL
40	2i	71	SER
40	2i	74	ILE
40	2i	89	ASN
40	2i	107	ARG
40	2i	108	VAL

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Mol	Chain	Res	Type
40	2i	111	ARG
40	2i	114	TYR
41	2j	8	LEU
41	2j	9	ARG
41	2j	19	SER
41	2j	25	GLU
41	2j	33	GLN
41	2j	34	VAL
41	2j	35	SER
41	2j	44	VAL
41	2j	55	LYS
41	2j	73	ASP
41	2j	96	ILE
41	2j	97	GLU
41	2j	98	ILE
42	2k	14	VAL
42	2k	26	ASN
42	2k	30	VAL
42	2k	41	THR
42	2k	48	ILE
42	2k	84	VAL
42	2k	105	VAL
42	2k	117	ASN
42	2k	125	PHE
43	2l	18	VAL
43	2l	40	VAL
43	2l	46	LYS
43	2l	49	ASN
43	2l	57	LYS
43	2l	77	LEU
43	2l	86	ARG
43	2l	97	ARG
43	2l	100	ILE
43	2l	112	ASP
43	2l	118	SER
44	2m	3	ARG
44	2m	4	ILE
44	2m	45	VAL
44	2m	47	ASP
44	2m	52	GLU
44	2m	56	LEU
44	2m	57	ARG

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Mol	Chain	Res	Type
44	2m	62	ASN
44	2m	65	LYS
44	2m	67	GLU
44	2m	90	LEU
44	2m	91	ARG
44	2m	92	HIS
44	2m	93	ARG
44	2m	94	ARG
44	2m	98	VAL
44	2m	102	ARG
44	2m	103	THR
44	2m	115	LYS
44	2m	116	THR
44	2m	122	LYS
45	2n	3	ARG
45	2n	8	GLU
45	2n	12	ARG
45	2n	19	ARG
45	2n	22	THR
45	2n	29	ARG
45	2n	35	ARG
45	2n	46	GLU
46	2o	3	ILE
46	2o	10	LYS
46	2o	76	GLU
46	2o	81	LEU
47	2p	4	ILE
47	2p	20	VAL
47	2p	29	ASP
47	2p	44	THR
47	2p	53	VAL
47	2p	67	THR
47	2p	73	LEU
48	2q	7	THR
48	2q	22	LEU
48	2q	23	VAL
48	2q	37	LYS
48	2q	43	LEU
48	2q	60	ILE
48	2q	68	ARG
48	2q	70	ARG
48	2q	77	VAL

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Mol	Chain	Res	Type
48	2q	78	GLU
48	2q	84	LEU
48	2q	89	LEU
48	2q	90	ILE
49	2r	26	LEU
49	2r	29	PHE
49	2r	31	LEU
49	2r	54	ARG
49	2r	69	THR
49	2r	74	ARG
49	2r	78	LEU
49	2r	83	GLU
49	2r	87	ARG
50	2s	11	VAL
50	2s	14	HIS
50	2s	15	LEU
50	2s	27	GLU
50	2s	37	ARG
50	2s	41	VAL
50	2s	43	GLU
50	2s	49	ILE
50	2s	56	GLN
50	2s	57	HIS
50	2s	63	THR
50	2s	77	THR
50	2s	83	HIS
51	2t	9	ASN
51	2t	30	LYS
51	2t	45	GLN
51	2t	46	GLU
51	2t	51	GLU
51	2t	63	ILE
51	2t	71	THR
51	2t	86	ARG
51	2t	100	ILE
52	2u	7	ARG
52	2u	13	ILE
52	2u	15	ARG
52	2u	20	LYS
52	2u	22	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (164) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	87	ASN
3	1D	166	GLN
5	1F	69	HIS
5	1F	75	HIS
5	1F	203	GLN
6	1G	26	GLN
6	1G	41	GLN
6	1G	108	ASN
7	1H	74	ASN
8	1I	105	HIS
12	1Q	12	GLN
12	1Q	57	HIS
13	1R	61	HIS
13	1R	71	GLN
14	1S	68	GLN
15	1T	58	ASN
15	1T	79	HIS
16	1U	94	ASN
16	1U	117	GLN
19	1X	31	HIS
19	1X	82	GLN
20	1Y	6	HIS
21	1Z	34	ASN
21	1Z	73	GLN
21	1Z	121	HIS
21	1Z	132	ASN
21	1Z	151	HIS
24	12	38	GLN
25	13	32	GLN
26	14	20	ASN
26	14	60	GLN
28	16	20	ASN
30	18	35	GLN
31	19	20	HIS
33	1b	40	HIS
33	1b	95	GLN
33	1b	146	GLN
34	1c	6	HIS
34	1c	98	ASN
34	1c	104	GLN
34	1c	170	GLN
35	1d	42	GLN
35	1d	45	GLN

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Mol	Chain	Res	Type
35	1d	116	GLN
35	1d	119	GLN
35	1d	123	HIS
35	1d	160	GLN
35	1d	201	GLN
36	1e	38	GLN
36	1e	78	HIS
36	1e	141	GLN
37	1f	13	ASN
37	1f	18	GLN
37	1f	57	GLN
37	1f	73	ASN
37	1f	100	ASN
38	1g	28	ASN
38	1g	64	GLN
38	1g	110	GLN
38	1g	148	ASN
40	1i	34	ASN
40	1i	58	HIS
40	1i	124	GLN
41	1j	56	HIS
41	1j	69	ASN
42	1k	62	GLN
42	1k	104	GLN
42	1k	116	HIS
43	1l	99	HIS
44	1m	12	ASN
44	1m	77	ASN
44	1m	92	HIS
46	1o	46	HIS
46	1o	71	GLN
47	1p	14	ASN
48	1q	16	GLN
48	1q	26	GLN
50	1s	14	HIS
50	1s	47	HIS
51	1t	73	HIS
51	1t	75	ASN
51	1t	90	GLN
3	2D	87	ASN
3	2D	129	ASN
3	2D	164	GLN

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Mol	Chain	Res	Type
4	2E	48	GLN
4	2E	169	ASN
5	2F	69	HIS
5	2F	75	HIS
7	2H	147	ASN
8	2I	105	HIS
9	2N	8	GLN
9	2N	56	ASN
9	2N	69	GLN
9	2N	131	GLN
10	2O	5	GLN
10	2O	88	ASN
10	2O	89	ASN
11	2P	27	HIS
11	2P	68	GLN
12	2Q	12	GLN
12	2Q	123	HIS
13	2R	50	HIS
14	2S	38	GLN
14	2S	84	GLN
15	2T	43	GLN
15	2T	58	ASN
15	2T	84	GLN
15	2T	90	GLN
16	2U	81	HIS
16	2U	117	GLN
19	2X	31	HIS
19	2X	82	GLN
20	2Y	6	HIS
21	2Z	73	GLN
21	2Z	75	ASN
23	21	19	GLN
24	22	38	GLN
24	22	43	GLN
24	22	65	ASN
26	24	40	HIS
26	24	46	GLN
33	2b	19	HIS
33	2b	40	HIS
33	2b	45	GLN
33	2b	76	GLN
33	2b	94	ASN

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Mol	Chain	Res	Type
33	2b	95	GLN
33	2b	110	GLN
33	2b	135	GLN
33	2b	212	GLN
33	2b	224	GLN
34	2c	98	ASN
34	2c	108	ASN
34	2c	136	GLN
34	2c	162	GLN
35	2d	42	GLN
35	2d	116	GLN
35	2d	123	HIS
35	2d	125	HIS
36	2e	78	HIS
36	2e	141	GLN
37	2f	64	GLN
37	2f	73	ASN
37	2f	100	ASN
38	2g	106	GLN
40	2i	3	GLN
40	2i	31	GLN
40	2i	89	ASN
40	2i	117	HIS
41	2j	21	GLN
41	2j	62	HIS
42	2k	104	GLN
42	2k	117	ASN
43	2l	99	HIS
44	2m	12	ASN
44	2m	62	ASN
47	2p	13	HIS
48	2q	26	GLN
48	2q	94	ASN
49	2r	63	GLN
50	2s	23	ASN
50	2s	47	HIS
51	2t	75	ASN

5.3.3 RNA

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2864/2915 (98%)	482 (16%)	21 (0%)
1	2A	2791/2915 (95%)	519 (18%)	26 (0%)
2	1B	119/121 (98%)	11 (9%)	0
2	2B	118/121 (97%)	32 (27%)	1 (0%)
32	1a	1497/1521 (98%)	271 (18%)	0
32	2a	1501/1521 (98%)	354 (23%)	0
53	1v	12/24 (50%)	1 (8%)	0
53	2v	12/24 (50%)	4 (33%)	0
54	1w	71/76 (93%)	28 (39%)	0
54	2w	71/76 (93%)	30 (42%)	0
55	1x	75/77 (97%)	11 (14%)	0
55	2x	75/77 (97%)	14 (18%)	0
57	1y	72/76 (94%)	33 (45%)	0
57	2y	72/76 (94%)	34 (47%)	0
All	All	9350/9620 (97%)	1824 (19%)	48 (0%)

All (1824) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	10	G
1	1A	12	U
1	1A	33	U
1	1A	34	C
1	1A	36	G
1	1A	45	C
1	1A	55	G
1	1A	61	G
1	1A	63	U
1	1A	71	A
1	1A	72	U
1	1A	74	A
1	1A	75	G
1	1A	84	A
1	1A	94	C
1	1A	95	G
1	1A	118	A
1	1A	119	A
1	1A	120	U
1	1A	125	G
1	1A	139(A)	G
1	1A	149	A

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Mol	Chain	Res	Type
1	1A	154	G
1	1A	154(A)	C
1	1A	182	A
1	1A	196	A
1	1A	199	A
1	1A	200	U
1	1A	201	C
1	1A	205	G
1	1A	214	G
1	1A	215	G
1	1A	216	A
1	1A	222	A
1	1A	225	A
1	1A	226	G
1	1A	228	A
1	1A	229	A
1	1A	233	A
1	1A	248	G
1	1A	265	A
1	1A	271(B)	C
1	1A	271(C)	C
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(R)	G
1	1A	272(B)	G
1	1A	272(I)	U
1	1A	275	G
1	1A	279	C
1	1A	311	A
1	1A	329	G
1	1A	330	A
1	1A	352	G
1	1A	363	G
1	1A	370	G
1	1A	386	G
1	1A	396	G
1	1A	411	G
1	1A	412	A
1	1A	428	A

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Mol	Chain	Res	Type
1	1A	444	C
1	1A	448	U
1	1A	451	C
1	1A	455	C
1	1A	481	G
1	1A	504	U
1	1A	505	A
1	1A	509	C
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	603	A
1	1A	604	G
1	1A	607	U
1	1A	614(B)	G
1	1A	615	G
1	1A	616	G
1	1A	627	A
1	1A	637	A
1	1A	645	C
1	1A	646	A
1	1A	652(D)	C
1	1A	652(F)	G
1	1A	652(T)	C
1	1A	669	G
1	1A	686	G
1	1A	701	G
1	1A	717	G
1	1A	730	C
1	1A	746	A
1	1A	747	U
1	1A	764	A
1	1A	775	G
1	1A	776	G
1	1A	782	A
1	1A	783	A

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Mol	Chain	Res	Type
1	1A	784	A
1	1A	785	G
1	1A	790	C
1	1A	792	G
1	1A	805	G
1	1A	812	C
1	1A	827	U
1	1A	828	U
1	1A	829	A
1	1A	830	G
1	1A	859	G
1	1A	866	A
1	1A	879	G
1	1A	880	G
1	1A	882	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	889	C
1	1A	890	A
1	1A	895	U
1	1A	896	A
1	1A	897	C
1	1A	898	C
1	1A	907	U
1	1A	910	A
1	1A	932	G
1	1A	945	A
1	1A	946	G
1	1A	953	A
1	1A	959	A
1	1A	961	C
1	1A	974	G
1	1A	975	C
1	1A	975(A)	G
1	1A	983	A
1	1A	990	A
1	1A	996	A
1	1A	1005	C

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Mol	Chain	Res	Type
1	1A	1012	U
1	1A	1013	C
1	1A	1017	G
1	1A	1025	G
1	1A	1026	U
1	1A	1033	U
1	1A	1038	C
1	1A	1039	G
1	1A	1040	C
1	1A	1041	C
1	1A	1042	G
1	1A	1043	C
1	1A	1044	G
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	1070	A
1	1A	1071	G
1	1A	1073	A
1	1A	1078	U
1	1A	1079	C
1	1A	1083	U
1	1A	1085	A
1	1A	1088	A
1	1A	1089	G
1	1A	1090	U
1	1A	1091	G
1	1A	1093	G
1	1A	1094	U
1	1A	1097	U
1	1A	1099	G
1	1A	1101	U
1	1A	1107	G
1	1A	1109	C
1	1A	1110	G
1	1A	1111	A
1	1A	1112	G

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Mol	Chain	Res	Type
1	1A	1116	C
1	1A	1130	U
1	1A	1132	A
1	1A	1135	C
1	1A	1136	G
1	1A	1149	G
1	1A	1170	G
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	1218	C
1	1A	1220	A
1	1A	1229	G
1	1A	1236	G
1	1A	1244	G
1	1A	1253	A
1	1A	1256	G
1	1A	1271	G
1	1A	1272	A
1	1A	1273	U
1	1A	1290	C
1	1A	1300	U
1	1A	1301	A
1	1A	1303	G
1	1A	1319	G
1	1A	1321	A
1	1A	1342	A
1	1A	1352	U
1	1A	1359	A
1	1A	1360	A
1	1A	1365	A
1	1A	1384	A
1	1A	1385	G
1	1A	1386	C
1	1A	1391	U
1	1A	1395	A
1	1A	1416	G
1	1A	1417	C

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Mol	Chain	Res	Type
1	1A	1420	U
1	1A	1421	G
1	1A	1428	C
1	1A	1445	A
1	1A	1450	G
1	1A	1455	G
1	1A	1466	G
1	1A	1467	C
1	1A	1482	G
1	1A	1493	C
1	1A	1494	A
1	1A	1500	G
1	1A	1505	C
1	1A	1508	A
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1532	C
1	1A	1539	G
1	1A	1540	U
1	1A	1542	A
1	1A	1554	A
1	1A	1558	A
1	1A	1566	A
1	1A	1569	A
1	1A	1578	U
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	1648	C
1	1A	1664	A
1	1A	1667	G
1	1A	1674	G
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

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Mol	Chain	Res	Type
1	1A	1762	A
1	1A	1763	G
1	1A	1764	G
1	1A	1773	A
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	1817	G
1	1A	1828	G
1	1A	1829	A
1	1A	1839	G
1	1A	1847	A
1	1A	1858	G
1	1A	1878	G
1	1A	1889	A
1	1A	1900	A
1	1A	1906	G
1	1A	1913	A
1	1A	1919	A
1	1A	1929	G
1	1A	1930	G
1	1A	1935	G
1	1A	1937	A
1	1A	1938	A
1	1A	1955	U
1	1A	1963	U
1	1A	1965	C
1	1A	1967	C
1	1A	1968	G
1	1A	1970	A
1	1A	1971	A
1	1A	1972	A
1	1A	1984	G
1	1A	1992	G
1	1A	1993	U
1	1A	1997	G
1	1A	2020	A
1	1A	2023	G
1	1A	2031	A

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Mol	Chain	Res	Type
1	1A	2032	G
1	1A	2033	A
1	1A	2039	C
1	1A	2043	C
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	2098	U
1	1A	2101	G
1	1A	2105	C
1	1A	2110	G
1	1A	2113	U
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	2123	G
1	1A	2127	G
1	1A	2128	C
1	1A	2130	U
1	1A	2131	G
1	1A	2132	U
1	1A	2133	G
1	1A	2135	A
1	1A	2136	C
1	1A	2137	C
1	1A	2138	C
1	1A	2140	C
1	1A	2142	C
1	1A	2143	C
1	1A	2144	U
1	1A	2146	C
1	1A	2149	G
1	1A	2150	U
1	1A	2151	G
1	1A	2156	G

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Mol	Chain	Res	Type
1	1A	2157	G
1	1A	2158	A
1	1A	2159	G
1	1A	2160	G
1	1A	2162	G
1	1A	2166	G
1	1A	2171	A
1	1A	2172	U
1	1A	2173	A
1	1A	2176	A
1	1A	2180	U
1	1A	2183	C
1	1A	2184	G
1	1A	2186	G
1	1A	2189	U
1	1A	2191	G
1	1A	2192	G
1	1A	2198	A
1	1A	2206	G
1	1A	2219	G
1	1A	2225	A
1	1A	2238	G
1	1A	2239	G
1	1A	2268	A
1	1A	2269	A
1	1A	2273	A
1	1A	2278	A
1	1A	2280	G
1	1A	2283	C
1	1A	2287	A
1	1A	2294	C
1	1A	2305	A
1	1A	2308	G
1	1A	2312	U
1	1A	2320	A
1	1A	2325	G
1	1A	2334	G
1	1A	2336	A
1	1A	2347	C
1	1A	2350	C
1	1A	2354	G
1	1A	2361	A

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Mol	Chain	Res	Type
1	1A	2383	G
1	1A	2385	C
1	1A	2406	U
1	1A	2410	G
1	1A	2414	G
1	1A	2422	A
1	1A	2423	U
1	1A	2424	C
1	1A	2425	A
1	1A	2429	G
1	1A	2430	A
1	1A	2431	U
1	1A	2435	A
1	1A	2439	A
1	1A	2441	C
1	1A	2448	A
1	1A	2468	G
1	1A	2470	G
1	1A	2476	A
1	1A	2478	A
1	1A	2490	G
1	1A	2491	U
1	1A	2498	C
1	1A	2502	G
1	1A	2505	G
1	1A	2518	A
1	1A	2529	G
1	1A	2535	G
1	1A	2549	G
1	1A	2554	U
1	1A	2566	A
1	1A	2567	G
1	1A	2573	C
1	1A	2574	G
1	1A	2582	G
1	1A	2602	A
1	1A	2609	U
1	1A	2611	U
1	1A	2612	C
1	1A	2629	A
1	1A	2630	G
1	1A	2654	A

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Mol	Chain	Res	Type
1	1A	2673	G
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	2721	A
1	1A	2726	U
1	1A	2733	A
1	1A	2758	A
1	1A	2764	A
1	1A	2765	A
1	1A	2766	G
1	1A	2769	C
1	1A	2778	A
1	1A	2780	G
1	1A	2783	G
1	1A	2789	C
1	1A	2790	A
1	1A	2791	C
1	1A	2792	G
1	1A	2793	G
1	1A	2794	C
1	1A	2802	G
1	1A	2803	C
1	1A	2804	C
1	1A	2820	A
1	1A	2821	A
1	1A	2833	G
1	1A	2834	G
1	1A	2835	A
1	1A	2864	G
1	1A	2872	G
1	1A	2873	A
1	1A	2880	C
1	1A	2892	A
1	1A	2894	G
2	1B	13	A
2	1B	15	A

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Mol	Chain	Res	Type
2	1B	32	C
2	1B	42	C
2	1B	51	G
2	1B	56	G
2	1B	65	C
2	1B	73	A
2	1B	85	G
2	1B	106	G
2	1B	110	G
32	1a	5	U
32	1a	9	G
32	1a	22	G
32	1a	32	A
32	1a	39	G
32	1a	48	C
32	1a	51	A
32	1a	61	G
32	1a	70	G
32	1a	77	G
32	1a	78	G
32	1a	79	G
32	1a	91	C
32	1a	93	G
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	142	G
32	1a	145	G
32	1a	163	C
32	1a	174	C
32	1a	182	U
32	1a	189(C)	C
32	1a	189(G)	G
32	1a	189(J)	G
32	1a	194	C
32	1a	195	A
32	1a	197	A
32	1a	200	G

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Mol	Chain	Res	Type
32	1a	201	C
32	1a	203	U
32	1a	204	U
32	1a	222	U
32	1a	231	G
32	1a	247	G
32	1a	251	G
32	1a	257	G
32	1a	258	G
32	1a	266	G
32	1a	267	C
32	1a	289	G
32	1a	301	G
32	1a	318	G
32	1a	321	A
32	1a	328	C
32	1a	329	A
32	1a	332	G
32	1a	342	C
32	1a	344	A
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	355	C
32	1a	367	U
32	1a	372	C
32	1a	373	A
32	1a	383	A
32	1a	384	G
32	1a	397	A
32	1a	398	C
32	1a	406	G
32	1a	412	A
32	1a	413	G
32	1a	422	C
32	1a	423	G
32	1a	424	G
32	1a	429	U
32	1a	439	A
32	1a	442	C
32	1a	452	A
32	1a	457	C

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Mol	Chain	Res	Type
32	1a	461	A
32	1a	470	C
32	1a	471	G
32	1a	475	G
32	1a	485	G
32	1a	492	G
32	1a	496	A
32	1a	498	U
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	536	C
32	1a	547	A
32	1a	550	G
32	1a	559	A
32	1a	561	U
32	1a	564	C
32	1a	568	G
32	1a	572	A
32	1a	573	A
32	1a	576	G
32	1a	577	G
32	1a	596	C
32	1a	607	A
32	1a	630	G
32	1a	634	C
32	1a	653	A
32	1a	665	A
32	1a	671	G
32	1a	686	U
32	1a	687	A
32	1a	688	G
32	1a	695	A
32	1a	702	A
32	1a	721	G
32	1a	722	A
32	1a	723	U
32	1a	728	A
32	1a	731	G

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Mol	Chain	Res	Type
32	1a	749	C
32	1a	753	A
32	1a	755	G
32	1a	759	A
32	1a	777	A
32	1a	792	A
32	1a	793	U
32	1a	794	A
32	1a	806	C
32	1a	815	A
32	1a	817	C
32	1a	818	G
32	1a	821	G
32	1a	827	U
32	1a	828	A
32	1a	840	C
32	1a	841	U
32	1a	851	G
32	1a	855	G
32	1a	864	A
32	1a	874	G
32	1a	891	U
32	1a	902	G
32	1a	913	A
32	1a	914	A
32	1a	916	G
32	1a	926	G
32	1a	927	G
32	1a	930	C
32	1a	934	C
32	1a	935	A
32	1a	942	G
32	1a	960	U
32	1a	961	U
32	1a	968	A
32	1a	969	A
32	1a	971	G
32	1a	974	A
32	1a	975	A
32	1a	976	G
32	1a	977	A
32	1a	992	U

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Mol	Chain	Res	Type
32	1a	993	G
32	1a	996	A
32	1a	999	C
32	1a	1000	U
32	1a	1001	A
32	1a	1002	G
32	1a	1003	G
32	1a	1005	A
32	1a	1006	C
32	1a	1009	G
32	1a	1020	U
32	1a	1022	G
32	1a	1023	G
32	1a	1025	U
32	1a	1026	G
32	1a	1027	C
32	1a	1028	C
32	1a	1029	C
32	1a	1030	C
32	1a	1030(A)	G
32	1a	1030(C)	G
32	1a	1031	G
32	1a	1037	C
32	1a	1044	A
32	1a	1045	C
32	1a	1073	U
32	1a	1085	U
32	1a	1089	G
32	1a	1094	G
32	1a	1095	U
32	1a	1101	A
32	1a	1108	G
32	1a	1123	A
32	1a	1124	G
32	1a	1125	U
32	1a	1126	U
32	1a	1132	C
32	1a	1134	G
32	1a	1137	C
32	1a	1138	G
32	1a	1139	G
32	1a	1140	C

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Mol	Chain	Res	Type
32	1a	1146	A
32	1a	1152	A
32	1a	1159	U
32	1a	1160	G
32	1a	1184	G
32	1a	1196	U
32	1a	1197	G
32	1a	1201	A
32	1a	1202	G
32	1a	1213	A
32	1a	1220	G
32	1a	1225	A
32	1a	1227	A
32	1a	1236	A
32	1a	1238	A
32	1a	1246	C
32	1a	1250	A
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1260	C
32	1a	1263	C
32	1a	1269	A
32	1a	1270	C
32	1a	1275	A
32	1a	1278	U
32	1a	1280	A
32	1a	1286	A
32	1a	1287	A
32	1a	1292	U
32	1a	1299	A
32	1a	1300	G
32	1a	1302	U
32	1a	1312	G
32	1a	1322	C
32	1a	1323	G
32	1a	1338	G
32	1a	1346	A
32	1a	1347	G
32	1a	1363	C
32	1a	1364	U
32	1a	1365	G

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Mol	Chain	Res	Type
32	1a	1370	G
32	1a	1379	G
32	1a	1383	C
32	1a	1394	A
32	1a	1397	C
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1442(B)	A
32	1a	1446	U
32	1a	1447	A
32	1a	1452	C
32	1a	1456	G
32	1a	1458	G
32	1a	1477	C
32	1a	1487	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	1519	MA6
32	1a	1520	G
32	1a	1528	U
32	1a	1529	G
32	1a	1530	G
53	1v	15	A
54	1w	2	G
54	1w	8	U
54	1w	9	A
54	1w	12	U
54	1w	14	A
54	1w	19	G
54	1w	20	U
54	1w	22	G
54	1w	23	A
54	1w	24	G
54	1w	25	C
54	1w	45	G
54	1w	46	G7M

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Mol	Chain	Res	Type
54	1w	47	U
54	1w	48	C
54	1w	50	C
54	1w	52	G
54	1w	53	G
54	1w	56	C
54	1w	59	A
54	1w	60	U
54	1w	62	C
54	1w	66	A
54	1w	69	A
54	1w	70	C
54	1w	71	C
54	1w	73	A
54	1w	74	C
55	1x	2	G
55	1x	4	G
55	1x	9	G
55	1x	14	A
55	1x	17	C
55	1x	18	G
55	1x	19	G
55	1x	20	U
55	1x	47	U
55	1x	59	A
55	1x	61	C
57	1y	3	G
57	1y	5	C
57	1y	6	G
57	1y	7	U
57	1y	9	A
57	1y	12	U
57	1y	19	G
57	1y	20	U
57	1y	21	A
57	1y	24	G
57	1y	27	G
57	1y	33	U
57	1y	35	U
57	1y	37	T6A
57	1y	40	C
57	1y	41	A

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Mol	Chain	Res	Type
57	1y	44	U
57	1y	45	G
57	1y	46	G7M
57	1y	47	U
57	1y	48	C
57	1y	49	G
57	1y	56	C
57	1y	57	G
57	1y	58	A
57	1y	59	A
57	1y	61	C
57	1y	65	C
57	1y	66	A
57	1y	69	A
57	1y	70	C
57	1y	72	C
57	1y	75	C
1	2A	12	U
1	2A	15	G
1	2A	34	C
1	2A	35	G
1	2A	45	C
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	79	G
1	2A	84	A
1	2A	90	U
1	2A	94	C
1	2A	106	C
1	2A	118	A
1	2A	120	U
1	2A	125	G
1	2A	140	G
1	2A	154(A)	C
1	2A	157	U
1	2A	181	A
1	2A	196	A
1	2A	199	A
1	2A	205	G
1	2A	214	G
1	2A	215	G

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Mol	Chain	Res	Type
1	2A	216	A
1	2A	222	A
1	2A	225	A
1	2A	226	G
1	2A	228	A
1	2A	230	U
1	2A	233	A
1	2A	248	G
1	2A	267	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	274	G
1	2A	277	C
1	2A	278	A
1	2A	311	A
1	2A	312	G
1	2A	327	G
1	2A	329	G
1	2A	330	A
1	2A	333	G
1	2A	335	C
1	2A	336	C
1	2A	342	G
1	2A	346	A
1	2A	352	G
1	2A	380	U
1	2A	386	G
1	2A	396	G
1	2A	405	U
1	2A	406	G
1	2A	407	G
1	2A	411	G
1	2A	412	A
1	2A	421	U
1	2A	422	A
1	2A	434	U
1	2A	435	C
1	2A	442	G

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Mol	Chain	Res	Type
1	2A	443	A
1	2A	444	C
1	2A	449	A
1	2A	451	C
1	2A	455	C
1	2A	456	C
1	2A	457	A
1	2A	480	A
1	2A	481	G
1	2A	496	G
1	2A	501	A
1	2A	504	U
1	2A	505	A
1	2A	509	C
1	2A	529	A
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	533	G
1	2A	563	G
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
1	2A	614(B)	G
1	2A	614(C)	A
1	2A	615	G
1	2A	616	G
1	2A	627	A
1	2A	637	A
1	2A	645	C
1	2A	652(B)	A
1	2A	652(C)	G
1	2A	652(U)	G
1	2A	653	A
1	2A	656	G
1	2A	664	C
1	2A	669	G

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Mol	Chain	Res	Type
1	2A	686	G
1	2A	715	G
1	2A	717	G
1	2A	726	G
1	2A	730	C
1	2A	751	A
1	2A	752	A
1	2A	753	C
1	2A	771	G
1	2A	775	G
1	2A	776	G
1	2A	782	A
1	2A	784	A
1	2A	785	G
1	2A	790	C
1	2A	792	G
1	2A	805	G
1	2A	812	C
1	2A	819	A
1	2A	825	C
1	2A	827	U
1	2A	828	U
1	2A	847	U
1	2A	857	C
1	2A	859	G
1	2A	869	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

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Mol	Chain	Res	Type
1	2A	901	A
1	2A	902	C
1	2A	910	A
1	2A	914	C
1	2A	915	C
1	2A	917	A
1	2A	932	G
1	2A	938	G
1	2A	941	A
1	2A	945	A
1	2A	946	G
1	2A	953	A
1	2A	959	A
1	2A	961	C
1	2A	964	C
1	2A	974	G
1	2A	975	C
1	2A	983	A
1	2A	996	A
1	2A	999	U
1	2A	1012	U
1	2A	1013	C
1	2A	1014	U
1	2A	1017	G
1	2A	1022	G
1	2A	1025	G
1	2A	1026	U
1	2A	1027	A
1	2A	1033	U
1	2A	1038	C
1	2A	1039	G
1	2A	1042	G
1	2A	1043	C
1	2A	1116	C
1	2A	1118	C
1	2A	1126	A
1	2A	1128	A
1	2A	1130	U
1	2A	1135	C
1	2A	1136	G
1	2A	1139	G
1	2A	1142(A)	A

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Mol	Chain	Res	Type
1	2A	1144	G
1	2A	1169	G
1	2A	1170	G
1	2A	1171	G
1	2A	1180	C
1	2A	1195	G
1	2A	1207	C
1	2A	1210	A
1	2A	1211	U
1	2A	1212	G
1	2A	1220	A
1	2A	1221	C
1	2A	1229	G
1	2A	1232	G
1	2A	1236	G
1	2A	1242	A
1	2A	1244	G
1	2A	1253	A
1	2A	1256	G
1	2A	1271	G
1	2A	1272	A
1	2A	1273	U
1	2A	1288	U
1	2A	1300	U
1	2A	1301	A
1	2A	1303	G
1	2A	1305	C
1	2A	1314	C
1	2A	1318	C
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	1379	A
1	2A	1380	G
1	2A	1384	A
1	2A	1385	G
1	2A	1386	C
1	2A	1403	C
1	2A	1416	G

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Mol	Chain	Res	Type
1	2A	1417	C
1	2A	1420	U
1	2A	1421	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	1455	G
1	2A	1460	A
1	2A	1461	G
1	2A	1465	G
1	2A	1467	C
1	2A	1471	A
1	2A	1478	G
1	2A	1482	G
1	2A	1490	A
1	2A	1493	C
1	2A	1496	A
1	2A	1497	U
1	2A	1506	C
1	2A	1508	A
1	2A	1509	C
1	2A	1509(A)	A
1	2A	1531	C
1	2A	1532	C
1	2A	1539	G
1	2A	1544	A
1	2A	1545	A
1	2A	1547	C
1	2A	1558	A
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1583	A
1	2A	1584	C
1	2A	1586	A
1	2A	1603	A
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A

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Mol	Chain	Res	Type
1	2A	1640	C
1	2A	1647	G
1	2A	1648	C
1	2A	1654	A
1	2A	1664	A
1	2A	1667	G
1	2A	1674	G
1	2A	1696	G
1	2A	1700	A
1	2A	1701	A
1	2A	1703	G
1	2A	1721	G
1	2A	1722	A
1	2A	1739	U
1	2A	1740	G
1	2A	1745(A)	C
1	2A	1746	G
1	2A	1756	G
1	2A	1758	G
1	2A	1763	G
1	2A	1764	G
1	2A	1773	A
1	2A	1780	A
1	2A	1782	C
1	2A	1786	A
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1811	G
1	2A	1812	A
1	2A	1816	G
1	2A	1829	A
1	2A	1839	G
1	2A	1847	A
1	2A	1848	A
1	2A	1861	G
1	2A	1878	G
1	2A	1885	A
1	2A	1900	A
1	2A	1913	A
1	2A	1914	C
1	2A	1929	G

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Mol	Chain	Res	Type
1	2A	1930	G
1	2A	1936	A
1	2A	1938	A
1	2A	1940	U
1	2A	1955	U
1	2A	1963	U
1	2A	1964	G
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1975	G
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	2039	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	2108	C
1	2A	2109	U
1	2A	2110	G
1	2A	2111	C
1	2A	2116	G
1	2A	2117	A
1	2A	2118	U
1	2A	2120	G
1	2A	2122	U
1	2A	2124	G
1	2A	2125	G
1	2A	2126	A
1	2A	2127	G

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Mol	Chain	Res	Type
1	2A	2128	C
1	2A	2129	C
1	2A	2130	U
1	2A	2131	G
1	2A	2132	U
1	2A	2133	G
1	2A	2134	A
1	2A	2135	A
1	2A	2136	C
1	2A	2137	C
1	2A	2138	C
1	2A	2142	C
1	2A	2143	C
1	2A	2149	G
1	2A	2150	U
1	2A	2151	G
1	2A	2152	G
1	2A	2153	G
1	2A	2156	G
1	2A	2157	G
1	2A	2158	A
1	2A	2159	G
1	2A	2160	G
1	2A	2161	C
1	2A	2162	G
1	2A	2165	G
1	2A	2166	G
1	2A	2167	U
1	2A	2169	A
1	2A	2172	U
1	2A	2173	A
1	2A	2174	C
1	2A	2176	A
1	2A	2177	C
1	2A	2178	C
1	2A	2184	G
1	2A	2185	C
1	2A	2186	G
1	2A	2189	U
1	2A	2192	G
1	2A	2198	A
1	2A	2206	G

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Mol	Chain	Res	Type
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	2268	A
1	2A	2273	A
1	2A	2275	C
1	2A	2278	A
1	2A	2279	G
1	2A	2280	G
1	2A	2283	C
1	2A	2287	A
1	2A	2297	C
1	2A	2298	A
1	2A	2305	A
1	2A	2307	G
1	2A	2308	G
1	2A	2315	G
1	2A	2320	A
1	2A	2325	G
1	2A	2334	G
1	2A	2335	A
1	2A	2336	A
1	2A	2341	G
1	2A	2347	C
1	2A	2350	C
1	2A	2352	A
1	2A	2366	A
1	2A	2372	G
1	2A	2376	A
1	2A	2383	G
1	2A	2385	C
1	2A	2388	A
1	2A	2400	G
1	2A	2402	C
1	2A	2403	C
1	2A	2406	U
1	2A	2410	G
1	2A	2422	A
1	2A	2425	A

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Mol	Chain	Res	Type
1	2A	2429	G
1	2A	2430	A
1	2A	2435	A
1	2A	2439	A
1	2A	2440	C
1	2A	2441	C
1	2A	2448	A
1	2A	2449	U
1	2A	2458	G
1	2A	2465	C
1	2A	2469	A
1	2A	2474	C
1	2A	2476	A
1	2A	2477	C
1	2A	2481	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	2525	G
1	2A	2529	G
1	2A	2554	U
1	2A	2555	U
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C
1	2A	2578	G
1	2A	2582	G
1	2A	2585	U
1	2A	2602	A
1	2A	2609	U
1	2A	2611	U
1	2A	2612	C
1	2A	2629	A
1	2A	2630	G
1	2A	2634	G
1	2A	2646	C

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Mol	Chain	Res	Type
1	2A	2654	A
1	2A	2661	G
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	2726	U
1	2A	2733	A
1	2A	2744	G
1	2A	2748	A
1	2A	2751	G
1	2A	2757	A
1	2A	2758	A
1	2A	2764	A
1	2A	2765	A
1	2A	2778	A
1	2A	2780	G
1	2A	2793	G
1	2A	2803	C
1	2A	2820	A
1	2A	2821	A
1	2A	2833	G
1	2A	2835	A
1	2A	2840	C
1	2A	2872	G
1	2A	2880	C
1	2A	2892	A
1	2A	2894	G
1	2A	2895	U
1	2A	2897	U
2	2B	2	C
2	2B	3	C
2	2B	5	C
2	2B	8	U
2	2B	13	A
2	2B	17	C
2	2B	20	C
2	2B	32	C
2	2B	33	G
2	2B	34	U

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Mol	Chain	Res	Type
2	2B	35	U
2	2B	41	U
2	2B	42	C
2	2B	52	A
2	2B	53	A
2	2B	56	G
2	2B	58	A
2	2B	63	G
2	2B	64	C
2	2B	65	C
2	2B	73	A
2	2B	74	U
2	2B	75	G
2	2B	88	C
2	2B	89	G
2	2B	94	C
2	2B	106	G
2	2B	108	U
2	2B	110	G
2	2B	111	G
2	2B	116	G
2	2B	119	G
32	2a	9	G
32	2a	22	G
32	2a	30	U
32	2a	32	A
32	2a	39	G
32	2a	42	G
32	2a	47	C
32	2a	48	C
32	2a	50	A
32	2a	51	A
32	2a	56	U
32	2a	65	U
32	2a	66	G
32	2a	73	G
32	2a	78	G
32	2a	80	G
32	2a	88	A
32	2a	89	C
32	2a	97	G
32	2a	101	A

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Mol	Chain	Res	Type
32	2a	115	G
32	2a	116	A
32	2a	121	C
32	2a	126	G
32	2a	127	G
32	2a	131	C
32	2a	137	C
32	2a	143	A
32	2a	144	G
32	2a	163	C
32	2a	182	U
32	2a	189(A)	C
32	2a	189(C)	C
32	2a	189(E)	U
32	2a	189(F)	U
32	2a	189(J)	G
32	2a	195	A
32	2a	197	A
32	2a	201	C
32	2a	202	U
32	2a	203	U
32	2a	204	U
32	2a	216	G
32	2a	217	C
32	2a	247	G
32	2a	250	A
32	2a	251	G
32	2a	266	G
32	2a	267	C
32	2a	279	A
32	2a	281	G
32	2a	289	G
32	2a	306	G
32	2a	321	A
32	2a	328	C
32	2a	329	A
32	2a	332	G
32	2a	344	A
32	2a	345	C
32	2a	346	G
32	2a	350	G
32	2a	351	G

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Mol	Chain	Res	Type
32	2a	352	C
32	2a	353	A
32	2a	354	G
32	2a	363	A
32	2a	367	U
32	2a	372	C
32	2a	373	A
32	2a	384	G
32	2a	397	A
32	2a	398	C
32	2a	404	U
32	2a	406	G
32	2a	412	A
32	2a	413	G
32	2a	415	A
32	2a	421	U
32	2a	423	G
32	2a	424	G
32	2a	426	G
32	2a	429	U
32	2a	430	A
32	2a	439	A
32	2a	442	C
32	2a	443	C
32	2a	452	A
32	2a	453	A
32	2a	461	A
32	2a	470	C
32	2a	471	G
32	2a	477	A
32	2a	484	G
32	2a	485	G
32	2a	491	G
32	2a	496	A
32	2a	498	U
32	2a	505	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

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Mol	Chain	Res	Type
32	2a	531	U
32	2a	532	A
32	2a	536	C
32	2a	547	A
32	2a	559	A
32	2a	564	C
32	2a	568	G
32	2a	572	A
32	2a	573	A
32	2a	575	G
32	2a	576	G
32	2a	577	G
32	2a	596	C
32	2a	601	C
32	2a	607	A
32	2a	618	C
32	2a	630	G
32	2a	653	A
32	2a	657	G
32	2a	665	A
32	2a	666	G
32	2a	671	G
32	2a	687	A
32	2a	688	G
32	2a	693	G
32	2a	695	A
32	2a	702	A
32	2a	703	G
32	2a	708	C
32	2a	723	U
32	2a	731	G
32	2a	733	A
32	2a	746	A
32	2a	748	C
32	2a	749	C
32	2a	755	G
32	2a	760	G
32	2a	763	G
32	2a	764	C
32	2a	773	G
32	2a	777	A
32	2a	792	A

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Mol	Chain	Res	Type
32	2a	793	U
32	2a	794	A
32	2a	798	G
32	2a	815	A
32	2a	816	A
32	2a	817	C
32	2a	828	A
32	2a	840	C
32	2a	841	U
32	2a	849	C
32	2a	855	G
32	2a	858	G
32	2a	859	A
32	2a	871	U
32	2a	872	A
32	2a	873	A
32	2a	880	C
32	2a	902	G
32	2a	914	A
32	2a	916	G
32	2a	924	C
32	2a	926	G
32	2a	927	G
32	2a	931	C
32	2a	932	C
32	2a	934	C
32	2a	935	A
32	2a	942	G
32	2a	958	A
32	2a	960	U
32	2a	961	U
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	982	U
32	2a	991	U
32	2a	992	U

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Mol	Chain	Res	Type
32	2a	993	G
32	2a	995	C
32	2a	997	U
32	2a	999	C
32	2a	1000	U
32	2a	1001(A)	G
32	2a	1002	G
32	2a	1003	G
32	2a	1004	A
32	2a	1005	A
32	2a	1006	C
32	2a	1007	C
32	2a	1008	C
32	2a	1009	G
32	2a	1016	A
32	2a	1019	C
32	2a	1020	U
32	2a	1021	G
32	2a	1022	G
32	2a	1023	G
32	2a	1025	U
32	2a	1026	G
32	2a	1027	C
32	2a	1028	C
32	2a	1029	C
32	2a	1030	C
32	2a	1030(A)	G
32	2a	1030(D)	A
32	2a	1032	G
32	2a	1033	G
32	2a	1035	A
32	2a	1037	C
32	2a	1040	U
32	2a	1043	C
32	2a	1045	C
32	2a	1050	G
32	2a	1053	G
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1077	G
32	2a	1079	G

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Mol	Chain	Res	Type
32	2a	1084	G
32	2a	1085	U
32	2a	1086	U
32	2a	1092	A
32	2a	1093	A
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A
32	2a	1105	A
32	2a	1108	G
32	2a	1109	C
32	2a	1113	C
32	2a	1117	G
32	2a	1122	U
32	2a	1124	G
32	2a	1125	U
32	2a	1126	U
32	2a	1127	G
32	2a	1129	C
32	2a	1130	A
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	1145	C
32	2a	1146	A
32	2a	1147	C
32	2a	1152	A
32	2a	1157	A
32	2a	1159	U
32	2a	1160	G
32	2a	1181	G
32	2a	1182	G
32	2a	1183	A
32	2a	1184	G
32	2a	1193	G
32	2a	1196	U
32	2a	1199	U
32	2a	1201	A
32	2a	1202	G

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Mol	Chain	Res	Type
32	2a	1208	C
32	2a	1211	U
32	2a	1213	A
32	2a	1214	C
32	2a	1215	G
32	2a	1227	A
32	2a	1233	G
32	2a	1236	A
32	2a	1238	A
32	2a	1240	U
32	2a	1241	G
32	2a	1246	C
32	2a	1247	U
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	1263	C
32	2a	1270	C
32	2a	1272	G
32	2a	1278	U
32	2a	1280	A
32	2a	1281	U
32	2a	1283	G
32	2a	1285	A
32	2a	1286	A
32	2a	1287	A
32	2a	1291	G
32	2a	1299	A
32	2a	1302	U
32	2a	1303	C
32	2a	1305	G
32	2a	1320	C
32	2a	1322	C
32	2a	1323	G
32	2a	1336	C
32	2a	1346	A
32	2a	1347	G
32	2a	1354	C
32	2a	1358	U

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Mol	Chain	Res	Type
32	2a	1359	C
32	2a	1363	C
32	2a	1363(A)	A
32	2a	1366	C
32	2a	1368	G
32	2a	1370	G
32	2a	1379	G
32	2a	1381	U
32	2a	1400	5MC
32	2a	1401	G
32	2a	1404	5MC
32	2a	1409	C
32	2a	1410	G
32	2a	1411	C
32	2a	1416	G
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1447	A
32	2a	1452	C
32	2a	1456	G
32	2a	1457	G
32	2a	1460	A
32	2a	1475	G
32	2a	1487	G
32	2a	1492	A
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	14	A

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Mol	Chain	Res	Type
53	2v	15	A
53	2v	19	A
54	2w	6	G
54	2w	8	U
54	2w	10	G
54	2w	13	C
54	2w	19	G
54	2w	20	U
54	2w	21	A
54	2w	22	G
54	2w	23	A
54	2w	24	G
54	2w	25	C
54	2w	40	C
54	2w	42	A
54	2w	46	G7M
54	2w	47	U
54	2w	48	C
54	2w	49	G
54	2w	51	A
54	2w	58	A
54	2w	59	A
54	2w	60	U
54	2w	61	C
54	2w	62	C
54	2w	63	U
54	2w	64	G
54	2w	66	A
54	2w	68	G
54	2w	69	A
54	2w	70	C
54	2w	74	C
55	2x	2	G
55	2x	9	G
55	2x	13	C
55	2x	18	G
55	2x	19	G
55	2x	20	U
55	2x	21	A
55	2x	47	U
55	2x	48	C
55	2x	52	G

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Mol	Chain	Res	Type
55	2x	53	G
55	2x	56	C
55	2x	61	C
55	2x	63	G
57	2y	3	G
57	2y	6	G
57	2y	7	U
57	2y	8	U
57	2y	9	A
57	2y	11	C
57	2y	13	C
57	2y	15	G
57	2y	19	G
57	2y	20	U
57	2y	21	A
57	2y	22	G
57	2y	24	G
57	2y	25	C
57	2y	27	G
57	2y	34	U8U
57	2y	36	U
57	2y	38	A
57	2y	40	C
57	2y	42	A
57	2y	44	U
57	2y	45	G
57	2y	47	U
57	2y	49	G
57	2y	55	PSU
57	2y	57	G
57	2y	58	A
57	2y	59	A
57	2y	60	U
57	2y	61	C
57	2y	68	G
57	2y	69	A
57	2y	70	C
57	2y	75	C

All (48) RNA pucker outliers are listed below:

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Mol	Chain	Res	Type

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
1	1A	974	G
1	1A	1139	G
1	1A	1142(A)	A
1	1A	1174	A
1	1A	1442	G
1	1A	1508	A
1	1A	1663	C
1	1A	1992	G
1	1A	2126	A
1	1A	2183	C
1	1A	2406	U
1	1A	2422	A
1	1A	2430	A
1	1A	2629	A
1	1A	2689	U
1	2A	83	G
1	2A	196	A
1	2A	229	A
1	2A	266	G
1	2A	271(K)	U
1	2A	271(M)	G
1	2A	277	C
1	2A	479	A
1	2A	528	A
1	2A	752	A
1	2A	827	U
1	2A	856	C
1	2A	1210	A
1	2A	1379	A
1	2A	1420	U
1	2A	1442	G
1	2A	1530	C
1	2A	1653	G
1	2A	1913	A
1	2A	1992	G

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Mol	Chain	Res	Type
1	2A	2119	A
1	2A	2126	A
1	2A	2430	A
1	2A	2689	U
1	2A	2750	A
1	2A	2756	U
2	2B	56	G

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

86 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	$\#\|Z\| > 2$
32	5MC	2a	1400	32	19,22,23	1.79	3 (15%)	26,32,35	1.20	4 (15%)
55	PSU	2x	55	55	18,21,22	1.33	2 (11%)	21,30,33	2.04	4 (19%)
54	A1B8A	2w	76	54	26,33,34	1.19	3 (11%)	23,46,49	1.62	2 (8%)
1	PSU	2A	2605	1	18,21,22	1.36	2 (11%)	21,30,33	1.85	3 (14%)
32	MA6	1a	1519	32	19,26,27	1.02	2 (10%)	18,38,41	1.91	3 (16%)
32	5MC	2a	1404	32	19,22,23	1.72	3 (15%)	26,32,35	1.16	3 (11%)
57	T6A	2y	37	57	17,24,35	0.79	0	16,35,52	1.29	2 (12%)
32	UR3	2a	1498	58,32	19,22,23	0.97	1 (5%)	26,32,35	1.75	3 (11%)
1	OMC	2A	1920	1	19,22,23	0.77	0	25,31,34	0.90	1 (4%)
57	T6A	1y	37	57	17,24,35	0.79	0	16,35,52	1.24	2 (12%)
55	5MC	1x	32	55	19,22,23	1.62	3 (15%)	26,32,35	1.21	3 (11%)
54	A1B8A	1w	76	54	26,33,34	1.29	3 (11%)	23,46,49	1.67	2 (8%)
1	PSU	1A	2605	1,58	18,21,22	1.37	3 (16%)	21,30,33	2.18	4 (19%)
32	5MC	2a	967	32	19,22,23	1.80	3 (15%)	26,32,35	1.18	3 (11%)
55	5MC	2x	32	55	19,22,23	1.66	3 (15%)	26,32,35	1.26	4 (15%)
32	UR3	1a	1498	32	19,22,23	0.99	2 (10%)	26,32,35	1.78	3 (11%)
1	5MC	1A	1942	1	19,22,23	1.59	3 (15%)	26,32,35	1.17	2 (7%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
1	5MU	1A	1939	1,58	19,22,23	1.41	5 (26%)	27,32,35	2.24	6 (22%)
32	2MG	1a	1207	32	18,26,27	0.94	1 (5%)	16,38,41	1.59	4 (25%)
57	5MU	2y	54	57	19,22,23	1.43	5 (26%)	27,32,35	1.85	5 (18%)
1	PSU	1A	1917	1	18,21,22	1.37	2 (11%)	21,30,33	2.03	3 (14%)
1	OMU	2A	2552	1,58	19,22,23	1.20	2 (10%)	25,31,34	1.81	5 (20%)
57	PSU	2y	55	57	18,21,22	1.42	2 (11%)	21,30,33	2.09	3 (14%)
54	5MU	2w	54	54	19,22,23	1.47	5 (26%)	27,32,35	1.59	5 (18%)
57	U8U	1y	34	57	17,21,25	1.57	3 (17%)	21,30,37	1.46	3 (14%)
43	0TD	2l	92	43	8,9,10	4.54	1 (12%)	6,11,13	2.44	1 (16%)
32	MA6	1a	1518	32	19,26,27	1.04	1 (5%)	18,38,41	1.91	3 (16%)
32	G7M	1a	527	58,32	20,26,27	1.20	1 (5%)	16,39,42	0.62	0
57	PSU	1y	55	57	18,21,22	1.38	2 (11%)	21,30,33	2.18	4 (19%)
56	FME	1z	1	56	8,9,10	1.06	0	8,9,11	0.74	0
57	G7M	1y	46	57	20,26,27	1.44	2 (10%)	16,39,42	0.80	0
32	M2G	1a	966	32	20,27,28	1.39	3 (15%)	19,40,43	0.94	1 (5%)
1	5MC	2A	1942	1	19,22,23	1.68	3 (15%)	26,32,35	1.11	2 (7%)
32	MA6	2a	1518	32	19,26,27	1.00	2 (10%)	18,38,41	1.94	4 (22%)
55	PSU	1x	55	55	18,21,22	1.35	2 (11%)	21,30,33	2.15	3 (14%)
1	OMG	2A	2251	1,58,55	19,26,27	0.90	1 (5%)	21,38,41	1.06	2 (9%)
32	5MC	1a	1407	32	19,22,23	1.66	3 (15%)	26,32,35	1.14	3 (11%)
55	5MU	2x	54	55	19,22,23	1.36	5 (26%)	27,32,35	2.04	6 (22%)
1	5MU	1A	1915	1	19,22,23	1.34	3 (15%)	27,32,35	2.06	7 (25%)
54	PSU	2w	39	54	18,21,22	1.32	2 (11%)	21,30,33	2.07	3 (14%)
1	PSU	2A	1911	1	18,21,22	1.40	3 (16%)	21,30,33	1.87	3 (14%)
32	MA6	2a	1519	32	19,26,27	1.01	2 (10%)	18,38,41	1.92	3 (16%)
32	5MC	1a	1404	32	19,22,23	1.73	3 (15%)	26,32,35	1.14	3 (11%)
32	PSU	1a	516	58,32	18,21,22	1.39	2 (11%)	21,30,33	2.02	4 (19%)
1	2MA	2A	2503	1,58	18,25,26	0.70	0	20,37,40	1.91	4 (20%)
1	OMC	1A	1920	1	19,22,23	0.85	0	25,31,34	0.99	1 (4%)
32	PSU	2a	516	32	18,21,22	1.40	2 (11%)	21,30,33	2.00	4 (19%)
54	5MU	1w	54	54	19,22,23	1.36	4 (21%)	27,32,35	2.14	6 (22%)
54	PSU	1w	39	54	18,21,22	1.33	2 (11%)	21,30,33	1.97	5 (23%)
54	U8U	2w	34	53,54	20,24,25	1.34	3 (15%)	22,34,37	1.09	1 (4%)
57	PSU	2y	39	57	18,21,22	1.31	2 (11%)	21,30,33	2.08	4 (19%)
55	8AN	1x	76	55,58	17,24,25	1.23	1 (5%)	13,35,38	3.71	4 (30%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
54	G7M	2w	46	54	20,26,27	1.25	2 (10%)	16,39,42	0.67	0
32	4OC	2a	1402	58,32	20,23,24	0.76	0	25,32,35	1.10	3 (12%)
57	5MU	1y	54	57	19,22,23	1.40	5 (26%)	27,32,35	2.03	6 (22%)
32	5MC	1a	967	32	19,22,23	1.52	3 (15%)	26,32,35	1.10	2 (7%)
1	OMU	1A	2552	1,58	19,22,23	1.21	3 (15%)	25,31,34	1.77	5 (20%)
43	0TD	1l	92	43	8,9,10	4.50	1 (12%)	6,11,13	1.97	2 (33%)
32	M2G	2a	966	32	20,27,28	1.42	3 (15%)	19,40,43	1.03	2 (10%)
55	4SU	1x	8	55	18,21,22	2.26	5 (27%)	25,30,33	1.42	5 (20%)
54	T6A	2w	37	54	26,34,35	0.97	2 (7%)	28,49,52	2.03	6 (21%)
55	4SU	2x	8	55	18,21,22	2.06	5 (27%)	25,30,33	1.35	3 (12%)
54	PSU	1w	55	54	18,21,22	1.33	2 (11%)	21,30,33	1.96	4 (19%)
1	5MC	1A	1962	1,58	19,22,23	1.82	3 (15%)	26,32,35	1.22	3 (11%)
1	5MU	2A	1939	1	19,22,23	1.38	4 (21%)	27,32,35	2.20	6 (22%)
1	PSU	2A	1917	1	18,21,22	1.36	2 (11%)	21,30,33	1.98	3 (14%)
54	T6A	1w	37	54	26,34,35	0.98	1 (3%)	28,49,52	1.86	4 (14%)
55	5MU	1x	54	55	19,22,23	1.43	5 (26%)	27,32,35	1.94	6 (22%)
32	5MC	2a	1407	32	19,22,23	1.62	3 (15%)	26,32,35	1.21	3 (11%)
1	OMG	1A	2251	1,58,55	19,26,27	0.90	1 (5%)	21,38,41	1.16	2 (9%)
32	5MC	1a	1400	32	19,22,23	1.63	3 (15%)	26,32,35	1.16	3 (11%)
56	FME	2z	1	56	8,9,10	0.98	0	8,9,11	0.76	0
54	PSU	2w	55	54,58	18,21,22	1.33	2 (11%)	21,30,33	2.01	4 (19%)
1	5MC	2A	1962	1,58	19,22,23	1.59	3 (15%)	26,32,35	1.15	2 (7%)
54	U8U	1w	34	53,54	20,24,25	1.39	3 (15%)	22,34,37	0.97	2 (9%)
57	PSU	1y	39	57	18,21,22	1.33	3 (16%)	21,30,33	2.20	4 (19%)
1	PSU	1A	1911	1	18,21,22	1.43	3 (16%)	21,30,33	2.06	4 (19%)
57	U8U	2y	34	53,57	17,21,25	1.65	4 (23%)	21,30,37	1.51	3 (14%)
32	2MG	2a	1207	32	18,26,27	0.93	1 (5%)	16,38,41	1.26	3 (18%)
1	2MA	1A	2503	1,58	18,25,26	0.75	0	20,37,40	1.94	4 (20%)
57	G7M	2y	46	57	20,26,27	1.31	1 (5%)	16,39,42	0.66	0
32	G7M	2a	527	58,32	20,26,27	1.22	2 (10%)	16,39,42	0.59	0
1	5MU	2A	1915	1	19,22,23	1.47	5 (26%)	27,32,35	2.04	6 (22%)
54	G7M	1w	46	54	20,26,27	1.21	1 (5%)	16,39,42	0.76	0
32	4OC	1a	1402	32	20,23,24	0.76	0	25,32,35	1.04	1 (4%)
55	8AN	2x	76	59,55,58	17,24,25	1.20	2 (11%)	13,35,38	6.34	4 (30%)

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
32	5MC	2a	1400	32	-	1/7/25/26	0/2/2/2
55	PSU	2x	55	55	-	0/7/25/26	0/2/2/2
54	A1B8A	2w	76	54	-	3/16/38/39	0/3/3/3
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
32	MA6	1a	1519	32	-	3/7/29/30	0/3/3/3
32	5MC	2a	1404	32	-	2/7/25/26	0/2/2/2
57	T6A	2y	37	57	-	0/3/25/42	0/3/3/3
32	UR3	2a	1498	58,32	-	0/7/25/26	0/2/2/2
1	OMC	2A	1920	1	-	0/9/27/28	0/2/2/2
57	T6A	1y	37	57	-	2/3/25/42	0/3/3/3
55	5MC	1x	32	55	-	0/7/25/26	0/2/2/2
54	A1B8A	1w	76	54	-	3/16/38/39	0/3/3/3
1	PSU	1A	2605	1,58	-	0/7/25/26	0/2/2/2
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
55	5MC	2x	32	55	-	0/7/25/26	0/2/2/2
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
1	5MC	1A	1942	1	-	0/7/25/26	0/2/2/2
1	5MU	1A	1939	1,58	-	0/7/25/26	0/2/2/2
32	2MG	1a	1207	32	-	0/5/27/28	0/3/3/3
57	5MU	2y	54	57	-	0/7/25/26	0/2/2/2
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2
1	OMU	2A	2552	1,58	-	0/9/27/28	0/2/2/2
57	PSU	2y	55	57	-	2/7/25/26	0/2/2/2
54	5MU	2w	54	54	-	1/7/25/26	0/2/2/2
57	U8U	1y	34	57	-	0/7/25/29	0/2/2/2
43	0TD	2l	92	43	-	2/7/12/14	-
32	MA6	1a	1518	32	-	0/7/29/30	0/3/3/3
32	G7M	1a	527	58,32	-	2/3/25/26	0/3/3/3
57	PSU	1y	55	57	-	0/7/25/26	0/2/2/2
56	FME	1z	1	56	-	7/7/9/11	-
57	G7M	1y	46	57	-	0/3/25/26	0/3/3/3
32	M2G	1a	966	32	-	0/7/29/30	0/3/3/3
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
32	MA6	2a	1518	32	-	2/7/29/30	0/3/3/3
55	PSU	1x	55	55	-	0/7/25/26	0/2/2/2
1	OMG	2A	2251	1,58,55	-	1/5/27/28	0/3/3/3
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
55	5MU	2x	54	55	-	0/7/25/26	0/2/2/2
1	5MU	1A	1915	1	-	0/7/25/26	0/2/2/2
54	PSU	2w	39	54	-	0/7/25/26	0/2/2/2
1	PSU	2A	1911	1	-	2/7/25/26	0/2/2/2
32	MA6	2a	1519	32	-	3/7/29/30	0/3/3/3
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
32	PSU	1a	516	58,32	-	0/7/25/26	0/2/2/2
1	2MA	2A	2503	1,58	-	1/3/25/26	0/3/3/3
1	OMC	1A	1920	1	-	0/9/27/28	0/2/2/2
32	PSU	2a	516	32	-	0/7/25/26	0/2/2/2
54	5MU	1w	54	54	-	0/7/25/26	0/2/2/2
54	PSU	1w	39	54	-	0/7/25/26	0/2/2/2
54	U8U	2w	34	53,54	-	2/10/28/29	0/2/2/2
57	PSU	2y	39	57	-	1/7/25/26	0/2/2/2
55	8AN	1x	76	55,58	-	3/3/25/26	0/3/3/3
54	G7M	2w	46	54	-	3/3/25/26	0/3/3/3
32	4OC	2a	1402	58,32	-	0/9/29/30	0/2/2/2
57	5MU	1y	54	57	-	0/7/25/26	0/2/2/2
32	5MC	1a	967	32	-	0/7/25/26	0/2/2/2
1	OMU	1A	2552	1,58	-	0/9/27/28	0/2/2/2
43	0TD	1l	92	43	-	3/7/12/14	-
32	M2G	2a	966	32	-	0/7/29/30	0/3/3/3
55	4SU	1x	8	55	-	0/7/25/26	0/2/2/2
54	T6A	2w	37	54	-	4/19/41/42	0/3/3/3
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
1	5MC	1A	1962	1,58	-	0/7/25/26	0/2/2/2
1	5MU	2A	1939	1	-	0/7/25/26	0/2/2/2
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
54	T6A	1w	37	54	-	2/19/41/42	0/3/3/3
55	5MU	1x	54	55	-	0/7/25/26	0/2/2/2
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
1	OMG	1A	2251	1,58,55	-	0/5/27/28	0/3/3/3
32	5MC	1a	1400	32	-	2/7/25/26	0/2/2/2
56	FME	2z	1	56	-	4/7/9/11	-
54	PSU	2w	55	54,58	-	2/7/25/26	0/2/2/2
1	5MC	2A	1962	1,58	-	0/7/25/26	0/2/2/2
54	U8U	1w	34	53,54	-	0/10/28/29	0/2/2/2
57	PSU	1y	39	57	-	0/7/25/26	0/2/2/2
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	U8U	2y	34	53,57	-	2/7/25/29	0/2/2/2
32	2MG	2a	1207	32	-	0/5/27/28	0/3/3/3
1	2MA	1A	2503	1,58	-	2/3/25/26	0/3/3/3
57	G7M	2y	46	57	-	0/3/25/26	0/3/3/3
32	G7M	2a	527	58,32	-	3/3/25/26	0/3/3/3
1	5MU	2A	1915	1	-	0/7/25/26	0/2/2/2
54	G7M	1w	46	54	-	2/3/25/26	0/3/3/3
32	4OC	1a	1402	32	-	2/9/29/30	0/2/2/2
55	8AN	2x	76	59,55,58	-	3/3/25/26	0/3/3/3

All (199) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	2l	92	0TD	CB-SB	-12.39	1.69	1.82
43	1l	92	0TD	CB-SB	-12.13	1.70	1.82
32	2a	967	5MC	C5-C4	6.76	1.49	1.44
1	1A	1962	5MC	C5-C4	6.75	1.49	1.44
32	2a	1400	5MC	C5-C4	6.69	1.49	1.44
32	1a	1404	5MC	C5-C4	6.33	1.48	1.44
32	2a	1404	5MC	C5-C4	6.27	1.48	1.44
32	1a	1407	5MC	C5-C4	6.09	1.48	1.44
1	2A	1942	5MC	C5-C4	6.07	1.48	1.44
55	2x	32	5MC	C5-C4	5.99	1.48	1.44
32	1a	1400	5MC	C5-C4	5.91	1.48	1.44
32	2a	1407	5MC	C5-C4	5.73	1.48	1.44
55	1x	32	5MC	C5-C4	5.69	1.48	1.44
1	2A	1962	5MC	C5-C4	5.58	1.48	1.44
1	1A	1942	5MC	C5-C4	5.50	1.48	1.44
55	1x	8	4SU	C4-N3	-5.45	1.32	1.37
32	1a	967	5MC	C5-C4	5.43	1.48	1.44
55	2x	8	4SU	C4-N3	-4.77	1.32	1.37
55	1x	8	4SU	C4-S4	-4.76	1.60	1.68
54	1w	76	A1B8A	O4'-C1'	4.71	1.47	1.40
55	2x	8	4SU	C4-S4	-4.61	1.60	1.68
57	2y	34	U8U	C2-S2	-4.59	1.60	1.67
54	1w	34	U8U	C2-S2	-4.53	1.60	1.67
57	1y	34	U8U	C2-S2	-4.51	1.60	1.67
32	2a	966	M2G	C2-N3	4.37	1.36	1.30
54	2w	34	U8U	C2-S2	-4.31	1.60	1.67
57	1y	46	G7M	C5-C4	4.14	1.47	1.39
32	1a	966	M2G	C2-N3	4.08	1.36	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	1y	55	PSU	C6-C5	4.06	1.39	1.35
57	2y	55	PSU	C6-C5	4.03	1.39	1.35
57	2y	46	G7M	C5-C4	4.01	1.47	1.39
54	2w	46	G7M	C5-C4	3.95	1.47	1.39
54	1w	55	PSU	C6-C5	3.91	1.39	1.35
54	2w	76	A1B8A	O4'-C1'	3.90	1.46	1.40
57	1y	39	PSU	C6-C5	3.87	1.39	1.35
32	2a	516	PSU	C6-C5	3.86	1.39	1.35
54	2w	55	PSU	C6-C5	3.83	1.39	1.35
54	1w	46	G7M	C5-C4	3.77	1.46	1.39
1	2A	2605	PSU	C6-C5	3.76	1.39	1.35
32	1a	527	G7M	C5-C4	3.76	1.46	1.39
32	2a	527	G7M	C5-C4	3.74	1.46	1.39
55	1x	8	4SU	C5-C4	-3.74	1.38	1.42
57	2y	39	PSU	C6-C5	3.65	1.39	1.35
1	2A	1917	PSU	C6-C5	3.63	1.39	1.35
54	2w	39	PSU	C6-C5	3.62	1.39	1.35
55	2x	55	PSU	C6-C5	3.57	1.39	1.35
55	1x	55	PSU	C6-C5	3.52	1.39	1.35
32	1a	516	PSU	C6-C5	3.49	1.39	1.35
1	1A	1917	PSU	C6-C5	3.47	1.39	1.35
54	1w	39	PSU	C6-C5	3.38	1.39	1.35
55	1x	8	4SU	C2-N3	-3.37	1.32	1.38
1	1A	1911	PSU	C6-C5	3.33	1.39	1.35
1	2A	1911	PSU	C6-C5	3.31	1.39	1.35
32	2a	966	M2G	C2-N2	3.20	1.41	1.35
55	2x	8	4SU	C5-C4	-3.05	1.38	1.42
1	1A	2605	PSU	C4-N3	-3.05	1.33	1.38
1	1A	1942	5MC	C6-C5	3.04	1.39	1.34
1	2A	1939	5MU	C6-C5	3.04	1.39	1.34
54	2w	54	5MU	C6-C5	3.02	1.39	1.34
1	2A	1915	5MU	C6-C5	3.01	1.39	1.34
54	1w	37	T6A	C6-C5	3.00	1.49	1.44
32	2a	1404	5MC	C6-C5	2.98	1.39	1.34
57	2y	54	5MU	C6-C5	2.97	1.39	1.34
1	2A	1942	5MC	C6-C5	2.93	1.39	1.34
57	2y	34	U8U	C4-N3	-2.92	1.33	1.38
54	2w	37	T6A	C6-C5	2.92	1.49	1.44
55	1x	54	5MU	C6-C5	2.91	1.39	1.34
55	2x	54	5MU	C6-C5	2.89	1.39	1.34
32	1a	1407	5MC	C6-C5	2.85	1.39	1.34
57	1y	54	5MU	C6-C5	2.85	1.39	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2552	OMU	C4-N3	-2.85	1.33	1.38
1	1A	1911	PSU	C4-N3	-2.81	1.33	1.38
32	1a	966	M2G	C2-N2	2.81	1.40	1.35
55	2x	8	4SU	C2-N3	-2.81	1.33	1.38
1	1A	1939	5MU	C6-C5	2.79	1.39	1.34
55	1x	54	5MU	C4-N3	-2.78	1.33	1.38
1	2A	1915	5MU	C4-C5	2.77	1.49	1.44
32	1a	1404	5MC	C6-C5	2.77	1.39	1.34
57	1y	34	U8U	C4-N3	-2.77	1.33	1.38
1	2A	2552	OMU	C4-N3	-2.77	1.33	1.38
1	1A	1939	5MU	C4-N3	-2.76	1.33	1.38
54	1w	54	5MU	C6-C5	2.75	1.39	1.34
55	1x	32	5MC	C6-C5	2.75	1.39	1.34
32	1a	1400	5MC	C6-C5	2.74	1.39	1.34
54	2w	54	5MU	C2-N1	2.72	1.42	1.38
55	1x	76	8AN	C6-C5	-2.72	1.33	1.43
1	2A	1911	PSU	C4-N3	-2.71	1.33	1.38
32	1a	516	PSU	C4-N3	-2.70	1.33	1.38
32	2a	1407	5MC	C6-C5	2.69	1.39	1.34
55	2x	32	5MC	C6-C5	2.68	1.39	1.34
55	2x	76	8AN	C6-C5	-2.68	1.33	1.43
1	1A	1962	5MC	C6-N1	-2.68	1.33	1.38
32	2a	1400	5MC	C6-C5	2.67	1.39	1.34
54	1w	76	A1B8A	C6-C5	-2.66	1.33	1.43
57	2y	54	5MU	C4-N3	-2.65	1.33	1.38
1	1A	1915	5MU	C4-N3	-2.64	1.33	1.38
1	2A	1962	5MC	C6-C5	2.62	1.38	1.34
57	2y	34	U8U	C5-C4	2.61	1.49	1.43
57	1y	55	PSU	C4-N3	-2.60	1.34	1.38
54	1w	39	PSU	C4-N3	-2.60	1.34	1.38
1	1A	1939	5MU	C6-N1	-2.59	1.33	1.38
1	1A	1917	PSU	C4-N3	-2.58	1.34	1.38
32	2a	967	5MC	C6-C5	2.57	1.38	1.34
55	1x	32	5MC	C6-N1	-2.57	1.33	1.38
57	1y	46	G7M	C6-N1	-2.56	1.33	1.37
1	2A	1939	5MU	C4-N3	-2.56	1.34	1.38
54	2w	76	A1B8A	C6-C5	-2.56	1.33	1.43
54	2w	54	5MU	C4-N3	-2.56	1.34	1.38
1	1A	1915	5MU	C6-C5	2.55	1.38	1.34
1	2A	1915	5MU	C4-N3	-2.52	1.34	1.38
55	2x	54	5MU	C4-N3	-2.52	1.34	1.38
32	1a	966	M2G	C6-N1	-2.51	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	1a	1518	MA6	C6-C5	-2.51	1.41	1.44
1	1A	1939	5MU	C2-N3	-2.51	1.33	1.38
57	1y	54	5MU	C4-N3	-2.50	1.34	1.38
1	2A	1962	5MC	C6-N1	-2.49	1.33	1.38
55	1x	8	4SU	O2-C2	2.49	1.27	1.23
1	2A	1915	5MU	C2-N1	2.49	1.42	1.38
1	2A	1939	5MU	C4-C5	2.48	1.48	1.44
32	1a	1207	2MG	C6-N1	-2.46	1.34	1.37
1	2A	2251	OMG	C6-N1	-2.45	1.34	1.37
54	1w	34	U8U	C4-N3	-2.43	1.34	1.38
57	2y	55	PSU	C4-N3	-2.42	1.34	1.38
55	2x	55	PSU	C4-N3	-2.41	1.34	1.38
32	1a	967	5MC	C6-C5	2.41	1.38	1.34
57	1y	34	U8U	C5-C4	2.40	1.48	1.43
55	1x	54	5MU	C4-C5	2.38	1.48	1.44
57	2y	54	5MU	C4-C5	2.38	1.48	1.44
32	1a	967	5MC	C6-N1	-2.38	1.34	1.38
57	1y	54	5MU	C2-N1	2.37	1.42	1.38
54	1w	54	5MU	C4-N3	-2.37	1.34	1.38
54	1w	54	5MU	C2-N1	2.37	1.42	1.38
32	1a	1404	5MC	C6-N1	-2.36	1.34	1.38
55	2x	32	5MC	C6-N1	-2.35	1.34	1.38
32	2a	1518	MA6	C6-C5	-2.34	1.41	1.44
32	1a	1519	MA6	C6-C5	-2.34	1.41	1.44
57	2y	54	5MU	C2-N1	2.34	1.42	1.38
1	2A	1917	PSU	C4-N3	-2.33	1.34	1.38
57	1y	54	5MU	C4-C5	2.33	1.48	1.44
32	2a	516	PSU	C4-N3	-2.33	1.34	1.38
54	2w	54	5MU	C4-C5	2.33	1.48	1.44
54	2w	55	PSU	C4-N3	-2.32	1.34	1.38
55	1x	55	PSU	C4-N3	-2.31	1.34	1.38
1	2A	2605	PSU	C4-N3	-2.30	1.34	1.38
32	2a	1407	5MC	C6-N1	-2.30	1.34	1.38
54	2w	39	PSU	C4-N3	-2.30	1.34	1.38
55	2x	8	4SU	C2-N1	2.29	1.42	1.38
1	1A	2605	PSU	C6-C5	2.29	1.37	1.35
32	2a	1207	2MG	C6-N1	-2.29	1.34	1.37
57	2y	54	5MU	C2-N3	-2.29	1.34	1.38
32	1a	1400	5MC	C6-N1	-2.28	1.34	1.38
54	2w	54	5MU	O2-C2	2.26	1.27	1.23
32	2a	1519	MA6	C6-C5	-2.26	1.41	1.44
54	2w	34	U8U	C6-N1	-2.26	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	2y	39	PSU	C4-N3	-2.26	1.34	1.38
55	1x	54	5MU	C2-N1	2.25	1.42	1.38
1	2A	2552	OMU	C2-N3	-2.24	1.34	1.38
1	1A	1962	5MC	C6-C5	2.23	1.38	1.34
32	2a	1400	5MC	C6-N1	-2.22	1.34	1.38
55	2x	76	8AN	O4'-C1'	2.22	1.43	1.40
54	1w	76	A1B8A	C5-N7	-2.21	1.31	1.39
1	1A	1942	5MC	C6-N1	-2.21	1.34	1.38
55	2x	54	5MU	C4-C5	2.18	1.48	1.44
57	1y	54	5MU	C6-N1	-2.18	1.34	1.38
32	2a	967	5MC	C6-N1	-2.18	1.34	1.38
1	2A	1942	5MC	C6-N1	-2.17	1.34	1.38
1	1A	1915	5MU	C6-N1	-2.16	1.34	1.38
1	2A	1915	5MU	C6-N1	-2.16	1.34	1.38
54	2w	46	G7M	C6-N1	-2.16	1.34	1.37
32	2a	527	G7M	C6-N1	-2.15	1.34	1.37
1	1A	2552	OMU	C2-N3	-2.15	1.34	1.38
1	2A	1939	5MU	C6-N1	-2.15	1.34	1.38
54	1w	34	U8U	C6-N1	-2.13	1.34	1.38
32	2a	966	M2G	C6-N1	-2.13	1.34	1.37
54	1w	54	5MU	C4-C5	2.13	1.48	1.44
55	1x	54	5MU	C2-N3	-2.13	1.34	1.38
1	1A	2605	PSU	C2-N3	-2.12	1.34	1.37
57	1y	39	PSU	C4-N3	-2.12	1.34	1.38
1	1A	1911	PSU	C2-N3	-2.11	1.34	1.37
32	2a	1404	5MC	C6-N1	-2.11	1.34	1.38
32	2a	1519	MA6	C6-N1	2.10	1.35	1.32
1	2A	1911	PSU	C2-N3	-2.10	1.34	1.37
54	2w	34	U8U	C4-N3	-2.09	1.34	1.38
32	2a	1498	UR3	C6-C5	2.07	1.39	1.35
57	2y	34	U8U	C6-C5	2.07	1.39	1.35
32	2a	1518	MA6	C6-N1	2.07	1.35	1.32
54	2w	76	A1B8A	C5-N7	-2.06	1.32	1.39
55	2x	54	5MU	C2-N3	-2.06	1.34	1.38
1	1A	2251	OMG	C6-N1	-2.06	1.34	1.37
1	1A	1939	5MU	C4-C5	2.05	1.48	1.44
32	1a	1407	5MC	C6-N1	-2.04	1.34	1.38
54	1w	55	PSU	C4-N3	-2.04	1.35	1.38
1	1A	2552	OMU	C5-C4	-2.03	1.39	1.43
32	1a	1498	UR3	C2-N1	2.03	1.41	1.38
32	1a	1519	MA6	C6-N1	2.02	1.35	1.32
55	2x	54	5MU	C2-N1	2.01	1.41	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	2w	37	T6A	C2-N3	2.00	1.35	1.32
32	1a	1498	UR3	C6-C5	2.00	1.39	1.35
57	1y	39	PSU	C4-C5	2.00	1.49	1.44

All (268) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	2x	76	8AN	O4'-C1'-N9	20.07	135.35	108.75
55	1x	76	8AN	C4'-O4'-C1'	-8.44	102.20	109.92
55	1x	76	8AN	O4'-C1'-N9	7.65	118.89	108.75
55	2x	76	8AN	C4'-O4'-C1'	-7.50	103.05	109.92
32	2a	1498	UR3	C4-N3-C2	-7.08	118.88	124.58
32	1a	1498	UR3	C4-N3-C2	-7.06	118.89	124.58
54	1w	37	T6A	C2-N1-C6	7.03	122.06	116.60
55	2x	76	8AN	N3-C2-N1	-6.92	119.28	128.67
57	1y	55	PSU	N1-C2-N3	6.68	122.22	115.17
57	1y	39	PSU	N1-C2-N3	6.62	122.15	115.17
55	1x	55	PSU	N1-C2-N3	6.59	122.12	115.17
54	2w	76	A1B8A	N3-C2-N1	-6.57	119.75	128.67
1	1A	2605	PSU	N1-C2-N3	6.57	122.10	115.17
1	1A	1911	PSU	N1-C2-N3	6.54	122.07	115.17
57	2y	55	PSU	N1-C2-N3	6.54	122.06	115.17
1	2A	2503	2MA	C2-N3-C4	6.51	120.72	115.46
54	1w	76	A1B8A	N3-C2-N1	-6.43	119.94	128.67
1	1A	2503	2MA	C2-N3-C4	6.41	120.64	115.46
54	2w	39	PSU	N1-C2-N3	6.38	121.89	115.17
55	1x	76	8AN	N3-C2-N1	-6.33	120.08	128.67
1	2A	1917	PSU	N1-C2-N3	6.31	121.82	115.17
32	1a	516	PSU	N1-C2-N3	6.30	121.82	115.17
32	2a	516	PSU	N1-C2-N3	6.27	121.78	115.17
1	1A	1917	PSU	N1-C2-N3	6.22	121.72	115.17
54	2w	37	T6A	C2-N1-C6	6.21	121.42	116.60
55	2x	55	PSU	N1-C2-N3	6.20	121.71	115.17
57	2y	39	PSU	N1-C2-N3	6.18	121.69	115.17
54	1w	39	PSU	N1-C2-N3	6.07	121.57	115.17
1	2A	1911	PSU	N1-C2-N3	5.89	121.38	115.17
54	2w	55	PSU	N1-C2-N3	5.87	121.36	115.17
54	2w	37	T6A	N6-C10-N11	5.72	121.63	113.77
54	1w	55	PSU	N1-C2-N3	5.59	121.06	115.17
32	2a	1519	MA6	N3-C2-N1	-5.58	121.10	128.67
1	2A	2605	PSU	N1-C2-N3	5.55	121.03	115.17
32	2a	1518	MA6	N3-C2-N1	-5.51	121.20	128.67

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
43	2l	92	0TD	CSB-SB-CB	-5.48	92.51	102.36
1	1A	1939	5MU	C4-N3-C2	-5.45	120.19	127.34
32	1a	1518	MA6	N3-C2-N1	-5.43	121.30	128.67
1	2A	1939	5MU	C4-N3-C2	-5.37	120.30	127.34
1	2A	1939	5MU	N3-C2-N1	5.30	121.79	114.89
57	2y	34	U8U	C2-N3-C4	-5.27	120.84	127.33
54	1w	54	5MU	C4-N3-C2	-5.21	120.51	127.34
1	2A	1915	5MU	N3-C2-N1	5.15	121.59	114.89
32	1a	1519	MA6	N3-C2-N1	-5.14	121.70	128.67
54	1w	54	5MU	O4-C4-C5	-5.03	119.16	124.92
1	2A	1915	5MU	C4-N3-C2	-5.03	120.75	127.34
1	1A	1939	5MU	C5-C4-N3	4.97	119.64	115.32
57	1y	54	5MU	N3-C2-N1	4.91	121.28	114.89
55	1x	54	5MU	N3-C2-N1	4.91	121.28	114.89
1	1A	1915	5MU	C4-N3-C2	-4.90	120.92	127.34
57	1y	34	U8U	C2-N3-C4	-4.89	121.31	127.33
55	2x	54	5MU	N3-C2-N1	4.87	121.23	114.89
32	2a	1518	MA6	C2-N1-C6	4.86	121.61	116.84
54	1w	54	5MU	N3-C2-N1	4.86	121.22	114.89
1	2A	2552	OMU	C4-N3-C2	-4.86	120.58	126.61
55	2x	54	5MU	C4-N3-C2	-4.84	120.99	127.34
54	1w	54	5MU	C5-C4-N3	4.82	119.52	115.32
57	1y	39	PSU	C4-N3-C2	-4.82	119.73	126.37
57	1y	54	5MU	C4-N3-C2	-4.81	121.03	127.34
1	1A	1939	5MU	N3-C2-N1	4.80	121.13	114.89
1	1A	2552	OMU	N3-C2-N1	4.79	121.12	114.89
32	1a	1518	MA6	C2-N1-C6	4.78	121.53	116.84
1	1A	2605	PSU	C4-N3-C2	-4.78	119.79	126.37
32	1a	1519	MA6	C2-N1-C6	4.72	121.47	116.84
1	1A	1915	5MU	N3-C2-N1	4.72	121.03	114.89
1	1A	1939	5MU	O4-C4-C5	-4.66	119.58	124.92
1	1A	1939	5MU	C5-C6-N1	-4.64	118.28	123.31
1	1A	2552	OMU	C4-N3-C2	-4.58	120.92	126.61
1	1A	1915	5MU	C5-C4-N3	4.55	119.28	115.32
57	2y	39	PSU	C4-N3-C2	-4.49	120.19	126.37
57	2y	54	5MU	N3-C2-N1	4.47	120.71	114.89
55	1x	54	5MU	C4-N3-C2	-4.47	121.48	127.34
55	2x	55	PSU	C4-N3-C2	-4.42	120.28	126.37
1	2A	1939	5MU	C5-C4-N3	4.39	119.14	115.32
1	1A	1915	5MU	O4-C4-C5	-4.34	119.95	124.92
57	1y	55	PSU	C4-N3-C2	-4.31	120.44	126.37
54	2w	39	PSU	C4-N3-C2	-4.27	120.48	126.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	1939	5MU	O4-C4-C5	-4.26	120.05	124.92
55	2x	54	5MU	C5-C4-N3	4.22	118.99	115.32
57	1y	54	5MU	O4-C4-C5	-4.20	120.12	124.92
32	2a	1519	MA6	C2-N1-C6	4.19	120.95	116.84
55	2x	54	5MU	O4-C4-C5	-4.18	120.14	124.92
57	1y	54	5MU	C5-C4-N3	4.15	118.93	115.32
1	2A	2552	OMU	N3-C2-N1	4.15	120.29	114.89
1	1A	2605	PSU	O2-C2-N1	-4.13	118.53	122.79
57	2y	54	5MU	C4-N3-C2	-4.13	121.93	127.34
1	2A	1915	5MU	C5-C4-N3	4.12	118.90	115.32
57	2y	55	PSU	O2-C2-N1	-4.08	118.58	122.79
55	1x	55	PSU	C4-N3-C2	-4.07	120.77	126.37
55	1x	55	PSU	O2-C2-N1	-4.05	118.61	122.79
1	1A	1911	PSU	C4-N3-C2	-4.02	120.84	126.37
57	2y	55	PSU	C4-N3-C2	-3.99	120.87	126.37
1	2A	1939	5MU	C5-C6-N1	-3.99	118.98	123.31
1	2A	1917	PSU	C4-N3-C2	-3.98	120.89	126.37
54	2w	55	PSU	C4-N3-C2	-3.97	120.90	126.37
54	1w	55	PSU	O2-C2-N1	-3.96	118.70	122.79
57	2y	54	5MU	C5-C4-N3	3.96	118.76	115.32
54	1w	39	PSU	C4-N3-C2	-3.94	120.94	126.37
32	1a	516	PSU	C4-N3-C2	-3.93	120.95	126.37
54	2w	39	PSU	O2-C2-N1	-3.93	118.74	122.79
1	1A	1917	PSU	C4-N3-C2	-3.91	120.98	126.37
57	2y	54	5MU	O4-C4-C5	-3.91	120.44	124.92
32	2a	516	PSU	C4-N3-C2	-3.90	121.00	126.37
55	1x	54	5MU	C5-C4-N3	3.87	118.69	115.32
1	2A	2552	OMU	C5-C4-N3	3.87	120.22	114.80
1	1A	1917	PSU	O2-C2-N1	-3.80	118.87	122.79
57	1y	39	PSU	O2-C2-N1	-3.76	118.91	122.79
55	1x	32	5MC	C5-C6-N1	-3.66	119.34	123.31
1	1A	1911	PSU	O2-C2-N1	-3.65	119.03	122.79
1	2A	2605	PSU	C4-N3-C2	-3.64	121.36	126.37
1	2A	1915	5MU	O4-C4-C5	-3.63	120.77	124.92
43	1l	92	0TD	CSB-SB-CB	-3.62	95.86	102.36
54	1w	37	T6A	N3-C2-N1	-3.60	123.79	128.67
1	2A	1911	PSU	C4-N3-C2	-3.59	121.42	126.37
54	2w	54	5MU	C5-C4-N3	3.58	118.44	115.32
54	2w	54	5MU	N3-C2-N1	3.58	119.55	114.89
1	2A	1939	5MU	O2-C2-N1	-3.57	118.15	122.80
55	1x	8	4SU	C6-C5-C4	-3.56	116.87	119.95
54	2w	55	PSU	O2-C2-N1	-3.56	119.12	122.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	1y	37	T6A	N3-C2-N1	-3.56	123.84	128.67
32	2a	1407	5MC	C5-C6-N1	-3.55	119.45	123.31
55	1x	54	5MU	O4-C4-C5	-3.55	120.86	124.92
1	1A	1942	5MC	C5-C6-N1	-3.53	119.47	123.31
32	2a	1400	5MC	C5-C6-N1	-3.53	119.47	123.31
54	1w	55	PSU	C4-N3-C2	-3.52	121.52	126.37
32	2a	967	5MC	C5-C6-N1	-3.51	119.50	123.31
54	2w	34	U8U	C1'-N1-C6	-3.48	115.42	121.15
32	1a	1207	2MG	N1-C2-N2	3.47	120.10	116.56
55	2x	54	5MU	C5-C6-N1	-3.46	119.55	123.31
32	2a	1404	5MC	C5-C6-N1	-3.45	119.56	123.31
32	1a	1404	5MC	C5-C6-N1	-3.45	119.57	123.31
55	2x	8	4SU	C5-C4-N3	3.43	117.94	114.75
32	2a	1498	UR3	C5-C4-N3	3.42	119.55	115.04
54	2w	54	5MU	C4-N3-C2	-3.41	122.86	127.34
32	1a	516	PSU	O2-C2-N1	-3.40	119.28	122.79
32	2a	516	PSU	O2-C2-N1	-3.36	119.32	122.79
1	2A	1962	5MC	C5-C6-N1	-3.35	119.68	123.31
1	2A	1942	5MC	C5-C6-N1	-3.32	119.71	123.31
54	2w	54	5MU	O4-C4-C5	-3.32	121.12	124.92
54	1w	54	5MU	C5-C6-N1	-3.30	119.73	123.31
1	2A	1915	5MU	C5-C6-N1	-3.30	119.73	123.31
1	1A	2552	OMU	C5-C4-N3	3.25	119.35	114.80
54	1w	39	PSU	O2-C2-N1	-3.25	119.44	122.79
57	1y	55	PSU	O2-C2-N1	-3.24	119.44	122.79
32	1a	1519	MA6	C4-C5-N7	-3.24	105.92	109.34
32	2a	1519	MA6	C4-C5-N7	-3.22	105.93	109.34
55	1x	8	4SU	C5-C4-N3	3.21	117.73	114.75
1	1A	1962	5MC	C5-C4-N3	-3.19	118.48	121.75
57	2y	37	T6A	C4-C5-N7	-3.19	105.97	109.34
57	2y	37	T6A	N3-C2-N1	-3.18	124.35	128.67
32	1a	967	5MC	C5-C6-N1	-3.15	119.89	123.31
54	2w	37	T6A	N3-C2-N1	-3.11	124.45	128.67
55	2x	8	4SU	C1'-N1-C2	3.09	123.15	117.59
54	1w	37	T6A	N6-C10-N11	3.09	118.01	113.77
55	1x	54	5MU	C5-C6-N1	-3.08	119.97	123.31
1	2A	1917	PSU	O2-C2-N1	-3.08	119.61	122.79
54	1w	37	T6A	C4-C5-N7	-3.08	106.09	109.34
1	2A	2552	OMU	O2-C2-N1	-3.08	118.79	122.80
32	1a	1207	2MG	C8-N7-C5	3.07	107.77	102.55
32	1a	1400	5MC	C5-C6-N1	-3.05	120.00	123.31
57	2y	39	PSU	O2-C2-N1	-3.04	119.65	122.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	1911	PSU	O2-C2-N1	-3.04	119.65	122.79
55	2x	55	PSU	O2-C2-N1	-3.01	119.68	122.79
32	1a	1407	5MC	C5-C4-N3	-3.01	118.67	121.75
55	1x	32	5MC	C5-C4-N3	-3.01	118.67	121.75
32	1a	1498	UR3	C5-C4-N3	3.00	119.00	115.04
1	1A	1962	5MC	CM5-C5-C6	-3.00	118.79	122.85
1	1A	2503	2MA	C2-N1-C6	2.99	122.70	118.10
1	1A	1915	5MU	C5-C6-N1	-2.99	120.06	123.31
54	2w	37	T6A	C4-C5-N7	-2.99	106.18	109.34
57	1y	54	5MU	C5-C6-N1	-2.97	120.08	123.31
1	2A	1942	5MC	C5-C4-N3	-2.97	118.71	121.75
55	2x	32	5MC	C5-C4-N3	-2.94	118.75	121.75
57	2y	54	5MU	C5-C6-N1	-2.93	120.13	123.31
1	1A	1942	5MC	C5-C4-N3	-2.92	118.76	121.75
32	2a	966	M2G	C8-N7-C5	2.92	107.52	102.55
57	1y	34	U8U	C5-C4-N3	2.92	118.89	114.80
1	1A	1962	5MC	C5-C6-N1	-2.92	120.14	123.31
32	2a	1404	5MC	C5-C4-N3	-2.91	118.77	121.75
1	1A	2251	OMG	C8-N7-C5	2.89	107.48	102.55
1	1A	1939	5MU	O2-C2-N1	-2.89	119.03	122.80
54	1w	76	A1B8A	C4'-O4'-C1'	-2.88	107.29	109.92
32	2a	1207	2MG	C8-N7-C5	2.87	107.43	102.55
32	1a	1207	2MG	N2-C2-N3	-2.86	116.87	120.51
32	1a	1407	5MC	C5-C6-N1	-2.85	120.22	123.31
32	1a	1402	4OC	C6-C5-C4	2.85	120.43	117.00
32	2a	1407	5MC	C5-C4-N3	-2.85	118.84	121.75
54	2w	37	T6A	O10-C10-N6	-2.84	118.59	123.64
54	2w	37	T6A	N6-C6-N1	2.82	121.89	118.71
1	1A	2552	OMU	O2-C2-N1	-2.80	119.15	122.80
57	2y	34	U8U	C5-C4-N3	2.80	118.72	114.80
55	2x	32	5MC	C5-C6-N1	-2.80	120.28	123.31
1	1A	1915	5MU	O2-C2-N1	-2.80	119.16	122.80
1	2A	1962	5MC	C5-C4-N3	-2.76	118.93	121.75
54	2w	76	A1B8A	C4'-O4'-C1'	-2.74	107.41	109.92
32	1a	1400	5MC	C5-C4-N3	-2.74	118.95	121.75
1	2A	2251	OMG	C8-N7-C5	2.73	107.20	102.55
1	2A	2503	2MA	C4-C5-N7	-2.72	106.46	109.34
32	1a	1404	5MC	C5-C4-N3	-2.71	118.98	121.75
54	1w	55	PSU	C6-C5-C4	-2.70	116.35	118.17
1	1A	1920	OMC	O2-C2-N3	-2.68	118.10	122.33
55	2x	54	5MU	O2-C2-N1	-2.67	119.33	122.80
1	2A	2552	OMU	O4-C4-C5	-2.64	120.61	125.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	2x	32	5MC	O2-C2-N3	-2.64	118.17	122.33
55	1x	8	4SU	C1'-N1-C2	2.64	122.33	117.59
32	1a	1518	MA6	C4-C5-N7	-2.63	106.56	109.34
57	1y	55	PSU	C5-C6-N1	-2.63	118.49	122.14
1	2A	2605	PSU	O2-C2-N1	-2.62	120.09	122.79
32	2a	1400	5MC	C5-C4-N3	-2.62	119.07	121.75
32	2a	1518	MA6	C4-C5-N7	-2.60	106.59	109.34
32	2a	1402	4OC	CM4-N4-C4	-2.59	117.38	122.45
1	2A	2503	2MA	C2-N1-C6	2.59	122.08	118.10
32	1a	966	M2G	C8-N7-C5	2.56	106.91	102.55
32	2a	967	5MC	C5-C4-N3	-2.56	119.13	121.75
32	2a	1402	4OC	O2-C2-N3	-2.56	118.30	122.33
55	2x	76	8AN	C6-C5-C4	2.55	122.86	117.90
54	2w	55	PSU	C6-C5-C4	-2.55	116.45	118.17
54	1w	54	5MU	O2-C2-N1	-2.53	119.51	122.80
55	1x	8	4SU	O2-C2-N1	2.53	126.08	122.80
54	2w	54	5MU	C5-C6-N1	-2.50	120.60	123.31
32	1a	1498	UR3	C3U-N3-C4	2.49	121.31	117.87
1	1A	2605	PSU	C5-C6-N1	-2.47	118.71	122.14
54	1w	34	U8U	O4-C4-C5	-2.46	120.58	124.71
57	1y	34	U8U	O4-C4-C5	-2.43	120.96	125.16
1	1A	2552	OMU	O4-C4-C5	-2.37	121.07	125.16
32	1a	967	5MC	C5-C4-N3	-2.37	119.33	121.75
55	1x	54	5MU	O2-C2-N1	-2.36	119.73	122.80
54	1w	34	U8U	C5-C4-N3	2.35	118.80	115.21
57	1y	37	T6A	C4-C5-N7	-2.35	106.86	109.34
55	1x	8	4SU	S4-C4-N3	-2.33	117.77	120.20
1	1A	2503	2MA	C5-C6-N1	-2.31	118.11	120.84
55	2x	55	PSU	C5-C6-N1	-2.30	118.94	122.14
43	1l	92	0TD	OD2-CG-CB	2.30	118.12	113.15
32	2a	967	5MC	CM5-C5-C6	-2.29	119.75	122.85
1	1A	2251	OMG	O6-C6-C5	-2.29	119.78	124.32
32	1a	1407	5MC	O2-C2-N3	-2.27	118.76	122.33
55	2x	32	5MC	C1'-N1-C6	-2.25	117.45	121.15
32	2a	1498	UR3	C3U-N3-C4	2.24	120.98	117.87
32	2a	1400	5MC	CM5-C5-C6	-2.23	119.83	122.85
32	2a	516	PSU	O4'-C1'-C2'	2.23	108.23	105.15
1	2A	2503	2MA	C5-C6-N1	-2.21	118.23	120.84
32	2a	1207	2MG	N1-C2-N2	2.21	118.81	116.56
54	1w	39	PSU	C5-C6-N1	-2.19	119.09	122.14
54	1w	39	PSU	O4'-C1'-C2'	2.18	108.17	105.15
57	2y	39	PSU	C5-C6-N1	-2.18	119.12	122.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	1207	2MG	CM2-N2-C2	-2.16	119.00	123.65
32	2a	1407	5MC	O2-C2-N3	-2.16	118.92	122.33
32	1a	1404	5MC	CM5-C5-C6	-2.16	119.92	122.85
57	1y	39	PSU	C5-C6-N1	-2.15	119.16	122.14
32	2a	1402	4OC	C6-C5-C4	2.14	119.58	117.00
1	2A	1920	OMC	O2-C2-N3	-2.13	118.97	122.33
1	2A	1915	5MU	O2-C2-N1	-2.13	120.02	122.80
55	1x	76	8AN	C4-C5-N7	-2.13	107.08	109.34
32	2a	966	M2G	C5-C6-N1	2.09	118.05	114.07
1	1A	2503	2MA	N6-C6-N1	2.08	122.70	117.11
32	2a	1207	2MG	N2-C2-N3	-2.07	117.88	120.51
57	2y	34	U8U	O4-C4-C5	-2.06	121.61	125.16
32	1a	1400	5MC	O2-C2-N3	-2.05	119.09	122.33
1	2A	2251	OMG	O6-C6-C5	-2.05	120.25	124.32
1	1A	1915	5MU	C5M-C5-C4	2.05	120.97	118.78
57	1y	54	5MU	O2-C2-N1	-2.04	120.15	122.80
32	2a	1404	5MC	O2-C2-N3	-2.04	119.12	122.33
32	1a	516	PSU	O4'-C1'-C2'	2.03	107.96	105.15
32	2a	1400	5MC	O2-C2-N3	-2.03	119.13	122.33
55	1x	32	5MC	O2-C2-N3	-2.01	119.17	122.33
55	2x	8	4SU	C6-N1-C2	-2.00	118.56	121.00
32	2a	1518	MA6	C10-N6-C6	2.00	124.93	119.40
1	1A	1911	PSU	C5-C6-N1	-2.00	119.36	122.14

There are no chirality outliers.

All (77) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
32	1a	1519	MA6	O4'-C4'-C5'-O5'
43	1l	92	0TD	CA-CB-SB-CSB
55	1x	76	8AN	C4'-C5'-O5'-P
1	2A	2251	OMG	C1'-C2'-O2'-CM2
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	34	U8U	N-C-C5-C4
54	1w	37	T6A	O10-C10-N6-C6
54	1w	37	T6A	N11-C10-N6-C6
54	2w	37	T6A	C5-C6-N6-C10
54	2w	37	T6A	O10-C10-N6-C6
54	2w	37	T6A	N11-C10-N6-C6
54	1w	46	G7M	O4'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
54	2w	46	G7M	O4'-C4'-C5'-O5'
54	1w	76	A1B8A	O-C-CA-CB
54	1w	76	A1B8A	N3'-C-CA-CB
54	2w	76	A1B8A	O4'-C4'-C5'-O5'
56	1z	1	FME	O1-CN-N-CA
56	1z	1	FME	C-CA-CB-CG
56	1z	1	FME	O-C-CA-CB
56	2z	1	FME	O1-CN-N-CA
56	2z	1	FME	C-CA-CB-CG
56	2z	1	FME	CA-CB-CG-SD
55	1x	76	8AN	C3'-C4'-C5'-O5'
54	2w	76	A1B8A	C3'-C4'-C5'-O5'
32	1a	1400	5MC	O4'-C4'-C5'-O5'
57	1y	37	T6A	C3'-C4'-C5'-O5'
1	2A	1911	PSU	O4'-C4'-C5'-O5'
57	2y	34	U8U	O4'-C4'-C5'-O5'
54	1w	46	G7M	C3'-C4'-C5'-O5'
56	1z	1	FME	CA-CB-CG-SD
55	2x	76	8AN	C3'-C4'-C5'-O5'
32	1a	527	G7M	C3'-C4'-C5'-O5'
32	1a	1402	4OC	O4'-C4'-C5'-O5'
57	2y	55	PSU	C3'-C4'-C5'-O5'
56	1z	1	FME	N-CA-CB-CG
56	2z	1	FME	N-CA-CB-CG
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
54	2w	46	G7M	C3'-C4'-C5'-O5'
54	1w	76	A1B8A	CA-CB-CG-CD
32	1a	1400	5MC	C3'-C4'-C5'-O5'
55	1x	76	8AN	O4'-C4'-C5'-O5'
32	2a	527	G7M	C3'-C4'-C5'-O5'
32	2a	1404	5MC	C3'-C4'-C5'-O5'
57	2y	34	U8U	C3'-C4'-C5'-O5'
57	1y	37	T6A	O4'-C4'-C5'-O5'
54	2w	37	T6A	N1-C6-N6-C10
32	2a	1404	5MC	O4'-C4'-C5'-O5'
55	2x	76	8AN	O4'-C4'-C5'-O5'
32	1a	527	G7M	O4'-C4'-C5'-O5'
1	2A	1911	PSU	C3'-C4'-C5'-O5'
57	2y	55	PSU	O4'-C4'-C5'-O5'
32	1a	1402	4OC	C3'-C4'-C5'-O5'
56	1z	1	FME	CB-CG-SD-CE

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Mol	Chain	Res	Type	Atoms
54	2w	55	PSU	C3'-C4'-C5'-O5'
56	1z	1	FME	CB-CA-N-CN
43	1l	92	0TD	CG-CB-SB-CSB
43	2l	92	0TD	CG-CB-SB-CSB
43	1l	92	0TD	SB-CB-CG-OD1
43	2l	92	0TD	SB-CB-CG-OD1
55	2x	76	8AN	C4'-C5'-O5'-P
32	2a	527	G7M	O4'-C4'-C5'-O5'
32	1a	1519	MA6	C4'-C5'-O5'-P
54	2w	55	PSU	O4'-C4'-C5'-O5'
1	1A	2503	2MA	C4'-C5'-O5'-P
54	2w	76	A1B8A	CE-CD-CG-CB
54	2w	54	5MU	O4'-C4'-C5'-O5'
32	2a	1519	MA6	C4'-C5'-O5'-P
1	2A	2503	2MA	O4'-C4'-C5'-O5'
32	2a	527	G7M	C4'-C5'-O5'-P
54	2w	34	U8U	N-C-C5-C6
54	2w	46	G7M	C4'-C5'-O5'-P
32	2a	1400	5MC	C3'-C4'-C5'-O5'
1	1A	2503	2MA	O4'-C4'-C5'-O5'
57	2y	39	PSU	C3'-C4'-C5'-O5'

There are no ring outliers.

52 monomers are involved in 80 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	2a	1400	5MC	4	0
55	2x	55	PSU	1	0
54	2w	76	A1B8A	2	0
32	1a	1519	MA6	1	0
32	2a	1404	5MC	1	0
57	2y	37	T6A	2	0
57	1y	37	T6A	1	0
54	1w	76	A1B8A	4	0
1	1A	1939	5MU	2	0
1	2A	2552	OMU	1	0
54	2w	54	5MU	2	0
43	2l	92	0TD	1	0
32	1a	1518	MA6	1	0
57	1y	55	PSU	4	0
56	1z	1	FME	1	0
32	2a	1518	MA6	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
55	1x	55	PSU	1	0
1	2A	2251	OMG	1	0
54	2w	39	PSU	3	0
32	2a	1519	MA6	2	0
1	2A	2503	2MA	2	0
32	2a	516	PSU	2	0
54	1w	54	5MU	3	0
54	2w	34	U8U	1	0
57	2y	39	PSU	1	0
55	1x	76	8AN	2	0
54	2w	46	G7M	1	0
32	2a	1402	4OC	2	0
57	1y	54	5MU	3	0
32	1a	967	5MC	1	0
1	1A	2552	OMU	1	0
43	1l	92	0TD	2	0
55	1x	8	4SU	1	0
54	2w	37	T6A	1	0
55	2x	8	4SU	2	0
54	1w	55	PSU	1	0
1	2A	1939	5MU	2	0
55	1x	54	5MU	1	0
32	2a	1407	5MC	1	0
1	1A	2251	OMG	1	0
32	1a	1400	5MC	1	0
56	2z	1	FME	1	0
54	2w	55	PSU	1	0
54	1w	34	U8U	1	0
57	1y	39	PSU	1	0
57	2y	34	U8U	1	0
32	2a	1207	2MG	4	0
1	1A	2503	2MA	1	0
57	2y	46	G7M	3	0
1	2A	1915	5MU	1	0
32	1a	1402	4OC	2	0
55	2x	76	8AN	1	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 2767 ligands modelled in this entry, 2763 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	$\#\|Z\| > 2$
62	SF4	2d	303	35	0,12,12	-	-	-		
60	ERY	2A	3859	-	53,53,53	0.91	1 (1%)	82,82,82	1.52	14 (17%)
62	SF4	1d	302	35	0,12,12	-	-	-		
60	ERY	1A	4104	-	53,53,53	0.97	2 (3%)	82,82,82	1.44	13 (15%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
62	SF4	2d	303	35	-	-	0/6/5/5
60	ERY	2A	3859	-	-	19/72/107/107	0/3/3/3
62	SF4	1d	302	35	-	-	0/6/5/5
60	ERY	1A	4104	-	-	8/72/107/107	0/3/3/3

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
60	2A	3859	ERY	O2-C1	5.21	1.46	1.34
60	1A	4104	ERY	O2-C1	5.15	1.46	1.34
60	1A	4104	ERY	O2-C13	-2.65	1.42	1.46

All (27) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
60	1A	4104	ERY	O3-C3-C4	5.39	114.59	108.23
60	2A	3859	ERY	O5-C16-C17	4.55	110.46	103.86
60	1A	4104	ERY	O7-C5-C6	4.33	111.57	106.40
60	1A	4104	ERY	C6-C5-C4	-3.92	108.20	113.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
60	2A	3859	ERY	O2-C1-C2	3.85	119.76	111.53
60	2A	3859	ERY	O5-C16-C15	-3.84	107.04	112.95
60	2A	3859	ERY	O7-C5-C6	3.54	110.62	106.40
60	2A	3859	ERY	O4-C18-C17	2.62	114.55	110.04
60	1A	4104	ERY	C32-C6-C5	2.60	114.57	110.13
60	1A	4104	ERY	C2-C3-C4	-2.58	105.47	112.91
60	2A	3859	ERY	O2-C1-O1	-2.58	119.29	123.95
60	2A	3859	ERY	C6-C7-C8	-2.56	110.49	115.61
60	2A	3859	ERY	C20-O5-C16	2.53	122.67	117.51
60	1A	4104	ERY	C15-C16-C17	2.44	111.82	107.64
60	2A	3859	ERY	C8-C9-C10	2.42	123.22	119.13
60	1A	4104	ERY	O4-C18-C17	2.40	114.17	110.04
60	1A	4104	ERY	C35-C12-C13	-2.32	108.13	111.26
60	2A	3859	ERY	C7-C8-C9	-2.30	109.46	113.32
60	1A	4104	ERY	C36-C13-C12	-2.21	111.16	115.20
60	2A	3859	ERY	O11-C9-C8	-2.15	117.42	121.30
60	1A	4104	ERY	O7-C5-C4	-2.13	108.50	111.58
60	2A	3859	ERY	C13-O2-C1	-2.10	114.54	118.20
60	1A	4104	ERY	O2-C1-C2	2.09	115.99	111.53
60	2A	3859	ERY	C36-C13-C12	-2.06	111.43	115.20
60	1A	4104	ERY	O6-C17-C16	-2.06	107.34	111.08
60	2A	3859	ERY	O3-C3-C4	2.02	110.62	108.23
60	1A	4104	ERY	O5-C16-C15	-2.01	109.86	112.95

There are no chirality outliers.

All (27) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
60	2A	3859	ERY	C11-C10-C9-C8
60	2A	3859	ERY	C11-C10-C9-O11
60	2A	3859	ERY	C11-C12-C13-O2
60	2A	3859	ERY	C11-C12-C13-C36
60	2A	3859	ERY	C35-C12-C13-O2
60	2A	3859	ERY	C35-C12-C13-C36
60	2A	3859	ERY	O13-C12-C13-O2
60	2A	3859	ERY	O13-C12-C13-C36
60	2A	3859	ERY	C15-C16-O5-C20
60	2A	3859	ERY	C19-C16-O5-C20
60	2A	3859	ERY	C2-C1-O2-C13
60	2A	3859	ERY	O1-C1-O2-C13
60	2A	3859	ERY	C17-C16-O5-C20
60	1A	4104	ERY	C32-C6-C7-C8

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Mol	Chain	Res	Type	Atoms
60	1A	4104	ERY	O7-C5-C6-C7
60	1A	4104	ERY	C4-C5-C6-O10
60	1A	4104	ERY	C19-C16-O5-C20
60	2A	3859	ERY	C34-C10-C9-C8
60	2A	3859	ERY	C12-C13-C36-C37
60	2A	3859	ERY	C34-C10-C9-O11
60	2A	3859	ERY	O2-C13-C36-C37
60	1A	4104	ERY	C15-C16-O5-C20
60	1A	4104	ERY	C23-C22-O7-C5
60	1A	4104	ERY	O9-C22-O7-C5
60	1A	4104	ERY	O10-C6-C7-C8
60	2A	3859	ERY	O10-C6-C7-C8
60	2A	3859	ERY	C6-C7-C8-C33

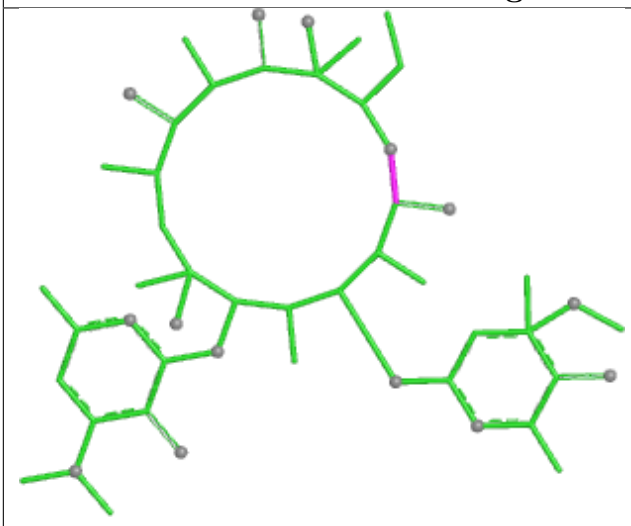
There are no ring outliers.

4 monomers are involved in 9 short contacts:

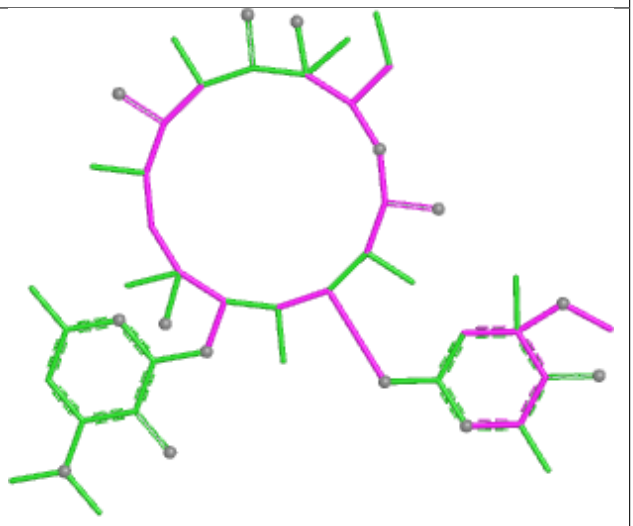
Mol	Chain	Res	Type	Clashes	Symm-Clashes
62	2d	303	SF4	2	0
60	2A	3859	ERY	2	0
62	1d	302	SF4	1	0
60	1A	4104	ERY	4	0

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 then 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.

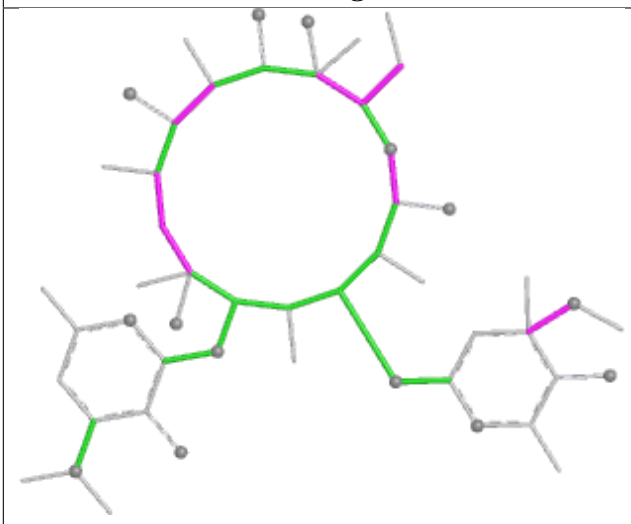
Ligand ERY 2A 3859



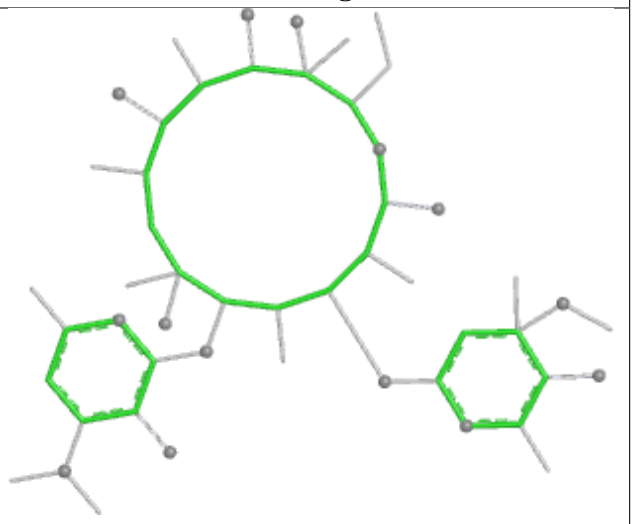
Bond lengths



Bond angles

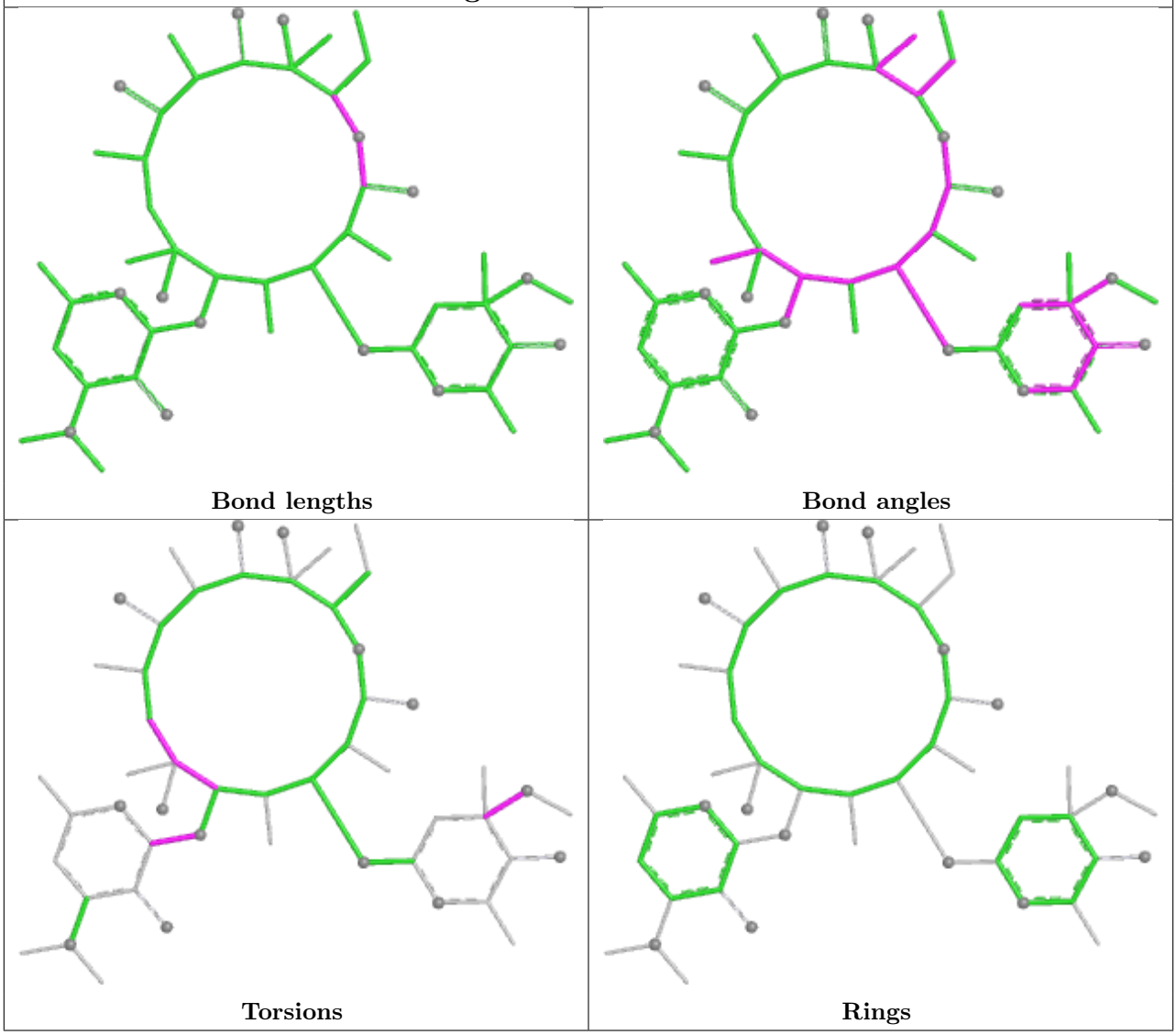


Torsions



Rings

Ligand ERY 1A 4104



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, 95^{th} 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%)	-0.58	105 (3%) 45 43	17, 35, 91, 102	0
1	2A	2789/2915 (95%)	-0.02	85 (3%) 52 50	30, 57, 88, 104	0
2	1B	120/121 (99%)	-0.47	1 (0%) 82 80	30, 49, 61, 81	0
2	2B	120/121 (99%)	0.80	7 (5%) 30 28	63, 78, 86, 92	0
3	1D	275/276 (99%)	-0.31	1 (0%) 89 88	18, 35, 49, 67	0
3	2D	275/276 (99%)	0.18	4 (1%) 71 69	32, 49, 62, 76	0
4	1E	204/206 (99%)	-0.31	0 100 100	18, 38, 59, 69	0
4	2E	204/206 (99%)	0.13	1 (0%) 87 86	36, 57, 68, 76	0
5	1F	203/210 (96%)	-0.32	0 100 100	18, 41, 65, 83	0
5	2F	203/210 (96%)	0.32	3 (1%) 71 69	35, 65, 77, 82	0
6	1G	181/182 (99%)	0.15	2 (1%) 77 75	39, 57, 68, 78	0
6	2G	181/182 (99%)	1.01	18 (9%) 14 14	68, 77, 82, 89	0
7	1H	174/180 (96%)	-0.05	2 (1%) 77 75	35, 52, 62, 67	0
7	2H	174/180 (96%)	0.71	3 (1%) 69 67	64, 77, 82, 88	0
8	1I	146/148 (98%)	0.50	3 (2%) 63 61	41, 68, 76, 80	0
8	2I	146/148 (98%)	0.82	11 (7%) 22 20	54, 70, 79, 82	0
9	1N	140/140 (100%)	-0.23	0 100 100	23, 39, 56, 75	0
9	2N	140/140 (100%)	0.42	4 (2%) 54 52	44, 61, 73, 80	0
10	1O	122/122 (100%)	-0.23	0 100 100	25, 38, 54, 60	0
10	2O	122/122 (100%)	0.29	0 100 100	44, 55, 66, 68	0
11	1P	149/150 (99%)	-0.15	2 (1%) 74 72	19, 42, 64, 70	0
11	2P	149/150 (99%)	0.35	3 (2%) 64 62	35, 65, 76, 80	0
12	1Q	141/141 (100%)	-0.22	0 100 100	27, 41, 54, 65	0
12	2Q	141/141 (100%)	0.76	8 (5%) 30 28	48, 65, 75, 80	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	1R	118/118 (100%)	-0.37	0 100 100	25, 35, 46, 58	0
13	2R	118/118 (100%)	0.16	2 (1%) 69 67	38, 51, 59, 66	0
14	1S	110/112 (98%)	-0.12	0 100 100	36, 47, 58, 63	0
14	2S	110/112 (98%)	1.08	15 (13%) 8 7	63, 72, 78, 84	0
15	1T	131/146 (89%)	-0.12	2 (1%) 71 69	30, 43, 64, 74	0
15	2T	131/146 (89%)	0.24	1 (0%) 82 80	47, 59, 71, 74	0
16	1U	116/118 (98%)	-0.45	0 100 100	22, 31, 48, 60	0
16	2U	116/118 (98%)	0.30	0 100 100	43, 60, 71, 74	0
17	1V	101/101 (100%)	-0.33	0 100 100	21, 41, 56, 67	0
17	2V	101/101 (100%)	0.46	3 (2%) 52 50	43, 68, 74, 80	0
18	1W	112/113 (99%)	-0.53	0 100 100	22, 31, 46, 71	0
18	2W	112/113 (99%)	0.15	1 (0%) 81 79	37, 49, 64, 85	0
19	1X	95/96 (98%)	-0.25	1 (1%) 77 75	23, 36, 55, 68	0
19	2X	95/96 (98%)	0.59	4 (4%) 41 38	42, 58, 69, 75	0
20	1Y	107/110 (97%)	-0.05	0 100 100	30, 46, 66, 76	0
20	2Y	107/110 (97%)	0.82	10 (9%) 16 15	57, 67, 76, 82	0
21	1Z	154/206 (74%)	0.40	8 (5%) 34 32	43, 61, 77, 87	0
21	2Z	160/206 (77%)	0.93	12 (7%) 22 20	57, 77, 85, 89	0
22	10	83/85 (97%)	-0.05	6 (7%) 23 21	26, 38, 61, 71	0
22	20	83/85 (97%)	0.96	9 (10%) 12 12	46, 63, 73, 83	0
23	11	97/98 (98%)	-0.18	1 (1%) 79 77	26, 43, 62, 67	0
23	21	97/98 (98%)	0.31	3 (3%) 51 49	38, 54, 70, 72	0
24	12	70/72 (97%)	-0.12	0 100 100	34, 46, 56, 62	0
24	22	70/72 (97%)	0.35	0 100 100	56, 68, 74, 77	0
25	13	59/60 (98%)	-0.29	1 (1%) 69 67	26, 38, 59, 68	0
25	23	59/60 (98%)	0.49	1 (1%) 69 67	55, 63, 71, 78	0
26	14	69/71 (97%)	0.42	2 (2%) 54 52	51, 72, 84, 89	0
26	24	69/71 (97%)	0.96	6 (8%) 17 16	72, 81, 89, 90	0
27	15	59/60 (98%)	-0.52	1 (1%) 69 67	18, 33, 54, 63	0
27	25	59/60 (98%)	0.06	0 100 100	36, 50, 63, 73	0
28	16	53/54 (98%)	-0.25	0 100 100	30, 41, 53, 56	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	26	53/54 (98%)	0.70	2 (3%) 44 42	53, 61, 67, 72	0
29	17	48/49 (97%)	-0.53	0 100 100	21, 26, 50, 57	0
29	27	48/49 (97%)	-0.04	1 (2%) 63 61	32, 42, 62, 70	0
30	18	64/65 (98%)	-0.28	0 100 100	26, 32, 41, 51	0
30	28	64/65 (98%)	0.46	0 100 100	45, 54, 63, 67	0
31	19	37/37 (100%)	-0.27	1 (2%) 56 54	27, 40, 57, 62	0
31	29	37/37 (100%)	1.00	2 (5%) 32 30	59, 65, 75, 81	0
32	1a	1488/1521 (97%)	0.14	28 (1%) 66 64	32, 65, 88, 100	0
32	2a	1491/1521 (98%)	0.56	74 (4%) 35 33	53, 76, 91, 102	0
33	1b	231/256 (90%)	0.67	15 (6%) 26 24	62, 74, 81, 88	0
33	2b	231/256 (90%)	1.29	42 (18%) 4 4	68, 80, 85, 90	0
34	1c	206/239 (86%)	0.45	3 (1%) 71 69	56, 68, 77, 81	0
34	2c	206/239 (86%)	1.19	28 (13%) 8 7	69, 80, 84, 90	0
35	1d	208/209 (99%)	0.66	12 (5%) 30 28	51, 65, 74, 76	0
35	2d	208/209 (99%)	0.62	7 (3%) 48 45	58, 69, 77, 82	0
36	1e	148/162 (91%)	0.26	1 (0%) 84 82	49, 61, 68, 77	0
36	2e	148/162 (91%)	0.96	9 (6%) 28 26	65, 73, 79, 86	0
37	1f	100/101 (99%)	0.25	1 (1%) 79 77	52, 64, 71, 74	0
37	2f	100/101 (99%)	0.39	1 (1%) 79 77	58, 68, 75, 77	0
38	1g	155/156 (99%)	0.60	14 (9%) 17 15	52, 67, 79, 84	0
38	2g	155/156 (99%)	0.96	22 (14%) 7 6	67, 77, 84, 89	0
39	1h	137/138 (99%)	0.31	1 (0%) 84 82	55, 64, 69, 75	0
39	2h	137/138 (99%)	0.84	6 (4%) 39 36	64, 73, 78, 81	0
40	1i	127/128 (99%)	0.87	13 (10%) 13 13	49, 73, 78, 80	0
40	2i	127/128 (99%)	1.69	44 (34%) 1 1	70, 80, 85, 88	0
41	1j	97/105 (92%)	0.89	7 (7%) 23 21	55, 73, 81, 84	0
41	2j	96/105 (91%)	1.60	30 (31%) 1 1	68, 81, 86, 87	0
42	1k	114/129 (88%)	0.34	2 (1%) 67 66	42, 64, 74, 82	0
42	2k	114/129 (88%)	0.84	5 (4%) 39 36	57, 71, 78, 80	0
43	1l	121/132 (91%)	0.22	2 (1%) 69 67	44, 55, 64, 71	0
43	2l	121/132 (91%)	0.79	6 (4%) 35 33	56, 69, 75, 78	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	1m	123/126 (97%)	0.47	6 (4%) 36 33	54, 67, 77, 86	0
44	2m	122/126 (96%)	1.39	19 (15%) 6 6	70, 80, 85, 90	0
45	1n	60/61 (98%)	0.76	4 (6%) 25 23	55, 63, 72, 74	0
45	2n	60/61 (98%)	1.84	23 (38%) 1 0	69, 80, 84, 87	0
46	1o	88/89 (98%)	0.47	0 100 100	46, 62, 71, 74	0
46	2o	88/89 (98%)	0.61	2 (2%) 61 59	58, 70, 75, 78	0
47	1p	82/88 (93%)	1.11	14 (17%) 5 5	57, 67, 74, 82	0
47	2p	82/88 (93%)	0.71	1 (1%) 76 73	53, 66, 74, 78	0
48	1q	99/105 (94%)	0.69	4 (4%) 43 40	53, 65, 71, 74	0
48	2q	99/105 (94%)	0.76	5 (5%) 34 33	60, 69, 76, 79	0
49	1r	68/88 (77%)	0.37	2 (2%) 54 52	54, 64, 72, 76	0
49	2r	68/88 (77%)	0.32	0 100 100	60, 70, 76, 82	0
50	1s	83/93 (89%)	0.60	2 (2%) 59 58	61, 70, 77, 80	0
50	2s	83/93 (89%)	1.63	25 (30%) 1 1	76, 83, 88, 89	0
51	1t	96/106 (90%)	0.81	8 (8%) 19 17	58, 67, 74, 80	0
51	2t	96/106 (90%)	0.65	4 (4%) 41 38	54, 68, 76, 79	0
52	1u	23/27 (85%)	0.74	0 100 100	59, 65, 70, 72	0
52	2u	23/27 (85%)	1.68	7 (30%) 1 1	73, 77, 81, 82	0
53	1v	13/24 (54%)	1.32	4 (30%) 1 1	44, 71, 85, 87	0
53	2v	13/24 (54%)	1.87	6 (46%) 1 0	72, 85, 91, 94	0
54	1w	67/76 (88%)	1.27	14 (20%) 3 3	52, 91, 97, 101	0
54	2w	67/76 (88%)	1.68	20 (29%) 1 1	74, 95, 99, 102	0
55	1x	72/77 (93%)	0.24	1 (1%) 73 71	36, 65, 80, 82	0
55	2x	72/77 (93%)	0.66	4 (5%) 31 29	52, 78, 86, 91	0
56	1z	2/3 (66%)	0.74	0 100 100	40, 40, 40, 45	0
56	2z	2/3 (66%)	1.04	0 100 100	58, 58, 58, 63	0
57	1y	68/76 (89%)	1.58	15 (22%) 3 2	52, 95, 100, 101	0
57	2y	68/76 (89%)	1.67	17 (25%) 2 2	68, 97, 101, 104	0
All	All	20884/21754 (96%)	0.23	938 (4%) 39 36	17, 62, 86, 104	0

All (938) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
44	2m	124	PRO	11.0
44	2m	123	ALA	7.1
44	2m	102	ARG	6.9
1	1A	2145	C	6.2
44	1m	123	ALA	6.1
1	1A	2113	U	6.0
1	1A	2115	G	6.0
1	2A	2146	C	5.9
45	1n	2	ALA	5.9
23	11	2	SER	5.8
45	2n	25	VAL	5.7
1	2A	2111	C	5.7
38	2g	80	VAL	5.7
1	2A	2145	C	5.5
1	2A	2115	G	5.5
32	1a	1257	U	5.3
38	1g	81	GLY	5.3
1	2A	2112	G	5.2
44	2m	122	LYS	5.2
1	2A	2155	G	5.1
1	1A	2111	C	5.0
38	1g	80	VAL	4.8
1	1A	2112	G	4.8
1	1A	2114	A	4.7
1	1A	1094	U	4.7
1	2A	2147	G	4.6
44	1m	124	PRO	4.5
21	2Z	146	ILE	4.5
40	2i	36	TYR	4.5
1	2A	2113	U	4.4
1	2A	2116	G	4.4
40	2i	14	VAL	4.4
40	2i	66	ARG	4.3
14	2S	92	TYR	4.3
22	10	6	GLY	4.3
1	2A	2174	C	4.2
32	2a	1033	G	4.2
1	1A	2144	U	4.2
21	1Z	141	VAL	4.2
1	1A	2174	C	4.2
12	2Q	104	PHE	4.2
1	1A	1068	G	4.1
33	2b	187	LEU	4.1

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Mol	Chain	Res	Type	RSRZ
40	2i	102	LEU	4.1
33	2b	165	VAL	4.1
41	2j	40	LEU	4.1
51	1t	103	GLY	4.1
33	1b	34	ALA	4.1
1	2A	2138	C	4.1
1	1A	2166	G	4.1
32	2a	1034	G	4.1
8	2I	18	VAL	4.0
1	1A	2141	G	4.0
44	2m	121	LYS	4.0
1	1A	2146	C	4.0
1	2A	2133	G	4.0
32	2a	1224	G	4.0
50	2s	13	ASP	4.0
40	1i	126	SER	3.9
40	2i	126	SER	3.9
22	20	5	LYS	3.9
38	1g	83	ALA	3.9
38	1g	82	GLY	3.9
40	2i	10	ARG	3.9
3	2D	276	LYS	3.9
53	2v	13	A	3.9
1	1A	2131	G	3.9
1	2A	2110	G	3.9
39	2h	2	LEU	3.9
8	2I	107	VAL	3.9
1	1A	2147	G	3.9
1	2A	2143	C	3.9
1	1A	1096	A	3.9
36	2e	12	LEU	3.9
34	2c	2	GLY	3.8
1	2A	2144	U	3.8
22	10	7	LEU	3.8
34	2c	158	GLY	3.8
32	2a	1202	G	3.8
32	2a	1532	U	3.8
34	2c	124	ILE	3.8
45	2n	2	ALA	3.7
1	1A	2159	G	3.7
1	1A	1095	A	3.7
1	1A	2119	A	3.7

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Mol	Chain	Res	Type	RSRZ
54	1w	73	A	3.7
33	2b	237	ALA	3.7
1	2A	2318	G	3.7
54	2w	15	G	3.7
45	2n	34	TYR	3.7
1	2A	2114	A	3.7
53	2v	24	A	3.7
1	1A	1078	U	3.6
38	2g	4	ARG	3.6
1	1A	1070	A	3.6
40	2i	11	LYS	3.6
1	1A	2121	G	3.6
3	1D	276	LYS	3.6
8	1I	117	GLU	3.6
32	2a	1250	A	3.6
34	2c	87	LEU	3.6
34	1c	207	VAL	3.6
38	1g	79	ARG	3.6
57	2y	33	U	3.6
1	1A	2136	C	3.6
52	2u	24	ARG	3.6
8	1I	146	ALA	3.5
41	2j	5	ARG	3.5
21	2Z	174	VAL	3.5
1	2A	2117	A	3.5
1	2A	2109	U	3.5
32	1a	204	U	3.5
6	2G	29	TRP	3.5
6	2G	74	LYS	3.5
41	2j	55	LYS	3.5
54	1w	61	C	3.5
1	1A	2160	G	3.5
52	2u	14	TRP	3.5
34	2c	189	ALA	3.4
40	1i	13	ALA	3.4
21	1Z	146	ILE	3.4
47	1p	19	ILE	3.4
11	2P	78	PRO	3.4
41	2j	47	PHE	3.4
50	2s	82	GLY	3.4
53	1v	12	A	3.4
38	2g	154	TYR	3.4

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Mol	Chain	Res	Type	RSRZ
54	2w	60	U	3.4
33	2b	136	VAL	3.4
50	2s	68	GLY	3.4
1	1A	885	C	3.4
1	1A	2803	C	3.4
55	1x	1	C	3.4
14	2S	35	ILE	3.4
22	20	7	LEU	3.4
33	2b	131	PRO	3.3
5	2F	130	ALA	3.3
1	1A	1100	C	3.3
1	1A	2143	C	3.3
35	2d	154	ASN	3.3
41	2j	54	PHE	3.3
23	21	2	SER	3.3
1	2A	2148	G	3.3
1	2A	2154	G	3.3
1	2A	2166	G	3.3
1	2A	2175	C	3.3
33	2b	186	ALA	3.3
26	24	56	VAL	3.3
54	1w	1	G	3.3
22	20	4	LYS	3.3
38	2g	82	GLY	3.3
48	1q	100	LYS	3.3
54	2w	31	A	3.3
1	1A	2130	U	3.3
32	2a	1219	U	3.3
21	2Z	144	LEU	3.3
38	2g	81	GLY	3.3
45	2n	16	PHE	3.3
1	2A	1171	G	3.3
1	2A	2125	G	3.3
2	2B	23	G	3.3
32	2a	973	G	3.3
32	2a	1031	G	3.3
50	2s	80	TYR	3.2
1	2A	2142	C	3.2
44	2m	103	THR	3.2
1	1A	2133	G	3.2
1	2A	882	G	3.2
47	1p	21	VAL	3.2

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Mol	Chain	Res	Type	RSRZ
53	1v	13	A	3.2
1	1A	1065	U	3.2
8	2I	37	VAL	3.2
45	2n	39	LEU	3.2
42	2k	75	TYR	3.2
1	2A	2123	G	3.2
32	2a	1032	G	3.2
31	29	37	GLY	3.2
1	1A	2158	A	3.2
45	2n	13	THR	3.2
26	24	66	SER	3.2
1	1A	1099	G	3.1
40	1i	2	GLU	3.1
1	1A	2167	U	3.1
1	1A	2170	A	3.1
33	2b	185	ILE	3.1
6	2G	50	ALA	3.1
47	1p	82	GLN	3.1
34	2c	159	GLY	3.1
38	2g	84	ASN	3.1
6	2G	52	ILE	3.1
49	1r	78	LEU	3.1
1	2A	2160	G	3.1
6	2G	160	VAL	3.1
26	14	56	VAL	3.1
1	1A	2117	A	3.1
40	2i	105	ASP	3.1
32	2a	1114	C	3.1
38	2g	16	LEU	3.1
40	2i	99	LEU	3.1
21	2Z	164	ALA	3.1
45	1n	3	ARG	3.1
57	2y	35	U	3.1
1	1A	2165	G	3.1
1	1A	2181	G	3.1
1	2A	2168	G	3.1
33	2b	236	TYR	3.1
45	2n	7	ILE	3.1
45	2n	42	ILE	3.1
1	1A	888	C	3.1
1	1A	2140	C	3.1
1	1A	2178	C	3.1

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Mol	Chain	Res	Type	RSRZ
1	2A	2137	C	3.1
32	2a	1030(B)	C	3.1
57	1y	75	C	3.1
33	2b	7	VAL	3.1
45	2n	31	ARG	3.1
1	2A	2169	A	3.0
41	2j	75	ILE	3.0
13	2R	68	ARG	3.0
34	2c	194	GLY	3.0
54	2w	56	C	3.0
41	2j	65	LEU	3.0
14	2S	3	ARG	3.0
4	2E	204	ALA	3.0
12	2Q	121	ALA	3.0
38	1g	4	ARG	3.0
1	1A	1060	U	3.0
38	1g	84	ASN	3.0
1	1A	229	A	3.0
53	1v	14	A	3.0
6	2G	2	PRO	3.0
1	2A	883	G	3.0
1	2A	2104	G	3.0
50	2s	15	LEU	3.0
40	2i	9	ARG	3.0
36	2e	10	MET	3.0
1	2A	2128	C	3.0
8	2I	146	ALA	3.0
32	1a	1533	C	3.0
22	10	8	GLY	3.0
23	21	22	GLY	3.0
1	1A	2135	A	2.9
1	2A	896	A	2.9
14	2S	34	HIS	2.9
6	2G	146	TYR	2.9
11	2P	79	ARG	2.9
33	1b	7	VAL	2.9
33	1b	22	LYS	2.9
41	2j	44	VAL	2.9
1	1A	1064	C	2.9
54	2w	50	C	2.9
32	2a	1257	U	2.9
50	2s	38	SER	2.9

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Mol	Chain	Res	Type	RSRZ
57	2y	20	U	2.9
1	2A	2170	A	2.9
54	2w	73	A	2.9
44	2m	118	ALA	2.9
40	2i	18	PHE	2.9
1	2A	1536	C	2.9
54	1w	56	C	2.9
1	1A	2180	U	2.9
41	2j	67	THR	2.9
32	2a	1357	A	2.9
35	1d	2	GLY	2.9
6	2G	53	LEU	2.9
14	2S	32	LEU	2.9
44	2m	9	ILE	2.9
44	1m	122	LYS	2.9
1	1A	1087	G	2.9
1	1A	2120	G	2.9
32	2a	1030(A)	G	2.9
1	1A	2109	U	2.9
1	1A	2164	C	2.9
40	2i	17	VAL	2.9
45	2n	33	VAL	2.9
40	2i	101	PHE	2.9
1	1A	1057	A	2.9
32	2a	974	A	2.9
33	2b	211	ILE	2.8
38	1g	156	TRP	2.8
33	2b	112	VAL	2.8
50	2s	79	THR	2.8
22	20	69	PHE	2.8
1	2A	2149	G	2.8
8	2I	20	ASP	2.8
32	1a	1001(A)	G	2.8
32	2a	1001(A)	G	2.8
57	2y	36	U	2.8
1	1A	2188	C	2.8
32	2a	972	C	2.8
32	2a	1149	C	2.8
1	1A	1077	A	2.8
1	1A	1098	A	2.8
50	2s	41	VAL	2.8
34	2c	129	ALA	2.8

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Mol	Chain	Res	Type	RSRZ
34	2c	168	ALA	2.8
44	2m	33	ALA	2.8
38	1g	85	TYR	2.8
33	1b	17	PHE	2.8
51	1t	47	GLY	2.8
35	1d	157	LEU	2.8
1	1A	2122	U	2.8
1	1A	2132	U	2.8
1	2A	1026	U	2.8
22	10	5	LYS	2.8
1	1A	2116	G	2.8
1	2A	2319	G	2.8
6	2G	76	SER	2.8
7	1H	2	SER	2.8
34	2c	165	THR	2.8
43	2l	18	VAL	2.8
22	20	2	ALA	2.8
32	1a	1001	A	2.8
32	2a	1251	A	2.8
50	2s	2	PRO	2.8
36	2e	101	ILE	2.8
1	2A	2118	U	2.8
1	1A	1093	G	2.8
1	1A	2161	C	2.8
47	1p	43	LYS	2.8
26	24	65	ASP	2.8
34	2c	157	ILE	2.7
40	2i	63	ILE	2.7
1	1A	2189	U	2.7
57	1y	33	U	2.7
6	2G	73	ALA	2.7
38	2g	156	TRP	2.7
42	2k	31	THR	2.7
51	1t	13	LEU	2.7
1	1A	889	C	2.7
1	2A	2803	C	2.7
31	29	21	GLY	2.7
40	2i	5	TYR	2.7
1	1A	2125	G	2.7
1	2A	2182	G	2.7
32	2a	951	G	2.7
45	2n	3	ARG	2.7

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Mol	Chain	Res	Type	RSRZ
33	2b	197	VAL	2.7
33	2b	207	ALA	2.7
33	2b	17	PHE	2.7
33	2b	133	LYS	2.7
34	2c	149	ALA	2.7
1	1A	1081	U	2.7
55	2x	47	U	2.7
50	2s	16	LEU	2.7
40	1i	9	ARG	2.7
1	1A	2175	C	2.7
1	2A	2108	C	2.7
36	2e	130	ASN	2.7
57	1y	5	C	2.7
1	2A	2181	G	2.7
32	2a	1002	G	2.7
34	2c	207	VAL	2.7
43	2l	13	LYS	2.7
33	2b	123	ALA	2.7
21	1Z	150	LEU	2.7
22	20	43	THR	2.7
50	2s	76	PRO	2.7
39	2h	112	LEU	2.7
51	1t	101	GLY	2.7
1	1A	2172	U	2.7
40	1i	105	ASP	2.7
34	2c	4	LYS	2.7
1	1A	2142	C	2.7
35	2d	198	VAL	2.7
33	2b	152	PHE	2.7
35	1d	164	ALA	2.7
47	1p	6	LEU	2.7
1	1A	2123	G	2.7
1	1A	2182	G	2.7
2	2B	119	G	2.7
32	1a	1036	G	2.7
32	2a	1035	A	2.7
38	2g	85	TYR	2.6
8	2I	19	VAL	2.6
50	2s	9	VAL	2.6
40	2i	96	LEU	2.6
41	2j	32	ALA	2.6
41	2j	63	PHE	2.6

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Mol	Chain	Res	Type	RSRZ
52	2u	17	THR	2.6
1	2A	2804	C	2.6
40	2i	67	GLY	2.6
57	2y	70	C	2.6
1	2A	2860	A	2.6
2	2B	90	A	2.6
32	1a	1531	A	2.6
1	2A	530	G	2.6
54	1w	2	G	2.6
33	2b	71	VAL	2.6
38	2g	12	LEU	2.6
33	1b	237	ALA	2.6
38	1g	78	ARG	2.6
8	2I	1	MET	2.6
33	1b	126	GLU	2.6
32	2a	1203	C	2.6
32	2a	1249	C	2.6
40	2i	95	LYS	2.6
54	2w	61	C	2.6
57	1y	74	C	2.6
41	2j	58	ASP	2.6
32	2a	1287	A	2.6
1	2A	171	G	2.6
32	2a	950	U	2.6
34	2c	121	ALA	2.6
54	1w	7	U	2.6
38	2g	78	ARG	2.6
21	2Z	171	ILE	2.6
12	2Q	103	MET	2.6
14	2S	98	VAL	2.6
35	1d	170	VAL	2.6
50	2s	19	VAL	2.6
1	1A	2794	C	2.6
1	2A	893	C	2.6
47	1p	81	ARG	2.6
32	2a	1285	A	2.6
32	1a	1025	U	2.6
32	2a	1358	U	2.6
40	2i	6	GLY	2.6
1	1A	1058	G	2.6
1	1A	1059	G	2.6
1	1A	2101	G	2.6

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Mol	Chain	Res	Type	RSRZ
32	2a	1036	G	2.6
54	2w	57	G	2.6
26	14	63	TYR	2.5
6	2G	28	VAL	2.5
40	2i	49	PRO	2.5
41	2j	34	VAL	2.5
41	2j	45	ARG	2.5
47	1p	80	PHE	2.5
21	2Z	121	HIS	2.5
38	2g	153	HIS	2.5
50	2s	14	HIS	2.5
1	1A	1080	C	2.5
1	2A	884	C	2.5
1	1A	2169	A	2.5
1	2A	2119	A	2.5
32	2a	1092	A	2.5
35	1d	169	LYS	2.5
53	2v	14	A	2.5
53	2v	15	A	2.5
57	2y	38	A	2.5
57	2y	29	U	2.5
1	1A	2168	G	2.5
1	2A	2127	G	2.5
32	2a	1220	G	2.5
57	1y	1	G	2.5
21	2Z	141	VAL	2.5
40	1i	14	VAL	2.5
41	2j	77	PRO	2.5
44	1m	2	ALA	2.5
47	1p	7	ALA	2.5
45	2n	4	LYS	2.5
50	2s	33	THR	2.5
1	1A	2103	C	2.5
1	1A	2138	C	2.5
1	2A	894	C	2.5
32	1a	369	C	2.5
57	1y	69	A	2.5
1	2A	2122	U	2.5
1	2A	2189	U	2.5
32	1a	1532	U	2.5
45	2n	6	LEU	2.5
6	1G	146	TYR	2.5

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Mol	Chain	Res	Type	RSRZ
6	2G	4	ASP	2.5
38	2g	33	ASP	2.5
1	1A	1062	G	2.5
1	1A	2154	G	2.5
57	2y	19	G	2.5
57	2y	49	G	2.5
14	2S	33	LYS	2.5
40	2i	7	THR	2.5
17	2V	38	LEU	2.5
48	2q	97	SER	2.5
25	13	2	PRO	2.5
33	2b	53	ARG	2.5
40	2i	26	VAL	2.5
1	2A	2129	C	2.5
32	1a	1035	A	2.5
32	1a	1286	A	2.5
32	2a	970	C	2.5
32	2a	1030	C	2.5
54	2w	32	C	2.5
54	2w	71	C	2.5
9	2N	45	ASN	2.5
15	1T	130	ALA	2.5
20	2Y	1	MET	2.5
43	2l	47	LYS	2.5
45	2n	10	ALA	2.5
45	2n	20	ALA	2.5
51	2t	97	ALA	2.5
41	2j	38	ILE	2.5
1	1A	2148	G	2.4
1	2A	892	G	2.4
25	23	60	GLU	2.4
32	2a	971	G	2.4
45	2n	29	ARG	2.4
8	2I	3	VAL	2.4
37	2f	6	VAL	2.4
42	1k	14	VAL	2.4
20	2Y	34	LYS	2.4
33	2b	161	ALA	2.4
40	2i	45	ALA	2.4
42	2k	25	TYR	2.4
47	1p	17	TYR	2.4
40	2i	91	ASP	2.4

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Mol	Chain	Res	Type	RSRZ
1	2A	2167	U	2.4
32	2a	1286	A	2.4
33	2b	14	GLY	2.4
55	2x	71	C	2.4
57	2y	69	A	2.4
21	2Z	170	THR	2.4
11	1P	149	GLU	2.4
7	2H	71	LEU	2.4
40	1i	19	LEU	2.4
46	2o	75	PRO	2.4
6	1G	76	SER	2.4
1	1A	2104	G	2.4
12	2Q	106	VAL	2.4
32	1a	1009	G	2.4
34	2c	153	VAL	2.4
35	2d	206	PHE	2.4
45	2n	36	PHE	2.4
15	2T	94	ALA	2.4
6	2G	20	ILE	2.4
6	2G	77	ILE	2.4
41	1j	4	ILE	2.4
41	1j	98	ILE	2.4
41	2j	82	ILE	2.4
22	20	6	GLY	2.4
8	2I	93	THR	2.4
33	2b	129	GLU	2.4
6	2G	142	PRO	2.4
41	2j	41	PRO	2.4
28	26	42	TRP	2.4
40	1i	113	LYS	2.4
44	2m	120	LYS	2.4
34	2c	55	VAL	2.4
33	2b	88	ALA	2.4
34	2c	146	ALA	2.4
44	2m	28	ALA	2.4
50	2s	49	ILE	2.4
14	2S	7	TYR	2.4
18	2W	112	GLY	2.4
1	2A	1533	G	2.4
1	2A	2120	G	2.4
54	1w	3	G	2.4
54	2w	68	G	2.4

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Mol	Chain	Res	Type	RSRZ
57	2y	57	G	2.4
28	26	11	LEU	2.4
35	1d	163	GLU	2.4
51	2t	24	LEU	2.4
1	2A	614(A)	U	2.4
1	2A	2132	U	2.4
32	1a	202	U	2.4
44	2m	104	ARG	2.4
57	1y	20	U	2.4
57	1y	35	U	2.4
57	2y	7	U	2.4
9	2N	1	MET	2.4
50	2s	66	MET	2.4
1	1A	2173	A	2.4
2	2B	53	A	2.4
12	2Q	97	VAL	2.4
20	2Y	45	VAL	2.4
47	2p	82	GLN	2.4
54	2w	74	C	2.4
41	2j	6	ILE	2.4
45	2n	21	TYR	2.4
40	2i	75	ASP	2.4
41	2j	76	ASN	2.4
35	1d	179	GLU	2.3
49	1r	40	LEU	2.3
33	1b	133	LYS	2.3
44	1m	121	LYS	2.3
1	2A	2156	G	2.3
20	2Y	53	PRO	2.3
32	1a	1021	G	2.3
32	2a	976	G	2.3
32	2a	1353	G	2.3
32	2a	1356	G	2.3
57	1y	15	G	2.3
2	2B	55	U	2.3
33	2b	93	VAL	2.3
35	1d	178	VAL	2.3
57	1y	36	U	2.3
33	2b	120	ALA	2.3
33	2b	201	ILE	2.3
34	2c	92	ALA	2.3
38	2g	77	SER	2.3

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Mol	Chain	Res	Type	RSRZ
40	2i	71	SER	2.3
32	2a	965	A	2.3
32	2a	1225	A	2.3
32	2a	1248	A	2.3
32	2a	1363(A)	A	2.3
53	2v	12	A	2.3
12	2Q	30	GLY	2.3
17	2V	63	GLY	2.3
51	1t	102	GLY	2.3
1	1A	2179	C	2.3
32	2a	1116	C	2.3
54	1w	74	C	2.3
54	2w	5	C	2.3
39	2h	4	ASP	2.3
14	2S	48	LEU	2.3
34	2c	192	THR	2.3
38	1g	12	LEU	2.3
38	2g	38	LEU	2.3
22	20	3	HIS	2.3
14	2S	29	PHE	2.3
20	2Y	44	ILE	2.3
33	1b	214	ILE	2.3
33	2b	208	ILE	2.3
46	2o	3	ILE	2.3
20	2Y	105	ALA	2.3
1	1A	1066	U	2.3
1	1A	1082	U	2.3
1	1A	2110	G	2.3
1	1A	2162	G	2.3
1	2A	2162	G	2.3
32	1a	90	U	2.3
32	1a	306	G	2.3
35	2d	147	ALA	2.3
54	2w	19	G	2.3
57	2y	6	G	2.3
3	2D	37	LEU	2.3
1	1A	887	A	2.3
1	2A	2158	A	2.3
20	2Y	21	LYS	2.3
32	2a	532	A	2.3
32	2a	1236	A	2.3
51	1t	14	LYS	2.3

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Mol	Chain	Res	Type	RSRZ
52	2u	15	ARG	2.3
1	1A	34	C	2.3
41	2j	62	HIS	2.3
40	2i	65	VAL	2.3
45	2n	18	VAL	2.3
33	1b	97	TRP	2.3
45	2n	59	ALA	2.3
1	1A	2150	U	2.3
21	2Z	157	LEU	2.3
32	2a	1040	U	2.3
32	2a	1196	U	2.3
54	2w	47	U	2.3
34	2c	166	GLU	2.3
40	2i	62	TYR	2.3
1	2A	2157	G	2.3
2	2B	118	G	2.3
13	2R	69	ASP	2.3
44	2m	37	THR	2.3
54	1w	10	G	2.3
54	1w	49	G	2.3
43	1l	5	PRO	2.3
1	2A	529	A	2.3
1	2A	2173	A	2.3
11	2P	68	GLN	2.3
34	2c	162	GLN	2.3
40	2i	108	VAL	2.3
42	2k	14	VAL	2.3
1	2A	2136	C	2.3
21	1Z	171	ILE	2.3
32	2a	1029	C	2.3
41	1j	75	ILE	2.3
54	1w	13	C	2.3
19	2X	91	ALA	2.3
22	10	2	ALA	2.3
43	2l	56	ALA	2.3
19	2X	67	GLY	2.3
33	2b	44	LEU	2.3
39	2h	133	LEU	2.3
41	2j	19	SER	2.3
14	2S	97	ARG	2.2
41	2j	43	ARG	2.2
26	24	51	ASP	2.2

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Mol	Chain	Res	Type	RSRZ
41	1j	78	ASN	2.2
52	2u	5	ASP	2.2
32	2a	486	U	2.2
57	2y	47	U	2.2
8	2I	17	GLN	2.2
32	1a	216	G	2.2
35	2d	178	VAL	2.2
41	2j	24	VAL	2.2
33	2b	42	ILE	2.2
34	2c	128	PHE	2.2
37	1f	60	PHE	2.2
55	2x	2	G	2.2
1	1A	548	A	2.2
32	1a	344	A	2.2
40	2i	94	ALA	2.2
33	1b	132	LYS	2.2
33	2b	203	GLY	2.2
42	2k	90	GLY	2.2
52	2u	4	GLY	2.2
1	1A	1092	C	2.2
1	1A	2804	C	2.2
1	2A	886	C	2.2
32	2a	1369	C	2.2
21	2Z	167	PRO	2.2
40	2i	103	THR	2.2
31	19	12	ASP	2.2
38	1g	153	HIS	2.2
6	2G	149	VAL	2.2
6	2G	159	VAL	2.2
32	2a	1148	U	2.2
34	2c	195	VAL	2.2
33	2b	214	ILE	2.2
51	1t	55	ILE	2.2
29	27	48	LYS	2.2
34	2c	163	ALA	2.2
33	2b	48	MET	2.2
38	2g	36	LYS	2.2
40	2i	46	ALA	2.2
36	2e	119	LEU	2.2
1	1A	2190	G	2.2
1	2A	2141	G	2.2
7	1H	6	ARG	2.2

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Mol	Chain	Res	Type	RSRZ
9	2N	74	ARG	2.2
32	2a	963	G	2.2
32	2a	1026	G	2.2
32	2a	1276	G	2.2
32	1a	161	A	2.2
32	2a	1110	A	2.2
40	2i	42	ARG	2.2
51	2t	8	ARG	2.2
53	2v	23	A	2.2
40	2i	27	THR	2.2
41	2j	42	THR	2.2
50	2s	77	THR	2.2
52	2u	23	PRO	2.2
1	2A	885	C	2.2
1	2A	2139	C	2.2
1	2A	2896	C	2.2
2	1B	88	C	2.2
32	1a	1119	C	2.2
32	2a	1038	C	2.2
54	2w	72	C	2.2
55	2x	1	C	2.2
57	2y	13	C	2.2
19	2X	81	VAL	2.2
33	2b	164	VAL	2.2
36	1e	118	ILE	2.2
38	2g	26	PHE	2.2
40	2i	109	VAL	2.2
50	2s	58	VAL	2.2
45	1n	11	LYS	2.2
1	1A	1097	U	2.2
39	2h	9	MET	2.2
40	2i	82	ALA	2.2
41	1j	32	ALA	2.2
14	2S	58	LEU	2.2
41	2j	8	LEU	2.2
45	2n	53	LEU	2.2
50	2s	81	ARG	2.2
33	2b	86	GLU	2.2
33	1b	131	PRO	2.2
33	2b	202	PRO	2.2
1	1A	2171	A	2.2
32	2a	968	A	2.2

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Mol	Chain	Res	Type	RSRZ
1	1A	1056	G	2.2
1	2A	2159	G	2.2
1	2A	2321	G	2.2
32	1a	1002	G	2.2
32	1a	1023	G	2.2
50	2s	53	ASN	2.2
54	2w	1	G	2.2
57	1y	19	G	2.2
9	2N	9	VAL	2.2
20	2Y	24	VAL	2.2
34	2c	134	ILE	2.2
1	1A	2137	C	2.2
1	2A	2103	C	2.2
32	2a	1354	C	2.2
11	1P	105	LEU	2.2
36	2e	31	LEU	2.2
44	2m	56	LEU	2.2
48	2q	44	ALA	2.2
19	2X	68	ARG	2.2
21	2Z	147	GLY	2.2
41	1j	10	GLY	2.2
6	2G	48	GLU	2.1
8	1I	70	GLU	2.1
35	1d	150	GLU	2.1
41	2j	37	PRO	2.1
22	10	3	HIS	2.1
47	1p	16	HIS	2.1
40	1i	114	TYR	2.1
20	2Y	89	PHE	2.1
1	2A	2176	A	2.1
21	1Z	1	MET	2.1
26	24	49	PHE	2.1
39	1h	61	VAL	2.1
40	2i	33	PHE	2.1
41	2j	72	VAL	2.1
43	2l	96	VAL	2.1
48	2q	21	VAL	2.1
48	2q	37	LYS	2.1
32	1a	1447	A	2.1
32	2a	1024	G	2.1
35	1d	21	LEU	2.1
1	1A	2896	C	2.1

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Mol	Chain	Res	Type	RSRZ
1	2A	2164	C	2.1
32	1a	1028	C	2.1
32	2a	1260	C	2.1
32	2a	1267	C	2.1
32	2a	1363	C	2.1
54	2w	40	C	2.1
57	2y	32	C	2.1
32	2a	1235	U	2.1
7	2H	106	THR	2.1
43	2l	8	ASN	2.1
48	2q	100	LYS	2.1
50	2s	32	LYS	2.1
21	1Z	104	PHE	2.1
33	2b	172	ILE	2.1
38	2g	86	GLN	2.1
40	2i	4	TYR	2.1
42	1k	25	TYR	2.1
44	1m	87	TYR	2.1
50	2s	60	VAL	2.1
14	2S	4	LEU	2.1
47	1p	5	ARG	2.1
47	1p	28	ARG	2.1
51	2t	66	ALA	2.1
3	2D	210	GLY	2.1
34	2c	197	GLY	2.1
34	1c	206	GLU	2.1
44	2m	64	TRP	2.1
1	2A	2165	G	2.1
32	2a	1272	G	2.1
1	1A	886	C	2.1
1	1A	2128	C	2.1
2	2B	4	C	2.1
32	2a	1054	C	2.1
32	2a	1223	C	2.1
40	2i	64	THR	2.1
54	1w	71	C	2.1
57	1y	56	C	2.1
57	1y	70	C	2.1
32	1a	1000	U	2.1
32	2a	1025	U	2.1
57	1y	60	U	2.1
21	1Z	165	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
35	1d	110	PHE	2.1
36	2e	67	VAL	2.1
44	2m	7	VAL	2.1
47	1p	33	ILE	2.1
26	24	59	PHE	2.1
33	2b	148	TYR	2.1
40	1i	75	ASP	2.1
40	2i	88	TYR	2.1
40	2i	92	TYR	2.1
33	2b	138	LEU	2.1
21	2Z	152	ALA	2.1
33	1b	13	ALA	2.1
38	2g	32	ARG	2.1
38	2g	83	ALA	2.1
48	1q	68	ARG	2.1
33	1b	203	GLY	2.1
51	1t	69	GLY	2.1
33	1b	125	PRO	2.1
33	2b	91	PRO	2.1
39	2h	72	PRO	2.1
1	2A	2320	A	2.1
32	2a	978	A	2.1
53	1v	15	A	2.1
38	2g	137	LYS	2.1
21	1Z	149	SER	2.1
41	2j	35	SER	2.1
44	2m	39	ILE	2.1
1	1A	1176	G	2.1
1	2A	2131	G	2.1
32	1a	1003	G	2.1
32	1a	1024	G	2.1
35	1d	112	VAL	2.1
36	2e	100	VAL	2.1
32	2a	1254	C	2.1
32	2a	1397	C	2.1
47	1p	68	ASP	2.1
54	1w	50	C	2.1
54	2w	62	C	2.1
57	2y	65	C	2.1
14	2S	79	ALA	2.1
15	1T	131	ALA	2.1
38	2g	152	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
23	21	28	GLY	2.1
36	2e	22	GLY	2.1
41	1j	31	GLY	2.1
45	2n	14	PRO	2.0
8	2I	86	THR	2.0
33	2b	168	THR	2.0
48	1q	36	ILE	2.0
5	2F	6	VAL	2.0
17	2V	72	VAL	2.0
27	15	60	VAL	2.0
33	2b	70	PHE	2.0
33	2b	230	VAL	2.0
44	2m	117	VAL	2.0
50	2s	4	SER	2.0
57	1y	59	A	2.0
19	1X	95	LEU	2.0
22	20	84	LEU	2.0
40	2i	19	LEU	2.0
38	1g	5	ARG	2.0
38	1g	154	TYR	2.0
40	2i	125	TYR	2.0
43	1l	64	TYR	2.0
45	2n	5	ALA	2.0
1	1A	1091	G	2.0
12	2Q	33	GLY	2.0
32	2a	1255	G	2.0
40	2i	100	GLY	2.0
1	1A	2129	C	2.0
32	2a	980	C	2.0
54	1w	70	C	2.0
54	2w	67	C	2.0
33	1b	202	PRO	2.0
3	2D	38	LYS	2.0
34	1c	14	ILE	2.0
41	2j	23	ILE	2.0
44	2m	22	ILE	2.0
7	2H	169	VAL	2.0
14	2S	12	PHE	2.0
20	2Y	57	GLN	2.0
34	2c	130	VAL	2.0
35	2d	140	VAL	2.0
40	1i	28	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
40	1i	37	PHE	2.0
40	1i	56	LEU	2.0
45	1n	16	PHE	2.0
48	1q	84	LEU	2.0
50	1s	9	VAL	2.0
12	2Q	60	ARG	2.0
35	2d	209	ARG	2.0
50	1s	29	ARG	2.0
50	2s	35	SER	2.0
1	1A	1069	A	2.0
1	2A	528	A	2.0
5	2F	166	ALA	2.0
32	2a	1447	A	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, 95^{th} 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	PSU	2w	55	20/21	0.42	0.16	92,99,108,115	0
57	G7M	2y	46	24/25	0.49	0.16	85,98,103,121	0
54	5MU	2w	54	21/22	0.50	0.17	85,93,98,107	0
54	G7M	2w	46	24/25	0.52	0.14	89,95,108,118	0
54	G7M	1w	46	24/25	0.54	0.14	82,90,102,113	0
57	U8U	2y	34	20/24	0.55	0.21	95,100,108,118	0
57	5MU	2y	54	21/22	0.58	0.15	89,97,108,119	0
54	PSU	1w	55	20/21	0.60	0.16	78,94,102,102	0
57	PSU	1y	39	20/21	0.60	0.14	88,94,102,113	0
57	U8U	1y	34	20/24	0.62	0.20	88,94,102,103	0
57	G7M	1y	46	24/25	0.62	0.14	85,94,97,110	0
57	T6A	2y	37	22/33	0.65	0.17	83,93,100,108	0
57	PSU	2y	55	20/21	0.67	0.12	90,97,110,117	0
57	T6A	1y	37	22/33	0.67	0.15	79,87,92,101	0
57	PSU	2y	39	20/21	0.67	0.15	85,90,97,100	0
57	PSU	1y	55	20/21	0.68	0.12	88,94,102,112	0
54	T6A	2w	37	32/33	0.71	0.16	69,87,96,98	0
57	5MU	1y	54	21/22	0.76	0.12	83,89,97,107	0
54	5MU	1w	54	21/22	0.79	0.11	71,87,91,93	0
1	5MU	2A	1915	21/22	0.80	0.14	76,79,82,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	U8U	2w	34	23/24	0.82	0.17	73,84,89,95	0
54	U8U	1w	34	23/24	0.82	0.16	72,77,85,89	0
54	T6A	1w	37	32/33	0.84	0.15	66,77,83,86	0
32	2MG	2a	1207	24/25	0.85	0.13	78,85,92,100	0
55	4SU	2x	8	20/21	0.85	0.12	70,80,85,89	0
54	PSU	2w	39	20/21	0.85	0.14	79,86,92,95	0
32	5MC	2a	967	21/22	0.86	0.16	63,70,80,85	0
43	0TD	1l	92	10/11	0.87	0.14	45,50,56,69	0
55	5MU	2x	54	21/22	0.87	0.11	75,81,87,101	0
55	PSU	2x	55	20/21	0.87	0.10	73,78,81,91	0
32	M2G	2a	966	25/26	0.87	0.17	55,66,85,90	0
32	5MC	2a	1400	21/22	0.88	0.17	68,75,79,81	0
32	PSU	2a	516	20/21	0.88	0.11	73,79,88,88	0
1	PSU	2A	1917	20/21	0.88	0.11	64,74,84,84	0
55	PSU	1x	55	20/21	0.89	0.10	54,64,73,76	0
1	PSU	2A	1911	20/21	0.90	0.10	63,70,79,79	0
32	G7M	2a	527	24/25	0.91	0.14	60,65,70,76	0
54	PSU	1w	39	20/21	0.91	0.10	68,77,83,84	0
32	5MC	2a	1404	21/22	0.91	0.10	55,60,65,68	0
54	A1B8A	2w	76	31/32	0.91	0.14	46,62,66,76	0
43	0TD	2l	92	10/11	0.92	0.12	64,69,77,83	0
55	5MU	1x	54	21/22	0.92	0.10	60,68,72,76	0
55	5MC	2x	32	21/22	0.92	0.12	65,74,77,81	0
1	OMC	2A	1920	21/22	0.92	0.11	58,67,73,76	0
32	4OC	2a	1402	22/23	0.92	0.12	58,64,67,71	0
55	4SU	1x	8	20/21	0.92	0.10	59,64,76,76	0
32	PSU	1a	516	20/21	0.93	0.08	58,64,72,75	0
55	8AN	2x	76	22/23	0.93	0.11	45,53,63,65	0
32	MA6	2a	1518	24/25	0.93	0.11	47,64,69,70	0
56	FME	1z	1	10/11	0.93	0.17	38,49,57,58	0
56	FME	2z	1	10/11	0.93	0.18	57,64,70,70	0
32	5MC	2a	1407	21/22	0.94	0.10	52,59,65,66	0
1	5MC	2A	1962	21/22	0.94	0.11	43,52,62,64	0
54	A1B8A	1w	76	31/32	0.94	0.11	33,45,52,53	0
1	5MC	2A	1942	21/22	0.95	0.10	49,63,66,72	0
32	G7M	1a	527	24/25	0.95	0.09	39,45,52,54	0
55	5MC	1x	32	21/22	0.95	0.11	46,49,51,59	0
32	2MG	1a	1207	24/25	0.95	0.09	51,67,70,73	0
1	5MU	1A	1915	21/22	0.95	0.09	49,55,61,66	0
32	UR3	2a	1498	21/22	0.95	0.11	47,61,67,67	0
55	8AN	1x	76	22/23	0.95	0.09	26,40,52,55	0
32	5MC	1a	1404	21/22	0.96	0.09	36,44,49,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
32	MA6	1a	1519	24/25	0.96	0.10	32,42,45,46	0
1	OMG	2A	2251	24/25	0.96	0.09	33,41,48,54	0
1	2MA	2A	2503	23/24	0.96	0.10	31,37,44,46	0
1	5MC	1A	1942	21/22	0.96	0.09	32,43,48,60	0
32	M2G	1a	966	25/26	0.96	0.09	46,55,60,62	0
32	5MC	1a	967	21/22	0.96	0.10	54,58,61,65	0
32	MA6	2a	1519	24/25	0.96	0.13	53,63,70,71	0
1	PSU	1A	1917	20/21	0.96	0.07	41,50,59,64	0
1	OMC	1A	1920	21/22	0.97	0.08	34,40,44,46	0
32	5MC	1a	1400	21/22	0.97	0.09	41,48,53,56	0
32	4OC	1a	1402	22/23	0.97	0.09	42,48,51,55	0
1	OMU	2A	2552	21/22	0.97	0.09	32,42,46,51	0
1	PSU	2A	2605	20/21	0.97	0.07	31,39,42,43	0
1	PSU	1A	1911	20/21	0.97	0.07	42,46,50,50	0
32	5MC	1a	1407	21/22	0.97	0.08	29,37,42,42	0
1	5MU	2A	1939	21/22	0.97	0.08	33,40,45,47	0
32	MA6	1a	1518	24/25	0.97	0.10	31,41,46,47	0
1	2MA	1A	2503	23/24	0.98	0.06	14,18,23,24	0
1	OMU	1A	2552	21/22	0.98	0.06	15,27,29,33	0
1	PSU	1A	2605	20/21	0.98	0.06	18,24,31,32	0
1	5MU	1A	1939	21/22	0.98	0.06	20,27,33,33	0
32	UR3	1a	1498	21/22	0.98	0.07	32,42,45,47	0
1	5MC	1A	1962	21/22	0.99	0.06	19,28,34,42	0
1	OMG	1A	2251	24/25	0.99	0.05	18,23,27,30	0

6.3 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.4 Ligands (i)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2A	3750	1/1	0.60	0.24	59,59,59,59	0
58	MG	2A	3646	1/1	0.64	0.18	79,79,79,79	0
58	MG	2a	1803	1/1	0.65	0.18	74,74,74,74	0
58	MG	2A	3495	1/1	0.66	0.18	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2A	3193	1/1	0.66	0.28	74,74,74,74	0
58	MG	2A	3733	1/1	0.67	0.20	54,54,54,54	0
58	MG	1A	3813	1/1	0.68	0.18	54,54,54,54	0
58	MG	2A	3383	1/1	0.70	0.17	82,82,82,82	0
58	MG	1A	3512	1/1	0.70	0.20	58,58,58,58	0
58	MG	2a	1807	1/1	0.70	0.27	71,71,71,71	0
58	MG	1A	4080	1/1	0.71	0.25	39,39,39,39	0
58	MG	2a	1610	1/1	0.71	0.38	81,81,81,81	0
58	MG	2A	3692	1/1	0.71	0.23	71,71,71,71	0
58	MG	2A	3305	1/1	0.71	0.20	71,71,71,71	0
58	MG	1B	230	1/1	0.72	0.14	74,74,74,74	0
58	MG	2a	1819	1/1	0.72	0.13	84,84,84,84	0
58	MG	2A	3171	1/1	0.73	0.18	70,70,70,70	0
58	MG	2A	3519	1/1	0.73	0.21	71,71,71,71	0
58	MG	1A	3878	1/1	0.74	0.35	57,57,57,57	0
58	MG	2A	3375	1/1	0.74	0.17	66,66,66,66	0
58	MG	2a	1641	1/1	0.74	0.29	72,72,72,72	0
58	MG	2A	3663	1/1	0.75	0.18	65,65,65,65	0
58	MG	2w	101	1/1	0.75	0.22	80,80,80,80	0
58	MG	1f	202	1/1	0.76	0.21	76,76,76,76	0
58	MG	1w	105	1/1	0.76	0.12	77,77,77,77	0
58	MG	1A	3413	1/1	0.76	0.15	64,64,64,64	0
58	MG	1A	3885	1/1	0.76	0.15	27,27,27,27	0
58	MG	1a	1633	1/1	0.76	0.25	68,68,68,68	0
58	MG	2A	3744	1/1	0.77	0.16	65,65,65,65	0
58	MG	2A	3606	1/1	0.77	0.22	75,75,75,75	0
58	MG	2B	213	1/1	0.77	0.21	71,71,71,71	0
58	MG	2a	1605	1/1	0.77	0.19	71,71,71,71	0
58	MG	1a	1765	1/1	0.77	0.13	76,76,76,76	0
58	MG	1A	4039	1/1	0.77	0.13	55,55,55,55	0
58	MG	2a	1755	1/1	0.77	0.36	80,80,80,80	0
58	MG	2A	3204	1/1	0.77	0.16	67,67,67,67	0
58	MG	2A	3723	1/1	0.77	0.19	62,62,62,62	0
58	MG	2A	3730	1/1	0.77	0.17	74,74,74,74	0
58	MG	1A	3504	1/1	0.77	0.23	67,67,67,67	0
58	MG	2A	3828	1/1	0.78	0.17	52,52,52,52	0
58	MG	1a	1780	1/1	0.78	0.19	44,44,44,44	0
58	MG	2E	301	1/1	0.78	0.13	62,62,62,62	0
58	MG	1A	3598	1/1	0.78	0.15	67,67,67,67	0
58	MG	2A	3721	1/1	0.78	0.12	56,56,56,56	0
58	MG	1B	228	1/1	0.78	0.13	77,77,77,77	0
58	MG	2A	3726	1/1	0.78	0.18	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2A	3106	1/1	0.78	0.26	73,73,73,73	0
58	MG	1A	3647	1/1	0.78	0.20	63,63,63,63	0
58	MG	1A	3955	1/1	0.78	0.23	67,67,67,67	0
58	MG	1A	3540	1/1	0.78	0.21	67,67,67,67	0
58	MG	2A	3323	1/1	0.79	0.27	73,73,73,73	0
58	MG	2A	3329	1/1	0.79	0.19	74,74,74,74	0
58	MG	2A	3365	1/1	0.79	0.21	68,68,68,68	0
58	MG	1A	3837	1/1	0.79	0.14	59,59,59,59	0
58	MG	2A	3112	1/1	0.79	0.12	71,71,71,71	0
58	MG	2a	1800	1/1	0.79	0.15	82,82,82,82	0
58	MG	2A	3664	1/1	0.79	0.16	65,65,65,65	0
58	MG	2A	3478	1/1	0.79	0.29	67,67,67,67	0
58	MG	2A	3845	1/1	0.79	0.13	71,71,71,71	0
58	MG	2j	202	1/1	0.79	0.17	76,76,76,76	0
58	MG	2A	3494	1/1	0.79	0.20	70,70,70,70	0
58	MG	1a	1774	1/1	0.80	0.18	74,74,74,74	0
58	MG	1A	3396	1/1	0.80	0.14	67,67,67,67	0
58	MG	1a	1811	1/1	0.80	0.23	70,70,70,70	0
58	MG	2a	1607	1/1	0.80	0.36	72,72,72,72	0
58	MG	2A	3346	1/1	0.80	0.26	64,64,64,64	0
58	MG	2a	1625	1/1	0.80	0.19	70,70,70,70	0
58	MG	2A	3185	1/1	0.80	0.17	69,69,69,69	0
58	MG	2a	1736	1/1	0.80	0.30	78,78,78,78	0
58	MG	1a	1673	1/1	0.80	0.24	68,68,68,68	0
58	MG	2a	1763	1/1	0.80	0.12	81,81,81,81	0
58	MG	1A	3329	1/1	0.80	0.15	70,70,70,70	0
58	MG	2A	3818	1/1	0.80	0.16	46,46,46,46	0
58	MG	2A	3667	1/1	0.80	0.18	74,74,74,74	0
58	MG	2A	3297	1/1	0.80	0.35	68,68,68,68	0
58	MG	2A	3856	1/1	0.80	0.20	66,66,66,66	0
58	MG	2l	206	1/1	0.80	0.10	75,75,75,75	0
58	MG	2B	206	1/1	0.80	0.24	76,76,76,76	0
58	MG	2w	102	1/1	0.80	0.16	85,85,85,85	0
58	MG	2B	216	1/1	0.81	0.21	78,78,78,78	0
58	MG	2A	3665	1/1	0.81	0.12	75,75,75,75	0
58	MG	2A	3089	1/1	0.81	0.26	65,65,65,65	0
58	MG	2A	3091	1/1	0.81	0.17	74,74,74,74	0
58	MG	2a	1609	1/1	0.81	0.13	49,49,49,49	0
58	MG	2A	3102	1/1	0.81	0.29	71,71,71,71	0
58	MG	2a	1613	1/1	0.81	0.39	77,77,77,77	0
58	MG	2a	1618	1/1	0.81	0.15	68,68,68,68	0
58	MG	1a	1621	1/1	0.81	0.21	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2a	1632	1/1	0.81	0.32	74,74,74,74	0
58	MG	1A	3961	1/1	0.81	0.10	57,57,57,57	0
58	MG	2a	1735	1/1	0.81	0.21	72,72,72,72	0
58	MG	1a	1779	1/1	0.81	0.13	62,62,62,62	0
58	MG	2a	1739	1/1	0.81	0.17	76,76,76,76	0
58	MG	1a	1660	1/1	0.81	0.10	70,70,70,70	0
58	MG	2A	3734	1/1	0.81	0.14	75,75,75,75	0
58	MG	2a	1793	1/1	0.81	0.18	72,72,72,72	0
58	MG	1a	1803	1/1	0.81	0.15	62,62,62,62	0
58	MG	1A	4089	1/1	0.81	0.15	74,74,74,74	0
58	MG	2a	1805	1/1	0.81	0.16	74,74,74,74	0
58	MG	2A	3264	1/1	0.81	0.15	70,70,70,70	0
58	MG	2A	3626	1/1	0.81	0.15	39,39,39,39	0
58	MG	1a	1724	1/1	0.81	0.18	77,77,77,77	0
58	MG	2l	205	1/1	0.81	0.19	54,54,54,54	0
58	MG	2A	3658	1/1	0.81	0.20	72,72,72,72	0
58	MG	2v	103	1/1	0.81	0.42	76,76,76,76	0
58	MG	1a	1740	1/1	0.81	0.16	82,82,82,82	0
58	MG	2A	3075	1/1	0.81	0.12	70,70,70,70	0
58	MG	1a	1781	1/1	0.82	0.13	54,54,54,54	0
58	MG	2A	3369	1/1	0.82	0.21	63,63,63,63	0
58	MG	2A	3114	1/1	0.82	0.27	67,67,67,67	0
58	MG	2A	3121	1/1	0.82	0.18	64,64,64,64	0
58	MG	2A	3442	1/1	0.82	0.11	54,54,54,54	0
58	MG	2a	1701	1/1	0.82	0.18	74,74,74,74	0
58	MG	2a	1722	1/1	0.82	0.15	58,58,58,58	0
58	MG	2A	3466	1/1	0.82	0.21	66,66,66,66	0
58	MG	1A	3975	1/1	0.82	0.16	73,73,73,73	0
58	MG	1A	3514	1/1	0.82	0.27	65,65,65,65	0
58	MG	2A	3772	1/1	0.82	0.14	65,65,65,65	0
58	MG	2A	3802	1/1	0.82	0.15	41,41,41,41	0
58	MG	2a	1775	1/1	0.82	0.14	67,67,67,67	0
58	MG	1A	3881	1/1	0.82	0.13	54,54,54,54	0
58	MG	1A	3205	1/1	0.82	0.23	61,61,61,61	0
58	MG	2A	3238	1/1	0.82	0.13	66,66,66,66	0
58	MG	1w	106	1/1	0.82	0.15	79,79,79,79	0
58	MG	2A	3284	1/1	0.82	0.15	66,66,66,66	0
58	MG	1A	3927	1/1	0.82	0.13	33,33,33,33	0
58	MG	2a	1820	1/1	0.82	0.33	71,71,71,71	0
58	MG	2a	1826	1/1	0.82	0.14	60,60,60,60	0
58	MG	1B	229	1/1	0.82	0.15	61,61,61,61	0
58	MG	2l	201	1/1	0.82	0.30	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3334	1/1	0.82	0.10	52,52,52,52	0
58	MG	15	110	1/1	0.82	0.12	50,50,50,50	0
58	MG	2A	3332	1/1	0.82	0.14	74,74,74,74	0
58	MG	1A	3850	1/1	0.82	0.19	71,71,71,71	0
58	MG	2A	3705	1/1	0.82	0.17	62,62,62,62	0
58	MG	2A	3410	1/1	0.83	0.16	52,52,52,52	0
58	MG	2A	3431	1/1	0.83	0.20	50,50,50,50	0
58	MG	1A	3943	1/1	0.83	0.10	30,30,30,30	0
58	MG	2A	3327	1/1	0.83	0.10	73,73,73,73	0
58	MG	1A	3471	1/1	0.83	0.24	49,49,49,49	0
58	MG	2A	3687	1/1	0.83	0.11	62,62,62,62	0
58	MG	1a	1698	1/1	0.83	0.22	57,57,57,57	0
58	MG	1U	203	1/1	0.83	0.10	60,60,60,60	0
58	MG	2A	3843	1/1	0.83	0.15	73,73,73,73	0
58	MG	2A	3713	1/1	0.83	0.18	72,72,72,72	0
58	MG	2A	3718	1/1	0.83	0.17	56,56,56,56	0
58	MG	1A	4086	1/1	0.83	0.19	74,74,74,74	0
58	MG	1A	3909	1/1	0.83	0.12	37,37,37,37	0
58	MG	1A	3310	1/1	0.83	0.22	55,55,55,55	0
58	MG	2B	220	1/1	0.83	0.16	76,76,76,76	0
58	MG	1a	1641	1/1	0.83	0.14	60,60,60,60	0
58	MG	2x	104	1/1	0.83	0.22	78,78,78,78	0
58	MG	2F	303	1/1	0.84	0.09	48,48,48,48	0
58	MG	1A	3131	1/1	0.84	0.10	68,68,68,68	0
58	MG	2A	3684	1/1	0.84	0.20	73,73,73,73	0
58	MG	1A	4019	1/1	0.84	0.17	58,58,58,58	0
58	MG	2A	3688	1/1	0.84	0.26	61,61,61,61	0
58	MG	1A	3684	1/1	0.84	0.13	47,47,47,47	0
58	MG	2A	3700	1/1	0.84	0.14	54,54,54,54	0
58	MG	2a	1620	1/1	0.84	0.14	58,58,58,58	0
58	MG	2A	3129	1/1	0.84	0.12	56,56,56,56	0
58	MG	1A	3741	1/1	0.84	0.15	63,63,63,63	0
58	MG	1A	3895	1/1	0.84	0.11	40,40,40,40	0
58	MG	2A	3429	1/1	0.84	0.24	56,56,56,56	0
58	MG	2a	1706	1/1	0.84	0.11	74,74,74,74	0
58	MG	2a	1716	1/1	0.84	0.23	61,61,61,61	0
58	MG	2A	3190	1/1	0.84	0.15	61,61,61,61	0
58	MG	1A	3776	1/1	0.84	0.09	18,18,18,18	0
58	MG	1l	201	1/1	0.84	0.14	74,74,74,74	0
58	MG	1t	201	1/1	0.84	0.17	58,58,58,58	0
58	MG	2A	3489	1/1	0.84	0.16	67,67,67,67	0
58	MG	2A	3251	1/1	0.84	0.23	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3262	1/1	0.84	0.26	74,74,74,74	0
58	MG	2A	3757	1/1	0.84	0.20	81,81,81,81	0
58	MG	2a	1795	1/1	0.84	0.19	73,73,73,73	0
58	MG	2A	3770	1/1	0.84	0.10	69,69,69,69	0
58	MG	2A	3277	1/1	0.84	0.22	79,79,79,79	0
58	MG	2A	3553	1/1	0.84	0.12	37,37,37,37	0
58	MG	2A	3577	1/1	0.84	0.10	66,66,66,66	0
58	MG	2A	3599	1/1	0.84	0.21	64,64,64,64	0
58	MG	2A	3841	1/1	0.84	0.29	77,77,77,77	0
58	MG	1a	1705	1/1	0.84	0.18	69,69,69,69	0
58	MG	1x	109	1/1	0.84	0.25	66,66,66,66	0
58	MG	1A	3270	1/1	0.84	0.17	47,47,47,47	0
58	MG	2B	203	1/1	0.84	0.18	80,80,80,80	0
58	MG	2A	3650	1/1	0.84	0.12	54,54,54,54	0
58	MG	1A	3846	1/1	0.84	0.10	54,54,54,54	0
58	MG	1a	1760	1/1	0.84	0.16	69,69,69,69	0
58	MG	1E	309	1/1	0.84	0.13	25,25,25,25	0
58	MG	1A	3385	1/1	0.84	0.15	58,58,58,58	0
58	MG	1A	3753	1/1	0.85	0.12	61,61,61,61	0
58	MG	2A	3533	1/1	0.85	0.12	46,46,46,46	0
58	MG	2a	1623	1/1	0.85	0.19	73,73,73,73	0
58	MG	1b	301	1/1	0.85	0.16	81,81,81,81	0
58	MG	2A	3574	1/1	0.85	0.11	73,73,73,73	0
58	MG	1A	3552	1/1	0.85	0.23	66,66,66,66	0
58	MG	2a	1646	1/1	0.85	0.12	66,66,66,66	0
58	MG	2A	3334	1/1	0.85	0.13	61,61,61,61	0
58	MG	2A	3336	1/1	0.85	0.10	64,64,64,64	0
58	MG	2a	1709	1/1	0.85	0.12	76,76,76,76	0
58	MG	2A	3616	1/1	0.85	0.09	62,62,62,62	0
58	MG	1B	234	1/1	0.85	0.12	61,61,61,61	0
58	MG	2A	3363	1/1	0.85	0.20	61,61,61,61	0
58	MG	1A	3461	1/1	0.85	0.11	55,55,55,55	0
58	MG	2A	3367	1/1	0.85	0.28	65,65,65,65	0
58	MG	2a	1740	1/1	0.85	0.18	67,67,67,67	0
58	MG	2A	3829	1/1	0.85	0.13	66,66,66,66	0
58	MG	2A	3835	1/1	0.85	0.19	68,68,68,68	0
58	MG	2a	1773	1/1	0.85	0.11	84,84,84,84	0
58	MG	1a	1737	1/1	0.85	0.13	58,58,58,58	0
58	MG	2a	1788	1/1	0.85	0.20	65,65,65,65	0
58	MG	2a	1792	1/1	0.85	0.14	72,72,72,72	0
58	MG	1A	4034	1/1	0.85	0.12	60,60,60,60	0
58	MG	2A	3211	1/1	0.85	0.34	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1a	1750	1/1	0.85	0.19	71,71,71,71	0
58	MG	2A	3412	1/1	0.85	0.20	64,64,64,64	0
58	MG	11	105	1/1	0.85	0.09	58,58,58,58	0
58	MG	1A	3644	1/1	0.85	0.18	59,59,59,59	0
58	MG	2a	1810	1/1	0.85	0.19	81,81,81,81	0
58	MG	1A	3513	1/1	0.85	0.18	60,60,60,60	0
58	MG	2A	3699	1/1	0.85	0.16	64,64,64,64	0
58	MG	2a	1825	1/1	0.85	0.19	63,63,63,63	0
58	MG	2D	302	1/1	0.85	0.34	52,52,52,52	0
58	MG	2A	3280	1/1	0.85	0.22	65,65,65,65	0
58	MG	2A	3701	1/1	0.85	0.17	57,57,57,57	0
58	MG	2l	204	1/1	0.85	0.13	63,63,63,63	0
58	MG	20	103	1/1	0.85	0.18	70,70,70,70	0
58	MG	1A	3382	1/1	0.85	0.12	67,67,67,67	0
58	MG	2A	3479	1/1	0.85	0.17	61,61,61,61	0
58	MG	1a	1634	1/1	0.85	0.21	53,53,53,53	0
58	MG	1A	3953	1/1	0.85	0.09	66,66,66,66	0
58	MG	1A	3372	1/1	0.85	0.14	43,43,43,43	0
58	MG	1a	1624	1/1	0.86	0.17	67,67,67,67	0
58	MG	1a	1630	1/1	0.86	0.11	50,50,50,50	0
58	MG	2A	3285	1/1	0.86	0.16	56,56,56,56	0
58	MG	1A	3202	1/1	0.86	0.13	51,51,51,51	0
58	MG	2A	3480	1/1	0.86	0.14	68,68,68,68	0
58	MG	1A	3829	1/1	0.86	0.10	38,38,38,38	0
58	MG	2A	3308	1/1	0.86	0.12	47,47,47,47	0
58	MG	2a	1656	1/1	0.86	0.15	72,72,72,72	0
58	MG	2A	3312	1/1	0.86	0.10	62,62,62,62	0
58	MG	2A	3512	1/1	0.86	0.14	65,65,65,65	0
58	MG	2A	3513	1/1	0.86	0.12	40,40,40,40	0
58	MG	2a	1713	1/1	0.86	0.10	69,69,69,69	0
58	MG	2A	3748	1/1	0.86	0.10	33,33,33,33	0
58	MG	2A	3321	1/1	0.86	0.15	67,67,67,67	0
58	MG	2A	3532	1/1	0.86	0.12	49,49,49,49	0
58	MG	2A	3767	1/1	0.86	0.13	42,42,42,42	0
58	MG	2A	3322	1/1	0.86	0.12	56,56,56,56	0
58	MG	1A	3122	1/1	0.86	0.18	43,43,43,43	0
58	MG	2a	1751	1/1	0.86	0.13	86,86,86,86	0
58	MG	1A	3944	1/1	0.86	0.11	26,26,26,26	0
58	MG	1A	3711	1/1	0.86	0.12	31,31,31,31	0
58	MG	2A	3820	1/1	0.86	0.17	63,63,63,63	0
58	MG	2A	3586	1/1	0.86	0.12	35,35,35,35	0
58	MG	2A	3331	1/1	0.86	0.22	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3732	1/1	0.86	0.20	56,56,56,56	0
58	MG	1A	3861	1/1	0.86	0.29	43,43,43,43	0
58	MG	2A	3842	1/1	0.86	0.16	67,67,67,67	0
58	MG	1a	1721	1/1	0.86	0.14	69,69,69,69	0
58	MG	2A	3344	1/1	0.86	0.16	71,71,71,71	0
58	MG	2A	3345	1/1	0.86	0.19	51,51,51,51	0
58	MG	2A	3651	1/1	0.86	0.12	58,58,58,58	0
58	MG	1A	3965	1/1	0.86	0.07	38,38,38,38	0
58	MG	1A	3254	1/1	0.86	0.16	53,53,53,53	0
58	MG	2A	3207	1/1	0.86	0.19	66,66,66,66	0
58	MG	1a	1738	1/1	0.86	0.17	69,69,69,69	0
58	MG	2A	3215	1/1	0.86	0.15	62,62,62,62	0
58	MG	2A	3674	1/1	0.86	0.12	62,62,62,62	0
58	MG	2A	3370	1/1	0.86	0.09	61,61,61,61	0
58	MG	2l	203	1/1	0.86	0.21	68,68,68,68	0
58	MG	1A	3643	1/1	0.86	0.13	47,47,47,47	0
58	MG	25	102	1/1	0.86	0.18	52,52,52,52	0
58	MG	2A	3241	1/1	0.86	0.20	67,67,67,67	0
58	MG	2A	3242	1/1	0.86	0.21	63,63,63,63	0
58	MG	2A	3001	1/1	0.86	0.21	53,53,53,53	0
58	MG	1A	3771	1/1	0.86	0.10	24,24,24,24	0
58	MG	1A	3487	1/1	0.86	0.19	50,50,50,50	0
58	MG	2B	214	1/1	0.87	0.10	66,66,66,66	0
58	MG	2A	3604	1/1	0.87	0.19	72,72,72,72	0
58	MG	1B	223	1/1	0.87	0.12	61,61,61,61	0
58	MG	1A	3728	1/1	0.87	0.14	71,71,71,71	0
58	MG	1A	3358	1/1	0.87	0.11	71,71,71,71	0
58	MG	2A	3634	1/1	0.87	0.09	49,49,49,49	0
58	MG	2W	201	1/1	0.87	0.27	54,54,54,54	0
58	MG	2A	3110	1/1	0.87	0.14	57,57,57,57	0
58	MG	2A	3330	1/1	0.87	0.17	67,67,67,67	0
58	MG	1A	3360	1/1	0.87	0.10	45,45,45,45	0
58	MG	1A	3858	1/1	0.87	0.10	27,27,27,27	0
58	MG	2A	3333	1/1	0.87	0.10	75,75,75,75	0
58	MG	1A	3333	1/1	0.87	0.20	43,43,43,43	0
58	MG	1A	3330	1/1	0.87	0.16	53,53,53,53	0
58	MG	2a	1614	1/1	0.87	0.24	65,65,65,65	0
58	MG	2A	3340	1/1	0.87	0.25	76,76,76,76	0
58	MG	2A	3131	1/1	0.87	0.10	63,63,63,63	0
58	MG	2A	3681	1/1	0.87	0.22	67,67,67,67	0
58	MG	1Y	202	1/1	0.87	0.13	61,61,61,61	0
58	MG	2a	1627	1/1	0.87	0.13	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3967	1/1	0.87	0.14	47,47,47,47	0
58	MG	2a	1637	1/1	0.87	0.23	55,55,55,55	0
58	MG	2a	1639	1/1	0.87	0.19	61,61,61,61	0
58	MG	2A	3347	1/1	0.87	0.14	65,65,65,65	0
58	MG	2A	3188	1/1	0.87	0.21	61,61,61,61	0
58	MG	2a	1650	1/1	0.87	0.11	61,61,61,61	0
58	MG	2A	3694	1/1	0.87	0.14	66,66,66,66	0
58	MG	2a	1666	1/1	0.87	0.25	66,66,66,66	0
58	MG	2a	1672	1/1	0.87	0.15	70,70,70,70	0
58	MG	1a	1778	1/1	0.87	0.11	72,72,72,72	0
58	MG	1A	3880	1/1	0.87	0.16	28,28,28,28	0
58	MG	1A	3986	1/1	0.87	0.10	35,35,35,35	0
58	MG	1A	3772	1/1	0.87	0.11	32,32,32,32	0
58	MG	2A	3706	1/1	0.87	0.12	58,58,58,58	0
58	MG	1a	1787	1/1	0.87	0.17	59,59,59,59	0
58	MG	1A	3533	1/1	0.87	0.10	57,57,57,57	0
58	MG	2A	3231	1/1	0.87	0.11	61,61,61,61	0
58	MG	1A	3803	1/1	0.87	0.10	18,18,18,18	0
58	MG	2A	3240	1/1	0.87	0.22	63,63,63,63	0
58	MG	1A	4075	1/1	0.87	0.13	48,48,48,48	0
58	MG	1A	3898	1/1	0.87	0.11	61,61,61,61	0
58	MG	2A	3245	1/1	0.87	0.23	65,65,65,65	0
58	MG	2A	3469	1/1	0.87	0.16	65,65,65,65	0
58	MG	1A	3536	1/1	0.87	0.19	46,46,46,46	0
58	MG	2A	3257	1/1	0.87	0.15	58,58,58,58	0
58	MG	2A	3260	1/1	0.87	0.08	73,73,73,73	0
58	MG	1a	1665	1/1	0.87	0.15	59,59,59,59	0
58	MG	2A	3267	1/1	0.87	0.13	56,56,56,56	0
58	MG	1a	1671	1/1	0.87	0.29	69,69,69,69	0
58	MG	2A	3776	1/1	0.87	0.23	86,86,86,86	0
58	MG	2A	3796	1/1	0.87	0.15	50,50,50,50	0
58	MG	2A	3502	1/1	0.87	0.16	33,33,33,33	0
58	MG	2a	1808	1/1	0.87	0.22	58,58,58,58	0
58	MG	1A	4088	1/1	0.87	0.12	49,49,49,49	0
58	MG	2a	1814	1/1	0.87	0.18	65,65,65,65	0
58	MG	2a	1816	1/1	0.87	0.11	59,59,59,59	0
58	MG	1x	106	1/1	0.87	0.20	68,68,68,68	0
58	MG	2A	3824	1/1	0.87	0.12	59,59,59,59	0
58	MG	1x	107	1/1	0.87	0.12	38,38,38,38	0
58	MG	2A	3288	1/1	0.87	0.20	76,76,76,76	0
58	MG	1a	1683	1/1	0.87	0.24	65,65,65,65	0
58	MG	2A	3536	1/1	0.87	0.12	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2A	3298	1/1	0.87	0.17	63,63,63,63	0
58	MG	2A	3560	1/1	0.87	0.11	47,47,47,47	0
58	MG	2A	3565	1/1	0.87	0.14	57,57,57,57	0
58	MG	1A	3343	1/1	0.87	0.17	49,49,49,49	0
58	MG	2A	3065	1/1	0.87	0.17	58,58,58,58	0
58	MG	1B	211	1/1	0.87	0.09	59,59,59,59	0
58	MG	2B	208	1/1	0.87	0.14	70,70,70,70	0
58	MG	1a	1714	1/1	0.87	0.12	48,48,48,48	0
58	MG	2y	101	1/1	0.87	0.09	78,78,78,78	0
58	MG	1A	3558	1/1	0.88	0.25	39,39,39,39	0
58	MG	25	104	1/1	0.88	0.17	55,55,55,55	0
58	MG	1a	1775	1/1	0.88	0.12	67,67,67,67	0
58	MG	1B	212	1/1	0.88	0.17	55,55,55,55	0
58	MG	1A	3981	1/1	0.88	0.14	71,71,71,71	0
58	MG	1A	3984	1/1	0.88	0.14	25,25,25,25	0
58	MG	2A	3191	1/1	0.88	0.19	65,65,65,65	0
58	MG	2A	3672	1/1	0.88	0.20	61,61,61,61	0
58	MG	1a	1644	1/1	0.88	0.15	72,72,72,72	0
58	MG	2A	3355	1/1	0.88	0.11	53,53,53,53	0
58	MG	2A	3198	1/1	0.88	0.21	59,59,59,59	0
58	MG	2A	3199	1/1	0.88	0.17	65,65,65,65	0
58	MG	2A	3202	1/1	0.88	0.13	66,66,66,66	0
58	MG	2a	1630	1/1	0.88	0.24	65,65,65,65	0
58	MG	1a	1784	1/1	0.88	0.13	45,45,45,45	0
58	MG	1A	3773	1/1	0.88	0.14	43,43,43,43	0
58	MG	1A	3930	1/1	0.88	0.14	48,48,48,48	0
58	MG	1a	1669	1/1	0.88	0.27	64,64,64,64	0
58	MG	2A	3387	1/1	0.88	0.13	61,61,61,61	0
58	MG	2A	3389	1/1	0.88	0.12	69,69,69,69	0
58	MG	2a	1651	1/1	0.88	0.10	60,60,60,60	0
58	MG	1a	1814	1/1	0.88	0.28	64,64,64,64	0
58	MG	1A	3714	1/1	0.88	0.14	44,44,44,44	0
58	MG	2A	3413	1/1	0.88	0.25	51,51,51,51	0
58	MG	2a	1677	1/1	0.88	0.34	70,70,70,70	0
58	MG	2a	1686	1/1	0.88	0.22	77,77,77,77	0
58	MG	1A	4036	1/1	0.88	0.09	36,36,36,36	0
58	MG	1a	1675	1/1	0.88	0.23	73,73,73,73	0
58	MG	2a	1708	1/1	0.88	0.17	71,71,71,71	0
58	MG	1E	311	1/1	0.88	0.12	65,65,65,65	0
58	MG	1w	102	1/1	0.88	0.10	83,83,83,83	0
58	MG	1a	1694	1/1	0.88	0.20	65,65,65,65	0
58	MG	2a	1720	1/1	0.88	0.16	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1E	312	1/1	0.88	0.20	48,48,48,48	0
58	MG	2a	1726	1/1	0.88	0.13	57,57,57,57	0
58	MG	2a	1730	1/1	0.88	0.18	69,69,69,69	0
58	MG	2A	3259	1/1	0.88	0.26	70,70,70,70	0
58	MG	1x	105	1/1	0.88	0.20	65,65,65,65	0
58	MG	1a	1701	1/1	0.88	0.17	60,60,60,60	0
58	MG	1O	205	1/1	0.88	0.14	68,68,68,68	0
58	MG	2A	3764	1/1	0.88	0.17	67,67,67,67	0
58	MG	2A	3275	1/1	0.88	0.13	67,67,67,67	0
58	MG	2a	1758	1/1	0.88	0.22	70,70,70,70	0
58	MG	1a	1710	1/1	0.88	0.11	55,55,55,55	0
58	MG	1A	3792	1/1	0.88	0.09	57,57,57,57	0
58	MG	2A	3283	1/1	0.88	0.22	58,58,58,58	0
58	MG	2a	1780	1/1	0.88	0.17	57,57,57,57	0
58	MG	2A	3790	1/1	0.88	0.13	52,52,52,52	0
58	MG	2A	3053	1/1	0.88	0.13	65,65,65,65	0
58	MG	1a	1719	1/1	0.88	0.14	65,65,65,65	0
58	MG	2A	3073	1/1	0.88	0.13	51,51,51,51	0
58	MG	1V	206	1/1	0.88	0.21	57,57,57,57	0
58	MG	2A	3546	1/1	0.88	0.15	51,51,51,51	0
58	MG	1a	1723	1/1	0.88	0.21	58,58,58,58	0
58	MG	2A	3300	1/1	0.88	0.13	56,56,56,56	0
58	MG	1A	3052	1/1	0.88	0.13	35,35,35,35	0
58	MG	2A	3566	1/1	0.88	0.22	68,68,68,68	0
58	MG	2A	3568	1/1	0.88	0.10	64,64,64,64	0
58	MG	2a	1815	1/1	0.88	0.12	65,65,65,65	0
58	MG	2A	3092	1/1	0.88	0.12	51,51,51,51	0
58	MG	2A	3576	1/1	0.88	0.15	62,62,62,62	0
58	MG	2A	3098	1/1	0.88	0.17	75,75,75,75	0
58	MG	2a	1824	1/1	0.88	0.17	70,70,70,70	0
58	MG	1A	3347	1/1	0.88	0.11	49,49,49,49	0
58	MG	2A	3590	1/1	0.88	0.14	56,56,56,56	0
58	MG	2a	1830	1/1	0.88	0.25	74,74,74,74	0
58	MG	2A	3592	1/1	0.88	0.14	51,51,51,51	0
58	MG	2B	212	1/1	0.88	0.27	69,69,69,69	0
58	MG	2A	3105	1/1	0.88	0.09	60,60,60,60	0
58	MG	1A	3040	1/1	0.88	0.17	61,61,61,61	0
58	MG	1a	1611	1/1	0.88	0.12	69,69,69,69	0
58	MG	1a	1746	1/1	0.88	0.18	67,67,67,67	0
58	MG	1A	3293	1/1	0.88	0.16	47,47,47,47	0
58	MG	2A	3118	1/1	0.88	0.30	62,62,62,62	0
58	MG	2A	3638	1/1	0.88	0.18	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3255	1/1	0.88	0.09	54,54,54,54	0
58	MG	1a	1629	1/1	0.88	0.17	53,53,53,53	0
58	MG	1A	3438	1/1	0.89	0.09	58,58,58,58	0
58	MG	1S	202	1/1	0.89	0.13	49,49,49,49	0
58	MG	1A	3269	1/1	0.89	0.26	70,70,70,70	0
58	MG	2a	1601	1/1	0.89	0.09	60,60,60,60	0
58	MG	2A	3635	1/1	0.89	0.14	52,52,52,52	0
58	MG	1a	1744	1/1	0.89	0.13	60,60,60,60	0
58	MG	1U	211	1/1	0.89	0.29	44,44,44,44	0
58	MG	1A	3778	1/1	0.89	0.08	20,20,20,20	0
58	MG	2A	3335	1/1	0.89	0.13	51,51,51,51	0
58	MG	1A	3591	1/1	0.89	0.24	62,62,62,62	0
58	MG	2A	3157	1/1	0.89	0.19	62,62,62,62	0
58	MG	2A	3166	1/1	0.89	0.14	68,68,68,68	0
58	MG	2a	1622	1/1	0.89	0.29	74,74,74,74	0
58	MG	1A	3121	1/1	0.89	0.17	43,43,43,43	0
58	MG	2A	3177	1/1	0.89	0.13	53,53,53,53	0
58	MG	2A	3668	1/1	0.89	0.11	60,60,60,60	0
58	MG	1A	3630	1/1	0.89	0.14	52,52,52,52	0
58	MG	1A	3824	1/1	0.89	0.09	41,41,41,41	0
58	MG	1a	1613	1/1	0.89	0.13	61,61,61,61	0
58	MG	1A	3642	1/1	0.89	0.09	37,37,37,37	0
58	MG	1a	1623	1/1	0.89	0.11	71,71,71,71	0
58	MG	1A	3835	1/1	0.89	0.11	48,48,48,48	0
58	MG	1A	3836	1/1	0.89	0.10	43,43,43,43	0
58	MG	2A	3373	1/1	0.89	0.18	65,65,65,65	0
58	MG	2a	1653	1/1	0.89	0.11	62,62,62,62	0
58	MG	1A	3473	1/1	0.89	0.12	44,44,44,44	0
58	MG	2a	1665	1/1	0.89	0.09	65,65,65,65	0
58	MG	2A	3382	1/1	0.89	0.09	59,59,59,59	0
58	MG	2a	1670	1/1	0.89	0.28	64,64,64,64	0
58	MG	1a	1800	1/1	0.89	0.08	55,55,55,55	0
58	MG	2A	3205	1/1	0.89	0.14	64,64,64,64	0
58	MG	2a	1681	1/1	0.89	0.18	65,65,65,65	0
58	MG	2a	1685	1/1	0.89	0.23	68,68,68,68	0
58	MG	1A	3474	1/1	0.89	0.15	67,67,67,67	0
58	MG	2a	1695	1/1	0.89	0.10	76,76,76,76	0
58	MG	2A	3403	1/1	0.89	0.17	44,44,44,44	0
58	MG	1A	3483	1/1	0.89	0.11	57,57,57,57	0
58	MG	2a	1707	1/1	0.89	0.28	70,70,70,70	0
58	MG	1a	1637	1/1	0.89	0.13	72,72,72,72	0
58	MG	2A	3221	1/1	0.89	0.23	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3379	1/1	0.89	0.13	57,57,57,57	0
58	MG	2A	3430	1/1	0.89	0.17	57,57,57,57	0
58	MG	2A	3235	1/1	0.89	0.09	56,56,56,56	0
58	MG	1A	3691	1/1	0.89	0.14	59,59,59,59	0
58	MG	2A	3239	1/1	0.89	0.09	51,51,51,51	0
58	MG	1a	1650	1/1	0.89	0.13	67,67,67,67	0
58	MG	2a	1732	1/1	0.89	0.11	82,82,82,82	0
58	MG	1A	3869	1/1	0.89	0.15	36,36,36,36	0
58	MG	1A	3208	1/1	0.89	0.08	58,58,58,58	0
58	MG	2a	1737	1/1	0.89	0.24	63,63,63,63	0
58	MG	1w	104	1/1	0.89	0.15	65,65,65,65	0
58	MG	2A	3487	1/1	0.89	0.14	57,57,57,57	0
58	MG	1A	3505	1/1	0.89	0.15	58,58,58,58	0
58	MG	2A	3255	1/1	0.89	0.16	62,62,62,62	0
58	MG	1A	3718	1/1	0.89	0.07	59,59,59,59	0
58	MG	2a	1761	1/1	0.89	0.13	65,65,65,65	0
58	MG	2A	3784	1/1	0.89	0.09	64,64,64,64	0
58	MG	2a	1764	1/1	0.89	0.06	86,86,86,86	0
58	MG	1A	3307	1/1	0.89	0.12	59,59,59,59	0
58	MG	1A	3256	1/1	0.89	0.10	58,58,58,58	0
58	MG	1a	1680	1/1	0.89	0.19	61,61,61,61	0
58	MG	2A	3804	1/1	0.89	0.14	57,57,57,57	0
58	MG	2A	3813	1/1	0.89	0.12	65,65,65,65	0
58	MG	1x	108	1/1	0.89	0.08	79,79,79,79	0
58	MG	1B	221	1/1	0.89	0.14	58,58,58,58	0
58	MG	1a	1688	1/1	0.89	0.10	63,63,63,63	0
58	MG	2A	3023	1/1	0.89	0.32	70,70,70,70	0
58	MG	2A	3031	1/1	0.89	0.14	62,62,62,62	0
58	MG	2a	1806	1/1	0.89	0.12	70,70,70,70	0
58	MG	2A	3041	1/1	0.89	0.18	60,60,60,60	0
58	MG	1A	3409	1/1	0.89	0.18	46,46,46,46	0
58	MG	2A	3564	1/1	0.89	0.15	51,51,51,51	0
58	MG	1a	1695	1/1	0.89	0.33	64,64,64,64	0
58	MG	2A	3296	1/1	0.89	0.09	52,52,52,52	0
58	MG	2A	3848	1/1	0.89	0.11	55,55,55,55	0
58	MG	1A	3907	1/1	0.89	0.24	27,27,27,27	0
58	MG	2A	3857	1/1	0.89	0.15	55,55,55,55	0
58	MG	2A	3074	1/1	0.89	0.06	52,52,52,52	0
58	MG	2B	205	1/1	0.89	0.11	59,59,59,59	0
58	MG	1A	3751	1/1	0.89	0.20	58,58,58,58	0
58	MG	1A	3232	1/1	0.89	0.16	57,57,57,57	0
58	MG	2d	302	1/1	0.89	0.16	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1B	232	1/1	0.89	0.12	54,54,54,54	0
58	MG	2A	3589	1/1	0.89	0.18	56,56,56,56	0
58	MG	1A	3428	1/1	0.89	0.10	54,54,54,54	0
58	MG	1A	3931	1/1	0.89	0.11	43,43,43,43	0
58	MG	1A	3933	1/1	0.89	0.15	47,47,47,47	0
58	MG	1A	3437	1/1	0.89	0.09	44,44,44,44	0
58	MG	2v	101	1/1	0.89	0.25	73,73,73,73	0
58	MG	1O	202	1/1	0.89	0.18	57,57,57,57	0
58	MG	2v	104	1/1	0.89	0.13	72,72,72,72	0
58	MG	2E	306	1/1	0.89	0.14	55,55,55,55	0
58	MG	2A	3609	1/1	0.89	0.20	74,74,74,74	0
58	MG	2G	201	1/1	0.89	0.21	67,67,67,67	0
58	MG	2A	3612	1/1	0.89	0.19	49,49,49,49	0
58	MG	1a	1815	1/1	0.90	0.33	69,69,69,69	0
58	MG	1A	4008	1/1	0.90	0.10	31,31,31,31	0
58	MG	2A	3508	1/1	0.90	0.16	65,65,65,65	0
58	MG	1A	3705	1/1	0.90	0.10	41,41,41,41	0
58	MG	1A	4022	1/1	0.90	0.13	57,57,57,57	0
58	MG	1A	3430	1/1	0.90	0.10	52,52,52,52	0
58	MG	1A	3865	1/1	0.90	0.13	48,48,48,48	0
58	MG	1a	1651	1/1	0.90	0.12	60,60,60,60	0
58	MG	1a	1659	1/1	0.90	0.11	65,65,65,65	0
58	MG	1A	3867	1/1	0.90	0.15	63,63,63,63	0
58	MG	1a	1661	1/1	0.90	0.16	54,54,54,54	0
58	MG	2E	304	1/1	0.90	0.10	33,33,33,33	0
58	MG	2A	3555	1/1	0.90	0.08	36,36,36,36	0
58	MG	2A	3556	1/1	0.90	0.17	61,61,61,61	0
58	MG	2A	3557	1/1	0.90	0.21	62,62,62,62	0
58	MG	2Q	202	1/1	0.90	0.18	49,49,49,49	0
58	MG	1a	1663	1/1	0.90	0.14	69,69,69,69	0
58	MG	1A	4067	1/1	0.90	0.18	52,52,52,52	0
58	MG	2A	3265	1/1	0.90	0.43	70,70,70,70	0
58	MG	1a	1668	1/1	0.90	0.21	56,56,56,56	0
58	MG	25	106	1/1	0.90	0.10	44,44,44,44	0
58	MG	2A	3272	1/1	0.90	0.13	57,57,57,57	0
58	MG	1A	4074	1/1	0.90	0.16	46,46,46,46	0
58	MG	1A	3431	1/1	0.90	0.12	55,55,55,55	0
58	MG	2A	3279	1/1	0.90	0.16	61,61,61,61	0
58	MG	2A	3004	1/1	0.90	0.25	52,52,52,52	0
58	MG	2a	1612	1/1	0.90	0.16	62,62,62,62	0
58	MG	2A	3005	1/1	0.90	0.22	69,69,69,69	0
58	MG	1A	3871	1/1	0.90	0.21	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3872	1/1	0.90	0.17	33,33,33,33	0
58	MG	2A	3032	1/1	0.90	0.23	59,59,59,59	0
58	MG	2A	3034	1/1	0.90	0.15	51,51,51,51	0
58	MG	1A	3184	1/1	0.90	0.12	74,74,74,74	0
58	MG	2A	3049	1/1	0.90	0.10	56,56,56,56	0
58	MG	1A	3117	1/1	0.90	0.22	31,31,31,31	0
58	MG	1A	3439	1/1	0.90	0.21	41,41,41,41	0
58	MG	2A	3619	1/1	0.90	0.14	40,40,40,40	0
58	MG	2a	1634	1/1	0.90	0.19	75,75,75,75	0
58	MG	2a	1635	1/1	0.90	0.17	57,57,57,57	0
58	MG	2A	3306	1/1	0.90	0.15	64,64,64,64	0
58	MG	2A	3627	1/1	0.90	0.12	49,49,49,49	0
58	MG	2A	3629	1/1	0.90	0.09	48,48,48,48	0
58	MG	2A	3630	1/1	0.90	0.13	57,57,57,57	0
58	MG	2A	3068	1/1	0.90	0.24	67,67,67,67	0
58	MG	1a	1692	1/1	0.90	0.19	49,49,49,49	0
58	MG	2A	3636	1/1	0.90	0.30	61,61,61,61	0
58	MG	2a	1654	1/1	0.90	0.09	64,64,64,64	0
58	MG	2a	1655	1/1	0.90	0.17	69,69,69,69	0
58	MG	1A	3132	1/1	0.90	0.10	44,44,44,44	0
58	MG	2a	1660	1/1	0.90	0.09	41,41,41,41	0
58	MG	2a	1662	1/1	0.90	0.17	80,80,80,80	0
58	MG	2A	3642	1/1	0.90	0.16	77,77,77,77	0
58	MG	2A	3643	1/1	0.90	0.14	60,60,60,60	0
58	MG	1A	3889	1/1	0.90	0.10	36,36,36,36	0
58	MG	1A	3551	1/1	0.90	0.08	57,57,57,57	0
58	MG	2a	1674	1/1	0.90	0.14	60,60,60,60	0
58	MG	1a	1700	1/1	0.90	0.29	62,62,62,62	0
58	MG	2a	1678	1/1	0.90	0.18	59,59,59,59	0
58	MG	2a	1679	1/1	0.90	0.15	76,76,76,76	0
58	MG	2A	3656	1/1	0.90	0.10	48,48,48,48	0
58	MG	1A	3470	1/1	0.90	0.11	57,57,57,57	0
58	MG	2A	3095	1/1	0.90	0.11	53,53,53,53	0
58	MG	2a	1687	1/1	0.90	0.14	71,71,71,71	0
58	MG	1A	3904	1/1	0.90	0.14	43,43,43,43	0
58	MG	1A	3761	1/1	0.90	0.14	59,59,59,59	0
58	MG	1A	3148	1/1	0.90	0.16	42,42,42,42	0
58	MG	1A	3913	1/1	0.90	0.20	43,43,43,43	0
58	MG	2A	3670	1/1	0.90	0.10	57,57,57,57	0
58	MG	1D	313	1/1	0.90	0.12	39,39,39,39	0
58	MG	1A	3562	1/1	0.90	0.30	60,60,60,60	0
58	MG	1A	3928	1/1	0.90	0.08	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2a	1717	1/1	0.90	0.12	67,67,67,67	0
58	MG	2A	3682	1/1	0.90	0.13	47,47,47,47	0
58	MG	2A	3117	1/1	0.90	0.16	53,53,53,53	0
58	MG	1a	1725	1/1	0.90	0.33	73,73,73,73	0
58	MG	1A	3582	1/1	0.90	0.06	36,36,36,36	0
58	MG	1A	3587	1/1	0.90	0.06	23,23,23,23	0
58	MG	2A	3353	1/1	0.90	0.16	63,63,63,63	0
58	MG	1A	3392	1/1	0.90	0.29	42,42,42,42	0
58	MG	1A	3785	1/1	0.90	0.12	34,34,34,34	0
58	MG	2A	3158	1/1	0.90	0.12	67,67,67,67	0
58	MG	1A	3314	1/1	0.90	0.28	54,54,54,54	0
58	MG	2a	1748	1/1	0.90	0.18	63,63,63,63	0
58	MG	2A	3168	1/1	0.90	0.09	73,73,73,73	0
58	MG	1a	1748	1/1	0.90	0.08	56,56,56,56	0
58	MG	2A	3176	1/1	0.90	0.14	52,52,52,52	0
58	MG	1A	3600	1/1	0.90	0.14	48,48,48,48	0
58	MG	2A	3722	1/1	0.90	0.13	58,58,58,58	0
58	MG	2A	3378	1/1	0.90	0.17	62,62,62,62	0
58	MG	2A	3184	1/1	0.90	0.20	65,65,65,65	0
58	MG	1A	3404	1/1	0.90	0.15	50,50,50,50	0
58	MG	2a	1777	1/1	0.90	0.11	74,74,74,74	0
58	MG	2a	1779	1/1	0.90	0.14	70,70,70,70	0
58	MG	2A	3731	1/1	0.90	0.10	66,66,66,66	0
58	MG	2a	1784	1/1	0.90	0.13	50,50,50,50	0
58	MG	1A	3960	1/1	0.90	0.10	34,34,34,34	0
58	MG	2A	3388	1/1	0.90	0.14	61,61,61,61	0
58	MG	1a	1766	1/1	0.90	0.12	61,61,61,61	0
58	MG	1a	1771	1/1	0.90	0.07	51,51,51,51	0
58	MG	1A	3484	1/1	0.90	0.24	47,47,47,47	0
58	MG	2A	3197	1/1	0.90	0.17	61,61,61,61	0
58	MG	1A	3962	1/1	0.90	0.07	19,19,19,19	0
58	MG	2A	3422	1/1	0.90	0.15	54,54,54,54	0
58	MG	2A	3425	1/1	0.90	0.13	40,40,40,40	0
58	MG	1A	3353	1/1	0.90	0.16	59,59,59,59	0
58	MG	2A	3200	1/1	0.90	0.14	57,57,57,57	0
58	MG	1A	3495	1/1	0.90	0.13	39,39,39,39	0
58	MG	2A	3786	1/1	0.90	0.15	76,76,76,76	0
58	MG	2A	3434	1/1	0.90	0.23	63,63,63,63	0
58	MG	2A	3436	1/1	0.90	0.24	59,59,59,59	0
58	MG	2A	3438	1/1	0.90	0.21	49,49,49,49	0
58	MG	2A	3441	1/1	0.90	0.12	58,58,58,58	0
58	MG	1A	3502	1/1	0.90	0.09	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2A	3456	1/1	0.90	0.16	56,56,56,56	0
58	MG	2A	3461	1/1	0.90	0.11	46,46,46,46	0
58	MG	2A	3465	1/1	0.90	0.08	57,57,57,57	0
58	MG	2e	201	1/1	0.90	0.13	73,73,73,73	0
58	MG	1A	3323	1/1	0.90	0.18	49,49,49,49	0
58	MG	2k	201	1/1	0.90	0.14	67,67,67,67	0
58	MG	1A	3689	1/1	0.90	0.08	38,38,38,38	0
58	MG	1a	1628	1/1	0.90	0.18	61,61,61,61	0
58	MG	2A	3836	1/1	0.90	0.14	58,58,58,58	0
58	MG	2A	3837	1/1	0.90	0.13	60,60,60,60	0
58	MG	1A	3158	1/1	0.90	0.14	70,70,70,70	0
58	MG	1A	3991	1/1	0.90	0.09	45,45,45,45	0
58	MG	2A	3229	1/1	0.90	0.20	64,64,64,64	0
58	MG	1a	1632	1/1	0.90	0.36	63,63,63,63	0
58	MG	2A	3491	1/1	0.90	0.13	59,59,59,59	0
58	MG	2A	3849	1/1	0.90	0.14	54,54,54,54	0
58	MG	2A	3492	1/1	0.90	0.17	73,73,73,73	0
58	MG	1A	4001	1/1	0.90	0.15	80,80,80,80	0
58	MG	1a	1642	1/1	0.91	0.16	57,57,57,57	0
58	MG	1A	4068	1/1	0.91	0.10	44,44,44,44	0
58	MG	2A	3852	1/1	0.91	0.07	67,67,67,67	0
58	MG	2A	3855	1/1	0.91	0.17	61,61,61,61	0
58	MG	2A	3232	1/1	0.91	0.14	52,52,52,52	0
58	MG	2A	3234	1/1	0.91	0.14	55,55,55,55	0
58	MG	1a	1646	1/1	0.91	0.15	52,52,52,52	0
58	MG	1m	3002	1/1	0.91	0.20	55,55,55,55	0
58	MG	2A	3500	1/1	0.91	0.13	36,36,36,36	0
58	MG	1A	3472	1/1	0.91	0.13	52,52,52,52	0
58	MG	1A	3407	1/1	0.91	0.18	37,37,37,37	0
58	MG	1w	103	1/1	0.91	0.15	69,69,69,69	0
58	MG	1A	4077	1/1	0.91	0.10	49,49,49,49	0
58	MG	1A	3882	1/1	0.91	0.07	26,26,26,26	0
58	MG	2A	3524	1/1	0.91	0.13	43,43,43,43	0
58	MG	2A	3525	1/1	0.91	0.18	58,58,58,58	0
58	MG	1A	3884	1/1	0.91	0.15	60,60,60,60	0
58	MG	2A	3252	1/1	0.91	0.10	63,63,63,63	0
58	MG	1A	3747	1/1	0.91	0.09	13,13,13,13	0
58	MG	2A	3543	1/1	0.91	0.15	36,36,36,36	0
58	MG	1A	3408	1/1	0.91	0.17	49,49,49,49	0
58	MG	2P	202	1/1	0.91	0.12	48,48,48,48	0
58	MG	1B	202	1/1	0.91	0.12	50,50,50,50	0
58	MG	2T	201	1/1	0.91	0.10	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2V	202	1/1	0.91	0.09	61,61,61,61	0
58	MG	1A	3144	1/1	0.91	0.07	36,36,36,36	0
58	MG	2A	3261	1/1	0.91	0.12	59,59,59,59	0
58	MG	23	102	1/1	0.91	0.10	62,62,62,62	0
58	MG	2A	3262	1/1	0.91	0.09	66,66,66,66	0
58	MG	2A	3559	1/1	0.91	0.13	64,64,64,64	0
58	MG	1A	3756	1/1	0.91	0.07	62,62,62,62	0
58	MG	1A	3411	1/1	0.91	0.10	40,40,40,40	0
58	MG	2a	1604	1/1	0.91	0.21	60,60,60,60	0
58	MG	1A	3251	1/1	0.91	0.07	63,63,63,63	0
58	MG	2A	3269	1/1	0.91	0.07	53,53,53,53	0
58	MG	1a	1676	1/1	0.91	0.10	57,57,57,57	0
58	MG	2A	3008	1/1	0.91	0.27	63,63,63,63	0
58	MG	2A	3276	1/1	0.91	0.12	57,57,57,57	0
58	MG	2A	3013	1/1	0.91	0.11	51,51,51,51	0
58	MG	2A	3581	1/1	0.91	0.14	56,56,56,56	0
58	MG	2a	1617	1/1	0.91	0.15	64,64,64,64	0
58	MG	2A	3584	1/1	0.91	0.19	61,61,61,61	0
58	MG	2A	3016	1/1	0.91	0.21	60,60,60,60	0
58	MG	2A	3020	1/1	0.91	0.18	60,60,60,60	0
58	MG	1A	3326	1/1	0.91	0.17	48,48,48,48	0
58	MG	1a	1682	1/1	0.91	0.09	58,58,58,58	0
58	MG	1A	3604	1/1	0.91	0.13	36,36,36,36	0
58	MG	2A	3603	1/1	0.91	0.13	36,36,36,36	0
58	MG	2A	3287	1/1	0.91	0.08	72,72,72,72	0
58	MG	1a	1685	1/1	0.91	0.14	54,54,54,54	0
58	MG	1a	1687	1/1	0.91	0.15	70,70,70,70	0
58	MG	2A	3044	1/1	0.91	0.13	61,61,61,61	0
58	MG	1A	3609	1/1	0.91	0.08	46,46,46,46	0
58	MG	2a	1640	1/1	0.91	0.17	70,70,70,70	0
58	MG	1A	3614	1/1	0.91	0.08	27,27,27,27	0
58	MG	2a	1642	1/1	0.91	0.24	65,65,65,65	0
58	MG	2A	3056	1/1	0.91	0.28	71,71,71,71	0
58	MG	2a	1648	1/1	0.91	0.12	60,60,60,60	0
58	MG	2a	1649	1/1	0.91	0.12	74,74,74,74	0
58	MG	1A	3062	1/1	0.91	0.16	60,60,60,60	0
58	MG	2A	3628	1/1	0.91	0.15	61,61,61,61	0
58	MG	2a	1652	1/1	0.91	0.27	64,64,64,64	0
58	MG	1A	3635	1/1	0.91	0.06	21,21,21,21	0
58	MG	2A	3309	1/1	0.91	0.09	45,45,45,45	0
58	MG	2A	3072	1/1	0.91	0.10	53,53,53,53	0
58	MG	2A	3318	1/1	0.91	0.14	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2a	1659	1/1	0.91	0.15	59,59,59,59	0
58	MG	1a	1697	1/1	0.91	0.19	51,51,51,51	0
58	MG	1E	305	1/1	0.91	0.23	50,50,50,50	0
58	MG	1A	3287	1/1	0.91	0.18	46,46,46,46	0
58	MG	2A	3086	1/1	0.91	0.14	54,54,54,54	0
58	MG	1A	3804	1/1	0.91	0.08	32,32,32,32	0
58	MG	1A	3332	1/1	0.91	0.12	45,45,45,45	0
58	MG	2a	1673	1/1	0.91	0.09	69,69,69,69	0
58	MG	1A	3815	1/1	0.91	0.07	31,31,31,31	0
58	MG	2A	3653	1/1	0.91	0.12	67,67,67,67	0
58	MG	2A	3655	1/1	0.91	0.20	62,62,62,62	0
58	MG	1a	1712	1/1	0.91	0.25	58,58,58,58	0
58	MG	2A	3097	1/1	0.91	0.09	59,59,59,59	0
58	MG	1A	3157	1/1	0.91	0.10	35,35,35,35	0
58	MG	1a	1715	1/1	0.91	0.18	55,55,55,55	0
58	MG	1A	3388	1/1	0.91	0.20	29,29,29,29	0
58	MG	2a	1688	1/1	0.91	0.15	61,61,61,61	0
58	MG	2A	3666	1/1	0.91	0.11	45,45,45,45	0
58	MG	1A	3830	1/1	0.91	0.07	42,42,42,42	0
58	MG	2a	1702	1/1	0.91	0.22	54,54,54,54	0
58	MG	1A	3660	1/1	0.91	0.12	41,41,41,41	0
58	MG	1A	3671	1/1	0.91	0.11	27,27,27,27	0
58	MG	1A	3448	1/1	0.91	0.22	48,48,48,48	0
58	MG	1Z	301	1/1	0.91	0.08	50,50,50,50	0
58	MG	2A	3349	1/1	0.91	0.18	54,54,54,54	0
58	MG	2A	3352	1/1	0.91	0.12	58,58,58,58	0
58	MG	2A	3683	1/1	0.91	0.18	56,56,56,56	0
58	MG	1Z	302	1/1	0.91	0.08	61,61,61,61	0
58	MG	10	107	1/1	0.91	0.09	47,47,47,47	0
58	MG	2A	3123	1/1	0.91	0.23	69,69,69,69	0
58	MG	2A	3364	1/1	0.91	0.15	54,54,54,54	0
58	MG	11	101	1/1	0.91	0.32	41,41,41,41	0
58	MG	2A	3698	1/1	0.91	0.12	39,39,39,39	0
58	MG	1A	3839	1/1	0.91	0.08	40,40,40,40	0
58	MG	2A	3144	1/1	0.91	0.26	65,65,65,65	0
58	MG	2A	3148	1/1	0.91	0.11	60,60,60,60	0
58	MG	1A	3687	1/1	0.91	0.13	56,56,56,56	0
58	MG	16	101	1/1	0.91	0.11	59,59,59,59	0
58	MG	2A	3163	1/1	0.91	0.36	63,63,63,63	0
58	MG	2a	1753	1/1	0.91	0.17	77,77,77,77	0
58	MG	2A	3379	1/1	0.91	0.12	55,55,55,55	0
58	MG	1a	1754	1/1	0.91	0.08	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1a	1602	1/1	0.91	0.40	68,68,68,68	0
58	MG	1a	1763	1/1	0.91	0.19	60,60,60,60	0
58	MG	2A	3173	1/1	0.91	0.13	57,57,57,57	0
58	MG	2a	1765	1/1	0.91	0.11	55,55,55,55	0
58	MG	2a	1767	1/1	0.91	0.18	69,69,69,69	0
58	MG	2a	1769	1/1	0.91	0.08	36,36,36,36	0
58	MG	1a	1604	1/1	0.91	0.11	64,64,64,64	0
58	MG	2A	3392	1/1	0.91	0.13	61,61,61,61	0
58	MG	1A	3522	1/1	0.91	0.10	49,49,49,49	0
58	MG	2A	3409	1/1	0.91	0.17	51,51,51,51	0
58	MG	1a	1768	1/1	0.91	0.08	52,52,52,52	0
58	MG	2a	1783	1/1	0.91	0.10	71,71,71,71	0
58	MG	2A	3746	1/1	0.91	0.12	51,51,51,51	0
58	MG	1A	3026	1/1	0.91	0.14	51,51,51,51	0
58	MG	2A	3187	1/1	0.91	0.10	70,70,70,70	0
58	MG	2A	3419	1/1	0.91	0.12	63,63,63,63	0
58	MG	2a	1794	1/1	0.91	0.20	60,60,60,60	0
58	MG	1A	3702	1/1	0.91	0.10	31,31,31,31	0
58	MG	1A	3468	1/1	0.91	0.09	49,49,49,49	0
58	MG	1A	3469	1/1	0.91	0.21	51,51,51,51	0
58	MG	2A	3771	1/1	0.91	0.12	45,45,45,45	0
58	MG	1a	1625	1/1	0.91	0.09	39,39,39,39	0
58	MG	2A	3774	1/1	0.91	0.12	59,59,59,59	0
58	MG	2A	3775	1/1	0.91	0.13	72,72,72,72	0
58	MG	1A	3544	1/1	0.91	0.29	66,66,66,66	0
58	MG	2a	1811	1/1	0.91	0.16	69,69,69,69	0
58	MG	2a	1812	1/1	0.91	0.26	54,54,54,54	0
58	MG	2A	3780	1/1	0.91	0.12	55,55,55,55	0
58	MG	2A	3432	1/1	0.91	0.24	52,52,52,52	0
58	MG	1A	3309	1/1	0.91	0.11	55,55,55,55	0
58	MG	2A	3789	1/1	0.91	0.08	45,45,45,45	0
58	MG	1a	1783	1/1	0.91	0.12	68,68,68,68	0
58	MG	2a	1821	1/1	0.91	0.20	67,67,67,67	0
58	MG	2A	3795	1/1	0.91	0.12	70,70,70,70	0
58	MG	1A	4033	1/1	0.91	0.11	60,60,60,60	0
58	MG	1A	3721	1/1	0.91	0.10	52,52,52,52	0
58	MG	1A	3873	1/1	0.91	0.07	30,30,30,30	0
58	MG	2A	3446	1/1	0.91	0.15	53,53,53,53	0
58	MG	2A	3452	1/1	0.91	0.12	57,57,57,57	0
58	MG	2e	202	1/1	0.91	0.21	59,59,59,59	0
58	MG	2g	201	1/1	0.91	0.17	68,68,68,68	0
58	MG	1A	3875	1/1	0.91	0.35	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2A	3821	1/1	0.91	0.08	56,56,56,56	0
58	MG	1a	1804	1/1	0.91	0.09	47,47,47,47	0
58	MG	2A	3827	1/1	0.91	0.10	57,57,57,57	0
58	MG	2A	3463	1/1	0.91	0.13	70,70,70,70	0
58	MG	2A	3464	1/1	0.91	0.13	41,41,41,41	0
58	MG	2A	3209	1/1	0.91	0.12	59,59,59,59	0
58	MG	2q	202	1/1	0.91	0.10	73,73,73,73	0
58	MG	1A	4047	1/1	0.91	0.12	48,48,48,48	0
58	MG	2A	3212	1/1	0.91	0.13	51,51,51,51	0
58	MG	2A	3838	1/1	0.91	0.09	50,50,50,50	0
58	MG	1a	1638	1/1	0.91	0.13	39,39,39,39	0
58	MG	2A	3219	1/1	0.91	0.12	46,46,46,46	0
58	MG	2x	103	1/1	0.91	0.10	69,69,69,69	0
58	MG	1A	3261	1/1	0.91	0.21	64,64,64,64	0
58	MG	2A	3483	1/1	0.91	0.24	66,66,66,66	0
60	ERY	2A	3859	51/51	0.91	0.16	44,61,72,79	0
58	MG	2A	3529	1/1	0.92	0.10	33,33,33,33	0
58	MG	1A	3539	1/1	0.92	0.19	44,44,44,44	0
58	MG	2A	3266	1/1	0.92	0.07	54,54,54,54	0
58	MG	2B	217	1/1	0.92	0.06	49,49,49,49	0
58	MG	2A	3534	1/1	0.92	0.13	36,36,36,36	0
58	MG	1A	4079	1/1	0.92	0.10	42,42,42,42	0
58	MG	2D	304	1/1	0.92	0.11	48,48,48,48	0
58	MG	1A	3874	1/1	0.92	0.22	37,37,37,37	0
58	MG	1A	4083	1/1	0.92	0.15	47,47,47,47	0
58	MG	1A	3356	1/1	0.92	0.10	60,60,60,60	0
58	MG	1A	3168	1/1	0.92	0.11	32,32,32,32	0
58	MG	1a	1679	1/1	0.92	0.17	49,49,49,49	0
58	MG	2O	202	1/1	0.92	0.18	58,58,58,58	0
58	MG	1A	3719	1/1	0.92	0.17	56,56,56,56	0
58	MG	1A	4099	1/1	0.92	0.21	60,60,60,60	0
58	MG	2A	3282	1/1	0.92	0.17	62,62,62,62	0
58	MG	2A	3561	1/1	0.92	0.13	46,46,46,46	0
58	MG	1A	3549	1/1	0.92	0.12	65,65,65,65	0
58	MG	20	101	1/1	0.92	0.13	53,53,53,53	0
58	MG	20	102	1/1	0.92	0.12	59,59,59,59	0
58	MG	1B	203	1/1	0.92	0.07	29,29,29,29	0
58	MG	2A	3052	1/1	0.92	0.17	62,62,62,62	0
58	MG	1a	1686	1/1	0.92	0.22	64,64,64,64	0
58	MG	1B	208	1/1	0.92	0.14	50,50,50,50	0
58	MG	2A	3295	1/1	0.92	0.14	49,49,49,49	0
58	MG	28	103	1/1	0.92	0.08	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2A	3060	1/1	0.92	0.20	59,59,59,59	0
58	MG	2a	1602	1/1	0.92	0.16	68,68,68,68	0
58	MG	2A	3062	1/1	0.92	0.12	62,62,62,62	0
58	MG	2A	3064	1/1	0.92	0.10	43,43,43,43	0
58	MG	2a	1606	1/1	0.92	0.18	53,53,53,53	0
58	MG	1B	209	1/1	0.92	0.14	66,66,66,66	0
58	MG	2A	3587	1/1	0.92	0.17	64,64,64,64	0
58	MG	2A	3588	1/1	0.92	0.12	48,48,48,48	0
58	MG	2A	3301	1/1	0.92	0.12	56,56,56,56	0
58	MG	2A	3304	1/1	0.92	0.22	63,63,63,63	0
58	MG	2A	3066	1/1	0.92	0.15	56,56,56,56	0
58	MG	2a	1616	1/1	0.92	0.13	62,62,62,62	0
58	MG	2A	3596	1/1	0.92	0.13	59,59,59,59	0
58	MG	2A	3597	1/1	0.92	0.07	29,29,29,29	0
58	MG	1A	3723	1/1	0.92	0.10	56,56,56,56	0
58	MG	2A	3600	1/1	0.92	0.10	53,53,53,53	0
58	MG	2A	3602	1/1	0.92	0.09	39,39,39,39	0
58	MG	2a	1624	1/1	0.92	0.14	60,60,60,60	0
58	MG	2A	3307	1/1	0.92	0.08	39,39,39,39	0
58	MG	2A	3069	1/1	0.92	0.08	48,48,48,48	0
58	MG	1A	3550	1/1	0.92	0.07	61,61,61,61	0
58	MG	2a	1631	1/1	0.92	0.06	74,74,74,74	0
58	MG	1A	3137	1/1	0.92	0.23	39,39,39,39	0
58	MG	2A	3314	1/1	0.92	0.29	61,61,61,61	0
58	MG	2A	3317	1/1	0.92	0.09	47,47,47,47	0
58	MG	2a	1636	1/1	0.92	0.33	63,63,63,63	0
58	MG	1A	3311	1/1	0.92	0.23	51,51,51,51	0
58	MG	1A	3455	1/1	0.92	0.17	64,64,64,64	0
58	MG	1a	1699	1/1	0.92	0.15	51,51,51,51	0
58	MG	2A	3088	1/1	0.92	0.15	63,63,63,63	0
58	MG	1A	3896	1/1	0.92	0.09	23,23,23,23	0
58	MG	1A	3897	1/1	0.92	0.10	68,68,68,68	0
58	MG	2a	1647	1/1	0.92	0.27	64,64,64,64	0
58	MG	1A	3196	1/1	0.92	0.27	54,54,54,54	0
58	MG	1A	3899	1/1	0.92	0.18	36,36,36,36	0
58	MG	1A	3197	1/1	0.92	0.10	40,40,40,40	0
58	MG	1A	3199	1/1	0.92	0.10	38,38,38,38	0
58	MG	2A	3639	1/1	0.92	0.22	67,67,67,67	0
58	MG	2A	3101	1/1	0.92	0.23	60,60,60,60	0
58	MG	1A	3589	1/1	0.92	0.12	43,43,43,43	0
58	MG	1a	1718	1/1	0.92	0.10	58,58,58,58	0
58	MG	1A	3762	1/1	0.92	0.12	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2A	3341	1/1	0.92	0.17	59,59,59,59	0
58	MG	2A	3342	1/1	0.92	0.24	55,55,55,55	0
58	MG	2A	3343	1/1	0.92	0.10	62,62,62,62	0
58	MG	1A	3917	1/1	0.92	0.09	24,24,24,24	0
58	MG	1a	1722	1/1	0.92	0.12	47,47,47,47	0
58	MG	1F	312	1/1	0.92	0.09	50,50,50,50	0
58	MG	1G	203	1/1	0.92	0.06	64,64,64,64	0
58	MG	1N	201	1/1	0.92	0.07	43,43,43,43	0
58	MG	2A	3351	1/1	0.92	0.11	63,63,63,63	0
58	MG	1a	1732	1/1	0.92	0.09	52,52,52,52	0
58	MG	1A	3918	1/1	0.92	0.10	37,37,37,37	0
58	MG	1A	3765	1/1	0.92	0.15	45,45,45,45	0
58	MG	2A	3360	1/1	0.92	0.14	60,60,60,60	0
58	MG	2A	3361	1/1	0.92	0.17	62,62,62,62	0
58	MG	1Q	201	1/1	0.92	0.30	40,40,40,40	0
58	MG	2A	3138	1/1	0.92	0.20	62,62,62,62	0
58	MG	1Q	208	1/1	0.92	0.11	35,35,35,35	0
58	MG	1a	1745	1/1	0.92	0.13	69,69,69,69	0
58	MG	1A	3018	1/1	0.92	0.14	24,24,24,24	0
58	MG	1A	3593	1/1	0.92	0.20	64,64,64,64	0
58	MG	2A	3160	1/1	0.92	0.20	68,68,68,68	0
58	MG	1U	204	1/1	0.92	0.18	39,39,39,39	0
58	MG	1A	3597	1/1	0.92	0.23	61,61,61,61	0
58	MG	1A	3774	1/1	0.92	0.14	39,39,39,39	0
58	MG	1a	1762	1/1	0.92	0.09	43,43,43,43	0
58	MG	1A	3938	1/1	0.92	0.09	50,50,50,50	0
58	MG	2A	3386	1/1	0.92	0.10	64,64,64,64	0
58	MG	1A	3066	1/1	0.92	0.15	52,52,52,52	0
58	MG	1A	3207	1/1	0.92	0.07	52,52,52,52	0
58	MG	2a	1725	1/1	0.92	0.15	67,67,67,67	0
58	MG	2A	3715	1/1	0.92	0.20	62,62,62,62	0
58	MG	2A	3179	1/1	0.92	0.15	50,50,50,50	0
58	MG	2A	3390	1/1	0.92	0.18	62,62,62,62	0
58	MG	1A	3401	1/1	0.92	0.12	57,57,57,57	0
58	MG	2A	3397	1/1	0.92	0.15	55,55,55,55	0
58	MG	2A	3399	1/1	0.92	0.10	34,34,34,34	0
58	MG	1A	3403	1/1	0.92	0.10	39,39,39,39	0
58	MG	2A	3406	1/1	0.92	0.21	46,46,46,46	0
58	MG	2a	1743	1/1	0.92	0.26	58,58,58,58	0
58	MG	1A	3956	1/1	0.92	0.08	60,60,60,60	0
58	MG	2a	1749	1/1	0.92	0.14	60,60,60,60	0
58	MG	2a	1750	1/1	0.92	0.12	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3957	1/1	0.92	0.09	44,44,44,44	0
58	MG	2A	3736	1/1	0.92	0.07	41,41,41,41	0
58	MG	2A	3742	1/1	0.92	0.13	65,65,65,65	0
58	MG	2a	1757	1/1	0.92	0.14	68,68,68,68	0
58	MG	1A	3799	1/1	0.92	0.17	53,53,53,53	0
58	MG	1A	3802	1/1	0.92	0.07	26,26,26,26	0
58	MG	1A	3613	1/1	0.92	0.08	40,40,40,40	0
58	MG	2A	3420	1/1	0.92	0.12	50,50,50,50	0
58	MG	2A	3752	1/1	0.92	0.09	60,60,60,60	0
58	MG	2A	3194	1/1	0.92	0.20	62,62,62,62	0
58	MG	2A	3423	1/1	0.92	0.12	60,60,60,60	0
58	MG	2A	3766	1/1	0.92	0.16	55,55,55,55	0
58	MG	2A	3196	1/1	0.92	0.35	61,61,61,61	0
58	MG	1a	1607	1/1	0.92	0.21	58,58,58,58	0
58	MG	1A	3286	1/1	0.92	0.08	47,47,47,47	0
58	MG	1A	3069	1/1	0.92	0.12	50,50,50,50	0
58	MG	2a	1782	1/1	0.92	0.17	72,72,72,72	0
58	MG	1A	3972	1/1	0.92	0.11	71,71,71,71	0
58	MG	1a	1792	1/1	0.92	0.10	63,63,63,63	0
58	MG	1a	1793	1/1	0.92	0.09	66,66,66,66	0
58	MG	2A	3779	1/1	0.92	0.13	56,56,56,56	0
58	MG	1a	1799	1/1	0.92	0.18	61,61,61,61	0
58	MG	1A	3335	1/1	0.92	0.17	52,52,52,52	0
58	MG	1A	3336	1/1	0.92	0.07	44,44,44,44	0
58	MG	2A	3788	1/1	0.92	0.10	72,72,72,72	0
58	MG	2A	3210	1/1	0.92	0.20	69,69,69,69	0
58	MG	2A	3448	1/1	0.92	0.11	51,51,51,51	0
58	MG	1A	3341	1/1	0.92	0.12	41,41,41,41	0
58	MG	1a	1626	1/1	0.92	0.21	46,46,46,46	0
58	MG	2A	3457	1/1	0.92	0.12	48,48,48,48	0
58	MG	2A	3458	1/1	0.92	0.14	59,59,59,59	0
58	MG	2A	3214	1/1	0.92	0.21	48,48,48,48	0
58	MG	2A	3814	1/1	0.92	0.10	45,45,45,45	0
58	MG	2A	3462	1/1	0.92	0.23	56,56,56,56	0
58	MG	1A	3009	1/1	0.92	0.08	24,24,24,24	0
58	MG	1A	3419	1/1	0.92	0.18	59,59,59,59	0
58	MG	2a	1818	1/1	0.92	0.20	66,66,66,66	0
58	MG	1A	3654	1/1	0.92	0.07	59,59,59,59	0
58	MG	1a	1631	1/1	0.92	0.27	62,62,62,62	0
58	MG	1A	4003	1/1	0.92	0.07	70,70,70,70	0
58	MG	2a	1823	1/1	0.92	0.15	57,57,57,57	0
58	MG	1A	3423	1/1	0.92	0.19	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	4016	1/1	0.92	0.08	69,69,69,69	0
58	MG	1A	3665	1/1	0.92	0.07	21,21,21,21	0
58	MG	1A	3667	1/1	0.92	0.06	24,24,24,24	0
58	MG	1A	4027	1/1	0.92	0.13	51,51,51,51	0
58	MG	1A	3848	1/1	0.92	0.20	46,46,46,46	0
58	MG	1A	3427	1/1	0.92	0.13	48,48,48,48	0
58	MG	1x	101	1/1	0.92	0.28	62,62,62,62	0
58	MG	2j	201	1/1	0.92	0.10	63,63,63,63	0
58	MG	1x	103	1/1	0.92	0.16	57,57,57,57	0
58	MG	1A	3295	1/1	0.92	0.16	41,41,41,41	0
58	MG	2A	3496	1/1	0.92	0.08	52,52,52,52	0
58	MG	1A	3429	1/1	0.92	0.13	57,57,57,57	0
58	MG	1A	4043	1/1	0.92	0.14	36,36,36,36	0
58	MG	1A	3524	1/1	0.92	0.11	65,65,65,65	0
58	MG	1A	3527	1/1	0.92	0.11	61,61,61,61	0
58	MG	2A	3858	1/1	0.92	0.12	61,61,61,61	0
58	MG	2t	201	1/1	0.92	0.13	37,37,37,37	0
58	MG	2B	202	1/1	0.92	0.09	67,67,67,67	0
58	MG	1x	111	1/1	0.92	0.21	58,58,58,58	0
58	MG	2B	204	1/1	0.92	0.11	64,64,64,64	0
58	MG	1A	3696	1/1	0.92	0.06	15,15,15,15	0
58	MG	2A	3521	1/1	0.92	0.09	57,57,57,57	0
58	MG	2x	102	1/1	0.92	0.18	62,62,62,62	0
58	MG	2B	207	1/1	0.92	0.09	65,65,65,65	0
58	MG	1A	3350	1/1	0.92	0.16	41,41,41,41	0
58	MG	2B	209	1/1	0.92	0.17	61,61,61,61	0
58	MG	1A	3247	1/1	0.92	0.20	59,59,59,59	0
58	MG	1B	204	1/1	0.93	0.14	55,55,55,55	0
58	MG	1A	3906	1/1	0.93	0.10	42,42,42,42	0
58	MG	1a	1672	1/1	0.93	0.08	48,48,48,48	0
58	MG	1A	3362	1/1	0.93	0.07	38,38,38,38	0
58	MG	2A	3024	1/1	0.93	0.16	57,57,57,57	0
58	MG	2A	3028	1/1	0.93	0.09	49,49,49,49	0
58	MG	2F	301	1/1	0.93	0.13	56,56,56,56	0
58	MG	1a	1674	1/1	0.93	0.34	58,58,58,58	0
58	MG	1A	3908	1/1	0.93	0.15	57,57,57,57	0
58	MG	1A	3364	1/1	0.93	0.12	41,41,41,41	0
58	MG	2P	201	1/1	0.93	0.09	50,50,50,50	0
58	MG	1A	3602	1/1	0.93	0.06	32,32,32,32	0
58	MG	1A	3084	1/1	0.93	0.18	36,36,36,36	0
58	MG	2A	3045	1/1	0.93	0.08	47,47,47,47	0
58	MG	2V	201	1/1	0.93	0.29	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2A	3046	1/1	0.93	0.08	72,72,72,72	0
58	MG	2A	3048	1/1	0.93	0.15	57,57,57,57	0
58	MG	2W	203	1/1	0.93	0.10	51,51,51,51	0
58	MG	2A	3302	1/1	0.93	0.14	56,56,56,56	0
58	MG	2A	3303	1/1	0.93	0.15	56,56,56,56	0
58	MG	1a	1681	1/1	0.93	0.25	50,50,50,50	0
58	MG	1A	3605	1/1	0.93	0.13	50,50,50,50	0
58	MG	1A	3145	1/1	0.93	0.11	32,32,32,32	0
58	MG	2A	3054	1/1	0.93	0.17	66,66,66,66	0
58	MG	2A	3591	1/1	0.93	0.11	61,61,61,61	0
58	MG	28	102	1/1	0.93	0.11	49,49,49,49	0
58	MG	1a	1684	1/1	0.93	0.06	43,43,43,43	0
58	MG	1A	3610	1/1	0.93	0.10	18,18,18,18	0
58	MG	1A	3507	1/1	0.93	0.11	40,40,40,40	0
58	MG	2A	3313	1/1	0.93	0.10	55,55,55,55	0
58	MG	1A	3381	1/1	0.93	0.22	44,44,44,44	0
58	MG	2A	3316	1/1	0.93	0.10	63,63,63,63	0
58	MG	1A	3302	1/1	0.93	0.06	27,27,27,27	0
58	MG	1A	3433	1/1	0.93	0.10	35,35,35,35	0
58	MG	1A	3636	1/1	0.93	0.07	30,30,30,30	0
58	MG	1E	310	1/1	0.93	0.10	26,26,26,26	0
58	MG	1a	1696	1/1	0.93	0.18	41,41,41,41	0
58	MG	2A	3326	1/1	0.93	0.17	70,70,70,70	0
58	MG	2a	1615	1/1	0.93	0.16	52,52,52,52	0
58	MG	1A	3795	1/1	0.93	0.06	24,24,24,24	0
58	MG	2A	3624	1/1	0.93	0.17	61,61,61,61	0
58	MG	2A	3328	1/1	0.93	0.11	53,53,53,53	0
58	MG	2a	1619	1/1	0.93	0.14	70,70,70,70	0
58	MG	1A	3950	1/1	0.93	0.07	77,77,77,77	0
58	MG	1A	3384	1/1	0.93	0.06	40,40,40,40	0
58	MG	1A	3053	1/1	0.93	0.07	40,40,40,40	0
58	MG	1I	201	1/1	0.93	0.18	65,65,65,65	0
58	MG	2A	3632	1/1	0.93	0.20	63,63,63,63	0
58	MG	1a	1702	1/1	0.93	0.23	49,49,49,49	0
58	MG	2a	1629	1/1	0.93	0.18	65,65,65,65	0
58	MG	1a	1704	1/1	0.93	0.11	46,46,46,46	0
58	MG	1A	3525	1/1	0.93	0.07	57,57,57,57	0
58	MG	2A	3093	1/1	0.93	0.07	37,37,37,37	0
58	MG	1a	1708	1/1	0.93	0.15	62,62,62,62	0
58	MG	1O	201	1/1	0.93	0.07	59,59,59,59	0
58	MG	1a	1711	1/1	0.93	0.16	62,62,62,62	0
58	MG	1A	3526	1/1	0.93	0.07	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1O	203	1/1	0.93	0.09	53,53,53,53	0
58	MG	2A	3104	1/1	0.93	0.14	36,36,36,36	0
58	MG	1A	3652	1/1	0.93	0.06	25,25,25,25	0
58	MG	1A	3204	1/1	0.93	0.06	28,28,28,28	0
58	MG	2a	1644	1/1	0.93	0.19	52,52,52,52	0
58	MG	1A	3821	1/1	0.93	0.13	44,44,44,44	0
58	MG	2A	3657	1/1	0.93	0.08	58,58,58,58	0
58	MG	1R	203	1/1	0.93	0.09	40,40,40,40	0
58	MG	2A	3661	1/1	0.93	0.11	57,57,57,57	0
58	MG	2A	3662	1/1	0.93	0.10	56,56,56,56	0
58	MG	1A	3657	1/1	0.93	0.11	45,45,45,45	0
58	MG	1S	203	1/1	0.93	0.08	66,66,66,66	0
58	MG	1A	3966	1/1	0.93	0.07	21,21,21,21	0
58	MG	2A	3358	1/1	0.93	0.14	62,62,62,62	0
58	MG	2A	3120	1/1	0.93	0.15	40,40,40,40	0
58	MG	1A	3532	1/1	0.93	0.16	45,45,45,45	0
58	MG	2a	1657	1/1	0.93	0.10	61,61,61,61	0
58	MG	2A	3122	1/1	0.93	0.12	43,43,43,43	0
58	MG	1U	206	1/1	0.93	0.18	29,29,29,29	0
58	MG	2a	1661	1/1	0.93	0.12	66,66,66,66	0
58	MG	2A	3128	1/1	0.93	0.10	58,58,58,58	0
58	MG	2A	3675	1/1	0.93	0.10	52,52,52,52	0
58	MG	1a	1733	1/1	0.93	0.08	40,40,40,40	0
58	MG	2a	1668	1/1	0.93	0.10	71,71,71,71	0
58	MG	1A	3663	1/1	0.93	0.16	41,41,41,41	0
58	MG	2A	3132	1/1	0.93	0.15	67,67,67,67	0
58	MG	2A	3135	1/1	0.93	0.07	45,45,45,45	0
58	MG	2A	3686	1/1	0.93	0.08	70,70,70,70	0
58	MG	2a	1676	1/1	0.93	0.12	50,50,50,50	0
58	MG	1A	3446	1/1	0.93	0.11	33,33,33,33	0
58	MG	2A	3376	1/1	0.93	0.11	57,57,57,57	0
58	MG	2A	3377	1/1	0.93	0.18	49,49,49,49	0
58	MG	2a	1680	1/1	0.93	0.14	45,45,45,45	0
58	MG	2A	3693	1/1	0.93	0.25	64,64,64,64	0
58	MG	2a	1682	1/1	0.93	0.10	65,65,65,65	0
58	MG	2A	3140	1/1	0.93	0.12	53,53,53,53	0
58	MG	1W	207	1/1	0.93	0.11	19,19,19,19	0
58	MG	1X	104	1/1	0.93	0.09	39,39,39,39	0
58	MG	1A	3980	1/1	0.93	0.12	55,55,55,55	0
58	MG	1Y	203	1/1	0.93	0.28	41,41,41,41	0
58	MG	2a	1697	1/1	0.93	0.16	41,41,41,41	0
58	MG	2a	1699	1/1	0.93	0.13	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2a	1700	1/1	0.93	0.16	68,68,68,68	0
58	MG	1A	3535	1/1	0.93	0.14	39,39,39,39	0
58	MG	1A	3054	1/1	0.93	0.10	33,33,33,33	0
58	MG	1a	1753	1/1	0.93	0.15	48,48,48,48	0
58	MG	2A	3714	1/1	0.93	0.13	52,52,52,52	0
58	MG	10	103	1/1	0.93	0.08	38,38,38,38	0
58	MG	2A	3717	1/1	0.93	0.14	47,47,47,47	0
58	MG	2a	1710	1/1	0.93	0.09	65,65,65,65	0
58	MG	10	104	1/1	0.93	0.13	35,35,35,35	0
58	MG	2A	3720	1/1	0.93	0.16	48,48,48,48	0
58	MG	1a	1761	1/1	0.93	0.08	52,52,52,52	0
58	MG	2a	1718	1/1	0.93	0.07	50,50,50,50	0
58	MG	2a	1719	1/1	0.93	0.08	63,63,63,63	0
58	MG	10	105	1/1	0.93	0.20	71,71,71,71	0
58	MG	1A	3838	1/1	0.93	0.09	39,39,39,39	0
58	MG	2a	1724	1/1	0.93	0.25	67,67,67,67	0
58	MG	2A	3724	1/1	0.93	0.12	47,47,47,47	0
58	MG	2A	3404	1/1	0.93	0.17	51,51,51,51	0
58	MG	2A	3178	1/1	0.93	0.07	58,58,58,58	0
58	MG	2a	1731	1/1	0.93	0.22	54,54,54,54	0
58	MG	1A	3989	1/1	0.93	0.08	30,30,30,30	0
58	MG	2a	1733	1/1	0.93	0.13	44,44,44,44	0
58	MG	2a	1734	1/1	0.93	0.26	57,57,57,57	0
58	MG	2A	3732	1/1	0.93	0.10	51,51,51,51	0
58	MG	11	103	1/1	0.93	0.09	47,47,47,47	0
58	MG	11	104	1/1	0.93	0.11	39,39,39,39	0
58	MG	1a	1770	1/1	0.93	0.06	66,66,66,66	0
58	MG	1A	3680	1/1	0.93	0.13	17,17,17,17	0
58	MG	2a	1741	1/1	0.93	0.30	55,55,55,55	0
58	MG	2A	3743	1/1	0.93	0.15	45,45,45,45	0
58	MG	2a	1744	1/1	0.93	0.13	50,50,50,50	0
58	MG	2a	1745	1/1	0.93	0.34	71,71,71,71	0
58	MG	2a	1747	1/1	0.93	0.22	60,60,60,60	0
58	MG	11	106	1/1	0.93	0.09	43,43,43,43	0
58	MG	13	105	1/1	0.93	0.09	46,46,46,46	0
58	MG	2A	3192	1/1	0.93	0.07	45,45,45,45	0
58	MG	1A	3996	1/1	0.93	0.08	27,27,27,27	0
58	MG	1A	3999	1/1	0.93	0.10	21,21,21,21	0
58	MG	2A	3753	1/1	0.93	0.09	66,66,66,66	0
58	MG	2A	3195	1/1	0.93	0.21	58,58,58,58	0
58	MG	2A	3762	1/1	0.93	0.08	50,50,50,50	0
58	MG	2a	1760	1/1	0.93	0.17	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	19	101	1/1	0.93	0.10	38,38,38,38	0
58	MG	1A	3682	1/1	0.93	0.05	23,23,23,23	0
58	MG	1A	3454	1/1	0.93	0.10	57,57,57,57	0
58	MG	2A	3435	1/1	0.93	0.23	47,47,47,47	0
58	MG	2a	1766	1/1	0.93	0.22	73,73,73,73	0
58	MG	1a	1606	1/1	0.93	0.13	60,60,60,60	0
58	MG	1A	3393	1/1	0.93	0.10	58,58,58,58	0
58	MG	2a	1771	1/1	0.93	0.17	54,54,54,54	0
58	MG	2a	1772	1/1	0.93	0.12	72,72,72,72	0
58	MG	2A	3773	1/1	0.93	0.12	58,58,58,58	0
58	MG	1a	1790	1/1	0.93	0.08	68,68,68,68	0
58	MG	1A	3339	1/1	0.93	0.06	49,49,49,49	0
58	MG	2A	3444	1/1	0.93	0.10	52,52,52,52	0
58	MG	1A	3860	1/1	0.93	0.10	56,56,56,56	0
58	MG	1a	1798	1/1	0.93	0.07	82,82,82,82	0
58	MG	2A	3783	1/1	0.93	0.10	53,53,53,53	0
58	MG	1A	4020	1/1	0.93	0.07	64,64,64,64	0
58	MG	2a	1786	1/1	0.93	0.10	55,55,55,55	0
58	MG	1A	3547	1/1	0.93	0.16	49,49,49,49	0
58	MG	1A	3206	1/1	0.93	0.10	34,34,34,34	0
58	MG	1A	4031	1/1	0.93	0.08	40,40,40,40	0
58	MG	1a	1805	1/1	0.93	0.09	56,56,56,56	0
58	MG	1a	1806	1/1	0.93	0.07	58,58,58,58	0
58	MG	2a	1799	1/1	0.93	0.19	74,74,74,74	0
58	MG	2A	3216	1/1	0.93	0.24	52,52,52,52	0
58	MG	2a	1802	1/1	0.93	0.13	63,63,63,63	0
58	MG	1A	3006	1/1	0.93	0.07	40,40,40,40	0
58	MG	2A	3803	1/1	0.93	0.07	33,33,33,33	0
58	MG	1A	3704	1/1	0.93	0.06	28,28,28,28	0
58	MG	2A	3805	1/1	0.93	0.07	37,37,37,37	0
58	MG	1A	3315	1/1	0.93	0.06	31,31,31,31	0
58	MG	2A	3468	1/1	0.93	0.06	49,49,49,49	0
58	MG	1A	3319	1/1	0.93	0.16	31,31,31,31	0
58	MG	2A	3476	1/1	0.93	0.13	43,43,43,43	0
58	MG	1A	3322	1/1	0.93	0.08	47,47,47,47	0
58	MG	1A	3717	1/1	0.93	0.12	49,49,49,49	0
58	MG	1A	3046	1/1	0.93	0.07	25,25,25,25	0
58	MG	1n	101	1/1	0.93	0.07	49,49,49,49	0
58	MG	2A	3486	1/1	0.93	0.19	57,57,57,57	0
58	MG	2A	3833	1/1	0.93	0.08	55,55,55,55	0
58	MG	1s	101	1/1	0.93	0.16	62,62,62,62	0
58	MG	1A	3572	1/1	0.93	0.14	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1v	101	1/1	0.93	0.13	78,78,78,78	0
58	MG	1a	1636	1/1	0.93	0.24	52,52,52,52	0
58	MG	1A	3016	1/1	0.93	0.15	52,52,52,52	0
58	MG	2a	1828	1/1	0.93	0.14	72,72,72,72	0
58	MG	1A	3586	1/1	0.93	0.10	57,57,57,57	0
58	MG	1A	3477	1/1	0.93	0.07	36,36,36,36	0
58	MG	2A	3497	1/1	0.93	0.12	32,32,32,32	0
58	MG	2A	3499	1/1	0.93	0.06	56,56,56,56	0
58	MG	2f	202	1/1	0.93	0.08	70,70,70,70	0
58	MG	1A	3731	1/1	0.93	0.09	68,68,68,68	0
58	MG	2i	201	1/1	0.93	0.06	55,55,55,55	0
58	MG	1A	3481	1/1	0.93	0.11	44,44,44,44	0
58	MG	2A	3507	1/1	0.93	0.13	49,49,49,49	0
58	MG	1A	3075	1/1	0.93	0.23	55,55,55,55	0
58	MG	1A	3743	1/1	0.93	0.09	45,45,45,45	0
58	MG	1A	3361	1/1	0.93	0.06	49,49,49,49	0
58	MG	2B	201	1/1	0.93	0.16	66,66,66,66	0
58	MG	2A	3518	1/1	0.93	0.11	56,56,56,56	0
58	MG	1a	1658	1/1	0.93	0.17	56,56,56,56	0
58	MG	1A	3750	1/1	0.93	0.07	14,14,14,14	0
58	MG	1A	4094	1/1	0.93	0.07	52,52,52,52	0
58	MG	1A	4098	1/1	0.93	0.14	60,60,60,60	0
58	MG	2v	102	1/1	0.93	0.27	66,66,66,66	0
58	MG	1A	3595	1/1	0.93	0.19	51,51,51,51	0
58	MG	2A	3003	1/1	0.93	0.24	51,51,51,51	0
58	MG	1a	1664	1/1	0.93	0.17	60,60,60,60	0
58	MG	2A	3273	1/1	0.93	0.09	40,40,40,40	0
58	MG	1A	3752	1/1	0.93	0.09	43,43,43,43	0
58	MG	2A	3006	1/1	0.93	0.14	56,56,56,56	0
58	MG	1A	3420	1/1	0.93	0.13	54,54,54,54	0
58	MG	2x	106	1/1	0.93	0.16	67,67,67,67	0
58	MG	2A	3278	1/1	0.93	0.12	44,44,44,44	0
60	ERY	1A	4104	51/51	0.93	0.13	25,44,56,62	0
58	MG	2B	219	1/1	0.93	0.19	81,81,81,81	0
58	MG	2A	3449	1/1	0.94	0.10	58,58,58,58	0
58	MG	2A	3161	1/1	0.94	0.08	59,59,59,59	0
58	MG	2A	3162	1/1	0.94	0.10	38,38,38,38	0
58	MG	2A	3851	1/1	0.94	0.08	68,68,68,68	0
58	MG	1A	3399	1/1	0.94	0.09	42,42,42,42	0
58	MG	2A	3164	1/1	0.94	0.23	54,54,54,54	0
58	MG	2A	3460	1/1	0.94	0.21	57,57,57,57	0
58	MG	1A	3320	1/1	0.94	0.08	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1D	303	1/1	0.94	0.23	43,43,43,43	0
58	MG	1D	305	1/1	0.94	0.09	37,37,37,37	0
58	MG	1A	3695	1/1	0.94	0.08	21,21,21,21	0
58	MG	2A	3174	1/1	0.94	0.10	48,48,48,48	0
58	MG	1D	314	1/1	0.94	0.09	35,35,35,35	0
58	MG	1E	301	1/1	0.94	0.14	44,44,44,44	0
58	MG	1E	304	1/1	0.94	0.10	40,40,40,40	0
58	MG	1A	3249	1/1	0.94	0.11	48,48,48,48	0
58	MG	2A	3183	1/1	0.94	0.06	52,52,52,52	0
58	MG	1a	1731	1/1	0.94	0.12	60,60,60,60	0
58	MG	1E	308	1/1	0.94	0.10	55,55,55,55	0
58	MG	2A	3482	1/1	0.94	0.15	53,53,53,53	0
58	MG	1A	3002	1/1	0.94	0.11	48,48,48,48	0
58	MG	1A	3405	1/1	0.94	0.19	54,54,54,54	0
58	MG	2A	3189	1/1	0.94	0.12	59,59,59,59	0
58	MG	1A	3325	1/1	0.94	0.11	46,46,46,46	0
58	MG	1A	3710	1/1	0.94	0.08	29,29,29,29	0
58	MG	2D	301	1/1	0.94	0.13	45,45,45,45	0
58	MG	1E	313	1/1	0.94	0.05	51,51,51,51	0
58	MG	1A	3528	1/1	0.94	0.08	44,44,44,44	0
58	MG	2D	306	1/1	0.94	0.18	58,58,58,58	0
58	MG	1A	3055	1/1	0.94	0.10	47,47,47,47	0
58	MG	1A	3136	1/1	0.94	0.13	24,24,24,24	0
58	MG	1A	3059	1/1	0.94	0.07	37,37,37,37	0
58	MG	2E	307	1/1	0.94	0.11	53,53,53,53	0
58	MG	1N	204	1/1	0.94	0.11	44,44,44,44	0
58	MG	1A	3085	1/1	0.94	0.06	34,34,34,34	0
58	MG	2F	306	1/1	0.94	0.08	56,56,56,56	0
58	MG	2A	3501	1/1	0.94	0.11	45,45,45,45	0
58	MG	2O	201	1/1	0.94	0.13	64,64,64,64	0
58	MG	1a	1755	1/1	0.94	0.08	54,54,54,54	0
58	MG	2A	3503	1/1	0.94	0.14	56,56,56,56	0
58	MG	1a	1757	1/1	0.94	0.12	37,37,37,37	0
58	MG	1A	3416	1/1	0.94	0.09	48,48,48,48	0
58	MG	2A	3509	1/1	0.94	0.08	34,34,34,34	0
58	MG	2T	202	1/1	0.94	0.12	66,66,66,66	0
58	MG	1A	3418	1/1	0.94	0.26	49,49,49,49	0
58	MG	1A	3726	1/1	0.94	0.11	40,40,40,40	0
58	MG	2A	3517	1/1	0.94	0.11	35,35,35,35	0
58	MG	2A	3206	1/1	0.94	0.18	59,59,59,59	0
58	MG	1P	204	1/1	0.94	0.11	51,51,51,51	0
58	MG	1A	3542	1/1	0.94	0.10	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2A	3522	1/1	0.94	0.20	64,64,64,64	0
58	MG	23	101	1/1	0.94	0.17	59,59,59,59	0
58	MG	1Q	207	1/1	0.94	0.09	43,43,43,43	0
58	MG	1A	3919	1/1	0.94	0.12	43,43,43,43	0
58	MG	2A	3526	1/1	0.94	0.07	46,46,46,46	0
58	MG	1A	3730	1/1	0.94	0.27	58,58,58,58	0
58	MG	27	102	1/1	0.94	0.08	44,44,44,44	0
58	MG	27	103	1/1	0.94	0.10	45,45,45,45	0
58	MG	28	101	1/1	0.94	0.10	64,64,64,64	0
58	MG	1S	201	1/1	0.94	0.13	45,45,45,45	0
58	MG	1A	3095	1/1	0.94	0.10	41,41,41,41	0
58	MG	1A	3929	1/1	0.94	0.09	46,46,46,46	0
58	MG	1T	202	1/1	0.94	0.11	43,43,43,43	0
58	MG	1A	3546	1/1	0.94	0.10	48,48,48,48	0
58	MG	1A	3738	1/1	0.94	0.10	60,60,60,60	0
58	MG	2A	3548	1/1	0.94	0.14	49,49,49,49	0
58	MG	2A	3550	1/1	0.94	0.08	57,57,57,57	0
58	MG	2A	3551	1/1	0.94	0.20	38,38,38,38	0
58	MG	2A	3230	1/1	0.94	0.27	52,52,52,52	0
58	MG	2a	1611	1/1	0.94	0.12	71,71,71,71	0
58	MG	2A	3554	1/1	0.94	0.09	47,47,47,47	0
58	MG	1A	3739	1/1	0.94	0.10	53,53,53,53	0
58	MG	1A	3263	1/1	0.94	0.08	43,43,43,43	0
58	MG	1V	204	1/1	0.94	0.18	48,48,48,48	0
58	MG	2A	3558	1/1	0.94	0.07	44,44,44,44	0
58	MG	1A	3422	1/1	0.94	0.08	43,43,43,43	0
58	MG	1W	201	1/1	0.94	0.07	36,36,36,36	0
58	MG	1W	202	1/1	0.94	0.21	51,51,51,51	0
58	MG	1A	3745	1/1	0.94	0.10	50,50,50,50	0
58	MG	1A	3268	1/1	0.94	0.23	45,45,45,45	0
58	MG	1A	3424	1/1	0.94	0.09	38,38,38,38	0
58	MG	1A	3110	1/1	0.94	0.28	32,32,32,32	0
58	MG	2A	3246	1/1	0.94	0.06	44,44,44,44	0
58	MG	2A	3247	1/1	0.94	0.08	62,62,62,62	0
58	MG	1A	3061	1/1	0.94	0.09	35,35,35,35	0
58	MG	1A	3278	1/1	0.94	0.12	30,30,30,30	0
58	MG	10	101	1/1	0.94	0.09	38,38,38,38	0
58	MG	1A	3034	1/1	0.94	0.16	31,31,31,31	0
58	MG	1a	1808	1/1	0.94	0.19	58,58,58,58	0
58	MG	1A	3344	1/1	0.94	0.12	38,38,38,38	0
58	MG	1a	1813	1/1	0.94	0.08	55,55,55,55	0
58	MG	1A	3432	1/1	0.94	0.10	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3763	1/1	0.94	0.08	36,36,36,36	0
58	MG	10	108	1/1	0.94	0.06	47,47,47,47	0
58	MG	2A	3595	1/1	0.94	0.11	63,63,63,63	0
58	MG	1d	301	1/1	0.94	0.25	55,55,55,55	0
58	MG	1A	3345	1/1	0.94	0.17	36,36,36,36	0
58	MG	2a	1645	1/1	0.94	0.10	67,67,67,67	0
58	MG	1A	3767	1/1	0.94	0.08	15,15,15,15	0
58	MG	1A	3588	1/1	0.94	0.11	33,33,33,33	0
58	MG	1A	3436	1/1	0.94	0.17	44,44,44,44	0
58	MG	2A	3274	1/1	0.94	0.28	74,74,74,74	0
58	MG	1A	3976	1/1	0.94	0.09	49,49,49,49	0
58	MG	12	101	1/1	0.94	0.12	54,54,54,54	0
58	MG	13	101	1/1	0.94	0.07	56,56,56,56	0
58	MG	2A	3611	1/1	0.94	0.09	47,47,47,47	0
58	MG	1A	3978	1/1	0.94	0.10	67,67,67,67	0
58	MG	2A	3615	1/1	0.94	0.12	30,30,30,30	0
58	MG	15	101	1/1	0.94	0.12	41,41,41,41	0
58	MG	2A	3618	1/1	0.94	0.08	34,34,34,34	0
58	MG	15	107	1/1	0.94	0.21	27,27,27,27	0
58	MG	1A	3024	1/1	0.94	0.11	46,46,46,46	0
58	MG	1A	3290	1/1	0.94	0.14	49,49,49,49	0
58	MG	17	105	1/1	0.94	0.06	41,41,41,41	0
58	MG	2a	1663	1/1	0.94	0.09	79,79,79,79	0
58	MG	2a	1664	1/1	0.94	0.09	57,57,57,57	0
58	MG	1x	102	1/1	0.94	0.14	55,55,55,55	0
58	MG	18	101	1/1	0.94	0.12	50,50,50,50	0
58	MG	2a	1667	1/1	0.94	0.10	61,61,61,61	0
58	MG	1A	3594	1/1	0.94	0.21	56,56,56,56	0
58	MG	2A	3290	1/1	0.94	0.15	57,57,57,57	0
58	MG	2A	3292	1/1	0.94	0.12	49,49,49,49	0
58	MG	1A	3985	1/1	0.94	0.06	29,29,29,29	0
58	MG	1A	3351	1/1	0.94	0.12	51,51,51,51	0
58	MG	2a	1675	1/1	0.94	0.24	61,61,61,61	0
58	MG	2A	3637	1/1	0.94	0.19	54,54,54,54	0
58	MG	1A	3596	1/1	0.94	0.16	44,44,44,44	0
58	MG	1A	3990	1/1	0.94	0.12	41,41,41,41	0
58	MG	1a	1608	1/1	0.94	0.16	64,64,64,64	0
58	MG	1A	3789	1/1	0.94	0.07	68,68,68,68	0
58	MG	2A	3645	1/1	0.94	0.09	79,79,79,79	0
58	MG	1A	3992	1/1	0.94	0.09	57,57,57,57	0
58	MG	2A	3647	1/1	0.94	0.12	71,71,71,71	0
58	MG	2A	3649	1/1	0.94	0.07	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1a	1619	1/1	0.94	0.11	56,56,56,56	0
58	MG	1A	3292	1/1	0.94	0.09	41,41,41,41	0
58	MG	2a	1690	1/1	0.94	0.12	59,59,59,59	0
58	MG	2a	1691	1/1	0.94	0.27	60,60,60,60	0
58	MG	1A	3997	1/1	0.94	0.09	16,16,16,16	0
58	MG	2a	1696	1/1	0.94	0.25	55,55,55,55	0
58	MG	2A	3007	1/1	0.94	0.16	60,60,60,60	0
58	MG	1A	3998	1/1	0.94	0.13	36,36,36,36	0
58	MG	1A	3355	1/1	0.94	0.13	34,34,34,34	0
58	MG	1A	3796	1/1	0.94	0.15	66,66,66,66	0
58	MG	2A	3660	1/1	0.94	0.17	51,51,51,51	0
58	MG	2a	1703	1/1	0.94	0.12	61,61,61,61	0
58	MG	2a	1704	1/1	0.94	0.07	45,45,45,45	0
58	MG	2A	3310	1/1	0.94	0.14	44,44,44,44	0
58	MG	1A	4002	1/1	0.94	0.12	83,83,83,83	0
58	MG	1A	3209	1/1	0.94	0.12	42,42,42,42	0
58	MG	1A	3357	1/1	0.94	0.12	41,41,41,41	0
58	MG	2A	3315	1/1	0.94	0.22	59,59,59,59	0
58	MG	1A	3214	1/1	0.94	0.14	52,52,52,52	0
58	MG	2a	1715	1/1	0.94	0.15	56,56,56,56	0
58	MG	1A	3296	1/1	0.94	0.06	43,43,43,43	0
58	MG	1A	3299	1/1	0.94	0.34	58,58,58,58	0
58	MG	1A	3300	1/1	0.94	0.21	47,47,47,47	0
58	MG	2A	3671	1/1	0.94	0.12	63,63,63,63	0
58	MG	2A	3039	1/1	0.94	0.14	31,31,31,31	0
58	MG	2A	3040	1/1	0.94	0.15	60,60,60,60	0
58	MG	1A	3817	1/1	0.94	0.07	44,44,44,44	0
58	MG	2A	3677	1/1	0.94	0.07	75,75,75,75	0
58	MG	2A	3680	1/1	0.94	0.09	52,52,52,52	0
58	MG	2a	1728	1/1	0.94	0.28	64,64,64,64	0
58	MG	2a	1729	1/1	0.94	0.13	65,65,65,65	0
58	MG	1A	4028	1/1	0.94	0.08	36,36,36,36	0
58	MG	1A	3820	1/1	0.94	0.06	27,27,27,27	0
58	MG	1a	1640	1/1	0.94	0.22	49,49,49,49	0
58	MG	1A	3363	1/1	0.94	0.09	58,58,58,58	0
58	MG	1A	3219	1/1	0.94	0.13	46,46,46,46	0
58	MG	2A	3050	1/1	0.94	0.09	26,26,26,26	0
58	MG	1A	4035	1/1	0.94	0.09	37,37,37,37	0
58	MG	1a	1645	1/1	0.94	0.12	63,63,63,63	0
58	MG	1A	3615	1/1	0.94	0.15	57,57,57,57	0
58	MG	1A	3366	1/1	0.94	0.13	39,39,39,39	0
58	MG	2A	3695	1/1	0.94	0.10	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2a	1742	1/1	0.94	0.13	58,58,58,58	0
58	MG	2A	3697	1/1	0.94	0.10	37,37,37,37	0
58	MG	2A	3337	1/1	0.94	0.12	49,49,49,49	0
58	MG	1A	3832	1/1	0.94	0.15	40,40,40,40	0
58	MG	1a	1655	1/1	0.94	0.14	61,61,61,61	0
58	MG	1A	3303	1/1	0.94	0.15	50,50,50,50	0
58	MG	2A	3702	1/1	0.94	0.12	54,54,54,54	0
58	MG	1A	4050	1/1	0.94	0.12	66,66,66,66	0
58	MG	1A	4057	1/1	0.94	0.22	33,33,33,33	0
58	MG	2a	1752	1/1	0.94	0.18	48,48,48,48	0
58	MG	2A	3711	1/1	0.94	0.15	56,56,56,56	0
58	MG	2A	3067	1/1	0.94	0.13	43,43,43,43	0
58	MG	1A	4060	1/1	0.94	0.09	51,51,51,51	0
58	MG	1a	1662	1/1	0.94	0.27	66,66,66,66	0
58	MG	1A	4061	1/1	0.94	0.13	54,54,54,54	0
58	MG	1A	3306	1/1	0.94	0.07	31,31,31,31	0
58	MG	2a	1762	1/1	0.94	0.11	56,56,56,56	0
58	MG	1A	3640	1/1	0.94	0.06	23,23,23,23	0
58	MG	1a	1667	1/1	0.94	0.14	49,49,49,49	0
58	MG	2A	3354	1/1	0.94	0.22	50,50,50,50	0
58	MG	2A	3080	1/1	0.94	0.07	52,52,52,52	0
58	MG	2A	3082	1/1	0.94	0.15	50,50,50,50	0
58	MG	2A	3725	1/1	0.94	0.06	73,73,73,73	0
58	MG	2A	3083	1/1	0.94	0.24	60,60,60,60	0
58	MG	1A	4069	1/1	0.94	0.11	19,19,19,19	0
58	MG	1A	3223	1/1	0.94	0.12	40,40,40,40	0
58	MG	1A	3308	1/1	0.94	0.18	46,46,46,46	0
58	MG	2a	1776	1/1	0.94	0.09	61,61,61,61	0
58	MG	2A	3090	1/1	0.94	0.08	40,40,40,40	0
58	MG	1A	3840	1/1	0.94	0.05	47,47,47,47	0
58	MG	2A	3368	1/1	0.94	0.17	53,53,53,53	0
58	MG	2A	3739	1/1	0.94	0.07	41,41,41,41	0
58	MG	2A	3741	1/1	0.94	0.15	54,54,54,54	0
58	MG	1A	3841	1/1	0.94	0.15	57,57,57,57	0
58	MG	1A	3842	1/1	0.94	0.12	57,57,57,57	0
58	MG	2A	3371	1/1	0.94	0.06	65,65,65,65	0
58	MG	2a	1789	1/1	0.94	0.11	68,68,68,68	0
58	MG	2A	3372	1/1	0.94	0.20	63,63,63,63	0
58	MG	2A	3094	1/1	0.94	0.26	45,45,45,45	0
58	MG	1A	3843	1/1	0.94	0.07	39,39,39,39	0
58	MG	1A	3383	1/1	0.94	0.12	57,57,57,57	0
58	MG	2a	1796	1/1	0.94	0.19	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	4087	1/1	0.94	0.16	58,58,58,58	0
58	MG	1A	3169	1/1	0.94	0.17	54,54,54,54	0
58	MG	2a	1801	1/1	0.94	0.14	49,49,49,49	0
58	MG	1A	3648	1/1	0.94	0.17	67,67,67,67	0
58	MG	1A	4093	1/1	0.94	0.11	55,55,55,55	0
58	MG	2A	3765	1/1	0.94	0.07	76,76,76,76	0
58	MG	1A	3857	1/1	0.94	0.09	53,53,53,53	0
58	MG	2A	3385	1/1	0.94	0.12	52,52,52,52	0
58	MG	1A	4097	1/1	0.94	0.10	44,44,44,44	0
58	MG	2a	1809	1/1	0.94	0.27	56,56,56,56	0
58	MG	2A	3107	1/1	0.94	0.14	54,54,54,54	0
58	MG	2A	3108	1/1	0.94	0.10	41,41,41,41	0
58	MG	1A	3489	1/1	0.94	0.17	48,48,48,48	0
58	MG	1A	3653	1/1	0.94	0.06	32,32,32,32	0
58	MG	2A	3113	1/1	0.94	0.26	66,66,66,66	0
58	MG	2A	3393	1/1	0.94	0.09	46,46,46,46	0
58	MG	1A	4101	1/1	0.94	0.07	39,39,39,39	0
58	MG	2A	3115	1/1	0.94	0.19	57,57,57,57	0
58	MG	2A	3782	1/1	0.94	0.09	70,70,70,70	0
58	MG	2A	3116	1/1	0.94	0.23	49,49,49,49	0
58	MG	1A	3494	1/1	0.94	0.09	44,44,44,44	0
58	MG	2A	3785	1/1	0.94	0.14	71,71,71,71	0
58	MG	1A	3233	1/1	0.94	0.06	49,49,49,49	0
58	MG	2A	3407	1/1	0.94	0.27	56,56,56,56	0
58	MG	2A	3119	1/1	0.94	0.10	39,39,39,39	0
58	MG	2a	1829	1/1	0.94	0.08	60,60,60,60	0
58	MG	1A	3497	1/1	0.94	0.20	50,50,50,50	0
58	MG	2d	301	1/1	0.94	0.21	44,44,44,44	0
58	MG	1A	3239	1/1	0.94	0.10	36,36,36,36	0
58	MG	1A	3390	1/1	0.94	0.07	47,47,47,47	0
58	MG	2A	3798	1/1	0.94	0.09	59,59,59,59	0
58	MG	2f	201	1/1	0.94	0.13	56,56,56,56	0
58	MG	2A	3414	1/1	0.94	0.16	53,53,53,53	0
58	MG	2A	3415	1/1	0.94	0.21	54,54,54,54	0
58	MG	2A	3418	1/1	0.94	0.17	48,48,48,48	0
58	MG	1A	3391	1/1	0.94	0.34	43,43,43,43	0
58	MG	2A	3809	1/1	0.94	0.09	49,49,49,49	0
58	MG	2A	3124	1/1	0.94	0.10	50,50,50,50	0
58	MG	1A	3668	1/1	0.94	0.07	41,41,41,41	0
58	MG	1B	220	1/1	0.94	0.11	62,62,62,62	0
58	MG	1A	3506	1/1	0.94	0.09	39,39,39,39	0
58	MG	1B	222	1/1	0.94	0.13	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2A	3822	1/1	0.94	0.13	67,67,67,67	0
58	MG	1A	3242	1/1	0.94	0.17	36,36,36,36	0
58	MG	2r	101	1/1	0.94	0.06	54,54,54,54	0
58	MG	1a	1703	1/1	0.94	0.15	59,59,59,59	0
58	MG	1B	224	1/1	0.94	0.06	54,54,54,54	0
58	MG	1B	225	1/1	0.94	0.07	48,48,48,48	0
58	MG	2A	3830	1/1	0.94	0.09	43,43,43,43	0
58	MG	2A	3832	1/1	0.94	0.12	59,59,59,59	0
58	MG	2A	3146	1/1	0.94	0.17	39,39,39,39	0
58	MG	1A	3511	1/1	0.94	0.07	52,52,52,52	0
58	MG	2A	3150	1/1	0.94	0.17	57,57,57,57	0
58	MG	2A	3153	1/1	0.94	0.10	46,46,46,46	0
58	MG	2A	3154	1/1	0.94	0.13	52,52,52,52	0
58	MG	2A	3840	1/1	0.94	0.11	54,54,54,54	0
58	MG	1A	3244	1/1	0.94	0.12	47,47,47,47	0
59	K	1A	3564	1/1	0.94	0.12	69,69,69,69	0
58	MG	1A	3183	1/1	0.94	0.05	45,45,45,45	0
58	MG	1B	231	1/1	0.94	0.20	59,59,59,59	0
58	MG	2B	211	1/1	0.95	0.21	69,69,69,69	0
58	MG	2A	3222	1/1	0.95	0.08	45,45,45,45	0
58	MG	2A	3225	1/1	0.95	0.22	48,48,48,48	0
58	MG	10	102	1/1	0.95	0.20	40,40,40,40	0
58	MG	2B	215	1/1	0.95	0.14	75,75,75,75	0
58	MG	2A	3520	1/1	0.95	0.10	38,38,38,38	0
58	MG	1A	3982	1/1	0.95	0.09	53,53,53,53	0
58	MG	2B	218	1/1	0.95	0.11	64,64,64,64	0
58	MG	1A	3007	1/1	0.95	0.10	36,36,36,36	0
58	MG	1A	3781	1/1	0.95	0.07	53,53,53,53	0
58	MG	1A	3782	1/1	0.95	0.06	34,34,34,34	0
58	MG	1a	1810	1/1	0.95	0.12	47,47,47,47	0
58	MG	2D	303	1/1	0.95	0.11	59,59,59,59	0
58	MG	2A	3237	1/1	0.95	0.08	51,51,51,51	0
58	MG	2A	3531	1/1	0.95	0.14	48,48,48,48	0
58	MG	2D	309	1/1	0.95	0.13	49,49,49,49	0
58	MG	1A	3324	1/1	0.95	0.06	41,41,41,41	0
58	MG	2E	302	1/1	0.95	0.07	52,52,52,52	0
58	MG	1A	3786	1/1	0.95	0.07	48,48,48,48	0
58	MG	1A	3787	1/1	0.95	0.10	50,50,50,50	0
58	MG	1A	3607	1/1	0.95	0.08	21,21,21,21	0
58	MG	2A	3541	1/1	0.95	0.09	36,36,36,36	0
58	MG	2F	302	1/1	0.95	0.12	58,58,58,58	0
58	MG	2A	3542	1/1	0.95	0.11	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2F	304	1/1	0.95	0.14	58,58,58,58	0
58	MG	1A	3608	1/1	0.95	0.06	35,35,35,35	0
58	MG	1A	3188	1/1	0.95	0.07	37,37,37,37	0
58	MG	1e	201	1/1	0.95	0.07	49,49,49,49	0
58	MG	2A	3549	1/1	0.95	0.06	38,38,38,38	0
58	MG	1A	3259	1/1	0.95	0.12	43,43,43,43	0
58	MG	2A	3248	1/1	0.95	0.10	46,46,46,46	0
58	MG	2A	3552	1/1	0.95	0.07	36,36,36,36	0
58	MG	2A	3249	1/1	0.95	0.07	51,51,51,51	0
58	MG	1A	3612	1/1	0.95	0.09	20,20,20,20	0
58	MG	13	104	1/1	0.95	0.10	38,38,38,38	0
58	MG	1A	3800	1/1	0.95	0.08	21,21,21,21	0
58	MG	1n	102	1/1	0.95	0.19	54,54,54,54	0
58	MG	1A	3485	1/1	0.95	0.07	41,41,41,41	0
58	MG	2Z	301	1/1	0.95	0.11	78,78,78,78	0
58	MG	1A	3327	1/1	0.95	0.07	42,42,42,42	0
58	MG	1A	4004	1/1	0.95	0.15	42,42,42,42	0
58	MG	1A	4006	1/1	0.95	0.08	22,22,22,22	0
58	MG	1A	3195	1/1	0.95	0.19	30,30,30,30	0
58	MG	1A	4014	1/1	0.95	0.07	28,28,28,28	0
58	MG	18	104	1/1	0.95	0.10	32,32,32,32	0
58	MG	2A	3567	1/1	0.95	0.05	23,23,23,23	0
58	MG	25	105	1/1	0.95	0.07	52,52,52,52	0
58	MG	18	105	1/1	0.95	0.12	30,30,30,30	0
58	MG	26	101	1/1	0.95	0.14	59,59,59,59	0
58	MG	2A	3569	1/1	0.95	0.14	50,50,50,50	0
58	MG	2A	3570	1/1	0.95	0.13	54,54,54,54	0
58	MG	18	106	1/1	0.95	0.12	47,47,47,47	0
58	MG	2A	3575	1/1	0.95	0.09	55,55,55,55	0
58	MG	2A	3271	1/1	0.95	0.06	44,44,44,44	0
58	MG	18	107	1/1	0.95	0.13	44,44,44,44	0
58	MG	1A	4015	1/1	0.95	0.06	60,60,60,60	0
58	MG	1a	1601	1/1	0.95	0.11	55,55,55,55	0
58	MG	1A	3812	1/1	0.95	0.34	33,33,33,33	0
58	MG	1A	3616	1/1	0.95	0.07	32,32,32,32	0
58	MG	1A	3814	1/1	0.95	0.09	38,38,38,38	0
58	MG	1A	4021	1/1	0.95	0.06	55,55,55,55	0
58	MG	1A	3490	1/1	0.95	0.17	53,53,53,53	0
58	MG	1a	1610	1/1	0.95	0.15	46,46,46,46	0
58	MG	1A	4024	1/1	0.95	0.07	40,40,40,40	0
58	MG	2A	3593	1/1	0.95	0.12	60,60,60,60	0
58	MG	2A	3594	1/1	0.95	0.09	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	4025	1/1	0.95	0.09	40,40,40,40	0
58	MG	1a	1614	1/1	0.95	0.05	59,59,59,59	0
58	MG	1a	1616	1/1	0.95	0.07	57,57,57,57	0
58	MG	2A	3598	1/1	0.95	0.08	25,25,25,25	0
58	MG	1A	3080	1/1	0.95	0.17	31,31,31,31	0
58	MG	1a	1620	1/1	0.95	0.07	53,53,53,53	0
58	MG	2A	3601	1/1	0.95	0.13	48,48,48,48	0
58	MG	2A	3289	1/1	0.95	0.05	53,53,53,53	0
58	MG	2A	3010	1/1	0.95	0.10	56,56,56,56	0
58	MG	1A	3818	1/1	0.95	0.12	46,46,46,46	0
58	MG	2A	3294	1/1	0.95	0.10	60,60,60,60	0
58	MG	2A	3015	1/1	0.95	0.09	43,43,43,43	0
58	MG	1a	1622	1/1	0.95	0.06	37,37,37,37	0
58	MG	1A	3126	1/1	0.95	0.26	36,36,36,36	0
58	MG	2A	3613	1/1	0.95	0.13	39,39,39,39	0
58	MG	1A	3267	1/1	0.95	0.21	60,60,60,60	0
58	MG	2A	3299	1/1	0.95	0.08	50,50,50,50	0
58	MG	1A	3822	1/1	0.95	0.30	31,31,31,31	0
58	MG	1A	3500	1/1	0.95	0.06	40,40,40,40	0
58	MG	2a	1638	1/1	0.95	0.04	73,73,73,73	0
58	MG	1a	1627	1/1	0.95	0.19	53,53,53,53	0
58	MG	1A	3825	1/1	0.95	0.05	21,21,21,21	0
58	MG	2A	3033	1/1	0.95	0.13	47,47,47,47	0
58	MG	1A	4037	1/1	0.95	0.06	22,22,22,22	0
58	MG	2A	3037	1/1	0.95	0.14	65,65,65,65	0
58	MG	1A	3406	1/1	0.95	0.09	43,43,43,43	0
58	MG	1A	4041	1/1	0.95	0.13	32,32,32,32	0
58	MG	1A	3503	1/1	0.95	0.19	46,46,46,46	0
58	MG	2A	3043	1/1	0.95	0.16	53,53,53,53	0
58	MG	1A	4046	1/1	0.95	0.07	39,39,39,39	0
58	MG	1A	3646	1/1	0.95	0.06	13,13,13,13	0
58	MG	1A	3081	1/1	0.95	0.09	55,55,55,55	0
58	MG	1A	4052	1/1	0.95	0.07	61,61,61,61	0
58	MG	2A	3641	1/1	0.95	0.12	63,63,63,63	0
58	MG	1A	3083	1/1	0.95	0.10	31,31,31,31	0
58	MG	1A	3043	1/1	0.95	0.24	36,36,36,36	0
58	MG	1A	3271	1/1	0.95	0.11	36,36,36,36	0
58	MG	2A	3320	1/1	0.95	0.09	42,42,42,42	0
58	MG	1A	3508	1/1	0.95	0.09	41,41,41,41	0
58	MG	2A	3648	1/1	0.95	0.12	56,56,56,56	0
58	MG	1A	3655	1/1	0.95	0.09	46,46,46,46	0
58	MG	1A	3340	1/1	0.95	0.08	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2A	3059	1/1	0.95	0.13	51,51,51,51	0
58	MG	2A	3652	1/1	0.95	0.08	53,53,53,53	0
58	MG	1A	3272	1/1	0.95	0.16	30,30,30,30	0
58	MG	1a	1648	1/1	0.95	0.16	38,38,38,38	0
58	MG	2A	3063	1/1	0.95	0.10	50,50,50,50	0
58	MG	1A	3661	1/1	0.95	0.12	32,32,32,32	0
58	MG	1A	4076	1/1	0.95	0.10	23,23,23,23	0
58	MG	1a	1654	1/1	0.95	0.11	51,51,51,51	0
58	MG	1A	3662	1/1	0.95	0.11	44,44,44,44	0
58	MG	1a	1656	1/1	0.95	0.06	49,49,49,49	0
58	MG	1A	3847	1/1	0.95	0.09	47,47,47,47	0
58	MG	1A	3273	1/1	0.95	0.07	45,45,45,45	0
58	MG	1A	3013	1/1	0.95	0.19	29,29,29,29	0
58	MG	1A	3851	1/1	0.95	0.13	37,37,37,37	0
58	MG	1A	3853	1/1	0.95	0.09	47,47,47,47	0
58	MG	2A	3078	1/1	0.95	0.07	45,45,45,45	0
58	MG	2A	3079	1/1	0.95	0.07	17,17,17,17	0
58	MG	1A	3517	1/1	0.95	0.35	39,39,39,39	0
58	MG	2a	1683	1/1	0.95	0.09	53,53,53,53	0
58	MG	2A	3081	1/1	0.95	0.11	57,57,57,57	0
58	MG	1A	3282	1/1	0.95	0.24	38,38,38,38	0
58	MG	1A	3523	1/1	0.95	0.14	64,64,64,64	0
58	MG	2A	3085	1/1	0.95	0.06	47,47,47,47	0
58	MG	2a	1689	1/1	0.95	0.18	56,56,56,56	0
58	MG	2A	3678	1/1	0.95	0.12	37,37,37,37	0
58	MG	2A	3679	1/1	0.95	0.23	71,71,71,71	0
58	MG	2a	1692	1/1	0.95	0.12	80,80,80,80	0
58	MG	1A	3675	1/1	0.95	0.07	41,41,41,41	0
58	MG	1A	3677	1/1	0.95	0.07	27,27,27,27	0
58	MG	1A	3421	1/1	0.95	0.07	37,37,37,37	0
58	MG	1A	3090	1/1	0.95	0.10	43,43,43,43	0
58	MG	1A	3870	1/1	0.95	0.07	28,28,28,28	0
58	MG	2A	3685	1/1	0.95	0.06	46,46,46,46	0
58	MG	2A	3356	1/1	0.95	0.07	63,63,63,63	0
58	MG	1A	4103	1/1	0.95	0.23	46,46,46,46	0
58	MG	1A	3349	1/1	0.95	0.07	35,35,35,35	0
58	MG	2A	3690	1/1	0.95	0.07	31,31,31,31	0
58	MG	1A	3029	1/1	0.95	0.09	44,44,44,44	0
58	MG	1A	3426	1/1	0.95	0.14	39,39,39,39	0
58	MG	1a	1678	1/1	0.95	0.13	46,46,46,46	0
58	MG	1A	3100	1/1	0.95	0.07	35,35,35,35	0
58	MG	2a	1711	1/1	0.95	0.15	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3152	1/1	0.95	0.12	45,45,45,45	0
58	MG	1B	210	1/1	0.95	0.09	50,50,50,50	0
58	MG	1A	3212	1/1	0.95	0.06	34,34,34,34	0
58	MG	1A	3701	1/1	0.95	0.06	34,34,34,34	0
58	MG	1B	213	1/1	0.95	0.18	51,51,51,51	0
58	MG	1B	214	1/1	0.95	0.07	62,62,62,62	0
58	MG	2A	3703	1/1	0.95	0.14	56,56,56,56	0
58	MG	2a	1721	1/1	0.95	0.19	53,53,53,53	0
58	MG	1A	3156	1/1	0.95	0.22	41,41,41,41	0
58	MG	2A	3374	1/1	0.95	0.10	63,63,63,63	0
58	MG	2A	3707	1/1	0.95	0.10	54,54,54,54	0
58	MG	2A	3109	1/1	0.95	0.14	44,44,44,44	0
58	MG	1A	3217	1/1	0.95	0.06	43,43,43,43	0
58	MG	2A	3111	1/1	0.95	0.09	52,52,52,52	0
58	MG	1A	3218	1/1	0.95	0.14	44,44,44,44	0
58	MG	2A	3716	1/1	0.95	0.12	68,68,68,68	0
58	MG	1A	3707	1/1	0.95	0.09	21,21,21,21	0
58	MG	2A	3381	1/1	0.95	0.42	57,57,57,57	0
58	MG	2A	3719	1/1	0.95	0.06	46,46,46,46	0
58	MG	1A	3101	1/1	0.95	0.15	54,54,54,54	0
58	MG	1A	3892	1/1	0.95	0.08	25,25,25,25	0
58	MG	1A	3106	1/1	0.95	0.10	44,44,44,44	0
58	MG	1A	3713	1/1	0.95	0.09	27,27,27,27	0
58	MG	1A	3545	1/1	0.95	0.18	44,44,44,44	0
58	MG	1A	3159	1/1	0.95	0.08	30,30,30,30	0
58	MG	1A	3304	1/1	0.95	0.30	53,53,53,53	0
58	MG	2A	3727	1/1	0.95	0.06	52,52,52,52	0
58	MG	2A	3729	1/1	0.95	0.10	46,46,46,46	0
58	MG	1B	233	1/1	0.95	0.08	60,60,60,60	0
58	MG	2a	1746	1/1	0.95	0.15	56,56,56,56	0
58	MG	2A	3391	1/1	0.95	0.08	49,49,49,49	0
58	MG	1A	3162	1/1	0.95	0.27	33,33,33,33	0
58	MG	1A	3441	1/1	0.95	0.13	40,40,40,40	0
58	MG	2A	3394	1/1	0.95	0.11	53,53,53,53	0
58	MG	1A	3722	1/1	0.95	0.07	40,40,40,40	0
58	MG	2A	3738	1/1	0.95	0.12	46,46,46,46	0
58	MG	2A	3127	1/1	0.95	0.17	47,47,47,47	0
58	MG	2A	3400	1/1	0.95	0.17	47,47,47,47	0
58	MG	1D	308	1/1	0.95	0.11	34,34,34,34	0
58	MG	1A	3163	1/1	0.95	0.10	40,40,40,40	0
58	MG	1A	3164	1/1	0.95	0.20	46,46,46,46	0
58	MG	1A	3911	1/1	0.95	0.07	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3912	1/1	0.95	0.09	34,34,34,34	0
58	MG	2A	3749	1/1	0.95	0.16	40,40,40,40	0
58	MG	2A	3136	1/1	0.95	0.13	40,40,40,40	0
58	MG	1a	1713	1/1	0.95	0.15	47,47,47,47	0
58	MG	1A	3553	1/1	0.95	0.22	30,30,30,30	0
58	MG	2A	3756	1/1	0.95	0.05	45,45,45,45	0
58	MG	2a	1768	1/1	0.95	0.11	64,64,64,64	0
58	MG	1A	3449	1/1	0.95	0.27	64,64,64,64	0
58	MG	1A	3561	1/1	0.95	0.11	42,42,42,42	0
58	MG	2A	3416	1/1	0.95	0.06	43,43,43,43	0
58	MG	2A	3417	1/1	0.95	0.23	47,47,47,47	0
58	MG	2a	1774	1/1	0.95	0.07	61,61,61,61	0
58	MG	1A	3450	1/1	0.95	0.10	43,43,43,43	0
58	MG	1A	3920	1/1	0.95	0.13	48,48,48,48	0
58	MG	2A	3769	1/1	0.95	0.09	58,58,58,58	0
58	MG	2A	3152	1/1	0.95	0.09	50,50,50,50	0
58	MG	1A	3921	1/1	0.95	0.05	38,38,38,38	0
58	MG	2a	1781	1/1	0.95	0.06	62,62,62,62	0
58	MG	1A	3563	1/1	0.95	0.17	42,42,42,42	0
58	MG	2A	3155	1/1	0.95	0.15	40,40,40,40	0
58	MG	2A	3428	1/1	0.95	0.05	42,42,42,42	0
58	MG	2a	1785	1/1	0.95	0.11	49,49,49,49	0
58	MG	1F	304	1/1	0.95	0.10	47,47,47,47	0
58	MG	2a	1787	1/1	0.95	0.14	48,48,48,48	0
58	MG	1F	309	1/1	0.95	0.06	48,48,48,48	0
58	MG	2A	3778	1/1	0.95	0.10	44,44,44,44	0
58	MG	2a	1790	1/1	0.95	0.10	62,62,62,62	0
58	MG	1a	1727	1/1	0.95	0.12	51,51,51,51	0
58	MG	1A	3569	1/1	0.95	0.11	24,24,24,24	0
58	MG	2A	3781	1/1	0.95	0.07	59,59,59,59	0
58	MG	1A	3571	1/1	0.95	0.10	44,44,44,44	0
58	MG	1G	204	1/1	0.95	0.10	52,52,52,52	0
58	MG	1G	205	1/1	0.95	0.12	55,55,55,55	0
58	MG	1A	3451	1/1	0.95	0.14	35,35,35,35	0
58	MG	2A	3167	1/1	0.95	0.07	55,55,55,55	0
58	MG	1A	3574	1/1	0.95	0.31	34,34,34,34	0
58	MG	2A	3169	1/1	0.95	0.06	54,54,54,54	0
58	MG	2A	3170	1/1	0.95	0.10	57,57,57,57	0
58	MG	2A	3793	1/1	0.95	0.13	51,51,51,51	0
58	MG	1N	202	1/1	0.95	0.07	34,34,34,34	0
58	MG	2A	3172	1/1	0.95	0.10	40,40,40,40	0
58	MG	1A	3577	1/1	0.95	0.11	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2A	3801	1/1	0.95	0.09	51,51,51,51	0
58	MG	2A	3453	1/1	0.95	0.06	52,52,52,52	0
58	MG	2A	3455	1/1	0.95	0.10	62,62,62,62	0
58	MG	1A	3452	1/1	0.95	0.17	60,60,60,60	0
58	MG	1A	3378	1/1	0.95	0.07	37,37,37,37	0
58	MG	2A	3806	1/1	0.95	0.06	47,47,47,47	0
58	MG	2A	3808	1/1	0.95	0.11	68,68,68,68	0
58	MG	1A	3243	1/1	0.95	0.14	56,56,56,56	0
58	MG	1O	204	1/1	0.95	0.13	68,68,68,68	0
58	MG	1A	3946	1/1	0.95	0.11	66,66,66,66	0
58	MG	2a	1822	1/1	0.95	0.12	61,61,61,61	0
58	MG	2A	3817	1/1	0.95	0.12	57,57,57,57	0
58	MG	2A	3180	1/1	0.95	0.14	52,52,52,52	0
58	MG	1A	3949	1/1	0.95	0.09	48,48,48,48	0
58	MG	1A	3459	1/1	0.95	0.14	34,34,34,34	0
58	MG	2a	1827	1/1	0.95	0.15	54,54,54,54	0
58	MG	1A	3755	1/1	0.95	0.13	42,42,42,42	0
58	MG	2A	3823	1/1	0.95	0.08	70,70,70,70	0
58	MG	1A	3954	1/1	0.95	0.06	45,45,45,45	0
58	MG	2A	3467	1/1	0.95	0.06	47,47,47,47	0
58	MG	1A	3020	1/1	0.95	0.09	34,34,34,34	0
58	MG	1A	3757	1/1	0.95	0.06	46,46,46,46	0
58	MG	1a	1764	1/1	0.95	0.09	62,62,62,62	0
58	MG	1A	3760	1/1	0.95	0.07	26,26,26,26	0
58	MG	1A	3462	1/1	0.95	0.23	54,54,54,54	0
58	MG	1a	1767	1/1	0.95	0.09	45,45,45,45	0
58	MG	1A	3463	1/1	0.95	0.10	35,35,35,35	0
58	MG	1A	3246	1/1	0.95	0.11	58,58,58,58	0
58	MG	2A	3484	1/1	0.95	0.06	57,57,57,57	0
58	MG	1A	3764	1/1	0.95	0.06	17,17,17,17	0
58	MG	1A	3113	1/1	0.95	0.13	38,38,38,38	0
58	MG	1A	3176	1/1	0.95	0.08	19,19,19,19	0
58	MG	1a	1776	1/1	0.95	0.09	53,53,53,53	0
58	MG	1A	3969	1/1	0.95	0.22	55,55,55,55	0
58	MG	1A	3970	1/1	0.95	0.09	44,44,44,44	0
58	MG	1A	3971	1/1	0.95	0.11	55,55,55,55	0
58	MG	1A	3178	1/1	0.95	0.07	22,22,22,22	0
58	MG	1W	205	1/1	0.95	0.08	31,31,31,31	0
58	MG	2A	3498	1/1	0.95	0.14	53,53,53,53	0
58	MG	1A	3974	1/1	0.95	0.08	56,56,56,56	0
58	MG	1X	103	1/1	0.95	0.08	34,34,34,34	0
58	MG	1A	3253	1/1	0.95	0.11	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2v	105	1/1	0.95	0.10	52,52,52,52	0
58	MG	1A	3389	1/1	0.95	0.24	27,27,27,27	0
58	MG	1A	3977	1/1	0.95	0.06	52,52,52,52	0
58	MG	1A	3601	1/1	0.95	0.08	40,40,40,40	0
58	MG	1A	3775	1/1	0.95	0.07	24,24,24,24	0
58	MG	1A	3035	1/1	0.95	0.12	38,38,38,38	0
58	MG	1a	1801	1/1	0.95	0.07	60,60,60,60	0
58	MG	1a	1802	1/1	0.95	0.11	69,69,69,69	0
58	MG	2A	3514	1/1	0.95	0.12	45,45,45,45	0
58	MG	2A	3515	1/1	0.95	0.08	39,39,39,39	0
58	MG	2B	210	1/1	0.95	0.08	66,66,66,66	0
58	MG	1A	3768	1/1	0.96	0.06	33,33,33,33	0
58	MG	1A	3165	1/1	0.96	0.10	36,36,36,36	0
58	MG	1R	202	1/1	0.96	0.08	26,26,26,26	0
58	MG	1A	3375	1/1	0.96	0.07	40,40,40,40	0
58	MG	1A	3376	1/1	0.96	0.10	39,39,39,39	0
58	MG	1A	3236	1/1	0.96	0.19	30,30,30,30	0
58	MG	1A	3077	1/1	0.96	0.06	30,30,30,30	0
58	MG	1T	201	1/1	0.96	0.09	50,50,50,50	0
58	MG	1A	3973	1/1	0.96	0.04	54,54,54,54	0
58	MG	2A	3505	1/1	0.96	0.09	67,67,67,67	0
58	MG	2A	3506	1/1	0.96	0.12	54,54,54,54	0
58	MG	1U	202	1/1	0.96	0.28	42,42,42,42	0
58	MG	1a	1772	1/1	0.96	0.07	58,58,58,58	0
58	MG	1A	3599	1/1	0.96	0.11	38,38,38,38	0
58	MG	1A	3091	1/1	0.96	0.06	38,38,38,38	0
58	MG	1A	3171	1/1	0.96	0.06	36,36,36,36	0
58	MG	2A	3203	1/1	0.96	0.05	49,49,49,49	0
58	MG	1U	209	1/1	0.96	0.32	31,31,31,31	0
58	MG	1A	3172	1/1	0.96	0.06	34,34,34,34	0
58	MG	1V	203	1/1	0.96	0.22	35,35,35,35	0
58	MG	1A	3783	1/1	0.96	0.05	19,19,19,19	0
58	MG	2A	3208	1/1	0.96	0.09	51,51,51,51	0
58	MG	1A	3979	1/1	0.96	0.08	51,51,51,51	0
58	MG	1V	207	1/1	0.96	0.06	53,53,53,53	0
58	MG	1a	1785	1/1	0.96	0.07	46,46,46,46	0
58	MG	2D	305	1/1	0.96	0.13	48,48,48,48	0
58	MG	1A	3093	1/1	0.96	0.13	53,53,53,53	0
58	MG	1a	1788	1/1	0.96	0.09	47,47,47,47	0
58	MG	2A	3528	1/1	0.96	0.11	54,54,54,54	0
58	MG	1A	3479	1/1	0.96	0.07	31,31,31,31	0
58	MG	1W	203	1/1	0.96	0.07	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2E	305	1/1	0.96	0.09	61,61,61,61	0
58	MG	1A	3606	1/1	0.96	0.05	40,40,40,40	0
58	MG	2A	3220	1/1	0.96	0.07	49,49,49,49	0
58	MG	1a	1796	1/1	0.96	0.05	67,67,67,67	0
58	MG	2A	3535	1/1	0.96	0.12	57,57,57,57	0
58	MG	1a	1797	1/1	0.96	0.06	67,67,67,67	0
58	MG	1A	3983	1/1	0.96	0.09	63,63,63,63	0
58	MG	2A	3227	1/1	0.96	0.18	30,30,30,30	0
58	MG	2A	3228	1/1	0.96	0.07	50,50,50,50	0
58	MG	2A	3545	1/1	0.96	0.05	25,25,25,25	0
58	MG	1A	3480	1/1	0.96	0.11	34,34,34,34	0
58	MG	2A	3547	1/1	0.96	0.08	55,55,55,55	0
58	MG	1A	3790	1/1	0.96	0.08	49,49,49,49	0
58	MG	1Y	201	1/1	0.96	0.09	42,42,42,42	0
58	MG	1A	3312	1/1	0.96	0.13	41,41,41,41	0
58	MG	2A	3233	1/1	0.96	0.12	43,43,43,43	0
58	MG	2U	201	1/1	0.96	0.23	51,51,51,51	0
58	MG	1A	3794	1/1	0.96	0.06	40,40,40,40	0
58	MG	1A	3482	1/1	0.96	0.10	39,39,39,39	0
58	MG	2A	3236	1/1	0.96	0.10	56,56,56,56	0
58	MG	2W	202	1/1	0.96	0.21	52,52,52,52	0
58	MG	1A	3313	1/1	0.96	0.07	49,49,49,49	0
58	MG	2X	102	1/1	0.96	0.07	59,59,59,59	0
58	MG	1Z	303	1/1	0.96	0.09	45,45,45,45	0
58	MG	1a	1807	1/1	0.96	0.05	59,59,59,59	0
58	MG	1A	3127	1/1	0.96	0.13	32,32,32,32	0
58	MG	1a	1809	1/1	0.96	0.09	54,54,54,54	0
58	MG	1A	3994	1/1	0.96	0.06	46,46,46,46	0
58	MG	2A	3243	1/1	0.96	0.32	55,55,55,55	0
58	MG	25	101	1/1	0.96	0.16	42,42,42,42	0
58	MG	2A	3563	1/1	0.96	0.07	40,40,40,40	0
58	MG	1A	3078	1/1	0.96	0.11	39,39,39,39	0
58	MG	1a	1812	1/1	0.96	0.18	59,59,59,59	0
58	MG	1A	3486	1/1	0.96	0.07	29,29,29,29	0
58	MG	1A	3316	1/1	0.96	0.14	41,41,41,41	0
58	MG	10	106	1/1	0.96	0.12	65,65,65,65	0
58	MG	2A	3250	1/1	0.96	0.07	47,47,47,47	0
58	MG	1A	3317	1/1	0.96	0.16	47,47,47,47	0
58	MG	1A	3808	1/1	0.96	0.04	22,22,22,22	0
58	MG	2A	3253	1/1	0.96	0.13	49,49,49,49	0
58	MG	2A	3254	1/1	0.96	0.24	61,61,61,61	0
58	MG	1A	3625	1/1	0.96	0.10	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2a	1603	1/1	0.96	0.11	60,60,60,60	0
58	MG	2A	3256	1/1	0.96	0.17	42,42,42,42	0
58	MG	1f	201	1/1	0.96	0.13	51,51,51,51	0
58	MG	2A	3585	1/1	0.96	0.05	62,62,62,62	0
58	MG	1A	3318	1/1	0.96	0.06	20,20,20,20	0
58	MG	2a	1608	1/1	0.96	0.11	52,52,52,52	0
58	MG	1A	3634	1/1	0.96	0.05	35,35,35,35	0
58	MG	1m	3001	1/1	0.96	0.09	54,54,54,54	0
58	MG	1A	4005	1/1	0.96	0.06	33,33,33,33	0
58	MG	2A	3263	1/1	0.96	0.18	60,60,60,60	0
58	MG	1A	3492	1/1	0.96	0.08	43,43,43,43	0
58	MG	1A	3493	1/1	0.96	0.09	48,48,48,48	0
58	MG	1A	3637	1/1	0.96	0.06	21,21,21,21	0
58	MG	13	102	1/1	0.96	0.08	32,32,32,32	0
58	MG	1A	3819	1/1	0.96	0.13	52,52,52,52	0
58	MG	2A	3270	1/1	0.96	0.10	40,40,40,40	0
58	MG	1w	101	1/1	0.96	0.13	48,48,48,48	0
58	MG	1A	3096	1/1	0.96	0.05	60,60,60,60	0
58	MG	2a	1621	1/1	0.96	0.08	60,60,60,60	0
58	MG	1A	4018	1/1	0.96	0.06	41,41,41,41	0
58	MG	15	105	1/1	0.96	0.18	20,20,20,20	0
58	MG	1A	3252	1/1	0.96	0.07	45,45,45,45	0
58	MG	1A	3496	1/1	0.96	0.10	52,52,52,52	0
58	MG	1A	3823	1/1	0.96	0.06	40,40,40,40	0
58	MG	2a	1628	1/1	0.96	0.14	46,46,46,46	0
58	MG	1A	3321	1/1	0.96	0.10	29,29,29,29	0
58	MG	2A	3605	1/1	0.96	0.07	60,60,60,60	0
58	MG	1A	4023	1/1	0.96	0.10	73,73,73,73	0
58	MG	1x	104	1/1	0.96	0.15	55,55,55,55	0
58	MG	2a	1633	1/1	0.96	0.07	85,85,85,85	0
58	MG	18	103	1/1	0.96	0.06	33,33,33,33	0
58	MG	1A	3185	1/1	0.96	0.06	29,29,29,29	0
58	MG	1A	3827	1/1	0.96	0.07	31,31,31,31	0
58	MG	1A	4026	1/1	0.96	0.07	42,42,42,42	0
58	MG	1A	3186	1/1	0.96	0.05	39,39,39,39	0
58	MG	1A	3135	1/1	0.96	0.14	46,46,46,46	0
58	MG	1A	3649	1/1	0.96	0.13	23,23,23,23	0
58	MG	2A	3620	1/1	0.96	0.19	44,44,44,44	0
58	MG	2A	3622	1/1	0.96	0.07	47,47,47,47	0
58	MG	2a	1643	1/1	0.96	0.17	55,55,55,55	0
58	MG	2A	3623	1/1	0.96	0.09	32,32,32,32	0
58	MG	2A	3002	1/1	0.96	0.23	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2A	3291	1/1	0.96	0.12	52,52,52,52	0
58	MG	1A	3834	1/1	0.96	0.14	51,51,51,51	0
58	MG	2A	3293	1/1	0.96	0.12	45,45,45,45	0
58	MG	1a	1603	1/1	0.96	0.12	62,62,62,62	0
58	MG	1A	3097	1/1	0.96	0.13	41,41,41,41	0
58	MG	2A	3631	1/1	0.96	0.07	53,53,53,53	0
58	MG	1a	1605	1/1	0.96	0.08	48,48,48,48	0
58	MG	2A	3633	1/1	0.96	0.16	37,37,37,37	0
58	MG	1A	3039	1/1	0.96	0.20	27,27,27,27	0
58	MG	1A	3142	1/1	0.96	0.12	42,42,42,42	0
58	MG	1A	3198	1/1	0.96	0.17	32,32,32,32	0
58	MG	1A	4038	1/1	0.96	0.08	36,36,36,36	0
58	MG	2A	3014	1/1	0.96	0.11	45,45,45,45	0
58	MG	1A	3143	1/1	0.96	0.08	52,52,52,52	0
58	MG	1a	1612	1/1	0.96	0.12	29,29,29,29	0
58	MG	2A	3017	1/1	0.96	0.12	43,43,43,43	0
58	MG	1A	4040	1/1	0.96	0.10	38,38,38,38	0
58	MG	1A	3412	1/1	0.96	0.12	36,36,36,36	0
58	MG	1a	1615	1/1	0.96	0.17	47,47,47,47	0
58	MG	2A	3025	1/1	0.96	0.10	41,41,41,41	0
58	MG	2A	3026	1/1	0.96	0.18	44,44,44,44	0
58	MG	1A	4042	1/1	0.96	0.10	28,28,28,28	0
58	MG	2a	1669	1/1	0.96	0.06	57,57,57,57	0
58	MG	2A	3029	1/1	0.96	0.11	58,58,58,58	0
58	MG	1a	1618	1/1	0.96	0.04	47,47,47,47	0
58	MG	1A	3331	1/1	0.96	0.11	54,54,54,54	0
58	MG	1A	3415	1/1	0.96	0.05	45,45,45,45	0
58	MG	1A	3266	1/1	0.96	0.11	45,45,45,45	0
58	MG	1A	4048	1/1	0.96	0.06	22,22,22,22	0
58	MG	2A	3038	1/1	0.96	0.10	45,45,45,45	0
58	MG	2A	3319	1/1	0.96	0.13	55,55,55,55	0
58	MG	2A	3659	1/1	0.96	0.11	34,34,34,34	0
58	MG	1A	3844	1/1	0.96	0.13	50,50,50,50	0
58	MG	1A	3845	1/1	0.96	0.07	40,40,40,40	0
58	MG	1A	4054	1/1	0.96	0.08	46,46,46,46	0
58	MG	2A	3042	1/1	0.96	0.12	48,48,48,48	0
58	MG	1A	4055	1/1	0.96	0.05	37,37,37,37	0
58	MG	1A	3515	1/1	0.96	0.11	24,24,24,24	0
58	MG	1A	3516	1/1	0.96	0.21	32,32,32,32	0
58	MG	1A	3063	1/1	0.96	0.24	42,42,42,42	0
58	MG	2A	3047	1/1	0.96	0.07	54,54,54,54	0
58	MG	2A	3669	1/1	0.96	0.19	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3669	1/1	0.96	0.08	36,36,36,36	0
58	MG	1A	3520	1/1	0.96	0.08	43,43,43,43	0
58	MG	2a	1694	1/1	0.96	0.20	57,57,57,57	0
58	MG	1A	3673	1/1	0.96	0.04	20,20,20,20	0
58	MG	2A	3673	1/1	0.96	0.13	52,52,52,52	0
58	MG	1A	4073	1/1	0.96	0.14	55,55,55,55	0
58	MG	1A	3854	1/1	0.96	0.06	16,16,16,16	0
58	MG	1A	3521	1/1	0.96	0.08	51,51,51,51	0
58	MG	2A	3055	1/1	0.96	0.19	58,58,58,58	0
58	MG	2A	3338	1/1	0.96	0.18	56,56,56,56	0
58	MG	2A	3339	1/1	0.96	0.08	42,42,42,42	0
58	MG	1A	3102	1/1	0.96	0.09	34,34,34,34	0
58	MG	2A	3058	1/1	0.96	0.10	57,57,57,57	0
58	MG	1A	3147	1/1	0.96	0.06	31,31,31,31	0
58	MG	1a	1639	1/1	0.96	0.18	52,52,52,52	0
58	MG	2A	3061	1/1	0.96	0.15	57,57,57,57	0
58	MG	1A	3103	1/1	0.96	0.11	47,47,47,47	0
58	MG	1A	3863	1/1	0.96	0.10	44,44,44,44	0
58	MG	1A	3337	1/1	0.96	0.06	37,37,37,37	0
58	MG	2a	1714	1/1	0.96	0.04	34,34,34,34	0
58	MG	1A	3104	1/1	0.96	0.11	29,29,29,29	0
58	MG	1A	3153	1/1	0.96	0.08	31,31,31,31	0
58	MG	1A	3155	1/1	0.96	0.17	42,42,42,42	0
58	MG	1A	3530	1/1	0.96	0.08	44,44,44,44	0
58	MG	1A	4090	1/1	0.96	0.07	53,53,53,53	0
58	MG	2A	3071	1/1	0.96	0.10	52,52,52,52	0
58	MG	1A	4091	1/1	0.96	0.20	40,40,40,40	0
58	MG	1A	3275	1/1	0.96	0.05	44,44,44,44	0
58	MG	2A	3359	1/1	0.96	0.08	66,66,66,66	0
58	MG	1A	3698	1/1	0.96	0.08	68,68,68,68	0
58	MG	1A	3699	1/1	0.96	0.09	23,23,23,23	0
58	MG	2a	1727	1/1	0.96	0.07	54,54,54,54	0
58	MG	2A	3077	1/1	0.96	0.10	36,36,36,36	0
58	MG	1a	1657	1/1	0.96	0.14	52,52,52,52	0
58	MG	1A	3276	1/1	0.96	0.06	31,31,31,31	0
58	MG	1A	3210	1/1	0.96	0.08	42,42,42,42	0
58	MG	2A	3708	1/1	0.96	0.08	42,42,42,42	0
58	MG	1A	3703	1/1	0.96	0.10	28,28,28,28	0
58	MG	1A	4102	1/1	0.96	0.12	43,43,43,43	0
58	MG	1A	3346	1/1	0.96	0.06	41,41,41,41	0
58	MG	1B	201	1/1	0.96	0.11	37,37,37,37	0
58	MG	1A	3537	1/1	0.96	0.17	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2a	1738	1/1	0.96	0.20	38,38,38,38	0
58	MG	1A	3279	1/1	0.96	0.17	35,35,35,35	0
58	MG	1A	3280	1/1	0.96	0.12	31,31,31,31	0
58	MG	1B	206	1/1	0.96	0.17	43,43,43,43	0
58	MG	1B	207	1/1	0.96	0.07	58,58,58,58	0
58	MG	1a	1670	1/1	0.96	0.21	53,53,53,53	0
58	MG	1A	3019	1/1	0.96	0.15	34,34,34,34	0
58	MG	1A	3543	1/1	0.96	0.17	49,49,49,49	0
58	MG	1A	3893	1/1	0.96	0.04	20,20,20,20	0
58	MG	1A	3434	1/1	0.96	0.08	39,39,39,39	0
58	MG	1A	3715	1/1	0.96	0.12	52,52,52,52	0
58	MG	2A	3100	1/1	0.96	0.11	52,52,52,52	0
58	MG	2A	3728	1/1	0.96	0.10	46,46,46,46	0
58	MG	1A	3435	1/1	0.96	0.10	39,39,39,39	0
58	MG	1a	1677	1/1	0.96	0.15	45,45,45,45	0
58	MG	1A	3107	1/1	0.96	0.06	31,31,31,31	0
58	MG	1B	215	1/1	0.96	0.05	44,44,44,44	0
58	MG	1B	216	1/1	0.96	0.09	42,42,42,42	0
58	MG	1B	219	1/1	0.96	0.10	36,36,36,36	0
58	MG	2a	1759	1/1	0.96	0.07	59,59,59,59	0
58	MG	2A	3735	1/1	0.96	0.18	57,57,57,57	0
58	MG	1A	3352	1/1	0.96	0.16	47,47,47,47	0
58	MG	2A	3737	1/1	0.96	0.09	53,53,53,53	0
58	MG	1A	3900	1/1	0.96	0.08	46,46,46,46	0
58	MG	1A	3901	1/1	0.96	0.06	38,38,38,38	0
58	MG	2A	3740	1/1	0.96	0.10	51,51,51,51	0
58	MG	2A	3396	1/1	0.96	0.14	37,37,37,37	0
58	MG	1A	3216	1/1	0.96	0.18	41,41,41,41	0
58	MG	2A	3398	1/1	0.96	0.20	46,46,46,46	0
58	MG	1A	3354	1/1	0.96	0.09	55,55,55,55	0
58	MG	1A	3440	1/1	0.96	0.16	31,31,31,31	0
58	MG	2A	3401	1/1	0.96	0.11	44,44,44,44	0
58	MG	2A	3402	1/1	0.96	0.21	46,46,46,46	0
58	MG	1A	3724	1/1	0.96	0.16	50,50,50,50	0
58	MG	1a	1690	1/1	0.96	0.12	37,37,37,37	0
58	MG	1A	3060	1/1	0.96	0.08	40,40,40,40	0
58	MG	1A	3442	1/1	0.96	0.09	33,33,33,33	0
58	MG	2a	1778	1/1	0.96	0.15	65,65,65,65	0
58	MG	2A	3408	1/1	0.96	0.12	34,34,34,34	0
58	MG	2A	3758	1/1	0.96	0.05	52,52,52,52	0
58	MG	2A	3759	1/1	0.96	0.19	59,59,59,59	0
58	MG	2A	3760	1/1	0.96	0.07	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3729	1/1	0.96	0.07	37,37,37,37	0
58	MG	1A	3557	1/1	0.96	0.21	33,33,33,33	0
58	MG	2A	3411	1/1	0.96	0.25	44,44,44,44	0
58	MG	1A	3444	1/1	0.96	0.24	33,33,33,33	0
58	MG	1A	3560	1/1	0.96	0.12	29,29,29,29	0
58	MG	1A	3112	1/1	0.96	0.05	32,32,32,32	0
58	MG	1D	304	1/1	0.96	0.11	34,34,34,34	0
58	MG	1A	3447	1/1	0.96	0.17	43,43,43,43	0
58	MG	2a	1791	1/1	0.96	0.14	60,60,60,60	0
58	MG	1D	307	1/1	0.96	0.11	35,35,35,35	0
58	MG	1A	3740	1/1	0.96	0.06	35,35,35,35	0
58	MG	1D	311	1/1	0.96	0.05	32,32,32,32	0
58	MG	2A	3130	1/1	0.96	0.17	52,52,52,52	0
58	MG	2A	3421	1/1	0.96	0.20	47,47,47,47	0
58	MG	2a	1797	1/1	0.96	0.08	56,56,56,56	0
58	MG	2a	1798	1/1	0.96	0.06	56,56,56,56	0
58	MG	2A	3777	1/1	0.96	0.09	59,59,59,59	0
58	MG	1A	3923	1/1	0.96	0.10	33,33,33,33	0
58	MG	1A	3924	1/1	0.96	0.06	38,38,38,38	0
58	MG	2A	3134	1/1	0.96	0.09	50,50,50,50	0
58	MG	1A	3925	1/1	0.96	0.07	67,67,67,67	0
58	MG	1A	3926	1/1	0.96	0.09	55,55,55,55	0
58	MG	1A	3049	1/1	0.96	0.04	12,12,12,12	0
58	MG	1A	3565	1/1	0.96	0.13	35,35,35,35	0
58	MG	2A	3142	1/1	0.96	0.10	35,35,35,35	0
58	MG	2A	3143	1/1	0.96	0.16	39,39,39,39	0
58	MG	2A	3787	1/1	0.96	0.06	52,52,52,52	0
58	MG	1A	3220	1/1	0.96	0.18	44,44,44,44	0
58	MG	2A	3145	1/1	0.96	0.21	50,50,50,50	0
58	MG	2a	1813	1/1	0.96	0.15	47,47,47,47	0
58	MG	1A	3746	1/1	0.96	0.08	39,39,39,39	0
58	MG	2A	3439	1/1	0.96	0.08	57,57,57,57	0
58	MG	2A	3440	1/1	0.96	0.18	39,39,39,39	0
58	MG	2A	3147	1/1	0.96	0.07	45,45,45,45	0
58	MG	2A	3797	1/1	0.96	0.06	42,42,42,42	0
58	MG	1a	1716	1/1	0.96	0.21	33,33,33,33	0
58	MG	2A	3443	1/1	0.96	0.08	47,47,47,47	0
58	MG	2A	3149	1/1	0.96	0.06	38,38,38,38	0
58	MG	1A	3359	1/1	0.96	0.07	42,42,42,42	0
58	MG	2A	3447	1/1	0.96	0.08	41,41,41,41	0
58	MG	1A	3749	1/1	0.96	0.06	42,42,42,42	0
58	MG	1A	3088	1/1	0.96	0.16	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1F	301	1/1	0.96	0.15	39,39,39,39	0
58	MG	1A	3940	1/1	0.96	0.06	37,37,37,37	0
58	MG	1A	3298	1/1	0.96	0.17	35,35,35,35	0
58	MG	1A	3575	1/1	0.96	0.25	44,44,44,44	0
58	MG	2A	3816	1/1	0.96	0.10	45,45,45,45	0
58	MG	2A	3159	1/1	0.96	0.14	51,51,51,51	0
58	MG	1a	1726	1/1	0.96	0.10	45,45,45,45	0
58	MG	2A	3459	1/1	0.96	0.10	52,52,52,52	0
58	MG	1A	3224	1/1	0.96	0.08	40,40,40,40	0
58	MG	1A	3947	1/1	0.96	0.05	43,43,43,43	0
58	MG	1A	3579	1/1	0.96	0.09	42,42,42,42	0
58	MG	1A	3580	1/1	0.96	0.23	43,43,43,43	0
58	MG	2A	3826	1/1	0.96	0.10	68,68,68,68	0
58	MG	2A	3165	1/1	0.96	0.13	37,37,37,37	0
58	MG	1a	1736	1/1	0.96	0.14	55,55,55,55	0
58	MG	1A	3951	1/1	0.96	0.08	53,53,53,53	0
58	MG	1A	3226	1/1	0.96	0.06	49,49,49,49	0
58	MG	1a	1739	1/1	0.96	0.06	49,49,49,49	0
58	MG	1A	3758	1/1	0.96	0.07	39,39,39,39	0
58	MG	2A	3834	1/1	0.96	0.13	53,53,53,53	0
58	MG	2q	201	1/1	0.96	0.06	73,73,73,73	0
58	MG	2A	3470	1/1	0.96	0.16	49,49,49,49	0
58	MG	2A	3473	1/1	0.96	0.17	43,43,43,43	0
58	MG	1A	3584	1/1	0.96	0.06	42,42,42,42	0
58	MG	2A	3477	1/1	0.96	0.13	54,54,54,54	0
58	MG	1A	3456	1/1	0.96	0.09	50,50,50,50	0
58	MG	1A	3457	1/1	0.96	0.15	40,40,40,40	0
58	MG	1A	3231	1/1	0.96	0.09	39,39,39,39	0
58	MG	1a	1749	1/1	0.96	0.09	55,55,55,55	0
58	MG	2A	3844	1/1	0.96	0.07	47,47,47,47	0
58	MG	1A	3460	1/1	0.96	0.13	48,48,48,48	0
58	MG	1a	1751	1/1	0.96	0.17	36,36,36,36	0
58	MG	1A	3118	1/1	0.96	0.14	33,33,33,33	0
58	MG	1A	3367	1/1	0.96	0.16	35,35,35,35	0
58	MG	2x	105	1/1	0.96	0.22	59,59,59,59	0
58	MG	1Q	203	1/1	0.96	0.06	23,23,23,23	0
58	MG	2A	3854	1/1	0.96	0.09	66,66,66,66	0
58	MG	1Q	205	1/1	0.96	0.07	46,46,46,46	0
59	K	2x	101	1/1	0.96	0.09	68,68,68,68	0
58	MG	1a	1759	1/1	0.96	0.21	55,55,55,55	0
58	MG	1Q	206	1/1	0.96	0.06	39,39,39,39	0
58	MG	1a	1707	1/1	0.97	0.07	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2U	202	1/1	0.97	0.06	43,43,43,43	0
58	MG	1A	3120	1/1	0.97	0.06	32,32,32,32	0
58	MG	2A	3096	1/1	0.97	0.06	33,33,33,33	0
58	MG	2A	3614	1/1	0.97	0.12	49,49,49,49	0
58	MG	1A	3089	1/1	0.97	0.16	36,36,36,36	0
58	MG	1A	3651	1/1	0.97	0.05	23,23,23,23	0
58	MG	2W	204	1/1	0.97	0.17	48,48,48,48	0
58	MG	2X	101	1/1	0.97	0.05	62,62,62,62	0
58	MG	2A	3617	1/1	0.97	0.11	56,56,56,56	0
58	MG	2Y	201	1/1	0.97	0.14	43,43,43,43	0
58	MG	1A	3810	1/1	0.97	0.05	42,42,42,42	0
58	MG	1A	3811	1/1	0.97	0.08	16,16,16,16	0
58	MG	1A	3015	1/1	0.97	0.10	24,24,24,24	0
58	MG	1A	3166	1/1	0.97	0.09	33,33,33,33	0
58	MG	1A	3294	1/1	0.97	0.12	43,43,43,43	0
58	MG	1A	3167	1/1	0.97	0.07	32,32,32,32	0
58	MG	2A	3625	1/1	0.97	0.08	48,48,48,48	0
58	MG	1P	201	1/1	0.97	0.18	30,30,30,30	0
58	MG	25	103	1/1	0.97	0.12	45,45,45,45	0
58	MG	1P	202	1/1	0.97	0.17	23,23,23,23	0
58	MG	1A	3816	1/1	0.97	0.07	44,44,44,44	0
58	MG	1A	3656	1/1	0.97	0.06	30,30,30,30	0
58	MG	1Q	202	1/1	0.97	0.31	35,35,35,35	0
58	MG	27	101	1/1	0.97	0.12	44,44,44,44	0
58	MG	2A	3348	1/1	0.97	0.12	70,70,70,70	0
58	MG	1A	3124	1/1	0.97	0.11	32,32,32,32	0
58	MG	2A	3350	1/1	0.97	0.08	65,65,65,65	0
58	MG	1A	3658	1/1	0.97	0.08	31,31,31,31	0
58	MG	1A	3297	1/1	0.97	0.07	31,31,31,31	0
58	MG	28	104	1/1	0.97	0.11	46,46,46,46	0
58	MG	1a	1728	1/1	0.97	0.10	61,61,61,61	0
58	MG	1a	1729	1/1	0.97	0.10	48,48,48,48	0
58	MG	1A	3987	1/1	0.97	0.08	19,19,19,19	0
58	MG	1A	3988	1/1	0.97	0.09	32,32,32,32	0
58	MG	2A	3640	1/1	0.97	0.10	44,44,44,44	0
58	MG	1A	3125	1/1	0.97	0.09	34,34,34,34	0
58	MG	1a	1734	1/1	0.97	0.12	31,31,31,31	0
58	MG	1A	3228	1/1	0.97	0.16	26,26,26,26	0
58	MG	2A	3644	1/1	0.97	0.08	56,56,56,56	0
58	MG	1A	3170	1/1	0.97	0.04	40,40,40,40	0
58	MG	1A	3008	1/1	0.97	0.05	20,20,20,20	0
58	MG	1A	3666	1/1	0.97	0.05	18,18,18,18	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2A	3125	1/1	0.97	0.05	56,56,56,56	0
58	MG	2A	3366	1/1	0.97	0.15	40,40,40,40	0
58	MG	2A	3126	1/1	0.97	0.11	52,52,52,52	0
58	MG	1A	3995	1/1	0.97	0.05	29,29,29,29	0
58	MG	1a	1741	1/1	0.97	0.16	44,44,44,44	0
58	MG	1A	3445	1/1	0.97	0.27	38,38,38,38	0
58	MG	2A	3654	1/1	0.97	0.05	35,35,35,35	0
58	MG	1U	201	1/1	0.97	0.10	33,33,33,33	0
58	MG	1A	3092	1/1	0.97	0.08	33,33,33,33	0
58	MG	1a	1747	1/1	0.97	0.10	52,52,52,52	0
58	MG	2A	3133	1/1	0.97	0.07	35,35,35,35	0
58	MG	1A	3365	1/1	0.97	0.12	27,27,27,27	0
58	MG	1A	3831	1/1	0.97	0.05	38,38,38,38	0
58	MG	1U	205	1/1	0.97	0.05	31,31,31,31	0
58	MG	1A	3129	1/1	0.97	0.13	47,47,47,47	0
58	MG	2A	3139	1/1	0.97	0.13	38,38,38,38	0
58	MG	1a	1752	1/1	0.97	0.08	41,41,41,41	0
58	MG	2A	3141	1/1	0.97	0.18	46,46,46,46	0
58	MG	1U	207	1/1	0.97	0.17	30,30,30,30	0
58	MG	2A	3384	1/1	0.97	0.06	41,41,41,41	0
58	MG	1U	208	1/1	0.97	0.32	38,38,38,38	0
58	MG	1A	3238	1/1	0.97	0.15	24,24,24,24	0
58	MG	1A	3368	1/1	0.97	0.07	41,41,41,41	0
58	MG	1A	3676	1/1	0.97	0.13	36,36,36,36	0
58	MG	1A	3369	1/1	0.97	0.18	29,29,29,29	0
58	MG	1V	205	1/1	0.97	0.06	36,36,36,36	0
58	MG	1A	3370	1/1	0.97	0.07	50,50,50,50	0
58	MG	1A	3548	1/1	0.97	0.06	45,45,45,45	0
58	MG	2A	3676	1/1	0.97	0.11	43,43,43,43	0
58	MG	2A	3151	1/1	0.97	0.15	49,49,49,49	0
58	MG	1A	4009	1/1	0.97	0.07	21,21,21,21	0
58	MG	2A	3395	1/1	0.97	0.06	48,48,48,48	0
58	MG	1A	4010	1/1	0.97	0.04	32,32,32,32	0
58	MG	1A	3453	1/1	0.97	0.16	34,34,34,34	0
58	MG	1A	3685	1/1	0.97	0.05	46,46,46,46	0
58	MG	2A	3156	1/1	0.97	0.08	51,51,51,51	0
58	MG	1A	3177	1/1	0.97	0.09	29,29,29,29	0
58	MG	1X	101	1/1	0.97	0.05	38,38,38,38	0
58	MG	1X	102	1/1	0.97	0.08	53,53,53,53	0
58	MG	1A	3374	1/1	0.97	0.23	47,47,47,47	0
58	MG	1A	3064	1/1	0.97	0.16	37,37,37,37	0
58	MG	2A	3405	1/1	0.97	0.28	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3181	1/1	0.97	0.14	39,39,39,39	0
58	MG	1A	3555	1/1	0.97	0.08	50,50,50,50	0
58	MG	2a	1658	1/1	0.97	0.04	61,61,61,61	0
58	MG	1a	1777	1/1	0.97	0.06	38,38,38,38	0
58	MG	1A	3697	1/1	0.97	0.04	20,20,20,20	0
58	MG	2A	3696	1/1	0.97	0.10	29,29,29,29	0
58	MG	1A	3556	1/1	0.97	0.16	29,29,29,29	0
58	MG	1A	3377	1/1	0.97	0.08	46,46,46,46	0
58	MG	1A	3182	1/1	0.97	0.12	39,39,39,39	0
58	MG	1A	3559	1/1	0.97	0.16	33,33,33,33	0
58	MG	1A	3245	1/1	0.97	0.13	51,51,51,51	0
58	MG	1A	3855	1/1	0.97	0.09	28,28,28,28	0
58	MG	1a	1786	1/1	0.97	0.18	60,60,60,60	0
58	MG	1A	3856	1/1	0.97	0.08	55,55,55,55	0
58	MG	1A	3047	1/1	0.97	0.09	29,29,29,29	0
58	MG	2a	1671	1/1	0.97	0.18	56,56,56,56	0
58	MG	1a	1789	1/1	0.97	0.05	60,60,60,60	0
58	MG	1A	3067	1/1	0.97	0.10	28,28,28,28	0
58	MG	2A	3709	1/1	0.97	0.07	35,35,35,35	0
58	MG	1A	3464	1/1	0.97	0.08	53,53,53,53	0
58	MG	1A	3708	1/1	0.97	0.04	14,14,14,14	0
58	MG	1a	1795	1/1	0.97	0.05	48,48,48,48	0
58	MG	2A	3424	1/1	0.97	0.19	49,49,49,49	0
58	MG	2A	3181	1/1	0.97	0.11	50,50,50,50	0
58	MG	2A	3426	1/1	0.97	0.23	44,44,44,44	0
58	MG	1A	3862	1/1	0.97	0.07	51,51,51,51	0
58	MG	1A	3467	1/1	0.97	0.06	45,45,45,45	0
58	MG	1A	3864	1/1	0.97	0.04	30,30,30,30	0
58	MG	2a	1684	1/1	0.97	0.14	60,60,60,60	0
58	MG	1A	3568	1/1	0.97	0.26	36,36,36,36	0
58	MG	1A	3866	1/1	0.97	0.04	43,43,43,43	0
58	MG	2A	3433	1/1	0.97	0.25	57,57,57,57	0
58	MG	1A	3248	1/1	0.97	0.23	26,26,26,26	0
58	MG	1A	3868	1/1	0.97	0.05	22,22,22,22	0
58	MG	1A	4044	1/1	0.97	0.04	31,31,31,31	0
58	MG	2A	3437	1/1	0.97	0.07	43,43,43,43	0
58	MG	1A	3068	1/1	0.97	0.06	33,33,33,33	0
58	MG	1A	3027	1/1	0.97	0.16	60,60,60,60	0
58	MG	1A	3716	1/1	0.97	0.07	51,51,51,51	0
58	MG	15	102	1/1	0.97	0.18	32,32,32,32	0
58	MG	15	103	1/1	0.97	0.17	33,33,33,33	0
58	MG	2a	1698	1/1	0.97	0.15	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	15	104	1/1	0.97	0.13	31,31,31,31	0
58	MG	1A	3573	1/1	0.97	0.14	34,34,34,34	0
58	MG	1A	4051	1/1	0.97	0.12	17,17,17,17	0
58	MG	1A	3051	1/1	0.97	0.06	24,24,24,24	0
58	MG	2A	3201	1/1	0.97	0.09	42,42,42,42	0
58	MG	1A	3192	1/1	0.97	0.10	53,53,53,53	0
58	MG	2A	3450	1/1	0.97	0.04	34,34,34,34	0
58	MG	2A	3451	1/1	0.97	0.33	35,35,35,35	0
58	MG	17	103	1/1	0.97	0.04	32,32,32,32	0
58	MG	1A	3194	1/1	0.97	0.09	23,23,23,23	0
58	MG	2A	3454	1/1	0.97	0.07	53,53,53,53	0
58	MG	1A	4056	1/1	0.97	0.06	32,32,32,32	0
58	MG	1A	3876	1/1	0.97	0.17	27,27,27,27	0
58	MG	1A	3578	1/1	0.97	0.17	41,41,41,41	0
58	MG	1A	3017	1/1	0.97	0.14	57,57,57,57	0
58	MG	1A	4064	1/1	0.97	0.07	11,11,11,11	0
58	MG	1A	3476	1/1	0.97	0.13	47,47,47,47	0
58	MG	1A	3581	1/1	0.97	0.28	34,34,34,34	0
58	MG	2A	3754	1/1	0.97	0.17	54,54,54,54	0
58	MG	1A	3001	1/1	0.97	0.06	33,33,33,33	0
58	MG	2A	3213	1/1	0.97	0.08	50,50,50,50	0
58	MG	1A	4070	1/1	0.97	0.05	41,41,41,41	0
58	MG	2a	1723	1/1	0.97	0.18	61,61,61,61	0
58	MG	1A	3583	1/1	0.97	0.12	40,40,40,40	0
58	MG	1A	3886	1/1	0.97	0.05	28,28,28,28	0
58	MG	2A	3218	1/1	0.97	0.08	46,46,46,46	0
58	MG	2A	3763	1/1	0.97	0.06	34,34,34,34	0
58	MG	1A	3887	1/1	0.97	0.07	22,22,22,22	0
58	MG	1A	3888	1/1	0.97	0.10	23,23,23,23	0
58	MG	1A	3478	1/1	0.97	0.16	52,52,52,52	0
58	MG	2A	3471	1/1	0.97	0.06	51,51,51,51	0
58	MG	1A	3257	1/1	0.97	0.10	23,23,23,23	0
58	MG	2A	3474	1/1	0.97	0.07	51,51,51,51	0
58	MG	2A	3475	1/1	0.97	0.13	32,32,32,32	0
58	MG	2A	3223	1/1	0.97	0.05	38,38,38,38	0
58	MG	2A	3224	1/1	0.97	0.13	46,46,46,46	0
58	MG	1a	1609	1/1	0.97	0.07	50,50,50,50	0
58	MG	1A	3395	1/1	0.97	0.16	52,52,52,52	0
58	MG	1A	4081	1/1	0.97	0.12	56,56,56,56	0
58	MG	1A	4082	1/1	0.97	0.07	45,45,45,45	0
58	MG	1A	3894	1/1	0.97	0.07	23,23,23,23	0
58	MG	1A	4084	1/1	0.97	0.09	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	4085	1/1	0.97	0.05	45,45,45,45	0
58	MG	1A	3733	1/1	0.97	0.07	46,46,46,46	0
58	MG	1a	1617	1/1	0.97	0.10	58,58,58,58	0
58	MG	1A	3735	1/1	0.97	0.06	34,34,34,34	0
58	MG	1A	3736	1/1	0.97	0.06	20,20,20,20	0
58	MG	2A	3493	1/1	0.97	0.06	41,41,41,41	0
58	MG	1A	3258	1/1	0.97	0.05	46,46,46,46	0
58	MG	1A	3398	1/1	0.97	0.19	28,28,28,28	0
58	MG	1x	110	1/1	0.97	0.13	60,60,60,60	0
58	MG	1A	3011	1/1	0.97	0.10	33,33,33,33	0
58	MG	1A	4092	1/1	0.97	0.11	43,43,43,43	0
58	MG	2a	1754	1/1	0.97	0.08	58,58,58,58	0
58	MG	2A	3791	1/1	0.97	0.07	53,53,53,53	0
58	MG	2a	1756	1/1	0.97	0.06	45,45,45,45	0
58	MG	1A	3592	1/1	0.97	0.08	36,36,36,36	0
58	MG	1A	3902	1/1	0.97	0.06	45,45,45,45	0
58	MG	1A	3903	1/1	0.97	0.09	31,31,31,31	0
58	MG	1A	3400	1/1	0.97	0.13	31,31,31,31	0
58	MG	1A	3260	1/1	0.97	0.14	42,42,42,42	0
58	MG	1A	4100	1/1	0.97	0.16	51,51,51,51	0
58	MG	1A	3402	1/1	0.97	0.08	40,40,40,40	0
58	MG	2A	3009	1/1	0.97	0.05	49,49,49,49	0
58	MG	1A	3036	1/1	0.97	0.06	28,28,28,28	0
58	MG	2A	3011	1/1	0.97	0.10	39,39,39,39	0
58	MG	2A	3510	1/1	0.97	0.07	47,47,47,47	0
58	MG	2A	3511	1/1	0.97	0.05	43,43,43,43	0
58	MG	2A	3012	1/1	0.97	0.06	36,36,36,36	0
58	MG	2A	3810	1/1	0.97	0.05	44,44,44,44	0
58	MG	2A	3811	1/1	0.97	0.06	56,56,56,56	0
58	MG	1A	3488	1/1	0.97	0.13	50,50,50,50	0
58	MG	1A	3057	1/1	0.97	0.20	37,37,37,37	0
58	MG	2A	3815	1/1	0.97	0.07	48,48,48,48	0
58	MG	1A	3328	1/1	0.97	0.17	43,43,43,43	0
58	MG	1A	3491	1/1	0.97	0.10	32,32,32,32	0
58	MG	2A	3258	1/1	0.97	0.05	46,46,46,46	0
58	MG	1A	3914	1/1	0.97	0.12	27,27,27,27	0
58	MG	2A	3018	1/1	0.97	0.12	40,40,40,40	0
58	MG	1A	3915	1/1	0.97	0.06	23,23,23,23	0
58	MG	1A	3201	1/1	0.97	0.05	30,30,30,30	0
58	MG	1A	3264	1/1	0.97	0.04	44,44,44,44	0
58	MG	1A	3603	1/1	0.97	0.12	34,34,34,34	0
58	MG	1A	3265	1/1	0.97	0.23	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3149	1/1	0.97	0.27	29,29,29,29	0
58	MG	1A	3203	1/1	0.97	0.13	23,23,23,23	0
58	MG	2A	3268	1/1	0.97	0.07	55,55,55,55	0
58	MG	2A	3831	1/1	0.97	0.08	41,41,41,41	0
58	MG	2A	3030	1/1	0.97	0.11	44,44,44,44	0
58	MG	1A	3150	1/1	0.97	0.24	28,28,28,28	0
58	MG	1a	1647	1/1	0.97	0.12	48,48,48,48	0
58	MG	1A	3151	1/1	0.97	0.36	37,37,37,37	0
58	MG	1a	1649	1/1	0.97	0.14	50,50,50,50	0
58	MG	2A	3539	1/1	0.97	0.12	37,37,37,37	0
58	MG	1A	3108	1/1	0.97	0.05	20,20,20,20	0
58	MG	1A	3004	1/1	0.97	0.07	27,27,27,27	0
58	MG	1A	3611	1/1	0.97	0.06	41,41,41,41	0
58	MG	1A	3417	1/1	0.97	0.06	42,42,42,42	0
58	MG	1A	3338	1/1	0.97	0.10	64,64,64,64	0
58	MG	1A	3111	1/1	0.97	0.20	28,28,28,28	0
58	MG	1A	3022	1/1	0.97	0.04	36,36,36,36	0
58	MG	2A	3846	1/1	0.97	0.10	57,57,57,57	0
58	MG	2a	1804	1/1	0.97	0.06	63,63,63,63	0
58	MG	2A	3281	1/1	0.97	0.09	55,55,55,55	0
58	MG	1A	3936	1/1	0.97	0.05	26,26,26,26	0
58	MG	1A	3086	1/1	0.97	0.10	33,33,33,33	0
58	MG	1B	226	1/1	0.97	0.05	37,37,37,37	0
58	MG	2A	3853	1/1	0.97	0.14	56,56,56,56	0
58	MG	1B	227	1/1	0.97	0.08	43,43,43,43	0
58	MG	2A	3286	1/1	0.97	0.21	46,46,46,46	0
58	MG	1A	3939	1/1	0.97	0.06	43,43,43,43	0
58	MG	1A	3617	1/1	0.97	0.11	38,38,38,38	0
58	MG	1A	3941	1/1	0.97	0.09	47,47,47,47	0
58	MG	1A	3618	1/1	0.97	0.05	44,44,44,44	0
58	MG	1A	3621	1/1	0.97	0.12	10,10,10,10	0
58	MG	2a	1817	1/1	0.97	0.06	64,64,64,64	0
58	MG	1A	3777	1/1	0.97	0.06	59,59,59,59	0
58	MG	1A	3624	1/1	0.97	0.07	43,43,43,43	0
58	MG	1B	235	1/1	0.97	0.05	35,35,35,35	0
58	MG	2A	3057	1/1	0.97	0.08	39,39,39,39	0
58	MG	1D	301	1/1	0.97	0.11	30,30,30,30	0
58	MG	1A	3510	1/1	0.97	0.05	27,27,27,27	0
58	MG	1A	3342	1/1	0.97	0.05	42,42,42,42	0
58	MG	1A	3633	1/1	0.97	0.06	24,24,24,24	0
58	MG	1A	3952	1/1	0.97	0.08	41,41,41,41	0
58	MG	1A	3211	1/1	0.97	0.19	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2A	3571	1/1	0.97	0.13	48,48,48,48	0
58	MG	1A	3116	1/1	0.97	0.05	34,34,34,34	0
58	MG	1D	312	1/1	0.97	0.10	19,19,19,19	0
58	MG	1A	3425	1/1	0.97	0.05	32,32,32,32	0
58	MG	1A	3788	1/1	0.97	0.05	21,21,21,21	0
58	MG	2A	3578	1/1	0.97	0.11	38,38,38,38	0
58	MG	2A	3579	1/1	0.97	0.07	34,34,34,34	0
58	MG	1A	3213	1/1	0.97	0.05	44,44,44,44	0
58	MG	1E	302	1/1	0.97	0.11	41,41,41,41	0
58	MG	2A	3070	1/1	0.97	0.05	37,37,37,37	0
58	MG	1A	3958	1/1	0.97	0.07	39,39,39,39	0
58	MG	1A	3959	1/1	0.97	0.04	34,34,34,34	0
58	MG	1A	3639	1/1	0.97	0.09	26,26,26,26	0
58	MG	1A	3791	1/1	0.97	0.04	19,19,19,19	0
58	MG	2D	307	1/1	0.97	0.08	32,32,32,32	0
58	MG	2D	308	1/1	0.97	0.24	47,47,47,47	0
58	MG	1A	3087	1/1	0.97	0.13	27,27,27,27	0
58	MG	1A	3963	1/1	0.97	0.09	47,47,47,47	0
58	MG	1a	1691	1/1	0.97	0.29	47,47,47,47	0
58	MG	2E	303	1/1	0.97	0.08	30,30,30,30	0
58	MG	1A	3964	1/1	0.97	0.07	44,44,44,44	0
58	MG	1A	3215	1/1	0.97	0.12	35,35,35,35	0
58	MG	1A	3519	1/1	0.97	0.17	32,32,32,32	0
58	MG	1A	3284	1/1	0.97	0.12	36,36,36,36	0
58	MG	1F	305	1/1	0.97	0.05	27,27,27,27	0
58	MG	1F	307	1/1	0.97	0.10	24,24,24,24	0
58	MG	1A	3968	1/1	0.97	0.07	45,45,45,45	0
58	MG	2A	3324	1/1	0.97	0.11	49,49,49,49	0
58	MG	2F	305	1/1	0.97	0.23	42,42,42,42	0
58	MG	2A	3325	1/1	0.97	0.09	47,47,47,47	0
58	MG	1F	311	1/1	0.97	0.15	35,35,35,35	0
58	MG	1A	3798	1/1	0.97	0.07	43,43,43,43	0
58	MG	1A	3645	1/1	0.97	0.06	18,18,18,18	0
58	MG	1A	3285	1/1	0.97	0.14	38,38,38,38	0
58	MG	1A	3041	1/1	0.97	0.04	30,30,30,30	0
58	MG	2Q	201	1/1	0.97	0.07	60,60,60,60	0
58	MG	2A	3607	1/1	0.97	0.09	41,41,41,41	0
58	MG	2R	201	1/1	0.97	0.07	47,47,47,47	0
58	MG	2A	3608	1/1	0.97	0.05	32,32,32,32	0
58	MG	1H	201	1/1	0.97	0.08	34,34,34,34	0
61	ZN	24	501	1/1	0.97	0.10	119,119,119,119	0
58	MG	1A	3499	1/1	0.98	0.12	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3709	1/1	0.98	0.08	31,31,31,31	0
58	MG	1A	3590	1/1	0.98	0.19	22,22,22,22	0
58	MG	1A	3230	1/1	0.98	0.05	37,37,37,37	0
58	MG	2A	3019	1/1	0.98	0.03	31,31,31,31	0
58	MG	1A	3712	1/1	0.98	0.05	36,36,36,36	0
58	MG	2A	3021	1/1	0.98	0.04	34,34,34,34	0
58	MG	2A	3022	1/1	0.98	0.15	46,46,46,46	0
58	MG	1A	3501	1/1	0.98	0.16	42,42,42,42	0
58	MG	2A	3710	1/1	0.98	0.12	50,50,50,50	0
58	MG	1E	314	1/1	0.98	0.04	34,34,34,34	0
58	MG	2a	1626	1/1	0.98	0.08	58,58,58,58	0
58	MG	2A	3712	1/1	0.98	0.05	28,28,28,28	0
58	MG	1A	3105	1/1	0.98	0.10	27,27,27,27	0
58	MG	1F	303	1/1	0.98	0.12	22,22,22,22	0
58	MG	2A	3244	1/1	0.98	0.14	57,57,57,57	0
58	MG	2A	3027	1/1	0.98	0.03	43,43,43,43	0
58	MG	1A	3849	1/1	0.98	0.07	45,45,45,45	0
58	MG	1a	1666	1/1	0.98	0.04	61,61,61,61	0
58	MG	1A	3179	1/1	0.98	0.05	30,30,30,30	0
58	MG	1A	3180	1/1	0.98	0.04	25,25,25,25	0
58	MG	1F	308	1/1	0.98	0.23	27,27,27,27	0
58	MG	1A	3852	1/1	0.98	0.05	44,44,44,44	0
58	MG	1F	310	1/1	0.98	0.04	38,38,38,38	0
58	MG	2A	3035	1/1	0.98	0.04	41,41,41,41	0
58	MG	1A	4000	1/1	0.98	0.03	38,38,38,38	0
58	MG	1A	3235	1/1	0.98	0.04	63,63,63,63	0
58	MG	1G	201	1/1	0.98	0.07	34,34,34,34	0
58	MG	1G	202	1/1	0.98	0.11	45,45,45,45	0
58	MG	2A	3481	1/1	0.98	0.10	38,38,38,38	0
58	MG	1A	3056	1/1	0.98	0.05	26,26,26,26	0
58	MG	1A	3237	1/1	0.98	0.10	24,24,24,24	0
58	MG	1A	3720	1/1	0.98	0.03	14,14,14,14	0
58	MG	2A	3485	1/1	0.98	0.22	60,60,60,60	0
58	MG	1A	3138	1/1	0.98	0.07	34,34,34,34	0
58	MG	1A	3509	1/1	0.98	0.03	33,33,33,33	0
58	MG	1A	4007	1/1	0.98	0.04	30,30,30,30	0
58	MG	1A	3859	1/1	0.98	0.10	24,24,24,24	0
58	MG	1N	203	1/1	0.98	0.10	47,47,47,47	0
58	MG	1A	3139	1/1	0.98	0.14	32,32,32,32	0
58	MG	1A	3301	1/1	0.98	0.12	24,24,24,24	0
58	MG	2A	3051	1/1	0.98	0.06	47,47,47,47	0
58	MG	1A	3725	1/1	0.98	0.05	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3240	1/1	0.98	0.13	22,22,22,22	0
58	MG	1A	3241	1/1	0.98	0.09	25,25,25,25	0
58	MG	2A	3745	1/1	0.98	0.10	42,42,42,42	0
58	MG	1a	1689	1/1	0.98	0.15	44,44,44,44	0
58	MG	2A	3747	1/1	0.98	0.09	51,51,51,51	0
58	MG	1A	4017	1/1	0.98	0.04	65,65,65,65	0
58	MG	1A	3140	1/1	0.98	0.04	27,27,27,27	0
58	MG	1A	3014	1/1	0.98	0.05	27,27,27,27	0
58	MG	2A	3751	1/1	0.98	0.07	47,47,47,47	0
58	MG	1a	1693	1/1	0.98	0.22	44,44,44,44	0
58	MG	1P	203	1/1	0.98	0.11	32,32,32,32	0
58	MG	1A	3021	1/1	0.98	0.05	20,20,20,20	0
58	MG	2A	3755	1/1	0.98	0.11	50,50,50,50	0
58	MG	1A	3187	1/1	0.98	0.09	34,34,34,34	0
58	MG	1A	3518	1/1	0.98	0.20	31,31,31,31	0
58	MG	1A	3109	1/1	0.98	0.17	29,29,29,29	0
58	MG	1Q	204	1/1	0.98	0.05	45,45,45,45	0
58	MG	1A	3371	1/1	0.98	0.17	47,47,47,47	0
58	MG	2A	3761	1/1	0.98	0.07	47,47,47,47	0
58	MG	1A	3190	1/1	0.98	0.12	37,37,37,37	0
58	MG	1A	3443	1/1	0.98	0.19	27,27,27,27	0
58	MG	1A	3373	1/1	0.98	0.24	47,47,47,47	0
58	MG	1R	201	1/1	0.98	0.09	38,38,38,38	0
58	MG	2A	3516	1/1	0.98	0.06	41,41,41,41	0
58	MG	1A	3028	1/1	0.98	0.15	29,29,29,29	0
58	MG	2A	3768	1/1	0.98	0.08	53,53,53,53	0
58	MG	1a	1706	1/1	0.98	0.04	49,49,49,49	0
58	MG	1A	4030	1/1	0.98	0.04	43,43,43,43	0
58	MG	1A	3742	1/1	0.98	0.08	43,43,43,43	0
58	MG	1a	1709	1/1	0.98	0.17	42,42,42,42	0
58	MG	2A	3076	1/1	0.98	0.15	49,49,49,49	0
58	MG	2A	3523	1/1	0.98	0.12	38,38,38,38	0
58	MG	1A	3877	1/1	0.98	0.18	28,28,28,28	0
58	MG	1A	3042	1/1	0.98	0.08	30,30,30,30	0
58	MG	1A	3879	1/1	0.98	0.16	25,25,25,25	0
58	MG	2a	1693	1/1	0.98	0.14	62,62,62,62	0
58	MG	1A	3744	1/1	0.98	0.04	38,38,38,38	0
58	MG	1A	3012	1/1	0.98	0.04	34,34,34,34	0
58	MG	2A	3530	1/1	0.98	0.07	43,43,43,43	0
58	MG	1A	3044	1/1	0.98	0.09	38,38,38,38	0
58	MG	1A	3619	1/1	0.98	0.06	18,18,18,18	0
58	MG	2A	3084	1/1	0.98	0.06	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3748	1/1	0.98	0.06	26,26,26,26	0
58	MG	1A	3620	1/1	0.98	0.06	34,34,34,34	0
58	MG	2A	3087	1/1	0.98	0.04	47,47,47,47	0
58	MG	2A	3538	1/1	0.98	0.06	31,31,31,31	0
58	MG	1a	1720	1/1	0.98	0.12	40,40,40,40	0
58	MG	2A	3540	1/1	0.98	0.16	44,44,44,44	0
58	MG	1A	3114	1/1	0.98	0.05	31,31,31,31	0
58	MG	1A	3623	1/1	0.98	0.07	38,38,38,38	0
58	MG	1A	3529	1/1	0.98	0.05	49,49,49,49	0
58	MG	2A	3544	1/1	0.98	0.07	41,41,41,41	0
58	MG	1A	4045	1/1	0.98	0.05	30,30,30,30	0
58	MG	2a	1712	1/1	0.98	0.06	61,61,61,61	0
58	MG	1U	210	1/1	0.98	0.18	30,30,30,30	0
58	MG	2A	3311	1/1	0.98	0.08	52,52,52,52	0
58	MG	2A	3800	1/1	0.98	0.04	34,34,34,34	0
58	MG	1A	3891	1/1	0.98	0.05	40,40,40,40	0
58	MG	1V	201	1/1	0.98	0.16	24,24,24,24	0
58	MG	1V	202	1/1	0.98	0.12	31,31,31,31	0
58	MG	1A	3115	1/1	0.98	0.07	25,25,25,25	0
58	MG	1a	1730	1/1	0.98	0.04	47,47,47,47	0
58	MG	2A	3099	1/1	0.98	0.17	45,45,45,45	0
58	MG	1A	3754	1/1	0.98	0.03	22,22,22,22	0
58	MG	1A	4049	1/1	0.98	0.05	42,42,42,42	0
58	MG	1A	3626	1/1	0.98	0.08	28,28,28,28	0
58	MG	2A	3103	1/1	0.98	0.18	53,53,53,53	0
58	MG	1A	3628	1/1	0.98	0.06	38,38,38,38	0
58	MG	1a	1735	1/1	0.98	0.04	32,32,32,32	0
58	MG	1A	3531	1/1	0.98	0.21	26,26,26,26	0
58	MG	1A	4053	1/1	0.98	0.10	47,47,47,47	0
58	MG	2A	3562	1/1	0.98	0.07	32,32,32,32	0
58	MG	1A	3632	1/1	0.98	0.04	50,50,50,50	0
58	MG	1W	204	1/1	0.98	0.07	29,29,29,29	0
58	MG	1A	3759	1/1	0.98	0.07	29,29,29,29	0
58	MG	1W	206	1/1	0.98	0.05	25,25,25,25	0
58	MG	1a	1742	1/1	0.98	0.05	41,41,41,41	0
58	MG	1A	3380	1/1	0.98	0.07	23,23,23,23	0
58	MG	1A	3030	1/1	0.98	0.13	35,35,35,35	0
58	MG	1A	3534	1/1	0.98	0.18	37,37,37,37	0
58	MG	1A	3065	1/1	0.98	0.11	33,33,33,33	0
58	MG	1A	4062	1/1	0.98	0.03	33,33,33,33	0
58	MG	1A	4063	1/1	0.98	0.06	43,43,43,43	0
58	MG	1A	3154	1/1	0.98	0.06	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3638	1/1	0.98	0.07	46,46,46,46	0
58	MG	1A	3766	1/1	0.98	0.05	39,39,39,39	0
58	MG	1A	3031	1/1	0.98	0.19	16,16,16,16	0
58	MG	2A	3580	1/1	0.98	0.08	45,45,45,45	0
58	MG	1A	3538	1/1	0.98	0.12	32,32,32,32	0
58	MG	2A	3582	1/1	0.98	0.05	38,38,38,38	0
58	MG	2A	3583	1/1	0.98	0.07	60,60,60,60	0
58	MG	1A	4071	1/1	0.98	0.06	56,56,56,56	0
58	MG	1a	1756	1/1	0.98	0.06	67,67,67,67	0
58	MG	1A	3769	1/1	0.98	0.07	26,26,26,26	0
58	MG	1A	3770	1/1	0.98	0.05	34,34,34,34	0
58	MG	1A	3641	1/1	0.98	0.06	40,40,40,40	0
58	MG	1A	3119	1/1	0.98	0.11	23,23,23,23	0
58	MG	1A	3387	1/1	0.98	0.34	21,21,21,21	0
58	MG	2A	3847	1/1	0.98	0.12	44,44,44,44	0
58	MG	1A	4078	1/1	0.98	0.08	39,39,39,39	0
58	MG	1A	3541	1/1	0.98	0.09	19,19,19,19	0
58	MG	2A	3850	1/1	0.98	0.15	39,39,39,39	0
58	MG	1A	3458	1/1	0.98	0.07	30,30,30,30	0
58	MG	1A	3048	1/1	0.98	0.07	33,33,33,33	0
58	MG	1A	3032	1/1	0.98	0.11	18,18,18,18	0
58	MG	1A	3050	1/1	0.98	0.10	30,30,30,30	0
58	MG	1a	1769	1/1	0.98	0.07	58,58,58,58	0
58	MG	1A	3779	1/1	0.98	0.04	14,14,14,14	0
58	MG	2A	3357	1/1	0.98	0.06	43,43,43,43	0
58	MG	1A	3922	1/1	0.98	0.04	58,58,58,58	0
58	MG	12	102	1/1	0.98	0.08	40,40,40,40	0
58	MG	2a	1770	1/1	0.98	0.16	57,57,57,57	0
58	MG	1A	3160	1/1	0.98	0.12	24,24,24,24	0
58	MG	1A	3123	1/1	0.98	0.08	33,33,33,33	0
58	MG	2A	3362	1/1	0.98	0.10	37,37,37,37	0
58	MG	13	103	1/1	0.98	0.06	38,38,38,38	0
58	MG	1A	3033	1/1	0.98	0.26	20,20,20,20	0
58	MG	1A	3784	1/1	0.98	0.06	28,28,28,28	0
58	MG	1A	3465	1/1	0.98	0.12	24,24,24,24	0
58	MG	1A	3394	1/1	0.98	0.08	43,43,43,43	0
58	MG	2A	3610	1/1	0.98	0.05	39,39,39,39	0
58	MG	1A	3098	1/1	0.98	0.06	27,27,27,27	0
58	MG	1a	1782	1/1	0.98	0.15	55,55,55,55	0
58	MG	1A	3099	1/1	0.98	0.11	18,18,18,18	0
58	MG	1A	3397	1/1	0.98	0.04	25,25,25,25	0
58	MG	15	106	1/1	0.98	0.17	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	4095	1/1	0.98	0.04	52,52,52,52	0
58	MG	15	108	1/1	0.98	0.07	35,35,35,35	0
58	MG	15	109	1/1	0.98	0.05	39,39,39,39	0
58	MG	1A	4096	1/1	0.98	0.06	35,35,35,35	0
58	MG	1A	3932	1/1	0.98	0.04	15,15,15,15	0
58	MG	2A	3621	1/1	0.98	0.06	38,38,38,38	0
58	MG	17	102	1/1	0.98	0.10	23,23,23,23	0
58	MG	1A	3554	1/1	0.98	0.09	27,27,27,27	0
58	MG	2A	3380	1/1	0.98	0.04	56,56,56,56	0
58	MG	17	104	1/1	0.98	0.13	26,26,26,26	0
58	MG	1A	3934	1/1	0.98	0.07	54,54,54,54	0
58	MG	1A	3659	1/1	0.98	0.07	33,33,33,33	0
58	MG	18	102	1/1	0.98	0.19	40,40,40,40	0
58	MG	1A	3937	1/1	0.98	0.04	28,28,28,28	0
58	MG	1A	3076	1/1	0.98	0.05	28,28,28,28	0
58	MG	1A	3128	1/1	0.98	0.16	29,29,29,29	0
58	MG	1A	3023	1/1	0.98	0.04	14,14,14,14	0
58	MG	1A	3130	1/1	0.98	0.18	35,35,35,35	0
58	MG	1A	3797	1/1	0.98	0.07	50,50,50,50	0
58	MG	1A	3664	1/1	0.98	0.04	23,23,23,23	0
58	MG	1B	205	1/1	0.98	0.04	43,43,43,43	0
58	MG	1A	3945	1/1	0.98	0.06	56,56,56,56	0
58	MG	1A	3475	1/1	0.98	0.09	48,48,48,48	0
58	MG	2A	3175	1/1	0.98	0.12	34,34,34,34	0
58	MG	1A	3005	1/1	0.98	0.05	35,35,35,35	0
58	MG	1A	3025	1/1	0.98	0.07	44,44,44,44	0
58	MG	1A	3274	1/1	0.98	0.10	40,40,40,40	0
58	MG	1A	3133	1/1	0.98	0.04	35,35,35,35	0
58	MG	1A	3806	1/1	0.98	0.04	48,48,48,48	0
58	MG	1A	3807	1/1	0.98	0.06	53,53,53,53	0
58	MG	2A	3182	1/1	0.98	0.09	34,34,34,34	0
58	MG	1A	3173	1/1	0.98	0.08	30,30,30,30	0
58	MG	1A	3809	1/1	0.98	0.08	21,21,21,21	0
58	MG	1A	3672	1/1	0.98	0.06	20,20,20,20	0
58	MG	2A	3186	1/1	0.98	0.06	47,47,47,47	0
58	MG	1B	217	1/1	0.98	0.03	31,31,31,31	0
58	MG	1B	218	1/1	0.98	0.08	30,30,30,30	0
58	MG	1A	3566	1/1	0.98	0.04	27,27,27,27	0
58	MG	1A	3674	1/1	0.98	0.07	29,29,29,29	0
58	MG	1l	202	1/1	0.98	0.04	57,57,57,57	0
58	MG	1A	3567	1/1	0.98	0.24	32,32,32,32	0
58	MG	1A	3277	1/1	0.98	0.10	16,16,16,16	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3221	1/1	0.98	0.03	49,49,49,49	0
58	MG	1A	3678	1/1	0.98	0.06	20,20,20,20	0
58	MG	1A	3222	1/1	0.98	0.08	26,26,26,26	0
58	MG	1A	3410	1/1	0.98	0.05	45,45,45,45	0
58	MG	1A	3174	1/1	0.98	0.18	24,24,24,24	0
58	MG	1A	3281	1/1	0.98	0.07	28,28,28,28	0
58	MG	1A	3686	1/1	0.98	0.07	29,29,29,29	0
58	MG	1A	3175	1/1	0.98	0.10	24,24,24,24	0
58	MG	1A	3576	1/1	0.98	0.13	39,39,39,39	0
58	MG	1A	3414	1/1	0.98	0.07	38,38,38,38	0
58	MG	1A	3692	1/1	0.98	0.07	21,21,21,21	0
58	MG	1A	3826	1/1	0.98	0.05	27,27,27,27	0
58	MG	23	103	1/1	0.98	0.07	54,54,54,54	0
58	MG	23	104	1/1	0.98	0.06	53,53,53,53	0
58	MG	1A	3693	1/1	0.98	0.04	23,23,23,23	0
58	MG	2A	3427	1/1	0.98	0.27	42,42,42,42	0
58	MG	2l	202	1/1	0.98	0.05	53,53,53,53	0
58	MG	1A	3828	1/1	0.98	0.05	35,35,35,35	0
58	MG	1A	3694	1/1	0.98	0.07	31,31,31,31	0
58	MG	1a	1635	1/1	0.98	0.10	29,29,29,29	0
58	MG	1A	3283	1/1	0.98	0.06	36,36,36,36	0
58	MG	1A	3225	1/1	0.98	0.08	40,40,40,40	0
58	MG	1A	3134	1/1	0.98	0.05	28,28,28,28	0
58	MG	1A	3833	1/1	0.98	0.12	35,35,35,35	0
58	MG	1D	309	1/1	0.98	0.11	26,26,26,26	0
58	MG	1D	310	1/1	0.98	0.07	34,34,34,34	0
58	MG	1A	3348	1/1	0.98	0.16	28,28,28,28	0
58	MG	2A	3217	1/1	0.98	0.16	51,51,51,51	0
58	MG	1a	1643	1/1	0.98	0.11	48,48,48,48	0
58	MG	1A	3227	1/1	0.98	0.21	37,37,37,37	0
58	MG	1A	3038	1/1	0.98	0.09	24,24,24,24	0
58	MG	1A	3288	1/1	0.98	0.03	37,37,37,37	0
58	MG	1A	3585	1/1	0.98	0.07	40,40,40,40	0
58	MG	1A	3289	1/1	0.98	0.04	48,48,48,48	0
58	MG	2A	3445	1/1	0.98	0.13	28,28,28,28	0
58	MG	1E	303	1/1	0.98	0.07	21,21,21,21	0
58	MG	1A	3229	1/1	0.98	0.25	26,26,26,26	0
58	MG	2A	3226	1/1	0.98	0.08	34,34,34,34	0
58	MG	1A	3498	1/1	0.98	0.10	26,26,26,26	0
58	MG	1a	1652	1/1	0.98	0.05	48,48,48,48	0
58	MG	1a	1653	1/1	0.98	0.09	35,35,35,35	0
58	MG	1E	306	1/1	0.98	0.09	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
61	ZN	14	501	1/1	0.98	0.10	107,107,107,107	0
61	ZN	2Y	202	1/1	0.98	0.04	92,92,92,92	0
58	MG	1E	307	1/1	0.98	0.05	33,33,33,33	0
61	ZN	25	107	1/1	0.98	0.03	70,70,70,70	0
61	ZN	26	102	1/1	0.98	0.07	70,70,70,70	0
62	SF4	1d	302	8/8	0.98	0.06	58,63,68,71	0
62	SF4	2d	303	8/8	0.98	0.04	70,82,88,94	0
58	MG	17	101	1/1	0.99	0.07	25,25,25,25	0
58	MG	1A	3631	1/1	0.99	0.03	19,19,19,19	0
58	MG	1A	3700	1/1	0.99	0.03	32,32,32,32	0
58	MG	2A	3036	1/1	0.99	0.15	39,39,39,39	0
58	MG	1A	3250	1/1	0.99	0.07	32,32,32,32	0
58	MG	1A	3189	1/1	0.99	0.15	31,31,31,31	0
58	MG	1A	3045	1/1	0.99	0.03	34,34,34,34	0
58	MG	1A	4029	1/1	0.99	0.03	21,21,21,21	0
58	MG	1A	3191	1/1	0.99	0.22	32,32,32,32	0
58	MG	1A	3058	1/1	0.99	0.05	19,19,19,19	0
58	MG	1A	4032	1/1	0.99	0.03	43,43,43,43	0
58	MG	1A	3706	1/1	0.99	0.07	23,23,23,23	0
58	MG	1A	3193	1/1	0.99	0.17	23,23,23,23	0
58	MG	2A	3504	1/1	0.99	0.06	43,43,43,43	0
58	MG	1A	3234	1/1	0.99	0.13	36,36,36,36	0
58	MG	1A	3670	1/1	0.99	0.04	39,39,39,39	0
58	MG	1A	3079	1/1	0.99	0.07	36,36,36,36	0
58	MG	1A	3793	1/1	0.99	0.02	32,32,32,32	0
58	MG	1A	3010	1/1	0.99	0.09	29,29,29,29	0
58	MG	2a	1705	1/1	0.99	0.06	57,57,57,57	0
58	MG	1A	3883	1/1	0.99	0.06	49,49,49,49	0
58	MG	1A	3161	1/1	0.99	0.04	20,20,20,20	0
58	MG	1A	3305	1/1	0.99	0.03	31,31,31,31	0
58	MG	1F	302	1/1	0.99	0.16	26,26,26,26	0
58	MG	1A	3935	1/1	0.99	0.04	14,14,14,14	0
58	MG	1A	3146	1/1	0.99	0.14	27,27,27,27	0
58	MG	1A	3070	1/1	0.99	0.10	28,28,28,28	0
58	MG	1F	306	1/1	0.99	0.06	40,40,40,40	0
58	MG	1A	3094	1/1	0.99	0.08	21,21,21,21	0
58	MG	1A	3200	1/1	0.99	0.13	23,23,23,23	0
58	MG	1A	3890	1/1	0.99	0.06	46,46,46,46	0
58	MG	2A	3689	1/1	0.99	0.06	52,52,52,52	0
58	MG	2A	3137	1/1	0.99	0.10	44,44,44,44	0
58	MG	2A	3691	1/1	0.99	0.04	48,48,48,48	0
58	MG	1a	1758	1/1	0.99	0.06	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1A	3801	1/1	0.99	0.08	17,17,17,17	0
58	MG	1A	3993	1/1	0.99	0.08	43,43,43,43	0
58	MG	1X	105	1/1	0.99	0.03	22,22,22,22	0
58	MG	1A	3942	1/1	0.99	0.02	28,28,28,28	0
58	MG	2A	3527	1/1	0.99	0.05	47,47,47,47	0
58	MG	1A	3679	1/1	0.99	0.06	20,20,20,20	0
58	MG	1A	3082	1/1	0.99	0.16	24,24,24,24	0
58	MG	1A	3071	1/1	0.99	0.10	14,14,14,14	0
58	MG	1A	3805	1/1	0.99	0.05	29,29,29,29	0
58	MG	1A	3683	1/1	0.99	0.04	29,29,29,29	0
58	MG	1A	3948	1/1	0.99	0.03	49,49,49,49	0
58	MG	2A	3704	1/1	0.99	0.03	38,38,38,38	0
58	MG	2A	3792	1/1	0.99	0.07	38,38,38,38	0
58	MG	1A	4058	1/1	0.99	0.03	30,30,30,30	0
58	MG	2A	3794	1/1	0.99	0.06	49,49,49,49	0
58	MG	1A	4059	1/1	0.99	0.05	22,22,22,22	0
58	MG	1A	3072	1/1	0.99	0.08	22,22,22,22	0
58	MG	2A	3537	1/1	0.99	0.04	47,47,47,47	0
58	MG	1A	3650	1/1	0.99	0.05	27,27,27,27	0
58	MG	1a	1773	1/1	0.99	0.03	51,51,51,51	0
58	MG	1A	3073	1/1	0.99	0.13	26,26,26,26	0
58	MG	1A	3386	1/1	0.99	0.18	45,45,45,45	0
58	MG	1A	3688	1/1	0.99	0.05	17,17,17,17	0
58	MG	1A	4066	1/1	0.99	0.02	38,38,38,38	0
58	MG	11	102	1/1	0.99	0.04	40,40,40,40	0
58	MG	1A	3074	1/1	0.99	0.04	9,9,9,9	0
58	MG	2A	3807	1/1	0.99	0.07	32,32,32,32	0
58	MG	1A	3690	1/1	0.99	0.04	27,27,27,27	0
58	MG	1A	3291	1/1	0.99	0.13	26,26,26,26	0
58	MG	1A	3905	1/1	0.99	0.11	29,29,29,29	0
58	MG	1A	3037	1/1	0.99	0.12	23,23,23,23	0
58	MG	2A	3812	1/1	0.99	0.09	54,54,54,54	0
58	MG	1A	4072	1/1	0.99	0.08	34,34,34,34	0
58	MG	1A	4011	1/1	0.99	0.04	35,35,35,35	0
58	MG	1A	4012	1/1	0.99	0.06	42,42,42,42	0
58	MG	1A	4013	1/1	0.99	0.07	24,24,24,24	0
58	MG	2A	3472	1/1	0.99	0.03	51,51,51,51	0
58	MG	1A	3570	1/1	0.99	0.26	33,33,33,33	0
58	MG	2A	3819	1/1	0.99	0.05	24,24,24,24	0
58	MG	1A	3003	1/1	0.99	0.05	16,16,16,16	0
58	MG	13	106	1/1	0.99	0.07	35,35,35,35	0
58	MG	1a	1791	1/1	0.99	0.10	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1a	1717	1/1	0.99	0.09	43,43,43,43	0
58	MG	1B	236	1/1	0.99	0.02	28,28,28,28	0
58	MG	2A	3825	1/1	0.99	0.10	22,22,22,22	0
58	MG	1A	3734	1/1	0.99	0.03	37,37,37,37	0
58	MG	1D	302	1/1	0.99	0.04	31,31,31,31	0
58	MG	1A	3627	1/1	0.99	0.05	19,19,19,19	0
58	MG	1A	3466	1/1	0.99	0.08	30,30,30,30	0
58	MG	1A	3737	1/1	0.99	0.07	18,18,18,18	0
58	MG	1D	306	1/1	0.99	0.01	19,19,19,19	0
58	MG	1A	3629	1/1	0.99	0.05	38,38,38,38	0
58	MG	1A	3141	1/1	0.99	0.06	11,11,11,11	0
61	ZN	1Y	204	1/1	0.99	0.02	55,55,55,55	0
58	MG	1A	3916	1/1	0.99	0.07	28,28,28,28	0
61	ZN	16	102	1/1	0.99	0.05	43,43,43,43	0
61	ZN	1n	103	1/1	0.99	0.03	64,64,64,64	0
58	MG	2A	3488	1/1	0.99	0.03	57,57,57,57	0
58	MG	1A	3780	1/1	0.99	0.04	33,33,33,33	0
58	MG	2A	3572	1/1	0.99	0.03	40,40,40,40	0
58	MG	2A	3573	1/1	0.99	0.07	35,35,35,35	0
61	ZN	29	501	1/1	0.99	0.03	72,72,72,72	0
61	ZN	2n	501	1/1	0.99	0.03	88,88,88,88	0
58	MG	2A	3839	1/1	0.99	0.05	51,51,51,51	0
58	MG	2A	3490	1/1	0.99	0.05	54,54,54,54	0
61	ZN	19	102	1/1	1.00	0.05	44,44,44,44	0
58	MG	2A	3799	1/1	1.00	0.08	45,45,45,45	0
58	MG	1a	1743	1/1	1.00	0.07	31,31,31,31	0
58	MG	1A	4065	1/1	1.00	0.03	27,27,27,27	0
58	MG	1A	3622	1/1	1.00	0.05	29,29,29,29	0
58	MG	1a	1794	1/1	1.00	0.03	39,39,39,39	0
58	MG	1A	3910	1/1	1.00	0.06	32,32,32,32	0
58	MG	1A	3727	1/1	1.00	0.05	17,17,17,17	0
61	ZN	15	111	1/1	1.00	0.01	49,49,49,49	0
58	MG	1A	3681	1/1	1.00	0.03	18,18,18,18	0

6.5 Other polymers (i)

There are no such residues in this entry.