Full wwPDB X-ray Structure Validation Report ⓘ

Aug 6, 2026 – 12:06 AM EDT

PDB ID	:	7JQM / pdb_00007jqm
Title	:	Crystal structure of the Thermus thermophilus 70S ribosome in complex with Bac7-002, mRNA, and deacylated P-site tRNA at 3.05A resolution
Authors	:	Mardirossian, M.; Sola, R.; Beckert, B.; Valencic, E.; Collis, D.W.P.; Borisek, J.; Armas, F.; Di Stasi, A.; Buchmann, J.; Syroegin, E.A.; Polikanov, Y.S.; Magistrato, A.; Hilpert, K.; Wilson, D.N.; Scocchi, M.
Deposited on	:	2020-08-11
Resolution	:	3.05 Å(reported)

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

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

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

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

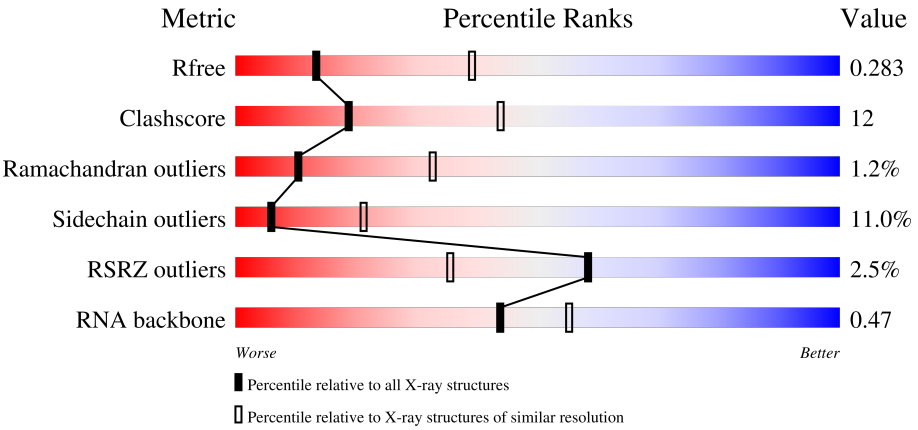
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry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

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.05 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	2469 (3.10-3.02)
Clashscore	190562	2569 (3.10-3.02)
Ramachandran outliers	187476	2424 (3.10-3.02)
Sidechain outliers	187428	2423 (3.10-3.02)
RSRZ outliers	180081	2469 (3.10-3.02)
RNA backbone	3983	1079 (3.30-2.82)

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	2% 53% 37% 8%
1	2A	2915	% 46% 41% 9%
2	1B	121	64% 29% 7%

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Mol	Chain	Length	Quality of chain
2	2B	121	5% 40% 44% 15%
3	1D	276	% 67% 28%
3	2D	276	% 64% 30% 5%
4	1E	206	65% 30%
4	2E	206	65% 30%
5	1F	210	61% 30% 6%
5	2F	210	55% 36% 6%
6	1G	182	3% 66% 29%
6	2G	182	9% 49% 43% 8%
7	1H	180	% 60% 32%
7	2H	180	3% 58% 37%
8	1I	148	% 66% 29%
8	2I	148	3% 63% 28% 7%
9	1N	140	2% 69% 27%
9	2N	140	2% 56% 40%
10	1O	122	70% 25%
10	2O	122	63% 35%
11	1P	150	% 63% 32% 5%
11	2P	150	2% 53% 41% 5%
12	1Q	141	% 64% 33%
12	2Q	141	% 50% 45%
13	1R	118	72% 25%
13	2R	118	% 69% 29%
14	1S	112	64% 31%
14	2S	112	5% 46% 46% 6%

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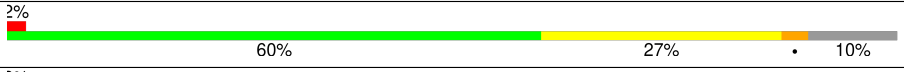
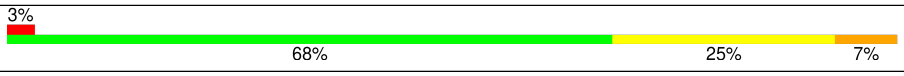
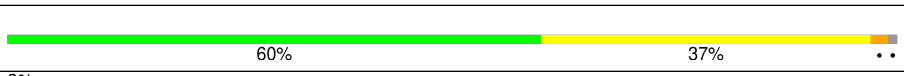
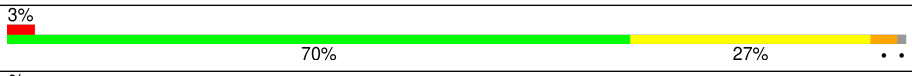
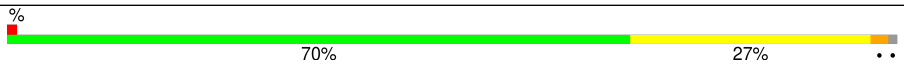
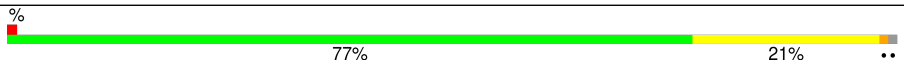
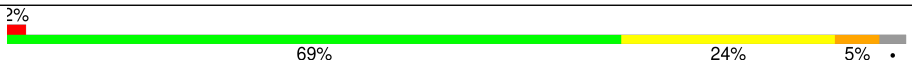
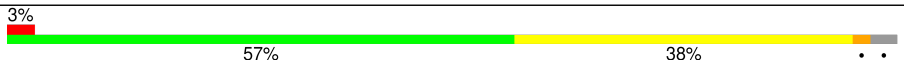
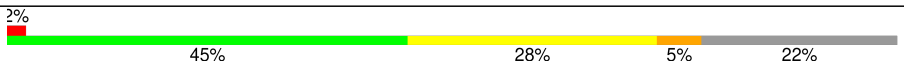
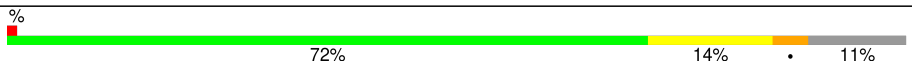
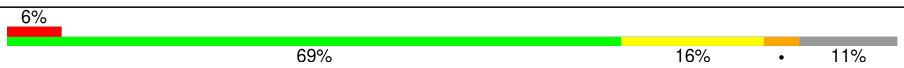
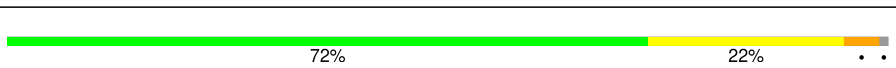
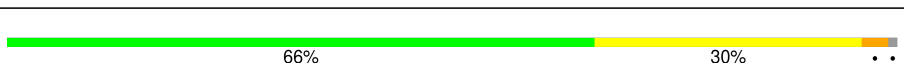
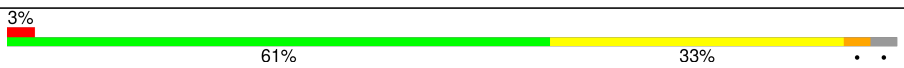
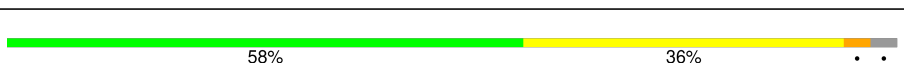
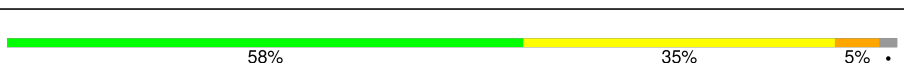
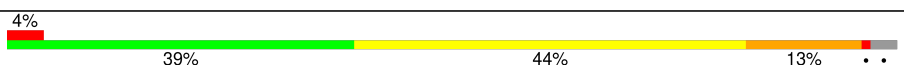
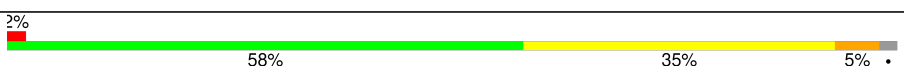
Mol	Chain	Length	Quality of chain
15	1T	146	
15	2T	146	
16	1U	118	
16	2U	118	
17	1V	101	
17	2V	101	
18	1W	113	
18	2W	113	
19	1X	96	
19	2X	96	
20	1Y	110	
20	2Y	110	
21	1Z	206	
21	2Z	206	
22	10	85	
22	20	85	
23	11	98	
23	21	98	
24	12	72	
24	22	72	
25	13	60	
25	23	60	
26	14	71	
26	24	71	
27	15	60	

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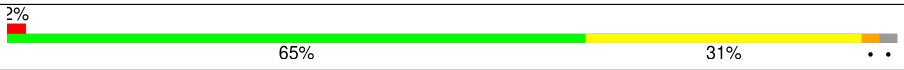
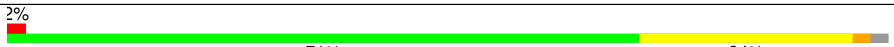
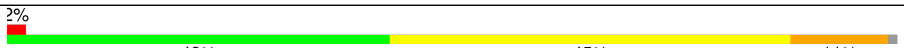
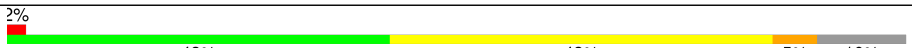
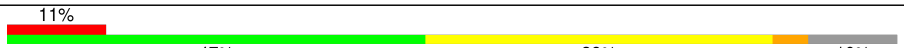
Mol	Chain	Length	Quality of chain
27	25	60	
28	16	54	
28	26	54	
29	17	49	
29	27	49	
30	18	65	
30	28	65	
31	19	37	
31	29	37	
32	1a	1521	
32	2a	1521	
33	1b	256	
33	2b	256	
34	1c	239	
34	2c	239	
35	1d	209	
35	2d	209	
36	1e	162	
36	2e	162	
37	1f	101	
37	2f	101	
38	1g	156	
38	2g	156	
39	1h	138	
39	2h	138	

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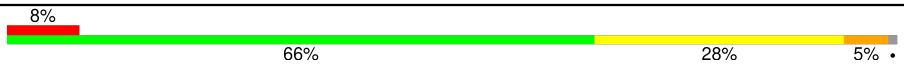
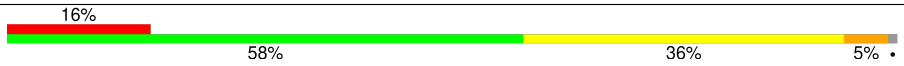
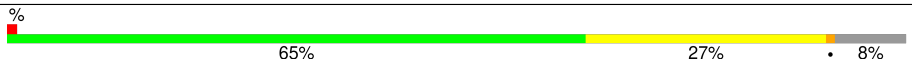
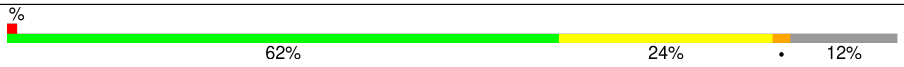
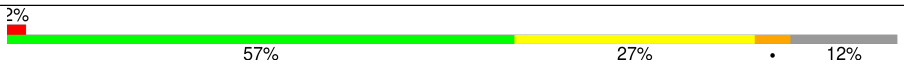
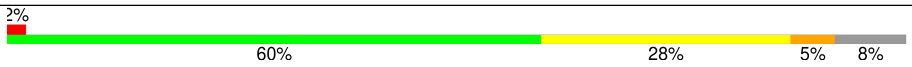
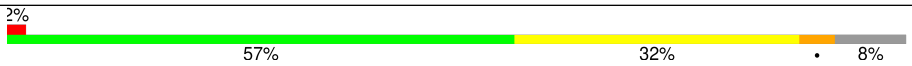
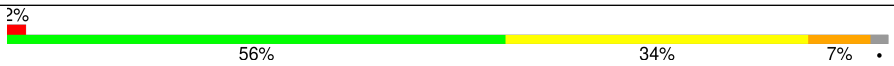
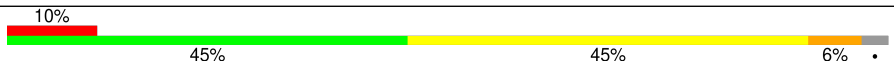
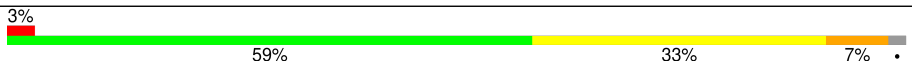
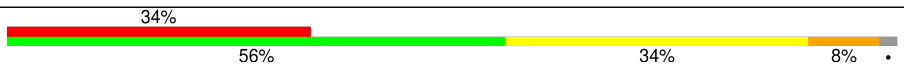
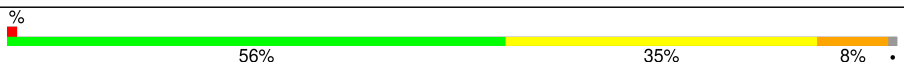
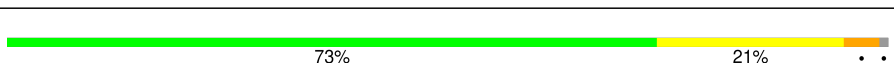
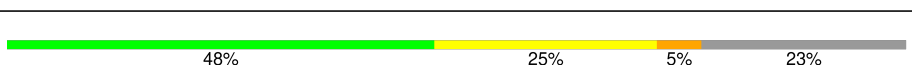
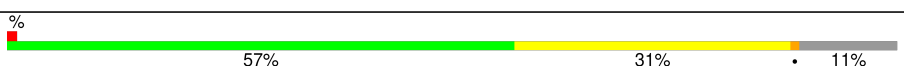
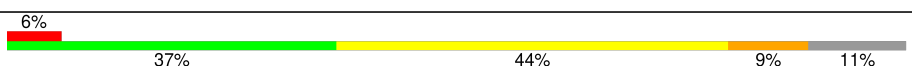
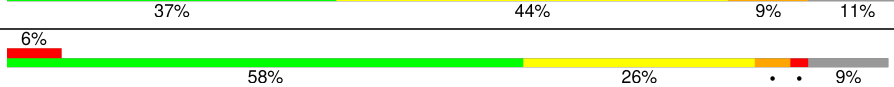
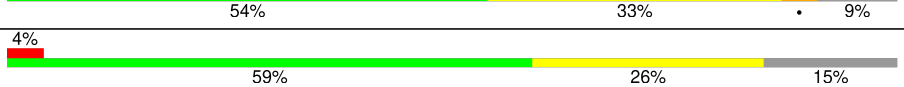
Mol	Chain	Length	Quality of chain
40	1i	128	
40	2i	128	
41	1j	105	
41	2j	105	
42	1k	129	
42	2k	129	
43	1l	132	
43	2l	132	
44	1m	126	
44	2m	126	
45	1n	61	
45	2n	61	
46	1o	89	
46	2o	89	
47	1p	88	
47	2p	88	
48	1q	105	
48	2q	105	
49	1r	88	
49	2r	88	
50	1s	93	
50	2s	93	
51	1t	106	
51	2t	106	
52	1u	27	

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Mol	Chain	Length	Quality of chain
52	2u	27	22% 41% 37% 15%
53	1v	24	21% 25% 12% 17% 46%
53	2v	24	38% 25% 17% 12% 46%
54	1x	77	% 53% 38% 8%
54	2x	77	52% 36% 10%
55	1z	16	12% 50% 44% 6%
55	2z	16	19% 81% 12% 6%

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	1A	3388	-	-	-	X
56	MG	1a	1744	-	-	-	X
56	MG	1a	1759	-	-	-	X
56	MG	2a	3082	-	-	-	X
56	MG	2a	3119	-	-	-	X
56	MG	2a	3145	-	-	-	X
58	SF4	1d	302	-	-	X	-

2 Entry composition

There are 60 unique types of molecules in this entry. The entry contains 290774 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	C	N	O	S	0	0	0
			933	588	171	170	4			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	10	76	Total	C	N	O	S	0	0	0
			604	373	128	102	1			
22	20	76	Total	C	N	O	S	0	0	0
			604	373	128	102	1			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 53 is a RNA chain called mRNA.

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

- Molecule 54 is a RNA chain called P-site tRNA.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
54	1x	76	Total 1625	C 725	N 294	O 529	P 76	S 1	0	0	0
54	2x	76	Total 1625	C 725	N 294	O 529	P 76	S 1	0	0	0

- Molecule 55 is a protein called Bac7-002.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
55	1z	16	Total 147	C 93	N 38	O 16	0	0	0
55	2z	16	Total 141	C 90	N 35	O 16	0	0	0

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1A	848	Total 848	Mg 848	0	0
56	1B	25	Total 25	Mg 25	0	0
56	1D	8	Total 8	Mg 8	0	0
56	1E	8	Total 8	Mg 8	0	0
56	1F	12	Total 12	Mg 12	0	0
56	1G	4	Total 4	Mg 4	0	0
56	1H	1	Total 1	Mg 1	0	0
56	1I	1	Total 1	Mg 1	0	0
56	1N	3	Total 3	Mg 3	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	1O	1	Total Mg 1 1	0	0
56	1P	5	Total Mg 5 5	0	0
56	1Q	4	Total Mg 4 4	0	0
56	1R	6	Total Mg 6 6	0	0
56	1S	1	Total Mg 1 1	0	0
56	1T	2	Total Mg 2 2	0	0
56	1U	6	Total Mg 6 6	0	0
56	1V	5	Total Mg 5 5	0	0
56	1W	6	Total Mg 6 6	0	0
56	1X	3	Total Mg 3 3	0	0
56	1Y	1	Total Mg 1 1	0	0
56	1Z	3	Total Mg 3 3	0	0
56	10	5	Total Mg 5 5	0	0
56	11	2	Total Mg 2 2	0	0
56	12	2	Total Mg 2 2	0	0
56	13	3	Total Mg 3 3	0	0
56	14	1	Total Mg 1 1	0	0
56	15	5	Total Mg 5 5	0	0
56	17	6	Total Mg 6 6	0	0
56	18	4	Total Mg 4 4	0	0
56	19	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	1a	167	Total Mg 167 167	0	0
56	1d	1	Total Mg 1 1	0	0
56	1e	2	Total Mg 2 2	0	0
56	1f	2	Total Mg 2 2	0	0
56	1h	1	Total Mg 1 1	0	0
56	1l	3	Total Mg 3 3	0	0
56	1m	1	Total Mg 1 1	0	0
56	1n	2	Total Mg 2 2	0	0
56	1s	1	Total Mg 1 1	0	0
56	1v	1	Total Mg 1 1	0	0
56	1x	10	Total Mg 10 10	0	0
56	1z	1	Total Mg 1 1	0	0
56	2A	625	Total Mg 625 625	0	0
56	2B	12	Total Mg 12 12	0	0
56	2D	2	Total Mg 2 2	0	0
56	2E	5	Total Mg 5 5	0	0
56	2F	4	Total Mg 4 4	0	0
56	2N	1	Total Mg 1 1	0	0
56	2O	1	Total Mg 1 1	0	0
56	2P	3	Total Mg 3 3	0	0
56	2Q	2	Total Mg 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	2R	1	Total Mg 1 1	0	0
56	2T	2	Total Mg 2 2	0	0
56	2V	2	Total Mg 2 2	0	0
56	2W	1	Total Mg 1 1	0	0
56	2Y	1	Total Mg 1 1	0	0
56	2Z	1	Total Mg 1 1	0	0
56	20	1	Total Mg 1 1	0	0
56	21	1	Total Mg 1 1	0	0
56	23	2	Total Mg 2 2	0	0
56	25	2	Total Mg 2 2	0	0
56	26	1	Total Mg 1 1	0	0
56	27	2	Total Mg 2 2	0	0
56	28	3	Total Mg 3 3	0	0
56	2a	145	Total Mg 145 145	0	0
56	2d	1	Total Mg 1 1	0	0
56	2f	1	Total Mg 1 1	0	0
56	2j	1	Total Mg 1 1	0	0
56	2k	1	Total Mg 1 1	0	0
56	2l	2	Total Mg 2 2	0	0
56	2q	2	Total Mg 2 2	0	0
56	2r	1	Total Mg 1 1	0	0

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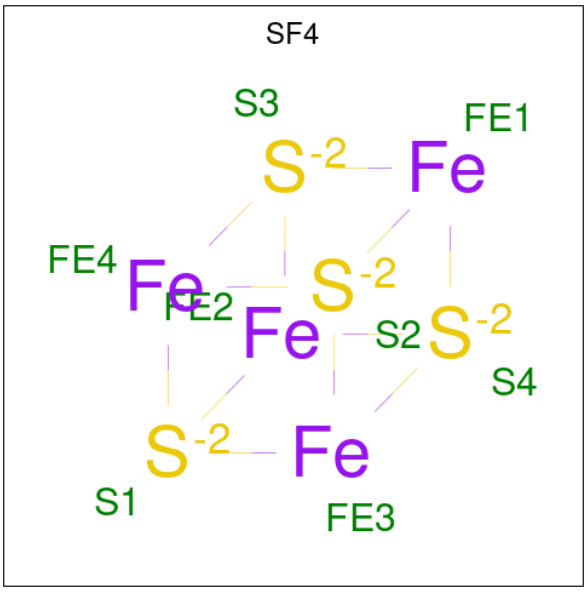
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	2t	1	Total Mg 1 1	0	0
56	2v	2	Total Mg 2 2	0	0
56	2x	3	Total Mg 3 3	0	0

- Molecule 57 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	1Y	1	Total Zn 1 1	0	0
57	14	1	Total Zn 1 1	0	0
57	15	1	Total Zn 1 1	0	0
57	16	1	Total Zn 1 1	0	0
57	19	1	Total Zn 1 1	0	0
57	1n	1	Total Zn 1 1	0	0
57	2Y	1	Total Zn 1 1	0	0
57	24	1	Total Zn 1 1	0	0
57	25	1	Total Zn 1 1	0	0
57	26	1	Total Zn 1 1	0	0
57	29	1	Total Zn 1 1	0	0
57	2n	1	Total Zn 1 1	0	0

- Molecule 58 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	1d	1	Total Fe S 8 4 4	0	0
58	2d	1	Total Fe S 8 4 4	0	0

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

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

- Molecule 60 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1A	1222	Total O 1222 1222	0	0
60	1B	27	Total O 27 27	0	0
60	1D	21	Total O 21 21	0	0
60	1E	11	Total O 11 11	0	0
60	1F	9	Total O 9 9	0	0
60	1N	1	Total O 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1O	1	Total O 1 1	0	0
60	1P	14	Total O 14 14	0	0
60	1Q	2	Total O 2 2	0	0
60	1R	3	Total O 3 3	0	0
60	1S	2	Total O 2 2	0	0
60	1T	4	Total O 4 4	0	0
60	1U	4	Total O 4 4	0	0
60	1V	4	Total O 4 4	0	0
60	1W	3	Total O 3 3	0	0
60	10	2	Total O 2 2	0	0
60	11	2	Total O 2 2	0	0
60	12	2	Total O 2 2	0	0
60	13	2	Total O 2 2	0	0
60	18	2	Total O 2 2	0	0
60	1a	26	Total O 26 26	0	0
60	1d	1	Total O 1 1	0	0
60	1z	1	Total O 1 1	0	0
60	2A	416	Total O 416 416	0	0
60	2B	3	Total O 3 3	0	0
60	2D	12	Total O 12 12	0	0
60	2E	4	Total O 4 4	0	0

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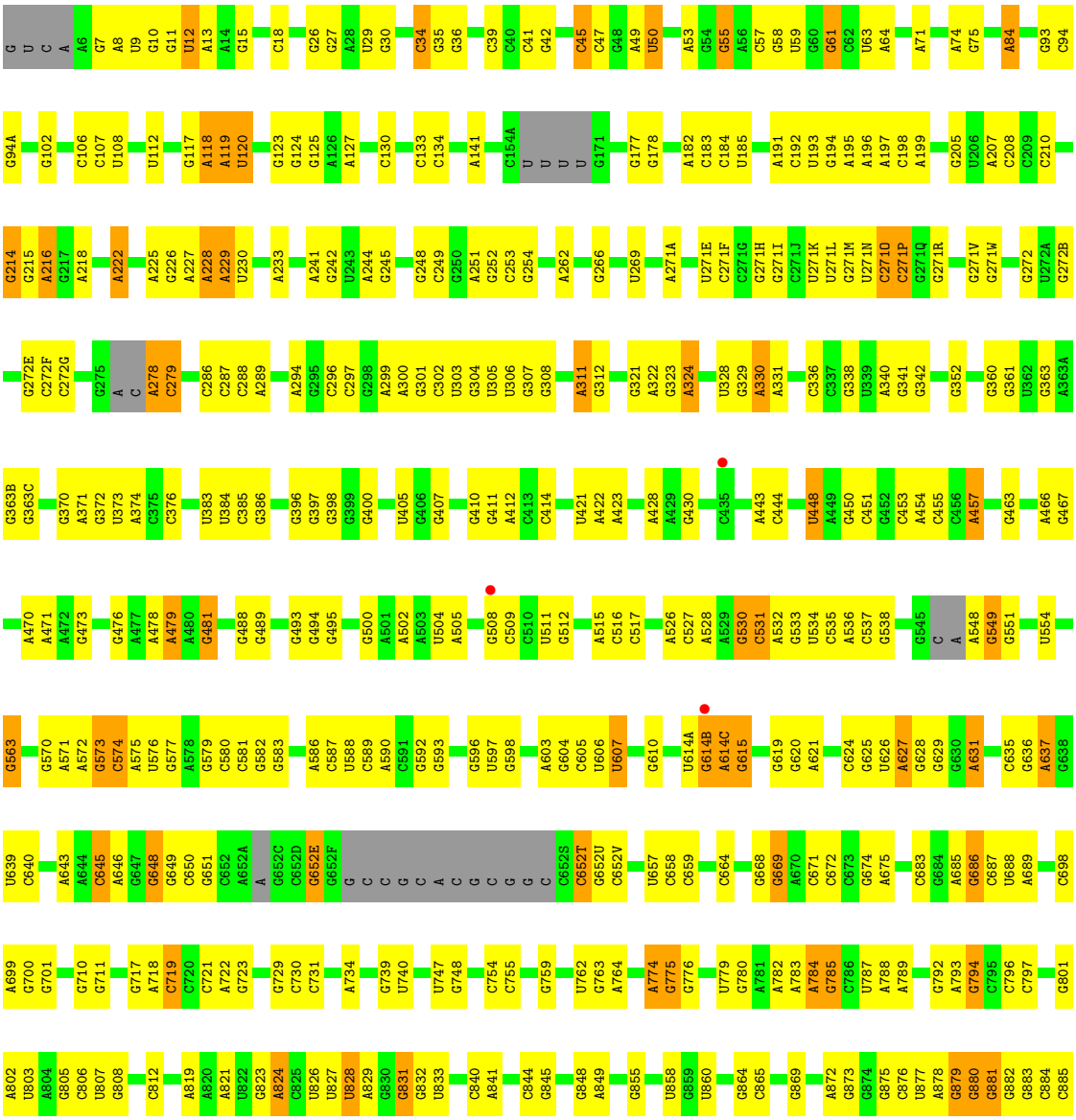
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	2F	6	Total O 6 6	0	0
60	2I	1	Total O 1 1	0	0
60	2O	3	Total O 3 3	0	0
60	2P	4	Total O 4 4	0	0
60	2Q	1	Total O 1 1	0	0
60	2R	1	Total O 1 1	0	0
60	2T	1	Total O 1 1	0	0
60	2V	1	Total O 1 1	0	0
60	2W	2	Total O 2 2	0	0
60	20	1	Total O 1 1	0	0
60	21	2	Total O 2 2	0	0
60	28	2	Total O 2 2	0	0
60	2a	17	Total O 17 17	0	0
60	2l	1	Total O 1 1	0	0
60	2n	1	Total O 1 1	0	0
60	2t	1	Total O 1 1	0	0
60	2x	1	Total O 1 1	0	0

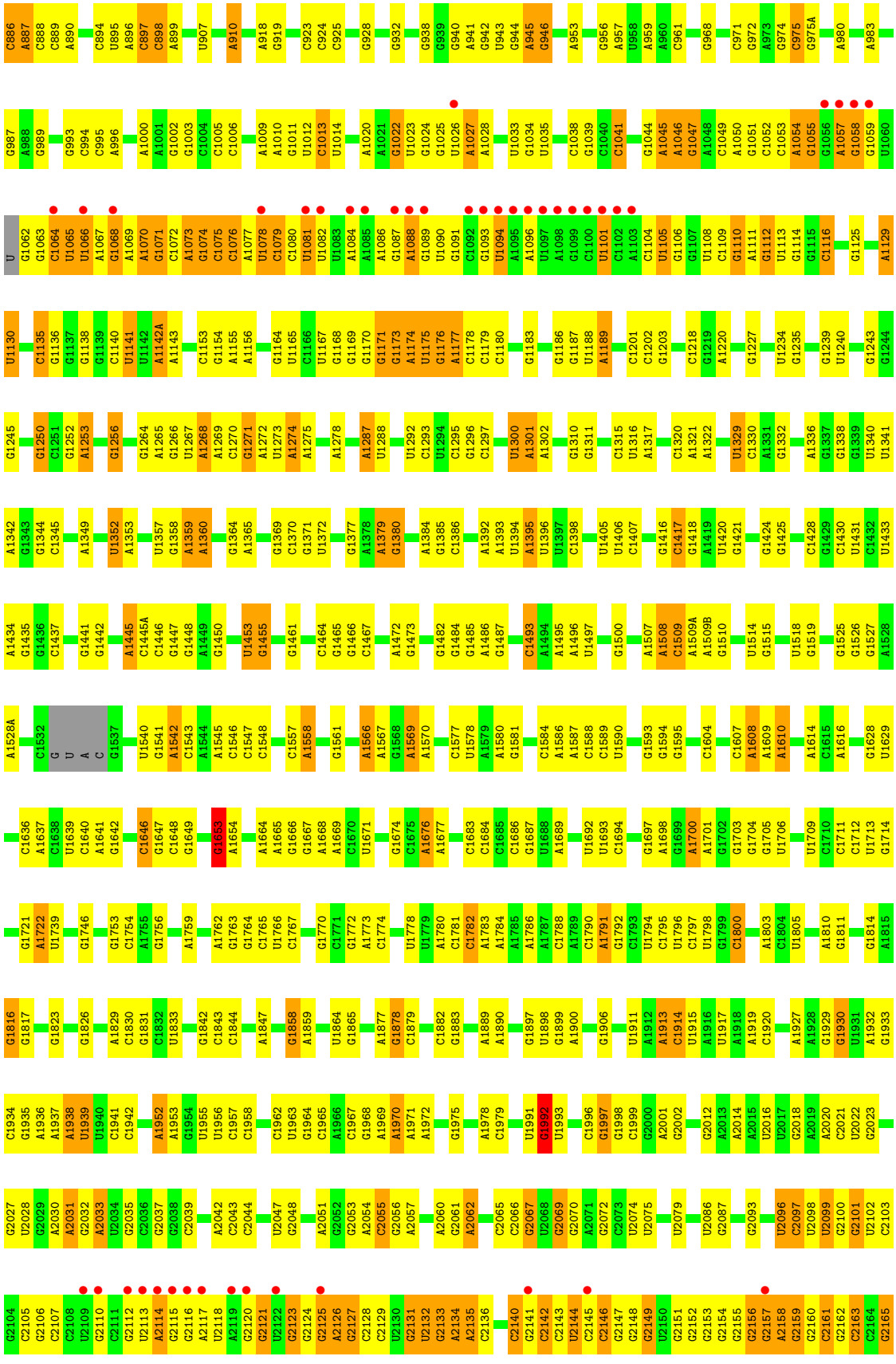
3 Residue-property plots (i)

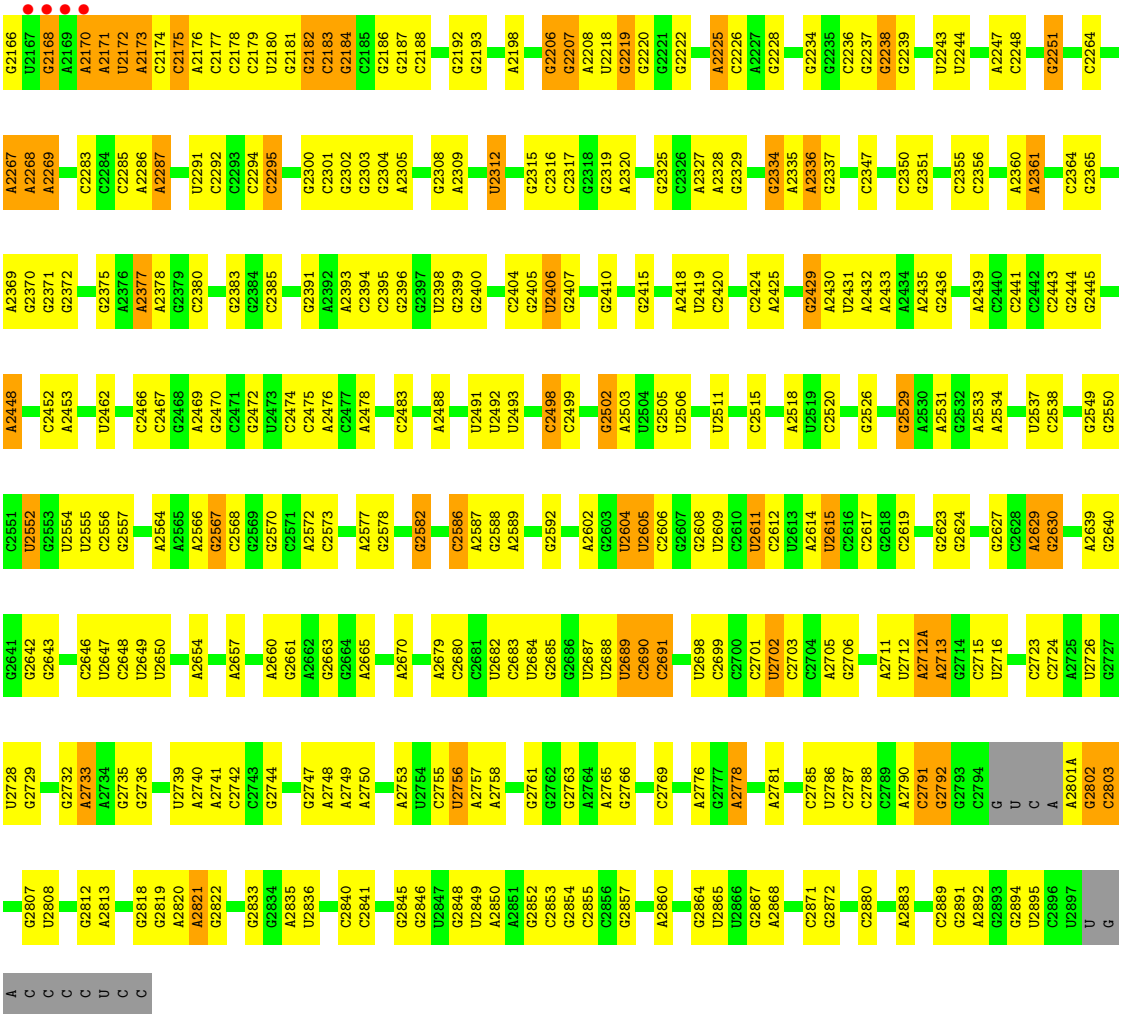
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

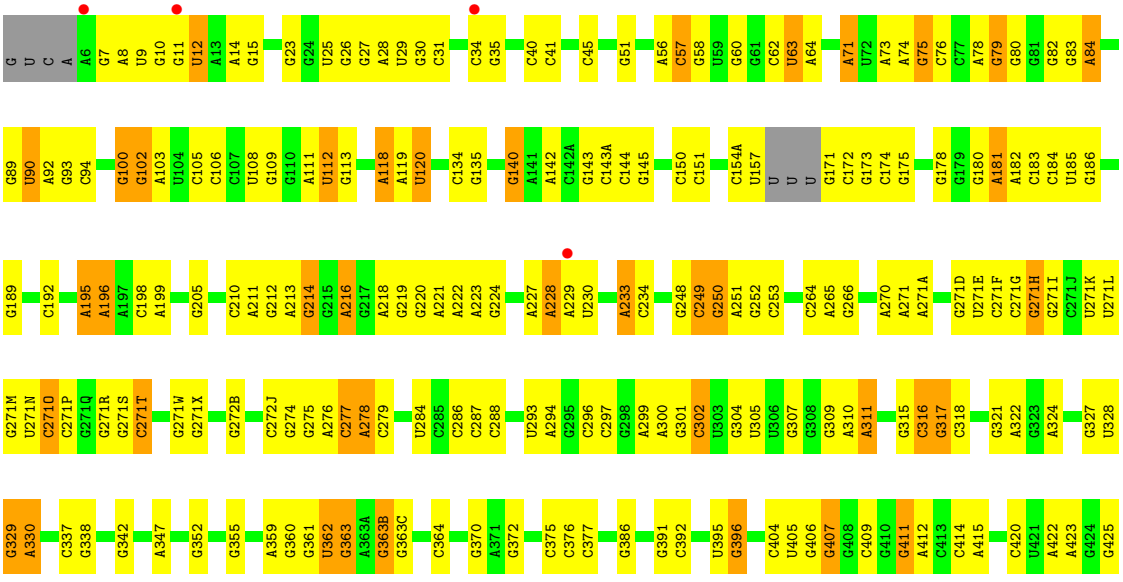


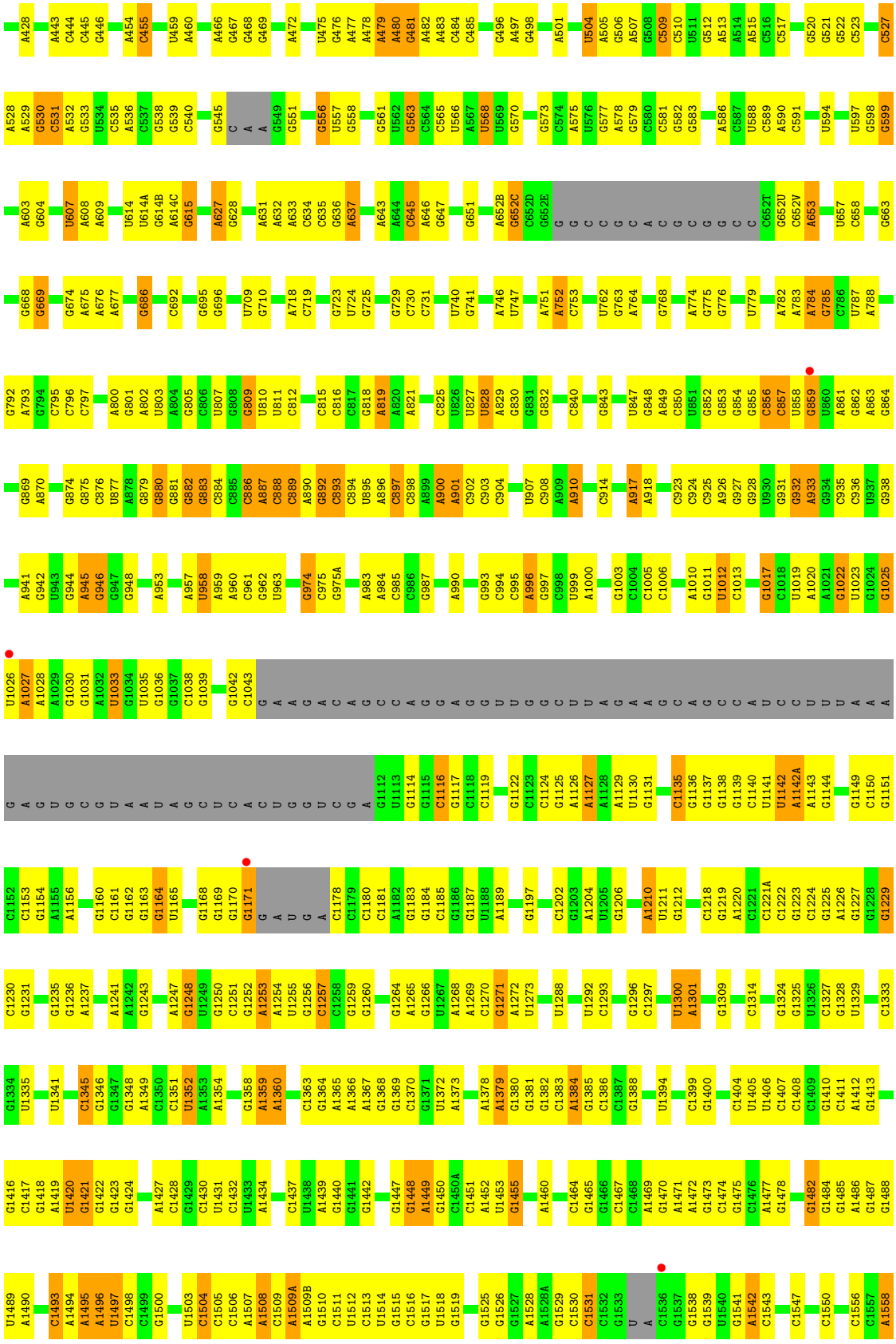


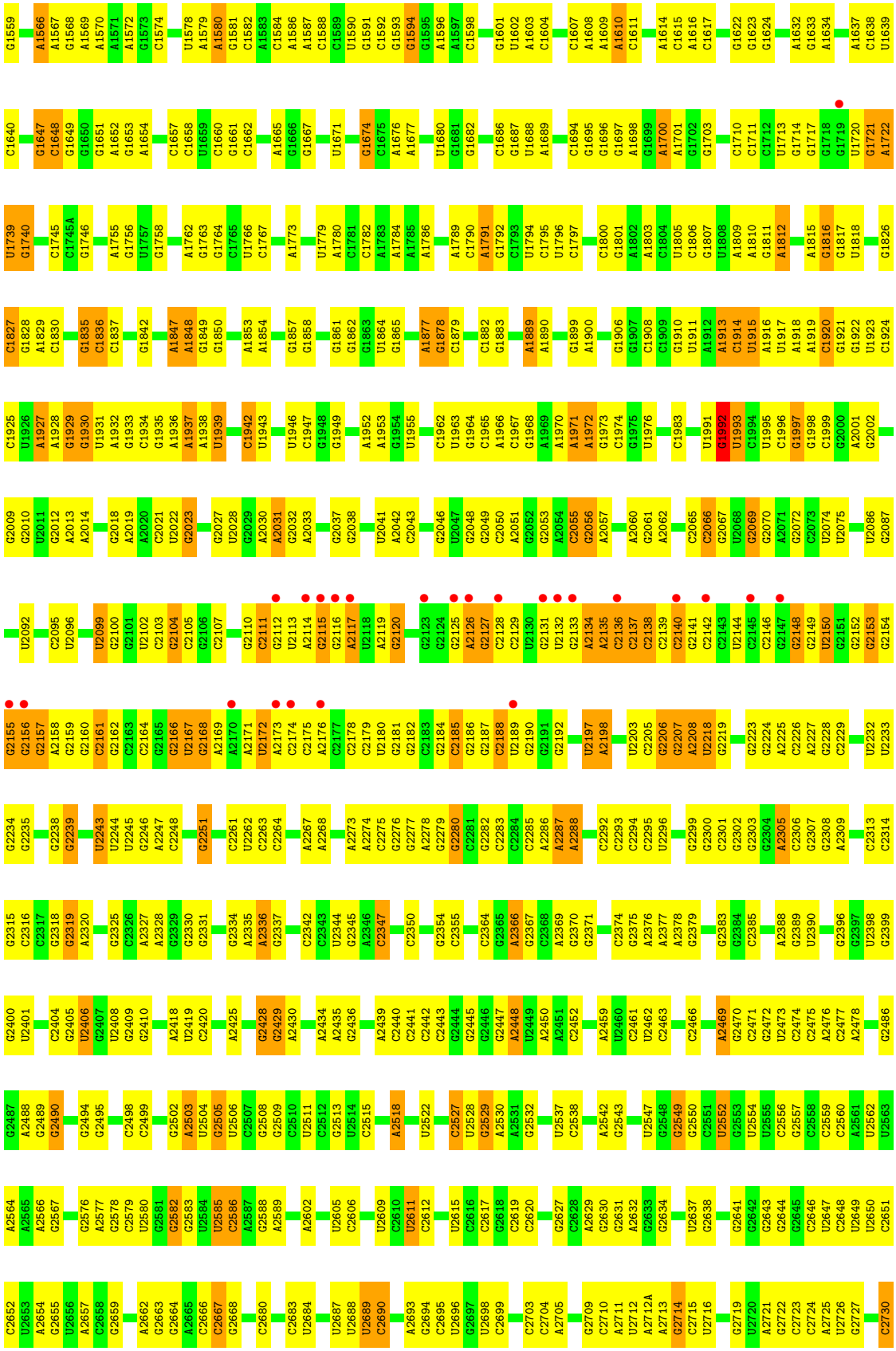


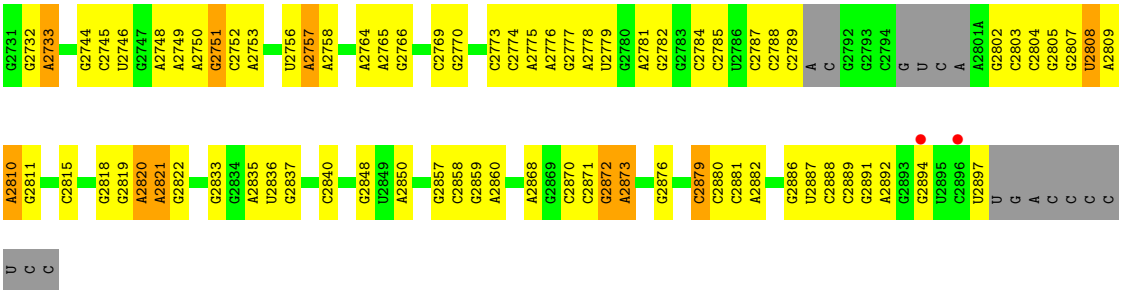
• Molecule 1: 23S Ribosomal RNA

Chain 2A:



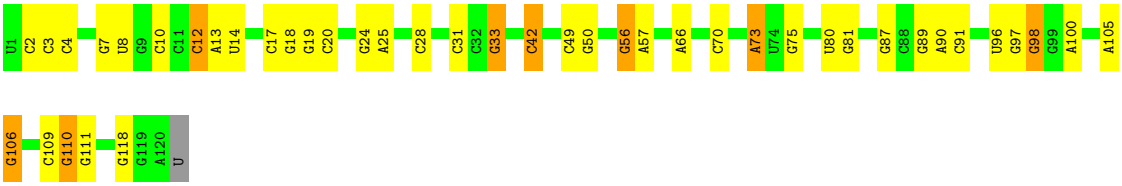






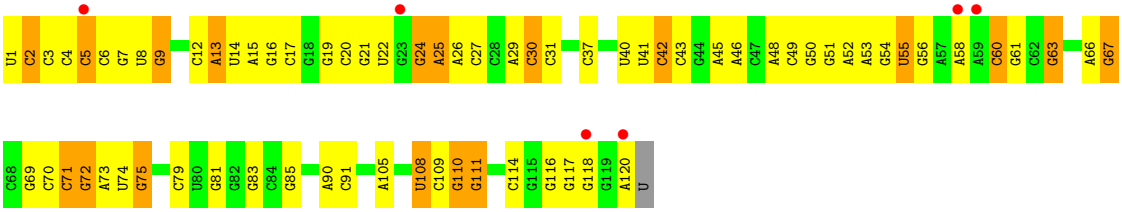
• Molecule 2: 5S Ribosomal RNA

Chain 1B:



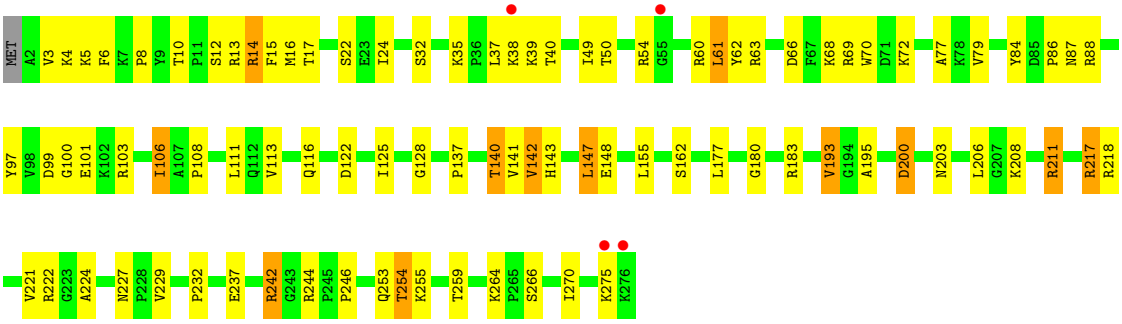
• Molecule 2: 5S Ribosomal RNA

Chain 2B:



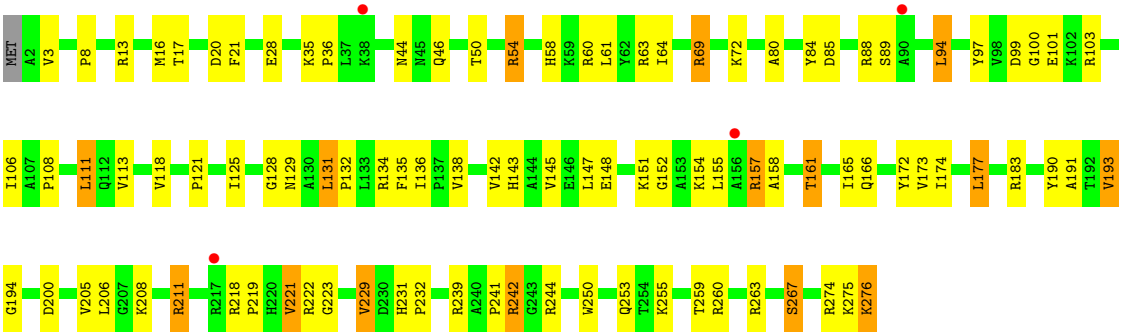
• Molecule 3: 50S ribosomal protein L2

Chain 1D:



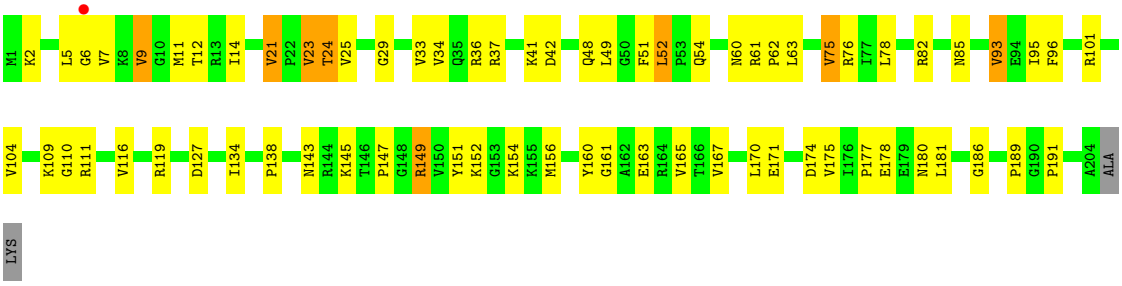
• Molecule 3: 50S ribosomal protein L2

Chain 2D:



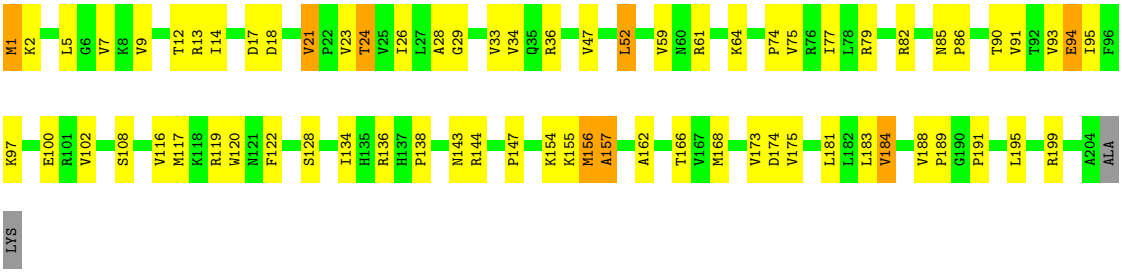
• Molecule 4: 50S ribosomal protein L3

Chain 1E:



• Molecule 4: 50S ribosomal protein L3

Chain 2E:

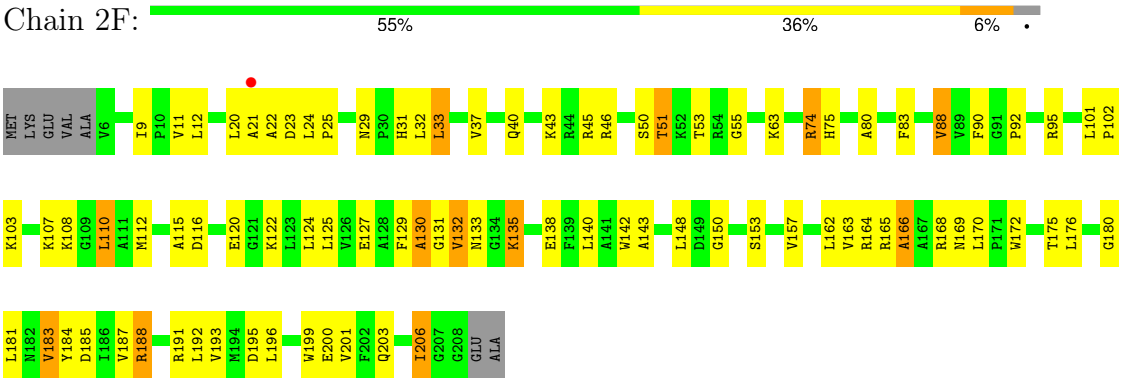


• Molecule 5: 50S ribosomal protein L4

Chain 1F:

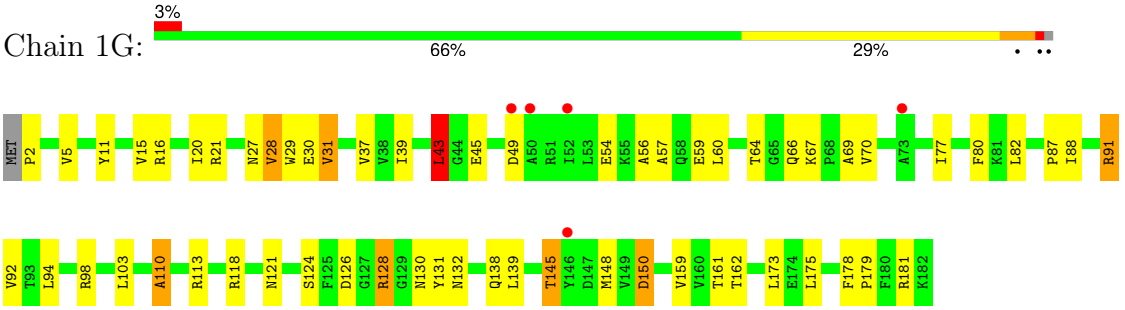
• Molecule 5: 50S ribosomal protein L4

Chain 2F:



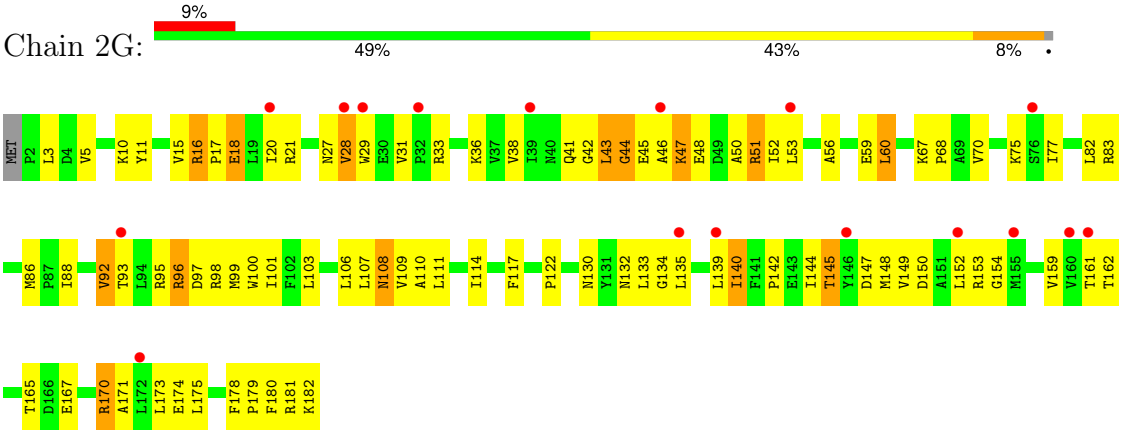
• Molecule 6: 50S ribosomal protein L5

Chain 1G:



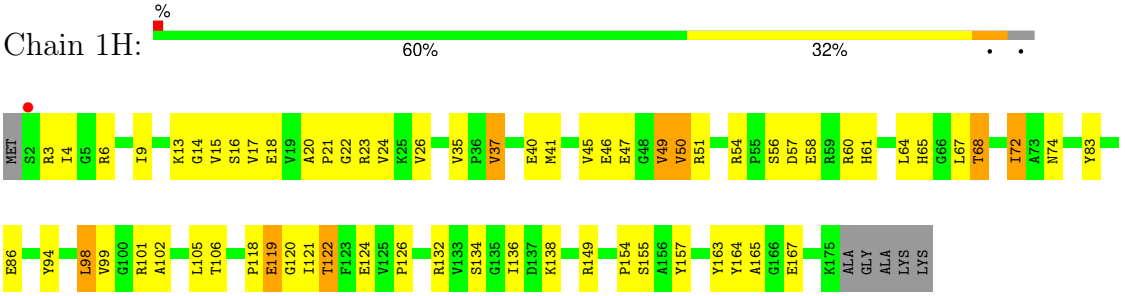
• Molecule 6: 50S ribosomal protein L5

Chain 2G:



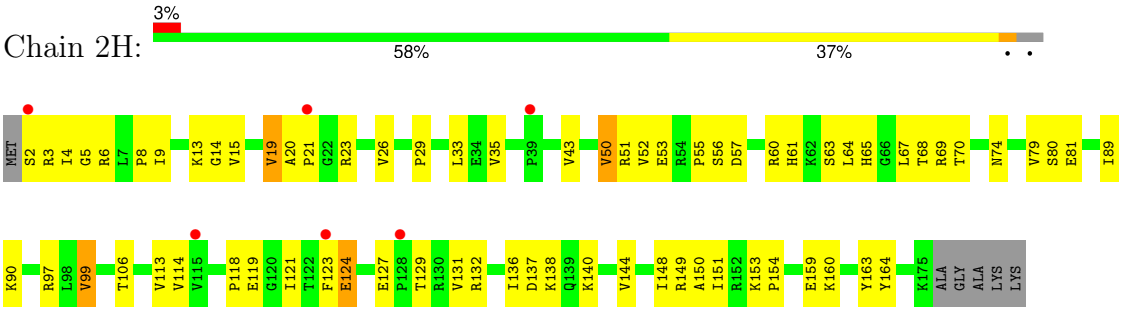
• Molecule 7: 50S ribosomal protein L6

Chain 1H:



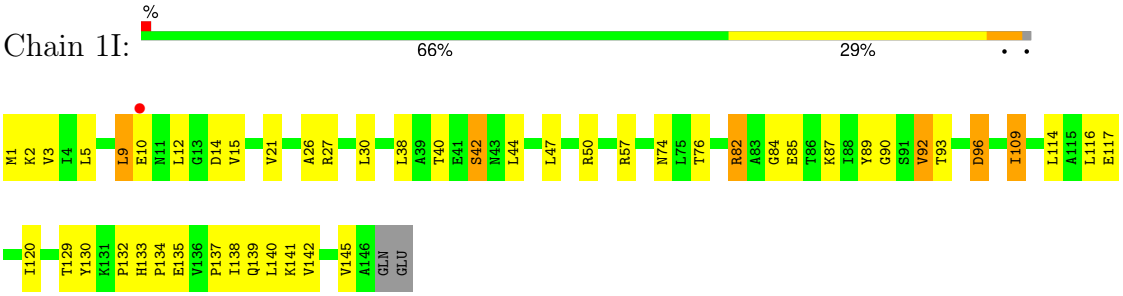
• Molecule 7: 50S ribosomal protein L6

Chain 2H:



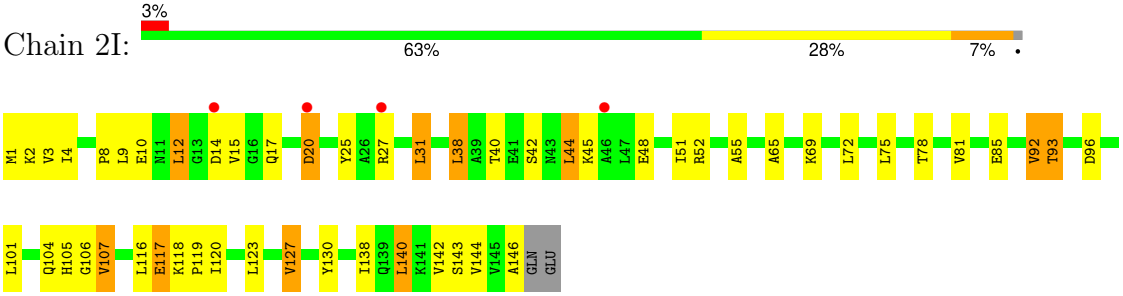
• Molecule 8: 50S ribosomal protein L9

Chain 1I:



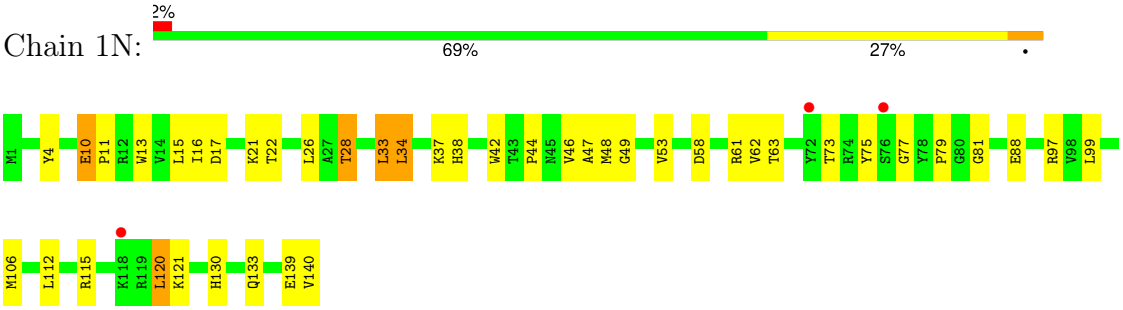
• Molecule 8: 50S ribosomal protein L9

Chain 2I:



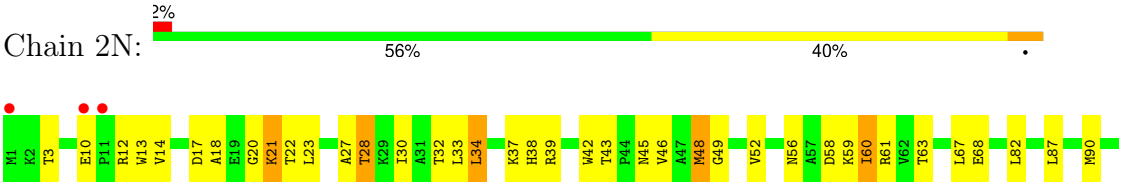
• Molecule 9: 50S ribosomal protein L13

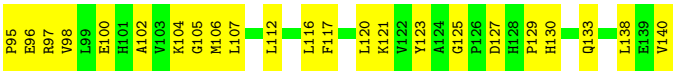
Chain 1N:



• Molecule 9: 50S ribosomal protein L13

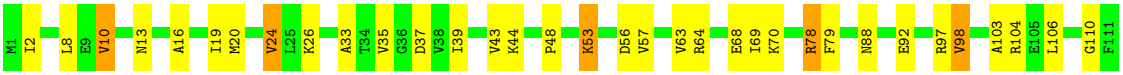
Chain 2N:





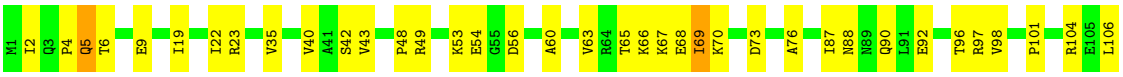
• Molecule 10: 50S ribosomal protein L14

Chain 1O:



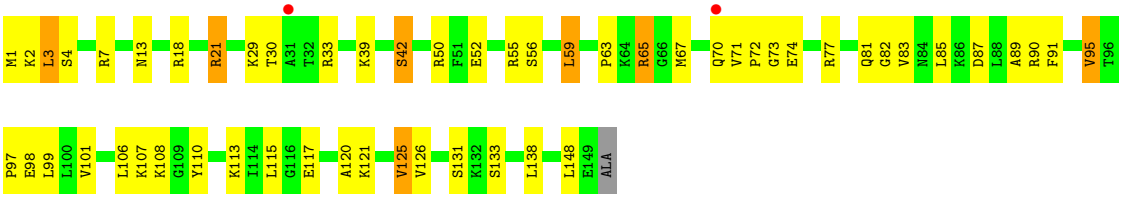
• Molecule 10: 50S ribosomal protein L14

Chain 2O:



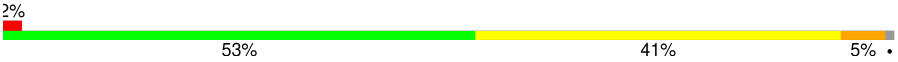
• Molecule 11: 50S ribosomal protein L15

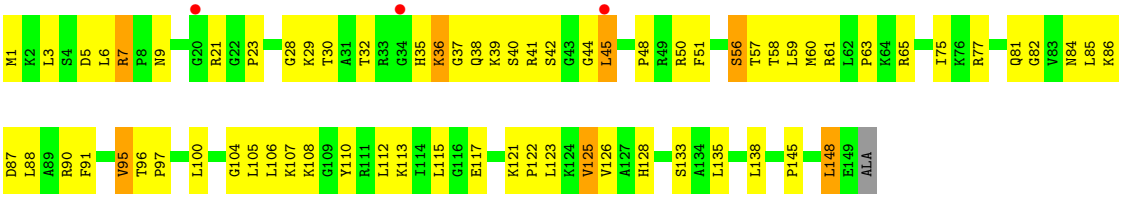
Chain 1P:



• Molecule 11: 50S ribosomal protein L15

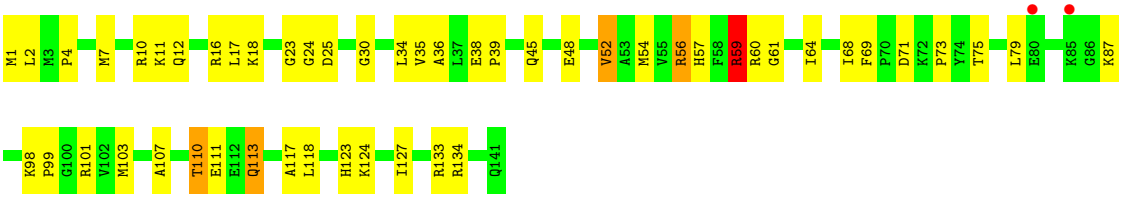
Chain 2P:





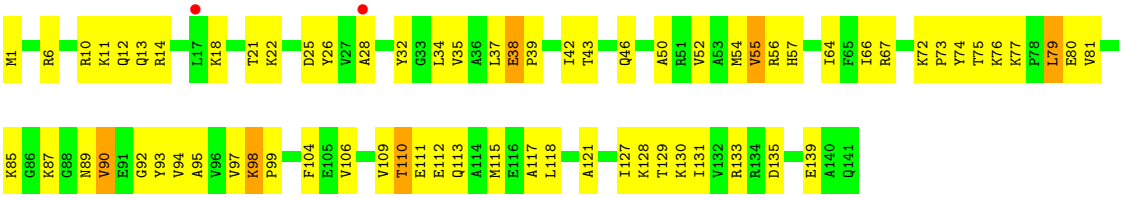
• Molecule 12: 50S ribosomal protein L16

Chain 1Q:



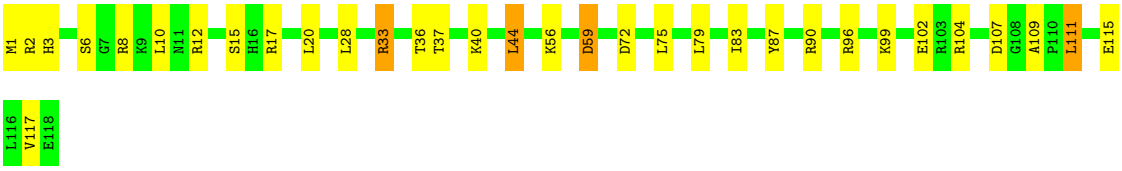
• Molecule 12: 50S ribosomal protein L16

Chain 2Q:



• Molecule 13: 50S ribosomal protein L17

Chain 1R:

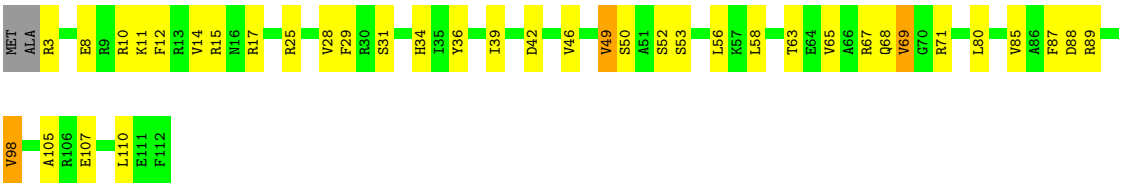


• Molecule 13: 50S ribosomal protein L17

Chain 2R:

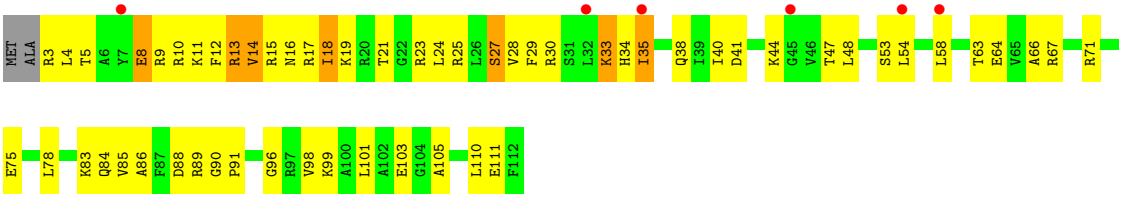
• Molecule 14: 50S ribosomal protein L18

Chain 1S:



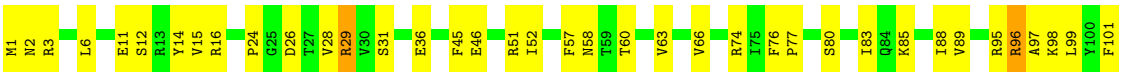
• Molecule 14: 50S ribosomal protein L18

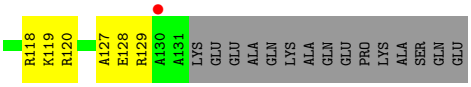
Chain 2S:



• Molecule 15: 50S ribosomal protein L19

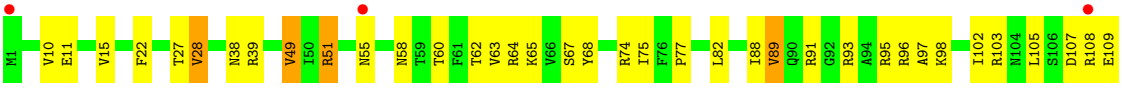
Chain 1T:

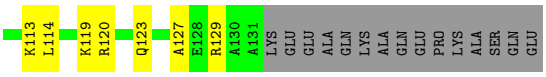




• Molecule 15: 50S ribosomal protein L19

Chain 2T:



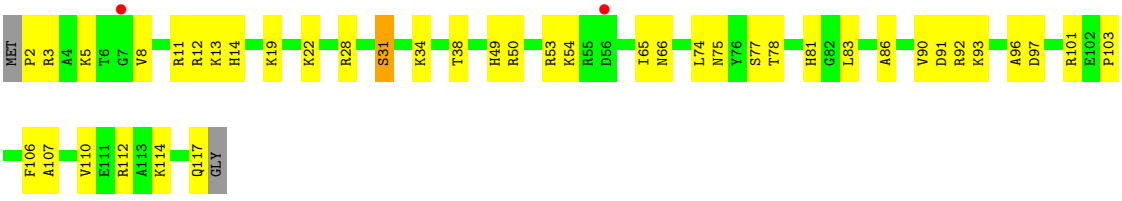


• Molecule 16: 50S ribosomal protein L20

Chain 1U:

• Molecule 16: 50S ribosomal protein L20

Chain 2U:

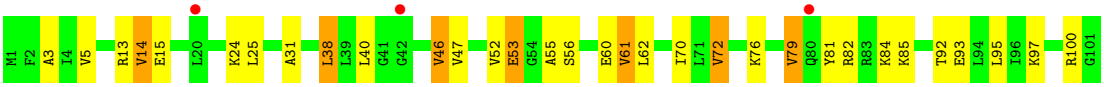


• Molecule 17: 50S ribosomal protein L21

Chain 1V:

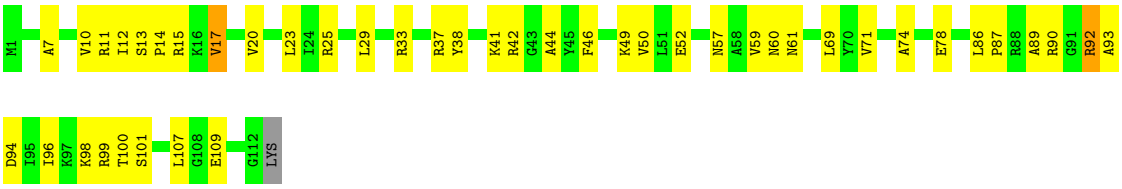
• Molecule 17: 50S ribosomal protein L21

Chain 2V:



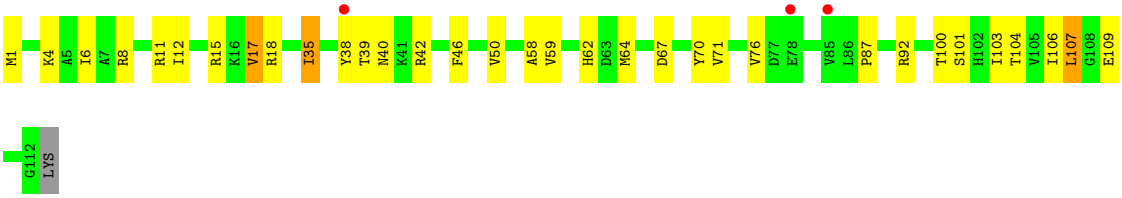
• Molecule 18: 50S ribosomal protein L22

Chain 1W:



• Molecule 18: 50S ribosomal protein L22

Chain 2W:



• Molecule 19: 50S ribosomal protein L23

Chain 1X:

• Molecule 19: 50S ribosomal protein L23

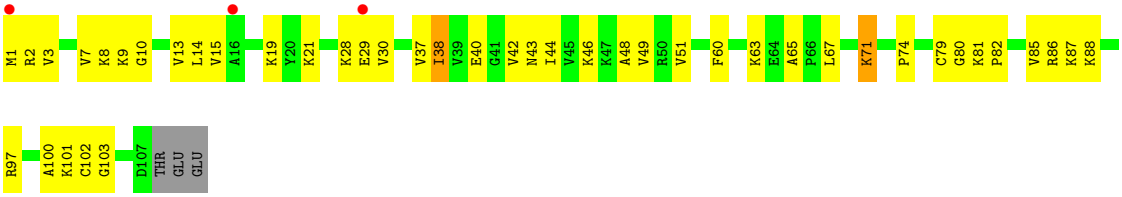
Chain 2X:

• Molecule 20: 50S ribosomal protein L24

Chain 1Y:

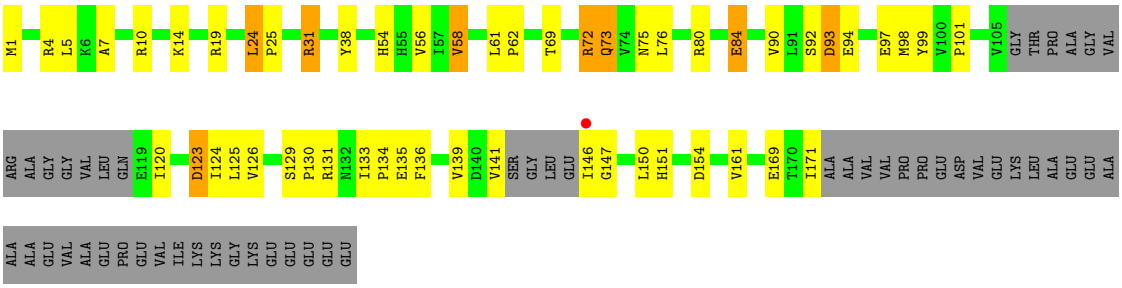
• Molecule 20: 50S ribosomal protein L24

Chain 2Y:



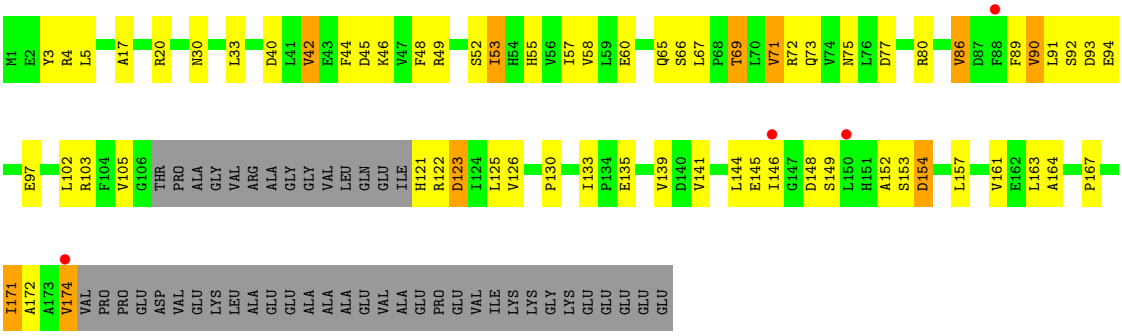
• Molecule 21: 50S ribosomal protein L25

Chain 1Z:



• Molecule 21: 50S ribosomal protein L25

Chain 2Z:

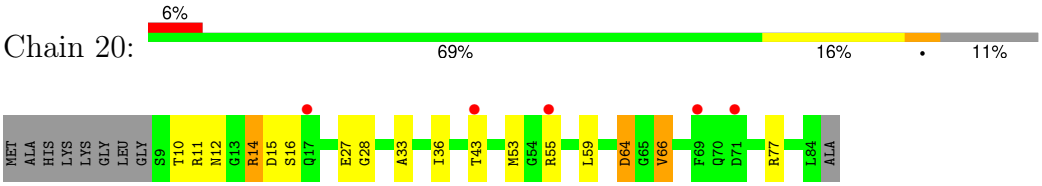


• Molecule 22: 50S ribosomal protein L27

Chain 10:

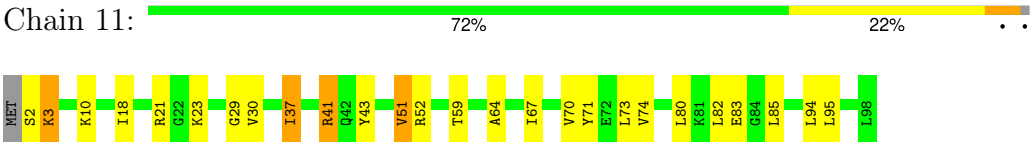
• Molecule 22: 50S ribosomal protein L27

Chain 20:



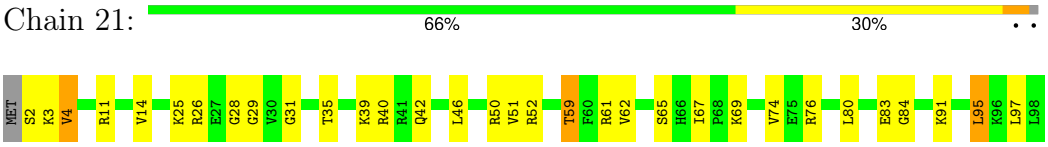
• Molecule 23: 50S ribosomal protein L28

Chain 11:



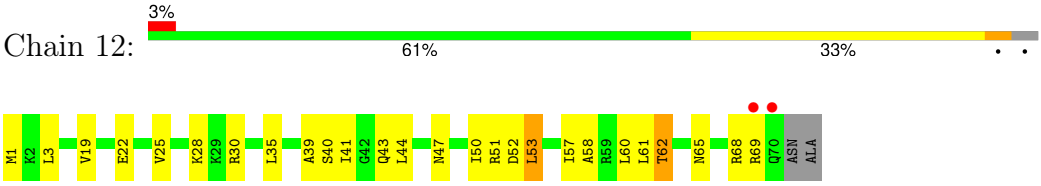
• Molecule 23: 50S ribosomal protein L28

Chain 21:



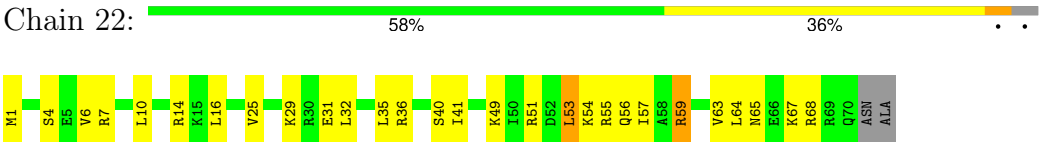
• Molecule 24: 50S ribosomal protein L29

Chain 12:



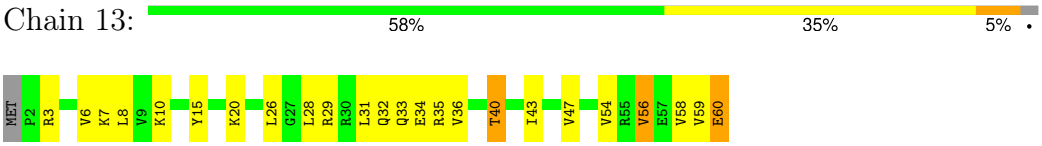
• Molecule 24: 50S ribosomal protein L29

Chain 22:



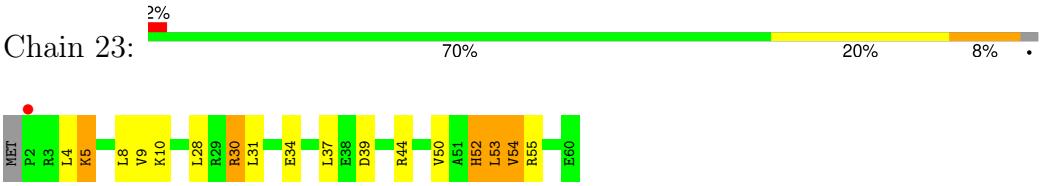
• Molecule 25: 50S ribosomal protein L30

Chain 13:



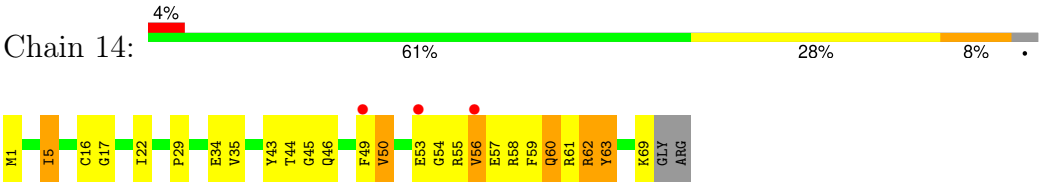
• Molecule 25: 50S ribosomal protein L30

Chain 23:



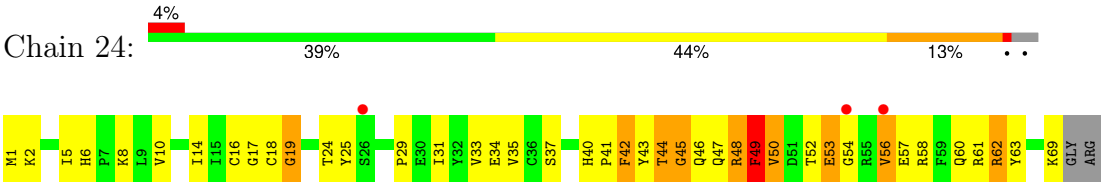
• Molecule 26: 50S ribosomal protein L31

Chain 14:



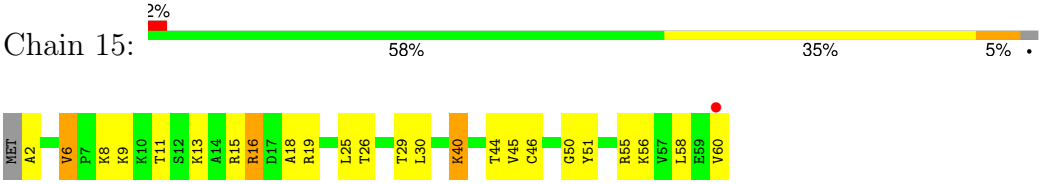
• Molecule 26: 50S ribosomal protein L31

Chain 24:



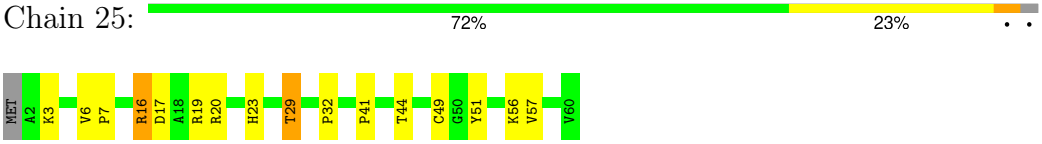
• Molecule 27: 50S ribosomal protein L32

Chain 15:



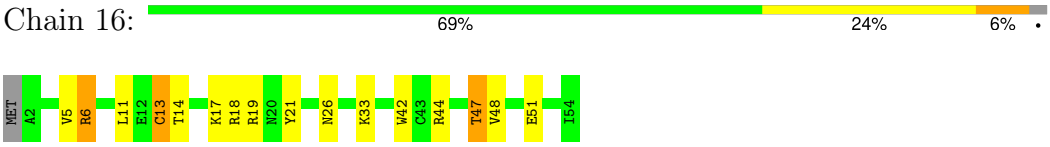
• Molecule 27: 50S ribosomal protein L32

Chain 25:



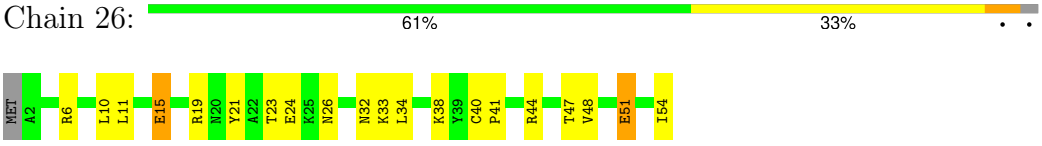
• Molecule 28: 50S ribosomal protein L33

Chain 16:



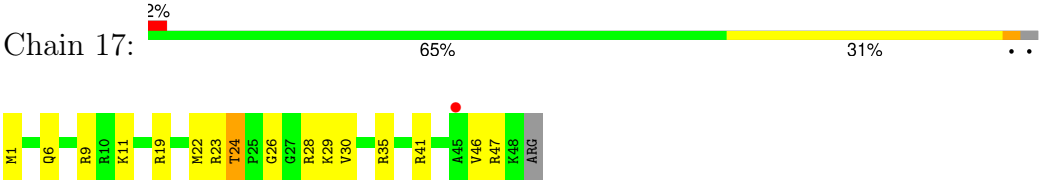
• Molecule 28: 50S ribosomal protein L33

Chain 26:



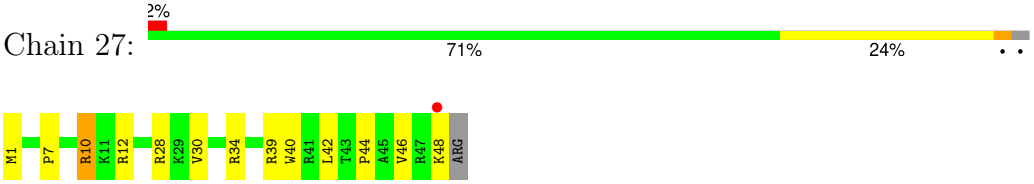
• Molecule 29: 50S ribosomal protein L34

Chain 17:



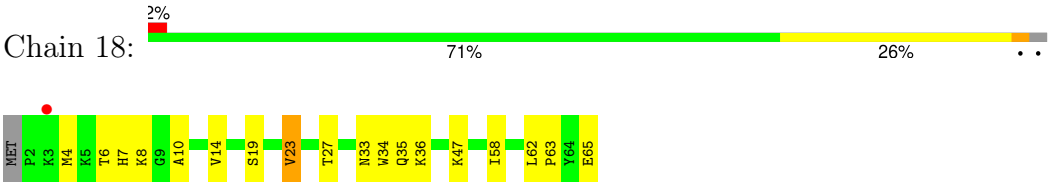
• Molecule 29: 50S ribosomal protein L34

Chain 27:



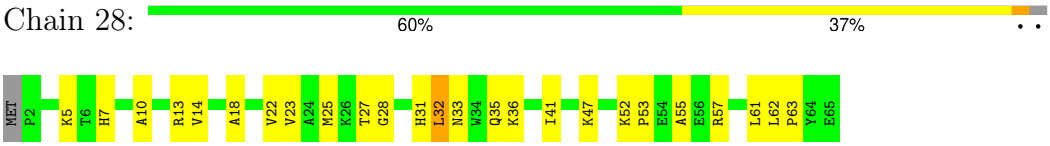
• Molecule 30: 50S ribosomal protein L35

Chain 18:



• Molecule 30: 50S ribosomal protein L35

Chain 28:

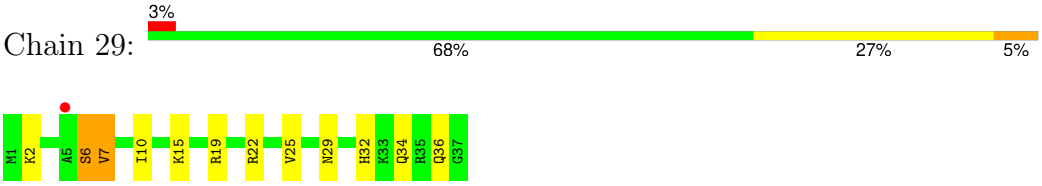


• Molecule 31: 50S ribosomal protein L36

Chain 19:

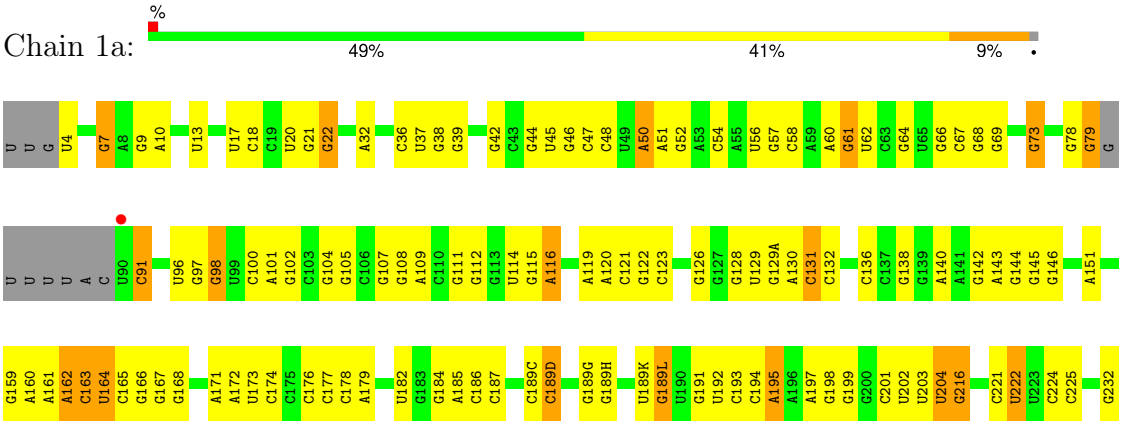
• Molecule 31: 50S ribosomal protein L36

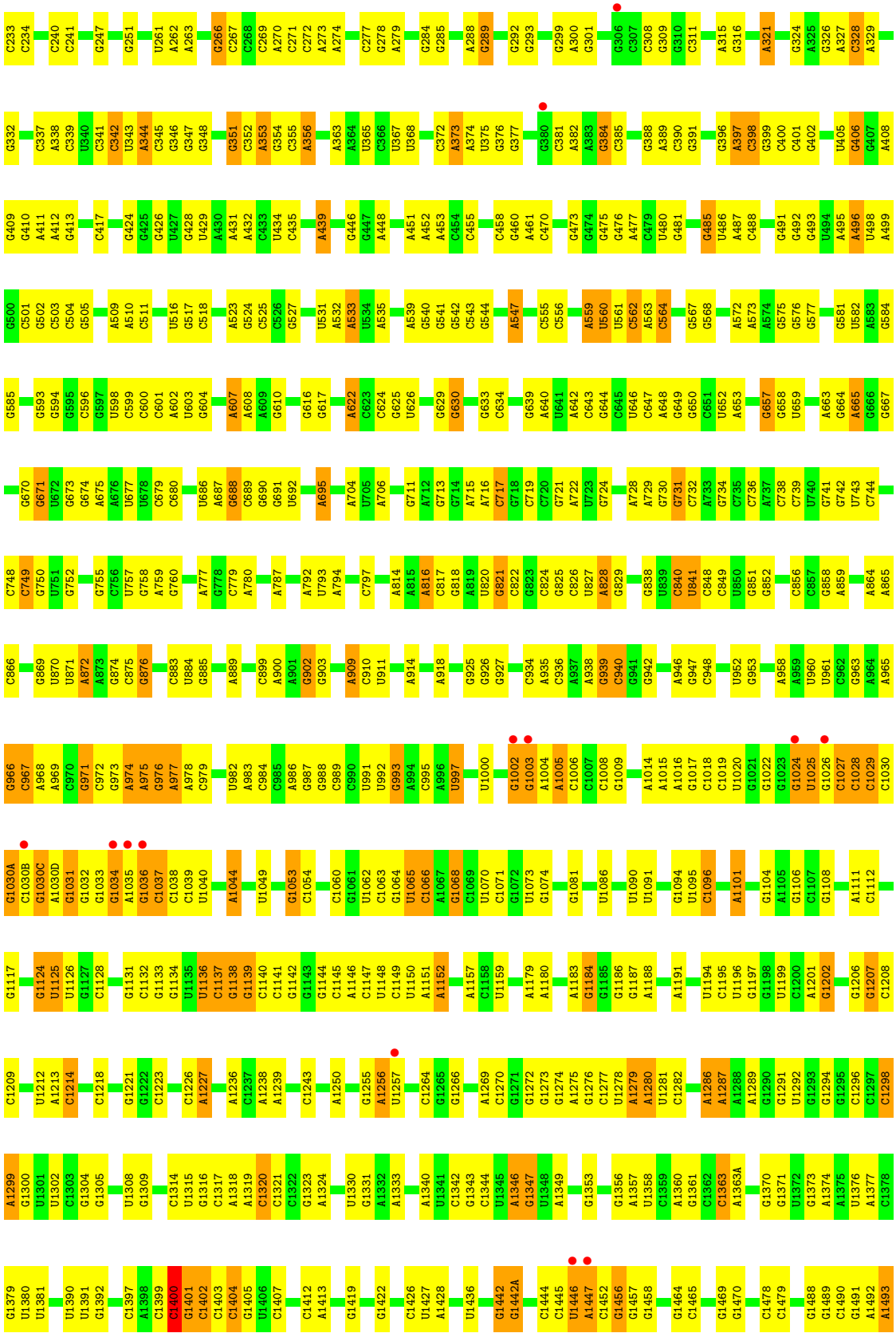
Chain 29:

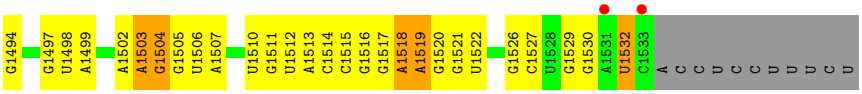


• Molecule 32: 16S Ribosomal RNA

Chain 1a:

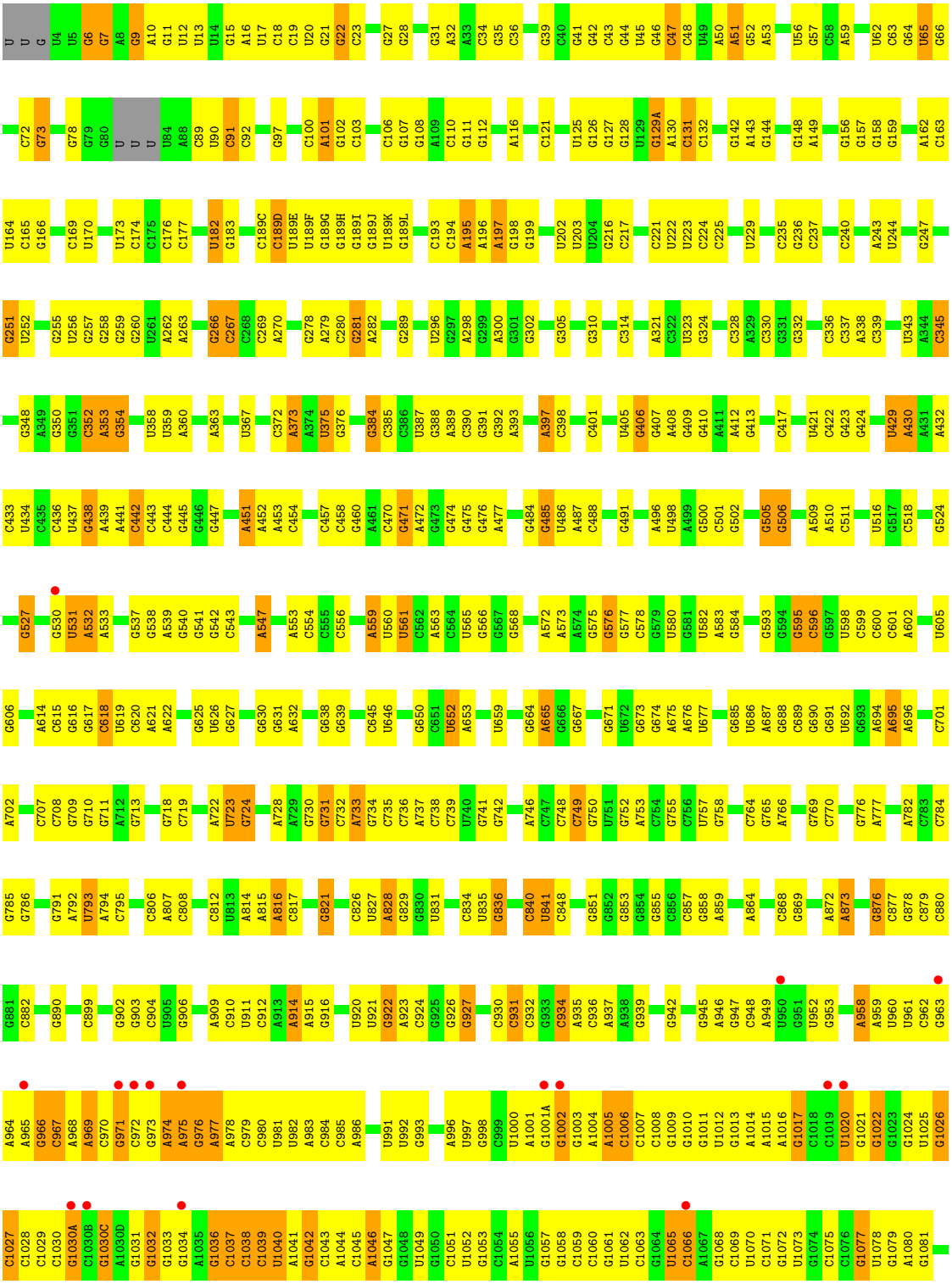


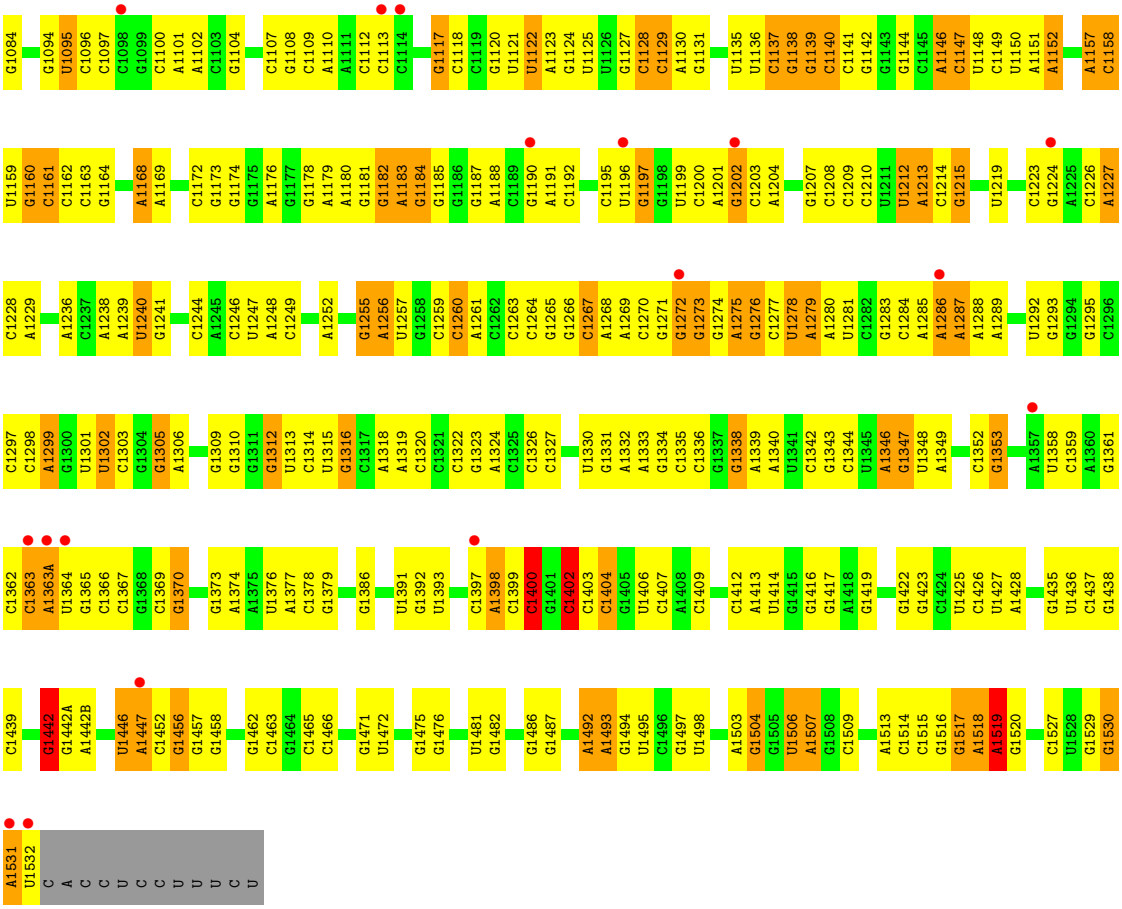




• Molecule 32: 16S Ribosomal RNA

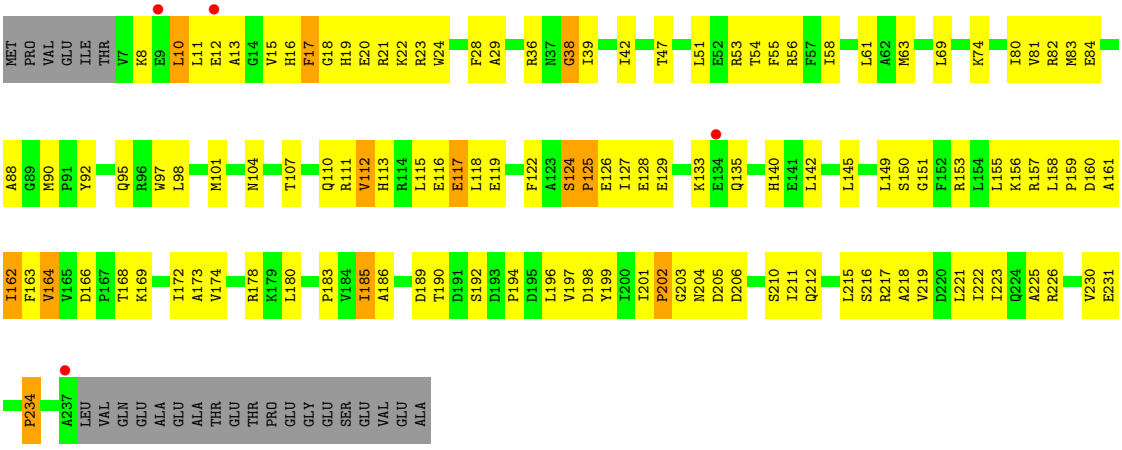
Chain 2a:





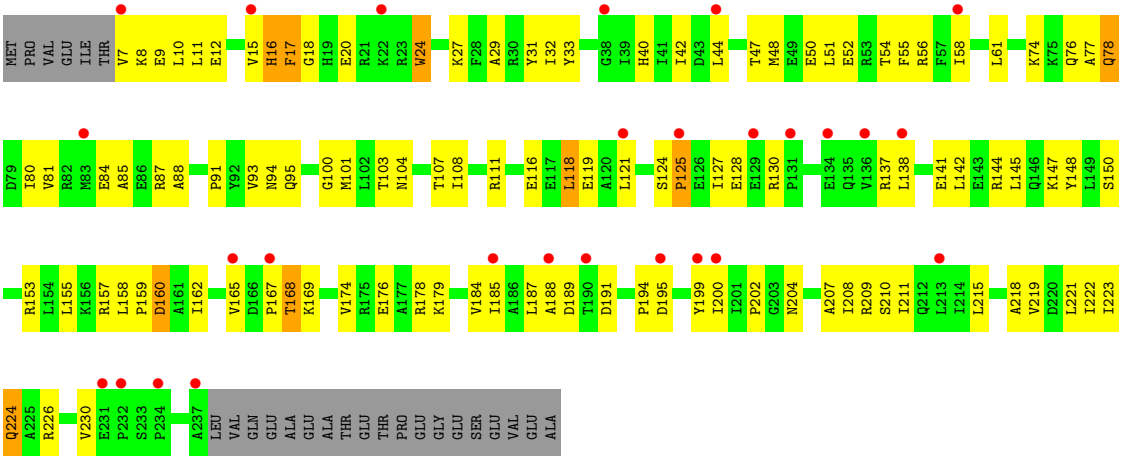
• Molecule 33: 30S ribosomal protein S2

Chain 1b:



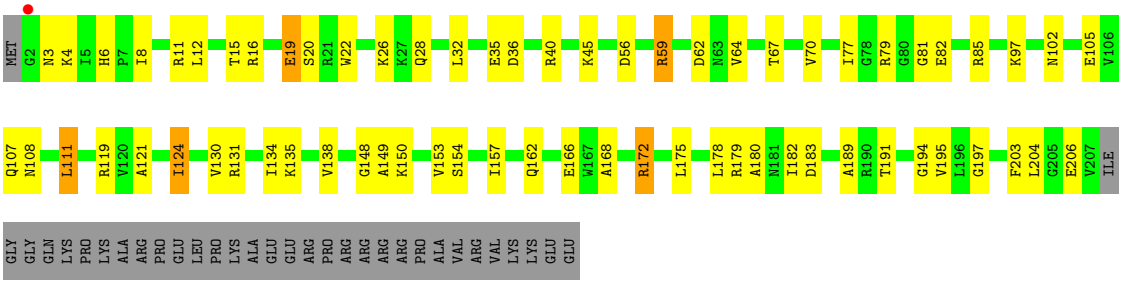
• Molecule 33: 30S ribosomal protein S2

Chain 2b:



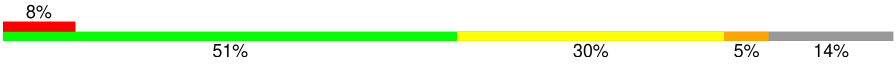
• Molecule 34: 30S ribosomal protein S3

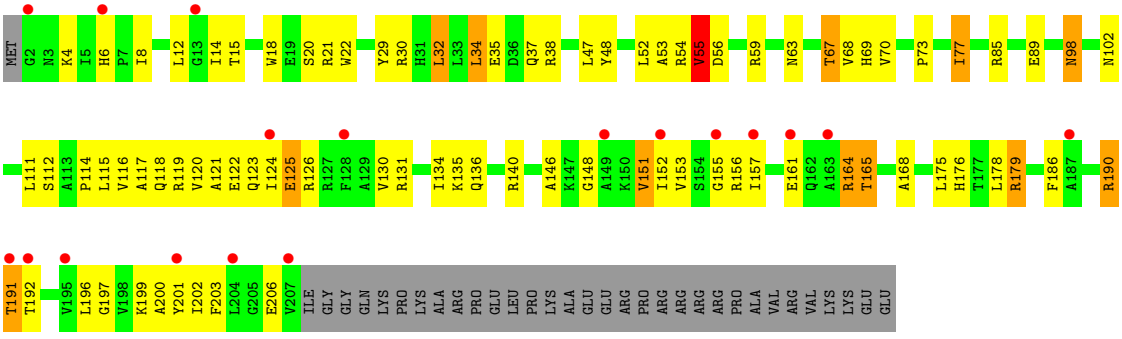
Chain 1c:



• Molecule 34: 30S ribosomal protein S3

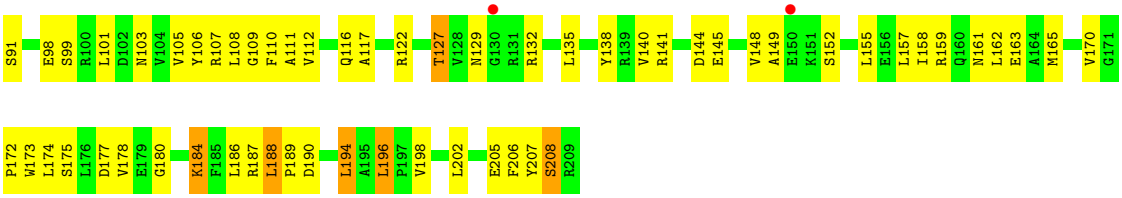
Chain 2c:





• Molecule 35: 30S ribosomal protein S4

Chain 1d:



• Molecule 35: 30S ribosomal protein S4

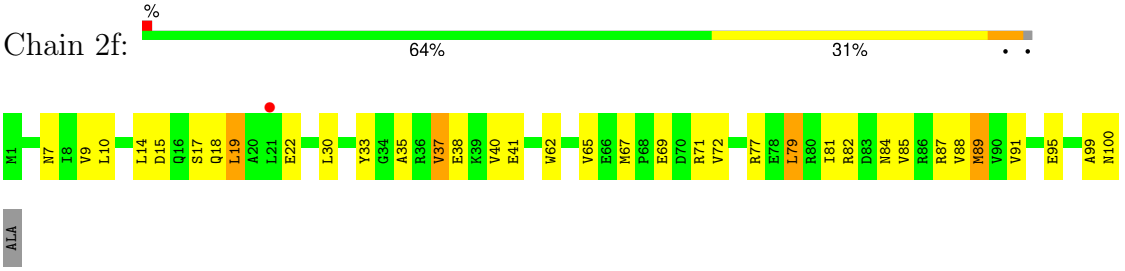
• Molecule 36: 30S ribosomal protein S5

• Molecule 36: 30S ribosomal protein S5

• Molecule 37: 30S ribosomal protein S6

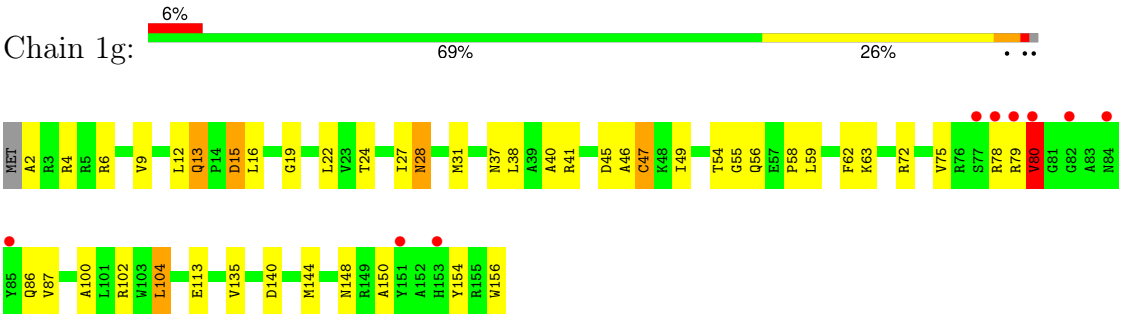
• Molecule 37: 30S ribosomal protein S6

Chain 2f:



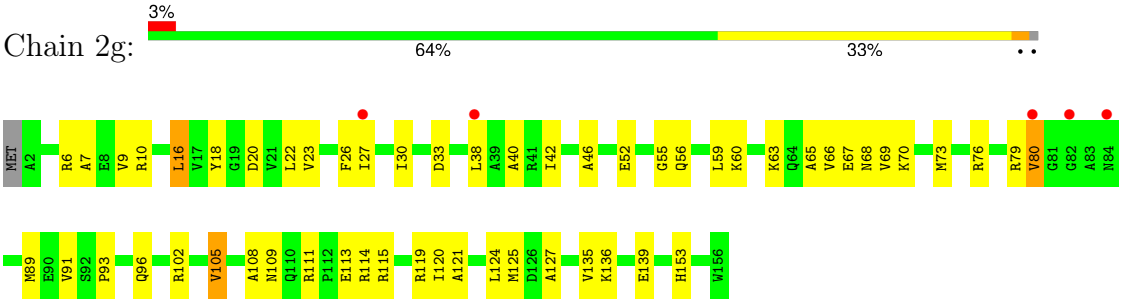
• Molecule 38: 30S ribosomal protein S7

Chain 1g:



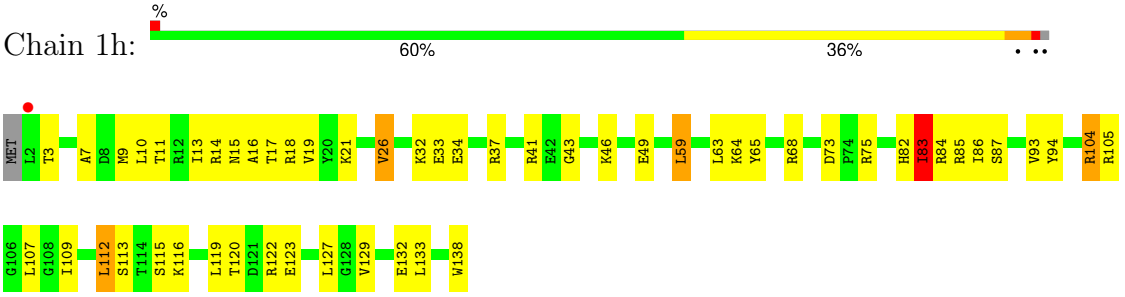
• Molecule 38: 30S ribosomal protein S7

Chain 2g:



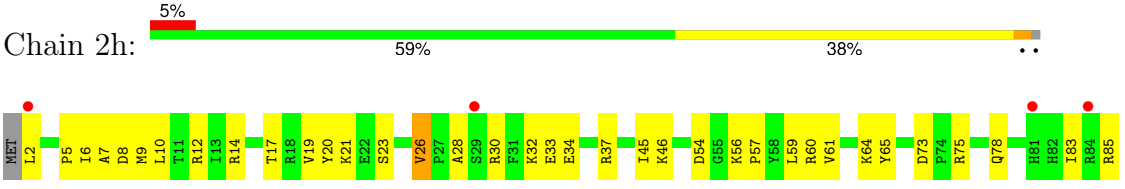
• Molecule 39: 30S ribosomal protein S8

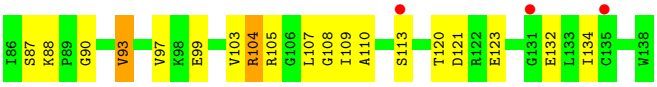
Chain 1h:



• Molecule 39: 30S ribosomal protein S8

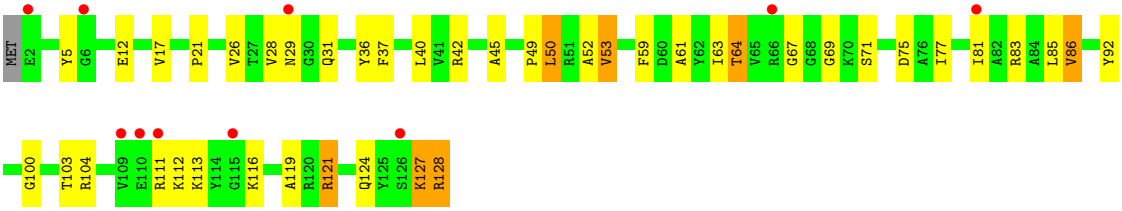
Chain 2h:





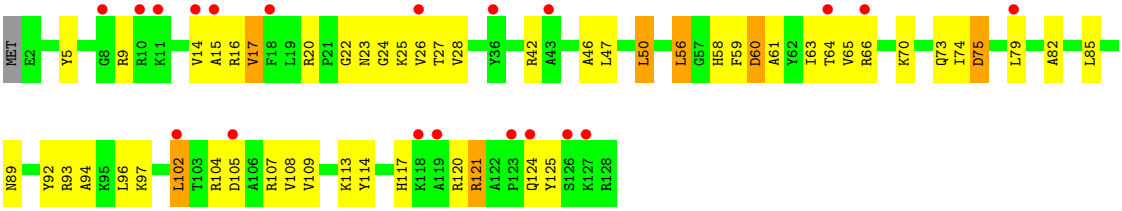
• Molecule 40: 30S ribosomal protein S9

Chain 1i:



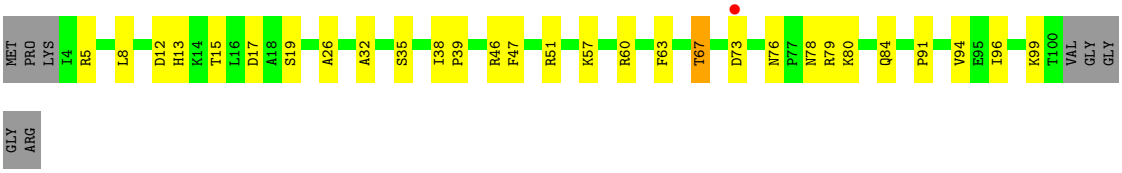
• Molecule 40: 30S ribosomal protein S9

Chain 2i:



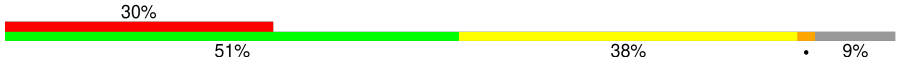
• Molecule 41: 30S ribosomal protein S10

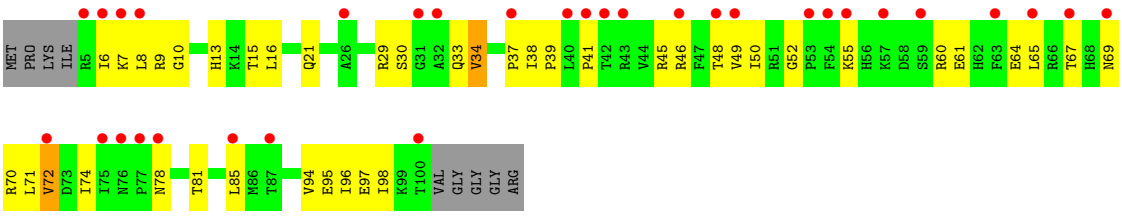
Chain 1j:



• Molecule 41: 30S ribosomal protein S10

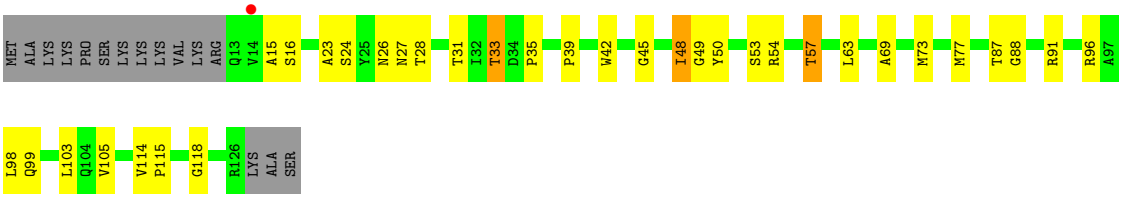
Chain 2j:





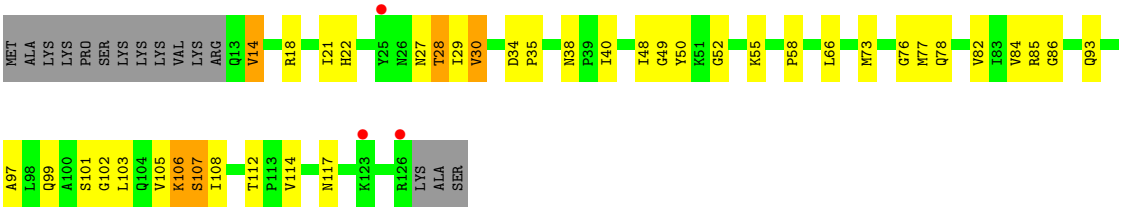
• Molecule 42: 30S ribosomal protein S11

Chain 1k:



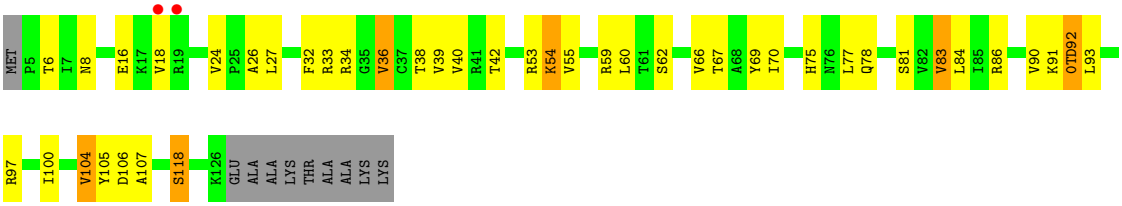
• Molecule 42: 30S ribosomal protein S11

Chain 2k:



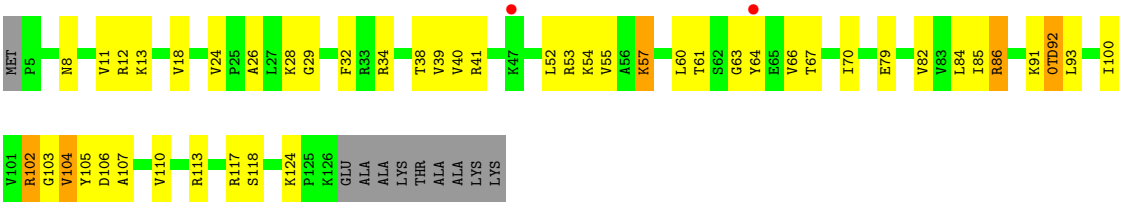
• Molecule 43: 30S ribosomal protein S12

Chain 1l:



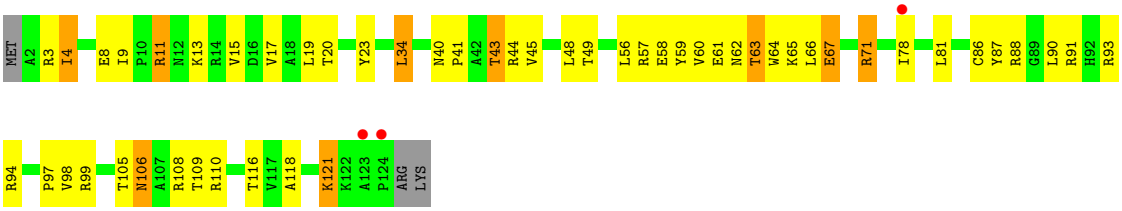
• Molecule 43: 30S ribosomal protein S12

Chain 2l:



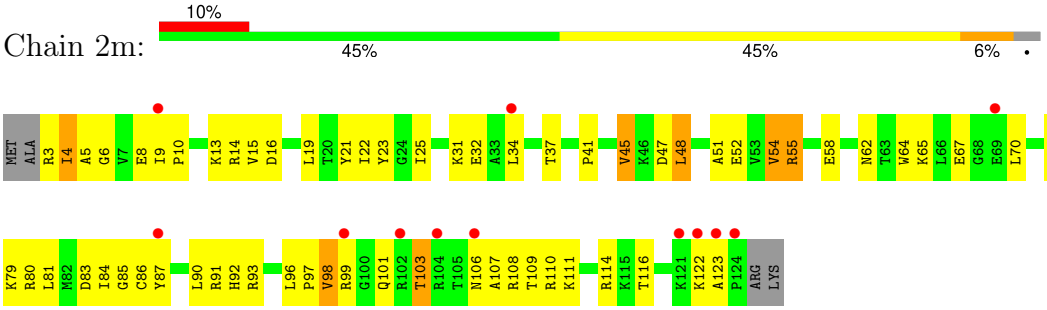
• Molecule 44: 30S ribosomal protein S13

Chain 1m:



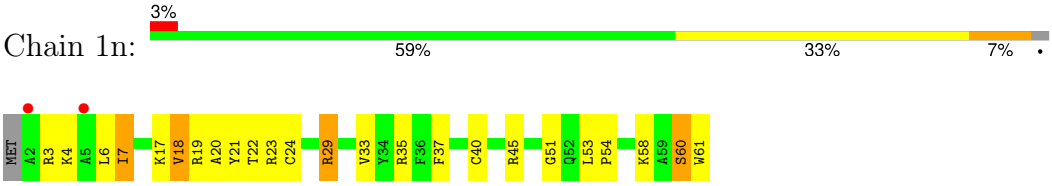
• Molecule 44: 30S ribosomal protein S13

Chain 2m:



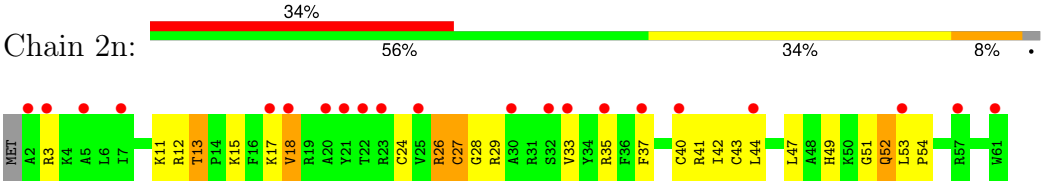
• Molecule 45: 30S ribosomal protein S14 type Z

Chain 1n:



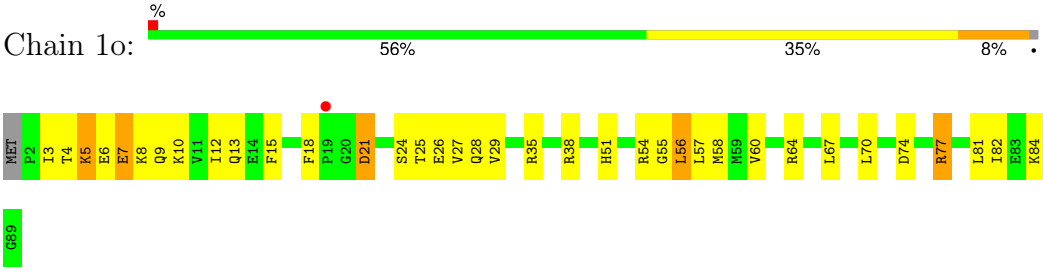
• Molecule 45: 30S ribosomal protein S14 type Z

Chain 2n:



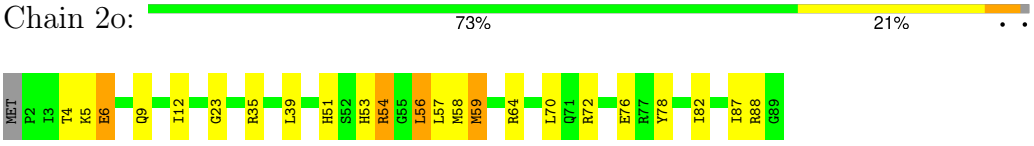
• Molecule 46: 30S ribosomal protein S15

Chain 1o:



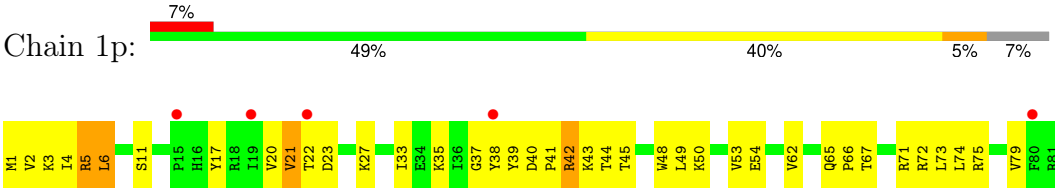
• Molecule 46: 30S ribosomal protein S15

Chain 2o:



• Molecule 47: 30S ribosomal protein S16

Chain 1p:

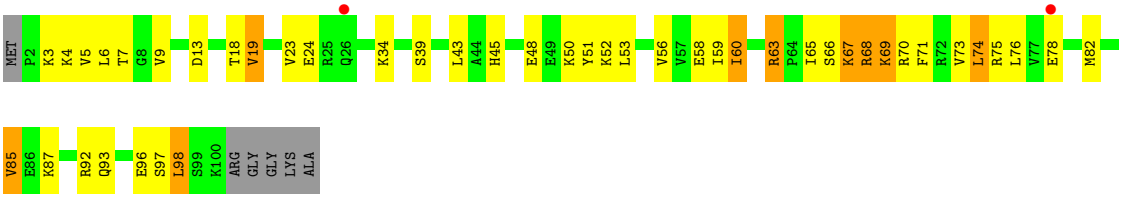


• Molecule 47: 30S ribosomal protein S16

Chain 2p:

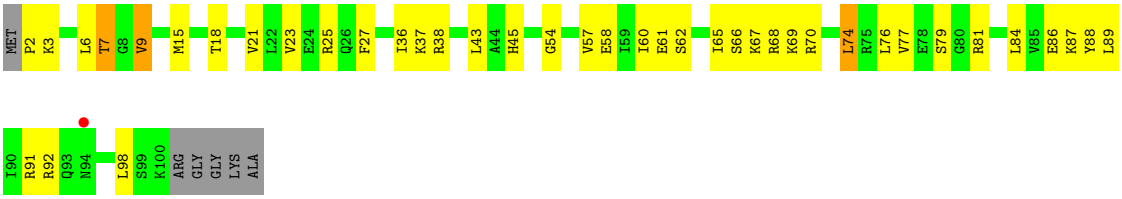
• Molecule 48: 30S ribosomal protein S17

Chain 1q:



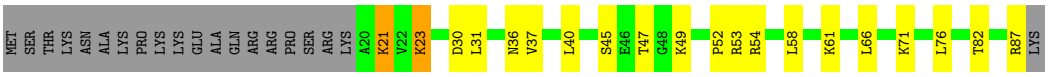
• Molecule 48: 30S ribosomal protein S17

Chain 2q:



• Molecule 49: 30S ribosomal protein S18

Chain 1r:

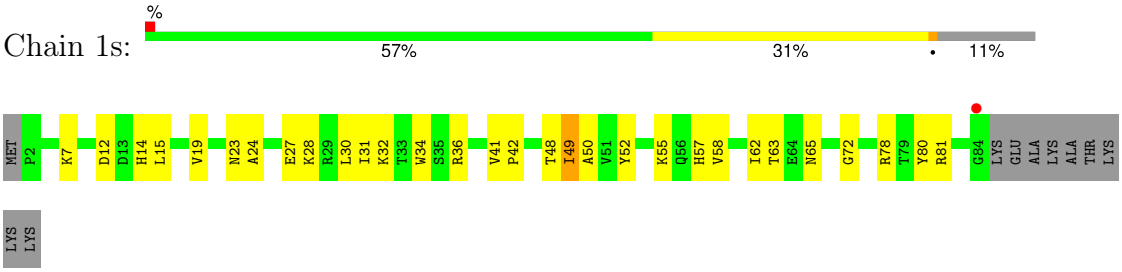


• Molecule 49: 30S ribosomal protein S18

Chain 2r:

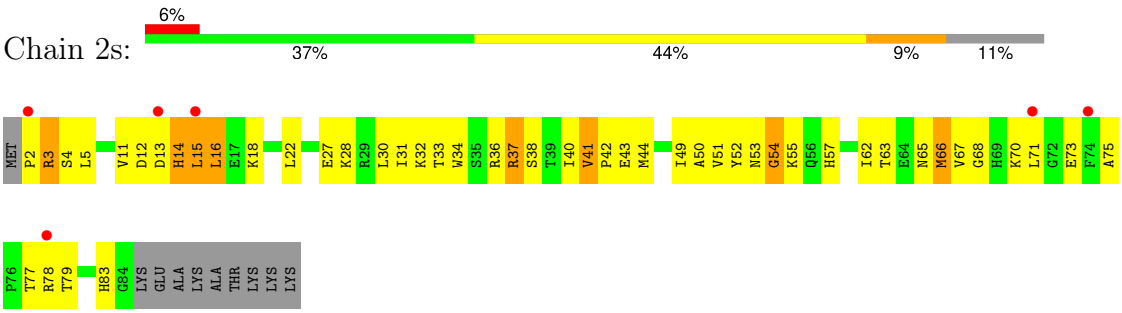
• Molecule 50: 30S ribosomal protein S19

Chain 1s:



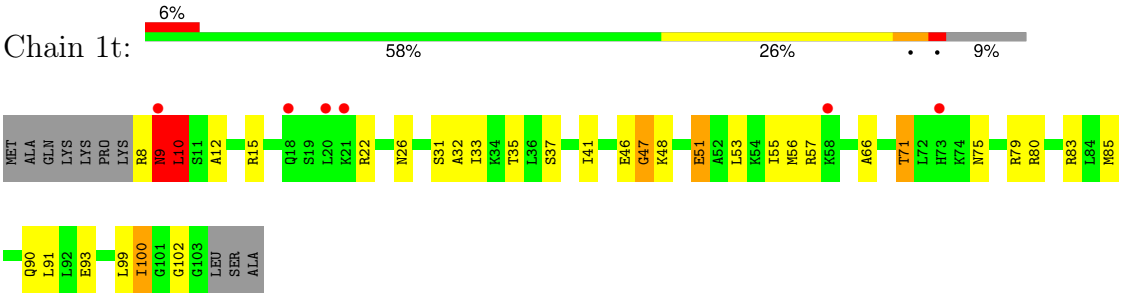
• Molecule 50: 30S ribosomal protein S19

Chain 2s:



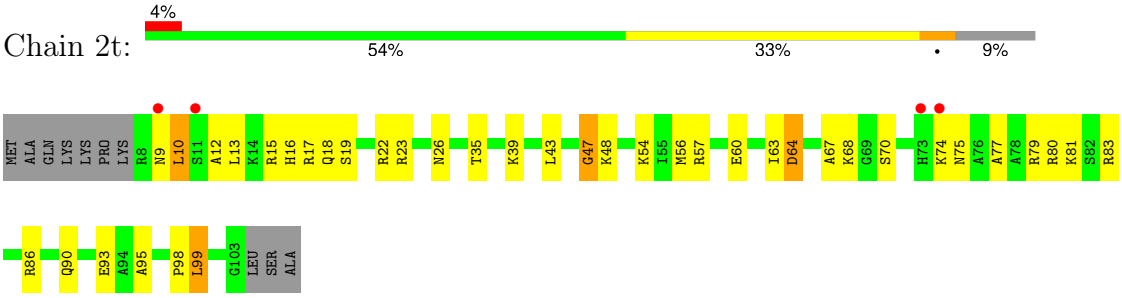
• Molecule 51: 30S ribosomal protein S20

Chain 1t:



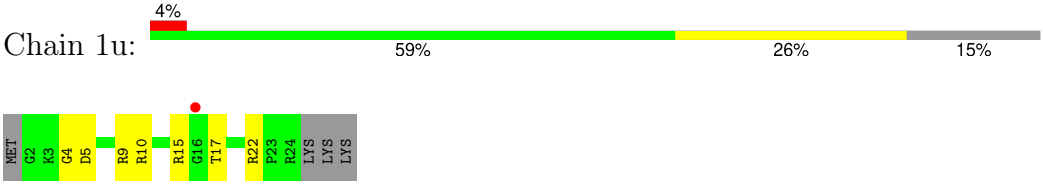
• Molecule 51: 30S ribosomal protein S20

Chain 2t:



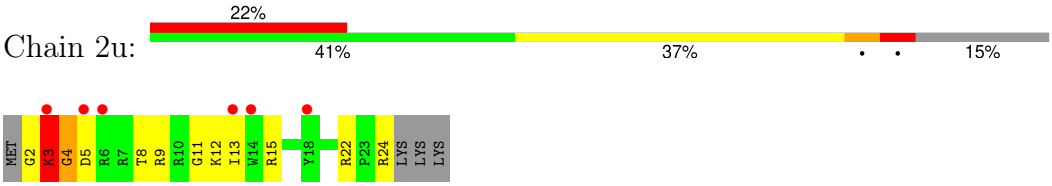
• Molecule 52: 30S ribosomal protein Thx

Chain 1u:



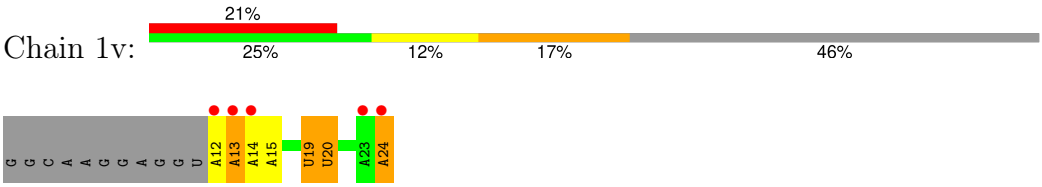
• Molecule 52: 30S ribosomal protein Thx

Chain 2u:



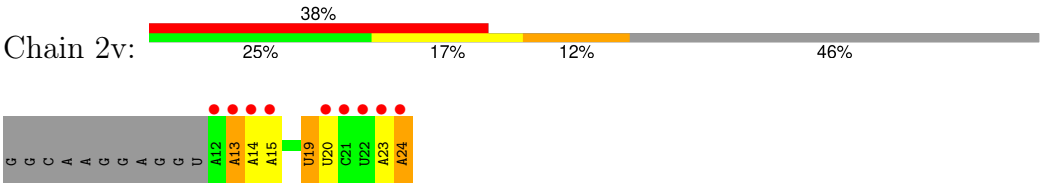
• Molecule 53: mRNA

Chain 1v:



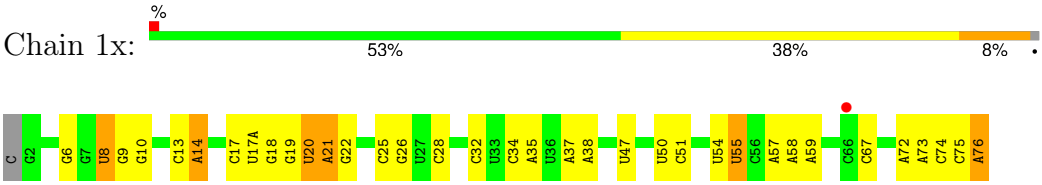
• Molecule 53: mRNA

Chain 2v:



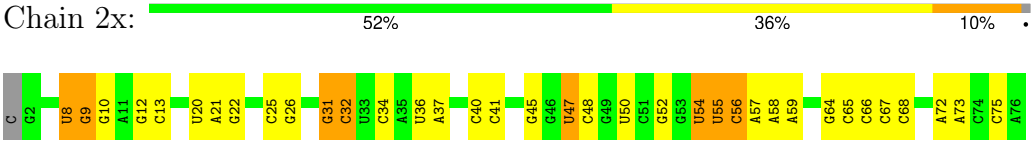
• Molecule 54: P-site tRNA

Chain 1x:



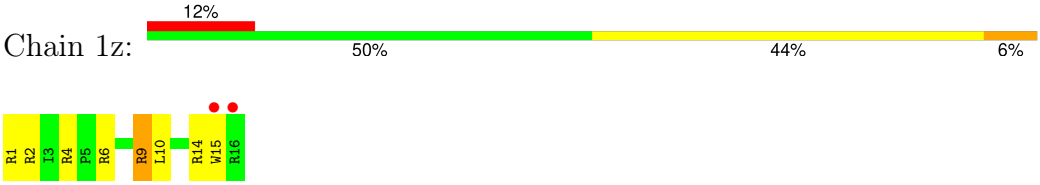
• Molecule 54: P-site tRNA

Chain 2x:



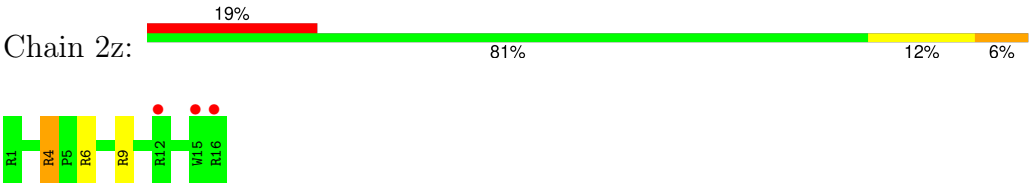
• Molecule 55: Bac7-002

Chain 1z:



• Molecule 55: Bac7-002

Chain 2z:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	208.64Å 447.57Å 619.73Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	151.79 – 3.05 151.79 – 3.05	Depositor EDS
% Data completeness (in resolution range)	98.7 (151.79-3.05) 98.7 (151.79-3.05)	Depositor EDS
R_{merge}	0.28	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.26 (at 3.07Å)	Xtriage
Refinement program	PHENIX 1.8.2	Depositor
R, R_{free}	0.227 , 0.283 0.226 , 0.283	Depositor DCC
R_{free} test set	53845 reflections (4.94%)	wwPDB-VP
Wilson B-factor (Å^2)	62.7	Xtriage
Anisotropy	0.294	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.27 , 50.3	EDS
L-test for twinning[2]	$< \|L\| > = 0.41$, $< L^2 > = 0.23$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.91	EDS
Total number of atoms	290774	wwPDB-VP
Average B, all atoms (Å^2)	60.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.52% 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: M2G, 2MA, 5MU, ZN, 0TD, K, 4SU, 2MG, UR3, 5MC, MG, SF4, 2MU, PSU, OMG, MA6, 7MG, 4OC

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	0.26	0/69009	0.43	2/107712 (0.0%)
1	2A	0.22	0/67293	0.40	1/105034 (0.0%)
2	1B	0.22	0/2882	0.39	0/4494
2	2B	0.21	0/2879	0.41	0/4487
3	1D	0.26	0/2186	0.50	0/2944
3	2D	0.23	0/2186	0.48	0/2944
4	1E	0.25	0/1592	0.48	0/2149
4	2E	0.22	0/1592	0.44	0/2149
5	1F	0.25	0/1619	0.47	0/2193
5	2F	0.23	0/1615	0.47	0/2188
6	1G	0.22	0/1448	0.49	0/1957
6	2G	0.21	0/1453	0.44	0/1963
7	1H	0.21	0/1356	0.40	0/1834
7	2H	0.20	0/1356	0.39	0/1834
8	1I	0.20	0/1112	0.40	0/1514
8	2I	0.18	0/1079	0.42	0/1475
9	1N	0.24	0/1144	0.45	0/1543
9	2N	0.20	0/1144	0.41	0/1543
10	1O	0.24	0/943	0.47	0/1269
10	2O	0.21	0/943	0.48	0/1269
11	1P	0.25	0/1152	0.48	0/1533
11	2P	0.22	0/1152	0.52	0/1533
12	1Q	0.25	0/1143	0.51	0/1527
12	2Q	0.21	0/1143	0.46	0/1527
13	1R	0.23	0/982	0.46	0/1312
13	2R	0.22	0/982	0.44	0/1312
14	1S	0.21	0/883	0.46	0/1176
14	2S	0.22	0/880	0.46	0/1172
15	1T	0.23	0/1105	0.45	0/1477
15	2T	0.21	0/1097	0.47	0/1468
16	1U	0.26	0/977	0.46	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
16	2U	0.20	0/977	0.43	0/1301
17	1V	0.24	0/782	0.45	0/1049
17	2V	0.19	0/782	0.38	0/1049
18	1W	0.25	0/897	0.41	0/1205
18	2W	0.21	0/897	0.46	0/1205
19	1X	0.25	0/764	0.45	0/1025
19	2X	0.19	0/764	0.41	0/1025
20	1Y	0.21	0/819	0.47	0/1095
20	2Y	0.18	0/819	0.44	0/1095
21	1Z	0.22	0/1267	0.47	0/1717
21	2Z	0.22	0/1299	0.45	0/1763
22	10	0.25	0/612	0.51	0/816
22	20	0.22	0/612	0.47	0/816
23	11	0.25	0/762	0.44	0/1014
23	21	0.22	0/762	0.43	0/1014
24	12	0.24	0/590	0.42	0/781
24	22	0.21	0/590	0.43	1/781 (0.1%)
25	13	0.23	0/474	0.46	0/635
25	23	0.20	0/469	0.44	0/630
26	14	0.25	0/565	0.53	0/761
26	24	0.26	0/545	0.62	0/737
27	15	0.26	0/469	0.46	0/635
27	25	0.24	0/469	0.46	0/635
28	16	0.25	0/460	0.52	0/613
28	26	0.21	0/456	0.42	0/608
29	17	0.28	0/426	0.50	0/561
29	27	0.26	0/426	0.47	0/561
30	18	0.26	0/525	0.44	0/691
30	28	0.22	0/525	0.43	0/691
31	19	0.27	0/310	0.44	0/407
31	29	0.21	0/310	0.46	0/407
32	1a	0.20	1/35795 (0.0%)	0.39	0/55864
32	2a	0.20	0/35886	0.39	1/56005 (0.0%)
33	1b	0.26	0/1881	0.53	3/2542 (0.1%)
33	2b	0.25	0/1860	0.50	0/2518
34	1c	0.20	0/1572	0.41	0/2126
34	2c	0.22	0/1566	0.43	0/2119
35	1d	0.21	0/1685	0.46	0/2262
35	2d	0.21	0/1704	0.45	0/2284
36	1e	0.21	0/1145	0.45	0/1543
36	2e	0.23	0/1149	0.47	0/1548
37	1f	0.22	0/823	0.41	0/1115
37	2f	0.21	0/829	0.39	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	1g	0.19	0/1250	0.40	0/1679
38	2g	0.21	0/1254	0.45	0/1683
39	1h	0.20	0/1108	0.44	0/1494
39	2h	0.21	0/1108	0.45	0/1494
40	1i	0.19	0/1002	0.47	1/1346 (0.1%)
40	2i	0.22	0/997	0.47	0/1343
41	1j	0.20	0/722	0.45	0/982
41	2j	0.25	0/727	0.46	0/988
42	1k	0.19	0/844	0.47	0/1145
42	2k	0.18	0/848	0.34	0/1149
43	1l	0.23	0/937	0.45	0/1260
43	2l	0.21	0/937	0.46	0/1260
44	1m	0.22	0/969	0.46	0/1302
44	2m	0.24	0/961	0.53	0/1291
45	1n	0.22	0/501	0.42	0/664
45	2n	0.23	0/501	0.43	0/664
46	1o	0.20	0/739	0.40	0/985
46	2o	0.19	0/739	0.42	0/985
47	1p	0.21	0/697	0.49	0/939
47	2p	0.20	0/693	0.43	0/935
48	1q	0.21	0/836	0.44	0/1117
48	2q	0.19	0/836	0.42	0/1117
49	1r	0.19	0/560	0.41	0/746
49	2r	0.20	0/560	0.44	0/746
50	1s	0.19	0/667	0.49	0/900
50	2s	0.23	0/661	0.57	0/893
51	1t	0.20	0/730	0.52	0/965
51	2t	0.21	0/729	0.45	0/965
52	1u	0.21	0/203	0.50	0/266
52	2u	0.22	0/203	0.50	0/266
53	1v	0.23	0/310	0.37	0/480
53	2v	0.27	0/310	0.37	0/480
54	1x	0.27	0/1725	0.44	0/2689
54	2x	0.25	1/1725 (0.1%)	0.41	0/2689
55	1z	0.29	0/153	0.66	0/207
55	2z	0.29	0/147	0.49	0/200
All	All	0.23	2/310535 (0.0%)	0.42	9/464519 (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
12	1Q	0	1
51	1t	0	1
All	All	0	2

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	2x	8	4SU	O3'-P	5.28	1.61	1.56
32	1a	1498	UR3	O3'-P	5.07	1.61	1.56

All (9) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	1b	38	GLY	N-CA-C	-5.57	107.28	115.30
33	1b	128	GLU	CA-C-N	5.50	132.05	121.54
33	1b	128	GLU	C-N-CA	5.50	132.05	121.54
1	1A	1992	G	C2'-C3'-O3'	5.34	117.52	109.50
1	2A	1992	G	C2'-C3'-O3'	5.34	117.50	109.50
24	22	41	ILE	N-CA-C	-5.15	107.45	112.29
32	2a	1442	G	P-O3'-C3'	5.06	125.77	119.70
40	1i	100	GLY	N-CA-C	-5.05	108.85	115.47
1	1A	1653	G	C2'-C3'-O3'	5.02	117.03	109.50

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
12	1Q	59	ARG	Peptide
51	1t	9	ASN	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	31189	917	0
1	2A	60322	0	30423	1007	0
2	1B	2577	0	1305	36	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	2B	2575	0	1303	54	0
3	1D	2136	0	2217	65	0
3	2D	2136	0	2218	69	0
4	1E	1559	0	1618	45	0
4	2E	1559	0	1618	45	0
5	1F	1584	0	1625	58	0
5	2F	1580	0	1619	65	0
6	1G	1423	0	1436	38	0
6	2G	1428	0	1438	68	0
7	1H	1330	0	1407	44	0
7	2H	1330	0	1407	44	0
8	1I	1097	0	1140	35	0
8	2I	1064	0	1082	27	0
9	1N	1117	0	1184	30	0
9	2N	1117	0	1184	41	0
10	1O	933	0	996	26	0
10	2O	933	0	996	35	0
11	1P	1135	0	1212	44	0
11	2P	1135	0	1212	51	0
12	1Q	1122	0	1179	32	0
12	2Q	1122	0	1179	46	0
13	1R	968	0	1033	21	0
13	2R	968	0	1033	26	0
14	1S	873	0	927	20	0
14	2S	870	0	923	44	0
15	1T	1091	0	1151	28	0
15	2T	1083	0	1136	30	0
16	1U	959	0	1018	18	0
16	2U	959	0	1019	31	0
17	1V	771	0	829	17	0
17	2V	771	0	829	20	0
18	1W	886	0	940	35	0
18	2W	886	0	940	20	0
19	1X	750	0	814	19	0
19	2X	750	0	814	13	0
20	1Y	806	0	881	18	0
20	2Y	806	0	881	24	0
21	1Z	1240	0	1240	28	0
21	2Z	1271	0	1273	47	0
22	10	604	0	619	13	0
22	20	604	0	619	12	0
23	11	755	0	826	19	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
23	21	755	0	826	24	0
24	12	588	0	643	13	0
24	22	588	0	643	21	0
25	13	469	0	518	13	0
25	23	464	0	514	12	0
26	14	552	0	533	15	0
26	24	532	0	503	35	0
27	15	455	0	465	18	0
27	25	455	0	465	15	0
28	16	453	0	473	9	0
28	26	449	0	469	13	0
29	17	418	0	467	12	0
29	27	418	0	467	13	0
30	18	517	0	582	15	0
30	28	517	0	582	20	0
31	19	307	0	335	12	0
31	29	307	0	335	12	0
32	1a	32246	0	16295	536	0
32	2a	32327	0	16338	639	0
33	1b	1846	0	1867	80	0
33	2b	1825	0	1828	79	0
34	1c	1548	0	1535	44	0
34	2c	1542	0	1517	63	0
35	1d	1655	0	1672	75	0
35	2d	1674	0	1714	72	0
36	1e	1129	0	1185	34	0
36	2e	1133	0	1191	41	0
37	1f	810	0	804	17	0
37	2f	816	0	808	22	0
38	1g	1231	0	1238	31	0
38	2g	1235	0	1249	27	0
39	1h	1088	0	1126	31	0
39	2h	1088	0	1126	38	0
40	1i	983	0	986	32	0
40	2i	978	0	966	36	0
41	1j	709	0	650	23	0
41	2j	714	0	672	32	0
42	1k	829	0	825	24	0
42	2k	833	0	836	23	0
43	1l	932	0	981	22	0
43	2l	932	0	981	30	0
44	1m	958	0	1002	34	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
44	2m	950	0	988	55	0
45	1n	492	0	529	22	0
45	2n	492	0	529	23	0
46	1o	728	0	760	25	0
46	2o	728	0	760	16	0
47	1p	681	0	697	23	0
47	2p	677	0	686	30	0
48	1q	823	0	891	35	0
48	2q	823	0	891	31	0
49	1r	555	0	618	15	0
49	2r	555	0	618	19	0
50	1s	652	0	662	19	0
50	2s	646	0	644	39	0
51	1t	728	0	798	26	0
51	2t	727	0	796	26	0
52	1u	199	0	208	6	0
52	2u	199	0	208	8	0
53	1v	277	0	140	9	0
53	2v	277	0	140	5	0
54	1x	1625	0	829	21	0
54	2x	1625	0	828	23	0
55	1z	147	0	162	8	0
55	2z	141	0	151	2	0
56	10	5	0	0	0	0
56	11	2	0	0	0	0
56	12	2	0	0	0	0
56	13	3	0	0	0	0
56	14	1	0	0	0	0
56	15	5	0	0	0	0
56	17	6	0	0	0	0
56	18	4	0	0	0	0
56	19	1	0	0	0	0
56	1A	848	0	0	0	0
56	1B	25	0	0	0	0
56	1D	8	0	0	0	0
56	1E	8	0	0	0	0
56	1F	12	0	0	0	0
56	1G	4	0	0	0	0
56	1H	1	0	0	0	0
56	1I	1	0	0	0	0
56	1N	3	0	0	0	0
56	1O	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	1P	5	0	0	0	0
56	1Q	4	0	0	0	0
56	1R	6	0	0	0	0
56	1S	1	0	0	0	0
56	1T	2	0	0	0	0
56	1U	6	0	0	0	0
56	1V	5	0	0	0	0
56	1W	6	0	0	0	0
56	1X	3	0	0	0	0
56	1Y	1	0	0	0	0
56	1Z	3	0	0	0	0
56	1a	167	0	0	0	0
56	1d	1	0	0	0	0
56	1e	2	0	0	0	0
56	1f	2	0	0	0	0
56	1h	1	0	0	0	0
56	1l	3	0	0	0	0
56	1m	1	0	0	0	0
56	1n	2	0	0	0	0
56	1s	1	0	0	0	0
56	1v	1	0	0	0	0
56	1x	10	0	0	0	0
56	1z	1	0	0	0	0
56	20	1	0	0	0	0
56	21	1	0	0	0	0
56	23	2	0	0	0	0
56	25	2	0	0	0	0
56	26	1	0	0	0	0
56	27	2	0	0	0	0
56	28	3	0	0	0	0
56	2A	625	0	0	0	0
56	2B	12	0	0	0	0
56	2D	2	0	0	0	0
56	2E	5	0	0	0	0
56	2F	4	0	0	0	0
56	2N	1	0	0	0	0
56	2O	1	0	0	0	0
56	2P	3	0	0	0	0
56	2Q	2	0	0	0	0
56	2R	1	0	0	0	0
56	2T	2	0	0	0	0
56	2V	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	2W	1	0	0	0	0
56	2Y	1	0	0	0	0
56	2Z	1	0	0	0	0
56	2a	145	0	0	0	0
56	2d	1	0	0	0	0
56	2f	1	0	0	0	0
56	2j	1	0	0	0	0
56	2k	1	0	0	0	0
56	2l	2	0	0	0	0
56	2q	2	0	0	0	0
56	2r	1	0	0	0	0
56	2t	1	0	0	0	0
56	2v	2	0	0	0	0
56	2x	3	0	0	0	0
57	14	1	0	0	0	0
57	15	1	0	0	0	0
57	16	1	0	0	0	0
57	19	1	0	0	0	0
57	1Y	1	0	0	0	0
57	1n	1	0	0	0	0
57	24	1	0	0	0	0
57	25	1	0	0	0	0
57	26	1	0	0	0	0
57	29	1	0	0	0	0
57	2Y	1	0	0	0	0
57	2n	1	0	0	0	0
58	1d	8	0	0	3	0
58	2d	8	0	0	0	0
59	2x	1	0	0	0	0
60	10	2	0	0	1	0
60	11	2	0	0	0	0
60	12	2	0	0	0	0
60	13	2	0	0	0	0
60	18	2	0	0	0	0
60	1A	1222	0	0	109	0
60	1B	27	0	0	3	0
60	1D	21	0	0	1	0
60	1E	11	0	0	1	0
60	1F	9	0	0	1	0
60	1N	1	0	0	0	0
60	1O	1	0	0	0	0
60	1P	14	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	1Q	2	0	0	0	0
60	1R	3	0	0	0	0
60	1S	2	0	0	0	0
60	1T	4	0	0	0	0
60	1U	4	0	0	0	0
60	1V	4	0	0	0	0
60	1W	3	0	0	1	0
60	1a	26	0	0	4	0
60	1d	1	0	0	0	0
60	1z	1	0	0	0	0
60	20	1	0	0	0	0
60	21	2	0	0	0	0
60	28	2	0	0	0	0
60	2A	416	0	0	59	0
60	2B	3	0	0	0	0
60	2D	12	0	0	1	0
60	2E	4	0	0	0	0
60	2F	6	0	0	0	0
60	2I	1	0	0	0	0
60	2O	3	0	0	0	0
60	2P	4	0	0	1	0
60	2Q	1	0	0	0	0
60	2R	1	0	0	0	0
60	2T	1	0	0	0	0
60	2V	1	0	0	0	0
60	2W	2	0	0	0	0
60	2a	17	0	0	0	0
60	2l	1	0	0	0	0
60	2n	1	0	0	0	0
60	2t	1	0	0	0	0
60	2x	1	0	0	1	0
All	All	290774	0	193677	5438	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 12.

All (5438) 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	1.41	1.19
32:1a:987:G:H1	32:1a:1218:C:N4	1.56	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2137:C:N4	1:2A:2154:G:H1	1.54	1.02
1:1A:2124:G:H1	1:1A:2174:C:N4	1.57	1.01
1:2A:2137:C:H42	1:2A:2154:G:H1	1.03	0.99
32:2a:1256:A:H61	32:2a:1278:U:H1'	1.29	0.98
32:2a:1002:G:H1	32:2a:1038:C:H42	1.10	0.94
54:1x:75:C:H3'	54:1x:76:A:H5"	1.50	0.94
54:2x:50:U:H3	54:2x:64:G:H1	1.14	0.94
1:2A:2857:G:N2	1:2A:2860:A:OP2	1.99	0.93
32:1a:559:A:OP1	36:1e:126:ARG:NH2	2.03	0.92
1:2A:301:G:H1	1:2A:316:C:H42	1.18	0.91
32:2a:1399:C:H4'	32:2a:1400:5MC:H5"	1.52	0.91
32:1a:1030:C:H42	32:1a:1031:G:H1	1.04	0.91
1:1A:2128:C:H42	1:1A:2160:G:H1	1.17	0.90
32:2a:1029:C:N4	32:2a:1032:G:H1	1.69	0.90
1:2A:2102:U:H3	1:2A:2187:G:H1	1.18	0.90
1:1A:1057:A:H61	1:1A:1081:U:H3	1.20	0.89
32:1a:376:G:H5"	47:1p:5:ARG:HG2	1.52	0.88
32:1a:1004:A:H5'	32:1a:1024:G:H1	1.38	0.88
1:1A:1062:G:H1	1:1A:1077:A:H61	1.15	0.88
1:1A:2431:U:OP2	60:1A:3903:HOH:O	1.92	0.87
7:2H:21:PRO:HG2	7:2H:23:ARG:HH21	1.40	0.87
32:2a:1029:C:N3	32:2a:1032:G:N2	2.21	0.87
32:2a:1162:C:H42	32:2a:1174:G:H1	1.17	0.87
1:1A:1082:U:O4	1:1A:1086:A:N1	2.08	0.87
1:1A:2143:C:H42	1:1A:2148:G:H1	1.23	0.87
32:2a:765:G:H1	32:2a:812:C:HO2'	1.23	0.86
1:1A:400:G:N7	60:1A:3926:HOH:O	2.08	0.85
1:2A:2127:G:C6	1:2A:2161:C:N3	2.44	0.85
14:2S:83:LYS:HB2	14:2S:111:GLU:HG3	1.57	0.85
1:2A:2138:C:H42	1:2A:2153:G:H1	1.25	0.85
1:2A:195:A:N7	60:2A:3704:HOH:O	2.09	0.85
29:27:34:ARG:HE	29:27:39:ARG:HG3	1.42	0.84
32:1a:446:G:H1	32:1a:488:C:H42	1.24	0.84
32:2a:958:A:N6	50:2s:77:THR:O	2.10	0.84
32:2a:407:G:OP1	35:2d:115:ARG:NH2	2.10	0.83
3:2D:13:ARG:NH1	3:2D:16:MET:SD	2.52	0.83
1:2A:2099:U:H3	1:2A:2190:G:H1	1.23	0.83
1:1A:2096:U:H3	1:1A:2193:G:H1	1.24	0.83
44:2m:37:THR:O	44:2m:55:ARG:NH1	2.10	0.83
1:2A:2137:C:N3	1:2A:2154:G:N2	2.27	0.82
21:1Z:69:THR:HG22	21:1Z:90:VAL:HA	1.61	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1224:C:O2	17:2V:85:LYS:NZ	2.13	0.82
10:2O:48:PRO:HB3	32:2a:1422:G:H5"	1.58	0.82
43:2l:32:PHE:HB3	43:2l:84:LEU:HD11	1.61	0.82
51:1t:57:ARG:HH22	51:1t:100:ILE:HD13	1.44	0.82
1:1A:1082:U:N3	1:1A:1086:A:N6	2.07	0.82
1:2A:2285:C:OP2	28:26:6:ARG:NH1	2.12	0.82
32:1a:1030:C:N4	32:1a:1031:G:H1	1.78	0.81
1:2A:993:G:OP1	16:2U:50:ARG:NH2	2.13	0.81
32:2a:975:A:H4'	32:2a:976:G:H5"	1.61	0.81
1:1A:763:G:OP1	60:1A:3904:HOH:O	1.97	0.81
40:2i:28:VAL:HG12	40:2i:63:ILE:HB	1.62	0.81
32:2a:1414:U:H3	32:2a:1486:G:H1	1.27	0.81
32:1a:1399:C:H4'	32:1a:1400:5MC:H5"	1.63	0.81
32:2a:1002:G:H1	32:2a:1038:C:N4	1.78	0.81
33:1b:16:HIS:HB2	33:1b:204:ASN:HB3	1.62	0.81
3:2D:275:LYS:HE2	3:2D:276:LYS:HA	1.62	0.80
1:2A:615:G:OP2	5:2F:43:LYS:NZ	2.14	0.80
1:2A:2499:C:OP2	60:2A:3703:HOH:O	1.99	0.80
53:2v:23:A:H4'	53:2v:24:A:H5'	1.62	0.80
32:1a:987:G:N2	32:1a:1218:C:N3	2.27	0.80
2:1B:75:G:N7	60:1B:302:HOH:O	2.13	0.80
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.14	0.80
2:2B:22:U:H3	2:2B:61:G:H1	1.26	0.80
1:1A:2128:C:N4	1:1A:2160:G:H1	1.79	0.80
1:2A:2127:G:N1	1:2A:2161:C:C2	2.49	0.80
1:1A:1024:G:OP2	60:1A:3905:HOH:O	1.98	0.80
32:2a:1029:C:N4	32:2a:1032:G:N1	2.30	0.80
32:1a:686:U:O2	32:1a:704:A:N6	2.15	0.79
1:2A:948:G:OP1	60:2A:3702:HOH:O	1.99	0.79
32:2a:1026:G:O6	32:2a:1036:G:N2	2.14	0.79
1:1A:198:C:OP2	60:1A:3906:HOH:O	1.98	0.79
3:1D:17:THR:O	3:1D:211:ARG:NH2	2.16	0.79
11:1P:42:SER:O	60:1P:301:HOH:O	2.00	0.79
1:2A:198:C:OP2	60:2A:3704:HOH:O	2.00	0.79
1:2A:1019:U:H3	1:2A:1142(A):A:H62	1.30	0.79
2:2B:17:C:O2	2:2B:67:G:N2	2.16	0.79
1:1A:195:A:N7	60:1A:3906:HOH:O	2.15	0.79
1:2A:963:U:OP2	60:2A:3702:HOH:O	2.00	0.79
32:2a:953:G:H5'	32:2a:965:A:H61	1.48	0.78
23:21:80:LEU:HD11	23:21:97:LEU:HD21	1.65	0.78
1:2A:2518:A:OP2	60:2A:3705:HOH:O	2.01	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:2s:22:LEU:HD12	50:2s:27:GLU:HA	1.65	0.78
32:1a:677:U:H3	32:1a:713:G:H22	1.30	0.78
1:1A:833:U:O2	11:1P:55:ARG:NH2	2.17	0.78
35:1d:129:ASN:HD21	35:1d:144:ASP:HB3	1.49	0.78
44:1m:59:TYR:O	44:1m:63:THR:OG1	2.01	0.78
33:2b:118:LEU:HD23	33:2b:142:LEU:HB2	1.66	0.78
1:2A:2319:G:H22	14:2S:3:ARG:HH11	1.28	0.78
14:2S:27:SER:HA	14:2S:88:ASP:HB3	1.66	0.78
32:1a:159:G:N2	32:1a:162:A:OP2	2.17	0.77
39:1h:86:ILE:HG22	39:1h:93:VAL:HG11	1.66	0.77
35:2d:98:GLU:O	35:2d:103:ASN:ND2	2.17	0.77
32:1a:544:G:OP1	35:1d:59:ARG:NH2	2.16	0.77
21:2Z:4:ARG:HG2	21:2Z:58:VAL:HB	1.66	0.77
33:2b:162:ILE:HD11	33:2b:184:VAL:HG12	1.65	0.77
35:2d:108:LEU:HD21	35:2d:183:GLY:HA3	1.66	0.77
12:1Q:111:GLU:OE2	12:1Q:133:ARG:NH2	2.18	0.77
1:2A:962:G:OP1	60:2A:3702:HOH:O	2.02	0.77
1:1A:762:U:OP1	60:1A:3909:HOH:O	2.03	0.77
1:1A:2124:G:N2	1:1A:2174:C:N3	2.31	0.77
1:2A:2104:G:H1	1:2A:2185:C:H42	1.33	0.77
1:1A:245:G:O6	30:18:8:LYS:NZ	2.18	0.77
1:1A:527:C:OP1	60:1A:3908:HOH:O	2.02	0.77
1:1A:1997:G:OP2	60:1A:3907:HOH:O	2.02	0.77
1:1A:2124:G:H1	1:1A:2174:C:H42	0.81	0.77
15:2T:65:LYS:HE3	15:2T:67:SER:HB2	1.66	0.77
32:1a:64:G:O6	32:1a:100:C:N4	2.17	0.77
33:1b:82:ARG:NH1	33:1b:92:TYR:OH	2.16	0.77
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.20	0.77
32:2a:363:A:OP2	43:2l:34:ARG:NH1	2.18	0.77
32:1a:664:G:H22	32:1a:741:G:H1	1.33	0.77
32:2a:1128:C:H1'	32:2a:1147:C:H42	1.48	0.76
14:1S:25:ARG:NH1	14:1S:42:ASP:OD1	2.19	0.76
33:2b:157:ARG:NH2	33:2b:160:ASP:OD1	2.19	0.76
32:2a:1055:A:N7	32:2a:1200:C:N4	2.33	0.76
47:2p:1:MET:HE3	47:2p:3:LYS:HD3	1.67	0.76
1:2A:1604:C:OP1	60:2A:3706:HOH:O	2.03	0.76
50:2s:50:ALA:HB1	50:2s:57:HIS:HB3	1.67	0.76
1:2A:2127:G:C2	1:2A:2161:C:O2	2.38	0.76
21:2Z:154:ASP:OD1	21:2Z:154:ASP:N	2.17	0.76
1:1A:880:G:H2'	1:1A:881:G:H8	1.49	0.76
1:1A:2498:C:OP2	60:1A:3910:HOH:O	2.03	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1E:36:ARG:NH1	4:1E:85:ASN:OD1	2.18	0.76
12:1Q:59:ARG:O	12:1Q:61:GLY:N	2.19	0.76
32:1a:1073:U:O2	33:1b:104:ASN:ND2	2.19	0.76
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	1.67	0.76
1:2A:1611:C:OP1	60:2A:3707:HOH:O	2.04	0.76
1:1A:2499:C:OP2	60:1A:3910:HOH:O	2.04	0.76
1:2A:1022:G:H22	1:2A:1142(A):A:H2	1.31	0.76
1:2A:2448:A:OP1	60:2A:3708:HOH:O	2.04	0.76
1:1A:1250:G:N7	11:1P:18:ARG:NH2	2.34	0.75
1:1A:1671:U:OP2	60:1A:3911:HOH:O	2.03	0.75
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.68	0.75
3:2D:148:GLU:HB2	3:2D:151:LYS:HD2	1.68	0.75
12:2Q:18:LYS:O	12:2Q:98:LYS:NZ	2.19	0.75
1:2A:2136:C:N4	1:2A:2155:G:H1	1.82	0.75
2:2B:27:C:H5"	14:2S:54:LEU:HD21	1.66	0.75
21:2Z:45:ASP:OD1	21:2Z:49:ARG:NH1	2.18	0.75
32:1a:987:G:H1	32:1a:1218:C:H42	0.79	0.75
4:2E:23:VAL:HG21	4:2E:183:LEU:HD23	1.68	0.75
44:2m:58:GLU:O	44:2m:62:ASN:ND2	2.20	0.75
4:2E:94:GLU:O	4:2E:97:LYS:NZ	2.18	0.75
13:2R:103:ARG:NH1	13:2R:108:GLY:O	2.20	0.75
44:2m:90:LEU:HA	44:2m:93:ARG:HE	1.52	0.75
1:1A:1352:U:OP2	60:1A:3917:HOH:O	2.05	0.75
1:1A:2683:C:O2	10:1O:70:LYS:NZ	2.20	0.75
42:2k:99:GLN:HG2	42:2k:105:VAL:HG21	1.67	0.75
32:2a:1129:C:O2'	32:2a:1130:A:N7	2.20	0.74
1:1A:621:A:OP2	11:1P:108:LYS:NZ	2.20	0.74
32:1a:1030:C:N3	32:1a:1031:G:N2	2.34	0.74
39:2h:10:LEU:HD22	39:2h:83:ILE:HD11	1.68	0.74
1:1A:2589:A:OP1	60:1A:3912:HOH:O	2.03	0.74
32:1a:642:A:N3	39:1h:113:SER:OG	2.20	0.74
3:1D:125:ILE:HB	37:1f:81:ILE:HD11	1.69	0.74
33:1b:63:MET:HG3	33:1b:225:ALA:HB1	1.69	0.74
1:2A:1566:A:OP1	3:2D:211:ARG:NH1	2.21	0.74
1:1A:2285:C:OP2	28:16:6:ARG:NH1	2.20	0.74
14:1S:105:ALA:HB1	14:1S:110:LEU:HD12	1.68	0.74
32:1a:827:U:O2	32:1a:872:A:N6	2.18	0.74
1:2A:1296:G:OP1	1:2A:2709:G:O2'	2.05	0.74
1:2A:1434:A:H61	1:2A:1558:A:H62	1.35	0.74
1:2A:2127:G:C2	1:2A:2161:C:C2	2.75	0.74
1:1A:994:C:H3'	16:1U:54:LYS:HE3	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2136:C:N4	1:1A:2155:G:C6	2.56	0.74
32:2a:406:G:O6	32:2a:436:C:N4	2.19	0.74
46:1o:54:ARG:HG2	46:1o:58:MET:HE2	1.68	0.74
1:2A:751:A:N7	60:2A:3746:HOH:O	2.20	0.74
1:2A:2781:A:H5"	1:2A:2782:G:H5'	1.68	0.74
1:1A:1055:G:H1	1:1A:1104:C:H42	1.35	0.74
1:1A:2226:C:OP2	60:1A:3915:HOH:O	2.05	0.74
1:1A:2822:G:OP2	60:1A:3919:HOH:O	2.06	0.74
33:1b:98:LEU:H	33:1b:101:MET:HE3	1.52	0.74
35:1d:116:GLN:HE22	35:1d:161:ASN:HD21	1.36	0.74
1:1A:1336:A:OP2	19:1X:64:LYS:NZ	2.20	0.74
1:1A:2615:U:OP1	60:1A:3916:HOH:O	2.05	0.74
1:2A:2127:G:C6	1:2A:2161:C:C2	2.76	0.74
1:2A:1226:A:OP1	17:2V:84:LYS:NZ	2.15	0.73
1:2A:1865:G:N2	1:2A:1877:A:OP2	2.20	0.73
33:2b:95:GLN:HG3	33:2b:147:LYS:HG2	1.70	0.73
38:2g:68:ASN:ND2	38:2g:127:ALA:O	2.21	0.73
3:1D:60:ARG:HD3	3:1D:86:PRO:HB2	1.69	0.73
11:2P:63:PRO:HD3	30:28:27:THR:HG22	1.70	0.73
1:1A:739:G:OP1	60:1A:3914:HOH:O	2.05	0.73
1:1A:1541:G:OP2	60:1A:3918:HOH:O	2.05	0.73
1:1A:2592:G:OP1	60:1A:3913:HOH:O	2.05	0.73
50:1s:49:ILE:HG13	50:1s:62:ILE:HD11	1.69	0.73
23:21:2:SER:HB3	23:21:46:LEU:HD12	1.70	0.73
40:2i:9:ARG:HG2	40:2i:14:VAL:HG12	1.71	0.73
1:1A:1970:A:OP1	60:1A:3922:HOH:O	2.07	0.73
20:1Y:43:ASN:HB3	20:1Y:65:ALA:HB3	1.71	0.73
1:2A:570:G:O6	60:2A:3708:HOH:O	2.07	0.73
32:2a:736:C:OP1	49:2r:72:ARG:NH2	2.22	0.73
32:2a:1402:4OC:HM22	32:2a:1403:C:H5'	1.70	0.73
33:2b:223:ILE:HA	33:2b:226:ARG:HG2	1.69	0.73
21:2Z:5:LEU:HD11	21:2Z:44:PHE:HA	1.71	0.73
32:1a:96:U:H2'	32:1a:97:G:C8	2.24	0.73
14:2S:24:LEU:HB2	14:2S:85:VAL:HG23	1.69	0.73
32:2a:1255:G:OP2	41:2j:45:ARG:NH2	2.22	0.73
2:1B:105:A:OP1	21:1Z:72:ARG:NH1	2.21	0.73
41:1j:35:SER:HB3	41:1j:73:ASP:HB2	1.70	0.73
1:1A:880:G:H22	1:1A:898:C:H42	1.37	0.72
1:1A:1176:G:H1'	1:1A:1177:A:H5"	1.71	0.72
26:14:16:CYS:SG	26:14:17:GLY:N	2.62	0.72
32:2a:986:A:N3	50:2s:52:TYR:OH	2.18	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:1H:101:ARG:HH22	7:1H:122:THR:HA	1.53	0.72
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.22	0.72
22:20:64:ASP:OD1	22:20:64:ASP:N	2.22	0.72
1:1A:2588:G:OP1	60:1A:3923:HOH:O	2.07	0.72
1:1A:1156:A:OP2	60:1A:3920:HOH:O	2.06	0.72
1:2A:832:G:OP1	60:2A:3709:HOH:O	2.07	0.72
5:1F:70:THR:HG23	5:1F:72:ARG:H	1.55	0.72
32:2a:376:G:H5"	47:2p:5:ARG:HB2	1.71	0.72
32:2a:1162:C:N4	32:2a:1174:G:H1	1.86	0.72
5:1F:61:GLY:O	60:1F:401:HOH:O	2.06	0.72
1:2A:870:A:OP1	12:2Q:6:ARG:NH1	2.23	0.72
1:2A:995:C:OP2	16:2U:54:LYS:NZ	2.22	0.72
11:2P:35:HIS:O	60:2P:301:HOH:O	2.07	0.72
1:1A:1014:U:OP2	60:1A:3924:HOH:O	2.07	0.72
5:1F:167:ALA:HB1	5:1F:173:VAL:HG11	1.71	0.72
1:2A:89:G:H3'	1:2A:90:U:H5"	1.71	0.72
21:2Z:53:ILE:HG22	21:2Z:71:VAL:HB	1.70	0.72
32:2a:1277:C:HO2'	32:2a:1279:A:H8	1.36	0.72
1:1A:120:U:OP2	60:1A:3927:HOH:O	2.08	0.72
1:1A:517:C:OP1	27:15:16:ARG:NH2	2.22	0.72
1:1A:1058:G:H1	1:1A:1080:C:H42	1.37	0.72
8:1I:129:THR:HG22	8:1I:139:GLN:HE22	1.54	0.72
11:1P:52:GLU:OE1	11:1P:55:ARG:NH1	2.23	0.72
1:1A:1057:A:N6	1:1A:1081:U:H3	1.86	0.71
40:1i:127:LYS:NZ	54:1x:34:C:OP2	2.23	0.71
43:1l:105:TYR:O	43:1l:107:ALA:N	2.22	0.71
32:2a:1069:C:O2'	32:2a:1192:C:O2	2.06	0.71
32:1a:997:U:H3	32:1a:1044:A:H61	1.35	0.71
1:1A:1798:U:H5'	3:1D:259:THR:HG22	1.73	0.71
40:1i:42:ARG:NH1	40:1i:71:SER:OG	2.22	0.71
1:2A:1807:G:N2	1:2A:1810:A:OP2	2.22	0.71
32:2a:1012:U:O2	32:2a:1017:G:O6	2.08	0.71
1:1A:2629:A:O2'	1:1A:2630:G:OP2	2.07	0.71
1:1A:2107:C:H42	1:1A:2182:G:H1	1.39	0.71
3:1D:200:ASP:OD1	3:1D:203:ASN:ND2	2.24	0.71
26:14:56:VAL:HG12	26:14:60:GLN:HE21	1.55	0.71
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.24	0.71
1:1A:624:C:OP1	60:1A:3921:HOH:O	2.07	0.71
1:2A:793:A:O2'	60:2A:3711:HOH:O	2.09	0.71
5:2F:132:VAL:HG21	5:2F:163:VAL:HG22	1.71	0.71
36:1e:20:GLN:NE2	36:1e:21:ALA:O	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1q:74:LEU:HD23	48:1q:75:ARG:HG2	1.72	0.71
1:2A:2850:A:N7	1:2A:2868:A:O2'	2.23	0.71
4:2E:36:ARG:NH1	4:2E:85:ASN:OD1	2.24	0.71
32:1a:559:A:H4'	32:1a:560:U:H3'	1.73	0.71
32:1a:1002:G:H3'	32:1a:1003:G:H4'	1.73	0.71
32:2a:978:A:O2'	32:2a:1322:C:N3	2.23	0.71
23:11:18:ILE:HG12	23:11:37:ILE:HG23	1.73	0.71
8:2I:117:GLU:HG3	8:2I:118:LYS:H	1.55	0.71
10:2O:49:ARG:NH2	32:2a:1423:G:OP1	2.23	0.71
44:1m:40:ASN:O	44:1m:43:THR:OG1	2.09	0.70
13:2R:51:LEU:HD22	13:2R:66:VAL:HG13	1.72	0.70
33:2b:168:THR:OG1	33:2b:191:ASP:O	2.07	0.70
1:1A:1508:A:O2'	1:1A:1509:C:OP1	2.08	0.70
10:1O:48:PRO:HB3	32:1a:1422:G:H5"	1.73	0.70
32:1a:73:G:H1	32:1a:96:U:H3	1.39	0.70
32:1a:971:G:N2	32:1a:1363(A):A:OP2	2.22	0.70
32:1a:1025:U:O2	32:1a:1036:G:O6	2.09	0.70
1:2A:1927:A:H2'	1:2A:1928:A:C8	2.27	0.70
11:2P:87:ASP:O	11:2P:90:ARG:NH1	2.23	0.70
41:2j:10:GLY:HA3	41:2j:16:LEU:HD21	1.74	0.70
1:2A:944:G:O3'	60:2A:3712:HOH:O	2.09	0.70
33:2b:58:ILE:HA	33:2b:61:LEU:HB3	1.73	0.70
35:2d:157:LEU:O	35:2d:161:ASN:ND2	2.23	0.70
1:1A:2140:C:H2'	1:1A:2141:G:H8	1.55	0.70
37:1f:9:VAL:HB	37:1f:87:ARG:HB2	1.72	0.70
32:2a:156:G:N2	32:2a:165:C:O2	2.20	0.70
15:1T:80:SER:HB3	15:1T:83:ILE:HG13	1.73	0.70
1:2A:1784:A:OP1	60:2A:3710:HOH:O	2.08	0.70
32:2a:991:U:C4	32:2a:1212:U:H1'	2.27	0.70
1:1A:376:C:OP2	60:1A:3925:HOH:O	2.08	0.70
32:1a:711:G:OP1	37:1f:54:LYS:NZ	2.24	0.70
51:1t:90:GLN:HA	51:1t:93:GLU:HG2	1.73	0.70
1:2A:2127:G:C6	1:2A:2161:C:C4	2.78	0.70
1:2A:2138:C:H2'	1:2A:2139:C:H6	1.57	0.70
36:2e:10:MET:HE2	36:2e:13:ILE:HD11	1.73	0.70
48:2q:66:SER:O	48:2q:70:ARG:NH1	2.24	0.70
1:1A:191:A:N1	60:1A:4000:HOH:O	2.23	0.70
2:2B:24:G:H4'	2:2B:25:A:N7	2.06	0.70
32:2a:671:G:H5'	37:2f:77:ARG:HH22	1.57	0.70
1:1A:2054:A:N3	60:1A:4006:HOH:O	2.25	0.70
4:1E:127:ASP:OD2	60:1E:401:HOH:O	2.09	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1i:50:LEU:HA	40:1i:53:VAL:HG23	1.74	0.70
15:2T:93:ARG:HH12	15:2T:95:ARG:HD3	1.56	0.70
32:2a:559:A:H4'	32:2a:560:U:H3'	1.73	0.70
1:1A:1639:U:OP1	60:1A:3929:HOH:O	2.10	0.70
32:2a:1013:G:N2	32:2a:1016:A:OP2	2.24	0.70
1:1A:2126:A:N6	1:1A:2162:G:O2'	2.25	0.70
22:10:9:SER:O	60:10:201:HOH:O	2.08	0.70
19:2X:8:ILE:O	24:22:36:ARG:NH2	2.25	0.70
1:1A:586:A:H5'	5:1F:89:VAL:HG21	1.74	0.69
1:2A:2589:A:OP1	60:2A:3715:HOH:O	2.10	0.69
1:1A:530:G:H4'	1:1A:531:C:OP1	1.92	0.69
1:1A:1772:G:OP1	60:1A:3930:HOH:O	2.10	0.69
1:1A:2292:C:OP1	14:1S:17:ARG:NH2	2.21	0.69
11:2P:37:GLY:O	11:2P:40:SER:OG	2.10	0.69
1:1A:831:G:OP1	60:1A:3937:HOH:O	2.11	0.69
1:1A:1227:G:OP1	16:1U:13:LYS:NZ	2.25	0.69
1:1A:1332:G:OP1	60:1A:3928:HOH:O	2.09	0.69
1:1A:1377:G:O6	60:1A:3934:HOH:O	2.10	0.69
1:1A:2319:G:H22	14:1S:3:ARG:HD3	1.56	0.69
51:1t:22:ARG:O	51:1t:26:ASN:ND2	2.25	0.69
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.74	0.69
32:1a:1318:A:OP1	50:1s:7:LYS:NZ	2.26	0.69
1:2A:2632:A:HO2'	1:2A:2811:G:HO2'	1.36	0.69
1:2A:2689:U:OP2	1:2A:2719:G:N2	2.22	0.69
1:1A:880:G:H2'	1:1A:881:G:C8	2.26	0.69
1:1A:2134:A:O2'	1:1A:2135:A:OP1	2.10	0.69
2:1B:25:A:OP2	60:1B:301:HOH:O	2.09	0.69
3:2D:69:ARG:NH2	3:2D:128:GLY:O	2.26	0.69
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.56	0.69
32:2a:131:C:H2'	32:2a:132:C:H6	1.57	0.69
32:2a:1014:A:H1'	50:2s:34:TRP:HB2	1.74	0.69
1:1A:192:C:OP1	60:1A:3932:HOH:O	2.10	0.69
1:1A:975:C:OP1	60:1A:3936:HOH:O	2.10	0.69
1:1A:2483:C:N3	12:1Q:124:LYS:NZ	2.40	0.69
1:2A:1345:C:OP2	60:2A:3714:HOH:O	2.10	0.69
1:1A:652(E):G:H1	1:1A:652(T):C:H42	1.41	0.69
1:1A:1186:G:OP1	60:1A:3933:HOH:O	2.10	0.69
32:1a:411:A:OP1	35:1d:30:LYS:NZ	2.25	0.69
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.28	0.69
2:2B:7:G:H21	14:2S:38:GLN:HE22	1.41	0.69
5:2F:140:LEU:HD11	5:2F:170:LEU:HD11	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:11:TYR:CZ	6:2G:16:ARG:HD3	2.27	0.69
8:2I:14:ASP:N	8:2I:17:GLN:OE1	2.25	0.69
37:2f:95:GLU:O	49:2r:32:ARG:NH1	2.25	0.69
11:2P:95:VAL:HG13	11:2P:125:VAL:HA	1.74	0.69
32:2a:1164:G:H1	32:2a:1172:C:N4	1.90	0.69
1:1A:1315:C:OP2	60:1A:3928:HOH:O	2.11	0.69
19:1X:94:GLY:HA3	19:1X:95:LEU:HB2	1.74	0.69
22:10:27:GLU:HB2	22:10:69:PHE:HD1	1.57	0.69
1:2A:2837:G:N7	60:2A:3762:HOH:O	2.25	0.69
41:2j:34:VAL:HG12	41:2j:74:ILE:HA	1.73	0.69
44:2m:13:LYS:NZ	44:2m:21:TYR:OH	2.26	0.69
1:2A:1689:A:H62	1:2A:1698:A:H2	1.40	0.68
3:2D:125:ILE:HB	37:2f:81:ILE:HD11	1.73	0.68
4:2E:24:THR:HG22	4:2E:184:VAL:HG22	1.74	0.68
20:2Y:28:LYS:HD2	20:2Y:40:GLU:HG2	1.75	0.68
26:24:49:PHE:HD2	26:24:50:VAL:HG12	1.58	0.68
1:1A:832:G:OP1	60:1A:3941:HOH:O	2.11	0.68
1:1A:1009:A:OP2	9:1N:37:LYS:NZ	2.26	0.68
1:1A:2103:C:H42	1:1A:2186:G:H1	1.41	0.68
48:1q:66:SER:O	48:1q:70:ARG:NH1	2.26	0.68
1:2A:468:G:N7	29:27:39:ARG:NH2	2.40	0.68
1:1A:1010:A:OP2	60:1A:3940:HOH:O	2.11	0.68
20:1Y:102:CYS:SG	20:1Y:103:GLY:N	2.64	0.68
1:2A:466:A:OP1	29:27:34:ARG:NH1	2.25	0.68
1:2A:2103:C:H42	1:2A:2186:G:H1	1.41	0.68
5:2F:135:LYS:HB3	5:2F:138:GLU:HG3	1.74	0.68
1:1A:197:A:OP1	60:1A:3935:HOH:O	2.10	0.68
8:1I:26:ALA:HA	8:1I:30:LEU:HB2	1.74	0.68
39:2h:110:ALA:HB3	39:2h:121:ASP:HB3	1.75	0.68
32:1a:324:G:N7	60:1a:1803:HOH:O	2.27	0.68
1:2A:1243:G:O2'	11:2P:7:ARG:NH2	2.26	0.68
1:2A:1530:C:O2'	1:2A:1531:C:O5'	2.09	0.68
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.28	0.68
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.59	0.68
35:2d:176:LEU:HG	35:2d:178:VAL:HG22	1.75	0.68
32:1a:1291:G:OP1	38:1g:37:ASN:ND2	2.27	0.68
32:1a:1518:MA6:N6	32:1a:1519:MA6:H103	2.09	0.68
38:1g:78:ARG:NH1	38:1g:154:TYR:O	2.26	0.68
55:1z:14:ARG:HA	55:1z:14:ARG:HE	1.58	0.68
4:2E:36:ARG:NH2	4:2E:86:PRO:O	2.23	0.68
32:2a:1052:U:O2'	32:2a:1055:A:OP2	2.10	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:489:G:N7	18:1W:49:LYS:NZ	2.42	0.68
32:1a:1145:C:H4'	32:1a:1146:A:H5'	1.73	0.68
1:2A:2171:A:N3	1:2A:2172:U:N3	2.42	0.68
3:2D:28:GLU:OE2	60:2D:401:HOH:O	2.12	0.68
5:2F:116:ASP:OD2	11:2P:1:MET:N	2.26	0.68
9:2N:104:LYS:HA	9:2N:107:LEU:HD12	1.76	0.68
1:1A:1567:A:OP2	3:1D:84:TYR:OH	2.11	0.68
1:1A:1968:G:OP1	60:1A:3913:HOH:O	2.10	0.68
1:1A:2206:G:H3'	1:1A:2207:G:C8	2.29	0.68
32:1a:192:U:H4'	51:1t:57:ARG:HD3	1.74	0.68
33:2b:16:HIS:HB2	33:2b:204:ASN:HB3	1.75	0.68
32:1a:649:G:H2'	32:1a:650:G:H8	1.58	0.68
1:2A:1363:C:O2'	1:2A:1809:A:N3	2.27	0.68
1:2A:2141:G:O6	1:2A:2150:U:O2	2.12	0.68
2:2B:5:C:OP1	2:2B:61:G:O2'	2.12	0.68
32:2a:11:G:H1	32:2a:23:C:H42	1.39	0.68
32:2a:1346:A:OP1	40:2i:120:ARG:NH1	2.26	0.68
3:2D:108:PRO:HB3	3:2D:143:HIS:HE1	1.58	0.68
34:2c:37:GLN:HE22	45:2n:52:GLN:HB3	1.59	0.68
52:2u:12:LYS:HD2	52:2u:22:ARG:HB3	1.73	0.68
32:1a:473:G:OP2	47:1p:75:ARG:NH1	2.27	0.67
34:1c:19:GLU:O	34:1c:40:ARG:NH2	2.27	0.67
1:2A:908:C:OP2	12:2Q:22:LYS:NZ	2.23	0.67
1:2A:1142:U:H5"	1:2A:1142(A):A:H5'	1.76	0.67
5:2F:11:VAL:HG22	5:2F:125:LEU:HB2	1.76	0.67
17:2V:72:VAL:HG13	17:2V:85:LYS:HB2	1.75	0.67
32:2a:1075:C:OP1	33:2b:179:LYS:NZ	2.27	0.67
1:1A:2051:A:OP2	60:1A:3938:HOH:O	2.11	0.67
1:1A:2646:C:OP2	1:1A:2732:G:O2'	2.10	0.67
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.76	0.67
1:1A:989:G:O2'	60:1A:3942:HOH:O	2.12	0.67
1:1A:2135:A:H5'	1:1A:2160:G:H4'	1.77	0.67
32:1a:13:U:OP1	60:1a:1801:HOH:O	2.11	0.67
18:2W:35:ILE:O	18:2W:39:THR:OG1	2.12	0.67
35:2d:129:ASN:ND2	35:2d:144:ASP:OD2	2.26	0.67
32:1a:193:C:H2'	32:1a:194:C:H6	1.59	0.67
1:2A:1204:A:H2	1:2A:1241:A:H62	1.43	0.67
32:2a:1406:U:O2	32:2a:1517:G:N2	2.28	0.67
5:1F:155:LEU:HD11	5:1F:176:LEU:HD12	1.75	0.67
1:2A:296:C:H42	1:2A:342:G:H1	1.42	0.67
1:2A:563:G:OP2	60:2A:3719:HOH:O	2.12	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2148:G:H2'	1:2A:2149:G:C8	2.30	0.67
32:2a:1295:G:O2'	44:2m:14:ARG:NH1	2.27	0.67
38:2g:20:ASP:HB3	38:2g:23:VAL:HB	1.77	0.67
1:1A:1176:G:N2	1:1A:1178:C:OP1	2.28	0.67
1:2A:1849:G:H2'	1:2A:1850:G:H8	1.59	0.67
1:2A:2002:G:O6	60:2A:3717:HOH:O	2.11	0.67
12:2Q:34:LEU:HB2	12:2Q:118:LEU:HD22	1.75	0.67
32:2a:1272:G:N3	32:2a:1273:G:H1'	2.09	0.67
1:1A:759:G:OP1	60:1A:3939:HOH:O	2.11	0.67
1:1A:2136:C:N3	1:1A:2155:G:C2	2.63	0.67
32:1a:865:A:N3	32:1a:918:A:O2'	2.25	0.67
32:1a:1289:A:OP1	52:1u:10:ARG:NH2	2.28	0.67
1:2A:1352:U:OP2	60:2A:3720:HOH:O	2.12	0.67
1:2A:2705:A:OP2	60:2A:3721:HOH:O	2.13	0.67
1:1A:2445:G:OP1	5:1F:74:ARG:NH2	2.27	0.67
1:2A:2134:A:O2'	1:2A:2159:G:N2	2.27	0.67
1:1A:2206:G:H3'	1:1A:2207:G:H8	1.60	0.67
1:1A:2267:A:H5"	1:1A:2268:A:H5'	1.77	0.67
32:2a:877:C:H5"	39:2h:88:LYS:HD2	1.76	0.67
32:2a:1352:C:H42	32:2a:1370:G:H1	1.42	0.67
35:2d:50:ARG:NH1	36:2e:10:MET:SD	2.68	0.67
1:1A:2042:A:OP1	60:1A:3945:HOH:O	2.12	0.66
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.77	0.66
33:2b:9:GLU:O	33:2b:11:LEU:N	2.23	0.66
35:2d:60:GLU:HG3	35:2d:202:LEU:HD12	1.76	0.66
1:1A:301:G:OP2	20:1Y:84:ARG:NH2	2.28	0.66
1:1A:878:A:N6	1:1A:899:A:O2'	2.24	0.66
1:1A:1013:C:OP2	60:1A:3924:HOH:O	2.13	0.66
1:1A:2614:A:OP1	60:1A:3949:HOH:O	2.13	0.66
1:1A:2787:C:H1'	4:1E:62:PRO:HG3	1.77	0.66
5:1F:153:SER:HB2	5:1F:189:THR:HG22	1.77	0.66
20:1Y:92:ASN:N	20:1Y:93:GLY:HA2	2.09	0.66
11:2P:48:PRO:O	30:28:57:ARG:NH2	2.20	0.66
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.77	0.66
32:2a:1366:C:HO2'	41:2j:60:ARG:HH22	1.42	0.66
47:2p:53:VAL:HG22	47:2p:79:VAL:HG22	1.76	0.66
1:1A:512:G:N7	60:1A:4032:HOH:O	2.27	0.66
1:1A:1245:G:OP1	11:1P:13:ASN:ND2	2.28	0.66
1:2A:2128:C:H42	1:2A:2160:G:H1	1.40	0.66
30:28:10:ALA:HB3	30:28:62:LEU:HD21	1.77	0.66
38:2g:105:VAL:O	38:2g:109:ASN:N	2.27	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:615:G:OP1	5:1F:40:GLN:NE2	2.27	0.66
3:1D:38:LYS:NZ	3:1D:39:LYS:O	2.29	0.66
54:1x:8:4SU:O2	54:1x:21:A:C2	2.49	0.66
1:2A:883:G:O6	1:2A:893:C:O2'	2.12	0.66
2:2B:41:U:H5	6:2G:70:VAL:H	1.43	0.66
2:2B:105:A:OP1	21:2Z:72:ARG:NH2	2.28	0.66
1:1A:1975:G:OP2	60:1A:3947:HOH:O	2.12	0.66
17:1V:40:LEU:HD11	17:1V:101:GLY:HA2	1.77	0.66
1:2A:120:U:OP2	60:2A:3718:HOH:O	2.12	0.66
1:2A:632:A:H2'	1:2A:633:A:C8	2.30	0.66
1:2A:2127:G:C5	1:2A:2161:C:N3	2.63	0.66
32:2a:1139:G:N2	32:2a:1142:G:O6	2.19	0.66
1:1A:1041:C:H42	1:1A:1114:G:H1	1.41	0.66
20:1Y:92:ASN:HB3	20:1Y:94:LYS:HG2	1.77	0.66
32:1a:373:A:H2'	32:1a:374:A:H8	1.61	0.66
34:1c:108:ASN:HB3	34:1c:111:LEU:HB2	1.75	0.66
35:1d:112:VAL:HG23	35:1d:116:GLN:HE22	1.61	0.66
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.30	0.66
12:2Q:135:ASP:OD2	21:2Z:49:ARG:NH2	2.28	0.66
27:25:41:PRO:O	27:25:44:THR:OG1	2.13	0.66
1:1A:1629:U:O4	60:1A:3946:HOH:O	2.12	0.66
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.31	0.66
1:1A:2336:A:H61	22:10:43:THR:HG22	1.60	0.66
32:1a:1136:U:H5"	32:1a:1137:C:C4	2.31	0.66
1:2A:2223:G:OP1	3:2D:172:TYR:OH	2.14	0.66
1:1A:2316:C:O2'	6:1G:128:ARG:NH2	2.28	0.66
5:1F:140:LEU:HD21	5:1F:170:LEU:HD11	1.77	0.66
7:1H:56:SER:OG	7:1H:57:ASP:N	2.24	0.66
41:1j:8:LEU:HD22	41:1j:96:ILE:HG22	1.77	0.66
1:2A:214:G:N3	1:2A:216:A:O2'	2.28	0.66
1:2A:2693:A:OP2	60:2A:3722:HOH:O	2.13	0.66
3:2D:101:GLU:OE2	3:2D:103:ARG:NH1	2.29	0.66
11:2P:56:SER:HB2	11:2P:61:ARG:HD2	1.78	0.66
32:2a:834:C:H2'	32:2a:835:U:H6	1.61	0.66
39:2h:20:TYR:HA	39:2h:65:TYR:CZ	2.31	0.66
1:1A:2143:C:N4	1:1A:2148:G:H1	1.93	0.66
17:1V:72:VAL:HG13	17:1V:85:LYS:HB3	1.76	0.66
1:1A:1864:U:OP1	1:1A:2410:G:O2'	2.12	0.66
1:1A:2053:G:OP2	60:1A:3960:HOH:O	2.15	0.66
60:1A:3919:HOH:O	4:1E:110:GLY:O	2.13	0.66
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:582:U:OP1	46:2o:64:ARG:NH1	2.29	0.66
36:2e:76:ILE:HD12	36:2e:142:LEU:HD21	1.76	0.66
1:1A:1055:G:H1	1:1A:1104:C:N4	1.93	0.65
1:1A:1646:C:OP2	60:1A:3958:HOH:O	2.14	0.65
1:1A:2406:U:OP1	60:1A:3952:HOH:O	2.13	0.65
10:1O:97:ARG:NH1	32:1a:339:C:OP2	2.29	0.65
1:2A:1474:C:H2'	1:2A:1475:G:C8	2.31	0.65
1:1A:1153:C:OP2	60:1A:3953:HOH:O	2.14	0.65
17:1V:76:LYS:HB2	17:1V:81:TYR:HB3	1.77	0.65
1:2A:1149:G:H2'	1:2A:1150:C:C6	2.31	0.65
1:2A:1333:C:OP2	60:2A:3726:HOH:O	2.14	0.65
1:1A:882:G:H1	1:1A:894:C:H42	1.45	0.65
1:1A:1604:C:OP1	60:1A:3955:HOH:O	2.14	0.65
1:1A:1783:A:H5'	1:1A:2608:G:H4'	1.77	0.65
42:1k:73:MET:HE2	42:1k:103:LEU:HG	1.78	0.65
1:2A:876:C:H2'	1:2A:877:U:H6	1.60	0.65
1:2A:1913:A:H61	32:2a:1493:A:H2'	1.61	0.65
4:2E:59:VAL:HG21	4:2E:74:PRO:HB3	1.77	0.65
19:2X:43:VAL:HG21	19:2X:81:VAL:HG11	1.79	0.65
33:2b:47:THR:O	33:2b:51:LEU:N	2.29	0.65
1:1A:2819:G:OP1	60:1A:3948:HOH:O	2.13	0.65
4:1E:143:ASN:HD22	4:1E:147:PRO:HD2	1.60	0.65
48:1q:59:ILE:HG22	48:1q:73:VAL:HA	1.79	0.65
1:2A:2138:C:N4	1:2A:2153:G:H1	1.93	0.65
1:2A:2552:2MU:OP2	60:2A:3725:HOH:O	2.14	0.65
1:1A:1297:C:OP1	60:1A:3954:HOH:O	2.14	0.65
1:1A:1418:G:OP2	60:1A:3950:HOH:O	2.13	0.65
1:1A:1770:G:OP1	60:1A:3957:HOH:O	2.14	0.65
39:1h:33:GLU:HG3	39:1h:59:LEU:HD21	1.78	0.65
12:2Q:39:PRO:HD3	12:2Q:99:PRO:HG3	1.77	0.65
41:1j:5:ARG:NH2	41:1j:73:ASP:OD2	2.30	0.65
1:2A:2879:C:OP2	60:2A:3723:HOH:O	2.14	0.65
54:2x:36:U:H2'	54:2x:37:A:C8	2.31	0.65
34:1c:203:PHE:HZ	34:1c:206:GLU:HG2	1.61	0.65
1:2A:414:C:H2'	1:2A:415:A:C8	2.31	0.65
1:2A:1023:U:OP2	60:2A:3727:HOH:O	2.15	0.65
1:2A:1030:G:OP2	12:2Q:128:LYS:NZ	2.29	0.65
3:1D:61:LEU:O	3:1D:63:ARG:NH1	2.30	0.65
38:1g:16:LEU:HD11	40:1i:45:ALA:HB2	1.78	0.65
18:2W:18:ARG:NH1	18:2W:76:VAL:O	2.29	0.65
32:2a:1359:C:O2'	32:2a:1361:G:N7	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:2k:22:HIS:HB3	42:2k:29:ILE:HB	1.77	0.65
32:1a:486:U:H2'	32:1a:487:A:H8	1.62	0.65
50:1s:32:LYS:HA	50:1s:50:ALA:HB3	1.79	0.65
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.79	0.65
32:2a:1040:U:H2'	32:2a:1041:A:H8	1.62	0.65
32:2a:1366:C:O2'	41:2j:60:ARG:NH2	2.26	0.65
1:1A:1267:U:O2'	60:1A:3956:HOH:O	2.14	0.65
3:1D:8:PRO:HB3	3:1D:14:ARG:HB3	1.78	0.65
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.32	0.65
33:1b:113:HIS:O	33:1b:117:GLU:N	2.25	0.65
54:1x:8:4SU:O2	54:1x:21:A:H2	1.79	0.65
1:2A:515:A:H1'	1:2A:581:C:H1'	1.78	0.65
35:2d:159:ARG:O	35:2d:163:GLU:N	2.27	0.65
1:1A:1062:G:N2	1:1A:1077:A:N1	2.40	0.64
8:1I:116:LEU:HD21	8:1I:120:ILE:HG13	1.79	0.64
32:1a:601:C:H2'	32:1a:602:A:H8	1.61	0.64
1:2A:637:A:H5"	11:2P:117:GLU:HG2	1.77	0.64
1:2A:2693:A:H2'	1:2A:2694:G:H8	1.62	0.64
32:2a:1314:C:OP2	50:2s:4:SER:OG	2.14	0.64
35:2d:156:GLU:OE1	35:2d:156:GLU:N	2.27	0.64
1:1A:307:G:N7	60:1A:4046:HOH:O	2.29	0.64
1:1A:943:U:OP2	60:1A:3965:HOH:O	2.15	0.64
1:1A:2079:U:OP1	23:11:21:ARG:NH2	2.28	0.64
1:1A:2183:C:H2'	1:1A:2184:G:H8	1.61	0.64
2:1B:87:G:N2	2:1B:90:A:OP2	2.22	0.64
5:1F:195:ASP:HB3	5:1F:198:ALA:H	1.61	0.64
1:2A:509:C:OP1	60:2A:3729:HOH:O	2.15	0.64
1:1A:253:C:O2'	60:1A:3964:HOH:O	2.15	0.64
32:1a:975:A:H4'	32:1a:976:G:H5"	1.79	0.64
1:2A:1665:A:H4'	10:2O:67:LYS:HB2	1.79	0.64
6:2G:15:VAL:HG22	6:2G:175:LEU:HB3	1.78	0.64
19:2X:40:LYS:HG3	19:2X:51:VAL:HB	1.80	0.64
30:28:28:GLY:O	30:28:36:LYS:NZ	2.26	0.64
35:2d:76:ARG:NE	35:2d:80:GLU:OE2	2.29	0.64
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.33	0.64
32:1a:1027:C:C2	32:1a:1034:G:N2	2.65	0.64
36:1e:152:ARG:HB3	39:1h:43:GLY:HA3	1.80	0.64
1:2A:1300:U:H4'	1:2A:1301:A:H5"	1.78	0.64
1:2A:1779:U:OP2	60:2A:3724:HOH:O	2.14	0.64
32:2a:1316:G:H5"	45:2n:17:LYS:HD3	1.79	0.64
42:2k:18:ARG:NH2	42:2k:35:PRO:O	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1823:G:OP1	3:1D:54:ARG:NH1	2.31	0.64
32:1a:165:C:H2'	32:1a:166:G:C8	2.32	0.64
1:2A:1633:G:O6	60:2A:3713:HOH:O	2.10	0.64
3:2D:131:LEU:HD13	3:2D:136:ILE:HG12	1.80	0.64
1:1A:252:G:OP1	11:1P:50:ARG:NH1	2.25	0.64
8:1I:109:ILE:HG13	8:1I:130:TYR:CZ	2.32	0.64
32:1a:78:G:O2'	32:1a:79:G:H8	1.81	0.64
44:1m:11:ARG:HA	44:1m:45:VAL:HB	1.79	0.64
1:2A:195:A:OP2	60:2A:3728:HOH:O	2.15	0.64
15:1T:1:MET:HE2	15:1T:3:ARG:HG2	1.78	0.64
32:1a:1379:G:O6	38:1g:2:ALA:N	2.31	0.64
12:2Q:26:TYR:CD1	12:2Q:28:ALA:HB2	2.33	0.64
17:2V:62:LEU:HD11	17:2V:95:LEU:HB2	1.79	0.64
1:1A:2131:G:H5"	1:1A:2132:U:H3'	1.78	0.64
13:1R:59:ASP:N	13:1R:59:ASP:OD1	2.24	0.64
32:1a:952:U:H2'	32:1a:953:G:H8	1.62	0.64
1:2A:23:G:OP1	1:2A:504:U:N3	2.31	0.64
1:2A:2233:U:H2'	1:2A:2234:G:C8	2.32	0.64
35:2d:163:GLU:HA	35:2d:166:LYS:HG2	1.80	0.64
48:2q:6:LEU:HD23	48:2q:23:VAL:HG11	1.78	0.64
1:1A:1076:C:O2'	1:1A:1077:A:N7	2.31	0.64
1:1A:2821:A:OP2	60:1A:3919:HOH:O	2.15	0.64
60:1A:3919:HOH:O	13:1R:3:HIS:NE2	2.30	0.64
39:1h:87:SER:HB2	39:1h:93:VAL:HG12	1.78	0.64
1:2A:821:A:N1	60:2A:3778:HOH:O	2.30	0.64
2:2B:43:C:H4'	6:2G:98:ARG:HH21	1.63	0.64
27:25:49:CYS:SG	27:25:51:TYR:HB2	2.38	0.64
2:1B:8:U:O3'	14:1S:25:ARG:NH2	2.31	0.64
26:14:55:ARG:N	26:14:56:VAL:HA	2.13	0.64
32:1a:1030(A):G:O2'	32:1a:1030(C):G:OP2	2.14	0.64
1:2A:783:A:OP2	60:2A:3715:HOH:O	2.15	0.64
1:2A:974:G:OP1	1:2A:1187:G:O2'	2.12	0.64
1:2A:1137:G:N2	9:2N:105:GLY:O	2.28	0.64
1:2A:1976:U:O4	60:2A:3716:HOH:O	2.10	0.64
9:2N:42:TRP:CD1	9:2N:48:MET:HE1	2.33	0.64
32:2a:1310:G:H5'	44:2m:77:ASN:HD21	1.63	0.64
33:2b:221:LEU:HA	33:2b:224:GLN:HG2	1.78	0.64
1:1A:2142:C:N3	1:1A:2149:G:O6	2.30	0.63
1:1A:2448:A:OP1	60:1A:3962:HOH:O	2.15	0.63
1:1A:2582:G:OP2	60:1A:3961:HOH:O	2.15	0.63
32:1a:193:C:H2'	32:1a:194:C:C6	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.33	0.63
24:22:1:MET:SD	24:22:56:GLN:NE2	2.70	0.63
38:2g:108:ALA:HA	38:2g:111:ARG:HD2	1.80	0.63
44:2m:3:ARG:HD3	44:2m:9:ILE:H	1.62	0.63
48:2q:37:LYS:O	48:2q:38:ARG:NH2	2.29	0.63
1:1A:2070:G:OP1	60:1A:3963:HOH:O	2.15	0.63
1:1A:2123:G:H1	1:1A:2175:C:H42	1.46	0.63
1:1A:2690:C:OP1	13:1R:17:ARG:NH2	2.31	0.63
33:1b:185:ILE:HG22	33:1b:199:TYR:HB2	1.79	0.63
50:1s:27:GLU:HB2	50:1s:28:LYS:HA	1.80	0.63
20:1Y:54:LYS:HA	20:1Y:56:PRO:HD3	1.81	0.63
32:1a:984:C:H42	32:1a:1221:G:H1	1.46	0.63
39:2h:103:VAL:HG21	39:2h:110:ALA:HB2	1.80	0.63
1:1A:112:U:O3'	60:1A:3967:HOH:O	2.15	0.63
1:1A:1084:A:O2'	1:1A:1105:U:O2'	2.17	0.63
1:1A:1183:G:H4'	25:13:29:ARG:HH12	1.64	0.63
1:1A:2222:G:O2'	3:1D:148:GLU:OE2	2.17	0.63
5:1F:64:ILE:HD11	5:1F:75:HIS:HB2	1.81	0.63
32:1a:448:A:OP2	32:1a:485:G:N2	2.27	0.63
32:1a:1273:G:H3'	32:1a:1274:G:H8	1.62	0.63
1:2A:889:C:O2'	1:2A:890:A:O4'	2.17	0.63
1:2A:1688:U:O2	1:2A:1700:A:H5'	1.98	0.63
10:2O:107:ARG:HG3	10:2O:112:MET:HE1	1.79	0.63
1:2A:1017:G:N7	60:2A:3779:HOH:O	2.30	0.63
39:2h:113:SER:HB2	39:2h:134:ILE:HD11	1.81	0.63
7:1H:154:PRO:HB3	7:1H:163:TYR:CZ	2.34	0.63
18:1W:11:ARG:HA	18:1W:100:THR:HG22	1.80	0.63
32:1a:269:C:H2'	32:1a:270:A:C8	2.33	0.63
39:2h:73:ASP:OD1	39:2h:75:ARG:NH1	2.32	0.63
25:13:10:LYS:NZ	25:13:15:TYR:OH	2.31	0.63
32:1a:161:A:N1	32:1a:347:G:O2'	2.31	0.63
48:1q:51:TYR:HE1	48:1q:76:LEU:HB2	1.64	0.63
3:2D:155:LEU:HD23	3:2D:177:LEU:HD22	1.81	0.63
6:2G:122:PRO:HB3	6:2G:170:ARG:HE	1.64	0.63
11:2P:29:LYS:HG3	11:2P:30:THR:H	1.62	0.63
32:2a:542:G:OP1	35:2d:10:ARG:NH1	2.27	0.63
33:2b:84:GLU:HB3	33:2b:219:VAL:HG21	1.81	0.63
33:1b:16:HIS:CD2	33:1b:204:ASN:H	2.17	0.63
1:2A:818:G:OP2	60:2A:3730:HOH:O	2.16	0.63
1:1A:2552:2MU:O5'	1:1A:2552:2MU:H6	1.98	0.63
32:1a:176:C:H2'	32:1a:177:C:H6	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1i:26:VAL:HG13	40:1i:61:ALA:HB3	1.81	0.63
54:1x:13:C:H2'	54:1x:14:A:H5"	1.79	0.63
1:2A:143:G:H2'	1:2A:143(A):C:C6	2.34	0.63
1:2A:517:C:OP1	27:25:16:ARG:NH2	2.30	0.63
1:2A:2666:C:H3'	1:2A:2667:C:H6	1.64	0.63
13:2R:104:ARG:HD2	13:2R:109:ALA:HB3	1.81	0.63
17:2V:40:LEU:HB2	17:2V:46:VAL:HG22	1.81	0.63
47:2p:1:MET:O	47:2p:24:ALA:N	2.25	0.63
1:1A:1800:C:OP1	3:1D:264:LYS:NZ	2.26	0.62
6:1G:37:VAL:HG21	6:1G:103:LEU:HD11	1.80	0.62
37:1f:35:ALA:HB2	37:1f:67:MET:HE2	1.80	0.62
32:2a:969:A:OP1	41:2j:55:LYS:NZ	2.32	0.62
32:2a:976:G:H5'	32:2a:1358:U:O2'	1.98	0.62
32:2a:1272:G:C2	32:2a:1273:G:H1'	2.34	0.62
1:2A:210:C:H2'	1:2A:211:A:C8	2.34	0.62
1:2A:890:A:H2'	1:2A:892:G:H8	1.63	0.62
32:2a:923:A:N6	32:2a:1392:G:O6	2.33	0.62
33:2b:15:VAL:HA	33:2b:209:ARG:HD2	1.80	0.62
42:2k:27:ASN:OD1	42:2k:28:THR:N	2.31	0.62
1:1A:376:C:H42	1:1A:398:G:H1	1.47	0.62
1:1A:587:C:OP2	11:1P:21:ARG:NH2	2.32	0.62
1:1A:675:A:O2'	5:1F:67:GLN:NE2	2.32	0.62
16:1U:110:VAL:HG12	16:1U:114:LYS:HE3	1.80	0.62
32:1a:396:G:O2'	32:1a:398:C:OP1	2.12	0.62
6:2G:97:ASP:H	6:2G:100:TRP:CD1	2.16	0.62
7:2H:9:ILE:HB	7:2H:50:VAL:HG12	1.81	0.62
32:2a:696:A:N3	32:2a:786:G:O2'	2.28	0.62
1:1A:1039:G:H1	1:1A:1116:C:H42	1.48	0.62
32:1a:1003:G:C4	32:1a:1004:A:H2	2.17	0.62
32:2a:1239:A:H62	32:2a:1299:A:N6	1.97	0.62
40:2i:46:ALA:HB2	40:2i:74:ILE:HG23	1.81	0.62
42:2k:48:ILE:O	42:2k:50:TYR:N	2.28	0.62
2:1B:33:G:H5'	6:1G:2:PRO:HD3	1.81	0.62
23:11:51:VAL:HG11	23:11:74:VAL:HG21	1.81	0.62
22:20:28:GLY:HA2	22:20:66:VAL:HG13	1.80	0.62
48:2q:84:LEU:HA	48:2q:87:LYS:HE3	1.81	0.62
1:1A:61:G:OP1	24:12:51:ARG:NH1	2.33	0.62
11:1P:89:ALA:HA	11:1P:121:LYS:HD3	1.81	0.62
37:1f:38:GLU:HB2	37:1f:64:GLN:HG2	1.80	0.62
1:2A:1384:A:O2'	1:2A:1404:C:O2	2.18	0.62
1:2A:2287:A:H61	1:2A:2344:U:H3	1.48	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1518:MA6:N6	32:2a:1519:MA6:H103	2.14	0.62
34:2c:52:LEU:HD21	34:2c:55:VAL:HG13	1.81	0.62
51:2t:22:ARG:O	51:2t:26:ASN:ND2	2.32	0.62
1:1A:184:C:H2'	1:1A:185:U:C6	2.34	0.62
1:1A:587:C:O2	11:1P:33:ARG:NH2	2.27	0.62
33:1b:84:GLU:HB3	33:1b:219:VAL:HG21	1.82	0.62
35:1d:109:GLY:HA3	35:1d:165:MET:SD	2.39	0.62
1:2A:2166:G:N7	1:2A:2168:G:N2	2.47	0.62
32:2a:131:C:H2'	32:2a:132:C:C6	2.34	0.62
44:2m:16:ASP:HB3	44:2m:34:LEU:HD11	1.82	0.62
1:1A:2393:A:H2'	1:1A:2394:C:H6	1.64	0.62
32:1a:136:C:O2'	47:1p:65:GLN:NE2	2.30	0.62
32:1a:624:C:H2'	32:1a:625:G:C8	2.34	0.62
32:1a:1060:C:OP1	45:1n:45:ARG:NH2	2.33	0.62
34:1c:20:SER:HG	34:1c:40:ARG:HH22	1.48	0.62
3:2D:260:ARG:NH1	3:2D:267:SER:OG	2.32	0.62
32:2a:880:C:OP1	43:2l:8:ASN:ND2	2.32	0.62
32:2a:977:A:O3'	32:2a:980:C:N4	2.33	0.62
1:1A:1053:C:H42	1:1A:1106:G:H1	1.48	0.62
1:1A:2055:C:O2	60:1A:3943:HOH:O	2.12	0.62
3:1D:180:GLY:HA3	3:1D:275:LYS:HG2	1.80	0.62
32:1a:1004:A:C5'	32:1a:1024:G:H1	2.12	0.62
32:1a:1039:C:H2'	32:1a:1040:U:C6	2.34	0.62
35:2d:60:GLU:OE1	35:2d:199:ASN:N	2.29	0.62
1:1A:563:G:H5'	1:1A:572:A:H4'	1.82	0.62
1:1A:2753:A:N3	31:19:15:LYS:NZ	2.48	0.62
4:1E:2:LYS:HB2	4:1E:95:ILE:HD12	1.81	0.62
5:1F:143:ALA:HB1	5:1F:148:LEU:HB2	1.80	0.62
36:1e:92:LYS:HB3	36:1e:119:LEU:HB2	1.81	0.62
1:2A:9:U:H3	1:2A:2629:A:H2	1.47	0.62
1:2A:459:U:H5"	29:27:40:TRP:CD2	2.35	0.62
1:2A:900:A:O2'	1:2A:901:A:OP1	2.17	0.62
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.34	0.62
1:2A:2585:U:H4'	1:2A:2586:C:OP1	1.99	0.62
4:2E:47:VAL:HG11	4:2E:86:PRO:HD2	1.82	0.62
6:2G:170:ARG:NH2	6:2G:182:LYS:O	2.33	0.62
16:2U:83:LEU:HA	16:2U:86:ALA:HB3	1.82	0.62
32:2a:130:A:N3	32:2a:263:A:O2'	2.29	0.62
1:1A:1028:A:H61	1:1A:1125:G:H2'	1.65	0.61
1:1A:1300:U:H4'	1:1A:1301:A:H5"	1.80	0.61
6:1G:110:ALA:O	6:1G:113:ARG:N	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:54:THR:O	38:1g:56:GLN:N	2.31	0.61
34:2c:164:ARG:HG2	34:2c:165:THR:H	1.65	0.61
1:1A:2028:U:O4	60:1A:3951:HOH:O	2.13	0.61
7:1H:24:VAL:HG21	7:1H:72:ILE:HD13	1.81	0.61
47:1p:22:THR:HA	47:1p:33:ILE:HG13	1.83	0.61
14:2S:14:VAL:HG21	14:2S:89:ARG:HG2	1.82	0.61
32:2a:447:G:O6	32:2a:485:G:O2'	2.14	0.61
32:2a:457:C:H2'	32:2a:458:C:H6	1.65	0.61
32:2a:543:C:OP2	35:2d:10:ARG:NH2	2.34	0.61
43:2l:11:VAL:HG11	48:2q:36:ILE:HG21	1.82	0.61
32:1a:107:G:N7	51:1t:15:ARG:NH2	2.47	0.61
33:1b:112:VAL:HG12	33:1b:149:LEU:HD22	1.83	0.61
35:1d:98:GLU:OE1	35:1d:103:ASN:ND2	2.32	0.61
21:2Z:171:ILE:HD12	21:2Z:172:ALA:H	1.66	0.61
25:23:8:LEU:HG	25:23:31:LEU:HD23	1.81	0.61
1:1A:272(G):C:H42	1:1A:363(C):G:H1	1.47	0.61
34:1c:6:HIS:HD2	34:1c:8:ILE:H	1.48	0.61
1:2A:1270:C:H5"	1:2A:1271:G:H5'	1.83	0.61
12:1Q:57:HIS:HD2	12:1Q:117:ALA:HB2	1.64	0.61
19:1X:5:TYR:CZ	24:12:30:ARG:HB2	2.35	0.61
1:2A:2788:C:OP1	4:2E:61:ARG:NH2	2.33	0.61
10:2O:63:VAL:HG12	10:2O:106:LEU:HD11	1.82	0.61
28:26:6:ARG:NH1	28:26:26:ASN:HB2	2.15	0.61
1:1A:1342:A:O2'	1:1A:1344:G:OP2	2.17	0.61
32:1a:159:G:O2'	32:1a:161:A:N7	2.29	0.61
4:2E:28:ALA:HB3	4:2E:93:VAL:HG12	1.83	0.61
11:2P:59:LEU:HD11	30:28:10:ALA:HB2	1.81	0.61
41:2j:30:SER:O	41:2j:81:THR:OG1	2.19	0.61
42:2k:21:ILE:HB	42:2k:84:VAL:HA	1.82	0.61
26:14:44:THR:O	26:14:46:GLN:N	2.34	0.61
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.16	0.61
35:1d:23:GLY:HA3	35:1d:112:VAL:HG12	1.81	0.61
40:1i:113:LYS:NZ	40:1i:119:ALA:O	2.34	0.61
35:2d:112:VAL:H	35:2d:116:GLN:HE21	1.48	0.61
1:1A:2171:A:HO2'	1:1A:2172:U:H6	1.49	0.61
15:1T:31:SER:OG	15:1T:85:LYS:NZ	2.24	0.61
32:1a:45:U:H2'	32:1a:46:G:C8	2.36	0.61
40:1i:128:ARG:NH1	54:1x:35:A:OP1	2.34	0.61
44:1m:90:LEU:HD23	44:1m:93:ARG:HD2	1.81	0.61
1:2A:2166:G:H3'	1:2A:2167:U:H5"	1.83	0.61
32:2a:9:G:H2'	32:2a:10:A:H8	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:127:G:N2	48:2q:61:GLU:OE2	2.34	0.61
33:2b:74:LYS:O	33:2b:78:GLN:HG2	2.00	0.61
1:1A:1062:G:H8	1:1A:1070:A:H4'	1.66	0.61
1:1A:1141:U:OP2	9:1N:63:THR:OG1	2.19	0.61
1:1A:1316:U:H2'	1:1A:1317:A:C8	2.36	0.61
1:1A:2142:C:O2	1:1A:2149:G:N1	2.34	0.61
7:1H:3:ARG:HG2	7:1H:6:ARG:HE	1.65	0.61
14:1S:34:HIS:ND1	14:1S:53:SER:OG	2.32	0.61
18:1W:41:LYS:HZ2	27:15:25:LEU:HD11	1.66	0.61
32:1a:1036:G:H3'	32:1a:1037:C:C6	2.35	0.61
33:1b:88:ALA:O	33:1b:226:ARG:NH1	2.34	0.61
5:2F:124:LEU:HB3	5:2F:193:VAL:HG22	1.83	0.61
6:2G:171:ALA:O	6:2G:175:LEU:N	2.33	0.61
1:1A:573:G:O2'	1:1A:574:C:H3'	2.01	0.61
1:1A:624:C:O2'	1:1A:657:U:OP1	2.18	0.61
1:1A:1683:C:H2'	1:1A:1684:C:H6	1.66	0.61
1:1A:2238:G:OP2	60:1A:3971:HOH:O	2.16	0.61
1:1A:2526:G:H5'	1:1A:2742:C:O2'	2.01	0.61
32:1a:972:C:OP2	41:1j:57:LYS:NZ	2.32	0.61
2:2B:42:C:O2'	6:2G:67:LYS:O	2.11	0.61
32:2a:966:M2G:HM22	54:2x:34:C:H5'	1.83	0.61
32:2a:1376:U:H2'	32:2a:1377:A:C8	2.36	0.61
32:2a:1378:C:O2	38:2g:76:ARG:NH2	2.34	0.61
50:2s:27:GLU:HB2	50:2s:28:LYS:HA	1.83	0.61
32:1a:1191:A:H5"	34:1c:4:LYS:HE3	1.83	0.60
40:1i:17:VAL:HG23	40:1i:63:ILE:HG12	1.83	0.60
46:1o:55:GLY:HA2	46:1o:58:MET:HE3	1.82	0.60
1:2A:11:G:H2'	1:2A:12:U:H5'	1.83	0.60
1:2A:2156:G:H2'	1:2A:2157:G:C6	2.36	0.60
3:2D:85:ASP:OD2	3:2D:88:ARG:NH1	2.34	0.60
1:1A:995:C:H5"	16:1U:54:LYS:HG2	1.83	0.60
4:1E:9:VAL:HG22	4:1E:25:VAL:HB	1.83	0.60
33:1b:21:ARG:H	33:1b:21:ARG:HD3	1.65	0.60
34:1c:82:GLU:OE2	34:1c:85:ARG:NH1	2.33	0.60
1:2A:1815:A:OP2	3:2D:54:ARG:NH2	2.34	0.60
5:2F:107:LYS:HG3	5:2F:206:ILE:HG22	1.81	0.60
24:22:14:ARG:HA	24:22:63:VAL:HG11	1.82	0.60
32:2a:835:U:H3	32:2a:851:G:H1	1.49	0.60
32:2a:946:A:H2'	32:2a:947:G:C8	2.36	0.60
32:2a:1109:C:H2'	32:2a:1110:A:O4'	2.00	0.60
32:2a:1318:A:H1'	50:2s:37:ARG:CZ	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:2p:59:TRP:HA	47:2p:62:VAL:HG12	1.82	0.60
1:1A:729:G:OP2	3:1D:13:ARG:NH2	2.26	0.60
1:1A:2511:U:O2'	4:1E:138:PRO:O	2.15	0.60
15:1T:26:ASP:OD1	15:1T:120:ARG:NH2	2.34	0.60
49:1r:21:LYS:NZ	49:1r:54:ARG:O	2.30	0.60
1:2A:1202:C:H42	1:2A:1243:G:H1	1.48	0.60
1:2A:1697:G:OP2	1:2A:1698:A:O2'	2.13	0.60
4:2E:2:LYS:NZ	4:2E:95:ILE:O	2.34	0.60
32:2a:1004:A:N6	32:2a:1037:C:H1'	2.15	0.60
33:2b:118:LEU:HD11	33:2b:138:LEU:HD22	1.82	0.60
48:2q:45:HIS:HB2	48:2q:65:ILE:HD13	1.84	0.60
1:1A:1329:U:H5"	1:1A:1330:C:H5	1.66	0.60
12:1Q:17:LEU:HD13	12:1Q:39:PRO:HB2	1.83	0.60
32:1a:102:G:O2'	32:1a:151:A:N3	2.26	0.60
1:2A:307:G:H21	1:2A:330:A:H62	1.48	0.60
11:2P:121:LYS:HG2	11:2P:122:PRO:HD2	1.83	0.60
12:2Q:26:TYR:HD1	12:2Q:28:ALA:HB2	1.64	0.60
32:2a:262:A:H2'	32:2a:263:A:C8	2.36	0.60
44:2m:15:VAL:HG12	44:2m:45:VAL:HG22	1.82	0.60
1:1A:2156:G:OP2	1:1A:2156:G:H8	1.85	0.60
1:2A:302:C:H42	1:2A:315:G:H1	1.49	0.60
11:2P:84:ASN:CG	11:2P:117:GLU:HB2	2.25	0.60
1:1A:228:A:H8	1:1A:229:A:H5'	1.66	0.60
11:1P:126:VAL:HG12	11:1P:148:LEU:HD23	1.83	0.60
32:1a:616:G:OP2	35:1d:141:ARG:NH1	2.34	0.60
1:2A:892:G:H2'	1:2A:893:C:H4'	1.83	0.60
15:2T:119:LYS:HG2	15:2T:123:GLN:HE21	1.67	0.60
32:2a:972:C:O2'	41:2j:55:LYS:O	2.19	0.60
32:2a:1273:G:H3'	32:2a:1274:G:H8	1.66	0.60
35:2d:94:LEU:HA	35:2d:97:LEU:HB2	1.83	0.60
1:2A:27:G:O2'	1:2A:28:A:OP2	2.19	0.60
4:2E:120:TRP:CD1	4:2E:155:LYS:HB3	2.36	0.60
5:1F:167:ALA:HA	5:1F:170:LEU:HD23	1.82	0.60
14:1S:28:VAL:HG11	14:1S:98:VAL:HG13	1.82	0.60
30:18:33:ASN:HA	30:18:36:LYS:HD2	1.84	0.60
32:1a:1108:G:O6	60:1a:1802:HOH:O	2.15	0.60
32:1a:1117:G:H21	32:1a:1180:A:H1'	1.65	0.60
33:1b:204:ASN:OD1	33:1b:206:ASP:N	2.34	0.60
35:1d:173:TRP:HA	35:1d:187:ARG:HE	1.67	0.60
1:2A:859:G:N2	1:2A:917:A:OP2	2.35	0.60
1:2A:2730:C:O2'	4:2E:168:MET:O	2.17	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:90:LYS:HD3	7:2H:159:GLU:HG2	1.84	0.60
14:2S:8:GLU:HA	14:2S:11:LYS:HG3	1.84	0.60
21:2Z:55:HIS:HE1	21:2Z:135:GLU:HG3	1.67	0.60
32:2a:1348:U:H2'	32:2a:1349:A:H8	1.65	0.60
44:2m:107:ALA:HB3	44:2m:111:LYS:HE3	1.83	0.60
1:1A:2849:U:O2'	60:1A:3972:HOH:O	2.16	0.60
5:1F:32:LEU:HB3	5:1F:112:MET:HE1	1.84	0.60
18:1W:10:VAL:HG12	18:1W:12:ILE:HG22	1.83	0.60
32:1a:942:G:H21	40:1i:124:GLN:NE2	2.00	0.60
34:1c:20:SER:OG	34:1c:40:ARG:NH2	2.27	0.60
13:2R:97:VAL:HG22	13:2R:114:VAL:HG22	1.84	0.60
32:2a:1027:C:O2'	32:2a:1034:G:N2	2.32	0.60
32:2a:1226:C:OP2	44:2m:91:ARG:NH1	2.35	0.60
33:2b:18:GLY:HA2	33:2b:42:ILE:HD12	1.83	0.60
33:2b:24:TRP:CE3	33:2b:40:HIS:HE1	2.20	0.60
34:2c:112:SER:HB3	34:2c:115:LEU:HD22	1.84	0.60
1:1A:1264:G:OP1	27:15:19:ARG:NH2	2.34	0.60
18:1W:86:LEU:HD22	18:1W:96:ILE:HD11	1.84	0.60
32:1a:738:C:H5"	37:1f:69:GLU:HB2	1.83	0.60
32:1a:864:A:H2'	32:1a:865:A:C8	2.36	0.60
1:2A:2342:C:O2'	1:2A:2374:C:OP1	2.20	0.60
2:2B:42:C:O2	6:2G:93:THR:N	2.22	0.60
12:2Q:43:THR:N	12:2Q:46:GLN:OE1	2.31	0.60
17:2V:25:LEU:H	17:2V:92:THR:HG1	1.50	0.60
32:2a:730:G:C5	32:2a:731:G:H1'	2.37	0.60
35:2d:18:LYS:NZ	35:2d:31:CYS:SG	2.75	0.60
44:2m:4:ILE:HG23	44:2m:5:ALA:H	1.67	0.60
50:2s:31:ILE:HD12	50:2s:49:ILE:HG22	1.83	0.60
1:1A:1833:U:O2'	1:1A:1969:A:N1	2.33	0.59
6:1G:16:ARG:O	6:1G:20:ILE:HG13	2.02	0.59
44:1m:15:VAL:HG23	44:1m:34:LEU:HD21	1.82	0.59
6:2G:11:TYR:HA	6:2G:15:VAL:HB	1.83	0.59
30:28:33:ASN:HA	30:28:36:LYS:HD2	1.83	0.59
1:1A:1093:G:H3'	1:1A:1094:U:H5"	1.83	0.59
1:2A:751:A:OP1	60:2A:3735:HOH:O	2.17	0.59
1:2A:1497:U:H5"	1:2A:1498:C:H5	1.66	0.59
7:2H:154:PRO:HB3	7:2H:163:TYR:CZ	2.37	0.59
32:2a:890:G:O2'	32:2a:906:G:O6	2.17	0.59
24:12:25:VAL:HG13	24:12:57:ILE:HG23	1.83	0.59
36:1e:78:HIS:CD2	39:1h:104:ARG:HH11	2.21	0.59
1:2A:144:C:H5'	19:2X:2:LYS:HE2	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:22:GLY:N	40:2i:58:HIS:O	2.36	0.59
40:2i:50:LEU:HD13	40:2i:56:LEU:HA	1.84	0.59
1:1A:214:G:O2'	1:1A:216:A:O2'	2.18	0.59
1:1A:1930:G:O2'	1:1A:1968:G:O6	2.17	0.59
1:1A:2074:U:H2'	1:1A:2075:U:C6	2.37	0.59
1:1A:2125:G:N1	1:1A:2172:U:OP1	2.26	0.59
1:1A:2291:U:OP1	1:1A:2380:C:O2'	2.20	0.59
8:1I:76:THR:HG22	8:1I:141:LYS:HE2	1.84	0.59
32:1a:221:C:H2'	32:1a:222:U:H6	1.67	0.59
32:1a:1309:G:OP2	44:1m:99:ARG:NH1	2.35	0.59
33:1b:51:LEU:HD23	33:1b:201:ILE:HD12	1.84	0.59
36:1e:148:VAL:HG21	39:1h:107:LEU:HB3	1.84	0.59
42:1k:48:ILE:HD12	42:1k:63:LEU:HB2	1.83	0.59
1:2A:1149:G:H2'	1:2A:1150:C:H6	1.67	0.59
1:2A:2127:G:O6	1:2A:2161:C:C4	2.54	0.59
1:2A:2197:U:H1'	1:2A:2198:A:C8	2.38	0.59
10:2O:73:ASP:HB2	15:2T:82:LEU:HD13	1.84	0.59
16:2U:28:ARG:NH1	16:2U:38:THR:OG1	2.35	0.59
32:2a:1239:A:H4'	32:2a:1240:U:H5'	1.85	0.59
1:1A:2228:G:O6	60:1A:3969:HOH:O	2.16	0.59
5:1F:32:LEU:HD11	5:1F:105:VAL:HG13	1.84	0.59
21:1Z:73:GLN:NE2	21:1Z:75:ASN:OD1	2.34	0.59
1:2A:987:G:O2'	1:2A:1000:A:N3	2.34	0.59
6:2G:18:GLU:OE2	6:2G:21:ARG:NH2	2.35	0.59
10:2O:76:ALA:O	15:2T:74:ARG:HG3	2.03	0.59
17:2V:60:GLU:HB2	17:2V:97:LYS:HD3	1.84	0.59
28:26:11:LEU:HD12	28:26:21:TYR:HB2	1.85	0.59
32:2a:1015:A:O2'	45:2n:15:LYS:NZ	2.35	0.59
33:2b:211:ILE:O	33:2b:215:LEU:HB3	2.03	0.59
1:1A:1794:U:H2'	1:1A:1795:C:C6	2.37	0.59
11:1P:82:GLY:HA2	11:1P:113:LYS:O	2.03	0.59
11:1P:91:PHE:O	11:1P:121:LYS:NZ	2.35	0.59
32:1a:542:G:O3'	35:1d:14:ARG:NH2	2.34	0.59
21:2Z:125:LEU:HG	21:2Z:164:ALA:HB3	1.84	0.59
32:2a:165:C:H2'	32:2a:166:G:H8	1.67	0.59
32:2a:1370:G:N7	40:2i:109:VAL:HG11	2.18	0.59
33:2b:200:ILE:HG22	33:2b:202:PRO:HD3	1.84	0.59
32:1a:689:C:OP1	42:1k:27:ASN:ND2	2.34	0.59
42:1k:15:ALA:HA	42:1k:77:MET:HA	1.83	0.59
1:2A:362:U:O2'	1:2A:363:G:H5'	2.02	0.59
6:2G:114:ILE:HA	6:2G:140:ILE:HD11	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:9:ARG:H	40:2i:79:LEU:HD23	1.68	0.59
1:1A:194:G:OP2	60:1A:3973:HOH:O	2.16	0.59
28:16:14:THR:O	28:16:17:LYS:NZ	2.35	0.59
33:1b:212:GLN:O	33:1b:216:SER:OG	2.14	0.59
1:2A:8:A:H2'	1:2A:9:U:C6	2.38	0.59
32:2a:259:G:H1	32:2a:267:C:H42	1.49	0.59
35:2d:3:ARG:HD3	35:2d:118:ARG:NE	2.17	0.59
37:2f:79:LEU:HB3	37:2f:88:VAL:HG21	1.83	0.59
50:2s:53:ASN:OD1	50:2s:54:GLY:N	2.35	0.59
20:1Y:86:ARG:HG3	20:1Y:98:VAL:HG23	1.84	0.59
32:1a:715:A:H2'	32:1a:716:A:C8	2.38	0.59
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.83	0.59
1:2A:1541:G:H3'	1:2A:1542:A:H8	1.67	0.59
1:2A:1937:A:H1'	1:2A:1939:5MU:H72	1.85	0.59
1:2A:2010:G:O6	60:2A:3731:HOH:O	2.16	0.59
4:2E:14:ILE:HG13	4:2E:21:VAL:HG13	1.85	0.59
32:2a:737:A:H2'	32:2a:738:C:C6	2.38	0.59
32:2a:1151:A:O2'	32:2a:1152:A:O5'	2.20	0.59
36:2e:105:VAL:HB	36:2e:106:PRO:HD3	1.85	0.59
1:1A:1187:G:N2	1:1A:1188:U:O4	2.36	0.59
1:1A:1653:G:H3'	13:1R:2:ARG:HD3	1.85	0.59
7:1H:64:LEU:O	7:1H:68:THR:OG1	2.17	0.59
26:14:34:GLU:HG2	26:14:35:VAL:HG12	1.84	0.59
32:1a:165:C:H2'	32:1a:166:G:H8	1.66	0.59
6:2G:17:PRO:HA	6:2G:20:ILE:HD12	1.85	0.59
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.85	0.59
32:2a:148:G:H2'	32:2a:149:A:C8	2.37	0.59
32:2a:1058:G:H1	32:2a:1199:U:H3	1.50	0.59
33:2b:121:LEU:HD21	33:2b:130:ARG:HH12	1.67	0.59
51:2t:16:HIS:O	51:2t:19:SER:OG	2.21	0.59
1:1A:2133:G:H21	1:1A:2134:A:H62	1.51	0.58
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.68	0.58
1:2A:2294:C:P	14:2S:89:ARG:HH22	2.26	0.58
18:2W:71:VAL:HA	18:2W:107:LEU:HD12	1.84	0.58
26:24:61:ARG:O	26:24:61:ARG:NH1	2.36	0.58
32:2a:1259:C:N4	32:2a:1260:C:O2	2.36	0.58
1:1A:1359:A:H2'	1:1A:1360:A:H5'	1.85	0.58
1:1A:2062:A:OP1	60:1A:3968:HOH:O	2.16	0.58
7:1H:40:GLU:OE2	7:1H:61:HIS:NE2	2.33	0.58
20:1Y:92:ASN:HB3	20:1Y:94:LYS:H	1.68	0.58
1:2A:1474:C:H2'	1:2A:1475:G:H8	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2104:G:H1	1:2A:2185:C:N4	1.99	0.58
5:2F:51:THR:OG1	5:2F:92:PRO:O	2.20	0.58
32:2a:269:C:H2'	32:2a:270:A:C8	2.37	0.58
32:2a:673:G:H2'	32:2a:674:G:C8	2.38	0.58
1:1A:631:A:OP1	11:1P:65:ARG:NH1	2.29	0.58
1:1A:1774:C:OP1	60:1A:3974:HOH:O	2.16	0.58
1:1A:2206:G:H5"	1:1A:2207:G:N7	2.18	0.58
1:1A:2711:A:OP1	60:1A:3976:HOH:O	2.17	0.58
1:1A:2857:G:N2	1:1A:2860:A:OP2	2.35	0.58
32:1a:667:G:H4'	46:1o:51:HIS:ND1	2.18	0.58
36:1e:40:ARG:HH11	36:1e:68:GLU:HA	1.68	0.58
1:2A:1486:A:H2'	1:2A:1487:G:H8	1.68	0.58
32:2a:1312:G:H5'	50:2s:5:LEU:HD11	1.85	0.58
3:1D:108:PRO:HB3	3:1D:143:HIS:CE1	2.38	0.58
7:1H:46:GLU:HB2	7:1H:49:VAL:HG12	1.84	0.58
15:1T:16:ARG:NH1	15:1T:83:ILE:O	2.26	0.58
32:1a:1128:C:O2'	32:1a:1147:C:N3	2.36	0.58
38:1g:46:ALA:HA	38:1g:49:ILE:HD12	1.85	0.58
46:1o:82:ILE:HD12	46:1o:88:ARG:HB2	1.84	0.58
47:1p:4:ILE:HB	47:1p:66:PRO:HA	1.85	0.58
8:2I:92:VAL:HG13	8:2I:120:ILE:HB	1.84	0.58
32:2a:962:C:H2'	32:2a:963:G:H8	1.68	0.58
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.39	0.58
23:11:23:LYS:HB3	23:11:29:GLY:HA3	1.86	0.58
32:1a:952:U:H2'	32:1a:953:G:C8	2.38	0.58
33:1b:28:PHE:CD2	33:1b:190:THR:HA	2.38	0.58
1:2A:192:C:O2'	1:2A:802:A:N3	2.34	0.58
1:2A:1183:G:H5"	25:23:30:ARG:NH2	2.18	0.58
1:2A:1651:G:H5'	13:2R:39:PRO:HG2	1.84	0.58
8:2I:31:LEU:HD21	8:2I:38:LEU:HG	1.85	0.58
32:2a:834:C:H2'	32:2a:835:U:C6	2.38	0.58
32:2a:1273:G:H3'	32:2a:1274:G:C8	2.39	0.58
32:2a:1481:U:H2'	32:2a:1482:G:H8	1.68	0.58
36:2e:78:HIS:CD2	39:2h:104:ARG:HH11	2.22	0.58
39:2h:6:ILE:HB	39:2h:85:ARG:NH1	2.19	0.58
1:1A:526:A:OP1	60:1A:3908:HOH:O	2.17	0.58
1:1A:880:G:H22	1:1A:898:C:N4	2.00	0.58
1:1A:2364:C:H2'	1:1A:2365:G:O4'	2.04	0.58
2:1B:106:G:H5'	21:1Z:31:ARG:HG2	1.85	0.58
3:1D:37:LEU:HD13	3:1D:62:TYR:HB2	1.85	0.58
1:2A:1406:U:H2'	1:2A:1407:C:C6	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:60:C:H2'	2:2B:61:G:C8	2.37	0.58
27:25:20:ARG:HA	27:25:23:HIS:CD2	2.39	0.58
32:2a:1053:G:N7	32:2a:1200:C:H5"	2.19	0.58
38:2g:66:VAL:HG12	38:2g:70:LYS:HE3	1.85	0.58
40:2i:97:LYS:HA	40:2i:102:LEU:HG	1.86	0.58
1:1A:2066:C:OP2	60:1A:3975:HOH:O	2.17	0.58
1:1A:2136:C:N3	1:1A:2155:G:N2	2.52	0.58
32:1a:814:A:H2'	32:1a:816:A:H5"	1.86	0.58
32:1a:1037:C:H2'	32:1a:1038:C:H6	1.68	0.58
1:2A:2404:C:O3'	11:2P:77:ARG:NH2	2.35	0.58
32:2a:677:U:H3	32:2a:713:G:H22	1.52	0.58
41:2j:16:LEU:HD22	41:2j:94:VAL:HG13	1.85	0.58
44:2m:31:LYS:HA	44:2m:34:LEU:HD12	1.85	0.58
49:2r:52:PRO:HB2	49:2r:54:ARG:HG2	1.86	0.58
1:1A:93:G:H2'	1:1A:94:C:C6	2.38	0.58
1:1A:2742:C:H5"	31:19:1:MET:HE3	1.85	0.58
7:1H:20:ALA:HB3	7:1H:23:ARG:HG3	1.85	0.58
10:1O:64:ARG:HD3	10:1O:79:PHE:CD1	2.38	0.58
32:1a:184:G:H2'	32:1a:185:A:H8	1.68	0.58
1:2A:1792:G:O2'	1:2A:1830:C:OP1	2.21	0.58
1:2A:1972:A:H2'	1:2A:1973:G:H8	1.67	0.58
1:2A:2751:G:H5'	7:2H:2:SER:HA	1.84	0.58
32:2a:600:C:H2'	32:2a:601:C:C6	2.39	0.58
32:2a:619:U:N3	35:2d:134:ASP:OD1	2.32	0.58
32:2a:826:C:H4'	39:2h:12:ARG:HG2	1.86	0.58
32:2a:975:A:N6	32:2a:1367:C:O4'	2.36	0.58
32:2a:1150:U:H4'	41:2j:41:PRO:HG3	1.85	0.58
1:1A:2462:U:H1'	1:1A:2491:U:O4	2.03	0.58
5:1F:11:VAL:HB	5:1F:18:ARG:HG3	1.85	0.58
1:2A:527:C:N4	1:2A:2779:U:OP2	2.37	0.58
1:2A:578:A:OP2	60:2A:3734:HOH:O	2.17	0.58
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.19	0.58
1:2A:2299:G:H2'	1:2A:2300:G:H8	1.69	0.58
32:2a:189(K):U:H2'	32:2a:189(L):G:C8	2.39	0.58
44:2m:79:LYS:NZ	44:2m:83:ASP:OD2	2.29	0.58
46:2o:82:ILE:HD12	46:2o:88:ARG:HB2	1.86	0.58
1:1A:321:G:OP1	5:1F:135:LYS:NZ	2.32	0.58
1:1A:516:C:OP1	27:15:13:LYS:NZ	2.29	0.58
1:1A:1074:G:C2	1:1A:1075:C:H1'	2.39	0.58
1:1A:2115:G:H21	1:1A:2171:A:H61	1.52	0.58
10:1O:35:VAL:HG11	10:1O:103:ALA:HB3	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:61:LYS:NZ	35:1d:72:GLU:OE1	2.37	0.58
41:1j:78:ASN:O	41:1j:80:LYS:N	2.36	0.58
1:2A:29:U:OP1	16:2U:5:LYS:NZ	2.30	0.58
1:2A:1482:G:H1	1:2A:1506:C:H42	1.51	0.58
9:2N:38:HIS:CE1	9:2N:39:ARG:HG3	2.39	0.58
32:2a:1040:U:H2'	32:2a:1041:A:C8	2.39	0.58
33:2b:137:ARG:O	33:2b:141:GLU:N	2.34	0.58
1:1A:848:G:O6	1:1A:928:G:H2'	2.04	0.57
6:1G:15:VAL:HG22	6:1G:175:LEU:HB3	1.86	0.57
24:12:41:ILE:HG13	24:12:43:GLN:HG3	1.86	0.57
32:1a:1323:G:H2'	32:1a:1324:A:C8	2.38	0.57
32:1a:1503:A:O2'	53:1v:13:A:N1	2.37	0.57
32:2a:64:G:H4'	32:2a:65:U:H3'	1.85	0.57
32:2a:1347:G:HO2'	32:2a:1373:G:H1	1.51	0.57
1:1A:2131:G:H5'	1:1A:2133:G:C8	2.39	0.57
7:1H:9:ILE:HB	7:1H:50:VAL:HG12	1.85	0.57
32:1a:648:A:H2'	32:1a:649:G:H8	1.69	0.57
32:1a:1028:C:H2'	32:1a:1029:C:O4'	2.04	0.57
33:1b:174:VAL:O	33:1b:178:ARG:HG2	2.03	0.57
1:2A:184:C:H2'	1:2A:185:U:C6	2.39	0.57
28:26:33:LYS:HD3	28:26:51:GLU:HG2	1.85	0.57
32:2a:90:U:H2'	32:2a:91:C:C6	2.38	0.57
32:2a:125:U:H2'	32:2a:126:G:C8	2.38	0.57
32:2a:882:C:OP2	43:2l:13:LYS:NZ	2.37	0.57
32:1a:363:A:OP2	43:1l:34:ARG:NH1	2.37	0.57
1:2A:2137:C:N4	1:2A:2154:G:N1	2.37	0.57
1:2A:2666:C:H3'	1:2A:2667:C:C6	2.39	0.57
1:2A:2711:A:OP2	60:2A:3737:HOH:O	2.18	0.57
2:2B:14:U:O3'	2:2B:108:U:O2'	2.20	0.57
4:2E:36:ARG:HG2	4:2E:47:VAL:HG12	1.85	0.57
6:2G:75:LYS:HE3	6:2G:77:ILE:HD11	1.84	0.57
14:2S:34:HIS:ND1	14:2S:53:SER:OG	2.25	0.57
32:2a:1187:G:H5"	40:2i:113:LYS:HD3	1.86	0.57
39:2h:120:THR:H	39:2h:123:GLU:HB2	1.69	0.57
1:1A:29:U:H2'	1:1A:30:G:C8	2.40	0.57
2:1B:49:C:H2'	2:1B:50:G:H8	1.69	0.57
6:1G:150:ASP:OD1	6:1G:150:ASP:N	2.36	0.57
32:1a:142:G:H2'	32:1a:143:A:H8	1.69	0.57
40:1i:21:PRO:HA	40:1i:59:PHE:HA	1.86	0.57
1:2A:271(R):G:OP1	23:21:76:ARG:NH1	2.35	0.57
1:2A:1266:G:O2'	1:2A:2012:G:O6	2.16	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:2S:41:ASP:OD2	14:2S:44:LYS:NZ	2.37	0.57
25:23:4:LEU:N	25:23:37:LEU:O	2.37	0.57
54:2x:75:C:OP1	60:2x:201:HOH:O	2.17	0.57
1:1A:242:G:O2'	1:1A:254:G:O6	2.20	0.57
5:1F:12:LEU:HB3	5:1F:126:VAL:HG12	1.87	0.57
10:1O:53:LYS:HG3	10:1O:56:ASP:OD1	2.04	0.57
32:1a:1292:U:OP2	38:1g:41:ARG:NH2	2.38	0.57
1:2A:1449:A:O2'	1:2A:1529:G:N2	2.33	0.57
4:2E:5:LEU:HD11	4:2E:79:ARG:HB2	1.85	0.57
32:2a:182:U:C4	32:2a:183:G:H1'	2.39	0.57
32:2a:1004:A:N6	32:2a:1037:C:O2	2.32	0.57
32:2a:1330:U:H5"	44:2m:23:TYR:HA	1.87	0.57
35:2d:88:VAL:HG13	36:2e:97:GLY:HA2	1.85	0.57
1:1A:7:G:H2'	1:1A:8:A:C8	2.39	0.57
1:1A:551:G:O2'	1:1A:1220:A:N3	2.35	0.57
1:1A:1786:A:H1'	1:1A:1938:A:N6	2.20	0.57
1:1A:2705:A:O2'	1:1A:2852:G:OP1	2.12	0.57
4:1E:109:LYS:O	4:1E:111:ARG:NH1	2.37	0.57
13:1R:104:ARG:HD2	13:1R:109:ALA:HB3	1.87	0.57
24:12:28:LYS:HD3	24:12:53:LEU:HD21	1.86	0.57
43:1l:70:ILE:HG12	43:1l:100:ILE:HD12	1.86	0.57
14:2S:99:LYS:O	14:2S:103:GLU:N	2.31	0.57
20:2Y:81:LYS:HD2	20:2Y:101:LYS:HD3	1.87	0.57
32:2a:1279:A:O2'	32:2a:1281:U:OP2	2.22	0.57
41:2j:33:GLN:HG3	41:2j:34:VAL:H	1.68	0.57
1:1A:1028:A:N6	1:1A:1125:G:H2'	2.20	0.57
1:1A:1188:U:H4'	17:1V:79:VAL:HG22	1.85	0.57
1:1A:1338:G:N7	19:1X:62:LYS:NZ	2.51	0.57
1:1A:1669:A:OP2	60:1A:3977:HOH:O	2.17	0.57
1:1A:1803:A:O2'	3:1D:259:THR:HG21	2.05	0.57
1:1A:1889:A:H2'	1:1A:1890:A:C8	2.40	0.57
8:1I:132:PRO:HG3	8:1I:138:ILE:HD11	1.86	0.57
32:1a:542:G:H5'	35:1d:41:GLY:HA3	1.85	0.57
32:1a:648:A:H2'	32:1a:649:G:C8	2.39	0.57
55:1z:14:ARG:HA	55:1z:14:ARG:NE	2.19	0.57
1:2A:506:G:O3'	1:2A:507:A:H8	1.87	0.57
1:2A:2110:G:O6	1:2A:2179:C:N3	2.37	0.57
3:2D:166:GLN:HB2	3:2D:174:ILE:HG22	1.85	0.57
32:2a:1129:C:H2'	32:2a:1139:G:N7	2.19	0.57
32:2a:1228:C:H4'	44:2m:116:THR:HA	1.86	0.57
34:2c:85:ARG:O	34:2c:89:GLU:N	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2304:G:H22	1:1A:2312:U:H3	1.52	0.57
8:1I:9:LEU:HD23	8:1I:12:LEU:HD23	1.87	0.57
12:1Q:12:GLN:H	12:1Q:73:PRO:HG2	1.69	0.57
32:1a:598:U:H4'	39:1h:94:TYR:CG	2.40	0.57
32:1a:742:G:OP2	46:1o:35:ARG:NH2	2.33	0.57
32:1a:1296:C:OP1	44:1m:44:ARG:NH2	2.38	0.57
33:1b:168:THR:OG1	33:1b:192:SER:HA	2.04	0.57
1:2A:1131:G:H4'	9:2N:82:LEU:HB2	1.86	0.57
7:2H:3:ARG:NH1	7:2H:4:ILE:H	2.01	0.57
15:2T:105:LEU:HD22	15:2T:109:GLU:HB3	1.87	0.57
33:2b:24:TRP:CD1	33:2b:24:TRP:H	2.22	0.57
35:2d:112:VAL:H	35:2d:116:GLN:NE2	2.01	0.57
1:1A:2153:G:H2'	1:1A:2154:G:C8	2.39	0.57
1:1A:2312:U:H5'	6:1G:88:ILE:HD11	1.86	0.57
32:1a:1427:U:H2'	32:1a:1428:A:C8	2.39	0.57
1:2A:2137:C:N4	1:2A:2155:G:O6	2.38	0.57
1:2A:2292:C:OP1	14:2S:17:ARG:NH2	2.35	0.57
7:2H:43:VAL:HG12	7:2H:52:VAL:HG22	1.85	0.57
21:2Z:65:GLN:HB3	21:2Z:67:LEU:HD13	1.85	0.57
32:2a:934:C:O2	32:2a:937:A:N6	2.36	0.57
1:1A:971:C:H2'	1:1A:972:G:O4'	2.05	0.57
1:1A:1464:C:H2'	1:1A:1465:G:C8	2.40	0.57
1:1A:2502:G:OP2	60:1A:3978:HOH:O	2.17	0.57
32:1a:543:C:P	35:1d:14:ARG:HH21	2.27	0.57
47:1p:40:ASP:HB3	47:1p:48:TRP:HB2	1.86	0.57
1:2A:1364:G:OP2	23:21:3:LYS:HG3	2.05	0.57
32:2a:222:U:H2'	32:2a:223:U:C6	2.39	0.57
44:2m:22:ILE:HD12	44:2m:25:ILE:HD12	1.86	0.57
46:2o:39:LEU:HD23	46:2o:56:LEU:HB2	1.85	0.57
1:1A:2286:A:H4'	1:1A:2287:A:O4'	2.05	0.56
32:1a:67:C:H2'	32:1a:68:G:C8	2.40	0.56
32:1a:598:U:H2'	32:1a:599:C:H6	1.70	0.56
2:2B:49:C:H2'	2:2B:50:G:C8	2.39	0.56
8:2I:78:THR:HG23	8:2I:143:SER:HB2	1.87	0.56
32:2a:1275:A:H3'	32:2a:1276:G:H8	1.69	0.56
54:2x:31:G:H3'	54:2x:32:5MC:HM53	1.86	0.56
1:1A:2136:C:N4	1:1A:2155:G:N1	2.52	0.56
2:1B:49:C:H2'	2:1B:50:G:C8	2.40	0.56
1:2A:140:G:N2	1:2A:1596:A:H4'	2.20	0.56
1:2A:212:G:H2'	1:2A:213:A:O4'	2.05	0.56
1:2A:854:G:H2'	1:2A:855:G:H8	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1607:C:N4	1:2A:1622:G:OP2	2.32	0.56
10:2O:22:ILE:HD11	10:2O:40:VAL:HG12	1.87	0.56
32:2a:1178:G:N2	32:2a:1181:G:OP2	2.33	0.56
1:1A:1183:G:O3'	25:13:29:ARG:NH1	2.37	0.56
1:1A:1865:G:N2	1:1A:1877:A:OP2	2.35	0.56
3:1D:68:LYS:HB2	3:1D:70:TRP:CE2	2.39	0.56
9:1N:21:LYS:HE3	9:1N:140:VAL:HG23	1.86	0.56
18:1W:46:PHE:O	18:1W:50:VAL:HG23	2.06	0.56
18:1W:92:ARG:NH1	60:1W:302:HOH:O	2.32	0.56
34:1c:11:ARG:NH2	34:1c:175:LEU:O	2.38	0.56
36:1e:88:LYS:HG2	36:1e:123:LEU:HB2	1.88	0.56
38:1g:78:ARG:HG2	38:1g:79:ARG:H	1.69	0.56
41:1j:57:LYS:HE2	41:1j:60:ARG:NH2	2.20	0.56
44:1m:17:VAL:O	44:1m:20:THR:OG1	2.19	0.56
1:2A:1139:G:O2'	1:2A:1143:A:N1	2.37	0.56
1:2A:1864:U:OP1	1:2A:2410:G:O2'	2.22	0.56
1:2A:1931:U:H2'	1:2A:1932:A:H8	1.71	0.56
1:2A:2187:G:H2'	1:2A:2188:C:C6	2.40	0.56
21:2Z:30:ASN:HB3	21:2Z:90:VAL:HB	1.87	0.56
21:2Z:45:ASP:O	21:2Z:49:ARG:HG2	2.06	0.56
26:24:58:ARG:HD2	50:2s:68:GLY:H	1.71	0.56
32:2a:1359:C:H3'	45:2n:35:ARG:HH22	1.71	0.56
50:2s:51:VAL:HB	50:2s:75:ALA:HB2	1.86	0.56
1:1A:1173:G:N1	1:1A:1176:G:OP2	2.39	0.56
1:1A:2369:A:H2'	1:1A:2370:G:H8	1.70	0.56
32:1a:262:A:H2'	32:1a:263:A:C8	2.40	0.56
32:1a:279:A:N6	48:1q:98:LEU:O	2.38	0.56
1:2A:1222:C:H42	1:2A:1227:G:H1	1.52	0.56
1:2A:1259:G:H2'	1:2A:1260:G:H8	1.70	0.56
1:2A:2364:C:OP1	22:20:55:ARG:NH1	2.38	0.56
12:2Q:77:LYS:HE3	12:2Q:81:VAL:HG21	1.87	0.56
22:20:10:THR:HG22	22:20:12:ASN:H	1.70	0.56
25:23:10:LYS:HB3	25:23:53:LEU:HA	1.88	0.56
32:2a:51:A:H61	32:2a:314:C:H1'	1.70	0.56
32:2a:1261:A:H62	32:2a:1273:G:H1	1.53	0.56
51:2t:67:ALA:HB2	51:2t:77:ALA:HB2	1.87	0.56
1:1A:779:U:OP1	3:1D:49:ILE:HG13	2.05	0.56
1:1A:1341:U:O4'	19:1X:57:LEU:HD23	2.05	0.56
7:1H:24:VAL:HG13	7:1H:37:VAL:HG21	1.88	0.56
9:1N:10:GLU:HG3	9:1N:11:PRO:HD2	1.87	0.56
32:1a:278:G:OP2	48:1q:92:ARG:NH2	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:639:G:H2'	32:1a:640:A:H8	1.71	0.56
32:1a:997:U:H3	32:1a:1044:A:N6	2.03	0.56
32:1a:1404:5MC:H2'	32:1a:1405:G:C8	2.41	0.56
1:2A:307:G:N2	1:2A:309:G:H3'	2.21	0.56
1:2A:479:A:H4'	1:2A:480:A:OP1	2.04	0.56
1:2A:815:C:H2'	1:2A:816:C:C6	2.41	0.56
1:2A:1005:C:O2'	9:2N:28:THR:OG1	2.12	0.56
1:2A:2264:C:N4	22:20:15:ASP:OD2	2.32	0.56
1:2A:2715:C:H2'	1:2A:2716:U:H6	1.69	0.56
7:2H:89:ILE:HB	7:2H:129:THR:HA	1.88	0.56
21:2Z:44:PHE:CZ	21:2Z:86:VAL:HG11	2.40	0.56
32:2a:1362:C:H2'	32:2a:1363:C:H5"	1.87	0.56
36:2e:24:ARG:NH2	53:2v:23:A:O2'	2.39	0.56
1:1A:336:C:O2'	20:1Y:35:TYR:OH	2.16	0.56
1:1A:685:A:H5"	1:1A:788:A:H62	1.71	0.56
1:1A:1051:G:H2'	1:1A:1052:C:O4'	2.05	0.56
1:1A:1266:G:O2'	1:1A:2012:G:O6	2.19	0.56
33:1b:28:PHE:HD1	33:1b:194:PRO:HG3	1.71	0.56
33:1b:197:VAL:O	39:1h:68:ARG:NH2	2.38	0.56
35:1d:43:HIS:HB3	35:1d:46:LYS:HD3	1.87	0.56
1:2A:848:G:H2'	1:2A:849:A:C8	2.41	0.56
1:2A:1530:C:H42	1:2A:1539:G:H1	1.53	0.56
1:2A:2511:U:O2'	4:2E:138:PRO:O	2.21	0.56
3:2D:158:ALA:O	3:2D:161:THR:OG1	2.24	0.56
5:2F:32:LEU:HD22	5:2F:112:MET:HE2	1.87	0.56
23:21:51:VAL:HG11	23:21:74:VAL:HG21	1.87	0.56
32:2a:1100:C:O2'	32:2a:1102:A:OP1	2.21	0.56
40:2i:26:VAL:HG13	40:2i:61:ALA:HB3	1.87	0.56
1:1A:2097:C:H2'	1:1A:2098:U:O4'	2.06	0.56
1:1A:2466:C:H5"	31:19:6:SER:HB2	1.85	0.56
15:1T:96:ARG:HH11	15:1T:96:ARG:HB2	1.70	0.56
33:1b:21:ARG:HB3	33:1b:39:ILE:HA	1.88	0.56
47:1p:53:VAL:HG13	47:1p:79:VAL:HG22	1.88	0.56
55:1z:9:ARG:HG3	55:1z:10:LEU:HG	1.87	0.56
32:2a:310:G:H5"	47:2p:31:LYS:HB2	1.86	0.56
32:2a:652:U:O4	32:2a:752:G:O2'	2.19	0.56
33:2b:185:ILE:HG22	33:2b:199:TYR:H	1.70	0.56
38:2g:18:TYR:HD1	38:2g:59:LEU:HD22	1.69	0.56
1:1A:271(P):C:O3'	8:1I:42:SER:OG	2.21	0.56
1:1A:1778:U:O2	60:1A:3970:HOH:O	2.16	0.56
3:1D:108:PRO:HD2	3:1D:111:LEU:HD22	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:1H:56:SER:HB3	7:1H:61:HIS:ND1	2.21	0.56
19:1X:2:LYS:NZ	19:1X:38:GLU:OE2	2.31	0.56
1:2A:2136:C:H42	1:2A:2155:G:H1	1.51	0.56
9:2N:13:TRP:CE2	9:2N:133:GLN:HG2	2.41	0.56
21:2Z:153:SER:N	21:2Z:167:PRO:O	2.34	0.56
32:2a:1305:G:H5'	52:2u:4:GLY:C	2.31	0.56
1:1A:2127:G:N2	1:1A:2173:A:H1'	2.21	0.56
32:1a:826:C:O2	39:1h:15:ASN:ND2	2.38	0.56
32:1a:1005:A:C2	32:1a:1025:U:H1'	2.41	0.56
1:2A:882:G:H2'	1:2A:883:G:H8	1.70	0.56
1:2A:1998:G:HO2'	1:2A:2724:C:HO2'	1.54	0.56
1:2A:2577:A:OP2	27:25:3:LYS:NZ	2.33	0.56
32:2a:243:A:H4'	32:2a:244:U:H5"	1.88	0.56
32:2a:1060:C:H2'	32:2a:1061:G:H8	1.69	0.56
32:1a:838:G:H1	32:1a:848:C:H42	1.54	0.56
33:1b:21:ARG:O	33:1b:23:ARG:N	2.39	0.56
35:1d:26:CYS:CB	58:1d:302:SF4:S1	2.87	0.56
44:1m:23:TYR:CE2	44:1m:71:ARG:HG3	2.41	0.56
1:2A:1169:G:H1	1:2A:1180:C:H42	1.54	0.56
1:2A:2136:C:HO2'	1:2A:2137:C:H6	1.54	0.56
3:2D:61:LEU:O	3:2D:63:ARG:NH1	2.39	0.56
32:2a:1376:U:H2'	32:2a:1377:A:H8	1.70	0.56
1:1A:1174:A:H4'	1:1A:1175:U:OP1	2.06	0.55
1:1A:1364:G:OP1	23:11:2:SER:HA	2.07	0.55
1:1A:1790:C:H5"	1:1A:1791:A:OP1	2.05	0.55
1:1A:2611:U:H2'	27:15:2:ALA:O	2.06	0.55
7:1H:101:ARG:NH2	7:1H:121:ILE:O	2.39	0.55
32:1a:1031:G:H2'	32:1a:1032:G:C8	2.41	0.55
38:1g:28:ASN:N	38:1g:28:ASN:HD22	2.04	0.55
1:2A:643:A:N1	1:2A:2369:A:O2'	2.39	0.55
1:2A:1412:A:H2'	1:2A:1413:G:C8	2.40	0.55
1:2A:2148:G:H2'	1:2A:2149:G:H8	1.70	0.55
10:2O:35:VAL:HG13	10:2O:65:THR:HG23	1.88	0.55
32:2a:1002:G:N3	32:2a:1003:G:H1'	2.21	0.55
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.41	0.55
32:2a:1270:C:OP2	52:2u:24:ARG:NH2	2.39	0.55
33:2b:88:ALA:HB2	33:2b:219:VAL:HG13	1.87	0.55
1:1A:451:C:N4	1:1A:454:A:OP2	2.28	0.55
18:1W:71:VAL:HA	18:1W:107:LEU:HD23	1.87	0.55
32:1a:316:G:OP2	32:1a:351:G:O2'	2.24	0.55
1:2A:890:A:H2'	1:2A:892:G:C8	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:923:C:H2'	1:2A:924:C:C6	2.41	0.55
1:2A:2315:G:H2'	1:2A:2316:C:C6	2.42	0.55
32:2a:90:U:H2'	32:2a:91:C:H6	1.71	0.55
32:2a:748:C:H4'	32:2a:749:C:O5'	2.06	0.55
37:2f:41:GLU:HB2	37:2f:62:TRP:HB3	1.89	0.55
4:1E:11:MET:HG2	4:1E:24:THR:HB	1.87	0.55
32:1a:738:C:H2'	32:1a:739:C:H6	1.72	0.55
34:1c:131:ARG:HE	34:1c:135:LYS:HE3	1.71	0.55
1:2A:214:G:H21	1:2A:216:A:H1'	1.71	0.55
1:2A:484:C:H2'	1:2A:485:C:H6	1.71	0.55
1:2A:1297:C:OP2	60:2A:3738:HOH:O	2.18	0.55
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.42	0.55
1:2A:1453:U:O2'	1:2A:1455:G:N7	2.39	0.55
1:2A:2848:G:C8	15:2T:97:ALA:HB2	2.41	0.55
32:2a:505:G:H2'	32:2a:506:G:C8	2.41	0.55
32:2a:1113:C:H4'	34:2c:14:ILE:HD12	1.88	0.55
32:2a:1131:G:OP1	40:2i:20:ARG:NH2	2.37	0.55
38:2g:109:ASN:OD1	38:2g:119:ARG:NH2	2.39	0.55
52:2u:2:GLY:O	52:2u:4:GLY:N	2.36	0.55
1:1A:1063:G:N2	1:1A:1076:C:O2'	2.39	0.55
11:1P:3:LEU:H	11:1P:3:LEU:HD12	1.72	0.55
12:1Q:23:GLY:O	12:1Q:25:ASP:N	2.40	0.55
18:1W:78:GLU:OE2	18:1W:99:ARG:NH1	2.32	0.55
1:2A:1394:U:O2	19:2X:16:LYS:NZ	2.38	0.55
2:2B:55:U:H1'	6:2G:29:TRP:CD1	2.41	0.55
4:2E:26:ILE:HD11	4:2E:188:VAL:HG21	1.88	0.55
32:2a:198:G:H2'	32:2a:199:G:H8	1.72	0.55
32:2a:476:G:H2'	32:2a:477:A:H8	1.71	0.55
32:2a:1278:U:H5'	32:2a:1279:A:O4'	2.06	0.55
44:2m:87:TYR:HA	44:2m:90:LEU:HD12	1.88	0.55
47:2p:74:LEU:O	47:2p:79:VAL:HG23	2.07	0.55
1:1A:924:C:H2'	1:1A:925:C:C6	2.42	0.55
1:1A:1062:G:H1'	1:1A:1088:A:N7	2.22	0.55
1:1A:2161:C:O2'	1:1A:2162:G:H8	1.89	0.55
1:1A:2679:A:H5'	4:1E:165:VAL:HG21	1.88	0.55
30:18:62:LEU:HB3	30:18:65:GLU:HG2	1.88	0.55
32:1a:7:G:O2'	36:1e:120:THR:O	2.24	0.55
38:1g:22:LEU:HG	38:1g:62:PHE:CE2	2.41	0.55
43:1l:84:LEU:HB3	43:1l:104:VAL:HG21	1.87	0.55
1:2A:925:C:H2'	1:2A:926:A:H8	1.70	0.55
1:2A:1550:C:OP1	1:2A:1720:U:O2'	2.18	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1949:G:N7	60:2A:3787:HOH:O	2.33	0.55
17:2V:56:SER:HB3	17:2V:100:ARG:HB2	1.88	0.55
32:2a:196:A:N3	32:2a:222:U:H1'	2.22	0.55
32:2a:1295:G:O2'	32:2a:1302:U:O4	2.24	0.55
34:2c:125:GLU:HB3	34:2c:190:ARG:HE	1.70	0.55
34:2c:155:GLY:HA3	34:2c:196:LEU:HD13	1.86	0.55
47:2p:71:ARG:HD3	47:2p:75:ARG:HH22	1.70	0.55
13:1R:36:THR:HG22	13:1R:37:THR:H	1.72	0.55
32:1a:598:U:H2'	32:1a:599:C:C6	2.42	0.55
32:1a:975:A:H5'	32:1a:975:A:H8	1.70	0.55
1:2A:2136:C:O2'	1:2A:2137:C:O5'	2.24	0.55
1:2A:2167:U:H2'	1:2A:2168:G:H21	1.71	0.55
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.42	0.55
3:2D:16:MET:HG3	3:2D:206:LEU:O	2.07	0.55
8:2I:105:HIS:O	8:2I:107:VAL:N	2.32	0.55
10:2O:2:ILE:HD12	10:2O:6:THR:HG21	1.89	0.55
16:2U:81:HIS:HB3	16:2U:117:GLN:HE22	1.72	0.55
32:2a:410:G:H21	32:2a:432:A:H62	1.54	0.55
32:2a:578:C:O2'	32:2a:728:A:N3	2.31	0.55
32:2a:836:G:OP1	49:2r:61:LYS:NZ	2.37	0.55
41:2j:8:LEU:HB3	41:2j:96:ILE:HG23	1.87	0.55
1:1A:443:A:H1'	1:1A:1201:C:O4'	2.06	0.55
1:1A:1484:G:H2'	1:1A:1485:G:H8	1.71	0.55
1:1A:2685:G:OP1	10:1O:78:ARG:NH2	2.30	0.55
22:10:27:GLU:HG3	22:10:68:GLU:HA	1.89	0.55
46:1o:10:LYS:HA	46:1o:13:GLN:HE21	1.71	0.55
1:2A:958:U:OP2	12:2Q:14:ARG:NH1	2.40	0.55
1:2A:1036:G:H1	1:2A:1119:C:H42	1.54	0.55
1:2A:2809:A:H2'	1:2A:2810:A:C8	2.42	0.55
6:2G:110:ALA:HB1	6:2G:140:ILE:HG23	1.89	0.55
19:2X:29:TRP:CZ3	19:2X:78:LYS:HB3	2.42	0.55
35:2d:119:GLN:HE21	35:2d:123:HIS:CD2	2.24	0.55
41:2j:37:PRO:HB3	41:2j:72:VAL:HG12	1.87	0.55
1:1A:994:C:OP1	16:1U:53:ARG:NH2	2.40	0.55
1:1A:2404:C:O3'	11:1P:77:ARG:NH2	2.40	0.55
1:1A:2712:U:O2'	1:1A:2713:A:H5'	2.07	0.55
3:2D:147:LEU:HD23	3:2D:148:GLU:HG3	1.88	0.55
5:2F:25:PRO:HD2	5:2F:115:ALA:HB2	1.88	0.55
32:2a:157:G:H1	32:2a:164:U:H3	1.55	0.55
32:2a:1277:C:O2'	32:2a:1279:A:H8	1.88	0.55
32:2a:1314:C:H2'	32:2a:1315:U:C6	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1323:G:H4'	32:2a:1363:C:N3	2.22	0.55
32:2a:1427:U:H2'	32:2a:1428:A:C8	2.41	0.55
33:2b:155:LEU:HD21	33:2b:159:PRO:HG3	1.88	0.55
35:2d:96:LEU:HB3	35:2d:139:ARG:NH2	2.22	0.55
40:2i:5:TYR:HA	40:2i:17:VAL:O	2.07	0.55
1:1A:1406:U:H2'	1:1A:1407:C:C6	2.42	0.55
1:1A:2758:A:OP2	60:1A:3981:HOH:O	2.18	0.55
1:1A:2849:U:H4'	1:1A:2868:A:C2	2.41	0.55
32:1a:1015:A:H2'	32:1a:1016:A:C8	2.41	0.55
33:1b:118:LEU:HB3	33:1b:142:LEU:HD12	1.89	0.55
35:1d:26:CYS:HB3	58:1d:302:SF4:S1	2.46	0.55
35:1d:173:TRP:CD1	35:1d:173:TRP:H	2.24	0.55
43:1l:53:ARG:HG3	43:1l:93:LEU:HD13	1.89	0.55
1:2A:2114:A:N1	1:2A:2117:A:N6	2.54	0.55
32:2a:605:U:H2'	32:2a:606:G:O4'	2.07	0.55
32:2a:742:G:P	46:2o:35:ARG:HH22	2.29	0.55
32:2a:975:A:N6	41:2j:60:ARG:HH12	2.02	0.55
44:2m:85:GLY:HA2	44:2m:93:ARG:HH22	1.70	0.55
1:1A:1130:U:O2	4:1E:149:ARG:NH2	2.40	0.55
1:1A:1593:G:H2'	1:1A:1594:G:C8	2.42	0.55
1:1A:1703:G:H2'	1:1A:1704:G:H8	1.70	0.55
1:1A:1991:U:H2'	1:1A:1992:G:H5"	1.89	0.55
9:1N:58:ASP:OD1	9:1N:58:ASP:N	2.40	0.55
13:1R:87:TYR:OH	13:1R:117:VAL:O	2.22	0.55
44:1m:60:VAL:HG12	44:1m:66:LEU:HD11	1.89	0.55
47:1p:22:THR:OG1	47:1p:23:ASP:N	2.36	0.55
1:2A:1141:U:OP2	9:2N:63:THR:OG1	2.20	0.55
1:2A:1464:C:H2'	1:2A:1465:G:C8	2.42	0.55
1:2A:1662:C:O2'	1:2A:2687:U:OP1	2.21	0.55
1:2A:2429:G:N7	11:2P:56:SER:OG	2.38	0.55
1:2A:2547:U:O2	10:2O:23:ARG:NH2	2.40	0.55
5:2F:130:ALA:H	5:2F:142:TRP:CD1	2.24	0.55
6:2G:42:GLY:O	6:2G:44:GLY:N	2.39	0.55
32:2a:19:C:OP1	36:2e:125:SER:OG	2.26	0.55
32:2a:1002:G:C6	32:2a:1003:G:H8	2.23	0.55
32:2a:1369:C:H2'	32:2a:1370:G:O4'	2.06	0.55
34:2c:98:ASN:N	34:2c:98:ASN:OD1	2.40	0.55
1:1A:606:U:H4'	1:1A:658:C:H4'	1.89	0.54
1:1A:639:U:H2'	1:1A:640:C:C6	2.42	0.54
1:1A:1649:G:O2'	13:1R:107:ASP:OD2	2.17	0.54
1:1A:2564:A:C2	1:1A:2647:U:H4'	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:1P:2:LYS:HG3	11:1P:4:SER:H	1.72	0.54
32:1a:1104:G:H4'	33:1b:111:ARG:NH2	2.22	0.54
51:1t:53:LEU:HB2	51:1t:100:ILE:HD12	1.89	0.54
15:2T:22:PHE:HB3	15:2T:88:ILE:HD11	1.88	0.54
32:2a:157:G:H2'	32:2a:158:G:H8	1.71	0.54
32:2a:1077:G:N2	32:2a:1080:A:OP2	2.36	0.54
32:2a:1144:G:H21	32:2a:1146:A:H62	1.55	0.54
35:2d:173:TRP:CD1	35:2d:174:LEU:HG	2.42	0.54
37:2f:69:GLU:O	37:2f:72:VAL:HG12	2.07	0.54
50:2s:41:VAL:HG13	50:2s:43:GLU:H	1.72	0.54
1:1A:1178:C:H2'	1:1A:1179:C:C6	2.42	0.54
1:1A:2295:C:OP1	14:1S:10:ARG:NH1	2.40	0.54
3:1D:69:ARG:NH1	3:1D:128:GLY:O	2.25	0.54
32:1a:328:C:H4'	32:1a:329:A:H5'	1.88	0.54
32:1a:1305:G:H22	32:1a:1331:G:H1'	1.73	0.54
34:1c:16:ARG:HH12	34:1c:183:ASP:HA	1.72	0.54
1:2A:810:U:O4	60:2A:3732:HOH:O	2.16	0.54
1:2A:2103:C:N4	1:2A:2186:G:H1	2.06	0.54
26:24:57:GLU:CB	26:24:58:ARG:HA	2.37	0.54
32:2a:193:C:H2'	32:2a:194:C:H6	1.73	0.54
32:2a:194:C:H2'	32:2a:195:A:H5"	1.88	0.54
32:2a:269:C:H2'	32:2a:270:A:H8	1.71	0.54
32:2a:505:G:H2'	32:2a:506:G:H8	1.72	0.54
32:2a:857:C:H2'	32:2a:858:G:O4'	2.06	0.54
32:2a:1346:A:H5"	40:2i:120:ARG:HH12	1.73	0.54
33:2b:142:LEU:HA	33:2b:145:LEU:HD12	1.89	0.54
33:2b:174:VAL:O	33:2b:178:ARG:HG2	2.07	0.54
36:2e:43:LEU:HB2	36:2e:136:MET:SD	2.47	0.54
1:1A:1805:U:O2	3:1D:50:THR:HB	2.07	0.54
32:1a:563:A:H2'	32:1a:567:G:C8	2.43	0.54
1:2A:819:A:OP2	1:2A:1187:G:N2	2.40	0.54
1:2A:2419:U:H2'	1:2A:2420:C:C6	2.43	0.54
1:1A:107:C:H2'	1:1A:108:U:H6	1.72	0.54
1:1A:324:A:N6	1:1A:338:G:O2'	2.39	0.54
1:1A:1418:G:O2'	1:1A:1580:A:N6	2.39	0.54
1:1A:2128:C:N3	1:1A:2160:G:N2	2.49	0.54
5:1F:101:LEU:HD12	5:1F:102:PRO:HD2	1.90	0.54
32:1a:1106:G:H5"	34:1c:172:ARG:HB3	1.89	0.54
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.43	0.54
54:1x:10:G:N2	54:1x:26:G:H1'	2.22	0.54
1:2A:172:C:H2'	1:2A:173:G:H8	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:2O:53:LYS:NZ	10:2O:56:ASP:OD1	2.38	0.54
32:2a:433:C:H2'	32:2a:434:U:H6	1.72	0.54
32:2a:539:A:H2'	32:2a:540:G:C8	2.43	0.54
32:2a:1263:C:H2'	32:2a:1264:C:C6	2.43	0.54
32:2a:1481:U:H2'	32:2a:1482:G:C8	2.43	0.54
33:2b:144:ARG:NH1	33:2b:148:TYR:OH	2.36	0.54
33:2b:207:ALA:O	33:2b:211:ILE:HG13	2.07	0.54
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.42	0.54
6:1G:66:GLN:HG2	26:14:1:MET:HE1	1.89	0.54
11:1P:59:LEU:HD11	30:18:10:ALA:HB2	1.90	0.54
31:19:29:ASN:HD22	31:19:32:HIS:CE1	2.25	0.54
32:1a:56:U:H2'	32:1a:57:G:C8	2.43	0.54
32:1a:119:A:H4'	32:1a:120:A:C8	2.42	0.54
32:1a:643:C:H2'	32:1a:644:G:H8	1.73	0.54
32:1a:1515:C:H2'	32:1a:1516:G:C8	2.42	0.54
1:2A:82:G:N1	1:2A:103:A:OP2	2.35	0.54
1:2A:1816:G:O6	3:2D:35:LYS:NZ	2.39	0.54
1:2A:2314:C:H5'	6:2G:38:VAL:HG11	1.89	0.54
3:2D:223:GLY:HA3	3:2D:231:HIS:CG	2.42	0.54
35:2d:81:GLU:OE2	35:2d:139:ARG:NH1	2.37	0.54
1:1A:588:U:H2'	1:1A:589:C:C6	2.43	0.54
22:10:11:ARG:O	22:10:14:ARG:NH2	2.37	0.54
32:1a:728:A:H2'	32:1a:729:A:C8	2.43	0.54
1:2A:996:A:OP2	16:2U:93:LYS:NZ	2.24	0.54
1:2A:2466:C:H5"	31:29:6:SER:HB2	1.90	0.54
32:2a:1347:G:N2	32:2a:1373:G:H2'	2.21	0.54
1:1A:664:C:O2'	60:1A:3931:HOH:O	2.10	0.54
1:1A:1379:A:H4'	1:1A:1380:G:OP2	2.08	0.54
1:1A:2303:G:O2'	6:1G:132:ASN:ND2	2.41	0.54
15:1T:127:ALA:C	15:1T:129:ARG:H	2.16	0.54
32:1a:1004:A:H2'	32:1a:1005:A:H5'	1.88	0.54
32:1a:1140:C:H2'	32:1a:1141:C:C6	2.43	0.54
32:1a:1147:C:O2'	40:1i:5:TYR:OH	2.09	0.54
36:1e:48:ALA:HB2	36:1e:57:LYS:HD2	1.90	0.54
42:1k:91:ARG:HH21	49:1r:87:ARG:HH21	1.56	0.54
47:1p:43:LYS:HG2	47:1p:48:TRP:CE2	2.43	0.54
1:2A:1252:G:OP2	16:2U:14:HIS:NE2	2.33	0.54
32:2a:1046:A:H61	32:2a:1213:A:H61	1.54	0.54
46:2o:54:ARG:HG3	46:2o:58:MET:HE2	1.90	0.54
1:1A:184:C:H2'	1:1A:185:U:H6	1.72	0.54
1:1A:1006:C:O2'	9:1N:106:MET:O	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2183:C:H2'	1:1A:2184:G:C8	2.41	0.54
19:1X:94:GLY:HA3	19:1X:95:LEU:CB	2.38	0.54
32:1a:167:G:H2'	32:1a:168:G:C8	2.42	0.54
32:1a:688:G:H2'	32:1a:689:C:H6	1.71	0.54
1:2A:1010:A:N3	1:2A:1153:C:H1'	2.23	0.54
1:2A:1836:C:H2'	1:2A:1837:C:H6	1.72	0.54
32:2a:593:G:H1	32:2a:646:U:H3	1.56	0.54
45:2n:26:ARG:HD2	45:2n:43:CYS:SG	2.48	0.54
50:2s:15:LEU:HA	50:2s:18:LYS:HD2	1.89	0.54
1:1A:1186:G:H2'	1:1A:1187:G:O4'	2.08	0.54
1:1A:1588:C:H2'	1:1A:1589:C:H6	1.72	0.54
1:1A:1683:C:H2'	1:1A:1684:C:C6	2.42	0.54
1:1A:2031:A:C6	1:1A:2498:C:H1'	2.43	0.54
1:1A:2448:A:N1	60:1A:4080:HOH:O	2.33	0.54
1:1A:2452:C:H5"	55:1z:6:ARG:HG3	1.90	0.54
9:1N:13:TRP:CE2	9:1N:133:GLN:HG2	2.43	0.54
32:1a:58:C:O2'	32:1a:388:G:N7	2.35	0.54
32:1a:138:G:H1	32:1a:225:C:H42	1.54	0.54
34:1c:3:ASN:OD1	34:1c:3:ASN:N	2.41	0.54
39:1h:10:LEU:HD22	39:1h:83:ILE:HD11	1.88	0.54
9:2N:23:LEU:HA	9:2N:60:ILE:HD11	1.88	0.54
32:2a:948:C:H2'	32:2a:949:A:H8	1.72	0.54
32:2a:962:C:H2'	32:2a:963:G:C8	2.43	0.54
42:2k:34:ASP:HB3	42:2k:40:ILE:HD11	1.89	0.54
1:1A:1025:G:O2'	60:1A:3905:HOH:O	2.10	0.54
1:1A:1268:A:H2'	1:1A:1269:A:O4'	2.07	0.54
32:1a:1065:U:H4'	32:1a:1066:C:O5'	2.07	0.54
33:1b:83:MET:HB3	33:1b:234:PRO:HG3	1.90	0.54
35:1d:129:ASN:ND2	35:1d:144:ASP:HB3	2.21	0.54
1:2A:784:A:C5	3:2D:229:VAL:HG21	2.43	0.54
1:2A:1568:G:H5'	3:2D:60:ARG:HA	1.90	0.54
5:2F:165:ARG:HA	5:2F:168:ARG:HH21	1.72	0.54
7:2H:56:SER:HB3	7:2H:61:HIS:HD1	1.72	0.54
7:2H:80:SER:OG	7:2H:81:GLU:N	2.41	0.54
32:2a:1249:C:O2'	40:2i:73:GLN:NE2	2.40	0.54
32:2a:1270:C:H2'	32:2a:1271:G:C8	2.43	0.54
32:2a:1347:G:H5"	40:2i:107:ARG:HB3	1.90	0.54
36:2e:19:MET:SD	36:2e:24:ARG:HB3	2.48	0.54
1:1A:1142(A):A:O2'	1:1A:1143:A:H3'	2.08	0.53
1:1A:1826:G:H4'	3:1D:242:ARG:CZ	2.38	0.53
32:1a:1068:G:H8	32:1a:1068:G:OP2	1.92	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:21:ARG:C	33:1b:23:ARG:H	2.15	0.53
40:1i:28:VAL:HG22	40:1i:63:ILE:HB	1.91	0.53
46:1o:29:VAL:HG11	46:1o:67:LEU:HD21	1.89	0.53
1:2A:811:U:H2'	11:2P:21:ARG:HA	1.90	0.53
1:2A:1225:G:H4'	17:2V:84:LYS:HG2	1.90	0.53
1:2A:2375:G:N2	1:2A:2378:A:OP2	2.32	0.53
1:2A:2552:2MU:H6	1:2A:2552:2MU:O5'	2.08	0.53
9:2N:38:HIS:ND1	9:2N:39:ARG:HG3	2.23	0.53
9:2N:58:ASP:OD1	9:2N:58:ASP:N	2.41	0.53
32:2a:56:U:H2'	32:2a:57:G:C8	2.43	0.53
32:2a:1179:A:H2'	32:2a:1180:A:O4'	2.07	0.53
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.42	0.53
34:2c:148:GLY:HA3	34:2c:203:PHE:HB3	1.91	0.53
1:1A:2301:C:H2'	1:1A:2302:G:H8	1.73	0.53
35:1d:172:PRO:HB2	35:1d:187:ARG:HH21	1.71	0.53
1:2A:863:A:H2'	1:2A:864:G:C8	2.43	0.53
1:2A:1512:U:H2'	1:2A:1513:C:C6	2.43	0.53
6:2G:179:PRO:HB2	26:24:42:PHE:CZ	2.43	0.53
32:2a:1352:C:N4	32:2a:1370:G:H1	2.06	0.53
1:1A:1047:G:H2'	1:1A:1110:G:H1	1.74	0.53
1:1A:1509(B):A:H2'	1:1A:1510:G:O4'	2.09	0.53
1:1A:2176:A:H2'	1:1A:2177:C:C6	2.43	0.53
32:1a:946:A:O2'	32:1a:1333:A:N3	2.39	0.53
1:2A:1168:G:H1	1:2A:1181:C:H42	1.56	0.53
1:2A:2280:G:O2'	1:2A:2388:A:N1	2.33	0.53
2:2B:1:U:C2	2:2B:2:C:H5	2.26	0.53
2:2B:3:C:H2'	2:2B:4:C:C6	2.43	0.53
26:24:44:THR:O	26:24:46:GLN:N	2.41	0.53
32:2a:1256:A:N6	32:2a:1278:U:H1'	2.12	0.53
43:2l:38:THR:O	43:2l:79:GLU:HG3	2.08	0.53
44:2m:78:ILE:HA	44:2m:81:LEU:HD12	1.90	0.53
1:1A:651:G:OP1	30:18:19:SER:OG	2.25	0.53
1:1A:2400:G:O6	60:1A:3979:HOH:O	2.18	0.53
32:1a:691:G:H2'	32:1a:692:U:C6	2.42	0.53
32:1a:1148:U:H2'	32:1a:1149:C:O4'	2.09	0.53
32:1a:1458:G:H5"	51:1t:31:SER:HB2	1.90	0.53
33:1b:55:PHE:HE1	33:1b:218:ALA:HA	1.73	0.53
1:2A:530:G:C5	1:2A:2022:U:H5"	2.44	0.53
1:2A:615:G:OP1	5:2F:40:GLN:NE2	2.41	0.53
6:2G:68:PRO:HA	6:2G:92:VAL:HB	1.90	0.53
14:2S:25:ARG:HG3	14:2S:40:ILE:HB	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:2S:84:GLN:H	14:2S:111:GLU:HB2	1.73	0.53
32:2a:791:G:N2	32:2a:1497:G:O3'	2.39	0.53
32:2a:1010:G:N2	32:2a:1020:U:O2'	2.42	0.53
1:1A:1045:A:OP1	1:1A:1045:A:H4'	2.08	0.53
4:1E:96:PHE:O	4:1E:175:VAL:HG21	2.08	0.53
7:1H:3:ARG:HH11	7:1H:3:ARG:HA	1.74	0.53
28:16:6:ARG:NH1	28:16:26:ASN:HB2	2.24	0.53
34:1c:138:VAL:HG13	34:1c:149:ALA:HB3	1.90	0.53
37:1f:69:GLU:H	37:1f:69:GLU:CD	2.16	0.53
1:2A:75:G:H4'	24:22:55:ARG:NH1	2.24	0.53
1:2A:143(A):C:H2'	1:2A:144:C:H6	1.73	0.53
1:2A:1129:A:HO2'	1:2A:2515:C:HO2'	1.57	0.53
1:2A:2136:C:N4	1:2A:2155:G:N1	2.55	0.53
21:2Z:52:SER:OG	21:2Z:53:ILE:N	2.40	0.53
32:2a:1002:G:N2	32:2a:1038:C:N3	2.50	0.53
1:1A:11:G:H2'	1:1A:12:U:H5"	1.91	0.53
1:1A:123:G:H2'	1:1A:124:G:O4'	2.09	0.53
1:1A:2001:A:H2'	1:1A:2002:G:C8	2.43	0.53
1:1A:2469:A:O2'	12:1Q:56:ARG:HD3	2.08	0.53
10:1O:26:LYS:HD2	10:1O:37:ASP:CG	2.33	0.53
21:1Z:10:ARG:HD3	21:1Z:38:TYR:HB3	1.91	0.53
27:15:40:LYS:NZ	27:15:44:THR:O	2.36	0.53
50:1s:63:THR:OG1	50:1s:65:ASN:OD1	2.27	0.53
51:1t:10:LEU:HB3	51:1t:12:ALA:H	1.73	0.53
1:2A:652(C):G:N2	1:2A:653:A:H1'	2.24	0.53
1:2A:1141:U:H2'	9:2N:63:THR:HB	1.90	0.53
5:2F:9:ILE:HB	5:2F:20:LEU:HB3	1.91	0.53
5:2F:185:ASP:HA	5:2F:188:ARG:HD3	1.90	0.53
6:2G:96:ARG:HA	6:2G:99:MET:HE2	1.90	0.53
32:2a:782:A:O3'	32:2a:1515:C:H4'	2.09	0.53
32:2a:1151:A:N3	41:2j:39:PRO:HG3	2.24	0.53
48:2q:43:LEU:HD11	48:2q:68:ARG:HE	1.73	0.53
1:1A:784:A:O4'	3:1D:227:ASN:ND2	2.41	0.53
1:1A:848:G:H2'	1:1A:849:A:C8	2.44	0.53
1:1A:855:G:O6	60:1A:3983:HOH:O	2.19	0.53
1:1A:2577:A:O2'	27:15:2:ALA:HB1	2.08	0.53
1:1A:2787:C:H2'	1:1A:2788:C:H6	1.74	0.53
3:1D:137:PRO:O	3:1D:140:THR:OG1	2.27	0.53
7:1H:122:THR:HG22	7:1H:134:SER:HB2	1.89	0.53
8:1I:38:LEU:HD23	8:1I:38:LEU:H	1.73	0.53
48:1q:6:LEU:HD13	48:1q:71:PHE:HE2	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2820:A:O2'	1:2A:2821:A:OP1	2.26	0.53
11:2P:44:GLY:HA2	11:2P:45:LEU:HB2	1.91	0.53
16:2U:97:ASP:OD1	16:2U:101:ARG:HD2	2.09	0.53
18:2W:38:TYR:CE2	27:25:41:PRO:HD3	2.43	0.53
32:2a:1288:A:H2'	32:2a:1289:A:C8	2.43	0.53
45:2n:24:CYS:O	45:2n:28:GLY:N	2.39	0.53
32:1a:21:G:H2'	32:1a:22:G:C8	2.43	0.53
32:1a:191:G:N2	51:1t:102:GLY:O	2.40	0.53
32:1a:976:G:OP2	32:1a:1358:U:O2'	2.23	0.53
34:1c:134:ILE:HG22	34:1c:168:ALA:HB3	1.91	0.53
1:2A:1151:G:O2'	16:2U:77:SER:O	2.26	0.53
1:2A:1399:C:H2'	1:2A:1400:G:H8	1.73	0.53
1:2A:1942:5MC:OP2	1:2A:1943:U:O2'	2.19	0.53
1:2A:2184:G:H2'	1:2A:2185:C:C6	2.43	0.53
7:2H:149:ARG:HH11	7:2H:164:TYR:HD2	1.56	0.53
32:2a:1190:G:H5'	34:2c:176:HIS:CE1	2.44	0.53
32:2a:1265:G:H2'	32:2a:1266:G:H8	1.73	0.53
37:2f:99:ALA:O	49:2r:28:GLU:HA	2.09	0.53
50:2s:13:ASP:HA	50:2s:16:LEU:HD13	1.91	0.53
51:2t:98:PRO:O	51:2t:99:LEU:HB2	2.08	0.53
1:1A:305:U:H2'	1:1A:306:U:C6	2.44	0.53
1:1A:2682:U:O2'	15:1T:58:ASN:ND2	2.42	0.53
1:1A:2853:C:H2'	1:1A:2854:G:H8	1.74	0.53
7:1H:149:ARG:HD2	7:1H:164:TYR:CE2	2.44	0.53
32:1a:160:A:H2'	32:1a:161:A:O4'	2.08	0.53
32:1a:1401:G:C2	32:1a:1402:4OC:H1'	2.44	0.53
34:1c:182:ILE:HG12	34:1c:203:PHE:HA	1.91	0.53
36:1e:37:ARG:HH12	36:1e:111:GLU:HB3	1.74	0.53
47:1p:42:ARG:HB3	47:1p:44:THR:HG23	1.91	0.53
1:2A:219:G:N3	1:2A:234:C:O2'	2.42	0.53
1:2A:792:G:O6	60:2A:3733:HOH:O	2.16	0.53
1:2A:927:G:H2'	1:2A:928:G:O4'	2.09	0.53
1:2A:1632:A:N7	60:2A:3713:HOH:O	2.34	0.53
14:2S:38:GLN:NE2	14:2S:47:THR:OG1	2.28	0.53
32:2a:584:G:H5'	48:2q:91:ARG:HH12	1.73	0.53
33:2b:124:SER:HB2	33:2b:125:PRO:HD3	1.91	0.53
41:2j:46:ARG:HA	41:2j:64:GLU:HA	1.91	0.53
5:1F:157:VAL:HB	5:1F:194:MET:HG2	1.91	0.53
7:1H:40:GLU:CD	7:1H:60:ARG:HH21	2.17	0.53
11:1P:59:LEU:HG	30:18:58:ILE:HD13	1.90	0.53
32:1a:539:A:H2'	32:1a:540:G:C8	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:16:HIS:CG	33:1b:17:PHE:N	2.76	0.53
33:1b:178:ARG:NH1	33:1b:198:ASP:OD1	2.42	0.53
48:1q:56:VAL:N	48:1q:78:GLU:O	2.38	0.53
1:2A:476:G:N1	1:2A:479:A:OP2	2.41	0.53
1:2A:718:A:H3'	1:2A:719:C:H6	1.74	0.53
2:2B:4:C:N3	2:2B:118:G:N2	2.57	0.53
32:2a:816:A:OP2	32:2a:1527:C:H5'	2.09	0.53
33:2b:167:PRO:HD2	33:2b:188:ALA:HB2	1.91	0.53
1:1A:300:A:N6	60:1A:4120:HOH:O	2.40	0.52
1:1A:829:A:N7	1:1A:2247:A:O2'	2.41	0.52
1:1A:1129:A:O2'	1:1A:2515:C:O2	2.25	0.52
1:1A:1790:C:H2'	1:1A:1791:A:C5	2.44	0.52
10:1O:10:VAL:HG11	10:1O:16:ALA:HB1	1.90	0.52
32:1a:1207:2MG:HM23	32:1a:1208:C:H1'	1.91	0.52
34:1c:32:LEU:HD22	34:1c:59:ARG:HH11	1.74	0.52
1:2A:1505:C:H2'	1:2A:1506:C:H6	1.75	0.52
1:2A:1973:G:H2'	1:2A:1974:C:C6	2.44	0.52
1:2A:2684:U:H1'	10:2O:70:LYS:HD2	1.90	0.52
6:2G:149:VAL:HG22	6:2G:150:ASP:H	1.74	0.52
10:2O:19:ILE:HG22	10:2O:43:VAL:HA	1.90	0.52
18:2W:1:MET:HE2	18:2W:62:HIS:ND1	2.24	0.52
27:25:16:ARG:HG3	27:25:17:ASP:H	1.73	0.52
32:2a:127:G:O2'	48:2q:2:PRO:O	2.24	0.52
32:2a:237:C:H5"	48:2q:25:ARG:CZ	2.39	0.52
32:2a:1219:U:O2'	50:2s:34:TRP:O	2.27	0.52
1:1A:980:A:N3	1:1A:2037:G:O2'	2.39	0.52
1:1A:2291:U:H2'	1:1A:2292:C:C6	2.44	0.52
2:1B:28:C:OP1	14:1S:31:SER:OG	2.23	0.52
18:1W:29:LEU:HD22	18:1W:69:LEU:HD12	1.92	0.52
32:1a:838:G:H1	32:1a:848:C:N4	2.07	0.52
32:1a:1255:G:H1	32:1a:1282:C:H42	1.55	0.52
1:2A:599:G:OP1	11:2P:9:ASN:ND2	2.42	0.52
1:2A:1406:U:H2'	1:2A:1407:C:H6	1.74	0.52
1:2A:2693:A:H2'	1:2A:2694:G:C8	2.42	0.52
34:2c:152:ILE:HG12	34:2c:199:LYS:HB2	1.91	0.52
36:2e:100:VAL:O	36:2e:107:ARG:NH1	2.40	0.52
43:2l:60:LEU:N	43:2l:64:TYR:O	2.38	0.52
1:1A:453:C:O2	1:1A:457:A:O2'	2.26	0.52
2:1B:96:U:OP1	21:1Z:14:LYS:NZ	2.42	0.52
4:1E:14:ILE:HB	15:1T:14:TYR:CZ	2.45	0.52
5:1F:123:LEU:HD11	5:1F:194:MET:HE2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:12:65:ASN:HB3	24:12:69:ARG:HH12	1.74	0.52
32:1a:1403:C:H2'	32:1a:1404:5MC:HM53	1.91	0.52
1:2A:2576:G:O2'	1:2A:2579:C:OP2	2.22	0.52
2:2B:30:C:H2'	2:2B:31:C:H5'	1.90	0.52
12:2Q:37:LEU:HD11	12:2Q:130:LYS:HB2	1.91	0.52
20:2Y:44:ILE:HA	20:2Y:63:LYS:O	2.10	0.52
32:2a:6:G:H4'	32:2a:298:A:H4'	1.91	0.52
32:2a:878:G:OP1	39:2h:90:GLY:N	2.41	0.52
32:2a:1030(A):G:H21	32:2a:1030(C):G:H8	1.58	0.52
32:2a:1183:A:O2'	32:2a:1184:G:OP1	2.27	0.52
34:2c:136:GLN:HB3	34:2c:140:ARG:NH1	2.25	0.52
43:2l:84:LEU:HB3	43:2l:104:VAL:HG11	1.90	0.52
51:2t:60:GLU:HG3	51:2t:81:LYS:HD2	1.90	0.52
1:1A:796:C:H2'	1:1A:797:C:C6	2.44	0.52
32:1a:533:A:O2'	32:1a:535:A:OP2	2.22	0.52
32:1a:559:A:N3	32:1a:559:A:H5'	2.25	0.52
36:1e:105:VAL:HG21	36:1e:128:PRO:HB3	1.92	0.52
1:2A:459:U:H2'	1:2A:460:A:H8	1.74	0.52
1:2A:882:G:H2'	1:2A:883:G:C8	2.43	0.52
1:2A:1126:A:H4'	1:2A:1127:A:O5'	2.10	0.52
1:2A:1430:C:H2'	1:2A:1431:U:C6	2.45	0.52
1:2A:2494:G:H2'	1:2A:2495:G:H8	1.74	0.52
1:2A:2815:C:H5'	27:25:29:THR:HG21	1.91	0.52
14:2S:67:ARG:NH2	14:2S:103:GLU:OE1	2.39	0.52
32:2a:390:C:H4'	47:2p:28:ARG:HH21	1.73	0.52
32:2a:691:G:H2'	32:2a:692:U:C6	2.45	0.52
32:2a:936:C:H2'	32:2a:937:A:O4'	2.10	0.52
32:2a:1015:A:H1'	32:2a:1219:U:H5'	1.92	0.52
32:2a:1219:U:O2'	50:2s:34:TRP:HB3	2.09	0.52
32:2a:1239:A:H62	32:2a:1299:A:H62	1.57	0.52
1:1A:1041:C:N4	1:1A:1114:G:H1	2.06	0.52
1:1A:2153:G:H2'	1:1A:2154:G:H8	1.74	0.52
21:1Z:72:ARG:NH2	21:1Z:97:GLU:O	2.43	0.52
32:1a:946:A:H2'	32:1a:947:G:C8	2.45	0.52
32:1a:988:G:H2'	32:1a:989:C:O4'	2.09	0.52
1:2A:2646:C:OP2	1:2A:2732:G:O2'	2.24	0.52
6:2G:50:ALA:O	6:2G:52:ILE:N	2.43	0.52
52:2u:8:THR:HG23	52:2u:11:GLY:H	1.73	0.52
55:2z:4:ARG:O	55:2z:6:ARG:NH1	2.43	0.52
1:1A:228:A:C8	1:1A:229:A:H5'	2.45	0.52
1:1A:1800:C:OP2	3:1D:183:ARG:NH2	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2629:A:HO2'	1:1A:2630:G:P	2.31	0.52
1:1A:2701:C:H2'	1:1A:2702:U:H2'	1.91	0.52
8:1I:87:LYS:HD3	8:1I:87:LYS:H	1.73	0.52
19:1X:50:LYS:N	19:1X:87:GLN:OE1	2.41	0.52
32:1a:523:A:N1	43:1l:92:0TD:H6	2.24	0.52
33:1b:80:ILE:HD11	33:1b:212:GLN:HA	1.91	0.52
38:1g:144:MET:O	38:1g:148:ASN:ND2	2.35	0.52
47:1p:39:TYR:CZ	47:1p:41:PRO:HB3	2.45	0.52
1:2A:1484:G:H2'	1:2A:1485:G:H8	1.75	0.52
1:2A:1818:U:H2'	3:2D:157:ARG:HD3	1.91	0.52
1:2A:2110:G:C2	1:2A:2120:G:H1'	2.45	0.52
18:2W:4:LYS:HB2	18:2W:106:ILE:HG12	1.92	0.52
32:2a:165:C:H2'	32:2a:166:G:C8	2.43	0.52
32:2a:352:C:O2'	32:2a:354:G:OP1	2.20	0.52
32:2a:947:G:O3'	44:2m:109:THR:OG1	2.28	0.52
32:2a:1213:A:O2'	32:2a:1215:G:N7	2.37	0.52
36:2e:122:GLU:HB2	36:2e:126:ARG:NH1	2.25	0.52
43:2l:103:GLY:N	43:2l:107:ALA:O	2.22	0.52
1:1A:548:A:N6	17:1V:19:LYS:H	2.08	0.52
2:1B:19:G:H2'	2:1B:20:C:O4'	2.09	0.52
3:1D:254:THR:O	3:1D:254:THR:OG1	2.22	0.52
10:1O:24:VAL:HB	10:1O:33:ALA:HB2	1.92	0.52
29:17:22:MET:HA	29:17:28:ARG:HG2	1.92	0.52
35:1d:112:VAL:H	35:1d:116:GLN:NE2	2.07	0.52
1:2A:210:C:H2'	1:2A:211:A:H8	1.71	0.52
1:2A:821:A:H2'	1:2A:946:G:H5"	1.92	0.52
1:2A:887:A:O2'	1:2A:888:C:H5"	2.10	0.52
1:2A:1410:G:H2'	1:2A:1411:C:C6	2.45	0.52
5:2F:9:ILE:HD12	5:2F:22:ALA:HB3	1.92	0.52
32:2a:373:A:O2'	32:2a:451:A:N7	2.43	0.52
1:1A:39:C:O2	5:1F:46:ARG:NH2	2.42	0.52
1:1A:648:G:O2'	1:1A:2351:G:OP1	2.25	0.52
1:1A:1064:C:H2'	1:1A:1065:U:H5'	1.92	0.52
1:1A:1889:A:N1	1:1A:2234:G:H1'	2.25	0.52
1:1A:2679:A:H4'	4:1E:165:VAL:HG11	1.91	0.52
15:1T:60:THR:HG22	15:1T:77:PRO:HA	1.91	0.52
32:1a:1144:G:N2	32:1a:1146:A:H62	2.08	0.52
32:1a:1347:G:H22	32:1a:1373:G:H2'	1.73	0.52
32:1a:1347:G:N2	32:1a:1373:G:H2'	2.25	0.52
33:1b:18:GLY:HA3	33:1b:42:ILE:HG13	1.91	0.52
34:1c:203:PHE:CZ	34:1c:206:GLU:HG2	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:102:ALA:HB1	36:1e:106:PRO:HG2	1.90	0.52
1:2A:140:G:H22	1:2A:1596:A:H4'	1.74	0.52
1:2A:310:A:H1'	1:2A:311:A:H2'	1.91	0.52
1:2A:566:U:O2'	1:2A:809:G:OP2	2.19	0.52
1:2A:1031:G:H21	31:29:36:GLN:HE22	1.57	0.52
1:2A:1795:C:O2	3:2D:255:LYS:NZ	2.39	0.52
32:2a:266:G:H2'	32:2a:266:G:N3	2.23	0.52
32:2a:1055:A:O2'	34:2c:156:ARG:NH2	2.43	0.52
32:2a:1080:A:H5'	36:2e:14:ARG:NH2	2.24	0.52
32:2a:1346:A:H5"	40:2i:120:ARG:NH1	2.25	0.52
33:2b:118:LEU:HB3	33:2b:142:LEU:HD22	1.91	0.52
35:2d:173:TRP:CG	35:2d:189:PRO:HG3	2.45	0.52
39:2h:9:MET:HG3	39:2h:26:VAL:HG21	1.92	0.52
44:2m:51:ALA:O	44:2m:54:VAL:HG22	2.10	0.52
1:1A:1295:C:H2'	1:1A:1296:G:H8	1.75	0.52
1:1A:2155:G:H2'	1:1A:2155:G:N3	2.25	0.52
1:1A:2853:C:H2'	1:1A:2854:G:C8	2.44	0.52
9:1N:16:ILE:HG21	9:1N:26:LEU:HD11	1.92	0.52
12:1Q:1:MET:HE1	12:1Q:45:GLN:HG3	1.92	0.52
12:1Q:59:ARG:C	12:1Q:61:GLY:H	2.17	0.52
19:1X:31:HIS:CD2	19:1X:33:LYS:HB2	2.45	0.52
32:1a:1019:C:H2'	32:1a:1020:U:O4'	2.08	0.52
32:1a:1316:G:N1	32:1a:1319:A:OP2	2.43	0.52
38:1g:75:VAL:HA	38:1g:87:VAL:O	2.10	0.52
39:1h:34:GLU:OE2	39:1h:37:ARG:NH1	2.43	0.52
54:1x:8:4SU:O5'	54:1x:8:4SU:H6	2.10	0.52
1:2A:858:U:O2	1:2A:2268:A:H2'	2.09	0.52
1:2A:1924:C:H4'	54:2x:13:C:H4'	1.91	0.52
1:2A:2301:C:H2'	1:2A:2302:G:H8	1.74	0.52
2:2B:7:G:H5'	14:2S:29:PHE:CE2	2.44	0.52
13:2R:28:LEU:HD22	13:2R:48:VAL:HG21	1.92	0.52
21:2Z:105:VAL:O	21:2Z:141:VAL:HG22	2.10	0.52
32:2a:22:G:H2'	32:2a:23:C:C6	2.45	0.52
32:2a:620:C:C2	35:2d:135:LEU:HG	2.44	0.52
32:2a:692:U:O2'	32:2a:694:A:N7	2.32	0.52
1:1A:2103:C:N4	1:1A:2186:G:H1	2.08	0.52
2:1B:24:G:N7	2:1B:56:G:H2'	2.25	0.52
32:1a:1002:G:H3'	32:1a:1003:G:C4'	2.38	0.52
36:1e:142:LEU:O	36:1e:143:ARG:NH1	2.40	0.52
44:1m:81:LEU:HD11	44:1m:88:ARG:NH2	2.25	0.52
1:2A:1805:U:H5"	3:2D:250:TRP:CD2	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1998:G:O2'	1:2A:2724:C:O2'	2.27	0.52
1:2A:2687:U:H2'	1:2A:2688:U:O4'	2.10	0.52
11:2P:29:LYS:HG3	11:2P:30:THR:N	2.25	0.52
14:2S:105:ALA:HB1	14:2S:110:LEU:HD23	1.91	0.52
26:24:53:GLU:H	26:24:53:GLU:CD	2.17	0.52
32:2a:91:C:H2'	32:2a:92:C:H6	1.75	0.52
36:2e:37:ARG:HH22	36:2e:111:GLU:HB3	1.75	0.52
37:2f:15:ASP:OD1	37:2f:18:GLN:N	2.42	0.52
37:2f:30:LEU:HB3	37:2f:35:ALA:HB3	1.92	0.52
42:2k:73:MET:HG2	42:2k:103:LEU:HD21	1.92	0.52
44:2m:91:ARG:HD2	44:2m:96:LEU:HB2	1.91	0.52
1:1A:210:C:OP2	29:17:29:LYS:NZ	2.43	0.51
6:1G:98:ARG:CZ	26:14:1:MET:HE3	2.40	0.51
27:15:50:GLY:HA2	27:15:58:LEU:HD23	1.92	0.51
32:1a:664:G:N2	32:1a:741:G:H1	2.03	0.51
38:1g:100:ALA:O	38:1g:104:LEU:HB2	2.10	0.51
48:1q:6:LEU:HD23	48:1q:23:VAL:HG11	1.91	0.51
1:2A:174:C:H2'	1:2A:175:G:H8	1.75	0.51
1:2A:674:G:H1'	5:2F:74:ARG:HD3	1.92	0.51
1:2A:675:A:OP1	5:2F:63:LYS:NZ	2.40	0.51
1:2A:2680:C:H5'	4:2E:189:PRO:HA	1.91	0.51
10:2O:88:ASN:OD1	10:2O:90:GLN:N	2.41	0.51
21:2Z:57:ILE:HB	21:2Z:69:THR:HG22	1.91	0.51
32:2a:1006:C:N4	32:2a:1022:G:O6	2.42	0.51
32:2a:1097:C:O2'	32:2a:1169:A:N3	2.37	0.51
32:2a:1265:G:H2'	32:2a:1266:G:C8	2.45	0.51
34:2c:111:LEU:HD21	34:2c:146:ALA:HB2	1.91	0.51
48:2q:76:LEU:HD21	48:2q:79:SER:HB2	1.92	0.51
50:2s:36:ARG:HD2	50:2s:52:TYR:O	2.10	0.51
7:1H:17:VAL:HG23	7:1H:26:VAL:HG22	1.91	0.51
37:1f:44:GLY:HA2	37:1f:59:TYR:CZ	2.45	0.51
1:2A:1359:A:H2'	1:2A:1360:A:H5'	1.92	0.51
3:2D:121:PRO:HB3	3:2D:135:PHE:CE2	2.43	0.51
6:2G:47:LYS:HA	6:2G:88:ILE:HG22	1.92	0.51
15:2T:127:ALA:C	15:2T:129:ARG:H	2.17	0.51
17:2V:52:VAL:HB	17:2V:55:ALA:HB3	1.91	0.51
32:2a:358:U:H2'	32:2a:359:U:C6	2.45	0.51
32:2a:1070:U:H2'	32:2a:1071:C:H6	1.75	0.51
54:2x:56:C:H2'	54:2x:57:A:H8	1.74	0.51
1:1A:511:U:OP2	60:1A:3985:HOH:O	2.19	0.51
1:1A:2131:G:N2	1:1A:2133:G:N3	2.57	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:1T:2:ASN:O	15:1T:6:LEU:HD13	2.10	0.51
32:1a:167:G:H2'	32:1a:168:G:H8	1.75	0.51
32:1a:1037:C:H2'	32:1a:1038:C:C6	2.46	0.51
32:1a:1305:G:H5"	52:1u:4:GLY:HA3	1.91	0.51
40:1i:29:ASN:HD21	40:1i:64:THR:HA	1.75	0.51
1:2A:792:G:O2'	1:2A:2440:C:N3	2.37	0.51
1:2A:881:G:N1	1:2A:897:C:N3	2.57	0.51
4:2E:97:LYS:N	4:2E:100:GLU:OE2	2.35	0.51
10:2O:97:ARG:NH1	32:2a:339:C:OP2	2.43	0.51
32:2a:931:C:H42	32:2a:1386:G:H1	1.58	0.51
32:2a:1201:A:H4'	32:2a:1202:G:O5'	2.10	0.51
32:2a:1297:C:H4'	32:2a:1298:C:H5'	1.92	0.51
32:2a:1333:A:H2'	32:2a:1334:G:O4'	2.10	0.51
33:2b:31:TYR:CE2	33:2b:200:ILE:HG21	2.44	0.51
33:2b:94:ASN:OD1	33:2b:95:GLN:NE2	2.43	0.51
36:2e:36:ASP:OD2	36:2e:38:GLN:HG2	2.09	0.51
44:2m:86:CYS:HB2	50:2s:73:GLU:HG2	1.92	0.51
1:1A:1709:U:H1'	1:1A:2860:A:N3	2.25	0.51
1:2A:1503:U:H2'	1:2A:1504:C:C6	2.46	0.51
1:2A:2245:U:O2'	1:2A:2436:G:OP2	2.20	0.51
32:2a:922:G:C6	32:2a:923:A:C6	2.99	0.51
32:2a:975:A:H4'	32:2a:976:G:C5'	2.37	0.51
1:1A:226:G:H21	1:1A:228:A:H62	1.59	0.51
1:1A:956:G:H2'	1:1A:957:A:H2'	1.92	0.51
1:1A:1448:G:H5"	1:1A:1542:A:OP2	2.11	0.51
32:1a:1002:G:N1	32:1a:1004:A:H1'	2.25	0.51
32:1a:1095:U:OP2	60:1a:1802:HOH:O	2.18	0.51
36:1e:45:PHE:HD2	36:1e:47:LYS:HZ2	1.58	0.51
44:1m:118:ALA:HB2	54:1x:28:C:H4'	1.92	0.51
1:2A:614:U:H2'	1:2A:614(A):U:O4'	2.10	0.51
1:2A:2638:G:OP2	4:2E:82:ARG:NH1	2.43	0.51
32:2a:35:G:O2'	43:2l:118:SER:O	2.26	0.51
32:2a:442:C:H2'	32:2a:443:C:H6	1.75	0.51
32:2a:601:C:H2'	32:2a:602:A:C8	2.45	0.51
38:2g:27:ILE:HG21	38:2g:40:ALA:HA	1.92	0.51
39:2h:28:ALA:HB3	39:2h:57:PRO:HB2	1.91	0.51
43:2l:57:LYS:HG2	43:2l:67:THR:HG22	1.93	0.51
48:2q:84:LEU:H	48:2q:84:LEU:HD12	1.76	0.51
1:1A:1071:G:H1'	1:1A:1089:G:H2'	1.93	0.51
1:1A:2470:G:OP1	12:1Q:56:ARG:NH2	2.43	0.51
1:1A:2531:A:H5'	7:1H:157:TYR:CE1	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:1H:3:ARG:HH21	7:1H:65:HIS:HB3	1.76	0.51
7:1H:154:PRO:HB3	7:1H:163:TYR:CE1	2.46	0.51
32:1a:240:C:H2'	32:1a:241:C:C6	2.46	0.51
32:1a:384:G:H2'	32:1a:385:C:C6	2.46	0.51
33:1b:16:HIS:CD2	33:1b:18:GLY:H	2.28	0.51
39:1h:9:MET:HG3	39:1h:26:VAL:HG21	1.92	0.51
1:2A:521:G:H2'	1:2A:522:G:H8	1.75	0.51
1:2A:2100:G:H1	1:2A:2189:U:H3	1.59	0.51
20:2Y:85:VAL:HG13	20:2Y:97:ARG:HB3	1.92	0.51
21:2Z:152:ALA:HB1	21:2Z:163:LEU:HD11	1.91	0.51
25:23:50:VAL:O	25:23:54:VAL:HB	2.11	0.51
32:2a:457:C:H2'	32:2a:458:C:C6	2.45	0.51
32:2a:792:A:H4'	32:2a:793:U:H5"	1.92	0.51
34:2c:156:ARG:HH21	34:2c:161:GLU:HA	1.74	0.51
37:2f:19:LEU:HA	37:2f:22:GLU:HB2	1.93	0.51
48:2q:88:TYR:HD2	48:2q:89:LEU:HD12	1.76	0.51
1:1A:251:A:C5	1:1A:252:G:H1'	2.46	0.51
1:1A:1177:A:H2'	1:1A:1177:A:OP1	2.11	0.51
1:1A:1316:U:H2'	1:1A:1317:A:H8	1.75	0.51
1:1A:1817:G:OP1	3:1D:88:ARG:NH2	2.33	0.51
32:1a:390:C:H2'	32:1a:391:G:C8	2.46	0.51
32:1a:1027:C:H5	32:1a:1028:C:C4	2.27	0.51
32:1a:1243:C:H42	32:1a:1294:G:H1	1.59	0.51
32:1a:1256:A:OP2	34:1c:26:LYS:NZ	2.33	0.51
1:2A:1292:U:H2'	1:2A:1293:C:C6	2.46	0.51
1:2A:2136:C:O2'	1:2A:2137:C:H6	1.94	0.51
1:2A:2473:U:O2	1:2A:2473:U:H2'	2.11	0.51
1:2A:2840:C:O3'	13:2R:53:HIS:NE2	2.44	0.51
7:2H:3:ARG:HG2	7:2H:6:ARG:HE	1.75	0.51
12:2Q:52:VAL:O	12:2Q:56:ARG:HB2	2.11	0.51
18:2W:58:ALA:HB1	18:2W:64:MET:HB2	1.92	0.51
32:2a:911:U:H2'	32:2a:912:C:C6	2.46	0.51
34:2c:120:VAL:HA	34:2c:123:GLN:HB2	1.92	0.51
37:2f:91:VAL:HG21	49:2r:72:ARG:HD3	1.93	0.51
42:2k:14:VAL:HG23	42:2k:77:MET:HE1	1.91	0.51
1:1A:271(R):G:H4'	23:11:80:LEU:HD11	1.93	0.51
1:1A:576:U:H2'	1:1A:577:G:C8	2.45	0.51
1:1A:1814:G:OP1	3:1D:40:THR:OG1	2.22	0.51
6:1G:69:ALA:HB3	6:1G:91:ARG:HH21	1.75	0.51
32:1a:376:G:O3'	47:1p:5:ARG:HD2	2.11	0.51
32:1a:748:C:H4'	32:1a:749:C:O5'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1186:G:H21	45:1n:61:TRP:C	2.18	0.51
35:2d:100:ARG:NH2	35:2d:136:PRO:O	2.44	0.51
47:2p:43:LYS:HG2	47:2p:48:TRP:CG	2.45	0.51
1:1A:1588:C:H2'	1:1A:1589:C:C6	2.46	0.51
1:1A:2140:C:H2'	1:1A:2141:G:C8	2.42	0.51
1:1A:2377:A:H2'	1:1A:2378:A:C8	2.45	0.51
4:1E:167:VAL:HG12	4:1E:189:PRO:HD3	1.92	0.51
34:1c:67:THR:HA	34:1c:102:ASN:HB2	1.93	0.51
35:1d:205:GLU:OE2	36:1e:107:ARG:NH1	2.43	0.51
36:1e:75:THR:HG21	36:1e:94:ALA:H	1.76	0.51
47:1p:37:GLY:HA3	47:1p:50:LYS:O	2.11	0.51
1:2A:792:G:N3	1:2A:2072:G:O2'	2.37	0.51
1:2A:1012:U:C5	9:2N:28:THR:HG21	2.46	0.51
1:2A:1849:G:H2'	1:2A:1850:G:C8	2.44	0.51
26:24:61:ARG:HG2	50:2s:42:PRO:HG3	1.92	0.51
43:2l:32:PHE:CE1	43:2l:86:ARG:HB3	2.46	0.51
1:1A:668:G:H5'	1:1A:669:G:OP2	2.11	0.51
1:1A:1496:A:N3	1:1A:1577:C:O2'	2.43	0.51
1:1A:2492:U:H2'	1:1A:2493:U:C6	2.46	0.51
1:1A:2735:G:H2'	1:1A:2736:G:C8	2.46	0.51
1:1A:2763:G:OP2	60:1A:3988:HOH:O	2.20	0.51
25:13:8:LEU:O	25:13:32:GLN:N	2.35	0.51
32:1a:163:C:H2'	32:1a:164:U:C6	2.45	0.51
32:1a:192:U:H2'	32:1a:193:C:C6	2.46	0.51
35:1d:57:ARG:HB3	35:1d:206:PHE:HB2	1.93	0.51
1:2A:271:A:N6	1:2A:271(X):G:H1'	2.26	0.51
1:2A:957:A:H5'	12:2Q:76:LYS:HG3	1.93	0.51
1:2A:1910:G:C6	1:2A:1921:G:C6	2.99	0.51
1:2A:2683:C:O2	10:2O:70:LYS:NZ	2.33	0.51
1:2A:2887:U:H2'	1:2A:2888:C:H6	1.76	0.51
15:2T:28:VAL:HG23	15:2T:88:ILE:HD13	1.93	0.51
18:2W:12:ILE:HD13	18:2W:17:VAL:HG13	1.93	0.51
32:2a:500:G:H2'	32:2a:501:C:C6	2.45	0.51
32:2a:584:G:H5'	48:2q:91:ARG:NH1	2.25	0.51
32:2a:1049:U:OP1	45:2n:3:ARG:HG2	2.10	0.51
40:2i:82:ALA:HB1	40:2i:96:LEU:HD23	1.92	0.51
1:1A:18:C:O2'	1:1A:554:U:OP1	2.21	0.50
1:1A:596:G:H2'	1:1A:597:U:O4'	2.10	0.50
1:1A:844:C:H2'	1:1A:845:G:H5'	1.93	0.50
1:1A:1842:G:O2'	3:1D:253:GLN:OE1	2.29	0.50
15:1T:51:ARG:HG3	15:1T:98:LYS:HD2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:131:C:O2'	32:1a:262:A:N3	2.31	0.50
32:1a:975:A:H5'	32:1a:975:A:C8	2.47	0.50
32:1a:1149:C:O2'	32:1a:1280:A:N1	2.34	0.50
32:1a:1504:G:OP1	32:1a:1507:A:H4'	2.11	0.50
1:2A:886:C:H1'	1:2A:890:A:N1	2.27	0.50
1:2A:1223:G:N2	1:2A:1226:A:OP2	2.38	0.50
1:2A:1598:C:O3'	19:2X:35:THR:OG1	2.29	0.50
1:2A:1667:G:O2'	1:2A:1991:U:O4	2.26	0.50
1:2A:1805:U:H5"	3:2D:250:TRP:CE2	2.46	0.50
1:2A:2513:G:N2	4:2E:143:ASN:OD1	2.44	0.50
1:2A:2698:U:H2'	1:2A:2699:C:C6	2.46	0.50
1:2A:2732:G:H3'	1:2A:2733:A:O4'	2.11	0.50
32:2a:9:G:H2'	32:2a:10:A:C8	2.45	0.50
32:2a:1163:C:N4	32:2a:1164:G:O6	2.45	0.50
32:2a:1183:A:O2'	32:2a:1185:G:OP2	2.27	0.50
32:2a:1309:G:N7	44:2m:99:ARG:NH2	2.58	0.50
1:1A:244:A:H4'	11:1P:74:GLU:HB2	1.93	0.50
1:1A:987:G:O2'	1:1A:1000:A:N3	2.40	0.50
1:1A:2022:U:O2'	1:1A:2617:C:H5'	2.12	0.50
9:1N:121:LYS:HD3	9:1N:130:HIS:CE1	2.46	0.50
11:1P:50:ARG:HD3	30:18:7:HIS:CD2	2.46	0.50
15:1T:74:ARG:HG2	15:1T:76:PHE:CZ	2.47	0.50
18:1W:12:ILE:HD13	18:1W:17:VAL:HG22	1.93	0.50
32:1a:50:A:H8	32:1a:50:A:OP1	1.95	0.50
32:1a:757:U:OP1	32:1a:822:C:O2'	2.28	0.50
32:1a:939:G:O5'	38:1g:102:ARG:NH1	2.44	0.50
32:1a:1458:G:H5'	51:1t:32:ALA:HB2	1.93	0.50
1:2A:62:C:H42	1:2A:93:G:H1	1.59	0.50
1:2A:189:G:OP2	23:21:39:LYS:NZ	2.44	0.50
1:2A:276:A:H5"	1:2A:277:C:H5'	1.92	0.50
1:2A:1359:A:N3	1:2A:1359:A:H5'	2.27	0.50
1:2A:1653:G:C4	13:2R:9:LYS:HD2	2.45	0.50
1:2A:1803:A:O2'	3:2D:259:THR:HG21	2.11	0.50
1:2A:2065:C:H2'	1:2A:2066:C:C6	2.45	0.50
1:2A:2175:C:H2'	1:2A:2176:A:H8	1.75	0.50
1:2A:2452:C:C2	55:2z:9:ARG:HD2	2.46	0.50
9:2N:20:GLY:HA2	9:2N:61:ARG:HG3	1.93	0.50
9:2N:34:LEU:O	9:2N:49:GLY:HA3	2.10	0.50
10:2O:113:LYS:O	10:2O:117:LEU:HG	2.11	0.50
11:2P:82:GLY:HA2	11:2P:113:LYS:O	2.11	0.50
26:24:46:GLN:HE22	26:24:48:ARG:HH11	1.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:576:G:O6	32:2a:880:C:O2'	2.26	0.50
32:2a:909:A:H2'	32:2a:910:C:O4'	2.11	0.50
32:2a:1178:G:N2	32:2a:1180:A:H3'	2.26	0.50
1:1A:36:G:N3	1:1A:450:G:O2'	2.43	0.50
1:1A:185:U:H4'	1:1A:218:A:H4'	1.94	0.50
1:1A:1069:A:H4'	1:1A:1070:A:C8	2.46	0.50
1:1A:2758:A:C4	7:1H:67:LEU:HD21	2.46	0.50
7:1H:149:ARG:HH12	7:1H:167:GLU:CD	2.19	0.50
32:1a:1025:U:O2	32:1a:1036:G:C6	2.64	0.50
36:1e:12:LEU:HD21	36:1e:14:ARG:HD3	1.94	0.50
39:1h:119:LEU:HB3	39:1h:123:GLU:HB2	1.94	0.50
43:1l:54:LYS:HG2	43:1l:75:HIS:CD2	2.47	0.50
54:1x:19:G:H4'	54:1x:20:U:OP2	2.11	0.50
1:2A:614(C):A:C4	5:2F:180:GLY:HA3	2.46	0.50
1:2A:854:G:H2'	1:2A:855:G:C8	2.45	0.50
1:2A:1005:C:H2'	1:2A:1006:C:C6	2.46	0.50
1:2A:2261:C:C6	22:20:16:SER:HB3	2.46	0.50
1:2A:2475:C:H42	1:2A:2529:G:H22	1.58	0.50
10:2O:4:PRO:O	10:2O:5:GLN:HB2	2.11	0.50
12:2Q:75:THR:HG21	12:2Q:87:LYS:NZ	2.26	0.50
21:2Z:4:ARG:HA	21:2Z:58:VAL:H	1.76	0.50
28:26:23:THR:OG1	28:26:24:GLU:N	2.41	0.50
32:2a:1367:C:H4'	41:2j:48:THR:HG21	1.92	0.50
54:2x:56:C:H2'	54:2x:57:A:C8	2.46	0.50
1:1A:2849:U:N3	1:1A:2867:G:O4'	2.44	0.50
32:1a:502:G:C2	32:1a:503:C:C2	3.00	0.50
34:1c:20:SER:HG	34:1c:40:ARG:NH2	2.06	0.50
38:1g:27:ILE:HD13	38:1g:40:ALA:HA	1.94	0.50
44:1m:87:TYR:O	44:1m:91:ARG:HG2	2.10	0.50
51:1t:9:ASN:O	51:1t:10:LEU:HB2	2.11	0.50
1:2A:111:A:H4'	24:22:65:ASN:HD21	1.77	0.50
1:2A:337:C:H2'	1:2A:338:G:O4'	2.11	0.50
1:2A:938:G:OP2	30:28:52:LYS:NZ	2.26	0.50
1:2A:1486:A:H2'	1:2A:1487:G:C8	2.46	0.50
1:2A:1614:A:N6	18:2W:92:ARG:O	2.42	0.50
1:2A:1861:G:H2'	1:2A:1862:G:H8	1.77	0.50
1:2A:2152:G:H2'	1:2A:2153:G:O4'	2.12	0.50
5:2F:168:ARG:HG3	5:2F:175:THR:HG21	1.94	0.50
6:2G:97:ASP:H	6:2G:100:TRP:HD1	1.56	0.50
9:2N:123:TYR:CE2	9:2N:129:PRO:HD2	2.46	0.50
15:2T:60:THR:HG22	15:2T:77:PRO:HA	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:2X:61:GLY:HA3	19:2X:73:ARG:O	2.12	0.50
26:24:41:PRO:HB3	26:24:49:PHE:CE1	2.47	0.50
26:24:45:GLY:O	26:24:47:GLN:N	2.39	0.50
32:2a:1279:A:H5'	41:2j:9:ARG:NH2	2.27	0.50
34:2c:21:ARG:NH2	34:2c:56:ASP:OD1	2.44	0.50
42:2k:82:VAL:HB	42:2k:108:ILE:HG12	1.93	0.50
1:1A:7:G:H2'	1:1A:8:A:H8	1.76	0.50
1:1A:106:C:H1'	20:1Y:1:MET:HE2	1.93	0.50
1:1A:384:U:H2'	1:1A:385:C:H6	1.76	0.50
1:1A:1058:G:H1	1:1A:1080:C:N4	2.05	0.50
6:1G:179:PRO:HG3	26:14:43:TYR:OH	2.12	0.50
17:1V:29:PRO:HA	17:1V:61:VAL:HG22	1.94	0.50
32:1a:486:U:H2'	32:1a:487:A:C8	2.44	0.50
32:1a:544:G:P	35:1d:59:ARG:HH22	2.31	0.50
32:1a:828:A:H2'	32:1a:829:G:O4'	2.11	0.50
32:1a:1030:C:N4	32:1a:1031:G:N1	2.41	0.50
32:1a:1402:4OC:HM43	32:1a:1403:C:C2	2.46	0.50
39:1h:116:LYS:HD2	39:1h:129:VAL:HG11	1.93	0.50
43:1l:24:VAL:HB	43:1l:27:LEU:HD12	1.93	0.50
1:2A:646:A:H2'	1:2A:647:G:O4'	2.11	0.50
1:2A:1430:C:H2'	1:2A:1431:U:H6	1.76	0.50
1:2A:2262:U:H4'	1:2A:2328:A:H2	1.77	0.50
3:2D:232:PRO:HB3	3:2D:244:ARG:NH2	2.25	0.50
36:2e:47:LYS:O	36:2e:57:LYS:HD2	2.11	0.50
37:2f:82:ARG:HB2	37:2f:85:VAL:HG23	1.92	0.50
38:2g:113:GLU:HG2	38:2g:119:ARG:HG2	1.93	0.50
1:1A:107:C:H2'	1:1A:108:U:C6	2.46	0.50
32:1a:272:C:H2'	32:1a:273:A:C8	2.46	0.50
32:1a:341:C:H2'	32:1a:342:C:C6	2.47	0.50
32:1a:603:U:H2'	32:1a:604:G:C8	2.47	0.50
32:1a:1272:G:H2'	32:1a:1273:G:O4'	2.11	0.50
34:1c:153:VAL:HA	34:1c:197:GLY:O	2.11	0.50
48:1q:60:ILE:HG22	48:1q:74:LEU:HB2	1.92	0.50
1:2A:252:G:OP1	11:2P:50:ARG:NH1	2.43	0.50
1:2A:271(D):G:H2'	1:2A:271(E):U:C6	2.47	0.50
1:2A:271(G):C:H2'	1:2A:271(H):G:C8	2.46	0.50
1:2A:521:G:H2'	1:2A:522:G:C8	2.45	0.50
1:2A:1439:A:H2'	1:2A:1440:G:O4'	2.11	0.50
1:2A:1916:A:N1	32:2a:1409:C:H5'	2.27	0.50
1:2A:1952:A:C2	10:2O:22:ILE:HB	2.47	0.50
1:2A:2114:A:H2'	1:2A:2114:A:N3	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2478:A:OP2	31:29:2:LYS:NZ	2.32	0.50
6:2G:97:ASP:O	6:2G:101:ILE:HG13	2.11	0.50
7:2H:19:VAL:HG12	7:2H:20:ALA:H	1.77	0.50
11:2P:88:LEU:HA	11:2P:91:PHE:HD2	1.77	0.50
14:2S:88:ASP:OD1	14:2S:90:GLY:N	2.34	0.50
19:2X:84:ALA:HB3	19:2X:87:GLN:HG3	1.92	0.50
32:2a:1314:C:N4	50:2s:2:PRO:O	2.43	0.50
33:2b:84:GLU:OE1	33:2b:87:ARG:NH1	2.41	0.50
1:1A:222:A:OP1	60:1A:3987:HOH:O	2.19	0.50
1:1A:1090:U:H2'	1:1A:1091:G:C8	2.46	0.50
1:1A:1587:A:H2'	1:1A:1588:C:C6	2.47	0.50
1:1A:2033:A:O2'	1:1A:2035:G:OP2	2.26	0.50
1:1A:2127:G:H21	1:1A:2173:A:H1'	1.76	0.50
1:1A:2156:G:H2'	1:1A:2157:G:C4	2.46	0.50
4:1E:119:ARG:NH1	4:1E:156:MET:O	2.45	0.50
13:1R:12:ARG:O	13:1R:17:ARG:NH1	2.44	0.50
32:1a:17:U:H2'	32:1a:18:C:C6	2.46	0.50
32:1a:524:G:H2'	32:1a:525:C:C6	2.47	0.50
35:1d:112:VAL:HG23	35:1d:116:GLN:NE2	2.25	0.50
35:1d:178:VAL:C	35:1d:180:GLY:H	2.20	0.50
38:1g:24:THR:O	38:1g:28:ASN:ND2	2.45	0.50
44:1m:97:PRO:HA	44:1m:110:ARG:HD3	1.94	0.50
45:1n:4:LYS:O	45:1n:7:ILE:HG22	2.12	0.50
1:2A:30:G:H2'	1:2A:31:C:C6	2.46	0.50
1:2A:1346:G:OP2	60:2A:3739:HOH:O	2.19	0.50
1:2A:1590:U:H2'	1:2A:1591:G:H8	1.76	0.50
1:2A:1665:A:H5"	10:2O:66:LYS:O	2.12	0.50
7:2H:21:PRO:HG2	7:2H:23:ARG:NH2	2.18	0.50
9:2N:34:LEU:HD21	9:2N:120:LEU:HD13	1.93	0.50
26:24:18:CYS:SG	26:24:19:GLY:N	2.85	0.50
32:2a:757:U:O2'	32:2a:879:C:O2	2.24	0.50
32:2a:971:G:N2	32:2a:1363(A):A:OP2	2.31	0.50
32:2a:1227:A:H5'	44:2m:111:LYS:HD3	1.92	0.50
33:2b:84:GLU:O	33:2b:219:VAL:HG11	2.12	0.50
40:2i:64:THR:OG1	40:2i:66:ARG:NH1	2.45	0.50
1:1A:55:G:O2'	1:1A:127:A:N1	2.40	0.50
1:1A:570:G:H2'	1:1A:2030:A:C5	2.46	0.50
1:1A:636:G:H2'	11:1P:115:LEU:HD22	1.93	0.50
1:1A:1039:G:H1	1:1A:1116:C:N4	2.10	0.50
1:1A:1830:C:H2'	1:1A:1831:G:H8	1.75	0.50
1:1A:2687:U:H2'	1:1A:2688:U:O4'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:1H:149:ARG:NH1	7:1H:167:GLU:OE1	2.43	0.50
18:1W:60:ASN:HD22	18:1W:60:ASN:N	2.09	0.50
32:1a:262:A:C6	32:1a:263:A:C6	2.99	0.50
32:1a:501:C:H2'	32:1a:502:G:H8	1.75	0.50
32:1a:973:G:H3'	32:1a:974:A:H5"	1.94	0.50
33:1b:24:TRP:HZ3	33:1b:29:ALA:HB2	1.77	0.50
50:1s:50:ALA:HA	50:1s:58:VAL:O	2.11	0.50
1:2A:1259:G:H2'	1:2A:1260:G:C8	2.46	0.50
1:2A:1335:U:O4	60:2A:3742:HOH:O	2.20	0.50
1:2A:1946:U:H2'	1:2A:1947:C:C6	2.47	0.50
2:2B:1:U:H2'	2:2B:2:C:C6	2.47	0.50
7:2H:97:ARG:HH12	7:2H:99:VAL:HG13	1.75	0.50
8:2I:3:VAL:HG12	8:2I:38:LEU:HA	1.93	0.50
32:2a:102:G:C6	32:2a:103:C:C4	2.99	0.50
32:2a:976:G:C8	32:2a:1362:C:N4	2.80	0.50
32:2a:1416:G:H2'	32:2a:1417:G:O4'	2.11	0.50
1:1A:1394:U:H2'	1:1A:1395:A:O4'	2.12	0.50
1:1A:1676:A:H2'	1:1A:1677:A:O4'	2.12	0.50
1:1A:1753:G:N1	1:1A:1756:G:OP2	2.42	0.50
5:1F:183:VAL:O	5:1F:187:VAL:HG23	2.12	0.50
6:1G:11:TYR:HA	6:1G:15:VAL:HB	1.93	0.50
6:1G:77:ILE:HG22	6:1G:80:PHE:H	1.75	0.50
14:1S:65:VAL:O	14:1S:69:VAL:HG12	2.12	0.50
39:1h:94:TYR:CE1	39:1h:132:GLU:HB2	2.47	0.50
54:1x:73:A:H5"	54:1x:74:C:H5'	1.94	0.50
1:2A:286:C:H42	1:2A:355:G:H1	1.59	0.50
1:2A:668:G:H5'	1:2A:669:G:OP2	2.11	0.50
1:2A:910:A:C5	12:2Q:13:GLN:HG3	2.47	0.50
1:2A:2041:U:H2'	1:2A:2042:A:C8	2.46	0.50
1:2A:2887:U:H2'	1:2A:2888:C:C6	2.47	0.50
21:2Z:48:PHE:HE1	21:2Z:71:VAL:HG21	1.76	0.50
24:22:29:LYS:HG2	24:22:57:ILE:HD13	1.94	0.50
32:2a:169:C:H2'	32:2a:170:U:H6	1.77	0.50
32:2a:831:U:H3	32:2a:855:G:H1	1.60	0.50
40:2i:23:ASN:CG	40:2i:25:LYS:HG2	2.37	0.50
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.93	0.50
49:2r:30:ASP:HB3	49:2r:33:ASP:HB2	1.92	0.50
1:1A:1778:U:H2'	1:1A:1784:A:N6	2.27	0.49
1:1A:2163:C:OP1	1:1A:2165:G:N2	2.45	0.49
1:1A:2728:U:H2'	1:1A:2729:G:C8	2.47	0.49
32:1a:1358:U:OP1	45:1n:35:ARG:HG2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:22:TRP:CD1	34:1c:59:ARG:HD2	2.47	0.49
34:1c:124:ILE:HG22	34:1c:130:VAL:HG22	1.94	0.49
1:2A:475:U:H4'	1:2A:510:C:H5'	1.93	0.49
1:2A:686:G:N2	1:2A:788:A:H61	2.09	0.49
1:2A:2773:C:H2'	1:2A:2774:C:H6	1.77	0.49
6:2G:15:VAL:HA	6:2G:175:LEU:HD23	1.93	0.49
17:2V:3:ALA:HB3	17:2V:14:VAL:HG23	1.93	0.49
20:2Y:74:PRO:O	20:2Y:82:PRO:HA	2.12	0.49
24:22:1:MET:HE2	24:22:6:VAL:HG22	1.94	0.49
24:22:51:ARG:HG3	24:22:55:ARG:NH2	2.26	0.49
32:2a:710:G:H2'	32:2a:711:G:H8	1.77	0.49
32:2a:1057:G:H2'	32:2a:1058:G:O4'	2.12	0.49
32:2a:1248:A:N3	40:2i:70:LYS:NZ	2.60	0.49
39:2h:19:VAL:HG23	39:2h:21:LYS:HG3	1.93	0.49
50:2s:51:VAL:O	50:2s:57:HIS:HA	2.12	0.49
8:1I:82:ARG:HH22	8:1I:90:GLY:H	1.60	0.49
8:1I:96:ASP:OD1	8:1I:96:ASP:N	2.44	0.49
17:1V:14:VAL:HB	17:1V:96:ILE:HG13	1.93	0.49
32:1a:198:G:H2'	32:1a:199:G:H8	1.76	0.49
32:1a:299:G:H2'	32:1a:300:A:C8	2.47	0.49
32:1a:381:C:H2'	32:1a:382:A:O4'	2.12	0.49
32:1a:1030:C:H3'	32:1a:1030(A):G:H5"	1.94	0.49
33:1b:16:HIS:HB3	33:1b:210:SER:HB2	1.94	0.49
40:1i:31:GLN:HE21	40:1i:36:TYR:HA	1.77	0.49
43:1l:33:ARG:HE	43:1l:62:SER:HB3	1.77	0.49
44:1m:78:ILE:HA	44:1m:81:LEU:HB2	1.93	0.49
1:2A:27:G:N2	1:2A:512:G:H1'	2.26	0.49
1:2A:2030:A:H4'	1:2A:2031:A:C8	2.47	0.49
1:2A:2870:C:H2'	1:2A:2871:C:O4'	2.12	0.49
9:2N:121:LYS:HG2	9:2N:130:HIS:NE2	2.26	0.49
15:2T:64:ARG:NH1	15:2T:103:ARG:HA	2.27	0.49
32:2a:11:G:N2	32:2a:23:C:N3	2.44	0.49
32:2a:34:C:H2'	32:2a:35:G:C8	2.47	0.49
32:2a:1226:C:H2'	44:2m:103:THR:HB	1.94	0.49
32:2a:1458:G:OP1	51:2t:35:THR:OG1	2.25	0.49
32:2a:1492:A:H2'	32:2a:1493:A:C4	2.47	0.49
33:2b:48:MET:HA	33:2b:51:LEU:HB2	1.94	0.49
1:1A:323:G:C8	5:1F:171:PRO:HG3	2.47	0.49
1:1A:463:G:N1	1:1A:467:G:C6	2.81	0.49
1:1A:635:C:O2'	1:1A:639:U:OP1	2.21	0.49
1:1A:1782:C:OP1	60:1A:3989:HOH:O	2.20	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2691:C:O3'	1:1A:2871:C:H4'	2.12	0.49
6:1G:145:THR:HG23	6:1G:148:MET:SD	2.52	0.49
10:1O:24:VAL:HA	10:1O:39:ILE:HG22	1.93	0.49
10:1O:63:VAL:HG12	10:1O:106:LEU:HD11	1.93	0.49
28:16:11:LEU:HB2	28:16:21:TYR:HB2	1.94	0.49
32:1a:1298:C:H5"	32:1a:1299:A:C8	2.46	0.49
1:2A:76:C:O3'	24:22:59:ARG:HG3	2.11	0.49
1:2A:2126:A:N6	1:2A:2162:G:O2'	2.46	0.49
1:2A:2128:C:N4	1:2A:2160:G:H1	2.10	0.49
8:2I:40:THR:O	8:2I:44:LEU:HB2	2.12	0.49
8:2I:72:LEU:HD12	8:2I:138:ILE:HG21	1.94	0.49
13:2R:29:LEU:HB3	13:2R:75:LEU:HD11	1.95	0.49
26:24:48:ARG:HG3	26:24:52:THR:HA	1.94	0.49
33:2b:48:MET:HA	33:2b:51:LEU:HD12	1.93	0.49
36:2e:99:GLY:N	36:2e:117:ASP:OD1	2.45	0.49
38:2g:65:ALA:HB3	38:2g:124:LEU:HD23	1.94	0.49
51:2t:9:ASN:O	51:2t:10:LEU:HB2	2.13	0.49
1:1A:1045:A:O2'	1:1A:1047:G:C4	2.64	0.49
1:1A:1171:G:H3'	1:1A:1173:G:H5'	1.95	0.49
1:1A:1614:A:N1	18:1W:87:PRO:HB3	2.26	0.49
1:1A:1798:U:H5'	3:1D:259:THR:CG2	2.40	0.49
12:1Q:30:GLY:HA2	12:1Q:107:ALA:HB2	1.92	0.49
17:1V:16:PRO:HD3	17:1V:99:ILE:HD11	1.94	0.49
32:1a:284:G:H2'	32:1a:285:G:H8	1.77	0.49
32:1a:355:C:O2'	32:1a:388:G:N3	2.34	0.49
32:1a:1029:C:N4	32:1a:1031:G:O6	2.45	0.49
34:1c:35:GLU:OE1	34:1c:97:LYS:NZ	2.41	0.49
1:2A:1965:C:H3'	1:2A:1966:A:H2'	1.94	0.49
1:2A:2267:A:H5"	1:2A:2268:A:H5'	1.93	0.49
3:2D:223:GLY:HA3	3:2D:231:HIS:CD2	2.48	0.49
9:2N:30:ILE:HG23	9:2N:52:VAL:HG11	1.94	0.49
21:2Z:73:GLN:HE21	21:2Z:75:ASN:HD21	1.60	0.49
32:2a:985:C:H2'	32:2a:986:A:H8	1.77	0.49
32:2a:1002:G:C2	32:2a:1003:G:H1'	2.47	0.49
32:2a:1438:G:H2'	32:2a:1439:C:C6	2.48	0.49
34:2c:20:SER:HB3	34:2c:22:TRP:NE1	2.27	0.49
35:2d:172:PRO:HD2	35:2d:173:TRP:CZ3	2.48	0.49
49:2r:22:VAL:HB	49:2r:56:THR:HA	1.95	0.49
1:1A:45:C:H2'	1:1A:47:C:C6	2.47	0.49
1:1A:881:G:C2	1:1A:882:G:H1'	2.47	0.49
1:1A:1234:U:H2'	1:1A:1235:G:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1639:U:H4'	1:1A:2699:C:H4'	1.93	0.49
1:1A:2126:A:N3	1:1A:2127:G:H1'	2.27	0.49
32:1a:96:U:H2'	32:1a:97:G:H8	1.77	0.49
32:1a:130:A:C8	48:1q:63:ARG:HD3	2.47	0.49
32:1a:160:A:H1'	32:1a:344:A:C8	2.47	0.49
32:1a:343:U:O2'	32:1a:346:G:O6	2.26	0.49
33:1b:47:THR:HA	33:1b:202:PRO:HG2	1.94	0.49
36:1e:85:GLY:C	36:1e:87:SER:H	2.20	0.49
44:1m:34:LEU:HD23	44:1m:41:PRO:HA	1.93	0.49
44:1m:88:ARG:HG2	44:1m:98:VAL:HG13	1.94	0.49
1:2A:446:G:OP1	16:2U:3:ARG:NH1	2.45	0.49
1:2A:531:C:OP1	1:2A:561:G:N2	2.41	0.49
1:2A:594:U:H3	1:2A:663:G:H1	1.60	0.49
1:2A:1469:A:H2'	1:2A:1470:G:O4'	2.13	0.49
1:2A:2198:A:O2'	1:2A:2224:G:N2	2.46	0.49
11:2P:87:ASP:HB3	11:2P:105:LEU:HD23	1.94	0.49
20:2Y:79:CYS:O	20:2Y:81:LYS:N	2.45	0.49
25:23:8:LEU:HB2	25:23:28:LEU:HD22	1.94	0.49
32:2a:35:G:H2'	32:2a:36:C:C6	2.47	0.49
34:2c:124:ILE:HG21	34:2c:130:VAL:HG13	1.95	0.49
35:2d:157:LEU:HG	35:2d:161:ASN:HD21	1.77	0.49
36:2e:36:ASP:HB2	36:2e:38:GLN:CD	2.37	0.49
44:2m:92:HIS:CE1	44:2m:98:VAL:HG11	2.46	0.49
53:2v:19:U:H2'	53:2v:20:U:H6	1.78	0.49
1:1A:747:U:O2	1:1A:2014:A:H1'	2.13	0.49
1:1A:1557:C:H5"	1:1A:1558:A:OP2	2.12	0.49
2:1B:14:U:OP2	2:1B:70:C:O2'	2.30	0.49
21:1Z:54:HIS:ND1	21:1Z:101:PRO:HG3	2.28	0.49
21:1Z:130:PRO:HA	21:1Z:133:ILE:HG13	1.93	0.49
25:13:6:VAL:HG13	25:13:54:VAL:HG11	1.94	0.49
32:1a:517:G:H22	32:1a:533:A:P	2.36	0.49
32:1a:649:G:H2'	32:1a:650:G:C8	2.43	0.49
32:1a:719:C:H1'	49:1r:49:LYS:HB3	1.94	0.49
32:1a:1139:G:H4'	32:1a:1140:C:H5'	1.94	0.49
32:1a:1342:C:H2'	32:1a:1343:G:H8	1.78	0.49
35:1d:177:ASP:OD2	35:1d:180:GLY:HA3	2.12	0.49
47:1p:4:ILE:HD13	47:1p:21:VAL:HB	1.94	0.49
54:1x:17:C:H3'	54:1x:17(A):U:H6	1.77	0.49
1:2A:322:A:OP2	5:2F:169:ASN:HB2	2.12	0.49
1:2A:443:A:C6	5:2F:45:ARG:HD2	2.48	0.49
1:2A:657:U:H2'	1:2A:658:C:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1935:G:H1'	1:2A:1964:G:N2	2.28	0.49
1:2A:2010:G:H5"	18:2W:42:ARG:HB2	1.94	0.49
1:2A:2262:U:H4'	1:2A:2328:A:C2	2.47	0.49
1:2A:2689:U:P	1:2A:2719:G:H22	2.35	0.49
32:2a:708:C:H2'	32:2a:709:G:H8	1.77	0.49
32:2a:1404:5MC:O2	32:2a:1519:MA6:O2'	2.30	0.49
33:2b:74:LYS:HG2	33:2b:169:LYS:HG2	1.93	0.49
33:2b:81:VAL:O	33:2b:85:ALA:N	2.46	0.49
33:2b:155:LEU:HD11	33:2b:159:PRO:HG3	1.94	0.49
51:2t:10:LEU:HG	51:2t:12:ALA:H	1.77	0.49
1:1A:286:C:H2'	1:1A:287:C:C6	2.48	0.49
7:1H:46:GLU:OE1	7:1H:51:ARG:NH2	2.23	0.49
8:1I:133:HIS:ND1	8:1I:134:PRO:O	2.46	0.49
32:1a:502:G:OP1	43:1l:118:SER:HB3	2.13	0.49
32:1a:1128:C:H1'	32:1a:1147:C:H42	1.78	0.49
43:1l:8:ASN:HB2	48:1q:34:LYS:NZ	2.28	0.49
1:2A:1530:C:N4	1:2A:1539:G:H1	2.10	0.49
1:2A:2012:G:OP1	18:2W:11:ARG:NH2	2.44	0.49
1:2A:2138:C:H2'	1:2A:2139:C:C6	2.43	0.49
6:2G:139:LEU:HA	6:2G:144:ILE:HB	1.95	0.49
10:2O:76:ALA:HB3	15:2T:75:ILE:HB	1.95	0.49
11:2P:91:PHE:O	11:2P:121:LYS:NZ	2.41	0.49
32:2a:91:C:H2'	32:2a:92:C:C6	2.47	0.49
32:2a:194:C:C2'	32:2a:195:A:H5"	2.43	0.49
32:2a:750:G:N2	46:2o:23:GLY:O	2.22	0.49
32:2a:1274:G:O2'	32:2a:1275:A:O4'	2.24	0.49
32:2a:1316:G:N2	32:2a:1318:A:H3'	2.27	0.49
54:2x:25:C:H2'	54:2x:26:G:O4'	2.13	0.49
1:1A:271(N):U:O2'	1:1A:271(O):C:H5'	2.13	0.49
1:1A:582:G:H2'	1:1A:583:G:C8	2.47	0.49
1:1A:1178:C:H2'	1:1A:1179:C:H6	1.78	0.49
1:1A:1794:U:H2'	1:1A:1795:C:H6	1.76	0.49
3:1D:106:ILE:H	3:1D:106:ILE:HG12	1.33	0.49
7:1H:94:TYR:HA	7:1H:106:THR:O	2.13	0.49
11:1P:125:VAL:HG13	11:1P:138:LEU:HD21	1.95	0.49
31:19:7:VAL:HG12	31:19:34:GLN:HB3	1.95	0.49
32:1a:629:G:H2'	32:1a:630:G:O4'	2.13	0.49
32:1a:679:C:H2'	32:1a:680:C:C6	2.48	0.49
32:1a:1049:U:O4	45:1n:3:ARG:NH1	2.46	0.49
34:1c:162:GLN:NE2	53:1v:24:A:O2'	2.46	0.49
35:1d:18:LYS:HE2	35:1d:33:MET:HB3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:1h:7:ALA:HB2	39:1h:85:ARG:HG3	1.94	0.49
1:2A:361:G:O2'	1:2A:362:U:H5'	2.13	0.49
1:2A:1657:C:H2'	1:2A:1658:C:C6	2.48	0.49
1:2A:1918:A:O2'	1:2A:1920:4OC:N4	2.45	0.49
6:2G:83:ARG:N	6:2G:86:MET:SD	2.77	0.49
12:2Q:42:ILE:HD13	12:2Q:97:VAL:HB	1.95	0.49
12:2Q:110:THR:HG23	12:2Q:113:GLN:HB2	1.94	0.49
23:21:59:THR:O	23:21:91:LYS:NZ	2.45	0.49
32:2a:21:G:H2'	32:2a:22:G:C8	2.47	0.49
32:2a:100:C:H2'	32:2a:101:A:C8	2.48	0.49
32:2a:405:U:O4	35:2d:2:GLY:N	2.46	0.49
32:2a:939:G:H1	32:2a:1344:C:H42	1.60	0.49
32:2a:1244:C:OP2	52:2u:9:ARG:HG2	2.13	0.49
42:2k:21:ILE:HD13	42:2k:30:VAL:HG13	1.95	0.49
51:2t:79:ARG:HD2	51:2t:83:ARG:NH2	2.28	0.49
1:1A:821:A:H2'	1:1A:946:G:H5"	1.94	0.49
1:1A:1495:A:H2'	1:1A:1496:A:C8	2.47	0.49
1:1A:1703:G:H2'	1:1A:1704:G:C8	2.47	0.49
1:1A:2072:G:N2	60:1A:4159:HOH:O	2.45	0.49
1:1A:2144:U:H3	1:1A:2147:G:H1	1.59	0.49
2:1B:12:C:H2'	22:10:73:GLY:HA3	1.95	0.49
7:1H:119:GLU:OE1	7:1H:120:GLY:N	2.46	0.49
12:1Q:38:GLU:HA	12:1Q:99:PRO:HG3	1.95	0.49
32:1a:60:A:H4'	32:1a:61:G:H5'	1.93	0.49
32:1a:109:A:C6	32:1a:326:G:C6	3.01	0.49
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.28	0.49
39:1h:82:HIS:CE1	39:1h:84:ARG:HD2	2.48	0.49
1:2A:112:U:H5"	1:2A:113:G:OP2	2.13	0.49
1:2A:522:G:H2'	1:2A:523:C:C6	2.48	0.49
1:2A:803:U:OP1	60:2A:3741:HOH:O	2.20	0.49
1:2A:910:A:N1	1:2A:2277:G:H1'	2.28	0.49
1:2A:1514:U:H2'	1:2A:1515:G:C8	2.46	0.49
1:2A:1913:A:H4'	1:2A:1914:C:H5'	1.94	0.49
8:2I:116:LEU:HD11	8:2I:120:ILE:HG13	1.95	0.49
16:2U:8:VAL:HG12	16:2U:11:ARG:NH2	2.27	0.49
32:2a:1298:C:H4'	32:2a:1299:A:C4	2.47	0.49
32:2a:1332:A:H2'	32:2a:1333:A:C8	2.47	0.49
43:2l:61:THR:C	43:2l:63:GLY:H	2.21	0.49
1:1A:1053:C:N4	1:1A:1106:G:H1	2.10	0.49
1:1A:1266:G:O6	18:1W:13:SER:OG	2.28	0.49
1:1A:2370:G:C6	1:1A:2371:G:C6	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1Z:99:TYR:HA	21:1Z:124:ILE:O	2.12	0.49
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.47	0.49
32:1a:1515:C:H2'	32:1a:1516:G:H8	1.78	0.49
33:1b:16:HIS:HB2	33:1b:204:ASN:CB	2.38	0.49
44:1m:57:ARG:HG2	44:1m:61:GLU:OE1	2.13	0.49
51:1t:37:SER:O	51:1t:41:ILE:HG13	2.13	0.49
1:2A:108:U:H4'	1:2A:347:A:H2	1.77	0.49
1:2A:577:G:O2'	1:2A:1254:A:OP1	2.29	0.49
1:2A:762:U:H5'	1:2A:763:G:N2	2.28	0.49
1:2A:1518:U:H2'	1:2A:1519:G:O4'	2.13	0.49
1:2A:1593:G:H2'	1:2A:1594:G:H8	1.74	0.49
1:2A:1660:C:H2'	1:2A:1661:G:H8	1.77	0.49
5:2F:101:LEU:HD12	5:2F:102:PRO:HD2	1.94	0.49
7:2H:53:GLU:HA	7:2H:65:HIS:HE2	1.78	0.49
18:2W:12:ILE:O	18:2W:101:SER:OG	2.30	0.49
26:24:47:GLN:O	26:24:49:PHE:N	2.38	0.49
32:2a:390:C:H2'	32:2a:391:G:C8	2.47	0.49
32:2a:689:C:OP1	42:2k:27:ASN:ND2	2.46	0.49
32:2a:1191:A:OP1	34:2c:4:LYS:HG3	2.13	0.49
32:2a:1259:C:O2'	32:2a:1283:G:N2	2.44	0.49
33:2b:16:HIS:HB3	33:2b:210:SER:HB2	1.95	0.49
36:2e:136:MET:O	36:2e:140:ARG:N	2.46	0.49
42:2k:78:GLN:HA	42:2k:103:LEU:HD22	1.95	0.49
1:1A:278:A:H2'	1:1A:279:C:C6	2.48	0.48
1:1A:1167:U:H2'	1:1A:1168:G:C8	2.47	0.48
1:1A:1364:G:C8	23:11:3:LYS:HD2	2.48	0.48
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.47	0.48
5:1F:123:LEU:HD12	5:1F:192:LEU:O	2.13	0.48
24:12:39:ALA:HB2	24:12:44:LEU:HD23	1.94	0.48
32:1a:925:G:H1	32:1a:1391:U:H3	1.61	0.48
32:1a:977:A:H2'	32:1a:978:A:H5"	1.94	0.48
33:1b:166:ASP:HB3	33:1b:169:LYS:HB3	1.95	0.48
35:1d:72:GLU:OE2	35:1d:207:TYR:OH	2.31	0.48
1:2A:271(E):U:H2'	1:2A:271(F):C:C6	2.48	0.48
1:2A:800:A:H8	1:2A:800:A:OP1	1.95	0.48
1:2A:2469:A:H5'	1:2A:2470:G:OP2	2.12	0.48
32:2a:437:U:O2'	35:2d:125:HIS:HE1	1.95	0.48
32:2a:920:U:H2'	32:2a:921:U:C6	2.47	0.48
32:2a:977:A:O2'	32:2a:979:C:OP2	2.26	0.48
34:2c:151:VAL:HG13	34:2c:200:ALA:HA	1.94	0.48
36:2e:148:VAL:HG21	39:2h:107:LEU:HD23	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:271(E):U:H2'	1:1A:271(F):C:C6	2.49	0.48
1:1A:807:U:C2	1:1A:808:G:C8	3.01	0.48
1:1A:2107:C:N4	1:1A:2182:G:H1	2.07	0.48
6:1G:70:VAL:HG11	6:1G:87:PRO:HB3	1.95	0.48
13:1R:28:LEU:HD22	13:1R:44:LEU:HD13	1.95	0.48
32:1a:171:A:H2'	32:1a:172:A:C8	2.48	0.48
32:1a:902:G:H2'	32:1a:903:G:H8	1.78	0.48
32:1a:1273:G:H3'	32:1a:1274:G:C8	2.44	0.48
32:1a:1503:A:N3	53:1v:13:A:N6	2.61	0.48
38:1g:54:THR:C	38:1g:56:GLN:H	2.21	0.48
1:2A:171:G:H2'	1:2A:172:C:C6	2.48	0.48
1:2A:1493:C:N4	1:2A:2206:G:O2'	2.43	0.48
1:2A:2173:A:H2'	1:2A:2174:C:O4'	2.13	0.48
15:2T:27:THR:O	15:2T:89:VAL:HG22	2.13	0.48
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.94	0.48
24:22:64:LEU:O	24:22:68:ARG:HG2	2.13	0.48
32:2a:942:G:C2	32:2a:1342:C:C2	3.00	0.48
33:2b:50:GLU:HB3	33:2b:200:ILE:O	2.13	0.48
33:2b:91:PRO:HG2	33:2b:155:LEU:HD13	1.94	0.48
36:2e:142:LEU:O	36:2e:143:ARG:NH1	2.36	0.48
50:2s:36:ARG:HA	50:2s:71:LEU:HB3	1.95	0.48
3:1D:232:PRO:HB3	3:1D:244:ARG:CZ	2.42	0.48
26:14:50:VAL:HG21	44:1m:65:LYS:N	2.28	0.48
1:2A:321:G:P	5:2F:135:LYS:HZ3	2.36	0.48
1:2A:731:C:OP2	60:2A:3745:HOH:O	2.20	0.48
1:2A:1247:A:OP1	5:2F:95:ARG:NH2	2.39	0.48
1:2A:1478:G:O2'	1:2A:1558:A:N1	2.46	0.48
1:2A:1510:G:H2'	1:2A:1511:C:C6	2.49	0.48
1:2A:1587:A:H2'	1:2A:1588:C:C6	2.48	0.48
6:2G:97:ASP:HA	6:2G:100:TRP:HD1	1.78	0.48
7:2H:3:ARG:HH11	7:2H:4:ILE:H	1.61	0.48
13:2R:2:ARG:HA	13:2R:5:LYS:HE2	1.95	0.48
18:2W:18:ARG:HG3	18:2W:76:VAL:HB	1.96	0.48
32:2a:12:U:H2'	32:2a:13:U:H5"	1.95	0.48
33:2b:55:PHE:HA	33:2b:58:ILE:HD12	1.95	0.48
40:2i:89:ASN:HB3	40:2i:92:TYR:CG	2.48	0.48
49:2r:32:ARG:HA	49:2r:69:THR:HG21	1.95	0.48
1:1A:340:A:H2'	1:1A:341:G:O4'	2.13	0.48
1:1A:1054:A:C6	1:1A:1055:G:C6	3.01	0.48
1:1A:1062:G:H5"	1:1A:1070:A:O2'	2.13	0.48
1:1A:1641:A:H2'	1:1A:1642:G:O4'	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2629:A:H1'	1:1A:2630:G:H5"	1.94	0.48
1:1A:2689:U:H4'	1:1A:2690:C:H5'	1.95	0.48
18:1W:25:ARG:NH2	18:1W:74:ALA:O	2.42	0.48
32:1a:401:C:H2'	32:1a:402:G:C8	2.48	0.48
32:1a:455:C:O5'	32:1a:455:C:H6	1.96	0.48
32:1a:1029:C:O2	32:1a:1033:G:N2	2.47	0.48
32:1a:1149:C:H2'	32:1a:1150:U:C6	2.47	0.48
51:1t:47:GLY:N	51:1t:48:LYS:HB2	2.28	0.48
1:2A:590:A:H2'	1:2A:591:C:C6	2.48	0.48
1:2A:1248:G:C2	16:2U:3:ARG:HD2	2.49	0.48
1:2A:1325:G:OP1	1:2A:1647:G:O2'	2.29	0.48
1:2A:1423:G:H2'	1:2A:1424:G:H8	1.78	0.48
1:2A:1991:U:H2'	1:2A:1992:G:H5"	1.95	0.48
6:2G:109:VAL:HG13	26:24:33:VAL:HG11	1.95	0.48
16:2U:65:ILE:HG13	16:2U:96:ALA:HB2	1.94	0.48
16:2U:103:PRO:O	16:2U:107:ALA:N	2.41	0.48
24:22:4:SER:HA	24:22:7:ARG:CZ	2.44	0.48
32:2a:731:G:H5'	32:2a:766:A:H4'	1.95	0.48
1:1A:858:U:O2	1:1A:2268:A:H2'	2.14	0.48
1:1A:1541:G:H3'	1:1A:1542:A:H2'	1.96	0.48
1:1A:2057:A:OP2	60:1A:3984:HOH:O	2.19	0.48
1:1A:2393:A:H2'	1:1A:2394:C:C6	2.45	0.48
1:1A:2812:G:H2'	1:1A:2813:A:C8	2.49	0.48
1:1A:2889:C:H2'	1:1A:2891:G:O4'	2.14	0.48
4:1E:93:VAL:HG21	4:1E:180:ASN:HA	1.95	0.48
32:1a:7:G:C8	36:1e:119:LEU:HD13	2.49	0.48
32:1a:341:C:H2'	32:1a:342:C:H6	1.77	0.48
32:1a:1342:C:H2'	32:1a:1343:G:C8	2.49	0.48
33:1b:162:ILE:O	33:1b:162:ILE:HG13	2.12	0.48
34:1c:148:GLY:HA3	34:1c:172:ARG:O	2.13	0.48
37:1f:97:PHE:CD2	49:1r:31:LEU:HD11	2.48	0.48
1:2A:1657:C:OP1	4:2E:136:ARG:N	2.41	0.48
1:2A:2135:A:H2'	1:2A:2136:C:C6	2.48	0.48
1:2A:2162:G:H4'	1:2A:2172:U:C2'	2.44	0.48
2:2B:66:A:N6	2:2B:109:C:H5"	2.28	0.48
5:2F:162:LEU:H	5:2F:162:LEU:HD12	1.78	0.48
10:2O:60:ALA:HA	10:2O:87:ILE:HG12	1.96	0.48
13:2R:12:ARG:HG2	13:2R:16:HIS:ND1	2.28	0.48
32:2a:923:A:H2'	32:2a:924:C:C6	2.48	0.48
32:2a:1163:C:H2'	32:2a:1164:G:C8	2.48	0.48
32:2a:1195:C:H2'	32:2a:1197:G:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1425:U:H1'	32:2a:1476:G:N2	2.28	0.48
39:2h:46:LYS:HZ3	39:2h:64:LYS:HG2	1.77	0.48
41:2j:61:GLU:OE1	45:2n:49:HIS:NE2	2.45	0.48
1:1A:1252:G:N7	16:1U:36:ARG:NH1	2.53	0.48
1:1A:1759:A:H1'	1:1A:2711:A:C2	2.48	0.48
1:1A:2171:A:O2'	1:1A:2172:U:H5"	2.14	0.48
5:1F:157:VAL:HA	5:1F:176:LEU:O	2.14	0.48
23:11:73:LEU:HD13	23:11:94:LEU:HB3	1.96	0.48
1:2A:196:A:C2	11:2P:51:PHE:HZ	2.32	0.48
1:2A:224:G:N7	1:2A:420:C:H4'	2.29	0.48
1:2A:484:C:H2'	1:2A:485:C:C6	2.49	0.48
1:2A:861:A:N3	2:2B:79:C:O2'	2.40	0.48
1:2A:1031:G:N2	31:29:36:GLN:HE22	2.12	0.48
1:2A:1219:G:H1	1:2A:1230:C:H42	1.62	0.48
1:2A:1507:A:O2'	1:2A:1508:A:O5'	2.27	0.48
1:2A:1946:U:H2'	1:2A:1947:C:H6	1.79	0.48
1:2A:2086:U:H2'	1:2A:2087:G:C8	2.49	0.48
3:2D:17:THR:HG1	3:2D:205:VAL:H	1.57	0.48
4:2E:18:ASP:HB3	15:2T:82:LEU:HD21	1.93	0.48
5:2F:150:GLY:HA2	5:2F:172:TRP:CE3	2.48	0.48
7:2H:144:VAL:O	7:2H:148:ILE:HG13	2.13	0.48
23:21:25:LYS:HG3	23:21:31:GLY:HA2	1.96	0.48
23:21:62:VAL:HG13	23:21:67:ILE:HG12	1.95	0.48
32:2a:6:G:O2'	32:2a:7:G:H8	1.97	0.48
32:2a:106:C:H2'	32:2a:107:G:H8	1.78	0.48
32:2a:1004:A:N3	32:2a:1038:C:C2	2.82	0.48
32:2a:1151:A:O3'	41:2j:70:ARG:NH2	2.46	0.48
32:2a:1183:A:H3'	32:2a:1184:G:C5'	2.44	0.48
32:2a:1324:A:O4'	32:2a:1362:C:H4'	2.14	0.48
39:2h:14:ARG:NE	39:2h:83:ILE:O	2.43	0.48
1:1A:671:C:H2'	1:1A:672:C:C6	2.48	0.48
1:1A:748:G:C8	18:1W:89:ALA:HB1	2.49	0.48
1:1A:1858:G:N2	1:1A:1883:G:H2'	2.28	0.48
1:1A:2328:A:H2'	1:1A:2329:G:C8	2.49	0.48
5:1F:157:VAL:HG21	5:1F:181:LEU:HD13	1.96	0.48
8:1I:5:LEU:H	8:1I:5:LEU:HD12	1.79	0.48
12:1Q:34:LEU:HB2	12:1Q:118:LEU:HD22	1.95	0.48
32:1a:270:A:H2'	32:1a:271:C:C6	2.49	0.48
32:1a:1442:G:O2'	32:1a:1442(A):G:H5'	2.14	0.48
37:1f:46:ARG:HH22	49:1r:37:VAL:HG11	1.77	0.48
44:1m:9:ILE:HG21	44:1m:19:LEU:HD23	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1399:C:H2'	1:2A:1400:G:C8	2.48	0.48
1:2A:1923:U:O2'	54:2x:12:G:H1'	2.14	0.48
1:2A:2262:U:H2'	1:2A:2263:C:C6	2.49	0.48
1:2A:2314:C:H2'	1:2A:2315:G:C8	2.49	0.48
7:2H:137:ASP:HB3	7:2H:140:LYS:HB3	1.96	0.48
11:2P:1:MET:HG3	11:2P:5:ASP:HB2	1.95	0.48
12:2Q:12:GLN:HE21	12:2Q:72:LYS:HG3	1.79	0.48
32:2a:1148:U:H2'	32:2a:1149:C:O4'	2.14	0.48
50:2s:40:ILE:HB	50:2s:67:VAL:O	2.14	0.48
1:1A:443:A:H3'	5:1F:45:ARG:HH21	1.77	0.48
1:1A:627:A:N1	1:1A:636:G:O2'	2.42	0.48
8:1I:3:VAL:HG12	8:1I:38:LEU:HA	1.95	0.48
10:1O:48:PRO:CB	32:1a:1422:G:H5"	2.41	0.48
22:10:27:GLU:OE1	22:10:69:PHE:N	2.33	0.48
32:1a:184:G:H2'	32:1a:185:A:C8	2.48	0.48
32:1a:240:C:H2'	32:1a:241:C:H6	1.78	0.48
33:1b:161:ALA:HB1	33:1b:185:ILE:HD11	1.95	0.48
35:1d:162:LEU:HA	35:1d:165:MET:HB2	1.95	0.48
36:1e:78:HIS:HE1	36:1e:143:ARG:H	1.62	0.48
39:1h:16:ALA:HB1	39:1h:21:LYS:HB2	1.95	0.48
1:2A:330:A:H2	1:2A:1210:A:O2'	1.97	0.48
1:2A:395:U:O2'	1:2A:396:G:N7	2.38	0.48
1:2A:570:G:H2'	1:2A:2030:A:C5	2.49	0.48
1:2A:607:U:OP1	5:2F:103:LYS:N	2.45	0.48
1:2A:2495:G:O6	60:2A:3743:HOH:O	2.20	0.48
2:2B:13:A:C2	2:2B:16:G:H1'	2.49	0.48
7:2H:154:PRO:HB3	7:2H:163:TYR:CE1	2.48	0.48
9:2N:30:ILE:O	9:2N:34:LEU:HD22	2.14	0.48
32:2a:659:U:OP1	46:2o:9:GLN:NE2	2.47	0.48
32:2a:1079:G:H5"	36:2e:45:PHE:CE2	2.49	0.48
32:2a:1095:U:H2'	32:2a:1096:C:C6	2.49	0.48
32:2a:1516:G:N2	32:2a:1519:MA6:OP2	2.46	0.48
38:2g:60:LYS:HA	38:2g:63:LYS:HE3	1.95	0.48
1:1A:1023:U:OP2	60:1A:3905:HOH:O	2.20	0.48
1:1A:1956:U:H1'	1:1A:2552:2MU:OP1	2.13	0.48
1:1A:2492:U:H2'	1:1A:2493:U:H6	1.78	0.48
1:1A:2533:A:H2'	1:1A:2534:A:O4'	2.13	0.48
2:1B:7:G:H5'	14:1S:29:PHE:CE2	2.49	0.48
15:1T:99:LEU:HD22	15:1T:101:PHE:HE2	1.79	0.48
32:1a:374:A:C6	32:1a:375:U:C4	3.02	0.48
32:1a:399:G:H2'	32:1a:400:C:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:491:G:H2'	32:1a:492:G:O4'	2.14	0.48
32:1a:501:C:H2'	32:1a:502:G:C8	2.48	0.48
32:1a:734:G:O3'	49:1r:71:LYS:NZ	2.47	0.48
32:1a:1063:C:H3'	32:1a:1064:G:H2'	1.95	0.48
42:1k:115:PRO:HB2	42:1k:118:GLY:H	1.79	0.48
46:1o:82:ILE:O	46:1o:86:GLY:N	2.46	0.48
1:2A:277:C:H4'	1:2A:278:A:H8	1.79	0.48
1:2A:1012:U:H5	9:2N:28:THR:HG21	1.78	0.48
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.49	0.48
1:2A:2067:G:O2'	1:2A:2069:G:H5'	2.13	0.48
7:2H:33:LEU:HD21	7:2H:136:ILE:HG13	1.96	0.48
10:2O:68:GLU:CD	10:2O:68:GLU:H	2.22	0.48
23:21:83:GLU:HA	23:21:84:GLY:HA2	1.57	0.48
24:22:35:LEU:HD21	24:22:49:LYS:HE2	1.96	0.48
32:2a:195:A:N3	32:2a:222:U:O2'	2.42	0.48
32:2a:437:U:O2	35:2d:119:GLN:NE2	2.47	0.48
32:2a:718:G:H5'	42:2k:117:ASN:HD22	1.78	0.48
32:2a:1270:C:H2'	32:2a:1271:G:H8	1.78	0.48
37:2f:33:TYR:O	37:2f:71:ARG:HD2	2.14	0.48
40:2i:24:GLY:HA2	40:2i:59:PHE:O	2.13	0.48
40:2i:60:ASP:OD1	40:2i:60:ASP:N	2.45	0.48
46:2o:5:LYS:O	46:2o:9:GLN:HG2	2.14	0.48
1:1A:272:G:N7	1:1A:421:U:H2'	2.29	0.48
1:1A:731:C:OP1	60:1A:3993:HOH:O	2.20	0.48
1:1A:2572:A:N7	4:1E:145:LYS:HB2	2.28	0.48
2:1B:66:A:H61	2:1B:109:C:C5'	2.27	0.48
32:1a:870:U:H4'	32:1a:871:U:H5"	1.96	0.48
32:1a:1478:C:H2'	32:1a:1479:C:C6	2.49	0.48
33:1b:16:HIS:HD2	33:1b:204:ASN:H	1.59	0.48
46:1o:56:LEU:O	46:1o:60:VAL:HG23	2.14	0.48
50:1s:23:ASN:HA	50:1s:27:GLU:OE2	2.14	0.48
1:2A:2749:A:OP2	1:2A:2750:A:O2'	2.27	0.48
2:2B:9:G:OP1	14:2S:25:ARG:NH1	2.44	0.48
9:2N:14:VAL:HG13	9:2N:138:LEU:HG	1.96	0.48
9:2N:95:PRO:C	9:2N:97:ARG:H	2.22	0.48
13:2R:8:ARG:HH11	13:2R:39:PRO:HB3	1.79	0.48
20:2Y:46:LYS:HG2	20:2Y:60:PHE:CD1	2.49	0.48
25:23:4:LEU:HD23	25:23:4:LEU:HA	1.76	0.48
32:2a:162:A:N3	32:2a:348:G:H4'	2.29	0.48
33:2b:16:HIS:CG	33:2b:17:PHE:N	2.81	0.48
44:2m:91:ARG:NE	44:2m:97:PRO:O	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.49	0.47
17:1V:74:LYS:HB2	17:1V:83:ARG:HB2	1.95	0.47
19:1X:24:GLY:O	19:1X:83:VAL:HG22	2.15	0.47
19:1X:92:LEU:O	19:1X:94:GLY:N	2.46	0.47
32:1a:948:C:P	44:1m:108:ARG:H	2.36	0.47
32:1a:1279:A:H4'	32:1a:1281:U:H5	1.79	0.47
35:1d:129:ASN:OD1	35:1d:145:GLU:N	2.34	0.47
1:2A:7:G:H4'	9:2N:13:TRP:CZ2	2.49	0.47
1:2A:223:A:O2'	1:2A:420:C:O2	2.29	0.47
1:2A:277:C:H4'	1:2A:278:A:C8	2.49	0.47
1:2A:886:C:H2'	1:2A:887:A:H1'	1.95	0.47
1:2A:2615:U:C2	27:25:7:PRO:HA	2.49	0.47
1:2A:2848:G:H8	15:2T:97:ALA:HB2	1.77	0.47
4:2E:183:LEU:HD21	15:2T:10:VAL:HG11	1.95	0.47
10:2O:104:ARG:NH2	10:2O:121:VAL:O	2.47	0.47
20:2Y:9:LYS:HA	20:2Y:10:GLY:HA2	1.55	0.47
23:21:40:ARG:HH12	23:21:42:GLN:HE21	1.60	0.47
32:2a:806:C:H2'	32:2a:807:A:C8	2.48	0.47
32:2a:1072:G:O6	32:2a:1102:A:N6	2.46	0.47
39:2h:132:GLU:O	39:2h:134:ILE:HG13	2.14	0.47
47:2p:21:VAL:HG22	47:2p:33:ILE:HB	1.96	0.47
50:2s:77:THR:HG23	50:2s:78:ARG:HG3	1.95	0.47
1:1A:271(H):G:H2'	1:1A:271(I):G:C8	2.50	0.47
1:1A:2443:C:OP1	5:1F:68:LYS:HD3	2.14	0.47
6:1G:121:ASN:ND2	6:1G:181:ARG:HH22	2.12	0.47
12:1Q:38:GLU:HG3	12:1Q:127:ILE:HG22	1.96	0.47
32:1a:582:U:OP1	46:1o:64:ARG:NH1	2.47	0.47
32:1a:1223:C:P	50:1s:78:ARG:HH21	2.36	0.47
32:1a:1320:C:H2'	32:1a:1321:C:O4'	2.13	0.47
33:1b:162:ILE:O	33:1b:185:ILE:HG12	2.15	0.47
35:1d:70:ILE:HG12	35:1d:71:SER:H	1.80	0.47
39:1h:21:LYS:O	39:1h:65:TYR:OH	2.25	0.47
47:1p:4:ILE:HG21	47:1p:74:LEU:HD11	1.96	0.47
49:1r:36:ASN:O	49:1r:40:LEU:HG	2.14	0.47
1:2A:467:G:OP2	29:27:34:ARG:HD3	2.14	0.47
9:2N:56:ASN:OD1	9:2N:59:LYS:NZ	2.41	0.47
11:2P:38:GLN:HG2	11:2P:45:LEU:H	1.79	0.47
32:2a:62:U:OP1	32:2a:385:C:O2'	2.32	0.47
32:2a:1123:A:C2	41:2j:39:PRO:HD2	2.49	0.47
32:2a:1129:C:H2'	32:2a:1139:G:C5	2.49	0.47
35:2d:109:GLY:HA3	35:2d:165:MET:HG2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:2g:69:VAL:HG22	38:2g:135:VAL:HG22	1.95	0.47
39:2h:7:ALA:HB2	39:2h:85:ARG:HG3	1.96	0.47
1:1A:288:C:H2'	1:1A:289:A:H8	1.80	0.47
1:1A:370:G:O5'	1:1A:423:A:N6	2.47	0.47
1:1A:718:A:H2'	1:1A:719:C:O4'	2.14	0.47
1:1A:729:G:C8	3:1D:208:LYS:HD2	2.49	0.47
1:1A:2529:G:O6	31:19:31:LYS:NZ	2.47	0.47
3:1D:16:MET:HE1	3:1D:208:LYS:HE2	1.96	0.47
8:1I:27:ARG:HB3	23:11:71:TYR:OH	2.14	0.47
32:1a:1004:A:H8	32:1a:1005:A:H5'	1.78	0.47
32:1a:1209:C:O2'	32:1a:1214:C:N4	2.42	0.47
33:1b:51:LEU:HD22	33:1b:55:PHE:HE2	1.79	0.47
33:1b:155:LEU:HD11	33:1b:159:PRO:HG3	1.95	0.47
34:1c:79:ARG:O	34:1c:82:GLU:HB2	2.14	0.47
48:1q:58:GLU:OE2	48:1q:75:ARG:NH2	2.47	0.47
1:2A:807:U:OP2	11:2P:41:ARG:NH2	2.44	0.47
1:2A:1710:C:H2'	1:2A:1711:C:C6	2.49	0.47
5:2F:122:LYS:HA	5:2F:191:ARG:NH1	2.29	0.47
32:2a:501:C:H2'	32:2a:502:G:C8	2.49	0.47
32:2a:532:A:H2'	32:2a:532:A:N3	2.28	0.47
32:2a:1042:G:H2'	32:2a:1043:C:O4'	2.13	0.47
40:2i:94:ALA:C	40:2i:96:LEU:H	2.22	0.47
42:2k:48:ILE:C	42:2k:50:TYR:H	2.17	0.47
1:1A:877:U:H3	1:1A:899:A:H2	1.62	0.47
1:1A:2478:A:H5'	31:19:31:LYS:HD3	1.97	0.47
1:1A:2864:G:H2'	1:1A:2865:U:C6	2.50	0.47
3:1D:77:ALA:HB2	3:1D:97:TYR:CD1	2.50	0.47
10:1O:68:GLU:HB3	10:1O:78:ARG:HB3	1.97	0.47
32:1a:410:G:OP1	35:1d:30:LYS:NZ	2.47	0.47
32:1a:601:C:H2'	32:1a:602:A:C8	2.45	0.47
32:1a:986:A:H2'	32:1a:987:G:O4'	2.14	0.47
32:1a:1381:U:H1'	38:1g:79:ARG:HD3	1.95	0.47
32:1a:1444:C:H42	32:1a:1458:G:H1	1.62	0.47
41:1j:32:ALA:HB3	41:1j:76:ASN:H	1.78	0.47
1:2A:271(H):G:H2'	1:2A:271(I):G:C8	2.49	0.47
1:2A:709:U:H2'	1:2A:710:G:C8	2.49	0.47
1:2A:1806:C:H42	1:2A:1812:A:N6	2.12	0.47
10:2O:101:PRO:HD3	15:2T:68:TYR:HB2	1.96	0.47
26:24:16:CYS:SG	26:24:17:GLY:N	2.88	0.47
28:26:10:LEU:HD13	28:26:19:ARG:HD3	1.96	0.47
32:2a:553:A:H5"	43:2l:24:VAL:HG21	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:869:G:O2'	32:2a:872:A:N7	2.43	0.47
32:2a:1182:G:H4'	32:2a:1183:A:H5"	1.95	0.47
32:2a:1338:G:H2'	32:2a:1339:A:C8	2.49	0.47
34:2c:29:TYR:OH	45:2n:54:PRO:O	2.32	0.47
38:2g:67:GLU:HA	38:2g:70:LYS:HD2	1.96	0.47
43:2l:26:ALA:HB1	43:2l:60:LEU:HD22	1.95	0.47
44:2m:45:VAL:HA	44:2m:48:LEU:HB2	1.96	0.47
44:2m:97:PRO:HB3	44:2m:101:GLN:HB2	1.95	0.47
48:2q:81:ARG:NH2	48:2q:84:LEU:HD11	2.28	0.47
1:1A:699:A:H2'	1:1A:700:G:O4'	2.15	0.47
1:1A:1002:G:H2'	1:1A:1003:G:O4'	2.13	0.47
1:1A:1072:C:H2'	1:1A:1094:U:O4	2.13	0.47
1:1A:1082:U:H3	1:1A:1086:A:H61	0.60	0.47
1:1A:1357:U:H2'	1:1A:1358:G:O4'	2.14	0.47
1:1A:1810:A:H2'	1:1A:1811:G:O4'	2.14	0.47
32:1a:1030(D):A:H2'	32:1a:1031:G:H4'	1.96	0.47
35:1d:101:LEU:HB2	35:1d:138:TYR:HB3	1.96	0.47
42:1k:54:ARG:O	42:1k:57:THR:HG23	2.15	0.47
55:1z:4:ARG:NH2	55:1z:6:ARG:HD2	2.29	0.47
1:2A:811:U:O3'	1:2A:1251:C:H5'	2.14	0.47
1:2A:2092:U:N3	1:2A:2226:C:OP2	2.33	0.47
1:2A:2185:C:H2'	1:2A:2186:G:O4'	2.15	0.47
2:2B:29:A:H2'	2:2B:30:C:O4'	2.14	0.47
32:2a:107:G:H2'	32:2a:108:G:O4'	2.14	0.47
32:2a:460:G:N2	32:2a:471:G:OP2	2.36	0.47
32:2a:626:U:C2	32:2a:627:G:C8	3.03	0.47
32:2a:985:C:H2'	32:2a:986:A:C8	2.50	0.47
32:2a:1203:C:H2'	32:2a:1204:A:H8	1.79	0.47
32:2a:1306:A:H1'	32:2a:1332:A:C2	2.48	0.47
38:2g:93:PRO:HA	38:2g:96:GLN:HB2	1.96	0.47
49:2r:85:LEU:HD21	49:2r:87:ARG:HE	1.80	0.47
50:2s:40:ILE:HG23	50:2s:62:ILE:HD12	1.95	0.47
1:1A:207:A:H2'	1:1A:208:C:O4'	2.14	0.47
1:1A:271(K):U:H1'	8:1I:50:ARG:NH2	2.30	0.47
1:1A:288:C:H2'	1:1A:289:A:C8	2.49	0.47
1:1A:876:C:H2'	1:1A:877:U:C6	2.50	0.47
1:1A:923:C:C4'	22:10:29:GLN:HE21	2.28	0.47
1:1A:1790:C:H2'	1:1A:1791:A:C4	2.50	0.47
4:1E:21:VAL:HG22	4:1E:23:VAL:HG12	1.97	0.47
12:1Q:36:ALA:HB1	12:1Q:127:ILE:HD12	1.95	0.47
23:11:64:ALA:HA	23:11:67:ILE:HG13	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:178:C:H2'	32:1a:179:A:C8	2.49	0.47
32:1a:269:C:H2'	32:1a:270:A:H8	1.77	0.47
32:1a:826:C:H2'	32:1a:827:U:H6	1.79	0.47
32:1a:1314:C:H2'	32:1a:1315:U:C6	2.50	0.47
32:1a:1343:G:H2'	32:1a:1344:C:C6	2.48	0.47
33:1b:74:LYS:NZ	33:1b:205:ASP:OD2	2.47	0.47
38:1g:79:ARG:HG3	38:1g:80:VAL:N	2.29	0.47
45:1n:24:CYS:SG	45:1n:40:CYS:N	2.88	0.47
50:1s:34:TRP:CE2	50:1s:57:HIS:HE1	2.32	0.47
1:2A:329:G:OP2	20:2Y:71:LYS:NZ	2.33	0.47
1:2A:1818:U:O2'	3:2D:154:LYS:O	2.29	0.47
1:2A:1826:G:H2'	1:2A:1827:C:H6	1.79	0.47
1:2A:2104:G:H2'	1:2A:2105:C:C6	2.50	0.47
1:2A:2114:A:C2	1:2A:2115:G:H1'	2.50	0.47
1:2A:2419:U:H2'	1:2A:2420:C:H6	1.79	0.47
14:2S:15:ARG:O	14:2S:19:LYS:HG2	2.15	0.47
32:2a:910:C:H2'	32:2a:911:U:O4'	2.15	0.47
34:2c:125:GLU:HB3	34:2c:190:ARG:HH21	1.79	0.47
35:2d:135:LEU:C	35:2d:137:SER:H	2.22	0.47
39:2h:2:LEU:HD21	39:2h:5:PRO:HA	1.96	0.47
39:2h:104:ARG:HD3	39:2h:104:ARG:HA	1.52	0.47
48:2q:27:PHE:HE2	48:2q:38:ARG:HG2	1.79	0.47
51:2t:13:LEU:O	51:2t:17:ARG:HG3	2.15	0.47
1:1A:397:G:OP2	23:11:10:LYS:NZ	2.31	0.47
1:1A:528:A:H62	1:1A:2042:A:H2'	1.80	0.47
1:1A:1047:G:H2'	1:1A:1110:G:N1	2.30	0.47
1:1A:1445:A:H4'	1:1A:1445(A):C:OP2	2.14	0.47
1:1A:2155:G:H5"	1:1A:2156:G:N7	2.30	0.47
1:1A:2206:G:H5"	1:1A:2207:G:C8	2.50	0.47
1:1A:2472:G:H2'	1:1A:2475:C:H42	1.80	0.47
1:1A:2531:A:H5'	7:1H:157:TYR:CZ	2.49	0.47
1:1A:2573:C:C2	55:1z:2:ARG:HG3	2.50	0.47
2:1B:17:C:H2'	2:1B:18:G:O4'	2.14	0.47
2:1B:100:A:OP2	60:1B:303:HOH:O	2.20	0.47
5:1F:101:LEU:O	5:1F:106:ARG:NH1	2.47	0.47
5:1F:106:ARG:H	5:1F:106:ARG:HG2	1.29	0.47
9:1N:47:ALA:HB3	9:1N:115:ARG:HH21	1.80	0.47
13:1R:72:ASP:HB3	13:1R:75:LEU:HB3	1.97	0.47
14:1S:71:ARG:HH11	14:1S:107:GLU:CD	2.22	0.47
21:1Z:98:MET:O	21:1Z:125:LEU:HD12	2.15	0.47
25:13:3:ARG:HH11	25:13:60:GLU:CD	2.22	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:112:G:H22	32:1a:315:A:H2	1.63	0.47
32:1a:142:G:H2'	32:1a:143:A:C8	2.48	0.47
32:1a:875:C:C4	32:1a:876:G:N7	2.83	0.47
34:1c:150:LYS:HB2	34:1c:150:LYS:HE3	1.69	0.47
47:1p:49:LEU:HD22	47:1p:73:LEU:HD22	1.96	0.47
54:1x:55:PSU:O2'	54:1x:57:A:N7	2.38	0.47
1:2A:272(J):C:H2'	1:2A:274:G:H8	1.80	0.47
1:2A:311:A:C6	1:2A:328:U:C4	3.03	0.47
1:2A:632:A:H2'	1:2A:633:A:H8	1.78	0.47
1:2A:1033:U:O2'	1:2A:2750:A:N6	2.47	0.47
1:2A:1570:A:H5'	3:2D:36:PRO:HD3	1.96	0.47
1:2A:2821:A:H2'	1:2A:2822:G:C8	2.50	0.47
2:2B:20:C:H42	2:2B:63:G:H1	1.62	0.47
2:2B:75:G:H22	21:2Z:73:GLN:NE2	2.12	0.47
3:2D:108:PRO:HD2	3:2D:111:LEU:HD22	1.97	0.47
4:2E:13:ARG:HG2	15:2T:58:ASN:HD21	1.80	0.47
4:2E:143:ASN:HD22	4:2E:147:PRO:HD3	1.80	0.47
6:2G:179:PRO:HB2	26:24:42:PHE:HZ	1.80	0.47
8:2I:8:PRO:HD3	8:2I:15:VAL:HB	1.96	0.47
8:2I:45:LYS:HA	8:2I:48:GLU:HB3	1.96	0.47
9:2N:138:LEU:HB3	9:2N:140:VAL:HG13	1.96	0.47
10:2O:49:ARG:HH22	32:2a:1423:G:P	2.36	0.47
12:2Q:79:LEU:HD22	12:2Q:80:GLU:H	1.80	0.47
14:2S:14:VAL:O	14:2S:18:ILE:HG12	2.15	0.47
16:2U:49:HIS:O	16:2U:53:ARG:N	2.47	0.47
32:2a:196:A:OP1	51:2t:68:LYS:NZ	2.47	0.47
32:2a:565:U:OP2	32:2a:566:G:O2'	2.33	0.47
32:2a:616:G:C2	32:2a:617:G:C8	3.02	0.47
32:2a:618:C:O2	32:2a:622:A:N6	2.47	0.47
32:2a:872:A:O2'	32:2a:873:A:H5"	2.15	0.47
32:2a:876:G:OP1	39:2h:14:ARG:NH1	2.48	0.47
32:2a:1117:G:H4'	40:2i:104:ARG:NH1	2.29	0.47
32:2a:1318:A:H5"	50:2s:3:ARG:NH2	2.30	0.47
33:2b:207:ALA:O	33:2b:210:SER:N	2.47	0.47
34:2c:6:HIS:CD2	34:2c:8:ILE:H	2.33	0.47
34:2c:56:ASP:HB2	34:2c:67:THR:HB	1.97	0.47
34:2c:175:LEU:HD21	34:2c:201:TYR:HE1	1.80	0.47
40:2i:47:LEU:HB3	40:2i:50:LEU:HD21	1.96	0.47
48:2q:67:LYS:O	48:2q:70:ARG:NH1	2.47	0.47
1:1A:548:A:O2'	1:1A:549:G:OP1	2.30	0.47
1:1A:882:G:H3'	1:1A:883:G:H8	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1500:G:O2'	3:1D:100:GLY:O	2.27	0.47
1:1A:2093:G:C6	1:1A:2225:A:C8	3.02	0.47
4:1E:60:ASN:OD1	4:1E:63:LEU:HB2	2.15	0.47
5:1F:36:VAL:HG22	5:1F:101:LEU:HD21	1.96	0.47
7:1H:86:GLU:HB2	7:1H:165:ALA:HB2	1.96	0.47
8:1I:14:ASP:OD1	8:1I:15:VAL:N	2.48	0.47
26:14:57:GLU:OE2	26:14:58:ARG:NH1	2.48	0.47
32:1a:540:G:H2'	32:1a:541:G:O4'	2.15	0.47
32:1a:719:C:O2'	49:1r:49:LYS:HB3	2.14	0.47
35:1d:107:ARG:NH2	35:1d:194:LEU:HD11	2.29	0.47
37:1f:96:PRO:HB3	49:1r:30:ASP:CG	2.39	0.47
44:1m:15:VAL:HG12	44:1m:45:VAL:HG22	1.96	0.47
1:2A:118:A:H1'	1:2A:178:G:O4'	2.15	0.47
1:2A:796:C:H2'	1:2A:797:C:C6	2.50	0.47
1:2A:888:C:OP1	44:2m:93:ARG:NH1	2.44	0.47
1:2A:1714:G:H2'	1:2A:1717:G:H8	1.80	0.47
1:2A:2239:G:P	3:2D:244:ARG:HH12	2.38	0.47
1:2A:2646:C:O5'	1:2A:2646:C:H6	1.98	0.47
1:2A:2659:G:N2	1:2A:2662:A:OP2	2.47	0.47
3:2D:145:VAL:HG13	3:2D:191:ALA:HB2	1.97	0.47
5:2F:51:THR:HG21	5:2F:88:VAL:HG21	1.96	0.47
5:2F:80:ALA:HB3	5:2F:83:PHE:HD2	1.80	0.47
6:2G:46:ALA:HB2	6:2G:53:LEU:HD12	1.96	0.47
11:2P:63:PRO:HG2	30:28:25:MET:HB2	1.96	0.47
12:2Q:26:TYR:O	12:2Q:67:ARG:NH1	2.47	0.47
12:2Q:38:GLU:HG3	12:2Q:127:ILE:HB	1.97	0.47
16:2U:8:VAL:HG12	16:2U:11:ARG:HH21	1.80	0.47
32:2a:375:U:OP1	47:2p:69:THR:HG21	2.14	0.47
32:2a:795:C:H1'	32:2a:1506:U:C5	2.49	0.47
32:2a:1286:A:H2'	32:2a:1287:A:H4'	1.95	0.47
33:2b:29:ALA:HA	33:2b:32:ILE:HD12	1.96	0.47
54:2x:9:G:N2	54:2x:45:G:H3'	2.30	0.47
1:1A:710:G:H2'	1:1A:711:G:H8	1.80	0.47
1:1A:1694:C:OP1	3:1D:8:PRO:HG3	2.15	0.47
1:1A:2705:A:H2'	1:1A:2706:G:O4'	2.15	0.47
10:1O:64:ARG:HB2	10:1O:79:PHE:CG	2.50	0.47
32:1a:356:A:N3	32:1a:368:U:O2'	2.44	0.47
32:1a:673:G:H2'	32:1a:674:G:C8	2.49	0.47
32:1a:1014:A:H4'	50:1s:14:HIS:CE1	2.50	0.47
32:1a:1330:U:H2'	32:1a:1331:G:H5'	1.97	0.47
35:1d:60:GLU:OE2	35:1d:63:LYS:NZ	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1o:5:LYS:H	46:1o:5:LYS:HD2	1.79	0.47
1:2A:795:C:H2'	1:2A:796:C:C6	2.50	0.47
1:2A:1927:A:C6	1:2A:1928:A:C6	3.02	0.47
1:2A:2445:G:OP1	5:2F:74:ARG:NH2	2.42	0.47
1:2A:2498:C:O2'	1:2A:2499:C:H5'	2.15	0.47
2:2B:72:G:O2'	2:2B:105:A:N6	2.47	0.47
10:2O:35:VAL:HG21	10:2O:69:ILE:HD13	1.97	0.47
32:2a:35:G:H2'	32:2a:36:C:H6	1.80	0.47
32:2a:323:U:H2'	32:2a:324:G:O4'	2.14	0.47
32:2a:614:A:H2'	32:2a:615:C:C6	2.50	0.47
32:2a:903:G:H2'	32:2a:904:C:C6	2.50	0.47
32:2a:983:A:H1'	32:2a:1049:U:O2	2.15	0.47
32:2a:1014:A:H4'	50:2s:14:HIS:CE1	2.50	0.47
32:2a:1128:C:O2'	32:2a:1129:C:OP1	2.33	0.47
34:2c:6:HIS:HD2	34:2c:8:ILE:H	1.61	0.47
39:2h:45:ILE:C	39:2h:64:LYS:HE3	2.39	0.47
39:2h:85:ARG:NH2	39:2h:87:SER:O	2.48	0.47
1:1A:27:G:N2	1:1A:512:G:H1'	2.29	0.47
1:1A:303:U:H2'	1:1A:304:G:H8	1.79	0.47
1:1A:592:G:O2'	30:18:4:MET:HG3	2.15	0.47
1:1A:1364:G:OP2	23:11:3:LYS:HG3	2.15	0.47
1:1A:1493:C:N4	1:1A:2206:G:O2'	2.47	0.47
1:1A:2619:C:O2'	4:1E:154:LYS:HB3	2.15	0.47
3:1D:16:MET:HE2	3:1D:211:ARG:HD3	1.97	0.47
6:1G:126:ASP:HB2	6:1G:130:ASN:HB2	1.97	0.47
13:1R:56:LYS:NZ	13:1R:90:ARG:O	2.48	0.47
19:1X:57:LEU:HD11	19:1X:78:LYS:HE2	1.97	0.47
31:19:17:ILE:HD13	31:19:26:ILE:HD13	1.97	0.47
32:1a:1493:A:O2'	53:1v:19:U:O2'	2.22	0.47
1:2A:264:C:O2'	1:2A:265:A:H2'	2.15	0.47
1:2A:862:G:H2'	1:2A:863:A:O4'	2.16	0.47
1:2A:1212:G:O2'	1:2A:1235:G:O6	2.33	0.47
8:2I:93:THR:HG23	8:2I:119:PRO:HB3	1.97	0.47
9:2N:112:LEU:O	9:2N:116:LEU:HG	2.14	0.47
14:2S:66:ALA:HB1	14:2S:101:LEU:HB2	1.97	0.47
21:2Z:171:ILE:HD12	21:2Z:172:ALA:N	2.29	0.47
32:2a:189(C):C:H2'	32:2a:189(D):C:O4'	2.13	0.47
46:2o:53:HIS:CE1	46:2o:57:LEU:HD21	2.50	0.47
1:1A:26:G:C6	1:1A:27:G:N1	2.82	0.46
1:1A:118:A:C8	1:1A:119:A:C8	3.04	0.46
1:1A:2436:G:O6	60:1A:3982:HOH:O	2.19	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:1H:41:MET:HE2	7:1H:65:HIS:HA	1.98	0.46
7:1H:98:LEU:HD12	7:1H:102:ALA:O	2.15	0.46
8:1I:130:TYR:HB3	8:1I:138:ILE:HB	1.96	0.46
13:1R:20:LEU:HD21	13:1R:40:LYS:HD3	1.97	0.46
14:1S:11:LYS:HD2	14:1S:15:ARG:HH12	1.80	0.46
21:1Z:54:HIS:CG	21:1Z:101:PRO:HG3	2.50	0.46
32:1a:189(K):U:H2'	32:1a:189(L):G:C8	2.50	0.46
32:1a:233:C:H2'	32:1a:234:C:C6	2.51	0.46
32:1a:439:A:C8	32:1a:496:A:C6	3.02	0.46
32:1a:995:C:O2	45:1n:4:LYS:NZ	2.32	0.46
32:1a:1239:A:C4	32:1a:1298:C:N4	2.82	0.46
42:1k:23:ALA:HB2	42:1k:28:THR:HG23	1.97	0.46
1:2A:669:G:H2'	1:2A:669:G:N3	2.28	0.46
1:2A:840:C:H42	1:2A:938:G:H1	1.63	0.46
1:2A:996:A:H4'	16:2U:91:ASP:OD2	2.15	0.46
1:2A:1952:A:OP1	10:2O:42:SER:OG	2.28	0.46
1:2A:2001:A:H2'	1:2A:2002:G:H8	1.78	0.46
1:2A:2018:G:H2'	1:2A:2019:A:O4'	2.15	0.46
1:2A:2562:U:H1'	10:2O:23:ARG:HE	1.79	0.46
8:2I:4:ILE:HA	8:2I:17:GLN:O	2.15	0.46
8:2I:78:THR:O	8:2I:104:GLN:NE2	2.42	0.46
9:2N:27:ALA:HB3	9:2N:106:MET:HE3	1.97	0.46
32:2a:537:G:H5"	43:2l:113:ARG:NH1	2.30	0.46
32:2a:710:G:H2'	32:2a:711:G:C8	2.49	0.46
32:2a:1352:C:P	52:2u:3:LYS:HZ1	2.37	0.46
35:2d:59:ARG:HD3	35:2d:59:ARG:HA	1.75	0.46
39:2h:87:SER:HA	39:2h:93:VAL:HG23	1.98	0.46
1:1A:1090:U:H2'	1:1A:1091:G:H8	1.79	0.46
1:1A:1090:U:H3	1:1A:1101:U:H3	1.62	0.46
1:1A:1108:U:H2'	1:1A:1109:C:O4'	2.15	0.46
1:1A:2424:C:O2	1:1A:2429:G:O2'	2.23	0.46
6:1G:56:ALA:HA	6:1G:59:GLU:HG2	1.97	0.46
7:1H:54:ARG:HD3	7:1H:65:HIS:ND1	2.29	0.46
30:18:6:THR:HG22	30:18:63:PRO:HD2	1.98	0.46
32:1a:224:C:H2'	32:1a:225:C:C6	2.51	0.46
32:1a:324:G:N2	32:1a:327:A:OP2	2.46	0.46
32:1a:657:G:C2	32:1a:658:G:C8	3.03	0.46
32:1a:1063:C:OP2	32:1a:1064:G:O2'	2.22	0.46
32:1a:1090:U:H2'	32:1a:1091:U:C6	2.50	0.46
32:1a:1371:G:O3'	40:1i:69:GLY:HA3	2.14	0.46
32:1a:1512:U:H2'	32:1a:1513:A:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1513:A:H2'	32:1a:1514:C:C6	2.49	0.46
35:1d:196:LEU:C	35:1d:198:VAL:H	2.24	0.46
41:1j:57:LYS:O	41:1j:60:ARG:NE	2.35	0.46
48:1q:6:LEU:HD13	48:1q:71:PHE:CE2	2.51	0.46
50:1s:31:ILE:HB	50:1s:49:ILE:HG23	1.96	0.46
53:1v:12:A:H2'	53:1v:12:A:N3	2.30	0.46
1:2A:535:C:H2'	1:2A:536:A:C8	2.51	0.46
1:2A:565:C:H4'	1:2A:1253:A:N6	2.30	0.46
1:2A:1407:C:H2'	1:2A:1408:C:H6	1.81	0.46
1:2A:1529:G:O6	1:2A:1530:C:N4	2.48	0.46
1:2A:2556:C:H2'	1:2A:2557:G:O4'	2.14	0.46
7:2H:55:PRO:HG2	7:2H:61:HIS:CE1	2.50	0.46
8:2I:93:THR:H	8:2I:96:ASP:HB2	1.80	0.46
8:2I:127:VAL:HA	8:2I:140:LEU:O	2.15	0.46
11:2P:44:GLY:HA3	11:2P:45:LEU:O	2.16	0.46
11:2P:135:LEU:HD21	11:2P:145:PRO:HG3	1.97	0.46
16:2U:75:ASN:OD1	16:2U:78:THR:N	2.46	0.46
20:2Y:29:GLU:O	20:2Y:38:ILE:HG12	2.15	0.46
32:2a:645:C:H2'	32:2a:646:U:H6	1.81	0.46
32:2a:1104:G:H4'	33:2b:111:ARG:HH21	1.80	0.46
34:2c:18:TRP:HB2	34:2c:21:ARG:HG3	1.96	0.46
34:2c:22:TRP:CH2	34:2c:32:LEU:HD22	2.50	0.46
34:2c:37:GLN:NE2	45:2n:52:GLN:HB3	2.28	0.46
1:1A:272(G):C:N4	1:1A:363(C):G:H1	2.13	0.46
1:1A:620:G:N3	1:1A:620:G:H5'	2.30	0.46
1:1A:1913:A:H61	32:1a:1493:A:H2'	1.80	0.46
1:1A:2301:C:H2'	1:1A:2302:G:C8	2.48	0.46
7:1H:118:PRO:HD2	7:1H:121:ILE:HB	1.97	0.46
28:16:18:ARG:HD2	28:16:42:TRP:CD1	2.50	0.46
32:1a:909:A:H2'	32:1a:910:C:O4'	2.15	0.46
32:1a:1151:A:O2'	32:1a:1152:A:H8	1.99	0.46
38:1g:150:ALA:HB2	42:1k:50:TYR:OH	2.16	0.46
47:1p:5:ARG:N	47:1p:20:VAL:O	2.36	0.46
1:2A:172:C:H2'	1:2A:173:G:C8	2.51	0.46
1:2A:635:C:H2'	1:2A:636:G:O4'	2.15	0.46
1:2A:692:C:HO2'	1:2A:1354:A:HO2'	1.63	0.46
1:2A:2408:U:H2'	1:2A:2409:G:H8	1.80	0.46
2:2B:19:G:H2'	2:2B:20:C:O4'	2.16	0.46
5:2F:199:TRP:NE1	5:2F:203:GLN:HE21	2.13	0.46
9:2N:67:LEU:HD23	9:2N:87:LEU:HD22	1.97	0.46
12:2Q:118:LEU:HD13	12:2Q:131:ILE:HG23	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:784:C:H2'	32:2a:785:G:C8	2.50	0.46
32:2a:841:U:C5	32:2a:848:C:H1'	2.50	0.46
32:2a:1228:C:P	44:2m:108:ARG:HH22	2.38	0.46
32:2a:1504:G:OP1	32:2a:1507:A:O2'	2.22	0.46
34:2c:47:LEU:HD22	34:2c:70:VAL:HG11	1.96	0.46
38:2g:10:ARG:HA	38:2g:10:ARG:HD2	1.76	0.46
1:1A:1087:G:H2'	1:1A:1089:G:C8	2.51	0.46
1:1A:1105:U:N3	1:1A:1106:G:N7	2.63	0.46
1:1A:1957:C:H2'	1:1A:1958:C:C6	2.50	0.46
1:1A:2431:U:O2'	1:1A:2433:A:N7	2.37	0.46
5:1F:7:TYR:CD2	5:1F:24:LEU:HB2	2.51	0.46
5:1F:178:PRO:HB3	5:1F:198:ALA:HB1	1.97	0.46
9:1N:33:LEU:HD12	9:1N:38:HIS:CE1	2.50	0.46
9:1N:133:GLN:N	9:1N:133:GLN:OE1	2.49	0.46
12:1Q:2:LEU:HD22	12:1Q:69:PHE:CE1	2.49	0.46
17:1V:58:VAL:O	17:1V:97:LYS:HB2	2.14	0.46
32:1a:343:U:H1'	32:1a:347:G:N2	2.31	0.46
32:1a:691:G:OP2	42:1k:26:ASN:ND2	2.47	0.46
32:1a:757:U:H2'	32:1a:758:G:O4'	2.15	0.46
32:1a:984:C:N4	32:1a:1221:G:H1	2.13	0.46
32:1a:1346:A:N1	32:1a:1374:A:H5"	2.30	0.46
33:1b:54:THR:HG21	33:1b:201:ILE:HD11	1.96	0.46
33:1b:113:HIS:HA	33:1b:116:GLU:HB2	1.97	0.46
35:1d:172:PRO:HB2	35:1d:187:ARG:NH2	2.30	0.46
41:1j:47:PHE:CZ	45:1n:37:PHE:HE2	2.33	0.46
1:2A:372:G:OP2	23:21:69:LYS:NZ	2.47	0.46
1:2A:588:U:H2'	1:2A:589:C:C6	2.51	0.46
1:2A:774:A:H2'	1:2A:774:A:N3	2.30	0.46
1:2A:935:C:H2'	1:2A:936:C:C6	2.51	0.46
1:2A:1713:U:H2'	1:2A:1714:G:H8	1.81	0.46
1:2A:2461:C:H2'	1:2A:2462:U:H6	1.81	0.46
7:2H:123:PHE:C	7:2H:124:GLU:HG2	2.40	0.46
12:2Q:35:VAL:HG12	12:2Q:130:LYS:O	2.16	0.46
14:2S:10:ARG:NE	14:2S:91:PRO:O	2.42	0.46
14:2S:12:PHE:HB3	14:2S:16:ASN:HD21	1.80	0.46
16:2U:90:VAL:HG22	17:2V:38:LEU:HD12	1.98	0.46
33:2b:101:MET:HA	33:2b:108:ILE:HG13	1.98	0.46
42:2k:52:GLY:O	42:2k:55:LYS:HE2	2.15	0.46
43:2l:70:ILE:HG12	43:2l:100:ILE:HD13	1.97	0.46
1:1A:476:G:H4'	1:1A:502:A:N1	2.30	0.46
1:1A:1050:A:H2'	1:1A:1051:G:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1939:5MU:OP1	1:1A:2604:U:O2'	2.25	0.46
1:1A:2218:U:O4'	23:11:52:ARG:NH2	2.49	0.46
3:1D:142:VAL:HG23	3:1D:193:VAL:HA	1.98	0.46
6:1G:43:LEU:C	6:1G:45:GLU:H	2.23	0.46
20:1Y:35:TYR:CE2	20:1Y:69:ALA:HB3	2.51	0.46
32:1a:66:G:O4'	32:1a:173:U:C4	2.68	0.46
32:1a:128:G:O2'	48:1q:3:LYS:NZ	2.33	0.46
32:1a:130:A:OP2	48:1q:63:ARG:NE	2.48	0.46
32:1a:562:C:N3	43:1l:16:GLU:HB3	2.30	0.46
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.50	0.46
33:1b:142:LEU:HA	33:1b:145:LEU:HD12	1.97	0.46
48:1q:51:TYR:CE1	48:1q:76:LEU:HB2	2.49	0.46
1:2A:2227:A:H5"	3:2D:263:ARG:NH1	2.31	0.46
1:2A:2498:C:H3'	60:2A:3703:HOH:O	2.15	0.46
1:2A:2722:G:H5'	13:2R:4:LEU:HD12	1.97	0.46
2:2B:60:C:H2'	2:2B:61:G:H8	1.81	0.46
18:2W:6:ILE:HG12	18:2W:104:THR:HG23	1.96	0.46
21:2Z:40:ASP:OD2	21:2Z:42:VAL:HG13	2.16	0.46
29:27:30:VAL:O	29:27:34:ARG:HG2	2.14	0.46
32:2a:1252:A:H61	32:2a:1285:A:N6	2.13	0.46
33:2b:61:LEU:HD11	33:2b:160:ASP:HB3	1.97	0.46
35:2d:19:LEU:HD11	35:2d:63:LYS:HG2	1.97	0.46
35:2d:103:ASN:OD1	35:2d:114:ARG:NH2	2.41	0.46
38:2g:26:PHE:O	38:2g:30:ILE:HD12	2.16	0.46
46:2o:70:LEU:HG	46:2o:78:TYR:HB2	1.98	0.46
53:2v:13:A:H8	53:2v:13:A:OP2	1.99	0.46
1:1A:1882:C:H2'	1:1A:1883:G:O4'	2.16	0.46
1:1A:2369:A:H2'	1:1A:2370:G:C8	2.51	0.46
14:1S:39:ILE:HB	14:1S:49:VAL:HG13	1.97	0.46
18:1W:42:ARG:HE	18:1W:46:PHE:HE2	1.64	0.46
32:1a:189(K):U:O2'	32:1a:189(L):G:H5'	2.16	0.46
32:1a:499:A:C6	32:1a:547:A:C8	3.04	0.46
32:1a:824:C:H2'	32:1a:825:G:C8	2.51	0.46
32:1a:948:C:OP1	44:1m:108:ARG:N	2.48	0.46
33:1b:36:ARG:C	33:1b:38:GLY:H	2.22	0.46
35:1d:175:SER:HB3	35:1d:184:LYS:HB3	1.98	0.46
35:1d:208:SER:O	35:1d:208:SER:OG	2.29	0.46
38:1g:13:GLN:O	38:1g:24:THR:HG21	2.15	0.46
1:2A:363(B):G:H2'	1:2A:363(C):G:C8	2.50	0.46
1:2A:1431:U:H2'	1:2A:1432:C:C6	2.51	0.46
1:2A:2125:G:H21	1:2A:2173:A:H62	1.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:13:A:H2'	2:2B:14:U:H5"	1.98	0.46
2:2B:16:G:C6	2:2B:69:G:C2	3.04	0.46
2:2B:117:G:H2'	2:2B:118:G:O4'	2.15	0.46
7:2H:3:ARG:NH1	7:2H:5:GLY:H	2.13	0.46
8:2I:130:TYR:HB3	8:2I:138:ILE:HB	1.97	0.46
12:2Q:73:PRO:HB3	12:2Q:93:TYR:CE1	2.50	0.46
21:2Z:30:ASN:HA	21:2Z:89:PHE:HE1	1.79	0.46
21:2Z:91:LEU:HD12	21:2Z:91:LEU:HA	1.76	0.46
33:2b:142:LEU:HD12	33:2b:145:LEU:HB2	1.97	0.46
1:1A:245:G:O5'	11:1P:73:GLY:HA2	2.15	0.46
1:1A:598:G:H1	1:1A:659:C:H42	1.62	0.46
1:1A:875:G:H2'	1:1A:876:C:O4'	2.16	0.46
1:1A:1274:A:N3	1:1A:1297:C:H1'	2.31	0.46
1:1A:1664:A:H1'	1:1A:2685:G:O2'	2.15	0.46
1:1A:2732:G:H3'	1:1A:2733:A:O4'	2.15	0.46
4:1E:29:GLY:C	4:1E:180:ASN:HD22	2.23	0.46
18:1W:20:VAL:HG11	18:1W:44:ALA:HA	1.97	0.46
20:1Y:9:LYS:HA	20:1Y:10:GLY:HA2	1.57	0.46
32:1a:1320:C:C2	50:1s:72:GLY:HA3	2.51	0.46
33:1b:219:VAL:O	33:1b:223:ILE:HG13	2.16	0.46
34:1c:81:GLY:O	34:1c:85:ARG:HB2	2.15	0.46
36:1e:74:GLY:HA3	36:1e:116:THR:HG22	1.98	0.46
42:1k:98:LEU:HD23	42:1k:98:LEU:HA	1.76	0.46
45:1n:18:VAL:O	45:1n:20:ALA:N	2.47	0.46
1:2A:300:A:P	20:2Y:86:ARG:HH21	2.38	0.46
1:2A:676:A:H1'	1:2A:2443:C:H1'	1.97	0.46
1:2A:887:A:O2'	1:2A:888:C:H3'	2.16	0.46
1:2A:2115:G:C4	1:2A:2117:A:C8	3.04	0.46
1:2A:2370:G:C6	1:2A:2371:G:C6	3.04	0.46
2:2B:40:U:C5	26:24:2:LYS:HG3	2.51	0.46
19:2X:8:ILE:HD11	19:2X:43:VAL:HG23	1.98	0.46
20:2Y:79:CYS:C	20:2Y:81:LYS:H	2.23	0.46
32:2a:51:A:N1	32:2a:314:C:O2'	2.45	0.46
32:2a:358:U:H2'	32:2a:359:U:H6	1.79	0.46
32:2a:1518:MA6:H93	32:2a:1519:MA6:H92	1.97	0.46
34:2c:20:SER:HB3	34:2c:22:TRP:HE1	1.80	0.46
44:2m:91:ARG:HB2	44:2m:98:VAL:HG13	1.98	0.46
46:2o:9:GLN:HA	46:2o:12:ILE:HD12	1.97	0.46
1:1A:271(H):G:H2'	1:1A:271(I):G:H8	1.81	0.46
1:1A:1243:G:O3'	11:1P:7:ARG:NH2	2.49	0.46
1:1A:1859:A:N6	1:1A:1883:G:O2'	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1999:C:H5”	1:1A:2723:C:O2’	2.16	0.46
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.58	0.46
32:1a:198:G:H2’	32:1a:199:G:C8	2.50	0.46
32:1a:1360:A:H2’	32:1a:1361:G:O4’	2.16	0.46
33:1b:156:LYS:HA	33:1b:156:LYS:HD2	1.75	0.46
46:1o:70:LEU:HD11	46:1o:77:ARG:HG2	1.97	0.46
1:2A:79:G:H2’	1:2A:80:G:C8	2.51	0.46
1:2A:478:A:C6	1:2A:480:A:C6	3.04	0.46
1:2A:1384:A:H1’	1:2A:1405:U:O4’	2.15	0.46
1:2A:1448:G:O2’	1:2A:1528:A:N6	2.38	0.46
1:2A:1604:C:O2’	1:2A:1610:A:N1	2.44	0.46
1:2A:2247:A:H2’	1:2A:2248:C:C6	2.51	0.46
1:2A:2262:U:H2’	1:2A:2263:C:H6	1.81	0.46
3:2D:36:PRO:HA	3:2D:61:LEU:HD12	1.96	0.46
3:2D:218:ARG:HB3	3:2D:219:PRO:HD2	1.97	0.46
9:2N:59:LYS:HE3	9:2N:59:LYS:HB2	1.66	0.46
15:2T:119:LYS:HG2	15:2T:123:GLN:NE2	2.30	0.46
17:2V:76:LYS:HB2	17:2V:81:TYR:HD2	1.81	0.46
20:2Y:13:VAL:HG12	20:2Y:74:PRO:HA	1.98	0.46
21:2Z:92:SER:O	21:2Z:130:PRO:HG3	2.15	0.46
21:2Z:121:HIS:HB2	21:2Z:123:ASP:O	2.16	0.46
32:2a:509:A:H5’	35:2d:54:TYR:HD2	1.80	0.46
32:2a:598:U:H2’	32:2a:599:C:C6	2.51	0.46
32:2a:952:U:H4’	32:2a:964:A:N1	2.31	0.46
32:2a:977:A:H2’	32:2a:977:A:N3	2.31	0.46
32:2a:1047:G:O2’	32:2a:1215:G:O2’	2.30	0.46
32:2a:1164:G:H1	32:2a:1172:C:H42	1.63	0.46
33:2b:95:GLN:HB2	33:2b:148:TYR:CD1	2.51	0.46
34:2c:47:LEU:HB2	34:2c:52:LEU:HD12	1.98	0.46
1:1A:1025:G:C4	1:1A:1135:C:H1’	2.50	0.46
1:1A:1352:U:O2’	1:1A:1570:A:N3	2.43	0.46
1:1A:1992:G:O6	60:1A:3991:HOH:O	2.20	0.46
5:1F:148:LEU:C	5:1F:150:GLY:H	2.24	0.46
17:1V:18:LEU:HD23	17:1V:19:LYS:O	2.16	0.46
21:1Z:92:SER:O	21:1Z:94:GLU:N	2.48	0.46
32:1a:663:A:H5”	49:1r:61:LYS:HE3	1.98	0.46
32:1a:1112:C:H1’	34:1c:179:ARG:HH11	1.80	0.46
32:1a:1317:C:H2’	32:1a:1318:A:O4’	2.16	0.46
34:1c:32:LEU:HD22	34:1c:59:ARG:NH1	2.31	0.46
37:1f:15:ASP:OD1	37:1f:18:GLN:N	2.39	0.46
38:1g:15:ASP:OD1	38:1g:19:GLY:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:1p:6:LEU:HG	47:1p:17:TYR:HB3	1.98	0.46
1:2A:93:G:H2'	1:2A:94:C:C6	2.50	0.46
1:2A:1288:U:H1'	1:2A:1647:G:H21	1.80	0.46
1:2A:1525:G:H2'	1:2A:1526:G:H8	1.80	0.46
1:2A:1649:G:O2'	13:2R:107:ASP:OD2	2.29	0.46
1:2A:2301:C:H2'	1:2A:2302:G:C8	2.49	0.46
1:2A:2559:C:H2'	1:2A:2560:C:H6	1.81	0.46
1:2A:2784:C:H2'	1:2A:2785:C:C6	2.51	0.46
6:2G:16:ARG:O	6:2G:20:ILE:HG13	2.15	0.46
6:2G:122:PRO:HD3	6:2G:180:PHE:HB3	1.98	0.46
7:2H:56:SER:HB3	7:2H:61:HIS:ND1	2.31	0.46
12:2Q:39:PRO:HA	12:2Q:97:VAL:O	2.16	0.46
13:2R:74:LYS:HG2	13:2R:77:ARG:HH21	1.81	0.46
32:2a:1228:C:H2'	32:2a:1229:A:H8	1.81	0.46
32:2a:1352:C:H2'	32:2a:1353:G:C8	2.50	0.46
34:2c:191:THR:HB	34:2c:192:THR:H	1.62	0.46
36:2e:57:LYS:HB2	36:2e:57:LYS:HE3	1.54	0.46
48:2q:27:PHE:CE2	48:2q:38:ARG:HG2	2.50	0.46
1:1A:1693:U:O2'	3:1D:14:ARG:NH2	2.49	0.46
1:1A:2219:G:H2'	1:1A:2220:G:H8	1.79	0.46
1:1A:2627:G:O2'	1:1A:2781:A:N1	2.43	0.46
5:1F:132:VAL:HA	5:1F:138:GLU:HB3	1.97	0.46
10:1O:13:ASN:OD1	10:1O:13:ASN:N	2.41	0.46
32:1a:176:C:H2'	32:1a:177:C:C6	2.47	0.46
32:1a:271:C:H2'	32:1a:272:C:H6	1.81	0.46
33:1b:158:LEU:HD12	33:1b:158:LEU:HA	1.77	0.46
36:1e:15:ARG:HG3	36:1e:28:PHE:CE1	2.50	0.46
36:1e:137:GLU:HA	36:1e:140:ARG:HH11	1.80	0.46
41:1j:47:PHE:HB2	41:1j:63:PHE:HB2	1.98	0.46
43:1l:32:PHE:CE1	43:1l:86:ARG:HB3	2.50	0.46
44:1m:15:VAL:HG11	44:1m:48:LEU:HD11	1.97	0.46
51:1t:79:ARG:HD2	51:1t:83:ARG:HH21	1.81	0.46
1:2A:134:C:H2'	1:2A:135:G:C8	2.51	0.46
1:2A:140:G:N2	1:2A:142:A:N7	2.45	0.46
1:2A:250:G:C6	1:2A:251:A:C6	3.03	0.46
1:2A:520:G:H2'	1:2A:521:G:C8	2.51	0.46
1:2A:557:U:H2'	1:2A:558:G:C8	2.51	0.46
1:2A:2336:A:H61	22:20:43:THR:HG21	1.81	0.46
1:2A:2396:G:H5'	23:21:25:LYS:HE2	1.98	0.46
6:2G:41:GLN:HG3	6:2G:154:GLY:O	2.16	0.46
12:2Q:11:LYS:HE2	12:2Q:90:VAL:HG22	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:2S:30:ARG:HB2	14:2S:35:ILE:HD12	1.97	0.46
14:2S:85:VAL:HG22	14:2S:86:ALA:H	1.80	0.46
21:2Z:44:PHE:O	21:2Z:48:PHE:N	2.42	0.46
21:2Z:55:HIS:CE1	21:2Z:135:GLU:HG3	2.50	0.46
31:29:10:ILE:HD12	31:29:32:HIS:HA	1.98	0.46
31:29:29:ASN:HB3	31:29:32:HIS:ND1	2.31	0.46
32:2a:296:U:O2'	32:2a:556:C:O2	2.27	0.46
32:2a:537:G:H2'	32:2a:538:G:C8	2.50	0.46
32:2a:770:C:O2'	32:2a:899:C:N3	2.42	0.46
47:2p:53:VAL:HG13	47:2p:79:VAL:HG13	1.97	0.46
1:1A:192:C:O2	1:1A:802:A:O2'	2.34	0.45
1:1A:674:G:H1'	5:1F:74:ARG:HD3	1.98	0.45
1:1A:2747:G:O6	1:1A:2755:C:H5"	2.16	0.45
1:1A:2749:A:OP2	1:1A:2750:A:O2'	2.27	0.45
13:1R:37:THR:HA	13:1R:111:LEU:HD12	1.98	0.45
13:1R:79:LEU:HA	13:1R:83:ILE:HD12	1.98	0.45
14:1S:87:PHE:HZ	14:1S:98:VAL:HG12	1.81	0.45
21:1Z:146:ILE:HA	21:1Z:147:GLY:HA2	1.73	0.45
32:1a:865:A:H2'	32:1a:866:C:C6	2.51	0.45
32:1a:1187:G:H4'	40:1i:111:ARG:HH11	1.81	0.45
32:1a:1402:4OC:CM2	32:1a:1403:C:H5'	2.46	0.45
38:1g:59:LEU:HG	38:1g:63:LYS:HE2	1.97	0.45
39:1h:112:LEU:HB3	39:1h:133:LEU:HA	1.98	0.45
46:1o:15:PHE:CE1	46:1o:84:LYS:HD2	2.51	0.45
50:1s:36:ARG:NH1	50:1s:52:TYR:O	2.36	0.45
1:2A:1028:A:N3	1:2A:2486:G:O2'	2.41	0.45
1:2A:1805:U:O2	3:2D:50:THR:HB	2.16	0.45
1:2A:2218:U:H1'	23:21:52:ARG:HH12	1.81	0.45
1:2A:2378:A:H4'	14:2S:23:ARG:HH11	1.80	0.45
1:2A:2408:U:H2'	1:2A:2409:G:C8	2.51	0.45
1:2A:2840:C:O2'	13:2R:91:GLN:NE2	2.49	0.45
4:2E:1:MET:HE1	4:2E:199:ARG:HH11	1.81	0.45
6:2G:101:ILE:HG21	26:24:25:TYR:HB2	1.99	0.45
8:2I:1:MET:HE1	8:2I:27:ARG:NH1	2.30	0.45
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	1.98	0.45
20:2Y:1:MET:HE3	20:2Y:2:ARG:HG2	1.98	0.45
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.52	0.45
35:2d:111:ALA:HB2	35:2d:120:LEU:HD12	1.98	0.45
1:1A:227:A:H61	1:1A:410:G:H21	1.63	0.45
1:1A:303:U:H2'	1:1A:304:G:C8	2.52	0.45
1:1A:607:U:OP1	5:1F:102:PRO:HA	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:783:A:O2'	1:1A:785:G:OP1	2.30	0.45
1:1A:1843:C:H2'	1:1A:1844:C:C6	2.52	0.45
1:1A:2155:G:H5"	1:1A:2156:G:C8	2.50	0.45
1:1A:2537:U:H2'	1:1A:2538:C:C6	2.50	0.45
1:1A:2657:A:H1'	1:1A:2665:A:N6	2.31	0.45
1:1A:2715:C:H2'	1:1A:2716:U:C6	2.51	0.45
3:1D:217:ARG:H	3:1D:217:ARG:HG2	1.52	0.45
9:1N:15:LEU:HD23	9:1N:16:ILE:N	2.31	0.45
24:12:25:VAL:HG21	24:12:61:LEU:HD23	1.99	0.45
32:1a:194:C:C2'	32:1a:195:A:H5"	2.47	0.45
32:1a:405:U:H5"	32:1a:495:A:H2	1.82	0.45
32:1a:1004:A:H5'	32:1a:1024:G:N1	2.20	0.45
32:1a:1025:U:C2	32:1a:1036:G:O6	2.69	0.45
34:1c:56:ASP:HB2	34:1c:67:THR:HB	1.99	0.45
41:1j:67:THR:O	41:1j:67:THR:OG1	2.33	0.45
43:1l:38:THR:OG1	43:1l:39:VAL:N	2.49	0.45
1:2A:724:U:H2'	1:2A:725:G:O4'	2.15	0.45
1:2A:1268:A:H2'	1:2A:1269:A:O4'	2.16	0.45
1:2A:2251:OMG:HM23	1:2A:2251:OMG:H1'	1.81	0.45
32:2a:302:G:O2'	32:2a:556:C:H5"	2.16	0.45
32:2a:667:G:H4'	46:2o:51:HIS:ND1	2.31	0.45
32:2a:690:G:C6	32:2a:691:G:C6	3.04	0.45
33:2b:103:THR:HG23	33:2b:176:GLU:OE1	2.16	0.45
44:2m:108:ARG:NE	44:2m:114:ARG:HG2	2.31	0.45
47:2p:28:ARG:NH1	47:2p:29:ASP:OD1	2.49	0.45
1:1A:49:A:H4'	1:1A:50:U:H5"	1.97	0.45
1:1A:84:A:H5"	20:1Y:8:LYS:HE3	1.98	0.45
1:1A:262:A:N3	1:1A:430:G:O2'	2.35	0.45
1:1A:414:C:H1'	1:1A:1864:U:H1'	1.98	0.45
1:1A:907:U:H4'	12:1Q:101:ARG:HH22	1.82	0.45
1:1A:1075:C:H2'	1:1A:1076:C:H5'	1.99	0.45
1:1A:1353:A:O4'	1:1A:1569:A:H2	1.98	0.45
1:1A:1486:A:H2'	1:1A:1487:G:C8	2.52	0.45
1:1A:1566:A:OP1	3:1D:211:ARG:NH1	2.50	0.45
1:1A:1830:C:H2'	1:1A:1831:G:C8	2.50	0.45
1:1A:1992:G:C2	1:1A:1997:G:C5	3.05	0.45
1:1A:2012:G:OP1	18:1W:11:ARG:NH2	2.49	0.45
1:1A:2183:C:O2'	1:1A:2184:G:OP1	2.29	0.45
1:1A:2854:G:H2'	1:1A:2855:C:C6	2.51	0.45
7:1H:83:TYR:CZ	7:1H:138:LYS:HD2	2.52	0.45
9:1N:42:TRP:CH2	9:1N:44:PRO:HB3	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:15:11:THR:HG23	27:15:15:ARG:HB3	1.98	0.45
32:1a:126:G:H4'	32:1a:634:C:O2	2.17	0.45
32:1a:539:A:H2'	32:1a:540:G:H8	1.80	0.45
32:1a:695:A:H61	32:1a:797:C:H1'	1.81	0.45
33:1b:223:ILE:HA	33:1b:226:ARG:HG2	1.97	0.45
44:1m:3:ARG:HG3	44:1m:4:ILE:H	1.82	0.45
46:1o:4:THR:OG1	46:1o:7:GLU:OE1	2.34	0.45
1:2A:2331:G:O2'	22:20:43:THR:HG22	2.17	0.45
18:2W:46:PHE:O	18:2W:50:VAL:HG23	2.17	0.45
32:2a:20:U:H2'	32:2a:21:G:O4'	2.16	0.45
32:2a:595:G:H1'	32:2a:596:C:H5	1.81	0.45
32:2a:996:A:N1	32:2a:1045:C:O2'	2.44	0.45
41:2j:50:ILE:HG22	41:2j:52:GLY:H	1.81	0.45
1:1A:299:A:N1	1:1A:322:A:O2'	2.42	0.45
1:1A:571:A:N6	1:1A:2499:C:O3'	2.47	0.45
1:1A:710:G:H2'	1:1A:711:G:C8	2.51	0.45
1:1A:1697:G:OP2	1:1A:1698:A:O2'	2.29	0.45
1:1A:2236:C:H2'	1:1A:2237:G:O4'	2.16	0.45
4:1E:110:GLY:HA2	4:1E:161:GLY:HA3	1.97	0.45
20:1Y:54:LYS:HA	20:1Y:55:TYR:HA	1.75	0.45
32:1a:292:G:N7	32:1a:293:G:H1'	2.31	0.45
32:1a:738:C:H2'	32:1a:739:C:C6	2.49	0.45
32:1a:1074:G:O2'	32:1a:1101:A:N1	2.46	0.45
32:1a:1266:G:N2	32:1a:1269:A:OP2	2.47	0.45
35:1d:4:TYR:C	35:1d:6:GLY:H	2.25	0.45
1:2A:607:U:OP1	5:2F:102:PRO:HA	2.16	0.45
1:2A:608:A:C6	1:2A:609:A:C6	3.04	0.45
1:2A:1995:U:H3'	1:2A:1996:C:H2'	1.98	0.45
1:2A:2037:G:H2'	1:2A:2038:G:C8	2.52	0.45
1:2A:2400:G:H2'	1:2A:2401:U:C6	2.52	0.45
1:2A:2461:C:H2'	1:2A:2462:U:C6	2.51	0.45
1:2A:2872:G:C2	1:2A:2873:A:N6	2.85	0.45
5:2F:164:ARG:O	5:2F:168:ARG:HB2	2.17	0.45
12:2Q:111:GLU:O	12:2Q:115:MET:HG2	2.17	0.45
32:2a:485:G:O2'	32:2a:486:U:OP2	2.34	0.45
32:2a:880:C:P	43:2l:8:ASN:HD22	2.38	0.45
32:2a:1004:A:C8	32:2a:1005:A:H4'	2.51	0.45
32:2a:1192:C:OP2	34:2c:4:LYS:NZ	2.49	0.45
32:2a:1252:A:H61	32:2a:1285:A:H61	1.64	0.45
32:2a:1465:C:H2'	32:2a:1466:C:O4'	2.15	0.45
34:2c:114:PRO:O	34:2c:118:GLN:NE2	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:84:ILE:HB	50:2s:66:MET:HE2	1.99	0.45
50:2s:11:VAL:HG12	50:2s:12:ASP:H	1.81	0.45
1:1A:470:A:H2'	1:1A:471:A:O4'	2.16	0.45
1:1A:1027:A:C2	1:1A:2488:A:H5'	2.51	0.45
1:1A:1321:A:H2'	1:1A:1322:A:C8	2.52	0.45
1:1A:1774:C:O5'	1:1A:1774:C:H6	2.00	0.45
1:1A:2067:G:O2'	1:1A:2069:G:H5'	2.17	0.45
1:1A:2684:U:H1'	10:1O:70:LYS:HD2	1.99	0.45
7:1H:3:ARG:HG2	7:1H:6:ARG:NE	2.30	0.45
8:1I:1:MET:HE1	8:1I:27:ARG:NH1	2.31	0.45
21:1Z:1:MET:N	21:1Z:135:GLU:OE2	2.46	0.45
32:1a:61:G:H2'	32:1a:62:U:O4'	2.17	0.45
32:1a:1125:U:H4'	41:1j:5:ARG:HH22	1.82	0.45
32:1a:1427:U:H2'	32:1a:1428:A:H8	1.81	0.45
34:1c:121:ALA:HA	34:1c:124:ILE:HD11	1.99	0.45
41:1j:63:PHE:HE1	45:1n:58:LYS:HG3	1.82	0.45
42:1k:77:MET:HE2	42:1k:77:MET:HB2	1.90	0.45
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.51	0.45
1:2A:1789:A:OP2	3:2D:222:ARG:NH2	2.46	0.45
1:2A:2027:G:H2'	1:2A:2028:U:O4'	2.16	0.45
2:2B:6:C:H2'	2:2B:7:G:C8	2.52	0.45
32:2a:164:U:H2'	32:2a:165:C:C6	2.52	0.45
32:2a:921:U:O2	36:2e:19:MET:HB2	2.17	0.45
32:2a:945:G:H2'	32:2a:945:G:N3	2.32	0.45
1:1A:27:G:O2'	1:1A:512:G:N2	2.50	0.45
1:1A:537:C:H2'	1:1A:538:G:C8	2.51	0.45
1:1A:722:A:H2'	1:1A:723:G:C8	2.52	0.45
1:1A:1417:C:H2'	1:1A:1418:G:O4'	2.17	0.45
1:1A:1484:G:H2'	1:1A:1485:G:C8	2.51	0.45
5:1F:188:ARG:HG2	11:1P:3:LEU:HD21	1.99	0.45
6:1G:39:ILE:HG21	6:1G:60:LEU:HD11	1.97	0.45
8:1I:1:MET:N	8:1I:21:VAL:O	2.31	0.45
11:1P:115:LEU:HD23	11:1P:131:SER:HB3	1.99	0.45
25:13:43:ILE:O	25:13:47:VAL:HG23	2.16	0.45
32:1a:408:A:H2'	32:1a:409:G:H8	1.81	0.45
32:1a:426:G:OP1	35:1d:38:TYR:OH	2.19	0.45
33:1b:218:ALA:O	33:1b:222:ILE:HG13	2.17	0.45
35:1d:194:LEU:HA	35:1d:194:LEU:HD13	1.76	0.45
36:1e:46:GLY:H	36:1e:58:ALA:HB2	1.81	0.45
36:1e:68:GLU:HG3	36:1e:70:PRO:HD3	1.98	0.45
38:1g:12:LEU:HD12	38:1g:12:LEU:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:1j:51:ARG:O	45:1n:45:ARG:NH1	2.50	0.45
1:2A:56:A:H2'	1:2A:57:C:O4'	2.16	0.45
1:2A:1581:G:H2'	1:2A:1582:C:O4'	2.17	0.45
1:2A:1766:U:H2'	1:2A:1767:C:H6	1.82	0.45
1:2A:2330:G:H2'	1:2A:2331:G:O4'	2.16	0.45
1:2A:2400:G:H2'	1:2A:2401:U:H6	1.81	0.45
1:2A:2471:C:H2'	1:2A:2472:G:O4'	2.16	0.45
1:2A:2637:U:H5"	4:2E:82:ARG:NH1	2.32	0.45
1:2A:2886:G:O2'	27:25:32:PRO:HD2	2.16	0.45
3:2D:118:VAL:N	3:2D:129:ASN:OD1	2.47	0.45
11:2P:84:ASN:OD1	11:2P:115:LEU:HB2	2.17	0.45
11:2P:88:LEU:HA	11:2P:91:PHE:CD2	2.50	0.45
14:2S:67:ARG:O	14:2S:71:ARG:HG3	2.17	0.45
16:2U:19:LYS:O	16:2U:22:LYS:HG3	2.16	0.45
28:26:15:GLU:HB2	28:26:47:THR:HG21	1.99	0.45
32:2a:129(A):G:C6	32:2a:189(E):U:H4'	2.52	0.45
32:2a:221:C:H2'	32:2a:222:U:H6	1.81	0.45
32:2a:310:G:H4'	47:2p:31:LYS:HD2	1.98	0.45
32:2a:1267:C:H5"	32:2a:1268:A:OP2	2.17	0.45
33:2b:32:ILE:HD13	33:2b:40:HIS:ND1	2.31	0.45
33:2b:100:GLY:HA2	33:2b:103:THR:OG1	2.17	0.45
34:2c:152:ILE:HD11	34:2c:199:LYS:HD2	1.99	0.45
37:2f:9:VAL:HG23	37:2f:87:ARG:HB2	1.99	0.45
43:2l:28:LYS:N	43:2l:29:GLY:HA2	2.31	0.45
1:1A:515:A:H1'	1:1A:581:C:H1'	1.99	0.45
1:1A:826:U:H4'	11:1P:55:ARG:HB3	1.98	0.45
1:1A:829:A:N7	1:1A:2248:C:H5'	2.31	0.45
1:1A:1075:C:O2	1:1A:1076:C:H2'	2.17	0.45
1:1A:1816:G:O6	3:1D:35:LYS:NZ	2.50	0.45
1:1A:1932:A:H2'	1:1A:1933:G:O4'	2.17	0.45
1:1A:2102:U:H2'	1:1A:2103:C:C6	2.52	0.45
1:1A:2133:G:H21	1:1A:2134:A:N6	2.14	0.45
1:1A:2161:C:O2'	1:1A:2162:G:H5"	2.17	0.45
2:1B:3:C:H2'	2:1B:4:C:C6	2.51	0.45
2:1B:96:U:H2'	2:1B:97:G:C8	2.52	0.45
32:1a:108:G:N1	51:1t:15:ARG:HG2	2.31	0.45
33:1b:215:LEU:O	33:1b:219:VAL:HG23	2.17	0.45
34:1c:8:ILE:HD12	34:1c:16:ARG:CZ	2.47	0.45
1:2A:1857:G:O6	60:2A:3749:HOH:O	2.21	0.45
1:2A:1919:A:N1	32:2a:1495:U:O2'	2.38	0.45
1:2A:2273:A:H2'	1:2A:2274:A:C8	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2379:G:O2'	14:2S:17:ARG:NH1	2.49	0.45
6:2G:11:TYR:O	6:2G:16:ARG:N	2.46	0.45
23:21:83:GLU:OE1	23:21:83:GLU:N	2.50	0.45
24:22:32:LEU:HB2	24:22:53:LEU:HD22	1.98	0.45
32:2a:27:G:H2'	32:2a:28:G:C8	2.52	0.45
32:2a:176:C:H2'	32:2a:177:C:H6	1.81	0.45
32:2a:224:C:H2'	32:2a:225:C:C6	2.51	0.45
32:2a:689:C:H2'	32:2a:690:G:O4'	2.17	0.45
32:2a:1314:C:H2'	32:2a:1315:U:H6	1.82	0.45
38:2g:46:ALA:HB1	38:2g:121:ALA:HB2	1.98	0.45
42:2k:34:ASP:OD1	42:2k:38:ASN:N	2.50	0.45
43:2l:53:ARG:HD2	43:2l:93:LEU:HD11	1.99	0.45
44:2m:16:ASP:OD1	44:2m:16:ASP:N	2.48	0.45
1:1A:228:A:H3'	1:1A:229:A:C5'	2.45	0.45
1:1A:1000:A:H62	1:1A:1154:G:H2'	1.82	0.45
1:1A:1020:A:N1	1:1A:1141:U:O2'	2.50	0.45
1:1A:1424:G:H2'	1:1A:1425:G:O4'	2.16	0.45
1:1A:1636:C:H2'	1:1A:1637:A:C8	2.52	0.45
1:1A:1711:C:H2'	1:1A:1712:C:C6	2.52	0.45
1:1A:1998:G:O2'	1:1A:2724:C:O2'	2.26	0.45
3:1D:79:VAL:HG12	3:1D:113:VAL:HA	1.99	0.45
5:1F:40:GLN:O	5:1F:43:LYS:HG2	2.17	0.45
9:1N:75:TYR:CE2	9:1N:77:GLY:HA2	2.51	0.45
32:1a:736:C:H4'	37:1f:89:MET:HE3	1.97	0.45
32:1a:874:G:C6	32:1a:875:C:C4	3.04	0.45
33:1b:158:LEU:HD21	33:1b:180:LEU:HD13	1.99	0.45
43:1l:77:LEU:HD22	43:1l:81:SER:HB3	1.99	0.45
46:1o:7:GLU:H	46:1o:7:GLU:HG2	1.52	0.45
1:2A:513:A:H2	1:2A:582:G:H4'	1.82	0.45
1:2A:1202:C:N4	1:2A:1243:G:H1	2.14	0.45
1:2A:1921:G:H2'	1:2A:1922:G:C8	2.52	0.45
1:2A:2279:G:O6	22:20:14:ARG:HG3	2.16	0.45
1:2A:2462:U:H2'	1:2A:2463:C:C6	2.52	0.45
3:2D:44:ASN:HD21	3:2D:46:GLN:CD	2.24	0.45
4:2E:117:MET:HE2	4:2E:117:MET:HB3	1.88	0.45
6:2G:109:VAL:HG11	6:2G:142:PRO:HB3	1.98	0.45
7:2H:56:SER:OG	7:2H:57:ASP:N	2.49	0.45
11:2P:121:LYS:HB3	11:2P:123:LEU:HG	1.99	0.45
32:2a:235:C:H2'	32:2a:236:G:C8	2.51	0.45
32:2a:279:A:C5	48:2q:98:LEU:HD13	2.52	0.45
32:2a:443:C:H2'	32:2a:444:C:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1160:G:H1	32:2a:1176:A:H61	1.65	0.45
34:2c:122:GLU:O	34:2c:126:ARG:HG3	2.17	0.45
39:2h:12:ARG:HD2	39:2h:26:VAL:HG12	1.99	0.45
47:2p:15:PRO:O	47:2p:16:HIS:ND1	2.49	0.45
47:2p:28:ARG:HG2	47:2p:29:ASP:OD1	2.17	0.45
54:2x:47:U:N3	54:2x:50:U:OP1	2.50	0.45
1:1A:182:A:H2'	1:1A:183:C:O4'	2.17	0.45
1:1A:296:C:H2'	1:1A:297:C:H6	1.82	0.45
1:1A:312:G:H5'	1:1A:331:A:O2'	2.17	0.45
1:1A:493:G:O6	60:1A:3986:HOH:O	2.19	0.45
1:1A:1340:U:OP1	19:1X:16:LYS:HE2	2.17	0.45
1:1A:1446:C:H2'	1:1A:1447:G:H8	1.81	0.45
1:1A:1753:G:N2	1:1A:1756:G:OP2	2.50	0.45
1:1A:2848:G:H3'	15:1T:95:ARG:O	2.17	0.45
4:1E:101:ARG:CZ	4:1E:171:GLU:HB2	2.47	0.45
6:1G:67:LYS:HE2	26:14:5:ILE:HD12	1.98	0.45
7:1H:20:ALA:HB1	7:1H:21:PRO:HD2	1.99	0.45
14:1S:56:LEU:HB2	14:1S:58:LEU:HG	1.98	0.45
23:11:73:LEU:HD23	23:11:73:LEU:HA	1.77	0.45
31:19:25:VAL:HB	31:19:34:GLN:HB2	1.99	0.45
32:1a:1124:G:H5"	41:1j:35:SER:OG	2.17	0.45
1:2A:275:G:H2'	1:2A:276:A:O4'	2.16	0.45
1:2A:293:U:H3	1:2A:347:A:H61	1.63	0.45
1:2A:307:G:H22	1:2A:310:A:P	2.39	0.45
1:2A:857:C:H2'	1:2A:858:U:C6	2.51	0.45
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.52	0.45
1:2A:1913:A:H4'	1:2A:1914:C:C5'	2.47	0.45
1:2A:2180:U:H2'	1:2A:2181:G:O4'	2.17	0.45
1:2A:2503:2MA:H4'	1:2A:2504:U:OP1	2.16	0.45
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.52	0.45
5:2F:37:VAL:HG13	5:2F:184:TYR:HD1	1.82	0.45
6:2G:179:PRO:HG3	26:24:43:TYR:CZ	2.51	0.45
16:2U:106:PHE:O	16:2U:110:VAL:HG23	2.16	0.45
32:2a:375:U:H5"	47:2p:6:LEU:HD23	1.98	0.45
33:2b:142:LEU:HA	33:2b:145:LEU:HB2	1.99	0.45
34:2c:67:THR:HG23	34:2c:102:ASN:HB2	1.99	0.45
1:1A:41:C:H2'	1:1A:42:G:O4'	2.16	0.45
1:1A:1164:G:H2'	1:1A:1165:U:C6	2.52	0.45
1:1A:1243:G:O2'	11:1P:7:ARG:NH2	2.49	0.45
1:1A:2114:A:H3'	1:1A:2115:G:C8	2.52	0.45
9:1N:34:LEU:HD21	9:1N:120:LEU:HB2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:1N:34:LEU:O	9:1N:49:GLY:HA3	2.18	0.45
24:12:35:LEU:HD12	24:12:53:LEU:HD12	1.98	0.45
32:1a:434:U:H2'	32:1a:435:C:C6	2.51	0.45
32:1a:688:G:H2'	32:1a:689:C:C6	2.52	0.45
33:1b:88:ALA:HB2	33:1b:219:VAL:HG13	1.99	0.45
36:1e:100:VAL:HG11	36:1e:107:ARG:HG3	1.98	0.45
39:1h:41:ARG:NH2	39:1h:123:GLU:OE2	2.49	0.45
42:1k:99:GLN:HG3	42:1k:105:VAL:HG21	1.98	0.45
48:1q:50:LYS:HE3	48:1q:51:TYR:CE2	2.52	0.45
53:1v:19:U:H2'	53:1v:20:U:C6	2.52	0.45
1:2A:228:A:N3	1:2A:230:U:H1'	2.32	0.45
1:2A:370:G:O5'	1:2A:423:A:N6	2.50	0.45
1:2A:1378:A:H5"	29:27:10:ARG:HH21	1.81	0.45
1:2A:1858:G:N2	1:2A:1883:G:H2'	2.32	0.45
1:2A:1952:A:C6	1:2A:1953:A:N1	2.85	0.45
1:2A:2820:A:O2'	4:2E:191:PRO:HG3	2.17	0.45
7:2H:64:LEU:HA	7:2H:67:LEU:HB3	1.98	0.45
12:2Q:10:ARG:HG2	12:2Q:11:LYS:HG3	1.98	0.45
13:2R:117:VAL:HG12	13:2R:118:GLU:H	1.81	0.45
21:2Z:17:ALA:HA	21:2Z:20:ARG:HH11	1.82	0.45
30:28:25:MET:HE3	30:28:25:MET:HB3	1.92	0.45
32:2a:128:G:O2'	48:2q:3:LYS:NZ	2.49	0.45
32:2a:392:G:H2'	32:2a:393:A:C8	2.52	0.45
32:2a:501:C:H2'	32:2a:502:G:H8	1.82	0.45
32:2a:741:G:H5"	46:2o:59:MET:HE2	1.99	0.45
34:2c:164:ARG:HE	34:2c:164:ARG:HB3	1.27	0.45
1:1A:2336:A:H61	22:10:43:THR:CG2	2.27	0.44
4:1E:14:ILE:HG13	4:1E:21:VAL:HG13	1.99	0.44
5:1F:132:VAL:HG23	5:1F:163:VAL:HG22	1.99	0.44
7:1H:22:GLY:HA2	7:1H:37:VAL:O	2.17	0.44
16:1U:58:ARG:HA	16:1U:61:TRP:CE3	2.52	0.44
21:1Z:98:MET:O	21:1Z:125:LEU:HA	2.17	0.44
23:11:41:ARG:HD3	23:11:43:TYR:OH	2.17	0.44
32:1a:691:G:H2'	32:1a:692:U:H6	1.79	0.44
41:1j:5:ARG:N	41:1j:99:LYS:O	2.41	0.44
1:2A:307:G:N1	1:2A:310:A:OP2	2.50	0.44
1:2A:875:G:H5"	21:2Z:149:SER:OG	2.17	0.44
1:2A:994:C:O2'	1:2A:996:A:OP1	2.33	0.44
1:2A:1140:C:OP1	9:2N:23:LEU:HB3	2.17	0.44
1:2A:1674:G:H1'	1:2A:1676:A:N6	2.32	0.44
1:2A:1721:G:H5'	1:2A:1722:A:OP2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2162:G:H4'	1:2A:2172:U:H2'	1.99	0.44
1:2A:2695:C:H2'	1:2A:2696:U:C6	2.52	0.44
5:2F:176:LEU:HD23	5:2F:176:LEU:HA	1.80	0.44
6:2G:103:LEU:O	6:2G:107:LEU:HG	2.17	0.44
26:24:24:THR:OG1	26:24:25:TYR:N	2.49	0.44
32:2a:255:G:P	48:2q:69:LYS:HZ3	2.40	0.44
32:2a:695:A:H2'	32:2a:696:A:C8	2.53	0.44
32:2a:922:G:N3	32:2a:1398:A:H2	2.15	0.44
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.32	0.44
32:2a:1492:A:H2'	32:2a:1493:A:C5	2.52	0.44
35:2d:111:ALA:HB1	35:2d:116:GLN:HG2	1.98	0.44
43:2l:82:VAL:N	43:2l:106:ASP:OD2	2.29	0.44
45:2n:40:CYS:SG	45:2n:42:ILE:HB	2.57	0.44
1:1A:687:C:H2'	1:1A:688:U:O4'	2.17	0.44
1:1A:918:A:H5"	2:1B:98:G:O2'	2.17	0.44
1:1A:2375:G:O2'	1:1A:2377:A:N7	2.34	0.44
1:1A:2393:A:H5"	11:1P:63:PRO:HB3	1.99	0.44
60:1A:3968:HOH:O	5:1F:68:LYS:HE2	2.17	0.44
2:1B:50:G:OP1	14:1S:63:THR:OG1	2.28	0.44
6:1G:173:LEU:HD22	6:1G:178:PHE:CZ	2.52	0.44
8:1I:30:LEU:HA	8:1I:30:LEU:HD23	1.75	0.44
12:1Q:18:LYS:HB2	12:1Q:18:LYS:HE3	1.74	0.44
30:18:8:LYS:HD3	30:18:8:LYS:HA	1.76	0.44
32:1a:1016:A:H2'	32:1a:1017:G:O4'	2.16	0.44
32:1a:1137:C:H5"	32:1a:1138:G:OP1	2.17	0.44
32:1a:1376:U:H2'	32:1a:1377:A:C8	2.53	0.44
35:1d:159:ARG:O	35:1d:163:GLU:N	2.42	0.44
39:1h:11:THR:HA	39:1h:14:ARG:NH1	2.31	0.44
44:1m:108:ARG:HA	44:1m:108:ARG:HD3	1.79	0.44
46:1o:74:ASP:OD2	46:1o:77:ARG:HB2	2.16	0.44
54:1x:13:C:C2'	54:1x:14:A:H5"	2.48	0.44
1:2A:301:G:H1	1:2A:316:C:N4	2.00	0.44
1:2A:392:C:H5"	1:2A:409:C:H5"	1.99	0.44
1:2A:479:A:N3	1:2A:481:G:H5"	2.32	0.44
1:2A:1424:G:H1	1:2A:1574:C:H42	1.64	0.44
1:2A:1676:A:C2	1:2A:1993:U:H5'	2.53	0.44
1:2A:2050:C:H1'	4:2E:156:MET:HE2	1.98	0.44
4:2E:59:VAL:HG12	4:2E:64:LYS:HG3	1.99	0.44
5:2F:50:SER:OG	5:2F:51:THR:N	2.50	0.44
6:2G:147:ASP:C	6:2G:149:VAL:H	2.25	0.44
32:2a:359:U:H2'	32:2a:360:A:C8	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:123:GLN:O	34:2c:126:ARG:HB2	2.16	0.44
37:2f:35:ALA:HA	37:2f:67:MET:HB3	1.97	0.44
44:2m:122:LYS:HG3	44:2m:123:ALA:H	1.82	0.44
51:2t:64:ASP:N	51:2t:64:ASP:OD1	2.48	0.44
1:1A:614(B):G:H5"	1:1A:614(C):A:P	2.57	0.44
1:1A:774:A:N3	1:1A:774:A:H2'	2.33	0.44
1:1A:1171:G:C5	1:1A:1173:G:C8	3.05	0.44
1:1A:1364:G:N7	23:11:3:LYS:HD2	2.33	0.44
1:1A:2629:A:H1'	1:1A:2630:G:C5'	2.47	0.44
2:1B:33:G:C2	2:1B:50:G:C2	3.04	0.44
11:1P:87:ASP:O	11:1P:90:ARG:NH1	2.51	0.44
15:1T:11:GLU:OE2	15:1T:57:PHE:HB3	2.18	0.44
27:15:29:THR:O	27:15:30:LEU:HD23	2.17	0.44
32:1a:272:C:H2'	32:1a:273:A:H8	1.82	0.44
32:1a:826:C:H2'	32:1a:827:U:C6	2.52	0.44
32:1a:1380:U:O4	38:1g:2:ALA:N	2.50	0.44
37:1f:82:ARG:HB2	37:1f:85:VAL:HG23	1.99	0.44
38:1g:16:LEU:HD12	40:1i:42:ARG:HA	1.99	0.44
45:1n:18:VAL:C	45:1n:20:ALA:H	2.24	0.44
47:1p:40:ASP:OD2	47:1p:44:THR:OG1	2.34	0.44
1:2A:718:A:H3'	1:2A:719:C:C6	2.50	0.44
1:2A:1567:A:OP2	3:2D:84:TYR:OH	2.32	0.44
1:2A:1789:A:H2'	1:2A:1790:C:O4'	2.18	0.44
1:2A:1789:A:OP1	3:2D:221:VAL:HA	2.18	0.44
1:2A:1794:U:H2'	1:2A:1795:C:H6	1.82	0.44
1:2A:2065:C:H2'	1:2A:2066:C:H6	1.80	0.44
1:2A:2303:G:O2'	6:2G:132:ASN:HB2	2.18	0.44
1:2A:2631:G:H1	1:2A:2787:C:H42	1.65	0.44
1:2A:2756:U:H5"	31:29:19:ARG:HA	2.00	0.44
2:2B:90:A:N7	2:2B:91:C:H1'	2.32	0.44
5:2F:150:GLY:HA2	5:2F:172:TRP:CD2	2.53	0.44
6:2G:179:PRO:HG3	26:24:43:TYR:OH	2.17	0.44
32:2a:429:U:H1'	32:2a:430:A:H5"	1.98	0.44
33:2b:50:GLU:O	33:2b:54:THR:OG1	2.28	0.44
35:2d:108:LEU:HD12	35:2d:108:LEU:HA	1.79	0.44
43:2l:110:VAL:HB	43:2l:113:ARG:HG2	1.99	0.44
1:1A:478:A:N1	1:1A:500:G:H4'	2.31	0.44
1:1A:548:A:H61	17:1V:19:LYS:H	1.66	0.44
1:1A:1034:G:H2'	1:1A:1035:U:O4'	2.17	0.44
1:1A:2105:C:H2'	1:1A:2106:G:H8	1.83	0.44
1:1A:2126:A:N6	1:1A:2163:C:O4'	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:1N:4:TYR:CD2	16:1U:100:VAL:HG11	2.51	0.44
14:1S:67:ARG:O	14:1S:71:ARG:HG3	2.17	0.44
18:1W:7:ALA:HB2	18:1W:50:VAL:HG22	1.98	0.44
21:1Z:97:GLU:HA	21:1Z:126:VAL:O	2.17	0.44
32:1a:408:A:H2'	32:1a:409:G:C8	2.52	0.44
32:1a:555:C:H2'	32:1a:556:C:C6	2.52	0.44
32:1a:674:G:H2'	32:1a:675:A:C8	2.52	0.44
32:1a:982:U:H5"	45:1n:6:LEU:HD21	1.99	0.44
32:1a:1030:C:N3	32:1a:1031:G:C2	2.86	0.44
32:1a:1186:G:O3'	40:1i:113:LYS:HE2	2.17	0.44
32:1a:1370:G:O3'	40:1i:12:GLU:HG3	2.18	0.44
32:1a:1402:4OC:HM22	32:1a:1403:C:H5'	1.99	0.44
32:1a:1503:A:H1'	53:1v:13:A:H61	1.83	0.44
35:1d:15:GLU:OE2	35:1d:66:ARG:NH1	2.51	0.44
35:1d:62:GLN:OE1	35:1d:65:ARG:NH1	2.49	0.44
41:1j:12:ASP:OD2	41:1j:15:THR:HG23	2.17	0.44
46:1o:18:PHE:CE2	46:1o:21:ASP:HB2	2.53	0.44
51:1t:53:LEU:HA	51:1t:56:MET:HB3	2.00	0.44
51:1t:66:ALA:HB1	51:1t:71:THR:HB	1.99	0.44
1:2A:586:A:N1	1:2A:809:G:O2'	2.45	0.44
1:2A:768:G:O2'	1:2A:1379:A:N1	2.49	0.44
1:2A:1164:G:H2'	1:2A:1165:U:C6	2.52	0.44
1:2A:2657:A:O3'	7:2H:160:LYS:NZ	2.51	0.44
5:2F:172:TRP:H	5:2F:172:TRP:CD1	2.34	0.44
6:2G:43:LEU:HD23	6:2G:44:GLY:N	2.33	0.44
11:2P:3:LEU:HD23	11:2P:6:LEU:HD12	2.00	0.44
20:2Y:102:CYS:SG	20:2Y:103:GLY:N	2.91	0.44
21:2Z:4:ARG:HH21	21:2Z:60:GLU:CD	2.24	0.44
32:2a:631:G:H2'	32:2a:632:A:C8	2.53	0.44
32:2a:665:A:H2'	32:2a:732:C:O2	2.17	0.44
32:2a:921:U:O2'	36:2e:19:MET:O	2.26	0.44
32:2a:1001:A:H2'	32:2a:1001(A):G:H8	1.81	0.44
1:1A:1045:A:OP1	1:1A:1046:A:H3'	2.17	0.44
1:1A:1065:U:H2'	1:1A:1073:A:H61	1.83	0.44
1:1A:1608:A:H1'	1:1A:1610:A:OP2	2.17	0.44
1:1A:1721:G:H3'	1:1A:1722:A:H5"	1.98	0.44
1:1A:2556:C:H2'	1:1A:2557:G:O4'	2.18	0.44
6:1G:64:THR:HB	6:1G:94:LEU:HD21	1.99	0.44
7:1H:40:GLU:OE2	7:1H:60:ARG:NH2	2.47	0.44
8:1I:38:LEU:HG	8:1I:40:THR:HG23	1.99	0.44
8:1I:82:ARG:HH12	8:1I:89:TYR:HB2	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:13:54:VAL:HG12	25:13:56:VAL:HG22	1.99	0.44
32:1a:67:C:H2'	32:1a:68:G:H8	1.80	0.44
32:1a:266:G:O3'	48:1q:67:LYS:HB2	2.18	0.44
32:1a:277:C:H5"	48:1q:68:ARG:NH2	2.32	0.44
32:1a:670:G:H2'	32:1a:671:G:O4'	2.18	0.44
32:1a:953:G:H5'	32:1a:965:A:H61	1.83	0.44
33:1b:125:PRO:O	33:1b:127:ILE:N	2.51	0.44
38:1g:15:ASP:HB3	38:1g:24:THR:HG23	2.00	0.44
42:1k:24:SER:O	42:1k:88:GLY:HA3	2.17	0.44
43:1l:8:ASN:HB2	48:1q:34:LYS:HZ3	1.82	0.44
1:2A:888:C:H2'	1:2A:889:C:C5	2.53	0.44
1:2A:932:G:H4'	1:2A:933:A:O5'	2.17	0.44
1:2A:1378:A:OP1	29:27:10:ARG:NH2	2.50	0.44
1:2A:2203:U:H2'	1:2A:2205:C:H6	1.82	0.44
24:22:64:LEU:HD11	24:22:68:ARG:HH21	1.83	0.44
32:2a:868:C:H2'	32:2a:869:G:O4'	2.18	0.44
32:2a:1319:A:OP2	50:2s:3:ARG:NH2	2.50	0.44
34:2c:12:LEU:HD11	45:2n:51:GLY:HA2	2.00	0.44
35:2d:155:LEU:HD23	35:2d:158:ILE:HD12	1.99	0.44
49:2r:22:VAL:O	49:2r:25:THR:HG22	2.18	0.44
50:2s:22:LEU:O	50:2s:27:GLU:N	2.51	0.44
1:1A:34:C:H5"	1:1A:35:G:OP2	2.17	0.44
1:1A:637:A:OP1	11:1P:133:SER:OG	2.26	0.44
1:1A:806:C:O2	1:1A:2444:G:O2'	2.33	0.44
1:1A:1005:C:O2'	9:1N:28:THR:HG21	2.18	0.44
1:1A:1364:G:P	23:11:3:LYS:HG3	2.57	0.44
1:1A:1518:U:H2'	1:1A:1519:G:O4'	2.18	0.44
1:1A:1528(A):A:H61	1:1A:1541:G:H1'	1.83	0.44
1:1A:2267:A:H5"	1:1A:2268:A:C5'	2.44	0.44
1:1A:2375:G:N2	1:1A:2377:A:H3'	2.33	0.44
3:1D:147:LEU:HD22	3:1D:155:LEU:HD11	1.99	0.44
15:1T:45:PHE:HE2	15:1T:63:VAL:HB	1.83	0.44
25:13:28:LEU:HA	25:13:33:GLN:NE2	2.33	0.44
32:1a:401:C:H2'	32:1a:402:G:H8	1.83	0.44
33:1b:124:SER:HA	33:1b:125:PRO:HA	1.64	0.44
34:1c:22:TRP:CZ2	45:1n:54:PRO:HG2	2.53	0.44
35:1d:149:ALA:HB3	35:1d:152:SER:HB2	2.00	0.44
36:1e:67:VAL:HG13	36:1e:69:VAL:H	1.82	0.44
38:1g:78:ARG:HD2	38:1g:156:TRP:CZ3	2.52	0.44
38:1g:79:ARG:HG3	38:1g:80:VAL:H	1.83	0.44
42:1k:96:ARG:HA	42:1k:99:GLN:OE1	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:1l:83:VAL:HG21	43:1l:100:ILE:HD13	1.99	0.44
49:1r:23:LYS:HD2	49:1r:58:LEU:HD23	1.98	0.44
1:2A:579:G:H5"	1:2A:2018:G:H5"	1.99	0.44
1:2A:634:C:H2'	1:2A:635:C:C6	2.53	0.44
1:2A:645:C:H5"	1:2A:646:A:OP2	2.17	0.44
1:2A:1806:C:O2'	3:2D:46:GLN:OE1	2.27	0.44
1:2A:1878:G:H2'	1:2A:1879:C:C6	2.53	0.44
1:2A:2103:C:O2'	1:2A:2104:G:H5'	2.18	0.44
1:2A:2405:G:O2'	1:2A:2406:U:OP1	2.27	0.44
2:2B:55:U:O2'	6:2G:27:ASN:ND2	2.42	0.44
5:2F:132:VAL:O	5:2F:133:ASN:ND2	2.50	0.44
9:2N:56:ASN:N	9:2N:125:GLY:O	2.41	0.44
27:25:16:ARG:HG3	27:25:17:ASP:N	2.32	0.44
32:2a:406:G:H5'	35:2d:5:ILE:HD11	2.00	0.44
32:2a:807:A:H2'	32:2a:808:C:C6	2.53	0.44
32:2a:1058:G:H2'	32:2a:1059:C:C6	2.53	0.44
37:2f:35:ALA:HB2	37:2f:67:MET:HE3	1.99	0.44
43:2l:54:LYS:N	43:2l:54:LYS:HD2	2.33	0.44
44:2m:87:TYR:HA	44:2m:90:LEU:HB2	1.99	0.44
51:2t:18:GLN:O	51:2t:22:ARG:HG3	2.17	0.44
54:2x:10:G:N2	54:2x:26:G:H1'	2.33	0.44
1:1A:8:A:H2'	1:1A:9:U:C6	2.53	0.44
1:1A:373:U:H2'	1:1A:374:A:H8	1.82	0.44
1:1A:534:U:H2'	1:1A:535:C:C6	2.53	0.44
1:1A:784:A:H5'	1:1A:785:G:OP1	2.17	0.44
1:1A:821:A:O2'	1:1A:946:G:OP2	2.26	0.44
1:1A:942:G:OP2	11:1P:39:LYS:NZ	2.32	0.44
1:1A:1176:G:H4'	1:1A:1177:A:OP1	2.18	0.44
2:1B:87:G:N2	2:1B:89:G:H3'	2.33	0.44
12:1Q:10:ARG:NH1	12:1Q:11:LYS:HE3	2.33	0.44
32:1a:373:A:H1'	32:1a:481:G:N3	2.32	0.44
32:1a:706:A:N3	42:1k:31:THR:HG21	2.33	0.44
32:1a:1277:C:O2'	32:1a:1279:A:H1'	2.17	0.44
32:1a:1490:C:H2'	32:1a:1491:G:O4'	2.18	0.44
32:1a:1526:G:H2'	32:1a:1527:C:C6	2.53	0.44
34:1c:6:HIS:HD2	34:1c:8:ILE:N	2.13	0.44
34:1c:12:LEU:HD11	45:1n:51:GLY:HA2	2.00	0.44
42:1k:33:THR:HA	42:1k:39:PRO:HA	1.99	0.44
44:1m:121:LYS:HE2	44:1m:121:LYS:HB2	1.79	0.44
1:2A:58:G:O2'	1:2A:73:A:N1	2.44	0.44
1:2A:184:C:H2'	1:2A:185:U:H6	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:729:G:C6	3:2D:208:LYS:HB2	2.52	0.44
1:2A:880:G:C2	1:2A:881:G:C8	3.06	0.44
1:2A:984:A:H5"	1:2A:985:C:H5	1.83	0.44
1:2A:1368:G:OP1	29:27:28:ARG:NH2	2.51	0.44
1:2A:1384:A:N3	1:2A:1405:U:H1'	2.32	0.44
1:2A:1790:C:H5"	1:2A:1791:A:OP1	2.17	0.44
1:2A:2023:G:H5'	1:2A:2617:C:H4'	2.00	0.44
1:2A:2115:G:C4	1:2A:2117:A:H8	2.35	0.44
1:2A:2643:G:H2'	1:2A:2644:G:O4'	2.18	0.44
2:2B:54:G:H21	6:2G:29:TRP:HZ2	1.63	0.44
4:2E:174:ASP:HB3	4:2E:183:LEU:HD13	1.99	0.44
6:2G:56:ALA:O	6:2G:60:LEU:HB2	2.18	0.44
6:2G:59:GLU:CD	6:2G:153:ARG:HH21	2.25	0.44
14:2S:33:LYS:HB2	14:2S:33:LYS:HE3	1.88	0.44
19:2X:12:VAL:HG22	19:2X:29:TRP:CE2	2.52	0.44
21:2Z:49:ARG:HA	21:2Z:49:ARG:HD2	1.83	0.44
26:24:1:MET:HE2	26:24:6:HIS:CG	2.53	0.44
31:29:32:HIS:O	31:29:34:GLN:HG3	2.17	0.44
32:2a:986:A:H1'	50:2s:55:LYS:HA	2.00	0.44
32:2a:1084:G:H5'	32:2a:1102:A:OP2	2.18	0.44
32:2a:1252:A:N6	32:2a:1285:A:H61	2.15	0.44
32:2a:1299:A:H2'	32:2a:1299:A:N3	2.33	0.44
53:2v:19:U:H2'	53:2v:20:U:C6	2.53	0.44
1:1A:193:U:O3'	1:1A:803:U:H4'	2.18	0.44
1:1A:271(A):A:N7	1:1A:271(W):G:N2	2.64	0.44
1:1A:672:C:OP1	1:1A:801:G:N2	2.50	0.44
1:1A:1441:G:O3'	1:1A:1628:G:H5"	2.18	0.44
1:1A:1705:G:C6	1:1A:1706:U:C4	3.06	0.44
1:1A:2065:C:H4'	1:1A:2251:OMG:HM22	2.00	0.44
1:1A:2453:A:OP1	55:1z:2:ARG:NH1	2.46	0.44
1:1A:2791:C:H2'	1:1A:2792:G:C8	2.53	0.44
3:1D:237:GLU:OE2	60:1D:401:HOH:O	2.21	0.44
6:1G:54:GLU:HA	6:1G:57:ALA:HB3	2.00	0.44
10:1O:10:VAL:HG21	10:1O:16:ALA:HB3	2.00	0.44
12:1Q:18:LYS:O	12:1Q:98:LYS:NZ	2.26	0.44
14:1S:71:ARG:HD3	14:1S:107:GLU:OE1	2.18	0.44
18:1W:86:LEU:HD12	18:1W:87:PRO:HD2	1.99	0.44
21:1Z:19:ARG:NH2	21:1Z:84:GLU:O	2.46	0.44
32:1a:114:U:H1'	32:1a:353:A:H1'	1.99	0.44
32:1a:439:A:OP2	32:1a:493:G:N1	2.36	0.44
35:1d:15:GLU:C	35:1d:17:VAL:H	2.26	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:194:LEU:HB3	35:1d:196:LEU:HD11	1.98	0.44
46:1o:26:GLU:HG3	46:1o:81:LEU:HD22	2.00	0.44
51:1t:90:GLN:HA	51:1t:93:GLU:CG	2.44	0.44
1:2A:83:G:N2	1:2A:102:G:H1'	2.32	0.44
1:2A:219:G:H2'	1:2A:220:G:O4'	2.17	0.44
1:2A:752:A:H3'	29:27:1:MET:SD	2.57	0.44
1:2A:1837:C:O2'	1:2A:1927:A:O2'	2.34	0.44
1:2A:2637:U:H5"	4:2E:82:ARG:HH12	1.81	0.44
2:2B:9:G:P	14:2S:25:ARG:HH12	2.41	0.44
4:2E:29:GLY:H	4:2E:93:VAL:HG13	1.83	0.44
7:2H:113:VAL:HG11	7:2H:151:ILE:HG21	2.00	0.44
9:2N:120:LEU:C	9:2N:121:LYS:HD2	2.42	0.44
20:2Y:15:VAL:HG21	20:2Y:42:VAL:HG11	1.99	0.44
26:24:56:VAL:HG13	26:24:57:GLU:H	1.82	0.44
30:28:31:HIS:O	30:28:32:LEU:HB2	2.18	0.44
32:2a:18:C:H4'	32:2a:1078:U:O2	2.18	0.44
32:2a:757:U:H2'	32:2a:758:G:O4'	2.18	0.44
32:2a:828:A:OP1	32:2a:828:A:H4'	2.18	0.44
32:2a:841:U:H6	32:2a:841:U:P	2.41	0.44
32:2a:1343:G:H1'	40:2i:121:ARG:NH2	2.32	0.44
1:1A:643:A:C8	28:16:44:ARG:NH1	2.85	0.44
1:1A:787:U:H5"	1:1A:788:A:H5'	2.00	0.44
1:1A:1265:A:OP2	60:1A:3916:HOH:O	2.21	0.44
1:1A:1371:G:H2'	1:1A:1372:U:H5	1.82	0.44
1:1A:1514:U:H2'	1:1A:1515:G:C8	2.53	0.44
1:1A:1957:C:H2'	1:1A:1958:C:H6	1.82	0.44
1:1A:2098:U:H2'	1:1A:2099:U:C6	2.53	0.44
1:1A:2100:G:C2'	1:1A:2101:G:H5'	2.48	0.44
1:1A:2123:G:H1	1:1A:2175:C:N4	2.12	0.44
1:1A:2168:G:H8	1:1A:2170:A:N7	2.15	0.44
1:1A:2420:C:OP1	30:18:34:TRP:HB3	2.17	0.44
2:1B:73:A:C4	2:1B:105:A:C2	3.06	0.44
4:1E:2:LYS:NZ	4:1E:95:ILE:O	2.48	0.44
10:1O:88:ASN:HD21	10:1O:92:GLU:HB2	1.83	0.44
17:1V:85:LYS:HE2	17:1V:85:LYS:HB2	1.69	0.44
28:16:6:ARG:HH12	28:16:26:ASN:HB2	1.82	0.44
32:1a:36:C:H2'	32:1a:37:U:O4'	2.18	0.44
32:1a:221:C:H2'	32:1a:222:U:C6	2.51	0.44
32:1a:603:U:H2'	32:1a:604:G:H8	1.82	0.44
32:1a:1004:A:N6	32:1a:1037:C:H42	2.16	0.44
32:1a:1125:U:H4'	41:1j:5:ARG:NH2	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1469:G:H2'	32:1a:1470:G:C8	2.53	0.44
35:1d:61:LYS:HD2	35:1d:207:TYR:OH	2.17	0.44
1:2A:84:A:H5"	20:2Y:8:LYS:HE3	2.00	0.44
1:2A:271:A:H62	1:2A:271(X):G:H1'	1.82	0.44
1:2A:858:U:OP2	22:20:77:ARG:NH2	2.50	0.44
1:2A:2396:G:O2'	23:21:29:GLY:O	2.32	0.44
1:2A:2542:A:H4'	1:2A:2543:G:C8	2.53	0.44
4:2E:119:ARG:NH1	4:2E:157:ALA:O	2.51	0.44
6:2G:108:ASN:HA	26:24:37:SER:HB3	2.00	0.44
7:2H:13:LYS:HA	7:2H:14:GLY:HA2	1.51	0.44
21:2Z:103:ARG:O	21:2Z:139:VAL:N	2.41	0.44
24:22:54:LYS:HE2	24:22:54:LYS:HB3	1.83	0.44
28:26:41:PRO:O	28:26:44:ARG:HG3	2.18	0.44
31:29:7:VAL:HG12	31:29:34:GLN:HB3	2.00	0.44
32:2a:841:U:C4	32:2a:848:C:H1'	2.53	0.44
34:2c:18:TRP:O	34:2c:21:ARG:NE	2.44	0.44
34:2c:53:ALA:HB2	34:2c:115:LEU:HD13	2.00	0.44
40:2i:42:ARG:NH1	40:2i:75:ASP:OD1	2.51	0.44
41:2j:49:VAL:CG2	45:2n:41:ARG:HB2	2.48	0.44
45:2n:51:GLY:C	45:2n:53:LEU:H	2.26	0.44
46:2o:6:GLU:CD	46:2o:6:GLU:H	2.24	0.44
54:2x:54:5MU:H2'	54:2x:55:PSU:O4'	2.18	0.44
1:1A:488:G:H4'	18:1W:49:LYS:HE2	2.00	0.43
1:1A:548:A:H61	17:1V:18:LEU:HA	1.83	0.43
1:1A:605:C:H2'	1:1A:606:U:O4'	2.18	0.43
1:1A:686:G:H8	29:17:6:GLN:O	2.01	0.43
1:1A:698:C:O2'	1:1A:734:A:N6	2.51	0.43
1:1A:1547:C:H2'	1:1A:1548:C:C6	2.53	0.43
1:1A:2469:A:C2	1:1A:2470:G:H1'	2.53	0.43
8:1I:40:THR:O	8:1I:44:LEU:HB2	2.18	0.43
13:1R:79:LEU:HA	13:1R:83:ILE:HB	1.99	0.43
21:1Z:93:ASP:HB2	21:1Z:131:ARG:HH22	1.82	0.43
29:17:47:ARG:HB3	29:17:47:ARG:HH11	1.83	0.43
32:1a:115:G:H4'	32:1a:116:A:O5'	2.18	0.43
32:1a:309:G:H1'	32:1a:608:A:C2	2.53	0.43
32:1a:503:C:H2'	32:1a:504:C:C6	2.53	0.43
32:1a:749:C:H2'	32:1a:750:G:H8	1.82	0.43
32:1a:840:C:H4'	32:1a:841:U:OP1	2.18	0.43
32:1a:911:U:OP2	43:1l:97:ARG:NH2	2.51	0.43
32:1a:1035:A:N3	32:1a:1036:G:N2	2.66	0.43
32:1a:1206:G:C6	32:1a:1207:2MG:C5	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:122:ARG:HA	35:1d:122:ARG:HD2	1.84	0.43
1:2A:62:C:H5"	1:2A:63:U:OP2	2.18	0.43
1:2A:304:G:H2'	1:2A:305:U:H6	1.83	0.43
1:2A:1861:G:H2'	1:2A:1862:G:C8	2.52	0.43
1:2A:1993:U:H4'	4:2E:128:SER:OG	2.18	0.43
1:2A:2126:A:C2	1:2A:2127:G:H1'	2.53	0.43
1:2A:2420:C:P	30:28:33:ASN:H	2.41	0.43
1:2A:2704:C:H2'	1:2A:2705:A:O4'	2.18	0.43
8:2I:52:ARG:HA	8:2I:55:ALA:HB3	2.00	0.43
11:2P:108:LYS:O	11:2P:110:TYR:HD2	2.01	0.43
12:2Q:74:TYR:N	12:2Q:92:GLY:O	2.33	0.43
32:2a:256:U:H2'	32:2a:257:G:C8	2.53	0.43
32:2a:401:C:O2'	32:2a:621:A:N3	2.30	0.43
32:2a:410:G:N2	32:2a:432:A:H62	2.16	0.43
32:2a:429:U:H3'	35:2d:9:CYS:SG	2.58	0.43
32:2a:927:G:N2	32:2a:1391:U:H1'	2.33	0.43
32:2a:1168:A:H2'	32:2a:1169:A:C8	2.53	0.43
32:2a:1392:G:H2'	32:2a:1393:U:H6	1.82	0.43
34:2c:18:TRP:CD1	45:2n:54:PRO:HA	2.53	0.43
37:2f:7:ASN:HB2	37:2f:89:MET:HB3	2.00	0.43
43:2l:39:VAL:HG11	43:2l:41:ARG:HH11	1.83	0.43
51:2t:54:LYS:HB3	51:2t:54:LYS:HE2	1.60	0.43
51:2t:54:LYS:HA	51:2t:57:ARG:CZ	2.48	0.43
51:2t:90:GLN:O	51:2t:93:GLU:HG2	2.17	0.43
1:1A:297:C:H5"	20:1Y:87:LYS:HG3	1.99	0.43
1:1A:376:C:N4	1:1A:398:G:H1	2.15	0.43
1:1A:537:C:H2'	1:1A:538:G:H8	1.83	0.43
1:1A:593:G:H4'	30:18:4:MET:HE2	2.00	0.43
1:1A:649:G:C5	1:1A:650:C:C4	3.06	0.43
1:1A:1111:A:N3	1:1A:1112:G:H1'	2.33	0.43
1:1A:1668:A:H4'	1:1A:1669:A:O5'	2.18	0.43
1:1A:1753:G:OP1	15:1T:95:ARG:NE	2.39	0.43
1:1A:1766:U:H2'	1:1A:1767:C:C6	2.54	0.43
1:1A:1998:G:HO2'	1:1A:2724:C:HO2'	1.58	0.43
1:1A:2183:C:HO2'	1:1A:2184:G:P	2.39	0.43
2:1B:31:C:H4'	6:1G:29:TRP:CH2	2.53	0.43
3:1D:24:ILE:HD13	3:1D:84:TYR:HB2	1.99	0.43
3:1D:155:LEU:HD23	3:1D:177:LEU:HD22	2.00	0.43
21:1Z:4:ARG:HG2	21:1Z:58:VAL:HB	2.00	0.43
25:13:26:LEU:O	25:13:35:ARG:NE	2.38	0.43
32:1a:233:C:H2'	32:1a:234:C:H6	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:90:MET:HE2	33:1b:90:MET:HA	2.00	0.43
48:1q:24:GLU:HA	48:1q:39:SER:HA	2.00	0.43
51:1t:56:MET:HE3	51:1t:85:MET:HG2	2.00	0.43
1:2A:108:U:H2'	1:2A:109:G:C8	2.53	0.43
1:2A:1027:A:C2	1:2A:2488:A:H5'	2.53	0.43
1:2A:1434:A:N6	1:2A:1558:A:H62	2.11	0.43
1:2A:1495:A:H2'	1:2A:1496:A:C8	2.53	0.43
1:2A:2051:A:H5'	1:2A:2578:G:O4'	2.18	0.43
1:2A:2160:G:H3'	1:2A:2161:C:H5"	2.00	0.43
1:2A:2347:C:OP1	28:26:38:LYS:NZ	2.49	0.43
1:2A:2499:C:OP1	60:2A:3708:HOH:O	2.21	0.43
6:2G:106:LEU:O	6:2G:111:LEU:HD12	2.18	0.43
11:2P:81:GLN:OE1	11:2P:107:LYS:N	2.47	0.43
12:2Q:57:HIS:HD2	12:2Q:117:ALA:HB2	1.83	0.43
13:2R:79:LEU:HA	13:2R:83:ILE:HD12	1.99	0.43
32:2a:731:G:OP1	32:2a:766:A:H1'	2.17	0.43
32:2a:828:A:H2'	32:2a:829:G:O4'	2.18	0.43
32:2a:1137:C:H5"	32:2a:1138:G:OP1	2.18	0.43
37:2f:33:TYR:HA	37:2f:71:ARG:HH11	1.83	0.43
38:2g:111:ARG:HB2	38:2g:119:ARG:HD2	2.00	0.43
44:2m:10:PRO:HG2	44:2m:21:TYR:CE2	2.53	0.43
44:2m:32:GLU:C	44:2m:34:LEU:H	2.26	0.43
47:2p:74:LEU:HA	47:2p:77:ALA:HB3	1.99	0.43
51:2t:39:LYS:O	51:2t:43:LEU:HB2	2.17	0.43
1:1A:864:G:O2'	1:1A:865:C:H5'	2.18	0.43
1:1A:1005:C:H5"	60:1A:4019:HOH:O	2.16	0.43
1:1A:1082:U:O4	1:1A:1086:A:C6	2.70	0.43
1:1A:1301:A:O2'	1:1A:1302:A:H3'	2.18	0.43
1:1A:1589:C:H2'	1:1A:1590:U:C6	2.53	0.43
1:1A:2126:A:H4'	1:1A:2127:G:OP1	2.17	0.43
2:1B:57:A:H1'	6:1G:29:TRP:HB2	1.99	0.43
3:1D:6:PHE:CD1	3:1D:13:ARG:HD2	2.52	0.43
6:1G:179:PRO:HG3	26:14:43:TYR:CZ	2.53	0.43
21:1Z:7:ALA:O	21:1Z:62:PRO:HD3	2.18	0.43
22:10:19:LYS:HD2	22:10:19:LYS:HA	1.71	0.43
32:1a:341:C:O2'	32:1a:342:C:H5'	2.18	0.43
32:1a:377:G:OP1	47:1p:3:LYS:HD3	2.18	0.43
32:1a:667:G:H4'	46:1o:51:HIS:CE1	2.53	0.43
33:1b:157:ARG:NH1	33:1b:158:LEU:HB2	2.34	0.43
35:1d:8:VAL:HG12	35:1d:22:LYS:HE2	1.99	0.43
35:1d:61:LYS:HD3	35:1d:206:PHE:CE2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:155:LEU:HA	35:1d:155:LEU:HD23	1.72	0.43
38:1g:47:CYS:HB3	38:1g:58:PRO:HB3	2.00	0.43
44:1m:58:GLU:O	44:1m:62:ASN:ND2	2.37	0.43
47:1p:39:TYR:CD2	47:1p:73:LEU:HD11	2.53	0.43
1:2A:71:A:H5"	1:2A:73:A:C8	2.53	0.43
1:2A:787:U:O5'	1:2A:787:U:H6	2.01	0.43
1:2A:1364:G:P	23:21:3:LYS:HG3	2.58	0.43
1:2A:1567:A:H5'	3:2D:58:HIS:ND1	2.33	0.43
1:2A:1591:G:H2'	1:2A:1592:C:C6	2.53	0.43
1:2A:2857:G:N2	1:2A:2859:G:H3'	2.32	0.43
4:2E:12:THR:HG21	15:2T:11:GLU:HG2	2.00	0.43
7:2H:26:VAL:HG12	7:2H:79:VAL:HG11	2.01	0.43
13:2R:56:LYS:NZ	13:2R:90:ARG:O	2.51	0.43
14:2S:4:LEU:HD23	14:2S:4:LEU:HA	1.78	0.43
23:21:40:ARG:NH1	23:21:42:GLN:HE21	2.17	0.43
32:2a:110:C:H2'	32:2a:111:G:O4'	2.18	0.43
32:2a:354:G:N2	32:2a:388:G:O2'	2.32	0.43
32:2a:858:G:O6	32:2a:869:G:H3'	2.19	0.43
32:2a:922:G:H2'	32:2a:923:A:C8	2.54	0.43
32:2a:1071:C:H5"	36:2e:49:PRO:HG2	2.00	0.43
32:2a:1164:G:N2	32:2a:1172:C:N3	2.60	0.43
32:2a:1246:C:H2'	32:2a:1247:U:C6	2.54	0.43
32:2a:1456:G:O6	51:2t:54:LYS:NZ	2.22	0.43
1:1A:1220:A:OP2	16:1U:19:LYS:NZ	2.43	0.43
10:1O:19:ILE:HG22	10:1O:43:VAL:HA	2.00	0.43
21:1Z:150:LEU:HB3	21:1Z:171:ILE:HD11	2.01	0.43
24:12:22:GLU:OE2	24:12:68:ARG:NH2	2.50	0.43
26:14:62:ARG:HB3	26:14:63:TYR:H	1.64	0.43
27:15:51:TYR:CE2	27:15:56:LYS:HD2	2.53	0.43
32:1a:646:U:H2'	32:1a:647:C:C6	2.53	0.43
32:1a:1447:A:H5"	32:1a:1452:C:OP2	2.18	0.43
32:1a:1502:A:H5'	32:1a:1504:G:N7	2.33	0.43
33:1b:55:PHE:HA	33:1b:58:ILE:HD12	2.01	0.43
36:1e:123:LEU:HA	36:1e:123:LEU:HD23	1.75	0.43
40:1i:29:ASN:ND2	40:1i:64:THR:HA	2.33	0.43
44:1m:56:LEU:O	44:1m:60:VAL:HG23	2.18	0.43
46:1o:5:LYS:O	46:1o:9:GLN:HG2	2.18	0.43
54:1x:21:A:H2'	54:1x:22:G:C8	2.54	0.43
1:2A:233:A:H61	1:2A:428:A:N6	2.17	0.43
1:2A:455:C:N3	1:2A:472:A:H2'	2.34	0.43
1:2A:538:G:H2'	1:2A:539:G:H8	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1351:C:C2	1:2A:1381:G:C2	3.05	0.43
1:2A:1388:G:HO2'	1:2A:1525:G:HO2'	1.63	0.43
1:2A:1509(B):A:H3'	1:2A:1510:G:H8	1.83	0.43
1:2A:1515:G:H4'	1:2A:1556:C:O2'	2.18	0.43
1:2A:1651:G:H2'	1:2A:1652:A:O4'	2.18	0.43
1:2A:1971:A:C4	3:2D:241:PRO:HD3	2.53	0.43
1:2A:2095:C:H2'	1:2A:2096:U:O4'	2.18	0.43
1:2A:2292:C:H2'	1:2A:2293:C:C6	2.54	0.43
1:2A:2577:A:H5"	1:2A:2578:G:H5'	2.00	0.43
1:2A:2689:U:H4'	1:2A:2690:C:H5'	2.00	0.43
1:2A:2753:A:N3	31:29:15:LYS:NZ	2.66	0.43
2:2B:7:G:N2	14:2S:38:GLN:HE22	2.13	0.43
10:2O:104:ARG:NH1	10:2O:122:LEU:OXT	2.51	0.43
24:22:31:GLU:O	24:22:35:LEU:N	2.47	0.43
32:2a:17:U:H2'	32:2a:18:C:C6	2.52	0.43
32:2a:42:G:H2'	32:2a:43:C:O4'	2.19	0.43
32:2a:251:G:H4'	32:2a:252:U:O5'	2.18	0.43
32:2a:437:U:O2'	35:2d:123:HIS:HD2	2.02	0.43
32:2a:914:A:H2'	32:2a:915:A:H8	1.83	0.43
32:2a:1172:C:H2'	32:2a:1173:G:C8	2.53	0.43
35:2d:138:TYR:CD2	35:2d:138:TYR:C	2.97	0.43
39:2h:103:VAL:HG12	39:2h:108:GLY:HA3	2.00	0.43
46:2o:4:THR:HB	46:2o:6:GLU:OE2	2.19	0.43
1:1A:652(U):G:H2'	1:1A:652(V):C:C6	2.54	0.43
1:1A:840:C:H2'	1:1A:841:A:C8	2.53	0.43
1:1A:1252:G:C2	1:1A:1253:A:C2	3.07	0.43
1:1A:1669:A:H5"	1:1A:2550:G:OP1	2.19	0.43
1:1A:2117:A:O2'	1:1A:2118:U:H5"	2.17	0.43
1:1A:2128:C:O2'	1:1A:2174:C:H4'	2.19	0.43
1:1A:2555:U:O2	55:1z:1:ARG:NH2	2.51	0.43
6:1G:28:VAL:O	6:1G:31:VAL:HG13	2.18	0.43
8:1I:2:LYS:HD3	8:1I:2:LYS:HA	1.75	0.43
18:1W:37:ARG:HG2	18:1W:38:TYR:CE2	2.53	0.43
19:1X:27:THR:HA	19:1X:79:ALA:O	2.19	0.43
26:14:53:GLU:HB2	26:14:54:GLY:H	1.65	0.43
32:1a:97:G:H2'	32:1a:98:G:O4'	2.18	0.43
32:1a:337:C:H2'	32:1a:338:A:C8	2.52	0.43
32:1a:958:A:C2	50:1s:55:LYS:HB2	2.54	0.43
32:1a:1124:G:N2	32:1a:1125:U:O4	2.51	0.43
32:1a:1289:A:P	52:1u:10:ARG:HH22	2.41	0.43
42:1k:16:SER:O	42:1k:35:PRO:HD3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:185:U:H2'	1:2A:186:G:C8	2.53	0.43
1:2A:1137:G:H2'	1:2A:1138:G:H8	1.82	0.43
1:2A:1139:G:H2'	1:2A:1140:C:H6	1.83	0.43
1:2A:1637:A:H4'	1:2A:2711:A:O2'	2.18	0.43
1:2A:1915:5MU:H2'	1:2A:1916:A:O4'	2.17	0.43
1:2A:1916:A:C2	32:2a:1409:C:H5'	2.53	0.43
1:2A:2513:G:O2'	4:2E:154:LYS:NZ	2.50	0.43
1:2A:2805:G:H2'	1:2A:2807:G:H8	1.84	0.43
3:2D:276:LYS:HD3	3:2D:276:LYS:H	1.84	0.43
32:2a:27:G:H2'	32:2a:28:G:H8	1.83	0.43
32:2a:441:A:H3'	32:2a:442:C:C6	2.53	0.43
32:2a:722:A:C8	32:2a:724:G:H1'	2.53	0.43
32:2a:814:A:N7	32:2a:816:A:C4	2.87	0.43
32:2a:1446:U:O2'	32:2a:1447:A:O5'	2.36	0.43
33:2b:12:GLU:O	33:2b:15:VAL:HG22	2.18	0.43
34:2c:73:PRO:O	34:2c:77:ILE:HG12	2.18	0.43
35:2d:120:LEU:HD23	35:2d:120:LEU:HA	1.84	0.43
36:2e:50:GLU:HB2	36:2e:53:LEU:HD13	2.01	0.43
36:2e:139:LEU:HA	36:2e:142:LEU:HD12	2.01	0.43
37:2f:14:LEU:HD22	37:2f:18:GLN:HB3	1.99	0.43
47:2p:34:GLU:HG2	47:2p:35:LYS:N	2.34	0.43
48:2q:76:LEU:HD12	48:2q:77:VAL:H	1.84	0.43
50:2s:41:VAL:HG12	50:2s:44:MET:H	1.84	0.43
1:1A:130:C:H4'	1:1A:1349:A:H4'	1.99	0.43
1:1A:466:A:N3	1:1A:683:C:H1'	2.34	0.43
1:1A:579:G:H2'	1:1A:580:C:C6	2.54	0.43
1:1A:631:A:N3	1:1A:2415:G:O2'	2.42	0.43
1:1A:1430:C:H2'	1:1A:1431:U:C6	2.53	0.43
1:1A:2086:U:H2'	1:1A:2087:G:C8	2.54	0.43
1:1A:2786:U:O2'	4:1E:62:PRO:O	2.31	0.43
13:1R:33:ARG:NH1	13:1R:115:GLU:OE1	2.37	0.43
21:1Z:7:ALA:HB3	21:1Z:61:LEU:HD12	1.99	0.43
28:16:13:CYS:SG	28:16:47:THR:HG21	2.58	0.43
32:1a:540:G:H21	35:1d:42:GLN:NE2	2.16	0.43
35:1d:60:GLU:HG3	35:1d:202:LEU:HD12	2.01	0.43
40:1i:112:LYS:NZ	40:1i:116:LYS:O	2.50	0.43
46:1o:25:THR:HG21	46:1o:70:LEU:HB2	2.00	0.43
51:1t:100:ILE:H	51:1t:100:ILE:HG13	1.21	0.43
1:2A:271(G):C:H2'	1:2A:271(H):G:H8	1.83	0.43
1:2A:990:A:H1'	1:2A:1156:A:N3	2.33	0.43
1:2A:997:G:H5'	16:2U:92:ARG:HH12	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1020:A:N1	1:2A:1141:U:O2'	2.35	0.43
1:2A:1161:C:H2'	1:2A:1162:G:C8	2.53	0.43
1:2A:1615:C:H2'	1:2A:1617:C:C5	2.53	0.43
1:2A:2110:G:H3'	1:2A:2111:C:H5'	2.01	0.43
1:2A:2208:A:H4'	1:2A:2218:U:OP1	2.19	0.43
1:2A:2376:A:H2'	1:2A:2377:A:O4'	2.18	0.43
1:2A:2588:G:OP1	60:2A:3750:HOH:O	2.21	0.43
5:2F:129:PHE:HB3	5:2F:132:VAL:HG11	2.00	0.43
6:2G:43:LEU:O	6:2G:45:GLU:N	2.51	0.43
11:2P:96:THR:HG22	11:2P:126:VAL:HB	2.01	0.43
32:2a:148:G:H2'	32:2a:149:A:H8	1.79	0.43
32:2a:1446:U:O2'	32:2a:1447:A:H3'	2.18	0.43
39:2h:33:GLU:HG2	39:2h:59:LEU:HD11	2.00	0.43
43:2l:8:ASN:O	43:2l:12:ARG:HG3	2.18	0.43
43:2l:102:ARG:HE	43:2l:102:ARG:HB3	1.52	0.43
49:2r:70:ILE:O	49:2r:74:ARG:HG3	2.18	0.43
54:2x:40:C:H2'	54:2x:41:C:H6	1.83	0.43
1:1A:1188:U:C2'	1:1A:1189:A:H5'	2.49	0.43
1:1A:2120:G:C2'	1:1A:2121:G:H5'	2.49	0.43
1:1A:2398:U:H2'	1:1A:2399:G:C8	2.53	0.43
1:1A:2642:G:H2'	1:1A:2643:G:H8	1.84	0.43
1:1A:2756:U:OP2	31:19:19:ARG:NE	2.51	0.43
12:1Q:54:MET:HG2	12:1Q:117:ALA:HB1	2.01	0.43
12:1Q:79:LEU:HD23	12:1Q:79:LEU:HA	1.82	0.43
21:1Z:150:LEU:HD21	21:1Z:154:ASP:OD2	2.18	0.43
32:1a:616:G:H2'	32:1a:617:G:H8	1.83	0.43
32:1a:993:G:H2'	32:1a:995:C:H41	1.83	0.43
32:1a:1030(B):C:H2'	32:1a:1030(C):G:H5'	1.99	0.43
32:1a:1053:G:O6	32:1a:1199:U:H2'	2.19	0.43
32:1a:1502:A:C8	32:1a:1505:G:N2	2.87	0.43
40:1i:77:ILE:O	40:1i:81:ILE:HG22	2.19	0.43
43:1l:26:ALA:HB1	43:1l:60:LEU:CD1	2.48	0.43
46:1o:57:LEU:HD23	46:1o:57:LEU:HA	1.82	0.43
49:1r:53:ARG:HG2	49:1r:58:LEU:O	2.19	0.43
51:1t:33:ILE:O	51:1t:37:SER:OG	2.18	0.43
52:1u:9:ARG:HG3	52:1u:10:ARG:N	2.33	0.43
52:1u:17:THR:O	52:1u:22:ARG:NH1	2.48	0.43
1:2A:363(B):G:H2'	1:2A:363(C):G:H8	1.84	0.43
1:2A:375:C:H2'	1:2A:376:C:C6	2.54	0.43
1:2A:762:U:H4'	1:2A:763:G:O5'	2.18	0.43
1:2A:902:C:H2'	1:2A:903:C:H6	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:918:A:C2	2:2B:81:G:H5'	2.53	0.43
1:2A:1721:G:N1	1:2A:1739:U:OP2	2.52	0.43
1:2A:1739:U:O2'	1:2A:1740:G:O5'	2.35	0.43
1:2A:2378:A:H4'	14:2S:23:ARG:NH1	2.33	0.43
1:2A:2627:G:O2'	1:2A:2781:A:N1	2.46	0.43
1:2A:2714:G:OP2	60:2A:3737:HOH:O	2.21	0.43
1:2A:2715:C:H2'	1:2A:2716:U:C6	2.52	0.43
1:2A:2756:U:H4'	1:2A:2757:A:OP1	2.17	0.43
1:2A:2769:C:H2'	1:2A:2770:G:O4'	2.18	0.43
3:2D:275:LYS:HA	3:2D:276:LYS:C	2.43	0.43
6:2G:114:ILE:HD12	6:2G:117:PHE:CD1	2.54	0.43
6:2G:173:LEU:HB3	6:2G:178:PHE:CG	2.53	0.43
7:2H:124:GLU:HG3	7:2H:132:ARG:HB3	1.99	0.43
8:2I:2:LYS:HG2	8:2I:20:ASP:CG	2.43	0.43
10:2O:104:ARG:CZ	10:2O:104:ARG:HB2	2.49	0.43
13:2R:101:ALA:HB2	27:25:44:THR:HB	1.99	0.43
15:2T:55:ASN:HD22	15:2T:58:ASN:HB2	1.83	0.43
21:2Z:97:GLU:HB3	21:2Z:125:LEU:HD11	2.01	0.43
32:2a:1032:G:H2'	32:2a:1033:G:C8	2.53	0.43
32:2a:1120:G:C6	32:2a:1121:U:C4	3.07	0.43
32:2a:1516:G:H2'	32:2a:1518:MA6:OP2	2.18	0.43
33:2b:100:GLY:O	33:2b:104:ASN:N	2.37	0.43
34:2c:48:TYR:CE2	34:2c:118:GLN:HB3	2.53	0.43
35:2d:140:VAL:HG11	35:2d:146:ILE:HD11	2.00	0.43
36:2e:9:LYS:HB3	36:2e:33:VAL:HG13	2.01	0.43
45:2n:37:PHE:CE1	45:2n:53:LEU:HD22	2.53	0.43
47:2p:26:ARG:HG3	47:2p:27:LYS:N	2.34	0.43
49:2r:66:LEU:O	49:2r:70:ILE:HG13	2.19	0.43
1:1A:872:A:H2'	1:1A:873:G:C8	2.54	0.43
1:1A:1075:C:C2'	1:1A:1076:C:H5'	2.48	0.43
1:1A:1310:G:OP2	29:17:9:ARG:NE	2.52	0.43
1:1A:1433:U:O2	1:1A:1561:G:C2	2.72	0.43
1:1A:2116:G:H2'	1:1A:2117:A:C6	2.54	0.43
1:1A:2316:C:H2'	1:1A:2317:C:C6	2.54	0.43
1:1A:2564:A:OP1	1:1A:2648:C:H4'	2.19	0.43
6:1G:118:ARG:O	6:1G:181:ARG:HG3	2.18	0.43
9:1N:61:ARG:HA	9:1N:61:ARG:HD3	1.68	0.43
14:1S:15:ARG:HE	14:1S:88:ASP:CG	2.25	0.43
19:1X:65:ARG:HE	19:1X:70:LEU:HD22	1.84	0.43
29:17:19:ARG:O	29:17:23:ARG:HG3	2.19	0.43
30:18:23:VAL:CG1	30:18:47:LYS:HD3	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:42:G:O2'	32:1a:622:A:N1	2.44	0.43
32:1a:132:C:H5'	32:1a:262:A:H1'	2.01	0.43
32:1a:722:A:H3'	32:1a:722:A:N3	2.34	0.43
32:1a:1183:A:O2'	32:1a:1184:G:H5"	2.19	0.43
32:1a:1426:C:H2'	32:1a:1427:U:C6	2.54	0.43
33:1b:185:ILE:CG2	33:1b:199:TYR:HB2	2.46	0.43
1:2A:628:G:H5"	30:28:18:ALA:HB2	2.00	0.43
1:2A:747:U:O2	1:2A:2014:A:H1'	2.18	0.43
1:2A:1025:G:C4	1:2A:1135:C:H1'	2.54	0.43
1:2A:1324:G:C4	1:2A:1328:G:O6	2.72	0.43
1:2A:1714:G:H2'	1:2A:1717:G:C8	2.54	0.43
1:2A:2197:U:H1'	1:2A:2198:A:H8	1.83	0.43
1:2A:2318:G:H21	14:2S:3:ARG:NE	2.16	0.43
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.54	0.43
1:2A:2549:G:H2'	1:2A:2550:G:H8	1.84	0.43
1:2A:2808:U:H5"	1:2A:2891:G:O6	2.18	0.43
6:2G:36:LYS:HB3	6:2G:95:ARG:HG2	2.00	0.43
28:26:6:ARG:HH12	28:26:26:ASN:HB2	1.84	0.43
32:2a:336:C:H2'	32:2a:337:C:C6	2.54	0.43
32:2a:600:C:C2	32:2a:639:G:C2	3.07	0.43
32:2a:827:U:H3	32:2a:872:A:H61	1.67	0.43
32:2a:1006:C:H2'	32:2a:1007:C:C6	2.54	0.43
32:2a:1027:C:C4	32:2a:1034:G:O6	2.72	0.43
32:2a:1223:C:OP2	32:2a:1224:G:H2'	2.19	0.43
32:2a:1417:G:N2	32:2a:1482:G:H2'	2.33	0.43
33:2b:77:ALA:HB2	33:2b:165:VAL:HG11	2.00	0.43
41:2j:69:ASN:C	41:2j:70:ARG:HH11	2.26	0.43
44:2m:34:LEU:HD13	44:2m:41:PRO:HB3	2.01	0.43
54:2x:64:G:H2'	54:2x:65:C:C6	2.54	0.43
1:1A:191:A:H2'	1:1A:192:C:C6	2.54	0.43
1:1A:271(V):G:H2'	1:1A:271(W):G:O4'	2.18	0.43
1:1A:897:C:N3	1:1A:898:C:N4	2.66	0.43
1:1A:1287:A:C6	1:1A:1288:U:C4	3.07	0.43
1:1A:2098:U:H2'	1:1A:2099:U:H6	1.84	0.43
5:1F:8:GLN:HE22	5:1F:21:ALA:HB2	1.84	0.43
5:1F:102:PRO:O	5:1F:106:ARG:HG2	2.19	0.43
11:1P:107:LYS:HB2	11:1P:110:TYR:HD2	1.83	0.43
32:1a:78:G:C6	32:1a:91:C:C4	3.06	0.43
32:1a:109:A:C6	32:1a:327:A:C6	3.07	0.43
32:1a:345:C:H5'	32:1a:346:G:C5	2.54	0.43
32:1a:1188:A:O4'	45:1n:60:SER:OG	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1521:G:H2'	32:1a:1522:U:C6	2.53	0.43
40:1i:83:ARG:O	40:1i:86:VAL:HG22	2.19	0.43
42:1k:45:GLY:O	42:1k:50:TYR:HB2	2.18	0.43
43:1l:105:TYR:C	43:1l:107:ALA:H	2.18	0.43
1:2A:376:C:H2'	1:2A:377:C:C6	2.54	0.43
1:2A:581:C:H2'	1:2A:582:G:C8	2.53	0.43
1:2A:746:A:O2'	1:2A:2611:U:O2'	2.36	0.43
1:2A:928:G:H8	1:2A:928:G:O5'	2.01	0.43
1:2A:1266:G:O4'	18:2W:15:ARG:NH2	2.52	0.43
1:2A:1818:U:OP2	3:2D:157:ARG:NH1	2.52	0.43
1:2A:2532:G:N2	1:2A:2663:G:O2'	2.51	0.43
1:2A:2776:A:H4'	1:2A:2777:G:O5'	2.19	0.43
2:2B:13:A:N7	2:2B:70:C:H4'	2.33	0.43
5:2F:131:GLY:O	5:2F:138:GLU:HB3	2.18	0.43
9:2N:102:ALA:O	9:2N:106:MET:HG2	2.19	0.43
26:24:60:GLN:O	26:24:62:ARG:N	2.52	0.43
28:26:34:LEU:HD23	28:26:34:LEU:HA	1.67	0.43
30:28:22:VAL:HB	30:28:55:ALA:HB1	2.01	0.43
32:2a:41:G:H2'	32:2a:42:G:C8	2.53	0.43
32:2a:235:C:H2'	32:2a:236:G:H8	1.84	0.43
32:2a:664:G:H22	32:2a:741:G:H1	1.67	0.43
32:2a:923:A:H2'	32:2a:924:C:H6	1.83	0.43
32:2a:967:5MC:O3'	40:2i:125:TYR:HE1	2.02	0.43
32:2a:1046:A:H61	32:2a:1213:A:N6	2.16	0.43
35:2d:181:MET:HE2	35:2d:181:MET:HB3	1.85	0.43
36:2e:116:THR:HG23	36:2e:117:ASP:OD2	2.19	0.43
48:2q:60:ILE:HB	48:2q:74:LEU:HD12	2.00	0.43
1:1A:330:A:HO2'	1:1A:331:A:H8	1.67	0.43
1:1A:886:C:C2	1:1A:887:A:H5"	2.54	0.43
1:1A:1049:C:H1'	1:1A:1113:U:H4'	1.99	0.43
1:1A:1392:A:C6	1:1A:1393:A:C6	3.06	0.43
1:1A:1395:A:C6	1:1A:1398:C:C2	3.07	0.43
1:1A:1713:U:H2'	1:1A:1714:G:H8	1.83	0.43
1:1A:2405:G:O2'	1:1A:2406:U:OP1	2.33	0.43
1:1A:2712:U:H1'	1:1A:2712(A):A:C8	2.54	0.43
3:1D:14:ARG:HD3	3:1D:15:PHE:CZ	2.53	0.43
4:1E:151:TYR:HB3	9:1N:79:PRO:HD3	2.00	0.43
5:1F:116:ASP:OD1	11:1P:1:MET:HB2	2.19	0.43
7:1H:83:TYR:CE2	7:1H:138:LYS:HB2	2.54	0.43
13:1R:99:LYS:O	27:15:45:VAL:HG23	2.19	0.43
17:1V:2:PHE:CE2	17:1V:41:GLY:HA3	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:19:16:VAL:HG22	31:19:25:VAL:HG22	2.00	0.43
32:1a:1305:G:H8	52:1u:5:ASP:HB2	1.84	0.43
32:1a:1343:G:H1'	40:1i:121:ARG:NH1	2.34	0.43
32:1a:1457:G:H2'	32:1a:1458:G:C8	2.54	0.43
1:2A:143(A):C:H2'	1:2A:144:C:C6	2.54	0.43
1:2A:477:A:H2'	1:2A:478:A:C8	2.54	0.43
1:2A:695:G:H2'	1:2A:696:G:H8	1.84	0.43
1:2A:1508:A:H4'	1:2A:1509(A):A:C6	2.53	0.43
1:2A:2390:U:P	30:28:35:GLN:HE22	2.41	0.43
1:2A:2428:G:H5"	1:2A:2429:G:OP1	2.19	0.43
3:2D:129:ASN:O	3:2D:193:VAL:HG13	2.19	0.43
5:2F:29:ASN:HB3	5:2F:112:MET:HE1	2.01	0.43
7:2H:149:ARG:NH1	7:2H:164:TYR:HD2	2.17	0.43
9:2N:17:ASP:OD1	9:2N:18:ALA:N	2.51	0.43
15:2T:91:ARG:HD2	15:2T:120:ARG:NH1	2.34	0.43
20:2Y:86:ARG:NH1	20:2Y:100:ALA:HA	2.33	0.43
32:2a:31:G:N2	32:2a:47:C:O5'	2.51	0.43
32:2a:453:A:C5	32:2a:454:C:C4	3.07	0.43
32:2a:474:G:H2'	32:2a:475:G:H8	1.84	0.43
32:2a:973:G:H3'	32:2a:974:A:H5"	2.00	0.43
32:2a:1065:U:O2'	32:2a:1066:C:OP2	2.29	0.43
32:2a:1292:U:C2	32:2a:1293:G:C8	3.07	0.43
32:2a:1335:C:H4'	32:2a:1336:C:C6	2.54	0.43
32:2a:1518:MA6:H8	32:2a:1518:MA6:O5'	2.19	0.43
35:2d:88:VAL:HA	36:2e:97:GLY:HA3	2.01	0.43
40:2i:15:ALA:HB2	40:2i:65:VAL:HG23	2.00	0.43
41:2j:6:ILE:HB	41:2j:72:VAL:HG22	2.00	0.43
47:2p:2:VAL:HA	47:2p:23:ASP:HA	2.00	0.43
48:2q:45:HIS:CB	48:2q:65:ILE:HD13	2.47	0.43
50:2s:32:LYS:HB3	50:2s:32:LYS:HE2	1.77	0.43
1:1A:133:C:H2'	1:1A:134:C:C6	2.54	0.42
1:1A:1109:C:C4	1:1A:1110:G:C6	3.07	0.42
1:1A:1508:A:HO2'	1:1A:1509:C:P	2.36	0.42
1:1A:1686:C:H2'	1:1A:1687:G:O4'	2.19	0.42
1:1A:1712:C:H2'	1:1A:1713:U:O4'	2.19	0.42
1:1A:2145:C:H3'	1:1A:2146:C:C6	2.53	0.42
1:1A:2646:C:H2'	1:1A:2647:U:O4'	2.19	0.42
1:1A:2845:G:H2'	1:1A:2846:G:C8	2.54	0.42
12:1Q:30:GLY:CA	12:1Q:107:ALA:HB2	2.49	0.42
22:10:29:GLN:O	22:10:67:VAL:HG23	2.19	0.42
32:1a:633:G:H2'	32:1a:634:C:C6	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:760:G:N2	48:1q:97:SER:HB2	2.34	0.42
32:1a:977:A:O2'	32:1a:979:C:OP2	2.33	0.42
33:1b:55:PHE:HA	33:1b:58:ILE:HB	2.01	0.42
33:1b:150:SER:OG	33:1b:151:GLY:N	2.52	0.42
1:2A:287:C:H2'	1:2A:288:C:H6	1.83	0.42
1:2A:740:U:H2'	1:2A:741:G:C8	2.54	0.42
1:2A:1309:G:H4'	29:27:7:PRO:HG2	2.00	0.42
1:2A:1842:G:O2'	3:2D:253:GLN:OE1	2.37	0.42
1:2A:2366:A:H2'	1:2A:2367:G:O4'	2.19	0.42
1:2A:2527:C:H2'	1:2A:2528:U:O4'	2.19	0.42
1:2A:2745:C:C4	1:2A:2746:U:C4	3.07	0.42
1:2A:2774:C:H2'	1:2A:2775:A:O4'	2.19	0.42
3:2D:275:LYS:HA	3:2D:275:LYS:HD2	1.83	0.42
6:2G:181:ARG:HG3	6:2G:182:LYS:N	2.34	0.42
11:2P:97:PRO:HG3	11:2P:112:LEU:HD23	2.01	0.42
17:2V:62:LEU:HD21	17:2V:95:LEU:HD12	1.99	0.42
18:2W:6:ILE:HG22	18:2W:8:ARG:HG3	2.00	0.42
24:22:16:LEU:O	24:22:67:LYS:NZ	2.52	0.42
26:24:8:LYS:HE2	26:24:8:LYS:HB3	1.81	0.42
26:24:35:VAL:HG21	26:24:40:HIS:HD2	1.84	0.42
32:2a:447:G:H2'	32:2a:485:G:N2	2.34	0.42
32:2a:472:A:H5"	47:2p:80:PHE:HB3	2.00	0.42
32:2a:645:C:H2'	32:2a:646:U:C6	2.54	0.42
32:2a:692:U:H2'	32:2a:694:A:OP2	2.18	0.42
32:2a:1260:C:P	32:2a:1284:C:H4'	2.59	0.42
33:2b:189:ASP:HB3	33:2b:204:ASN:HA	2.00	0.42
35:2d:72:GLU:OE2	35:2d:207:TYR:OH	2.20	0.42
44:2m:108:ARG:CZ	44:2m:114:ARG:HG2	2.49	0.42
1:1A:721:C:H2'	1:1A:722:A:C8	2.54	0.42
1:1A:940:G:H2'	1:1A:941:A:O4'	2.19	0.42
1:1A:1311:G:N7	29:17:9:ARG:NH2	2.64	0.42
1:1A:1369:G:H2'	1:1A:1370:C:O4'	2.19	0.42
1:1A:2395:C:H2'	1:1A:2396:G:O4'	2.19	0.42
1:1A:2724:C:N4	60:1A:4206:HOH:O	2.51	0.42
3:1D:68:LYS:HD2	3:1D:70:TRP:CH2	2.54	0.42
7:1H:124:GLU:HB2	7:1H:132:ARG:HB3	2.02	0.42
10:1O:104:ARG:NH2	15:1T:36:GLU:OE2	2.43	0.42
10:1O:110:GLY:HA2	10:1O:112:MET:HE2	2.01	0.42
18:1W:33:ARG:NH2	18:1W:52:GLU:OE1	2.38	0.42
22:10:27:GLU:HB2	22:10:69:PHE:CD1	2.46	0.42
32:1a:600:C:H2'	32:1a:601:C:C6	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:695:A:OP2	42:1k:53:SER:N	2.52	0.42
32:1a:848:C:H2'	32:1a:849:C:C6	2.54	0.42
35:1d:18:LYS:HD2	35:1d:20:TYR:CZ	2.53	0.42
35:1d:63:LYS:O	35:1d:67:ILE:HG13	2.18	0.42
48:1q:7:THR:O	48:1q:23:VAL:HG13	2.19	0.42
48:1q:45:HIS:O	48:1q:73:VAL:HG23	2.20	0.42
1:2A:10:G:H2'	1:2A:11:G:C8	2.54	0.42
1:2A:253:C:OP2	30:28:5:LYS:NZ	2.36	0.42
1:2A:304:G:H2'	1:2A:305:U:C6	2.54	0.42
1:2A:582:G:H2'	1:2A:583:G:C8	2.53	0.42
1:2A:1218:C:H42	1:2A:1231:G:H1	1.67	0.42
1:2A:1270:C:O2'	1:2A:1648:C:OP2	2.37	0.42
1:2A:1297:C:OP1	1:2A:2710:C:H4'	2.19	0.42
1:2A:1695:G:H8	3:2D:8:PRO:O	2.00	0.42
1:2A:1999:C:H4'	1:2A:2723:C:O2	2.19	0.42
1:2A:2055:C:OP1	1:2A:2056:G:H4'	2.19	0.42
1:2A:2134:A:H2'	1:2A:2134:A:N3	2.33	0.42
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.20	0.42
1:2A:2819:G:H2'	1:2A:2821:A:N7	2.34	0.42
3:2D:143:HIS:ND1	3:2D:194:GLY:O	2.49	0.42
6:2G:16:ARG:HD2	6:2G:16:ARG:HA	1.43	0.42
6:2G:122:PRO:HB3	6:2G:170:ARG:NE	2.32	0.42
7:2H:52:VAL:O	7:2H:65:HIS:NE2	2.52	0.42
8:2I:81:VAL:O	8:2I:146:ALA:HA	2.19	0.42
12:2Q:50:ALA:HB1	12:2Q:121:ALA:HB1	2.00	0.42
20:2Y:43:ASN:O	20:2Y:65:ALA:N	2.51	0.42
28:26:38:LYS:HE3	28:26:38:LYS:HB3	1.88	0.42
39:2h:9:MET:HE2	39:2h:10:LEU:HD23	2.00	0.42
39:2h:30:ARG:O	39:2h:34:GLU:HG2	2.18	0.42
50:2s:12:ASP:OD1	50:2s:38:SER:OG	2.26	0.42
51:2t:47:GLY:HA2	51:2t:48:LYS:C	2.43	0.42
1:1A:451:C:OP1	5:1F:52:LYS:NZ	2.52	0.42
1:1A:919:G:N2	1:1A:2269:A:OP2	2.53	0.42
1:1A:993:G:OP1	16:1U:50:ARG:NH2	2.52	0.42
1:1A:1278:A:OP1	13:1R:36:THR:HG23	2.19	0.42
1:1A:1791:A:H3'	1:1A:1792:G:H8	1.84	0.42
1:1A:1843:C:H2'	1:1A:1844:C:H6	1.84	0.42
1:1A:1878:G:H2'	1:1A:1879:C:C6	2.55	0.42
1:1A:2018:G:OP1	27:15:9:LYS:NZ	2.52	0.42
1:1A:2623:G:H2'	1:1A:2624:G:H8	1.85	0.42
1:1A:2639:A:O3'	9:1N:97:ARG:NH2	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:91:C:OP2	12:1Q:16:ARG:NH1	2.53	0.42
4:1E:51:PHE:CD2	4:1E:52:LEU:HG	2.54	0.42
8:1I:27:ARG:HB3	23:11:71:TYR:CZ	2.55	0.42
11:1P:95:VAL:HG13	11:1P:125:VAL:HB	2.00	0.42
29:17:26:GLY:O	29:17:30:VAL:HG23	2.18	0.42
32:1a:883:C:N4	32:1a:884:U:O4	2.52	0.42
32:1a:1090:U:H2'	32:1a:1091:U:H6	1.83	0.42
32:1a:1194:U:H2'	32:1a:1195:C:C6	2.53	0.42
32:1a:1412:C:C2	32:1a:1489:G:N2	2.87	0.42
33:1b:163:PHE:HA	33:1b:185:ILE:HG12	2.01	0.42
33:1b:183:PRO:HA	33:1b:198:ASP:OD2	2.19	0.42
43:1l:36:VAL:HG23	43:1l:59:ARG:HB3	2.00	0.42
44:1m:11:ARG:C	44:1m:13:LYS:H	2.27	0.42
1:2A:11:G:C2'	1:2A:12:U:H5'	2.49	0.42
1:2A:272(J):C:H2'	1:2A:274:G:C8	2.53	0.42
1:2A:631:A:OP1	11:2P:65:ARG:NE	2.50	0.42
1:2A:1826:G:H2'	1:2A:1827:C:C6	2.54	0.42
1:2A:2243:U:H2'	1:2A:2244:U:C6	2.54	0.42
1:2A:2282:G:H4'	1:2A:2389:G:O2'	2.18	0.42
1:2A:2355:C:H1'	22:20:36:ILE:HD12	2.01	0.42
1:2A:2721:A:OP1	60:2A:3751:HOH:O	2.21	0.42
6:2G:170:ARG:NH1	6:2G:174:GLU:OE1	2.52	0.42
26:24:62:ARG:HD3	26:24:62:ARG:HA	1.61	0.42
32:2a:476:G:H2'	32:2a:477:A:C8	2.53	0.42
32:2a:958:A:H5"	32:2a:959:A:OP2	2.19	0.42
32:2a:967:5MC:H2'	32:2a:968:A:N7	2.33	0.42
32:2a:1181:G:H4'	32:2a:1182:G:OP1	2.19	0.42
32:2a:1305:G:O2'	32:2a:1331:G:N2	2.53	0.42
44:2m:52:GLU:HG2	44:2m:55:ARG:HH21	1.84	0.42
48:2q:7:THR:HG23	48:2q:58:GLU:HG2	2.02	0.42
52:2u:5:ASP:O	52:2u:8:THR:HG22	2.20	0.42
1:1A:1434:A:C6	1:1A:1435:G:C6	3.07	0.42
1:1A:1594:G:H2'	1:1A:1595:G:O4'	2.20	0.42
1:1A:1791:A:C8	1:1A:1792:G:C8	3.07	0.42
1:1A:1999:C:H4'	1:1A:2723:C:O2	2.20	0.42
1:1A:2649:U:H2'	1:1A:2650:U:C6	2.53	0.42
1:1A:2776:A:C6	1:1A:2778:A:C6	3.08	0.42
1:1A:2801(A):A:H1'	1:1A:2895:U:H1'	2.00	0.42
3:1D:72:LYS:NZ	3:1D:101:GLU:OE1	2.46	0.42
4:1E:93:VAL:HG11	4:1E:181:LEU:O	2.19	0.42
9:1N:75:TYR:HA	9:1N:81:GLY:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:1Q:4:PRO:HG3	12:1Q:71:ASP:HA	2.01	0.42
12:1Q:48:GLU:O	12:1Q:52:VAL:HB	2.19	0.42
12:1Q:110:THR:HG23	12:1Q:113:GLN:OE1	2.20	0.42
15:1T:96:ARG:HB2	15:1T:96:ARG:NH1	2.32	0.42
32:1a:123:C:OP1	32:1a:311:C:O2'	2.29	0.42
32:1a:899:C:H2'	32:1a:900:A:C8	2.54	0.42
32:1a:1227:A:OP1	50:1s:80:TYR:OH	2.34	0.42
33:1b:180:LEU:HD23	33:1b:180:LEU:HA	1.89	0.42
34:1c:191:THR:OG1	34:1c:194:GLY:O	2.30	0.42
39:1h:9:MET:SD	39:1h:32:LYS:HB3	2.59	0.42
40:1i:49:PRO:O	40:1i:52:ALA:N	2.51	0.42
45:1n:37:PHE:CE1	45:1n:53:LEU:HD13	2.54	0.42
1:2A:249:C:H4'	1:2A:250:G:O5'	2.19	0.42
1:2A:359:A:H2'	1:2A:360:G:O4'	2.20	0.42
1:2A:1124:C:O2	31:29:36:GLN:NE2	2.52	0.42
1:2A:1531:C:H42	1:2A:1538:G:H1	1.67	0.42
1:2A:2046:G:O5'	27:25:19:ARG:HA	2.19	0.42
1:2A:2652:C:H42	1:2A:2668:G:H1	1.66	0.42
4:2E:166:THR:HG21	4:2E:199:ARG:HH21	1.84	0.42
5:2F:74:ARG:O	5:2F:75:HIS:CG	2.72	0.42
6:2G:82:LEU:HA	6:2G:86:MET:SD	2.59	0.42
12:2Q:43:THR:HA	12:2Q:94:VAL:HG12	2.00	0.42
13:2R:103:ARG:HD3	18:2W:40:ASN:ND2	2.34	0.42
21:2Z:67:LEU:HD12	21:2Z:67:LEU:HA	1.86	0.42
21:2Z:102:LEU:HG	21:2Z:123:ASP:HA	2.02	0.42
25:23:9:VAL:HG11	25:23:55:ARG:HB2	2.02	0.42
32:2a:406:G:N2	35:2d:119:GLN:HE22	2.16	0.42
32:2a:1107:C:C4	32:2a:1108:G:C8	3.07	0.42
32:2a:1112:C:N3	34:2c:178:LEU:HD12	2.34	0.42
35:2d:173:TRP:CD2	35:2d:189:PRO:HG3	2.53	0.42
36:2e:136:MET:HE3	36:2e:136:MET:HB3	1.93	0.42
1:1A:57:C:H2'	1:1A:58:G:O4'	2.20	0.42
1:1A:826:U:H2'	1:1A:828:U:O4'	2.20	0.42
1:1A:828:U:H4'	1:1A:831:G:N1	2.33	0.42
1:1A:1078:U:H5'	1:1A:1079:C:OP1	2.20	0.42
1:1A:2047:U:H2'	1:1A:2048:G:C8	2.55	0.42
1:1A:2748:A:H5'	7:1H:4:ILE:HD12	2.01	0.42
30:18:34:TRP:CG	30:18:35:GLN:N	2.87	0.42
32:1a:288:A:H2'	32:1a:289:G:H4'	2.02	0.42
32:1a:309:G:O2'	32:1a:607:A:N1	2.52	0.42
32:1a:716:A:C6	32:1a:717:C:C4	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1060:C:P	45:1n:45:ARG:HH22	2.42	0.42
32:1a:1391:U:O2'	32:1a:1532:U:OP1	2.34	0.42
33:1b:189:ASP:HB3	33:1b:204:ASN:HA	2.02	0.42
34:1c:62:ASP:O	34:1c:97:LYS:HB3	2.19	0.42
39:1h:46:LYS:HG3	39:1h:64:LYS:HG3	2.01	0.42
40:1i:128:ARG:HH12	54:1x:35:A:P	2.43	0.42
42:1k:31:THR:HG22	42:1k:42:TRP:HB2	2.01	0.42
44:1m:66:LEU:O	44:1m:67:GLU:C	2.62	0.42
48:1q:66:SER:OG	48:1q:69:LYS:HB2	2.19	0.42
51:1t:46:GLU:HB2	51:1t:48:LYS:HG3	2.02	0.42
1:2A:852:G:H2'	1:2A:853:G:H8	1.84	0.42
1:2A:1197:G:H1'	1:2A:1250:G:N2	2.33	0.42
1:2A:1379:A:H4'	1:2A:1380:G:OP2	2.18	0.42
1:2A:1623:G:H2'	1:2A:1624:G:H8	1.84	0.42
1:2A:2889:C:H2'	1:2A:2891:G:O4'	2.19	0.42
6:2G:108:ASN:N	6:2G:108:ASN:OD1	2.51	0.42
14:2S:12:PHE:HB3	14:2S:16:ASN:ND2	2.35	0.42
23:21:91:LYS:O	23:21:95:LEU:HD22	2.19	0.42
29:27:1:MET:HE3	29:27:1:MET:HB2	1.86	0.42
32:2a:735:C:H2'	32:2a:736:C:H6	1.83	0.42
32:2a:1039:C:C2	32:2a:1040:U:H1'	2.55	0.42
32:2a:1118:C:H1'	32:2a:1179:A:C4	2.54	0.42
32:2a:1436:U:H2'	32:2a:1437:C:O4'	2.19	0.42
34:2c:190:ARG:HG2	34:2c:191:THR:N	2.34	0.42
35:2d:10:ARG:HB2	35:2d:40:PRO:HG3	2.02	0.42
42:2k:86:GLY:N	42:2k:112:THR:OG1	2.43	0.42
48:2q:9:VAL:O	48:2q:21:VAL:HA	2.19	0.42
51:2t:63:ILE:HD13	51:2t:80:ARG:HB3	2.01	0.42
1:1A:910:A:N3	1:1A:2264:C:O2'	2.50	0.42
1:1A:1239:G:H2'	1:1A:1240:U:O4'	2.19	0.42
1:1A:1453:U:O2'	1:1A:1455:G:N7	2.50	0.42
1:1A:1671:U:O4	60:1A:3977:HOH:O	2.21	0.42
1:1A:1765:C:H2'	1:1A:1766:U:H6	1.85	0.42
1:1A:2586:C:H2'	1:1A:2587:A:H8	1.84	0.42
1:1A:2785:C:H2'	1:1A:2786:U:O4'	2.19	0.42
1:1A:2836:U:C4	1:1A:2883:A:N6	2.88	0.42
1:1A:2840:C:H2'	1:1A:2841:C:C6	2.54	0.42
8:1I:114:LEU:HD13	8:1I:130:TYR:HD1	1.85	0.42
10:1O:98:VAL:HG22	10:1O:118:ALA:HA	2.02	0.42
16:1U:88:ILE:HG22	16:1U:90:VAL:HG23	2.02	0.42
18:1W:13:SER:O	18:1W:17:VAL:HG23	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:7:G:H8	36:1e:119:LEU:HD13	1.84	0.42
32:1a:129:U:O2'	32:1a:130:A:H2'	2.20	0.42
32:1a:189(C):C:H2'	32:1a:189(D):C:O4'	2.20	0.42
32:1a:406:G:H5'	35:1d:5:ILE:HD12	2.02	0.42
32:1a:1201:A:H4'	32:1a:1202:G:O5'	2.19	0.42
33:1b:53:ARG:HA	33:1b:56:ARG:HH11	1.84	0.42
33:1b:133:LYS:C	33:1b:135:GLN:H	2.27	0.42
35:1d:12:CYS:HB2	58:1d:302:SF4:S2	2.60	0.42
35:1d:110:PHE:CE1	35:1d:148:VAL:HG23	2.54	0.42
45:1n:6:LEU:HB3	45:1n:23:ARG:NH2	2.34	0.42
54:1x:58:A:H4'	54:1x:59:A:OP1	2.19	0.42
1:2A:144:C:H2'	1:2A:145:G:H8	1.83	0.42
1:2A:637:A:OP1	11:2P:133:SER:OG	2.20	0.42
1:2A:647:G:H8	1:2A:647:G:O5'	2.02	0.42
1:2A:1865:G:C2	1:2A:1878:G:C6	3.08	0.42
1:2A:2127:G:N3	1:2A:2161:C:O2	2.52	0.42
1:2A:2173:A:P	1:2A:2173:A:H8	2.42	0.42
1:2A:2313:C:H2'	1:2A:2314:C:C6	2.54	0.42
1:2A:2650:U:H2'	1:2A:2651:C:C6	2.55	0.42
2:2B:37:C:O2	2:2B:48:A:O2'	2.38	0.42
5:2F:135:LYS:HE2	5:2F:135:LYS:HB2	1.63	0.42
5:2F:166:ALA:C	5:2F:168:ARG:H	2.28	0.42
9:2N:37:LYS:HA	9:2N:42:TRP:CD1	2.54	0.42
14:2S:64:GLU:OE1	14:2S:64:GLU:N	2.48	0.42
17:2V:24:LYS:HE2	17:2V:24:LYS:HB3	1.83	0.42
32:2a:182:U:N3	32:2a:183:G:H1'	2.34	0.42
32:2a:406:G:H21	35:2d:119:GLN:HE22	1.67	0.42
32:2a:840:C:H4'	32:2a:841:U:OP1	2.19	0.42
32:2a:930:C:H2'	32:2a:931:C:O4'	2.19	0.42
32:2a:1123:A:N3	41:2j:39:PRO:HD2	2.34	0.42
34:2c:117:ALA:O	34:2c:121:ALA:N	2.53	0.42
37:2f:100:ASN:ND2	49:2r:23:LYS:HE2	2.35	0.42
40:2i:85:LEU:HB3	40:2i:92:TYR:HD2	1.84	0.42
43:2l:84:LEU:HD12	43:2l:85:ILE:H	1.85	0.42
44:2m:80:ARG:HG2	44:2m:84:ILE:HG23	2.01	0.42
45:2n:24:CYS:HB2	45:2n:40:CYS:HB3	2.01	0.42
48:2q:54:GLY:O	48:2q:81:ARG:N	2.50	0.42
1:1A:311:A:C6	1:1A:328:U:C4	3.08	0.42
1:1A:448:U:O4	1:1A:583:G:H1'	2.20	0.42
1:1A:1250:G:OP1	60:1A:3996:HOH:O	2.22	0.42
1:1A:1816:G:H8	3:1D:62:TYR:CZ	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:90:A:N7	2:1B:91:C:H1'	2.35	0.42
3:1D:206:LEU:HD23	3:1D:206:LEU:HA	1.84	0.42
4:1E:52:LEU:O	4:1E:75:VAL:HG22	2.19	0.42
25:13:40:THR:HG23	25:13:43:ILE:HB	2.01	0.42
31:19:13:LYS:HD3	31:19:13:LYS:HA	1.81	0.42
32:1a:690:G:C6	32:1a:691:G:C6	3.08	0.42
32:1a:743:U:H2'	32:1a:744:C:C6	2.55	0.42
32:1a:974:A:OP2	45:1n:29:ARG:NH2	2.53	0.42
32:1a:983:A:H5'	32:1a:984:C:OP2	2.20	0.42
32:1a:991:U:O2	32:1a:993:G:H8	2.03	0.42
33:1b:201:ILE:O	33:1b:203:GLY:N	2.52	0.42
35:1d:108:LEU:HD12	35:1d:174:LEU:HD13	2.02	0.42
36:1e:95:ALA:HB1	36:1e:96:PRO:HD2	2.01	0.42
39:1h:116:LYS:HD3	39:1h:127:LEU:HD21	2.01	0.42
48:1q:4:LYS:HG3	48:1q:6:LEU:HD12	2.02	0.42
1:2A:25:U:H2'	1:2A:26:G:O4'	2.20	0.42
1:2A:1348:G:O6	1:2A:1349:A:N6	2.52	0.42
1:2A:1366:A:H2'	1:2A:1367:A:O4'	2.20	0.42
1:2A:1676:A:H2'	1:2A:1677:A:O4'	2.20	0.42
1:2A:1924:C:H2'	1:2A:1925:C:C6	2.54	0.42
1:2A:2154:G:N7	1:2A:2156:G:N2	2.68	0.42
1:2A:2529:G:H5"	1:2A:2530:A:H5"	2.02	0.42
5:2F:20:LEU:HD21	5:2F:199:TRP:NE1	2.34	0.42
6:2G:33:ARG:N	6:2G:162:THR:OG1	2.51	0.42
8:2I:140:LEU:HD23	8:2I:140:LEU:HA	1.71	0.42
25:23:5:LYS:NZ	25:23:34:GLU:OE2	2.35	0.42
30:28:23:VAL:HG12	30:28:47:LYS:HB3	2.01	0.42
32:2a:441:A:H3'	32:2a:442:C:C5	2.55	0.42
32:2a:537:G:H5"	43:2l:113:ARG:HH12	1.84	0.42
32:2a:723:U:O2'	32:2a:724:G:H5'	2.19	0.42
32:2a:784:C:H2'	32:2a:785:G:H8	1.85	0.42
32:2a:903:G:H2'	32:2a:904:C:H6	1.84	0.42
32:2a:967:5MC:H2'	32:2a:968:A:C8	2.55	0.42
32:2a:1015:A:O5'	32:2a:1015:A:H8	2.03	0.42
33:2b:16:HIS:C	33:2b:18:GLY:H	2.28	0.42
33:2b:24:TRP:CD1	33:2b:24:TRP:N	2.86	0.42
35:2d:155:LEU:HD12	35:2d:156:GLU:N	2.34	0.42
35:2d:195:ALA:C	35:2d:196:LEU:HD12	2.45	0.42
36:2e:93:PRO:HG2	39:2h:105:ARG:CZ	2.49	0.42
38:2g:120:ILE:HG22	38:2g:124:LEU:HD12	2.01	0.42
47:2p:13:HIS:O	47:2p:42:ARG:NH1	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:2r:33:ASP:CG	49:2r:36:ASN:HB2	2.45	0.42
54:2x:9:G:H21	54:2x:45:G:H3'	1.83	0.42
1:1A:53:A:H61	1:1A:117:G:C2'	2.33	0.42
1:1A:686:G:C2	29:17:11:LYS:HE3	2.55	0.42
1:1A:881:G:C2	1:1A:897:C:O2	2.73	0.42
1:1A:1607:C:H4'	1:1A:1608:A:O5'	2.19	0.42
1:1A:2128:C:O2	1:1A:2173:A:O2'	2.37	0.42
21:1Z:54:HIS:HE2	21:1Z:123:ASP:CG	2.27	0.42
32:1a:593:G:C6	32:1a:594:G:C5	3.08	0.42
32:1a:741:G:H2'	32:1a:742:G:O4'	2.20	0.42
36:1e:131:ILE:HD13	36:1e:131:ILE:HA	1.82	0.42
48:1q:24:GLU:H	48:1q:24:GLU:HG2	1.68	0.42
53:1v:14:A:N3	53:1v:14:A:H2'	2.34	0.42
1:2A:90:U:H1'	1:2A:92:A:C8	2.55	0.42
1:2A:150:C:H2'	1:2A:151:C:H6	1.85	0.42
1:2A:182:A:H2'	1:2A:183:C:O4'	2.20	0.42
1:2A:468:G:H2'	1:2A:469:G:O4'	2.20	0.42
1:2A:497:A:H2'	1:2A:498:G:H8	1.84	0.42
1:2A:1171:G:N2	1:2A:1178:C:C2	2.87	0.42
1:2A:1488:G:C6	1:2A:1489:U:N3	2.88	0.42
1:2A:1614:A:C6	18:2W:87:PRO:HB3	2.55	0.42
1:2A:1686:C:H2'	1:2A:1687:G:O4'	2.20	0.42
1:2A:1695:G:H1'	3:2D:8:PRO:O	2.20	0.42
1:2A:1766:U:O2'	1:2A:1767:C:H5'	2.19	0.42
1:2A:1836:C:H2'	1:2A:1837:C:C6	2.54	0.42
1:2A:1996:C:H4'	1:2A:1997:G:OP1	2.19	0.42
7:2H:64:LEU:O	7:2H:68:THR:N	2.33	0.42
12:2Q:37:LEU:HD21	12:2Q:130:LYS:HE3	2.00	0.42
12:2Q:54:MET:HE1	12:2Q:104:PHE:HB3	2.01	0.42
16:2U:31:SER:OG	16:2U:34:LYS:HG2	2.19	0.42
17:2V:53:GLU:H	17:2V:53:GLU:CD	2.23	0.42
20:2Y:37:VAL:N	20:2Y:67:LEU:O	2.41	0.42
32:2a:176:C:H2'	32:2a:177:C:C6	2.55	0.42
32:2a:337:C:H2'	32:2a:338:A:C8	2.55	0.42
32:2a:384:G:H2'	32:2a:385:C:C6	2.55	0.42
32:2a:553:A:H2'	32:2a:554:C:C6	2.55	0.42
34:2c:34:LEU:O	34:2c:38:ARG:HB2	2.20	0.42
34:2c:186:PHE:HE1	34:2c:197:GLY:HA2	1.84	0.42
35:2d:107:ARG:NH1	35:2d:194:LEU:HD23	2.35	0.42
35:2d:173:TRP:CZ3	35:2d:193:ASP:HB3	2.54	0.42
38:2g:136:LYS:HA	38:2g:139:GLU:HB2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:37:THR:HB	44:2m:55:ARG:HD2	2.00	0.42
49:2r:50:ILE:HG12	49:2r:70:ILE:HG21	2.01	0.42
1:1A:15:G:O2'	27:15:18:ALA:HA	2.19	0.42
1:1A:754:C:H2'	1:1A:755:C:H6	1.84	0.42
1:1A:1359:A:N1	1:1A:1372:U:C4	2.88	0.42
1:1A:2689:U:H5'	1:1A:2689:U:O2	2.20	0.42
5:1F:53:THR:CG2	5:1F:55:GLY:H	2.33	0.42
7:1H:164:TYR:HB2	7:1H:167:GLU:HB2	2.02	0.42
8:1I:50:ARG:HB3	8:1I:50:ARG:CZ	2.49	0.42
11:1P:63:PRO:HD3	30:18:27:THR:HG22	2.02	0.42
11:1P:65:ARG:HE	11:1P:65:ARG:HB2	1.53	0.42
13:1R:96:ARG:NH2	13:1R:117:VAL:HG13	2.35	0.42
20:1Y:42:VAL:O	20:1Y:43:ASN:HB2	2.20	0.42
32:1a:46:G:O2'	32:1a:365:U:H1'	2.20	0.42
32:1a:232:G:O2'	32:1a:262:A:N6	2.41	0.42
32:1a:734:G:O2'	49:1r:71:LYS:HE2	2.19	0.42
32:1a:1456:G:N1	51:1t:51:GLU:OE2	2.51	0.42
33:1b:12:GLU:O	33:1b:15:VAL:HG22	2.20	0.42
35:1d:105:VAL:HB	35:1d:117:ALA:HB1	2.02	0.42
35:1d:106:TYR:CD2	35:1d:107:ARG:HD3	2.55	0.42
51:1t:99:LEU:HA	51:1t:100:ILE:C	2.44	0.42
1:2A:297:C:H5"	20:2Y:87:LYS:HG3	2.01	0.42
1:2A:556:G:H2'	1:2A:557:U:H6	1.85	0.42
1:2A:1475:G:C2	1:2A:1517:G:C2	3.08	0.42
1:2A:1638:C:H2'	1:2A:1639:U:O4'	2.20	0.42
1:2A:1651:G:C5'	13:2R:39:PRO:HG2	2.50	0.42
1:2A:1847:A:H3'	1:2A:1848:A:H5'	2.02	0.42
1:2A:2335:A:C8	1:2A:2337:G:C5	3.07	0.42
1:2A:2347:C:O2'	28:26:21:TYR:OH	2.35	0.42
1:2A:2809:A:N6	1:2A:2892:A:O4'	2.53	0.42
3:2D:132:PRO:HD3	3:2D:190:TYR:CE1	2.54	0.42
5:2F:31:HIS:HB2	11:2P:9:ASN:OD1	2.20	0.42
5:2F:33:LEU:HD13	5:2F:112:MET:HE3	2.02	0.42
5:2F:184:TYR:O	5:2F:188:ARG:HG3	2.20	0.42
6:2G:111:LEU:HA	6:2G:114:ILE:HG13	2.02	0.42
13:2R:72:ASP:HB3	13:2R:75:LEU:HB3	2.02	0.42
21:2Z:3:TYR:O	21:2Z:57:ILE:HA	2.20	0.42
32:2a:45:U:H2'	32:2a:46:G:C8	2.55	0.42
32:2a:575:G:O2'	32:2a:821:G:H5'	2.20	0.42
32:2a:625:G:H4'	47:2p:16:HIS:CD2	2.55	0.42
32:2a:675:A:H2'	32:2a:676:A:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:764:C:H2'	32:2a:765:G:O4'	2.19	0.42
32:2a:815:A:N7	32:2a:1509:C:O2'	2.51	0.42
32:2a:983:A:H2	32:2a:984:C:C6	2.37	0.42
32:2a:1162:C:N3	32:2a:1174:G:N2	2.59	0.42
33:2b:178:ARG:HD2	33:2b:184:VAL:HG21	2.01	0.42
35:2d:157:LEU:HG	35:2d:161:ASN:ND2	2.35	0.42
36:2e:36:ASP:HB2	36:2e:38:GLN:NE2	2.35	0.42
39:2h:6:ILE:O	39:2h:10:LEU:HG	2.20	0.42
41:2j:38:ILE:HD11	41:2j:71:LEU:HD22	2.01	0.42
45:2n:47:LEU:HD22	45:2n:52:GLN:HB2	2.00	0.42
50:2s:37:ARG:O	50:2s:70:LYS:NZ	2.41	0.42
54:2x:8:4SU:O5'	54:2x:8:4SU:H6	2.19	0.42
54:2x:65:C:H2'	54:2x:66:C:H6	1.85	0.42
1:1A:302:C:P	20:1Y:73:ARG:HH22	2.42	0.42
1:1A:823:G:H2'	1:1A:824:A:C8	2.55	0.42
1:1A:879:G:N1	1:1A:880:G:C2	2.88	0.42
1:1A:1692:U:H2'	1:1A:1694:C:C5	2.55	0.42
1:1A:2729:G:O2'	4:1E:186:GLY:HA3	2.20	0.42
1:1A:2787:C:H2'	1:1A:2788:C:C6	2.53	0.42
1:1A:2867:G:OP2	15:1T:119:LYS:NZ	2.42	0.42
4:1E:48:GLN:NE2	4:1E:78:LEU:HD13	2.34	0.42
6:1G:27:ASN:HB3	6:1G:30:GLU:HG3	2.01	0.42
9:1N:17:ASP:O	9:1N:21:LYS:HE2	2.20	0.42
11:1P:71:VAL:HG22	11:1P:72:PRO:HA	2.02	0.42
32:1a:575:G:O2'	32:1a:821:G:H5'	2.19	0.42
32:1a:977:A:H1'	32:1a:982:U:O4	2.20	0.42
32:1a:1226:C:H4'	50:1s:80:TYR:CZ	2.55	0.42
32:1a:1304:G:C5	32:1a:1305:G:C6	3.08	0.42
35:1d:31:CYS:SG	35:1d:33:MET:N	2.90	0.42
35:1d:116:GLN:NE2	35:1d:161:ASN:HD21	2.09	0.42
39:1h:13:ILE:O	39:1h:17:THR:HG23	2.20	0.42
41:1j:19:SER:OG	41:1j:91:PRO:HD2	2.20	0.42
44:1m:81:LEU:HD23	44:1m:81:LEU:HA	1.91	0.42
46:1o:8:LYS:HG2	46:1o:12:ILE:HD11	2.02	0.42
1:2A:185:U:H4'	1:2A:218:A:H4'	2.02	0.42
1:2A:556:G:H2'	1:2A:557:U:C6	2.53	0.42
1:2A:568:U:H5'	1:2A:945:A:N1	2.34	0.42
1:2A:723:G:H2'	1:2A:724:U:O4'	2.20	0.42
1:2A:856:C:O2'	1:2A:857:C:OP1	2.35	0.42
1:2A:1221(A):C:C2	1:2A:1229:G:C2	3.07	0.42
1:2A:1382:G:O4'	1:2A:1572:A:H2	2.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1590:U:H2'	1:2A:1591:G:C8	2.53	0.42
1:2A:1616:A:O2'	60:2A:3748:HOH:O	2.21	0.42
5:2F:130:ALA:HB3	5:2F:142:TRP:HD1	1.85	0.42
9:2N:18:ALA:HA	9:2N:21:LYS:HG3	2.02	0.42
11:2P:38:GLN:O	11:2P:39:LYS:HB3	2.20	0.42
14:2S:63:THR:O	14:2S:66:ALA:N	2.51	0.42
16:2U:50:ARG:HG2	16:2U:53:ARG:NH2	2.35	0.42
17:2V:31:ALA:O	17:2V:61:VAL:HG12	2.20	0.42
19:2X:32:PRO:O	19:2X:77:LYS:HD2	2.20	0.42
20:2Y:21:LYS:O	20:2Y:21:LYS:HG3	2.19	0.42
24:22:35:LEU:HD23	24:22:35:LEU:HA	1.83	0.42
32:2a:540:G:H2'	32:2a:541:G:O4'	2.20	0.42
32:2a:625:G:C6	32:2a:626:U:C4	3.08	0.42
32:2a:685:G:O2'	32:2a:686:U:H5'	2.19	0.42
32:2a:864:A:H8	32:2a:864:A:OP1	2.03	0.42
32:2a:1000:U:H2'	32:2a:1001:A:C8	2.55	0.42
32:2a:1004:A:N6	32:2a:1036:G:C5	2.88	0.42
32:2a:1138:G:C6	32:2a:1140:C:H1'	2.55	0.42
32:2a:1157:A:H4'	32:2a:1158:C:O5'	2.20	0.42
35:2d:19:LEU:O	35:2d:21:LEU:HG	2.19	0.42
39:2h:46:LYS:HZ2	39:2h:64:LYS:HE2	1.85	0.42
43:2l:92:0TD:H8	43:2l:92:0TD:H4	1.95	0.42
47:2p:18:ARG:HD3	47:2p:35:LYS:HD3	2.02	0.42
1:1A:1935:G:H1'	1:1A:1964:G:N2	2.35	0.41
5:1F:194:MET:HE3	5:1F:194:MET:HB2	1.71	0.41
8:1I:1:MET:HE1	8:1I:27:ARG:HH12	1.84	0.41
8:1I:84:GLY:O	8:1I:85:GLU:HB3	2.20	0.41
11:1P:85:LEU:HD13	11:1P:120:ALA:HB2	2.01	0.41
19:1X:87:GLN:O	19:1X:88:LYS:HD2	2.19	0.41
25:13:6:VAL:HG13	25:13:54:VAL:CG1	2.50	0.41
25:13:7:LYS:HB2	25:13:34:GLU:HG2	2.01	0.41
32:1a:321:A:N7	32:1a:328:C:O2'	2.40	0.41
32:1a:779:C:H2'	32:1a:780:A:O4'	2.20	0.41
32:1a:858:G:O6	32:1a:869:G:H3'	2.20	0.41
32:1a:1111:A:O5'	32:1a:1111:A:H8	2.02	0.41
35:1d:127:THR:HA	35:1d:132:ARG:HA	2.02	0.41
35:1d:173:TRP:HA	35:1d:187:ARG:NE	2.32	0.41
1:2A:1161:C:H2'	1:2A:1162:G:H8	1.85	0.41
1:2A:1755:A:OP2	15:2T:113:LYS:NZ	2.46	0.41
1:2A:1810:A:H2'	1:2A:1811:G:O4'	2.20	0.41
1:2A:1908:C:O2'	54:2x:12:G:H5"	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2206:G:H5"	1:2A:2207:G:N7	2.35	0.41
1:2A:2287:A:O2'	1:2A:2288:A:H3'	2.20	0.41
2:2B:83:G:H4'	25:23:52:HIS:ND1	2.34	0.41
3:2D:152:GLY:O	3:2D:154:LYS:HG2	2.20	0.41
4:2E:7:VAL:HA	4:2E:195:LEU:HA	2.00	0.41
7:2H:70:THR:O	7:2H:74:ASN:N	2.44	0.41
8:2I:65:ALA:O	8:2I:69:LYS:N	2.53	0.41
24:22:35:LEU:HD11	24:22:49:LYS:HB3	2.02	0.41
32:2a:701:C:OP1	32:2a:702:A:O2'	2.30	0.41
32:2a:707:C:H5"	42:2k:85:ARG:HH12	1.85	0.41
32:2a:1014:A:H8	32:2a:1014:A:OP1	2.01	0.41
34:2c:131:ARG:HH21	34:2c:135:LYS:HE3	1.85	0.41
36:2e:31:LEU:HD11	36:2e:43:LEU:HD11	2.01	0.41
37:2f:37:VAL:HA	37:2f:65:VAL:HG12	2.02	0.41
38:2g:18:TYR:CD1	38:2g:59:LEU:HD22	2.52	0.41
44:2m:10:PRO:HG2	44:2m:21:TYR:CD2	2.54	0.41
51:2t:86:ARG:O	51:2t:90:GLN:HB2	2.19	0.41
1:1A:881:G:N2	1:1A:882:G:H1'	2.35	0.41
1:1A:897:C:C4	1:1A:898:C:N4	2.88	0.41
1:1A:956:G:P	12:1Q:87:LYS:HG3	2.60	0.41
1:1A:1022:G:C5	1:1A:1140:C:C4	3.08	0.41
1:1A:1788:C:OP1	3:1D:222:ARG:NH2	2.52	0.41
1:1A:2141:G:C6	1:1A:2142:C:C2	3.08	0.41
1:1A:2300:G:H2'	1:1A:2301:C:C6	2.55	0.41
1:1A:2640:G:P	9:1N:97:ARG:HH22	2.43	0.41
1:1A:2660:A:H2'	1:1A:2661:G:O4'	2.19	0.41
2:1B:33:G:N2	2:1B:50:G:C4	2.88	0.41
6:1G:82:LEU:HD23	6:1G:82:LEU:HA	1.91	0.41
16:1U:61:TRP:O	16:1U:65:ILE:HG13	2.19	0.41
21:1Z:150:LEU:O	21:1Z:171:ILE:HG12	2.19	0.41
29:17:24:THR:O	29:17:28:ARG:HG3	2.20	0.41
32:1a:390:C:H2'	32:1a:391:G:H8	1.85	0.41
32:1a:476:G:H2'	32:1a:477:A:O4'	2.20	0.41
32:1a:938:A:H2'	32:1a:939:G:O4'	2.20	0.41
32:1a:1250:A:OP1	40:1i:67:GLY:N	2.49	0.41
35:1d:188:LEU:HA	35:1d:189:PRO:HD3	1.92	0.41
36:1e:83:GLU:HG2	36:1e:88:LYS:HB2	2.02	0.41
40:1i:37:PHE:HB3	40:1i:40:LEU:HB2	2.02	0.41
44:1m:81:LEU:HD22	44:1m:86:CYS:SG	2.60	0.41
1:2A:539:G:H2'	1:2A:540:C:C6	2.56	0.41
1:2A:598:G:HO2'	5:2F:31:HIS:CE1	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:935:C:H2'	1:2A:936:C:H6	1.84	0.41
1:2A:1421:G:C2	1:2A:1422:G:N7	2.89	0.41
1:2A:1835:G:H1'	1:2A:1931:U:O2	2.21	0.41
1:2A:1929:G:H4'	1:2A:1930:G:OP1	2.20	0.41
1:2A:2447:G:N2	1:2A:2450:A:OP2	2.53	0.41
5:2F:143:ALA:HB1	5:2F:148:LEU:HB2	2.03	0.41
10:2O:120:GLU:HG2	10:2O:122:LEU:HG	2.02	0.41
12:2Q:43:THR:HG22	12:2Q:94:VAL:HG12	2.02	0.41
29:27:12:ARG:NH2	29:27:44:PRO:HB3	2.34	0.41
30:28:61:LEU:C	30:28:63:PRO:HD3	2.44	0.41
32:2a:397:A:N7	32:2a:547:A:O2'	2.50	0.41
32:2a:969:A:H2'	32:2a:970:C:O4'	2.20	0.41
32:2a:1072:G:H2'	32:2a:1073:U:C6	2.54	0.41
32:2a:1326:C:H2'	32:2a:1327:C:C6	2.55	0.41
32:2a:1462:G:H2'	32:2a:1463:C:C6	2.55	0.41
34:2c:123:GLN:HA	34:2c:126:ARG:HD2	2.02	0.41
36:2e:135:THR:O	36:2e:139:LEU:HG	2.20	0.41
45:2n:27:CYS:SG	45:2n:29:ARG:HG3	2.60	0.41
47:2p:71:ARG:O	47:2p:75:ARG:N	2.40	0.41
1:1A:624:C:H2'	1:1A:625:G:O4'	2.20	0.41
1:1A:1169:G:H1	1:1A:1180:C:H42	1.68	0.41
1:1A:1466:G:H2'	1:1A:1547:C:N4	2.35	0.41
1:1A:1754:C:OP1	15:1T:96:ARG:NH1	2.24	0.41
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.35	0.41
1:1A:2334:G:O6	22:10:74:ARG:NH2	2.54	0.41
1:1A:2849:U:OP2	15:1T:95:ARG:NH1	2.53	0.41
4:1E:174:ASP:OD1	4:1E:175:VAL:N	2.51	0.41
7:1H:74:ASN:ND2	7:1H:138:LYS:HD3	2.36	0.41
9:1N:4:TYR:HB2	16:1U:101:ARG:NH1	2.34	0.41
29:17:47:ARG:HB3	29:17:47:ARG:NH1	2.36	0.41
32:1a:4:U:O4	39:1h:105:ARG:HG2	2.20	0.41
32:1a:451:A:N6	32:1a:480:U:H2'	2.35	0.41
32:1a:966:M2G:HM13	32:1a:967:5MC:H1'	2.02	0.41
32:1a:1133:G:C6	32:1a:1142:G:C6	3.08	0.41
32:1a:1499:A:H1'	32:1a:1520:G:O5'	2.21	0.41
33:1b:115:LEU:HD13	33:1b:145:LEU:HB2	2.02	0.41
33:1b:164:VAL:O	33:1b:186:ALA:HA	2.20	0.41
35:1d:111:ALA:HA	35:1d:161:ASN:HD22	1.86	0.41
54:1x:25:C:H2'	54:1x:26:G:O4'	2.20	0.41
1:2A:271(S):G:C6	1:2A:271(T):C:C4	3.09	0.41
1:2A:445:C:OP1	16:2U:2:PRO:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:479:A:H1'	1:2A:481:G:H5"	2.02	0.41
1:2A:652(U):G:H2'	1:2A:652(V):C:C6	2.56	0.41
1:2A:975(A):G:C2	1:2A:990:A:C8	3.09	0.41
1:2A:1168:G:H1	1:2A:1181:C:N4	2.17	0.41
1:2A:1451:C:H4'	1:2A:1452:A:C8	2.55	0.41
1:2A:1766:U:H2'	1:2A:1767:C:C6	2.56	0.41
1:2A:1933:G:H2'	1:2A:1934:C:O4'	2.20	0.41
1:2A:2305:A:H2'	1:2A:2306:C:O4'	2.20	0.41
1:2A:2648:C:H2'	1:2A:2649:U:H6	1.85	0.41
7:2H:150:ALA:HA	7:2H:153:LYS:HG2	2.01	0.41
10:2O:88:ASN:HD21	10:2O:92:GLU:HB2	1.84	0.41
12:2Q:52:VAL:HA	12:2Q:55:VAL:HG13	2.02	0.41
32:2a:259:G:H2'	32:2a:260:G:O4'	2.19	0.41
32:2a:600:C:H2'	32:2a:601:C:H6	1.82	0.41
32:2a:1310:G:H5'	44:2m:77:ASN:ND2	2.33	0.41
33:2b:76:GLN:HB2	33:2b:208:ILE:HD11	2.01	0.41
35:2d:63:LYS:O	35:2d:67:ILE:HG13	2.20	0.41
39:2h:23:SER:HA	39:2h:61:VAL:O	2.20	0.41
42:2k:97:ALA:O	42:2k:101:SER:HB3	2.20	0.41
44:2m:80:ARG:HA	44:2m:83:ASP:HB2	2.01	0.41
1:1A:45:C:H2'	1:1A:47:C:H6	1.86	0.41
1:1A:1071:G:O2'	1:1A:1089:G:H2'	2.21	0.41
1:1A:1270:C:H5"	1:1A:1271:G:O5'	2.19	0.41
1:1A:1292:U:H2'	1:1A:1293:C:C6	2.55	0.41
1:1A:2159:G:H2'	1:1A:2160:G:H8	1.84	0.41
1:1A:2605:PSU:H2'	1:1A:2606:C:C6	2.55	0.41
2:1B:66:A:H61	2:1B:109:C:H5"	1.85	0.41
3:1D:246:PRO:HG2	3:1D:255:LYS:HG3	2.02	0.41
5:1F:28:ILE:HG12	5:1F:112:MET:HB3	2.02	0.41
18:1W:90:ARG:HE	18:1W:90:ARG:HB3	1.64	0.41
19:1X:39:ILE:O	19:1X:43:VAL:HG23	2.20	0.41
32:1a:503:C:H2'	32:1a:504:C:H6	1.85	0.41
33:1b:107:THR:O	33:1b:110:GLN:HB2	2.20	0.41
1:2A:100:G:O2'	24:22:7:ARG:NH2	2.53	0.41
1:2A:1160:G:C6	1:2A:1161:C:C4	3.08	0.41
1:2A:1420:U:O2'	1:2A:1421:G:OP1	2.31	0.41
1:2A:1500:G:H21	3:2D:100:GLY:HA3	1.84	0.41
1:2A:1817:G:OP1	3:2D:88:ARG:NH2	2.54	0.41
14:2S:10:ARG:HH21	14:2S:91:PRO:HB2	1.84	0.41
18:2W:76:VAL:HG22	18:2W:103:ILE:HG23	2.02	0.41
23:21:26:ARG:C	23:21:28:GLY:H	2.28	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:24:40:HIS:HB3	26:24:43:TYR:HB2	2.02	0.41
32:2a:73:G:C6	32:2a:97:G:C6	3.08	0.41
32:2a:323:U:H5'	51:2t:23:ARG:HB2	2.02	0.41
32:2a:430:A:OP2	35:2d:8:VAL:HG12	2.20	0.41
32:2a:1121:U:C2'	32:2a:1122:U:H5'	2.51	0.41
33:2b:153:ARG:HE	33:2b:153:ARG:HB2	1.66	0.41
35:2d:94:LEU:O	35:2d:98:GLU:N	2.49	0.41
35:2d:155:LEU:HD12	35:2d:156:GLU:H	1.84	0.41
35:2d:175:SER:HG	35:2d:184:LYS:HB3	1.86	0.41
38:2g:76:ARG:HB2	38:2g:89:MET:HB2	2.03	0.41
38:2g:153:HIS:CE1	42:2k:58:PRO:HD2	2.55	0.41
40:2i:5:TYR:OH	40:2i:16:ARG:HG2	2.20	0.41
44:2m:92:HIS:HA	44:2m:110:ARG:HH21	1.84	0.41
45:2n:12:ARG:HG2	45:2n:13:THR:O	2.21	0.41
47:2p:66:PRO:HG2	47:2p:71:ARG:NH2	2.36	0.41
1:1A:272(E):G:C6	1:1A:272(F):C:C4	3.08	0.41
1:1A:296:C:H2'	1:1A:297:C:C6	2.56	0.41
1:1A:1202:C:N4	1:1A:1203:G:C6	2.89	0.41
1:1A:1826:G:OP1	3:1D:224:ALA:N	2.52	0.41
1:1A:1897:G:H2'	1:1A:1898:U:O4'	2.20	0.41
1:1A:1996:C:H4'	1:1A:1997:G:OP1	2.21	0.41
1:1A:2355:C:H2'	1:1A:2356:C:O4'	2.19	0.41
1:1A:2788:C:OP1	4:1E:61:ARG:NH2	2.53	0.41
4:1E:167:VAL:CG1	4:1E:189:PRO:HD3	2.50	0.41
6:1G:77:ILE:HD13	6:1G:77:ILE:HA	1.82	0.41
6:1G:126:ASP:HB3	6:1G:128:ARG:H	1.85	0.41
9:1N:47:ALA:HB2	9:1N:112:LEU:HD11	2.03	0.41
18:1W:11:ARG:HE	18:1W:98:LYS:HB3	1.86	0.41
18:1W:92:ARG:HG2	18:1W:93:ALA:N	2.34	0.41
21:1Z:150:LEU:HG	21:1Z:151:HIS:H	1.85	0.41
24:12:58:ALA:O	24:12:62:THR:N	2.44	0.41
32:1a:50:A:H1'	32:1a:52:G:C8	2.56	0.41
32:1a:204:U:H4'	32:1a:216:G:O5'	2.20	0.41
32:1a:665:A:H2'	32:1a:732:C:O2	2.19	0.41
32:1a:841:U:O2	32:1a:841:U:H2'	2.21	0.41
32:1a:976:G:H5'	32:1a:1358:U:O2'	2.20	0.41
32:1a:1349:A:H5"	40:1i:121:ARG:HB2	2.03	0.41
40:1i:42:ARG:HH21	40:1i:75:ASP:CG	2.29	0.41
42:1k:69:ALA:O	42:1k:73:MET:HG3	2.21	0.41
43:1l:69:TYR:HB2	43:1l:90:VAL:HG21	2.03	0.41
47:1p:71:ARG:O	47:1p:75:ARG:N	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1q:82:MET:HA	48:1q:85:VAL:HB	2.02	0.41
1:2A:849:A:H2'	1:2A:850:C:O4'	2.20	0.41
1:2A:1011:G:OP2	16:2U:66:ASN:ND2	2.53	0.41
1:2A:1265:A:H61	1:2A:2013:A:H5"	1.86	0.41
1:2A:2140:C:O2	1:2A:2140:C:H2'	2.21	0.41
1:2A:2175:C:H2'	1:2A:2176:A:C8	2.53	0.41
1:2A:2232:U:OP1	23:21:40:ARG:NH1	2.54	0.41
1:2A:2261:C:H1'	1:2A:2388:A:N3	2.35	0.41
1:2A:2315:G:H2'	1:2A:2316:C:H6	1.81	0.41
1:2A:2725:A:O2'	1:2A:2727:G:N7	2.51	0.41
2:2B:4:C:H42	2:2B:117:G:H1	1.68	0.41
5:2F:20:LEU:HD22	5:2F:125:LEU:CD1	2.50	0.41
6:2G:28:VAL:HA	6:2G:31:VAL:HG23	2.02	0.41
12:2Q:54:MET:HE3	12:2Q:64:ILE:HG21	2.03	0.41
13:2R:55:ALA:HA	13:2R:80:PHE:CZ	2.56	0.41
15:2T:114:LEU:HA	15:2T:114:LEU:HD23	1.85	0.41
17:2V:5:VAL:HG13	17:2V:14:VAL:HG21	2.02	0.41
21:2Z:46:LYS:HE2	21:2Z:46:LYS:HB3	1.79	0.41
21:2Z:130:PRO:HA	21:2Z:133:ILE:HG13	2.01	0.41
23:21:4:VAL:HG11	23:21:11:ARG:NH1	2.35	0.41
26:24:14:ILE:HD12	26:24:31:ILE:HB	2.03	0.41
32:2a:281:G:O3'	32:2a:282:A:H8	2.03	0.41
32:2a:343:U:H2'	32:2a:345:C:C5	2.56	0.41
32:2a:980:C:H3'	32:2a:981:U:C6	2.55	0.41
32:2a:1104:G:H4'	33:2b:111:ARG:NH2	2.36	0.41
32:2a:1161:C:O2'	32:2a:1162:C:H5'	2.21	0.41
32:2a:1163:C:H2'	32:2a:1164:G:H8	1.85	0.41
32:2a:1188:A:OP1	40:2i:114:TYR:HE2	2.03	0.41
32:2a:1425:U:H2'	32:2a:1426:C:C6	2.55	0.41
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.36	0.41
33:2b:24:TRP:H	33:2b:24:TRP:HD1	1.67	0.41
33:2b:27:LYS:HB2	33:2b:194:PRO:HD2	2.02	0.41
34:2c:179:ARG:O	34:2c:206:GLU:HA	2.20	0.41
35:2d:175:SER:OG	35:2d:184:LYS:HB3	2.20	0.41
1:1A:455:C:N3	1:1A:473:G:H5'	2.36	0.41
1:1A:775:G:C4	1:1A:794:G:C8	3.09	0.41
1:1A:1138:G:N3	9:1N:106:MET:HE2	2.36	0.41
1:1A:1545:A:H2'	1:1A:1546:C:O4'	2.21	0.41
1:1A:1689:A:C6	1:1A:1700:A:C2	3.08	0.41
2:1B:80:U:H2'	2:1B:81:G:C8	2.55	0.41
3:1D:37:LEU:HD22	3:1D:87:ASN:HD21	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1E:37:ARG:HA	4:1E:42:ASP:OD2	2.21	0.41
4:1E:119:ARG:HA	4:1E:160:TYR:CE2	2.56	0.41
12:1Q:1:MET:HB2	12:1Q:2:LEU:H	1.71	0.41
16:1U:46:ALA:O	16:1U:50:ARG:HG3	2.19	0.41
17:1V:22:VAL:HG23	17:1V:23:GLU:O	2.20	0.41
17:1V:65:GLY:HA3	17:1V:91:TYR:CZ	2.56	0.41
32:1a:652:U:O4	32:1a:752:G:O2'	2.25	0.41
32:1a:658:G:H2'	32:1a:659:U:H6	1.85	0.41
32:1a:1017:G:H2'	32:1a:1018:C:O4'	2.20	0.41
32:1a:1095:U:H2'	32:1a:1096:C:C6	2.55	0.41
33:1b:97:TRP:CH2	33:1b:173:ALA:HA	2.55	0.41
33:1b:119:GLU:HG3	33:1b:153:ARG:NH1	2.35	0.41
39:1h:82:HIS:HB3	39:1h:138:TRP:CE2	2.56	0.41
44:1m:91:ARG:HB2	44:1m:98:VAL:HG22	2.01	0.41
45:1n:21:TYR:HE1	45:1n:23:ARG:HE	1.69	0.41
46:1o:3:ILE:HD11	46:1o:38:ARG:HG3	2.03	0.41
48:1q:18:THR:HG23	48:1q:69:LYS:HD3	2.02	0.41
48:1q:45:HIS:HA	48:1q:69:LYS:NZ	2.34	0.41
49:1r:52:PRO:HB2	49:1r:54:ARG:HG3	2.02	0.41
1:2A:26:G:C6	1:2A:27:G:N1	2.89	0.41
1:2A:271(H):G:H2'	1:2A:271(I):G:H8	1.86	0.41
1:2A:483:A:O4'	20:2Y:48:ALA:HB1	2.21	0.41
1:2A:627:A:N7	11:2P:84:ASN:ND2	2.68	0.41
1:2A:669:G:C5	1:2A:801:G:C5	3.09	0.41
1:2A:1131:G:O3'	9:2N:82:LEU:HD22	2.20	0.41
1:2A:1359:A:C2	1:2A:1372:U:O4	2.74	0.41
1:2A:1853:A:H2'	1:2A:1854:A:C8	2.55	0.41
1:2A:1930:G:N2	1:2A:1968:G:H2'	2.36	0.41
1:2A:2074:U:H2'	1:2A:2075:U:C6	2.55	0.41
1:2A:2149:G:C2	1:2A:2150:U:H1'	2.56	0.41
1:2A:2542:A:H4'	1:2A:2543:G:H8	1.86	0.41
1:2A:2582:G:C2	1:2A:2583:G:C8	3.08	0.41
7:2H:8:PRO:HG3	7:2H:51:ARG:HD3	2.01	0.41
12:2Q:75:THR:HA	12:2Q:89:ASN:O	2.20	0.41
22:20:53:MET:HG3	22:20:59:LEU:HD23	2.02	0.41
32:2a:59:A:H5"	32:2a:387:U:H5"	2.02	0.41
32:2a:229:U:H5"	47:2p:33:ILE:HD13	2.03	0.41
32:2a:262:A:H4'	51:2t:75:ASN:HB2	2.02	0.41
32:2a:487:A:H2'	32:2a:488:C:O4'	2.20	0.41
32:2a:580:U:H5"	46:2o:58:MET:HG2	2.01	0.41
32:2a:707:C:H2'	32:2a:708:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:736:C:H2'	32:2a:737:A:C8	2.55	0.41
32:2a:1367:C:O2'	41:2j:48:THR:OG1	2.32	0.41
33:2b:116:GLU:HG2	33:2b:153:ARG:HH21	1.85	0.41
33:2b:208:ILE:H	33:2b:208:ILE:HG12	1.55	0.41
48:2q:66:SER:OG	48:2q:67:LYS:N	2.53	0.41
51:2t:64:ASP:OD1	51:2t:81:LYS:HD3	2.20	0.41
1:1A:118:A:N3	1:1A:178:G:H1'	2.36	0.41
1:1A:598:G:H1	1:1A:659:C:N4	2.19	0.41
1:1A:2051:A:H5'	1:1A:2578:G:O4'	2.21	0.41
1:1A:2680:C:OP2	4:1E:111:ARG:NH2	2.47	0.41
1:1A:2698:U:H2'	1:1A:2699:C:C6	2.56	0.41
6:1G:124:SER:HB2	6:1G:131:TYR:CE1	2.55	0.41
15:1T:12:SER:HA	15:1T:15:VAL:HG23	2.02	0.41
32:1a:38:G:C2	32:1a:397:A:C2	3.09	0.41
32:1a:730:G:C5	32:1a:731:G:H1'	2.56	0.41
32:1a:976:G:H22	32:1a:1363:C:H5"	1.85	0.41
32:1a:1292:U:OP2	38:1g:41:ARG:NH1	2.54	0.41
32:1a:1308:U:H2'	32:1a:1309:G:H8	1.86	0.41
33:1b:211:ILE:H	33:1b:211:ILE:HG13	1.68	0.41
1:2A:1472:A:H2'	1:2A:1473:G:O4'	2.20	0.41
1:2A:2398:U:H2'	1:2A:2399:G:H8	1.86	0.41
2:2B:70:C:H2'	2:2B:71:C:H6	1.85	0.41
13:2R:67:LEU:HD12	13:2R:76:VAL:HG21	2.03	0.41
15:2T:64:ARG:CZ	15:2T:103:ARG:HG2	2.51	0.41
21:2Z:146:ILE:HG13	21:2Z:174:VAL:HG13	2.01	0.41
24:22:25:VAL:HG13	24:22:57:ILE:HG23	2.01	0.41
26:24:33:VAL:HG12	26:24:35:VAL:H	1.86	0.41
30:28:52:LYS:N	30:28:53:PRO:HD2	2.36	0.41
32:2a:108:G:H2'	32:2a:108:G:N3	2.36	0.41
33:2b:31:TYR:CZ	33:2b:200:ILE:HG21	2.55	0.41
34:2c:116:VAL:O	34:2c:119:ARG:HB3	2.21	0.41
36:2e:145:LYS:O	36:2e:149:GLU:HG2	2.19	0.41
39:2h:17:THR:O	39:2h:78:GLN:NE2	2.49	0.41
1:1A:227:A:C2	1:1A:2407:G:H1'	2.56	0.41
1:1A:301:G:H1'	1:1A:302:C:C6	2.55	0.41
1:1A:645:C:H6	1:1A:645:C:O5'	2.04	0.41
1:1A:1266:G:O5'	18:1W:15:ARG:NH2	2.50	0.41
1:1A:1639:U:O2'	1:1A:1640:C:H5'	2.20	0.41
1:1A:1665:A:H2'	1:1A:1666:G:O4'	2.20	0.41
2:1B:110:G:C2	2:1B:111:G:C4	3.08	0.41
3:1D:4:LYS:HG2	3:1D:5:LYS:N	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:101:GLU:OE2	3:1D:103:ARG:NE	2.34	0.41
6:1G:49:ASP:OD1	6:1G:49:ASP:N	2.52	0.41
18:1W:11:ARG:HH11	18:1W:11:ARG:C	2.28	0.41
18:1W:14:PRO:HG2	18:1W:78:GLU:CD	2.45	0.41
27:15:40:LYS:HD2	27:15:46:CYS:HB2	2.02	0.41
32:1a:194:C:H2'	32:1a:195:A:H5"	2.01	0.41
32:1a:431:A:H2'	32:1a:432:A:O4'	2.21	0.41
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.56	0.41
34:1c:121:ALA:HB1	34:1c:189:ALA:HB2	2.02	0.41
1:2A:317:G:H2'	1:2A:318:C:O4'	2.21	0.41
1:2A:466:A:N1	1:2A:795:C:O2'	2.52	0.41
1:2A:901:A:H2'	1:2A:902:C:O4'	2.20	0.41
1:2A:1170:G:O6	1:2A:1180:C:N4	2.54	0.41
1:2A:1412:A:H2'	1:2A:1413:G:H8	1.82	0.41
1:2A:2056:G:C2	1:2A:2057:A:C8	3.09	0.41
1:2A:2135:A:H4'	1:2A:2159:G:H1'	2.03	0.41
1:2A:2274:A:C5	1:2A:2276:G:C8	3.09	0.41
1:2A:2655:G:O2'	1:2A:2664:G:O6	2.36	0.41
2:2B:110:G:C2'	2:2B:111:G:H5'	2.50	0.41
3:2D:80:ALA:N	3:2D:94:LEU:O	2.49	0.41
5:2F:23:ASP:O	5:2F:24:LEU:HD12	2.21	0.41
6:2G:95:ARG:HB3	6:2G:96:ARG:H	1.78	0.41
11:2P:85:LEU:HD23	11:2P:85:LEU:HA	1.88	0.41
11:2P:104:GLY:O	11:2P:105:LEU:HD12	2.21	0.41
12:2Q:95:ALA:O	12:2Q:97:VAL:HG23	2.20	0.41
14:2S:19:LYS:HG2	14:2S:19:LYS:H	1.70	0.41
15:2T:127:ALA:C	15:2T:129:ARG:N	2.79	0.41
32:2a:108:G:C6	51:2t:15:ARG:HG2	2.56	0.41
32:2a:620:C:H2'	32:2a:621:A:C8	2.56	0.41
32:2a:1208:C:H2'	32:2a:1209:C:C6	2.56	0.41
32:2a:1497:G:H1'	32:2a:1518:MA6:H2	2.02	0.41
32:2a:1530:G:H2'	32:2a:1531:A:O4'	2.21	0.41
34:2c:164:ARG:HG2	34:2c:165:THR:N	2.35	0.41
35:2d:57:ARG:NH2	36:2e:107:ARG:HD3	2.35	0.41
35:2d:156:GLU:HG3	35:2d:159:ARG:CZ	2.50	0.41
42:2k:106:LYS:HG3	42:2k:107:SER:H	1.85	0.41
1:1A:10:G:H2'	1:1A:11:G:H8	1.86	0.41
1:1A:12:U:O2	1:1A:12:U:H2'	2.21	0.41
1:1A:58:G:H2'	1:1A:59:U:C6	2.56	0.41
1:1A:526:A:N3	1:1A:2044:C:H1'	2.35	0.41
1:1A:689:A:N3	1:1A:779:U:O2'	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:780:G:OP1	3:1D:218:ARG:NH2	2.46	0.41
1:1A:1011:G:H4'	16:1U:75:ASN:ND2	2.36	0.41
1:1A:1913:A:H4'	1:1A:1914:C:C5'	2.51	0.41
1:1A:1978:A:H2'	1:1A:1979:C:H6	1.86	0.41
1:1A:2165:G:H22	1:1A:2171:A:HO2'	1.68	0.41
1:1A:2418:A:H2'	1:1A:2419:U:C6	2.56	0.41
1:1A:2611:U:H5'	1:1A:2611:U:H6	1.86	0.41
4:1E:6:GLY:HA2	4:1E:51:PHE:CZ	2.56	0.41
4:1E:175:VAL:O	4:1E:177:PRO:HD3	2.20	0.41
5:1F:102:PRO:HB2	5:1F:105:VAL:HG23	2.03	0.41
8:1I:116:LEU:HD12	8:1I:116:LEU:HA	1.94	0.41
13:1R:10:LEU:HD23	13:1R:10:LEU:HA	1.85	0.41
15:1T:29:ARG:HA	15:1T:46:GLU:HA	2.03	0.41
19:1X:64:LYS:HD3	19:1X:64:LYS:HA	1.93	0.41
20:1Y:68:HIS:HB3	20:1Y:71:LYS:HG3	2.03	0.41
26:14:55:ARG:H	26:14:56:VAL:HA	1.86	0.41
32:1a:44:G:H2'	32:1a:45:U:O4'	2.20	0.41
32:1a:186:C:H2'	32:1a:187:C:C6	2.56	0.41
32:1a:405:U:P	35:1d:3:ARG:HH22	2.43	0.41
32:1a:417:C:H42	32:1a:426:G:H1	1.69	0.41
32:1a:584:G:H2'	32:1a:585:G:C8	2.56	0.41
32:1a:607:A:H2'	32:1a:608:A:C8	2.55	0.41
32:1a:814:A:N7	32:1a:816:A:C4	2.88	0.41
32:1a:818:G:O2'	32:1a:820:U:OP2	2.30	0.41
32:1a:848:C:H2'	32:1a:849:C:H6	1.86	0.41
32:1a:1202:G:O2'	45:1n:29:ARG:HG3	2.21	0.41
32:1a:1445:C:H2'	32:1a:1446:U:O4'	2.21	0.41
32:1a:1511:G:H2'	32:1a:1512:U:O4'	2.21	0.41
33:1b:10:LEU:HB3	33:1b:11:LEU:HD12	2.03	0.41
34:1c:130:VAL:HG21	34:1c:157:ILE:HG23	2.03	0.41
37:1f:54:LYS:HB2	37:1f:54:LYS:HE2	1.82	0.41
39:1h:14:ARG:NH2	39:1h:83:ILE:O	2.42	0.41
54:1x:50:U:H2'	54:1x:51:C:C6	2.56	0.41
1:2A:118:A:N3	1:2A:178:G:H1'	2.35	0.41
1:2A:180:G:O2'	1:2A:181:A:N7	2.50	0.41
1:2A:271(P):C:O3'	8:2I:42:SER:OG	2.34	0.41
1:2A:784:A:H5'	1:2A:785:G:OP1	2.20	0.41
1:2A:856:C:H2'	1:2A:857:C:C6	2.55	0.41
1:2A:942:G:O2'	1:2A:1189:A:N3	2.52	0.41
1:2A:1153:C:H2'	1:2A:1154:G:O4'	2.21	0.41
1:2A:1187:G:H5'	17:2V:81:TYR:CE1	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1346:G:C6	1:2A:1601:G:C6	3.09	0.41
1:2A:1423:G:H2'	1:2A:1424:G:C8	2.55	0.41
1:2A:1515:G:H2'	1:2A:1516:C:C6	2.55	0.41
1:2A:1857:G:C6	1:2A:1858:G:C6	3.09	0.41
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.35	0.41
1:2A:1983:C:H4'	1:2A:2606:C:H4'	2.02	0.41
1:2A:2117:A:N6	1:2A:2171:A:N1	2.69	0.41
1:2A:2137:C:N4	1:2A:2155:G:C6	2.89	0.41
1:2A:2203:U:H2'	1:2A:2205:C:C6	2.56	0.41
1:2A:2245:U:H5"	1:2A:2246:G:H5'	2.03	0.41
1:2A:2295:C:H5	14:2S:13:ARG:NH2	2.19	0.41
1:2A:2615:U:N1	27:25:7:PRO:HA	2.35	0.41
2:2B:24:G:H21	2:2B:26:A:H61	1.69	0.41
2:2B:31:C:H42	2:2B:51:G:H1	1.69	0.41
7:2H:124:GLU:HB2	7:2H:132:ARG:HB3	2.02	0.41
12:2Q:32:TYR:CE2	12:2Q:111:GLU:HA	2.55	0.41
15:2T:51:ARG:HG3	15:2T:98:LYS:HE3	2.03	0.41
21:2Z:77:ASP:OD2	21:2Z:80:ARG:NH1	2.54	0.41
21:2Z:145:GLU:HB3	21:2Z:148:ASP:OD2	2.20	0.41
23:21:46:LEU:HD23	23:21:46:LEU:HA	1.93	0.41
32:2a:52:G:H2'	32:2a:53:A:H8	1.86	0.41
32:2a:111:G:O5'	32:2a:111:G:H8	2.04	0.41
32:2a:173:U:H5"	32:2a:197:A:O4'	2.21	0.41
32:2a:719:C:O2'	49:2r:49:LYS:HB3	2.21	0.41
32:2a:975:A:H8	32:2a:1365:G:H22	1.68	0.41
32:2a:1004:A:H5"	32:2a:1024:G:H22	1.84	0.41
32:2a:1026:G:H2'	32:2a:1026:G:N3	2.36	0.41
32:2a:1077:G:N1	32:2a:1080:A:OP2	2.50	0.41
32:2a:1330:U:H4'	44:2m:23:TYR:CE1	2.55	0.41
32:2a:1377:A:H4'	32:2a:1378:C:C5	2.56	0.41
32:2a:1471:G:H2'	32:2a:1472:U:C6	2.56	0.41
33:2b:157:ARG:HG2	33:2b:158:LEU:H	1.86	0.41
34:2c:6:HIS:HB3	45:2n:49:HIS:ND1	2.36	0.41
34:2c:54:ARG:H	34:2c:69:HIS:HB2	1.86	0.41
34:2c:134:ILE:HG22	34:2c:168:ALA:HB3	2.02	0.41
36:2e:136:MET:H	36:2e:136:MET:HG2	1.73	0.41
41:2j:7:LYS:O	41:2j:97:GLU:HB2	2.20	0.41
42:2k:102:GLY:O	42:2k:103:LEU:HD23	2.21	0.41
49:2r:69:THR:HA	49:2r:72:ARG:HB3	2.02	0.41
54:2x:58:A:H4'	54:2x:59:A:OP1	2.21	0.41
1:1A:271(K):U:H1'	8:1I:50:ARG:CZ	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:322:A:H3'	5:1F:169:ASN:OD1	2.21	0.41
1:1A:626:U:O4	11:1P:81:GLN:NE2	2.54	0.41
1:1A:882:G:H3'	1:1A:883:G:C8	2.56	0.41
1:1A:2360:A:H2'	1:1A:2361:A:O4'	2.20	0.41
3:1D:10:THR:OG1	3:1D:13:ARG:HB2	2.21	0.41
8:1I:135:GLU:C	8:1I:137:PRO:HD3	2.46	0.41
18:1W:59:VAL:HG12	18:1W:60:ASN:HD22	1.86	0.41
18:1W:92:ARG:HD3	18:1W:94:ASP:OD1	2.21	0.41
24:12:35:LEU:HB3	24:12:50:ILE:HG12	2.02	0.41
32:1a:112:G:H4'	32:1a:389:A:H4'	2.02	0.41
32:1a:1070:U:H2'	32:1a:1071:C:H6	1.86	0.41
34:1c:178:LEU:C	34:1c:180:ALA:H	2.29	0.41
40:1i:53:VAL:HG21	40:1i:85:LEU:HD13	2.03	0.41
41:1j:5:ARG:HA	41:1j:73:ASP:OD1	2.21	0.41
1:2A:92:A:C4	1:2A:93:G:C8	3.09	0.41
1:2A:143:G:H2'	1:2A:143(A):C:H6	1.83	0.41
1:2A:960:A:C8	1:2A:962:G:C8	3.09	0.41
1:2A:1122:G:N3	1:2A:1122:G:H2'	2.36	0.41
1:2A:1257:C:H4'	5:2F:83:PHE:CD1	2.56	0.41
1:2A:1368:G:C2	1:2A:1369:G:C8	3.09	0.41
1:2A:2048:G:C6	1:2A:2049:G:C5	3.08	0.41
1:2A:2070:G:C2	1:2A:2442:C:C2	3.08	0.41
1:2A:2619:C:H2'	1:2A:2620:C:C6	2.55	0.41
1:2A:2746:U:H4'	7:2H:138:LYS:HG2	2.03	0.41
1:2A:2872:G:O2'	1:2A:2873:A:H5'	2.21	0.41
3:2D:20:ASP:OD1	3:2D:21:PHE:N	2.54	0.41
4:2E:108:SER:O	4:2E:162:ALA:HA	2.20	0.41
4:2E:195:LEU:HD23	4:2E:195:LEU:H	1.86	0.41
5:2F:110:LEU:HD21	5:2F:181:LEU:HG	2.02	0.41
5:2F:195:ASP:OD1	5:2F:196:LEU:N	2.47	0.41
7:2H:3:ARG:HG2	7:2H:6:ARG:NE	2.35	0.41
7:2H:60:ARG:O	7:2H:63:SER:OG	2.38	0.41
11:2P:128:HIS:NE2	11:2P:148:LEU:HD11	2.36	0.41
15:2T:49:VAL:HA	15:2T:62:THR:O	2.20	0.41
16:2U:8:VAL:O	16:2U:12:ARG:HG3	2.20	0.41
21:2Z:171:ILE:H	21:2Z:171:ILE:HG13	1.58	0.41
25:23:39:ASP:OD1	25:23:44:ARG:NH1	2.51	0.41
26:24:53:GLU:HG2	26:24:54:GLY:H	1.86	0.41
26:24:69:LYS:HA	26:24:69:LYS:HD2	1.89	0.41
32:2a:353:A:H5'	32:2a:353:A:H8	1.85	0.41
32:2a:444:C:H2'	32:2a:445:G:H8	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1122:U:H2'	32:2a:1123:A:O4'	2.21	0.41
32:2a:1203:C:H2'	32:2a:1204:A:O4'	2.20	0.41
33:2b:218:ALA:O	33:2b:222:ILE:HG23	2.21	0.41
50:2s:36:ARG:C	50:2s:38:SER:H	2.29	0.41
1:1A:15:G:HO2'	27:15:18:ALA:HA	1.87	0.40
1:1A:422:A:H2'	1:1A:423:A:O4'	2.21	0.40
1:1A:479:A:N3	1:1A:481:G:H5"	2.36	0.40
1:1A:860:U:C2	1:1A:2268:A:C8	3.09	0.40
1:1A:1256:G:O2'	5:1F:75:HIS:HE1	2.04	0.40
1:1A:2335:A:C8	1:1A:2337:G:C5	3.09	0.40
3:1D:77:ALA:O	3:1D:116:GLN:HA	2.21	0.40
5:1F:164:ARG:HD2	5:1F:175:THR:HG23	2.03	0.40
10:1O:2:ILE:HG21	10:1O:8:LEU:HD21	2.02	0.40
21:1Z:24:LEU:HA	21:1Z:25:PRO:HD3	1.97	0.40
32:1a:300:A:O2'	32:1a:564:C:N3	2.49	0.40
32:1a:1144:G:H21	32:1a:1146:A:H62	1.69	0.40
32:1a:1505:G:HO2'	53:1v:13:A:HO2'	1.69	0.40
33:1b:16:HIS:HD2	33:1b:18:GLY:H	1.67	0.40
39:1h:73:ASP:OD1	39:1h:75:ARG:NH1	2.53	0.40
46:1o:24:SER:O	46:1o:28:GLN:HG3	2.21	0.40
48:1q:13:ASP:HA	48:1q:19:VAL:HG12	2.03	0.40
48:1q:43:LEU:O	48:1q:69:LYS:HD2	2.20	0.40
49:1r:45:SER:OG	49:1r:47:THR:HG22	2.21	0.40
50:1s:15:LEU:O	50:1s:19:VAL:HG23	2.21	0.40
50:1s:41:VAL:HG13	50:1s:42:PRO:HD2	2.03	0.40
1:2A:251:A:C5	1:2A:252:G:H1'	2.56	0.40
1:2A:406:G:H5"	1:2A:407:G:OP2	2.21	0.40
1:2A:588:U:H1'	5:2F:90:PHE:CG	2.56	0.40
1:2A:1005:C:H2'	1:2A:1006:C:H6	1.84	0.40
1:2A:1019:U:OP1	1:2A:1035:U:O2'	2.34	0.40
1:2A:1328:G:O2'	1:2A:1329:U:H2'	2.22	0.40
1:2A:1418:G:H8	1:2A:1418:G:O5'	2.05	0.40
1:2A:2522:U:O2'	1:2A:2647:U:OP1	2.31	0.40
1:2A:2881:C:H2'	1:2A:2882:A:O4'	2.21	0.40
3:2D:72:LYS:HD3	3:2D:97:TYR:CZ	2.56	0.40
6:2G:145:THR:OG1	6:2G:148:MET:HG2	2.21	0.40
9:2N:100:GLU:HG2	9:2N:117:PHE:CE1	2.55	0.40
11:2P:50:ARG:HD3	30:28:7:HIS:CD2	2.56	0.40
26:24:50:VAL:HG21	44:2m:65:LYS:N	2.36	0.40
32:2a:438:G:H8	32:2a:438:G:O5'	2.04	0.40
32:2a:1316:G:O2'	45:2n:18:VAL:HG11	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1347:G:N1	32:2a:1374:A:OP2	2.33	0.40
32:2a:1373:G:H8	32:2a:1373:G:O5'	2.03	0.40
33:2b:215:LEU:O	33:2b:218:ALA:HB3	2.21	0.40
48:2q:18:THR:OG1	48:2q:69:LYS:NZ	2.36	0.40
1:1A:360:G:H2'	1:1A:361:G:H8	1.85	0.40
1:1A:495:G:N3	18:1W:61:ASN:ND2	2.66	0.40
1:1A:801:G:OP2	5:1F:55:GLY:HA2	2.21	0.40
1:1A:944:G:H5"	1:1A:945:A:O5'	2.22	0.40
1:1A:1472:A:H2'	1:1A:1473:G:O4'	2.21	0.40
1:1A:1526:G:C6	1:1A:1527:G:C2	3.09	0.40
1:1A:2131:G:N1	1:1A:2158:A:C6	2.89	0.40
1:1A:2623:G:H2'	1:1A:2624:G:C8	2.57	0.40
1:1A:2735:G:H2'	1:1A:2736:G:H8	1.84	0.40
1:1A:2848:G:H8	15:1T:97:ALA:HB2	1.86	0.40
2:1B:42:C:O2	6:1G:92:VAL:HA	2.21	0.40
4:1E:109:LYS:HE2	4:1E:191:PRO:HB3	2.03	0.40
5:1F:184:TYR:CE2	5:1F:188:ARG:HD2	2.56	0.40
10:1O:20:MET:SD	10:1O:44:LYS:HE3	2.61	0.40
11:1P:121:LYS:HB3	11:1P:121:LYS:HE2	1.69	0.40
16:1U:45:TYR:O	16:1U:49:HIS:N	2.53	0.40
19:1X:60:ARG:HH12	29:17:47:ARG:NH2	2.19	0.40
32:1a:104:G:C2	32:1a:105:G:C8	3.09	0.40
32:1a:692:U:H3	42:1k:53:SER:HB3	1.86	0.40
32:1a:1024:G:H2'	32:1a:1025:U:H5"	2.03	0.40
32:1a:1206:G:H2'	32:1a:1207:2MG:O4'	2.22	0.40
32:1a:1390:U:H2'	32:1a:1391:U:H6	1.87	0.40
32:1a:1413:A:C2	32:1a:1488:G:C2	3.08	0.40
32:1a:1458:G:OP1	51:1t:35:THR:OG1	2.26	0.40
1:2A:105:C:H2'	1:2A:106:C:C6	2.56	0.40
1:2A:270:A:H2'	1:2A:271:A:O4'	2.21	0.40
1:2A:271(W):G:O6	1:2A:271(X):G:N1	2.54	0.40
1:2A:597:U:H2'	1:2A:598:G:C8	2.56	0.40
1:2A:999:U:H5"	1:2A:1154:G:O6	2.21	0.40
1:2A:1184:G:C6	1:2A:1185:C:C4	3.09	0.40
1:2A:1464:C:H2'	1:2A:1465:G:H8	1.86	0.40
1:2A:1913:A:N1	32:2a:1493:A:C8	2.89	0.40
1:2A:2228:G:C5	1:2A:2229:C:C4	3.09	0.40
1:2A:2508:G:C4	1:2A:2509:G:C8	3.09	0.40
1:2A:2820:A:OP2	13:2R:2:ARG:NH2	2.54	0.40
7:2H:118:PRO:HD2	7:2H:121:ILE:HB	2.04	0.40
7:2H:127:GLU:C	7:2H:129:THR:H	2.29	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:12:LEU:HD11	8:2I:25:TYR:HE2	1.86	0.40
12:2Q:139:GLU:CD	21:2Z:122:ARG:HB2	2.46	0.40
32:2a:62:U:H2'	32:2a:63:C:C6	2.56	0.40
32:2a:408:A:H2'	32:2a:409:G:O4'	2.21	0.40
32:2a:530:G:H3'	32:2a:531:U:C5'	2.50	0.40
32:2a:953:G:H5'	32:2a:965:A:N6	2.26	0.40
32:2a:1302:U:OP2	44:2m:21:TYR:OH	2.38	0.40
38:2g:38:LEU:O	38:2g:42:ILE:HG13	2.21	0.40
41:2j:70:ARG:HD3	41:2j:70:ARG:HA	1.81	0.40
44:2m:108:ARG:HD3	44:2m:108:ARG:HA	1.85	0.40
51:2t:74:LYS:HE2	51:2t:74:LYS:HB3	1.78	0.40
1:1A:700:G:H2'	1:1A:701:G:O4'	2.21	0.40
1:1A:1058:G:N2	1:1A:1080:C:N3	2.61	0.40
1:1A:1295:C:H2'	1:1A:1296:G:C8	2.56	0.40
1:1A:2398:U:H2'	1:1A:2399:G:H8	1.86	0.40
1:1A:2712:U:HO2'	1:1A:2713:A:H5'	1.86	0.40
1:1A:2740:A:H2'	1:1A:2741:A:C8	2.56	0.40
2:1B:3:C:H42	2:1B:118:G:H1	1.69	0.40
5:1F:132:VAL:HG11	5:1F:139:PHE:HA	2.02	0.40
11:1P:97:PRO:HD3	11:1P:126:VAL:O	2.21	0.40
32:1a:261:U:H2'	32:1a:263:A:OP2	2.22	0.40
32:1a:458:C:H2'	32:1a:460:G:O4'	2.22	0.40
32:1a:1464:G:H2'	32:1a:1465:C:C6	2.57	0.40
34:1c:32:LEU:HD13	34:1c:59:ARG:HD3	2.03	0.40
35:1d:85:LYS:HE3	35:1d:85:LYS:HB3	1.94	0.40
35:1d:107:ARG:HH21	35:1d:194:LEU:HD11	1.86	0.40
54:1x:37:A:H2'	54:1x:38:A:H8	1.86	0.40
54:1x:72:A:H2'	54:1x:73:A:C8	2.56	0.40
1:2A:40:C:H2'	1:2A:41:C:C6	2.56	0.40
1:2A:271(A):A:O2'	1:2A:364:C:O2	2.35	0.40
1:2A:271(O):C:C4	1:2A:271(P):C:C4	3.09	0.40
1:2A:828:U:H2'	1:2A:829:A:C8	2.57	0.40
1:2A:1227:G:OP1	16:2U:13:LYS:HG2	2.21	0.40
1:2A:1407:C:H2'	1:2A:1408:C:C6	2.56	0.40
1:2A:1660:C:H2'	1:2A:1661:G:C8	2.56	0.40
1:2A:1721:G:H3'	1:2A:1722:A:H5"	2.03	0.40
1:2A:2418:A:C6	1:2A:2419:U:C4	3.09	0.40
1:2A:2489:G:C5	1:2A:2490:G:C6	3.09	0.40
1:2A:2579:C:H2'	1:2A:2580:U:O4'	2.22	0.40
1:2A:2712:U:OP1	1:2A:2714:G:H4'	2.22	0.40
2:2B:3:C:H2'	2:2B:4:C:H6	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:2F:116:ASP:O	5:2F:120:GLU:HG2	2.21	0.40
8:2I:8:PRO:HB3	8:2I:14:ASP:OD1	2.21	0.40
9:2N:37:LYS:HB3	9:2N:37:LYS:HE2	1.87	0.40
12:2Q:10:ARG:HH22	54:2x:64:G:H4'	1.86	0.40
12:2Q:66:ILE:HG12	12:2Q:104:PHE:CD1	2.55	0.40
23:21:50:ARG:HA	23:21:59:THR:HA	2.02	0.40
32:2a:198:G:H2'	32:2a:199:G:C8	2.54	0.40
32:2a:278:G:OP2	48:2q:92:ARG:NH2	2.54	0.40
33:2b:52:GLU:HG2	33:2b:56:ARG:HH22	1.85	0.40
38:2g:16:LEU:HD21	40:2i:42:ARG:HA	2.02	0.40
38:2g:79:ARG:O	38:2g:80:VAL:C	2.64	0.40
39:2h:33:GLU:HG2	39:2h:59:LEU:CD1	2.52	0.40
1:1A:94(A):G:N2	24:12:47:ASN:OD1	2.28	0.40
1:1A:360:G:H2'	1:1A:361:G:C8	2.56	0.40
1:1A:1006:C:H5'	9:1N:28:THR:HG23	2.03	0.40
1:1A:2016:U:H1'	27:15:6:VAL:HG13	2.03	0.40
1:1A:2160:G:C6	1:1A:2161:C:N4	2.90	0.40
1:1A:2179:C:H2'	1:1A:2180:U:C6	2.56	0.40
1:1A:2187:G:H2'	1:1A:2188:C:O4'	2.22	0.40
1:1A:2567:G:H2'	1:1A:2568:C:C6	2.57	0.40
1:1A:2802:G:H2'	1:1A:2803:C:C6	2.56	0.40
3:1D:162:SER:HB3	3:1D:195:ALA:CB	2.50	0.40
4:1E:54:GLN:HB2	4:1E:76:ARG:HG2	2.02	0.40
9:1N:4:TYR:CE2	16:1U:100:VAL:HG11	2.57	0.40
11:1P:101:VAL:HA	11:1P:106:LEU:O	2.21	0.40
12:1Q:68:ILE:HD13	12:1Q:103:MET:HG2	2.04	0.40
23:11:82:LEU:HA	23:11:85:LEU:HD12	2.02	0.40
27:15:8:LYS:O	27:15:9:LYS:HD2	2.20	0.40
28:16:33:LYS:HB3	28:16:51:GLU:HG2	2.03	0.40
32:1a:20:U:H2'	32:1a:21:G:O4'	2.21	0.40
32:1a:939:G:C6	32:1a:940:C:N4	2.90	0.40
32:1a:1456:G:H1	51:1t:51:GLU:CD	2.30	0.40
37:1f:65:VAL:HG21	37:1f:67:MET:HE3	2.02	0.40
41:1j:35:SER:N	41:1j:73:ASP:O	2.53	0.40
42:1k:48:ILE:O	42:1k:48:ILE:HG12	2.20	0.40
47:1p:27:LYS:HB3	47:1p:27:LYS:HE2	1.92	0.40
48:1q:45:HIS:CD2	48:1q:65:ILE:HD13	2.56	0.40
1:2A:118:A:OP2	1:2A:119:A:H2'	2.21	0.40
1:2A:1162:G:C4	1:2A:1163:G:C8	3.10	0.40
1:2A:1882:C:H2'	1:2A:1883:G:O4'	2.22	0.40
1:2A:2305:A:H5"	6:2G:134:GLY:HA3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2398:U:H2'	1:2A:2399:G:C8	2.57	0.40
1:2A:2505:G:H2'	1:2A:2576:G:O6	2.21	0.40
2:2B:45:A:H2'	2:2B:46:A:O4'	2.21	0.40
2:2B:83:G:H5'	25:23:52:HIS:CE1	2.57	0.40
11:2P:60:MET:HA	30:28:13:ARG:NH1	2.37	0.40
16:2U:112:ARG:NH2	17:2V:47:VAL:HB	2.36	0.40
32:2a:112:G:H4'	32:2a:389:A:H4'	2.03	0.40
32:2a:738:C:H2'	32:2a:739:C:C6	2.57	0.40
32:2a:931:C:N4	32:2a:1386:G:H1	2.17	0.40
32:2a:948:C:O2'	32:2a:949:A:H5'	2.21	0.40
32:2a:1266:G:N2	32:2a:1269:A:OP2	2.39	0.40
33:2b:128:GLU:C	33:2b:130:ARG:H	2.30	0.40
34:2c:35:GLU:OE1	34:2c:59:ARG:NH2	2.55	0.40
36:2e:36:ASP:C	36:2e:38:GLN:H	2.29	0.40
39:2h:54:ASP:O	39:2h:56:LYS:HG2	2.21	0.40
47:2p:8:ARG:HB3	47:2p:28:ARG:NH1	2.37	0.40
49:2r:45:SER:OG	49:2r:46:GLU:N	2.55	0.40
54:2x:72:A:H2'	54:2x:73:A:C8	2.57	0.40
1:1A:536:A:H5'	16:1U:53:ARG:HD3	2.03	0.40
1:1A:589:C:H2'	1:1A:590:A:C8	2.56	0.40
1:1A:628:G:H2'	1:1A:629:G:C8	2.57	0.40
1:1A:1066:U:H2'	1:1A:1068:G:OP1	2.21	0.40
1:1A:1359:A:C2	1:1A:1372:U:O4	2.74	0.40
1:1A:1952:A:C6	1:1A:1953:A:N1	2.90	0.40
1:1A:2467:C:H4'	12:1Q:123:HIS:CG	2.56	0.40
4:1E:24:THR:HG22	4:1E:186:GLY:O	2.21	0.40
10:1O:104:ARG:HH21	15:1T:36:GLU:CD	2.26	0.40
18:1W:57:ASN:O	18:1W:61:ASN:HB2	2.22	0.40
32:1a:308:C:H2'	32:1a:309:G:H8	1.86	0.40
32:1a:625:G:H2'	32:1a:626:U:C6	2.57	0.40
32:1a:673:G:O3'	37:1f:87:ARG:NH2	2.54	0.40
35:1d:4:TYR:O	35:1d:6:GLY:N	2.55	0.40
35:1d:99:SER:O	35:1d:140:VAL:HG22	2.22	0.40
40:1i:36:TYR:HD2	40:1i:37:PHE:CZ	2.39	0.40
41:1j:13:HIS:O	41:1j:17:ASP:N	2.43	0.40
41:1j:57:LYS:HE2	41:1j:60:ARG:HH22	1.86	0.40
48:1q:53:LEU:HA	48:1q:53:LEU:HD23	1.81	0.40
1:2A:391:G:C5	1:2A:411:G:C2	3.10	0.40
1:2A:483:A:O2'	20:2Y:49:VAL:O	2.31	0.40
1:2A:1116:C:H2'	1:2A:1117:G:H8	1.86	0.40
1:2A:1358:G:O2'	1:2A:1373:A:N6	2.48	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1649:G:C6	1:2A:2009:G:C6	3.10	0.40
1:2A:1826:G:H4'	3:2D:242:ARG:CZ	2.52	0.40
1:2A:2053:G:OP1	4:2E:144:ARG:HG3	2.22	0.40
1:2A:2314:C:H2'	1:2A:2315:G:H8	1.85	0.40
2:2B:13:A:N3	2:2B:16:G:H1'	2.37	0.40
4:2E:122:PHE:HZ	4:2E:155:LYS:HB2	1.86	0.40
5:2F:183:VAL:O	5:2F:187:VAL:HG23	2.21	0.40
9:2N:45:ASN:OD1	9:2N:46:VAL:HG13	2.21	0.40
11:2P:97:PRO:HD3	11:2P:126:VAL:O	2.21	0.40
12:2Q:12:GLN:HE21	12:2Q:72:LYS:NZ	2.20	0.40
15:2T:102:ILE:HA	15:2T:105:LEU:HD12	2.03	0.40
32:2a:15:G:H2'	32:2a:16:A:C8	2.55	0.40
32:2a:560:U:H4'	32:2a:561:U:O5'	2.21	0.40
32:2a:583:A:H2'	32:2a:584:G:O4'	2.21	0.40
32:2a:665:A:H1'	32:2a:733:A:O4'	2.22	0.40
32:2a:977:A:H2'	32:2a:978:A:H5"	2.03	0.40
32:2a:1392:G:H2'	32:2a:1393:U:C6	2.56	0.40
34:2c:54:ARG:HE	34:2c:54:ARG:HB3	1.54	0.40
35:2d:155:LEU:O	35:2d:159:ARG:HG3	2.22	0.40
37:2f:14:LEU:HD21	37:2f:84:ASN:OD1	2.21	0.40
40:2i:16:ARG:HB2	40:2i:64:THR:HG23	2.04	0.40
41:2j:6:ILE:HG12	41:2j:98:ILE:HG12	2.02	0.40
43:2l:32:PHE:HE1	43:2l:86:ARG:HB3	1.87	0.40
44:2m:65:LYS:O	44:2m:70:LEU:HD12	2.22	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%)	252 (92%)	21 (8%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	2D	273/276 (99%)	245 (90%)	28 (10%)	0	100	100
4	1E	202/206 (98%)	188 (93%)	13 (6%)	1 (0%)	24	52
4	2E	202/206 (98%)	187 (93%)	13 (6%)	2 (1%)	12	37
5	1F	201/210 (96%)	190 (94%)	10 (5%)	1 (0%)	24	52
5	2F	201/210 (96%)	181 (90%)	17 (8%)	3 (2%)	8	28
6	1G	179/182 (98%)	161 (90%)	16 (9%)	2 (1%)	11	34
6	2G	179/182 (98%)	153 (86%)	22 (12%)	4 (2%)	5	20
7	1H	172/180 (96%)	154 (90%)	17 (10%)	1 (1%)	21	48
7	2H	172/180 (96%)	145 (84%)	25 (14%)	2 (1%)	10	32
8	1I	144/148 (97%)	123 (85%)	19 (13%)	2 (1%)	9	29
8	2I	144/148 (97%)	131 (91%)	10 (7%)	3 (2%)	5	21
9	1N	138/140 (99%)	130 (94%)	8 (6%)	0	100	100
9	2N	138/140 (99%)	123 (89%)	15 (11%)	0	100	100
10	1O	120/122 (98%)	108 (90%)	12 (10%)	0	100	100
10	2O	120/122 (98%)	103 (86%)	15 (12%)	2 (2%)	7	25
11	1P	147/150 (98%)	132 (90%)	15 (10%)	0	100	100
11	2P	147/150 (98%)	128 (87%)	16 (11%)	3 (2%)	6	21
12	1Q	139/141 (99%)	126 (91%)	10 (7%)	3 (2%)	5	20
12	2Q	139/141 (99%)	125 (90%)	14 (10%)	0	100	100
13	1R	116/118 (98%)	111 (96%)	5 (4%)	0	100	100
13	2R	116/118 (98%)	104 (90%)	12 (10%)	0	100	100
14	1S	108/112 (96%)	102 (94%)	6 (6%)	0	100	100
14	2S	108/112 (96%)	95 (88%)	12 (11%)	1 (1%)	14	39
15	1T	129/146 (88%)	117 (91%)	12 (9%)	0	100	100
15	2T	129/146 (88%)	119 (92%)	10 (8%)	0	100	100
16	1U	114/118 (97%)	112 (98%)	2 (2%)	0	100	100
16	2U	114/118 (97%)	110 (96%)	4 (4%)	0	100	100
17	1V	99/101 (98%)	93 (94%)	5 (5%)	1 (1%)	12	37
17	2V	99/101 (98%)	87 (88%)	10 (10%)	2 (2%)	6	21
18	1W	110/113 (97%)	108 (98%)	2 (2%)	0	100	100
18	2W	110/113 (97%)	105 (96%)	5 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
19	1X	93/96 (97%)	86 (92%)	5 (5%)	2 (2%)	5 20
19	2X	93/96 (97%)	78 (84%)	15 (16%)	0	100 100
20	1Y	105/110 (96%)	92 (88%)	11 (10%)	2 (2%)	6 23
20	2Y	105/110 (96%)	90 (86%)	13 (12%)	2 (2%)	6 23
21	1Z	148/206 (72%)	128 (86%)	17 (12%)	3 (2%)	6 21
21	2Z	156/206 (76%)	130 (83%)	25 (16%)	1 (1%)	21 48
22	10	74/85 (87%)	72 (97%)	2 (3%)	0	100 100
22	20	74/85 (87%)	67 (90%)	6 (8%)	1 (1%)	9 29
23	11	95/98 (97%)	88 (93%)	6 (6%)	1 (1%)	11 34
23	21	95/98 (97%)	87 (92%)	8 (8%)	0	100 100
24	12	68/72 (94%)	63 (93%)	5 (7%)	0	100 100
24	22	68/72 (94%)	63 (93%)	5 (7%)	0	100 100
25	13	57/60 (95%)	55 (96%)	2 (4%)	0	100 100
25	23	57/60 (95%)	50 (88%)	7 (12%)	0	100 100
26	14	67/71 (94%)	52 (78%)	10 (15%)	5 (8%)	1 3
26	24	67/71 (94%)	48 (72%)	14 (21%)	5 (8%)	1 3
27	15	57/60 (95%)	56 (98%)	1 (2%)	0	100 100
27	25	57/60 (95%)	53 (93%)	3 (5%)	1 (2%)	6 24
28	16	51/54 (94%)	47 (92%)	4 (8%)	0	100 100
28	26	51/54 (94%)	47 (92%)	4 (8%)	0	100 100
29	17	46/49 (94%)	44 (96%)	2 (4%)	0	100 100
29	27	46/49 (94%)	43 (94%)	2 (4%)	1 (2%)	5 20
30	18	62/65 (95%)	62 (100%)	0	0	100 100
30	28	62/65 (95%)	59 (95%)	3 (5%)	0	100 100
31	19	35/37 (95%)	34 (97%)	1 (3%)	0	100 100
31	29	35/37 (95%)	34 (97%)	1 (3%)	0	100 100
33	1b	229/256 (90%)	193 (84%)	25 (11%)	11 (5%)	2 9
33	2b	229/256 (90%)	185 (81%)	38 (17%)	6 (3%)	4 17
34	1c	204/239 (85%)	187 (92%)	16 (8%)	1 (0%)	24 52
34	2c	204/239 (85%)	166 (81%)	37 (18%)	1 (0%)	24 52
35	1d	206/209 (99%)	194 (94%)	11 (5%)	1 (0%)	24 52

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
35	2d	206/209 (99%)	178 (86%)	24 (12%)	4 (2%)	6 23
36	1e	146/162 (90%)	129 (88%)	15 (10%)	2 (1%)	9 29
36	2e	146/162 (90%)	127 (87%)	17 (12%)	2 (1%)	9 29
37	1f	98/101 (97%)	90 (92%)	7 (7%)	1 (1%)	12 37
37	2f	98/101 (97%)	88 (90%)	9 (9%)	1 (1%)	12 37
38	1g	153/156 (98%)	138 (90%)	10 (6%)	5 (3%)	3 13
38	2g	153/156 (98%)	131 (86%)	18 (12%)	4 (3%)	4 17
39	1h	135/138 (98%)	126 (93%)	8 (6%)	1 (1%)	18 45
39	2h	135/138 (98%)	120 (89%)	15 (11%)	0	100 100
40	1i	125/128 (98%)	110 (88%)	15 (12%)	0	100 100
40	2i	125/128 (98%)	109 (87%)	16 (13%)	0	100 100
41	1j	95/105 (90%)	81 (85%)	11 (12%)	3 (3%)	3 14
41	2j	94/105 (90%)	88 (94%)	5 (5%)	1 (1%)	11 34
42	1k	112/129 (87%)	99 (88%)	12 (11%)	1 (1%)	14 39
42	2k	112/129 (87%)	102 (91%)	7 (6%)	3 (3%)	4 16
43	1l	119/132 (90%)	111 (93%)	6 (5%)	2 (2%)	7 25
43	2l	119/132 (90%)	101 (85%)	16 (13%)	2 (2%)	7 25
44	1m	121/126 (96%)	105 (87%)	14 (12%)	2 (2%)	7 25
44	2m	120/126 (95%)	99 (82%)	18 (15%)	3 (2%)	4 17
45	1n	58/61 (95%)	55 (95%)	2 (3%)	1 (2%)	7 25
45	2n	58/61 (95%)	51 (88%)	5 (9%)	2 (3%)	3 13
46	1o	86/89 (97%)	76 (88%)	8 (9%)	2 (2%)	5 19
46	2o	86/89 (97%)	80 (93%)	6 (7%)	0	100 100
47	1p	80/88 (91%)	67 (84%)	13 (16%)	0	100 100
47	2p	80/88 (91%)	71 (89%)	8 (10%)	1 (1%)	9 31
48	1q	97/105 (92%)	84 (87%)	11 (11%)	2 (2%)	5 21
48	2q	97/105 (92%)	90 (93%)	7 (7%)	0	100 100
49	1r	66/88 (75%)	59 (89%)	7 (11%)	0	100 100
49	2r	66/88 (75%)	62 (94%)	4 (6%)	0	100 100
50	1s	81/93 (87%)	69 (85%)	10 (12%)	2 (2%)	4 17
50	2s	81/93 (87%)	68 (84%)	12 (15%)	1 (1%)	10 32

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
51	1t	94/106 (89%)	84 (89%)	8 (8%)	2 (2%)	5 21
51	2t	94/106 (89%)	83 (88%)	8 (8%)	3 (3%)	3 14
52	1u	21/27 (78%)	18 (86%)	3 (14%)	0	100 100
52	2u	21/27 (78%)	15 (71%)	4 (19%)	2 (10%)	0 2
55	1z	14/16 (88%)	12 (86%)	1 (7%)	1 (7%)	1 4
55	2z	14/16 (88%)	13 (93%)	1 (7%)	0	100 100
All	All	11384/12160 (94%)	10190 (90%)	1061 (9%)	133 (1%)	10 32

All (133) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	1F	130	ALA
6	1G	43	LEU
7	1H	126	PRO
12	1Q	24	GLY
12	1Q	60	ARG
21	1Z	93	ASP
26	14	45	GLY
33	1b	22	LYS
33	1b	126	GLU
35	1d	5	ILE
38	1g	4	ARG
38	1g	80	VAL
41	1j	79	ARG
44	1m	67	GLU
44	1m	106	ASN
50	1s	81	ARG
5	2F	130	ALA
33	2b	16	HIS
33	2b	17	PHE
36	2e	98	THR
38	2g	80	VAL
38	2g	114	ARG
44	2m	67	GLU
52	2u	3	LYS
8	1I	42	SER
19	1X	93	GLU
23	11	3	LYS
26	14	50	VAL
26	14	61	ARG

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Mol	Chain	Res	Type
33	1b	13	ALA
33	1b	17	PHE
33	1b	129	GLU
34	1c	107	GLN
36	1e	85	GLY
38	1g	6	ARG
38	1g	55	GLY
43	1l	104	VAL
43	1l	106	ASP
45	1n	19	ARG
6	2G	51	ARG
8	2I	10	GLU
10	2O	54	GLU
11	2P	36	LYS
26	24	45	GLY
38	2g	7	ALA
38	2g	55	GLY
42	2k	49	GLY
44	2m	106	ASN
51	2t	47	GLY
4	1E	52	LEU
12	1Q	59	ARG
17	1V	79	VAL
20	1Y	54	LYS
21	1Z	120	ILE
26	14	62	ARG
33	1b	20	GLU
48	1q	67	LYS
8	2I	106	GLY
14	2S	96	GLY
22	20	33	ALA
36	2e	77	PRO
41	2j	78	ASN
51	2t	99	LEU
33	1b	124	SER
33	1b	125	PRO
33	1b	231	GLU
38	1g	86	GLN
46	1o	86	GLY
46	1o	88	ARG
51	1t	10	LEU
51	1t	47	GLY

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Mol	Chain	Res	Type
55	1z	15	TRP
4	2E	52	LEU
4	2E	157	ALA
5	2F	166	ALA
6	2G	44	GLY
6	2G	48	GLU
6	2G	170	ARG
8	2I	117	GLU
17	2V	79	VAL
20	2Y	80	GLY
26	24	29	PRO
26	24	49	PHE
35	2d	48	ALA
35	2d	167	GLY
37	2f	38	GLU
50	2s	54	GLY
52	2u	4	GLY
6	1G	110	ALA
8	1I	117	GLU
33	1b	202	PRO
33	1b	234	PRO
37	1f	38	GLU
41	1j	26	ALA
42	1k	49	GLY
48	1q	68	ARG
50	1s	24	ALA
5	2F	188	ARG
7	2H	69	ARG
10	2O	5	GLN
11	2P	28	GLY
17	2V	53	GLU
20	2Y	51	VAL
21	2Z	90	VAL
26	24	19	GLY
26	24	48	ARG
27	25	57	VAL
33	2b	10	LEU
33	2b	78	GLN
42	2k	106	LYS
43	2l	91	LYS
45	2n	52	GLN
51	2t	95	ALA

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Mol	Chain	Res	Type
20	1Y	103	GLY
41	1j	39	PRO
33	2b	20	GLU
35	2d	73	ARG
43	2l	104	VAL
45	2n	27	CYS
21	1Z	134	PRO
39	1h	83	ILE
33	2b	125	PRO
26	14	29	PRO
7	2H	29	PRO
44	2m	6	GLY
19	1X	94	GLY
11	2P	23	PRO
29	27	46	VAL
34	2c	55	VAL
35	2d	136	PRO
36	1e	69	VAL
42	2k	76	GLY
47	2p	53	VAL

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%)	191 (89%)	24 (11%)	6 20
3	2D	215/218 (99%)	185 (86%)	30 (14%)	3 13
4	1E	164/166 (99%)	142 (87%)	22 (13%)	4 14
4	2E	164/166 (99%)	143 (87%)	21 (13%)	4 15
5	1F	160/166 (96%)	141 (88%)	19 (12%)	5 18
5	2F	159/166 (96%)	141 (89%)	18 (11%)	5 20
6	1G	143/156 (92%)	129 (90%)	14 (10%)	7 26
6	2G	143/156 (92%)	120 (84%)	23 (16%)	2 9

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
7	1H	144/148 (97%)	125 (87%)	19 (13%)	4 14
7	2H	144/148 (97%)	134 (93%)	10 (7%)	14 38
8	1I	113/124 (91%)	100 (88%)	13 (12%)	5 19
8	2I	105/124 (85%)	87 (83%)	18 (17%)	2 8
9	1N	118/119 (99%)	104 (88%)	14 (12%)	5 18
9	2N	118/119 (99%)	101 (86%)	17 (14%)	3 12
10	1O	100/100 (100%)	93 (93%)	7 (7%)	14 38
10	2O	100/100 (100%)	96 (96%)	4 (4%)	28 56
11	1P	115/116 (99%)	99 (86%)	16 (14%)	3 13
11	2P	115/116 (99%)	99 (86%)	16 (14%)	3 13
12	1Q	111/111 (100%)	101 (91%)	10 (9%)	9 29
12	2Q	111/111 (100%)	96 (86%)	15 (14%)	4 14
13	1R	101/101 (100%)	92 (91%)	9 (9%)	9 29
13	2R	101/101 (100%)	98 (97%)	3 (3%)	36 62
14	1S	86/88 (98%)	72 (84%)	14 (16%)	2 9
14	2S	85/88 (97%)	70 (82%)	15 (18%)	2 7
15	1T	115/127 (91%)	107 (93%)	8 (7%)	14 38
15	2T	113/127 (89%)	102 (90%)	11 (10%)	8 26
16	1U	93/94 (99%)	88 (95%)	5 (5%)	20 46
16	2U	93/94 (99%)	90 (97%)	3 (3%)	34 60
17	1V	80/82 (98%)	71 (89%)	9 (11%)	5 20
17	2V	80/82 (98%)	69 (86%)	11 (14%)	3 13
18	1W	90/92 (98%)	85 (94%)	5 (6%)	19 45
18	2W	90/92 (98%)	82 (91%)	8 (9%)	9 29
19	1X	77/78 (99%)	74 (96%)	3 (4%)	28 56
19	2X	77/78 (99%)	74 (96%)	3 (4%)	28 56
20	1Y	85/91 (93%)	75 (88%)	10 (12%)	5 18
20	2Y	85/91 (93%)	77 (91%)	8 (9%)	8 27
21	1Z	135/179 (75%)	118 (87%)	17 (13%)	4 16
21	2Z	137/179 (76%)	120 (88%)	17 (12%)	4 16
22	10	61/67 (91%)	55 (90%)	6 (10%)	7 26

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
22	20	61/67 (91%)	56 (92%)	5 (8%)	10 32
23	11	80/83 (96%)	72 (90%)	8 (10%)	7 25
23	21	80/83 (96%)	73 (91%)	7 (9%)	9 30
24	12	65/67 (97%)	57 (88%)	8 (12%)	4 16
24	22	65/67 (97%)	61 (94%)	4 (6%)	16 42
25	13	51/52 (98%)	43 (84%)	8 (16%)	2 10
25	23	50/52 (96%)	45 (90%)	5 (10%)	7 25
26	14	59/63 (94%)	51 (86%)	8 (14%)	3 13
26	24	53/63 (84%)	42 (79%)	11 (21%)	1 4
27	15	50/52 (96%)	44 (88%)	6 (12%)	5 17
27	25	50/52 (96%)	46 (92%)	4 (8%)	11 33
28	16	51/52 (98%)	45 (88%)	6 (12%)	5 18
28	26	50/52 (96%)	44 (88%)	6 (12%)	5 17
29	17	41/42 (98%)	36 (88%)	5 (12%)	5 17
29	27	41/42 (98%)	38 (93%)	3 (7%)	13 36
30	18	54/55 (98%)	52 (96%)	2 (4%)	30 57
30	28	54/55 (98%)	51 (94%)	3 (6%)	19 45
31	19	34/34 (100%)	33 (97%)	1 (3%)	37 62
31	29	34/34 (100%)	31 (91%)	3 (9%)	9 30
33	1b	192/220 (87%)	172 (90%)	20 (10%)	7 23
33	2b	187/220 (85%)	169 (90%)	18 (10%)	8 26
34	1c	142/188 (76%)	124 (87%)	18 (13%)	4 16
34	2c	140/188 (74%)	120 (86%)	20 (14%)	3 12
35	1d	169/181 (93%)	148 (88%)	21 (12%)	4 16
35	2d	173/181 (96%)	157 (91%)	16 (9%)	8 28
36	1e	113/123 (92%)	100 (88%)	13 (12%)	5 19
36	2e	114/123 (93%)	99 (87%)	15 (13%)	4 14
37	1f	84/90 (93%)	77 (92%)	7 (8%)	10 32
37	2f	85/90 (94%)	78 (92%)	7 (8%)	10 32
38	1g	119/127 (94%)	105 (88%)	14 (12%)	5 18
38	2g	120/127 (94%)	107 (89%)	13 (11%)	6 22

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
39	1h	114/119 (96%)	100 (88%)	14 (12%)	4 16
39	2h	114/119 (96%)	104 (91%)	10 (9%)	9 30
40	1i	90/99 (91%)	80 (89%)	10 (11%)	6 21
40	2i	89/99 (90%)	76 (85%)	13 (15%)	3 12
41	1j	66/92 (72%)	61 (92%)	5 (8%)	12 35
41	2j	69/92 (75%)	59 (86%)	10 (14%)	3 12
42	1k	82/99 (83%)	77 (94%)	5 (6%)	17 42
42	2k	83/99 (84%)	76 (92%)	7 (8%)	10 31
43	1l	96/108 (89%)	83 (86%)	13 (14%)	4 14
43	2l	96/108 (89%)	85 (88%)	11 (12%)	5 19
44	1m	93/101 (92%)	78 (84%)	15 (16%)	2 9
44	2m	92/101 (91%)	79 (86%)	13 (14%)	3 12
45	1n	49/50 (98%)	42 (86%)	7 (14%)	3 12
45	2n	49/50 (98%)	43 (88%)	6 (12%)	5 17
46	1o	78/80 (98%)	71 (91%)	7 (9%)	9 29
46	2o	78/80 (98%)	71 (91%)	7 (9%)	9 29
47	1p	69/74 (93%)	55 (80%)	14 (20%)	1 4
47	2p	68/74 (92%)	57 (84%)	11 (16%)	2 9
48	1q	94/97 (97%)	80 (85%)	14 (15%)	3 11
48	2q	94/97 (97%)	87 (93%)	7 (7%)	13 36
49	1r	59/77 (77%)	54 (92%)	5 (8%)	10 31
49	2r	59/77 (77%)	52 (88%)	7 (12%)	5 18
50	1s	69/80 (86%)	65 (94%)	4 (6%)	18 44
50	2s	67/80 (84%)	54 (81%)	13 (19%)	1 5
51	1t	70/82 (85%)	60 (86%)	10 (14%)	3 12
51	2t	70/82 (85%)	66 (94%)	4 (6%)	18 45
52	1u	18/22 (82%)	17 (94%)	1 (6%)	19 45
52	2u	18/22 (82%)	15 (83%)	3 (17%)	2 8
55	1z	15/16 (94%)	14 (93%)	1 (7%)	15 39
55	2z	14/16 (88%)	13 (93%)	1 (7%)	13 37
All	All	9324/10096 (92%)	8296 (89%)	1028 (11%)	6 21

All (1028) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	3	VAL
3	1D	12	SER
3	1D	14	ARG
3	1D	22	SER
3	1D	32	SER
3	1D	61	LEU
3	1D	66	ASP
3	1D	99	ASP
3	1D	106	ILE
3	1D	122	ASP
3	1D	140	THR
3	1D	141	VAL
3	1D	142	VAL
3	1D	147	LEU
3	1D	193	VAL
3	1D	200	ASP
3	1D	211	ARG
3	1D	217	ARG
3	1D	221	VAL
3	1D	229	VAL
3	1D	242	ARG
3	1D	254	THR
3	1D	266	SER
3	1D	270	ILE
4	1E	5	LEU
4	1E	7	VAL
4	1E	9	VAL
4	1E	12	THR
4	1E	21	VAL
4	1E	23	VAL
4	1E	24	THR
4	1E	33	VAL
4	1E	34	VAL
4	1E	41	LYS
4	1E	49	LEU
4	1E	75	VAL
4	1E	82	ARG
4	1E	93	VAL
4	1E	104	VAL
4	1E	116	VAL
4	1E	134	ILE
4	1E	149	ARG

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Mol	Chain	Res	Type
4	1E	152	LYS
4	1E	163	GLU
4	1E	170	LEU
4	1E	178	GLU
5	1F	28	ILE
5	1F	52	LYS
5	1F	53	THR
5	1F	57	VAL
5	1F	64	ILE
5	1F	74	ARG
5	1F	78	ILE
5	1F	88	VAL
5	1F	106	ARG
5	1F	136	THR
5	1F	153	SER
5	1F	158	THR
5	1F	175	THR
5	1F	183	VAL
5	1F	187	VAL
5	1F	189	THR
5	1F	195	ASP
5	1F	201	VAL
5	1F	203	GLN
6	1G	5	VAL
6	1G	21	ARG
6	1G	28	VAL
6	1G	31	VAL
6	1G	43	LEU
6	1G	91	ARG
6	1G	128	ARG
6	1G	138	GLN
6	1G	139	LEU
6	1G	145	THR
6	1G	150	ASP
6	1G	159	VAL
6	1G	161	THR
6	1G	162	THR
7	1H	15	VAL
7	1H	16	SER
7	1H	18	GLU
7	1H	35	VAL
7	1H	37	VAL

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Mol	Chain	Res	Type
7	1H	45	VAL
7	1H	47	GLU
7	1H	49	VAL
7	1H	50	VAL
7	1H	58	GLU
7	1H	68	THR
7	1H	72	ILE
7	1H	98	LEU
7	1H	99	VAL
7	1H	105	LEU
7	1H	119	GLU
7	1H	122	THR
7	1H	136	ILE
7	1H	155	SER
8	1I	9	LEU
8	1I	10	GLU
8	1I	47	LEU
8	1I	57	ARG
8	1I	74	ASN
8	1I	82	ARG
8	1I	92	VAL
8	1I	93	THR
8	1I	96	ASP
8	1I	109	ILE
8	1I	140	LEU
8	1I	142	VAL
8	1I	145	VAL
9	1N	10	GLU
9	1N	22	THR
9	1N	28	THR
9	1N	33	LEU
9	1N	34	LEU
9	1N	46	VAL
9	1N	48	MET
9	1N	53	VAL
9	1N	62	VAL
9	1N	73	THR
9	1N	88	GLU
9	1N	99	LEU
9	1N	120	LEU
9	1N	139	GLU
10	1O	10	VAL

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Mol	Chain	Res	Type
10	1O	24	VAL
10	1O	53	LYS
10	1O	57	VAL
10	1O	69	ILE
10	1O	78	ARG
10	1O	98	VAL
11	1P	3	LEU
11	1P	21	ARG
11	1P	29	LYS
11	1P	30	THR
11	1P	42	SER
11	1P	56	SER
11	1P	59	LEU
11	1P	65	ARG
11	1P	67	MET
11	1P	70	GLN
11	1P	83	VAL
11	1P	95	VAL
11	1P	98	GLU
11	1P	99	LEU
11	1P	117	GLU
11	1P	125	VAL
12	1Q	7	MET
12	1Q	35	VAL
12	1Q	52	VAL
12	1Q	56	ARG
12	1Q	59	ARG
12	1Q	64	ILE
12	1Q	75	THR
12	1Q	110	THR
12	1Q	113	GLN
12	1Q	134	ARG
13	1R	1	MET
13	1R	6	SER
13	1R	8	ARG
13	1R	15	SER
13	1R	33	ARG
13	1R	44	LEU
13	1R	59	ASP
13	1R	102	GLU
13	1R	111	LEU
14	1S	8	GLU

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Mol	Chain	Res	Type
14	1S	12	PHE
14	1S	14	VAL
14	1S	36	TYR
14	1S	46	VAL
14	1S	49	VAL
14	1S	50	SER
14	1S	52	SER
14	1S	68	GLN
14	1S	69	VAL
14	1S	80	LEU
14	1S	85	VAL
14	1S	89	ARG
14	1S	98	VAL
15	1T	28	VAL
15	1T	29	ARG
15	1T	66	VAL
15	1T	88	ILE
15	1T	89	VAL
15	1T	96	ARG
15	1T	118	ARG
15	1T	128	GLU
16	1U	8	VAL
16	1U	74	LEU
16	1U	83	LEU
16	1U	101	ARG
16	1U	117	GLN
17	1V	1	MET
17	1V	7	THR
17	1V	14	VAL
17	1V	46	VAL
17	1V	52	VAL
17	1V	61	VAL
17	1V	72	VAL
17	1V	73	SER
17	1V	79	VAL
18	1W	17	VAL
18	1W	23	LEU
18	1W	92	ARG
18	1W	101	SER
18	1W	109	GLU
19	1X	23	GLU
19	1X	52	VAL

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Mol	Chain	Res	Type
19	1X	95	LEU
20	1Y	1	MET
20	1Y	7	VAL
20	1Y	9	LYS
20	1Y	37	VAL
20	1Y	40	GLU
20	1Y	51	VAL
20	1Y	55	TYR
20	1Y	61	ILE
20	1Y	70	SER
20	1Y	72	VAL
21	1Z	5	LEU
21	1Z	24	LEU
21	1Z	31	ARG
21	1Z	56	VAL
21	1Z	58	VAL
21	1Z	72	ARG
21	1Z	73	GLN
21	1Z	76	LEU
21	1Z	80	ARG
21	1Z	84	GLU
21	1Z	123	ASP
21	1Z	129	SER
21	1Z	136	PHE
21	1Z	139	VAL
21	1Z	141	VAL
21	1Z	161	VAL
21	1Z	169	GLU
22	10	10	THR
22	10	11	ARG
22	10	14	ARG
22	10	53	MET
22	10	58	THR
22	10	68	GLU
23	11	30	VAL
23	11	37	ILE
23	11	41	ARG
23	11	51	VAL
23	11	59	THR
23	11	70	VAL
23	11	83	GLU
23	11	95	LEU

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Mol	Chain	Res	Type
24	12	1	MET
24	12	3	LEU
24	12	19	VAL
24	12	40	SER
24	12	52	ASP
24	12	53	LEU
24	12	60	LEU
24	12	62	THR
25	13	20	LYS
25	13	31	LEU
25	13	36	VAL
25	13	40	THR
25	13	56	VAL
25	13	58	VAL
25	13	59	VAL
25	13	60	GLU
26	14	5	ILE
26	14	22	ILE
26	14	49	PHE
26	14	56	VAL
26	14	59	PHE
26	14	60	GLN
26	14	63	TYR
26	14	69	LYS
27	15	6	VAL
27	15	16	ARG
27	15	26	THR
27	15	40	LYS
27	15	55	ARG
27	15	60	VAL
28	16	5	VAL
28	16	6	ARG
28	16	13	CYS
28	16	19	ARG
28	16	47	THR
28	16	48	VAL
29	17	1	MET
29	17	24	THR
29	17	35	ARG
29	17	41	ARG
29	17	46	VAL
30	18	14	VAL

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Mol	Chain	Res	Type
30	18	23	VAL
31	19	1	MET
33	1b	8	LYS
33	1b	10	LEU
33	1b	19	HIS
33	1b	61	LEU
33	1b	69	LEU
33	1b	81	VAL
33	1b	95	GLN
33	1b	112	VAL
33	1b	117	GLU
33	1b	122	PHE
33	1b	140	HIS
33	1b	160	ASP
33	1b	162	ILE
33	1b	164	VAL
33	1b	172	ILE
33	1b	185	ILE
33	1b	196	LEU
33	1b	217	ARG
33	1b	221	LEU
33	1b	230	VAL
34	1c	15	THR
34	1c	19	GLU
34	1c	28	GLN
34	1c	36	ASP
34	1c	45	LYS
34	1c	59	ARG
34	1c	64	VAL
34	1c	70	VAL
34	1c	77	ILE
34	1c	105	GLU
34	1c	111	LEU
34	1c	119	ARG
34	1c	124	ILE
34	1c	154	SER
34	1c	166	GLU
34	1c	172	ARG
34	1c	195	VAL
34	1c	204	LEU
35	1d	3	ARG
35	1d	5	ILE

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Mol	Chain	Res	Type
35	1d	8	VAL
35	1d	12	CYS
35	1d	19	LEU
35	1d	45	GLN
35	1d	59	ARG
35	1d	86	LYS
35	1d	91	SER
35	1d	127	THR
35	1d	135	LEU
35	1d	157	LEU
35	1d	158	ILE
35	1d	170	VAL
35	1d	184	LYS
35	1d	186	LEU
35	1d	188	LEU
35	1d	190	ASP
35	1d	194	LEU
35	1d	196	LEU
35	1d	208	SER
36	1e	8	GLU
36	1e	10	MET
36	1e	16	THR
36	1e	27	ARG
36	1e	40	ARG
36	1e	41	VAL
36	1e	67	VAL
36	1e	79	GLU
36	1e	82	VAL
36	1e	88	LYS
36	1e	91	LEU
36	1e	131	ILE
36	1e	135	THR
37	1f	21	LEU
37	1f	55	ASP
37	1f	64	GLN
37	1f	72	VAL
37	1f	73	ASN
37	1f	75	LEU
37	1f	91	VAL
38	1g	9	VAL
38	1g	13	GLN
38	1g	15	ASP

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Mol	Chain	Res	Type
38	1g	28	ASN
38	1g	31	MET
38	1g	38	LEU
38	1g	45	ASP
38	1g	47	CYS
38	1g	72	ARG
38	1g	80	VAL
38	1g	104	LEU
38	1g	113	GLU
38	1g	135	VAL
38	1g	140	ASP
39	1h	3	THR
39	1h	18	ARG
39	1h	19	VAL
39	1h	26	VAL
39	1h	49	GLU
39	1h	59	LEU
39	1h	63	LEU
39	1h	83	ILE
39	1h	104	ARG
39	1h	109	ILE
39	1h	112	LEU
39	1h	115	SER
39	1h	120	THR
39	1h	122	ARG
40	1i	50	LEU
40	1i	53	VAL
40	1i	64	THR
40	1i	86	VAL
40	1i	92	TYR
40	1i	103	THR
40	1i	104	ARG
40	1i	121	ARG
40	1i	127	LYS
40	1i	128	ARG
41	1j	38	ILE
41	1j	46	ARG
41	1j	67	THR
41	1j	84	GLN
41	1j	94	VAL
42	1k	33	THR
42	1k	48	ILE

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Mol	Chain	Res	Type
42	1k	57	THR
42	1k	87	THR
42	1k	114	VAL
43	1l	6	THR
43	1l	18	VAL
43	1l	36	VAL
43	1l	40	VAL
43	1l	42	THR
43	1l	54	LYS
43	1l	55	VAL
43	1l	66	VAL
43	1l	67	THR
43	1l	78	GLN
43	1l	83	VAL
43	1l	91	LYS
43	1l	118	SER
44	1m	4	ILE
44	1m	8	GLU
44	1m	11	ARG
44	1m	34	LEU
44	1m	43	THR
44	1m	49	THR
44	1m	63	THR
44	1m	64	TRP
44	1m	71	ARG
44	1m	94	ARG
44	1m	105	THR
44	1m	106	ASN
44	1m	109	THR
44	1m	116	THR
44	1m	121	LYS
45	1n	7	ILE
45	1n	17	LYS
45	1n	18	VAL
45	1n	22	THR
45	1n	29	ARG
45	1n	33	VAL
45	1n	60	SER
46	1o	5	LYS
46	1o	6	GLU
46	1o	7	GLU
46	1o	21	ASP

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Mol	Chain	Res	Type
46	1o	27	VAL
46	1o	56	LEU
46	1o	77	ARG
47	1p	1	MET
47	1p	2	VAL
47	1p	5	ARG
47	1p	6	LEU
47	1p	11	SER
47	1p	21	VAL
47	1p	35	LYS
47	1p	38	TYR
47	1p	42	ARG
47	1p	45	THR
47	1p	54	GLU
47	1p	62	VAL
47	1p	67	THR
47	1p	72	ARG
48	1q	5	VAL
48	1q	9	VAL
48	1q	19	VAL
48	1q	48	GLU
48	1q	52	LYS
48	1q	60	ILE
48	1q	63	ARG
48	1q	69	LYS
48	1q	74	LEU
48	1q	85	VAL
48	1q	87	LYS
48	1q	93	GLN
48	1q	96	GLU
48	1q	98	LEU
49	1r	21	LYS
49	1r	23	LYS
49	1r	66	LEU
49	1r	76	LEU
49	1r	82	THR
50	1s	12	ASP
50	1s	30	LEU
50	1s	48	THR
50	1s	49	ILE
51	1t	8	ARG
51	1t	9	ASN

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Mol	Chain	Res	Type
51	1t	10	LEU
51	1t	51	GLU
51	1t	55	ILE
51	1t	71	THR
51	1t	75	ASN
51	1t	80	ARG
51	1t	91	LEU
51	1t	100	ILE
52	1u	15	ARG
55	1z	9	ARG
3	2D	3	VAL
3	2D	54	ARG
3	2D	64	ILE
3	2D	69	ARG
3	2D	89	SER
3	2D	94	LEU
3	2D	99	ASP
3	2D	106	ILE
3	2D	111	LEU
3	2D	113	VAL
3	2D	131	LEU
3	2D	134	ARG
3	2D	138	VAL
3	2D	142	VAL
3	2D	157	ARG
3	2D	161	THR
3	2D	165	ILE
3	2D	173	VAL
3	2D	177	LEU
3	2D	183	ARG
3	2D	193	VAL
3	2D	200	ASP
3	2D	211	ARG
3	2D	221	VAL
3	2D	229	VAL
3	2D	239	ARG
3	2D	242	ARG
3	2D	267	SER
3	2D	274	ARG
3	2D	276	LYS
4	2E	1	MET
4	2E	9	VAL

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Mol	Chain	Res	Type
4	2E	17	ASP
4	2E	21	VAL
4	2E	24	THR
4	2E	33	VAL
4	2E	34	VAL
4	2E	52	LEU
4	2E	75	VAL
4	2E	77	ILE
4	2E	90	THR
4	2E	91	VAL
4	2E	94	GLU
4	2E	102	VAL
4	2E	116	VAL
4	2E	134	ILE
4	2E	156	MET
4	2E	173	VAL
4	2E	175	VAL
4	2E	181	LEU
4	2E	184	VAL
5	2F	12	LEU
5	2F	33	LEU
5	2F	46	ARG
5	2F	51	THR
5	2F	74	ARG
5	2F	88	VAL
5	2F	108	LYS
5	2F	110	LEU
5	2F	127	GLU
5	2F	132	VAL
5	2F	135	LYS
5	2F	153	SER
5	2F	157	VAL
5	2F	183	VAL
5	2F	192	LEU
5	2F	200	GLU
5	2F	201	VAL
5	2F	206	ILE
6	2G	3	LEU
6	2G	5	VAL
6	2G	10	LYS
6	2G	16	ARG
6	2G	18	GLU

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Mol	Chain	Res	Type
6	2G	28	VAL
6	2G	43	LEU
6	2G	47	LYS
6	2G	51	ARG
6	2G	60	LEU
6	2G	92	VAL
6	2G	96	ARG
6	2G	108	ASN
6	2G	130	ASN
6	2G	133	LEU
6	2G	135	LEU
6	2G	140	ILE
6	2G	145	THR
6	2G	152	LEU
6	2G	159	VAL
6	2G	161	THR
6	2G	165	THR
6	2G	167	GLU
7	2H	15	VAL
7	2H	19	VAL
7	2H	35	VAL
7	2H	50	VAL
7	2H	99	VAL
7	2H	106	THR
7	2H	114	VAL
7	2H	119	GLU
7	2H	124	GLU
7	2H	131	VAL
8	2I	9	LEU
8	2I	12	LEU
8	2I	20	ASP
8	2I	31	LEU
8	2I	38	LEU
8	2I	44	LEU
8	2I	51	ILE
8	2I	75	LEU
8	2I	85	GLU
8	2I	92	VAL
8	2I	93	THR
8	2I	101	LEU
8	2I	107	VAL
8	2I	123	LEU

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Mol	Chain	Res	Type
8	2I	127	VAL
8	2I	140	LEU
8	2I	142	VAL
8	2I	144	VAL
9	2N	3	THR
9	2N	10	GLU
9	2N	12	ARG
9	2N	21	LYS
9	2N	22	THR
9	2N	28	THR
9	2N	32	THR
9	2N	33	LEU
9	2N	34	LEU
9	2N	43	THR
9	2N	48	MET
9	2N	60	ILE
9	2N	68	GLU
9	2N	90	MET
9	2N	96	GLU
9	2N	98	VAL
9	2N	127	ASP
10	2O	9	GLU
10	2O	69	ILE
10	2O	96	THR
10	2O	98	VAL
11	2P	7	ARG
11	2P	32	THR
11	2P	36	LYS
11	2P	42	SER
11	2P	45	LEU
11	2P	56	SER
11	2P	57	THR
11	2P	58	THR
11	2P	75	ILE
11	2P	86	LYS
11	2P	95	VAL
11	2P	100	LEU
11	2P	106	LEU
11	2P	125	VAL
11	2P	138	LEU
11	2P	148	LEU
12	2Q	1	MET

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Mol	Chain	Res	Type
12	2Q	21	THR
12	2Q	25	ASP
12	2Q	38	GLU
12	2Q	55	VAL
12	2Q	79	LEU
12	2Q	85	LYS
12	2Q	90	VAL
12	2Q	98	LYS
12	2Q	106	VAL
12	2Q	109	VAL
12	2Q	110	THR
12	2Q	112	GLU
12	2Q	129	THR
12	2Q	133	ARG
13	2R	28	LEU
13	2R	29	LEU
13	2R	107	ASP
14	2S	5	THR
14	2S	8	GLU
14	2S	13	ARG
14	2S	14	VAL
14	2S	18	ILE
14	2S	21	THR
14	2S	27	SER
14	2S	28	VAL
14	2S	33	LYS
14	2S	35	ILE
14	2S	48	LEU
14	2S	58	LEU
14	2S	75	GLU
14	2S	78	LEU
14	2S	98	VAL
15	2T	15	VAL
15	2T	28	VAL
15	2T	38	ASN
15	2T	39	ARG
15	2T	49	VAL
15	2T	51	ARG
15	2T	63	VAL
15	2T	89	VAL
15	2T	96	ARG
15	2T	107	ASP

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Mol	Chain	Res	Type
15	2T	108	ARG
16	2U	31	SER
16	2U	74	LEU
16	2U	114	LYS
17	2V	13	ARG
17	2V	14	VAL
17	2V	15	GLU
17	2V	38	LEU
17	2V	46	VAL
17	2V	61	VAL
17	2V	70	ILE
17	2V	72	VAL
17	2V	79	VAL
17	2V	82	ARG
17	2V	93	GLU
18	2W	17	VAL
18	2W	35	ILE
18	2W	59	VAL
18	2W	67	ASP
18	2W	70	TYR
18	2W	100	THR
18	2W	107	LEU
18	2W	109	GLU
19	2X	43	VAL
19	2X	45	THR
19	2X	66	LEU
20	2Y	3	VAL
20	2Y	7	VAL
20	2Y	14	LEU
20	2Y	19	LYS
20	2Y	30	VAL
20	2Y	38	ILE
20	2Y	71	LYS
20	2Y	88	LYS
21	2Z	33	LEU
21	2Z	42	VAL
21	2Z	53	ILE
21	2Z	66	SER
21	2Z	69	THR
21	2Z	71	VAL
21	2Z	86	VAL
21	2Z	93	ASP

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Mol	Chain	Res	Type
21	2Z	94	GLU
21	2Z	123	ASP
21	2Z	126	VAL
21	2Z	144	LEU
21	2Z	154	ASP
21	2Z	157	LEU
21	2Z	161	VAL
21	2Z	171	ILE
21	2Z	174	VAL
22	20	11	ARG
22	20	14	ARG
22	20	27	GLU
22	20	64	ASP
22	20	66	VAL
23	21	4	VAL
23	21	14	VAL
23	21	35	THR
23	21	59	THR
23	21	61	ARG
23	21	65	SER
23	21	95	LEU
24	22	10	LEU
24	22	40	SER
24	22	53	LEU
24	22	59	ARG
25	23	5	LYS
25	23	30	ARG
25	23	52	HIS
25	23	53	LEU
25	23	54	VAL
26	24	5	ILE
26	24	10	VAL
26	24	34	GLU
26	24	42	PHE
26	24	44	THR
26	24	49	PHE
26	24	50	VAL
26	24	53	GLU
26	24	56	VAL
26	24	62	ARG
26	24	63	TYR
27	25	6	VAL

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Mol	Chain	Res	Type
27	25	16	ARG
27	25	29	THR
27	25	56	LYS
28	26	15	GLU
28	26	32	ASN
28	26	40	CYS
28	26	48	VAL
28	26	51	GLU
28	26	54	ILE
29	27	10	ARG
29	27	42	LEU
29	27	48	LYS
30	28	14	VAL
30	28	32	LEU
30	28	41	ILE
31	29	6	SER
31	29	7	VAL
31	29	22	ARG
33	2b	7	VAL
33	2b	8	LYS
33	2b	24	TRP
33	2b	33	TYR
33	2b	44	LEU
33	2b	80	ILE
33	2b	93	VAL
33	2b	107	THR
33	2b	118	LEU
33	2b	119	GLU
33	2b	127	ILE
33	2b	150	SER
33	2b	160	ASP
33	2b	168	THR
33	2b	187	LEU
33	2b	195	ASP
33	2b	224	GLN
33	2b	230	VAL
34	2c	15	THR
34	2c	30	ARG
34	2c	32	LEU
34	2c	34	LEU
34	2c	55	VAL
34	2c	63	ASN

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Mol	Chain	Res	Type
34	2c	67	THR
34	2c	68	VAL
34	2c	77	ILE
34	2c	98	ASN
34	2c	125	GLU
34	2c	151	VAL
34	2c	153	VAL
34	2c	157	ILE
34	2c	164	ARG
34	2c	165	THR
34	2c	179	ARG
34	2c	190	ARG
34	2c	191	THR
34	2c	202	ILE
35	2d	8	VAL
35	2d	63	LYS
35	2d	70	ILE
35	2d	76	ARG
35	2d	78	LEU
35	2d	94	LEU
35	2d	96	LEU
35	2d	108	LEU
35	2d	118	ARG
35	2d	123	HIS
35	2d	135	LEU
35	2d	141	ARG
35	2d	158	ILE
35	2d	170	VAL
35	2d	178	VAL
35	2d	194	LEU
36	2e	10	MET
36	2e	18	ARG
36	2e	27	ARG
36	2e	41	VAL
36	2e	53	LEU
36	2e	55	VAL
36	2e	68	GLU
36	2e	78	HIS
36	2e	79	GLU
36	2e	81	GLU
36	2e	87	SER
36	2e	120	THR

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Mol	Chain	Res	Type
36	2e	133	TYR
36	2e	144	THR
36	2e	150	ARG
37	2f	10	LEU
37	2f	17	SER
37	2f	19	LEU
37	2f	37	VAL
37	2f	40	VAL
37	2f	79	LEU
37	2f	89	MET
38	2g	6	ARG
38	2g	9	VAL
38	2g	16	LEU
38	2g	22	LEU
38	2g	33	ASP
38	2g	52	GLU
38	2g	56	GLN
38	2g	73	MET
38	2g	91	VAL
38	2g	102	ARG
38	2g	105	VAL
38	2g	115	ARG
38	2g	125	MET
39	2h	8	ASP
39	2h	26	VAL
39	2h	32	LYS
39	2h	37	ARG
39	2h	60	ARG
39	2h	93	VAL
39	2h	97	VAL
39	2h	99	GLU
39	2h	104	ARG
39	2h	109	ILE
40	2i	17	VAL
40	2i	27	THR
40	2i	50	LEU
40	2i	56	LEU
40	2i	60	ASP
40	2i	75	ASP
40	2i	93	ARG
40	2i	102	LEU
40	2i	105	ASP

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Mol	Chain	Res	Type
40	2i	108	VAL
40	2i	117	HIS
40	2i	121	ARG
40	2i	124	GLN
41	2j	13	HIS
41	2j	15	THR
41	2j	21	GLN
41	2j	29	ARG
41	2j	34	VAL
41	2j	65	LEU
41	2j	67	THR
41	2j	72	VAL
41	2j	85	LEU
41	2j	95	GLU
42	2k	14	VAL
42	2k	28	THR
42	2k	30	VAL
42	2k	66	LEU
42	2k	93	GLN
42	2k	107	SER
42	2k	114	VAL
43	2l	18	VAL
43	2l	40	VAL
43	2l	52	LEU
43	2l	55	VAL
43	2l	57	LYS
43	2l	66	VAL
43	2l	86	ARG
43	2l	102	ARG
43	2l	105	TYR
43	2l	117	ARG
43	2l	124	LYS
44	2m	4	ILE
44	2m	8	GLU
44	2m	19	LEU
44	2m	45	VAL
44	2m	47	ASP
44	2m	48	LEU
44	2m	54	VAL
44	2m	55	ARG
44	2m	64	TRP
44	2m	74	VAL

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Mol	Chain	Res	Type
44	2m	78	ILE
44	2m	98	VAL
44	2m	103	THR
45	2n	11	LYS
45	2n	13	THR
45	2n	18	VAL
45	2n	26	ARG
45	2n	33	VAL
45	2n	44	LEU
46	2o	6	GLU
46	2o	54	ARG
46	2o	56	LEU
46	2o	59	MET
46	2o	72	ARG
46	2o	76	GLU
46	2o	87	ILE
47	2p	2	VAL
47	2p	6	LEU
47	2p	20	VAL
47	2p	21	VAL
47	2p	27	LYS
47	2p	40	ASP
47	2p	45	THR
47	2p	49	LEU
47	2p	53	VAL
47	2p	69	THR
47	2p	79	VAL
48	2q	7	THR
48	2q	9	VAL
48	2q	15	MET
48	2q	57	VAL
48	2q	62	SER
48	2q	74	LEU
48	2q	86	GLU
49	2r	38	GLU
49	2r	44	LEU
49	2r	45	SER
49	2r	54	ARG
49	2r	69	THR
49	2r	84	LYS
49	2r	85	LEU
50	2s	3	ARG

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Mol	Chain	Res	Type
50	2s	14	HIS
50	2s	15	LEU
50	2s	16	LEU
50	2s	30	LEU
50	2s	33	THR
50	2s	37	ARG
50	2s	41	VAL
50	2s	63	THR
50	2s	65	ASN
50	2s	66	MET
50	2s	79	THR
50	2s	83	HIS
51	2t	10	LEU
51	2t	56	MET
51	2t	64	ASP
51	2t	70	SER
52	2u	3	LYS
52	2u	13	ILE
52	2u	15	ARG
55	2z	4	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (135) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	87	ASN
3	1D	164	GLN
3	1D	201	HIS
3	1D	220	HIS
4	1E	48	GLN
4	1E	137	HIS
4	1E	143	ASN
4	1E	180	ASN
5	1F	29	ASN
5	1F	67	GLN
5	1F	133	ASN
5	1F	203	GLN
6	1G	132	ASN
6	1G	138	GLN
7	1H	74	ASN
8	1I	11	ASN
8	1I	54	GLN
8	1I	139	GLN

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Mol	Chain	Res	Type
11	1P	84	ASN
12	1Q	57	HIS
13	1R	50	HIS
13	1R	91	GLN
15	1T	58	ASN
18	1W	60	ASN
19	1X	31	HIS
20	1Y	6	HIS
20	1Y	43	ASN
21	1Z	32	HIS
21	1Z	121	HIS
21	1Z	151	HIS
24	12	70	GLN
26	14	47	GLN
26	14	60	GLN
28	16	20	ASN
29	17	36	GLN
31	19	29	ASN
33	1b	16	HIS
33	1b	40	HIS
33	1b	95	GLN
33	1b	113	HIS
34	1c	6	HIS
34	1c	28	GLN
34	1c	162	GLN
35	1d	42	GLN
35	1d	77	ASN
35	1d	116	GLN
35	1d	119	GLN
35	1d	123	HIS
35	1d	160	GLN
36	1e	20	GLN
36	1e	78	HIS
37	1f	7	ASN
37	1f	13	ASN
37	1f	100	ASN
38	1g	13	GLN
38	1g	28	ASN
38	1g	97	GLN
39	1h	82	HIS
40	1i	29	ASN
40	1i	31	GLN

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Mol	Chain	Res	Type
40	1i	34	ASN
40	1i	124	GLN
41	1j	68	HIS
42	1k	78	GLN
46	1o	13	GLN
47	1p	13	HIS
47	1p	65	GLN
48	1q	45	HIS
49	1r	63	GLN
50	1s	57	HIS
50	1s	83	HIS
3	2D	87	ASN
3	2D	126	GLN
3	2D	166	GLN
4	2E	48	GLN
4	2E	66	HIS
5	2F	133	ASN
5	2F	203	GLN
6	2G	123	ASN
6	2G	132	ASN
10	2O	90	GLN
11	2P	27	HIS
12	2Q	12	GLN
12	2Q	89	ASN
13	2R	13	HIS
13	2R	24	GLN
13	2R	71	GLN
13	2R	91	GLN
14	2S	38	GLN
15	2T	43	GLN
15	2T	55	ASN
15	2T	58	ASN
15	2T	84	GLN
15	2T	123	GLN
16	2U	81	HIS
16	2U	94	ASN
16	2U	117	GLN
17	2V	64	HIS
17	2V	80	GLN
21	2Z	32	HIS
21	2Z	55	HIS
21	2Z	73	GLN

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Mol	Chain	Res	Type
21	2Z	75	ASN
21	2Z	151	HIS
22	20	35	ASN
23	21	19	GLN
23	21	56	GLN
24	22	65	ASN
27	25	23	HIS
28	26	20	ASN
30	28	43	GLN
31	29	36	GLN
33	2b	40	HIS
34	2c	37	GLN
34	2c	102	ASN
34	2c	118	GLN
34	2c	162	GLN
35	2d	116	GLN
35	2d	119	GLN
35	2d	123	HIS
35	2d	161	ASN
36	2e	56	GLN
36	2e	65	ASN
37	2f	100	ASN
38	2g	122	HIS
40	2i	38	GLN
40	2i	73	GLN
42	2k	93	GLN
44	2m	77	ASN
49	2r	63	GLN
50	2s	14	HIS
50	2s	57	HIS
51	2t	9	ASN
51	2t	42	GLN
51	2t	75	ASN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2863/2915 (98%)	473 (16%)	26 (0%)
1	2A	2791/2915 (95%)	507 (18%)	22 (0%)
2	1B	119/121 (98%)	11 (9%)	0
2	2B	118/121 (97%)	32 (27%)	0

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
32	1a	1497/1521 (98%)	262 (17%)	0
32	2a	1501/1521 (98%)	307 (20%)	0
53	1v	12/24 (50%)	5 (41%)	0
53	2v	12/24 (50%)	5 (41%)	0
54	1x	75/77 (97%)	9 (12%)	0
54	2x	75/77 (97%)	11 (14%)	0
All	All	9063/9316 (97%)	1622 (17%)	48 (0%)

All (1622) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	12	U
1	1A	13	A
1	1A	34	C
1	1A	45	C
1	1A	50	U
1	1A	55	G
1	1A	61	G
1	1A	63	U
1	1A	64	A
1	1A	71	A
1	1A	74	A
1	1A	75	G
1	1A	84	A
1	1A	102	G
1	1A	118	A
1	1A	119	A
1	1A	120	U
1	1A	125	G
1	1A	141	A
1	1A	177	G
1	1A	196	A
1	1A	199	A
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	228	A
1	1A	229	A
1	1A	230	U

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Mol	Chain	Res	Type
1	1A	233	A
1	1A	241	A
1	1A	248	G
1	1A	269	U
1	1A	271(L)	U
1	1A	271(M)	G
1	1A	271(O)	C
1	1A	271(P)	C
1	1A	272(B)	G
1	1A	279	C
1	1A	294	A
1	1A	308	G
1	1A	311	A
1	1A	324	A
1	1A	329	G
1	1A	330	A
1	1A	342	G
1	1A	352	G
1	1A	363	G
1	1A	363(B)	G
1	1A	371	A
1	1A	372	G
1	1A	383	U
1	1A	386	G
1	1A	396	G
1	1A	405	U
1	1A	407	G
1	1A	411	G
1	1A	412	A
1	1A	428	A
1	1A	444	C
1	1A	448	U
1	1A	457	A
1	1A	479	A
1	1A	481	G
1	1A	494	G
1	1A	504	U
1	1A	505	A
1	1A	508	G
1	1A	509	C
1	1A	530	G
1	1A	531	C

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Mol	Chain	Res	Type
1	1A	532	A
1	1A	533	G
1	1A	549	G
1	1A	563	G
1	1A	573	G
1	1A	574	C
1	1A	575	A
1	1A	603	A
1	1A	604	G
1	1A	607	U
1	1A	610	G
1	1A	614(A)	U
1	1A	614(B)	G
1	1A	614(C)	A
1	1A	615	G
1	1A	619	G
1	1A	627	A
1	1A	631	A
1	1A	637	A
1	1A	645	C
1	1A	646	A
1	1A	648	G
1	1A	652(E)	G
1	1A	652(T)	C
1	1A	669	G
1	1A	686	G
1	1A	717	G
1	1A	719	C
1	1A	730	C
1	1A	740	U
1	1A	764	A
1	1A	775	G
1	1A	776	G
1	1A	782	A
1	1A	784	A
1	1A	785	G
1	1A	789	A
1	1A	792	G
1	1A	793	A
1	1A	794	G
1	1A	805	G
1	1A	812	C

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Mol	Chain	Res	Type
1	1A	819	A
1	1A	824	A
1	1A	827	U
1	1A	828	U
1	1A	831	G
1	1A	869	G
1	1A	879	G
1	1A	880	G
1	1A	881	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	896	A
1	1A	897	C
1	1A	898	C
1	1A	910	A
1	1A	932	G
1	1A	938	G
1	1A	945	A
1	1A	946	G
1	1A	953	A
1	1A	959	A
1	1A	961	C
1	1A	968	G
1	1A	974	G
1	1A	975	C
1	1A	975(A)	G
1	1A	983	A
1	1A	996	A
1	1A	1012	U
1	1A	1013	C
1	1A	1022	G
1	1A	1026	U
1	1A	1027	A
1	1A	1033	U
1	1A	1038	C
1	1A	1041	C
1	1A	1044	G

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Mol	Chain	Res	Type
1	1A	1045	A
1	1A	1046	A
1	1A	1047	G
1	1A	1054	A
1	1A	1055	G
1	1A	1057	A
1	1A	1058	G
1	1A	1059	G
1	1A	1064	C
1	1A	1066	U
1	1A	1068	G
1	1A	1070	A
1	1A	1071	G
1	1A	1073	A
1	1A	1074	G
1	1A	1075	C
1	1A	1076	C
1	1A	1078	U
1	1A	1079	C
1	1A	1081	U
1	1A	1088	A
1	1A	1094	U
1	1A	1096	A
1	1A	1101	U
1	1A	1105	U
1	1A	1110	G
1	1A	1112	G
1	1A	1116	C
1	1A	1129	A
1	1A	1130	U
1	1A	1135	C
1	1A	1136	G
1	1A	1141	U
1	1A	1142(A)	A
1	1A	1155	A
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

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Mol	Chain	Res	Type
1	1A	1189	A
1	1A	1218	C
1	1A	1250	G
1	1A	1253	A
1	1A	1256	G
1	1A	1268	A
1	1A	1271	G
1	1A	1272	A
1	1A	1273	U
1	1A	1274	A
1	1A	1275	A
1	1A	1287	A
1	1A	1300	U
1	1A	1301	A
1	1A	1320	C
1	1A	1329	U
1	1A	1345	C
1	1A	1352	U
1	1A	1359	A
1	1A	1360	A
1	1A	1365	A
1	1A	1380	G
1	1A	1384	A
1	1A	1385	G
1	1A	1386	C
1	1A	1395	A
1	1A	1396	U
1	1A	1416	G
1	1A	1417	C
1	1A	1420	U
1	1A	1421	G
1	1A	1428	C
1	1A	1437	C
1	1A	1445	A
1	1A	1450	G
1	1A	1453	U
1	1A	1455	G
1	1A	1461	G
1	1A	1467	C
1	1A	1482	G
1	1A	1493	C
1	1A	1497	U

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Mol	Chain	Res	Type
1	1A	1507	A
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1525	G
1	1A	1540	U
1	1A	1542	A
1	1A	1543	C
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	1609	A
1	1A	1610	A
1	1A	1616	A
1	1A	1646	C
1	1A	1647	G
1	1A	1648	C
1	1A	1653	G
1	1A	1654	A
1	1A	1667	G
1	1A	1674	G
1	1A	1676	A
1	1A	1700	A
1	1A	1701	A
1	1A	1722	A
1	1A	1739	U
1	1A	1746	G
1	1A	1762	A
1	1A	1763	G
1	1A	1764	G
1	1A	1773	A
1	1A	1780	A
1	1A	1781	C
1	1A	1782	C
1	1A	1791	A
1	1A	1800	C
1	1A	1816	G
1	1A	1829	A

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Mol	Chain	Res	Type
1	1A	1847	A
1	1A	1858	G
1	1A	1878	G
1	1A	1900	A
1	1A	1906	G
1	1A	1913	A
1	1A	1914	C
1	1A	1919	A
1	1A	1927	A
1	1A	1929	G
1	1A	1930	G
1	1A	1934	C
1	1A	1936	A
1	1A	1937	A
1	1A	1938	A
1	1A	1941	C
1	1A	1952	A
1	1A	1955	U
1	1A	1963	U
1	1A	1965	C
1	1A	1967	C
1	1A	1970	A
1	1A	1971	A
1	1A	1972	A
1	1A	1992	G
1	1A	1993	U
1	1A	1997	G
1	1A	2020	A
1	1A	2021	C
1	1A	2023	G
1	1A	2027	G
1	1A	2031	A
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	2067	G

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Mol	Chain	Res	Type
1	1A	2069	G
1	1A	2096	U
1	1A	2097	C
1	1A	2099	U
1	1A	2101	G
1	1A	2110	G
1	1A	2112	G
1	1A	2113	U
1	1A	2114	A
1	1A	2121	G
1	1A	2123	G
1	1A	2125	G
1	1A	2126	A
1	1A	2127	G
1	1A	2129	C
1	1A	2131	G
1	1A	2132	U
1	1A	2133	G
1	1A	2134	A
1	1A	2135	A
1	1A	2140	C
1	1A	2142	C
1	1A	2144	U
1	1A	2146	C
1	1A	2149	G
1	1A	2151	G
1	1A	2152	G
1	1A	2156	G
1	1A	2157	G
1	1A	2158	A
1	1A	2159	G
1	1A	2161	C
1	1A	2163	C
1	1A	2165	G
1	1A	2166	G
1	1A	2168	G
1	1A	2171	A
1	1A	2172	U
1	1A	2173	A
1	1A	2175	C
1	1A	2178	C
1	1A	2181	G

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Mol	Chain	Res	Type
1	1A	2182	G
1	1A	2183	C
1	1A	2184	G
1	1A	2192	G
1	1A	2198	A
1	1A	2206	G
1	1A	2207	G
1	1A	2208	A
1	1A	2219	G
1	1A	2225	A
1	1A	2238	G
1	1A	2239	G
1	1A	2267	A
1	1A	2268	A
1	1A	2269	A
1	1A	2283	C
1	1A	2287	A
1	1A	2294	C
1	1A	2295	C
1	1A	2305	A
1	1A	2308	G
1	1A	2309	A
1	1A	2312	U
1	1A	2315	G
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	2361	A
1	1A	2372	G
1	1A	2377	A
1	1A	2383	G
1	1A	2385	C
1	1A	2391	G
1	1A	2406	U
1	1A	2425	A
1	1A	2429	G
1	1A	2430	A
1	1A	2432	A
1	1A	2435	A

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Mol	Chain	Res	Type
1	1A	2439	A
1	1A	2441	C
1	1A	2448	A
1	1A	2474	C
1	1A	2476	A
1	1A	2498	C
1	1A	2502	G
1	1A	2505	G
1	1A	2506	U
1	1A	2518	A
1	1A	2520	C
1	1A	2529	G
1	1A	2549	G
1	1A	2554	U
1	1A	2566	A
1	1A	2567	G
1	1A	2570	G
1	1A	2582	G
1	1A	2586	C
1	1A	2602	A
1	1A	2604	U
1	1A	2609	U
1	1A	2611	U
1	1A	2612	C
1	1A	2615	U
1	1A	2629	A
1	1A	2630	G
1	1A	2654	A
1	1A	2663	G
1	1A	2670	A
1	1A	2689	U
1	1A	2690	C
1	1A	2691	C
1	1A	2702	U
1	1A	2703	C
1	1A	2712(A)	A
1	1A	2713	A
1	1A	2726	U
1	1A	2733	A
1	1A	2739	U
1	1A	2744	G
1	1A	2757	A

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Mol	Chain	Res	Type
1	1A	2761	G
1	1A	2765	A
1	1A	2766	G
1	1A	2769	C
1	1A	2778	A
1	1A	2790	A
1	1A	2791	C
1	1A	2792	G
1	1A	2802	G
1	1A	2803	C
1	1A	2807	G
1	1A	2808	U
1	1A	2818	G
1	1A	2820	A
1	1A	2821	A
1	1A	2833	G
1	1A	2835	A
1	1A	2850	A
1	1A	2872	G
1	1A	2880	C
1	1A	2892	A
1	1A	2894	G
2	1B	2	C
2	1B	10	C
2	1B	12	C
2	1B	13	A
2	1B	33	G
2	1B	42	C
2	1B	56	G
2	1B	73	A
2	1B	98	G
2	1B	106	G
2	1B	110	G
32	1a	7	G
32	1a	9	G
32	1a	10	A
32	1a	22	G
32	1a	32	A
32	1a	39	G
32	1a	47	C
32	1a	48	C
32	1a	50	A

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Mol	Chain	Res	Type
32	1a	51	A
32	1a	54	C
32	1a	61	G
32	1a	69	G
32	1a	73	G
32	1a	79	G
32	1a	91	C
32	1a	98	G
32	1a	101	A
32	1a	111	G
32	1a	116	A
32	1a	121	C
32	1a	122	G
32	1a	129(A)	G
32	1a	131	C
32	1a	140	A
32	1a	144	G
32	1a	145	G
32	1a	146	G
32	1a	162	A
32	1a	163	C
32	1a	164	U
32	1a	174	C
32	1a	182	U
32	1a	189(D)	C
32	1a	189(G)	G
32	1a	189(H)	G
32	1a	189(L)	G
32	1a	195	A
32	1a	197	A
32	1a	201	C
32	1a	202	U
32	1a	203	U
32	1a	204	U
32	1a	216	G
32	1a	222	U
32	1a	247	G
32	1a	251	G
32	1a	266	G
32	1a	267	C
32	1a	274	A
32	1a	289	G

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Mol	Chain	Res	Type
32	1a	301	G
32	1a	321	A
32	1a	328	C
32	1a	332	G
32	1a	342	C
32	1a	344	A
32	1a	348	G
32	1a	351	G
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	356	A
32	1a	367	U
32	1a	372	C
32	1a	373	A
32	1a	384	G
32	1a	397	A
32	1a	398	C
32	1a	406	G
32	1a	412	A
32	1a	413	G
32	1a	424	G
32	1a	428	G
32	1a	429	U
32	1a	439	A
32	1a	452	A
32	1a	453	A
32	1a	461	A
32	1a	470	C
32	1a	475	G
32	1a	485	G
32	1a	496	A
32	1a	498	U
32	1a	505	G
32	1a	509	A
32	1a	510	A
32	1a	511	C
32	1a	518	C
32	1a	531	U
32	1a	532	A
32	1a	533	A
32	1a	547	A

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Mol	Chain	Res	Type
32	1a	559	A
32	1a	560	U
32	1a	561	U
32	1a	562	C
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	581	G
32	1a	596	C
32	1a	607	A
32	1a	610	G
32	1a	622	A
32	1a	630	G
32	1a	653	A
32	1a	657	G
32	1a	665	A
32	1a	671	G
32	1a	687	A
32	1a	688	G
32	1a	695	A
32	1a	717	C
32	1a	721	G
32	1a	724	G
32	1a	731	G
32	1a	749	C
32	1a	755	G
32	1a	759	A
32	1a	777	A
32	1a	787	A
32	1a	792	A
32	1a	793	U
32	1a	794	A
32	1a	816	A
32	1a	817	C
32	1a	821	G
32	1a	828	A
32	1a	840	C
32	1a	841	U
32	1a	851	G

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Mol	Chain	Res	Type
32	1a	852	G
32	1a	856	C
32	1a	859	A
32	1a	872	A
32	1a	876	G
32	1a	885	G
32	1a	889	A
32	1a	902	G
32	1a	909	A
32	1a	914	A
32	1a	926	G
32	1a	927	G
32	1a	934	C
32	1a	935	A
32	1a	936	C
32	1a	939	G
32	1a	940	C
32	1a	960	U
32	1a	961	U
32	1a	963	G
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
32	1a	993	G
32	1a	997	U
32	1a	1000	U
32	1a	1002	G
32	1a	1003	G
32	1a	1005	A
32	1a	1006	C
32	1a	1008	C
32	1a	1009	G
32	1a	1022	G
32	1a	1024	G
32	1a	1025	U
32	1a	1026	G
32	1a	1027	C

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Mol	Chain	Res	Type
32	1a	1028	C
32	1a	1029	C
32	1a	1030(A)	G
32	1a	1030(C)	G
32	1a	1031	G
32	1a	1034	G
32	1a	1036	G
32	1a	1037	C
32	1a	1044	A
32	1a	1053	G
32	1a	1054	C
32	1a	1065	U
32	1a	1066	C
32	1a	1068	G
32	1a	1081	G
32	1a	1086	U
32	1a	1094	G
32	1a	1096	C
32	1a	1101	A
32	1a	1124	G
32	1a	1125	U
32	1a	1126	U
32	1a	1131	G
32	1a	1132	C
32	1a	1134	G
32	1a	1136	U
32	1a	1137	C
32	1a	1138	G
32	1a	1139	G
32	1a	1152	A
32	1a	1157	A
32	1a	1159	U
32	1a	1179	A
32	1a	1184	G
32	1a	1196	U
32	1a	1197	G
32	1a	1202	G
32	1a	1212	U
32	1a	1213	A
32	1a	1214	C
32	1a	1227	A
32	1a	1236	A

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Mol	Chain	Res	Type
32	1a	1238	A
32	1a	1256	A
32	1a	1257	U
32	1a	1264	C
32	1a	1270	C
32	1a	1275	A
32	1a	1276	G
32	1a	1278	U
32	1a	1279	A
32	1a	1280	A
32	1a	1286	A
32	1a	1287	A
32	1a	1298	C
32	1a	1299	A
32	1a	1300	G
32	1a	1302	U
32	1a	1320	C
32	1a	1340	A
32	1a	1346	A
32	1a	1347	G
32	1a	1353	G
32	1a	1363	C
32	1a	1397	C
32	1a	1400	5MC
32	1a	1401	G
32	1a	1419	G
32	1a	1436	U
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1446	U
32	1a	1447	A
32	1a	1456	G
32	1a	1492	A
32	1a	1493	A
32	1a	1494	G
32	1a	1497	G
32	1a	1503	A
32	1a	1504	G
32	1a	1506	U
32	1a	1517	G
32	1a	1529	G
32	1a	1530	G

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Mol	Chain	Res	Type
32	1a	1532	U
53	1v	13	A
53	1v	15	A
53	1v	19	U
53	1v	20	U
53	1v	24	A
54	1x	6	G
54	1x	9	G
54	1x	14	A
54	1x	18	G
54	1x	20	U
54	1x	21	A
54	1x	47	U
54	1x	67	C
54	1x	76	A
1	2A	12	U
1	2A	14	A
1	2A	15	G
1	2A	34	C
1	2A	35	G
1	2A	45	C
1	2A	51	G
1	2A	57	C
1	2A	60	G
1	2A	63	U
1	2A	64	A
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	78	A
1	2A	79	G
1	2A	84	A
1	2A	90	U
1	2A	100	G
1	2A	102	G
1	2A	112	U
1	2A	118	A
1	2A	120	U
1	2A	140	G
1	2A	154(A)	C
1	2A	157	U
1	2A	181	A

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Mol	Chain	Res	Type
1	2A	196	A
1	2A	199	A
1	2A	205	G
1	2A	214	G
1	2A	216	A
1	2A	221	A
1	2A	222	A
1	2A	227	A
1	2A	228	A
1	2A	229	A
1	2A	233	A
1	2A	248	G
1	2A	249	C
1	2A	250	G
1	2A	266	G
1	2A	271(H)	G
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	271(T)	C
1	2A	272(B)	G
1	2A	277	C
1	2A	278	A
1	2A	279	C
1	2A	284	U
1	2A	294	A
1	2A	299	A
1	2A	302	C
1	2A	311	A
1	2A	316	C
1	2A	317	G
1	2A	324	A
1	2A	327	G
1	2A	329	G
1	2A	330	A
1	2A	352	G
1	2A	362	U
1	2A	363	G
1	2A	363(B)	G
1	2A	386	G

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Mol	Chain	Res	Type
1	2A	396	G
1	2A	404	C
1	2A	405	U
1	2A	407	G
1	2A	411	G
1	2A	412	A
1	2A	422	A
1	2A	425	G
1	2A	444	C
1	2A	454	A
1	2A	455	C
1	2A	480	A
1	2A	481	G
1	2A	482	A
1	2A	496	G
1	2A	501	A
1	2A	504	U
1	2A	505	A
1	2A	509	C
1	2A	527	C
1	2A	529	A
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	533	G
1	2A	545	G
1	2A	551	G
1	2A	556	G
1	2A	563	G
1	2A	568	U
1	2A	573	G
1	2A	575	A
1	2A	599	G
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	614(B)	G
1	2A	615	G
1	2A	627	A
1	2A	637	A
1	2A	645	C
1	2A	651	G

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Mol	Chain	Res	Type
1	2A	652(B)	A
1	2A	652(C)	G
1	2A	653	A
1	2A	669	G
1	2A	677	A
1	2A	686	G
1	2A	730	C
1	2A	753	C
1	2A	764	A
1	2A	775	G
1	2A	776	G
1	2A	779	U
1	2A	782	A
1	2A	784	A
1	2A	785	G
1	2A	805	G
1	2A	809	G
1	2A	812	C
1	2A	819	A
1	2A	825	C
1	2A	827	U
1	2A	828	U
1	2A	830	G
1	2A	843	G
1	2A	847	U
1	2A	857	C
1	2A	859	G
1	2A	869	G
1	2A	874	G
1	2A	879	G
1	2A	880	G
1	2A	882	G
1	2A	883	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	895	U

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Mol	Chain	Res	Type
1	2A	896	A
1	2A	897	C
1	2A	898	C
1	2A	900	A
1	2A	901	A
1	2A	904	C
1	2A	907	U
1	2A	910	A
1	2A	914	C
1	2A	917	A
1	2A	931	G
1	2A	932	G
1	2A	933	A
1	2A	941	A
1	2A	945	A
1	2A	946	G
1	2A	953	A
1	2A	958	U
1	2A	959	A
1	2A	961	C
1	2A	974	G
1	2A	975	C
1	2A	983	A
1	2A	996	A
1	2A	1003	G
1	2A	1012	U
1	2A	1013	C
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	1114	G
1	2A	1116	C
1	2A	1127	A
1	2A	1130	U
1	2A	1135	C

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Mol	Chain	Res	Type
1	2A	1136	G
1	2A	1142	U
1	2A	1142(A)	A
1	2A	1144	G
1	2A	1164	G
1	2A	1171	G
1	2A	1206	G
1	2A	1210	A
1	2A	1211	U
1	2A	1220	A
1	2A	1229	G
1	2A	1236	G
1	2A	1237	A
1	2A	1248	G
1	2A	1253	A
1	2A	1255	U
1	2A	1256	G
1	2A	1257	C
1	2A	1271	G
1	2A	1272	A
1	2A	1273	U
1	2A	1300	U
1	2A	1301	A
1	2A	1314	C
1	2A	1327	C
1	2A	1341	U
1	2A	1345	C
1	2A	1352	U
1	2A	1359	A
1	2A	1360	A
1	2A	1365	A
1	2A	1370	C
1	2A	1379	A
1	2A	1383	C
1	2A	1384	A
1	2A	1385	G
1	2A	1386	C
1	2A	1416	G
1	2A	1417	C
1	2A	1419	A
1	2A	1421	G
1	2A	1427	A

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Mol	Chain	Res	Type
1	2A	1428	C
1	2A	1437	C
1	2A	1447	G
1	2A	1448	G
1	2A	1449	A
1	2A	1450	G
1	2A	1455	G
1	2A	1460	A
1	2A	1467	C
1	2A	1471	A
1	2A	1477	A
1	2A	1482	G
1	2A	1490	A
1	2A	1493	C
1	2A	1494	A
1	2A	1495	A
1	2A	1496	A
1	2A	1497	U
1	2A	1504	C
1	2A	1508	A
1	2A	1509	C
1	2A	1509(A)	A
1	2A	1531	C
1	2A	1542	A
1	2A	1543	C
1	2A	1547	C
1	2A	1558	A
1	2A	1559	G
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1580	A
1	2A	1584	C
1	2A	1586	A
1	2A	1594	G
1	2A	1602	U
1	2A	1603	A
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A
1	2A	1634	A
1	2A	1640	C

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Mol	Chain	Res	Type
1	2A	1647	G
1	2A	1648	C
1	2A	1654	A
1	2A	1671	U
1	2A	1674	G
1	2A	1680	U
1	2A	1682	G
1	2A	1694	C
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	C
1	2A	1746	G
1	2A	1756	G
1	2A	1758	G
1	2A	1762	A
1	2A	1763	G
1	2A	1764	G
1	2A	1773	A
1	2A	1780	A
1	2A	1782	C
1	2A	1786	A
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1812	A
1	2A	1816	G
1	2A	1827	C
1	2A	1828	G
1	2A	1829	A
1	2A	1835	G
1	2A	1836	C
1	2A	1847	A
1	2A	1848	A
1	2A	1877	A
1	2A	1878	G
1	2A	1889	A

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Mol	Chain	Res	Type
1	2A	1900	A
1	2A	1906	G
1	2A	1913	A
1	2A	1914	C
1	2A	1927	A
1	2A	1929	G
1	2A	1930	G
1	2A	1936	A
1	2A	1937	A
1	2A	1938	A
1	2A	1955	U
1	2A	1963	U
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1993	U
1	2A	1997	G
1	2A	2021	C
1	2A	2023	G
1	2A	2031	A
1	2A	2032	G
1	2A	2033	A
1	2A	2043	C
1	2A	2055	C
1	2A	2056	G
1	2A	2060	A
1	2A	2061	G
1	2A	2062	A
1	2A	2066	C
1	2A	2069	G
1	2A	2099	U
1	2A	2104	G
1	2A	2107	C
1	2A	2111	C
1	2A	2112	G
1	2A	2113	U
1	2A	2115	G
1	2A	2116	G
1	2A	2117	A
1	2A	2120	G
1	2A	2126	A

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Mol	Chain	Res	Type
1	2A	2127	G
1	2A	2129	C
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	2140	C
1	2A	2142	C
1	2A	2144	U
1	2A	2146	C
1	2A	2148	G
1	2A	2150	U
1	2A	2153	G
1	2A	2155	G
1	2A	2156	G
1	2A	2157	G
1	2A	2158	A
1	2A	2161	C
1	2A	2164	C
1	2A	2166	G
1	2A	2167	U
1	2A	2168	G
1	2A	2169	A
1	2A	2172	U
1	2A	2178	C
1	2A	2182	G
1	2A	2185	C
1	2A	2188	C
1	2A	2192	G
1	2A	2197	U
1	2A	2198	A
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2218	U
1	2A	2219	G
1	2A	2225	A
1	2A	2235	G

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Mol	Chain	Res	Type
1	2A	2238	G
1	2A	2239	G
1	2A	2243	U
1	2A	2275	C
1	2A	2278	A
1	2A	2280	G
1	2A	2283	C
1	2A	2287	A
1	2A	2288	A
1	2A	2305	A
1	2A	2307	G
1	2A	2308	G
1	2A	2309	A
1	2A	2319	G
1	2A	2320	A
1	2A	2325	G
1	2A	2334	G
1	2A	2336	A
1	2A	2345	G
1	2A	2347	C
1	2A	2350	C
1	2A	2354	G
1	2A	2366	A
1	2A	2383	G
1	2A	2385	C
1	2A	2406	U
1	2A	2425	A
1	2A	2428	G
1	2A	2429	G
1	2A	2430	A
1	2A	2434	A
1	2A	2435	A
1	2A	2439	A
1	2A	2441	C
1	2A	2448	A
1	2A	2459	A
1	2A	2469	A
1	2A	2474	C
1	2A	2476	A
1	2A	2477	C
1	2A	2490	G
1	2A	2502	G

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Mol	Chain	Res	Type
1	2A	2505	G
1	2A	2506	U
1	2A	2518	A
1	2A	2527	C
1	2A	2529	G
1	2A	2549	G
1	2A	2554	U
1	2A	2564	A
1	2A	2566	A
1	2A	2567	G
1	2A	2582	G
1	2A	2585	U
1	2A	2586	C
1	2A	2602	A
1	2A	2609	U
1	2A	2611	U
1	2A	2612	C
1	2A	2630	G
1	2A	2634	G
1	2A	2641	G
1	2A	2654	A
1	2A	2667	C
1	2A	2689	U
1	2A	2690	C
1	2A	2703	C
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2726	U
1	2A	2730	C
1	2A	2733	A
1	2A	2744	G
1	2A	2748	A
1	2A	2751	G
1	2A	2752	C
1	2A	2757	A
1	2A	2758	A
1	2A	2764	A
1	2A	2765	A
1	2A	2766	G
1	2A	2778	A
1	2A	2789	C

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Mol	Chain	Res	Type
1	2A	2802	G
1	2A	2803	C
1	2A	2804	C
1	2A	2808	U
1	2A	2810	A
1	2A	2818	G
1	2A	2820	A
1	2A	2821	A
1	2A	2833	G
1	2A	2835	A
1	2A	2858	C
1	2A	2872	G
1	2A	2873	A
1	2A	2876	G
1	2A	2879	C
1	2A	2880	C
1	2A	2894	G
1	2A	2897	U
2	2B	2	C
2	2B	5	C
2	2B	8	U
2	2B	9	G
2	2B	12	C
2	2B	13	A
2	2B	15	A
2	2B	21	G
2	2B	24	G
2	2B	25	A
2	2B	30	C
2	2B	42	C
2	2B	52	A
2	2B	53	A
2	2B	55	U
2	2B	56	G
2	2B	58	A
2	2B	60	C
2	2B	63	G
2	2B	67	G
2	2B	71	C
2	2B	72	G
2	2B	73	A
2	2B	74	U

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Mol	Chain	Res	Type
2	2B	75	G
2	2B	85	G
2	2B	108	U
2	2B	110	G
2	2B	111	G
2	2B	114	C
2	2B	116	G
2	2B	120	A
32	2a	6	G
32	2a	7	G
32	2a	9	G
32	2a	22	G
32	2a	32	A
32	2a	39	G
32	2a	44	G
32	2a	47	C
32	2a	48	C
32	2a	50	A
32	2a	51	A
32	2a	65	U
32	2a	66	G
32	2a	72	C
32	2a	73	G
32	2a	78	G
32	2a	89	C
32	2a	91	C
32	2a	101	A
32	2a	116	A
32	2a	121	C
32	2a	129(A)	G
32	2a	131	C
32	2a	142	G
32	2a	143	A
32	2a	144	G
32	2a	159	G
32	2a	163	C
32	2a	174	C
32	2a	182	U
32	2a	189(D)	C
32	2a	189(F)	U
32	2a	189(G)	G
32	2a	189(H)	G

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Mol	Chain	Res	Type
32	2a	189(I)	G
32	2a	189(J)	G
32	2a	195	A
32	2a	197	A
32	2a	202	U
32	2a	203	U
32	2a	216	G
32	2a	217	C
32	2a	240	C
32	2a	247	G
32	2a	251	G
32	2a	258	G
32	2a	266	G
32	2a	267	C
32	2a	280	C
32	2a	281	G
32	2a	289	G
32	2a	300	A
32	2a	305	G
32	2a	321	A
32	2a	328	C
32	2a	330	C
32	2a	332	G
32	2a	345	C
32	2a	350	G
32	2a	352	C
32	2a	353	A
32	2a	354	G
32	2a	367	U
32	2a	372	C
32	2a	373	A
32	2a	375	U
32	2a	384	G
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	412	A
32	2a	413	G
32	2a	417	C
32	2a	421	U
32	2a	422	C
32	2a	423	G

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Mol	Chain	Res	Type
32	2a	424	G
32	2a	429	U
32	2a	430	A
32	2a	438	G
32	2a	439	A
32	2a	442	C
32	2a	451	A
32	2a	452	A
32	2a	470	C
32	2a	471	G
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	506	G
32	2a	510	A
32	2a	511	C
32	2a	518	C
32	2a	524	G
32	2a	527	7MG
32	2a	531	U
32	2a	532	A
32	2a	533	A
32	2a	547	A
32	2a	559	A
32	2a	561	U
32	2a	563	A
32	2a	568	G
32	2a	572	A
32	2a	573	A
32	2a	576	G
32	2a	577	G
32	2a	595	G
32	2a	596	C
32	2a	618	C
32	2a	630	G
32	2a	638	G
32	2a	650	G
32	2a	652	U
32	2a	653	A

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Mol	Chain	Res	Type
32	2a	665	A
32	2a	687	A
32	2a	688	G
32	2a	695	A
32	2a	723	U
32	2a	724	G
32	2a	731	G
32	2a	733	A
32	2a	734	G
32	2a	746	A
32	2a	749	C
32	2a	753	A
32	2a	755	G
32	2a	776	G
32	2a	777	A
32	2a	793	U
32	2a	794	A
32	2a	816	A
32	2a	817	C
32	2a	821	G
32	2a	828	A
32	2a	836	G
32	2a	840	C
32	2a	841	U
32	2a	853	G
32	2a	859	A
32	2a	873	A
32	2a	876	G
32	2a	902	G
32	2a	914	A
32	2a	916	G
32	2a	922	G
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	958	A
32	2a	960	U
32	2a	961	U
32	2a	969	A

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Mol	Chain	Res	Type
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	992	U
32	2a	993	G
32	2a	997	U
32	2a	998	G
32	2a	1002	G
32	2a	1005	A
32	2a	1006	C
32	2a	1008	C
32	2a	1009	G
32	2a	1011	G
32	2a	1017	G
32	2a	1020	U
32	2a	1021	G
32	2a	1022	G
32	2a	1025	U
32	2a	1026	G
32	2a	1027	C
32	2a	1028	C
32	2a	1030	C
32	2a	1030(A)	G
32	2a	1030(C)	G
32	2a	1031	G
32	2a	1032	G
32	2a	1036	G
32	2a	1037	C
32	2a	1038	C
32	2a	1039	C
32	2a	1040	U
32	2a	1042	G
32	2a	1044	A
32	2a	1046	A
32	2a	1051	C
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1077	G

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Mol	Chain	Res	Type
32	2a	1081	G
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A
32	2a	1117	G
32	2a	1122	U
32	2a	1124	G
32	2a	1125	U
32	2a	1127	G
32	2a	1128	C
32	2a	1129	C
32	2a	1135	U
32	2a	1136	U
32	2a	1137	C
32	2a	1138	G
32	2a	1139	G
32	2a	1140	C
32	2a	1141	C
32	2a	1146	A
32	2a	1147	C
32	2a	1152	A
32	2a	1157	A
32	2a	1158	C
32	2a	1159	U
32	2a	1160	G
32	2a	1161	C
32	2a	1168	A
32	2a	1182	G
32	2a	1183	A
32	2a	1184	G
32	2a	1196	U
32	2a	1197	G
32	2a	1202	G
32	2a	1210	C
32	2a	1212	U
32	2a	1213	A
32	2a	1214	C
32	2a	1215	G
32	2a	1227	A
32	2a	1236	A
32	2a	1238	A
32	2a	1240	U

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Mol	Chain	Res	Type
32	2a	1241	G
32	2a	1255	G
32	2a	1256	A
32	2a	1257	U
32	2a	1260	C
32	2a	1267	C
32	2a	1272	G
32	2a	1273	G
32	2a	1275	A
32	2a	1276	G
32	2a	1278	U
32	2a	1279	A
32	2a	1280	A
32	2a	1286	A
32	2a	1287	A
32	2a	1299	A
32	2a	1301	U
32	2a	1302	U
32	2a	1303	C
32	2a	1305	G
32	2a	1312	G
32	2a	1313	U
32	2a	1316	G
32	2a	1320	C
32	2a	1338	G
32	2a	1340	A
32	2a	1346	A
32	2a	1347	G
32	2a	1353	G
32	2a	1363	C
32	2a	1363(A)	A
32	2a	1364	U
32	2a	1370	G
32	2a	1379	G
32	2a	1397	C
32	2a	1398	A
32	2a	1400	5MC
32	2a	1402	4OC
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1442(B)	A

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Mol	Chain	Res	Type
32	2a	1446	U
32	2a	1447	A
32	2a	1452	C
32	2a	1456	G
32	2a	1457	G
32	2a	1475	G
32	2a	1487	G
32	2a	1492	A
32	2a	1493	A
32	2a	1494	G
32	2a	1503	A
32	2a	1504	G
32	2a	1506	U
32	2a	1507	A
32	2a	1517	G
32	2a	1519	MA6
32	2a	1520	G
32	2a	1529	G
32	2a	1530	G
32	2a	1531	A
32	2a	1532	U
53	2v	13	A
53	2v	14	A
53	2v	15	A
53	2v	19	U
53	2v	24	A
54	2x	9	G
54	2x	20	U
54	2x	21	A
54	2x	22	G
54	2x	31	G
54	2x	47	U
54	2x	48	C
54	2x	52	G
54	2x	56	C
54	2x	67	C
54	2x	68	C

All (48) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	249	C

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Mol	Chain	Res	Type
1	1A	266	G
1	1A	278	A
1	1A	764	A
1	1A	774	A
1	1A	895	U
1	1A	1065	U
1	1A	1067	A
1	1A	1073	A
1	1A	1174	A
1	1A	1176	G
1	1A	1379	A
1	1A	1442	G
1	1A	1508	A
1	1A	1608	A
1	1A	1653	G
1	1A	1992	G
1	1A	2134	A
1	1A	2170	A
1	1A	2181	G
1	1A	2183	C
1	1A	2406	U
1	1A	2439	A
1	1A	2629	A
1	1A	2689	U
1	1A	2756	U
1	2A	195	A
1	2A	228	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	856	C
1	2A	883	G
1	2A	900	A
1	2A	1210	A
1	2A	1420	U
1	2A	1442	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	2286	A
1	2A	2585	U
1	2A	2689	U

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

56 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	MA6	1a	1518	32	23,26,27	1.56	4 (17%)	33,38,41	2.34	14 (42%)
1	PSU	2A	2605	1	18,21,22	1.39	3 (16%)	21,30,33	2.10	5 (23%)
32	MA6	2a	1518	32	23,26,27	1.53	5 (21%)	33,38,41	2.30	14 (42%)
54	5MU	2x	54	54	19,22,23	1.33	5 (26%)	27,32,35	2.20	7 (25%)
54	PSU	2x	55	54	18,21,22	1.37	2 (11%)	21,30,33	1.84	4 (19%)
1	5MC	1A	1942	1	19,22,23	1.61	3 (15%)	26,32,35	1.18	2 (7%)
32	5MC	2a	1404	32	19,22,23	1.68	3 (15%)	26,32,35	1.21	3 (11%)
54	5MC	2x	32	54	19,22,23	1.53	2 (10%)	26,32,35	1.15	3 (11%)
1	5MU	1A	1915	1	19,22,23	1.39	5 (26%)	27,32,35	2.16	7 (25%)
1	PSU	1A	2605	56,1	18,21,22	1.36	3 (16%)	21,30,33	2.00	5 (23%)
32	5MC	1a	1407	32	19,22,23	1.59	3 (15%)	26,32,35	1.18	3 (11%)
1	2MA	1A	2503	56,1	22,25,26	1.43	5 (22%)	32,37,40	2.35	9 (28%)
43	0TD	1l	92	43	8,9,10	4.61	1 (12%)	6,11,13	2.22	3 (50%)
54	5MC	1x	32	54	19,22,23	1.76	3 (15%)	26,32,35	1.19	3 (11%)
32	5MC	2a	1407	32	19,22,23	1.59	3 (15%)	26,32,35	1.16	3 (11%)
32	MA6	1a	1519	32	23,26,27	1.55	4 (17%)	33,38,41	2.36	12 (36%)
1	4OC	2A	1920	1	19,22,24	0.79	0	25,31,35	0.92	1 (4%)
32	M2G	1a	966	32	24,27,28	1.29	4 (16%)	33,40,43	1.85	6 (18%)
32	5MC	2a	1400	32	19,22,23	1.84	3 (15%)	26,32,35	1.32	3 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
32	M2G	2a	966	32	24,27,28	1.35	4 (16%)	33,40,43	1.93	6 (18%)
1	5MU	2A	1915	56,1	19,22,23	1.50	6 (31%)	27,32,35	2.06	6 (22%)
32	7MG	2a	527	32	23,26,27	1.38	4 (17%)	27,39,42	2.50	6 (22%)
54	4SU	1x	8	54	18,21,22	2.05	4 (22%)	25,30,33	1.35	5 (20%)
1	PSU	2A	1917	1	18,21,22	1.41	2 (11%)	21,30,33	2.08	4 (19%)
32	4OC	1a	1402	32	20,23,24	0.75	0	25,32,35	1.12	3 (12%)
32	PSU	1a	516	56,32	18,21,22	1.36	2 (11%)	21,30,33	2.01	3 (14%)
1	5MC	2A	1962	56,1	19,22,23	1.63	3 (15%)	26,32,35	1.19	3 (11%)
1	PSU	1A	1911	1	18,21,22	1.36	2 (11%)	21,30,33	1.89	3 (14%)
1	5MU	2A	1939	1	19,22,23	1.38	6 (31%)	27,32,35	2.30	6 (22%)
1	5MU	1A	1939	56,1	19,22,23	1.48	5 (26%)	27,32,35	2.02	7 (25%)
54	PSU	1x	55	54,56	18,21,22	1.36	2 (11%)	21,30,33	2.12	5 (23%)
32	MA6	2a	1519	32	23,26,27	1.58	4 (17%)	33,38,41	2.27	11 (33%)
32	5MC	1a	967	32	19,22,23	1.54	3 (15%)	26,32,35	1.03	2 (7%)
1	PSU	1A	1917	1	18,21,22	1.37	2 (11%)	21,30,33	2.10	3 (14%)
1	5MC	2A	1942	1	19,22,23	1.71	3 (15%)	26,32,35	1.15	2 (7%)
1	5MC	1A	1962	56,1	19,22,23	1.67	3 (15%)	26,32,35	1.14	3 (11%)
32	UR3	1a	1498	32	19,22,23	1.08	1 (5%)	26,32,35	1.81	4 (15%)
1	2MU	1A	2552	56,1	19,22,24	1.21	2 (10%)	25,31,36	2.04	5 (20%)
32	2MG	2a	1207	32	23,26,27	1.22	3 (13%)	33,38,41	2.16	8 (24%)
32	5MC	1a	1400	32	19,22,23	1.72	3 (15%)	26,32,35	1.15	3 (11%)
54	5MU	1x	54	54	19,22,23	1.42	5 (26%)	27,32,35	1.96	6 (22%)
32	5MC	1a	1404	32	19,22,23	1.57	2 (10%)	26,32,35	1.07	2 (7%)
1	2MA	2A	2503	56,1	22,25,26	1.52	4 (18%)	32,37,40	2.41	7 (21%)
32	UR3	2a	1498	56,32	19,22,23	1.09	2 (10%)	26,32,35	1.68	4 (15%)
43	0TD	2l	92	43	8,9,10	4.65	1 (12%)	6,11,13	1.95	2 (33%)
32	2MG	1a	1207	32	23,26,27	1.23	3 (13%)	33,38,41	2.09	6 (18%)
1	PSU	2A	1911	1	18,21,22	1.37	2 (11%)	21,30,33	1.97	3 (14%)
32	4OC	2a	1402	32	20,23,24	0.81	0	25,32,35	1.06	2 (8%)
1	OMG	1A	2251	54,56,1	23,26,27	1.24	3 (13%)	32,38,41	2.08	6 (18%)
1	2MU	2A	2552	56,1	19,22,24	1.17	1 (5%)	25,31,36	1.99	6 (24%)
32	PSU	2a	516	56,32	18,21,22	1.35	3 (16%)	21,30,33	1.99	5 (23%)
32	7MG	1a	527	56,32	23,26,27	1.41	4 (17%)	27,39,42	2.59	7 (25%)
54	4SU	2x	8	54	18,21,22	1.94	5 (27%)	25,30,33	1.66	7 (28%)
1	4OC	1A	1920	1	19,22,24	0.83	1 (5%)	25,31,35	1.07	2 (8%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
32	5MC	2a	967	32	19,22,23	1.75	3 (15%)	26,32,35	1.12	3 (11%)
1	OMG	2A	2251	54,56,1	23,26,27	1.23	3 (13%)	32,38,41	1.93	5 (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
32	MA6	1a	1518	32	-	2/11/29/30	0/3/3/3
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
32	MA6	2a	1518	32	-	1/11/29/30	0/3/3/3
54	5MU	2x	54	54	-	0/7/25/26	0/2/2/2
54	PSU	2x	55	54	-	0/7/25/26	0/2/2/2
1	5MC	1A	1942	1	-	0/7/25/26	0/2/2/2
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2
54	5MC	2x	32	54	-	0/7/25/26	0/2/2/2
1	5MU	1A	1915	1	-	0/7/25/26	0/2/2/2
1	PSU	1A	2605	56,1	-	0/7/25/26	0/2/2/2
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
1	2MA	1A	2503	56,1	-	2/7/25/26	0/3/3/3
43	0TD	1l	92	43	-	1/7/12/14	-
54	5MC	1x	32	54	-	0/7/25/26	0/2/2/2
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
32	MA6	1a	1519	32	-	3/11/29/30	0/3/3/3
1	4OC	2A	1920	1	-	1/9/27/30	0/2/2/2
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
32	5MC	2a	1400	32	-	2/7/25/26	0/2/2/2
32	M2G	2a	966	32	-	0/11/29/30	0/3/3/3
1	5MU	2A	1915	56,1	-	0/7/25/26	0/2/2/2
32	7MG	2a	527	32	-	2/7/37/38	0/3/3/3
54	4SU	1x	8	54	-	0/7/25/26	0/2/2/2
1	PSU	2A	1917	1	-	1/7/25/26	0/2/2/2
32	4OC	1a	1402	32	-	1/9/29/30	0/2/2/2
32	PSU	1a	516	56,32	-	2/7/25/26	0/2/2/2
1	5MC	2A	1962	56,1	-	1/7/25/26	0/2/2/2
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
1	5MU	2A	1939	1	-	0/7/25/26	0/2/2/2
1	5MU	1A	1939	56,1	-	0/7/25/26	0/2/2/2
54	PSU	1x	55	54,56	-	0/7/25/26	0/2/2/2
32	MA6	2a	1519	32	-	4/11/29/30	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	5MC	1a	967	32	-	1/7/25/26	0/2/2/2
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
1	5MC	1A	1962	56,1	-	4/7/25/26	0/2/2/2
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
1	2MU	1A	2552	56,1	-	0/9/27/28	0/2/2/2
32	2MG	2a	1207	32	-	0/9/27/28	0/3/3/3
32	5MC	1a	1400	32	-	2/7/25/26	0/2/2/2
54	5MU	1x	54	54	-	0/7/25/26	0/2/2/2
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
1	2MA	2A	2503	56,1	-	0/7/25/26	0/3/3/3
32	UR3	2a	1498	56,32	-	0/7/25/26	0/2/2/2
43	0TD	2l	92	43	-	1/7/12/14	-
32	2MG	1a	1207	32	-	2/9/27/28	0/3/3/3
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
32	4OC	2a	1402	32	-	3/9/29/30	0/2/2/2
1	OMG	1A	2251	54,56,1	-	0/9/27/28	0/3/3/3
1	2MU	2A	2552	56,1	-	1/9/27/28	0/2/2/2
32	PSU	2a	516	56,32	-	0/7/25/26	0/2/2/2
32	7MG	1a	527	56,32	-	2/7/37/38	0/3/3/3
54	4SU	2x	8	54	-	1/7/25/26	0/2/2/2
1	4OC	1A	1920	1	-	1/9/27/30	0/2/2/2
32	5MC	2a	967	32	-	1/7/25/26	0/2/2/2
1	OMG	2A	2251	54,56,1	-	0/9/27/28	0/3/3/3

All (167) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	1l	92	0TD	CB-SB	-12.67	1.69	1.82
43	2l	92	0TD	CB-SB	-12.66	1.69	1.82
32	2a	1400	5MC	C5-C4	6.75	1.49	1.44
54	1x	32	5MC	C5-C4	6.39	1.49	1.44
32	2a	967	5MC	C5-C4	6.37	1.48	1.44
1	2A	1942	5MC	C5-C4	6.23	1.48	1.44
32	1a	1400	5MC	C5-C4	6.19	1.48	1.44
32	2a	1404	5MC	C5-C4	6.18	1.48	1.44
1	1A	1962	5MC	C5-C4	6.10	1.48	1.44
1	2A	1962	5MC	C5-C4	5.80	1.48	1.44
1	1A	1942	5MC	C5-C4	5.78	1.48	1.44
32	1a	1407	5MC	C5-C4	5.72	1.48	1.44
32	2a	1407	5MC	C5-C4	5.71	1.48	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	1a	1404	5MC	C5-C4	5.56	1.48	1.44
32	1a	967	5MC	C5-C4	5.37	1.48	1.44
54	2x	32	5MC	C5-C4	5.25	1.48	1.44
32	2a	1519	MA6	C5-C4	4.91	1.47	1.39
32	1a	1519	MA6	C5-C4	4.80	1.47	1.39
32	1a	1518	MA6	C5-C4	4.76	1.47	1.39
54	2x	8	4SU	C4-S4	-4.74	1.60	1.68
32	2a	1518	MA6	C5-C4	4.74	1.47	1.39
1	2A	2503	2MA	C5-C4	4.62	1.47	1.39
54	1x	8	4SU	C4-S4	-4.45	1.60	1.68
54	1x	8	4SU	C4-N3	-4.33	1.33	1.37
1	1A	2503	2MA	C5-C4	4.18	1.46	1.39
54	2x	8	4SU	C4-N3	-4.00	1.33	1.37
54	1x	8	4SU	C2-N3	-3.90	1.31	1.38
54	2x	55	PSU	C6-C5	3.81	1.39	1.35
1	2A	1911	PSU	C6-C5	3.80	1.39	1.35
1	2A	1917	PSU	C6-C5	3.79	1.39	1.35
54	1x	55	PSU	C6-C5	3.63	1.39	1.35
1	2A	2605	PSU	C6-C5	3.55	1.39	1.35
32	2a	516	PSU	C6-C5	3.53	1.39	1.35
32	1a	527	7MG	C4-N9	-3.48	1.33	1.37
1	1A	1917	PSU	C6-C5	3.47	1.39	1.35
54	1x	8	4SU	C5-C4	-3.44	1.38	1.42
1	1A	1911	PSU	C6-C5	3.40	1.39	1.35
32	2a	966	M2G	C2-N2	3.36	1.41	1.35
32	2a	527	7MG	C4-N9	-3.35	1.33	1.37
1	1A	2251	OMG	C5-C4	3.34	1.47	1.38
32	1a	527	7MG	C5-C4	3.33	1.47	1.37
32	1a	516	PSU	C6-C5	3.32	1.39	1.35
32	2a	527	7MG	C5-C4	3.27	1.47	1.37
32	2a	966	M2G	C5-C4	3.27	1.47	1.38
32	2a	1207	2MG	C5-C4	3.26	1.47	1.38
1	2A	2251	OMG	C5-C4	3.18	1.47	1.38
32	2a	1400	5MC	C6-C5	3.14	1.39	1.34
54	2x	32	5MC	C6-C5	3.12	1.39	1.34
32	1a	1400	5MC	C6-C5	3.11	1.39	1.34
1	2A	1915	5MU	C6-C5	3.08	1.39	1.34
32	1a	966	M2G	C5-C4	3.03	1.47	1.38
32	1a	1207	2MG	C5-C4	3.03	1.47	1.38
32	1a	1518	MA6	C5-C6	3.01	1.49	1.41
1	2A	1962	5MC	C6-C5	3.01	1.39	1.34
32	2a	967	5MC	C6-C5	2.99	1.39	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2605	PSU	C6-C5	2.99	1.38	1.35
32	1a	967	5MC	C6-C5	2.96	1.39	1.34
1	1A	2605	PSU	C4-N3	-2.94	1.33	1.38
32	1a	1404	5MC	C6-C5	2.93	1.39	1.34
1	1A	1939	5MU	C6-C5	2.93	1.39	1.34
1	1A	2552	2MU	C4-N3	-2.92	1.33	1.38
32	1a	1519	MA6	C5-C6	2.92	1.48	1.41
54	2x	8	4SU	C5-C4	-2.91	1.39	1.42
32	2a	1518	MA6	C5-C6	2.91	1.48	1.41
1	1A	1939	5MU	C4-N3	-2.89	1.33	1.38
1	2A	2503	2MA	C5-C6	2.88	1.49	1.41
54	1x	32	5MC	C6-C5	2.88	1.39	1.34
32	2a	1519	MA6	C5-C6	2.87	1.48	1.41
54	1x	54	5MU	C4-N3	-2.85	1.33	1.38
1	2A	2605	PSU	C4-N3	-2.85	1.33	1.38
54	1x	54	5MU	C6-C5	2.83	1.39	1.34
1	2A	1942	5MC	C6-C5	2.82	1.39	1.34
1	2A	2251	OMG	C5-N7	-2.75	1.33	1.39
1	2A	2552	2MU	C4-N3	-2.74	1.33	1.38
1	1A	1915	5MU	C6-C5	2.73	1.39	1.34
1	2A	1915	5MU	C4-N3	-2.72	1.33	1.38
32	2a	1404	5MC	C6-C5	2.72	1.39	1.34
32	1a	966	M2G	C2-N2	2.69	1.40	1.35
1	2A	1939	5MU	C6-C5	2.67	1.39	1.34
54	1x	55	PSU	C4-N3	-2.64	1.33	1.38
32	1a	1407	5MC	C6-C5	2.63	1.38	1.34
1	2A	1917	PSU	C4-N3	-2.63	1.33	1.38
54	2x	54	5MU	C6-C5	2.63	1.38	1.34
32	1a	1498	UR3	C2-N1	2.59	1.42	1.38
1	2A	1939	5MU	C4-N3	-2.58	1.34	1.38
1	1A	1917	PSU	C4-N3	-2.57	1.34	1.38
1	2A	1915	5MU	C2-N1	2.57	1.42	1.38
1	1A	1942	5MC	C6-C5	2.56	1.38	1.34
1	1A	2251	OMG	C6-N1	-2.56	1.34	1.38
1	1A	1942	5MC	C6-N1	-2.55	1.33	1.38
1	1A	2503	2MA	C8-N7	2.55	1.36	1.31
1	2A	2251	OMG	C6-N1	-2.53	1.34	1.38
32	1a	516	PSU	C4-N3	-2.53	1.34	1.38
32	1a	966	M2G	C6-N1	-2.52	1.34	1.38
1	1A	1962	5MC	C6-N1	-2.52	1.33	1.38
1	1A	1911	PSU	C4-N3	-2.51	1.34	1.38
54	1x	32	5MC	C6-N1	-2.51	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	1a	1207	2MG	C6-N1	-2.50	1.34	1.38
54	2x	54	5MU	C4-C5	2.50	1.48	1.44
32	2a	1498	UR3	C2-N1	2.48	1.41	1.38
1	1A	1915	5MU	C4-N3	-2.48	1.34	1.38
1	2A	1915	5MU	C4-C5	2.47	1.48	1.44
32	2a	1407	5MC	C6-C5	2.47	1.38	1.34
1	1A	1939	5MU	C6-N1	-2.47	1.33	1.38
1	2A	2503	2MA	C8-N7	2.45	1.36	1.31
1	1A	1915	5MU	C2-N1	2.44	1.42	1.38
1	1A	1939	5MU	C4-C5	2.43	1.48	1.44
54	2x	8	4SU	C2-N3	-2.42	1.33	1.38
1	1A	1939	5MU	C2-N3	-2.41	1.33	1.38
54	1x	54	5MU	C4-C5	2.40	1.48	1.44
1	2A	1939	5MU	C2-N1	2.39	1.42	1.38
32	1a	1518	MA6	C8-N7	2.39	1.36	1.31
1	2A	1911	PSU	C4-N3	-2.39	1.34	1.38
32	2a	1519	MA6	C5-N7	-2.38	1.34	1.39
1	1A	1915	5MU	C4-C5	2.37	1.48	1.44
32	2a	1519	MA6	C8-N7	2.37	1.36	1.31
54	2x	55	PSU	C4-N3	-2.37	1.34	1.38
32	2a	516	PSU	C4-N3	-2.36	1.34	1.38
1	1A	2251	OMG	C5-N7	-2.35	1.34	1.39
32	1a	1519	MA6	C8-N7	2.33	1.36	1.31
32	2a	1404	5MC	C6-N1	-2.32	1.34	1.38
32	2a	1518	MA6	C8-N7	2.31	1.36	1.31
32	2a	527	7MG	C6-N1	-2.29	1.34	1.38
1	1A	2503	2MA	C5-C6	2.29	1.47	1.41
1	2A	1939	5MU	C4-C5	2.28	1.48	1.44
1	2A	2503	2MA	C5-N7	-2.28	1.34	1.39
32	1a	1519	MA6	C5-N7	-2.28	1.34	1.39
1	2A	1942	5MC	C6-N1	-2.27	1.34	1.38
54	2x	54	5MU	C4-N3	-2.27	1.34	1.38
1	1A	1962	5MC	C6-C5	2.25	1.38	1.34
1	1A	2605	PSU	C2-N3	-2.23	1.33	1.37
32	1a	1407	5MC	C6-N1	-2.23	1.34	1.38
1	2A	1939	5MU	C6-N1	-2.23	1.34	1.38
32	2a	966	M2G	C6-N1	-2.23	1.34	1.38
1	1A	2503	2MA	C5-N7	-2.22	1.35	1.39
54	2x	8	4SU	C2-N1	2.22	1.41	1.38
54	1x	54	5MU	C6-N1	-2.20	1.34	1.38
32	2a	1518	MA6	C4-N9	-2.18	1.33	1.37
32	1a	1400	5MC	C6-N1	-2.16	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	1a	1518	MA6	C5-N7	-2.14	1.35	1.39
1	2A	1915	5MU	C2-N3	-2.14	1.34	1.38
54	2x	54	5MU	C6-N1	-2.13	1.34	1.38
32	1a	967	5MC	C6-N1	-2.13	1.34	1.38
32	2a	1207	2MG	C2-N3	2.12	1.36	1.32
1	2A	2605	PSU	C2-N3	-2.12	1.34	1.37
54	1x	54	5MU	C2-N3	-2.11	1.34	1.38
32	2a	1407	5MC	C6-N1	-2.11	1.34	1.38
1	1A	2552	2MU	C5-C4	2.11	1.48	1.43
1	1A	1915	5MU	C6-N1	-2.11	1.34	1.38
32	1a	966	M2G	C5-N7	-2.10	1.34	1.39
32	2a	1207	2MG	C6-N1	-2.10	1.34	1.38
32	2a	967	5MC	C6-N1	-2.10	1.34	1.38
32	2a	516	PSU	O4'-C1'	-2.10	1.40	1.43
32	2a	1498	UR3	C6-C5	2.09	1.39	1.35
32	2a	527	7MG	C8-N9	2.09	1.47	1.45
32	2a	1400	5MC	C6-N1	-2.06	1.34	1.38
1	2A	1915	5MU	C6-N1	-2.05	1.34	1.38
32	1a	527	7MG	C8-N9	2.05	1.47	1.45
54	2x	54	5MU	C2-N1	2.04	1.41	1.38
1	2A	1962	5MC	C6-N1	-2.02	1.34	1.38
32	2a	1518	MA6	C5-N7	-2.02	1.35	1.39
32	1a	1207	2MG	C4-N9	-2.01	1.32	1.38
32	2a	966	M2G	C5-N7	-2.01	1.35	1.39
32	1a	527	7MG	C6-N1	-2.01	1.35	1.38
1	1A	2503	2MA	C4-N9	-2.01	1.33	1.37
1	2A	1939	5MU	C2-N3	-2.00	1.34	1.38
1	1A	1920	4OC	C6-N1	-2.00	1.33	1.38

All (278) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	2503	2MA	C5-C4-N3	-9.08	117.62	127.18
32	1a	527	7MG	N9-C4-N3	8.95	138.57	125.46
32	2a	527	7MG	N9-C4-N3	8.40	137.77	125.46
1	1A	2503	2MA	C5-C4-N3	-8.13	118.62	127.18
32	1a	1498	UR3	C4-N3-C2	-7.03	118.92	124.58
1	1A	2251	OMG	C5-C4-N3	-6.97	117.30	128.39
32	2a	1207	2MG	C2-N3-C4	6.84	120.56	112.00
1	2A	1917	PSU	N1-C2-N3	6.65	122.18	115.17
54	1x	55	PSU	N1-C2-N3	6.63	122.16	115.17
1	2A	2503	2MA	N3-C4-N9	6.58	135.34	126.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	1207	2MG	C2-N3-C4	6.53	120.17	112.00
1	2A	2605	PSU	N1-C2-N3	6.50	122.03	115.17
1	1A	1917	PSU	N1-C2-N3	6.44	121.96	115.17
32	2a	966	M2G	C5-C4-N3	-6.43	118.16	128.39
1	1A	2503	2MA	N3-C4-N9	6.30	134.98	126.99
32	1a	516	PSU	N1-C2-N3	6.17	121.68	115.17
1	2A	2251	OMG	C5-C4-N3	-6.17	118.57	128.39
32	2a	1498	UR3	C4-N3-C2	-6.16	119.62	124.58
1	2A	1911	PSU	N1-C2-N3	5.96	121.45	115.17
32	1a	966	M2G	C5-C4-N3	-5.96	118.91	128.39
32	1a	1519	MA6	C5-C4-N3	-5.92	118.56	126.72
32	2a	516	PSU	N1-C2-N3	5.85	121.34	115.17
32	2a	1207	2MG	C5-C4-N3	-5.81	119.14	128.39
1	1A	2605	PSU	N1-C2-N3	5.72	121.20	115.17
1	1A	2552	2MU	N3-C2-N1	5.72	122.34	114.89
1	2A	1939	5MU	C4-N3-C2	-5.70	119.87	127.34
1	1A	1911	PSU	N1-C2-N3	5.66	121.13	115.17
32	2a	1519	MA6	C5-C4-N3	-5.61	118.99	126.72
54	2x	55	PSU	N1-C2-N3	5.59	121.07	115.17
32	1a	1518	MA6	C5-C4-N3	-5.51	119.14	126.72
1	2A	1939	5MU	N3-C2-N1	5.50	122.05	114.89
32	2a	527	7MG	N9-C8-N7	-5.48	95.61	103.37
1	2A	1915	5MU	N3-C2-N1	5.45	121.98	114.89
1	1A	2251	OMG	C2-N3-C4	5.37	121.55	112.30
54	2x	54	5MU	C4-N3-C2	-5.33	120.35	127.34
32	1a	527	7MG	C5-C4-N3	-5.32	118.14	128.13
54	1x	54	5MU	N3-C2-N1	5.27	121.75	114.89
1	1A	2251	OMG	N9-C4-N3	5.17	136.28	125.95
32	2a	966	M2G	N9-C4-N3	5.12	136.19	125.95
54	2x	54	5MU	N3-C2-N1	5.11	121.54	114.89
32	1a	527	7MG	N9-C8-N7	-5.10	96.15	103.37
1	1A	1915	5MU	C4-N3-C2	-5.10	120.65	127.34
32	1a	1207	2MG	C5-C4-N3	-5.10	120.27	128.39
1	1A	1915	5MU	N3-C2-N1	5.10	121.53	114.89
1	1A	1939	5MU	N3-C2-N1	5.04	121.45	114.89
32	2a	1518	MA6	C5-C4-N3	-5.02	119.81	126.72
1	2A	1915	5MU	C4-N3-C2	-5.01	120.77	127.34
32	2a	527	7MG	C5-C4-N3	-5.01	118.72	128.13
1	1A	2552	2MU	C4-N3-C2	-4.94	120.48	126.61
1	2A	2251	OMG	N9-C4-N3	4.91	135.76	125.95
1	1A	1939	5MU	C4-N3-C2	-4.86	120.97	127.34
32	2a	966	M2G	C2-N3-C4	4.70	121.20	112.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	2251	OMG	C2-N3-C4	4.62	120.27	112.30
54	1x	54	5MU	C4-N3-C2	-4.61	121.29	127.34
1	2A	1939	5MU	C5-C4-N3	4.58	119.31	115.32
32	2a	1518	MA6	C9-N6-C6	-4.56	108.92	120.52
32	1a	1519	MA6	N3-C4-N9	4.53	134.88	127.17
1	2A	2552	2MU	C4-N3-C2	-4.52	121.00	126.61
1	1A	1915	5MU	C5-C4-N3	4.51	119.25	115.32
54	2x	54	5MU	C5-C4-N3	4.49	119.23	115.32
1	2A	2605	PSU	C4-N3-C2	-4.43	120.27	126.37
54	1x	55	PSU	C4-N3-C2	-4.43	120.28	126.37
1	2A	1939	5MU	O4-C4-C5	-4.42	119.86	124.92
54	2x	8	4SU	C5-C4-N3	4.39	118.83	114.75
32	1a	966	M2G	C2-N3-C4	4.39	120.62	112.51
32	1a	1518	MA6	C2-N1-C6	4.39	122.54	111.83
32	2a	1518	MA6	C2-N1-C6	4.37	122.51	111.83
32	1a	1518	MA6	C9-N6-C6	-4.33	109.50	120.52
32	1a	966	M2G	N9-C4-N3	4.32	134.60	125.95
1	2A	2552	2MU	N3-C2-N1	4.31	120.50	114.89
32	2a	1519	MA6	C2-N1-C6	4.29	122.31	111.83
54	2x	54	5MU	O4-C4-C5	-4.23	120.08	124.92
32	2a	1207	2MG	N9-C4-N3	4.21	134.37	125.95
32	1a	527	7MG	C2-N3-C4	4.19	119.52	112.30
1	1A	2605	PSU	C4-N3-C2	-4.19	120.60	126.37
32	2a	1519	MA6	N3-C4-N9	4.19	134.29	127.17
1	1A	1915	5MU	O4-C4-C5	-4.18	120.14	124.92
32	1a	1518	MA6	C4-C5-N7	-4.17	105.81	110.58
32	1a	1519	MA6	C2-N1-C6	4.17	122.01	111.83
1	1A	1917	PSU	O2-C2-N1	-4.16	118.50	122.79
1	2A	1917	PSU	C4-N3-C2	-4.13	120.67	126.37
32	2a	527	7MG	C2-N3-C4	4.09	119.35	112.30
32	1a	1519	MA6	C4-C5-N7	-4.08	105.92	110.58
32	1a	1518	MA6	N3-C4-N9	4.07	134.09	127.17
1	2A	2503	2MA	C4-C5-N7	-4.06	105.94	110.58
1	1A	1917	PSU	C4-N3-C2	-4.05	120.79	126.37
32	2a	516	PSU	C4-N3-C2	-4.04	120.81	126.37
1	2A	1915	5MU	C5-C4-N3	4.04	118.83	115.32
32	1a	516	PSU	C4-N3-C2	-4.02	120.83	126.37
32	1a	1207	2MG	C6-C5-N7	3.97	137.52	130.29
32	1a	1519	MA6	C9-N6-C6	-3.97	110.41	120.52
1	2A	1939	5MU	C5-C6-N1	-3.96	119.01	123.31
1	1A	1939	5MU	C5-C6-N1	-3.96	119.01	123.31
1	1A	1939	5MU	C5-C4-N3	3.94	118.75	115.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	1942	5MC	C5-C6-N1	-3.92	119.06	123.31
32	2a	1518	MA6	N3-C4-N9	3.89	133.78	127.17
1	1A	1942	5MC	C5-C6-N1	-3.89	119.09	123.31
1	2A	1911	PSU	C4-N3-C2	-3.86	121.05	126.37
32	1a	516	PSU	O2-C2-N1	-3.85	118.82	122.79
54	2x	55	PSU	C4-N3-C2	-3.81	121.12	126.37
32	2a	1518	MA6	C4-C5-N7	-3.78	106.27	110.58
32	2a	1519	MA6	C4-C5-N7	-3.77	106.27	110.58
1	1A	1962	5MC	C5-C6-N1	-3.77	119.22	123.31
1	1A	1911	PSU	C4-N3-C2	-3.77	121.18	126.37
32	2a	1519	MA6	C9-N6-C6	-3.75	110.98	120.52
1	1A	2552	2MU	O2-C2-N1	-3.75	117.92	122.80
32	1a	1400	5MC	C5-C6-N1	-3.72	119.27	123.31
32	1a	1518	MA6	C2-N3-C4	3.71	120.89	111.83
32	1a	1519	MA6	C2-N3-C4	3.68	120.82	111.83
32	2a	1400	5MC	C5-C6-N1	-3.66	119.33	123.31
43	2l	92	0TD	OD2-CG-CB	3.64	121.01	113.15
1	2A	2552	2MU	C2'-C1'-N1	-3.62	107.38	114.24
1	2A	1911	PSU	O2-C2-N1	-3.61	119.07	122.79
54	1x	32	5MC	C5-C6-N1	-3.58	119.42	123.31
32	1a	1207	2MG	N9-C4-N3	3.58	133.11	125.95
43	1l	92	0TD	CSB-SB-CB	3.56	108.77	102.36
1	1A	2503	2MA	C4-C5-N7	-3.54	106.53	110.58
1	2A	2552	2MU	O2-C2-N1	-3.53	118.20	122.80
54	2x	54	5MU	O2-C2-N1	-3.50	118.24	122.80
1	1A	1911	PSU	O2-C2-N1	-3.48	119.20	122.79
32	2a	1519	MA6	C2-N3-C4	3.48	120.32	111.83
1	2A	1915	5MU	C5-C6-N1	-3.46	119.55	123.31
1	2A	1915	5MU	O4-C4-C5	-3.45	120.97	124.92
32	1a	1518	MA6	N1-C2-N3	-3.45	123.36	128.58
1	2A	2552	2MU	O4-C4-C5	-3.44	119.22	125.16
54	1x	54	5MU	C5-C4-N3	3.44	118.31	115.32
1	2A	1917	PSU	O2-C2-N1	-3.43	119.25	122.79
32	2a	1207	2MG	C6-C5-N7	3.43	136.53	130.29
32	2a	1518	MA6	C2-N3-C4	3.41	120.15	111.83
32	1a	1498	UR3	C5-C4-N3	3.40	119.52	115.04
32	2a	1519	MA6	N1-C6-N6	3.37	120.96	116.86
32	2a	1404	5MC	C5-C4-N3	-3.35	118.32	121.75
32	1a	966	M2G	C6-C5-N7	3.32	136.34	130.29
1	2A	2552	2MU	C5-C4-N3	3.30	119.42	114.80
32	2a	1400	5MC	C5-C4-N3	-3.28	118.39	121.75
32	2a	1518	MA6	C10-N6-C6	-3.28	112.18	120.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	967	5MC	C5-C6-N1	-3.26	119.77	123.31
32	1a	1404	5MC	C5-C4-N3	-3.26	118.42	121.75
32	1a	1407	5MC	C5-C4-N3	-3.24	118.44	121.75
32	2a	1518	MA6	N1-C2-N3	-3.22	123.71	128.58
32	1a	1519	MA6	N1-C2-N3	-3.20	123.74	128.58
32	2a	1404	5MC	C5-C6-N1	-3.20	119.84	123.31
54	2x	54	5MU	C5-C6-N1	-3.16	119.88	123.31
54	1x	54	5MU	O2-C2-N1	-3.16	118.68	122.80
54	1x	54	5MU	C5-C6-N1	-3.16	119.89	123.31
54	1x	8	4SU	C5-C4-N3	3.14	117.67	114.75
1	1A	2503	2MA	C4-N9-C8	3.13	109.03	105.74
54	1x	54	5MU	O4-C4-C5	-3.13	121.34	124.92
1	1A	2503	2MA	N6-C6-N1	3.12	121.24	117.03
32	2a	1519	MA6	N1-C2-N3	-3.08	123.92	128.58
32	2a	1519	MA6	C10-N6-C6	-3.08	112.69	120.52
32	2a	516	PSU	O2-C2-N1	-3.07	119.62	122.79
43	1l	92	0TD	OD2-CG-CB	3.07	119.79	113.15
54	2x	8	4SU	C1'-N1-C2	3.07	123.11	117.59
1	2A	1962	5MC	C5-C6-N1	-3.04	120.01	123.31
32	2a	1518	MA6	C4-N9-C8	3.03	108.92	105.74
54	1x	32	5MC	C5-C4-N3	-3.01	118.67	121.75
54	2x	8	4SU	C4-N3-C2	-3.00	124.44	127.31
32	1a	1519	MA6	C5-N7-C8	3.00	108.17	103.45
54	1x	55	PSU	O2-C2-N1	-3.00	119.70	122.79
54	2x	32	5MC	C5-C4-N3	-2.99	118.69	121.75
54	1x	8	4SU	O2-C2-N1	2.99	126.68	122.80
54	1x	8	4SU	C6-C5-C4	-2.96	117.39	119.95
32	1a	967	5MC	C5-C6-N1	-2.94	120.11	123.31
1	1A	1939	5MU	O4-C4-C5	-2.91	121.59	124.92
32	1a	1518	MA6	C5-N7-C8	2.89	108.00	103.45
1	2A	2503	2MA	C5-N7-C8	2.89	107.98	103.45
32	2a	1407	5MC	C5-C6-N1	-2.87	120.19	123.31
32	1a	1518	MA6	C10-N6-C6	-2.84	113.31	120.52
1	2A	2605	PSU	O2-C2-N1	-2.81	119.89	122.79
32	2a	1518	MA6	N1-C6-N6	2.78	120.24	116.86
32	2a	1498	UR3	C1'-N1-C2	2.77	121.58	117.04
1	2A	1962	5MC	C5-C4-N3	-2.77	118.91	121.75
1	1A	2552	2MU	C5-C4-N3	2.76	118.66	114.80
32	1a	1518	MA6	C4-N9-C8	2.75	108.62	105.74
1	1A	1915	5MU	C5-C6-N1	-2.73	120.35	123.31
32	2a	1207	2MG	C4-C5-N7	-2.72	106.36	110.67
32	2a	967	5MC	C5-C4-N3	-2.71	118.98	121.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	1407	5MC	C5-C6-N1	-2.71	120.38	123.31
32	1a	1519	MA6	N1-C6-N6	2.71	120.15	116.86
1	1A	2552	2MU	O4-C4-C5	-2.70	120.51	125.16
32	1a	966	M2G	C4-C5-N7	-2.70	106.40	110.67
32	1a	1207	2MG	C4-C5-N7	-2.70	106.40	110.67
1	1A	2605	PSU	O2-C2-N1	-2.67	120.03	122.79
1	1A	1942	5MC	C5-C4-N3	-2.66	119.03	121.75
1	2A	2251	OMG	O6-C6-C5	-2.65	119.52	126.53
32	1a	1519	MA6	C10-N6-C6	-2.64	113.79	120.52
32	1a	1519	MA6	C4-N9-C8	2.64	108.51	105.74
1	1A	1915	5MU	C5M-C5-C4	2.63	121.59	118.78
1	1A	2503	2MA	C5-N7-C8	2.63	107.58	103.45
32	2a	1400	5MC	O2-C2-N3	-2.63	118.19	122.33
32	2a	516	PSU	O4'-C1'-C2'	2.62	108.78	105.15
32	2a	966	M2G	C6-C5-N7	2.62	135.06	130.29
32	1a	1207	2MG	N1-C2-N2	2.62	119.24	116.56
54	2x	32	5MC	C5-C6-N1	-2.62	120.47	123.31
43	2l	92	0TD	OD1-CG-CB	-2.61	116.97	122.44
32	1a	1400	5MC	C5-C4-N3	-2.60	119.08	121.75
1	1A	1915	5MU	O2-C2-N1	-2.60	119.41	122.80
32	1a	1402	4OC	O2-C2-N3	-2.60	118.23	122.33
32	2a	1518	MA6	C5-N7-C8	2.60	107.54	103.45
32	2a	1407	5MC	C5-C4-N3	-2.60	119.09	121.75
1	2A	1939	5MU	O2-C2-N1	-2.58	119.44	122.80
1	1A	1939	5MU	O2-C2-N1	-2.57	119.45	122.80
1	2A	1962	5MC	O2-C2-N3	-2.57	118.28	122.33
32	1a	967	5MC	C5-C4-N3	-2.56	119.13	121.75
32	1a	527	7MG	C5-C6-N1	2.56	115.44	110.94
32	1a	1404	5MC	C5-C6-N1	-2.55	120.55	123.31
1	1A	2251	OMG	C6-C5-N7	2.54	134.92	130.29
1	1A	2605	PSU	C6-C5-C4	-2.54	116.46	118.17
54	2x	54	5MU	C5M-C5-C4	2.53	121.48	118.78
54	1x	55	PSU	C5-C6-N1	-2.51	118.66	122.14
32	2a	1498	UR3	C5-C4-N3	2.50	118.33	115.04
32	2a	1519	MA6	C5-N7-C8	2.49	107.37	103.45
1	1A	2503	2MA	C2-N1-C6	2.49	121.92	118.10
54	2x	8	4SU	N3-C2-N1	2.45	118.08	114.89
1	1A	2503	2MA	N9-C8-N7	-2.45	110.46	113.94
1	2A	2251	OMG	C6-C5-N7	2.44	134.73	130.29
32	2a	527	7MG	C5-C6-N1	2.43	115.22	110.94
32	2a	1207	2MG	N1-C2-N2	2.40	119.01	116.56
1	1A	2251	OMG	O6-C6-C5	-2.39	120.23	126.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	527	7MG	C5-C4-N9	-2.38	103.28	106.33
32	1a	1518	MA6	C6-C5-N7	2.37	137.22	133.43
1	2A	2503	2MA	C6-C5-N7	2.36	136.64	132.09
1	2A	1942	5MC	C5-C4-N3	-2.34	119.35	121.75
32	2a	1498	UR3	C6-N1-C2	-2.33	119.90	121.80
32	2a	1518	MA6	C10-N6-C9	-2.32	108.72	116.18
32	2a	966	M2G	C4-C5-N7	-2.32	106.99	110.67
32	1a	527	7MG	O6-C6-C5	-2.32	121.92	127.62
1	2A	2503	2MA	C2-N1-C6	2.32	121.67	118.10
1	2A	2605	PSU	C5-C6-N1	-2.31	118.94	122.14
32	2a	966	M2G	O6-C6-C5	-2.30	120.46	126.53
54	1x	8	4SU	O2-C2-N3	-2.29	117.26	121.49
32	2a	1404	5MC	CM5-C5-C6	-2.29	119.75	122.85
1	1A	2251	OMG	C4-C5-N7	-2.29	107.05	110.67
32	2a	1407	5MC	O2-C2-N3	-2.28	118.73	122.33
54	2x	8	4SU	C5-C4-S4	-2.28	121.70	124.31
54	1x	8	4SU	C1'-N1-C2	2.27	121.66	117.59
1	1A	2503	2MA	C6-C5-N7	2.26	136.45	132.09
32	1a	1498	UR3	C1'-N1-C2	2.26	120.73	117.04
1	1A	1920	4OC	C1'-N1-C2	2.26	123.42	118.44
54	2x	8	4SU	C6-C5-C4	-2.25	118.00	119.95
32	1a	1518	MA6	C10-N6-C9	-2.25	108.96	116.18
32	2a	1402	4OC	O2-C2-N3	-2.25	118.79	122.33
54	2x	55	PSU	O2-C2-N1	-2.24	120.47	122.79
54	2x	32	5MC	O2-C2-N3	-2.23	118.82	122.33
1	2A	1920	4OC	O2-C2-N3	-2.22	118.82	122.33
32	2a	527	7MG	C5-C4-N9	-2.22	103.49	106.33
32	2a	1402	4OC	C6-C5-C4	2.22	119.67	117.00
32	2a	967	5MC	O2-C2-N3	-2.22	118.84	122.33
54	1x	32	5MC	O2-C2-N3	-2.22	118.84	122.33
32	1a	1518	MA6	N9-C8-N7	-2.21	110.80	113.94
1	1A	1920	4OC	O2-C2-N3	-2.21	118.84	122.33
32	1a	1519	MA6	N9-C8-N7	-2.19	110.83	113.94
32	2a	516	PSU	C5-C6-N1	-2.19	119.10	122.14
32	2a	1207	2MG	N2-C2-N3	-2.19	117.72	120.51
32	2a	1518	MA6	N9-C8-N7	-2.17	110.86	113.94
32	2a	1519	MA6	C4-N9-C8	2.16	108.01	105.74
32	1a	1402	4OC	C6-C5-C4	2.16	119.60	117.00
1	1A	1962	5MC	C5-C4-N3	-2.15	119.55	121.75
32	2a	1518	MA6	C6-C5-N7	2.15	136.86	133.43
32	1a	1402	4OC	CM4-N4-C4	-2.14	118.27	122.45
32	1a	1498	UR3	C3U-N3-C4	2.13	120.83	117.87

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1939	5MU	C5M-C5-C4	2.13	121.06	118.78
1	2A	2605	PSU	O2-C2-N3	-2.13	118.08	121.86
54	2x	8	4SU	C6-N1-C2	-2.12	118.41	121.00
32	1a	1400	5MC	O2-C2-N3	-2.12	118.98	122.33
54	1x	55	PSU	O2-C2-N3	-2.10	118.14	121.86
32	2a	1207	2MG	O6-C6-C5	-2.09	121.01	126.53
32	1a	1407	5MC	CM5-C5-C6	-2.09	120.03	122.85
1	2A	1915	5MU	O2-C2-N3	-2.08	117.64	121.49
1	2A	2503	2MA	C4-N9-C8	2.08	107.92	105.74
1	1A	1962	5MC	CM5-C5-C6	-2.03	120.10	122.85
1	1A	2605	PSU	C5-C6-N1	-2.03	119.32	122.14
54	2x	55	PSU	C5-C6-N1	-2.02	119.33	122.14
43	1l	92	0TD	OD1-CG-CB	-2.02	118.21	122.44
32	1a	966	M2G	O6-C6-C5	-2.01	121.22	126.53
32	1a	1518	MA6	N1-C6-N6	2.01	119.31	116.86
1	2A	1917	PSU	C5-C6-N1	-2.01	119.35	122.14

There are no chirality outliers.

All (42) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
32	1a	1207	2MG	N1-C2-N2-CM2
32	1a	1207	2MG	N3-C2-N2-CM2
32	1a	1400	5MC	O4'-C4'-C5'-O5'
32	1a	1519	MA6	O4'-C4'-C5'-O5'
32	2a	1402	4OC	O4'-C4'-C5'-O5'
32	2a	1519	MA6	O4'-C4'-C5'-O5'
32	1a	1400	5MC	C3'-C4'-C5'-O5'
32	2a	527	7MG	C3'-C4'-C5'-O5'
32	2a	1400	5MC	O4'-C4'-C5'-O5'
32	1a	516	PSU	O4'-C4'-C5'-O5'
32	1a	527	7MG	C3'-C4'-C5'-O5'
32	2a	527	7MG	O4'-C4'-C5'-O5'
32	2a	1400	5MC	C3'-C4'-C5'-O5'
32	2a	1402	4OC	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
32	1a	527	7MG	O4'-C4'-C5'-O5'
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	1a	1518	MA6	C5-C6-N6-C10
32	1a	1519	MA6	C5-C6-N6-C10
43	1l	92	0TD	CG-CB-SB-CSB
43	2l	92	0TD	CG-CB-SB-CSB

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Mol	Chain	Res	Type	Atoms
1	1A	1962	5MC	C2'-C1'-N1-C6
32	1a	967	5MC	O4'-C4'-C5'-O5'
1	2A	1917	PSU	O4'-C4'-C5'-O5'
32	1a	516	PSU	C3'-C4'-C5'-O5'
32	1a	1518	MA6	C5-C6-N6-C9
32	2a	1518	MA6	C5-C6-N6-C10
32	2a	1519	MA6	C5-C6-N6-C10
1	1A	2503	2MA	C4'-C5'-O5'-P
32	2a	1519	MA6	C4'-C5'-O5'-P
1	1A	1962	5MC	O4'-C1'-N1-C6
1	1A	2503	2MA	O4'-C4'-C5'-O5'
32	2a	967	5MC	O4'-C4'-C5'-O5'
32	1a	1402	4OC	O4'-C4'-C5'-O5'
54	2x	8	4SU	C2'-C1'-N1-C2
1	2A	2552	2MU	C3'-C2'-O2'-C6'
1	1A	1962	5MC	O4'-C1'-N1-C2
1	1A	1962	5MC	C2'-C1'-N1-C2
1	2A	1962	5MC	O4'-C1'-N1-C6
1	1A	1920	4OC	C2'-C1'-N1-C2
1	2A	1920	4OC	C2'-C1'-N1-C2
32	2a	1402	4OC	C2'-C1'-N1-C2

There are no ring outliers.

34 monomers are involved in 47 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	1a	1518	MA6	1	0
32	2a	1518	MA6	5	0
54	2x	54	5MU	1	0
54	2x	55	PSU	1	0
32	2a	1404	5MC	1	0
54	2x	32	5MC	1	0
1	1A	2605	PSU	1	0
43	1l	92	0TD	1	0
32	1a	1519	MA6	1	0
1	2A	1920	4OC	1	0
32	1a	966	M2G	1	0
32	2a	1400	5MC	1	0
32	2a	966	M2G	1	0
1	2A	1915	5MU	1	0
54	1x	8	4SU	3	0
32	1a	1402	4OC	4	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	2A	1939	5MU	1	0
1	1A	1939	5MU	1	0
54	1x	55	PSU	1	0
32	2a	1519	MA6	4	0
32	1a	967	5MC	1	0
1	2A	1942	5MC	1	0
1	1A	2552	2MU	2	0
32	1a	1400	5MC	1	0
32	1a	1404	5MC	2	0
1	2A	2503	2MA	1	0
43	2l	92	0TD	1	0
32	1a	1207	2MG	3	0
32	2a	1402	4OC	1	0
1	1A	2251	OMG	1	0
1	2A	2552	2MU	2	0
54	2x	8	4SU	1	0
32	2a	967	5MC	3	0
1	2A	2251	OMG	1	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 2024 ligands modelled in this entry, 2022 are monoatomic - leaving 2 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	$\#\|Z\| > 2$
58	SF4	1d	302	35	0,12,12	-	-	-		
58	SF4	2d	302	35	0,12,12	-	-	-		

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
58	SF4	1d	302	35	-	-	0/6/5/5
58	SF4	2d	302	35	-	-	0/6/5/5

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

1 monomer is involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	1d	302	SF4	3	0

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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%)	-0.34	50 (1%) 69 46	26, 42, 92, 108	0
1	2A	2789/2915 (95%)	-0.05	35 (1%) 75 53	35, 59, 90, 106	0
2	1B	120/121 (99%)	-0.47	0 100 100	36, 51, 67, 83	0
2	2B	120/121 (99%)	0.62	6 (5%) 34 17	64, 81, 90, 98	0
3	1D	275/276 (99%)	0.03	4 (1%) 72 50	29, 41, 54, 77	0
3	2D	275/276 (99%)	0.30	4 (1%) 72 50	35, 50, 62, 71	0
4	1E	204/206 (99%)	-0.00	1 (0%) 87 72	26, 45, 60, 73	0
4	2E	204/206 (99%)	0.05	0 100 100	37, 57, 67, 77	0
5	1F	203/210 (96%)	-0.10	0 100 100	28, 47, 65, 79	0
5	2F	203/210 (96%)	0.16	1 (0%) 87 72	37, 65, 77, 81	0
6	1G	181/182 (99%)	0.33	5 (2%) 55 32	42, 58, 70, 83	0
6	2G	181/182 (99%)	0.97	17 (9%) 14 7	69, 79, 86, 92	0
7	1H	174/180 (96%)	0.01	1 (0%) 85 69	45, 55, 66, 74	0
7	2H	174/180 (96%)	0.68	6 (3%) 48 27	64, 79, 87, 97	0
8	1I	146/148 (98%)	0.36	1 (0%) 84 66	45, 69, 78, 82	0
8	2I	146/148 (98%)	0.54	4 (2%) 56 33	57, 72, 81, 87	0
9	1N	140/140 (100%)	0.06	3 (2%) 63 40	34, 45, 62, 72	0
9	2N	140/140 (100%)	0.37	3 (2%) 63 40	46, 63, 76, 84	0
10	1O	122/122 (100%)	-0.16	0 100 100	34, 44, 58, 64	0
10	2O	122/122 (100%)	0.17	0 100 100	45, 56, 69, 74	0
11	1P	149/150 (99%)	0.16	2 (1%) 75 53	28, 49, 67, 86	0
11	2P	149/150 (99%)	0.31	3 (2%) 65 42	43, 66, 81, 84	0
12	1Q	141/141 (100%)	-0.07	2 (1%) 73 51	32, 46, 58, 67	0
12	2Q	141/141 (100%)	0.46	2 (1%) 73 51	47, 63, 75, 80	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	1R	118/118 (100%)	-0.10	0 100 100	34, 41, 55, 63	0
13	2R	118/118 (100%)	0.18	1 (0%) 82 63	40, 53, 61, 67	0
14	1S	110/112 (98%)	0.08	0 100 100	42, 51, 60, 66	0
14	2S	110/112 (98%)	0.95	6 (5%) 30 16	63, 73, 82, 85	0
15	1T	131/146 (89%)	-0.01	1 (0%) 82 63	34, 48, 68, 83	0
15	2T	131/146 (89%)	0.35	3 (2%) 61 38	48, 58, 75, 85	0
16	1U	116/118 (98%)	0.01	2 (1%) 69 46	31, 41, 53, 66	0
16	2U	116/118 (98%)	0.35	2 (1%) 69 46	43, 60, 74, 81	0
17	1V	101/101 (100%)	-0.10	0 100 100	32, 47, 60, 73	0
17	2V	101/101 (100%)	0.37	3 (2%) 52 30	43, 68, 77, 81	0
18	1W	112/113 (99%)	-0.11	0 100 100	32, 40, 55, 76	0
18	2W	112/113 (99%)	0.19	3 (2%) 56 33	42, 52, 64, 87	0
19	1X	95/96 (98%)	-0.05	1 (1%) 78 57	32, 41, 58, 70	0
19	2X	95/96 (98%)	0.50	1 (1%) 78 57	53, 63, 74, 84	0
20	1Y	107/110 (97%)	0.01	2 (1%) 66 43	38, 52, 68, 73	0
20	2Y	107/110 (97%)	0.46	3 (2%) 55 32	58, 69, 78, 83	0
21	1Z	154/206 (74%)	0.04	1 (0%) 85 69	46, 62, 77, 80	0
21	2Z	160/206 (77%)	0.54	4 (2%) 58 35	66, 77, 85, 90	0
22	10	76/85 (89%)	-0.01	1 (1%) 75 53	33, 43, 55, 63	0
22	20	76/85 (89%)	0.61	5 (6%) 24 12	46, 63, 71, 80	0
23	11	97/98 (98%)	0.05	0 100 100	33, 46, 65, 71	0
23	21	97/98 (98%)	0.36	0 100 100	43, 55, 72, 76	0
24	12	70/72 (97%)	0.04	2 (2%) 53 31	38, 50, 60, 72	0
24	22	70/72 (97%)	0.31	0 100 100	61, 70, 75, 79	0
25	13	59/60 (98%)	0.00	0 100 100	31, 43, 61, 80	0
25	23	59/60 (98%)	0.23	1 (1%) 69 46	51, 65, 74, 82	0
26	14	69/71 (97%)	0.41	3 (4%) 40 21	55, 69, 83, 89	0
26	24	69/71 (97%)	0.71	3 (4%) 40 21	76, 85, 91, 95	0
27	15	59/60 (98%)	-0.10	1 (1%) 69 46	28, 40, 54, 66	0
27	25	59/60 (98%)	0.03	0 100 100	40, 52, 63, 72	0
28	16	53/54 (98%)	-0.32	0 100 100	36, 42, 54, 59	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	26	53/54 (98%)	0.27	0 100 100	52, 60, 66, 77	0
29	17	48/49 (97%)	-0.03	1 (2%) 63 40	29, 36, 58, 63	0
29	27	48/49 (97%)	0.18	1 (2%) 63 40	37, 45, 66, 74	0
30	18	64/65 (98%)	0.12	1 (1%) 70 47	29, 39, 48, 57	0
30	28	64/65 (98%)	0.38	0 100 100	49, 55, 63, 68	0
31	19	37/37 (100%)	-0.02	0 100 100	39, 46, 60, 66	0
31	29	37/37 (100%)	0.59	1 (2%) 56 33	60, 67, 74, 75	0
32	1a	1488/1521 (97%)	-0.04	16 (1%) 78 57	39, 65, 89, 105	0
32	2a	1491/1521 (98%)	0.37	33 (2%) 62 39	49, 75, 93, 105	0
33	1b	231/256 (90%)	0.38	4 (1%) 69 46	62, 75, 84, 94	0
33	2b	231/256 (90%)	0.92	27 (11%) 9 5	68, 81, 88, 95	0
34	1c	206/239 (86%)	0.07	1 (0%) 87 72	52, 67, 76, 83	0
34	2c	206/239 (86%)	0.80	18 (8%) 16 9	69, 81, 86, 92	0
35	1d	208/209 (99%)	0.29	4 (1%) 66 43	54, 67, 76, 80	0
35	2d	208/209 (99%)	0.74	6 (2%) 53 31	59, 72, 81, 86	0
36	1e	148/162 (91%)	0.31	2 (1%) 73 51	51, 63, 72, 77	0
36	2e	148/162 (91%)	0.68	8 (5%) 31 16	62, 73, 80, 85	0
37	1f	100/101 (99%)	-0.07	0 100 100	53, 62, 73, 74	0
37	2f	100/101 (99%)	0.12	1 (1%) 79 59	58, 70, 77, 81	0
38	1g	155/156 (99%)	0.30	9 (5%) 29 15	56, 66, 78, 86	0
38	2g	155/156 (99%)	0.42	5 (3%) 50 28	67, 77, 83, 88	0
39	1h	137/138 (99%)	0.22	1 (0%) 84 66	57, 66, 73, 79	0
39	2h	137/138 (99%)	0.71	7 (5%) 33 17	61, 72, 79, 80	0
40	1i	127/128 (99%)	0.72	10 (7%) 18 9	51, 71, 80, 85	0
40	2i	127/128 (99%)	1.17	20 (15%) 5 2	72, 82, 87, 91	0
41	1j	97/105 (92%)	0.49	1 (1%) 79 59	59, 72, 82, 85	0
41	2j	96/105 (91%)	1.62	32 (33%) 1 0	71, 83, 89, 92	0
42	1k	114/129 (88%)	0.09	1 (0%) 81 61	48, 65, 75, 81	0
42	2k	114/129 (88%)	0.52	3 (2%) 57 34	61, 70, 77, 86	0
43	1l	121/132 (91%)	0.05	2 (1%) 69 46	43, 56, 67, 75	0
43	2l	121/132 (91%)	0.54	2 (1%) 69 46	55, 65, 73, 79	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	1m	123/126 (97%)	0.48	3 (2%) 59 37	54, 66, 77, 95	0
44	2m	122/126 (96%)	1.07	12 (9%) 13 6	71, 81, 86, 93	0
45	1n	60/61 (98%)	0.48	2 (3%) 49 28	52, 62, 69, 72	0
45	2n	60/61 (98%)	1.65	21 (35%) 1 0	72, 81, 86, 88	0
46	1o	88/89 (98%)	0.16	1 (1%) 78 57	48, 63, 75, 81	0
46	2o	88/89 (98%)	0.55	0 100 100	61, 71, 78, 85	0
47	1p	82/88 (93%)	0.94	6 (7%) 21 10	58, 66, 76, 86	0
47	2p	82/88 (93%)	0.86	2 (2%) 59 37	54, 68, 76, 82	0
48	1q	99/105 (94%)	0.46	2 (2%) 65 42	53, 65, 74, 77	0
48	2q	99/105 (94%)	0.47	1 (1%) 79 59	60, 68, 75, 80	0
49	1r	68/88 (77%)	-0.04	0 100 100	57, 65, 74, 80	0
49	2r	68/88 (77%)	0.27	0 100 100	61, 69, 78, 81	0
50	1s	83/93 (89%)	0.35	1 (1%) 76 55	57, 66, 77, 82	0
50	2s	83/93 (89%)	0.99	6 (7%) 21 11	75, 82, 89, 93	0
51	1t	96/106 (90%)	0.62	6 (6%) 26 13	58, 68, 79, 83	0
51	2t	96/106 (90%)	0.44	4 (4%) 40 21	56, 68, 79, 82	0
52	1u	23/27 (85%)	0.69	1 (4%) 40 21	59, 64, 69, 71	0
52	2u	23/27 (85%)	1.41	6 (26%) 1 1	72, 78, 83, 88	0
53	1v	13/24 (54%)	1.70	5 (38%) 1 0	52, 88, 95, 95	0
53	2v	13/24 (54%)	2.38	9 (69%) 0 0	65, 95, 100, 102	0
54	1x	72/77 (93%)	-0.12	1 (1%) 73 51	37, 63, 80, 94	0
54	2x	72/77 (93%)	0.08	0 100 100	51, 77, 89, 94	0
55	1z	16/16 (100%)	0.52	2 (12%) 8 4	37, 43, 62, 75	0
55	2z	16/16 (100%)	0.89	3 (18%) 3 2	48, 52, 72, 77	0
All	All	20628/21476 (96%)	0.17	510 (2%) 58 35	26, 62, 86, 108	0

All (510) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
32	2a	1532	U	7.4
44	2m	123	ALA	6.0
44	1m	123	ALA	5.8
1	2A	2133	G	5.4
53	1v	24	A	5.3

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Mol	Chain	Res	Type	RSRZ
44	1m	124	PRO	5.2
1	2A	2131	G	5.0
1	2A	2145	C	4.8
45	2n	2	ALA	4.3
4	1E	6	GLY	4.3
50	2s	2	PRO	4.3
16	1U	117	GLN	4.1
1	1A	1094	U	4.1
41	2j	76	ASN	4.1
32	1a	1257	U	4.1
34	1c	2	GLY	4.0
34	2c	13	GLY	4.0
41	2j	59	SER	4.0
38	1g	82	GLY	4.0
3	2D	38	LYS	4.0
33	2b	131	PRO	4.0
53	2v	13	A	3.9
53	2v	24	A	3.9
43	2l	64	TYR	3.8
47	1p	22	THR	3.8
32	2a	1531	A	3.8
53	2v	23	A	3.8
24	12	70	GLN	3.8
39	2h	81	HIS	3.7
53	2v	14	A	3.7
38	2g	80	VAL	3.7
6	2G	53	LEU	3.7
29	27	48	LYS	3.7
38	1g	84	ASN	3.6
53	1v	23	A	3.6
41	2j	78	ASN	3.6
44	2m	102	ARG	3.6
6	2G	39	ILE	3.6
39	2h	131	GLY	3.6
40	2i	15	ALA	3.6
1	1A	1078	U	3.6
41	2j	67	THR	3.6
45	2n	33	VAL	3.5
1	1A	1100	C	3.5
14	2S	58	LEU	3.5
1	2A	2147	G	3.5
40	2i	102	LEU	3.5

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Mol	Chain	Res	Type	RSRZ
8	1I	10	GLU	3.4
33	2b	121	LEU	3.4
26	14	49	PHE	3.4
45	1n	5	ALA	3.4
41	2j	7	LYS	3.4
7	2H	115	VAL	3.4
7	1H	2	SER	3.4
45	2n	30	ALA	3.4
47	1p	80	PHE	3.3
45	2n	18	VAL	3.3
14	2S	7	TYR	3.3
33	1b	237	ALA	3.3
9	2N	11	PRO	3.3
1	1A	1093	G	3.3
52	2u	14	TRP	3.3
19	1X	60	ARG	3.3
26	14	56	VAL	3.3
33	1b	12	GLU	3.3
36	1e	81	GLU	3.3
32	1a	1002	G	3.3
40	2i	119	ALA	3.3
1	2A	2170	A	3.3
32	1a	1447	A	3.3
1	2A	2174	C	3.3
15	2T	55	ASN	3.3
30	18	3	LYS	3.3
39	2h	2	LEU	3.3
44	2m	124	PRO	3.2
1	2A	2132	U	3.2
45	2n	35	ARG	3.2
6	2G	28	VAL	3.2
41	2j	100	THR	3.2
1	1A	1057	A	3.2
1	1A	1095	A	3.2
45	2n	37	PHE	3.2
11	1P	31	ALA	3.2
35	2d	164	ALA	3.2
12	1Q	80	GLU	3.2
38	1g	85	TYR	3.2
41	2j	77	PRO	3.2
1	1A	1097	U	3.2
7	2H	123	PHE	3.2

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Mol	Chain	Res	Type	RSRZ
14	2S	45	GLY	3.1
6	2G	29	TRP	3.1
26	14	53	GLU	3.1
51	2t	9	ASN	3.1
41	2j	54	PHE	3.1
45	2n	21	TYR	3.1
34	2c	163	ALA	3.1
33	2b	138	LEU	3.1
40	2i	126	SER	3.1
18	2W	38	TYR	3.1
1	1A	1026	U	3.1
53	2v	22	U	3.1
40	2i	64	THR	3.1
1	1A	1096	A	3.1
53	2v	21	C	3.0
41	2j	65	LEU	3.0
16	2U	7	GLY	3.0
32	1a	1024	G	3.0
1	1A	1101	U	3.0
51	1t	21	LYS	3.0
33	2b	134	GLU	3.0
50	2s	71	LEU	3.0
1	1A	1098	A	3.0
24	12	69	ARG	3.0
3	1D	55	GLY	3.0
1	1A	1056	G	3.0
1	1A	2115	G	3.0
33	1b	134	GLU	3.0
38	1g	79	ARG	3.0
1	1A	508	G	3.0
1	2A	2117	A	3.0
40	1i	126	SER	3.0
1	1A	1102	C	3.0
27	15	60	VAL	3.0
6	2G	152	LEU	2.9
1	1A	2112	G	2.9
41	2j	57	LYS	2.9
45	2n	25	VAL	2.9
50	1s	84	GLY	2.9
41	2j	75	ILE	2.9
3	2D	90	ALA	2.9
33	2b	129	GLU	2.9

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Mol	Chain	Res	Type	RSRZ
45	1n	2	ALA	2.9
34	2c	195	VAL	2.9
22	20	69	PHE	2.9
34	2c	157	ILE	2.9
9	2N	10	GLU	2.9
32	1a	1003	G	2.9
32	2a	1030(A)	G	2.9
1	1A	1088	A	2.9
53	2v	12	A	2.9
41	2j	49	VAL	2.9
1	1A	1066	U	2.9
3	1D	38	LYS	2.9
3	1D	276	LYS	2.9
41	2j	48	THR	2.9
48	1q	78	GLU	2.9
36	2e	85	GLY	2.9
33	2b	44	LEU	2.9
39	1h	2	LEU	2.9
1	1A	2145	C	2.8
48	1q	26	GLN	2.8
3	2D	156	ALA	2.8
18	2W	78	GLU	2.8
40	1i	115	GLY	2.8
41	2j	40	LEU	2.8
1	2A	2173	A	2.8
32	2a	1286	A	2.8
53	1v	14	A	2.8
1	1A	614(B)	G	2.8
1	1A	2125	G	2.8
32	2a	1202	G	2.8
44	2m	122	LYS	2.8
34	2c	2	GLY	2.8
40	1i	109	VAL	2.8
1	1A	2114	A	2.8
33	2b	200	ILE	2.8
32	2a	1030(B)	C	2.8
40	2i	123	PRO	2.8
40	1i	2	GLU	2.8
16	2U	56	ASP	2.8
1	2A	1026	U	2.8
45	2n	3	ARG	2.8
45	2n	5	ALA	2.8

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Mol	Chain	Res	Type	RSRZ
1	1A	1087	G	2.8
32	2a	1224	G	2.8
51	1t	20	LEU	2.8
20	1Y	2	ARG	2.7
1	1A	2167	U	2.7
32	2a	1447	A	2.7
45	2n	44	LEU	2.7
6	2G	93	THR	2.7
32	2a	1363	C	2.7
1	1A	2168	G	2.7
9	1N	72	TYR	2.7
13	2R	5	LYS	2.7
47	1p	15	PRO	2.7
1	1A	2119	A	2.7
1	2A	229	A	2.7
38	1g	153	HIS	2.7
22	20	17	GLN	2.7
6	2G	20	ILE	2.7
50	2s	13	ASP	2.7
17	2V	80	GLN	2.7
20	2Y	1	MET	2.7
51	1t	58	LYS	2.7
1	1A	1099	G	2.7
6	1G	73	ALA	2.7
51	1t	18	GLN	2.6
33	2b	38	GLY	2.6
55	2z	15	TRP	2.6
12	2Q	17	LEU	2.6
1	2A	2116	G	2.6
38	2g	27	ILE	2.6
1	1A	2113	U	2.6
35	2d	154	ASN	2.6
33	1b	9	GLU	2.6
45	2n	32	SER	2.6
25	23	2	PRO	2.6
41	2j	41	PRO	2.6
32	1a	90	U	2.6
44	2m	69	GLU	2.6
1	2A	6	A	2.6
32	1a	1531	A	2.6
33	2b	167	PRO	2.6
26	24	54	GLY	2.6

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Mol	Chain	Res	Type	RSRZ
6	2G	46	ALA	2.6
1	1A	1068	G	2.6
6	2G	32	PRO	2.6
32	1a	1035	A	2.6
40	2i	124	GLN	2.6
21	2Z	146	ILE	2.5
35	2d	20	TYR	2.5
38	2g	82	GLY	2.5
1	1A	2116	G	2.5
26	24	56	VAL	2.5
32	1a	1034	G	2.5
32	2a	1034	G	2.5
33	2b	165	VAL	2.5
32	2a	975	A	2.5
41	2j	6	ILE	2.5
1	2A	2896	C	2.5
7	2H	128	PRO	2.5
33	2b	199	TYR	2.5
22	20	55	ARG	2.5
8	2I	46	ALA	2.5
52	2u	5	ASP	2.5
1	2A	2155	G	2.5
1	2A	2156	G	2.5
1	2A	2894	G	2.5
2	2B	118	G	2.5
47	1p	38	TYR	2.5
45	2n	17	LYS	2.5
6	2G	160	VAL	2.5
34	2c	187	ALA	2.5
45	2n	20	ALA	2.5
34	2c	161	GLU	2.5
33	2b	195	ASP	2.5
47	2p	68	ASP	2.5
33	2b	232	PRO	2.5
41	2j	53	PRO	2.5
46	1o	19	PRO	2.5
6	2G	161	THR	2.5
41	2j	5	ARG	2.5
52	2u	3	LYS	2.5
50	2s	15	LEU	2.5
41	2j	72	VAL	2.5
2	2B	58	A	2.4

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Mol	Chain	Res	Type	RSRZ
2	2B	59	A	2.4
1	2A	2125	G	2.4
17	2V	20	LEU	2.4
32	1a	1036	G	2.4
32	2a	1002	G	2.4
33	2b	136	VAL	2.4
33	2b	185	ILE	2.4
34	2c	124	ILE	2.4
41	2j	43	ARG	2.4
43	1l	19	ARG	2.4
21	2Z	150	LEU	2.4
45	2n	53	LEU	2.4
2	2B	120	A	2.4
6	2G	146	TYR	2.4
33	2b	7	VAL	2.4
1	2A	34	C	2.4
1	2A	2128	C	2.4
5	2F	21	ALA	2.4
20	2Y	16	ALA	2.4
1	2A	1719	G	2.4
1	2A	2115	G	2.4
40	2i	66	ARG	2.4
6	2G	76	SER	2.4
44	2m	87	TYR	2.4
33	2b	188	ALA	2.4
11	2P	45	LEU	2.4
32	2a	1113	C	2.4
32	2a	1114	C	2.4
36	2e	50	GLU	2.4
53	2v	20	U	2.4
7	2H	39	PRO	2.4
38	1g	80	VAL	2.4
6	1G	49	ASP	2.4
31	29	5	ALA	2.4
38	1g	151	TYR	2.4
41	2j	85	LEU	2.4
35	2d	163	GLU	2.4
26	24	26	SER	2.4
32	1a	1446	U	2.4
1	1A	435	C	2.3
21	1Z	146	ILE	2.3
33	2b	22	LYS	2.3

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Mol	Chain	Res	Type	RSRZ
36	1e	92	LYS	2.3
38	2g	84	ASN	2.3
43	2l	47	LYS	2.3
51	2t	73	HIS	2.3
52	2u	6	ARG	2.3
6	2G	155	MET	2.3
32	2a	963	G	2.3
6	2G	139	LEU	2.3
35	2d	99	SER	2.3
39	2h	29	SER	2.3
41	2j	37	PRO	2.3
1	2A	2114	A	2.3
12	1Q	85	LYS	2.3
41	2j	31	GLY	2.3
45	2n	7	ILE	2.3
40	2i	36	TYR	2.3
8	2I	20	ASP	2.3
14	2S	32	LEU	2.3
54	1x	66	C	2.3
1	1A	1059	G	2.3
34	2c	207	VAL	2.3
39	2h	84	ARG	2.3
33	2b	58	ILE	2.3
40	1i	6	GLY	2.3
1	1A	2169	A	2.3
1	1A	2170	A	2.3
1	2A	2176	A	2.3
1	1A	2122	U	2.3
21	2Z	174	VAL	2.3
32	1a	1030(B)	C	2.3
32	2a	1397	C	2.3
42	2k	123	LYS	2.3
33	2b	234	PRO	2.3
41	2j	42	THR	2.3
33	2b	213	LEU	2.3
1	1A	2141	G	2.3
41	1j	73	ASP	2.3
40	2i	118	LYS	2.3
53	1v	12	A	2.3
6	1G	50	ALA	2.3
55	1z	15	TRP	2.3
14	2S	54	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
44	2m	34	LEU	2.3
40	2i	18	PHE	2.3
40	1i	29	ASN	2.3
40	2i	11	LYS	2.3
40	2i	127	LYS	2.3
48	2q	94	ASN	2.3
15	2T	108	ARG	2.3
33	2b	15	VAL	2.3
40	1i	110	GLU	2.2
32	1a	306	G	2.2
32	2a	971	G	2.2
14	2S	35	ILE	2.2
29	17	45	ALA	2.2
1	1A	1082	U	2.2
6	2G	135	LEU	2.2
32	2a	965	A	2.2
32	2a	972	C	2.2
50	2s	78	ARG	2.2
18	2W	85	VAL	2.2
36	2e	105	VAL	2.2
44	2m	106	ASN	2.2
22	20	71	ASP	2.2
33	2b	231	GLU	2.2
40	2i	105	ASP	2.2
9	2N	1	MET	2.2
34	2c	155	GLY	2.2
1	1A	1089	G	2.2
1	1A	2110	G	2.2
1	2A	859	G	2.2
2	2B	23	G	2.2
32	2a	1272	G	2.2
51	1t	73	HIS	2.2
51	2t	74	LYS	2.2
3	2D	217	ARG	2.2
41	2j	46	ARG	2.2
52	2u	18	TYR	2.2
1	1A	2117	A	2.2
41	2j	69	ASN	2.2
44	1m	78	ILE	2.2
1	1A	1064	C	2.2
1	2A	2142	C	2.2
8	2I	14	ASP	2.2

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Mol	Chain	Res	Type	RSRZ
17	2V	42	GLY	2.2
36	2e	10	MET	2.2
22	20	43	THR	2.2
32	2a	1020	U	2.2
32	2a	1196	U	2.2
47	1p	82	GLN	2.2
1	1A	1103	A	2.2
1	1A	2157	G	2.2
32	2a	973	G	2.2
32	2a	1190	G	2.2
33	2b	83	MET	2.2
52	1u	16	GLY	2.2
41	2j	55	LYS	2.2
55	2z	16	ARG	2.2
32	2a	1019	C	2.2
34	2c	204	LEU	2.2
38	2g	38	LEU	2.2
41	2j	32	ALA	2.2
11	2P	20	GLY	2.2
32	2a	1357	A	2.2
53	1v	13	A	2.2
1	2A	2112	G	2.2
3	1D	275	LYS	2.1
15	1T	130	ALA	2.1
41	2j	26	ALA	2.1
51	2t	11	SER	2.1
11	2P	34	GLY	2.1
38	1g	78	ARG	2.1
32	2a	950	U	2.1
34	2c	6	HIS	2.1
42	1k	14	VAL	2.1
52	2u	13	ILE	2.1
53	2v	15	A	2.1
37	2f	21	LEU	2.1
1	1A	1058	G	2.1
1	2A	1171	G	2.1
1	2A	2123	G	2.1
20	1Y	1	MET	2.1
8	2I	27	ARG	2.1
32	2a	530	G	2.1
33	2b	237	ALA	2.1
40	1i	66	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
40	1i	111	ARG	2.1
55	1z	16	ARG	2.1
55	2z	12	ARG	2.1
35	1d	130	GLY	2.1
39	2h	113	SER	2.1
1	2A	2140	C	2.1
32	1a	1533	C	2.1
32	2a	1098	C	2.1
50	2s	74	PHE	2.1
39	2h	135	CYS	2.1
19	2X	92	LEU	2.1
33	2b	190	THR	2.1
34	2c	201	TYR	2.1
35	2d	162	LEU	2.1
42	2k	25	TYR	2.1
45	2n	23	ARG	2.1
9	1N	76	SER	2.1
43	1l	18	VAL	2.1
1	1A	1092	C	2.1
32	2a	1066	C	2.1
34	2c	152	ILE	2.1
42	2k	126	ARG	2.1
6	1G	146	TYR	2.1
15	2T	1	MET	2.1
36	2e	94	ALA	2.1
40	2i	43	ALA	2.1
1	1A	2109	U	2.1
32	2a	1364	U	2.1
35	1d	150	GLU	2.1
41	2j	63	PHE	2.1
7	2H	2	SER	2.1
9	1N	118	LYS	2.1
32	2a	1363(A)	A	2.1
44	2m	121	LYS	2.1
6	2G	172	LEU	2.1
40	2i	10	ARG	2.1
41	2j	8	LEU	2.1
44	2m	99	ARG	2.1
41	2j	87	THR	2.1
1	2A	1536	C	2.1
1	2A	2136	C	2.1
2	2B	5	C	2.1

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Mol	Chain	Res	Type	RSRZ
1	2A	11	G	2.1
32	1a	1026	G	2.1
11	1P	70	GLN	2.1
7	2H	21	PRO	2.1
36	2e	81	GLU	2.1
40	2i	26	VAL	2.0
38	1g	77	SER	2.0
35	1d	11	LEU	2.0
47	1p	19	ILE	2.0
51	1t	9	ASN	2.0
45	2n	61	TRP	2.0
1	2A	2126	A	2.0
22	10	10	THR	2.0
34	2c	149	ALA	2.0
34	2c	191	THR	2.0
45	2n	40	CYS	2.0
40	2i	8	GLY	2.0
33	2b	125	PRO	2.0
47	2p	9	PHE	2.0
20	2Y	29	GLU	2.0
40	2i	14	VAL	2.0
1	1A	2120	G	2.0
32	1a	380	G	2.0
32	2a	1001(A)	G	2.0
36	2e	53	LEU	2.0
44	2m	104	ARG	2.0
44	2m	9	ILE	2.0
1	1A	1081	U	2.0
1	2A	2189	U	2.0
12	2Q	28	ALA	2.0
34	2c	192	THR	2.0
45	2n	22	THR	2.0
21	2Z	88	PHE	2.0
34	2c	128	PHE	2.0
16	1U	104	GLN	2.0
36	2e	49	PRO	2.0
1	1A	1084	A	2.0
1	1A	1085	A	2.0
35	1d	80	GLU	2.0
45	2n	57	ARG	2.0
40	2i	79	LEU	2.0
6	1G	52	ILE	2.0

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Mol	Chain	Res	Type	RSRZ
40	1i	81	ILE	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	2x	55	20/21	0.71	0.14	75,83,93,101	0
54	5MU	2x	54	21/22	0.81	0.12	79,82,89,97	0
54	4SU	2x	8	20/21	0.81	0.11	77,86,93,93	0
32	2MG	2a	1207	24/25	0.84	0.11	76,83,88,95	0
1	5MU	2A	1915	21/22	0.84	0.09	74,78,84,97	0
32	5MC	2a	967	21/22	0.85	0.16	67,72,81,85	0
32	5MC	2a	1400	21/22	0.86	0.16	56,70,78,81	0
54	5MC	2x	32	21/22	0.88	0.13	68,74,76,78	0
1	PSU	2A	1911	20/21	0.88	0.12	64,69,77,77	0
32	M2G	2a	966	25/26	0.88	0.15	64,71,81,85	0
32	PSU	2a	516	20/21	0.89	0.09	66,74,81,82	0
54	5MU	1x	54	21/22	0.89	0.10	60,66,70,74	0
54	PSU	1x	55	20/21	0.89	0.09	62,65,72,76	0
32	4OC	2a	1402	22/23	0.90	0.12	64,69,76,79	0
43	0TD	2l	92	10/11	0.90	0.12	57,62,66,79	0
32	7MG	2a	527	24/25	0.90	0.14	65,69,75,76	0
32	2MG	1a	1207	24/25	0.91	0.09	54,66,75,81	0
1	PSU	2A	1917	20/21	0.91	0.08	58,69,74,76	0
1	5MC	2A	1942	21/22	0.91	0.10	49,62,66,67	0
54	4SU	1x	8	20/21	0.92	0.08	60,67,74,76	0
1	PSU	1A	1917	20/21	0.92	0.08	55,61,66,68	0
32	5MC	2a	1404	21/22	0.92	0.12	56,64,71,74	0
1	5MU	1A	1915	21/22	0.92	0.08	52,64,73,80	0
1	4OC	2A	1920	21/23	0.93	0.12	55,64,71,78	0
32	7MG	1a	527	24/25	0.93	0.11	40,50,56,60	0
32	4OC	1a	1402	22/23	0.93	0.12	48,54,61,63	0
1	5MC	2A	1962	21/22	0.94	0.10	45,55,59,64	0
1	5MC	1A	1942	21/22	0.94	0.09	39,45,50,58	0
32	MA6	2a	1518	24/25	0.94	0.11	53,63,68,75	0
32	PSU	1a	516	20/21	0.94	0.08	54,64,68,71	0
32	5MC	1a	1404	21/22	0.94	0.12	40,50,54,56	0
1	PSU	1A	1911	20/21	0.94	0.08	46,57,61,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	5MC	1x	32	21/22	0.94	0.10	47,53,58,64	0
32	M2G	1a	966	25/26	0.94	0.11	54,58,61,66	0
32	MA6	2a	1519	24/25	0.95	0.13	54,61,67,73	0
43	0TD	1l	92	10/11	0.95	0.08	53,56,59,62	0
32	5MC	1a	1400	21/22	0.95	0.11	49,55,62,70	0
32	5MC	1a	967	21/22	0.95	0.11	55,63,65,65	0
32	UR3	2a	1498	21/22	0.95	0.11	46,54,62,69	0
1	4OC	1A	1920	21/23	0.95	0.10	39,52,55,65	0
1	5MU	2A	1939	21/22	0.96	0.09	32,48,52,55	0
1	OMG	1A	2251	24/25	0.96	0.10	26,37,40,44	0
32	5MC	1a	1407	21/22	0.96	0.08	39,45,49,51	0
1	OMG	2A	2251	24/25	0.96	0.09	35,44,49,50	0
1	2MA	2A	2503	23/24	0.96	0.10	39,46,49,52	0
1	2MU	2A	2552	21/23	0.96	0.10	33,42,49,52	0
32	MA6	1a	1519	24/25	0.96	0.10	44,52,54,55	0
32	5MC	2a	1407	21/22	0.96	0.07	49,61,69,71	0
1	2MU	1A	2552	21/23	0.97	0.07	26,37,42,48	0
1	PSU	1A	2605	20/21	0.97	0.07	28,36,41,42	0
1	5MC	1A	1962	21/22	0.97	0.07	35,44,48,50	0
1	PSU	2A	2605	20/21	0.97	0.07	35,42,46,46	0
32	UR3	1a	1498	21/22	0.97	0.08	42,49,56,60	0
32	MA6	1a	1518	24/25	0.97	0.10	34,49,55,55	0
1	5MU	1A	1939	21/22	0.97	0.08	28,36,41,43	0
1	2MA	1A	2503	23/24	0.98	0.07	24,32,35,41	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
56	MG	2A	3483	1/1	0.44	0.22	73,73,73,73	0
56	MG	1A	3176	1/1	0.56	0.37	69,69,69,69	0
56	MG	2A	3351	1/1	0.63	0.17	59,59,59,59	0
56	MG	1A	3512	1/1	0.63	0.14	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3197	1/1	0.64	0.24	73,73,73,73	0
56	MG	2a	3112	1/1	0.65	0.25	64,64,64,64	0
56	MG	1A	3837	1/1	0.66	0.29	64,64,64,64	0
56	MG	1a	1697	1/1	0.66	0.29	72,72,72,72	0
56	MG	1A	3802	1/1	0.69	0.20	37,37,37,37	0
56	MG	1x	105	1/1	0.69	0.21	60,60,60,60	0
56	MG	1A	3399	1/1	0.69	0.17	70,70,70,70	0
56	MG	2a	3055	1/1	0.70	0.22	61,61,61,61	0
56	MG	1a	1681	1/1	0.70	0.19	55,55,55,55	0
56	MG	2A	3550	1/1	0.71	0.19	61,61,61,61	0
56	MG	1a	1717	1/1	0.72	0.23	67,67,67,67	0
56	MG	2a	3061	1/1	0.72	0.27	51,51,51,51	0
56	MG	1A	3480	1/1	0.72	0.19	28,28,28,28	0
56	MG	2a	3140	1/1	0.72	0.25	64,64,64,64	0
56	MG	1a	1686	1/1	0.73	0.33	64,64,64,64	0
56	MG	1a	1723	1/1	0.74	0.24	57,57,57,57	0
56	MG	1A	3388	1/1	0.74	0.70	35,35,35,35	0
56	MG	2A	3506	1/1	0.74	0.23	68,68,68,68	0
56	MG	1A	3575	1/1	0.74	0.20	72,72,72,72	0
56	MG	1A	3179	1/1	0.75	0.26	59,59,59,59	0
56	MG	2A	3407	1/1	0.75	0.15	75,75,75,75	0
56	MG	1A	3461	1/1	0.75	0.27	52,52,52,52	0
56	MG	2a	3145	1/1	0.75	0.43	66,66,66,66	0
56	MG	2v	101	1/1	0.75	0.15	77,77,77,77	0
56	MG	2A	3312	1/1	0.76	0.09	53,53,53,53	0
56	MG	1a	1763	1/1	0.76	0.23	59,59,59,59	0
56	MG	1A	3763	1/1	0.76	0.20	68,68,68,68	0
56	MG	1A	3408	1/1	0.76	0.33	65,65,65,65	0
56	MG	1a	1759	1/1	0.77	0.41	65,65,65,65	0
56	MG	2A	3585	1/1	0.77	0.17	66,66,66,66	0
56	MG	2a	3003	1/1	0.77	0.29	61,61,61,61	0
56	MG	1A	3347	1/1	0.77	0.17	62,62,62,62	0
56	MG	2A	3395	1/1	0.77	0.27	52,52,52,52	0
56	MG	2a	3082	1/1	0.77	0.43	61,61,61,61	0
56	MG	1A	3712	1/1	0.77	0.33	43,43,43,43	0
56	MG	2A	3409	1/1	0.77	0.35	60,60,60,60	0
56	MG	1a	1744	1/1	0.77	0.48	58,58,58,58	0
56	MG	2A	3206	1/1	0.77	0.20	52,52,52,52	0
56	MG	2A	3082	1/1	0.78	0.29	52,52,52,52	0
56	MG	2A	3090	1/1	0.78	0.35	72,72,72,72	0
56	MG	1B	219	1/1	0.78	0.19	66,66,66,66	0
56	MG	1A	3284	1/1	0.78	0.17	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2F	302	1/1	0.78	0.15	45,45,45,45	0
56	MG	2Z	301	1/1	0.78	0.15	60,60,60,60	0
56	MG	1a	1756	1/1	0.78	0.35	54,54,54,54	0
56	MG	2A	3317	1/1	0.78	0.17	59,59,59,59	0
56	MG	2A	3326	1/1	0.78	0.17	62,62,62,62	0
56	MG	2a	3081	1/1	0.78	0.24	55,55,55,55	0
56	MG	1A	3687	1/1	0.78	0.20	58,58,58,58	0
56	MG	2a	3105	1/1	0.78	0.31	53,53,53,53	0
56	MG	1A	3383	1/1	0.78	0.27	69,69,69,69	0
56	MG	2a	3123	1/1	0.78	0.24	62,62,62,62	0
56	MG	1B	213	1/1	0.78	0.25	58,58,58,58	0
56	MG	2A	3054	1/1	0.78	0.20	51,51,51,51	0
56	MG	2A	3413	1/1	0.78	0.18	57,57,57,57	0
56	MG	1A	3553	1/1	0.79	0.17	65,65,65,65	0
56	MG	2a	3025	1/1	0.79	0.11	73,73,73,73	0
56	MG	2a	3053	1/1	0.79	0.20	67,67,67,67	0
56	MG	2A	3344	1/1	0.79	0.18	66,66,66,66	0
56	MG	2a	3059	1/1	0.79	0.24	58,58,58,58	0
56	MG	2A	3421	1/1	0.79	0.27	54,54,54,54	0
56	MG	1A	3696	1/1	0.79	0.10	67,67,67,67	0
56	MG	2A	3368	1/1	0.79	0.30	70,70,70,70	0
56	MG	2A	3375	1/1	0.79	0.12	51,51,51,51	0
56	MG	2A	3391	1/1	0.79	0.13	94,94,94,94	0
56	MG	2a	3117	1/1	0.79	0.18	50,50,50,50	0
56	MG	2a	3122	1/1	0.79	0.26	65,65,65,65	0
56	MG	2A	3602	1/1	0.79	0.20	55,55,55,55	0
56	MG	1a	1612	1/1	0.79	0.24	45,45,45,45	0
56	MG	2N	201	1/1	0.79	0.08	49,49,49,49	0
56	MG	1A	3151	1/1	0.79	0.28	72,72,72,72	0
56	MG	1a	1659	1/1	0.80	0.25	64,64,64,64	0
56	MG	1A	3083	1/1	0.80	0.25	52,52,52,52	0
56	MG	1U	205	1/1	0.80	0.15	39,39,39,39	0
56	MG	2A	3471	1/1	0.80	0.12	54,54,54,54	0
56	MG	1A	3241	1/1	0.80	0.11	54,54,54,54	0
56	MG	2A	3492	1/1	0.80	0.25	69,69,69,69	0
56	MG	2a	3009	1/1	0.80	0.11	49,49,49,49	0
56	MG	2a	3119	1/1	0.80	0.51	76,76,76,76	0
56	MG	2A	3401	1/1	0.80	0.37	53,53,53,53	0
56	MG	2a	3029	1/1	0.80	0.19	47,47,47,47	0
56	MG	2a	3033	1/1	0.80	0.22	57,57,57,57	0
56	MG	2A	3217	1/1	0.80	0.26	48,48,48,48	0
56	MG	2A	3552	1/1	0.80	0.14	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3416	1/1	0.81	0.18	63,63,63,63	0
56	MG	1A	3501	1/1	0.81	0.11	58,58,58,58	0
56	MG	2A	3429	1/1	0.81	0.42	59,59,59,59	0
56	MG	1A	3737	1/1	0.81	0.09	47,47,47,47	0
56	MG	1A	3594	1/1	0.81	0.17	64,64,64,64	0
56	MG	1A	3767	1/1	0.81	0.16	51,51,51,51	0
56	MG	1A	3784	1/1	0.81	0.24	60,60,60,60	0
56	MG	2A	3357	1/1	0.81	0.32	54,54,54,54	0
56	MG	1A	3648	1/1	0.81	0.29	62,62,62,62	0
56	MG	2A	3566	1/1	0.81	0.19	62,62,62,62	0
56	MG	2A	3077	1/1	0.81	0.25	54,54,54,54	0
56	MG	1A	3187	1/1	0.81	0.13	49,49,49,49	0
56	MG	2B	205	1/1	0.81	0.22	79,79,79,79	0
56	MG	1A	3844	1/1	0.81	0.20	50,50,50,50	0
56	MG	2A	3143	1/1	0.81	0.22	56,56,56,56	0
56	MG	1A	3373	1/1	0.81	0.16	47,47,47,47	0
56	MG	1a	1724	1/1	0.81	0.26	52,52,52,52	0
56	MG	1a	1725	1/1	0.81	0.20	67,67,67,67	0
56	MG	1A	3254	1/1	0.82	0.18	64,64,64,64	0
56	MG	1a	1753	1/1	0.82	0.32	59,59,59,59	0
56	MG	1a	1691	1/1	0.82	0.25	42,42,42,42	0
56	MG	2A	3537	1/1	0.82	0.20	57,57,57,57	0
56	MG	2A	3210	1/1	0.82	0.11	76,76,76,76	0
56	MG	1A	3259	1/1	0.82	0.16	60,60,60,60	0
56	MG	2A	3560	1/1	0.82	0.20	75,75,75,75	0
56	MG	2A	3406	1/1	0.82	0.22	50,50,50,50	0
56	MG	1A	3660	1/1	0.82	0.14	63,63,63,63	0
56	MG	2a	3094	1/1	0.82	0.24	57,57,57,57	0
56	MG	1a	1621	1/1	0.82	0.25	51,51,51,51	0
56	MG	2a	3111	1/1	0.82	0.24	66,66,66,66	0
56	MG	1A	3667	1/1	0.82	0.13	33,33,33,33	0
56	MG	1A	3113	1/1	0.82	0.30	58,58,58,58	0
56	MG	1a	1728	1/1	0.82	0.27	63,63,63,63	0
56	MG	2A	3356	1/1	0.82	0.23	61,61,61,61	0
56	MG	2A	3450	1/1	0.82	0.19	41,41,41,41	0
56	MG	2a	3127	1/1	0.82	0.20	65,65,65,65	0
56	MG	2a	3139	1/1	0.82	0.19	54,54,54,54	0
56	MG	2a	3006	1/1	0.82	0.32	63,63,63,63	0
56	MG	2a	3142	1/1	0.82	0.27	49,49,49,49	0
56	MG	1a	1742	1/1	0.82	0.26	60,60,60,60	0
56	MG	2a	3018	1/1	0.82	0.22	59,59,59,59	0
56	MG	1A	3715	1/1	0.83	0.15	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3302	1/1	0.83	0.23	55,55,55,55	0
56	MG	2a	3012	1/1	0.83	0.24	52,52,52,52	0
56	MG	2A	3102	1/1	0.83	0.21	50,50,50,50	0
56	MG	1A	3081	1/1	0.83	0.15	57,57,57,57	0
56	MG	1E	306	1/1	0.83	0.12	43,43,43,43	0
56	MG	1H	201	1/1	0.83	0.12	40,40,40,40	0
56	MG	2A	3207	1/1	0.83	0.09	55,55,55,55	0
56	MG	1A	3407	1/1	0.83	0.56	103,103,103,103	0
56	MG	1a	1606	1/1	0.83	0.14	54,54,54,54	0
56	MG	2A	3289	1/1	0.83	0.21	45,45,45,45	0
56	MG	1A	3230	1/1	0.83	0.12	49,49,49,49	0
56	MG	2A	3313	1/1	0.83	0.15	51,51,51,51	0
56	MG	2a	3085	1/1	0.83	0.33	52,52,52,52	0
56	MG	1a	1618	1/1	0.83	0.25	61,61,61,61	0
56	MG	1a	1752	1/1	0.83	0.17	60,60,60,60	0
56	MG	1A	3430	1/1	0.83	0.25	64,64,64,64	0
56	MG	1a	1628	1/1	0.83	0.18	43,43,43,43	0
56	MG	1a	1634	1/1	0.83	0.18	49,49,49,49	0
56	MG	1a	1644	1/1	0.83	0.23	54,54,54,54	0
56	MG	2A	3359	1/1	0.83	0.25	52,52,52,52	0
56	MG	1A	3826	1/1	0.83	0.15	51,51,51,51	0
56	MG	2A	3016	1/1	0.83	0.42	65,65,65,65	0
56	MG	2a	3136	1/1	0.83	0.15	62,62,62,62	0
56	MG	2A	3376	1/1	0.83	0.14	52,52,52,52	0
56	MG	1A	3827	1/1	0.83	0.16	51,51,51,51	0
56	MG	2T	201	1/1	0.83	0.10	33,33,33,33	0
56	MG	2A	3394	1/1	0.83	0.16	60,60,60,60	0
56	MG	1A	3002	1/1	0.83	0.15	56,56,56,56	0
56	MG	2v	102	1/1	0.83	0.51	57,57,57,57	0
56	MG	2x	102	1/1	0.83	0.17	47,47,47,47	0
56	MG	2A	3521	1/1	0.84	0.19	60,60,60,60	0
56	MG	1A	3738	1/1	0.84	0.11	44,44,44,44	0
56	MG	1A	3212	1/1	0.84	0.18	45,45,45,45	0
56	MG	1A	3221	1/1	0.84	0.15	36,36,36,36	0
56	MG	2a	3078	1/1	0.84	0.23	71,71,71,71	0
56	MG	1A	3842	1/1	0.84	0.23	42,42,42,42	0
56	MG	1A	3679	1/1	0.84	0.15	52,52,52,52	0
56	MG	2A	3037	1/1	0.84	0.20	50,50,50,50	0
56	MG	2a	3093	1/1	0.84	0.13	50,50,50,50	0
56	MG	2A	3291	1/1	0.84	0.28	43,43,43,43	0
56	MG	2a	3097	1/1	0.84	0.21	68,68,68,68	0
56	MG	1A	3785	1/1	0.84	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
56	MG	2A	3060	1/1	0.84	0.27	62,62,62,62	0
56	MG	2A	3069	1/1	0.84	0.25	53,53,53,53	0
56	MG	1B	218	1/1	0.84	0.26	52,52,52,52	0
56	MG	2A	3419	1/1	0.84	0.26	30,30,30,30	0
56	MG	2A	3329	1/1	0.84	0.18	55,55,55,55	0
56	MG	1A	3786	1/1	0.84	0.14	58,58,58,58	0
56	MG	2a	3008	1/1	0.84	0.09	46,46,46,46	0
56	MG	1A	3795	1/1	0.84	0.11	39,39,39,39	0
56	MG	2a	3138	1/1	0.84	0.27	67,67,67,67	0
56	MG	1F	306	1/1	0.84	0.09	47,47,47,47	0
56	MG	2a	3016	1/1	0.84	0.19	76,76,76,76	0
56	MG	2A	3135	1/1	0.84	0.13	52,52,52,52	0
56	MG	1A	3269	1/1	0.84	0.08	34,34,34,34	0
56	MG	2A	3174	1/1	0.84	0.17	49,49,49,49	0
56	MG	2A	3516	1/1	0.84	0.18	67,67,67,67	0
56	MG	2a	3046	1/1	0.84	0.22	49,49,49,49	0
56	MG	2A	3545	1/1	0.85	0.28	53,53,53,53	0
56	MG	2A	3215	1/1	0.85	0.25	60,60,60,60	0
56	MG	2A	3384	1/1	0.85	0.25	45,45,45,45	0
56	MG	1a	1605	1/1	0.85	0.15	54,54,54,54	0
56	MG	2a	3064	1/1	0.85	0.29	64,64,64,64	0
56	MG	2A	3282	1/1	0.85	0.26	58,58,58,58	0
56	MG	1a	1737	1/1	0.85	0.18	41,41,41,41	0
56	MG	2A	3597	1/1	0.85	0.18	49,49,49,49	0
56	MG	1a	1740	1/1	0.85	0.28	35,35,35,35	0
56	MG	2a	3086	1/1	0.85	0.17	69,69,69,69	0
56	MG	2A	3620	1/1	0.85	0.25	61,61,61,61	0
56	MG	1A	3339	1/1	0.85	0.14	55,55,55,55	0
56	MG	2B	209	1/1	0.85	0.27	50,50,50,50	0
56	MG	2a	3103	1/1	0.85	0.20	65,65,65,65	0
56	MG	1A	3500	1/1	0.85	0.15	59,59,59,59	0
56	MG	2a	3106	1/1	0.85	0.24	60,60,60,60	0
56	MG	1A	3289	1/1	0.85	0.14	46,46,46,46	0
56	MG	2A	3325	1/1	0.85	0.14	52,52,52,52	0
56	MG	1a	1692	1/1	0.85	0.31	43,43,43,43	0
56	MG	28	103	1/1	0.85	0.25	60,60,60,60	0
56	MG	1A	3389	1/1	0.85	0.12	50,50,50,50	0
56	MG	2A	3343	1/1	0.85	0.18	69,69,69,69	0
56	MG	1a	1757	1/1	0.85	0.25	51,51,51,51	0
56	MG	1A	3437	1/1	0.85	0.25	53,53,53,53	0
56	MG	2A	3355	1/1	0.85	0.12	61,61,61,61	0
56	MG	1A	3072	1/1	0.85	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
56	MG	1a	1767	1/1	0.85	0.19	47,47,47,47	0
56	MG	1a	1637	1/1	0.85	0.21	46,46,46,46	0
56	MG	2A	3010	1/1	0.85	0.14	56,56,56,56	0
56	MG	2A	3370	1/1	0.85	0.32	51,51,51,51	0
56	MG	17	3106	1/1	0.85	0.25	58,58,58,58	0
56	MG	2a	3049	1/1	0.85	0.20	54,54,54,54	0
56	MG	2A	3399	1/1	0.86	0.23	47,47,47,47	0
56	MG	1A	3337	1/1	0.86	0.14	31,31,31,31	0
56	MG	2A	3212	1/1	0.86	0.20	62,62,62,62	0
56	MG	2a	3023	1/1	0.86	0.17	59,59,59,59	0
56	MG	1A	3404	1/1	0.86	0.18	52,52,52,52	0
56	MG	1A	3184	1/1	0.86	0.10	46,46,46,46	0
56	MG	2A	3260	1/1	0.86	0.19	53,53,53,53	0
56	MG	1T	201	1/1	0.86	0.15	44,44,44,44	0
56	MG	2a	3048	1/1	0.86	0.18	61,61,61,61	0
56	MG	2A	3005	1/1	0.86	0.21	42,42,42,42	0
56	MG	2a	3051	1/1	0.86	0.17	56,56,56,56	0
56	MG	1A	3150	1/1	0.86	0.12	35,35,35,35	0
56	MG	1a	1709	1/1	0.86	0.19	36,36,36,36	0
56	MG	2A	3435	1/1	0.86	0.35	49,49,49,49	0
56	MG	2A	3034	1/1	0.86	0.10	34,34,34,34	0
56	MG	1X	103	1/1	0.86	0.11	40,40,40,40	0
56	MG	2a	3065	1/1	0.86	0.24	56,56,56,56	0
56	MG	2a	3072	1/1	0.86	0.33	55,55,55,55	0
56	MG	2A	3051	1/1	0.86	0.17	54,54,54,54	0
56	MG	1A	3825	1/1	0.86	0.15	46,46,46,46	0
56	MG	1A	3276	1/1	0.86	0.13	45,45,45,45	0
56	MG	2A	3333	1/1	0.86	0.33	51,51,51,51	0
56	MG	2A	3334	1/1	0.86	0.13	51,51,51,51	0
56	MG	2a	3091	1/1	0.86	0.15	43,43,43,43	0
56	MG	2A	3340	1/1	0.86	0.22	60,60,60,60	0
56	MG	2A	3341	1/1	0.86	0.22	56,56,56,56	0
56	MG	2A	3063	1/1	0.86	0.14	46,46,46,46	0
56	MG	1A	3233	1/1	0.86	0.14	62,62,62,62	0
56	MG	1A	3627	1/1	0.86	0.11	36,36,36,36	0
56	MG	1a	1735	1/1	0.86	0.26	57,57,57,57	0
56	MG	1A	3841	1/1	0.86	0.17	57,57,57,57	0
56	MG	1A	3646	1/1	0.86	0.09	56,56,56,56	0
56	MG	1A	3739	1/1	0.86	0.19	66,66,66,66	0
56	MG	2A	3606	1/1	0.86	0.10	54,54,54,54	0
56	MG	2A	3364	1/1	0.86	0.24	53,53,53,53	0
56	MG	2A	3366	1/1	0.86	0.17	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3074	1/1	0.86	0.13	55,55,55,55	0
56	MG	2a	3131	1/1	0.86	0.33	60,60,60,60	0
56	MG	2a	3132	1/1	0.86	0.39	55,55,55,55	0
56	MG	2A	3152	1/1	0.86	0.18	64,64,64,64	0
56	MG	1A	3214	1/1	0.86	0.06	46,46,46,46	0
56	MG	2A	3179	1/1	0.86	0.29	54,54,54,54	0
56	MG	2A	3377	1/1	0.86	0.15	47,47,47,47	0
56	MG	2A	3185	1/1	0.86	0.14	49,49,49,49	0
56	MG	2A	3386	1/1	0.86	0.39	63,63,63,63	0
56	MG	1A	3666	1/1	0.86	0.14	48,48,48,48	0
56	MG	1B	221	1/1	0.86	0.10	63,63,63,63	0
56	MG	1a	1672	1/1	0.86	0.17	49,49,49,49	0
56	MG	1a	1665	1/1	0.87	0.23	40,40,40,40	0
56	MG	1A	3445	1/1	0.87	0.21	46,46,46,46	0
56	MG	1a	1675	1/1	0.87	0.33	53,53,53,53	0
56	MG	1A	3460	1/1	0.87	0.26	49,49,49,49	0
56	MG	1A	3120	1/1	0.87	0.11	46,46,46,46	0
56	MG	2a	3007	1/1	0.87	0.20	50,50,50,50	0
56	MG	1A	3469	1/1	0.87	0.22	48,48,48,48	0
56	MG	1A	3692	1/1	0.87	0.13	48,48,48,48	0
56	MG	2A	3096	1/1	0.87	0.19	49,49,49,49	0
56	MG	1a	1694	1/1	0.87	0.20	35,35,35,35	0
56	MG	1A	3024	1/1	0.87	0.16	76,76,76,76	0
56	MG	1a	1701	1/1	0.87	0.17	49,49,49,49	0
56	MG	2A	3148	1/1	0.87	0.11	45,45,45,45	0
56	MG	1A	3706	1/1	0.87	0.13	41,41,41,41	0
56	MG	2A	3165	1/1	0.87	0.15	44,44,44,44	0
56	MG	2A	3173	1/1	0.87	0.09	47,47,47,47	0
56	MG	2a	3047	1/1	0.87	0.09	67,67,67,67	0
56	MG	2A	3397	1/1	0.87	0.18	69,69,69,69	0
56	MG	1a	1715	1/1	0.87	0.15	42,42,42,42	0
56	MG	1A	3270	1/1	0.87	0.15	50,50,50,50	0
56	MG	1B	222	1/1	0.87	0.11	47,47,47,47	0
56	MG	1A	3274	1/1	0.87	0.21	52,52,52,52	0
56	MG	2a	3057	1/1	0.87	0.33	59,59,59,59	0
56	MG	2A	3201	1/1	0.87	0.14	46,46,46,46	0
56	MG	1E	307	1/1	0.87	0.17	38,38,38,38	0
56	MG	1A	3716	1/1	0.87	0.21	53,53,53,53	0
56	MG	1A	3728	1/1	0.87	0.12	58,58,58,58	0
56	MG	2a	3067	1/1	0.87	0.15	58,58,58,58	0
56	MG	1A	3503	1/1	0.87	0.17	49,49,49,49	0
56	MG	1A	3094	1/1	0.87	0.15	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1W	204	1/1	0.87	0.26	53,53,53,53	0
56	MG	1A	3530	1/1	0.87	0.12	34,34,34,34	0
56	MG	2a	3084	1/1	0.87	0.29	67,67,67,67	0
56	MG	2A	3267	1/1	0.87	0.28	51,51,51,51	0
56	MG	2A	3270	1/1	0.87	0.32	61,61,61,61	0
56	MG	2a	3090	1/1	0.87	0.36	52,52,52,52	0
56	MG	1a	1748	1/1	0.87	0.23	49,49,49,49	0
56	MG	2a	3092	1/1	0.87	0.20	58,58,58,58	0
56	MG	2A	3495	1/1	0.87	0.30	44,44,44,44	0
56	MG	2A	3283	1/1	0.87	0.44	47,47,47,47	0
56	MG	1A	3239	1/1	0.87	0.19	53,53,53,53	0
56	MG	1a	1603	1/1	0.87	0.19	59,59,59,59	0
56	MG	2A	3305	1/1	0.87	0.32	43,43,43,43	0
56	MG	1A	3175	1/1	0.87	0.30	58,58,58,58	0
56	MG	2a	3108	1/1	0.87	0.21	48,48,48,48	0
56	MG	1A	3585	1/1	0.87	0.11	50,50,50,50	0
56	MG	1A	3296	1/1	0.87	0.21	61,61,61,61	0
56	MG	1A	3244	1/1	0.87	0.08	49,49,49,49	0
56	MG	1a	1765	1/1	0.87	0.16	62,62,62,62	0
56	MG	2A	3570	1/1	0.87	0.16	79,79,79,79	0
56	MG	2A	3573	1/1	0.87	0.10	55,55,55,55	0
56	MG	1A	3638	1/1	0.87	0.19	64,64,64,64	0
56	MG	2A	3587	1/1	0.87	0.14	56,56,56,56	0
56	MG	2A	3591	1/1	0.87	0.14	36,36,36,36	0
56	MG	1a	1627	1/1	0.87	0.34	60,60,60,60	0
56	MG	1x	110	1/1	0.87	0.09	53,53,53,53	0
56	MG	1A	3308	1/1	0.87	0.17	47,47,47,47	0
56	MG	1A	3821	1/1	0.87	0.30	54,54,54,54	0
56	MG	1A	3324	1/1	0.87	0.11	56,56,56,56	0
56	MG	2a	3144	1/1	0.87	0.11	45,45,45,45	0
56	MG	1A	3017	1/1	0.87	0.14	37,37,37,37	0
56	MG	2q	201	1/1	0.87	0.10	54,54,54,54	0
56	MG	2B	210	1/1	0.87	0.20	58,58,58,58	0
56	MG	1a	1657	1/1	0.87	0.34	58,58,58,58	0
56	MG	1A	3662	1/1	0.87	0.19	61,61,61,61	0
56	MG	1A	3215	1/1	0.88	0.28	49,49,49,49	0
56	MG	2A	3563	1/1	0.88	0.18	59,59,59,59	0
56	MG	2A	3565	1/1	0.88	0.07	44,44,44,44	0
56	MG	2A	3223	1/1	0.88	0.14	37,37,37,37	0
56	MG	1a	1602	1/1	0.88	0.16	51,51,51,51	0
56	MG	2A	3261	1/1	0.88	0.38	53,53,53,53	0
56	MG	1A	3774	1/1	0.88	0.16	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1a	1750	1/1	0.88	0.27	52,52,52,52	0
56	MG	2A	3590	1/1	0.88	0.18	49,49,49,49	0
56	MG	2A	3274	1/1	0.88	0.24	51,51,51,51	0
56	MG	2A	3276	1/1	0.88	0.21	39,39,39,39	0
56	MG	2A	3601	1/1	0.88	0.13	52,52,52,52	0
56	MG	1a	1751	1/1	0.88	0.44	60,60,60,60	0
56	MG	2A	3603	1/1	0.88	0.14	61,61,61,61	0
56	MG	1A	3643	1/1	0.88	0.11	34,34,34,34	0
56	MG	2A	3610	1/1	0.88	0.21	46,46,46,46	0
56	MG	2A	3612	1/1	0.88	0.09	42,42,42,42	0
56	MG	1A	3475	1/1	0.88	0.13	29,29,29,29	0
56	MG	1A	3477	1/1	0.88	0.14	35,35,35,35	0
56	MG	1a	1615	1/1	0.88	0.16	52,52,52,52	0
56	MG	1A	3659	1/1	0.88	0.23	56,56,56,56	0
56	MG	2B	211	1/1	0.88	0.25	54,54,54,54	0
56	MG	2F	301	1/1	0.88	0.08	44,44,44,44	0
56	MG	1A	3216	1/1	0.88	0.19	58,58,58,58	0
56	MG	1A	3497	1/1	0.88	0.12	45,45,45,45	0
56	MG	2O	201	1/1	0.88	0.16	52,52,52,52	0
56	MG	2A	3318	1/1	0.88	0.17	51,51,51,51	0
56	MG	1A	3406	1/1	0.88	0.17	57,57,57,57	0
56	MG	26	101	1/1	0.88	0.12	56,56,56,56	0
56	MG	1n	102	1/1	0.88	0.16	47,47,47,47	0
56	MG	1A	3342	1/1	0.88	0.20	53,53,53,53	0
56	MG	2A	3332	1/1	0.88	0.15	56,56,56,56	0
56	MG	1x	106	1/1	0.88	0.09	72,72,72,72	0
56	MG	1A	3078	1/1	0.88	0.15	43,43,43,43	0
56	MG	2A	3339	1/1	0.88	0.25	63,63,63,63	0
56	MG	1A	3830	1/1	0.88	0.13	52,52,52,52	0
56	MG	2a	3013	1/1	0.88	0.23	56,56,56,56	0
56	MG	1a	1650	1/1	0.88	0.23	45,45,45,45	0
56	MG	2a	3017	1/1	0.88	0.13	50,50,50,50	0
56	MG	1a	1654	1/1	0.88	0.17	53,53,53,53	0
56	MG	2A	3021	1/1	0.88	0.12	53,53,53,53	0
56	MG	2A	3345	1/1	0.88	0.25	56,56,56,56	0
56	MG	1A	3426	1/1	0.88	0.35	29,29,29,29	0
56	MG	2A	3036	1/1	0.88	0.12	55,55,55,55	0
56	MG	2a	3040	1/1	0.88	0.14	50,50,50,50	0
56	MG	1A	3691	1/1	0.88	0.14	46,46,46,46	0
56	MG	1a	1662	1/1	0.88	0.14	37,37,37,37	0
56	MG	1A	3371	1/1	0.88	0.31	47,47,47,47	0
56	MG	1A	3536	1/1	0.88	0.22	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3365	1/1	0.88	0.16	69,69,69,69	0
56	MG	2A	3062	1/1	0.88	0.13	47,47,47,47	0
56	MG	2a	3054	1/1	0.88	0.20	63,63,63,63	0
56	MG	1B	212	1/1	0.88	0.32	51,51,51,51	0
56	MG	1A	3540	1/1	0.88	0.13	28,28,28,28	0
56	MG	1B	215	1/1	0.88	0.27	44,44,44,44	0
56	MG	1A	3545	1/1	0.88	0.13	48,48,48,48	0
56	MG	2a	3063	1/1	0.88	0.33	64,64,64,64	0
56	MG	1A	3222	1/1	0.88	0.11	40,40,40,40	0
56	MG	1A	3439	1/1	0.88	0.38	50,50,50,50	0
56	MG	1a	1695	1/1	0.88	0.16	59,59,59,59	0
56	MG	2A	3388	1/1	0.88	0.20	67,67,67,67	0
56	MG	2A	3389	1/1	0.88	0.19	45,45,45,45	0
56	MG	2A	3126	1/1	0.88	0.17	51,51,51,51	0
56	MG	2A	3130	1/1	0.88	0.06	29,29,29,29	0
56	MG	1A	3209	1/1	0.88	0.29	40,40,40,40	0
56	MG	2A	3139	1/1	0.88	0.07	30,30,30,30	0
56	MG	1B	224	1/1	0.88	0.10	42,42,42,42	0
56	MG	2A	3147	1/1	0.88	0.17	59,59,59,59	0
56	MG	1a	1705	1/1	0.88	0.23	52,52,52,52	0
56	MG	1A	3734	1/1	0.88	0.13	45,45,45,45	0
56	MG	2A	3153	1/1	0.88	0.13	49,49,49,49	0
56	MG	2A	3155	1/1	0.88	0.38	61,61,61,61	0
56	MG	1A	3152	1/1	0.88	0.23	47,47,47,47	0
56	MG	2a	3100	1/1	0.88	0.16	35,35,35,35	0
56	MG	2a	3102	1/1	0.88	0.17	53,53,53,53	0
56	MG	1A	3618	1/1	0.88	0.15	23,23,23,23	0
56	MG	1a	1719	1/1	0.88	0.40	53,53,53,53	0
56	MG	2A	3177	1/1	0.88	0.09	53,53,53,53	0
56	MG	2a	3107	1/1	0.88	0.34	36,36,36,36	0
56	MG	2A	3432	1/1	0.88	0.24	30,30,30,30	0
56	MG	1A	3115	1/1	0.88	0.09	31,31,31,31	0
56	MG	2A	3443	1/1	0.88	0.22	39,39,39,39	0
56	MG	2a	3115	1/1	0.88	0.31	58,58,58,58	0
56	MG	2A	3184	1/1	0.88	0.10	67,67,67,67	0
56	MG	2a	3118	1/1	0.88	0.28	61,61,61,61	0
56	MG	2A	3464	1/1	0.88	0.10	39,39,39,39	0
56	MG	1N	203	1/1	0.88	0.07	31,31,31,31	0
56	MG	2A	3187	1/1	0.88	0.17	56,56,56,56	0
56	MG	2a	3126	1/1	0.88	0.28	66,66,66,66	0
56	MG	1Q	202	1/1	0.88	0.07	40,40,40,40	0
56	MG	1A	3741	1/1	0.88	0.32	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1a	1732	1/1	0.88	0.19	42,42,42,42	0
56	MG	2A	3512	1/1	0.88	0.10	39,39,39,39	0
56	MG	2A	3515	1/1	0.88	0.17	39,39,39,39	0
56	MG	1A	3753	1/1	0.88	0.12	31,31,31,31	0
56	MG	2A	3208	1/1	0.88	0.19	60,60,60,60	0
56	MG	2A	3523	1/1	0.88	0.13	62,62,62,62	0
56	MG	1A	3633	1/1	0.88	0.08	34,34,34,34	0
56	MG	2A	3211	1/1	0.88	0.09	51,51,51,51	0
56	MG	1a	1739	1/1	0.88	0.14	48,48,48,48	0
56	MG	2t	201	1/1	0.88	0.13	49,49,49,49	0
56	MG	1A	3765	1/1	0.88	0.12	45,45,45,45	0
56	MG	2A	3554	1/1	0.88	0.14	65,65,65,65	0
56	MG	2A	3557	1/1	0.88	0.17	47,47,47,47	0
56	MG	2A	3089	1/1	0.89	0.12	51,51,51,51	0
56	MG	2A	3346	1/1	0.89	0.23	45,45,45,45	0
56	MG	1A	3295	1/1	0.89	0.19	45,45,45,45	0
56	MG	1A	3393	1/1	0.89	0.15	40,40,40,40	0
56	MG	1A	3543	1/1	0.89	0.14	29,29,29,29	0
56	MG	2A	3109	1/1	0.89	0.27	53,53,53,53	0
56	MG	1a	1706	1/1	0.89	0.13	48,48,48,48	0
56	MG	2A	3128	1/1	0.89	0.09	47,47,47,47	0
56	MG	1A	3735	1/1	0.89	0.10	56,56,56,56	0
56	MG	1N	201	1/1	0.89	0.17	45,45,45,45	0
56	MG	1a	1716	1/1	0.89	0.33	43,43,43,43	0
56	MG	1A	3395	1/1	0.89	0.16	45,45,45,45	0
56	MG	1A	3197	1/1	0.89	0.09	43,43,43,43	0
56	MG	1Q	204	1/1	0.89	0.13	41,41,41,41	0
56	MG	1A	3297	1/1	0.89	0.12	55,55,55,55	0
56	MG	1A	3245	1/1	0.89	0.11	41,41,41,41	0
56	MG	1A	3591	1/1	0.89	0.14	46,46,46,46	0
56	MG	2A	3156	1/1	0.89	0.15	48,48,48,48	0
56	MG	1A	3307	1/1	0.89	0.12	52,52,52,52	0
56	MG	2A	3167	1/1	0.89	0.17	61,61,61,61	0
56	MG	2A	3170	1/1	0.89	0.21	46,46,46,46	0
56	MG	1A	3597	1/1	0.89	0.09	34,34,34,34	0
56	MG	1A	3599	1/1	0.89	0.12	59,59,59,59	0
56	MG	2a	3043	1/1	0.89	0.20	64,64,64,64	0
56	MG	2a	3044	1/1	0.89	0.16	67,67,67,67	0
56	MG	1A	3040	1/1	0.89	0.18	49,49,49,49	0
56	MG	1A	3413	1/1	0.89	0.10	38,38,38,38	0
56	MG	1A	3309	1/1	0.89	0.10	50,50,50,50	0
56	MG	1A	3311	1/1	0.89	0.20	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3318	1/1	0.89	0.12	38,38,38,38	0
56	MG	2A	3190	1/1	0.89	0.16	55,55,55,55	0
56	MG	1A	3033	1/1	0.89	0.12	43,43,43,43	0
56	MG	2A	3199	1/1	0.89	0.21	46,46,46,46	0
56	MG	2a	3056	1/1	0.89	0.29	59,59,59,59	0
56	MG	1A	3819	1/1	0.89	0.14	61,61,61,61	0
56	MG	2A	3426	1/1	0.89	0.45	45,45,45,45	0
56	MG	2A	3203	1/1	0.89	0.14	45,45,45,45	0
56	MG	1A	3326	1/1	0.89	0.14	51,51,51,51	0
56	MG	1A	3649	1/1	0.89	0.07	36,36,36,36	0
56	MG	2A	3438	1/1	0.89	0.18	30,30,30,30	0
56	MG	1A	3084	1/1	0.89	0.11	48,48,48,48	0
56	MG	2a	3069	1/1	0.89	0.19	53,53,53,53	0
56	MG	2A	3447	1/1	0.89	0.17	47,47,47,47	0
56	MG	1A	3234	1/1	0.89	0.13	44,44,44,44	0
56	MG	1A	3271	1/1	0.89	0.22	47,47,47,47	0
56	MG	1a	1647	1/1	0.89	0.09	49,49,49,49	0
56	MG	1a	1648	1/1	0.89	0.15	52,52,52,52	0
56	MG	2A	3484	1/1	0.89	0.10	44,44,44,44	0
56	MG	1A	3832	1/1	0.89	0.17	54,54,54,54	0
56	MG	1a	1652	1/1	0.89	0.23	51,51,51,51	0
56	MG	2A	3236	1/1	0.89	0.20	46,46,46,46	0
56	MG	2A	3245	1/1	0.89	0.17	46,46,46,46	0
56	MG	2A	3249	1/1	0.89	0.18	49,49,49,49	0
56	MG	2A	3254	1/1	0.89	0.16	40,40,40,40	0
56	MG	1A	3664	1/1	0.89	0.12	58,58,58,58	0
56	MG	1a	1655	1/1	0.89	0.19	56,56,56,56	0
56	MG	2A	3265	1/1	0.89	0.19	53,53,53,53	0
56	MG	1A	3345	1/1	0.89	0.16	50,50,50,50	0
56	MG	2a	3104	1/1	0.89	0.27	45,45,45,45	0
56	MG	1A	3273	1/1	0.89	0.13	59,59,59,59	0
56	MG	2A	3009	1/1	0.89	0.21	50,50,50,50	0
56	MG	1a	1660	1/1	0.89	0.09	48,48,48,48	0
56	MG	2A	3012	1/1	0.89	0.21	47,47,47,47	0
56	MG	1A	3479	1/1	0.89	0.07	41,41,41,41	0
56	MG	2A	3019	1/1	0.89	0.18	51,51,51,51	0
56	MG	2a	3113	1/1	0.89	0.26	59,59,59,59	0
56	MG	1A	3352	1/1	0.89	0.20	48,48,48,48	0
56	MG	2A	3023	1/1	0.89	0.15	45,45,45,45	0
56	MG	2A	3567	1/1	0.89	0.25	51,51,51,51	0
56	MG	2A	3024	1/1	0.89	0.24	49,49,49,49	0
56	MG	2a	3120	1/1	0.89	0.21	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3025	1/1	0.89	0.10	53,53,53,53	0
56	MG	1a	1666	1/1	0.89	0.24	31,31,31,31	0
56	MG	1a	1669	1/1	0.89	0.18	38,38,38,38	0
56	MG	1A	3368	1/1	0.89	0.12	51,51,51,51	0
56	MG	1A	3117	1/1	0.89	0.17	46,46,46,46	0
56	MG	2A	3328	1/1	0.89	0.24	57,57,57,57	0
56	MG	1A	3240	1/1	0.89	0.14	55,55,55,55	0
56	MG	2A	3057	1/1	0.89	0.15	44,44,44,44	0
56	MG	1A	3705	1/1	0.89	0.09	45,45,45,45	0
56	MG	1a	1688	1/1	0.89	0.24	61,61,61,61	0
56	MG	2A	3336	1/1	0.89	0.09	64,64,64,64	0
56	MG	2A	3337	1/1	0.89	0.14	56,56,56,56	0
56	MG	1A	3380	1/1	0.89	0.09	53,53,53,53	0
56	MG	1A	3158	1/1	0.89	0.35	36,36,36,36	0
56	MG	2B	208	1/1	0.89	0.08	68,68,68,68	0
56	MG	2A	3070	1/1	0.89	0.15	42,42,42,42	0
56	MG	1A	3243	1/1	0.89	0.22	46,46,46,46	0
56	MG	1E	305	1/1	0.89	0.16	52,52,52,52	0
56	MG	2x	103	1/1	0.89	0.18	51,51,51,51	0
56	MG	1A	3360	1/1	0.90	0.19	29,29,29,29	0
56	MG	2A	3071	1/1	0.90	0.12	46,46,46,46	0
56	MG	2A	3613	1/1	0.90	0.25	53,53,53,53	0
56	MG	1A	3257	1/1	0.90	0.12	52,52,52,52	0
56	MG	2A	3622	1/1	0.90	0.18	55,55,55,55	0
56	MG	2B	202	1/1	0.90	0.18	57,57,57,57	0
56	MG	2A	3335	1/1	0.90	0.11	58,58,58,58	0
56	MG	2B	207	1/1	0.90	0.09	57,57,57,57	0
56	MG	1A	3605	1/1	0.90	0.11	29,29,29,29	0
56	MG	2A	3087	1/1	0.90	0.26	53,53,53,53	0
56	MG	1A	3746	1/1	0.90	0.17	48,48,48,48	0
56	MG	1a	1713	1/1	0.90	0.20	50,50,50,50	0
56	MG	1A	3752	1/1	0.90	0.11	73,73,73,73	0
56	MG	1A	3614	1/1	0.90	0.10	47,47,47,47	0
56	MG	1V	201	1/1	0.90	0.07	38,38,38,38	0
56	MG	2A	3118	1/1	0.90	0.15	42,42,42,42	0
56	MG	2A	3121	1/1	0.90	0.16	47,47,47,47	0
56	MG	1A	3754	1/1	0.90	0.10	61,61,61,61	0
56	MG	23	102	1/1	0.90	0.08	50,50,50,50	0
56	MG	1A	3617	1/1	0.90	0.15	48,48,48,48	0
56	MG	11	102	1/1	0.90	0.17	37,37,37,37	0
56	MG	17	3101	1/1	0.90	0.09	33,33,33,33	0
56	MG	2a	3004	1/1	0.90	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
56	MG	2A	3136	1/1	0.90	0.12	24,24,24,24	0
56	MG	1A	3455	1/1	0.90	0.20	50,50,50,50	0
56	MG	1a	1730	1/1	0.90	0.20	67,67,67,67	0
56	MG	2A	3146	1/1	0.90	0.07	42,42,42,42	0
56	MG	2A	3367	1/1	0.90	0.12	52,52,52,52	0
56	MG	18	103	1/1	0.90	0.25	62,62,62,62	0
56	MG	1a	1734	1/1	0.90	0.27	45,45,45,45	0
56	MG	2A	3373	1/1	0.90	0.14	34,34,34,34	0
56	MG	2A	3150	1/1	0.90	0.13	51,51,51,51	0
56	MG	1A	3228	1/1	0.90	0.15	59,59,59,59	0
56	MG	1A	3007	1/1	0.90	0.17	54,54,54,54	0
56	MG	1A	3377	1/1	0.90	0.12	61,61,61,61	0
56	MG	1A	3098	1/1	0.90	0.12	54,54,54,54	0
56	MG	2a	3035	1/1	0.90	0.21	61,61,61,61	0
56	MG	2A	3387	1/1	0.90	0.09	38,38,38,38	0
56	MG	2A	3158	1/1	0.90	0.06	50,50,50,50	0
56	MG	1A	3203	1/1	0.90	0.22	41,41,41,41	0
56	MG	1a	1613	1/1	0.90	0.12	51,51,51,51	0
56	MG	2A	3392	1/1	0.90	0.12	31,31,31,31	0
56	MG	1A	3313	1/1	0.90	0.20	34,34,34,34	0
56	MG	2A	3172	1/1	0.90	0.16	51,51,51,51	0
56	MG	1A	3043	1/1	0.90	0.20	45,45,45,45	0
56	MG	1A	3813	1/1	0.90	0.09	36,36,36,36	0
56	MG	1a	1625	1/1	0.90	0.14	52,52,52,52	0
56	MG	1A	3125	1/1	0.90	0.21	49,49,49,49	0
56	MG	2A	3183	1/1	0.90	0.13	50,50,50,50	0
56	MG	1a	1755	1/1	0.90	0.30	46,46,46,46	0
56	MG	1A	3172	1/1	0.90	0.09	52,52,52,52	0
56	MG	1A	3335	1/1	0.90	0.07	44,44,44,44	0
56	MG	1a	1758	1/1	0.90	0.34	49,49,49,49	0
56	MG	2A	3195	1/1	0.90	0.17	50,50,50,50	0
56	MG	2A	3425	1/1	0.90	0.31	41,41,41,41	0
56	MG	2a	3066	1/1	0.90	0.22	48,48,48,48	0
56	MG	1A	3502	1/1	0.90	0.22	30,30,30,30	0
56	MG	1a	1642	1/1	0.90	0.26	41,41,41,41	0
56	MG	1A	3401	1/1	0.90	0.20	55,55,55,55	0
56	MG	2a	3073	1/1	0.90	0.20	60,60,60,60	0
56	MG	1A	3829	1/1	0.90	0.09	54,54,54,54	0
56	MG	2A	3437	1/1	0.90	0.21	33,33,33,33	0
56	MG	1e	201	1/1	0.90	0.09	73,73,73,73	0
56	MG	1f	201	1/1	0.90	0.12	61,61,61,61	0
56	MG	1A	3506	1/1	0.90	0.10	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3449	1/1	0.90	0.22	61,61,61,61	0
56	MG	2a	3087	1/1	0.90	0.20	67,67,67,67	0
56	MG	1x	103	1/1	0.90	0.21	55,55,55,55	0
56	MG	1A	3670	1/1	0.90	0.12	38,38,38,38	0
56	MG	1A	3673	1/1	0.90	0.11	64,64,64,64	0
56	MG	1A	3127	1/1	0.90	0.12	52,52,52,52	0
56	MG	2A	3002	1/1	0.90	0.20	47,47,47,47	0
56	MG	1A	3129	1/1	0.90	0.07	45,45,45,45	0
56	MG	2a	3099	1/1	0.90	0.23	45,45,45,45	0
56	MG	2A	3232	1/1	0.90	0.28	63,63,63,63	0
56	MG	1A	3690	1/1	0.90	0.23	58,58,58,58	0
56	MG	1A	3845	1/1	0.90	0.33	47,47,47,47	0
56	MG	1A	3848	1/1	0.90	0.21	46,46,46,46	0
56	MG	1A	3341	1/1	0.90	0.14	54,54,54,54	0
56	MG	1A	3291	1/1	0.90	0.19	33,33,33,33	0
56	MG	2A	3020	1/1	0.90	0.23	40,40,40,40	0
56	MG	2A	3535	1/1	0.90	0.15	54,54,54,54	0
56	MG	1A	3694	1/1	0.90	0.13	40,40,40,40	0
56	MG	2A	3543	1/1	0.90	0.10	58,58,58,58	0
56	MG	1A	3143	1/1	0.90	0.08	41,41,41,41	0
56	MG	2A	3546	1/1	0.90	0.19	59,59,59,59	0
56	MG	2a	3116	1/1	0.90	0.23	51,51,51,51	0
56	MG	1A	3252	1/1	0.90	0.24	58,58,58,58	0
56	MG	1a	1673	1/1	0.90	0.29	47,47,47,47	0
56	MG	1A	3349	1/1	0.90	0.15	46,46,46,46	0
56	MG	1a	1678	1/1	0.90	0.06	45,45,45,45	0
56	MG	1A	3557	1/1	0.90	0.19	43,43,43,43	0
56	MG	2A	3040	1/1	0.90	0.28	55,55,55,55	0
56	MG	2a	3125	1/1	0.90	0.33	46,46,46,46	0
56	MG	2A	3042	1/1	0.90	0.13	31,31,31,31	0
56	MG	2A	3293	1/1	0.90	0.30	34,34,34,34	0
56	MG	2A	3299	1/1	0.90	0.11	46,46,46,46	0
56	MG	2A	3043	1/1	0.90	0.11	44,44,44,44	0
56	MG	2A	3308	1/1	0.90	0.16	55,55,55,55	0
56	MG	2A	3574	1/1	0.90	0.15	60,60,60,60	0
56	MG	2A	3584	1/1	0.90	0.13	78,78,78,78	0
56	MG	1A	3567	1/1	0.90	0.16	59,59,59,59	0
56	MG	1A	3432	1/1	0.90	0.22	40,40,40,40	0
56	MG	2A	3314	1/1	0.90	0.08	40,40,40,40	0
56	MG	1A	3582	1/1	0.90	0.08	72,72,72,72	0
56	MG	1A	3434	1/1	0.90	0.17	53,53,53,53	0
56	MG	2q	202	1/1	0.90	0.15	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3598	1/1	0.90	0.14	49,49,49,49	0
56	MG	1A	3146	1/1	0.90	0.24	40,40,40,40	0
56	MG	1F	308	1/1	0.90	0.15	33,33,33,33	0
56	MG	2A	3065	1/1	0.90	0.16	57,57,57,57	0
56	MG	1A	3438	1/1	0.90	0.39	60,60,60,60	0
56	MG	1A	3358	1/1	0.91	0.19	54,54,54,54	0
56	MG	1A	3225	1/1	0.91	0.16	35,35,35,35	0
56	MG	1A	3363	1/1	0.91	0.10	28,28,28,28	0
56	MG	2A	3621	1/1	0.91	0.10	58,58,58,58	0
56	MG	1A	3364	1/1	0.91	0.07	40,40,40,40	0
56	MG	1a	1619	1/1	0.91	0.28	53,53,53,53	0
56	MG	2B	203	1/1	0.91	0.14	46,46,46,46	0
56	MG	1A	3835	1/1	0.91	0.17	48,48,48,48	0
56	MG	1a	1743	1/1	0.91	0.28	34,34,34,34	0
56	MG	1A	3583	1/1	0.91	0.18	63,63,63,63	0
56	MG	1a	1747	1/1	0.91	0.26	46,46,46,46	0
56	MG	1A	3700	1/1	0.91	0.12	47,47,47,47	0
56	MG	2A	3353	1/1	0.91	0.14	30,30,30,30	0
56	MG	2E	303	1/1	0.91	0.10	42,42,42,42	0
56	MG	1A	3704	1/1	0.91	0.08	45,45,45,45	0
56	MG	1a	1633	1/1	0.91	0.22	56,56,56,56	0
56	MG	1A	3124	1/1	0.91	0.09	46,46,46,46	0
56	MG	1A	3196	1/1	0.91	0.14	44,44,44,44	0
56	MG	1a	1638	1/1	0.91	0.14	54,54,54,54	0
56	MG	1A	3079	1/1	0.91	0.07	32,32,32,32	0
56	MG	1B	210	1/1	0.91	0.11	41,41,41,41	0
56	MG	1a	1645	1/1	0.91	0.12	35,35,35,35	0
56	MG	2A	3160	1/1	0.91	0.15	56,56,56,56	0
56	MG	2a	3001	1/1	0.91	0.29	55,55,55,55	0
56	MG	1A	3714	1/1	0.91	0.18	51,51,51,51	0
56	MG	2A	3166	1/1	0.91	0.10	72,72,72,72	0
56	MG	2a	3005	1/1	0.91	0.12	52,52,52,52	0
56	MG	1a	1761	1/1	0.91	0.34	36,36,36,36	0
56	MG	1A	3595	1/1	0.91	0.10	56,56,56,56	0
56	MG	1A	3312	1/1	0.91	0.11	51,51,51,51	0
56	MG	2A	3378	1/1	0.91	0.26	57,57,57,57	0
56	MG	2A	3380	1/1	0.91	0.17	44,44,44,44	0
56	MG	1A	3126	1/1	0.91	0.25	48,48,48,48	0
56	MG	1A	3019	1/1	0.91	0.21	39,39,39,39	0
56	MG	1A	3160	1/1	0.91	0.09	34,34,34,34	0
56	MG	1h	201	1/1	0.91	0.20	54,54,54,54	0
56	MG	2a	3022	1/1	0.91	0.08	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3180	1/1	0.91	0.09	48,48,48,48	0
56	MG	1A	3325	1/1	0.91	0.11	52,52,52,52	0
56	MG	1x	101	1/1	0.91	0.24	26,26,26,26	0
56	MG	1x	102	1/1	0.91	0.12	45,45,45,45	0
56	MG	1a	1658	1/1	0.91	0.14	59,59,59,59	0
56	MG	1x	104	1/1	0.91	0.20	58,58,58,58	0
56	MG	2A	3192	1/1	0.91	0.12	43,43,43,43	0
56	MG	1A	3057	1/1	0.91	0.18	20,20,20,20	0
56	MG	2a	3045	1/1	0.91	0.20	49,49,49,49	0
56	MG	1A	3277	1/1	0.91	0.16	61,61,61,61	0
56	MG	1A	3740	1/1	0.91	0.19	49,49,49,49	0
56	MG	1a	1663	1/1	0.91	0.21	53,53,53,53	0
56	MG	2A	3411	1/1	0.91	0.26	46,46,46,46	0
56	MG	2A	3202	1/1	0.91	0.14	44,44,44,44	0
56	MG	1A	3396	1/1	0.91	0.22	43,43,43,43	0
56	MG	2A	3006	1/1	0.91	0.21	46,46,46,46	0
56	MG	1E	308	1/1	0.91	0.17	39,39,39,39	0
56	MG	1a	1667	1/1	0.91	0.28	49,49,49,49	0
56	MG	1A	3484	1/1	0.91	0.10	51,51,51,51	0
56	MG	2A	3428	1/1	0.91	0.20	50,50,50,50	0
56	MG	2a	3060	1/1	0.91	0.20	49,49,49,49	0
56	MG	1A	3242	1/1	0.91	0.06	43,43,43,43	0
56	MG	2A	3431	1/1	0.91	0.25	44,44,44,44	0
56	MG	1G	201	1/1	0.91	0.15	32,32,32,32	0
56	MG	1A	3400	1/1	0.91	0.14	54,54,54,54	0
56	MG	1A	3141	1/1	0.91	0.07	41,41,41,41	0
56	MG	2A	3219	1/1	0.91	0.18	47,47,47,47	0
56	MG	2A	3221	1/1	0.91	0.22	42,42,42,42	0
56	MG	1A	3142	1/1	0.91	0.20	29,29,29,29	0
56	MG	2A	3448	1/1	0.91	0.11	51,51,51,51	0
56	MG	2A	3225	1/1	0.91	0.16	51,51,51,51	0
56	MG	2A	3229	1/1	0.91	0.21	56,56,56,56	0
56	MG	2A	3460	1/1	0.91	0.12	56,56,56,56	0
56	MG	1A	3076	1/1	0.91	0.13	46,46,46,46	0
56	MG	1A	3059	1/1	0.91	0.19	58,58,58,58	0
56	MG	2A	3030	1/1	0.91	0.22	54,54,54,54	0
56	MG	1R	203	1/1	0.91	0.19	50,50,50,50	0
56	MG	2A	3485	1/1	0.91	0.11	58,58,58,58	0
56	MG	2A	3489	1/1	0.91	0.09	54,54,54,54	0
56	MG	1A	3224	1/1	0.91	0.11	33,33,33,33	0
56	MG	2A	3259	1/1	0.91	0.07	40,40,40,40	0
56	MG	2A	3497	1/1	0.91	0.17	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2a	3096	1/1	0.91	0.30	58,58,58,58	0
56	MG	2A	3500	1/1	0.91	0.08	58,58,58,58	0
56	MG	1A	3301	1/1	0.91	0.34	33,33,33,33	0
56	MG	2A	3039	1/1	0.91	0.06	42,42,42,42	0
56	MG	2A	3263	1/1	0.91	0.52	51,51,51,51	0
56	MG	1A	3414	1/1	0.91	0.20	40,40,40,40	0
56	MG	2A	3517	1/1	0.91	0.09	49,49,49,49	0
56	MG	2A	3266	1/1	0.91	0.21	38,38,38,38	0
56	MG	1a	1696	1/1	0.91	0.23	51,51,51,51	0
56	MG	2A	3526	1/1	0.91	0.19	61,61,61,61	0
56	MG	1W	201	1/1	0.91	0.12	35,35,35,35	0
56	MG	2A	3273	1/1	0.91	0.32	47,47,47,47	0
56	MG	2A	3044	1/1	0.91	0.16	50,50,50,50	0
56	MG	1a	1698	1/1	0.91	0.24	42,42,42,42	0
56	MG	1A	3417	1/1	0.91	0.12	30,30,30,30	0
56	MG	1a	1703	1/1	0.91	0.21	48,48,48,48	0
56	MG	2A	3284	1/1	0.91	0.28	47,47,47,47	0
56	MG	1A	3792	1/1	0.91	0.10	25,25,25,25	0
56	MG	1Z	302	1/1	0.91	0.04	39,39,39,39	0
56	MG	10	104	1/1	0.91	0.42	42,42,42,42	0
56	MG	10	105	1/1	0.91	0.18	35,35,35,35	0
56	MG	2A	3303	1/1	0.91	0.15	48,48,48,48	0
56	MG	11	101	1/1	0.91	0.07	36,36,36,36	0
56	MG	1A	3669	1/1	0.91	0.15	38,38,38,38	0
56	MG	15	102	1/1	0.91	0.23	31,31,31,31	0
56	MG	1A	3420	1/1	0.91	0.24	41,41,41,41	0
56	MG	1a	1721	1/1	0.91	0.08	49,49,49,49	0
56	MG	2A	3575	1/1	0.91	0.10	48,48,48,48	0
56	MG	2a	3137	1/1	0.91	0.18	58,58,58,58	0
56	MG	2A	3315	1/1	0.91	0.22	51,51,51,51	0
56	MG	2A	3083	1/1	0.91	0.08	49,49,49,49	0
56	MG	1A	3811	1/1	0.91	0.21	17,17,17,17	0
56	MG	1A	3423	1/1	0.91	0.25	24,24,24,24	0
56	MG	1A	3675	1/1	0.91	0.24	59,59,59,59	0
56	MG	2A	3595	1/1	0.91	0.19	52,52,52,52	0
56	MG	2d	301	1/1	0.91	0.31	58,58,58,58	0
56	MG	1A	3678	1/1	0.91	0.08	35,35,35,35	0
56	MG	2A	3097	1/1	0.91	0.18	54,54,54,54	0
56	MG	2r	101	1/1	0.91	0.24	65,65,65,65	0
56	MG	2A	3330	1/1	0.91	0.13	50,50,50,50	0
56	MG	2A	3101	1/1	0.91	0.26	65,65,65,65	0
56	MG	1A	3549	1/1	0.91	0.13	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3104	1/1	0.91	0.16	38,38,38,38	0
56	MG	1A	3256	1/1	0.91	0.11	49,49,49,49	0
56	MG	2A	3614	1/1	0.92	0.11	38,38,38,38	0
56	MG	2A	3164	1/1	0.92	0.07	35,35,35,35	0
56	MG	1n	101	1/1	0.92	0.20	45,45,45,45	0
56	MG	1A	3457	1/1	0.92	0.37	45,45,45,45	0
56	MG	1O	201	1/1	0.92	0.17	43,43,43,43	0
56	MG	2A	3168	1/1	0.92	0.18	54,54,54,54	0
56	MG	1A	3574	1/1	0.92	0.11	61,61,61,61	0
56	MG	2A	3171	1/1	0.92	0.11	45,45,45,45	0
56	MG	1A	3676	1/1	0.92	0.31	67,67,67,67	0
56	MG	1A	3459	1/1	0.92	0.23	25,25,25,25	0
56	MG	1a	1670	1/1	0.92	0.22	34,34,34,34	0
56	MG	1A	3794	1/1	0.92	0.08	45,45,45,45	0
56	MG	1A	3080	1/1	0.92	0.17	45,45,45,45	0
56	MG	1A	3681	1/1	0.92	0.11	57,57,57,57	0
56	MG	1A	3685	1/1	0.92	0.07	56,56,56,56	0
56	MG	1a	1680	1/1	0.92	0.43	60,60,60,60	0
56	MG	1A	3159	1/1	0.92	0.14	37,37,37,37	0
56	MG	1a	1683	1/1	0.92	0.15	53,53,53,53	0
56	MG	2V	202	1/1	0.92	0.07	53,53,53,53	0
56	MG	2Y	201	1/1	0.92	0.22	41,41,41,41	0
56	MG	2A	3189	1/1	0.92	0.20	49,49,49,49	0
56	MG	1a	1684	1/1	0.92	0.09	51,51,51,51	0
56	MG	2A	3382	1/1	0.92	0.23	53,53,53,53	0
56	MG	27	101	1/1	0.92	0.13	44,44,44,44	0
56	MG	2A	3191	1/1	0.92	0.15	50,50,50,50	0
56	MG	1A	3817	1/1	0.92	0.07	47,47,47,47	0
56	MG	2A	3193	1/1	0.92	0.20	45,45,45,45	0
56	MG	1A	3131	1/1	0.92	0.10	32,32,32,32	0
56	MG	2A	3196	1/1	0.92	0.10	53,53,53,53	0
56	MG	10	102	1/1	0.92	0.07	49,49,49,49	0
56	MG	10	103	1/1	0.92	0.33	58,58,58,58	0
56	MG	1A	3167	1/1	0.92	0.14	63,63,63,63	0
56	MG	1A	3824	1/1	0.92	0.11	56,56,56,56	0
56	MG	2A	3396	1/1	0.92	0.23	52,52,52,52	0
56	MG	1A	3116	1/1	0.92	0.16	44,44,44,44	0
56	MG	2a	3015	1/1	0.92	0.18	63,63,63,63	0
56	MG	2A	3028	1/1	0.92	0.24	57,57,57,57	0
56	MG	1A	3315	1/1	0.92	0.10	46,46,46,46	0
56	MG	2A	3402	1/1	0.92	0.14	45,45,45,45	0
56	MG	2A	3404	1/1	0.92	0.25	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3066	1/1	0.92	0.15	39,39,39,39	0
56	MG	2a	3024	1/1	0.92	0.28	59,59,59,59	0
56	MG	1A	3697	1/1	0.92	0.08	25,25,25,25	0
56	MG	17	3103	1/1	0.92	0.15	37,37,37,37	0
56	MG	2a	3031	1/1	0.92	0.12	46,46,46,46	0
56	MG	2a	3032	1/1	0.92	0.14	56,56,56,56	0
56	MG	1A	3366	1/1	0.92	0.13	46,46,46,46	0
56	MG	2a	3034	1/1	0.92	0.33	57,57,57,57	0
56	MG	18	102	1/1	0.92	0.26	42,42,42,42	0
56	MG	2a	3036	1/1	0.92	0.14	58,58,58,58	0
56	MG	2a	3038	1/1	0.92	0.21	52,52,52,52	0
56	MG	2A	3414	1/1	0.92	0.15	45,45,45,45	0
56	MG	1a	1708	1/1	0.92	0.31	42,42,42,42	0
56	MG	2A	3218	1/1	0.92	0.26	49,49,49,49	0
56	MG	1A	3703	1/1	0.92	0.11	52,52,52,52	0
56	MG	1a	1601	1/1	0.92	0.19	61,61,61,61	0
56	MG	2A	3045	1/1	0.92	0.09	47,47,47,47	0
56	MG	1A	3492	1/1	0.92	0.14	50,50,50,50	0
56	MG	2A	3052	1/1	0.92	0.17	32,32,32,32	0
56	MG	1A	3609	1/1	0.92	0.08	37,37,37,37	0
56	MG	2a	3052	1/1	0.92	0.27	56,56,56,56	0
56	MG	2A	3234	1/1	0.92	0.13	41,41,41,41	0
56	MG	2A	3434	1/1	0.92	0.11	45,45,45,45	0
56	MG	2A	3235	1/1	0.92	0.11	48,48,48,48	0
56	MG	1a	1604	1/1	0.92	0.16	49,49,49,49	0
56	MG	2A	3237	1/1	0.92	0.23	57,57,57,57	0
56	MG	2A	3442	1/1	0.92	0.29	54,54,54,54	0
56	MG	2A	3238	1/1	0.92	0.11	45,45,45,45	0
56	MG	2A	3241	1/1	0.92	0.28	42,42,42,42	0
56	MG	2A	3242	1/1	0.92	0.14	57,57,57,57	0
56	MG	1A	3495	1/1	0.92	0.09	49,49,49,49	0
56	MG	2A	3061	1/1	0.92	0.21	46,46,46,46	0
56	MG	2A	3252	1/1	0.92	0.26	38,38,38,38	0
56	MG	1A	3048	1/1	0.92	0.18	50,50,50,50	0
56	MG	1a	1722	1/1	0.92	0.39	49,49,49,49	0
56	MG	2A	3473	1/1	0.92	0.11	35,35,35,35	0
56	MG	1A	3055	1/1	0.92	0.09	48,48,48,48	0
56	MG	2a	3076	1/1	0.92	0.38	48,48,48,48	0
56	MG	1A	3249	1/1	0.92	0.08	58,58,58,58	0
56	MG	2a	3079	1/1	0.92	0.28	52,52,52,52	0
56	MG	1A	3332	1/1	0.92	0.07	50,50,50,50	0
56	MG	1a	1727	1/1	0.92	0.37	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3490	1/1	0.92	0.19	47,47,47,47	0
56	MG	1B	203	1/1	0.92	0.13	61,61,61,61	0
56	MG	2A	3493	1/1	0.92	0.14	45,45,45,45	0
56	MG	2A	3080	1/1	0.92	0.14	44,44,44,44	0
56	MG	2a	3089	1/1	0.92	0.16	57,57,57,57	0
56	MG	1A	3727	1/1	0.92	0.09	30,30,30,30	0
56	MG	1A	3027	1/1	0.92	0.19	30,30,30,30	0
56	MG	2A	3505	1/1	0.92	0.18	59,59,59,59	0
56	MG	1a	1622	1/1	0.92	0.12	32,32,32,32	0
56	MG	2A	3507	1/1	0.92	0.12	68,68,68,68	0
56	MG	1a	1624	1/1	0.92	0.27	60,60,60,60	0
56	MG	2A	3278	1/1	0.92	0.23	23,23,23,23	0
56	MG	2A	3281	1/1	0.92	0.14	38,38,38,38	0
56	MG	1A	3013	1/1	0.92	0.17	34,34,34,34	0
56	MG	1A	3431	1/1	0.92	0.16	42,42,42,42	0
56	MG	1A	3385	1/1	0.92	0.20	38,38,38,38	0
56	MG	2A	3524	1/1	0.92	0.17	55,55,55,55	0
56	MG	2A	3099	1/1	0.92	0.21	44,44,44,44	0
56	MG	1a	1629	1/1	0.92	0.15	58,58,58,58	0
56	MG	1A	3193	1/1	0.92	0.27	34,34,34,34	0
56	MG	1A	3654	1/1	0.92	0.09	42,42,42,42	0
56	MG	2a	3109	1/1	0.92	0.22	60,60,60,60	0
56	MG	2a	3110	1/1	0.92	0.17	60,60,60,60	0
56	MG	1a	1635	1/1	0.92	0.29	57,57,57,57	0
56	MG	2A	3112	1/1	0.92	0.26	51,51,51,51	0
56	MG	2A	3114	1/1	0.92	0.11	46,46,46,46	0
56	MG	2a	3114	1/1	0.92	0.23	59,59,59,59	0
56	MG	2A	3115	1/1	0.92	0.07	53,53,53,53	0
56	MG	1A	3656	1/1	0.92	0.11	52,52,52,52	0
56	MG	1A	3340	1/1	0.92	0.20	49,49,49,49	0
56	MG	2A	3123	1/1	0.92	0.13	51,51,51,51	0
56	MG	1a	1641	1/1	0.92	0.15	57,57,57,57	0
56	MG	1D	306	1/1	0.92	0.17	47,47,47,47	0
56	MG	2A	3319	1/1	0.92	0.35	51,51,51,51	0
56	MG	2A	3322	1/1	0.92	0.22	44,44,44,44	0
56	MG	2A	3568	1/1	0.92	0.12	64,64,64,64	0
56	MG	2A	3323	1/1	0.92	0.11	50,50,50,50	0
56	MG	1D	308	1/1	0.92	0.18	41,41,41,41	0
56	MG	1E	303	1/1	0.92	0.17	33,33,33,33	0
56	MG	2A	3327	1/1	0.92	0.14	40,40,40,40	0
56	MG	2a	3135	1/1	0.92	0.19	64,64,64,64	0
56	MG	2A	3577	1/1	0.92	0.12	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1E	304	1/1	0.92	0.08	42,42,42,42	0
56	MG	1A	3390	1/1	0.92	0.10	50,50,50,50	0
56	MG	2A	3142	1/1	0.92	0.16	44,44,44,44	0
56	MG	1A	3062	1/1	0.92	0.11	28,28,28,28	0
56	MG	1A	3663	1/1	0.92	0.50	41,41,41,41	0
56	MG	1A	3232	1/1	0.92	0.11	46,46,46,46	0
56	MG	1A	3551	1/1	0.92	0.09	30,30,30,30	0
56	MG	1A	3155	1/1	0.92	0.07	47,47,47,47	0
56	MG	2j	201	1/1	0.92	0.20	58,58,58,58	0
56	MG	1A	3456	1/1	0.92	0.43	49,49,49,49	0
56	MG	1A	3772	1/1	0.92	0.09	59,59,59,59	0
56	MG	1I	201	1/1	0.92	0.12	55,55,55,55	0
56	MG	1A	3563	1/1	0.92	0.19	57,57,57,57	0
56	MG	1l	202	1/1	0.92	0.20	53,53,53,53	0
56	MG	2A	3611	1/1	0.92	0.17	41,41,41,41	0
56	MG	1l	203	1/1	0.92	0.12	41,41,41,41	0
56	MG	2A	3161	1/1	0.92	0.10	48,48,48,48	0
56	MG	2x	104	1/1	0.92	0.26	41,41,41,41	0
59	K	2x	101	1/1	0.92	0.19	78,78,78,78	0
56	MG	2A	3111	1/1	0.93	0.20	38,38,38,38	0
56	MG	1A	3330	1/1	0.93	0.08	48,48,48,48	0
56	MG	1A	3052	1/1	0.93	0.17	47,47,47,47	0
56	MG	2A	3605	1/1	0.93	0.11	59,59,59,59	0
56	MG	1A	3200	1/1	0.93	0.12	46,46,46,46	0
56	MG	2A	3607	1/1	0.93	0.23	49,49,49,49	0
56	MG	2A	3609	1/1	0.93	0.17	42,42,42,42	0
56	MG	2A	3117	1/1	0.93	0.32	53,53,53,53	0
56	MG	1A	3604	1/1	0.93	0.15	51,51,51,51	0
56	MG	15	104	1/1	0.93	0.10	44,44,44,44	0
56	MG	1A	3202	1/1	0.93	0.23	38,38,38,38	0
56	MG	2A	3124	1/1	0.93	0.10	47,47,47,47	0
56	MG	2A	3619	1/1	0.93	0.17	35,35,35,35	0
56	MG	1A	3053	1/1	0.93	0.08	32,32,32,32	0
56	MG	17	3105	1/1	0.93	0.08	28,28,28,28	0
56	MG	1A	3206	1/1	0.93	0.16	32,32,32,32	0
56	MG	2A	3625	1/1	0.93	0.26	51,51,51,51	0
56	MG	2B	201	1/1	0.93	0.27	67,67,67,67	0
56	MG	2A	3131	1/1	0.93	0.14	53,53,53,53	0
56	MG	1A	3001	1/1	0.93	0.07	39,39,39,39	0
56	MG	1A	3265	1/1	0.93	0.11	45,45,45,45	0
56	MG	2B	206	1/1	0.93	0.28	64,64,64,64	0
56	MG	2A	3138	1/1	0.93	0.06	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3623	1/1	0.93	0.10	65,65,65,65	0
56	MG	1A	3211	1/1	0.93	0.33	38,38,38,38	0
56	MG	1A	3442	1/1	0.93	0.25	36,36,36,36	0
56	MG	1A	3038	1/1	0.93	0.29	43,43,43,43	0
56	MG	2E	301	1/1	0.93	0.19	42,42,42,42	0
56	MG	1A	3213	1/1	0.93	0.11	33,33,33,33	0
56	MG	1A	3272	1/1	0.93	0.10	42,42,42,42	0
56	MG	1A	3353	1/1	0.93	0.12	49,49,49,49	0
56	MG	1A	3026	1/1	0.93	0.09	45,45,45,45	0
56	MG	1a	1614	1/1	0.93	0.19	52,52,52,52	0
56	MG	2Q	201	1/1	0.93	0.15	57,57,57,57	0
56	MG	1A	3818	1/1	0.93	0.16	28,28,28,28	0
56	MG	2A	3361	1/1	0.93	0.11	49,49,49,49	0
56	MG	1a	1616	1/1	0.93	0.12	53,53,53,53	0
56	MG	1A	3653	1/1	0.93	0.33	43,43,43,43	0
56	MG	20	101	1/1	0.93	0.32	63,63,63,63	0
56	MG	1A	3041	1/1	0.93	0.09	38,38,38,38	0
56	MG	1a	1620	1/1	0.93	0.15	55,55,55,55	0
56	MG	2A	3162	1/1	0.93	0.13	68,68,68,68	0
56	MG	27	102	1/1	0.93	0.13	42,42,42,42	0
56	MG	1A	3014	1/1	0.93	0.07	24,24,24,24	0
56	MG	2A	3372	1/1	0.93	0.23	62,62,62,62	0
56	MG	1A	3219	1/1	0.93	0.08	48,48,48,48	0
56	MG	1A	3069	1/1	0.93	0.17	36,36,36,36	0
56	MG	1A	3661	1/1	0.93	0.10	47,47,47,47	0
56	MG	1A	3286	1/1	0.93	0.09	39,39,39,39	0
56	MG	2A	3169	1/1	0.93	0.10	42,42,42,42	0
56	MG	1A	3478	1/1	0.93	0.15	52,52,52,52	0
56	MG	1A	3831	1/1	0.93	0.18	71,71,71,71	0
56	MG	1a	1630	1/1	0.93	0.16	38,38,38,38	0
56	MG	1a	1632	1/1	0.93	0.14	49,49,49,49	0
56	MG	1A	3369	1/1	0.93	0.07	42,42,42,42	0
56	MG	1A	3165	1/1	0.93	0.12	29,29,29,29	0
56	MG	2A	3178	1/1	0.93	0.06	47,47,47,47	0
56	MG	2A	3390	1/1	0.93	0.17	46,46,46,46	0
56	MG	2a	3020	1/1	0.93	0.14	49,49,49,49	0
56	MG	1A	3482	1/1	0.93	0.13	37,37,37,37	0
56	MG	1A	3090	1/1	0.93	0.07	27,27,27,27	0
56	MG	1A	3128	1/1	0.93	0.19	51,51,51,51	0
56	MG	1A	3173	1/1	0.93	0.12	52,52,52,52	0
56	MG	2a	3026	1/1	0.93	0.13	54,54,54,54	0
56	MG	2a	3028	1/1	0.93	0.20	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3382	1/1	0.93	0.27	57,57,57,57	0
56	MG	2A	3186	1/1	0.93	0.14	52,52,52,52	0
56	MG	1a	1643	1/1	0.93	0.07	45,45,45,45	0
56	MG	1A	3498	1/1	0.93	0.11	47,47,47,47	0
56	MG	1A	3677	1/1	0.93	0.07	50,50,50,50	0
56	MG	1B	209	1/1	0.93	0.07	48,48,48,48	0
56	MG	1x	109	1/1	0.93	0.23	60,60,60,60	0
56	MG	2a	3037	1/1	0.93	0.07	57,57,57,57	0
56	MG	1A	3174	1/1	0.93	0.12	41,41,41,41	0
56	MG	2A	3408	1/1	0.93	0.32	43,43,43,43	0
56	MG	2a	3041	1/1	0.93	0.33	58,58,58,58	0
56	MG	1A	3299	1/1	0.93	0.12	31,31,31,31	0
56	MG	2A	3003	1/1	0.93	0.14	45,45,45,45	0
56	MG	1a	1651	1/1	0.93	0.18	44,44,44,44	0
56	MG	1A	3680	1/1	0.93	0.14	38,38,38,38	0
56	MG	1a	1653	1/1	0.93	0.18	42,42,42,42	0
56	MG	1A	3070	1/1	0.93	0.07	32,32,32,32	0
56	MG	2A	3420	1/1	0.93	0.28	42,42,42,42	0
56	MG	2a	3050	1/1	0.93	0.21	31,31,31,31	0
56	MG	1A	3130	1/1	0.93	0.10	54,54,54,54	0
56	MG	2A	3204	1/1	0.93	0.21	50,50,50,50	0
56	MG	2A	3014	1/1	0.93	0.16	56,56,56,56	0
56	MG	1A	3504	1/1	0.93	0.11	49,49,49,49	0
56	MG	1B	220	1/1	0.93	0.11	53,53,53,53	0
56	MG	1A	3303	1/1	0.93	0.20	58,58,58,58	0
56	MG	1A	3391	1/1	0.93	0.32	35,35,35,35	0
56	MG	1A	3029	1/1	0.93	0.16	47,47,47,47	0
56	MG	1A	3235	1/1	0.93	0.05	15,15,15,15	0
56	MG	2A	3436	1/1	0.93	0.23	40,40,40,40	0
56	MG	2a	3062	1/1	0.93	0.22	62,62,62,62	0
56	MG	1A	3236	1/1	0.93	0.17	45,45,45,45	0
56	MG	2A	3026	1/1	0.93	0.15	60,60,60,60	0
56	MG	2A	3441	1/1	0.93	0.26	21,21,21,21	0
56	MG	2A	3027	1/1	0.93	0.15	34,34,34,34	0
56	MG	1E	302	1/1	0.93	0.12	34,34,34,34	0
56	MG	2a	3068	1/1	0.93	0.25	48,48,48,48	0
56	MG	1A	3398	1/1	0.93	0.24	48,48,48,48	0
56	MG	1A	3180	1/1	0.93	0.10	38,38,38,38	0
56	MG	1A	3181	1/1	0.93	0.10	34,34,34,34	0
56	MG	1A	3104	1/1	0.93	0.10	54,54,54,54	0
56	MG	1A	3402	1/1	0.93	0.14	46,46,46,46	0
56	MG	2A	3463	1/1	0.93	0.11	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2a	3080	1/1	0.93	0.26	37,37,37,37	0
56	MG	1A	3403	1/1	0.93	0.22	56,56,56,56	0
56	MG	2A	3041	1/1	0.93	0.06	35,35,35,35	0
56	MG	1F	302	1/1	0.93	0.09	45,45,45,45	0
56	MG	1A	3711	1/1	0.93	0.18	42,42,42,42	0
56	MG	1A	3562	1/1	0.93	0.10	61,61,61,61	0
56	MG	1A	3713	1/1	0.93	0.13	51,51,51,51	0
56	MG	2a	3088	1/1	0.93	0.17	48,48,48,48	0
56	MG	2A	3486	1/1	0.93	0.10	41,41,41,41	0
56	MG	2A	3243	1/1	0.93	0.19	54,54,54,54	0
56	MG	2A	3048	1/1	0.93	0.28	58,58,58,58	0
56	MG	2A	3246	1/1	0.93	0.20	45,45,45,45	0
56	MG	2A	3248	1/1	0.93	0.10	40,40,40,40	0
56	MG	1G	204	1/1	0.93	0.21	44,44,44,44	0
56	MG	2A	3250	1/1	0.93	0.20	38,38,38,38	0
56	MG	2A	3498	1/1	0.93	0.15	50,50,50,50	0
56	MG	2A	3251	1/1	0.93	0.12	50,50,50,50	0
56	MG	1A	3107	1/1	0.93	0.12	29,29,29,29	0
56	MG	2A	3253	1/1	0.93	0.17	63,63,63,63	0
56	MG	2A	3053	1/1	0.93	0.31	53,53,53,53	0
56	MG	1A	3565	1/1	0.93	0.14	45,45,45,45	0
56	MG	1A	3317	1/1	0.93	0.12	46,46,46,46	0
56	MG	1A	3717	1/1	0.93	0.11	33,33,33,33	0
56	MG	2A	3262	1/1	0.93	0.17	46,46,46,46	0
56	MG	2A	3518	1/1	0.93	0.16	55,55,55,55	0
56	MG	1A	3719	1/1	0.93	0.11	50,50,50,50	0
56	MG	2A	3522	1/1	0.93	0.09	41,41,41,41	0
56	MG	1Q	201	1/1	0.93	0.20	34,34,34,34	0
56	MG	1A	3725	1/1	0.93	0.09	32,32,32,32	0
56	MG	1A	3572	1/1	0.93	0.10	71,71,71,71	0
56	MG	2A	3067	1/1	0.93	0.11	55,55,55,55	0
56	MG	1A	3189	1/1	0.93	0.14	44,44,44,44	0
56	MG	2A	3538	1/1	0.93	0.08	44,44,44,44	0
56	MG	1a	1699	1/1	0.93	0.23	27,27,27,27	0
56	MG	1A	3319	1/1	0.93	0.09	52,52,52,52	0
56	MG	2A	3073	1/1	0.93	0.09	43,43,43,43	0
56	MG	2A	3549	1/1	0.93	0.10	57,57,57,57	0
56	MG	2A	3076	1/1	0.93	0.14	43,43,43,43	0
56	MG	1a	1702	1/1	0.93	0.16	42,42,42,42	0
56	MG	1A	3411	1/1	0.93	0.44	54,54,54,54	0
56	MG	2A	3555	1/1	0.93	0.13	37,37,37,37	0
56	MG	1a	1704	1/1	0.93	0.28	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2a	3129	1/1	0.93	0.09	46,46,46,46	0
56	MG	2A	3558	1/1	0.93	0.15	46,46,46,46	0
56	MG	2A	3285	1/1	0.93	0.22	36,36,36,36	0
56	MG	2A	3562	1/1	0.93	0.13	53,53,53,53	0
56	MG	2A	3286	1/1	0.93	0.21	29,29,29,29	0
56	MG	1A	3320	1/1	0.93	0.25	59,59,59,59	0
56	MG	2A	3290	1/1	0.93	0.23	36,36,36,36	0
56	MG	2A	3084	1/1	0.93	0.12	68,68,68,68	0
56	MG	1A	3110	1/1	0.93	0.15	42,42,42,42	0
56	MG	1W	203	1/1	0.93	0.15	48,48,48,48	0
56	MG	1A	3589	1/1	0.93	0.09	67,67,67,67	0
56	MG	2A	3095	1/1	0.93	0.11	38,38,38,38	0
56	MG	1a	1711	1/1	0.93	0.17	48,48,48,48	0
56	MG	1A	3144	1/1	0.93	0.05	34,34,34,34	0
56	MG	2k	201	1/1	0.93	0.08	63,63,63,63	0
56	MG	2l	201	1/1	0.93	0.09	43,43,43,43	0
56	MG	2A	3578	1/1	0.93	0.14	60,60,60,60	0
56	MG	1A	3592	1/1	0.93	0.10	27,27,27,27	0
56	MG	1A	3593	1/1	0.93	0.10	34,34,34,34	0
56	MG	1A	3747	1/1	0.93	0.13	65,65,65,65	0
56	MG	2A	3316	1/1	0.93	0.22	44,44,44,44	0
56	MG	2A	3103	1/1	0.93	0.30	57,57,57,57	0
56	MG	1A	3248	1/1	0.93	0.09	49,49,49,49	0
56	MG	2A	3596	1/1	0.93	0.26	50,50,50,50	0
56	MG	2A	3106	1/1	0.93	0.13	33,33,33,33	0
56	MG	1a	1720	1/1	0.93	0.18	54,54,54,54	0
56	MG	2A	3600	1/1	0.94	0.13	43,43,43,43	0
56	MG	1A	3452	1/1	0.94	0.20	44,44,44,44	0
56	MG	1A	3183	1/1	0.94	0.21	55,55,55,55	0
56	MG	2A	3320	1/1	0.94	0.11	45,45,45,45	0
56	MG	2A	3604	1/1	0.94	0.11	51,51,51,51	0
56	MG	13	102	1/1	0.94	0.10	40,40,40,40	0
56	MG	1A	3287	1/1	0.94	0.19	44,44,44,44	0
56	MG	2A	3324	1/1	0.94	0.18	53,53,53,53	0
56	MG	1A	3773	1/1	0.94	0.09	69,69,69,69	0
56	MG	2A	3122	1/1	0.94	0.19	54,54,54,54	0
56	MG	15	105	1/1	0.94	0.18	37,37,37,37	0
56	MG	1a	1731	1/1	0.94	0.20	34,34,34,34	0
56	MG	2A	3125	1/1	0.94	0.19	49,49,49,49	0
56	MG	1A	3231	1/1	0.94	0.18	53,53,53,53	0
56	MG	2A	3331	1/1	0.94	0.23	42,42,42,42	0
56	MG	1A	3777	1/1	0.94	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
56	MG	2A	3129	1/1	0.94	0.06	42,42,42,42	0
56	MG	17	3104	1/1	0.94	0.17	39,39,39,39	0
56	MG	1A	3778	1/1	0.94	0.07	35,35,35,35	0
56	MG	2A	3132	1/1	0.94	0.25	58,58,58,58	0
56	MG	1A	3458	1/1	0.94	0.34	45,45,45,45	0
56	MG	18	101	1/1	0.94	0.08	39,39,39,39	0
56	MG	2B	204	1/1	0.94	0.07	62,62,62,62	0
56	MG	1a	1741	1/1	0.94	0.31	46,46,46,46	0
56	MG	1A	3365	1/1	0.94	0.16	30,30,30,30	0
56	MG	2A	3141	1/1	0.94	0.07	39,39,39,39	0
56	MG	1A	3148	1/1	0.94	0.17	38,38,38,38	0
56	MG	1A	3119	1/1	0.94	0.08	44,44,44,44	0
56	MG	1a	1745	1/1	0.94	0.28	44,44,44,44	0
56	MG	1A	3793	1/1	0.94	0.10	40,40,40,40	0
56	MG	1A	3463	1/1	0.94	0.07	44,44,44,44	0
56	MG	2E	302	1/1	0.94	0.16	29,29,29,29	0
56	MG	2A	3149	1/1	0.94	0.27	55,55,55,55	0
56	MG	2E	304	1/1	0.94	0.27	52,52,52,52	0
56	MG	1A	3089	1/1	0.94	0.39	51,51,51,51	0
56	MG	2A	3151	1/1	0.94	0.42	53,53,53,53	0
56	MG	2F	303	1/1	0.94	0.15	56,56,56,56	0
56	MG	2A	3358	1/1	0.94	0.18	43,43,43,43	0
56	MG	1A	3034	1/1	0.94	0.14	41,41,41,41	0
56	MG	2P	202	1/1	0.94	0.11	34,34,34,34	0
56	MG	1A	3036	1/1	0.94	0.18	42,42,42,42	0
56	MG	2R	201	1/1	0.94	0.08	31,31,31,31	0
56	MG	2A	3362	1/1	0.94	0.19	30,30,30,30	0
56	MG	2T	202	1/1	0.94	0.22	50,50,50,50	0
56	MG	2A	3363	1/1	0.94	0.18	43,43,43,43	0
56	MG	2W	201	1/1	0.94	0.10	45,45,45,45	0
56	MG	1A	3237	1/1	0.94	0.06	45,45,45,45	0
56	MG	1A	3814	1/1	0.94	0.11	39,39,39,39	0
56	MG	1A	3816	1/1	0.94	0.10	55,55,55,55	0
56	MG	21	101	1/1	0.94	0.18	62,62,62,62	0
56	MG	1A	3012	1/1	0.94	0.07	38,38,38,38	0
56	MG	1A	3381	1/1	0.94	0.15	45,45,45,45	0
56	MG	1a	1617	1/1	0.94	0.20	47,47,47,47	0
56	MG	2A	3163	1/1	0.94	0.24	30,30,30,30	0
56	MG	1A	3199	1/1	0.94	0.11	74,74,74,74	0
56	MG	1A	3305	1/1	0.94	0.08	32,32,32,32	0
56	MG	2a	3002	1/1	0.94	0.10	55,55,55,55	0
56	MG	1A	3306	1/1	0.94	0.30	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3387	1/1	0.94	0.20	42,42,42,42	0
56	MG	1A	3101	1/1	0.94	0.09	36,36,36,36	0
56	MG	2A	3379	1/1	0.94	0.31	34,34,34,34	0
56	MG	1e	202	1/1	0.94	0.15	47,47,47,47	0
56	MG	2A	3381	1/1	0.94	0.16	44,44,44,44	0
56	MG	1A	3665	1/1	0.94	0.06	33,33,33,33	0
56	MG	2a	3010	1/1	0.94	0.17	44,44,44,44	0
56	MG	1A	3102	1/1	0.94	0.08	42,42,42,42	0
56	MG	2A	3385	1/1	0.94	0.18	53,53,53,53	0
56	MG	2a	3014	1/1	0.94	0.17	35,35,35,35	0
56	MG	1a	1626	1/1	0.94	0.08	35,35,35,35	0
56	MG	1A	3161	1/1	0.94	0.22	36,36,36,36	0
56	MG	1A	3204	1/1	0.94	0.17	25,25,25,25	0
56	MG	2A	3175	1/1	0.94	0.09	44,44,44,44	0
56	MG	1A	3205	1/1	0.94	0.18	27,27,27,27	0
56	MG	1v	101	1/1	0.94	0.30	41,41,41,41	0
56	MG	1A	3247	1/1	0.94	0.06	46,46,46,46	0
56	MG	2A	3393	1/1	0.94	0.23	30,30,30,30	0
56	MG	1A	3836	1/1	0.94	0.17	45,45,45,45	0
56	MG	2A	3181	1/1	0.94	0.04	57,57,57,57	0
56	MG	1A	3028	1/1	0.94	0.07	44,44,44,44	0
56	MG	1A	3208	1/1	0.94	0.23	41,41,41,41	0
56	MG	2a	3030	1/1	0.94	0.07	56,56,56,56	0
56	MG	1A	3250	1/1	0.94	0.20	30,30,30,30	0
56	MG	1A	3527	1/1	0.94	0.09	23,23,23,23	0
56	MG	1x	108	1/1	0.94	0.21	44,44,44,44	0
56	MG	2A	3403	1/1	0.94	0.07	48,48,48,48	0
56	MG	2A	3188	1/1	0.94	0.14	56,56,56,56	0
56	MG	1A	3009	1/1	0.94	0.16	33,33,33,33	0
56	MG	1a	1639	1/1	0.94	0.12	40,40,40,40	0
56	MG	1z	101	1/1	0.94	0.20	49,49,49,49	0
56	MG	2a	3039	1/1	0.94	0.12	58,58,58,58	0
56	MG	1a	1640	1/1	0.94	0.08	42,42,42,42	0
56	MG	1A	3847	1/1	0.94	0.12	36,36,36,36	0
56	MG	1A	3531	1/1	0.94	0.09	46,46,46,46	0
56	MG	1B	201	1/1	0.94	0.06	31,31,31,31	0
56	MG	1B	202	1/1	0.94	0.14	30,30,30,30	0
56	MG	1A	3534	1/1	0.94	0.12	54,54,54,54	0
56	MG	1A	3683	1/1	0.94	0.13	55,55,55,55	0
56	MG	1A	3171	1/1	0.94	0.11	49,49,49,49	0
56	MG	2A	3423	1/1	0.94	0.25	34,34,34,34	0
56	MG	1A	3032	1/1	0.94	0.23	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3689	1/1	0.94	0.06	43,43,43,43	0
56	MG	2A	3205	1/1	0.94	0.11	40,40,40,40	0
56	MG	1A	3137	1/1	0.94	0.11	33,33,33,33	0
56	MG	2A	3430	1/1	0.94	0.23	20,20,20,20	0
56	MG	1A	3138	1/1	0.94	0.13	36,36,36,36	0
56	MG	1A	3547	1/1	0.94	0.15	47,47,47,47	0
56	MG	2A	3433	1/1	0.94	0.26	47,47,47,47	0
56	MG	1A	3260	1/1	0.94	0.21	48,48,48,48	0
56	MG	1A	3112	1/1	0.94	0.11	36,36,36,36	0
56	MG	1A	3333	1/1	0.94	0.24	37,37,37,37	0
56	MG	2A	3214	1/1	0.94	0.22	36,36,36,36	0
56	MG	1A	3409	1/1	0.94	0.15	38,38,38,38	0
56	MG	2A	3216	1/1	0.94	0.19	41,41,41,41	0
56	MG	1A	3558	1/1	0.94	0.08	49,49,49,49	0
56	MG	1a	1661	1/1	0.94	0.05	45,45,45,45	0
56	MG	2A	3031	1/1	0.94	0.05	44,44,44,44	0
56	MG	1A	3561	1/1	0.94	0.08	26,26,26,26	0
56	MG	1A	3266	1/1	0.94	0.11	47,47,47,47	0
56	MG	1A	3412	1/1	0.94	0.07	28,28,28,28	0
56	MG	2A	3451	1/1	0.94	0.11	45,45,45,45	0
56	MG	2A	3455	1/1	0.94	0.07	39,39,39,39	0
56	MG	2A	3227	1/1	0.94	0.11	28,28,28,28	0
56	MG	2A	3228	1/1	0.94	0.40	45,45,45,45	0
56	MG	1A	3710	1/1	0.94	0.06	50,50,50,50	0
56	MG	1A	3336	1/1	0.94	0.11	53,53,53,53	0
56	MG	1A	3566	1/1	0.94	0.12	38,38,38,38	0
56	MG	2a	3083	1/1	0.94	0.24	40,40,40,40	0
56	MG	1A	3267	1/1	0.94	0.29	61,61,61,61	0
56	MG	1A	3570	1/1	0.94	0.12	48,48,48,48	0
56	MG	1A	3338	1/1	0.94	0.13	39,39,39,39	0
56	MG	1a	1674	1/1	0.94	0.15	48,48,48,48	0
56	MG	1A	3573	1/1	0.94	0.07	53,53,53,53	0
56	MG	1F	307	1/1	0.94	0.18	45,45,45,45	0
56	MG	1A	3046	1/1	0.94	0.27	46,46,46,46	0
56	MG	1F	312	1/1	0.94	0.21	46,46,46,46	0
56	MG	1A	3422	1/1	0.94	0.16	27,27,27,27	0
56	MG	1G	202	1/1	0.94	0.19	37,37,37,37	0
56	MG	1A	3218	1/1	0.94	0.14	39,39,39,39	0
56	MG	1a	1687	1/1	0.94	0.16	37,37,37,37	0
56	MG	1A	3177	1/1	0.94	0.14	53,53,53,53	0
56	MG	2a	3098	1/1	0.94	0.18	45,45,45,45	0
56	MG	1A	3584	1/1	0.94	0.09	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3731	1/1	0.94	0.07	65,65,65,65	0
56	MG	2A	3066	1/1	0.94	0.12	51,51,51,51	0
56	MG	2A	3513	1/1	0.94	0.10	57,57,57,57	0
56	MG	1a	1693	1/1	0.94	0.23	34,34,34,34	0
56	MG	1A	3733	1/1	0.94	0.11	34,34,34,34	0
56	MG	1A	3428	1/1	0.94	0.38	58,58,58,58	0
56	MG	1A	3178	1/1	0.94	0.10	54,54,54,54	0
56	MG	1A	3344	1/1	0.94	0.14	32,32,32,32	0
56	MG	1A	3082	1/1	0.94	0.08	44,44,44,44	0
56	MG	1A	3018	1/1	0.94	0.20	48,48,48,48	0
56	MG	2A	3078	1/1	0.94	0.06	54,54,54,54	0
56	MG	1A	3435	1/1	0.94	0.24	45,45,45,45	0
56	MG	2A	3272	1/1	0.94	0.20	46,46,46,46	0
56	MG	1U	202	1/1	0.94	0.09	32,32,32,32	0
56	MG	1U	203	1/1	0.94	0.18	41,41,41,41	0
56	MG	2A	3541	1/1	0.94	0.20	38,38,38,38	0
56	MG	2A	3275	1/1	0.94	0.14	56,56,56,56	0
56	MG	1A	3049	1/1	0.94	0.27	47,47,47,47	0
56	MG	2A	3085	1/1	0.94	0.14	42,42,42,42	0
56	MG	2A	3280	1/1	0.94	0.17	49,49,49,49	0
56	MG	2a	3121	1/1	0.94	0.25	48,48,48,48	0
56	MG	2A	3086	1/1	0.94	0.10	36,36,36,36	0
56	MG	2A	3551	1/1	0.94	0.10	57,57,57,57	0
56	MG	1A	3744	1/1	0.94	0.11	22,22,22,22	0
56	MG	1V	204	1/1	0.94	0.06	44,44,44,44	0
56	MG	1a	1707	1/1	0.94	0.24	37,37,37,37	0
56	MG	2A	3091	1/1	0.94	0.12	34,34,34,34	0
56	MG	1A	3745	1/1	0.94	0.19	51,51,51,51	0
56	MG	2A	3559	1/1	0.94	0.11	64,64,64,64	0
56	MG	2a	3133	1/1	0.94	0.24	55,55,55,55	0
56	MG	1A	3351	1/1	0.94	0.15	49,49,49,49	0
56	MG	1a	1710	1/1	0.94	0.45	55,55,55,55	0
56	MG	2A	3098	1/1	0.94	0.26	35,35,35,35	0
56	MG	2A	3292	1/1	0.94	0.24	32,32,32,32	0
56	MG	1A	3226	1/1	0.94	0.18	47,47,47,47	0
56	MG	2A	3297	1/1	0.94	0.29	57,57,57,57	0
56	MG	2a	3141	1/1	0.94	0.22	46,46,46,46	0
56	MG	1X	102	1/1	0.94	0.10	58,58,58,58	0
56	MG	2a	3143	1/1	0.94	0.12	49,49,49,49	0
56	MG	2A	3301	1/1	0.94	0.23	47,47,47,47	0
56	MG	2A	3572	1/1	0.94	0.11	56,56,56,56	0
56	MG	2A	3302	1/1	0.94	0.19	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3283	1/1	0.94	0.14	53,53,53,53	0
56	MG	2A	3304	1/1	0.94	0.25	49,49,49,49	0
56	MG	1Y	201	1/1	0.94	0.05	61,61,61,61	0
56	MG	2l	202	1/1	0.94	0.08	44,44,44,44	0
56	MG	2A	3307	1/1	0.94	0.21	31,31,31,31	0
56	MG	1A	3182	1/1	0.94	0.12	47,47,47,47	0
56	MG	2A	3310	1/1	0.94	0.11	44,44,44,44	0
56	MG	2A	3311	1/1	0.94	0.26	54,54,54,54	0
56	MG	2A	3105	1/1	0.94	0.09	37,37,37,37	0
56	MG	1A	3449	1/1	0.94	0.20	45,45,45,45	0
56	MG	1A	3759	1/1	0.94	0.07	50,50,50,50	0
56	MG	1A	3760	1/1	0.94	0.12	50,50,50,50	0
56	MG	1A	3613	1/1	0.94	0.08	27,27,27,27	0
57	ZN	24	501	1/1	0.94	0.09	130,130,130,130	0
56	MG	2A	3113	1/1	0.94	0.19	68,68,68,68	0
56	MG	2A	3213	1/1	0.95	0.23	55,55,55,55	0
56	MG	14	101	1/1	0.95	0.28	56,56,56,56	0
56	MG	1A	3051	1/1	0.95	0.09	43,43,43,43	0
56	MG	2D	301	1/1	0.95	0.06	35,35,35,35	0
56	MG	1A	3217	1/1	0.95	0.11	53,53,53,53	0
56	MG	1A	3833	1/1	0.95	0.17	56,56,56,56	0
56	MG	2A	3068	1/1	0.95	0.18	44,44,44,44	0
56	MG	1A	3834	1/1	0.95	0.14	39,39,39,39	0
56	MG	1A	3606	1/1	0.95	0.20	32,32,32,32	0
56	MG	1a	1714	1/1	0.95	0.22	32,32,32,32	0
56	MG	2A	3224	1/1	0.95	0.23	48,48,48,48	0
56	MG	1A	3134	1/1	0.95	0.11	32,32,32,32	0
56	MG	2A	3226	1/1	0.95	0.19	27,27,27,27	0
56	MG	1A	3610	1/1	0.95	0.08	35,35,35,35	0
56	MG	2A	3400	1/1	0.95	0.13	38,38,38,38	0
56	MG	1A	3838	1/1	0.95	0.11	36,36,36,36	0
56	MG	1a	1718	1/1	0.95	0.12	53,53,53,53	0
56	MG	2A	3230	1/1	0.95	0.17	46,46,46,46	0
56	MG	2A	3079	1/1	0.95	0.12	53,53,53,53	0
56	MG	1A	3612	1/1	0.95	0.06	34,34,34,34	0
56	MG	2A	3081	1/1	0.95	0.16	57,57,57,57	0
56	MG	1A	3424	1/1	0.95	0.17	31,31,31,31	0
56	MG	1A	3136	1/1	0.95	0.05	32,32,32,32	0
56	MG	1A	3327	1/1	0.95	0.14	41,41,41,41	0
56	MG	1A	3720	1/1	0.95	0.11	49,49,49,49	0
56	MG	1A	3328	1/1	0.95	0.07	34,34,34,34	0
56	MG	1A	3726	1/1	0.95	0.07	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3417	1/1	0.95	0.13	27,27,27,27	0
56	MG	2A	3418	1/1	0.95	0.19	37,37,37,37	0
56	MG	2A	3244	1/1	0.95	0.13	46,46,46,46	0
56	MG	1A	3620	1/1	0.95	0.15	29,29,29,29	0
56	MG	1A	3220	1/1	0.95	0.07	48,48,48,48	0
56	MG	2A	3422	1/1	0.95	0.17	34,34,34,34	0
56	MG	2A	3247	1/1	0.95	0.25	50,50,50,50	0
56	MG	1a	1607	1/1	0.95	0.17	47,47,47,47	0
56	MG	2A	3092	1/1	0.95	0.13	49,49,49,49	0
56	MG	1a	1609	1/1	0.95	0.21	41,41,41,41	0
56	MG	1a	1610	1/1	0.95	0.16	28,28,28,28	0
56	MG	1B	204	1/1	0.95	0.12	38,38,38,38	0
56	MG	1B	205	1/1	0.95	0.21	53,53,53,53	0
56	MG	1B	208	1/1	0.95	0.12	55,55,55,55	0
56	MG	2A	3256	1/1	0.95	0.10	46,46,46,46	0
56	MG	2A	3100	1/1	0.95	0.10	34,34,34,34	0
56	MG	1A	3624	1/1	0.95	0.13	60,60,60,60	0
56	MG	1A	3293	1/1	0.95	0.12	41,41,41,41	0
56	MG	1B	211	1/1	0.95	0.27	39,39,39,39	0
56	MG	1A	3524	1/1	0.95	0.06	51,51,51,51	0
56	MG	2a	3021	1/1	0.95	0.10	68,68,68,68	0
56	MG	2A	3439	1/1	0.95	0.25	47,47,47,47	0
56	MG	2A	3440	1/1	0.95	0.28	38,38,38,38	0
56	MG	1A	3190	1/1	0.95	0.19	37,37,37,37	0
56	MG	1B	214	1/1	0.95	0.18	45,45,45,45	0
56	MG	2A	3108	1/1	0.95	0.10	55,55,55,55	0
56	MG	1A	3639	1/1	0.95	0.08	67,67,67,67	0
56	MG	2A	3110	1/1	0.95	0.11	49,49,49,49	0
56	MG	1B	217	1/1	0.95	0.08	43,43,43,43	0
56	MG	1a	1623	1/1	0.95	0.20	56,56,56,56	0
56	MG	1A	3010	1/1	0.95	0.07	42,42,42,42	0
56	MG	1A	3436	1/1	0.95	0.22	36,36,36,36	0
56	MG	1A	3095	1/1	0.95	0.07	37,37,37,37	0
56	MG	2A	3279	1/1	0.95	0.26	27,27,27,27	0
56	MG	1A	3298	1/1	0.95	0.14	55,55,55,55	0
56	MG	2A	3467	1/1	0.95	0.06	33,33,33,33	0
56	MG	1A	3651	1/1	0.95	0.07	41,41,41,41	0
56	MG	2A	3472	1/1	0.95	0.10	33,33,33,33	0
56	MG	1A	3140	1/1	0.95	0.11	37,37,37,37	0
56	MG	1D	303	1/1	0.95	0.09	55,55,55,55	0
56	MG	2a	3042	1/1	0.95	0.12	51,51,51,51	0
56	MG	1D	305	1/1	0.95	0.12	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3541	1/1	0.95	0.09	30,30,30,30	0
56	MG	1A	3542	1/1	0.95	0.08	36,36,36,36	0
56	MG	2A	3287	1/1	0.95	0.12	38,38,38,38	0
56	MG	1a	1762	1/1	0.95	0.12	50,50,50,50	0
56	MG	2A	3491	1/1	0.95	0.20	36,36,36,36	0
56	MG	1E	301	1/1	0.95	0.16	49,49,49,49	0
56	MG	1A	3657	1/1	0.95	0.07	45,45,45,45	0
56	MG	2A	3494	1/1	0.95	0.07	50,50,50,50	0
56	MG	1A	3198	1/1	0.95	0.06	41,41,41,41	0
56	MG	1A	3443	1/1	0.95	0.22	33,33,33,33	0
56	MG	2A	3294	1/1	0.95	0.30	51,51,51,51	0
56	MG	2A	3295	1/1	0.95	0.25	38,38,38,38	0
56	MG	2A	3504	1/1	0.95	0.08	43,43,43,43	0
56	MG	2A	3296	1/1	0.95	0.18	44,44,44,44	0
56	MG	1A	3169	1/1	0.95	0.20	50,50,50,50	0
56	MG	2A	3133	1/1	0.95	0.13	47,47,47,47	0
56	MG	2A	3508	1/1	0.95	0.20	53,53,53,53	0
56	MG	1A	3447	1/1	0.95	0.18	47,47,47,47	0
56	MG	1f	202	1/1	0.95	0.13	54,54,54,54	0
56	MG	2A	3137	1/1	0.95	0.15	54,54,54,54	0
56	MG	1A	3448	1/1	0.95	0.05	17,17,17,17	0
56	MG	1A	3394	1/1	0.95	0.25	42,42,42,42	0
56	MG	2A	3306	1/1	0.95	0.19	35,35,35,35	0
56	MG	1F	301	1/1	0.95	0.13	52,52,52,52	0
56	MG	1A	3555	1/1	0.95	0.12	35,35,35,35	0
56	MG	2a	3070	1/1	0.95	0.26	43,43,43,43	0
56	MG	2a	3071	1/1	0.95	0.23	44,44,44,44	0
56	MG	1F	303	1/1	0.95	0.15	36,36,36,36	0
56	MG	2A	3144	1/1	0.95	0.14	35,35,35,35	0
56	MG	2a	3074	1/1	0.95	0.18	40,40,40,40	0
56	MG	1A	3096	1/1	0.95	0.08	41,41,41,41	0
56	MG	2a	3077	1/1	0.95	0.26	46,46,46,46	0
56	MG	2A	3530	1/1	0.95	0.06	39,39,39,39	0
56	MG	1a	1649	1/1	0.95	0.13	51,51,51,51	0
56	MG	1A	3304	1/1	0.95	0.14	41,41,41,41	0
56	MG	1A	3047	1/1	0.95	0.09	49,49,49,49	0
56	MG	2A	3540	1/1	0.95	0.15	39,39,39,39	0
56	MG	1F	311	1/1	0.95	0.14	47,47,47,47	0
56	MG	2A	3542	1/1	0.95	0.10	50,50,50,50	0
56	MG	1A	3042	1/1	0.95	0.21	33,33,33,33	0
56	MG	2A	3544	1/1	0.95	0.15	54,54,54,54	0
56	MG	1A	3071	1/1	0.95	0.15	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3779	1/1	0.95	0.07	33,33,33,33	0
56	MG	2A	3548	1/1	0.95	0.13	67,67,67,67	0
56	MG	1A	3780	1/1	0.95	0.14	64,64,64,64	0
56	MG	1A	3348	1/1	0.95	0.23	34,34,34,34	0
56	MG	1A	3103	1/1	0.95	0.13	25,25,25,25	0
56	MG	1A	3056	1/1	0.95	0.15	33,33,33,33	0
56	MG	2A	3553	1/1	0.95	0.11	62,62,62,62	0
56	MG	2a	3095	1/1	0.95	0.29	57,57,57,57	0
56	MG	1A	3789	1/1	0.95	0.11	29,29,29,29	0
56	MG	1A	3790	1/1	0.95	0.08	34,34,34,34	0
56	MG	1A	3310	1/1	0.95	0.09	46,46,46,46	0
56	MG	2A	3007	1/1	0.95	0.15	49,49,49,49	0
56	MG	1A	3464	1/1	0.95	0.06	59,59,59,59	0
56	MG	1A	3466	1/1	0.95	0.10	45,45,45,45	0
56	MG	1A	3106	1/1	0.95	0.20	35,35,35,35	0
56	MG	1a	1668	1/1	0.95	0.21	31,31,31,31	0
56	MG	2A	3564	1/1	0.95	0.07	47,47,47,47	0
56	MG	1R	204	1/1	0.95	0.28	51,51,51,51	0
56	MG	2A	3018	1/1	0.95	0.05	44,44,44,44	0
56	MG	1R	206	1/1	0.95	0.17	34,34,34,34	0
56	MG	1A	3471	1/1	0.95	0.15	44,44,44,44	0
56	MG	1T	202	1/1	0.95	0.07	43,43,43,43	0
56	MG	2A	3022	1/1	0.95	0.18	43,43,43,43	0
56	MG	1A	3805	1/1	0.95	0.07	54,54,54,54	0
56	MG	1A	3808	1/1	0.95	0.10	45,45,45,45	0
56	MG	2A	3342	1/1	0.95	0.19	21,21,21,21	0
56	MG	1A	3579	1/1	0.95	0.06	41,41,41,41	0
56	MG	1a	1679	1/1	0.95	0.21	47,47,47,47	0
56	MG	2A	3581	1/1	0.95	0.07	81,81,81,81	0
56	MG	1A	3472	1/1	0.95	0.12	27,27,27,27	0
56	MG	1V	203	1/1	0.95	0.21	41,41,41,41	0
56	MG	2A	3348	1/1	0.95	0.19	30,30,30,30	0
56	MG	2A	3182	1/1	0.95	0.24	58,58,58,58	0
56	MG	1a	1682	1/1	0.95	0.25	35,35,35,35	0
56	MG	2A	3593	1/1	0.95	0.19	45,45,45,45	0
56	MG	2A	3594	1/1	0.95	0.15	42,42,42,42	0
56	MG	2A	3354	1/1	0.95	0.10	46,46,46,46	0
56	MG	1A	3356	1/1	0.95	0.17	45,45,45,45	0
56	MG	1A	3815	1/1	0.95	0.10	30,30,30,30	0
56	MG	1A	3005	1/1	0.95	0.13	53,53,53,53	0
56	MG	1A	3086	1/1	0.95	0.11	33,33,33,33	0
56	MG	2A	3038	1/1	0.95	0.05	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2a	3134	1/1	0.95	0.22	58,58,58,58	0
56	MG	2A	3360	1/1	0.95	0.15	32,32,32,32	0
56	MG	1W	205	1/1	0.95	0.07	38,38,38,38	0
56	MG	1X	101	1/1	0.95	0.08	35,35,35,35	0
56	MG	1A	3410	1/1	0.95	0.29	45,45,45,45	0
56	MG	1A	3314	1/1	0.95	0.26	38,38,38,38	0
56	MG	1A	3820	1/1	0.95	0.19	41,41,41,41	0
56	MG	1Z	301	1/1	0.95	0.08	41,41,41,41	0
56	MG	1A	3153	1/1	0.95	0.06	33,33,33,33	0
56	MG	2A	3047	1/1	0.95	0.15	52,52,52,52	0
56	MG	2A	3369	1/1	0.95	0.17	58,58,58,58	0
56	MG	2A	3198	1/1	0.95	0.27	47,47,47,47	0
56	MG	2A	3371	1/1	0.95	0.16	34,34,34,34	0
56	MG	2A	3615	1/1	0.95	0.18	59,59,59,59	0
56	MG	2A	3618	1/1	0.95	0.09	54,54,54,54	0
56	MG	10	101	1/1	0.95	0.07	41,41,41,41	0
56	MG	2A	3050	1/1	0.95	0.10	30,30,30,30	0
56	MG	2A	3374	1/1	0.95	0.34	47,47,47,47	0
56	MG	1A	3822	1/1	0.95	0.14	40,40,40,40	0
56	MG	1A	3050	1/1	0.95	0.28	49,49,49,49	0
56	MG	1A	3487	1/1	0.95	0.10	47,47,47,47	0
56	MG	1A	3156	1/1	0.95	0.26	51,51,51,51	0
56	MG	2A	3056	1/1	0.95	0.15	52,52,52,52	0
56	MG	1A	3494	1/1	0.95	0.07	24,24,24,24	0
56	MG	2A	3059	1/1	0.95	0.15	44,44,44,44	0
56	MG	1A	3157	1/1	0.95	0.10	46,46,46,46	0
56	MG	12	101	1/1	0.95	0.05	37,37,37,37	0
56	MG	1A	3602	1/1	0.95	0.07	56,56,56,56	0
56	MG	2A	3220	1/1	0.96	0.18	33,33,33,33	0
56	MG	1A	3075	1/1	0.96	0.14	28,28,28,28	0
56	MG	2A	3222	1/1	0.96	0.04	47,47,47,47	0
56	MG	1A	3645	1/1	0.96	0.08	50,50,50,50	0
56	MG	1V	202	1/1	0.96	0.33	34,34,34,34	0
56	MG	1A	3039	1/1	0.96	0.17	44,44,44,44	0
56	MG	1A	3499	1/1	0.96	0.16	23,23,23,23	0
56	MG	2A	3398	1/1	0.96	0.23	52,52,52,52	0
56	MG	1A	3343	1/1	0.96	0.12	34,34,34,34	0
56	MG	2B	212	1/1	0.96	0.19	49,49,49,49	0
56	MG	1A	3650	1/1	0.96	0.09	29,29,29,29	0
56	MG	2D	302	1/1	0.96	0.14	32,32,32,32	0
56	MG	1A	3246	1/1	0.96	0.11	34,34,34,34	0
56	MG	1A	3797	1/1	0.96	0.08	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3231	1/1	0.96	0.19	50,50,50,50	0
56	MG	1W	206	1/1	0.96	0.06	25,25,25,25	0
56	MG	2E	305	1/1	0.96	0.18	32,32,32,32	0
56	MG	2A	3405	1/1	0.96	0.20	47,47,47,47	0
56	MG	1A	3799	1/1	0.96	0.06	49,49,49,49	0
56	MG	2A	3072	1/1	0.96	0.08	54,54,54,54	0
56	MG	1A	3008	1/1	0.96	0.06	22,22,22,22	0
56	MG	2A	3074	1/1	0.96	0.09	57,57,57,57	0
56	MG	1A	3346	1/1	0.96	0.15	22,22,22,22	0
56	MG	2A	3412	1/1	0.96	0.10	34,34,34,34	0
56	MG	2A	3239	1/1	0.96	0.11	56,56,56,56	0
56	MG	2A	3240	1/1	0.96	0.30	41,41,41,41	0
56	MG	1A	3806	1/1	0.96	0.05	32,32,32,32	0
56	MG	1A	3060	1/1	0.96	0.11	40,40,40,40	0
56	MG	1A	3505	1/1	0.96	0.13	48,48,48,48	0
56	MG	1A	3061	1/1	0.96	0.18	32,32,32,32	0
56	MG	1A	3300	1/1	0.96	0.10	30,30,30,30	0
56	MG	1A	3516	1/1	0.96	0.07	25,25,25,25	0
56	MG	1A	3517	1/1	0.96	0.05	43,43,43,43	0
56	MG	23	101	1/1	0.96	0.07	45,45,45,45	0
56	MG	1A	3520	1/1	0.96	0.08	37,37,37,37	0
56	MG	25	101	1/1	0.96	0.14	43,43,43,43	0
56	MG	1A	3419	1/1	0.96	0.18	18,18,18,18	0
56	MG	1A	3132	1/1	0.96	0.24	40,40,40,40	0
56	MG	2A	3427	1/1	0.96	0.33	42,42,42,42	0
56	MG	1A	3251	1/1	0.96	0.15	48,48,48,48	0
56	MG	2A	3088	1/1	0.96	0.11	35,35,35,35	0
56	MG	12	102	1/1	0.96	0.15	50,50,50,50	0
56	MG	1A	3133	1/1	0.96	0.03	31,31,31,31	0
56	MG	2A	3255	1/1	0.96	0.07	65,65,65,65	0
56	MG	13	103	1/1	0.96	0.06	38,38,38,38	0
56	MG	2A	3257	1/1	0.96	0.34	51,51,51,51	0
56	MG	1A	3533	1/1	0.96	0.09	27,27,27,27	0
56	MG	1A	3354	1/1	0.96	0.10	40,40,40,40	0
56	MG	15	103	1/1	0.96	0.15	41,41,41,41	0
56	MG	1A	3672	1/1	0.96	0.17	46,46,46,46	0
56	MG	2a	3011	1/1	0.96	0.14	62,62,62,62	0
56	MG	1A	3355	1/1	0.96	0.36	45,45,45,45	0
56	MG	2A	3264	1/1	0.96	0.19	47,47,47,47	0
56	MG	1a	1726	1/1	0.96	0.16	39,39,39,39	0
56	MG	1A	3674	1/1	0.96	0.08	58,58,58,58	0
56	MG	17	3102	1/1	0.96	0.07	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3445	1/1	0.96	0.15	48,48,48,48	0
56	MG	2A	3446	1/1	0.96	0.11	35,35,35,35	0
56	MG	2a	3019	1/1	0.96	0.16	55,55,55,55	0
56	MG	2A	3269	1/1	0.96	0.18	26,26,26,26	0
56	MG	1A	3253	1/1	0.96	0.09	44,44,44,44	0
56	MG	1A	3429	1/1	0.96	0.20	31,31,31,31	0
56	MG	1A	3021	1/1	0.96	0.14	37,37,37,37	0
56	MG	1a	1733	1/1	0.96	0.20	25,25,25,25	0
56	MG	2A	3452	1/1	0.96	0.14	48,48,48,48	0
56	MG	1A	3135	1/1	0.96	0.10	38,38,38,38	0
56	MG	2A	3458	1/1	0.96	0.15	42,42,42,42	0
56	MG	2A	3459	1/1	0.96	0.16	46,46,46,46	0
56	MG	2A	3107	1/1	0.96	0.06	51,51,51,51	0
56	MG	1A	3362	1/1	0.96	0.24	46,46,46,46	0
56	MG	1A	3433	1/1	0.96	0.08	41,41,41,41	0
56	MG	1A	3191	1/1	0.96	0.19	41,41,41,41	0
56	MG	18	104	1/1	0.96	0.13	18,18,18,18	0
56	MG	1A	3682	1/1	0.96	0.05	39,39,39,39	0
56	MG	1A	3223	1/1	0.96	0.06	41,41,41,41	0
56	MG	2A	3474	1/1	0.96	0.10	41,41,41,41	0
56	MG	2A	3481	1/1	0.96	0.06	47,47,47,47	0
56	MG	2A	3482	1/1	0.96	0.09	52,52,52,52	0
56	MG	1A	3684	1/1	0.96	0.07	30,30,30,30	0
56	MG	1A	3840	1/1	0.96	0.18	59,59,59,59	0
56	MG	2A	3116	1/1	0.96	0.10	49,49,49,49	0
56	MG	1A	3552	1/1	0.96	0.06	14,14,14,14	0
56	MG	1a	1746	1/1	0.96	0.26	34,34,34,34	0
56	MG	2A	3119	1/1	0.96	0.12	42,42,42,42	0
56	MG	1A	3686	1/1	0.96	0.07	61,61,61,61	0
56	MG	1A	3843	1/1	0.96	0.15	43,43,43,43	0
56	MG	1a	1749	1/1	0.96	0.24	31,31,31,31	0
56	MG	1A	3063	1/1	0.96	0.06	32,32,32,32	0
56	MG	1A	3263	1/1	0.96	0.26	38,38,38,38	0
56	MG	2A	3496	1/1	0.96	0.14	41,41,41,41	0
56	MG	1a	1611	1/1	0.96	0.12	49,49,49,49	0
56	MG	1A	3556	1/1	0.96	0.07	48,48,48,48	0
56	MG	2A	3298	1/1	0.96	0.25	44,44,44,44	0
56	MG	1a	1754	1/1	0.96	0.24	49,49,49,49	0
56	MG	1A	3367	1/1	0.96	0.11	41,41,41,41	0
56	MG	1A	3162	1/1	0.96	0.17	36,36,36,36	0
56	MG	2a	3058	1/1	0.96	0.35	53,53,53,53	0
56	MG	1A	3559	1/1	0.96	0.09	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3440	1/1	0.96	0.23	46,46,46,46	0
56	MG	2A	3510	1/1	0.96	0.11	56,56,56,56	0
56	MG	2A	3134	1/1	0.96	0.10	37,37,37,37	0
56	MG	1A	3441	1/1	0.96	0.14	32,32,32,32	0
56	MG	2A	3514	1/1	0.96	0.09	44,44,44,44	0
56	MG	1a	1760	1/1	0.96	0.25	37,37,37,37	0
56	MG	1A	3698	1/1	0.96	0.08	34,34,34,34	0
56	MG	2A	3309	1/1	0.96	0.08	65,65,65,65	0
56	MG	1B	207	1/1	0.96	0.13	44,44,44,44	0
56	MG	1A	3064	1/1	0.96	0.05	58,58,58,58	0
56	MG	1A	3166	1/1	0.96	0.16	40,40,40,40	0
56	MG	1A	3444	1/1	0.96	0.06	33,33,33,33	0
56	MG	1d	301	1/1	0.96	0.29	57,57,57,57	0
56	MG	2A	3525	1/1	0.96	0.17	45,45,45,45	0
56	MG	1A	3268	1/1	0.96	0.15	43,43,43,43	0
56	MG	2a	3075	1/1	0.96	0.09	39,39,39,39	0
56	MG	2A	3527	1/1	0.96	0.09	44,44,44,44	0
56	MG	2A	3145	1/1	0.96	0.09	44,44,44,44	0
56	MG	2A	3533	1/1	0.96	0.14	44,44,44,44	0
56	MG	2A	3534	1/1	0.96	0.10	36,36,36,36	0
56	MG	1A	3375	1/1	0.96	0.24	44,44,44,44	0
56	MG	1A	3709	1/1	0.96	0.10	41,41,41,41	0
56	MG	1A	3376	1/1	0.96	0.12	25,25,25,25	0
56	MG	1A	3229	1/1	0.96	0.09	46,46,46,46	0
56	MG	1A	3450	1/1	0.96	0.07	34,34,34,34	0
56	MG	1A	3379	1/1	0.96	0.18	38,38,38,38	0
56	MG	1A	3577	1/1	0.96	0.06	61,61,61,61	0
56	MG	1a	1631	1/1	0.96	0.17	56,56,56,56	0
56	MG	1s	101	1/1	0.96	0.21	55,55,55,55	0
56	MG	1A	3453	1/1	0.96	0.27	48,48,48,48	0
56	MG	1A	3454	1/1	0.96	0.18	56,56,56,56	0
56	MG	1A	3316	1/1	0.96	0.19	45,45,45,45	0
56	MG	1A	3035	1/1	0.96	0.06	33,33,33,33	0
56	MG	1D	302	1/1	0.96	0.07	32,32,32,32	0
56	MG	1A	3067	1/1	0.96	0.13	40,40,40,40	0
56	MG	1A	3201	1/1	0.96	0.12	40,40,40,40	0
56	MG	1A	3384	1/1	0.96	0.15	41,41,41,41	0
56	MG	1A	3170	1/1	0.96	0.20	33,33,33,33	0
56	MG	1A	3323	1/1	0.96	0.22	48,48,48,48	0
56	MG	1A	3030	1/1	0.96	0.21	32,32,32,32	0
56	MG	1A	3045	1/1	0.96	0.09	46,46,46,46	0
56	MG	1A	3465	1/1	0.96	0.07	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3561	1/1	0.96	0.09	51,51,51,51	0
56	MG	1a	1646	1/1	0.96	0.21	42,42,42,42	0
56	MG	1A	3092	1/1	0.96	0.12	36,36,36,36	0
56	MG	1A	3278	1/1	0.96	0.10	46,46,46,46	0
56	MG	1A	3603	1/1	0.96	0.04	55,55,55,55	0
56	MG	1A	3470	1/1	0.96	0.17	40,40,40,40	0
56	MG	2A	3011	1/1	0.96	0.17	28,28,28,28	0
56	MG	1A	3392	1/1	0.96	0.12	23,23,23,23	0
56	MG	2A	3349	1/1	0.96	0.09	33,33,33,33	0
56	MG	2A	3350	1/1	0.96	0.14	42,42,42,42	0
56	MG	1A	3282	1/1	0.96	0.09	40,40,40,40	0
56	MG	2A	3352	1/1	0.96	0.19	44,44,44,44	0
56	MG	1A	3329	1/1	0.96	0.22	34,34,34,34	0
56	MG	1F	304	1/1	0.96	0.16	38,38,38,38	0
56	MG	1F	305	1/1	0.96	0.13	40,40,40,40	0
56	MG	2A	3579	1/1	0.96	0.10	68,68,68,68	0
56	MG	2A	3580	1/1	0.96	0.06	31,31,31,31	0
56	MG	1a	1656	1/1	0.96	0.21	44,44,44,44	0
56	MG	2A	3583	1/1	0.96	0.12	63,63,63,63	0
56	MG	1A	3054	1/1	0.96	0.11	55,55,55,55	0
56	MG	1A	3037	1/1	0.96	0.17	27,27,27,27	0
56	MG	2a	3124	1/1	0.96	0.25	56,56,56,56	0
56	MG	2A	3586	1/1	0.96	0.08	50,50,50,50	0
56	MG	1A	3073	1/1	0.96	0.13	30,30,30,30	0
56	MG	1A	3751	1/1	0.96	0.10	53,53,53,53	0
56	MG	2a	3128	1/1	0.96	0.27	47,47,47,47	0
56	MG	1A	3334	1/1	0.96	0.13	34,34,34,34	0
56	MG	1A	3615	1/1	0.96	0.08	31,31,31,31	0
56	MG	1A	3210	1/1	0.96	0.28	48,48,48,48	0
56	MG	1a	1664	1/1	0.96	0.08	31,31,31,31	0
56	MG	2A	3029	1/1	0.96	0.16	38,38,38,38	0
56	MG	1G	203	1/1	0.96	0.06	53,53,53,53	0
56	MG	1A	3288	1/1	0.96	0.18	52,52,52,52	0
56	MG	2A	3599	1/1	0.96	0.11	45,45,45,45	0
56	MG	1A	3485	1/1	0.96	0.07	34,34,34,34	0
56	MG	1A	3761	1/1	0.96	0.06	48,48,48,48	0
56	MG	1A	3622	1/1	0.96	0.07	39,39,39,39	0
56	MG	1A	3149	1/1	0.96	0.10	58,58,58,58	0
56	MG	1a	1671	1/1	0.96	0.26	34,34,34,34	0
56	MG	1A	3488	1/1	0.96	0.07	47,47,47,47	0
56	MG	1P	201	1/1	0.96	0.13	36,36,36,36	0
56	MG	1A	3290	1/1	0.96	0.26	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3628	1/1	0.96	0.06	68,68,68,68	0
56	MG	2f	201	1/1	0.96	0.06	54,54,54,54	0
56	MG	1Q	203	1/1	0.96	0.14	24,24,24,24	0
56	MG	1A	3629	1/1	0.96	0.14	54,54,54,54	0
56	MG	2A	3046	1/1	0.96	0.13	36,36,36,36	0
56	MG	1R	202	1/1	0.96	0.08	52,52,52,52	0
56	MG	1A	3776	1/1	0.96	0.07	34,34,34,34	0
56	MG	1A	3630	1/1	0.96	0.07	33,33,33,33	0
56	MG	2A	3383	1/1	0.96	0.19	25,25,25,25	0
56	MG	1A	3023	1/1	0.96	0.24	42,42,42,42	0
56	MG	1A	3292	1/1	0.96	0.05	33,33,33,33	0
56	MG	1A	3496	1/1	0.96	0.09	58,58,58,58	0
56	MG	1U	201	1/1	0.96	0.15	42,42,42,42	0
56	MG	2A	3624	1/1	0.96	0.04	34,34,34,34	0
56	MG	1A	3640	1/1	0.96	0.07	30,30,30,30	0
56	MG	1a	1689	1/1	0.96	0.32	48,48,48,48	0
56	MG	1A	3642	1/1	0.96	0.07	21,21,21,21	0
56	MG	1P	203	1/1	0.97	0.27	25,25,25,25	0
56	MG	1P	204	1/1	0.97	0.19	44,44,44,44	0
56	MG	1P	205	1/1	0.97	0.05	36,36,36,36	0
56	MG	1A	3701	1/1	0.97	0.07	47,47,47,47	0
56	MG	1A	3702	1/1	0.97	0.05	31,31,31,31	0
56	MG	1A	3087	1/1	0.97	0.08	23,23,23,23	0
56	MG	1A	3625	1/1	0.97	0.08	24,24,24,24	0
56	MG	1R	201	1/1	0.97	0.07	42,42,42,42	0
56	MG	1A	3626	1/1	0.97	0.08	28,28,28,28	0
56	MG	1A	3554	1/1	0.97	0.05	25,25,25,25	0
56	MG	1A	3114	1/1	0.97	0.11	37,37,37,37	0
56	MG	1A	3359	1/1	0.97	0.24	49,49,49,49	0
56	MG	1S	201	1/1	0.97	0.06	58,58,58,58	0
56	MG	2A	3233	1/1	0.97	0.17	45,45,45,45	0
56	MG	1A	3100	1/1	0.97	0.07	51,51,51,51	0
56	MG	2A	3529	1/1	0.97	0.12	41,41,41,41	0
56	MG	1A	3631	1/1	0.97	0.04	69,69,69,69	0
56	MG	2A	3531	1/1	0.97	0.15	31,31,31,31	0
56	MG	1A	3361	1/1	0.97	0.10	46,46,46,46	0
56	MG	1A	3635	1/1	0.97	0.06	53,53,53,53	0
56	MG	1l	201	1/1	0.97	0.04	56,56,56,56	0
56	MG	2a	3027	1/1	0.97	0.16	47,47,47,47	0
56	MG	1A	3637	1/1	0.97	0.12	58,58,58,58	0
56	MG	1U	204	1/1	0.97	0.11	43,43,43,43	0
56	MG	2A	3539	1/1	0.97	0.09	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3088	1/1	0.97	0.15	41,41,41,41	0
56	MG	1A	3022	1/1	0.97	0.07	29,29,29,29	0
56	MG	1A	3489	1/1	0.97	0.10	19,19,19,19	0
56	MG	1A	3275	1/1	0.97	0.18	55,55,55,55	0
56	MG	1A	3723	1/1	0.97	0.13	20,20,20,20	0
56	MG	1V	205	1/1	0.97	0.09	47,47,47,47	0
56	MG	2A	3120	1/1	0.97	0.11	39,39,39,39	0
56	MG	2A	3547	1/1	0.97	0.10	56,56,56,56	0
56	MG	1A	3724	1/1	0.97	0.05	26,26,26,26	0
56	MG	1W	202	1/1	0.97	0.23	40,40,40,40	0
56	MG	1A	3564	1/1	0.97	0.07	20,20,20,20	0
56	MG	1A	3644	1/1	0.97	0.06	41,41,41,41	0
56	MG	1A	3168	1/1	0.97	0.06	50,50,50,50	0
56	MG	1A	3185	1/1	0.97	0.19	34,34,34,34	0
56	MG	2A	3127	1/1	0.97	0.20	44,44,44,44	0
56	MG	1A	3730	1/1	0.97	0.15	39,39,39,39	0
56	MG	1A	3647	1/1	0.97	0.06	59,59,59,59	0
56	MG	1A	3732	1/1	0.97	0.08	40,40,40,40	0
56	MG	2A	3258	1/1	0.97	0.17	32,32,32,32	0
56	MG	1A	3186	1/1	0.97	0.09	53,53,53,53	0
56	MG	1a	1676	1/1	0.97	0.04	46,46,46,46	0
56	MG	1A	3568	1/1	0.97	0.19	47,47,47,47	0
56	MG	1A	3569	1/1	0.97	0.06	43,43,43,43	0
56	MG	1A	3846	1/1	0.97	0.16	30,30,30,30	0
56	MG	1A	3279	1/1	0.97	0.06	33,33,33,33	0
56	MG	1A	3405	1/1	0.97	0.18	43,43,43,43	0
56	MG	1A	3280	1/1	0.97	0.18	34,34,34,34	0
56	MG	2A	3013	1/1	0.97	0.12	24,24,24,24	0
56	MG	2A	3569	1/1	0.97	0.15	41,41,41,41	0
56	MG	2A	3268	1/1	0.97	0.15	19,19,19,19	0
56	MG	1A	3370	1/1	0.97	0.05	39,39,39,39	0
56	MG	1a	1685	1/1	0.97	0.16	53,53,53,53	0
56	MG	1A	3281	1/1	0.97	0.08	45,45,45,45	0
56	MG	1A	3372	1/1	0.97	0.18	34,34,34,34	0
56	MG	2A	3576	1/1	0.97	0.08	23,23,23,23	0
56	MG	1A	3118	1/1	0.97	0.11	38,38,38,38	0
56	MG	1B	206	1/1	0.97	0.09	42,42,42,42	0
56	MG	1a	1690	1/1	0.97	0.23	35,35,35,35	0
56	MG	2A	3277	1/1	0.97	0.24	37,37,37,37	0
56	MG	13	101	1/1	0.97	0.05	42,42,42,42	0
56	MG	2A	3582	1/1	0.97	0.08	49,49,49,49	0
56	MG	2A	3410	1/1	0.97	0.22	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3188	1/1	0.97	0.17	29,29,29,29	0
56	MG	1A	3077	1/1	0.97	0.16	36,36,36,36	0
56	MG	1A	3750	1/1	0.97	0.08	58,58,58,58	0
56	MG	15	101	1/1	0.97	0.07	46,46,46,46	0
56	MG	2A	3588	1/1	0.97	0.07	47,47,47,47	0
56	MG	1A	3285	1/1	0.97	0.07	35,35,35,35	0
56	MG	2A	3154	1/1	0.97	0.04	31,31,31,31	0
56	MG	1A	3507	1/1	0.97	0.07	38,38,38,38	0
56	MG	1A	3587	1/1	0.97	0.08	44,44,44,44	0
56	MG	2A	3157	1/1	0.97	0.07	57,57,57,57	0
56	MG	2A	3288	1/1	0.97	0.10	38,38,38,38	0
56	MG	1A	3588	1/1	0.97	0.06	41,41,41,41	0
56	MG	1A	3756	1/1	0.97	0.06	29,29,29,29	0
56	MG	2A	3424	1/1	0.97	0.30	43,43,43,43	0
56	MG	1A	3510	1/1	0.97	0.11	33,33,33,33	0
56	MG	1B	216	1/1	0.97	0.08	46,46,46,46	0
56	MG	1A	3668	1/1	0.97	0.10	37,37,37,37	0
56	MG	1A	3378	1/1	0.97	0.08	29,29,29,29	0
56	MG	1A	3415	1/1	0.97	0.21	36,36,36,36	0
56	MG	1A	3671	1/1	0.97	0.06	41,41,41,41	0
56	MG	1A	3003	1/1	0.97	0.09	29,29,29,29	0
56	MG	1A	3768	1/1	0.97	0.06	52,52,52,52	0
56	MG	1A	3418	1/1	0.97	0.13	28,28,28,28	0
56	MG	2A	3300	1/1	0.97	0.14	29,29,29,29	0
56	MG	1B	225	1/1	0.97	0.06	29,29,29,29	0
56	MG	1a	1712	1/1	0.97	0.28	40,40,40,40	0
56	MG	1D	301	1/1	0.97	0.10	37,37,37,37	0
56	MG	1A	3522	1/1	0.97	0.08	26,26,26,26	0
56	MG	2a	3101	1/1	0.97	0.21	27,27,27,27	0
56	MG	2A	3049	1/1	0.97	0.07	41,41,41,41	0
56	MG	2A	3616	1/1	0.97	0.21	25,25,25,25	0
56	MG	2A	3617	1/1	0.97	0.13	41,41,41,41	0
56	MG	1A	3596	1/1	0.97	0.07	40,40,40,40	0
56	MG	2A	3176	1/1	0.97	0.07	56,56,56,56	0
56	MG	1A	3154	1/1	0.97	0.07	42,42,42,42	0
56	MG	1A	3598	1/1	0.97	0.09	40,40,40,40	0
56	MG	2A	3444	1/1	0.97	0.27	34,34,34,34	0
56	MG	1D	307	1/1	0.97	0.07	46,46,46,46	0
56	MG	1a	1608	1/1	0.97	0.05	50,50,50,50	0
56	MG	2A	3055	1/1	0.97	0.12	50,50,50,50	0
56	MG	1A	3258	1/1	0.97	0.09	26,26,26,26	0
56	MG	1A	3462	1/1	0.97	0.06	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3421	1/1	0.97	0.06	21,21,21,21	0
56	MG	1A	3781	1/1	0.97	0.05	39,39,39,39	0
56	MG	1A	3782	1/1	0.97	0.11	39,39,39,39	0
56	MG	1A	3121	1/1	0.97	0.14	22,22,22,22	0
56	MG	2A	3457	1/1	0.97	0.11	60,60,60,60	0
56	MG	1A	3194	1/1	0.97	0.10	52,52,52,52	0
56	MG	2A	3064	1/1	0.97	0.17	37,37,37,37	0
56	MG	2A	3321	1/1	0.97	0.10	35,35,35,35	0
56	MG	2A	3461	1/1	0.97	0.07	46,46,46,46	0
56	MG	2A	3462	1/1	0.97	0.13	60,60,60,60	0
56	MG	1A	3238	1/1	0.97	0.18	43,43,43,43	0
56	MG	1A	3788	1/1	0.97	0.11	33,33,33,33	0
56	MG	2A	3465	1/1	0.97	0.05	37,37,37,37	0
56	MG	1A	3608	1/1	0.97	0.07	32,32,32,32	0
56	MG	2A	3469	1/1	0.97	0.07	34,34,34,34	0
56	MG	2a	3130	1/1	0.97	0.15	53,53,53,53	0
56	MG	1A	3539	1/1	0.97	0.07	32,32,32,32	0
56	MG	1A	3467	1/1	0.97	0.10	30,30,30,30	0
56	MG	1A	3468	1/1	0.97	0.06	29,29,29,29	0
56	MG	1A	3425	1/1	0.97	0.16	24,24,24,24	0
56	MG	2F	304	1/1	0.97	0.09	56,56,56,56	0
56	MG	1A	3350	1/1	0.97	0.17	36,36,36,36	0
56	MG	1A	3796	1/1	0.97	0.07	69,69,69,69	0
56	MG	1a	1738	1/1	0.97	0.28	46,46,46,46	0
56	MG	2A	3075	1/1	0.97	0.08	34,34,34,34	0
56	MG	2Q	202	1/1	0.97	0.19	33,33,33,33	0
56	MG	1A	3105	1/1	0.97	0.32	35,35,35,35	0
56	MG	1F	310	1/1	0.97	0.12	31,31,31,31	0
56	MG	2A	3487	1/1	0.97	0.05	59,59,59,59	0
56	MG	2A	3488	1/1	0.97	0.05	36,36,36,36	0
56	MG	1A	3798	1/1	0.97	0.08	27,27,27,27	0
56	MG	1A	3616	1/1	0.97	0.06	37,37,37,37	0
56	MG	1A	3093	1/1	0.97	0.08	41,41,41,41	0
56	MG	1A	3803	1/1	0.97	0.14	39,39,39,39	0
56	MG	2A	3209	1/1	0.97	0.05	63,63,63,63	0
56	MG	1A	3804	1/1	0.97	0.05	35,35,35,35	0
56	MG	1A	3695	1/1	0.97	0.12	42,42,42,42	0
56	MG	1A	3548	1/1	0.97	0.18	29,29,29,29	0
56	MG	1A	3015	1/1	0.97	0.13	40,40,40,40	0
56	MG	1A	3809	1/1	0.97	0.06	46,46,46,46	0
56	MG	1a	1636	1/1	0.97	0.09	48,48,48,48	0
56	MG	28	102	1/1	0.97	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
56	MG	2A	3503	1/1	0.97	0.10	41,41,41,41	0
56	MG	2A	3347	1/1	0.97	0.34	28,28,28,28	0
56	MG	1N	202	1/1	0.97	0.11	41,41,41,41	0
56	MG	1A	3810	1/1	0.97	0.05	25,25,25,25	0
56	MG	1A	3085	1/1	0.97	0.21	34,34,34,34	0
57	ZN	2n	501	1/1	0.97	0.04	96,96,96,96	0
56	MG	1A	3006	1/1	0.97	0.07	36,36,36,36	0
56	MG	1A	3397	1/1	0.98	0.06	25,25,25,25	0
56	MG	1A	3576	1/1	0.98	0.06	46,46,46,46	0
56	MG	1A	3147	1/1	0.98	0.10	48,48,48,48	0
56	MG	2A	3466	1/1	0.98	0.05	56,56,56,56	0
56	MG	1A	3578	1/1	0.98	0.04	33,33,33,33	0
56	MG	1A	3255	1/1	0.98	0.08	41,41,41,41	0
56	MG	2A	3470	1/1	0.98	0.09	39,39,39,39	0
56	MG	1A	3801	1/1	0.98	0.04	47,47,47,47	0
56	MG	1A	3581	1/1	0.98	0.04	28,28,28,28	0
56	MG	1A	3044	1/1	0.98	0.06	35,35,35,35	0
56	MG	2A	3159	1/1	0.98	0.06	44,44,44,44	0
56	MG	2A	3476	1/1	0.98	0.04	48,48,48,48	0
56	MG	2A	3478	1/1	0.98	0.10	56,56,56,56	0
56	MG	1A	3523	1/1	0.98	0.04	35,35,35,35	0
56	MG	1A	3099	1/1	0.98	0.13	26,26,26,26	0
56	MG	1A	3525	1/1	0.98	0.05	25,25,25,25	0
56	MG	1A	3807	1/1	0.98	0.05	24,24,24,24	0
56	MG	1A	3586	1/1	0.98	0.06	44,44,44,44	0
56	MG	1A	3721	1/1	0.98	0.04	35,35,35,35	0
56	MG	1A	3722	1/1	0.98	0.07	35,35,35,35	0
56	MG	1A	3526	1/1	0.98	0.06	16,16,16,16	0
56	MG	1A	3655	1/1	0.98	0.10	45,45,45,45	0
56	MG	2A	3271	1/1	0.98	0.16	33,33,33,33	0
56	MG	1A	3004	1/1	0.98	0.15	35,35,35,35	0
56	MG	1A	3528	1/1	0.98	0.07	28,28,28,28	0
56	MG	1a	1677	1/1	0.98	0.20	30,30,30,30	0
56	MG	1a	1764	1/1	0.98	0.06	52,52,52,52	0
56	MG	1A	3658	1/1	0.98	0.05	48,48,48,48	0
56	MG	1a	1766	1/1	0.98	0.04	32,32,32,32	0
56	MG	2A	3623	1/1	0.98	0.03	39,39,39,39	0
56	MG	1A	3590	1/1	0.98	0.05	56,56,56,56	0
56	MG	1A	3729	1/1	0.98	0.05	52,52,52,52	0
56	MG	1F	309	1/1	0.98	0.07	40,40,40,40	0
56	MG	2A	3502	1/1	0.98	0.04	40,40,40,40	0
56	MG	1A	3011	1/1	0.98	0.17	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	19	101	1/1	0.98	0.10	52,52,52,52	0
56	MG	1A	3016	1/1	0.98	0.07	32,32,32,32	0
56	MG	1A	3262	1/1	0.98	0.11	40,40,40,40	0
56	MG	1A	3091	1/1	0.98	0.06	39,39,39,39	0
56	MG	1A	3823	1/1	0.98	0.11	46,46,46,46	0
56	MG	2A	3509	1/1	0.98	0.05	57,57,57,57	0
56	MG	1A	3374	1/1	0.98	0.17	43,43,43,43	0
56	MG	2A	3511	1/1	0.98	0.05	37,37,37,37	0
56	MG	1A	3537	1/1	0.98	0.06	32,32,32,32	0
56	MG	1A	3538	1/1	0.98	0.08	33,33,33,33	0
56	MG	1A	3264	1/1	0.98	0.09	47,47,47,47	0
56	MG	1A	3828	1/1	0.98	0.06	40,40,40,40	0
56	MG	1A	3481	1/1	0.98	0.07	31,31,31,31	0
56	MG	1A	3600	1/1	0.98	0.06	60,60,60,60	0
56	MG	1A	3020	1/1	0.98	0.07	19,19,19,19	0
56	MG	2A	3519	1/1	0.98	0.08	29,29,29,29	0
56	MG	1A	3483	1/1	0.98	0.06	49,49,49,49	0
56	MG	1P	202	1/1	0.98	0.23	31,31,31,31	0
56	MG	2A	3194	1/1	0.98	0.19	43,43,43,43	0
56	MG	2A	3093	1/1	0.98	0.17	30,30,30,30	0
56	MG	2A	3094	1/1	0.98	0.13	45,45,45,45	0
56	MG	1A	3025	1/1	0.98	0.07	48,48,48,48	0
56	MG	2P	201	1/1	0.98	0.14	47,47,47,47	0
56	MG	1x	107	1/1	0.98	0.26	48,48,48,48	0
56	MG	2P	203	1/1	0.98	0.05	60,60,60,60	0
56	MG	1A	3544	1/1	0.98	0.08	30,30,30,30	0
56	MG	1a	1700	1/1	0.98	0.28	24,24,24,24	0
56	MG	1A	3031	1/1	0.98	0.07	43,43,43,43	0
56	MG	1A	3748	1/1	0.98	0.04	77,77,77,77	0
56	MG	2A	3001	1/1	0.98	0.17	35,35,35,35	0
56	MG	2V	201	1/1	0.98	0.14	48,48,48,48	0
56	MG	1A	3486	1/1	0.98	0.09	34,34,34,34	0
56	MG	2A	3536	1/1	0.98	0.06	35,35,35,35	0
56	MG	1A	3446	1/1	0.98	0.17	22,22,22,22	0
56	MG	2A	3004	1/1	0.98	0.26	48,48,48,48	0
56	MG	1A	3839	1/1	0.98	0.08	46,46,46,46	0
56	MG	1A	3122	1/1	0.98	0.11	27,27,27,27	0
56	MG	2A	3415	1/1	0.98	0.21	35,35,35,35	0
56	MG	1A	3611	1/1	0.98	0.05	42,42,42,42	0
56	MG	2A	3008	1/1	0.98	0.04	47,47,47,47	0
56	MG	25	102	1/1	0.98	0.14	50,50,50,50	0
56	MG	1A	3550	1/1	0.98	0.06	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3294	1/1	0.98	0.04	27,27,27,27	0
56	MG	1R	205	1/1	0.98	0.15	29,29,29,29	0
56	MG	1A	3490	1/1	0.98	0.06	28,28,28,28	0
56	MG	1A	3321	1/1	0.98	0.06	43,43,43,43	0
56	MG	1A	3493	1/1	0.98	0.11	30,30,30,30	0
56	MG	2A	3015	1/1	0.98	0.10	39,39,39,39	0
56	MG	1A	3322	1/1	0.98	0.14	38,38,38,38	0
56	MG	2A	3017	1/1	0.98	0.14	45,45,45,45	0
56	MG	1A	3451	1/1	0.98	0.16	20,20,20,20	0
56	MG	1A	3416	1/1	0.98	0.14	19,19,19,19	0
56	MG	1A	3621	1/1	0.98	0.04	16,16,16,16	0
56	MG	1A	3770	1/1	0.98	0.04	65,65,65,65	0
56	MG	1A	3771	1/1	0.98	0.06	37,37,37,37	0
56	MG	1A	3688	1/1	0.98	0.04	47,47,47,47	0
56	MG	1A	3123	1/1	0.98	0.03	23,23,23,23	0
56	MG	1A	3058	1/1	0.98	0.04	29,29,29,29	0
56	MG	1A	3775	1/1	0.98	0.06	54,54,54,54	0
56	MG	1A	3560	1/1	0.98	0.08	33,33,33,33	0
56	MG	1A	3108	1/1	0.98	0.15	50,50,50,50	0
56	MG	1A	3068	1/1	0.98	0.04	24,24,24,24	0
56	MG	1A	3111	1/1	0.98	0.10	42,42,42,42	0
56	MG	1A	3357	1/1	0.98	0.12	26,26,26,26	0
56	MG	2A	3032	1/1	0.98	0.16	33,33,33,33	0
56	MG	2A	3338	1/1	0.98	0.19	45,45,45,45	0
56	MG	2A	3033	1/1	0.98	0.15	39,39,39,39	0
56	MG	1a	1729	1/1	0.98	0.25	38,38,38,38	0
56	MG	2A	3035	1/1	0.98	0.07	37,37,37,37	0
56	MG	1A	3163	1/1	0.98	0.14	38,38,38,38	0
56	MG	1A	3227	1/1	0.98	0.10	34,34,34,34	0
56	MG	1A	3699	1/1	0.98	0.09	61,61,61,61	0
56	MG	1A	3164	1/1	0.98	0.04	49,49,49,49	0
56	MG	1A	3331	1/1	0.98	0.07	56,56,56,56	0
56	MG	1A	3207	1/1	0.98	0.12	26,26,26,26	0
56	MG	1a	1736	1/1	0.98	0.09	27,27,27,27	0
56	MG	2A	3453	1/1	0.98	0.10	35,35,35,35	0
56	MG	2A	3454	1/1	0.98	0.07	37,37,37,37	0
56	MG	1A	3509	1/1	0.98	0.05	45,45,45,45	0
56	MG	2A	3456	1/1	0.98	0.04	39,39,39,39	0
56	MG	1A	3145	1/1	0.98	0.13	53,53,53,53	0
56	MG	1Z	303	1/1	0.98	0.05	35,35,35,35	0
56	MG	1A	3791	1/1	0.98	0.05	41,41,41,41	0
56	MG	1A	3097	1/1	0.98	0.13	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3589	1/1	0.98	0.05	32,32,32,32	0
56	MG	1A	3514	1/1	0.98	0.08	25,25,25,25	0
58	SF4	1d	302	8/8	0.98	0.04	57,68,71,74	0
58	SF4	2d	302	8/8	0.98	0.05	71,76,86,97	0
56	MG	1A	3708	1/1	0.98	0.05	49,49,49,49	0
56	MG	1A	3707	1/1	0.99	0.08	48,48,48,48	0
56	MG	1A	3743	1/1	0.99	0.02	33,33,33,33	0
56	MG	1A	3192	1/1	0.99	0.05	44,44,44,44	0
56	MG	2A	3468	1/1	0.99	0.06	29,29,29,29	0
56	MG	1A	3787	1/1	0.99	0.04	42,42,42,42	0
56	MG	2A	3528	1/1	0.99	0.02	43,43,43,43	0
56	MG	1A	3065	1/1	0.99	0.04	33,33,33,33	0
56	MG	1D	304	1/1	0.99	0.04	35,35,35,35	0
56	MG	1A	3619	1/1	0.99	0.03	39,39,39,39	0
56	MG	2A	3532	1/1	0.99	0.04	46,46,46,46	0
56	MG	1A	3529	1/1	0.99	0.10	20,20,20,20	0
56	MG	1A	3511	1/1	0.99	0.03	36,36,36,36	0
56	MG	2A	3475	1/1	0.99	0.14	35,35,35,35	0
56	MG	1A	3749	1/1	0.99	0.06	78,78,78,78	0
56	MG	2A	3477	1/1	0.99	0.09	28,28,28,28	0
56	MG	1A	3427	1/1	0.99	0.25	39,39,39,39	0
56	MG	2A	3479	1/1	0.99	0.08	36,36,36,36	0
56	MG	2A	3480	1/1	0.99	0.08	36,36,36,36	0
56	MG	1A	3652	1/1	0.99	0.03	31,31,31,31	0
56	MG	1m	3001	1/1	0.99	0.11	51,51,51,51	0
56	MG	1A	3532	1/1	0.99	0.04	22,22,22,22	0
56	MG	1A	3513	1/1	0.99	0.07	26,26,26,26	0
56	MG	2A	3608	1/1	0.99	0.10	37,37,37,37	0
56	MG	1A	3139	1/1	0.99	0.11	32,32,32,32	0
56	MG	28	101	1/1	0.99	0.33	50,50,50,50	0
56	MG	1A	3755	1/1	0.99	0.04	55,55,55,55	0
56	MG	1A	3601	1/1	0.99	0.03	36,36,36,36	0
56	MG	1A	3758	1/1	0.99	0.03	26,26,26,26	0
56	MG	1U	206	1/1	0.99	0.23	37,37,37,37	0
56	MG	1A	3515	1/1	0.99	0.04	30,30,30,30	0
56	MG	1A	3580	1/1	0.99	0.06	39,39,39,39	0
56	MG	1A	3386	1/1	0.99	0.09	30,30,30,30	0
56	MG	1A	3762	1/1	0.99	0.05	54,54,54,54	0
56	MG	2A	3140	1/1	0.99	0.05	34,34,34,34	0
56	MG	1A	3491	1/1	0.99	0.04	25,25,25,25	0
56	MG	2A	3556	1/1	0.99	0.05	68,68,68,68	0
56	MG	1A	3764	1/1	0.99	0.04	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3518	1/1	0.99	0.13	27,27,27,27	0
56	MG	1A	3766	1/1	0.99	0.03	57,57,57,57	0
56	MG	2A	3499	1/1	0.99	0.03	33,33,33,33	0
56	MG	1A	3632	1/1	0.99	0.05	36,36,36,36	0
56	MG	2A	3501	1/1	0.99	0.03	42,42,42,42	0
56	MG	1A	3693	1/1	0.99	0.10	23,23,23,23	0
56	MG	1A	3812	1/1	0.99	0.03	26,26,26,26	0
56	MG	1A	3769	1/1	0.99	0.03	52,52,52,52	0
56	MG	1A	3607	1/1	0.99	0.04	35,35,35,35	0
56	MG	1A	3634	1/1	0.99	0.07	40,40,40,40	0
56	MG	2A	3200	1/1	0.99	0.04	46,46,46,46	0
56	MG	1A	3519	1/1	0.99	0.04	31,31,31,31	0
56	MG	1A	3636	1/1	0.99	0.03	29,29,29,29	0
56	MG	2A	3571	1/1	0.99	0.06	53,53,53,53	0
56	MG	1A	3195	1/1	0.99	0.06	32,32,32,32	0
56	MG	1A	3521	1/1	0.99	0.03	22,22,22,22	0
56	MG	2A	3058	1/1	0.99	0.05	30,30,30,30	0
56	MG	1A	3261	1/1	0.99	0.04	38,38,38,38	0
56	MG	1A	3109	1/1	0.99	0.04	33,33,33,33	0
56	MG	1A	3641	1/1	0.99	0.07	23,23,23,23	0
56	MG	1A	3473	1/1	0.99	0.05	26,26,26,26	0
56	MG	1A	3546	1/1	0.99	0.06	12,12,12,12	0
57	ZN	14	102	1/1	0.99	0.04	88,88,88,88	0
57	ZN	15	106	1/1	0.99	0.03	44,44,44,44	0
57	ZN	1n	103	1/1	0.99	0.03	72,72,72,72	0
57	ZN	2Y	202	1/1	0.99	0.03	76,76,76,76	0
56	MG	1A	3474	1/1	0.99	0.06	33,33,33,33	0
57	ZN	25	103	1/1	0.99	0.03	51,51,51,51	0
57	ZN	26	102	1/1	0.99	0.06	64,64,64,64	0
57	ZN	29	501	1/1	0.99	0.04	67,67,67,67	0
56	MG	1A	3508	1/1	0.99	0.07	26,26,26,26	0
56	MG	2A	3520	1/1	0.99	0.12	39,39,39,39	0
56	MG	1A	3783	1/1	0.99	0.10	32,32,32,32	0
56	MG	1B	223	1/1	0.99	0.04	34,34,34,34	0
57	ZN	16	501	1/1	1.00	0.02	45,45,45,45	0
57	ZN	19	102	1/1	1.00	0.01	42,42,42,42	0
56	MG	1A	3800	1/1	1.00	0.02	30,30,30,30	0
56	MG	1A	3718	1/1	1.00	0.02	17,17,17,17	0
56	MG	1A	3571	1/1	1.00	0.05	29,29,29,29	0
56	MG	1A	3736	1/1	1.00	0.02	35,35,35,35	0
56	MG	1A	3742	1/1	1.00	0.06	29,29,29,29	0
56	MG	1A	3535	1/1	1.00	0.04	20,20,20,20	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3592	1/1	1.00	0.05	38,38,38,38	0
57	ZN	1Y	202	1/1	1.00	0.02	57,57,57,57	0
56	MG	1A	3476	1/1	1.00	0.06	33,33,33,33	0
56	MG	1A	3757	1/1	1.00	0.06	24,24,24,24	0

6.5 Other polymers (i)

There are no such residues in this entry.