Full wwPDB X-ray Structure Validation Report ⓘ

Sep 2, 2026 – 01:26 AM EDT

PDB ID	:	12DP / pdb_000012dp
Title	:	Crystal structure of the wild-type Thermus thermophilus 70S ribosome in complex with sparsomycin, mRNA, and aminoacylated initiator P-site fMet-tRNAmet at 2.95A resolution
Authors	:	Paranjpe, M.N.; Leroy, E.C.; Syroegin, E.A.; Flemmich, L.; Thaler, J.; Gillard, M.; Bougas, A.; Kournoutou, G.; Dinos, G.P.; Renault, T.T.; Micura, R.; Innis, C.A.; Polikanov, Y.S.
Deposited on	:	2026-03-30
Resolution	:	2.95 Å(reported)

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

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

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

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

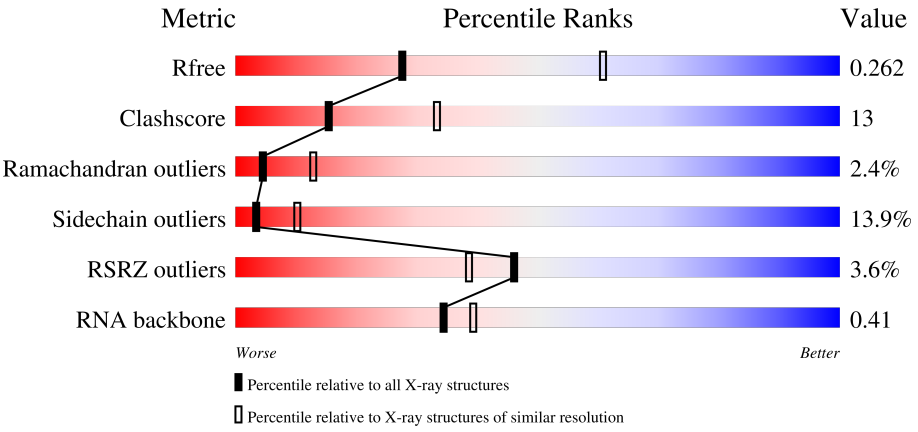
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal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

1 Overall quality at a glance

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

The reported resolution of this entry is 2.95 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1130 (2.98-2.94)
Clashscore	190562	1157 (2.98-2.94)
Ramachandran outliers	187476	1101 (2.98-2.94)
Sidechain outliers	187428	1101 (2.98-2.94)
RSRZ outliers	180081	1130 (2.98-2.94)
RNA backbone	3983	1046 (3.16-2.76)

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% 54% 35% 9%
1	2A	2915	% 48% 39% 8%

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Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.50

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Mol	Chain	Length	Quality of chain
2	1B	121	56% 36% 7%
2	2B	121	3% 20% 64% 16%
3	1D	276	% 70% 26%
3	2D	276	4% 74% 22%
4	1E	206	3% 67% 30%
4	2E	206	2% 70% 22% 6%
5	1F	210	57% 31% 8%
5	2F	210	3% 56% 34% 5%
6	1G	182	3% 58% 34% 7%
6	2G	182	5% 42% 47% 11%
7	1H	180	% 62% 33%
7	2H	180	4% 53% 34% 9%
8	1I	148	% 49% 35% 12%
8	2I	148	9% 53% 36% 9%
9	1N	140	% 73% 24%
9	2N	140	% 66% 27% 6%
10	1O	122	% 67% 29%
10	2O	122	% 58% 37% 5%
11	1P	150	% 60% 31% 7%
11	2P	150	2% 57% 36% 5%
12	1Q	141	2% 67% 27%
12	2Q	141	% 47% 52%
13	1R	118	% 66% 31%
13	2R	118	2% 63% 34%
14	1S	112	% 52% 42%

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Mol	Chain	Length	Quality of chain
14	2S	112	4% 32% 59% 7%
15	1T	146	2% 59% 29% 10%
15	2T	146	% 55% 32% 10%
16	1U	118	2% 80% 17%
16	2U	118	3% 65% 31%
17	1V	101	71% 27%
17	2V	101	2% 61% 32% 6%
18	1W	113	61% 36%
18	2W	113	65% 27% 5%
19	1X	96	2% 64% 31%
19	2X	96	4% 58% 38%
20	1Y	110	% 59% 32% 6%
20	2Y	110	2% 51% 38% 8%
21	1Z	206	52% 30% 7% 10%
21	2Z	206	2% 44% 33% 10% 14%
22	10	85	9% 66% 31%
22	20	85	12% 72% 24%
23	11	98	2% 59% 36%
23	21	98	3% 60% 33% 6%
24	12	72	% 47% 43% 7%
24	22	72	42% 49% 7%
25	13	60	70% 22% 7%
25	23	60	2% 57% 37% 5%
26	14	71	3% 52% 31% 13%
26	24	71	14% 44% 44% 8%

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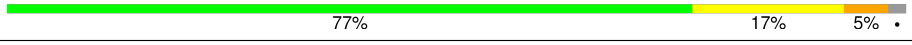
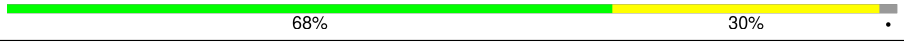
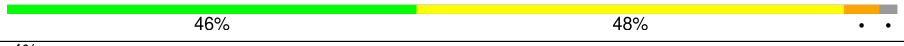
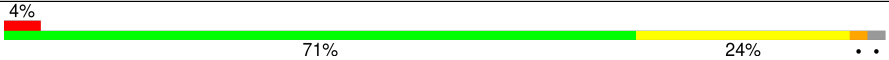
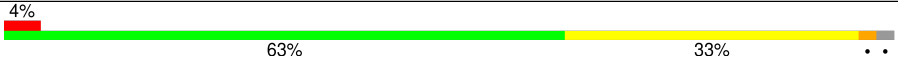
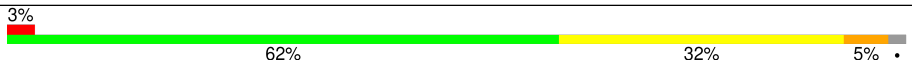
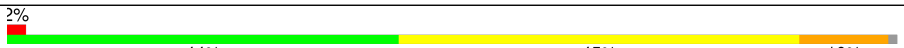
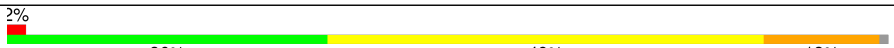
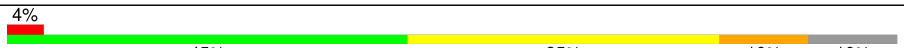
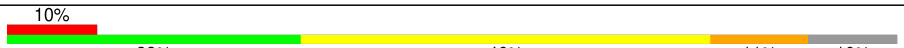
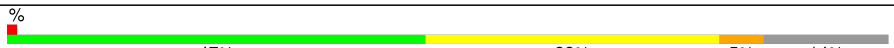
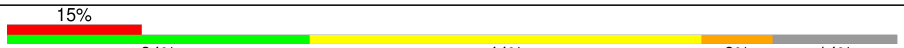
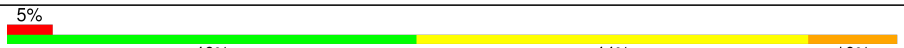
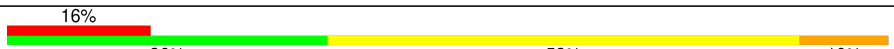
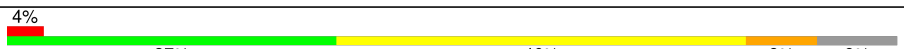
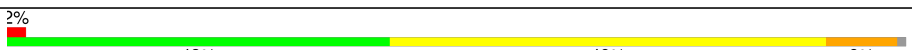
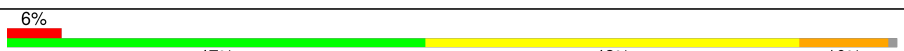
Mol	Chain	Length	Quality of chain
27	15	60	
27	25	60	
28	16	54	
28	26	54	
29	17	49	
29	27	49	
30	18	65	
30	28	65	
31	19	37	
31	29	37	
32	1a	1521	
32	2a	1521	
33	1b	256	
33	2b	256	
34	1c	239	
34	2c	239	
35	1d	209	
35	2d	209	
36	1e	162	
36	2e	162	
37	1f	101	
37	2f	101	
38	1g	156	
38	2g	156	
39	1h	138	

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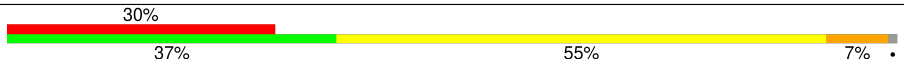
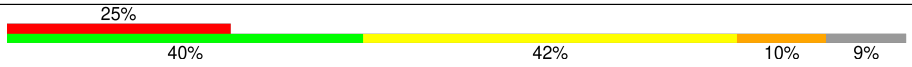
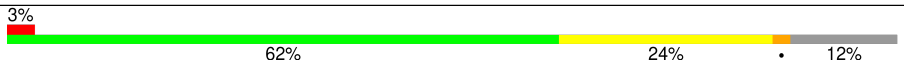
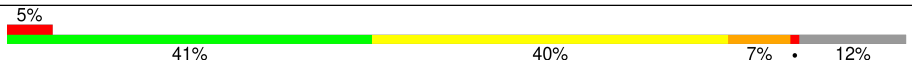
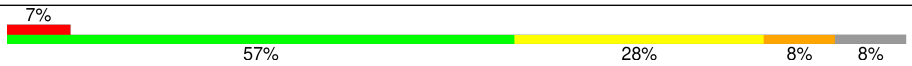
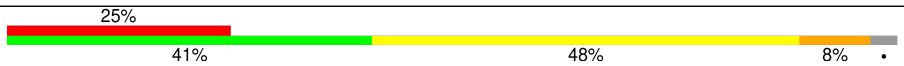
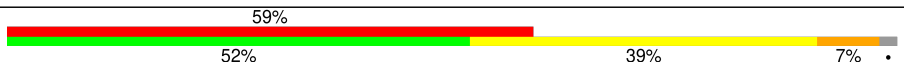
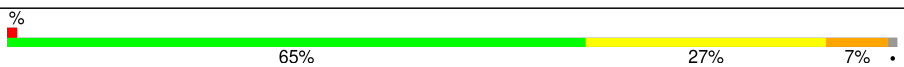
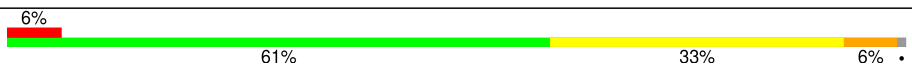
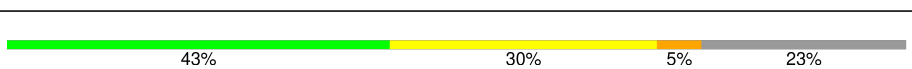
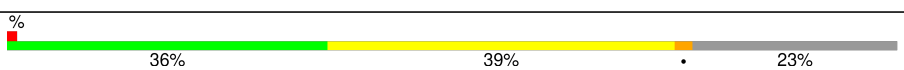
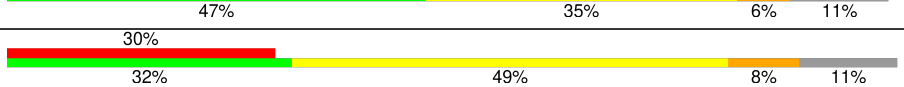
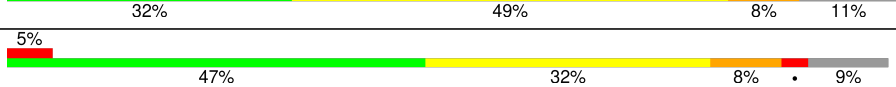
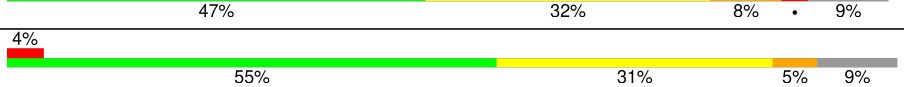
Mol	Chain	Length	Quality of chain
39	2h	138	
40	1i	128	
40	2i	128	
41	1j	105	
41	2j	105	
42	1k	129	
42	2k	129	
43	1l	132	
43	2l	132	
44	1m	126	
44	2m	126	
45	1n	61	
45	2n	61	
46	1o	89	
46	2o	89	
47	1p	88	
47	2p	88	
48	1q	105	
48	2q	105	
49	1r	88	
49	2r	88	
50	1s	93	
50	2s	93	
51	1t	106	
51	2t	106	

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Mol	Chain	Length	Quality of chain
52	1u	27	4% 37% 44% 15%
52	2u	27	26% 41% 33% 11% 15%
53	1v	24	17% 79%
53	2v	24	17% 17% 17% 67%
54	1x	77	53% 36% 10%
54	2x	77	% 51% 43% 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
55	MG	10	104	-	-	-	X
55	MG	1A	3474	-	-	-	X
55	MG	1A	3599	-	-	-	X
55	MG	1A	3842	-	-	-	X
55	MG	1A	3870	-	-	-	X
55	MG	1A	3885	-	-	-	X
55	MG	1A	3909	-	-	-	X
55	MG	1A	3923	-	-	-	X
55	MG	2A	3185	-	-	-	X
55	MG	2A	3232	-	-	-	X
55	MG	2A	3243	-	-	-	X
55	MG	2A	3291	-	-	-	X
55	MG	2A	3419	-	-	-	X
55	MG	2A	3452	-	-	-	X
55	MG	2a	3100	-	-	-	X
55	MG	2a	3108	-	-	-	X
55	MG	2a	3133	-	-	-	X
55	MG	2a	3134	-	-	-	X
55	MG	2v	101	-	-	-	X
59	SF4	2d	304	-	-	X	-

2 Entry composition (i)

There are 61 unique types of molecules in this entry. The entry contains 293578 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	202	Total	C	N	O	S	0	0	0
			1583	1009	297	275	2			
5	2F	202	Total	C	N	O	S	0	0	0
			1579	1007	296	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	185	Total	C	N	O	S	0	0	0
			1461	932	261	266	2			
21	2Z	178	Total	C	N	O	S	0	0	0
			1390	890	247	251	2			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 53 is a RNA chain called MET-PHE-mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	1v	5	Total 109	C 49	N 22	O 33	P 5	0	0	0
53	2v	8	Total 173	C 78	N 34	O 53	P 8	0	0	0

- Molecule 54 is a RNA chain called P-site Aminoacylated tRNAmet.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
54	1x	77	Total 1646	C 734	N 298	O 536	P 77	S 1	0	0	0
54	2x	77	Total 1646	C 734	N 298	O 536	P 77	S 1	0	0	0

- Molecule 55 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	1A	1103	Total 1103	Mg 1103	0	0
55	1B	36	Total 36	Mg 36	0	0
55	1D	11	Total 11	Mg 11	0	0
55	1E	14	Total 14	Mg 14	0	0
55	1F	11	Total 11	Mg 11	0	0
55	1G	5	Total 5	Mg 5	0	0
55	1H	1	Total 1	Mg 1	0	0
55	1I	1	Total 1	Mg 1	0	0
55	1N	6	Total 6	Mg 6	0	0
55	1O	5	Total 5	Mg 5	0	0
55	1P	8	Total 8	Mg 8	0	0
55	1Q	7	Total 7	Mg 7	0	0
55	1R	4	Total 4	Mg 4	0	0
55	1S	3	Total 3	Mg 3	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	1T	3	Total Mg 3 3	0	0
55	1U	9	Total Mg 9 9	0	0
55	1V	8	Total Mg 8 8	0	0
55	1W	7	Total Mg 7 7	0	0
55	1X	6	Total Mg 6 6	0	0
55	1Y	2	Total Mg 2 2	0	0
55	1Z	4	Total Mg 4 4	0	0
55	10	8	Total Mg 8 8	0	0
55	11	5	Total Mg 5 5	0	0
55	12	2	Total Mg 2 2	0	0
55	13	7	Total Mg 7 7	0	0
55	14	1	Total Mg 1 1	0	0
55	15	8	Total Mg 8 8	0	0
55	16	1	Total Mg 1 1	0	0
55	17	4	Total Mg 4 4	0	0
55	18	6	Total Mg 6 6	0	0
55	19	1	Total Mg 1 1	0	0
55	1a	213	Total Mg 213 213	0	0
55	1b	1	Total Mg 1 1	0	0
55	1d	1	Total Mg 1 1	0	0
55	1e	2	Total Mg 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	1f	1	Total Mg 1 1	0	0
55	1l	2	Total Mg 2 2	0	0
55	1m	1	Total Mg 1 1	0	0
55	1n	1	Total Mg 1 1	0	0
55	1p	1	Total Mg 1 1	0	0
55	1r	1	Total Mg 1 1	0	0
55	1t	1	Total Mg 1 1	0	0
55	1x	11	Total Mg 11 11	0	0
55	2A	849	Total Mg 849 849	0	0
55	2B	20	Total Mg 20 20	0	0
55	2D	6	Total Mg 6 6	0	0
55	2E	8	Total Mg 8 8	0	0
55	2F	7	Total Mg 7 7	0	0
55	2G	1	Total Mg 1 1	0	0
55	2O	2	Total Mg 2 2	0	0
55	2P	2	Total Mg 2 2	0	0
55	2Q	2	Total Mg 2 2	0	0
55	2R	4	Total Mg 4 4	0	0
55	2T	4	Total Mg 4 4	0	0
55	2U	2	Total Mg 2 2	0	0
55	2V	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	2W	4	Total Mg 4 4	0	0
55	2X	1	Total Mg 1 1	0	0
55	2Y	1	Total Mg 1 1	0	0
55	2Z	1	Total Mg 1 1	0	0
55	20	3	Total Mg 3 3	0	0
55	21	1	Total Mg 1 1	0	0
55	23	2	Total Mg 2 2	0	0
55	25	4	Total Mg 4 4	0	0
55	27	2	Total Mg 2 2	0	0
55	28	3	Total Mg 3 3	0	0
55	2a	226	Total Mg 226 226	0	0
55	2d	3	Total Mg 3 3	0	0
55	2e	1	Total Mg 1 1	0	0
55	2f	2	Total Mg 2 2	0	0
55	2j	1	Total Mg 1 1	0	0
55	2l	4	Total Mg 4 4	0	0
55	2q	3	Total Mg 3 3	0	0
55	2r	1	Total Mg 1 1	0	0
55	2t	1	Total Mg 1 1	0	0
55	2u	1	Total Mg 1 1	0	0
55	2v	2	Total Mg 2 2	0	0

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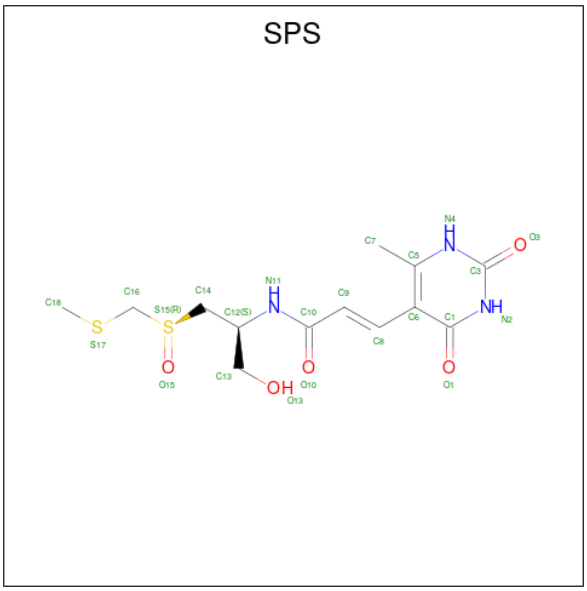
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	2x	6	Total Mg 6 6	0	0

- Molecule 56 is POTASSIUM ION (CCD ID: K) (formula: K).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	1A	1	Total K 1 1	0	0
56	2A	1	Total K 1 1	0	0

- Molecule 57 is SPARSOMYCIN (CCD ID: SPS) (formula: $C_{13}H_{19}N_3O_5S_2$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	1A	1	Total C N O S 23 13 3 5 2	0	0
57	2A	1	Total C N O S 23 13 3 5 2	0	0

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

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

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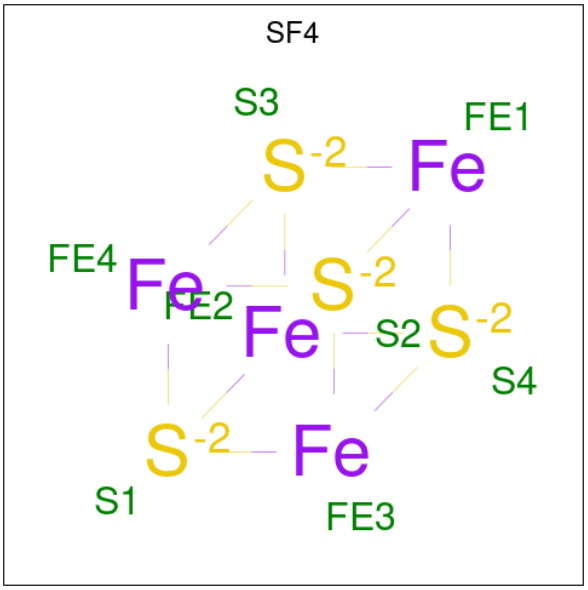
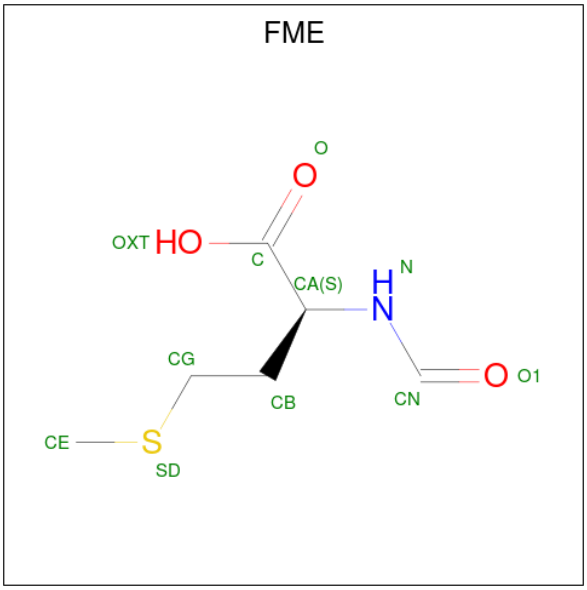
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	14	1	Total Zn 1 1	0	0
58	15	1	Total Zn 1 1	0	0
58	16	1	Total Zn 1 1	0	0
58	19	1	Total Zn 1 1	0	0
58	1n	1	Total Zn 1 1	0	0
58	2Y	1	Total Zn 1 1	0	0
58	24	1	Total Zn 1 1	0	0
58	25	1	Total Zn 1 1	0	0
58	26	1	Total Zn 1 1	0	0
58	29	1	Total Zn 1 1	0	0
58	2n	1	Total Zn 1 1	0	0

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



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

- Molecule 60 is N-FORMYLMETHIONINE (CCD ID: FME) (formula: $C_6H_{11}NO_3S$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1x	1	Total C N O S 10 6 1 2 1	0	0
60	2x	1	Total C N O S 10 6 1 2 1	0	0

- Molecule 61 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	1A	1951	Total O 1951 1951	0	0
61	1B	60	Total O 60 60	0	0
61	1D	29	Total O 29 29	0	0
61	1E	26	Total O 26 26	0	0
61	1F	18	Total O 18 18	0	0
61	1G	4	Total O 4 4	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	1H	2	Total O 2 2	0	0
61	1N	7	Total O 7 7	0	0
61	1O	6	Total O 6 6	0	0
61	1P	23	Total O 23 23	0	0
61	1Q	5	Total O 5 5	0	0
61	1R	13	Total O 13 13	0	0
61	1S	6	Total O 6 6	0	0
61	1T	8	Total O 8 8	0	0
61	1U	14	Total O 14 14	0	0
61	1V	7	Total O 7 7	0	0
61	1W	8	Total O 8 8	0	0
61	1X	4	Total O 4 4	0	0
61	1Y	3	Total O 3 3	0	0
61	1Z	1	Total O 1 1	0	0
61	10	9	Total O 9 9	0	0
61	11	7	Total O 7 7	0	0
61	12	4	Total O 4 4	0	0
61	13	5	Total O 5 5	0	0
61	15	7	Total O 7 7	0	0
61	16	1	Total O 1 1	0	0
61	17	11	Total O 11 11	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	18	8	Total O 8 8	0	0
61	1a	303	Total O 303 303	0	0
61	1b	1	Total O 1 1	0	0
61	1d	1	Total O 1 1	0	0
61	1e	1	Total O 1 1	0	0
61	1f	1	Total O 1 1	0	0
61	1i	1	Total O 1 1	0	0
61	1l	6	Total O 6 6	0	0
61	1m	1	Total O 1 1	0	0
61	1q	2	Total O 2 2	0	0
61	1v	4	Total O 4 4	0	0
61	1x	5	Total O 5 5	0	0
61	2A	1050	Total O 1050 1050	0	0
61	2B	20	Total O 20 20	0	0
61	2D	19	Total O 19 19	0	0
61	2E	17	Total O 17 17	0	0
61	2F	15	Total O 15 15	0	0
61	2N	1	Total O 1 1	0	0
61	2O	2	Total O 2 2	0	0
61	2P	11	Total O 11 11	0	0
61	2Q	1	Total O 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	2R	2	Total O 2 2	0	0
61	2T	5	Total O 5 5	0	0
61	2U	3	Total O 3 3	0	0
61	2W	2	Total O 2 2	0	0
61	2X	4	Total O 4 4	0	0
61	20	5	Total O 5 5	0	0
61	21	7	Total O 7 7	0	0
61	23	2	Total O 2 2	0	0
61	27	2	Total O 2 2	0	0
61	28	3	Total O 3 3	0	0
61	29	1	Total O 1 1	0	0
61	2a	198	Total O 198 198	0	0
61	2c	1	Total O 1 1	0	0
61	2e	2	Total O 2 2	0	0
61	2g	1	Total O 1 1	0	0
61	2j	2	Total O 2 2	0	0
61	2k	1	Total O 1 1	0	0
61	2l	5	Total O 5 5	0	0
61	2m	1	Total O 1 1	0	0
61	2r	1	Total O 1 1	0	0
61	2t	1	Total O 1 1	0	0

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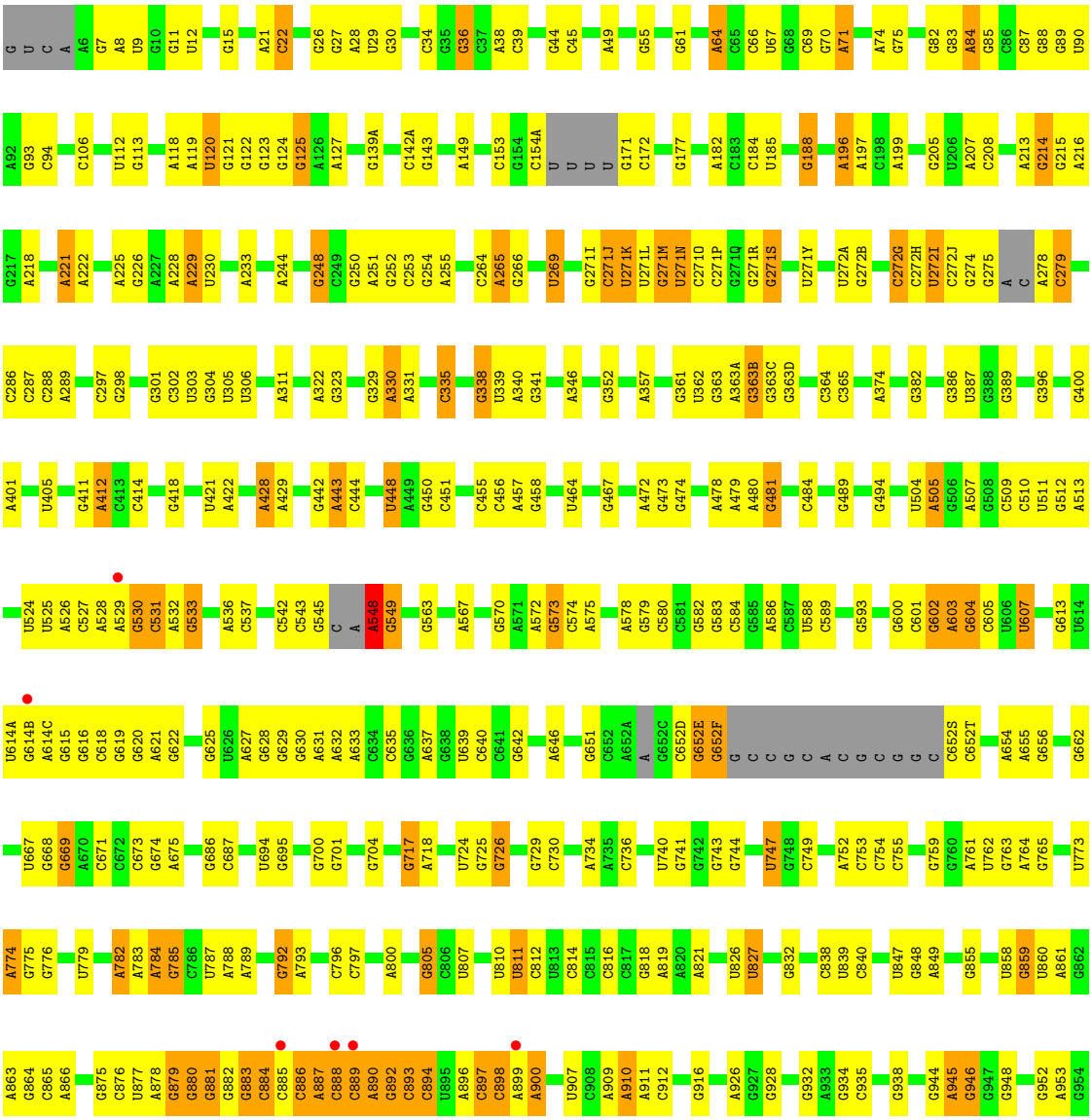
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	2v	1	Total O 1 1	0	0
61	2x	2	Total O 2 2	0	0

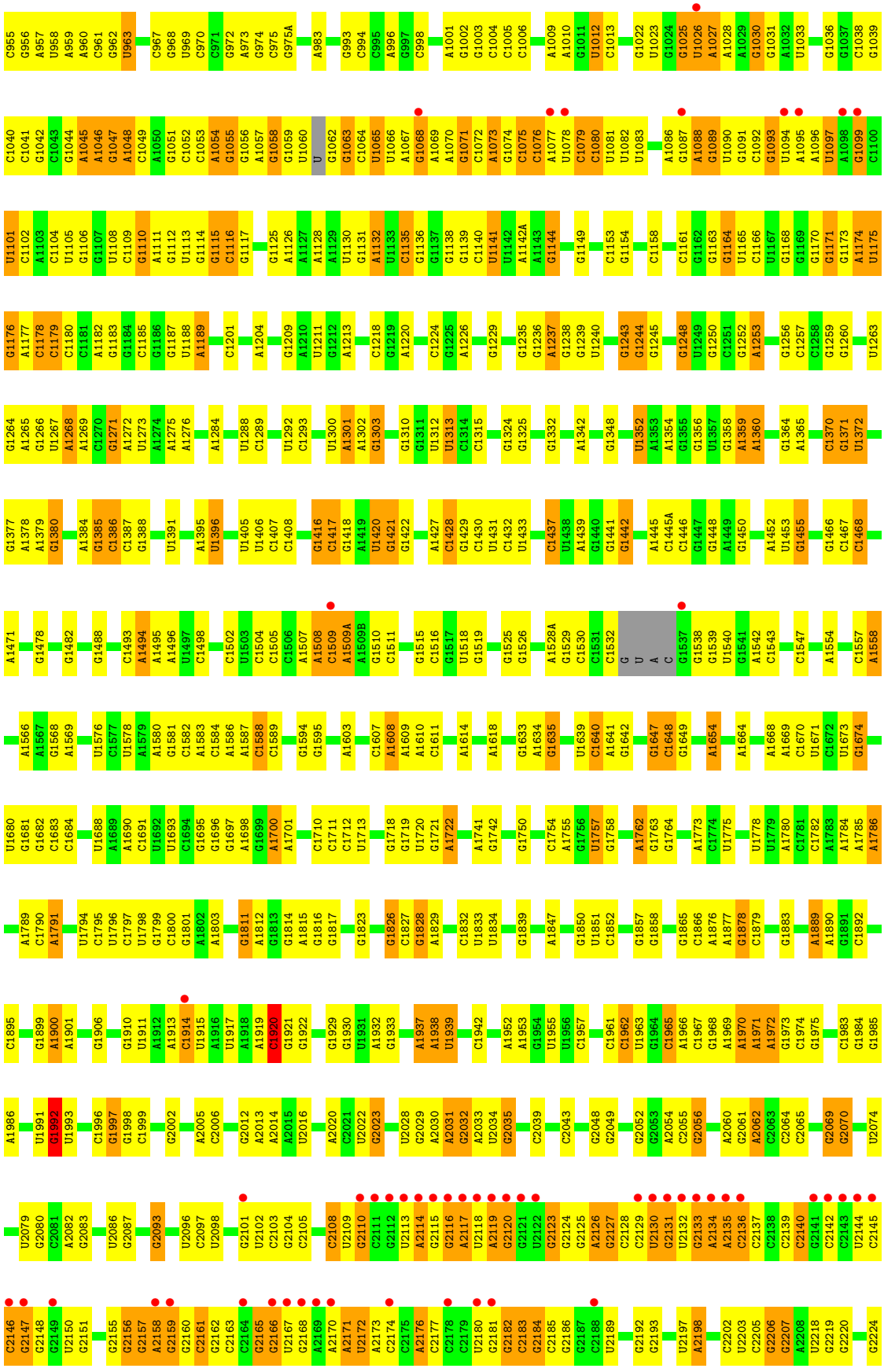
3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density (RSRZ > 2). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

• Molecule 1: 23S Ribosomal RNA

Chain 1A:

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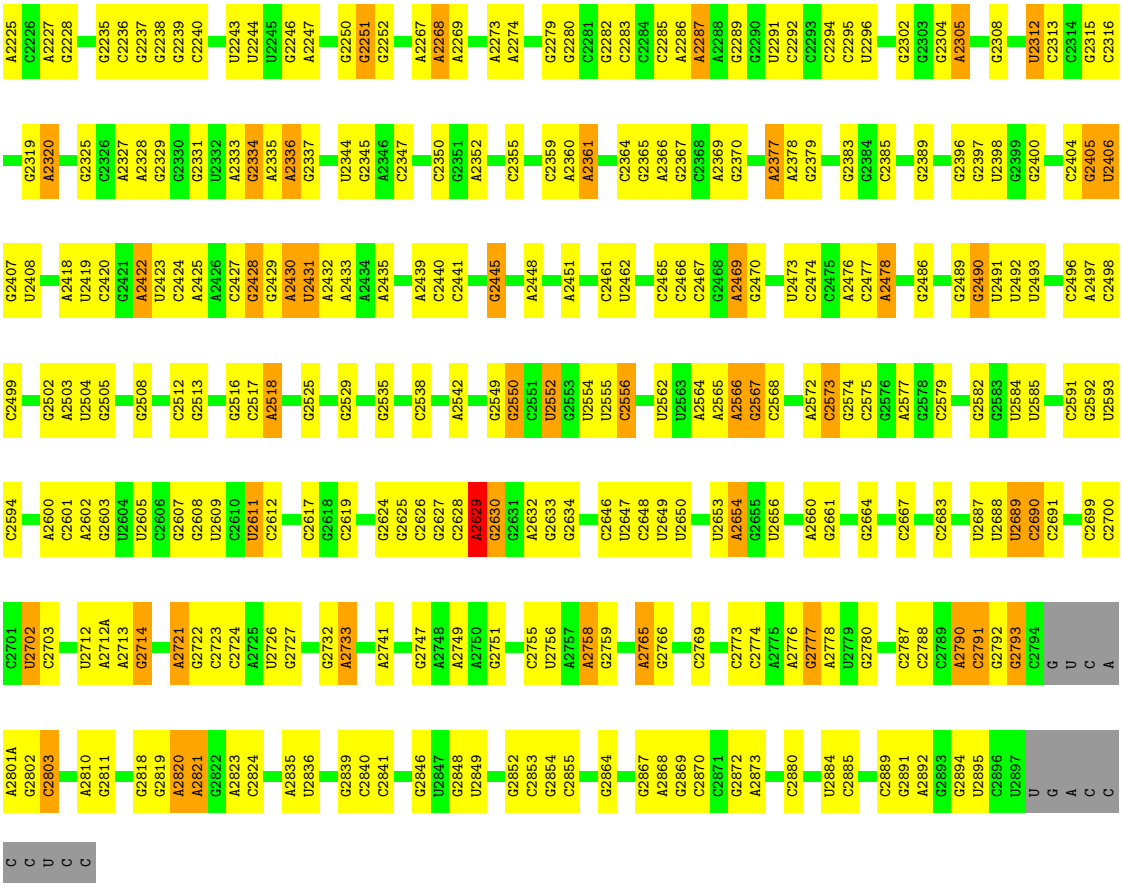
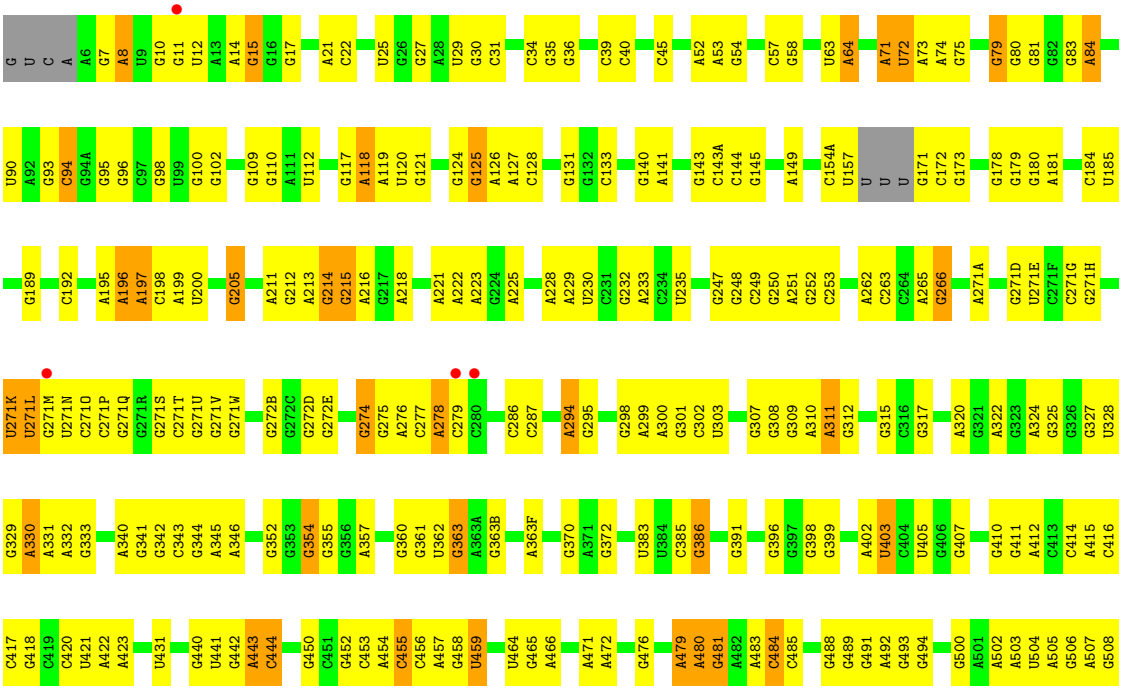
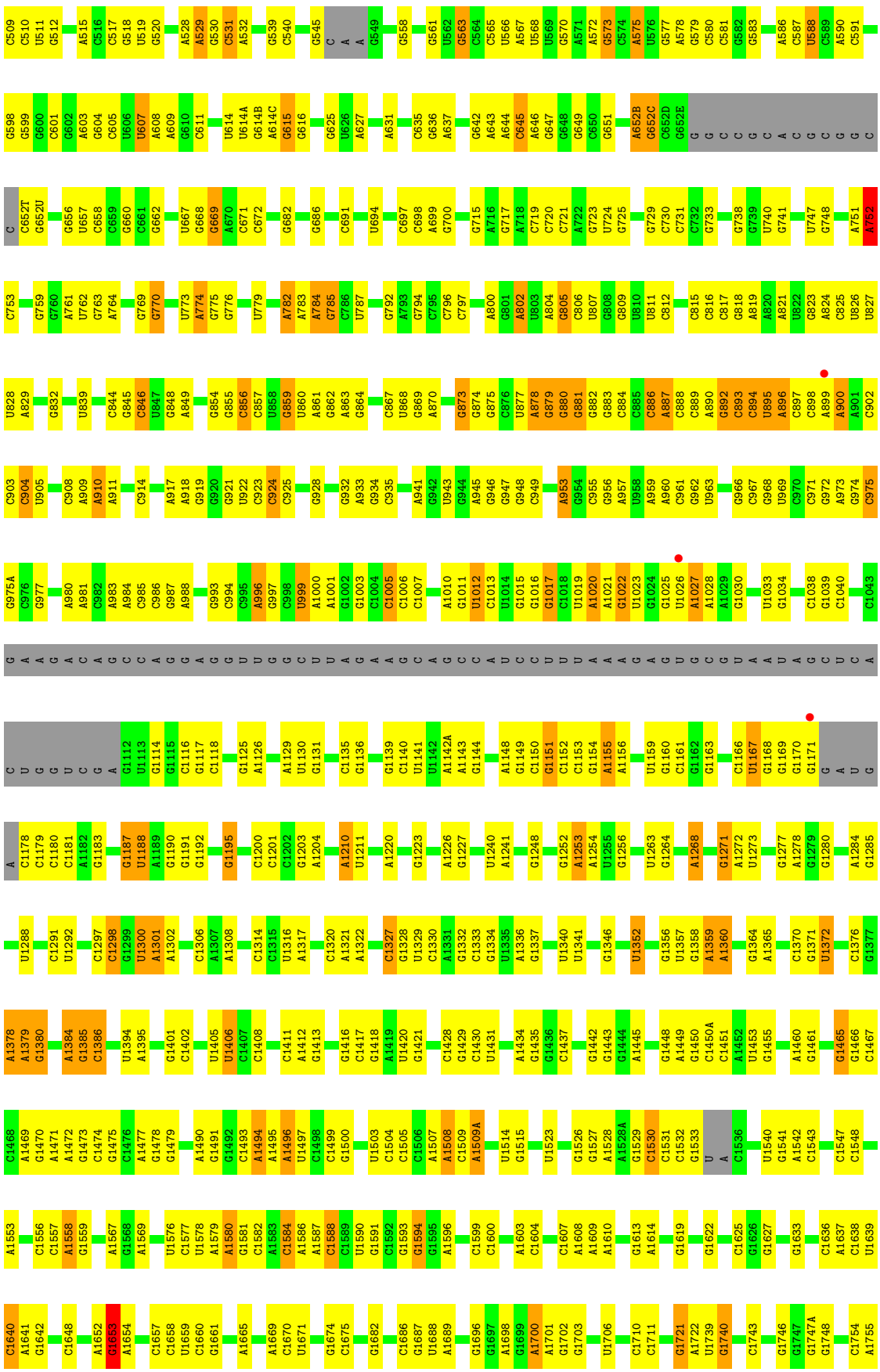
C1040 C1041 G1042 C1043 G1044 A1045 A1046 G1047 A1048 C1049 A1050 G1051 C1052 C1053 A1054 G1055 G1056 A1057 G1058 G1059 U1060 U G1062 G1063 C1064 U1065 U1066 A1067 G1068 A1069 A1070 G1071 C1072 A1073 G1074 C1075 C1076 A1077 U1078 C1079 C1080 U1081 U1082 U1083 A1086 G1087 A1088 G1089 U1090 G1091 C1092 G1093 U1094 A1095 A1096 U1097 A1098 G1099 C1100
U1101 C1102 A1103 C1104 U1105 G1106 G1107 U1108 C1109 G1110 A1111 G1112 U1113 G1114 G1115 C1116 G1117 G1125 A1126 A1127 A1128 A1129 U1130 G1131 A1132 U1133 C1135 G1136 G1137 G1138 G1139 C1140 U1141 U1142 A1142A A1143 G1144 G1149 C1153 G1154 C1158 C1161 G1162 G1163 G1164 U1165 C1166 U1167 G1168 G1169 G1170 G1171 G1173 A1174 U1175
G1176 A1177 C1178 C1179 C1180 C1181 A1182 G1183 G1184 C1185 G1186 G1187 U1188 A1189 C1201 A1204 G1209 A1210 U1211 G1212 A1213 C1218 G1219 A1220 C1224 G1225 A1226 G1229 G1235 G1236 A1237 G1238 G1239 U1240 G1243 G1244 G1245 G1248 U1249 G1250 C1251 G1252 A1253 G1256 C1257 C1258 G1259 G1260 U1263
G1264 A1265 G1266 U1267 A1268 A1269 C1270 G1271 A1272 U1273 A1274 A1275 A1276 A1284 U1288 C1289 U1292 C1293 U1300 A1301 A1302 G1303 G1310 G1311 U1312 U1313 C1314 C1315 G1324 G1325 G1332 A1342 G1348 U1352 A1353 A1354 G1355 G1356 U1357 G1358 A1359 A1360 G1364 A1365 C1370 G1371 U1372
G1377 A1378 A1379 G1380 A1384 G1385 C1386 C1387 G1388 U1391 A1395 U1396 U1405 U1406 C1407 C1408 G1416 C1417 G1418 A1419 A1420 G1421 G1422 A1427 C1428 G1429 C1430 U1431 C1432 U1433 C1437 U1438 A1439 G1440 G1441 G1442 A1445 C1445A C1446 G1447 G1448 A1449 G1450 A1452 U1453 G1455 G1466 C1467 C1468
A1471 G1478 G1482 G1488 C1493 A1494 A1495 A1496 U1497 C1498 C1502 U1503 C1504 C1505 C1506 A1507 A1508 C1509 A1509A A1509B G1510 C1511 G1515 C1516 G1517 U1518 G1519 G1525 G1526 A1528A G1529 C1530 C1531 C1532 G U A C G1537 G1538 G1539 U1540 G1541 A1542 C1543 C1547 A1554 C1557 A1558
A1566 A1567 G1568 A1569 U1576 C1577 U1578 A1579 A1580 G1581 C1582 A1583 C1584 A1586 A1587 C1588 C1589 G1594 G1595 A1603 C1607 A1608 A1609 A1610 C1611 A1614 A1618 G1633 A1634 G1635 U1639 C1640 A1641 G1642 G1647 C1648 G1649 A1654 A1664 A1668 A1669 C1670 U1671 C1672 U1673 G1674
U1680 G1681 G1682 C1683 C1684 U1688 A1689 A1690 C1691 U1692 U1693 C1694 G1695 G1696 G1697 A1698 G1699 A1700 A1701 C1710 C1711 C1712 U1713 G1718 G1719 U1720 G1721 A1722 A1741 G1742 G1750 C1754 A1755 G1756 U1757 G1758 A1762 G1763 G1764 A1773 C1774 U1775 U1778 U1779 A1780 C1781 C1782 A1783 A1784 A1785 A1786
A1789 C1790 A1791 U1794 C1795 U1796 C1797 U1798 G1799 C1800 G1801 A1802 A1803 G1811 A1812 G1813 G1814 A1815 G1816 G1817 G1823 G1826 C1827 G1828 A1829 C1832 U1833 U1834 G1839 A1847 G1850 U1851 C1852 G1857 G1858 G1865 C1866 A1876 A1877 G1878 C1879 G1883 A1889 A1890 G1891 C1892
C1895 G1899 A1900 A1901 G1906 G1910 U1911 A1912 A1913 C1914 U1915 A1916 U1917 A1918 A1919 C1920 G1921 G1922 G1929 G1930 U1931 A1932 G1933 A1937 A1938 U1939 C1942 A1952 A1953 G1954 U1955 U1956 C1957 C1961 C1962 U1963 G1964 C1965 A1966 C1967 G1968 A1969 A1970 A1971 A1972 G1973 C1974 G1975 C1983 G1984 G1985
A1986 U1991 G1992 U1993 C1996 G1997 G1998 C1999 G2002 A2005 C2006 G2012 A2013 A2014 A2015 U2016 A2020 C2021 U2022 G2023 U2028 G2029 A2030 A2031 G2032 A2033 U2034 G2035 C2039 C2043 G2048 G2049 G2052 G2053 A2054 C2055 G2056 A2060 G2061 A2062 C2063 C2064 C2065 G2069 G2070 U2074
U2079 G2080 C2081 A2082 G2083 U2086 G2087 G2093 U2096 C2097 U2098 G2101 U2102 C2103 G2104 C2105 C2108 U2109 G2110 C2111 G2112 U2113 A2114 G2115 G2116 A2117 U2118 A2119 G2120 G2121 U2122 G2123 G2124 G2125 A2126 G2127 C2128 C2129 U2130 G2131 U2132 G2133 A2134 A2135 C2136 C2137 C2138 C2139 C2140 G2141 C2142 C2143 U2144 C2145
C2146 G2147 G2148 G2149 U2150 G2151 G2155 G2156 G2157 A2158 G2159 G2160 C2161 G2162 C2163 C2164 G2165 G2166 U2167 G2168 A2169 A2170 A2171 U2172 A2173 C2174 C2175 A2176 C2177 C2178 C2179 U2180 G2181 G2182 C2183 G2184 C2185 G2186 G2187 C2188 U2189 G2192 G2193 U2197 A2198 C2202 U2203 C2205 G2206 G2207 A2208 U2218 G2219 G2220 G2224

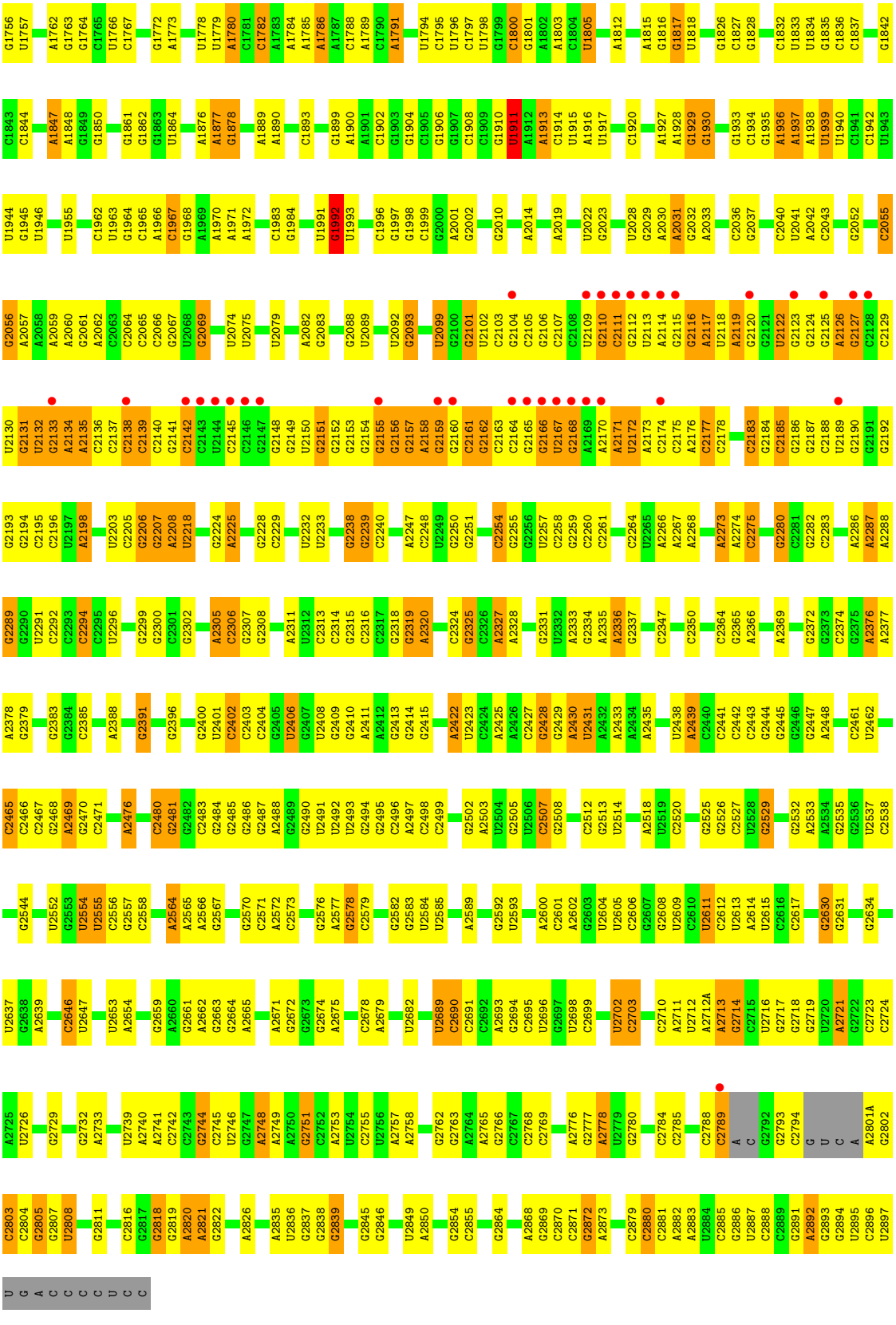


• Molecule 1: 23S Ribosomal RNA

Chain 2A:

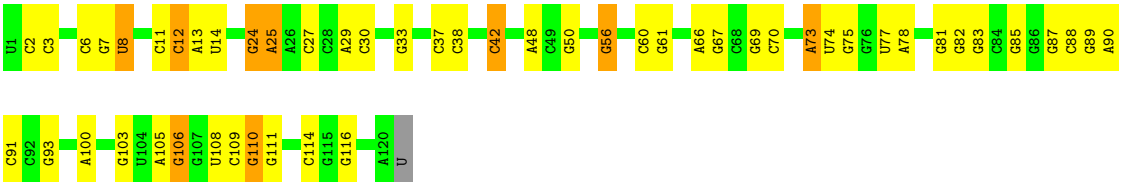




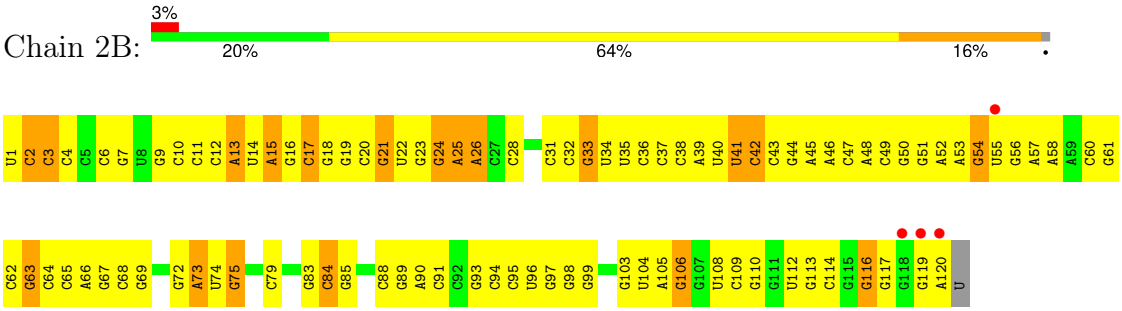


• Molecule 2: 5S Ribosomal RNA

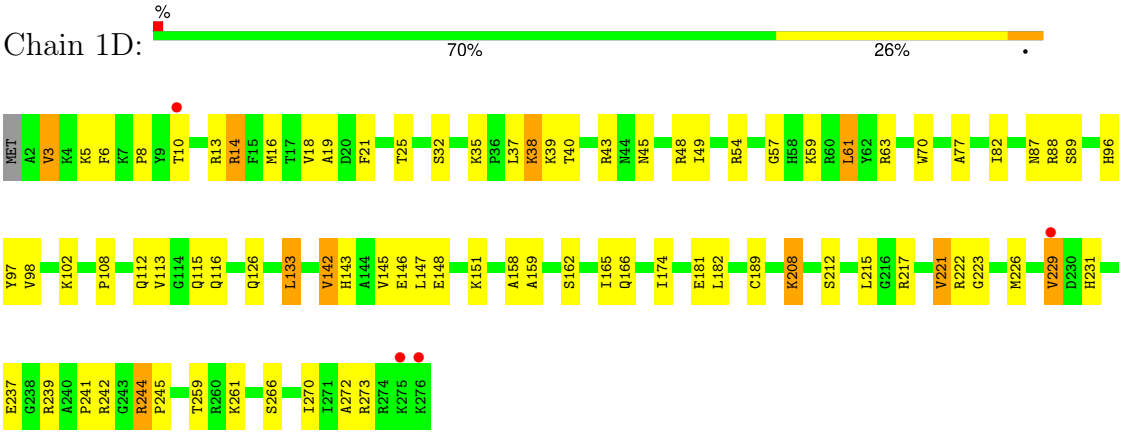
Chain 1B:



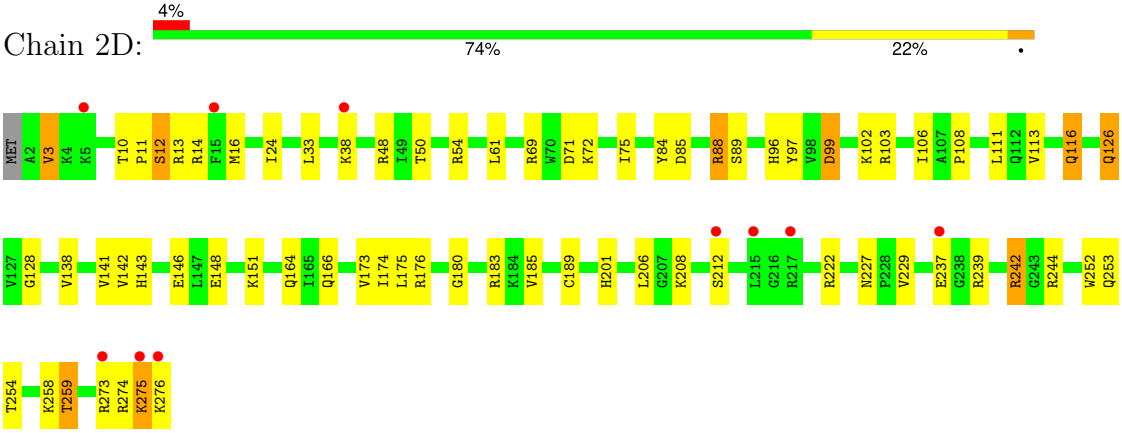
• Molecule 2: 5S Ribosomal RNA



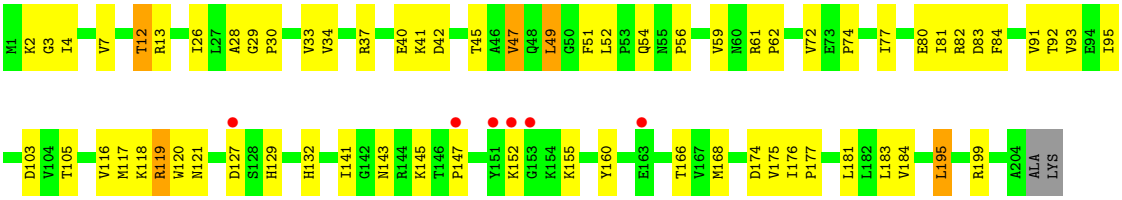
• Molecule 3: 50S ribosomal protein L2



• Molecule 3: 50S ribosomal protein L2

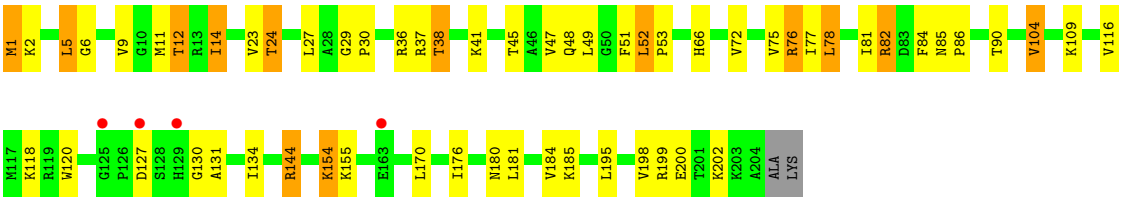


• Molecule 4: 50S ribosomal protein L3



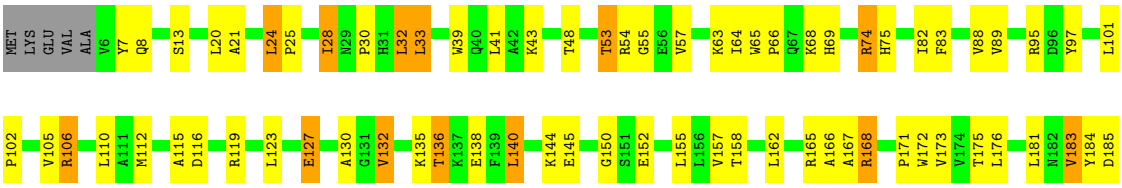
• Molecule 4: 50S ribosomal protein L3

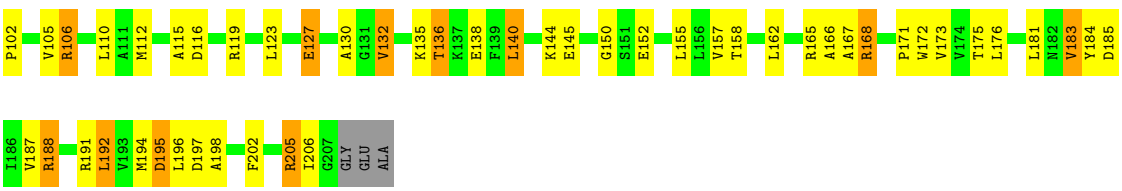
Chain 2E:



• Molecule 5: 50S ribosomal protein L4

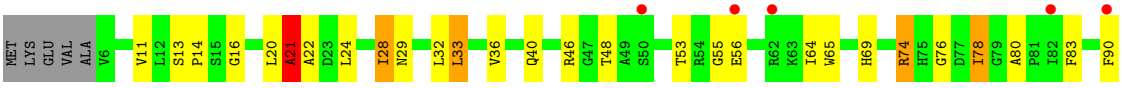
Chain 1F:

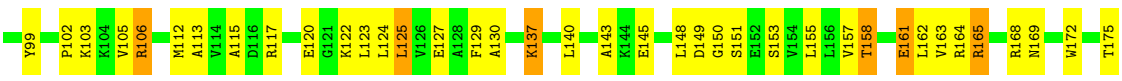


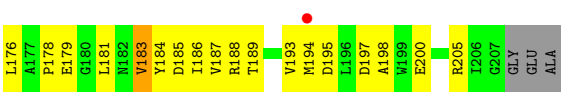


• Molecule 5: 50S ribosomal protein L4

Chain 2F:

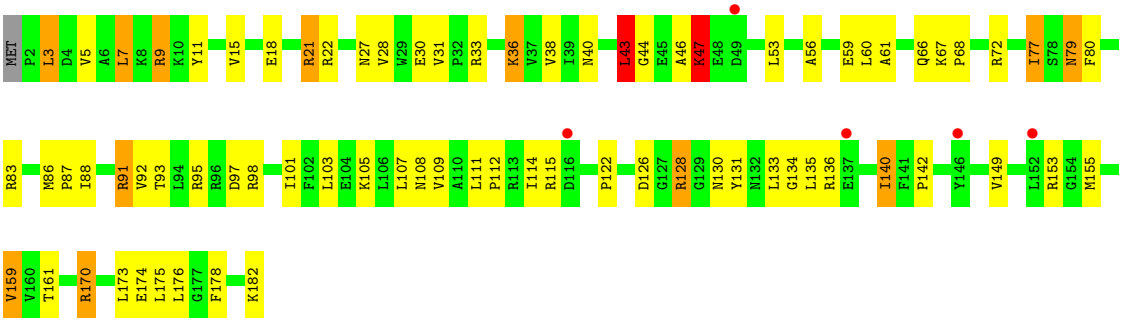






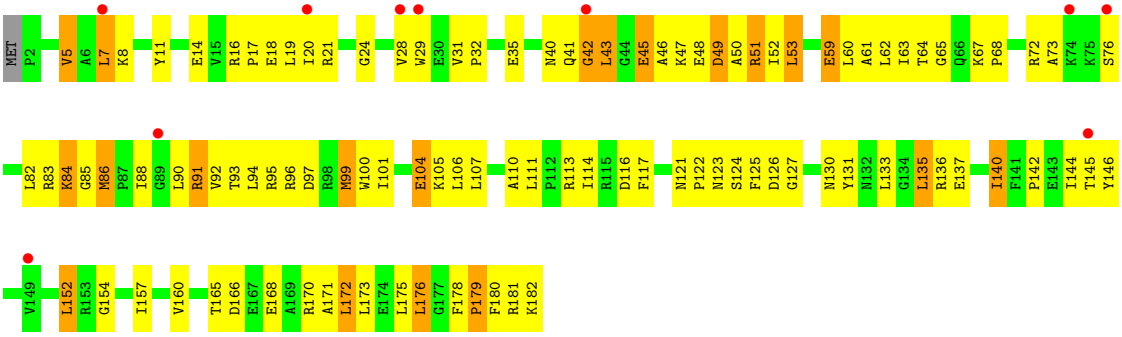
• Molecule 6: 50S ribosomal protein L5

Chain 1G:



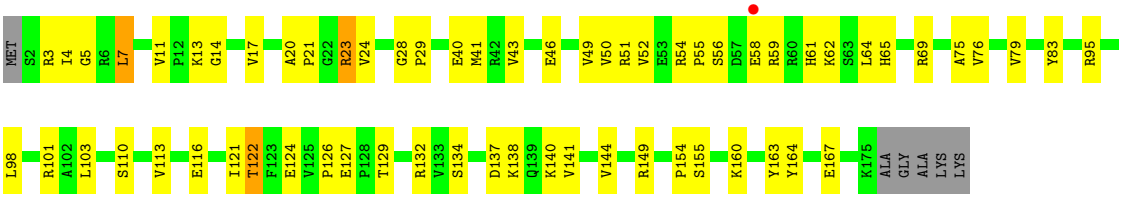
• Molecule 6: 50S ribosomal protein L5

Chain 2G:



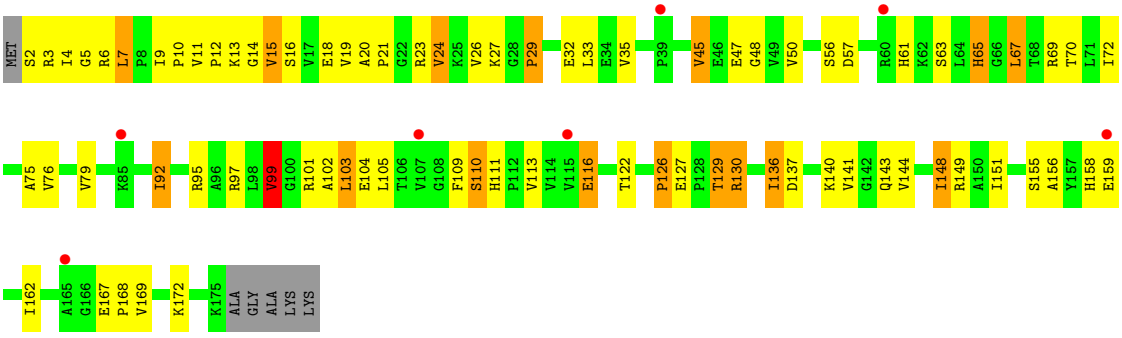
• Molecule 7: 50S ribosomal protein L6

Chain 1H:



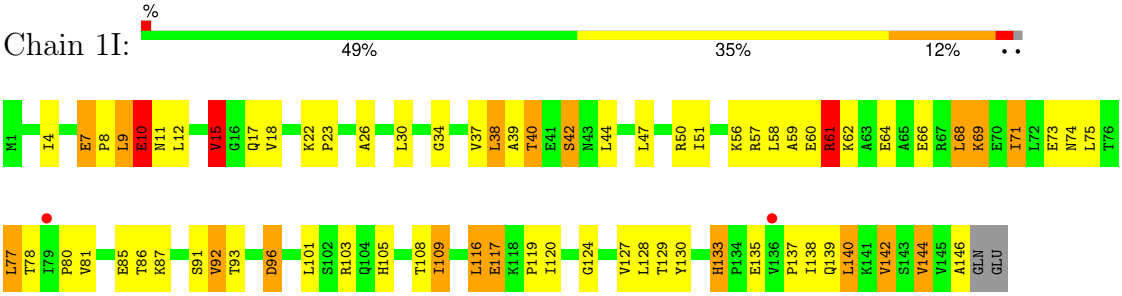
• Molecule 7: 50S ribosomal protein L6

Chain 2H:



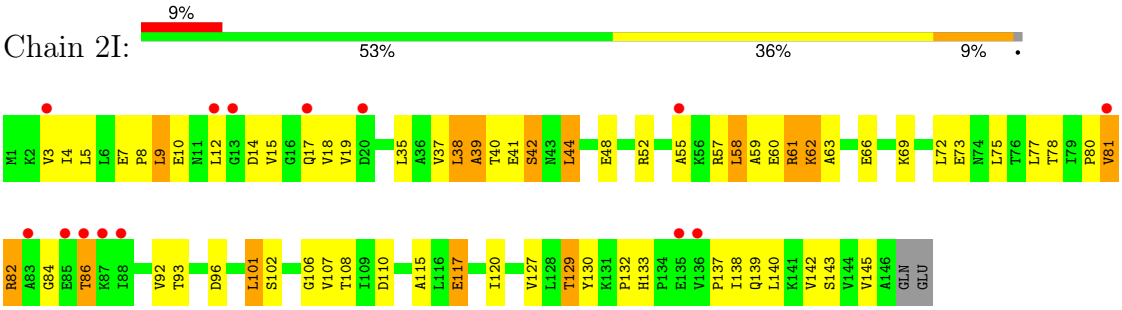
• Molecule 8: 50S ribosomal protein L9

Chain 1I:



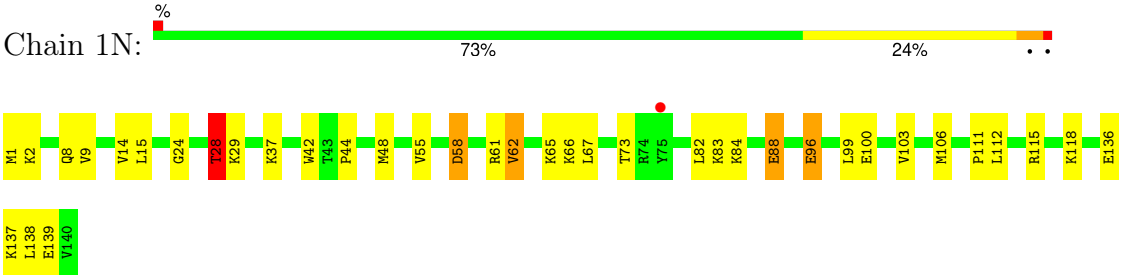
• Molecule 8: 50S ribosomal protein L9

Chain 2I:



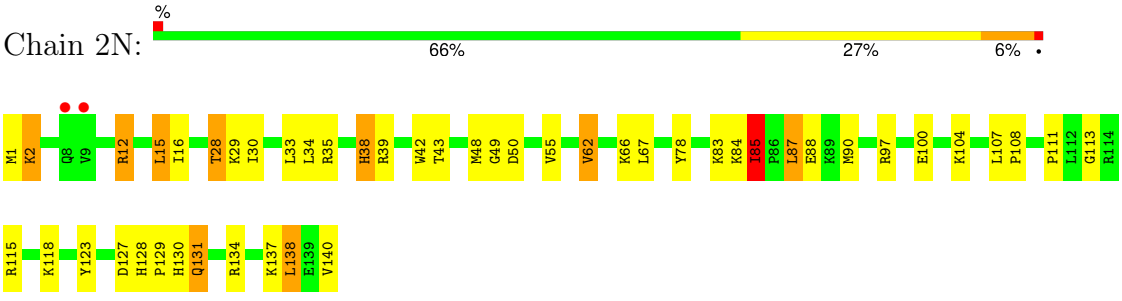
• Molecule 9: 50S ribosomal protein L13

Chain 1N:



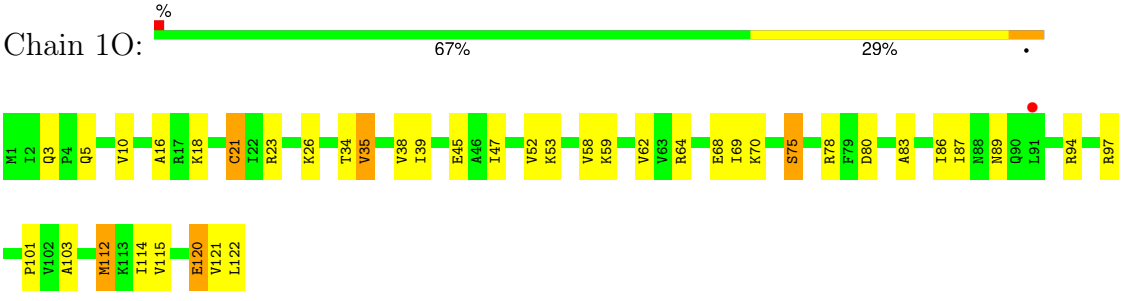
• Molecule 9: 50S ribosomal protein L13

Chain 2N:



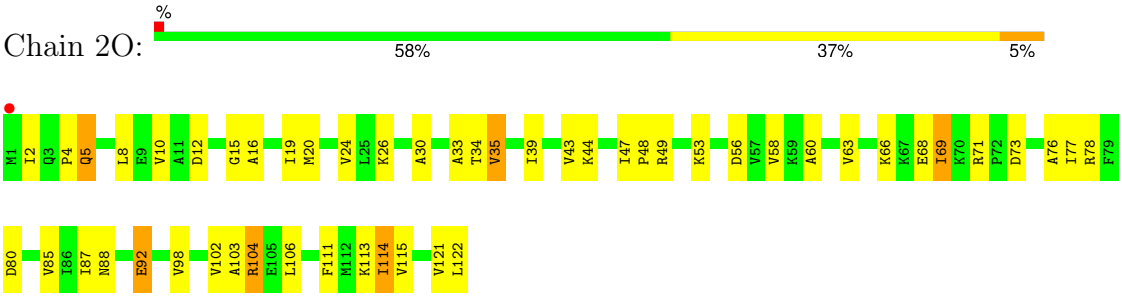
• Molecule 10: 50S ribosomal protein L14

Chain 1O:



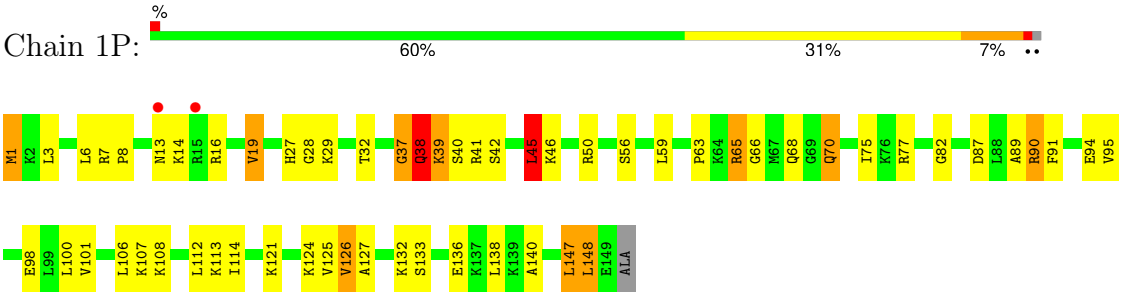
• Molecule 10: 50S ribosomal protein L14

Chain 2O:



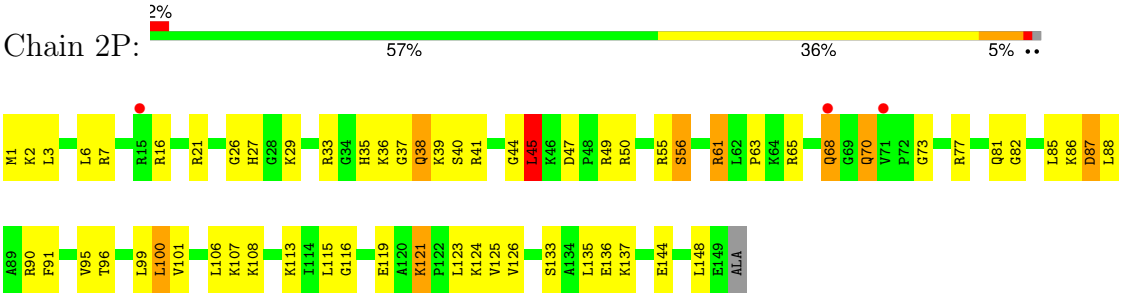
• Molecule 11: 50S ribosomal protein L15

Chain 1P:



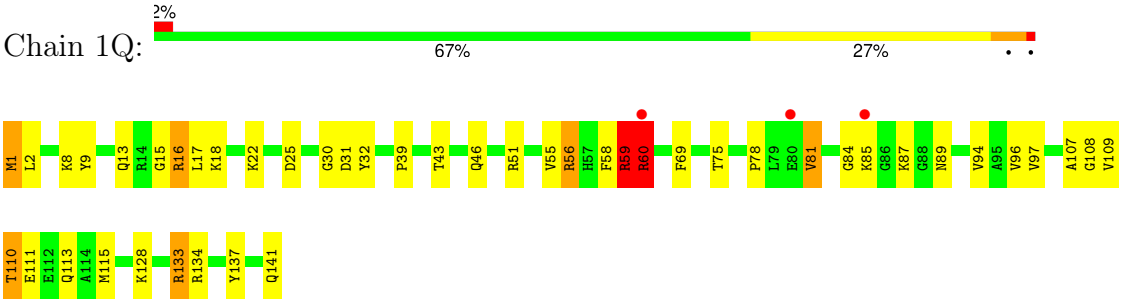
• Molecule 11: 50S ribosomal protein L15

Chain 2P:



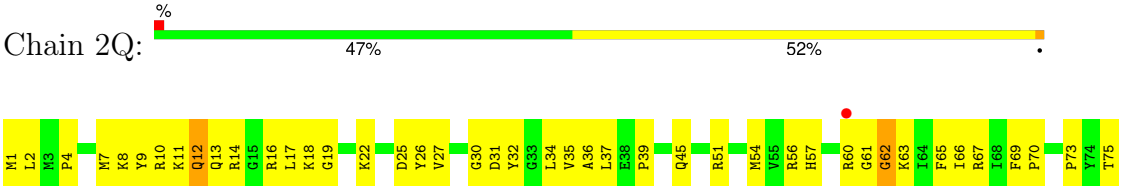
• Molecule 12: 50S ribosomal protein L16

Chain 1Q:



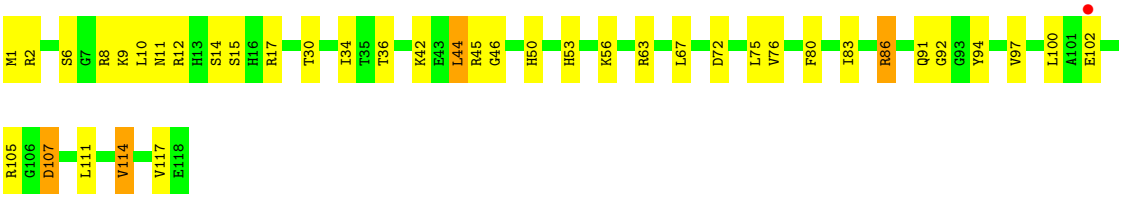
• Molecule 12: 50S ribosomal protein L16

Chain 2Q:



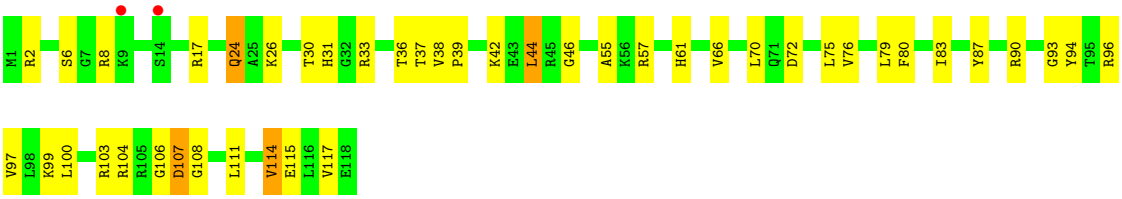
• Molecule 13: 50S ribosomal protein L17

Chain 1R:



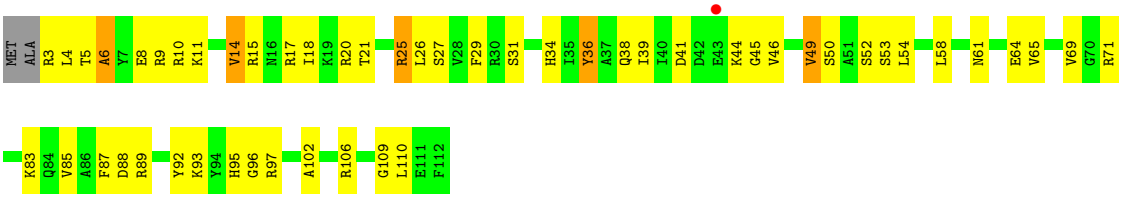
• Molecule 13: 50S ribosomal protein L17

Chain 2R:



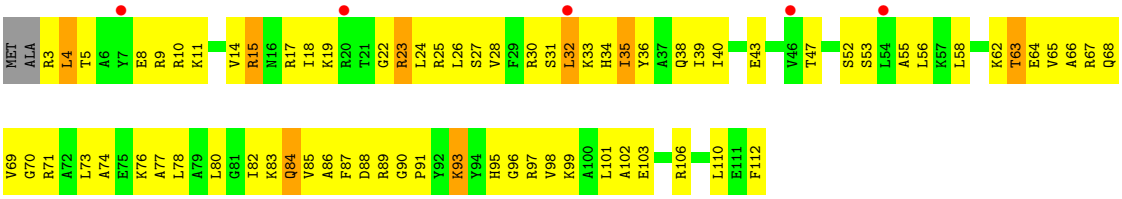
• Molecule 14: 50S ribosomal protein L18

Chain 1S:



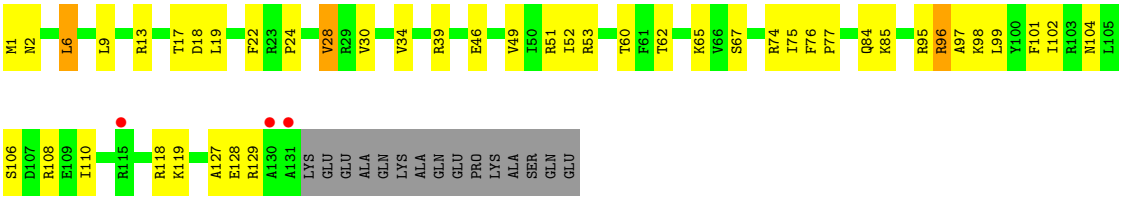
• Molecule 14: 50S ribosomal protein L18

Chain 2S:

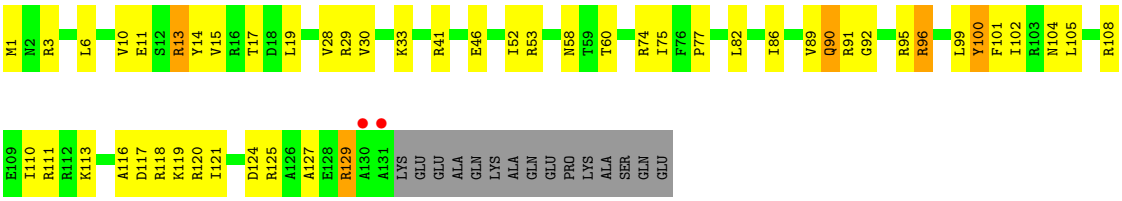


• Molecule 15: 50S ribosomal protein L19

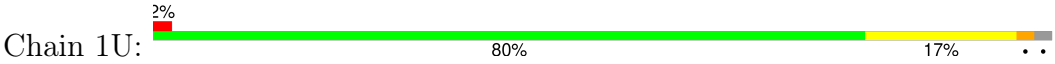
Chain 1T:

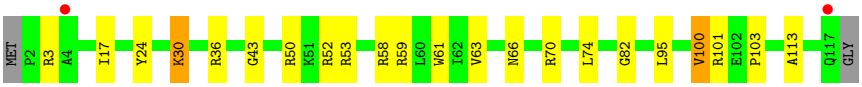


• Molecule 15: 50S ribosomal protein L19

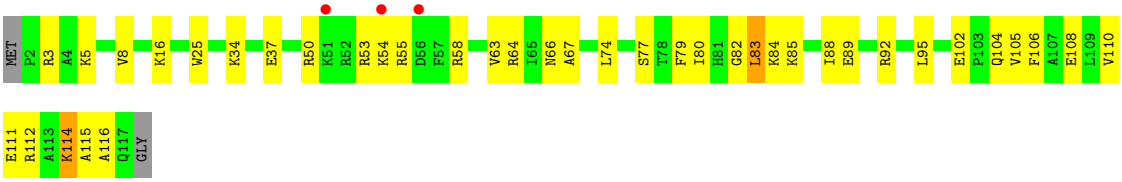


• Molecule 16: 50S ribosomal protein L20

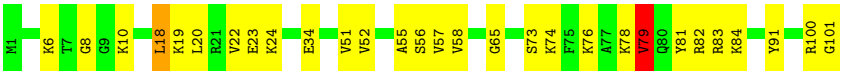




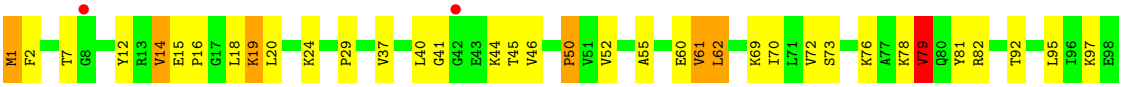
• Molecule 16: 50S ribosomal protein L20



• Molecule 17: 50S ribosomal protein L21

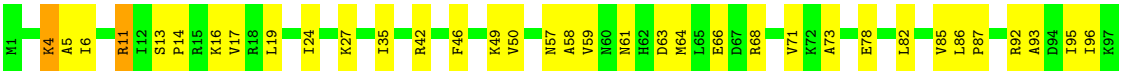


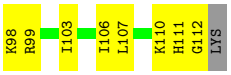
• Molecule 17: 50S ribosomal protein L21



• Molecule 18: 50S ribosomal protein L22

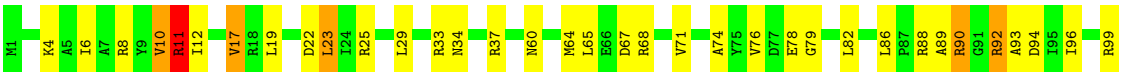
Chain 1W:





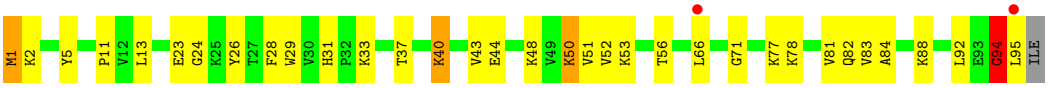
• Molecule 18: 50S ribosomal protein L22

Chain 2W:



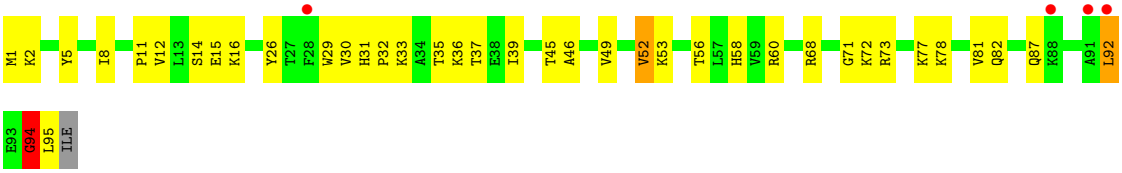
• Molecule 19: 50S ribosomal protein L23

Chain 1X:



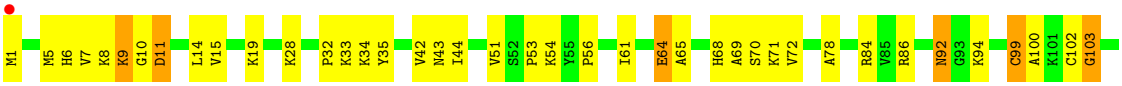
• Molecule 19: 50S ribosomal protein L23

Chain 2X:



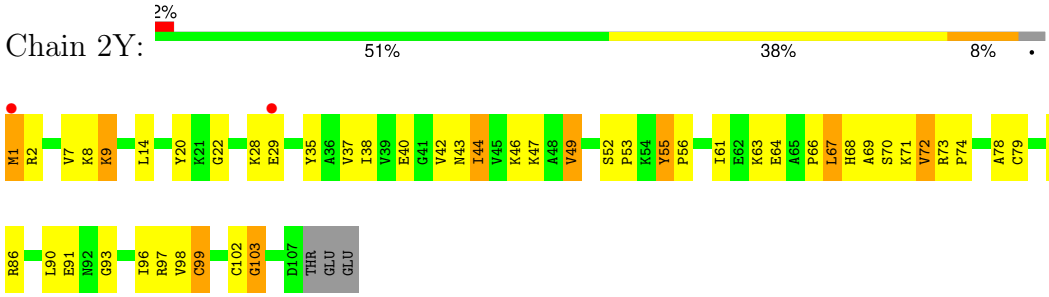
• Molecule 20: 50S ribosomal protein L24

Chain 1Y:



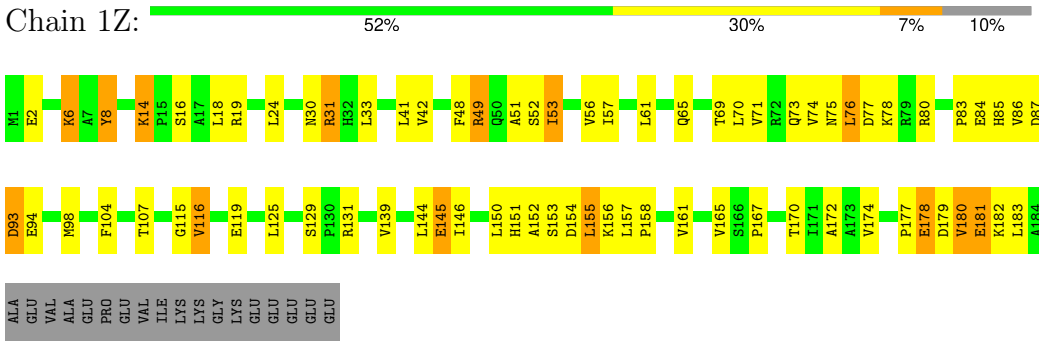
• Molecule 20: 50S ribosomal protein L24

Chain 2Y:



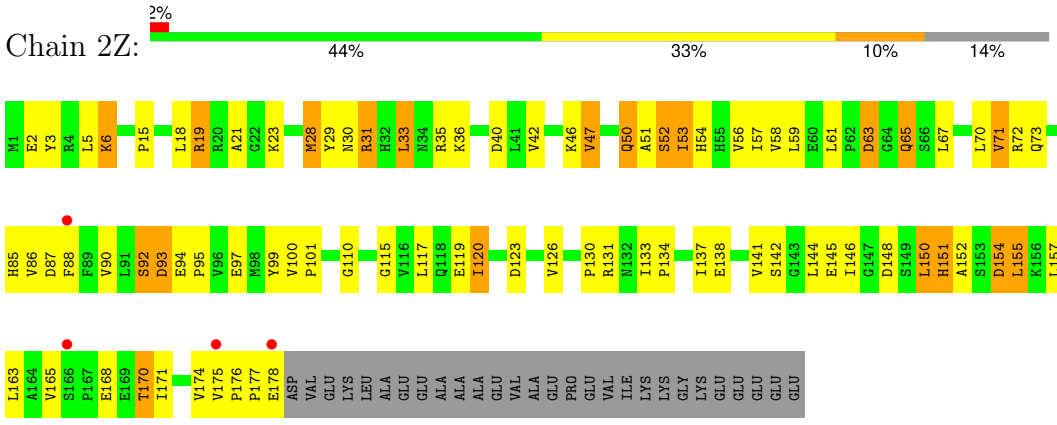
• Molecule 21: 50S ribosomal protein L25

Chain 1Z:



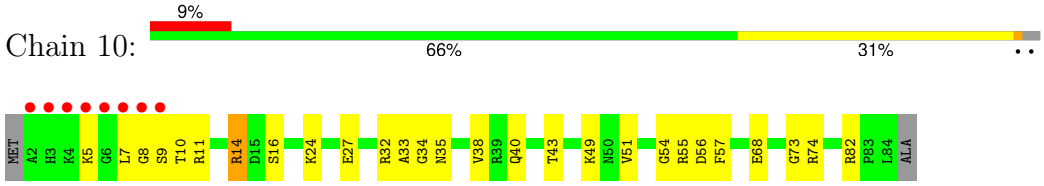
• Molecule 21: 50S ribosomal protein L25

Chain 2Z:



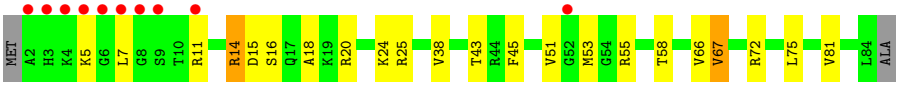
• Molecule 22: 50S ribosomal protein L27

Chain 10:



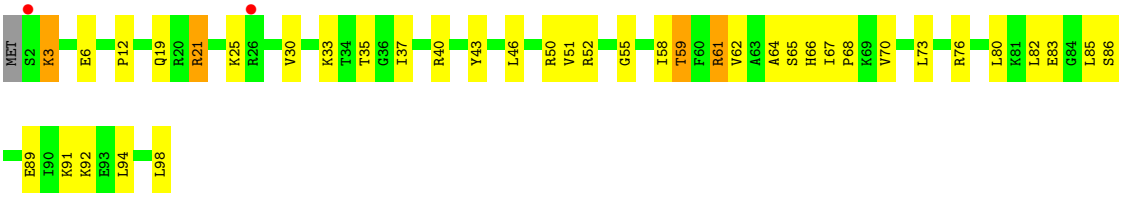
• Molecule 22: 50S ribosomal protein L27

Chain 20:



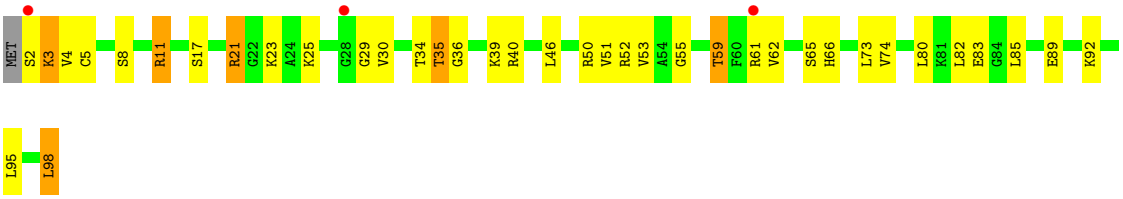
• Molecule 23: 50S ribosomal protein L28

Chain 11:



• Molecule 23: 50S ribosomal protein L28

Chain 21:



• Molecule 24: 50S ribosomal protein L29

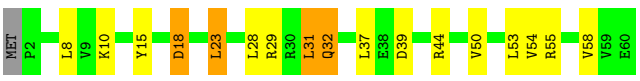
Chain 12:

• Molecule 24: 50S ribosomal protein L29

Chain 22:

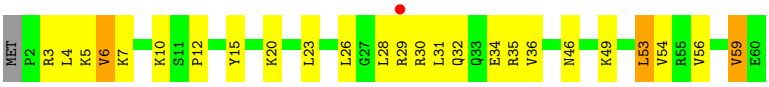
• Molecule 25: 50S ribosomal protein L30

Chain 13:



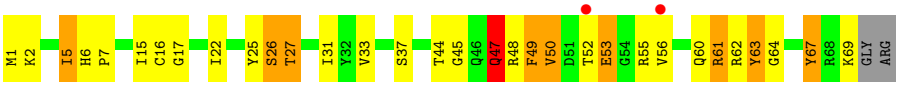
• Molecule 25: 50S ribosomal protein L30

Chain 23:



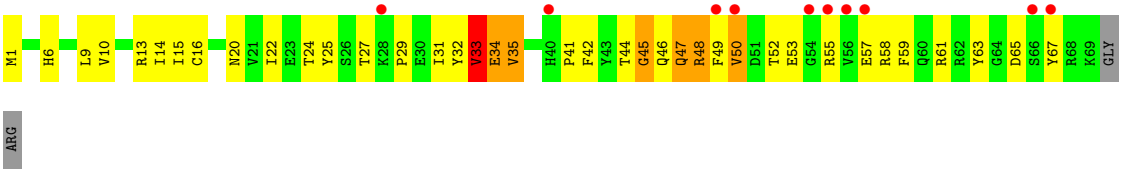
• Molecule 26: 50S ribosomal protein L31

Chain 14:



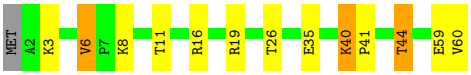
• Molecule 26: 50S ribosomal protein L31

Chain 24:



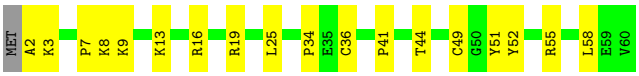
• Molecule 27: 50S ribosomal protein L32

Chain 15:



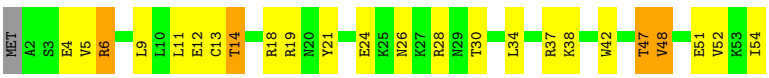
• Molecule 27: 50S ribosomal protein L32

Chain 25:



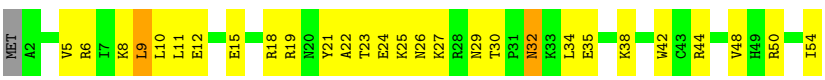
• Molecule 28: 50S ribosomal protein L33

Chain 16:



• Molecule 28: 50S ribosomal protein L33

Chain 26:

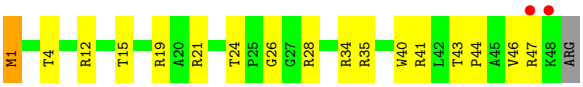


• Molecule 29: 50S ribosomal protein L34

Chain 17:

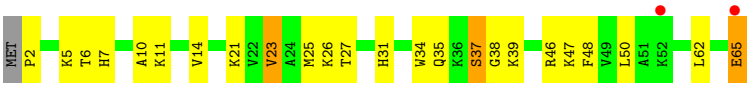
• Molecule 29: 50S ribosomal protein L34

Chain 27:



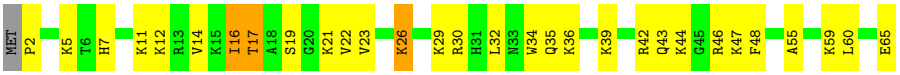
• Molecule 30: 50S ribosomal protein L35

Chain 18:



• Molecule 30: 50S ribosomal protein L35

Chain 28:



• Molecule 31: 50S ribosomal protein L36

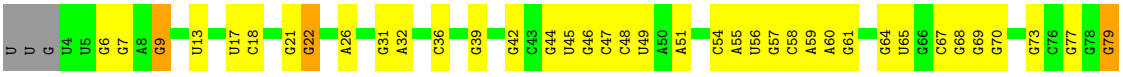
Chain 19:

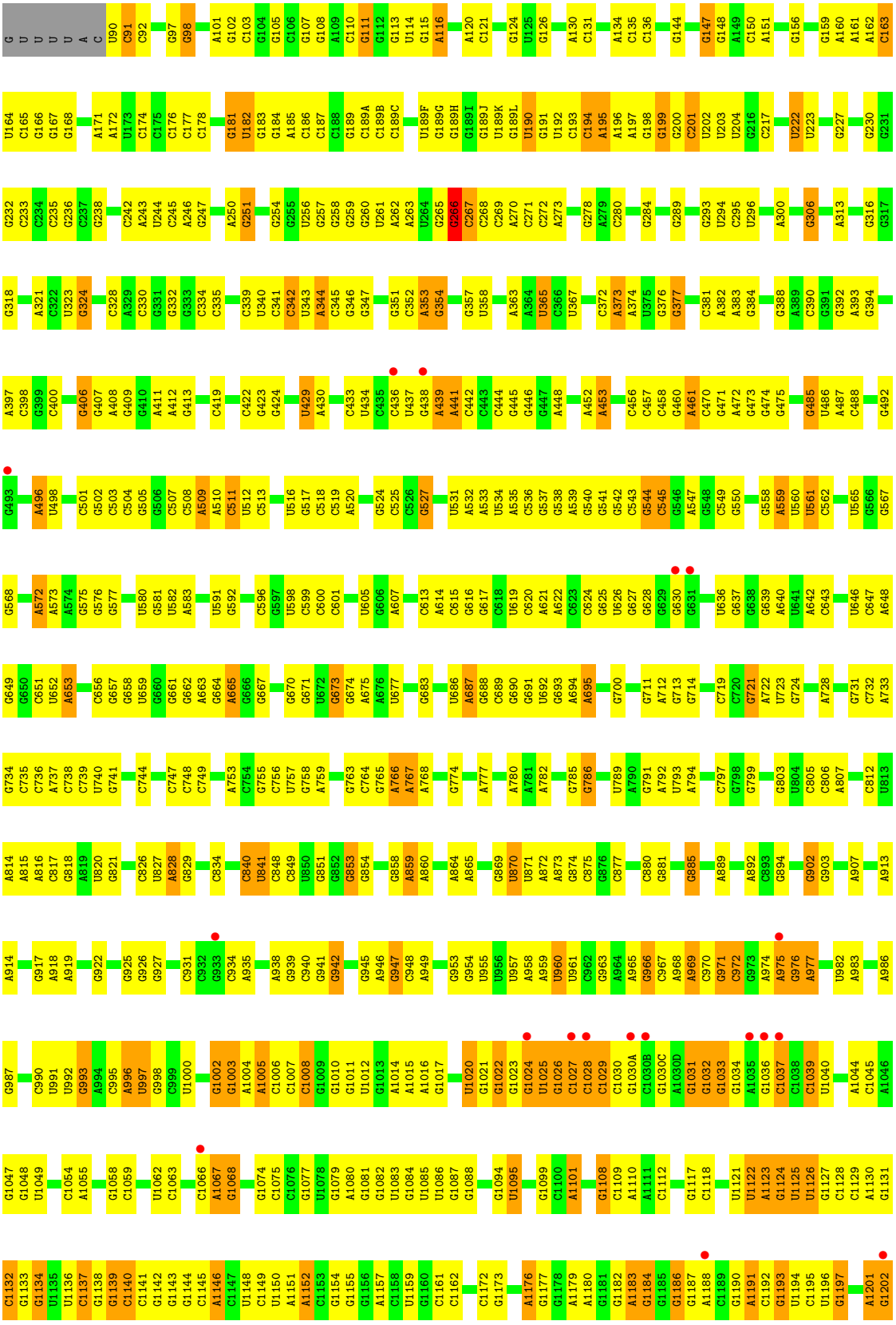
• Molecule 31: 50S ribosomal protein L36

Chain 29:

• Molecule 32: 16S Ribosomal RNA

Chain 1a:

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U164 C165 G166 G167 G168 A171 A172 U173 C174 C175 C176 C177 C178 G181 U182 G183 G184 A185 C186 C187 C188 A189 C189A C189B C189C U189F C189G C189H G189I C189J U189K G189L U190 G191 U192 C193 C194 A195 A196 A197 G198 G199 G200 C201 U202 U203 U204 G216 C217 U222 U223 G227 G230 G231
G232 C233 C234 C235 G236 C237 G238 C242 A243 U244 C245 A246 G247 A250 G251 G254 G255 U256 G257 G258 G259 G260 U261 A262 A263 U264 C265 G266 C267 C268 C269 A270 C271 C272 A273 G278 A279 C280 G284 G289 G293 U294 C295 U296 A300 G306 A313 G316 G317
G318 A321 C322 U323 G324 C328 A329 C330 G331 G332 G333 C334 C335 C339 U340 C341 C342 U343 A344 C345 G346 G347 G351 C352 A353 G354 G357 U358 A363 A364 U365 C366 U367 C372 A373 A374 U375 G376 G377 C381 A382 A383 G384 G388 A389 C390 G391 G392 A393 G394
A397 C398 G399 C400 G406 G407 A408 G409 G410 A411 A412 G413 C419 C422 G423 G424 U429 A430 C433 U434 C435 C436 U437 G438 A439 A441 C442 C443 C444 G445 G446 G447 A448 A452 A453 C456 C457 C458 G460 A461 C470 G471 A472 G473 G474 G475 G485 U486 A487 C488 G492
G493 A496 U498 C501 G502 C503 C504 G505 G506 C507 C508 A509 A510 C511 U512 C513 U516 G517 C518 C519 A520 G524 C525 C526 G527 U531 A532 A533 U534 A535 C536 G537 G538 A539 G540 G541 G542 C543 G544 C545 G546 A547 G548 C549 G550 G558 A559 U560 U561 C562 U565 G566 G567
G568 A572 A573 A574 G575 G576 G577 U580 G581 U582 A583 U591 G592 C596 G597 U598 C599 C600 C601 U605 G606 A607 C613 A614 C615 G616 G617 C618 U619 C620 A621 A622 C623 C624 G625 U626 G627 G628 G629 G630 G631 U636 G637 G638 G639 A640 U641 A642 C643 U646 C647 A648
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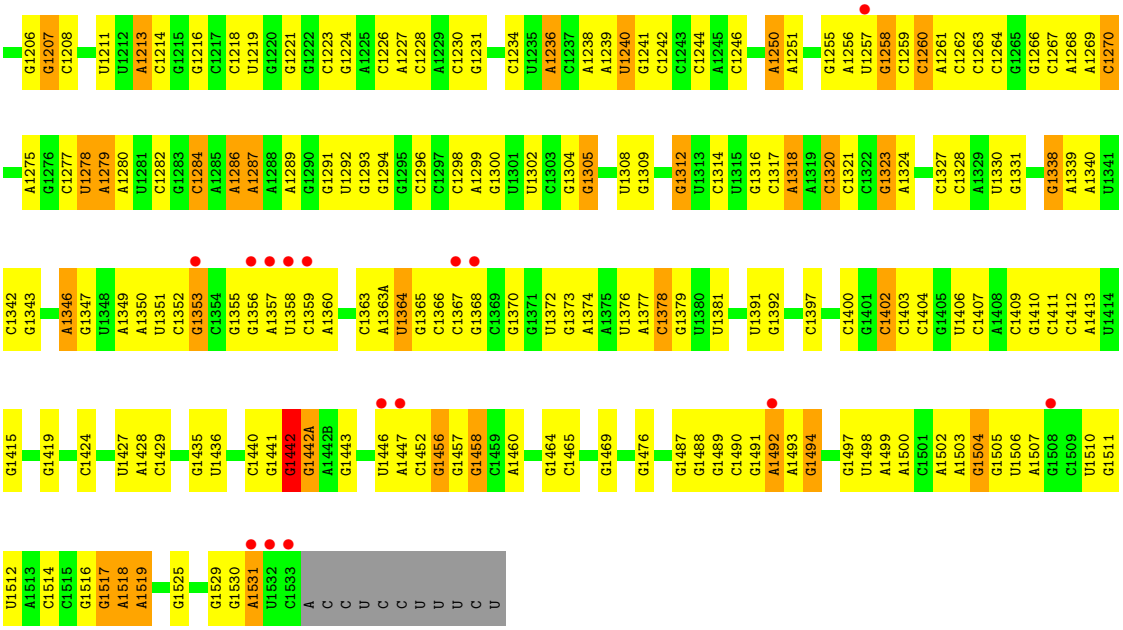
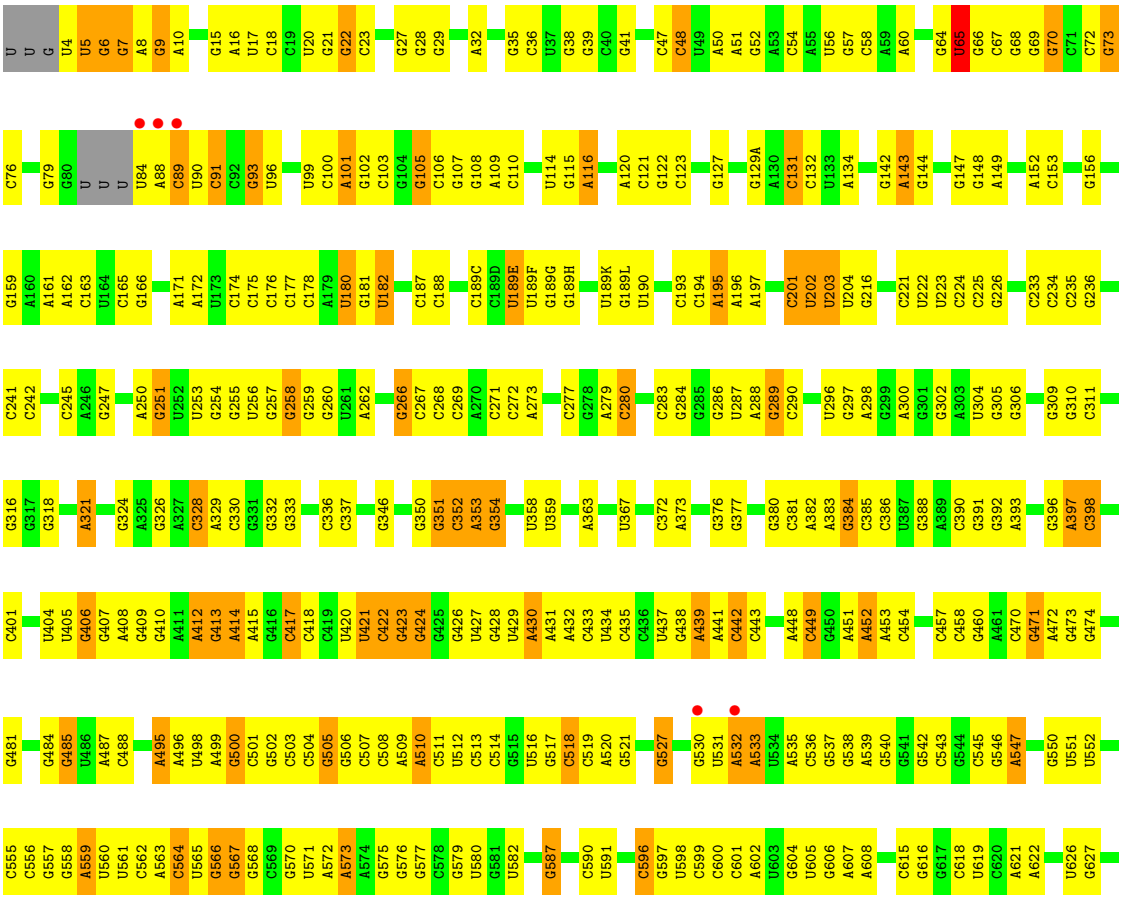
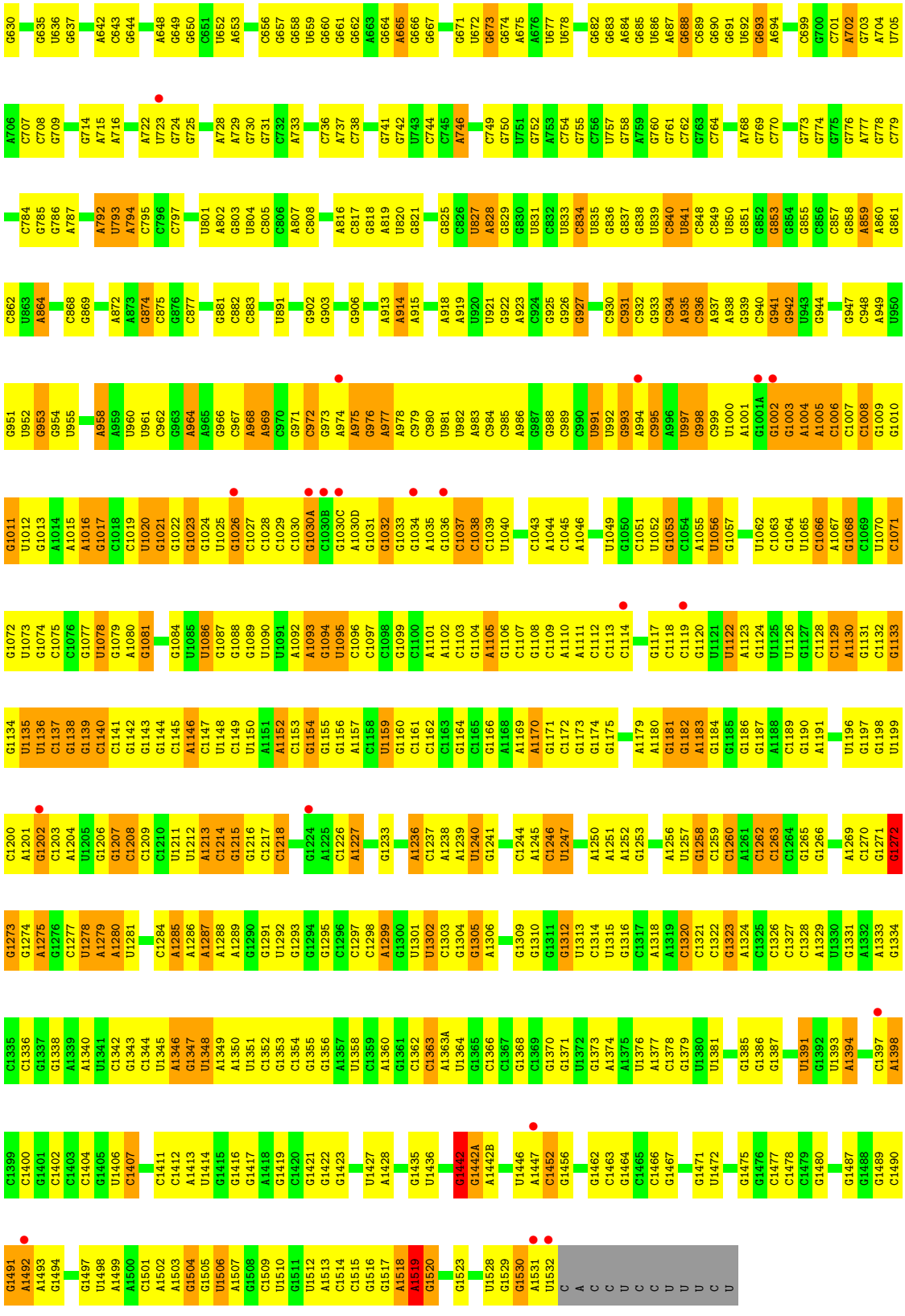
G987 C990 U991 U992 G993 A994 C995 A996 U997 G998 C999 U1000 G1002 G1003 A1004 A1005 C1006 C1007 C1008 G1009 G1010 G1011 U1012 G1013 A1014 A1015 A1016 G1017 U1020 G1021 G1022 G1023 G1024 U1025 G1026 C1027 C1028 C1029 C1030 G1030A C1030B G1030C A1030D G1031 G1032 G1033 G1034 A1035 G1036 C1037 C1038 C1039 U1040 A1044 C1045 A1046
G1047 G1048 U1049 C1054 A1055 G1058 C1059 U1062 C1063 C1066 A1067 G1068 G1074 C1075 C1076 G1077 U1078 G1079 A1080 G1081 G1082 U1083 G1084 U1085 U1086 G1087 G1088 G1094 U1095 G1099 C1100 A1101 G1108 C1109 A1110 A1111 C1112 G1117 C1118 U1121 U1122 A1123 G1124 U1125 U1126 G1127 C1128 C1129 A1130 G1131
C1132 G1133 G1134 U1135 U1136 C1137 G1138 G1139 C1140 C1141 G1142 G1143 G1144 C1145 A1146 C1147 U1148 C1149 U1150 A1151 A1152 C1153 G1154 G1155 G1156 A1157 C1158 U1159 G1160 C1161 C1162 C1172 G1173 A1176 G1177 G1178 A1179 A1180 G1181 G1182 A1183 G1184 G1185 G1186 G1187 A1188 C1189 G1190 A1191 C1192 G1193 U1194 C1195 U1196 G1197 A1201 G1202



• Molecule 32: 16S Ribosomal RNA

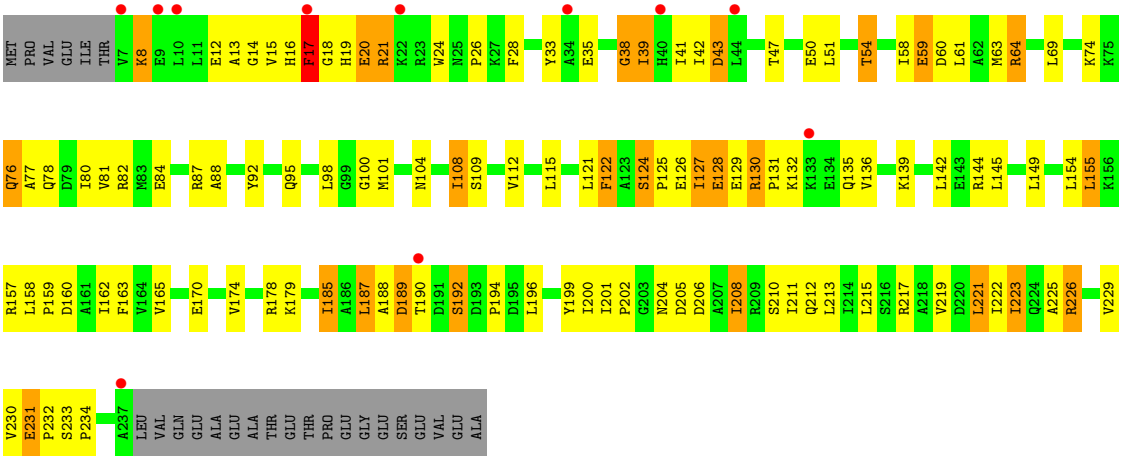
Chain 2a:





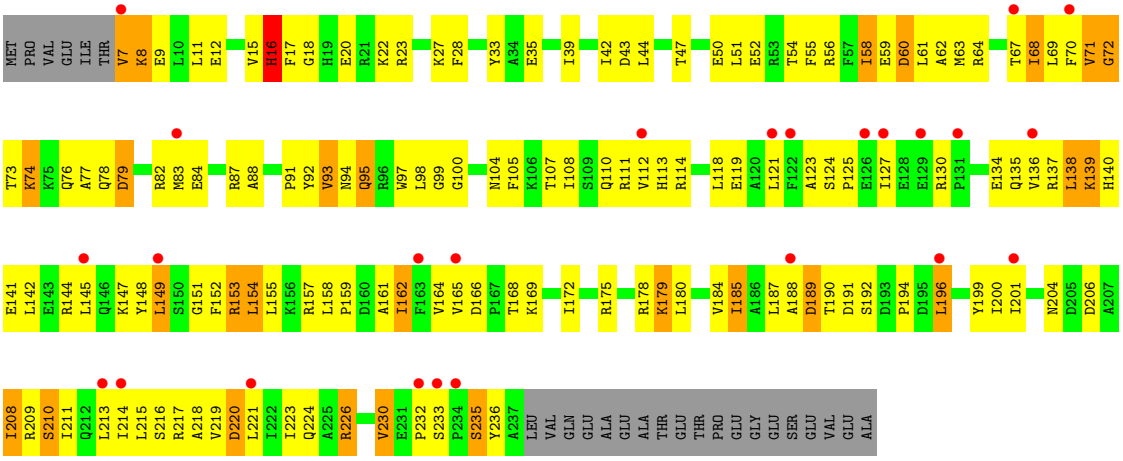
• Molecule 33: 30S ribosomal protein S2

Chain 1b:



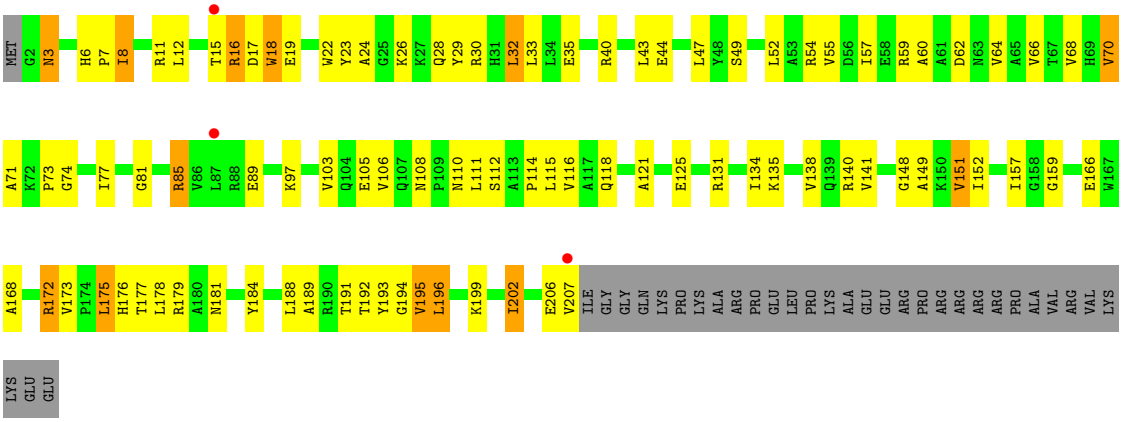
• Molecule 33: 30S ribosomal protein S2

Chain 2b:



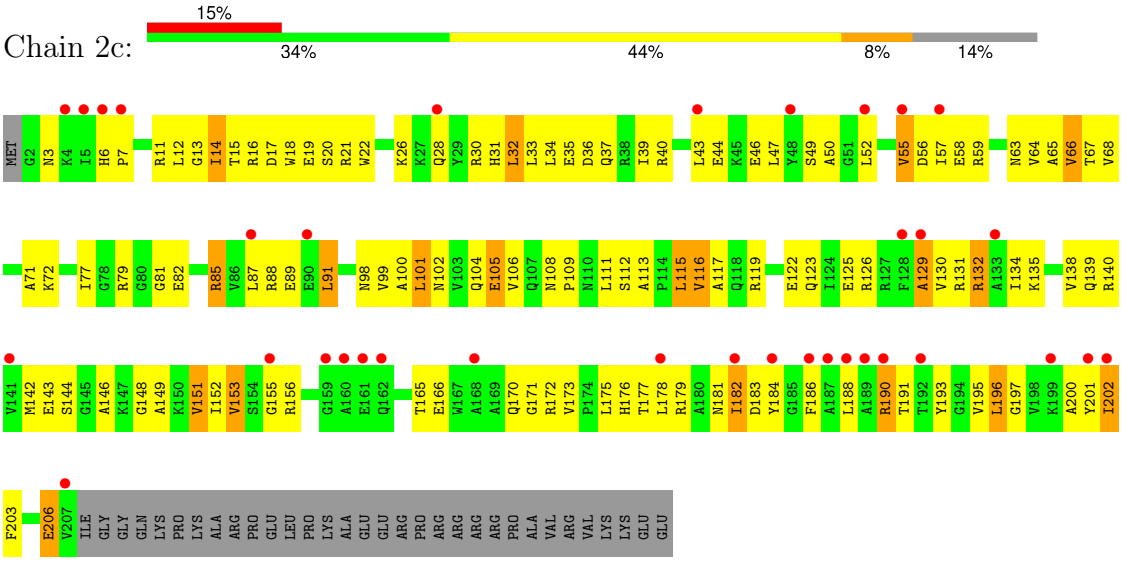
• Molecule 34: 30S ribosomal protein S3

Chain 1c:



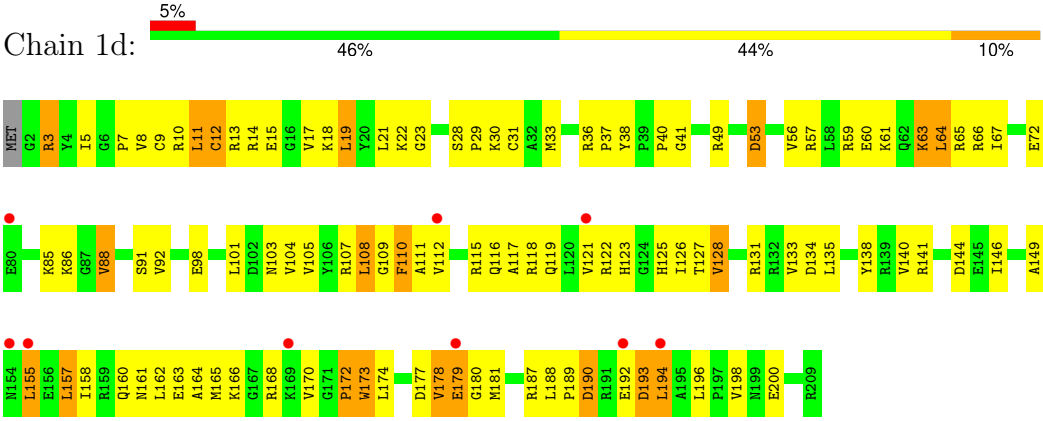
• Molecule 34: 30S ribosomal protein S3

Chain 2c:



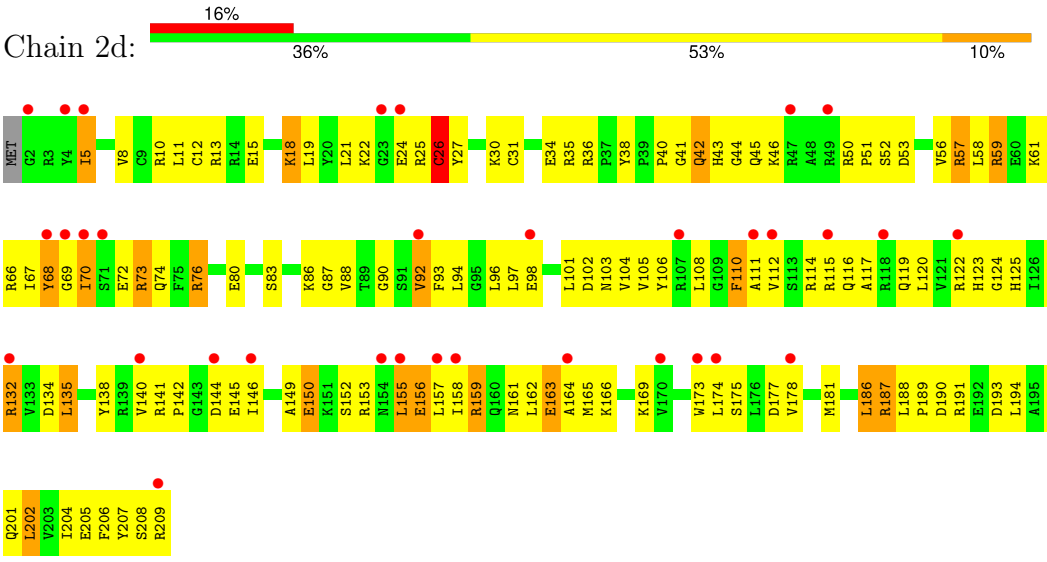
• Molecule 35: 30S ribosomal protein S4

Chain 1d:



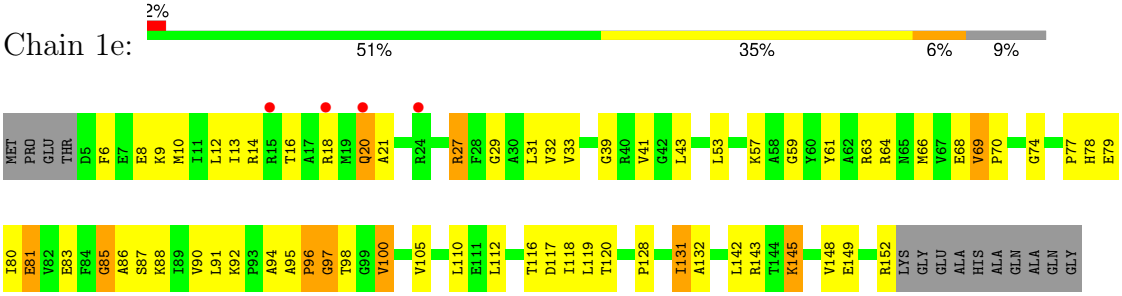
• Molecule 35: 30S ribosomal protein S4

Chain 2d:



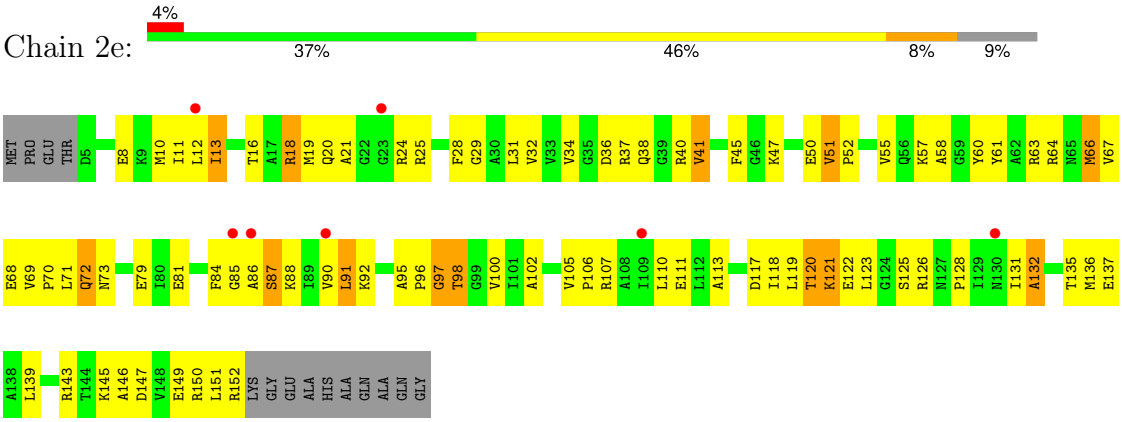
• Molecule 36: 30S ribosomal protein S5

Chain 1e:



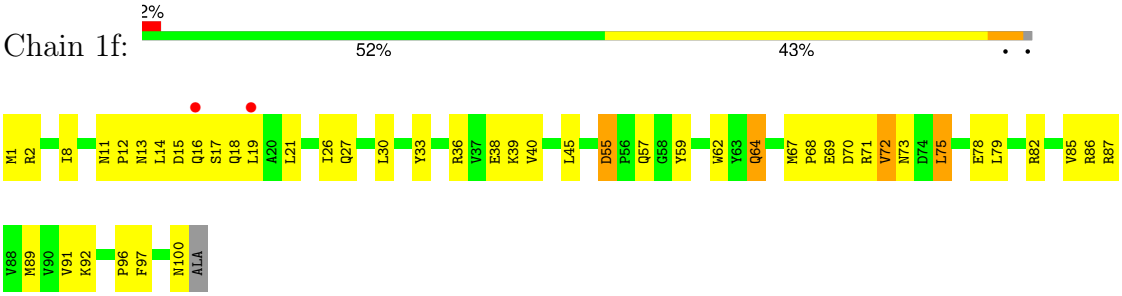
• Molecule 36: 30S ribosomal protein S5

Chain 2e:



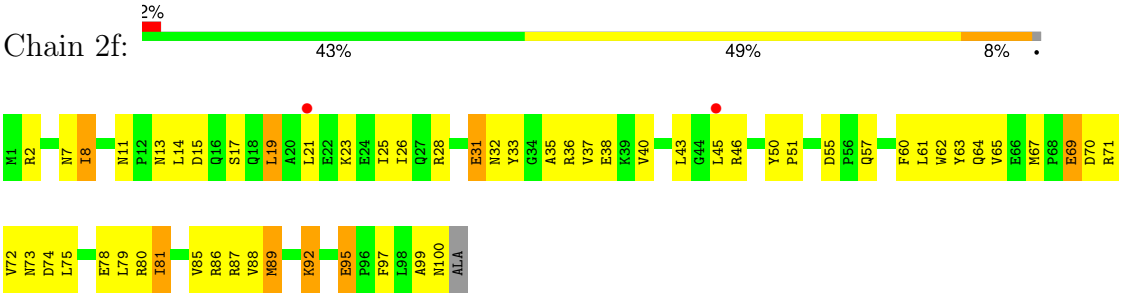
• Molecule 37: 30S ribosomal protein S6

Chain 1f:



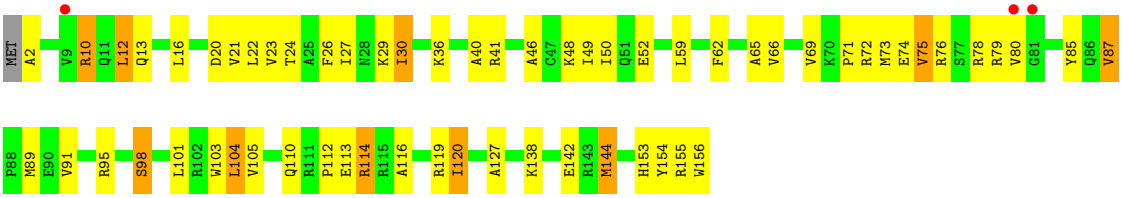
• Molecule 37: 30S ribosomal protein S6

Chain 2f:



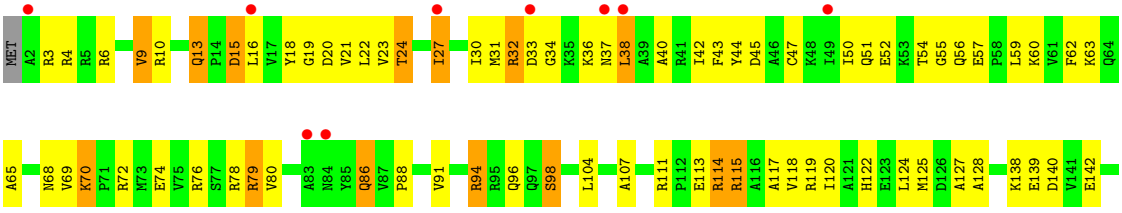
• Molecule 38: 30S ribosomal protein S7

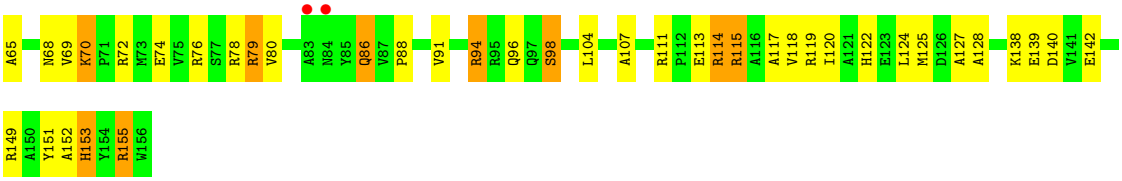
Chain 1g:



• Molecule 38: 30S ribosomal protein S7

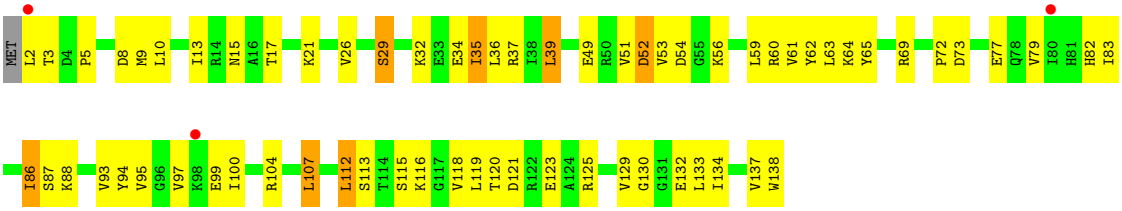
Chain 2g:





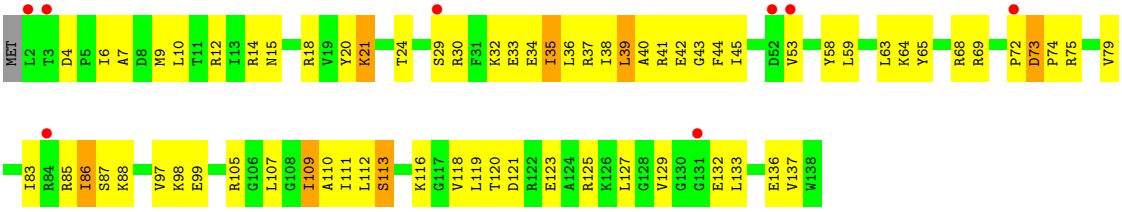
• Molecule 39: 30S ribosomal protein S8

Chain 1h:



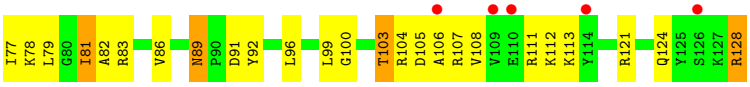
• Molecule 39: 30S ribosomal protein S8

Chain 2h:

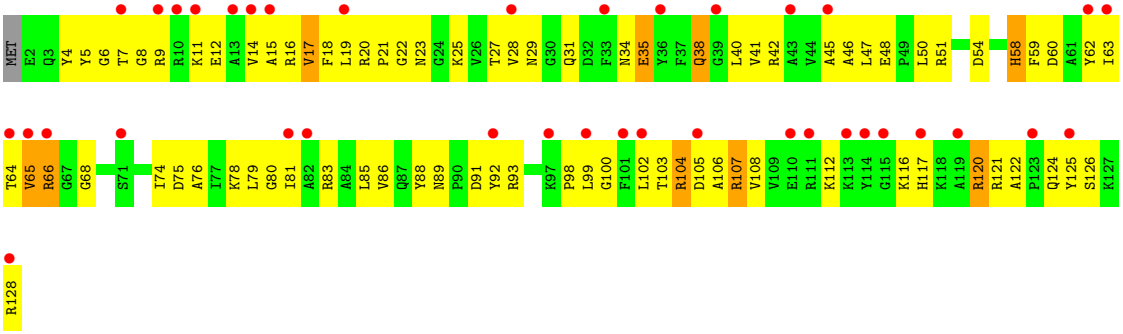


• Molecule 40: 30S ribosomal protein S9

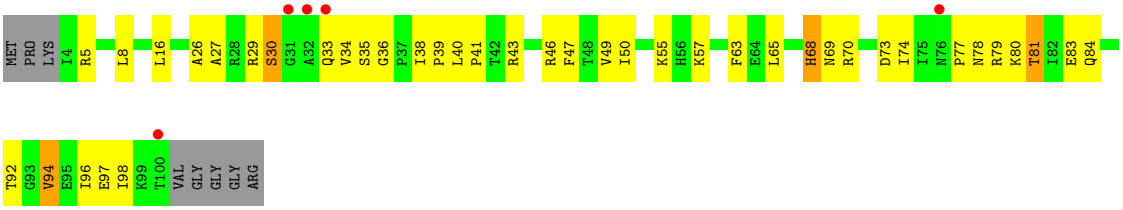
Chain 1i:



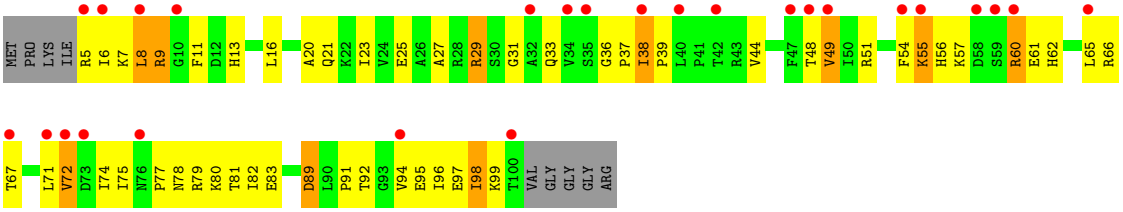
• Molecule 40: 30S ribosomal protein S9



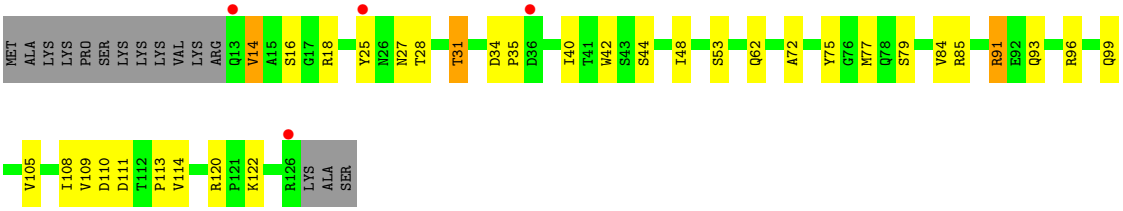
• Molecule 41: 30S ribosomal protein S10



• Molecule 41: 30S ribosomal protein S10

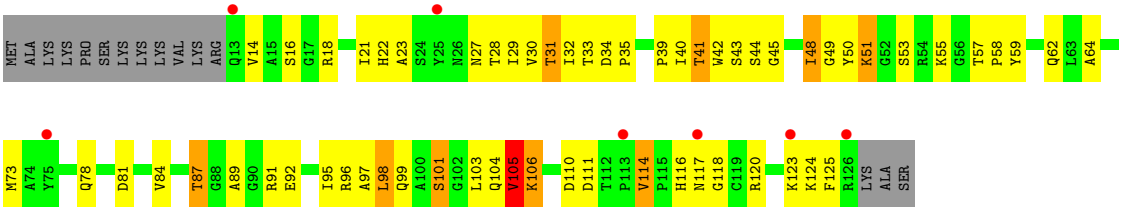


• Molecule 42: 30S ribosomal protein S11



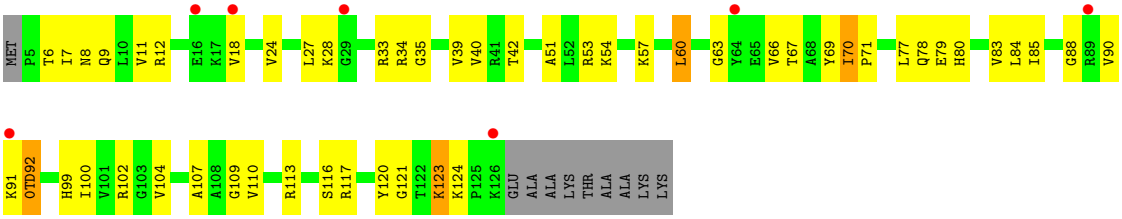
• Molecule 42: 30S ribosomal protein S11

Chain 2k:



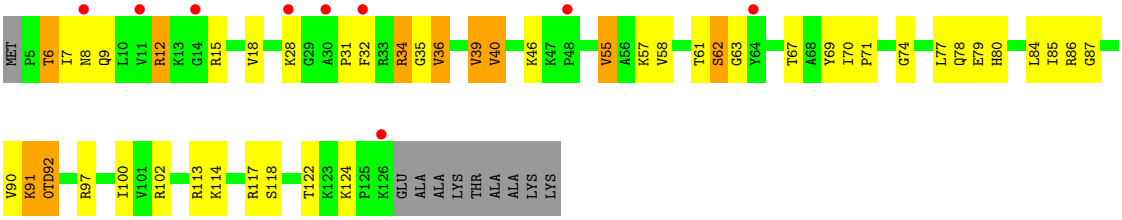
• Molecule 43: 30S ribosomal protein S12

Chain 1l:



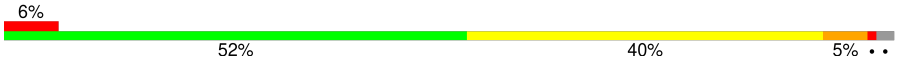
• Molecule 43: 30S ribosomal protein S12

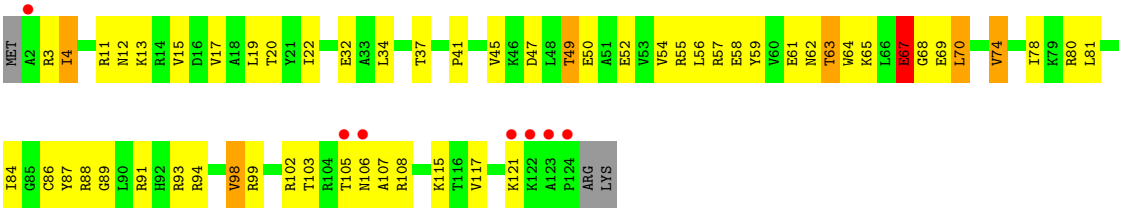
Chain 2l:



• Molecule 44: 30S ribosomal protein S13

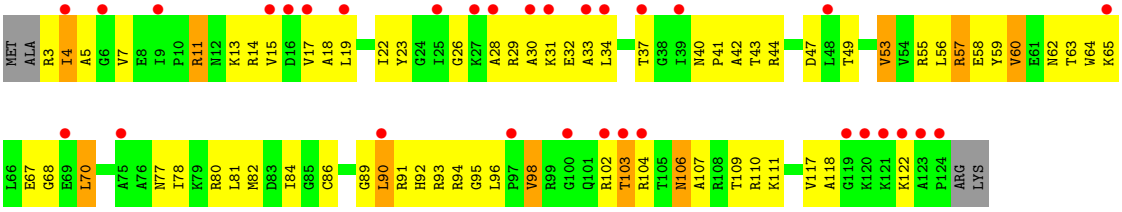
Chain 1m:



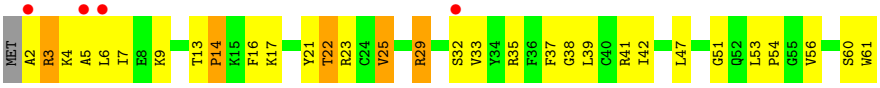


• Molecule 44: 30S ribosomal protein S13

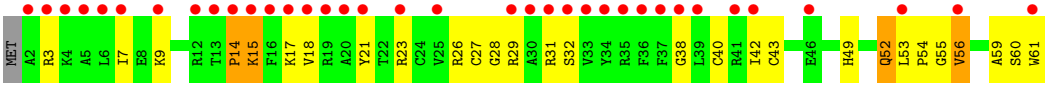
Chain 2m:



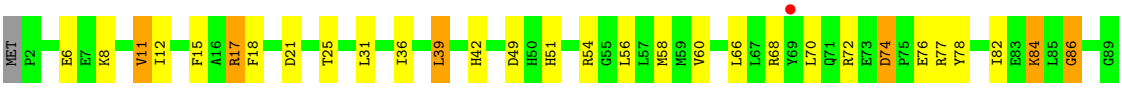
• Molecule 45: 30S ribosomal protein S14 type Z



• Molecule 45: 30S ribosomal protein S14 type Z

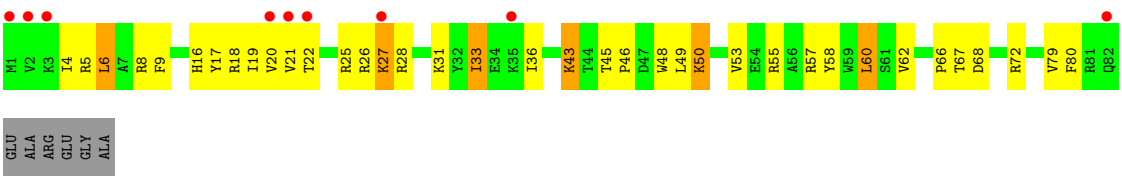


• Molecule 46: 30S ribosomal protein S15

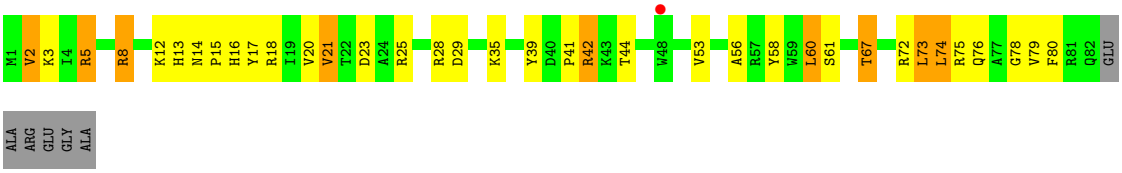


• Molecule 46: 30S ribosomal protein S15

• Molecule 47: 30S ribosomal protein S16

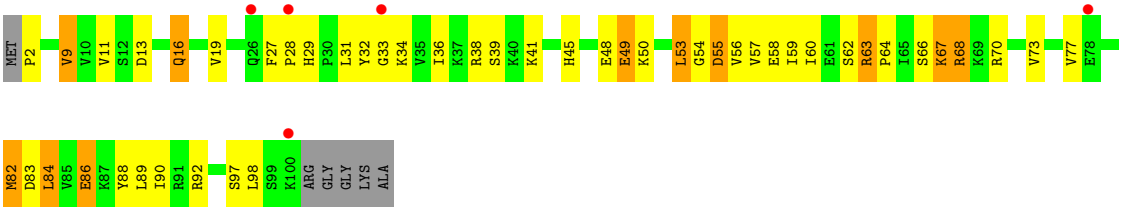


• Molecule 47: 30S ribosomal protein S16



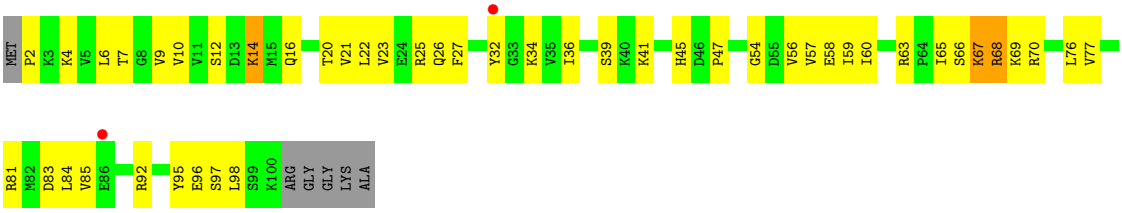
• Molecule 48: 30S ribosomal protein S17

Chain 1q:



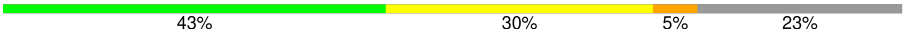
• Molecule 48: 30S ribosomal protein S17

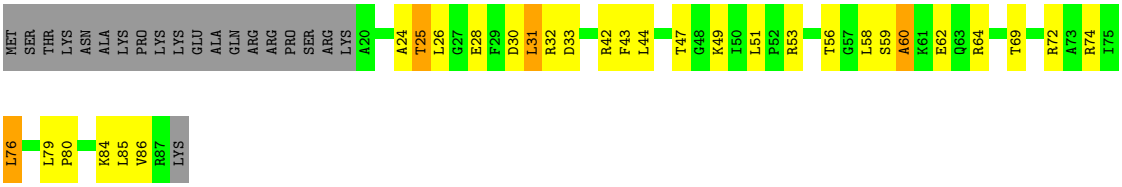
Chain 2q:



• Molecule 49: 30S ribosomal protein S18

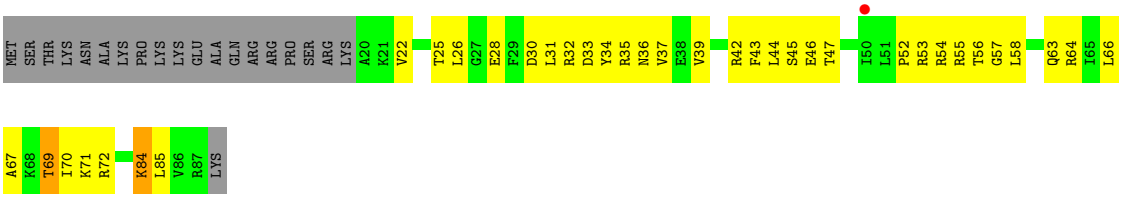
Chain 1r:





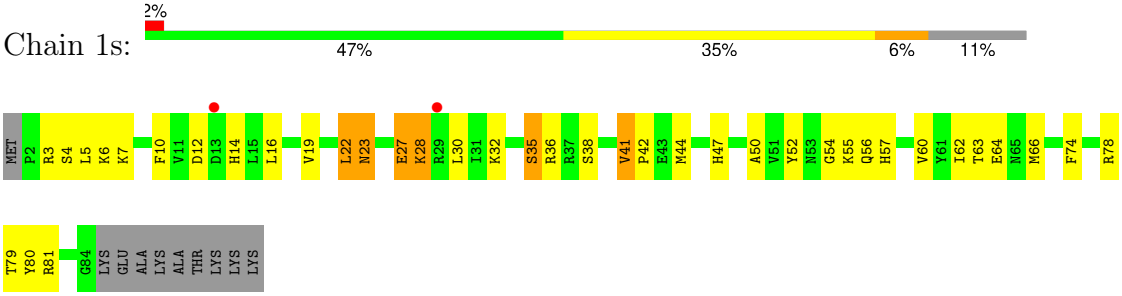
• Molecule 49: 30S ribosomal protein S18

Chain 2r:



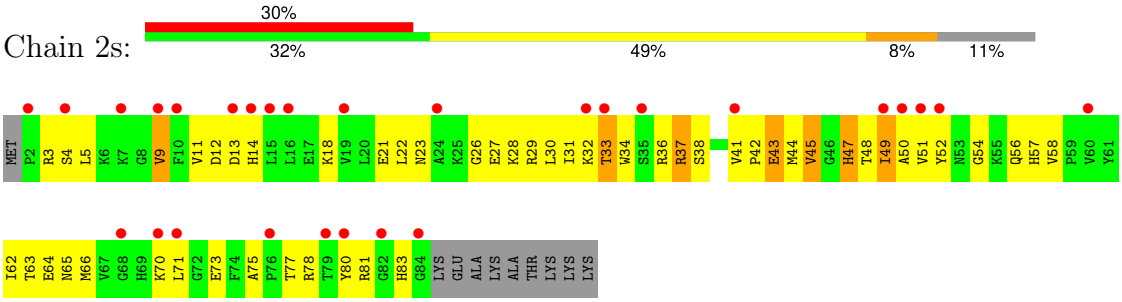
• Molecule 50: 30S ribosomal protein S19

Chain 1s:



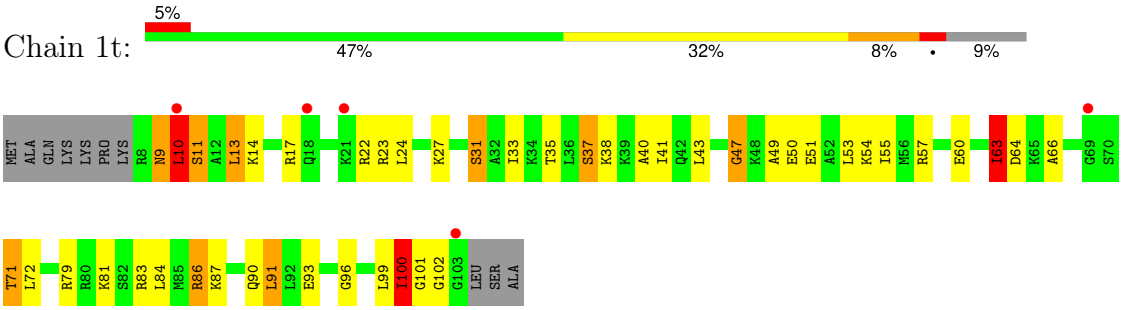
• Molecule 50: 30S ribosomal protein S19

Chain 2s:



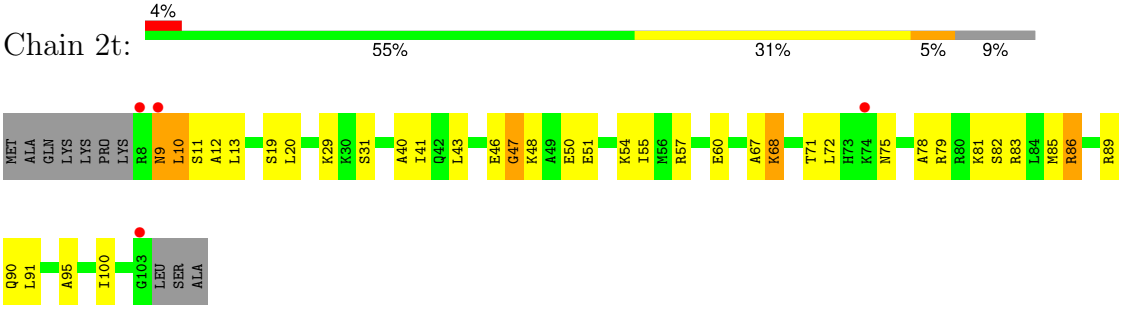
• Molecule 51: 30S ribosomal protein S20

Chain 1t:



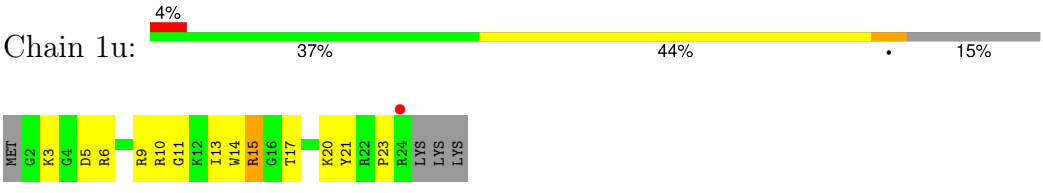
• Molecule 51: 30S ribosomal protein S20

Chain 2t:



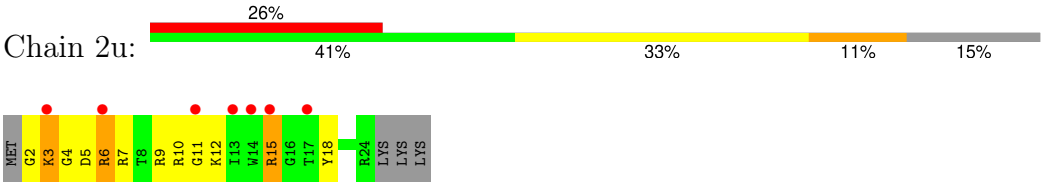
• Molecule 52: 30S ribosomal protein Thx

Chain 1u:



• Molecule 52: 30S ribosomal protein Thx

Chain 2u:



• Molecule 53: MET-PHE-mRNA

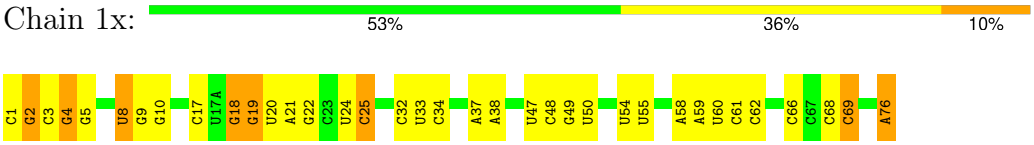
Chain 1v:

• Molecule 53: MET-PHE-mRNA

Chain 2v:

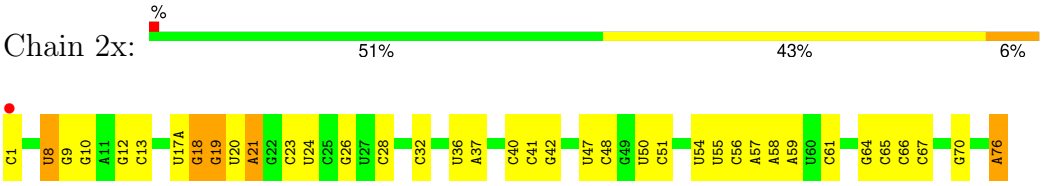
• Molecule 54: P-site Aminoacylated tRNAmet

Chain 1x:



• Molecule 54: P-site Aminoacylated tRNAmet

Chain 2x:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	209.52Å 449.29Å 620.94Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	173.67 – 2.95 173.67 – 2.95	Depositor EDS
% Data completeness (in resolution range)	99.9 (173.67-2.95) 99.9 (173.67-2.95)	Depositor EDS
R_{merge}	0.25	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.28 (at 2.96Å)	Xtriage
Refinement program	PHENIX 1.8.2	Depositor
R, R_{free}	0.208 , 0.265 0.207 , 0.262	Depositor DCC
R_{free} test set	60824 reflections (5.01%)	wwPDB-VP
Wilson B-factor (Å^2)	67.6	Xtriage
Anisotropy	0.330	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.28 , 51.6	EDS
L-test for twinning[2]	$< \|L\| > = 0.42$, $< L^2 > = 0.24$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.92	EDS
Total number of atoms	293578	wwPDB-VP
Average B, all atoms (Å^2)	65.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.47% 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: 4SU, ZN, MA6, M2G, PSU, MG, UR3, SF4, 0TD, 2MG, 2MA, 5MU, G7M, 5MC, SPS, 8AN, FME, 4OC, OMC, OMU, K, OMG

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	0.58	0/69011	0.71	4/107720 (0.0%)
1	2A	0.44	0/67295	0.63	4/105042 (0.0%)
2	1B	0.44	0/2882	0.67	0/4494
2	2B	0.44	0/2879	0.64	0/4487
3	1D	0.57	0/2186	0.78	3/2944 (0.1%)
3	2D	0.45	0/2186	0.67	0/2944
4	1E	0.52	0/1592	0.75	0/2149
4	2E	0.40	0/1592	0.64	0/2149
5	1F	0.53	0/1618	0.71	2/2191 (0.1%)
5	2F	0.41	0/1614	0.65	2/2186 (0.1%)
6	1G	0.43	0/1448	0.72	2/1957 (0.1%)
6	2G	0.47	0/1453	0.68	0/1963
7	1H	0.43	0/1356	0.62	0/1834
7	2H	0.43	0/1356	0.56	0/1834
8	1I	0.47	0/1112	0.74	0/1514
8	2I	0.40	0/1079	0.65	1/1475 (0.1%)
9	1N	0.54	0/1144	0.72	0/1543
9	2N	0.53	0/1144	0.71	4/1543 (0.3%)
10	1O	0.50	0/943	0.68	0/1269
10	2O	0.44	0/943	0.66	0/1269
11	1P	0.53	0/1152	0.77	0/1533
11	2P	0.44	0/1152	0.73	3/1533 (0.2%)
12	1Q	0.58	0/1143	0.80	3/1527 (0.2%)
12	2Q	0.47	0/1143	0.73	1/1527 (0.1%)
13	1R	0.52	0/982	0.74	0/1312
13	2R	0.42	0/982	0.61	0/1312
14	1S	0.43	0/883	0.67	0/1176
14	2S	0.47	0/880	0.71	0/1172
15	1T	0.47	0/1105	0.69	0/1477
15	2T	0.44	0/1097	0.62	0/1468
16	1U	0.59	0/977	0.69	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
16	2U	0.42	0/977	0.59	0/1301
17	1V	0.50	0/782	0.70	0/1049
17	2V	0.43	0/782	0.63	0/1049
18	1W	0.58	0/897	0.70	0/1205
18	2W	0.44	0/897	0.61	0/1205
19	1X	0.51	0/764	0.73	2/1025 (0.2%)
19	2X	0.41	0/764	0.64	2/1025 (0.2%)
20	1Y	0.48	0/819	0.69	0/1095
20	2Y	0.42	0/819	0.66	0/1095
21	1Z	0.45	0/1493	0.66	0/2029
21	2Z	0.43	0/1422	0.62	0/1936
22	10	0.50	0/662	0.76	0/881
22	20	0.46	0/662	0.70	0/881
23	11	0.56	0/762	0.65	0/1014
23	21	0.46	0/762	0.72	3/1014 (0.3%)
24	12	0.50	0/590	0.71	0/781
24	22	0.42	0/590	0.59	0/781
25	13	0.55	0/474	0.68	0/635
25	23	0.39	0/469	0.65	0/630
26	14	0.47	0/565	0.76	0/761
26	24	0.52	0/545	0.68	0/737
27	15	0.55	0/469	0.71	0/635
27	25	0.47	0/469	0.64	0/635
28	16	0.51	0/460	0.71	0/613
28	26	0.42	0/456	0.64	0/608
29	17	0.59	0/426	0.77	0/561
29	27	0.50	0/426	0.73	0/561
30	18	0.59	0/525	0.69	0/691
30	28	0.44	0/525	0.68	0/691
31	19	0.56	0/310	0.79	1/407 (0.2%)
31	29	0.37	0/310	0.65	0/407
32	1a	0.41	0/35795	0.60	3/55864 (0.0%)
32	2a	0.40	1/35886 (0.0%)	0.57	4/56005 (0.0%)
33	1b	0.44	0/1881	0.68	1/2542 (0.0%)
33	2b	0.55	0/1860	0.74	0/2518
34	1c	0.43	0/1572	0.63	0/2126
34	2c	0.48	0/1566	0.64	1/2119 (0.0%)
35	1d	0.41	0/1685	0.67	0/2262
35	2d	0.45	0/1704	0.69	1/2284 (0.0%)
36	1e	0.42	0/1145	0.67	0/1543
36	2e	0.44	0/1149	0.66	0/1548
37	1f	0.41	0/823	0.65	0/1115
37	2f	0.39	0/829	0.64	1/1123 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	1g	0.39	0/1250	0.59	0/1679
38	2g	0.44	0/1254	0.62	0/1683
39	1h	0.38	0/1108	0.60	0/1494
39	2h	0.41	0/1108	0.61	0/1494
40	1i	0.39	0/1002	0.66	0/1346
40	2i	0.47	0/997	0.63	0/1343
41	1j	0.44	0/722	0.67	0/982
41	2j	0.51	0/727	0.65	0/988
42	1k	0.40	0/844	0.65	0/1145
42	2k	0.36	0/848	0.55	0/1149
43	1l	0.42	0/937	0.63	0/1260
43	2l	0.42	0/937	0.64	0/1260
44	1m	0.42	0/969	0.63	0/1302
44	2m	0.49	0/961	0.65	0/1291
45	1n	0.46	0/501	0.67	0/664
45	2n	0.44	0/501	0.65	0/664
46	1o	0.41	0/739	0.62	0/985
46	2o	0.38	0/739	0.61	0/985
47	1p	0.38	0/697	0.66	0/939
47	2p	0.40	0/693	0.63	0/935
48	1q	0.44	0/836	0.66	0/1117
48	2q	0.41	0/836	0.60	0/1117
49	1r	0.41	0/560	0.62	0/746
49	2r	0.40	0/560	0.59	0/746
50	1s	0.42	0/667	0.69	0/900
50	2s	0.49	0/661	0.71	0/893
51	1t	0.41	0/730	0.69	0/965
51	2t	0.39	0/729	0.64	0/965
52	1u	0.43	0/203	0.71	0/266
52	2u	0.38	0/203	0.61	0/266
53	1v	0.56	0/122	0.63	0/188
53	2v	0.62	0/194	0.69	0/300
54	1x	0.45	0/1723	0.64	0/2684
54	2x	0.45	1/1723 (0.1%)	0.60	0/2684
All	All	0.47	2/310378 (0.0%)	0.65	48/464257 (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
9	1N	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
11	2P	0	1
12	1Q	0	2
14	1S	0	1
25	23	0	1
26	14	0	1
29	27	0	1
33	1b	0	3
All	All	0	11

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	1498	UR3	O3'-P	5.77	1.62	1.56
54	2x	8	4SU	O3'-P	5.18	1.61	1.56

All (48) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	1992	G	C2'-C3'-O3'	8.97	122.96	109.50
12	1Q	59	ARG	N-CA-C	-8.34	103.62	113.38
23	21	3	LYS	N-CA-C	8.18	115.49	108.78
1	1A	1992	G	C2'-C3'-O3'	7.56	120.83	109.50
33	1b	38	GLY	N-CA-C	-7.29	105.67	115.36
23	21	3	LYS	CB-CA-C	-7.08	106.87	117.07
37	2f	25	ILE	N-CA-C	-6.95	102.70	110.62
12	1Q	60	ARG	CA-C-N	-6.75	112.28	121.06
12	1Q	60	ARG	C-N-CA	-6.75	112.28	121.06
3	1D	98	VAL	CA-C-N	6.64	131.81	120.72
3	1D	98	VAL	C-N-CA	6.64	131.81	120.72
8	2I	60	GLU	N-CA-C	-6.61	105.21	113.20
31	19	10	ILE	N-CA-C	-6.32	106.37	111.81
1	1A	2689	U	C4'-C3'-O3'	6.31	118.86	109.40
6	1G	43	LEU	CA-C-N	-6.30	112.90	122.28
6	1G	43	LEU	C-N-CA	-6.30	112.90	122.28
34	2c	85	ARG	N-CA-C	-6.22	107.53	114.62
11	2P	26	GLY	N-CA-C	-6.09	107.49	115.47
1	1A	548	A	P-O3'-C3'	5.91	129.07	120.20
3	1D	244	ARG	N-CA-C	-5.87	96.84	109.81
1	2A	752	A	C2'-C3'-O3'	5.71	118.06	109.50
5	2F	21	ALA	CA-C-N	5.67	131.90	121.70
5	2F	21	ALA	C-N-CA	5.67	131.90	121.70
1	1A	2629	A	P-O3'-C3'	5.65	128.67	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	2d	26	CYS	N-CA-C	-5.64	105.58	113.37
5	1F	89	VAL	CA-C-N	-5.64	113.72	123.25
5	1F	89	VAL	C-N-CA	-5.64	113.72	123.25
9	2N	85	ILE	CA-C-N	-5.62	114.46	120.03
9	2N	85	ILE	C-N-CA	-5.62	114.46	120.03
12	2Q	62	GLY	N-CA-C	5.58	126.41	113.18
1	2A	1992	G	P-O3'-C3'	5.55	128.53	120.20
11	2P	33	ARG	CA-C-N	-5.51	111.45	121.32
11	2P	33	ARG	C-N-CA	-5.51	111.45	121.32
23	21	3	LYS	CA-C-O	5.47	121.11	117.94
9	2N	78	TYR	CA-C-N	-5.40	114.39	119.90
9	2N	78	TYR	C-N-CA	-5.40	114.39	119.90
32	2a	1272	G	N1-C2-N2	-5.40	100.01	116.20
32	2a	1263	C	N1-C2-O2	5.38	135.04	118.90
32	1a	266	G	C2'-C3'-O3'	5.38	117.56	109.50
19	1X	94	GLY	CA-C-N	5.36	131.34	121.70
19	1X	94	GLY	C-N-CA	5.36	131.34	121.70
1	2A	1653	G	C2'-C3'-O3'	5.27	117.41	109.50
19	2X	94	GLY	CA-C-N	5.11	130.90	121.70
19	2X	94	GLY	C-N-CA	5.11	130.90	121.70
32	1a	1067	A	C2'-C3'-O3'	5.05	117.08	109.50
32	2a	1442	G	P-O3'-C3'	5.05	125.75	119.70
32	2a	65	U	C4'-C3'-O3'	5.03	116.94	109.40
32	1a	1442	G	P-O3'-C3'	5.02	125.72	119.70

There are no chirality outliers.

All (11) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
26	14	67	TYR	Peptide
9	1N	8	GLN	Peptide
12	1Q	15	GLY	Peptide
12	1Q	59	ARG	Peptide
14	1S	45	GLY	Peptide
33	1b	122	PHE	Peptide
33	1b	130	ARG	Peptide
33	1b	20	GLU	Peptide
25	23	53	LEU	Peptide
29	27	46	VAL	Peptide
11	2P	35	HIS	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	31194	903	0
1	2A	60322	0	30424	994	0
2	1B	2577	0	1305	46	0
2	2B	2575	0	1303	90	0
3	1D	2136	0	2218	57	0
3	2D	2136	0	2218	60	0
4	1E	1559	0	1618	47	0
4	2E	1559	0	1618	41	0
5	1F	1583	0	1625	53	0
5	2F	1579	0	1619	66	0
6	1G	1423	0	1436	60	0
6	2G	1428	0	1438	84	0
7	1H	1330	0	1407	33	0
7	2H	1330	0	1407	57	0
8	1I	1097	0	1140	52	0
8	2I	1064	0	1082	45	0
9	1N	1117	0	1184	21	0
9	2N	1117	0	1184	35	0
10	1O	933	0	996	23	0
10	2O	933	0	996	35	0
11	1P	1135	0	1212	46	0
11	2P	1135	0	1212	45	0
12	1Q	1122	0	1179	63	0
12	2Q	1122	0	1179	60	0
13	1R	968	0	1033	23	0
13	2R	968	0	1033	32	0
14	1S	873	0	927	35	0
14	2S	870	0	923	66	0
15	1T	1091	0	1151	29	0
15	2T	1083	0	1136	43	0
16	1U	959	0	1019	14	0
16	2U	959	0	1019	26	0
17	1V	771	0	830	22	0
17	2V	771	0	829	31	0
18	1W	886	0	940	25	0
18	2W	886	0	940	24	0
19	1X	750	0	814	26	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	2X	750	0	814	30	0
20	1Y	806	0	881	23	0
20	2Y	806	0	881	37	0
21	1Z	1461	0	1472	65	0
21	2Z	1390	0	1392	75	0
22	10	653	0	674	21	0
22	20	653	0	674	19	0
23	11	755	0	826	26	0
23	21	755	0	826	28	0
24	12	588	0	643	21	0
24	22	588	0	643	28	0
25	13	469	0	518	12	0
25	23	464	0	514	13	0
26	14	552	0	533	27	0
26	24	532	0	503	31	0
27	15	455	0	465	9	0
27	25	455	0	465	16	0
28	16	453	0	473	14	0
28	26	449	0	469	16	0
29	17	418	0	467	11	0
29	27	418	0	467	12	0
30	18	517	0	582	17	0
30	28	517	0	582	27	0
31	19	307	0	335	12	0
31	29	307	0	335	10	0
32	1a	32246	0	16294	636	0
32	2a	32327	0	16337	772	0
33	1b	1846	0	1867	86	0
33	2b	1825	0	1828	100	0
34	1c	1548	0	1535	60	0
34	2c	1542	0	1517	88	0
35	1d	1655	0	1672	84	0
35	2d	1674	0	1714	113	0
36	1e	1129	0	1185	43	0
36	2e	1133	0	1191	63	0
37	1f	810	0	804	36	0
37	2f	816	0	808	39	0
38	1g	1231	0	1238	46	0
38	2g	1235	0	1249	58	0
39	1h	1088	0	1126	46	0
39	2h	1088	0	1126	51	0
40	1i	983	0	986	51	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
40	2i	978	0	966	66	0
41	1j	709	0	650	31	0
41	2j	714	0	672	38	0
42	1k	829	0	825	21	0
42	2k	833	0	836	41	0
43	1l	932	0	982	35	0
43	2l	932	0	981	35	0
44	1m	958	0	1002	35	0
44	2m	950	0	988	56	0
45	1n	492	0	529	27	0
45	2n	492	0	529	27	0
46	1o	728	0	760	27	0
46	2o	728	0	760	20	0
47	1p	681	0	697	26	0
47	2p	677	0	686	29	0
48	1q	823	0	891	31	0
48	2q	823	0	891	33	0
49	1r	555	0	618	25	0
49	2r	555	0	618	27	0
50	1s	652	0	662	32	0
50	2s	646	0	644	45	0
51	1t	728	0	798	37	0
51	2t	727	0	796	25	0
52	1u	199	0	208	10	0
52	2u	199	0	208	12	0
53	1v	109	0	55	0	0
53	2v	173	0	87	0	0
54	1x	1646	0	838	23	0
54	2x	1646	0	839	29	0
55	10	8	0	0	0	0
55	11	5	0	0	0	0
55	12	2	0	0	0	0
55	13	7	0	0	0	0
55	14	1	0	0	0	0
55	15	8	0	0	0	0
55	16	1	0	0	0	0
55	17	4	0	0	0	0
55	18	6	0	0	0	0
55	19	1	0	0	0	0
55	1A	1103	0	0	0	0
55	1B	36	0	0	0	0
55	1D	11	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	1E	14	0	0	0	0
55	1F	11	0	0	0	0
55	1G	5	0	0	0	0
55	1H	1	0	0	0	0
55	1I	1	0	0	0	0
55	1N	6	0	0	0	0
55	1O	5	0	0	0	0
55	1P	8	0	0	0	0
55	1Q	7	0	0	0	0
55	1R	4	0	0	0	0
55	1S	3	0	0	0	0
55	1T	3	0	0	0	0
55	1U	9	0	0	0	0
55	1V	8	0	0	0	0
55	1W	7	0	0	0	0
55	1X	6	0	0	0	0
55	1Y	2	0	0	0	0
55	1Z	4	0	0	0	0
55	1a	213	0	0	0	0
55	1b	1	0	0	0	0
55	1d	1	0	0	0	0
55	1e	2	0	0	0	0
55	1f	1	0	0	0	0
55	1l	2	0	0	0	0
55	1m	1	0	0	0	0
55	1n	1	0	0	0	0
55	1p	1	0	0	0	0
55	1r	1	0	0	0	0
55	1t	1	0	0	0	0
55	1x	11	0	0	0	0
55	20	3	0	0	0	0
55	21	1	0	0	0	0
55	23	2	0	0	0	0
55	25	4	0	0	0	0
55	27	2	0	0	0	0
55	28	3	0	0	0	0
55	2A	849	0	0	0	0
55	2B	20	0	0	0	0
55	2D	6	0	0	0	0
55	2E	8	0	0	0	0
55	2F	7	0	0	0	0
55	2G	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	2O	2	0	0	0	0
55	2P	2	0	0	0	0
55	2Q	2	0	0	0	0
55	2R	4	0	0	0	0
55	2T	4	0	0	0	0
55	2U	2	0	0	0	0
55	2V	1	0	0	0	0
55	2W	4	0	0	0	0
55	2X	1	0	0	0	0
55	2Y	1	0	0	0	0
55	2Z	1	0	0	0	0
55	2a	226	0	0	0	0
55	2d	3	0	0	0	0
55	2e	1	0	0	0	0
55	2f	2	0	0	0	0
55	2j	1	0	0	0	0
55	2l	4	0	0	0	0
55	2q	3	0	0	0	0
55	2r	1	0	0	0	0
55	2t	1	0	0	0	0
55	2u	1	0	0	0	0
55	2v	2	0	0	0	0
55	2x	6	0	0	0	0
56	1A	1	0	0	0	0
56	2A	1	0	0	0	0
57	1A	23	0	19	4	0
57	2A	23	0	19	2	0
58	14	1	0	0	0	0
58	15	1	0	0	0	0
58	16	1	0	0	0	0
58	19	1	0	0	0	0
58	1Y	1	0	0	0	0
58	1n	1	0	0	0	0
58	24	1	0	0	0	0
58	25	1	0	0	0	0
58	26	1	0	0	0	0
58	29	1	0	0	0	0
58	2Y	1	0	0	0	0
58	2n	1	0	0	0	0
59	1d	8	0	0	0	0
59	2d	8	0	0	2	0
60	1x	10	0	10	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	2x	10	0	10	0	0
61	10	9	0	0	2	0
61	11	7	0	0	0	0
61	12	4	0	0	1	0
61	13	5	0	0	0	0
61	15	7	0	0	0	0
61	16	1	0	0	0	0
61	17	11	0	0	1	0
61	18	8	0	0	0	0
61	1A	1951	0	0	139	0
61	1B	60	0	0	2	0
61	1D	29	0	0	4	0
61	1E	26	0	0	2	0
61	1F	18	0	0	1	0
61	1G	4	0	0	0	0
61	1H	2	0	0	0	0
61	1N	7	0	0	0	0
61	1O	6	0	0	0	0
61	1P	23	0	0	2	0
61	1Q	5	0	0	0	0
61	1R	13	0	0	4	0
61	1S	6	0	0	0	0
61	1T	8	0	0	1	0
61	1U	14	0	0	1	0
61	1V	7	0	0	1	0
61	1W	8	0	0	1	0
61	1X	4	0	0	0	0
61	1Y	3	0	0	1	0
61	1Z	1	0	0	0	0
61	1a	303	0	0	29	0
61	1b	1	0	0	0	0
61	1d	1	0	0	0	0
61	1e	1	0	0	0	0
61	1f	1	0	0	0	0
61	1i	1	0	0	0	0
61	1l	6	0	0	0	0
61	1m	1	0	0	0	0
61	1q	2	0	0	0	0
61	1v	4	0	0	0	0
61	1x	5	0	0	0	0
61	20	5	0	0	1	0
61	21	7	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
61	23	2	0	0	0	0
61	27	2	0	0	0	0
61	28	3	0	0	0	0
61	29	1	0	0	0	0
61	2A	1050	0	0	109	0
61	2B	20	0	0	1	0
61	2D	19	0	0	4	0
61	2E	17	0	0	3	0
61	2F	15	0	0	0	0
61	2N	1	0	0	0	0
61	2O	2	0	0	0	0
61	2P	11	0	0	1	0
61	2Q	1	0	0	0	0
61	2R	2	0	0	0	0
61	2T	5	0	0	0	0
61	2U	3	0	0	0	0
61	2W	2	0	0	0	0
61	2X	4	0	0	0	0
61	2a	198	0	0	15	0
61	2c	1	0	0	0	0
61	2e	2	0	0	0	0
61	2g	1	0	0	0	0
61	2j	2	0	0	0	0
61	2k	1	0	0	0	0
61	2l	5	0	0	0	0
61	2m	1	0	0	0	0
61	2r	1	0	0	0	0
61	2t	1	0	0	0	0
61	2v	1	0	0	0	0
61	2x	2	0	0	0	0
All	All	293578	0	193773	6324	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 13.

All (6324) 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)
32:2a:998:G:H1	32:2a:1043:C:H42	1.12	0.97
1:1A:1603:A:OP1	61:1A:4204:HOH:O	1.81	0.96
1:2A:1359:A:N1	1:2A:1372:U:N3	2.13	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:1j:50:ILE:HD11	41:1j:57:LYS:HD2	1.48	0.95
32:2a:1002:G:H1	32:2a:1038:C:H42	1.12	0.95
1:1A:2499:C:OP1	61:1A:4205:HOH:O	1.83	0.95
11:1P:38:GLN:O	11:1P:40:SER:N	1.99	0.94
32:2a:1310:G:H5'	44:2m:77:ASN:HD21	1.32	0.94
1:2A:2079:U:OP1	23:21:21:ARG:NH2	2.01	0.93
32:1a:1004:A:N6	32:1a:1037:C:N3	2.17	0.92
1:2A:1604:C:OP2	61:2A:3904:HOH:O	1.85	0.92
44:2m:58:GLU:O	44:2m:62:ASN:ND2	2.03	0.92
1:1A:1082:U:H3	1:1A:1086:A:H61	0.98	0.92
33:2b:12:GLU:HA	33:2b:213:LEU:HD11	1.51	0.91
7:2H:3:ARG:HH12	7:2H:5:GLY:H	1.14	0.91
33:1b:33:TYR:HB2	33:1b:43:ASP:HB2	1.53	0.90
32:2a:664:G:H22	32:2a:741:G:H1	1.18	0.90
1:2A:1798:U:H5'	3:2D:259:THR:HG22	1.52	0.89
32:2a:1119:C:OP2	40:2i:9:ARG:NH2	2.05	0.89
40:1i:53:VAL:O	40:1i:55:ALA:N	2.05	0.89
34:2c:20:SER:OG	34:2c:40:ARG:NH2	2.05	0.89
7:1H:101:ARG:HH22	7:1H:122:THR:HA	1.36	0.88
35:1d:60:GLU:OE2	35:1d:63:LYS:NZ	2.07	0.87
1:1A:1264:G:OP1	27:15:19:ARG:NH2	2.08	0.86
1:2A:2166:G:H3'	1:2A:2167:U:H5"	1.55	0.86
1:1A:1670:C:OP2	61:1A:4206:HOH:O	1.92	0.86
46:1o:74:ASP:HB3	46:1o:77:ARG:HB2	1.56	0.86
33:1b:8:LYS:O	33:1b:217:ARG:NH2	2.08	0.86
1:1A:993:G:OP1	16:1U:50:ARG:NH2	2.09	0.86
1:2A:1604:C:OP1	61:2A:3906:HOH:O	1.94	0.86
32:1a:975:A:H4'	32:1a:976:G:H5"	1.58	0.85
46:2o:39:LEU:HB3	46:2o:56:LEU:HD12	1.57	0.85
24:22:18:PRO:HB3	24:22:68:ARG:HH12	1.40	0.85
1:1A:2096:U:H3	1:1A:2193:G:H1	1.20	0.85
1:1A:2427:C:OP1	61:1A:4207:HOH:O	1.93	0.85
23:11:86:SER:HB3	23:11:89:GLU:HG3	1.57	0.85
12:1Q:60:ARG:HG3	21:1Z:180:VAL:N	1.92	0.85
1:2A:948:G:OP1	61:2A:3905:HOH:O	1.93	0.85
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.12	0.85
32:2a:426:G:OP1	35:2d:38:TYR:OH	1.94	0.85
40:2i:46:ALA:HB2	40:2i:74:ILE:HG23	1.58	0.85
1:1A:11:G:H2'	1:1A:12:U:H5'	1.58	0.85
1:2A:2690:C:OP1	13:2R:17:ARG:NH2	2.09	0.85
1:1A:631:A:OP1	11:1P:65:ARG:NH1	2.08	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:11:50:ARG:HG2	23:11:59:THR:HG23	1.57	0.84
28:26:12:GLU:OE1	28:26:19:ARG:NH1	2.10	0.84
2:1B:103:G:H21	21:1Z:73:GLN:HE22	1.24	0.84
1:1A:1082:U:O4	1:1A:1086:A:N1	2.09	0.84
12:1Q:60:ARG:HE	21:1Z:180:VAL:HA	1.40	0.84
32:1a:444:C:H2'	32:1a:445:G:C8	2.12	0.84
33:1b:127:ILE:HD12	33:1b:130:ARG:HD3	1.59	0.84
13:1R:50:HIS:ND1	61:1R:302:HOH:O	2.11	0.84
10:2O:48:PRO:HB3	32:2a:1422:G:H5'	1.58	0.84
12:1Q:89:ASN:HB2	54:1x:1:C:N3	1.93	0.84
1:2A:921:G:O6	61:2A:3908:HOH:O	1.96	0.84
41:2j:44:VAL:HG22	41:2j:66:ARG:HB3	1.60	0.84
36:1e:81:GLU:HG2	36:1e:90:VAL:HG22	1.59	0.84
1:2A:782:A:OP2	61:2A:3907:HOH:O	1.95	0.84
1:1A:2821:A:OP2	61:1R:301:HOH:O	1.96	0.83
32:1a:600:C:H2'	32:1a:601:C:H6	1.42	0.83
1:2A:890:A:H2'	1:2A:892:G:H8	1.41	0.83
1:2A:2002:G:N7	61:2A:3937:HOH:O	2.10	0.83
36:2e:122:GLU:O	36:2e:126:ARG:NH1	2.10	0.83
1:2A:1204:A:H2	1:2A:1241:A:H62	1.25	0.83
32:2a:406:G:H5'	35:2d:5:ILE:HD11	1.61	0.83
11:2P:56:SER:HB2	11:2P:61:ARG:HD2	1.59	0.83
14:2S:26:LEU:HD11	14:2S:73:LEU:HD21	1.61	0.83
32:1a:1075:C:OP1	33:1b:179:LYS:NZ	2.10	0.83
21:2Z:30:ASN:HB2	21:2Z:90:VAL:HB	1.60	0.83
32:1a:875:C:H1'	39:1h:15:ASN:HD21	1.43	0.83
1:1A:1332:G:OP1	61:1A:4208:HOH:O	1.96	0.83
25:13:10:LYS:NZ	25:13:15:TYR:OH	2.11	0.82
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.62	0.82
32:1a:812:C:O2	61:1a:1902:HOH:O	1.97	0.82
1:1A:1968:G:OP1	61:1A:4210:HOH:O	1.96	0.82
14:2S:34:HIS:ND1	14:2S:53:SER:OG	2.11	0.82
1:2A:962:G:OP1	61:2A:3905:HOH:O	1.96	0.82
1:1A:2683:C:O2	10:1O:70:LYS:NZ	2.12	0.82
32:1a:244:U:O2	61:1a:1903:HOH:O	1.97	0.82
44:2m:37:THR:O	44:2m:55:ARG:NH1	2.13	0.82
1:1A:1265:A:OP1	61:1A:4209:HOH:O	1.96	0.81
1:2A:1652:A:OP1	13:2R:8:ARG:NH1	2.13	0.81
1:2A:785:G:OP2	61:2A:3909:HOH:O	1.96	0.81
1:2A:2514:U:OP2	61:2A:3911:HOH:O	1.98	0.81
20:1Y:102:CYS:SG	20:1Y:103:GLY:N	2.49	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:975:A:H4'	32:2a:976:G:H5"	1.62	0.81
42:2k:31:THR:HG23	42:2k:42:TRP:HB3	1.62	0.81
1:1A:2136:C:N3	1:1A:2155:G:C2	2.48	0.81
33:1b:200:ILE:HG22	33:1b:202:PRO:HD3	1.62	0.81
1:2A:878:A:N6	1:2A:899:A:O2'	2.12	0.81
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.14	0.81
21:2Z:28:MET:HG3	21:2Z:35:ARG:HB3	1.62	0.81
32:2a:352:C:OP2	61:2a:3302:HOH:O	1.98	0.81
8:1I:58:LEU:HD23	8:1I:58:LEU:O	1.79	0.81
8:2I:3:VAL:HG12	8:2I:38:LEU:HA	1.60	0.81
34:2c:125:GLU:HB2	34:2c:190:ARG:HH21	1.45	0.81
1:2A:570:G:O6	61:2A:3910:HOH:O	1.98	0.81
42:1k:62:GLN:HG3	42:1k:93:GLN:HE21	1.45	0.81
32:2a:1507:A:N6	32:2a:1528:U:O4	2.12	0.81
2:2B:36:C:N4	2:2B:49:C:O2	2.12	0.81
1:1A:1082:U:N3	1:1A:1086:A:N6	2.28	0.81
20:1Y:92:ASN:HD21	20:1Y:94:LYS:HG2	1.46	0.81
5:2F:103:LYS:HA	5:2F:106:ARG:HD3	1.63	0.81
1:1A:2469:A:O2'	12:1Q:56:ARG:NH1	2.14	0.80
1:2A:198:C:OP2	61:2A:3912:HOH:O	1.99	0.80
32:2a:406:G:H21	35:2d:119:GLN:HE22	1.29	0.80
1:2A:249:C:O2	30:28:12:LYS:NZ	2.14	0.80
40:2i:21:PRO:HA	40:2i:59:PHE:HA	1.62	0.80
32:1a:642:A:N3	39:1h:113:SER:OG	2.15	0.80
38:1g:22:LEU:HG	38:1g:62:PHE:HE2	1.46	0.80
1:1A:1669:A:OP2	61:1A:4206:HOH:O	1.99	0.80
32:1a:444:C:H2'	32:1a:445:G:H8	1.46	0.80
32:2a:410:G:H5"	35:2d:30:LYS:NZ	1.96	0.80
32:2a:1314:C:OP2	50:2s:4:SER:OG	1.99	0.80
44:2m:86:CYS:HB2	50:2s:73:GLU:HG2	1.63	0.80
1:1A:1027:A:N3	61:1A:4259:HOH:O	2.15	0.80
1:2A:805:G:OP1	61:2A:3913:HOH:O	2.00	0.80
1:2A:2138:C:H42	1:2A:2153:G:H1	1.29	0.80
1:1A:1252:G:N7	16:1U:36:ARG:NH1	2.29	0.79
43:2l:71:PRO:O	43:2l:102:ARG:NH1	2.15	0.79
32:2a:998:G:H1	32:2a:1043:C:N4	1.79	0.79
1:1A:1271:G:OP2	61:1A:4212:HOH:O	1.99	0.79
2:2B:104:U:HO2'	21:2Z:29:TYR:HH	1.30	0.79
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.15	0.79
1:1A:1269:A:N7	61:1A:4253:HOH:O	2.14	0.79
1:1A:2741:A:OP1	31:19:22:ARG:NH2	2.15	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:737:A:H1'	37:2f:73:ASN:HD21	1.47	0.79
1:1A:1082:U:H3	1:1A:1086:A:N6	1.78	0.79
47:1p:19:ILE:HG22	47:1p:36:ILE:HG13	1.65	0.79
42:2k:62:GLN:HG3	42:2k:97:ALA:HB2	1.63	0.79
1:1A:2313:C:H4'	6:1G:91:ARG:HG3	1.65	0.78
6:1G:108:ASN:HD22	26:14:22:ILE:HD13	1.47	0.78
32:1a:903:G:OP1	61:1a:1904:HOH:O	2.00	0.78
51:1t:90:GLN:HA	51:1t:93:GLU:HG2	1.65	0.78
1:2A:2807:G:N1	1:2A:2893:G:O6	2.16	0.78
32:2a:1161:C:H2'	32:2a:1162:C:H6	1.47	0.78
1:2A:1689:A:H62	1:2A:1698:A:H2	1.27	0.78
44:2m:91:ARG:HB2	44:2m:98:VAL:HG13	1.64	0.78
1:2A:131:G:OP1	61:2A:3915:HOH:O	2.01	0.78
1:2A:360:G:OP1	61:2A:3914:HOH:O	2.01	0.78
1:2A:882:G:H22	1:2A:894:C:H42	1.32	0.78
9:2N:128:HIS:O	9:2N:131:GLN:NE2	2.17	0.78
1:2A:2630:G:H2'	1:2A:2631:G:C8	2.19	0.78
32:2a:1291:G:O2'	40:2i:38:GLN:NE2	2.17	0.78
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.19	0.78
32:2a:1272:G:N2	32:2a:1273:G:N7	2.31	0.78
9:2N:84:LYS:C	9:2N:85:ILE:HG13	2.09	0.78
32:2a:558:G:OP1	61:2a:3303:HOH:O	2.02	0.78
6:2G:122:PRO:HB3	6:2G:170:ARG:HH21	1.49	0.78
32:2a:1373:G:H5"	38:2g:36:LYS:HE2	1.65	0.78
1:1A:1452:A:OP2	61:1A:4213:HOH:O	2.01	0.77
30:18:62:LEU:HB3	30:18:65:GLU:HG2	1.64	0.77
43:1l:40:VAL:HG21	43:1l:78:GLN:HA	1.64	0.77
16:2U:50:ARG:HH22	17:2V:72:VAL:HG22	1.48	0.77
1:1A:527:C:OP1	61:1A:4215:HOH:O	2.01	0.77
41:1j:40:LEU:HB2	41:1j:69:ASN:HB2	1.64	0.77
13:2R:103:ARG:NH1	13:2R:108:GLY:O	2.17	0.77
1:1A:1039:G:H1	1:1A:1116:C:H42	1.30	0.77
32:1a:545:C:OP1	35:1d:61:LYS:NZ	2.18	0.77
17:1V:55:ALA:HA	17:1V:101:GLY:HA2	1.64	0.77
1:2A:1021:A:H62	1:2A:1141:U:H3	1.29	0.77
1:2A:2163:C:OP1	1:2A:2165:G:N2	2.18	0.77
1:1A:511:U:OP2	61:1A:4216:HOH:O	2.03	0.77
21:1Z:69:THR:HG22	21:1Z:90:VAL:HA	1.65	0.77
15:2T:117:ASP:OD2	15:2T:120:ARG:NE	2.16	0.77
54:2x:8:4SU:O5'	54:2x:8:4SU:H6	1.85	0.77
32:1a:1228:C:OP1	44:1m:115:LYS:NZ	2.17	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:3:ARG:NH1	7:2H:4:ILE:H	1.83	0.77
34:2c:30:ARG:HH21	45:2n:38:GLY:HA2	1.50	0.77
1:2A:957:A:H5'	12:2Q:76:LYS:HG3	1.66	0.77
1:1A:2756:U:O4	1:1A:2758:A:N6	2.18	0.77
1:2A:631:A:OP1	11:2P:65:ARG:NH1	2.16	0.77
1:2A:1412:A:H2'	1:2A:1413:G:H8	1.50	0.76
1:2A:2637:U:H5"	4:2E:82:ARG:HH12	1.49	0.76
11:2P:68:GLN:HG3	30:28:12:LYS:HD3	1.65	0.76
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.67	0.76
34:2c:182:ILE:HG22	34:2c:203:PHE:HA	1.66	0.76
1:2A:963:U:OP2	61:2A:3905:HOH:O	2.00	0.76
40:2i:121:ARG:NH1	40:2i:122:ALA:O	2.18	0.76
1:1A:1226:A:OP1	17:1V:84:LYS:NZ	2.16	0.76
19:1X:31:HIS:HD2	19:1X:33:LYS:H	1.33	0.76
1:2A:2499:C:OP2	61:2A:3916:HOH:O	2.02	0.76
8:2I:14:ASP:O	8:2I:17:GLN:HB2	1.84	0.76
32:2a:433:C:H2'	32:2a:434:U:H6	1.50	0.76
32:2a:1352:C:OP1	52:2u:3:LYS:NZ	2.14	0.76
39:2h:4:ASP:OD1	39:2h:7:ALA:N	2.17	0.76
1:1A:1671:U:O4	61:1A:4206:HOH:O	2.01	0.76
4:2E:127:ASP:OD2	61:2E:401:HOH:O	2.04	0.76
28:26:10:LEU:HD23	28:26:22:ALA:HB2	1.68	0.76
35:2d:15:GLU:OE2	35:2d:66:ARG:NH1	2.18	0.76
1:1A:2130:U:H2'	1:1A:2158:A:H61	1.50	0.76
18:1W:13:SER:HB3	18:1W:16:LYS:HD2	1.67	0.76
32:1a:544:G:OP1	35:1d:59:ARG:NH2	2.12	0.76
38:1g:20:ASP:HB3	38:1g:23:VAL:HG23	1.67	0.76
40:2i:9:ARG:HG2	40:2i:14:VAL:HA	1.68	0.76
1:1A:948:G:OP2	61:1A:4214:HOH:O	2.01	0.76
34:2c:11:ARG:NH2	34:2c:177:THR:O	2.17	0.76
39:1h:69:ARG:NH2	39:1h:73:ASP:O	2.19	0.76
32:2a:547:A:OP1	61:2a:3304:HOH:O	2.02	0.76
33:2b:187:LEU:HA	33:2b:201:ILE:HB	1.67	0.76
1:1A:668:G:OP2	61:1A:4218:HOH:O	2.04	0.76
32:1a:171:A:H2'	32:1a:172:A:C8	2.21	0.76
32:2a:1002:G:H1	32:2a:1038:C:N4	1.84	0.76
1:2A:2313:C:H2'	1:2A:2314:C:H6	1.51	0.76
1:2A:2379:G:O2'	14:2S:17:ARG:NH1	2.18	0.76
32:2a:673:G:H2'	32:2a:674:G:C8	2.21	0.76
1:1A:2575:C:OP2	61:1A:4219:HOH:O	2.04	0.75
8:1I:129:THR:HG22	8:1I:139:GLN:HE22	1.50	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:266:G:H5"	32:1a:268:C:H41	1.51	0.75
7:2H:33:LEU:HD21	7:2H:136:ILE:HB	1.68	0.75
12:2Q:11:LYS:NZ	12:2Q:88:GLY:O	2.19	0.75
1:1A:2285:C:OP2	28:16:6:ARG:NH1	2.19	0.75
10:1O:35:VAL:HG11	10:1O:103:ALA:HB3	1.68	0.75
39:1h:51:VAL:HG12	39:1h:52:ASP:H	1.50	0.75
50:1s:22:LEU:HB3	50:1s:27:GLU:HB3	1.67	0.75
14:2S:62:LYS:HB3	14:2S:97:ARG:HD2	1.67	0.75
34:2c:129:ALA:HB3	34:2c:132:ARG:HD2	1.68	0.75
1:1A:382:G:OP2	61:1A:4220:HOH:O	2.05	0.75
1:1A:2250:G:OP1	12:1Q:85:LYS:NZ	2.15	0.75
25:23:5:LYS:NZ	25:23:34:GLU:OE2	2.16	0.75
32:2a:1122:U:H2'	32:2a:1123:A:H8	1.52	0.75
1:1A:1587:A:H2'	1:1A:1588:C:C6	2.21	0.75
15:1T:60:THR:HG22	15:1T:77:PRO:HA	1.66	0.75
1:2A:195:A:N7	61:2A:3912:HOH:O	2.17	0.75
1:2A:1271:G:OP2	61:2A:3917:HOH:O	2.03	0.75
1:2A:2849:U:OP2	15:2T:95:ARG:NH1	2.19	0.75
29:17:24:THR:HG22	29:17:27:GLY:H	1.51	0.75
1:2A:271(L):U:O2	61:2A:3918:HOH:O	2.04	0.75
6:2G:7:LEU:HD13	6:2G:104:GLU:HA	1.69	0.75
32:2a:437:U:H5"	35:2d:155:LEU:HD11	1.69	0.75
46:1o:54:ARG:HG2	46:1o:58:MET:HE2	1.67	0.75
2:2B:3:C:H2'	2:2B:4:C:C6	2.22	0.75
1:2A:818:G:OP2	61:2A:3919:HOH:O	2.04	0.75
32:2a:659:U:O4	32:2a:746:A:N6	2.13	0.75
1:1A:625:G:O6	11:1P:107:LYS:NZ	2.19	0.74
33:1b:12:GLU:HB2	33:1b:213:LEU:HD21	1.69	0.74
1:2A:2404:C:O3'	11:2P:77:ARG:NH2	2.20	0.74
21:2Z:110:GLY:HA3	21:2Z:146:ILE:HG13	1.69	0.74
32:2a:181:G:N2	32:2a:182:U:O4	2.20	0.74
32:2a:1123:A:H4'	41:2j:36:GLY:HA3	1.69	0.74
48:2q:22:LEU:HD13	48:2q:41:LYS:HG2	1.68	0.74
32:1a:1402:4OC:HM22	32:1a:1403:C:H5'	1.68	0.74
32:2a:997:U:H3	32:2a:1044:A:H61	1.34	0.74
44:2m:13:LYS:HA	44:2m:44:ARG:HH11	1.52	0.74
32:1a:1377:A:HO2'	38:1g:2:ALA:N	1.86	0.74
14:2S:99:LYS:NZ	14:2S:103:GLU:OE2	2.19	0.74
35:2d:36:ARG:HD2	35:2d:38:TYR:OH	1.87	0.74
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.23	0.74
32:2a:750:G:N3	46:2o:23:GLY:HA3	2.03	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2062:A:OP2	61:1A:4217:HOH:O	2.04	0.74
2:1B:77:U:OP1	21:1Z:19:ARG:NH2	2.21	0.74
33:1b:69:LEU:HB3	33:1b:162:ILE:HG22	1.67	0.74
35:1d:173:TRP:HB3	35:1d:187:ARG:NH1	2.03	0.74
36:1e:100:VAL:HG22	36:1e:118:ILE:HG22	1.68	0.74
1:2A:2306:C:N4	6:2G:42:GLY:O	2.21	0.74
3:2D:12:SER:HB3	3:2D:208:LYS:HB3	1.70	0.74
1:1A:1784:A:H5"	61:1A:4347:HOH:O	1.88	0.74
1:1A:1063:G:H2'	1:1A:1064:C:H5	1.53	0.74
1:1A:1325:G:OP1	61:1A:4224:HOH:O	2.06	0.74
1:1A:2183:C:H2'	1:1A:2184:G:H8	1.53	0.74
50:2s:11:VAL:HG12	50:2s:12:ASP:H	1.53	0.74
1:2A:2751:G:H8	7:2H:2:SER:HA	1.52	0.73
50:2s:32:LYS:HD3	50:2s:34:TRP:HZ3	1.51	0.73
1:1A:1865:G:OP1	61:1A:4222:HOH:O	2.05	0.73
15:2T:60:THR:HG22	15:2T:77:PRO:HA	1.70	0.73
2:1B:13:A:N1	2:1B:69:G:O2'	2.20	0.73
1:2A:2711:A:OP1	61:2A:3920:HOH:O	2.06	0.73
15:2T:108:ARG:NH1	32:2a:1464:G:OP1	2.20	0.73
32:2a:460:G:N2	32:2a:471:G:N7	2.36	0.73
32:2a:877:C:OP1	39:2h:88:LYS:NZ	2.16	0.73
32:2a:1518:MA6:H93	32:2a:1519:MA6:H92	1.69	0.73
1:1A:2592:G:OP1	61:1A:4225:HOH:O	2.06	0.73
1:1A:2759:G:N7	61:1A:4296:HOH:O	2.20	0.73
33:1b:82:ARG:NH1	33:1b:92:TYR:OH	2.21	0.73
1:2A:1412:A:H2'	1:2A:1413:G:C8	2.23	0.73
1:1A:1647:G:OP1	61:1A:4212:HOH:O	2.06	0.73
8:1I:93:THR:HG22	8:1I:119:PRO:HB3	1.69	0.73
32:1a:628:G:O6	61:1a:1905:HOH:O	2.04	0.73
35:1d:178:VAL:O	35:1d:180:GLY:N	2.21	0.73
12:1Q:58:PHE:C	12:1Q:60:ARG:H	1.94	0.73
1:1A:1418:G:OP2	61:1A:4228:HOH:O	2.07	0.73
1:1A:2070:G:OP2	61:1A:4227:HOH:O	2.06	0.73
33:1b:74:LYS:NZ	33:1b:205:ASP:O	2.18	0.73
1:2A:2819:G:O6	61:2A:3922:HOH:O	2.06	0.73
19:2X:60:ARG:HH22	29:27:47:ARG:HH22	1.35	0.73
1:1A:1669:A:OP2	61:1A:4221:HOH:O	2.05	0.73
14:2S:11:LYS:O	14:2S:15:ARG:HB2	1.88	0.73
49:2r:26:LEU:HD11	49:2r:42:ARG:HD3	1.71	0.73
32:2a:708:C:H2'	32:2a:709:G:H8	1.54	0.73
32:2a:986:A:N3	50:2s:52:TYR:OH	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:58:ILE:HA	33:2b:61:LEU:HB3	1.70	0.73
1:2A:794:G:OP1	61:2A:3923:HOH:O	2.07	0.73
15:2T:19:LEU:HD22	15:2T:86:ILE:HG13	1.70	0.73
32:2a:176:C:OP1	51:2t:29:LYS:NZ	2.19	0.73
33:2b:88:ALA:HB2	33:2b:219:VAL:HG13	1.70	0.73
1:1A:998:C:OP1	61:1A:4226:HOH:O	2.06	0.72
27:15:40:LYS:NZ	27:15:44:THR:O	2.21	0.72
32:1a:262:A:H2'	32:1a:263:A:C8	2.24	0.72
44:1m:59:TYR:O	44:1m:63:THR:OG1	2.06	0.72
50:1s:12:ASP:OD2	50:1s:35:SER:OG	2.06	0.72
21:2Z:19:ARG:HH11	21:2Z:84:GLU:HB2	1.54	0.72
32:2a:533:A:O2'	32:2a:535:A:OP2	2.07	0.72
52:2u:6:ARG:HD3	52:2u:15:ARG:HE	1.54	0.72
51:1t:86:ARG:O	51:1t:90:GLN:NE2	2.22	0.72
1:2A:1754:C:OP1	15:2T:96:ARG:NH1	2.21	0.72
32:2a:501:C:H2'	32:2a:502:G:H8	1.55	0.72
1:1A:2406:U:OP1	61:1A:4231:HOH:O	2.08	0.72
41:1j:30:SER:HB3	41:1j:81:THR:HG23	1.71	0.72
1:2A:2131:G:H4'	1:2A:2132:U:H3'	1.68	0.72
1:1A:1468:C:OP1	61:1A:4223:HOH:O	2.05	0.72
32:1a:803:G:OP1	61:1a:1906:HOH:O	2.07	0.72
48:1q:53:LEU:HD23	48:1q:82:MET:HE1	1.71	0.72
21:2Z:33:LEU:HD11	21:2Z:90:VAL:HG21	1.70	0.72
1:2A:787:U:OP2	61:2A:3924:HOH:O	2.07	0.72
1:2A:2533:A:OP1	1:2A:2665:A:O2'	2.08	0.72
32:2a:501:C:H2'	32:2a:502:G:C8	2.25	0.72
40:2i:31:GLN:HB3	40:2i:35:GLU:HG2	1.71	0.72
1:2A:1772:G:OP1	61:2A:3925:HOH:O	2.08	0.72
49:2r:56:THR:HG21	49:2r:63:GLN:HE22	1.54	0.72
32:1a:1223:C:P	50:1s:78:ARG:HH21	2.12	0.72
36:1e:27:ARG:HH11	36:1e:27:ARG:HB2	1.54	0.72
47:1p:21:VAL:HG22	47:1p:33:ILE:HD12	1.71	0.72
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	1.72	0.72
12:2Q:18:LYS:O	12:2Q:98:LYS:NZ	2.19	0.72
34:2c:183:ASP:OD1	34:2c:184:TYR:N	2.23	0.72
52:2u:2:GLY:O	52:2u:4:GLY:N	2.19	0.72
15:1T:65:LYS:HE2	15:1T:67:SER:HB2	1.71	0.72
32:1a:343:U:O2'	32:1a:346:G:O6	2.07	0.72
6:2G:32:PRO:HB2	6:2G:172:LEU:HD13	1.72	0.72
1:1A:1171:G:OP2	1:1A:1174:A:N6	2.23	0.72
1:1A:2126:A:N6	1:1A:2163:C:O4'	2.21	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1030:G:OP2	12:2Q:128:LYS:NZ	2.23	0.72
34:2c:67:THR:HG23	34:2c:102:ASN:HB2	1.72	0.72
1:1A:2819:G:OP1	61:1A:4238:HOH:O	2.08	0.71
1:2A:1019:U:H3	1:2A:1142(A):A:H62	1.37	0.71
5:2F:178:PRO:HB3	5:2F:198:ALA:HA	1.71	0.71
1:1A:253:C:OP2	30:18:5:LYS:NZ	2.20	0.71
1:1A:451:C:OP2	61:1A:4237:HOH:O	2.08	0.71
1:1A:526:A:OP1	61:1A:4215:HOH:O	2.08	0.71
1:2A:848:G:H2'	1:2A:849:A:C8	2.25	0.71
1:2A:1340:U:OP1	19:2X:16:LYS:NZ	2.23	0.71
13:2R:36:THR:HG22	13:2R:37:THR:H	1.55	0.71
21:2Z:52:SER:C	21:2Z:54:HIS:H	1.98	0.71
33:2b:58:ILE:O	33:2b:62:ALA:N	2.19	0.71
1:1A:816:C:OP2	61:1A:4232:HOH:O	2.08	0.71
1:1A:2115:G:H2'	1:1A:2116:G:H5"	1.73	0.71
1:1A:2702:U:OP2	61:1A:4230:HOH:O	2.07	0.71
1:2A:1998:G:HO2'	1:2A:2724:C:HO2'	1.28	0.71
14:2S:26:LEU:HD23	14:2S:87:PHE:HD1	1.56	0.71
1:1A:1062:G:H22	1:1A:1077:A:H61	1.38	0.71
1:1A:2134:A:H61	1:1A:2157:G:H5'	1.56	0.71
1:2A:2218:U:O2	23:21:52:ARG:NH1	2.23	0.71
11:2P:37:GLY:O	11:2P:40:SER:OG	2.07	0.71
33:2b:98:LEU:HG	33:2b:99:GLY:H	1.54	0.71
50:2s:12:ASP:O	50:2s:14:HIS:N	2.23	0.71
1:2A:783:A:OP2	61:2A:3927:HOH:O	2.09	0.71
1:2A:1567:A:OP2	3:2D:84:TYR:OH	2.09	0.71
1:2A:2431:U:OP1	61:2A:3921:HOH:O	2.06	0.71
19:2X:8:ILE:O	24:22:36:ARG:NH2	2.23	0.71
32:2a:8:A:N6	35:2d:209:ARG:HB2	2.05	0.71
32:2a:318:G:OP2	61:2a:3305:HOH:O	2.09	0.71
40:2i:28:VAL:HG22	40:2i:63:ILE:HB	1.73	0.71
12:1Q:60:ARG:HB3	21:1Z:178:GLU:C	2.16	0.71
32:1a:269:C:H2'	32:1a:270:A:H8	1.56	0.71
54:2x:23:C:H2'	54:2x:24:U:C6	2.26	0.71
1:1A:968:G:O6	61:1A:4239:HOH:O	2.08	0.71
1:1A:2430:A:OP1	61:1A:4234:HOH:O	2.08	0.71
32:1a:1518:MA6:H93	32:1a:1519:MA6:H92	1.72	0.71
42:2k:48:ILE:O	42:2k:50:TYR:N	2.23	0.71
1:1A:2123:G:H2'	1:1A:2124:G:C8	2.26	0.71
1:1A:2334:G:H5'	14:1S:9:ARG:HG2	1.72	0.71
1:2A:2110:G:OP1	1:2A:2118:U:N3	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:759:G:OP1	61:1A:4229:HOH:O	2.07	0.71
1:1A:2206:G:H3'	1:1A:2207:G:C8	2.26	0.71
1:1A:2337:G:OP1	61:1A:4240:HOH:O	2.08	0.71
44:1m:58:GLU:O	44:1m:62:ASN:ND2	2.13	0.71
12:2Q:32:TYR:OH	12:2Q:111:GLU:OE1	2.09	0.71
32:2a:1362:C:H2'	32:2a:1363:C:H5"	1.73	0.71
1:1A:184:C:H2'	1:1A:185:U:C6	2.26	0.71
1:2A:2319:G:H22	14:2S:3:ARG:HH11	1.38	0.71
32:2a:1118:C:H1'	32:2a:1179:A:C4	2.25	0.71
33:2b:162:ILE:HD11	33:2b:184:VAL:HG22	1.72	0.71
1:1A:761:A:OP1	61:1A:4233:HOH:O	2.08	0.70
1:1A:2014:A:OP1	61:1A:4235:HOH:O	2.08	0.70
14:1S:14:VAL:O	14:1S:18:ILE:HG12	1.91	0.70
38:1g:74:GLU:OE2	38:1g:95:ARG:NE	2.23	0.70
42:2k:34:ASP:HB3	42:2k:40:ILE:HD11	1.71	0.70
49:2r:67:ALA:HA	49:2r:70:ILE:HD12	1.72	0.70
6:2G:11:TYR:HB2	6:2G:176:LEU:HD21	1.73	0.70
32:2a:1006:C:N4	32:2a:1023:G:H1	1.89	0.70
32:2a:1129:C:O2'	32:2a:1130:A:N7	2.21	0.70
6:1G:67:LYS:HD2	26:14:5:ILE:HD12	1.71	0.70
12:2Q:61:GLY:O	21:2Z:177:PRO:HB2	1.92	0.70
32:1a:560:U:O2'	32:1a:561:U:OP2	2.08	0.70
1:2A:1253:A:OP1	61:2A:3931:HOH:O	2.09	0.70
19:2X:1:MET:H3	24:22:29:LYS:HE3	1.57	0.70
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.71	0.70
32:2a:1271:G:N2	32:2a:1272:G:N7	2.38	0.70
36:2e:100:VAL:HG22	36:2e:118:ILE:HG22	1.72	0.70
22:10:9:SER:O	61:10:201:HOH:O	2.09	0.70
1:2A:2497:A:O2'	61:2A:3928:HOH:O	2.09	0.70
32:2a:1142:G:H3'	32:2a:1143:G:H8	1.55	0.70
1:1A:120:U:OP2	61:1A:4241:HOH:O	2.09	0.70
1:1A:2629:A:O2'	1:1A:2630:G:OP2	2.07	0.70
32:1a:877:C:OP1	39:1h:88:LYS:NZ	2.23	0.70
1:1A:588:U:H2'	1:1A:589:C:C6	2.26	0.70
1:2A:154(A):C:H42	1:2A:171:G:H1	1.40	0.70
40:2i:11:LYS:HA	40:2i:108:VAL:HG12	1.72	0.70
1:1A:1253:A:OP1	61:1A:4242:HOH:O	2.09	0.70
1:1A:1385:G:O2'	1:1A:1396:U:O2	2.10	0.70
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.26	0.70
38:2g:78:ARG:HG2	38:2g:79:ARG:HG3	1.73	0.70
32:1a:1267:C:O2	52:1u:20:LYS:NZ	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:2S:25:ARG:HB3	14:2S:40:ILE:HB	1.74	0.70
34:2c:142:MET:HG3	34:2c:170:GLN:HB3	1.72	0.70
37:2f:2:ARG:HE	37:2f:69:GLU:HG2	1.56	0.70
1:1A:2469:A:O3'	12:1Q:56:ARG:NH1	2.25	0.69
1:1A:1913:A:C6	32:1a:1494:G:H5"	2.27	0.69
10:1O:59:LYS:NZ	10:1O:89:ASN:OD1	2.25	0.69
32:1a:354:G:N7	61:1a:1925:HOH:O	2.24	0.69
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.27	0.69
4:2E:176:ILE:HB	4:2E:181:LEU:HB2	1.74	0.69
32:2a:401:C:OP2	35:2d:73:ARG:NH2	2.24	0.69
1:2A:1434:A:H61	1:2A:1558:A:H62	1.39	0.69
1:2A:2136:C:N4	1:2A:2155:G:H1	1.91	0.69
32:2a:309:G:H2'	32:2a:310:G:H8	1.57	0.69
35:2d:57:ARG:NH1	35:2d:205:GLU:OE2	2.25	0.69
1:1A:946:G:OP1	61:1A:4236:HOH:O	2.08	0.69
1:1A:1315:C:OP2	61:1A:4208:HOH:O	2.09	0.69
32:1a:1083:U:OP1	61:1a:1909:HOH:O	2.10	0.69
1:2A:761:A:OP1	61:2A:3926:HOH:O	2.09	0.69
1:2A:890:A:H2'	1:2A:892:G:C8	2.25	0.69
1:2A:2057:A:OP2	61:2A:3940:HOH:O	2.11	0.69
33:2b:100:GLY:O	33:2b:104:ASN:N	2.25	0.69
42:2k:18:ARG:NH2	42:2k:35:PRO:O	2.26	0.69
52:1u:10:ARG:HA	52:1u:13:ILE:HD12	1.74	0.69
1:2A:1603:A:OP1	61:2A:3904:HOH:O	2.10	0.69
1:2A:2592:G:OP1	61:2A:3929:HOH:O	2.09	0.69
6:2G:43:LEU:HD12	6:2G:45:GLU:HG3	1.73	0.69
36:2e:12:LEU:HD22	36:2e:128:PRO:HB2	1.73	0.69
32:1a:864:A:OP1	61:1a:1907:HOH:O	2.09	0.69
1:2A:1278:A:OP1	13:2R:36:THR:HG23	1.93	0.69
32:2a:1345:U:OP2	61:2a:3306:HOH:O	2.11	0.69
33:2b:178:ARG:NH1	33:2b:196:LEU:O	2.25	0.69
11:2P:126:VAL:HG12	11:2P:148:LEU:HD22	1.72	0.69
1:1A:1237:A:OP1	61:1A:4246:HOH:O	2.11	0.69
13:1R:12:ARG:O	13:1R:17:ARG:NH1	2.26	0.69
32:1a:664:G:H22	32:1a:741:G:H1	1.38	0.69
32:1a:870:U:H4'	32:1a:871:U:H5"	1.73	0.69
35:1d:88:VAL:HA	36:1e:97:GLY:HA3	1.75	0.69
1:2A:464:U:O4	61:2A:3930:HOH:O	2.09	0.69
1:2A:924:C:H2'	1:2A:925:C:C6	2.27	0.69
1:2A:1346:G:OP2	61:2A:3933:HOH:O	2.10	0.69
13:2R:97:VAL:HG22	13:2R:114:VAL:HG13	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:22:65:ASN:OD1	24:22:69:ARG:NH1	2.25	0.69
32:2a:537:G:H5"	43:2l:113:ARG:HH12	1.58	0.69
40:2i:105:ASP:HB2	40:2i:107:ARG:HG3	1.75	0.69
40:1i:26:VAL:HG13	40:1i:61:ALA:HB3	1.74	0.69
1:2A:1581:G:H2'	1:2A:1582:C:O4'	1.93	0.69
1:2A:1639:U:H2'	1:2A:1640:C:H5"	1.74	0.69
10:2O:77:ILE:HD12	15:2T:74:ARG:HD2	1.75	0.69
32:2a:643:C:O2'	39:2h:132:GLU:OE1	2.09	0.69
1:1A:279:C:H42	1:1A:361:G:H1	1.41	0.68
1:1A:1185:C:OP2	61:1A:4247:HOH:O	2.11	0.68
32:1a:501:C:OP1	43:1l:117:ARG:NH2	2.25	0.68
33:1b:98:LEU:HG	33:1b:101:MET:HE3	1.74	0.68
1:2A:1902:C:OP2	61:2A:3934:HOH:O	2.10	0.68
32:2a:9:G:OP2	36:2e:121:LYS:NZ	2.26	0.68
32:2a:171:A:H2'	32:2a:172:A:C8	2.28	0.68
37:2f:15:ASP:OD1	37:2f:17:SER:N	2.26	0.68
1:1A:2183:C:H2'	1:1A:2184:G:C8	2.27	0.68
22:10:10:THR:HA	61:10:206:HOH:O	1.91	0.68
32:1a:567:G:N3	61:1a:1924:HOH:O	2.24	0.68
1:2A:973:A:OP2	61:2A:3936:HOH:O	2.10	0.68
21:2Z:46:LYS:O	21:2Z:50:GLN:NE2	2.25	0.68
1:1A:2646:C:OP2	1:1A:2732:G:O2'	2.11	0.68
32:1a:1376:U:OP1	38:1g:98:SER:OG	2.11	0.68
1:2A:861:A:N3	2:2B:79:C:O2'	2.26	0.68
6:2G:64:THR:HB	6:2G:94:LEU:HD21	1.73	0.68
21:2Z:47:VAL:O	21:2Z:50:GLN:NE2	2.27	0.68
32:1a:1027:C:C2	32:1a:1034:G:N2	2.58	0.68
32:1a:1356:G:H2'	32:1a:1357:A:H8	1.57	0.68
1:2A:1007:C:OP1	9:2N:35:ARG:NH1	2.27	0.68
32:2a:1189:C:OP1	41:2j:51:ARG:NH2	2.26	0.68
32:1a:269:C:H2'	32:1a:270:A:C8	2.27	0.68
32:1a:812:C:N3	61:1a:1929:HOH:O	2.27	0.68
1:2A:453:C:OP1	61:2A:3938:HOH:O	2.10	0.68
1:2A:2206:G:H5"	1:2A:2207:G:N7	2.09	0.68
5:2F:185:ASP:HA	5:2F:188:ARG:HD3	1.75	0.68
22:20:11:ARG:O	22:20:14:ARG:NH2	2.27	0.68
33:2b:165:VAL:HG13	33:2b:166:ASP:H	1.57	0.68
1:2A:286:C:H42	1:2A:355:G:H1	1.41	0.68
1:2A:969:U:O4	61:2A:3942:HOH:O	2.11	0.68
1:2A:1352:U:OP2	61:2A:3944:HOH:O	2.12	0.68
1:1A:1062:G:H22	1:1A:1077:A:N6	1.92	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:981:A:OP1	61:2A:3932:HOH:O	2.10	0.68
32:2a:545:C:OP1	35:2d:61:LYS:NZ	2.26	0.68
32:2a:991:U:H2'	32:2a:1212:U:C4	2.28	0.68
12:1Q:16:ARG:HG3	12:1Q:17:LEU:H	1.58	0.68
32:1a:504:C:OP1	61:1a:1910:HOH:O	2.12	0.68
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.75	0.68
32:2a:438:G:H4'	35:2d:123:HIS:CE1	2.28	0.68
32:2a:1029:C:C4	32:2a:1032:G:N1	2.62	0.68
1:1A:1352:U:OP2	61:1A:4244:HOH:O	2.10	0.68
1:1A:2607:G:O6	61:1A:4243:HOH:O	2.09	0.68
5:1F:102:PRO:HB2	5:1F:105:VAL:HG23	1.75	0.68
32:1a:67:C:H2'	32:1a:68:G:C8	2.28	0.68
32:1a:1015:A:H2'	32:1a:1016:A:C8	2.28	0.68
32:2a:433:C:H2'	32:2a:434:U:C6	2.29	0.68
23:11:82:LEU:HA	23:11:85:LEU:HD12	1.74	0.68
32:1a:737:A:H2'	32:1a:738:C:C6	2.29	0.68
1:2A:1785:A:N6	61:2A:3987:HOH:O	2.25	0.68
1:2A:2130:U:H2'	1:2A:2158:A:H61	1.58	0.68
1:2A:2576:G:OP1	61:2A:3939:HOH:O	2.10	0.68
32:2a:539:A:H2'	32:2a:540:G:C8	2.28	0.68
32:2a:976:G:N2	32:2a:1363:C:OP2	2.26	0.68
54:2x:23:C:H2'	54:2x:24:U:H6	1.57	0.68
32:1a:1118:C:OP1	40:1i:104:ARG:NH1	2.26	0.67
34:1c:11:ARG:NH2	34:1c:177:THR:O	2.28	0.67
3:2D:242:ARG:O	61:2D:401:HOH:O	2.11	0.67
21:2Z:157:LEU:HD11	21:2Z:163:LEU:HB2	1.77	0.67
41:2j:78:ASN:O	41:2j:80:LYS:N	2.26	0.67
1:1A:510:C:OP1	61:1A:4216:HOH:O	2.10	0.67
32:1a:448:A:OP2	32:1a:485:G:N1	2.20	0.67
1:2A:804:A:OP1	61:2A:3913:HOH:O	2.10	0.67
27:25:41:PRO:O	27:25:44:THR:OG1	2.12	0.67
32:2a:410:G:H5"	35:2d:30:LYS:HZ3	1.59	0.67
32:2a:661:G:H1	32:2a:744:C:H42	1.41	0.67
34:2c:132:ARG:HA	34:2c:135:LYS:HD2	1.75	0.67
54:2x:50:U:H3	54:2x:64:G:H1	1.40	0.67
1:1A:613:G:N2	1:1A:614(C):A:O2'	2.28	0.67
1:2A:2255:G:OP2	61:2A:3943:HOH:O	2.11	0.67
10:2O:12:ASP:HB3	10:2O:85:VAL:HG13	1.77	0.67
20:2Y:102:CYS:SG	20:2Y:103:GLY:N	2.66	0.67
32:2a:1310:G:H1	32:2a:1327:C:H42	1.43	0.67
1:1A:400:G:N7	61:1A:4326:HOH:O	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1937:A:H1'	1:1A:1939:5MU:H72	1.76	0.67
1:1A:1992:G:N7	61:1A:4327:HOH:O	2.27	0.67
21:1Z:14:LYS:HZ2	21:1Z:16:SER:H	1.41	0.67
1:2A:825:C:O2	11:2P:55:ARG:NH1	2.24	0.67
1:2A:924:C:H2'	1:2A:925:C:H6	1.60	0.67
1:2A:2365:G:N7	30:28:39:LYS:NZ	2.43	0.67
24:22:18:PRO:HB3	24:22:68:ARG:NH1	2.09	0.67
32:2a:903:G:OP1	61:2a:3307:HOH:O	2.13	0.67
32:2a:1289:A:OP1	52:2u:10:ARG:NH2	2.27	0.67
39:2h:36:LEU:HD23	39:2h:39:LEU:HD23	1.77	0.67
4:1E:176:ILE:HB	4:1E:181:LEU:HB2	1.74	0.67
1:2A:343:C:H2'	1:2A:344:G:H8	1.59	0.67
36:2e:32:VAL:HB	36:2e:58:ALA:HB1	1.77	0.67
37:2f:95:GLU:O	49:2r:32:ARG:NH1	2.28	0.67
1:1A:1648:C:OP1	61:1A:4212:HOH:O	2.13	0.67
1:1A:2022:U:OP1	61:1A:4245:HOH:O	2.13	0.67
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	1.75	0.67
32:1a:167:G:H2'	32:1a:168:G:H8	1.59	0.67
32:1a:542:G:OP1	35:1d:10:ARG:NH2	2.27	0.67
47:1p:53:VAL:HG13	47:1p:79:VAL:HG13	1.76	0.67
1:2A:943:U:OP2	61:2A:3935:HOH:O	2.10	0.67
4:2E:52:LEU:O	4:2E:76:ARG:N	2.28	0.67
38:2g:113:GLU:HG2	38:2g:119:ARG:HG2	1.75	0.67
8:1I:77:LEU:HB3	8:1I:142:VAL:HG12	1.76	0.67
32:1a:1366:C:H2'	32:1a:1367:C:H6	1.59	0.67
14:2S:23:ARG:HH11	14:2S:85:VAL:H	1.42	0.67
14:2S:38:GLN:HG2	14:2S:47:THR:HG21	1.77	0.67
34:2c:58:GLU:HB2	34:2c:65:ALA:HB3	1.77	0.67
1:1A:2251:OMG:OP1	61:1A:4251:HOH:O	2.13	0.67
32:1a:1314:C:OP2	50:1s:4:SER:OG	2.11	0.67
41:1j:49:VAL:HG13	45:1n:41:ARG:HB2	1.76	0.67
1:2A:896:A:C2	21:2Z:176:PRO:HB3	2.30	0.67
1:1A:2134:A:N6	1:1A:2157:G:H5'	2.10	0.67
32:1a:1108:G:O6	61:1a:1908:HOH:O	2.09	0.67
1:2A:399:G:OP2	61:2A:3949:HOH:O	2.13	0.67
1:2A:1376:C:OP2	61:2A:3944:HOH:O	2.12	0.67
29:27:24:THR:HG22	29:27:26:GLY:H	1.59	0.67
32:2a:1318:A:H1'	50:2s:37:ARG:HH21	1.60	0.67
54:1x:3:C:H2'	54:1x:4:G:H5"	1.77	0.67
1:2A:896:A:H2	21:2Z:176:PRO:HB3	1.60	0.67
1:2A:2318:G:H21	14:2S:3:ARG:NE	1.93	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:154:ASP:N	21:2Z:154:ASP:OD1	2.27	0.67
41:2j:65:LEU:HD13	45:2n:56:VAL:HG22	1.75	0.67
1:1A:826:U:OP1	61:1A:4207:HOH:O	2.13	0.66
5:1F:64:ILE:HD11	5:1F:75:HIS:HB2	1.77	0.66
32:1a:1505:G:OP2	61:1a:1911:HOH:O	2.12	0.66
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.30	0.66
32:2a:582:U:OP1	46:2o:68:ARG:NH2	2.24	0.66
1:1A:807:U:OP2	11:1P:41:ARG:NH2	2.27	0.66
1:1A:1041:C:H42	1:1A:1114:G:H1	1.43	0.66
1:1A:1823:G:OP1	3:1D:54:ARG:NH1	2.28	0.66
1:1A:2123:G:H2'	1:1A:2124:G:H8	1.60	0.66
1:1A:2478:A:H5'	31:19:31:LYS:HD3	1.78	0.66
1:1A:2749:A:OP1	7:1H:3:ARG:NH1	2.28	0.66
32:1a:17:U:H2'	32:1a:18:C:C6	2.30	0.66
36:1e:53:LEU:H	36:1e:53:LEU:HD12	1.60	0.66
37:1f:18:GLN:HA	37:1f:21:LEU:HG	1.77	0.66
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.11	0.66
1:2A:1011:G:OP1	16:2U:77:SER:OG	2.10	0.66
21:2Z:99:TYR:HB3	21:2Z:123:ASP:HB2	1.76	0.66
33:2b:16:HIS:HE1	33:2b:42:ILE:HD12	1.60	0.66
11:1P:126:VAL:HG12	11:1P:148:LEU:HD13	1.78	0.66
1:2A:854:G:H2'	1:2A:855:G:H8	1.60	0.66
1:2A:903:C:H2'	1:2A:904:C:C6	2.29	0.66
1:2A:2630:G:H2'	1:2A:2631:G:H8	1.61	0.66
1:1A:467:G:OP1	29:17:33:ARG:NH1	2.28	0.66
1:1A:963:U:OP1	61:1A:4249:HOH:O	2.13	0.66
8:1I:56:LYS:O	8:1I:59:ALA:N	2.27	0.66
4:2E:77:ILE:HD13	4:2E:195:LEU:HD22	1.76	0.66
7:2H:7:LEU:HB3	7:2H:69:ARG:HH21	1.60	0.66
1:1A:2136:C:N4	1:1A:2155:G:C6	2.62	0.66
12:1Q:78:PRO:HG2	12:1Q:81:VAL:HG11	1.77	0.66
34:1c:19:GLU:O	34:1c:40:ARG:NH2	2.28	0.66
1:2A:2837:G:N7	61:2A:4006:HOH:O	2.29	0.66
20:2Y:44:ILE:HA	20:2Y:63:LYS:O	1.94	0.66
33:2b:84:GLU:HB3	33:2b:219:VAL:HG21	1.78	0.66
1:1A:2467:C:OP2	61:1A:4252:HOH:O	2.14	0.66
32:1a:324:G:OP1	51:1t:22:ARG:NE	2.24	0.66
1:2A:563:G:OP2	61:2A:3946:HOH:O	2.13	0.66
8:2I:5:LEU:HD11	8:2I:19:VAL:HG22	1.78	0.66
40:2i:4:TYR:HB2	40:2i:19:LEU:HB2	1.78	0.66
50:2s:28:LYS:HB3	50:2s:29:ARG:HA	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:13:U:OP1	61:1a:1912:HOH:O	2.13	0.66
41:1j:8:LEU:HB2	41:1j:70:ARG:HB2	1.77	0.66
1:2A:1936:A:O2'	61:2A:3948:HOH:O	2.13	0.66
1:2A:2729:G:N3	61:2A:4001:HOH:O	2.28	0.66
32:2a:1119:C:H2'	32:2a:1120:G:H8	1.60	0.66
2:1B:87:G:N2	2:1B:90:A:OP2	2.21	0.66
26:14:55:ARG:N	26:14:56:VAL:HA	2.11	0.66
32:2a:537:G:H5"	43:2l:113:ARG:NH1	2.10	0.66
32:2a:1148:U:H2'	32:2a:1149:C:O4'	1.96	0.66
26:14:16:CYS:SG	26:14:17:GLY:N	2.69	0.66
32:1a:429:U:O2'	35:1d:22:LYS:NZ	2.27	0.66
32:1a:626:U:H2'	32:1a:627:G:C8	2.30	0.66
32:1a:673:G:H2'	32:1a:674:G:C8	2.30	0.66
32:1a:859:A:H2'	32:1a:860:A:H8	1.60	0.66
36:1e:77:PRO:HG2	36:1e:142:LEU:HD22	1.76	0.66
43:1l:70:ILE:HG23	43:1l:100:ILE:HD12	1.75	0.66
46:1o:8:LYS:HE3	46:1o:31:LEU:HD22	1.77	0.66
1:2A:821:A:N1	61:2A:4007:HOH:O	2.29	0.66
1:2A:2693:A:H2'	1:2A:2694:G:H8	1.61	0.66
32:2a:6:G:O2'	32:2a:7:G:H5'	1.96	0.66
48:2q:12:SER:HB3	48:2q:20:THR:HB	1.76	0.66
48:2q:65:ILE:HG21	48:2q:69:LYS:HE2	1.78	0.66
1:1A:1009:A:OP2	9:1N:37:LYS:NZ	2.26	0.65
1:1A:1986:A:OP1	61:1A:4248:HOH:O	2.13	0.65
1:2A:459:U:H5"	29:27:40:TRP:CD2	2.31	0.65
17:2V:62:LEU:HD11	17:2V:95:LEU:HB2	1.78	0.65
1:1A:7:G:H2'	1:1A:8:A:C8	2.31	0.65
1:1A:1095:A:N6	1:1A:1097:U:O2	2.29	0.65
24:12:1:MET:H1	24:12:52:ASP:CG	2.04	0.65
32:1a:167:G:H2'	32:1a:168:G:C8	2.31	0.65
32:1a:1373:G:H5"	38:1g:36:LYS:HD2	1.77	0.65
1:2A:320:A:O2'	1:2A:322:A:OP2	2.14	0.65
1:2A:2183:C:H2'	1:2A:2184:G:H8	1.61	0.65
14:2S:34:HIS:O	14:2S:97:ARG:NH2	2.29	0.65
32:2a:1130:A:H5"	40:2i:18:PHE:CE2	2.31	0.65
44:2m:5:ALA:HB3	44:2m:22:ILE:HD12	1.78	0.65
1:1A:642:G:OP1	61:1A:4258:HOH:O	2.14	0.65
1:1A:1762:A:H2'	61:1A:5664:HOH:O	1.96	0.65
1:2A:218:A:OP2	61:2A:3950:HOH:O	2.14	0.65
1:2A:748:G:C8	18:2W:89:ALA:HB1	2.31	0.65
1:2A:2313:C:H2'	1:2A:2314:C:C6	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.32	0.65
7:2H:24:VAL:HG23	7:2H:35:VAL:HB	1.77	0.65
20:2Y:49:VAL:HG21	20:2Y:61:ILE:HG23	1.78	0.65
42:2k:27:ASN:OD1	42:2k:28:THR:N	2.28	0.65
1:1A:530:G:N1	1:1A:2023:G:OP1	2.26	0.65
1:1A:743:G:N7	61:1A:4343:HOH:O	2.29	0.65
1:2A:2364:C:OP1	22:20:55:ARG:NH1	2.30	0.65
7:2H:3:ARG:NH1	7:2H:5:GLY:H	1.90	0.65
33:2b:15:VAL:HG13	33:2b:209:ARG:HB3	1.79	0.65
37:2f:7:ASN:HD21	49:2r:34:TYR:HE1	1.43	0.65
38:2g:13:GLN:HA	38:2g:13:GLN:HE21	1.60	0.65
45:2n:21:TYR:HE1	45:2n:23:ARG:HE	1.43	0.65
1:1A:1267:U:OP1	61:1A:4257:HOH:O	2.14	0.65
8:1I:60:GLU:C	8:1I:62:LYS:H	2.04	0.65
15:1T:51:ARG:HG3	15:1T:98:LYS:HD2	1.77	0.65
33:1b:18:GLY:HA3	33:1b:42:ILE:HG13	1.78	0.65
44:1m:3:ARG:HG3	44:1m:4:ILE:H	1.60	0.65
1:2A:2130:U:H3	1:2A:2159:G:H1	1.44	0.65
2:2B:7:G:H21	14:2S:38:GLN:HE22	1.45	0.65
2:2B:93:G:OP1	21:2Z:79:ARG:NH1	2.30	0.65
3:2D:237:GLU:OE2	61:2D:402:HOH:O	2.15	0.65
1:1A:1023:U:OP2	61:1A:4211:HOH:O	2.15	0.65
2:1B:66:A:H61	2:1B:108:U:H2'	1.61	0.65
12:1Q:85:LYS:HD3	22:10:7:LEU:HD13	1.78	0.65
44:1m:17:VAL:O	44:1m:20:THR:OG1	2.15	0.65
1:1A:811:U:OP1	61:1A:4255:HOH:O	2.14	0.65
12:1Q:60:ARG:NE	21:1Z:180:VAL:HA	2.11	0.65
28:16:13:CYS:SG	28:16:47:THR:HG21	2.37	0.65
46:1o:17:ARG:HH11	46:1o:17:ARG:HG3	1.62	0.65
1:1A:2445:G:OP1	5:1F:74:ARG:NH2	2.29	0.65
28:16:9:LEU:HD13	28:16:51:GLU:HG3	1.78	0.65
48:1q:86:GLU:O	48:1q:90:ILE:HG12	1.97	0.65
1:1A:505:A:OP2	61:1A:4256:HOH:O	2.14	0.65
1:1A:1518:U:H2'	1:1A:1519:G:O4'	1.97	0.65
1:1A:1607:C:H4'	1:1A:1608:A:O5'	1.97	0.65
2:1B:8:U:O3'	14:1S:25:ARG:NH2	2.30	0.65
32:1a:136:C:H42	32:1a:227:G:H1	1.45	0.65
37:1f:68:PRO:HG2	37:1f:71:ARG:HD2	1.78	0.65
1:2A:140:G:H22	1:2A:1596:A:H4'	1.62	0.65
1:2A:1159:U:H2'	1:2A:1160:G:H8	1.61	0.65
1:2A:2611:U:C4	27:25:3:LYS:HG2	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2711:A:OP2	61:2A:3945:HOH:O	2.13	0.65
2:2B:54:G:H21	6:2G:29:TRP:HZ2	1.44	0.65
17:2V:16:PRO:HD3	17:2V:99:ILE:HD11	1.79	0.65
33:2b:69:LEU:HB3	33:2b:162:ILE:HG22	1.79	0.65
41:2j:8:LEU:HD11	41:2j:20:ALA:HB2	1.79	0.65
1:1A:11:G:C2'	1:1A:12:U:H5'	2.28	0.65
1:2A:84:A:H5'	20:2Y:8:LYS:HE3	1.78	0.65
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.59	0.65
32:2a:1161:C:H2'	32:2a:1162:C:C6	2.31	0.65
35:2d:94:LEU:HA	35:2d:97:LEU:HD12	1.79	0.65
32:1a:21:G:H2'	32:1a:22:G:C8	2.32	0.64
1:2A:2689:U:OP2	1:2A:2719:G:N2	2.29	0.64
1:2A:2879:C:OP2	61:2A:3954:HOH:O	2.15	0.64
50:2s:50:ALA:HB1	50:2s:57:HIS:HB3	1.78	0.64
1:1A:1364:G:OP2	23:11:3:LYS:HG3	1.97	0.64
5:1F:101:LEU:O	5:1F:106:ARG:NH1	2.27	0.64
8:1I:40:THR:O	8:1I:44:LEU:HB2	1.96	0.64
27:15:41:PRO:O	27:15:44:THR:OG1	2.14	0.64
32:1a:653:A:OP1	39:1h:56:LYS:NZ	2.30	0.64
32:2a:280:C:N3	48:2q:39:SER:OG	2.30	0.64
32:2a:997:U:H3	32:2a:1044:A:N6	1.95	0.64
34:2c:32:LEU:O	34:2c:36:ASP:HB2	1.95	0.64
23:11:3:LYS:HB2	23:11:61:ARG:HH12	1.60	0.64
1:2A:301:G:OP2	20:2Y:84:ARG:NH2	2.30	0.64
32:2a:5:U:H3	35:2d:87:GLY:H	1.45	0.64
32:2a:1142:G:H3'	32:2a:1143:G:C8	2.31	0.64
34:2c:109:PRO:HA	34:2c:115:LEU:HD23	1.79	0.64
41:2j:49:VAL:HG13	41:2j:61:GLU:HB3	1.79	0.64
50:2s:49:ILE:HG22	50:2s:62:ILE:HD11	1.79	0.64
1:1A:422:A:OP2	61:1A:4264:HOH:O	2.15	0.64
8:1I:62:LYS:HE3	8:1I:133:HIS:HE1	1.62	0.64
32:1a:780:A:OP2	61:1a:1914:HOH:O	2.14	0.64
40:1i:17:VAL:HB	40:1i:63:ILE:HG23	1.80	0.64
41:1j:47:PHE:CZ	45:1n:37:PHE:HE2	2.16	0.64
1:2A:731:C:OP2	61:2A:3926:HOH:O	2.15	0.64
32:2a:1138:G:O2'	32:2a:1140:C:OP1	2.15	0.64
33:2b:92:TYR:N	33:2b:151:GLY:O	2.30	0.64
1:1A:1045:A:OP1	1:1A:1046:A:H3'	1.96	0.64
32:1a:1246:C:H42	32:1a:1291:G:H1	1.46	0.64
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.31	0.64
8:2I:93:THR:H	8:2I:96:ASP:HB2	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:692:U:O2'	32:2a:694:A:N7	2.25	0.64
34:2c:113:ALA:HB2	34:2c:202:ILE:HG13	1.78	0.64
47:2p:53:VAL:HG22	47:2p:79:VAL:HG22	1.80	0.64
1:1A:1292:U:H2'	1:1A:1293:C:C6	2.33	0.64
32:1a:658:G:H2'	32:1a:659:U:H6	1.60	0.64
34:1c:3:ASN:OD1	34:1c:3:ASN:N	2.31	0.64
47:1p:57:ARG:HH21	47:1p:79:VAL:HA	1.60	0.64
1:2A:1557:C:OP2	1:2A:1558:A:O2'	2.16	0.64
49:2r:53:ARG:O	49:2r:57:GLY:N	2.29	0.64
1:1A:784:A:H5'	1:1A:785:G:OP1	1.98	0.64
1:1A:1235:G:O6	61:1A:4250:HOH:O	2.13	0.64
1:1A:2243:U:OP1	61:1A:4254:HOH:O	2.14	0.64
32:1a:1036:G:H3'	32:1a:1037:C:C6	2.33	0.64
32:1a:1129:C:H5"	40:1i:16:ARG:HH12	1.63	0.64
33:1b:78:GLN:OE1	33:1b:95:GLN:NE2	2.30	0.64
42:1k:85:ARG:HD3	42:1k:113:PRO:HD3	1.79	0.64
1:2A:370:G:OP2	61:2A:3956:HOH:O	2.15	0.64
1:2A:607:U:OP1	5:2F:102:PRO:HA	1.98	0.64
3:2D:108:PRO:HB3	3:2D:143:HIS:HE1	1.63	0.64
14:2S:3:ARG:NH2	14:2S:4:LEU:O	2.31	0.64
21:2Z:157:LEU:HB3	21:2Z:161:VAL:HG12	1.80	0.64
32:2a:1006:C:H42	32:2a:1023:G:H1	1.44	0.64
45:2n:27:CYS:SG	45:2n:28:GLY:N	2.70	0.64
1:1A:674:G:OP2	61:1A:4262:HOH:O	2.15	0.64
32:1a:1376:U:H2'	32:1a:1377:A:C8	2.33	0.64
1:2A:2042:A:OP1	61:2A:3951:HOH:O	2.14	0.64
25:23:6:VAL:HG13	25:23:56:VAL:HG22	1.78	0.64
35:2d:175:SER:HB3	35:2d:186:LEU:HD21	1.78	0.64
41:2j:55:LYS:O	41:2j:57:LYS:N	2.30	0.64
48:2q:67:LYS:HA	48:2q:70:ARG:HH12	1.62	0.64
50:2s:18:LYS:HD3	50:2s:31:ILE:HG21	1.80	0.64
48:1q:67:LYS:HA	48:1q:70:ARG:HH12	1.63	0.64
1:1A:382:G:O6	61:1A:4265:HOH:O	2.15	0.64
1:1A:848:G:H2'	1:1A:849:A:C8	2.32	0.64
14:1S:39:ILE:HB	14:1S:49:VAL:HG13	1.78	0.64
32:1a:1074:G:O2'	32:1a:1101:A:N1	2.29	0.64
32:1a:1255:G:N7	41:1j:43:ARG:NH2	2.42	0.64
1:2A:625:G:N7	11:2P:107:LYS:NZ	2.42	0.64
2:2B:50:G:OP1	14:2S:63:THR:OG1	2.14	0.64
12:2Q:45:GLN:N	12:2Q:45:GLN:OE1	2.31	0.64
23:21:53:VAL:HG22	23:21:74:VAL:HG13	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1063:G:H2'	1:1A:1064:C:C5	2.33	0.63
2:1B:42:C:OP1	6:1G:67:LYS:NZ	2.30	0.63
1:2A:2104:G:H1	1:2A:2185:C:H42	1.45	0.63
1:2A:2135:A:N1	1:2A:2156:G:O2'	2.30	0.63
1:2A:2162:G:H4'	1:2A:2172:U:H2'	1.79	0.63
6:2G:46:ALA:HB2	6:2G:53:LEU:HD23	1.80	0.63
32:2a:1323:G:H2'	32:2a:1324:A:C8	2.34	0.63
32:1a:524:G:H2'	32:1a:525:C:C6	2.32	0.63
32:1a:600:C:H2'	32:1a:601:C:C6	2.30	0.63
32:1a:1025:U:O2	32:1a:1036:G:O6	2.16	0.63
32:1a:1197:G:OP2	61:1a:1915:HOH:O	2.15	0.63
1:2A:2438:U:OP1	61:2A:3953:HOH:O	2.15	0.63
32:2a:1052:U:O2'	32:2a:1055:A:OP2	2.15	0.63
32:2a:1295:G:H21	32:2a:1302:U:H3	1.45	0.63
1:1A:667:U:O2	30:18:2:PRO:HD2	1.99	0.63
1:1A:2336:A:H61	22:10:43:THR:CG2	2.12	0.63
12:1Q:60:ARG:NH1	21:1Z:179:ASP:H	1.97	0.63
35:1d:116:GLN:HE22	35:1d:161:ASN:HD21	1.44	0.63
38:1g:78:ARG:NH1	38:1g:154:TYR:O	2.31	0.63
49:1r:31:LEU:HD23	49:1r:31:LEU:H	1.63	0.63
51:1t:10:LEU:O	51:1t:13:LEU:HD11	1.98	0.63
1:2A:660:G:H5'	5:2F:99:TYR:CE1	2.33	0.63
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.31	0.63
1:2A:1379:A:H4'	1:2A:1380:G:OP2	1.97	0.63
2:2B:90:A:N7	2:2B:91:C:H1'	2.13	0.63
7:2H:137:ASP:HB3	7:2H:140:LYS:HB3	1.80	0.63
12:2Q:39:PRO:HD3	12:2Q:99:PRO:HG3	1.79	0.63
32:2a:222:U:H2'	32:2a:223:U:C6	2.33	0.63
32:2a:600:C:H2'	32:2a:601:C:C6	2.33	0.63
33:2b:8:LYS:HB3	33:2b:217:ARG:HE	1.62	0.63
1:1A:228:A:H8	1:1A:229:A:H5'	1.62	0.63
1:1A:578:A:OP2	61:1A:4260:HOH:O	2.15	0.63
1:1A:668:G:H5'	1:1A:669:G:OP2	1.98	0.63
1:1A:1076:C:O2'	1:1A:1077:A:N7	2.31	0.63
32:1a:1032:G:H2'	32:1a:1033:G:O4'	1.99	0.63
32:2a:1286:A:C8	32:2a:1287:A:H4'	2.33	0.63
34:2c:44:GLU:HA	34:2c:52:LEU:HD23	1.79	0.63
1:1A:1164:G:H2'	1:1A:1165:U:C6	2.33	0.63
1:1A:1183:G:O2'	25:13:29:ARG:NH2	2.31	0.63
1:1A:2611:U:H5'	1:1A:2611:U:H6	1.64	0.63
33:1b:88:ALA:HB2	33:1b:219:VAL:HG13	1.78	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:122:PHE:HE2	33:1b:139:LYS:HB2	1.63	0.63
1:2A:2785:C:O2'	4:2E:66:HIS:ND1	2.27	0.63
2:2B:48:A:OP2	14:2S:30:ARG:NH2	2.32	0.63
8:2I:40:THR:OG1	8:2I:41:GLU:N	2.30	0.63
9:2N:34:LEU:O	9:2N:49:GLY:HA3	1.99	0.63
18:2W:88:ARG:NH1	18:2W:94:ASP:OD2	2.30	0.63
32:2a:134:A:H61	47:2p:25:ARG:NH1	1.96	0.63
42:2k:87:THR:O	42:2k:87:THR:OG1	2.15	0.63
32:1a:116:A:H61	32:1a:313:A:H1'	1.64	0.63
47:1p:49:LEU:HD12	47:1p:50:LYS:H	1.63	0.63
1:2A:733:G:OP2	61:2A:3952:HOH:O	2.14	0.63
1:2A:2751:G:H8	7:2H:2:SER:CA	2.11	0.63
32:2a:15:G:H2'	32:2a:16:A:H8	1.63	0.63
34:2c:131:ARG:HH21	36:2e:50:GLU:HG3	1.64	0.63
37:2f:2:ARG:NE	37:2f:69:GLU:HG2	2.13	0.63
1:1A:338:G:OP2	61:1A:4268:HOH:O	2.16	0.63
32:1a:670:G:H2'	32:1a:671:G:H8	1.63	0.63
1:2A:1755:A:P	15:2T:113:LYS:HZ1	2.22	0.63
2:2B:43:C:O2	6:2G:95:ARG:NH2	2.29	0.63
32:2a:838:G:H1	32:2a:848:C:H42	1.47	0.63
1:1A:1588:C:H2'	1:1A:1589:C:H6	1.64	0.63
11:1P:106:LEU:HD22	11:1P:112:LEU:HD13	1.81	0.63
35:1d:65:ARG:NH1	35:1d:72:GLU:HB2	2.14	0.63
39:1h:10:LEU:HD22	39:1h:83:ILE:HD11	1.80	0.63
1:2A:2138:C:N4	1:2A:2153:G:H1	1.97	0.63
1:1A:271(I):G:N7	1:1A:271(J):C:N4	2.46	0.63
1:1A:1075:C:H2'	1:1A:1076:C:H5'	1.81	0.63
7:1H:3:ARG:NH2	7:1H:5:GLY:H	1.96	0.63
1:2A:1401:G:H2'	1:2A:1402:C:O4'	1.98	0.63
32:2a:1012:U:H2'	32:2a:1013:G:C8	2.34	0.63
33:2b:104:ASN:OD1	33:2b:107:THR:OG1	2.17	0.63
2:1B:91:C:OP2	12:1Q:16:ARG:NH1	2.32	0.62
11:1P:42:SER:O	61:1P:301:HOH:O	2.15	0.62
32:1a:165:C:H2'	32:1a:166:G:H8	1.64	0.62
32:1a:1036:G:H5"	32:1a:1037:C:C5	2.34	0.62
32:1a:1305:G:H22	32:1a:1331:G:H1'	1.63	0.62
1:2A:1633:G:OP2	61:2A:3955:HOH:O	2.15	0.62
1:2A:2314:C:H2'	1:2A:2315:G:H8	1.64	0.62
7:2H:20:ALA:HB3	7:2H:23:ARG:HB2	1.81	0.62
10:2O:49:ARG:NH2	32:2a:1423:G:OP1	2.24	0.62
32:2a:737:A:H2'	32:2a:738:C:C6	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2069:G:OP1	61:1A:4263:HOH:O	2.15	0.62
12:1Q:111:GLU:OE2	12:1Q:133:ARG:NH2	2.32	0.62
32:1a:1226:C:H4'	50:1s:80:TYR:OH	1.99	0.62
44:1m:37:THR:O	44:1m:55:ARG:NH1	2.32	0.62
1:2A:578:A:OP2	61:2A:3957:HOH:O	2.16	0.62
7:2H:33:LEU:HD12	7:2H:75:ALA:HA	1.79	0.62
10:2O:98:VAL:HG21	10:2O:114:ILE:HG23	1.81	0.62
20:2Y:28:LYS:N	20:2Y:38:ILE:O	2.30	0.62
21:2Z:150:LEU:HB3	21:2Z:171:ILE:HG13	1.81	0.62
32:2a:951:G:N7	44:2m:102:ARG:NH2	2.47	0.62
32:2a:979:C:H42	45:2n:18:VAL:HG22	1.63	0.62
1:1A:443:A:H1'	1:1A:1201:C:O4'	1.98	0.62
32:1a:1381:U:H1'	38:1g:79:ARG:HG2	1.80	0.62
1:2A:1203:G:OP2	1:2A:1204:A:O2'	2.13	0.62
8:2I:81:VAL:HG12	8:2I:82:ARG:HH12	1.64	0.62
32:2a:862:C:H1'	32:2a:874:G:H5"	1.80	0.62
32:2a:1310:G:H5'	44:2m:77:ASN:ND2	2.10	0.62
1:1A:2328:A:H2'	1:1A:2329:G:C8	2.34	0.62
1:1A:2724:C:OP1	4:1E:118:LYS:NZ	2.30	0.62
5:1F:53:THR:HG23	5:1F:55:GLY:H	1.64	0.62
11:1P:90:ARG:HG2	11:1P:90:ARG:HH11	1.65	0.62
24:12:4:SER:HA	24:12:7:ARG:HG3	1.82	0.62
32:1a:159:G:N2	32:1a:162:A:OP2	2.32	0.62
32:1a:667:G:H4'	46:1o:51:HIS:ND1	2.14	0.62
34:1c:152:ILE:HB	34:1c:199:LYS:HB2	1.81	0.62
39:1h:21:LYS:O	39:1h:65:TYR:OH	2.17	0.62
40:1i:42:ARG:NH1	40:1i:71:SER:OG	2.31	0.62
1:2A:879:G:H3'	1:2A:880:G:C8	2.33	0.62
23:21:3:LYS:HB2	23:21:61:ARG:HH22	1.63	0.62
32:2a:986:A:H1'	50:2s:54:GLY:O	1.98	0.62
2:1B:12:C:H2'	22:10:73:GLY:HA3	1.82	0.62
32:1a:376:G:H5"	47:1p:5:ARG:HB3	1.82	0.62
40:1i:17:VAL:HG21	40:1i:81:ILE:HG22	1.80	0.62
40:1i:19:LEU:HB3	40:1i:59:PHE:CD1	2.35	0.62
1:2A:2784:C:H1'	4:2E:37:ARG:HH12	1.62	0.62
40:2i:89:ASN:HD22	40:2i:91:ASP:H	1.45	0.62
9:1N:137:LYS:NZ	9:1N:139:GLU:OE2	2.32	0.62
20:1Y:34:LYS:NZ	61:1Y:301:HOH:O	2.33	0.62
22:10:8:GLY:HA2	54:1x:2:G:H5'	1.80	0.62
33:1b:98:LEU:HB2	33:1b:101:MET:HG3	1.81	0.62
35:1d:10:ARG:HB2	35:1d:40:PRO:HG3	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1653:G:H3'	13:2R:2:ARG:HD3	1.80	0.62
1:2A:2028:U:O4	61:2A:3941:HOH:O	2.11	0.62
32:2a:1103:C:H4'	33:2b:98:LEU:HD21	1.81	0.62
32:2a:1305:G:O2'	32:2a:1331:G:N2	2.32	0.62
33:2b:15:VAL:HB	33:2b:213:LEU:HD12	1.82	0.62
33:2b:188:ALA:HB1	33:2b:192:SER:HB2	1.81	0.62
32:1a:739:C:O2'	46:1o:42:HIS:ND1	2.32	0.62
32:1a:828:A:H2'	32:1a:829:G:O4'	1.99	0.62
1:2A:1754:C:H5	15:2T:96:ARG:HH21	1.46	0.62
1:2A:2114:A:H62	1:2A:2115:G:H21	1.46	0.62
1:2A:2461:C:H2'	1:2A:2462:U:C6	2.34	0.62
32:2a:1209:C:O2'	32:2a:1214:C:N4	2.33	0.62
35:2d:64:LEU:HB2	35:2d:198:VAL:HG21	1.82	0.62
4:1E:12:THR:HG22	4:1E:13:ARG:H	1.65	0.62
4:1E:28:ALA:HB3	4:1E:93:VAL:HG12	1.82	0.62
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.35	0.62
1:2A:443:A:H5"	1:2A:444:C:OP1	2.00	0.62
1:2A:466:A:OP1	29:27:34:ARG:NH1	2.32	0.62
14:2S:3:ARG:NH1	14:2S:4:LEU:H	1.97	0.62
51:2t:60:GLU:HG3	51:2t:81:LYS:HD2	1.81	0.62
54:2x:50:U:H2'	54:2x:51:C:H6	1.64	0.62
1:1A:302:C:H2'	1:1A:303:U:H6	1.65	0.62
37:1f:33:TYR:CD2	37:1f:75:LEU:HD23	2.34	0.62
1:2A:344:G:N2	1:2A:345:A:H62	1.97	0.62
1:2A:651:G:OP1	30:28:19:SER:OG	2.14	0.62
1:2A:1827:C:OP2	3:2D:222:ARG:NH1	2.32	0.62
1:2A:2074:U:H2'	1:2A:2075:U:C6	2.35	0.62
21:2Z:28:MET:HE3	21:2Z:59:LEU:HD12	1.81	0.62
41:2j:25:GLU:OE2	41:2j:29:ARG:NH2	2.33	0.62
1:1A:2849:U:OP2	15:1T:95:ARG:NH1	2.33	0.62
32:1a:486:U:H2'	32:1a:487:A:H8	1.65	0.62
32:1a:1008:C:N3	32:1a:1021:G:O6	2.33	0.62
39:1h:120:THR:H	39:1h:123:GLU:HB2	1.64	0.62
1:2A:492:A:H2'	1:2A:493:G:O4'	2.00	0.62
1:2A:1864:U:OP1	1:2A:2410:G:O2'	2.18	0.62
13:2R:38:VAL:HG12	13:2R:42:LYS:HE3	1.82	0.62
13:2R:87:TYR:OH	13:2R:117:VAL:O	2.12	0.62
21:2Z:145:GLU:HB2	21:2Z:148:ASP:OD2	2.00	0.62
38:2g:113:GLU:HG3	38:2g:118:VAL:HG12	1.80	0.62
40:2i:9:ARG:O	40:2i:104:ARG:HG3	1.99	0.62
33:1b:101:MET:HA	33:1b:108:ILE:HD12	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:47:VAL:HG11	4:2E:86:PRO:HD2	1.82	0.61
7:2H:20:ALA:HB1	7:2H:21:PRO:HD2	1.82	0.61
11:2P:39:LYS:HB2	11:2P:45:LEU:HD13	1.81	0.61
20:2Y:9:LYS:NZ	20:2Y:28:LYS:O	2.33	0.61
32:2a:1097:C:O2'	32:2a:1169:A:N3	2.31	0.61
36:2e:143:ARG:HB3	36:2e:147:ASP:HB2	1.81	0.61
4:1E:7:VAL:HG23	4:1E:51:PHE:HE2	1.64	0.61
10:1O:115:VAL:HG13	10:1O:121:VAL:HG21	1.82	0.61
32:1a:1355:G:H2'	32:1a:1356:G:C8	2.34	0.61
1:2A:298:G:O6	61:2A:3947:HOH:O	2.13	0.61
1:2A:752:A:H3'	29:27:1:MET:HE1	1.82	0.61
1:2A:2115:G:O2'	1:2A:2117:A:N7	2.23	0.61
32:2a:296:U:O2'	32:2a:556:C:O2	2.18	0.61
33:2b:114:ARG:O	33:2b:118:LEU:N	2.33	0.61
1:1A:796:C:H2'	1:1A:797:C:C6	2.35	0.61
5:1F:183:VAL:O	5:1F:187:VAL:HG23	2.00	0.61
29:17:21:ARG:NH1	61:17:201:HOH:O	2.10	0.61
32:1a:270:A:H2'	32:1a:271:C:C6	2.35	0.61
3:2D:273:ARG:HG2	3:2D:274:ARG:H	1.65	0.61
6:2G:165:THR:HG22	6:2G:168:GLU:HG3	1.83	0.61
11:2P:44:GLY:O	11:2P:45:LEU:HB2	1.99	0.61
1:1A:301:G:OP2	20:1Y:84:ARG:NH2	2.34	0.61
1:1A:1356:G:OP2	61:1A:4272:HOH:O	2.16	0.61
23:21:2:SER:HB3	23:21:46:LEU:HD12	1.82	0.61
32:2a:352:C:O2'	32:2a:354:G:OP1	2.16	0.61
32:2a:1218:C:OP2	45:2n:9:LYS:NZ	2.22	0.61
35:2d:19:LEU:HB3	35:2d:21:LEU:HD21	1.82	0.61
1:1A:1104:C:H2'	1:1A:1105:U:C6	2.35	0.61
1:1A:2790:A:H3'	1:1A:2790:A:N3	2.15	0.61
32:1a:1268:A:H2'	32:1a:1269:A:C8	2.35	0.61
32:1a:1442:G:O2'	32:1a:1442(A):G:H5'	2.01	0.61
11:2P:85:LEU:HG	11:2P:116:GLY:HA2	1.83	0.61
1:1A:2336:A:H61	22:10:43:THR:HG22	1.65	0.61
51:1t:63:ILE:HD12	51:1t:81:LYS:HG2	1.82	0.61
1:2A:125:G:H5"	29:27:19:ARG:HD3	1.81	0.61
1:2A:253:C:OP2	30:28:5:LYS:NZ	2.25	0.61
1:2A:586:A:N1	1:2A:809:G:O2'	2.22	0.61
1:2A:1514:U:H2'	1:2A:1515:G:C8	2.35	0.61
3:2D:180:GLY:HA3	3:2D:275:LYS:HG2	1.82	0.61
32:2a:376:G:H4'	47:2p:5:ARG:HE	1.66	0.61
32:2a:1093:A:H8	32:2a:1093:A:OP2	1.84	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1258:G:H2'	32:2a:1259:C:H6	1.65	0.61
32:2a:1512:U:H2'	32:2a:1513:A:C8	2.35	0.61
38:2g:68:ASN:ND2	38:2g:128:ALA:O	2.34	0.61
1:1A:1057:A:N6	1:1A:1087:G:OP2	2.28	0.61
32:1a:189(K):U:H2'	32:1a:189(L):G:C8	2.36	0.61
44:1m:102:ARG:HH21	44:1m:105:THR:HG23	1.65	0.61
1:2A:854:G:H2'	1:2A:855:G:C8	2.36	0.61
32:2a:792:A:H4'	32:2a:793:U:H5"	1.82	0.61
32:2a:1123:A:H4'	41:2j:37:PRO:HD2	1.82	0.61
54:2x:64:G:H2'	54:2x:65:C:C6	2.35	0.61
1:1A:113:G:H5'	61:1A:4557:HOH:O	2.01	0.61
1:1A:1055:G:H2'	1:1A:1056:G:O4'	2.01	0.61
1:1A:1817:G:OP1	3:1D:88:ARG:NH2	2.34	0.61
43:1l:24:VAL:HB	43:1l:27:LEU:HD12	1.83	0.61
20:2Y:28:LYS:HD2	20:2Y:40:GLU:HB2	1.81	0.61
1:1A:1030:G:OP2	12:1Q:128:LYS:NZ	2.33	0.61
1:1A:1174:A:H4'	1:1A:1175:U:OP1	1.99	0.61
9:1N:62:VAL:HG22	9:1N:66:LYS:HD2	1.83	0.61
32:1a:177:C:H2'	32:1a:178:C:H6	1.65	0.61
32:1a:1355:G:H2'	32:1a:1356:G:H8	1.66	0.61
37:1f:13:ASN:ND2	37:1f:55:ASP:OD2	2.34	0.61
7:2H:102:ALA:HB2	7:2H:116:GLU:HG3	1.83	0.61
23:21:65:SER:OG	23:21:66:HIS:ND1	2.28	0.61
32:2a:948:C:H2'	32:2a:949:A:H8	1.66	0.61
1:1A:2168:G:N1	1:1A:2171:A:N7	2.49	0.61
1:2A:2711:A:N3	61:2A:4009:HOH:O	2.31	0.61
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.36	0.61
10:2O:76:ALA:HB3	15:2T:75:ILE:HB	1.81	0.61
32:2a:1010:G:H2'	32:2a:1011:G:H8	1.66	0.61
34:2c:52:LEU:HD13	34:2c:68:VAL:HG13	1.83	0.61
1:1A:489:G:N7	18:1W:49:LYS:NZ	2.49	0.60
1:1A:818:G:OP2	61:1A:4267:HOH:O	2.16	0.60
1:1A:2603:G:H3'	61:1A:4315:HOH:O	1.99	0.60
4:1E:119:ARG:HD3	4:1E:160:TYR:HB2	1.83	0.60
1:2A:587:C:P	11:2P:21:ARG:HH22	2.24	0.60
1:2A:2637:U:OP1	4:2E:82:ARG:NH1	2.34	0.60
6:2G:11:TYR:CZ	6:2G:16:ARG:HD3	2.36	0.60
14:2S:66:ALA:HA	14:2S:69:VAL:HG12	1.84	0.60
17:2V:12:TYR:CD1	17:2V:20:LEU:HD21	2.36	0.60
33:2b:91:PRO:HG2	33:2b:155:LEU:HD13	1.83	0.60
44:2m:86:CYS:SG	44:2m:89:GLY:N	2.70	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:530:G:O6	61:1A:4245:HOH:O	2.10	0.60
1:1A:1876:A:H2'	1:1A:1877:A:C8	2.35	0.60
3:1D:221:VAL:O	61:1D:401:HOH:O	2.16	0.60
1:2A:2280:G:O2'	1:2A:2388:A:N1	2.31	0.60
1:2A:2682:U:OP2	61:2A:3958:HOH:O	2.16	0.60
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	1.83	0.60
2:2B:3:C:H2'	2:2B:4:C:H6	1.66	0.60
32:2a:272:C:H2'	32:2a:273:A:H8	1.64	0.60
32:2a:913:A:H4'	32:2a:914:A:O5'	2.02	0.60
34:2c:37:GLN:NE2	45:2n:52:GLN:OE1	2.30	0.60
1:1A:1071:G:OP1	1:1A:1071:G:H3'	2.02	0.60
9:1N:67:LEU:O	9:1N:88:GLU:HB2	2.01	0.60
14:1S:27:SER:HA	14:1S:88:ASP:HB3	1.82	0.60
32:1a:880:C:OP1	43:1l:8:ASN:ND2	2.32	0.60
32:1a:953:G:H5'	32:1a:965:A:H61	1.66	0.60
32:1a:1186:G:H21	45:1n:61:TRP:C	2.09	0.60
6:2G:122:PRO:HB3	6:2G:170:ARG:NH2	2.16	0.60
12:2Q:75:THR:HG21	12:2Q:87:LYS:HE3	1.84	0.60
32:2a:1109:C:H2'	32:2a:1110:A:O4'	2.01	0.60
32:2a:1492:A:H2'	32:2a:1493:A:C4	2.37	0.60
44:2m:90:LEU:HG	44:2m:93:ARG:HE	1.67	0.60
21:1Z:98:MET:O	21:1Z:125:LEU:HD12	2.02	0.60
35:1d:7:PRO:HB2	35:1d:10:ARG:HD2	1.83	0.60
8:2I:59:ALA:HA	8:2I:62:LYS:HG3	1.84	0.60
26:24:48:ARG:HA	26:24:48:ARG:HE	1.66	0.60
32:2a:9:G:H2'	32:2a:10:A:C8	2.36	0.60
32:2a:9:G:H2'	32:2a:10:A:H8	1.66	0.60
32:2a:412:A:O4'	35:2d:35:ARG:NH2	2.35	0.60
32:2a:417:C:H2'	32:2a:418:C:H6	1.67	0.60
32:2a:598:U:O4	61:2a:3308:HOH:O	2.16	0.60
33:2b:155:LEU:HD11	33:2b:159:PRO:HG3	1.84	0.60
35:2d:59:ARG:NH1	35:2d:59:ARG:HA	2.17	0.60
43:2l:28:LYS:HG3	43:2l:62:SER:HB2	1.84	0.60
50:2s:28:LYS:CB	50:2s:29:ARG:HA	2.32	0.60
1:1A:2052:G:H4'	4:1E:143:ASN:O	2.02	0.60
1:1A:2552:OMU:OP2	61:1A:4271:HOH:O	2.16	0.60
32:1a:859:A:H2'	32:1a:860:A:C8	2.37	0.60
32:1a:922:G:H4'	36:1e:20:GLN:HA	1.82	0.60
40:1i:34:ASN:HD22	40:1i:34:ASN:N	1.99	0.60
1:2A:1939:5MU:OP1	1:2A:2604:U:O2'	2.14	0.60
1:2A:2161:C:H2'	1:2A:2162:G:O4'	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:36:ARG:NH1	4:2E:85:ASN:OD1	2.34	0.60
26:24:41:PRO:HG3	26:24:49:PHE:CZ	2.36	0.60
32:2a:8:A:C6	35:2d:209:ARG:HB2	2.36	0.60
32:2a:1033:G:H2'	32:2a:1034:G:H8	1.65	0.60
54:2x:40:C:H2'	54:2x:41:C:H6	1.65	0.60
5:1F:13:SER:HB2	5:1F:127:GLU:HG3	1.82	0.60
32:1a:278:G:OP2	48:1q:92:ARG:NH2	2.33	0.60
32:1a:1036:G:H3'	32:1a:1037:C:H6	1.66	0.60
32:1a:1054:C:OP2	61:1a:1915:HOH:O	2.17	0.60
32:1a:1525:G:P	42:1k:120:ARG:HH22	2.25	0.60
1:2A:1788:C:H2'	1:2A:1789:A:H8	1.66	0.60
2:2B:1:U:H2'	2:2B:2:C:H6	1.66	0.60
12:2Q:16:ARG:HG3	12:2Q:17:LEU:H	1.66	0.60
32:2a:457:C:H2'	32:2a:458:C:H6	1.65	0.60
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.84	0.60
32:2a:1051:C:H2'	32:2a:1052:U:H6	1.65	0.60
35:2d:149:ALA:HB3	35:2d:152:SER:HB2	1.84	0.60
39:2h:116:LYS:NZ	39:2h:127:LEU:O	2.34	0.60
45:2n:29:ARG:HG2	45:2n:31:ARG:H	1.67	0.60
34:1c:114:PRO:O	34:1c:118:GLN:NE2	2.35	0.60
1:2A:862:G:OP2	61:2A:3960:HOH:O	2.17	0.60
1:2A:2141:G:H2'	1:2A:2142:C:O4'	2.02	0.60
35:2d:150:GLU:HA	35:2d:153:ARG:HE	1.67	0.60
47:2p:14:ASN:OD1	47:2p:16:HIS:HE1	1.84	0.60
49:2r:66:LEU:O	49:2r:70:ILE:HG13	2.01	0.60
1:1A:944:G:O3'	61:1A:4261:HOH:O	2.15	0.60
32:1a:474:G:H5'	32:1a:475:G:OP2	2.01	0.60
32:1a:1492:A:H2'	32:1a:1493:A:C8	2.37	0.60
1:2A:2702:U:H4'	1:2A:2703:C:OP1	2.00	0.60
32:2a:1226:C:H4'	50:2s:80:TYR:CZ	2.37	0.60
1:1A:1058:G:N1	1:1A:1080:C:N4	2.47	0.60
11:1P:91:PHE:O	11:1P:121:LYS:NZ	2.35	0.60
21:1Z:24:LEU:HD22	21:1Z:41:LEU:HD12	1.83	0.60
32:1a:1338:G:H2'	32:1a:1339:A:C8	2.37	0.60
40:1i:89:ASN:ND2	40:1i:91:ASP:H	1.99	0.60
43:1l:90:VAL:O	43:1l:92:0TD:N	2.28	0.60
1:2A:2079:U:O3'	23:21:35:THR:OG1	2.20	0.60
6:2G:11:TYR:OH	6:2G:16:ARG:HD3	2.02	0.60
11:2P:121:LYS:HE2	11:2P:123:LEU:HD11	1.83	0.60
32:2a:1271:G:C2	32:2a:1272:G:N7	2.70	0.60
48:2q:81:ARG:HH21	48:2q:84:LEU:HD21	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:71:A:N7	19:1X:31:HIS:HE1	2.00	0.60
1:1A:787:U:OP2	61:1A:4274:HOH:O	2.17	0.60
1:1A:1721:G:H3'	1:1A:1722:A:H5"	1.84	0.60
10:1O:35:VAL:HA	10:1O:62:VAL:HG12	1.84	0.60
12:1Q:60:ARG:HG3	21:1Z:180:VAL:H	1.67	0.60
1:2A:1627:G:OP2	61:2A:3961:HOH:O	2.17	0.60
8:2I:3:VAL:HA	8:2I:39:ALA:H	1.66	0.60
32:2a:187:C:O2'	51:2t:89:ARG:NH2	2.35	0.60
32:2a:1119:C:H2'	32:2a:1120:G:C8	2.37	0.60
44:2m:40:ASN:HD22	44:2m:43:THR:HG23	1.67	0.60
50:2s:27:GLU:HB3	50:2s:47:HIS:NE2	2.17	0.60
1:1A:271(P):C:O3'	8:1I:42:SER:OG	2.20	0.59
2:1B:48:A:H4'	14:1S:95:HIS:HD2	1.67	0.59
32:1a:1261:A:H3'	32:1a:1262:C:H6	1.66	0.59
32:1a:1318:A:H5'	50:1s:10:PHE:CE1	2.36	0.59
40:1i:3:GLN:HE21	40:1i:20:ARG:NH2	2.00	0.59
1:2A:265:A:C8	1:2A:266:G:H1'	2.37	0.59
1:2A:480:A:OP2	20:2Y:47:LYS:HE3	2.02	0.59
1:2A:483:A:O2'	20:2Y:49:VAL:O	2.16	0.59
32:2a:15:G:H2'	32:2a:16:A:C8	2.37	0.59
32:2a:936:C:H2'	32:2a:937:A:H8	1.67	0.59
33:2b:27:LYS:O	33:2b:194:PRO:HG2	2.02	0.59
1:1A:143:G:H1'	19:1X:37:THR:HG21	1.84	0.59
14:1S:26:LEU:HB2	14:1S:85:VAL:HG21	1.84	0.59
51:1t:9:ASN:O	51:1t:10:LEU:HB2	2.01	0.59
2:2B:1:U:H2'	2:2B:2:C:C6	2.37	0.59
32:2a:1239:A:H62	32:2a:1299:A:N6	2.00	0.59
43:2l:8:ASN:O	43:2l:12:ARG:HG3	2.02	0.59
1:1A:1890:A:OP2	61:1A:4266:HOH:O	2.15	0.59
1:1A:2115:G:C2'	1:1A:2116:G:H5"	2.31	0.59
9:1N:15:LEU:HD23	9:1N:137:LYS:HD2	1.83	0.59
32:1a:111:G:H5"	47:1p:27:LYS:HB3	1.84	0.59
37:1f:69:GLU:O	37:1f:71:ARG:N	2.33	0.59
7:2H:12:PRO:O	7:2H:15:VAL:HG23	2.01	0.59
7:2H:159:GLU:HG3	7:2H:169:VAL:HG11	1.84	0.59
12:2Q:110:THR:HB	12:2Q:113:GLN:HG3	1.84	0.59
14:2S:4:LEU:HD22	14:2S:8:GLU:OE2	2.02	0.59
32:2a:519:C:H2'	32:2a:520:A:C8	2.38	0.59
32:2a:1279:A:O2'	32:2a:1281:U:OP2	2.13	0.59
32:2a:1406:U:H3'	32:2a:1407:5MC:HM53	1.84	0.59
1:1A:1058:G:N2	1:1A:1080:C:N3	2.44	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:11:52:ARG:NH1	23:11:55:GLY:O	2.35	0.59
32:1a:1240:U:OP2	38:1g:116:ALA:N	2.31	0.59
1:2A:141:A:H2'	1:2A:1408:C:O2'	2.02	0.59
1:2A:2320:A:N3	1:2A:2320:A:H2'	2.17	0.59
6:2G:41:GLN:O	6:2G:43:LEU:N	2.36	0.59
10:2O:63:VAL:HB	10:2O:102:VAL:HG12	1.84	0.59
19:2X:60:ARG:NH2	29:27:47:ARG:HH22	2.00	0.59
32:2a:1123:A:H1'	41:2j:37:PRO:O	2.01	0.59
1:1A:1814:G:O6	61:1A:4269:HOH:O	2.16	0.59
1:1A:2228:G:OP1	3:1D:261:LYS:NZ	2.34	0.59
32:1a:1278:U:H5'	32:1a:1279:A:O4'	2.01	0.59
1:2A:1600:C:OP1	19:2X:58:HIS:NE2	2.31	0.59
2:1B:2:C:H2'	2:1B:3:C:H6	1.68	0.59
32:1a:1080:A:H5'	36:1e:14:ARG:HH21	1.67	0.59
41:1j:47:PHE:N	41:1j:63:PHE:O	2.31	0.59
1:2A:140:G:N2	1:2A:1596:A:H4'	2.17	0.59
1:2A:1739:U:HO2'	1:2A:1740:G:H8	1.49	0.59
1:2A:2099:U:H3	1:2A:2190:G:H1	1.51	0.59
9:2N:123:TYR:OH	9:2N:130:HIS:NE2	2.28	0.59
32:2a:560:U:H5'	32:2a:566:G:N2	2.18	0.59
32:2a:1133:G:H1	32:2a:1141:C:H42	1.51	0.59
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.17	0.59
1:1A:2145:C:OP2	1:1A:2146:C:N4	2.34	0.59
32:1a:353:A:H5'	32:1a:353:A:H8	1.68	0.59
32:1a:411:A:OP1	35:1d:30:LYS:NZ	2.35	0.59
50:1s:35:SER:HB3	50:1s:38:SER:OG	2.02	0.59
1:2A:1178:C:H2'	1:2A:1179:C:C6	2.38	0.59
32:2a:1187:G:N2	45:2n:60:SER:OG	2.22	0.59
36:2e:40:ARG:CZ	36:2e:68:GLU:HA	2.32	0.59
37:2f:62:TRP:CH2	37:2f:64:GLN:HB2	2.37	0.59
38:2g:70:LYS:HG2	38:2g:96:GLN:HB3	1.83	0.59
1:1A:911:A:H2'	12:1Q:9:TYR:OH	2.03	0.59
1:1A:1488:G:N2	1:1A:1502:C:O2	2.35	0.59
6:1G:43:LEU:HD23	6:1G:53:LEU:HD23	1.85	0.59
14:1S:61:ASN:HB3	14:1S:64:GLU:HB2	1.85	0.59
32:1a:580:U:H2'	32:1a:581:G:O4'	2.03	0.59
32:1a:945:G:OP1	61:1a:1917:HOH:O	2.16	0.59
37:1f:2:ARG:HD2	37:1f:69:GLU:HB3	1.85	0.59
1:2A:2114:A:H2	1:2A:2171:A:H61	1.47	0.59
1:2A:2134:A:OP2	1:2A:2157:G:N2	2.36	0.59
1:2A:2136:C:H42	1:2A:2155:G:H1	1.50	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2D:85:ASP:OD2	3:2D:88:ARG:NH1	2.30	0.59
4:2E:104:VAL:HG13	4:2E:198:VAL:HG22	1.85	0.59
10:2O:63:VAL:HG11	10:2O:85:VAL:HG23	1.84	0.59
26:24:16:CYS:HA	26:24:33:VAL:HG12	1.84	0.59
28:26:6:ARG:NH1	28:26:26:ASN:HB2	2.18	0.59
32:2a:64:G:H4'	32:2a:65:U:H3'	1.83	0.59
32:2a:881:G:P	43:2l:12:ARG:HH22	2.26	0.59
40:2i:5:TYR:HE1	40:2i:16:ARG:HB3	1.67	0.59
1:1A:271(K):U:H1'	8:1I:50:ARG:HD2	1.83	0.59
1:1A:800:A:H8	1:1A:800:A:OP1	1.86	0.59
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.37	0.59
1:1A:1439:A:OP1	61:1A:4278:HOH:O	2.17	0.59
4:1E:174:ASP:OD1	4:1E:175:VAL:N	2.35	0.59
12:1Q:60:ARG:HH21	21:1Z:183:LEU:HG	1.68	0.59
32:1a:976:G:H5'	32:1a:1358:U:O2'	2.02	0.59
34:1c:18:TRP:H	34:1c:18:TRP:HE3	1.49	0.59
34:1c:35:GLU:CD	34:1c:59:ARG:HH12	2.11	0.59
1:2A:818:G:OP2	61:2A:3959:HOH:O	2.16	0.59
1:2A:2315:G:H2'	1:2A:2316:C:C6	2.38	0.59
29:27:24:THR:HG22	29:27:26:GLY:N	2.17	0.59
33:2b:185:ILE:HG22	33:2b:199:TYR:HB2	1.85	0.59
1:1A:184:C:H2'	1:1A:185:U:H6	1.67	0.59
1:1A:2765:A:OP2	61:1A:4276:HOH:O	2.17	0.59
2:1B:7:G:H5'	14:1S:29:PHE:CE2	2.37	0.59
14:1S:93:LYS:HG2	14:1S:95:HIS:HB2	1.84	0.59
33:1b:132:LYS:O	33:1b:136:VAL:HG22	2.03	0.59
36:1e:74:GLY:HA3	36:1e:116:THR:HG22	1.85	0.59
1:2A:2324:C:H5"	1:2A:2325:G:H5'	1.83	0.59
32:2a:662:G:O2'	32:2a:836:G:OP1	2.21	0.59
32:2a:1376:U:OP1	38:2g:98:SER:OG	2.17	0.59
47:2p:75:ARG:O	47:2p:78:GLY:N	2.33	0.59
1:1A:1025:G:O2'	61:1A:4211:HOH:O	1.98	0.58
1:1A:1814:G:OP1	3:1D:40:THR:OG1	2.21	0.58
1:1A:2134:A:O2'	1:1A:2135:A:OP1	2.19	0.58
8:1I:56:LYS:O	8:1I:57:ARG:C	2.46	0.58
24:12:25:VAL:HG13	24:12:57:ILE:HG23	1.83	0.58
32:1a:971:G:N2	32:1a:1363(A):A:OP2	2.32	0.58
33:1b:69:LEU:HD13	33:1b:155:LEU:HD22	1.83	0.58
37:1f:86:ARG:O	37:1f:87:ARG:HG2	2.02	0.58
1:2A:642:G:H21	1:2A:646:A:H2	1.51	0.58
1:2A:2299:G:N1	1:2A:2318:G:N7	2.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2307:G:H8	1:2A:2307:G:OP1	1.85	0.58
1:2A:2811:G:N2	1:2A:2891:G:H1'	2.18	0.58
17:2V:52:VAL:HG23	17:2V:55:ALA:HB3	1.84	0.58
32:2a:84:U:H4'	32:2a:89:C:C4	2.38	0.58
32:2a:1029:C:N4	32:2a:1032:G:N1	2.51	0.58
50:2s:30:LEU:HD11	50:2s:50:ALA:HB2	1.83	0.58
50:2s:32:LYS:HD3	50:2s:34:TRP:CZ3	2.37	0.58
1:1A:251:A:C5	1:1A:252:G:H1'	2.38	0.58
1:1A:570:G:H2'	1:1A:2030:A:N7	2.19	0.58
1:1A:2176:A:H2'	1:1A:2177:C:C6	2.38	0.58
9:1N:73:THR:HB	9:1N:82:LEU:HD11	1.85	0.58
32:1a:193:C:H2'	32:1a:194:C:H6	1.69	0.58
32:1a:1039:C:H2'	32:1a:1040:U:H6	1.68	0.58
33:1b:28:PHE:HD1	33:1b:194:PRO:HG3	1.67	0.58
1:2A:2693:A:H2'	1:2A:2694:G:C8	2.38	0.58
32:2a:1134:G:N1	32:2a:1135:U:H1'	2.18	0.58
37:2f:46:ARG:HB2	37:2f:60:PHE:CE1	2.38	0.58
50:2s:41:VAL:HG22	50:2s:44:MET:HE3	1.85	0.58
1:1A:1453:U:O2'	1:1A:1455:G:N7	2.33	0.58
13:1R:105:ARG:HG2	13:1R:105:ARG:HH11	1.68	0.58
32:1a:1302:U:OP1	44:1m:13:LYS:NZ	2.25	0.58
34:1c:188:LEU:HD11	34:1c:195:VAL:HG13	1.86	0.58
37:1f:8:ILE:HD11	37:1f:79:LEU:HD13	1.85	0.58
37:1f:38:GLU:HB2	37:1f:64:GLN:HG3	1.84	0.58
1:2A:2109:U:H2'	1:2A:2110:G:H5'	1.85	0.58
1:2A:2646:C:OP2	1:2A:2732:G:O2'	2.21	0.58
21:2Z:92:SER:O	21:2Z:94:GLU:N	2.36	0.58
32:2a:587:G:N2	32:2a:754:C:OP2	2.31	0.58
32:2a:1010:G:N2	32:2a:1020:U:H1'	2.18	0.58
38:2g:120:ILE:O	38:2g:124:LEU:HB2	2.02	0.58
41:2j:81:THR:C	41:2j:83:GLU:H	2.12	0.58
1:1A:286:C:H2'	1:1A:287:C:C6	2.39	0.58
1:1A:1058:G:H1	1:1A:1080:C:N4	2.00	0.58
1:1A:1165:U:H2'	1:1A:1166:C:C6	2.37	0.58
1:1A:2118:U:H5	1:1A:2148:G:N3	2.02	0.58
1:1A:2667:C:N3	7:1H:110:SER:OG	2.35	0.58
12:1Q:60:ARG:HB3	21:1Z:178:GLU:O	2.03	0.58
1:2A:271(Q):G:OP1	8:2I:42:SER:HB2	2.04	0.58
1:2A:2122:U:H3	1:2A:2176:A:H61	1.51	0.58
32:2a:736:C:H2'	32:2a:737:A:C8	2.38	0.58
32:2a:768:A:OP2	61:2a:3309:HOH:O	2.16	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:893:C:H2'	1:1A:894:C:C6	2.38	0.58
1:1A:1045:A:OP1	1:1A:1045:A:H4'	2.01	0.58
1:1A:2218:U:O4'	23:11:52:ARG:NH2	2.36	0.58
32:1a:1140:C:H2'	32:1a:1141:C:H6	1.69	0.58
36:1e:13:ILE:HA	36:1e:29:GLY:O	2.04	0.58
1:2A:1755:A:OP2	15:2T:113:LYS:NZ	2.29	0.58
1:2A:2291:U:O2'	1:2A:2374:C:O2	2.21	0.58
2:2B:50:G:OP1	14:2S:63:THR:N	2.36	0.58
2:2B:62:C:H2'	2:2B:63:G:C8	2.38	0.58
18:2W:23:LEU:HD21	27:25:25:LEU:HB2	1.84	0.58
19:2X:32:PRO:HA	19:2X:77:LYS:HD2	1.85	0.58
32:2a:551:U:H2'	32:2a:552:U:C6	2.38	0.58
34:2c:112:SER:HB3	34:2c:115:LEU:HD22	1.85	0.58
36:2e:102:ALA:O	36:2e:107:ARG:NH2	2.36	0.58
47:2p:28:ARG:NH1	47:2p:29:ASP:OD1	2.37	0.58
51:2t:57:ARG:HH12	51:2t:100:ILE:HD12	1.69	0.58
54:2x:50:U:H2'	54:2x:51:C:C6	2.38	0.58
1:1A:1798:U:H5'	3:1D:259:THR:CG2	2.33	0.58
7:1H:28:GLY:HA3	7:1H:79:VAL:HB	1.86	0.58
32:1a:1216:G:H5"	45:1n:5:ALA:CB	2.33	0.58
33:1b:12:GLU:O	33:1b:15:VAL:HG22	2.02	0.58
35:1d:116:GLN:HE22	35:1d:161:ASN:ND2	2.01	0.58
1:2A:2232:U:P	23:21:40:ARG:HH12	2.25	0.58
32:2a:671:G:H2'	32:2a:672:U:O4'	2.04	0.58
35:2d:41:GLY:O	35:2d:44:GLY:N	2.37	0.58
1:1A:1991:U:H2'	1:1A:1992:G:H5"	1.86	0.58
32:1a:373:A:H2'	32:1a:374:A:H8	1.67	0.58
32:1a:1036:G:H5"	32:1a:1037:C:H5	1.68	0.58
36:1e:85:GLY:O	36:1e:87:SER:N	2.37	0.58
38:1g:71:PRO:HB3	38:1g:138:LYS:HG3	1.86	0.58
54:1x:8:4SU:O5'	54:1x:8:4SU:H6	2.03	0.58
2:2B:54:G:N2	6:2G:29:TRP:HZ2	2.02	0.58
43:2l:32:PHE:HB3	43:2l:84:LEU:HD11	1.86	0.58
1:1A:740:U:OP1	61:1A:4283:HOH:O	2.17	0.58
26:14:63:TYR:N	26:14:64:GLY:HA2	2.19	0.58
32:1a:519:C:H2'	32:1a:520:A:C8	2.38	0.58
32:1a:646:U:H2'	32:1a:647:C:C6	2.38	0.58
48:1q:45:HIS:O	48:1q:73:VAL:HG23	2.04	0.58
1:2A:860:U:H1'	1:2A:2268:A:H5'	1.85	0.58
2:2B:42:C:O2'	6:2G:67:LYS:O	2.14	0.58
32:2a:1010:G:H2'	32:2a:1011:G:C8	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1016:A:H2'	32:2a:1017:G:O4'	2.04	0.58
32:2a:1131:G:OP1	40:2i:20:ARG:NH2	2.37	0.58
34:2c:111:LEU:HD21	34:2c:146:ALA:HB2	1.86	0.58
51:2t:40:ALA:HB2	51:2t:55:ILE:HB	1.84	0.58
1:1A:2079:U:OP1	23:11:21:ARG:NH2	2.27	0.58
1:1A:2508:G:OP1	61:1A:4277:HOH:O	2.17	0.58
6:1G:44:GLY:HA2	6:1G:88:ILE:HG22	1.84	0.58
18:1W:71:VAL:HA	18:1W:107:LEU:HD23	1.84	0.58
32:1a:222:U:H2'	32:1a:223:U:C6	2.38	0.58
34:1c:57:ILE:HG12	34:1c:66:VAL:HG12	1.84	0.58
40:1i:28:VAL:HG22	40:1i:63:ILE:HB	1.86	0.58
4:2E:53:PRO:HA	4:2E:75:VAL:HA	1.86	0.58
8:2I:82:ARG:CZ	8:2I:82:ARG:H	2.17	0.58
19:2X:49:VAL:HA	19:2X:87:GLN:HE22	1.69	0.58
24:22:67:LYS:O	24:22:70:GLN:HB3	2.02	0.58
32:2a:1152:A:H2'	32:2a:1153:C:C6	2.39	0.58
33:2b:68:ILE:HG12	33:2b:161:ALA:HB3	1.84	0.58
7:1H:75:ALA:O	7:1H:79:VAL:HG22	2.03	0.58
32:1a:79:G:O6	32:1a:90:U:O2	2.21	0.58
32:1a:737:A:H2'	32:1a:738:C:H6	1.69	0.58
35:1d:15:GLU:OE2	35:1d:66:ARG:NH1	2.36	0.58
41:1j:47:PHE:HB2	41:1j:63:PHE:HB2	1.86	0.58
1:2A:2126:A:N6	1:2A:2162:G:O2'	2.25	0.58
1:2A:2247:A:H2'	1:2A:2248:C:H6	1.69	0.58
3:2D:276:LYS:NZ	32:2a:776:G:O6	2.36	0.58
8:2I:69:LYS:HZ3	8:2I:138:ILE:HG12	1.69	0.58
32:2a:930:C:H2'	32:2a:931:C:O4'	2.04	0.58
32:2a:1068:G:N2	32:2a:1191:A:N3	2.51	0.58
34:2c:130:VAL:O	34:2c:134:ILE:HG12	2.04	0.58
40:2i:88:TYR:CD2	40:2i:89:ASN:HB2	2.39	0.58
1:1A:123:G:OP2	61:1A:4281:HOH:O	2.17	0.57
1:1A:1062:G:H8	1:1A:1070:A:H4'	1.69	0.57
1:1A:2227:A:OP2	61:1A:4275:HOH:O	2.17	0.57
32:1a:1525:G:OP1	42:1k:120:ARG:NH2	2.37	0.57
1:2A:192:C:O2'	1:2A:802:A:N3	2.36	0.57
1:2A:479:A:N3	1:2A:481:G:H5"	2.19	0.57
1:2A:1227:G:OP2	16:2U:16:LYS:NZ	2.36	0.57
1:2A:1364:G:C8	23:21:3:LYS:HD2	2.39	0.57
26:24:44:THR:O	26:24:46:GLN:N	2.36	0.57
32:2a:1190:G:O2'	34:2c:3:ASN:HB2	2.03	0.57
32:2a:1259:C:N4	32:2a:1260:C:O2	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1263:C:N3	32:2a:1272:G:O6	2.37	0.57
33:2b:27:LYS:HB2	33:2b:194:PRO:HD2	1.85	0.57
33:2b:144:ARG:NH2	33:2b:148:TYR:OH	2.37	0.57
35:2d:57:ARG:HH22	36:2e:107:ARG:HD3	1.68	0.57
3:1D:239:ARG:NE	61:1D:405:HOH:O	2.36	0.57
12:1Q:16:ARG:HG2	12:1Q:18:LYS:HG2	1.86	0.57
12:1Q:60:ARG:HD2	21:1Z:179:ASP:N	2.19	0.57
35:1d:18:LYS:HE2	35:1d:31:CYS:SG	2.44	0.57
1:2A:1027:A:C2	1:2A:2488:A:H5'	2.39	0.57
1:2A:2526:G:H5'	1:2A:2742:C:O2'	2.04	0.57
1:2A:2721:A:OP1	61:2A:3958:HOH:O	2.17	0.57
2:2B:15:A:OP2	2:2B:69:G:N2	2.37	0.57
4:2E:1:MET:HE2	4:2E:202:LYS:HZ2	1.68	0.57
7:2H:45:VAL:HG12	7:2H:50:VAL:HG22	1.85	0.57
10:2O:76:ALA:O	15:2T:74:ARG:HG3	2.04	0.57
15:2T:118:ARG:HA	15:2T:121:ILE:HD12	1.86	0.57
19:2X:46:ALA:HA	24:22:30:ARG:HH12	1.69	0.57
38:2g:20:ASP:HB3	38:2g:23:VAL:HB	1.86	0.57
40:2i:9:ARG:H	40:2i:79:LEU:HD23	1.69	0.57
40:2i:88:TYR:HD2	40:2i:89:ASN:HB2	1.68	0.57
1:1A:1028:A:N6	1:1A:1125:G:H2'	2.19	0.57
1:1A:1187:G:OP2	61:1A:4279:HOH:O	2.17	0.57
1:1A:2156:G:H2'	1:1A:2157:G:C2	2.39	0.57
32:1a:259:G:OP2	51:1t:83:ARG:NH1	2.36	0.57
32:1a:864:A:H2'	32:1a:865:A:C8	2.38	0.57
1:2A:286:C:H2'	1:2A:287:C:H6	1.68	0.57
1:2A:322:A:P	5:2F:169:ASN:HB2	2.44	0.57
1:2A:1938:A:OP2	61:2A:3963:HOH:O	2.17	0.57
7:2H:103:LEU:HD22	7:2H:105:LEU:HG	1.85	0.57
32:2a:881:G:OP2	43:2l:12:ARG:NH2	2.37	0.57
32:2a:985:C:H2'	32:2a:986:A:C8	2.40	0.57
33:2b:189:ASP:OD1	33:2b:189:ASP:N	2.37	0.57
1:1A:1422:G:N1	1:1A:1576:U:O2	2.19	0.57
6:1G:38:VAL:HG22	6:1G:93:THR:HG23	1.86	0.57
18:1W:86:LEU:HD22	18:1W:96:ILE:HD11	1.86	0.57
19:1X:26:TYR:CD1	19:1X:92:LEU:HD12	2.39	0.57
21:1Z:76:LEU:HD12	21:1Z:83:PRO:HA	1.86	0.57
32:1a:144:G:H1	32:1a:178:C:H42	1.52	0.57
32:1a:990:C:N4	32:1a:991:U:O4	2.37	0.57
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.39	0.57
36:1e:43:LEU:HD21	36:1e:132:ALA:HB1	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:2:LEU:HB3	12:2Q:69:PHE:CE1	2.39	0.57
32:2a:127:G:HO2'	48:2q:2:PRO:N	2.01	0.57
32:2a:413:G:H21	32:2a:428:G:H1'	1.69	0.57
32:2a:673:G:H5"	37:2f:87:ARG:NH1	2.18	0.57
32:2a:1149:C:O2'	32:2a:1280:A:N1	2.30	0.57
39:2h:20:TYR:HA	39:2h:65:TYR:CZ	2.40	0.57
42:2k:73:MET:HG2	42:2k:103:LEU:HD21	1.86	0.57
1:1A:886:C:OP1	1:1A:886:C:H4'	2.03	0.57
1:1A:2155:G:H2'	1:1A:2155:G:N3	2.19	0.57
5:1F:157:VAL:HB	5:1F:194:MET:HG2	1.85	0.57
10:1O:64:ARG:HB2	10:1O:83:ALA:HB3	1.85	0.57
26:14:44:THR:O	26:14:47:GLN:HB2	2.05	0.57
30:18:23:VAL:HG11	30:18:47:LYS:HD3	1.86	0.57
32:1a:103:C:OP2	51:1t:14:LYS:NZ	2.28	0.57
32:1a:165:C:H2'	32:1a:166:G:C8	2.40	0.57
32:1a:1125:U:H4'	41:1j:5:ARG:NH2	2.20	0.57
1:2A:195:A:H61	1:2A:198:C:H3'	1.69	0.57
1:2A:1364:G:N7	23:21:3:LYS:HD2	2.19	0.57
1:2A:2183:C:H2'	1:2A:2184:G:C8	2.39	0.57
1:2A:2396:G:OP1	23:21:25:LYS:NZ	2.26	0.57
6:2G:7:LEU:HD23	6:2G:100:TRP:HE3	1.70	0.57
25:23:26:LEU:HD21	25:23:46:ASN:HB2	1.87	0.57
32:2a:664:G:N2	32:2a:741:G:H1	1.97	0.57
32:2a:1142:G:H2'	32:2a:1143:G:O4'	2.04	0.57
39:2h:35:ILE:O	39:2h:39:LEU:HD22	2.04	0.57
1:1A:773:U:OP1	61:1A:4280:HOH:O	2.17	0.57
1:1A:1069:A:H1'	1:1A:1096:A:H4'	1.86	0.57
1:1A:1794:U:H2'	1:1A:1795:C:H6	1.69	0.57
1:1A:1815:A:OP2	3:1D:54:ARG:NH2	2.38	0.57
43:1l:53:ARG:HB3	43:1l:69:TYR:HE1	1.69	0.57
1:2A:1590:U:H2'	1:2A:1591:G:C8	2.40	0.57
1:2A:2103:C:H1'	1:2A:2187:G:N2	2.19	0.57
5:2F:64:ILE:HG23	5:2F:76:GLY:O	2.04	0.57
20:2Y:8:LYS:HD3	20:2Y:97:ARG:NH1	2.20	0.57
26:24:50:VAL:HG22	44:2m:65:LYS:HB3	1.86	0.57
32:2a:828:A:H2'	32:2a:829:G:O4'	2.05	0.57
32:2a:1333:A:H2'	32:2a:1334:G:O4'	2.05	0.57
20:1Y:99:CYS:HB2	20:1Y:106:LEU:HD21	1.87	0.57
26:14:55:ARG:H	26:14:56:VAL:HA	1.69	0.57
32:1a:626:U:H2'	32:1a:627:G:H8	1.69	0.57
32:1a:946:A:H2'	32:1a:947:G:C8	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1402:4OC:HM43	32:1a:1500:A:H61	1.69	0.57
1:2A:529:A:H62	1:2A:2041:U:H3	1.53	0.57
3:2D:108:PRO:HD2	3:2D:111:LEU:HD22	1.87	0.57
32:2a:1007:C:H2'	32:2a:1008:C:H5"	1.86	0.57
35:2d:72:GLU:OE2	35:2d:207:TYR:OH	2.21	0.57
8:1I:75:LEU:HD22	8:1I:105:HIS:CD2	2.39	0.57
44:1m:57:ARG:HG3	44:1m:61:GLU:OE2	2.05	0.57
45:1n:29:ARG:HD2	45:1n:42:ILE:HD12	1.86	0.57
32:2a:107:G:H2'	32:2a:108:G:O4'	2.05	0.57
32:2a:193:C:H2'	32:2a:194:C:C6	2.39	0.57
32:2a:922:G:N3	32:2a:1398:A:H2	2.02	0.57
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.40	0.57
1:1A:882:G:H1	1:1A:894:C:H42	1.52	0.57
1:1A:1062:G:N2	1:1A:1077:A:H61	2.02	0.57
17:1V:34:GLU:HB3	17:1V:56:SER:HB2	1.85	0.57
32:1a:134:A:H61	47:1p:25:ARG:NH1	2.02	0.57
32:1a:193:C:H2'	32:1a:194:C:C6	2.40	0.57
47:1p:4:ILE:HB	47:1p:66:PRO:HA	1.87	0.57
1:2A:815:C:H2'	1:2A:816:C:H6	1.70	0.57
1:2A:863:A:P	12:2Q:22:LYS:HG3	2.45	0.57
1:2A:1005:C:H2'	1:2A:1006:C:H6	1.70	0.57
1:2A:2698:U:H2'	1:2A:2699:C:C6	2.40	0.57
2:2B:2:C:H2'	2:2B:3:C:C6	2.39	0.57
36:2e:57:LYS:HG2	36:2e:61:TYR:CE2	2.40	0.57
36:2e:122:GLU:HG2	36:2e:131:ILE:HD12	1.87	0.57
1:1A:1778:U:H2'	1:1A:1784:A:N6	2.20	0.57
54:1x:61:C:H2'	54:1x:62:C:H6	1.70	0.57
1:2A:2537:U:H2'	1:2A:2538:C:H6	1.67	0.57
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.39	0.57
14:2S:27:SER:HA	14:2S:88:ASP:HB3	1.86	0.57
23:21:85:LEU:HD22	23:21:89:GLU:HB3	1.86	0.57
32:2a:1411:C:H2'	32:2a:1412:C:C6	2.39	0.57
37:2f:70:ASP:OD1	37:2f:71:ARG:HG3	2.05	0.57
42:2k:21:ILE:HD13	42:2k:30:VAL:HG22	1.87	0.57
1:1A:226:G:H21	1:1A:228:A:H62	1.53	0.56
1:1A:2267:A:H5"	1:1A:2268:A:H5'	1.86	0.56
1:1A:2801(A):A:H1'	1:1A:2895:U:H1'	1.86	0.56
22:10:27:GLU:HG3	22:10:68:GLU:HA	1.87	0.56
32:1a:1028:C:H2'	32:1a:1029:C:O4'	2.05	0.56
1:2A:144:C:H2'	1:2A:145:G:H8	1.70	0.56
1:2A:1149:G:H2'	1:2A:1150:C:C6	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2689:U:P	1:2A:2719:G:H22	2.28	0.56
32:2a:598:U:H2'	32:2a:599:C:C6	2.40	0.56
34:2c:108:ASN:HD21	34:2c:144:SER:HB3	1.69	0.56
34:2c:119:ARG:HE	34:2c:140:ARG:CZ	2.18	0.56
35:2d:50:ARG:HH12	36:2e:10:MET:HG2	1.69	0.56
1:1A:875:G:O2'	21:1Z:151:HIS:HE1	1.88	0.56
1:1A:1209:G:OP2	61:1A:4284:HOH:O	2.18	0.56
1:1A:2573:C:H3'	61:1A:4320:HOH:O	2.04	0.56
32:1a:1080:A:H5'	36:1e:14:ARG:NH2	2.19	0.56
36:1e:20:GLN:NE2	36:1e:21:ALA:O	2.39	0.56
42:1k:31:THR:HA	42:1k:42:TRP:HA	1.87	0.56
1:2A:30:G:H2'	1:2A:31:C:C6	2.39	0.56
1:2A:882:G:H22	1:2A:894:C:N4	2.03	0.56
1:2A:1503:U:H2'	1:2A:1504:C:C6	2.40	0.56
1:2A:1508:A:H4'	1:2A:1509(A):A:C5	2.40	0.56
2:2B:24:G:H4'	2:2B:25:A:N7	2.20	0.56
10:2O:24:VAL:HA	10:2O:39:ILE:HG22	1.87	0.56
13:2R:24:GLN:HB3	13:2R:44:LEU:HD11	1.88	0.56
17:2V:1:MET:HE3	17:2V:44:LYS:H	1.70	0.56
32:2a:427:U:OP1	35:2d:13:ARG:NH1	2.37	0.56
32:2a:975:A:N1	41:2j:48:THR:HB	2.20	0.56
34:2c:6:HIS:HB3	45:2n:49:HIS:HD2	1.69	0.56
39:2h:116:LYS:O	39:2h:119:LEU:HD21	2.05	0.56
1:1A:1693:U:O2'	3:1D:14:ARG:NH2	2.38	0.56
2:1B:24:G:N7	2:1B:56:G:H2'	2.20	0.56
32:1a:661:G:H1	32:1a:744:C:H42	1.53	0.56
32:1a:1531:A:H8	32:1a:1531:A:O5'	1.87	0.56
34:1c:62:ASP:O	34:1c:97:LYS:HB3	2.05	0.56
41:1j:35:SER:HB3	41:1j:73:ASP:HB2	1.85	0.56
43:1l:8:ASN:O	43:1l:12:ARG:HG3	2.06	0.56
50:1s:23:ASN:HA	50:1s:27:GLU:OE1	2.06	0.56
50:1s:63:THR:OG1	50:1s:66:MET:HE3	2.04	0.56
51:1t:13:LEU:HD12	51:1t:14:LYS:H	1.71	0.56
1:2A:154(A):C:N4	1:2A:171:G:H1	2.04	0.56
1:2A:298:G:H5"	1:2A:299:A:OP1	2.05	0.56
12:2Q:78:PRO:HD3	54:2x:1:C:C2	2.41	0.56
28:26:9:LEU:HA	28:26:54:ILE:HB	1.86	0.56
32:2a:273:A:H1'	48:2q:16:GLN:HE21	1.70	0.56
32:2a:1122:U:N3	32:2a:1123:A:N7	2.53	0.56
32:2a:1329:A:H5'	44:2m:29:ARG:HE	1.69	0.56
32:2a:1352:C:H2'	32:2a:1353:G:C8	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:216:SER:O	33:2b:220:ASP:N	2.26	0.56
33:2b:217:ARG:HA	33:2b:220:ASP:HB2	1.86	0.56
37:2f:2:ARG:HH11	37:2f:92:LYS:NZ	2.03	0.56
42:2k:41:THR:OG1	42:2k:42:TRP:N	2.36	0.56
44:2m:78:ILE:HA	44:2m:81:LEU:HD12	1.86	0.56
47:2p:56:ALA:O	47:2p:60:LEU:HB2	2.04	0.56
1:1A:1968:G:OP1	61:1A:4225:HOH:O	2.17	0.56
4:1E:33:VAL:HG13	4:1E:47:VAL:HG12	1.88	0.56
11:1P:82:GLY:HA2	11:1P:113:LYS:O	2.05	0.56
30:18:23:VAL:HG13	30:18:47:LYS:HB3	1.86	0.56
32:1a:1190:G:O6	61:1a:1913:HOH:O	2.13	0.56
32:1a:1223:C:OP2	50:1s:78:ARG:NH2	2.39	0.56
33:1b:155:LEU:HD11	33:1b:159:PRO:HG3	1.87	0.56
38:1g:79:ARG:NH2	38:1g:80:VAL:HG22	2.21	0.56
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.20	0.56
1:2A:2880:C:O3'	13:2R:90:ARG:NH1	2.36	0.56
2:2B:2:C:O2'	2:2B:3:C:H5'	2.06	0.56
6:2G:16:ARG:O	6:2G:20:ILE:HG13	2.06	0.56
14:2S:23:ARG:NH1	14:2S:85:VAL:H	2.03	0.56
21:2Z:152:ALA:HB1	21:2Z:163:LEU:HD21	1.87	0.56
1:1A:1858:G:N2	1:1A:1883:G:H2'	2.21	0.56
3:1D:108:PRO:HB3	3:1D:143:HIS:CE1	2.41	0.56
21:1Z:19:ARG:NH1	21:1Z:84:GLU:O	2.38	0.56
32:1a:1025:U:C2	32:1a:1036:G:O6	2.59	0.56
32:1a:1074:G:O6	61:1a:1916:HOH:O	2.16	0.56
1:2A:143:G:H2'	1:2A:143(A):C:C6	2.40	0.56
1:2A:660:G:H5'	5:2F:99:TYR:CD1	2.41	0.56
11:2P:2:LYS:HG2	11:2P:3:LEU:N	2.21	0.56
12:2Q:66:ILE:HG12	12:2Q:104:PHE:CE1	2.40	0.56
32:2a:7:G:O2'	36:2e:120:THR:O	2.23	0.56
32:2a:438:G:N1	32:2a:495:A:OP2	2.38	0.56
32:2a:940:C:H2'	32:2a:941:G:C8	2.40	0.56
32:2a:1272:G:N2	32:2a:1273:G:C5	2.73	0.56
38:2g:32:ARG:HB3	38:2g:32:ARG:HH11	1.71	0.56
2:1B:66:A:H61	2:1B:109:C:H5'	1.70	0.56
3:1D:148:GLU:HB2	3:1D:151:LYS:HD2	1.88	0.56
8:1I:124:GLY:H	8:1I:144:VAL:HG23	1.70	0.56
32:1a:539:A:H2'	32:1a:540:G:H8	1.70	0.56
32:1a:972:C:O3'	41:1j:57:LYS:HD3	2.06	0.56
33:1b:54:THR:HG23	33:1b:199:TYR:HB3	1.88	0.56
44:1m:34:LEU:HD13	44:1m:41:PRO:HA	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:662:G:H5”	11:2P:16:ARG:HG2	1.87	0.56
18:2W:78:GLU:OE2	18:2W:99:ARG:HD3	2.06	0.56
23:21:4:VAL:HG22	23:21:11:ARG:HB3	1.87	0.56
23:21:5:CYS:SG	23:21:62:VAL:HG23	2.46	0.56
32:2a:1239:A:H4’	32:2a:1240:U:H5’	1.88	0.56
1:1A:271(R):G:H2’	1:1A:271(S):G:H5”	1.88	0.56
1:1A:272(J):C:H2’	1:1A:274:G:C8	2.41	0.56
1:1A:839:U:H2’	1:1A:840:C:C6	2.40	0.56
1:1A:878:A:N6	1:1A:899:A:O2’	2.31	0.56
1:1A:1105:U:H2’	1:1A:1106:G:H8	1.70	0.56
1:1A:1498:C:OP1	61:1A:4285:HOH:O	2.18	0.56
4:1E:40:GLU:CD	4:1E:40:GLU:H	2.13	0.56
8:1I:4:ILE:HD11	8:1I:44:LEU:HD12	1.87	0.56
20:1Y:92:ASN:ND2	20:1Y:94:LYS:HG2	2.17	0.56
32:1a:344:A:O5’	32:1a:345:C:H5	1.89	0.56
34:1c:134:ILE:HG23	34:1c:151:VAL:HB	1.88	0.56
6:2G:170:ARG:NH2	6:2G:182:LYS:O	2.38	0.56
7:2H:127:GLU:C	7:2H:129:THR:H	2.14	0.56
19:2X:1:MET:N	24:22:29:LYS:HE3	2.19	0.56
32:2a:714:G:H2’	32:2a:715:A:C8	2.41	0.56
32:2a:1015:A:H2’	32:2a:1016:A:C8	2.41	0.56
39:2h:10:LEU:HD13	39:2h:83:ILE:HG12	1.87	0.56
41:2j:6:ILE:HG12	41:2j:98:ILE:HD11	1.88	0.56
47:2p:74:LEU:HD13	47:2p:79:VAL:HG21	1.88	0.56
1:1A:1495:A:O2’	1:1A:1496:A:H5’	2.05	0.56
1:1A:2461:C:H2’	1:1A:2462:U:C6	2.41	0.56
4:1E:143:ASN:HD22	4:1E:147:PRO:HD2	1.70	0.56
6:1G:98:ARG:CZ	26:14:1:MET:HE3	2.35	0.56
34:1c:22:TRP:CH2	34:1c:32:LEU:HB3	2.41	0.56
1:2A:817:C:O2’	1:2A:839:U:OP1	2.22	0.56
1:2A:1639:U:C2’	1:2A:1640:C:H5”	2.35	0.56
8:2I:38:LEU:O	8:2I:40:THR:HG23	2.05	0.56
19:2X:31:HIS:CD2	19:2X:33:LYS:H	2.24	0.56
32:2a:539:A:H2’	32:2a:540:G:H8	1.69	0.56
32:2a:857:C:H2’	32:2a:858:G:O4’	2.06	0.56
32:2a:1490:C:H2’	32:2a:1491:G:O4’	2.06	0.56
1:1A:1827:C:C2’	1:1A:1828:G:H5’	2.36	0.56
1:1A:2656:U:C5	1:1A:2664:G:N2	2.74	0.56
26:14:56:VAL:HB	26:14:60:GLN:HG3	1.87	0.56
32:1a:1366:C:H2’	32:1a:1367:C:C6	2.41	0.56
1:2A:1670:C:OP1	61:2A:3964:HOH:O	2.18	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1826:G:H2'	1:2A:1827:C:C6	2.40	0.56
1:2A:2160:G:H5'	1:2A:2161:C:OP2	2.06	0.56
1:2A:2461:C:H2'	1:2A:2462:U:H6	1.69	0.56
1:2A:2498:C:OP2	61:2A:3916:HOH:O	2.18	0.56
5:2F:143:ALA:HB1	5:2F:148:LEU:HB2	1.88	0.56
9:2N:87:LEU:O	9:2N:88:GLU:C	2.49	0.56
21:2Z:19:ARG:NH1	21:2Z:84:GLU:HB2	2.18	0.56
21:2Z:50:GLN:HE21	21:2Z:50:GLN:H	1.53	0.56
32:2a:1347:G:N2	32:2a:1373:G:H2'	2.20	0.56
33:2b:74:LYS:NZ	33:2b:206:ASP:OD1	2.39	0.56
35:2d:18:LYS:HG2	59:2d:304:SF4:S1	2.46	0.56
36:2e:98:THR:HB	36:2e:117:ASP:HB3	1.88	0.56
44:2m:14:ARG:HG2	44:2m:42:ALA:O	2.06	0.56
1:1A:1068:G:C8	1:1A:1096:A:H1'	2.41	0.56
1:1A:1997:G:O3'	61:1A:4289:HOH:O	2.18	0.56
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.40	0.56
2:1B:27:C:H5"	14:1S:54:LEU:HD11	1.86	0.56
22:10:11:ARG:O	22:10:14:ARG:NH2	2.39	0.56
32:1a:1378:C:O2	38:1g:76:ARG:NH1	2.29	0.56
32:1a:1458:G:OP1	51:1t:35:THR:OG1	2.21	0.56
39:1h:49:GLU:HG2	39:1h:62:TYR:HE2	1.69	0.56
40:1i:25:LYS:H	40:1i:25:LYS:HD2	1.71	0.56
1:2A:184:C:H2'	1:2A:185:U:C6	2.41	0.56
1:2A:2467:C:OP1	31:29:8:LYS:NZ	2.29	0.56
1:2A:2712:U:H2'	1:2A:2714:G:H5"	1.88	0.56
2:2B:40:U:O2'	2:2B:41:U:H5'	2.06	0.56
12:2Q:37:LEU:HD21	12:2Q:130:LYS:HE2	1.87	0.56
32:2a:1084:G:H5'	32:2a:1102:A:OP2	2.06	0.56
33:2b:223:ILE:HA	33:2b:226:ARG:HD3	1.88	0.56
35:2d:104:VAL:HG21	35:2d:140:VAL:HG21	1.88	0.56
1:1A:287:C:H2'	1:1A:288:C:H6	1.70	0.55
1:1A:2291:U:H2'	1:1A:2292:C:C6	2.41	0.55
7:1H:43:VAL:HG22	7:1H:52:VAL:HG22	1.87	0.55
32:1a:270:A:H2'	32:1a:271:C:H6	1.70	0.55
32:1a:272:C:H2'	32:1a:273:A:H8	1.70	0.55
1:2A:2138:C:H2'	1:2A:2139:C:O4'	2.07	0.55
5:2F:197:ASP:HA	5:2F:200:GLU:HB3	1.88	0.55
26:24:61:ARG:HG2	50:2s:42:PRO:HG2	1.88	0.55
37:2f:33:TYR:HE1	37:2f:74:ASP:HB3	1.71	0.55
50:2s:33:THR:H	50:2s:57:HIS:HE1	1.54	0.55
1:1A:704:G:O2'	1:1A:726:G:N2	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:994:C:OP1	16:1U:53:ARG:NH2	2.39	0.55
1:1A:1053:C:H42	1:1A:1106:G:H1	1.53	0.55
1:1A:1075:C:O2	1:1A:1076:C:H2'	2.07	0.55
1:1A:1364:G:P	23:11:3:LYS:HG3	2.47	0.55
1:1A:1633:G:OP2	61:1A:4286:HOH:O	2.18	0.55
2:1B:81:G:OP2	61:1B:301:HOH:O	2.18	0.55
3:1D:25:THR:HG21	3:1D:113:VAL:HG21	1.89	0.55
7:1H:20:ALA:HB1	7:1H:21:PRO:HD2	1.88	0.55
32:1a:986:A:H1'	50:1s:54:GLY:O	2.07	0.55
33:1b:28:PHE:CD2	33:1b:190:THR:HA	2.41	0.55
37:1f:89:MET:O	37:1f:91:VAL:HG23	2.06	0.55
41:1j:57:LYS:HG3	41:1j:57:LYS:O	2.05	0.55
1:2A:2507:C:H2'	1:2A:2508:G:O4'	2.06	0.55
32:2a:962:C:H42	32:2a:973:G:H1	1.54	0.55
34:2c:6:HIS:HB3	45:2n:49:HIS:CD2	2.42	0.55
34:2c:13:GLY:O	34:2c:14:ILE:HG13	2.06	0.55
35:2d:101:LEU:O	35:2d:104:VAL:N	2.39	0.55
40:2i:17:VAL:HG11	40:2i:81:ILE:HA	1.88	0.55
1:1A:252:G:OP1	11:1P:50:ARG:NH1	2.33	0.55
1:1A:1062:G:C8	1:1A:1070:A:H4'	2.42	0.55
3:1D:237:GLU:OE2	61:1D:402:HOH:O	2.17	0.55
33:1b:87:ARG:HD2	33:1b:233:SER:HB3	1.86	0.55
44:1m:19:LEU:HD21	44:1m:56:LEU:HD21	1.88	0.55
49:1r:59:SER:H	49:1r:62:GLU:HB2	1.71	0.55
51:1t:33:ILE:O	51:1t:37:SER:OG	2.24	0.55
1:2A:855:G:O6	61:2A:3908:HOH:O	2.17	0.55
1:2A:1665:A:OP2	61:2A:3962:HOH:O	2.17	0.55
6:2G:16:ARG:NE	6:2G:31:VAL:HG11	2.20	0.55
11:2P:87:ASP:O	11:2P:90:ARG:NH1	2.39	0.55
17:2V:76:LYS:HD2	17:2V:81:TYR:CD2	2.41	0.55
32:2a:316:G:OP2	32:2a:351:G:O2'	2.25	0.55
38:2g:15:ASP:OD1	38:2g:19:GLY:N	2.39	0.55
39:2h:40:ALA:C	39:2h:42:GLU:H	2.15	0.55
6:1G:105:LYS:NZ	26:14:25:TYR:O	2.34	0.55
8:1I:60:GLU:OE2	8:1I:64:GLU:HB2	2.06	0.55
39:1h:86:ILE:HG21	39:1h:133:LEU:HD13	1.88	0.55
40:1i:8:GLY:HA3	40:1i:76:ALA:O	2.06	0.55
1:2A:2218:U:N3	23:21:55:GLY:O	2.37	0.55
1:2A:2408:U:H2'	1:2A:2409:G:C8	2.41	0.55
2:2B:55:U:O2'	2:2B:56:G:H5'	2.07	0.55
12:2Q:81:VAL:HB	22:20:7:LEU:HD22	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:2S:30:ARG:HD3	14:2S:98:VAL:HG23	1.88	0.55
21:2Z:53:ILE:HG22	21:2Z:71:VAL:O	2.06	0.55
24:22:16:LEU:HD13	24:22:20:GLU:HB3	1.88	0.55
32:2a:144:G:H1	32:2a:178:C:H42	1.54	0.55
32:2a:304:U:H2'	32:2a:305:G:C8	2.42	0.55
34:2c:131:ARG:HD3	34:2c:166:GLU:OE1	2.06	0.55
37:2f:8:ILE:HD12	37:2f:26:ILE:HD13	1.88	0.55
1:1A:740:U:H2'	1:1A:741:G:C8	2.41	0.55
1:1A:1062:G:H1	1:1A:1077:A:H61	1.54	0.55
32:1a:184:G:H2'	32:1a:185:A:H8	1.72	0.55
32:1a:1150:U:H4'	41:1j:41:PRO:HG3	1.89	0.55
40:1i:48:GLU:HA	40:1i:51:ARG:HD3	1.88	0.55
57:2A:3851:SPS:C3	54:2x:76:8AN:O2P	2.54	0.55
9:2N:131:GLN:HE21	9:2N:131:GLN:H	1.55	0.55
10:2O:20:MET:HE3	10:2O:44:LYS:HE3	1.88	0.55
26:24:67:TYR:OH	50:2s:43:GLU:OE2	2.24	0.55
32:2a:384:G:H2'	32:2a:385:C:C6	2.41	0.55
32:2a:1002:G:C2	32:2a:1003:G:H1'	2.41	0.55
33:2b:74:LYS:HB2	33:2b:77:ALA:HB3	1.89	0.55
36:2e:105:VAL:HB	36:2e:106:PRO:HD3	1.89	0.55
47:2p:15:PRO:HD2	47:2p:42:ARG:HD3	1.88	0.55
1:1A:153:C:OP2	23:11:92:LYS:NZ	2.39	0.55
1:1A:955:C:OP1	12:1Q:87:LYS:NZ	2.40	0.55
5:1F:116:ASP:OD1	5:1F:119:ARG:NH2	2.39	0.55
5:1F:155:LEU:HD11	5:1F:176:LEU:HD12	1.87	0.55
19:1X:31:HIS:CD2	19:1X:33:LYS:H	2.20	0.55
25:13:39:ASP:OD2	25:13:44:ARG:NH2	2.39	0.55
32:1a:1207:2MG:H2'	32:1a:1208:C:C6	2.42	0.55
35:1d:9:CYS:O	35:1d:13:ARG:HG3	2.07	0.55
1:2A:1203:G:H2'	1:2A:1204:A:C2	2.41	0.55
3:2D:146:GLU:HB2	3:2D:189:CYS:HB3	1.87	0.55
18:2W:11:ARG:NH1	18:2W:99:ARG:O	2.38	0.55
32:2a:4:U:H3	39:2h:105:ARG:NE	2.04	0.55
32:2a:1004:A:N6	32:2a:1037:C:H1'	2.21	0.55
32:2a:1505:G:H4'	32:2a:1506:U:H5"	1.89	0.55
35:2d:103:ASN:OD1	35:2d:114:ARG:NE	2.27	0.55
39:2h:121:ASP:HB2	39:2h:125:ARG:NH1	2.21	0.55
44:2m:4:ILE:HG23	44:2m:22:ILE:HD11	1.88	0.55
1:1A:221:A:N1	1:1A:265:A:O2'	2.39	0.55
1:1A:572:A:OP2	17:1V:78:LYS:NZ	2.39	0.55
1:1A:858:U:O2	1:1A:2268:A:H2'	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1261:A:H3'	32:1a:1262:C:C6	2.42	0.55
35:1d:19:LEU:HB3	35:1d:21:LEU:HD21	1.88	0.55
43:1l:40:VAL:HG21	43:1l:78:GLN:CA	2.33	0.55
1:2A:320:A:H4'	1:2A:322:A:N7	2.22	0.55
1:2A:1328:G:H2'	1:2A:1330:C:C5	2.42	0.55
1:2A:1826:G:H2'	1:2A:1827:C:H6	1.70	0.55
57:2A:3851:SPS:N4	54:2x:76:8AN:O2P	2.39	0.55
13:2R:66:VAL:HG12	13:2R:70:LEU:HD12	1.88	0.55
32:2a:187:C:H2'	32:2a:188:C:C6	2.42	0.55
32:2a:189(K):U:H2'	32:2a:189(L):G:C8	2.41	0.55
32:2a:300:A:O2'	32:2a:564:C:N3	2.34	0.55
32:2a:1114:C:H42	32:2a:1186:G:H1	1.54	0.55
34:2c:134:ILE:HG23	34:2c:151:VAL:HB	1.88	0.55
39:2h:85:ARG:NH1	39:2h:87:SER:O	2.40	0.55
44:2m:117:VAL:HG22	44:2m:118:ALA:H	1.71	0.55
1:1A:2117:A:H61	1:1A:2172:U:H3	1.55	0.55
5:1F:167:ALA:HB1	5:1F:173:VAL:HG11	1.89	0.55
13:1R:11:ASN:ND2	61:1R:304:HOH:O	2.40	0.55
18:1W:57:ASN:HA	18:1W:61:ASN:HD22	1.71	0.55
19:1X:1:MET:HE1	24:12:26:ARG:HH21	1.72	0.55
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.89	0.55
39:1h:36:LEU:HD23	39:1h:39:LEU:HD23	1.89	0.55
40:1i:79:LEU:O	40:1i:83:ARG:HG3	2.07	0.55
1:2A:1364:G:OP2	23:21:3:LYS:HG3	2.07	0.55
2:2B:13:A:N1	2:2B:69:G:O2'	2.37	0.55
32:1a:692:U:O2'	32:1a:694:A:N7	2.30	0.55
40:1i:55:ALA:O	40:1i:57:GLY:N	2.39	0.55
49:1r:53:ARG:HH21	49:1r:60:ALA:N	2.04	0.55
2:2B:42:C:O2	6:2G:93:THR:N	2.36	0.55
11:2P:101:VAL:HG21	11:2P:108:LYS:HG3	1.89	0.55
32:2a:505:G:H2'	32:2a:506:G:H8	1.72	0.55
32:2a:988:G:H2'	32:2a:989:C:O4'	2.07	0.55
32:2a:1226:C:H4'	50:2s:80:TYR:OH	2.07	0.55
38:2g:9:VAL:HG23	38:2g:94:ARG:NH2	2.22	0.55
40:2i:112:LYS:HE2	40:2i:117:HIS:O	2.06	0.55
51:2t:86:ARG:O	51:2t:90:GLN:HB2	2.07	0.55
1:1A:1051:G:H2'	1:1A:1052:C:O4'	2.06	0.55
1:1A:1998:G:O2'	1:1A:2724:C:O2'	2.16	0.55
32:1a:805:C:OP2	61:1a:1919:HOH:O	2.18	0.55
32:1a:1187:G:H5"	40:1i:113:LYS:HD3	1.89	0.55
34:1c:121:ALA:HB1	34:1c:189:ALA:HB2	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:286:C:H2'	1:2A:287:C:C6	2.41	0.55
1:2A:2445:G:OP1	5:2F:74:ARG:NH2	2.40	0.55
9:2N:84:LYS:O	9:2N:85:ILE:HG13	2.06	0.55
32:2a:363:A:C5	43:2l:31:PRO:HD2	2.42	0.55
32:2a:944:G:N1	32:2a:1338:G:OP2	2.40	0.55
32:2a:1004:A:H61	32:2a:1037:C:H1'	1.72	0.55
33:2b:71:VAL:HA	33:2b:93:VAL:HG23	1.88	0.55
48:2q:92:ARG:O	48:2q:95:TYR:HB2	2.07	0.55
1:1A:898:C:N4	1:1A:899:A:N7	2.55	0.54
1:1A:2156:G:H2'	1:1A:2157:G:N2	2.22	0.54
1:1A:2793:G:N1	1:1A:2803:C:O2	2.37	0.54
28:16:18:ARG:HD2	28:16:42:TRP:CD1	2.42	0.54
32:1a:382:A:H2'	32:1a:383:A:C8	2.42	0.54
32:1a:942:G:H21	40:1i:124:GLN:NE2	2.06	0.54
41:1j:65:LEU:HD13	45:1n:56:VAL:HG22	1.90	0.54
1:2A:1183:G:H5"	25:23:30:ARG:NH2	2.23	0.54
1:2A:1828:G:OP1	61:2A:3967:HOH:O	2.18	0.54
1:2A:2110:G:H3'	1:2A:2111:C:H5'	1.89	0.54
19:2X:30:VAL:HG21	19:2X:39:ILE:HD11	1.89	0.54
32:2a:1105:A:H2'	32:2a:1106:G:H8	1.72	0.54
35:2d:25:ARG:C	35:2d:27:TYR:H	2.13	0.54
35:2d:158:ILE:O	35:2d:162:LEU:HG	2.07	0.54
37:2f:61:LEU:HD13	37:2f:63:TYR:OH	2.07	0.54
1:1A:952:G:OP1	12:1Q:16:ARG:NH2	2.40	0.54
1:1A:1377:G:O6	61:1A:4270:HOH:O	2.16	0.54
2:1B:29:A:OP2	14:1S:31:SER:HB2	2.07	0.54
32:1a:1308:U:OP1	44:1m:98:VAL:HG23	2.06	0.54
49:1r:56:THR:HG22	49:1r:58:LEU:H	1.72	0.54
1:2A:72:U:OP1	61:2A:3965:HOH:O	2.18	0.54
1:2A:1005:C:H2'	1:2A:1006:C:C6	2.42	0.54
1:2A:1300:U:H4'	1:2A:1301:A:H5"	1.89	0.54
1:2A:2313:C:O2'	1:2A:2314:C:H5'	2.07	0.54
1:2A:2745:C:H2'	1:2A:2746:U:O4'	2.07	0.54
6:2G:111:LEU:HD23	6:2G:117:PHE:CZ	2.43	0.54
23:21:83:GLU:OE1	23:21:83:GLU:N	2.40	0.54
32:2a:174:C:H2'	32:2a:175:C:H6	1.71	0.54
32:2a:377:G:H1	32:2a:386:C:H42	1.55	0.54
32:2a:1079:G:H2'	32:2a:1080:A:C8	2.42	0.54
8:1I:38:LEU:HD23	8:1I:38:LEU:H	1.72	0.54
21:1Z:93:ASP:OD1	21:1Z:93:ASP:N	2.39	0.54
38:1g:78:ARG:HG3	38:1g:79:ARG:H	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:1k:91:ARG:NH1	42:1k:110:ASP:OD1	2.41	0.54
49:1r:25:THR:O	49:1r:42:ARG:NH2	2.39	0.54
1:2A:2544:G:H1'	1:2A:2646:C:H4'	1.88	0.54
6:2G:106:LEU:HA	6:2G:110:ALA:HB3	1.89	0.54
7:2H:35:VAL:HG21	7:2H:72:ILE:HD13	1.89	0.54
10:2O:53:LYS:N	10:2O:56:ASP:OD2	2.41	0.54
24:22:41:ILE:HG13	24:22:43:GLN:HG2	1.89	0.54
32:2a:224:C:H2'	32:2a:225:C:H6	1.72	0.54
32:2a:417:C:H2'	32:2a:418:C:C6	2.42	0.54
34:2c:66:VAL:HB	34:2c:101:LEU:HD22	1.89	0.54
35:2d:36:ARG:HD2	35:2d:38:TYR:CZ	2.41	0.54
35:2d:88:VAL:O	35:2d:92:VAL:HG12	2.08	0.54
36:2e:41:VAL:O	36:2e:67:VAL:HG12	2.07	0.54
38:2g:86:GLN:HE21	38:2g:86:GLN:HA	1.72	0.54
40:2i:16:ARG:HB2	40:2i:64:THR:HG22	1.89	0.54
46:2o:55:GLY:HA2	46:2o:58:MET:HG3	1.89	0.54
50:2s:51:VAL:HB	50:2s:75:ALA:HB2	1.90	0.54
1:1A:1359:A:C2	1:1A:1372:U:O4	2.60	0.54
32:1a:799:G:OP2	61:1a:1918:HOH:O	2.18	0.54
32:1a:1320:C:H2'	32:1a:1321:C:O4'	2.08	0.54
32:1a:1412:C:H2'	32:1a:1413:A:H8	1.72	0.54
1:2A:515:A:H1'	1:2A:581:C:H1'	1.89	0.54
1:2A:2125:G:H1'	1:2A:2173:A:N6	2.23	0.54
1:2A:2198:A:O2'	1:2A:2224:G:N2	2.40	0.54
4:2E:9:VAL:HG13	15:2T:3:ARG:HG2	1.90	0.54
6:2G:59:GLU:HG2	6:2G:60:LEU:N	2.22	0.54
18:2W:29:LEU:HG	18:2W:33:ARG:HD2	1.89	0.54
35:2d:101:LEU:O	35:2d:103:ASN:N	2.40	0.54
1:1A:1047:G:H2'	1:1A:1110:G:N2	2.21	0.54
32:1a:190:U:H2'	32:1a:191:G:H8	1.72	0.54
32:1a:667:G:H4'	46:1o:51:HIS:CE1	2.43	0.54
32:1a:737:A:H1'	37:1f:73:ASN:HD21	1.72	0.54
32:1a:947:G:H2'	32:1a:948:C:C6	2.43	0.54
33:1b:16:HIS:HB2	33:1b:204:ASN:HB2	1.90	0.54
35:1d:12:CYS:HB3	35:1d:17:VAL:O	2.08	0.54
37:1f:36:ARG:HB3	37:1f:36:ARG:CZ	2.36	0.54
38:1g:29:LYS:HB3	38:1g:105:VAL:HG21	1.89	0.54
42:1k:27:ASN:OD1	42:1k:28:THR:N	2.40	0.54
48:1q:31:LEU:HD23	48:1q:32:TYR:CZ	2.43	0.54
1:2A:2716:U:O2'	1:2A:2717:G:H5'	2.07	0.54
3:2D:24:ILE:CD1	3:2D:84:TYR:HB2	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:114:ILE:HD12	6:2G:117:PHE:CD1	2.43	0.54
18:2W:65:LEU:HD13	18:2W:68:ARG:HD2	1.90	0.54
21:2Z:71:VAL:HG13	21:2Z:88:PHE:CE1	2.43	0.54
32:2a:664:G:P	49:2r:64:ARG:HH21	2.29	0.54
47:2p:18:ARG:HD3	47:2p:35:LYS:HD2	1.89	0.54
1:1A:7:G:H2'	1:1A:8:A:H8	1.72	0.54
1:1A:2405:G:H5"	11:1P:75:ILE:HD13	1.89	0.54
2:1B:106:G:OP1	21:1Z:31:ARG:HG2	2.07	0.54
32:1a:598:U:H4'	39:1h:94:TYR:CD2	2.42	0.54
32:1a:662:G:H2'	32:1a:663:A:C8	2.43	0.54
32:1a:925:G:H1'	32:1a:1502:A:C4	2.42	0.54
32:1a:1129:C:O2	32:1a:1130:A:N6	2.31	0.54
44:1m:49:THR:HB	44:1m:52:GLU:H	1.73	0.54
49:1r:43:PHE:O	49:1r:51:LEU:HG	2.07	0.54
1:2A:588:U:H1'	5:2F:90:PHE:CG	2.42	0.54
30:28:22:VAL:HB	30:28:55:ALA:HB1	1.90	0.54
32:2a:1152:A:H2'	32:2a:1153:C:H6	1.73	0.54
1:1A:607:U:OP1	5:1F:102:PRO:HA	2.08	0.54
37:1f:100:ASN:HB2	49:1r:28:GLU:HA	1.90	0.54
1:2A:1166:C:H2'	1:2A:1167:U:C6	2.43	0.54
1:2A:1268:A:OP1	61:2A:3966:HOH:O	2.18	0.54
1:2A:2695:C:H2'	1:2A:2696:U:C6	2.43	0.54
32:2a:409:G:OP1	35:2d:24:GLU:N	2.41	0.54
35:2d:123:HIS:O	35:2d:125:HIS:N	2.40	0.54
35:2d:152:SER:O	35:2d:158:ILE:HD11	2.08	0.54
41:2j:8:LEU:HD12	41:2j:16:LEU:HD22	1.88	0.54
49:2r:30:ASP:C	49:2r:32:ARG:H	2.14	0.54
51:2t:67:ALA:HA	51:2t:72:LEU:O	2.07	0.54
1:1A:448:U:H5'	61:1A:5204:HOH:O	2.08	0.54
32:1a:540:G:H2'	32:1a:541:G:O4'	2.07	0.54
32:1a:1004:A:H5"	32:1a:1025:U:H5	1.70	0.54
32:1a:1511:G:H2'	32:1a:1512:U:O4'	2.08	0.54
3:2D:275:LYS:HD2	3:2D:276:LYS:HB3	1.88	0.54
32:2a:277:C:H5'	48:2q:68:ARG:NH1	2.22	0.54
32:2a:922:G:C6	32:2a:923:A:C6	2.96	0.54
37:2f:23:LYS:HG2	37:2f:61:LEU:HD11	1.89	0.54
38:2g:23:VAL:HG13	38:2g:43:PHE:CE2	2.43	0.54
1:1A:1158:C:H4'	25:13:32:GLN:HB2	1.90	0.54
14:1S:106:ARG:O	14:1S:109:GLY:N	2.40	0.54
19:1X:94:GLY:H	19:1X:95:LEU:C	2.15	0.54
20:1Y:43:ASN:HB3	20:1Y:65:ALA:HB3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:957:U:O2'	32:1a:959:A:N7	2.34	0.54
32:1a:1328:C:OP1	52:1u:21:TYR:OH	2.25	0.54
33:1b:87:ARG:HH21	33:1b:223:ILE:HD11	1.73	0.54
34:1c:17:ASP:O	34:1c:54:ARG:NH2	2.39	0.54
1:2A:271(D):G:H2'	1:2A:271(E):U:C6	2.43	0.54
1:2A:2302:G:N1	1:2A:2315:G:C6	2.76	0.54
2:2B:106:G:OP1	21:2Z:31:ARG:HG2	2.08	0.54
3:2D:71:ASP:HB2	3:2D:103:ARG:HH12	1.73	0.54
5:2F:33:LEU:HB3	11:2P:6:LEU:HD21	1.88	0.54
7:2H:99:VAL:HG21	7:2H:104:GLU:HB2	1.89	0.54
32:2a:142:G:H2'	32:2a:143:A:C8	2.42	0.54
32:2a:1181:G:H4'	32:2a:1182:G:OP1	2.08	0.54
38:2g:65:ALA:HB1	38:2g:127:ALA:HB3	1.88	0.54
38:2g:115:ARG:HG3	38:2g:117:ALA:HB3	1.90	0.54
39:2h:97:VAL:HG13	39:2h:98:LYS:HG3	1.89	0.54
1:1A:2430:A:N3	1:1A:2430:A:H2'	2.23	0.54
8:1I:8:PRO:HD3	8:1I:15:VAL:HB	1.90	0.54
32:1a:636:U:H5'	48:1q:2:PRO:HG3	1.89	0.54
33:1b:163:PHE:HD1	33:1b:185:ILE:HD11	1.72	0.54
1:2A:93:G:H2'	1:2A:94:C:H6	1.73	0.54
1:2A:923:C:H2'	1:2A:924:C:C6	2.43	0.54
1:2A:1322:A:N1	1:2A:1333:C:O2'	2.36	0.54
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.43	0.54
1:2A:2491:U:O2'	1:2A:2570:G:OP1	2.18	0.54
10:2O:63:VAL:HG12	10:2O:106:LEU:HD11	1.89	0.54
16:2U:50:ARG:NH2	17:2V:72:VAL:HG22	2.20	0.54
18:2W:25:ARG:NH2	18:2W:74:ALA:O	2.38	0.54
32:2a:358:U:H2'	32:2a:359:U:C6	2.43	0.54
32:2a:457:C:H2'	32:2a:458:C:C6	2.42	0.54
32:2a:975:A:H5'	32:2a:975:A:H8	1.73	0.54
32:2a:1033:G:H2'	32:2a:1034:G:C8	2.41	0.54
32:2a:1213:A:O2'	32:2a:1215:G:N7	2.36	0.54
32:2a:1327:C:OP2	52:2u:12:LYS:NZ	2.35	0.54
36:2e:41:VAL:O	36:2e:66:MET:HA	2.08	0.54
44:2m:94:ARG:O	44:2m:96:LEU:HG	2.08	0.54
48:2q:6:LEU:O	48:2q:58:GLU:HA	2.08	0.54
1:1A:2461:C:H2'	1:1A:2462:U:H6	1.73	0.53
1:2A:1291:C:H2'	1:2A:1292:U:C6	2.43	0.53
1:2A:2508:G:HO2'	1:2A:2554:U:HO2'	1.55	0.53
5:2F:36:VAL:O	5:2F:40:GLN:HG3	2.08	0.53
7:2H:19:VAL:HG12	7:2H:20:ALA:H	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:255:G:P	48:2q:69:LYS:HZ3	2.30	0.53
1:1A:478:A:C6	1:1A:480:A:C6	2.96	0.53
1:1A:1047:G:H2'	1:1A:1110:G:H22	1.72	0.53
1:1A:2002:G:OP2	13:1R:9:LYS:NZ	2.41	0.53
5:1F:33:LEU:HB3	11:1P:6:LEU:HD21	1.90	0.53
6:1G:7:LEU:HD22	6:1G:176:LEU:HD22	1.91	0.53
7:1H:29:PRO:HD2	7:1H:79:VAL:O	2.07	0.53
11:1P:132:LYS:O	11:1P:136:GLU:HG3	2.08	0.53
18:1W:73:ALA:HB3	18:1W:106:ILE:HB	1.90	0.53
32:1a:90:U:H4'	32:1a:91:C:OP1	2.07	0.53
32:1a:262:A:C6	32:1a:263:A:C6	2.95	0.53
41:1j:78:ASN:O	41:1j:80:LYS:N	2.41	0.53
1:2A:295:G:H4'	20:2Y:1:MET:HE3	1.90	0.53
1:2A:652(T):C:H2'	1:2A:652(U):G:C8	2.43	0.53
1:2A:949:C:N4	61:2A:4063:HOH:O	2.41	0.53
1:2A:1836:C:H2'	1:2A:1837:C:H6	1.74	0.53
1:2A:2126:A:N3	1:2A:2127:G:H1'	2.22	0.53
1:2A:2695:C:H2'	1:2A:2696:U:H6	1.72	0.53
6:2G:32:PRO:HB3	6:2G:172:LEU:HD22	1.90	0.53
7:2H:3:ARG:HG3	7:2H:6:ARG:NH2	2.24	0.53
8:2I:9:LEU:HD21	8:2I:35:LEU:HD13	1.90	0.53
8:2I:14:ASP:N	8:2I:17:GLN:OE1	2.20	0.53
19:2X:12:VAL:HG22	19:2X:29:TRP:CE2	2.43	0.53
32:2a:834:C:H2'	32:2a:835:U:H6	1.73	0.53
32:2a:1172:C:H2'	32:2a:1173:G:C8	2.43	0.53
40:2i:116:LYS:HD2	40:2i:122:ALA:HA	1.91	0.53
46:2o:41:GLU:HA	46:2o:44:LYS:HD2	1.90	0.53
1:1A:1069:A:H4'	1:1A:1070:A:H5"	1.89	0.53
8:1I:58:LEU:HD23	8:1I:58:LEU:C	2.32	0.53
11:1P:59:LEU:HD11	30:18:10:ALA:HA	1.90	0.53
12:1Q:60:ARG:HB3	21:1Z:179:ASP:HA	1.91	0.53
16:1U:59:ARG:O	16:1U:63:VAL:HG23	2.08	0.53
32:1a:713:G:H2'	32:1a:714:G:C8	2.44	0.53
32:1a:975:A:H5'	32:1a:975:A:H8	1.74	0.53
37:1f:67:MET:HE1	37:1f:75:LEU:HD12	1.88	0.53
43:1l:71:PRO:O	43:1l:102:ARG:NH1	2.40	0.53
1:2A:1469:A:H2'	1:2A:1470:G:O4'	2.07	0.53
5:2F:123:LEU:HD12	5:2F:124:LEU:N	2.23	0.53
11:2P:121:LYS:O	11:2P:123:LEU:N	2.40	0.53
17:2V:37:VAL:HG11	17:2V:40:LEU:HD23	1.90	0.53
18:2W:86:LEU:HD13	18:2W:96:ILE:HD11	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.89	0.53
32:2a:1004:A:N3	32:2a:1038:C:C2	2.77	0.53
32:2a:1008:C:H42	32:2a:1021:G:H1	1.56	0.53
34:2c:79:ARG:H	34:2c:82:GLU:HB2	1.72	0.53
35:2d:112:VAL:HG22	35:2d:116:GLN:NE2	2.23	0.53
37:2f:35:ALA:HB2	37:2f:67:MET:HE2	1.90	0.53
32:1a:1316:G:N2	32:1a:1318:A:H3'	2.24	0.53
32:1a:1342:C:H2'	32:1a:1343:G:C8	2.43	0.53
1:2A:577:G:O2'	1:2A:1254:A:OP1	2.25	0.53
1:2A:1448:G:H4'	1:2A:1542:A:OP1	2.09	0.53
20:2Y:55:TYR:N	20:2Y:56:PRO:HD3	2.23	0.53
28:26:11:LEU:HD12	28:26:21:TYR:HB2	1.90	0.53
32:2a:407:G:H5"	35:2d:115:ARG:HB3	1.89	0.53
32:2a:831:U:H3	32:2a:855:G:H1	1.57	0.53
33:2b:16:HIS:HB2	33:2b:204:ASN:HB3	1.90	0.53
39:2h:69:ARG:NE	39:2h:75:ARG:O	2.36	0.53
47:2p:28:ARG:HG2	47:2p:28:ARG:HH11	1.73	0.53
1:1A:1588:C:H2'	1:1A:1589:C:C6	2.43	0.53
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.43	0.53
4:1E:47:VAL:HB	4:1E:49:LEU:HD13	1.91	0.53
7:1H:149:ARG:NH1	7:1H:167:GLU:OE2	2.42	0.53
9:1N:96:GLU:H	9:1N:96:GLU:CD	2.17	0.53
10:1O:21:CYS:HB2	10:1O:39:ILE:HD12	1.90	0.53
23:11:3:LYS:HB2	23:11:61:ARG:NH1	2.23	0.53
32:1a:44:G:C2	32:1a:45:U:H1'	2.43	0.53
32:1a:766:A:OP2	61:1a:1920:HOH:O	2.19	0.53
32:1a:1260:C:O5'	32:1a:1284:C:H4'	2.09	0.53
39:1h:87:SER:HB2	39:1h:93:VAL:HB	1.91	0.53
39:1h:121:ASP:HB2	39:1h:125:ARG:NH2	2.24	0.53
1:2A:1359:A:C2	1:2A:1372:U:O4	2.61	0.53
28:26:8:LYS:HD3	30:28:34:TRP:CD2	2.43	0.53
30:28:34:TRP:CG	30:28:35:GLN:N	2.77	0.53
32:2a:685:G:C2	32:2a:686:U:C4	2.96	0.53
32:2a:818:G:O2'	32:2a:819:A:H5'	2.09	0.53
32:2a:935:A:H2'	32:2a:936:C:H6	1.74	0.53
42:2k:99:GLN:HG2	42:2k:105:VAL:HG21	1.89	0.53
4:1E:3:GLY:HA3	4:1E:81:ILE:HD12	1.90	0.53
8:1I:135:GLU:O	8:1I:137:PRO:HD3	2.09	0.53
32:1a:648:A:H2'	32:1a:649:G:H8	1.74	0.53
32:1a:995:C:H1'	45:1n:4:LYS:HE2	1.89	0.53
48:1q:67:LYS:O	48:1q:68:ARG:HB2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:873:G:N2	1:2A:905:U:C2	2.76	0.53
1:2A:1430:C:H2'	1:2A:1431:U:C6	2.43	0.53
2:2B:83:G:H1	2:2B:94:C:H42	1.56	0.53
6:2G:16:ARG:CZ	6:2G:31:VAL:HG11	2.37	0.53
16:2U:108:GLU:OE1	17:2V:45:THR:OG1	2.21	0.53
21:2Z:15:PRO:HB2	21:2Z:19:ARG:NH2	2.23	0.53
32:2a:1320:C:H2'	32:2a:1321:C:O4'	2.08	0.53
33:2b:60:ASP:O	33:2b:64:ARG:HG2	2.09	0.53
35:2d:64:LEU:HD22	35:2d:198:VAL:HG11	1.90	0.53
36:2e:19:MET:SD	36:2e:24:ARG:HG3	2.49	0.53
40:2i:8:GLY:HA2	40:2i:79:LEU:HD23	1.91	0.53
43:2l:79:GLU:HG2	43:2l:80:HIS:CE1	2.43	0.53
15:1T:127:ALA:C	15:1T:129:ARG:H	2.17	0.53
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.44	0.53
33:1b:127:ILE:HB	33:1b:130:ARG:HG3	1.91	0.53
33:1b:231:GLU:HB3	33:1b:232:PRO:HD3	1.90	0.53
1:2A:994:C:OP2	16:2U:54:LYS:NZ	2.41	0.53
4:2E:29:GLY:H	4:2E:180:ASN:HB3	1.72	0.53
6:2G:68:PRO:HB2	6:2G:90:LEU:HB3	1.91	0.53
9:2N:62:VAL:HG13	9:2N:66:LYS:HB2	1.91	0.53
13:2R:96:ARG:HD2	13:2R:115:GLU:OE2	2.08	0.53
21:2Z:115:GLY:HA3	21:2Z:146:ILE:HD11	1.90	0.53
32:2a:410:G:H5"	35:2d:30:LYS:HZ2	1.70	0.53
1:1A:2378:A:H2'	14:1S:21:THR:HG21	1.90	0.53
5:1F:53:THR:CG2	5:1F:55:GLY:H	2.21	0.53
24:12:63:VAL:HA	24:12:66:GLU:HB2	1.89	0.53
32:1a:1066:C:O2'	32:1a:1067:A:H5'	2.09	0.53
32:1a:1236:A:H4'	32:1a:1304:G:H4'	1.91	0.53
35:1d:128:VAL:O	35:1d:131:ARG:N	2.41	0.53
37:1f:91:VAL:HG11	49:1r:72:ARG:HH12	1.72	0.53
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.73	0.53
1:2A:2127:G:C6	1:2A:2161:C:N4	2.77	0.53
1:2A:2137:C:O2'	1:2A:2138:C:OP2	2.25	0.53
4:2E:1:MET:HE3	4:2E:199:ARG:HB3	1.89	0.53
18:2W:92:ARG:HH21	18:2W:92:ARG:HB2	1.74	0.53
32:2a:90:U:O2'	32:2a:91:C:H5'	2.08	0.53
32:2a:297:G:N2	32:2a:300:A:OP2	2.38	0.53
38:2g:50:ILE:HG22	38:2g:125:MET:HG3	1.91	0.53
1:1A:863:A:OP1	12:1Q:22:LYS:HG3	2.08	0.53
1:1A:969:U:H2'	1:1A:970:C:C6	2.44	0.53
1:1A:1359:A:N1	1:1A:1372:U:C4	2.77	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1828:G:H8	1:1A:1828:G:OP2	1.91	0.53
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.24	0.53
8:1I:38:LEU:HG	8:1I:40:THR:HG23	1.90	0.53
12:1Q:137:TYR:HE2	21:1Z:49:ARG:NH1	2.07	0.53
32:1a:520:A:N1	32:1a:536:C:H1'	2.24	0.53
32:1a:646:U:H2'	32:1a:647:C:H6	1.73	0.53
32:1a:1026:G:H3'	32:1a:1027:C:C5	2.44	0.53
33:1b:24:TRP:CZ3	33:1b:26:PRO:HA	2.43	0.53
1:2A:918:A:C6	1:2A:919:G:H1'	2.44	0.53
1:2A:1131:G:O6	1:2A:2040:C:H1'	2.08	0.53
1:2A:1706:U:O2	1:2A:1757:U:H5'	2.08	0.53
1:2A:2335:A:O2'	1:2A:2336:A:H5"	2.09	0.53
1:2A:2499:C:OP1	61:2A:3910:HOH:O	2.19	0.53
4:2E:1:MET:HE2	4:2E:202:LYS:NZ	2.23	0.53
5:2F:155:LEU:HB2	5:2F:189:THR:HG21	1.90	0.53
6:2G:83:ARG:N	6:2G:86:MET:SD	2.82	0.53
13:2R:57:ARG:HH22	13:2R:61:HIS:HD2	1.57	0.53
30:28:16:ILE:HD11	30:28:59:LYS:HG2	1.91	0.53
32:2a:266:G:H5"	32:2a:268:C:H41	1.73	0.53
32:2a:1133:G:H2'	32:2a:1134:G:C8	2.44	0.53
49:2r:33:ASP:OD2	49:2r:36:ASN:HB2	2.07	0.53
1:1A:196:A:H2'	1:1A:196:A:N3	2.24	0.53
1:1A:1798:U:H5'	3:1D:259:THR:HG22	1.90	0.53
1:1A:2312:U:H5'	6:1G:88:ILE:HD11	1.90	0.53
10:1O:10:VAL:HG11	10:1O:16:ALA:HB3	1.91	0.53
16:1U:82:GLY:HA3	16:1U:113:ALA:HB1	1.89	0.53
32:1a:501:C:H1'	32:1a:549:C:H1'	1.90	0.53
32:1a:1140:C:H2'	32:1a:1141:C:C6	2.44	0.53
36:1e:110:LEU:HD13	36:1e:118:ILE:HD13	1.91	0.53
6:2G:14:GLU:O	6:2G:17:PRO:HD2	2.08	0.53
6:2G:48:GLU:O	6:2G:51:ARG:HG3	2.08	0.53
32:2a:659:U:H2'	32:2a:660:G:O4'	2.09	0.53
33:2b:15:VAL:HG22	33:2b:209:ARG:HD2	1.91	0.53
36:2e:63:ARG:HA	36:2e:66:MET:HE1	1.91	0.53
43:2l:40:VAL:HG21	43:2l:78:GLN:HA	1.90	0.53
8:1I:38:LEU:H	8:1I:38:LEU:CD2	2.22	0.52
11:1P:87:ASP:O	11:1P:90:ARG:NH1	2.42	0.52
14:1S:89:ARG:HD2	14:1S:92:TYR:O	2.09	0.52
19:1X:28:PHE:CZ	19:1X:92:LEU:HD11	2.44	0.52
19:1X:29:TRP:CZ3	19:1X:78:LYS:HG2	2.43	0.52
24:12:1:MET:HE2	24:12:6:VAL:HG22	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:841:U:C4	32:1a:848:C:H1'	2.44	0.52
32:1a:1077:G:N2	32:1a:1080:A:OP2	2.40	0.52
34:1c:52:LEU:HD11	34:1c:55:VAL:HG23	1.89	0.52
38:1g:79:ARG:HD2	38:1g:80:VAL:N	2.24	0.52
43:1l:54:LYS:HD3	43:1l:54:LYS:N	2.24	0.52
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.91	0.52
1:2A:729:G:C8	3:2D:208:LYS:HD2	2.44	0.52
1:2A:729:G:O5'	3:2D:208:LYS:NZ	2.42	0.52
1:2A:903:C:H2'	1:2A:904:C:H6	1.73	0.52
1:2A:2114:A:H2	1:2A:2171:A:N6	2.07	0.52
9:2N:29:LYS:NZ	9:2N:140:VAL:O	2.42	0.52
16:2U:112:ARG:O	16:2U:115:ALA:HB3	2.09	0.52
18:2W:76:VAL:HG22	18:2W:103:ILE:HG23	1.90	0.52
32:2a:619:U:N3	35:2d:134:ASP:OD1	2.37	0.52
32:2a:1079:G:H5"	36:2e:45:PHE:HE2	1.75	0.52
33:2b:16:HIS:O	33:2b:18:GLY:N	2.37	0.52
44:2m:59:TYR:CD2	44:2m:60:VAL:HG22	2.44	0.52
1:1A:1243:G:O3'	11:1P:7:ARG:NH2	2.42	0.52
1:1A:2364:C:H4'	22:10:56:ASP:OD1	2.09	0.52
12:1Q:2:LEU:HD13	12:1Q:69:PHE:CD1	2.44	0.52
18:1W:11:ARG:HD2	18:1W:11:ARG:C	2.30	0.52
21:1Z:24:LEU:HB2	21:1Z:41:LEU:HD12	1.90	0.52
32:1a:189(F):U:O2	48:1q:63:ARG:NH2	2.42	0.52
33:1b:82:ARG:HD2	33:1b:92:TYR:CZ	2.44	0.52
34:1c:134:ILE:HG22	34:1c:168:ALA:HB3	1.90	0.52
34:1c:148:GLY:HA3	34:1c:172:ARG:O	2.10	0.52
35:1d:178:VAL:HG12	35:1d:179:GLU:H	1.73	0.52
1:2A:302:C:H42	1:2A:315:G:H1	1.56	0.52
1:2A:442:G:H4'	5:2F:46:ARG:HG3	1.90	0.52
1:2A:796:C:H2'	1:2A:797:C:C6	2.44	0.52
1:2A:2286:A:OP1	28:26:29:ASN:ND2	2.41	0.52
1:2A:2578:G:H1'	61:2A:4234:HOH:O	2.07	0.52
11:2P:124:LYS:HG3	11:2P:144:GLU:HB3	1.91	0.52
14:2S:3:ARG:O	14:2S:4:LEU:HD23	2.08	0.52
21:2Z:152:ALA:HA	21:2Z:155:LEU:HD22	1.92	0.52
32:2a:27:G:H2'	32:2a:28:G:H8	1.74	0.52
32:2a:1071:C:H2'	32:2a:1072:G:H8	1.74	0.52
44:2m:56:LEU:O	44:2m:60:VAL:HG23	2.08	0.52
45:2n:7:ILE:HG12	45:2n:23:ARG:HD3	1.90	0.52
1:1A:582:G:H2'	1:1A:583:G:C8	2.44	0.52
1:1A:674:G:O2'	5:1F:74:ARG:HD3	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2619:C:OP1	4:1E:152:LYS:HE3	2.09	0.52
57:1A:4105:SPS:N4	54:1x:76:8AN:O2P	2.42	0.52
5:1F:184:TYR:CE2	5:1F:188:ARG:HD2	2.44	0.52
32:1a:272:C:H2'	32:1a:273:A:C8	2.44	0.52
32:1a:625:G:H4'	47:1p:16:HIS:CG	2.44	0.52
37:1f:75:LEU:O	37:1f:79:LEU:HG	2.10	0.52
39:1h:29:SER:HB3	39:1h:32:LYS:HE3	1.90	0.52
39:1h:35:ILE:HD11	39:1h:134:ILE:HG21	1.91	0.52
43:1l:7:ILE:O	43:1l:11:VAL:HG23	2.09	0.52
1:2A:7:G:H2'	1:2A:8:A:C8	2.45	0.52
1:2A:340:A:H2'	1:2A:341:G:O4'	2.09	0.52
1:2A:740:U:H2'	1:2A:741:G:C8	2.44	0.52
2:2B:19:G:H2'	2:2B:20:C:O4'	2.10	0.52
5:2F:129:PHE:CD2	5:2F:163:VAL:HG11	2.45	0.52
6:2G:20:ILE:O	6:2G:24:GLY:HA2	2.10	0.52
14:2S:15:ARG:O	14:2S:19:LYS:HG2	2.09	0.52
21:2Z:52:SER:C	21:2Z:54:HIS:N	2.66	0.52
21:2Z:163:LEU:HG	21:2Z:165:VAL:HG22	1.92	0.52
32:2a:1006:C:C4	32:2a:1007:C:C4	2.97	0.52
32:2a:1198:G:H2'	32:2a:1199:U:C6	2.45	0.52
34:2c:18:TRP:NE1	45:2n:55:GLY:H	2.07	0.52
40:2i:50:LEU:HD12	40:2i:51:ARG:HG3	1.91	0.52
46:2o:29:VAL:O	46:2o:33:THR:OG1	2.18	0.52
49:2r:69:THR:HA	49:2r:72:ARG:HB2	1.90	0.52
1:1A:287:C:H2'	1:1A:288:C:C6	2.44	0.52
1:1A:387:U:O4	61:1A:4273:HOH:O	2.16	0.52
1:1A:621:A:OP2	11:1P:108:LYS:NZ	2.41	0.52
1:1A:1087:G:H2'	1:1A:1089:G:C8	2.44	0.52
1:1A:2573:C:OP1	61:1A:4219:HOH:O	2.19	0.52
2:1B:42:C:O2	6:1G:92:VAL:HA	2.09	0.52
2:1B:90:A:N7	2:1B:91:C:H1'	2.24	0.52
6:1G:15:VAL:HG22	6:1G:175:LEU:HB3	1.89	0.52
32:1a:848:C:H2'	32:1a:849:C:C6	2.44	0.52
32:1a:963:G:H5'	61:1a:2083:HOH:O	2.09	0.52
32:1a:1144:G:N2	32:1a:1146:A:H62	2.08	0.52
32:1a:1346:A:O2'	38:1g:10:ARG:NH2	2.42	0.52
1:2A:362:U:O2'	1:2A:363:G:H5"	2.09	0.52
1:2A:894:C:O2'	1:2A:895:U:H5"	2.09	0.52
9:2N:30:ILE:HA	9:2N:33:LEU:HD12	1.91	0.52
12:2Q:78:PRO:HG3	54:2x:1:C:H2'	1.91	0.52
32:2a:1502:A:H5'	32:2a:1504:G:N7	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:30:ARG:HH21	45:2n:38:GLY:CA	2.22	0.52
34:2c:58:GLU:HB3	41:2j:92:THR:HG21	1.91	0.52
48:2q:21:VAL:HG21	48:2q:59:ILE:HG21	1.92	0.52
54:2x:66:C:H2'	54:2x:67:C:C6	2.44	0.52
1:1A:602:G:O6	61:1A:4282:HOH:O	2.17	0.52
28:16:26:ASN:HD21	28:16:28:ARG:NH2	2.07	0.52
32:1a:195:A:H1'	32:1a:222:U:O2'	2.09	0.52
32:1a:439:A:C8	32:1a:496:A:C6	2.97	0.52
34:1c:71:ALA:HA	34:1c:106:VAL:CG2	2.40	0.52
45:1n:22:THR:O	45:1n:33:VAL:HG21	2.09	0.52
1:2A:800:A:H8	1:2A:800:A:OP1	1.92	0.52
1:2A:1636:C:H2'	1:2A:1637:A:C8	2.45	0.52
1:2A:2019:A:N7	27:25:9:LYS:HE2	2.25	0.52
1:2A:2470:G:C2	1:2A:2471:C:C6	2.98	0.52
1:2A:2584:U:H2'	1:2A:2585:U:C6	2.45	0.52
6:2G:96:ARG:HA	6:2G:99:MET:HE2	1.91	0.52
11:2P:50:ARG:HD3	30:28:7:HIS:CD2	2.43	0.52
33:2b:98:LEU:HG	33:2b:99:GLY:N	2.23	0.52
40:2i:4:TYR:CZ	40:2i:88:TYR:HD1	2.28	0.52
1:1A:603:A:H4'	1:1A:604:G:H5'	1.92	0.52
1:1A:2115:G:C3'	1:1A:2116:G:H5"	2.40	0.52
1:1A:2185:C:H2'	1:1A:2186:G:C8	2.45	0.52
4:1E:119:ARG:HG2	4:1E:120:TRP:CE2	2.44	0.52
32:1a:1039:C:H2'	32:1a:1040:U:C6	2.45	0.52
39:1h:17:THR:HG22	39:1h:63:LEU:HD22	1.92	0.52
42:1k:18:ARG:NH2	42:1k:35:PRO:O	2.36	0.52
47:1p:53:VAL:HG22	47:1p:79:VAL:HG22	1.92	0.52
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.91	0.52
1:2A:1291:C:H2'	1:2A:1292:U:H6	1.75	0.52
1:2A:1936:A:C8	1:2A:1940:U:O2	2.63	0.52
9:2N:38:HIS:O	16:2U:67:ALA:HB1	2.10	0.52
20:2Y:67:LEU:HD23	20:2Y:71:LYS:HD3	1.91	0.52
32:2a:262:A:H4'	51:2t:75:ASN:HB2	1.92	0.52
32:2a:1122:U:H2'	32:2a:1123:A:C8	2.40	0.52
34:2c:81:GLY:O	34:2c:85:ARG:HD3	2.09	0.52
37:2f:37:VAL:HA	37:2f:65:VAL:HG12	1.92	0.52
1:1A:106:C:H1'	20:1Y:1:MET:HE2	1.90	0.52
1:1A:473:G:O2'	1:1A:474:G:H5'	2.10	0.52
1:1A:1074:G:N1	1:1A:1075:C:H1'	2.25	0.52
1:1A:1427:A:H4'	1:1A:1428:C:O4'	2.10	0.52
1:1A:2492:U:H2'	1:1A:2493:U:H6	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:166:GLN:HB2	3:1D:174:ILE:HG22	1.91	0.52
6:1G:79:ASN:OD1	6:1G:79:ASN:N	2.40	0.52
8:1I:7:GLU:N	8:1I:15:VAL:HG23	2.25	0.52
32:1a:344:A:H4'	32:1a:345:C:OP2	2.10	0.52
32:1a:1456:G:N2	51:1t:51:GLU:OE2	2.43	0.52
43:1l:60:LEU:HD21	43:1l:66:VAL:HG22	1.90	0.52
44:1m:3:ARG:HG3	44:1m:4:ILE:N	2.25	0.52
1:2A:1277:G:N3	61:2A:4024:HOH:O	2.34	0.52
1:2A:1778:U:H2'	1:2A:1784:A:N6	2.24	0.52
1:2A:2287:A:C8	1:2A:2289:G:C8	2.98	0.52
61:2A:4614:HOH:O	11:2P:44:GLY:HA2	2.10	0.52
5:2F:181:LEU:HD11	5:2F:186:ILE:HD11	1.90	0.52
14:2S:67:ARG:O	14:2S:71:ARG:HG3	2.09	0.52
32:2a:22:G:H5"	32:2a:561:U:H3	1.74	0.52
32:2a:272:C:H2'	32:2a:273:A:C8	2.43	0.52
32:2a:565:U:OP2	32:2a:566:G:O2'	2.27	0.52
32:2a:944:G:OP1	61:2a:3312:HOH:O	2.19	0.52
35:2d:129:ASN:HD21	35:2d:144:ASP:HA	1.75	0.52
36:2e:132:ALA:O	36:2e:135:THR:N	2.38	0.52
38:2g:27:ILE:HD13	38:2g:40:ALA:HA	1.92	0.52
39:2h:20:TYR:HA	39:2h:65:TYR:CE1	2.45	0.52
1:1A:443:A:N6	5:1F:41:LEU:O	2.43	0.52
1:1A:1786:A:H1'	1:1A:1938:A:N6	2.25	0.52
1:1A:2130:U:H2'	1:1A:2158:A:N6	2.23	0.52
32:1a:189:G:C6	32:1a:189(L):G:N1	2.78	0.52
32:1a:1117:G:H5"	40:1i:104:ARG:NH2	2.25	0.52
32:1a:1488:G:H2'	32:1a:1489:G:C8	2.45	0.52
35:1d:178:VAL:C	35:1d:180:GLY:H	2.12	0.52
36:1e:83:GLU:HG2	36:1e:88:LYS:HG3	1.92	0.52
1:2A:1019:U:O2'	1:2A:1021:A:H2	1.93	0.52
1:2A:1842:G:O2'	3:2D:253:GLN:OE1	2.27	0.52
5:2F:164:ARG:O	5:2F:168:ARG:HB2	2.10	0.52
8:2I:77:LEU:HD22	8:2I:101:LEU:HD23	1.91	0.52
11:2P:63:PRO:HB2	30:28:30:ARG:NH2	2.24	0.52
11:2P:133:SER:O	11:2P:137:LYS:HG3	2.09	0.52
27:25:49:CYS:SG	27:25:51:TYR:HB2	2.50	0.52
28:26:32:ASN:N	28:26:32:ASN:OD1	2.42	0.52
32:2a:67:C:H2'	32:2a:68:G:C8	2.44	0.52
32:2a:683:G:H2'	32:2a:684:A:C8	2.44	0.52
32:2a:1095:U:OP2	61:2a:3311:HOH:O	2.19	0.52
32:2a:1315:U:O2'	32:2a:1360:A:H2'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:134:GLU:HA	33:2b:137:ARG:NH2	2.25	0.52
41:2j:78:ASN:O	41:2j:81:THR:N	2.38	0.52
46:2o:24:SER:OG	46:2o:26:GLU:N	2.43	0.52
51:2t:43:LEU:O	51:2t:47:GLY:N	2.40	0.52
1:1A:579:G:H2'	1:1A:580:C:C6	2.45	0.52
1:1A:620:G:N3	1:1A:620:G:H5'	2.24	0.52
1:1A:1358:G:N2	1:1A:1372:U:C5	2.78	0.52
5:1F:181:LEU:O	5:1F:205:ARG:NH2	2.35	0.52
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.92	0.52
32:1a:192:U:O4'	51:1t:102:GLY:HA2	2.10	0.52
32:1a:1016:A:H2'	32:1a:1017:G:O4'	2.10	0.52
32:1a:1118:C:OP1	40:1i:9:ARG:NH1	2.42	0.52
32:1a:1352:C:OP1	52:1u:3:LYS:NZ	2.39	0.52
34:1c:6:HIS:CD2	34:1c:7:PRO:HD2	2.45	0.52
34:1c:131:ARG:HH21	34:1c:135:LYS:HE3	1.75	0.52
35:1d:141:ARG:HG3	35:1d:144:ASP:OD2	2.10	0.52
36:1e:74:GLY:O	36:1e:116:THR:N	2.40	0.52
36:1e:145:LYS:HA	36:1e:148:VAL:HG22	1.92	0.52
1:2A:649:G:H4'	30:28:46:ARG:NH2	2.24	0.52
1:2A:1721:G:H2'	1:2A:1740:G:O6	2.10	0.52
1:2A:1778:U:OP2	61:2A:3969:HOH:O	2.19	0.52
1:2A:2439:A:H5'	1:2A:2439:A:C8	2.45	0.52
8:2I:130:TYR:CE2	8:2I:132:PRO:HB3	2.45	0.52
12:2Q:89:ASN:HB2	54:2x:1:C:C2	2.45	0.52
17:2V:60:GLU:HB2	17:2V:97:LYS:HE2	1.92	0.52
21:2Z:5:LEU:HB2	21:2Z:47:VAL:HG21	1.91	0.52
30:28:39:LYS:HA	30:28:42:ARG:NH1	2.24	0.52
32:2a:414:A:H2'	32:2a:415:A:C8	2.45	0.52
33:2b:47:THR:O	33:2b:50:GLU:N	2.42	0.52
36:2e:8:GLU:HG2	36:2e:34:VAL:HG23	1.92	0.52
48:2q:67:LYS:O	48:2q:68:ARG:HB2	2.09	0.52
1:1A:286:C:H2'	1:1A:287:C:H6	1.74	0.52
1:1A:1188:U:H4'	17:1V:79:VAL:HG22	1.92	0.52
1:1A:1957:C:OP1	61:1A:4287:HOH:O	2.18	0.52
1:1A:2751:G:H4'	7:1H:4:ILE:HD11	1.92	0.52
12:1Q:110:THR:HG23	12:1Q:113:GLN:HG3	1.91	0.52
32:1a:171:A:H2'	32:1a:172:A:H8	1.73	0.52
33:1b:16:HIS:CG	33:1b:17:PHE:N	2.77	0.52
33:1b:131:PRO:O	33:1b:135:GLN:N	2.36	0.52
35:1d:146:ILE:H	35:1d:146:ILE:HD12	1.75	0.52
1:2A:911:A:N6	12:2Q:11:LYS:O	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:96:ARG:N	6:2G:99:MET:HE2	2.25	0.52
6:2G:114:ILE:HA	6:2G:140:ILE:HD11	1.92	0.52
7:2H:156:ALA:O	7:2H:172:LYS:HG2	2.10	0.52
21:2Z:151:HIS:HA	21:2Z:170:THR:HA	1.91	0.52
32:2a:15:G:H4'	36:2e:24:ARG:HH12	1.74	0.52
32:2a:441:A:H3'	32:2a:442:C:C6	2.44	0.52
32:2a:487:A:H2'	32:2a:488:C:O4'	2.09	0.52
32:2a:597:G:OP2	61:2a:3308:HOH:O	2.19	0.52
32:2a:1159:U:C5	32:2a:1182:G:C5	2.97	0.52
44:2m:40:ASN:ND2	44:2m:43:THR:HG23	2.25	0.52
1:1A:972:G:OP2	1:1A:973:A:O2'	2.28	0.51
1:1A:1359:A:H2'	1:1A:1360:A:H5'	1.92	0.51
2:1B:11:C:OP2	2:1B:12:C:N4	2.32	0.51
30:18:26:LYS:HD2	30:18:48:PHE:CD2	2.45	0.51
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.45	0.51
34:1c:74:GLY:HA2	34:1c:77:ILE:HG12	1.91	0.51
44:1m:87:TYR:O	44:1m:91:ARG:HG2	2.10	0.51
1:2A:200:U:O2	1:2A:386:G:N2	2.42	0.51
1:2A:2314:C:H2'	1:2A:2315:G:C8	2.44	0.51
1:2A:2376:A:N3	14:2S:106:ARG:NH2	2.55	0.51
7:2H:10:PRO:O	7:2H:12:PRO:HD3	2.09	0.51
20:2Y:74:PRO:O	20:2Y:82:PRO:HA	2.10	0.51
32:2a:257:G:H1	32:2a:269:C:H42	1.56	0.51
32:2a:1081:G:H5'	36:2e:18:ARG:HB3	1.91	0.51
32:2a:1095:U:H2'	32:2a:1096:C:C6	2.44	0.51
1:1A:188:G:H1	1:1A:208:C:H42	1.59	0.51
1:1A:694:U:OP1	3:1D:59:LYS:NZ	2.43	0.51
1:1A:1266:G:H3'	61:1A:4257:HOH:O	2.10	0.51
4:1E:2:LYS:NZ	4:1E:95:ILE:O	2.38	0.51
5:1F:8:GLN:HE22	5:1F:21:ALA:HB2	1.73	0.51
5:1F:32:LEU:HB3	5:1F:112:MET:HE1	1.91	0.51
18:1W:24:ILE:HA	18:1W:27:LYS:HG3	1.91	0.51
32:1a:854:G:H3'	32:1a:871:U:O4	2.11	0.51
32:1a:1112:C:H1'	34:1c:179:ARG:HH11	1.75	0.51
32:1a:1504:G:OP1	32:1a:1507:A:H4'	2.10	0.51
41:1j:27:ALA:HA	41:1j:81:THR:HG21	1.91	0.51
1:2A:566:U:H5"	11:2P:29:LYS:HE3	1.93	0.51
1:2A:1022:G:H22	1:2A:1142(A):A:H2	1.53	0.51
1:2A:1788:C:H2'	1:2A:1789:A:C8	2.45	0.51
1:2A:2059:A:O2'	5:2F:69:HIS:HD2	1.94	0.51
3:2D:96:HIS:HD2	3:2D:102:LYS:HG2	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2D:148:GLU:HB2	3:2D:151:LYS:HD2	1.92	0.51
4:2E:12:THR:HG21	15:2T:11:GLU:HG2	1.92	0.51
5:2F:172:TRP:H	5:2F:172:TRP:CD1	2.27	0.51
14:2S:14:VAL:O	14:2S:18:ILE:HG12	2.10	0.51
27:25:52:TYR:O	27:25:55:ARG:HG2	2.09	0.51
32:2a:255:G:H2'	32:2a:256:U:C6	2.46	0.51
32:2a:1029:C:N3	32:2a:1032:G:N2	2.58	0.51
32:2a:1236:A:OP1	52:2u:2:GLY:HA3	2.10	0.51
34:2c:153:VAL:HA	34:2c:197:GLY:O	2.10	0.51
35:2d:140:VAL:HG11	35:2d:146:ILE:HD11	1.91	0.51
35:2d:191:ARG:NH1	35:2d:194:LEU:O	2.43	0.51
37:2f:11:ASN:HB3	37:2f:14:LEU:HG	1.90	0.51
43:2l:70:ILE:HD13	43:2l:77:LEU:HD12	1.92	0.51
50:2s:52:TYR:HB2	50:2s:57:HIS:NE2	2.24	0.51
1:1A:1634:A:OP2	61:1A:4294:HOH:O	2.19	0.51
32:1a:300:A:H1'	32:1a:565:U:O2	2.11	0.51
37:1f:38:GLU:OE1	37:1f:64:GLN:NE2	2.33	0.51
38:1g:153:HIS:C	38:1g:155:ARG:H	2.17	0.51
1:2A:416:C:H2'	1:2A:417:C:C6	2.45	0.51
1:2A:455:C:N3	1:2A:472:A:H2'	2.25	0.51
1:2A:479:A:H4'	1:2A:480:A:OP1	2.09	0.51
1:2A:1163:G:OP1	17:2V:24:LYS:NZ	2.39	0.51
1:2A:1529:G:C6	1:2A:1530:C:N4	2.78	0.51
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.45	0.51
1:2A:2639:A:C2	1:2A:2778:A:C8	2.98	0.51
1:2A:2895:U:H2'	1:2A:2896:C:O4'	2.11	0.51
7:2H:56:SER:HB3	7:2H:61:HIS:ND1	2.25	0.51
8:2I:4:ILE:HG12	8:2I:18:VAL:HG22	1.93	0.51
29:27:12:ARG:NH2	29:27:44:PRO:HB3	2.26	0.51
32:2a:1272:G:N2	32:2a:1273:G:C8	2.79	0.51
33:2b:223:ILE:HA	33:2b:226:ARG:CD	2.39	0.51
1:1A:1010:A:N3	1:1A:1153:C:H1'	2.25	0.51
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.46	0.51
2:1B:14:U:OP2	2:1B:70:C:O2'	2.22	0.51
20:1Y:68:HIS:O	20:1Y:71:LYS:HG3	2.11	0.51
32:1a:135:C:H2'	32:1a:136:C:H5'	1.93	0.51
32:1a:300:A:H8	32:1a:300:A:O5'	1.92	0.51
32:1a:1122:U:O4	32:1a:1123:A:N6	2.42	0.51
32:1a:1145:C:H4'	32:1a:1146:A:H5'	1.92	0.51
32:1a:1376:U:H2'	32:1a:1377:A:H8	1.74	0.51
33:1b:59:GLU:HB2	33:1b:221:LEU:HD21	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:1m:88:ARG:HG2	44:1m:98:VAL:HG12	1.92	0.51
1:2A:647:G:H8	1:2A:647:G:O5'	1.93	0.51
1:2A:893:C:H2'	1:2A:894:C:C4	2.44	0.51
1:2A:1378:A:O2'	1:2A:1380:G:N7	2.40	0.51
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.26	0.51
1:2A:2127:G:O2'	1:2A:2173:A:N3	2.43	0.51
2:2B:22:U:H3	2:2B:61:G:H1	1.58	0.51
2:2B:103:G:H21	21:2Z:73:GLN:HE22	1.58	0.51
6:2G:64:THR:HG22	6:2G:94:LEU:HD11	1.93	0.51
18:2W:34:ASN:OD1	18:2W:37:ARG:NH2	2.40	0.51
26:24:15:ILE:HB	26:24:32:TYR:CD1	2.46	0.51
32:2a:324:G:O2'	32:2a:326:G:N7	2.41	0.51
32:2a:976:G:H5'	32:2a:1358:U:O2'	2.10	0.51
32:2a:1129:C:C1'	32:2a:1146:A:H61	2.23	0.51
32:2a:1203:C:H2'	32:2a:1204:A:H8	1.75	0.51
38:2g:9:VAL:HG23	38:2g:94:ARG:HH21	1.76	0.51
41:2j:5:ARG:N	41:2j:99:LYS:O	2.43	0.51
45:2n:59:ALA:HB1	45:2n:61:TRP:HZ3	1.76	0.51
46:2o:54:ARG:HG2	46:2o:58:MET:HE2	1.90	0.51
1:1A:832:G:OP1	61:1A:4292:HOH:O	2.19	0.51
1:1A:1066:U:H2'	1:1A:1068:G:OP2	2.10	0.51
1:1A:2408:U:OP2	61:1A:4295:HOH:O	2.19	0.51
1:1A:2492:U:H2'	1:1A:2493:U:C6	2.45	0.51
6:1G:56:ALA:HA	6:1G:59:GLU:CD	2.36	0.51
21:1Z:77:ASP:OD2	21:1Z:80:ARG:HD2	2.11	0.51
22:10:54:GLY:O	22:10:57:PHE:N	2.44	0.51
32:1a:79:G:C6	32:1a:90:U:O2	2.64	0.51
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.46	0.51
42:1k:16:SER:HB3	42:1k:79:SER:HB3	1.92	0.51
1:2A:947:G:N2	1:2A:971:C:C2	2.79	0.51
1:2A:1149:G:H2'	1:2A:1150:C:H6	1.74	0.51
2:2B:75:G:N2	21:2Z:87:ASP:OD1	2.43	0.51
7:2H:26:VAL:O	7:2H:32:GLU:HA	2.10	0.51
7:2H:95:ARG:HH21	7:2H:97:ARG:HD3	1.76	0.51
14:2S:87:PHE:CZ	14:2S:102:ALA:HB2	2.45	0.51
24:22:9:GLN:HE21	24:22:60:LEU:HD21	1.75	0.51
32:2a:605:U:H2'	32:2a:606:G:C8	2.46	0.51
32:2a:1323:G:H4'	32:2a:1363:C:C2	2.45	0.51
34:2c:138:VAL:HG23	34:2c:151:VAL:HG23	1.91	0.51
44:2m:95:GLY:O	44:2m:110:ARG:HG2	2.11	0.51
1:1A:213:A:H2'	1:1A:214:G:O4'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:248:G:OP1	61:1A:4290:HOH:O	2.18	0.51
11:1P:19:VAL:HG12	11:1P:27:HIS:HB3	1.93	0.51
14:1S:36:TYR:N	14:1S:36:TYR:CD2	2.79	0.51
35:1d:109:GLY:HA3	35:1d:165:MET:SD	2.51	0.51
35:1d:112:VAL:H	35:1d:116:GLN:NE2	2.09	0.51
38:1g:12:LEU:HD12	38:1g:12:LEU:H	1.75	0.51
44:1m:91:ARG:HB2	44:1m:98:VAL:HG13	1.92	0.51
1:2A:1754:C:H5	15:2T:96:ARG:NH2	2.08	0.51
1:2A:2885:C:O2'	27:25:34:PRO:HG3	2.10	0.51
24:22:53:LEU:O	24:22:57:ILE:HG13	2.11	0.51
32:2a:839:U:H3'	32:2a:840:C:H5'	1.92	0.51
32:2a:1343:G:O2'	40:2i:121:ARG:HD2	2.11	0.51
33:2b:98:LEU:HD23	33:2b:108:ILE:HD12	1.93	0.51
35:2d:18:LYS:NZ	35:2d:26:CYS:O	2.43	0.51
35:2d:59:ARG:HA	35:2d:59:ARG:HH11	1.74	0.51
1:1A:365:C:OP2	61:1A:4291:HOH:O	2.19	0.51
1:1A:652(E):G:C6	1:1A:652(F):G:C6	2.99	0.51
1:1A:2197:U:H1'	1:1A:2198:A:C8	2.45	0.51
1:1A:2420:C:H5'	28:16:54:ILE:HD11	1.92	0.51
1:1A:2470:G:P	12:1Q:56:ARG:HH12	2.33	0.51
32:1a:185:A:H2'	32:1a:186:C:C6	2.46	0.51
32:1a:542:G:N2	32:1a:543:C:C2	2.79	0.51
32:1a:814:A:H2'	32:1a:816:A:H5"	1.91	0.51
32:1a:1021:G:O2'	32:1a:1022:G:O5'	2.29	0.51
37:1f:91:VAL:HG11	49:1r:72:ARG:NH1	2.25	0.51
1:2A:1359:A:N1	1:2A:1372:U:C4	2.79	0.51
1:2A:1590:U:H2'	1:2A:1591:G:H8	1.75	0.51
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.75	0.51
6:2G:135:LEU:HD21	6:2G:157:ILE:HD12	1.93	0.51
12:2Q:97:VAL:HG11	12:2Q:103:MET:HE3	1.92	0.51
20:2Y:90:LEU:O	20:2Y:93:GLY:N	2.40	0.51
32:2a:441:A:H3'	32:2a:442:C:H6	1.76	0.51
32:2a:505:G:H2'	32:2a:506:G:C8	2.46	0.51
32:2a:840:C:O5'	32:2a:841:U:H5	1.94	0.51
35:2d:42:GLN:HG2	35:2d:43:HIS:CD2	2.45	0.51
1:1A:64:A:O3'	19:1X:71:GLY:HA3	2.10	0.51
1:1A:687:C:H5"	29:17:2:LYS:HE2	1.92	0.51
1:1A:1379:A:H4'	1:1A:1380:G:OP2	2.10	0.51
9:1N:28:THR:HG22	9:1N:29:LYS:HG3	1.92	0.51
9:1N:58:ASP:OD1	9:1N:58:ASP:N	2.38	0.51
33:1b:222:ILE:O	33:1b:226:ARG:HG2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:85:ARG:O	34:1c:89:GLU:HG3	2.11	0.51
1:2A:880:G:N1	1:2A:898:C:O2	2.44	0.51
1:2A:1496:A:N3	1:2A:1577:C:O2'	2.42	0.51
1:2A:1803:A:O2'	3:2D:259:THR:HG21	2.10	0.51
1:2A:2845:G:H2'	1:2A:2846:G:C8	2.46	0.51
10:2O:49:ARG:NH1	32:2a:1422:G:O3'	2.31	0.51
15:2T:11:GLU:O	15:2T:15:VAL:HG23	2.11	0.51
15:2T:116:ALA:HB1	15:2T:121:ILE:HD11	1.93	0.51
32:2a:144:G:H1	32:2a:178:C:N4	2.08	0.51
32:2a:532:A:H61	34:2c:156:ARG:HH12	1.56	0.51
38:2g:22:LEU:HG	38:2g:62:PHE:HE2	1.76	0.51
47:2p:28:ARG:HG2	47:2p:29:ASP:OD1	2.11	0.51
50:2s:33:THR:H	50:2s:57:HIS:CE1	2.29	0.51
1:1A:226:G:N2	1:1A:228:A:H62	2.09	0.51
1:1A:272(J):C:H2'	1:1A:274:G:H8	1.75	0.51
1:1A:2286:A:H4'	1:1A:2287:A:O4'	2.11	0.51
32:1a:164:U:H2'	32:1a:165:C:C6	2.45	0.51
32:1a:501:C:H2'	32:1a:502:G:C8	2.46	0.51
32:1a:918:A:H2'	32:1a:919:A:C8	2.45	0.51
39:1h:120:THR:N	39:1h:123:GLU:HB2	2.26	0.51
40:1i:106:ALA:O	40:1i:108:VAL:HG13	2.11	0.51
42:1k:34:ASP:HB2	42:1k:35:PRO:HD2	1.93	0.51
1:2A:923:C:O2'	1:2A:924:C:H5'	2.10	0.51
1:2A:2109:U:C2'	1:2A:2110:G:H5'	2.41	0.51
6:2G:101:ILE:HD13	26:24:25:TYR:HB2	1.92	0.51
12:2Q:139:GLU:C	12:2Q:141:GLN:H	2.17	0.51
14:2S:34:HIS:HD1	14:2S:53:SER:HG	1.53	0.51
32:2a:664:G:OP1	49:2r:64:ARG:NH2	2.35	0.51
32:2a:1278:U:H5'	32:2a:1279:A:OP1	2.11	0.51
44:2m:59:TYR:HD2	44:2m:60:VAL:HG22	1.76	0.51
1:1A:1688:U:O2	1:1A:1700:A:H5'	2.11	0.51
1:1A:1932:A:H2'	1:1A:1933:G:O4'	2.11	0.51
25:13:18:ASP:OD1	25:13:18:ASP:N	2.39	0.51
32:1a:195:A:O2'	32:1a:196:A:O4'	2.16	0.51
33:1b:24:TRP:CD1	33:1b:24:TRP:H	2.29	0.51
1:2A:910:A:N7	12:2Q:13:GLN:HG3	2.26	0.51
1:2A:1152:C:H4'	16:2U:77:SER:HA	1.93	0.51
1:2A:1876:A:H2'	1:2A:1877:A:C8	2.46	0.51
1:2A:2582:G:OP2	61:2A:3971:HOH:O	2.19	0.51
8:2I:57:ARG:O	8:2I:61:ARG:HB2	2.11	0.51
21:2Z:54:HIS:CG	21:2Z:101:PRO:HG3	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:437:U:O3'	35:2d:125:HIS:HE1	1.94	0.51
34:2c:50:ALA:HB1	34:2c:72:LYS:O	2.11	0.51
38:2g:122:HIS:O	38:2g:125:MET:HB2	2.11	0.51
51:2t:50:GLU:HG3	51:2t:100:ILE:HG21	1.92	0.51
1:1A:847:U:OP2	61:1A:4293:HOH:O	2.19	0.50
1:1A:1441:G:H2'	1:1A:1442:G:H8	1.76	0.50
1:1A:1494:A:H2'	1:1A:1495:A:C8	2.45	0.50
1:1A:1504:C:H2'	1:1A:1505:C:C6	2.46	0.50
1:1A:1640:C:H2'	1:1A:1641:A:C8	2.46	0.50
1:1A:1683:C:H2'	1:1A:1684:C:C6	2.45	0.50
23:11:19:GLN:O	23:11:35:THR:HG22	2.12	0.50
32:1a:663:A:O3'	49:1r:64:ARG:NH2	2.43	0.50
32:1a:664:G:N2	32:1a:741:G:H1	2.06	0.50
33:1b:187:LEU:HD12	33:1b:201:ILE:O	2.12	0.50
34:1c:191:THR:OG1	34:1c:194:GLY:O	2.29	0.50
35:1d:192:GLU:O	35:1d:194:LEU:N	2.44	0.50
46:1o:39:LEU:O	46:1o:42:HIS:N	2.44	0.50
1:2A:1657:C:H2'	1:2A:1658:C:C6	2.46	0.50
1:2A:1908:C:O2	54:2x:12:G:H4'	2.11	0.50
4:2E:2:LYS:HA	4:2E:84:PHE:CG	2.46	0.50
6:2G:114:ILE:HB	6:2G:117:PHE:HB2	1.92	0.50
6:2G:125:PHE:CE1	6:2G:131:TYR:HB2	2.46	0.50
31:29:27:CYS:SG	31:29:28:GLU:N	2.85	0.50
32:2a:652:U:O4	32:2a:752:G:O2'	2.25	0.50
36:2e:71:LEU:HD11	36:2e:113:ALA:O	2.11	0.50
1:1A:2118:U:H4'	1:1A:2119:A:OP1	2.11	0.50
1:1A:2206:G:H3'	1:1A:2207:G:N7	2.27	0.50
21:1Z:152:ALA:HB3	21:1Z:167:PRO:HA	1.91	0.50
32:1a:507:C:OP2	32:1a:508:C:O2'	2.24	0.50
34:1c:108:ASN:HB3	34:1c:111:LEU:HG	1.93	0.50
38:1g:46:ALA:HA	38:1g:49:ILE:HD12	1.93	0.50
48:1q:9:VAL:HB	48:1q:56:VAL:HG22	1.93	0.50
51:1t:10:LEU:CD1	51:1t:11:SER:H	2.24	0.50
54:1x:19:G:H5"	54:1x:60:U:O4	2.11	0.50
1:2A:80:G:O2'	1:2A:294:A:N1	2.33	0.50
1:2A:724:U:H2'	1:2A:725:G:O4'	2.12	0.50
1:2A:2125:G:H1'	1:2A:2173:A:H61	1.77	0.50
1:2A:2166:G:H3'	1:2A:2167:U:C5'	2.36	0.50
1:2A:2869:G:H2'	1:2A:2870:C:O4'	2.11	0.50
7:2H:144:VAL:O	7:2H:148:ILE:HG13	2.11	0.50
32:2a:194:C:H2'	32:2a:195:A:H5"	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1029:C:N4	32:2a:1032:G:C6	2.79	0.50
32:2a:1190:G:H5'	34:2c:176:HIS:CE1	2.47	0.50
32:2a:1279:A:H5"	32:2a:1280:A:OP1	2.10	0.50
32:2a:1376:U:H2'	32:2a:1377:A:C8	2.46	0.50
34:2c:47:LEU:HB2	34:2c:52:LEU:HD22	1.94	0.50
2:1B:66:A:N6	2:1B:108:U:H2'	2.25	0.50
1:2A:668:G:H5'	1:2A:669:G:OP2	2.11	0.50
1:2A:811:U:H2'	11:2P:21:ARG:HA	1.93	0.50
1:2A:910:A:C6	1:2A:911:A:C6	2.99	0.50
1:2A:1507:A:O2'	1:2A:1508:A:O4'	2.27	0.50
1:2A:1798:U:C5'	3:2D:259:THR:HG22	2.35	0.50
1:2A:2391:G:O2'	1:2A:2422:A:N7	2.44	0.50
1:2A:2466:C:H5"	31:29:6:SER:HB2	1.93	0.50
3:2D:24:ILE:HD11	3:2D:84:TYR:HB2	1.93	0.50
32:2a:309:G:H2'	32:2a:310:G:C8	2.44	0.50
32:2a:983:A:H2	32:2a:984:C:C6	2.29	0.50
32:2a:1269:A:H2	32:2a:1312:G:N3	2.08	0.50
35:2d:162:LEU:HA	35:2d:165:MET:HB2	1.92	0.50
40:2i:85:LEU:HB3	40:2i:92:TYR:CD2	2.46	0.50
45:2n:32:SER:O	45:2n:40:CYS:HA	2.12	0.50
48:2q:32:TYR:O	48:2q:34:LYS:N	2.40	0.50
1:1A:1132:A:N3	61:1A:4373:HOH:O	2.34	0.50
1:1A:2366:A:H2'	1:1A:2367:G:O4'	2.10	0.50
1:1A:2516:G:O2'	1:1A:2517:C:H5'	2.11	0.50
2:1B:82:G:H2'	2:1B:83:G:O4'	2.12	0.50
3:1D:244:ARG:HB2	3:1D:245:PRO:HD2	1.92	0.50
6:1G:67:LYS:H	26:14:6:HIS:CE1	2.28	0.50
8:1I:66:GLU:C	8:1I:68:LEU:H	2.18	0.50
18:1W:92:ARG:HG2	18:1W:93:ALA:N	2.27	0.50
32:1a:665:A:H1'	32:1a:733:A:O4'	2.11	0.50
32:1a:977:A:OP2	61:1a:1921:HOH:O	2.19	0.50
32:1a:1277:C:H1'	32:1a:1282:C:O2	2.12	0.50
1:2A:1169:G:H8	1:2A:1169:G:O5'	1.93	0.50
1:2A:1359:A:H2'	1:2A:1360:A:H5'	1.92	0.50
1:2A:1379:A:O5'	1:2A:1379:A:H8	1.95	0.50
32:2a:683:G:H2'	32:2a:684:A:H8	1.76	0.50
33:2b:15:VAL:HB	33:2b:213:LEU:CD1	2.41	0.50
35:2d:10:ARG:HB2	35:2d:40:PRO:HG3	1.93	0.50
35:2d:163:GLU:O	35:2d:166:LYS:N	2.38	0.50
42:2k:84:VAL:HG21	42:2k:95:ILE:HD11	1.93	0.50
1:1A:87:C:H5"	1:1A:88:G:H5'	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1312:U:H4'	1:1A:1313:U:O5'	2.11	0.50
1:1A:1680:U:H2'	1:1A:1681:G:O4'	2.11	0.50
1:1A:2344:U:OP1	28:16:37:ARG:NH1	2.45	0.50
4:1E:28:ALA:HB3	4:1E:93:VAL:CG1	2.40	0.50
20:1Y:6:HIS:H	20:1Y:6:HIS:CD2	2.30	0.50
32:1a:192:U:H2'	32:1a:193:C:H6	1.76	0.50
33:1b:50:GLU:O	33:1b:54:THR:OG1	2.29	0.50
1:2A:27:G:N2	1:2A:512:G:H1'	2.27	0.50
1:2A:694:U:O4	61:2A:3973:HOH:O	2.19	0.50
1:2A:2166:G:N7	1:2A:2167:U:H2'	2.26	0.50
5:2F:11:VAL:HG22	5:2F:125:LEU:HD12	1.93	0.50
11:2P:85:LEU:HA	11:2P:88:LEU:HD12	1.93	0.50
22:20:14:ARG:NH1	61:20:201:HOH:O	2.44	0.50
32:2a:376:G:H2'	32:2a:377:G:H8	1.76	0.50
32:2a:947:G:O3'	44:2m:109:THR:OG1	2.30	0.50
32:2a:1057:G:C4	32:2a:1204:A:C2	2.99	0.50
32:2a:1070:U:H2'	32:2a:1071:C:H6	1.77	0.50
32:2a:1244:C:H42	32:2a:1293:G:H1	1.59	0.50
33:2b:60:ASP:HA	33:2b:63:MET:HE3	1.93	0.50
43:2l:34:ARG:O	43:2l:61:THR:HG23	2.11	0.50
1:1A:305:U:H2'	1:1A:306:U:C6	2.47	0.50
1:1A:1064:C:C6	1:1A:1076:C:H5	2.30	0.50
1:1A:2564:A:C2	1:1A:2647:U:H4'	2.46	0.50
7:1H:83:TYR:CZ	7:1H:138:LYS:HD2	2.47	0.50
12:1Q:60:ARG:HD2	21:1Z:178:GLU:CB	2.41	0.50
32:1a:189:G:C6	32:1a:189(L):G:C6	2.99	0.50
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.26	0.50
34:1c:33:LEU:HD21	45:1n:53:LEU:HD22	1.92	0.50
35:1d:3:ARG:HH11	35:1d:118:ARG:NH1	2.09	0.50
46:1o:56:LEU:O	46:1o:60:VAL:HG23	2.12	0.50
54:1x:58:A:H4'	54:1x:59:A:OP1	2.11	0.50
1:2A:330:A:H2	1:2A:1210:A:H2'	1.77	0.50
1:2A:601:C:O2'	1:2A:605:C:H5"	2.12	0.50
1:2A:1020:A:N1	1:2A:1141:U:O2'	2.35	0.50
1:2A:1188:U:H4'	17:2V:79:VAL:HG22	1.93	0.50
1:2A:1904:G:OP1	61:2A:3968:HOH:O	2.19	0.50
1:2A:2010:G:N7	61:2A:4030:HOH:O	2.35	0.50
2:2B:84:C:OP1	25:23:15:TYR:OH	2.24	0.50
12:2Q:111:GLU:O	12:2Q:115:MET:HG2	2.10	0.50
17:2V:19:LYS:HB2	17:2V:19:LYS:NZ	2.27	0.50
26:24:14:ILE:HA	26:24:31:ILE:O	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:233:C:H2'	32:2a:234:C:H6	1.76	0.50
32:2a:555:C:H2'	32:2a:556:C:C6	2.46	0.50
32:2a:875:C:H1'	39:2h:15:ASN:OD1	2.11	0.50
32:2a:1329:A:H5"	44:2m:26:GLY:N	2.27	0.50
33:2b:54:THR:HG23	33:2b:199:TYR:HB3	1.93	0.50
34:2c:35:GLU:O	34:2c:39:ILE:HG13	2.11	0.50
37:2f:61:LEU:HB3	37:2f:63:TYR:CE2	2.47	0.50
39:2h:44:PHE:HA	39:2h:79:VAL:CG1	2.41	0.50
40:2i:86:VAL:HA	40:2i:89:ASN:O	2.11	0.50
1:1A:21:A:O2'	1:1A:22:C:H5'	2.11	0.50
1:1A:616:G:H2'	1:1A:618:C:O4'	2.12	0.50
1:1A:881:G:N2	1:1A:897:C:O2	2.45	0.50
1:1A:1187:G:H5"	17:1V:81:TYR:CE1	2.46	0.50
10:1O:18:LYS:HG3	10:1O:45:GLU:HB3	1.94	0.50
20:1Y:35:TYR:CE2	20:1Y:69:ALA:HB3	2.47	0.50
23:11:6:GLU:HG3	23:11:61:ARG:O	2.12	0.50
32:1a:150:C:C2	32:1a:151:A:C8	3.00	0.50
32:1a:1216:G:H5"	45:1n:5:ALA:HB2	1.94	0.50
32:1a:1410:G:H2'	32:1a:1411:C:C6	2.46	0.50
33:1b:188:ALA:HB1	33:1b:192:SER:OG	2.11	0.50
50:1s:63:THR:O	50:1s:66:MET:HG2	2.12	0.50
1:2A:71:A:H5"	1:2A:73:A:C8	2.46	0.50
1:2A:2148:G:H2'	1:2A:2149:G:C8	2.47	0.50
1:2A:2239:G:P	3:2D:244:ARG:HH12	2.34	0.50
1:2A:2653:U:O2'	7:2H:110:SER:HB3	2.12	0.50
2:2B:117:G:H8	2:2B:117:G:O5'	1.93	0.50
6:2G:83:ARG:O	6:2G:85:GLY:N	2.45	0.50
9:2N:42:TRP:O	16:2U:64:ARG:NE	2.38	0.50
14:2S:80:LEU:O	14:2S:82:ILE:HG13	2.12	0.50
22:20:51:VAL:HG22	22:20:81:VAL:HG23	1.93	0.50
32:2a:1023:G:H3'	32:2a:1024:G:H8	1.76	0.50
35:2d:117:ALA:O	35:2d:120:LEU:HB2	2.12	0.50
35:2d:187:ARG:NH1	35:2d:190:ASP:OD1	2.44	0.50
36:2e:51:VAL:HG23	36:2e:52:PRO:HD3	1.93	0.50
42:2k:111:ASP:HB2	49:2r:84:LYS:HG2	1.92	0.50
43:2l:70:ILE:HG12	43:2l:100:ILE:CD1	2.41	0.50
50:2s:64:GLU:CD	50:2s:64:GLU:H	2.19	0.50
1:1A:570:G:H2'	1:1A:2030:A:C5	2.47	0.50
1:1A:887:A:C2	1:1A:889:C:H3'	2.47	0.50
1:1A:1406:U:H2'	1:1A:1407:C:C6	2.47	0.50
1:1A:1695:G:N7	3:1D:14:ARG:NH2	2.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2023:G:H5'	1:1A:2617:C:H4'	1.94	0.50
1:1A:2653:U:H2'	1:1A:2654:A:N7	2.26	0.50
10:1O:97:ARG:NH1	32:1a:339:C:OP2	2.45	0.50
11:1P:37:GLY:O	11:1P:38:GLN:O	2.29	0.50
13:1R:67:LEU:HG	13:1R:76:VAL:HG21	1.92	0.50
32:1a:182:U:N3	32:1a:183:G:H1'	2.27	0.50
35:1d:98:GLU:OE1	35:1d:103:ASN:ND2	2.41	0.50
35:1d:117:ALA:O	35:1d:121:VAL:HG23	2.11	0.50
37:1f:69:GLU:H	37:1f:69:GLU:CD	2.19	0.50
48:1q:41:LYS:NZ	48:1q:88:TYR:OH	2.31	0.50
1:2A:2134:A:H2'	1:2A:2134:A:N3	2.26	0.50
1:2A:2291:U:H2'	1:2A:2292:C:C6	2.47	0.50
4:2E:51:PHE:CD2	4:2E:52:LEU:HG	2.47	0.50
5:2F:157:VAL:HB	5:2F:194:MET:HG2	1.94	0.50
7:2H:113:VAL:HG11	7:2H:151:ILE:HG21	1.93	0.50
11:2P:82:GLY:HA3	11:2P:115:LEU:HD11	1.93	0.50
15:2T:99:LEU:O	15:2T:101:PHE:N	2.44	0.50
32:2a:1006:C:N3	32:2a:1023:G:N2	2.48	0.50
32:2a:1259:C:C4	32:2a:1260:C:H1'	2.47	0.50
32:2a:1289:A:OP1	52:2u:9:ARG:NH2	2.44	0.50
32:2a:1289:A:P	52:2u:9:ARG:HH22	2.35	0.50
32:2a:1343:G:H2'	32:2a:1344:C:C6	2.47	0.50
54:2x:58:A:H4'	54:2x:59:A:OP1	2.11	0.50
1:1A:2128:C:N4	1:1A:2160:G:H1	2.10	0.50
3:1D:13:ARG:HA	3:1D:16:MET:HE3	1.93	0.50
6:1G:131:TYR:HB3	6:1G:159:VAL:HG13	1.93	0.50
36:1e:80:ILE:HG23	36:1e:91:LEU:HD12	1.93	0.50
38:1g:72:ARG:HD3	38:1g:142:GLU:OE2	2.11	0.50
39:1h:2:LEU:HD21	39:1h:5:PRO:HA	1.94	0.50
1:2A:815:C:H2'	1:2A:816:C:C6	2.46	0.50
1:2A:1613:G:C2	1:2A:1619:G:C5	3.00	0.50
5:2F:53:THR:HG22	5:2F:56:GLU:CD	2.36	0.50
30:28:39:LYS:HA	30:28:42:ARG:HH12	1.75	0.50
37:2f:67:MET:HE1	37:2f:75:LEU:HD13	1.94	0.50
44:2m:49:THR:O	44:2m:53:VAL:HG13	2.12	0.50
46:2o:43:LEU:HD12	46:2o:56:LEU:HD13	1.93	0.50
1:1A:1069:A:O4'	1:1A:1096:A:O2'	2.30	0.49
1:1A:1608:A:O2'	1:1A:1610:A:OP2	2.26	0.49
3:1D:142:VAL:HG13	3:1D:143:HIS:N	2.27	0.49
32:1a:1187:G:H2'	32:1a:1188:A:C8	2.47	0.49
32:1a:1263:C:H2'	32:1a:1264:C:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:196:LEU:O	35:1d:198:VAL:N	2.45	0.49
40:1i:23:ASN:HB2	40:1i:25:LYS:HD2	1.93	0.49
44:1m:70:LEU:O	44:1m:74:VAL:HG23	2.12	0.49
1:2A:883:G:N2	1:2A:894:C:O2	2.45	0.49
1:2A:1223:G:O6	17:2V:69:LYS:NZ	2.44	0.49
1:2A:1584:C:O2'	1:2A:1586:A:H5'	2.12	0.49
1:2A:2292:C:OP1	14:2S:17:ARG:NH2	2.33	0.49
1:2A:2690:C:N4	1:2A:2713:A:H1'	2.27	0.49
2:2B:2:C:H2'	2:2B:3:C:H6	1.76	0.49
2:2B:22:U:H2'	2:2B:23:G:C8	2.46	0.49
7:2H:101:ARG:HH22	7:2H:122:THR:HA	1.75	0.49
10:2O:26:LYS:O	10:2O:30:ALA:HB2	2.12	0.49
32:2a:384:G:H2'	32:2a:385:C:H6	1.77	0.49
32:2a:1182:G:H4'	32:2a:1183:A:H5"	1.94	0.49
42:2k:43:SER:OG	42:2k:44:SER:N	2.45	0.49
51:2t:78:ALA:O	51:2t:82:SER:HB2	2.11	0.49
51:2t:86:ARG:HH21	51:2t:90:GLN:HE22	1.60	0.49
1:1A:414:C:H4'	1:1A:1879:C:O2	2.12	0.49
1:1A:1429:G:H2'	1:1A:1430:C:C6	2.47	0.49
1:1A:1525:G:H2'	1:1A:1526:G:O4'	2.12	0.49
33:1b:15:VAL:HG21	33:1b:213:LEU:HD23	1.94	0.49
35:1d:173:TRP:CE3	35:1d:174:LEU:HG	2.46	0.49
39:1h:83:ILE:HG13	39:1h:137:VAL:HG22	1.94	0.49
43:1l:27:LEU:HD23	43:1l:33:ARG:HB2	1.94	0.49
1:2A:96:G:H4'	24:22:48:HIS:NE2	2.27	0.49
1:2A:286:C:N4	1:2A:355:G:H1	2.09	0.49
1:2A:1285:G:N2	1:2A:1328:G:H5"	2.27	0.49
1:2A:1477:A:H2'	1:2A:1478:G:O4'	2.12	0.49
1:2A:1607:C:N4	1:2A:1622:G:OP2	2.39	0.49
9:2N:67:LEU:HB3	9:2N:88:GLU:HG3	1.93	0.49
26:24:33:VAL:HG13	26:24:35:VAL:N	2.27	0.49
32:2a:358:U:H2'	32:2a:359:U:H6	1.77	0.49
32:2a:792:A:H4'	32:2a:793:U:C5'	2.41	0.49
32:2a:818:G:HO2'	32:2a:820:U:H6	1.60	0.49
32:2a:859:A:H2'	32:2a:860:A:O4'	2.12	0.49
32:2a:933:G:N2	32:2a:935:A:O4'	2.45	0.49
33:2b:91:PRO:HG2	33:2b:155:LEU:CD1	2.42	0.49
35:2d:22:LYS:HG3	59:2d:304:SF4:S4	2.53	0.49
38:2g:88:PRO:HD2	38:2g:151:TYR:O	2.11	0.49
40:2i:18:PHE:HD2	40:2i:62:TYR:HD2	1.59	0.49
1:1A:1039:G:H1	1:1A:1116:C:N4	2.03	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1075:C:C2'	1:1A:1076:C:H5'	2.42	0.49
1:1A:1495:A:H2'	1:1A:1496:A:C8	2.47	0.49
1:1A:2567:G:H2'	1:1A:2568:C:C6	2.46	0.49
21:1Z:14:LYS:NZ	21:1Z:16:SER:H	2.08	0.49
32:1a:539:A:H2'	32:1a:540:G:C8	2.46	0.49
36:1e:33:VAL:HG13	36:1e:112:LEU:HD12	1.94	0.49
36:1e:77:PRO:HD2	36:1e:142:LEU:HD13	1.94	0.49
46:1o:25:THR:HG21	46:1o:70:LEU:HB2	1.94	0.49
48:1q:66:SER:O	48:1q:68:ARG:N	2.46	0.49
1:2A:54:G:C6	1:2A:117:G:N2	2.80	0.49
1:2A:657:U:H2'	1:2A:658:C:C6	2.47	0.49
1:2A:1491:G:H5'	3:2D:99:ASP:OD1	2.12	0.49
30:28:26:LYS:HD3	30:28:48:PHE:CD2	2.46	0.49
32:2a:109:A:H2'	32:2a:326:G:N2	2.27	0.49
32:2a:176:C:H2'	32:2a:177:C:C6	2.48	0.49
32:2a:336:C:H2'	32:2a:337:C:C6	2.47	0.49
40:2i:34:ASN:O	40:2i:38:GLN:HB2	2.11	0.49
44:2m:29:ARG:HB3	44:2m:64:TRP:CZ3	2.47	0.49
51:2t:47:GLY:HA2	51:2t:48:LYS:C	2.37	0.49
1:1A:700:G:H2'	1:1A:701:G:O4'	2.13	0.49
1:1A:729:G:C6	3:1D:208:LYS:HB2	2.47	0.49
7:1H:124:GLU:HB2	7:1H:132:ARG:HB3	1.94	0.49
32:1a:407:G:H5"	35:1d:115:ARG:HB3	1.94	0.49
32:1a:457:C:H2'	32:1a:458:C:C6	2.47	0.49
32:1a:1298:C:H2'	38:1g:114:ARG:NH1	2.27	0.49
36:1e:10:MET:HA	36:1e:32:VAL:HG22	1.94	0.49
51:1t:71:THR:HG22	51:1t:72:LEU:HG	1.93	0.49
1:2A:1910:G:H2'	1:2A:1911:PSU:H6	1.77	0.49
1:2A:1933:G:H2'	1:2A:1934:C:O4'	2.13	0.49
1:2A:2818:G:OP1	1:2A:2837:G:O2'	2.27	0.49
1:2A:2854:G:N2	1:2A:2864:G:C4	2.80	0.49
5:2F:29:ASN:HB3	5:2F:112:MET:HE1	1.95	0.49
15:2T:90:GLN:HG3	15:2T:91:ARG:N	2.27	0.49
21:2Z:54:HIS:ND1	21:2Z:101:PRO:HG3	2.27	0.49
22:20:5:LYS:O	22:20:7:LEU:HD23	2.12	0.49
32:2a:1086:U:H3	32:2a:1099:G:H22	1.60	0.49
32:2a:1265:G:H2'	32:2a:1266:G:O4'	2.12	0.49
32:2a:1378:C:OP1	38:2g:6:ARG:HB3	2.12	0.49
35:2d:111:ALA:HB1	35:2d:116:GLN:HE21	1.78	0.49
44:2m:84:ILE:HB	50:2s:66:MET:HE2	1.94	0.49
48:2q:95:TYR:O	48:2q:97:SER:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:36:G:N3	1:1A:450:G:O2'	2.46	0.49
1:1A:671:C:N4	61:1A:4480:HOH:O	2.45	0.49
1:1A:1557:C:H5"	1:1A:1558:A:OP2	2.12	0.49
1:1A:2787:C:H1'	4:1E:62:PRO:HG3	1.93	0.49
8:1I:130:TYR:HB3	8:1I:138:ILE:HB	1.95	0.49
9:1N:115:ARG:HA	9:1N:118:LYS:HE3	1.95	0.49
15:1T:74:ARG:HG2	15:1T:76:PHE:CZ	2.47	0.49
31:19:12:ASP:OD1	31:19:13:LYS:N	2.45	0.49
32:1a:316:G:OP2	32:1a:351:G:O2'	2.26	0.49
32:1a:438:G:H4'	35:1d:123:HIS:CE1	2.47	0.49
34:1c:116:VAL:HG21	34:1c:202:ILE:HD11	1.92	0.49
40:1i:128:ARG:NH2	54:1x:33:U:OP2	2.46	0.49
1:2A:651:G:OP1	30:28:17:THR:OG1	2.28	0.49
2:2B:55:U:H2'	2:2B:56:G:C8	2.48	0.49
7:2H:3:ARG:HH22	7:2H:5:GLY:HA3	1.78	0.49
7:2H:7:LEU:HB3	7:2H:69:ARG:NH2	2.25	0.49
14:2S:71:ARG:HG2	14:2S:71:ARG:HH11	1.77	0.49
19:2X:94:GLY:CA	19:2X:95:LEU:HB2	2.42	0.49
21:2Z:92:SER:OG	21:2Z:93:ASP:OD2	2.28	0.49
32:2a:193:C:H2'	32:2a:194:C:H6	1.78	0.49
32:2a:801:U:H2'	32:2a:802:A:H8	1.77	0.49
32:2a:1134:G:C6	32:2a:1135:U:H1'	2.47	0.49
33:2b:134:GLU:HA	33:2b:137:ARG:HH21	1.78	0.49
35:2d:90:GLY:O	35:2d:93:PHE:HB3	2.13	0.49
38:2g:57:GLU:HG3	38:2g:60:LYS:H	1.76	0.49
40:2i:85:LEU:HB3	40:2i:92:TYR:HD2	1.77	0.49
42:2k:110:ASP:O	49:2r:84:LYS:HB3	2.12	0.49
1:1A:1056:G:O2'	1:1A:1086:A:H1'	2.12	0.49
1:1A:1142(A):A:C8	1:1A:1144:G:C8	3.00	0.49
1:1A:2721:A:H8	1:1A:2721:A:OP2	1.95	0.49
4:1E:105:THR:OG1	4:1E:199:ARG:NH2	2.45	0.49
21:1Z:115:GLY:N	21:1Z:146:ILE:HD11	2.27	0.49
32:1a:36:C:OP1	43:1l:123:LYS:NZ	2.29	0.49
35:1d:64:LEU:HA	35:1d:67:ILE:HD12	1.94	0.49
1:2A:1800:C:OP2	3:2D:183:ARG:NH2	2.44	0.49
1:2A:2131:G:C8	1:2A:2133:G:C2	3.00	0.49
5:2F:13:SER:OG	5:2F:16:GLY:O	2.27	0.49
5:2F:32:LEU:O	5:2F:36:VAL:HG23	2.13	0.49
20:2Y:49:VAL:HG11	20:2Y:55:TYR:CE2	2.47	0.49
32:2a:363:A:OP2	43:2l:34:ARG:NH2	2.45	0.49
32:2a:430:A:H2'	32:2a:431:A:O4'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:688:G:H1	32:2a:699:C:H42	1.60	0.49
32:2a:968:A:C4	32:2a:1062:U:H4'	2.47	0.49
32:2a:1053:G:N7	32:2a:1200:C:H5"	2.27	0.49
32:2a:1155:G:H2'	32:2a:1156:G:O4'	2.11	0.49
34:2c:30:ARG:NH2	45:2n:38:GLY:HA2	2.23	0.49
35:2d:158:ILE:HG22	35:2d:162:LEU:HD21	1.93	0.49
36:2e:28:PHE:O	36:2e:47:LYS:HA	2.12	0.49
36:2e:146:ALA:O	36:2e:150:ARG:HG2	2.13	0.49
37:2f:97:PHE:O	49:2r:31:LEU:HD23	2.13	0.49
41:2j:9:ARG:O	41:2j:16:LEU:HD21	2.13	0.49
43:2l:36:VAL:O	43:2l:58:VAL:HA	2.11	0.49
44:2m:29:ARG:HB3	44:2m:64:TRP:CH2	2.47	0.49
47:2p:23:ASP:OD2	47:2p:25:ARG:NH1	2.46	0.49
1:1A:695:G:OP1	1:1A:1380:G:O2'	2.26	0.49
1:1A:2377:A:H2'	1:1A:2378:A:C8	2.48	0.49
2:1B:42:C:OP2	26:14:2:LYS:NZ	2.41	0.49
5:1F:132:VAL:HA	5:1F:138:GLU:HB3	1.95	0.49
6:1G:97:ASP:O	6:1G:101:ILE:HG13	2.13	0.49
8:1I:37:VAL:HG12	8:1I:38:LEU:HD23	1.93	0.49
11:1P:28:GLY:HA3	61:1P:312:HOH:O	2.12	0.49
32:1a:453:A:O2'	47:1p:68:ASP:O	2.30	0.49
32:1a:512:U:H2'	32:1a:513:C:C6	2.48	0.49
32:1a:1194:U:H2'	32:1a:1195:C:C6	2.47	0.49
32:1a:1289:A:OP1	52:1u:9:ARG:NH1	2.35	0.49
32:1a:1410:G:H2'	32:1a:1411:C:H6	1.77	0.49
35:1d:165:MET:SD	35:1d:168:ARG:HD2	2.53	0.49
36:1e:39:GLY:HA2	36:1e:69:VAL:HG13	1.93	0.49
48:1q:13:ASP:HA	48:1q:19:VAL:HG12	1.94	0.49
48:1q:53:LEU:HB3	48:1q:82:MET:HE1	1.95	0.49
1:2A:2133:G:C2	1:2A:2157:G:C5	3.01	0.49
1:2A:2206:G:H3'	1:2A:2207:G:N7	2.27	0.49
1:2A:2578:G:OP1	1:2A:2614:A:N6	2.41	0.49
2:2B:31:C:N4	14:2S:32:LEU:HD13	2.27	0.49
5:2F:120:GLU:OE2	5:2F:122:LYS:HG3	2.12	0.49
6:2G:179:PRO:HB2	26:24:42:PHE:HE2	1.77	0.49
9:2N:131:GLN:NE2	9:2N:131:GLN:H	2.11	0.49
31:29:16:VAL:HG22	31:29:25:VAL:HG22	1.94	0.49
32:2a:56:U:H2'	32:2a:57:G:C8	2.47	0.49
32:2a:519:C:H2'	32:2a:520:A:H8	1.75	0.49
32:2a:1067:A:H8	32:2a:1067:A:O5'	1.94	0.49
32:2a:1145:C:H4'	32:2a:1146:A:H8	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1191:A:OP2	34:2c:3:ASN:ND2	2.45	0.49
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.46	0.49
32:2a:1446:U:H2'	32:2a:1452:C:C5	2.48	0.49
33:2b:235:SER:O	33:2b:235:SER:OG	2.28	0.49
35:2d:108:LEU:O	35:2d:110:PHE:HD1	1.96	0.49
36:2e:92:LYS:HB3	36:2e:119:LEU:HB2	1.94	0.49
37:2f:33:TYR:HB2	37:2f:75:LEU:HD12	1.95	0.49
1:1A:323:G:C8	5:1F:171:PRO:HG3	2.48	0.49
1:1A:1354:A:O3'	3:1D:38:LYS:NZ	2.45	0.49
1:1A:1507:A:H2'	1:1A:1508:A:H8	1.78	0.49
1:1A:1850:G:H1	1:1A:1892:C:H42	1.60	0.49
2:1B:25:A:OP2	61:1B:302:HOH:O	2.20	0.49
8:1I:38:LEU:HG	8:1I:40:THR:CG2	2.43	0.49
24:12:35:LEU:HD12	24:12:53:LEU:HD12	1.93	0.49
32:1a:293:G:C6	32:1a:294:U:C4	3.01	0.49
32:1a:667:G:O2'	46:1o:49:ASP:OD1	2.26	0.49
32:1a:848:C:H2'	32:1a:849:C:H6	1.78	0.49
32:1a:1129:C:H5"	40:1i:16:ARG:NH1	2.28	0.49
32:1a:1226:C:H4'	50:1s:80:TYR:CZ	2.47	0.49
34:1c:138:VAL:HG22	34:1c:151:VAL:HG23	1.94	0.49
51:1t:49:ALA:O	51:1t:53:LEU:HG	2.12	0.49
1:2A:212:G:H2'	1:2A:213:A:O4'	2.13	0.49
1:2A:320:A:H4'	1:2A:322:A:C8	2.48	0.49
1:2A:1359:A:H2	1:2A:1372:U:O4	1.95	0.49
1:2A:2106:G:H2'	1:2A:2107:C:O4'	2.13	0.49
1:2A:2571:C:H5"	1:2A:2572:A:H5"	1.95	0.49
11:2P:101:VAL:HA	11:2P:106:LEU:O	2.12	0.49
23:21:82:LEU:HA	23:21:85:LEU:HD12	1.95	0.49
32:2a:131:C:H2'	32:2a:132:C:C6	2.48	0.49
32:2a:224:C:H2'	32:2a:225:C:C6	2.48	0.49
32:2a:1095:U:P	32:2a:1108:G:H1	2.35	0.49
32:2a:1122:U:C2	32:2a:1123:A:N7	2.81	0.49
32:2a:1313:U:OP2	50:2s:5:LEU:HD13	2.12	0.49
35:2d:64:LEU:HD12	35:2d:68:TYR:HE2	1.78	0.49
39:2h:30:ARG:HA	39:2h:33:GLU:HB2	1.95	0.49
51:2t:79:ARG:HD2	51:2t:83:ARG:NH2	2.28	0.49
1:1A:944:G:H5"	1:1A:945:A:O5'	2.13	0.49
1:1A:1031:G:H5"	31:19:8:LYS:HE3	1.93	0.49
1:1A:1690:A:H2'	1:1A:1691:C:O4'	2.13	0.49
1:1A:1794:U:H2'	1:1A:1795:C:C6	2.48	0.49
1:1A:2732:G:H3'	1:1A:2733:A:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2848:G:H1'	1:1A:2867:G:N2	2.28	0.49
6:1G:105:LYS:O	6:1G:109:VAL:HG22	2.13	0.49
32:1a:103:C:O2'	32:1a:172:A:N1	2.39	0.49
32:1a:192:U:H2'	32:1a:193:C:C6	2.48	0.49
32:1a:1258:G:H2'	32:1a:1259:C:C6	2.48	0.49
43:1l:11:VAL:HG13	48:1q:29:HIS:CD2	2.48	0.49
1:2A:271(G):C:H2'	1:2A:271(H):G:H8	1.78	0.49
6:2G:91:ARG:HB3	6:2G:91:ARG:CZ	2.42	0.49
8:2I:78:THR:HA	8:2I:143:SER:HB2	1.94	0.49
26:24:34:GLU:HB3	44:2m:57:ARG:HH21	1.78	0.49
32:2a:266:G:H2'	32:2a:266:G:N3	2.28	0.49
32:2a:1284:C:H3'	32:2a:1285:A:H8	1.78	0.49
32:2a:1477:C:H2'	32:2a:1478:C:H6	1.77	0.49
34:2c:173:VAL:HG12	34:2c:175:LEU:HD11	1.95	0.49
35:2d:173:TRP:CD2	35:2d:189:PRO:HB3	2.48	0.49
38:2g:74:GLU:HG2	38:2g:91:VAL:HG22	1.93	0.49
1:1A:1036:G:OP1	7:1H:59:ARG:HG3	2.13	0.49
1:1A:1056:G:H5"	1:1A:1057:A:O4'	2.13	0.49
1:1A:1071:G:H1	1:1A:1092:C:N4	2.11	0.49
1:1A:2653:U:H2'	1:1A:2654:A:C8	2.48	0.49
1:1A:2868:A:C2	1:1A:2869:G:C4	3.01	0.49
4:1E:120:TRP:CE3	4:1E:155:LYS:HD3	2.47	0.49
10:1O:68:GLU:OE1	10:1O:78:ARG:NH1	2.46	0.49
32:1a:176:C:H2'	32:1a:177:C:H6	1.78	0.49
34:1c:71:ALA:HA	34:1c:106:VAL:HG22	1.95	0.49
34:1c:138:VAL:HG13	34:1c:149:ALA:HB3	1.95	0.49
1:2A:185:U:H4'	1:2A:218:A:H4'	1.94	0.49
1:2A:1336:A:H2'	1:2A:1337:G:C8	2.48	0.49
1:2A:2127:G:N2	1:2A:2173:A:O2'	2.35	0.49
1:2A:2564:A:C2	1:2A:2647:U:H4'	2.47	0.49
1:2A:2663:G:H3'	1:2A:2664:G:H8	1.78	0.49
2:2B:43:C:C4	2:2B:45:A:C6	3.00	0.49
9:2N:28:THR:HG22	9:2N:29:LYS:N	2.27	0.49
14:2S:83:LYS:O	14:2S:84:GLN:HB2	2.13	0.49
15:2T:99:LEU:O	15:2T:100:TYR:C	2.55	0.49
16:2U:79:PHE:CE2	16:2U:83:LEU:HD11	2.48	0.49
32:2a:690:G:C6	32:2a:691:G:C6	3.00	0.49
32:2a:952:U:O4	44:2m:104:ARG:HD3	2.13	0.49
32:2a:1055:A:C2	32:2a:1056:U:H1'	2.47	0.49
32:2a:1427:U:H2'	32:2a:1428:A:C8	2.48	0.49
34:2c:19:GLU:O	34:2c:56:ASP:HA	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:8:VAL:HA	35:2d:11:LEU:HD13	1.95	0.49
35:2d:8:VAL:O	35:2d:11:LEU:HB2	2.12	0.49
37:2f:36:ARG:HH12	37:2f:38:GLU:HG3	1.78	0.49
50:2s:52:TYR:HB2	50:2s:57:HIS:CD2	2.47	0.49
1:1A:1245:G:OP1	11:1P:13:ASN:ND2	2.46	0.48
1:1A:1420:U:O2'	1:1A:1421:G:OP1	2.29	0.48
1:1A:1790:C:H5"	1:1A:1791:A:OP1	2.13	0.48
1:1A:2577:A:O4'	27:15:3:LYS:HB2	2.13	0.48
2:1B:91:C:OP1	12:1Q:16:ARG:HG3	2.13	0.48
14:1S:3:ARG:HD2	14:1S:4:LEU:O	2.12	0.48
26:14:62:ARG:C	26:14:63:TYR:CG	2.90	0.48
32:1a:341:C:H2'	32:1a:342:C:C6	2.48	0.48
32:1a:345:C:H4'	32:1a:346:G:H5"	1.95	0.48
32:1a:419:C:OP1	32:1a:513:C:O2'	2.31	0.48
34:1c:22:TRP:CH2	45:1n:54:PRO:HG2	2.48	0.48
45:1n:25:VAL:HG13	45:1n:38:GLY:O	2.13	0.48
1:2A:484:C:H2'	1:2A:485:C:C6	2.48	0.48
1:2A:1805:U:O2	3:2D:50:THR:HB	2.12	0.48
1:2A:2427:C:H5"	1:2A:2428:G:OP1	2.12	0.48
2:2B:56:G:H4'	2:2B:57:A:C8	2.48	0.48
2:2B:98:G:H3'	2:2B:99:G:H8	1.77	0.48
9:2N:38:HIS:CE1	9:2N:39:ARG:HG3	2.48	0.48
12:2Q:37:LEU:HD11	12:2Q:130:LYS:HB2	1.95	0.48
32:2a:56:U:H2'	32:2a:57:G:H8	1.78	0.48
32:2a:434:U:H2'	32:2a:435:C:C6	2.48	0.48
33:2b:7:VAL:N	33:2b:221:LEU:HD11	2.28	0.48
54:2x:18:G:C2	54:2x:58:A:C5	3.01	0.48
1:1A:389:G:H8	1:1A:389:G:O5'	1.96	0.48
1:1A:639:U:H2'	1:1A:640:C:C6	2.48	0.48
5:1F:135:LYS:HB2	5:1F:138:GLU:CD	2.38	0.48
6:1G:59:GLU:CD	6:1G:153:ARG:HH21	2.21	0.48
17:1V:74:LYS:HB2	17:1V:83:ARG:HB2	1.94	0.48
32:1a:113:G:H2'	32:1a:114:U:C6	2.48	0.48
32:1a:613:C:H2'	32:1a:614:A:H8	1.78	0.48
32:1a:1047:G:H5"	45:1n:4:LYS:HD3	1.96	0.48
39:1h:9:MET:HG3	39:1h:26:VAL:HG11	1.94	0.48
48:1q:27:PHE:CZ	48:1q:36:ILE:HD11	2.49	0.48
1:2A:343:C:H2'	1:2A:344:G:C8	2.43	0.48
1:2A:2163:C:OP2	1:2A:2164:C:N4	2.46	0.48
1:2A:2305:A:N3	6:2G:136:ARG:HA	2.28	0.48
1:2A:2748:A:H5'	7:2H:4:ILE:HD12	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2768:C:H2'	1:2A:2769:C:O4'	2.13	0.48
7:2H:2:SER:O	7:2H:3:ARG:HG2	2.13	0.48
32:2a:254:G:OP1	48:2q:66:SER:OG	2.31	0.48
32:2a:401:C:N4	61:2a:3322:HOH:O	2.46	0.48
32:2a:619:U:C4	35:2d:135:LEU:HD11	2.48	0.48
32:2a:1097:C:H1'	32:2a:1170:A:H1'	1.94	0.48
34:2c:22:TRP:CZ2	45:2n:54:PRO:HG2	2.48	0.48
39:2h:14:ARG:O	39:2h:18:ARG:HD3	2.13	0.48
42:2k:87:THR:HA	42:2k:91:ARG:NH1	2.28	0.48
50:2s:27:GLU:HB2	50:2s:28:LYS:NZ	2.28	0.48
1:1A:899:A:H2'	1:1A:900:A:C8	2.48	0.48
1:1A:1012:U:C5	9:1N:28:THR:HG21	2.48	0.48
1:1A:1114:G:H2'	1:1A:1115:G:O4'	2.13	0.48
1:1A:2405:G:C5'	11:1P:75:ILE:HD13	2.44	0.48
3:1D:222:ARG:NH1	61:1D:406:HOH:O	2.46	0.48
32:1a:136:C:N4	32:1a:227:G:H1	2.12	0.48
34:1c:52:LEU:HD13	34:1c:68:VAL:HG13	1.95	0.48
46:1o:15:PHE:CZ	46:1o:84:LYS:HD2	2.49	0.48
51:1t:13:LEU:HD12	51:1t:14:LYS:N	2.27	0.48
1:2A:910:A:C5	12:2Q:13:GLN:HG3	2.48	0.48
1:2A:975:C:OP1	61:2A:3970:HOH:O	2.19	0.48
1:2A:1429:G:H2'	1:2A:1430:C:C6	2.48	0.48
1:2A:2055:C:H5'	1:2A:2056:G:O5'	2.12	0.48
1:2A:2104:G:H2'	1:2A:2105:C:O4'	2.14	0.48
1:2A:2849:U:H4'	1:2A:2868:A:C2	2.47	0.48
11:2P:27:HIS:HB2	61:2P:301:HOH:O	2.12	0.48
11:2P:86:LYS:HG3	11:2P:87:ASP:OD1	2.12	0.48
12:2Q:34:LEU:HB2	12:2Q:118:LEU:HD22	1.95	0.48
12:2Q:89:ASN:HB2	54:2x:1:C:N3	2.28	0.48
19:2X:11:PRO:HB3	19:2X:92:LEU:HD11	1.94	0.48
26:24:67:TYR:CD2	50:2s:9:VAL:HB	2.48	0.48
32:2a:176:C:H2'	32:2a:177:C:H6	1.77	0.48
32:2a:642:A:N3	39:2h:113:SER:OG	2.46	0.48
32:2a:958:A:N3	32:2a:985:C:O2'	2.43	0.48
32:2a:1029:C:C2	32:2a:1032:G:N2	2.80	0.48
32:2a:1206:G:C6	32:2a:1207:2MG:C5	3.01	0.48
32:2a:1466:C:H2'	32:2a:1467:G:O4'	2.13	0.48
1:1A:859:G:O2'	1:1A:916:G:O6	2.27	0.48
1:1A:1580:A:OP2	1:1A:1580:A:H8	1.96	0.48
1:1A:2031:A:C6	1:1A:2498:C:H1'	2.48	0.48
1:1A:2396:G:OP1	23:11:25:LYS:NZ	2.33	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2776:A:H4'	1:1A:2777:G:H5"	1.95	0.48
6:1G:36:LYS:HB3	6:1G:95:ARG:HG2	1.95	0.48
10:1O:38:VAL:HG13	10:1O:87:ILE:HD11	1.95	0.48
15:1T:18:ASP:OD1	15:1T:18:ASP:N	2.44	0.48
32:1a:159:G:H2'	32:1a:161:A:OP2	2.13	0.48
32:1a:437:U:H5'	35:1d:155:LEU:CD1	2.43	0.48
32:1a:619:U:N3	35:1d:134:ASP:OD1	2.45	0.48
32:1a:651:C:O2'	32:1a:652:U:H5'	2.13	0.48
32:1a:966:M2G:H8	32:1a:966:M2G:OP2	1.95	0.48
33:1b:112:VAL:HG12	33:1b:149:LEU:HD13	1.95	0.48
43:1l:84:LEU:HB3	43:1l:104:VAL:HG11	1.94	0.48
46:1o:36:ILE:HG23	46:1o:56:LEU:HD11	1.95	0.48
48:1q:97:SER:O	48:1q:98:LEU:HD23	2.12	0.48
50:1s:52:TYR:HA	50:1s:56:GLN:O	2.13	0.48
1:2A:572:A:OP2	17:2V:78:LYS:NZ	2.45	0.48
1:2A:829:A:N7	1:2A:2248:C:H5'	2.28	0.48
1:2A:1593:G:H2'	1:2A:1594:G:H8	1.74	0.48
1:2A:2336:A:H61	22:20:43:THR:HG21	1.77	0.48
2:2B:26:A:O2'	61:2B:301:HOH:O	2.12	0.48
5:2F:137:LYS:HA	5:2F:140:LEU:HD12	1.94	0.48
9:2N:87:LEU:O	9:2N:90:MET:N	2.44	0.48
9:2N:130:HIS:N	9:2N:131:GLN:HE21	2.12	0.48
13:2R:94:TYR:C	13:2R:117:VAL:HG23	2.37	0.48
14:2S:62:LYS:O	14:2S:65:VAL:HG22	2.13	0.48
27:25:16:ARG:O	27:25:19:ARG:N	2.42	0.48
32:2a:472:A:H5"	47:2p:80:PHE:HB3	1.96	0.48
32:2a:834:C:H2'	32:2a:835:U:C6	2.48	0.48
32:2a:964:A:N3	32:2a:969:A:O2'	2.43	0.48
32:2a:998:G:N2	32:2a:1043:C:N3	2.46	0.48
32:2a:1133:G:H2'	32:2a:1134:G:H8	1.78	0.48
37:2f:69:GLU:O	37:2f:72:VAL:HG23	2.13	0.48
39:2h:21:LYS:O	39:2h:63:LEU:HD12	2.13	0.48
54:2x:64:G:H2'	54:2x:65:C:H6	1.77	0.48
1:1A:364:C:H3'	61:1A:4291:HOH:O	2.14	0.48
1:1A:882:G:N2	1:1A:894:C:N3	2.50	0.48
1:1A:1170:G:H2'	1:1A:1171:G:O4'	2.13	0.48
1:1A:2660:A:H2'	1:1A:2661:G:O4'	2.13	0.48
1:1A:2848:G:C8	15:1T:97:ALA:HB2	2.47	0.48
10:1O:86:ILE:HG22	10:1O:94:ARG:HD3	1.95	0.48
15:1T:2:ASN:O	15:1T:6:LEU:HD12	2.13	0.48
22:10:38:VAL:HG12	22:10:40:GLN:HG2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:18:25:MET:HE3	30:18:25:MET:HB3	1.72	0.48
32:1a:1427:U:H2'	32:1a:1428:A:C8	2.48	0.48
39:1h:94:TYR:CE1	39:1h:132:GLU:HB2	2.48	0.48
1:2A:17:G:HO2'	16:2U:25:TRP:CD1	2.32	0.48
1:2A:1017:G:O6	61:2A:3972:HOH:O	2.19	0.48
20:2Y:20:TYR:CE2	20:2Y:43:ASN:HA	2.48	0.48
20:2Y:37:VAL:HG21	20:2Y:72:VAL:HG21	1.95	0.48
30:28:32:LEU:O	30:28:36:LYS:HE3	2.13	0.48
32:2a:180:U:O2	32:2a:196:A:N6	2.45	0.48
32:2a:451:A:N7	32:2a:481:G:C6	2.81	0.48
32:2a:559:A:OP1	36:2e:126:ARG:NH2	2.45	0.48
44:2m:82:MET:HE3	44:2m:92:HIS:HB3	1.94	0.48
1:1A:272(G):C:H42	1:1A:363(C):G:H1	1.61	0.48
1:1A:883:G:O2'	1:1A:884:C:H5	1.97	0.48
1:1A:962:G:H2'	1:1A:963:U:C6	2.48	0.48
1:1A:1432:C:H2'	1:1A:1433:U:O4'	2.14	0.48
1:1A:2279:G:O6	22:10:14:ARG:HG3	2.14	0.48
1:1A:2564:A:OP1	1:1A:2648:C:H4'	2.13	0.48
2:1B:2:C:H2'	2:1B:3:C:C6	2.48	0.48
4:1E:40:GLU:CD	4:1E:40:GLU:N	2.72	0.48
13:1R:1:MET:HE3	13:1R:1:MET:HB2	1.73	0.48
19:1X:40:LYS:HG3	19:1X:51:VAL:HB	1.96	0.48
32:1a:721:G:H4'	32:1a:722:A:O4'	2.13	0.48
32:1a:1125:U:H4'	41:1j:5:ARG:HH22	1.78	0.48
33:1b:100:GLY:O	33:1b:104:ASN:N	2.43	0.48
34:1c:70:VAL:O	34:1c:106:VAL:HG13	2.12	0.48
35:1d:53:ASP:HB3	35:1d:57:ARG:HH12	1.78	0.48
37:1f:19:LEU:HD11	37:1f:59:TYR:CE1	2.49	0.48
39:1h:51:VAL:HG21	39:1h:60:ARG:HB2	1.95	0.48
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.48	0.48
1:2A:2114:A:C2	1:2A:2171:A:N6	2.80	0.48
1:2A:2127:G:N1	1:2A:2161:C:C4	2.81	0.48
1:2A:2134:A:O2'	1:2A:2159:G:N2	2.46	0.48
6:2G:116:ASP:CG	44:2m:68:GLY:HA3	2.39	0.48
14:2S:69:VAL:HG13	14:2S:101:LEU:HG	1.96	0.48
20:2Y:35:TYR:CE2	20:2Y:69:ALA:HB3	2.48	0.48
21:2Z:5:LEU:HG	21:2Z:6:LYS:O	2.12	0.48
23:21:95:LEU:O	23:21:98:LEU:HB2	2.13	0.48
28:26:10:LEU:HA	28:26:22:ALA:HA	1.96	0.48
32:2a:935:A:H2'	32:2a:936:C:C6	2.49	0.48
32:2a:1049:U:C6	32:2a:1201:A:H5'	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1104:G:H4'	33:2b:111:ARG:NH2	2.28	0.48
32:2a:1147:C:O2	40:2i:16:ARG:NH1	2.46	0.48
34:2c:32:LEU:HD21	34:2c:59:ARG:HG3	1.95	0.48
35:2d:189:PRO:HB2	35:2d:194:LEU:HD11	1.96	0.48
38:2g:72:ARG:NH2	38:2g:142:GLU:OE2	2.46	0.48
42:2k:104:GLN:HE21	42:2k:106:LYS:HG2	1.78	0.48
48:2q:95:TYR:O	48:2q:98:LEU:N	2.47	0.48
1:1A:1062:G:H5"	1:1A:1070:A:H1'	1.96	0.48
1:1A:1568:G:H4'	3:1D:59:LYS:HB3	1.95	0.48
1:1A:2080:G:OP1	23:11:35:THR:HG21	2.14	0.48
21:1Z:53:ILE:HG22	21:1Z:71:VAL:O	2.14	0.48
32:1a:339:C:H2'	32:1a:340:U:C6	2.48	0.48
36:1e:90:VAL:O	36:1e:120:THR:HA	2.13	0.48
39:1h:64:LYS:HD2	39:1h:79:VAL:HG11	1.94	0.48
42:1k:72:ALA:O	42:1k:75:TYR:N	2.39	0.48
44:1m:20:THR:C	44:1m:22:ILE:H	2.22	0.48
1:2A:1152:C:H5"	16:2U:80:ILE:CG2	2.44	0.48
1:2A:2137:C:N4	1:2A:2154:G:H1	2.11	0.48
1:2A:2172:U:H4'	1:2A:2173:A:OP2	2.13	0.48
5:2F:137:LYS:H	5:2F:137:LYS:HG2	1.48	0.48
11:2P:88:LEU:HA	11:2P:91:PHE:CD2	2.49	0.48
18:2W:10:VAL:O	18:2W:12:ILE:N	2.42	0.48
25:23:12:PRO:HB2	25:23:20:LYS:HG2	1.94	0.48
28:26:5:VAL:HA	28:26:27:LYS:HE2	1.96	0.48
32:2a:255:G:H2'	32:2a:256:U:H6	1.77	0.48
32:2a:518:C:H2'	32:2a:530:G:C2	2.47	0.48
32:2a:1030(A):G:N2	32:2a:1030(D):A:OP2	2.46	0.48
1:1A:303:U:H2'	1:1A:304:G:C8	2.49	0.48
1:1A:747:U:O2	1:1A:2014:A:H1'	2.14	0.48
1:1A:1062:G:H2'	1:1A:1063:G:C8	2.49	0.48
1:1A:1799:G:O2'	3:1D:181:GLU:OE2	2.25	0.48
1:1A:2840:C:H2'	1:1A:2841:C:C6	2.49	0.48
28:16:11:LEU:HB2	28:16:21:TYR:HB2	1.96	0.48
32:1a:456:C:H2'	32:1a:457:C:C6	2.48	0.48
32:1a:1079:G:H2'	32:1a:1080:A:C8	2.47	0.48
32:1a:1084:G:C5	32:1a:1085:U:C4	3.01	0.48
32:1a:1342:C:H2'	32:1a:1343:G:H8	1.79	0.48
34:1c:22:TRP:CE3	34:1c:32:LEU:HD23	2.48	0.48
36:1e:143:ARG:NH2	39:1h:77:GLU:OE1	2.40	0.48
1:2A:197:A:N6	1:2A:2430:A:H2'	2.29	0.48
1:2A:902:C:H2'	1:2A:903:C:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1815:A:OP2	3:2D:54:ARG:NH2	2.38	0.48
1:2A:2294:C:P	14:2S:89:ARG:HH22	2.36	0.48
2:2B:66:A:C6	2:2B:109:C:C5	3.02	0.48
16:2U:34:LYS:NZ	16:2U:37:GLU:OE1	2.47	0.48
32:2a:1350:A:C6	32:2a:1351:U:C4	3.01	0.48
32:2a:1530:G:OP1	32:2a:1530:G:H4'	2.13	0.48
35:2d:18:LYS:HD2	35:2d:31:CYS:SG	2.54	0.48
40:2i:23:ASN:HD21	40:2i:25:LYS:HE2	1.78	0.48
42:2k:33:THR:HA	42:2k:39:PRO:HA	1.94	0.48
1:1A:264:C:O2'	1:1A:265:A:H2'	2.14	0.48
6:1G:47:LYS:C	6:1G:86:MET:HE2	2.39	0.48
7:1H:7:LEU:HD23	7:1H:69:ARG:NH2	2.29	0.48
32:1a:357:G:O2'	32:1a:358:U:H5'	2.13	0.48
32:1a:373:A:N3	32:1a:374:A:C8	2.82	0.48
32:1a:1082:G:H2'	32:1a:1083:U:O4'	2.14	0.48
35:1d:101:LEU:HB2	35:1d:138:TYR:HB3	1.96	0.48
35:1d:172:PRO:C	35:1d:174:LEU:H	2.22	0.48
39:1h:9:MET:SD	39:1h:32:LYS:HB3	2.53	0.48
47:1p:6:LEU:HB3	47:1p:17:TYR:CD1	2.49	0.48
1:2A:1371:G:H2'	1:2A:1372:U:H5	1.79	0.48
1:2A:1641:A:H2'	1:2A:1642:G:O4'	2.14	0.48
1:2A:2447:G:N1	61:2A:3990:HOH:O	2.26	0.48
1:2A:2807:G:C2	1:2A:2893:G:O6	2.66	0.48
2:2B:49:C:H2'	2:2B:50:G:C8	2.49	0.48
5:2F:129:PHE:CE2	5:2F:163:VAL:HG11	2.49	0.48
26:24:58:ARG:O	26:24:61:ARG:HB2	2.14	0.48
32:2a:607:A:H2'	32:2a:608:A:O4'	2.12	0.48
32:2a:1237:C:H2'	32:2a:1336:C:C5	2.49	0.48
32:2a:1288:A:H2'	32:2a:1289:A:C8	2.48	0.48
35:2d:19:LEU:HG	35:2d:67:ILE:HG12	1.95	0.48
39:2h:86:ILE:O	39:2h:88:LYS:HG3	2.14	0.48
1:1A:580:C:H1'	61:1A:4845:HOH:O	2.14	0.48
1:1A:864:G:O2'	1:1A:865:C:H5'	2.14	0.48
1:1A:1108:U:H2'	1:1A:1109:C:O4'	2.13	0.48
5:1F:65:TRP:HB2	5:1F:66:PRO:CD	2.44	0.48
7:1H:154:PRO:HB3	7:1H:163:TYR:CZ	2.49	0.48
8:1I:60:GLU:O	8:1I:62:LYS:N	2.46	0.48
15:1T:62:THR:HG23	15:1T:75:ILE:HG12	1.96	0.48
19:1X:56:THR:HB	19:1X:77:LYS:HE2	1.96	0.48
32:1a:620:C:H2'	32:1a:621:A:O4'	2.14	0.48
32:1a:1277:C:HO2'	32:1a:1279:A:H8	1.59	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:1t:13:LEU:H	51:1t:13:LEU:HG	1.47	0.48
54:1x:37:A:H2'	54:1x:38:A:O4'	2.14	0.48
1:2A:980:A:N3	1:2A:2037:G:O2'	2.46	0.48
1:2A:1474:C:H2'	1:2A:1475:G:C8	2.49	0.48
1:2A:1688:U:H2'	1:2A:1698:A:N6	2.29	0.48
2:2B:48:A:H4'	14:2S:95:HIS:HD2	1.79	0.48
8:2I:102:SER:O	8:2I:106:GLY:HA2	2.14	0.48
32:2a:598:U:H2'	32:2a:599:C:H6	1.79	0.48
32:2a:932:C:H2'	32:2a:933:G:C8	2.48	0.48
32:2a:973:G:OP1	41:2j:57:LYS:NZ	2.34	0.48
32:2a:1179:A:H4'	40:2i:103:THR:HA	1.95	0.48
32:2a:1309:G:H5'	44:2m:78:ILE:HD11	1.96	0.48
33:2b:58:ILE:H	33:2b:58:ILE:HG13	1.44	0.48
42:2k:48:ILE:HD11	42:2k:64:ALA:HA	1.96	0.48
47:2p:8:ARG:HB3	47:2p:28:ARG:NH1	2.29	0.48
1:1A:1971:A:H5'	1:1A:1972:A:H5"	1.96	0.47
18:1W:6:ILE:HA	18:1W:103:ILE:O	2.14	0.47
32:1a:56:U:H2'	32:1a:57:G:C8	2.48	0.47
32:1a:343:U:H1'	32:1a:347:G:N2	2.29	0.47
32:1a:689:C:OP1	42:1k:44:SER:OG	2.30	0.47
32:1a:834:C:C2	32:1a:853:G:C2	3.02	0.47
32:1a:1179:A:H2'	32:1a:1180:A:O4'	2.13	0.47
32:1a:1239:A:H4'	32:1a:1240:U:H5"	1.96	0.47
38:1g:113:GLU:HB2	38:1g:119:ARG:HG2	1.95	0.47
40:1i:3:GLN:HE21	40:1i:20:ARG:CZ	2.26	0.47
43:1l:88:GLY:O	43:1l:99:HIS:HD2	1.97	0.47
1:2A:247:G:H4'	1:2A:386:G:C5	2.49	0.47
1:2A:565:C:H2'	1:2A:566:U:O4'	2.14	0.47
1:2A:1142(A):A:C4	1:2A:1144:G:C8	3.02	0.47
1:2A:1443:G:H1	1:2A:1548:C:H42	1.61	0.47
1:2A:2104:G:H1	1:2A:2185:C:N4	2.10	0.47
5:2F:80:ALA:HB3	5:2F:83:PHE:HD2	1.78	0.47
21:2Z:150:LEU:HD12	21:2Z:171:ILE:HD11	1.95	0.47
42:2k:92:GLU:O	42:2k:96:ARG:HG2	2.14	0.47
47:2p:5:ARG:NH2	47:2p:28:ARG:HA	2.29	0.47
1:1A:1071:G:H1'	1:1A:1089:G:H2'	1.96	0.47
1:1A:1857:G:C6	1:1A:1858:G:C6	3.01	0.47
1:1A:2035:G:H8	61:1A:4843:HOH:O	1.97	0.47
7:1H:17:VAL:HG21	7:1H:50:VAL:HG21	1.96	0.47
12:1Q:60:ARG:HD2	21:1Z:178:GLU:HB2	1.95	0.47
32:1a:687:A:N1	32:1a:700:G:O2'	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:692:U:H1'	32:1a:695:A:N7	2.29	0.47
32:1a:1148:U:H2'	32:1a:1149:C:O4'	2.14	0.47
32:1a:1246:C:N4	32:1a:1291:G:H1	2.11	0.47
35:1d:172:PRO:O	35:1d:174:LEU:N	2.46	0.47
38:1g:101:LEU:O	38:1g:105:VAL:HG23	2.14	0.47
42:1k:99:GLN:NE2	42:1k:108:ILE:HD11	2.29	0.47
1:2A:11:G:O2'	1:2A:12:U:H5'	2.15	0.47
1:2A:923:C:H2'	1:2A:924:C:H6	1.78	0.47
1:2A:1688:U:O2	1:2A:1700:A:H5'	2.14	0.47
1:2A:2207:G:H3'	1:2A:2208:A:H5"	1.96	0.47
61:2A:4079:HOH:O	27:25:2:ALA:N	2.48	0.47
2:2B:19:G:N2	2:2B:65:C:C2	2.82	0.47
4:2E:1:MET:HE1	4:2E:200:GLU:O	2.14	0.47
11:2P:38:GLN:O	11:2P:39:LYS:HB3	2.14	0.47
15:2T:41:ARG:NH1	32:2a:346:G:OP1	2.42	0.47
20:2Y:29:GLU:HB3	20:2Y:38:ILE:HG13	1.96	0.47
20:2Y:52:SER:OG	20:2Y:55:TYR:HB2	2.14	0.47
22:20:53:MET:HA	22:20:58:THR:O	2.14	0.47
26:24:9:LEU:HD23	26:24:9:LEU:HA	1.66	0.47
32:2a:165:C:H2'	32:2a:166:G:C8	2.49	0.47
32:2a:741:G:H2'	32:2a:742:G:O4'	2.14	0.47
32:2a:827:U:H5"	32:2a:828:A:OP2	2.14	0.47
32:2a:932:C:H2'	32:2a:933:G:H8	1.79	0.47
32:2a:1123:A:N3	41:2j:39:PRO:HD2	2.28	0.47
32:2a:1250:A:C6	32:2a:1251:A:C6	3.02	0.47
32:2a:1366:C:O2'	41:2j:60:ARG:NH2	2.47	0.47
33:2b:192:SER:O	33:2b:194:PRO:HD3	2.14	0.47
44:2m:90:LEU:HA	44:2m:93:ARG:HG2	1.96	0.47
1:1A:207:A:H2'	1:1A:208:C:O4'	2.14	0.47
1:1A:511:U:O4	1:1A:512:G:C6	2.66	0.47
1:1A:1359:A:N6	1:1A:1372:U:H3	2.12	0.47
1:1A:2147:G:H3'	1:1A:2147:G:N3	2.29	0.47
1:1A:2418:A:H2'	1:1A:2419:U:C6	2.49	0.47
1:1A:2788:C:OP1	4:1E:61:ARG:NH2	2.46	0.47
4:1E:7:VAL:HG23	4:1E:51:PHE:CE2	2.47	0.47
5:1F:165:ARG:HA	5:1F:168:ARG:HD2	1.96	0.47
6:1G:103:LEU:HA	6:1G:103:LEU:HD23	1.69	0.47
32:1a:558:G:OP2	32:1a:559:A:O2'	2.26	0.47
32:1a:677:U:H3	32:1a:713:G:H22	1.62	0.47
32:1a:1125:U:O2	32:1a:1126:U:O2'	2.18	0.47
1:2A:867:C:H2'	1:2A:868:U:C6	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2555:U:H5"	1:2A:2556:C:OP2	2.13	0.47
11:2P:88:LEU:HA	11:2P:91:PHE:HD2	1.79	0.47
12:2Q:7:MET:HE1	12:2Q:73:PRO:HD3	1.96	0.47
12:2Q:109:VAL:HG22	12:2Q:113:GLN:HB2	1.96	0.47
13:2R:33:ARG:NH2	13:2R:115:GLU:OE1	2.41	0.47
26:24:45:GLY:C	26:24:47:GLN:H	2.22	0.47
32:2a:473:G:H2'	32:2a:474:G:H8	1.80	0.47
32:2a:724:G:C2	32:2a:725:G:C8	3.02	0.47
32:2a:938:A:C6	32:2a:939:G:C5	3.02	0.47
32:2a:1133:G:H1	32:2a:1141:C:N4	2.13	0.47
32:2a:1206:G:O2'	34:2c:193:TYR:HA	2.13	0.47
40:2i:7:THR:O	40:2i:83:ARG:HD2	2.14	0.47
42:2k:123:LYS:C	42:2k:125:PHE:H	2.21	0.47
48:2q:7:THR:O	48:2q:23:VAL:HG13	2.14	0.47
1:1A:1188:U:C2'	1:1A:1189:A:H5'	2.44	0.47
1:1A:1913:A:C5	32:1a:1494:G:H5"	2.49	0.47
1:1A:1913:A:H4'	1:1A:1914:C:O5'	2.14	0.47
1:1A:2889:C:H2'	1:1A:2891:G:O4'	2.13	0.47
4:1E:59:VAL:HG21	4:1E:74:PRO:HB2	1.96	0.47
4:1E:121:ASN:ND2	61:1E:404:HOH:O	2.34	0.47
12:1Q:137:TYR:O	12:1Q:141:GLN:HG2	2.15	0.47
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.49	0.47
33:1b:60:ASP:OD2	33:1b:64:ARG:NH2	2.40	0.47
1:2A:143:G:H1'	19:2X:37:THR:HG21	1.97	0.47
1:2A:579:G:H2'	1:2A:580:C:C6	2.49	0.47
1:2A:2483:C:H2'	1:2A:2484:G:O4'	2.14	0.47
2:2B:44:G:H1'	2:2B:48:A:N6	2.30	0.47
6:2G:46:ALA:HA	6:2G:49:ASP:O	2.15	0.47
10:2O:104:ARG:NH1	10:2O:122:LEU:OXT	2.47	0.47
12:2Q:63:LYS:HE2	12:2Q:65:PHE:CE1	2.49	0.47
12:2Q:139:GLU:O	12:2Q:141:GLN:N	2.43	0.47
13:2R:55:ALA:HA	13:2R:80:PHE:CE1	2.49	0.47
22:20:15:ASP:OD1	22:20:16:SER:N	2.42	0.47
32:2a:201:C:H5'	32:2a:202:U:OP2	2.15	0.47
32:2a:407:G:OP1	35:2d:115:ARG:NH2	2.47	0.47
32:2a:977:A:H2'	32:2a:978:A:H5"	1.96	0.47
32:2a:1328:C:O2'	44:2m:29:ARG:NH2	2.48	0.47
35:2d:15:GLU:OE2	35:2d:59:ARG:NH1	2.47	0.47
36:2e:84:PHE:O	36:2e:86:ALA:N	2.40	0.47
44:2m:107:ALA:HB3	44:2m:111:LYS:HE3	1.96	0.47
45:2n:26:ARG:HB3	45:2n:43:CYS:SG	2.53	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:2s:38:SER:HB2	50:2s:71:LEU:HD12	1.95	0.47
1:1A:121:G:H4'	1:1A:149:A:H5'	1.96	0.47
1:1A:1257:C:H4'	5:1F:83:PHE:CD1	2.49	0.47
1:1A:1538:G:H2'	1:1A:1539:G:C8	2.49	0.47
1:1A:1812:A:O2'	3:1D:45:ASN:N	2.47	0.47
1:1A:2203:U:O2'	1:1A:2205:C:H5'	2.14	0.47
1:1A:2473:U:O2	1:1A:2473:U:H2'	2.14	0.47
2:1B:110:G:H2'	2:1B:111:G:C8	2.49	0.47
24:12:51:ARG:HD3	24:12:55:ARG:CZ	2.44	0.47
32:1a:616:G:C2	32:1a:617:G:C8	3.02	0.47
32:1a:624:C:H2'	32:1a:625:G:H8	1.80	0.47
32:1a:1004:A:H5"	32:1a:1025:U:C5	2.50	0.47
32:1a:1007:C:H2'	32:1a:1008:C:C6	2.48	0.47
32:1a:1014:A:H4'	50:1s:14:HIS:CE1	2.49	0.47
33:1b:60:ASP:HA	33:1b:63:MET:HE3	1.96	0.47
33:1b:157:ARG:HG2	33:1b:158:LEU:N	2.28	0.47
34:1c:55:VAL:HG22	34:1c:68:VAL:HG22	1.97	0.47
37:1f:97:PHE:O	49:1r:31:LEU:HD23	2.15	0.47
1:2A:922:U:H2'	1:2A:923:C:C6	2.48	0.47
1:2A:2250:G:O2'	1:2A:2496:C:OP1	2.30	0.47
3:2D:274:ARG:N	61:2D:406:HOH:O	2.47	0.47
7:2H:126:PRO:HG2	7:2H:130:ARG:HH21	1.79	0.47
13:2R:26:LYS:HG2	13:2R:70:LEU:CD2	2.45	0.47
14:2S:65:VAL:O	14:2S:68:GLN:HB2	2.15	0.47
14:2S:88:ASP:OD1	14:2S:90:GLY:N	2.45	0.47
22:20:24:LYS:HB3	22:20:25:ARG:NH1	2.29	0.47
32:2a:689:C:H2'	32:2a:690:G:O4'	2.15	0.47
32:2a:1348:U:H4'	40:2i:120:ARG:HG3	1.95	0.47
33:2b:58:ILE:HG23	33:2b:61:LEU:HD23	1.95	0.47
34:2c:190:ARG:HG2	34:2c:191:THR:N	2.29	0.47
35:2d:157:LEU:O	35:2d:161:ASN:ND2	2.48	0.47
38:2g:37:ASN:OD1	40:2i:41:VAL:HG23	2.14	0.47
39:2h:38:ILE:HG13	39:2h:118:VAL:HG12	1.96	0.47
46:2o:87:ILE:HG22	46:2o:88:ARG:N	2.30	0.47
1:1A:510:C:H5"	61:1A:4216:HOH:O	2.14	0.47
1:1A:548:A:H1'	1:1A:549:G:OP1	2.13	0.47
4:1E:4:ILE:HD12	4:1E:91:VAL:HG12	1.96	0.47
32:1a:1349:A:H5"	40:1i:121:ARG:HB2	1.96	0.47
32:1a:1493:A:O5'	32:1a:1493:A:H8	1.97	0.47
39:1h:121:ASP:O	39:1h:125:ARG:HG3	2.15	0.47
52:1u:6:ARG:HD3	52:1u:15:ARG:CD	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:271(D):G:H2'	1:2A:271(E):U:H6	1.79	0.47
1:2A:823:G:O2'	1:2A:824:A:H5'	2.15	0.47
1:2A:986:C:OP2	61:2A:3974:HOH:O	2.21	0.47
1:2A:1779:U:H2'	61:2A:4177:HOH:O	2.13	0.47
1:2A:2529:G:N7	31:29:31:LYS:NZ	2.53	0.47
1:2A:2753:A:N3	31:29:15:LYS:NZ	2.57	0.47
5:2F:158:THR:HB	5:2F:195:ASP:HB2	1.97	0.47
32:2a:283:C:H2'	32:2a:284:G:O4'	2.15	0.47
32:2a:921:U:O2	36:2e:19:MET:HB2	2.14	0.47
32:2a:1005:A:H3'	32:2a:1006:C:C6	2.50	0.47
34:2c:98:ASN:O	34:2c:100:ALA:N	2.43	0.47
37:2f:13:ASN:ND2	37:2f:55:ASP:OD2	2.46	0.47
38:2g:40:ALA:HB1	40:2i:41:VAL:HG11	1.97	0.47
38:2g:54:THR:O	38:2g:56:GLN:N	2.47	0.47
38:2g:57:GLU:OE2	38:2g:59:LEU:HB3	2.15	0.47
40:2i:79:LEU:HD22	40:2i:104:ARG:HB2	1.97	0.47
50:2s:22:LEU:O	50:2s:26:GLY:N	2.40	0.47
1:1A:70:G:H5"	1:1A:112:U:O2	2.14	0.47
1:1A:821:A:H2'	1:1A:946:G:H5"	1.97	0.47
1:1A:1386:C:H2'	1:1A:1387:C:C6	2.50	0.47
1:1A:1508:A:H5'	1:1A:1509(A):A:N7	2.29	0.47
1:1A:1827:C:H2'	1:1A:1828:G:H5'	1.97	0.47
1:1A:2136:C:N4	1:1A:2155:G:N1	2.62	0.47
1:1A:2206:G:H5"	1:1A:2207:G:N7	2.30	0.47
1:1A:2565:A:H5"	1:1A:2566:A:OP2	2.14	0.47
3:1D:221:VAL:HG22	3:1D:226:MET:CE	2.45	0.47
4:1E:37:ARG:HA	4:1E:42:ASP:OD2	2.15	0.47
6:1G:27:ASN:HB3	6:1G:30:GLU:HG3	1.95	0.47
6:1G:83:ARG:O	6:1G:86:MET:HG3	2.15	0.47
7:1H:7:LEU:HD23	7:1H:69:ARG:CZ	2.44	0.47
10:1O:70:LYS:HB3	10:1O:70:LYS:HE2	1.65	0.47
14:1S:15:ARG:NE	14:1S:88:ASP:OD2	2.45	0.47
17:1V:18:LEU:HG	17:1V:19:LYS:N	2.30	0.47
18:1W:58:ALA:HB1	18:1W:64:MET:HB2	1.96	0.47
30:18:37:SER:OG	30:18:38:GLY:N	2.48	0.47
32:1a:245:C:C2	32:1a:284:G:C2	3.03	0.47
32:1a:250:A:H4'	32:1a:251:G:O5'	2.14	0.47
32:1a:1010:G:N2	32:1a:1020:U:H1'	2.29	0.47
32:1a:1134:G:N3	32:1a:1134:G:H2'	2.30	0.47
32:1a:1258:G:H2'	32:1a:1259:C:H6	1.79	0.47
34:1c:131:ARG:HH11	34:1c:166:GLU:HG3	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:162:LEU:HD13	35:1d:181:MET:HG2	1.95	0.47
36:1e:105:VAL:HG21	36:1e:128:PRO:HB3	1.96	0.47
44:1m:81:LEU:HD23	44:1m:86:CYS:SG	2.54	0.47
1:2A:25:U:H5'	18:2W:79:GLY:HA2	1.97	0.47
1:2A:223:A:N1	1:2A:407:G:O2'	2.42	0.47
1:2A:476:G:H4'	1:2A:502:A:N1	2.29	0.47
1:2A:646:A:H2'	1:2A:647:G:O4'	2.15	0.47
1:2A:691:C:O5'	1:2A:691:C:H6	1.98	0.47
1:2A:956:G:OP2	12:2Q:14:ARG:NH1	2.48	0.47
1:2A:2273:A:H2'	1:2A:2274:A:C8	2.49	0.47
1:2A:2872:G:O2'	1:2A:2873:A:H5'	2.15	0.47
6:2G:101:ILE:HG22	6:2G:105:LYS:HE2	1.96	0.47
6:2G:123:ASN:O	6:2G:125:PHE:N	2.36	0.47
7:2H:11:VAL:HB	7:2H:48:GLY:O	2.15	0.47
10:2O:73:ASP:HB2	15:2T:82:LEU:HD13	1.97	0.47
15:2T:6:LEU:O	15:2T:10:VAL:HG23	2.15	0.47
17:2V:55:ALA:CB	17:2V:101:GLY:HA2	2.44	0.47
26:24:50:VAL:HG11	44:2m:64:TRP:C	2.39	0.47
32:2a:148:G:H2'	32:2a:149:A:C8	2.50	0.47
32:2a:648:A:H2'	32:2a:649:G:H8	1.80	0.47
32:2a:807:A:H2'	32:2a:808:C:C6	2.50	0.47
32:2a:1245:A:C2	32:2a:1246:C:C2	3.03	0.47
32:2a:1298:C:N4	38:2g:114:ARG:HB3	2.30	0.47
33:2b:70:PHE:HB2	33:2b:92:TYR:HB3	1.95	0.47
33:2b:145:LEU:O	33:2b:149:LEU:HB2	2.14	0.47
39:2h:72:PRO:O	39:2h:73:ASP:HB3	2.15	0.47
42:2k:21:ILE:HB	42:2k:84:VAL:HA	1.96	0.47
42:2k:23:ALA:HA	42:2k:28:THR:HA	1.97	0.47
51:2t:10:LEU:HD12	51:2t:11:SER:H	1.80	0.47
1:1A:1268:A:H2'	1:1A:1269:A:O4'	2.14	0.47
1:1A:2504:U:OP2	61:1A:4297:HOH:O	2.20	0.47
1:1A:2593:U:H2'	1:1A:2594:C:H6	1.80	0.47
3:1D:63:ARG:HH11	3:1D:63:ARG:HG3	1.79	0.47
4:1E:28:ALA:CB	4:1E:93:VAL:HG12	2.44	0.47
16:1U:43:GLY:HA3	17:1V:73:SER:OG	2.14	0.47
24:12:61:LEU:HD23	24:12:61:LEU:HA	1.67	0.47
32:1a:342:C:H2'	32:1a:343:U:C6	2.50	0.47
32:1a:582:U:H2'	32:1a:583:A:H8	1.78	0.47
32:1a:1161:C:H2'	32:1a:1162:C:C6	2.50	0.47
32:1a:1250:A:O3'	40:1i:67:GLY:HA2	2.14	0.47
32:1a:1277:C:HO2'	32:1a:1279:A:H1'	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1317:C:OP1	45:1n:17:LYS:HG2	2.15	0.47
32:1a:1346:A:N1	32:1a:1374:A:H5"	2.30	0.47
36:1e:96:PRO:O	36:1e:98:THR:N	2.47	0.47
45:1n:3:ARG:C	45:1n:3:ARG:HD3	2.40	0.47
51:1t:79:ARG:O	51:1t:83:ARG:HG3	2.14	0.47
1:2A:1556:C:H2'	1:2A:1557:C:H6	1.80	0.47
1:2A:2331:G:O2'	22:20:43:THR:HG22	2.15	0.47
1:2A:2578:G:H2'	1:2A:2579:C:C6	2.50	0.47
1:2A:2661:G:H2'	1:2A:2662:A:C8	2.49	0.47
1:2A:2749:A:H1'	7:2H:63:SER:OG	2.15	0.47
1:2A:2805:G:H2'	1:2A:2807:G:H8	1.77	0.47
8:2I:110:ASP:N	8:2I:130:TYR:OH	2.39	0.47
14:2S:52:SER:HB2	14:2S:55:ALA:HB3	1.97	0.47
15:2T:92:GLY:O	15:2T:120:ARG:NH2	2.48	0.47
16:2U:85:LYS:NZ	16:2U:116:ALA:O	2.48	0.47
32:2a:148:G:H2'	32:2a:149:A:H8	1.78	0.47
32:2a:1310:G:H1	32:2a:1327:C:N4	2.10	0.47
32:2a:1394:A:H8	32:2a:1394:A:OP1	1.98	0.47
33:2b:119:GLU:CD	33:2b:153:ARG:HH22	2.22	0.47
34:2c:153:VAL:O	34:2c:165:THR:HA	2.15	0.47
39:2h:29:SER:HB3	39:2h:32:LYS:HG3	1.96	0.47
41:2j:38:ILE:HG12	41:2j:71:LEU:O	2.15	0.47
47:2p:42:ARG:HB3	47:2p:44:THR:HG23	1.96	0.47
48:2q:66:SER:O	48:2q:70:ARG:NH1	2.46	0.47
1:1A:335:C:H6	1:1A:335:C:O5'	1.98	0.47
1:1A:601:C:O2'	1:1A:605:C:OP1	2.24	0.47
1:1A:2022:U:O2'	1:1A:2617:C:H5'	2.15	0.47
1:1A:2320:A:H2'	1:1A:2320:A:N3	2.30	0.47
7:1H:55:PRO:HG2	7:1H:61:HIS:CE1	2.50	0.47
14:1S:20:ARG:NH2	22:10:51:VAL:O	2.47	0.47
32:1a:6:G:H1	36:1e:98:THR:HG21	1.79	0.47
32:1a:186:C:H2'	32:1a:187:C:C6	2.49	0.47
32:1a:1314:C:H5	50:1s:4:SER:HB2	1.80	0.47
36:1e:95:ALA:HB1	36:1e:96:PRO:HD2	1.97	0.47
51:1t:60:GLU:HG3	51:1t:81:LYS:HD2	1.97	0.47
1:2A:1334:G:N7	61:2A:4038:HOH:O	2.36	0.47
1:2A:2465:C:O2	1:2A:2486:G:C2	2.68	0.47
2:2B:54:G:N2	6:2G:29:TRP:CZ2	2.81	0.47
5:2F:102:PRO:HB2	5:2F:105:VAL:HG23	1.96	0.47
12:2Q:85:LYS:HG2	22:20:7:LEU:HB2	1.97	0.47
14:2S:70:GLY:HA2	14:2S:73:LEU:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:28:11:LYS:HE3	30:28:65:GLU:OE1	2.15	0.47
32:2a:408:A:H2'	32:2a:409:G:O4'	2.15	0.47
32:2a:736:C:OP1	49:2r:72:ARG:NH2	2.47	0.47
32:2a:940:C:H2'	32:2a:941:G:H8	1.80	0.47
34:2c:139:GLN:O	34:2c:143:GLU:HG3	2.15	0.47
35:2d:76:ARG:NE	35:2d:80:GLU:OE2	2.48	0.47
40:2i:14:VAL:HG22	40:2i:66:ARG:O	2.15	0.47
49:2r:22:VAL:HG23	49:2r:55:ARG:O	2.15	0.47
1:1A:753:C:H2'	1:1A:754:C:H6	1.79	0.47
1:1A:1921:G:H2'	1:1A:1922:G:H8	1.79	0.47
1:1A:2115:G:H21	1:1A:2171:A:H61	1.63	0.47
1:1A:2146:C:OP2	1:1A:2146:C:H2'	2.15	0.47
1:1A:2319:G:H22	14:1S:3:ARG:HD3	1.80	0.47
4:1E:34:VAL:HG22	4:1E:72:VAL:HG21	1.97	0.47
5:1F:28:ILE:O	5:1F:30:PRO:HD3	2.15	0.47
6:1G:115:ARG:HG2	6:1G:136:ARG:NH2	2.30	0.47
13:1R:11:ASN:O	61:1R:303:HOH:O	2.20	0.47
16:1U:30:LYS:O	61:1U:301:HOH:O	2.21	0.47
20:1Y:28:LYS:NZ	20:1Y:64:GLU:OE1	2.43	0.47
24:12:16:LEU:O	24:12:67:LYS:HE3	2.15	0.47
33:1b:76:GLN:NE2	33:1b:206:ASP:OD1	2.48	0.47
34:1c:12:LEU:HD11	45:1n:51:GLY:HA2	1.96	0.47
38:1g:22:LEU:HG	38:1g:62:PHE:CE2	2.37	0.47
39:1h:26:VAL:O	39:1h:59:LEU:N	2.45	0.47
43:1l:117:ARG:NH2	43:1l:124:LYS:HB2	2.29	0.47
1:2A:697:C:H2'	1:2A:698:C:C6	2.50	0.47
1:2A:731:C:H5"	61:2A:4005:HOH:O	2.14	0.47
1:2A:1155:A:P	16:2U:55:ARG:HD2	2.56	0.47
1:2A:2319:G:N2	14:2S:3:ARG:HH11	2.08	0.47
2:2B:7:G:H21	14:2S:38:GLN:NE2	2.10	0.47
2:2B:88:C:O5'	2:2B:88:C:H6	1.98	0.47
5:2F:14:PRO:HD2	5:2F:127:GLU:OE1	2.15	0.47
8:2I:101:LEU:O	8:2I:106:GLY:N	2.48	0.47
10:2O:68:GLU:HB3	10:2O:78:ARG:HB2	1.96	0.47
10:2O:106:LEU:HD23	10:2O:106:LEU:HA	1.59	0.47
13:2R:36:THR:HG22	13:2R:37:THR:N	2.25	0.47
26:24:1:MET:HE2	26:24:6:HIS:CD2	2.50	0.47
32:2a:27:G:H2'	32:2a:28:G:C8	2.50	0.47
32:2a:380:G:N2	32:2a:384:G:C5	2.83	0.47
32:2a:393:A:OP1	47:2p:13:HIS:HE1	1.98	0.47
32:2a:501:C:OP2	43:2l:124:LYS:NZ	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:543:C:OP2	35:2d:10:ARG:NH2	2.47	0.47
32:2a:977:A:O2'	32:2a:981:U:N3	2.44	0.47
32:2a:1179:A:H2'	32:2a:1180:A:O4'	2.15	0.47
43:2l:90:VAL:O	43:2l:92:0TD:N	2.47	0.47
54:2x:10:G:N2	54:2x:26:G:H1'	2.29	0.47
1:1A:7:G:H2'	1:1A:8:A:O4'	2.15	0.46
1:1A:752:A:H3'	29:17:1:MET:HE1	1.96	0.46
1:1A:1025:G:C4	1:1A:1135:C:H1'	2.49	0.46
1:1A:1866:C:H2'	1:1A:1876:A:O4'	2.16	0.46
6:1G:72:ARG:NH1	6:1G:87:PRO:HG3	2.29	0.46
12:1Q:58:PHE:C	12:1Q:60:ARG:N	2.59	0.46
32:1a:757:U:H2'	32:1a:758:G:O4'	2.13	0.46
32:1a:872:A:C4	32:1a:874:G:N7	2.82	0.46
32:1a:939:G:C6	32:1a:940:C:N4	2.83	0.46
32:1a:1008:C:O2	32:1a:1021:G:N1	2.42	0.46
33:1b:109:SER:O	33:1b:112:VAL:HG22	2.15	0.46
33:1b:128:GLU:HG3	33:1b:135:GLN:NE2	2.30	0.46
39:1h:82:HIS:HB3	39:1h:138:TRP:CE2	2.50	0.46
44:1m:67:GLU:HB3	44:1m:68:GLY:H	1.51	0.46
1:2A:383:U:H2'	1:2A:385:C:H5	1.81	0.46
1:2A:645:C:H5"	1:2A:646:A:OP2	2.15	0.46
1:2A:1170:G:O6	1:2A:1180:C:N4	2.47	0.46
1:2A:2821:A:H2'	1:2A:2822:G:C8	2.50	0.46
2:2B:104:U:O2'	21:2Z:29:TYR:OH	2.11	0.46
4:2E:76:ARG:NH1	61:2E:404:HOH:O	2.49	0.46
5:2F:123:LEU:HD12	5:2F:124:LEU:H	1.80	0.46
5:2F:161:GLU:HG3	5:2F:164:ARG:NH2	2.29	0.46
12:2Q:84:GLY:O	12:2Q:85:LYS:HB2	2.14	0.46
32:2a:376:G:OP2	47:2p:67:THR:HG21	2.14	0.46
32:2a:410:G:H21	32:2a:432:A:H62	1.61	0.46
32:2a:693:G:H2'	32:2a:694:A:C8	2.50	0.46
32:2a:838:G:H1	32:2a:848:C:N4	2.11	0.46
32:2a:1203:C:H2'	32:2a:1204:A:C8	2.49	0.46
32:2a:1298:C:H4'	32:2a:1299:A:C4	2.51	0.46
32:2a:1316:G:H5'	32:2a:1360:A:H1'	1.97	0.46
34:2c:112:SER:O	34:2c:116:VAL:HG13	2.15	0.46
37:2f:7:ASN:ND2	49:2r:34:TYR:HE1	2.12	0.46
39:2h:39:LEU:HB3	39:2h:45:ILE:HG12	1.96	0.46
45:2n:26:ARG:HD3	45:2n:43:CYS:HB3	1.96	0.46
1:1A:484:C:OP1	20:1Y:51:VAL:HG22	2.14	0.46
1:1A:1416:G:C4	1:1A:1417:C:C5	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1784:A:H4'	1:1A:1785:A:O5'	2.14	0.46
1:1A:1952:A:C6	1:1A:1953:A:N1	2.83	0.46
1:1A:2086:U:H2'	1:1A:2087:G:C8	2.50	0.46
1:1A:2136:C:N3	1:1A:2155:G:N2	2.63	0.46
1:1A:2168:G:C8	1:1A:2170:A:N7	2.83	0.46
1:1A:2584:U:H2'	1:1A:2585:U:C6	2.50	0.46
3:1D:19:ALA:HB3	3:1D:21:PHE:CE1	2.50	0.46
8:1I:38:LEU:HD23	8:1I:38:LEU:N	2.30	0.46
12:1Q:51:ARG:O	12:1Q:55:VAL:HG23	2.15	0.46
16:1U:66:ASN:O	16:1U:70:ARG:HG3	2.15	0.46
28:16:18:ARG:HD2	28:16:42:TRP:CG	2.49	0.46
32:1a:254:G:H21	48:1q:16:GLN:NE2	2.12	0.46
32:1a:969:A:C2'	32:1a:970:C:H5'	2.45	0.46
32:1a:1266:G:N2	32:1a:1270:C:N3	2.64	0.46
33:1b:54:THR:O	33:1b:58:ILE:HG13	2.15	0.46
38:1g:27:ILE:HD13	38:1g:40:ALA:HA	1.97	0.46
45:1n:39:LEU:HD11	45:1n:47:LEU:HD12	1.97	0.46
47:1p:55:ARG:O	47:1p:58:TYR:N	2.49	0.46
1:2A:398:G:H2'	1:2A:399:G:H8	1.80	0.46
1:2A:723:G:H2'	1:2A:724:U:O4'	2.16	0.46
1:2A:988:A:N7	61:2A:4037:HOH:O	2.36	0.46
1:2A:2164:C:C5	1:2A:2165:G:H1'	2.50	0.46
1:2A:2659:G:OP1	7:2H:158:HIS:NE2	2.48	0.46
6:2G:53:LEU:HA	6:2G:53:LEU:HD13	1.60	0.46
11:2P:81:GLN:NE2	11:2P:106:LEU:HA	2.30	0.46
13:2R:104:ARG:HD2	13:2R:107:ASP:OD1	2.16	0.46
26:24:65:ASP:C	26:24:67:TYR:H	2.23	0.46
32:2a:120:A:C6	32:2a:122:G:C2	3.03	0.46
32:2a:648:A:H2'	32:2a:649:G:C8	2.50	0.46
32:2a:840:C:H4'	32:2a:841:U:OP1	2.14	0.46
32:2a:868:C:H2'	32:2a:869:G:O4'	2.14	0.46
32:2a:1247:U:H1'	32:2a:1291:G:N2	2.30	0.46
34:2c:22:TRP:CZ3	34:2c:32:LEU:HD13	2.50	0.46
38:2g:38:LEU:O	38:2g:42:ILE:HG13	2.15	0.46
39:2h:24:THR:HG22	39:2h:63:LEU:HD21	1.97	0.46
48:2q:27:PHE:CE1	48:2q:36:ILE:HD11	2.50	0.46
1:1A:879:G:H1	1:1A:899:A:H8	1.61	0.46
1:1A:1508:A:O2'	1:1A:1509:C:H5"	2.15	0.46
12:1Q:89:ASN:CG	54:1x:1:C:C2	2.93	0.46
32:1a:107:G:H2'	32:1a:108:G:O4'	2.15	0.46
32:1a:486:U:H2'	32:1a:487:A:C8	2.47	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:976:G:OP1	45:1n:32:SER:N	2.43	0.46
34:1c:6:HIS:HD2	34:1c:8:ILE:H	1.63	0.46
19:2X:32:PRO:HA	19:2X:77:LYS:HB2	1.97	0.46
20:2Y:38:ILE:HD13	20:2Y:66:PRO:HA	1.97	0.46
21:2Z:53:ILE:CD1	21:2Z:99:TYR:HB2	2.45	0.46
32:2a:532:A:N6	34:2c:156:ARG:HH12	2.13	0.46
32:2a:538:G:H5"	43:2l:114:LYS:HB2	1.97	0.46
32:2a:674:G:H8	32:2a:674:G:O5'	1.99	0.46
32:2a:716:A:N3	42:2k:118:GLY:HA2	2.30	0.46
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.50	0.46
32:2a:1071:C:H2'	32:2a:1072:G:C8	2.50	0.46
34:2c:18:TRP:HB2	34:2c:21:ARG:HG2	1.96	0.46
34:2c:28:GLN:HG2	34:2c:31:HIS:ND1	2.31	0.46
35:2d:25:ARG:C	35:2d:27:TYR:N	2.74	0.46
42:2k:78:GLN:HA	42:2k:103:LEU:HD22	1.98	0.46
54:2x:19:G:C4	54:2x:57:A:C2	3.03	0.46
6:1G:155:MET:HB3	6:1G:155:MET:HE2	1.71	0.46
21:1Z:51:ALA:O	21:1Z:52:SER:HB3	2.15	0.46
32:1a:572:A:N3	32:1a:917:G:H1'	2.30	0.46
32:1a:1123:A:H4'	41:1j:36:GLY:HA3	1.97	0.46
34:1c:73:PRO:HB3	34:1c:103:VAL:HG11	1.96	0.46
40:1i:33:PHE:HB3	40:1i:34:ASN:HD22	1.80	0.46
1:2A:271(T):C:H2'	1:2A:271(U):G:H8	1.80	0.46
1:2A:302:C:N4	1:2A:315:G:H1	2.13	0.46
1:2A:615:G:OP1	5:2F:40:GLN:NE2	2.37	0.46
1:2A:1288:U:O4	13:2R:106:GLY:HA3	2.16	0.46
1:2A:1614:A:P	1:2A:1614:A:H8	2.39	0.46
1:2A:2082:A:H2'	1:2A:2083:G:O4'	2.15	0.46
1:2A:2572:A:H2'	4:2E:144:ARG:HD3	1.98	0.46
1:2A:2577:A:H5'	27:25:3:LYS:HE3	1.96	0.46
5:2F:80:ALA:HB3	5:2F:83:PHE:CD2	2.51	0.46
5:2F:155:LEU:HD11	5:2F:176:LEU:HD12	1.97	0.46
8:2I:92:VAL:O	8:2I:120:ILE:HD12	2.15	0.46
32:2a:667:G:O2'	46:2o:49:ASP:OD1	2.15	0.46
32:2a:1072:G:H2'	32:2a:1073:U:C6	2.51	0.46
32:2a:1110:A:N6	32:2a:1111:A:N1	2.64	0.46
32:2a:1347:G:H22	32:2a:1374:A:P	2.37	0.46
32:2a:1362:C:C2'	32:2a:1363:C:H5"	2.44	0.46
35:2d:61:LYS:HD3	35:2d:206:PHE:CE2	2.50	0.46
40:2i:19:LEU:HD23	40:2i:19:LEU:HA	1.69	0.46
40:2i:22:GLY:HA3	40:2i:60:ASP:OD2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:340:A:H2'	1:1A:341:G:O4'	2.15	0.46
1:1A:1494:A:C2	1:1A:1495:A:C4	3.04	0.46
1:1A:2624:G:O2'	1:1A:2625:G:H5'	2.15	0.46
4:1E:117:MET:HE2	4:1E:117:MET:HB3	1.74	0.46
6:1G:66:GLN:HG3	26:14:1:MET:CE	2.44	0.46
15:1T:127:ALA:C	15:1T:129:ARG:N	2.73	0.46
16:1U:100:VAL:HG12	16:1U:101:ARG:N	2.31	0.46
18:1W:46:PHE:O	18:1W:50:VAL:HG23	2.15	0.46
21:1Z:179:ASP:O	21:1Z:182:LYS:N	2.33	0.46
32:1a:437:U:O3'	35:1d:125:HIS:HE1	1.97	0.46
36:1e:85:GLY:C	36:1e:87:SER:H	2.22	0.46
54:1x:68:C:H2'	54:1x:69:C:C6	2.51	0.46
1:2A:322:A:OP2	5:2F:169:ASN:HB2	2.16	0.46
1:2A:361:G:O2'	1:2A:362:U:H5'	2.15	0.46
1:2A:911:A:C5	12:2Q:9:TYR:CD2	3.03	0.46
1:2A:2114:A:C2	1:2A:2168:G:C8	3.03	0.46
1:2A:2193:G:H2'	1:2A:2194:G:H8	1.79	0.46
1:2A:2377:A:H2'	1:2A:2378:A:C8	2.51	0.46
7:2H:15:VAL:HG13	7:2H:29:PRO:HD3	1.98	0.46
9:2N:108:PRO:O	9:2N:113:GLY:HA3	2.15	0.46
15:2T:127:ALA:C	15:2T:129:ARG:H	2.23	0.46
17:2V:14:VAL:HA	17:2V:18:LEU:HD23	1.96	0.46
24:22:21:LEU:HD23	24:22:21:LEU:HA	1.66	0.46
32:2a:707:C:H2'	32:2a:708:C:C6	2.50	0.46
32:2a:1026:G:O6	32:2a:1036:G:N2	2.49	0.46
32:2a:1132:C:N4	32:2a:1133:G:O6	2.49	0.46
32:2a:1273:G:H3'	32:2a:1274:G:H8	1.81	0.46
32:2a:1347:G:N2	32:2a:1374:A:OP2	2.45	0.46
32:2a:1377:A:H4'	32:2a:1378:C:H5	1.79	0.46
38:2g:69:VAL:HG21	38:2g:104:LEU:HD21	1.97	0.46
40:2i:46:ALA:O	40:2i:81:ILE:HD12	2.16	0.46
1:1A:1141:U:H4'	1:1A:1142(A):A:O4'	2.15	0.46
1:1A:1371:G:H2'	1:1A:1372:U:H5	1.80	0.46
1:1A:2593:U:H2'	1:1A:2594:C:C6	2.51	0.46
2:1B:29:A:C2	2:1B:30:C:C2	3.03	0.46
18:1W:82:LEU:HB2	18:1W:98:LYS:HB2	1.96	0.46
32:1a:1351:U:H2'	32:1a:1352:C:C6	2.50	0.46
38:1g:20:ASP:HB3	38:1g:23:VAL:CG2	2.42	0.46
44:1m:108:ARG:HD3	44:1m:108:ARG:HA	1.72	0.46
45:1n:14:PRO:HG2	45:1n:16:PHE:O	2.15	0.46
1:2A:96:G:H4'	24:22:48:HIS:CD2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:196:A:N3	1:2A:196:A:H2'	2.31	0.46
1:2A:414:C:H2'	1:2A:415:A:C8	2.50	0.46
1:2A:1556:C:H2'	1:2A:1557:C:C6	2.51	0.46
1:2A:2723:C:OP2	4:2E:109:LYS:NZ	2.49	0.46
15:2T:33:LYS:HB3	15:2T:82:LEU:HD23	1.98	0.46
19:2X:46:ALA:HB1	24:22:33:MET:HE1	1.97	0.46
21:2Z:152:ALA:O	21:2Z:155:LEU:HB2	2.16	0.46
32:2a:689:C:H4'	32:2a:705:U:H1'	1.98	0.46
32:2a:979:C:N4	45:2n:18:VAL:HG22	2.30	0.46
32:2a:1031:G:H2'	32:2a:1032:G:C8	2.51	0.46
33:2b:118:LEU:HD23	33:2b:142:LEU:HB2	1.98	0.46
35:2d:57:ARG:HH22	36:2e:107:ARG:CD	2.28	0.46
35:2d:112:VAL:H	35:2d:116:GLN:NE2	2.14	0.46
43:2l:34:ARG:HG2	43:2l:35:GLY:N	2.30	0.46
1:1A:530:G:H4'	1:1A:531:C:OP1	2.14	0.46
1:1A:827:U:O2	1:1A:2246:G:H4'	2.15	0.46
1:1A:1213:A:N3	1:1A:1238:G:O2'	2.45	0.46
1:1A:1826:G:H2'	1:1A:1827:C:O4'	2.16	0.46
1:1A:2052:G:C8	4:1E:141:ILE:HD11	2.51	0.46
1:1A:2611:U:C4	27:15:3:LYS:HG3	2.51	0.46
1:1A:2690:C:OP2	13:1R:14:SER:HB3	2.15	0.46
1:1A:2747:G:O6	1:1A:2755:C:H5"	2.16	0.46
9:1N:96:GLU:O	9:1N:100:GLU:HG3	2.16	0.46
26:14:56:VAL:O	26:14:60:GLN:HG2	2.15	0.46
32:1a:67:C:H2'	32:1a:68:G:H8	1.77	0.46
32:1a:1003:G:C4	32:1a:1004:A:H2	2.34	0.46
32:1a:1004:A:H5'	32:1a:1024:G:H1	1.80	0.46
32:1a:1133:G:C6	32:1a:1142:G:C6	3.04	0.46
41:1j:33:GLN:O	41:1j:74:ILE:HA	2.16	0.46
1:2A:859:G:H5'	1:2A:2268:A:O2'	2.16	0.46
1:2A:1191:G:H2'	1:2A:1192:G:O4'	2.14	0.46
1:2A:1195:G:N3	1:2A:1226:A:H2	2.14	0.46
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.15	0.46
1:2A:2400:G:H2'	1:2A:2401:U:H6	1.81	0.46
1:2A:2682:U:O2'	15:2T:58:ASN:ND2	2.49	0.46
2:2B:17:C:H2'	2:2B:18:G:O4'	2.15	0.46
2:2B:24:G:H4'	2:2B:25:A:C8	2.51	0.46
2:2B:33:G:C2	2:2B:34:U:C2	3.04	0.46
3:2D:72:LYS:HD3	3:2D:97:TYR:CE1	2.50	0.46
10:2O:4:PRO:O	10:2O:5:GLN:HB2	2.16	0.46
14:2S:87:PHE:HB2	14:2S:112:PHE:CE1	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:2V:1:MET:O	17:2V:15:GLU:HG2	2.15	0.46
49:2r:67:ALA:O	49:2r:71:LYS:HG3	2.16	0.46
1:1A:64:A:C2	19:1X:66:LEU:HD22	2.50	0.46
1:1A:673:C:OP1	5:1F:54:ARG:NH1	2.43	0.46
1:1A:2319:G:H22	14:1S:3:ARG:CD	2.28	0.46
5:1F:74:ARG:H	5:1F:74:ARG:HG3	1.58	0.46
8:1I:66:GLU:C	8:1I:68:LEU:N	2.73	0.46
11:1P:101:VAL:HG22	11:1P:106:LEU:O	2.16	0.46
32:1a:953:G:H2'	32:1a:954:G:O4'	2.15	0.46
32:1a:1241:G:H2'	32:1a:1242:C:C6	2.51	0.46
39:1h:86:ILE:HG22	39:1h:87:SER:N	2.31	0.46
40:1i:23:ASN:HB2	40:1i:25:LYS:CD	2.46	0.46
41:1j:26:ALA:HB1	41:1j:84:GLN:OE1	2.16	0.46
44:1m:74:VAL:O	44:1m:78:ILE:HG13	2.16	0.46
46:1o:74:ASP:CB	46:1o:77:ARG:HB2	2.39	0.46
1:2A:271(G):C:H2'	1:2A:271(H):G:C8	2.51	0.46
1:2A:751:A:H5'	18:2W:90:ARG:HA	1.97	0.46
1:2A:1364:G:P	23:21:3:LYS:HG3	2.55	0.46
2:2B:103:G:H21	21:2Z:73:GLN:NE2	2.14	0.46
32:2a:722:A:H2'	32:2a:724:G:C8	2.51	0.46
32:2a:729:A:H2'	32:2a:730:G:H8	1.80	0.46
35:2d:50:ARG:HG3	35:2d:51:PRO:HD2	1.98	0.46
37:2f:45:LEU:HD22	37:2f:57:GLN:OE1	2.16	0.46
38:2g:15:ASP:HA	38:2g:24:THR:HG23	1.98	0.46
39:2h:33:GLU:HA	39:2h:36:LEU:HD12	1.98	0.46
51:2t:43:LEU:HD13	51:2t:51:GLU:HG3	1.98	0.46
1:1A:753:C:H2'	1:1A:754:C:C6	2.51	0.46
1:1A:1176:G:OP2	1:1A:1176:G:H4'	2.15	0.46
1:1A:1587:A:H2'	1:1A:1588:C:H6	1.78	0.46
1:1A:1594:G:H2'	1:1A:1595:G:O4'	2.15	0.46
1:1A:2202:C:H2'	1:1A:2203:U:O4'	2.16	0.46
1:1A:2649:U:H2'	1:1A:2650:U:C6	2.50	0.46
5:1F:101:LEU:O	5:1F:106:ARG:HD3	2.16	0.46
8:1I:4:ILE:HD11	8:1I:44:LEU:CD1	2.45	0.46
9:1N:14:VAL:HB	9:1N:138:LEU:HG	1.97	0.46
12:1Q:85:LYS:N	12:1Q:85:LYS:HD2	2.31	0.46
32:1a:110:C:H2'	32:1a:111:G:O4'	2.15	0.46
32:1a:785:G:C2'	32:1a:786:G:H5'	2.46	0.46
32:1a:1221:G:OP1	32:1a:1320:C:N4	2.48	0.46
33:1b:61:LEU:HD12	33:1b:61:LEU:HA	1.77	0.46
37:1f:12:PRO:HG2	37:1f:13:ASN:ND2	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:1h:9:MET:HG3	39:1h:26:VAL:HG21	1.98	0.46
47:1p:9:PHE:CZ	47:1p:18:ARG:HD2	2.50	0.46
49:1r:76:LEU:HD13	49:1r:76:LEU:HA	1.62	0.46
51:1t:43:LEU:O	51:1t:47:GLY:N	2.24	0.46
1:2A:276:A:H4'	1:2A:278:A:N7	2.30	0.46
1:2A:1965:C:H3'	1:2A:1966:A:H2'	1.98	0.46
2:2B:75:G:H21	21:2Z:85:HIS:CE1	2.34	0.46
9:2N:15:LEU:HG	9:2N:16:ILE:N	2.30	0.46
12:2Q:75:THR:HG21	12:2Q:87:LYS:CE	2.46	0.46
24:22:58:ALA:O	24:22:61:LEU:N	2.49	0.46
32:2a:187:C:H2'	32:2a:188:C:H6	1.79	0.46
32:2a:635:G:C6	32:2a:636:U:C4	3.04	0.46
32:2a:794:A:C5	32:2a:795:C:C4	3.03	0.46
39:2h:9:MET:O	39:2h:12:ARG:N	2.49	0.46
50:2s:64:GLU:HG2	50:2s:65:ASN:H	1.81	0.46
1:1A:1022:G:C5	1:1A:1140:C:C4	3.04	0.46
1:1A:1259:G:O2'	1:1A:1260:G:H5'	2.15	0.46
1:1A:2135:A:N1	1:1A:2155:G:N2	2.63	0.46
1:1A:2168:G:N1	1:1A:2171:A:C5	2.84	0.46
21:1Z:6:LYS:H	21:1Z:6:LYS:HG2	1.34	0.46
32:1a:591:U:H2'	32:1a:592:G:C8	2.50	0.46
32:1a:670:G:C4	32:1a:671:G:C8	3.04	0.46
32:1a:827:U:C4	32:1a:870:U:C4	3.04	0.46
32:1a:1327:C:H2'	32:1a:1328:C:C6	2.51	0.46
33:1b:21:ARG:HB3	33:1b:38:GLY:O	2.15	0.46
34:1c:16:ARG:HE	34:1c:16:ARG:HB3	1.43	0.46
35:1d:3:ARG:O	35:1d:5:ILE:HG23	2.16	0.46
36:1e:66:MET:HE3	36:1e:66:MET:HB3	1.83	0.46
39:1h:2:LEU:HG	39:1h:3:THR:N	2.30	0.46
43:1l:34:ARG:HG2	43:1l:35:GLY:N	2.31	0.46
50:1s:22:LEU:HD12	50:1s:47:HIS:CD2	2.51	0.46
51:1t:71:THR:O	51:1t:72:LEU:HD23	2.16	0.46
54:1x:17:C:H5'	54:1x:61:C:OP1	2.16	0.46
1:2A:79:G:O2'	1:2A:346:A:N3	2.46	0.46
1:2A:184:C:H2'	1:2A:185:U:H6	1.81	0.46
1:2A:1450(A):C:N4	1:2A:1451:C:H41	2.14	0.46
5:2F:117:ARG:NH2	5:2F:187:VAL:HA	2.30	0.46
8:2I:62:LYS:HE3	8:2I:133:HIS:CE1	2.51	0.46
15:2T:108:ARG:HA	15:2T:111:ARG:NH1	2.31	0.46
25:23:5:LYS:HG2	25:23:34:GLU:OE2	2.16	0.46
32:2a:38:G:H22	32:2a:397:A:H5"	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:860:A:H2'	32:2a:861:G:O4'	2.15	0.46
32:2a:1172:C:H2'	32:2a:1173:G:H8	1.82	0.46
32:2a:1316:G:H5"	45:2n:17:LYS:HE3	1.98	0.46
32:2a:1355:G:H2'	32:2a:1356:G:C8	2.51	0.46
50:2s:43:GLU:C	50:2s:45:VAL:H	2.24	0.46
1:1A:271(R):G:H4'	23:11:80:LEU:HD11	1.98	0.45
1:1A:303:U:H2'	1:1A:304:G:H8	1.81	0.45
1:1A:528:A:O2'	1:1A:529:A:H5'	2.17	0.45
1:1A:1244:G:OP1	11:1P:7:ARG:HD3	2.16	0.45
1:1A:1919:A:O2'	32:1a:1517:G:N3	2.43	0.45
1:1A:2633:G:H2'	1:1A:2634:G:O4'	2.16	0.45
3:1D:39:LYS:NZ	3:1D:57:GLY:O	2.48	0.45
13:1R:53:HIS:O	13:1R:56:LYS:HB2	2.15	0.45
23:11:64:ALA:HA	23:11:67:ILE:HG13	1.97	0.45
32:1a:58:C:H2'	32:1a:59:A:H8	1.81	0.45
32:1a:735:C:H2'	32:1a:736:C:H6	1.79	0.45
32:1a:1124:G:H5"	41:1j:35:SER:OG	2.16	0.45
32:1a:1279:A:O2'	32:1a:1282:C:N4	2.49	0.45
32:1a:1350:A:C2	32:1a:1351:U:C2	3.05	0.45
33:1b:19:HIS:HA	33:1b:39:ILE:HG23	1.98	0.45
38:1g:30:ILE:HD13	38:1g:120:ILE:HD12	1.97	0.45
38:1g:91:VAL:HG13	38:1g:95:ARG:HD3	1.98	0.45
47:1p:43:LYS:HA	47:1p:48:TRP:CD1	2.51	0.45
47:1p:58:TYR:O	47:1p:62:VAL:HG12	2.15	0.45
1:2A:127:A:H5"	1:2A:128:C:O4'	2.16	0.45
1:2A:440:G:H2'	1:2A:441:U:C6	2.51	0.45
1:2A:605:C:O2	1:2A:657:U:O2'	2.33	0.45
1:2A:2175:C:H2'	1:2A:2176:A:C8	2.50	0.45
1:2A:2881:C:H2'	1:2A:2882:A:O4'	2.16	0.45
2:2B:6:C:C2	2:2B:116:G:N2	2.84	0.45
9:2N:12:ARG:NE	9:2N:50:ASP:OD2	2.46	0.45
12:2Q:2:LEU:HB2	12:2Q:70:PRO:CG	2.46	0.45
18:2W:10:VAL:HG23	18:2W:101:SER:O	2.16	0.45
32:2a:115:G:H4'	32:2a:116:A:O5'	2.16	0.45
32:2a:131:C:O2'	32:2a:262:A:N3	2.40	0.45
32:2a:288:A:H2'	32:2a:289:G:H4'	1.98	0.45
32:2a:947:G:H2'	32:2a:948:C:O4'	2.16	0.45
33:2b:55:PHE:O	33:2b:59:GLU:N	2.41	0.45
36:2e:147:ASP:OD1	36:2e:147:ASP:N	2.47	0.45
38:2g:149:ARG:HG2	42:2k:59:TYR:CE1	2.51	0.45
1:1A:630:G:N2	1:1A:633:A:OP2	2.44	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:910:A:C5	12:1Q:13:GLN:HG3	2.51	0.45
1:1A:1065:U:H1'	1:1A:1074:G:C2	2.51	0.45
1:1A:1070:A:H3'	1:1A:1072:C:OP2	2.16	0.45
1:1A:1074:G:C2	1:1A:1075:C:H1'	2.51	0.45
1:1A:2082:A:H2'	1:1A:2083:G:O4'	2.15	0.45
1:1A:2512:C:H2'	1:1A:2513:G:O4'	2.16	0.45
3:1D:182:LEU:HB2	3:1D:272:ALA:HB3	1.97	0.45
4:1E:47:VAL:HG22	4:1E:84:PHE:O	2.16	0.45
4:1E:103:ASP:CG	4:1E:168:MET:HE2	2.42	0.45
23:11:12:PRO:HG3	23:11:43:TYR:HD1	1.81	0.45
32:1a:1183:A:O2'	32:1a:1184:G:OP1	2.30	0.45
38:1g:48:LYS:O	38:1g:52:GLU:HG3	2.17	0.45
41:1j:39:PRO:HA	41:1j:70:ARG:HD3	1.98	0.45
43:1l:77:LEU:HD21	43:1l:107:ALA:HA	1.99	0.45
48:1q:59:ILE:HG22	48:1q:73:VAL:HA	1.97	0.45
51:1t:100:ILE:HB	51:1t:101:GLY:H	1.42	0.45
1:2A:251:A:C5	1:2A:252:G:H1'	2.52	0.45
1:2A:530:G:C5	1:2A:2022:U:H5"	2.51	0.45
1:2A:643:A:C8	28:26:44:ARG:NH1	2.84	0.45
1:2A:918:A:H5"	2:2B:98:G:O2'	2.16	0.45
1:2A:1557:C:H5"	1:2A:1558:A:OP2	2.16	0.45
1:2A:2116:G:O6	1:2A:2162:G:H5"	2.15	0.45
8:2I:127:VAL:HA	8:2I:140:LEU:O	2.16	0.45
10:2O:15:GLY:O	10:2O:47:ILE:HG12	2.16	0.45
13:2R:30:THR:HG22	13:2R:31:HIS:CD2	2.51	0.45
16:2U:104:GLN:HG2	16:2U:105:VAL:N	2.31	0.45
19:2X:5:TYR:CZ	24:22:30:ARG:HB2	2.51	0.45
32:2a:977:A:O3'	32:2a:980:C:N4	2.49	0.45
32:2a:1132:C:C4	32:2a:1133:G:N7	2.84	0.45
33:2b:33:TYR:HB2	33:2b:43:ASP:HA	1.98	0.45
35:2d:138:TYR:CD2	35:2d:138:TYR:C	2.93	0.45
36:2e:70:PRO:HB2	36:2e:72:GLN:NE2	2.31	0.45
36:2e:110:LEU:HD13	36:2e:118:ILE:HD13	1.98	0.45
38:2g:153:HIS:HE1	42:2k:57:THR:HG22	1.81	0.45
40:2i:98:PRO:O	40:2i:99:LEU:HD13	2.17	0.45
50:2s:30:LEU:HG	50:2s:31:ILE:N	2.32	0.45
51:2t:9:ASN:O	51:2t:10:LEU:HB2	2.16	0.45
1:1A:271(K):U:H1'	8:1I:50:ARG:CD	2.46	0.45
1:1A:805:G:O4'	11:1P:38:GLN:HG3	2.16	0.45
1:1A:1996:C:H4'	1:1A:1997:G:OP1	2.15	0.45
2:1B:33:G:N2	2:1B:50:G:C4	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:1S:87:PHE:CE1	14:1S:102:ALA:HB2	2.51	0.45
15:1T:102:ILE:HB	15:1T:110:ILE:HD12	1.99	0.45
19:1X:43:VAL:HG21	19:1X:81:VAL:HG11	1.97	0.45
19:1X:53:LYS:HB3	19:1X:82:GLN:HB3	1.98	0.45
32:1a:130:A:N3	32:1a:263:A:O2'	2.42	0.45
32:1a:445:G:H2'	32:1a:446:G:C8	2.52	0.45
32:1a:519:C:H2'	32:1a:520:A:H8	1.79	0.45
32:1a:582:U:H2'	32:1a:583:A:C8	2.51	0.45
32:1a:1149:C:H2'	32:1a:1150:U:C6	2.51	0.45
32:1a:1239:A:O2'	38:1g:114:ARG:O	2.30	0.45
32:1a:1291:G:H2'	32:1a:1292:U:C6	2.51	0.45
32:1a:1365:G:C5	32:1a:1366:C:C5	3.04	0.45
32:1a:1402:4OC:H2'	32:1a:1403:C:O4'	2.16	0.45
36:1e:78:HIS:CD2	39:1h:104:ARG:HD2	2.51	0.45
38:1g:71:PRO:HG3	38:1g:103:TRP:CZ3	2.50	0.45
40:1i:32:ASP:OD1	40:1i:33:PHE:N	2.49	0.45
1:2A:466:A:P	29:27:34:ARG:NH1	2.90	0.45
1:2A:1003:G:N2	1:2A:1153:C:C2	2.84	0.45
1:2A:1190:G:O2'	1:2A:1191:G:H5'	2.15	0.45
1:2A:2311:A:O2'	6:2G:88:ILE:HD12	2.17	0.45
1:2A:2816:C:O3'	13:2R:99:LYS:NZ	2.49	0.45
5:2F:150:GLY:HA2	5:2F:172:TRP:CE3	2.52	0.45
6:2G:72:ARG:HD3	6:2G:85:GLY:O	2.17	0.45
10:2O:10:VAL:HG11	10:2O:16:ALA:HB3	1.98	0.45
13:2R:72:ASP:HB3	13:2R:75:LEU:HB3	1.98	0.45
26:24:16:CYS:HB3	26:24:20:ASN:H	1.82	0.45
32:2a:115:G:C2	32:2a:289:G:N7	2.85	0.45
32:2a:448:A:OP2	32:2a:485:G:N1	2.39	0.45
32:2a:1051:C:H2'	32:2a:1052:U:C6	2.48	0.45
32:2a:1134:G:C2	32:2a:1135:U:H1'	2.51	0.45
32:2a:1258:G:H2'	32:2a:1259:C:C6	2.48	0.45
38:2g:79:ARG:HB2	38:2g:79:ARG:NH2	2.30	0.45
43:2l:46:LYS:HE3	43:2l:92:0TD:H8	1.98	0.45
45:2n:59:ALA:HB1	45:2n:61:TRP:CZ3	2.51	0.45
1:1A:724:U:H2'	1:1A:725:G:O4'	2.16	0.45
1:1A:934:G:H2'	1:1A:935:C:C6	2.51	0.45
1:1A:1359:A:H61	1:1A:1372:U:H3	1.64	0.45
1:1A:2124:G:H3'	1:1A:2125:G:C8	2.51	0.45
10:1O:16:ALA:HB2	10:1O:52:VAL:HG21	1.98	0.45
14:1S:26:LEU:HB2	14:1S:85:VAL:CG2	2.47	0.45
20:1Y:106:LEU:O	20:1Y:107:ASP:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:79:G:O6	32:1a:90:U:C2	2.70	0.45
32:1a:987:G:H1	32:1a:1218:C:H42	1.64	0.45
32:1a:1182:G:H4'	32:1a:1183:A:H5"	1.98	0.45
32:1a:1342:C:O2'	40:1i:124:GLN:HG3	2.16	0.45
34:1c:172:ARG:NH2	34:1c:206:GLU:OE2	2.48	0.45
35:1d:108:LEU:HD13	35:1d:174:LEU:HD13	1.98	0.45
37:1f:82:ARG:HB2	37:1f:85:VAL:HG23	1.97	0.45
38:1g:79:ARG:HD2	38:1g:79:ARG:C	2.41	0.45
44:1m:45:VAL:C	44:1m:47:ASP:H	2.24	0.45
47:1p:22:THR:HA	47:1p:33:ILE:HG13	1.98	0.45
50:1s:23:ASN:OD1	50:1s:23:ASN:N	2.50	0.45
51:1t:64:ASP:OD1	51:1t:81:LYS:HD3	2.16	0.45
1:2A:1587:A:H2'	1:2A:1588:C:C6	2.52	0.45
1:2A:2273:A:O2'	1:2A:2274:A:H5'	2.16	0.45
2:2B:28:C:H42	2:2B:56:G:H1	1.62	0.45
2:2B:46:A:H2'	2:2B:47:C:C6	2.52	0.45
6:2G:61:ALA:O	6:2G:65:GLY:N	2.49	0.45
12:2Q:26:TYR:O	12:2Q:67:ARG:NH1	2.39	0.45
14:2S:93:LYS:HE3	14:2S:93:LYS:HB2	1.75	0.45
20:2Y:83:THR:HG21	20:2Y:99:CYS:HB2	1.99	0.45
32:2a:793:U:O2	32:2a:1516:G:H4'	2.17	0.45
32:2a:1110:A:N6	32:2a:1111:A:C6	2.85	0.45
33:2b:72:GLY:HA2	33:2b:165:VAL:HG12	1.99	0.45
35:2d:106:TYR:HE1	35:2d:112:VAL:O	1.99	0.45
35:2d:108:LEU:HD21	35:2d:174:LEU:HB3	1.99	0.45
36:2e:31:LEU:HA	36:2e:31:LEU:HD23	1.66	0.45
36:2e:84:PHE:N	36:2e:87:SER:O	2.43	0.45
37:2f:2:ARG:HH11	37:2f:92:LYS:HZ2	1.63	0.45
38:2g:18:TYR:CD1	38:2g:59:LEU:HB2	2.51	0.45
38:2g:115:ARG:O	38:2g:119:ARG:HG3	2.16	0.45
39:2h:83:ILE:HG13	39:2h:137:VAL:HG22	1.97	0.45
42:2k:58:PRO:HG3	42:2k:89:ALA:O	2.16	0.45
1:1A:1466:G:H2'	1:1A:1547:C:N4	2.31	0.45
1:1A:2305:A:H5"	6:1G:134:GLY:HA3	1.99	0.45
12:1Q:16:ARG:HG3	12:1Q:17:LEU:N	2.29	0.45
23:11:59:THR:O	23:11:91:LYS:NZ	2.42	0.45
32:1a:373:A:C2	32:1a:374:A:C8	3.04	0.45
36:1e:18:ARG:NH1	36:1e:27:ARG:HH22	2.15	0.45
37:1f:11:ASN:HB3	37:1f:14:LEU:HG	1.99	0.45
44:1m:80:ARG:O	44:1m:84:ILE:HG23	2.17	0.45
49:1r:44:LEU:HD11	49:1r:79:LEU:HD22	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:64:A:O3'	19:2X:71:GLY:HA3	2.16	0.45
1:2A:608:A:H2'	1:2A:609:A:C8	2.52	0.45
1:2A:910:A:H2	1:2A:2264:C:O2	2.00	0.45
1:2A:1540:U:H2'	1:2A:1541:G:O4'	2.17	0.45
1:2A:2141:G:C6	1:2A:2151:G:C5	3.04	0.45
1:2A:2402:C:H1'	1:2A:2403:C:H5	1.81	0.45
4:2E:118:LYS:HB2	4:2E:118:LYS:HE2	1.80	0.45
6:2G:171:ALA:O	6:2G:175:LEU:N	2.32	0.45
10:2O:19:ILE:HG22	10:2O:43:VAL:HA	1.98	0.45
21:2Z:100:VAL:HG11	21:2Z:137:ILE:HG13	1.97	0.45
32:2a:21:G:N1	32:2a:22:G:C6	2.85	0.45
32:2a:324:G:N2	32:2a:326:G:H3'	2.32	0.45
32:2a:1169:A:H3'	32:2a:1170:A:H8	1.82	0.45
35:2d:163:GLU:C	35:2d:165:MET:N	2.75	0.45
1:1A:1370:C:HO2'	1:1A:1811:G:HO2'	1.65	0.45
1:1A:1448:G:O2'	1:1A:1528(A):A:N1	2.43	0.45
1:1A:2206:G:H5"	1:1A:2207:G:C5	2.52	0.45
1:1A:2292:C:OP1	14:1S:17:ARG:NH2	2.50	0.45
6:1G:3:LEU:HD22	26:14:25:TYR:CZ	2.51	0.45
18:1W:14:PRO:HG2	18:1W:78:GLU:HG3	1.97	0.45
19:1X:24:GLY:O	19:1X:83:VAL:HG22	2.17	0.45
32:1a:60:A:N1	32:1a:107:G:O2'	2.42	0.45
32:1a:433:C:H2'	32:1a:434:U:C6	2.51	0.45
32:1a:591:U:H2'	32:1a:592:G:H8	1.81	0.45
32:1a:806:C:H2'	32:1a:807:A:H8	1.81	0.45
33:1b:185:ILE:HG22	33:1b:199:TYR:HD2	1.82	0.45
33:1b:230:VAL:HG12	33:1b:231:GLU:H	1.81	0.45
35:1d:65:ARG:HH11	35:1d:72:GLU:HB2	1.80	0.45
35:1d:111:ALA:HB1	35:1d:116:GLN:HB3	1.98	0.45
37:1f:97:PHE:N	49:1r:30:ASP:OD1	2.42	0.45
38:1g:75:VAL:HA	38:1g:87:VAL:O	2.17	0.45
43:1l:70:ILE:HG21	43:1l:77:LEU:HD12	1.98	0.45
50:1s:27:GLU:HG3	50:1s:28:LYS:HE3	1.98	0.45
1:2A:1187:G:H5'	17:2V:81:TYR:CE1	2.51	0.45
1:2A:1991:U:H2'	1:2A:1992:G:H5"	1.98	0.45
1:2A:2864:G:OP1	15:2T:119:LYS:HD3	2.16	0.45
5:2F:165:ARG:HG2	5:2F:168:ARG:NH2	2.31	0.45
12:2Q:54:MET:O	12:2Q:57:HIS:N	2.47	0.45
19:2X:36:LYS:HE2	19:2X:56:THR:HG23	1.98	0.45
21:2Z:3:TYR:CD2	21:2Z:51:ALA:HB2	2.51	0.45
32:2a:35:G:C2	32:2a:550:G:C2	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:448:A:C2	32:2a:449:C:C4	3.05	0.45
32:2a:688:G:O2'	32:2a:704:A:N1	2.39	0.45
32:2a:1371:G:OP1	40:2i:12:GLU:HB3	2.16	0.45
38:2g:70:LYS:N	38:2g:138:LYS:HD3	2.32	0.45
42:2k:22:HIS:HD2	42:2k:29:ILE:HD13	1.82	0.45
48:2q:81:ARG:HD2	48:2q:81:ARG:HA	1.67	0.45
50:2s:51:VAL:O	50:2s:58:VAL:HG22	2.17	0.45
54:2x:40:C:H2'	54:2x:41:C:C6	2.49	0.45
1:1A:725:G:C6	1:1A:726:G:N1	2.85	0.45
1:1A:1045:A:C8	1:1A:1047:G:N2	2.84	0.45
1:1A:1430:C:H2'	1:1A:1431:U:C6	2.50	0.45
1:1A:2016:U:H1'	27:15:6:VAL:HG13	1.99	0.45
1:1A:2302:G:C6	1:1A:2315:G:C6	3.05	0.45
6:1G:60:LEU:HB3	6:1G:68:PRO:HG3	1.98	0.45
8:1I:129:THR:HG22	8:1I:139:GLN:NE2	2.25	0.45
11:1P:50:ARG:HD3	30:18:7:HIS:HD2	1.81	0.45
15:1T:84:GLN:HG2	15:1T:85:LYS:HG2	1.98	0.45
31:19:7:VAL:HG12	31:19:34:GLN:HB3	1.98	0.45
32:1a:102:G:H2'	32:1a:103:C:H6	1.81	0.45
32:1a:102:G:O2'	32:1a:151:A:N3	2.49	0.45
32:1a:616:G:O2'	32:1a:617:G:H5'	2.16	0.45
32:1a:1176:A:H2'	32:1a:1177:G:C8	2.52	0.45
32:1a:1424:C:H42	32:1a:1476:G:H1	1.62	0.45
33:1b:16:HIS:HB2	33:1b:204:ASN:CB	2.46	0.45
33:1b:47:THR:HG22	33:1b:51:LEU:HD11	1.99	0.45
1:2A:1153:C:H2'	1:2A:1154:G:O4'	2.16	0.45
1:2A:1530:C:H6	1:2A:1530:C:H2'	1.50	0.45
1:2A:1739:U:O2'	1:2A:1740:G:H8	1.99	0.45
1:2A:1832:C:N4	1:2A:1833:U:C4	2.85	0.45
8:2I:72:LEU:HD23	8:2I:75:LEU:HD12	1.99	0.45
10:2O:34:THR:OG1	10:2O:35:VAL:N	2.50	0.45
14:2S:10:ARG:NH2	14:2S:91:PRO:O	2.48	0.45
32:2a:21:G:H1'	32:2a:915:A:H61	1.80	0.45
32:2a:142:G:H2'	32:2a:143:A:H8	1.82	0.45
32:2a:615:C:H2'	32:2a:616:G:O4'	2.17	0.45
32:2a:801:U:H2'	32:2a:802:A:C8	2.52	0.45
32:2a:1088:G:C6	32:2a:1089:G:C5	3.05	0.45
32:2a:1144:G:O2'	32:2a:1145:C:H5'	2.15	0.45
35:2d:57:ARG:HD3	35:2d:202:LEU:HD13	1.98	0.45
47:2p:39:TYR:CD2	47:2p:73:LEU:HD21	2.51	0.45
1:1A:962:G:H2'	1:1A:963:U:H6	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1292:U:H2'	1:1A:1293:C:H6	1.81	0.45
1:1A:1741:A:H2'	1:1A:1742:G:O4'	2.16	0.45
1:1A:2161:C:O2'	1:1A:2162:G:H8	1.99	0.45
1:1A:2592:G:OP1	61:1A:4298:HOH:O	2.21	0.45
1:1A:2773:C:H2'	1:1A:2774:C:H6	1.82	0.45
1:1A:2846:G:H5"	61:1T:301:HOH:O	2.16	0.45
1:1A:2869:G:H2'	1:1A:2870:C:O4'	2.17	0.45
5:1F:202:PHE:CZ	5:1F:206:ILE:HD13	2.51	0.45
11:1P:89:ALA:HA	11:1P:121:LYS:HD3	1.99	0.45
15:1T:28:VAL:O	15:1T:46:GLU:HA	2.17	0.45
28:16:12:GLU:OE1	28:16:52:VAL:HG11	2.16	0.45
32:1a:1049:U:OP1	45:1n:3:ARG:HB3	2.17	0.45
32:1a:1144:G:C6	32:1a:1145:C:C4	3.05	0.45
32:1a:1244:C:C2	32:1a:1294:G:N2	2.85	0.45
36:1e:148:VAL:HG23	36:1e:149:GLU:N	2.32	0.45
37:1f:26:ILE:O	37:1f:30:LEU:HD12	2.17	0.45
49:1r:56:THR:CG2	49:1r:58:LEU:HG	2.47	0.45
1:2A:414:C:O2	1:2A:1864:U:O2'	2.34	0.45
1:2A:1288:U:C2	1:2A:1327:C:O2	2.70	0.45
1:2A:1710:C:H2'	1:2A:1711:C:C6	2.52	0.45
1:2A:2124:G:O6	1:2A:2125:G:N2	2.35	0.45
1:2A:2674:G:H2'	1:2A:2675:A:C8	2.52	0.45
2:2B:46:A:C5	2:2B:47:C:C4	3.05	0.45
3:2D:108:PRO:HG2	3:2D:111:LEU:HB2	1.99	0.45
8:2I:69:LYS:NZ	8:2I:137:PRO:O	2.33	0.45
11:2P:135:LEU:HA	11:2P:135:LEU:HD23	1.78	0.45
13:2R:38:VAL:HB	13:2R:39:PRO:HD3	1.98	0.45
13:2R:72:ASP:O	13:2R:76:VAL:HG23	2.17	0.45
32:2a:29:G:H5'	32:2a:296:U:OP1	2.17	0.45
32:2a:72:C:H2'	32:2a:73:G:C8	2.52	0.45
32:2a:390:C:H2'	32:2a:391:G:C8	2.51	0.45
32:2a:472:A:H4'	47:2p:80:PHE:O	2.17	0.45
32:2a:682:G:N1	32:2a:709:G:C6	2.85	0.45
32:2a:1078:U:H2'	32:2a:1079:G:C8	2.52	0.45
33:2b:50:GLU:HB3	33:2b:200:ILE:O	2.16	0.45
35:2d:98:GLU:OE1	35:2d:103:ASN:ND2	2.49	0.45
36:2e:91:LEU:HD12	36:2e:91:LEU:HA	1.87	0.45
39:2h:109:ILE:HG12	39:2h:137:VAL:HB	1.99	0.45
41:2j:11:PHE:CE1	41:2j:67:THR:HG22	2.51	0.45
46:2o:53:HIS:CE1	46:2o:57:LEU:HD11	2.51	0.45
54:2x:19:G:C2	54:2x:57:A:N3	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1027:A:C6	1:1A:1126:A:C4	3.05	0.45
1:1A:1901:A:H2'	1:1A:1901:A:N3	2.31	0.45
1:1A:2364:C:H2'	1:1A:2365:G:O4'	2.17	0.45
2:1B:50:G:H5"	14:1S:61:ASN:HD21	1.81	0.45
2:1B:60:C:C2	2:1B:61:G:C8	3.05	0.45
4:1E:77:ILE:HD13	4:1E:195:LEU:HD22	1.98	0.45
6:1G:105:LYS:NZ	26:14:26:SER:HB2	2.31	0.45
32:1a:407:G:H2'	32:1a:408:A:C8	2.52	0.45
32:1a:407:G:O2'	35:1d:116:GLN:HG3	2.16	0.45
32:1a:437:U:H5'	35:1d:155:LEU:HD13	1.99	0.45
32:1a:517:G:N2	32:1a:533:A:OP2	2.41	0.45
33:1b:112:VAL:O	33:1b:115:LEU:HB3	2.16	0.45
33:1b:132:LYS:O	33:1b:135:GLN:HB3	2.16	0.45
34:1c:112:SER:O	34:1c:116:VAL:HG23	2.16	0.45
35:1d:110:PHE:N	35:1d:110:PHE:CD1	2.83	0.45
38:1g:144:MET:HE2	38:1g:144:MET:HB3	1.76	0.45
46:1o:8:LYS:O	46:1o:12:ILE:HG13	2.17	0.45
54:1x:61:C:H2'	54:1x:62:C:C6	2.50	0.45
1:2A:422:A:H2'	1:2A:423:A:C8	2.52	0.45
1:2A:614:U:H5'	1:2A:614(C):A:N6	2.31	0.45
1:2A:1248:G:C5	16:2U:3:ARG:HB2	2.52	0.45
3:2D:13:ARG:HA	3:2D:13:ARG:HD3	1.70	0.45
4:2E:48:GLN:NE2	4:2E:78:LEU:HG	2.32	0.45
10:2O:113:LYS:HD2	10:2O:113:LYS:HA	1.78	0.45
12:2Q:36:ALA:HB1	12:2Q:127:ILE:HD12	1.99	0.45
20:2Y:28:LYS:HD2	20:2Y:40:GLU:CB	2.47	0.45
21:2Z:50:GLN:HE21	21:2Z:50:GLN:N	2.15	0.45
23:21:23:LYS:HB3	23:21:29:GLY:HA3	1.98	0.45
32:2a:302:G:N3	32:2a:556:C:H4'	2.32	0.45
32:2a:985:C:H2'	32:2a:986:A:H8	1.80	0.45
32:2a:1068:G:N7	32:2a:1094:G:C8	2.85	0.45
32:2a:1208:C:H2'	32:2a:1209:C:C6	2.51	0.45
33:2b:47:THR:O	33:2b:51:LEU:HG	2.17	0.45
33:2b:159:PRO:HB2	33:2b:161:ALA:O	2.16	0.45
33:2b:169:LYS:O	33:2b:169:LYS:HD3	2.17	0.45
39:2h:44:PHE:HA	39:2h:79:VAL:HG11	1.99	0.45
40:2i:5:TYR:HA	40:2i:17:VAL:O	2.16	0.45
1:1A:1006:C:C2	1:1A:1138:G:N2	2.85	0.45
1:1A:1682:G:C2	1:1A:1757:U:H1'	2.52	0.45
1:1A:2518:A:P	61:1A:4423:HOH:O	2.75	0.45
1:1A:2555:U:C5	1:1A:2556:C:C2	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:25:PRO:HD2	5:1F:115:ALA:HB2	1.99	0.45
7:1H:40:GLU:C	7:1H:41:MET:HE2	2.41	0.45
13:1R:83:ILE:O	13:1R:86:ARG:HB2	2.16	0.45
15:1T:106:SER:O	15:1T:110:ILE:HG12	2.17	0.45
16:1U:58:ARG:HA	16:1U:61:TRP:CE3	2.51	0.45
19:1X:50:LYS:HB3	19:1X:84:ALA:HB2	1.98	0.45
23:11:65:SER:OG	23:11:66:HIS:ND1	2.48	0.45
28:16:14:THR:HB	28:16:48:VAL:O	2.17	0.45
29:17:12:ARG:NH2	29:17:44:PRO:HB3	2.31	0.45
32:1a:102:G:H2'	32:1a:103:C:C6	2.52	0.45
32:1a:658:G:OP1	46:1o:8:LYS:NZ	2.45	0.45
32:1a:674:G:H2'	32:1a:675:A:H8	1.81	0.45
32:1a:1187:G:C5'	40:1i:113:LYS:HD3	2.46	0.45
32:1a:1277:C:O2'	32:1a:1279:A:H1'	2.17	0.45
32:1a:1488:G:H2'	32:1a:1489:G:H8	1.82	0.45
38:1g:104:LEU:HD13	38:1g:104:LEU:HA	1.77	0.45
45:1n:2:ALA:O	45:1n:6:LEU:HD12	2.17	0.45
46:1o:11:VAL:HG12	46:1o:15:PHE:CE2	2.52	0.45
1:2A:93:G:H2'	1:2A:94:C:C6	2.50	0.45
1:2A:271(V):G:H2'	1:2A:271(W):G:O4'	2.17	0.45
1:2A:1786:A:C4	1:2A:1938:A:C6	3.04	0.45
1:2A:2203:U:H2'	1:2A:2205:C:C6	2.52	0.45
1:2A:2802:G:N3	1:2A:2803:C:H1'	2.32	0.45
3:2D:166:GLN:HB2	3:2D:174:ILE:HG22	1.98	0.45
3:2D:275:LYS:HD2	3:2D:276:LYS:CB	2.46	0.45
5:2F:161:GLU:HG3	5:2F:164:ARG:HH22	1.82	0.45
5:2F:184:TYR:CE2	5:2F:188:ARG:HD2	2.52	0.45
6:2G:178:PHE:HB3	6:2G:180:PHE:CE2	2.52	0.45
8:2I:130:TYR:HB3	8:2I:138:ILE:HB	1.99	0.45
32:2a:376:G:H2'	32:2a:377:G:C8	2.52	0.45
32:2a:1104:G:H4'	33:2b:111:ARG:HH21	1.81	0.45
35:2d:141:ARG:HB3	35:2d:142:PRO:CD	2.47	0.45
35:2d:163:GLU:O	35:2d:165:MET:N	2.50	0.45
36:2e:41:VAL:HG23	36:2e:67:VAL:CG1	2.46	0.45
40:2i:89:ASN:HB3	40:2i:92:TYR:CG	2.51	0.45
40:2i:104:ARG:HG2	40:2i:105:ASP:N	2.32	0.45
44:2m:31:LYS:HA	44:2m:34:LEU:HB2	1.99	0.45
44:2m:118:ALA:HB2	54:2x:28:C:H4'	1.98	0.45
48:2q:76:LEU:HD12	48:2q:77:VAL:H	1.82	0.45
1:1A:1062:G:P	1:1A:1070:A:H1'	2.57	0.44
1:1A:1268:A:C2	1:1A:2013:A:C4	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2167:U:O2	1:1A:2168:G:H1'	2.16	0.44
6:1G:109:VAL:C	6:1G:112:PRO:HD2	2.42	0.44
9:1N:14:VAL:HA	9:1N:136:GLU:O	2.16	0.44
12:1Q:137:TYR:HE2	21:1Z:49:ARG:HH11	1.65	0.44
23:11:94:LEU:HA	23:11:94:LEU:HD23	1.77	0.44
24:12:31:GLU:HA	24:12:34:GLU:HG3	1.98	0.44
31:19:1:MET:HE2	31:19:1:MET:HB2	1.62	0.44
32:1a:436:C:O2'	35:1d:157:LEU:HD12	2.17	0.44
32:1a:1005:A:OP2	32:1a:1024:G:N2	2.50	0.44
33:1b:165:VAL:O	33:1b:187:LEU:O	2.35	0.44
33:1b:185:ILE:HB	33:1b:199:TYR:HB2	1.98	0.44
36:1e:94:ALA:HB2	36:1e:119:LEU:HG	1.98	0.44
54:1x:49:G:N2	54:1x:66:C:C2	2.84	0.44
1:2A:302:C:P	20:2Y:73:ARG:HH12	2.39	0.44
1:2A:747:U:O2	1:2A:2014:A:H1'	2.17	0.44
1:2A:2336:A:H61	22:20:43:THR:CG2	2.30	0.44
1:2A:2408:U:H2'	1:2A:2409:G:H8	1.82	0.44
1:2A:2556:C:H2'	1:2A:2557:G:O4'	2.17	0.44
1:2A:2768:C:C4	1:2A:2769:C:C5	3.05	0.44
1:2A:2788:C:N4	1:2A:2789:C:H41	2.14	0.44
1:2A:2845:G:H2'	1:2A:2846:G:H8	1.82	0.44
2:2B:61:G:C6	2:2B:62:C:N4	2.84	0.44
19:2X:14:SER:C	19:2X:16:LYS:H	2.26	0.44
20:2Y:49:VAL:CG2	20:2Y:61:ILE:HG23	2.45	0.44
32:2a:596:C:H42	32:2a:644:G:H1	1.63	0.44
32:2a:1073:U:C2	32:2a:1074:G:C8	3.06	0.44
32:2a:1291:G:H2'	32:2a:1292:U:H6	1.83	0.44
33:2b:95:GLN:HG2	33:2b:147:LYS:O	2.16	0.44
34:2c:131:ARG:NH2	36:2e:50:GLU:HG3	2.31	0.44
38:2g:16:LEU:CD2	40:2i:42:ARG:HA	2.47	0.44
38:2g:115:ARG:HD2	38:2g:118:VAL:HG23	1.99	0.44
40:2i:6:GLY:HA3	40:2i:80:GLY:O	2.17	0.44
1:1A:38:A:H2'	1:1A:39:C:C6	2.52	0.44
1:1A:254:G:O6	30:18:5:LYS:HG2	2.18	0.44
1:1A:863:A:H2'	1:1A:864:G:H8	1.82	0.44
1:1A:934:G:H2'	1:1A:935:C:H6	1.81	0.44
1:1A:1101:U:H2'	1:1A:1102:C:O4'	2.17	0.44
1:1A:1108:U:H2'	1:1A:1109:C:C6	2.52	0.44
1:1A:1965:C:OP1	1:1A:1966:A:O2'	2.32	0.44
1:1A:1983:C:O2'	1:1A:1984:G:H5'	2.17	0.44
2:1B:66:A:N6	2:1B:109:C:H5'	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1G:126:ASP:HB2	6:1G:130:ASN:H	1.83	0.44
10:1O:112:MET:HE3	10:1O:112:MET:HB3	1.74	0.44
12:1Q:22:LYS:O	21:1Z:78:LYS:HE2	2.16	0.44
21:1Z:75:ASN:O	21:1Z:84:GLU:HG2	2.17	0.44
28:16:6:ARG:NH1	28:16:26:ASN:HB2	2.33	0.44
32:1a:942:G:C2	32:1a:1342:C:C2	3.05	0.44
32:1a:1492:A:H2'	32:1a:1493:A:N9	2.32	0.44
33:1b:42:ILE:HG21	33:1b:202:PRO:O	2.17	0.44
40:1i:100:GLY:O	40:1i:103:THR:HG23	2.18	0.44
1:2A:402:A:C2'	1:2A:403:U:H5'	2.47	0.44
1:2A:511:U:O4	1:2A:512:G:N1	2.50	0.44
1:2A:1479:G:H1'	1:2A:1558:A:OP1	2.18	0.44
1:2A:2193:G:H2'	1:2A:2194:G:C8	2.53	0.44
2:2B:73:A:C4	2:2B:105:A:C2	3.05	0.44
7:2H:23:ARG:O	7:2H:24:VAL:HG13	2.17	0.44
8:2I:3:VAL:O	8:2I:18:VAL:HA	2.17	0.44
12:2Q:26:TYR:HD1	12:2Q:27:VAL:O	2.01	0.44
18:2W:11:ARG:HD3	18:2W:82:LEU:HD12	1.99	0.44
21:2Z:151:HIS:O	21:2Z:171:ILE:HG12	2.17	0.44
24:22:63:VAL:O	24:22:67:LYS:HG3	2.17	0.44
27:25:8:LYS:O	27:25:9:LYS:HD2	2.17	0.44
32:2a:413:G:N2	32:2a:428:G:H1'	2.32	0.44
32:2a:636:U:H2'	32:2a:637:G:C8	2.52	0.44
32:2a:1263:C:H1'	32:2a:1273:G:N2	2.32	0.44
32:2a:1320:C:OP1	50:2s:70:LYS:HE3	2.17	0.44
32:2a:1491:G:O6	61:2a:3313:HOH:O	2.21	0.44
33:2b:185:ILE:CG2	33:2b:199:TYR:HB2	2.47	0.44
34:2c:43:LEU:HD13	34:2c:55:VAL:HG21	1.98	0.44
34:2c:104:GLN:HE21	34:2c:105:GLU:N	2.15	0.44
34:2c:123:GLN:O	34:2c:126:ARG:HB2	2.16	0.44
1:1A:154(A):C:O5'	1:1A:154(A):C:H6	2.00	0.44
1:1A:458:G:O2'	29:17:39:ARG:HD3	2.17	0.44
1:1A:855:G:N7	61:1A:4384:HOH:O	2.35	0.44
1:1A:1161:C:O2'	17:1V:8:GLY:HA2	2.17	0.44
1:1A:1507:A:H2'	1:1A:1508:A:C8	2.52	0.44
1:1A:1568:G:H5"	3:1D:61:LEU:HD13	1.98	0.44
1:1A:1582:C:C2	1:1A:1583:A:C8	3.05	0.44
4:1E:59:VAL:HG21	4:1E:74:PRO:CB	2.47	0.44
6:1G:56:ALA:O	6:1G:59:GLU:HG2	2.17	0.44
6:1G:77:ILE:HG21	6:1G:80:PHE:CD2	2.53	0.44
8:1I:68:LEU:HD21	8:1I:109:ILE:HD11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:1Q:59:ARG:O	12:1Q:60:ARG:HB2	2.17	0.44
19:1X:44:GLU:HG3	19:1X:51:VAL:HG23	1.99	0.44
21:1Z:8:TYR:CD2	21:1Z:8:TYR:N	2.85	0.44
32:1a:181:G:H4'	32:1a:182:U:H5'	1.99	0.44
32:1a:381:C:H2'	32:1a:382:A:O4'	2.18	0.44
32:1a:765:G:H5"	32:1a:766:A:OP1	2.17	0.44
32:1a:1499:A:OP2	61:1a:1911:HOH:O	2.21	0.44
35:1d:14:ARG:HA	35:1d:14:ARG:HD3	1.87	0.44
40:1i:74:ILE:O	40:1i:77:ILE:HB	2.18	0.44
43:1l:42:THR:HG22	43:1l:54:LYS:HD2	1.99	0.44
46:1o:74:ASP:OD2	46:1o:77:ARG:HD3	2.17	0.44
1:2A:443:A:H1'	1:2A:1201:C:O4'	2.16	0.44
1:2A:729:G:C6	3:2D:208:LYS:HB2	2.53	0.44
1:2A:953:A:O2'	1:2A:2266:A:OP2	2.28	0.44
1:2A:1999:C:H4'	1:2A:2723:C:O2	2.17	0.44
1:2A:2287:A:O2'	1:2A:2288:A:H3'	2.17	0.44
1:2A:2755:C:H3'	31:29:19:ARG:HH21	1.83	0.44
1:2A:2892:A:H2'	1:2A:2893:G:H5'	1.98	0.44
5:2F:78:ILE:HA	5:2F:83:PHE:CD2	2.52	0.44
8:2I:4:ILE:HD11	8:2I:44:LEU:HD12	1.99	0.44
14:2S:15:ARG:HG2	14:2S:19:LYS:NZ	2.32	0.44
15:2T:92:GLY:C	15:2T:117:ASP:HB2	2.43	0.44
15:2T:99:LEU:C	15:2T:101:PHE:N	2.75	0.44
22:20:15:ASP:CG	22:20:16:SER:H	2.23	0.44
26:24:33:VAL:HG13	26:24:34:GLU:N	2.31	0.44
32:2a:512:U:H2'	32:2a:513:C:C6	2.53	0.44
32:2a:757:U:H2'	32:2a:758:G:O4'	2.17	0.44
32:2a:1077:G:H5'	32:2a:1078:U:OP2	2.17	0.44
32:2a:1509:C:H2'	32:2a:1510:U:O4'	2.17	0.44
35:2d:132:ARG:NH1	35:2d:134:ASP:OD2	2.50	0.44
37:2f:86:ARG:O	37:2f:87:ARG:HG2	2.17	0.44
39:2h:120:THR:H	39:2h:123:GLU:HB2	1.82	0.44
40:2i:8:GLY:HA3	40:2i:76:ALA:O	2.17	0.44
43:2l:34:ARG:HE	43:2l:34:ARG:HB3	1.32	0.44
49:2r:43:PHE:O	49:2r:44:LEU:HD23	2.18	0.44
1:1A:330:A:HO2'	1:1A:331:A:H8	1.65	0.44
1:1A:620:G:N3	1:1A:620:G:H2'	2.32	0.44
1:1A:960:A:C8	1:1A:962:G:C8	3.06	0.44
1:1A:1183:G:H4'	25:13:29:ARG:HH12	1.82	0.44
1:1A:1188:U:C4'	17:1V:79:VAL:HG22	2.47	0.44
1:1A:1641:A:H2'	1:1A:1642:G:O4'	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2139:C:H2'	1:1A:2140:C:O4'	2.17	0.44
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.52	0.44
2:1B:6:C:C2	2:1B:116:G:N2	2.86	0.44
12:1Q:1:MET:HB3	12:1Q:1:MET:HE2	1.74	0.44
12:1Q:84:GLY:O	12:1Q:85:LYS:HB2	2.18	0.44
17:1V:51:VAL:HG12	17:1V:52:VAL:N	2.32	0.44
20:1Y:54:LYS:C	20:1Y:56:PRO:HD3	2.42	0.44
32:1a:64:G:C2	32:1a:67:C:N4	2.85	0.44
32:1a:599:C:H4'	39:1h:130:GLY:C	2.41	0.44
32:1a:642:A:H2'	32:1a:643:C:C6	2.52	0.44
32:1a:737:A:O5'	37:1f:92:LYS:NZ	2.50	0.44
32:1a:1368:G:OP1	40:1i:111:ARG:NH2	2.50	0.44
32:1a:1443:G:N2	32:1a:1460:A:H1'	2.32	0.44
35:1d:64:LEU:O	35:1d:67:ILE:HB	2.17	0.44
36:1e:152:ARG:NH2	39:1h:107:LEU:O	2.50	0.44
39:1h:13:ILE:O	39:1h:17:THR:HG23	2.18	0.44
50:1s:16:LEU:O	50:1s:19:VAL:HG12	2.18	0.44
1:2A:271(S):G:C6	1:2A:271(T):C:C4	3.05	0.44
1:2A:565:C:H4'	1:2A:1253:A:N6	2.33	0.44
1:2A:590:A:H2'	1:2A:591:C:O4'	2.18	0.44
1:2A:984:A:H5"	1:2A:985:C:H5	1.82	0.44
1:2A:2313:C:C2	1:2A:2314:C:C5	3.06	0.44
2:2B:95:C:H2'	2:2B:96:U:C6	2.52	0.44
7:2H:26:VAL:HG12	7:2H:79:VAL:HG11	1.98	0.44
9:2N:138:LEU:HD23	9:2N:138:LEU:HA	1.72	0.44
14:2S:24:LEU:HD23	14:2S:24:LEU:HA	1.73	0.44
21:2Z:50:GLN:HG2	21:2Z:51:ALA:N	2.32	0.44
32:2a:1092:A:N3	32:2a:1183:A:N6	2.64	0.44
33:2b:28:PHE:CD2	33:2b:190:THR:HA	2.53	0.44
36:2e:152:ARG:HB3	39:2h:43:GLY:HA3	1.98	0.44
38:2g:152:ALA:C	38:2g:155:ARG:HH11	2.26	0.44
40:2i:47:LEU:HB3	40:2i:50:LEU:HD21	1.99	0.44
43:2l:117:ARG:HB3	43:2l:122:THR:HB	1.99	0.44
46:2o:18:PHE:HD1	46:2o:19:PRO:O	1.99	0.44
52:2u:5:ASP:O	52:2u:11:GLY:HA3	2.17	0.44
1:1A:84:A:H5"	20:1Y:8:LYS:HE3	1.98	0.44
1:1A:652(F):G:H1	1:1A:652(S):C:H42	1.66	0.44
1:1A:734:A:O2'	1:1A:1635:G:H5'	2.17	0.44
1:1A:1310:G:H1'	1:1A:1611:C:H5'	1.98	0.44
8:1I:60:GLU:C	8:1I:60:GLU:CD	2.85	0.44
12:1Q:43:THR:O	12:1Q:46:GLN:N	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:1W:42:ARG:HG2	18:1W:46:PHE:HE2	1.82	0.44
32:1a:64:G:H4'	32:1a:65:U:H5"	1.98	0.44
32:1a:156:G:C6	32:1a:166:G:C6	3.05	0.44
32:1a:160:A:H2'	32:1a:161:A:O4'	2.18	0.44
32:1a:1323:G:H2'	32:1a:1324:A:C8	2.52	0.44
32:1a:1357:A:P	32:1a:1359:C:H42	2.41	0.44
32:1a:1516:G:H2'	32:1a:1518:MA6:OP2	2.17	0.44
33:1b:59:GLU:HG2	33:1b:225:ALA:HB2	1.98	0.44
34:1c:157:ILE:C	34:1c:159:GLY:H	2.24	0.44
38:1g:16:LEU:HD21	40:1i:45:ALA:HB2	1.98	0.44
1:2A:275:G:H2'	1:2A:276:A:O4'	2.17	0.44
1:2A:911:A:H2'	12:2Q:9:TYR:OH	2.17	0.44
1:2A:1160:G:C6	1:2A:1161:C:C4	3.04	0.44
1:2A:1298:C:OP2	61:2A:3976:HOH:O	2.21	0.44
1:2A:1599:C:OP1	61:2A:3975:HOH:O	2.21	0.44
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.33	0.44
1:2A:2151:G:H2'	1:2A:2152:G:O4'	2.17	0.44
1:2A:2512:C:H2'	1:2A:2513:G:O4'	2.18	0.44
1:2A:2615:U:C6	27:25:7:PRO:HA	2.53	0.44
1:2A:2740:A:C6	1:2A:2741:A:C6	3.06	0.44
2:2B:105:A:H5'	2:2B:106:G:OP2	2.18	0.44
3:2D:33:LEU:HA	3:2D:33:LEU:HD23	1.75	0.44
6:2G:173:LEU:C	6:2G:178:PHE:HB2	2.42	0.44
28:26:23:THR:OG1	28:26:24:GLU:N	2.44	0.44
32:2a:20:U:H2'	32:2a:21:G:O4'	2.18	0.44
32:2a:656:C:O2'	46:2o:28:GLN:OE1	2.21	0.44
32:2a:737:A:H1'	37:2f:73:ASN:ND2	2.25	0.44
32:2a:1342:C:H1'	40:2i:124:GLN:HG3	1.99	0.44
34:2c:117:ALA:HB2	34:2c:200:ALA:HB2	1.99	0.44
35:2d:204:ILE:HG21	36:2e:98:THR:O	2.17	0.44
37:2f:15:ASP:O	37:2f:19:LEU:HB2	2.17	0.44
37:2f:31:GLU:HG3	37:2f:32:ASN:N	2.31	0.44
50:2s:30:LEU:HA	50:2s:48:THR:HG23	2.00	0.44
1:1A:27:G:N2	1:1A:512:G:H1'	2.32	0.44
1:1A:29:U:H2'	1:1A:30:G:C8	2.53	0.44
1:1A:125:G:N2	29:17:48:LYS:HA	2.32	0.44
1:1A:228:A:H2'	1:1A:230:U:O4'	2.18	0.44
1:1A:1176:G:N2	1:1A:1178:C:O5'	2.51	0.44
1:1A:1263:U:OP1	27:15:16:ARG:NH1	2.45	0.44
1:1A:1832:C:N4	1:1A:1833:U:C4	2.86	0.44
1:1A:2466:C:OP1	31:19:4:ARG:HB2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2839:G:H5'	13:1R:46:GLY:HA2	1.99	0.44
3:1D:96:HIS:CD2	3:1D:102:LYS:HE2	2.53	0.44
8:1I:12:LEU:HD23	8:1I:12:LEU:HA	1.76	0.44
12:1Q:17:LEU:HD21	12:1Q:96:VAL:HG13	1.99	0.44
12:1Q:60:ARG:O	21:1Z:177:PRO:HB2	2.17	0.44
12:1Q:60:ARG:HH11	21:1Z:179:ASP:H	1.65	0.44
15:1T:127:ALA:O	15:1T:129:ARG:N	2.48	0.44
32:1a:189:G:H2'	32:1a:189(A):C:C6	2.52	0.44
32:1a:1192:C:C5	32:1a:1193:G:C8	3.06	0.44
34:1c:173:VAL:O	34:1c:175:LEU:HD22	2.18	0.44
35:1d:63:LYS:HE3	35:1d:63:LYS:HB2	1.75	0.44
37:1f:96:PRO:HB3	49:1r:30:ASP:CG	2.43	0.44
1:2A:218:A:C2	1:2A:235:U:H4'	2.53	0.44
1:2A:300:A:OP2	20:2Y:86:ARG:NH1	2.50	0.44
1:2A:531:C:OP1	1:2A:561:G:N1	2.48	0.44
1:2A:616:G:H4'	5:2F:205:ARG:HE	1.81	0.44
1:2A:886:C:H2'	1:2A:887:A:O4'	2.18	0.44
1:2A:1494:A:H2'	1:2A:1495:A:C8	2.53	0.44
1:2A:2123:G:H2'	1:2A:2124:G:C8	2.52	0.44
1:2A:2203:U:H2'	1:2A:2205:C:H6	1.83	0.44
1:2A:2403:C:N3	1:2A:2415:G:C2	2.85	0.44
1:2A:2431:U:O2'	1:2A:2433:A:N7	2.46	0.44
1:2A:2854:G:H2'	1:2A:2855:C:O4'	2.17	0.44
2:2B:10:C:C4	2:2B:11:C:C5	3.05	0.44
9:2N:123:TYR:CZ	9:2N:129:PRO:HD2	2.53	0.44
14:2S:5:THR:N	14:2S:8:GLU:OE2	2.43	0.44
14:2S:26:LEU:CD1	14:2S:39:ILE:HG12	2.48	0.44
14:2S:74:ALA:O	14:2S:77:ALA:HB3	2.18	0.44
24:22:22:GLU:OE2	24:22:68:ARG:NH2	2.50	0.44
24:22:51:ARG:HE	24:22:51:ARG:HB2	1.47	0.44
32:2a:8:A:N6	35:2d:205:GLU:O	2.51	0.44
32:2a:123:C:OP1	32:2a:311:C:O2'	2.25	0.44
32:2a:431:A:H2'	32:2a:432:A:C8	2.52	0.44
32:2a:579:G:C6	32:2a:580:U:C4	3.05	0.44
32:2a:936:C:H2'	32:2a:937:A:C8	2.49	0.44
32:2a:1274:G:O2'	32:2a:1275:A:H5'	2.18	0.44
32:2a:1489:G:H2'	32:2a:1490:C:C6	2.53	0.44
33:2b:178:ARG:HH22	39:2h:68:ARG:HH22	1.66	0.44
33:2b:179:LYS:O	33:2b:180:LEU:HD23	2.18	0.44
35:2d:76:ARG:O	35:2d:80:GLU:HG2	2.17	0.44
44:2m:31:LYS:O	44:2m:34:LEU:N	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:33:ALA:HA	44:2m:59:TYR:HE2	1.83	0.44
1:1A:1900:A:N1	1:1A:1970:A:C6	2.86	0.44
3:1D:8:PRO:HB3	3:1D:14:ARG:HG2	1.99	0.44
6:1G:173:LEU:HD22	6:1G:178:PHE:CE1	2.52	0.44
11:1P:90:ARG:HH11	11:1P:90:ARG:CG	2.30	0.44
14:1S:5:THR:O	14:1S:8:GLU:N	2.51	0.44
21:1Z:158:PRO:O	21:1Z:161:VAL:HG22	2.18	0.44
32:1a:439:A:C8	32:1a:441:A:C8	3.06	0.44
32:1a:889:A:H61	32:1a:907:A:H5"	1.83	0.44
32:1a:1320:C:N4	50:1s:36:ARG:HB2	2.32	0.44
33:1b:24:TRP:H	33:1b:24:TRP:HD1	1.64	0.44
36:1e:131:ILE:HA	36:1e:131:ILE:HD13	1.68	0.44
47:1p:6:LEU:HD12	47:1p:6:LEU:HA	1.83	0.44
1:2A:328:U:H4'	20:2Y:68:HIS:CE1	2.52	0.44
1:2A:510:C:H2'	1:2A:511:U:O4'	2.18	0.44
1:2A:2821:A:C2	1:2A:2822:G:C4	3.06	0.44
6:2G:152:LEU:H	6:2G:152:LEU:HD12	1.82	0.44
12:2Q:12:GLN:NE2	12:2Q:73:PRO:HD2	2.33	0.44
12:2Q:85:LYS:HG2	22:20:7:LEU:CB	2.48	0.44
17:2V:18:LEU:HD12	17:2V:19:LYS:H	1.82	0.44
17:2V:55:ALA:HA	17:2V:101:GLY:HA2	1.99	0.44
18:2W:4:LYS:HE2	18:2W:6:ILE:HD11	1.98	0.44
20:2Y:37:VAL:O	20:2Y:67:LEU:N	2.37	0.44
20:2Y:52:SER:HB2	20:2Y:53:PRO:HD2	1.99	0.44
25:23:10:LYS:HB3	25:23:53:LEU:HA	1.98	0.44
32:2a:438:G:H4'	35:2d:123:HIS:ND1	2.32	0.44
32:2a:935:A:N1	38:2g:3:ARG:NH2	2.66	0.44
32:2a:994:A:N7	32:2a:1216:G:H4'	2.33	0.44
33:2b:97:TRP:HE1	33:2b:172:ILE:HG22	1.82	0.44
36:2e:37:ARG:HH12	36:2e:111:GLU:HB3	1.82	0.44
39:2h:58:TYR:O	39:2h:59:LEU:HD23	2.18	0.44
40:2i:100:GLY:O	40:2i:103:THR:HG22	2.17	0.44
1:1A:302:C:H2'	1:1A:303:U:C6	2.49	0.44
1:1A:879:G:H2'	1:1A:880:G:C1'	2.48	0.44
1:1A:1301:A:C8	1:1A:1303:G:C8	3.06	0.44
1:1A:2114:A:H2'	1:1A:2115:G:O4'	2.18	0.44
1:1A:2335:A:C8	1:1A:2337:G:C5	3.05	0.44
6:1G:66:GLN:HB3	6:1G:92:VAL:HG21	1.99	0.44
9:1N:99:LEU:HA	9:1N:99:LEU:HD12	1.76	0.44
21:1Z:145:GLU:H	21:1Z:145:GLU:HG2	1.54	0.44
24:12:35:LEU:HA	24:12:35:LEU:HD23	1.84	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:408:A:H2'	32:1a:409:G:O4'	2.18	0.44
32:1a:598:U:H4'	39:1h:94:TYR:CG	2.53	0.44
32:1a:748:C:O5'	32:1a:748:C:H6	2.00	0.44
32:1a:960:U:O2'	32:1a:1223:C:H5"	2.18	0.44
32:1a:1296:C:H4'	32:1a:1302:U:C5	2.52	0.44
34:1c:6:HIS:CD2	34:1c:8:ILE:HB	2.53	0.44
34:1c:29:TYR:CE2	34:1c:33:LEU:HD22	2.52	0.44
35:1d:8:VAL:HG22	35:1d:21:LEU:HD12	2.00	0.44
35:1d:122:ARG:HA	35:1d:122:ARG:HD2	1.83	0.44
35:1d:163:GLU:O	35:1d:166:LYS:N	2.30	0.44
1:2A:464:U:H2'	1:2A:465:G:O4'	2.17	0.44
1:2A:1434:A:H2'	1:2A:1435:G:C8	2.53	0.44
1:2A:1465:G:H2'	1:2A:1466:G:O4'	2.18	0.44
1:2A:1815:A:P	3:2D:54:ARG:HH22	2.40	0.44
6:2G:63:ILE:HD11	6:2G:144:ILE:CD1	2.46	0.44
8:2I:73:GLU:HG3	8:2I:138:ILE:HG23	2.00	0.44
10:2O:106:LEU:HD22	10:2O:111:PHE:HB2	1.98	0.44
13:2R:79:LEU:HA	13:2R:83:ILE:HB	1.99	0.44
14:2S:25:ARG:HD3	14:2S:40:ILE:HB	2.00	0.44
32:2a:54:C:N4	32:2a:353:A:OP2	2.50	0.44
32:2a:689:C:OP1	42:2k:27:ASN:ND2	2.50	0.44
32:2a:933:G:OP1	38:2g:4:ARG:NE	2.50	0.44
32:2a:1154:G:H2'	32:2a:1155:G:H8	1.82	0.44
32:2a:1227:A:H3'	32:2a:1227:A:N3	2.32	0.44
32:2a:1252:A:H2'	32:2a:1253:G:O4'	2.18	0.44
33:2b:215:LEU:HA	33:2b:218:ALA:HB3	2.00	0.44
34:2c:56:ASP:O	34:2c:57:ILE:HG13	2.17	0.44
36:2e:57:LYS:HG2	36:2e:61:TYR:HE2	1.83	0.44
41:2j:81:THR:C	41:2j:83:GLU:N	2.74	0.44
41:2j:89:ASP:O	41:2j:91:PRO:HD3	2.17	0.44
49:2r:56:THR:HG22	49:2r:58:LEU:HG	1.99	0.44
50:2s:77:THR:HG23	50:2s:78:ARG:HG3	2.00	0.44
1:1A:143:G:H1'	19:1X:37:THR:CG2	2.47	0.44
1:1A:271(M):G:O2'	1:1A:271(N):U:H5"	2.18	0.44
1:1A:338:G:N2	1:1A:339:U:H1'	2.31	0.44
1:1A:635:C:O2'	1:1A:639:U:OP1	2.35	0.44
1:1A:784:A:C5	3:1D:229:VAL:HG21	2.53	0.44
1:1A:814:C:H4'	1:1A:1224:C:O2	2.18	0.44
1:1A:860:U:C2	1:1A:2268:A:C8	3.06	0.44
1:1A:1669:A:H5"	1:1A:2550:G:OP1	2.17	0.44
1:1A:1973:G:H2'	1:1A:1974:C:C6	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2852:G:H2'	1:1A:2853:C:O4'	2.18	0.44
1:1A:2884:U:H2'	1:1A:2885:C:O4'	2.18	0.44
4:1E:143:ASN:HD22	4:1E:147:PRO:CD	2.31	0.44
6:1G:7:LEU:CD2	6:1G:176:LEU:HD22	2.47	0.44
18:1W:78:GLU:OE2	18:1W:99:ARG:HD3	2.18	0.44
32:1a:947:G:H2'	32:1a:948:C:H6	1.81	0.44
32:1a:1110:A:H8	32:1a:1110:A:O5'	2.00	0.44
32:1a:1211:U:H4'	32:1a:1213:A:O4'	2.18	0.44
32:1a:1327:C:H2'	32:1a:1328:C:H6	1.83	0.44
32:1a:1428:A:H2'	32:1a:1429:C:C6	2.52	0.44
33:1b:92:TYR:CD1	33:1b:92:TYR:C	2.96	0.44
37:1f:27:GLN:HA	37:1f:30:LEU:HD12	2.00	0.44
44:1m:65:LYS:HD3	44:1m:69:GLU:HG2	1.99	0.44
51:1t:43:LEU:HD13	51:1t:51:GLU:HB3	2.00	0.44
1:2A:966:G:C6	1:2A:967:C:N4	2.86	0.44
1:2A:1453:U:O2'	1:2A:1455:G:N7	2.48	0.44
1:2A:1527:G:H5"	1:2A:1528:A:OP1	2.18	0.44
1:2A:1614:A:C2	18:2W:93:ALA:HB2	2.53	0.44
1:2A:2019:A:O4'	16:2U:34:LYS:HE2	2.18	0.44
1:2A:2139:C:O2	1:2A:2153:G:N2	2.51	0.44
1:2A:2187:G:C6	1:2A:2188:C:N3	2.86	0.44
1:2A:2671:A:H2'	1:2A:2672:G:O4'	2.18	0.44
2:2B:32:C:N3	2:2B:51:G:C2	2.86	0.44
6:2G:96:ARG:CA	6:2G:99:MET:HE2	2.48	0.44
12:2Q:30:GLY:HA2	12:2Q:107:ALA:HB2	1.99	0.44
15:2T:105:LEU:HB2	15:2T:110:ILE:HG13	2.00	0.44
23:21:92:LYS:HB2	23:21:92:LYS:HE3	1.71	0.44
26:24:34:GLU:CB	44:2m:57:ARG:HH21	2.31	0.44
32:2a:129(A):G:C6	32:2a:189(E):U:H4'	2.52	0.44
32:2a:396:G:O2'	32:2a:398:C:OP1	2.29	0.44
32:2a:833:U:O2'	32:2a:834:C:H5'	2.18	0.44
32:2a:958:A:N6	50:2s:77:THR:O	2.50	0.44
33:2b:79:ASP:O	33:2b:82:ARG:HG3	2.17	0.44
33:2b:135:GLN:O	33:2b:139:LYS:HB3	2.18	0.44
35:2d:57:ARG:H	35:2d:57:ARG:HG2	1.53	0.44
39:2h:10:LEU:HD22	39:2h:83:ILE:HD11	1.98	0.44
49:2r:26:LEU:HD23	49:2r:39:VAL:HG13	2.00	0.44
1:1A:363(A):A:H2'	1:1A:363(B):G:C8	2.53	0.43
1:1A:787:U:H5"	1:1A:788:A:H5'	2.00	0.43
1:1A:1006:C:H1'	9:1N:106:MET:HB3	1.99	0.43
1:1A:1239:G:H2'	1:1A:1240:U:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:1P:39:LYS:HB2	11:1P:45:LEU:HD13	2.00	0.43
17:1V:24:LYS:HE2	17:1V:24:LYS:HB3	1.75	0.43
21:1Z:185:GLU:H	21:1Z:185:GLU:CD	2.25	0.43
26:14:26:SER:OG	26:14:27:THR:N	2.49	0.43
32:1a:1112:C:O2	34:1c:179:ARG:HG2	2.18	0.43
32:1a:1201:A:H4'	32:1a:1202:G:O5'	2.18	0.43
32:1a:1269:A:H2	32:1a:1312:G:N3	2.16	0.43
33:1b:16:HIS:HB3	33:1b:210:SER:HB2	2.00	0.43
39:1h:34:GLU:OE1	39:1h:37:ARG:NH1	2.50	0.43
41:1j:97:GLU:C	41:1j:98:ILE:HD12	2.43	0.43
49:1r:53:ARG:HE	49:1r:59:SER:C	2.26	0.43
1:2A:211:A:H2'	1:2A:212:G:O4'	2.18	0.43
1:2A:652(B):A:O2'	1:2A:652(C):G:H4'	2.18	0.43
1:2A:773:U:O2'	3:2D:48:ARG:HD3	2.18	0.43
1:2A:832:G:H5'	11:2P:45:LEU:HD11	2.00	0.43
1:2A:868:U:O2'	12:2Q:8:LYS:HE3	2.18	0.43
1:2A:1844:C:H5"	3:2D:258:LYS:HG3	1.99	0.43
1:2A:1913:A:H61	32:2a:1493:A:H2'	1.84	0.43
1:2A:2064:C:H2'	1:2A:2065:C:C6	2.53	0.43
1:2A:2257:U:O2'	1:2A:2258:C:H5'	2.17	0.43
1:2A:2615:U:C2	27:25:7:PRO:HA	2.53	0.43
1:2A:2689:U:H5'	1:2A:2689:U:O2	2.18	0.43
1:2A:2870:C:H2'	1:2A:2871:C:O4'	2.18	0.43
2:2B:45:A:C6	2:2B:46:A:C5	3.06	0.43
12:2Q:61:GLY:C	21:2Z:177:PRO:HB2	2.43	0.43
15:2T:118:ARG:HG2	32:2a:1442(A):G:C8	2.52	0.43
21:2Z:61:LEU:HD13	21:2Z:67:LEU:HD13	2.00	0.43
32:2a:420:U:H1'	32:2a:424:G:N2	2.33	0.43
32:2a:499:A:H4'	32:2a:500:G:H5'	2.00	0.43
32:2a:1122:U:C4	32:2a:1123:A:N7	2.86	0.43
32:2a:1173:G:H2'	32:2a:1174:G:O4'	2.18	0.43
32:2a:1351:U:H4'	38:2g:33:ASP:OD1	2.18	0.43
33:2b:87:ARG:NH2	33:2b:233:SER:HB2	2.32	0.43
35:2d:119:GLN:HG3	35:2d:123:HIS:CD2	2.53	0.43
47:2p:3:LYS:O	47:2p:21:VAL:HA	2.17	0.43
48:2q:4:LYS:HE2	48:2q:6:LEU:HD21	2.00	0.43
1:1A:412:A:H8	1:1A:412:A:O5'	2.01	0.43
1:1A:1364:G:C8	23:11:3:LYS:HD2	2.53	0.43
1:1A:2864:G:OP1	15:1T:119:LYS:HD2	2.17	0.43
5:1F:136:THR:OG1	5:1F:166:ALA:O	2.28	0.43
8:1I:71:ILE:O	8:1I:74:ASN:N	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1O:10:VAL:HG21	10:1O:16:ALA:HB1	2.00	0.43
17:1V:65:GLY:HA3	17:1V:91:TYR:CZ	2.54	0.43
20:1Y:86:ARG:HG3	20:1Y:100:ALA:HB2	2.01	0.43
21:1Z:98:MET:C	21:1Z:125:LEU:HD12	2.43	0.43
21:1Z:158:PRO:HD2	21:1Z:161:VAL:HG21	1.98	0.43
32:1a:176:C:H2'	32:1a:177:C:C6	2.53	0.43
32:1a:334:C:H2'	32:1a:335:C:C6	2.53	0.43
32:1a:651:C:H2'	32:1a:652:U:C6	2.52	0.43
34:1c:29:TYR:HE2	34:1c:33:LEU:HD22	1.82	0.43
34:1c:44:GLU:HA	34:1c:52:LEU:HD23	1.99	0.43
35:1d:105:VAL:HG21	35:1d:126:ILE:HG13	1.99	0.43
35:1d:163:GLU:C	35:1d:165:MET:N	2.76	0.43
36:1e:116:THR:HG23	36:1e:117:ASP:OD2	2.18	0.43
43:1l:110:VAL:HG23	43:1l:120:TYR:O	2.18	0.43
46:1o:66:LEU:HA	46:1o:66:LEU:HD23	1.84	0.43
1:2A:10:G:H2'	1:2A:11:G:C8	2.53	0.43
1:2A:699:A:H2'	1:2A:700:G:O4'	2.17	0.43
1:2A:784:A:O4'	3:2D:227:ASN:ND2	2.51	0.43
1:2A:1780:A:OP1	61:2A:3977:HOH:O	2.21	0.43
1:2A:1784:A:H4'	1:2A:1785:A:O5'	2.18	0.43
1:2A:1848:A:C6	32:2a:702:A:C6	3.06	0.43
1:2A:1877:A:H5'	1:2A:1878:G:OP2	2.18	0.43
1:2A:2125:G:N3	1:2A:2173:A:N6	2.65	0.43
1:2A:2187:G:C5	1:2A:2188:C:C4	3.06	0.43
1:2A:2678:C:H2'	1:2A:2679:A:O4'	2.18	0.43
2:2B:39:A:C2	2:2B:40:U:C4	3.07	0.43
6:2G:5:VAL:HG23	6:2G:8:LYS:HE2	2.01	0.43
6:2G:76:SER:H	6:2G:84:LYS:HB2	1.82	0.43
7:2H:92:ILE:H	7:2H:92:ILE:HD12	1.84	0.43
17:2V:24:LYS:HA	17:2V:92:THR:OG1	2.18	0.43
32:2a:381:C:H2'	32:2a:382:A:O4'	2.17	0.43
32:2a:626:U:C2	32:2a:627:G:C8	3.06	0.43
32:2a:675:A:O2'	42:2k:114:VAL:O	2.34	0.43
32:2a:779:C:O2'	42:2k:120:ARG:HD3	2.18	0.43
32:2a:983:A:H1'	32:2a:1049:U:O2	2.18	0.43
32:2a:1272:G:C2	32:2a:1273:G:C8	3.06	0.43
35:2d:123:HIS:C	35:2d:125:HIS:H	2.25	0.43
37:2f:79:LEU:HD12	37:2f:88:VAL:HG11	2.00	0.43
1:1A:69:C:H2'	1:1A:70:G:C8	2.53	0.43
1:1A:82:G:O2'	1:1A:83:G:H5'	2.17	0.43
1:1A:582:G:H2'	1:1A:583:G:H8	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1178:C:H2'	1:1A:1179:C:C6	2.54	0.43
1:1A:1359:A:N3	1:1A:1359:A:H5'	2.33	0.43
1:1A:1815:A:P	3:1D:54:ARG:HH22	2.41	0.43
1:1A:2104:G:H2'	1:1A:2105:C:C6	2.54	0.43
1:1A:2649:U:H2'	1:1A:2650:U:H6	1.84	0.43
11:1P:95:VAL:HG22	11:1P:125:VAL:HG12	2.00	0.43
15:1T:53:ARG:HG3	15:1T:53:ARG:O	2.17	0.43
32:1a:31:G:H5'	32:1a:306:G:N2	2.32	0.43
32:1a:445:G:H2'	32:1a:446:G:H8	1.82	0.43
32:1a:473:G:H2'	32:1a:474:G:O4'	2.18	0.43
32:1a:502:G:H2'	32:1a:503:C:O4'	2.19	0.43
32:1a:1109:C:OP2	34:1c:176:HIS:ND1	2.51	0.43
32:1a:1292:U:H2'	32:1a:1293:G:C8	2.54	0.43
48:1q:55:ASP:O	48:1q:57:VAL:HG13	2.19	0.43
49:1r:79:LEU:HD23	49:1r:79:LEU:HA	1.77	0.43
52:1u:3:LYS:HB3	52:1u:14:TRP:CD1	2.53	0.43
1:2A:84:A:N1	1:2A:98:G:O2'	2.36	0.43
1:2A:214:G:O2'	1:2A:215:G:O4'	2.30	0.43
1:2A:442:G:N2	5:2F:48:THR:HB	2.33	0.43
1:2A:862:G:H2'	1:2A:863:A:O4'	2.18	0.43
1:2A:2557:G:H2'	1:2A:2558:C:H6	1.84	0.43
3:2D:273:ARG:HG2	3:2D:274:ARG:N	2.33	0.43
6:2G:62:LEU:HA	26:24:27:THR:HG21	2.00	0.43
8:2I:44:LEU:HD12	8:2I:44:LEU:HA	1.71	0.43
10:2O:24:VAL:HG13	10:2O:33:ALA:HB2	2.00	0.43
16:2U:106:PHE:O	16:2U:110:VAL:HG23	2.18	0.43
19:2X:72:LYS:HG2	19:2X:73:ARG:O	2.18	0.43
23:21:8:SER:HB3	23:21:66:HIS:CD2	2.52	0.43
32:2a:4:U:H3	39:2h:105:ARG:HE	1.65	0.43
32:2a:69:G:O2'	32:2a:70:G:H5'	2.19	0.43
32:2a:665:A:H1'	32:2a:733:A:O4'	2.17	0.43
32:2a:934:C:H5"	61:2a:3306:HOH:O	2.19	0.43
32:2a:1089:G:H2'	32:2a:1090:U:O4'	2.18	0.43
32:2a:1305:G:O2'	32:2a:1306:A:OP2	2.36	0.43
32:2a:1310:G:C5'	44:2m:77:ASN:HD21	2.18	0.43
32:2a:1353:G:H2'	32:2a:1354:C:C6	2.53	0.43
34:2c:149:ALA:HA	34:2c:201:TYR:O	2.18	0.43
36:2e:60:TYR:CZ	36:2e:64:ARG:HD3	2.53	0.43
38:2g:113:GLU:CG	38:2g:119:ARG:HG2	2.44	0.43
40:2i:125:TYR:CD2	40:2i:126:SER:N	2.86	0.43
44:2m:86:CYS:HB2	50:2s:73:GLU:CG	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:2s:12:ASP:OD2	50:2s:37:ARG:HD2	2.18	0.43
51:2t:20:LEU:HD23	51:2t:20:LEU:HA	1.74	0.43
1:1A:67:U:H1'	1:1A:88:G:N2	2.32	0.43
1:1A:188:G:H1	1:1A:208:C:N4	2.16	0.43
1:1A:782:A:H5'	1:1A:783:A:N7	2.33	0.43
1:1A:792:G:H5"	1:1A:793:A:H5'	2.01	0.43
1:1A:910:A:C6	12:1Q:13:GLN:HG3	2.53	0.43
1:1A:1079:C:H2'	1:1A:1080:C:O4'	2.18	0.43
1:1A:1673:U:OP1	61:1A:4271:HOH:O	2.21	0.43
1:1A:2626:C:H2'	1:1A:2627:G:O4'	2.18	0.43
1:1A:2791:C:H3'	1:1A:2791:C:OP2	2.17	0.43
6:1G:15:VAL:HG21	6:1G:176:LEU:HD23	2.01	0.43
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.63	0.43
8:1I:73:GLU:HG2	8:1I:139:GLN:O	2.18	0.43
15:1T:22:PHE:CD1	15:1T:49:VAL:HG21	2.53	0.43
32:1a:892:A:O2'	32:1a:1415:G:H4'	2.19	0.43
32:1a:1131:G:H2'	32:1a:1132:C:C6	2.53	0.43
36:1e:68:GLU:HG3	36:1e:70:PRO:HD3	2.01	0.43
38:1g:65:ALA:HB1	38:1g:127:ALA:HB3	2.00	0.43
39:1h:112:LEU:HB3	39:1h:133:LEU:HA	2.01	0.43
42:1k:111:ASP:CG	49:1r:84:LYS:HE3	2.43	0.43
47:1p:19:ILE:CG2	47:1p:36:ILE:HG13	2.43	0.43
47:1p:26:ARG:HG2	47:1p:31:LYS:O	2.19	0.43
1:2A:98:G:OP2	24:22:2:LYS:HG2	2.18	0.43
1:2A:921:G:H2'	1:2A:922:U:C6	2.53	0.43
1:2A:977:G:N3	1:2A:1001:A:H2	2.16	0.43
1:2A:1012:U:C5	9:2N:28:THR:HG21	2.53	0.43
1:2A:1357:U:H2'	1:2A:1358:G:O4'	2.18	0.43
1:2A:1913:A:C2	32:2a:1493:A:C8	3.06	0.43
1:2A:2114:A:C2	1:2A:2168:G:H8	2.37	0.43
1:2A:2232:U:O2'	1:2A:2233:U:H5'	2.18	0.43
1:2A:2526:G:H2'	1:2A:2527:C:H6	1.82	0.43
1:2A:2744:G:N2	7:2H:143:GLN:OE1	2.51	0.43
1:2A:2776:A:H4'	1:2A:2777:G:H5"	2.01	0.43
32:2a:453:A:C5	32:2a:454:C:C4	3.06	0.43
32:2a:1413:A:H2'	32:2a:1414:U:O4'	2.18	0.43
33:2b:179:LYS:C	33:2b:180:LEU:HD23	2.43	0.43
35:2d:119:GLN:HA	35:2d:122:ARG:HB3	2.01	0.43
39:2h:32:LYS:HE2	39:2h:32:LYS:HB3	1.80	0.43
41:2j:16:LEU:HA	41:2j:16:LEU:HD23	1.59	0.43
1:1A:362:U:H6	1:1A:362:U:H2'	1.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:464:U:H4'	29:17:5:TRP:CZ3	2.54	0.43
1:1A:651:G:OP2	30:18:21:LYS:HE3	2.19	0.43
1:1A:1359:A:N3	1:1A:1359:A:O4'	2.51	0.43
1:1A:1408:C:C2	1:1A:1595:G:N2	2.87	0.43
1:1A:2600:A:H2'	1:1A:2601:C:C6	2.53	0.43
3:1D:108:PRO:HB3	3:1D:143:HIS:HE1	1.81	0.43
3:1D:158:ALA:O	3:1D:159:ALA:C	2.60	0.43
8:1I:81:VAL:O	8:1I:146:ALA:HA	2.18	0.43
20:1Y:6:HIS:H	20:1Y:6:HIS:HD2	1.66	0.43
25:13:8:LEU:HB2	25:13:28:LEU:HD13	2.00	0.43
32:1a:22:G:H4'	32:1a:885:G:C8	2.53	0.43
32:1a:232:G:H2'	32:1a:233:C:H6	1.83	0.43
32:1a:690:G:C6	32:1a:691:G:C6	3.06	0.43
32:1a:1180:A:OP1	40:1i:103:THR:HB	2.19	0.43
32:1a:1286:A:C8	32:1a:1287:A:H4'	2.53	0.43
32:1a:1368:G:H5"	40:1i:112:LYS:HB3	2.00	0.43
32:1a:1464:G:H2'	32:1a:1465:C:H6	1.81	0.43
34:1c:15:THR:HG21	34:1c:181:ASN:HA	2.00	0.43
37:1f:12:PRO:HG3	37:1f:57:GLN:O	2.18	0.43
41:1j:81:THR:C	41:1j:83:GLU:N	2.75	0.43
44:1m:84:ILE:HG13	50:1s:74:PHE:HE1	1.83	0.43
51:1t:54:LYS:HA	51:1t:57:ARG:NH2	2.34	0.43
1:2A:500:G:N2	1:2A:502:A:H3'	2.34	0.43
1:2A:870:A:C2	1:2A:908:C:C2	3.07	0.43
1:2A:1148:A:O2'	1:2A:1149:G:H5'	2.19	0.43
1:2A:1252:G:C2	1:2A:1253:A:C2	3.05	0.43
1:2A:1297:C:OP2	61:2A:3978:HOH:O	2.21	0.43
1:2A:2335:A:C8	1:2A:2337:G:C5	3.06	0.43
1:2A:2600:A:H2'	1:2A:2601:C:C6	2.52	0.43
3:2D:96:HIS:CD2	3:2D:102:LYS:HG2	2.52	0.43
4:2E:6:GLY:O	4:2E:195:LEU:HD12	2.19	0.43
17:2V:2:PHE:CD1	17:2V:2:PHE:C	2.97	0.43
21:2Z:3:TYR:CE1	21:2Z:50:GLN:HG3	2.53	0.43
21:2Z:40:ASP:OD1	21:2Z:42:VAL:HG12	2.18	0.43
23:21:3:LYS:HB3	23:21:4:VAL:H	1.48	0.43
32:2a:605:U:H2'	32:2a:606:G:H8	1.82	0.43
32:2a:1324:A:O4'	32:2a:1362:C:H4'	2.18	0.43
32:2a:1329:A:OP2	52:2u:7:ARG:NH1	2.44	0.43
33:2b:121:LEU:HD11	33:2b:130:ARG:HH22	1.84	0.43
33:2b:149:LEU:HD22	33:2b:152:PHE:HB3	2.00	0.43
1:1A:244:A:C2	1:1A:255:A:C4	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:272(I):U:H2'	1:1A:272(J):C:C6	2.54	0.43
1:1A:322:A:OP1	5:1F:168:ARG:HD3	2.19	0.43
1:1A:442:G:N3	5:1F:48:THR:OG1	2.46	0.43
1:1A:654:A:H2	1:1A:655:A:C2	2.36	0.43
1:1A:662:G:H5'	11:1P:14:LYS:O	2.17	0.43
1:1A:878:A:H61	1:1A:899:A:HO2'	1.57	0.43
1:1A:1697:G:OP2	1:1A:1698:A:O2'	2.25	0.43
5:1F:28:ILE:HG12	5:1F:112:MET:HB3	2.01	0.43
6:1G:142:PRO:HB2	26:14:31:ILE:HG21	2.00	0.43
8:1I:108:THR:O	8:1I:109:ILE:HD13	2.19	0.43
12:1Q:89:ASN:HB2	54:1x:1:C:C4	2.52	0.43
17:1V:18:LEU:HD21	17:1V:20:LEU:HD13	2.00	0.43
18:1W:42:ARG:NH2	61:1W:302:HOH:O	2.47	0.43
22:10:34:GLY:O	22:10:35:ASN:C	2.62	0.43
23:11:46:LEU:HA	23:11:62:VAL:O	2.18	0.43
24:12:23:LYS:O	24:12:27:GLU:HG3	2.18	0.43
24:12:51:ARG:HD3	24:12:55:ARG:NH1	2.34	0.43
32:1a:47:C:O2	32:1a:49:U:C4	2.72	0.43
32:1a:487:A:H2'	32:1a:488:C:O4'	2.18	0.43
32:1a:575:G:C5	32:1a:881:G:C2	3.07	0.43
32:1a:1206:G:C6	32:1a:1207:2MG:C5	3.07	0.43
40:1i:27:THR:OG1	40:1i:30:GLY:O	2.36	0.43
43:1l:109:GLY:HA3	43:1l:121:GLY:O	2.18	0.43
51:1t:40:ALA:HB2	51:1t:55:ILE:HG22	2.01	0.43
54:1x:4:G:H2'	54:1x:5:G:O4'	2.18	0.43
1:2A:21:A:H2'	1:2A:22:C:O4'	2.18	0.43
1:2A:402:A:H2'	1:2A:403:U:H5'	2.00	0.43
1:2A:782:A:H5'	1:2A:783:A:N7	2.34	0.43
1:2A:806:C:C2	1:2A:807:U:C5	3.06	0.43
1:2A:1169:G:N2	1:2A:1181:C:N3	2.67	0.43
1:2A:1576:U:H2'	1:2A:1577:C:H6	1.83	0.43
1:2A:2102:U:H2'	1:2A:2103:C:C6	2.54	0.43
1:2A:2335:A:C8	1:2A:2337:G:N7	2.87	0.43
1:2A:2484:G:C2	1:2A:2485:G:C8	3.07	0.43
2:2B:43:C:H5"	26:24:1:MET:HG2	1.99	0.43
8:2I:39:ALA:HB1	8:2I:44:LEU:HD11	2.01	0.43
9:2N:38:HIS:ND1	9:2N:39:ARG:HG3	2.33	0.43
12:2Q:79:LEU:HD23	12:2Q:79:LEU:HA	1.84	0.43
17:2V:37:VAL:O	17:2V:52:VAL:HG22	2.18	0.43
21:2Z:29:TYR:CE2	21:2Z:87:ASP:HB3	2.53	0.43
23:21:35:THR:OG1	23:21:35:THR:O	2.35	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:21:73:LEU:HD23	23:21:73:LEU:HA	1.69	0.43
26:24:14:ILE:HG23	26:24:32:TYR:O	2.18	0.43
32:2a:552:U:O3'	43:2l:87:GLY:HA3	2.18	0.43
32:2a:891:U:C5	32:2a:906:G:N2	2.87	0.43
32:2a:1349:A:C4	32:2a:1350:A:C8	3.07	0.43
34:2c:14:ILE:HD13	34:2c:178:LEU:HD22	2.01	0.43
47:2p:58:TYR:O	47:2p:61:SER:N	2.51	0.43
1:1A:374:A:C2	1:1A:401:A:C4	3.07	0.43
1:1A:1718:G:C2	1:1A:1719:G:C4	3.06	0.43
7:1H:46:GLU:CD	7:1H:51:ARG:HE	2.27	0.43
12:1Q:43:THR:HG22	12:1Q:94:VAL:HG12	2.00	0.43
14:1S:34:HIS:CE1	14:1S:54:LEU:HD12	2.53	0.43
15:1T:6:LEU:O	15:1T:9:LEU:HB3	2.19	0.43
19:1X:11:PRO:HG2	19:1X:13:LEU:HD21	2.00	0.43
21:1Z:48:PHE:CE1	21:1Z:71:VAL:HG11	2.54	0.43
32:1a:69:G:C2	32:1a:70:G:C5	3.06	0.43
32:1a:189(K):U:H2'	32:1a:189(L):G:H8	1.83	0.43
32:1a:323:U:OP1	51:1t:23:ARG:HA	2.18	0.43
33:1b:122:PHE:HE2	33:1b:139:LYS:CB	2.31	0.43
43:1l:90:VAL:C	43:1l:92:0TD:H1	2.23	0.43
54:1x:49:G:C2	54:1x:66:C:C2	3.07	0.43
1:2A:729:G:OP1	3:2D:10:THR:OG1	2.28	0.43
1:2A:748:G:O6	18:2W:90:ARG:HD2	2.18	0.43
1:2A:1012:U:H5	9:2N:28:THR:HG21	1.83	0.43
1:2A:1418:G:OP1	1:2A:1588:C:O2'	2.31	0.43
1:2A:1660:C:H2'	1:2A:1661:G:H8	1.84	0.43
1:2A:1833:U:H2'	1:2A:1834:U:H6	1.83	0.43
6:2G:173:LEU:HB3	6:2G:178:PHE:CD1	2.54	0.43
7:2H:109:PHE:HB3	7:2H:111:HIS:CE1	2.53	0.43
14:2S:66:ALA:O	14:2S:69:VAL:HG12	2.19	0.43
21:2Z:150:LEU:O	21:2Z:151:HIS:ND1	2.52	0.43
32:2a:601:C:H2'	32:2a:602:A:C8	2.54	0.43
32:2a:804:U:H5"	32:2a:805:C:OP2	2.18	0.43
32:2a:1315:U:C4	32:2a:1316:G:C6	3.06	0.43
33:2b:168:THR:CG2	33:2b:192:SER:HA	2.48	0.43
37:2f:50:TYR:HD1	37:2f:51:PRO:O	2.02	0.43
38:2g:138:LYS:HE3	38:2g:138:LYS:HB3	1.84	0.43
39:2h:69:ARG:NH2	39:2h:73:ASP:O	2.52	0.43
48:2q:57:VAL:HG12	48:2q:76:LEU:HA	1.99	0.43
1:1A:1670:C:O2	4:1E:129:HIS:NE2	2.42	0.43
1:1A:2012:G:OP2	18:1W:16:LYS:NZ	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2117:A:H1'	1:1A:2118:U:H3'	2.01	0.43
1:1A:2131:G:H5'	1:1A:2133:G:C8	2.54	0.43
3:1D:5:LYS:HE3	3:1D:5:LYS:HB3	1.75	0.43
4:1E:105:THR:OG1	4:1E:166:THR:OG1	2.31	0.43
5:1F:24:LEU:HD12	5:1F:24:LEU:HA	1.91	0.43
5:1F:68:LYS:O	5:1F:69:HIS:HB2	2.18	0.43
6:1G:126:ASP:CB	6:1G:130:ASN:H	2.31	0.43
29:17:22:MET:HE3	29:17:22:MET:HB3	1.79	0.43
32:1a:1191:A:OP2	34:1c:3:ASN:ND2	2.52	0.43
32:1a:1490:C:H2'	32:1a:1491:G:O4'	2.19	0.43
35:1d:23:GLY:HA3	35:1d:112:VAL:HG22	2.01	0.43
35:1d:107:ARG:HG3	35:1d:173:TRP:HH2	1.83	0.43
48:1q:9:VAL:HG11	48:1q:84:LEU:HD12	2.00	0.43
1:2A:57:C:H2'	1:2A:58:G:O4'	2.18	0.43
1:2A:271(D):G:C6	1:2A:271(E):U:C4	3.07	0.43
1:2A:807:U:OP2	11:2P:41:ARG:NH2	2.49	0.43
1:2A:878:A:N6	1:2A:900:A:C8	2.86	0.43
1:2A:928:G:H8	1:2A:928:G:O5'	2.02	0.43
1:2A:1011:G:OP2	16:2U:66:ASN:ND2	2.45	0.43
1:2A:1916:A:O5'	1:2A:1916:A:H8	2.01	0.43
1:2A:2583:G:H2'	1:2A:2584:U:C6	2.54	0.43
1:2A:2836:U:C4	1:2A:2883:A:N6	2.87	0.43
2:2B:33:G:C5	2:2B:34:U:C4	3.07	0.43
7:2H:18:GLU:HG2	7:2H:19:VAL:O	2.18	0.43
8:2I:55:ALA:O	8:2I:58:LEU:HB3	2.19	0.43
9:2N:104:LYS:HA	9:2N:107:LEU:HD12	2.00	0.43
10:2O:88:ASN:HD21	10:2O:92:GLU:CD	2.27	0.43
32:2a:5:U:H5'	32:2a:6:G:C5	2.53	0.43
32:2a:102:G:C6	32:2a:103:C:C4	3.07	0.43
32:2a:277:C:P	48:2q:68:ARG:HH12	2.42	0.43
32:2a:563:A:H2'	32:2a:567:G:C8	2.54	0.43
32:2a:701:C:H1'	32:2a:703:G:C5	2.54	0.43
32:2a:864:A:H5'	36:2e:86:ALA:HB2	1.99	0.43
32:2a:1030(A):G:H1'	32:2a:1030(C):G:N7	2.34	0.43
32:2a:1259:C:N3	32:2a:1260:C:H1'	2.34	0.43
32:2a:1326:C:H5"	52:2u:18:TYR:O	2.19	0.43
32:2a:1497:G:H1'	32:2a:1518:MA6:H2	2.01	0.43
36:2e:13:ILE:HA	36:2e:29:GLY:O	2.19	0.43
42:2k:99:GLN:CG	42:2k:105:VAL:HG21	2.49	0.43
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.54	0.43
1:1A:1488:G:C2	1:1A:1502:C:O2	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1833:U:O2'	1:1A:1969:A:N1	2.44	0.43
1:1A:2369:A:H2'	1:1A:2370:G:H8	1.83	0.43
57:1A:4105:SPS:C3	54:1x:76:8AN:O2P	2.66	0.43
3:1D:221:VAL:HG22	3:1D:226:MET:HE3	2.01	0.43
5:1F:20:LEU:HA	5:1F:20:LEU:HD12	1.76	0.43
5:1F:110:LEU:HG	5:1F:202:PHE:HE1	1.83	0.43
8:1I:9:LEU:HD23	8:1I:10:GLU:OE2	2.19	0.43
8:1I:69:LYS:O	8:1I:69:LYS:HG2	2.19	0.43
11:1P:7:ARG:HG2	11:1P:8:PRO:HD2	2.00	0.43
15:1T:18:ASP:O	15:1T:19:LEU:HD23	2.19	0.43
32:1a:265:G:H5'	48:1q:64:PRO:O	2.17	0.43
32:1a:662:G:C2	32:1a:744:C:O2	2.72	0.43
32:1a:747:C:H3'	32:1a:748:C:C6	2.54	0.43
32:1a:870:U:H5'	32:1a:870:U:H6	1.84	0.43
33:1b:12:GLU:C	33:1b:14:GLY:H	2.27	0.43
35:1d:133:VAL:HG11	35:1d:138:TYR:CD1	2.54	0.43
44:1m:11:ARG:HA	44:1m:45:VAL:HB	2.01	0.43
1:2A:52:A:H2'	1:2A:53:A:O4'	2.18	0.43
1:2A:651:G:P	30:28:17:THR:HG1	2.41	0.43
1:2A:880:G:N2	1:2A:898:C:O2	2.51	0.43
1:2A:881:G:C6	1:2A:882:G:H1'	2.54	0.43
1:2A:999:U:O2'	1:2A:1000:A:H5'	2.19	0.43
1:2A:1011:G:C2	1:2A:1151:G:C2	3.07	0.43
1:2A:1702:G:H2'	1:2A:1703:G:O4'	2.19	0.43
1:2A:2122:U:H3	1:2A:2176:A:N6	2.15	0.43
1:2A:2127:G:H21	1:2A:2173:A:HO2'	1.62	0.43
1:2A:2136:C:N3	1:2A:2155:G:N2	2.60	0.43
1:2A:2160:G:H2'	1:2A:2160:G:N3	2.34	0.43
1:2A:2443:C:O2'	1:2A:2444:G:H5'	2.18	0.43
1:2A:2820:A:O2'	1:2A:2821:A:OP1	2.25	0.43
4:2E:170:LEU:HD22	4:2E:185:LYS:O	2.19	0.43
8:2I:7:GLU:HB3	8:2I:8:PRO:HD2	2.01	0.43
8:2I:93:THR:N	8:2I:96:ASP:HB2	2.32	0.43
9:2N:33:LEU:HD23	9:2N:38:HIS:CD2	2.54	0.43
9:2N:115:ARG:O	9:2N:118:LYS:HB2	2.18	0.43
12:2Q:18:LYS:HE3	12:2Q:18:LYS:HB2	1.96	0.43
22:20:72:ARG:O	22:20:75:LEU:N	2.50	0.43
32:2a:677:U:H2'	32:2a:678:U:C6	2.53	0.43
42:2k:96:ARG:HA	42:2k:99:GLN:OE1	2.18	0.43
44:2m:28:ALA:C	44:2m:30:ALA:H	2.27	0.43
48:2q:14:LYS:NZ	48:2q:14:LYS:HB3	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:2x:21:A:C5	54:2x:48:C:C4	3.07	0.43
1:1A:888:C:H5'	1:1A:889:C:OP2	2.18	0.43
1:1A:1965:C:H3'	1:1A:1966:A:H2'	2.01	0.43
6:1G:126:ASP:HB3	6:1G:128:ARG:H	1.83	0.43
12:1Q:39:PRO:HA	12:1Q:97:VAL:O	2.18	0.43
32:1a:636:U:H2'	32:1a:637:G:C8	2.54	0.43
32:1a:858:G:O6	32:1a:869:G:H3'	2.19	0.43
32:1a:938:A:C6	32:1a:939:G:C5	3.07	0.43
47:1p:50:LYS:HD2	47:1p:50:LYS:HA	1.58	0.43
48:1q:58:GLU:HG3	48:1q:77:VAL:HG21	2.00	0.43
1:2A:300:A:P	20:2Y:86:ARG:HH12	2.41	0.43
1:2A:391:G:O2'	1:2A:410:G:OP1	2.25	0.43
1:2A:1316:U:H2'	1:2A:1317:A:H8	1.84	0.43
1:2A:1504:C:H2'	1:2A:1505:C:C6	2.54	0.43
1:2A:1639:U:H4'	1:2A:2699:C:H4'	2.01	0.43
2:2B:16:G:H1	2:2B:68:C:H42	1.67	0.43
12:2Q:78:PRO:HB3	54:2x:1:C:C5	2.54	0.43
14:2S:93:LYS:HG2	14:2S:95:HIS:HB2	2.01	0.43
15:2T:6:LEU:HD23	15:2T:6:LEU:HA	1.86	0.43
15:2T:53:ARG:O	15:2T:53:ARG:HG3	2.19	0.43
20:2Y:37:VAL:N	20:2Y:67:LEU:O	2.31	0.43
21:2Z:72:ARG:NH2	21:2Z:97:GLU:O	2.52	0.43
26:24:57:GLU:HA	26:24:58:ARG:HA	1.74	0.43
32:2a:1008:C:N4	32:2a:1021:G:H1	2.17	0.43
32:2a:1013:G:N2	32:2a:1015:A:H3'	2.33	0.43
32:2a:1144:G:H21	32:2a:1146:A:H62	1.67	0.43
32:2a:1333:A:H3'	32:2a:1334:G:H8	1.84	0.43
35:2d:156:GLU:O	35:2d:159:ARG:HB2	2.19	0.43
45:2n:14:PRO:HB2	45:2n:15:LYS:H	1.69	0.43
46:2o:53:HIS:ND1	46:2o:57:LEU:HD11	2.34	0.43
46:2o:70:LEU:HG	46:2o:78:TYR:HB2	2.00	0.43
48:2q:9:VAL:HG22	48:2q:10:VAL:O	2.19	0.43
1:1A:536:A:H2'	1:1A:537:C:C6	2.54	0.42
1:1A:1060:U:N3	1:1A:1088:A:C8	2.84	0.42
1:1A:1179:C:O2'	1:1A:1180:C:H5'	2.18	0.42
1:1A:1778:U:C4	1:1A:1784:A:C4	3.07	0.42
1:1A:2108:C:H2'	1:1A:2109:U:H6	1.84	0.42
1:1A:2110:G:C5	1:1A:2120:G:C8	3.07	0.42
1:1A:2136:C:C2	1:1A:2155:G:N2	2.86	0.42
1:1A:2465:C:O2	1:1A:2486:G:C2	2.72	0.42
1:1A:2699:C:H2'	1:1A:2700:C:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:78:A:C2	2:1B:100:A:C4	3.06	0.42
4:1E:54:GLN:O	4:1E:56:PRO:HD3	2.19	0.42
5:1F:123:LEU:HD13	5:1F:192:LEU:HD13	2.01	0.42
6:1G:135:LEU:HA	6:1G:135:LEU:HD23	1.79	0.42
9:1N:42:TRP:CH2	9:1N:44:PRO:HB3	2.54	0.42
9:1N:61:ARG:HD3	9:1N:61:ARG:HA	1.86	0.42
10:1O:75:SER:HG	15:1T:74:ARG:HH12	1.64	0.42
11:1P:138:LEU:C	11:1P:140:ALA:H	2.27	0.42
22:10:32:ARG:O	22:10:33:ALA:C	2.62	0.42
32:1a:185:A:C2	32:1a:186:C:C2	3.06	0.42
32:1a:256:U:H2'	32:1a:257:G:O4'	2.19	0.42
32:1a:393:A:C2	32:1a:394:G:C8	3.07	0.42
32:1a:812:C:OP1	32:1a:903:G:H1'	2.19	0.42
32:1a:1151:A:O2'	32:1a:1152:A:H8	2.02	0.42
32:1a:1154:G:C2	32:1a:1155:G:C8	3.07	0.42
32:1a:1183:A:O2'	32:1a:1184:G:H5"	2.18	0.42
32:1a:1457:G:H5"	51:1t:35:THR:HG21	2.01	0.42
33:1b:170:GLU:O	33:1b:174:VAL:HG23	2.18	0.42
35:1d:138:TYR:C	35:1d:138:TYR:CD2	2.96	0.42
42:1k:99:GLN:HE22	42:1k:108:ILE:HD11	1.82	0.42
51:1t:37:SER:O	51:1t:41:ILE:HG13	2.19	0.42
1:2A:867:C:H2'	1:2A:868:U:H6	1.84	0.42
1:2A:1384:A:N3	1:2A:1405:U:H1'	2.33	0.42
3:2D:16:MET:HE3	3:2D:16:MET:HB2	1.93	0.42
5:2F:187:VAL:HG13	11:2P:1:MET:O	2.18	0.42
6:2G:41:GLN:HG2	6:2G:154:GLY:O	2.19	0.42
6:2G:83:ARG:O	6:2G:86:MET:HG3	2.19	0.42
7:2H:24:VAL:HG21	7:2H:72:ILE:HD12	2.00	0.42
10:2O:2:ILE:HG21	10:2O:8:LEU:HD11	1.99	0.42
11:2P:81:GLN:HE21	11:2P:106:LEU:HA	1.84	0.42
18:2W:6:ILE:HG22	18:2W:8:ARG:HG3	2.01	0.42
24:22:66:GLU:HA	24:22:69:ARG:NH1	2.34	0.42
26:24:41:PRO:HA	26:24:44:THR:HG22	2.00	0.42
32:2a:60:A:N6	32:2a:110:C:N3	2.67	0.42
32:2a:189(L):G:H2'	32:2a:190:U:C6	2.53	0.42
32:2a:321:A:C2	32:2a:333:G:C2	3.07	0.42
32:2a:834:C:C2	32:2a:853:G:C2	3.07	0.42
32:2a:837:G:H2'	32:2a:838:G:C8	2.53	0.42
32:2a:1145:C:H4'	32:2a:1146:A:H5'	2.00	0.42
32:2a:1263:C:C4	32:2a:1272:G:O6	2.72	0.42
35:2d:163:GLU:C	35:2d:165:MET:H	2.26	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2e:146:ALA:O	36:2e:149:GLU:HB3	2.19	0.42
38:2g:111:ARG:NH1	38:2g:122:HIS:HB3	2.33	0.42
42:2k:98:LEU:O	42:2k:101:SER:OG	2.36	0.42
47:2p:2:VAL:HA	47:2p:23:ASP:HA	2.00	0.42
48:2q:45:HIS:CD2	48:2q:47:PRO:HG3	2.54	0.42
48:2q:95:TYR:C	48:2q:97:SER:N	2.77	0.42
51:2t:10:LEU:HG	51:2t:12:ALA:H	1.83	0.42
51:2t:54:LYS:HB3	51:2t:54:LYS:HE2	1.67	0.42
1:1A:26:G:C6	1:1A:27:G:N1	2.87	0.42
1:1A:1054:A:N6	1:1A:1055:G:N1	2.67	0.42
1:1A:1668:A:H4'	1:1A:1669:A:O5'	2.19	0.42
1:1A:1852:C:O5'	1:1A:1852:C:H6	2.02	0.42
1:1A:2296:U:OP2	14:1S:9:ARG:NH2	2.52	0.42
1:1A:2552:OMU:O5'	1:1A:2552:OMU:H6	2.19	0.42
1:1A:2572:A:HO2'	1:1A:2573:C:P	2.40	0.42
61:1A:5587:HOH:O	11:1P:16:ARG:HD3	2.18	0.42
2:1B:12:C:O5'	2:1B:12:C:H6	2.02	0.42
6:1G:7:LEU:HD23	6:1G:7:LEU:HA	1.85	0.42
7:1H:164:TYR:HB2	7:1H:167:GLU:HB2	2.01	0.42
10:1O:23:ARG:HD2	10:1O:23:ARG:HA	1.84	0.42
12:1Q:32:TYR:CE1	12:1Q:133:ARG:HB2	2.55	0.42
12:1Q:60:ARG:HG3	21:1Z:180:VAL:HB	2.00	0.42
17:1V:55:ALA:HA	17:1V:101:GLY:CA	2.43	0.42
20:1Y:9:LYS:HA	20:1Y:10:GLY:HA2	1.74	0.42
25:13:8:LEU:HD12	25:13:53:LEU:O	2.19	0.42
25:13:23:LEU:HD13	25:13:50:VAL:HG11	2.01	0.42
32:1a:344:A:O2'	32:1a:346:G:O6	2.28	0.42
32:1a:382:A:H2'	32:1a:383:A:H8	1.82	0.42
32:1a:430:A:OP2	35:1d:8:VAL:HG12	2.18	0.42
32:1a:686:U:C4'	42:1k:42:TRP:HE1	2.31	0.42
32:1a:1127:G:H2'	32:1a:1128:C:H6	1.84	0.42
32:1a:1136:U:H5"	32:1a:1137:C:C4	2.54	0.42
32:1a:1172:C:H2'	32:1a:1173:G:H8	1.84	0.42
32:1a:1353:G:OP1	52:1u:10:ARG:NH1	2.53	0.42
35:1d:33:MET:SD	35:1d:37:PRO:HA	2.59	0.42
38:1g:78:ARG:HD3	38:1g:156:TRP:CZ3	2.54	0.42
45:1n:4:LYS:HA	45:1n:7:ILE:HG13	2.00	0.42
1:2A:30:G:C5	1:2A:31:C:C4	3.07	0.42
1:2A:471:A:N1	19:2X:68:ARG:NH2	2.67	0.42
1:2A:517:C:OP2	27:25:13:LYS:HE3	2.20	0.42
1:2A:719:C:O2'	1:2A:720:C:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:966:G:C6	1:2A:967:C:C4	3.07	0.42
1:2A:996:A:N6	1:2A:1160:G:C6	2.87	0.42
1:2A:1028:A:N3	1:2A:2486:G:O2'	2.49	0.42
2:2B:62:C:H2'	2:2B:63:G:H8	1.83	0.42
3:2D:85:ASP:OD2	3:2D:88:ARG:HD2	2.19	0.42
5:2F:32:LEU:HD22	5:2F:112:MET:HE2	2.01	0.42
5:2F:113:ALA:HB1	5:2F:186:ILE:HG21	2.00	0.42
6:2G:123:ASN:C	6:2G:125:PHE:H	2.24	0.42
21:2Z:63:ASP:OD1	21:2Z:65:GLN:HG3	2.19	0.42
21:2Z:93:ASP:O	21:2Z:130:PRO:HD2	2.19	0.42
24:22:49:LYS:O	24:22:53:LEU:HB2	2.19	0.42
30:28:14:VAL:CG1	30:28:22:VAL:HG13	2.49	0.42
31:29:7:VAL:HG12	31:29:34:GLN:HB3	2.01	0.42
32:2a:382:A:H2'	32:2a:383:A:C8	2.54	0.42
32:2a:452:A:H4'	47:2p:72:ARG:HE	1.83	0.42
32:2a:687:A:C2	32:2a:704:A:C5	3.07	0.42
32:2a:923:A:OP1	36:2e:21:ALA:HB2	2.19	0.42
32:2a:933:G:C6	32:2a:1385:G:C6	3.07	0.42
32:2a:1262:C:H2'	32:2a:1263:C:H5'	2.01	0.42
32:2a:1328:C:H2'	32:2a:1329:A:O4'	2.18	0.42
32:2a:1515:C:H2'	32:2a:1516:G:H8	1.83	0.42
32:2a:1519:MA6:H102	32:2a:1520:G:O2'	2.19	0.42
36:2e:136:MET:O	36:2e:139:LEU:N	2.52	0.42
51:2t:72:LEU:HD12	51:2t:72:LEU:HA	1.71	0.42
1:1A:279:C:N4	1:1A:361:G:H1	2.12	0.42
1:1A:288:C:H2'	1:1A:289:A:H8	1.83	0.42
1:1A:533:G:H5'	16:1U:24:TYR:CE1	2.54	0.42
1:1A:754:C:H2'	1:1A:755:C:C6	2.54	0.42
1:1A:956:G:H2'	1:1A:957:A:H2'	2.01	0.42
1:1A:2128:C:H42	1:1A:2160:G:H1	1.65	0.42
1:1A:2508:G:H5"	61:1A:4277:HOH:O	2.18	0.42
1:1A:2723:C:O3'	13:1R:1:MET:HE1	2.19	0.42
1:1A:2820:A:OP2	13:1R:2:ARG:NH2	2.53	0.42
19:1X:26:TYR:HB3	19:1X:92:LEU:HD12	2.01	0.42
20:1Y:11:ASP:OD1	20:1Y:11:ASP:N	2.52	0.42
21:1Z:179:ASP:O	21:1Z:182:LYS:HB2	2.19	0.42
32:1a:97:G:H2'	32:1a:98:G:O4'	2.19	0.42
32:1a:163:C:H2'	32:1a:164:U:C6	2.54	0.42
32:1a:472:A:H5"	47:1p:80:PHE:HB3	2.01	0.42
32:1a:542:G:P	35:1d:10:ARG:HH22	2.42	0.42
32:1a:719:C:O2'	49:1r:49:LYS:HB3	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1047:G:C2'	32:1a:1048:G:H5'	2.49	0.42
32:1a:1079:G:C6	32:1a:1080:A:N6	2.88	0.42
32:1a:1228:C:P	44:1m:115:LYS:HZ3	2.37	0.42
32:1a:1309:G:OP2	44:1m:99:ARG:NH2	2.36	0.42
32:1a:1330:U:H2'	32:1a:1331:G:H5'	2.00	0.42
32:1a:1372:U:H2'	32:1a:1373:G:O4'	2.18	0.42
34:1c:110:ASN:ND2	34:1c:140:ARG:HB3	2.34	0.42
35:1d:11:LEU:O	35:1d:15:GLU:HG2	2.18	0.42
38:1g:26:PHE:O	38:1g:30:ILE:HG13	2.17	0.42
38:1g:29:LYS:HA	38:1g:29:LYS:HD2	1.81	0.42
45:1n:3:ARG:HH21	45:1n:3:ARG:HA	1.84	0.42
52:1u:5:ASP:O	52:1u:11:GLY:HA3	2.19	0.42
1:2A:643:A:N1	1:2A:2369:A:O2'	2.51	0.42
1:2A:975(A):G:O2'	1:2A:1156:A:N1	2.48	0.42
1:2A:1359:A:N3	1:2A:1359:A:H5'	2.33	0.42
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.54	0.42
1:2A:2254:C:O5'	1:2A:2254:C:H6	2.02	0.42
1:2A:2378:A:C5	1:2A:2379:G:H1'	2.54	0.42
1:2A:2532:G:H2'	1:2A:2533:A:C8	2.54	0.42
3:2D:164:GLN:OE1	3:2D:176:ARG:NH1	2.36	0.42
7:2H:109:PHE:C	7:2H:111:HIS:H	2.26	0.42
10:2O:60:ALA:HA	10:2O:87:ILE:HG12	2.01	0.42
11:2P:82:GLY:HA2	11:2P:113:LYS:O	2.18	0.42
12:2Q:54:MET:HG2	12:2Q:117:ALA:HB1	2.00	0.42
18:2W:71:VAL:HA	18:2W:107:LEU:HD23	2.01	0.42
21:2Z:5:LEU:HD13	21:2Z:47:VAL:HG21	2.00	0.42
21:2Z:133:ILE:HD13	21:2Z:133:ILE:HA	1.91	0.42
32:2a:1315:U:O4	32:2a:1316:G:N1	2.53	0.42
34:2c:179:ARG:O	34:2c:206:GLU:HA	2.20	0.42
36:2e:36:ASP:O	36:2e:38:GLN:N	2.47	0.42
38:2g:16:LEU:HD22	40:2i:42:ARG:HA	2.00	0.42
1:1A:55:G:O2'	1:1A:127:A:N1	2.46	0.42
1:1A:876:C:H2'	1:1A:877:U:O4'	2.20	0.42
1:1A:1092:C:C2'	1:1A:1093:G:H5'	2.50	0.42
1:1A:1719:G:C6	1:1A:1720:U:C4	3.07	0.42
1:1A:1803:A:O2'	3:1D:259:THR:HG21	2.19	0.42
1:1A:2034:U:C2'	1:1A:2035:G:H5'	2.49	0.42
1:1A:2165:G:H2'	1:1A:2166:G:C4	2.55	0.42
2:1B:75:G:O2'	21:1Z:85:HIS:NE2	2.45	0.42
3:1D:133:LEU:N	3:1D:189:CYS:O	2.47	0.42
8:1I:78:THR:HG22	8:1I:80:PRO:HD3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:1T:99:LEU:HD22	15:1T:101:PHE:HE2	1.84	0.42
21:1Z:181:GLU:H	21:1Z:181:GLU:HG2	1.59	0.42
24:12:21:LEU:HD23	24:12:21:LEU:HA	1.77	0.42
32:1a:42:G:O2'	32:1a:622:A:N1	2.49	0.42
32:1a:353:A:H5'	32:1a:353:A:C8	2.51	0.42
32:1a:406:G:H21	35:1d:119:GLN:HE22	1.67	0.42
32:1a:690:G:H8	32:1a:690:G:O5'	2.03	0.42
32:1a:1148:U:O2'	40:1i:14:VAL:HG21	2.19	0.42
33:1b:122:PHE:CE2	33:1b:139:LYS:HB2	2.50	0.42
49:1r:74:ARG:HG2	49:1r:80:PRO:O	2.20	0.42
50:1s:41:VAL:O	50:1s:44:MET:N	2.52	0.42
1:2A:860:U:C2	1:2A:2268:A:C8	3.08	0.42
1:2A:1833:U:H2'	1:2A:1834:U:C6	2.54	0.42
1:2A:2162:G:H2'	1:2A:2163:C:O4'	2.20	0.42
1:2A:2228:G:C6	1:2A:2229:C:C4	3.07	0.42
1:2A:2804:C:O2'	1:2A:2805:G:H5'	2.20	0.42
3:2D:71:ASP:HB3	3:2D:103:ARG:HH22	1.85	0.42
4:2E:11:MET:HG2	4:2E:24:THR:OG1	2.19	0.42
6:2G:50:ALA:O	6:2G:52:ILE:N	2.52	0.42
6:2G:106:LEU:O	6:2G:110:ALA:HB3	2.19	0.42
7:2H:3:ARG:HH22	7:2H:5:GLY:CA	2.32	0.42
12:2Q:4:PRO:HG2	12:2Q:7:MET:HE2	2.00	0.42
19:2X:26:TYR:HB3	19:2X:92:LEU:CD2	2.49	0.42
28:26:18:ARG:HD3	28:26:42:TRP:CE2	2.54	0.42
32:2a:38:G:C2	32:2a:397:A:C2	3.06	0.42
32:2a:1049:U:C5	32:2a:1201:A:H5'	2.53	0.42
32:2a:1136:U:P	32:2a:1136:U:H6	2.42	0.42
32:2a:1462:G:H2'	32:2a:1463:C:C6	2.54	0.42
34:2c:116:VAL:HA	34:2c:119:ARG:HB3	2.00	0.42
35:2d:12:CYS:SG	35:2d:19:LEU:N	2.92	0.42
36:2e:145:LYS:O	36:2e:149:GLU:HB2	2.19	0.42
40:2i:45:ALA:O	40:2i:48:GLU:HB2	2.20	0.42
41:2j:78:ASN:C	41:2j:80:LYS:N	2.77	0.42
42:2k:51:LYS:HA	42:2k:55:LYS:HD3	2.00	0.42
43:2l:6:THR:OG1	43:2l:9:GLN:HB2	2.19	0.42
1:1A:123:G:H2'	1:1A:124:G:O4'	2.19	0.42
1:1A:142(A):C:H2'	1:1A:143:G:O4'	2.18	0.42
1:1A:818:G:H5'	1:1A:839:U:OP1	2.20	0.42
1:1A:2236:C:C2'	1:1A:2237:G:H5'	2.49	0.42
1:1A:2404:C:O3'	11:1P:77:ARG:NH2	2.53	0.42
11:1P:63:PRO:HD3	30:18:27:THR:HG22	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:1P:65:ARG:HG3	11:1P:66:GLY:N	2.33	0.42
18:1W:66:GLU:O	18:1W:66:GLU:HG3	2.20	0.42
30:18:37:SER:OG	30:18:39:LYS:N	2.52	0.42
32:1a:472:A:H2'	32:1a:473:G:O4'	2.19	0.42
32:1a:549:C:C2	32:1a:550:G:C8	3.07	0.42
32:1a:1139:G:N2	32:1a:1143:G:C6	2.87	0.42
35:1d:178:VAL:C	35:1d:180:GLY:N	2.73	0.42
41:1j:16:LEU:HD22	41:1j:68:HIS:HB2	1.99	0.42
42:1k:14:VAL:HG23	42:1k:77:MET:HE1	2.00	0.42
54:1x:24:U:H2'	54:1x:25:C:O4'	2.19	0.42
1:2A:354:G:H2'	1:2A:355:G:C8	2.55	0.42
1:2A:1385:G:H4'	1:2A:1386:C:OP1	2.18	0.42
1:2A:1766:U:H2'	1:2A:1767:C:H6	1.84	0.42
1:2A:2564:A:H2'	1:2A:2565:A:C8	2.55	0.42
1:2A:2757:A:N1	7:2H:67:LEU:HD13	2.34	0.42
2:2B:16:G:N3	2:2B:16:G:H2'	2.34	0.42
3:2D:175:LEU:HD12	3:2D:185:VAL:HG21	2.01	0.42
6:2G:121:ASN:HD21	6:2G:123:ASN:HB2	1.85	0.42
7:2H:167:GLU:HA	7:2H:168:PRO:HD3	1.90	0.42
14:2S:26:LEU:HD23	14:2S:87:PHE:CD1	2.44	0.42
17:2V:29:PRO:HA	17:2V:61:VAL:HG22	2.02	0.42
17:2V:37:VAL:HG11	17:2V:40:LEU:CD2	2.50	0.42
21:2Z:150:LEU:HD13	21:2Z:154:ASP:HB2	2.01	0.42
22:20:66:VAL:HG12	22:20:67:VAL:O	2.20	0.42
23:21:50:ARG:HG2	23:21:59:THR:HG23	2.00	0.42
24:22:66:GLU:HA	24:22:69:ARG:HH12	1.84	0.42
32:2a:189(L):G:H2'	32:2a:190:U:H6	1.84	0.42
32:2a:942:G:C2	32:2a:1342:C:C2	3.07	0.42
32:2a:1006:C:N4	32:2a:1023:G:N1	2.60	0.42
32:2a:1066:C:H2'	32:2a:1067:A:C8	2.55	0.42
32:2a:1129:C:H2'	32:2a:1139:G:N7	2.33	0.42
32:2a:1284:C:H3'	32:2a:1285:A:C8	2.54	0.42
32:2a:1394:A:N6	32:2a:1501:C:H5'	2.34	0.42
33:2b:27:LYS:CB	33:2b:194:PRO:HD2	2.50	0.42
33:2b:79:ASP:OD1	33:2b:79:ASP:N	2.52	0.42
33:2b:175:ARG:O	33:2b:179:LYS:HB2	2.19	0.42
35:2d:70:ILE:HG13	35:2d:74:GLN:OE1	2.19	0.42
41:2j:6:ILE:HB	41:2j:72:VAL:O	2.19	0.42
41:2j:9:ARG:C	41:2j:16:LEU:HD11	2.45	0.42
42:2k:45:GLY:O	42:2k:50:TYR:HB2	2.20	0.42
46:2o:61:GLY:O	46:2o:65:ARG:HG3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:600:G:N2	1:1A:605:C:O3'	2.52	0.42
1:1A:880:G:H8	1:1A:880:G:OP2	2.03	0.42
1:1A:898:C:C4	1:1A:899:A:N7	2.88	0.42
1:1A:1069:A:H5'	1:1A:1070:A:O5'	2.20	0.42
1:1A:1168:G:C2	1:1A:1182:A:C2	3.08	0.42
6:1G:61:ALA:HB1	26:14:7:PRO:HG3	2.01	0.42
11:1P:50:ARG:HD3	30:18:7:HIS:CD2	2.55	0.42
14:1S:6:ALA:O	14:1S:10:ARG:HB2	2.19	0.42
17:1V:55:ALA:CA	17:1V:101:GLY:HA2	2.42	0.42
19:1X:5:TYR:CD1	24:12:30:ARG:HA	2.55	0.42
19:1X:5:TYR:CZ	24:12:30:ARG:HB2	2.55	0.42
21:1Z:6:LYS:HE2	21:1Z:6:LYS:HB3	1.79	0.42
32:1a:126:G:C2	32:1a:236:G:C6	3.08	0.42
32:1a:244:U:C6	32:1a:894:G:N2	2.88	0.42
32:1a:458:C:H3'	32:1a:460:G:C8	2.54	0.42
32:1a:485:G:O2'	32:1a:486:U:OP2	2.37	0.42
32:1a:509:A:C8	32:1a:509:A:H3'	2.54	0.42
32:1a:711:G:O2'	32:1a:712:A:H5'	2.20	0.42
32:1a:763:G:H2'	32:1a:764:C:H6	1.85	0.42
32:1a:1095:U:P	32:1a:1108:G:H1	2.42	0.42
34:1c:179:ARG:O	34:1c:206:GLU:HA	2.20	0.42
37:1f:69:GLU:O	37:1f:72:VAL:HG13	2.19	0.42
40:1i:28:VAL:O	40:1i:29:ASN:C	2.63	0.42
43:1l:6:THR:OG1	43:1l:9:GLN:HG3	2.19	0.42
43:1l:90:VAL:C	43:1l:92:0TD:N	2.77	0.42
1:2A:39:C:H2'	1:2A:40:C:H6	1.85	0.42
1:2A:442:G:H21	5:2F:48:THR:HB	1.84	0.42
1:2A:484:C:H2'	1:2A:485:C:H6	1.85	0.42
1:2A:573:G:O6	1:2A:2029:G:H2'	2.20	0.42
1:2A:1336:A:H2'	1:2A:1337:G:H8	1.83	0.42
1:2A:1405:U:H2'	1:2A:1406:U:H6	1.82	0.42
1:2A:2113:U:C4	1:2A:2114:A:N7	2.88	0.42
1:2A:2838:G:C4	1:2A:2839:G:C8	3.07	0.42
2:2B:66:A:C5	2:2B:109:C:C5	3.07	0.42
4:2E:131:ALA:O	61:2E:402:HOH:O	2.21	0.42
5:2F:21:ALA:CB	5:2F:22:ALA:HA	2.48	0.42
7:2H:72:ILE:O	7:2H:76:VAL:HG12	2.19	0.42
10:2O:35:VAL:HG21	10:2O:69:ILE:HD13	2.02	0.42
22:20:18:ALA:HB3	22:20:20:ARG:NH1	2.35	0.42
26:24:13:ARG:HA	26:24:22:ILE:O	2.19	0.42
28:26:25:LYS:HE3	28:26:30:THR:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:503:C:H2'	32:2a:504:C:H6	1.85	0.42
32:2a:778:G:H2'	32:2a:779:C:O4'	2.19	0.42
32:2a:925:G:H1'	32:2a:1502:A:C4	2.55	0.42
32:2a:1064:G:OP1	32:2a:1386:G:H4'	2.20	0.42
32:2a:1119:C:O2	32:2a:1155:G:C2	2.73	0.42
33:2b:95:GLN:NE2	33:2b:95:GLN:HA	2.32	0.42
34:2c:206:GLU:H	34:2c:206:GLU:HG2	1.56	0.42
43:2l:39:VAL:HG23	43:2l:57:LYS:CB	2.50	0.42
44:2m:3:ARG:HE	44:2m:3:ARG:HB2	1.66	0.42
52:2u:6:ARG:HD3	52:2u:15:ARG:NE	2.30	0.42
1:1A:1054:A:H61	1:1A:1105:U:H3	1.68	0.42
1:1A:1712:C:H2'	1:1A:1713:U:O4'	2.20	0.42
1:1A:2181:G:C6	1:1A:2182:G:C5	3.07	0.42
1:1A:2880:C:H1'	13:1R:92:GLY:O	2.19	0.42
61:1A:4521:HOH:O	27:15:8:LYS:HD2	2.19	0.42
2:1B:88:C:H2'	2:1B:89:G:O4'	2.19	0.42
6:1G:66:GLN:NE2	6:1G:93:THR:O	2.42	0.42
14:1S:58:LEU:HD23	14:1S:58:LEU:HA	1.78	0.42
17:1V:6:LYS:HE2	61:1V:304:HOH:O	2.19	0.42
21:1Z:30:ASN:OD1	21:1Z:33:LEU:HD23	2.19	0.42
21:1Z:69:THR:HG22	21:1Z:90:VAL:CA	2.44	0.42
26:14:50:VAL:HG11	44:1m:65:LYS:N	2.35	0.42
26:14:63:TYR:N	26:14:63:TYR:CD1	2.87	0.42
26:14:69:LYS:HD2	26:14:69:LYS:HA	1.86	0.42
31:19:4:ARG:HD2	31:19:6:SER:O	2.20	0.42
32:1a:42:G:H1	32:1a:400:C:H42	1.67	0.42
32:1a:342:C:H2'	32:1a:343:U:H6	1.85	0.42
32:1a:789:U:O2'	32:1a:791:G:N7	2.49	0.42
32:1a:818:G:C2	32:1a:820:U:O2'	2.71	0.42
32:1a:872:A:C8	32:1a:874:G:C8	3.08	0.42
32:1a:1055:A:N6	32:1a:1206:G:C5	2.87	0.42
32:1a:1087:G:C2	32:1a:1088:G:C8	3.08	0.42
32:1a:1224:G:OP1	61:1a:1922:HOH:O	2.22	0.42
33:1b:12:GLU:HB2	33:1b:213:LEU:CD2	2.44	0.42
33:1b:77:ALA:HB2	33:1b:211:ILE:HD13	2.01	0.42
33:1b:149:LEU:HD23	33:1b:149:LEU:HA	1.82	0.42
39:1h:118:VAL:O	39:1h:119:LEU:HD23	2.20	0.42
40:1i:46:ALA:HB2	40:1i:74:ILE:HG23	2.01	0.42
1:2A:189:G:H2'	1:2A:205:G:N2	2.35	0.42
1:2A:575:A:OP2	1:2A:2055:C:N4	2.40	0.42
1:2A:671:C:O2'	1:2A:672:C:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:968:G:H2'	1:2A:969:U:C6	2.54	0.42
1:2A:1495:A:H2'	1:2A:1496:A:C8	2.54	0.42
1:2A:1850:G:C2	1:2A:1893:C:O2	2.72	0.42
1:2A:1937:A:H1'	1:2A:1939:5MU:H71	2.01	0.42
1:2A:2104:G:N2	1:2A:2186:G:C4	2.88	0.42
1:2A:2207:G:H2'	1:2A:2208:A:C2	2.54	0.42
1:2A:2410:G:C2	1:2A:2411:A:H1'	2.55	0.42
1:2A:2492:U:H2'	1:2A:2493:U:C6	2.55	0.42
2:2B:37:C:N4	2:2B:38:C:N3	2.68	0.42
2:2B:75:G:H22	21:2Z:73:GLN:NE2	2.18	0.42
3:2D:89:SER:HB2	3:2D:201:HIS:CD2	2.55	0.42
8:2I:117:GLU:H	8:2I:117:GLU:HG3	1.70	0.42
13:2R:33:ARG:HB2	13:2R:115:GLU:HB3	2.00	0.42
19:2X:26:TYR:HB3	19:2X:92:LEU:HD23	2.01	0.42
21:2Z:93:ASP:OD1	21:2Z:94:GLU:HG3	2.20	0.42
32:2a:328:C:H4'	32:2a:329:A:H5'	2.01	0.42
32:2a:504:C:H1'	32:2a:510:A:C4	2.55	0.42
32:2a:551:U:H2'	32:2a:552:U:H6	1.85	0.42
32:2a:918:A:H2'	32:2a:919:A:C8	2.55	0.42
32:2a:1005:A:N7	32:2a:1006:C:C2	2.87	0.42
32:2a:1135:U:H2'	32:2a:1137:C:N3	2.34	0.42
32:2a:1201:A:H4'	32:2a:1202:G:O5'	2.19	0.42
32:2a:1416:G:H2'	32:2a:1417:G:O4'	2.20	0.42
33:2b:178:ARG:NH2	39:2h:74:PRO:HB3	2.34	0.42
35:2d:57:ARG:HH11	35:2d:205:GLU:HB3	1.84	0.42
41:2j:54:PHE:CD2	41:2j:55:LYS:HB3	2.54	0.42
44:2m:63:THR:HG22	44:2m:64:TRP:CD1	2.55	0.42
54:2x:23:C:C2	54:2x:24:U:C5	3.07	0.42
1:1A:389:G:N1	11:1P:70:GLN:HG3	2.35	0.42
1:1A:749:C:C5	1:1A:1618:A:C6	3.08	0.42
1:1A:909:A:H2'	1:1A:912:C:C5	2.55	0.42
1:1A:1259:G:H2'	1:1A:1260:G:C8	2.54	0.42
1:1A:1614:A:N1	18:1W:87:PRO:HB3	2.35	0.42
1:1A:1654:A:H1'	1:1A:2823:A:H5'	2.02	0.42
1:1A:2032:G:H1'	4:1E:145:LYS:HD3	2.01	0.42
1:1A:2854:G:H2'	1:1A:2855:C:C6	2.54	0.42
3:1D:6:PHE:HE2	3:1D:18:VAL:HG13	1.85	0.42
3:1D:222:ARG:O	3:1D:223:GLY:C	2.63	0.42
6:1G:46:ALA:O	6:1G:47:LYS:C	2.63	0.42
6:1G:176:LEU:HD23	6:1G:176:LEU:HA	1.78	0.42
8:1I:42:SER:C	8:1I:44:LEU:H	2.28	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1O:34:THR:OG1	10:1O:35:VAL:N	2.53	0.42
13:1R:10:LEU:HA	13:1R:10:LEU:HD23	1.78	0.42
13:1R:97:VAL:HG22	13:1R:114:VAL:HG13	2.02	0.42
17:1V:83:ARG:HD3	17:1V:83:ARG:HA	1.76	0.42
23:11:67:ILE:N	23:11:68:PRO:HD2	2.34	0.42
24:12:41:ILE:H	24:12:41:ILE:HG12	1.64	0.42
25:13:23:LEU:HD12	25:13:23:LEU:HA	1.83	0.42
32:1a:235:C:H5'	48:1q:70:ARG:HG3	2.01	0.42
32:1a:267:C:P	48:1q:67:LYS:HD3	2.60	0.42
32:1a:280:C:N3	48:1q:38:ARG:HA	2.34	0.42
32:1a:537:G:H2'	32:1a:538:G:H8	1.85	0.42
32:1a:541:G:H2'	32:1a:542:G:H8	1.85	0.42
32:1a:1157:A:C6	32:1a:1180:A:C6	3.08	0.42
33:1b:84:GLU:HB3	33:1b:219:VAL:HG21	2.01	0.42
1:2A:635:C:H2'	1:2A:636:G:O4'	2.20	0.42
1:2A:826:U:H5"	1:2A:2428:G:O3'	2.20	0.42
1:2A:1526:G:H2'	1:2A:1527:G:C8	2.55	0.42
1:2A:2101:G:H2'	1:2A:2102:U:O4'	2.19	0.42
5:2F:183:VAL:O	5:2F:187:VAL:HG23	2.20	0.42
7:2H:95:ARG:NH2	7:2H:97:ARG:HD3	2.34	0.42
8:2I:59:ALA:C	8:2I:61:ARG:H	2.27	0.42
15:2T:29:ARG:NH2	15:2T:46:GLU:OE1	2.53	0.42
20:2Y:68:HIS:ND1	20:2Y:70:SER:HB3	2.35	0.42
21:2Z:46:LYS:HA	21:2Z:46:LYS:HD3	1.84	0.42
21:2Z:117:LEU:HD12	21:2Z:174:VAL:HG22	2.02	0.42
32:2a:22:G:H2'	32:2a:23:C:C6	2.55	0.42
32:2a:57:G:H2'	32:2a:58:C:C6	2.55	0.42
32:2a:722:A:N6	32:2a:724:G:C2	2.88	0.42
32:2a:761:G:C5	32:2a:762:C:C5	3.07	0.42
32:2a:803:G:H2'	32:2a:804:U:O4'	2.19	0.42
32:2a:849:C:H2'	32:2a:850:U:O4'	2.20	0.42
32:2a:949:A:C4	32:2a:1233:G:N2	2.88	0.42
32:2a:1386:G:C2	32:2a:1387:G:C8	3.07	0.42
33:2b:54:THR:HG21	33:2b:201:ILE:HD11	2.01	0.42
33:2b:210:SER:O	33:2b:214:ILE:HB	2.20	0.42
34:2c:6:HIS:HD2	34:2c:7:PRO:HD2	1.85	0.42
34:2c:22:TRP:CE2	45:2n:54:PRO:HG2	2.55	0.42
39:2h:18:ARG:HH11	39:2h:18:ARG:HG2	1.85	0.42
43:2l:57:LYS:HA	43:2l:67:THR:HA	2.01	0.42
46:2o:36:ILE:O	46:2o:39:LEU:N	2.53	0.42
1:1A:85:G:H8	1:1A:85:G:H5"	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:573:G:O2'	1:1A:574:C:H3'	2.20	0.42
1:1A:729:G:H2'	1:1A:1775:U:H1'	2.02	0.42
1:1A:774:A:N3	1:1A:774:A:H2'	2.35	0.42
1:1A:848:G:O6	1:1A:928:G:H2'	2.19	0.42
1:1A:1095:A:C5	1:1A:1096:A:N7	2.88	0.42
1:1A:1257:C:H4'	5:1F:83:PHE:CE1	2.54	0.42
1:1A:1529:G:C5	1:1A:1530:C:C4	3.08	0.42
1:1A:1754:C:H2'	1:1A:1755:A:C8	2.54	0.42
6:1G:43:LEU:HD23	6:1G:53:LEU:CD2	2.48	0.42
7:1H:11:VAL:HG21	7:1H:50:VAL:HG23	2.02	0.42
8:1I:93:THR:H	8:1I:96:ASP:CG	2.27	0.42
11:1P:127:ALA:O	11:1P:147:LEU:HA	2.20	0.42
12:1Q:60:ARG:HG3	21:1Z:180:VAL:CA	2.49	0.42
17:1V:76:LYS:HB2	17:1V:81:TYR:HB3	2.02	0.42
32:1a:273:A:H1'	48:1q:16:GLN:HE21	1.85	0.42
32:1a:376:G:O2'	32:1a:377:G:H5'	2.20	0.42
32:1a:537:G:H5"	43:1l:113:ARG:NH1	2.35	0.42
32:1a:615:C:C2	32:1a:616:G:C8	3.08	0.42
32:1a:902:G:H2'	32:1a:903:G:H8	1.85	0.42
32:1a:1151:A:O2'	32:1a:1152:A:O5'	2.31	0.42
33:1b:187:LEU:HD21	33:1b:204:ASN:O	2.20	0.42
38:1g:62:PHE:O	38:1g:66:VAL:HG23	2.19	0.42
39:1h:35:ILE:O	39:1h:39:LEU:HD22	2.20	0.42
41:1j:81:THR:C	41:1j:83:GLU:H	2.27	0.42
41:1j:97:GLU:O	41:1j:98:ILE:HD12	2.20	0.42
46:1o:6:GLU:OE1	46:1o:6:GLU:N	2.49	0.42
46:1o:18:PHE:CE2	46:1o:21:ASP:HB2	2.55	0.42
46:1o:82:ILE:O	46:1o:86:GLY:N	2.52	0.42
51:1t:14:LYS:HA	51:1t:17:ARG:HE	1.84	0.42
1:2A:29:U:H6	1:2A:29:U:O5'	2.03	0.42
1:2A:539:G:H2'	1:2A:540:C:H6	1.84	0.42
1:2A:846:C:O5'	1:2A:846:C:H6	2.02	0.42
1:2A:1140:C:P	9:2N:66:LYS:HZ3	2.43	0.42
1:2A:1159:U:H2'	1:2A:1160:G:C8	2.48	0.42
1:2A:1580:A:H8	1:2A:1580:A:OP2	2.02	0.42
1:2A:1927:A:H2'	1:2A:1928:A:C8	2.55	0.42
1:2A:2238:G:H5"	61:2A:4334:HOH:O	2.19	0.42
1:2A:2592:G:C6	1:2A:2593:U:N3	2.88	0.42
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.20	0.42
4:2E:130:GLY:O	4:2E:131:ALA:C	2.62	0.42
15:2T:127:ALA:C	15:2T:129:ARG:N	2.78	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:27:24:THR:O	29:27:28:ARG:HG3	2.19	0.42
32:2a:93:G:C6	32:2a:96:U:C4	3.07	0.42
32:2a:251:G:H21	32:2a:253:U:H5	1.68	0.42
32:2a:404:U:H2'	32:2a:405:U:C6	2.55	0.42
32:2a:1288:A:N1	32:2a:1371:G:H1'	2.35	0.42
32:2a:1421:G:C2	32:2a:1480:G:C2	3.08	0.42
33:2b:208:ILE:HA	33:2b:211:ILE:HG13	2.02	0.42
34:2c:88:ARG:HA	34:2c:91:LEU:HB2	2.02	0.42
37:2f:99:ALA:O	37:2f:100:ASN:HB2	2.20	0.42
41:2j:7:LYS:HD3	41:2j:71:LEU:HD13	2.02	0.42
43:2l:102:ARG:H	43:2l:102:ARG:HG2	1.66	0.42
1:1A:1056:G:H5"	1:1A:1057:A:C4'	2.50	0.42
1:1A:1790:C:H2'	1:1A:1791:A:C5	2.55	0.42
1:1A:2005:A:H5"	1:1A:2006:C:OP2	2.20	0.42
1:1A:2069:G:P	61:1A:4418:HOH:O	2.77	0.42
1:1A:2097:C:H2'	1:1A:2098:U:O4'	2.20	0.42
1:1A:2124:G:H2'	1:1A:2125:G:C8	2.55	0.42
1:1A:2246:G:H2'	1:1A:2247:A:C8	2.54	0.42
3:1D:145:VAL:HG12	3:1D:146:GLU:O	2.20	0.42
5:1F:150:GLY:HA2	5:1F:172:TRP:CE3	2.55	0.42
6:1G:126:ASP:HB2	6:1G:130:ASN:O	2.20	0.42
8:1I:140:LEU:HD23	8:1I:140:LEU:HA	1.78	0.42
12:1Q:85:LYS:HG2	22:10:7:LEU:HB3	2.01	0.42
13:1R:94:TYR:C	13:1R:117:VAL:HG23	2.44	0.42
26:14:50:VAL:H	26:14:50:VAL:HG23	1.55	0.42
32:1a:1002:G:C2	32:1a:1003:G:O2'	2.72	0.42
32:1a:1464:G:H2'	32:1a:1465:C:C6	2.55	0.42
33:1b:219:VAL:HA	33:1b:222:ILE:HD12	2.00	0.42
48:1q:28:PRO:HA	48:1q:34:LYS:O	2.19	0.42
48:1q:82:MET:HE2	48:1q:82:MET:HB3	1.89	0.42
1:2A:172:C:H2'	1:2A:173:G:C8	2.55	0.42
1:2A:307:G:H2'	1:2A:309:G:OP2	2.19	0.42
1:2A:863:A:O2'	1:2A:864:G:H5'	2.19	0.42
1:2A:955:C:OP2	12:2Q:14:ARG:HG3	2.19	0.42
1:2A:997:G:H5"	16:2U:92:ARG:HH12	1.85	0.42
1:2A:1016:G:H2'	1:2A:1017:G:O4'	2.20	0.42
1:2A:1316:U:H2'	1:2A:1317:A:C8	2.54	0.42
1:2A:2030:A:H4'	1:2A:2031:A:C8	2.55	0.42
1:2A:2088:G:H2'	1:2A:2089:U:O4'	2.19	0.42
1:2A:2119:A:C2	1:2A:2170:A:H2'	2.55	0.42
1:2A:2526:G:C5	1:2A:2527:C:C5	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:76:SER:CB	6:2G:83:ARG:HA	2.49	0.42
7:2H:13:LYS:HA	7:2H:14:GLY:HA2	1.56	0.42
8:2I:81:VAL:HG12	8:2I:82:ARG:NH1	2.31	0.42
11:2P:100:LEU:HA	11:2P:100:LEU:HD12	1.79	0.42
13:2R:55:ALA:HA	13:2R:80:PHE:CZ	2.55	0.42
21:2Z:21:ALA:O	21:2Z:23:LYS:HG2	2.19	0.42
21:2Z:134:PRO:HG3	21:2Z:161:VAL:HG21	2.02	0.42
30:28:23:VAL:CG2	30:28:47:LYS:HB3	2.50	0.42
30:28:39:LYS:O	30:28:43:GLN:HG3	2.18	0.42
32:2a:38:G:H4'	32:2a:547:A:N6	2.35	0.42
32:2a:99:U:O2'	32:2a:100:C:H5'	2.20	0.42
32:2a:273:A:H1'	48:2q:16:GLN:NE2	2.35	0.42
32:2a:1077:G:H5"	32:2a:1077:G:H8	1.85	0.42
34:2c:63:ASN:CB	34:2c:98:ASN:HB2	2.49	0.42
47:2p:17:TYR:HE2	47:2p:41:PRO:HG3	1.85	0.42
1:1A:1053:C:N4	1:1A:1106:G:H1	2.17	0.41
1:1A:1248:G:C5	16:1U:3:ARG:HB2	2.55	0.41
1:1A:2054:A:C2	27:15:8:LYS:HB2	2.55	0.41
1:1A:2056:G:H2'	1:1A:2056:G:N3	2.35	0.41
1:1A:2478:A:OP1	31:19:31:LYS:NZ	2.47	0.41
1:1A:2755:C:C4	31:19:19:ARG:NH1	2.88	0.41
3:1D:43:ARG:HA	3:1D:48:ARG:O	2.19	0.41
6:1G:36:LYS:HD3	6:1G:38:VAL:HG23	2.02	0.41
7:1H:64:LEU:HA	7:1H:64:LEU:HD23	1.71	0.41
11:1P:45:LEU:HD12	11:1P:45:LEU:HA	1.74	0.41
18:1W:14:PRO:HG2	18:1W:78:GLU:CG	2.50	0.41
19:1X:26:TYR:HD1	19:1X:92:LEU:HD12	1.83	0.41
21:1Z:182:LYS:HE3	21:1Z:182:LYS:HB3	1.78	0.41
26:14:62:ARG:HB2	26:14:63:TYR:CE1	2.54	0.41
32:1a:295:C:H2'	32:1a:296:U:O4'	2.20	0.41
32:1a:534:U:H5"	32:1a:535:A:OP2	2.20	0.41
32:1a:767:A:H2'	32:1a:768:A:O4'	2.20	0.41
32:1a:948:C:O2'	32:1a:949:A:H5'	2.20	0.41
32:1a:953:G:H5'	32:1a:965:A:N6	2.33	0.41
32:1a:1343:G:H1'	40:1i:121:ARG:NH1	2.35	0.41
35:1d:190:ASP:H	35:1d:193:ASP:HB2	1.84	0.41
40:1i:22:GLY:HA3	40:1i:60:ASP:CG	2.45	0.41
42:1k:84:VAL:HG11	42:1k:91:ARG:HD2	2.02	0.41
43:1l:42:THR:HA	43:1l:53:ARG:O	2.19	0.41
51:1t:63:ILE:O	51:1t:66:ALA:N	2.48	0.41
51:1t:87:LYS:O	51:1t:91:LEU:HG	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:36:G:N3	1:2A:450:G:O2'	2.52	0.41
1:2A:272(D):G:C2	1:2A:272(E):G:C8	3.08	0.41
1:2A:971:C:H2'	1:2A:972:G:O4'	2.20	0.41
1:2A:1341:U:OP2	1:2A:1394:U:O2'	2.31	0.41
1:2A:1473:G:H2'	1:2A:1474:C:C6	2.55	0.41
1:2A:2067:G:O2'	1:2A:2069:G:H5'	2.20	0.41
1:2A:2807:G:C2	1:2A:2808:U:H1'	2.55	0.41
9:2N:34:LEU:HD23	9:2N:34:LEU:HA	1.92	0.41
9:2N:62:VAL:CG1	9:2N:66:LYS:HB2	2.49	0.41
17:2V:12:TYR:CG	17:2V:20:LEU:HD21	2.55	0.41
30:28:17:THR:HG23	30:28:21:LYS:O	2.20	0.41
32:2a:35:G:H2'	32:2a:36:C:C6	2.54	0.41
35:2d:62:GLN:OE1	35:2d:62:GLN:HA	2.19	0.41
37:2f:7:ASN:HB2	37:2f:89:MET:HB3	2.02	0.41
39:2h:64:LYS:HG2	39:2h:79:VAL:HG21	2.02	0.41
39:2h:121:ASP:HB2	39:2h:125:ARG:HH12	1.83	0.41
40:2i:15:ALA:HB2	40:2i:65:VAL:HG23	2.01	0.41
43:2l:39:VAL:HG23	43:2l:57:LYS:HB3	2.00	0.41
44:2m:23:TYR:HB3	44:2m:67:GLU:HA	2.02	0.41
47:2p:39:TYR:CG	47:2p:73:LEU:HD21	2.55	0.41
1:1A:269:U:C5	1:1A:271(Y):U:C5	3.07	0.41
1:1A:428:A:OP1	61:1A:4300:HOH:O	2.21	0.41
4:1E:175:VAL:O	4:1E:177:PRO:HD3	2.20	0.41
5:1F:39:TRP:O	5:1F:43:LYS:HG2	2.20	0.41
12:1Q:60:ARG:NE	21:1Z:180:VAL:CA	2.81	0.41
20:1Y:15:VAL:HG21	20:1Y:42:VAL:HG11	2.02	0.41
21:1Z:144:LEU:HB3	21:1Z:174:VAL:HG21	2.02	0.41
26:14:48:ARG:HA	26:14:48:ARG:HD3	1.88	0.41
32:1a:45:U:H2'	32:1a:46:G:C8	2.55	0.41
32:1a:243:A:C2	32:1a:246:A:C8	3.08	0.41
32:1a:996:A:H2'	32:1a:997:U:C6	2.56	0.41
32:1a:1025:U:O2	32:1a:1036:G:C6	2.73	0.41
32:1a:1117:G:H5"	40:1i:104:ARG:CZ	2.50	0.41
33:1b:192:SER:O	33:1b:194:PRO:HD3	2.20	0.41
35:1d:11:LEU:HD23	35:1d:66:ARG:HB3	2.02	0.41
35:1d:101:LEU:HD13	35:1d:121:VAL:HG11	2.02	0.41
37:1f:89:MET:SD	49:1r:76:LEU:HD22	2.60	0.41
39:1h:72:PRO:O	39:1h:73:ASP:HB3	2.20	0.41
39:1h:97:VAL:O	39:1h:100:ILE:HG13	2.20	0.41
39:1h:116:LYS:HE3	39:1h:129:VAL:HG11	2.02	0.41
46:1o:11:VAL:O	46:1o:15:PHE:HD2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1o:39:LEU:HD23	46:1o:39:LEU:HA	1.80	0.41
1:2A:10:G:O2'	1:2A:2801(A):A:N7	2.53	0.41
1:2A:144:C:H2'	1:2A:145:G:C8	2.52	0.41
1:2A:197:A:H62	1:2A:2430:A:H2'	1.86	0.41
1:2A:271(K):U:H4'	1:2A:271(L):U:OP1	2.18	0.41
1:2A:452:G:C4	1:2A:458:G:C6	3.08	0.41
1:2A:1671:U:OP2	61:2A:3964:HOH:O	2.22	0.41
1:2A:2093:G:C6	1:2A:2225:A:C8	3.08	0.41
2:2B:21:G:H2'	2:2B:22:U:O4'	2.20	0.41
2:2B:75:G:H22	21:2Z:73:GLN:HE21	1.66	0.41
3:2D:75:ILE:HD13	3:2D:99:ASP:OD2	2.20	0.41
4:2E:120:TRP:CE3	4:2E:155:LYS:HD3	2.54	0.41
5:2F:20:LEU:HG	5:2F:21:ALA:H	1.85	0.41
6:2G:60:LEU:O	6:2G:60:LEU:HD23	2.20	0.41
7:2H:16:SER:HG	7:2H:27:LYS:HB2	1.85	0.41
12:2Q:66:ILE:HG12	12:2Q:104:PHE:HE1	1.85	0.41
14:2S:24:LEU:O	14:2S:86:ALA:N	2.42	0.41
26:24:53:GLU:C	26:24:55:ARG:H	2.28	0.41
32:2a:196:A:OP1	51:2t:68:LYS:NZ	2.34	0.41
32:2a:380:G:C2	32:2a:384:G:C6	3.09	0.41
32:2a:439:A:C5	32:2a:441:A:H1'	2.55	0.41
32:2a:570:G:C2	32:2a:571:U:C4	3.08	0.41
32:2a:1080:A:H5"	32:2a:1081:G:OP2	2.20	0.41
32:2a:1181:G:O2'	32:2a:1182:G:N7	2.53	0.41
34:2c:112:SER:HB3	34:2c:115:LEU:HB2	2.02	0.41
37:2f:23:LYS:HE2	37:2f:23:LYS:HB3	1.68	0.41
38:2g:63:LYS:HB2	38:2g:63:LYS:HE3	1.77	0.41
40:2i:125:TYR:HD2	40:2i:126:SER:N	2.18	0.41
43:2l:55:VAL:HG13	43:2l:69:TYR:HA	2.03	0.41
43:2l:70:ILE:HG12	43:2l:100:ILE:HD13	2.02	0.41
44:2m:23:TYR:CD2	44:2m:70:LEU:HD13	2.56	0.41
1:1A:1047:G:HO2'	1:1A:1048:A:H8	1.66	0.41
1:1A:1833:U:H2'	1:1A:1834:U:C6	2.56	0.41
1:1A:2712:U:OP1	1:1A:2714:G:H4'	2.19	0.41
4:1E:29:GLY:HA3	4:1E:30:PRO:HA	1.72	0.41
8:1I:61:ARG:HE	8:1I:61:ARG:HB2	1.70	0.41
15:1T:96:ARG:CZ	15:1T:96:ARG:HB3	2.50	0.41
24:12:30:ARG:NH2	61:12:202:HOH:O	2.50	0.41
25:13:8:LEU:HG	25:13:31:LEU:CD2	2.50	0.41
32:1a:487:A:H3'	32:1a:488:C:H6	1.85	0.41
32:1a:691:G:O2'	32:1a:797:C:H4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1086:U:H3	32:1a:1099:G:H22	1.68	0.41
32:1a:1207:2MG:H2'	32:1a:1208:C:H6	1.84	0.41
32:1a:1406:U:O2	32:1a:1517:G:N2	2.52	0.41
33:1b:208:ILE:HD13	33:1b:208:ILE:H	1.85	0.41
35:1d:194:LEU:HD13	35:1d:194:LEU:HA	1.79	0.41
36:1e:96:PRO:HB2	36:1e:97:GLY:H	1.67	0.41
37:1f:15:ASP:OD1	37:1f:17:SER:HB2	2.21	0.41
47:1p:60:LEU:HD12	47:1p:60:LEU:HA	1.85	0.41
1:2A:307:G:N2	1:2A:309:G:H3'	2.35	0.41
1:2A:614(A):U:O5'	1:2A:614(A):U:H6	2.03	0.41
1:2A:720:C:H2'	1:2A:721:C:C6	2.54	0.41
1:2A:993:G:OP1	16:2U:50:ARG:NH2	2.52	0.41
1:2A:1200:C:H5'	61:2A:4170:HOH:O	2.20	0.41
1:2A:1204:A:N1	1:2A:1241:A:N7	2.68	0.41
1:2A:1263:U:OP1	27:25:16:ARG:NH1	2.48	0.41
1:2A:1356:G:C6	1:2A:1357:U:C4	3.09	0.41
1:2A:1659:U:C4	1:2A:1660:C:C5	3.08	0.41
1:2A:1686:C:H2'	1:2A:1687:G:O4'	2.19	0.41
1:2A:1817:G:C6	1:2A:1818:U:C4	3.09	0.41
1:2A:2127:G:N2	1:2A:2161:C:C2	2.88	0.41
1:2A:2260:C:H42	1:2A:2280:G:H1	1.66	0.41
1:2A:2305:A:O2'	6:2G:136:ARG:HG2	2.20	0.41
1:2A:2512:C:O2'	4:2E:154:LYS:HE3	2.20	0.41
1:2A:2762:G:H2'	1:2A:2763:G:O4'	2.21	0.41
1:2A:2838:G:C6	1:2A:2839:G:C5	3.08	0.41
2:2B:31:C:H4'	6:2G:29:TRP:CH2	2.55	0.41
2:2B:83:G:H1	2:2B:94:C:N4	2.17	0.41
3:2D:252:TRP:CD1	3:2D:252:TRP:H	2.37	0.41
5:2F:129:PHE:CD2	5:2F:163:VAL:HG21	2.55	0.41
6:2G:7:LEU:HD23	6:2G:100:TRP:CE3	2.53	0.41
6:2G:18:GLU:HG2	6:2G:21:ARG:NH2	2.35	0.41
20:2Y:90:LEU:HD23	20:2Y:90:LEU:HA	1.89	0.41
26:24:1:MET:HE2	26:24:6:HIS:CG	2.56	0.41
32:2a:114:U:H2'	32:2a:115:G:C8	2.55	0.41
32:2a:259:G:H2'	32:2a:260:G:O4'	2.19	0.41
32:2a:393:A:OP2	47:2p:12:LYS:HD3	2.20	0.41
32:2a:542:G:OP1	35:2d:10:ARG:NH2	2.52	0.41
32:2a:590:C:OP1	39:2h:29:SER:HA	2.21	0.41
32:2a:947:G:H2'	32:2a:948:C:C6	2.55	0.41
32:2a:1073:U:H2'	32:2a:1074:G:H8	1.85	0.41
32:2a:1106:G:C6	32:2a:1107:C:C4	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:2t:54:LYS:HA	51:2t:57:ARG:NH1	2.35	0.41
1:1A:783:A:N3	1:1A:783:A:H2'	2.35	0.41
1:1A:1510:G:H2'	1:1A:1511:C:H6	1.85	0.41
1:1A:1529:G:H2'	1:1A:1530:C:O4'	2.20	0.41
1:1A:1920:OMC:HM22	1:1A:1921:G:O4'	2.21	0.41
1:1A:1961:C:C5	1:1A:1962:5MC:C4	3.08	0.41
1:1A:2397:G:C6	1:1A:2398:U:C4	3.08	0.41
1:1A:2517:C:C2	1:1A:2542:A:N6	2.89	0.41
7:1H:20:ALA:HB3	7:1H:23:ARG:HD3	2.02	0.41
7:1H:54:ARG:HD3	7:1H:65:HIS:ND1	2.35	0.41
7:1H:154:PRO:HB3	7:1H:163:TYR:CE1	2.55	0.41
32:1a:665:A:H2'	32:1a:732:C:O2	2.20	0.41
32:1a:1133:G:C6	32:1a:1142:G:C5	3.09	0.41
33:1b:208:ILE:HD13	33:1b:208:ILE:N	2.36	0.41
34:1c:110:ASN:O	34:1c:141:VAL:HG22	2.20	0.41
42:1k:84:VAL:CG1	42:1k:91:ARG:HD2	2.51	0.41
44:1m:89:GLY:O	44:1m:93:ARG:HG3	2.20	0.41
51:1t:60:GLU:O	51:1t:63:ILE:HB	2.20	0.41
51:1t:63:ILE:O	51:1t:66:ALA:HB3	2.20	0.41
54:1x:18:G:C2	54:1x:58:A:C5	3.08	0.41
1:2A:250:G:C6	1:2A:251:A:C6	3.09	0.41
1:2A:274:G:C2	1:2A:363:G:C5	3.08	0.41
1:2A:410:G:C6	1:2A:418:G:C6	3.09	0.41
1:2A:506:G:O3'	1:2A:507:A:H8	2.04	0.41
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.55	0.41
1:2A:1929:G:H4'	1:2A:1930:G:OP1	2.20	0.41
1:2A:2065:C:H2'	1:2A:2066:C:C6	2.55	0.41
5:2F:137:LYS:HE2	5:2F:137:LYS:HB3	1.45	0.41
6:2G:73:ALA:HB3	6:2G:85:GLY:H	1.85	0.41
22:20:38:VAL:HG11	22:20:45:PHE:HD2	1.85	0.41
25:23:4:LEU:HA	25:23:4:LEU:HD23	1.87	0.41
32:2a:6:G:N2	36:2e:98:THR:HG23	2.35	0.41
32:2a:152:A:C8	32:2a:153:C:C5	3.08	0.41
32:2a:203:U:H2'	32:2a:203:U:OP2	2.20	0.41
32:2a:257:G:H1	32:2a:269:C:N4	2.18	0.41
32:2a:271:C:H2'	32:2a:272:C:C6	2.56	0.41
32:2a:502:G:OP1	43:2l:118:SER:HB3	2.20	0.41
32:2a:506:G:C6	32:2a:507:C:C4	3.09	0.41
32:2a:976:G:C8	32:2a:1358:U:C2	3.08	0.41
32:2a:1386:G:H2'	32:2a:1387:G:H8	1.84	0.41
33:2b:215:LEU:HA	33:2b:215:LEU:HD23	1.78	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2e:11:ILE:HG21	36:2e:105:VAL:HA	2.03	0.41
36:2e:95:ALA:O	36:2e:97:GLY:N	2.50	0.41
42:2k:116:HIS:O	42:2k:117:ASN:HB2	2.20	0.41
49:2r:52:PRO:HB2	49:2r:54:ARG:HG2	2.03	0.41
51:2t:85:MET:O	51:2t:86:ARG:C	2.62	0.41
1:1A:84:A:OP2	20:1Y:8:LYS:HE3	2.19	0.41
1:1A:288:C:H2'	1:1A:289:A:C8	2.56	0.41
1:1A:628:G:H2'	1:1A:629:G:C8	2.55	0.41
1:1A:762:U:H4'	1:1A:763:G:O5'	2.20	0.41
1:1A:879:G:H2'	1:1A:880:G:O4'	2.20	0.41
1:1A:1028:A:H61	1:1A:1125:G:H2'	1.86	0.41
1:1A:1649:G:O2'	13:1R:107:ASP:OD2	2.27	0.41
1:1A:1718:G:N1	1:1A:1719:G:C5	2.89	0.41
1:1A:2127:G:H2'	1:1A:2128:C:C6	2.55	0.41
1:1A:2497:A:H5"	61:1A:4333:HOH:O	2.20	0.41
1:1A:2632:A:O2'	1:1A:2811:G:O2'	2.31	0.41
3:1D:10:THR:OG1	3:1D:13:ARG:HG2	2.21	0.41
3:1D:77:ALA:HB2	3:1D:97:TYR:CD1	2.55	0.41
4:1E:93:VAL:HG13	61:1E:408:HOH:O	2.20	0.41
4:1E:103:ASP:OD2	4:1E:168:MET:HE2	2.21	0.41
5:1F:101:LEU:HD12	5:1F:102:PRO:HD2	2.02	0.41
10:1O:122:LEU:HD23	10:1O:122:LEU:HA	1.92	0.41
15:1T:13:ARG:HE	15:1T:13:ARG:HB3	1.53	0.41
28:16:30:THR:HG21	28:16:34:LEU:HD21	2.01	0.41
30:18:34:TRP:CG	30:18:35:GLN:N	2.89	0.41
32:1a:242:C:H42	32:1a:284:G:H1	1.68	0.41
32:1a:1236:A:OP2	52:1u:3:LYS:HE3	2.19	0.41
32:1a:1365:G:C6	32:1a:1366:C:C4	3.08	0.41
33:1b:28:PHE:CD1	33:1b:194:PRO:HG3	2.53	0.41
34:1c:30:ARG:HD2	45:1n:35:ARG:O	2.20	0.41
42:1k:99:GLN:HG3	42:1k:105:VAL:HG21	2.02	0.41
44:1m:11:ARG:O	44:1m:12:ASN:HB2	2.20	0.41
50:1s:3:ARG:HH22	50:1s:7:LYS:HE2	1.84	0.41
1:2A:875:G:O2'	21:2Z:151:HIS:HE1	2.04	0.41
1:2A:1638:C:H5"	1:2A:2710:C:O2'	2.20	0.41
7:2H:149:ARG:HA	7:2H:162:ILE:HG21	2.02	0.41
8:2I:82:ARG:HE	8:2I:82:ARG:HB2	1.65	0.41
8:2I:129:THR:HG23	8:2I:139:GLN:NE2	2.35	0.41
10:2O:103:ALA:O	10:2O:106:LEU:HB2	2.20	0.41
13:2R:70:LEU:HD23	13:2R:70:LEU:HA	1.85	0.41
16:2U:114:LYS:HE3	16:2U:114:LYS:HB2	1.91	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:513:C:H2'	32:2a:514:C:C6	2.56	0.41
32:2a:728:A:H2'	32:2a:729:A:C8	2.55	0.41
32:2a:1164:G:C6	32:2a:1173:G:N1	2.89	0.41
32:2a:1166:G:C2	32:2a:1171:G:O6	2.74	0.41
32:2a:1292:U:C2	32:2a:1293:G:C8	3.08	0.41
32:2a:1304:G:C6	32:2a:1305:G:N1	2.89	0.41
34:2c:113:ALA:HB1	34:2c:200:ALA:HB3	2.01	0.41
51:2t:13:LEU:HD23	51:2t:13:LEU:HA	1.71	0.41
1:1A:28:A:OP2	61:1A:4306:HOH:O	2.22	0.41
1:1A:717:G:H2'	1:1A:718:A:O4'	2.20	0.41
1:1A:744:G:OP1	4:1E:132:HIS:ND1	2.49	0.41
1:1A:1062:G:H1	1:1A:1077:A:N6	2.19	0.41
1:1A:1139:G:O3'	9:1N:24:GLY:HA3	2.21	0.41
1:1A:1359:A:H2	1:1A:1372:U:O4	2.03	0.41
1:1A:1441:G:H2'	1:1A:1442:G:C8	2.54	0.41
1:1A:1478:G:O2'	1:1A:1558:A:N7	2.53	0.41
1:1A:2359:C:H2'	1:1A:2360:A:O4'	2.21	0.41
1:1A:2629:A:H1'	1:1A:2630:G:C5'	2.50	0.41
3:1D:37:LEU:HD12	3:1D:87:ASN:ND2	2.36	0.41
3:1D:70:TRP:C	3:1D:70:TRP:CE3	2.99	0.41
5:1F:33:LEU:HD13	5:1F:112:MET:HE3	2.03	0.41
6:1G:114:ILE:HG12	6:1G:140:ILE:HG12	2.03	0.41
8:1I:92:VAL:CG1	8:1I:120:ILE:HB	2.43	0.41
10:1O:101:PRO:HA	10:1O:120:GLU:O	2.20	0.41
14:1S:41:ASP:OD2	14:1S:44:LYS:HG3	2.19	0.41
18:1W:68:ARG:NH1	18:1W:111:HIS:HA	2.36	0.41
18:1W:110:LYS:O	18:1W:112:GLY:N	2.53	0.41
22:10:40:GLN:HE22	22:10:43:THR:HA	1.86	0.41
32:1a:501:C:H2'	32:1a:502:G:H8	1.86	0.41
32:1a:656:C:C2	32:1a:657:G:C8	3.08	0.41
32:1a:1202:G:O4'	45:1n:29:ARG:NH1	2.54	0.41
33:1b:115:LEU:HD13	33:1b:145:LEU:HB3	2.01	0.41
33:1b:178:ARG:HE	33:1b:178:ARG:HB3	1.53	0.41
39:1h:134:ILE:HD13	39:1h:134:ILE:HA	1.94	0.41
46:1o:15:PHE:CE1	46:1o:84:LYS:HD2	2.56	0.41
51:1t:50:GLU:HB2	51:1t:99:LEU:O	2.21	0.41
1:2A:287:C:H42	1:2A:354:G:H1	1.68	0.41
1:2A:1280:G:N2	1:2A:1291:C:C2	2.89	0.41
1:2A:1494:A:O2'	1:2A:1495:A:H5'	2.20	0.41
1:2A:2275:C:H6	1:2A:2275:C:H5'	1.85	0.41
1:2A:2406:U:OP2	1:2A:2406:U:H2'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2557:G:H2'	1:2A:2558:C:C6	2.56	0.41
1:2A:2887:U:H2'	1:2A:2888:C:H6	1.85	0.41
2:2B:14:U:O3'	2:2B:108:U:O2'	2.38	0.41
4:2E:120:TRP:CD1	4:2E:155:LYS:HB3	2.56	0.41
6:2G:97:ASP:O	6:2G:101:ILE:HG13	2.19	0.41
6:2G:113:ARG:HH12	6:2G:142:PRO:HA	1.85	0.41
24:22:32:LEU:HA	24:22:53:LEU:HD13	2.02	0.41
28:26:38:LYS:HB3	28:26:38:LYS:HE3	1.74	0.41
32:2a:573:A:N3	32:2a:883:C:O2'	2.51	0.41
32:2a:828:A:OP1	32:2a:828:A:H4'	2.20	0.41
32:2a:1068:G:H8	32:2a:1068:G:OP2	2.03	0.41
34:2c:33:LEU:HD21	45:2n:53:LEU:CD2	2.51	0.41
34:2c:87:LEU:C	34:2c:89:GLU:H	2.28	0.41
36:2e:88:LYS:HD3	36:2e:123:LEU:HD12	2.02	0.41
39:2h:86:ILE:HD11	39:2h:136:GLU:HB3	2.02	0.41
41:2j:25:GLU:O	41:2j:29:ARG:HG2	2.20	0.41
49:2r:30:ASP:C	49:2r:32:ARG:N	2.78	0.41
1:1A:455:C:N3	1:1A:472:A:H2'	2.36	0.41
1:1A:1064:C:N1	1:1A:1076:C:H5	2.19	0.41
1:1A:1105:U:C2	1:1A:1106:G:C8	3.08	0.41
1:1A:1851:U:O4	61:1A:4299:HOH:O	2.21	0.41
1:1A:2093:G:OP1	8:1I:23:PRO:HB2	2.20	0.41
1:1A:2295:C:O2'	1:1A:2296:U:H5'	2.21	0.41
1:1A:2352:A:N6	1:1A:2365:G:O2'	2.54	0.41
1:1A:2629:A:HO2'	1:1A:2630:G:P	2.38	0.41
2:1B:74:U:H2'	2:1B:75:G:O4'	2.21	0.41
5:1F:195:ASP:HB3	5:1F:198:ALA:H	1.85	0.41
6:1G:107:LEU:HA	6:1G:111:LEU:HD12	2.02	0.41
6:1G:122:PRO:HG2	6:1G:182:LYS:H	1.84	0.41
9:1N:138:LEU:HA	9:1N:138:LEU:HD23	1.71	0.41
12:1Q:30:GLY:HA2	12:1Q:107:ALA:HB2	2.01	0.41
13:1R:56:LYS:HE2	13:1R:56:LYS:HB3	1.90	0.41
32:1a:198:G:H2'	32:1a:199:G:H8	1.85	0.41
32:1a:266:G:H2'	32:1a:266:G:N3	2.35	0.41
32:1a:940:C:H2'	32:1a:941:G:C8	2.56	0.41
32:1a:958:A:C2	50:1s:55:LYS:HB2	2.55	0.41
32:1a:1031:G:H2'	32:1a:1032:G:C8	2.55	0.41
35:1d:108:LEU:CD1	35:1d:174:LEU:HD13	2.50	0.41
35:1d:149:ALA:HB3	35:1d:152:SER:HB2	2.03	0.41
38:1g:78:ARG:HH21	38:1g:79:ARG:NH1	2.18	0.41
38:1g:89:MET:SD	38:1g:155:ARG:HG3	2.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:1s:27:GLU:HB2	50:1s:28:LYS:HB3	2.02	0.41
1:2A:311:A:C8	1:2A:332:A:N7	2.89	0.41
1:2A:402:A:N1	1:2A:422:A:N6	2.65	0.41
1:2A:518:G:H2'	1:2A:519:U:C6	2.56	0.41
1:2A:558:G:OP1	9:2N:111:PRO:HD2	2.21	0.41
1:2A:738:G:C2	1:2A:759:G:C5	3.09	0.41
1:2A:1499:C:H2'	1:2A:1500:G:C8	2.56	0.41
1:2A:2261:C:H1'	1:2A:2388:A:N3	2.35	0.41
1:2A:2299:G:H2'	1:2A:2300:G:C8	2.56	0.41
1:2A:2320:A:N6	1:2A:2333:A:H2'	2.34	0.41
1:2A:2335:A:N7	1:2A:2337:G:C5	2.88	0.41
1:2A:2589:A:OP1	61:2A:3927:HOH:O	2.22	0.41
61:2A:3975:HOH:O	19:2X:77:LYS:NZ	2.53	0.41
2:2B:66:A:H61	2:2B:108:U:H2'	1.85	0.41
3:2D:116:GLN:HE21	3:2D:116:GLN:HB3	1.61	0.41
12:2Q:110:THR:HG22	12:2Q:112:GLU:H	1.86	0.41
30:28:39:LYS:HE3	30:28:43:GLN:NE2	2.36	0.41
32:2a:48:C:OP2	61:2a:3314:HOH:O	2.22	0.41
32:2a:90:U:C2'	32:2a:91:C:H5'	2.51	0.41
32:2a:194:C:C2'	32:2a:195:A:H5"	2.50	0.41
32:2a:500:G:C6	32:2a:546:G:C2	3.08	0.41
32:2a:557:G:C6	32:2a:558:G:N1	2.88	0.41
32:2a:993:G:H2'	32:2a:995:C:H41	1.85	0.41
32:2a:1523:G:OP1	42:2k:123:LYS:NZ	2.35	0.41
33:2b:84:GLU:O	33:2b:87:ARG:HB3	2.21	0.41
34:2c:186:PHE:HE1	34:2c:197:GLY:HA2	1.86	0.41
38:2g:107:ALA:O	38:2g:111:ARG:HG3	2.21	0.41
39:2h:4:ASP:OD1	39:2h:6:ILE:N	2.54	0.41
40:2i:106:ALA:O	40:2i:108:VAL:HG13	2.21	0.41
1:1A:171:G:O2'	1:1A:172:C:H5'	2.20	0.41
1:1A:479:A:N3	1:1A:481:G:H5"	2.36	0.41
1:1A:524:U:H2'	1:1A:525:U:C6	2.56	0.41
1:1A:1142(A):A:C4	1:1A:1144:G:N7	2.89	0.41
1:1A:1153:C:N4	1:1A:1154:G:C6	2.89	0.41
1:1A:1445(A):C:H2'	1:1A:1446:C:H6	1.85	0.41
1:1A:1510:G:H2'	1:1A:1511:C:C6	2.56	0.41
1:1A:1515:G:H2'	1:1A:1516:C:C6	2.56	0.41
1:1A:2134:A:N3	1:1A:2159:G:H1'	2.36	0.41
1:1A:2250:G:O2'	1:1A:2496:C:OP1	2.28	0.41
1:1A:2331:G:O2'	22:10:43:THR:HG22	2.20	0.41
1:1A:2355:C:O3'	22:10:24:LYS:HE3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2648:C:H2'	1:1A:2649:U:C6	2.55	0.41
1:1A:2687:U:H2'	1:1A:2688:U:O4'	2.20	0.41
2:1B:110:G:C2	2:1B:111:G:C4	3.09	0.41
5:1F:136:THR:O	5:1F:140:LEU:HB2	2.20	0.41
6:1G:170:ARG:NH2	6:1G:174:GLU:OE2	2.44	0.41
7:1H:55:PRO:HG2	7:1H:61:HIS:ND1	2.35	0.41
11:1P:94:GLU:HA	11:1P:124:LYS:O	2.20	0.41
17:1V:22:VAL:HG23	17:1V:23:GLU:O	2.21	0.41
21:1Z:19:ARG:NH1	21:1Z:84:GLU:HB2	2.36	0.41
28:16:38:LYS:HE3	28:16:38:LYS:HB3	1.90	0.41
32:1a:124:G:C4	32:1a:238:G:N2	2.89	0.41
32:1a:334:C:H2'	32:1a:335:C:H6	1.86	0.41
32:1a:1058:G:H2'	32:1a:1059:C:O4'	2.20	0.41
32:1a:1068:G:H8	32:1a:1068:G:OP2	2.04	0.41
32:1a:1234:C:H1'	32:1a:1364:U:O2	2.21	0.41
34:1c:112:SER:OG	34:1c:115:LEU:HG	2.21	0.41
35:1d:65:ARG:NH1	35:1d:72:GLU:OE1	2.45	0.41
35:1d:88:VAL:O	35:1d:92:VAL:HG23	2.21	0.41
35:1d:160:GLN:O	35:1d:163:GLU:HB2	2.21	0.41
40:1i:46:ALA:HB1	40:1i:77:ILE:HG21	2.02	0.41
50:1s:27:GLU:HB2	50:1s:28:LYS:CA	2.50	0.41
1:2A:466:A:H5'	29:27:21:ARG:NH2	2.36	0.41
1:2A:601:C:O2	1:2A:605:C:H4'	2.20	0.41
1:2A:844:C:OP2	1:2A:845:G:N2	2.53	0.41
1:2A:892:G:H3'	1:2A:893:C:H5"	2.01	0.41
1:2A:1142(A):A:O2'	1:2A:1143:A:H3'	2.21	0.41
1:2A:1504:C:H2'	1:2A:1505:C:H6	1.85	0.41
1:2A:1507:A:O2'	1:2A:1508:A:O5'	2.39	0.41
1:2A:2872:G:C2	1:2A:2873:A:N6	2.89	0.41
2:2B:52:A:N6	14:2S:33:LYS:HG2	2.36	0.41
2:2B:63:G:H2'	2:2B:64:C:C6	2.56	0.41
3:2D:69:ARG:NH2	3:2D:128:GLY:O	2.47	0.41
17:2V:24:LYS:HE2	17:2V:24:LYS:HB3	1.84	0.41
18:2W:12:ILE:HD13	18:2W:17:VAL:HG13	2.01	0.41
21:2Z:163:LEU:HD12	21:2Z:163:LEU:HA	1.60	0.41
31:29:1:MET:SD	31:29:35:ARG:N	2.94	0.41
32:2a:9:G:H5"	36:2e:126:ARG:HD3	2.02	0.41
32:2a:221:C:H2'	32:2a:222:U:H6	1.85	0.41
32:2a:882:C:H2'	32:2a:883:C:H6	1.85	0.41
32:2a:927:G:N2	32:2a:1391:U:H1'	2.36	0.41
32:2a:1217:C:H2'	32:2a:1218:C:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1227:A:C8	50:2s:83:HIS:HB3	2.56	0.41
32:2a:1323:G:H4'	32:2a:1363:C:N3	2.36	0.41
32:2a:1326:C:H2'	32:2a:1327:C:H6	1.85	0.41
32:2a:1347:G:N1	32:2a:1374:A:OP2	2.52	0.41
33:2b:137:ARG:O	33:2b:140:HIS:HB3	2.20	0.41
34:2c:40:ARG:HA	34:2c:43:LEU:HB2	2.03	0.41
35:2d:73:ARG:HA	35:2d:73:ARG:HD2	1.85	0.41
36:2e:81:GLU:HG2	36:2e:90:VAL:HG13	2.02	0.41
54:2x:36:U:H2'	54:2x:37:A:O4'	2.21	0.41
1:1A:64:A:C5	19:1X:66:LEU:HD13	2.56	0.41
1:1A:93:G:H2'	1:1A:94:C:C6	2.56	0.41
1:1A:297:C:H2'	1:1A:298:G:O4'	2.20	0.41
1:1A:655:A:H2'	1:1A:656:G:O4'	2.21	0.41
1:1A:779:U:OP1	3:1D:49:ILE:HG13	2.21	0.41
1:1A:890:A:H2'	1:1A:892:G:O4'	2.21	0.41
1:1A:1003:G:N2	1:1A:1153:C:C2	2.89	0.41
1:1A:1004:C:O3'	61:1A:4307:HOH:O	2.22	0.41
1:1A:1069:A:C4	1:1A:1073:A:C8	3.09	0.41
1:1A:1073:A:OP2	1:1A:1096:A:H5'	2.21	0.41
1:1A:1188:U:H2'	1:1A:1189:A:H5'	2.03	0.41
1:1A:1301:A:O2'	1:1A:1302:A:H3'	2.21	0.41
1:1A:1429:G:H2'	1:1A:1430:C:H6	1.85	0.41
1:1A:1437:C:O2'	1:1A:1516:C:O2'	2.26	0.41
1:1A:1654:A:C1'	1:1A:2823:A:H5'	2.51	0.41
1:1A:1878:G:H2'	1:1A:1879:C:C6	2.56	0.41
1:1A:1999:C:H4'	1:1A:2723:C:O2	2.21	0.41
1:1A:2110:G:OP1	1:1A:2145:C:N4	2.54	0.41
1:1A:2135:A:N3	1:1A:2135:A:H2'	2.35	0.41
1:1A:2360:A:H2'	1:1A:2361:A:O4'	2.21	0.41
1:1A:2419:U:O4	61:1A:4288:HOH:O	2.18	0.41
1:1A:2489:G:C6	1:1A:2490:G:N1	2.89	0.41
7:1H:62:LYS:HB3	7:1H:62:LYS:HE2	1.79	0.41
7:1H:121:ILE:HG21	7:1H:144:VAL:HG11	2.03	0.41
11:1P:1:MET:HB2	11:1P:1:MET:HE2	1.62	0.41
11:1P:89:ALA:O	11:1P:121:LYS:NZ	2.47	0.41
12:1Q:108:GLY:HA3	21:1Z:116:VAL:CG1	2.50	0.41
13:1R:44:LEU:HD23	13:1R:44:LEU:HA	1.93	0.41
15:1T:1:MET:HE3	15:1T:1:MET:HB2	1.88	0.41
15:1T:39:ARG:NH2	32:1a:345:C:H5"	2.36	0.41
18:1W:4:LYS:HG2	18:1W:5:ALA:N	2.36	0.41
18:1W:5:ALA:C	18:1W:6:ILE:HG13	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:10:40:GLN:HE21	22:10:57:PHE:HB3	1.85	0.41
23:11:37:ILE:HD13	23:11:37:ILE:HG21	1.90	0.41
26:14:61:ARG:HG3	26:14:61:ARG:O	2.21	0.41
31:19:12:ASP:OD1	31:19:13:LYS:HG2	2.21	0.41
32:1a:9:G:C6	32:1a:26:A:N6	2.89	0.41
32:1a:448:A:P	32:1a:485:G:H22	2.44	0.41
32:1a:511:C:N3	32:1a:541:G:N2	2.69	0.41
32:1a:737:A:P	37:1f:92:LYS:NZ	2.94	0.41
32:1a:739:C:C4	32:1a:740:U:C5	3.09	0.41
32:1a:782:A:H4'	32:1a:1514:C:O2'	2.21	0.41
32:1a:966:M2G:HM12	54:1x:34:C:H5'	2.02	0.41
33:1b:87:ARG:CD	33:1b:233:SER:HB3	2.51	0.41
33:1b:145:LEU:HD23	33:1b:145:LEU:HA	1.80	0.41
35:1d:28:SER:HB2	35:1d:29:PRO:HD2	2.03	0.41
42:1k:16:SER:CB	42:1k:79:SER:HB3	2.50	0.41
43:1l:28:LYS:HD3	43:1l:28:LYS:HA	1.85	0.41
47:1p:57:ARG:NH2	47:1p:79:VAL:HA	2.33	0.41
48:1q:48:GLU:O	48:1q:49:GLU:C	2.64	0.41
1:2A:14:A:N6	1:2A:15:G:C2	2.88	0.41
1:2A:121:G:H4'	1:2A:149:A:H5'	2.02	0.41
1:2A:414:C:H2'	1:2A:415:A:H8	1.85	0.41
1:2A:644:A:H4'	1:2A:645:C:C5	2.56	0.41
1:2A:855:G:H2'	1:2A:856:C:C6	2.55	0.41
1:2A:869:G:C2	1:2A:909:A:C2	3.09	0.41
1:2A:1169:G:H1	1:2A:1180:C:H42	1.69	0.41
1:2A:1203:G:H2'	1:2A:1204:A:H2	1.84	0.41
1:2A:1636:C:H2'	1:2A:1637:A:H8	1.84	0.41
1:2A:1847:A:H4'	1:2A:1848:A:OP2	2.20	0.41
1:2A:1914:C:OP2	1:2A:1914:C:H6	2.04	0.41
1:2A:1983:C:H4'	1:2A:2606:C:H4'	2.03	0.41
1:2A:2480:C:N4	1:2A:2481:G:C6	2.89	0.41
2:2B:37:C:C4	2:2B:38:C:C2	3.09	0.41
3:2D:126:GLN:HE21	3:2D:126:GLN:HA	1.86	0.41
5:2F:53:THR:N	5:2F:56:GLU:OE1	2.46	0.41
6:2G:35:GLU:HB3	6:2G:160:VAL:HG12	2.03	0.41
8:2I:84:GLY:O	8:2I:86:THR:N	2.51	0.41
10:2O:104:ARG:CZ	10:2O:104:ARG:HB2	2.51	0.41
12:2Q:17:LEU:HD23	12:2Q:17:LEU:HA	1.95	0.41
19:2X:94:GLY:N	19:2X:95:LEU:HB2	2.35	0.41
20:2Y:14:LEU:HD11	20:2Y:22:GLY:HA2	2.03	0.41
21:2Z:42:VAL:O	21:2Z:46:LYS:HG2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:151:HIS:CE1	21:2Z:168:GLU:O	2.73	0.41
32:2a:9:G:H5'	36:2e:122:GLU:OE2	2.21	0.41
32:2a:105:G:C6	32:2a:106:C:C4	3.08	0.41
32:2a:161:A:H2'	32:2a:162:A:C8	2.56	0.41
32:2a:562:C:H1'	43:2l:15:ARG:HB3	2.02	0.41
32:2a:590:C:H2'	32:2a:591:U:C6	2.56	0.41
32:2a:658:G:O4'	46:2o:22:THR:HB	2.20	0.41
32:2a:784:C:H2'	32:2a:785:G:O4'	2.21	0.41
32:2a:952:U:H2'	32:2a:953:G:H8	1.86	0.41
32:2a:1226:C:H6	44:2m:103:THR:HB	1.86	0.41
32:2a:1250:A:H4'	40:2i:68:GLY:H	1.86	0.41
33:2b:112:VAL:C	33:2b:114:ARG:H	2.29	0.41
33:2b:134:GLU:O	33:2b:138:LEU:HB2	2.21	0.41
33:2b:230:VAL:HG22	33:2b:232:PRO:HD2	2.02	0.41
35:2d:63:LYS:HE3	35:2d:63:LYS:HB2	1.90	0.41
39:2h:30:ARG:O	39:2h:34:GLU:HG2	2.21	0.41
39:2h:109:ILE:HG13	39:2h:110:ALA:N	2.31	0.41
40:2i:58:HIS:ND1	40:2i:58:HIS:N	2.67	0.41
41:2j:92:THR:C	41:2j:94:VAL:H	2.29	0.41
42:2k:18:ARG:O	42:2k:32:ILE:HA	2.21	0.41
44:2m:15:VAL:O	44:2m:19:LEU:HG	2.20	0.41
46:2o:55:GLY:CA	46:2o:58:MET:HG3	2.51	0.41
49:2r:25:THR:C	49:2r:26:LEU:HD12	2.45	0.41
1:1A:9:U:O4	1:1A:2629:A:H2	2.04	0.41
1:1A:542:C:O2'	1:1A:543:C:H5'	2.20	0.41
1:1A:754:C:H2'	1:1A:755:C:H6	1.86	0.41
1:1A:1026:U:OP1	61:1A:4211:HOH:O	2.21	0.41
1:1A:1263:U:H2'	1:1A:1264:G:C8	2.56	0.41
1:1A:1269:A:H8	1:1A:1269:A:O5'	2.04	0.41
1:1A:1324:G:O6	61:1A:4304:HOH:O	2.21	0.41
1:1A:1789:A:OP1	3:1D:221:VAL:HA	2.21	0.41
1:1A:2304:G:H22	1:1A:2312:U:H3	1.69	0.41
1:1A:2810:A:H2'	1:1A:2811:G:O4'	2.21	0.41
2:1B:7:G:H1	2:1B:114:C:H42	1.69	0.41
2:1B:110:G:C2	2:1B:111:G:C5	3.09	0.41
3:1D:223:GLY:HA3	3:1D:231:HIS:CE1	2.56	0.41
4:1E:82:ARG:HG3	4:1E:83:ASP:N	2.36	0.41
5:1F:7:TYR:CD2	5:1F:24:LEU:HB2	2.56	0.41
6:1G:11:TYR:HA	6:1G:15:VAL:HB	2.03	0.41
8:1I:22:LYS:O	8:1I:23:PRO:C	2.64	0.41
19:1X:1:MET:O	19:1X:2:LYS:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:1Y:5:MET:HB2	20:1Y:5:MET:HE2	1.66	0.41
23:11:70:VAL:O	23:11:73:LEU:HB2	2.21	0.41
32:1a:461:A:O2'	32:1a:470:C:H5'	2.20	0.41
32:1a:826:C:H2'	32:1a:827:U:C6	2.56	0.41
32:1a:1095:U:OP2	61:1a:1908:HOH:O	2.21	0.41
33:1b:155:LEU:HA	33:1b:155:LEU:HD12	1.66	0.41
36:1e:57:LYS:HG2	36:1e:61:TYR:CE2	2.56	0.41
38:1g:13:GLN:O	38:1g:24:THR:HG21	2.21	0.41
43:1l:54:LYS:O	43:1l:70:ILE:HG13	2.21	0.41
50:1s:27:GLU:HB2	50:1s:28:LYS:HA	2.02	0.41
51:1t:27:LYS:O	51:1t:31:SER:OG	2.38	0.41
1:2A:179:G:C6	1:2A:180:G:C5	3.09	0.41
1:2A:519:U:C2	1:2A:520:G:C8	3.09	0.41
1:2A:667:U:O2	30:28:2:PRO:HD2	2.21	0.41
1:2A:762:U:H4'	1:2A:763:G:O5'	2.21	0.41
1:2A:973:A:O4'	1:2A:1188:U:C6	2.74	0.41
1:2A:2259:G:C2	1:2A:2282:G:N1	2.89	0.41
1:2A:2286:A:H4'	1:2A:2287:A:O4'	2.21	0.41
1:2A:2319:G:OP1	1:2A:2319:G:H3'	2.21	0.41
1:2A:2837:G:C6	1:2A:2838:G:N7	2.89	0.41
1:2A:2854:G:C6	1:2A:2855:C:C4	3.09	0.41
6:2G:82:LEU:HA	6:2G:86:MET:SD	2.60	0.41
7:2H:9:ILE:HB	7:2H:50:VAL:HB	2.03	0.41
12:2Q:75:THR:HG21	12:2Q:87:LYS:NZ	2.36	0.41
13:2R:93:GLY:O	13:2R:117:VAL:HG21	2.21	0.41
14:2S:31:SER:C	14:2S:33:LYS:H	2.28	0.41
24:22:58:ALA:O	24:22:59:ARG:C	2.64	0.41
30:28:29:LYS:HD3	30:28:44:LYS:O	2.21	0.41
32:2a:174:C:H2'	32:2a:175:C:C6	2.54	0.41
32:2a:1023:G:H8	32:2a:1023:G:OP2	2.04	0.41
32:2a:1245:A:H2'	32:2a:1246:C:O4'	2.21	0.41
33:2b:35:GLU:HA	33:2b:39:ILE:O	2.20	0.41
34:2c:155:GLY:HA3	34:2c:196:LEU:HD22	2.03	0.41
38:2g:31:MET:SD	38:2g:34:GLY:HA2	2.61	0.41
40:2i:46:ALA:HA	40:2i:78:LYS:HB2	2.02	0.41
44:2m:19:LEU:HD11	44:2m:56:LEU:HD21	2.02	0.41
1:1A:675:A:OP1	5:1F:63:LYS:NZ	2.45	0.40
1:1A:1054:A:N6	1:1A:1105:U:H3	2.20	0.40
1:1A:1288:U:H4'	1:1A:1289:C:OP2	2.21	0.40
1:1A:1710:C:H2'	1:1A:1711:C:H6	1.85	0.40
1:1A:1889:A:H2'	1:1A:1890:A:C8	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2064:C:H2'	1:1A:2065:C:C6	2.55	0.40
1:1A:2451:A:C2	57:1A:4105:SPS:H183	2.56	0.40
5:1F:152:GLU:OE1	5:1F:191:ARG:HD2	2.21	0.40
7:1H:137:ASP:OD1	7:1H:137:ASP:C	2.64	0.40
8:1I:26:ALA:HA	8:1I:30:LEU:HB2	2.04	0.40
12:1Q:60:ARG:NE	21:1Z:179:ASP:C	2.79	0.40
13:1R:72:ASP:HB3	13:1R:75:LEU:HB3	2.04	0.40
24:12:31:GLU:HG2	24:12:53:LEU:HD11	2.02	0.40
31:19:25:VAL:O	31:19:33:LYS:HA	2.21	0.40
32:1a:46:G:O2'	32:1a:365:U:H1'	2.22	0.40
32:1a:865:A:H2	32:1a:918:A:H4'	1.87	0.40
32:1a:1015:A:H2'	32:1a:1016:A:H8	1.82	0.40
32:1a:1250:A:N6	32:1a:1251:A:N6	2.70	0.40
35:1d:164:ALA:O	35:1d:168:ARG:HG3	2.20	0.40
40:1i:49:PRO:HD3	40:1i:78:LYS:HG3	2.03	0.40
41:1j:40:LEU:HB2	41:1j:69:ASN:CB	2.44	0.40
48:1q:83:ASP:OD1	48:1q:83:ASP:N	2.52	0.40
1:2A:769:G:O2'	1:2A:770:G:H5'	2.21	0.40
1:2A:877:U:O5'	1:2A:877:U:H6	2.03	0.40
1:2A:881:G:C2	1:2A:882:G:H1'	2.55	0.40
1:2A:934:G:H2'	1:2A:935:C:C6	2.56	0.40
1:2A:1499:C:H2'	1:2A:1500:G:H8	1.85	0.40
1:2A:1791:A:H5'	3:2D:206:LEU:HD12	2.02	0.40
1:2A:1815:A:C6	1:2A:1817:G:C6	3.08	0.40
1:2A:2118:U:H5	1:2A:2148:G:N3	2.19	0.40
1:2A:2299:G:N1	1:2A:2318:G:C8	2.89	0.40
1:2A:2469:A:C6	1:2A:2470:G:C4	3.09	0.40
2:2B:48:A:H2'	2:2B:49:C:C6	2.56	0.40
4:2E:27:LEU:HD22	15:2T:1:MET:SD	2.61	0.40
4:2E:51:PHE:CE2	4:2E:52:LEU:HG	2.56	0.40
8:2I:48:GLU:HG3	8:2I:52:ARG:HH11	1.86	0.40
11:2P:70:GLN:O	11:2P:73:GLY:N	2.48	0.40
12:2Q:73:PRO:HA	12:2Q:93:TYR:CD1	2.56	0.40
21:2Z:71:VAL:HG13	21:2Z:88:PHE:CD1	2.56	0.40
30:28:60:LEU:HD23	30:28:60:LEU:HA	1.89	0.40
32:2a:235:C:H2'	32:2a:236:G:C8	2.56	0.40
32:2a:257:G:C4	32:2a:258:G:C8	3.08	0.40
32:2a:391:G:C6	32:2a:392:G:C5	3.09	0.40
32:2a:499:A:H4'	32:2a:500:G:OP1	2.19	0.40
32:2a:833:U:C2'	32:2a:834:C:H5'	2.51	0.40
33:2b:52:GLU:HG2	33:2b:56:ARG:NH2	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:91:PRO:HG3	33:2b:154:LEU:HB2	2.03	0.40
35:2d:43:HIS:HB3	35:2d:46:LYS:HD2	2.01	0.40
35:2d:111:ALA:CB	35:2d:116:GLN:HE21	2.33	0.40
38:2g:44:TYR:HA	38:2g:47:CYS:SG	2.61	0.40
40:2i:5:TYR:HD1	40:2i:18:PHE:CD1	2.39	0.40
40:2i:86:VAL:HG11	40:2i:93:ARG:HG2	2.02	0.40
41:2j:27:ALA:HB1	41:2j:74:ILE:HD13	2.03	0.40
42:2k:16:SER:O	42:2k:35:PRO:HG3	2.22	0.40
1:1A:27:G:C2	1:1A:512:G:N3	2.89	0.40
1:1A:185:U:H4'	1:1A:218:A:H4'	2.03	0.40
1:1A:1634:A:H5"	61:1A:4294:HOH:O	2.21	0.40
1:1A:1797:C:O2'	3:1D:259:THR:HG22	2.20	0.40
1:1A:2028:U:H2'	1:1A:2029:G:O4'	2.20	0.40
1:1A:2101:G:H2'	1:1A:2102:U:O4'	2.21	0.40
1:1A:2431:U:O2'	1:1A:2433:A:N7	2.47	0.40
1:1A:2489:G:C6	1:1A:2490:G:C6	3.10	0.40
1:1A:2591:C:OP2	3:1D:239:ARG:HB2	2.21	0.40
1:1A:2848:G:H3'	15:1T:95:ARG:O	2.20	0.40
4:1E:47:VAL:O	4:1E:80:GLU:HA	2.21	0.40
6:1G:18:GLU:O	6:1G:21:ARG:HG3	2.21	0.40
13:1R:63:ARG:HA	13:1R:80:PHE:CZ	2.56	0.40
16:1U:101:ARG:O	16:1U:103:PRO:HD3	2.20	0.40
21:1Z:73:GLN:HB3	21:1Z:87:ASP:HB2	2.03	0.40
21:1Z:155:LEU:HD12	21:1Z:155:LEU:HA	1.86	0.40
21:1Z:183:LEU:HD23	21:1Z:183:LEU:HA	1.72	0.40
24:12:46:GLN:HB2	24:12:49:LYS:HD2	2.03	0.40
32:1a:260:G:H2'	32:1a:261:U:C6	2.57	0.40
32:1a:544:G:C6	32:1a:545:C:C4	3.09	0.40
32:1a:691:G:H2'	32:1a:692:U:C6	2.56	0.40
32:1a:840:C:OP2	32:1a:840:C:H2'	2.21	0.40
32:1a:1314:C:C5	50:1s:4:SER:HB2	2.56	0.40
32:1a:1378:C:C5	32:1a:1379:G:C8	3.10	0.40
34:1c:12:LEU:HD11	45:1n:51:GLY:CA	2.51	0.40
34:1c:23:TYR:CD2	34:1c:24:ALA:N	2.89	0.40
36:1e:59:GLY:O	36:1e:63:ARG:HG3	2.21	0.40
40:1i:82:ALA:O	40:1i:86:VAL:HG23	2.21	0.40
43:1l:79:GLU:HG2	43:1l:80:HIS:CD2	2.56	0.40
45:1n:21:TYR:HE1	45:1n:23:ARG:NE	2.19	0.40
46:1o:39:LEU:HB3	46:1o:56:LEU:HD13	2.03	0.40
49:1r:24:ALA:C	49:1r:26:LEU:H	2.29	0.40
1:2A:124:G:N2	1:2A:126:A:O2'	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:271(P):C:H2'	1:2A:271(Q):G:O4'	2.21	0.40
1:2A:489:G:H2'	1:2A:491:G:O4'	2.21	0.40
1:2A:774:A:N3	1:2A:774:A:H2'	2.36	0.40
1:2A:959:A:C6	1:2A:960:A:C6	3.09	0.40
1:2A:987:G:O2'	1:2A:1000:A:N3	2.46	0.40
1:2A:1747(A):G:C2	1:2A:1748:G:C8	3.09	0.40
1:2A:1782:C:OP1	61:2A:3977:HOH:O	2.21	0.40
1:2A:1967:C:H2'	1:2A:1968:G:H5'	2.03	0.40
1:2A:2468:G:C8	1:2A:2476:A:C2	3.10	0.40
1:2A:2497:A:H5"	61:2A:4119:HOH:O	2.21	0.40
4:2E:38:THR:HG23	4:2E:41:LYS:HB3	2.03	0.40
5:2F:149:ASP:OD1	5:2F:151:SER:HB3	2.22	0.40
6:2G:166:ASP:O	6:2G:170:ARG:N	2.54	0.40
11:2P:47:ASP:OD2	11:2P:49:ARG:NH2	2.51	0.40
14:2S:52:SER:HB2	14:2S:55:ALA:CB	2.52	0.40
15:2T:121:ILE:O	15:2T:124:ASP:HB2	2.21	0.40
16:2U:89:GLU:HB2	17:2V:50:PRO:HB3	2.02	0.40
18:2W:19:LEU:O	18:2W:22:ASP:HB2	2.21	0.40
19:2X:52:VAL:HG22	19:2X:82:GLN:O	2.21	0.40
25:23:28:LEU:HD23	25:23:28:LEU:HA	1.93	0.40
32:2a:5:U:H5'	32:2a:6:G:C6	2.57	0.40
32:2a:17:U:H2'	32:2a:18:C:C6	2.56	0.40
32:2a:241:C:C2	32:2a:286:G:C2	3.09	0.40
32:2a:532:A:N1	34:2c:156:ARG:NH1	2.69	0.40
32:2a:545:C:H2'	32:2a:546:G:O4'	2.20	0.40
32:2a:596:C:N4	32:2a:644:G:H1	2.19	0.40
32:2a:685:G:N1	32:2a:686:U:O4	2.54	0.40
32:2a:786:G:C2	32:2a:797:C:C2	3.10	0.40
33:2b:113:HIS:ND1	33:2b:113:HIS:N	2.70	0.40
33:2b:136:VAL:O	33:2b:140:HIS:HB2	2.21	0.40
34:2c:122:GLU:O	34:2c:125:GLU:HG2	2.20	0.40
34:2c:148:GLY:HA3	34:2c:172:ARG:O	2.21	0.40
35:2d:129:ASN:CG	35:2d:145:GLU:H	2.28	0.40
36:2e:90:VAL:O	36:2e:120:THR:HA	2.21	0.40
37:2f:80:ARG:HA	37:2f:85:VAL:HG11	2.03	0.40
1:1A:69:C:H2'	1:1A:70:G:H8	1.86	0.40
1:1A:171:G:H2'	1:1A:172:C:C6	2.56	0.40
1:1A:898:C:H3'	1:1A:898:C:H6	1.86	0.40
1:1A:1001:A:H2'	1:1A:1002:G:O4'	2.22	0.40
1:1A:1795:C:H2'	1:1A:1796:U:O4'	2.20	0.40
1:1A:1971:A:C4	3:1D:241:PRO:HD3	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:1A:4105:SPS:H73	57:1A:4105:SPS:H81	1.89	0.40
2:1B:73:A:C4	2:1B:105:A:C2	3.09	0.40
7:1H:121:ILE:HG12	7:1H:140:LYS:HD3	2.03	0.40
8:1I:17:GLN:HG2	8:1I:18:VAL:N	2.35	0.40
14:1S:11:LYS:O	14:1S:15:ARG:HG3	2.21	0.40
14:1S:31:SER:O	14:1S:97:ARG:NH2	2.32	0.40
14:1S:34:HIS:ND1	14:1S:53:SER:OG	2.48	0.40
16:1U:52:ARG:HE	16:1U:52:ARG:HB3	1.75	0.40
21:1Z:104:PHE:CE1	21:1Z:172:ALA:HB2	2.56	0.40
21:1Z:157:LEU:HB3	21:1Z:161:VAL:HG23	2.03	0.40
25:13:31:LEU:O	25:13:32:GLN:HB2	2.21	0.40
32:1a:147:G:C2	32:1a:148:G:C8	3.09	0.40
32:1a:261:U:O2'	32:1a:263:A:N7	2.51	0.40
32:1a:542:G:H5'	35:1d:41:GLY:HA3	2.02	0.40
32:1a:658:G:C5	32:1a:659:U:C5	3.09	0.40
32:1a:993:G:C2'	32:1a:995:C:H41	2.34	0.40
32:1a:1129:C:H4'	40:1i:16:ARG:HH22	1.87	0.40
34:1c:193:TYR:CE1	34:1c:196:LEU:HD21	2.56	0.40
36:1e:74:GLY:CA	36:1e:116:THR:HG22	2.50	0.40
37:1f:1:MET:O	37:1f:2:ARG:HG3	2.22	0.40
43:1l:77:LEU:HD21	43:1l:107:ALA:CA	2.52	0.40
44:1m:81:LEU:HD11	44:1m:88:ARG:NH2	2.37	0.40
49:1r:43:PHE:CE1	49:1r:56:THR:HG23	2.55	0.40
50:1s:3:ARG:HH12	50:1s:7:LYS:HE2	1.85	0.40
1:2A:262:A:H2'	1:2A:263:C:O4'	2.21	0.40
1:2A:598:G:C6	1:2A:599:G:C5	3.10	0.40
1:2A:682:G:N2	1:2A:796:C:C2	2.89	0.40
1:2A:2378:A:H4'	14:2S:23:ARG:CZ	2.52	0.40
1:2A:2717:G:C5	1:2A:2718:G:C8	3.10	0.40
1:2A:2784:C:H1'	4:2E:37:ARG:NH1	2.31	0.40
1:2A:2807:G:N2	1:2A:2808:U:H1'	2.36	0.40
1:2A:2821:A:H2'	1:2A:2822:G:O4'	2.22	0.40
4:2E:5:LEU:HD12	4:2E:51:PHE:HB2	2.03	0.40
4:2E:47:VAL:HG11	4:2E:86:PRO:CD	2.49	0.40
8:2I:82:ARG:H	8:2I:82:ARG:NE	2.18	0.40
12:2Q:98:LYS:HB3	12:2Q:98:LYS:HE3	1.78	0.40
14:2S:31:SER:O	14:2S:33:LYS:N	2.53	0.40
14:2S:35:ILE:HD11	14:2S:101:LEU:HD12	2.02	0.40
17:2V:2:PHE:CZ	17:2V:41:GLY:HA3	2.56	0.40
23:21:34:THR:HG22	23:21:36:GLY:H	1.87	0.40
32:2a:101:A:C2'	32:2a:102:G:H5'	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:108:G:H5”	32:2a:109:A:H5”	2.02	0.40
32:2a:421:U:H4’	32:2a:422:C:OP2	2.19	0.40
32:2a:604:G:C2	32:2a:635:G:C5	3.09	0.40
32:2a:621:A:H2’	32:2a:622:A:O4’	2.20	0.40
32:2a:1086:U:H2’	32:2a:1087:G:H8	1.86	0.40
32:2a:1159:U:O4’	32:2a:1182:G:N2	2.53	0.40
32:2a:1258:G:O2’	32:2a:1259:C:H5’	2.22	0.40
34:2c:18:TRP:CD1	45:2n:54:PRO:HA	2.57	0.40
34:2c:20:SER:HB3	34:2c:22:TRP:HE1	1.86	0.40
35:2d:101:LEU:C	35:2d:103:ASN:N	2.77	0.40
35:2d:105:VAL:HG13	35:2d:110:PHE:HB2	2.03	0.40
41:2j:9:ARG:O	41:2j:16:LEU:HD11	2.22	0.40
43:2l:61:THR:C	43:2l:63:GLY:H	2.30	0.40
48:2q:54:GLY:O	48:2q:81:ARG:N	2.45	0.40
49:2r:45:SER:OG	49:2r:46:GLU:N	2.54	0.40
1:1A:66:C:C2	1:1A:89:G:N2	2.89	0.40
1:1A:481:G:C4	1:1A:507:A:C2	3.10	0.40
1:1A:622:G:OP2	11:1P:108:LYS:NZ	2.52	0.40
1:1A:898:C:H3’	1:1A:898:C:C6	2.57	0.40
1:1A:1093:G:H1’	1:1A:1099:G:N2	2.37	0.40
1:1A:2422:A:N7	30:18:31:HIS:HE1	2.19	0.40
1:1A:2427:C:H5”	1:1A:2428:G:OP1	2.20	0.40
2:1B:37:C:C5	2:1B:38:C:C4	3.09	0.40
2:1B:48:A:H4’	14:1S:95:HIS:CD2	2.52	0.40
3:1D:215:LEU:HB2	3:1D:217:ARG:HD2	2.02	0.40
10:1O:89:ASN:H	10:1O:89:ASN:ND2	2.20	0.40
12:1Q:60:ARG:HD2	21:1Z:178:GLU:C	2.46	0.40
17:1V:34:GLU:HA	17:1V:57:VAL:O	2.22	0.40
32:1a:189(B):C:H2’	32:1a:189(C):C:C6	2.57	0.40
32:1a:507:C:H3’	32:1a:508:C:H2’	2.04	0.40
32:1a:969:A:H2’	32:1a:970:C:H5’	2.04	0.40
32:1a:1360:A:OP1	61:1a:1923:HOH:O	2.22	0.40
33:1b:163:PHE:CD1	33:1b:185:ILE:HD11	2.55	0.40
35:1d:36:ARG:HD2	35:1d:38:TYR:OH	2.21	0.40
35:1d:101:LEU:HD22	35:1d:121:VAL:HG21	2.03	0.40
38:1g:78:ARG:HG3	38:1g:79:ARG:N	2.35	0.40
41:1j:92:THR:O	41:1j:94:VAL:N	2.50	0.40
50:1s:32:LYS:HA	50:1s:50:ALA:HB3	2.03	0.40
1:2A:11:G:C2’	1:2A:12:U:H5’	2.51	0.40
1:2A:95:G:H4’	24:22:46:GLN:HA	2.02	0.40
1:2A:109:G:C4	1:2A:110:G:C8	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:271(A):A:N7	1:2A:271(W):G:N2	2.68	0.40
1:2A:312:G:H4'	1:2A:331:A:N3	2.37	0.40
1:2A:398:G:H2'	1:2A:399:G:C8	2.56	0.40
1:2A:587:C:OP2	11:2P:21:ARG:NH2	2.52	0.40
1:2A:2176:A:H2'	1:2A:2177:C:C6	2.56	0.40
1:2A:2400:G:H4'	28:26:18:ARG:HG2	2.03	0.40
1:2A:2745:C:C4	1:2A:2746:U:C4	3.09	0.40
2:2B:96:U:N3	2:2B:97:G:N7	2.69	0.40
3:2D:11:PRO:O	3:2D:14:ARG:HG2	2.20	0.40
3:2D:239:ARG:NH1	61:2D:408:HOH:O	2.54	0.40
4:2E:14:ILE:HB	15:2T:14:TYR:CZ	2.56	0.40
6:2G:146:TYR:HD2	44:2m:11:ARG:HH22	1.70	0.40
9:2N:97:ARG:HA	9:2N:100:GLU:HB2	2.03	0.40
10:2O:2:ILE:CG2	10:2O:8:LEU:HD11	2.52	0.40
15:2T:13:ARG:H	15:2T:13:ARG:HG3	1.61	0.40
15:2T:102:ILE:HA	15:2T:105:LEU:HG	2.04	0.40
25:23:7:LYS:HE3	25:23:32:GLN:HE21	1.85	0.40
32:2a:6:G:H4'	32:2a:298:A:H4'	2.02	0.40
32:2a:233:C:H2'	32:2a:234:C:C6	2.54	0.40
32:2a:376:G:C4'	47:2p:5:ARG:HE	2.33	0.40
32:2a:657:G:C2	32:2a:658:G:C8	3.09	0.40
32:2a:972:C:O2'	41:2j:55:LYS:O	2.36	0.40
32:2a:1074:G:C2	32:2a:1075:C:C2	3.09	0.40
32:2a:1129:C:H4'	32:2a:1146:A:N1	2.37	0.40
32:2a:1318:A:H5"	50:2s:3:ARG:NH2	2.36	0.40
32:2a:1471:G:O2'	32:2a:1472:U:H5'	2.20	0.40
34:2c:12:LEU:HD23	34:2c:12:LEU:HA	1.88	0.40
34:2c:71:ALA:CA	34:2c:106:VAL:HB	2.51	0.40
35:2d:22:LYS:HB2	35:2d:26:CYS:SG	2.61	0.40
35:2d:153:ARG:HB3	35:2d:181:MET:SD	2.62	0.40
37:2f:78:GLU:O	37:2f:81:ILE:HB	2.21	0.40
39:2h:73:ASP:OD1	39:2h:75:ARG:NE	2.51	0.40
48:2q:84:LEU:O	48:2q:85:VAL:C	2.64	0.40
1:1A:1049:C:H1'	1:1A:1113:U:H4'	2.04	0.40
1:1A:1508:A:H4'	1:1A:1509:C:OP1	2.21	0.40
1:1A:1639:U:OP1	61:1A:4308:HOH:O	2.22	0.40
1:1A:1668:A:O2'	1:1A:1674:G:N7	2.51	0.40
1:1A:2205:C:O2	1:1A:2220:G:C2	2.74	0.40
1:1A:2282:G:H4'	1:1A:2389:G:O2'	2.22	0.40
5:1F:97:TYR:OH	61:1F:402:HOH:O	2.21	0.40
6:1G:9:ARG:HH11	6:1G:9:ARG:HD2	1.77	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:1N:99:LEU:O	9:1N:103:VAL:HG23	2.22	0.40
12:1Q:31:ASP:OD1	12:1Q:134:ARG:NH1	2.54	0.40
29:17:5:TRP:HA	29:17:5:TRP:CE3	2.57	0.40
32:1a:200:G:H2'	32:1a:201:C:C6	2.57	0.40
32:1a:392:G:H2'	32:1a:393:A:C8	2.56	0.40
32:1a:433:C:H2'	32:1a:434:U:H6	1.87	0.40
32:1a:756:C:H2'	32:1a:757:U:O4'	2.22	0.40
32:1a:1230:C:H2'	32:1a:1231:G:H8	1.85	0.40
32:1a:1440:C:N4	32:1a:1441:G:C6	2.89	0.40
33:1b:82:ARG:HD2	33:1b:92:TYR:OH	2.21	0.40
37:1f:1:MET:HA	37:1f:67:MET:O	2.21	0.40
38:1g:69:VAL:C	38:1g:138:LYS:HD2	2.46	0.40
40:1i:17:VAL:HG21	40:1i:81:ILE:CG2	2.49	0.40
41:1j:5:ARG:O	41:1j:98:ILE:HA	2.21	0.40
43:1l:7:ILE:HG23	43:1l:7:ILE:HD12	1.83	0.40
44:1m:50:GLU:O	44:1m:54:VAL:HG22	2.21	0.40
46:1o:68:ARG:HG2	46:1o:72:ARG:HH22	1.85	0.40
47:1p:57:ARG:HH21	47:1p:79:VAL:CA	2.33	0.40
54:1x:49:G:C6	54:1x:50:U:C4	3.09	0.40
1:2A:118:A:N3	1:2A:178:G:H1'	2.36	0.40
1:2A:294:A:O2'	20:2Y:1:MET:HE2	2.22	0.40
1:2A:431:U:O5'	1:2A:431:U:H6	2.05	0.40
1:2A:783:A:O2'	1:2A:785:G:OP1	2.39	0.40
1:2A:1945:G:H2'	1:2A:1946:U:C6	2.56	0.40
1:2A:2195:C:O2'	1:2A:2196:C:H5'	2.21	0.40
1:2A:2712:U:OP1	1:2A:2714:G:H4'	2.21	0.40
2:2B:24:G:H5'	2:2B:25:A:N7	2.37	0.40
2:2B:54:G:H5"	2:2B:55:U:OP2	2.21	0.40
3:2D:24:ILE:HD13	3:2D:84:TYR:HB2	2.03	0.40
5:2F:28:ILE:HD11	5:2F:115:ALA:HB3	2.04	0.40
5:2F:64:ILE:HG13	5:2F:65:TRP:N	2.36	0.40
5:2F:124:LEU:O	5:2F:193:VAL:HA	2.21	0.40
6:2G:107:LEU:HD21	6:2G:178:PHE:CE2	2.57	0.40
8:2I:140:LEU:HA	8:2I:140:LEU:HD12	1.66	0.40
25:23:4:LEU:O	25:23:36:VAL:HA	2.22	0.40
25:23:46:ASN:O	25:23:49:LYS:N	2.54	0.40
32:2a:423:G:H5"	32:2a:424:G:OP2	2.22	0.40
32:2a:687:A:H4'	32:2a:688:G:O5'	2.22	0.40
32:2a:872:A:C4	32:2a:874:G:N7	2.89	0.40
32:2a:1286:A:H8	32:2a:1287:A:O3'	2.03	0.40
32:2a:1346:A:C5	38:2g:10:ARG:NH1	2.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:111:LEU:HD23	34:2c:111:LEU:HA	1.82	0.40
38:2g:78:ARG:NE	38:2g:79:ARG:HE	2.19	0.40
38:2g:120:ILE:HG22	38:2g:124:LEU:HD12	2.03	0.40
41:2j:51:ARG:HG3	41:2j:60:ARG:C	2.47	0.40
43:2l:69:TYR:HE2	43:2l:71:PRO:HA	1.86	0.40
44:2m:118:ALA:HA	54:2x:28:C:O3'	2.21	0.40
49:2r:25:THR:O	49:2r:26: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%)	245 (90%)	27 (10%)	1 (0%)	30 53
3	2D	273/276 (99%)	234 (86%)	38 (14%)	1 (0%)	30 53
4	1E	202/206 (98%)	189 (94%)	12 (6%)	1 (0%)	24 49
4	2E	202/206 (98%)	181 (90%)	18 (9%)	3 (2%)	8 23
5	1F	200/210 (95%)	190 (95%)	8 (4%)	2 (1%)	12 32
5	2F	200/210 (95%)	180 (90%)	18 (9%)	2 (1%)	12 32
6	1G	179/182 (98%)	157 (88%)	20 (11%)	2 (1%)	11 29
6	2G	179/182 (98%)	147 (82%)	22 (12%)	10 (6%)	1 2
7	1H	172/180 (96%)	163 (95%)	7 (4%)	2 (1%)	10 28
7	2H	172/180 (96%)	141 (82%)	24 (14%)	7 (4%)	2 5
8	1I	144/148 (97%)	106 (74%)	28 (19%)	10 (7%)	1 1
8	2I	144/148 (97%)	116 (81%)	23 (16%)	5 (4%)	3 7
9	1N	138/140 (99%)	127 (92%)	7 (5%)	4 (3%)	3 10
9	2N	138/140 (99%)	128 (93%)	9 (6%)	1 (1%)	18 40

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
10	1O	120/122 (98%)	111 (92%)	8 (7%)	1 (1%)	16 37
10	2O	120/122 (98%)	109 (91%)	10 (8%)	1 (1%)	16 37
11	1P	147/150 (98%)	128 (87%)	14 (10%)	5 (3%)	3 7
11	2P	147/150 (98%)	130 (88%)	13 (9%)	4 (3%)	4 11
12	1Q	139/141 (99%)	124 (89%)	14 (10%)	1 (1%)	18 40
12	2Q	139/141 (99%)	120 (86%)	16 (12%)	3 (2%)	5 15
13	1R	116/118 (98%)	104 (90%)	10 (9%)	2 (2%)	7 20
13	2R	116/118 (98%)	101 (87%)	14 (12%)	1 (1%)	14 34
14	1S	108/112 (96%)	97 (90%)	9 (8%)	2 (2%)	6 17
14	2S	108/112 (96%)	87 (81%)	16 (15%)	5 (5%)	2 4
15	1T	129/146 (88%)	114 (88%)	15 (12%)	0	100 100
15	2T	129/146 (88%)	116 (90%)	11 (8%)	2 (2%)	7 21
16	1U	114/118 (97%)	107 (94%)	7 (6%)	0	100 100
16	2U	114/118 (97%)	104 (91%)	8 (7%)	2 (2%)	6 19
17	1V	99/101 (98%)	91 (92%)	6 (6%)	2 (2%)	6 16
17	2V	99/101 (98%)	84 (85%)	12 (12%)	3 (3%)	3 9
18	1W	110/113 (97%)	103 (94%)	7 (6%)	0	100 100
18	2W	110/113 (97%)	103 (94%)	5 (4%)	2 (2%)	6 19
19	1X	93/96 (97%)	87 (94%)	4 (4%)	2 (2%)	5 15
19	2X	93/96 (97%)	82 (88%)	8 (9%)	3 (3%)	3 8
20	1Y	105/110 (96%)	88 (84%)	12 (11%)	5 (5%)	2 3
20	2Y	105/110 (96%)	90 (86%)	10 (10%)	5 (5%)	2 3
21	1Z	183/206 (89%)	162 (88%)	19 (10%)	2 (1%)	11 29
21	2Z	176/206 (85%)	144 (82%)	25 (14%)	7 (4%)	2 5
22	10	81/85 (95%)	75 (93%)	6 (7%)	0	100 100
22	20	81/85 (95%)	73 (90%)	8 (10%)	0	100 100
23	11	95/98 (97%)	91 (96%)	3 (3%)	1 (1%)	11 29
23	21	95/98 (97%)	91 (96%)	4 (4%)	0	100 100
24	12	68/72 (94%)	64 (94%)	3 (4%)	1 (2%)	8 23
24	22	68/72 (94%)	59 (87%)	7 (10%)	2 (3%)	3 10
25	13	57/60 (95%)	54 (95%)	3 (5%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
25	23	57/60 (95%)	48 (84%)	8 (14%)	1 (2%)	6 19
26	14	67/71 (94%)	49 (73%)	13 (19%)	5 (8%)	1 1
26	24	67/71 (94%)	46 (69%)	15 (22%)	6 (9%)	0 1
27	15	57/60 (95%)	53 (93%)	4 (7%)	0	100 100
27	25	57/60 (95%)	53 (93%)	3 (5%)	1 (2%)	6 19
28	16	51/54 (94%)	48 (94%)	3 (6%)	0	100 100
28	26	51/54 (94%)	42 (82%)	9 (18%)	0	100 100
29	17	46/49 (94%)	42 (91%)	4 (9%)	0	100 100
29	27	46/49 (94%)	42 (91%)	4 (9%)	0	100 100
30	18	62/65 (95%)	60 (97%)	2 (3%)	0	100 100
30	28	62/65 (95%)	54 (87%)	8 (13%)	0	100 100
31	19	35/37 (95%)	33 (94%)	2 (6%)	0	100 100
31	29	35/37 (95%)	33 (94%)	1 (3%)	1 (3%)	3 10
33	1b	229/256 (90%)	185 (81%)	33 (14%)	11 (5%)	2 3
33	2b	229/256 (90%)	174 (76%)	45 (20%)	10 (4%)	2 4
34	1c	204/239 (85%)	181 (89%)	21 (10%)	2 (1%)	12 32
34	2c	204/239 (85%)	159 (78%)	38 (19%)	7 (3%)	3 7
35	1d	206/209 (99%)	172 (84%)	26 (13%)	8 (4%)	2 5
35	2d	206/209 (99%)	162 (79%)	33 (16%)	11 (5%)	1 3
36	1e	146/162 (90%)	130 (89%)	10 (7%)	6 (4%)	2 5
36	2e	146/162 (90%)	127 (87%)	12 (8%)	7 (5%)	2 3
37	1f	98/101 (97%)	87 (89%)	8 (8%)	3 (3%)	3 8
37	2f	98/101 (97%)	92 (94%)	6 (6%)	0	100 100
38	1g	153/156 (98%)	128 (84%)	24 (16%)	1 (1%)	18 40
38	2g	153/156 (98%)	132 (86%)	16 (10%)	5 (3%)	3 7
39	1h	135/138 (98%)	122 (90%)	13 (10%)	0	100 100
39	2h	135/138 (98%)	113 (84%)	20 (15%)	2 (2%)	8 23
40	1i	125/128 (98%)	103 (82%)	19 (15%)	3 (2%)	4 13
40	2i	125/128 (98%)	103 (82%)	21 (17%)	1 (1%)	16 37
41	1j	95/105 (90%)	79 (83%)	12 (13%)	4 (4%)	2 5
41	2j	94/105 (90%)	74 (79%)	12 (13%)	8 (8%)	0 1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
42	1k	112/129 (87%)	92 (82%)	20 (18%)	0	100 100
42	2k	112/129 (87%)	100 (89%)	8 (7%)	4 (4%)	2 6
43	1l	119/132 (90%)	106 (89%)	10 (8%)	3 (2%)	4 13
43	2l	119/132 (90%)	103 (87%)	12 (10%)	4 (3%)	3 7
44	1m	121/126 (96%)	106 (88%)	12 (10%)	3 (2%)	4 13
44	2m	120/126 (95%)	95 (79%)	21 (18%)	4 (3%)	3 7
45	1n	58/61 (95%)	51 (88%)	5 (9%)	2 (3%)	3 7
45	2n	58/61 (95%)	50 (86%)	6 (10%)	2 (3%)	3 7
46	1o	86/89 (97%)	80 (93%)	4 (5%)	2 (2%)	5 14
46	2o	86/89 (97%)	78 (91%)	8 (9%)	0	100 100
47	1p	80/88 (91%)	70 (88%)	8 (10%)	2 (2%)	4 13
47	2p	80/88 (91%)	66 (82%)	13 (16%)	1 (1%)	9 26
48	1q	97/105 (92%)	81 (84%)	10 (10%)	6 (6%)	1 2
48	2q	97/105 (92%)	79 (81%)	15 (16%)	3 (3%)	3 8
49	1r	66/88 (75%)	57 (86%)	6 (9%)	3 (4%)	2 4
49	2r	66/88 (75%)	58 (88%)	8 (12%)	0	100 100
50	1s	81/93 (87%)	68 (84%)	11 (14%)	2 (2%)	4 13
50	2s	81/93 (87%)	62 (76%)	17 (21%)	2 (2%)	4 13
51	1t	94/106 (89%)	76 (81%)	12 (13%)	6 (6%)	1 2
51	2t	94/106 (89%)	76 (81%)	14 (15%)	4 (4%)	2 4
52	1u	21/27 (78%)	19 (90%)	1 (5%)	1 (5%)	2 3
52	2u	21/27 (78%)	15 (71%)	5 (24%)	1 (5%)	2 3
All	All	11423/12128 (94%)	9911 (87%)	1239 (11%)	273 (2%)	4 13

All (273) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
7	1H	126	PRO
8	1I	117	GLU
9	1N	28	THR
9	1N	88	GLU
11	1P	38	GLN
11	1P	39	LYS
20	1Y	78	ALA

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Mol	Chain	Res	Type
24	12	69	ARG
26	14	53	GLU
33	1b	17	PHE
33	1b	124	SER
33	1b	231	GLU
35	1d	63	LYS
35	1d	173	TRP
36	1e	96	PRO
37	1f	40	VAL
40	1i	54	ASP
40	1i	56	LEU
41	1j	79	ARG
44	1m	107	ALA
48	1q	67	LYS
48	1q	68	ARG
51	1t	10	LEU
51	1t	100	ILE
5	2F	130	ALA
6	2G	47	LYS
6	2G	51	ARG
6	2G	84	LYS
6	2G	126	ASP
7	2H	126	PRO
8	2I	10	GLU
11	2P	36	LYS
11	2P	38	GLN
12	2Q	62	GLY
12	2Q	140	ALA
15	2T	129	ARG
17	2V	79	VAL
21	2Z	93	ASP
26	24	45	GLY
27	25	36	CYS
33	2b	16	HIS
33	2b	17	PHE
33	2b	123	ALA
35	2d	177	ASP
38	2g	55	GLY
38	2g	80	VAL
41	2j	79	ARG
50	2s	9	VAL
52	2u	3	LYS

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Mol	Chain	Res	Type
3	1D	3	VAL
6	1G	43	LEU
6	1G	47	LYS
8	1I	15	VAL
8	1I	71	ILE
8	1I	116	LEU
17	1V	100	ARG
19	1X	94	GLY
20	1Y	33	LYS
26	14	47	GLN
26	14	49	PHE
33	1b	13	ALA
33	1b	126	GLU
33	1b	155	LEU
35	1d	88	VAL
35	1d	193	ASP
36	1e	85	GLY
36	1e	97	GLY
37	1f	70	ASP
43	1l	51	ALA
44	1m	67	GLU
48	1q	54	GLY
3	2D	3	VAL
6	2G	42	GLY
6	2G	124	SER
7	2H	47	GLU
7	2H	65	HIS
10	2O	5	GLN
11	2P	45	LEU
12	2Q	19	GLY
14	2S	22	GLY
14	2S	96	GLY
15	2T	100	TYR
16	2U	84	LYS
21	2Z	53	ILE
21	2Z	92	SER
26	24	48	ARG
33	2b	74	LYS
33	2b	105	PHE
33	2b	153	ARG
33	2b	220	ASP
34	2c	99	VAL

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Mol	Chain	Res	Type
34	2c	129	ALA
35	2d	124	GLY
35	2d	159	ARG
36	2e	85	GLY
36	2e	98	THR
38	2g	52	GLU
41	2j	29	ARG
41	2j	75	ILE
42	2k	49	GLY
43	2l	62	SER
43	2l	91	LYS
48	2q	68	ARG
51	2t	47	GLY
51	2t	68	LYS
4	1E	52	LEU
8	1I	61	ARG
12	1Q	60	ARG
13	1R	107	ASP
14	1S	96	GLY
19	1X	40	LYS
21	1Z	65	GLN
33	1b	20	GLU
40	1i	107	ARG
41	1j	29	ARG
43	1l	91	LYS
44	1m	32	GLU
47	1p	46	PRO
49	1r	33	ASP
4	2E	52	LEU
4	2E	144	ARG
7	2H	92	ILE
8	2I	39	ALA
8	2I	115	ALA
9	2N	2	LYS
11	2P	136	GLU
14	2S	32	LEU
17	2V	100	ARG
18	2W	11	ARG
26	24	47	GLN
33	2b	125	PRO
35	2d	69	GLY
38	2g	153	HIS

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Mol	Chain	Res	Type
39	2h	41	ARG
41	2j	31	GLY
41	2j	56	HIS
42	2k	106	LYS
44	2m	41	PRO
44	2m	106	ASN
45	2n	14	PRO
48	2q	96	GLU
50	2s	13	ASP
7	1H	56	SER
8	1I	10	GLU
8	1I	11	ASN
8	1I	39	ALA
10	1O	5	GLN
13	1R	45	ARG
14	1S	6	ALA
33	1b	129	GLU
33	1b	234	PRO
34	1c	60	ALA
35	1d	189	PRO
36	1e	6	PHE
36	1e	86	ALA
41	1j	77	PRO
46	1o	86	GLY
47	1p	28	ARG
48	1q	49	GLU
48	1q	55	ASP
6	2G	104	GLU
6	2G	127	GLY
6	2G	179	PRO
7	2H	110	SER
13	2R	107	ASP
18	2W	60	ASN
19	2X	2	LYS
19	2X	15	GLU
19	2X	94	GLY
20	2Y	2	ARG
20	2Y	78	ALA
21	2Z	142	SER
24	22	4	SER
24	22	69	ARG
33	2b	20	GLU

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Mol	Chain	Res	Type
35	2d	73	ARG
36	2e	132	ALA
38	2g	76	ARG
40	2i	107	ARG
44	2m	18	ALA
45	2n	52	GLN
51	2t	95	ALA
5	1F	130	ALA
5	1F	188	ARG
8	1I	69	LYS
9	1N	2	LYS
11	1P	29	LYS
11	1P	45	LEU
17	1V	79	VAL
33	1b	189	ASP
34	1c	81	GLY
35	1d	64	LEU
35	1d	172	PRO
36	1e	69	VAL
37	1f	62	TRP
41	1j	30	SER
45	1n	14	PRO
45	1n	60	SER
46	1o	78	TYR
49	1r	25	THR
50	1s	42	PRO
51	1t	9	ASN
52	1u	23	PRO
5	2F	21	ALA
6	2G	49	ASP
7	2H	29	PRO
8	2I	63	ALA
14	2S	84	GLN
20	2Y	79	CYS
20	2Y	91	GLU
20	2Y	103	GLY
21	2Z	95	PRO
26	24	24	THR
31	29	21	GLY
34	2c	26	LYS
34	2c	181	ASN
35	2d	102	ASP

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Mol	Chain	Res	Type
35	2d	164	ALA
35	2d	186	LEU
36	2e	73	ASN
36	2e	97	GLY
42	2k	124	LYS
43	2l	12	ARG
43	2l	74	GLY
47	2p	76	GLN
48	2q	67	LYS
51	2t	9	ASN
11	1P	37	GLY
23	11	3	LYS
35	1d	179	GLU
48	1q	33	GLY
49	1r	60	ALA
50	1s	27	GLU
51	1t	47	GLY
21	2Z	120	ILE
25	23	59	VAL
34	2c	171	GLY
35	2d	56	VAL
35	2d	163	GLU
36	2e	96	PRO
39	2h	73	ASP
41	2j	89	ASP
42	2k	105	VAL
8	1I	34	GLY
20	1Y	103	GLY
43	1l	63	GLY
7	2H	99	VAL
41	2j	77	PRO
41	2j	82	ILE
9	1N	111	PRO
20	1Y	32	PRO
38	1g	112	PRO
26	24	33	VAL
34	2c	64	VAL
20	1Y	53	PRO
26	14	50	VAL
51	1t	63	ILE
8	2I	80	PRO
21	2Z	47	VAL

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Mol	Chain	Res	Type
26	24	29	PRO
36	2e	69	VAL
44	2m	7	VAL
21	1Z	53	ILE
26	14	45	GLY
14	2S	35	ILE
16	2U	82	GLY
33	2b	72	GLY
34	2c	14	ILE
35	2d	5	ILE
51	1t	96	GLY
33	1b	125	PRO
4	2E	30	PRO
17	2V	50	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	1D	215/218 (99%)	190 (88%)	25 (12%)	5 16
3	2D	215/218 (99%)	195 (91%)	20 (9%)	8 23
4	1E	164/166 (99%)	151 (92%)	13 (8%)	11 29
4	2E	164/166 (99%)	144 (88%)	20 (12%)	5 14
5	1F	160/166 (96%)	133 (83%)	27 (17%)	2 6
5	2F	159/166 (96%)	142 (89%)	17 (11%)	6 18
6	1G	143/156 (92%)	120 (84%)	23 (16%)	2 7
6	2G	143/156 (92%)	120 (84%)	23 (16%)	2 7
7	1H	144/148 (97%)	126 (88%)	18 (12%)	4 13
7	2H	144/148 (97%)	127 (88%)	17 (12%)	5 15
8	1I	113/124 (91%)	84 (74%)	29 (26%)	0 1
8	2I	105/124 (85%)	84 (80%)	21 (20%)	1 3
9	1N	118/119 (99%)	106 (90%)	12 (10%)	7 20

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
9	2N	118/119 (99%)	100 (85%)	18 (15%)	3 8
10	1O	100/100 (100%)	87 (87%)	13 (13%)	4 12
10	2O	100/100 (100%)	91 (91%)	9 (9%)	9 24
11	1P	115/116 (99%)	96 (84%)	19 (16%)	2 7
11	2P	115/116 (99%)	101 (88%)	14 (12%)	5 14
12	1Q	111/111 (100%)	100 (90%)	11 (10%)	7 21
12	2Q	111/111 (100%)	100 (90%)	11 (10%)	7 21
13	1R	101/101 (100%)	87 (86%)	14 (14%)	3 10
13	2R	101/101 (100%)	95 (94%)	6 (6%)	18 41
14	1S	86/88 (98%)	73 (85%)	13 (15%)	3 8
14	2S	85/88 (97%)	71 (84%)	14 (16%)	2 7
15	1T	115/127 (91%)	105 (91%)	10 (9%)	9 25
15	2T	113/127 (89%)	103 (91%)	10 (9%)	9 24
16	1U	93/94 (99%)	88 (95%)	5 (5%)	20 44
16	2U	93/94 (99%)	82 (88%)	11 (12%)	5 15
17	1V	80/82 (98%)	75 (94%)	5 (6%)	16 38
17	2V	80/82 (98%)	69 (86%)	11 (14%)	3 10
18	1W	90/92 (98%)	81 (90%)	9 (10%)	7 20
18	2W	90/92 (98%)	81 (90%)	9 (10%)	7 20
19	1X	77/78 (99%)	71 (92%)	6 (8%)	11 30
19	2X	77/78 (99%)	71 (92%)	6 (8%)	11 30
20	1Y	85/91 (93%)	72 (85%)	13 (15%)	3 8
20	2Y	85/91 (93%)	71 (84%)	14 (16%)	2 7
21	1Z	158/179 (88%)	122 (77%)	36 (23%)	1 2
21	2Z	149/179 (83%)	116 (78%)	33 (22%)	1 2
22	10	65/67 (97%)	58 (89%)	7 (11%)	6 18
22	20	65/67 (97%)	63 (97%)	2 (3%)	35 59
23	11	80/83 (96%)	69 (86%)	11 (14%)	3 10
23	21	80/83 (96%)	70 (88%)	10 (12%)	4 13
24	12	65/67 (97%)	51 (78%)	14 (22%)	1 2
24	22	65/67 (97%)	53 (82%)	12 (18%)	1 4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
25	13	51/52 (98%)	43 (84%)	8 (16%)	2 8
25	23	50/52 (96%)	42 (84%)	8 (16%)	2 8
26	14	59/63 (94%)	46 (78%)	13 (22%)	1 2
26	24	53/63 (84%)	45 (85%)	8 (15%)	3 8
27	15	50/52 (96%)	42 (84%)	8 (16%)	2 8
27	25	50/52 (96%)	49 (98%)	1 (2%)	48 71
28	16	51/52 (98%)	43 (84%)	8 (16%)	2 8
28	26	50/52 (96%)	43 (86%)	7 (14%)	3 10
29	17	41/42 (98%)	39 (95%)	2 (5%)	22 48
29	27	41/42 (98%)	35 (85%)	6 (15%)	3 9
30	18	54/55 (98%)	46 (85%)	8 (15%)	3 9
30	28	54/55 (98%)	51 (94%)	3 (6%)	19 43
31	19	34/34 (100%)	29 (85%)	5 (15%)	3 9
31	29	34/34 (100%)	31 (91%)	3 (9%)	9 24
33	1b	192/220 (87%)	158 (82%)	34 (18%)	2 4
33	2b	187/220 (85%)	142 (76%)	45 (24%)	1 1
34	1c	142/188 (76%)	117 (82%)	25 (18%)	2 5
34	2c	140/188 (74%)	114 (81%)	26 (19%)	1 4
35	1d	169/181 (93%)	140 (83%)	29 (17%)	2 5
35	2d	173/181 (96%)	140 (81%)	33 (19%)	1 3
36	1e	113/123 (92%)	98 (87%)	15 (13%)	4 12
36	2e	114/123 (93%)	97 (85%)	17 (15%)	3 8
37	1f	84/90 (93%)	76 (90%)	8 (10%)	8 22
37	2f	85/90 (94%)	73 (86%)	12 (14%)	3 9
38	1g	119/127 (94%)	102 (86%)	17 (14%)	3 9
38	2g	120/127 (94%)	99 (82%)	21 (18%)	2 5
39	1h	114/119 (96%)	100 (88%)	14 (12%)	4 14
39	2h	114/119 (96%)	100 (88%)	14 (12%)	4 14
40	1i	90/99 (91%)	75 (83%)	15 (17%)	2 6
40	2i	89/99 (90%)	74 (83%)	15 (17%)	2 6
41	1j	66/92 (72%)	58 (88%)	8 (12%)	5 14

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
41	2j	69/92 (75%)	53 (77%)	16 (23%)	1 2
42	1k	82/99 (83%)	71 (87%)	11 (13%)	4 11
42	2k	83/99 (84%)	71 (86%)	12 (14%)	3 9
43	1l	96/108 (89%)	86 (90%)	10 (10%)	7 19
43	2l	96/108 (89%)	84 (88%)	12 (12%)	4 13
44	1m	93/101 (92%)	79 (85%)	14 (15%)	3 8
44	2m	92/101 (91%)	77 (84%)	15 (16%)	2 7
45	1n	49/50 (98%)	43 (88%)	6 (12%)	5 14
45	2n	49/50 (98%)	45 (92%)	4 (8%)	10 27
46	1o	78/80 (98%)	72 (92%)	6 (8%)	12 30
46	2o	78/80 (98%)	67 (86%)	11 (14%)	3 9
47	1p	69/74 (93%)	58 (84%)	11 (16%)	2 8
47	2p	68/74 (92%)	58 (85%)	10 (15%)	3 9
48	1q	94/97 (97%)	81 (86%)	13 (14%)	3 10
48	2q	94/97 (97%)	87 (93%)	7 (7%)	13 32
49	1r	59/77 (77%)	54 (92%)	5 (8%)	10 25
49	2r	59/77 (77%)	52 (88%)	7 (12%)	5 15
50	1s	69/80 (86%)	56 (81%)	13 (19%)	1 4
50	2s	67/80 (84%)	55 (82%)	12 (18%)	2 4
51	1t	70/82 (85%)	57 (81%)	13 (19%)	1 4
51	2t	70/82 (85%)	62 (89%)	8 (11%)	5 16
52	1u	18/22 (82%)	16 (89%)	2 (11%)	6 17
52	2u	18/22 (82%)	16 (89%)	2 (11%)	6 17
All	All	9338/10064 (93%)	8041 (86%)	1297 (14%)	3 10

All (1297) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	3	VAL
3	1D	14	ARG
3	1D	32	SER
3	1D	35	LYS
3	1D	38	LYS
3	1D	61	LEU

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Mol	Chain	Res	Type
3	1D	82	ILE
3	1D	89	SER
3	1D	112	GLN
3	1D	115	GLN
3	1D	116	GLN
3	1D	126	GLN
3	1D	133	LEU
3	1D	142	VAL
3	1D	147	LEU
3	1D	162	SER
3	1D	165	ILE
3	1D	208	LYS
3	1D	212	SER
3	1D	221	VAL
3	1D	229	VAL
3	1D	242	ARG
3	1D	266	SER
3	1D	270	ILE
3	1D	273	ARG
4	1E	12	THR
4	1E	26	ILE
4	1E	41	LYS
4	1E	45	THR
4	1E	47	VAL
4	1E	49	LEU
4	1E	92	THR
4	1E	116	VAL
4	1E	119	ARG
4	1E	127	ASP
4	1E	183	LEU
4	1E	184	VAL
4	1E	195	LEU
5	1F	24	LEU
5	1F	28	ILE
5	1F	32	LEU
5	1F	33	LEU
5	1F	53	THR
5	1F	57	VAL
5	1F	74	ARG
5	1F	82	ILE
5	1F	88	VAL
5	1F	95	ARG

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Mol	Chain	Res	Type
5	1F	106	ARG
5	1F	127	GLU
5	1F	132	VAL
5	1F	136	THR
5	1F	140	LEU
5	1F	144	LYS
5	1F	145	GLU
5	1F	158	THR
5	1F	162	LEU
5	1F	168	ARG
5	1F	175	THR
5	1F	183	VAL
5	1F	192	LEU
5	1F	195	ASP
5	1F	196	LEU
5	1F	197	ASP
5	1F	205	ARG
6	1G	3	LEU
6	1G	5	VAL
6	1G	7	LEU
6	1G	9	ARG
6	1G	21	ARG
6	1G	22	ARG
6	1G	28	VAL
6	1G	31	VAL
6	1G	33	ARG
6	1G	36	LYS
6	1G	40	ASN
6	1G	43	LEU
6	1G	47	LYS
6	1G	77	ILE
6	1G	79	ASN
6	1G	91	ARG
6	1G	128	ARG
6	1G	133	LEU
6	1G	140	ILE
6	1G	149	VAL
6	1G	159	VAL
6	1G	161	THR
6	1G	170	ARG
7	1H	7	LEU
7	1H	23	ARG

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Mol	Chain	Res	Type
7	1H	24	VAL
7	1H	49	VAL
7	1H	58	GLU
7	1H	76	VAL
7	1H	95	ARG
7	1H	98	LEU
7	1H	103	LEU
7	1H	113	VAL
7	1H	116	GLU
7	1H	122	THR
7	1H	127	GLU
7	1H	129	THR
7	1H	134	SER
7	1H	141	VAL
7	1H	155	SER
7	1H	160	LYS
8	1I	7	GLU
8	1I	9	LEU
8	1I	10	GLU
8	1I	15	VAL
8	1I	38	LEU
8	1I	40	THR
8	1I	42	SER
8	1I	47	LEU
8	1I	51	ILE
8	1I	61	ARG
8	1I	68	LEU
8	1I	77	LEU
8	1I	85	GLU
8	1I	86	THR
8	1I	87	LYS
8	1I	91	SER
8	1I	92	VAL
8	1I	96	ASP
8	1I	101	LEU
8	1I	103	ARG
8	1I	109	ILE
8	1I	116	LEU
8	1I	117	GLU
8	1I	127	VAL
8	1I	128	LEU
8	1I	133	HIS

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Mol	Chain	Res	Type
8	1I	140	LEU
8	1I	142	VAL
8	1I	144	VAL
9	1N	1	MET
9	1N	9	VAL
9	1N	28	THR
9	1N	48	MET
9	1N	55	VAL
9	1N	58	ASP
9	1N	62	VAL
9	1N	65	LYS
9	1N	83	LYS
9	1N	84	LYS
9	1N	96	GLU
9	1N	112	LEU
10	1O	3	GLN
10	1O	21	CYS
10	1O	26	LYS
10	1O	35	VAL
10	1O	47	ILE
10	1O	53	LYS
10	1O	58	VAL
10	1O	69	ILE
10	1O	75	SER
10	1O	80	ASP
10	1O	112	MET
10	1O	114	ILE
10	1O	120	GLU
11	1P	1	MET
11	1P	3	LEU
11	1P	19	VAL
11	1P	32	THR
11	1P	38	GLN
11	1P	45	LEU
11	1P	46	LYS
11	1P	56	SER
11	1P	65	ARG
11	1P	68	GLN
11	1P	70	GLN
11	1P	90	ARG
11	1P	98	GLU
11	1P	100	LEU

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Mol	Chain	Res	Type
11	1P	114	ILE
11	1P	126	VAL
11	1P	133	SER
11	1P	147	LEU
11	1P	148	LEU
12	1Q	1	MET
12	1Q	8	LYS
12	1Q	16	ARG
12	1Q	25	ASP
12	1Q	56	ARG
12	1Q	75	THR
12	1Q	81	VAL
12	1Q	109	VAL
12	1Q	110	THR
12	1Q	115	MET
12	1Q	133	ARG
13	1R	6	SER
13	1R	8	ARG
13	1R	15	SER
13	1R	30	THR
13	1R	34	ILE
13	1R	36	THR
13	1R	42	LYS
13	1R	44	LEU
13	1R	86	ARG
13	1R	91	GLN
13	1R	100	LEU
13	1R	102	GLU
13	1R	111	LEU
13	1R	114	VAL
14	1S	14	VAL
14	1S	25	ARG
14	1S	36	TYR
14	1S	38	GLN
14	1S	46	VAL
14	1S	49	VAL
14	1S	50	SER
14	1S	52	SER
14	1S	65	VAL
14	1S	69	VAL
14	1S	71	ARG
14	1S	83	LYS

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Mol	Chain	Res	Type
14	1S	110	LEU
15	1T	6	LEU
15	1T	17	THR
15	1T	28	VAL
15	1T	30	VAL
15	1T	34	VAL
15	1T	96	ARG
15	1T	104	ASN
15	1T	108	ARG
15	1T	118	ARG
15	1T	128	GLU
16	1U	17	ILE
16	1U	30	LYS
16	1U	74	LEU
16	1U	95	LEU
16	1U	100	VAL
17	1V	10	LYS
17	1V	18	LEU
17	1V	58	VAL
17	1V	79	VAL
17	1V	82	ARG
18	1W	4	LYS
18	1W	11	ARG
18	1W	17	VAL
18	1W	19	LEU
18	1W	35	ILE
18	1W	59	VAL
18	1W	63	ASP
18	1W	85	VAL
18	1W	95	ILE
19	1X	1	MET
19	1X	23	GLU
19	1X	48	LYS
19	1X	50	LYS
19	1X	52	VAL
19	1X	88	LYS
20	1Y	7	VAL
20	1Y	9	LYS
20	1Y	11	ASP
20	1Y	14	LEU
20	1Y	19	LYS
20	1Y	44	ILE

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Mol	Chain	Res	Type
20	1Y	61	ILE
20	1Y	64	GLU
20	1Y	70	SER
20	1Y	72	VAL
20	1Y	92	ASN
20	1Y	99	CYS
20	1Y	106	LEU
21	1Z	2	GLU
21	1Z	6	LYS
21	1Z	8	TYR
21	1Z	14	LYS
21	1Z	18	LEU
21	1Z	31	ARG
21	1Z	42	VAL
21	1Z	49	ARG
21	1Z	56	VAL
21	1Z	57	ILE
21	1Z	61	LEU
21	1Z	70	LEU
21	1Z	74	VAL
21	1Z	76	LEU
21	1Z	86	VAL
21	1Z	91	LEU
21	1Z	93	ASP
21	1Z	94	GLU
21	1Z	107	THR
21	1Z	116	VAL
21	1Z	119	GLU
21	1Z	129	SER
21	1Z	131	ARG
21	1Z	139	VAL
21	1Z	145	GLU
21	1Z	150	LEU
21	1Z	153	SER
21	1Z	154	ASP
21	1Z	155	LEU
21	1Z	156	LYS
21	1Z	165	VAL
21	1Z	170	THR
21	1Z	178	GLU
21	1Z	180	VAL
21	1Z	181	GLU

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Mol	Chain	Res	Type
21	1Z	185	GLU
22	10	5	LYS
22	10	14	ARG
22	10	16	SER
22	10	49	LYS
22	10	55	ARG
22	10	74	ARG
22	10	82	ARG
23	11	21	ARG
23	11	30	VAL
23	11	33	LYS
23	11	40	ARG
23	11	51	VAL
23	11	58	ILE
23	11	59	THR
23	11	61	ARG
23	11	76	ARG
23	11	83	GLU
23	11	98	LEU
24	12	1	MET
24	12	24	LEU
24	12	34	GLU
24	12	40	SER
24	12	41	ILE
24	12	45	SER
24	12	50	ILE
24	12	53	LEU
24	12	55	ARG
24	12	59	ARG
24	12	60	LEU
24	12	62	THR
24	12	65	ASN
24	12	70	GLN
25	13	18	ASP
25	13	23	LEU
25	13	31	LEU
25	13	32	GLN
25	13	37	LEU
25	13	54	VAL
25	13	55	ARG
25	13	58	VAL
26	14	5	ILE

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Mol	Chain	Res	Type
26	14	15	ILE
26	14	26	SER
26	14	27	THR
26	14	33	VAL
26	14	37	SER
26	14	47	GLN
26	14	49	PHE
26	14	52	THR
26	14	53	GLU
26	14	61	ARG
26	14	63	TYR
26	14	67	TYR
27	15	6	VAL
27	15	11	THR
27	15	26	THR
27	15	35	GLU
27	15	40	LYS
27	15	44	THR
27	15	59	GLU
27	15	60	VAL
28	16	4	GLU
28	16	5	VAL
28	16	6	ARG
28	16	14	THR
28	16	19	ARG
28	16	24	GLU
28	16	47	THR
28	16	48	VAL
29	17	24	THR
29	17	43	THR
30	18	6	THR
30	18	11	LYS
30	18	14	VAL
30	18	23	VAL
30	18	37	SER
30	18	46	ARG
30	18	50	LEU
30	18	65	GLU
31	19	1	MET
31	19	4	ARG
31	19	7	VAL
31	19	10	ILE

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Mol	Chain	Res	Type
31	19	17	ILE
33	1b	8	LYS
33	1b	17	PHE
33	1b	21	ARG
33	1b	35	GLU
33	1b	39	ILE
33	1b	41	ILE
33	1b	43	ASP
33	1b	54	THR
33	1b	59	GLU
33	1b	64	ARG
33	1b	76	GLN
33	1b	80	ILE
33	1b	81	VAL
33	1b	108	ILE
33	1b	121	LEU
33	1b	124	SER
33	1b	127	ILE
33	1b	128	GLU
33	1b	142	LEU
33	1b	144	ARG
33	1b	154	LEU
33	1b	160	ASP
33	1b	185	ILE
33	1b	187	LEU
33	1b	189	ASP
33	1b	192	SER
33	1b	196	LEU
33	1b	208	ILE
33	1b	212	GLN
33	1b	215	LEU
33	1b	221	LEU
33	1b	223	ILE
33	1b	226	ARG
33	1b	229	VAL
34	1c	3	ASN
34	1c	8	ILE
34	1c	16	ARG
34	1c	18	TRP
34	1c	26	LYS
34	1c	28	GLN
34	1c	32	LEU

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Mol	Chain	Res	Type
34	1c	43	LEU
34	1c	47	LEU
34	1c	49	SER
34	1c	64	VAL
34	1c	70	VAL
34	1c	85	ARG
34	1c	105	GLU
34	1c	125	GLU
34	1c	151	VAL
34	1c	172	ARG
34	1c	175	LEU
34	1c	178	LEU
34	1c	184	TYR
34	1c	192	THR
34	1c	195	VAL
34	1c	196	LEU
34	1c	202	ILE
34	1c	207	VAL
35	1d	3	ARG
35	1d	11	LEU
35	1d	12	CYS
35	1d	19	LEU
35	1d	49	ARG
35	1d	53	ASP
35	1d	56	VAL
35	1d	76	ARG
35	1d	77	ASN
35	1d	85	LYS
35	1d	86	LYS
35	1d	91	SER
35	1d	104	VAL
35	1d	108	LEU
35	1d	110	PHE
35	1d	127	THR
35	1d	128	VAL
35	1d	135	LEU
35	1d	140	VAL
35	1d	155	LEU
35	1d	157	LEU
35	1d	158	ILE
35	1d	170	VAL
35	1d	177	ASP

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Mol	Chain	Res	Type
35	1d	178	VAL
35	1d	188	LEU
35	1d	190	ASP
35	1d	194	LEU
35	1d	200	GLU
36	1e	8	GLU
36	1e	9	LYS
36	1e	12	LEU
36	1e	16	THR
36	1e	20	GLN
36	1e	27	ARG
36	1e	31	LEU
36	1e	41	VAL
36	1e	64	ARG
36	1e	79	GLU
36	1e	81	GLU
36	1e	92	LYS
36	1e	100	VAL
36	1e	131	ILE
36	1e	145	LYS
37	1f	16	GLN
37	1f	39	LYS
37	1f	45	LEU
37	1f	55	ASP
37	1f	64	GLN
37	1f	72	VAL
37	1f	75	LEU
37	1f	78	GLU
38	1g	10	ARG
38	1g	12	LEU
38	1g	21	VAL
38	1g	30	ILE
38	1g	41	ARG
38	1g	50	ILE
38	1g	59	LEU
38	1g	73	MET
38	1g	75	VAL
38	1g	85	TYR
38	1g	87	VAL
38	1g	98	SER
38	1g	104	LEU
38	1g	110	GLN

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Mol	Chain	Res	Type
38	1g	114	ARG
38	1g	120	ILE
38	1g	144	MET
39	1h	8	ASP
39	1h	29	SER
39	1h	35	ILE
39	1h	39	LEU
39	1h	52	ASP
39	1h	53	VAL
39	1h	54	ASP
39	1h	61	VAL
39	1h	86	ILE
39	1h	95	VAL
39	1h	99	GLU
39	1h	107	LEU
39	1h	112	LEU
39	1h	115	SER
40	1i	17	VAL
40	1i	25	LYS
40	1i	34	ASN
40	1i	50	LEU
40	1i	53	VAL
40	1i	64	THR
40	1i	74	ILE
40	1i	81	ILE
40	1i	89	ASN
40	1i	92	TYR
40	1i	96	LEU
40	1i	99	LEU
40	1i	103	THR
40	1i	105	ASP
40	1i	128	ARG
41	1j	34	VAL
41	1j	38	ILE
41	1j	46	ARG
41	1j	55	LYS
41	1j	68	HIS
41	1j	81	THR
41	1j	94	VAL
41	1j	96	ILE
42	1k	14	VAL
42	1k	25	TYR

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Mol	Chain	Res	Type
42	1k	31	THR
42	1k	40	ILE
42	1k	48	ILE
42	1k	53	SER
42	1k	91	ARG
42	1k	96	ARG
42	1k	109	VAL
42	1k	114	VAL
42	1k	122	LYS
43	1l	18	VAL
43	1l	39	VAL
43	1l	57	LYS
43	1l	60	LEU
43	1l	67	THR
43	1l	70	ILE
43	1l	83	VAL
43	1l	85	ILE
43	1l	116	SER
43	1l	123	LYS
44	1m	4	ILE
44	1m	15	VAL
44	1m	49	THR
44	1m	63	THR
44	1m	64	TRP
44	1m	67	GLU
44	1m	70	LEU
44	1m	74	VAL
44	1m	94	ARG
44	1m	98	VAL
44	1m	103	THR
44	1m	106	ASN
44	1m	117	VAL
44	1m	121	LYS
45	1n	3	ARG
45	1n	9	LYS
45	1n	13	THR
45	1n	22	THR
45	1n	25	VAL
45	1n	29	ARG
46	1o	11	VAL
46	1o	17	ARG
46	1o	39	LEU

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Mol	Chain	Res	Type
46	1o	74	ASP
46	1o	76	GLU
46	1o	84	LYS
47	1p	6	LEU
47	1p	8	ARG
47	1p	20	VAL
47	1p	27	LYS
47	1p	33	ILE
47	1p	43	LYS
47	1p	45	THR
47	1p	50	LYS
47	1p	60	LEU
47	1p	67	THR
47	1p	72	ARG
48	1q	9	VAL
48	1q	11	VAL
48	1q	16	GLN
48	1q	39	SER
48	1q	50	LYS
48	1q	53	LEU
48	1q	60	ILE
48	1q	62	SER
48	1q	63	ARG
48	1q	82	MET
48	1q	84	LEU
48	1q	86	GLU
48	1q	89	LEU
49	1r	31	LEU
49	1r	47	THR
49	1r	76	LEU
49	1r	85	LEU
49	1r	86	VAL
50	1s	5	LEU
50	1s	6	LYS
50	1s	22	LEU
50	1s	23	ASN
50	1s	28	LYS
50	1s	30	LEU
50	1s	35	SER
50	1s	41	VAL
50	1s	60	VAL
50	1s	62	ILE

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Mol	Chain	Res	Type
50	1s	64	GLU
50	1s	79	THR
50	1s	81	ARG
51	1t	10	LEU
51	1t	11	SER
51	1t	13	LEU
51	1t	24	LEU
51	1t	31	SER
51	1t	37	SER
51	1t	38	LYS
51	1t	63	ILE
51	1t	71	THR
51	1t	84	LEU
51	1t	86	ARG
51	1t	91	LEU
51	1t	100	ILE
52	1u	15	ARG
52	1u	17	THR
3	2D	3	VAL
3	2D	12	SER
3	2D	38	LYS
3	2D	61	LEU
3	2D	88	ARG
3	2D	99	ASP
3	2D	106	ILE
3	2D	113	VAL
3	2D	116	GLN
3	2D	126	GLN
3	2D	138	VAL
3	2D	141	VAL
3	2D	142	VAL
3	2D	173	VAL
3	2D	212	SER
3	2D	229	VAL
3	2D	242	ARG
3	2D	254	THR
3	2D	259	THR
3	2D	275	LYS
4	2E	1	MET
4	2E	5	LEU
4	2E	12	THR
4	2E	14	ILE

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Mol	Chain	Res	Type
4	2E	23	VAL
4	2E	24	THR
4	2E	38	THR
4	2E	45	THR
4	2E	49	LEU
4	2E	72	VAL
4	2E	76	ARG
4	2E	78	LEU
4	2E	81	ILE
4	2E	82	ARG
4	2E	90	THR
4	2E	104	VAL
4	2E	116	VAL
4	2E	134	ILE
4	2E	154	LYS
4	2E	184	VAL
5	2F	24	LEU
5	2F	28	ILE
5	2F	33	LEU
5	2F	74	ARG
5	2F	78	ILE
5	2F	106	ARG
5	2F	125	LEU
5	2F	137	LYS
5	2F	145	GLU
5	2F	153	SER
5	2F	158	THR
5	2F	161	GLU
5	2F	162	LEU
5	2F	165	ARG
5	2F	175	THR
5	2F	179	GLU
5	2F	183	VAL
6	2G	5	VAL
6	2G	7	LEU
6	2G	19	LEU
6	2G	28	VAL
6	2G	40	ASN
6	2G	43	LEU
6	2G	45	GLU
6	2G	53	LEU
6	2G	59	GLU

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Mol	Chain	Res	Type
6	2G	86	MET
6	2G	91	ARG
6	2G	92	VAL
6	2G	99	MET
6	2G	130	ASN
6	2G	133	LEU
6	2G	135	LEU
6	2G	137	GLU
6	2G	140	ILE
6	2G	145	THR
6	2G	152	LEU
6	2G	172	LEU
6	2G	176	LEU
6	2G	181	ARG
7	2H	7	LEU
7	2H	15	VAL
7	2H	24	VAL
7	2H	45	VAL
7	2H	57	ASP
7	2H	65	HIS
7	2H	67	LEU
7	2H	70	THR
7	2H	99	VAL
7	2H	103	LEU
7	2H	116	GLU
7	2H	129	THR
7	2H	130	ARG
7	2H	136	ILE
7	2H	141	VAL
7	2H	148	ILE
7	2H	155	SER
8	2I	9	LEU
8	2I	12	LEU
8	2I	15	VAL
8	2I	37	VAL
8	2I	38	LEU
8	2I	42	SER
8	2I	44	LEU
8	2I	58	LEU
8	2I	61	ARG
8	2I	62	LYS
8	2I	66	GLU

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Mol	Chain	Res	Type
8	2I	81	VAL
8	2I	82	ARG
8	2I	86	THR
8	2I	101	LEU
8	2I	107	VAL
8	2I	108	THR
8	2I	117	GLU
8	2I	129	THR
8	2I	142	VAL
8	2I	145	VAL
9	2N	1	MET
9	2N	2	LYS
9	2N	12	ARG
9	2N	15	LEU
9	2N	28	THR
9	2N	38	HIS
9	2N	43	THR
9	2N	48	MET
9	2N	55	VAL
9	2N	62	VAL
9	2N	83	LYS
9	2N	85	ILE
9	2N	87	LEU
9	2N	127	ASP
9	2N	131	GLN
9	2N	134	ARG
9	2N	137	LYS
9	2N	138	LEU
10	2O	35	VAL
10	2O	58	VAL
10	2O	66	LYS
10	2O	69	ILE
10	2O	71	ARG
10	2O	80	ASP
10	2O	92	GLU
10	2O	104	ARG
10	2O	114	ILE
11	2P	7	ARG
11	2P	45	LEU
11	2P	56	SER
11	2P	61	ARG
11	2P	68	GLN

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Mol	Chain	Res	Type
11	2P	70	GLN
11	2P	87	ASP
11	2P	95	VAL
11	2P	96	THR
11	2P	99	LEU
11	2P	100	LEU
11	2P	119	GLU
11	2P	121	LYS
11	2P	125	VAL
12	2Q	1	MET
12	2Q	10	ARG
12	2Q	12	GLN
12	2Q	25	ASP
12	2Q	31	ASP
12	2Q	35	VAL
12	2Q	51	ARG
12	2Q	56	ARG
12	2Q	60	ARG
12	2Q	106	VAL
12	2Q	133	ARG
13	2R	6	SER
13	2R	24	GLN
13	2R	44	LEU
13	2R	100	LEU
13	2R	111	LEU
13	2R	114	VAL
14	2S	4	LEU
14	2S	15	ARG
14	2S	23	ARG
14	2S	28	VAL
14	2S	36	TYR
14	2S	43	GLU
14	2S	56	LEU
14	2S	58	LEU
14	2S	63	THR
14	2S	64	GLU
14	2S	76	LYS
14	2S	78	LEU
14	2S	93	LYS
14	2S	110	LEU
15	2T	13	ARG
15	2T	17	THR

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Mol	Chain	Res	Type
15	2T	28	VAL
15	2T	30	VAL
15	2T	52	ILE
15	2T	89	VAL
15	2T	90	GLN
15	2T	96	ARG
15	2T	104	ASN
15	2T	125	ARG
16	2U	5	LYS
16	2U	8	VAL
16	2U	58	ARG
16	2U	63	VAL
16	2U	74	LEU
16	2U	83	LEU
16	2U	88	ILE
16	2U	95	LEU
16	2U	102	GLU
16	2U	111	GLU
16	2U	114	LYS
17	2V	1	MET
17	2V	7	THR
17	2V	14	VAL
17	2V	19	LYS
17	2V	46	VAL
17	2V	61	VAL
17	2V	62	LEU
17	2V	70	ILE
17	2V	73	SER
17	2V	79	VAL
17	2V	82	ARG
18	2W	10	VAL
18	2W	11	ARG
18	2W	17	VAL
18	2W	23	LEU
18	2W	64	MET
18	2W	67	ASP
18	2W	90	ARG
18	2W	92	ARG
18	2W	103	ILE
19	2X	35	THR
19	2X	45	THR
19	2X	52	VAL

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Mol	Chain	Res	Type
19	2X	78	LYS
19	2X	81	VAL
19	2X	92	LEU
20	2Y	1	MET
20	2Y	7	VAL
20	2Y	9	LYS
20	2Y	42	VAL
20	2Y	44	ILE
20	2Y	46	LYS
20	2Y	49	VAL
20	2Y	55	TYR
20	2Y	64	GLU
20	2Y	67	LEU
20	2Y	72	VAL
20	2Y	96	ILE
20	2Y	98	VAL
20	2Y	99	CYS
21	2Z	2	GLU
21	2Z	6	LYS
21	2Z	18	LEU
21	2Z	19	ARG
21	2Z	28	MET
21	2Z	31	ARG
21	2Z	33	LEU
21	2Z	36	LYS
21	2Z	50	GLN
21	2Z	52	SER
21	2Z	56	VAL
21	2Z	57	ILE
21	2Z	58	VAL
21	2Z	63	ASP
21	2Z	65	GLN
21	2Z	70	LEU
21	2Z	71	VAL
21	2Z	86	VAL
21	2Z	119	GLU
21	2Z	120	ILE
21	2Z	126	VAL
21	2Z	131	ARG
21	2Z	138	GLU
21	2Z	141	VAL
21	2Z	144	LEU

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Mol	Chain	Res	Type
21	2Z	150	LEU
21	2Z	151	HIS
21	2Z	154	ASP
21	2Z	155	LEU
21	2Z	161	VAL
21	2Z	170	THR
21	2Z	175	VAL
21	2Z	178	GLU
22	20	14	ARG
22	20	67	VAL
23	21	11	ARG
23	21	17	SER
23	21	21	ARG
23	21	30	VAL
23	21	35	THR
23	21	39	LYS
23	21	51	VAL
23	21	59	THR
23	21	80	LEU
23	21	98	LEU
24	22	2	LYS
24	22	11	GLU
24	22	25	VAL
24	22	35	LEU
24	22	40	SER
24	22	45	SER
24	22	46	GLN
24	22	52	ASP
24	22	53	LEU
24	22	54	LYS
24	22	64	LEU
24	22	70	GLN
25	23	3	ARG
25	23	6	VAL
25	23	23	LEU
25	23	29	ARG
25	23	31	LEU
25	23	35	ARG
25	23	54	VAL
25	23	59	VAL
26	24	10	VAL
26	24	33	VAL

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Mol	Chain	Res	Type
26	24	34	GLU
26	24	35	VAL
26	24	50	VAL
26	24	52	THR
26	24	59	PHE
26	24	63	TYR
27	25	58	LEU
28	26	9	LEU
28	26	15	GLU
28	26	32	ASN
28	26	34	LEU
28	26	35	GLU
28	26	48	VAL
28	26	50	ARG
29	27	1	MET
29	27	4	THR
29	27	15	THR
29	27	35	ARG
29	27	41	ARG
29	27	43	THR
30	28	16	ILE
30	28	17	THR
30	28	26	LYS
31	29	4	ARG
31	29	7	VAL
31	29	12	ASP
33	2b	7	VAL
33	2b	8	LYS
33	2b	9	GLU
33	2b	11	LEU
33	2b	16	HIS
33	2b	22	LYS
33	2b	23	ARG
33	2b	44	LEU
33	2b	58	ILE
33	2b	60	ASP
33	2b	67	THR
33	2b	68	ILE
33	2b	71	VAL
33	2b	73	THR
33	2b	76	GLN
33	2b	78	GLN

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Mol	Chain	Res	Type
33	2b	79	ASP
33	2b	83	MET
33	2b	93	VAL
33	2b	94	ASN
33	2b	95	GLN
33	2b	110	GLN
33	2b	124	SER
33	2b	127	ILE
33	2b	138	LEU
33	2b	139	LYS
33	2b	141	GLU
33	2b	149	LEU
33	2b	154	LEU
33	2b	157	ARG
33	2b	158	LEU
33	2b	162	ILE
33	2b	164	VAL
33	2b	179	LYS
33	2b	185	ILE
33	2b	189	ASP
33	2b	191	ASP
33	2b	196	LEU
33	2b	208	ILE
33	2b	210	SER
33	2b	224	GLN
33	2b	226	ARG
33	2b	230	VAL
33	2b	235	SER
33	2b	236	TYR
34	2c	15	THR
34	2c	16	ARG
34	2c	17	ASP
34	2c	32	LEU
34	2c	34	LEU
34	2c	46	GLU
34	2c	49	SER
34	2c	55	VAL
34	2c	66	VAL
34	2c	77	ILE
34	2c	91	LEU
34	2c	101	LEU
34	2c	105	GLU

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Mol	Chain	Res	Type
34	2c	115	LEU
34	2c	116	VAL
34	2c	132	ARG
34	2c	151	VAL
34	2c	152	ILE
34	2c	153	VAL
34	2c	182	ILE
34	2c	188	LEU
34	2c	190	ARG
34	2c	195	VAL
34	2c	196	LEU
34	2c	202	ILE
34	2c	206	GLU
35	2d	18	LYS
35	2d	26	CYS
35	2d	34	GLU
35	2d	42	GLN
35	2d	45	GLN
35	2d	52	SER
35	2d	53	ASP
35	2d	57	ARG
35	2d	58	LEU
35	2d	59	ARG
35	2d	68	TYR
35	2d	70	ILE
35	2d	76	ARG
35	2d	83	SER
35	2d	86	LYS
35	2d	92	VAL
35	2d	96	LEU
35	2d	110	PHE
35	2d	127	THR
35	2d	132	ARG
35	2d	135	LEU
35	2d	150	GLU
35	2d	155	LEU
35	2d	156	GLU
35	2d	169	LYS
35	2d	178	VAL
35	2d	187	ARG
35	2d	188	LEU
35	2d	193	ASP

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Mol	Chain	Res	Type
35	2d	196	LEU
35	2d	201	GLN
35	2d	202	LEU
35	2d	208	SER
36	2e	13	ILE
36	2e	16	THR
36	2e	18	ARG
36	2e	25	ARG
36	2e	41	VAL
36	2e	51	VAL
36	2e	55	VAL
36	2e	66	MET
36	2e	72	GLN
36	2e	79	GLU
36	2e	87	SER
36	2e	91	LEU
36	2e	120	THR
36	2e	121	LYS
36	2e	125	SER
36	2e	137	GLU
36	2e	151	LEU
37	2f	8	ILE
37	2f	19	LEU
37	2f	21	LEU
37	2f	28	ARG
37	2f	31	GLU
37	2f	40	VAL
37	2f	43	LEU
37	2f	69	GLU
37	2f	81	ILE
37	2f	89	MET
37	2f	92	LYS
37	2f	95	GLU
38	2g	9	VAL
38	2g	13	GLN
38	2g	15	ASP
38	2g	21	VAL
38	2g	24	THR
38	2g	27	ILE
38	2g	30	ILE
38	2g	32	ARG
38	2g	38	LEU

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Mol	Chain	Res	Type
38	2g	45	ASP
38	2g	51	GLN
38	2g	70	LYS
38	2g	79	ARG
38	2g	86	GLN
38	2g	94	ARG
38	2g	98	SER
38	2g	114	ARG
38	2g	115	ARG
38	2g	139	GLU
38	2g	140	ASP
38	2g	155	ARG
39	2h	21	LYS
39	2h	35	ILE
39	2h	37	ARG
39	2h	39	LEU
39	2h	53	VAL
39	2h	86	ILE
39	2h	99	GLU
39	2h	107	LEU
39	2h	109	ILE
39	2h	111	ILE
39	2h	112	LEU
39	2h	113	SER
39	2h	129	VAL
39	2h	133	LEU
40	2i	17	VAL
40	2i	27	THR
40	2i	29	ASN
40	2i	35	GLU
40	2i	38	GLN
40	2i	40	LEU
40	2i	54	ASP
40	2i	58	HIS
40	2i	65	VAL
40	2i	66	ARG
40	2i	75	ASP
40	2i	102	LEU
40	2i	104	ARG
40	2i	120	ARG
40	2i	128	ARG
41	2j	8	LEU

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Mol	Chain	Res	Type
41	2j	9	ARG
41	2j	13	HIS
41	2j	21	GLN
41	2j	23	ILE
41	2j	33	GLN
41	2j	38	ILE
41	2j	49	VAL
41	2j	55	LYS
41	2j	60	ARG
41	2j	62	HIS
41	2j	72	VAL
41	2j	95	GLU
41	2j	96	ILE
41	2j	97	GLU
41	2j	98	ILE
42	2k	14	VAL
42	2k	31	THR
42	2k	41	THR
42	2k	48	ILE
42	2k	51	LYS
42	2k	53	SER
42	2k	81	ASP
42	2k	87	THR
42	2k	98	LEU
42	2k	101	SER
42	2k	105	VAL
42	2k	114	VAL
43	2l	6	THR
43	2l	7	ILE
43	2l	18	VAL
43	2l	34	ARG
43	2l	36	VAL
43	2l	39	VAL
43	2l	40	VAL
43	2l	55	VAL
43	2l	85	ILE
43	2l	86	ARG
43	2l	91	LYS
43	2l	97	ARG
44	2m	4	ILE
44	2m	11	ARG
44	2m	17	VAL

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Mol	Chain	Res	Type
44	2m	32	GLU
44	2m	47	ASP
44	2m	53	VAL
44	2m	57	ARG
44	2m	60	VAL
44	2m	70	LEU
44	2m	80	ARG
44	2m	90	LEU
44	2m	98	VAL
44	2m	103	THR
44	2m	106	ASN
44	2m	122	LYS
45	2n	3	ARG
45	2n	15	LYS
45	2n	42	ILE
45	2n	56	VAL
46	2o	3	ILE
46	2o	7	GLU
46	2o	13	GLN
46	2o	24	SER
46	2o	26	GLU
46	2o	27	VAL
46	2o	35	ARG
46	2o	39	LEU
46	2o	58	MET
46	2o	70	LEU
46	2o	84	LYS
47	2p	2	VAL
47	2p	5	ARG
47	2p	8	ARG
47	2p	20	VAL
47	2p	21	VAL
47	2p	42	ARG
47	2p	60	LEU
47	2p	67	THR
47	2p	73	LEU
47	2p	74	LEU
48	2q	14	LYS
48	2q	25	ARG
48	2q	26	GLN
48	2q	56	VAL
48	2q	60	ILE

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Mol	Chain	Res	Type
48	2q	63	ARG
48	2q	83	ASP
49	2r	28	GLU
49	2r	35	ARG
49	2r	37	VAL
49	2r	47	THR
49	2r	69	THR
49	2r	84	LYS
49	2r	85	LEU
50	2s	21	GLU
50	2s	23	ASN
50	2s	33	THR
50	2s	36	ARG
50	2s	37	ARG
50	2s	43	GLU
50	2s	45	VAL
50	2s	47	HIS
50	2s	49	ILE
50	2s	56	GLN
50	2s	63	THR
50	2s	81	ARG
51	2t	10	LEU
51	2t	19	SER
51	2t	31	SER
51	2t	41	ILE
51	2t	46	GLU
51	2t	71	THR
51	2t	86	ARG
51	2t	91	LEU
52	2u	6	ARG
52	2u	15	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (153) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	87	ASN
3	1D	116	GLN
3	1D	143	HIS
3	1D	164	GLN
3	1D	166	GLN
4	1E	121	ASN
4	1E	180	ASN

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Mol	Chain	Res	Type
5	1F	8	GLN
5	1F	69	HIS
5	1F	133	ASN
6	1G	26	GLN
6	1G	40	ASN
6	1G	108	ASN
8	1I	133	HIS
8	1I	139	GLN
9	1N	56	ASN
9	1N	133	GLN
11	1P	84	ASN
12	1Q	12	GLN
12	1Q	57	HIS
13	1R	13	HIS
13	1R	50	HIS
14	1S	95	HIS
16	1U	94	ASN
19	1X	31	HIS
19	1X	82	GLN
21	1Z	65	GLN
21	1Z	73	GLN
21	1Z	151	HIS
22	10	12	ASN
22	10	40	GLN
25	13	32	GLN
33	1b	40	HIS
33	1b	95	GLN
33	1b	212	GLN
34	1c	6	HIS
34	1c	98	ASN
34	1c	118	GLN
34	1c	139	GLN
35	1d	42	GLN
35	1d	74	GLN
35	1d	116	GLN
35	1d	123	HIS
35	1d	161	ASN
36	1e	20	GLN
36	1e	65	ASN
36	1e	78	HIS
37	1f	7	ASN
37	1f	73	ASN

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Mol	Chain	Res	Type
37	1f	100	ASN
38	1g	13	GLN
38	1g	28	ASN
39	1h	15	ASN
40	1i	3	GLN
40	1i	31	GLN
40	1i	34	ASN
40	1i	58	HIS
40	1i	73	GLN
40	1i	89	ASN
40	1i	124	GLN
41	1j	21	GLN
41	1j	68	HIS
42	1k	38	ASN
42	1k	93	GLN
43	1l	80	HIS
43	1l	99	HIS
44	1m	77	ASN
44	1m	92	HIS
46	1o	9	GLN
46	1o	46	HIS
49	1r	63	GLN
50	1s	83	HIS
51	1t	73	HIS
51	1t	75	ASN
3	2D	116	GLN
3	2D	126	GLN
4	2E	48	GLN
4	2E	132	HIS
4	2E	180	ASN
5	2F	69	HIS
5	2F	75	HIS
6	2G	132	ASN
8	2I	11	ASN
9	2N	101	HIS
9	2N	131	GLN
10	2O	5	GLN
11	2P	81	GLN
12	2Q	12	GLN
12	2Q	123	HIS
13	2R	50	HIS
14	2S	38	GLN

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Mol	Chain	Res	Type
15	2T	43	GLN
15	2T	58	ASN
15	2T	79	HIS
15	2T	84	GLN
15	2T	123	GLN
16	2U	94	ASN
19	2X	31	HIS
21	2Z	73	GLN
21	2Z	118	GLN
21	2Z	151	HIS
23	21	56	GLN
24	22	56	GLN
24	22	70	GLN
25	23	32	GLN
33	2b	16	HIS
33	2b	76	GLN
33	2b	94	ASN
33	2b	110	GLN
33	2b	135	GLN
34	2c	6	HIS
34	2c	104	GLN
34	2c	123	GLN
35	2d	43	HIS
35	2d	45	GLN
35	2d	77	ASN
35	2d	116	GLN
35	2d	119	GLN
35	2d	123	HIS
35	2d	125	HIS
36	2e	20	GLN
36	2e	72	GLN
36	2e	73	ASN
36	2e	141	GLN
37	2f	73	ASN
37	2f	94	GLN
37	2f	100	ASN
38	2g	13	GLN
38	2g	28	ASN
38	2g	86	GLN
38	2g	153	HIS
40	2i	23	ASN
40	2i	31	GLN

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Mol	Chain	Res	Type
40	2i	38	GLN
40	2i	89	ASN
41	2j	33	GLN
41	2j	84	GLN
42	2k	22	HIS
42	2k	104	GLN
42	2k	117	ASN
44	2m	12	ASN
44	2m	77	ASN
44	2m	106	ASN
46	2o	9	GLN
46	2o	50	HIS
46	2o	62	GLN
47	2p	13	HIS
47	2p	16	HIS
48	2q	94	ASN
49	2r	63	GLN
50	2s	56	GLN
50	2s	83	HIS
51	2t	90	GLN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2864/2915 (98%)	555 (19%)	33 (1%)
1	2A	2791/2915 (95%)	534 (19%)	34 (1%)
2	1B	119/121 (98%)	12 (10%)	0
2	2B	118/121 (97%)	36 (30%)	0
32	1a	1497/1521 (98%)	297 (19%)	0
32	2a	1501/1521 (98%)	354 (23%)	0
53	1v	4/24 (16%)	1 (25%)	0
53	2v	7/24 (29%)	4 (57%)	0
54	1x	75/77 (97%)	13 (17%)	0
54	2x	75/77 (97%)	12 (16%)	0
All	All	9051/9316 (97%)	1818 (20%)	67 (0%)

All (1818) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	15	G
1	1A	22	C

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Mol	Chain	Res	Type
1	1A	34	C
1	1A	36	G
1	1A	44	G
1	1A	45	C
1	1A	49	A
1	1A	61	G
1	1A	64	A
1	1A	71	A
1	1A	74	A
1	1A	75	G
1	1A	84	A
1	1A	118	A
1	1A	119	A
1	1A	120	U
1	1A	122	G
1	1A	125	G
1	1A	139(A)	G
1	1A	177	G
1	1A	182	A
1	1A	188	G
1	1A	196	A
1	1A	197	A
1	1A	199	A
1	1A	205	G
1	1A	214	G
1	1A	215	G
1	1A	216	A
1	1A	221	A
1	1A	222	A
1	1A	225	A
1	1A	229	A
1	1A	233	A
1	1A	248	G
1	1A	250	G
1	1A	265	A
1	1A	269	U
1	1A	271(K)	U
1	1A	271(L)	U
1	1A	271(M)	G
1	1A	271(N)	U
1	1A	271(O)	C
1	1A	271(S)	G

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Mol	Chain	Res	Type
1	1A	272(A)	U
1	1A	272(B)	G
1	1A	272(G)	C
1	1A	272(H)	C
1	1A	272(I)	U
1	1A	275	G
1	1A	279	C
1	1A	311	A
1	1A	329	G
1	1A	330	A
1	1A	335	C
1	1A	338	G
1	1A	346	A
1	1A	352	G
1	1A	357	A
1	1A	363	G
1	1A	363(B)	G
1	1A	363(D)	G
1	1A	386	G
1	1A	396	G
1	1A	405	U
1	1A	411	G
1	1A	412	A
1	1A	418	G
1	1A	421	U
1	1A	428	A
1	1A	429	A
1	1A	443	A
1	1A	444	C
1	1A	448	U
1	1A	456	C
1	1A	457	A
1	1A	481	G
1	1A	494	G
1	1A	504	U
1	1A	505	A
1	1A	509	C
1	1A	513	A
1	1A	530	G
1	1A	531	C
1	1A	532	A
1	1A	533	G

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Mol	Chain	Res	Type
1	1A	545	G
1	1A	549	G
1	1A	563	G
1	1A	567	A
1	1A	573	G
1	1A	575	A
1	1A	584	C
1	1A	586	A
1	1A	593	G
1	1A	602	G
1	1A	603	A
1	1A	604	G
1	1A	607	U
1	1A	614(A)	U
1	1A	614(B)	G
1	1A	615	G
1	1A	619	G
1	1A	627	A
1	1A	632	A
1	1A	637	A
1	1A	646	A
1	1A	652(D)	C
1	1A	652(E)	G
1	1A	652(F)	G
1	1A	652(T)	C
1	1A	669	G
1	1A	686	G
1	1A	717	G
1	1A	726	G
1	1A	730	C
1	1A	736	C
1	1A	747	U
1	1A	764	A
1	1A	765	G
1	1A	774	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

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Mol	Chain	Res	Type
1	1A	805	G
1	1A	810	U
1	1A	811	U
1	1A	812	C
1	1A	819	A
1	1A	827	U
1	1A	838	C
1	1A	859	G
1	1A	861	A
1	1A	866	A
1	1A	879	G
1	1A	880	G
1	1A	881	G
1	1A	883	G
1	1A	884	C
1	1A	885	C
1	1A	886	C
1	1A	887	A
1	1A	888	C
1	1A	889	C
1	1A	890	A
1	1A	892	G
1	1A	893	C
1	1A	894	C
1	1A	896	A
1	1A	897	C
1	1A	898	C
1	1A	900	A
1	1A	907	U
1	1A	910	A
1	1A	926	A
1	1A	932	G
1	1A	938	G
1	1A	945	A
1	1A	946	G
1	1A	953	A
1	1A	958	U
1	1A	959	A
1	1A	961	C
1	1A	963	U
1	1A	967	C
1	1A	974	G

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Mol	Chain	Res	Type
1	1A	975	C
1	1A	975(A)	G
1	1A	983	A
1	1A	996	A
1	1A	1005	C
1	1A	1012	U
1	1A	1013	C
1	1A	1025	G
1	1A	1026	U
1	1A	1027	A
1	1A	1030	G
1	1A	1033	U
1	1A	1038	C
1	1A	1040	C
1	1A	1042	G
1	1A	1044	G
1	1A	1045	A
1	1A	1046	A
1	1A	1047	G
1	1A	1048	A
1	1A	1054	A
1	1A	1055	G
1	1A	1058	G
1	1A	1059	G
1	1A	1063	G
1	1A	1065	U
1	1A	1068	G
1	1A	1071	G
1	1A	1073	A
1	1A	1075	C
1	1A	1076	C
1	1A	1078	U
1	1A	1079	C
1	1A	1080	C
1	1A	1081	U
1	1A	1083	U
1	1A	1088	A
1	1A	1089	G
1	1A	1090	U
1	1A	1091	G
1	1A	1093	G
1	1A	1094	U

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Mol	Chain	Res	Type
1	1A	1097	U
1	1A	1099	G
1	1A	1101	U
1	1A	1110	G
1	1A	1111	A
1	1A	1112	G
1	1A	1115	G
1	1A	1116	C
1	1A	1117	G
1	1A	1128	A
1	1A	1130	U
1	1A	1131	G
1	1A	1132	A
1	1A	1135	C
1	1A	1136	G
1	1A	1141	U
1	1A	1144	G
1	1A	1149	G
1	1A	1163	G
1	1A	1164	G
1	1A	1171	G
1	1A	1173	G
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1177	A
1	1A	1178	C
1	1A	1179	C
1	1A	1189	A
1	1A	1204	A
1	1A	1218	C
1	1A	1220	A
1	1A	1229	G
1	1A	1236	G
1	1A	1237	A
1	1A	1243	G
1	1A	1244	G
1	1A	1248	G
1	1A	1250	G
1	1A	1253	A
1	1A	1256	G
1	1A	1268	A

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Mol	Chain	Res	Type
1	1A	1271	G
1	1A	1272	A
1	1A	1273	U
1	1A	1276	A
1	1A	1284	A
1	1A	1300	U
1	1A	1301	A
1	1A	1303	G
1	1A	1313	U
1	1A	1342	A
1	1A	1348	G
1	1A	1352	U
1	1A	1359	A
1	1A	1360	A
1	1A	1365	A
1	1A	1370	C
1	1A	1371	G
1	1A	1372	U
1	1A	1380	G
1	1A	1384	A
1	1A	1385	G
1	1A	1386	C
1	1A	1388	G
1	1A	1391	U
1	1A	1395	A
1	1A	1396	U
1	1A	1416	G
1	1A	1417	C
1	1A	1420	U
1	1A	1421	G
1	1A	1428	C
1	1A	1437	C
1	1A	1445	A
1	1A	1450	G
1	1A	1455	G
1	1A	1467	C
1	1A	1468	C
1	1A	1471	A
1	1A	1482	G
1	1A	1493	C
1	1A	1494	A
1	1A	1508	A

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Mol	Chain	Res	Type
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1532	C
1	1A	1540	U
1	1A	1542	A
1	1A	1543	C
1	1A	1554	A
1	1A	1558	A
1	1A	1566	A
1	1A	1569	A
1	1A	1578	U
1	1A	1581	G
1	1A	1584	C
1	1A	1586	A
1	1A	1588	C
1	1A	1608	A
1	1A	1609	A
1	1A	1635	G
1	1A	1640	C
1	1A	1647	G
1	1A	1648	C
1	1A	1654	A
1	1A	1664	A
1	1A	1674	G
1	1A	1696	G
1	1A	1700	A
1	1A	1701	A
1	1A	1722	A
1	1A	1750	G
1	1A	1757	U
1	1A	1758	G
1	1A	1763	G
1	1A	1764	G
1	1A	1773	A
1	1A	1780	A
1	1A	1782	C
1	1A	1786	A
1	1A	1791	A
1	1A	1800	C
1	1A	1801	G
1	1A	1811	G
1	1A	1816	G

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Mol	Chain	Res	Type
1	1A	1826	G
1	1A	1828	G
1	1A	1829	A
1	1A	1839	G
1	1A	1847	A
1	1A	1878	G
1	1A	1889	A
1	1A	1895	C
1	1A	1900	A
1	1A	1906	G
1	1A	1910	G
1	1A	1914	C
1	1A	1920	OMC
1	1A	1929	G
1	1A	1930	G
1	1A	1937	A
1	1A	1938	A
1	1A	1955	U
1	1A	1963	U
1	1A	1965	C
1	1A	1967	C
1	1A	1970	A
1	1A	1971	A
1	1A	1972	A
1	1A	1975	G
1	1A	1985	G
1	1A	1992	G
1	1A	1993	U
1	1A	1997	G
1	1A	2020	A
1	1A	2023	G
1	1A	2031	A
1	1A	2032	G
1	1A	2033	A
1	1A	2035	G
1	1A	2039	C
1	1A	2043	C
1	1A	2048	G
1	1A	2049	G
1	1A	2055	C
1	1A	2056	G
1	1A	2060	A

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Mol	Chain	Res	Type
1	1A	2061	G
1	1A	2062	A
1	1A	2069	G
1	1A	2070	G
1	1A	2074	U
1	1A	2093	G
1	1A	2103	C
1	1A	2108	C
1	1A	2110	G
1	1A	2113	U
1	1A	2114	A
1	1A	2116	G
1	1A	2117	A
1	1A	2119	A
1	1A	2120	G
1	1A	2123	G
1	1A	2126	A
1	1A	2127	G
1	1A	2129	C
1	1A	2130	U
1	1A	2131	G
1	1A	2132	U
1	1A	2133	G
1	1A	2134	A
1	1A	2135	A
1	1A	2136	C
1	1A	2137	C
1	1A	2140	C
1	1A	2142	C
1	1A	2144	U
1	1A	2146	C
1	1A	2147	G
1	1A	2150	U
1	1A	2151	G
1	1A	2156	G
1	1A	2157	G
1	1A	2158	A
1	1A	2159	G
1	1A	2161	C
1	1A	2165	G
1	1A	2166	G
1	1A	2171	A

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Mol	Chain	Res	Type
1	1A	2172	U
1	1A	2173	A
1	1A	2174	C
1	1A	2176	A
1	1A	2180	U
1	1A	2182	G
1	1A	2184	G
1	1A	2189	U
1	1A	2192	G
1	1A	2198	A
1	1A	2206	G
1	1A	2207	G
1	1A	2219	G
1	1A	2224	G
1	1A	2225	A
1	1A	2235	G
1	1A	2238	G
1	1A	2239	G
1	1A	2240	C
1	1A	2252	G
1	1A	2268	A
1	1A	2269	A
1	1A	2280	G
1	1A	2283	C
1	1A	2287	A
1	1A	2289	G
1	1A	2294	C
1	1A	2305	A
1	1A	2308	G
1	1A	2312	U
1	1A	2316	C
1	1A	2320	A
1	1A	2325	G
1	1A	2333	A
1	1A	2334	G
1	1A	2336	A
1	1A	2345	G
1	1A	2347	C
1	1A	2350	C
1	1A	2361	A
1	1A	2377	A
1	1A	2379	G

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Mol	Chain	Res	Type
1	1A	2383	G
1	1A	2385	C
1	1A	2400	G
1	1A	2405	G
1	1A	2406	U
1	1A	2407	G
1	1A	2422	A
1	1A	2423	U
1	1A	2424	C
1	1A	2425	A
1	1A	2428	G
1	1A	2429	G
1	1A	2430	A
1	1A	2431	U
1	1A	2432	A
1	1A	2435	A
1	1A	2439	A
1	1A	2440	C
1	1A	2441	C
1	1A	2445	G
1	1A	2448	A
1	1A	2469	A
1	1A	2474	C
1	1A	2476	A
1	1A	2477	C
1	1A	2478	A
1	1A	2490	G
1	1A	2491	U
1	1A	2502	G
1	1A	2505	G
1	1A	2518	A
1	1A	2525	G
1	1A	2529	G
1	1A	2535	G
1	1A	2538	C
1	1A	2549	G
1	1A	2550	G
1	1A	2554	U
1	1A	2556	C
1	1A	2562	U
1	1A	2566	A
1	1A	2567	G

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Mol	Chain	Res	Type
1	1A	2573	C
1	1A	2574	G
1	1A	2579	C
1	1A	2582	G
1	1A	2602	A
1	1A	2608	G
1	1A	2609	U
1	1A	2611	U
1	1A	2612	C
1	1A	2628	C
1	1A	2629	A
1	1A	2630	G
1	1A	2654	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	2714	G
1	1A	2721	A
1	1A	2722	G
1	1A	2726	U
1	1A	2727	G
1	1A	2733	A
1	1A	2758	A
1	1A	2765	A
1	1A	2766	G
1	1A	2769	C
1	1A	2777	G
1	1A	2778	A
1	1A	2780	G
1	1A	2790	A
1	1A	2791	C
1	1A	2792	G
1	1A	2793	G
1	1A	2802	G
1	1A	2803	C
1	1A	2818	G
1	1A	2820	A
1	1A	2821	A

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Mol	Chain	Res	Type
1	1A	2824	C
1	1A	2835	A
1	1A	2836	U
1	1A	2872	G
1	1A	2873	A
1	1A	2892	A
1	1A	2894	G
2	1B	8	U
2	1B	12	C
2	1B	24	G
2	1B	25	A
2	1B	42	C
2	1B	56	G
2	1B	67	G
2	1B	73	A
2	1B	85	G
2	1B	93	G
2	1B	106	G
2	1B	110	G
32	1a	7	G
32	1a	9	G
32	1a	22	G
32	1a	32	A
32	1a	39	G
32	1a	48	C
32	1a	51	A
32	1a	54	C
32	1a	55	A
32	1a	61	G
32	1a	73	G
32	1a	77	G
32	1a	79	G
32	1a	91	C
32	1a	92	C
32	1a	98	G
32	1a	101	A
32	1a	105	G
32	1a	111	G
32	1a	115	G
32	1a	116	A
32	1a	120	A
32	1a	121	C

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Mol	Chain	Res	Type
32	1a	131	C
32	1a	147	G
32	1a	163	C
32	1a	174	C
32	1a	181	G
32	1a	182	U
32	1a	189(G)	G
32	1a	189(H)	G
32	1a	189(J)	G
32	1a	190	U
32	1a	194	C
32	1a	195	A
32	1a	197	A
32	1a	199	G
32	1a	201	C
32	1a	202	U
32	1a	203	U
32	1a	204	U
32	1a	217	C
32	1a	222	U
32	1a	230	G
32	1a	247	G
32	1a	251	G
32	1a	258	G
32	1a	266	G
32	1a	267	C
32	1a	289	G
32	1a	306	G
32	1a	318	G
32	1a	321	A
32	1a	324	G
32	1a	328	C
32	1a	330	C
32	1a	332	G
32	1a	342	C
32	1a	344	A
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	363	A
32	1a	365	U
32	1a	367	U

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Mol	Chain	Res	Type
32	1a	372	C
32	1a	373	A
32	1a	377	G
32	1a	384	G
32	1a	388	G
32	1a	390	C
32	1a	397	A
32	1a	398	C
32	1a	406	G
32	1a	412	A
32	1a	413	G
32	1a	422	C
32	1a	423	G
32	1a	424	G
32	1a	429	U
32	1a	439	A
32	1a	441	A
32	1a	442	C
32	1a	452	A
32	1a	453	A
32	1a	461	A
32	1a	471	G
32	1a	485	G
32	1a	492	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	527	G7M
32	1a	531	U
32	1a	532	A
32	1a	544	G
32	1a	545	C
32	1a	547	A
32	1a	559	A
32	1a	561	U
32	1a	562	C
32	1a	568	G
32	1a	572	A

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Mol	Chain	Res	Type
32	1a	573	A
32	1a	576	G
32	1a	577	G
32	1a	596	C
32	1a	605	U
32	1a	607	A
32	1a	630	G
32	1a	639	G
32	1a	640	A
32	1a	653	A
32	1a	665	A
32	1a	673	G
32	1a	683	G
32	1a	687	A
32	1a	688	G
32	1a	693	G
32	1a	695	A
32	1a	721	G
32	1a	723	U
32	1a	724	G
32	1a	728	A
32	1a	731	G
32	1a	734	G
32	1a	749	C
32	1a	753	A
32	1a	755	G
32	1a	759	A
32	1a	766	A
32	1a	767	A
32	1a	774	G
32	1a	777	A
32	1a	786	G
32	1a	792	A
32	1a	793	U
32	1a	794	A
32	1a	815	A
32	1a	817	C
32	1a	821	G
32	1a	828	A
32	1a	840	C
32	1a	841	U
32	1a	851	G

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Mol	Chain	Res	Type
32	1a	853	G
32	1a	859	A
32	1a	870	U
32	1a	873	A
32	1a	885	G
32	1a	902	G
32	1a	913	A
32	1a	914	A
32	1a	926	G
32	1a	927	G
32	1a	931	C
32	1a	934	C
32	1a	935	A
32	1a	942	G
32	1a	947	G
32	1a	955	U
32	1a	960	U
32	1a	961	U
32	1a	968	A
32	1a	969	A
32	1a	971	G
32	1a	972	C
32	1a	974	A
32	1a	975	A
32	1a	976	G
32	1a	977	A
32	1a	982	U
32	1a	983	A
32	1a	992	U
32	1a	993	G
32	1a	996	A
32	1a	997	U
32	1a	998	G
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	1011	G
32	1a	1012	U
32	1a	1020	U

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Mol	Chain	Res	Type
32	1a	1022	G
32	1a	1023	G
32	1a	1024	G
32	1a	1025	U
32	1a	1026	G
32	1a	1027	C
32	1a	1028	C
32	1a	1029	C
32	1a	1030	C
32	1a	1030(A)	G
32	1a	1030(C)	G
32	1a	1031	G
32	1a	1032	G
32	1a	1033	G
32	1a	1037	C
32	1a	1039	C
32	1a	1044	A
32	1a	1045	C
32	1a	1068	G
32	1a	1081	G
32	1a	1094	G
32	1a	1095	U
32	1a	1101	A
32	1a	1108	G
32	1a	1121	U
32	1a	1122	U
32	1a	1123	A
32	1a	1124	G
32	1a	1125	U
32	1a	1126	U
32	1a	1132	C
32	1a	1134	G
32	1a	1137	C
32	1a	1138	G
32	1a	1139	G
32	1a	1140	C
32	1a	1146	A
32	1a	1152	A
32	1a	1159	U
32	1a	1176	A
32	1a	1183	A
32	1a	1184	G

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Mol	Chain	Res	Type
32	1a	1186	G
32	1a	1191	A
32	1a	1193	G
32	1a	1196	U
32	1a	1197	G
32	1a	1201	A
32	1a	1202	G
32	1a	1213	A
32	1a	1214	C
32	1a	1227	A
32	1a	1236	A
32	1a	1238	A
32	1a	1240	U
32	1a	1250	A
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1260	C
32	1a	1270	C
32	1a	1275	A
32	1a	1278	U
32	1a	1279	A
32	1a	1280	A
32	1a	1284	C
32	1a	1286	A
32	1a	1287	A
32	1a	1299	A
32	1a	1300	G
32	1a	1305	G
32	1a	1312	G
32	1a	1318	A
32	1a	1320	C
32	1a	1323	G
32	1a	1338	G
32	1a	1340	A
32	1a	1346	A
32	1a	1347	G
32	1a	1353	G
32	1a	1363	C
32	1a	1364	U
32	1a	1370	G
32	1a	1378	C

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Mol	Chain	Res	Type
32	1a	1397	C
32	1a	1409	C
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1446	U
32	1a	1447	A
32	1a	1452	C
32	1a	1456	G
32	1a	1458	G
32	1a	1469	G
32	1a	1487	G
32	1a	1492	A
32	1a	1494	G
32	1a	1497	G
32	1a	1503	A
32	1a	1504	G
32	1a	1506	U
32	1a	1517	G
32	1a	1529	G
32	1a	1530	G
32	1a	1531	A
53	1v	15	A
54	1x	2	G
54	1x	4	G
54	1x	9	G
54	1x	10	G
54	1x	18	G
54	1x	19	G
54	1x	20	U
54	1x	21	A
54	1x	22	G
54	1x	25	C
54	1x	47	U
54	1x	48	C
54	1x	69	C
1	2A	8	A
1	2A	15	G
1	2A	34	C
1	2A	35	G
1	2A	45	C
1	2A	63	U

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Mol	Chain	Res	Type
1	2A	64	A
1	2A	71	A
1	2A	72	U
1	2A	74	A
1	2A	75	G
1	2A	79	G
1	2A	81	G
1	2A	84	A
1	2A	90	U
1	2A	94	C
1	2A	100	G
1	2A	102	G
1	2A	112	U
1	2A	118	A
1	2A	119	A
1	2A	120	U
1	2A	125	G
1	2A	133	C
1	2A	157	U
1	2A	181	A
1	2A	196	A
1	2A	197	A
1	2A	199	A
1	2A	205	G
1	2A	214	G
1	2A	215	G
1	2A	216	A
1	2A	221	A
1	2A	222	A
1	2A	225	A
1	2A	228	A
1	2A	229	A
1	2A	230	U
1	2A	232	G
1	2A	233	A
1	2A	248	G
1	2A	266	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

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Mol	Chain	Res	Type
1	2A	272(B)	G
1	2A	274	G
1	2A	277	C
1	2A	278	A
1	2A	279	C
1	2A	294	A
1	2A	303	U
1	2A	308	G
1	2A	311	A
1	2A	317	G
1	2A	324	A
1	2A	325	G
1	2A	327	G
1	2A	329	G
1	2A	330	A
1	2A	333	G
1	2A	342	G
1	2A	352	G
1	2A	354	G
1	2A	357	A
1	2A	363	G
1	2A	363(B)	G
1	2A	363(F)	A
1	2A	372	G
1	2A	386	G
1	2A	396	G
1	2A	403	U
1	2A	405	U
1	2A	411	G
1	2A	412	A
1	2A	420	C
1	2A	421	U
1	2A	443	A
1	2A	444	C
1	2A	454	A
1	2A	455	C
1	2A	456	C
1	2A	457	A
1	2A	459	U
1	2A	480	A
1	2A	481	G
1	2A	484	C

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Mol	Chain	Res	Type
1	2A	488	G
1	2A	494	G
1	2A	504	U
1	2A	505	A
1	2A	508	G
1	2A	509	C
1	2A	529	A
1	2A	531	C
1	2A	532	A
1	2A	545	G
1	2A	563	G
1	2A	567	A
1	2A	568	U
1	2A	573	G
1	2A	575	A
1	2A	583	G
1	2A	588	U
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	611	C
1	2A	614(B)	G
1	2A	615	G
1	2A	627	A
1	2A	637	A
1	2A	645	C
1	2A	652(B)	A
1	2A	652(C)	G
1	2A	656	G
1	2A	669	G
1	2A	686	G
1	2A	715	G
1	2A	717	G
1	2A	730	C
1	2A	752	A
1	2A	753	C
1	2A	764	A
1	2A	770	G
1	2A	775	G
1	2A	776	G
1	2A	779	U
1	2A	782	A

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Mol	Chain	Res	Type
1	2A	784	A
1	2A	785	G
1	2A	792	G
1	2A	802	A
1	2A	805	G
1	2A	812	C
1	2A	819	A
1	2A	827	U
1	2A	828	U
1	2A	846	C
1	2A	857	C
1	2A	859	G
1	2A	873	G
1	2A	874	G
1	2A	878	A
1	2A	879	G
1	2A	880	G
1	2A	881	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
1	2A	896	A
1	2A	897	C
1	2A	900	A
1	2A	904	C
1	2A	910	A
1	2A	914	C
1	2A	917	A
1	2A	924	C
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	961	C

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Mol	Chain	Res	Type
1	2A	974	G
1	2A	975	C
1	2A	983	A
1	2A	996	A
1	2A	999	U
1	2A	1005	C
1	2A	1010	A
1	2A	1012	U
1	2A	1013	C
1	2A	1015	G
1	2A	1017	G
1	2A	1020	A
1	2A	1022	G
1	2A	1023	U
1	2A	1025	G
1	2A	1026	U
1	2A	1027	A
1	2A	1033	U
1	2A	1034	G
1	2A	1038	C
1	2A	1039	G
1	2A	1040	C
1	2A	1114	G
1	2A	1116	C
1	2A	1117	G
1	2A	1118	C
1	2A	1126	A
1	2A	1129	A
1	2A	1130	U
1	2A	1135	C
1	2A	1136	G
1	2A	1139	G
1	2A	1151	G
1	2A	1155	A
1	2A	1167	U
1	2A	1168	G
1	2A	1171	G
1	2A	1187	G
1	2A	1188	U
1	2A	1195	G
1	2A	1210	A
1	2A	1211	U

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Mol	Chain	Res	Type
1	2A	1220	A
1	2A	1240	U
1	2A	1253	A
1	2A	1256	G
1	2A	1268	A
1	2A	1271	G
1	2A	1272	A
1	2A	1273	U
1	2A	1284	A
1	2A	1298	C
1	2A	1300	U
1	2A	1301	A
1	2A	1302	A
1	2A	1306	C
1	2A	1308	A
1	2A	1314	C
1	2A	1320	C
1	2A	1321	A
1	2A	1327	C
1	2A	1329	U
1	2A	1332	G
1	2A	1352	U
1	2A	1359	A
1	2A	1360	A
1	2A	1365	A
1	2A	1370	C
1	2A	1372	U
1	2A	1378	A
1	2A	1379	A
1	2A	1380	G
1	2A	1384	A
1	2A	1385	G
1	2A	1386	C
1	2A	1395	A
1	2A	1406	U
1	2A	1411	C
1	2A	1416	G
1	2A	1417	C
1	2A	1421	G
1	2A	1428	C
1	2A	1437	C
1	2A	1445	A

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Mol	Chain	Res	Type
1	2A	1449	A
1	2A	1450	G
1	2A	1460	A
1	2A	1461	G
1	2A	1465	G
1	2A	1467	C
1	2A	1471	A
1	2A	1472	A
1	2A	1490	A
1	2A	1493	C
1	2A	1494	A
1	2A	1496	A
1	2A	1497	U
1	2A	1508	A
1	2A	1509	C
1	2A	1509(A)	A
1	2A	1523	U
1	2A	1531	C
1	2A	1532	C
1	2A	1533	G
1	2A	1543	C
1	2A	1547	C
1	2A	1553	A
1	2A	1558	A
1	2A	1559	G
1	2A	1569	A
1	2A	1578	U
1	2A	1580	A
1	2A	1584	C
1	2A	1588	C
1	2A	1594	G
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A
1	2A	1625	C
1	2A	1640	C
1	2A	1648	C
1	2A	1653	G
1	2A	1654	A
1	2A	1669	A
1	2A	1674	G
1	2A	1675	C

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Mol	Chain	Res	Type
1	2A	1682	G
1	2A	1696	G
1	2A	1700	A
1	2A	1701	A
1	2A	1721	G
1	2A	1722	A
1	2A	1740	G
1	2A	1743	C
1	2A	1746	G
1	2A	1756	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	1805	U
1	2A	1812	A
1	2A	1816	G
1	2A	1817	G
1	2A	1835	G
1	2A	1847	A
1	2A	1861	G
1	2A	1862	G
1	2A	1877	A
1	2A	1878	G
1	2A	1900	A
1	2A	1906	G
1	2A	1911	PSU
1	2A	1913	A
1	2A	1929	G
1	2A	1930	G
1	2A	1936	A
1	2A	1937	A
1	2A	1944	U
1	2A	1955	U
1	2A	1963	U
1	2A	1964	G

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Mol	Chain	Res	Type
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1984	G
1	2A	1992	G
1	2A	1993	U
1	2A	1996	C
1	2A	1997	G
1	2A	2023	G
1	2A	2031	A
1	2A	2032	G
1	2A	2033	A
1	2A	2036	C
1	2A	2043	C
1	2A	2052	G
1	2A	2055	C
1	2A	2056	G
1	2A	2060	A
1	2A	2061	G
1	2A	2062	A
1	2A	2069	G
1	2A	2092	U
1	2A	2093	G
1	2A	2099	U
1	2A	2101	G
1	2A	2110	G
1	2A	2111	C
1	2A	2112	G
1	2A	2116	G
1	2A	2117	A
1	2A	2119	A
1	2A	2120	G
1	2A	2122	U
1	2A	2126	A
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

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Mol	Chain	Res	Type
1	2A	2138	C
1	2A	2139	C
1	2A	2140	C
1	2A	2142	C
1	2A	2145	C
1	2A	2150	U
1	2A	2151	G
1	2A	2155	G
1	2A	2156	G
1	2A	2157	G
1	2A	2158	A
1	2A	2159	G
1	2A	2161	C
1	2A	2162	G
1	2A	2166	G
1	2A	2167	U
1	2A	2168	G
1	2A	2171	A
1	2A	2172	U
1	2A	2174	C
1	2A	2177	C
1	2A	2178	C
1	2A	2183	C
1	2A	2185	C
1	2A	2189	U
1	2A	2192	G
1	2A	2198	A
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2218	U
1	2A	2225	A
1	2A	2238	G
1	2A	2239	G
1	2A	2240	C
1	2A	2254	C
1	2A	2267	A
1	2A	2273	A
1	2A	2275	C
1	2A	2280	G
1	2A	2283	C
1	2A	2287	A

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Mol	Chain	Res	Type
1	2A	2289	G
1	2A	2294	C
1	2A	2305	A
1	2A	2306	C
1	2A	2308	G
1	2A	2319	G
1	2A	2320	A
1	2A	2325	G
1	2A	2327	A
1	2A	2334	G
1	2A	2336	A
1	2A	2347	C
1	2A	2350	C
1	2A	2366	A
1	2A	2372	G
1	2A	2376	A
1	2A	2383	G
1	2A	2385	C
1	2A	2391	G
1	2A	2402	C
1	2A	2406	U
1	2A	2413	G
1	2A	2414	G
1	2A	2422	A
1	2A	2423	U
1	2A	2425	A
1	2A	2428	G
1	2A	2429	G
1	2A	2430	A
1	2A	2431	U
1	2A	2435	A
1	2A	2439	A
1	2A	2441	C
1	2A	2442	C
1	2A	2448	A
1	2A	2465	C
1	2A	2469	A
1	2A	2476	A
1	2A	2480	C
1	2A	2481	G
1	2A	2487	G
1	2A	2490	G

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Mol	Chain	Res	Type
1	2A	2494	G
1	2A	2495	G
1	2A	2502	G
1	2A	2505	G
1	2A	2507	C
1	2A	2518	A
1	2A	2520	C
1	2A	2525	G
1	2A	2529	G
1	2A	2535	G
1	2A	2554	U
1	2A	2555	U
1	2A	2564	A
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C
1	2A	2578	G
1	2A	2602	A
1	2A	2608	G
1	2A	2609	U
1	2A	2611	U
1	2A	2612	C
1	2A	2613	U
1	2A	2630	G
1	2A	2634	G
1	2A	2646	C
1	2A	2654	A
1	2A	2689	U
1	2A	2690	C
1	2A	2691	C
1	2A	2702	U
1	2A	2703	C
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2721	A
1	2A	2726	U
1	2A	2733	A
1	2A	2739	U
1	2A	2744	G
1	2A	2748	A
1	2A	2751	G

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Mol	Chain	Res	Type
1	2A	2758	A
1	2A	2765	A
1	2A	2766	G
1	2A	2778	A
1	2A	2780	G
1	2A	2789	C
1	2A	2793	G
1	2A	2794	C
1	2A	2803	C
1	2A	2805	G
1	2A	2808	U
1	2A	2818	G
1	2A	2820	A
1	2A	2821	A
1	2A	2826	A
1	2A	2835	A
1	2A	2839	G
1	2A	2850	A
1	2A	2872	G
1	2A	2880	C
1	2A	2886	G
1	2A	2892	A
1	2A	2894	G
1	2A	2897	U
2	2B	2	C
2	2B	3	C
2	2B	9	G
2	2B	12	C
2	2B	13	A
2	2B	15	A
2	2B	17	C
2	2B	21	G
2	2B	24	G
2	2B	25	A
2	2B	26	A
2	2B	33	G
2	2B	35	U
2	2B	41	U
2	2B	42	C
2	2B	53	A
2	2B	54	G
2	2B	58	A

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Mol	Chain	Res	Type
2	2B	60	C
2	2B	63	G
2	2B	67	G
2	2B	72	G
2	2B	73	A
2	2B	74	U
2	2B	75	G
2	2B	84	C
2	2B	85	G
2	2B	89	G
2	2B	106	G
2	2B	110	G
2	2B	112	U
2	2B	113	G
2	2B	114	C
2	2B	116	G
2	2B	119	G
2	2B	120	A
32	2a	5	U
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	41	G
32	2a	47	C
32	2a	48	C
32	2a	50	A
32	2a	51	A
32	2a	52	G
32	2a	65	U
32	2a	66	G
32	2a	70	G
32	2a	73	G
32	2a	76	C
32	2a	79	G
32	2a	88	A
32	2a	89	C
32	2a	91	C
32	2a	93	G
32	2a	101	A

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Mol	Chain	Res	Type
32	2a	105	G
32	2a	116	A
32	2a	121	C
32	2a	131	C
32	2a	143	A
32	2a	147	G
32	2a	156	G
32	2a	159	G
32	2a	163	C
32	2a	180	U
32	2a	182	U
32	2a	189(C)	C
32	2a	189(E)	U
32	2a	189(F)	U
32	2a	189(G)	G
32	2a	189(H)	G
32	2a	195	A
32	2a	197	A
32	2a	201	C
32	2a	202	U
32	2a	203	U
32	2a	204	U
32	2a	216	G
32	2a	226	G
32	2a	242	C
32	2a	245	C
32	2a	247	G
32	2a	250	A
32	2a	251	G
32	2a	258	G
32	2a	266	G
32	2a	267	C
32	2a	279	A
32	2a	280	C
32	2a	287	U
32	2a	289	G
32	2a	290	C
32	2a	306	G
32	2a	321	A
32	2a	328	C
32	2a	330	C
32	2a	332	G

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Mol	Chain	Res	Type
32	2a	350	G
32	2a	351	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	384	G
32	2a	388	G
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	412	A
32	2a	413	G
32	2a	414	A
32	2a	417	C
32	2a	421	U
32	2a	422	C
32	2a	423	G
32	2a	424	G
32	2a	429	U
32	2a	430	A
32	2a	439	A
32	2a	442	C
32	2a	443	C
32	2a	449	C
32	2a	452	A
32	2a	470	C
32	2a	471	G
32	2a	484	G
32	2a	485	G
32	2a	495	A
32	2a	496	A
32	2a	498	U
32	2a	500	G
32	2a	505	G
32	2a	508	C
32	2a	509	A
32	2a	510	A
32	2a	511	C
32	2a	517	G

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Mol	Chain	Res	Type
32	2a	518	C
32	2a	521	G
32	2a	527	G7M
32	2a	531	U
32	2a	532	A
32	2a	533	A
32	2a	536	C
32	2a	547	A
32	2a	559	A
32	2a	564	C
32	2a	566	G
32	2a	567	G
32	2a	568	G
32	2a	572	A
32	2a	573	A
32	2a	575	G
32	2a	576	G
32	2a	577	G
32	2a	587	G
32	2a	596	C
32	2a	618	C
32	2a	630	G
32	2a	650	G
32	2a	653	A
32	2a	665	A
32	2a	666	G
32	2a	673	G
32	2a	688	G
32	2a	693	G
32	2a	702	A
32	2a	723	U
32	2a	731	G
32	2a	746	A
32	2a	749	C
32	2a	755	G
32	2a	760	G
32	2a	764	C
32	2a	770	C
32	2a	773	G
32	2a	774	G
32	2a	777	A
32	2a	787	A

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Mol	Chain	Res	Type
32	2a	792	A
32	2a	793	U
32	2a	794	A
32	2a	816	A
32	2a	817	C
32	2a	821	G
32	2a	825	G
32	2a	827	U
32	2a	828	A
32	2a	834	C
32	2a	840	C
32	2a	841	U
32	2a	851	G
32	2a	853	G
32	2a	859	A
32	2a	864	A
32	2a	874	G
32	2a	902	G
32	2a	914	A
32	2a	926	G
32	2a	927	G
32	2a	931	C
32	2a	934	C
32	2a	935	A
32	2a	936	C
32	2a	941	G
32	2a	942	G
32	2a	953	G
32	2a	954	G
32	2a	955	U
32	2a	958	A
32	2a	960	U
32	2a	961	U
32	2a	964	A
32	2a	968	A
32	2a	969	A
32	2a	971	G
32	2a	972	C
32	2a	974	A
32	2a	975	A
32	2a	976	G
32	2a	977	A

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Mol	Chain	Res	Type
32	2a	982	U
32	2a	991	U
32	2a	992	U
32	2a	993	G
32	2a	995	C
32	2a	997	U
32	2a	998	G
32	2a	999	C
32	2a	1000	U
32	2a	1001	A
32	2a	1002	G
32	2a	1003	G
32	2a	1004	A
32	2a	1005	A
32	2a	1006	C
32	2a	1008	C
32	2a	1009	G
32	2a	1011	G
32	2a	1016	A
32	2a	1017	G
32	2a	1019	C
32	2a	1020	U
32	2a	1021	G
32	2a	1022	G
32	2a	1023	G
32	2a	1025	U
32	2a	1026	G
32	2a	1027	C
32	2a	1028	C
32	2a	1030	C
32	2a	1030(A)	G
32	2a	1032	G
32	2a	1035	A
32	2a	1037	C
32	2a	1038	C
32	2a	1039	C
32	2a	1040	U
32	2a	1045	C
32	2a	1046	A
32	2a	1053	G
32	2a	1056	U
32	2a	1065	U

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Mol	Chain	Res	Type
32	2a	1066	C
32	2a	1068	G
32	2a	1071	C
32	2a	1078	U
32	2a	1081	G
32	2a	1086	U
32	2a	1093	A
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A
32	2a	1105	A
32	2a	1112	C
32	2a	1113	C
32	2a	1117	G
32	2a	1122	U
32	2a	1124	G
32	2a	1126	U
32	2a	1128	C
32	2a	1129	C
32	2a	1130	A
32	2a	1133	G
32	2a	1135	U
32	2a	1136	U
32	2a	1137	C
32	2a	1138	G
32	2a	1139	G
32	2a	1140	C
32	2a	1146	A
32	2a	1150	U
32	2a	1152	A
32	2a	1154	G
32	2a	1157	A
32	2a	1159	U
32	2a	1160	G
32	2a	1170	A
32	2a	1175	G
32	2a	1181	G
32	2a	1182	G
32	2a	1183	A
32	2a	1184	G
32	2a	1196	U
32	2a	1197	G

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Mol	Chain	Res	Type
32	2a	1202	G
32	2a	1208	C
32	2a	1211	U
32	2a	1213	A
32	2a	1214	C
32	2a	1215	G
32	2a	1218	C
32	2a	1227	A
32	2a	1236	A
32	2a	1238	A
32	2a	1240	U
32	2a	1241	G
32	2a	1246	C
32	2a	1247	U
32	2a	1256	A
32	2a	1257	U
32	2a	1258	G
32	2a	1260	C
32	2a	1262	C
32	2a	1270	C
32	2a	1272	G
32	2a	1273	G
32	2a	1275	A
32	2a	1277	C
32	2a	1278	U
32	2a	1279	A
32	2a	1280	A
32	2a	1285	A
32	2a	1287	A
32	2a	1297	C
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	1320	C
32	2a	1322	C
32	2a	1323	G
32	2a	1340	A
32	2a	1346	A
32	2a	1347	G

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Mol	Chain	Res	Type
32	2a	1348	U
32	2a	1363	C
32	2a	1363(A)	A
32	2a	1364	U
32	2a	1368	G
32	2a	1370	G
32	2a	1379	G
32	2a	1381	U
32	2a	1391	U
32	2a	1393	U
32	2a	1394	A
32	2a	1397	C
32	2a	1398	A
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1442(B)	A
32	2a	1447	A
32	2a	1452	C
32	2a	1456	G
32	2a	1475	G
32	2a	1487	G
32	2a	1491	G
32	2a	1492	A
32	2a	1494	G
32	2a	1499	A
32	2a	1503	A
32	2a	1504	G
32	2a	1506	U
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
54	2x	9	G
54	2x	13	C

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Mol	Chain	Res	Type
54	2x	17(A)	U
54	2x	18	G
54	2x	19	G
54	2x	20	U
54	2x	21	A
54	2x	42	G
54	2x	47	U
54	2x	56	C
54	2x	61	C
54	2x	70	G

All (67) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	90	U
1	1A	196	A
1	1A	266	G
1	1A	271(J)	C
1	1A	278	A
1	1A	548	A
1	1A	764	A
1	1A	774	A
1	1A	827	U
1	1A	974	G
1	1A	1047	G
1	1A	1067	A
1	1A	1174	A
1	1A	1176	G
1	1A	1211	U
1	1A	1275	A
1	1A	1378	A
1	1A	1442	G
1	1A	1508	A
1	1A	1608	A
1	1A	1762	A
1	1A	1992	G
1	1A	2116	G
1	1A	2134	A
1	1A	2183	C
1	1A	2406	U
1	1A	2422	A
1	1A	2430	A

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Mol	Chain	Res	Type
1	1A	2439	A
1	1A	2611	U
1	1A	2629	A
1	1A	2689	U
1	1A	2726	U
1	2A	83	G
1	2A	196	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	310	A
1	2A	479	A
1	2A	503	A
1	2A	528	A
1	2A	752	A
1	2A	774	A
1	2A	827	U
1	2A	856	C
1	2A	974	G
1	2A	1026	U
1	2A	1210	A
1	2A	1301	A
1	2A	1378	A
1	2A	1379	A
1	2A	1420	U
1	2A	1442	G
1	2A	1530	C
1	2A	1608	A
1	2A	1653	G
1	2A	1935	G
1	2A	1992	G
1	2A	2119	A
1	2A	2126	A
1	2A	2406	U
1	2A	2422	A
1	2A	2439	A
1	2A	2689	U

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

58 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	G7M	1a	527	55,32	23,26,27	1.60	4 (17%)	34,39,42	1.68	5 (14%)
43	0TD	1l	92	43	8,9,10	4.14	2 (25%)	6,11,13	2.07	2 (33%)
32	2MG	1a	1207	32	23,26,27	1.31	4 (17%)	33,38,41	2.25	8 (24%)
32	UR3	2a	1498	32	19,22,23	1.14	2 (10%)	26,32,35	1.72	3 (11%)
1	OMC	2A	1920	1	19,22,23	0.82	0	25,31,34	0.99	2 (8%)
43	0TD	2l	92	43	8,9,10	4.63	2 (25%)	6,11,13	1.18	1 (16%)
1	OMG	1A	2251	55,54,1	23,26,27	1.31	3 (13%)	32,38,41	2.02	6 (18%)
32	MA6	1a	1518	32	23,26,27	0.41	0	33,38,41	1.95	9 (27%)
32	5MC	1a	1407	32	19,22,23	1.40	2 (10%)	26,32,35	1.28	4 (15%)
1	PSU	2A	1917	1	18,21,22	1.45	2 (11%)	21,30,33	2.20	3 (14%)
1	5MC	2A	1962	55,1	19,22,23	1.23	3 (15%)	26,32,35	1.23	4 (15%)
32	5MC	2a	1404	32	19,22,23	1.63	3 (15%)	26,32,35	1.13	2 (7%)
1	PSU	1A	2605	55,1	18,21,22	1.40	4 (22%)	21,30,33	1.88	6 (28%)
1	PSU	1A	1917	1	18,21,22	1.52	3 (16%)	21,30,33	1.91	4 (19%)
32	5MC	2a	1407	32	19,22,23	1.49	3 (15%)	26,32,35	1.38	4 (15%)
54	5MU	1x	54	54	19,22,23	1.45	4 (21%)	27,32,35	1.75	7 (25%)
1	PSU	1A	1911	1	18,21,22	1.38	3 (16%)	21,30,33	2.17	4 (19%)
1	5MU	1A	1939	1	19,22,23	1.31	4 (21%)	27,32,35	2.12	6 (22%)
54	PSU	2x	55	54	18,21,22	1.31	2 (11%)	21,30,33	1.90	4 (19%)
54	8AN	1x	76	54,60,55	21,24,25	1.68	4 (19%)	26,35,38	2.10	8 (30%)
1	5MU	2A	1939	1	19,22,23	1.55	4 (21%)	27,32,35	2.58	8 (29%)
54	5MU	2x	54	54	19,22,23	1.49	5 (26%)	27,32,35	1.66	5 (18%)
32	MA6	2a	1518	32	23,26,27	0.44	0	33,38,41	1.86	8 (24%)
32	PSU	2a	516	55,32	18,21,22	1.37	3 (16%)	21,30,33	2.05	5 (23%)
54	8AN	2x	76	54,60,55	21,24,25	1.47	3 (14%)	26,35,38	2.38	10 (38%)
32	5MC	2a	967	32	19,22,23	1.97	3 (15%)	26,32,35	1.25	4 (15%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
54	5MC	2x	32	54	19,22,23	1.44	3 (15%)	26,32,35	1.18	4 (15%)
32	5MC	2a	1400	32	19,22,23	1.58	3 (15%)	26,32,35	1.24	4 (15%)
1	5MC	1A	1962	55,1	19,22,23	1.53	3 (15%)	26,32,35	1.24	4 (15%)
1	PSU	2A	2605	1	18,21,22	1.40	3 (16%)	21,30,33	2.01	5 (23%)
1	5MC	2A	1942	1	19,22,23	1.58	3 (15%)	26,32,35	1.45	5 (19%)
54	5MC	1x	32	54	19,22,23	1.93	3 (15%)	26,32,35	1.57	4 (15%)
32	G7M	2a	527	55,32	23,26,27	1.42	4 (17%)	34,39,42	1.63	4 (11%)
32	PSU	1a	516	55,32	18,21,22	1.47	2 (11%)	21,30,33	2.17	5 (23%)
1	OMC	1A	1920	1	19,22,23	0.81	0	25,31,34	1.08	2 (8%)
1	5MC	1A	1942	1	19,22,23	1.04	2 (10%)	26,32,35	1.53	7 (26%)
1	PSU	2A	1911	1	18,21,22	1.53	4 (22%)	21,30,33	2.08	4 (19%)
1	2MA	2A	2503	55,1	22,25,26	1.57	5 (22%)	32,37,40	2.25	6 (18%)
1	2MA	1A	2503	55,1	22,25,26	1.46	5 (22%)	32,37,40	2.49	9 (28%)
32	UR3	1a	1498	32	19,22,23	1.06	2 (10%)	26,32,35	1.90	4 (15%)
32	MA6	2a	1519	32	23,26,27	0.42	0	33,38,41	2.27	10 (30%)
1	OMG	2A	2251	55,54,1	23,26,27	1.30	3 (13%)	32,38,41	1.94	7 (21%)
32	5MC	1a	1404	32	19,22,23	1.59	3 (15%)	26,32,35	1.19	3 (11%)
32	M2G	1a	966	32	24,27,28	1.28	3 (12%)	33,40,43	1.87	5 (15%)
32	2MG	2a	1207	55,32	23,26,27	1.26	4 (17%)	33,38,41	2.02	7 (21%)
54	4SU	2x	8	54	18,21,22	2.12	5 (27%)	25,30,33	1.68	7 (28%)
32	5MC	1a	967	32	19,22,23	1.36	3 (15%)	26,32,35	1.01	2 (7%)
1	OMU	2A	2552	55,1	19,22,23	1.24	3 (15%)	25,31,34	2.05	6 (24%)
1	5MU	1A	1915	1	19,22,23	1.42	5 (26%)	27,32,35	2.33	7 (25%)
54	PSU	1x	55	54	18,21,22	1.34	3 (16%)	21,30,33	2.42	6 (28%)
32	4OC	1a	1402	32	20,23,24	0.76	1 (5%)	25,32,35	1.02	2 (8%)
54	4SU	1x	8	54	18,21,22	2.11	5 (27%)	25,30,33	1.57	3 (12%)
32	M2G	2a	966	32	24,27,28	1.36	4 (16%)	33,40,43	1.93	6 (18%)
32	4OC	2a	1402	55,32	20,23,24	0.84	1 (5%)	25,32,35	1.10	2 (8%)
32	5MC	1a	1400	32	19,22,23	1.75	3 (15%)	26,32,35	1.56	6 (23%)
32	MA6	1a	1519	32	23,26,27	0.48	0	33,38,41	1.94	10 (30%)
1	OMU	1A	2552	55,1	19,22,23	1.18	4 (21%)	25,31,34	2.23	5 (20%)
1	5MU	2A	1915	55,1	19,22,23	1.57	4 (21%)	27,32,35	2.11	7 (25%)

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	G7M	1a	527	55,32	-	2/7/25/26	0/3/3/3
43	0TD	1l	92	43	-	3/7/12/14	-
32	2MG	1a	1207	32	-	0/9/27/28	0/3/3/3
32	UR3	2a	1498	32	-	2/7/25/26	0/2/2/2
1	OMC	2A	1920	1	-	0/9/27/28	0/2/2/2
43	0TD	2l	92	43	-	2/7/12/14	-
1	OMG	1A	2251	55,54,1	-	0/9/27/28	0/3/3/3
32	MA6	1a	1518	32	-	0/11/29/30	0/3/3/3
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
1	5MC	2A	1962	55,1	-	0/7/25/26	0/2/2/2
32	5MC	2a	1404	32	-	2/7/25/26	0/2/2/2
1	PSU	1A	2605	55,1	-	0/7/25/26	0/2/2/2
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
54	5MU	1x	54	54	-	0/7/25/26	0/2/2/2
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
1	5MU	1A	1939	1	-	0/7/25/26	0/2/2/2
54	PSU	2x	55	54	-	0/7/25/26	0/2/2/2
54	8AN	1x	76	54,60,55	-	3/7/25/26	0/3/3/3
1	5MU	2A	1939	1	-	0/7/25/26	0/2/2/2
54	5MU	2x	54	54	-	0/7/25/26	0/2/2/2
32	MA6	2a	1518	32	-	0/11/29/30	0/3/3/3
32	PSU	2a	516	55,32	-	0/7/25/26	0/2/2/2
54	8AN	2x	76	54,60,55	-	2/7/25/26	0/3/3/3
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
54	5MC	2x	32	54	-	0/7/25/26	0/2/2/2
32	5MC	2a	1400	32	-	0/7/25/26	0/2/2/2
1	5MC	1A	1962	55,1	-	0/7/25/26	0/2/2/2
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
54	5MC	1x	32	54	-	0/7/25/26	0/2/2/2
32	G7M	2a	527	55,32	-	2/7/25/26	0/3/3/3
32	PSU	1a	516	55,32	-	0/7/25/26	0/2/2/2
1	OMC	1A	1920	1	-	1/9/27/28	0/2/2/2
1	5MC	1A	1942	1	-	0/7/25/26	0/2/2/2
1	PSU	2A	1911	1	-	3/7/25/26	0/2/2/2
1	2MA	2A	2503	55,1	-	0/7/25/26	0/3/3/3
1	2MA	1A	2503	55,1	-	1/7/25/26	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
32	MA6	2a	1519	32	-	3/11/29/30	0/3/3/3
1	OMG	2A	2251	55,54,1	-	0/9/27/28	0/3/3/3
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
32	2MG	2a	1207	55,32	-	0/9/27/28	0/3/3/3
54	4SU	2x	8	54	-	0/7/25/26	0/2/2/2
32	5MC	1a	967	32	-	0/7/25/26	0/2/2/2
1	OMU	2A	2552	55,1	-	0/9/27/28	0/2/2/2
1	5MU	1A	1915	1	-	0/7/25/26	0/2/2/2
54	PSU	1x	55	54	-	0/7/25/26	0/2/2/2
32	4OC	1a	1402	32	-	2/9/29/30	0/2/2/2
54	4SU	1x	8	54	-	0/7/25/26	0/2/2/2
32	M2G	2a	966	32	-	0/11/29/30	0/3/3/3
32	4OC	2a	1402	55,32	-	2/9/29/30	0/2/2/2
32	5MC	1a	1400	32	-	2/7/25/26	0/2/2/2
32	MA6	1a	1519	32	-	3/11/29/30	0/3/3/3
1	OMU	1A	2552	55,1	-	0/9/27/28	0/2/2/2
1	5MU	2A	1915	55,1	-	0/7/25/26	0/2/2/2

All (168) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	2l	92	0TD	CB-SB	-12.08	1.70	1.82
43	1l	92	0TD	CB-SB	-10.79	1.71	1.82
32	2a	967	5MC	C5-C4	7.54	1.49	1.44
54	1x	32	5MC	C5-C4	6.71	1.49	1.44
32	1a	1400	5MC	C5-C4	6.14	1.48	1.44
32	2a	1404	5MC	C5-C4	6.02	1.48	1.44
32	1a	1404	5MC	C5-C4	5.81	1.48	1.44
32	2a	1400	5MC	C5-C4	5.73	1.48	1.44
54	2x	8	4SU	C4-N3	-5.60	1.31	1.37
1	2A	1942	5MC	C5-C4	5.22	1.48	1.44
32	1a	527	G7M	C5-N7	-5.08	1.33	1.39
1	1A	1962	5MC	C5-C4	5.07	1.48	1.44
32	2a	1407	5MC	C5-C4	4.93	1.47	1.44
54	1x	8	4SU	C4-N3	-4.71	1.32	1.37
32	1a	1407	5MC	C5-C4	4.70	1.47	1.44
54	2x	32	5MC	C5-C4	4.69	1.47	1.44
54	1x	8	4SU	C2-N3	-4.68	1.29	1.38
54	1x	76	8AN	C5-N7	-4.56	1.30	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	1a	967	5MC	C5-C4	4.48	1.47	1.44
1	2A	2503	2MA	C5-C4	4.44	1.47	1.39
43	2l	92	0TD	CB-CA	4.36	1.56	1.54
32	1a	516	PSU	C6-C5	4.27	1.40	1.35
54	1x	76	8AN	C5-C4	-4.22	1.31	1.39
54	2x	8	4SU	C4-S4	-4.10	1.61	1.68
1	2A	1911	PSU	C6-C5	4.10	1.39	1.35
32	2a	527	G7M	C5-N7	-4.08	1.34	1.39
1	2A	1917	PSU	C6-C5	4.01	1.39	1.35
54	1x	8	4SU	C4-S4	-3.98	1.61	1.68
1	1A	2503	2MA	C5-C4	3.88	1.46	1.39
54	2x	76	8AN	C5-N7	-3.79	1.32	1.39
1	1A	2251	OMG	C6-N1	-3.71	1.31	1.38
54	1x	32	5MC	C6-C5	3.69	1.40	1.34
54	2x	8	4SU	C2-N3	-3.62	1.31	1.38
32	2a	516	PSU	C6-C5	3.61	1.39	1.35
43	1l	92	0TD	CB-CG	3.53	1.58	1.52
54	2x	55	PSU	C6-C5	3.48	1.39	1.35
1	1A	1917	PSU	C6-C5	3.46	1.39	1.35
32	1a	527	G7M	C5-C4	3.40	1.46	1.38
1	1A	1917	PSU	C4-N3	-3.34	1.32	1.38
1	2A	1962	5MC	C5-C4	3.29	1.46	1.44
1	2A	1939	5MU	C4-C5	3.29	1.50	1.44
32	1a	966	M2G	C5-C4	3.29	1.47	1.38
54	1x	8	4SU	C5-C4	-3.28	1.38	1.42
1	1A	1911	PSU	C6-C5	3.23	1.38	1.35
54	1x	54	5MU	C6-C5	3.22	1.39	1.34
1	2A	2605	PSU	C6-C5	3.20	1.38	1.35
32	2a	966	M2G	C5-C4	3.19	1.47	1.38
1	2A	1915	5MU	C2-N1	3.18	1.43	1.38
32	1a	1207	2MG	C6-N1	-3.11	1.33	1.38
32	2a	1207	2MG	C5-C4	3.10	1.47	1.38
32	2a	527	G7M	C5-C4	3.09	1.46	1.38
1	2A	2251	OMG	C5-N7	-3.09	1.32	1.39
32	2a	966	M2G	C2-N2	3.08	1.40	1.35
1	2A	1915	5MU	C6-C5	3.07	1.39	1.34
54	2x	54	5MU	C6-C5	3.07	1.39	1.34
1	2A	1962	5MC	C6-C5	3.04	1.39	1.34
54	1x	54	5MU	C4-N3	-3.03	1.33	1.38
1	2A	1939	5MU	C6-C5	3.03	1.39	1.34
54	2x	76	8AN	C5-C4	-3.01	1.33	1.39
54	2x	32	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	1915	5MU	C2-N1	2.97	1.43	1.38
1	1A	2503	2MA	C5-N7	-2.96	1.33	1.39
54	1x	55	PSU	C6-C5	2.96	1.38	1.35
1	1A	2605	PSU	C4-N3	-2.94	1.33	1.38
1	2A	2605	PSU	C4-N3	-2.90	1.33	1.38
1	1A	2251	OMG	C5-C4	2.88	1.46	1.38
1	2A	1942	5MC	C6-N1	-2.88	1.33	1.38
54	2x	54	5MU	C2-N3	-2.87	1.33	1.38
1	2A	2503	2MA	C8-N7	2.86	1.37	1.31
54	1x	32	5MC	C6-N1	-2.84	1.33	1.38
1	1A	1962	5MC	C6-N1	-2.84	1.33	1.38
32	1a	1207	2MG	C5-C4	2.83	1.46	1.38
1	2A	2251	OMG	C6-N1	-2.80	1.33	1.38
32	1a	1400	5MC	C6-C5	2.80	1.39	1.34
54	2x	76	8AN	C5-C6	-2.80	1.33	1.41
1	2A	2251	OMG	C5-C4	2.80	1.46	1.38
32	1a	966	M2G	C6-N1	-2.79	1.33	1.38
1	1A	1942	5MC	C5-C4	2.77	1.46	1.44
1	2A	1939	5MU	C6-N1	-2.77	1.33	1.38
1	1A	1939	5MU	C2-N3	-2.76	1.33	1.38
1	1A	2605	PSU	C2-N3	-2.76	1.32	1.37
54	2x	54	5MU	C4-N3	-2.76	1.33	1.38
1	1A	1939	5MU	C4-N3	-2.75	1.33	1.38
32	2a	516	PSU	C4-N3	-2.74	1.33	1.38
1	2A	1915	5MU	C4-N3	-2.74	1.33	1.38
32	1a	1400	5MC	C6-N1	-2.72	1.33	1.38
32	2a	966	M2G	C6-N1	-2.71	1.33	1.38
1	2A	1915	5MU	C4-C5	2.71	1.49	1.44
1	2A	2552	OMU	C4-N3	-2.71	1.34	1.38
1	1A	1915	5MU	C6-C5	2.69	1.39	1.34
54	2x	8	4SU	C5-C4	-2.69	1.39	1.42
1	1A	1911	PSU	C4-N3	-2.67	1.33	1.38
32	2a	1404	5MC	C6-C5	2.67	1.39	1.34
32	1a	1407	5MC	C6-C5	2.65	1.38	1.34
1	1A	1917	PSU	C2-N3	-2.63	1.33	1.37
1	2A	2503	2MA	C5-N7	-2.63	1.34	1.39
54	1x	76	8AN	C5-C6	-2.62	1.33	1.41
1	1A	2552	OMU	C4-N3	-2.59	1.34	1.38
1	2A	2605	PSU	C2-N3	-2.55	1.33	1.37
1	2A	2503	2MA	C5-C6	2.53	1.48	1.41
1	2A	1917	PSU	C4-N3	-2.51	1.34	1.38
1	1A	1942	5MC	C6-N1	-2.51	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	967	5MC	C6-C5	2.50	1.38	1.34
1	2A	1911	PSU	C4-N3	-2.49	1.34	1.38
54	2x	54	5MU	C4-C5	2.48	1.48	1.44
32	2a	1207	2MG	C6-N1	-2.48	1.34	1.38
1	1A	1939	5MU	C6-N1	-2.48	1.33	1.38
32	2a	1498	UR3	C2-N1	2.48	1.41	1.38
32	2a	1407	5MC	C6-C5	2.46	1.38	1.34
1	2A	1939	5MU	C4-N3	-2.46	1.34	1.38
32	1a	967	5MC	C6-C5	2.45	1.38	1.34
32	1a	516	PSU	C4-N3	-2.45	1.34	1.38
32	2a	1407	5MC	C6-N1	-2.44	1.33	1.38
1	1A	1915	5MU	C4-N3	-2.44	1.34	1.38
1	1A	2251	OMG	C5-N7	-2.42	1.34	1.39
32	1a	1404	5MC	C6-C5	2.42	1.38	1.34
32	1a	967	5MC	C6-N1	-2.42	1.33	1.38
1	2A	2503	2MA	C4-N9	-2.41	1.32	1.37
1	2A	2552	OMU	C5-C4	-2.40	1.38	1.43
1	2A	1942	5MC	C6-C5	2.39	1.38	1.34
54	2x	32	5MC	C6-N1	-2.39	1.34	1.38
32	1a	1498	UR3	C6-C5	2.33	1.40	1.35
32	2a	1400	5MC	C6-N1	-2.32	1.34	1.38
32	2a	527	G7M	C6-N1	-2.32	1.34	1.38
32	2a	966	M2G	C5-N7	-2.31	1.34	1.39
1	1A	2503	2MA	C8-N9	-2.31	1.33	1.37
32	2a	1207	2MG	C4-N9	-2.28	1.32	1.38
32	1a	1498	UR3	C2-N1	2.28	1.41	1.38
32	1a	527	G7M	C4-N9	-2.28	1.32	1.38
32	1a	1404	5MC	C6-N1	-2.27	1.34	1.38
1	1A	2503	2MA	C8-N7	2.25	1.36	1.31
32	2a	1400	5MC	C6-C5	2.25	1.38	1.34
54	1x	55	PSU	C4-N3	-2.24	1.34	1.38
32	1a	527	G7M	C6-N1	-2.24	1.34	1.38
1	2A	1911	PSU	C4-C5	2.24	1.50	1.44
32	2a	527	G7M	C4-N9	-2.24	1.32	1.38
32	1a	1207	2MG	C5-N7	-2.21	1.34	1.39
54	1x	54	5MU	C2-N3	-2.21	1.34	1.38
32	2a	1402	4OC	C6-N1	-2.18	1.32	1.38
32	1a	1207	2MG	C4-N9	-2.18	1.32	1.38
32	2a	967	5MC	C6-N1	-2.17	1.34	1.38
54	2x	8	4SU	C6-C5	2.17	1.40	1.35
1	1A	2552	OMU	C5-C4	-2.16	1.39	1.43
1	1A	2503	2MA	C5-C6	2.15	1.47	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	2x	55	PSU	C4-N3	-2.15	1.34	1.38
32	2a	1498	UR3	C6-C5	2.14	1.40	1.35
1	1A	1915	5MU	C4-C5	2.13	1.48	1.44
54	1x	8	4SU	C6-C5	2.11	1.40	1.35
1	2A	2552	OMU	C6-N1	-2.10	1.33	1.38
32	1a	1402	4OC	C6-N1	-2.10	1.33	1.38
1	1A	1939	5MU	C6-C5	2.09	1.38	1.34
1	1A	2552	OMU	C2-N3	-2.09	1.34	1.38
1	2A	1962	5MC	C6-N1	-2.09	1.34	1.38
54	2x	54	5MU	C2-N1	2.09	1.41	1.38
1	1A	2552	OMU	C6-N1	-2.09	1.33	1.38
32	2a	1404	5MC	C6-N1	-2.08	1.34	1.38
32	2a	1207	2MG	C5-N7	-2.08	1.34	1.39
1	1A	2605	PSU	C2-N1	-2.08	1.33	1.36
54	1x	55	PSU	C1'-C5	-2.08	1.45	1.50
1	1A	2605	PSU	O4'-C1'	-2.08	1.41	1.43
32	1a	966	M2G	C5-N7	-2.07	1.34	1.39
54	1x	54	5MU	C6-N1	-2.07	1.34	1.38
54	1x	76	8AN	O4'-C4'	-2.06	1.40	1.45
1	1A	1962	5MC	C4-N3	2.05	1.37	1.34
1	2A	1911	PSU	C2-N1	-2.05	1.34	1.36
1	1A	1915	5MU	C2-N3	-2.05	1.34	1.38
1	1A	1911	PSU	C4-C5	2.05	1.50	1.44
32	2a	516	PSU	C2-N3	-2.01	1.34	1.37

All (300) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	2503	2MA	C5-C4-N3	-9.13	117.57	127.18
1	2A	2503	2MA	C5-C4-N3	-8.88	117.82	127.18
32	1a	1498	UR3	C4-N3-C2	-7.33	118.68	124.58
32	1a	516	PSU	N1-C2-N3	6.95	122.50	115.17
54	1x	55	PSU	N1-C2-N3	6.88	122.43	115.17
1	1A	2503	2MA	N3-C4-N9	6.87	135.70	126.99
1	1A	1911	PSU	N1-C2-N3	6.76	122.30	115.17
32	2a	966	M2G	C5-C4-N3	-6.67	117.78	128.39
1	2A	1917	PSU	N1-C2-N3	6.62	122.16	115.17
32	1a	1207	2MG	C2-N3-C4	6.47	120.10	112.00
1	1A	2251	OMG	C5-C4-N3	-6.33	118.31	128.39
1	2A	1939	5MU	C4-N3-C2	-6.32	119.06	127.34
32	2a	1207	2MG	C2-N3-C4	6.26	119.84	112.00
32	1a	966	M2G	C5-C4-N3	-6.22	118.48	128.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	516	PSU	N1-C2-N3	6.19	121.70	115.17
1	2A	1911	PSU	N1-C2-N3	6.13	121.64	115.17
1	2A	2251	OMG	C5-C4-N3	-6.12	118.64	128.39
1	2A	1939	5MU	N3-C2-N1	6.05	122.77	114.89
32	2a	1519	MA6	C5-C4-N3	-6.01	118.44	126.72
1	1A	1917	PSU	N1-C2-N3	5.99	121.49	115.17
1	1A	2552	OMU	N3-C2-N1	5.95	122.64	114.89
1	1A	1915	5MU	C5-C4-N3	5.81	120.37	115.32
1	2A	1939	5MU	C5-C6-N1	-5.72	117.10	123.31
32	1a	1207	2MG	C5-C4-N3	-5.71	119.30	128.39
1	2A	2552	OMU	C4-N3-C2	-5.69	119.55	126.61
1	2A	2503	2MA	N3-C4-N9	5.65	134.16	126.99
1	2A	1915	5MU	N3-C2-N1	5.61	122.20	114.89
1	1A	2552	OMU	O2-C2-N1	-5.53	115.60	122.80
1	1A	1915	5MU	O4-C4-C5	-5.49	118.63	124.92
54	2x	55	PSU	N1-C2-N3	5.47	120.94	115.17
1	2A	1917	PSU	O2-C2-N1	-5.41	117.22	122.79
1	1A	1915	5MU	C4-N3-C2	-5.38	120.29	127.34
1	1A	2552	OMU	C4-N3-C2	-5.33	120.00	126.61
54	2x	76	8AN	N1-C2-N3	-5.30	120.56	128.58
1	1A	2251	OMG	C2-N3-C4	5.26	121.36	112.30
1	2A	2605	PSU	C6-C5-C4	-5.25	114.63	118.17
54	2x	76	8AN	C5-C4-N3	-5.24	119.50	126.72
32	2a	1207	2MG	C5-C4-N3	-5.18	120.15	128.39
32	1a	527	G7M	N9-C4-N3	5.16	136.28	125.95
1	2A	1915	5MU	C4-N3-C2	-5.16	120.58	127.34
32	2a	1498	UR3	C4-N3-C2	-5.15	120.43	124.58
32	2a	1518	MA6	N1-C2-N3	-5.10	120.86	128.58
32	2a	966	M2G	N9-C4-N3	5.10	136.15	125.95
54	1x	54	5MU	N3-C2-N1	5.08	121.51	114.89
1	1A	1939	5MU	C4-N3-C2	-5.02	120.76	127.34
54	1x	76	8AN	N1-C2-N3	-4.95	121.09	128.58
32	2a	527	G7M	N9-C4-N3	4.95	135.84	125.95
32	1a	527	G7M	C5-C4-N3	-4.87	118.94	128.15
1	1A	1939	5MU	N3-C2-N1	4.87	121.23	114.89
1	2A	2552	OMU	N3-C2-N1	4.82	121.17	114.89
1	2A	1939	5MU	O2-C2-N1	-4.81	116.54	122.80
54	1x	55	PSU	O2-C2-N1	-4.79	117.85	122.79
32	2a	1519	MA6	N1-C2-N3	-4.74	121.41	128.58
1	1A	1911	PSU	C4-N3-C2	-4.73	119.86	126.37
1	2A	2251	OMG	N9-C4-N3	4.72	135.38	125.95
1	1A	1939	5MU	O4-C4-C5	-4.71	119.53	124.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	1519	MA6	C5-C4-N3	-4.67	120.29	126.72
32	1a	1518	MA6	N1-C2-N3	-4.64	121.56	128.58
1	1A	1915	5MU	N3-C2-N1	4.64	120.93	114.89
54	1x	8	4SU	C4-N3-C2	4.58	131.70	127.31
1	2A	1915	5MU	C5-C4-N3	4.51	119.24	115.32
1	2A	2251	OMG	C2-N3-C4	4.46	119.99	112.30
32	2a	966	M2G	C2-N3-C4	4.45	120.74	112.51
54	1x	8	4SU	C6-C5-C4	-4.43	116.12	119.95
1	2A	2605	PSU	N1-C2-N3	4.38	119.79	115.17
1	1A	2605	PSU	C4-N3-C2	-4.37	120.35	126.37
32	2a	1518	MA6	C2-N1-C6	4.35	122.46	111.83
32	2a	527	G7M	C5-C4-N3	-4.35	119.94	128.15
32	1a	516	PSU	C4-N3-C2	-4.32	120.42	126.37
54	2x	54	5MU	N3-C2-N1	4.30	120.48	114.89
32	1a	527	G7M	C2-N3-C4	4.26	119.64	112.30
32	2a	1498	UR3	C6-N1-C2	-4.25	118.32	121.80
1	1A	2251	OMG	N9-C4-N3	4.24	134.42	125.95
1	1A	1939	5MU	C5-C4-N3	4.22	118.99	115.32
54	2x	55	PSU	C4-N3-C2	-4.22	120.56	126.37
1	2A	1911	PSU	O2-C2-N1	-4.19	118.46	122.79
32	1a	1519	MA6	N1-C2-N3	-4.19	122.23	128.58
54	1x	76	8AN	O4'-C1'-N9	-4.19	100.04	108.09
32	2a	516	PSU	C4-N3-C2	-4.18	120.62	126.37
32	1a	966	M2G	C2-N3-C4	4.17	120.22	112.51
32	2a	1519	MA6	C4-C5-N7	-4.14	105.85	110.58
32	1a	966	M2G	N9-C4-N3	4.11	134.18	125.95
32	1a	1518	MA6	C2-N1-C6	4.07	121.76	111.83
32	2a	527	G7M	C2-N3-C4	4.05	119.28	112.30
54	1x	55	PSU	C4-N3-C2	-4.04	120.81	126.37
54	1x	32	5MC	C5-C6-N1	-4.02	118.94	123.31
32	1a	1518	MA6	C5-C4-N3	-4.01	121.20	126.72
32	2a	1519	MA6	C2-N3-C4	3.99	121.57	111.83
54	2x	8	4SU	C6-C5-C4	-3.98	116.51	119.95
32	1a	1519	MA6	C2-N1-C6	3.92	121.40	111.83
54	1x	32	5MC	C5-C4-N3	-3.91	117.74	121.75
1	1A	2605	PSU	N1-C2-N3	3.89	119.27	115.17
1	2A	2503	2MA	C4-C5-N7	-3.89	106.14	110.58
1	1A	2503	2MA	C4-C5-N7	-3.89	106.14	110.58
32	1a	1519	MA6	C4-C5-N7	-3.88	106.15	110.58
54	2x	76	8AN	O4'-C1'-N9	3.87	115.52	108.09
1	2A	1939	5MU	C5-C4-N3	3.84	118.66	115.32
1	2A	1939	5MU	O4-C4-C5	-3.84	120.53	124.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	1404	5MC	C5-C6-N1	-3.82	119.16	123.31
1	1A	1939	5MU	C5-C6-N1	-3.81	119.17	123.31
32	1a	1207	2MG	CM2-N2-C2	-3.74	115.62	123.65
1	1A	1917	PSU	C4-N3-C2	-3.73	121.23	126.37
54	2x	76	8AN	C5-C4-N9	3.72	109.86	105.81
1	2A	2605	PSU	C4-N3-C2	-3.72	121.25	126.37
1	2A	1962	5MC	C5-C6-N1	-3.70	119.29	123.31
1	2A	1911	PSU	C6-C5-C4	-3.69	115.69	118.17
32	2a	1519	MA6	C5-N7-C8	3.68	109.24	103.45
32	1a	1207	2MG	C6-C5-N7	3.67	136.98	130.29
1	2A	2552	OMU	C5-C4-N3	3.67	119.94	114.80
1	2A	1917	PSU	C4-N3-C2	-3.67	121.31	126.37
32	2a	1400	5MC	C5-C6-N1	-3.66	119.33	123.31
32	1a	1400	5MC	C1'-N1-C6	-3.65	115.14	121.15
1	1A	1942	5MC	C5-C6-N1	-3.64	119.36	123.31
32	1a	1518	MA6	C5-N7-C8	3.63	109.15	103.45
32	2a	1498	UR3	C1'-N1-C2	3.61	122.95	117.04
32	2a	1519	MA6	C4-C5-C6	3.61	119.64	115.91
32	2a	1519	MA6	C2-N1-C6	3.61	120.65	111.83
1	1A	2251	OMG	C6-C5-N7	3.59	136.83	130.29
1	2A	1942	5MC	C1'-N1-C6	-3.54	115.32	121.15
32	2a	1207	2MG	C6-C5-N7	3.51	136.68	130.29
32	1a	966	M2G	C6-C5-N7	3.51	136.67	130.29
54	1x	54	5MU	C4-N3-C2	-3.49	122.76	127.34
32	1a	1207	2MG	N9-C4-N3	3.48	132.91	125.95
32	2a	1519	MA6	N3-C4-N9	3.48	133.08	127.17
32	1a	1518	MA6	C4-C5-N7	-3.46	106.63	110.58
1	1A	1911	PSU	O2-C2-N1	-3.46	119.22	122.79
54	2x	54	5MU	C4-N3-C2	-3.42	122.85	127.34
32	2a	1207	2MG	N9-C4-N3	3.42	132.79	125.95
32	1a	1404	5MC	C5-C6-N1	-3.41	119.61	123.31
1	2A	1911	PSU	C4-N3-C2	-3.40	121.68	126.37
54	2x	8	4SU	C4-N3-C2	3.40	130.57	127.31
32	2a	1407	5MC	C5-C4-N3	-3.38	118.28	121.75
32	1a	1407	5MC	C5-C4-N3	-3.35	118.32	121.75
32	1a	1400	5MC	O2-C2-N3	-3.34	117.07	122.33
43	1l	92	0TD	OD2-CG-CB	3.33	120.34	113.15
54	1x	76	8AN	C5-C4-N3	-3.32	122.14	126.72
54	1x	55	PSU	C6-C5-C4	3.31	120.41	118.17
54	2x	54	5MU	C5-C4-N3	3.31	118.20	115.32
32	1a	1519	MA6	C4-C5-C6	3.28	119.30	115.91
54	1x	8	4SU	O2-C2-N1	3.28	127.06	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
54	2x	54	5MU	O4-C4-C5	-3.26	121.19	124.92
32	1a	1518	MA6	N9-C8-N7	-3.26	109.32	113.94
32	1a	967	5MC	C5-C6-N1	-3.24	119.79	123.31
54	1x	54	5MU	O4-C4-C5	-3.23	121.22	124.92
54	2x	32	5MC	C5-C6-N1	-3.22	119.81	123.31
54	2x	76	8AN	N9-C8-N7	-3.22	109.36	113.94
32	1a	1400	5MC	C5-C4-N3	-3.22	118.45	121.75
1	1A	1915	5MU	C5-C6-N1	-3.22	119.82	123.31
32	1a	1207	2MG	N1-C2-N2	3.21	119.84	116.56
1	1A	1942	5MC	C1'-N1-C6	-3.20	115.88	121.15
54	1x	76	8AN	N9-C8-N7	-3.18	109.42	113.94
32	1a	516	PSU	O2-C2-N1	-3.17	119.52	122.79
54	2x	76	8AN	C2-N3-C4	3.14	119.51	111.83
54	1x	76	8AN	C5-N7-C8	3.14	108.38	103.45
32	2a	1402	4OC	CM4-N4-C4	-3.14	116.32	122.45
1	2A	2552	OMU	O2-C2-N1	-3.13	118.72	122.80
32	1a	1519	MA6	C5-N7-C8	3.12	108.35	103.45
32	1a	1207	2MG	N2-C2-N3	-3.12	116.54	120.51
32	2a	1207	2MG	N1-C2-N2	3.12	119.74	116.56
32	1a	1519	MA6	C2-N3-C4	3.11	119.42	111.83
54	1x	76	8AN	C4'-O4'-C1'	-3.10	102.62	109.47
54	2x	8	4SU	S4-C4-N3	-3.10	116.96	120.20
54	2x	8	4SU	O2-C2-N1	3.09	126.82	122.80
32	1a	966	M2G	C4-C5-N7	-3.09	105.78	110.67
32	1a	1518	MA6	C2-N3-C4	3.08	119.36	111.83
1	2A	1915	5MU	O4-C4-C5	-3.07	121.40	124.92
54	2x	54	5MU	C5-C6-N1	-3.07	119.98	123.31
54	2x	76	8AN	C4'-O4'-C1'	-3.07	102.69	109.47
1	1A	2605	PSU	C6-C5-C4	-3.06	116.11	118.17
32	1a	1207	2MG	C4-C5-N7	-3.05	105.83	110.67
1	2A	2552	OMU	O4-C4-C5	-3.02	119.96	125.16
1	1A	2552	OMU	O4-C4-C5	-3.01	119.97	125.16
1	2A	1942	5MC	C5-C4-N3	-2.99	118.69	121.75
1	2A	1942	5MC	C5-C6-N1	-2.99	120.06	123.31
54	1x	32	5MC	O2-C2-N3	-2.98	117.63	122.33
1	1A	2503	2MA	C5-N7-C8	2.98	108.13	103.45
32	1a	1498	UR3	C3U-N3-C2	2.97	122.52	117.33
32	2a	1518	MA6	C5-N7-C8	2.96	108.10	103.45
32	2a	1518	MA6	C4-C5-N7	-2.96	107.20	110.58
32	1a	1498	UR3	C6-N1-C2	-2.95	119.38	121.80
32	1a	1498	UR3	C5-C4-N3	2.93	118.90	115.04
54	2x	76	8AN	C5-N7-C8	2.93	108.06	103.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	1518	MA6	C2-N3-C4	2.91	118.95	111.83
54	2x	55	PSU	C5-C6-N1	-2.88	118.14	122.14
1	1A	1942	5MC	C5-C4-N4	-2.86	117.36	121.39
32	2a	1407	5MC	O2-C2-N3	-2.84	117.85	122.33
1	2A	1915	5MU	C5-C6-N1	-2.84	120.23	123.31
1	1A	1920	OMC	O2-C2-N3	-2.84	117.85	122.33
54	1x	32	5MC	N1-C2-N3	2.83	123.72	118.80
32	2a	516	PSU	O2-C2-N3	-2.83	116.84	121.86
54	1x	76	8AN	C5-C4-N9	2.82	108.89	105.81
32	2a	1519	MA6	N9-C8-N7	-2.82	109.93	113.94
32	1a	1519	MA6	C5-C4-N9	2.82	108.88	105.81
1	1A	2503	2MA	N6-C6-N1	2.81	120.83	117.03
32	2a	967	5MC	CM5-C5-C6	-2.81	119.04	122.85
32	2a	527	G7M	O6-C6-C5	-2.81	121.73	128.01
32	2a	1518	MA6	C5-C4-N3	-2.81	122.84	126.72
32	1a	527	G7M	O6-C6-C5	-2.81	121.74	128.01
54	2x	32	5MC	C5-C4-N3	-2.81	118.88	121.75
32	2a	967	5MC	C1'-N1-C6	-2.79	116.55	121.15
32	1a	1400	5MC	C1'-N1-C2	2.77	124.56	118.44
32	2a	1207	2MG	C4-C5-N7	-2.71	106.37	110.67
32	1a	1407	5MC	C5-C6-N1	-2.71	120.37	123.31
32	1a	516	PSU	C5-C6-N1	-2.68	118.42	122.14
32	2a	1407	5MC	C5-C6-N1	-2.68	120.40	123.31
54	1x	54	5MU	C5-C6-N1	-2.67	120.42	123.31
1	2A	1939	5MU	C6-C5-C4	2.67	120.22	118.02
1	1A	2552	OMU	C5-C4-N3	2.65	118.51	114.80
1	2A	2251	OMG	C6-C5-N7	2.65	135.11	130.29
32	2a	1407	5MC	C1'-N1-C6	-2.63	116.82	121.15
1	1A	1962	5MC	C1'-N1-C6	-2.62	116.84	121.15
1	1A	1917	PSU	O2-C2-N3	-2.61	117.22	121.86
1	1A	2251	OMG	C4-C5-N7	-2.61	106.54	110.67
43	1l	92	0TD	CSB-SB-CB	2.59	107.03	102.36
54	2x	76	8AN	C4-C5-N7	-2.59	107.62	110.58
32	2a	516	PSU	O4'-C1'-C2'	2.58	108.72	105.15
1	1A	1939	5MU	O2-C2-N1	-2.58	119.44	122.80
32	2a	1518	MA6	N9-C8-N7	-2.57	110.28	113.94
32	2a	1404	5MC	C5-C4-N3	-2.56	119.13	121.75
32	2a	1207	2MG	N2-C2-N3	-2.53	117.28	120.51
1	2A	2251	OMG	O6-C6-C5	-2.51	119.89	126.53
32	2a	516	PSU	C5-C6-N1	-2.51	118.65	122.14
32	1a	1518	MA6	N3-C4-N9	2.50	131.41	127.17
1	1A	2503	2MA	C2-N1-C6	2.50	121.94	118.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	2503	2MA	C4-N9-C8	2.49	108.36	105.74
1	1A	1915	5MU	C5M-C5-C4	2.47	121.42	118.78
54	2x	8	4SU	C6-N1-C2	-2.47	118.00	121.00
54	1x	55	PSU	C5-C6-N1	-2.46	118.72	122.14
1	1A	2605	PSU	C5-C6-N1	-2.46	118.72	122.14
54	1x	76	8AN	C2-N3-C4	2.46	117.84	111.83
32	2a	967	5MC	C5-C4-N3	-2.45	119.24	121.75
32	2a	1519	MA6	C5-C4-N9	2.45	108.48	105.81
32	2a	967	5MC	C5-C6-N1	-2.44	120.67	123.31
1	2A	2503	2MA	C6-C5-N7	2.43	136.78	132.09
32	1a	1407	5MC	O2-C2-N3	-2.42	118.51	122.33
1	1A	1915	5MU	O2-C2-N1	-2.42	119.65	122.80
32	1a	1404	5MC	O2-C2-N3	-2.40	118.55	122.33
1	2A	1962	5MC	C5-C4-N4	-2.40	118.02	121.39
1	2A	2605	PSU	O2-C2-N3	-2.39	117.61	121.86
32	2a	966	M2G	C6-C5-N7	2.37	134.61	130.29
54	2x	76	8AN	C6-C5-C4	2.36	120.39	117.18
32	2a	966	M2G	C4-C5-N7	-2.34	106.97	110.67
1	1A	2251	OMG	C5-C6-N1	2.33	119.19	113.25
1	1A	2605	PSU	O4-C4-C5	-2.33	118.22	124.01
32	1a	1402	4OC	C6-C5-C4	2.33	119.81	117.00
32	1a	1518	MA6	C4-C5-C6	2.33	118.31	115.91
1	2A	1942	5MC	N4-C4-N3	2.32	122.71	118.51
1	2A	2251	OMG	C4-C5-N7	-2.32	106.99	110.67
1	1A	2503	2MA	N9-C8-N7	-2.32	110.64	113.94
54	1x	54	5MU	C6-N1-C2	-2.31	119.00	121.30
1	2A	1962	5MC	C5-C4-N3	-2.31	119.39	121.75
1	1A	1962	5MC	CM5-C5-C6	-2.30	119.74	122.85
54	2x	8	4SU	C5-C4-S4	2.29	126.92	124.31
1	2A	1915	5MU	O2-C2-N3	-2.29	117.26	121.49
1	1A	1942	5MC	N4-C4-N3	2.28	122.63	118.51
32	1a	1402	4OC	O2-C2-N3	-2.26	118.76	122.33
1	2A	1920	OMC	CM2-O2'-C2'	-2.26	108.68	114.47
1	1A	1911	PSU	C5-C6-N1	-2.26	119.01	122.14
1	2A	1962	5MC	N4-C4-N3	2.26	122.59	118.51
32	1a	967	5MC	C5-C4-N3	-2.25	119.44	121.75
1	1A	1942	5MC	C1'-N1-C2	2.20	123.30	118.44
32	1a	1400	5MC	CM5-C5-C6	-2.20	119.87	122.85
54	1x	54	5MU	O2-C2-N1	-2.19	119.94	122.80
32	1a	516	PSU	O2-C2-N3	-2.19	117.98	121.86
1	1A	1962	5MC	C5-C4-N4	-2.18	118.32	121.39
54	2x	32	5MC	O2-C2-N3	-2.18	118.89	122.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	1400	5MC	C5-C4-N3	-2.17	119.53	121.75
32	1a	1400	5MC	C5-C6-N1	-2.17	120.95	123.31
1	2A	1920	OMC	C2'-C1'-N1	-2.17	110.12	114.24
32	2a	966	M2G	O6-C6-C5	-2.16	120.84	126.53
32	1a	1519	MA6	N3-C4-N9	2.15	130.83	127.17
1	2A	1939	5MU	C5M-C5-C6	-2.15	119.94	122.85
1	1A	2503	2MA	C6-C5-N7	2.15	136.23	132.09
43	2l	92	0TD	OD2-CG-CB	2.14	117.78	113.15
54	1x	54	5MU	C5-C4-N3	2.13	117.17	115.32
1	2A	2503	2MA	C5-N7-C8	2.12	106.79	103.45
1	2A	2552	OMU	C5-C6-N1	-2.12	118.39	121.84
1	1A	2605	PSU	C5-C4-N3	2.10	121.18	116.55
1	1A	1942	5MC	O2-C2-N3	-2.09	119.03	122.33
32	2a	1402	4OC	C6-C5-C4	2.09	119.52	117.00
32	1a	1407	5MC	N1-C2-N3	2.08	122.42	118.80
1	2A	2251	OMG	CM2-O2'-C2'	-2.08	109.13	114.47
32	2a	1518	MA6	C4-N9-C1'	-2.07	121.79	126.63
1	1A	1920	OMC	C1'-N1-C2	2.06	123.00	118.44
54	2x	32	5MC	N1-C2-N3	2.06	122.38	118.80
1	1A	1917	PSU	C5-C6-N1	-2.06	119.28	122.14
54	2x	55	PSU	O2-C2-N3	-2.05	118.22	121.86
32	1a	527	G7M	C5-C6-N1	2.05	116.07	111.84
32	1a	1404	5MC	N1-C2-N3	2.03	122.33	118.80
1	2A	1942	5MC	CM5-C5-C6	-2.02	120.11	122.85
1	1A	1942	5MC	CM5-C5-C6	-2.02	120.12	122.85
1	1A	1962	5MC	C5-C6-N1	-2.02	121.12	123.31
54	2x	8	4SU	C1'-N1-C2	2.02	121.22	117.59
32	2a	1400	5MC	C1'-N1-C6	-2.02	117.83	121.15
54	1x	55	PSU	O4'-C1'-C2'	2.02	107.94	105.15
32	2a	1400	5MC	CM5-C5-C6	-2.02	120.12	122.85
1	2A	2503	2MA	C5-C4-N9	2.01	108.00	105.81
1	2A	1915	5MU	C6-N1-C2	-2.01	119.30	121.30
1	2A	2605	PSU	C5-C4-N3	2.00	120.96	116.55
32	1a	1519	MA6	N9-C8-N7	-2.00	111.10	113.94

There are no chirality outliers.

All (35) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
43	1l	92	0TD	CA-CB-SB-CSB
54	1x	76	8AN	C3'-C4'-C5'-O5'
1	2A	1911	PSU	C2'-C1'-C5-C4

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Mol	Chain	Res	Type	Atoms
1	2A	1911	PSU	O4'-C4'-C5'-O5'
32	2a	1519	MA6	O4'-C4'-C5'-O5'
32	1a	527	G7M	C3'-C4'-C5'-O5'
32	1a	1519	MA6	O4'-C4'-C5'-O5'
54	1x	76	8AN	O4'-C4'-C5'-O5'
32	2a	527	G7M	C3'-C4'-C5'-O5'
32	2a	1402	4OC	O4'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
54	2x	76	8AN	C3'-C4'-C5'-O5'
32	1a	1400	5MC	O4'-C4'-C5'-O5'
1	2A	1911	PSU	C3'-C4'-C5'-O5'
32	1a	527	G7M	O4'-C4'-C5'-O5'
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	2a	527	G7M	O4'-C4'-C5'-O5'
54	2x	76	8AN	O4'-C4'-C5'-O5'
32	2a	1402	4OC	C3'-C4'-C5'-O5'
32	1a	1402	4OC	O4'-C4'-C5'-O5'
32	1a	1400	5MC	C3'-C4'-C5'-O5'
43	2l	92	0TD	CG-CB-SB-CSB
32	1a	1402	4OC	C3'-C4'-C5'-O5'
43	1l	92	0TD	SB-CB-CG-OD1
43	2l	92	0TD	SB-CB-CG-OD1
32	2a	1519	MA6	C4'-C5'-O5'-P
32	2a	1404	5MC	C3'-C4'-C5'-O5'
32	2a	1498	UR3	O4'-C4'-C5'-O5'
32	1a	1519	MA6	C4'-C5'-O5'-P
54	1x	76	8AN	C4'-C5'-O5'-P
32	2a	1404	5MC	O4'-C4'-C5'-O5'
43	1l	92	0TD	CG-CB-SB-CSB
32	2a	1498	UR3	C3'-C4'-C5'-O5'
1	1A	2503	2MA	C4'-C5'-O5'-P
1	1A	1920	OMC	C2'-C1'-N1-C2

There are no ring outliers.

22 monomers are involved in 35 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
43	1l	92	0TD	3	0
32	1a	1207	2MG	3	0
43	2l	92	0TD	2	0
1	1A	2251	OMG	1	0
32	1a	1518	MA6	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	2a	1407	5MC	1	0
1	1A	1939	5MU	1	0
54	1x	76	8AN	2	0
1	2A	1939	5MU	2	0
32	2a	1518	MA6	2	0
54	2x	76	8AN	2	0
1	1A	1962	5MC	1	0
1	1A	1920	OMC	1	0
1	2A	1911	PSU	1	0
32	2a	1519	MA6	2	0
32	1a	966	M2G	2	0
32	2a	1207	2MG	1	0
54	2x	8	4SU	1	0
32	1a	1402	4OC	3	0
54	1x	8	4SU	1	0
32	1a	1519	MA6	1	0
1	1A	2552	OMU	2	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 2734 ligands modelled in this entry, 2728 are monoatomic - leaving 6 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
57	SPS	2A	3851	55	20,23,23	1.47	4 (20%)	23,30,30	2.65	10 (43%)
57	SPS	1A	4105	55	20,23,23	1.85	4 (20%)	23,30,30	2.41	5 (21%)
59	SF4	2d	304	35	0,12,12	-	-	-		
59	SF4	1d	302	35	0,12,12	-	-	-		
60	FME	2x	107	54	8,9,10	0.34	0	8,9,11	1.33	2 (25%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
60	FME	1x	112	54	8,9,10	0.55	0	8,9,11	1.71	2 (25%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	SPS	2A	3851	55	-	0/15/18/18	0/1/1/1
57	SPS	1A	4105	55	-	5/15/18/18	0/1/1/1
59	SF4	2d	304	35	-	-	0/6/5/5
59	SF4	1d	302	35	-	-	0/6/5/5
60	FME	2x	107	54	-	2/7/9/11	-
60	FME	1x	112	54	-	3/7/9/11	-

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	1A	4105	SPS	C16-S17	-5.47	1.73	1.79
57	2A	3851	SPS	C16-S17	-3.39	1.76	1.79
57	1A	4105	SPS	C14-S15	-3.16	1.70	1.80
57	2A	3851	SPS	C14-S15	-3.15	1.71	1.80
57	1A	4105	SPS	C6-C1	2.85	1.50	1.45
57	2A	3851	SPS	C1-N2	-2.37	1.34	1.38
57	1A	4105	SPS	C5-N4	-2.29	1.35	1.38
57	2A	3851	SPS	C5-N4	-2.10	1.35	1.38

All (19) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	2A	3851	SPS	C7-C5-N4	6.89	121.43	113.42
57	1A	4105	SPS	C7-C5-N4	6.14	120.56	113.42
57	2A	3851	SPS	C7-C5-C6	-5.90	118.82	126.47
57	1A	4105	SPS	C7-C5-C6	-5.24	119.68	126.47
57	1A	4105	SPS	O15-S15-C14	4.73	112.47	106.12
60	1x	112	FME	CA-N-CN	-3.65	117.20	122.82
57	2A	3851	SPS	C9-C10-N11	3.47	120.55	114.61
57	2A	3851	SPS	C6-C1-N2	3.45	120.48	114.45
57	1A	4105	SPS	N4-C3-N2	3.43	121.13	115.74
57	2A	3851	SPS	O15-S15-C14	3.28	110.53	106.12
57	2A	3851	SPS	O1-C1-C6	-3.17	118.99	125.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	2A	3851	SPS	C14-C12-C13	-2.61	106.34	111.72
60	1x	112	FME	O1-CN-N	-2.61	118.58	125.32
60	2x	107	FME	O1-CN-N	-2.49	118.87	125.32
57	2A	3851	SPS	O10-C10-C9	-2.19	117.90	122.95
57	2A	3851	SPS	N4-C3-N2	2.11	119.06	115.74
57	2A	3851	SPS	C1-N2-C3	-2.10	123.48	126.37
57	1A	4105	SPS	C14-C12-C13	-2.08	107.44	111.72
60	2x	107	FME	O-C-CA	-2.07	119.44	124.77

There are no chirality outliers.

All (10) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
57	1A	4105	SPS	C14-C12-C13-O13
57	1A	4105	SPS	C12-C14-S15-O15
57	1A	4105	SPS	C12-C14-S15-C16
60	1x	112	FME	CB-CA-N-CN
60	1x	112	FME	C-CA-CB-CG
60	2x	107	FME	C-CA-CB-CG
57	1A	4105	SPS	N11-C12-C13-O13
60	1x	112	FME	N-CA-CB-CG
60	2x	107	FME	N-CA-CB-CG
57	1A	4105	SPS	O10-C10-N11-C12

There are no ring outliers.

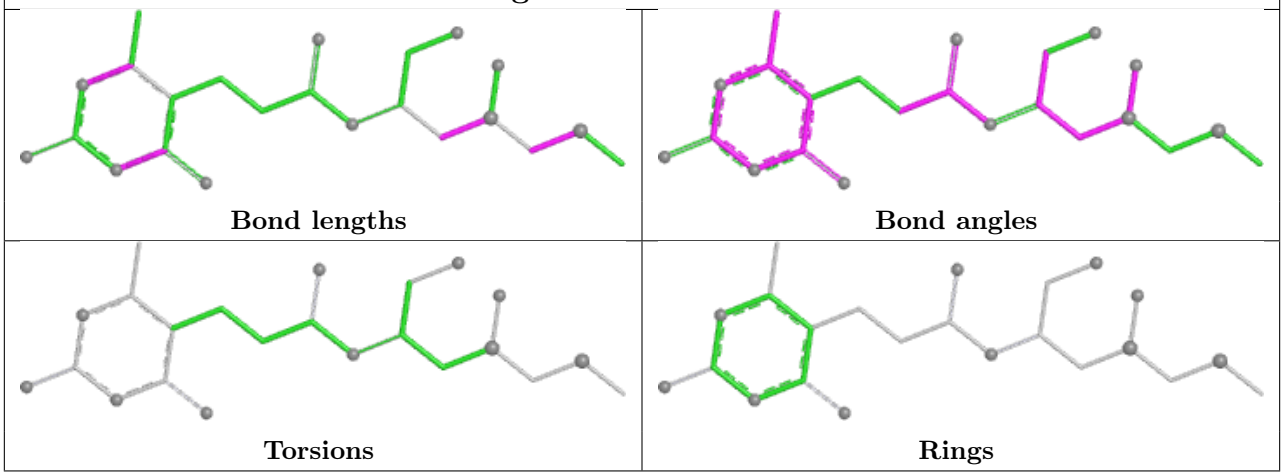
3 monomers are involved in 8 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
57	2A	3851	SPS	2	0
57	1A	4105	SPS	4	0
59	2d	304	SF4	2	0

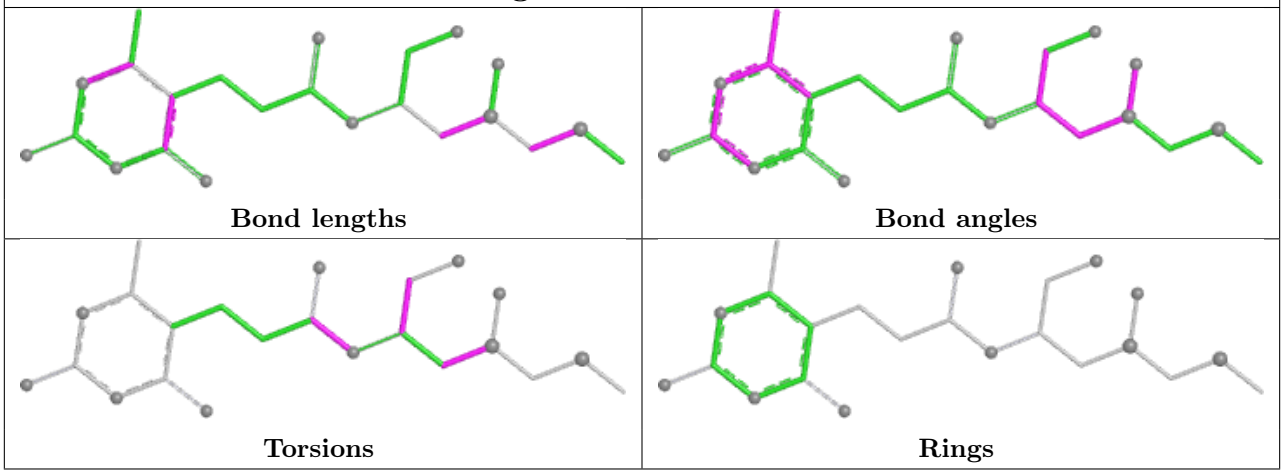
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier.

The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

Ligand SPS 2A 3851



Ligand SPS 1A 4105



5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

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%)	-0.52	61 (2%) 63 55	26, 44, 99, 113	0
1	2A	2789/2915 (95%)	-0.32	41 (1%) 72 65	39, 63, 95, 114	0
2	1B	120/121 (99%)	-0.70	0 100 100	35, 54, 68, 85	0
2	2B	120/121 (99%)	0.39	4 (3%) 49 42	67, 83, 92, 102	0
3	1D	275/276 (99%)	-0.03	4 (1%) 72 65	29, 44, 58, 83	0
3	2D	275/276 (99%)	0.34	10 (3%) 46 38	41, 57, 68, 80	0
4	1E	204/206 (99%)	-0.06	6 (2%) 53 46	30, 49, 64, 79	0
4	2E	204/206 (99%)	0.11	4 (1%) 65 57	41, 63, 74, 85	0
5	1F	202/210 (96%)	-0.12	0 100 100	31, 50, 73, 87	0
5	2F	202/210 (96%)	0.22	6 (2%) 52 45	42, 71, 83, 92	0
6	1G	181/182 (99%)	0.12	5 (2%) 55 47	49, 61, 73, 90	0
6	2G	181/182 (99%)	0.94	10 (5%) 30 25	73, 82, 90, 95	0
7	1H	174/180 (96%)	-0.13	1 (0%) 85 82	44, 59, 69, 72	0
7	2H	174/180 (96%)	0.64	7 (4%) 42 35	71, 83, 90, 95	0
8	1I	146/148 (98%)	0.29	2 (1%) 73 67	48, 74, 84, 91	0
8	2I	146/148 (98%)	0.83	14 (9%) 13 12	61, 78, 86, 92	0
9	1N	140/140 (100%)	-0.13	1 (0%) 84 80	34, 46, 64, 82	0
9	2N	140/140 (100%)	0.28	2 (1%) 73 67	52, 69, 80, 87	0
10	1O	122/122 (100%)	-0.17	1 (0%) 82 78	36, 49, 63, 67	0
10	2O	122/122 (100%)	-0.19	1 (0%) 82 78	47, 59, 70, 78	0
11	1P	149/150 (99%)	0.24	2 (1%) 75 69	30, 52, 71, 80	0
11	2P	149/150 (99%)	0.16	3 (2%) 65 57	45, 70, 84, 88	0
12	1Q	141/141 (100%)	0.04	3 (2%) 63 55	36, 48, 62, 85	0
12	2Q	141/141 (100%)	0.37	1 (0%) 84 80	53, 69, 80, 85	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	1R	118/118 (100%)	-0.22	1 (0%) 82 78	36, 43, 58, 69	0
13	2R	118/118 (100%)	-0.01	2 (1%) 69 62	45, 58, 66, 72	0
14	1S	110/112 (98%)	-0.05	1 (0%) 81 76	43, 54, 65, 71	0
14	2S	110/112 (98%)	0.68	5 (4%) 38 31	67, 76, 84, 96	0
15	1T	131/146 (89%)	-0.06	3 (2%) 61 53	42, 53, 74, 78	0
15	2T	131/146 (89%)	0.15	2 (1%) 72 65	51, 61, 79, 88	0
16	1U	116/118 (98%)	-0.12	2 (1%) 69 62	31, 40, 53, 75	0
16	2U	116/118 (98%)	0.31	3 (2%) 57 49	49, 66, 75, 84	0
17	1V	101/101 (100%)	-0.31	0 100 100	34, 48, 63, 69	0
17	2V	101/101 (100%)	0.45	2 (1%) 65 57	52, 74, 81, 86	0
18	1W	112/113 (99%)	-0.34	0 100 100	33, 42, 59, 85	0
18	2W	112/113 (99%)	0.05	0 100 100	47, 57, 72, 86	0
19	1X	95/96 (98%)	-0.10	2 (2%) 63 55	34, 47, 64, 75	0
19	2X	95/96 (98%)	0.31	4 (4%) 40 33	52, 65, 79, 82	0
20	1Y	107/110 (97%)	-0.14	1 (0%) 81 76	44, 54, 71, 77	0
20	2Y	107/110 (97%)	0.36	2 (1%) 66 58	65, 74, 82, 84	0
21	1Z	185/206 (89%)	0.06	0 100 100	47, 65, 80, 88	0
21	2Z	178/206 (86%)	0.55	4 (2%) 62 54	70, 81, 88, 91	0
22	10	83/85 (97%)	0.63	8 (9%) 13 12	34, 44, 71, 88	0
22	20	83/85 (97%)	0.93	10 (12%) 9 8	56, 68, 83, 91	0
23	11	97/98 (98%)	0.16	2 (2%) 63 55	35, 49, 68, 76	0
23	21	97/98 (98%)	0.35	3 (3%) 51 44	45, 63, 78, 83	0
24	12	70/72 (97%)	-0.25	1 (1%) 73 67	42, 54, 65, 74	0
24	22	70/72 (97%)	0.22	0 100 100	60, 74, 81, 85	0
25	13	59/60 (98%)	-0.42	0 100 100	32, 45, 64, 78	0
25	23	59/60 (98%)	0.39	1 (1%) 69 62	57, 69, 79, 84	0
26	14	69/71 (97%)	0.42	2 (2%) 53 46	58, 76, 90, 94	0
26	24	69/71 (97%)	1.07	10 (14%) 6 5	77, 89, 98, 103	0
27	15	59/60 (98%)	-0.31	0 100 100	32, 43, 61, 67	0
27	25	59/60 (98%)	0.09	0 100 100	44, 57, 71, 81	0
28	16	53/54 (98%)	-0.25	0 100 100	40, 48, 62, 70	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	26	53/54 (98%)	0.05	0 100 100	59, 64, 71, 78	0
29	17	48/49 (97%)	0.06	2 (4%) 40 33	33, 38, 59, 66	0
29	27	48/49 (97%)	0.09	2 (4%) 40 33	43, 49, 64, 73	0
30	18	64/65 (98%)	0.20	2 (3%) 51 44	35, 42, 50, 61	0
30	28	64/65 (98%)	0.28	0 100 100	52, 59, 67, 77	0
31	19	37/37 (100%)	-0.10	0 100 100	42, 47, 63, 66	0
31	29	37/37 (100%)	0.57	1 (2%) 56 48	66, 73, 84, 85	0
32	1a	1488/1521 (97%)	-0.04	33 (2%) 62 54	41, 73, 96, 110	0
32	2a	1491/1521 (98%)	0.16	25 (1%) 69 62	58, 83, 99, 110	0
33	1b	231/256 (90%)	0.47	11 (4%) 35 30	68, 81, 89, 94	0
33	2b	231/256 (90%)	1.07	25 (10%) 11 10	80, 89, 95, 99	0
34	1c	206/239 (86%)	0.21	3 (1%) 72 65	66, 77, 86, 91	0
34	2c	206/239 (86%)	1.19	35 (16%) 4 3	77, 87, 93, 97	0
35	1d	208/209 (99%)	0.67	11 (5%) 32 27	59, 76, 83, 87	0
35	2d	208/209 (99%)	1.15	33 (15%) 5 4	70, 80, 87, 91	0
36	1e	148/162 (91%)	0.21	4 (2%) 56 48	54, 69, 78, 86	0
36	2e	148/162 (91%)	0.78	7 (4%) 36 30	70, 82, 89, 91	0
37	1f	100/101 (99%)	0.22	2 (2%) 65 57	59, 73, 81, 84	0
37	2f	100/101 (99%)	0.34	2 (2%) 65 57	68, 78, 85, 88	0
38	1g	155/156 (99%)	0.01	3 (1%) 66 58	66, 74, 87, 102	0
38	2g	155/156 (99%)	0.43	9 (5%) 29 24	73, 84, 93, 100	0
39	1h	137/138 (99%)	0.32	3 (2%) 62 54	61, 71, 78, 79	0
39	2h	137/138 (99%)	0.59	8 (5%) 29 24	72, 82, 87, 90	0
40	1i	127/128 (99%)	0.56	8 (6%) 26 22	63, 79, 86, 90	0
40	2i	127/128 (99%)	1.53	38 (29%) 1 1	75, 89, 94, 97	0
41	1j	97/105 (92%)	0.79	5 (5%) 33 28	65, 81, 89, 94	0
41	2j	96/105 (91%)	1.64	26 (27%) 1 1	80, 90, 95, 100	0
42	1k	114/129 (88%)	0.19	4 (3%) 47 40	51, 70, 80, 85	0
42	2k	114/129 (88%)	0.42	7 (6%) 27 22	65, 80, 87, 91	0
43	1l	121/132 (91%)	0.30	7 (5%) 29 24	52, 63, 73, 78	0
43	2l	121/132 (91%)	0.67	9 (7%) 20 18	62, 73, 79, 88	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	1m	123/126 (97%)	0.35	7 (5%) 29 24	62, 74, 81, 100	0
44	2m	122/126 (96%)	1.69	32 (26%) 1 1	77, 85, 90, 99	0
45	1n	60/61 (98%)	0.75	4 (6%) 24 20	67, 74, 81, 85	0
45	2n	60/61 (98%)	2.40	36 (60%) 0 0	80, 88, 92, 94	0
46	1o	88/89 (98%)	0.22	1 (1%) 78 73	56, 67, 80, 85	0
46	2o	88/89 (98%)	0.50	5 (5%) 29 24	65, 76, 84, 88	0
47	1p	82/88 (93%)	1.02	9 (10%) 10 9	65, 77, 83, 87	0
47	2p	82/88 (93%)	0.58	1 (1%) 76 71	64, 74, 83, 87	0
48	1q	99/105 (94%)	0.45	5 (5%) 33 28	56, 69, 78, 82	0
48	2q	99/105 (94%)	0.44	2 (2%) 65 57	64, 74, 82, 84	0
49	1r	68/88 (77%)	0.03	0 100 100	62, 71, 80, 82	0
49	2r	68/88 (77%)	0.35	1 (1%) 72 65	72, 80, 86, 91	0
50	1s	83/93 (89%)	0.36	2 (2%) 59 51	68, 77, 85, 91	0
50	2s	83/93 (89%)	1.60	28 (33%) 1 1	79, 88, 95, 101	0
51	1t	96/106 (90%)	0.51	5 (5%) 33 28	63, 73, 82, 85	0
51	2t	96/106 (90%)	0.35	4 (4%) 40 33	62, 73, 83, 87	0
52	1u	23/27 (85%)	0.36	1 (4%) 40 32	63, 71, 76, 81	0
52	2u	23/27 (85%)	1.54	7 (30%) 1 1	78, 83, 87, 90	0
53	1v	5/24 (20%)	0.02	0 100 100	57, 58, 84, 92	0
53	2v	8/24 (33%)	1.09	4 (50%) 0 0	78, 89, 99, 101	0
54	1x	72/77 (93%)	-0.53	0 100 100	37, 65, 79, 91	0
54	2x	72/77 (93%)	-0.28	1 (1%) 73 67	52, 79, 89, 95	0
All	All	20644/21444 (96%)	0.10	740 (3%) 46 38	26, 68, 91, 114	0

All (740) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
22	10	6	GLY	11.3
44	2m	124	PRO	11.3
22	10	8	GLY	11.3
22	10	7	LEU	10.3
44	2m	123	ALA	10.2
22	10	4	LYS	8.2
44	1m	124	PRO	7.8

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Mol	Chain	Res	Type	RSRZ
22	10	3	HIS	7.7
22	20	7	LEU	6.3
22	20	5	LYS	6.2
44	2m	122	LYS	6.1
44	2m	102	ARG	6.0
22	10	9	SER	5.9
45	2n	2	ALA	5.9
40	2i	102	LEU	5.6
32	2a	1030(B)	C	5.5
1	2A	2146	C	5.5
44	2m	120	LYS	5.4
1	1A	2145	C	5.4
1	2A	2145	C	5.2
44	1m	123	ALA	5.2
22	10	5	LYS	5.0
32	1a	1257	U	4.9
22	20	3	HIS	4.8
35	1d	80	GLU	4.8
45	2n	5	ALA	4.7
23	21	2	SER	4.7
1	1A	2115	G	4.7
45	2n	30	ALA	4.6
6	2G	28	VAL	4.6
44	2m	119	GLY	4.5
3	2D	276	LYS	4.5
22	20	6	GLY	4.5
1	2A	2143	C	4.5
41	2j	65	LEU	4.5
16	1U	117	GLN	4.4
1	2A	2168	G	4.4
45	2n	4	LYS	4.4
45	1n	2	ALA	4.4
26	24	56	VAL	4.4
45	2n	6	LEU	4.4
1	2A	2144	U	4.4
1	2A	2147	G	4.3
41	2j	38	ILE	4.3
43	2l	64	TYR	4.3
40	1i	114	TYR	4.3
52	2u	14	TRP	4.2
1	1A	1078	U	4.2
1	1A	614(B)	G	4.2

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Mol	Chain	Res	Type	RSRZ
19	2X	92	LEU	4.2
50	2s	82	GLY	4.1
3	1D	276	LYS	4.1
11	1P	15	ARG	4.1
34	2c	160	ALA	4.1
33	2b	70	PHE	4.1
23	11	2	SER	4.1
45	2n	25	VAL	4.0
35	2d	154	ASN	4.0
45	2n	34	TYR	4.0
34	2c	168	ALA	4.0
8	2I	3	VAL	4.0
1	1A	888	C	4.0
1	1A	2112	G	3.9
1	1A	2113	U	3.9
33	2b	165	VAL	3.9
32	1a	1531	A	3.9
45	1n	5	ALA	3.9
41	2j	55	LYS	3.8
45	2n	39	LEU	3.8
1	1A	1026	U	3.8
32	1a	975	A	3.8
32	2a	1532	U	3.8
1	2A	1171	G	3.8
1	2A	2115	G	3.8
35	2d	4	TYR	3.8
48	2q	32	TYR	3.8
41	2j	47	PHE	3.7
22	20	2	ALA	3.7
41	2j	71	LEU	3.7
45	2n	37	PHE	3.7
22	10	2	ALA	3.7
51	2t	9	ASN	3.7
26	24	55	ARG	3.7
1	1A	2143	C	3.7
1	2A	2111	C	3.7
45	2n	36	PHE	3.7
32	1a	1447	A	3.6
40	2i	115	GLY	3.6
51	1t	21	LYS	3.6
5	2F	82	ILE	3.6
35	2d	164	ALA	3.6

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Mol	Chain	Res	Type	RSRZ
1	2A	2113	U	3.6
34	2c	190	ARG	3.6
48	1q	33	GLY	3.6
1	1A	2169	A	3.6
35	1d	155	LEU	3.6
1	2A	2133	G	3.6
1	1A	2114	A	3.6
1	1A	2117	A	3.6
21	2Z	178	GLU	3.5
50	2s	13	ASP	3.5
36	2e	90	VAL	3.5
32	1a	1036	G	3.5
4	2E	127	ASP	3.5
44	2m	121	LYS	3.5
41	2j	54	PHE	3.5
34	2c	155	GLY	3.5
40	2i	36	TYR	3.5
36	2e	86	ALA	3.5
1	2A	2114	A	3.5
43	1l	29	GLY	3.5
44	2m	6	GLY	3.5
40	1i	109	VAL	3.5
33	1b	237	ALA	3.5
20	2Y	1	MET	3.4
3	2D	215	LEU	3.4
45	2n	3	ARG	3.4
50	2s	9	VAL	3.4
52	2u	15	ARG	3.4
33	2b	131	PRO	3.4
43	1l	91	LYS	3.4
33	1b	9	GLU	3.4
29	17	41	ARG	3.4
40	2i	123	PRO	3.4
1	2A	2166	G	3.4
15	1T	130	ALA	3.4
47	1p	1	MET	3.4
32	2a	1202	G	3.3
1	2A	2174	C	3.3
33	2b	136	VAL	3.3
35	1d	154	ASN	3.3
3	2D	217	ARG	3.3
40	2i	14	VAL	3.3

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Mol	Chain	Res	Type	RSRZ
50	2s	60	VAL	3.3
8	2I	20	ASP	3.3
34	2c	199	LYS	3.3
45	2n	17	LYS	3.3
14	2S	7	TYR	3.3
45	2n	21	TYR	3.3
44	1m	106	ASN	3.3
44	1m	122	LYS	3.3
37	2f	45	LEU	3.3
44	2m	34	LEU	3.3
33	2b	163	PHE	3.3
43	1l	89	ARG	3.3
34	2c	207	VAL	3.3
1	1A	2121	G	3.3
51	1t	103	GLY	3.2
36	2e	12	LEU	3.2
50	2s	71	LEU	3.2
51	1t	10	LEU	3.2
20	1Y	1	MET	3.2
45	2n	20	ALA	3.2
1	2A	2165	G	3.2
26	24	49	PHE	3.2
45	2n	15	LYS	3.2
40	2i	62	TYR	3.2
50	2s	80	TYR	3.2
41	2j	58	ASP	3.2
40	2i	66	ARG	3.2
4	1E	152	LYS	3.2
22	20	4	LYS	3.2
45	2n	33	VAL	3.2
36	1e	20	GLN	3.2
1	2A	2112	G	3.2
8	1I	79	ILE	3.2
9	1N	75	TYR	3.1
22	20	9	SER	3.1
51	1t	18	GLN	3.1
1	1A	2181	G	3.1
39	2h	2	LEU	3.1
38	2g	83	ALA	3.1
44	1m	2	ALA	3.1
44	2m	27	LYS	3.1
1	2A	2169	A	3.1

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Mol	Chain	Res	Type	RSRZ
38	1g	80	VAL	3.1
54	2x	1	C	3.1
40	2i	63	ILE	3.1
50	2s	49	ILE	3.1
34	2c	55	VAL	3.1
22	20	8	GLY	3.1
3	2D	38	LYS	3.1
43	1l	126	LYS	3.1
26	14	56	VAL	3.1
40	2i	39	GLY	3.1
1	1A	529	A	3.1
14	2S	32	LEU	3.1
41	2j	40	LEU	3.1
45	1n	32	SER	3.0
44	2m	103	THR	3.0
32	2a	89	C	3.0
11	2P	68	GLN	3.0
41	2j	76	ASN	3.0
36	1e	24	ARG	3.0
6	1G	152	LEU	3.0
32	1a	1357	A	3.0
29	17	1	MET	3.0
39	2h	53	VAL	3.0
17	2V	8	GLY	3.0
42	2k	126	ARG	3.0
45	2n	41	ARG	3.0
41	1j	76	ASN	3.0
1	2A	2167	U	3.0
44	2m	30	ALA	3.0
44	2m	33	ALA	3.0
1	2A	2170	A	3.0
40	2i	10	ARG	3.0
45	2n	42	ILE	3.0
44	2m	100	GLY	3.0
2	2B	118	G	3.0
7	2H	115	VAL	3.0
44	2m	31	LYS	2.9
14	1S	43	GLU	2.9
1	2A	2159	G	2.9
1	1A	2144	U	2.9
40	2i	81	ILE	2.9
6	2G	29	TRP	2.9

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Mol	Chain	Res	Type	RSRZ
48	1q	26	GLN	2.9
35	1d	179	GLU	2.9
45	2n	56	VAL	2.9
3	2D	275	LYS	2.9
44	1m	121	LYS	2.9
1	2A	2142	C	2.9
1	1A	2149	G	2.9
44	2m	4	ILE	2.9
4	1E	153	GLY	2.9
7	2H	159	GLU	2.9
21	2Z	166	SER	2.9
33	2b	112	VAL	2.9
34	2c	4	LYS	2.9
50	2s	24	ALA	2.9
1	1A	2111	C	2.9
50	2s	7	LYS	2.9
9	2N	9	VAL	2.9
35	2d	170	VAL	2.9
40	2i	19	LEU	2.9
32	1a	1030(B)	C	2.8
40	2i	110	GLU	2.8
1	1A	2110	G	2.8
33	2b	122	PHE	2.8
36	2e	23	GLY	2.8
40	2i	43	ALA	2.8
43	2l	30	ALA	2.8
5	2F	90	PHE	2.8
32	1a	1353	G	2.8
2	2B	120	A	2.8
41	2j	10	GLY	2.8
43	2l	28	LYS	2.8
40	1i	2	GLU	2.8
45	2n	18	VAL	2.8
15	2T	130	ALA	2.8
34	2c	189	ALA	2.8
26	14	52	THR	2.8
47	1p	35	LYS	2.8
23	21	28	GLY	2.8
35	2d	2	GLY	2.8
1	1A	2141	G	2.8
39	2h	72	PRO	2.8
33	2b	7	VAL	2.8

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Mol	Chain	Res	Type	RSRZ
41	1j	32	ALA	2.8
1	1A	2122	U	2.8
32	1a	1532	U	2.8
34	2c	87	LEU	2.8
35	2d	146	ILE	2.8
6	1G	49	ASP	2.8
50	2s	79	THR	2.8
50	2s	84	GLY	2.8
34	2c	7	PRO	2.8
41	2j	49	VAL	2.7
50	2s	41	VAL	2.7
35	2d	68	TYR	2.7
1	2A	2109	U	2.7
16	2U	51	LYS	2.7
41	2j	67	THR	2.7
44	1m	105	THR	2.7
50	2s	2	PRO	2.7
45	2n	31	ARG	2.7
15	1T	131	ALA	2.7
34	2c	5	ILE	2.7
43	1l	64	TYR	2.7
39	1h	98	LYS	2.7
1	2A	2110	G	2.7
35	2d	69	GLY	2.7
3	2D	212	SER	2.7
50	2s	35	SER	2.7
33	1b	10	LEU	2.7
33	2b	214	ILE	2.7
44	2m	75	ALA	2.7
50	2s	15	LEU	2.7
6	2G	145	THR	2.7
34	2c	192	THR	2.7
40	2i	7	THR	2.7
32	1a	493	G	2.7
32	2a	1030(C)	G	2.7
8	2I	85	GLU	2.7
13	2R	14	SER	2.7
44	2m	39	ILE	2.7
46	2o	3	ILE	2.7
42	1k	126	ARG	2.7
33	2b	232	PRO	2.7
41	1j	100	THR	2.7

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Mol	Chain	Res	Type	RSRZ
1	1A	2135	A	2.7
35	2d	24	GLU	2.7
48	2q	86	GLU	2.7
40	2i	97	LYS	2.6
40	2i	113	LYS	2.6
44	2m	65	LYS	2.6
8	2I	55	ALA	2.6
40	2i	119	ALA	2.6
1	1A	2168	G	2.6
1	2A	271(M)	G	2.6
1	2A	2127	G	2.6
1	2A	2160	G	2.6
1	1A	1914	C	2.6
1	2A	279	C	2.6
32	1a	1027	C	2.6
19	1X	66	LEU	2.6
35	2d	112	VAL	2.6
51	2t	74	LYS	2.6
32	1a	630	G	2.6
45	2n	12	ARG	2.6
4	2E	125	GLY	2.6
45	2n	14	PRO	2.6
1	1A	889	C	2.6
43	2l	126	LYS	2.6
33	2b	213	LEU	2.6
41	2j	5	ARG	2.6
44	2m	104	ARG	2.6
47	1p	27	LYS	2.6
33	1b	7	VAL	2.6
44	2m	15	VAL	2.6
46	2o	57	LEU	2.6
15	1T	115	ARG	2.6
35	2d	47	ARG	2.6
45	2n	23	ARG	2.6
1	1A	899	A	2.6
6	1G	146	TYR	2.6
33	2b	234	PRO	2.6
48	1q	28	PRO	2.6
35	2d	178	VAL	2.6
41	2j	6	ILE	2.6
35	1d	150	GLU	2.6
43	2l	32	PHE	2.6

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Mol	Chain	Res	Type	RSRZ
44	2m	16	ASP	2.6
1	1A	2142	C	2.5
1	1A	2174	C	2.5
1	1A	2170	A	2.5
34	2c	43	LEU	2.5
40	2i	65	VAL	2.5
9	2N	8	GLN	2.5
25	23	29	ARG	2.5
3	1D	275	LYS	2.5
3	2D	5	LYS	2.5
19	2X	88	LYS	2.5
32	1a	1358	U	2.5
1	1A	2101	G	2.5
32	1a	1037	C	2.5
41	2j	8	LEU	2.5
44	2m	19	LEU	2.5
47	2p	48	TRP	2.5
4	2E	163	GLU	2.5
12	1Q	80	GLU	2.5
38	2g	84	ASN	2.5
16	2U	56	ASP	2.5
43	2l	48	PRO	2.5
34	2c	182	ILE	2.5
36	2e	109	ILE	2.5
1	2A	2120	G	2.5
1	2A	2125	G	2.5
6	1G	137	GLU	2.5
20	2Y	29	GLU	2.5
8	2I	86	THR	2.5
45	2n	13	THR	2.5
1	1A	1095	A	2.5
32	2a	1492	A	2.5
4	2E	129	HIS	2.5
38	2g	37	ASN	2.5
7	2H	39	PRO	2.5
33	2b	83	MET	2.5
1	1A	2180	U	2.5
33	2b	127	ILE	2.5
38	1g	81	GLY	2.5
33	1b	17	PHE	2.5
33	2b	129	GLU	2.5
45	2n	46	GLU	2.5

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Mol	Chain	Res	Type	RSRZ
39	2h	84	ARG	2.5
42	1k	13	GLN	2.5
33	1b	22	LYS	2.5
32	1a	1508	G	2.5
1	1A	2134	A	2.5
10	2O	1	MET	2.4
33	2b	196	LEU	2.4
38	2g	16	LEU	2.4
45	2n	7	ILE	2.4
50	2s	4	SER	2.4
32	2a	723	U	2.4
34	2c	48	TYR	2.4
47	1p	82	GLN	2.4
32	2a	1114	C	2.4
8	2I	12	LEU	2.4
1	1A	1077	A	2.4
32	1a	1202	G	2.4
35	2d	70	ILE	2.4
39	1h	80	ILE	2.4
6	2G	89	GLY	2.4
26	24	50	VAL	2.4
36	2e	85	GLY	2.4
40	1i	126	SER	2.4
45	2n	29	ARG	2.4
4	1E	163	GLU	2.4
33	1b	34	ALA	2.4
34	2c	187	ALA	2.4
34	1c	15	THR	2.4
33	1b	40	HIS	2.4
33	2b	121	LEU	2.4
35	2d	155	LEU	2.4
34	2c	57	ILE	2.4
1	1A	1509	C	2.4
1	1A	2164	C	2.4
26	24	54	GLY	2.4
23	21	61	ARG	2.4
35	1d	153	ARG	2.4
35	1d	169	LYS	2.4
40	2i	9	ARG	2.4
1	1A	2133	G	2.4
26	24	66	SER	2.4
34	2c	90	GLU	2.4

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Mol	Chain	Res	Type	RSRZ
41	2j	32	ALA	2.4
4	1E	151	TYR	2.4
46	1o	69	TYR	2.4
3	1D	10	THR	2.4
33	2b	67	THR	2.4
44	2m	90	LEU	2.4
3	1D	229	VAL	2.4
41	2j	72	VAL	2.4
41	2j	94	VAL	2.4
47	1p	21	VAL	2.4
47	1p	3	LYS	2.4
51	1t	69	GLY	2.4
45	2n	35	ARG	2.4
32	2a	1447	A	2.4
34	2c	133	ALA	2.4
32	1a	1446	U	2.4
32	2a	84	U	2.4
42	2k	75	TYR	2.4
34	1c	87	LEU	2.4
40	2i	117	HIS	2.4
6	2G	20	ILE	2.4
52	2u	13	ILE	2.4
12	2Q	60	ARG	2.3
41	2j	60	ARG	2.3
45	2n	9	LYS	2.3
17	2V	42	GLY	2.3
45	2n	38	GLY	2.3
45	2n	16	PHE	2.3
5	2F	56	GLU	2.3
8	2I	83	ALA	2.3
41	2j	35	SER	2.3
41	2j	59	SER	2.3
42	2k	25	TYR	2.3
47	1p	22	THR	2.3
1	1A	2167	U	2.3
3	2D	273	ARG	2.3
35	2d	132	ARG	2.3
46	2o	60	VAL	2.3
46	2o	68	ARG	2.3
35	2d	23	GLY	2.3
3	2D	15	PHE	2.3
34	2c	186	PHE	2.3

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Mol	Chain	Res	Type	RSRZ
34	2c	129	ALA	2.3
40	2i	13	ALA	2.3
10	1O	91	LEU	2.3
14	2S	54	LEU	2.3
33	2b	149	LEU	2.3
35	2d	173	TRP	2.3
35	2d	5	ILE	2.3
40	2i	92	TYR	2.3
40	2i	114	TYR	2.3
50	2s	52	TYR	2.3
53	2v	12	A	2.3
29	27	48	LYS	2.3
12	1Q	60	ARG	2.3
34	2c	128	PHE	2.3
40	2i	33	PHE	2.3
32	2a	530	G	2.3
34	2c	178	LEU	2.3
35	2d	157	LEU	2.3
40	2i	125	TYR	2.3
1	1A	2119	A	2.3
32	1a	1533	C	2.3
1	1A	2130	U	2.3
1	2A	899	A	2.3
40	2i	28	VAL	2.3
47	1p	20	VAL	2.3
50	2s	51	VAL	2.3
50	2s	68	GLY	2.3
7	2H	165	ALA	2.3
19	1X	95	LEU	2.3
40	2i	99	LEU	2.3
41	1j	33	GLN	2.3
13	2R	9	LYS	2.3
16	2U	54	LYS	2.3
33	1b	133	LYS	2.3
32	1a	1024	G	2.3
34	2c	6	HIS	2.3
7	2H	60	ARG	2.3
52	2u	6	ARG	2.3
43	2l	11	VAL	2.3
41	1j	31	GLY	2.3
1	1A	2136	C	2.2
50	2s	10	PHE	2.2

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Mol	Chain	Res	Type	RSRZ
16	1U	4	ALA	2.2
40	1i	13	ALA	2.2
40	2i	45	ALA	2.2
43	1l	16	GLU	2.2
38	2g	38	LEU	2.2
50	2s	16	LEU	2.2
8	2I	17	GLN	2.2
26	24	28	LYS	2.2
50	2s	32	LYS	2.2
41	2j	73	ASP	2.2
24	12	69	ARG	2.2
35	2d	209	ARG	2.2
46	2o	54	ARG	2.2
11	2P	71	VAL	2.2
21	2Z	175	VAL	2.2
1	1A	1068	G	2.2
2	2B	119	G	2.2
32	1a	438	G	2.2
32	2a	1002	G	2.2
32	2a	1036	G	2.2
32	2a	1224	G	2.2
52	2u	11	GLY	2.2
21	2Z	88	PHE	2.2
1	1A	1094	U	2.2
15	2T	131	ALA	2.2
26	24	57	GLU	2.2
30	18	65	GLU	2.2
1	1A	2178	C	2.2
6	2G	74	LYS	2.2
12	1Q	85	LYS	2.2
32	1a	436	C	2.2
32	2a	1531	A	2.2
33	1b	44	LEU	2.2
43	2l	8	ASN	2.2
33	2b	201	ILE	2.2
35	2d	158	ILE	2.2
38	2g	49	ILE	2.2
35	2d	118	ARG	2.2
38	1g	9	VAL	2.2
44	2m	37	THR	2.2
22	20	52	GLY	2.2
43	2l	14	GLY	2.2

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Mol	Chain	Res	Type	RSRZ
40	2i	11	LYS	2.2
1	1A	2147	G	2.2
1	1A	2159	G	2.2
1	1A	2166	G	2.2
13	1R	102	GLU	2.2
45	2n	53	LEU	2.2
36	2e	130	ASN	2.2
29	27	47	ARG	2.2
35	2d	107	ARG	2.2
38	2g	27	ILE	2.2
1	2A	2138	C	2.2
32	1a	1359	C	2.2
50	2s	14	HIS	2.2
50	2s	76	PRO	2.2
41	2j	100	THR	2.2
33	2b	233	SER	2.2
34	2c	184	TYR	2.2
50	2s	70	LYS	2.2
44	2m	48	LEU	2.2
35	2d	98	GLU	2.2
34	2c	28	GLN	2.2
42	2k	13	GLN	2.2
1	1A	2120	G	2.2
1	1A	2158	A	2.2
8	2I	136	VAL	2.2
34	1c	207	VAL	2.2
1	2A	2128	C	2.2
5	2F	194	MET	2.2
32	2a	1397	C	2.2
52	2u	17	THR	2.2
52	2u	3	LYS	2.2
34	2c	201	TYR	2.2
35	1d	194	LEU	2.2
45	1n	6	LEU	2.2
40	1i	106	ALA	2.2
44	2m	28	ALA	2.2
48	1q	78	GLU	2.2
11	2P	15	ARG	2.1
35	2d	122	ARG	2.1
36	1e	18	ARG	2.1
1	1A	2118	U	2.1
1	1A	2132	U	2.1

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Mol	Chain	Res	Type	RSRZ
11	1P	13	ASN	2.1
42	1k	36	ASP	2.1
1	2A	2123	G	2.1
1	2A	2155	G	2.1
30	18	52	LYS	2.1
32	1a	1188	A	2.1
32	1a	1368	G	2.1
32	2a	994	A	2.1
32	2a	1001(A)	G	2.1
42	2k	123	LYS	2.1
1	1A	2146	C	2.1
32	1a	1066	C	2.1
40	2i	82	ALA	2.1
34	2c	161	GLU	2.1
35	2d	49	ARG	2.1
40	2i	111	ARG	2.1
50	1s	29	ARG	2.1
34	2c	162	GLN	2.1
37	1f	16	GLN	2.1
1	2A	1026	U	2.1
2	2B	55	U	2.1
4	1E	147	PRO	2.1
14	2S	46	VAL	2.1
44	2m	97	PRO	2.1
6	2G	42	GLY	2.1
41	2j	42	THR	2.1
19	2X	91	ALA	2.1
32	2a	532	A	2.1
51	2t	8	ARG	2.1
53	2v	13	A	2.1
1	1A	1099	G	2.1
1	1A	1537	G	2.1
1	1A	2116	G	2.1
1	2A	11	G	2.1
5	2F	50	SER	2.1
32	1a	933	G	2.1
35	2d	71	SER	2.1
40	2i	71	SER	2.1
44	2m	9	ILE	2.1
44	2m	25	ILE	2.1
32	1a	1028	C	2.1
26	24	40	HIS	2.1

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Mol	Chain	Res	Type	RSRZ
6	2G	149	VAL	2.1
35	1d	121	VAL	2.1
50	2s	19	VAL	2.1
53	2v	19	U	2.1
4	1E	127	ASP	2.1
6	2G	7	LEU	2.1
34	2c	52	LEU	2.1
34	2c	159	GLY	2.1
34	2c	188	LEU	2.1
38	2g	33	ASP	2.1
50	1s	13	ASP	2.1
40	2i	128	ARG	2.1
45	2n	19	ARG	2.1
34	2c	202	ILE	2.1
49	2r	50	ILE	2.1
50	2s	50	ALA	2.1
35	1d	192	GLU	2.1
44	2m	69	GLU	2.1
6	2G	76	SER	2.1
32	1a	1035	A	2.1
53	2v	14	A	2.1
1	1A	885	C	2.1
1	1A	1087	G	2.1
8	2I	87	LYS	2.1
32	1a	1356	G	2.1
32	1a	1367	C	2.1
32	2a	1026	G	2.1
32	2a	1030(A)	G	2.1
32	2a	1119	C	2.1
41	2j	34	VAL	2.1
43	1l	18	VAL	2.1
44	2m	17	VAL	2.1
47	1p	2	VAL	2.1
33	2b	221	LEU	2.1
35	2d	174	LEU	2.1
1	2A	2189	U	2.1
19	2X	28	PHE	2.1
6	1G	116	ASP	2.1
14	2S	20	ARG	2.1
22	20	11	ARG	2.1
35	2d	144	ASP	2.1
36	1e	15	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
50	2s	33	THR	2.1
33	2b	188	ALA	2.1
7	2H	85	LYS	2.0
45	2n	32	SER	2.0
1	1A	1098	A	2.0
7	2H	107	VAL	2.0
32	1a	1492	A	2.0
32	2a	88	A	2.0
35	2d	140	VAL	2.0
1	1A	2129	C	2.0
1	2A	2164	C	2.0
1	2A	2789	C	2.0
33	2b	145	LEU	2.0
42	2k	117	ASN	2.0
1	2A	2104	G	2.0
8	2I	13	GLY	2.0
23	11	26	ARG	2.0
32	2a	1034	G	2.0
35	2d	115	ARG	2.0
8	2I	88	ILE	2.0
33	1b	190	THR	2.0
40	2i	64	THR	2.0
41	2j	48	THR	2.0
38	2g	2	ALA	2.0
7	1H	58	GLU	2.0
26	24	67	TYR	2.0
34	2c	141	VAL	2.0
35	2d	92	VAL	2.0
39	2h	29	SER	2.0
40	1i	14	VAL	2.0
42	2k	113	PRO	2.0
32	2a	974	A	2.0
37	1f	19	LEU	2.0
37	2f	21	LEU	2.0
39	1h	2	LEU	2.0
5	2F	62	ARG	2.0
52	1u	24	ARG	2.0
31	29	37	GLY	2.0
39	2h	131	GLY	2.0
40	2i	101	PHE	2.0
51	2t	103	GLY	2.0
1	1A	2188	C	2.0

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Mol	Chain	Res	Type	RSRZ
1	2A	280	C	2.0
35	2d	111	ALA	2.0
39	2h	3	THR	2.0
40	2i	15	ALA	2.0
1	1A	2131	G	2.0
3	2D	237	GLU	2.0
8	2I	135	GLU	2.0
32	1a	631	G	2.0
32	1a	1030(A)	G	2.0
33	2b	126	GLU	2.0
39	2h	52	ASP	2.0
40	1i	110	GLU	2.0
40	2i	105	ASP	2.0
48	1q	100	LYS	2.0
45	2n	61	TRP	2.0
42	1k	25	TYR	2.0
8	1I	136	VAL	2.0
8	2I	81	VAL	2.0
35	1d	112	VAL	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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
1	5MU	2A	1915	21/22	0.78	0.10	72,80,88,102	0
32	PSU	2a	516	20/21	0.83	0.11	79,85,91,93	0
54	PSU	2x	55	20/21	0.85	0.09	66,80,85,87	0
54	4SU	2x	8	20/21	0.87	0.08	77,83,89,91	0
32	2MG	2a	1207	24/25	0.87	0.10	81,86,90,105	0
54	PSU	1x	55	20/21	0.90	0.09	55,62,72,74	0
32	M2G	2a	966	25/26	0.90	0.14	66,74,88,97	0
54	5MU	2x	54	21/22	0.90	0.08	69,78,85,90	0
32	5MC	2a	967	21/22	0.90	0.14	70,75,82,88	0
32	PSU	1a	516	20/21	0.91	0.08	68,75,80,81	0
1	5MU	1A	1915	21/22	0.91	0.09	59,70,77,80	0
54	5MU	1x	54	21/22	0.92	0.09	54,68,75,84	0
32	5MC	2a	1400	21/22	0.92	0.11	73,77,82,89	0
32	G7M	2a	527	24/25	0.92	0.12	74,81,86,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	5MC	2x	32	21/22	0.92	0.10	74,78,80,81	0
1	PSU	1A	1911	20/21	0.92	0.11	45,59,64,66	0
43	0TD	1l	92	10/11	0.92	0.12	61,68,72,75	0
54	5MC	1x	32	21/22	0.93	0.10	55,61,67,70	0
32	2MG	1a	1207	24/25	0.93	0.07	67,77,80,86	0
1	OMC	2A	1920	21/22	0.93	0.09	61,69,75,80	0
32	4OC	2a	1402	22/23	0.93	0.11	70,74,80,85	0
1	PSU	1A	1917	20/21	0.94	0.10	52,63,66,67	0
1	PSU	2A	1911	20/21	0.94	0.07	60,72,78,80	0
54	4SU	1x	8	20/21	0.94	0.07	58,65,73,75	0
1	PSU	2A	1917	20/21	0.94	0.07	63,74,87,87	0
32	M2G	1a	966	25/26	0.95	0.11	50,59,63,66	0
32	5MC	2a	1407	21/22	0.95	0.08	59,68,72,76	0
43	0TD	2l	92	10/11	0.95	0.10	69,74,78,91	0
1	OMC	1A	1920	21/22	0.95	0.12	48,58,63,66	0
1	5MC	2A	1962	21/22	0.95	0.09	53,57,63,66	0
1	PSU	2A	2605	20/21	0.95	0.10	39,47,50,50	0
32	G7M	1a	527	24/25	0.95	0.09	53,60,66,70	0
32	5MC	2a	1404	21/22	0.96	0.07	63,70,74,75	0
32	4OC	1a	1402	22/23	0.96	0.09	53,59,66,72	0
32	UR3	2a	1498	21/22	0.96	0.07	57,69,74,78	0
32	MA6	2a	1518	24/25	0.96	0.09	62,67,72,74	0
32	5MC	1a	1404	21/22	0.96	0.09	43,50,54,59	0
1	5MC	2A	1942	21/22	0.96	0.08	42,56,62,64	0
32	UR3	1a	1498	21/22	0.96	0.08	37,47,51,53	0
32	5MC	1a	967	21/22	0.96	0.10	49,61,66,69	0
1	5MC	1A	1942	21/22	0.96	0.08	40,44,50,51	0
54	8AN	2x	76	22/23	0.96	0.09	49,54,58,61	0
1	5MU	1A	1939	21/22	0.97	0.08	29,42,44,46	0
1	5MC	1A	1962	21/22	0.97	0.08	37,45,52,56	0
32	5MC	1a	1407	21/22	0.97	0.09	47,54,60,63	0
32	MA6	2a	1519	24/25	0.97	0.09	64,70,74,77	0
1	OMG	1A	2251	24/25	0.97	0.09	26,34,38,40	0
32	MA6	1a	1519	24/25	0.97	0.11	42,48,51,53	0
1	2MA	1A	2503	23/24	0.97	0.08	27,34,38,40	0
1	PSU	1A	2605	20/21	0.97	0.08	29,35,39,40	0
32	5MC	1a	1400	21/22	0.97	0.08	50,59,61,63	0
1	2MA	2A	2503	23/24	0.97	0.08	38,43,47,51	0
32	MA6	1a	1518	24/25	0.98	0.08	36,48,50,53	0
54	8AN	1x	76	22/23	0.98	0.07	34,38,45,46	0
1	OMG	2A	2251	24/25	0.98	0.07	39,50,53,55	0
1	OMU	1A	2552	21/22	0.98	0.08	30,39,44,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
1	OMU	2A	2552	21/22	0.98	0.06	39,47,53,54	0
1	5MU	2A	1939	21/22	0.98	0.06	38,46,50,54	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
55	MG	2A	3248	1/1	0.09	0.31	93,93,93,93	0
55	MG	2A	3656	1/1	0.17	0.14	98,98,98,98	0
55	MG	1A	3601	1/1	0.39	0.08	96,96,96,96	0
55	MG	2A	3472	1/1	0.41	0.15	92,92,92,92	0
55	MG	1a	1740	1/1	0.41	0.28	86,86,86,86	0
55	MG	2v	101	1/1	0.41	0.41	90,90,90,90	0
55	MG	1Z	302	1/1	0.43	0.12	89,89,89,89	0
55	MG	2A	3189	1/1	0.43	0.20	87,87,87,87	0
55	MG	2a	3053	1/1	0.50	0.38	92,92,92,92	0
55	MG	2A	3095	1/1	0.53	0.22	73,73,73,73	0
55	MG	1a	1640	1/1	0.55	0.33	91,91,91,91	0
55	MG	2a	3031	1/1	0.55	0.32	89,89,89,89	0
55	MG	2A	3180	1/1	0.56	0.21	80,80,80,80	0
55	MG	2A	3185	1/1	0.56	0.41	79,79,79,79	0
55	MG	1a	1750	1/1	0.56	0.32	83,83,83,83	0
55	MG	2a	3100	1/1	0.57	0.42	81,81,81,81	0
55	MG	2a	3190	1/1	0.57	0.20	96,96,96,96	0
55	MG	2a	3093	1/1	0.57	0.23	84,84,84,84	0
55	MG	2a	3170	1/1	0.58	0.18	92,92,92,92	0
55	MG	1x	108	1/1	0.58	0.10	85,85,85,85	0
55	MG	2a	3135	1/1	0.58	0.12	97,97,97,97	0
55	MG	2A	3020	1/1	0.59	0.32	73,73,73,73	0
55	MG	2A	3673	1/1	0.59	0.30	84,84,84,84	0
55	MG	2A	3270	1/1	0.59	0.17	85,85,85,85	0
55	MG	2A	3335	1/1	0.59	0.19	82,82,82,82	0
55	MG	2A	3243	1/1	0.59	0.60	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3438	1/1	0.60	0.15	67,67,67,67	0
55	MG	2a	3021	1/1	0.60	0.32	86,86,86,86	0
55	MG	2A	3474	1/1	0.60	0.10	89,89,89,89	0
55	MG	2A	3529	1/1	0.60	0.22	70,70,70,70	0
55	MG	2a	3216	1/1	0.60	0.23	81,81,81,81	0
55	MG	2A	3266	1/1	0.60	0.25	82,82,82,82	0
55	MG	1A	3599	1/1	0.61	0.44	83,83,83,83	0
55	MG	1a	1672	1/1	0.61	0.30	83,83,83,83	0
55	MG	2a	3113	1/1	0.61	0.22	86,86,86,86	0
55	MG	2a	3002	1/1	0.61	0.22	79,79,79,79	0
55	MG	1a	1745	1/1	0.62	0.27	94,94,94,94	0
55	MG	2A	3094	1/1	0.62	0.31	86,86,86,86	0
55	MG	2a	3211	1/1	0.62	0.18	79,79,79,79	0
55	MG	2a	3129	1/1	0.62	0.28	88,88,88,88	0
55	MG	2a	3022	1/1	0.62	0.34	95,95,95,95	0
55	MG	2A	3194	1/1	0.63	0.18	64,64,64,64	0
55	MG	1a	1728	1/1	0.63	0.27	76,76,76,76	0
55	MG	2a	3118	1/1	0.64	0.18	72,72,72,72	0
55	MG	1A	3654	1/1	0.64	0.21	85,85,85,85	0
55	MG	2A	3330	1/1	0.64	0.25	78,78,78,78	0
55	MG	2a	3052	1/1	0.64	0.26	90,90,90,90	0
55	MG	2A	3333	1/1	0.64	0.33	81,81,81,81	0
55	MG	2a	3198	1/1	0.64	0.23	84,84,84,84	0
55	MG	1a	1660	1/1	0.64	0.28	83,83,83,83	0
55	MG	2A	3452	1/1	0.64	0.64	74,74,74,74	0
55	MG	1A	3272	1/1	0.64	0.38	80,80,80,80	0
55	MG	2a	3209	1/1	0.65	0.31	90,90,90,90	0
55	MG	2a	3108	1/1	0.65	0.51	76,76,76,76	0
55	MG	2A	3326	1/1	0.66	0.14	76,76,76,76	0
55	MG	2a	3155	1/1	0.66	0.08	86,86,86,86	0
55	MG	2a	3099	1/1	0.66	0.12	82,82,82,82	0
55	MG	1a	1718	1/1	0.66	0.13	83,83,83,83	0
55	MG	2A	3073	1/1	0.66	0.18	60,60,60,60	0
55	MG	1A	3850	1/1	0.66	0.28	72,72,72,72	0
55	MG	2A	3336	1/1	0.66	0.23	70,70,70,70	0
55	MG	2a	3125	1/1	0.66	0.26	96,96,96,96	0
55	MG	2A	3348	1/1	0.66	0.18	89,89,89,89	0
55	MG	2A	3322	1/1	0.67	0.14	81,81,81,81	0
55	MG	2a	3215	1/1	0.67	0.25	82,82,82,82	0
55	MG	1B	226	1/1	0.68	0.24	85,85,85,85	0
55	MG	2A	3569	1/1	0.68	0.18	73,73,73,73	0
55	MG	1A	3797	1/1	0.68	0.16	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	3050	1/1	0.68	0.16	86,86,86,86	0
55	MG	2A	3060	1/1	0.68	0.14	87,87,87,87	0
55	MG	2A	3679	1/1	0.68	0.21	65,65,65,65	0
55	MG	2A	3748	1/1	0.68	0.13	56,56,56,56	0
55	MG	2A	3258	1/1	0.68	0.22	78,78,78,78	0
55	MG	1A	3410	1/1	0.69	0.19	67,67,67,67	0
55	MG	2A	3320	1/1	0.69	0.25	87,87,87,87	0
55	MG	2B	220	1/1	0.69	0.31	78,78,78,78	0
55	MG	1a	1637	1/1	0.69	0.20	80,80,80,80	0
55	MG	1A	3820	1/1	0.69	0.22	57,57,57,57	0
55	MG	2j	201	1/1	0.69	0.20	90,90,90,90	0
55	MG	2a	3068	1/1	0.69	0.26	73,73,73,73	0
55	MG	2a	3019	1/1	0.70	0.14	82,82,82,82	0
55	MG	2A	3429	1/1	0.70	0.27	83,83,83,83	0
55	MG	2A	3723	1/1	0.70	0.20	73,73,73,73	0
55	MG	2a	3097	1/1	0.70	0.33	75,75,75,75	0
55	MG	1A	4010	1/1	0.70	0.09	96,96,96,96	0
55	MG	1a	1709	1/1	0.70	0.22	66,66,66,66	0
55	MG	2a	3159	1/1	0.70	0.21	80,80,80,80	0
55	MG	1A	3084	1/1	0.70	0.35	49,49,49,49	0
55	MG	2A	3134	1/1	0.71	0.21	70,70,70,70	0
55	MG	2a	3191	1/1	0.71	0.25	82,82,82,82	0
55	MG	1A	3416	1/1	0.71	0.17	65,65,65,65	0
55	MG	2A	3378	1/1	0.71	0.09	76,76,76,76	0
55	MG	2a	3134	1/1	0.71	0.44	72,72,72,72	0
55	MG	14	101	1/1	0.71	0.22	74,74,74,74	0
55	MG	2A	3577	1/1	0.71	0.17	75,75,75,75	0
55	MG	1t	201	1/1	0.71	0.30	71,71,71,71	0
55	MG	2a	3008	1/1	0.71	0.28	86,86,86,86	0
55	MG	2A	3159	1/1	0.72	0.24	85,85,85,85	0
55	MG	2a	3175	1/1	0.72	0.30	75,75,75,75	0
55	MG	2A	3163	1/1	0.72	0.38	74,74,74,74	0
55	MG	1A	4037	1/1	0.72	0.24	68,68,68,68	0
55	MG	1B	221	1/1	0.72	0.30	70,70,70,70	0
55	MG	1A	3236	1/1	0.72	0.11	82,82,82,82	0
55	MG	2F	302	1/1	0.72	0.15	70,70,70,70	0
55	MG	2R	202	1/1	0.72	0.16	75,75,75,75	0
55	MG	1U	203	1/1	0.72	0.14	73,73,73,73	0
55	MG	2A	3236	1/1	0.72	0.15	92,92,92,92	0
55	MG	2A	3402	1/1	0.72	0.31	65,65,65,65	0
55	MG	2a	3132	1/1	0.73	0.14	81,81,81,81	0
55	MG	2A	3845	1/1	0.73	0.17	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3649	1/1	0.73	0.20	82,82,82,82	0
55	MG	2a	3110	1/1	0.73	0.14	80,80,80,80	0
55	MG	2a	3081	1/1	0.73	0.25	73,73,73,73	0
55	MG	2a	3037	1/1	0.73	0.13	96,96,96,96	0
55	MG	2A	3089	1/1	0.73	0.20	77,77,77,77	0
55	MG	2A	3811	1/1	0.73	0.25	65,65,65,65	0
55	MG	2A	3319	1/1	0.74	0.14	74,74,74,74	0
55	MG	2a	3085	1/1	0.74	0.24	75,75,75,75	0
55	MG	2A	3578	1/1	0.74	0.24	82,82,82,82	0
55	MG	2A	3616	1/1	0.74	0.24	77,77,77,77	0
55	MG	2A	3356	1/1	0.74	0.22	63,63,63,63	0
55	MG	2a	3187	1/1	0.74	0.14	66,66,66,66	0
55	MG	1B	210	1/1	0.74	0.19	67,67,67,67	0
55	MG	1A	3422	1/1	0.74	0.15	74,74,74,74	0
55	MG	2A	3059	1/1	0.74	0.12	76,76,76,76	0
55	MG	1A	3130	1/1	0.74	0.17	65,65,65,65	0
55	MG	2A	3332	1/1	0.74	0.33	75,75,75,75	0
55	MG	2A	3780	1/1	0.74	0.28	79,79,79,79	0
55	MG	1A	3698	1/1	0.74	0.17	70,70,70,70	0
55	MG	2d	302	1/1	0.74	0.25	81,81,81,81	0
55	MG	1A	3298	1/1	0.74	0.23	72,72,72,72	0
55	MG	13	101	1/1	0.74	0.13	71,71,71,71	0
55	MG	2A	3098	1/1	0.75	0.18	60,60,60,60	0
55	MG	2a	3064	1/1	0.75	0.25	77,77,77,77	0
55	MG	1A	3354	1/1	0.75	0.19	80,80,80,80	0
55	MG	2A	3151	1/1	0.75	0.25	68,68,68,68	0
55	MG	2a	3207	1/1	0.75	0.38	80,80,80,80	0
55	MG	2A	3746	1/1	0.75	0.16	65,65,65,65	0
55	MG	2A	3374	1/1	0.75	0.11	84,84,84,84	0
55	MG	1A	3891	1/1	0.75	0.24	68,68,68,68	0
55	MG	2A	3384	1/1	0.75	0.22	77,77,77,77	0
55	MG	2A	3235	1/1	0.75	0.17	80,80,80,80	0
55	MG	2A	3294	1/1	0.75	0.11	67,67,67,67	0
55	MG	2q	203	1/1	0.75	0.26	72,72,72,72	0
55	MG	1A	3586	1/1	0.75	0.38	51,51,51,51	0
55	MG	2A	3218	1/1	0.76	0.14	62,62,62,62	0
55	MG	2A	3487	1/1	0.76	0.31	64,64,64,64	0
55	MG	2A	3521	1/1	0.76	0.15	69,69,69,69	0
55	MG	2A	3232	1/1	0.76	0.41	77,77,77,77	0
55	MG	1B	229	1/1	0.76	0.23	76,76,76,76	0
55	MG	1A	3510	1/1	0.76	0.17	67,67,67,67	0
55	MG	1x	102	1/1	0.76	0.10	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1697	1/1	0.76	0.18	75,75,75,75	0
55	MG	2A	3157	1/1	0.76	0.10	86,86,86,86	0
55	MG	1A	3450	1/1	0.76	0.14	61,61,61,61	0
55	MG	2A	3359	1/1	0.76	0.31	60,60,60,60	0
55	MG	2a	3062	1/1	0.76	0.14	76,76,76,76	0
55	MG	2A	3369	1/1	0.76	0.30	70,70,70,70	0
55	MG	1A	3812	1/1	0.76	0.10	75,75,75,75	0
55	MG	1A	3602	1/1	0.76	0.23	79,79,79,79	0
55	MG	2A	3383	1/1	0.76	0.36	75,75,75,75	0
55	MG	2A	3757	1/1	0.76	0.11	72,72,72,72	0
55	MG	2A	3301	1/1	0.76	0.13	64,64,64,64	0
55	MG	2A	3317	1/1	0.76	0.11	77,77,77,77	0
55	MG	2A	3826	1/1	0.76	0.23	75,75,75,75	0
55	MG	1A	3594	1/1	0.76	0.28	70,70,70,70	0
55	MG	1a	1744	1/1	0.76	0.24	72,72,72,72	0
55	MG	1A	3885	1/1	0.76	0.42	54,54,54,54	0
55	MG	2x	106	1/1	0.76	0.27	66,66,66,66	0
55	MG	2A	3767	1/1	0.77	0.11	78,78,78,78	0
55	MG	2a	3038	1/1	0.77	0.28	73,73,73,73	0
55	MG	2a	3042	1/1	0.77	0.15	81,81,81,81	0
55	MG	2A	3070	1/1	0.77	0.34	84,84,84,84	0
55	MG	1A	3486	1/1	0.77	0.40	70,70,70,70	0
55	MG	2a	3138	1/1	0.77	0.26	71,71,71,71	0
55	MG	1A	3372	1/1	0.77	0.17	54,54,54,54	0
55	MG	2A	3269	1/1	0.77	0.09	83,83,83,83	0
55	MG	2A	3210	1/1	0.77	0.24	70,70,70,70	0
55	MG	2A	3271	1/1	0.77	0.11	74,74,74,74	0
55	MG	2a	3077	1/1	0.77	0.38	75,75,75,75	0
55	MG	2a	3188	1/1	0.77	0.12	80,80,80,80	0
55	MG	1A	3534	1/1	0.77	0.32	60,60,60,60	0
55	MG	20	101	1/1	0.77	0.20	71,71,71,71	0
55	MG	2A	3464	1/1	0.77	0.17	74,74,74,74	0
55	MG	1A	4089	1/1	0.77	0.16	70,70,70,70	0
55	MG	2A	3177	1/1	0.77	0.21	74,74,74,74	0
55	MG	2A	3480	1/1	0.77	0.18	70,70,70,70	0
55	MG	2a	3101	1/1	0.77	0.29	80,80,80,80	0
55	MG	2a	3107	1/1	0.77	0.28	71,71,71,71	0
55	MG	1A	3559	1/1	0.77	0.24	71,71,71,71	0
55	MG	2a	3025	1/1	0.77	0.18	64,64,64,64	0
55	MG	2A	3183	1/1	0.77	0.15	62,62,62,62	0
55	MG	2a	3036	1/1	0.77	0.34	83,83,83,83	0
55	MG	2a	3119	1/1	0.77	0.27	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3595	1/1	0.78	0.28	72,72,72,72	0
55	MG	1a	1805	1/1	0.78	0.29	81,81,81,81	0
55	MG	2a	3017	1/1	0.78	0.25	78,78,78,78	0
55	MG	2a	3150	1/1	0.78	0.15	99,99,99,99	0
55	MG	2a	3083	1/1	0.78	0.29	72,72,72,72	0
55	MG	1a	1806	1/1	0.78	0.17	77,77,77,77	0
55	MG	2A	3078	1/1	0.78	0.25	67,67,67,67	0
55	MG	2a	3096	1/1	0.78	0.23	79,79,79,79	0
55	MG	2A	3486	1/1	0.78	0.20	73,73,73,73	0
55	MG	2a	3024	1/1	0.78	0.27	75,75,75,75	0
55	MG	2A	3237	1/1	0.78	0.29	74,74,74,74	0
55	MG	1p	101	1/1	0.78	0.30	66,66,66,66	0
55	MG	1P	207	1/1	0.78	0.30	58,58,58,58	0
55	MG	2A	3256	1/1	0.78	0.19	70,70,70,70	0
55	MG	1A	3102	1/1	0.78	0.22	56,56,56,56	0
55	MG	1A	3474	1/1	0.78	0.44	62,62,62,62	0
55	MG	2a	3212	1/1	0.78	0.15	85,85,85,85	0
55	MG	2a	3115	1/1	0.78	0.18	79,79,79,79	0
55	MG	2B	208	1/1	0.78	0.30	73,73,73,73	0
55	MG	2a	3226	1/1	0.78	0.31	72,72,72,72	0
55	MG	2A	3598	1/1	0.78	0.34	83,83,83,83	0
55	MG	10	104	1/1	0.78	0.41	57,57,57,57	0
55	MG	2q	201	1/1	0.78	0.15	63,63,63,63	0
55	MG	1A	3737	1/1	0.78	0.20	76,76,76,76	0
55	MG	2A	3461	1/1	0.78	0.22	71,71,71,71	0
55	MG	2a	3133	1/1	0.78	0.50	77,77,77,77	0
55	MG	2a	3009	1/1	0.79	0.30	81,81,81,81	0
55	MG	1a	1680	1/1	0.79	0.14	66,66,66,66	0
55	MG	2A	3710	1/1	0.79	0.10	63,63,63,63	0
55	MG	1A	3097	1/1	0.79	0.22	71,71,71,71	0
55	MG	1a	1706	1/1	0.79	0.26	69,69,69,69	0
55	MG	2A	3349	1/1	0.79	0.22	87,87,87,87	0
55	MG	2A	3291	1/1	0.79	1.24	75,75,75,75	0
55	MG	2A	3103	1/1	0.79	0.31	74,74,74,74	0
55	MG	2a	3194	1/1	0.79	0.15	92,92,92,92	0
55	MG	1A	3759	1/1	0.79	0.27	58,58,58,58	0
55	MG	1A	3908	1/1	0.79	0.12	58,58,58,58	0
55	MG	2A	3544	1/1	0.79	0.12	56,56,56,56	0
55	MG	2A	3837	1/1	0.79	0.11	74,74,74,74	0
55	MG	2a	3045	1/1	0.79	0.16	80,80,80,80	0
55	MG	18	104	1/1	0.79	0.33	62,62,62,62	0
55	MG	2B	206	1/1	0.79	0.21	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	4009	1/1	0.79	0.09	79,79,79,79	0
55	MG	1A	3842	1/1	0.79	0.45	77,77,77,77	0
55	MG	1A	3301	1/1	0.79	0.35	65,65,65,65	0
55	MG	2l	203	1/1	0.79	0.14	69,69,69,69	0
55	MG	2A	3419	1/1	0.79	0.41	70,70,70,70	0
55	MG	1A	3870	1/1	0.79	0.79	51,51,51,51	0
55	MG	1a	1796	1/1	0.79	0.21	80,80,80,80	0
55	MG	2v	102	1/1	0.79	0.19	76,76,76,76	0
55	MG	1a	1679	1/1	0.79	0.32	80,80,80,80	0
55	MG	1A	3909	1/1	0.80	0.61	58,58,58,58	0
55	MG	2a	3142	1/1	0.80	0.26	55,55,55,55	0
55	MG	2a	3075	1/1	0.80	0.16	73,73,73,73	0
55	MG	2A	3409	1/1	0.80	0.16	72,72,72,72	0
55	MG	2A	3608	1/1	0.80	0.18	65,65,65,65	0
55	MG	2A	3250	1/1	0.80	0.14	68,68,68,68	0
55	MG	1A	3923	1/1	0.80	0.55	60,60,60,60	0
55	MG	2A	3652	1/1	0.80	0.19	89,89,89,89	0
55	MG	2A	3443	1/1	0.80	0.22	72,72,72,72	0
55	MG	1A	3140	1/1	0.80	0.23	52,52,52,52	0
55	MG	2A	3118	1/1	0.80	0.38	65,65,65,65	0
55	MG	1A	3497	1/1	0.80	0.24	59,59,59,59	0
55	MG	1a	1601	1/1	0.80	0.10	67,67,67,67	0
55	MG	2a	3199	1/1	0.80	0.22	75,75,75,75	0
55	MG	2a	3206	1/1	0.80	0.29	70,70,70,70	0
55	MG	2a	3103	1/1	0.80	0.21	75,75,75,75	0
55	MG	2A	3231	1/1	0.80	0.27	70,70,70,70	0
55	MG	2a	3026	1/1	0.80	0.19	79,79,79,79	0
55	MG	2A	3475	1/1	0.80	0.22	75,75,75,75	0
55	MG	2A	3272	1/1	0.80	0.24	78,78,78,78	0
55	MG	1A	4030	1/1	0.80	0.11	64,64,64,64	0
55	MG	1A	3606	1/1	0.80	0.28	62,62,62,62	0
55	MG	2A	3493	1/1	0.80	0.09	67,67,67,67	0
55	MG	2a	3121	1/1	0.80	0.33	72,72,72,72	0
55	MG	2A	3515	1/1	0.80	0.14	61,61,61,61	0
55	MG	2A	3083	1/1	0.80	0.15	58,58,58,58	0
55	MG	1A	3157	1/1	0.80	0.09	55,55,55,55	0
55	MG	1a	1671	1/1	0.80	0.30	81,81,81,81	0
55	MG	2A	3246	1/1	0.80	0.26	59,59,59,59	0
55	MG	2A	3321	1/1	0.80	0.18	82,82,82,82	0
55	MG	2B	207	1/1	0.81	0.21	66,66,66,66	0
55	MG	2a	3141	1/1	0.81	0.17	84,84,84,84	0
55	MG	1V	208	1/1	0.81	0.13	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1651	1/1	0.81	0.21	60,60,60,60	0
55	MG	1A	4096	1/1	0.81	0.35	66,66,66,66	0
55	MG	10	101	1/1	0.81	0.15	51,51,51,51	0
55	MG	2A	3187	1/1	0.81	0.20	72,72,72,72	0
55	MG	1A	3471	1/1	0.81	0.26	62,62,62,62	0
55	MG	12	101	1/1	0.81	0.13	62,62,62,62	0
55	MG	1A	4026	1/1	0.81	0.14	83,83,83,83	0
55	MG	1a	1694	1/1	0.81	0.22	71,71,71,71	0
55	MG	2A	3219	1/1	0.81	0.23	70,70,70,70	0
55	MG	2A	3220	1/1	0.81	0.15	84,84,84,84	0
55	MG	2A	3666	1/1	0.81	0.15	69,69,69,69	0
55	MG	2a	3105	1/1	0.81	0.28	72,72,72,72	0
55	MG	1a	1807	1/1	0.81	0.11	61,61,61,61	0
55	MG	2A	3097	1/1	0.81	0.13	64,64,64,64	0
55	MG	2a	3208	1/1	0.81	0.11	76,76,76,76	0
55	MG	1A	3257	1/1	0.81	0.23	77,77,77,77	0
55	MG	2a	3112	1/1	0.81	0.22	69,69,69,69	0
55	MG	2A	3465	1/1	0.81	0.13	68,68,68,68	0
55	MG	1A	3987	1/1	0.81	0.25	76,76,76,76	0
55	MG	1A	4060	1/1	0.81	0.19	64,64,64,64	0
55	MG	1a	1715	1/1	0.81	0.32	82,82,82,82	0
55	MG	1A	3429	1/1	0.81	0.17	60,60,60,60	0
55	MG	2A	3027	1/1	0.81	0.18	51,51,51,51	0
55	MG	2A	3341	1/1	0.81	0.08	76,76,76,76	0
55	MG	2a	3130	1/1	0.81	0.30	76,76,76,76	0
55	MG	2A	3489	1/1	0.81	0.34	58,58,58,58	0
55	MG	2A	3158	1/1	0.81	0.20	81,81,81,81	0
55	MG	2A	3033	1/1	0.81	0.16	69,69,69,69	0
55	MG	2x	101	1/1	0.81	0.12	66,66,66,66	0
55	MG	2A	3036	1/1	0.81	0.37	78,78,78,78	0
55	MG	1A	4075	1/1	0.82	0.27	73,73,73,73	0
55	MG	2A	3677	1/1	0.82	0.19	78,78,78,78	0
55	MG	2A	3168	1/1	0.82	0.16	53,53,53,53	0
55	MG	2A	3681	1/1	0.82	0.13	60,60,60,60	0
55	MG	2A	3690	1/1	0.82	0.07	82,82,82,82	0
55	MG	2a	3039	1/1	0.82	0.27	77,77,77,77	0
55	MG	2A	3692	1/1	0.82	0.20	69,69,69,69	0
55	MG	1A	3961	1/1	0.82	0.21	70,70,70,70	0
55	MG	2a	3049	1/1	0.82	0.34	75,75,75,75	0
55	MG	2a	3143	1/1	0.82	0.45	71,71,71,71	0
55	MG	2A	3716	1/1	0.82	0.10	65,65,65,65	0
55	MG	1A	3983	1/1	0.82	0.27	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1B	209	1/1	0.82	0.12	58,58,58,58	0
55	MG	1A	3448	1/1	0.82	0.16	71,71,71,71	0
55	MG	2A	3477	1/1	0.82	0.29	56,56,56,56	0
55	MG	1A	3604	1/1	0.82	0.15	82,82,82,82	0
55	MG	2a	3073	1/1	0.82	0.27	72,72,72,72	0
55	MG	1A	3395	1/1	0.82	0.20	68,68,68,68	0
55	MG	1A	3453	1/1	0.82	0.22	78,78,78,78	0
55	MG	2A	3101	1/1	0.82	0.24	72,72,72,72	0
55	MG	2A	3353	1/1	0.82	0.32	70,70,70,70	0
55	MG	1a	1606	1/1	0.82	0.20	73,73,73,73	0
55	MG	2A	3281	1/1	0.82	0.30	73,73,73,73	0
55	MG	2A	3282	1/1	0.82	0.22	53,53,53,53	0
55	MG	1a	1614	1/1	0.82	0.21	61,61,61,61	0
55	MG	2B	212	1/1	0.82	0.17	82,82,82,82	0
55	MG	2A	3552	1/1	0.82	0.10	64,64,64,64	0
55	MG	2A	3128	1/1	0.82	0.27	67,67,67,67	0
55	MG	2G	201	1/1	0.82	0.11	68,68,68,68	0
55	MG	1E	312	1/1	0.82	0.18	69,69,69,69	0
55	MG	2A	3304	1/1	0.82	0.21	73,73,73,73	0
55	MG	2A	3305	1/1	0.82	0.15	69,69,69,69	0
55	MG	2A	3316	1/1	0.82	0.09	78,78,78,78	0
55	MG	1A	3230	1/1	0.82	0.53	44,44,44,44	0
55	MG	2A	3618	1/1	0.82	0.28	64,64,64,64	0
55	MG	1A	3060	1/1	0.82	0.21	55,55,55,55	0
55	MG	1A	3946	1/1	0.82	0.29	64,64,64,64	0
55	MG	2A	3446	1/1	0.82	0.13	79,79,79,79	0
55	MG	2A	3657	1/1	0.82	0.26	85,85,85,85	0
55	MG	1a	1670	1/1	0.82	0.32	67,67,67,67	0
55	MG	2A	3261	1/1	0.83	0.25	74,74,74,74	0
55	MG	2a	3114	1/1	0.83	0.19	81,81,81,81	0
55	MG	2A	3596	1/1	0.83	0.09	71,71,71,71	0
55	MG	2A	3360	1/1	0.83	0.34	87,87,87,87	0
55	MG	1A	3264	1/1	0.83	0.27	66,66,66,66	0
55	MG	2A	3162	1/1	0.83	0.17	64,64,64,64	0
55	MG	1A	3099	1/1	0.83	0.16	52,52,52,52	0
55	MG	2A	3645	1/1	0.83	0.27	72,72,72,72	0
55	MG	2A	3379	1/1	0.83	0.22	64,64,64,64	0
55	MG	1B	206	1/1	0.83	0.39	58,58,58,58	0
55	MG	2A	3174	1/1	0.83	0.10	65,65,65,65	0
55	MG	2A	3393	1/1	0.83	0.28	54,54,54,54	0
55	MG	2A	3028	1/1	0.83	0.18	57,57,57,57	0
55	MG	2A	3672	1/1	0.83	0.24	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1I	102	1/1	0.83	0.22	67,67,67,67	0
55	MG	2A	3181	1/1	0.83	0.25	87,87,87,87	0
55	MG	1A	3558	1/1	0.83	0.18	44,44,44,44	0
55	MG	2a	3040	1/1	0.83	0.27	69,69,69,69	0
55	MG	2a	3041	1/1	0.83	0.10	57,57,57,57	0
55	MG	1a	1698	1/1	0.83	0.36	70,70,70,70	0
55	MG	1A	3916	1/1	0.83	0.44	52,52,52,52	0
55	MG	2A	3449	1/1	0.83	0.17	76,76,76,76	0
55	MG	2A	3708	1/1	0.83	0.13	72,72,72,72	0
55	MG	1A	4022	1/1	0.83	0.10	74,74,74,74	0
55	MG	2A	3308	1/1	0.83	0.18	60,60,60,60	0
55	MG	1A	3289	1/1	0.83	0.22	44,44,44,44	0
55	MG	2A	3734	1/1	0.83	0.18	72,72,72,72	0
55	MG	1A	3581	1/1	0.83	0.20	43,43,43,43	0
55	MG	1a	1602	1/1	0.83	0.19	70,70,70,70	0
55	MG	2a	3204	1/1	0.83	0.22	70,70,70,70	0
55	MG	2a	3205	1/1	0.83	0.17	78,78,78,78	0
55	MG	1A	3111	1/1	0.83	0.51	48,48,48,48	0
55	MG	1G	203	1/1	0.83	0.07	63,63,63,63	0
55	MG	2A	3228	1/1	0.83	0.15	58,58,58,58	0
55	MG	1a	1630	1/1	0.83	0.12	69,69,69,69	0
55	MG	2a	3210	1/1	0.83	0.08	73,73,73,73	0
55	MG	1I	201	1/1	0.83	0.24	85,85,85,85	0
55	MG	1O	204	1/1	0.83	0.15	56,56,56,56	0
55	MG	1a	1649	1/1	0.83	0.27	59,59,59,59	0
55	MG	1A	3972	1/1	0.83	0.21	58,58,58,58	0
55	MG	1S	203	1/1	0.83	0.11	72,72,72,72	0
55	MG	1a	1813	1/1	0.83	0.23	70,70,70,70	0
55	MG	2A	3347	1/1	0.83	0.34	59,59,59,59	0
55	MG	2B	215	1/1	0.83	0.30	66,66,66,66	0
55	MG	1d	301	1/1	0.83	0.37	75,75,75,75	0
55	MG	1a	1666	1/1	0.83	0.16	70,70,70,70	0
55	MG	2F	305	1/1	0.83	0.43	56,56,56,56	0
55	MG	1A	3980	1/1	0.83	0.13	85,85,85,85	0
55	MG	2a	3111	1/1	0.83	0.25	65,65,65,65	0
55	MG	2x	102	1/1	0.83	0.10	69,69,69,69	0
55	MG	2x	104	1/1	0.83	0.26	83,83,83,83	0
55	MG	1A	4088	1/1	0.83	0.20	75,75,75,75	0
55	MG	1a	1618	1/1	0.84	0.18	62,62,62,62	0
55	MG	2a	3006	1/1	0.84	0.27	75,75,75,75	0
55	MG	2A	3046	1/1	0.84	0.19	65,65,65,65	0
55	MG	2A	3176	1/1	0.84	0.25	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3059	1/1	0.84	0.14	56,56,56,56	0
55	MG	1a	1725	1/1	0.84	0.28	64,64,64,64	0
55	MG	1a	1632	1/1	0.84	0.15	67,67,67,67	0
55	MG	1A	3145	1/1	0.84	0.18	75,75,75,75	0
55	MG	2A	3284	1/1	0.84	0.22	77,77,77,77	0
55	MG	2A	3286	1/1	0.84	0.19	79,79,79,79	0
55	MG	2A	3076	1/1	0.84	0.45	69,69,69,69	0
55	MG	2A	3416	1/1	0.84	0.27	64,64,64,64	0
55	MG	2A	3675	1/1	0.84	0.11	61,61,61,61	0
55	MG	1A	3954	1/1	0.84	0.13	71,71,71,71	0
55	MG	1a	1644	1/1	0.84	0.38	72,72,72,72	0
55	MG	2A	3431	1/1	0.84	0.25	76,76,76,76	0
55	MG	1A	3371	1/1	0.84	0.25	53,53,53,53	0
55	MG	2A	3691	1/1	0.84	0.08	86,86,86,86	0
55	MG	2A	3197	1/1	0.84	0.14	55,55,55,55	0
55	MG	2a	3182	1/1	0.84	0.24	82,82,82,82	0
55	MG	2a	3184	1/1	0.84	0.17	62,62,62,62	0
55	MG	1a	1770	1/1	0.84	0.09	66,66,66,66	0
55	MG	2A	3310	1/1	0.84	0.19	67,67,67,67	0
55	MG	2a	3189	1/1	0.84	0.15	76,76,76,76	0
55	MG	2A	3215	1/1	0.84	0.27	50,50,50,50	0
55	MG	1A	3062	1/1	0.84	0.28	63,63,63,63	0
55	MG	2A	3730	1/1	0.84	0.10	79,79,79,79	0
55	MG	1A	3378	1/1	0.84	0.10	56,56,56,56	0
55	MG	1a	1661	1/1	0.84	0.15	66,66,66,66	0
55	MG	1A	3379	1/1	0.84	0.28	71,71,71,71	0
55	MG	11	101	1/1	0.84	0.74	56,56,56,56	0
55	MG	1A	3168	1/1	0.84	0.41	54,54,54,54	0
55	MG	2A	3479	1/1	0.84	0.26	62,62,62,62	0
55	MG	1A	3998	1/1	0.84	0.14	57,57,57,57	0
55	MG	1A	3181	1/1	0.84	0.21	55,55,55,55	0
55	MG	2A	3140	1/1	0.84	0.27	65,65,65,65	0
55	MG	2A	3147	1/1	0.84	0.18	67,67,67,67	0
55	MG	1A	3213	1/1	0.84	0.36	67,67,67,67	0
55	MG	2a	3214	1/1	0.84	0.28	89,89,89,89	0
55	MG	1A	3417	1/1	0.84	0.21	69,69,69,69	0
55	MG	2A	3346	1/1	0.84	0.12	83,83,83,83	0
55	MG	1A	3421	1/1	0.84	0.14	69,69,69,69	0
55	MG	2A	3255	1/1	0.84	0.25	75,75,75,75	0
55	MG	2B	216	1/1	0.84	0.21	70,70,70,70	0
55	MG	2l	201	1/1	0.84	0.34	61,61,61,61	0
55	MG	1G	204	1/1	0.84	0.12	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2D	305	1/1	0.84	0.54	64,64,64,64	0
55	MG	2A	3351	1/1	0.84	0.19	73,73,73,73	0
55	MG	2A	3352	1/1	0.84	0.22	75,75,75,75	0
55	MG	2A	3257	1/1	0.84	0.37	77,77,77,77	0
55	MG	1A	3655	1/1	0.84	0.12	68,68,68,68	0
55	MG	2W	201	1/1	0.84	0.17	76,76,76,76	0
55	MG	1A	3228	1/1	0.84	0.24	50,50,50,50	0
55	MG	25	104	1/1	0.84	0.21	64,64,64,64	0
55	MG	1A	4090	1/1	0.85	0.20	73,73,73,73	0
55	MG	2F	307	1/1	0.85	0.13	66,66,66,66	0
55	MG	2A	3146	1/1	0.85	0.30	65,65,65,65	0
55	MG	1A	3524	1/1	0.85	0.15	64,64,64,64	0
55	MG	1A	3726	1/1	0.85	0.15	63,63,63,63	0
55	MG	2Z	301	1/1	0.85	0.23	68,68,68,68	0
55	MG	1A	3164	1/1	0.85	0.21	58,58,58,58	0
55	MG	2A	3006	1/1	0.85	0.21	63,63,63,63	0
55	MG	2A	3007	1/1	0.85	0.24	59,59,59,59	0
55	MG	2a	3003	1/1	0.85	0.24	75,75,75,75	0
55	MG	2A	3363	1/1	0.85	0.17	77,77,77,77	0
55	MG	2a	3007	1/1	0.85	0.18	73,73,73,73	0
55	MG	2A	3368	1/1	0.85	0.21	58,58,58,58	0
55	MG	2A	3262	1/1	0.85	0.11	64,64,64,64	0
55	MG	2A	3373	1/1	0.85	0.28	87,87,87,87	0
55	MG	2A	3160	1/1	0.85	0.28	62,62,62,62	0
55	MG	1A	3040	1/1	0.85	0.18	57,57,57,57	0
55	MG	2A	3026	1/1	0.85	0.15	68,68,68,68	0
55	MG	2A	3671	1/1	0.85	0.10	55,55,55,55	0
55	MG	2a	3158	1/1	0.85	0.20	73,73,73,73	0
55	MG	2A	3380	1/1	0.85	0.09	77,77,77,77	0
55	MG	1A	3760	1/1	0.85	0.11	45,45,45,45	0
55	MG	2A	3173	1/1	0.85	0.30	72,72,72,72	0
55	MG	1A	3384	1/1	0.85	0.17	52,52,52,52	0
55	MG	2A	3030	1/1	0.85	0.13	53,53,53,53	0
55	MG	1A	3394	1/1	0.85	0.10	66,66,66,66	0
55	MG	2A	3682	1/1	0.85	0.13	45,45,45,45	0
55	MG	1D	305	1/1	0.85	0.18	49,49,49,49	0
55	MG	1A	3053	1/1	0.85	0.12	51,51,51,51	0
55	MG	2A	3054	1/1	0.85	0.18	61,61,61,61	0
55	MG	2a	3043	1/1	0.85	0.14	79,79,79,79	0
55	MG	1F	301	1/1	0.85	0.73	38,38,38,38	0
55	MG	2A	3303	1/1	0.85	0.25	85,85,85,85	0
55	MG	2a	3201	1/1	0.85	0.19	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1616	1/1	0.85	0.10	57,57,57,57	0
55	MG	2A	3069	1/1	0.85	0.16	67,67,67,67	0
55	MG	1A	3455	1/1	0.85	0.27	49,49,49,49	0
55	MG	2A	3731	1/1	0.85	0.09	87,87,87,87	0
55	MG	2A	3454	1/1	0.85	0.24	76,76,76,76	0
55	MG	1A	3460	1/1	0.85	0.80	57,57,57,57	0
55	MG	1A	3339	1/1	0.85	0.10	56,56,56,56	0
55	MG	1A	3871	1/1	0.85	0.20	79,79,79,79	0
55	MG	2A	3764	1/1	0.85	0.12	67,67,67,67	0
55	MG	1A	3340	1/1	0.85	0.34	66,66,66,66	0
55	MG	1A	3026	1/1	0.85	0.24	81,81,81,81	0
55	MG	1a	1765	1/1	0.85	0.15	64,64,64,64	0
55	MG	2A	3225	1/1	0.85	0.18	72,72,72,72	0
55	MG	1A	3096	1/1	0.85	0.19	61,61,61,61	0
55	MG	2f	201	1/1	0.85	0.15	72,72,72,72	0
55	MG	2A	3229	1/1	0.85	0.11	70,70,70,70	0
55	MG	2A	3331	1/1	0.85	0.32	73,73,73,73	0
55	MG	1A	3501	1/1	0.85	0.11	88,88,88,88	0
55	MG	1a	1803	1/1	0.85	0.15	60,60,60,60	0
55	MG	2A	3234	1/1	0.85	0.25	72,72,72,72	0
55	MG	2t	201	1/1	0.85	0.24	54,54,54,54	0
55	MG	1A	3275	1/1	0.85	0.25	55,55,55,55	0
55	MG	1Z	304	1/1	0.85	0.13	57,57,57,57	0
55	MG	2B	218	1/1	0.85	0.17	82,82,82,82	0
55	MG	1a	1664	1/1	0.85	0.14	70,70,70,70	0
55	MG	1A	3521	1/1	0.85	0.17	82,82,82,82	0
55	MG	1a	1669	1/1	0.85	0.13	71,71,71,71	0
55	MG	2A	3466	1/1	0.86	0.22	60,60,60,60	0
55	MG	1A	3849	1/1	0.86	0.17	66,66,66,66	0
55	MG	2A	3324	1/1	0.86	0.30	70,70,70,70	0
55	MG	2A	3838	1/1	0.86	0.12	62,62,62,62	0
55	MG	1O	202	1/1	0.86	0.23	64,64,64,64	0
55	MG	2B	204	1/1	0.86	0.19	62,62,62,62	0
55	MG	1a	1797	1/1	0.86	0.08	87,87,87,87	0
55	MG	1A	3481	1/1	0.86	0.11	51,51,51,51	0
55	MG	1P	205	1/1	0.86	0.61	57,57,57,57	0
55	MG	1A	3482	1/1	0.86	0.10	77,77,77,77	0
55	MG	2A	3125	1/1	0.86	0.24	62,62,62,62	0
55	MG	1a	1656	1/1	0.86	0.21	64,64,64,64	0
55	MG	2A	3490	1/1	0.86	0.23	61,61,61,61	0
55	MG	1A	3034	1/1	0.86	0.37	43,43,43,43	0
55	MG	1T	201	1/1	0.86	0.11	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3143	1/1	0.86	0.11	60,60,60,60	0
55	MG	2A	3522	1/1	0.86	0.19	60,60,60,60	0
55	MG	1A	3167	1/1	0.86	0.10	40,40,40,40	0
55	MG	1A	4044	1/1	0.86	0.17	55,55,55,55	0
55	MG	1a	1667	1/1	0.86	0.22	68,68,68,68	0
55	MG	1X	101	1/1	0.86	0.16	60,60,60,60	0
55	MG	2A	3004	1/1	0.86	0.35	70,70,70,70	0
55	MG	1A	4055	1/1	0.86	0.13	68,68,68,68	0
55	MG	1A	3890	1/1	0.86	0.17	39,39,39,39	0
55	MG	1A	3232	1/1	0.86	0.12	53,53,53,53	0
55	MG	2A	3603	1/1	0.86	0.22	76,76,76,76	0
55	MG	1A	3648	1/1	0.86	0.22	57,57,57,57	0
55	MG	1A	3433	1/1	0.86	0.15	64,64,64,64	0
55	MG	1A	3123	1/1	0.86	0.31	42,42,42,42	0
55	MG	2A	3639	1/1	0.86	0.12	56,56,56,56	0
55	MG	2a	3181	1/1	0.86	0.24	58,58,58,58	0
55	MG	2A	3641	1/1	0.86	0.17	70,70,70,70	0
55	MG	1A	3921	1/1	0.86	0.18	51,51,51,51	0
55	MG	2a	3185	1/1	0.86	0.27	56,56,56,56	0
55	MG	2A	3274	1/1	0.86	0.19	60,60,60,60	0
55	MG	2A	3377	1/1	0.86	0.11	73,73,73,73	0
55	MG	2A	3279	1/1	0.86	0.21	64,64,64,64	0
55	MG	1A	3383	1/1	0.86	0.24	62,62,62,62	0
55	MG	2A	3660	1/1	0.86	0.12	75,75,75,75	0
55	MG	2A	3663	1/1	0.86	0.14	66,66,66,66	0
55	MG	1A	3311	1/1	0.86	0.17	65,65,65,65	0
55	MG	2A	3178	1/1	0.86	0.38	88,88,88,88	0
55	MG	1A	3544	1/1	0.86	0.27	61,61,61,61	0
55	MG	2A	3387	1/1	0.86	0.26	59,59,59,59	0
55	MG	2A	3392	1/1	0.86	0.23	46,46,46,46	0
55	MG	2A	3052	1/1	0.86	0.27	65,65,65,65	0
55	MG	1a	1710	1/1	0.86	0.12	71,71,71,71	0
55	MG	2A	3404	1/1	0.86	0.26	70,70,70,70	0
55	MG	2A	3406	1/1	0.86	0.40	69,69,69,69	0
55	MG	1A	3317	1/1	0.86	0.17	49,49,49,49	0
55	MG	1A	3971	1/1	0.86	0.22	82,82,82,82	0
55	MG	1A	3172	1/1	0.86	0.09	50,50,50,50	0
55	MG	1A	3151	1/1	0.86	0.55	40,40,40,40	0
55	MG	2A	3430	1/1	0.86	0.26	47,47,47,47	0
55	MG	2A	3307	1/1	0.86	0.11	72,72,72,72	0
55	MG	2a	3220	1/1	0.86	0.12	72,72,72,72	0
55	MG	2A	3438	1/1	0.86	0.57	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3441	1/1	0.86	0.41	64,64,64,64	0
55	MG	2A	3072	1/1	0.86	0.55	55,55,55,55	0
55	MG	1A	3104	1/1	0.86	0.31	61,61,61,61	0
55	MG	2A	3313	1/1	0.86	0.29	68,68,68,68	0
55	MG	1A	3356	1/1	0.86	0.10	54,54,54,54	0
55	MG	1A	3829	1/1	0.86	0.77	48,48,48,48	0
55	MG	2a	3088	1/1	0.86	0.17	71,71,71,71	0
55	MG	2A	3761	1/1	0.86	0.19	78,78,78,78	0
55	MG	1A	3480	1/1	0.86	0.19	45,45,45,45	0
55	MG	1a	1762	1/1	0.86	0.11	74,74,74,74	0
55	MG	1a	1635	1/1	0.86	0.20	78,78,78,78	0
55	MG	2A	3785	1/1	0.86	0.07	97,97,97,97	0
55	MG	2A	3810	1/1	0.86	0.15	81,81,81,81	0
55	MG	2a	3102	1/1	0.86	0.19	77,77,77,77	0
55	MG	2A	3037	1/1	0.87	0.22	57,57,57,57	0
55	MG	2A	3770	1/1	0.87	0.15	71,71,71,71	0
55	MG	1A	3335	1/1	0.87	0.21	49,49,49,49	0
55	MG	2A	3049	1/1	0.87	0.15	74,74,74,74	0
55	MG	2A	3506	1/1	0.87	0.12	63,63,63,63	0
55	MG	2A	3361	1/1	0.87	0.16	65,65,65,65	0
55	MG	1a	1719	1/1	0.87	0.25	70,70,70,70	0
55	MG	2A	3053	1/1	0.87	0.12	59,59,59,59	0
55	MG	1A	3538	1/1	0.87	0.36	68,68,68,68	0
55	MG	2A	3370	1/1	0.87	0.10	81,81,81,81	0
55	MG	2B	202	1/1	0.87	0.16	84,84,84,84	0
55	MG	2A	3371	1/1	0.87	0.14	63,63,63,63	0
55	MG	2A	3560	1/1	0.87	0.15	69,69,69,69	0
55	MG	2A	3280	1/1	0.87	0.08	53,53,53,53	0
55	MG	1a	1622	1/1	0.87	0.19	59,59,59,59	0
55	MG	2A	3375	1/1	0.87	0.12	72,72,72,72	0
55	MG	2B	213	1/1	0.87	0.25	69,69,69,69	0
55	MG	1A	3132	1/1	0.87	0.14	73,73,73,73	0
55	MG	1A	3188	1/1	0.87	0.12	61,61,61,61	0
55	MG	2A	3599	1/1	0.87	0.13	61,61,61,61	0
55	MG	2a	3124	1/1	0.87	0.34	63,63,63,63	0
55	MG	2A	3601	1/1	0.87	0.14	69,69,69,69	0
55	MG	1A	3721	1/1	0.87	0.17	58,58,58,58	0
55	MG	2A	3606	1/1	0.87	0.13	67,67,67,67	0
55	MG	2A	3287	1/1	0.87	0.09	73,73,73,73	0
55	MG	1A	3341	1/1	0.87	0.19	56,56,56,56	0
55	MG	2A	3292	1/1	0.87	0.20	67,67,67,67	0
55	MG	2P	201	1/1	0.87	0.17	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3623	1/1	0.87	0.21	59,59,59,59	0
55	MG	2a	3140	1/1	0.87	0.27	61,61,61,61	0
55	MG	1P	208	1/1	0.87	0.71	73,73,73,73	0
55	MG	2W	202	1/1	0.87	0.12	64,64,64,64	0
55	MG	1R	201	1/1	0.87	0.39	60,60,60,60	0
55	MG	2a	3147	1/1	0.87	0.31	69,69,69,69	0
55	MG	1a	1647	1/1	0.87	0.13	64,64,64,64	0
55	MG	2A	3648	1/1	0.87	0.19	69,69,69,69	0
55	MG	2A	3394	1/1	0.87	0.18	52,52,52,52	0
55	MG	1a	1779	1/1	0.87	0.11	48,48,48,48	0
55	MG	2a	3005	1/1	0.87	0.27	70,70,70,70	0
55	MG	2a	3173	1/1	0.87	0.10	66,66,66,66	0
55	MG	2A	3653	1/1	0.87	0.23	67,67,67,67	0
55	MG	1A	3386	1/1	0.87	0.45	55,55,55,55	0
55	MG	2A	3217	1/1	0.87	0.43	54,54,54,54	0
55	MG	1A	4076	1/1	0.87	0.13	68,68,68,68	0
55	MG	2a	3012	1/1	0.87	0.28	71,71,71,71	0
55	MG	2a	3016	1/1	0.87	0.08	68,68,68,68	0
55	MG	1A	3757	1/1	0.87	0.25	71,71,71,71	0
55	MG	1U	204	1/1	0.87	0.48	52,52,52,52	0
55	MG	2a	3020	1/1	0.87	0.12	89,89,89,89	0
55	MG	1A	3583	1/1	0.87	0.25	62,62,62,62	0
55	MG	1W	207	1/1	0.87	0.33	49,49,49,49	0
55	MG	1A	3288	1/1	0.87	0.14	56,56,56,56	0
55	MG	1A	4091	1/1	0.87	0.10	93,93,93,93	0
55	MG	1A	3177	1/1	0.87	0.25	44,44,44,44	0
55	MG	2A	3233	1/1	0.87	0.36	64,64,64,64	0
55	MG	2A	3127	1/1	0.87	0.26	61,61,61,61	0
55	MG	1A	3321	1/1	0.87	0.46	48,48,48,48	0
55	MG	2A	3688	1/1	0.87	0.21	65,65,65,65	0
55	MG	2A	3451	1/1	0.87	0.33	76,76,76,76	0
55	MG	1A	3412	1/1	0.87	0.11	38,38,38,38	0
55	MG	1A	3511	1/1	0.87	0.19	73,73,73,73	0
55	MG	2A	3704	1/1	0.87	0.11	50,50,50,50	0
55	MG	1B	214	1/1	0.87	0.19	73,73,73,73	0
55	MG	2A	3145	1/1	0.87	0.27	49,49,49,49	0
55	MG	2a	3046	1/1	0.87	0.11	84,84,84,84	0
55	MG	2a	3048	1/1	0.87	0.21	72,72,72,72	0
55	MG	2a	3217	1/1	0.87	0.17	77,77,77,77	0
55	MG	2A	3714	1/1	0.87	0.11	47,47,47,47	0
55	MG	1A	3415	1/1	0.87	0.28	61,61,61,61	0
55	MG	1a	1693	1/1	0.87	0.14	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3523	1/1	0.87	0.08	76,76,76,76	0
55	MG	1A	3331	1/1	0.87	0.16	68,68,68,68	0
55	MG	2A	3733	1/1	0.87	0.35	59,59,59,59	0
55	MG	1B	233	1/1	0.87	0.14	66,66,66,66	0
55	MG	2A	3739	1/1	0.87	0.19	73,73,73,73	0
55	MG	2q	202	1/1	0.87	0.18	74,74,74,74	0
55	MG	2A	3745	1/1	0.87	0.20	65,65,65,65	0
55	MG	1A	3999	1/1	0.87	0.14	57,57,57,57	0
55	MG	2a	3078	1/1	0.87	0.22	61,61,61,61	0
55	MG	1A	3851	1/1	0.87	0.15	58,58,58,58	0
55	MG	1A	3613	1/1	0.87	0.17	47,47,47,47	0
55	MG	2A	3263	1/1	0.87	0.28	55,55,55,55	0
55	MG	1A	3645	1/1	0.87	0.18	56,56,56,56	0
55	MG	2a	3092	1/1	0.87	0.14	72,72,72,72	0
55	MG	1A	3312	1/1	0.88	0.71	82,82,82,82	0
55	MG	1A	3888	1/1	0.88	0.30	62,62,62,62	0
55	MG	1a	1624	1/1	0.88	0.33	67,67,67,67	0
55	MG	2A	3273	1/1	0.88	0.07	64,64,64,64	0
55	MG	2B	210	1/1	0.88	0.07	70,70,70,70	0
55	MG	1A	3385	1/1	0.88	0.07	47,47,47,47	0
55	MG	2A	3048	1/1	0.88	0.08	51,51,51,51	0
55	MG	1A	3579	1/1	0.88	0.09	60,60,60,60	0
55	MG	1A	3094	1/1	0.88	0.21	45,45,45,45	0
55	MG	1A	3393	1/1	0.88	0.30	68,68,68,68	0
55	MG	2A	3283	1/1	0.88	0.10	64,64,64,64	0
55	MG	2A	3381	1/1	0.88	0.18	69,69,69,69	0
55	MG	1A	3499	1/1	0.88	0.10	68,68,68,68	0
55	MG	2A	3058	1/1	0.88	0.11	54,54,54,54	0
55	MG	1A	3247	1/1	0.88	0.14	64,64,64,64	0
55	MG	2A	3289	1/1	0.88	0.18	61,61,61,61	0
55	MG	2a	3122	1/1	0.88	0.18	68,68,68,68	0
55	MG	1a	1747	1/1	0.88	0.09	65,65,65,65	0
55	MG	2Q	201	1/1	0.88	0.17	69,69,69,69	0
55	MG	2a	3128	1/1	0.88	0.19	83,83,83,83	0
55	MG	1A	3505	1/1	0.88	0.11	64,64,64,64	0
55	MG	2T	203	1/1	0.88	0.12	54,54,54,54	0
55	MG	2A	3396	1/1	0.88	0.23	48,48,48,48	0
55	MG	2A	3188	1/1	0.88	0.15	65,65,65,65	0
55	MG	2A	3299	1/1	0.88	0.10	63,63,63,63	0
55	MG	1a	1755	1/1	0.88	0.13	79,79,79,79	0
55	MG	2A	3662	1/1	0.88	0.14	60,60,60,60	0
55	MG	1A	3367	1/1	0.88	0.24	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3412	1/1	0.88	0.18	56,56,56,56	0
55	MG	2A	3670	1/1	0.88	0.13	70,70,70,70	0
55	MG	2A	3195	1/1	0.88	0.11	71,71,71,71	0
55	MG	1A	3787	1/1	0.88	0.14	80,80,80,80	0
55	MG	2A	3306	1/1	0.88	1.01	65,65,65,65	0
55	MG	2A	3204	1/1	0.88	0.10	68,68,68,68	0
55	MG	2a	3156	1/1	0.88	0.06	99,99,99,99	0
55	MG	1a	1767	1/1	0.88	0.08	64,64,64,64	0
55	MG	2A	3678	1/1	0.88	0.17	73,73,73,73	0
55	MG	1a	1768	1/1	0.88	0.14	74,74,74,74	0
55	MG	1a	1652	1/1	0.88	0.12	69,69,69,69	0
55	MG	2A	3084	1/1	0.88	0.15	71,71,71,71	0
55	MG	1B	202	1/1	0.88	0.34	75,75,75,75	0
55	MG	1A	3047	1/1	0.88	0.09	35,35,35,35	0
55	MG	1A	3149	1/1	0.88	0.28	48,48,48,48	0
55	MG	1a	1662	1/1	0.88	0.17	76,76,76,76	0
55	MG	1A	3603	1/1	0.88	0.23	58,58,58,58	0
55	MG	1A	3825	1/1	0.88	0.15	56,56,56,56	0
55	MG	2a	3032	1/1	0.88	0.21	64,64,64,64	0
55	MG	2a	3033	1/1	0.88	0.30	65,65,65,65	0
55	MG	1A	3981	1/1	0.88	0.12	58,58,58,58	0
55	MG	1A	3374	1/1	0.88	0.54	73,73,73,73	0
55	MG	2a	3197	1/1	0.88	0.14	80,80,80,80	0
55	MG	2A	3120	1/1	0.88	0.10	62,62,62,62	0
55	MG	1B	228	1/1	0.88	0.09	58,58,58,58	0
55	MG	11	104	1/1	0.88	0.16	66,66,66,66	0
55	MG	2a	3203	1/1	0.88	0.24	67,67,67,67	0
55	MG	2A	3334	1/1	0.88	0.22	69,69,69,69	0
55	MG	1A	3834	1/1	0.88	0.15	48,48,48,48	0
55	MG	1A	3836	1/1	0.88	0.14	47,47,47,47	0
55	MG	2a	3044	1/1	0.88	0.12	58,58,58,58	0
55	MG	2A	3138	1/1	0.88	0.15	66,66,66,66	0
55	MG	2A	3484	1/1	0.88	0.19	59,59,59,59	0
55	MG	2A	3342	1/1	0.88	0.18	69,69,69,69	0
55	MG	2A	3343	1/1	0.88	0.13	64,64,64,64	0
55	MG	2A	3247	1/1	0.88	0.45	73,73,73,73	0
55	MG	2A	3760	1/1	0.88	0.12	56,56,56,56	0
55	MG	1B	234	1/1	0.88	0.15	82,82,82,82	0
55	MG	1a	1687	1/1	0.88	0.31	48,48,48,48	0
55	MG	2A	3498	1/1	0.88	0.27	64,64,64,64	0
55	MG	2A	3252	1/1	0.88	0.14	61,61,61,61	0
55	MG	2A	3774	1/1	0.88	0.17	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	3074	1/1	0.88	0.16	72,72,72,72	0
55	MG	2A	3775	1/1	0.88	0.11	83,83,83,83	0
55	MG	1A	3336	1/1	0.88	0.12	50,50,50,50	0
55	MG	1A	3270	1/1	0.88	0.12	65,65,65,65	0
55	MG	2A	3009	1/1	0.88	0.14	61,61,61,61	0
55	MG	2a	3082	1/1	0.88	0.16	71,71,71,71	0
55	MG	2A	3149	1/1	0.88	0.12	61,61,61,61	0
55	MG	1A	3635	1/1	0.88	0.21	53,53,53,53	0
55	MG	2A	3835	1/1	0.88	0.10	61,61,61,61	0
55	MG	2u	101	1/1	0.88	0.32	67,67,67,67	0
55	MG	1A	3637	1/1	0.88	0.16	51,51,51,51	0
55	MG	1A	3476	1/1	0.88	0.30	51,51,51,51	0
55	MG	2a	3094	1/1	0.88	0.38	80,80,80,80	0
55	MG	1a	1707	1/1	0.88	0.18	53,53,53,53	0
55	MG	1A	3196	1/1	0.88	0.40	61,61,61,61	0
55	MG	2B	203	1/1	0.88	0.19	71,71,71,71	0
55	MG	1A	3857	1/1	0.89	0.17	50,50,50,50	0
55	MG	1A	3860	1/1	0.89	0.14	56,56,56,56	0
55	MG	2A	3337	1/1	0.89	0.11	56,56,56,56	0
55	MG	2A	3112	1/1	0.89	0.28	61,61,61,61	0
55	MG	1A	3862	1/1	0.89	0.32	67,67,67,67	0
55	MG	1A	3355	1/1	0.89	0.11	59,59,59,59	0
55	MG	2A	3844	1/1	0.89	0.11	62,62,62,62	0
55	MG	1A	3001	1/1	0.89	0.14	42,42,42,42	0
55	MG	2A	3848	1/1	0.89	0.29	61,61,61,61	0
55	MG	1A	4061	1/1	0.89	0.14	63,63,63,63	0
55	MG	1A	3875	1/1	0.89	0.10	47,47,47,47	0
55	MG	1A	3363	1/1	0.89	0.18	65,65,65,65	0
55	MG	1V	202	1/1	0.89	0.08	45,45,45,45	0
55	MG	2A	3254	1/1	0.89	0.27	74,74,74,74	0
55	MG	2A	3565	1/1	0.89	0.12	55,55,55,55	0
55	MG	1A	4082	1/1	0.89	0.23	55,55,55,55	0
55	MG	2B	211	1/1	0.89	0.19	71,71,71,71	0
55	MG	2A	3573	1/1	0.89	0.11	40,40,40,40	0
55	MG	1A	4084	1/1	0.89	0.26	58,58,58,58	0
55	MG	1A	3670	1/1	0.89	0.16	49,49,49,49	0
55	MG	1Y	202	1/1	0.89	0.58	63,63,63,63	0
55	MG	1A	3431	1/1	0.89	0.14	54,54,54,54	0
55	MG	2B	219	1/1	0.89	0.24	66,66,66,66	0
55	MG	1A	3566	1/1	0.89	0.56	50,50,50,50	0
55	MG	2A	3150	1/1	0.89	0.21	61,61,61,61	0
55	MG	1a	1674	1/1	0.89	0.34	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3153	1/1	0.89	0.30	65,65,65,65	0
55	MG	1A	3723	1/1	0.89	0.22	65,65,65,65	0
55	MG	10	103	1/1	0.89	0.08	51,51,51,51	0
55	MG	2O	202	1/1	0.89	0.13	53,53,53,53	0
55	MG	1A	3432	1/1	0.89	0.09	47,47,47,47	0
55	MG	10	107	1/1	0.89	0.20	60,60,60,60	0
55	MG	2a	3136	1/1	0.89	0.38	64,64,64,64	0
55	MG	2a	3137	1/1	0.89	0.15	52,52,52,52	0
55	MG	2R	201	1/1	0.89	0.12	70,70,70,70	0
55	MG	1A	4098	1/1	0.89	0.31	80,80,80,80	0
55	MG	1a	1695	1/1	0.89	0.23	54,54,54,54	0
55	MG	2A	3165	1/1	0.89	0.11	54,54,54,54	0
55	MG	2A	3647	1/1	0.89	0.18	53,53,53,53	0
55	MG	2A	3032	1/1	0.89	0.24	48,48,48,48	0
55	MG	1A	3730	1/1	0.89	0.21	51,51,51,51	0
55	MG	25	101	1/1	0.89	0.22	51,51,51,51	0
55	MG	1A	3128	1/1	0.89	0.39	52,52,52,52	0
55	MG	1A	3745	1/1	0.89	0.11	64,64,64,64	0
55	MG	2A	3038	1/1	0.89	0.20	51,51,51,51	0
55	MG	2A	3045	1/1	0.89	0.43	53,53,53,53	0
55	MG	2A	3288	1/1	0.89	0.16	59,59,59,59	0
55	MG	1A	3487	1/1	0.89	0.16	65,65,65,65	0
55	MG	1B	213	1/1	0.89	0.33	72,72,72,72	0
55	MG	2A	3397	1/1	0.89	0.25	51,51,51,51	0
55	MG	2A	3399	1/1	0.89	0.12	61,61,61,61	0
55	MG	2A	3401	1/1	0.89	0.23	54,54,54,54	0
55	MG	2a	3186	1/1	0.89	0.16	77,77,77,77	0
55	MG	1A	3489	1/1	0.89	0.39	67,67,67,67	0
55	MG	2A	3050	1/1	0.89	0.07	58,58,58,58	0
55	MG	2A	3297	1/1	0.89	0.14	57,57,57,57	0
55	MG	2A	3408	1/1	0.89	0.30	53,53,53,53	0
55	MG	2A	3298	1/1	0.89	0.12	51,51,51,51	0
55	MG	1A	3493	1/1	0.89	0.17	58,58,58,58	0
55	MG	1a	1717	1/1	0.89	0.23	60,60,60,60	0
55	MG	1A	3963	1/1	0.89	0.14	61,61,61,61	0
55	MG	2a	3028	1/1	0.89	0.18	81,81,81,81	0
55	MG	2a	3200	1/1	0.89	0.10	64,64,64,64	0
55	MG	1A	3209	1/1	0.89	0.09	71,71,71,71	0
55	MG	1A	3597	1/1	0.89	0.10	62,62,62,62	0
55	MG	2A	3196	1/1	0.89	0.15	71,71,71,71	0
55	MG	2A	3433	1/1	0.89	0.20	44,44,44,44	0
55	MG	2A	3437	1/1	0.89	0.26	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3447	1/1	0.89	0.25	42,42,42,42	0
55	MG	2A	3201	1/1	0.89	0.12	50,50,50,50	0
55	MG	2A	3309	1/1	0.89	0.31	76,76,76,76	0
55	MG	1a	1736	1/1	0.89	0.21	69,69,69,69	0
55	MG	2A	3722	1/1	0.89	0.12	57,57,57,57	0
55	MG	2A	3447	1/1	0.89	0.64	65,65,65,65	0
55	MG	2a	3213	1/1	0.89	0.12	81,81,81,81	0
55	MG	2A	3312	1/1	0.89	0.33	70,70,70,70	0
55	MG	2A	3450	1/1	0.89	0.33	63,63,63,63	0
55	MG	1a	1737	1/1	0.89	0.23	80,80,80,80	0
55	MG	2A	3314	1/1	0.89	0.18	63,63,63,63	0
55	MG	2a	3219	1/1	0.89	0.22	71,71,71,71	0
55	MG	1A	3255	1/1	0.89	0.11	58,58,58,58	0
55	MG	2A	3741	1/1	0.89	0.13	54,54,54,54	0
55	MG	1A	3035	1/1	0.89	0.07	48,48,48,48	0
55	MG	1A	3224	1/1	0.89	0.07	38,38,38,38	0
55	MG	1A	3454	1/1	0.89	0.35	51,51,51,51	0
55	MG	2a	3063	1/1	0.89	0.14	59,59,59,59	0
55	MG	2l	202	1/1	0.89	0.13	69,69,69,69	0
55	MG	2A	3756	1/1	0.89	0.17	70,70,70,70	0
55	MG	1A	3051	1/1	0.89	0.15	41,41,41,41	0
55	MG	2A	3223	1/1	0.89	0.23	70,70,70,70	0
55	MG	2A	3323	1/1	0.89	0.10	75,75,75,75	0
55	MG	2r	101	1/1	0.89	0.13	75,75,75,75	0
55	MG	1A	3457	1/1	0.89	0.18	68,68,68,68	0
55	MG	1A	3382	1/1	0.89	0.07	69,69,69,69	0
55	MG	1a	1639	1/1	0.89	0.13	71,71,71,71	0
55	MG	2A	3230	1/1	0.89	0.36	66,66,66,66	0
55	MG	1A	3525	1/1	0.89	0.11	67,67,67,67	0
55	MG	1A	3113	1/1	0.89	0.07	42,42,42,42	0
55	MG	1a	1645	1/1	0.89	0.08	62,62,62,62	0
55	MG	2A	3786	1/1	0.89	0.09	59,59,59,59	0
55	MG	2a	3066	1/1	0.90	0.22	69,69,69,69	0
55	MG	1A	3025	1/1	0.90	0.17	54,54,54,54	0
55	MG	2A	3166	1/1	0.90	0.09	69,69,69,69	0
55	MG	2A	3295	1/1	0.90	0.09	57,57,57,57	0
55	MG	1A	3119	1/1	0.90	0.19	52,52,52,52	0
55	MG	2A	3171	1/1	0.90	0.09	58,58,58,58	0
55	MG	1A	3478	1/1	0.90	0.31	41,41,41,41	0
55	MG	2a	3079	1/1	0.90	0.18	69,69,69,69	0
55	MG	2a	3080	1/1	0.90	0.17	72,72,72,72	0
55	MG	2A	3300	1/1	0.90	0.13	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3015	1/1	0.90	0.23	50,50,50,50	0
55	MG	1a	1668	1/1	0.90	0.07	55,55,55,55	0
55	MG	1A	3337	1/1	0.90	0.08	56,56,56,56	0
55	MG	1A	4033	1/1	0.90	0.26	72,72,72,72	0
55	MG	1A	3375	1/1	0.90	0.23	55,55,55,55	0
55	MG	1A	4041	1/1	0.90	0.17	63,63,63,63	0
55	MG	1A	4042	1/1	0.90	0.13	61,61,61,61	0
55	MG	2A	3184	1/1	0.90	0.18	59,59,59,59	0
55	MG	2A	3463	1/1	0.90	0.22	59,59,59,59	0
55	MG	1A	3377	1/1	0.90	0.29	49,49,49,49	0
55	MG	1A	3846	1/1	0.90	0.38	58,58,58,58	0
55	MG	1a	1686	1/1	0.90	0.15	46,46,46,46	0
55	MG	2A	3467	1/1	0.90	0.14	62,62,62,62	0
55	MG	1Y	201	1/1	0.90	0.09	57,57,57,57	0
55	MG	2A	3315	1/1	0.90	0.14	52,52,52,52	0
55	MG	2A	3192	1/1	0.90	0.08	64,64,64,64	0
55	MG	2A	3820	1/1	0.90	0.08	78,78,78,78	0
55	MG	2A	3043	1/1	0.90	0.11	55,55,55,55	0
55	MG	2A	3318	1/1	0.90	0.30	67,67,67,67	0
55	MG	1A	3260	1/1	0.90	0.10	41,41,41,41	0
55	MG	1A	3428	1/1	0.90	0.11	62,62,62,62	0
55	MG	1A	3308	1/1	0.90	0.10	52,52,52,52	0
55	MG	1A	3430	1/1	0.90	0.20	67,67,67,67	0
55	MG	2A	3203	1/1	0.90	0.19	61,61,61,61	0
55	MG	2A	3850	1/1	0.90	0.13	55,55,55,55	0
55	MG	1A	3381	1/1	0.90	0.25	50,50,50,50	0
55	MG	2A	3491	1/1	0.90	0.21	65,65,65,65	0
55	MG	2A	3205	1/1	0.90	0.16	52,52,52,52	0
55	MG	2A	3496	1/1	0.90	0.10	66,66,66,66	0
55	MG	2A	3206	1/1	0.90	0.23	67,67,67,67	0
55	MG	2A	3500	1/1	0.90	0.14	67,67,67,67	0
55	MG	1A	3310	1/1	0.90	0.20	48,48,48,48	0
55	MG	2a	3131	1/1	0.90	0.30	53,53,53,53	0
55	MG	1A	3343	1/1	0.90	0.21	48,48,48,48	0
55	MG	1A	3502	1/1	0.90	0.20	59,59,59,59	0
55	MG	2A	3056	1/1	0.90	0.17	63,63,63,63	0
55	MG	1A	3436	1/1	0.90	0.49	73,73,73,73	0
55	MG	1A	3880	1/1	0.90	0.27	40,40,40,40	0
55	MG	2B	217	1/1	0.90	0.12	51,51,51,51	0
55	MG	1a	1716	1/1	0.90	0.22	63,63,63,63	0
55	MG	2A	3553	1/1	0.90	0.09	59,59,59,59	0
55	MG	2A	3338	1/1	0.90	0.35	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3061	1/1	0.90	0.10	49,49,49,49	0
55	MG	2A	3067	1/1	0.90	0.13	49,49,49,49	0
55	MG	2a	3144	1/1	0.90	0.43	68,68,68,68	0
55	MG	2A	3571	1/1	0.90	0.13	88,88,88,88	0
55	MG	1A	4092	1/1	0.90	0.11	65,65,65,65	0
55	MG	1A	3506	1/1	0.90	0.15	50,50,50,50	0
55	MG	1A	3353	1/1	0.90	0.25	56,56,56,56	0
55	MG	1a	1722	1/1	0.90	0.21	56,56,56,56	0
55	MG	15	106	1/1	0.90	0.23	61,61,61,61	0
55	MG	2a	3166	1/1	0.90	0.09	63,63,63,63	0
55	MG	18	102	1/1	0.90	0.26	41,41,41,41	0
55	MG	1A	3445	1/1	0.90	0.34	51,51,51,51	0
55	MG	1B	204	1/1	0.90	0.27	63,63,63,63	0
55	MG	2a	3177	1/1	0.90	0.26	77,77,77,77	0
55	MG	2A	3354	1/1	0.90	0.15	66,66,66,66	0
55	MG	2A	3087	1/1	0.90	0.08	52,52,52,52	0
55	MG	1a	1738	1/1	0.90	0.15	75,75,75,75	0
55	MG	1A	3069	1/1	0.90	0.08	49,49,49,49	0
55	MG	1A	3039	1/1	0.90	0.40	46,46,46,46	0
55	MG	1A	3711	1/1	0.90	0.14	33,33,33,33	0
55	MG	1A	3914	1/1	0.90	0.09	43,43,43,43	0
55	MG	1A	3388	1/1	0.90	0.25	37,37,37,37	0
55	MG	2A	3253	1/1	0.90	0.11	77,77,77,77	0
55	MG	1A	3722	1/1	0.90	0.12	66,66,66,66	0
55	MG	2a	3192	1/1	0.90	0.09	71,71,71,71	0
55	MG	1A	3922	1/1	0.90	0.24	50,50,50,50	0
55	MG	2A	3651	1/1	0.90	0.17	75,75,75,75	0
55	MG	1a	1627	1/1	0.90	0.20	53,53,53,53	0
55	MG	1A	3098	1/1	0.90	0.12	47,47,47,47	0
55	MG	1A	3530	1/1	0.90	0.60	49,49,49,49	0
55	MG	1A	3174	1/1	0.90	0.64	43,43,43,43	0
55	MG	2a	3018	1/1	0.90	0.08	56,56,56,56	0
55	MG	1A	3364	1/1	0.90	0.35	58,58,58,58	0
55	MG	2A	3661	1/1	0.90	0.08	62,62,62,62	0
55	MG	1a	1786	1/1	0.90	0.17	64,64,64,64	0
55	MG	2A	3264	1/1	0.90	0.15	61,61,61,61	0
55	MG	2A	3382	1/1	0.90	0.13	50,50,50,50	0
55	MG	2A	3667	1/1	0.90	0.22	51,51,51,51	0
55	MG	1a	1638	1/1	0.90	0.19	55,55,55,55	0
55	MG	1A	3406	1/1	0.90	0.20	65,65,65,65	0
55	MG	2a	3029	1/1	0.90	0.19	80,80,80,80	0
55	MG	1a	1798	1/1	0.90	0.14	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3389	1/1	0.90	0.24	46,46,46,46	0
55	MG	1A	3754	1/1	0.90	0.32	42,42,42,42	0
55	MG	2a	3035	1/1	0.90	0.09	85,85,85,85	0
55	MG	1A	3756	1/1	0.90	0.10	30,30,30,30	0
55	MG	1F	303	1/1	0.90	0.07	41,41,41,41	0
55	MG	2A	3395	1/1	0.90	0.29	48,48,48,48	0
55	MG	2a	3221	1/1	0.90	0.17	85,85,85,85	0
55	MG	2a	3224	1/1	0.90	0.22	68,68,68,68	0
55	MG	1F	308	1/1	0.90	0.15	59,59,59,59	0
55	MG	2A	3278	1/1	0.90	0.17	58,58,58,58	0
55	MG	2d	303	1/1	0.90	0.22	56,56,56,56	0
55	MG	1A	3407	1/1	0.90	0.23	51,51,51,51	0
55	MG	2A	3689	1/1	0.90	0.09	65,65,65,65	0
55	MG	1b	301	1/1	0.90	0.15	63,63,63,63	0
55	MG	2A	3152	1/1	0.90	0.24	50,50,50,50	0
55	MG	1A	3463	1/1	0.90	0.06	37,37,37,37	0
55	MG	2A	3699	1/1	0.90	0.19	50,50,50,50	0
55	MG	2A	3155	1/1	0.90	0.13	44,44,44,44	0
55	MG	1A	3251	1/1	0.90	0.52	51,51,51,51	0
55	MG	1A	3568	1/1	0.90	0.58	47,47,47,47	0
55	MG	2a	3051	1/1	0.90	0.15	53,53,53,53	0
55	MG	1A	3472	1/1	0.90	0.31	68,68,68,68	0
55	MG	2A	3715	1/1	0.90	0.10	66,66,66,66	0
55	MG	2a	3055	1/1	0.90	0.09	73,73,73,73	0
55	MG	1x	105	1/1	0.90	0.13	59,59,59,59	0
55	MG	1A	3473	1/1	0.90	0.27	56,56,56,56	0
55	MG	1A	3819	1/1	0.90	0.65	47,47,47,47	0
55	MG	2a	3065	1/1	0.90	0.06	64,64,64,64	0
56	K	2A	3440	1/1	0.90	0.24	87,87,87,87	0
55	MG	2A	3345	1/1	0.91	0.11	72,72,72,72	0
55	MG	1A	3720	1/1	0.91	0.20	44,44,44,44	0
55	MG	2A	3193	1/1	0.91	0.08	49,49,49,49	0
55	MG	1A	3443	1/1	0.91	0.34	49,49,49,49	0
55	MG	1A	3512	1/1	0.91	0.59	36,36,36,36	0
55	MG	1A	3927	1/1	0.91	0.09	42,42,42,42	0
55	MG	1A	3515	1/1	0.91	0.38	60,60,60,60	0
55	MG	1E	303	1/1	0.91	0.26	42,42,42,42	0
55	MG	1E	310	1/1	0.91	0.12	48,48,48,48	0
55	MG	1A	3949	1/1	0.91	0.18	67,67,67,67	0
55	MG	2A	3021	1/1	0.91	0.36	55,55,55,55	0
55	MG	1A	3444	1/1	0.91	0.20	52,52,52,52	0
55	MG	1A	3263	1/1	0.91	0.22	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3205	1/1	0.91	0.08	30,30,30,30	0
55	MG	2A	3364	1/1	0.91	0.26	66,66,66,66	0
55	MG	1A	3265	1/1	0.91	0.09	75,75,75,75	0
55	MG	2A	3031	1/1	0.91	0.15	58,58,58,58	0
55	MG	1A	3067	1/1	0.91	0.10	53,53,53,53	0
55	MG	1A	3338	1/1	0.91	0.09	43,43,43,43	0
55	MG	1a	1663	1/1	0.91	0.18	71,71,71,71	0
55	MG	1A	3165	1/1	0.91	0.22	60,60,60,60	0
55	MG	2A	3680	1/1	0.91	0.20	73,73,73,73	0
55	MG	1O	203	1/1	0.91	0.27	66,66,66,66	0
55	MG	2A	3042	1/1	0.91	0.19	58,58,58,58	0
55	MG	1A	3542	1/1	0.91	0.15	60,60,60,60	0
55	MG	1P	204	1/1	0.91	0.88	44,44,44,44	0
55	MG	1A	3389	1/1	0.91	0.38	50,50,50,50	0
55	MG	2A	3047	1/1	0.91	0.17	55,55,55,55	0
55	MG	1A	3550	1/1	0.91	0.14	60,60,60,60	0
55	MG	2A	3693	1/1	0.91	0.20	75,75,75,75	0
55	MG	2A	3696	1/1	0.91	0.12	62,62,62,62	0
55	MG	1A	3391	1/1	0.91	0.28	54,54,54,54	0
55	MG	1Q	201	1/1	0.91	0.34	48,48,48,48	0
55	MG	1a	1673	1/1	0.91	0.21	63,63,63,63	0
55	MG	1Q	204	1/1	0.91	0.09	57,57,57,57	0
55	MG	1a	1678	1/1	0.91	0.26	65,65,65,65	0
55	MG	1A	4000	1/1	0.91	0.15	42,42,42,42	0
55	MG	1A	3273	1/1	0.91	0.11	51,51,51,51	0
55	MG	2A	3719	1/1	0.91	0.16	61,61,61,61	0
55	MG	1a	1682	1/1	0.91	0.21	72,72,72,72	0
55	MG	2A	3251	1/1	0.91	0.11	60,60,60,60	0
55	MG	2A	3728	1/1	0.91	0.12	61,61,61,61	0
55	MG	1a	1683	1/1	0.91	0.14	60,60,60,60	0
55	MG	1A	3134	1/1	0.91	0.12	38,38,38,38	0
55	MG	2A	3063	1/1	0.91	0.22	67,67,67,67	0
55	MG	2A	3066	1/1	0.91	0.21	62,62,62,62	0
55	MG	2a	3106	1/1	0.91	0.19	73,73,73,73	0
55	MG	1T	203	1/1	0.91	0.11	56,56,56,56	0
55	MG	1a	1688	1/1	0.91	0.18	59,59,59,59	0
55	MG	1a	1689	1/1	0.91	0.36	46,46,46,46	0
55	MG	1A	3467	1/1	0.91	0.10	54,54,54,54	0
55	MG	1A	3469	1/1	0.91	0.15	61,61,61,61	0
55	MG	2A	3755	1/1	0.91	0.12	71,71,71,71	0
55	MG	1A	3470	1/1	0.91	0.23	59,59,59,59	0
55	MG	1V	204	1/1	0.91	0.15	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	3116	1/1	0.91	0.12	80,80,80,80	0
55	MG	2A	3420	1/1	0.91	0.17	56,56,56,56	0
55	MG	2A	3423	1/1	0.91	0.28	59,59,59,59	0
55	MG	2A	3424	1/1	0.91	0.25	58,58,58,58	0
55	MG	2A	3079	1/1	0.91	0.33	63,63,63,63	0
55	MG	2a	3123	1/1	0.91	0.14	70,70,70,70	0
55	MG	2A	3268	1/1	0.91	0.26	65,65,65,65	0
55	MG	2A	3773	1/1	0.91	0.17	69,69,69,69	0
55	MG	1A	3138	1/1	0.91	0.32	49,49,49,49	0
55	MG	1A	4034	1/1	0.91	0.07	49,49,49,49	0
55	MG	1A	3349	1/1	0.91	0.44	45,45,45,45	0
55	MG	1A	3837	1/1	0.91	0.08	43,43,43,43	0
55	MG	1A	3588	1/1	0.91	0.09	34,34,34,34	0
55	MG	2A	3795	1/1	0.91	0.09	57,57,57,57	0
55	MG	1a	1714	1/1	0.91	0.12	55,55,55,55	0
55	MG	2A	3275	1/1	0.91	0.25	71,71,71,71	0
55	MG	1A	3845	1/1	0.91	0.11	78,78,78,78	0
55	MG	1A	3352	1/1	0.91	0.25	59,59,59,59	0
55	MG	2A	3828	1/1	0.91	0.10	63,63,63,63	0
55	MG	2a	3139	1/1	0.91	0.16	76,76,76,76	0
55	MG	1A	3848	1/1	0.91	0.11	62,62,62,62	0
55	MG	1A	3169	1/1	0.91	0.22	65,65,65,65	0
55	MG	2A	3104	1/1	0.91	0.17	59,59,59,59	0
55	MG	2A	3109	1/1	0.91	0.15	38,38,38,38	0
55	MG	2A	3457	1/1	0.91	0.12	67,67,67,67	0
55	MG	2A	3458	1/1	0.91	0.23	58,58,58,58	0
55	MG	2A	3460	1/1	0.91	0.07	41,41,41,41	0
55	MG	1A	3292	1/1	0.91	0.09	62,62,62,62	0
55	MG	2A	3113	1/1	0.91	0.17	57,57,57,57	0
55	MG	1a	1721	1/1	0.91	0.08	67,67,67,67	0
55	MG	1A	3413	1/1	0.91	0.25	53,53,53,53	0
55	MG	2a	3164	1/1	0.91	0.10	85,85,85,85	0
55	MG	1a	1723	1/1	0.91	0.07	68,68,68,68	0
55	MG	1A	3855	1/1	0.91	0.08	75,75,75,75	0
55	MG	1A	3295	1/1	0.91	0.14	56,56,56,56	0
55	MG	1a	1731	1/1	0.91	0.10	71,71,71,71	0
55	MG	2A	3135	1/1	0.91	0.29	52,52,52,52	0
55	MG	1a	1732	1/1	0.91	0.10	68,68,68,68	0
55	MG	2B	214	1/1	0.91	0.14	64,64,64,64	0
55	MG	1A	3296	1/1	0.91	0.14	56,56,56,56	0
55	MG	11	105	1/1	0.91	0.17	56,56,56,56	0
55	MG	1A	3122	1/1	0.91	0.10	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3420	1/1	0.91	0.09	55,55,55,55	0
55	MG	1A	3054	1/1	0.91	0.22	59,59,59,59	0
55	MG	2A	3148	1/1	0.91	0.35	77,77,77,77	0
55	MG	2D	304	1/1	0.91	0.16	63,63,63,63	0
55	MG	15	102	1/1	0.91	0.45	50,50,50,50	0
55	MG	1A	3488	1/1	0.91	0.10	63,63,63,63	0
55	MG	2F	303	1/1	0.91	0.09	64,64,64,64	0
55	MG	15	107	1/1	0.91	0.38	44,44,44,44	0
55	MG	2A	3495	1/1	0.91	0.29	65,65,65,65	0
55	MG	1A	3146	1/1	0.91	0.07	52,52,52,52	0
55	MG	1A	3881	1/1	0.91	0.11	57,57,57,57	0
55	MG	19	101	1/1	0.91	0.13	56,56,56,56	0
55	MG	2a	3202	1/1	0.91	0.11	66,66,66,66	0
55	MG	1A	3007	1/1	0.91	0.08	44,44,44,44	0
55	MG	1A	3887	1/1	0.91	0.54	42,42,42,42	0
55	MG	2A	3518	1/1	0.91	0.20	66,66,66,66	0
55	MG	1a	1603	1/1	0.91	0.14	58,58,58,58	0
55	MG	1a	1604	1/1	0.91	0.21	62,62,62,62	0
55	MG	1a	1782	1/1	0.91	0.10	69,69,69,69	0
55	MG	2W	204	1/1	0.91	0.19	72,72,72,72	0
55	MG	1A	3184	1/1	0.91	0.12	68,68,68,68	0
55	MG	2A	3545	1/1	0.91	0.08	41,41,41,41	0
55	MG	2A	3548	1/1	0.91	0.09	57,57,57,57	0
55	MG	1a	1787	1/1	0.91	0.07	65,65,65,65	0
55	MG	1a	1789	1/1	0.91	0.07	88,88,88,88	0
55	MG	1A	3129	1/1	0.91	0.34	44,44,44,44	0
55	MG	1A	3314	1/1	0.91	0.28	54,54,54,54	0
55	MG	1a	1617	1/1	0.91	0.08	63,63,63,63	0
55	MG	1B	211	1/1	0.91	0.24	48,48,48,48	0
55	MG	2A	3175	1/1	0.91	0.19	72,72,72,72	0
55	MG	1A	3258	1/1	0.91	0.11	64,64,64,64	0
55	MG	2a	3010	1/1	0.91	0.21	64,64,64,64	0
55	MG	2a	3011	1/1	0.91	0.14	59,59,59,59	0
55	MG	2d	301	1/1	0.91	0.38	63,63,63,63	0
55	MG	2A	3328	1/1	0.91	0.10	53,53,53,53	0
55	MG	2A	3582	1/1	0.91	0.11	70,70,70,70	0
55	MG	1a	1623	1/1	0.91	0.09	60,60,60,60	0
55	MG	1A	3063	1/1	0.91	0.36	74,74,74,74	0
55	MG	2A	3179	1/1	0.91	0.22	64,64,64,64	0
55	MG	1a	1810	1/1	0.91	0.22	58,58,58,58	0
55	MG	1a	1626	1/1	0.91	0.14	69,69,69,69	0
55	MG	1B	218	1/1	0.91	0.16	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3324	1/1	0.91	0.10	52,52,52,52	0
55	MG	1a	1631	1/1	0.91	0.40	54,54,54,54	0
55	MG	2A	3186	1/1	0.91	0.14	65,65,65,65	0
55	MG	2a	3027	1/1	0.91	0.11	71,71,71,71	0
55	MG	2A	3339	1/1	0.91	0.17	70,70,70,70	0
55	MG	2A	3631	1/1	0.91	0.21	60,60,60,60	0
55	MG	2A	3340	1/1	0.91	0.18	66,66,66,66	0
55	MG	1r	101	1/1	0.91	0.24	66,66,66,66	0
55	MG	2A	3644	1/1	0.91	0.40	58,58,58,58	0
55	MG	2a	3034	1/1	0.91	0.20	55,55,55,55	0
55	MG	1B	223	1/1	0.91	0.17	63,63,63,63	0
56	K	1A	3562	1/1	0.91	0.24	91,91,91,91	0
55	MG	1A	3327	1/1	0.91	0.14	49,49,49,49	0
55	MG	1A	3833	1/1	0.92	0.14	43,43,43,43	0
55	MG	1A	3585	1/1	0.92	0.20	55,55,55,55	0
55	MG	1A	3150	1/1	0.92	0.16	59,59,59,59	0
55	MG	1W	201	1/1	0.92	0.14	48,48,48,48	0
55	MG	2A	3654	1/1	0.92	0.19	75,75,75,75	0
55	MG	1W	205	1/1	0.92	0.17	45,45,45,45	0
55	MG	1A	3029	1/1	0.92	0.15	41,41,41,41	0
55	MG	1a	1702	1/1	0.92	0.08	73,73,73,73	0
55	MG	1A	4039	1/1	0.92	0.24	80,80,80,80	0
55	MG	1A	3841	1/1	0.92	0.17	55,55,55,55	0
55	MG	1A	3591	1/1	0.92	0.29	72,72,72,72	0
55	MG	1A	3844	1/1	0.92	0.24	67,67,67,67	0
55	MG	1A	3484	1/1	0.92	0.08	68,68,68,68	0
55	MG	2A	3075	1/1	0.92	0.10	59,59,59,59	0
55	MG	1A	3153	1/1	0.92	0.44	54,54,54,54	0
55	MG	1A	3192	1/1	0.92	0.10	49,49,49,49	0
55	MG	1A	3315	1/1	0.92	0.16	50,50,50,50	0
55	MG	1A	3195	1/1	0.92	0.15	53,53,53,53	0
55	MG	2A	3676	1/1	0.92	0.12	65,65,65,65	0
55	MG	1A	3002	1/1	0.92	0.08	54,54,54,54	0
55	MG	2A	3086	1/1	0.92	0.34	61,61,61,61	0
55	MG	1a	1720	1/1	0.92	0.21	52,52,52,52	0
55	MG	1A	3853	1/1	0.92	0.17	59,59,59,59	0
55	MG	2A	3092	1/1	0.92	0.10	55,55,55,55	0
55	MG	2A	3403	1/1	0.92	0.19	53,53,53,53	0
55	MG	2A	3093	1/1	0.92	0.20	81,81,81,81	0
55	MG	1A	4085	1/1	0.92	0.15	52,52,52,52	0
55	MG	1A	3322	1/1	0.92	0.17	58,58,58,58	0
55	MG	1a	1724	1/1	0.92	0.29	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3410	1/1	0.92	0.35	55,55,55,55	0
55	MG	1A	3435	1/1	0.92	0.08	50,50,50,50	0
55	MG	2A	3413	1/1	0.92	0.20	62,62,62,62	0
55	MG	2A	3099	1/1	0.92	0.28	65,65,65,65	0
55	MG	2a	3069	1/1	0.92	0.16	63,63,63,63	0
55	MG	2A	3417	1/1	0.92	0.15	46,46,46,46	0
55	MG	1a	1726	1/1	0.92	0.14	64,64,64,64	0
55	MG	1A	3859	1/1	0.92	0.11	64,64,64,64	0
55	MG	2A	3713	1/1	0.92	0.10	67,67,67,67	0
55	MG	1A	3605	1/1	0.92	0.37	59,59,59,59	0
55	MG	1A	3323	1/1	0.92	0.10	50,50,50,50	0
55	MG	1A	4095	1/1	0.92	0.13	59,59,59,59	0
55	MG	1A	3044	1/1	0.92	0.22	50,50,50,50	0
55	MG	17	102	1/1	0.92	0.07	40,40,40,40	0
55	MG	2A	3119	1/1	0.92	0.10	57,57,57,57	0
55	MG	2A	3724	1/1	0.92	0.10	59,59,59,59	0
55	MG	17	103	1/1	0.92	0.11	44,44,44,44	0
55	MG	2a	3091	1/1	0.92	0.22	55,55,55,55	0
55	MG	2A	3729	1/1	0.92	0.21	50,50,50,50	0
55	MG	1A	3269	1/1	0.92	0.25	48,48,48,48	0
55	MG	2A	3439	1/1	0.92	0.12	74,74,74,74	0
55	MG	1A	4100	1/1	0.92	0.05	49,49,49,49	0
55	MG	1A	4103	1/1	0.92	0.07	55,55,55,55	0
55	MG	1A	3206	1/1	0.92	0.14	69,69,69,69	0
55	MG	1a	1751	1/1	0.92	0.22	51,51,51,51	0
55	MG	2A	3742	1/1	0.92	0.40	56,56,56,56	0
55	MG	2A	3743	1/1	0.92	0.09	57,57,57,57	0
55	MG	1B	203	1/1	0.92	0.19	45,45,45,45	0
55	MG	2A	3290	1/1	0.92	0.21	55,55,55,55	0
55	MG	1A	3334	1/1	0.92	0.10	46,46,46,46	0
55	MG	2A	3751	1/1	0.92	0.10	68,68,68,68	0
55	MG	1A	3271	1/1	0.92	0.17	49,49,49,49	0
55	MG	1A	3649	1/1	0.92	0.14	50,50,50,50	0
55	MG	1a	1611	1/1	0.92	0.09	42,42,42,42	0
55	MG	2A	3758	1/1	0.92	0.20	73,73,73,73	0
55	MG	1a	1612	1/1	0.92	0.08	64,64,64,64	0
55	MG	1A	3208	1/1	0.92	0.06	54,54,54,54	0
55	MG	1A	3513	1/1	0.92	0.51	51,51,51,51	0
55	MG	1a	1784	1/1	0.92	0.09	60,60,60,60	0
55	MG	1A	3072	1/1	0.92	0.26	36,36,36,36	0
55	MG	2A	3772	1/1	0.92	0.09	75,75,75,75	0
55	MG	1A	3694	1/1	0.92	0.10	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1619	1/1	0.92	0.10	62,62,62,62	0
55	MG	1A	3894	1/1	0.92	0.23	57,57,57,57	0
55	MG	2A	3469	1/1	0.92	0.13	42,42,42,42	0
55	MG	2A	3781	1/1	0.92	0.08	73,73,73,73	0
55	MG	2a	3127	1/1	0.92	0.28	56,56,56,56	0
55	MG	2A	3470	1/1	0.92	0.17	57,57,57,57	0
55	MG	1A	3895	1/1	0.92	0.09	32,32,32,32	0
55	MG	1A	3907	1/1	0.92	0.12	78,78,78,78	0
55	MG	2A	3801	1/1	0.92	0.08	38,38,38,38	0
55	MG	2A	3806	1/1	0.92	0.08	61,61,61,61	0
55	MG	1B	224	1/1	0.92	0.14	64,64,64,64	0
55	MG	2A	3476	1/1	0.92	0.31	62,62,62,62	0
55	MG	2A	3812	1/1	0.92	0.10	42,42,42,42	0
55	MG	1A	3696	1/1	0.92	0.09	53,53,53,53	0
55	MG	1a	1629	1/1	0.92	0.21	48,48,48,48	0
55	MG	1A	3075	1/1	0.92	0.24	53,53,53,53	0
55	MG	2A	3829	1/1	0.92	0.07	53,53,53,53	0
55	MG	2A	3482	1/1	0.92	0.20	59,59,59,59	0
55	MG	2A	3483	1/1	0.92	0.10	68,68,68,68	0
55	MG	1a	1809	1/1	0.92	0.11	70,70,70,70	0
55	MG	2A	3843	1/1	0.92	0.07	67,67,67,67	0
55	MG	1A	3286	1/1	0.92	0.23	68,68,68,68	0
55	MG	2a	3146	1/1	0.92	0.28	53,53,53,53	0
55	MG	1a	1812	1/1	0.92	0.21	64,64,64,64	0
55	MG	2A	3488	1/1	0.92	0.15	64,64,64,64	0
55	MG	1B	232	1/1	0.92	0.16	65,65,65,65	0
55	MG	1A	3287	1/1	0.92	0.31	57,57,57,57	0
55	MG	2a	3157	1/1	0.92	0.15	88,88,88,88	0
55	MG	1A	3080	1/1	0.92	0.21	48,48,48,48	0
55	MG	1f	201	1/1	0.92	0.18	62,62,62,62	0
55	MG	2B	205	1/1	0.92	0.07	72,72,72,72	0
55	MG	1A	3046	1/1	0.92	0.12	51,51,51,51	0
55	MG	1D	306	1/1	0.92	0.20	46,46,46,46	0
55	MG	1D	309	1/1	0.92	0.10	45,45,45,45	0
55	MG	2a	3174	1/1	0.92	0.22	67,67,67,67	0
55	MG	2B	209	1/1	0.92	0.14	62,62,62,62	0
55	MG	1a	1643	1/1	0.92	0.12	66,66,66,66	0
55	MG	2A	3502	1/1	0.92	0.19	56,56,56,56	0
55	MG	1E	302	1/1	0.92	0.30	43,43,43,43	0
55	MG	2A	3507	1/1	0.92	0.14	66,66,66,66	0
55	MG	2A	3510	1/1	0.92	0.25	62,62,62,62	0
55	MG	1A	3531	1/1	0.92	0.28	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3182	1/1	0.92	0.12	60,60,60,60	0
55	MG	1E	305	1/1	0.92	0.19	49,49,49,49	0
55	MG	1A	3170	1/1	0.92	0.41	43,43,43,43	0
55	MG	1A	3942	1/1	0.92	0.09	44,44,44,44	0
55	MG	2A	3530	1/1	0.92	0.08	42,42,42,42	0
55	MG	2D	301	1/1	0.92	0.10	45,45,45,45	0
55	MG	2D	303	1/1	0.92	0.09	39,39,39,39	0
55	MG	2A	3543	1/1	0.92	0.09	44,44,44,44	0
55	MG	1A	3728	1/1	0.92	0.09	56,56,56,56	0
55	MG	2E	305	1/1	0.92	0.07	32,32,32,32	0
55	MG	1A	3465	1/1	0.92	0.10	73,73,73,73	0
55	MG	2A	3019	1/1	0.92	0.37	51,51,51,51	0
55	MG	1F	306	1/1	0.92	0.19	54,54,54,54	0
55	MG	1A	3294	1/1	0.92	0.26	62,62,62,62	0
55	MG	1A	3409	1/1	0.92	0.11	42,42,42,42	0
55	MG	2A	3562	1/1	0.92	0.14	63,63,63,63	0
55	MG	1A	3171	1/1	0.92	0.15	61,61,61,61	0
55	MG	1A	3551	1/1	0.92	0.23	65,65,65,65	0
55	MG	2A	3029	1/1	0.92	0.14	60,60,60,60	0
55	MG	2A	3572	1/1	0.92	0.09	47,47,47,47	0
55	MG	2R	203	1/1	0.92	0.19	39,39,39,39	0
55	MG	1A	3556	1/1	0.92	0.30	50,50,50,50	0
55	MG	2V	201	1/1	0.92	0.18	56,56,56,56	0
55	MG	1A	3977	1/1	0.92	0.15	53,53,53,53	0
55	MG	2A	3202	1/1	0.92	0.20	65,65,65,65	0
55	MG	1A	3093	1/1	0.92	0.28	49,49,49,49	0
55	MG	2Y	201	1/1	0.92	0.23	55,55,55,55	0
55	MG	2A	3594	1/1	0.92	0.13	64,64,64,64	0
55	MG	1P	201	1/1	0.92	0.15	35,35,35,35	0
55	MG	20	102	1/1	0.92	0.13	49,49,49,49	0
55	MG	21	101	1/1	0.92	0.27	63,63,63,63	0
55	MG	2a	3222	1/1	0.92	0.13	67,67,67,67	0
55	MG	23	101	1/1	0.92	0.30	59,59,59,59	0
55	MG	1A	3016	1/1	0.92	0.24	67,67,67,67	0
55	MG	1A	3767	1/1	0.92	0.15	56,56,56,56	0
55	MG	27	102	1/1	0.92	0.10	63,63,63,63	0
55	MG	2A	3600	1/1	0.92	0.26	56,56,56,56	0
55	MG	2e	201	1/1	0.92	0.06	84,84,84,84	0
55	MG	1A	3560	1/1	0.92	0.33	61,61,61,61	0
55	MG	2A	3213	1/1	0.92	0.33	51,51,51,51	0
55	MG	2A	3604	1/1	0.92	0.12	67,67,67,67	0
55	MG	1A	3989	1/1	0.92	0.09	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3049	1/1	0.92	0.11	50,50,50,50	0
55	MG	2A	3611	1/1	0.92	0.11	55,55,55,55	0
55	MG	1A	3360	1/1	0.92	0.23	67,67,67,67	0
55	MG	1A	3569	1/1	0.92	0.43	65,65,65,65	0
55	MG	1A	4008	1/1	0.92	0.09	86,86,86,86	0
55	MG	2a	3014	1/1	0.92	0.28	74,74,74,74	0
55	MG	2A	3624	1/1	0.92	0.11	46,46,46,46	0
55	MG	2A	3221	1/1	0.92	0.08	52,52,52,52	0
55	MG	1A	3362	1/1	0.92	0.11	50,50,50,50	0
55	MG	1A	3418	1/1	0.92	0.26	62,62,62,62	0
55	MG	2A	3643	1/1	0.92	0.23	76,76,76,76	0
55	MG	1a	1684	1/1	0.92	0.11	69,69,69,69	0
55	MG	1A	3828	1/1	0.92	0.11	53,53,53,53	0
55	MG	1A	3254	1/1	0.92	0.11	50,50,50,50	0
55	MG	1U	207	1/1	0.92	0.45	52,52,52,52	0
55	MG	1A	3609	1/1	0.93	0.10	59,59,59,59	0
55	MG	1A	3348	1/1	0.93	0.16	51,51,51,51	0
55	MG	2A	3105	1/1	0.93	0.25	58,58,58,58	0
55	MG	1a	1696	1/1	0.93	0.15	57,57,57,57	0
55	MG	2A	3595	1/1	0.93	0.12	66,66,66,66	0
55	MG	1A	3631	1/1	0.93	0.13	58,58,58,58	0
55	MG	1A	3632	1/1	0.93	0.11	42,42,42,42	0
55	MG	2A	3117	1/1	0.93	0.21	63,63,63,63	0
55	MG	1A	3225	1/1	0.93	0.10	48,48,48,48	0
55	MG	1A	3928	1/1	0.93	0.13	43,43,43,43	0
55	MG	1P	206	1/1	0.93	0.20	51,51,51,51	0
55	MG	2A	3124	1/1	0.93	0.15	45,45,45,45	0
55	MG	1A	3929	1/1	0.93	0.13	64,64,64,64	0
55	MG	1A	3636	1/1	0.93	0.09	57,57,57,57	0
55	MG	1a	1713	1/1	0.93	0.16	62,62,62,62	0
55	MG	2A	3612	1/1	0.93	0.08	57,57,57,57	0
55	MG	1A	3350	1/1	0.93	0.22	54,54,54,54	0
55	MG	1Q	202	1/1	0.93	0.16	39,39,39,39	0
55	MG	2A	3622	1/1	0.93	0.09	55,55,55,55	0
55	MG	1A	3226	1/1	0.93	0.32	58,58,58,58	0
55	MG	1Q	207	1/1	0.93	0.18	36,36,36,36	0
55	MG	1A	3952	1/1	0.93	0.08	38,38,38,38	0
55	MG	2A	3637	1/1	0.93	0.12	50,50,50,50	0
55	MG	1S	201	1/1	0.93	0.24	52,52,52,52	0
55	MG	1A	3494	1/1	0.93	0.10	64,64,64,64	0
55	MG	1A	3960	1/1	0.93	0.13	53,53,53,53	0
55	MG	1A	3088	1/1	0.93	0.52	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3055	1/1	0.93	0.13	58,58,58,58	0
55	MG	1A	3290	1/1	0.93	0.10	55,55,55,55	0
55	MG	1A	3658	1/1	0.93	0.14	51,51,51,51	0
55	MG	1A	3974	1/1	0.93	0.11	51,51,51,51	0
55	MG	1A	3662	1/1	0.93	0.12	75,75,75,75	0
55	MG	1A	3231	1/1	0.93	0.10	55,55,55,55	0
55	MG	2A	3156	1/1	0.93	0.19	65,65,65,65	0
55	MG	1A	3691	1/1	0.93	0.12	56,56,56,56	0
55	MG	1A	3503	1/1	0.93	0.07	59,59,59,59	0
55	MG	1A	3141	1/1	0.93	0.20	39,39,39,39	0
55	MG	1A	3024	1/1	0.93	0.13	46,46,46,46	0
55	MG	2A	3161	1/1	0.93	0.09	61,61,61,61	0
55	MG	1X	104	1/1	0.93	0.08	51,51,51,51	0
55	MG	1A	3994	1/1	0.93	0.07	36,36,36,36	0
55	MG	2A	3664	1/1	0.93	0.08	54,54,54,54	0
55	MG	1A	3237	1/1	0.93	0.39	44,44,44,44	0
55	MG	1A	3240	1/1	0.93	0.31	48,48,48,48	0
55	MG	1A	3366	1/1	0.93	0.16	49,49,49,49	0
55	MG	1A	4005	1/1	0.93	0.13	45,45,45,45	0
55	MG	2a	3056	1/1	0.93	0.27	56,56,56,56	0
55	MG	2a	3058	1/1	0.93	0.14	67,67,67,67	0
55	MG	1A	3300	1/1	0.93	0.25	41,41,41,41	0
55	MG	1A	3368	1/1	0.93	0.20	49,49,49,49	0
55	MG	1a	1764	1/1	0.93	0.25	64,64,64,64	0
55	MG	1A	3370	1/1	0.93	0.29	62,62,62,62	0
55	MG	1A	3437	1/1	0.93	0.24	54,54,54,54	0
55	MG	1A	3241	1/1	0.93	0.18	49,49,49,49	0
55	MG	1A	4029	1/1	0.93	0.15	62,62,62,62	0
55	MG	2a	3070	1/1	0.93	0.16	58,58,58,58	0
55	MG	2a	3072	1/1	0.93	0.14	67,67,67,67	0
55	MG	1A	3439	1/1	0.93	0.14	71,71,71,71	0
55	MG	1A	3738	1/1	0.93	0.11	59,59,59,59	0
55	MG	1A	3739	1/1	0.93	0.16	56,56,56,56	0
55	MG	2a	3076	1/1	0.93	0.28	66,66,66,66	0
55	MG	2A	3684	1/1	0.93	0.09	71,71,71,71	0
55	MG	2A	3376	1/1	0.93	0.06	72,72,72,72	0
55	MG	1A	3526	1/1	0.93	0.20	62,62,62,62	0
55	MG	15	101	1/1	0.93	0.31	47,47,47,47	0
55	MG	1A	3746	1/1	0.93	0.09	59,59,59,59	0
55	MG	15	104	1/1	0.93	0.71	41,41,41,41	0
55	MG	1A	4040	1/1	0.93	0.10	66,66,66,66	0
55	MG	1A	3529	1/1	0.93	0.36	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3697	1/1	0.93	0.12	56,56,56,56	0
55	MG	2a	3089	1/1	0.93	0.21	61,61,61,61	0
55	MG	1a	1800	1/1	0.93	0.09	60,60,60,60	0
55	MG	2A	3190	1/1	0.93	0.06	62,62,62,62	0
55	MG	2A	3705	1/1	0.93	0.10	78,78,78,78	0
55	MG	2A	3706	1/1	0.93	0.07	53,53,53,53	0
55	MG	2A	3191	1/1	0.93	0.07	63,63,63,63	0
55	MG	2A	3388	1/1	0.93	0.16	36,36,36,36	0
55	MG	2a	3098	1/1	0.93	0.09	72,72,72,72	0
55	MG	1a	1802	1/1	0.93	0.15	60,60,60,60	0
55	MG	1A	3441	1/1	0.93	0.25	43,43,43,43	0
55	MG	1A	3120	1/1	0.93	0.28	47,47,47,47	0
55	MG	18	101	1/1	0.93	0.25	69,69,69,69	0
55	MG	1A	4047	1/1	0.93	0.09	36,36,36,36	0
55	MG	2A	3720	1/1	0.93	0.09	71,71,71,71	0
55	MG	18	103	1/1	0.93	0.12	54,54,54,54	0
55	MG	1A	3373	1/1	0.93	0.29	50,50,50,50	0
55	MG	18	105	1/1	0.93	0.26	43,43,43,43	0
55	MG	1A	3537	1/1	0.93	0.13	49,49,49,49	0
55	MG	1A	3148	1/1	0.93	0.19	35,35,35,35	0
55	MG	1A	3782	1/1	0.93	0.09	37,37,37,37	0
55	MG	1A	3252	1/1	0.93	0.13	57,57,57,57	0
55	MG	2A	3207	1/1	0.93	0.24	57,57,57,57	0
55	MG	2A	3208	1/1	0.93	0.14	49,49,49,49	0
55	MG	2A	3737	1/1	0.93	0.13	50,50,50,50	0
55	MG	2a	3117	1/1	0.93	0.06	67,67,67,67	0
55	MG	1A	3792	1/1	0.93	0.11	54,54,54,54	0
55	MG	1a	1605	1/1	0.93	0.11	57,57,57,57	0
55	MG	2A	3411	1/1	0.93	0.27	57,57,57,57	0
55	MG	1A	3253	1/1	0.93	0.23	58,58,58,58	0
55	MG	1x	101	1/1	0.93	0.23	63,63,63,63	0
55	MG	2A	3414	1/1	0.93	0.26	58,58,58,58	0
55	MG	1A	3545	1/1	0.93	0.21	65,65,65,65	0
55	MG	1x	104	1/1	0.93	0.12	64,64,64,64	0
55	MG	2A	3753	1/1	0.93	0.11	45,45,45,45	0
55	MG	1A	4087	1/1	0.93	0.32	73,73,73,73	0
55	MG	1A	3814	1/1	0.93	0.19	58,58,58,58	0
55	MG	2A	3422	1/1	0.93	0.08	51,51,51,51	0
55	MG	1x	109	1/1	0.93	0.13	64,64,64,64	0
55	MG	2A	3224	1/1	0.93	0.28	56,56,56,56	0
55	MG	2A	3428	1/1	0.93	0.19	44,44,44,44	0
55	MG	2A	3003	1/1	0.93	0.25	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3546	1/1	0.93	0.20	49,49,49,49	0
55	MG	1A	3548	1/1	0.93	0.13	70,70,70,70	0
55	MG	1A	3313	1/1	0.93	0.18	53,53,53,53	0
55	MG	1A	3070	1/1	0.93	0.19	35,35,35,35	0
55	MG	2A	3011	1/1	0.93	0.07	52,52,52,52	0
55	MG	1A	4094	1/1	0.93	0.18	56,56,56,56	0
55	MG	1A	3553	1/1	0.93	0.17	50,50,50,50	0
55	MG	1A	3554	1/1	0.93	0.12	64,64,64,64	0
55	MG	2A	3444	1/1	0.93	0.10	63,63,63,63	0
55	MG	2a	3145	1/1	0.93	0.27	63,63,63,63	0
55	MG	1a	1625	1/1	0.93	0.17	52,52,52,52	0
55	MG	2A	3790	1/1	0.93	0.16	68,68,68,68	0
55	MG	2A	3025	1/1	0.93	0.26	62,62,62,62	0
55	MG	2a	3153	1/1	0.93	0.09	74,74,74,74	0
55	MG	2a	3154	1/1	0.93	0.12	74,74,74,74	0
55	MG	2A	3241	1/1	0.93	0.08	58,58,58,58	0
55	MG	2A	3802	1/1	0.93	0.10	46,46,46,46	0
55	MG	1A	3052	1/1	0.93	0.25	54,54,54,54	0
55	MG	1A	3125	1/1	0.93	0.15	64,64,64,64	0
55	MG	1a	1628	1/1	0.93	0.10	57,57,57,57	0
55	MG	2a	3160	1/1	0.93	0.14	66,66,66,66	0
55	MG	1A	3073	1/1	0.93	0.42	44,44,44,44	0
55	MG	2A	3819	1/1	0.93	0.07	64,64,64,64	0
55	MG	2A	3455	1/1	0.93	0.18	53,53,53,53	0
55	MG	2A	3249	1/1	0.93	0.22	56,56,56,56	0
55	MG	1A	3458	1/1	0.93	0.17	55,55,55,55	0
55	MG	1A	3561	1/1	0.93	0.20	34,34,34,34	0
55	MG	1A	3563	1/1	0.93	0.06	36,36,36,36	0
55	MG	2A	3462	1/1	0.93	0.29	65,65,65,65	0
55	MG	1A	3259	1/1	0.93	0.14	44,44,44,44	0
55	MG	2a	3183	1/1	0.93	0.15	64,64,64,64	0
55	MG	2A	3840	1/1	0.93	0.21	66,66,66,66	0
55	MG	1a	1636	1/1	0.93	0.12	54,54,54,54	0
55	MG	1B	208	1/1	0.93	0.29	66,66,66,66	0
55	MG	1A	3462	1/1	0.93	0.14	59,59,59,59	0
55	MG	1A	3194	1/1	0.93	0.59	44,44,44,44	0
55	MG	1A	3570	1/1	0.93	0.23	50,50,50,50	0
55	MG	2A	3259	1/1	0.93	0.29	65,65,65,65	0
55	MG	1a	1641	1/1	0.93	0.13	62,62,62,62	0
55	MG	1A	3574	1/1	0.93	0.34	51,51,51,51	0
55	MG	1A	3576	1/1	0.93	0.09	48,48,48,48	0
55	MG	2a	3196	1/1	0.93	0.09	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3017	1/1	0.93	0.18	57,57,57,57	0
55	MG	1a	1646	1/1	0.93	0.24	50,50,50,50	0
55	MG	2A	3478	1/1	0.93	0.24	62,62,62,62	0
55	MG	1A	3580	1/1	0.93	0.12	45,45,45,45	0
55	MG	1A	3466	1/1	0.93	0.39	57,57,57,57	0
55	MG	1A	3387	1/1	0.93	0.42	47,47,47,47	0
55	MG	1A	3584	1/1	0.93	0.09	43,43,43,43	0
55	MG	2A	3055	1/1	0.93	0.15	48,48,48,48	0
55	MG	1a	1653	1/1	0.93	0.18	45,45,45,45	0
55	MG	1A	3861	1/1	0.93	0.09	59,59,59,59	0
55	MG	1a	1657	1/1	0.93	0.15	63,63,63,63	0
55	MG	1A	3468	1/1	0.93	0.29	51,51,51,51	0
55	MG	1A	3161	1/1	0.93	0.32	42,42,42,42	0
55	MG	1A	3163	1/1	0.93	0.33	45,45,45,45	0
55	MG	2A	3064	1/1	0.93	0.07	47,47,47,47	0
55	MG	2A	3494	1/1	0.93	0.47	59,59,59,59	0
55	MG	1A	3390	1/1	0.93	0.10	60,60,60,60	0
55	MG	1A	3876	1/1	0.93	0.06	42,42,42,42	0
55	MG	1A	3593	1/1	0.93	0.24	58,58,58,58	0
55	MG	1D	308	1/1	0.93	0.22	60,60,60,60	0
55	MG	1A	3266	1/1	0.93	0.21	75,75,75,75	0
55	MG	2A	3505	1/1	0.93	0.08	72,72,72,72	0
55	MG	1A	3882	1/1	0.93	0.14	46,46,46,46	0
55	MG	1A	3038	1/1	0.93	0.41	48,48,48,48	0
55	MG	1A	3596	1/1	0.93	0.10	52,52,52,52	0
55	MG	2A	3077	1/1	0.93	0.14	51,51,51,51	0
55	MG	1E	308	1/1	0.93	0.11	68,68,68,68	0
55	MG	1A	3066	1/1	0.93	0.34	63,63,63,63	0
55	MG	1A	3166	1/1	0.93	0.12	43,43,43,43	0
55	MG	2A	3296	1/1	0.93	0.10	74,74,74,74	0
55	MG	1E	313	1/1	0.93	0.27	50,50,50,50	0
55	MG	2T	201	1/1	0.93	0.09	62,62,62,62	0
55	MG	2A	3531	1/1	0.93	0.10	68,68,68,68	0
55	MG	2T	204	1/1	0.93	0.09	58,58,58,58	0
55	MG	1A	3600	1/1	0.93	0.07	46,46,46,46	0
55	MG	1A	3403	1/1	0.93	0.12	56,56,56,56	0
55	MG	1A	3105	1/1	0.93	0.07	50,50,50,50	0
55	MG	2A	3090	1/1	0.93	0.19	67,67,67,67	0
55	MG	2X	101	1/1	0.93	0.12	74,74,74,74	0
55	MG	1A	3216	1/1	0.93	0.18	49,49,49,49	0
55	MG	1F	310	1/1	0.93	0.14	58,58,58,58	0
55	MG	2A	3558	1/1	0.93	0.16	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3137	1/1	0.93	0.14	46,46,46,46	0
55	MG	1A	3276	1/1	0.93	0.15	60,60,60,60	0
55	MG	1A	3282	1/1	0.93	0.25	33,33,33,33	0
55	MG	1N	203	1/1	0.93	0.10	55,55,55,55	0
55	MG	2x	103	1/1	0.93	0.16	76,76,76,76	0
55	MG	1a	1691	1/1	0.93	0.10	52,52,52,52	0
55	MG	27	101	1/1	0.93	0.14	56,56,56,56	0
55	MG	1N	205	1/1	0.93	0.18	56,56,56,56	0
55	MG	2A	3311	1/1	0.93	0.15	48,48,48,48	0
55	MG	20	103	1/1	0.94	0.21	84,84,84,84	0
55	MG	2A	3586	1/1	0.94	0.06	60,60,60,60	0
55	MG	1A	4078	1/1	0.94	0.09	42,42,42,42	0
55	MG	1A	4079	1/1	0.94	0.08	36,36,36,36	0
55	MG	13	105	1/1	0.94	0.13	65,65,65,65	0
55	MG	1a	1749	1/1	0.94	0.09	66,66,66,66	0
55	MG	13	107	1/1	0.94	0.15	59,59,59,59	0
55	MG	1A	3500	1/1	0.94	0.46	43,43,43,43	0
55	MG	1A	3304	1/1	0.94	0.11	39,39,39,39	0
55	MG	2A	3602	1/1	0.94	0.11	61,61,61,61	0
55	MG	1a	1761	1/1	0.94	0.13	62,62,62,62	0
55	MG	2A	3154	1/1	0.94	0.34	52,52,52,52	0
55	MG	1A	3118	1/1	0.94	0.23	50,50,50,50	0
55	MG	2A	3607	1/1	0.94	0.12	64,64,64,64	0
55	MG	1A	4086	1/1	0.94	0.09	66,66,66,66	0
55	MG	15	105	1/1	0.94	0.25	42,42,42,42	0
55	MG	1A	3090	1/1	0.94	0.12	57,57,57,57	0
55	MG	2a	3013	1/1	0.94	0.13	59,59,59,59	0
55	MG	1A	3504	1/1	0.94	0.10	71,71,71,71	0
55	MG	1A	3091	1/1	0.94	0.10	45,45,45,45	0
55	MG	2A	3619	1/1	0.94	0.07	41,41,41,41	0
55	MG	2A	3621	1/1	0.94	0.17	59,59,59,59	0
55	MG	1a	1772	1/1	0.94	0.07	62,62,62,62	0
55	MG	2A	3344	1/1	0.94	0.14	74,74,74,74	0
55	MG	1A	3042	1/1	0.94	0.24	39,39,39,39	0
55	MG	2A	3628	1/1	0.94	0.17	59,59,59,59	0
55	MG	17	104	1/1	0.94	0.07	50,50,50,50	0
55	MG	1A	3507	1/1	0.94	0.48	71,71,71,71	0
55	MG	1A	3200	1/1	0.94	0.18	33,33,33,33	0
55	MG	1A	3610	1/1	0.94	0.10	50,50,50,50	0
55	MG	1a	1788	1/1	0.94	0.18	81,81,81,81	0
55	MG	2A	3172	1/1	0.94	0.19	75,75,75,75	0
55	MG	1A	3202	1/1	0.94	0.12	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1790	1/1	0.94	0.07	54,54,54,54	0
55	MG	1A	3616	1/1	0.94	0.08	47,47,47,47	0
55	MG	18	106	1/1	0.94	0.17	45,45,45,45	0
55	MG	2A	3650	1/1	0.94	0.13	58,58,58,58	0
55	MG	1A	3865	1/1	0.94	0.08	69,69,69,69	0
55	MG	1A	3866	1/1	0.94	0.07	29,29,29,29	0
55	MG	1A	3620	1/1	0.94	0.09	70,70,70,70	0
55	MG	1A	3203	1/1	0.94	0.15	51,51,51,51	0
55	MG	2A	3655	1/1	0.94	0.16	71,71,71,71	0
55	MG	2A	3367	1/1	0.94	0.11	55,55,55,55	0
55	MG	1A	3316	1/1	0.94	0.29	62,62,62,62	0
55	MG	2A	3659	1/1	0.94	0.16	54,54,54,54	0
55	MG	1A	3018	1/1	0.94	0.17	47,47,47,47	0
55	MG	1A	3518	1/1	0.94	0.14	61,61,61,61	0
55	MG	1a	1607	1/1	0.94	0.09	61,61,61,61	0
55	MG	2a	3047	1/1	0.94	0.12	63,63,63,63	0
55	MG	2A	3372	1/1	0.94	0.35	60,60,60,60	0
55	MG	1a	1608	1/1	0.94	0.27	71,71,71,71	0
55	MG	1B	207	1/1	0.94	0.15	63,63,63,63	0
55	MG	1A	3319	1/1	0.94	0.22	57,57,57,57	0
55	MG	1A	3160	1/1	0.94	0.14	70,70,70,70	0
55	MG	1A	3884	1/1	0.94	0.32	47,47,47,47	0
55	MG	1A	3446	1/1	0.94	0.32	44,44,44,44	0
55	MG	1A	3019	1/1	0.94	0.17	32,32,32,32	0
55	MG	2a	3057	1/1	0.94	0.11	70,70,70,70	0
55	MG	1A	3127	1/1	0.94	0.10	38,38,38,38	0
55	MG	2a	3060	1/1	0.94	0.18	49,49,49,49	0
55	MG	1A	3267	1/1	0.94	0.16	67,67,67,67	0
55	MG	1A	3451	1/1	0.94	0.09	55,55,55,55	0
55	MG	1A	3661	1/1	0.94	0.05	47,47,47,47	0
55	MG	1A	3326	1/1	0.94	0.22	45,45,45,45	0
55	MG	2A	3386	1/1	0.94	0.15	41,41,41,41	0
55	MG	1B	225	1/1	0.94	0.12	59,59,59,59	0
55	MG	1A	3899	1/1	0.94	0.07	49,49,49,49	0
55	MG	2A	3683	1/1	0.94	0.05	69,69,69,69	0
55	MG	1A	3668	1/1	0.94	0.18	48,48,48,48	0
55	MG	2A	3390	1/1	0.94	0.27	50,50,50,50	0
55	MG	1x	110	1/1	0.94	0.12	62,62,62,62	0
55	MG	1A	3532	1/1	0.94	0.23	35,35,35,35	0
55	MG	1A	3268	1/1	0.94	0.40	46,46,46,46	0
55	MG	2A	3005	1/1	0.94	0.22	54,54,54,54	0
55	MG	1A	3911	1/1	0.94	0.14	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3912	1/1	0.94	0.07	64,64,64,64	0
55	MG	2A	3209	1/1	0.94	0.17	55,55,55,55	0
55	MG	2A	3400	1/1	0.94	0.10	76,76,76,76	0
55	MG	2A	3702	1/1	0.94	0.11	45,45,45,45	0
55	MG	1B	235	1/1	0.94	0.14	48,48,48,48	0
55	MG	2a	3084	1/1	0.94	0.14	70,70,70,70	0
55	MG	1A	3536	1/1	0.94	0.22	43,43,43,43	0
55	MG	1A	3211	1/1	0.94	0.11	50,50,50,50	0
55	MG	2A	3017	1/1	0.94	0.17	53,53,53,53	0
55	MG	1A	3917	1/1	0.94	0.16	64,64,64,64	0
55	MG	2A	3711	1/1	0.94	0.08	60,60,60,60	0
55	MG	1A	3456	1/1	0.94	0.15	67,67,67,67	0
55	MG	1A	3702	1/1	0.94	0.07	29,29,29,29	0
55	MG	1A	3212	1/1	0.94	0.33	43,43,43,43	0
55	MG	1a	1642	1/1	0.94	0.09	77,77,77,77	0
55	MG	1A	3716	1/1	0.94	0.17	67,67,67,67	0
55	MG	1A	3719	1/1	0.94	0.13	66,66,66,66	0
55	MG	2A	3227	1/1	0.94	0.17	59,59,59,59	0
55	MG	1A	3015	1/1	0.94	0.30	56,56,56,56	0
55	MG	1A	3037	1/1	0.94	0.13	25,25,25,25	0
55	MG	2A	3418	1/1	0.94	0.14	66,66,66,66	0
55	MG	1A	3218	1/1	0.94	0.08	67,67,67,67	0
55	MG	1A	3222	1/1	0.94	0.26	51,51,51,51	0
55	MG	2A	3421	1/1	0.94	0.18	56,56,56,56	0
55	MG	2A	3732	1/1	0.94	0.06	73,73,73,73	0
55	MG	2a	3109	1/1	0.94	0.06	75,75,75,75	0
55	MG	1a	1650	1/1	0.94	0.13	45,45,45,45	0
55	MG	1A	3549	1/1	0.94	0.05	70,70,70,70	0
55	MG	1A	3076	1/1	0.94	0.14	41,41,41,41	0
55	MG	2A	3738	1/1	0.94	0.12	65,65,65,65	0
55	MG	1A	3729	1/1	0.94	0.11	52,52,52,52	0
55	MG	2A	3740	1/1	0.94	0.07	48,48,48,48	0
55	MG	1a	1655	1/1	0.94	0.11	63,63,63,63	0
55	MG	1F	309	1/1	0.94	0.28	39,39,39,39	0
55	MG	2A	3238	1/1	0.94	0.11	76,76,76,76	0
55	MG	2A	3239	1/1	0.94	0.13	70,70,70,70	0
55	MG	2A	3434	1/1	0.94	0.07	71,71,71,71	0
55	MG	2A	3240	1/1	0.94	0.12	65,65,65,65	0
55	MG	1A	3277	1/1	0.94	0.12	69,69,69,69	0
55	MG	1a	1659	1/1	0.94	0.13	73,73,73,73	0
55	MG	2A	3245	1/1	0.94	0.20	70,70,70,70	0
55	MG	1G	202	1/1	0.94	0.24	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3131	1/1	0.94	0.15	40,40,40,40	0
55	MG	1A	3964	1/1	0.94	0.09	70,70,70,70	0
55	MG	1G	205	1/1	0.94	0.13	57,57,57,57	0
55	MG	1A	3968	1/1	0.94	0.06	41,41,41,41	0
55	MG	1N	201	1/1	0.94	0.10	57,57,57,57	0
55	MG	2A	3765	1/1	0.94	0.07	59,59,59,59	0
55	MG	1A	3396	1/1	0.94	0.66	43,43,43,43	0
55	MG	2A	3768	1/1	0.94	0.07	45,45,45,45	0
55	MG	2A	3769	1/1	0.94	0.07	63,63,63,63	0
55	MG	1A	3400	1/1	0.94	0.68	50,50,50,50	0
55	MG	1A	3740	1/1	0.94	0.10	58,58,58,58	0
55	MG	1A	3342	1/1	0.94	0.36	45,45,45,45	0
55	MG	2A	3456	1/1	0.94	0.14	61,61,61,61	0
55	MG	1A	3404	1/1	0.94	0.13	56,56,56,56	0
55	MG	1A	3747	1/1	0.94	0.09	58,58,58,58	0
55	MG	2A	3459	1/1	0.94	0.06	75,75,75,75	0
55	MG	2A	3782	1/1	0.94	0.12	81,81,81,81	0
55	MG	2A	3784	1/1	0.94	0.05	65,65,65,65	0
55	MG	1A	3284	1/1	0.94	0.69	49,49,49,49	0
55	MG	2A	3062	1/1	0.94	0.24	54,54,54,54	0
55	MG	2A	3787	1/1	0.94	0.14	60,60,60,60	0
55	MG	2A	3260	1/1	0.94	0.10	71,71,71,71	0
55	MG	2A	3793	1/1	0.94	0.13	57,57,57,57	0
55	MG	1A	3985	1/1	0.94	0.09	67,67,67,67	0
55	MG	1A	3100	1/1	0.94	0.09	33,33,33,33	0
55	MG	1A	3004	1/1	0.94	0.06	39,39,39,39	0
55	MG	2A	3803	1/1	0.94	0.11	49,49,49,49	0
55	MG	1A	3081	1/1	0.94	0.08	61,61,61,61	0
55	MG	1A	3997	1/1	0.94	0.23	56,56,56,56	0
55	MG	2a	3161	1/1	0.94	0.09	67,67,67,67	0
55	MG	1A	3008	1/1	0.94	0.08	33,33,33,33	0
55	MG	1A	3107	1/1	0.94	0.11	58,58,58,58	0
55	MG	2A	3813	1/1	0.94	0.10	61,61,61,61	0
55	MG	2A	3815	1/1	0.94	0.07	51,51,51,51	0
55	MG	2A	3471	1/1	0.94	0.20	57,57,57,57	0
55	MG	1A	3771	1/1	0.94	0.20	41,41,41,41	0
55	MG	2A	3825	1/1	0.94	0.11	47,47,47,47	0
55	MG	2A	3473	1/1	0.94	0.14	60,60,60,60	0
55	MG	1A	4003	1/1	0.94	0.11	25,25,25,25	0
55	MG	1A	4004	1/1	0.94	0.06	28,28,28,28	0
55	MG	1S	202	1/1	0.94	0.11	47,47,47,47	0
55	MG	1A	3173	1/1	0.94	0.09	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3572	1/1	0.94	0.74	48,48,48,48	0
55	MG	1A	3788	1/1	0.94	0.06	46,46,46,46	0
55	MG	1A	3086	1/1	0.94	0.30	40,40,40,40	0
55	MG	2A	3085	1/1	0.94	0.24	49,49,49,49	0
55	MG	1A	3483	1/1	0.94	0.10	57,57,57,57	0
55	MG	1U	206	1/1	0.94	0.36	43,43,43,43	0
55	MG	1A	4024	1/1	0.94	0.08	68,68,68,68	0
55	MG	1a	1700	1/1	0.94	0.10	64,64,64,64	0
55	MG	1U	208	1/1	0.94	0.43	42,42,42,42	0
55	MG	1A	3803	1/1	0.94	0.09	64,64,64,64	0
55	MG	1A	3578	1/1	0.94	0.49	44,44,44,44	0
55	MG	1A	3112	1/1	0.94	0.38	41,41,41,41	0
55	MG	2A	3492	1/1	0.94	0.21	53,53,53,53	0
55	MG	2A	3096	1/1	0.94	0.13	43,43,43,43	0
55	MG	1A	3485	1/1	0.94	0.17	40,40,40,40	0
55	MG	1W	203	1/1	0.94	0.20	38,38,38,38	0
55	MG	2A	3293	1/1	0.94	0.12	66,66,66,66	0
55	MG	2A	3497	1/1	0.94	0.16	42,42,42,42	0
55	MG	1A	3358	1/1	0.94	0.18	49,49,49,49	0
55	MG	1A	3359	1/1	0.94	0.19	60,60,60,60	0
55	MG	1A	3826	1/1	0.94	0.18	61,61,61,61	0
55	MG	1X	102	1/1	0.94	0.10	47,47,47,47	0
55	MG	1A	3027	1/1	0.94	0.20	55,55,55,55	0
55	MG	2A	3108	1/1	0.94	0.15	56,56,56,56	0
55	MG	2A	3509	1/1	0.94	0.18	62,62,62,62	0
55	MG	1X	106	1/1	0.94	0.11	66,66,66,66	0
55	MG	2A	3514	1/1	0.94	0.10	57,57,57,57	0
55	MG	2A	3110	1/1	0.94	0.09	54,54,54,54	0
55	MG	1A	3361	1/1	0.94	0.07	61,61,61,61	0
55	MG	1A	3490	1/1	0.94	0.09	45,45,45,45	0
55	MG	2E	302	1/1	0.94	0.32	63,63,63,63	0
55	MG	2E	304	1/1	0.94	0.15	55,55,55,55	0
55	MG	2A	3115	1/1	0.94	0.09	61,61,61,61	0
55	MG	2E	306	1/1	0.94	0.05	62,62,62,62	0
55	MG	2a	3223	1/1	0.94	0.10	63,63,63,63	0
55	MG	2A	3525	1/1	0.94	0.10	40,40,40,40	0
55	MG	2A	3116	1/1	0.94	0.24	61,61,61,61	0
55	MG	1Z	301	1/1	0.94	0.08	64,64,64,64	0
55	MG	1A	3491	1/1	0.94	0.08	57,57,57,57	0
55	MG	2A	3537	1/1	0.94	0.10	54,54,54,54	0
55	MG	1A	3423	1/1	0.94	0.30	59,59,59,59	0
55	MG	1A	3183	1/1	0.94	0.11	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2f	202	1/1	0.94	0.20	63,63,63,63	0
55	MG	2A	3121	1/1	0.94	0.07	93,93,93,93	0
55	MG	2A	3122	1/1	0.94	0.09	51,51,51,51	0
55	MG	1A	3496	1/1	0.94	0.26	58,58,58,58	0
55	MG	1A	3147	1/1	0.94	0.32	34,34,34,34	0
55	MG	2R	204	1/1	0.94	0.08	55,55,55,55	0
55	MG	10	105	1/1	0.94	0.12	50,50,50,50	0
55	MG	2T	202	1/1	0.94	0.09	62,62,62,62	0
55	MG	1A	4070	1/1	0.94	0.16	60,60,60,60	0
55	MG	2A	3130	1/1	0.94	0.15	49,49,49,49	0
55	MG	2U	201	1/1	0.94	0.30	59,59,59,59	0
55	MG	2A	3133	1/1	0.94	0.12	50,50,50,50	0
55	MG	1A	4071	1/1	0.94	0.07	30,30,30,30	0
55	MG	1A	3498	1/1	0.94	0.43	53,53,53,53	0
55	MG	1A	3117	1/1	0.94	0.08	56,56,56,56	0
55	MG	1a	1739	1/1	0.94	0.10	49,49,49,49	0
55	MG	1A	4077	1/1	0.94	0.09	54,54,54,54	0
55	MG	1a	1741	1/1	0.94	0.19	55,55,55,55	0
55	MG	2A	3580	1/1	0.94	0.07	64,64,64,64	0
55	MG	2A	3325	1/1	0.94	0.12	62,62,62,62	0
55	MG	1A	3608	1/1	0.95	0.30	50,50,50,50	0
55	MG	1A	3831	1/1	0.95	0.10	55,55,55,55	0
55	MG	1Q	206	1/1	0.95	0.07	33,33,33,33	0
55	MG	1A	3030	1/1	0.95	0.22	43,43,43,43	0
55	MG	1A	3114	1/1	0.95	0.10	47,47,47,47	0
55	MG	1R	204	1/1	0.95	0.05	38,38,38,38	0
55	MG	1a	1677	1/1	0.95	0.15	52,52,52,52	0
55	MG	1A	3185	1/1	0.95	0.05	55,55,55,55	0
55	MG	1A	3365	1/1	0.95	0.19	46,46,46,46	0
55	MG	2A	3687	1/1	0.95	0.07	51,51,51,51	0
55	MG	1A	3618	1/1	0.95	0.15	49,49,49,49	0
55	MG	2A	3242	1/1	0.95	0.19	61,61,61,61	0
55	MG	1a	1681	1/1	0.95	0.08	51,51,51,51	0
55	MG	2A	3244	1/1	0.95	0.11	69,69,69,69	0
55	MG	1A	3535	1/1	0.95	0.14	39,39,39,39	0
55	MG	2A	3425	1/1	0.95	0.19	47,47,47,47	0
55	MG	2A	3427	1/1	0.95	0.32	49,49,49,49	0
55	MG	1A	3136	1/1	0.95	0.10	49,49,49,49	0
55	MG	2A	3698	1/1	0.95	0.16	52,52,52,52	0
55	MG	1U	201	1/1	0.95	0.41	42,42,42,42	0
55	MG	1A	3419	1/1	0.95	0.17	50,50,50,50	0
55	MG	1A	3633	1/1	0.95	0.11	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1U	205	1/1	0.95	0.21	48,48,48,48	0
55	MG	1A	3162	1/1	0.95	0.15	46,46,46,46	0
55	MG	2A	3436	1/1	0.95	0.21	64,64,64,64	0
55	MG	1A	4045	1/1	0.95	0.06	57,57,57,57	0
55	MG	1A	3540	1/1	0.95	0.13	29,29,29,29	0
55	MG	1A	3541	1/1	0.95	0.15	33,33,33,33	0
55	MG	1A	3641	1/1	0.95	0.06	37,37,37,37	0
55	MG	1V	206	1/1	0.95	0.21	37,37,37,37	0
55	MG	1A	3193	1/1	0.95	0.30	49,49,49,49	0
55	MG	1A	4065	1/1	0.95	0.18	70,70,70,70	0
55	MG	1A	3369	1/1	0.95	0.23	67,67,67,67	0
55	MG	2a	3054	1/1	0.95	0.10	58,58,58,58	0
55	MG	2A	3721	1/1	0.95	0.24	59,59,59,59	0
55	MG	1A	3082	1/1	0.95	0.17	47,47,47,47	0
55	MG	1A	4073	1/1	0.95	0.08	49,49,49,49	0
55	MG	1A	3424	1/1	0.95	0.18	49,49,49,49	0
55	MG	1A	3547	1/1	0.95	0.15	55,55,55,55	0
55	MG	2a	3061	1/1	0.95	0.08	85,85,85,85	0
55	MG	2A	3453	1/1	0.95	0.18	55,55,55,55	0
55	MG	1A	3656	1/1	0.95	0.21	38,38,38,38	0
55	MG	2A	3265	1/1	0.95	0.17	63,63,63,63	0
55	MG	1A	3427	1/1	0.95	0.09	47,47,47,47	0
55	MG	1A	3864	1/1	0.95	0.12	52,52,52,52	0
55	MG	2a	3067	1/1	0.95	0.13	56,56,56,56	0
55	MG	1A	3660	1/1	0.95	0.13	39,39,39,39	0
55	MG	1A	3233	1/1	0.95	0.08	41,41,41,41	0
55	MG	1A	3867	1/1	0.95	0.19	39,39,39,39	0
55	MG	1A	3274	1/1	0.95	0.09	57,57,57,57	0
55	MG	1A	3664	1/1	0.95	0.08	47,47,47,47	0
55	MG	10	102	1/1	0.95	0.17	51,51,51,51	0
55	MG	1A	3667	1/1	0.95	0.06	43,43,43,43	0
55	MG	1A	3083	1/1	0.95	0.10	44,44,44,44	0
55	MG	1A	3552	1/1	0.95	0.37	48,48,48,48	0
55	MG	1A	3675	1/1	0.95	0.09	68,68,68,68	0
55	MG	2A	3100	1/1	0.95	0.15	47,47,47,47	0
55	MG	2A	3749	1/1	0.95	0.14	58,58,58,58	0
55	MG	1A	3325	1/1	0.95	0.21	50,50,50,50	0
55	MG	1A	3139	1/1	0.95	0.22	38,38,38,38	0
55	MG	1a	1727	1/1	0.95	0.11	62,62,62,62	0
55	MG	1A	3555	1/1	0.95	0.20	47,47,47,47	0
55	MG	2A	3106	1/1	0.95	0.08	68,68,68,68	0
55	MG	2a	3087	1/1	0.95	0.17	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3107	1/1	0.95	0.09	45,45,45,45	0
55	MG	1A	3886	1/1	0.95	0.29	38,38,38,38	0
55	MG	1A	3239	1/1	0.95	0.15	41,41,41,41	0
55	MG	1A	4099	1/1	0.95	0.17	54,54,54,54	0
55	MG	13	104	1/1	0.95	0.07	53,53,53,53	0
55	MG	1A	3329	1/1	0.95	0.27	58,58,58,58	0
55	MG	2A	3481	1/1	0.95	0.05	42,42,42,42	0
55	MG	2A	3114	1/1	0.95	0.04	77,77,77,77	0
55	MG	13	106	1/1	0.95	0.17	47,47,47,47	0
55	MG	1A	3705	1/1	0.95	0.06	66,66,66,66	0
55	MG	2A	3485	1/1	0.95	0.06	44,44,44,44	0
55	MG	1A	3280	1/1	0.95	0.32	51,51,51,51	0
55	MG	1A	3333	1/1	0.95	0.13	50,50,50,50	0
55	MG	2A	3777	1/1	0.95	0.21	73,73,73,73	0
55	MG	1A	3198	1/1	0.95	0.38	46,46,46,46	0
55	MG	1B	205	1/1	0.95	0.12	45,45,45,45	0
55	MG	1A	3495	1/1	0.95	0.15	70,70,70,70	0
55	MG	2A	3783	1/1	0.95	0.13	55,55,55,55	0
55	MG	1A	3564	1/1	0.95	0.19	53,53,53,53	0
55	MG	1A	3043	1/1	0.95	0.21	43,43,43,43	0
55	MG	1a	1754	1/1	0.95	0.07	45,45,45,45	0
55	MG	17	101	1/1	0.95	0.20	44,44,44,44	0
55	MG	1a	1756	1/1	0.95	0.10	63,63,63,63	0
55	MG	1A	3285	1/1	0.95	0.07	61,61,61,61	0
55	MG	2A	3794	1/1	0.95	0.16	58,58,58,58	0
55	MG	2A	3132	1/1	0.95	0.13	48,48,48,48	0
55	MG	2A	3799	1/1	0.95	0.10	71,71,71,71	0
55	MG	1A	3243	1/1	0.95	0.24	41,41,41,41	0
55	MG	1a	1763	1/1	0.95	0.08	62,62,62,62	0
55	MG	2a	3120	1/1	0.95	0.20	62,62,62,62	0
55	MG	2A	3501	1/1	0.95	0.09	77,77,77,77	0
55	MG	1A	3244	1/1	0.95	0.12	61,61,61,61	0
55	MG	2A	3136	1/1	0.95	0.21	44,44,44,44	0
55	MG	1B	212	1/1	0.95	0.28	63,63,63,63	0
55	MG	1A	3245	1/1	0.95	0.09	42,42,42,42	0
55	MG	2A	3508	1/1	0.95	0.09	44,44,44,44	0
55	MG	2A	3141	1/1	0.95	0.08	62,62,62,62	0
55	MG	1A	3071	1/1	0.95	0.08	20,20,20,20	0
55	MG	2A	3144	1/1	0.95	0.10	64,64,64,64	0
55	MG	2A	3823	1/1	0.95	0.07	80,80,80,80	0
55	MG	1a	1769	1/1	0.95	0.07	56,56,56,56	0
55	MG	1B	215	1/1	0.95	0.11	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1B	217	1/1	0.95	0.17	40,40,40,40	0
55	MG	1A	3732	1/1	0.95	0.07	53,53,53,53	0
55	MG	2A	3830	1/1	0.95	0.20	49,49,49,49	0
55	MG	1B	220	1/1	0.95	0.15	34,34,34,34	0
55	MG	2A	3528	1/1	0.95	0.10	60,60,60,60	0
55	MG	1a	1783	1/1	0.95	0.07	49,49,49,49	0
55	MG	1A	3918	1/1	0.95	0.07	50,50,50,50	0
55	MG	1A	3248	1/1	0.95	0.28	50,50,50,50	0
55	MG	2A	3532	1/1	0.95	0.18	55,55,55,55	0
55	MG	2A	3327	1/1	0.95	0.23	46,46,46,46	0
55	MG	2A	3846	1/1	0.95	0.07	66,66,66,66	0
55	MG	1A	3143	1/1	0.95	0.09	26,26,26,26	0
55	MG	2A	3849	1/1	0.95	0.13	48,48,48,48	0
55	MG	1A	3449	1/1	0.95	0.13	46,46,46,46	0
55	MG	2a	3148	1/1	0.95	0.17	54,54,54,54	0
55	MG	1A	3087	1/1	0.95	0.36	45,45,45,45	0
55	MG	2a	3151	1/1	0.95	0.17	80,80,80,80	0
55	MG	2a	3152	1/1	0.95	0.05	70,70,70,70	0
55	MG	1A	3744	1/1	0.95	0.07	76,76,76,76	0
55	MG	2A	3551	1/1	0.95	0.12	48,48,48,48	0
55	MG	1a	1791	1/1	0.95	0.08	79,79,79,79	0
55	MG	1A	3392	1/1	0.95	0.20	52,52,52,52	0
55	MG	1B	230	1/1	0.95	0.07	66,66,66,66	0
55	MG	1A	3930	1/1	0.95	0.06	42,42,42,42	0
55	MG	1A	3937	1/1	0.95	0.11	43,43,43,43	0
55	MG	1A	3938	1/1	0.95	0.07	63,63,63,63	0
55	MG	1A	3582	1/1	0.95	0.28	66,66,66,66	0
55	MG	2A	3164	1/1	0.95	0.09	42,42,42,42	0
55	MG	1A	3009	1/1	0.95	0.08	37,37,37,37	0
55	MG	1A	3750	1/1	0.95	0.09	43,43,43,43	0
55	MG	1A	3951	1/1	0.95	0.08	29,29,29,29	0
55	MG	1a	1620	1/1	0.95	0.10	68,68,68,68	0
55	MG	1A	3509	1/1	0.95	0.22	46,46,46,46	0
55	MG	2a	3176	1/1	0.95	0.05	77,77,77,77	0
55	MG	1a	1811	1/1	0.95	0.07	62,62,62,62	0
55	MG	2a	3178	1/1	0.95	0.13	60,60,60,60	0
55	MG	1A	3010	1/1	0.95	0.06	50,50,50,50	0
55	MG	2A	3589	1/1	0.95	0.07	51,51,51,51	0
55	MG	1A	3957	1/1	0.95	0.06	73,73,73,73	0
55	MG	1A	3106	1/1	0.95	0.12	43,43,43,43	0
55	MG	1E	306	1/1	0.95	0.07	42,42,42,42	0
55	MG	2A	3597	1/1	0.95	0.06	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2D	306	1/1	0.95	0.11	64,64,64,64	0
55	MG	1E	307	1/1	0.95	0.12	56,56,56,56	0
55	MG	2E	303	1/1	0.95	0.14	58,58,58,58	0
55	MG	1l	201	1/1	0.95	0.09	72,72,72,72	0
55	MG	1A	3064	1/1	0.95	0.33	44,44,44,44	0
55	MG	2A	3355	1/1	0.95	0.12	56,56,56,56	0
55	MG	2E	308	1/1	0.95	0.06	42,42,42,42	0
55	MG	1A	3589	1/1	0.95	0.09	58,58,58,58	0
55	MG	1A	3762	1/1	0.95	0.07	55,55,55,55	0
55	MG	1A	3110	1/1	0.95	0.31	53,53,53,53	0
55	MG	1A	3768	1/1	0.95	0.15	51,51,51,51	0
55	MG	1F	302	1/1	0.95	0.23	41,41,41,41	0
55	MG	1A	3769	1/1	0.95	0.11	58,58,58,58	0
55	MG	2A	3365	1/1	0.95	0.07	56,56,56,56	0
55	MG	2P	202	1/1	0.95	0.15	63,63,63,63	0
55	MG	1F	305	1/1	0.95	0.27	35,35,35,35	0
55	MG	1A	3770	1/1	0.95	0.08	28,28,28,28	0
55	MG	1F	307	1/1	0.95	0.08	52,52,52,52	0
55	MG	1x	111	1/1	0.95	0.15	72,72,72,72	0
55	MG	2A	3002	1/1	0.95	0.17	41,41,41,41	0
55	MG	1A	3036	1/1	0.95	0.09	56,56,56,56	0
55	MG	1A	3516	1/1	0.95	0.34	37,37,37,37	0
55	MG	1A	3305	1/1	0.95	0.32	45,45,45,45	0
55	MG	1G	201	1/1	0.95	0.14	35,35,35,35	0
55	MG	2A	3630	1/1	0.95	0.16	47,47,47,47	0
55	MG	1A	3982	1/1	0.95	0.06	64,64,64,64	0
55	MG	1A	3519	1/1	0.95	0.11	59,59,59,59	0
55	MG	1A	3520	1/1	0.95	0.22	49,49,49,49	0
55	MG	2W	203	1/1	0.95	0.17	52,52,52,52	0
55	MG	1A	3986	1/1	0.95	0.07	72,72,72,72	0
55	MG	1A	3598	1/1	0.95	0.27	64,64,64,64	0
55	MG	1A	3798	1/1	0.95	0.12	60,60,60,60	0
55	MG	1N	202	1/1	0.95	0.21	51,51,51,51	0
55	MG	1A	3214	1/1	0.95	0.21	55,55,55,55	0
55	MG	2A	3023	1/1	0.95	0.17	59,59,59,59	0
55	MG	1N	204	1/1	0.95	0.10	47,47,47,47	0
55	MG	1A	3804	1/1	0.95	0.10	49,49,49,49	0
55	MG	1O	201	1/1	0.95	0.18	57,57,57,57	0
55	MG	1A	3309	1/1	0.95	0.30	53,53,53,53	0
55	MG	2A	3214	1/1	0.95	0.08	53,53,53,53	0
55	MG	2A	3391	1/1	0.95	0.18	52,52,52,52	0
55	MG	1a	1658	1/1	0.95	0.15	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	28	101	1/1	0.95	0.28	63,63,63,63	0
55	MG	28	103	1/1	0.95	0.08	54,54,54,54	0
55	MG	2a	3001	1/1	0.95	0.07	61,61,61,61	0
55	MG	1A	3180	1/1	0.95	0.14	43,43,43,43	0
55	MG	2l	204	1/1	0.95	0.05	59,59,59,59	0
55	MG	1A	3048	1/1	0.95	0.06	31,31,31,31	0
55	MG	2a	3004	1/1	0.95	0.22	62,62,62,62	0
55	MG	1A	3411	1/1	0.95	0.05	48,48,48,48	0
55	MG	1A	3821	1/1	0.95	0.10	58,58,58,58	0
55	MG	2A	3035	1/1	0.95	0.10	49,49,49,49	0
55	MG	1A	3823	1/1	0.95	0.10	42,42,42,42	0
55	MG	1A	3527	1/1	0.95	0.21	58,58,58,58	0
55	MG	1a	1665	1/1	0.95	0.06	56,56,56,56	0
55	MG	2A	3226	1/1	0.95	0.10	56,56,56,56	0
55	MG	2A	3041	1/1	0.95	0.06	47,47,47,47	0
55	MG	1A	3528	1/1	0.95	0.31	48,48,48,48	0
55	MG	1A	3827	1/1	0.95	0.17	37,37,37,37	0
55	MG	2A	3407	1/1	0.95	0.24	48,48,48,48	0
55	MG	2A	3044	1/1	0.95	0.14	29,29,29,29	0
55	MG	1A	3182	1/1	0.95	0.17	41,41,41,41	0
60	FME	1x	112	10/11	0.95	0.15	37,39,42,47	10
55	MG	1A	3508	1/1	0.96	0.09	48,48,48,48	0
55	MG	2A	3669	1/1	0.96	0.12	65,65,65,65	0
55	MG	1A	3791	1/1	0.96	0.07	42,42,42,42	0
55	MG	2A	3051	1/1	0.96	0.08	53,53,53,53	0
55	MG	1A	3278	1/1	0.96	0.18	39,39,39,39	0
55	MG	1A	3565	1/1	0.96	0.38	48,48,48,48	0
55	MG	2a	3015	1/1	0.96	0.10	60,60,60,60	0
55	MG	2A	3674	1/1	0.96	0.05	67,67,67,67	0
55	MG	1a	1699	1/1	0.96	0.30	66,66,66,66	0
55	MG	1A	4104	1/1	0.96	0.08	51,51,51,51	0
55	MG	1A	3318	1/1	0.96	0.22	54,54,54,54	0
55	MG	1a	1704	1/1	0.96	0.08	51,51,51,51	0
55	MG	1a	1705	1/1	0.96	0.19	57,57,57,57	0
55	MG	1A	3187	1/1	0.96	0.12	47,47,47,47	0
55	MG	1A	3934	1/1	0.96	0.06	50,50,50,50	0
55	MG	1A	3935	1/1	0.96	0.06	62,62,62,62	0
55	MG	1A	3650	1/1	0.96	0.06	42,42,42,42	0
55	MG	1A	3805	1/1	0.96	0.10	63,63,63,63	0
55	MG	2A	3685	1/1	0.96	0.09	72,72,72,72	0
55	MG	2A	3686	1/1	0.96	0.10	55,55,55,55	0
55	MG	2A	3065	1/1	0.96	0.07	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3810	1/1	0.96	0.14	46,46,46,46	0
55	MG	1A	3652	1/1	0.96	0.09	29,29,29,29	0
55	MG	2A	3068	1/1	0.96	0.07	52,52,52,52	0
55	MG	1A	3249	1/1	0.96	0.44	46,46,46,46	0
55	MG	1A	3283	1/1	0.96	0.30	42,42,42,42	0
55	MG	1A	3217	1/1	0.96	0.22	46,46,46,46	0
55	MG	2A	3435	1/1	0.96	0.12	56,56,56,56	0
55	MG	1A	3095	1/1	0.96	0.11	26,26,26,26	0
55	MG	1A	3575	1/1	0.96	0.06	48,48,48,48	0
55	MG	1A	3958	1/1	0.96	0.07	84,84,84,84	0
55	MG	13	102	1/1	0.96	0.09	61,61,61,61	0
55	MG	1A	3959	1/1	0.96	0.06	66,66,66,66	0
55	MG	1A	3126	1/1	0.96	0.07	44,44,44,44	0
55	MG	2A	3080	1/1	0.96	0.35	76,76,76,76	0
55	MG	2A	3707	1/1	0.96	0.12	58,58,58,58	0
55	MG	2A	3081	1/1	0.96	0.18	69,69,69,69	0
55	MG	1B	219	1/1	0.96	0.08	44,44,44,44	0
55	MG	2A	3448	1/1	0.96	0.17	61,61,61,61	0
55	MG	1A	3577	1/1	0.96	0.19	46,46,46,46	0
55	MG	1A	3109	1/1	0.96	0.05	35,35,35,35	0
55	MG	1B	222	1/1	0.96	0.14	48,48,48,48	0
55	MG	1a	1729	1/1	0.96	0.09	55,55,55,55	0
55	MG	2A	3088	1/1	0.96	0.06	42,42,42,42	0
55	MG	1A	3005	1/1	0.96	0.13	49,49,49,49	0
55	MG	15	103	1/1	0.96	0.34	46,46,46,46	0
55	MG	2A	3091	1/1	0.96	0.13	49,49,49,49	0
55	MG	1A	3966	1/1	0.96	0.14	63,63,63,63	0
55	MG	1A	3328	1/1	0.96	0.16	40,40,40,40	0
55	MG	2A	3727	1/1	0.96	0.14	46,46,46,46	0
55	MG	1A	3970	1/1	0.96	0.07	33,33,33,33	0
55	MG	1A	3085	1/1	0.96	0.06	33,33,33,33	0
55	MG	15	108	1/1	0.96	0.07	57,57,57,57	0
55	MG	16	101	1/1	0.96	0.09	60,60,60,60	0
55	MG	2A	3277	1/1	0.96	0.09	75,75,75,75	0
55	MG	1A	3330	1/1	0.96	0.13	38,38,38,38	0
55	MG	1A	3973	1/1	0.96	0.19	52,52,52,52	0
55	MG	2A	3735	1/1	0.96	0.11	62,62,62,62	0
55	MG	2A	3736	1/1	0.96	0.10	63,63,63,63	0
55	MG	2a	3071	1/1	0.96	0.16	55,55,55,55	0
55	MG	1a	1746	1/1	0.96	0.05	65,65,65,65	0
55	MG	1B	231	1/1	0.96	0.18	49,49,49,49	0
55	MG	1A	3676	1/1	0.96	0.07	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3976	1/1	0.96	0.10	38,38,38,38	0
55	MG	1A	3835	1/1	0.96	0.06	33,33,33,33	0
55	MG	2A	3285	1/1	0.96	0.12	50,50,50,50	0
55	MG	1A	3678	1/1	0.96	0.09	34,34,34,34	0
55	MG	2A	3744	1/1	0.96	0.18	51,51,51,51	0
55	MG	1D	301	1/1	0.96	0.32	38,38,38,38	0
55	MG	1D	302	1/1	0.96	0.12	52,52,52,52	0
55	MG	1A	3061	1/1	0.96	0.06	37,37,37,37	0
55	MG	1A	3839	1/1	0.96	0.07	61,61,61,61	0
55	MG	2A	3111	1/1	0.96	0.10	48,48,48,48	0
55	MG	2A	3752	1/1	0.96	0.14	45,45,45,45	0
55	MG	2a	3086	1/1	0.96	0.14	80,80,80,80	0
55	MG	1A	3332	1/1	0.96	0.10	48,48,48,48	0
55	MG	2A	3754	1/1	0.96	0.07	47,47,47,47	0
55	MG	1A	3984	1/1	0.96	0.10	43,43,43,43	0
55	MG	2a	3090	1/1	0.96	0.10	64,64,64,64	0
55	MG	1D	311	1/1	0.96	0.09	37,37,37,37	0
55	MG	1A	3475	1/1	0.96	0.06	50,50,50,50	0
55	MG	1A	3843	1/1	0.96	0.15	49,49,49,49	0
55	MG	1E	304	1/1	0.96	0.25	40,40,40,40	0
55	MG	1A	3229	1/1	0.96	0.08	47,47,47,47	0
55	MG	1a	1771	1/1	0.96	0.10	85,85,85,85	0
55	MG	1A	3477	1/1	0.96	0.15	60,60,60,60	0
55	MG	1a	1774	1/1	0.96	0.07	53,53,53,53	0
55	MG	1a	1776	1/1	0.96	0.10	54,54,54,54	0
55	MG	1a	1778	1/1	0.96	0.06	64,64,64,64	0
55	MG	1A	3990	1/1	0.96	0.07	53,53,53,53	0
55	MG	2A	3126	1/1	0.96	0.35	47,47,47,47	0
55	MG	1a	1780	1/1	0.96	0.06	54,54,54,54	0
55	MG	1A	3078	1/1	0.96	0.22	44,44,44,44	0
55	MG	1A	3708	1/1	0.96	0.09	43,43,43,43	0
55	MG	2A	3131	1/1	0.96	0.10	33,33,33,33	0
55	MG	2A	3779	1/1	0.96	0.10	62,62,62,62	0
55	MG	1A	3710	1/1	0.96	0.11	45,45,45,45	0
55	MG	1a	1785	1/1	0.96	0.05	76,76,76,76	0
55	MG	2A	3499	1/1	0.96	0.06	66,66,66,66	0
55	MG	1A	3376	1/1	0.96	0.19	41,41,41,41	0
55	MG	1A	3262	1/1	0.96	0.11	52,52,52,52	0
55	MG	1A	3199	1/1	0.96	0.06	48,48,48,48	0
55	MG	2A	3503	1/1	0.96	0.10	74,74,74,74	0
55	MG	2A	3504	1/1	0.96	0.07	51,51,51,51	0
55	MG	1A	3854	1/1	0.96	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
55	MG	2A	3139	1/1	0.96	0.19	57,57,57,57	0
55	MG	1A	3297	1/1	0.96	0.11	68,68,68,68	0
55	MG	1A	3380	1/1	0.96	0.07	33,33,33,33	0
55	MG	2A	3796	1/1	0.96	0.08	57,57,57,57	0
55	MG	2A	3142	1/1	0.96	0.10	66,66,66,66	0
55	MG	1A	3858	1/1	0.96	0.10	49,49,49,49	0
55	MG	1A	3079	1/1	0.96	0.20	41,41,41,41	0
55	MG	1A	4013	1/1	0.96	0.06	32,32,32,32	0
55	MG	1A	4020	1/1	0.96	0.09	45,45,45,45	0
55	MG	2A	3519	1/1	0.96	0.14	74,74,74,74	0
55	MG	1F	311	1/1	0.96	0.10	36,36,36,36	0
55	MG	1A	3101	1/1	0.96	0.08	56,56,56,56	0
55	MG	2A	3523	1/1	0.96	0.10	47,47,47,47	0
55	MG	2A	3524	1/1	0.96	0.17	72,72,72,72	0
55	MG	2A	3816	1/1	0.96	0.14	56,56,56,56	0
55	MG	2A	3818	1/1	0.96	0.06	70,70,70,70	0
55	MG	1a	1804	1/1	0.96	0.26	55,55,55,55	0
55	MG	1A	3234	1/1	0.96	0.06	60,60,60,60	0
55	MG	2A	3821	1/1	0.96	0.13	70,70,70,70	0
55	MG	2A	3329	1/1	0.96	0.20	60,60,60,60	0
55	MG	2A	3824	1/1	0.96	0.06	61,61,61,61	0
55	MG	1A	3154	1/1	0.96	0.09	49,49,49,49	0
55	MG	1A	3021	1/1	0.96	0.16	41,41,41,41	0
55	MG	1a	1633	1/1	0.96	0.07	40,40,40,40	0
55	MG	1A	3306	1/1	0.96	0.23	55,55,55,55	0
55	MG	2A	3538	1/1	0.96	0.18	55,55,55,55	0
55	MG	2A	3832	1/1	0.96	0.12	45,45,45,45	0
55	MG	1A	4031	1/1	0.96	0.09	55,55,55,55	0
55	MG	1A	3345	1/1	0.96	0.34	54,54,54,54	0
55	MG	1A	3736	1/1	0.96	0.11	57,57,57,57	0
55	MG	1A	3346	1/1	0.96	0.17	46,46,46,46	0
55	MG	2A	3841	1/1	0.96	0.11	59,59,59,59	0
55	MG	1A	3158	1/1	0.96	0.13	57,57,57,57	0
55	MG	1e	201	1/1	0.96	0.05	79,79,79,79	0
55	MG	1e	202	1/1	0.96	0.13	69,69,69,69	0
55	MG	2A	3555	1/1	0.96	0.10	29,29,29,29	0
55	MG	1A	3872	1/1	0.96	0.07	48,48,48,48	0
55	MG	1A	3874	1/1	0.96	0.06	45,45,45,45	0
55	MG	1l	202	1/1	0.96	0.07	50,50,50,50	0
55	MG	1n	101	1/1	0.96	0.09	58,58,58,58	0
55	MG	2A	3568	1/1	0.96	0.13	56,56,56,56	0
55	MG	2a	3163	1/1	0.96	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
55	MG	1A	3103	1/1	0.96	0.08	45,45,45,45	0
55	MG	1A	4043	1/1	0.96	0.06	38,38,38,38	0
55	MG	2a	3167	1/1	0.96	0.05	56,56,56,56	0
55	MG	2a	3169	1/1	0.96	0.10	72,72,72,72	0
55	MG	2A	3169	1/1	0.96	0.10	60,60,60,60	0
55	MG	2a	3172	1/1	0.96	0.12	79,79,79,79	0
55	MG	1A	3607	1/1	0.96	0.19	42,42,42,42	0
55	MG	2A	3575	1/1	0.96	0.12	54,54,54,54	0
55	MG	1O	205	1/1	0.96	0.11	62,62,62,62	0
55	MG	1A	3877	1/1	0.96	0.08	28,28,28,28	0
55	MG	2A	3579	1/1	0.96	0.11	35,35,35,35	0
55	MG	1P	202	1/1	0.96	0.32	47,47,47,47	0
55	MG	2a	3179	1/1	0.96	0.07	49,49,49,49	0
55	MG	2A	3581	1/1	0.96	0.09	42,42,42,42	0
55	MG	1P	203	1/1	0.96	0.22	31,31,31,31	0
55	MG	1A	4046	1/1	0.96	0.09	39,39,39,39	0
55	MG	1A	3878	1/1	0.96	0.20	41,41,41,41	0
55	MG	2A	3592	1/1	0.96	0.06	59,59,59,59	0
55	MG	2A	3593	1/1	0.96	0.05	48,48,48,48	0
55	MG	1A	4051	1/1	0.96	0.06	45,45,45,45	0
55	MG	2A	3358	1/1	0.96	0.18	37,37,37,37	0
55	MG	1a	1654	1/1	0.96	0.14	56,56,56,56	0
55	MG	1A	3011	1/1	0.96	0.08	46,46,46,46	0
55	MG	1A	4056	1/1	0.96	0.13	85,85,85,85	0
55	MG	1A	4058	1/1	0.96	0.07	52,52,52,52	0
55	MG	1A	3351	1/1	0.96	0.23	53,53,53,53	0
55	MG	2a	3195	1/1	0.96	0.05	61,61,61,61	0
55	MG	2E	301	1/1	0.96	0.12	57,57,57,57	0
55	MG	1Q	203	1/1	0.96	0.10	35,35,35,35	0
55	MG	1A	3242	1/1	0.96	0.37	37,37,37,37	0
55	MG	2A	3008	1/1	0.96	0.06	44,44,44,44	0
55	MG	1A	3612	1/1	0.96	0.06	61,61,61,61	0
55	MG	2A	3010	1/1	0.96	0.12	43,43,43,43	0
55	MG	2E	307	1/1	0.96	0.08	52,52,52,52	0
55	MG	1A	3748	1/1	0.96	0.20	67,67,67,67	0
55	MG	2A	3013	1/1	0.96	0.09	53,53,53,53	0
55	MG	2A	3610	1/1	0.96	0.08	42,42,42,42	0
55	MG	2F	304	1/1	0.96	0.11	65,65,65,65	0
55	MG	2A	3014	1/1	0.96	0.09	46,46,46,46	0
55	MG	2F	306	1/1	0.96	0.15	58,58,58,58	0
55	MG	1A	3121	1/1	0.96	0.10	41,41,41,41	0
55	MG	2A	3613	1/1	0.96	0.12	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3615	1/1	0.96	0.10	56,56,56,56	0
55	MG	2A	3016	1/1	0.96	0.15	44,44,44,44	0
55	MG	1A	4072	1/1	0.96	0.06	59,59,59,59	0
55	MG	1A	3751	1/1	0.96	0.14	50,50,50,50	0
55	MG	1A	3615	1/1	0.96	0.05	46,46,46,46	0
55	MG	1A	3889	1/1	0.96	0.34	43,43,43,43	0
55	MG	2A	3198	1/1	0.96	0.09	65,65,65,65	0
55	MG	1A	3003	1/1	0.96	0.05	33,33,33,33	0
55	MG	2A	3625	1/1	0.96	0.10	54,54,54,54	0
55	MG	2A	3024	1/1	0.96	0.10	46,46,46,46	0
55	MG	2A	3629	1/1	0.96	0.08	51,51,51,51	0
55	MG	1A	3032	1/1	0.96	0.26	48,48,48,48	0
55	MG	1A	3619	1/1	0.96	0.08	32,32,32,32	0
55	MG	2a	3225	1/1	0.96	0.05	62,62,62,62	0
55	MG	2A	3636	1/1	0.96	0.06	58,58,58,58	0
55	MG	2A	3385	1/1	0.96	0.16	54,54,54,54	0
55	MG	2A	3638	1/1	0.96	0.08	58,58,58,58	0
55	MG	1U	202	1/1	0.96	0.13	36,36,36,36	0
55	MG	1A	4081	1/1	0.96	0.12	42,42,42,42	0
55	MG	1A	3398	1/1	0.96	0.39	45,45,45,45	0
55	MG	1A	4083	1/1	0.96	0.15	50,50,50,50	0
55	MG	1A	3898	1/1	0.96	0.07	23,23,23,23	0
55	MG	2A	3646	1/1	0.96	0.27	62,62,62,62	0
55	MG	1A	3621	1/1	0.96	0.06	29,29,29,29	0
55	MG	1A	3764	1/1	0.96	0.10	44,44,44,44	0
55	MG	2A	3034	1/1	0.96	0.11	56,56,56,56	0
55	MG	1A	3622	1/1	0.96	0.11	45,45,45,45	0
55	MG	1A	3630	1/1	0.96	0.08	46,46,46,46	0
55	MG	25	102	1/1	0.96	0.32	53,53,53,53	0
55	MG	1A	3399	1/1	0.96	0.13	47,47,47,47	0
55	MG	1A	3246	1/1	0.96	0.22	48,48,48,48	0
55	MG	2A	3040	1/1	0.96	0.08	48,48,48,48	0
55	MG	1A	3401	1/1	0.96	0.07	47,47,47,47	0
55	MG	2A	3222	1/1	0.96	0.07	50,50,50,50	0
55	MG	1W	202	1/1	0.96	0.09	54,54,54,54	0
55	MG	1A	3774	1/1	0.96	0.06	44,44,44,44	0
55	MG	1A	4093	1/1	0.96	0.13	41,41,41,41	0
55	MG	2A	3405	1/1	0.96	0.19	48,48,48,48	0
55	MG	2x	105	1/1	0.96	0.20	49,49,49,49	0
55	MG	1W	206	1/1	0.96	0.16	40,40,40,40	0
55	MG	1A	3779	1/1	0.96	0.07	39,39,39,39	0
55	MG	1A	3402	1/1	0.96	0.18	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	SPS	2A	3851	23/23	0.96	0.10	51,56,58,60	0
58	ZN	14	102	1/1	0.96	0.10	111,111,111,111	0
55	MG	1A	3186	1/1	0.96	0.09	51,51,51,51	0
55	MG	1E	309	1/1	0.97	0.09	25,25,25,25	0
55	MG	1a	1615	1/1	0.97	0.07	68,68,68,68	0
55	MG	1A	3543	1/1	0.97	0.36	57,57,57,57	0
55	MG	2A	3725	1/1	0.97	0.05	69,69,69,69	0
55	MG	1A	3852	1/1	0.97	0.08	36,36,36,36	0
55	MG	2A	3129	1/1	0.97	0.14	40,40,40,40	0
55	MG	1A	3307	1/1	0.97	0.14	40,40,40,40	0
55	MG	1A	3041	1/1	0.97	0.07	35,35,35,35	0
55	MG	1A	3031	1/1	0.97	0.23	30,30,30,30	0
55	MG	1a	1621	1/1	0.97	0.05	57,57,57,57	0
55	MG	1A	3050	1/1	0.97	0.18	36,36,36,36	0
55	MG	1A	3235	1/1	0.97	0.07	51,51,51,51	0
55	MG	1A	3116	1/1	0.97	0.10	47,47,47,47	0
55	MG	2A	3137	1/1	0.97	0.11	45,45,45,45	0
55	MG	1A	3152	1/1	0.97	0.14	51,51,51,51	0
55	MG	1A	4017	1/1	0.97	0.07	47,47,47,47	0
55	MG	1A	3731	1/1	0.97	0.09	34,34,34,34	0
55	MG	1A	3133	1/1	0.97	0.20	47,47,47,47	0
55	MG	1A	3733	1/1	0.97	0.08	48,48,48,48	0
55	MG	1A	4025	1/1	0.97	0.10	59,59,59,59	0
55	MG	1A	3735	1/1	0.97	0.07	46,46,46,46	0
55	MG	1A	3611	1/1	0.97	0.34	48,48,48,48	0
55	MG	1A	3204	1/1	0.97	0.17	30,30,30,30	0
55	MG	1a	1634	1/1	0.97	0.17	55,55,55,55	0
55	MG	2A	3747	1/1	0.97	0.06	54,54,54,54	0
55	MG	1A	3868	1/1	0.97	0.07	45,45,45,45	0
55	MG	1A	4032	1/1	0.97	0.07	55,55,55,55	0
55	MG	1A	3869	1/1	0.97	0.06	55,55,55,55	0
55	MG	2a	3059	1/1	0.97	0.05	86,86,86,86	0
55	MG	1A	3175	1/1	0.97	0.28	36,36,36,36	0
55	MG	1A	3614	1/1	0.97	0.06	32,32,32,32	0
55	MG	2A	3512	1/1	0.97	0.14	46,46,46,46	0
55	MG	1A	3176	1/1	0.97	0.05	39,39,39,39	0
55	MG	1A	3207	1/1	0.97	0.16	35,35,35,35	0
55	MG	2A	3517	1/1	0.97	0.11	62,62,62,62	0
55	MG	1A	3028	1/1	0.97	0.29	33,33,33,33	0
55	MG	1A	3279	1/1	0.97	0.23	31,31,31,31	0
55	MG	1A	3179	1/1	0.97	0.14	33,33,33,33	0
55	MG	2A	3763	1/1	0.97	0.04	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3210	1/1	0.97	0.06	50,50,50,50	0
55	MG	1A	3879	1/1	0.97	0.07	53,53,53,53	0
55	MG	1A	3749	1/1	0.97	0.06	70,70,70,70	0
55	MG	1a	1648	1/1	0.97	0.07	73,73,73,73	0
55	MG	1A	3156	1/1	0.97	0.06	54,54,54,54	0
55	MG	1x	103	1/1	0.97	0.09	56,56,56,56	0
55	MG	1A	4048	1/1	0.97	0.10	32,32,32,32	0
55	MG	1A	4050	1/1	0.97	0.06	41,41,41,41	0
55	MG	1A	3623	1/1	0.97	0.05	39,39,39,39	0
55	MG	2A	3534	1/1	0.97	0.12	48,48,48,48	0
55	MG	2A	3776	1/1	0.97	0.09	55,55,55,55	0
55	MG	2A	3536	1/1	0.97	0.11	48,48,48,48	0
55	MG	1A	4052	1/1	0.97	0.05	43,43,43,43	0
55	MG	1A	3624	1/1	0.97	0.12	46,46,46,46	0
55	MG	2A	3539	1/1	0.97	0.09	51,51,51,51	0
55	MG	2A	3540	1/1	0.97	0.05	43,43,43,43	0
55	MG	1A	3755	1/1	0.97	0.09	54,54,54,54	0
55	MG	2A	3001	1/1	0.97	0.12	56,56,56,56	0
55	MG	1A	3033	1/1	0.97	0.45	36,36,36,36	0
55	MG	1A	4059	1/1	0.97	0.11	37,37,37,37	0
55	MG	1A	3461	1/1	0.97	0.25	61,61,61,61	0
55	MG	2A	3788	1/1	0.97	0.06	63,63,63,63	0
55	MG	1A	3045	1/1	0.97	0.06	45,45,45,45	0
55	MG	2A	3791	1/1	0.97	0.09	65,65,65,65	0
55	MG	2A	3350	1/1	0.97	0.17	46,46,46,46	0
55	MG	2a	3095	1/1	0.97	0.23	50,50,50,50	0
55	MG	2A	3554	1/1	0.97	0.07	48,48,48,48	0
55	MG	1A	3250	1/1	0.97	0.10	46,46,46,46	0
55	MG	1A	4068	1/1	0.97	0.09	23,23,23,23	0
55	MG	2A	3559	1/1	0.97	0.14	46,46,46,46	0
55	MG	2A	3800	1/1	0.97	0.09	49,49,49,49	0
55	MG	1A	3761	1/1	0.97	0.12	44,44,44,44	0
55	MG	1R	203	1/1	0.97	0.12	54,54,54,54	0
55	MG	1A	3567	1/1	0.97	0.08	35,35,35,35	0
55	MG	2a	3104	1/1	0.97	0.06	75,75,75,75	0
55	MG	2A	3804	1/1	0.97	0.05	48,48,48,48	0
55	MG	2A	3567	1/1	0.97	0.09	41,41,41,41	0
55	MG	2A	3809	1/1	0.97	0.06	57,57,57,57	0
55	MG	1A	3892	1/1	0.97	0.12	43,43,43,43	0
55	MG	2A	3357	1/1	0.97	0.12	54,54,54,54	0
55	MG	2A	3012	1/1	0.97	0.06	53,53,53,53	0
55	MG	1A	3464	1/1	0.97	0.13	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3414	1/1	0.97	0.34	39,39,39,39	0
55	MG	1A	3896	1/1	0.97	0.08	41,41,41,41	0
55	MG	1T	202	1/1	0.97	0.05	40,40,40,40	0
55	MG	1A	3640	1/1	0.97	0.06	50,50,50,50	0
55	MG	1A	3159	1/1	0.97	0.13	36,36,36,36	0
55	MG	1A	3902	1/1	0.97	0.09	25,25,25,25	0
55	MG	1A	3903	1/1	0.97	0.06	34,34,34,34	0
55	MG	1A	3905	1/1	0.97	0.07	32,32,32,32	0
55	MG	1a	1675	1/1	0.97	0.08	46,46,46,46	0
55	MG	2A	3588	1/1	0.97	0.05	67,67,67,67	0
55	MG	1a	1676	1/1	0.97	0.07	58,58,58,58	0
55	MG	1A	3906	1/1	0.97	0.06	35,35,35,35	0
55	MG	1A	3571	1/1	0.97	0.06	45,45,45,45	0
55	MG	1A	3647	1/1	0.97	0.05	35,35,35,35	0
55	MG	2a	3126	1/1	0.97	0.24	52,52,52,52	0
55	MG	2A	3834	1/1	0.97	0.05	60,60,60,60	0
55	MG	1A	3773	1/1	0.97	0.06	31,31,31,31	0
55	MG	2A	3200	1/1	0.97	0.11	45,45,45,45	0
55	MG	1U	209	1/1	0.97	0.07	41,41,41,41	0
55	MG	2A	3839	1/1	0.97	0.07	53,53,53,53	0
55	MG	1A	3215	1/1	0.97	0.17	47,47,47,47	0
55	MG	1V	203	1/1	0.97	0.33	46,46,46,46	0
55	MG	1A	3776	1/1	0.97	0.08	44,44,44,44	0
55	MG	1A	3573	1/1	0.97	0.07	43,43,43,43	0
55	MG	1V	207	1/1	0.97	0.06	53,53,53,53	0
55	MG	1A	3915	1/1	0.97	0.07	42,42,42,42	0
55	MG	1A	3517	1/1	0.97	0.07	40,40,40,40	0
55	MG	2A	3605	1/1	0.97	0.05	60,60,60,60	0
55	MG	1a	1690	1/1	0.97	0.17	47,47,47,47	0
55	MG	2B	201	1/1	0.97	0.32	73,73,73,73	0
55	MG	1A	3786	1/1	0.97	0.05	38,38,38,38	0
55	MG	2A	3211	1/1	0.97	0.09	56,56,56,56	0
55	MG	2A	3609	1/1	0.97	0.07	25,25,25,25	0
55	MG	2A	3212	1/1	0.97	0.11	62,62,62,62	0
55	MG	1a	1692	1/1	0.97	0.28	48,48,48,48	0
55	MG	1A	3089	1/1	0.97	0.17	35,35,35,35	0
55	MG	1W	204	1/1	0.97	0.22	42,42,42,42	0
55	MG	2a	3149	1/1	0.97	0.07	72,72,72,72	0
55	MG	2A	3614	1/1	0.97	0.05	45,45,45,45	0
55	MG	2A	3216	1/1	0.97	0.28	47,47,47,47	0
55	MG	1A	3077	1/1	0.97	0.07	49,49,49,49	0
55	MG	2A	3617	1/1	0.97	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
55	MG	1A	3291	1/1	0.97	0.06	54,54,54,54	0
55	MG	1A	3065	1/1	0.97	0.07	37,37,37,37	0
55	MG	1A	3657	1/1	0.97	0.08	38,38,38,38	0
55	MG	1A	3522	1/1	0.97	0.07	63,63,63,63	0
55	MG	1A	3802	1/1	0.97	0.16	70,70,70,70	0
55	MG	1A	4101	1/1	0.97	0.11	63,63,63,63	0
55	MG	1A	3092	1/1	0.97	0.06	42,42,42,42	0
55	MG	1A	3142	1/1	0.97	0.15	32,32,32,32	0
55	MG	2a	3162	1/1	0.97	0.16	69,69,69,69	0
55	MG	1A	3189	1/1	0.97	0.10	43,43,43,43	0
55	MG	2D	302	1/1	0.97	0.08	58,58,58,58	0
55	MG	1A	3808	1/1	0.97	0.10	27,27,27,27	0
55	MG	1a	1708	1/1	0.97	0.31	53,53,53,53	0
55	MG	2A	3634	1/1	0.97	0.05	39,39,39,39	0
55	MG	1Z	303	1/1	0.97	0.11	47,47,47,47	0
55	MG	2a	3171	1/1	0.97	0.05	84,84,84,84	0
55	MG	2A	3057	1/1	0.97	0.07	50,50,50,50	0
55	MG	1A	3663	1/1	0.97	0.05	49,49,49,49	0
55	MG	1a	1711	1/1	0.97	0.20	39,39,39,39	0
55	MG	1a	1712	1/1	0.97	0.24	45,45,45,45	0
55	MG	1A	3811	1/1	0.97	0.06	42,42,42,42	0
55	MG	1A	3191	1/1	0.97	0.42	57,57,57,57	0
55	MG	1A	3665	1/1	0.97	0.06	31,31,31,31	0
55	MG	1A	3950	1/1	0.97	0.07	53,53,53,53	0
55	MG	1A	3815	1/1	0.97	0.06	37,37,37,37	0
55	MG	1A	3425	1/1	0.97	0.09	40,40,40,40	0
55	MG	10	108	1/1	0.97	0.08	53,53,53,53	0
55	MG	1A	3953	1/1	0.97	0.09	68,68,68,68	0
55	MG	1A	3426	1/1	0.97	0.09	54,54,54,54	0
55	MG	11	103	1/1	0.97	0.06	51,51,51,51	0
55	MG	2A	3071	1/1	0.97	0.07	53,53,53,53	0
55	MG	1A	3669	1/1	0.97	0.14	62,62,62,62	0
55	MG	1A	3822	1/1	0.97	0.04	48,48,48,48	0
55	MG	2A	3074	1/1	0.97	0.10	40,40,40,40	0
55	MG	2A	3426	1/1	0.97	0.25	48,48,48,48	0
55	MG	2A	3658	1/1	0.97	0.07	58,58,58,58	0
55	MG	1A	3261	1/1	0.97	0.08	38,38,38,38	0
55	MG	12	102	1/1	0.97	0.08	49,49,49,49	0
55	MG	1A	3587	1/1	0.97	0.04	42,42,42,42	0
55	MG	1A	3479	1/1	0.97	0.34	44,44,44,44	0
55	MG	1A	3962	1/1	0.97	0.05	62,62,62,62	0
55	MG	1A	3299	1/1	0.97	0.12	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3665	1/1	0.97	0.11	51,51,51,51	0
55	MG	1A	3682	1/1	0.97	0.07	43,43,43,43	0
55	MG	2U	202	1/1	0.97	0.04	62,62,62,62	0
55	MG	2A	3082	1/1	0.97	0.06	41,41,41,41	0
55	MG	1a	1734	1/1	0.97	0.09	48,48,48,48	0
55	MG	1A	3687	1/1	0.97	0.11	26,26,26,26	0
55	MG	1A	3967	1/1	0.97	0.07	53,53,53,53	0
55	MG	1A	3830	1/1	0.97	0.05	54,54,54,54	0
55	MG	1A	3969	1/1	0.97	0.04	63,63,63,63	0
55	MG	1A	3590	1/1	0.97	0.26	43,43,43,43	0
55	MG	1A	3832	1/1	0.97	0.09	32,32,32,32	0
55	MG	2A	3445	1/1	0.97	0.09	44,44,44,44	0
55	MG	1A	3227	1/1	0.97	0.21	54,54,54,54	0
55	MG	1A	3533	1/1	0.97	0.19	47,47,47,47	0
55	MG	1A	3013	1/1	0.97	0.08	38,38,38,38	0
55	MG	1A	3701	1/1	0.97	0.07	36,36,36,36	0
55	MG	23	102	1/1	0.97	0.06	58,58,58,58	0
55	MG	2A	3267	1/1	0.97	0.09	75,75,75,75	0
55	MG	2a	3218	1/1	0.97	0.16	63,63,63,63	0
55	MG	1a	1748	1/1	0.97	0.06	63,63,63,63	0
55	MG	25	103	1/1	0.97	0.07	57,57,57,57	0
55	MG	1A	3302	1/1	0.97	0.10	36,36,36,36	0
55	MG	1A	3978	1/1	0.97	0.08	69,69,69,69	0
55	MG	1A	3838	1/1	0.97	0.04	34,34,34,34	0
55	MG	1a	1752	1/1	0.97	0.05	63,63,63,63	0
55	MG	28	102	1/1	0.97	0.17	62,62,62,62	0
55	MG	1a	1753	1/1	0.97	0.07	47,47,47,47	0
55	MG	1A	3704	1/1	0.97	0.06	35,35,35,35	0
55	MG	1A	3840	1/1	0.97	0.15	42,42,42,42	0
55	MG	2A	3276	1/1	0.97	0.05	56,56,56,56	0
55	MG	2A	3102	1/1	0.97	0.17	49,49,49,49	0
55	MG	1D	303	1/1	0.97	0.15	34,34,34,34	0
55	MG	1a	1759	1/1	0.97	0.05	60,60,60,60	0
55	MG	2A	3695	1/1	0.97	0.09	34,34,34,34	0
55	MG	1D	304	1/1	0.97	0.06	30,30,30,30	0
55	MG	1A	3303	1/1	0.97	0.10	45,45,45,45	0
55	MG	1A	3344	1/1	0.97	0.13	44,44,44,44	0
55	MG	1D	307	1/1	0.97	0.36	42,42,42,42	0
55	MG	2A	3700	1/1	0.97	0.05	52,52,52,52	0
55	MG	1A	3014	1/1	0.97	0.11	50,50,50,50	0
55	MG	1A	3068	1/1	0.97	0.08	34,34,34,34	0
55	MG	1D	310	1/1	0.97	0.27	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3712	1/1	0.97	0.07	64,64,64,64	0
55	MG	1E	301	1/1	0.97	0.04	33,33,33,33	0
55	MG	1A	3715	1/1	0.97	0.06	33,33,33,33	0
55	MG	1A	3847	1/1	0.97	0.07	36,36,36,36	0
55	MG	1A	3992	1/1	0.97	0.05	35,35,35,35	0
55	MG	2A	3712	1/1	0.97	0.07	44,44,44,44	0
55	MG	1a	1775	1/1	0.97	0.07	59,59,59,59	0
55	MG	2a	3023	1/1	0.97	0.07	59,59,59,59	0
55	MG	1A	3347	1/1	0.97	0.22	45,45,45,45	0
55	MG	1A	3996	1/1	0.97	0.07	39,39,39,39	0
55	MG	1a	1609	1/1	0.97	0.05	56,56,56,56	0
55	MG	1A	3718	1/1	0.97	0.08	31,31,31,31	0
55	MG	1A	3057	1/1	0.97	0.22	46,46,46,46	0
55	MG	1a	1613	1/1	0.97	0.04	66,66,66,66	0
58	ZN	24	501	1/1	0.97	0.08	132,132,132,132	0
55	MG	2a	3030	1/1	0.97	0.04	90,90,90,90	0
60	FME	2x	107	10/11	0.97	0.12	46,53,62,66	0
55	MG	1a	1794	1/1	0.98	0.04	69,69,69,69	0
55	MG	1a	1795	1/1	0.98	0.04	62,62,62,62	0
55	MG	1A	3219	1/1	0.98	0.14	26,26,26,26	0
55	MG	1A	3625	1/1	0.98	0.06	45,45,45,45	0
55	MG	2A	3789	1/1	0.98	0.05	45,45,45,45	0
55	MG	1A	3856	1/1	0.98	0.07	61,61,61,61	0
55	MG	1A	3965	1/1	0.98	0.06	49,49,49,49	0
55	MG	2A	3792	1/1	0.98	0.05	54,54,54,54	0
55	MG	1A	4097	1/1	0.98	0.10	52,52,52,52	0
55	MG	1A	3628	1/1	0.98	0.10	21,21,21,21	0
55	MG	2A	3415	1/1	0.98	0.09	33,33,33,33	0
55	MG	1A	3699	1/1	0.98	0.07	31,31,31,31	0
55	MG	1A	3700	1/1	0.98	0.06	28,28,28,28	0
55	MG	1A	3220	1/1	0.98	0.15	53,53,53,53	0
55	MG	1A	4102	1/1	0.98	0.07	40,40,40,40	0
55	MG	1a	1808	1/1	0.98	0.07	60,60,60,60	0
55	MG	1A	3397	1/1	0.98	0.04	24,24,24,24	0
55	MG	1V	201	1/1	0.98	0.30	45,45,45,45	0
55	MG	1A	3775	1/1	0.98	0.06	29,29,29,29	0
55	MG	2A	3807	1/1	0.98	0.04	50,50,50,50	0
55	MG	1B	201	1/1	0.98	0.14	38,38,38,38	0
55	MG	1A	3281	1/1	0.98	0.15	52,52,52,52	0
55	MG	1V	205	1/1	0.98	0.17	44,44,44,44	0
55	MG	1A	3777	1/1	0.98	0.07	23,23,23,23	0
55	MG	1A	3778	1/1	0.98	0.07	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3814	1/1	0.98	0.04	40,40,40,40	0
55	MG	1A	3975	1/1	0.98	0.04	32,32,32,32	0
55	MG	1A	3056	1/1	0.98	0.16	39,39,39,39	0
55	MG	1A	3780	1/1	0.98	0.14	31,31,31,31	0
55	MG	2A	3432	1/1	0.98	0.07	39,39,39,39	0
55	MG	1A	3707	1/1	0.98	0.06	49,49,49,49	0
55	MG	1m	3001	1/1	0.98	0.06	58,58,58,58	0
55	MG	2A	3822	1/1	0.98	0.06	31,31,31,31	0
55	MG	1A	3783	1/1	0.98	0.05	52,52,52,52	0
55	MG	1A	3784	1/1	0.98	0.07	27,27,27,27	0
55	MG	1A	3592	1/1	0.98	0.28	34,34,34,34	0
55	MG	1A	3873	1/1	0.98	0.04	31,31,31,31	0
55	MG	2A	3827	1/1	0.98	0.04	40,40,40,40	0
55	MG	1A	3709	1/1	0.98	0.08	28,28,28,28	0
55	MG	2A	3626	1/1	0.98	0.07	36,36,36,36	0
55	MG	1A	3223	1/1	0.98	0.18	44,44,44,44	0
55	MG	2A	3831	1/1	0.98	0.17	56,56,56,56	0
55	MG	2A	3442	1/1	0.98	0.15	32,32,32,32	0
55	MG	2A	3833	1/1	0.98	0.08	65,65,65,65	0
55	MG	1X	103	1/1	0.98	0.05	52,52,52,52	0
55	MG	1A	3557	1/1	0.98	0.07	38,38,38,38	0
55	MG	2A	3836	1/1	0.98	0.09	40,40,40,40	0
55	MG	2A	3632	1/1	0.98	0.05	52,52,52,52	0
55	MG	2A	3633	1/1	0.98	0.04	53,53,53,53	0
55	MG	1B	216	1/1	0.98	0.07	40,40,40,40	0
55	MG	2A	3635	1/1	0.98	0.13	51,51,51,51	0
55	MG	1x	106	1/1	0.98	0.12	53,53,53,53	0
55	MG	2A	3842	1/1	0.98	0.09	41,41,41,41	0
55	MG	1x	107	1/1	0.98	0.12	25,25,25,25	0
55	MG	1A	3459	1/1	0.98	0.08	49,49,49,49	0
55	MG	1A	3794	1/1	0.98	0.06	21,21,21,21	0
55	MG	2A	3640	1/1	0.98	0.03	40,40,40,40	0
55	MG	2A	3847	1/1	0.98	0.15	44,44,44,44	0
55	MG	1A	3795	1/1	0.98	0.09	76,76,76,76	0
55	MG	2A	3642	1/1	0.98	0.07	53,53,53,53	0
55	MG	1A	3796	1/1	0.98	0.06	46,46,46,46	0
55	MG	1A	3993	1/1	0.98	0.04	32,32,32,32	0
55	MG	1a	1685	1/1	0.98	0.07	58,58,58,58	0
55	MG	1A	3713	1/1	0.98	0.07	31,31,31,31	0
55	MG	1A	3012	1/1	0.98	0.04	32,32,32,32	0
55	MG	1A	3883	1/1	0.98	0.05	43,43,43,43	0
55	MG	1A	3799	1/1	0.98	0.05	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3800	1/1	0.98	0.05	37,37,37,37	0
55	MG	1B	227	1/1	0.98	0.06	49,49,49,49	0
55	MG	10	106	1/1	0.98	0.04	52,52,52,52	0
55	MG	1A	3643	1/1	0.98	0.05	32,32,32,32	0
55	MG	1A	4002	1/1	0.98	0.06	29,29,29,29	0
55	MG	1A	3717	1/1	0.98	0.06	28,28,28,28	0
55	MG	1A	3644	1/1	0.98	0.05	35,35,35,35	0
55	MG	1A	3492	1/1	0.98	0.11	54,54,54,54	0
55	MG	1A	3806	1/1	0.98	0.05	26,26,26,26	0
55	MG	1A	3190	1/1	0.98	0.12	33,33,33,33	0
55	MG	2A	3468	1/1	0.98	0.09	53,53,53,53	0
55	MG	1A	3809	1/1	0.98	0.09	21,21,21,21	0
55	MG	1a	1701	1/1	0.98	0.07	60,60,60,60	0
55	MG	1B	236	1/1	0.98	0.07	38,38,38,38	0
55	MG	2A	3167	1/1	0.98	0.09	54,54,54,54	0
55	MG	1a	1703	1/1	0.98	0.17	38,38,38,38	0
55	MG	2A	3022	1/1	0.98	0.09	60,60,60,60	0
55	MG	2A	3170	1/1	0.98	0.09	44,44,44,44	0
55	MG	2A	3668	1/1	0.98	0.07	56,56,56,56	0
55	MG	1A	4012	1/1	0.98	0.09	33,33,33,33	0
55	MG	1A	3893	1/1	0.98	0.06	63,63,63,63	0
55	MG	13	103	1/1	0.98	0.09	40,40,40,40	0
55	MG	1A	4014	1/1	0.98	0.07	29,29,29,29	0
55	MG	1A	4015	1/1	0.98	0.05	29,29,29,29	0
55	MG	1A	4016	1/1	0.98	0.04	44,44,44,44	0
55	MG	1A	3115	1/1	0.98	0.05	30,30,30,30	0
55	MG	1A	4018	1/1	0.98	0.04	32,32,32,32	0
55	MG	1A	3178	1/1	0.98	0.14	35,35,35,35	0
55	MG	2F	301	1/1	0.98	0.13	54,54,54,54	0
55	MG	1A	3405	1/1	0.98	0.09	44,44,44,44	0
55	MG	1A	4023	1/1	0.98	0.04	71,71,71,71	0
55	MG	1A	3813	1/1	0.98	0.11	60,60,60,60	0
55	MG	1A	3724	1/1	0.98	0.06	52,52,52,52	0
55	MG	1A	3900	1/1	0.98	0.14	42,42,42,42	0
55	MG	1A	4027	1/1	0.98	0.07	55,55,55,55	0
55	MG	1A	4028	1/1	0.98	0.06	64,64,64,64	0
55	MG	2O	201	1/1	0.98	0.07	58,58,58,58	0
55	MG	2A	3039	1/1	0.98	0.09	57,57,57,57	0
55	MG	1A	3901	1/1	0.98	0.09	48,48,48,48	0
55	MG	1A	3725	1/1	0.98	0.05	48,48,48,48	0
55	MG	1A	3816	1/1	0.98	0.10	29,29,29,29	0
55	MG	2a	3165	1/1	0.98	0.08	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2Q	202	1/1	0.98	0.16	32,32,32,32	0
55	MG	1A	3817	1/1	0.98	0.06	50,50,50,50	0
55	MG	2a	3168	1/1	0.98	0.04	79,79,79,79	0
55	MG	1A	3651	1/1	0.98	0.06	43,43,43,43	0
55	MG	1A	3727	1/1	0.98	0.05	26,26,26,26	0
55	MG	1A	3124	1/1	0.98	0.15	45,45,45,45	0
55	MG	1A	3434	1/1	0.98	0.16	53,53,53,53	0
55	MG	2A	3694	1/1	0.98	0.12	56,56,56,56	0
55	MG	1A	3910	1/1	0.98	0.06	47,47,47,47	0
55	MG	1A	3357	1/1	0.98	0.09	60,60,60,60	0
55	MG	1A	3824	1/1	0.98	0.06	43,43,43,43	0
55	MG	2A	3199	1/1	0.98	0.07	63,63,63,63	0
55	MG	1F	304	1/1	0.98	0.06	48,48,48,48	0
55	MG	1A	3913	1/1	0.98	0.10	46,46,46,46	0
55	MG	2a	3180	1/1	0.98	0.10	50,50,50,50	0
55	MG	1A	3408	1/1	0.98	0.05	43,43,43,43	0
55	MG	1A	3155	1/1	0.98	0.08	45,45,45,45	0
55	MG	1A	3144	1/1	0.98	0.15	45,45,45,45	0
55	MG	1A	3659	1/1	0.98	0.09	38,38,38,38	0
55	MG	1A	3108	1/1	0.98	0.07	46,46,46,46	0
55	MG	2A	3513	1/1	0.98	0.09	34,34,34,34	0
55	MG	1A	4049	1/1	0.98	0.07	28,28,28,28	0
55	MG	1A	3920	1/1	0.98	0.03	46,46,46,46	0
55	MG	1A	3440	1/1	0.98	0.06	61,61,61,61	0
55	MG	1a	1610	1/1	0.98	0.17	38,38,38,38	0
55	MG	1A	3197	1/1	0.98	0.05	36,36,36,36	0
55	MG	2A	3520	1/1	0.98	0.08	45,45,45,45	0
55	MG	2a	3193	1/1	0.98	0.07	66,66,66,66	0
55	MG	1A	4053	1/1	0.98	0.15	42,42,42,42	0
55	MG	2A	3718	1/1	0.98	0.06	53,53,53,53	0
55	MG	2A	3362	1/1	0.98	0.08	53,53,53,53	0
55	MG	1A	3539	1/1	0.98	0.25	35,35,35,35	0
55	MG	1A	3926	1/1	0.98	0.07	26,26,26,26	0
55	MG	1A	4057	1/1	0.98	0.04	25,25,25,25	0
55	MG	2A	3366	1/1	0.98	0.10	63,63,63,63	0
55	MG	1A	3293	1/1	0.98	0.17	29,29,29,29	0
55	MG	1A	3741	1/1	0.98	0.06	39,39,39,39	0
55	MG	2A	3726	1/1	0.98	0.04	49,49,49,49	0
55	MG	1A	3135	1/1	0.98	0.04	51,51,51,51	0
55	MG	1A	3666	1/1	0.98	0.06	37,37,37,37	0
55	MG	2A	3533	1/1	0.98	0.06	37,37,37,37	0
55	MG	1N	206	1/1	0.98	0.04	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3535	1/1	0.98	0.15	65,65,65,65	0
55	MG	1A	4062	1/1	0.98	0.07	42,42,42,42	0
55	MG	1a	1760	1/1	0.98	0.10	61,61,61,61	0
55	MG	1A	4063	1/1	0.98	0.05	35,35,35,35	0
55	MG	1A	4064	1/1	0.98	0.06	48,48,48,48	0
55	MG	1A	3931	1/1	0.98	0.04	66,66,66,66	0
55	MG	2A	3541	1/1	0.98	0.05	63,63,63,63	0
55	MG	2A	3542	1/1	0.98	0.06	42,42,42,42	0
55	MG	1A	3932	1/1	0.98	0.09	47,47,47,47	0
55	MG	1A	3022	1/1	0.98	0.10	32,32,32,32	0
55	MG	1a	1766	1/1	0.98	0.03	68,68,68,68	0
55	MG	2A	3546	1/1	0.98	0.06	57,57,57,57	0
55	MG	2A	3547	1/1	0.98	0.05	34,34,34,34	0
55	MG	1A	3023	1/1	0.98	0.11	42,42,42,42	0
55	MG	1A	3936	1/1	0.98	0.08	42,42,42,42	0
55	MG	1A	3006	1/1	0.98	0.08	48,48,48,48	0
55	MG	1A	3617	1/1	0.98	0.08	32,32,32,32	0
55	MG	1A	3939	1/1	0.98	0.04	53,53,53,53	0
55	MG	1A	3940	1/1	0.98	0.04	44,44,44,44	0
55	MG	1a	1773	1/1	0.98	0.05	65,65,65,65	0
55	MG	1A	3671	1/1	0.98	0.05	34,34,34,34	0
55	MG	1A	3672	1/1	0.98	0.09	22,22,22,22	0
55	MG	2A	3561	1/1	0.98	0.09	36,36,36,36	0
55	MG	1A	3948	1/1	0.98	0.03	60,60,60,60	0
55	MG	1a	1777	1/1	0.98	0.07	62,62,62,62	0
55	MG	2A	3566	1/1	0.98	0.04	42,42,42,42	0
55	MG	1A	3753	1/1	0.98	0.05	24,24,24,24	0
55	MG	1A	3673	1/1	0.98	0.04	29,29,29,29	0
55	MG	1Q	205	1/1	0.98	0.08	48,48,48,48	0
55	MG	2A	3570	1/1	0.98	0.05	43,43,43,43	0
55	MG	1a	1781	1/1	0.98	0.04	68,68,68,68	0
55	MG	1A	3320	1/1	0.98	0.07	40,40,40,40	0
55	MG	2A	3766	1/1	0.98	0.07	42,42,42,42	0
55	MG	1A	3256	1/1	0.98	0.06	48,48,48,48	0
55	MG	2A	3574	1/1	0.98	0.04	37,37,37,37	0
55	MG	1A	3020	1/1	0.98	0.04	26,26,26,26	0
55	MG	2A	3576	1/1	0.98	0.07	48,48,48,48	0
55	MG	2A	3771	1/1	0.98	0.07	56,56,56,56	0
55	MG	2A	3398	1/1	0.98	0.12	33,33,33,33	0
55	MG	1R	202	1/1	0.98	0.10	36,36,36,36	0
55	MG	1A	3681	1/1	0.98	0.06	25,25,25,25	0
55	MG	1A	3514	1/1	0.98	0.19	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3238	1/1	0.98	0.21	33,33,33,33	0
55	MG	1A	3452	1/1	0.98	0.15	52,52,52,52	0
55	MG	2A	3778	1/1	0.98	0.07	41,41,41,41	0
55	MG	2A	3583	1/1	0.98	0.04	44,44,44,44	0
57	SPS	1A	4105	23/23	0.98	0.07	34,40,44,45	0
55	MG	2A	3584	1/1	0.98	0.04	53,53,53,53	0
55	MG	1A	3692	1/1	0.98	0.06	51,51,51,51	0
55	MG	2A	3587	1/1	0.98	0.05	55,55,55,55	0
58	ZN	2n	501	1/1	0.98	0.04	103,103,103,103	0
59	SF4	2d	304	8/8	0.98	0.04	75,84,90,106	0
55	MG	1A	3766	1/1	0.98	0.12	43,43,43,43	0
55	MG	1a	1792	1/1	0.98	0.04	71,71,71,71	0
55	MG	1A	3863	1/1	0.99	0.06	27,27,27,27	0
55	MG	1A	3947	1/1	0.99	0.04	40,40,40,40	0
55	MG	1A	3679	1/1	0.99	0.06	29,29,29,29	0
55	MG	1A	3758	1/1	0.99	0.04	52,52,52,52	0
55	MG	1a	1757	1/1	0.99	0.03	63,63,63,63	0
55	MG	2A	3717	1/1	0.99	0.05	31,31,31,31	0
55	MG	1a	1758	1/1	0.99	0.04	47,47,47,47	0
55	MG	2A	3627	1/1	0.99	0.03	47,47,47,47	0
55	MG	2A	3817	1/1	0.99	0.03	38,38,38,38	0
55	MG	1A	4001	1/1	0.99	0.03	46,46,46,46	0
55	MG	2A	3302	1/1	0.99	0.03	50,50,50,50	0
55	MG	1A	3793	1/1	0.99	0.06	56,56,56,56	0
55	MG	1A	3904	1/1	0.99	0.06	40,40,40,40	0
55	MG	1A	3706	1/1	0.99	0.05	25,25,25,25	0
55	MG	1A	4066	1/1	0.99	0.05	52,52,52,52	0
55	MG	1A	4067	1/1	0.99	0.04	41,41,41,41	0
55	MG	1A	3680	1/1	0.99	0.03	28,28,28,28	0
55	MG	1A	4007	1/1	0.99	0.03	53,53,53,53	0
55	MG	1A	3074	1/1	0.99	0.04	19,19,19,19	0
55	MG	1A	3955	1/1	0.99	0.07	49,49,49,49	0
55	MG	1A	3956	1/1	0.99	0.05	48,48,48,48	0
55	MG	2A	3549	1/1	0.99	0.09	39,39,39,39	0
55	MG	1A	4074	1/1	0.99	0.04	33,33,33,33	0
55	MG	1A	4011	1/1	0.99	0.05	41,41,41,41	0
55	MG	1A	3201	1/1	0.99	0.04	39,39,39,39	0
55	MG	1A	3763	1/1	0.99	0.03	49,49,49,49	0
55	MG	1A	3734	1/1	0.99	0.02	33,33,33,33	0
55	MG	2A	3556	1/1	0.99	0.08	48,48,48,48	0
55	MG	2A	3557	1/1	0.99	0.04	30,30,30,30	0
55	MG	1A	3684	1/1	0.99	0.05	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	4080	1/1	0.99	0.10	45,45,45,45	0
55	MG	1A	3801	1/1	0.99	0.08	25,25,25,25	0
55	MG	1A	3686	1/1	0.99	0.04	20,20,20,20	0
55	MG	2A	3018	1/1	0.99	0.02	46,46,46,46	0
55	MG	2A	3563	1/1	0.99	0.07	34,34,34,34	0
55	MG	2A	3564	1/1	0.99	0.04	42,42,42,42	0
55	MG	1A	3626	1/1	0.99	0.06	27,27,27,27	0
55	MG	1A	4019	1/1	0.99	0.09	33,33,33,33	0
55	MG	1A	3689	1/1	0.99	0.03	31,31,31,31	0
55	MG	2A	3750	1/1	0.99	0.07	59,59,59,59	0
55	MG	1A	3714	1/1	0.99	0.03	20,20,20,20	0
55	MG	1A	3690	1/1	0.99	0.03	38,38,38,38	0
55	MG	1A	3772	1/1	0.99	0.04	46,46,46,46	0
55	MG	1A	3919	1/1	0.99	0.04	37,37,37,37	0
55	MG	1A	3627	1/1	0.99	0.06	37,37,37,37	0
55	MG	1A	3058	1/1	0.99	0.04	35,35,35,35	0
55	MG	1A	3693	1/1	0.99	0.03	30,30,30,30	0
55	MG	1A	3638	1/1	0.99	0.03	26,26,26,26	0
55	MG	2A	3759	1/1	0.99	0.03	64,64,64,64	0
55	MG	1A	3924	1/1	0.99	0.03	36,36,36,36	0
55	MG	1A	3925	1/1	0.99	0.03	33,33,33,33	0
55	MG	1A	3695	1/1	0.99	0.07	31,31,31,31	0
55	MG	1A	3639	1/1	0.99	0.09	48,48,48,48	0
55	MG	1A	3221	1/1	0.99	0.06	48,48,48,48	0
55	MG	1A	4036	1/1	0.99	0.06	49,49,49,49	0
55	MG	1A	3674	1/1	0.99	0.03	29,29,29,29	0
55	MG	1A	4038	1/1	0.99	0.05	51,51,51,51	0
55	MG	1a	1799	1/1	0.99	0.03	52,52,52,52	0
55	MG	2A	3585	1/1	0.99	0.04	38,38,38,38	0
55	MG	1E	314	1/1	0.99	0.05	39,39,39,39	0
55	MG	1a	1801	1/1	0.99	0.04	51,51,51,51	0
55	MG	1A	3979	1/1	0.99	0.06	46,46,46,46	0
55	MG	1A	3781	1/1	0.99	0.08	31,31,31,31	0
55	MG	1A	3442	1/1	0.99	0.17	58,58,58,58	0
55	MG	1a	1730	1/1	0.99	0.03	58,58,58,58	0
55	MG	1A	3752	1/1	0.99	0.07	44,44,44,44	0
55	MG	1A	3653	1/1	0.99	0.03	25,25,25,25	0
55	MG	1a	1733	1/1	0.99	0.04	37,37,37,37	0
55	MG	2A	3123	1/1	0.99	0.04	53,53,53,53	0
55	MG	1A	3785	1/1	0.99	0.04	23,23,23,23	0
55	MG	1a	1735	1/1	0.99	0.04	44,44,44,44	0
55	MG	1A	3677	1/1	0.99	0.09	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3511	1/1	0.99	0.04	38,38,38,38	0
55	MG	1A	3703	1/1	0.99	0.04	26,26,26,26	0
55	MG	1A	3642	1/1	0.99	0.04	29,29,29,29	0
55	MG	1A	3988	1/1	0.99	0.07	66,66,66,66	0
55	MG	1A	3897	1/1	0.99	0.04	27,27,27,27	0
55	MG	2A	3516	1/1	0.99	0.08	46,46,46,46	0
55	MG	1A	3789	1/1	0.99	0.04	33,33,33,33	0
55	MG	1a	1742	1/1	0.99	0.04	46,46,46,46	0
55	MG	1a	1743	1/1	0.99	0.08	38,38,38,38	0
55	MG	1A	3991	1/1	0.99	0.07	28,28,28,28	0
55	MG	1A	3941	1/1	0.99	0.09	28,28,28,28	0
55	MG	1A	3790	1/1	0.99	0.04	27,27,27,27	0
55	MG	1A	4054	1/1	0.99	0.05	29,29,29,29	0
55	MG	2A	3797	1/1	0.99	0.07	44,44,44,44	0
55	MG	2A	3798	1/1	0.99	0.07	41,41,41,41	0
55	MG	2A	3703	1/1	0.99	0.04	41,41,41,41	0
55	MG	1H	201	1/1	0.99	0.14	34,34,34,34	0
55	MG	1A	3943	1/1	0.99	0.05	37,37,37,37	0
58	ZN	1Y	203	1/1	0.99	0.02	68,68,68,68	0
55	MG	2A	3526	1/1	0.99	0.04	38,38,38,38	0
58	ZN	2Y	202	1/1	0.99	0.03	105,105,105,105	0
55	MG	1X	105	1/1	0.99	0.05	42,42,42,42	0
58	ZN	25	105	1/1	0.99	0.05	64,64,64,64	0
58	ZN	26	501	1/1	0.99	0.04	72,72,72,72	0
58	ZN	29	501	1/1	0.99	0.04	82,82,82,82	0
55	MG	1A	3995	1/1	0.99	0.07	30,30,30,30	0
59	SF4	1d	302	8/8	0.99	0.05	64,76,82,82	0
55	MG	1A	3945	1/1	0.99	0.05	40,40,40,40	0
55	MG	2A	3620	1/1	0.99	0.06	43,43,43,43	0
55	MG	2A	3808	1/1	0.99	0.04	49,49,49,49	0
55	MG	1A	4006	1/1	1.00	0.06	17,17,17,17	0
55	MG	2A	3701	1/1	1.00	0.06	35,35,35,35	0
55	MG	1A	3683	1/1	1.00	0.02	41,41,41,41	0
55	MG	1A	3765	1/1	1.00	0.02	41,41,41,41	0
55	MG	1a	1793	1/1	1.00	0.04	45,45,45,45	0
55	MG	1A	3634	1/1	1.00	0.04	33,33,33,33	0
55	MG	1A	3818	1/1	1.00	0.04	32,32,32,32	0
55	MG	1A	3807	1/1	1.00	0.06	27,27,27,27	0
55	MG	1A	3697	1/1	1.00	0.02	28,28,28,28	0
55	MG	2A	3709	1/1	1.00	0.03	46,46,46,46	0
55	MG	2A	3762	1/1	1.00	0.03	46,46,46,46	0
55	MG	1A	3685	1/1	1.00	0.09	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3629	1/1	1.00	0.02	42,42,42,42	0
55	MG	2A	3590	1/1	1.00	0.03	46,46,46,46	0
55	MG	2A	3591	1/1	1.00	0.02	47,47,47,47	0
55	MG	1A	3944	1/1	1.00	0.03	29,29,29,29	0
55	MG	1A	3742	1/1	1.00	0.02	26,26,26,26	0
55	MG	2A	3527	1/1	1.00	0.04	44,44,44,44	0
58	ZN	15	109	1/1	1.00	0.02	46,46,46,46	0
58	ZN	16	102	1/1	1.00	0.04	50,50,50,50	0
58	ZN	19	102	1/1	1.00	0.03	46,46,46,46	0
58	ZN	1n	102	1/1	1.00	0.03	77,77,77,77	0
55	MG	1A	3743	1/1	1.00	0.04	23,23,23,23	0
55	MG	2A	3550	1/1	1.00	0.07	33,33,33,33	0
55	MG	1A	3933	1/1	1.00	0.04	41,41,41,41	0
55	MG	1A	4069	1/1	1.00	0.02	34,34,34,34	0
55	MG	1A	4035	1/1	1.00	0.02	26,26,26,26	0
55	MG	1A	3646	1/1	1.00	0.10	35,35,35,35	0
55	MG	1E	311	1/1	1.00	0.05	25,25,25,25	0
55	MG	1A	3688	1/1	1.00	0.02	23,23,23,23	0
55	MG	2A	3805	1/1	1.00	0.04	36,36,36,36	0
55	MG	1A	4021	1/1	1.00	0.02	47,47,47,47	0

6.5 Other polymers (i)

There are no such residues in this entry.