Full wwPDB X-ray Structure Validation Report ⓘ

Sep 2, 2026 – 02:27 AM EDT

PDB ID	:	12DQ / pdb_000012dq
Title	:	Crystal structure of Thermus thermophilus 70S ribosome in complex with sparsomycin, protein Y, and P-site MTI-tripeptidyl-tRNA analog ACCA-ITM at 2.75A 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	:	2.75 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:

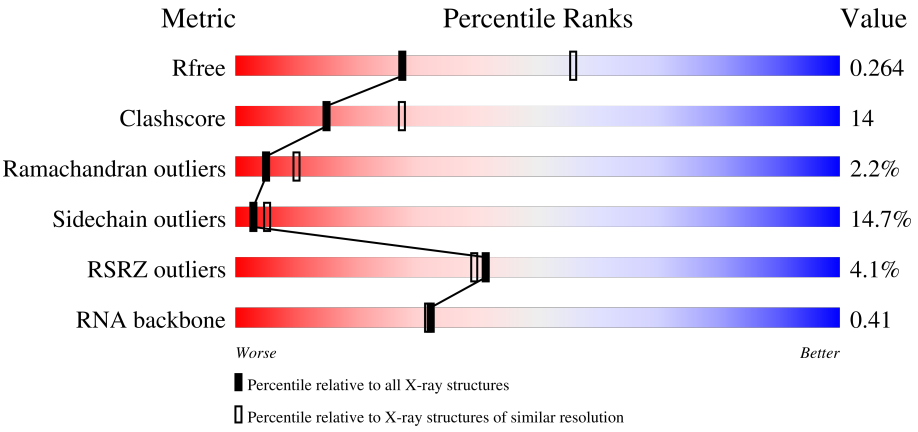
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal 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 2.75 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	1009 (2.76-2.76)
Clashscore	190562	1044 (2.76-2.76)
Ramachandran outliers	187476	1024 (2.76-2.76)
Sidechain outliers	187428	1024 (2.76-2.76)
RSRZ outliers	180081	1009 (2.76-2.76)
RNA backbone	3983	1179 (3.00-2.52)

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	3% 52% 37% 9%
1	2A	2915	4% 49% 40% 10%

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

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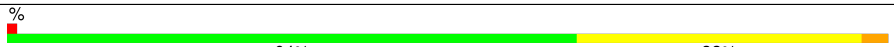
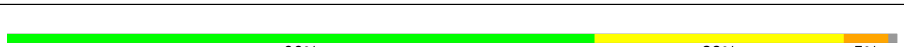
Mol	Chain	Length	Quality of chain
2	1B	121	
2	2B	121	
3	1D	276	
3	2D	276	
4	1E	206	
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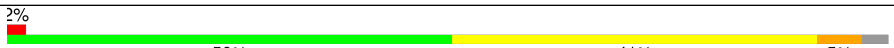
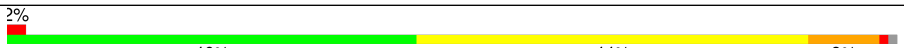
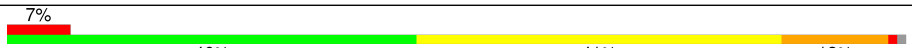
5	1F	210	
5	2F	210	
6	1G	182	
6	2G	182	
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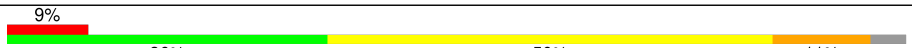
7	2H	180	
8	1I	148	
8	2I	148	
9	1N	140	
9	2N	140	
10	1O	122	
10	2O	122	
11	1P	150	
11	2P	150	
12	1Q	141	
12	2Q	141	
13	1R	118	
13	2R	118	
14	1S	112	

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Mol	Chain	Length	Quality of chain
14	2S	112	11% 52% 36% 10%
15	1T	146	2% 58% 27% 5% 10%
15	2T	146	% 61% 26% 10%
16	1U	118	69% 28%
16	2U	118	% 70% 26%
17	1V	101	% 66% 24% 9%
17	2V	101	% 56% 39%
18	1W	113	68% 25% 6%
18	2W	113	2% 70% 26%
19	1X	96	% 61% 32% 5%
19	2X	96	% 61% 33%
20	1Y	110	2% 53% 36% 8%
20	2Y	110	8% 63% 28% 6%
21	1Z	206	3% 64% 30% 5%
21	2Z	206	4% 49% 40% 8%
22	10	85	5% 55% 36% 6%
22	20	85	11% 51% 45%
23	11	98	2% 69% 27%
23	21	98	2% 61% 32% 6%
24	12	72	49% 47%
24	22	72	58% 33% 6%
25	13	60	2% 62% 30% 7%
25	23	60	53% 42%
26	14	71	10% 51% 41%
26	24	71	15% 37% 41% 18%

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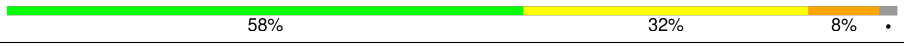
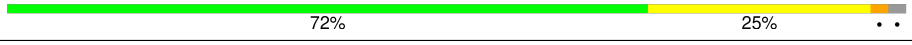
Mol	Chain	Length	Quality of chain
27	15	60	
27	25	60	
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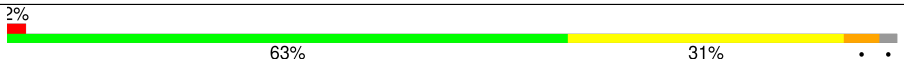
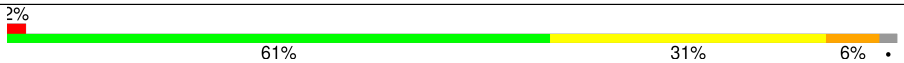
28	26	54	
29	17	49	
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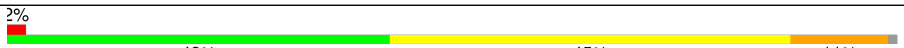
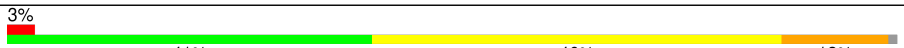
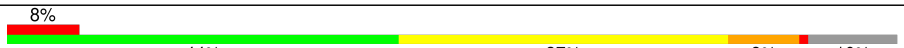
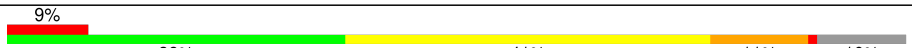
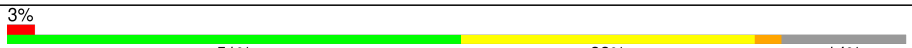
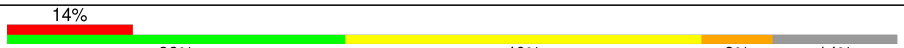
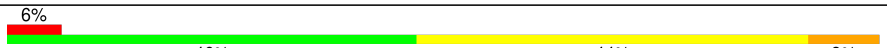
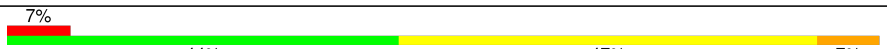
30	18	65	
30	28	65	
31	19	37	
31	29	37	
32	1a	1521	
32	2a	1521	
33	1b	256	
33	2b	256	
34	1c	239	
34	2c	239	
35	1d	209	
35	2d	209	
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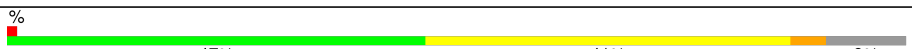
36	2e	162	
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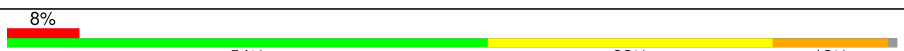
37	2f	101	
38	1g	156	
38	2g	156	
39	1h	138	

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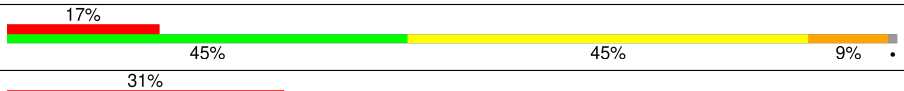
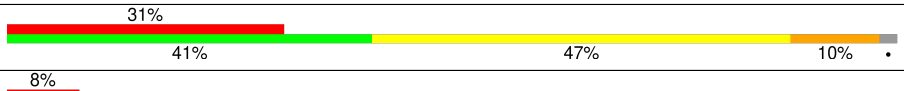
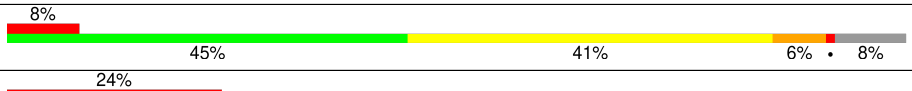
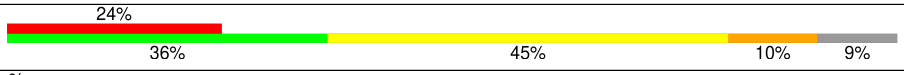
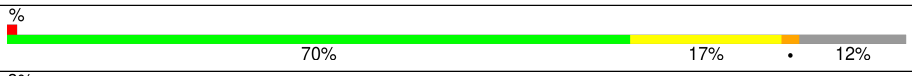
40	1i	128	
40	2i	128	
41	1j	105	
41	2j	105	
42	1k	129	
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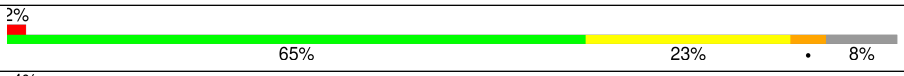
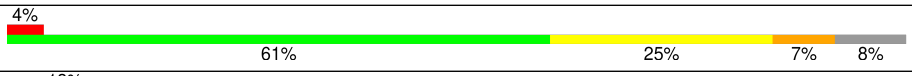
43	1l	132	
43	2l	132	
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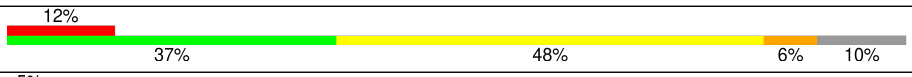
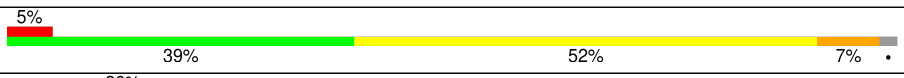
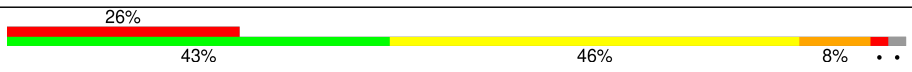
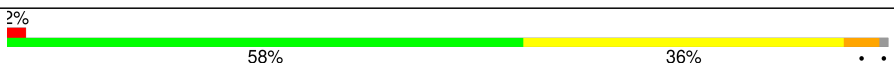
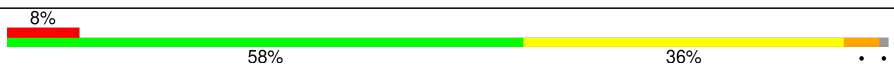
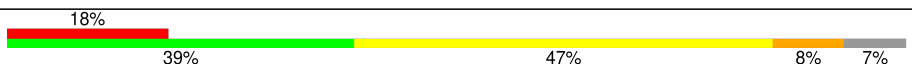
44	2m	126	
45	1n	61	
45	2n	61	
46	1o	89	
46	2o	89	
47	1p	88	
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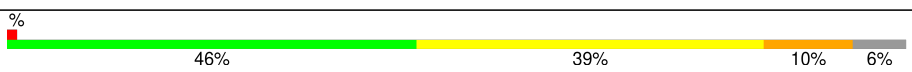
48	1q	105	
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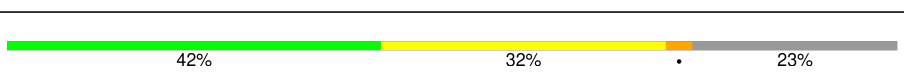
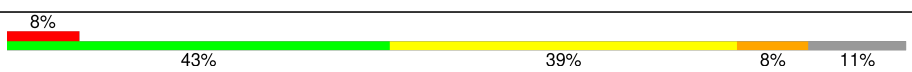
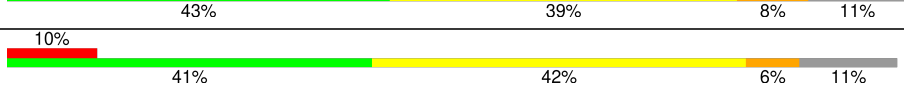
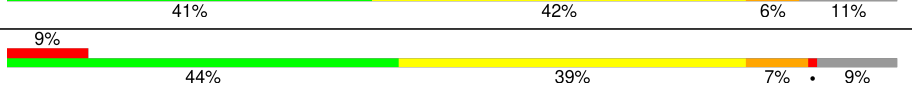
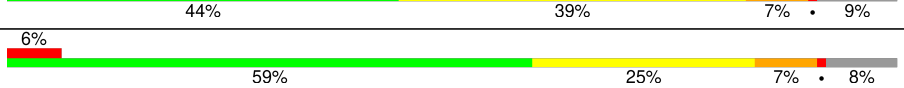
49	1r	88	
49	2r	88	
50	1s	93	
50	2s	93	
51	1t	106	
51	2t	106	

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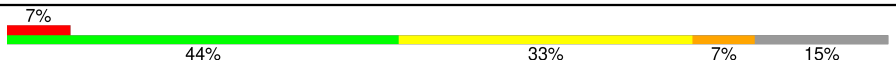
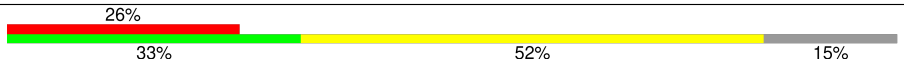
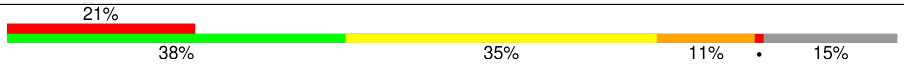
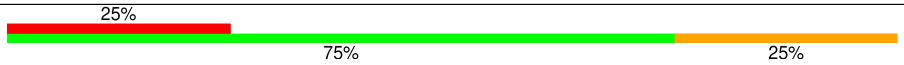
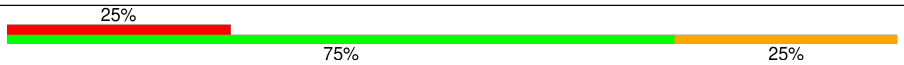
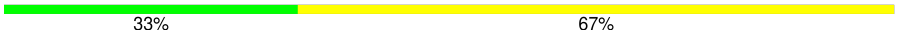
Mol	Chain	Length	Quality of chain
52	1u	27	
52	2u	27	
53	1y	113	
53	2y	113	
54	1x	4	
54	2x	4	
55	1v	3	
55	2v	3	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	1A	3613	-	-	-	X
56	MG	1A	4018	-	-	-	X
56	MG	1D	311	-	-	-	X
56	MG	1a	3030	-	-	-	X
56	MG	2a	3058	-	-	-	X

2 Entry composition (i)

There are 63 unique types of molecules in this entry. The entry contains 297533 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	2872	Total	C	N	O	P	0	0	0
			61869	27540	11574	19884	2871			
1	2A	2867	Total	C	N	O	P	0	0	0
			61758	27491	11552	19850	2865			

- 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
			2572	1145	476	832	119			
2	2B	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			

- 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
			2131	1346	422	360	3			
3	2D	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	1G	181	Total	C	N	O	S	0	0	0
			1426	916	253	253	4			
6	2G	181	Total	C	N	O	S	0	0	0
			1424	912	259	249	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	173	Total	C	N	O	S	0	0	0
			1324	842	247	234	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	1I	147	Total	C	N	O	S	0	0	0
			1094	699	191	203	1			
8	2I	146	Total	C	N	O	S	0	0	0
			1076	687	186	202	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
			1121	722	208	187	4			
9	2N	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	1S	110	Total 877	C 553	N 175	O 149	0	0	0
14	2S	110	Total 870	C 549	N 173	O 148	0	0	0

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	1V	101	Total	C	N	O	S	0	0	0
			775	498	141	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
			810	520	153	131	6			
20	2Y	107	Total	C	N	O	S	0	0	0
			810	519	153	132	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	1Z	203	Total	C	N	O	S	0	0	0
			1587	1011	282	292	2			
21	2Z	201	Total	C	N	O	S	0	0	0
			1557	995	274	286	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
			650	401	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
			754	475	148	130	1			
23	21	97	Total	C	N	O	S	0	0	0
			759	478	149	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
			592	368	119	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
			546	346	96	99	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	24	69	Total	C	N	O	S	0	0	0
			536	342	98	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
			459	288	90	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	1504	Total	C	N	O	P	0	0	0
			32331	14396	5990	10441	1504			

- 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
			1842	1175	330	332	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
			1558	979	305	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
			1665	1043	329	286	7			
35	2d	208	Total	C	N	O	S	0	0	0
			1668	1047	330	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
			1133	716	214	199	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
			814	516	144	151	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
			1235	769	244	216	6			
38	2g	155	Total	C	N	O	S	0	0	0
			1229	766	241	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
			1098	694	210	192	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
			986	625	193	168			
40	2i	126	Total	C	N	O	0	0	0
			966	613	186	167			

- 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
			719	446	142	131			
41	2j	96	Total	C	N	O	0	0	0
			710	442	137	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
			834	520	156	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	116	Total	C	N	O	S	0	0	0
			914	564	189	159	2			
44	2m	114	Total	C	N	O	S	0	0	0
			895	550	186	157	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
			648	415	120	111	2			
50	2s	83	Total	C	N	O	S	0	0	0
			645	410	118	115	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
			732	449	157	124	2			
51	2t	98	Total	C	N	O	S	0	0	0
			733	451	154	126	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 protein called Ribosome-associated inhibitor A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	1y	97	Total	C	N	O	S	0	0	0
			764	478	144	139	3			
53	2y	96	Total	C	N	O	S	0	0	0
			749	468	141	137	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	1x	4	Total	C	N	O	P	0	0	1
			63	28	12	20	3			
54	2x	4	Total	C	N	O	P	0	0	1
			63	28	12	20	3			

- Molecule 55 is a protein called P-site Peptidyl-tRNA Analog Peptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	1v	3	Total	C	N	O	S	0	0	0
			23	15	3	4	1			
55	2v	3	Total	C	N	O	S	0	0	0
			23	15	3	4	1			

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1A	1022	Total	Mg	0	0
			1022	1022		
56	1B	29	Total	Mg	0	0
			29	29		
56	1D	16	Total	Mg	0	0
			16	16		
56	1E	7	Total	Mg	0	0
			7	7		
56	1F	21	Total	Mg	0	0
			21	21		
56	1G	4	Total	Mg	0	0
			4	4		
56	1H	2	Total	Mg	0	0
			2	2		
56	1N	4	Total	Mg	0	0
			4	4		
56	1O	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	1P	5	Total Mg 5 5	0	0
56	1Q	4	Total Mg 4 4	0	0
56	1R	5	Total Mg 5 5	0	0
56	1S	1	Total Mg 1 1	0	0
56	1T	4	Total Mg 4 4	0	0
56	1U	7	Total Mg 7 7	0	0
56	1V	6	Total Mg 6 6	0	0
56	1W	4	Total Mg 4 4	0	0
56	1Z	1	Total Mg 1 1	0	0
56	10	8	Total Mg 8 8	0	0
56	11	5	Total Mg 5 5	0	0
56	13	4	Total Mg 4 4	0	0
56	15	8	Total Mg 8 8	0	0
56	17	7	Total Mg 7 7	0	0
56	18	3	Total Mg 3 3	0	0
56	19	1	Total Mg 1 1	0	0
56	1a	275	Total Mg 275 275	0	0
56	1b	1	Total Mg 1 1	0	0
56	1d	5	Total Mg 5 5	0	0
56	1e	2	Total Mg 2 2	0	0
56	1f	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	1g	2	Total Mg 2 2	0	0
56	1h	1	Total Mg 1 1	0	0
56	1i	1	Total Mg 1 1	0	0
56	1k	1	Total Mg 1 1	0	0
56	1l	3	Total Mg 3 3	0	0
56	1m	2	Total Mg 2 2	0	0
56	1n	3	Total Mg 3 3	0	0
56	1o	3	Total Mg 3 3	0	0
56	1p	1	Total Mg 1 1	0	0
56	1r	1	Total Mg 1 1	0	0
56	1t	1	Total Mg 1 1	0	0
56	1y	3	Total Mg 3 3	0	0
56	1x	2	Total Mg 2 2	0	0
56	2A	726	Total Mg 726 726	0	0
56	2B	18	Total Mg 18 18	0	0
56	2D	13	Total Mg 13 13	0	0
56	2E	7	Total Mg 7 7	0	0
56	2F	4	Total Mg 4 4	0	0
56	2G	3	Total Mg 3 3	0	0
56	2I	1	Total Mg 1 1	0	0
56	2O	2	Total Mg 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	2P	2	Total Mg 2 2	0	0
56	2Q	3	Total Mg 3 3	0	0
56	2R	2	Total Mg 2 2	0	0
56	2T	4	Total Mg 4 4	0	0
56	2U	2	Total Mg 2 2	0	0
56	2V	3	Total Mg 3 3	0	0
56	2W	3	Total Mg 3 3	0	0
56	2X	2	Total Mg 2 2	0	0
56	2Y	1	Total Mg 1 1	0	0
56	20	4	Total Mg 4 4	0	0
56	21	2	Total Mg 2 2	0	0
56	25	4	Total Mg 4 4	0	0
56	26	1	Total Mg 1 1	0	0
56	27	1	Total Mg 1 1	0	0
56	28	2	Total Mg 2 2	0	0
56	2a	187	Total Mg 187 187	0	0
56	2e	1	Total Mg 1 1	0	0
56	2f	1	Total Mg 1 1	0	0
56	2j	1	Total Mg 1 1	0	0
56	2k	1	Total Mg 1 1	0	0
56	2n	1	Total Mg 1 1	0	0

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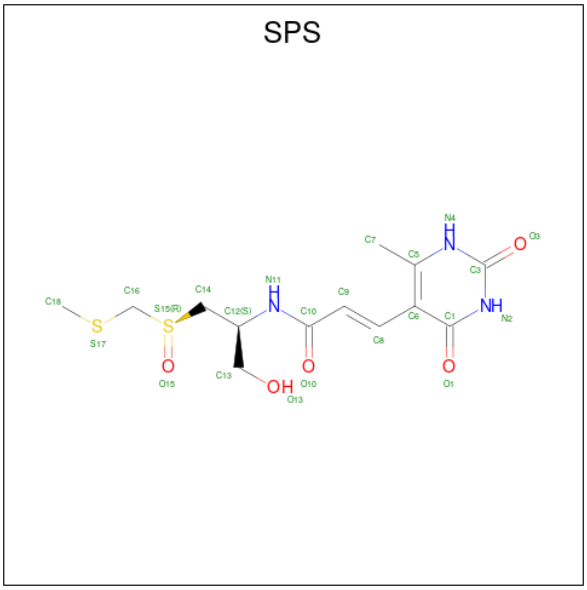
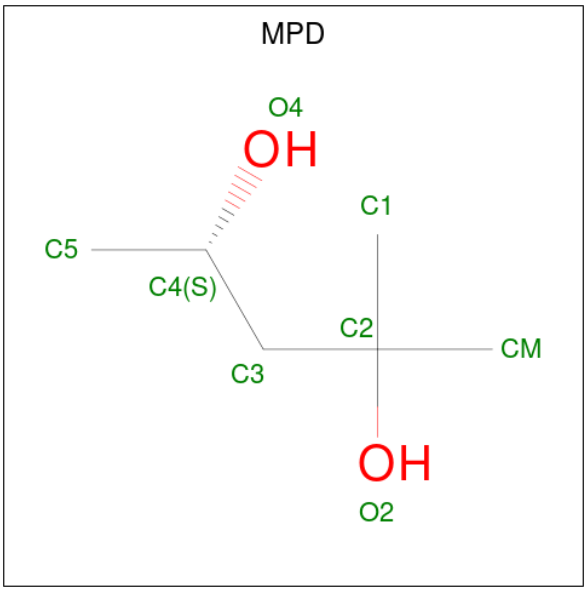
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	2p	1	Total Mg 1 1	0	0
56	2q	1	Total Mg 1 1	0	0
56	2r	1	Total Mg 1 1	0	0
56	2t	1	Total Mg 1 1	0	0
56	2x	2	Total Mg 2 2	0	0

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



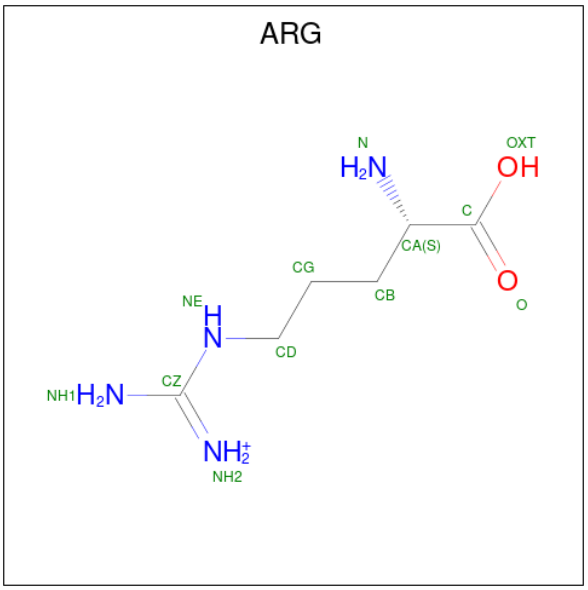
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	1A	1	Total C N O S 23 13 3 5 2	0	0
57	2x	1	Total C N O S 23 13 3 5 2	0	0

- Molecule 58 is (4S)-2-METHYL-2,4-PENTANEDIOL (CCD ID: MPD) (formula: $C_6H_{14}O_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	1A	1	Total C O 8 6 2	0	0
58	2A	1	Total C O 8 6 2	0	0
58	2A	1	Total C O 8 6 2	0	0
58	2A	1	Total C O 8 6 2	0	0

- Molecule 59 is ARGININE (CCD ID: ARG) (formula: $C_6H_{15}N_4O_2$).

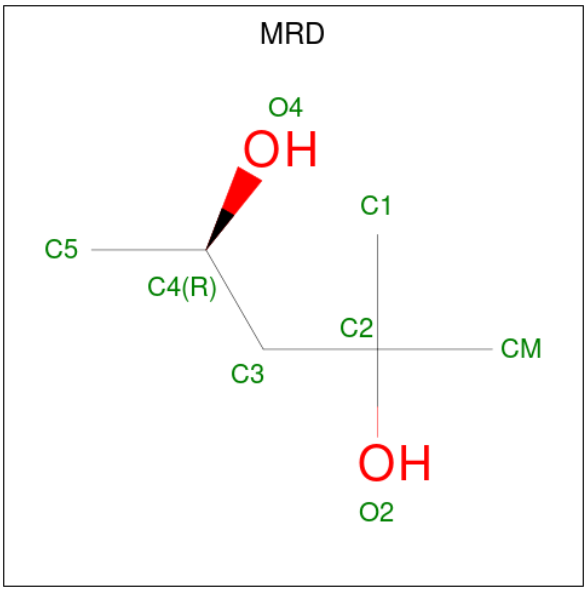


Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	1B	1	Total C N O 12 6 4 2	0	0

- Molecule 60 is ZINC ION (CCD ID: ZN) (formula: Zn).

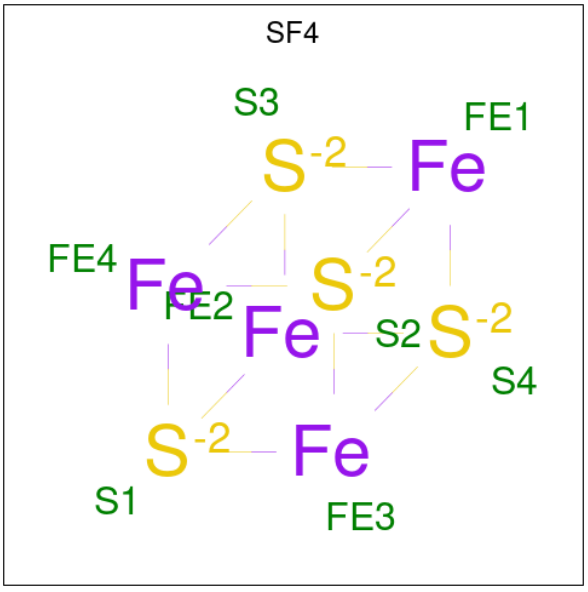
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1Y	1	Total Zn 1 1	0	0
60	14	1	Total Zn 1 1	0	0
60	15	1	Total Zn 1 1	0	0
60	16	1	Total Zn 1 1	0	0
60	19	1	Total Zn 1 1	0	0
60	1n	1	Total Zn 1 1	0	0
60	2Y	1	Total Zn 1 1	0	0
60	24	1	Total Zn 1 1	0	0
60	25	1	Total Zn 1 1	0	0
60	26	1	Total Zn 1 1	0	0
60	29	1	Total Zn 1 1	0	0
60	2n	1	Total Zn 1 1	0	0

- Molecule 61 is (4R)-2-METHYLPENTANE-2,4-DIOL (CCD ID: MRD) (formula: $C_6H_{14}O_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	18	1	Total C O 8 6 2	0	0

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



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

- Molecule 63 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	1A	3950	Total O 3950 3950	0	0
63	1B	104	Total O 104 104	0	0
63	1D	109	Total O 109 109	0	0
63	1E	77	Total O 77 77	0	0
63	1F	53	Total O 53 53	0	0
63	1G	17	Total O 17 17	0	0
63	1H	17	Total O 17 17	0	0
63	1I	4	Total O 4 4	0	0
63	1N	48	Total O 48 48	0	0
63	1O	24	Total O 24 24	0	0
63	1P	69	Total O 69 69	0	0
63	1Q	37	Total O 37 37	0	0
63	1R	31	Total O 31 31	0	0
63	1S	9	Total O 9 9	0	0
63	1T	36	Total O 36 36	0	0
63	1U	46	Total O 46 46	0	0
63	1V	40	Total O 40 40	0	0
63	1W	27	Total O 27 27	0	0
63	1X	25	Total O 25 25	0	0
63	1Y	17	Total O 17 17	0	0
63	1Z	10	Total O 10 10	0	0
63	10	26	Total O 26 26	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	11	27	Total O 27 27	0	0
63	12	13	Total O 13 13	0	0
63	13	25	Total O 25 25	0	0
63	14	2	Total O 2 2	0	0
63	15	25	Total O 25 25	0	0
63	16	17	Total O 17 17	0	0
63	17	16	Total O 16 16	0	0
63	18	27	Total O 27 27	0	0
63	19	5	Total O 5 5	0	0
63	1a	515	Total O 515 515	0	0
63	1b	1	Total O 1 1	0	0
63	1c	1	Total O 1 1	0	0
63	1d	9	Total O 9 9	0	0
63	1e	2	Total O 2 2	0	0
63	1f	2	Total O 2 2	0	0
63	1h	1	Total O 1 1	0	0
63	1j	1	Total O 1 1	0	0
63	1l	4	Total O 4 4	0	0
63	1o	6	Total O 6 6	0	0
63	1p	3	Total O 3 3	0	0
63	1u	1	Total O 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	1y	6	Total O 6 6	0	0
63	1x	2	Total O 2 2	0	0
63	2A	2115	Total O 2115 2115	0	0
63	2B	46	Total O 46 46	0	0
63	2D	39	Total O 39 39	0	0
63	2E	25	Total O 25 25	0	0
63	2F	22	Total O 22 22	0	0
63	2G	4	Total O 4 4	0	0
63	2H	2	Total O 2 2	0	0
63	2I	4	Total O 4 4	0	0
63	2N	5	Total O 5 5	0	0
63	2O	19	Total O 19 19	0	0
63	2P	25	Total O 25 25	0	0
63	2Q	16	Total O 16 16	0	0
63	2R	22	Total O 22 22	0	0
63	2S	4	Total O 4 4	0	0
63	2T	9	Total O 9 9	0	0
63	2U	12	Total O 12 12	0	0
63	2V	7	Total O 7 7	0	0
63	2W	18	Total O 18 18	0	0
63	2X	7	Total O 7 7	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	2Y	5	Total O 5 5	0	0
63	2Z	12	Total O 12 12	0	0
63	20	10	Total O 10 10	0	0
63	21	22	Total O 22 22	0	0
63	22	2	Total O 2 2	0	0
63	23	5	Total O 5 5	0	0
63	25	10	Total O 10 10	0	0
63	26	2	Total O 2 2	0	0
63	27	7	Total O 7 7	0	0
63	28	10	Total O 10 10	0	0
63	29	1	Total O 1 1	0	0
63	2a	293	Total O 293 293	0	0
63	2d	4	Total O 4 4	0	0
63	2f	3	Total O 3 3	0	0
63	2j	2	Total O 2 2	0	0
63	2l	1	Total O 1 1	0	0
63	2m	1	Total O 1 1	0	0
63	2o	4	Total O 4 4	0	0
63	2p	2	Total O 2 2	0	0
63	2q	1	Total O 1 1	0	0
63	2r	3	Total O 3 3	0	0

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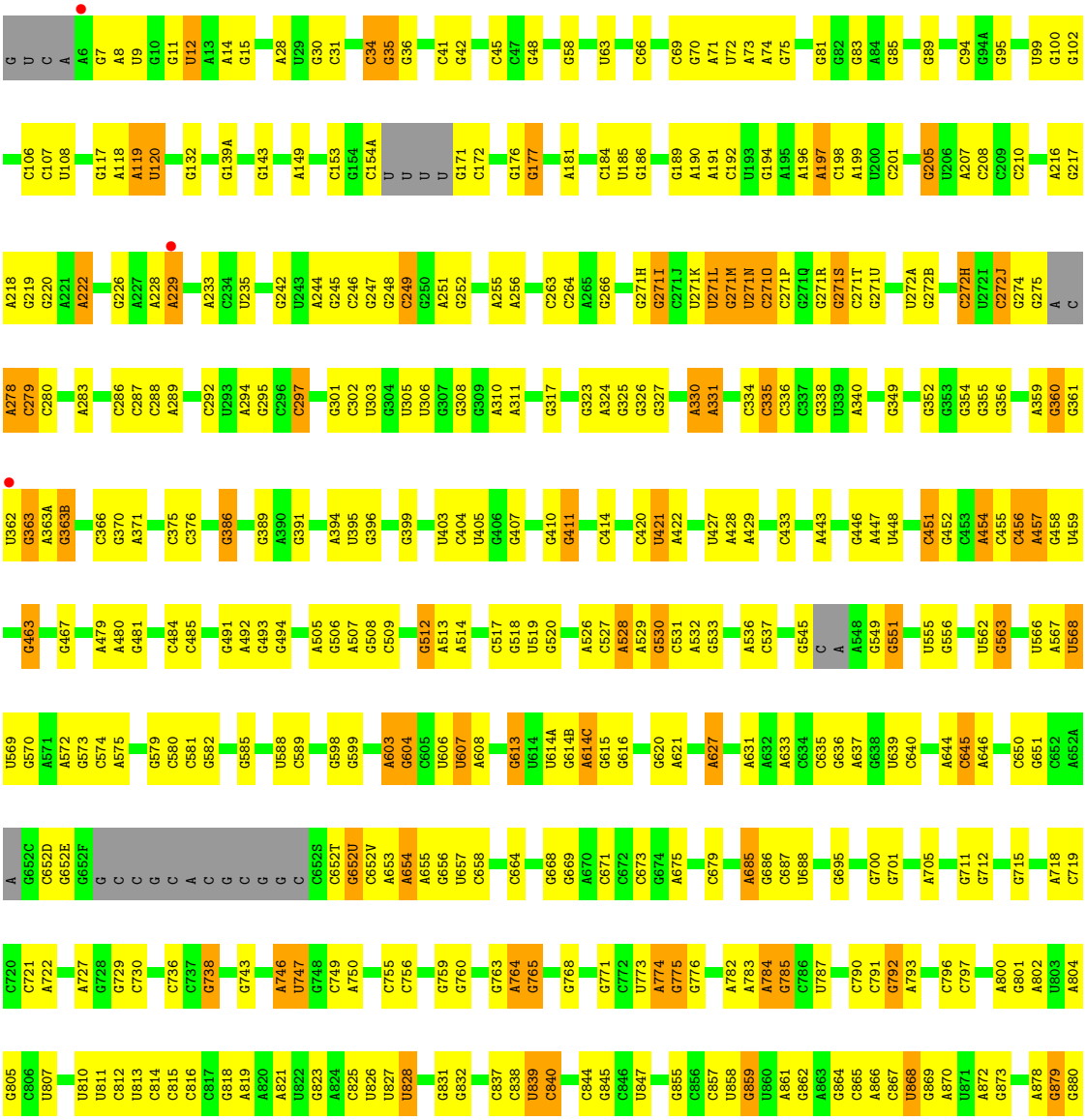
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	2t	2	Total O 2 2	0	0
63	2u	1	Total O 1 1	0	0
63	2x	1	Total O 1 1	0	0

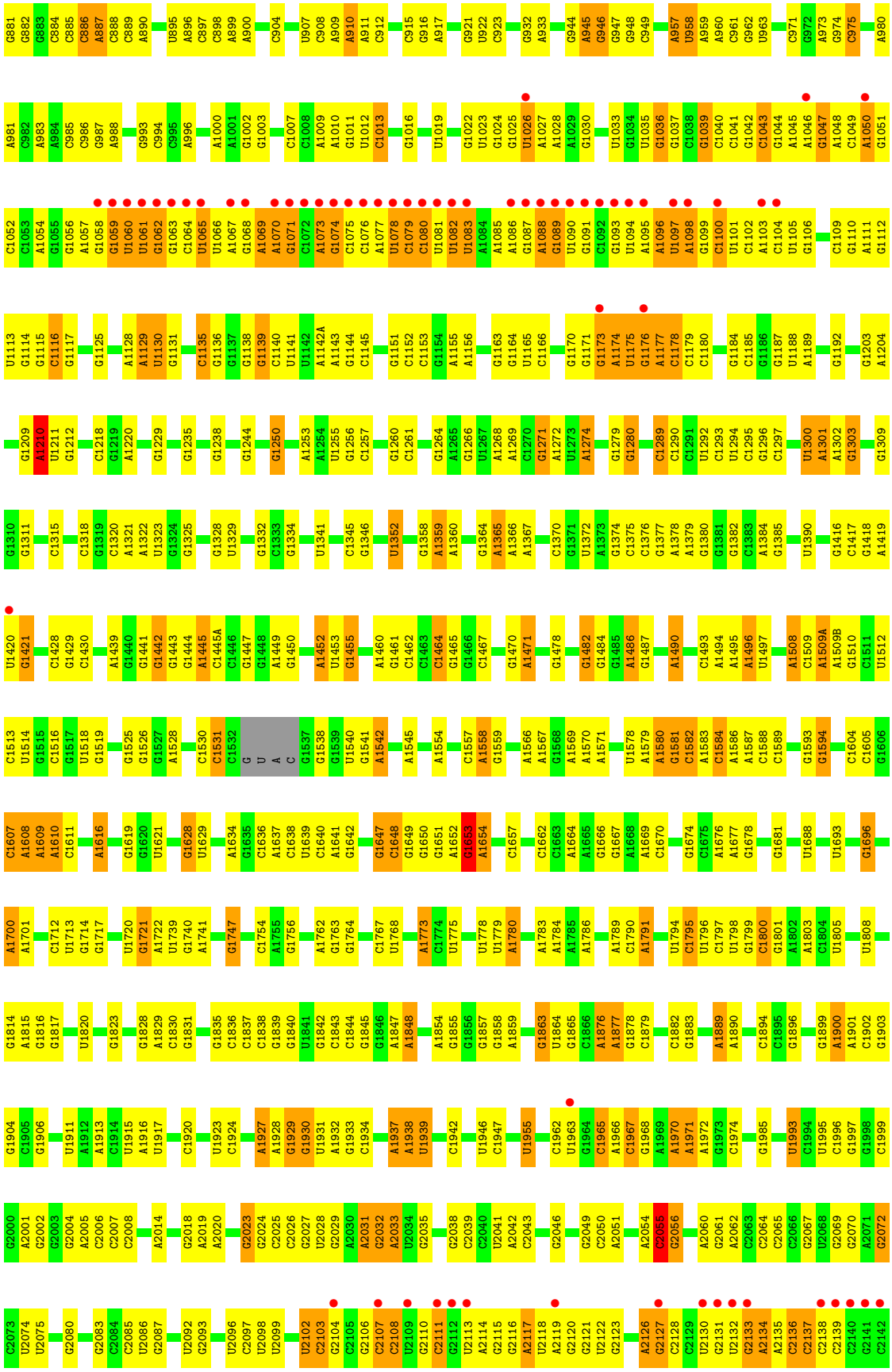
3 Residue-property plots (i)

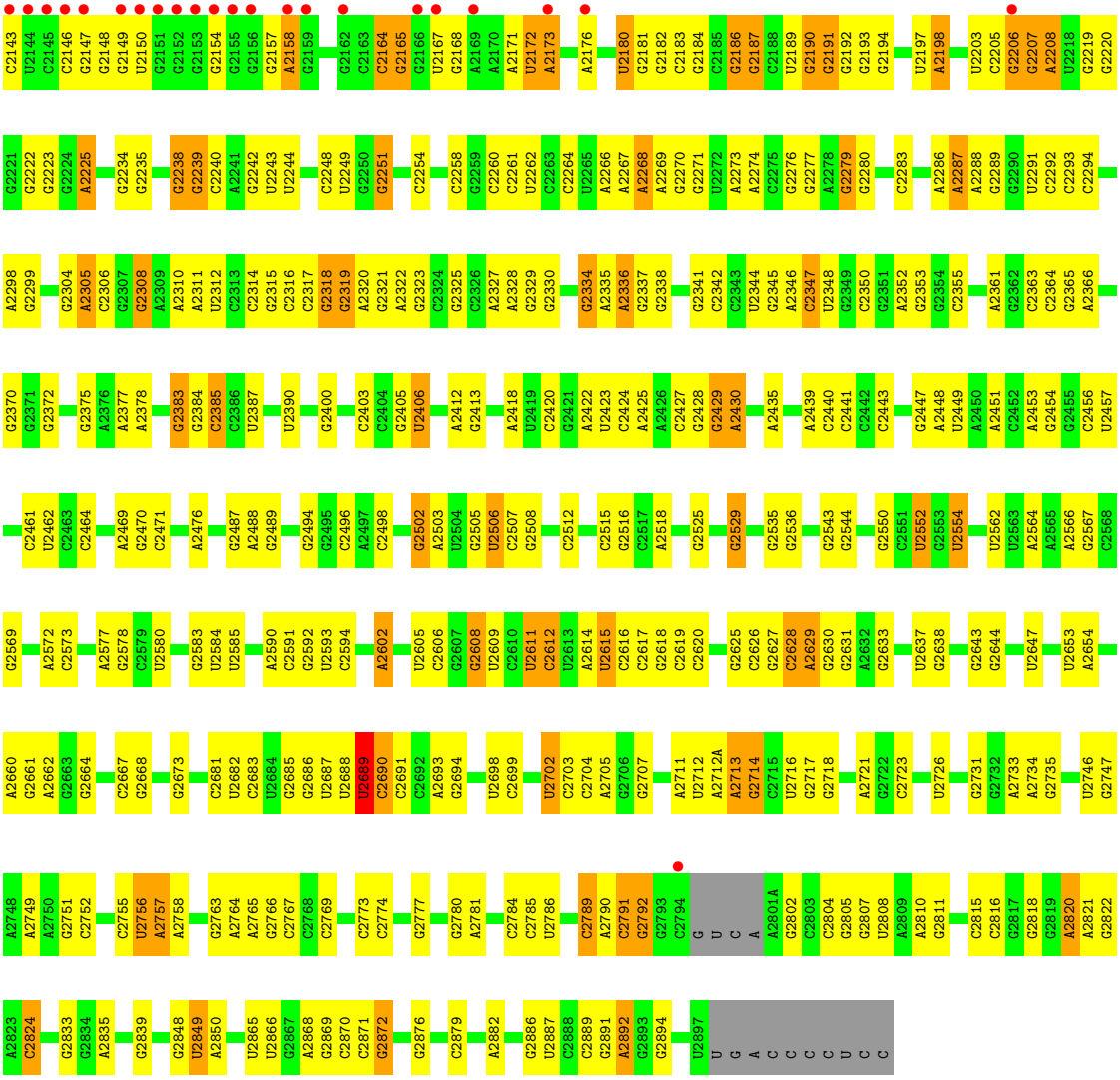
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

- Molecule 1: 23S Ribosomal RNA

Chain 1A:

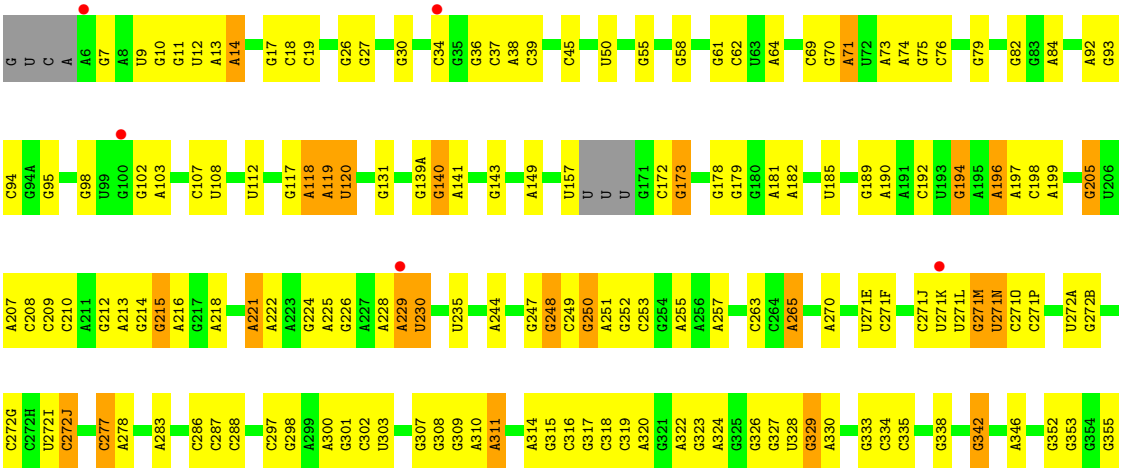


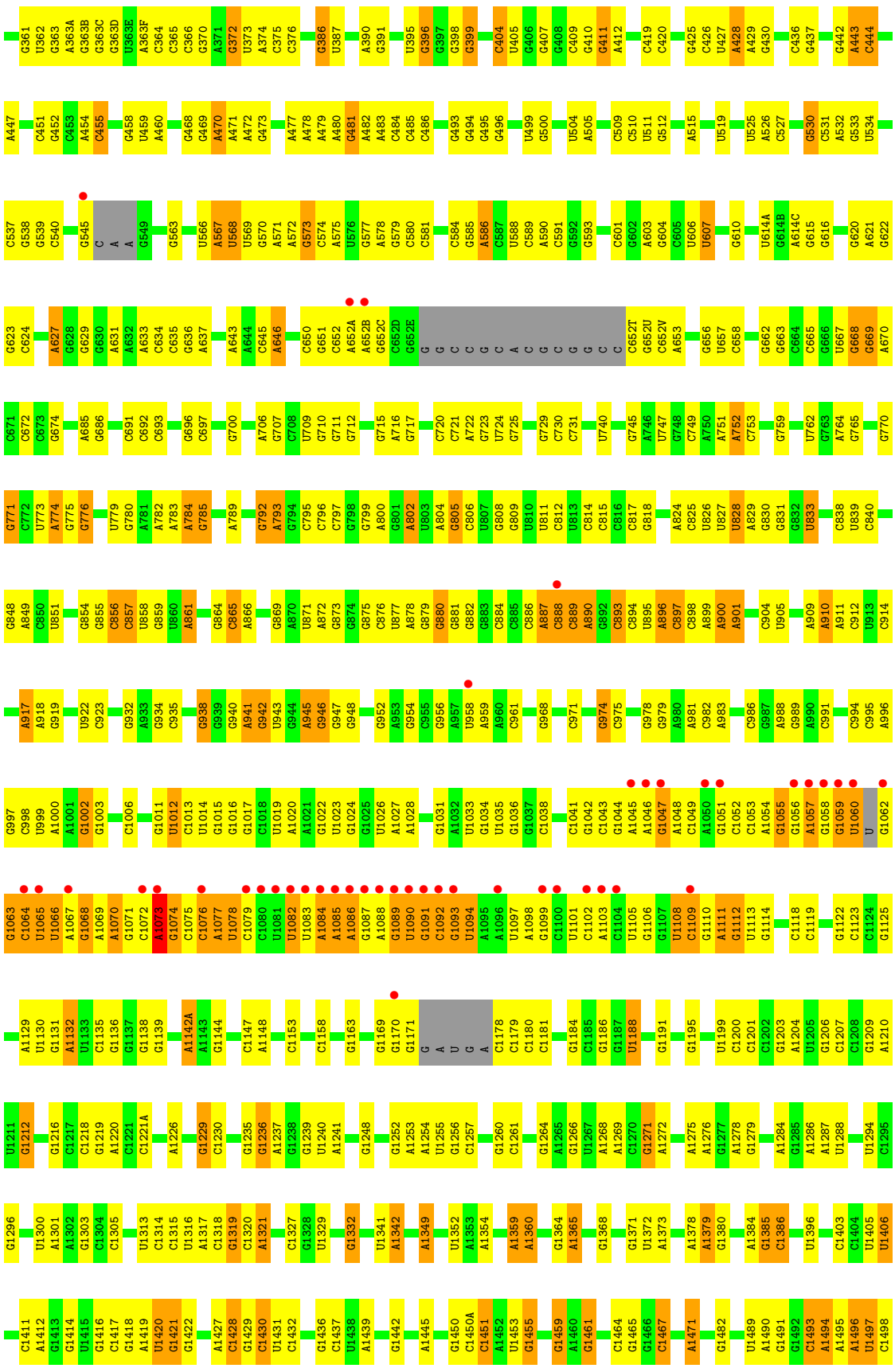


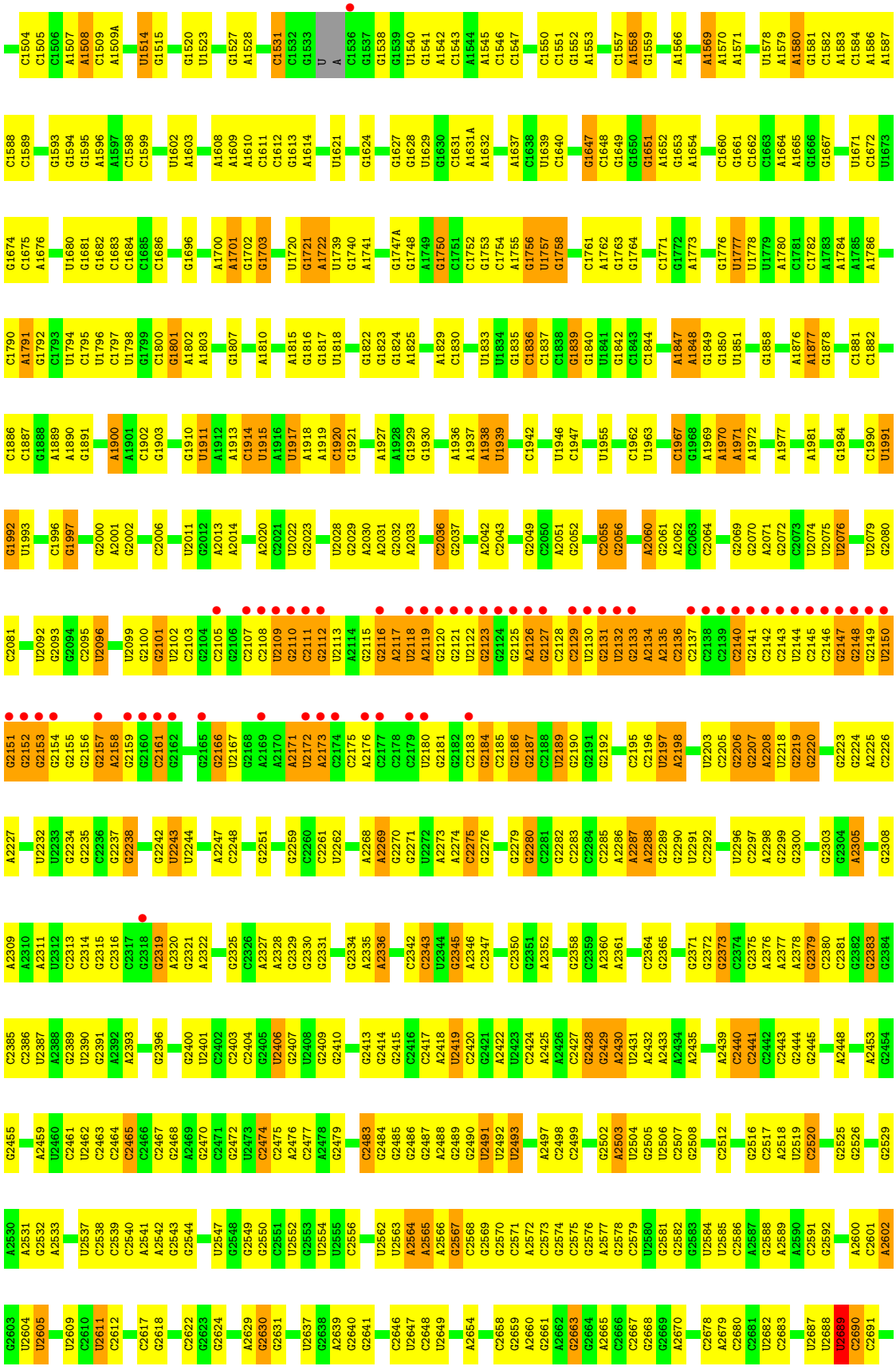


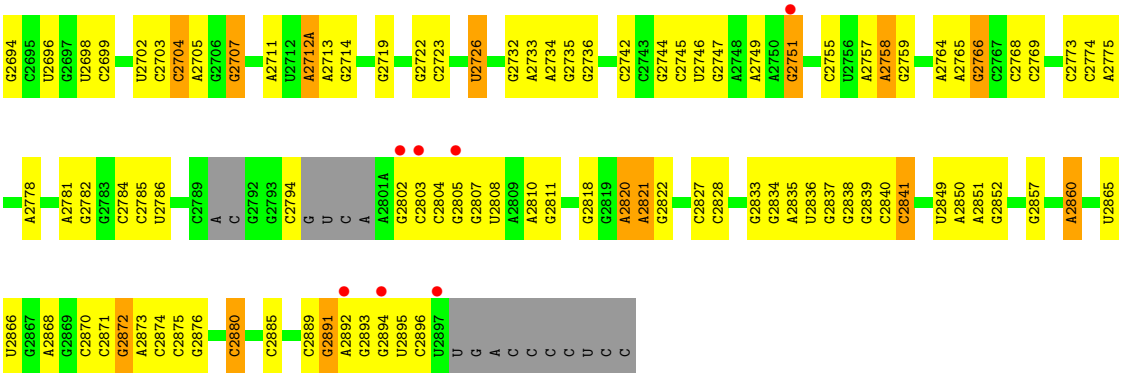
• Molecule 1: 23S Ribosomal RNA

Chain 2A:



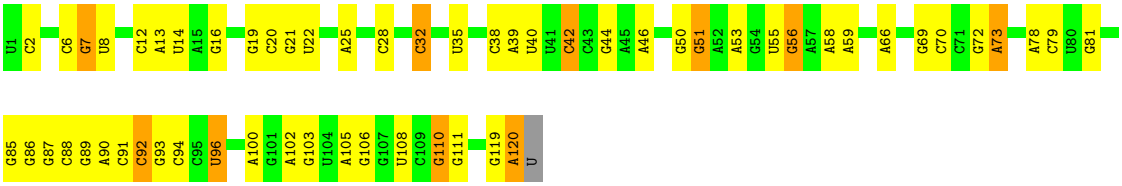

G361 U362 G363 A363A C363B G363C G363D U363E A363F C364 C365 C366 G370 A371 G372 U373 A374 C375 C376 G386 U387 A390 G391 U395 G396 G397 G398 G399 C404 U405 G406 G407 G408 C409 G410 G411 A412 C419 C420 G425 C426 U427 A428 A429 G430 C436 C437 G442 A443 C444
A447 C451 G452 C453 A454 C455 G458 U459 A460 G468 G469 A470 A471 A472 C473 A477 A478 A479 A480 G481 A482 A483 C484 C485 C486 G493 G494 G495 G496 U499 G500 U504 A505 C509 C510 U511 G512 A515 U519 U525 A526 C527 G530 C531 A532 G533 U534
C537 G538 G539 C540 G545 C G A G549 G563 U566 A567 U568 U569 G570 A571 A572 G573 C574 A575 U576 G577 A578 G579 C580 C581 C584 G585 A586 C587 U588 C589 A590 C591 G592 G593 C601 G602 A603 G604 C605 U606 U607 G610 U614A G614B A614C G615 G616 G620 A621 G622
G623 C624 A627 G628 G629 G630 A631 A632 A633 C634 C635 G636 A637 A643 A644 C645 A646 C650 G651 C652 A652A A652B A652C C652D G652E G C C C C A C C G C C C C C C652T C652U C652V A653 G656 U657 C658 G662 G663 C664 C665 G666 U667 G668 G669 A670
C671 C672 G673 G674 A685 G686 C691 C692 C693 G696 C697 G700 A706 G707 C708 U709 G710 G711 G712 G715 A716 G717 C720 C721 A722 G723 U724 G725 G729 C730 C731 U740 G745 A746 U747 G748 C749 A750 A751 A752 C753 G759 U762 G763 A764 G765 G770
G771 C772 U773 A774 G775 G776 U779 G780 A781 A782 A783 A784 G785 A789 G792 A793 G794 C795 C796 C797 G798 G799 A800 G801 A802 U803 A804 G805 C806 U807 G808 G809 U810 U811 C812 U813 C814 C815 C816 C817 G818 A824 C825 U826 U827 U828 A829 G830 G831 G832 U833 C838 U839 C840
G848 A849 C850 U851 G854 G855 C856 C857 U858 G859 U860 A861 G864 C865 A866 G869 A870 U871 A872 G873 G874 G875 C876 U877 A878 G879 G880 G881 G882 G883 C884 C885 C886 A887 C888 C889 A890 G892 C893 C894 U895 A896 C897 C898 A899 A900 A901 C904 U905 A909 A910 A911 C912 U913 C914
A917 A918 G919 U922 C923 G932 A933 G934 C935 G938 G939 G940 A941 G942 U943 G944 A945 G946 G947 G948 G952 A953 G954 C955 G956 A957 U958 A959 A960 C961 G968 C971 G974 C975 G978 G979 A980 A981 C982 A983 C986 G987 A988 G989 A990 C991 C994 C995 A996
G997 C998 U999 A1000 A1001 G1002 G1003 C1006 G1011 U1012 C1013 U1014 G1015 G1016 G1017 C1018 U1019 A1020 A1021 G1022 U1023 G1024 G1025 U1026 A1027 A1028 G1031 A1032 U1033 G1034 U1035 G1036 G1037 C1038 C1041 G1042 C1043 G1044 A1045 A1046 G1047 A1048 C1049 A1050 G1051 C1052 C1053 A1054 G1065 G1056 A1067 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 A1084 A1085 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 C1118 C1119 G1122 C1123 C1124 G1125
A1129 U1130 G1131 A1132 U1133 C1135 G1136 G1137 G1138 G1139 A1142A A1143 G1144 C1147 A1148 C1153 C1158 G1163 G1169 G1170 G1171 G A U G A C1178 C1179 C1180 C1181 G1184 C1185 G1186 G1187 U1188 G1191 G1195 U1199 C1200 C1201 C1202 G1203 A1204 U1205 G1206 C1207 C1208 G1209 A1210
U1211 G1212 G1216 C1217 C1218 G1219 A1220 C1221 C1221A A1226 G1229 C1230 G1235 G1236 A1237 G1238 G1239 U1240 A1241 G1248 G1252 A1253 A1254 U1255 G1256 C1257 G1260 C1261 G1264 A1265 G1266 U1267 A1268 A1269 C1270 G1271 A1272 A1275 A1276 G1277 A1278 G1279 A1284 G1285 A1286 A1287 U1288 U1294 C1295
G1296 U1300 A1301 A1302 G1303 C1304 C1305 U1313 C1314 C1315 U1316 A1317 C1318 G1319 C1320 A1321 C1327 G1328 U1329 G1332 U1341 A1342 A1349 U1352 A1353 A1354 A1359 A1360 G1364 A1365 G1368 G1371 U1372 A1373 A1378 A1379 G1380 A1384 G1385 C1386 U1396 C1403 C1404 U1405 U1406
C1411 A1412 G1413 G1414 U1415 G1416 C1417 G1418 A1419 U1420 G1421 G1422 A1427 C1428 G1429 C1430 U1431 C1432 G1436 C1437 U1438 A1439 G1442 A1445 G1450 C1450A C1451 A1452 U1453 G1455 G1459 A1460 G1461 C1464 G1465 G1466 C1467 A1471 G1482 U1489 A1490 G1491 G1492 C1493 A1494 A1495 A1496 U1497 C1498





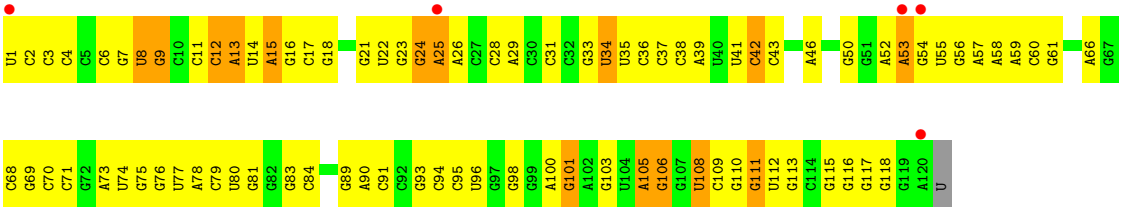
• Molecule 2: 5S Ribosomal RNA

Chain 1B:



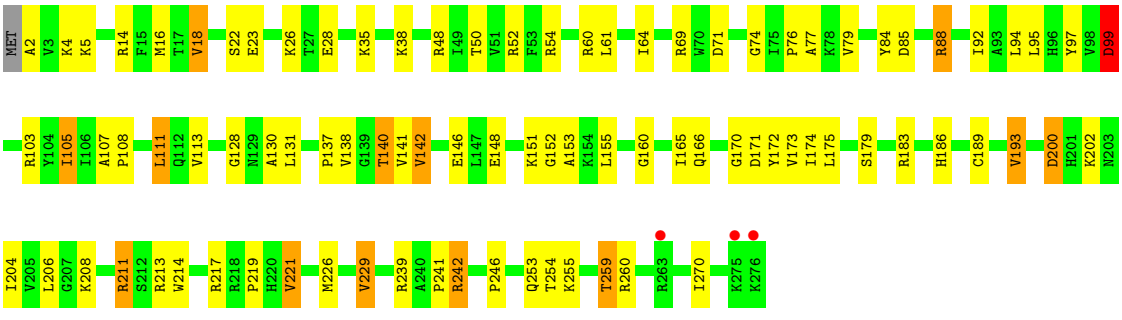
• Molecule 2: 5S Ribosomal RNA

Chain 2B:



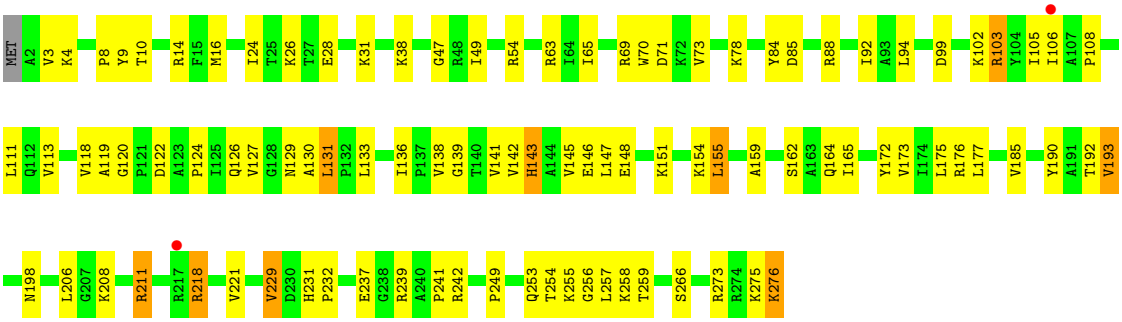
• Molecule 3: 50S ribosomal protein L2

Chain 1D:



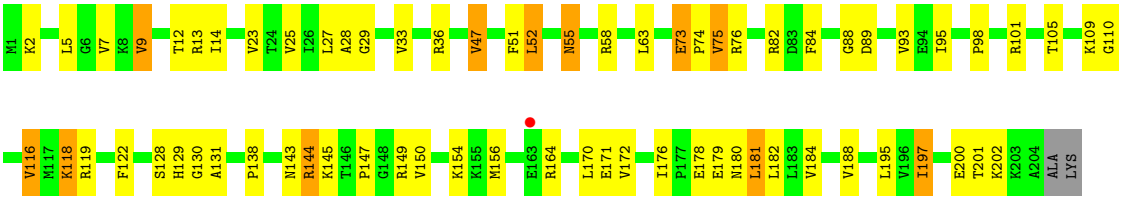
• Molecule 3: 50S ribosomal protein L2

Chain 2D:



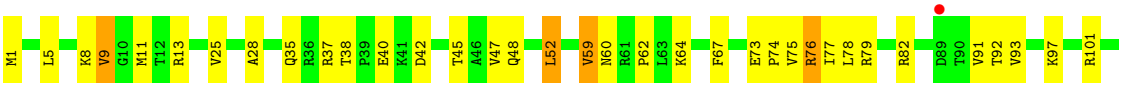
• Molecule 4: 50S ribosomal protein L3

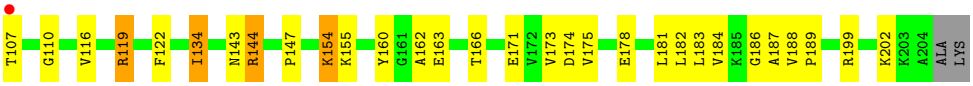
Chain 1E:



• Molecule 4: 50S ribosomal protein L3

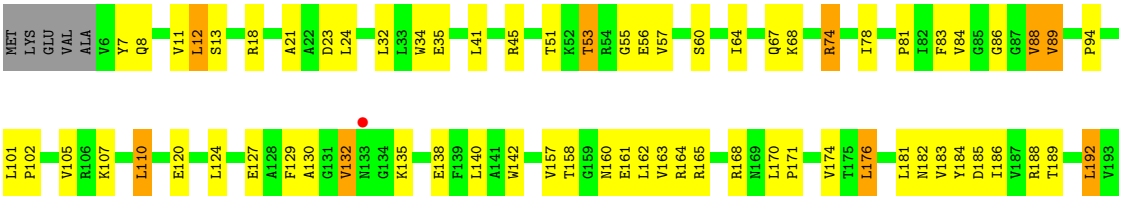
Chain 2E:

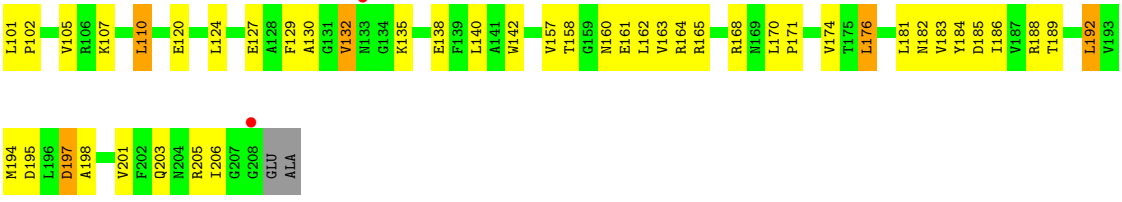




• Molecule 5: 50S ribosomal protein L4

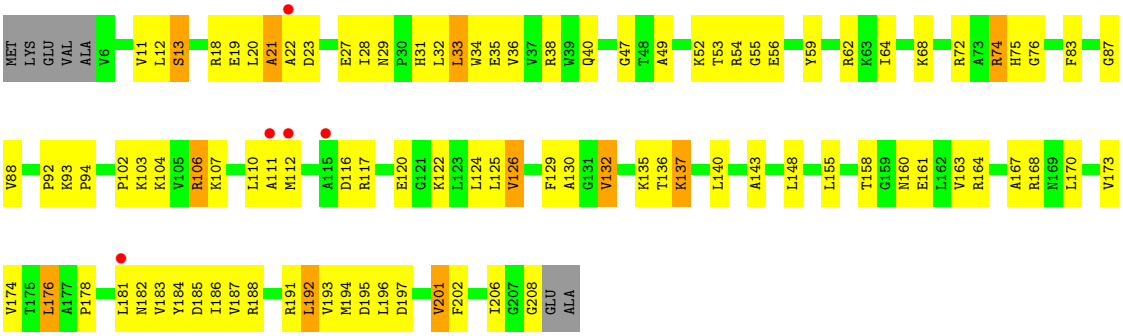
Chain 1F:





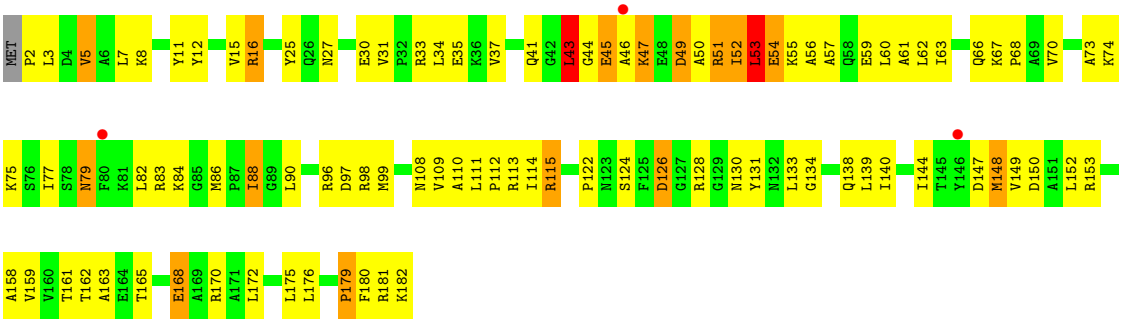
• Molecule 5: 50S ribosomal protein L4

Chain 2F:



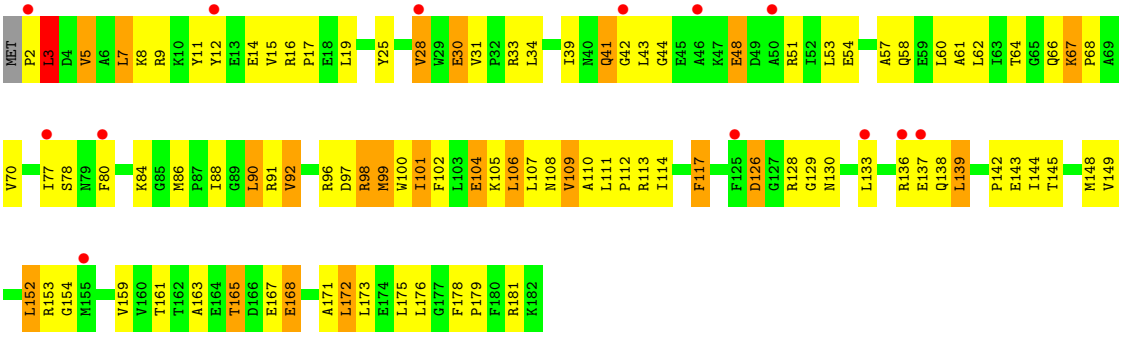
• Molecule 6: 50S ribosomal protein L5

Chain 1G:



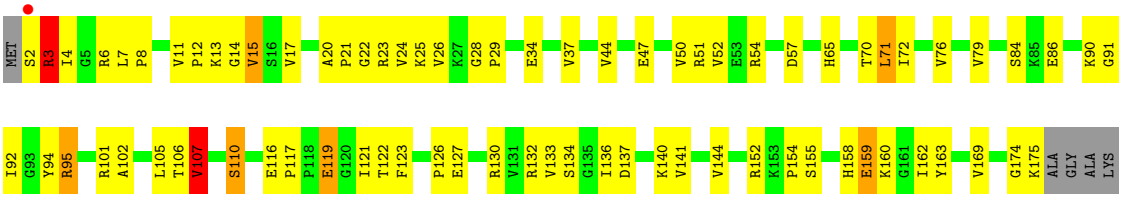
• Molecule 6: 50S ribosomal protein L5

Chain 2G:



• Molecule 7: 50S ribosomal protein L6

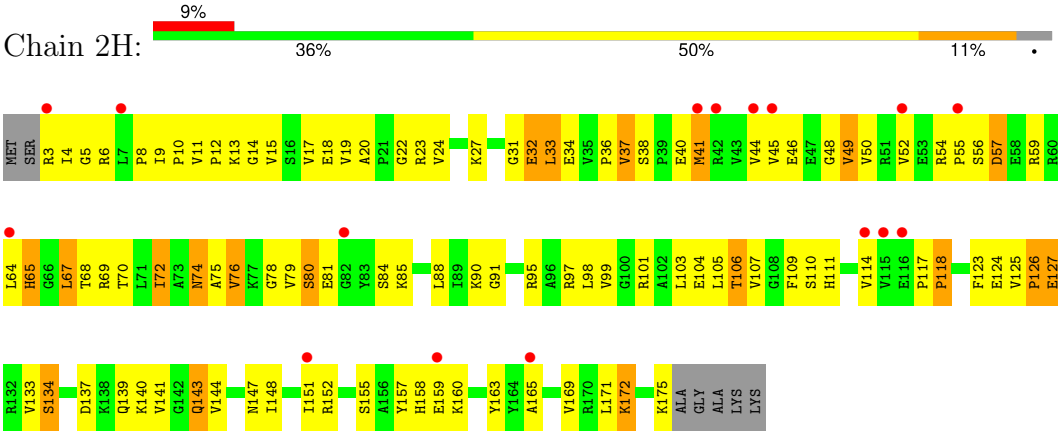
Chain 1H:



LYS

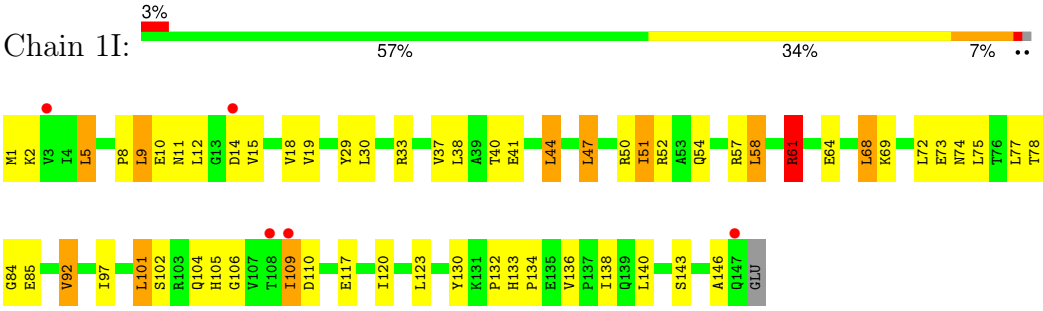
• Molecule 7: 50S ribosomal protein L6

Chain 2H:



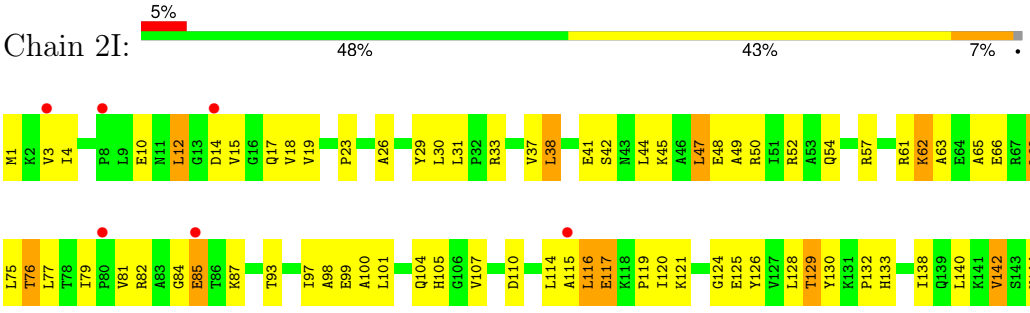
• Molecule 8: 50S ribosomal protein L9

Chain 1I:



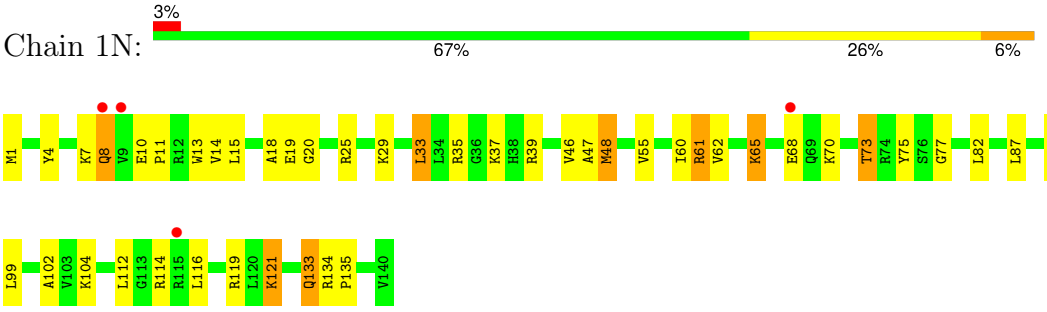
• Molecule 8: 50S ribosomal protein L9

Chain 2I:



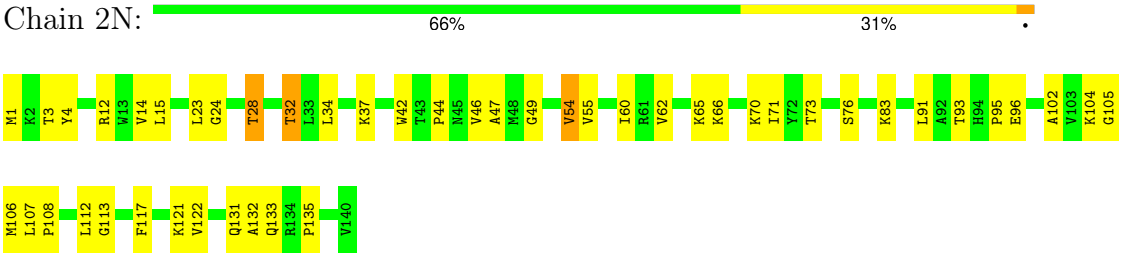
• Molecule 9: 50S ribosomal protein L13

Chain 1N:



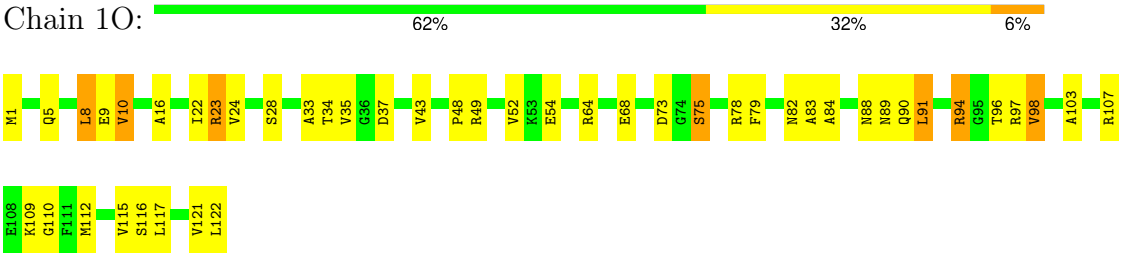
• Molecule 9: 50S ribosomal protein L13

Chain 2N:



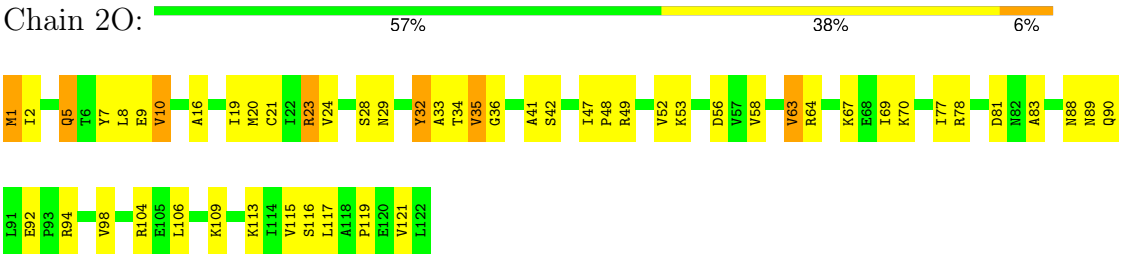
• Molecule 10: 50S ribosomal protein L14

Chain 1O:



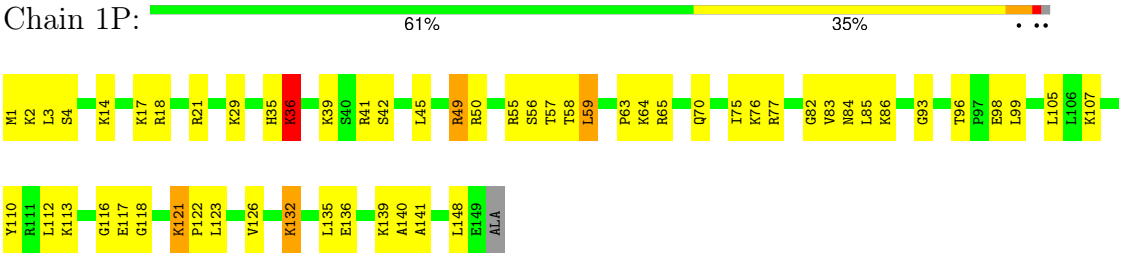
• Molecule 10: 50S ribosomal protein L14

Chain 2O:



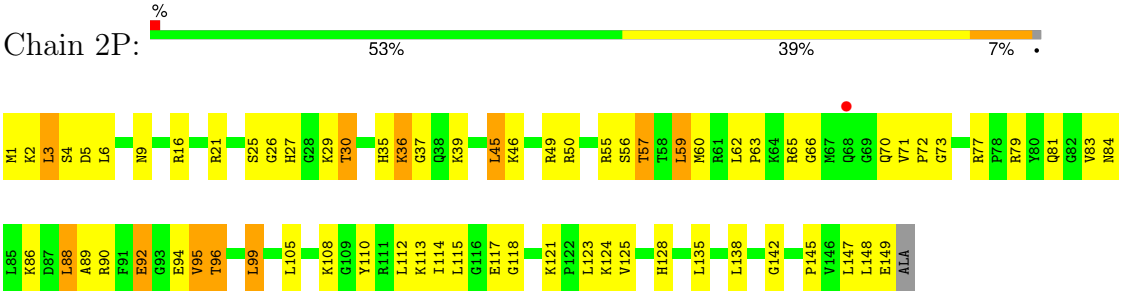
• Molecule 11: 50S ribosomal protein L15

Chain 1P:



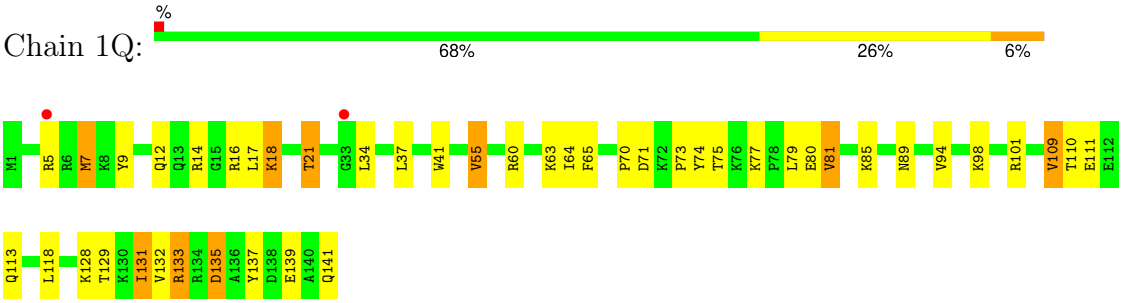
• Molecule 11: 50S ribosomal protein L15

Chain 2P:



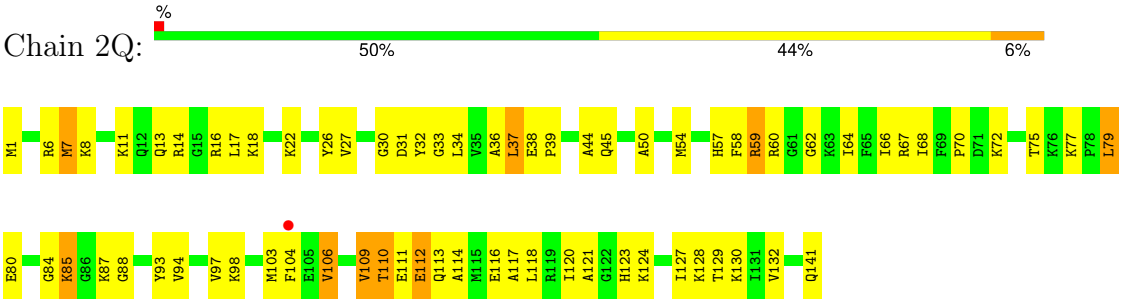
• Molecule 12: 50S ribosomal protein L16

Chain 1Q:



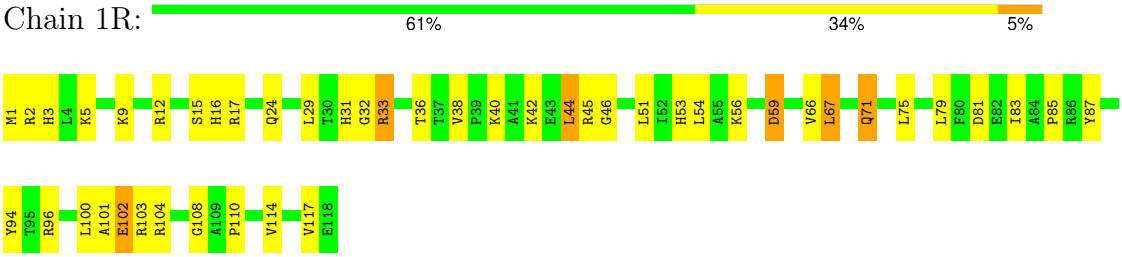
• Molecule 12: 50S ribosomal protein L16

Chain 2Q:



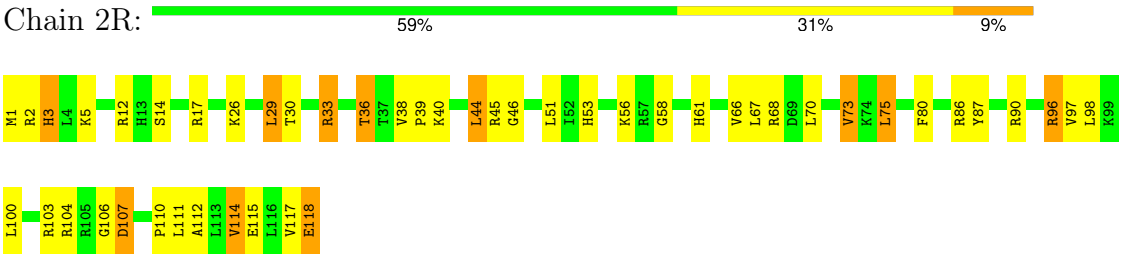
• Molecule 13: 50S ribosomal protein L17

Chain 1R:



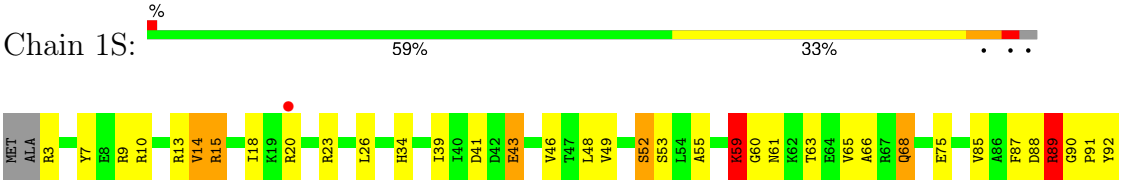
• Molecule 13: 50S ribosomal protein L17

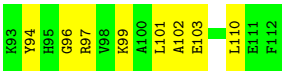
Chain 2R:



• Molecule 14: 50S ribosomal protein L18

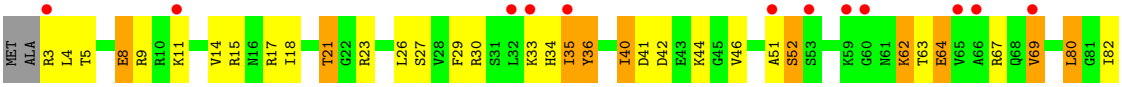
Chain 1S:





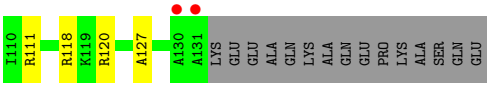
• Molecule 14: 50S ribosomal protein L18

Chain 2S:



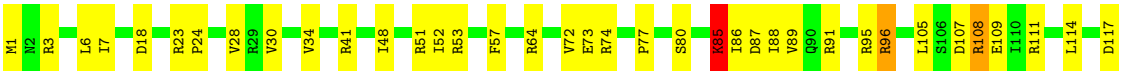
• Molecule 15: 50S ribosomal protein L19

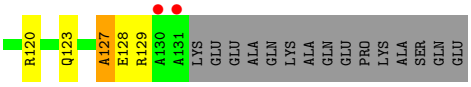
Chain 1T:



• Molecule 15: 50S ribosomal protein L19

Chain 2T:



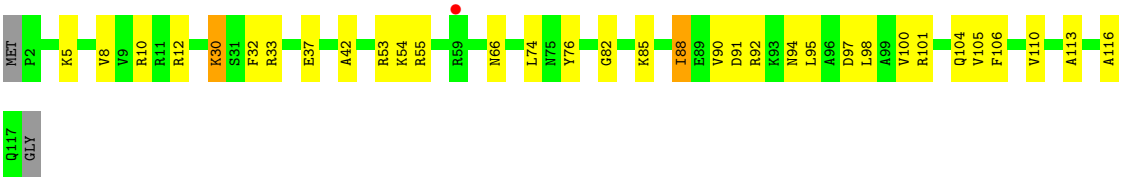


• Molecule 16: 50S ribosomal protein L20

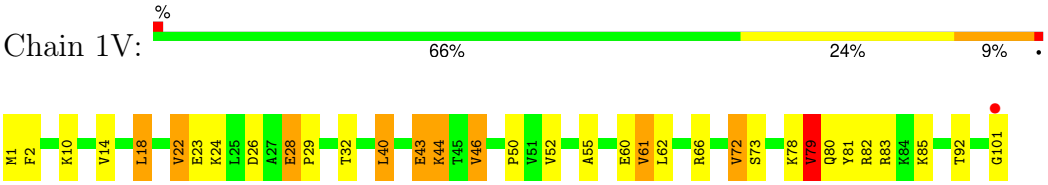
Chain 1U:

• Molecule 16: 50S ribosomal protein L20

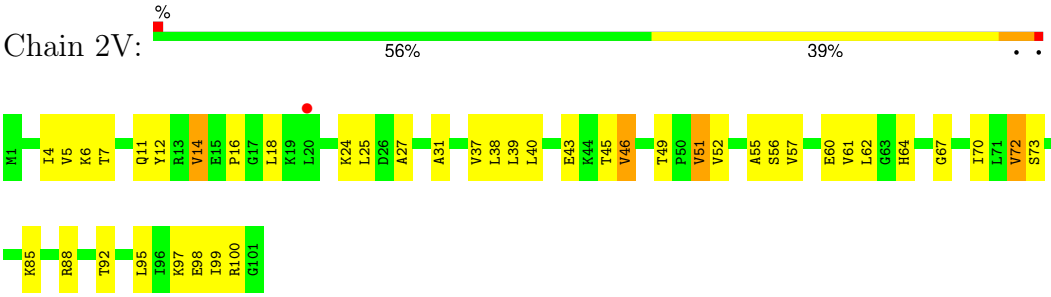
Chain 2U:



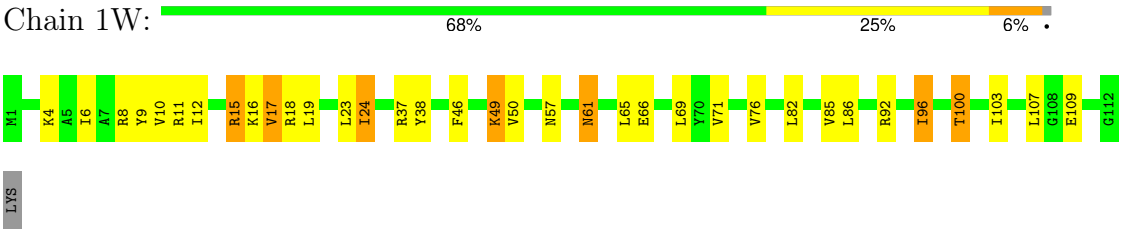
• Molecule 17: 50S ribosomal protein L21



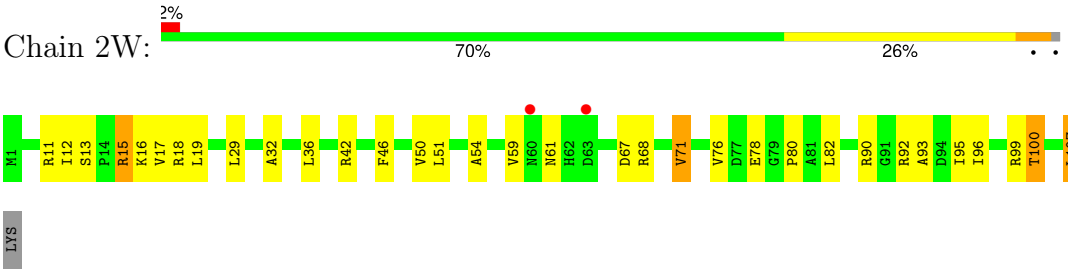
• Molecule 17: 50S ribosomal protein L21



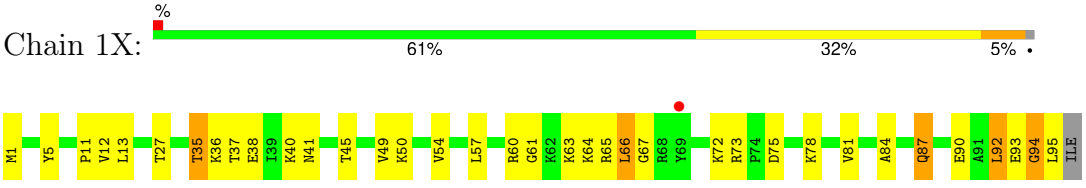
• Molecule 18: 50S ribosomal protein L22



• Molecule 18: 50S ribosomal protein L22

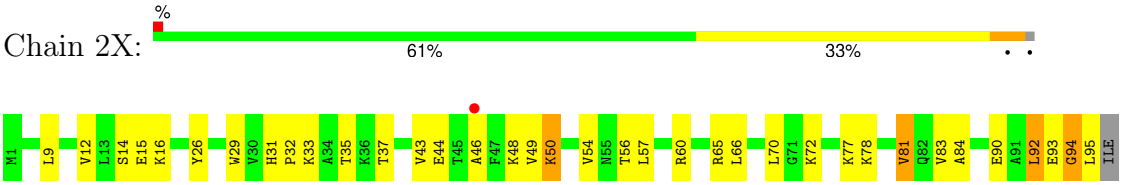


• Molecule 19: 50S ribosomal protein L23



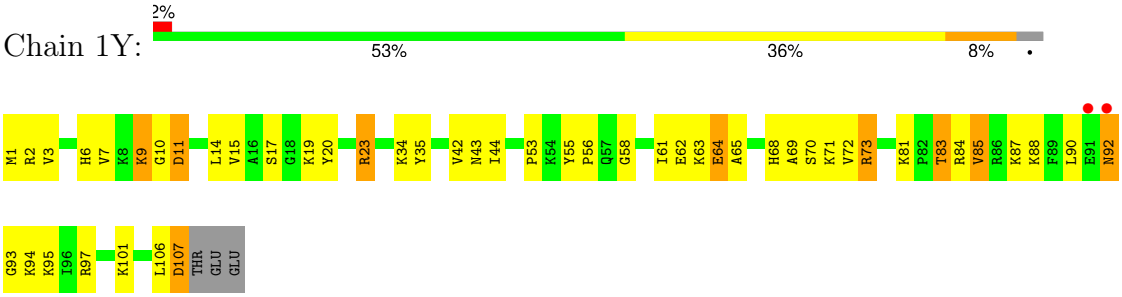
• Molecule 19: 50S ribosomal protein L23

Chain 2X:



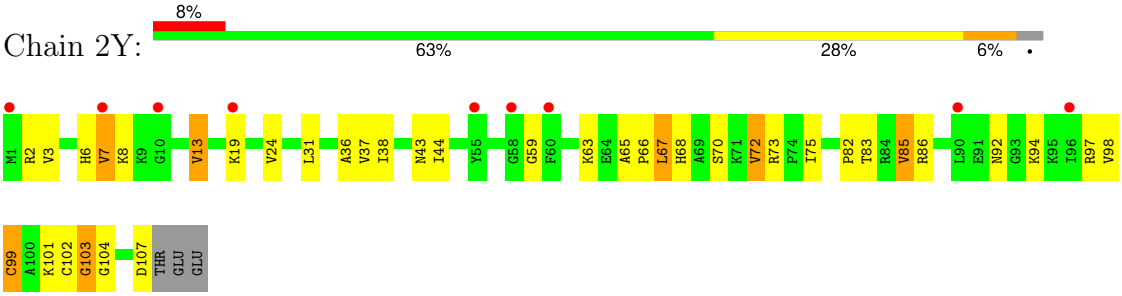
• Molecule 20: 50S ribosomal protein L24

Chain 1Y:



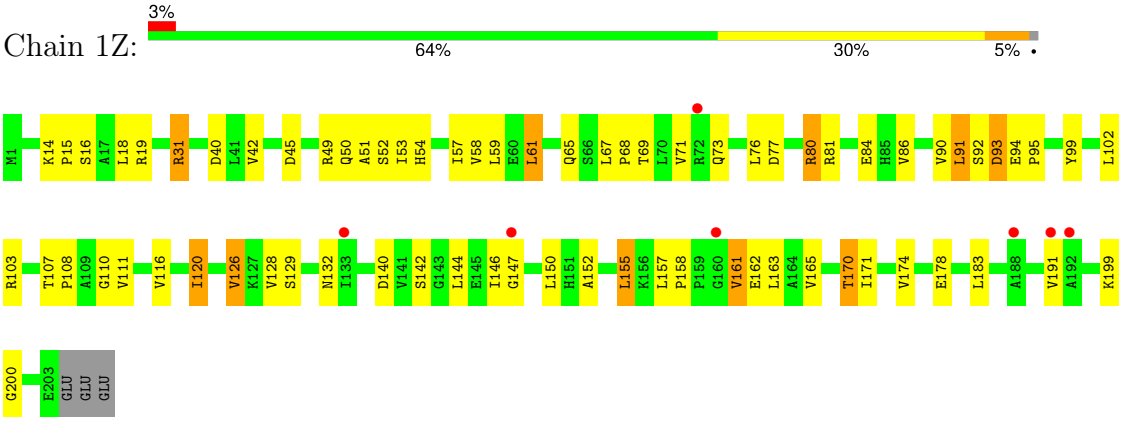
• Molecule 20: 50S ribosomal protein L24

Chain 2Y:



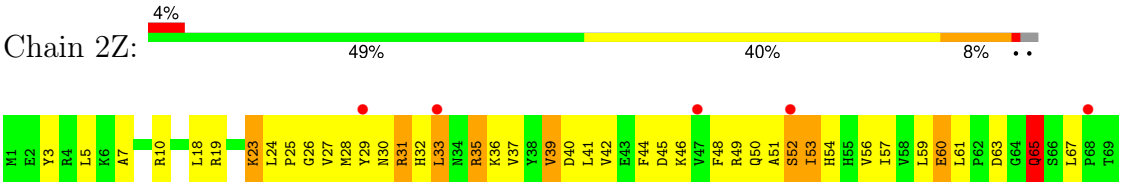
• Molecule 21: 50S ribosomal protein L25

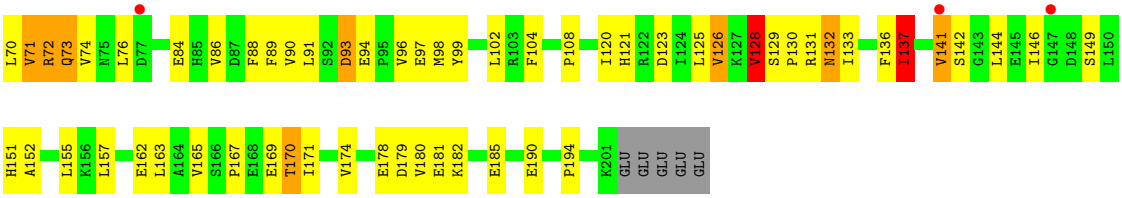
Chain 1Z:



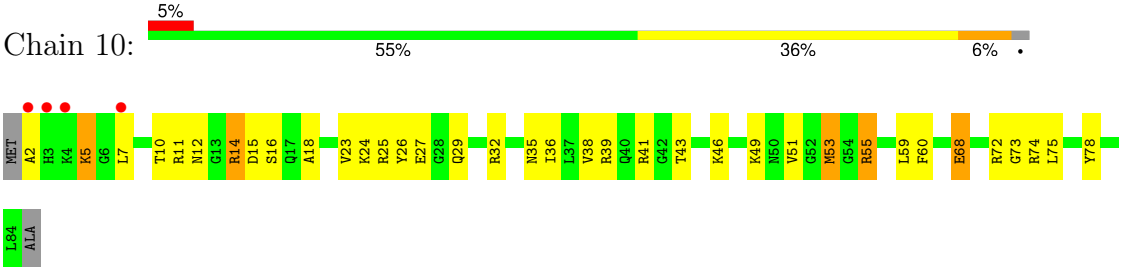
• Molecule 21: 50S ribosomal protein L25

Chain 2Z:

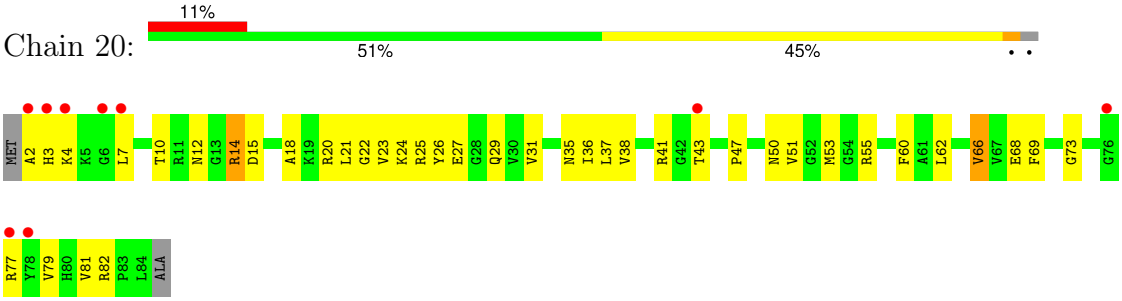




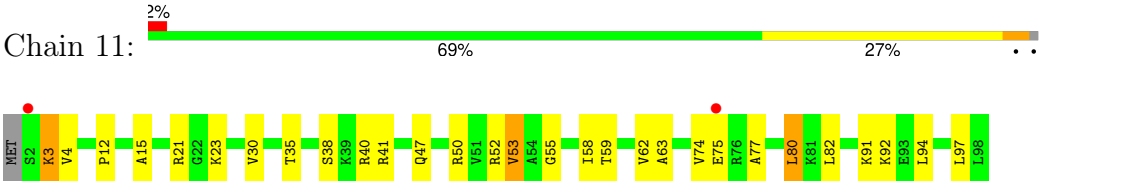
• Molecule 22: 50S ribosomal protein L27



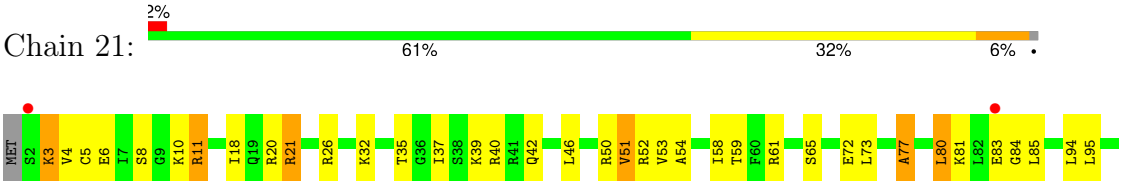
• Molecule 22: 50S ribosomal protein L27



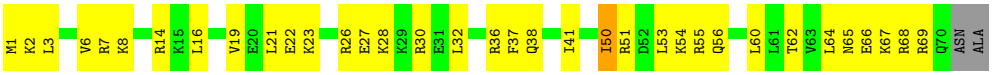
• Molecule 23: 50S ribosomal protein L28



• Molecule 23: 50S ribosomal protein L28



• Molecule 24: 50S ribosomal protein L29

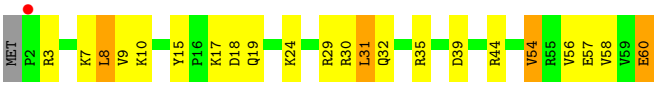


• Molecule 24: 50S ribosomal protein L29

Chain 22:

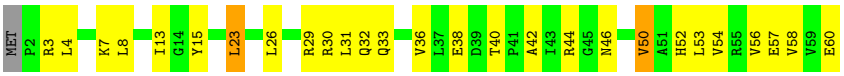
• Molecule 25: 50S ribosomal protein L30

Chain 13:



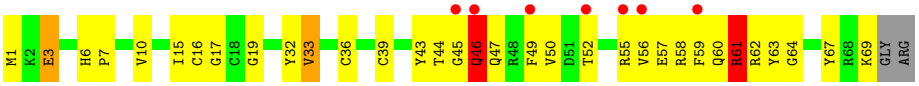
• Molecule 25: 50S ribosomal protein L30

Chain 23:



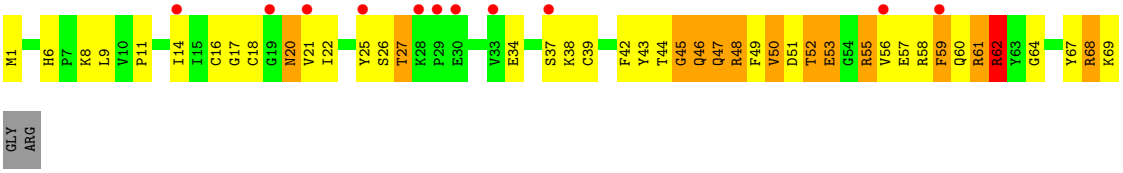
• Molecule 26: 50S ribosomal protein L31

Chain 14:



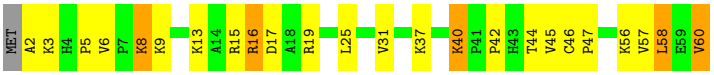
• Molecule 26: 50S ribosomal protein L31

Chain 24:



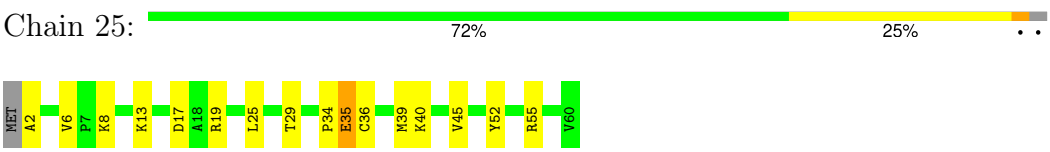
• Molecule 27: 50S ribosomal protein L32

Chain 15:



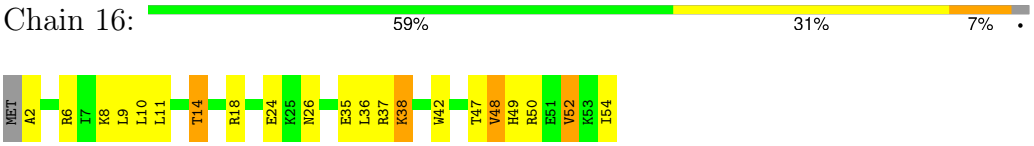
• Molecule 27: 50S ribosomal protein L32

Chain 25:



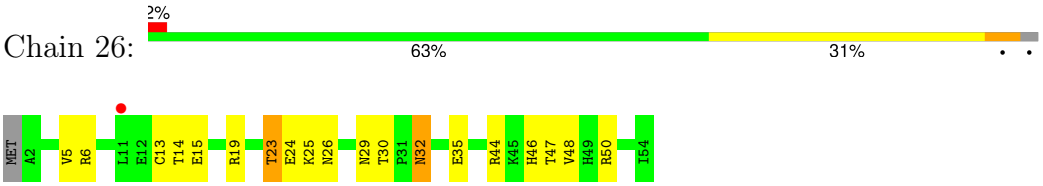
• Molecule 28: 50S ribosomal protein L33

Chain 16:



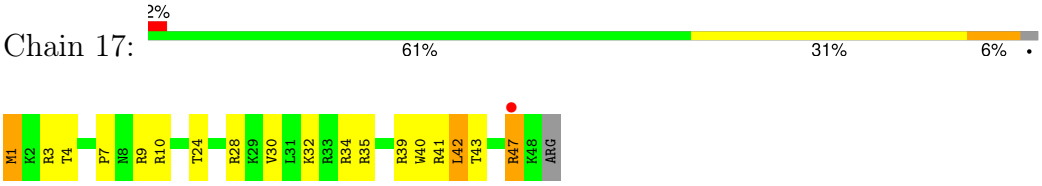
• Molecule 28: 50S ribosomal protein L33

Chain 26:



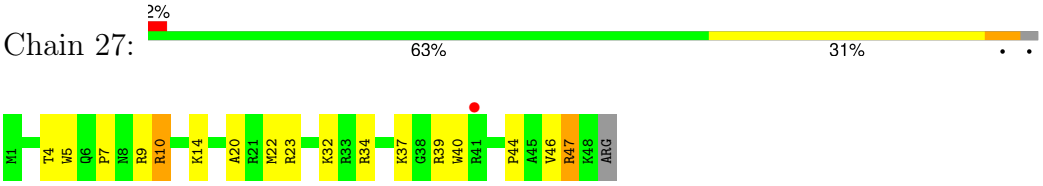
• Molecule 29: 50S ribosomal protein L34

Chain 17:



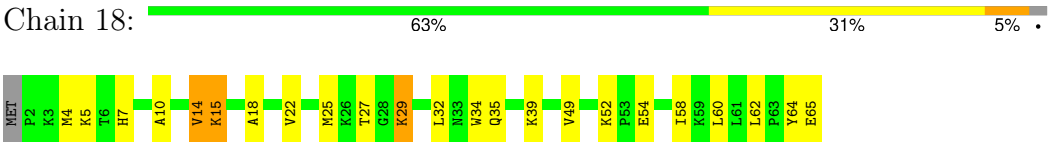
• Molecule 29: 50S ribosomal protein L34

Chain 27:



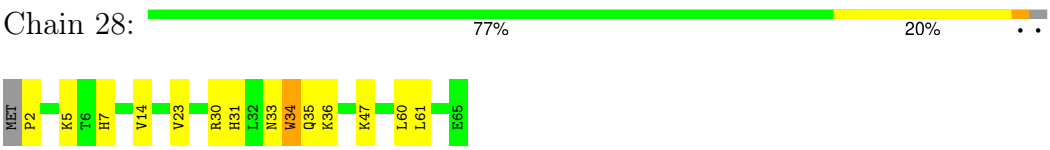
• Molecule 30: 50S ribosomal protein L35

Chain 18:



• Molecule 30: 50S ribosomal protein L35

Chain 28:

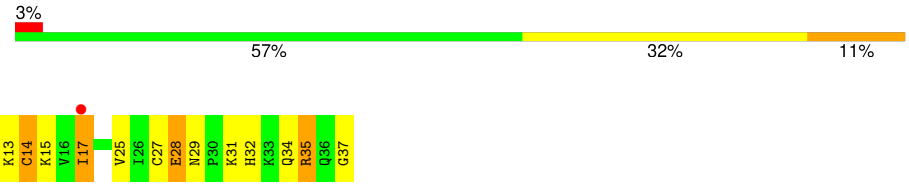


• Molecule 31: 50S ribosomal protein L36

Chain 19:

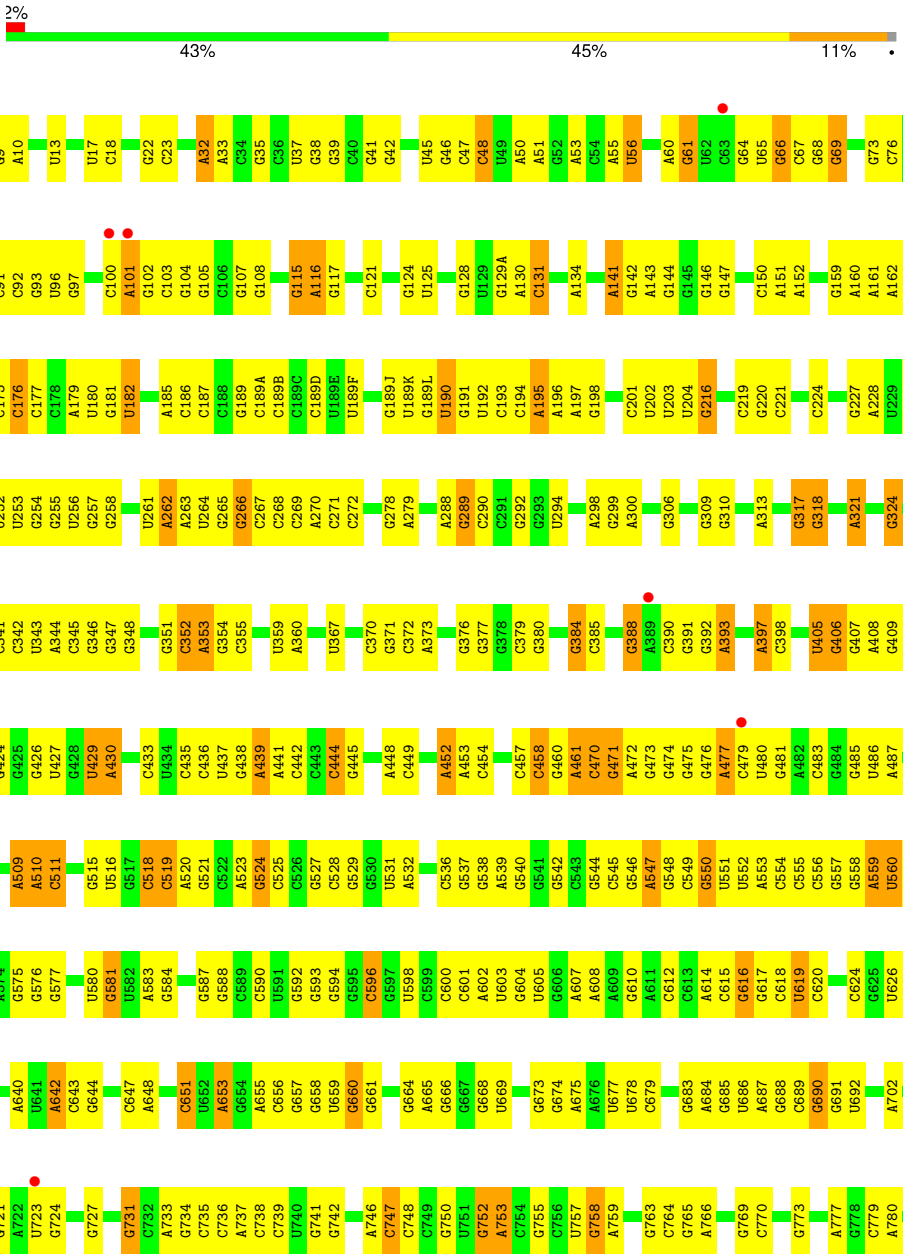
• Molecule 31: 50S ribosomal protein L36

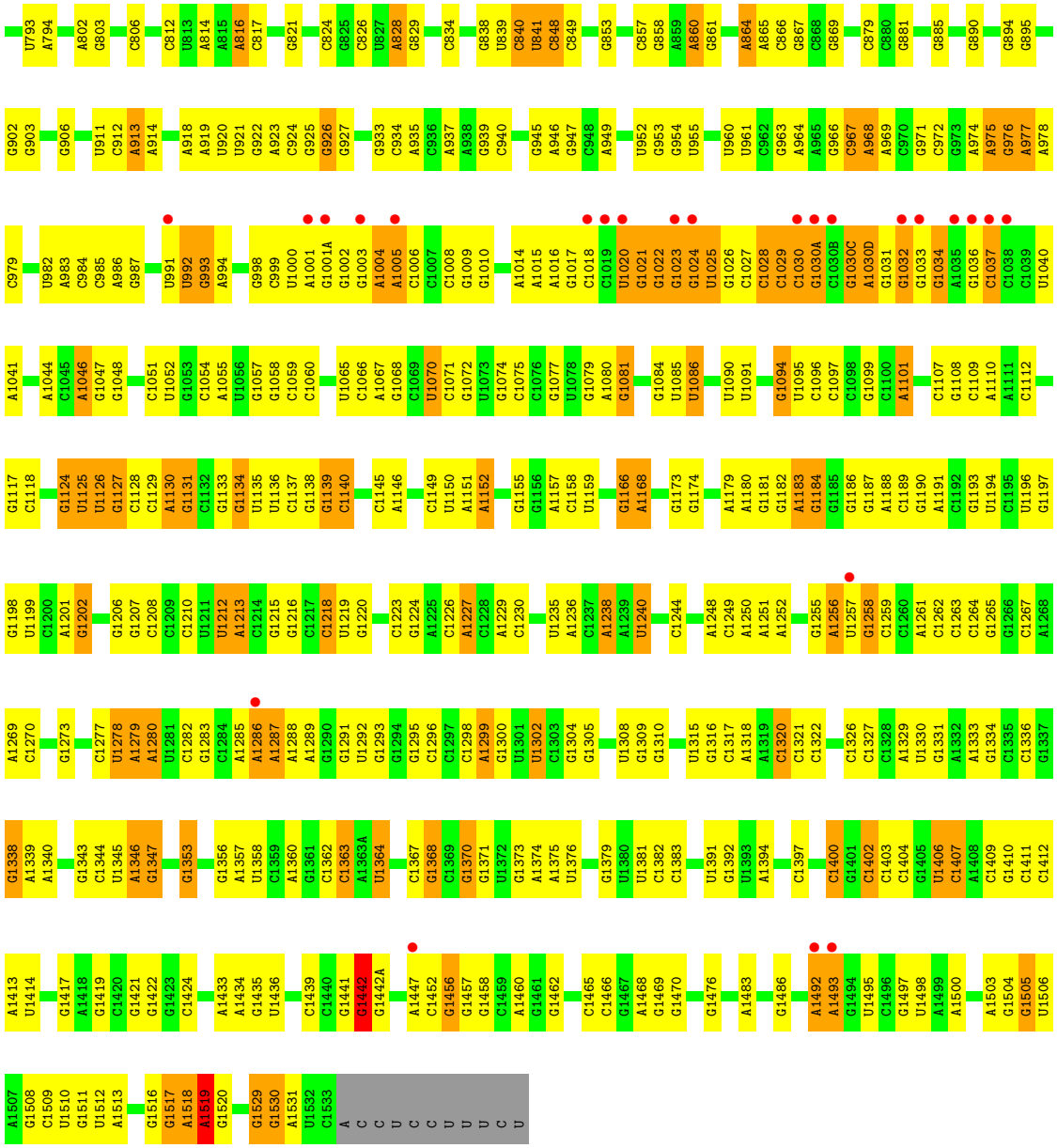
Chain 29:



• Molecule 32: 16S Ribosomal RNA

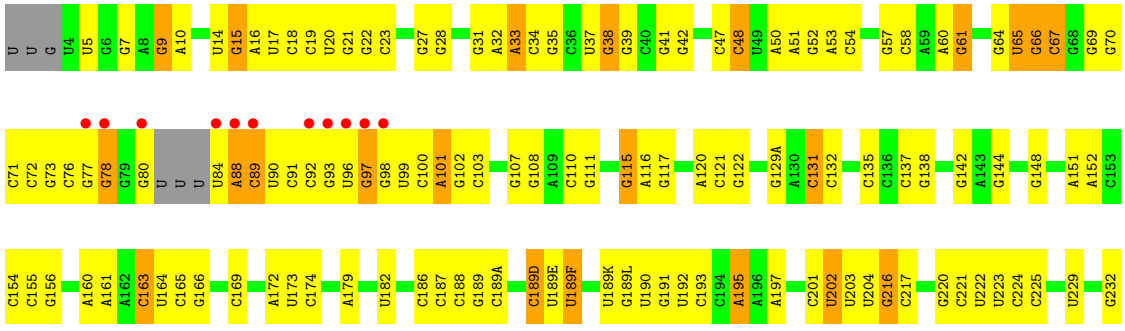
Chain 1a:

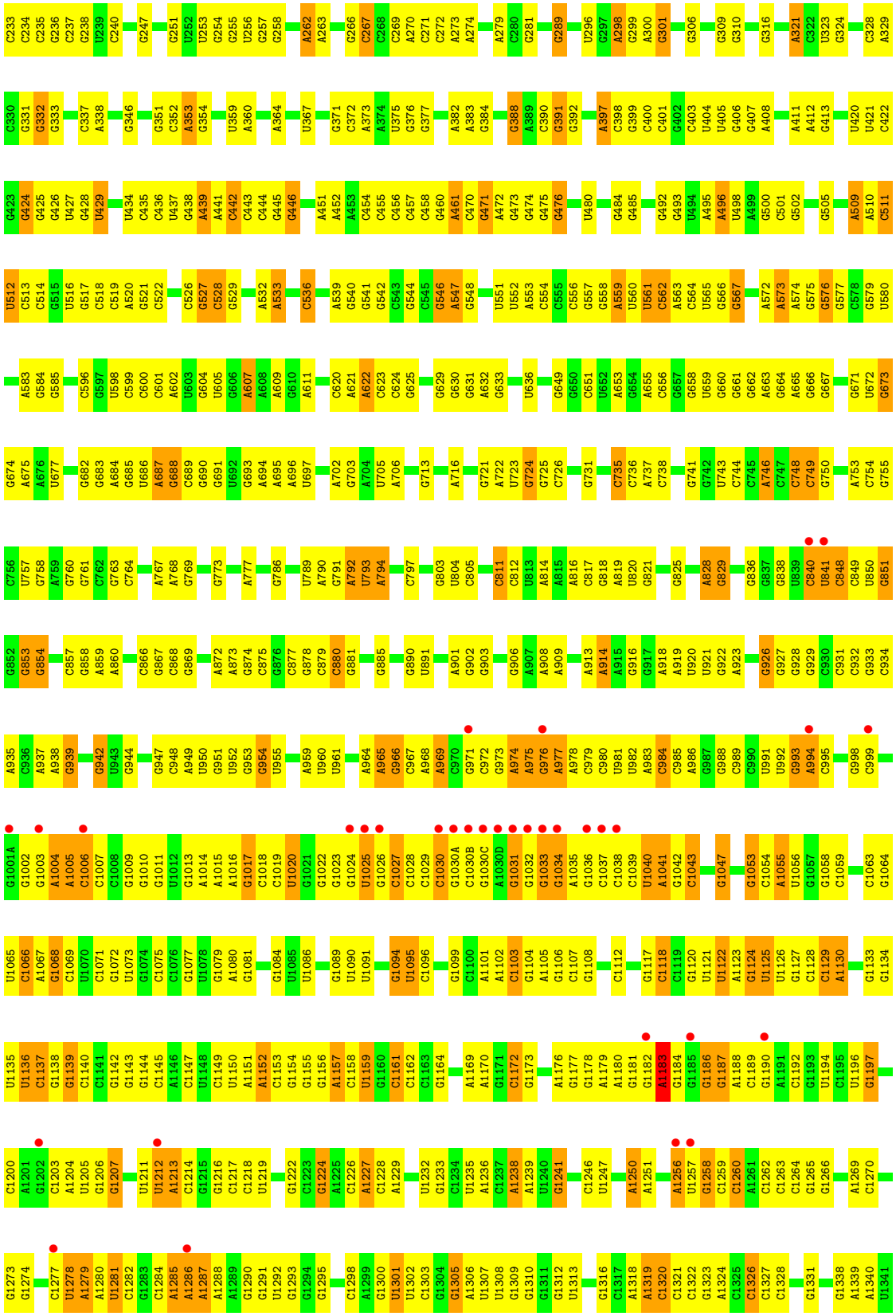


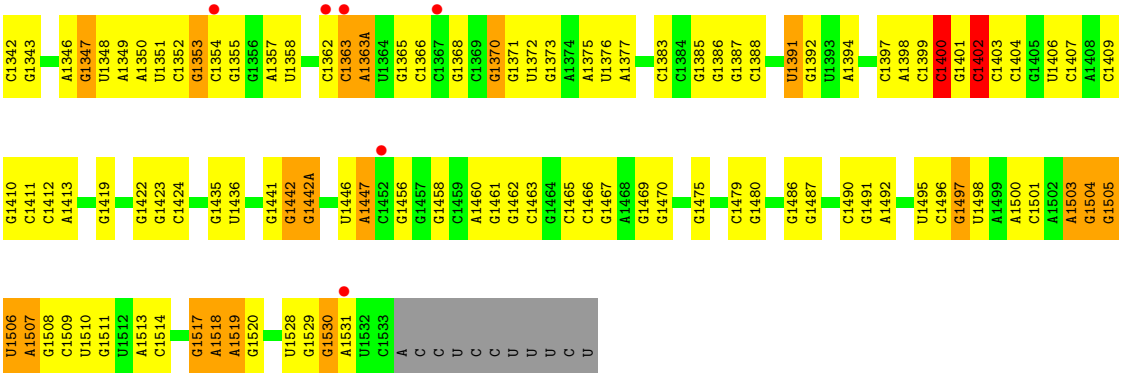


• Molecule 32: 16S Ribosomal RNA

Chain 2a:

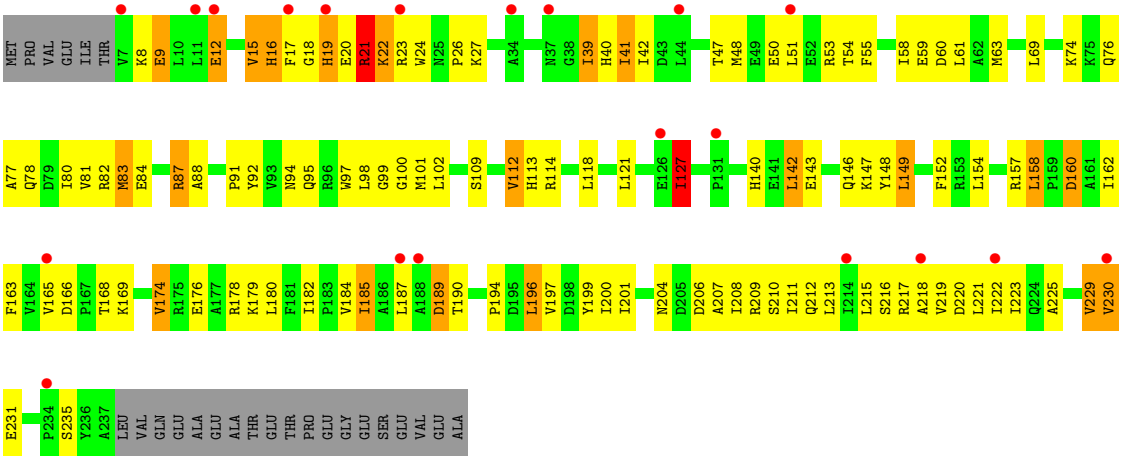






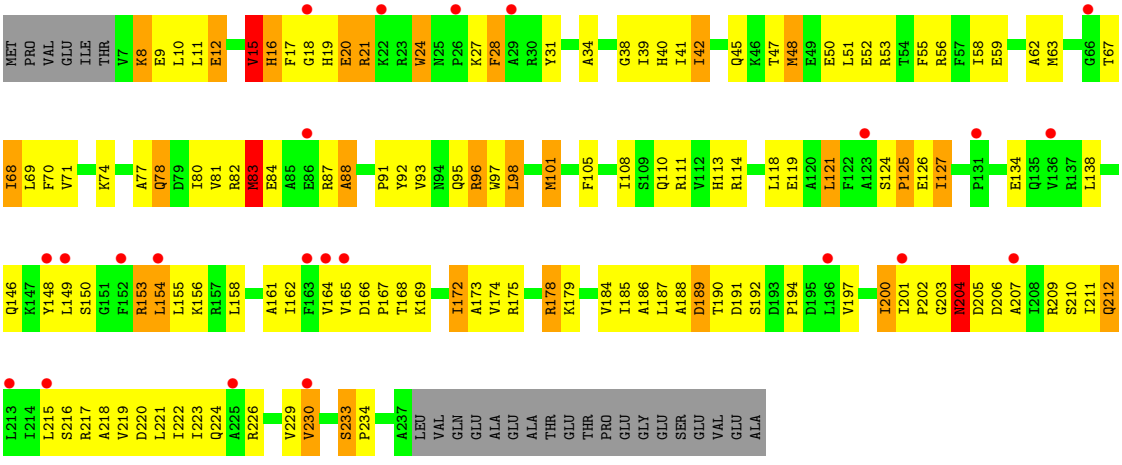
• Molecule 33: 30S ribosomal protein S2

Chain 1b:



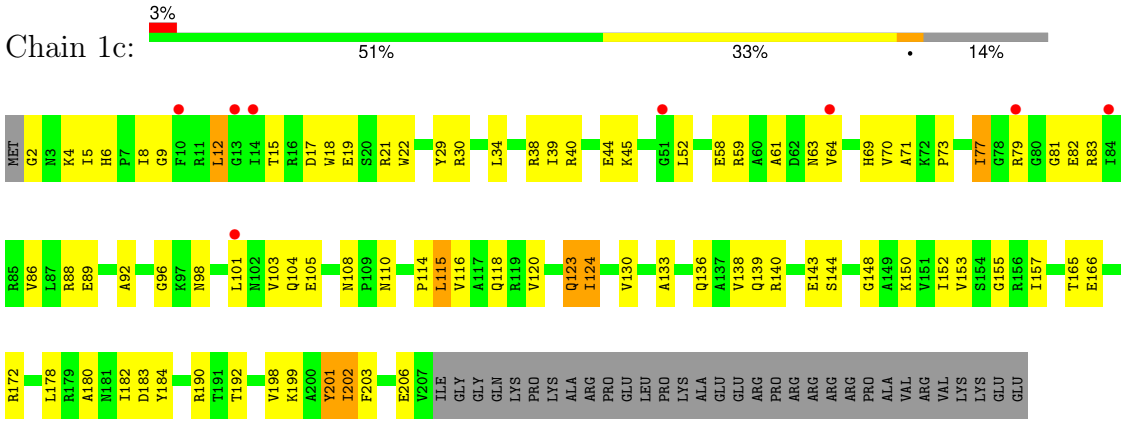
• Molecule 33: 30S ribosomal protein S2

Chain 2b:



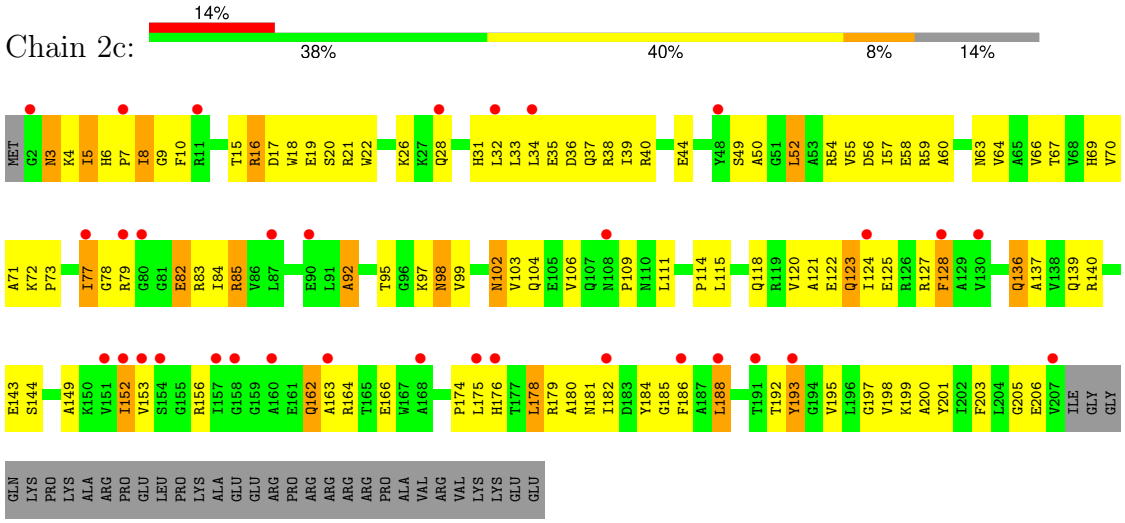
• Molecule 34: 30S ribosomal protein S3

Chain 1c:



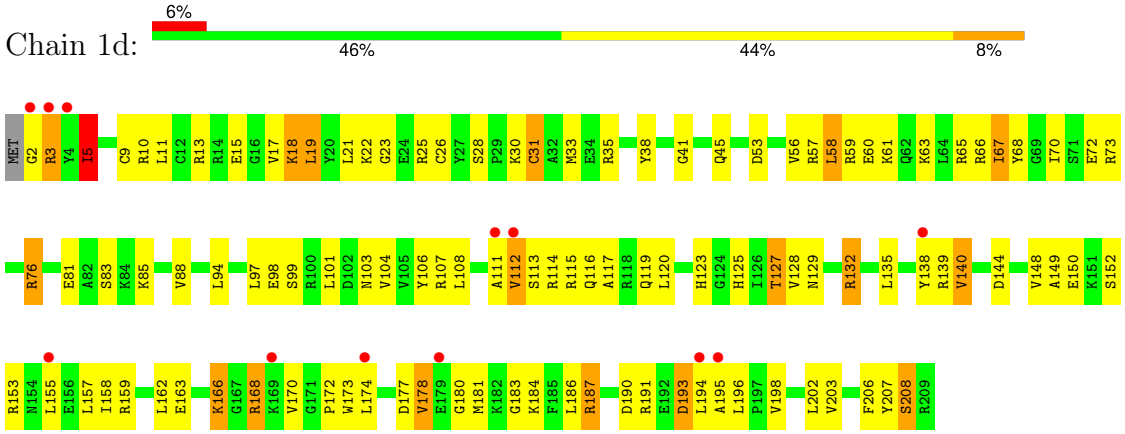
• Molecule 34: 30S ribosomal protein S3

Chain 2c:



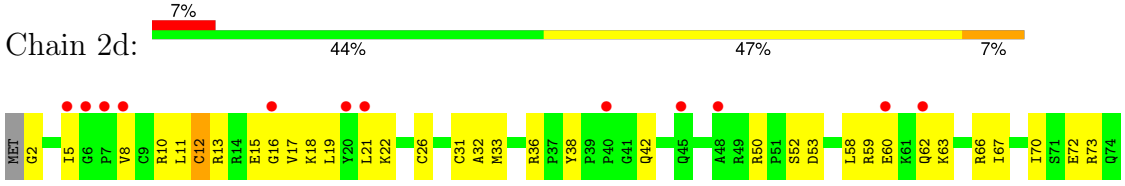
• Molecule 35: 30S ribosomal protein S4

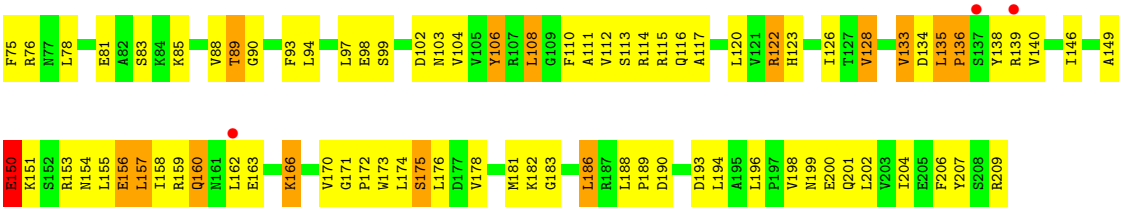
Chain 1d:



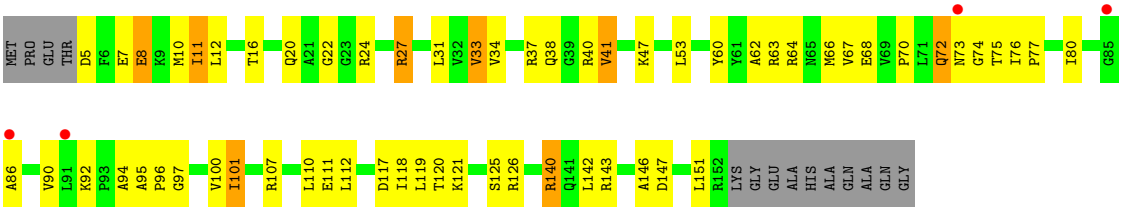
• Molecule 35: 30S ribosomal protein S4

Chain 2d:

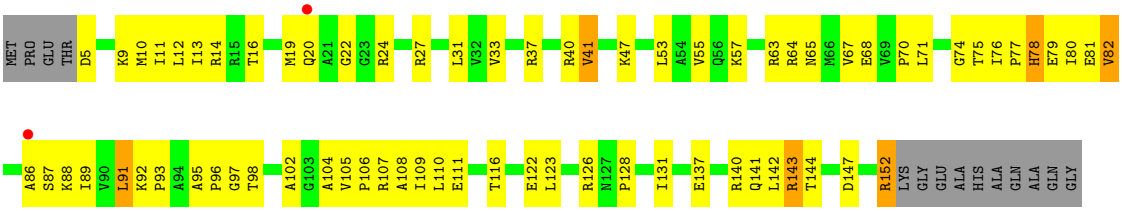




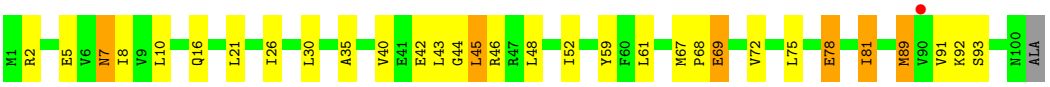
• Molecule 36: 30S ribosomal protein S5



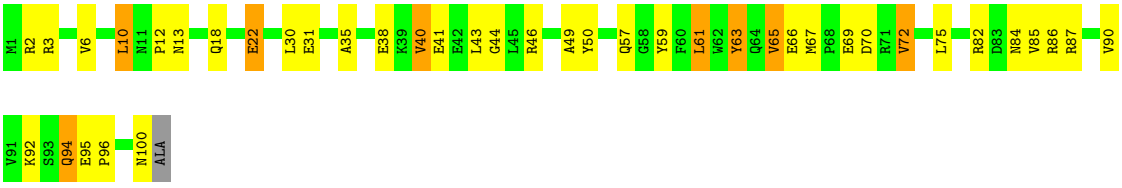
• Molecule 36: 30S ribosomal protein S5



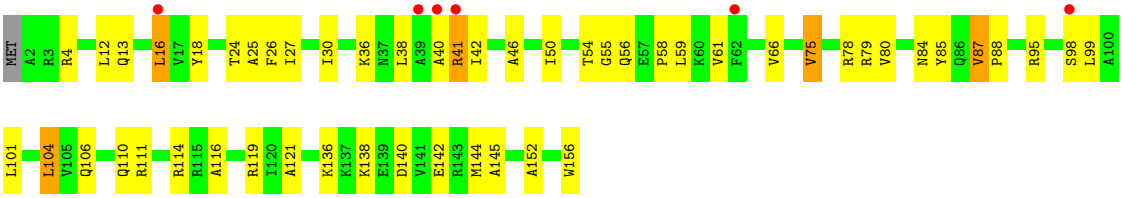
• Molecule 37: 30S ribosomal protein S6



• Molecule 37: 30S ribosomal protein S6

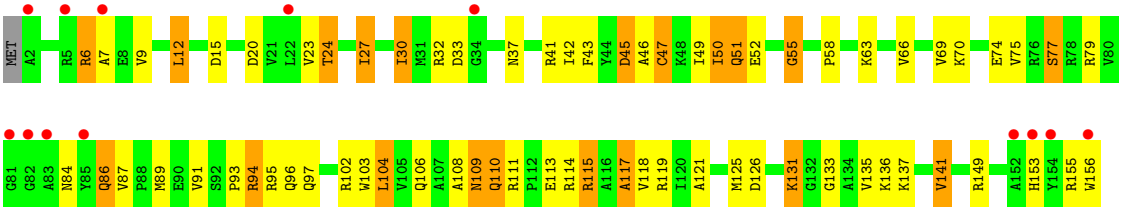


• Molecule 38: 30S ribosomal protein S7



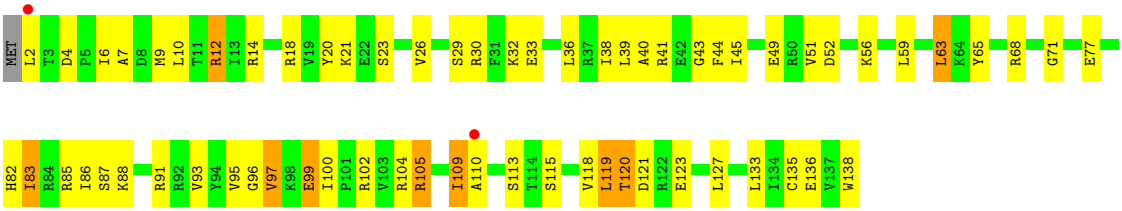
• Molecule 38: 30S ribosomal protein S7

Chain 2g:



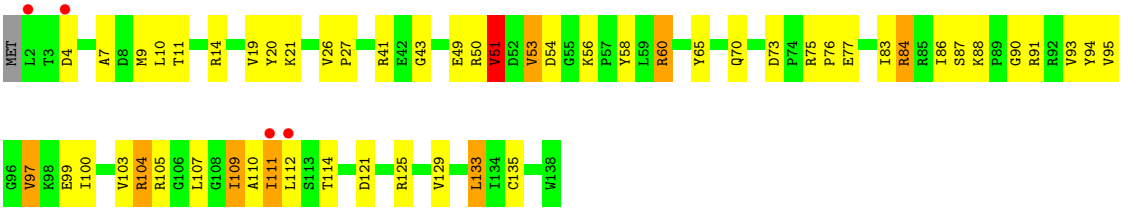
• Molecule 39: 30S ribosomal protein S8

Chain 1h:



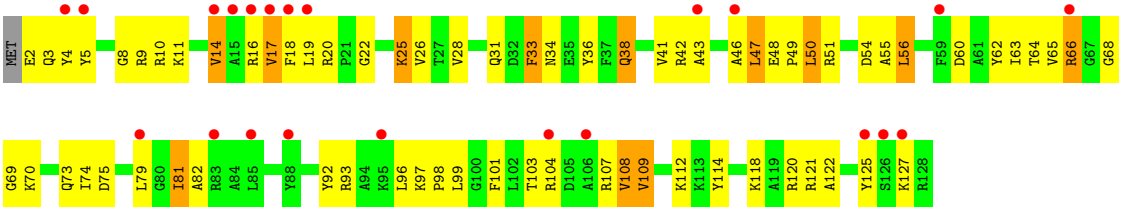
• Molecule 39: 30S ribosomal protein S8

Chain 2h:



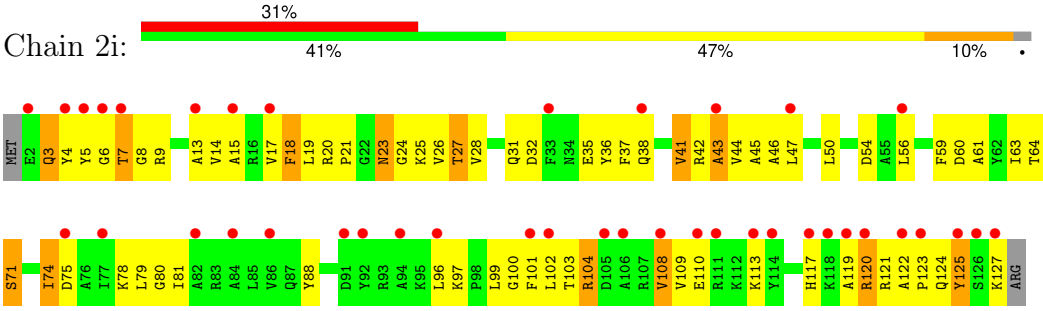
• Molecule 40: 30S ribosomal protein S9

Chain 1i:



• Molecule 40: 30S ribosomal protein S9

Chain 2i:



• Molecule 41: 30S ribosomal protein S10

Chain 1j:

• Molecule 41: 30S ribosomal protein S10

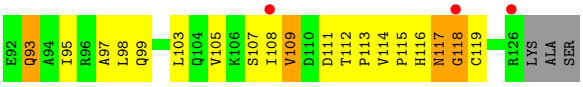
Chain 2j:

• Molecule 42: 30S ribosomal protein S11

Chain 1k:

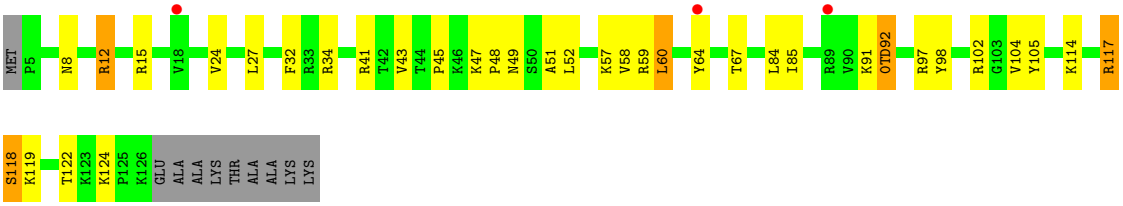
• Molecule 42: 30S ribosomal protein S11

Chain 2k:



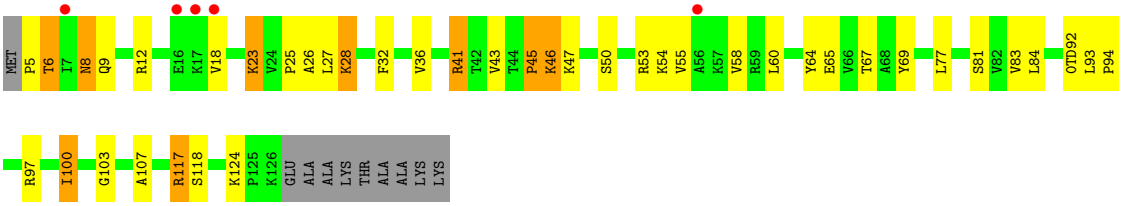
• Molecule 43: 30S ribosomal protein S12

Chain 1l:



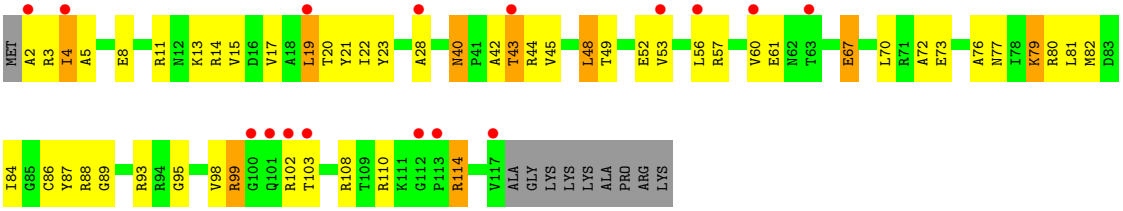
• Molecule 43: 30S ribosomal protein S12

Chain 2l:



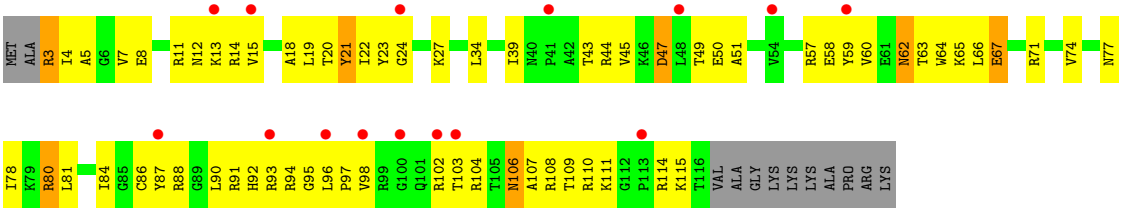
• Molecule 44: 30S ribosomal protein S13

Chain 1m:



• Molecule 44: 30S ribosomal protein S13

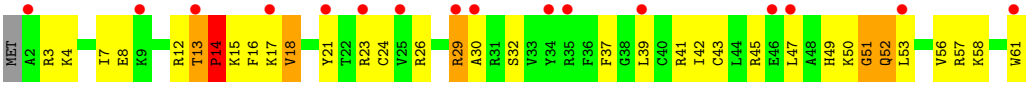
Chain 2m:



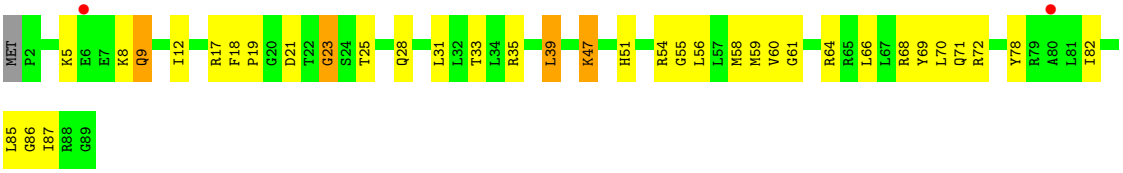
• Molecule 45: 30S ribosomal protein S14 type Z

Chain 1n:

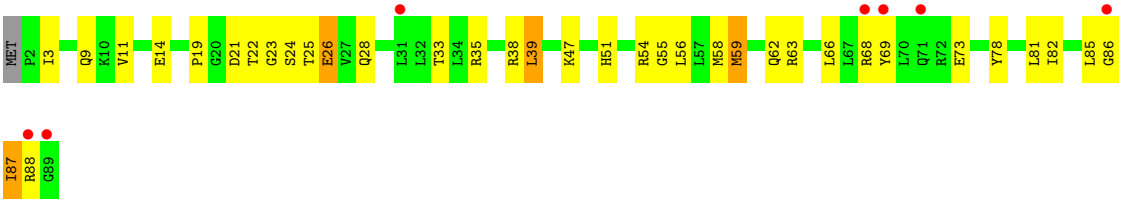
• Molecule 45: 30S ribosomal protein S14 type Z



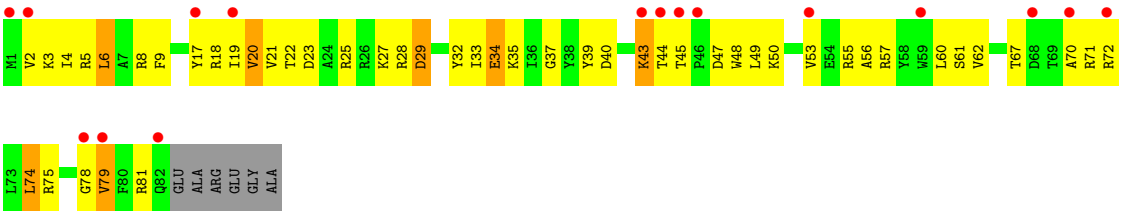
• Molecule 46: 30S ribosomal protein S15



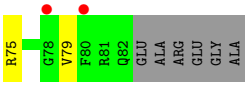
• Molecule 46: 30S ribosomal protein S15



• Molecule 47: 30S ribosomal protein S16

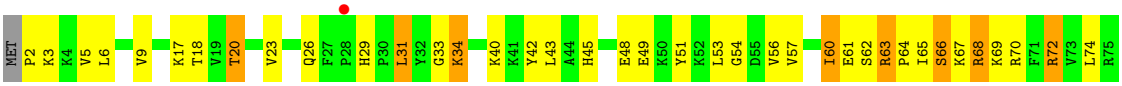


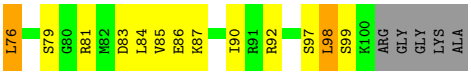
• Molecule 47: 30S ribosomal protein S16



• Molecule 48: 30S ribosomal protein S17

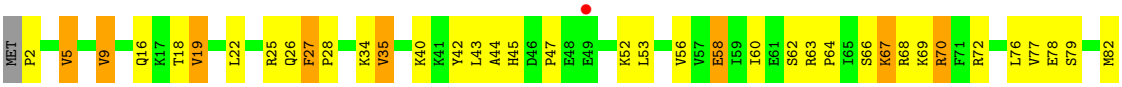
Chain 1q:





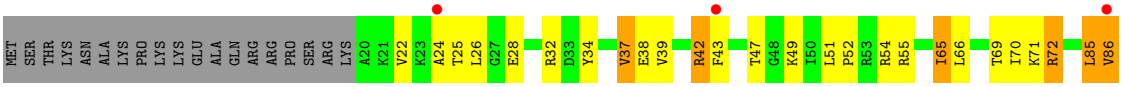
• Molecule 48: 30S ribosomal protein S17

Chain 2q:



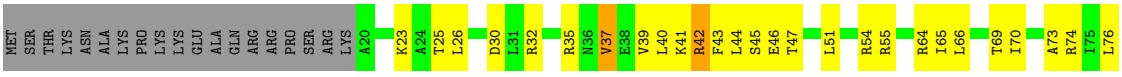
• Molecule 49: 30S ribosomal protein S18

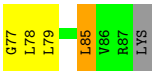
Chain 1r:



• Molecule 49: 30S ribosomal protein S18

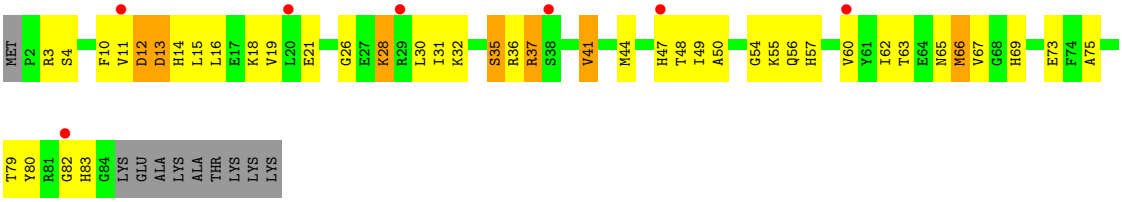
Chain 2r:





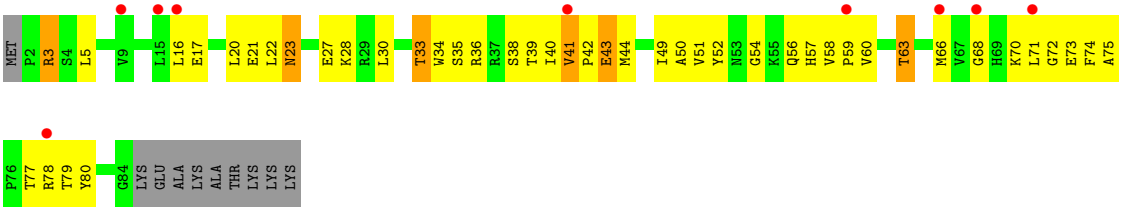
• Molecule 50: 30S ribosomal protein S19

Chain 1s:



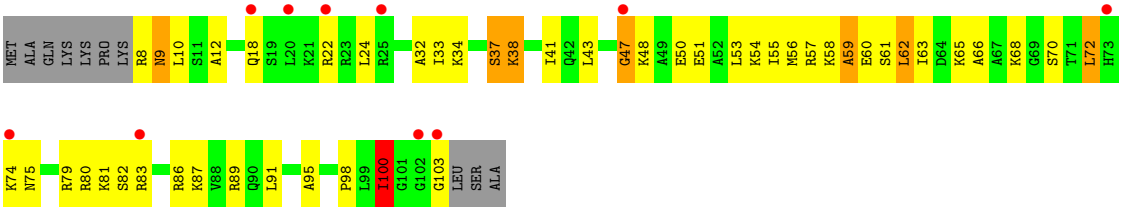
• Molecule 50: 30S ribosomal protein S19

Chain 2s:



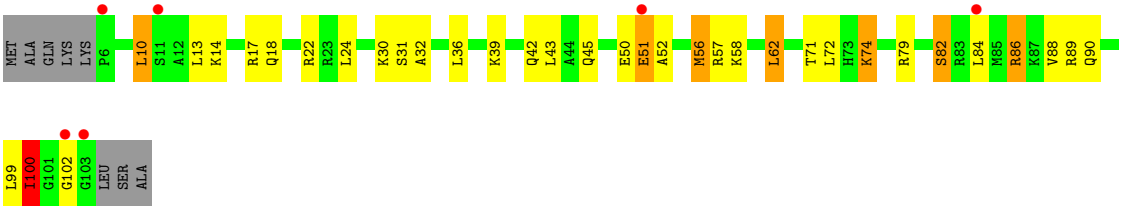
• Molecule 51: 30S ribosomal protein S20

Chain 1t:



• Molecule 51: 30S ribosomal protein S20

Chain 2t:



• Molecule 52: 30S ribosomal protein Thx

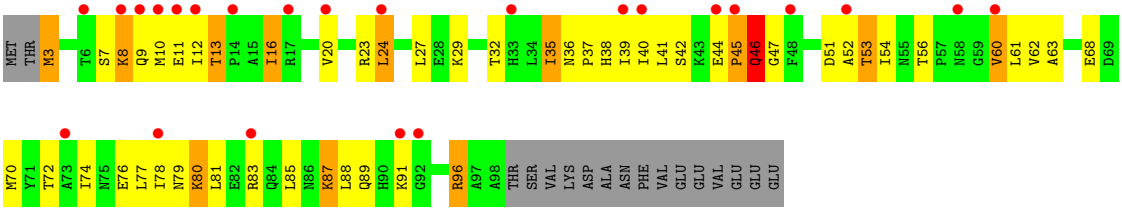
Chain 1u:

• Molecule 52: 30S ribosomal protein Thx

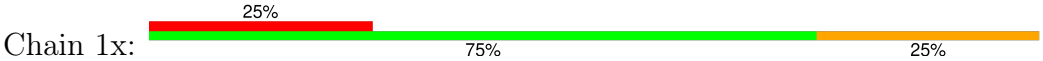
Chain 2u:

• Molecule 53: Ribosome-associated inhibitor A

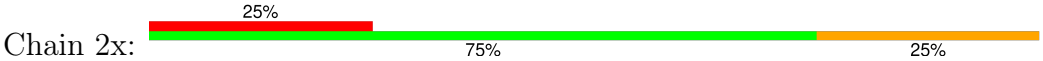
• Molecule 53: Ribosome-associated inhibitor A



• Molecule 54: P-site Peptidyl-tRNA Analog RNA



• Molecule 54: P-site Peptidyl-tRNA Analog RNA



• Molecule 55: P-site Peptidyl-tRNA Analog Peptide

• Molecule 55: P-site Peptidyl-tRNA Analog Peptide

M1
T2
T3

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	208.05Å 456.26Å 616.30Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	106.05 – 2.75 106.05 – 2.75	Depositor EDS
% Data completeness (in resolution range)	87.9 (106.05-2.75) 87.9 (106.05-2.75)	Depositor EDS
R_{merge}	0.23	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.27 (at 2.73Å)	Xtriage
Refinement program	PHENIX 1.8.2	Depositor
R, R_{free}	0.203 , 0.266 0.205 , 0.264	Depositor DCC
R_{free} test set	66074 reflections (4.41%)	wwPDB-VP
Wilson B-factor (Å^2)	51.8	Xtriage
Anisotropy	0.291	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.29 , 56.0	EDS
L-test for twinning[2]	$< \|L\| > = 0.43$, $< L^2 > = 0.25$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	297533	wwPDB-VP
Average B, all atoms (Å^2)	54.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.16% 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: 2MG, MPD, 2MA, ZN, 0TD, MA6, SPS, OMC, MRD, M2G, OMU, G7M, 5MU, 8AN, PSU, UR3, 4OC, SF4, MG, 5MC, 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	0.57	1/69031 (0.0%)	0.75	7/107754 (0.0%)
1	2A	0.47	0/68903	0.67	7/107552 (0.0%)
2	1B	0.47	0/2876	0.73	0/4486
2	2B	0.39	0/2878	0.61	0/4490
3	1D	0.56	0/2181	0.79	0/2940
3	2D	0.48	0/2186	0.73	0/2944
4	1E	0.54	0/1592	0.74	0/2149
4	2E	0.48	0/1592	0.75	3/2149 (0.1%)
5	1F	0.55	0/1619	0.75	0/2193
5	2F	0.44	0/1615	0.70	2/2188 (0.1%)
6	1G	0.42	0/1451	0.66	0/1961
6	2G	0.45	0/1449	0.65	0/1957
7	1H	0.46	0/1356	0.67	1/1834 (0.1%)
7	2H	0.41	0/1350	0.64	1/1826 (0.1%)
8	1I	0.41	0/1109	0.65	1/1512 (0.1%)
8	2I	0.43	0/1091	0.64	0/1490
9	1N	0.55	0/1148	0.72	0/1547
9	2N	0.44	0/1144	0.65	0/1543
10	1O	0.54	0/943	0.74	0/1269
10	2O	0.48	0/943	0.69	0/1269
11	1P	0.54	0/1152	0.77	2/1533 (0.1%)
11	2P	0.49	0/1152	0.81	3/1533 (0.2%)
12	1Q	0.60	0/1143	0.78	0/1527
12	2Q	0.43	0/1143	0.73	0/1527
13	1R	0.58	0/982	0.74	0/1312
13	2R	0.48	0/982	0.72	0/1312
14	1S	0.53	0/887	0.77	0/1180
14	2S	0.46	0/880	0.69	0/1172
15	1T	0.53	0/1105	0.75	0/1477
15	2T	0.45	0/1097	0.69	0/1468
16	1U	0.61	0/977	0.75	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
16	2U	0.46	0/977	0.63	0/1301
17	1V	0.53	0/786	0.75	0/1053
17	2V	0.47	0/782	0.69	0/1049
18	1W	0.60	0/897	0.75	0/1205
18	2W	0.52	0/897	0.72	0/1205
19	1X	0.59	0/764	0.76	0/1025
19	2X	0.45	0/764	0.69	0/1025
20	1Y	0.60	0/823	0.86	2/1099 (0.2%)
20	2Y	0.48	0/823	0.72	0/1100
21	1Z	0.48	0/1620	0.68	0/2200
21	2Z	0.46	0/1590	0.67	1/2162 (0.0%)
22	10	0.55	0/662	0.82	0/881
22	20	0.50	0/659	0.76	0/877
23	11	0.56	0/761	0.74	0/1013
23	21	0.51	0/766	0.72	0/1018
24	12	0.53	0/590	0.76	0/781
24	22	0.44	0/594	0.67	0/785
25	13	0.52	0/474	0.71	0/635
25	23	0.41	0/469	0.60	0/630
26	14	0.54	0/559	0.78	2/754 (0.3%)
26	24	0.52	0/549	0.81	2/741 (0.3%)
27	15	0.57	0/473	0.79	0/639
27	25	0.48	0/469	0.67	0/635
28	16	0.57	0/460	0.86	0/613
28	26	0.45	0/456	0.68	0/608
29	17	0.70	0/426	0.89	0/561
29	27	0.54	0/426	0.75	0/561
30	18	0.59	0/525	0.82	0/691
30	28	0.46	0/525	0.67	0/691
31	19	0.51	0/310	0.73	0/407
31	29	0.42	0/310	0.72	0/407
32	1a	0.40	1/35795 (0.0%)	0.60	3/55864 (0.0%)
32	2a	0.39	0/35890	0.58	3/56012 (0.0%)
33	1b	0.42	0/1876	0.66	0/2533
33	2b	0.44	0/1860	0.63	0/2518
34	1c	0.44	0/1582	0.65	0/2137
34	2c	0.46	1/1566 (0.1%)	0.63	0/2119
35	1d	0.42	0/1695	0.67	0/2274
35	2d	0.41	0/1698	0.63	0/2277
36	1e	0.38	0/1149	0.61	0/1548
36	2e	0.40	0/1149	0.60	0/1548
37	1f	0.44	0/827	0.63	0/1120
37	2f	0.42	0/829	0.61	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	1g	0.39	0/1254	0.60	0/1683
38	2g	0.39	0/1248	0.57	0/1676
39	1h	0.43	0/1118	0.63	0/1506
39	2h	0.40	0/1108	0.63	0/1494
40	1i	0.41	0/1005	0.63	0/1351
40	2i	0.45	0/985	0.70	1/1329 (0.1%)
41	1j	0.42	0/732	0.62	0/993
41	2j	0.46	0/723	0.69	0/984
42	1k	0.37	0/849	0.60	0/1150
42	2k	0.38	0/848	0.69	2/1149 (0.2%)
43	1l	0.40	0/937	0.65	0/1260
43	2l	0.41	0/937	0.63	0/1260
44	1m	0.40	0/924	0.62	0/1242
44	2m	0.40	0/905	0.70	1/1217 (0.1%)
45	1n	0.42	0/501	0.66	0/664
45	2n	0.52	0/501	0.86	3/664 (0.5%)
46	1o	0.44	0/739	0.63	0/985
46	2o	0.42	0/739	0.64	1/985 (0.1%)
47	1p	0.42	0/697	0.67	0/939
47	2p	0.40	0/693	0.70	2/935 (0.2%)
48	1q	0.39	0/836	0.62	0/1117
48	2q	0.40	0/836	0.64	0/1117
49	1r	0.38	0/560	0.62	0/746
49	2r	0.44	0/560	0.61	0/746
50	1s	0.37	0/663	0.63	0/895
50	2s	0.44	0/660	0.59	0/893
51	1t	0.46	0/734	0.65	0/969
51	2t	0.40	0/736	0.63	0/976
52	1u	0.40	0/203	0.72	0/266
52	2u	0.40	0/203	0.58	0/266
53	1y	0.37	0/776	0.59	0/1048
53	2y	0.41	0/761	0.57	0/1030
54	1x	0.61	0/44	0.58	0/67
54	2x	0.45	0/44	0.63	0/67
55	1v	0.60	0/22	0.98	0/28
55	2v	0.76	0/22	0.98	0/28
All	All	0.48	3/310162 (0.0%)	0.68	50/463545 (0.0%)

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	2c	92	ALA	CA-C	5.88	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2552	OMU	O3'-P	5.40	1.61	1.56
32	1a	1498	UR3	O3'-P	5.35	1.61	1.56

All (50) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	2P	36	LYS	N-CA-C	10.28	125.52	111.54
11	2P	142	GLY	N-CA-C	-9.09	102.66	115.30
1	2A	1992	G	C2'-C3'-O3'	7.87	121.30	109.50
40	2i	120	ARG	N-CA-C	-7.75	105.78	114.62
42	2k	113	PRO	CA-C-N	-7.64	116.20	122.85
42	2k	113	PRO	C-N-CA	-7.64	116.20	122.85
4	2E	8	LYS	CA-C-N	-7.60	113.25	121.84
4	2E	8	LYS	C-N-CA	-7.60	113.25	121.84
45	2n	13	THR	N-CA-C	-7.45	98.02	109.64
44	2m	50	GLU	N-CA-C	-7.31	104.46	113.15
47	2p	62	VAL	N-CA-CB	-7.17	99.39	111.23
7	1H	110	SER	N-CA-C	-7.07	104.58	112.57
11	1P	35	HIS	N-CA-C	6.93	120.22	109.07
1	1A	1210	A	C4'-C3'-O3'	6.70	119.45	109.40
1	1A	1653	G	P-O3'-C3'	6.59	130.08	120.20
20	1Y	65	ALA	CA-C-N	-6.58	114.01	120.52
20	1Y	65	ALA	C-N-CA	-6.58	114.01	120.52
1	2A	1073	A	C4'-C3'-O3'	6.49	122.73	113.00
11	1P	36	LYS	N-CA-C	6.46	124.57	110.80
11	2P	35	HIS	N-CA-C	6.45	119.67	108.76
1	1A	1653	G	C2'-C3'-O3'	6.32	118.97	109.50
26	14	59	PHE	CA-C-N	6.31	133.60	121.54
26	14	59	PHE	C-N-CA	6.31	133.60	121.54
1	2A	752	A	C2'-C3'-O3'	6.23	118.85	109.50
1	1A	512	G	O4'-C1'-N9	6.20	117.51	108.20
45	2n	51	GLY	N-CA-C	-6.01	105.83	115.08
47	2p	62	VAL	CB-CA-C	5.89	120.94	111.29
1	2A	752	A	C4'-C3'-O3'	5.86	118.19	109.40
45	2n	52	GLN	N-CA-C	-5.83	105.98	112.57
4	2E	186	GLY	N-CA-C	5.82	120.49	112.52
7	2H	110	SER	N-CA-C	-5.71	106.92	112.97
1	1A	2055	C	OP2-P-O3'	-5.67	91.00	108.00
21	2Z	137	ILE	N-CA-C	-5.65	97.59	109.34
1	1A	1210	A	P-O3'-C3'	5.42	128.32	120.20
26	24	59	PHE	CA-C-N	5.40	131.41	121.70
26	24	59	PHE	C-N-CA	5.40	131.41	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	1183	A	P-O3'-C3'	5.38	128.27	120.20
1	1A	2689	U	C4'-C3'-O3'	5.35	117.43	109.40
1	2A	1639	U	O5'-P-OP2	-5.35	91.95	108.00
5	2F	21	ALA	CA-C-N	5.32	131.27	121.70
5	2F	21	ALA	C-N-CA	5.32	131.27	121.70
32	1a	1442	G	P-O3'-C3'	5.31	126.07	119.70
1	2A	2689	U	P-O3'-C3'	5.22	128.03	120.20
32	1a	913	A	C2'-C3'-O3'	5.20	117.30	109.50
1	2A	752	A	P-O3'-C3'	5.15	127.92	120.20
46	2o	78	TYR	N-CA-C	-5.15	105.36	110.97
8	1I	61	ARG	N-CA-C	-5.08	107.06	113.20
32	2a	115	G	P-O3'-C3'	5.05	127.78	120.20
32	1a	115	G	P-O3'-C3'	5.05	127.77	120.20
32	2a	65	U	P-O3'-C3'	5.04	127.75	120.20

There are no chirality outliers.

There are no planarity outliers.

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	61869	0	31202	984	0
1	2A	61758	0	31152	1065	0
2	1B	2572	0	1305	44	0
2	2B	2573	0	1306	66	0
3	1D	2131	0	2207	64	0
3	2D	2136	0	2218	77	0
4	1E	1559	0	1618	50	0
4	2E	1559	0	1617	47	0
5	1F	1584	0	1625	55	0
5	2F	1580	0	1619	86	0
6	1G	1426	0	1445	66	0
6	2G	1424	0	1441	65	0
7	1H	1330	0	1407	46	0
7	2H	1324	0	1402	65	0
8	1I	1094	0	1127	33	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
8	2I	1076	0	1094	48	0
9	1N	1121	0	1195	31	0
9	2N	1117	0	1184	32	0
10	1O	933	0	996	30	0
10	2O	933	0	996	40	0
11	1P	1135	0	1212	45	0
11	2P	1135	0	1212	66	0
12	1Q	1122	0	1179	40	0
12	2Q	1122	0	1179	47	0
13	1R	968	0	1033	34	0
13	2R	968	0	1033	39	0
14	1S	877	0	938	32	0
14	2S	870	0	923	39	0
15	1T	1091	0	1151	36	0
15	2T	1083	0	1136	25	0
16	1U	959	0	1019	21	0
16	2U	959	0	1019	29	0
17	1V	775	0	841	26	0
17	2V	771	0	830	27	0
18	1W	886	0	940	22	0
18	2W	886	0	940	19	0
19	1X	750	0	814	30	0
19	2X	750	0	814	29	0
20	1Y	810	0	892	32	0
20	2Y	810	0	887	31	0
21	1Z	1587	0	1598	38	0
21	2Z	1557	0	1564	67	0
22	10	653	0	674	33	0
22	20	650	0	665	32	0
23	11	754	0	823	18	0
23	21	759	0	837	26	0
24	12	588	0	643	19	0
24	22	592	0	654	13	0
25	13	469	0	518	16	0
25	23	464	0	514	15	0
26	14	546	0	522	23	0
26	24	536	0	514	42	0
27	15	459	0	476	23	0
27	25	455	0	465	8	0
28	16	453	0	473	17	0
28	26	449	0	469	15	0
29	17	418	0	467	19	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
29	27	418	0	467	20	0
30	18	517	0	582	28	0
30	28	517	0	582	13	0
31	19	307	0	335	8	0
31	29	307	0	335	9	0
32	1a	32246	0	16294	672	0
32	2a	32331	0	16338	688	0
33	1b	1842	0	1862	84	0
33	2b	1825	0	1828	101	0
34	1c	1558	0	1557	57	0
34	2c	1542	0	1517	75	0
35	1d	1665	0	1687	87	0
35	2d	1668	0	1703	92	0
36	1e	1133	0	1191	41	0
36	2e	1133	0	1191	48	0
37	1f	814	0	808	27	0
37	2f	816	0	808	25	0
38	1g	1235	0	1249	35	0
38	2g	1229	0	1238	51	0
39	1h	1098	0	1143	53	0
39	2h	1088	0	1126	34	0
40	1i	986	0	990	65	0
40	2i	966	0	953	63	0
41	1j	719	0	672	28	0
41	2j	710	0	661	50	0
42	1k	834	0	838	12	0
42	2k	833	0	836	29	0
43	1l	932	0	981	26	0
43	2l	932	0	981	27	0
44	1m	914	0	954	45	0
44	2m	895	0	920	58	0
45	1n	492	0	528	30	0
45	2n	492	0	529	32	0
46	1o	728	0	760	27	0
46	2o	728	0	760	18	0
47	1p	681	0	697	30	0
47	2p	677	0	686	37	0
48	1q	823	0	891	43	0
48	2q	823	0	891	34	0
49	1r	555	0	618	20	0
49	2r	555	0	618	20	0
50	1s	648	0	658	35	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
50	2s	645	0	635	38	0
51	1t	732	0	809	35	0
51	2t	733	0	795	23	0
52	1u	199	0	208	7	0
52	2u	199	0	208	17	0
53	1y	764	0	786	33	0
53	2y	749	0	754	36	0
54	1x	63	0	33	3	0
54	2x	63	0	33	2	0
55	1v	23	0	29	0	0
55	2v	23	0	29	2	0
56	10	8	0	0	0	0
56	11	5	0	0	0	0
56	13	4	0	0	0	0
56	15	8	0	0	0	0
56	17	7	0	0	0	0
56	18	3	0	0	0	0
56	19	1	0	0	0	0
56	1A	1022	0	0	0	0
56	1B	29	0	0	0	0
56	1D	16	0	0	0	0
56	1E	7	0	0	0	0
56	1F	21	0	0	0	0
56	1G	4	0	0	0	0
56	1H	2	0	0	0	0
56	1N	4	0	0	0	0
56	1O	1	0	0	0	0
56	1P	5	0	0	0	0
56	1Q	4	0	0	0	0
56	1R	5	0	0	0	0
56	1S	1	0	0	0	0
56	1T	4	0	0	0	0
56	1U	7	0	0	0	0
56	1V	6	0	0	0	0
56	1W	4	0	0	0	0
56	1Z	1	0	0	0	0
56	1a	275	0	0	0	0
56	1b	1	0	0	0	0
56	1d	5	0	0	0	0
56	1e	2	0	0	0	0
56	1f	1	0	0	0	0
56	1g	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	1h	1	0	0	0	0
56	1i	1	0	0	0	0
56	1k	1	0	0	0	0
56	1l	3	0	0	0	0
56	1m	2	0	0	0	0
56	1n	3	0	0	0	0
56	1o	3	0	0	0	0
56	1p	1	0	0	0	0
56	1r	1	0	0	0	0
56	1t	1	0	0	0	0
56	1x	2	0	0	0	0
56	1y	3	0	0	0	0
56	20	4	0	0	0	0
56	21	2	0	0	0	0
56	25	4	0	0	0	0
56	26	1	0	0	0	0
56	27	1	0	0	0	0
56	28	2	0	0	0	0
56	2A	726	0	0	0	0
56	2B	18	0	0	0	0
56	2D	13	0	0	0	0
56	2E	7	0	0	0	0
56	2F	4	0	0	0	0
56	2G	3	0	0	0	0
56	2I	1	0	0	0	0
56	2O	2	0	0	0	0
56	2P	2	0	0	0	0
56	2Q	3	0	0	0	0
56	2R	2	0	0	0	0
56	2T	4	0	0	0	0
56	2U	2	0	0	0	0
56	2V	3	0	0	0	0
56	2W	3	0	0	0	0
56	2X	2	0	0	0	0
56	2Y	1	0	0	0	0
56	2a	187	0	0	0	0
56	2e	1	0	0	0	0
56	2f	1	0	0	0	0
56	2j	1	0	0	0	0
56	2k	1	0	0	0	0
56	2n	1	0	0	0	0
56	2p	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	2q	1	0	0	0	0
56	2r	1	0	0	0	0
56	2t	1	0	0	0	0
56	2x	2	0	0	0	0
57	1A	23	0	19	4	0
57	2x	23	0	18	4	0
58	1A	8	0	14	2	0
58	2A	24	0	42	1	0
59	1B	12	0	12	4	0
60	14	1	0	0	0	0
60	15	1	0	0	0	0
60	16	1	0	0	0	0
60	19	1	0	0	0	0
60	1Y	1	0	0	0	0
60	1n	1	0	0	0	0
60	24	1	0	0	0	0
60	25	1	0	0	0	0
60	26	1	0	0	0	0
60	29	1	0	0	0	0
60	2Y	1	0	0	0	0
60	2n	1	0	0	0	0
61	18	8	0	14	1	0
62	1d	8	0	0	1	0
62	2d	8	0	0	1	0
63	10	26	0	0	0	0
63	11	27	0	0	1	0
63	12	13	0	0	2	0
63	13	25	0	0	0	0
63	14	2	0	0	1	0
63	15	25	0	0	2	0
63	16	17	0	0	2	0
63	17	16	0	0	2	0
63	18	27	0	0	4	0
63	19	5	0	0	0	0
63	1A	3950	0	0	232	0
63	1B	104	0	0	10	0
63	1D	109	0	0	7	0
63	1E	77	0	0	5	0
63	1F	53	0	0	4	0
63	1G	17	0	0	1	0
63	1H	17	0	0	1	0
63	1I	4	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
63	1N	48	0	0	3	0
63	1O	24	0	0	2	0
63	1P	69	0	0	7	0
63	1Q	37	0	0	2	0
63	1R	31	0	0	3	0
63	1S	9	0	0	1	0
63	1T	36	0	0	3	0
63	1U	46	0	0	4	0
63	1V	40	0	0	3	0
63	1W	27	0	0	2	0
63	1X	25	0	0	3	0
63	1Y	17	0	0	2	0
63	1Z	10	0	0	0	0
63	1a	515	0	0	35	0
63	1b	1	0	0	0	0
63	1c	1	0	0	0	0
63	1d	9	0	0	0	0
63	1e	2	0	0	0	0
63	1f	2	0	0	0	0
63	1h	1	0	0	0	0
63	1j	1	0	0	0	0
63	1l	4	0	0	0	0
63	1o	6	0	0	3	0
63	1p	3	0	0	0	0
63	1u	1	0	0	0	0
63	1x	2	0	0	0	0
63	1y	6	0	0	0	0
63	20	10	0	0	1	0
63	21	22	0	0	1	0
63	22	2	0	0	0	0
63	23	5	0	0	1	0
63	25	10	0	0	1	0
63	26	2	0	0	0	0
63	27	7	0	0	0	0
63	28	10	0	0	0	0
63	29	1	0	0	0	0
63	2A	2115	0	0	168	0
63	2B	46	0	0	6	0
63	2D	39	0	0	6	0
63	2E	25	0	0	4	0
63	2F	22	0	0	5	0
63	2G	4	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
63	2H	2	0	0	0	0
63	2I	4	0	0	1	0
63	2N	5	0	0	1	0
63	2O	19	0	0	4	0
63	2P	25	0	0	5	0
63	2Q	16	0	0	0	0
63	2R	22	0	0	6	0
63	2S	4	0	0	0	0
63	2T	9	0	0	0	0
63	2U	12	0	0	1	0
63	2V	7	0	0	0	0
63	2W	18	0	0	0	0
63	2X	7	0	0	0	0
63	2Y	5	0	0	1	0
63	2Z	12	0	0	1	0
63	2a	293	0	0	21	0
63	2d	4	0	0	1	0
63	2f	3	0	0	0	0
63	2j	2	0	0	0	0
63	2l	1	0	0	0	0
63	2m	1	0	0	0	0
63	2o	4	0	0	0	0
63	2p	2	0	0	0	0
63	2q	1	0	0	0	0
63	2r	3	0	0	0	0
63	2t	2	0	0	0	0
63	2u	1	0	0	0	0
63	2x	1	0	0	0	0
All	All	297533	0	194725	6437	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 14.

All (6437) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1082:U:H3	1:1A:1086:A:N6	1.39	1.19
1:1A:1669:A:OP2	63:1A:4103:HOH:O	1.74	1.04
1:2A:2319:G:H22	14:2S:3:ARG:HD3	1.20	1.04
1:1A:1063:G:H1	1:1A:1075:C:N4	1.54	1.04
32:2a:1003:G:H2'	32:2a:1004:A:H4'	1.36	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:120:VAL:HA	34:2c:123:GLN:HB2	1.41	1.02
1:1A:1082:U:O4	1:1A:1086:A:N1	1.94	1.00
1:2A:2000:G:OP2	63:2A:3805:HOH:O	1.79	0.99
10:2O:48:PRO:HB3	32:2a:1422:G:H5"	1.43	0.99
32:2a:1123:A:O3'	41:2j:36:GLY:HA3	1.63	0.98
1:2A:511:U:OP2	63:2A:3806:HOH:O	1.81	0.98
45:2n:37:PHE:HB3	45:2n:39:LEU:HD12	1.47	0.96
32:1a:664:G:H22	32:1a:741:G:H1	1.14	0.96
1:2A:981:A:OP1	63:2A:3807:HOH:O	1.83	0.95
1:1A:1082:U:H3	1:1A:1086:A:H61	1.08	0.95
33:1b:82:ARG:NH1	33:1b:92:TYR:OH	1.98	0.95
26:24:48:ARG:HD2	26:24:52:THR:HA	1.45	0.95
32:2a:1009:G:H1	32:2a:1020:U:H3	1.12	0.95
1:1A:826:U:OP1	63:1A:4104:HOH:O	1.83	0.95
33:2b:12:GLU:HA	33:2b:15:VAL:HG23	1.48	0.94
33:2b:15:VAL:HG12	33:2b:209:ARG:HD2	1.49	0.94
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.02	0.94
20:1Y:92:ASN:HB2	20:1Y:94:LYS:H	1.33	0.94
15:1T:54:ARG:HA	15:1T:59:THR:HB	1.46	0.93
41:1j:35:SER:HB3	41:1j:73:ASP:HB2	1.50	0.93
34:2c:63:ASN:HB2	34:2c:98:ASN:HB2	1.49	0.93
32:1a:596:C:OP2	63:1a:3302:HOH:O	1.86	0.93
1:2A:1084:A:H3'	1:2A:1085:A:H4'	1.48	0.93
1:2A:2430:A:OP2	63:2A:3808:HOH:O	1.85	0.93
1:1A:1173:G:H21	1:1A:1177:A:H2	1.14	0.92
1:1A:2137:C:H42	1:1A:2154:G:H1	1.15	0.92
1:2A:1970:A:OP1	63:2A:3809:HOH:O	1.86	0.92
12:1Q:18:LYS:O	12:1Q:98:LYS:NZ	2.02	0.92
22:10:10:THR:HG22	22:10:12:ASN:H	1.35	0.91
33:2b:84:GLU:HB3	33:2b:219:VAL:HG21	1.50	0.91
1:2A:2427:C:OP1	63:2A:3810:HOH:O	1.87	0.91
1:1A:962:G:OP1	63:1A:4105:HOH:O	1.87	0.90
3:1D:69:ARG:NH2	3:1D:128:GLY:O	2.03	0.90
34:1c:58:GLU:HB3	41:1j:92:THR:HG21	1.50	0.90
1:1A:1023:U:OP2	63:1A:4106:HOH:O	1.90	0.89
1:1A:1082:U:N3	1:1A:1086:A:N6	2.15	0.89
1:2A:2006:C:O2	63:2A:3811:HOH:O	1.90	0.89
32:2a:1256:A:H61	32:2a:1278:U:H1'	1.36	0.88
22:10:11:ARG:O	22:10:14:ARG:NH2	2.06	0.88
32:1a:201:C:H42	32:1a:216:G:H1	1.20	0.88
1:2A:2807:G:N1	1:2A:2893:G:O6	2.06	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:975:A:H4'	32:2a:976:G:H5"	1.56	0.87
32:1a:1101:A:N6	33:1b:176:GLU:OE2	2.08	0.87
1:1A:2183:C:H2'	1:1A:2184:G:H8	1.40	0.87
14:2S:35:ILE:HG13	14:2S:97:ARG:HH21	1.40	0.87
45:2n:15:LYS:O	45:2n:16:PHE:CD1	2.27	0.87
1:2A:783:A:OP2	63:2A:3812:HOH:O	1.93	0.87
3:1D:88:ARG:NH1	63:1D:401:HOH:O	2.05	0.87
18:1W:23:LEU:HD11	27:15:25:LEU:HB2	1.56	0.87
22:20:51:VAL:HG22	22:20:81:VAL:HG23	1.57	0.87
4:1E:110:GLY:O	63:1R:301:HOH:O	1.93	0.86
1:1A:847:U:OP2	63:1A:4108:HOH:O	1.93	0.86
1:1A:1865:G:OP1	63:1A:4107:HOH:O	1.91	0.86
32:1a:1470:G:N7	63:1a:3314:HOH:O	2.08	0.86
1:1A:1057:A:N6	1:1A:1087:G:OP2	2.08	0.86
3:1D:242:ARG:HG3	3:1D:242:ARG:HH11	1.40	0.86
17:2V:52:VAL:CG2	17:2V:55:ALA:HB3	2.05	0.86
1:2A:585:G:OP2	63:2A:3813:HOH:O	1.93	0.86
25:13:3:ARG:NH1	25:13:60:GLU:OE2	2.09	0.85
26:24:16:CYS:SG	26:24:17:GLY:N	2.45	0.85
33:1b:178:ARG:NH1	39:1h:71:GLY:O	2.08	0.85
1:1A:1063:G:N2	1:1A:1075:C:N3	2.24	0.85
32:1a:1003:G:H2'	32:1a:1004:A:H4'	1.57	0.85
3:1D:4:LYS:HB3	3:1D:18:VAL:HG23	1.58	0.84
12:2Q:18:LYS:O	12:2Q:98:LYS:NZ	2.10	0.84
1:2A:2130:U:H2'	1:2A:2158:A:H61	1.40	0.84
10:2O:63:VAL:HB	10:2O:106:LEU:HD11	1.60	0.84
1:2A:2574:G:OP1	63:2A:3814:HOH:O	1.94	0.84
4:2E:76:ARG:HB3	4:2E:77:ILE:HD12	1.58	0.84
1:1A:1203:G:O6	63:1A:4109:HOH:O	1.96	0.84
1:1A:1143:A:OP1	9:1N:25:ARG:NH2	2.10	0.84
1:1A:197:A:N1	63:1A:4153:HOH:O	2.09	0.84
32:1a:1518:MA6:H93	32:1a:1519:MA6:H92	1.58	0.84
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.42	0.84
10:2O:24:VAL:HG13	10:2O:33:ALA:HB2	1.59	0.84
32:2a:1500:A:OP1	63:2a:3204:HOH:O	1.94	0.84
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.11	0.84
34:2c:63:ASN:CB	34:2c:98:ASN:HB2	2.07	0.84
1:2A:1647:G:OP1	63:2A:3815:HOH:O	1.95	0.83
1:2A:1102:C:H2'	1:2A:1103:A:H8	1.41	0.83
44:1m:82:MET:HE3	44:1m:93:ARG:HG3	1.59	0.83
1:2A:1184:G:OP1	25:23:30:ARG:NH1	2.11	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:2F:72:ARG:NH2	63:2F:401:HOH:O	2.09	0.83
19:2X:35:THR:HG22	19:2X:37:THR:H	1.44	0.83
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.42	0.83
1:1A:1063:G:N1	1:1A:1075:C:N4	2.27	0.83
1:2A:194:G:OP2	63:2A:3816:HOH:O	1.97	0.83
1:2A:2379:G:O2'	14:2S:17:ARG:NH1	2.11	0.83
22:20:10:THR:HG22	22:20:12:ASN:H	1.44	0.83
33:2b:223:ILE:HA	33:2b:226:ARG:HB2	1.60	0.83
48:2q:18:THR:OG1	48:2q:69:LYS:NZ	2.12	0.83
1:1A:2822:G:OP2	63:1A:4111:HOH:O	1.97	0.82
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.14	0.82
34:2c:78:GLY:HA3	34:2c:83:ARG:H	1.44	0.82
28:26:6:ARG:NH1	28:26:26:ASN:HB2	1.94	0.82
32:1a:352:C:OP2	63:1a:3303:HOH:O	1.96	0.82
48:1q:6:LEU:HD13	48:1q:23:VAL:HG11	1.60	0.82
33:2b:55:PHE:HE1	33:2b:218:ALA:HA	1.42	0.82
2:2B:57:A:H4'	6:2G:30:GLU:HG3	1.61	0.82
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.62	0.82
1:1A:652(D):C:N4	1:1A:652(U):G:O6	2.12	0.82
1:1A:1604:C:OP2	63:1A:4110:HOH:O	1.96	0.82
1:1A:1634:A:OP2	63:1A:4113:HOH:O	1.98	0.82
21:2Z:10:ARG:NH1	21:2Z:26:GLY:O	2.13	0.82
43:2l:8:ASN:OD1	48:2q:34:LYS:NZ	2.13	0.82
1:1A:1830:C:OP2	63:1A:4112:HOH:O	1.97	0.82
1:2A:2364:C:OP1	22:20:55:ARG:NH1	2.13	0.82
35:2d:122:ARG:NH1	35:2d:134:ASP:O	2.13	0.81
33:1b:102:LEU:HB3	33:1b:180:LEU:HD12	1.61	0.81
2:1B:103:G:H21	21:1Z:73:GLN:HE22	1.27	0.81
1:2A:2127:G:N1	1:2A:2161:C:O2	2.13	0.81
12:2Q:11:LYS:NZ	12:2Q:88:GLY:O	2.14	0.81
32:1a:501:C:OP1	43:1l:117:ARG:NH2	2.13	0.81
1:2A:2429:G:OP1	63:2A:3810:HOH:O	1.97	0.81
2:1B:58:A:OP2	63:1B:301:HOH:O	1.98	0.81
32:2a:574:A:OP2	63:2a:3205:HOH:O	1.98	0.81
32:1a:945:G:OP1	63:1a:3305:HOH:O	1.98	0.81
1:1A:271(M):G:OP1	8:1I:50:ARG:NH1	2.14	0.81
1:1A:517:C:OP1	27:15:16:ARG:NH2	2.14	0.80
32:2a:656:C:O2'	46:2o:28:GLN:NE2	2.13	0.80
33:2b:119:GLU:HG3	33:2b:153:ARG:HH12	1.45	0.80
2:1B:79:C:OP2	63:1B:302:HOH:O	2.00	0.80
1:2A:2453:A:OP1	63:2A:3818:HOH:O	1.98	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2582:G:OP1	63:2A:3820:HOH:O	1.99	0.80
32:1a:864:A:OP1	63:1a:3306:HOH:O	2.00	0.80
32:1a:773:G:OP1	63:1a:3304:HOH:O	1.98	0.80
32:1a:1492:A:H4'	32:1a:1493:A:C6	2.16	0.80
41:1j:40:LEU:HB2	41:1j:69:ASN:HB2	1.64	0.80
4:1E:29:GLY:HA3	63:1E:414:HOH:O	1.81	0.79
1:2A:691:C:OP1	63:2A:3819:HOH:O	1.98	0.79
1:2A:2042:A:OP1	63:2A:3817:HOH:O	1.97	0.79
32:2a:48:C:OP2	63:2a:3207:HOH:O	2.00	0.79
32:2a:1182:G:H4'	32:2a:1183:A:H3'	1.65	0.79
1:2A:2127:G:O6	1:2A:2161:C:N3	2.15	0.79
32:1a:1094:G:OP1	63:1a:3307:HOH:O	2.00	0.79
42:2k:99:GLN:HG2	42:2k:105:VAL:HG21	1.64	0.79
19:1X:35:THR:HG22	19:1X:38:GLU:H	1.48	0.79
1:1A:2390:U:OP2	63:1A:4115:HOH:O	2.01	0.79
1:2A:826:U:OP1	63:2A:3810:HOH:O	2.01	0.79
12:2Q:97:VAL:HG11	12:2Q:103:MET:HE3	1.64	0.79
33:1b:63:MET:HG3	33:1b:225:ALA:HB1	1.65	0.79
36:1e:8:GLU:OE2	36:1e:63:ARG:NH2	2.15	0.79
1:1A:1970:A:OP1	63:1A:4114:HOH:O	2.00	0.79
1:2A:2821:A:OP2	63:2R:301:HOH:O	1.99	0.79
26:24:47:GLN:O	26:24:49:PHE:N	2.16	0.79
26:24:55:ARG:O	26:24:57:GLU:N	2.14	0.79
32:1a:412:A:OP2	35:1d:35:ARG:NH2	2.15	0.78
32:2a:558:G:OP1	63:2a:3206:HOH:O	1.99	0.78
32:2a:1023:G:H3'	32:2a:1024:G:H8	1.46	0.78
38:2g:113:GLU:HG2	38:2g:119:ARG:HG2	1.65	0.78
1:2A:988:A:N6	63:2A:3873:HOH:O	2.12	0.78
32:2a:1077:G:N2	32:2a:1080:A:OP2	2.16	0.78
32:1a:1086:U:H3	32:1a:1099:G:H22	1.31	0.78
35:1d:65:ARG:HG3	35:1d:70:ILE:HG22	1.66	0.78
1:2A:1073:A:H2'	1:2A:1074:G:C8	2.19	0.78
50:2s:36:ARG:HH12	50:2s:75:ALA:HB3	1.47	0.78
1:2A:2292:C:OP1	14:2S:17:ARG:NH2	2.14	0.78
6:2G:161:THR:HG22	6:2G:163:ALA:H	1.46	0.78
50:2s:50:ALA:HB1	50:2s:57:HIS:HB3	1.64	0.78
33:1b:69:LEU:HB3	33:1b:162:ILE:HG22	1.66	0.78
32:2a:559:A:H4'	32:2a:560:U:H3'	1.66	0.78
6:1G:126:ASP:HB3	6:1G:128:ARG:H	1.48	0.78
32:2a:881:G:OP2	43:2l:12:ARG:NH2	2.16	0.78
23:21:3:LYS:HB2	23:21:61:ARG:HH22	1.48	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1285:A:H4'	32:2a:1286:A:H5'	1.66	0.77
1:1A:2137:C:N4	1:1A:2154:G:H1	1.81	0.77
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.16	0.77
35:2d:15:GLU:OE2	35:2d:66:ARG:NH1	2.18	0.77
1:2A:2406:U:OP1	63:2A:3824:HOH:O	2.02	0.77
40:2i:9:ARG:HG2	40:2i:14:VAL:HG12	1.66	0.77
1:1A:1039:G:O6	1:1A:1116:C:N4	2.17	0.77
1:1A:2707:G:N7	63:1A:4210:HOH:O	2.16	0.77
34:1c:139:GLN:NE2	34:1c:143:GLU:OE1	2.17	0.77
1:2A:2691:C:OP1	63:2A:3821:HOH:O	2.00	0.77
38:2g:115:ARG:HG3	38:2g:117:ALA:HB3	1.67	0.77
6:1G:75:LYS:HE3	6:1G:77:ILE:HD11	1.67	0.77
7:1H:163:TYR:OH	63:1H:301:HOH:O	2.01	0.77
1:2A:773:U:OP1	63:2A:3823:HOH:O	2.02	0.77
15:2T:127:ALA:O	15:2T:129:ARG:N	2.17	0.77
32:2a:1239:A:O2'	38:2g:114:ARG:O	2.02	0.77
34:2c:97:LYS:O	34:2c:99:VAL:N	2.17	0.77
1:1A:1570:A:OP1	63:1A:4120:HOH:O	2.03	0.76
1:2A:1602:U:O4	63:2A:3822:HOH:O	2.01	0.76
35:2d:18:LYS:NZ	35:2d:31:CYS:SG	2.58	0.76
1:1A:120:U:OP2	63:1A:4118:HOH:O	2.03	0.76
1:1A:1007:C:OP2	63:1A:4119:HOH:O	2.03	0.76
40:1i:18:PHE:HB2	40:1i:62:TYR:HB3	1.68	0.76
1:2A:469:G:O6	29:27:37:LYS:NZ	2.15	0.76
1:2A:2678:C:O3'	63:2A:3825:HOH:O	2.02	0.76
1:1A:1352:U:OP2	63:1A:4121:HOH:O	2.03	0.76
1:2A:952:G:OP1	12:2Q:16:ARG:NH2	2.18	0.76
1:1A:1068:G:O6	1:1A:1069:A:N6	2.18	0.76
1:1A:1647:G:OP1	63:1A:4116:HOH:O	2.02	0.76
1:1A:2683:C:OP1	15:1T:53:ARG:NH2	2.17	0.76
2:1B:92:C:OP2	63:1B:303:HOH:O	2.03	0.76
7:1H:17:VAL:HG22	7:1H:26:VAL:HG22	1.66	0.76
1:2A:848:G:OP1	63:2A:3828:HOH:O	2.03	0.76
32:2a:53:A:OP2	63:2a:3210:HOH:O	2.03	0.76
32:2a:954:G:H21	32:2a:1227:A:H62	1.33	0.76
32:2a:980:C:OP2	63:2a:3208:HOH:O	2.02	0.76
32:1a:1124:G:N2	32:1a:1125:U:O4	2.19	0.76
1:2A:2589:A:OP1	63:2A:3812:HOH:O	2.03	0.76
1:2A:1271:G:OP2	63:2A:3815:HOH:O	2.03	0.76
35:2d:189:PRO:HB2	35:2d:194:LEU:HD11	1.68	0.76
32:1a:559:A:OP1	36:1e:126:ARG:NH2	2.19	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:1p:53:VAL:HG13	47:1p:79:VAL:HG12	1.68	0.76
50:1s:12:ASP:O	50:1s:14:HIS:N	2.17	0.76
4:2E:119:ARG:HG2	4:2E:160:TYR:HB2	1.66	0.76
32:2a:520:A:OP1	63:2a:3209:HOH:O	2.03	0.76
1:1A:855:G:N7	63:1A:4231:HOH:O	2.18	0.76
26:14:45:GLY:O	26:14:47:GLN:N	2.17	0.76
1:2A:326:G:N7	63:2A:3908:HOH:O	2.18	0.76
1:1A:1063:G:H1	1:1A:1075:C:H42	1.30	0.76
1:1A:1382:G:N7	63:1A:4227:HOH:O	2.17	0.76
40:1i:3:GLN:HE21	40:1i:20:ARG:HE	1.33	0.76
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.66	0.76
1:2A:2377:A:N3	63:2A:3917:HOH:O	2.19	0.76
1:1A:2183:C:H2'	1:1A:2184:G:C8	2.21	0.76
1:1A:2267:A:H5"	1:1A:2268:A:H5'	1.67	0.76
40:1i:121:ARG:NH1	40:1i:122:ALA:O	2.19	0.76
15:2T:30:VAL:HG22	15:2T:86:ILE:HG12	1.68	0.76
34:2c:71:ALA:HA	34:2c:106:VAL:HB	1.65	0.76
34:2c:181:ASN:HB3	34:2c:205:GLY:H	1.49	0.76
1:2A:510:C:OP1	63:2A:3806:HOH:O	2.02	0.75
1:2A:1153:C:OP2	63:2A:3830:HOH:O	2.04	0.75
1:2A:2152:G:H2'	1:2A:2153:G:H8	1.52	0.75
1:1A:631:A:OP1	11:1P:65:ARG:NH1	2.17	0.75
22:10:2:ALA:HB3	54:1x:76:8AN:HN6A	1.51	0.75
34:1c:123:GLN:HE22	34:1c:140:ARG:HH22	1.35	0.75
40:2i:4:TYR:HB2	40:2i:19:LEU:HB2	1.69	0.75
1:1A:2808:U:O2	1:1A:2892:A:N6	2.19	0.75
1:2A:2011:U:OP2	63:2A:3827:HOH:O	2.03	0.75
40:2i:121:ARG:NH1	40:2i:122:ALA:O	2.20	0.75
50:2s:22:LEU:HD13	50:2s:28:LYS:H	1.51	0.75
12:1Q:85:LYS:HG3	22:10:7:LEU:HD13	1.69	0.75
32:1a:343:U:O2'	32:1a:346:G:O6	2.05	0.75
33:1b:118:LEU:HB3	33:1b:142:LEU:HD22	1.67	0.75
1:2A:2624:G:O6	63:2A:3826:HOH:O	2.03	0.75
32:2a:1222:G:O6	63:2a:3208:HOH:O	2.03	0.75
37:2f:22:GLU:OE1	37:2f:84:ASN:ND2	2.20	0.75
1:1A:1452:A:OP2	63:1A:4125:HOH:O	2.04	0.75
1:1A:1670:C:OP2	63:1A:4103:HOH:O	2.04	0.75
1:2A:1024:G:OP2	63:2A:3833:HOH:O	2.05	0.75
1:2A:1676:A:N7	63:2A:3916:HOH:O	2.19	0.75
1:1A:154(A):C:O2	1:1A:171:G:N2	2.20	0.75
32:1a:975:A:H4'	32:1a:976:G:H5"	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:918:A:OP2	63:2a:3211:HOH:O	2.04	0.75
1:1A:2400:G:O6	63:1A:4117:HOH:O	2.03	0.75
17:1V:52:VAL:HG23	17:1V:55:ALA:HB3	1.67	0.75
39:1h:41:ARG:NH2	39:1h:123:GLU:OE2	2.20	0.75
1:2A:2102:U:OP2	63:2A:3832:HOH:O	2.04	0.75
1:1A:911:A:H2'	12:1Q:9:TYR:OH	1.87	0.75
1:2A:1776:G:OP1	63:2A:3829:HOH:O	2.04	0.75
6:2G:97:ASP:HA	6:2G:100:TRP:HD1	1.50	0.75
22:20:68:GLU:OE1	22:20:82:ARG:NH1	2.15	0.75
32:2a:673:G:H2'	32:2a:674:G:C8	2.21	0.75
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.69	0.75
1:2A:1514:U:H2'	1:2A:1515:G:C8	2.21	0.74
1:2A:2483:C:N3	12:2Q:124:LYS:NZ	2.34	0.74
1:1A:2133:G:H3'	1:1A:2157:G:H21	1.52	0.74
1:1A:2457:U:O2	63:1A:4127:HOH:O	2.05	0.74
32:2a:189(F):U:O2	48:2q:63:ARG:NH2	2.19	0.74
32:2a:1366:C:O2'	41:2j:60:ARG:NH2	2.15	0.74
51:2t:57:ARG:HH22	51:2t:100:ILE:HD12	1.51	0.74
1:1A:1321:A:N1	63:1A:4246:HOH:O	2.19	0.74
1:1A:2024:G:N3	63:1A:4243:HOH:O	2.19	0.74
7:2H:46:GLU:HB2	7:2H:49:VAL:HG12	1.69	0.74
32:2a:1295:G:O3'	44:2m:14:ARG:NH1	2.21	0.74
40:2i:47:LEU:HD23	40:2i:50:LEU:HD12	1.68	0.74
23:11:59:THR:O	23:11:91:LYS:NZ	2.19	0.74
29:17:34:ARG:NH2	63:17:202:HOH:O	2.20	0.74
1:2A:342:G:O6	63:2A:3836:HOH:O	2.06	0.74
1:1A:700:G:N7	63:1A:4264:HOH:O	2.20	0.74
32:1a:1310:G:OP2	44:1m:88:ARG:NH2	2.19	0.74
32:1a:342:C:O2'	63:1a:3308:HOH:O	2.04	0.74
32:1a:544:G:OP1	35:1d:59:ARG:NH2	2.21	0.74
1:2A:2099:U:H3	1:2A:2190:G:H1	1.34	0.74
1:2A:2805:G:H2'	1:2A:2807:G:H8	1.50	0.74
35:2d:173:TRP:CD1	35:2d:174:LEU:HG	2.23	0.74
1:1A:1447:G:N2	1:1A:1464:C:O2	2.19	0.74
32:1a:142:G:H2'	32:1a:143:A:H8	1.52	0.74
35:1d:3:ARG:HG3	35:1d:5:ILE:HG22	1.70	0.74
1:2A:2064:C:OP2	63:2A:3831:HOH:O	2.04	0.74
1:2A:2690:C:OP1	13:2R:17:ARG:NH2	2.21	0.74
18:2W:18:ARG:NH1	18:2W:76:VAL:O	2.21	0.74
42:2k:116:HIS:N	42:2k:117:ASN:HA	2.01	0.74
6:1G:161:THR:HG22	6:1G:163:ALA:H	1.53	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:2s:41:VAL:HG13	50:2s:43:GLU:H	1.52	0.74
1:1A:83:G:OP1	63:1A:4130:HOH:O	2.06	0.73
1:1A:1187:G:OP2	63:1A:4128:HOH:O	2.05	0.73
46:1o:51:HIS:ND1	63:1o:201:HOH:O	2.21	0.73
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.70	0.73
1:2A:2118:U:O4	1:2A:2148:G:N2	2.20	0.73
21:2Z:53:ILE:HG22	21:2Z:71:VAL:HB	1.69	0.73
30:18:54:GLU:OE2	63:18:201:HOH:O	2.05	0.73
34:1c:12:LEU:HD11	45:1n:51:GLY:HA2	1.71	0.73
1:2A:731:C:OP1	63:2A:3837:HOH:O	2.06	0.73
3:2D:218:ARG:HH11	3:2D:218:ARG:HG3	1.53	0.73
11:1P:57:THR:HG22	11:1P:59:LEU:H	1.54	0.73
1:2A:2459:A:OP2	63:2A:3841:HOH:O	2.07	0.73
33:2b:216:SER:O	33:2b:220:ASP:N	2.20	0.73
1:1A:2014:A:OP2	63:1A:4126:HOH:O	2.05	0.73
11:1P:64:LYS:NZ	63:1P:303:HOH:O	2.21	0.73
1:1A:1358:G:OP2	63:1A:4124:HOH:O	2.04	0.73
7:2H:84:SER:HB2	7:2H:134:SER:HB3	1.70	0.73
21:2Z:152:ALA:HA	21:2Z:155:LEU:HD13	1.71	0.73
32:1a:79:G:C2	32:1a:90:U:O2	2.42	0.73
32:1a:558:G:O6	63:1a:3309:HOH:O	2.06	0.73
1:2A:1064:C:N4	1:2A:1074:G:O6	2.19	0.73
32:1a:677:U:H3	32:1a:713:G:H22	1.37	0.73
1:2A:1090:U:H2'	1:2A:1091:G:C8	2.23	0.73
32:2a:952:U:O3'	32:2a:964:A:N6	2.22	0.73
21:2Z:23:LYS:HD2	21:2Z:40:ASP:HA	1.69	0.73
35:2d:108:LEU:HD21	35:2d:183:GLY:HA3	1.70	0.73
1:1A:1968:G:OP1	63:1A:4134:HOH:O	2.06	0.72
32:1a:1304:G:OP2	63:1a:3313:HOH:O	2.07	0.72
39:1h:51:VAL:HG12	39:1h:52:ASP:H	1.54	0.72
1:1A:815:C:OP1	63:1A:4129:HOH:O	2.06	0.72
12:2Q:58:PHE:O	12:2Q:60:ARG:N	2.22	0.72
33:2b:74:LYS:O	33:2b:78:GLN:N	2.19	0.72
53:2y:40:ILE:HB	53:2y:51:ASP:HB2	1.71	0.72
1:1A:832:G:OP1	63:1A:4132:HOH:O	2.06	0.72
32:1a:1047:G:H5"	45:1n:4:LYS:HD2	1.70	0.72
42:1k:109:VAL:HG12	49:1r:86:VAL:HG13	1.70	0.72
1:2A:1428:C:O2'	1:2A:1569:A:OP2	2.03	0.72
1:2A:2455:G:O6	63:2A:3838:HOH:O	2.06	0.72
15:1T:55:ASN:H	15:1T:59:THR:HG22	1.53	0.72
32:1a:814:A:OP2	63:1a:3312:HOH:O	2.07	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:656:G:O6	63:2A:3834:HOH:O	2.05	0.72
1:2A:2237:G:OP1	63:2A:3835:HOH:O	2.05	0.72
1:2A:2345:G:OP2	63:2A:3843:HOH:O	2.07	0.72
5:2F:185:ASP:HA	5:2F:188:ARG:HD3	1.71	0.72
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.70	0.72
32:1a:1456:G:O6	51:1t:54:LYS:NZ	2.19	0.72
1:2A:796:C:H2'	1:2A:797:C:C6	2.23	0.72
18:2W:80:PRO:O	18:2W:100:THR:HB	1.89	0.72
41:2j:8:LEU:HB3	41:2j:16:LEU:HD22	1.70	0.72
46:2o:55:GLY:HA2	46:2o:58:MET:HE3	1.70	0.72
1:1A:1139:G:OP1	63:1A:4133:HOH:O	2.06	0.72
6:1G:27:ASN:HB3	6:1G:30:GLU:HG3	1.72	0.72
32:1a:79:G:C6	32:1a:90:U:N3	2.58	0.72
1:2A:2444:G:OP2	63:2A:3839:HOH:O	2.06	0.72
32:2a:84:U:O2'	32:2a:89:C:N4	2.23	0.72
32:2a:1518:MA6:H93	32:2a:1519:MA6:H102	1.72	0.72
36:2e:75:THR:HG22	36:2e:76:ILE:H	1.54	0.72
32:1a:881:G:P	43:1l:12:ARG:HH22	2.12	0.72
1:1A:1063:G:H5"	1:1A:1065:U:H5	1.52	0.72
32:2a:1086:U:H3	32:2a:1099:G:H1	1.33	0.72
45:2n:47:LEU:HA	45:2n:50:LYS:HB2	1.71	0.72
7:1H:3:ARG:HG2	7:1H:6:ARG:HG2	1.71	0.72
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.25	0.72
1:2A:1721:G:H8	1:2A:1741:A:H62	1.36	0.72
1:2A:1084:A:N6	1:2A:1086:A:N7	2.38	0.72
2:2B:103:G:H21	21:2Z:73:GLN:HE22	1.38	0.72
41:2j:51:ARG:O	45:2n:45:ARG:NH1	2.23	0.72
1:1A:2260:C:OP2	63:1A:4144:HOH:O	2.08	0.71
1:1A:2691:C:OP2	63:1A:4136:HOH:O	2.06	0.71
3:1D:60:ARG:NH1	63:1D:403:HOH:O	2.12	0.71
32:1a:300:A:O2'	32:1a:564:C:N3	2.20	0.71
32:1a:452:A:H4'	47:1p:72:ARG:NH1	2.05	0.71
1:2A:1066:U:O2'	1:2A:1068:G:OP2	2.06	0.71
2:2B:66:A:H61	2:2B:109:C:H5'	1.54	0.71
12:2Q:109:VAL:HG13	12:2Q:113:GLN:HB3	1.70	0.71
32:2a:1133:G:H2'	32:2a:1134:G:H8	1.56	0.71
1:1A:226:G:H21	1:1A:228:A:H62	1.38	0.71
1:1A:1065:U:H3	1:1A:1073:A:N6	1.88	0.71
32:1a:269:C:H2'	32:1a:270:A:C8	2.25	0.71
1:2A:286:C:O2	1:2A:355:G:N2	2.19	0.71
1:2A:530:G:O6	63:2A:3844:HOH:O	2.07	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2611:U:OP1	63:2A:3842:HOH:O	2.07	0.71
1:1A:679:C:OP1	63:1A:4147:HOH:O	2.09	0.71
1:1A:1439:A:OP1	63:1A:4143:HOH:O	2.08	0.71
1:1A:2749:A:OP1	7:1H:3:ARG:NH1	2.22	0.71
42:1k:85:ARG:HD3	42:1k:113:PRO:HD3	1.72	0.71
15:2T:28:VAL:HG13	15:2T:86:ILE:HG23	1.72	0.71
1:1A:1176:G:H1'	1:1A:1177:A:H5'	1.72	0.71
1:1A:1768:U:OP1	63:1A:4141:HOH:O	2.08	0.71
1:1A:2763:G:OP2	63:1A:4131:HOH:O	2.06	0.71
32:1a:964:A:OP1	63:1a:3311:HOH:O	2.06	0.71
1:2A:1364:G:OP2	23:21:3:LYS:HG3	1.90	0.71
34:2c:164:ARG:NH1	34:2c:166:GLU:OE2	2.22	0.71
1:1A:2319:G:H22	14:1S:3:ARG:CD	2.03	0.71
24:12:22:GLU:OE2	24:12:68:ARG:NH2	2.23	0.71
41:1j:39:PRO:HA	41:1j:70:ARG:HD3	1.70	0.71
1:2A:636:G:N7	11:2P:113:LYS:NZ	2.32	0.71
3:2D:206:LEU:HD22	3:2D:211:ARG:HG2	1.73	0.71
32:2a:1187:G:H5'	40:2i:113:LYS:HE2	1.71	0.71
1:1A:457:A:OP2	63:1A:4135:HOH:O	2.06	0.71
1:1A:673:C:N3	63:1A:4289:HOH:O	2.23	0.71
1:1A:988:A:OP1	63:1A:4148:HOH:O	2.09	0.71
32:1a:181:G:H4'	32:1a:182:U:H5'	1.73	0.71
32:1a:454:C:O2	63:1a:3310:HOH:O	2.06	0.71
1:2A:792:G:O6	63:2A:3840:HOH:O	2.06	0.71
1:2A:2373:G:OP1	63:2A:3845:HOH:O	2.08	0.71
32:2a:289:G:OP2	63:2a:3212:HOH:O	2.08	0.71
36:2e:144:THR:H	36:2e:147:ASP:HB2	1.55	0.71
1:1A:579:G:OP2	63:1A:4140:HOH:O	2.08	0.71
1:1A:1831:G:O6	63:1A:4151:HOH:O	2.09	0.71
1:1A:2453:A:OP1	63:1A:4152:HOH:O	2.09	0.71
10:1O:64:ARG:HD3	10:1O:79:PHE:CD1	2.25	0.71
2:2B:55:U:OP2	63:2B:301:HOH:O	2.07	0.71
39:2h:4:ASP:OD2	39:2h:7:ALA:N	2.19	0.71
1:1A:463:G:OP2	63:1A:4145:HOH:O	2.08	0.71
1:1A:664:C:OP2	63:1A:4150:HOH:O	2.09	0.71
1:1A:1937:A:H1'	1:1A:1939:5MU:H72	1.73	0.71
1:2A:98:G:H5'	24:22:3:LEU:HD23	1.73	0.71
6:2G:48:GLU:HA	6:2G:51:ARG:HE	1.56	0.71
1:1A:588:U:H2'	1:1A:589:C:C6	2.25	0.71
1:1A:1443:G:OP2	63:1A:4142:HOH:O	2.08	0.71
19:1X:60:ARG:HH12	29:17:47:ARG:HH22	1.36	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1188:U:H4'	17:2V:79:VAL:HG22	1.73	0.71
1:1A:2405:G:OP1	11:1P:77:ARG:NH2	2.24	0.70
32:1a:1015:A:H2'	32:1a:1016:A:C8	2.26	0.70
26:14:16:CYS:SG	26:14:17:GLY:N	2.63	0.70
50:1s:63:THR:OG1	50:1s:65:ASN:OD1	2.09	0.70
1:2A:818:G:OP2	63:2A:3847:HOH:O	2.08	0.70
34:2c:180:ALA:HB1	34:2c:203:PHE:HE1	1.56	0.70
32:1a:1151:A:HO2'	32:1a:1152:A:H8	1.38	0.70
32:1a:1343:G:H2'	32:1a:1344:C:C6	2.26	0.70
35:1d:15:GLU:OE2	35:1d:66:ARG:NH1	2.23	0.70
1:2A:2070:G:H2'	1:2A:2071:A:C8	2.26	0.70
1:2A:2319:G:N2	14:2S:3:ARG:HD3	2.01	0.70
6:2G:101:ILE:HD13	26:24:25:TYR:HB2	1.72	0.70
32:2a:84:U:HO2'	32:2a:89:C:N4	1.90	0.70
48:2q:95:TYR:HA	48:2q:98:LEU:HD12	1.73	0.70
1:1A:796:C:H2'	1:1A:797:C:C6	2.27	0.70
1:1A:1185:C:OP2	63:1A:4139:HOH:O	2.07	0.70
6:1G:11:TYR:CE2	6:1G:16:ARG:HD2	2.26	0.70
21:1Z:92:SER:OG	21:1Z:93:ASP:N	2.22	0.70
32:1a:642:A:N3	39:1h:113:SER:OG	2.24	0.70
1:2A:14:A:OP2	63:2A:3849:HOH:O	2.09	0.70
35:2d:160:GLN:HE21	35:2d:160:GLN:H	1.40	0.70
37:2f:100:ASN:HD21	49:2r:23:LYS:HG2	1.56	0.70
1:1A:2746:U:OP2	63:1A:4158:HOH:O	2.10	0.70
1:2A:253:C:OP2	30:28:5:LYS:NZ	2.21	0.70
9:2N:104:LYS:HA	9:2N:107:LEU:HD12	1.72	0.70
21:2Z:19:ARG:NH1	21:2Z:84:GLU:O	2.25	0.70
32:2a:1309:G:O2'	44:2m:77:ASN:ND2	2.23	0.70
1:1A:72:U:O2	63:1A:4155:HOH:O	2.09	0.70
1:1A:1117:G:O6	63:1A:4138:HOH:O	2.07	0.70
1:1A:1823:G:OP1	3:1D:54:ARG:NH1	2.25	0.70
1:1A:2592:G:OP1	63:1A:4134:HOH:O	2.09	0.70
38:1g:18:TYR:HD1	38:1g:59:LEU:HD12	1.57	0.70
1:2A:1581:G:H2'	1:2A:1582:C:O4'	1.92	0.70
32:2a:977:A:N6	32:2a:1224:G:OP1	2.23	0.70
1:1A:194:G:N3	63:1A:4305:HOH:O	2.24	0.70
1:1A:197:A:OP1	63:1A:4161:HOH:O	2.10	0.70
1:1A:2006:C:OP2	63:1A:4160:HOH:O	2.10	0.70
1:1A:2723:C:OP1	13:1R:3:HIS:ND1	2.25	0.70
5:1F:53:THR:CG2	5:1F:55:GLY:H	2.03	0.70
11:1P:50:ARG:HD3	30:18:7:HIS:CD2	2.26	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:143:ARG:NH1	39:1h:77:GLU:OE2	2.25	0.70
1:1A:107:C:H2'	1:1A:108:U:H6	1.57	0.70
1:2A:946:G:OP1	63:2A:3856:HOH:O	2.10	0.70
6:2G:106:LEU:HA	6:2G:110:ALA:HB3	1.73	0.70
11:2P:112:LEU:H	11:2P:128:HIS:CE1	2.10	0.70
1:1A:256:A:OP2	63:1A:4157:HOH:O	2.09	0.70
1:1A:1359:A:H61	1:1A:1372:U:H3	1.40	0.70
32:1a:1003:G:C2'	32:1a:1004:A:H4'	2.22	0.70
1:2A:365:C:OP2	63:2A:3857:HOH:O	2.10	0.70
1:2A:1076:C:H1'	1:2A:1077:A:H5'	1.74	0.70
32:2a:54:C:N4	32:2a:353:A:OP2	2.25	0.70
33:2b:166:ASP:HB3	33:2b:169:LYS:HB3	1.74	0.70
1:1A:324:A:N6	1:1A:338:G:O2'	2.25	0.69
1:1A:2562:U:H1'	10:1O:23:ARG:HD3	1.74	0.69
4:1E:28:ALA:HB3	4:1E:93:VAL:HG12	1.74	0.69
5:1F:195:ASP:HB2	5:1F:198:ALA:H	1.56	0.69
23:11:50:ARG:HG2	23:11:59:THR:HG22	1.74	0.69
5:2F:195:ASP:OD1	5:2F:196:LEU:N	2.24	0.69
24:22:4:SER:HA	24:22:7:ARG:HH12	1.54	0.69
32:2a:390:C:O3'	47:2p:28:ARG:NH2	2.25	0.69
32:2a:1002:G:H2'	32:2a:1003:G:C8	2.27	0.69
32:2a:1143:G:H2'	32:2a:1144:G:H8	1.55	0.69
1:1A:1798:U:H5'	3:1D:259:THR:HG22	1.72	0.69
27:15:5:PRO:O	63:15:3201:HOH:O	2.10	0.69
1:2A:512:G:N7	63:2A:3954:HOH:O	2.24	0.69
3:2D:276:LYS:H	3:2D:276:LYS:HE3	1.57	0.69
5:2F:103:LYS:HA	5:2F:106:ARG:HG3	1.74	0.69
32:2a:17:U:H2'	32:2a:18:C:C6	2.27	0.69
7:1H:119:GLU:O	7:1H:140:LYS:NZ	2.25	0.69
33:1b:15:VAL:HG22	33:1b:209:ARG:HB3	1.73	0.69
1:2A:1349:A:OP1	63:2A:3848:HOH:O	2.09	0.69
1:2A:2572:A:C8	4:2E:144:ARG:HD2	2.28	0.69
7:2H:101:ARG:NH2	7:2H:118:PRO:O	2.25	0.69
32:2a:426:G:OP1	35:2d:38:TYR:OH	2.07	0.69
15:1T:65:LYS:HE2	15:1T:67:SER:HB2	1.74	0.69
32:1a:251:G:N7	63:1a:3332:HOH:O	2.25	0.69
33:1b:88:ALA:HB2	33:1b:219:VAL:HG13	1.73	0.69
1:2A:1771:C:OP1	63:2A:3854:HOH:O	2.10	0.69
1:2A:2060:A:OP1	63:2A:3851:HOH:O	2.09	0.69
32:2a:601:C:H2'	32:2a:602:A:H8	1.58	0.69
32:2a:1004:A:N7	32:2a:1037:C:H2'	2.07	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1490:C:H2'	32:2a:1491:G:C8	2.28	0.69
39:1h:7:ALA:HA	39:1h:10:LEU:HD12	1.74	0.69
40:1i:50:LEU:HD13	40:1i:56:LEU:HG	1.74	0.69
1:2A:370:G:OP2	63:2A:3858:HOH:O	2.11	0.69
1:2A:1063:G:N2	1:2A:1076:C:O2'	2.26	0.69
1:2A:2152:G:H2'	1:2A:2153:G:C8	2.27	0.69
10:2O:5:GLN:O	63:2O:301:HOH:O	2.09	0.69
32:2a:1347:G:N2	32:2a:1373:G:H2'	2.08	0.69
1:1A:491:G:OP1	63:1A:4163:HOH:O	2.11	0.69
1:1A:1762:A:N1	63:1A:4315:HOH:O	2.25	0.69
1:2A:1153:C:OP1	16:2U:92:ARG:NH2	2.25	0.69
1:1A:743:G:N7	63:1A:4308:HOH:O	2.25	0.69
1:1A:2879:C:OP2	63:1A:4149:HOH:O	2.09	0.69
39:1h:119:LEU:HB3	39:1h:123:GLU:HB2	1.73	0.69
15:2T:1:MET:HE2	15:2T:3:ARG:HG3	1.74	0.69
41:2j:28:ARG:CB	41:2j:34:VAL:HG21	2.22	0.69
1:1A:1030:G:OP2	12:1Q:128:LYS:NZ	2.23	0.69
1:1A:2067:G:OP2	63:1A:4156:HOH:O	2.09	0.69
3:1D:52:ARG:O	63:1D:402:HOH:O	2.11	0.69
32:1a:812:C:N3	63:1a:3335:HOH:O	2.25	0.69
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.73	0.69
1:2A:1059:G:P	1:2A:1060:U:H2'	2.33	0.69
4:2E:110:GLY:O	63:2R:301:HOH:O	2.11	0.69
32:2a:1327:C:OP2	52:2u:12:LYS:NZ	2.22	0.69
32:2a:1348:U:H4'	40:2i:120:ARG:HD2	1.75	0.69
40:2i:8:GLY:HA2	40:2i:79:LEU:HD23	1.75	0.69
50:2s:41:VAL:HG12	50:2s:44:MET:HG3	1.75	0.69
20:1Y:92:ASN:HD22	20:1Y:92:ASN:N	1.91	0.69
32:1a:840:C:H4'	32:1a:841:U:OP2	1.93	0.69
45:1n:24:CYS:HB3	45:1n:28:GLY:H	1.56	0.69
50:1s:41:VAL:HB	50:1s:44:MET:HE3	1.73	0.69
1:2A:468:G:O2'	5:2F:62:ARG:NH2	2.25	0.69
3:2D:8:PRO:HB3	3:2D:14:ARG:HG3	1.75	0.69
32:2a:1402:4OC:HM22	32:2a:1403:C:H5'	1.73	0.69
33:2b:71:VAL:HA	33:2b:93:VAL:HG22	1.73	0.69
14:1S:20:ARG:NH2	22:10:51:VAL:O	2.26	0.69
1:2A:1603:A:OP1	63:2A:3850:HOH:O	2.09	0.69
35:1d:119:GLN:HG3	35:1d:123:HIS:CE1	2.28	0.68
44:1m:4:ILE:HD12	44:1m:5:ALA:HB2	1.74	0.68
1:2A:477:A:OP2	63:2A:3861:HOH:O	2.11	0.68
30:28:34:TRP:CE2	30:28:35:GLN:HB3	2.27	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:171:A:H2'	32:1a:172:A:C8	2.29	0.68
32:1a:1505:G:OP2	63:1a:3315:HOH:O	2.10	0.68
7:2H:95:ARG:HE	7:2H:97:ARG:HH21	1.41	0.68
32:2a:427:U:OP1	35:2d:13:ARG:NH2	2.25	0.68
37:2f:30:LEU:HD23	37:2f:75:LEU:HD11	1.75	0.68
1:1A:219:G:OP2	63:1A:4169:HOH:O	2.11	0.68
1:1A:220:G:O6	63:1A:4166:HOH:O	2.11	0.68
1:1A:862:G:OP1	63:1A:4175:HOH:O	2.12	0.68
1:1A:867:C:O3'	63:1A:4177:HOH:O	2.12	0.68
1:2A:947:G:OP1	63:2A:3855:HOH:O	2.10	0.68
35:2d:75:PHE:CE1	35:2d:93:PHE:HZ	2.11	0.68
1:1A:2038:G:O6	63:1A:4159:HOH:O	2.10	0.68
1:2A:143:G:H4'	19:2X:35:THR:HG21	1.76	0.68
5:2F:87:GLY:O	63:2F:402:HOH:O	2.09	0.68
32:2a:1291:G:O2'	40:2i:38:GLN:NE2	2.27	0.68
1:1A:326:G:N7	63:1A:4329:HOH:O	2.26	0.68
11:1P:39:LYS:HG3	11:1P:45:LEU:HD11	1.76	0.68
1:2A:2203:U:H2'	1:2A:2205:C:C6	2.29	0.68
32:1a:673:G:H2'	32:1a:674:G:C8	2.28	0.68
1:2A:407:G:OP2	63:2A:3862:HOH:O	2.11	0.68
3:2D:237:GLU:OE2	63:2D:401:HOH:O	2.09	0.68
34:2c:54:ARG:HB2	34:2c:69:HIS:HB2	1.75	0.68
6:1G:79:ASN:OD1	6:1G:79:ASN:N	2.26	0.68
26:14:3:GLU:OE2	63:14:601:HOH:O	2.11	0.68
1:2A:1667:G:O2'	1:2A:1991:U:O4	2.12	0.68
1:2A:2507:C:OP1	63:2A:3869:HOH:O	2.12	0.68
1:1A:1650:G:OP1	63:1A:4162:HOH:O	2.11	0.68
1:1A:2591:C:O3'	63:1A:4164:HOH:O	2.11	0.68
32:1a:17:U:H2'	32:1a:18:C:C6	2.28	0.68
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.28	0.68
1:2A:311:A:OP2	63:2A:3867:HOH:O	2.12	0.68
1:2A:1087:G:H1	1:2A:1102:C:H42	1.42	0.68
1:2A:2142:C:H2'	1:2A:2143:C:H6	1.59	0.68
32:2a:976:G:H5'	32:2a:1358:U:O2'	1.94	0.68
1:1A:1648:C:OP1	63:1A:4116:HOH:O	2.11	0.68
32:1a:501:C:H1'	32:1a:549:C:H1'	1.76	0.68
32:1a:626:U:H2'	32:1a:627:G:H8	1.59	0.68
1:2A:586:A:N1	1:2A:809:G:O2'	2.21	0.68
1:2A:667:U:OP2	63:2A:3863:HOH:O	2.11	0.68
1:2A:1209:G:OP2	63:2A:3853:HOH:O	2.10	0.68
32:2a:1376:U:H2'	32:2a:1377:A:C8	2.29	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1508:G:OP1	63:2a:3204:HOH:O	2.11	0.68
46:2o:39:LEU:HD13	46:2o:56:LEU:HB2	1.76	0.68
1:1A:2447:G:OP2	63:1A:4172:HOH:O	2.11	0.68
1:1A:2456:C:OP1	63:1A:4181:HOH:O	2.12	0.68
21:1Z:69:THR:HG22	21:1Z:90:VAL:HA	1.75	0.68
32:1a:269:C:H2'	32:1a:270:A:H8	1.58	0.68
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.27	0.68
1:2A:1090:U:H2'	1:2A:1091:G:H8	1.59	0.68
1:1A:1250:G:H5"	63:1U:324:HOH:O	1.94	0.67
8:1I:8:PRO:HD3	8:1I:15:VAL:HB	1.76	0.67
30:18:65:GLU:OE2	63:18:202:HOH:O	2.11	0.67
48:1q:5:VAL:HG22	48:1q:60:ILE:HG13	1.76	0.67
1:2A:1552:G:N7	63:2A:3975:HOH:O	2.27	0.67
17:2V:52:VAL:HG23	17:2V:55:ALA:HB3	1.73	0.67
31:29:2:LYS:NZ	31:29:31:LYS:O	2.24	0.67
1:1A:1654:A:OP2	63:1A:4182:HOH:O	2.12	0.67
1:1A:2506:U:OP2	63:1A:4180:HOH:O	2.12	0.67
20:1Y:44:ILE:CG2	20:1Y:62:GLU:HG2	2.23	0.67
32:1a:1279:A:OP2	41:1j:9:ARG:NH1	2.27	0.67
1:2A:1610:A:OP2	63:2A:3860:HOH:O	2.11	0.67
1:2A:2660:A:N7	7:2H:175:LYS:NZ	2.41	0.67
32:2a:662:G:H2'	32:2a:663:A:C8	2.29	0.67
32:2a:937:A:OP2	63:2a:3213:HOH:O	2.11	0.67
44:2m:58:GLU:O	44:2m:62:ASN:ND2	2.28	0.67
1:1A:633:A:OP1	63:1A:4165:HOH:O	2.11	0.67
15:1T:35:LYS:HG2	15:1T:40:THR:HG22	1.76	0.67
32:1a:612:C:O2	32:1a:629:G:N2	2.27	0.67
51:1t:33:ILE:O	51:1t:37:SER:OG	2.11	0.67
1:2A:499:U:O3'	63:2A:3864:HOH:O	2.11	0.67
1:1A:746:A:OP2	63:1A:4174:HOH:O	2.12	0.67
1:1A:975:C:O2	63:1A:4146:HOH:O	2.08	0.67
1:1A:1315:C:OP2	63:1A:4167:HOH:O	2.11	0.67
6:1G:53:LEU:O	6:1G:56:ALA:N	2.27	0.67
36:1e:101:ILE:HG13	36:1e:119:LEU:HD23	1.77	0.67
1:2A:2316:C:O2'	6:2G:128:ARG:NH2	2.27	0.67
11:2P:96:THR:HG23	11:2P:99:LEU:HD12	1.76	0.67
32:2a:979:C:H42	45:2n:18:VAL:HB	1.59	0.67
32:2a:1189:C:OP1	41:2j:51:ARG:NH2	2.27	0.67
1:1A:1279:G:H4'	13:1R:31:HIS:CD2	2.29	0.67
32:1a:689:C:H2'	32:1a:690:G:O4'	1.94	0.67
32:1a:946:A:H2'	32:1a:947:G:C8	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:279:A:N6	48:2q:98:LEU:O	2.27	0.67
40:2i:28:VAL:HA	40:2i:63:ILE:O	1.94	0.67
1:1A:492:A:N1	63:1A:4333:HOH:O	2.26	0.67
1:1A:1616:A:OP2	63:1A:4168:HOH:O	2.11	0.67
1:1A:2752:C:OP2	63:1A:4171:HOH:O	2.11	0.67
5:1F:53:THR:HG22	5:1F:55:GLY:H	1.59	0.67
33:1b:87:ARG:NH2	33:1b:220:ASP:OD1	2.26	0.67
1:2A:2143:C:N3	1:2A:2148:G:O6	2.28	0.67
32:2a:1190:G:H5'	34:2c:176:HIS:CE1	2.30	0.67
37:2f:43:LEU:HD23	37:2f:46:ARG:HH22	1.60	0.67
1:1A:825:C:OP1	63:1A:4178:HOH:O	2.12	0.67
1:1A:1300:U:H4'	1:1A:1301:A:H5"	1.76	0.67
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.30	0.67
3:1D:107:ALA:O	63:1D:404:HOH:O	2.13	0.67
10:1O:73:ASP:HB2	15:1T:82:LEU:HD13	1.74	0.67
11:1P:96:THR:H	11:1P:99:LEU:HD12	1.58	0.67
1:2A:1771:C:OP2	63:2A:3866:HOH:O	2.11	0.67
1:2A:2550:G:OP1	63:2A:3859:HOH:O	2.11	0.67
4:2E:107:THR:OG1	63:2E:401:HOH:O	2.12	0.67
20:2Y:13:VAL:HG21	20:2Y:72:VAL:HG22	1.77	0.67
20:2Y:92:ASN:HD22	20:2Y:94:LYS:H	1.43	0.67
32:2a:1338:G:H2'	32:2a:1339:A:C8	2.29	0.67
36:2e:140:ARG:O	36:2e:143:ARG:NH2	2.24	0.67
42:2k:31:THR:HG23	42:2k:42:TRP:HB3	1.76	0.67
1:1A:2270:G:O6	63:1A:4170:HOH:O	2.11	0.67
14:1S:89:ARG:HG3	14:1S:92:TYR:O	1.94	0.67
21:1Z:14:LYS:HD3	21:1Z:16:SER:H	1.59	0.67
32:1a:48:C:O2	63:1a:3316:HOH:O	2.11	0.67
32:1a:410:G:OP1	35:1d:30:LYS:NZ	2.20	0.67
1:2A:2028:U:O4	63:2A:3872:HOH:O	2.12	0.67
1:1A:695:G:OP1	1:1A:1380:G:O2'	2.12	0.67
1:1A:823:G:OP1	63:1A:4173:HOH:O	2.11	0.67
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.29	0.67
1:2A:1876:A:H2'	1:2A:1877:A:H8	1.59	0.67
32:2a:1352:C:H42	32:2a:1370:G:H1	1.43	0.67
17:1V:23:GLU:OE2	63:1V:301:HOH:O	2.12	0.67
20:1Y:17:SER:OG	20:1Y:71:LYS:NZ	2.26	0.67
20:1Y:23:ARG:NH1	63:1Y:601:HOH:O	2.27	0.67
32:1a:412:A:P	35:1d:35:ARG:HH22	2.18	0.67
48:1q:62:SER:HB3	48:1q:72:ARG:HH11	1.57	0.67
1:2A:1073:A:H2'	1:2A:1074:G:H8	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:2F:188:ARG:HA	11:2P:3:LEU:HD11	1.75	0.67
50:2s:22:LEU:HB3	50:2s:27:GLU:HA	1.77	0.67
1:1A:994:C:O2	17:1V:10:LYS:NZ	2.28	0.66
1:1A:2594:C:OP2	63:1A:4192:HOH:O	2.13	0.66
32:1a:1414:U:H3	32:1a:1486:G:H1	1.42	0.66
32:1a:1518:MA6:H93	32:1a:1519:MA6:C9	2.25	0.66
1:2A:1551:C:OP2	63:2A:3868:HOH:O	2.12	0.66
1:2A:2285:C:OP2	28:26:6:ARG:NH1	2.28	0.66
32:2a:1326:C:H5"	52:2u:18:TYR:O	1.94	0.66
33:2b:24:TRP:HB3	33:2b:40:HIS:CE1	2.30	0.66
1:1A:2276:G:OP1	63:1A:4195:HOH:O	2.14	0.66
6:1G:67:LYS:H	26:14:6:HIS:CE1	2.14	0.66
30:18:49:VAL:HG13	63:18:208:HOH:O	1.96	0.66
1:2A:253:C:OP1	63:2A:3877:HOH:O	2.13	0.66
1:2A:1971:A:OP1	63:2A:3809:HOH:O	2.13	0.66
15:2T:127:ALA:C	15:2T:129:ARG:H	2.01	0.66
32:2a:1181:G:O2'	32:2a:1182:G:N7	2.27	0.66
1:1A:399:G:OP2	63:1A:4193:HOH:O	2.14	0.66
1:1A:1995:U:OP1	63:1A:4191:HOH:O	2.13	0.66
6:1G:126:ASP:HB2	6:1G:130:ASN:H	1.60	0.66
8:1I:130:TYR:HB3	8:1I:138:ILE:HB	1.76	0.66
39:1h:29:SER:HB3	39:1h:32:LYS:HG3	1.78	0.66
1:2A:857:C:OP2	22:20:77:ARG:NH2	2.28	0.66
1:2A:864:G:N7	12:2Q:22:LYS:NZ	2.40	0.66
1:2A:2143:C:O2	1:2A:2148:G:N1	2.25	0.66
1:2A:2376:A:N3	14:2S:106:ARG:NH2	2.43	0.66
1:2A:2689:U:OP2	1:2A:2719:G:N2	2.25	0.66
32:2a:461:A:O2'	32:2a:471:G:N7	2.28	0.66
32:2a:1172:C:H2'	32:2a:1173:G:H8	1.58	0.66
7:1H:159:GLU:HG2	7:1H:169:VAL:HG11	1.75	0.66
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.31	0.66
33:1b:9:GLU:HG3	33:1b:217:ARG:HH22	1.60	0.66
1:2A:2029:G:OP2	63:2A:3870:HOH:O	2.12	0.66
8:2I:63:ALA:HA	8:2I:66:GLU:HB3	1.76	0.66
32:2a:69:G:H2'	32:2a:70:G:H8	1.59	0.66
32:2a:1189:C:O2	63:2a:3214:HOH:O	2.11	0.66
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.29	0.66
1:1A:514:A:OP2	63:1A:4184:HOH:O	2.12	0.66
1:1A:2385:C:OP2	63:1A:4185:HOH:O	2.13	0.66
5:1F:18:ARG:NH1	5:1F:127:GLU:OE2	2.28	0.66
9:1N:70:LYS:HD3	9:1N:87:LEU:HD22	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:131:G:OP1	63:2A:3880:HOH:O	2.14	0.66
1:2A:365:C:O5'	63:2A:3874:HOH:O	2.12	0.66
3:2D:69:ARG:HH21	3:2D:105:ILE:HD13	1.61	0.66
1:1A:1442:G:OP1	63:1A:4186:HOH:O	2.13	0.66
2:1B:66:A:H61	2:1B:108:U:H2'	1.59	0.66
1:2A:1102:C:H2'	1:2A:1103:A:C8	2.29	0.66
1:2A:1798:U:H5'	3:2D:259:THR:HG23	1.78	0.66
8:2I:77:LEU:HB3	8:2I:142:VAL:HG13	1.78	0.66
1:1A:2113:U:H3	1:1A:2168:G:H4'	1.60	0.66
1:1A:2427:C:OP1	63:1A:4104:HOH:O	2.13	0.66
1:1A:2699:C:OP1	63:1A:4188:HOH:O	2.13	0.66
34:1c:77:ILE:HG22	34:1c:81:GLY:HA2	1.78	0.66
1:2A:1178:C:H2'	1:2A:1179:C:C6	2.31	0.66
1:2A:1621:U:OP2	63:2A:3871:HOH:O	2.12	0.66
1:2A:2712(A):A:OP1	63:2A:3876:HOH:O	2.13	0.66
3:2D:73:VAL:HG13	3:2D:120:GLY:HA3	1.76	0.66
1:1A:467:G:N3	63:1A:4372:HOH:O	2.29	0.66
1:1A:585:G:OP2	63:1A:4179:HOH:O	2.12	0.66
10:1O:98:VAL:HG13	10:1O:117:LEU:HB3	1.77	0.66
31:19:16:VAL:HG22	31:19:25:VAL:HG22	1.77	0.66
48:1q:60:ILE:HB	48:1q:74:LEU:HD12	1.77	0.66
1:1A:1271:G:OP2	63:1A:4116:HOH:O	2.14	0.66
32:1a:35:G:O2'	43:1l:118:SER:O	2.14	0.66
2:2B:23:G:O6	63:2B:302:HOH:O	2.10	0.66
5:2F:178:PRO:HB2	5:2F:201:VAL:HG21	1.77	0.66
1:1A:1318:C:OP2	63:1A:4197:HOH:O	2.14	0.66
1:1A:2811:G:N2	1:1A:2891:G:H1'	2.11	0.66
6:1G:16:ARG:HH21	6:1G:31:VAL:HG21	1.60	0.66
39:1h:120:THR:HG23	39:1h:123:GLU:HG3	1.77	0.66
1:2A:2428:G:OP1	63:2A:3810:HOH:O	2.13	0.66
26:24:9:LEU:HD23	26:24:27:THR:HG23	1.78	0.66
1:1A:2054:A:O3'	63:1A:4199:HOH:O	2.14	0.65
32:1a:1469:G:N7	63:1a:3346:HOH:O	2.29	0.65
52:1u:6:ARG:NH2	52:1u:15:ARG:HH21	1.95	0.65
1:2A:69:C:O2	1:2A:73:A:O2'	2.15	0.65
1:2A:982:C:OP1	63:2A:3875:HOH:O	2.13	0.65
32:2a:382:A:H2'	32:2a:383:A:C8	2.31	0.65
1:2A:1651:G:OP1	13:2R:40:LYS:NZ	2.25	0.65
32:2a:1212:U:H5"	32:2a:1213:A:H5'	1.76	0.65
33:2b:217:ARG:HA	33:2b:220:ASP:HB2	1.78	0.65
35:2d:19:LEU:HD13	35:2d:67:ILE:HG13	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:2h:14:ARG:HH11	39:2h:83:ILE:HG23	1.62	0.65
1:1A:1325:G:OP1	63:1A:4194:HOH:O	2.14	0.65
32:1a:1347:G:H5"	40:1i:107:ARG:HB3	1.78	0.65
33:1b:74:LYS:NZ	33:1b:206:ASP:OD1	2.29	0.65
1:2A:1365:A:O2'	23:21:11:ARG:NH1	2.29	0.65
6:2G:145:THR:HG22	6:2G:148:MET:SD	2.36	0.65
21:2Z:179:ASP:O	21:2Z:182:LYS:HG2	1.95	0.65
32:2a:918:A:H2'	32:2a:919:A:C8	2.31	0.65
38:2g:9:VAL:HG13	38:2g:94:ARG:HH11	1.61	0.65
41:2j:8:LEU:HB2	41:2j:70:ARG:HB2	1.79	0.65
41:2j:37:PRO:HA	41:2j:72:VAL:HG12	1.78	0.65
1:1A:729:G:C6	3:1D:208:LYS:HB2	2.31	0.65
33:1b:59:GLU:HB3	33:1b:221:LEU:HD11	1.78	0.65
1:2A:577:G:O2'	1:2A:1254:A:OP1	2.13	0.65
1:2A:1631:C:OP1	63:2A:3882:HOH:O	2.14	0.65
1:2A:2315:G:H2'	1:2A:2316:C:C6	2.31	0.65
28:26:23:THR:OG1	28:26:24:GLU:N	2.27	0.65
32:2a:1292:U:H5'	40:2i:38:GLN:HE21	1.61	0.65
52:2u:17:THR:O	52:2u:22:ARG:NH1	2.27	0.65
19:1X:60:ARG:NH1	29:17:47:ARG:HH22	1.93	0.65
28:16:24:GLU:OE1	63:16:601:HOH:O	2.14	0.65
32:1a:1244:C:H42	32:1a:1293:G:H1	1.43	0.65
1:2A:248:G:OP1	63:2A:3886:HOH:O	2.15	0.65
1:2A:771:G:OP2	63:2A:3881:HOH:O	2.14	0.65
26:14:44:THR:OG1	26:14:47:GLN:OE1	2.14	0.65
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.77	0.65
11:2P:84:ASN:CG	11:2P:117:GLU:HB3	2.21	0.65
26:24:44:THR:O	26:24:46:GLN:N	2.30	0.65
1:1A:644:A:H4'	1:1A:645:C:H5	1.61	0.65
1:1A:1364:G:OP2	23:11:3:LYS:HD2	1.97	0.65
17:1V:101:GLY:OXT	63:1V:303:HOH:O	2.15	0.65
1:2A:452:G:OP2	63:2A:3889:HOH:O	2.15	0.65
1:2A:1279:G:N7	63:2A:3995:HOH:O	2.30	0.65
43:2l:6:THR:HG23	43:2l:9:GLN:OE1	1.96	0.65
1:1A:1441:G:O6	63:1A:4154:HOH:O	2.09	0.65
1:1A:2502:G:OP1	63:1A:4200:HOH:O	2.14	0.65
3:1D:137:PRO:O	3:1D:140:THR:HG23	1.97	0.65
11:1P:141:ALA:HA	25:23:38:GLU:HG2	1.77	0.65
15:1T:29:ARG:HG3	15:1T:46:GLU:HB2	1.78	0.65
19:1X:11:PRO:HB3	19:1X:92:LEU:HD11	1.79	0.65
32:1a:176:C:H2'	32:1a:177:C:C6	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:176:C:H2'	32:1a:177:C:H6	1.62	0.65
1:2A:2314:C:H2'	1:2A:2315:G:C8	2.32	0.65
32:2a:677:U:H3	32:2a:713:G:H22	1.44	0.65
32:2a:716:A:N3	42:2k:118:GLY:HA2	2.12	0.65
46:2o:54:ARG:HG2	46:2o:58:MET:HE2	1.79	0.65
1:1A:1803:A:O2'	3:1D:259:THR:HG21	1.97	0.65
1:1A:2348:U:OP1	63:1A:4201:HOH:O	2.14	0.65
33:1b:97:TRP:HH2	33:1b:176:GLU:CD	2.05	0.65
1:1A:249:C:O2'	11:1P:64:LYS:NZ	2.20	0.65
3:1D:2:ALA:N	3:1D:200:ASP:OD2	2.30	0.65
40:1i:9:ARG:HG2	40:1i:14:VAL:HG13	1.78	0.65
1:2A:527:C:N3	63:2A:3998:HOH:O	2.30	0.65
1:2A:568:U:H5'	1:2A:945:A:N6	2.12	0.65
37:2f:6:VAL:HG13	37:2f:90:VAL:HG22	1.78	0.65
1:1A:654:A:OP2	63:1A:4196:HOH:O	2.14	0.64
32:1a:828:A:H2'	32:1a:829:G:O4'	1.97	0.64
40:1i:8:GLY:HA2	40:1i:79:LEU:HD23	1.80	0.64
1:1A:210:C:OP1	63:1A:4204:HOH:O	2.14	0.64
32:1a:1296:C:H4'	32:1a:1302:U:C5	2.32	0.64
35:1d:60:GLU:HG3	35:1d:202:LEU:HD12	1.77	0.64
1:2A:971:C:OP2	63:2A:3879:HOH:O	2.14	0.64
32:2a:1399:C:H4'	32:2a:1400:5MC:O5'	1.97	0.64
33:2b:80:ILE:HG12	33:2b:215:LEU:HD12	1.78	0.64
1:1A:132:G:O6	63:1A:4205:HOH:O	2.14	0.64
1:1A:1332:G:OP1	63:1A:4167:HOH:O	2.15	0.64
32:1a:390:C:H2'	32:1a:391:G:C8	2.32	0.64
34:1c:69:HIS:CD2	34:1c:104:GLN:HG2	2.32	0.64
1:2A:749:C:OP1	63:2A:3887:HOH:O	2.15	0.64
1:2A:1807:G:OP2	63:2A:3884:HOH:O	2.14	0.64
4:2E:143:ASN:HD22	4:2E:147:PRO:HD3	1.61	0.64
26:24:14:ILE:HB	26:24:22:ILE:HB	1.79	0.64
32:2a:1323:G:O2'	32:2a:1362:C:O2'	2.15	0.64
1:1A:837:C:OP2	63:1A:4203:HOH:O	2.14	0.64
1:1A:958:U:H5"	12:1Q:14:ARG:HD3	1.78	0.64
1:1A:1619:G:N7	63:1A:4368:HOH:O	2.29	0.64
1:2A:1315:C:OP2	63:2A:3878:HOH:O	2.14	0.64
1:2A:2126:A:H4'	1:2A:2127:G:O5'	1.98	0.64
1:2A:2130:U:H2'	1:2A:2158:A:N6	2.12	0.64
7:2H:27:LYS:HG2	7:2H:32:GLU:HB3	1.79	0.64
1:1A:1086:A:H3'	1:1A:1086:A:N3	2.12	0.64
5:1F:67:GLN:HG3	5:1F:68:LYS:HG3	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:8:ILE:HG13	34:1c:184:TYR:HB3	1.80	0.64
1:2A:919:G:N2	1:2A:2269:A:OP2	2.31	0.64
1:2A:999:U:OP2	63:2A:3830:HOH:O	2.15	0.64
1:2A:1064:C:H1'	1:2A:1076:C:C5	2.32	0.64
1:2A:1817:G:OP1	3:2D:88:ARG:NH2	2.30	0.64
1:2A:2445:G:OP1	5:2F:74:ARG:NH2	2.30	0.64
32:2a:735:C:H2'	32:2a:736:C:H6	1.62	0.64
1:1A:1057:A:N7	1:1A:1086:A:H2'	2.13	0.64
32:1a:224:C:OP1	51:1t:74:LYS:NZ	2.30	0.64
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.79	0.64
35:1d:173:TRP:CD1	35:1d:173:TRP:H	2.16	0.64
1:2A:590:A:H2'	1:2A:591:C:C6	2.33	0.64
32:2a:254:G:OP1	48:2q:66:SER:OG	2.16	0.64
32:2a:881:G:P	43:2l:12:ARG:HH22	2.21	0.64
2:1B:25:A:OP2	63:1B:304:HOH:O	2.15	0.64
37:1f:5:GLU:OE1	49:1r:34:TYR:OH	2.16	0.64
3:2D:124:PRO:HB2	3:2D:126:GLN:HG2	1.80	0.64
5:2F:74:ARG:O	63:2F:403:HOH:O	2.15	0.64
5:2F:120:GLU:HB3	5:2F:122:LYS:HG2	1.80	0.64
21:2Z:28:MET:HE2	21:2Z:67:LEU:HD22	1.78	0.64
32:2a:164:U:H2'	32:2a:165:C:C6	2.32	0.64
1:1A:2251:OMG:OP2	63:1A:4209:HOH:O	2.15	0.64
12:1Q:21:THR:HG21	12:1Q:101:ARG:HB2	1.78	0.64
21:1Z:51:ALA:HB1	21:1Z:57:ILE:HD11	1.79	0.64
33:1b:143:GLU:HA	33:1b:146:GLN:HB2	1.79	0.64
34:1c:108:ASN:ND2	34:1c:144:SER:OG	2.28	0.64
2:2B:90:A:N7	2:2B:91:C:H1'	2.13	0.64
36:2e:91:LEU:HD11	36:2e:110:LEU:HD11	1.79	0.64
47:2p:53:VAL:HG13	47:2p:79:VAL:HG22	1.78	0.64
51:2t:56:MET:HG3	51:2t:88:VAL:HG21	1.78	0.64
3:1D:26:LYS:HE2	3:1D:28:GLU:O	1.97	0.64
1:2A:1847:A:H3'	1:2A:1848:A:H5'	1.80	0.64
1:2A:2352:A:OP2	63:2A:3883:HOH:O	2.14	0.64
12:2Q:110:THR:HB	12:2Q:113:GLN:H	1.63	0.64
38:2g:15:ASP:OD1	38:2g:20:ASP:N	2.30	0.64
1:1A:1083:U:H1'	1:1A:1086:A:N6	2.12	0.64
1:1A:2031:A:C6	1:1A:2498:C:H1'	2.33	0.64
35:1d:11:LEU:HD23	35:1d:66:ARG:HB3	1.80	0.64
4:2E:1:MET:HE1	4:2E:199:ARG:HD2	1.79	0.64
17:2V:67:GLY:O	17:2V:88:ARG:HG2	1.97	0.64
20:2Y:36:ALA:HB1	20:2Y:67:LEU:H	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2f:61:LEU:HB3	37:2f:63:TYR:CE2	2.33	0.64
1:1A:2355:C:O2	22:10:39:ARG:NH2	2.31	0.63
21:1Z:19:ARG:NH1	21:1Z:84:GLU:HB2	2.12	0.63
32:1a:955:U:O2'	50:1s:83:HIS:HD2	1.80	0.63
40:1i:66:ARG:HH21	40:1i:66:ARG:HB2	1.62	0.63
48:1q:45:HIS:HB2	48:1q:65:ILE:HD13	1.80	0.63
32:2a:1014:A:C2	32:2a:1219:U:H1'	2.33	0.63
34:2c:136:GLN:HE21	34:2c:140:ARG:HH21	1.46	0.63
41:2j:78:ASN:O	41:2j:80:LYS:N	2.31	0.63
1:1A:944:G:N7	63:1A:4389:HOH:O	2.31	0.63
1:1A:1073:A:N6	1:1A:1074:G:O6	2.31	0.63
1:1A:2328:A:H2'	1:1A:2329:G:C8	2.33	0.63
3:1D:16:MET:HG2	3:1D:211:ARG:HH21	1.63	0.63
11:1P:59:LEU:HD11	30:18:10:ALA:HB2	1.79	0.63
12:1Q:12:GLN:HG3	12:1Q:73:PRO:HD2	1.80	0.63
27:15:15:ARG:NH1	63:15:3202:HOH:O	2.22	0.63
32:1a:1004:A:C5	32:1a:1037:C:C2	2.86	0.63
32:1a:1016:A:OP1	45:1n:15:LYS:NZ	2.21	0.63
3:2D:232:PRO:O	63:2D:402:HOH:O	2.15	0.63
5:2F:122:LYS:HD2	5:2F:191:ARG:HD3	1.79	0.63
28:26:6:ARG:HH12	28:26:26:ASN:HB2	1.62	0.63
38:2g:133:GLY:HA2	38:2g:136:LYS:HB2	1.81	0.63
47:2p:48:TRP:CD1	47:2p:48:TRP:H	2.16	0.63
1:1A:1482:G:H2'	1:1A:1484:G:H8	1.63	0.63
1:1A:2319:G:H22	14:1S:3:ARG:HD3	1.63	0.63
8:1I:68:LEU:HD21	8:1I:109:ILE:HD11	1.80	0.63
6:2G:97:ASP:HA	6:2G:100:TRP:CD1	2.33	0.63
22:20:36:ILE:O	63:20:201:HOH:O	2.16	0.63
33:2b:84:GLU:HG3	33:2b:215:LEU:HB3	1.80	0.63
53:2y:61:LEU:HB3	53:2y:81:LEU:HD22	1.80	0.63
1:1A:2469:A:H5'	1:1A:2470:G:OP2	1.98	0.63
6:1G:44:GLY:HA2	6:1G:88:ILE:HG22	1.80	0.63
32:1a:142:G:O2'	32:1a:196:A:N1	2.30	0.63
44:1m:80:ARG:HH22	50:1s:69:HIS:HE1	1.47	0.63
1:2A:64:A:H1'	19:2X:66:LEU:HB2	1.80	0.63
1:2A:300:A:OP1	20:2Y:86:ARG:NH2	2.31	0.63
1:2A:1059:G:OP2	1:2A:1060:U:H2'	1.98	0.63
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.25	0.63
32:2a:235:C:H2'	32:2a:236:G:H8	1.64	0.63
36:2e:102:ALA:HB1	36:2e:106:PRO:HG2	1.80	0.63
32:1a:142:G:H2'	32:1a:143:A:C8	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:140:ARG:O	36:1e:143:ARG:NH2	2.31	0.63
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	1.81	0.63
8:2I:77:LEU:HD22	8:2I:101:LEU:HG	1.80	0.63
32:2a:1376:U:H2'	32:2a:1377:A:H8	1.61	0.63
1:1A:639:U:H2'	1:1A:640:C:C6	2.32	0.63
1:1A:1175:U:O3'	1:1A:1176:G:H4'	1.98	0.63
1:1A:1889:A:H2'	1:1A:1890:A:C8	2.34	0.63
1:1A:2336:A:H61	22:10:43:THR:HG22	1.63	0.63
19:1X:1:MET:HE1	24:12:26:ARG:HH21	1.64	0.63
1:2A:2562:U:H1'	10:2O:23:ARG:HD3	1.81	0.63
5:2F:116:ASP:OD2	11:2P:1:MET:N	2.32	0.63
8:2I:41:GLU:HA	8:2I:44:LEU:HD12	1.81	0.63
1:1A:491:G:N3	63:1A:4375:HOH:O	2.29	0.63
1:1A:993:G:OP1	16:1U:50:ARG:NH2	2.32	0.63
40:1i:18:PHE:HD2	40:1i:62:TYR:HD2	1.45	0.63
1:2A:1385:G:O2'	1:2A:1396:U:O2	2.16	0.63
3:2D:127:VAL:HA	3:2D:193:VAL:HG22	1.81	0.63
8:2I:98:ALA:O	8:2I:100:ALA:N	2.31	0.63
10:2O:77:ILE:HB	15:2T:74:ARG:HD3	1.81	0.63
26:24:58:ARG:NH2	50:2s:68:GLY:H	1.97	0.63
1:1A:2751:G:H4'	7:1H:4:ILE:HD11	1.80	0.63
1:2A:2227:A:OP2	63:2A:3895:HOH:O	2.16	0.63
20:1Y:35:TYR:CE2	20:1Y:69:ALA:HB3	2.34	0.63
20:1Y:92:ASN:N	20:1Y:93:GLY:HA2	2.13	0.63
32:1a:177:C:OP1	51:1t:65:LYS:NZ	2.28	0.63
32:1a:406:G:N2	35:1d:119:GLN:OE1	2.23	0.63
40:1i:66:ARG:HB2	40:1i:66:ARG:NH2	2.13	0.63
44:1m:13:LYS:C	44:1m:44:ARG:HD2	2.23	0.63
1:2A:1876:A:H2'	1:2A:1877:A:C8	2.33	0.63
8:2I:72:LEU:HD21	8:2I:107:VAL:HG11	1.81	0.63
1:1A:288:C:H2'	1:1A:289:A:H8	1.63	0.62
1:1A:2190:G:H2'	1:1A:2191:G:O4'	1.99	0.62
34:1c:17:ASP:OD1	34:1c:18:TRP:N	2.31	0.62
37:1f:44:GLY:HA2	37:1f:59:TYR:CZ	2.34	0.62
48:1q:66:SER:OG	48:1q:67:LYS:N	2.31	0.62
32:2a:1151:A:O2'	32:2a:1152:A:H8	1.82	0.62
8:1I:40:THR:O	8:1I:44:LEU:HB2	1.98	0.62
48:1q:18:THR:HG23	48:1q:69:LYS:HE3	1.79	0.62
51:1t:57:ARG:HH22	51:1t:100:ILE:HD12	1.63	0.62
1:2A:607:U:OP1	5:2F:102:PRO:HA	2.00	0.62
1:2A:674:G:OP2	63:2A:3891:HOH:O	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:55:PRO:HG2	7:2H:61:HIS:CE1	2.35	0.62
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	1.82	0.62
14:2S:41:ASP:OD2	14:2S:44:LYS:NZ	2.32	0.62
22:20:37:LEU:HG	22:20:60:PHE:HA	1.79	0.62
33:2b:80:ILE:HD13	33:2b:211:ILE:HG22	1.81	0.62
42:2k:29:ILE:HA	42:2k:44:SER:HB3	1.81	0.62
48:2q:9:VAL:HG13	48:2q:56:VAL:HG22	1.81	0.62
1:1A:581:C:H2'	1:1A:582:G:H8	1.63	0.62
1:1A:1359:A:N6	1:1A:1372:U:H3	1.97	0.62
3:1D:166:GLN:HB2	3:1D:174:ILE:HG22	1.81	0.62
7:1H:11:VAL:HG21	7:1H:50:VAL:HG23	1.81	0.62
28:16:2:ALA:N	63:16:602:HOH:O	2.31	0.62
32:1a:626:U:H2'	32:1a:627:G:C8	2.34	0.62
13:2R:97:VAL:HG22	13:2R:114:VAL:HG13	1.81	0.62
32:2a:625:G:H4'	47:2p:16:HIS:CD2	2.33	0.62
32:2a:1301:U:O2'	32:2a:1302:U:H5'	2.00	0.62
47:2p:5:ARG:HH21	47:2p:28:ARG:HA	1.64	0.62
1:1A:1013:C:OP2	63:1A:4211:HOH:O	2.16	0.62
32:1a:165:C:H2'	32:1a:166:G:H8	1.64	0.62
33:1b:50:GLU:O	33:1b:54:THR:N	2.32	0.62
1:2A:814:C:H2'	1:2A:815:C:H6	1.64	0.62
1:2A:1119:C:N4	63:2A:3938:HOH:O	2.23	0.62
1:2A:1654:A:OP2	13:2R:1:MET:N	2.27	0.62
1:2A:2223:G:OP1	3:2D:172:TYR:OH	2.16	0.62
8:2I:75:LEU:HD11	8:2I:105:HIS:CG	2.34	0.62
21:2Z:30:ASN:ND2	21:2Z:90:VAL:HB	2.13	0.62
32:2a:1490:C:H2'	32:2a:1491:G:H8	1.63	0.62
1:1A:2334:G:H5'	14:1S:9:ARG:HG2	1.82	0.62
3:1D:108:PRO:HD2	3:1D:111:LEU:HG	1.81	0.62
38:1g:80:VAL:HB	38:1g:85:TYR:CE2	2.35	0.62
48:1q:20:THR:HG23	48:1q:43:LEU:HD23	1.82	0.62
8:2I:14:ASP:OD1	8:2I:15:VAL:N	2.31	0.62
32:2a:23:C:OP2	32:2a:561:U:N3	2.24	0.62
41:2j:36:GLY:O	41:2j:38:ILE:HG22	1.98	0.62
50:2s:20:LEU:HA	50:2s:23:ASN:HB2	1.81	0.62
1:1A:1540:U:O4	63:1A:4189:HOH:O	2.13	0.62
3:1D:148:GLU:HB2	3:1D:151:LYS:HD2	1.81	0.62
17:1V:40:LEU:HB2	17:1V:46:VAL:HG13	1.81	0.62
18:1W:18:ARG:NH1	18:1W:76:VAL:O	2.32	0.62
42:1k:99:GLN:HG2	42:1k:105:VAL:HG21	1.81	0.62
1:2A:1429:G:H2'	1:2A:1430:C:C6	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:2Y:83:THR:HG21	20:2Y:99:CYS:HB2	1.81	0.62
1:1A:1007:C:OP1	9:1N:37:LYS:NZ	2.32	0.62
1:1A:1290:C:OP2	63:1A:4215:HOH:O	2.16	0.62
1:1A:2115:G:H2'	1:1A:2117:A:N6	2.14	0.62
1:1A:2406:U:H2'	1:1A:2406:U:OP2	1.99	0.62
10:1O:24:VAL:HG13	10:1O:33:ALA:HB2	1.80	0.62
46:1o:33:THR:HG21	46:1o:85:LEU:HD22	1.80	0.62
1:2A:2533:A:OP1	1:2A:2665:A:O2'	2.12	0.62
19:2X:50:LYS:HB3	19:2X:84:ALA:HB2	1.82	0.62
31:29:27:CYS:SG	31:29:28:GLU:N	2.70	0.62
32:2a:189:G:C2	32:2a:189(L):G:C2	2.88	0.62
32:2a:674:G:OP1	37:2f:87:ARG:NH2	2.33	0.62
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.34	0.62
37:1f:89:MET:HE2	37:1f:91:VAL:HG22	1.82	0.62
1:2A:11:G:H2'	1:2A:12:U:H5'	1.81	0.62
29:27:5:TRP:CD1	29:27:7:PRO:HD3	2.34	0.62
1:1A:335:C:H4'	20:1Y:73:ARG:HD2	1.81	0.62
1:1A:2096:U:H3	1:1A:2193:G:H1	1.48	0.62
32:1a:35:G:H21	43:1l:118:SER:HB2	1.65	0.62
32:1a:324:G:N7	63:1a:3358:HOH:O	2.31	0.62
32:1a:1003:G:C2	32:1a:1004:A:H1'	2.34	0.62
51:1t:50:GLU:HG3	51:1t:100:ILE:HD11	1.82	0.62
34:2c:122:GLU:HA	34:2c:125:GLU:HG3	1.81	0.62
1:1A:1721:G:H8	1:1A:1741:A:H62	1.48	0.62
1:2A:848:G:H2'	1:2A:849:A:C8	2.34	0.62
1:2A:1420:U:O2'	1:2A:1421:G:OP1	2.16	0.62
32:2a:1063:C:H2'	32:2a:1064:G:C8	2.35	0.62
32:2a:1247:U:H1'	32:2a:1291:G:N2	2.15	0.62
34:2c:71:ALA:HB1	34:2c:109:PRO:HG3	1.82	0.62
1:1A:198:C:OP2	63:1A:4214:HOH:O	2.16	0.61
1:1A:581:C:H2'	1:1A:582:G:C8	2.34	0.61
1:1A:1071:G:H4'	1:1A:1088:A:O2'	2.00	0.61
32:1a:1492:A:H4'	32:1a:1493:A:C5	2.33	0.61
36:1e:11:ILE:HG13	36:1e:31:LEU:HB3	1.82	0.61
1:2A:2689:U:H4'	1:2A:2690:C:H5'	1.81	0.61
11:2P:36:LYS:O	63:2P:301:HOH:O	2.16	0.61
32:2a:1054:C:H5	53:2y:46:GLN:HE22	1.48	0.61
35:2d:114:ARG:HA	35:2d:117:ALA:HB3	1.82	0.61
40:2i:70:LYS:O	40:2i:74:ILE:HG13	2.00	0.61
41:2j:12:ASP:O	41:2j:15:THR:OG1	2.16	0.61
63:1A:5304:HOH:O	4:1E:144:ARG:HD3	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:977:A:H1'	32:1a:982:U:O4	2.00	0.61
1:2A:668:G:H5'	1:2A:669:G:OP2	2.01	0.61
2:2B:43:C:OP1	26:24:6:HIS:NE2	2.33	0.61
14:2S:3:ARG:HD2	14:2S:4:LEU:H	1.66	0.61
7:1H:101:ARG:NH2	7:1H:121:ILE:O	2.33	0.61
32:1a:186:C:H2'	32:1a:187:C:C6	2.35	0.61
32:1a:1054:C:H41	53:1y:46:GLN:HE21	1.47	0.61
40:1i:4:TYR:O	40:1i:19:LEU:N	2.32	0.61
1:2A:18:C:OP2	63:2A:3893:HOH:O	2.15	0.61
1:2A:2418:A:OP2	63:2A:3894:HOH:O	2.15	0.61
20:2Y:107:ASP:OD2	63:2Y:302:HOH:O	2.16	0.61
26:24:61:ARG:HE	50:2s:42:PRO:HD3	1.65	0.61
32:2a:975:A:N1	41:2j:48:THR:HB	2.15	0.61
32:2a:994:A:N7	32:2a:1216:G:H4'	2.15	0.61
37:2f:35:ALA:HA	37:2f:67:MET:HB3	1.82	0.61
43:2l:26:ALA:HB1	43:2l:60:LEU:HD22	1.80	0.61
1:1A:1066:U:O4	1:1A:1069:A:H8	1.83	0.61
26:14:61:ARG:HG3	26:14:62:ARG:H	1.65	0.61
32:1a:141:A:H1'	32:1a:182:U:O2	2.00	0.61
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.36	0.61
1:2A:771:G:OP1	29:27:14:LYS:HE2	2.00	0.61
32:2a:1133:G:H2'	32:2a:1134:G:C8	2.35	0.61
11:1P:86:LYS:HB3	11:1P:118:GLY:HA3	1.83	0.61
32:1a:572:A:OP2	63:1a:3317:HOH:O	2.16	0.61
34:1c:6:HIS:CD2	34:1c:9:GLY:H	2.18	0.61
40:1i:4:TYR:HB2	40:1i:19:LEU:HB2	1.81	0.61
1:2A:315:G:H2'	1:2A:316:C:C6	2.35	0.61
1:2A:2758:A:C2	1:2A:2759:G:H1'	2.36	0.61
4:2E:48:GLN:NE2	4:2E:78:LEU:HD13	2.16	0.61
19:2X:44:GLU:O	19:2X:48:LYS:N	2.32	0.61
26:24:59:PHE:HB2	26:24:62:ARG:HH21	1.65	0.61
1:1A:2067:G:N7	63:1A:4401:HOH:O	2.31	0.61
18:1W:57:ASN:HA	18:1W:61:ASN:ND2	2.15	0.61
32:1a:714:G:H2'	32:1a:715:A:C8	2.36	0.61
39:1h:91:ARG:HE	48:1q:33:GLY:HA3	1.65	0.61
46:1o:9:GLN:HG3	46:1o:12:ILE:HD12	1.81	0.61
1:2A:997:G:N2	1:2A:1158:C:O2	2.19	0.61
2:2B:12:C:H2'	22:20:73:GLY:HA3	1.83	0.61
19:2X:32:PRO:HA	19:2X:77:LYS:HD2	1.81	0.61
20:2Y:92:ASN:ND2	20:2Y:94:LYS:HB2	2.16	0.61
32:2a:573:A:OP2	63:2a:3205:HOH:O	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:20:SER:HB2	34:2c:40:ARG:HH21	1.66	0.61
35:2d:175:SER:OG	35:2d:176:LEU:N	2.31	0.61
1:1A:1974:C:OP1	63:1A:4218:HOH:O	2.16	0.61
11:1P:77:ARG:NH1	63:1P:306:HOH:O	2.32	0.61
12:1Q:79:LEU:O	22:10:5:LYS:NZ	2.23	0.61
17:1V:14:VAL:HA	17:1V:18:LEU:HD23	1.82	0.61
19:1X:13:LEU:HD11	24:12:41:ILE:HG22	1.83	0.61
32:1a:1003:G:N2	32:1a:1004:A:H1'	2.16	0.61
1:2A:537:C:OP1	1:2A:995:C:N4	2.33	0.61
1:2A:2467:C:H4'	12:2Q:123:HIS:CD2	2.36	0.61
3:2D:47:GLY:O	63:2D:403:HOH:O	2.16	0.61
32:2a:988:G:N2	32:2a:1016:A:N3	2.48	0.61
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.35	0.61
33:2b:197:VAL:HG12	33:2b:200:ILE:HG13	1.81	0.61
36:2e:79:GLU:HG3	36:2e:93:PRO:HD2	1.83	0.61
44:2m:13:LYS:HB2	44:2m:18:ALA:HB2	1.82	0.61
1:1A:2242:G:N3	63:1A:4403:HOH:O	2.31	0.61
1:1A:2712:U:OP1	1:1A:2714:G:H4'	2.01	0.61
47:1p:29:ASP:OD1	47:1p:29:ASP:N	2.33	0.61
1:2A:578:A:OP1	1:2A:1255:U:O2'	2.10	0.61
1:2A:770:G:O6	63:2A:3885:HOH:O	2.14	0.61
1:2A:1012:U:H5	9:2N:28:THR:HG21	1.65	0.61
1:2A:1138:G:N3	9:2N:106:MET:HE2	2.15	0.61
1:2A:1823:G:N2	63:2A:4015:HOH:O	2.32	0.61
1:2A:2870:C:H2'	1:2A:2871:C:O4'	2.01	0.61
7:2H:11:VAL:HG21	7:2H:50:VAL:HG23	1.82	0.61
17:2V:25:LEU:H	17:2V:92:THR:HG1	1.46	0.61
23:21:51:VAL:N	23:21:58:ILE:O	2.34	0.61
33:2b:77:ALA:HB2	33:2b:211:ILE:HD13	1.82	0.61
51:2t:10:LEU:H	51:2t:10:LEU:HD22	1.65	0.61
1:1A:197:A:OP1	63:1A:4214:HOH:O	2.16	0.61
1:1A:1203:G:OP2	1:1A:1204:A:O2'	2.08	0.61
17:1V:32:THR:HG22	17:1V:60:GLU:HG3	1.82	0.61
21:1Z:128:VAL:HG22	21:1Z:132:ASN:HB3	1.81	0.61
26:14:57:GLU:HB3	26:14:58:ARG:HA	1.82	0.61
27:15:16:ARG:HG3	27:15:17:ASP:N	2.16	0.61
32:1a:227:G:H2'	32:1a:228:A:O4'	2.00	0.61
45:1n:53:LEU:HD13	45:1n:56:VAL:HG21	1.83	0.61
1:2A:662:G:H5"	11:2P:16:ARG:HG3	1.83	0.61
10:2O:16:ALA:HB2	10:2O:52:VAL:HG21	1.83	0.61
32:2a:1143:G:H2'	32:2a:1144:G:C8	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:162:GLN:NE2	34:2c:163:ALA:O	2.30	0.61
40:2i:32:ASP:HB3	40:2i:35:GLU:HB3	1.82	0.61
53:2y:8:LYS:HB2	53:2y:42:SER:HA	1.81	0.61
1:1A:1039:G:N1	1:1A:1116:C:N3	2.40	0.61
6:1G:37:VAL:HA	6:1G:158:ALA:O	2.01	0.61
31:19:25:VAL:HB	31:19:34:GLN:HB2	1.83	0.61
32:1a:1054:C:H41	53:1y:46:GLN:NE2	1.98	0.61
35:1d:101:LEU:HB2	35:1d:138:TYR:HB3	1.82	0.61
1:2A:1105:U:H2'	1:2A:1106:G:O4'	2.01	0.61
20:2Y:102:CYS:SG	20:2Y:103:GLY:N	2.61	0.61
21:2Z:157:LEU:HD11	21:2Z:163:LEU:HB2	1.82	0.61
38:2g:37:ASN:OD1	40:2i:41:VAL:N	2.32	0.61
42:2k:117:ASN:N	42:2k:117:ASN:OD1	2.33	0.61
1:1A:1653:G:H3'	13:1R:2:ARG:HD3	1.83	0.60
9:1N:10:GLU:OE1	9:1N:11:PRO:HD2	2.01	0.60
16:1U:78:THR:HG23	16:1U:117:GLN:HE22	1.65	0.60
32:1a:189(A):C:H42	32:1a:189(J):G:H1	1.47	0.60
52:1u:13:ILE:HG13	52:1u:22:ARG:HD2	1.81	0.60
1:2A:751:A:H5'	18:2W:90:ARG:HA	1.83	0.60
21:2Z:128:VAL:HG22	21:2Z:132:ASN:HB3	1.83	0.60
32:2a:90:U:H2'	32:2a:91:C:C6	2.36	0.60
36:2e:71:LEU:HD23	36:2e:74:GLY:HA2	1.83	0.60
5:1F:101:LEU:HD12	5:1F:102:PRO:HD2	1.83	0.60
35:1d:162:LEU:HD13	35:1d:181:MET:HG2	1.83	0.60
1:2A:1354:A:H4'	3:2D:38:LYS:NZ	2.16	0.60
1:2A:1489:U:O4	63:2A:3888:HOH:O	2.15	0.60
33:2b:16:HIS:O	33:2b:18:GLY:N	2.34	0.60
1:1A:802:A:OP1	63:1A:4212:HOH:O	2.16	0.60
12:1Q:111:GLU:OE2	12:1Q:133:ARG:NH2	2.34	0.60
1:2A:2291:U:OP1	1:2A:2380:C:O2'	2.19	0.60
6:2G:57:ALA:HB2	6:2G:90:LEU:HD13	1.83	0.60
14:2S:27:SER:HA	14:2S:88:ASP:HB3	1.83	0.60
1:1A:747:U:O2'	18:1W:92:ARG:NH2	2.35	0.60
1:1A:897:C:H2'	1:1A:898:C:C6	2.36	0.60
36:1e:72:GLN:O	36:1e:74:GLY:N	2.34	0.60
46:1o:17:ARG:HH11	46:1o:17:ARG:HG3	1.65	0.60
1:2A:404:C:OP1	63:2A:3900:HOH:O	2.16	0.60
1:2A:1598:C:H2'	1:2A:1599:C:C6	2.37	0.60
7:2H:143:GLN:NE2	7:2H:143:GLN:O	2.34	0.60
10:2O:36:GLY:HA3	10:2O:109:LYS:HD2	1.84	0.60
47:2p:19:ILE:HG22	47:2p:36:ILE:HG13	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:2y:87:LYS:O	53:2y:91:LYS:HB2	2.00	0.60
32:1a:1230:C:OP2	63:1a:3318:HOH:O	2.16	0.60
32:1a:1421:G:H5'	63:1a:3446:HOH:O	2.00	0.60
34:1c:19:GLU:HG3	45:1n:52:GLN:HG2	1.83	0.60
1:2A:1062:G:N1	1:2A:1070:A:O2'	2.33	0.60
1:2A:1587:A:H2'	1:2A:1588:C:C6	2.37	0.60
33:2b:71:VAL:HG23	33:2b:164:VAL:HA	1.83	0.60
38:2g:12:LEU:HD22	38:2g:24:THR:HG22	1.83	0.60
23:11:3:LYS:O	23:11:12:PRO:HD3	2.02	0.60
33:1b:109:SER:HA	33:1b:112:VAL:HG13	1.83	0.60
40:1i:16:ARG:HB2	40:1i:64:THR:HG22	1.83	0.60
1:2A:1611:C:OP1	63:2A:3899:HOH:O	2.16	0.60
1:2A:2022:U:OP1	63:2A:3844:HOH:O	2.16	0.60
17:2V:72:VAL:HG13	17:2V:85:LYS:HB3	1.83	0.60
32:2a:28:G:O2'	32:2a:296:U:OP1	2.16	0.60
32:2a:1035:A:HO2'	32:2a:1036:G:H8	1.47	0.60
32:2a:1104:G:H4'	33:2b:111:ARG:NH1	2.17	0.60
32:2a:1286:A:C8	32:2a:1287:A:H4'	2.35	0.60
1:1A:878:A:H2'	1:1A:879:G:H5'	1.84	0.60
1:1A:1509(A):A:H2'	1:1A:1509(B):A:O4'	2.01	0.60
6:1G:11:TYR:CZ	6:1G:16:ARG:HD2	2.36	0.60
10:1O:115:VAL:HG13	10:1O:121:VAL:HG21	1.83	0.60
36:1e:100:VAL:O	36:1e:107:ARG:NH2	2.29	0.60
39:1h:86:ILE:HG12	39:1h:135:CYS:HA	1.84	0.60
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.37	0.60
1:2A:2175:C:H2'	1:2A:2176:A:H8	1.66	0.60
1:2A:2180:U:H2'	1:2A:2181:G:C8	2.36	0.60
1:2A:2722:G:OP2	63:2A:3901:HOH:O	2.16	0.60
4:2E:163:GLU:OE2	63:2E:402:HOH:O	2.17	0.60
32:2a:72:C:O2	32:2a:98:G:N2	2.34	0.60
32:2a:270:A:H2'	32:2a:271:C:C6	2.37	0.60
32:2a:959:A:O2'	32:2a:984:C:O2'	2.16	0.60
38:2g:113:GLU:HB2	38:2g:115:ARG:HH12	1.66	0.60
39:2h:95:VAL:HB	39:2h:99:GLU:HG3	1.84	0.60
42:2k:115:PRO:C	42:2k:117:ASN:HA	2.26	0.60
1:1A:1174:A:H4'	1:1A:1177:A:H61	1.65	0.60
1:1A:1518:U:H2'	1:1A:1519:G:O4'	2.01	0.60
6:2G:77:ILE:HG21	6:2G:80:PHE:CD2	2.36	0.60
7:2H:19:VAL:HG22	7:2H:24:VAL:HG12	1.82	0.60
10:2O:88:ASN:HD21	10:2O:90:GLN:HB2	1.67	0.60
32:2a:222:U:H2'	32:2a:223:U:C6	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:2n:15:LYS:C	45:2n:16:PHE:CG	2.80	0.60
50:2s:41:VAL:HG22	50:2s:42:PRO:HD2	1.83	0.60
6:1G:83:ARG:H	6:1G:86:MET:HE3	1.65	0.60
32:1a:986:A:H1'	50:1s:54:GLY:O	2.02	0.60
46:1o:54:ARG:HG2	46:1o:58:MET:HE2	1.83	0.60
49:1r:86:VAL:HG12	49:1r:87:ARG:H	1.67	0.60
1:2A:776:G:N7	1:2A:793:A:O2'	2.35	0.60
32:2a:187:C:H2'	32:2a:188:C:H6	1.67	0.60
32:2a:1159:U:O4'	32:2a:1182:G:N2	2.34	0.60
32:2a:1186:G:N2	45:2n:61:TRP:O	2.26	0.60
32:2a:1465:C:H2'	32:2a:1466:C:O4'	2.02	0.60
39:2h:51:VAL:HG21	39:2h:60:ARG:HD2	1.82	0.60
1:1A:226:G:N2	1:1A:228:A:H62	2.00	0.60
1:1A:2552:OMU:H2'	1:1A:2554:U:OP2	2.02	0.60
2:1B:66:A:N6	2:1B:108:U:H2'	2.16	0.60
18:1W:37:ARG:HD3	18:1W:38:TYR:CE2	2.37	0.60
41:1j:5:ARG:NE	41:1j:73:ASP:OD1	2.24	0.60
1:2A:783:A:H2'	1:2A:783:A:N3	2.15	0.60
36:2e:78:HIS:CE1	36:2e:142:LEU:HD23	2.37	0.60
1:1A:1187:G:H5"	17:1V:81:TYR:CE1	2.37	0.59
7:1H:22:GLY:O	7:1H:37:VAL:N	2.34	0.59
32:1a:1029:C:N4	32:1a:1030:C:H41	1.98	0.59
1:2A:601:C:O2'	5:2F:104:LYS:NZ	2.34	0.59
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.34	0.59
1:2A:1833:U:O2'	1:2A:1969:A:N1	2.28	0.59
4:2E:173:VAL:N	4:2E:183:LEU:O	2.34	0.59
23:21:18:ILE:HG12	23:21:37:ILE:HG12	1.84	0.59
1:1A:1797:C:O2	63:1A:4198:HOH:O	2.14	0.59
1:1A:2042:A:OP1	63:1A:4216:HOH:O	2.16	0.59
32:1a:414:A:H2'	32:1a:415:A:C8	2.37	0.59
33:1b:19:HIS:NE2	33:1b:206:ASP:OD2	2.31	0.59
33:1b:185:ILE:HG22	33:1b:199:TYR:HD2	1.66	0.59
36:1e:140:ARG:HB2	36:1e:140:ARG:HH11	1.67	0.59
1:2A:468:G:N7	29:27:39:ARG:NH2	2.50	0.59
1:2A:1076:C:H4'	1:2A:1077:A:OP1	2.01	0.59
1:2A:2803:C:H2'	1:2A:2804:C:C6	2.37	0.59
19:2X:43:VAL:HG21	19:2X:81:VAL:HG11	1.83	0.59
32:2a:9:G:H2'	32:2a:10:A:C8	2.38	0.59
32:2a:601:C:H2'	32:2a:602:A:C8	2.37	0.59
32:2a:1310:G:H5'	44:2m:77:ASN:ND2	2.17	0.59
34:2c:184:TYR:HA	34:2c:200:ALA:O	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1045:A:H1'	1:1A:1047:G:C2	2.37	0.59
19:1X:50:LYS:N	19:1X:87:GLN:OE1	2.31	0.59
32:1a:104:G:C2	32:1a:105:G:C8	2.90	0.59
32:1a:457:C:H2'	32:1a:458:C:C6	2.37	0.59
33:1b:84:GLU:HA	33:1b:87:ARG:HD3	1.85	0.59
1:2A:2092:U:OP1	63:2A:3904:HOH:O	2.17	0.59
3:2D:143:HIS:CE1	3:2D:192:THR:HB	2.37	0.59
7:2H:148:ILE:HA	7:2H:151:ILE:HD12	1.84	0.59
32:2a:1373:G:OP2	40:2i:42:ARG:NH2	2.35	0.59
1:1A:1093:G:N2	1:1A:1098:A:C8	2.71	0.59
1:1A:2791:C:H2'	1:1A:2792:G:H8	1.68	0.59
6:1G:46:ALA:HA	6:1G:49:ASP:HB2	1.83	0.59
24:12:23:LYS:O	24:12:27:GLU:HG3	2.03	0.59
33:1b:174:VAL:HG22	33:1b:184:VAL:HG11	1.84	0.59
47:1p:4:ILE:HG22	47:1p:19:ILE:HD11	1.85	0.59
1:2A:9:U:O4	1:2A:2629:A:H2	1.85	0.59
1:2A:300:A:P	20:2Y:86:ARG:HH21	2.26	0.59
1:2A:825:C:O2	11:2P:55:ARG:NH1	2.35	0.59
1:2A:1093:G:C6	1:2A:1094:U:N3	2.70	0.59
7:2H:80:SER:OG	7:2H:81:GLU:OE1	2.21	0.59
33:2b:93:VAL:HG11	33:2b:101:MET:HE1	1.84	0.59
47:2p:23:ASP:OD1	47:2p:25:ARG:HG2	2.02	0.59
1:1A:1101:U:H2'	1:1A:1102:C:H6	1.67	0.59
1:1A:2721:A:OP2	63:1A:4222:HOH:O	2.17	0.59
32:1a:1256:A:H5'	32:1a:1258:G:H1'	1.83	0.59
1:2A:2134:A:N7	1:2A:2157:G:H5'	2.18	0.59
32:2a:1161:C:H2'	32:2a:1162:C:C6	2.37	0.59
33:2b:204:ASN:HD21	33:2b:207:ALA:H	1.50	0.59
1:1A:1628:G:H2'	1:1A:1629:U:C6	2.37	0.59
4:1E:13:ARG:NH1	63:1E:402:HOH:O	2.03	0.59
32:1a:1240:U:OP2	38:1g:116:ALA:N	2.36	0.59
52:1u:15:ARG:HB3	52:1u:17:THR:HG23	1.83	0.59
21:2Z:39:VAL:HG21	21:2Z:44:PHE:HD1	1.67	0.59
21:2Z:152:ALA:HB1	21:2Z:163:LEU:HD11	1.84	0.59
32:2a:371:G:O2'	32:2a:373:A:N7	2.35	0.59
38:2g:45:ASP:O	38:2g:49:ILE:HG13	2.03	0.59
41:2j:10:GLY:H	41:2j:16:LEU:HD11	1.67	0.59
1:1A:222:A:H3'	1:1A:421:U:H5'	1.85	0.59
23:11:52:ARG:NH2	23:11:55:GLY:O	2.36	0.59
1:2A:1721:G:N1	1:2A:1739:U:OP2	2.35	0.59
1:2A:2314:C:H2'	1:2A:2315:G:H8	1.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2519:U:OP2	63:2A:3890:HOH:O	2.15	0.59
11:2P:2:LYS:HG3	11:2P:4:SER:OG	2.01	0.59
14:2S:14:VAL:O	14:2S:18:ILE:HG12	2.03	0.59
40:2i:26:VAL:HA	40:2i:61:ALA:O	2.02	0.59
42:2k:22:HIS:O	42:2k:28:THR:HA	2.03	0.59
1:1A:804:A:OP2	63:1A:4221:HOH:O	2.17	0.59
1:1A:1131:G:H21	9:1N:73:THR:HG21	1.67	0.59
1:1A:1932:A:H2'	1:1A:1933:G:O4'	2.02	0.59
6:1G:114:ILE:HG12	6:1G:140:ILE:HD13	1.84	0.59
13:1R:31:HIS:O	13:1R:33:ARG:N	2.35	0.59
30:18:14:VAL:HG11	30:18:58:ILE:HG21	1.85	0.59
32:2a:1226:C:N4	44:2m:104:ARG:HD2	2.18	0.59
33:2b:192:SER:O	33:2b:194:PRO:HD3	2.03	0.59
1:1A:1101:U:H2'	1:1A:1102:C:C6	2.38	0.59
1:1A:1309:G:OP1	29:17:9:ARG:HG3	2.02	0.59
32:1a:524:G:H2'	32:1a:525:C:C6	2.37	0.59
35:1d:108:LEU:HD12	35:1d:174:LEU:HD13	1.84	0.59
37:1f:8:ILE:HB	37:1f:61:LEU:HB2	1.84	0.59
1:2A:656:G:H2'	1:2A:657:U:O4'	2.01	0.59
1:2A:729:G:C6	3:2D:208:LYS:HB2	2.38	0.59
1:2A:1665:A:OP2	63:2A:3903:HOH:O	2.17	0.59
22:20:47:PRO:HG3	22:20:53:MET:HE2	1.85	0.59
32:2a:512:U:H2'	32:2a:513:C:C6	2.38	0.59
32:2a:1250:A:H4'	40:2i:68:GLY:H	1.68	0.59
32:2a:1292:U:OP2	38:2g:41:ARG:NH2	2.36	0.59
37:2f:67:MET:HE1	37:2f:75:LEU:HD13	1.84	0.59
48:2q:19:VAL:HG23	48:2q:44:ALA:HB3	1.84	0.59
1:1A:2577:A:H5'	27:15:3:LYS:HD2	1.85	0.59
9:1N:94:HIS:HB3	9:1N:97:ARG:HD3	1.85	0.59
13:1R:53:HIS:ND1	13:1R:94:TYR:OH	2.30	0.59
43:1l:57:LYS:HG3	43:1l:67:THR:HG22	1.84	0.59
1:2A:2499:C:OP1	63:2A:3902:HOH:O	2.17	0.59
7:2H:12:PRO:O	7:2H:15:VAL:HG22	2.03	0.59
11:2P:114:ILE:HG13	11:2P:125:VAL:HG11	1.85	0.59
32:2a:1005:A:O2'	32:2a:1036:G:N2	2.35	0.59
35:2d:15:GLU:OE1	35:2d:63:LYS:HG3	2.03	0.59
40:2i:23:ASN:N	40:2i:23:ASN:OD1	2.36	0.59
1:1A:859:G:O2'	1:1A:916:G:O6	2.17	0.58
1:1A:1882:C:H2'	1:1A:1883:G:O4'	2.02	0.58
6:1G:50:ALA:O	6:1G:52:ILE:N	2.27	0.58
32:1a:414:A:H2'	32:1a:415:A:H8	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.17	0.58
1:2A:1252:G:N3	16:2U:33:ARG:HG2	2.18	0.58
5:2F:124:LEU:HB3	5:2F:193:VAL:HG22	1.85	0.58
6:2G:105:LYS:NZ	6:2G:143:GLU:OE2	2.29	0.58
13:2R:33:ARG:NH1	13:2R:115:GLU:OE1	2.36	0.58
32:2a:662:G:H2'	32:2a:663:A:H8	1.68	0.58
32:2a:1054:C:H5	53:2y:46:GLN:NE2	2.01	0.58
44:2m:23:TYR:CE2	44:2m:71:ARG:HG3	2.38	0.58
1:1A:749:C:OP2	63:1A:4225:HOH:O	2.17	0.58
1:1A:2147:G:H2'	1:1A:2148:G:C4'	2.32	0.58
7:1H:28:GLY:HA3	7:1H:79:VAL:HB	1.85	0.58
32:1a:189(K):U:H2'	32:1a:189(L):G:H8	1.68	0.58
32:1a:593:G:H2'	32:1a:594:G:O4'	2.03	0.58
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.38	0.58
50:1s:80:TYR:CZ	50:1s:82:GLY:HA2	2.38	0.58
1:2A:30:G:O6	63:2A:3896:HOH:O	2.16	0.58
1:2A:2821:A:H2'	1:2A:2822:G:C8	2.38	0.58
10:2O:88:ASN:C	10:2O:90:GLN:H	2.11	0.58
1:1A:1784:A:OP2	63:1A:4223:HOH:O	2.17	0.58
1:1A:2572:A:N7	4:1E:144:ARG:HD2	2.18	0.58
37:1f:5:GLU:HG3	37:1f:93:SER:OG	2.03	0.58
53:1y:30:TRP:CH2	53:1y:82:GLU:HG2	2.38	0.58
1:2A:2427:C:H5"	1:2A:2428:G:OP1	2.03	0.58
18:2W:29:LEU:HD13	18:2W:51:LEU:HD11	1.85	0.58
20:2Y:36:ALA:HB1	20:2Y:67:LEU:N	2.18	0.58
21:2Z:152:ALA:O	21:2Z:155:LEU:HB2	2.03	0.58
32:2a:1286:A:H8	32:2a:1287:A:H4'	1.68	0.58
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.18	0.58
33:2b:164:VAL:HG23	33:2b:185:ILE:O	2.03	0.58
5:1F:157:VAL:HB	5:1F:194:MET:HG2	1.86	0.58
15:1T:39:ARG:NH2	63:1T:303:HOH:O	2.36	0.58
29:17:34:ARG:NH1	29:17:41:ARG:O	2.36	0.58
32:1a:545:C:OP1	35:1d:61:LYS:NZ	2.36	0.58
45:1n:42:ILE:O	45:1n:46:GLU:HG3	2.03	0.58
1:2A:2386:C:H2'	1:2A:2387:U:C6	2.38	0.58
1:2A:2659:G:P	7:2H:158:HIS:HE2	2.27	0.58
35:2d:8:VAL:HG23	35:2d:11:LEU:HD12	1.84	0.58
1:1A:1235:G:O6	63:1A:4190:HOH:O	2.13	0.58
22:10:23:VAL:HG22	22:10:38:VAL:HG22	1.85	0.58
1:2A:720:C:H2'	1:2A:721:C:H6	1.69	0.58
20:2Y:73:ARG:HG2	20:2Y:73:ARG:HH11	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:840:C:H4'	32:2a:841:U:OP2	2.03	0.58
35:2d:111:ALA:HB2	35:2d:120:LEU:HD12	1.84	0.58
1:1A:1025:G:C4	1:1A:1135:C:H1'	2.38	0.58
1:1A:2147:G:H2'	1:1A:2148:G:H4'	1.85	0.58
4:1E:9:VAL:HG13	4:1E:25:VAL:O	2.04	0.58
5:1F:86:GLY:O	63:1F:401:HOH:O	2.17	0.58
10:1O:88:ASN:O	10:1O:90:GLN:N	2.36	0.58
32:1a:201:C:N4	32:1a:216:G:H1	1.95	0.58
32:1a:376:G:O3'	47:1p:5:ARG:NH1	2.28	0.58
32:1a:1373:G:H5"	38:1g:36:LYS:HD2	1.85	0.58
32:1a:1441:G:H5"	32:1a:1442:G:H5'	1.86	0.58
50:1s:18:LYS:HE3	50:1s:31:ILE:HD12	1.85	0.58
5:2F:111:ALA:HB2	5:2F:206:ILE:HG21	1.85	0.58
5:2F:167:ALA:HB1	5:2F:173:VAL:HG11	1.86	0.58
7:2H:57:ASP:N	7:2H:57:ASP:OD1	2.35	0.58
11:2P:39:LYS:HG3	11:2P:45:LEU:HD11	1.85	0.58
32:2a:88:A:H5'	32:2a:89:C:O4'	2.02	0.58
41:2j:63:PHE:HE1	45:2n:58:LYS:HG2	1.69	0.58
44:2m:59:TYR:O	44:2m:63:THR:OG1	2.18	0.58
1:1A:1843:C:H5'	3:1D:253:GLN:NE2	2.17	0.58
11:1P:18:ARG:HD3	63:1P:326:HOH:O	2.03	0.58
16:1U:76:TYR:CE1	16:1U:80:ILE:HD11	2.39	0.58
22:10:38:VAL:HB	22:10:59:LEU:HB2	1.86	0.58
32:1a:824:C:HO2'	39:1h:2:LEU:N	2.01	0.58
38:1g:80:VAL:HB	38:1g:85:TYR:HE2	1.69	0.58
1:2A:912:C:OP1	12:2Q:8:LYS:NZ	2.26	0.58
1:2A:1614:A:C2	18:2W:93:ALA:HB2	2.38	0.58
26:24:59:PHE:HA	26:24:61:ARG:N	2.19	0.58
32:2a:986:A:N3	50:2s:52:TYR:OH	2.31	0.58
33:2b:174:VAL:O	33:2b:178:ARG:HG3	2.03	0.58
1:1A:1178:C:H2'	1:1A:1179:C:C6	2.38	0.58
23:11:47:GLN:HB3	63:11:212:HOH:O	2.04	0.58
32:1a:753:A:O2'	63:1a:3319:HOH:O	2.17	0.58
32:1a:1010:G:N2	32:1a:1020:U:H1'	2.18	0.58
32:1a:1250:A:H2'	32:1a:1251:A:C8	2.39	0.58
1:2A:839:U:H1'	1:2A:1191:G:H1'	1.85	0.58
5:2F:132:VAL:HG21	5:2F:163:VAL:HG22	1.86	0.58
39:2h:109:ILE:HD11	39:2h:111:ILE:HG12	1.86	0.58
1:1A:303:U:O4	63:1A:4187:HOH:O	2.13	0.58
10:1O:35:VAL:HG11	10:1O:103:ALA:HB3	1.85	0.58
22:10:24:LYS:O	22:10:25:ARG:NH1	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:164:U:H2'	32:1a:165:C:C6	2.39	0.58
32:1a:377:G:H5'	47:1p:5:ARG:HH12	1.68	0.58
32:1a:838:G:H5"	32:1a:840:C:H41	1.69	0.58
32:1a:1353:G:C2	32:1a:1370:G:C2	2.92	0.58
35:1d:196:LEU:O	35:1d:198:VAL:N	2.37	0.58
45:1n:47:LEU:HD22	45:1n:52:GLN:HB2	1.86	0.58
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.86	0.58
49:1r:66:LEU:O	49:1r:70:ILE:HG13	2.04	0.58
1:2A:795:C:H2'	1:2A:796:C:H6	1.68	0.58
1:2A:851:U:O2'	25:23:42:ALA:O	2.21	0.58
1:2A:881:G:H1	1:2A:895:U:H3	1.52	0.58
1:2A:2472:G:N1	1:2A:2477:C:OP1	2.33	0.58
20:2Y:82:PRO:O	20:2Y:101:LYS:NZ	2.27	0.58
32:2a:1239:A:C4	32:2a:1298:C:N4	2.72	0.58
39:2h:103:VAL:HG21	39:2h:110:ALA:HB2	1.86	0.58
1:1A:1011:G:OP1	16:1U:77:SER:OG	2.16	0.58
1:1A:1045:A:H1'	1:1A:1047:G:N3	2.19	0.58
1:1A:1482:G:H2'	1:1A:1484:G:C8	2.39	0.58
1:1A:1531:C:H42	1:1A:1538:G:H1	1.51	0.58
1:1A:2130:U:O2'	1:1A:2133:G:O2'	2.22	0.58
1:1A:2365:G:N7	30:18:39:LYS:NZ	2.49	0.58
3:1D:85:ASP:OD2	3:1D:88:ARG:HD2	2.02	0.58
32:1a:1216:G:H5"	45:1n:5:ALA:HB2	1.85	0.58
1:2A:309:G:N3	1:2A:329:G:O2'	2.37	0.58
1:2A:1216:G:OP2	16:2U:12:ARG:NH2	2.34	0.58
1:2A:2498:C:OP2	63:2A:3905:HOH:O	2.17	0.58
8:2I:110:ASP:N	8:2I:130:TYR:OH	2.37	0.58
12:2Q:64:ILE:HD12	21:2Z:178:GLU:HG3	1.86	0.58
17:2V:52:VAL:HG21	17:2V:55:ALA:HB3	1.86	0.58
32:2a:984:C:H2'	32:2a:985:C:C6	2.38	0.58
37:2f:50:TYR:CE2	49:2r:77:GLY:HA2	2.38	0.58
44:2m:91:ARG:NE	44:2m:97:PRO:O	2.36	0.58
1:1A:2126:A:H4'	1:1A:2127:G:O5'	2.03	0.57
13:1R:56:LYS:NZ	13:1R:87:TYR:O	2.35	0.57
32:1a:67:C:H2'	32:1a:68:G:C8	2.38	0.57
35:1d:128:VAL:HG12	35:1d:129:ASN:HD22	1.68	0.57
1:2A:1842:G:O2'	3:2D:253:GLN:NE2	2.28	0.57
5:2F:31:HIS:NE2	5:2F:35:GLU:OE2	2.34	0.57
10:2O:98:VAL:HG22	10:2O:117:LEU:HB2	1.84	0.57
21:2Z:130:PRO:C	21:2Z:132:ASN:H	2.12	0.57
32:2a:978:A:O2'	32:2a:1322:C:N3	2.36	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:19:HIS:HB2	33:2b:204:ASN:HB2	1.86	0.57
1:1A:1676:A:H2'	1:1A:1677:A:O4'	2.04	0.57
6:1G:139:LEU:H	6:1G:139:LEU:HD12	1.70	0.57
26:14:55:ARG:H	26:14:56:VAL:HA	1.69	0.57
32:1a:160:A:H2'	32:1a:161:A:O4'	2.04	0.57
33:1b:84:GLU:HG3	33:1b:215:LEU:HB3	1.85	0.57
37:1f:91:VAL:HG11	49:1r:72:ARG:HH12	1.67	0.57
43:1l:45:PRO:HG2	43:1l:49:ASN:O	2.04	0.57
48:1q:54:GLY:O	48:1q:81:ARG:HB2	2.04	0.57
1:2A:287:C:H2'	1:2A:288:C:H6	1.68	0.57
1:2A:495:G:N3	18:2W:61:ASN:ND2	2.52	0.57
1:2A:1316:U:H2'	1:2A:1317:A:H8	1.68	0.57
6:2G:11:TYR:CZ	6:2G:16:ARG:HD3	2.40	0.57
15:2T:127:ALA:O	15:2T:129:ARG:HD2	2.03	0.57
32:2a:1250:A:H2	32:2a:1353:G:H21	1.52	0.57
34:2c:20:SER:HA	34:2c:57:ILE:HB	1.86	0.57
1:1A:2267:A:OP1	63:1A:4217:HOH:O	2.16	0.57
6:1G:122:PRO:HG2	6:1G:182:LYS:H	1.68	0.57
8:1I:104:GLN:C	8:1I:106:GLY:H	2.11	0.57
32:1a:636:U:H5'	48:1q:2:PRO:HG3	1.86	0.57
32:1a:926:G:H4'	53:1y:95:ARG:HH21	1.68	0.57
1:2A:1063:G:C8	1:2A:1065:U:H5	2.22	0.57
13:2R:29:LEU:HB3	13:2R:75:LEU:HD21	1.86	0.57
32:2a:509:A:C8	32:2a:509:A:H3'	2.38	0.57
33:2b:101:MET:HA	33:2b:108:ILE:HG13	1.86	0.57
1:1A:656:G:H2'	1:1A:657:U:O4'	2.03	0.57
1:1A:810:U:OP2	63:1A:4220:HOH:O	2.17	0.57
1:1A:2134:A:N6	1:1A:2157:G:H4'	2.19	0.57
5:1F:174:VAL:HG22	63:1F:442:HOH:O	2.05	0.57
63:1U:301:HOH:O	17:1V:72:VAL:HB	2.03	0.57
19:1X:49:VAL:O	63:1X:101:HOH:O	2.17	0.57
32:1a:707:C:OP1	42:1k:85:ARG:NH1	2.37	0.57
37:1f:91:VAL:HG11	49:1r:72:ARG:NH1	2.19	0.57
8:2I:115:ALA:O	63:2I:301:HOH:O	2.17	0.57
10:2O:64:ARG:HD2	10:2O:81:ASP:OD1	2.03	0.57
13:2R:33:ARG:HB2	13:2R:115:GLU:HB3	1.85	0.57
32:2a:429:U:OP2	35:2d:36:ARG:NH2	2.36	0.57
32:2a:1266:G:N2	32:2a:1269:A:OP2	2.35	0.57
34:2c:6:HIS:NE2	34:2c:8:ILE:HB	2.19	0.57
42:2k:14:VAL:HG11	42:2k:35:PRO:HD3	1.86	0.57
42:2k:41:THR:OG1	42:2k:42:TRP:N	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:139(A):G:N3	63:1A:4426:HOH:O	2.33	0.57
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.38	0.57
32:1a:457:C:H2'	32:1a:458:C:H6	1.69	0.57
35:1d:111:ALA:HB2	35:1d:120:LEU:HD12	1.85	0.57
1:2A:218:A:C2	1:2A:235:U:H4'	2.40	0.57
1:2A:338:G:O6	63:2A:3892:HOH:O	2.15	0.57
1:2A:1614:A:N1	18:2W:93:ALA:HB2	2.18	0.57
14:2S:35:ILE:HG13	14:2S:97:ARG:NH2	2.15	0.57
18:2W:78:GLU:OE2	18:2W:99:ARG:NH1	2.36	0.57
32:2a:88:A:H8	32:2a:88:A:O5'	1.87	0.57
42:2k:27:ASN:OD1	42:2k:28:THR:N	2.35	0.57
42:2k:89:ALA:O	42:2k:91:ARG:N	2.37	0.57
46:2o:82:ILE:HD12	46:2o:88:ARG:HB2	1.86	0.57
48:2q:67:LYS:HA	48:2q:70:ARG:HH12	1.69	0.57
1:1A:1024:G:OP2	63:1A:4106:HOH:O	2.18	0.57
1:1A:1105:U:H2'	1:1A:1106:G:C8	2.40	0.57
1:1A:2008:C:OP2	63:1A:4226:HOH:O	2.17	0.57
1:2A:800:A:H8	1:2A:800:A:OP1	1.87	0.57
1:2A:1028:A:N1	63:2A:4020:HOH:O	2.32	0.57
1:2A:2417:C:OP1	11:2P:65:ARG:NH2	2.37	0.57
2:2B:38:C:OP2	63:2B:304:HOH:O	2.17	0.57
24:22:17:SER:N	24:22:20:GLU:OE1	2.27	0.57
32:2a:353:A:H5'	32:2a:353:A:H8	1.68	0.57
35:2d:163:GLU:O	35:2d:166:LYS:HG2	2.04	0.57
52:2u:2:GLY:C	52:2u:4:GLY:H	2.12	0.57
1:1A:581:C:OP1	16:1U:31:SER:OG	2.22	0.57
1:1A:2070:G:OP2	63:1A:4228:HOH:O	2.17	0.57
12:1Q:71:ASP:OD1	12:1Q:71:ASP:N	2.34	0.57
49:1r:26:LEU:HD13	49:1r:39:VAL:HG13	1.86	0.57
51:1t:10:LEU:HB3	51:1t:12:ALA:H	1.68	0.57
53:1y:30:TRP:HH2	53:1y:82:GLU:HG2	1.69	0.57
1:2A:1023:U:OP2	63:2A:3833:HOH:O	2.18	0.57
1:2A:1082:U:C6	1:2A:1082:U:H3'	2.40	0.57
29:27:10:ARG:HH11	29:27:14:LYS:HD2	1.70	0.57
32:2a:377:G:OP1	47:2p:3:LYS:HD3	2.03	0.57
1:1A:949:C:N4	63:1A:4297:HOH:O	2.24	0.57
2:1B:28:C:OP2	63:1B:305:HOH:O	2.17	0.57
25:13:8:LEU:HD13	25:13:31:LEU:HD23	1.85	0.57
32:1a:518:C:N3	63:1a:3363:HOH:O	2.32	0.57
32:1a:1329:A:P	44:1m:28:ALA:HB3	2.44	0.57
33:1b:81:VAL:HG12	33:1b:215:LEU:HD11	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:1f:69:GLU:O	37:1f:72:VAL:HG12	2.04	0.57
40:1i:11:LYS:HA	40:1i:108:VAL:HG13	1.86	0.57
1:2A:804:A:H5"	1:2A:805:G:OP1	2.04	0.57
5:2F:164:ARG:O	5:2F:168:ARG:HG3	2.05	0.57
9:2N:54:VAL:HG13	9:2N:122:VAL:HG22	1.86	0.57
32:2a:1123:A:C2	41:2j:39:PRO:HD2	2.39	0.57
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.40	0.57
2:1B:12:C:H2'	22:10:73:GLY:HA3	1.86	0.57
27:15:47:PRO:O	27:15:60:VAL:HG21	2.05	0.57
36:1e:95:ALA:HB1	36:1e:96:PRO:HD2	1.86	0.57
1:2A:1011:G:OP2	16:2U:66:ASN:ND2	2.38	0.57
3:2D:122:ASP:OD2	3:2D:122:ASP:N	2.35	0.57
7:2H:98:LEU:HD11	7:2H:125:VAL:H	1.70	0.57
21:2Z:59:LEU:O	21:2Z:61:LEU:N	2.37	0.57
33:2b:8:LYS:HA	33:2b:217:ARG:HH12	1.68	0.57
34:2c:35:GLU:OE2	34:2c:59:ARG:NH2	2.36	0.57
51:2t:86:ARG:NH2	51:2t:90:GLN:OE1	2.37	0.57
53:2y:45:PRO:O	53:2y:47:GLY:N	2.38	0.57
1:1A:1174:A:H1'	1:1A:1175:U:H5'	1.86	0.57
1:1A:1587:A:H2'	1:1A:1588:C:C6	2.39	0.57
9:1N:65:LYS:N	63:1N:301:HOH:O	2.24	0.57
22:10:72:ARG:O	22:10:75:LEU:HB2	2.05	0.57
23:11:80:LEU:HB3	23:11:82:LEU:HG	1.87	0.57
32:1a:757:U:H2'	32:1a:758:G:O4'	2.03	0.57
1:2A:1495:A:H2'	1:2A:1496:A:C8	2.40	0.57
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.40	0.57
1:2A:2125:G:N2	1:2A:2172:U:H3'	2.20	0.57
7:2H:41:MET:HE3	7:2H:64:LEU:HB3	1.87	0.57
32:2a:501:C:H2'	32:2a:502:G:H8	1.70	0.57
1:1A:493:G:OP2	63:1A:4224:HOH:O	2.17	0.56
12:1Q:137:TYR:O	12:1Q:141:GLN:HG2	2.05	0.56
32:1a:7:G:H21	36:1e:121:LYS:HG2	1.70	0.56
33:1b:16:HIS:O	33:1b:18:GLY:N	2.38	0.56
44:1m:57:ARG:O	44:1m:61:GLU:HG3	2.05	0.56
1:2A:1378:A:OP1	29:27:10:ARG:NH2	2.38	0.56
14:2S:35:ILE:CG1	14:2S:97:ARG:HH21	2.16	0.56
8:1I:58:LEU:O	8:1I:61:ARG:N	2.38	0.56
32:1a:1166:G:H5'	32:1a:1168:A:OP2	2.05	0.56
1:2A:328:U:OP1	63:2A:3909:HOH:O	2.18	0.56
1:2A:2400:G:H2'	1:2A:2401:U:H6	1.69	0.56
2:2B:13:A:O2'	2:2B:15:A:OP2	2.23	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:44:ALA:HB2	12:2Q:70:PRO:HG3	1.85	0.56
32:2a:790:A:C2	53:2y:29:LYS:HD3	2.40	0.56
1:1A:48:G:N7	63:1A:4432:HOH:O	2.33	0.56
1:1A:83:G:N2	1:1A:102:G:H1'	2.20	0.56
1:1A:987:G:O2'	1:1A:1000:A:N3	2.31	0.56
1:1A:1325:G:OP1	1:1A:1647:G:O2'	2.22	0.56
1:1A:2824:C:N4	63:1A:4506:HOH:O	2.36	0.56
13:1R:59:ASP:OD1	13:1R:59:ASP:N	2.32	0.56
14:1S:7:TYR:CE1	14:1S:91:PRO:HG3	2.41	0.56
15:1T:39:ARG:HH21	32:1a:345:C:H5"	1.71	0.56
20:1Y:92:ASN:HB2	20:1Y:94:LYS:N	2.12	0.56
32:1a:408:A:OP1	35:1d:113:SER:OG	2.14	0.56
32:1a:557:G:OP1	63:1a:3320:HOH:O	2.18	0.56
32:1a:1238:A:O5'	32:1a:1336:C:N4	2.29	0.56
33:1b:15:VAL:HG23	33:1b:209:ARG:HD2	1.87	0.56
33:1b:54:THR:HG21	33:1b:201:ILE:HD11	1.88	0.56
33:1b:147:LYS:HE2	33:1b:148:TYR:CZ	2.40	0.56
33:1b:185:ILE:HG22	33:1b:199:TYR:CD2	2.40	0.56
48:1q:9:VAL:HG22	48:1q:56:VAL:HG22	1.86	0.56
1:2A:300:A:H1'	1:2A:319:C:H1'	1.86	0.56
1:2A:991:C:H42	1:2A:1163:G:H1	1.53	0.56
1:2A:1125:G:H5'	31:29:37:GLY:HA2	1.86	0.56
1:2A:1216:G:P	16:2U:12:ARG:HH21	2.28	0.56
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.19	0.56
1:2A:1792:G:O2'	1:2A:1830:C:OP1	2.24	0.56
1:2A:2184:G:H2'	1:2A:2185:C:O4'	2.05	0.56
1:2A:2637:U:OP1	4:2E:82:ARG:NH1	2.38	0.56
1:2A:2683:C:OP1	15:2T:53:ARG:NH2	2.38	0.56
1:2A:2726:U:H4'	10:2O:1:MET:HE1	1.86	0.56
1:2A:2876:G:OP1	63:2A:3910:HOH:O	2.18	0.56
6:2G:16:ARG:HB2	6:2G:17:PRO:HD3	1.87	0.56
6:2G:54:GLU:O	6:2G:58:GLN:N	2.37	0.56
15:2T:77:PRO:HB2	15:2T:80:SER:HB2	1.87	0.56
19:2X:14:SER:C	19:2X:16:LYS:H	2.14	0.56
24:22:4:SER:HA	24:22:7:ARG:NH1	2.20	0.56
32:2a:1031:G:H2'	32:2a:1032:G:C8	2.40	0.56
32:2a:1134:G:C2	32:2a:1135:U:H1'	2.40	0.56
32:2a:1190:G:O2'	34:2c:3:ASN:HB3	2.05	0.56
32:2a:1387:G:H2'	32:2a:1388:C:H6	1.71	0.56
34:2c:180:ALA:HB1	34:2c:203:PHE:CE1	2.39	0.56
46:2o:26:GLU:HG3	46:2o:81:LEU:HD13	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:2u:2:GLY:O	52:2u:4:GLY:N	2.38	0.56
1:1A:1803:A:H4'	3:1D:259:THR:HG23	1.88	0.56
1:1A:2418:A:OP2	30:18:29:LYS:NZ	2.31	0.56
13:1R:2:ARG:HG2	13:1R:2:ARG:O	2.05	0.56
14:1S:52:SER:HB2	14:1S:55:ALA:H	1.69	0.56
21:1Z:31:ARG:NH1	21:1Z:94:GLU:OE2	2.38	0.56
35:1d:88:VAL:HA	36:1e:97:GLY:HA3	1.87	0.56
1:2A:956:G:H5"	12:2Q:77:LYS:HD2	1.87	0.56
4:2E:28:ALA:HB3	4:2E:93:VAL:HG12	1.88	0.56
32:2a:382:A:H2'	32:2a:383:A:H8	1.70	0.56
32:2a:689:C:H4'	32:2a:705:U:H1'	1.86	0.56
32:2a:1112:C:N3	34:2c:178:LEU:HB2	2.20	0.56
44:2m:3:ARG:NH2	44:2m:45:VAL:HG12	2.20	0.56
1:1A:228:A:OP1	11:1P:76:LYS:HE3	2.06	0.56
1:1A:1164:G:H2'	1:1A:1165:U:C6	2.41	0.56
17:1V:24:LYS:HA	17:1V:92:THR:OG1	2.06	0.56
1:2A:808:G:N7	63:2A:4024:HOH:O	2.33	0.56
1:2A:2125:G:H22	1:2A:2172:U:H3'	1.71	0.56
1:2A:2393:A:H4'	11:2P:62:LEU:O	2.05	0.56
22:20:50:ASN:C	22:20:62:LEU:HD12	2.30	0.56
32:2a:1129:C:H1'	32:2a:1130:A:N7	2.20	0.56
1:1A:2375:G:O2'	1:1A:2377:A:N7	2.31	0.56
10:1O:75:SER:OG	15:1T:74:ARG:NH1	2.39	0.56
32:1a:344:A:OP2	32:1a:345:C:N4	2.38	0.56
39:1h:14:ARG:O	39:1h:18:ARG:HG2	2.05	0.56
47:1p:6:LEU:HB3	47:1p:17:TYR:CD1	2.41	0.56
1:2A:871:U:H2'	1:2A:872:A:C8	2.40	0.56
1:2A:1139:G:O3'	9:2N:24:GLY:HA3	2.06	0.56
1:2A:2122:U:H2'	1:2A:2123:G:C8	2.41	0.56
8:2I:75:LEU:HD11	8:2I:105:HIS:CD2	2.41	0.56
19:2X:31:HIS:CD2	19:2X:33:LYS:H	2.23	0.56
26:24:59:PHE:HB2	26:24:62:ARG:NH2	2.21	0.56
30:28:31:HIS:O	30:28:36:LYS:NZ	2.36	0.56
32:2a:666:G:H5'	32:2a:726:C:H1'	1.88	0.56
32:2a:984:C:H2'	32:2a:985:C:H6	1.70	0.56
36:2e:105:VAL:O	36:2e:109:ILE:HG13	2.05	0.56
44:2m:3:ARG:NH1	44:2m:11:ARG:HG2	2.21	0.56
53:2y:7:SER:HB3	53:2y:12:ILE:HG12	1.86	0.56
1:1A:1429:G:H2'	1:1A:1430:C:C6	2.40	0.56
1:1A:1610:A:N7	63:1A:4421:HOH:O	2.32	0.56
8:1I:77:LEU:HD13	8:1I:101:LEU:HD23	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:1R:87:TYR:OH	13:1R:117:VAL:O	2.11	0.56
32:1a:341:C:H2'	32:1a:342:C:C6	2.41	0.56
32:1a:1326:C:H2'	32:1a:1327:C:H6	1.70	0.56
35:1d:61:LYS:HD3	35:1d:206:PHE:CE2	2.41	0.56
1:2A:297:C:H2'	1:2A:298:G:O4'	2.06	0.56
1:2A:1531:C:H42	1:2A:1538:G:H1	1.54	0.56
1:2A:2175:C:H2'	1:2A:2176:A:C8	2.41	0.56
6:2G:39:ILE:O	6:2G:91:ARG:HA	2.06	0.56
11:2P:63:PRO:HB2	30:28:30:ARG:HH21	1.70	0.56
1:1A:1016:G:N7	63:1A:4429:HOH:O	2.33	0.56
1:1A:1608:A:O2'	1:1A:1610:A:OP2	2.17	0.56
1:1A:2319:G:N1	14:1S:3:ARG:HA	2.21	0.56
32:1a:190:U:H3	51:1t:103:GLY:C	2.13	0.56
32:1a:881:G:OP2	43:1l:12:ARG:NH2	2.38	0.56
32:1a:1326:C:H2'	32:1a:1327:C:C6	2.41	0.56
40:1i:9:ARG:HB2	40:1i:104:ARG:HE	1.70	0.56
42:1k:15:ALA:HA	42:1k:77:MET:HA	1.88	0.56
51:1t:83:ARG:HA	51:1t:86:ARG:HB2	1.88	0.56
1:2A:2134:A:N6	1:2A:2156:G:O2'	2.27	0.56
2:2B:115:G:H2'	2:2B:116:G:C8	2.40	0.56
20:2Y:85:VAL:HG11	20:2Y:97:ARG:HD2	1.88	0.56
21:2Z:30:ASN:HD21	21:2Z:33:LEU:HD21	1.70	0.56
21:2Z:136:PHE:O	21:2Z:137:ILE:HG13	2.05	0.56
32:2a:1129:C:H2'	32:2a:1139:G:N7	2.20	0.56
32:2a:1256:A:N6	32:2a:1278:U:H1'	2.16	0.56
36:2e:78:HIS:HE1	36:2e:142:LEU:HA	1.70	0.56
1:1A:2164:C:H5	1:1A:2165:G:C5	2.23	0.56
1:1A:2239:G:OP2	63:1A:4233:HOH:O	2.18	0.56
1:1A:2627:G:N2	1:1A:2777:G:OP2	2.38	0.56
30:18:35:GLN:O	63:18:203:HOH:O	2.17	0.56
32:1a:977:A:H2'	32:1a:978:A:H5"	1.87	0.56
32:1a:992:U:H4'	32:1a:993:G:H5"	1.87	0.56
36:1e:75:THR:HG22	36:1e:76:ILE:H	1.71	0.56
50:1s:31:ILE:HB	50:1s:49:ILE:HG13	1.86	0.56
8:2I:75:LEU:HD23	8:2I:76:THR:H	1.70	0.56
17:2V:5:VAL:HG11	17:2V:57:VAL:HG21	1.88	0.56
21:2Z:3:TYR:CD2	21:2Z:51:ALA:HB2	2.41	0.56
33:2b:162:ILE:HD11	33:2b:184:VAL:HG22	1.87	0.56
38:2g:27:ILE:HA	38:2g:30:ILE:HG13	1.87	0.56
41:2j:19:SER:O	41:2j:23:ILE:HG12	2.06	0.56
1:1A:229:A:OP1	1:1A:229:A:C8	2.59	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:288:C:H2'	1:1A:289:A:C8	2.41	0.56
1:1A:574:C:N3	4:1E:145:LYS:NZ	2.49	0.56
1:1A:1418:G:OP2	63:1A:4236:HOH:O	2.18	0.56
1:1A:1947:C:O2'	32:1a:1483:A:O2'	2.24	0.56
32:1a:1130:A:H5'	40:1i:18:PHE:CE2	2.39	0.56
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.21	0.56
35:1d:72:GLU:OE2	35:1d:207:TYR:OH	2.18	0.56
1:2A:1073:A:C8	1:2A:1073:A:H3'	2.41	0.56
35:2d:98:GLU:HG3	35:2d:194:LEU:HD21	1.86	0.56
49:2r:73:ALA:O	49:2r:76:LEU:N	2.38	0.56
1:1A:1570:A:H2'	1:1A:1571:A:C8	2.39	0.55
1:1A:2718:G:O6	63:1A:4232:HOH:O	2.18	0.55
10:1O:64:ARG:HB2	10:1O:79:PHE:CG	2.40	0.55
26:14:67:TYR:HB2	50:1s:16:LEU:HD21	1.88	0.55
32:1a:41:G:H2'	32:1a:42:G:C8	2.40	0.55
32:1a:864:A:H2'	32:1a:865:A:C8	2.41	0.55
32:1a:993:G:H2'	32:1a:993:G:N3	2.21	0.55
33:1b:163:PHE:HA	33:1b:185:ILE:HG12	1.88	0.55
40:1i:3:GLN:NE2	40:1i:20:ARG:HE	2.04	0.55
43:1l:117:ARG:NH2	43:1l:124:LYS:HD2	2.20	0.55
1:2A:198:C:H2'	63:2A:4873:HOH:O	2.06	0.55
1:2A:2271:G:OP1	22:20:18:ALA:HB1	2.06	0.55
23:21:11:ARG:N	63:21:203:HOH:O	2.39	0.55
1:1A:456:C:H4'	63:1A:4652:HOH:O	2.04	0.55
1:1A:1129:A:H2'	63:1A:5700:HOH:O	2.06	0.55
1:1A:2849:U:H4'	1:1A:2868:A:C2	2.42	0.55
8:1I:29:TYR:HD2	8:1I:30:LEU:HD23	1.71	0.55
34:1c:150:LYS:HB3	34:1c:201:TYR:HB2	1.88	0.55
1:2A:428:A:H3'	1:2A:429:A:H8	1.71	0.55
1:2A:1012:U:C5	9:2N:28:THR:HG21	2.40	0.55
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.42	0.55
1:2A:2810:A:N6	1:2A:2891:G:O2'	2.39	0.55
3:2D:16:MET:HG3	3:2D:206:LEU:O	2.05	0.55
8:2I:49:ALA:HA	8:2I:52:ARG:HH21	1.71	0.55
19:2X:65:ARG:HB2	19:2X:70:LEU:HD23	1.88	0.55
32:2a:501:C:H2'	32:2a:502:G:C8	2.42	0.55
32:2a:664:G:P	49:2r:64:ARG:HH21	2.29	0.55
33:2b:168:THR:OG1	33:2b:192:SER:HA	2.06	0.55
35:2d:160:GLN:HE21	35:2d:160:GLN:N	2.02	0.55
1:1A:948:G:OP1	63:1A:4105:HOH:O	2.18	0.55
1:1A:1815:A:OP2	3:1D:54:ARG:NH2	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2529:G:O6	31:19:31:LYS:NZ	2.39	0.55
2:1B:21:G:H2'	2:1B:22:U:H6	1.71	0.55
6:1G:110:ALA:HB1	6:1G:140:ILE:HG22	1.88	0.55
7:1H:121:ILE:HG13	7:1H:144:VAL:HG21	1.89	0.55
10:1O:78:ARG:NH2	63:1O:304:HOH:O	2.39	0.55
32:1a:152:A:N6	32:1a:170:U:C2	2.74	0.55
32:1a:189(L):G:H2'	32:1a:190:U:H5"	1.88	0.55
33:1b:16:HIS:HB2	33:1b:204:ASN:HB2	1.88	0.55
37:1f:78:GLU:O	37:1f:81:ILE:HG22	2.06	0.55
5:2F:53:THR:HG22	5:2F:56:GLU:HG3	1.88	0.55
6:2G:165:THR:HG23	6:2G:168:GLU:HG3	1.88	0.55
10:2O:88:ASN:ND2	10:2O:90:GLN:HB2	2.21	0.55
12:2Q:141:GLN:HE22	21:2Z:74:VAL:HG13	1.70	0.55
32:2a:424:G:H2'	32:2a:425:G:H8	1.72	0.55
32:2a:460:G:H2'	32:2a:461:A:H2'	1.89	0.55
1:1A:330:A:HO2'	1:1A:331:A:H8	1.51	0.55
2:1B:21:G:H2'	2:1B:22:U:C6	2.41	0.55
39:1h:39:LEU:HB3	39:1h:45:ILE:HG12	1.88	0.55
40:1i:46:ALA:HB2	40:1i:74:ILE:HG23	1.88	0.55
1:2A:2076:U:OP2	1:2A:2238:G:N2	2.36	0.55
3:2D:148:GLU:HB2	3:2D:151:LYS:HD2	1.88	0.55
6:2G:112:PRO:HG3	26:24:43:TYR:HE2	1.72	0.55
32:2a:1090:U:H2'	32:2a:1091:U:H6	1.72	0.55
49:2r:66:LEU:O	49:2r:70:ILE:HG13	2.07	0.55
1:1A:1069:A:O5'	1:1A:1096:A:O2'	2.25	0.55
1:1A:2631:G:O2'	1:1A:2810:A:N1	2.36	0.55
1:1A:2876:G:OP1	15:1T:3:ARG:HG3	2.06	0.55
5:1F:161:GLU:HG3	5:1F:164:ARG:NH2	2.22	0.55
6:1G:83:ARG:H	6:1G:86:MET:CE	2.19	0.55
11:1P:63:PRO:HD3	30:18:27:THR:HG22	1.89	0.55
1:2A:2115:G:N2	1:2A:2119:A:H5'	2.21	0.55
2:2B:13:A:N1	2:2B:69:G:O2'	2.34	0.55
2:2B:17:C:H2'	2:2B:18:G:O4'	2.07	0.55
7:2H:40:GLU:O	7:2H:55:PRO:HG3	2.07	0.55
8:2I:1:MET:HB2	8:2I:23:PRO:HG3	1.87	0.55
32:2a:750:G:N3	46:2o:23:GLY:HA3	2.21	0.55
1:1A:228:A:H8	1:1A:229:A:H5'	1.71	0.55
6:1G:25:TYR:OH	6:1G:168:GLU:OE1	2.25	0.55
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	1.87	0.55
32:1a:192:U:H2'	32:1a:193:C:H6	1.72	0.55
32:1a:193:C:H2'	32:1a:194:C:H6	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:659:U:H2'	32:1a:660:G:C8	2.41	0.55
32:1a:967:5MC:H2'	32:1a:968:A:C8	2.42	0.55
37:1f:10:LEU:HD13	37:1f:61:LEU:HD13	1.89	0.55
38:1g:78:ARG:HD2	38:1g:156:TRP:HZ3	1.72	0.55
46:1o:71:GLN:HG3	46:1o:78:TYR:CD2	2.42	0.55
1:2A:1327:C:N4	63:2A:4091:HOH:O	2.39	0.55
1:2A:1495:A:H2'	1:2A:1496:A:H8	1.72	0.55
10:2O:92:GLU:HG2	10:2O:113:LYS:NZ	2.21	0.55
32:2a:1442:G:O2'	32:2a:1442(A):G:O5'	2.21	0.55
46:2o:81:LEU:HG	46:2o:85:LEU:HD12	1.88	0.55
1:1A:363(A):A:H2'	1:1A:363(B):G:C8	2.42	0.55
1:1A:1754:C:OP1	15:1T:96:ARG:NH1	2.40	0.55
1:1A:2627:G:O2'	1:1A:2781:A:N1	2.34	0.55
7:1H:25:LYS:HG3	7:1H:34:GLU:HG2	1.89	0.55
7:1H:133:VAL:HG12	7:1H:141:VAL:HG13	1.89	0.55
8:1I:133:HIS:ND1	8:1I:134:PRO:O	2.32	0.55
21:1Z:146:ILE:HG12	21:1Z:174:VAL:HG12	1.89	0.55
32:1a:7:G:H5'	32:1a:298:A:O4'	2.07	0.55
32:1a:262:A:H2'	32:1a:263:A:C8	2.41	0.55
32:1a:976:G:OP1	45:1n:32:SER:N	2.37	0.55
35:1d:15:GLU:HB3	35:1d:63:LYS:HE2	1.88	0.55
43:1l:118:SER:OG	43:1l:119:LYS:N	2.38	0.55
48:1q:86:GLU:O	48:1q:90:ILE:HG13	2.05	0.55
1:2A:1082:U:H3'	1:2A:1082:U:H6	1.72	0.55
1:2A:1762:A:N6	63:2A:4106:HOH:O	2.40	0.55
1:2A:2857:G:N2	1:2A:2860:A:OP2	2.27	0.55
12:2Q:54:MET:HG2	12:2Q:117:ALA:HB1	1.89	0.55
32:2a:388:G:H5"	63:2a:3277:HOH:O	2.06	0.55
32:2a:454:C:OP2	32:2a:455:C:N4	2.31	0.55
35:2d:102:ASP:OD1	35:2d:103:ASN:N	2.39	0.55
1:1A:286:C:H2'	1:1A:287:C:C6	2.41	0.55
1:1A:886:C:H2'	1:1A:887:A:H5"	1.87	0.55
1:1A:1080:C:H2'	1:1A:1081:U:C6	2.42	0.55
1:1A:2564:A:C2	1:1A:2647:U:H4'	2.41	0.55
1:1A:2590:A:O3'	3:1D:239:ARG:NH2	2.40	0.55
1:1A:2690:C:OP1	13:1R:17:ARG:NH2	2.40	0.55
63:1A:7094:HOH:O	18:1W:92:ARG:HD2	2.07	0.55
10:1O:34:THR:OG1	10:1O:35:VAL:N	2.40	0.55
32:1a:8:A:N7	35:1d:208:SER:OG	2.39	0.55
33:1b:197:VAL:O	39:1h:68:ARG:NH2	2.40	0.55
42:1k:33:THR:HA	42:1k:39:PRO:HA	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:1t:51:GLU:HA	51:1t:54:LYS:HD3	1.87	0.55
4:2E:119:ARG:CG	4:2E:160:TYR:HB2	2.37	0.55
32:2a:189(L):G:H2'	32:2a:190:U:H6	1.70	0.55
1:1A:2667:C:H2'	1:1A:2668:G:O4'	2.07	0.55
5:1F:7:TYR:CD2	5:1F:24:LEU:HB2	2.42	0.55
22:10:27:GLU:HG3	22:10:68:GLU:HA	1.88	0.55
32:1a:1040:U:H2'	32:1a:1041:A:H8	1.72	0.55
39:1h:7:ALA:HB2	39:1h:85:ARG:HD3	1.88	0.55
1:2A:762:U:OP2	63:2A:3913:HOH:O	2.18	0.55
6:2G:14:GLU:C	6:2G:17:PRO:HD2	2.31	0.55
6:2G:109:VAL:HG11	6:2G:142:PRO:HB3	1.87	0.55
12:2Q:32:TYR:OH	12:2Q:111:GLU:HB2	2.07	0.55
32:2a:1226:C:O2'	44:2m:111:LYS:NZ	2.35	0.55
35:2d:173:TRP:CD1	35:2d:189:PRO:HG3	2.42	0.55
44:2m:3:ARG:HH12	44:2m:11:ARG:HG2	1.72	0.55
44:2m:86:CYS:HA	50:2s:73:GLU:O	2.07	0.55
1:1A:2149:G:H2'	1:1A:2150:U:C6	2.41	0.55
25:13:29:ARG:HG3	25:13:30:ARG:HG3	1.89	0.55
32:1a:179:A:H2'	32:1a:180:U:C6	2.42	0.55
32:1a:890:G:O2'	32:1a:906:G:O6	2.20	0.55
33:1b:55:PHE:HA	33:1b:58:ILE:HD12	1.89	0.55
34:1c:34:LEU:HG	34:1c:38:ARG:HD2	1.88	0.55
44:1m:57:ARG:HG3	44:1m:61:GLU:OE2	2.07	0.55
1:2A:1047:G:H2'	1:2A:1110:G:H22	1.71	0.55
1:2A:1493:C:N4	1:2A:2206:G:O2'	2.39	0.55
1:2A:1721:G:H2'	1:2A:1740:G:O6	2.07	0.55
1:2A:1803:A:O2'	3:2D:259:THR:HG21	2.07	0.55
1:2A:2115:G:O2'	1:2A:2166:G:N2	2.39	0.55
1:2A:2781:A:H5"	1:2A:2782:G:H5'	1.88	0.55
2:2B:4:C:H42	2:2B:117:G:H1	1.55	0.55
2:2B:75:G:O3'	21:2Z:10:ARG:NH2	2.40	0.55
4:2E:5:LEU:HD11	4:2E:79:ARG:HB2	1.89	0.55
32:2a:27:G:H1	32:2a:556:C:H42	1.54	0.55
32:2a:1323:G:H2'	32:2a:1324:A:C8	2.42	0.55
33:2b:74:LYS:NZ	33:2b:205:ASP:O	2.39	0.55
35:2d:155:LEU:HD12	35:2d:156:GLU:H	1.72	0.55
47:2p:43:LYS:HG2	47:2p:48:TRP:CD2	2.42	0.55
1:1A:366:C:OP2	1:1A:403:U:O2'	2.17	0.54
1:1A:807:U:OP2	11:1P:41:ARG:NH2	2.40	0.54
32:1a:10:A:OP2	36:1e:126:ARG:HD2	2.07	0.54
32:1a:161:A:N1	32:1a:347:G:O2'	2.32	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:587:G:N7	63:1a:3366:HOH:O	2.33	0.54
32:1a:677:U:H2'	32:1a:678:U:H6	1.72	0.54
46:1o:35:ARG:NH2	46:1o:59:MET:SD	2.80	0.54
1:2A:251:A:C5	1:2A:252:G:H1'	2.42	0.54
1:2A:1017:G:O6	63:2A:3907:HOH:O	2.17	0.54
2:2B:14:U:OP2	2:2B:70:C:O2'	2.21	0.54
3:2D:259:THR:O	3:2D:259:THR:OG1	2.25	0.54
32:2a:376:G:H5"	47:2p:5:ARG:HD2	1.89	0.54
32:2a:977:A:O2'	32:2a:980:C:N4	2.41	0.54
36:2e:79:GLU:CD	39:2h:105:ARG:HG2	2.32	0.54
40:2i:99:LEU:HB3	40:2i:101:PHE:CE1	2.41	0.54
42:2k:33:THR:HA	42:2k:39:PRO:HA	1.89	0.54
1:1A:2115:G:N3	1:1A:2117:A:N6	2.54	0.54
4:1E:7:VAL:HG23	4:1E:51:PHE:HE2	1.72	0.54
8:1I:72:LEU:C	8:1I:74:ASN:H	2.15	0.54
1:2A:287:C:H2'	1:2A:288:C:C6	2.43	0.54
1:2A:889:C:O2'	1:2A:890:A:O5'	2.25	0.54
1:2A:1077:A:C2'	1:2A:1078:U:H5'	2.37	0.54
10:2O:88:ASN:O	10:2O:90:GLN:N	2.41	0.54
19:2X:60:ARG:NH2	29:27:47:ARG:HH12	2.06	0.54
24:22:28:LYS:HD2	24:22:60:LEU:HD11	1.89	0.54
32:2a:35:G:O2'	43:2l:118:SER:O	2.23	0.54
32:2a:401:C:H1'	32:2a:622:A:H1'	1.88	0.54
32:2a:825:G:H1	32:2a:875:C:H42	1.54	0.54
32:2a:1161:C:H2'	32:2a:1162:C:H6	1.73	0.54
1:1A:272(H):C:H42	1:1A:363(B):G:H1	1.54	0.54
1:1A:1063:G:H5"	1:1A:1065:U:C5	2.40	0.54
3:1D:77:ALA:HB2	3:1D:97:TYR:CD1	2.43	0.54
5:1F:102:PRO:HB2	5:1F:105:VAL:HG23	1.89	0.54
32:1a:1424:C:H42	32:1a:1476:G:H1	1.54	0.54
38:1g:18:TYR:CD1	38:1g:59:LEU:HB2	2.43	0.54
1:2A:814:C:H2'	1:2A:815:C:C6	2.42	0.54
1:2A:1429:G:H2'	1:2A:1430:C:H6	1.71	0.54
1:2A:2315:G:H2'	1:2A:2316:C:H6	1.71	0.54
1:2A:2543:G:H1'	1:2A:2766:G:H5'	1.89	0.54
1:2A:2648:C:H2'	1:2A:2649:U:C6	2.42	0.54
4:2E:199:ARG:NH1	63:2E:403:HOH:O	2.40	0.54
19:2X:57:LEU:HD11	19:2X:78:LYS:HE2	1.87	0.54
34:2c:123:GLN:O	34:2c:128:PHE:HB2	2.07	0.54
1:1A:872:A:OP1	12:1Q:5:ARG:NH2	2.40	0.54
1:1A:1088:A:H5"	1:1A:1089:G:H5'	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:110:G:H2'	2:1B:111:G:C8	2.42	0.54
16:1U:82:GLY:HA3	16:1U:113:ALA:HB1	1.89	0.54
26:14:16:CYS:HA	26:14:33:VAL:HG23	1.90	0.54
32:1a:1250:A:H4'	40:1i:68:GLY:N	2.22	0.54
33:1b:114:ARG:O	33:1b:118:LEU:HG	2.07	0.54
33:1b:207:ALA:O	33:1b:211:ILE:HG13	2.07	0.54
35:1d:18:LYS:HG2	62:1d:306:SF4:S1	2.47	0.54
36:1e:33:VAL:HG22	36:1e:112:LEU:HD12	1.90	0.54
37:1f:35:ALA:HA	37:1f:67:MET:HB3	1.89	0.54
53:1y:87:LYS:HE3	53:1y:91:LYS:HD2	1.89	0.54
1:2A:941:A:H2'	1:2A:942:G:C8	2.43	0.54
1:2A:2690:C:OP2	13:2R:14:SER:HB2	2.07	0.54
8:2I:98:ALA:O	8:2I:101:LEU:N	2.40	0.54
18:2W:13:SER:HB3	18:2W:16:LYS:HD2	1.90	0.54
19:2X:12:VAL:HG22	19:2X:29:TRP:CE2	2.42	0.54
32:2a:878:G:OP1	39:2h:90:GLY:N	2.36	0.54
35:2d:12:CYS:HB3	35:2d:19:LEU:H	1.72	0.54
38:2g:24:THR:O	38:2g:27:ILE:HG13	2.07	0.54
44:2m:92:HIS:CD2	44:2m:98:VAL:HG21	2.42	0.54
4:1E:33:VAL:HG13	4:1E:47:VAL:HG23	1.89	0.54
7:1H:84:SER:OG	7:1H:132:ARG:NH1	2.41	0.54
10:1O:34:THR:N	10:1O:37:ASP:OD2	2.38	0.54
33:1b:16:HIS:HB3	33:1b:210:SER:HB2	1.89	0.54
40:1i:54:ASP:O	40:1i:56:LEU:N	2.39	0.54
1:2A:539:G:H2'	1:2A:540:C:H6	1.71	0.54
1:2A:792:G:O2'	1:2A:2440:C:N3	2.35	0.54
2:2B:103:G:N2	21:2Z:73:GLN:HE22	2.06	0.54
12:2Q:34:LEU:HB2	12:2Q:118:LEU:HD22	1.88	0.54
25:23:29:ARG:HD2	25:23:30:ARG:HH12	1.73	0.54
32:2a:255:G:OP1	48:2q:69:LYS:NZ	2.41	0.54
32:2a:1039:C:H2'	32:2a:1040:U:O4'	2.06	0.54
49:2r:44:LEU:HD21	49:2r:70:ILE:HG21	1.90	0.54
1:1A:1638:C:OP1	63:1A:4240:HOH:O	2.18	0.54
1:1A:2023:G:H5'	1:1A:2617:C:H4'	1.88	0.54
12:1Q:81:VAL:HB	22:10:7:LEU:HD21	1.88	0.54
14:1S:88:ASP:C	14:1S:90:GLY:H	2.16	0.54
32:1a:461:A:O2'	32:1a:470:C:H5'	2.08	0.54
33:1b:204:ASN:OD1	33:1b:207:ALA:N	2.39	0.54
35:1d:31:CYS:SG	35:1d:33:MET:N	2.79	0.54
44:1m:20:THR:C	44:1m:22:ILE:H	2.16	0.54
6:2G:110:ALA:O	6:2G:113:ARG:N	2.34	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1279:A:OP2	41:2j:9:ARG:NH1	2.41	0.54
32:2a:1387:G:H2'	32:2a:1388:C:C6	2.41	0.54
34:2c:57:ILE:HD13	34:2c:66:VAL:HG13	1.88	0.54
39:2h:51:VAL:HG21	39:2h:60:ARG:HH11	1.73	0.54
1:1A:386:G:O6	63:1A:4213:HOH:O	2.16	0.54
1:1A:816:C:OP2	63:1A:4234:HOH:O	2.18	0.54
1:1A:2660:A:H2'	1:1A:2661:G:O4'	2.07	0.54
1:1A:2839:G:H5'	13:1R:46:GLY:HA2	1.90	0.54
4:1E:55:ASN:HB3	4:1E:58:ARG:HG3	1.88	0.54
8:1I:84:GLY:O	8:1I:85:GLU:HB2	2.07	0.54
11:1P:59:LEU:HD21	30:18:10:ALA:HA	1.89	0.54
32:1a:922:G:C6	32:1a:923:A:C6	2.96	0.54
32:1a:1028:C:H2'	32:1a:1029:C:H4'	1.90	0.54
32:1a:1030(C):G:H2'	32:1a:1030(D):A:H8	1.73	0.54
53:1y:43:LYS:NZ	53:1y:44:GLU:O	2.31	0.54
1:2A:1628:G:H2'	1:2A:1629:U:C6	2.43	0.54
1:2A:2166:G:O6	1:2A:2171:A:O2'	2.25	0.54
21:2Z:45:ASP:CG	21:2Z:49:ARG:HE	2.16	0.54
32:2a:269:C:H2'	32:2a:270:A:C8	2.42	0.54
32:2a:1102:A:O3'	33:2b:96:ARG:NH2	2.41	0.54
35:2d:88:VAL:HG13	36:2e:97:GLY:HA2	1.90	0.54
38:2g:74:GLU:CD	38:2g:95:ARG:HE	2.16	0.54
39:2h:27:PRO:HG3	39:2h:58:TYR:CZ	2.42	0.54
43:2l:46:LYS:HD3	43:2l:94:PRO:HG3	1.88	0.54
1:1A:807:U:OP1	11:1P:36:LYS:HE3	2.08	0.54
1:1A:1085:A:O2'	1:1A:1104:C:O2'	2.24	0.54
1:1A:1470:G:H5"	1:1A:1471:A:OP1	2.08	0.54
1:1A:2811:G:H22	1:1A:2891:G:H1'	1.72	0.54
5:1F:8:GLN:NE2	5:1F:21:ALA:HB2	2.23	0.54
19:1X:72:LYS:NZ	19:1X:73:ARG:O	2.38	0.54
27:15:40:LYS:NZ	27:15:44:THR:O	2.32	0.54
32:1a:1129:C:O2'	32:1a:1139:G:N7	2.38	0.54
38:1g:27:ILE:CD1	38:1g:40:ALA:HA	2.38	0.54
38:1g:27:ILE:HD12	38:1g:40:ALA:HA	1.90	0.54
1:2A:667:U:O2	30:28:2:PRO:HD2	2.07	0.54
1:2A:2305:A:H1'	6:2G:136:ARG:HB3	1.90	0.54
2:2B:8:U:H3	2:2B:113:G:H1	1.54	0.54
9:2N:62:VAL:HG22	9:2N:66:LYS:HD2	1.89	0.54
15:2T:85:LYS:NZ	15:2T:87:ASP:OD2	2.40	0.54
32:2a:1328:C:OP1	52:2u:21:TYR:OH	2.21	0.54
34:2c:5:ILE:HG12	34:2c:6:HIS:H	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:2l:32:PHE:HB3	43:2l:84:LEU:HD11	1.89	0.54
1:1A:1904:G:O2'	1:1A:1928:A:N1	2.40	0.54
32:1a:632:A:H3'	32:1a:633:G:H8	1.73	0.54
32:1a:1151:A:O2'	32:1a:1152:A:H8	1.89	0.54
32:1a:1292:U:OP2	38:1g:41:ARG:NH2	2.41	0.54
32:1a:1315:U:H2'	32:1a:1316:G:O4'	2.08	0.54
34:1c:83:ARG:O	34:1c:86:VAL:N	2.41	0.54
35:1d:111:ALA:HB1	35:1d:116:GLN:HB3	1.90	0.54
38:1g:95:ARG:CZ	38:1g:99:LEU:HD11	2.38	0.54
40:1i:49:PRO:HB3	40:1i:96:LEU:HD21	1.88	0.54
45:1n:4:LYS:O	45:1n:7:ILE:HG13	2.08	0.54
1:2A:633:A:O2'	1:2A:2404:C:OP1	2.22	0.54
1:2A:1048:A:OP2	1:2A:1109:C:N4	2.35	0.54
8:2I:12:LEU:HD22	8:2I:19:VAL:HG21	1.89	0.54
34:2c:50:ALA:HB1	34:2c:72:LYS:O	2.08	0.54
36:2e:12:LEU:HD22	36:2e:128:PRO:HB2	1.90	0.54
36:2e:37:ARG:NH1	36:2e:111:GLU:HG2	2.23	0.54
37:2f:69:GLU:O	37:2f:72:VAL:HG13	2.08	0.54
38:2g:70:LYS:CG	38:2g:96:GLN:HB3	2.37	0.54
40:2i:5:TYR:CE2	40:2i:7:THR:HG23	2.43	0.54
52:2u:5:ASP:O	52:2u:8:THR:OG1	2.22	0.54
1:1A:1056:G:N2	1:1A:1103:A:H62	2.06	0.54
1:1A:1359:A:N1	1:1A:1372:U:O4	2.41	0.54
1:1A:2286:A:H4'	1:1A:2287:A:O4'	2.08	0.54
1:1A:2615:U:H2'	1:1A:2616:C:H6	1.73	0.54
2:1B:88:C:H2'	2:1B:89:G:O4'	2.07	0.54
12:1Q:110:THR:HB	12:1Q:113:GLN:HB2	1.90	0.54
32:1a:438:G:O2'	32:1a:494:U:O4	2.24	0.54
32:1a:598:U:O4	63:1a:3302:HOH:O	2.18	0.54
32:1a:986:A:H2'	32:1a:987:G:O4'	2.08	0.54
35:1d:129:ASN:HD21	35:1d:144:ASP:HB3	1.73	0.54
44:1m:49:THR:O	44:1m:53:VAL:N	2.38	0.54
1:2A:455:C:N3	1:2A:472:A:H2'	2.23	0.54
5:2F:129:PHE:CD2	5:2F:163:VAL:HG21	2.42	0.54
16:2U:5:LYS:NZ	63:2U:301:HOH:O	2.40	0.54
1:1A:569:U:C4	1:1A:570:G:C6	2.97	0.53
1:1A:910:A:OP2	63:1A:4242:HOH:O	2.19	0.53
1:1A:1083:U:H1'	1:1A:1086:A:H61	1.72	0.53
1:1A:1971:A:OP1	63:1A:4114:HOH:O	2.18	0.53
1:1A:2258:C:O2	63:1A:4206:HOH:O	2.14	0.53
7:1H:54:ARG:NH2	7:1H:57:ASP:OD1	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:1T:51:ARG:HG3	15:1T:98:LYS:HE3	1.90	0.53
32:1a:359:U:H2'	32:1a:360:A:H8	1.74	0.53
32:1a:1004:A:H5"	32:1a:1025:U:C2	2.42	0.53
1:2A:1072:C:N3	1:2A:1089:G:N2	2.56	0.53
1:2A:2698:U:H2'	1:2A:2699:C:C6	2.43	0.53
22:20:27:GLU:HB2	22:20:69:PHE:HD1	1.72	0.53
26:24:42:PHE:HD2	26:24:43:TYR:HD1	1.55	0.53
32:2a:216:G:H2'	32:2a:217:C:C6	2.43	0.53
34:2c:35:GLU:HA	34:2c:38:ARG:HD2	1.89	0.53
35:2d:149:ALA:C	35:2d:151:LYS:H	2.15	0.53
39:2h:87:SER:HA	39:2h:93:VAL:HG23	1.90	0.53
50:2s:52:TYR:HD1	50:2s:57:HIS:NE2	2.06	0.53
1:1A:263:C:O2'	1:1A:429:A:N3	2.36	0.53
1:1A:627:A:N1	1:1A:636:G:O2'	2.41	0.53
1:1A:2820:A:OP2	13:1R:2:ARG:NH2	2.41	0.53
20:1Y:56:PRO:C	20:1Y:58:GLY:H	2.16	0.53
32:1a:1299:A:N3	32:1a:1299:A:H5"	2.23	0.53
39:1h:33:GLU:HG2	39:1h:59:LEU:HD11	1.88	0.53
52:1u:6:ARG:HH21	52:1u:15:ARG:HH21	1.56	0.53
1:2A:300:A:HO2'	1:2A:318:C:HO2'	1.54	0.53
1:2A:1056:G:H5"	1:2A:1057:A:O4'	2.08	0.53
1:2A:1580:A:H8	1:2A:1580:A:OP2	1.91	0.53
1:2A:2171:A:H4'	1:2A:2172:U:OP1	2.08	0.53
2:2B:103:G:H21	21:2Z:73:GLN:NE2	2.04	0.53
5:2F:185:ASP:OD1	5:2F:188:ARG:NH1	2.36	0.53
26:24:34:GLU:HB2	44:2m:57:ARG:NH2	2.22	0.53
47:2p:18:ARG:HG2	47:2p:35:LYS:HE3	1.89	0.53
50:2s:51:VAL:O	50:2s:57:HIS:HA	2.08	0.53
1:1A:818:G:H5'	1:1A:839:U:OP1	2.08	0.53
1:1A:1593:G:H2'	1:1A:1594:G:C8	2.43	0.53
31:19:7:VAL:HG12	31:19:34:GLN:HB3	1.89	0.53
32:1a:79:G:C2	32:1a:90:U:C2	2.97	0.53
32:1a:384:G:H2'	32:1a:385:C:C6	2.44	0.53
32:1a:865:A:H2	32:1a:918:A:H4'	1.73	0.53
32:1a:922:G:H4'	36:1e:20:GLN:HA	1.91	0.53
32:1a:1183:A:H3'	32:1a:1184:G:C5'	2.37	0.53
39:1h:40:ALA:O	39:1h:43:GLY:N	2.42	0.53
1:2A:1913:A:N1	32:2a:1491:G:N2	2.57	0.53
1:2A:2109:U:H2'	1:2A:2110:G:C8	2.44	0.53
3:2D:102:LYS:C	3:2D:103:ARG:HG2	2.33	0.53
22:20:37:LEU:HD12	22:20:51:VAL:HG13	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:192:U:H2'	32:2a:193:C:H6	1.72	0.53
32:2a:1172:C:H2'	32:2a:1173:G:C8	2.42	0.53
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.22	0.53
36:2e:137:GLU:OE2	36:2e:141:GLN:NE2	2.39	0.53
45:2n:26:ARG:NH1	45:2n:43:CYS:SG	2.81	0.53
1:1A:1056:G:O2'	1:1A:1086:A:H1'	2.08	0.53
1:1A:1071:G:H1'	1:1A:1089:G:H2'	1.91	0.53
21:1Z:157:LEU:HD13	21:1Z:161:VAL:HG22	1.91	0.53
41:1j:19:SER:O	41:1j:23:ILE:HG12	2.07	0.53
1:2A:1818:U:O4	3:2D:154:LYS:HD2	2.07	0.53
1:2A:2128:C:H1'	1:2A:2173:A:H2	1.74	0.53
1:2A:2874:C:H2'	1:2A:2875:C:C6	2.43	0.53
3:2D:275:LYS:HA	3:2D:276:LYS:C	2.34	0.53
10:2O:19:ILE:HB	10:2O:41:ALA:HB1	1.91	0.53
32:2a:1023:G:H3'	32:2a:1024:G:C8	2.36	0.53
1:1A:1461:G:H2'	1:1A:1462:C:O4'	2.08	0.53
1:1A:1528:A:OP2	63:1A:4247:HOH:O	2.19	0.53
17:1V:29:PRO:HA	17:1V:61:VAL:HG22	1.89	0.53
29:17:30:VAL:O	29:17:34:ARG:HG3	2.09	0.53
32:1a:261:U:H2'	32:1a:263:A:OP2	2.08	0.53
32:1a:848:C:H2'	32:1a:849:C:H6	1.74	0.53
32:1a:1183:A:O2'	32:1a:1184:G:OP1	2.24	0.53
33:1b:12:GLU:O	33:1b:15:VAL:HG12	2.08	0.53
46:1o:8:LYS:O	46:1o:12:ILE:HG13	2.09	0.53
5:2F:184:TYR:CE2	5:2F:188:ARG:HD2	2.43	0.53
44:2m:19:LEU:O	44:2m:22:ILE:HG12	2.09	0.53
46:2o:82:ILE:O	46:2o:86:GLY:N	2.31	0.53
1:1A:1070:A:N7	1:1A:1097:U:O2'	2.40	0.53
1:1A:1693:U:H1'	3:1D:14:ARG:NH1	2.24	0.53
1:1A:1805:U:O2	3:1D:50:THR:HB	2.08	0.53
7:1H:86:GLU:OE1	7:1H:130:ARG:HD2	2.09	0.53
32:1a:547:A:OP1	63:1a:3321:HOH:O	2.18	0.53
32:1a:1117:G:H4'	40:1i:104:ARG:NH1	2.24	0.53
32:1a:1149:C:O2'	32:1a:1280:A:N1	2.41	0.53
34:1c:182:ILE:HA	34:1c:202:ILE:O	2.09	0.53
39:1h:121:ASP:OD1	39:1h:121:ASP:N	2.40	0.53
1:2A:1427:A:H4'	1:2A:1428:C:O5'	2.08	0.53
21:2Z:96:VAL:N	21:2Z:128:VAL:O	2.28	0.53
32:2a:786:G:C2	32:2a:797:C:C2	2.97	0.53
32:2a:1169:A:H2'	32:2a:1170:A:C8	2.43	0.53
38:2g:69:VAL:HG22	38:2g:135:VAL:HG22	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:671:C:N4	63:1A:4580:HOH:O	2.41	0.53
1:1A:819:A:C4	1:1A:1189:A:C2	2.97	0.53
1:1A:1332:G:N7	1:1A:1609:A:O2'	2.42	0.53
1:1A:1588:C:H2'	1:1A:1589:C:C6	2.44	0.53
2:1B:103:G:H21	21:1Z:73:GLN:NE2	2.01	0.53
32:1a:359:U:H2'	32:1a:360:A:C8	2.44	0.53
32:1a:405:U:H5"	32:1a:495:A:H2	1.73	0.53
38:1g:50:ILE:HD12	38:1g:61:VAL:HB	1.91	0.53
48:1q:45:HIS:HD2	48:1q:65:ILE:HG12	1.74	0.53
1:2A:997:G:O2'	1:2A:998:C:H5'	2.08	0.53
1:2A:1497:U:H5"	1:2A:1498:C:H5	1.73	0.53
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.44	0.53
1:2A:2472:G:N2	1:2A:2477:C:OP1	2.39	0.53
1:2A:2773:C:OP1	4:2E:166:THR:OG1	2.23	0.53
6:2G:101:ILE:HA	6:2G:104:GLU:HB3	1.90	0.53
18:2W:12:ILE:HG13	18:2W:42:ARG:HH11	1.73	0.53
26:24:46:GLN:C	26:24:48:ARG:H	2.15	0.53
32:2a:735:C:H2'	32:2a:736:C:C6	2.44	0.53
32:2a:1053:G:N7	32:2a:1200:C:H5"	2.24	0.53
32:2a:1259:C:N4	32:2a:1260:C:O2	2.41	0.53
51:2t:42:GLN:O	51:2t:45:GLN:HB3	2.09	0.53
1:1A:2115:G:O4'	1:1A:2167:U:H4'	2.09	0.53
5:1F:51:THR:HB	5:1F:88:VAL:HG11	1.91	0.53
24:12:56:GLN:O	24:12:60:LEU:HG	2.09	0.53
32:1a:252:U:O2'	63:1a:3323:HOH:O	2.19	0.53
36:1e:27:ARG:HH11	36:1e:27:ARG:HG3	1.74	0.53
44:1m:11:ARG:HA	44:1m:45:VAL:HB	1.91	0.53
51:1t:60:GLU:HG3	51:1t:81:LYS:HE3	1.90	0.53
1:2A:672:C:OP1	63:2A:3914:HOH:O	2.19	0.53
1:2A:1920:OMC:HM22	1:2A:1921:G:H5'	1.91	0.53
1:2A:2506:U:N3	55:2v:1:MET:O	2.36	0.53
6:2G:109:VAL:HG21	26:24:14:ILE:HG21	1.91	0.53
9:2N:1:MET:HE1	16:2U:94:ASN:ND2	2.24	0.53
9:2N:15:LEU:HD12	9:2N:135:PRO:HB2	1.90	0.53
11:2P:29:LYS:O	11:2P:29:LYS:HD3	2.09	0.53
14:2S:23:ARG:HD2	14:2S:86:ALA:HB2	1.89	0.53
21:2Z:42:VAL:O	21:2Z:46:LYS:HG2	2.09	0.53
25:23:52:HIS:CD2	25:23:53:LEU:HG	2.44	0.53
32:2a:1305:G:O2'	32:2a:1331:G:N2	2.41	0.53
43:2l:103:GLY:N	43:2l:107:ALA:O	2.32	0.53
45:2n:15:LYS:O	45:2n:16:PHE:CG	2.61	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:375:C:H2'	1:1A:376:C:C6	2.44	0.53
1:1A:1175:U:OP1	1:1A:1177:A:N6	2.42	0.53
1:1A:1530:C:O2'	1:1A:1531:C:O5'	2.26	0.53
1:1A:2625:G:O2'	63:1A:4137:HOH:O	2.07	0.53
58:1A:4024:MPD:O4	58:1A:4024:MPD:H11	2.08	0.53
2:1B:90:A:C5	2:1B:91:C:H1'	2.43	0.53
5:1F:64:ILE:HG21	5:1F:78:ILE:HG23	1.91	0.53
19:1X:5:TYR:CE1	24:12:30:ARG:HG3	2.43	0.53
33:1b:158:LEU:H	33:1b:158:LEU:HD12	1.74	0.53
34:1c:152:ILE:HB	34:1c:199:LYS:HB2	1.91	0.53
40:1i:18:PHE:CD2	40:1i:62:TYR:HD2	2.27	0.53
1:2A:515:A:H1'	1:2A:581:C:H1'	1.91	0.53
1:2A:1649:G:O2'	13:2R:107:ASP:OD2	2.27	0.53
1:2A:1683:C:H2'	1:2A:1684:C:C6	2.44	0.53
1:2A:2660:A:H2'	1:2A:2661:G:O4'	2.08	0.53
7:2H:76:VAL:O	7:2H:80:SER:HB3	2.08	0.53
11:2P:50:ARG:HD3	30:28:7:HIS:CD2	2.43	0.53
32:2a:551:U:H2'	32:2a:552:U:C6	2.44	0.53
32:2a:1466:C:H2'	32:2a:1467:G:O4'	2.09	0.53
33:2b:188:ALA:HB1	33:2b:192:SER:HB2	1.89	0.53
50:2s:58:VAL:O	50:2s:60:VAL:N	2.41	0.53
1:1A:1176:G:H1'	1:1A:1177:A:C5'	2.38	0.53
1:1A:1557:C:H5"	1:1A:1558:A:OP2	2.08	0.53
1:1A:1837:C:O2	1:1A:1927:A:H2	1.91	0.53
57:1A:4023:SPS:C3	54:1x:76:8AN:O2P	2.57	0.53
4:1E:28:ALA:HB3	4:1E:93:VAL:CG1	2.39	0.53
18:1W:24:ILE:HD12	18:1W:71:VAL:HG11	1.91	0.53
35:1d:19:LEU:HD12	35:1d:21:LEU:HD11	1.90	0.53
1:2A:893:C:H2'	1:2A:894:C:C6	2.44	0.53
1:2A:1588:C:H2'	1:2A:1589:C:C6	2.44	0.53
1:2A:2274:A:N1	1:2A:2276:G:H1'	2.24	0.53
1:2A:2889:C:H2'	1:2A:2891:G:O4'	2.09	0.53
22:20:23:VAL:HG22	22:20:38:VAL:HG22	1.91	0.53
26:24:42:PHE:HD2	26:24:43:TYR:CD1	2.27	0.53
32:2a:390:C:H2'	32:2a:391:G:C8	2.45	0.53
3:1D:170:GLY:C	3:1D:172:TYR:H	2.17	0.52
10:1O:64:ARG:HG2	10:1O:83:ALA:HB3	1.91	0.52
14:1S:14:VAL:O	14:1S:18:ILE:HG12	2.09	0.52
15:1T:65:LYS:HG3	15:1T:66:VAL:N	2.24	0.52
25:13:8:LEU:HD23	25:13:54:VAL:HG23	1.91	0.52
32:1a:1316:G:N2	32:1a:1318:A:H3'	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:98:LEU:HG	33:1b:101:MET:HE3	1.91	0.52
1:2A:1108:U:H3'	1:2A:1109:C:H5"	1.92	0.52
2:2B:76:G:O6	63:2B:303:HOH:O	2.17	0.52
13:2R:1:MET:HB2	63:2R:311:HOH:O	2.08	0.52
32:2a:1157:A:H4'	32:2a:1158:C:O5'	2.09	0.52
32:2a:1469:G:H2'	32:2a:1470:G:C8	2.44	0.52
34:2c:67:THR:HG23	34:2c:102:ASN:HB3	1.91	0.52
38:2g:46:ALA:O	38:2g:50:ILE:HG23	2.09	0.52
1:1A:330:A:H2	1:1A:1210:A:HO2'	1.54	0.52
1:1A:2322:A:H2'	1:1A:2323:G:O4'	2.09	0.52
1:1A:2611:U:C4	27:15:3:LYS:HG2	2.44	0.52
11:1P:42:SER:O	63:1P:302:HOH:O	2.19	0.52
30:18:14:VAL:HG13	30:18:22:VAL:HG13	1.91	0.52
32:1a:294:U:OP1	32:1a:610:G:O2'	2.24	0.52
32:1a:452:A:H4'	47:1p:72:ARG:CZ	2.39	0.52
32:1a:735:C:H2'	32:1a:736:C:H6	1.73	0.52
32:1a:1226:C:H2'	44:1m:103:THR:HB	1.92	0.52
32:1a:1330:U:H2'	32:1a:1331:G:H5'	1.89	0.52
46:1o:56:LEU:O	46:1o:60:VAL:HG23	2.09	0.52
47:1p:56:ALA:O	47:1p:60:LEU:HG	2.09	0.52
50:1s:36:ARG:NH2	50:1s:75:ALA:O	2.32	0.52
1:2A:493:G:H2'	1:2A:494:G:O4'	2.10	0.52
7:2H:23:ARG:HH12	7:2H:36:PRO:HB3	1.75	0.52
7:2H:24:VAL:HG21	7:2H:72:ILE:HD11	1.92	0.52
26:24:45:GLY:O	26:24:47:GLN:N	2.42	0.52
32:2a:97:G:C2	32:2a:98:G:C4	2.98	0.52
1:1A:1131:G:H21	9:1N:73:THR:CG2	2.22	0.52
1:1A:2584:U:H2'	1:1A:2585:U:C6	2.44	0.52
15:1T:28:VAL:HG13	15:1T:86:ILE:HG23	1.90	0.52
35:1d:148:VAL:HG12	35:1d:149:ALA:O	2.09	0.52
37:1f:45:LEU:HD13	37:1f:59:TYR:HD1	1.73	0.52
38:1g:38:LEU:O	38:1g:42:ILE:HG13	2.09	0.52
1:2A:878:A:H3'	1:2A:879:G:H8	1.72	0.52
1:2A:1777:U:H2'	1:2A:1778:U:H6	1.75	0.52
19:2X:60:ARG:HH22	29:27:47:ARG:HH12	1.58	0.52
22:20:26:TYR:N	22:20:29:GLN:OE1	2.27	0.52
22:20:51:VAL:HG21	22:20:79:VAL:O	2.09	0.52
32:2a:407:G:H2'	32:2a:408:A:C8	2.44	0.52
32:2a:738:C:OP2	37:2f:92:LYS:HD2	2.10	0.52
40:2i:36:TYR:CE1	40:2i:70:LYS:HE2	2.44	0.52
1:1A:106:C:HO2'	1:1A:294:A:HO2'	1.50	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:271(H):G:O2'	1:1A:271(I):G:OP2	2.23	0.52
1:1A:1019:U:OP1	1:1A:1035:U:O2'	2.14	0.52
1:1A:2644:G:O6	63:1A:4229:HOH:O	2.18	0.52
8:1I:134:PRO:C	8:1I:136:VAL:H	2.17	0.52
16:1U:58:ARG:HA	16:1U:61:TRP:CE3	2.45	0.52
20:1Y:6:HIS:H	20:1Y:6:HIS:CD2	2.26	0.52
32:1a:279:A:C5	48:1q:98:LEU:HD23	2.45	0.52
46:1o:55:GLY:HA2	46:1o:58:MET:HE3	1.92	0.52
46:1o:82:ILE:O	46:1o:86:GLY:N	2.42	0.52
53:1y:80:LYS:O	53:1y:84:GLN:HG3	2.09	0.52
1:2A:212:G:H2'	1:2A:213:A:O4'	2.09	0.52
1:2A:409:C:H2'	1:2A:410:G:C8	2.45	0.52
1:2A:568:U:H5'	1:2A:945:A:H62	1.73	0.52
1:2A:1316:U:H2'	1:2A:1317:A:C8	2.43	0.52
1:2A:1796:U:H2'	1:2A:1797:C:H6	1.74	0.52
32:2a:76:C:H42	32:2a:93:G:H1	1.55	0.52
32:2a:189(K):U:H2'	32:2a:189(L):G:C8	2.44	0.52
32:2a:819:A:H4'	32:2a:820:U:OP2	2.09	0.52
32:2a:947:G:O2'	32:2a:1306:A:H4'	2.08	0.52
32:2a:1090:U:H2'	32:2a:1091:U:C6	2.44	0.52
32:2a:1118:C:H1'	32:2a:1179:A:C4	2.44	0.52
38:2g:103:TRP:CH2	38:2g:141:VAL:HG21	2.44	0.52
46:2o:11:VAL:O	46:2o:14:GLU:N	2.40	0.52
48:2q:43:LEU:O	48:2q:69:LYS:HG3	2.08	0.52
1:1A:569:U:OP1	63:1A:4241:HOH:O	2.19	0.52
1:1A:1026:U:OP1	63:1A:4106:HOH:O	2.18	0.52
1:1A:1279:G:C2'	1:1A:1280:G:H5'	2.39	0.52
1:1A:2114:A:H3'	1:1A:2115:G:H8	1.74	0.52
1:1A:2364:C:H2'	1:1A:2365:G:O4'	2.09	0.52
1:1A:2543:G:H2'	1:1A:2544:G:C8	2.45	0.52
8:1I:72:LEU:HD12	8:1I:138:ILE:HG21	1.92	0.52
19:1X:41:ASN:O	19:1X:45:THR:HG23	2.09	0.52
25:13:7:LYS:HG2	25:13:9:VAL:HG13	1.91	0.52
25:13:18:ASP:OD1	25:13:19:GLN:N	2.42	0.52
32:1a:266:G:H5'	32:1a:268:C:H41	1.73	0.52
32:1a:721:G:C6	32:1a:733:A:C2	2.98	0.52
38:1g:79:ARG:HA	38:1g:84:ASN:HA	1.91	0.52
53:1y:2:THR:OG1	53:1y:3:MET:N	2.42	0.52
1:2A:784:A:C5	3:2D:229:VAL:HG21	2.44	0.52
1:2A:795:C:H2'	1:2A:796:C:C6	2.44	0.52
1:2A:1631(A):A:N6	63:2A:3931:HOH:O	2.21	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:2N:14:VAL:HG12	9:2N:15:LEU:H	1.72	0.52
32:2a:560:U:OP2	63:2a:3216:HOH:O	2.19	0.52
1:1A:106:C:O2'	1:1A:294:A:O2'	2.26	0.52
1:1A:458:G:O2'	29:17:39:ARG:HD3	2.10	0.52
22:10:53:MET:HG3	22:10:59:LEU:HD12	1.92	0.52
32:1a:1131:G:OP1	40:1i:20:ARG:NH2	2.40	0.52
37:1f:7:ASN:HD22	37:1f:7:ASN:N	2.07	0.52
38:1g:78:ARG:HD2	38:1g:156:TRP:CZ3	2.45	0.52
43:1l:84:LEU:HG	43:1l:85:ILE:N	2.24	0.52
46:1o:39:LEU:HD13	46:1o:56:LEU:HB2	1.91	0.52
47:1p:20:VAL:HG21	47:1p:32:TYR:CD2	2.45	0.52
1:2A:893:C:H2'	1:2A:894:C:H6	1.74	0.52
1:2A:979:G:O6	63:2A:3915:HOH:O	2.19	0.52
1:2A:1278:A:OP1	13:2R:36:THR:HG23	2.08	0.52
1:2A:1824:G:N3	3:2D:254:THR:OG1	2.43	0.52
1:2A:2111:C:H42	1:2A:2147:G:H22	1.57	0.52
2:2B:95:C:H2'	2:2B:96:U:C6	2.45	0.52
40:2i:17:VAL:HG12	40:2i:63:ILE:HG23	1.92	0.52
40:2i:42:ARG:NH1	40:2i:71:SER:O	2.42	0.52
1:1A:1720:U:H2'	1:1A:1721:G:O4'	2.09	0.52
1:1A:2870:C:H2'	1:1A:2871:C:O4'	2.10	0.52
21:1Z:140:ASP:OD1	21:1Z:142:SER:OG	2.26	0.52
32:1a:100:C:H2'	32:1a:101:A:C8	2.44	0.52
32:1a:189(A):C:N4	32:1a:189(J):G:H1	2.07	0.52
32:1a:481:G:O2'	32:1a:483:C:N4	2.38	0.52
32:1a:1014:A:H4'	50:1s:14:HIS:CE1	2.44	0.52
35:1d:187:ARG:NH2	35:1d:193:ASP:OD2	2.43	0.52
39:1h:83:ILE:HA	39:1h:136:GLU:O	2.09	0.52
53:1y:52:ALA:HB2	53:1y:77:LEU:HD21	1.92	0.52
1:2A:539:G:H2'	1:2A:540:C:C6	2.44	0.52
1:2A:723:G:H2'	1:2A:724:U:H6	1.75	0.52
1:2A:1430:C:H2'	1:2A:1431:U:C6	2.45	0.52
1:2A:1919:A:O3'	32:2a:1517:G:H1'	2.10	0.52
1:2A:2262:U:OP1	1:2A:2387:U:O2'	2.26	0.52
1:2A:2774:C:H2'	1:2A:2775:A:O4'	2.10	0.52
11:2P:95:VAL:HG23	11:2P:125:VAL:HA	1.91	0.52
11:2P:138:LEU:HD23	11:2P:145:PRO:HB3	1.92	0.52
14:2S:26:LEU:HD22	14:2S:87:PHE:CD1	2.44	0.52
26:24:50:VAL:HG21	44:2m:65:LYS:HB3	1.91	0.52
32:2a:868:C:H2'	32:2a:869:G:O4'	2.09	0.52
33:2b:229:VAL:HG12	33:2b:230:VAL:H	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:2j:32:ALA:HB1	41:2j:33:GLN:HA	1.92	0.52
53:2y:61:LEU:HD21	53:2y:85:LEU:HD13	1.91	0.52
1:1A:107:C:H2'	1:1A:108:U:C6	2.40	0.52
1:1A:721:C:H2'	1:1A:722:A:C8	2.44	0.52
11:1P:82:GLY:HA2	11:1P:113:LYS:O	2.10	0.52
20:1Y:11:ASP:OD1	20:1Y:11:ASP:N	2.39	0.52
1:2A:2112:G:H2'	1:2A:2113:U:H6	1.75	0.52
1:2A:2567:G:H2'	1:2A:2568:C:C6	2.44	0.52
6:2G:60:LEU:HD23	6:2G:68:PRO:HG3	1.92	0.52
32:2a:1117:G:H5"	40:2i:104:ARG:CZ	2.40	0.52
32:2a:1227:A:OP1	50:2s:80:TYR:OH	2.18	0.52
33:2b:10:LEU:HD12	33:2b:48:MET:HE1	1.90	0.52
33:2b:97:TRP:NE1	33:2b:173:ALA:HB2	2.25	0.52
34:2c:40:ARG:HH11	34:2c:55:VAL:HB	1.75	0.52
47:2p:43:LYS:HG2	47:2p:48:TRP:CE3	2.45	0.52
1:1A:536:A:H2'	1:1A:537:C:C6	2.45	0.52
1:1A:985:C:H2'	1:1A:986:C:H6	1.75	0.52
1:1A:1141:U:OP1	9:1N:25:ARG:NH1	2.43	0.52
1:1A:2308:G:O2'	1:1A:2310:A:N7	2.42	0.52
5:1F:135:LYS:O	5:1F:138:GLU:HB2	2.10	0.52
6:1G:110:ALA:O	6:1G:113:ARG:N	2.42	0.52
21:1Z:129:SER:HB3	21:1Z:132:ASN:HB2	1.90	0.52
32:1a:1051:C:H2'	32:1a:1052:U:C6	2.45	0.52
35:1d:178:VAL:C	35:1d:180:GLY:H	2.17	0.52
38:1g:12:LEU:HD13	38:1g:25:ALA:HB2	1.92	0.52
1:2A:588:U:H2'	1:2A:589:C:C6	2.45	0.52
1:2A:881:G:H2'	1:2A:882:G:H8	1.75	0.52
14:2S:8:GLU:HA	14:2S:11:LYS:HE3	1.92	0.52
32:2a:73:G:O2'	32:2a:76:C:H5'	2.09	0.52
32:2a:189(L):G:H2'	32:2a:190:U:C6	2.44	0.52
32:2a:1127:G:H2'	32:2a:1128:C:O4'	2.10	0.52
32:2a:1504:G:N2	53:2y:83:ARG:HH22	2.07	0.52
33:2b:20:GLU:HG3	33:2b:189:ASP:HB2	1.92	0.52
35:2d:150:GLU:HG3	35:2d:153:ARG:HE	1.75	0.52
35:2d:199:ASN:C	35:2d:201:GLN:H	2.18	0.52
41:2j:63:PHE:HD1	45:2n:57:ARG:O	1.92	0.52
1:1A:1179:C:H2'	1:1A:1180:C:C6	2.45	0.52
1:1A:1210:A:H5"	1:1A:1212:G:O4'	2.09	0.52
1:1A:1512:U:H2'	1:1A:1513:C:C6	2.44	0.52
1:1A:1541:G:H3'	1:1A:1542:A:H2'	1.92	0.52
7:1H:7:LEU:HD12	7:1H:8:PRO:HD2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1075:C:H5"	33:1b:179:LYS:HE3	1.92	0.52
51:1t:37:SER:O	51:1t:41:ILE:HG13	2.10	0.52
1:2A:361:G:O2'	1:2A:362:U:H5'	2.10	0.52
1:2A:2140:C:H2'	1:2A:2141:G:H8	1.75	0.52
1:2A:2591:C:H2'	1:2A:2592:G:C8	2.45	0.52
3:2D:63:ARG:O	3:2D:65:ILE:HG12	2.10	0.52
12:2Q:79:LEU:HD22	12:2Q:80:GLU:HG3	1.91	0.52
13:2R:38:VAL:HB	13:2R:39:PRO:HD3	1.91	0.52
32:2a:757:U:H2'	32:2a:758:G:O4'	2.10	0.52
34:2c:114:PRO:O	34:2c:118:GLN:HG3	2.10	0.52
36:2e:152:ARG:HB3	39:2h:43:GLY:HA3	1.91	0.52
1:1A:527:C:H4'	1:1A:528:A:O5'	2.10	0.51
1:1A:764:A:N3	3:1D:213:ARG:NH1	2.58	0.51
32:1a:848:C:H2'	32:1a:849:C:C6	2.45	0.51
32:1a:1008:C:H2'	32:1a:1009:G:O4'	2.10	0.51
32:1a:1321:C:H4'	44:1m:87:TYR:CE2	2.44	0.51
43:1l:51:ALA:O	43:1l:52:LEU:HD23	2.10	0.51
1:2A:1418:G:H8	1:2A:1418:G:O5'	1.92	0.51
1:2A:2365:G:H4'	22:20:60:PHE:CZ	2.45	0.51
1:2A:2591:C:OP1	3:2D:239:ARG:NH2	2.43	0.51
5:2F:11:VAL:HB	5:2F:18:ARG:HG3	1.92	0.51
5:2F:12:LEU:HG	5:2F:13:SER:H	1.74	0.51
6:2G:60:LEU:O	6:2G:64:THR:HG22	2.09	0.51
8:2I:81:VAL:O	8:2I:146:ALA:HA	2.09	0.51
11:2P:94:GLU:HG2	11:2P:124:LYS:HE2	1.91	0.51
17:2V:43:GLU:OE1	17:2V:43:GLU:N	2.43	0.51
32:2a:866:C:H4'	32:2a:919:A:H5'	1.90	0.51
32:2a:890:G:O2'	32:2a:906:G:O6	2.27	0.51
32:2a:965:A:O2'	53:2y:40:ILE:HG21	2.09	0.51
32:2a:1005:A:H1'	32:2a:1025:U:N3	2.24	0.51
32:2a:1084:G:H5'	32:2a:1102:A:OP2	2.10	0.51
32:2a:1123:A:C3'	41:2j:36:GLY:HA3	2.39	0.51
32:2a:1319:A:OP1	50:2s:70:LYS:NZ	2.43	0.51
14:1S:59:LYS:HD2	14:1S:60:GLY:H	1.75	0.51
32:1a:90:U:H2'	32:1a:91:C:C6	2.45	0.51
32:1a:538:G:H5"	43:1l:114:LYS:HB2	1.91	0.51
40:1i:17:VAL:HG21	40:1i:81:ILE:HG22	1.92	0.51
47:1p:57:ARG:NH2	47:1p:78:GLY:O	2.43	0.51
1:2A:783:A:O2'	1:2A:785:G:OP1	2.26	0.51
1:2A:881:G:H2'	1:2A:882:G:C8	2.45	0.51
1:2A:2062:A:H61	55:2v:2:THR:HG23	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2297:C:H2'	1:2A:2298:A:H8	1.75	0.51
1:2A:2749:A:H1'	7:2H:63:SER:OG	2.10	0.51
8:2I:75:LEU:HD21	8:2I:105:HIS:CE1	2.46	0.51
9:2N:108:PRO:O	9:2N:113:GLY:HA3	2.10	0.51
26:24:20:ASN:ND2	26:24:38:LYS:HG3	2.25	0.51
26:24:59:PHE:HA	26:24:60:GLN:C	2.35	0.51
32:2a:442:C:H42	32:2a:492:G:H1	1.58	0.51
34:2c:111:LEU:HD21	34:2c:144:SER:O	2.11	0.51
35:2d:22:LYS:HB2	35:2d:26:CYS:SG	2.51	0.51
36:2e:75:THR:HG22	36:2e:76:ILE:N	2.25	0.51
43:2l:58:VAL:O	43:2l:65:GLU:HA	2.10	0.51
50:2s:33:THR:OG1	50:2s:34:TRP:N	2.43	0.51
5:1F:197:ASP:OD1	5:1F:197:ASP:N	2.43	0.51
32:1a:165:C:H2'	32:1a:166:G:C8	2.44	0.51
43:1l:60:LEU:HB2	43:1l:64:TYR:O	2.10	0.51
53:1y:49:VAL:HG13	53:1y:66:LYS:HG3	1.92	0.51
1:2A:118:A:OP1	29:27:22:MET:HE2	2.10	0.51
1:2A:724:U:H2'	1:2A:725:G:O4'	2.10	0.51
10:2O:64:ARG:HG2	10:2O:83:ALA:HB3	1.91	0.51
26:24:55:ARG:C	26:24:57:GLU:H	2.14	0.51
32:2a:1323:G:H4'	32:2a:1363:C:C2	2.45	0.51
40:2i:108:VAL:HG12	40:2i:109:VAL:H	1.75	0.51
46:2o:82:ILE:HB	46:2o:87:ILE:HB	1.92	0.51
1:1A:2291:U:H2'	1:1A:2292:C:C6	2.46	0.51
5:1F:161:GLU:O	5:1F:165:ARG:HG3	2.10	0.51
11:1P:63:PRO:HG2	30:18:25:MET:HB2	1.91	0.51
32:1a:128:G:O2'	48:1q:3:LYS:HE2	2.10	0.51
32:1a:559:A:OP2	36:1e:121:LYS:NZ	2.36	0.51
32:1a:1096:C:H2'	32:1a:1097:C:H6	1.75	0.51
32:1a:1109:C:H2'	32:1a:1110:A:O4'	2.11	0.51
34:1c:59:ARG:O	41:1j:92:THR:HG22	2.11	0.51
37:1f:48:LEU:HD13	37:1f:52:ILE:HG13	1.92	0.51
38:1g:18:TYR:CD1	38:1g:59:LEU:HD12	2.43	0.51
40:1i:99:LEU:HD13	40:1i:101:PHE:HE2	1.75	0.51
47:1p:34:GLU:OE2	47:1p:55:ARG:NH1	2.43	0.51
1:2A:1489:U:HO2'	1:2A:1490:A:H8	1.58	0.51
1:2A:1815:A:OP2	3:2D:54:ARG:NH2	2.42	0.51
1:2A:1886:C:H2'	1:2A:1887:C:H6	1.75	0.51
1:2A:2206:G:H5"	1:2A:2207:G:C8	2.46	0.51
63:2A:5117:HOH:O	13:2R:3:HIS:HD2	1.92	0.51
5:2F:107:LYS:HG3	5:2F:206:ILE:HA	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:2O:28:SER:HB3	63:2O:306:HOH:O	2.11	0.51
19:2X:46:ALA:HB1	24:22:33:MET:HE1	1.93	0.51
26:24:18:CYS:SG	26:24:39:CYS:HB3	2.50	0.51
32:2a:117:G:OP2	63:2a:3212:HOH:O	2.19	0.51
32:2a:202:U:O5'	32:2a:202:U:H6	1.93	0.51
32:2a:445:G:H2'	32:2a:446:G:O4'	2.10	0.51
32:2a:1286:A:H2'	32:2a:1287:A:H4'	1.92	0.51
34:2c:181:ASN:N	34:2c:205:GLY:O	2.30	0.51
45:2n:32:SER:OG	45:2n:41:ARG:HG2	2.11	0.51
52:2u:18:TYR:CD1	52:2u:22:ARG:HG2	2.45	0.51
1:1A:783:A:O2'	1:1A:785:G:OP1	2.25	0.51
1:1A:1068:G:C6	1:1A:1069:A:N6	2.79	0.51
1:1A:2206:G:H8	1:1A:2207:G:N2	2.09	0.51
1:1A:2789:C:H1'	1:1A:2892:A:H2	1.75	0.51
63:1A:4130:HOH:O	20:1Y:95:LYS:HE3	2.10	0.51
16:1U:50:ARG:HB2	16:1U:53:ARG:NH2	2.25	0.51
32:1a:472:A:H2'	32:1a:473:G:O4'	2.10	0.51
32:1a:865:A:H2'	32:1a:866:C:C6	2.45	0.51
32:1a:978:A:OP2	32:1a:1363:C:N4	2.40	0.51
2:2B:7:G:H4'	14:2S:29:PHE:CD2	2.44	0.51
6:2G:15:VAL:HG21	6:2G:176:LEU:HD23	1.92	0.51
7:2H:52:VAL:HG12	7:2H:65:HIS:CD2	2.45	0.51
32:2a:427:U:H2'	32:2a:428:G:C8	2.44	0.51
36:2e:143:ARG:NH1	39:2h:77:GLU:OE2	2.42	0.51
1:1A:1051:G:H2'	1:1A:1052:C:O4'	2.10	0.51
1:1A:1779:U:H2'	63:1A:4901:HOH:O	2.10	0.51
3:1D:35:LYS:HD3	3:1D:64:ILE:HD11	1.91	0.51
3:1D:239:ARG:O	63:1D:406:HOH:O	2.19	0.51
13:1R:71:GLN:NE2	63:1R:305:HOH:O	2.43	0.51
32:1a:159:G:N2	32:1a:162:A:OP2	2.44	0.51
32:1a:627:G:H2'	32:1a:628:G:H8	1.75	0.51
33:1b:97:TRP:HZ3	33:1b:99:GLY:HA2	1.75	0.51
1:2A:774:A:H2'	1:2A:774:A:N3	2.23	0.51
1:2A:1467:C:C5	1:2A:1546:C:H2'	2.46	0.51
1:2A:2431:U:OP1	63:2A:3912:HOH:O	2.18	0.51
63:2A:5322:HOH:O	27:25:13:LYS:HE3	2.11	0.51
6:2G:64:THR:HG23	6:2G:66:GLN:H	1.75	0.51
12:2Q:50:ALA:HB1	12:2Q:121:ALA:HB1	1.92	0.51
13:2R:56:LYS:NZ	13:2R:90:ARG:O	2.42	0.51
26:24:46:GLN:O	26:24:48:ARG:N	2.41	0.51
32:2a:544:G:OP1	35:2d:62:GLN:NE2	2.31	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:585:G:N3	32:2a:879:C:H4'	2.25	0.51
32:2a:1321:C:O2'	50:2s:78:ARG:NH1	2.42	0.51
33:2b:87:ARG:NH2	33:2b:220:ASP:OD1	2.44	0.51
34:2c:17:ASP:OD1	34:2c:21:ARG:HD3	2.11	0.51
35:2d:75:PHE:CE1	35:2d:93:PHE:CZ	2.95	0.51
38:2g:70:LYS:HG2	38:2g:96:GLN:HB3	1.92	0.51
1:1A:2180:U:H2'	1:1A:2181:G:C8	2.46	0.51
10:1O:48:PRO:HB3	32:1a:1422:G:H5"	1.93	0.51
18:1W:86:LEU:HB2	18:1W:96:ILE:HG13	1.93	0.51
25:13:39:ASP:CG	25:13:44:ARG:HH21	2.18	0.51
32:1a:1411:C:H2'	32:1a:1412:C:H6	1.76	0.51
35:1d:38:TYR:CE1	35:1d:45:GLN:HG3	2.45	0.51
51:1t:63:ILE:O	51:1t:66:ALA:HB3	2.11	0.51
1:2A:1647:G:H3'	1:2A:1647:G:OP2	2.11	0.51
1:2A:1967:C:OP1	63:2A:3920:HOH:O	2.19	0.51
1:2A:2115:G:N2	1:2A:2117:A:N7	2.59	0.51
1:2A:2117:A:H5'	1:2A:2147:G:O2'	2.11	0.51
9:2N:91:LEU:O	9:2N:95:PRO:HB3	2.11	0.51
28:26:25:LYS:NZ	28:26:32:ASN:O	2.43	0.51
32:2a:253:U:H2'	32:2a:254:G:H8	1.75	0.51
32:2a:267:C:OP1	48:2q:67:LYS:HB2	2.11	0.51
32:2a:565:U:OP2	32:2a:566:G:O2'	2.20	0.51
32:2a:673:G:H5'	37:2f:87:ARG:CZ	2.40	0.51
32:2a:1226:C:H4'	50:2s:80:TYR:OH	2.11	0.51
32:2a:1228:C:OP1	44:2m:108:ARG:NH1	2.41	0.51
39:2h:20:TYR:CE1	39:2h:76:PRO:HG2	2.45	0.51
44:2m:24:GLY:HA3	44:2m:66:LEU:HD22	1.92	0.51
1:1A:1508:A:H4'	1:1A:1509(A):A:C5	2.46	0.51
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.25	0.51
63:1A:6156:HOH:O	4:1E:129:HIS:HE1	1.94	0.51
7:1H:163:TYR:CE1	7:1H:169:VAL:HG22	2.45	0.51
8:1I:77:LEU:O	8:1I:143:SER:N	2.38	0.51
12:1Q:109:VAL:HG13	12:1Q:113:GLN:HB3	1.93	0.51
32:1a:38:G:C2	32:1a:397:A:C2	2.98	0.51
32:1a:567:G:H2'	32:1a:568:G:O4'	2.10	0.51
32:1a:1005:A:H5"	32:1a:1006:C:OP2	2.11	0.51
32:1a:1402:4OC:HM43	32:1a:1403:C:C2	2.44	0.51
33:1b:61:LEU:HD21	33:1b:160:ASP:HB2	1.93	0.51
35:1d:112:VAL:HG13	35:1d:116:GLN:OE1	2.10	0.51
1:2A:172:C:H2'	1:2A:173:G:H8	1.75	0.51
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2574:G:O2'	4:2E:143:ASN:HB3	2.11	0.51
1:2A:2751:G:H4'	7:2H:4:ILE:HD11	1.93	0.51
5:2F:187:VAL:HG13	11:2P:1:MET:O	2.11	0.51
7:2H:8:PRO:O	7:2H:10:PRO:HD3	2.10	0.51
7:2H:91:GLY:HA2	7:2H:160:LYS:HG3	1.92	0.51
26:24:1:MET:HE2	26:24:6:HIS:CG	2.46	0.51
31:29:14:CYS:HA	31:29:27:CYS:HB2	1.93	0.51
32:2a:437:U:H3'	32:2a:438:G:C8	2.46	0.51
32:2a:438:G:H5"	35:2d:123:HIS:HB3	1.93	0.51
32:2a:623:C:H2'	32:2a:624:C:O4'	2.10	0.51
32:2a:932:C:H2'	32:2a:933:G:C8	2.46	0.51
32:2a:1009:G:C2	32:2a:1010:G:C8	2.99	0.51
32:2a:1269:A:H2	32:2a:1312:G:N3	2.07	0.51
42:2k:62:GLN:HG3	42:2k:97:ALA:HB2	1.93	0.51
53:2y:76:GLU:O	53:2y:80:LYS:HG2	2.10	0.51
3:1D:71:ASP:HB3	3:1D:103:ARG:NH2	2.26	0.51
30:18:62:LEU:HB3	30:18:65:GLU:CG	2.41	0.51
32:1a:580:U:H2'	32:1a:581:G:O4'	2.11	0.51
32:1a:1149:C:H2'	32:1a:1150:U:C6	2.46	0.51
32:1a:1212:U:H5'	32:1a:1213:A:H5'	1.92	0.51
32:1a:1317:C:O2	50:1s:37:ARG:NH2	2.44	0.51
35:1d:58:LEU:HD23	35:1d:206:PHE:CZ	2.46	0.51
49:1r:43:PHE:C	49:1r:51:LEU:HD12	2.36	0.51
1:2A:2503:2MA:H4'	1:2A:2504:U:OP1	2.10	0.51
16:2U:91:ASP:N	17:2V:11:GLN:OE1	2.36	0.51
19:2X:35:THR:HG22	19:2X:37:THR:N	2.20	0.51
32:2a:1154:G:H2'	32:2a:1155:G:C8	2.46	0.51
32:2a:1352:C:N4	32:2a:1370:G:H1	2.09	0.51
32:2a:1460:A:H2'	32:2a:1461:G:O4'	2.10	0.51
33:2b:189:ASP:OD1	33:2b:189:ASP:N	2.32	0.51
39:2h:9:MET:HG3	39:2h:26:VAL:HG11	1.93	0.51
1:1A:207:A:H2'	1:1A:208:C:O4'	2.11	0.51
1:1A:330:A:H2	1:1A:1210:A:O2'	1.94	0.51
1:1A:370:G:OP2	63:1A:4239:HOH:O	2.18	0.51
1:1A:1341:U:O4'	19:1X:57:LEU:HD23	2.11	0.51
1:1A:1844:C:H2'	1:1A:1845:G:H8	1.76	0.51
2:1B:39:A:O2'	2:1B:46:A:N1	2.39	0.51
2:1B:103:G:N2	21:1Z:73:GLN:HE22	2.02	0.51
2:1B:110:G:H2'	2:1B:111:G:H8	1.76	0.51
8:1I:29:TYR:O	8:1I:33:ARG:HD2	2.11	0.51
32:1a:853:G:O2'	63:1a:3324:HOH:O	2.19	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:155:LEU:HB3	35:1d:158:ILE:HG12	1.93	0.51
39:1h:44:PHE:CE2	39:1h:109:ILE:HG12	2.46	0.51
48:1q:9:VAL:HG21	48:1q:84:LEU:HD12	1.92	0.51
1:2A:861:A:C2	1:2A:917:A:C4	2.98	0.51
1:2A:1550:C:OP1	1:2A:1720:U:O2'	2.18	0.51
2:2B:42:C:O2'	6:2G:67:LYS:O	2.18	0.51
5:2F:31:HIS:CD2	5:2F:35:GLU:HG3	2.46	0.51
23:21:77:ALA:O	23:21:80:LEU:HB2	2.11	0.51
34:2c:58:GLU:HG2	41:2j:92:THR:HG21	1.93	0.51
39:2h:10:LEU:HD22	39:2h:83:ILE:HD11	1.93	0.51
48:2q:67:LYS:HA	48:2q:70:ARG:NH1	2.26	0.51
1:1A:242:G:C8	30:18:5:LYS:HG2	2.46	0.50
1:1A:1056:G:H21	1:1A:1103:A:H62	1.57	0.50
57:1A:4023:SPS:N4	54:1x:76:8AN:O2P	2.45	0.50
6:1G:11:TYR:O	6:1G:15:VAL:HB	2.11	0.50
6:1G:61:ALA:O	26:14:7:PRO:HG2	2.11	0.50
27:15:45:VAL:HG11	27:15:58:LEU:HD22	1.92	0.50
32:1a:55:A:C2	32:1a:56:U:H1'	2.46	0.50
32:1a:343:U:H1'	32:1a:347:G:N2	2.26	0.50
32:1a:590:C:OP1	39:1h:30:ARG:N	2.35	0.50
32:1a:802:A:H3'	32:1a:803:G:C8	2.46	0.50
32:1a:1362:C:H2'	32:1a:1363:C:H5"	1.93	0.50
38:1g:75:VAL:HG13	38:1g:145:ALA:HA	1.93	0.50
1:2A:631:A:N3	1:2A:2415:G:O2'	2.43	0.50
1:2A:711:G:H2'	1:2A:712:G:O4'	2.12	0.50
1:2A:954:G:H5"	12:2Q:13:GLN:HB3	1.93	0.50
1:2A:2198:A:O5'	8:2I:33:ARG:NH2	2.44	0.50
1:2A:2377:A:H2'	1:2A:2378:A:C8	2.46	0.50
20:2Y:7:VAL:HG12	20:2Y:8:LYS:H	1.76	0.50
32:2a:1030:C:N4	32:2a:1032:G:O6	2.43	0.50
36:2e:77:PRO:HD2	36:2e:142:LEU:HD22	1.93	0.50
1:1A:271(L):U:H4'	1:1A:271(M):G:OP1	2.12	0.50
1:1A:410:G:OP2	63:1A:4230:HOH:O	2.18	0.50
1:1A:862:G:OP1	12:1Q:18:LYS:HE2	2.12	0.50
1:1A:886:C:OP1	1:1A:886:C:H4'	2.10	0.50
1:1A:2298:A:H2'	1:1A:2299:G:O4'	2.12	0.50
1:1A:2773:C:H2'	1:1A:2774:C:H6	1.75	0.50
3:1D:23:GLU:OE1	63:1D:407:HOH:O	2.20	0.50
32:1a:689:C:P	42:1k:46:GLY:HA3	2.51	0.50
32:1a:1077:G:O6	36:1e:47:LYS:NZ	2.45	0.50
48:1q:83:ASP:OD1	48:1q:84:LEU:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:179:G:O6	63:2A:3898:HOH:O	2.16	0.50
1:2A:300:A:P	20:2Y:86:ARG:NH2	2.85	0.50
2:2B:1:U:H2'	2:2B:2:C:H6	1.76	0.50
21:2Z:44:PHE:O	21:2Z:48:PHE:N	2.33	0.50
31:29:2:LYS:HB2	31:29:34:GLN:HG2	1.92	0.50
33:2b:186:ALA:O	33:2b:201:ILE:N	2.40	0.50
38:2g:108:ALA:C	38:2g:110:GLN:H	2.20	0.50
1:1A:1611:C:OP1	63:1A:4250:HOH:O	2.19	0.50
1:1A:2430:A:OP1	63:1A:4257:HOH:O	2.20	0.50
32:1a:250:A:H4'	32:1a:251:G:O5'	2.10	0.50
43:1l:32:PHE:HB3	43:1l:84:LEU:HD11	1.94	0.50
46:1o:68:ARG:NH2	63:1o:203:HOH:O	2.44	0.50
1:2A:428:A:H3'	1:2A:429:A:C8	2.46	0.50
1:2A:538:G:H2'	1:2A:539:G:H8	1.76	0.50
1:2A:1417:C:H2'	1:2A:1418:G:O4'	2.12	0.50
5:2F:125:LEU:HA	5:2F:194:MET:O	2.12	0.50
11:2P:89:ALA:HA	11:2P:121:LYS:HE2	1.93	0.50
22:20:10:THR:HG22	22:20:12:ASN:N	2.21	0.50
32:2a:33:A:N3	43:2l:32:PHE:HE2	2.09	0.50
32:2a:72:C:C2	32:2a:98:G:N2	2.80	0.50
32:2a:664:G:H22	32:2a:741:G:H1	1.57	0.50
32:2a:1250:A:H2'	32:2a:1251:A:C8	2.46	0.50
35:2d:162:LEU:HD13	35:2d:181:MET:HE2	1.93	0.50
41:2j:38:ILE:HG23	41:2j:71:LEU:O	2.12	0.50
43:2l:117:ARG:NH2	43:2l:124:LYS:HB2	2.27	0.50
44:2m:20:THR:C	44:2m:22:ILE:H	2.20	0.50
1:1A:1125:G:H4'	31:19:37:GLY:O	2.12	0.50
1:1A:2075:U:H2'	1:1A:2238:G:N2	2.26	0.50
32:1a:185:A:C2	32:1a:193:C:C2	2.99	0.50
32:1a:460:G:N2	32:1a:471:G:N7	2.59	0.50
32:1a:636:U:H2'	32:1a:637:G:H8	1.76	0.50
34:1c:153:VAL:HG22	34:1c:198:VAL:HG22	1.93	0.50
46:1o:25:THR:HG21	46:1o:70:LEU:HB2	1.92	0.50
1:2A:875:G:H5"	21:2Z:149:SER:CB	2.41	0.50
3:2D:71:ASP:OD2	3:2D:103:ARG:NH2	2.41	0.50
32:2a:441:A:H3'	32:2a:442:C:H6	1.77	0.50
33:2b:28:PHE:HA	33:2b:194:PRO:HG2	1.94	0.50
38:2g:75:VAL:HA	38:2g:87:VAL:O	2.12	0.50
42:2k:107:SER:O	42:2k:108:ILE:HG13	2.11	0.50
1:1A:1040:C:H2'	1:1A:1041:C:O4'	2.11	0.50
1:1A:2292:C:H2'	1:1A:2293:C:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:32:LEU:HD11	5:1F:105:VAL:HG13	1.94	0.50
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.93	0.50
7:1H:3:ARG:HG2	7:1H:6:ARG:CG	2.42	0.50
7:1H:12:PRO:O	7:1H:15:VAL:HG13	2.11	0.50
7:1H:95:ARG:HG2	7:1H:106:THR:OG1	2.12	0.50
12:1Q:21:THR:CG2	12:1Q:101:ARG:HB2	2.41	0.50
12:1Q:80:GLU:HB2	22:10:5:LYS:HD3	1.94	0.50
32:1a:814:A:N7	32:1a:816:A:C4	2.80	0.50
38:1g:50:ILE:HD11	38:1g:58:PRO:HA	1.93	0.50
44:1m:15:VAL:O	44:1m:19:LEU:HD22	2.11	0.50
1:2A:1288:U:OP1	63:2A:3918:HOH:O	2.19	0.50
1:2A:2115:G:H21	1:2A:2171:A:H61	1.58	0.50
1:2A:2532:G:H2'	1:2A:2533:A:O4'	2.10	0.50
10:2O:88:ASN:OD1	10:2O:92:GLU:HB2	2.11	0.50
13:2R:61:HIS:HB2	63:2R:312:HOH:O	2.12	0.50
32:2a:321:A:C2	32:2a:333:G:C2	3.00	0.50
32:2a:441:A:H3'	32:2a:442:C:C6	2.47	0.50
32:2a:944:G:H1'	32:2a:1339:A:H61	1.76	0.50
32:2a:947:G:O3'	44:2m:109:THR:OG1	2.29	0.50
32:2a:1469:G:H2'	32:2a:1470:G:H8	1.77	0.50
33:2b:42:ILE:HD12	33:2b:203:GLY:HA2	1.92	0.50
34:2c:28:GLN:HG2	34:2c:32:LEU:HD13	1.94	0.50
53:2y:3:MET:HE3	53:2y:37:PRO:HB2	1.93	0.50
1:1A:375:C:H5"	63:1A:5493:HOH:O	2.12	0.50
1:1A:2050:C:H5"	63:1A:5216:HOH:O	2.12	0.50
1:1A:2353:G:H5"	22:10:32:ARG:NH2	2.26	0.50
1:1A:2461:C:H2'	1:1A:2462:U:C6	2.47	0.50
32:1a:185:A:H2'	32:1a:186:C:H6	1.77	0.50
32:1a:189(A):C:H2'	32:1a:189(B):C:C6	2.47	0.50
32:1a:472:A:O3'	47:1p:81:ARG:HA	2.12	0.50
32:1a:1264:C:H2'	32:1a:1265:G:C8	2.46	0.50
33:1b:185:ILE:HG12	33:1b:185:ILE:O	2.11	0.50
34:1c:19:GLU:HB3	34:1c:40:ARG:NH2	2.26	0.50
35:1d:163:GLU:O	35:1d:166:LYS:HB2	2.12	0.50
50:1s:28:LYS:HB3	50:1s:47:HIS:HD2	1.75	0.50
1:2A:2224:G:OP2	63:2A:3919:HOH:O	2.19	0.50
8:2I:124:GLY:H	8:2I:144:VAL:HB	1.76	0.50
12:2Q:93:TYR:OH	21:2Z:194:PRO:HG2	2.12	0.50
25:23:23:LEU:HD13	25:23:50:VAL:HG11	1.93	0.50
32:2a:918:A:H2'	32:2a:919:A:H8	1.77	0.50
32:2a:1117:G:H5"	40:2i:104:ARG:NH2	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1292:U:C2	32:2a:1293:G:C8	2.99	0.50
32:2a:1362:C:H2'	32:2a:1363:C:H5"	1.92	0.50
33:2b:134:GLU:O	33:2b:138:LEU:HG	2.11	0.50
35:2d:116:GLN:CD	35:2d:157:LEU:HD21	2.37	0.50
40:2i:23:ASN:HB2	40:2i:25:LYS:NZ	2.26	0.50
1:1A:945:A:H5'	63:1A:4277:HOH:O	2.11	0.50
1:1A:1900:A:OP2	63:1A:4252:HOH:O	2.19	0.50
1:1A:2277:G:OP2	22:10:10:THR:HG21	2.11	0.50
13:1R:2:ARG:HA	13:1R:5:LYS:HD2	1.93	0.50
32:1a:1298:C:H2'	38:1g:114:ARG:HH21	1.77	0.50
44:1m:4:ILE:HD13	44:1m:57:ARG:HA	1.92	0.50
1:2A:1319:G:C6	1:2A:1320:C:N4	2.80	0.50
1:2A:1598:C:H2'	1:2A:1599:C:H6	1.76	0.50
26:24:59:PHE:HA	26:24:61:ARG:HB3	1.94	0.50
32:2a:7:G:H5'	32:2a:298:A:O4'	2.12	0.50
32:2a:1306:A:H2'	32:2a:1307:U:C6	2.47	0.50
35:2d:32:ALA:O	35:2d:36:ARG:N	2.43	0.50
41:2j:77:PRO:O	41:2j:81:THR:OG1	2.25	0.50
42:2k:48:ILE:HD11	42:2k:64:ALA:HA	1.93	0.50
1:1A:650:C:N4	63:1A:4660:HOH:O	2.44	0.50
1:1A:755:C:H2'	1:1A:756:C:C6	2.46	0.50
1:1A:1170:G:N2	1:1A:1180:C:C2	2.80	0.50
1:1A:1274:A:OP2	63:1A:4249:HOH:O	2.19	0.50
1:1A:1301:A:C8	1:1A:1303:G:C8	3.00	0.50
1:1A:1359:A:N1	1:1A:1372:U:C4	2.80	0.50
1:1A:1713:U:H1'	1:1A:1747:G:N2	2.27	0.50
1:1A:1999:C:H4'	1:1A:2723:C:O2	2.12	0.50
1:1A:2443:C:OP1	5:1F:68:LYS:HD3	2.11	0.50
1:1A:2612:C:OP2	27:15:2:ALA:N	2.44	0.50
6:1G:16:ARG:HE	6:1G:31:VAL:HG21	1.77	0.50
6:1G:144:ILE:HA	6:1G:148:MET:HE2	1.94	0.50
14:1S:15:ARG:HE	14:1S:88:ASP:CG	2.19	0.50
20:1Y:92:ASN:CB	20:1Y:94:LYS:HG2	2.42	0.50
32:1a:17:U:O4'	32:1a:1080:A:H1'	2.11	0.50
32:1a:179:A:H2'	32:1a:180:U:H6	1.76	0.50
32:1a:992:U:H4'	32:1a:993:G:C5'	2.42	0.50
32:1a:1036:G:H2'	32:1a:1036:G:N3	2.26	0.50
32:1a:1251:A:H2'	32:1a:1252:A:C8	2.47	0.50
50:1s:11:VAL:O	50:1s:13:ASP:N	2.42	0.50
50:1s:15:LEU:O	50:1s:19:VAL:HG23	2.11	0.50
1:2A:107:C:H2'	1:2A:108:U:H6	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:478:A:N1	1:2A:500:G:H4'	2.27	0.50
1:2A:995:C:OP2	16:2U:54:LYS:NZ	2.34	0.50
1:2A:2336:A:H61	22:20:43:THR:HG21	1.75	0.50
3:2D:133:LEU:HA	3:2D:136:ILE:HD12	1.94	0.50
15:2T:24:PRO:HD3	15:2T:52:ILE:HD12	1.94	0.50
23:21:6:GLU:HG3	23:21:61:ARG:O	2.12	0.50
32:2a:270:A:H2'	32:2a:271:C:H6	1.75	0.50
32:2a:475:G:H2'	32:2a:476:G:C8	2.46	0.50
32:2a:923:A:O2'	32:2a:1399:C:OP2	2.24	0.50
36:2e:107:ARG:O	36:2e:111:GLU:N	2.42	0.50
1:1A:323:G:C8	5:1F:171:PRO:HG3	2.47	0.50
1:1A:1100:C:O5'	1:1A:1100:C:H6	1.95	0.50
1:1A:1264:G:OP1	27:15:19:ARG:NH2	2.30	0.50
1:1A:1377:G:OP2	63:1A:4258:HOH:O	2.20	0.50
1:1A:2056:G:N2	27:15:5:PRO:HA	2.26	0.50
2:1B:81:G:N7	59:1B:230:ARG:NH2	2.46	0.50
6:1G:16:ARG:HH21	6:1G:31:VAL:CG2	2.25	0.50
15:1T:106:SER:OG	15:1T:107:ASP:N	2.44	0.50
32:1a:194:C:H2'	32:1a:195:A:H5"	1.92	0.50
32:1a:266:G:H2'	32:1a:266:G:N3	2.25	0.50
32:1a:317:G:H3'	32:1a:318:G:H5"	1.93	0.50
32:1a:418:C:H1'	32:1a:540:G:O2'	2.11	0.50
32:1a:668:G:H2'	32:1a:669:U:H6	1.75	0.50
32:1a:738:C:H2'	32:1a:739:C:H6	1.77	0.50
32:1a:1244:C:N4	32:1a:1293:G:H1	2.10	0.50
34:1c:120:VAL:O	34:1c:124:ILE:HG23	2.11	0.50
34:1c:180:ALA:HB1	34:1c:203:PHE:HE1	1.77	0.50
35:1d:88:VAL:HG13	36:1e:97:GLY:HA2	1.94	0.50
48:1q:66:SER:O	48:1q:70:ARG:NH1	2.45	0.50
3:2D:145:VAL:HG12	3:2D:146:GLU:O	2.12	0.50
5:2F:117:ARG:HH12	11:2P:1:MET:N	2.10	0.50
32:2a:1075:C:OP1	33:2b:179:LYS:NZ	2.27	0.50
32:2a:1139:G:N2	32:2a:1143:G:C6	2.80	0.50
34:2c:179:ARG:NH1	34:2c:206:GLU:HB2	2.26	0.50
42:2k:20:TYR:CE1	42:2k:83:ILE:HD12	2.47	0.50
1:1A:1540:U:H2'	1:1A:1541:G:O4'	2.12	0.49
1:1A:2319:G:H22	14:1S:3:ARG:HD2	1.76	0.49
1:1A:2330:G:O2'	22:10:41:ARG:O	2.23	0.49
2:1B:50:G:H5"	14:1S:61:ASN:HD21	1.77	0.49
8:1I:47:LEU:HG	8:1I:51:ILE:HD12	1.93	0.49
11:1P:39:LYS:HG3	11:1P:45:LEU:CD1	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:1Q:135:ASP:O	12:1Q:139:GLU:HG3	2.11	0.49
15:1T:51:ARG:NH1	63:1T:306:HOH:O	2.45	0.49
19:1X:66:LEU:HD12	19:1X:67:GLY:N	2.26	0.49
32:1a:264:U:O2	48:1q:64:PRO:HG2	2.11	0.49
41:1j:38:ILE:HD12	41:1j:71:LEU:HB3	1.94	0.49
45:1n:37:PHE:HB3	45:1n:39:LEU:HD12	1.93	0.49
1:2A:140:G:N2	1:2A:1596:A:H4'	2.27	0.49
1:2A:526:A:OP1	63:2A:3922:HOH:O	2.20	0.49
1:2A:720:C:H2'	1:2A:721:C:C6	2.47	0.49
1:2A:1218:C:OP1	63:2A:3921:HOH:O	2.20	0.49
1:2A:1497:U:H5"	1:2A:1498:C:C5	2.47	0.49
1:2A:1839:G:H5"	1:2A:1840:G:OP2	2.11	0.49
5:2F:31:HIS:HB2	11:2P:9:ASN:OD1	2.11	0.49
7:2H:5:GLY:O	7:2H:52:VAL:HB	2.12	0.49
22:20:26:TYR:O	22:20:29:GLN:HG3	2.12	0.49
28:26:35:GLU:OE2	28:26:50:ARG:NH1	2.45	0.49
32:2a:1130:A:H5'	40:2i:18:PHE:CE2	2.47	0.49
38:2g:23:VAL:HG13	38:2g:43:PHE:CE2	2.47	0.49
41:2j:78:ASN:C	41:2j:80:LYS:H	2.20	0.49
44:2m:97:PRO:HA	44:2m:110:ARG:HG2	1.93	0.49
1:1A:222:A:H5"	1:1A:421:U:OP1	2.12	0.49
1:1A:305:U:H2'	1:1A:306:U:C6	2.48	0.49
1:1A:588:U:H4'	63:1A:7051:HOH:O	2.11	0.49
1:1A:963:U:OP2	63:1A:4105:HOH:O	2.20	0.49
1:1A:973:A:OP1	63:1A:4260:HOH:O	2.20	0.49
1:1A:1494:A:H2'	1:1A:1495:A:C8	2.47	0.49
1:1A:1531:C:N4	1:1A:1538:G:H1	2.10	0.49
1:1A:1583:A:H5'	1:1A:1584:C:OP1	2.12	0.49
1:1A:2312:U:OP1	6:1G:74:LYS:N	2.33	0.49
1:1A:2687:U:H2'	1:1A:2688:U:O4'	2.10	0.49
6:1G:41:GLN:HB2	6:1G:90:LEU:HB2	1.95	0.49
7:1H:158:HIS:O	7:1H:160:LYS:N	2.44	0.49
14:1S:59:LYS:NZ	14:1S:68:GLN:HE22	2.10	0.49
32:1a:134:A:H61	47:1p:25:ARG:NH1	2.10	0.49
32:1a:984:C:H2'	32:1a:985:C:H6	1.77	0.49
32:1a:1003:G:H2'	32:1a:1004:A:C4'	2.36	0.49
32:1a:1015:A:C6	32:1a:1016:A:C6	2.99	0.49
32:1a:1368:G:OP2	40:1i:112:LYS:HG3	2.12	0.49
35:1d:67:ILE:HG22	35:1d:68:TYR:CD2	2.47	0.49
35:1d:153:ARG:O	35:1d:158:ILE:HD11	2.12	0.49
37:1f:67:MET:HE1	37:1f:75:LEU:HD23	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:224:G:O6	1:2A:419:C:O2'	2.30	0.49
1:2A:938:G:H5"	1:2A:938:G:H8	1.77	0.49
1:2A:1354:A:H4'	3:2D:38:LYS:HZ3	1.75	0.49
1:2A:1818:U:O2'	3:2D:154:LYS:O	2.21	0.49
1:2A:2134:A:C5	1:2A:2157:G:H5'	2.47	0.49
1:2A:2319:G:N1	14:2S:3:ARG:HA	2.27	0.49
2:2B:16:G:H1	2:2B:68:C:H42	1.58	0.49
28:26:15:GLU:HG3	28:26:47:THR:HG23	1.94	0.49
32:2a:110:C:H2'	32:2a:111:G:O4'	2.12	0.49
32:2a:991:U:H2'	32:2a:1212:U:C4	2.47	0.49
32:2a:1292:U:H2'	32:2a:1293:G:H8	1.77	0.49
52:2u:12:LYS:HB3	52:2u:17:THR:O	2.12	0.49
1:1A:12:U:O2	1:1A:12:U:H2'	2.11	0.49
1:1A:1059:G:H1	1:1A:1079:C:H42	1.60	0.49
1:1A:1359:A:C2	1:1A:1372:U:O4	2.65	0.49
1:1A:1649:G:OP1	63:1A:4244:HOH:O	2.19	0.49
2:1B:86:G:H1	2:1B:91:C:H42	1.60	0.49
12:1Q:16:ARG:HB3	12:1Q:18:LYS:HD3	1.94	0.49
18:1W:10:VAL:HG12	18:1W:12:ILE:HG22	1.93	0.49
19:1X:75:ASP:OD2	63:1X:102:HOH:O	2.20	0.49
21:1Z:45:ASP:O	21:1Z:49:ARG:HG3	2.12	0.49
32:1a:60:A:N1	32:1a:107:G:O2'	2.39	0.49
32:1a:437:U:O3'	35:1d:125:HIS:CE1	2.66	0.49
33:1b:149:LEU:HD22	33:1b:152:PHE:HB3	1.94	0.49
48:1q:51:TYR:HE1	48:1q:76:LEU:HD22	1.78	0.49
1:2A:185:U:H4'	1:2A:218:A:H4'	1.93	0.49
1:2A:1428:C:C5	1:2A:1569:A:H5"	2.48	0.49
1:2A:2115:G:H22	1:2A:2119:A:H5'	1.78	0.49
1:2A:2532:G:N2	1:2A:2663:G:O2'	2.45	0.49
10:2O:119:PRO:HG3	63:2O:313:HOH:O	2.12	0.49
25:23:7:LYS:HE3	25:23:32:GLN:NE2	2.28	0.49
32:2a:64:G:H4'	32:2a:65:U:H3'	1.93	0.49
32:2a:190:U:C2	32:2a:191:G:C8	3.01	0.49
32:2a:443:C:H2'	32:2a:444:C:C6	2.48	0.49
32:2a:473:G:OP2	47:2p:75:ARG:HD3	2.12	0.49
32:2a:1017:G:H2'	32:2a:1018:C:O4'	2.12	0.49
32:2a:1079:G:O3'	36:2e:14:ARG:NH2	2.44	0.49
32:2a:1197:G:OP2	63:2a:3215:HOH:O	2.19	0.49
44:2m:107:ALA:O	44:2m:111:LYS:N	2.45	0.49
1:1A:2266:A:H8	1:1A:2266:A:OP1	1.95	0.49
11:1P:2:LYS:HE2	11:1P:4:SER:H	1.75	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:1X:94:GLY:HA3	19:1X:95:LEU:C	2.36	0.49
20:1Y:92:ASN:HB2	20:1Y:94:LYS:HG2	1.93	0.49
25:13:39:ASP:OD2	25:13:44:ARG:NH2	2.42	0.49
32:1a:619:U:H5"	32:1a:620:C:OP2	2.12	0.49
39:1h:86:ILE:HG22	39:1h:93:VAL:HG21	1.93	0.49
1:2A:1421:G:C2	1:2A:1422:G:C8	3.00	0.49
2:2B:24:G:H4'	2:2B:25:A:C8	2.47	0.49
6:2G:11:TYR:OH	6:2G:33:ARG:HG2	2.12	0.49
7:2H:70:THR:O	7:2H:74:ASN:N	2.44	0.49
8:2I:75:LEU:HD23	8:2I:76:THR:N	2.27	0.49
12:2Q:39:PRO:HA	12:2Q:97:VAL:O	2.13	0.49
14:2S:30:ARG:HB2	14:2S:35:ILE:HG23	1.94	0.49
15:2T:107:ASP:O	15:2T:111:ARG:HG3	2.12	0.49
23:21:5:CYS:HB3	23:21:10:LYS:H	1.76	0.49
25:23:40:THR:HG22	25:23:42:ALA:H	1.77	0.49
28:26:25:LYS:NZ	28:26:30:THR:O	2.34	0.49
32:2a:299:G:H2'	32:2a:300:A:C8	2.47	0.49
32:2a:300:A:H2'	32:2a:301:G:O4'	2.12	0.49
32:2a:540:G:C6	32:2a:541:G:C5	3.01	0.49
32:2a:901:A:O2'	32:2a:1513:A:OP1	2.20	0.49
35:2d:78:LEU:HD21	35:2d:139:ARG:NH2	2.26	0.49
53:2y:52:ALA:HB2	53:2y:77:LEU:HD21	1.94	0.49
1:1A:1666:G:O2'	1:1A:1667:G:H5'	2.12	0.49
1:1A:1790:C:H5"	1:1A:1791:A:OP1	2.13	0.49
32:1a:230:G:H2'	32:1a:231:G:O4'	2.12	0.49
32:1a:617:G:N1	32:1a:618:C:C4	2.81	0.49
32:1a:1126:U:O2	32:1a:1280:A:H2'	2.11	0.49
32:1a:1278:U:H5'	32:1a:1279:A:O4'	2.13	0.49
46:1o:18:PHE:HB2	46:1o:19:PRO:HD2	1.93	0.49
1:2A:1637:A:H4'	1:2A:2711:A:O2'	2.12	0.49
3:2D:124:PRO:HG2	3:2D:129:ASN:HD21	1.77	0.49
4:2E:37:ARG:HA	4:2E:42:ASP:OD2	2.13	0.49
5:2F:40:GLN:HE22	5:2F:182:ASN:HB2	1.78	0.49
7:2H:169:VAL:O	7:2H:171:LEU:HD23	2.12	0.49
32:2a:33:A:H2'	32:2a:34:C:C6	2.48	0.49
32:2a:509:A:H3'	32:2a:509:A:H8	1.76	0.49
32:2a:1024:G:O2'	32:2a:1025:U:H5"	2.12	0.49
32:2a:1042:G:H2'	32:2a:1043:C:O4'	2.12	0.49
32:2a:1292:U:H2'	32:2a:1293:G:C8	2.48	0.49
32:2a:1318:A:H5"	50:2s:3:ARG:NH2	2.27	0.49
34:2c:6:HIS:HB3	45:2n:49:HIS:ND1	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:2g:149:ARG:HB3	42:2k:59:TYR:CE2	2.47	0.49
44:2m:81:LEU:HD22	44:2m:88:ARG:HD2	1.95	0.49
1:1A:143:G:H1'	19:1X:37:THR:HG21	1.94	0.49
1:1A:1165:U:H2'	1:1A:1166:C:C6	2.47	0.49
1:1A:1378:A:OP1	29:17:10:ARG:NH2	2.45	0.49
1:1A:2583:G:H2'	1:1A:2584:U:C6	2.48	0.49
1:1A:2618:G:H21	4:1E:150:VAL:HG21	1.78	0.49
6:1G:33:ARG:HG3	6:1G:162:THR:HG21	1.93	0.49
17:1V:82:ARG:O	17:1V:83:ARG:HD3	2.11	0.49
32:1a:538:G:H2'	32:1a:539:A:C8	2.48	0.49
32:1a:802:A:H3'	32:1a:803:G:H8	1.77	0.49
33:1b:69:LEU:HD12	33:1b:91:PRO:HB2	1.94	0.49
36:1e:77:PRO:HD2	36:1e:142:LEU:HD13	1.92	0.49
38:1g:13:GLN:HE22	38:1g:16:LEU:HD21	1.77	0.49
40:1i:18:PHE:N	40:1i:62:TYR:O	2.35	0.49
40:1i:28:VAL:HA	40:1i:63:ILE:O	2.13	0.49
41:1j:23:ILE:C	41:1j:25:GLU:H	2.21	0.49
48:1q:57:VAL:HG12	48:1q:76:LEU:HD13	1.94	0.49
51:1t:75:ASN:O	51:1t:79:ARG:HB2	2.12	0.49
1:2A:873:G:N2	1:2A:905:U:C2	2.81	0.49
1:2A:1015:G:O2'	1:2A:1016:G:H5'	2.13	0.49
1:2A:1142(A):A:C2	1:2A:1144:G:C6	3.01	0.49
1:2A:1260:G:H2'	1:2A:1261:C:C6	2.47	0.49
1:2A:1420:U:HO2'	1:2A:1421:G:P	2.33	0.49
1:2A:1436:G:H2'	1:2A:1437:C:O4'	2.12	0.49
1:2A:2055:C:H5'	1:2A:2056:G:O5'	2.13	0.49
1:2A:2166:G:H2'	1:2A:2167:U:O4'	2.12	0.49
2:2B:70:C:H2'	2:2B:71:C:H6	1.78	0.49
3:2D:130:ALA:C	3:2D:131:LEU:HD12	2.37	0.49
3:2D:258:LYS:HE2	3:2D:273:ARG:CZ	2.43	0.49
11:2P:108:LYS:C	11:2P:110:TYR:H	2.21	0.49
11:2P:147:LEU:HD23	11:2P:148:LEU:O	2.12	0.49
21:2Z:99:TYR:HB3	21:2Z:123:ASP:HB2	1.95	0.49
32:2a:663:A:O3'	49:2r:64:ARG:NH2	2.44	0.49
33:2b:15:VAL:O	33:2b:16:HIS:HB3	2.13	0.49
34:2c:186:PHE:HD1	34:2c:198:VAL:O	1.96	0.49
40:2i:26:VAL:HG22	40:2i:61:ALA:HB3	1.93	0.49
46:2o:69:TYR:CE1	46:2o:73:GLU:HG3	2.47	0.49
1:1A:11:G:C2'	1:1A:12:U:H5'	2.42	0.49
1:1A:530:G:N1	1:1A:2023:G:OP1	2.35	0.49
1:1A:1651:G:N2	1:1A:2007:C:C2	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2137:C:N3	1:1A:2154:G:N2	2.51	0.49
1:1A:2203:U:O2'	1:1A:2205:C:H5'	2.13	0.49
1:1A:2314:C:H2'	1:1A:2315:G:H8	1.77	0.49
2:1B:102:A:OP2	63:1B:306:HOH:O	2.20	0.49
3:1D:211:ARG:HD3	3:1D:214:TRP:CZ3	2.46	0.49
6:1G:60:LEU:HB2	6:1G:68:PRO:HG3	1.94	0.49
10:1O:43:VAL:HG12	10:1O:54:GLU:HA	1.94	0.49
22:10:73:GLY:C	22:10:75:LEU:H	2.20	0.49
23:11:62:VAL:HG22	23:11:63:ALA:O	2.12	0.49
29:17:35:ARG:HG3	29:17:42:LEU:HD11	1.93	0.49
32:1a:64:G:H4'	32:1a:65:U:H3'	1.95	0.49
32:1a:310:G:OP1	47:1p:27:LYS:HD2	2.13	0.49
32:1a:370:C:H2'	32:1a:371:G:C8	2.47	0.49
51:1t:65:LYS:HA	51:1t:68:LYS:HG3	1.94	0.49
53:1y:95:ARG:C	53:1y:97:ALA:H	2.21	0.49
1:2A:70:G:H5"	1:2A:112:U:O2	2.13	0.49
1:2A:1288:U:O4	13:2R:106:GLY:HA3	2.12	0.49
1:2A:1795:C:O2	3:2D:255:LYS:HE2	2.12	0.49
1:2A:2142:C:H2'	1:2A:2143:C:C6	2.45	0.49
4:2E:162:ALA:O	4:2E:163:GLU:HG2	2.13	0.49
8:2I:61:ARG:C	8:2I:63:ALA:H	2.20	0.49
11:2P:65:ARG:HG3	11:2P:66:GLY:N	2.28	0.49
32:2a:420:U:H2'	32:2a:422:C:C5	2.47	0.49
33:2b:87:ARG:CD	33:2b:233:SER:HB3	2.42	0.49
33:2b:91:PRO:HG3	33:2b:155:LEU:HD13	1.93	0.49
47:2p:27:LYS:HG3	47:2p:30:GLY:HA3	1.93	0.49
48:2q:52:LYS:HG2	48:2q:53:LEU:N	2.28	0.49
1:1A:620:G:N3	1:1A:620:G:H5'	2.28	0.49
1:1A:864:G:O2'	1:1A:865:C:H5'	2.12	0.49
1:1A:1062:G:C2	1:1A:1088:A:C8	3.01	0.49
1:1A:2242:G:H2'	1:1A:2243:U:O4'	2.13	0.49
32:1a:735:C:H2'	32:1a:736:C:C6	2.47	0.49
33:1b:16:HIS:C	33:1b:18:GLY:H	2.21	0.49
33:1b:218:ALA:O	33:1b:222:ILE:HG13	2.12	0.49
35:1d:99:SER:O	35:1d:140:VAL:HG23	2.13	0.49
1:2A:265:A:N1	1:2A:427:U:O2'	2.42	0.49
1:2A:470:A:OP1	5:2F:59:TYR:HE1	1.95	0.49
1:2A:1188:U:C4'	17:2V:79:VAL:HG22	2.42	0.49
1:2A:1801:G:OP2	3:2D:154:LYS:NZ	2.46	0.49
2:2B:58:A:H2'	2:2B:59:A:O4'	2.12	0.49
18:2W:71:VAL:HA	18:2W:107:LEU:HD12	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:10:ARG:HD3	21:2Z:37:VAL:O	2.12	0.49
32:2a:102:G:O2'	32:2a:151:A:N3	2.36	0.49
32:2a:1126:U:H3	41:2j:71:LEU:HD12	1.78	0.49
33:2b:121:LEU:HA	33:2b:125:PRO:HG2	1.94	0.49
34:2c:136:GLN:HG2	34:2c:137:ALA:N	2.25	0.49
35:2d:94:LEU:HA	35:2d:97:LEU:HB2	1.93	0.49
44:2m:94:ARG:HB3	44:2m:96:LEU:HG	1.94	0.49
51:2t:13:LEU:O	51:2t:17:ARG:HG3	2.12	0.49
1:1A:1328:G:O2'	1:1A:1329:U:H2'	2.12	0.49
1:1A:2096:U:H2'	1:1A:2097:C:C6	2.48	0.49
2:1B:44:G:H3'	63:1B:328:HOH:O	2.13	0.49
6:1G:43:LEU:O	6:1G:45:GLU:HG2	2.12	0.49
8:1I:29:TYR:CD2	8:1I:30:LEU:HD23	2.48	0.49
20:1Y:19:LYS:HE2	20:1Y:20:TYR:CE2	2.48	0.49
32:1a:486:U:H2'	32:1a:487:A:C8	2.48	0.49
32:1a:1318:A:H5'	50:1s:10:PHE:CE1	2.47	0.49
1:2A:1790:C:H5"	1:2A:1791:A:OP1	2.11	0.49
1:2A:2149:G:C2	1:2A:2150:U:H1'	2.47	0.49
1:2A:2243:U:O4	63:2A:3911:HOH:O	2.18	0.49
1:2A:2820:A:OP1	13:2R:2:ARG:NH2	2.41	0.49
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.77	0.49
6:2G:96:ARG:H	6:2G:99:MET:HE2	1.78	0.49
16:2U:8:VAL:O	16:2U:12:ARG:HG3	2.13	0.49
19:2X:60:ARG:HH12	29:27:47:ARG:NH1	2.09	0.49
32:2a:70:G:C6	32:2a:71:C:C4	3.01	0.49
32:2a:224:C:H2'	32:2a:225:C:H6	1.76	0.49
32:2a:401:C:OP2	35:2d:73:ARG:NH2	2.45	0.49
32:2a:687:A:N3	32:2a:688:G:H1'	2.27	0.49
40:2i:24:GLY:HA2	40:2i:59:PHE:O	2.13	0.49
40:2i:125:TYR:C	40:2i:125:TYR:CD1	2.90	0.49
44:2m:78:ILE:HA	44:2m:81:LEU:HD12	1.94	0.49
47:2p:28:ARG:HG3	47:2p:29:ASP:OD1	2.12	0.49
1:1A:1783:A:H5'	1:1A:2608:G:H4'	1.95	0.49
9:1N:39:ARG:NH1	63:1N:304:HOH:O	2.45	0.49
21:1Z:126:VAL:HG23	21:1Z:163:LEU:HA	1.94	0.49
22:10:46:LYS:HB2	22:10:78:TYR:CD1	2.48	0.49
32:1a:1304:G:C6	32:1a:1305:G:N1	2.81	0.49
34:1c:123:GLN:HE22	34:1c:140:ARG:NH2	2.07	0.49
36:1e:8:GLU:HB3	36:1e:34:VAL:HG12	1.94	0.49
38:1g:26:PHE:HD1	38:1g:101:LEU:HD22	1.77	0.49
40:1i:10:ARG:HD3	40:1i:75:ASP:HB3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1i:26:VAL:HB	40:1i:33:PHE:HB2	1.95	0.49
41:1j:64:GLU:OE2	41:1j:66:ARG:HD3	2.12	0.49
44:1m:2:ALA:N	44:1m:8:GLU:OE1	2.46	0.49
48:1q:62:SER:CB	48:1q:72:ARG:HH11	2.25	0.49
50:1s:30:LEU:HD12	50:1s:48:THR:O	2.12	0.49
1:2A:774:A:N6	63:2A:4174:HOH:O	2.45	0.49
1:2A:1063:G:H2'	1:2A:1065:U:H6	1.78	0.49
1:2A:1239:G:H2'	1:2A:1240:U:O4'	2.13	0.49
1:2A:2158:A:H2'	1:2A:2158:A:OP2	2.12	0.49
1:2A:2639:A:H2'	1:2A:2640:G:O4'	2.13	0.49
1:2A:2784:C:H2'	1:2A:2785:C:C6	2.47	0.49
7:2H:140:LYS:HB2	7:2H:140:LYS:HE3	1.52	0.49
13:2R:51:LEU:HD22	13:2R:66:VAL:HG13	1.95	0.49
32:2a:323:U:H2'	32:2a:324:G:O4'	2.13	0.49
37:2f:61:LEU:HB3	37:2f:63:TYR:HE2	1.76	0.49
48:2q:28:PRO:HA	48:2q:35:VAL:HA	1.95	0.49
1:1A:192:C:O2'	1:1A:802:A:N3	2.36	0.48
1:1A:249:C:HO2'	11:1P:64:LYS:HZ2	1.51	0.48
1:1A:263:C:H2'	1:1A:264:C:O4'	2.12	0.48
1:1A:652(V):C:H2'	1:1A:653:A:O4'	2.13	0.48
1:1A:2577:A:O4'	27:15:3:LYS:HB2	2.13	0.48
4:1E:74:PRO:O	63:1E:403:HOH:O	2.20	0.48
6:1G:43:LEU:C	6:1G:45:GLU:H	2.21	0.48
9:1N:29:LYS:O	9:1N:33:LEU:HD22	2.13	0.48
10:1O:8:LEU:HD13	10:1O:82:ASN:HB3	1.95	0.48
13:1R:12:ARG:HG2	13:1R:16:HIS:ND1	2.27	0.48
27:15:56:LYS:HE3	27:15:58:LEU:O	2.13	0.48
32:1a:976:G:H5'	32:1a:1358:U:O2'	2.13	0.48
32:1a:1394:A:N1	32:1a:1500:A:O2'	2.41	0.48
39:1h:36:LEU:HA	39:1h:39:LEU:HB2	1.95	0.48
42:1k:124:LYS:HE2	42:1k:125:PHE:CE2	2.48	0.48
44:1m:72:ALA:O	44:1m:76:ALA:N	2.45	0.48
53:1y:33:HIS:CE1	53:1y:35:ILE:HG12	2.48	0.48
1:2A:910:A:C6	1:2A:911:A:C6	3.01	0.48
1:2A:2508:G:N1	1:2A:2582:G:O6	2.46	0.48
3:2D:232:PRO:HD2	3:2D:249:PRO:HA	1.95	0.48
5:2F:143:ALA:HB1	5:2F:148:LEU:HB2	1.95	0.48
6:2G:68:PRO:HA	6:2G:92:VAL:HB	1.96	0.48
7:2H:80:SER:OG	7:2H:81:GLU:N	2.46	0.48
11:2P:25:SER:HB2	63:2P:309:HOH:O	2.12	0.48
19:2X:9:LEU:HB2	19:2X:29:TRP:O	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:685:G:C2	32:2a:686:U:C4	3.01	0.48
32:2a:908:A:H2'	32:2a:909:A:C8	2.49	0.48
35:2d:89:THR:HB	35:2d:204:ILE:HD13	1.95	0.48
35:2d:108:LEU:HD23	35:2d:110:PHE:CE1	2.48	0.48
38:2g:87:VAL:HG11	38:2g:156:TRP:HZ3	1.78	0.48
39:2h:14:ARG:NH1	39:2h:83:ILE:HG23	2.27	0.48
44:2m:88:ARG:HG3	44:2m:98:VAL:HG13	1.94	0.48
45:2n:14:PRO:HG2	45:2n:16:PHE:O	2.13	0.48
50:2s:17:GLU:O	50:2s:21:GLU:HG3	2.13	0.48
1:1A:271(T):C:H2'	1:1A:271(U):G:H8	1.78	0.48
1:1A:518:G:H4'	18:1W:18:ARG:NH1	2.29	0.48
1:1A:784:A:N6	3:1D:229:VAL:HG11	2.28	0.48
1:1A:1173:G:N2	1:1A:1177:A:H2	1.97	0.48
1:1A:1453:U:O2'	1:1A:1455:G:N7	2.44	0.48
1:1A:1652:A:O2'	1:1A:1653:G:H5'	2.13	0.48
1:1A:1786:A:H1'	1:1A:1938:A:N6	2.28	0.48
32:1a:292:G:O2'	32:1a:608:A:N6	2.46	0.48
32:1a:473:G:H2'	32:1a:474:G:C8	2.48	0.48
32:1a:691:G:H2'	32:1a:692:U:C6	2.48	0.48
32:1a:1269:A:H5'	52:1u:18:TYR:O	2.13	0.48
32:1a:1288:A:H2'	32:1a:1289:A:O4'	2.12	0.48
34:1c:17:ASP:OD2	34:1c:21:ARG:HD3	2.13	0.48
35:1d:18:LYS:HE2	35:1d:26:CYS:O	2.13	0.48
63:2A:4038:HOH:O	11:2P:70:GLN:HG2	2.12	0.48
3:2D:218:ARG:HB3	63:2D:430:HOH:O	2.12	0.48
20:2Y:99:CYS:SG	20:2Y:102:CYS:N	2.82	0.48
32:2a:131:C:H2'	32:2a:132:C:C6	2.48	0.48
32:2a:790:A:C6	32:2a:791:G:C6	3.00	0.48
33:2b:69:LEU:HB3	33:2b:162:ILE:HG22	1.95	0.48
40:2i:6:GLY:O	40:2i:17:VAL:HG22	2.12	0.48
40:2i:27:THR:OG1	40:2i:32:ASP:HA	2.13	0.48
42:2k:50:TYR:HD2	42:2k:60:ALA:HB2	1.78	0.48
1:1A:330:A:H2	1:1A:1210:A:H2'	1.78	0.48
1:1A:811:U:H2'	11:1P:21:ARG:HA	1.95	0.48
1:1A:2383:G:O2'	1:1A:2384:G:H5'	2.12	0.48
2:1B:32:C:C2	2:1B:51:G:N2	2.81	0.48
35:1d:173:TRP:HA	35:1d:187:ARG:HE	1.78	0.48
47:1p:40:ASP:OD2	47:1p:44:THR:OG1	2.26	0.48
1:2A:2224:G:H4'	1:2A:2226:C:C2	2.48	0.48
32:2a:337:C:H2'	32:2a:338:A:C8	2.48	0.48
32:2a:513:C:H2'	32:2a:514:C:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:607:A:C2	47:2p:31:LYS:HG3	2.47	0.48
32:2a:1164:G:H1	32:2a:1172:C:H42	1.60	0.48
38:2g:113:GLU:HB2	38:2g:115:ARG:NH1	2.27	0.48
52:2u:18:TYR:HD1	52:2u:22:ARG:HG2	1.78	0.48
1:1A:603:A:H4'	1:1A:604:G:H5'	1.94	0.48
1:1A:2791:C:O2	1:1A:2807:G:N1	2.47	0.48
13:1R:31:HIS:C	13:1R:33:ARG:H	2.21	0.48
17:1V:66:ARG:NH1	63:1V:305:HOH:O	2.34	0.48
23:11:21:ARG:HD3	23:11:35:THR:HG21	1.94	0.48
32:1a:427:U:H5'	35:1d:41:GLY:HA2	1.94	0.48
32:1a:614:A:H2'	32:1a:615:C:H6	1.78	0.48
32:1a:616:G:C2	32:1a:617:G:C8	3.02	0.48
32:1a:861:G:O6	32:1a:869:G:N2	2.46	0.48
32:1a:1320:C:H2'	32:1a:1321:C:O4'	2.13	0.48
35:1d:108:LEU:HD21	35:1d:183:GLY:HA3	1.94	0.48
40:1i:81:ILE:HG13	40:1i:82:ALA:N	2.28	0.48
1:2A:250:G:C6	1:2A:251:A:C6	3.01	0.48
1:2A:1379:A:H4'	1:2A:1380:G:OP2	2.12	0.48
1:2A:1849:G:H2'	1:2A:1850:G:H8	1.78	0.48
1:2A:2297:C:H2'	1:2A:2298:A:C8	2.48	0.48
1:2A:2833:G:H4'	1:2A:2834:G:OP2	2.14	0.48
5:2F:126:VAL:HG21	5:2F:129:PHE:CZ	2.49	0.48
11:2P:63:PRO:HB2	30:28:30:ARG:NH2	2.28	0.48
22:20:18:ALA:HB3	22:20:20:ARG:NH1	2.28	0.48
24:22:51:ARG:O	24:22:55:ARG:HG3	2.12	0.48
32:2a:942:G:N2	40:2i:124:GLN:OE1	2.40	0.48
32:2a:1186:G:H4'	40:2i:110:GLU:OE1	2.14	0.48
32:2a:1504:G:OP1	32:2a:1507:A:H4'	2.14	0.48
33:2b:34:ALA:O	33:2b:41:ILE:HG12	2.13	0.48
34:2c:73:PRO:O	34:2c:77:ILE:HG12	2.14	0.48
35:2d:158:ILE:O	35:2d:162:LEU:HD12	2.13	0.48
36:2e:10:MET:SD	36:2e:13:ILE:HD11	2.53	0.48
44:2m:49:THR:C	44:2m:51:ALA:H	2.20	0.48
1:1A:247:G:H4'	1:1A:386:G:C5	2.48	0.48
1:1A:644:A:H4'	1:1A:645:C:C5	2.45	0.48
1:1A:2133:G:H3'	1:1A:2157:G:N2	2.25	0.48
4:1E:116:VAL:HG11	4:1E:138:PRO:HB3	1.95	0.48
5:1F:184:TYR:O	5:1F:188:ARG:HG3	2.14	0.48
9:1N:60:ILE:O	9:1N:61:ARG:HD3	2.12	0.48
12:1Q:55:VAL:HG12	12:1Q:64:ILE:HD12	1.95	0.48
22:10:26:TYR:O	22:10:29:GLN:HG3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:256:U:H2'	32:1a:257:G:O4'	2.14	0.48
32:1a:601:C:H2'	32:1a:602:A:H8	1.78	0.48
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.27	0.48
38:1g:136:LYS:HG2	38:1g:140:ASP:OD2	2.14	0.48
44:1m:95:GLY:O	44:1m:110:ARG:HB3	2.13	0.48
1:2A:118:A:H1'	1:2A:178:G:O4'	2.14	0.48
1:2A:1057:A:N6	1:2A:1087:G:OP1	2.45	0.48
1:2A:1341:U:O4'	19:2X:57:LEU:HD23	2.13	0.48
1:2A:1889:A:N1	1:2A:2234:G:H1'	2.29	0.48
1:2A:2013:A:N6	1:2A:2014:A:C6	2.81	0.48
1:2A:2133:G:H21	1:2A:2157:G:H2'	1.78	0.48
5:2F:53:THR:C	5:2F:55:GLY:H	2.22	0.48
7:2H:90:LYS:HD3	7:2H:159:GLU:HG3	1.95	0.48
9:2N:131:GLN:O	9:2N:133:GLN:N	2.46	0.48
11:2P:59:LEU:HD12	11:2P:60:MET:HE2	1.94	0.48
14:2S:64:GLU:HA	14:2S:67:ARG:HB3	1.95	0.48
32:2a:41:G:H2'	32:2a:42:G:C8	2.49	0.48
32:2a:1004:A:H5'	32:2a:1025:U:H5	1.79	0.48
32:2a:1149:C:OP1	40:2i:14:VAL:HG11	2.13	0.48
32:2a:1305:G:H5"	52:2u:4:GLY:C	2.38	0.48
33:2b:55:PHE:CE1	33:2b:218:ALA:HA	2.34	0.48
35:2d:60:GLU:HG3	35:2d:202:LEU:HD12	1.96	0.48
35:2d:190:ASP:O	35:2d:193:ASP:N	2.46	0.48
41:2j:32:ALA:O	41:2j:76:ASN:N	2.47	0.48
49:2r:43:PHE:C	49:2r:51:LEU:HD12	2.39	0.48
1:1A:279:C:H42	1:1A:361:G:H1	1.59	0.48
1:1A:375:C:H2'	1:1A:376:C:H6	1.79	0.48
1:1A:721:C:H2'	1:1A:722:A:H8	1.79	0.48
1:1A:1028:A:N6	1:1A:1125:G:H2'	2.28	0.48
1:1A:2323:G:HO2'	1:1A:2337:G:HO2'	1.60	0.48
1:1A:2626:C:H2'	1:1A:2627:G:O4'	2.13	0.48
1:1A:2747:G:O6	1:1A:2755:C:H5"	2.14	0.48
1:1A:2756:U:H1'	1:1A:2757:A:H5"	1.96	0.48
7:1H:54:ARG:HD3	7:1H:65:HIS:ND1	2.29	0.48
7:1H:101:ARG:HD2	7:1H:122:THR:HG23	1.94	0.48
32:1a:237:C:OP2	48:1q:40:LYS:NZ	2.43	0.48
32:1a:265:G:H5'	48:1q:64:PRO:O	2.14	0.48
32:1a:1434:A:H2'	32:1a:1435:G:O4'	2.13	0.48
36:1e:37:ARG:HH12	36:1e:111:GLU:HG2	1.79	0.48
39:1h:96:GLY:O	39:1h:100:ILE:HG13	2.13	0.48
50:1s:12:ASP:OD2	50:1s:35:SER:OG	2.20	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:459:U:H5”	29:27:40:TRP:CD2	2.48	0.48
1:2A:692:C:O2’	3:2D:38:LYS:NZ	2.46	0.48
1:2A:864:G:C6	1:2A:865:C:N4	2.82	0.48
1:2A:1212:G:H1’	1:2A:1236:G:N2	2.28	0.48
1:2A:1675:C:O5’	1:2A:1675:C:H6	1.96	0.48
63:2A:4156:HOH:O	11:2P:21:ARG:NH2	2.46	0.48
2:2B:9:G:N2	63:2B:306:HOH:O	2.34	0.48
5:2F:47:GLY:O	5:2F:94:PRO:HA	2.14	0.48
32:2a:9:G:H2’	32:2a:10:A:H8	1.78	0.48
33:2b:95:GLN:HB2	33:2b:148:TYR:CD1	2.49	0.48
35:2d:50:ARG:HH12	36:2e:10:MET:HG2	1.79	0.48
1:1A:2682:U:O2’	15:1T:58:ASN:ND2	2.47	0.48
2:1B:93:G:H2’	2:1B:94:C:H6	1.78	0.48
8:1I:132:PRO:HD2	8:1I:136:VAL:O	2.13	0.48
10:1O:90:GLN:O	10:1O:91:LEU:HB2	2.14	0.48
32:1a:96:U:H2’	32:1a:97:G:H8	1.78	0.48
32:1a:353:A:H5’	32:1a:353:A:H8	1.77	0.48
32:1a:377:G:OP1	47:1p:3:LYS:NZ	2.28	0.48
32:1a:1068:G:N2	32:1a:1191:A:N3	2.50	0.48
36:1e:75:THR:HG23	36:1e:117:ASP:O	2.13	0.48
4:2E:101:ARG:CZ	4:2E:171:GLU:HB2	2.43	0.48
6:2G:28:VAL:O	6:2G:31:VAL:HG13	2.14	0.48
11:2P:29:LYS:HD3	11:2P:30:THR:HG23	1.96	0.48
14:2S:18:ILE:O	14:2S:21:THR:HG23	2.13	0.48
23:21:8:SER:OG	23:21:10:LYS:HG3	2.13	0.48
27:25:45:VAL:HG13	27:25:52:TYR:HB2	1.94	0.48
32:2a:103:C:O2’	32:2a:172:A:N1	2.44	0.48
32:2a:192:U:H2’	32:2a:193:C:C6	2.49	0.48
32:2a:238:G:OP1	48:2q:25:ARG:NH2	2.46	0.48
32:2a:983:A:H2	32:2a:984:C:C6	2.32	0.48
32:2a:993:G:N3	32:2a:993:G:H2’	2.29	0.48
32:2a:1107:C:C4	32:2a:1108:G:C8	3.02	0.48
36:2e:107:ARG:HG3	36:2e:108:ALA:N	2.27	0.48
53:2y:35:ILE:HG22	53:2y:36:ASN:HD22	1.79	0.48
1:1A:330:A:H2	1:1A:1210:A:C2’	2.26	0.48
1:1A:1297:C:O2’	1:1A:1302:A:N1	2.46	0.48
1:1A:1309:G:H4’	29:17:7:PRO:HG2	1.96	0.48
1:1A:1352:U:OP1	63:1A:4263:HOH:O	2.20	0.48
1:1A:2279:G:O6	22:10:14:ARG:HD2	2.14	0.48
9:1N:13:TRP:CE3	9:1N:133:GLN:HG3	2.49	0.48
17:1V:22:VAL:HG23	17:1V:23:GLU:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:10:32:ARG:H	22:10:35:ASN:ND2	2.12	0.48
23:11:53:VAL:HG22	23:11:74:VAL:HG13	1.96	0.48
32:1a:551:U:H2'	32:1a:552:U:C6	2.49	0.48
32:1a:1057:G:H2'	32:1a:1058:G:O4'	2.14	0.48
32:1a:1112:C:C2	34:1c:178:LEU:HB2	2.48	0.48
32:1a:1347:G:N2	32:1a:1373:G:H2'	2.28	0.48
1:2A:2185:C:C4	1:2A:2186:G:N7	2.82	0.48
1:2A:2186:G:N1	1:2A:2187:G:C5	2.82	0.48
1:2A:2602:A:N6	57:2x:103:SPS:C10	2.77	0.48
2:2B:37:C:C5	2:2B:38:C:C5	3.02	0.48
2:2B:53:A:H8	2:2B:53:A:O5'	1.96	0.48
5:2F:20:LEU:HD23	5:2F:22:ALA:HB2	1.95	0.48
6:2G:41:GLN:HE22	6:2G:153:ARG:HE	1.62	0.48
10:2O:49:ARG:NH2	32:2a:1423:G:OP1	2.46	0.48
11:2P:3:LEU:H	11:2P:3:LEU:HD12	1.77	0.48
11:2P:84:ASN:HB3	11:2P:86:LYS:HG2	1.96	0.48
13:2R:45:ARG:NH2	63:2R:302:HOH:O	2.38	0.48
32:2a:600:C:H2'	32:2a:601:C:C6	2.49	0.48
32:2a:693:G:C5	53:2y:96:ARG:HD3	2.49	0.48
32:2a:1084:G:H21	32:2a:1102:A:H61	1.61	0.48
32:2a:1391:U:H2'	32:2a:1392:G:C8	2.49	0.48
34:2c:5:ILE:HG12	34:2c:6:HIS:N	2.29	0.48
40:2i:6:GLY:HA3	40:2i:80:GLY:O	2.14	0.48
1:1A:190:A:N3	1:1A:679:C:O2'	2.43	0.48
1:1A:528:A:O2'	1:1A:529:A:H5'	2.13	0.48
1:1A:755:C:O2'	1:1A:756:C:H5'	2.14	0.48
1:1A:1854:A:H2'	1:1A:1855:G:O4'	2.14	0.48
1:1A:2298:A:N6	1:1A:2318:G:O2'	2.44	0.48
10:1O:16:ALA:HB2	10:1O:52:VAL:HG21	1.95	0.48
24:12:2:LYS:O	24:12:6:VAL:HG23	2.14	0.48
32:1a:4:U:O4	39:1h:102:ARG:HD2	2.13	0.48
34:1c:45:LYS:O	34:1c:45:LYS:HG2	2.13	0.48
38:1g:18:TYR:CE1	38:1g:59:LEU:HB2	2.49	0.48
47:1p:43:LYS:HA	47:1p:48:TRP:HB3	1.96	0.48
1:2A:1431:U:H2'	1:2A:1432:C:C6	2.49	0.48
1:2A:2491:U:H1'	1:2A:2569:G:O3'	2.14	0.48
1:2A:2821:A:H2'	1:2A:2822:G:H8	1.75	0.48
63:2B:311:HOH:O	14:2S:62:LYS:NZ	2.44	0.48
5:2F:140:LEU:HD21	5:2F:170:LEU:HD11	1.96	0.48
8:2I:14:ASP:N	8:2I:17:GLN:OE1	2.39	0.48
20:2Y:8:LYS:HD3	20:2Y:97:ARG:CZ	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:108:PRO:HA	21:2Z:142:SER:O	2.14	0.48
32:2a:920:U:H2'	32:2a:921:U:C6	2.48	0.48
32:2a:947:G:H2'	32:2a:948:C:O4'	2.14	0.48
32:2a:1014:A:H2'	32:2a:1015:A:C8	2.49	0.48
1:1A:58:G:O2'	1:1A:73:A:N1	2.41	0.48
1:1A:1582:C:H2'	1:1A:1583:A:O4'	2.13	0.48
1:1A:2615:U:H2'	1:1A:2616:C:C6	2.48	0.48
1:1A:2712:U:O2'	1:1A:2713:A:H5'	2.14	0.48
7:1H:3:ARG:HG3	7:1H:4:ILE:N	2.28	0.48
26:14:16:CYS:HB2	26:14:36:CYS:HB3	1.95	0.48
32:1a:448:A:H2'	32:1a:449:C:C6	2.49	0.48
32:1a:460:G:H1'	32:1a:472:A:H61	1.77	0.48
36:1e:7:GLU:O	36:1e:34:VAL:HA	2.14	0.48
1:2A:674:G:O2'	5:2F:74:ARG:HD3	2.14	0.48
1:2A:1138:G:O2'	9:2N:105:GLY:HA3	2.13	0.48
5:2F:155:LEU:HB3	5:2F:192:LEU:HD23	1.96	0.48
6:2G:137:GLU:HB3	6:2G:139:LEU:HD11	1.96	0.48
10:2O:63:VAL:HA	10:2O:106:LEU:HD21	1.96	0.48
32:2a:78:G:N2	32:2a:92:C:H1'	2.29	0.48
32:2a:922:G:N3	32:2a:1398:A:H2	2.12	0.48
32:2a:1324:A:O4'	32:2a:1362:C:H4'	2.14	0.48
32:2a:1372:U:H5"	40:2i:71:SER:HB3	1.95	0.48
33:2b:28:PHE:CD1	33:2b:194:PRO:HG3	2.48	0.48
33:2b:59:GLU:O	33:2b:63:MET:HB2	2.13	0.48
34:2c:7:PRO:HA	34:2c:10:PHE:HB3	1.96	0.48
35:2d:138:TYR:CD2	35:2d:138:TYR:C	2.92	0.48
1:1A:443:A:N7	5:1F:45:ARG:HG2	2.29	0.47
1:1A:588:U:OP1	63:1A:4261:HOH:O	2.20	0.47
1:1A:755:C:H2'	1:1A:756:C:H6	1.79	0.47
1:1A:910:A:N3	1:1A:2264:C:O2'	2.43	0.47
1:1A:2102:U:H2'	1:1A:2103:C:C6	2.49	0.47
4:1E:98:PRO:HA	4:1E:172:VAL:HG12	1.96	0.47
6:1G:74:LYS:O	6:1G:84:LYS:HG3	2.14	0.47
6:1G:126:ASP:OD1	6:1G:130:ASN:HB2	2.14	0.47
22:10:46:LYS:HB2	22:10:78:TYR:CE1	2.49	0.47
25:13:8:LEU:HD23	25:13:8:LEU:HA	1.63	0.47
32:1a:317:G:C3'	32:1a:318:G:H5"	2.44	0.47
32:1a:392:G:H2'	32:1a:393:A:H8	1.79	0.47
32:1a:757:U:O2'	32:1a:879:C:O2	2.31	0.47
32:1a:1134:G:N3	32:1a:1134:G:H2'	2.28	0.47
32:1a:1338:G:H2'	32:1a:1339:A:C8	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1406:U:H3'	32:1a:1407:5MC:HM53	1.96	0.47
33:1b:102:LEU:HB3	33:1b:180:LEU:CD1	2.40	0.47
50:1s:12:ASP:OD2	50:1s:37:ARG:HD2	2.14	0.47
50:1s:32:LYS:HA	50:1s:50:ALA:HB3	1.96	0.47
1:2A:76:C:O3'	24:22:59:ARG:HG3	2.14	0.47
1:2A:247:G:H4'	1:2A:386:G:C5	2.49	0.47
1:2A:1683:C:H2'	1:2A:1684:C:H6	1.79	0.47
1:2A:1881:C:H2'	1:2A:1882:C:C6	2.49	0.47
1:2A:2133:G:N2	1:2A:2157:G:H2'	2.28	0.47
1:2A:2390:U:P	30:28:35:GLN:HE22	2.37	0.47
10:2O:113:LYS:HB2	10:2O:113:LYS:HE3	1.66	0.47
25:23:15:TYR:CE2	25:23:53:LEU:HD21	2.49	0.47
32:2a:52:G:O2'	32:2a:53:A:H5'	2.14	0.47
32:2a:758:G:H4'	32:2a:880:C:H4'	1.95	0.47
32:2a:1357:A:N7	32:2a:1358:U:C4	2.82	0.47
44:2m:47:ASP:N	44:2m:47:ASP:OD1	2.47	0.47
1:1A:324:A:H2'	1:1A:325:G:O4'	2.13	0.47
18:1W:57:ASN:HA	18:1W:61:ASN:HD22	1.78	0.47
32:1a:690:G:C6	32:1a:691:G:C6	3.02	0.47
32:1a:1004:A:H5'	32:1a:1024:G:N2	2.29	0.47
32:1a:1070:U:H2'	32:1a:1071:C:H6	1.79	0.47
32:1a:1517:G:N7	32:1a:1518:MA6:H103	2.29	0.47
33:1b:16:HIS:HB2	33:1b:204:ASN:CB	2.43	0.47
34:1c:148:GLY:HA3	34:1c:172:ARG:O	2.13	0.47
35:1d:106:TYR:CD2	35:1d:107:ARG:HD3	2.49	0.47
39:1h:14:ARG:NH1	39:1h:83:ILE:O	2.46	0.47
1:2A:300:A:H2'	1:2A:334:C:H1'	1.94	0.47
1:2A:302:C:H2'	1:2A:303:U:C6	2.49	0.47
1:2A:451:C:H4'	5:2F:52:LYS:HE2	1.95	0.47
1:2A:721:C:H2'	1:2A:722:A:C8	2.49	0.47
1:2A:900:A:H2'	1:2A:901:A:H8	1.79	0.47
1:2A:1031:G:H1	1:2A:1123:C:H42	1.63	0.47
2:2B:14:U:H1'	2:2B:108:U:O2'	2.15	0.47
13:2R:36:THR:HG21	13:2R:40:LYS:HD2	1.96	0.47
21:2Z:93:ASP:HB3	21:2Z:131:ARG:HH12	1.77	0.47
30:28:23:VAL:HG22	30:28:47:LYS:HB3	1.96	0.47
32:2a:69:G:H2'	32:2a:70:G:C8	2.43	0.47
32:2a:986:A:H1'	50:2s:54:GLY:O	2.14	0.47
32:2a:1068:G:N7	32:2a:1094:G:C8	2.82	0.47
32:2a:1155:G:H2'	32:2a:1156:G:C8	2.49	0.47
32:2a:1371:G:C6	32:2a:1372:U:C4	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:149:LEU:O	33:2b:153:ARG:HB3	2.14	0.47
35:2d:90:GLY:HA3	35:2d:200:GLU:HG3	1.96	0.47
41:2j:17:ASP:O	41:2j:21:GLN:HB3	2.14	0.47
47:2p:15:PRO:HD2	47:2p:42:ARG:CD	2.44	0.47
48:2q:56:VAL:O	48:2q:77:VAL:HB	2.14	0.47
50:2s:50:ALA:CB	50:2s:57:HIS:HB3	2.40	0.47
53:2y:24:LEU:HD13	53:2y:27:LEU:HD12	1.97	0.47
1:1A:1512:U:H2'	1:1A:1513:C:H6	1.78	0.47
1:1A:2134:A:H1'	1:1A:2158:A:O2'	2.14	0.47
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.48	0.47
57:1A:4023:SPS:O15	57:1A:4023:SPS:N11	2.45	0.47
3:1D:79:VAL:HG11	3:1D:111:LEU:HD13	1.95	0.47
12:1Q:89:ASN:ND2	63:1Q:302:HOH:O	2.35	0.47
17:1V:72:VAL:HG22	17:1V:85:LYS:HB3	1.95	0.47
20:1Y:97:ARG:HB3	20:1Y:106:LEU:HD12	1.96	0.47
30:18:60:LEU:HD23	30:18:60:LEU:HA	1.72	0.47
32:1a:258:G:O6	63:1a:3322:HOH:O	2.19	0.47
32:1a:911:U:H2'	32:1a:912:C:C6	2.49	0.47
32:1a:1074:G:O2'	32:1a:1101:A:N1	2.33	0.47
34:1c:79:ARG:H	34:1c:82:GLU:HB3	1.80	0.47
40:1i:99:LEU:HB3	40:1i:101:PHE:CD2	2.49	0.47
40:1i:125:TYR:OH	40:1i:127:LYS:HD3	2.14	0.47
1:2A:1588:C:H2'	1:2A:1589:C:H6	1.80	0.47
1:2A:2286:A:H4'	1:2A:2287:A:O4'	2.14	0.47
2:2B:50:G:OP1	14:2S:63:THR:OG1	2.31	0.47
3:2D:69:ARG:HH21	3:2D:105:ILE:CD1	2.26	0.47
8:2I:129:THR:HA	8:2I:138:ILE:O	2.13	0.47
12:2Q:11:LYS:HD2	12:2Q:87:LYS:HG2	1.97	0.47
12:2Q:37:LEU:HD21	12:2Q:130:LYS:HB2	1.95	0.47
16:2U:88:ILE:HG22	16:2U:90:VAL:HG23	1.96	0.47
20:2Y:92:ASN:HD22	20:2Y:94:LYS:HB2	1.78	0.47
32:2a:189(F):U:N3	48:2q:72:ARG:NH1	2.62	0.47
32:2a:1178:G:H5"	32:2a:1179:A:OP2	2.14	0.47
32:2a:1363(A):A:H1'	32:2a:1365:G:N7	2.30	0.47
35:2d:8:VAL:HG22	35:2d:21:LEU:HD13	1.96	0.47
36:2e:40:ARG:HG2	36:2e:68:GLU:OE2	2.15	0.47
1:1A:404:C:OP1	63:1A:4265:HOH:O	2.20	0.47
1:1A:792:G:H5"	1:1A:793:A:H5'	1.95	0.47
1:1A:960:A:C8	1:1A:962:G:C8	3.03	0.47
1:1A:1778:U:H2'	1:1A:1784:A:N6	2.28	0.47
1:1A:2316:C:H2'	1:1A:2317:C:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1E:2:LYS:HB2	4:1E:95:ILE:HD12	1.95	0.47
6:1G:2:PRO:HA	6:1G:97:ASP:OD2	2.15	0.47
6:1G:109:VAL:C	6:1G:112:PRO:HD2	2.39	0.47
12:1Q:77:LYS:HE3	63:1Q:317:HOH:O	2.13	0.47
23:11:3:LYS:HG2	23:11:4:VAL:HG23	1.97	0.47
32:1a:786:G:H2'	32:1a:787:A:O4'	2.13	0.47
32:1a:1021:G:H2'	32:1a:1022:G:O4'	2.14	0.47
34:1c:40:ARG:O	34:1c:44:GLU:N	2.29	0.47
42:1k:34:ASP:HB3	42:1k:40:ILE:HD11	1.96	0.47
1:2A:38:A:H2'	1:2A:39:C:C6	2.50	0.47
1:2A:444:C:H4'	5:2F:49:ALA:HB2	1.96	0.47
1:2A:484:C:H2'	1:2A:485:C:C6	2.50	0.47
1:2A:978:G:C2	1:2A:986:C:C2	3.03	0.47
1:2A:1111:A:N3	1:2A:1111:A:H2'	2.29	0.47
1:2A:1203:G:C6	1:2A:1204:A:N6	2.82	0.47
1:2A:2517:C:C6	1:2A:2542:A:N7	2.82	0.47
1:2A:2648:C:H2'	1:2A:2649:U:H6	1.77	0.47
1:2A:2726:U:C4'	10:2O:1:MET:HE1	2.44	0.47
2:2B:74:U:H2'	2:2B:75:G:O4'	2.14	0.47
32:2a:1095:U:H2'	32:2a:1096:C:O4'	2.13	0.47
34:2c:58:GLU:HB3	41:2j:92:THR:HG21	1.97	0.47
36:2e:78:HIS:CE1	36:2e:142:LEU:HA	2.49	0.47
40:2i:28:VAL:HG22	40:2i:63:ILE:HB	1.94	0.47
43:2l:53:ARG:HB2	43:2l:93:LEU:HD11	1.95	0.47
49:2r:45:SER:OG	49:2r:46:GLU:N	2.48	0.47
1:1A:443:A:N6	5:1F:41:LEU:O	2.44	0.47
1:1A:1074:G:H8	1:1A:1074:G:OP2	1.97	0.47
11:1P:36:LYS:NZ	63:1P:312:HOH:O	2.46	0.47
13:1R:67:LEU:O	13:1R:71:GLN:HG2	2.14	0.47
15:1T:96:ARG:NH2	63:1T:307:HOH:O	2.47	0.47
32:1a:409:G:H1	32:1a:433:C:H42	1.62	0.47
32:1a:636:U:H2'	32:1a:637:G:C8	2.49	0.47
32:1a:1517:G:H2'	32:1a:1518:MA6:H8	1.96	0.47
35:1d:114:ARG:HA	35:1d:117:ALA:HB3	1.97	0.47
40:1i:5:TYR:HE1	40:1i:16:ARG:HB3	1.79	0.47
40:1i:17:VAL:HB	40:1i:63:ILE:HG12	1.97	0.47
1:2A:1178:C:P	1:2A:1178:C:H6	2.36	0.47
1:2A:2707:G:O3'	13:2R:68:ARG:NH1	2.47	0.47
4:2E:119:ARG:HG2	4:2E:160:TYR:CB	2.39	0.47
7:2H:54:ARG:HD2	7:2H:56:SER:O	2.14	0.47
32:2a:229:U:H5"	47:2p:33:ILE:HD13	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:254:G:O3'	48:2q:69:LYS:NZ	2.46	0.47
32:2a:814:A:N7	32:2a:816:A:C4	2.82	0.47
34:2c:6:HIS:HD2	34:2c:7:PRO:HD2	1.78	0.47
40:2i:21:PRO:HA	40:2i:59:PHE:HA	1.96	0.47
42:2k:114:VAL:O	42:2k:116:HIS:CE1	2.67	0.47
47:2p:45:THR:HG23	47:2p:48:TRP:HB3	1.96	0.47
53:2y:60:VAL:HG22	53:2y:62:VAL:HG23	1.96	0.47
1:1A:1073:A:C6	1:1A:1074:G:O6	2.67	0.47
1:1A:1858:G:O6	63:1A:4238:HOH:O	2.18	0.47
1:1A:2051:A:H5'	1:1A:2578:G:O4'	2.14	0.47
2:1B:90:A:N7	2:1B:91:C:H1'	2.29	0.47
3:1D:74:GLY:O	3:1D:76:PRO:HD3	2.14	0.47
6:1G:124:SER:HB2	6:1G:131:TYR:CE1	2.50	0.47
7:1H:44:VAL:HG22	7:1H:51:ARG:O	2.14	0.47
9:1N:46:VAL:HG23	9:1N:48:MET:HG2	1.96	0.47
23:11:77:ALA:HA	23:11:80:LEU:HD22	1.96	0.47
32:1a:96:U:H2'	32:1a:97:G:C8	2.49	0.47
32:1a:937:A:N6	32:1a:1345:U:O4	2.45	0.47
34:1c:22:TRP:CH2	45:1n:54:PRO:HG2	2.50	0.47
1:2A:830:G:H4'	1:2A:831:G:OP2	2.15	0.47
1:2A:1002:G:H8	1:2A:1002:G:O5'	1.98	0.47
1:2A:1062:G:C5	1:2A:1070:A:H1'	2.49	0.47
1:2A:1082:U:C6	1:2A:1082:U:C3'	2.98	0.47
1:2A:1665:A:H4'	10:2O:67:LYS:HB2	1.97	0.47
1:2A:2464:C:H2'	1:2A:2465:C:O4'	2.15	0.47
26:24:58:ARG:HH21	50:2s:68:GLY:H	1.59	0.47
32:2a:21:G:H2'	32:2a:22:G:C8	2.50	0.47
32:2a:542:G:P	35:2d:10:ARG:HH22	2.38	0.47
32:2a:1305:G:H22	32:2a:1331:G:H1'	1.79	0.47
35:2d:81:GLU:O	35:2d:85:LYS:HG3	2.14	0.47
41:2j:13:HIS:HB3	41:2j:68:HIS:ND1	2.29	0.47
44:2m:49:THR:C	44:2m:51:ALA:N	2.73	0.47
45:2n:23:ARG:NH1	45:2n:30:ALA:HB2	2.29	0.47
47:2p:43:LYS:HE2	47:2p:48:TRP:CZ3	2.49	0.47
49:2r:26:LEU:HD13	49:2r:39:VAL:HG13	1.95	0.47
1:1A:81:G:O2'	1:1A:295:G:O2'	2.22	0.47
1:1A:218:A:C2	1:1A:235:U:H4'	2.50	0.47
1:1A:529:A:OP2	9:1N:114:ARG:NH2	2.39	0.47
1:1A:603:A:C8	1:1A:655:A:C6	3.03	0.47
1:1A:644:A:O3'	1:1A:645:C:H6	1.98	0.47
1:1A:715:G:C2	46:1o:56:LEU:HD21	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:768:G:O2'	1:1A:1379:A:N1	2.37	0.47
1:1A:839:U:H2'	1:1A:840:C:C6	2.49	0.47
1:1A:2006:C:H2'	1:1A:2007:C:C6	2.49	0.47
1:1A:2096:U:H2'	1:1A:2097:C:H6	1.80	0.47
1:1A:2127:G:H1'	1:1A:2173:A:N1	2.29	0.47
1:1A:2287:A:C8	1:1A:2289:G:C8	3.02	0.47
1:1A:2711:A:H5"	1:1A:2712:U:H5"	1.97	0.47
2:1B:119:G:C2'	2:1B:120:A:H5'	2.45	0.47
6:1G:5:VAL:HG22	6:1G:8:LYS:H	1.80	0.47
15:1T:99:LEU:HD22	15:1T:101:PHE:HE2	1.80	0.47
15:1T:108:ARG:HA	15:1T:111:ARG:NH1	2.29	0.47
19:1X:40:LYS:HD3	63:1X:104:HOH:O	2.14	0.47
26:14:63:TYR:N	26:14:64:GLY:HA2	2.30	0.47
32:1a:73:G:H1	32:1a:96:U:H3	1.61	0.47
32:1a:189(L):G:C2'	32:1a:190:U:H5"	2.44	0.47
32:1a:1261:A:H3'	32:1a:1262:C:C6	2.49	0.47
32:1a:1309:G:OP2	44:1m:99:ARG:NH2	2.31	0.47
37:1f:44:GLY:HA2	37:1f:59:TYR:CE1	2.50	0.47
44:1m:49:THR:HB	44:1m:52:GLU:HB2	1.96	0.47
49:1r:42:ARG:HD3	49:1r:42:ARG:HA	1.63	0.47
1:2A:263:C:H1'	1:2A:430:G:H1'	1.97	0.47
1:2A:569:U:C4	1:2A:570:G:C6	3.03	0.47
1:2A:723:G:H2'	1:2A:724:U:C6	2.50	0.47
1:2A:956:G:OP2	12:2Q:14:ARG:NH1	2.40	0.47
1:2A:958:U:OP2	63:2A:3923:HOH:O	2.20	0.47
1:2A:991:C:N4	1:2A:1163:G:H1	2.12	0.47
1:2A:1042:G:N2	1:2A:1114:G:H1'	2.29	0.47
1:2A:1057:A:N3	1:2A:1057:A:H2'	2.29	0.47
1:2A:1494:A:H2'	1:2A:1495:A:C8	2.49	0.47
1:2A:1777:U:H2'	1:2A:1778:U:C6	2.50	0.47
1:2A:1881:C:H2'	1:2A:1882:C:H6	1.79	0.47
1:2A:2144:U:O3'	1:2A:2145:C:H6	1.97	0.47
1:2A:2526:G:H5'	1:2A:2742:C:O2'	2.15	0.47
1:2A:2531:A:N3	1:2A:2658:C:O2'	2.44	0.47
1:2A:2659:G:O2'	1:2A:2661:G:N7	2.44	0.47
1:2A:2680:C:H1'	4:2E:187:ALA:HB1	1.96	0.47
2:2B:80:U:H2'	2:2B:81:G:C8	2.50	0.47
6:2G:19:LEU:HD11	6:2G:172:LEU:HB2	1.96	0.47
9:2N:107:LEU:HD13	9:2N:117:PHE:HB2	1.97	0.47
13:2R:2:ARG:NH1	13:2R:5:LYS:O	2.47	0.47
14:2S:36:TYR:HA	14:2S:52:SER:HA	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:2S:91:PRO:HG2	14:2S:92:TYR:CE1	2.50	0.47
17:2V:37:VAL:O	17:2V:51:VAL:HB	2.15	0.47
17:2V:62:LEU:HD21	17:2V:95:LEU:HB2	1.97	0.47
17:2V:95:LEU:HD22	17:2V:97:LYS:HD3	1.97	0.47
21:2Z:61:LEU:HD13	21:2Z:67:LEU:HD13	1.96	0.47
23:21:50:ARG:HG2	23:21:59:THR:HG22	1.96	0.47
23:21:73:LEU:HB3	23:21:94:LEU:HD22	1.95	0.47
32:2a:80:G:H1	32:2a:89:C:H42	1.63	0.47
32:2a:337:C:H2'	32:2a:338:A:H8	1.80	0.47
32:2a:683:G:H2'	32:2a:684:A:O4'	2.15	0.47
32:2a:973:G:H3'	32:2a:974:A:H5"	1.96	0.47
32:2a:1152:A:C6	32:2a:1153:C:C4	3.03	0.47
32:2a:1260:C:O5'	32:2a:1284:C:H4'	2.15	0.47
32:2a:1446:U:O2'	32:2a:1447:A:O5'	2.33	0.47
33:2b:125:PRO:HB2	33:2b:126:GLU:H	1.56	0.47
33:2b:146:GLN:O	33:2b:150:SER:HB3	2.14	0.47
33:2b:175:ARG:HB3	33:2b:175:ARG:NH1	2.30	0.47
35:2d:58:LEU:HA	35:2d:206:PHE:CE1	2.49	0.47
35:2d:173:TRP:CZ3	35:2d:193:ASP:HB3	2.50	0.47
37:2f:22:GLU:OE2	37:2f:82:ARG:NE	2.41	0.47
40:2i:43:ALA:O	40:2i:45:ALA:N	2.39	0.47
40:2i:110:GLU:HG2	40:2i:119:ALA:HB1	1.96	0.47
40:2i:117:HIS:CE1	40:2i:123:PRO:HB3	2.50	0.47
44:2m:86:CYS:O	44:2m:90:LEU:HG	2.14	0.47
1:1A:297:C:H5"	20:1Y:87:LYS:HG3	1.95	0.47
1:1A:1495:A:C6	1:1A:1496:A:C6	3.03	0.47
1:1A:2319:G:C2	14:1S:3:ARG:HA	2.49	0.47
3:1D:69:ARG:HG2	3:1D:130:ALA:CB	2.45	0.47
4:1E:2:LYS:HG3	4:1E:200:GLU:HB2	1.96	0.47
12:1Q:71:ASP:O	12:1Q:73:PRO:HD3	2.15	0.47
21:1Z:158:PRO:HG2	21:1Z:161:VAL:HG11	1.96	0.47
28:16:38:LYS:HE3	28:16:38:LYS:HB3	1.58	0.47
32:1a:1096:C:H2'	32:1a:1097:C:C6	2.49	0.47
32:1a:1182:G:H4'	32:1a:1183:A:H5'	1.97	0.47
1:2A:838:C:H2'	1:2A:839:U:H6	1.79	0.47
1:2A:854:G:H2'	1:2A:855:G:H8	1.79	0.47
1:2A:889:C:O2'	1:2A:890:A:H8	1.98	0.47
1:2A:1252:G:N1	16:2U:37:GLU:OE2	2.39	0.47
1:2A:1802:A:N1	1:2A:1822:G:H1'	2.29	0.47
1:2A:2443:C:O2'	1:2A:2444:G:H5'	2.14	0.47
1:2A:2520:C:O2'	1:2A:2565:A:O2'	2.20	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:90:LYS:HD2	7:2H:163:TYR:CD2	2.50	0.47
8:2I:4:ILE:HD11	8:2I:44:LEU:HD23	1.97	0.47
11:2P:92:GLU:HA	11:2P:123:LEU:HD21	1.97	0.47
14:2S:40:ILE:HG22	14:2S:46:VAL:O	2.14	0.47
20:2Y:6:HIS:CD2	20:2Y:7:VAL:HG23	2.49	0.47
32:2a:598:U:H2'	32:2a:599:C:C6	2.50	0.47
32:2a:1506:U:O2'	63:2a:3217:HOH:O	2.21	0.47
32:2a:1530:G:OP1	32:2a:1530:G:H4'	2.13	0.47
34:2c:35:GLU:HA	34:2c:38:ARG:HB2	1.97	0.47
34:2c:40:ARG:NH1	34:2c:55:VAL:O	2.48	0.47
36:2e:81:GLU:HA	36:2e:89:ILE:O	2.15	0.47
1:1A:598:G:H2'	1:1A:599:G:O4'	2.15	0.47
1:1A:1322:A:O2'	1:1A:1323:U:H5'	2.15	0.47
1:1A:1903:G:OP1	3:1D:241:PRO:HB2	2.15	0.47
1:1A:2074:U:H2'	1:1A:2075:U:C6	2.49	0.47
1:1A:2420:C:H5'	28:16:54:ILE:HD11	1.97	0.47
5:1F:132:VAL:HG22	5:1F:163:VAL:HG22	1.96	0.47
15:1T:20:PRO:HG3	15:1T:86:ILE:O	2.14	0.47
26:14:44:THR:O	26:14:47:GLN:HB2	2.14	0.47
28:16:14:THR:HB	28:16:48:VAL:O	2.15	0.47
32:1a:1333:A:H2'	32:1a:1334:G:O4'	2.15	0.47
36:1e:75:THR:HG22	36:1e:76:ILE:N	2.30	0.47
41:1j:49:VAL:HG21	45:1n:41:ARG:O	2.15	0.47
49:1r:47:THR:HG23	49:1r:49:LYS:HG3	1.95	0.47
1:2A:210:C:H5'	63:2A:3969:HOH:O	2.15	0.47
1:2A:335:C:H4'	20:2Y:73:ARG:NH1	2.30	0.47
1:2A:566:U:H2'	1:2A:567:A:O4'	2.15	0.47
1:2A:829:A:N7	1:2A:2247:A:O2'	2.43	0.47
1:2A:1903:G:OP1	3:2D:241:PRO:HB2	2.15	0.47
1:2A:2286:A:OP1	28:26:29:ASN:ND2	2.48	0.47
1:2A:2291:U:H2'	1:2A:2292:C:C6	2.49	0.47
2:2B:95:C:H2'	2:2B:96:U:H6	1.79	0.47
13:2R:38:VAL:HG22	13:2R:112:ALA:HB2	1.96	0.47
21:2Z:97:GLU:HA	21:2Z:126:VAL:O	2.15	0.47
32:2a:120:A:O2'	32:2a:122:G:OP1	2.28	0.47
32:2a:256:U:H2'	32:2a:257:G:C8	2.50	0.47
32:2a:1013:G:N2	32:2a:1016:A:OP2	2.47	0.47
32:2a:1504:G:H4'	32:2a:1505:G:C4	2.49	0.47
35:2d:15:GLU:C	35:2d:17:VAL:H	2.22	0.47
38:2g:9:VAL:HG13	38:2g:94:ARG:NH1	2.28	0.47
38:2g:108:ALA:HA	38:2g:111:ARG:HD2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:43:ALA:C	40:2i:45:ALA:H	2.20	0.47
44:2m:80:ARG:O	44:2m:84:ILE:HG12	2.15	0.47
1:1A:1296:G:H5'	63:1A:7050:HOH:O	2.14	0.47
1:1A:1648:C:H2'	1:1A:1649:G:O4'	2.15	0.47
1:1A:2869:G:H2'	1:1A:2870:C:O4'	2.15	0.47
6:1G:53:LEU:C	6:1G:55:LYS:N	2.73	0.47
18:1W:12:ILE:HD13	18:1W:17:VAL:HG22	1.97	0.47
30:18:4:MET:O	30:18:64:TYR:OH	2.31	0.47
32:1a:1495:U:OP1	53:1y:23:ARG:NH2	2.42	0.47
38:1g:88:PRO:HG2	38:1g:152:ALA:HB2	1.96	0.47
40:1i:25:LYS:HB2	40:1i:60:ASP:OD1	2.15	0.47
1:2A:300:A:H1'	1:2A:319:C:C1'	2.44	0.47
1:2A:878:A:H3'	1:2A:879:G:C8	2.50	0.47
1:2A:2360:A:H2'	1:2A:2361:A:O4'	2.14	0.47
1:2A:2567:G:H2'	1:2A:2568:C:H6	1.79	0.47
4:2E:59:VAL:HG11	4:2E:67:PHE:HE2	1.79	0.47
5:2F:184:TYR:CD2	5:2F:188:ARG:HD2	2.50	0.47
7:2H:91:GLY:CA	7:2H:160:LYS:HG3	2.45	0.47
9:2N:102:ALA:HB2	63:2N:201:HOH:O	2.15	0.47
21:2Z:104:PHE:HD1	21:2Z:141:VAL:HG11	1.80	0.47
32:2a:540:G:H2'	32:2a:541:G:O4'	2.14	0.47
41:2j:89:ASP:O	41:2j:91:PRO:HD3	2.14	0.47
1:1A:738:G:C2	1:1A:759:G:C5	3.04	0.46
1:1A:1621:U:OP1	63:1A:4266:HOH:O	2.20	0.46
1:1A:2138:C:H2'	1:1A:2139:C:C6	2.51	0.46
1:1A:2186:G:N1	1:1A:2187:G:N7	2.63	0.46
1:1A:2637:U:H5"	4:1E:82:ARG:NH1	2.30	0.46
5:1F:53:THR:HG23	5:1F:55:GLY:H	1.77	0.46
17:1V:1:MET:HE2	17:1V:43:GLU:OE1	2.14	0.46
32:1a:189(K):U:H2'	32:1a:189(L):G:C8	2.50	0.46
32:1a:630:G:O2'	32:1a:631:G:H5'	2.15	0.46
32:1a:674:G:H2'	32:1a:675:A:C8	2.50	0.46
32:1a:738:C:H2'	32:1a:739:C:C6	2.49	0.46
33:1b:20:GLU:H	33:1b:39:ILE:HD13	1.80	0.46
34:1c:22:TRP:CD1	34:1c:59:ARG:HD2	2.49	0.46
48:1q:29:HIS:CE1	48:1q:31:LEU:HB3	2.49	0.46
53:1y:97:ALA:HA	53:1y:98:ALA:HA	1.58	0.46
1:2A:534:U:H5'	16:2U:42:ALA:HB1	1.98	0.46
1:2A:799:G:H3'	1:2A:800:A:H2'	1.97	0.46
1:2A:918:A:H5"	2:2B:98:G:O2'	2.15	0.46
1:2A:1557:C:H5"	1:2A:1558:A:OP2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2498:C:H3'	63:2A:3905:HOH:O	2.14	0.46
1:2A:2840:C:O3'	13:2R:53:HIS:NE2	2.48	0.46
5:2F:92:PRO:O	5:2F:93:LYS:HD3	2.15	0.46
12:2Q:26:TYR:O	12:2Q:67:ARG:NH1	2.48	0.46
18:2W:32:ALA:O	18:2W:36:LEU:HG	2.15	0.46
18:2W:46:PHE:O	18:2W:50:VAL:HG23	2.15	0.46
32:2a:436:C:H2'	32:2a:437:U:O4'	2.15	0.46
32:2a:539:A:H2'	32:2a:540:G:C8	2.50	0.46
32:2a:1010:G:H2'	32:2a:1011:G:C8	2.50	0.46
32:2a:1066:C:H2'	32:2a:1067:A:C8	2.50	0.46
32:2a:1327:C:P	52:2u:12:LYS:HZ1	2.35	0.46
33:2b:50:GLU:HG3	33:2b:202:PRO:HG3	1.97	0.46
42:2k:86:GLY:C	42:2k:88:GLY:H	2.22	0.46
47:2p:60:LEU:HD12	47:2p:60:LEU:HA	1.68	0.46
1:1A:958:U:OP1	1:1A:958:U:H3'	2.16	0.46
1:1A:1088:A:C5'	1:1A:1089:G:H5'	2.45	0.46
1:1A:1967:C:N4	1:1A:1968:G:C6	2.83	0.46
1:1A:2106:G:C4	1:1A:2107:C:H1'	2.50	0.46
1:1A:2784:C:H2'	1:1A:2785:C:H6	1.80	0.46
2:1B:119:G:O2'	2:1B:120:A:H5'	2.16	0.46
16:1U:47:TYR:C	16:1U:47:TYR:CD2	2.92	0.46
20:1Y:2:ARG:HG2	20:1Y:3:VAL:N	2.29	0.46
28:16:6:ARG:NH2	28:16:26:ASN:HB2	2.30	0.46
28:16:10:LEU:HG	28:16:54:ILE:HG13	1.97	0.46
30:18:52:LYS:HE3	30:18:52:LYS:HB2	1.80	0.46
32:1a:190:U:H3	51:1t:103:GLY:CA	2.28	0.46
32:1a:1267:C:O2'	52:1u:20:LYS:HG3	2.15	0.46
32:1a:1308:U:OP2	44:1m:99:ARG:HG3	2.15	0.46
35:1d:15:GLU:OE2	35:1d:59:ARG:NH1	2.46	0.46
35:1d:106:TYR:HD2	35:1d:107:ARG:HD3	1.80	0.46
44:1m:80:ARG:O	44:1m:84:ILE:HG23	2.15	0.46
51:1t:65:LYS:O	51:1t:68:LYS:HB2	2.15	0.46
1:2A:62:C:H42	1:2A:93:G:H1	1.63	0.46
1:2A:2543:G:C1'	1:2A:2766:G:H5'	2.45	0.46
4:2E:52:LEU:O	4:2E:76:ARG:N	2.40	0.46
4:2E:171:GLU:O	4:2E:184:VAL:HA	2.16	0.46
11:2P:56:SER:N	63:2P:307:HOH:O	2.41	0.46
11:2P:70:GLN:O	11:2P:73:GLY:N	2.39	0.46
21:2Z:5:LEU:O	21:2Z:59:LEU:HA	2.15	0.46
21:2Z:39:VAL:HG21	21:2Z:44:PHE:CD1	2.50	0.46
32:2a:553:A:H2'	32:2a:554:C:C6	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1277:C:HO2'	32:2a:1279:A:H8	1.55	0.46
32:2a:1320:C:C2	50:2s:72:GLY:HA3	2.50	0.46
32:2a:1479:C:H2'	32:2a:1480:G:H8	1.80	0.46
33:2b:83:MET:SD	33:2b:234:PRO:HB2	2.56	0.46
33:2b:88:ALA:HB2	33:2b:219:VAL:HG13	1.97	0.46
35:2d:76:ARG:HA	35:2d:76:ARG:HD2	1.77	0.46
47:2p:51:VAL:HG12	47:2p:53:VAL:HG22	1.97	0.46
53:2y:85:LEU:O	53:2y:89:GLN:HB2	2.15	0.46
1:1A:271(M):G:O2'	1:1A:271(N):U:H5"	2.16	0.46
1:1A:484:C:H2'	1:1A:485:C:C6	2.51	0.46
1:1A:572:A:OP2	17:1V:78:LYS:NZ	2.44	0.46
1:1A:1955:U:H4'	63:1A:6755:HOH:O	2.14	0.46
1:1A:2006:C:O5'	1:1A:2006:C:H6	1.97	0.46
1:1A:2114:A:H3'	1:1A:2115:G:C8	2.50	0.46
1:1A:2378:A:H4'	14:1S:23:ARG:NH1	2.30	0.46
2:1B:32:C:H42	2:1B:50:G:H1	1.63	0.46
11:1P:85:LEU:HD12	11:1P:116:GLY:HA2	1.97	0.46
16:1U:101:ARG:NH2	63:1U:302:HOH:O	2.47	0.46
21:1Z:51:ALA:CB	21:1Z:57:ILE:HD11	2.44	0.46
24:12:62:THR:O	24:12:66:GLU:HG3	2.15	0.46
25:13:7:LYS:HE2	25:13:32:GLN:NE2	2.29	0.46
32:1a:647:C:H2'	32:1a:648:A:H8	1.80	0.46
35:1d:53:ASP:HB3	35:1d:57:ARG:NH1	2.30	0.46
37:1f:67:MET:HB2	37:1f:68:PRO:HD2	1.98	0.46
39:1h:105:ARG:HE	39:1h:105:ARG:HB2	1.51	0.46
42:1k:31:THR:HA	42:1k:42:TRP:HA	1.96	0.46
50:1s:32:LYS:HG2	50:1s:50:ALA:HB3	1.97	0.46
1:2A:271(P):C:O3'	8:2I:42:SER:OG	2.32	0.46
1:2A:579:G:H2'	1:2A:580:C:C6	2.50	0.46
1:2A:1598:C:O2'	1:2A:1599:C:H5'	2.15	0.46
1:2A:1914:C:N4	32:2a:1409:C:O2'	2.45	0.46
1:2A:2051:A:H8	1:2A:2051:A:OP2	1.98	0.46
2:2B:35:U:H2'	2:2B:36:C:O4'	2.14	0.46
5:2F:34:TRP:CE3	5:2F:35:GLU:HG2	2.51	0.46
23:21:4:VAL:HG12	23:21:11:ARG:HB3	1.97	0.46
32:2a:403:C:H2'	32:2a:404:U:H6	1.81	0.46
32:2a:443:C:H2'	32:2a:444:C:H6	1.79	0.46
32:2a:1228:C:P	44:2m:108:ARG:HH12	2.38	0.46
1:1A:2271:G:OP1	22:10:18:ALA:HB1	2.16	0.46
59:1B:230:ARG:HG3	63:1B:351:HOH:O	2.14	0.46
4:1E:181:LEU:HD12	4:1E:181:LEU:HA	1.77	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:1U:89:GLU:HG3	17:1V:50:PRO:HB3	1.96	0.46
26:14:58:ARG:CG	50:1s:67:VAL:HB	2.44	0.46
32:1a:22:G:H5'	32:1a:885:G:H5'	1.98	0.46
32:1a:1004:A:O2'	32:1a:1005:A:OP1	2.32	0.46
32:1a:1030:C:N4	32:1a:1030(A):G:H1'	2.30	0.46
32:1a:1034:G:N3	32:1a:1034:G:H2'	2.30	0.46
36:1e:12:LEU:HB3	36:1e:31:LEU:HB2	1.98	0.46
39:1h:21:LYS:O	39:1h:65:TYR:OH	2.31	0.46
51:1t:18:GLN:O	51:1t:22:ARG:HG3	2.16	0.46
51:1t:61:SER:O	51:1t:65:LYS:HG3	2.16	0.46
1:2A:779:U:OP1	3:2D:49:ILE:HG13	2.16	0.46
1:2A:857:C:N4	1:2A:858:U:O4	2.49	0.46
1:2A:876:C:H2'	1:2A:877:U:O4'	2.16	0.46
1:2A:886:C:H2'	1:2A:887:A:O4'	2.16	0.46
1:2A:1464:C:H2'	1:2A:1465:G:C8	2.49	0.46
1:2A:2131:G:H5"	1:2A:2132:U:O5'	2.15	0.46
1:2A:2151:G:H2'	1:2A:2152:G:O4'	2.15	0.46
1:2A:2206:G:H8	1:2A:2207:G:N7	2.13	0.46
1:2A:2273:A:H2'	1:2A:2274:A:C8	2.50	0.46
1:2A:2404:C:O3'	11:2P:77:ARG:NH2	2.48	0.46
5:2F:21:ALA:CB	5:2F:22:ALA:HA	2.46	0.46
21:2Z:72:ARG:HD3	21:2Z:72:ARG:HA	1.61	0.46
21:2Z:146:ILE:HA	21:2Z:174:VAL:HG12	1.97	0.46
32:2a:512:U:H2'	32:2a:513:C:H6	1.77	0.46
32:2a:1103:C:OP1	33:2b:96:ARG:NH2	2.48	0.46
32:2a:1194:U:H4'	36:2e:22:GLY:CA	2.45	0.46
41:2j:65:LEU:HD22	45:2n:56:VAL:HG22	1.98	0.46
43:2l:28:LYS:HE2	43:2l:64:TYR:CE2	2.50	0.46
1:1A:2267:A:H5"	1:1A:2268:A:C5'	2.43	0.46
5:1F:176:LEU:HD13	5:1F:181:LEU:HA	1.98	0.46
11:1P:121:LYS:O	11:1P:123:LEU:N	2.49	0.46
32:1a:67:C:H5'	32:1a:172:A:O2'	2.14	0.46
32:1a:1033:G:H3'	32:1a:1034:G:H8	1.81	0.46
32:1a:1190:G:OP1	34:1c:5:ILE:N	2.44	0.46
33:1b:97:TRP:HZ2	33:1b:102:LEU:HD12	1.80	0.46
35:1d:23:GLY:HA3	35:1d:112:VAL:HG23	1.98	0.46
37:1f:45:LEU:HD12	37:1f:45:LEU:HA	1.68	0.46
37:1f:46:ARG:NH2	49:1r:37:VAL:HG11	2.30	0.46
39:1h:49:GLU:O	39:1h:51:VAL:HG23	2.16	0.46
51:1t:38:LYS:HE3	51:1t:38:LYS:HB2	1.60	0.46
1:2A:120:U:OP2	63:2A:3924:HOH:O	2.20	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:910:A:C5	12:2Q:13:GLN:HG3	2.51	0.46
1:2A:1076:C:C1'	1:2A:1077:A:H5'	2.44	0.46
1:2A:1237:A:P	63:2A:4014:HOH:O	2.73	0.46
1:2A:2327:A:H2'	1:2A:2328:A:O4'	2.16	0.46
1:2A:2419:U:H2'	1:2A:2420:C:C6	2.50	0.46
3:2D:24:ILE:HD13	3:2D:84:TYR:HB2	1.95	0.46
9:2N:4:TYR:CD2	16:2U:100:VAL:HG11	2.50	0.46
16:2U:104:GLN:HG2	16:2U:105:VAL:N	2.30	0.46
32:2a:763:G:H2'	32:2a:764:C:H6	1.80	0.46
32:2a:803:G:C6	32:2a:804:U:N3	2.84	0.46
32:2a:1047:G:H5"	45:2n:4:LYS:HD2	1.96	0.46
32:2a:1206:G:C6	32:2a:1207:2MG:C5	3.03	0.46
40:2i:97:LYS:C	40:2i:99:LEU:H	2.23	0.46
43:2l:45:PRO:HA	43:2l:93:LEU:HD23	1.96	0.46
43:2l:54:LYS:N	43:2l:54:LYS:HD2	2.30	0.46
48:2q:88:TYR:HE1	48:2q:92:ARG:CZ	2.29	0.46
1:1A:85:G:OP1	63:1A:4267:HOH:O	2.21	0.46
1:1A:154(A):C:N3	1:1A:171:G:N1	2.60	0.46
1:1A:278:A:N6	1:1A:362:U:O4	2.46	0.46
1:1A:1814:G:H3'	1:1A:1815:A:H2'	1.98	0.46
1:1A:2305:A:H5"	6:1G:134:GLY:HA3	1.98	0.46
1:1A:2461:C:H2'	1:1A:2462:U:H6	1.80	0.46
1:1A:2591:C:H2'	1:1A:2592:G:C8	2.50	0.46
1:1A:2805:G:C2	1:1A:2807:G:C5	3.04	0.46
1:1A:2850:A:N7	1:1A:2868:A:O2'	2.43	0.46
3:1D:48:ARG:O	3:1D:50:THR:HG23	2.15	0.46
9:1N:48:MET:H	9:1N:48:MET:HG3	1.70	0.46
24:12:36:ARG:NH1	63:12:103:HOH:O	2.31	0.46
34:1c:180:ALA:HB1	34:1c:203:PHE:CE1	2.51	0.46
44:1m:81:LEU:O	44:1m:89:GLY:HA3	2.16	0.46
1:2A:652(T):C:H2'	1:2A:652(U):G:H8	1.79	0.46
2:2B:60:C:H2'	2:2B:61:G:C8	2.50	0.46
2:2B:83:G:H1	2:2B:94:C:H42	1.62	0.46
23:21:83:GLU:HA	23:21:84:GLY:HA2	1.65	0.46
24:22:3:LEU:HD13	24:22:3:LEU:HA	1.60	0.46
29:27:34:ARG:NH1	29:27:39:ARG:HG3	2.31	0.46
32:2a:1030(A):G:H2'	32:2a:1030(C):G:OP2	2.15	0.46
32:2a:1152:A:O3'	41:2j:13:HIS:NE2	2.49	0.46
32:2a:1347:G:HO2'	32:2a:1373:G:H1	1.61	0.46
38:2g:46:ALA:HB1	38:2g:121:ALA:HB2	1.97	0.46
43:2l:53:ARG:HB3	43:2l:69:TYR:HE1	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:23:TYR:HB3	44:2m:67:GLU:HA	1.98	0.46
1:1A:301:G:C6	1:1A:317:G:C5	3.03	0.46
1:1A:526:A:H2'	63:1A:4973:HOH:O	2.14	0.46
1:1A:858:U:O2	1:1A:2268:A:H2'	2.16	0.46
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.51	0.46
1:1A:1184:G:H5'	25:13:29:ARG:HH11	1.81	0.46
1:1A:1486:A:H2'	1:1A:1487:G:H8	1.81	0.46
1:1A:1509(B):A:H2'	1:1A:1510:G:O4'	2.15	0.46
1:1A:1929:G:H4'	1:1A:1930:G:OP1	2.16	0.46
1:1A:2097:C:H2'	1:1A:2098:U:O4'	2.16	0.46
1:1A:2197:U:O2'	1:1A:2198:A:H2'	2.16	0.46
1:1A:2304:G:H22	1:1A:2312:U:H3	1.63	0.46
1:1A:2685:G:H5'	10:1O:68:GLU:OE2	2.16	0.46
5:1F:195:ASP:HB3	5:1F:197:ASP:H	1.80	0.46
8:1I:104:GLN:O	8:1I:106:GLY:N	2.43	0.46
29:17:35:ARG:HG3	29:17:42:LEU:HD21	1.98	0.46
32:1a:146:G:N2	32:1a:147:G:H1'	2.31	0.46
32:1a:954:G:C2	32:1a:955:U:C2	3.03	0.46
35:1d:99:SER:HB3	35:1d:140:VAL:O	2.15	0.46
40:1i:47:LEU:HB2	40:1i:50:LEU:HD11	1.98	0.46
46:1o:71:GLN:HB2	46:1o:78:TYR:CD1	2.51	0.46
1:2A:27:G:N2	1:2A:512:G:H1'	2.31	0.46
1:2A:606:U:H4'	1:2A:658:C:H4'	1.98	0.46
1:2A:1252:G:C4	16:2U:33:ARG:HG2	2.51	0.46
1:2A:1914:C:H2'	1:2A:1915:5MU:O4'	2.15	0.46
1:2A:1917:PSU:H2'	1:2A:1918:A:O4'	2.16	0.46
1:2A:2232:U:OP1	23:21:42:GLN:NE2	2.49	0.46
1:2A:2531:A:H4'	7:2H:157:TYR:CD2	2.51	0.46
1:2A:2600:A:H2'	1:2A:2601:C:C6	2.51	0.46
15:2T:88:ILE:HG13	15:2T:91:ARG:NH2	2.31	0.46
17:2V:38:LEU:HA	17:2V:51:VAL:HA	1.98	0.46
20:2Y:102:CYS:SG	20:2Y:104:GLY:N	2.74	0.46
32:2a:841:U:H6	32:2a:841:U:P	2.38	0.46
32:2a:849:C:H2'	32:2a:850:U:O4'	2.15	0.46
39:2h:109:ILE:HG13	39:2h:110:ALA:N	2.31	0.46
41:2j:51:ARG:HG2	41:2j:61:GLU:HB2	1.97	0.46
1:1A:446:G:H5"	63:1A:6281:HOH:O	2.16	0.46
1:1A:1095:A:H2'	1:1A:1096:A:C8	2.51	0.46
1:1A:2205:C:O2	1:1A:2220:G:C2	2.69	0.46
1:1A:2347:C:H1'	63:1A:5875:HOH:O	2.15	0.46
1:1A:2886:G:H2'	1:1A:2887:U:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1E:101:ARG:CZ	4:1E:171:GLU:HB2	2.45	0.46
6:1G:33:ARG:NH1	63:1G:301:HOH:O	2.34	0.46
6:1G:139:LEU:HD11	6:1G:152:LEU:HD23	1.98	0.46
12:1Q:70:PRO:HA	12:1Q:94:VAL:O	2.16	0.46
15:1T:91:ARG:HD2	15:1T:120:ARG:NH1	2.29	0.46
32:1a:38:G:H22	32:1a:397:A:H5'	1.81	0.46
32:1a:342:C:C2	32:1a:348:G:N2	2.84	0.46
32:1a:379:C:H2'	32:1a:380:G:O4'	2.15	0.46
32:1a:518:C:H5"	32:1a:519:C:C6	2.51	0.46
32:1a:952:U:O2'	32:1a:953:G:H5'	2.16	0.46
32:1a:1025:U:C2	32:1a:1036:G:O6	2.69	0.46
32:1a:1036:G:H5"	32:1a:1037:C:H5	1.79	0.46
32:1a:1040:U:N3	32:1a:1041:A:N7	2.64	0.46
40:1i:22:GLY:HA3	40:1i:60:ASP:OD2	2.15	0.46
44:1m:40:ASN:HD21	44:1m:42:ALA:HB3	1.80	0.46
1:2A:190:A:OP2	23:21:39:LYS:HE3	2.16	0.46
1:2A:1109:C:OP1	1:2A:1109:C:H4'	2.16	0.46
1:2A:2051:A:H5'	1:2A:2578:G:O4'	2.16	0.46
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.51	0.46
1:2A:2584:U:H2'	1:2A:2585:U:C6	2.50	0.46
2:2B:115:G:H2'	2:2B:116:G:H8	1.79	0.46
6:2G:108:ASN:HA	26:24:37:SER:HB2	1.98	0.46
9:2N:96:GLU:OE1	9:2N:96:GLU:N	2.44	0.46
11:2P:90:ARG:CZ	11:2P:105:LEU:HD21	2.46	0.46
13:2R:96:ARG:NH2	13:2R:118:GLU:OE2	2.49	0.46
17:2V:52:VAL:HG23	17:2V:52:VAL:O	2.14	0.46
20:2Y:43:ASN:ND2	20:2Y:65:ALA:HB3	2.30	0.46
32:2a:522:C:H1'	32:2a:536:C:H5"	1.98	0.46
32:2a:841:U:C5	32:2a:848:C:H1'	2.51	0.46
32:2a:1400:5MC:C2	53:2y:63:ALA:HA	2.50	0.46
33:2b:68:ILE:HG12	33:2b:161:ALA:HB3	1.98	0.46
37:2f:10:LEU:HD12	37:2f:10:LEU:HA	1.79	0.46
38:2g:79:ARG:HA	38:2g:84:ASN:HA	1.97	0.46
38:2g:114:ARG:HB2	38:2g:115:ARG:NH2	2.31	0.46
44:2m:66:LEU:O	44:2m:67:GLU:C	2.59	0.46
47:2p:21:VAL:HG11	47:2p:59:TRP:NE1	2.31	0.46
1:1A:271(R):G:C2	1:1A:271(S):G:C8	3.04	0.46
1:1A:551:G:O2'	1:1A:1220:A:N3	2.40	0.46
1:1A:1079:C:C5	1:1A:1088:A:C2	3.04	0.46
1:1A:1163:G:OP1	17:1V:24:LYS:NZ	2.34	0.46
1:1A:1636:C:H2'	1:1A:1637:A:C8	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1654:A:OP1	13:1R:1:MET:N	2.40	0.46
12:1Q:34:LEU:HD11	12:1Q:129:THR:OG1	2.15	0.46
32:1a:600:C:H2'	32:1a:601:C:H6	1.80	0.46
32:1a:769:G:H4'	32:1a:1513:A:H4'	1.98	0.46
32:1a:979:C:OP1	32:1a:1223:C:N4	2.49	0.46
32:1a:1187:G:H2'	32:1a:1188:A:C8	2.51	0.46
32:1a:1229:A:O2'	53:1y:4:ASN:ND2	2.44	0.46
32:1a:1263:C:C2	32:1a:1273:G:C2	3.04	0.46
34:1c:12:LEU:HD13	34:1c:18:TRP:NE1	2.31	0.46
44:1m:14:ARG:N	44:1m:44:ARG:HD2	2.30	0.46
48:1q:86:GLU:O	48:1q:90:ILE:N	2.37	0.46
1:2A:172:C:H2'	1:2A:173:G:C8	2.51	0.46
1:2A:1320:C:H4'	1:2A:1321:A:OP1	2.15	0.46
2:2B:42:C:C4	2:2B:43:C:C4	3.04	0.46
3:2D:256:GLY:O	63:2D:404:HOH:O	2.21	0.46
3:2D:275:LYS:HD3	3:2D:276:LYS:O	2.16	0.46
6:2G:77:ILE:HG21	6:2G:80:PHE:HD2	1.78	0.46
10:2O:49:ARG:NH1	32:2a:1422:G:O3'	2.49	0.46
13:2R:73:VAL:HG13	63:2R:314:HOH:O	2.15	0.46
24:22:1:MET:HB2	24:22:1:MET:HE3	1.77	0.46
32:2a:262:A:C6	32:2a:263:A:C6	3.04	0.46
32:2a:560:U:H4'	32:2a:561:U:O5'	2.16	0.46
32:2a:737:A:H2'	32:2a:738:C:C6	2.51	0.46
32:2a:985:C:H2'	32:2a:986:A:C8	2.51	0.46
32:2a:1125:U:HO2'	32:2a:1126:U:P	2.38	0.46
34:2c:9:GLY:HA3	45:2n:49:HIS:HA	1.97	0.46
34:2c:79:ARG:H	34:2c:82:GLU:CB	2.29	0.46
37:2f:84:ASN:O	37:2f:86:ARG:HG3	2.16	0.46
38:2g:20:ASP:OD2	38:2g:63:LYS:HE2	2.15	0.46
1:1A:868:U:H3'	63:1A:5476:HOH:O	2.16	0.46
1:1A:1080:C:H2'	1:1A:1081:U:H6	1.79	0.46
1:1A:1848:A:C6	32:1a:702:A:C6	3.04	0.46
1:1A:2121:G:H2'	1:1A:2122:U:C6	2.51	0.46
1:1A:2691:C:O3'	1:1A:2871:C:H4'	2.16	0.46
3:1D:186:HIS:HB3	3:1D:189:CYS:SG	2.56	0.46
32:1a:560:U:H5'	32:1a:566:G:N2	2.31	0.46
32:1a:643:C:H2'	32:1a:644:G:H8	1.81	0.46
32:1a:668:G:C4	32:1a:669:U:C5	3.04	0.46
32:1a:1346:A:N1	32:1a:1374:A:H5"	2.31	0.46
35:1d:23:GLY:O	35:1d:26:CYS:HB2	2.15	0.46
1:2A:375:C:H2'	1:2A:376:C:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:443:A:H1'	1:2A:1201:C:O4'	2.16	0.46
1:2A:826:U:H2'	1:2A:828:U:O4'	2.16	0.46
1:2A:897:C:H2'	1:2A:898:C:H6	1.80	0.46
1:2A:1138:G:C5	1:2A:1139:G:H1'	2.51	0.46
1:2A:1797:C:O2'	3:2D:259:THR:HG22	2.16	0.46
1:2A:2056:G:O2'	27:25:8:LYS:NZ	2.36	0.46
1:2A:2111:C:N4	1:2A:2147:G:H22	2.14	0.46
9:2N:73:THR:HA	9:2N:83:LYS:O	2.16	0.46
16:2U:106:PHE:O	16:2U:110:VAL:HG23	2.16	0.46
17:2V:24:LYS:HA	17:2V:92:THR:OG1	2.15	0.46
20:2Y:85:VAL:HG12	20:2Y:97:ARG:HB3	1.97	0.46
28:26:15:GLU:HG3	28:26:47:THR:CG2	2.46	0.46
32:2a:255:G:H1'	48:2q:16:GLN:OE1	2.16	0.46
32:2a:748:C:H4'	32:2a:749:C:O5'	2.15	0.46
32:2a:828:A:H2'	32:2a:829:G:O4'	2.16	0.46
32:2a:853:G:C2	32:2a:854:G:C8	3.04	0.46
34:2c:71:ALA:CA	34:2c:106:VAL:HB	2.41	0.46
38:2g:126:ASP:HB3	38:2g:131:LYS:HB2	1.98	0.46
47:2p:59:TRP:HB3	47:2p:64:ALA:HB2	1.98	0.46
9:1N:133:GLN:HE21	9:1N:133:GLN:HB3	1.62	0.45
12:1Q:132:VAL:HG11	21:1Z:81:ARG:HE	1.81	0.45
32:1a:657:G:C2	32:1a:750:G:C5	3.04	0.45
32:1a:1285:A:H8	32:1a:1285:A:O5'	1.99	0.45
33:1b:208:ILE:HA	33:1b:211:ILE:HD12	1.98	0.45
44:1m:77:ASN:HA	44:1m:80:ARG:HG2	1.97	0.45
1:2A:196:A:O4'	11:2P:46:LYS:HD2	2.17	0.45
1:2A:895:U:O3'	1:2A:896:A:H3'	2.16	0.45
1:2A:1750:G:O2'	1:2A:2860:A:N1	2.47	0.45
1:2A:1996:C:H4'	1:2A:1997:G:OP1	2.16	0.45
1:2A:2203:U:H2'	1:2A:2205:C:H6	1.79	0.45
1:2A:2540:C:H2'	1:2A:2541:A:O4'	2.16	0.45
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.51	0.45
2:2B:39:A:O2'	2:2B:46:A:N1	2.47	0.45
3:2D:85:ASP:HB2	3:2D:92:ILE:HG12	1.97	0.45
11:2P:77:ARG:HG3	11:2P:79:ARG:CZ	2.46	0.45
32:2a:667:G:H4'	46:2o:51:HIS:ND1	2.31	0.45
32:2a:1024:G:C2'	32:2a:1025:U:H5"	2.46	0.45
32:2a:1216:G:H2'	32:2a:1217:C:H6	1.80	0.45
32:2a:1226:C:H2'	44:2m:103:THR:OG1	2.16	0.45
32:2a:1509:C:H2'	32:2a:1510:U:O4'	2.16	0.45
37:2f:12:PRO:HD2	37:2f:86:ARG:NH1	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2f:100:ASN:ND2	49:2r:23:LYS:HG2	2.27	0.45
40:2i:28:VAL:HG13	40:2i:64:THR:HA	1.98	0.45
44:2m:87:TYR:HD1	44:2m:90:LEU:HD12	1.81	0.45
51:2t:50:GLU:HB2	51:2t:99:LEU:HD13	1.98	0.45
1:1A:985:C:H2'	1:1A:986:C:C6	2.51	0.45
1:1A:1100:C:H2'	1:1A:1101:U:O4'	2.16	0.45
1:1A:1641:A:H2'	1:1A:1642:G:O4'	2.15	0.45
1:1A:2512:C:H4'	4:1E:122:PHE:CE2	2.51	0.45
2:1B:55:U:H2'	2:1B:56:G:O4'	2.15	0.45
2:1B:93:G:H2'	2:1B:94:C:C6	2.52	0.45
5:1F:8:GLN:HE22	5:1F:21:ALA:HB2	1.79	0.45
6:1G:52:ILE:C	6:1G:54:GLU:N	2.72	0.45
9:1N:73:THR:HG23	9:1N:82:LEU:HD11	1.98	0.45
10:1O:88:ASN:C	10:1O:90:GLN:H	2.23	0.45
12:1Q:41:TRP:HZ3	12:1Q:74:TYR:CE1	2.35	0.45
14:1S:39:ILE:HB	14:1S:49:VAL:HG12	1.98	0.45
14:1S:99:LYS:O	14:1S:103:GLU:HG3	2.16	0.45
18:1W:46:PHE:O	18:1W:50:VAL:HG23	2.16	0.45
26:14:55:ARG:N	26:14:56:VAL:HA	2.30	0.45
32:1a:355:C:O2'	32:1a:388:G:N3	2.44	0.45
32:1a:377:G:H5'	47:1p:5:ARG:NH1	2.31	0.45
32:1a:939:G:C6	32:1a:940:C:C4	3.04	0.45
32:1a:1248:A:N3	40:1i:70:LYS:HE3	2.31	0.45
34:1c:61:ALA:C	34:1c:63:ASN:H	2.24	0.45
35:1d:168:ARG:HD3	35:1d:168:ARG:HA	1.64	0.45
36:1e:70:PRO:O	36:1e:77:PRO:HD3	2.17	0.45
45:1n:24:CYS:HB3	45:1n:28:GLY:N	2.27	0.45
1:2A:226:G:H21	1:2A:228:A:H62	1.65	0.45
1:2A:855:G:H2'	1:2A:856:C:C6	2.52	0.45
1:2A:886:C:H2'	1:2A:887:A:C4'	2.47	0.45
1:2A:888:C:H2'	1:2A:889:C:C2	2.52	0.45
1:2A:2747:G:O6	1:2A:2755:C:H5"	2.17	0.45
1:2A:2768:C:H2'	1:2A:2769:C:O4'	2.16	0.45
1:2A:2784:C:H2'	1:2A:2785:C:H6	1.80	0.45
7:2H:95:ARG:O	7:2H:106:THR:HB	2.15	0.45
12:2Q:33:GLY:O	12:2Q:132:VAL:HG22	2.17	0.45
26:24:48:ARG:HB2	26:24:52:THR:OG1	2.16	0.45
32:2a:331:G:H5"	32:2a:332:G:H5'	1.98	0.45
32:2a:1009:G:N2	32:2a:1020:U:O2	2.35	0.45
51:2t:56:MET:HE2	51:2t:56:MET:HB3	1.64	0.45
1:1A:519:U:H2'	1:1A:520:G:H8	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:607:U:OP1	5:1F:102:PRO:HA	2.16	0.45
1:1A:2041:U:O5'	1:1A:2041:U:H6	1.99	0.45
1:1A:2377:A:H2'	1:1A:2378:A:C8	2.50	0.45
3:1D:221:VAL:HG22	3:1D:226:MET:CE	2.46	0.45
16:1U:39:LEU:HA	16:1U:42:ALA:HB3	1.99	0.45
32:1a:116:A:H61	32:1a:313:A:H1'	1.81	0.45
32:1a:964:A:OP2	53:1y:8:LYS:HE3	2.16	0.45
32:1a:1107:C:C4	32:1a:1108:G:C8	3.05	0.45
32:1a:1373:G:H5"	38:1g:36:LYS:HB2	1.97	0.45
33:1b:77:ALA:HB2	33:1b:211:ILE:HG21	1.98	0.45
1:2A:922:U:H2'	1:2A:923:C:C6	2.51	0.45
1:2A:1014:U:H2'	1:2A:1015:G:C8	2.51	0.45
1:2A:1064:C:H5	1:2A:1065:U:C6	2.34	0.45
1:2A:1260:G:C6	1:2A:1261:C:C4	3.04	0.45
1:2A:2298:A:C2	1:2A:2299:G:H1'	2.51	0.45
1:2A:2331:G:O2'	22:20:43:THR:HG22	2.17	0.45
1:2A:2678:C:H2'	1:2A:2679:A:O4'	2.15	0.45
1:2A:2807:G:N2	1:2A:2808:U:H1'	2.31	0.45
5:2F:110:LEU:HD12	5:2F:110:LEU:HA	1.85	0.45
6:2G:16:ARG:CZ	6:2G:31:VAL:HG21	2.46	0.45
6:2G:144:ILE:HG22	6:2G:145:THR:O	2.16	0.45
10:2O:88:ASN:C	10:2O:90:GLN:N	2.75	0.45
11:2P:49:ARG:NH1	30:28:61:LEU:HD23	2.31	0.45
12:2Q:106:VAL:HG21	12:2Q:114:ALA:HB1	1.97	0.45
14:2S:101:LEU:O	14:2S:105:ALA:N	2.39	0.45
32:2a:129(A):G:C6	32:2a:189(E):U:H4'	2.51	0.45
32:2a:1501:C:C5	32:2a:1504:G:C4	3.05	0.45
33:2b:52:GLU:O	33:2b:56:ARG:HG3	2.16	0.45
34:2c:153:VAL:HA	34:2c:197:GLY:O	2.16	0.45
40:2i:25:LYS:O	40:2i:60:ASP:HB2	2.16	0.45
1:1A:244:A:C2	1:1A:255:A:C4	3.04	0.45
1:1A:1023:U:H4'	63:1A:5319:HOH:O	2.16	0.45
1:1A:2064:C:H2'	1:1A:2065:C:C6	2.52	0.45
1:1A:2093:G:C6	1:1A:2225:A:C8	3.05	0.45
1:1A:2193:G:C6	1:1A:2194:G:C5	3.04	0.45
11:1P:83:VAL:HG22	11:1P:112:LEU:HD11	1.97	0.45
26:14:15:ILE:HD13	26:14:32:TYR:CE1	2.51	0.45
32:1a:529:G:O6	43:1l:49:ASN:HA	2.16	0.45
32:1a:643:C:H2'	32:1a:644:G:C8	2.52	0.45
32:1a:737:A:H2'	32:1a:738:C:C6	2.51	0.45
32:1a:1157:A:C6	32:1a:1180:A:C6	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1308:U:OP1	44:1m:98:VAL:N	2.48	0.45
41:1j:13:HIS:H	41:1j:13:HIS:CD2	2.34	0.45
1:2A:82:G:N1	1:2A:103:A:OP2	2.33	0.45
1:2A:409:C:H2'	1:2A:410:G:H8	1.82	0.45
1:2A:2129:C:H2'	1:2A:2130:U:C2	2.52	0.45
1:2A:2575:C:H2'	1:2A:2578:G:O6	2.17	0.45
8:2I:130:TYR:HB3	8:2I:138:ILE:HB	1.99	0.45
26:24:11:PRO:HA	26:24:25:TYR:HD1	1.80	0.45
32:2a:874:G:O2'	32:2a:875:C:H5'	2.16	0.45
33:2b:204:ASN:ND2	33:2b:206:ASP:H	2.14	0.45
34:2c:193:TYR:CD2	34:2c:193:TYR:N	2.84	0.45
40:2i:8:GLY:O	40:2i:15:ALA:N	2.46	0.45
41:2j:28:ARG:HA	41:2j:34:VAL:HG22	1.99	0.45
50:2s:49:ILE:HG22	50:2s:51:VAL:HG22	1.98	0.45
1:1A:31:C:O3'	1:1A:1238:G:H5'	2.17	0.45
1:1A:220:G:N2	63:1A:4427:HOH:O	2.50	0.45
1:1A:459:U:OP2	29:17:39:ARG:NH1	2.44	0.45
1:1A:813:U:H2'	1:1A:814:C:C6	2.52	0.45
1:1A:1666:G:C2'	1:1A:1667:G:H5'	2.46	0.45
1:1A:2698:U:H2'	1:1A:2699:C:C6	2.51	0.45
7:1H:102:ALA:HB2	7:1H:116:GLU:OE1	2.16	0.45
21:1Z:59:LEU:O	21:1Z:61:LEU:HD13	2.17	0.45
21:1Z:110:GLY:HA3	21:1Z:174:VAL:HG11	1.99	0.45
32:1a:430:A:OP1	35:1d:9:CYS:HB2	2.17	0.45
32:1a:975:A:N6	32:1a:1367:C:O4'	2.50	0.45
32:1a:1030:C:C4	32:1a:1030(A):G:H1'	2.51	0.45
32:1a:1070:U:H2'	32:1a:1071:C:C6	2.52	0.45
32:1a:1402:4OC:CM4	53:1y:83:ARG:HH12	2.28	0.45
33:1b:78:GLN:NE2	33:1b:94:ASN:O	2.48	0.45
41:1j:64:GLU:HB3	45:1n:59:ALA:HB2	1.97	0.45
43:1l:91:LYS:HG2	43:1l:92:0TD:H8	1.98	0.45
51:1t:47:GLY:HA2	51:1t:48:LYS:C	2.41	0.45
1:2A:458:G:O2'	29:27:39:ARG:HD3	2.16	0.45
1:2A:934:G:H2'	1:2A:935:C:C6	2.51	0.45
1:2A:1002:G:H2'	1:2A:1003:G:O4'	2.17	0.45
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.52	0.45
1:2A:2577:A:H4'	27:25:2:ALA:HA	1.98	0.45
8:2I:130:TYR:CE2	8:2I:132:PRO:HB3	2.51	0.45
20:2Y:37:VAL:HG21	20:2Y:72:VAL:HG21	1.98	0.45
25:23:30:ARG:HH21	25:23:33:GLN:CD	2.25	0.45
32:2a:19:C:O2'	63:2a:3219:HOH:O	2.21	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:658:G:C6	32:2a:659:U:C4	3.05	0.45
32:2a:836:G:C6	32:2a:851:G:C6	3.05	0.45
32:2a:1216:G:H2'	32:2a:1217:C:C6	2.52	0.45
32:2a:1503:A:H5'	32:2a:1531:A:H1'	1.99	0.45
34:2c:152:ILE:HG13	34:2c:199:LYS:HB2	1.98	0.45
39:2h:51:VAL:HG21	39:2h:60:ARG:HB2	1.98	0.45
1:1A:102:G:OP1	24:12:7:ARG:NH2	2.48	0.45
1:1A:184:C:H2'	1:1A:185:U:C6	2.51	0.45
1:1A:359:A:H2'	1:1A:360:G:O4'	2.15	0.45
1:1A:363(B):G:OP2	1:1A:363(B):G:H8	2.00	0.45
1:1A:389:G:O6	11:1P:70:GLN:HB3	2.16	0.45
1:1A:1140:C:O3'	9:1N:25:ARG:NH1	2.50	0.45
1:1A:1669:A:H5"	1:1A:2550:G:OP1	2.17	0.45
1:1A:1843:C:H5'	3:1D:253:GLN:HE22	1.81	0.45
1:1A:2086:U:H2'	1:1A:2087:G:C8	2.51	0.45
1:1A:2207:G:O2'	1:1A:2208:A:OP1	2.31	0.45
1:1A:2723:C:O3'	13:1R:1:MET:HE1	2.17	0.45
4:1E:52:LEU:O	4:1E:76:ARG:N	2.39	0.45
11:1P:39:LYS:NZ	63:1P:315:HOH:O	2.50	0.45
13:1R:79:LEU:HD12	13:1R:83:ILE:HB	1.99	0.45
15:1T:37:GLY:HA2	15:1T:38:ASN:HA	1.61	0.45
24:12:65:ASN:O	24:12:69:ARG:HG3	2.17	0.45
28:16:47:THR:HB	28:16:49:HIS:CE1	2.52	0.45
32:1a:73:G:H2'	32:1a:76:C:C6	2.52	0.45
32:1a:131:C:O2'	32:1a:262:A:N3	2.46	0.45
32:1a:660:G:C2	32:1a:746:A:C2	3.05	0.45
32:1a:1296:C:OP1	44:1m:44:ARG:NH2	2.50	0.45
32:1a:1456:G:N2	51:1t:43:LEU:HD11	2.31	0.45
33:1b:24:TRP:CZ3	33:1b:26:PRO:HA	2.51	0.45
33:1b:219:VAL:HA	33:1b:222:ILE:HB	1.98	0.45
34:1c:73:PRO:O	34:1c:77:ILE:HG13	2.16	0.45
35:1d:127:THR:HA	35:1d:132:ARG:HA	1.99	0.45
40:1i:25:LYS:HA	40:1i:25:LYS:CE	2.45	0.45
40:1i:97:LYS:HB3	40:1i:98:PRO:HD3	1.99	0.45
43:1l:8:ASN:OD1	48:1q:34:LYS:HE2	2.17	0.45
51:1t:55:ILE:O	51:1t:58:LYS:N	2.49	0.45
1:2A:485:C:H2'	1:2A:486:C:C6	2.52	0.45
1:2A:833:U:O2'	63:2A:3928:HOH:O	2.21	0.45
1:2A:947:G:H2'	1:2A:948:G:C8	2.51	0.45
1:2A:995:C:O2	9:2N:3:THR:OG1	2.29	0.45
1:2A:1570:A:H2'	1:2A:1571:A:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1844:C:OP1	3:2D:257:LEU:HD12	2.16	0.45
1:2A:2080:G:H2'	1:2A:2081:C:C6	2.52	0.45
15:2T:18:ASP:OD1	15:2T:18:ASP:N	2.49	0.45
22:20:68:GLU:OE1	22:20:82:ARG:HD3	2.16	0.45
32:2a:90:U:H2'	32:2a:91:C:H6	1.78	0.45
32:2a:101:A:H2'	32:2a:102:G:H5'	1.98	0.45
32:2a:811:C:H4'	32:2a:901:A:H61	1.82	0.45
32:2a:985:C:H2'	32:2a:986:A:H8	1.81	0.45
32:2a:1104:G:H4'	33:2b:111:ARG:HH11	1.82	0.45
32:2a:1203:C:H2'	32:2a:1204:A:O4'	2.17	0.45
33:2b:84:GLU:HB3	33:2b:219:VAL:CG2	2.34	0.45
35:2d:154:ASN:HA	35:2d:159:ARG:NH2	2.32	0.45
36:2e:53:LEU:O	36:2e:57:LYS:N	2.30	0.45
40:2i:17:VAL:HG21	40:2i:80:GLY:C	2.42	0.45
41:2j:49:VAL:HG22	41:2j:50:ILE:O	2.16	0.45
47:2p:21:VAL:HG22	47:2p:33:ILE:HB	1.98	0.45
53:2y:74:ILE:O	53:2y:78:ILE:HG12	2.17	0.45
1:1A:454:A:H4'	1:1A:455:C:OP2	2.17	0.45
1:1A:673:C:H5"	5:1F:81:PRO:HD2	1.98	0.45
1:1A:793:A:H1'	63:1A:5278:HOH:O	2.15	0.45
1:1A:1114:G:H2'	1:1A:1115:G:O4'	2.17	0.45
1:1A:1486:A:H2'	1:1A:1487:G:C8	2.52	0.45
1:1A:1842:G:H2'	1:1A:1843:C:C6	2.52	0.45
1:1A:2619:C:O2'	1:1A:2620:C:H5'	2.17	0.45
4:1E:27:LEU:HD12	4:1E:180:ASN:O	2.16	0.45
7:1H:3:ARG:NH1	7:1H:3:ARG:HA	2.32	0.45
19:1X:50:LYS:HB3	19:1X:84:ALA:HB2	1.98	0.45
32:1a:201:C:N3	32:1a:216:G:N2	2.44	0.45
32:1a:255:G:C2	32:1a:272:C:C2	3.05	0.45
33:1b:166:ASP:HB3	33:1b:169:LYS:HB3	1.99	0.45
33:1b:185:ILE:HG22	33:1b:199:TYR:HB2	1.99	0.45
46:1o:31:LEU:HA	46:1o:31:LEU:HD23	1.62	0.45
1:2A:643:A:C8	28:26:44:ARG:NH1	2.83	0.45
1:2A:940:G:OP1	63:2A:3929:HOH:O	2.21	0.45
1:2A:1359:A:H2'	1:2A:1360:A:C5'	2.46	0.45
1:2A:2484:G:C2	1:2A:2485:G:C8	3.05	0.45
6:2G:42:GLY:O	6:2G:44:GLY:N	2.49	0.45
11:2P:112:LEU:N	11:2P:128:HIS:ND1	2.62	0.45
12:2Q:84:GLY:O	12:2Q:85:LYS:HB2	2.16	0.45
20:2Y:67:LEU:HD23	20:2Y:67:LEU:HA	1.79	0.45
21:2Z:70:LEU:HD11	21:2Z:98:MET:HE3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:29:17:ILE:HD13	31:29:17:ILE:HA	1.73	0.45
32:2a:91:C:H2'	32:2a:92:C:O4'	2.17	0.45
32:2a:437:U:C5'	35:2d:155:LEU:HD21	2.47	0.45
32:2a:557:G:C6	32:2a:558:G:C6	3.05	0.45
32:2a:583:A:H2'	32:2a:584:G:O4'	2.16	0.45
32:2a:1122:U:C4	32:2a:1123:A:N7	2.85	0.45
32:2a:1250:A:H4'	40:2i:68:GLY:N	2.32	0.45
35:2d:150:GLU:HG3	35:2d:153:ARG:NE	2.31	0.45
41:2j:45:ARG:O	41:2j:65:LEU:N	2.43	0.45
42:2k:85:ARG:HG2	42:2k:111:ASP:C	2.41	0.45
1:1A:774:A:N3	1:1A:774:A:H2'	2.31	0.45
1:1A:1358:G:N2	1:1A:1372:U:C5	2.85	0.45
1:1A:1418:G:O5'	1:1A:1418:G:H8	2.00	0.45
1:1A:1808:U:O5'	1:1A:1808:U:H6	1.99	0.45
1:1A:1947:C:HO2'	32:1a:1483:A:HO2'	1.56	0.45
1:1A:2115:G:H2'	1:1A:2117:A:H62	1.80	0.45
1:1A:2451:A:OP1	63:1A:4270:HOH:O	2.21	0.45
4:1E:144:ARG:HB3	4:1E:145:LYS:H	1.54	0.45
26:14:57:GLU:CB	26:14:58:ARG:HA	2.43	0.45
28:16:11:LEU:HD23	28:16:11:LEU:HA	1.75	0.45
32:1a:73:G:H2'	32:1a:76:C:H6	1.82	0.45
32:1a:635:G:C6	32:1a:636:U:C4	3.05	0.45
32:1a:860:A:H3'	32:1a:861:G:H8	1.81	0.45
32:1a:946:A:O2'	32:1a:1333:A:N3	2.36	0.45
32:1a:1068:G:N7	32:1a:1094:G:H2'	2.32	0.45
32:1a:1159:U:C2	32:1a:1182:G:C2	3.04	0.45
35:1d:76:ARG:HD2	35:1d:76:ARG:HA	1.59	0.45
39:1h:39:LEU:HD12	39:1h:39:LEU:HA	1.84	0.45
1:2A:9:U:O4	1:2A:2629:A:C2	2.69	0.45
1:2A:214:G:O2'	1:2A:215:G:O4'	2.34	0.45
1:2A:320:A:H4'	1:2A:322:A:C8	2.52	0.45
1:2A:747:U:O2'	18:2W:92:ARG:NH2	2.49	0.45
1:2A:2259:G:C2	1:2A:2282:G:C6	3.05	0.45
1:2A:2262:U:H4'	1:2A:2328:A:C2	2.52	0.45
1:2A:2346:A:H5'	1:2A:2383:G:O4'	2.16	0.45
3:2D:9:TYR:CD1	3:2D:10:THR:HG23	2.51	0.45
5:2F:167:ALA:HA	5:2F:170:LEU:HD23	1.98	0.45
6:2G:106:LEU:HA	6:2G:110:ALA:CB	2.43	0.45
9:2N:34:LEU:O	9:2N:49:GLY:HA3	2.16	0.45
17:2V:16:PRO:HD3	17:2V:99:ILE:HD11	1.99	0.45
21:2Z:27:VAL:HG23	21:2Z:35:ARG:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:73:GLN:NE2	63:2Z:302:HOH:O	2.49	0.45
32:2a:511:C:O2'	32:2a:512:U:H5"	2.17	0.45
32:2a:928:G:H2'	32:2a:929:G:O4'	2.17	0.45
32:2a:1066:C:O2'	32:2a:1067:A:H5'	2.17	0.45
32:2a:1134:G:C5	32:2a:1135:U:C6	3.04	0.45
33:2b:164:VAL:HB	33:2b:186:ALA:HB2	1.98	0.45
35:2d:18:LYS:HE3	35:2d:18:LYS:HB3	1.89	0.45
40:2i:99:LEU:HB3	40:2i:101:PHE:CZ	2.52	0.45
53:2y:78:ILE:HG12	53:2y:78:ILE:H	1.55	0.45
1:1A:292:C:C2	1:1A:349:G:C2	3.05	0.45
1:1A:1060:U:H4'	1:1A:1061:U:H5'	1.98	0.45
58:1A:4024:MPD:HM2	58:1A:4024:MPD:H4	1.78	0.45
3:1D:85:ASP:HB2	3:1D:92:ILE:HD13	1.98	0.45
6:1G:73:ALA:HB1	6:1G:82:LEU:HD13	1.99	0.45
12:1Q:118:LEU:HB2	12:1Q:131:ILE:HD13	1.98	0.45
13:1R:81:ASP:O	13:1R:85:PRO:HG2	2.17	0.45
18:1W:49:LYS:HB3	63:1W:321:HOH:O	2.15	0.45
32:1a:193:C:C2	32:1a:194:C:C5	3.05	0.45
32:1a:262:A:C6	32:1a:263:A:C6	3.04	0.45
32:1a:411:A:C6	32:1a:429:U:C4	3.05	0.45
32:1a:601:C:C2	32:1a:602:A:C8	3.05	0.45
32:1a:1054:C:C5	53:1y:45:PRO:HG2	2.52	0.45
34:1c:88:ARG:NH2	34:1c:101:LEU:HB3	2.32	0.45
34:1c:115:LEU:HD12	34:1c:115:LEU:HA	1.73	0.45
37:1f:16:GLN:H	37:1f:16:GLN:CD	2.25	0.45
40:1i:54:ASP:C	40:1i:56:LEU:H	2.22	0.45
49:1r:72:ARG:H	49:1r:72:ARG:HG3	1.47	0.45
53:1y:13:THR:HG23	53:1y:16:ILE:HD12	1.98	0.45
53:1y:44:GLU:HB2	53:1y:47:GLY:O	2.16	0.45
1:2A:37:C:H4'	1:2A:451:C:OP1	2.17	0.45
1:2A:271(E):U:H2'	1:2A:271(F):C:H6	1.81	0.45
1:2A:320:A:H4'	1:2A:322:A:N7	2.31	0.45
1:2A:478:A:C6	1:2A:480:A:C6	3.05	0.45
1:2A:1026:U:H4'	1:2A:1027:A:OP1	2.15	0.45
1:2A:1059:G:C5	1:2A:1060:U:O4	2.70	0.45
1:2A:2070:G:H2'	1:2A:2071:A:H8	1.77	0.45
1:2A:2130:U:H3'	1:2A:2130:U:H6	1.82	0.45
1:2A:2135:A:C3'	1:2A:2136:C:H5'	2.47	0.45
4:2E:101:ARG:NH2	4:2E:171:GLU:HB2	2.32	0.45
6:2G:106:LEU:O	6:2G:111:LEU:HG	2.17	0.45
8:2I:57:ARG:HG2	8:2I:61:ARG:NH1	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:2S:83:LYS:HB3	14:2S:111:GLU:HG3	1.98	0.45
19:2X:60:ARG:NH1	29:27:47:ARG:HH12	2.15	0.45
22:20:22:GLY:O	22:20:24:LYS:HE2	2.16	0.45
32:2a:9:G:H5"	36:2e:126:ARG:HD3	1.99	0.45
32:2a:528:C:H5"	32:2a:529:G:OP2	2.17	0.45
32:2a:964:A:N3	32:2a:969:A:O2'	2.38	0.45
34:2c:37:GLN:HE22	45:2n:52:GLN:HB3	1.82	0.45
35:2d:156:GLU:N	35:2d:156:GLU:OE1	2.47	0.45
36:2e:19:MET:SD	36:2e:24:ARG:HB3	2.57	0.45
38:2g:50:ILE:HG13	38:2g:51:GLN:N	2.30	0.45
40:2i:9:ARG:HA	40:2i:13:ALA:O	2.17	0.45
42:2k:20:TYR:O	42:2k:30:VAL:HA	2.17	0.45
46:2o:62:GLN:O	46:2o:66:LEU:HG	2.17	0.45
1:1A:327:G:C2	1:1A:336:C:C2	3.05	0.45
1:1A:861:A:H2'	1:1A:862:G:O4'	2.17	0.45
1:1A:870:A:C2	1:1A:908:C:C2	3.05	0.45
1:1A:1815:A:H5'	1:1A:1817:G:H1'	1.98	0.45
1:1A:2164:C:H5	1:1A:2165:G:C4	2.35	0.45
1:1A:2572:A:C8	4:1E:144:ARG:HD2	2.52	0.45
2:1B:96:U:O4	59:1B:230:ARG:NH1	2.49	0.45
5:1F:165:ARG:HA	5:1F:168:ARG:HD3	1.98	0.45
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.51	0.45
19:1X:12:VAL:HG21	19:1X:27:THR:HG22	1.98	0.45
30:18:62:LEU:HB3	30:18:65:GLU:HG2	1.99	0.45
32:1a:32:A:OP1	32:1a:398:C:H1'	2.17	0.45
32:1a:278:G:OP2	48:1q:92:ARG:NH2	2.49	0.45
32:1a:600:C:OP1	39:1h:97:VAL:HG12	2.17	0.45
32:1a:840:C:H5"	32:1a:841:U:C4	2.52	0.45
33:1b:158:LEU:HD23	33:1b:180:LEU:HD13	1.99	0.45
34:1c:155:GLY:O	34:1c:157:ILE:N	2.50	0.45
37:1f:69:GLU:N	37:1f:69:GLU:OE2	2.50	0.45
38:1g:26:PHE:CD1	38:1g:101:LEU:HD22	2.52	0.45
44:1m:81:LEU:HD13	44:1m:88:ARG:HG2	1.99	0.45
46:1o:47:LYS:HB2	46:1o:47:LYS:HE3	1.72	0.45
48:1q:29:HIS:HE1	48:1q:31:LEU:HB3	1.82	0.45
50:1s:55:LYS:HG3	50:1s:56:GLN:N	2.32	0.45
1:2A:26:G:C6	1:2A:27:G:N1	2.85	0.45
1:2A:272(I):U:H2'	1:2A:272(J):C:O4'	2.16	0.45
1:2A:459:U:H2'	1:2A:460:A:H8	1.82	0.45
1:2A:1147:C:H2'	1:2A:1148:A:H8	1.82	0.45
1:2A:2512:C:H4'	4:2E:122:PHE:CE2	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2539:C:O2'	31:29:35:ARG:NH1	2.50	0.45
4:2E:154:LYS:HD3	4:2E:154:LYS:HA	1.79	0.45
12:2Q:37:LEU:HD11	12:2Q:129:THR:O	2.17	0.45
12:2Q:120:ILE:O	12:2Q:123:HIS:HB2	2.17	0.45
32:2a:99:U:C4	32:2a:100:C:C5	3.05	0.45
32:2a:456:C:H42	32:2a:475:G:H1	1.65	0.45
32:2a:598:U:H4'	39:2h:94:TYR:CD2	2.52	0.45
32:2a:1135:U:H2'	32:2a:1137:C:N3	2.32	0.45
32:2a:1318:A:H5"	50:2s:3:ARG:HH22	1.80	0.45
32:2a:1513:A:H2'	32:2a:1514:C:H6	1.82	0.45
33:2b:27:LYS:HB3	33:2b:194:PRO:HD2	1.99	0.45
35:2d:108:LEU:HD23	35:2d:110:PHE:CZ	2.52	0.45
36:2e:63:ARG:C	36:2e:65:ASN:H	2.25	0.45
1:1A:868:U:C4	1:1A:869:G:N7	2.85	0.44
1:1A:2355:C:H1'	22:10:39:ARG:HH21	1.82	0.44
32:1a:548:G:OP1	63:1a:3325:HOH:O	2.21	0.44
32:1a:615:C:C2	32:1a:616:G:C8	3.05	0.44
32:1a:814:A:H2'	32:1a:816:A:H5"	1.99	0.44
32:1a:858:G:O6	32:1a:869:G:H3'	2.16	0.44
32:1a:1023:G:N1	32:1a:1024:G:O6	2.50	0.44
32:1a:1030(C):G:N7	32:1a:1031:G:N2	2.65	0.44
32:1a:1371:G:O3'	40:1i:69:GLY:HA3	2.17	0.44
45:1n:48:ALA:HA	45:1n:53:LEU:HB2	1.98	0.44
51:1t:43:LEU:HD23	51:1t:43:LEU:HA	1.87	0.44
1:2A:657:U:H2'	1:2A:658:C:C6	2.51	0.44
2:2B:100:A:C6	2:2B:101:G:C5	3.05	0.44
3:2D:218:ARG:HH11	3:2D:218:ARG:CG	2.26	0.44
6:2G:96:ARG:N	6:2G:99:MET:HE2	2.32	0.44
20:2Y:38:ILE:HD13	20:2Y:66:PRO:HA	1.98	0.44
32:2a:684:A:H2'	32:2a:685:G:C8	2.52	0.44
32:2a:789:U:O2'	32:2a:791:G:N7	2.45	0.44
32:2a:825:G:H21	39:2h:11:THR:HG21	1.82	0.44
36:2e:76:ILE:HG13	36:2e:93:PRO:HG3	1.99	0.44
44:2m:3:ARG:O	44:2m:57:ARG:NE	2.46	0.44
48:2q:62:SER:HB3	48:2q:72:ARG:NH1	2.32	0.44
1:1A:1007:C:H5"	9:1N:35:ARG:HH11	1.82	0.44
1:1A:1209:G:O6	63:1A:4245:HOH:O	2.19	0.44
1:1A:2035:G:H8	63:1A:6203:HOH:O	2.00	0.44
7:1H:29:PRO:HD2	7:1H:79:VAL:O	2.18	0.44
8:1I:130:TYR:CE2	8:1I:132:PRO:HB3	2.52	0.44
11:1P:57:THR:HG22	11:1P:59:LEU:N	2.27	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:1Q:41:TRP:HZ3	12:1Q:74:TYR:HE1	1.65	0.44
16:1U:25:TRP:O	16:1U:28:ARG:HB2	2.18	0.44
25:13:10:LYS:NZ	25:13:15:TYR:OH	2.50	0.44
32:1a:41:G:H2'	32:1a:42:G:H8	1.81	0.44
32:1a:476:G:H2'	32:1a:477:A:C8	2.52	0.44
32:1a:865:A:C2	32:1a:918:A:H4'	2.52	0.44
32:1a:1187:G:H2'	32:1a:1188:A:H8	1.81	0.44
33:1b:19:HIS:O	33:1b:20:GLU:HB2	2.15	0.44
47:1p:39:TYR:HB2	47:1p:49:LEU:HD13	1.99	0.44
1:2A:747:U:O2	1:2A:2014:A:H1'	2.16	0.44
1:2A:942:G:O2'	1:2A:943:U:H5'	2.17	0.44
1:2A:974:G:C4	1:2A:989:G:C2	3.05	0.44
1:2A:1048:A:C2	1:2A:1112:G:N3	2.85	0.44
1:2A:1797:C:H1'	63:2A:4015:HOH:O	2.16	0.44
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.18	0.44
1:2A:2849:U:H4'	1:2A:2868:A:C2	2.53	0.44
5:2F:176:LEU:HD23	5:2F:176:LEU:HA	1.74	0.44
7:2H:137:ASP:O	7:2H:141:VAL:HG23	2.17	0.44
9:2N:32:THR:HG22	9:2N:37:LYS:HB2	1.97	0.44
13:2R:103:ARG:NH1	13:2R:110:PRO:HD3	2.32	0.44
32:2a:37:U:H2'	32:2a:38:G:H8	1.81	0.44
32:2a:93:G:C2	32:2a:96:U:C2	3.05	0.44
32:2a:405:U:O4	35:2d:2:GLY:N	2.50	0.44
32:2a:609:A:H5'	47:2p:18:ARG:HH12	1.82	0.44
32:2a:1080:A:H5"	36:2e:16:THR:HG21	2.00	0.44
32:2a:1130:A:H5'	40:2i:18:PHE:CZ	2.51	0.44
33:2b:97:TRP:CZ3	33:2b:101:MET:HB2	2.53	0.44
36:2e:131:ILE:HD13	36:2e:131:ILE:HA	1.80	0.44
38:2g:47:CYS:SG	38:2g:58:PRO:HB3	2.57	0.44
40:2i:4:TYR:CZ	40:2i:88:TYR:CD1	3.05	0.44
41:2j:44:VAL:HG22	41:2j:66:ARG:HG2	1.98	0.44
45:2n:14:PRO:HG2	45:2n:16:PHE:H	1.82	0.44
48:2q:45:HIS:HB3	48:2q:72:ARG:HG2	1.99	0.44
1:1A:1079:C:H2'	1:1A:1080:C:O4'	2.17	0.44
1:1A:1095:A:H3'	1:1A:1096:A:C8	2.52	0.44
1:1A:1178:C:H2'	1:1A:1179:C:H6	1.82	0.44
1:1A:1322:A:H2'	1:1A:1323:U:H6	1.81	0.44
63:1A:5350:HOH:O	14:1S:94:TYR:HB2	2.16	0.44
4:1E:101:ARG:HB2	4:1E:201:THR:HG21	2.00	0.44
7:1H:90:LYS:O	7:1H:160:LYS:HA	2.17	0.44
19:1X:72:LYS:NZ	19:1X:75:ASP:OD1	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1Z:144:LEU:HD11	21:1Z:150:LEU:HG	1.99	0.44
24:12:51:ARG:O	24:12:55:ARG:HG2	2.17	0.44
32:1a:763:G:H2'	32:1a:764:C:C6	2.52	0.44
32:1a:840:C:OP2	32:1a:840:C:H2'	2.17	0.44
33:1b:15:VAL:HG12	33:1b:16:HIS:HD2	1.82	0.44
33:1b:149:LEU:HD23	33:1b:149:LEU:HA	1.78	0.44
33:1b:157:ARG:O	33:1b:158:LEU:C	2.60	0.44
38:1g:46:ALA:HB1	38:1g:121:ALA:HB2	1.98	0.44
41:1j:10:GLY:HA3	41:1j:16:LEU:HD13	1.99	0.44
41:1j:44:VAL:HG22	41:1j:66:ARG:HD2	2.00	0.44
46:1o:69:TYR:HA	46:1o:72:ARG:NH2	2.31	0.44
1:2A:390:A:H4'	1:2A:391:G:H5'	1.98	0.44
1:2A:878:A:C2	1:2A:879:G:C5	3.06	0.44
1:2A:1342:A:OP1	19:2X:56:THR:N	2.43	0.44
1:2A:1628:G:H2'	1:2A:1629:U:H6	1.81	0.44
1:2A:2563:U:O2	1:2A:2565:A:H8	2.00	0.44
1:2A:2576:G:H8	1:2A:2581:G:O6	2.01	0.44
2:2B:3:C:H2'	2:2B:4:C:H6	1.83	0.44
12:2Q:72:LYS:HB3	12:2Q:94:VAL:HG23	1.98	0.44
21:2Z:7:ALA:HB3	21:2Z:61:LEU:HD12	2.00	0.44
32:2a:131:C:H2'	32:2a:132:C:H6	1.82	0.44
32:2a:439:A:OP2	32:2a:493:G:N1	2.36	0.44
32:2a:584:G:OP2	48:2q:87:LYS:HE3	2.16	0.44
32:2a:903:G:OP1	63:2a:3218:HOH:O	2.21	0.44
32:2a:926:G:O4'	53:2y:91:LYS:HE2	2.17	0.44
32:2a:949:A:H61	32:2a:1232:U:H3	1.63	0.44
32:2a:1124:G:N7	32:2a:1145:C:O2'	2.50	0.44
32:2a:1125:U:H6	32:2a:1126:U:HO2'	1.65	0.44
34:2c:121:ALA:HB1	34:2c:188:LEU:O	2.17	0.44
35:2d:153:ARG:NH1	63:2d:601:HOH:O	2.50	0.44
45:2n:21:TYR:HE1	45:2n:23:ARG:NE	2.14	0.44
1:1A:613:G:N2	1:1A:614(C):A:O2'	2.50	0.44
1:1A:1651:G:OP1	13:1R:40:LYS:NZ	2.38	0.44
1:1A:1916:A:H8	1:1A:1916:A:O5'	2.01	0.44
8:1I:130:TYR:HD2	8:1I:138:ILE:HD12	1.83	0.44
11:1P:83:VAL:CG2	11:1P:112:LEU:HD11	2.47	0.44
16:1U:69:CYS:SG	16:1U:79:PHE:CG	3.10	0.44
21:1Z:54:HIS:HD2	21:1Z:99:TYR:O	2.01	0.44
32:1a:653:A:O5'	39:1h:56:LYS:NZ	2.49	0.44
32:1a:920:U:H2'	32:1a:921:U:C6	2.52	0.44
32:1a:1124:G:H5"	41:1j:35:SER:OG	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:66:MET:HE3	36:1e:66:MET:HB3	1.74	0.44
39:1h:38:ILE:HD11	39:1h:118:VAL:O	2.18	0.44
39:1h:82:HIS:HB3	39:1h:138:TRP:CE2	2.53	0.44
40:1i:5:TYR:HA	40:1i:17:VAL:O	2.18	0.44
45:1n:17:LYS:HB3	45:1n:17:LYS:NZ	2.32	0.44
1:2A:627:A:C6	11:2P:115:LEU:HD13	2.52	0.44
1:2A:829:A:N7	1:2A:2248:C:H5'	2.33	0.44
1:2A:1180:C:H2'	1:2A:1181:C:C6	2.52	0.44
1:2A:1459:G:O2'	1:2A:1461:G:H5'	2.17	0.44
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.18	0.44
1:2A:2112:G:H2'	1:2A:2113:U:C6	2.52	0.44
1:2A:2734:A:H2'	1:2A:2735:G:O4'	2.18	0.44
1:2A:2865:U:C4	1:2A:2866:U:C4	3.06	0.44
7:2H:22:GLY:HA2	7:2H:37:VAL:HG22	1.99	0.44
8:2I:26:ALA:HA	8:2I:30:LEU:HB2	1.98	0.44
10:2O:24:VAL:CG1	10:2O:33:ALA:HB2	2.40	0.44
12:2Q:38:GLU:OE2	12:2Q:128:LYS:N	2.38	0.44
12:2Q:68:ILE:HD13	12:2Q:103:MET:HB3	1.98	0.44
17:2V:6:LYS:HB2	17:2V:38:LEU:HD11	2.00	0.44
23:21:53:VAL:O	23:21:54:ALA:C	2.60	0.44
29:27:44:PRO:O	29:27:46:VAL:HG23	2.17	0.44
32:2a:97:G:C6	32:2a:98:G:C5	3.05	0.44
32:2a:99:U:O4	32:2a:100:C:N4	2.50	0.44
32:2a:509:A:C8	32:2a:509:A:C3'	3.00	0.44
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.99	0.44
32:2a:1032:G:C2'	32:2a:1033:G:H5'	2.48	0.44
33:2b:58:ILE:O	33:2b:62:ALA:N	2.39	0.44
36:2e:53:LEU:HD12	36:2e:53:LEU:H	1.82	0.44
38:2g:114:ARG:H	38:2g:115:ARG:HH22	1.65	0.44
49:2r:32:ARG:HA	49:2r:69:THR:HG21	2.00	0.44
50:2s:58:VAL:O	50:2s:60:VAL:HG23	2.17	0.44
1:1A:251:A:C5	1:1A:252:G:H1'	2.53	0.44
1:1A:286:C:H2'	1:1A:287:C:H6	1.81	0.44
1:1A:879:G:H2'	1:1A:880:G:O4'	2.17	0.44
1:1A:2147:G:H2'	1:1A:2148:G:O4'	2.17	0.44
1:1A:2305:A:H2'	1:1A:2306:C:O4'	2.17	0.44
63:1A:4657:HOH:O	29:17:32:LYS:HE2	2.17	0.44
14:1S:66:ALA:HB1	14:1S:101:LEU:HB2	2.00	0.44
23:11:94:LEU:O	23:11:97:LEU:HB2	2.16	0.44
26:14:45:GLY:C	26:14:47:GLN:N	2.76	0.44
27:15:40:LYS:HD3	27:15:46:CYS:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:19:17:ILE:HD13	31:19:17:ILE:HA	1.74	0.44
32:1a:604:G:C4	32:1a:635:G:C2	3.06	0.44
32:1a:656:C:O2'	46:1o:28:GLN:NE2	2.38	0.44
32:1a:735:C:H5'	49:1r:71:LYS:HD3	1.98	0.44
32:1a:1441:G:O2'	32:1a:1460:A:N6	2.49	0.44
33:1b:41:ILE:HD13	33:1b:41:ILE:HA	1.83	0.44
36:1e:34:VAL:HG22	36:1e:62:ALA:HB1	1.99	0.44
36:1e:40:ARG:HD2	36:1e:66:MET:HE2	1.98	0.44
37:1f:42:GLU:O	37:1f:43:LEU:HD12	2.18	0.44
41:1j:7:LYS:HB3	41:1j:97:GLU:HB2	1.99	0.44
44:1m:48:LEU:HD23	44:1m:48:LEU:HA	1.87	0.44
52:1u:5:ASP:O	52:1u:11:GLY:HA3	2.17	0.44
1:2A:387:U:OP2	23:21:20:ARG:NH1	2.50	0.44
1:2A:706:A:H2'	1:2A:707:G:O4'	2.18	0.44
1:2A:751:A:C6	1:2A:789:A:C5	3.05	0.44
1:2A:1701:A:H5"	1:2A:1702:G:OP2	2.17	0.44
1:2A:2127:G:C6	1:2A:2161:C:N3	2.85	0.44
1:2A:2371:G:N3	28:26:46:HIS:HE1	2.15	0.44
1:2A:2417:C:P	11:2P:65:ARG:NH2	2.90	0.44
63:2A:4033:HOH:O	11:2P:36:LYS:HG3	2.17	0.44
2:2B:33:G:O2'	2:2B:34:U:H5'	2.17	0.44
5:2F:208:GLY:N	63:2F:409:HOH:O	2.50	0.44
6:2G:102:PHE:CE2	6:2G:106:LEU:HD13	2.52	0.44
23:21:72:GLU:O	23:21:72:GLU:HG2	2.16	0.44
29:27:22:MET:HE3	29:27:22:MET:HB3	1.89	0.44
32:2a:102:G:H2'	32:2a:103:C:H6	1.82	0.44
32:2a:1316:G:N2	32:2a:1318:A:H3'	2.32	0.44
32:2a:1486:G:C6	32:2a:1487:G:C6	3.06	0.44
35:2d:59:ARG:NE	35:2d:59:ARG:HA	2.33	0.44
35:2d:94:LEU:HA	35:2d:97:LEU:HD12	1.99	0.44
37:2f:96:PRO:HB3	49:2r:30:ASP:CG	2.41	0.44
1:1A:519:U:H2'	1:1A:520:G:C8	2.52	0.44
1:1A:579:G:H2'	1:1A:580:C:C6	2.53	0.44
1:1A:784:A:C6	3:1D:229:VAL:HG11	2.53	0.44
1:1A:1835:G:H2'	1:1A:1836:C:C6	2.52	0.44
1:1A:2515:C:H2'	1:1A:2516:G:H8	1.82	0.44
2:1B:6:C:H2'	2:1B:7:G:H5"	1.99	0.44
2:1B:14:U:OP2	2:1B:70:C:O2'	2.35	0.44
5:1F:132:VAL:HG21	5:1F:163:VAL:HG13	2.00	0.44
7:1H:72:ILE:O	7:1H:76:VAL:HG23	2.18	0.44
7:1H:91:GLY:HA3	7:1H:160:LYS:HG3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:1P:139:LYS:O	11:1P:141:ALA:N	2.51	0.44
13:1R:1:MET:HE3	13:1R:1:MET:HB2	1.85	0.44
17:1V:52:VAL:CG2	17:1V:55:ALA:HB3	2.42	0.44
20:1Y:92:ASN:N	20:1Y:92:ASN:ND2	2.60	0.44
23:11:23:LYS:HE3	23:11:23:LYS:HB2	1.87	0.44
28:16:6:ARG:HH21	28:16:26:ASN:HB2	1.82	0.44
32:1a:4:U:C4	39:1h:102:ARG:HD2	2.53	0.44
32:1a:22:G:H2'	32:1a:23:C:C6	2.53	0.44
32:1a:61:G:OP2	51:1t:10:LEU:HD22	2.16	0.44
32:1a:266:G:C5'	32:1a:268:C:H41	2.31	0.44
32:1a:684:A:N6	32:1a:685:G:C6	2.86	0.44
32:1a:1055:A:C8	32:1a:1206:G:N2	2.86	0.44
35:1d:53:ASP:HB3	35:1d:57:ARG:HH12	1.82	0.44
37:1f:89:MET:HE2	37:1f:91:VAL:CG2	2.46	0.44
39:1h:38:ILE:HD12	39:1h:118:VAL:HG12	2.00	0.44
40:1i:47:LEU:H	40:1i:47:LEU:HG	1.63	0.44
53:1y:49:VAL:HG13	53:1y:66:LYS:HE3	2.00	0.44
53:1y:85:LEU:O	53:1y:89:GLN:HG2	2.17	0.44
1:2A:11:G:C2'	1:2A:12:U:H5'	2.46	0.44
1:2A:18:C:H2'	1:2A:19:C:C6	2.53	0.44
1:2A:208:C:O2'	1:2A:209:C:H5'	2.18	0.44
1:2A:745:G:O6	63:2A:3925:HOH:O	2.21	0.44
1:2A:1041:C:H42	1:2A:1114:G:H1	1.66	0.44
1:2A:1761:C:H2'	1:2A:1762:A:H5"	1.98	0.44
5:2F:11:VAL:HB	5:2F:18:ARG:CG	2.47	0.44
8:2I:98:ALA:C	8:2I:100:ALA:N	2.75	0.44
9:2N:62:VAL:CG2	9:2N:66:LYS:HD2	2.48	0.44
10:2O:24:VAL:O	63:2O:302:HOH:O	2.21	0.44
15:2T:120:ARG:HA	15:2T:123:GLN:HB3	2.00	0.44
21:2Z:102:LEU:HD23	21:2Z:137:ILE:HB	1.99	0.44
23:21:26:ARG:HE	23:21:26:ARG:HB3	1.67	0.44
30:28:33:ASN:OD1	30:28:36:LYS:NZ	2.28	0.44
32:2a:235:C:H2'	32:2a:236:G:C8	2.48	0.44
32:2a:760:G:H3'	32:2a:761:G:H8	1.83	0.44
32:2a:1203:C:O5'	32:2a:1203:C:H6	2.01	0.44
33:2b:21:ARG:HA	33:2b:38:GLY:O	2.18	0.44
35:2d:19:LEU:HD22	35:2d:67:ILE:HD11	2.00	0.44
35:2d:99:SER:O	35:2d:140:VAL:HG23	2.17	0.44
39:2h:41:ARG:HH11	39:2h:41:ARG:HG2	1.82	0.44
1:1A:687:C:H5'	29:17:4:THR:O	2.18	0.44
1:1A:1079:C:C4	1:1A:1088:A:C2	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1153:C:OP1	16:1U:92:ARG:NH2	2.33	0.44
1:1A:1512:U:H6	1:1A:1512:U:O5'	2.00	0.44
1:1A:2261:C:C6	22:10:16:SER:HB3	2.53	0.44
1:1A:2507:C:H2'	1:1A:2508:G:O4'	2.17	0.44
1:1A:2562:U:C1'	10:1O:23:ARG:HD3	2.45	0.44
1:1A:2784:C:H2'	1:1A:2785:C:C6	2.52	0.44
5:1F:53:THR:HB	5:1F:56:GLU:HG3	1.98	0.44
7:1H:137:ASP:OD1	7:1H:137:ASP:C	2.61	0.44
12:1Q:135:ASP:HB3	12:1Q:137:TYR:H	1.83	0.44
24:12:14:ARG:O	24:12:67:LYS:NZ	2.27	0.44
32:1a:911:U:OP2	43:1l:97:ARG:NH1	2.50	0.44
32:1a:1020:U:H2'	32:1a:1021:G:C8	2.52	0.44
32:1a:1182:G:C3'	32:1a:1183:A:H5'	2.48	0.44
32:1a:1412:C:H2'	32:1a:1413:A:H8	1.79	0.44
32:1a:1465:C:H2'	32:1a:1466:C:O4'	2.18	0.44
34:1c:88:ARG:NH1	34:1c:88:ARG:HB2	2.32	0.44
34:1c:165:THR:HG22	34:1c:166:GLU:N	2.33	0.44
47:1p:47:ASP:C	47:1p:49:LEU:H	2.26	0.44
50:1s:55:LYS:HG3	50:1s:56:GLN:H	1.82	0.44
1:2A:13:A:N1	1:2A:525:U:H2'	2.33	0.44
1:2A:759:G:OP1	63:2A:3926:HOH:O	2.21	0.44
1:2A:1048:A:H2	1:2A:1112:G:N3	2.16	0.44
1:2A:1206:G:C6	1:2A:1207:C:C4	3.05	0.44
1:2A:1671:U:H4'	63:2A:5098:HOH:O	2.17	0.44
1:2A:1776:G:H2'	1:2A:1776:G:N3	2.32	0.44
1:2A:2474:C:H5"	1:2A:2475:C:OP2	2.18	0.44
1:2A:2745:C:H2'	1:2A:2746:U:O4'	2.17	0.44
2:2B:33:G:H5'	6:2G:2:PRO:CD	2.48	0.44
4:2E:13:ARG:O	15:2T:57:PHE:HE2	2.01	0.44
5:2F:33:LEU:HD12	5:2F:33:LEU:HA	1.71	0.44
7:2H:103:LEU:HD12	7:2H:104:GLU:H	1.83	0.44
11:2P:6:LEU:HD23	11:2P:6:LEU:HA	1.53	0.44
12:2Q:30:GLY:HA3	12:2Q:106:VAL:O	2.17	0.44
29:27:20:ALA:O	29:27:23:ARG:HG2	2.18	0.44
30:28:60:LEU:HD23	30:28:60:LEU:HA	1.80	0.44
32:2a:98:G:C6	32:2a:99:U:C4	3.06	0.44
32:2a:519:C:OP2	43:2l:50:SER:OG	2.34	0.44
32:2a:683:G:C6	32:2a:684:A:C5	3.06	0.44
32:2a:949:A:C4	32:2a:1233:G:N2	2.86	0.44
32:2a:950:U:OP2	44:2m:102:ARG:HD3	2.18	0.44
32:2a:1003:G:H3'	32:2a:1003:G:N3	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1041:A:C6	32:2a:1042:G:C5	3.05	0.44
32:2a:1236:A:OP1	52:2u:2:GLY:HA3	2.17	0.44
32:2a:1349:A:H5"	40:2i:121:ARG:HB2	1.98	0.44
33:2b:82:ARG:HG3	33:2b:92:TYR:OH	2.18	0.44
34:2c:175:LEU:H	34:2c:175:LEU:HD12	1.83	0.44
1:1A:153:C:OP2	23:11:92:LYS:NZ	2.51	0.44
1:1A:176:G:C2'	1:1A:177:G:H5'	2.47	0.44
1:1A:567:A:OP2	11:1P:29:LYS:NZ	2.35	0.44
1:1A:1923:U:H2'	1:1A:1924:C:C6	2.53	0.44
1:1A:2193:G:H2'	1:1A:2194:G:O4'	2.17	0.44
2:1B:16:G:N2	2:1B:69:G:H1'	2.33	0.44
6:1G:49:ASP:O	6:1G:51:ARG:N	2.48	0.44
16:1U:109:LEU:HD23	16:1U:109:LEU:HA	1.78	0.44
17:1V:1:MET:HE1	17:1V:44:LYS:HG2	2.00	0.44
17:1V:2:PHE:CD1	17:1V:2:PHE:C	2.96	0.44
18:1W:66:GLU:HA	18:1W:69:LEU:CD1	2.48	0.44
32:1a:510:A:H5"	32:1a:511:C:P	2.57	0.44
32:1a:1194:U:H4'	36:1e:22:GLY:HA2	1.99	0.44
32:1a:1249:C:H4'	40:1i:73:GLN:HE22	1.83	0.44
32:1a:1256:A:H5'	32:1a:1258:G:C1'	2.48	0.44
32:1a:1305:G:O2'	32:1a:1331:G:N2	2.51	0.44
32:1a:1368:G:OP1	40:1i:114:TYR:N	2.51	0.44
35:1d:30:LYS:HA	35:1d:35:ARG:HE	1.82	0.44
35:1d:94:LEU:O	35:1d:97:LEU:HB2	2.17	0.44
40:1i:108:VAL:HG12	40:1i:109:VAL:H	1.83	0.44
44:1m:88:ARG:HG3	44:1m:98:VAL:HG13	2.00	0.44
47:1p:19:ILE:HG22	47:1p:37:GLY:O	2.17	0.44
53:1y:24:LEU:HD23	53:1y:24:LEU:HA	1.78	0.44
1:2A:271(M):G:O2'	1:2A:271(N):U:O5'	2.31	0.44
1:2A:483:A:H1'	20:2Y:59:GLY:O	2.18	0.44
1:2A:909:A:N6	1:2A:912:C:O2	2.51	0.44
1:2A:1131:G:C2	1:2A:1132:A:C4	3.06	0.44
1:2A:1665:A:O2'	10:2O:1:MET:HB3	2.17	0.44
1:2A:2101:G:H2'	1:2A:2102:U:O4'	2.17	0.44
1:2A:2261:C:O2'	1:2A:2262:U:H5'	2.17	0.44
5:2F:111:ALA:HB2	5:2F:206:ILE:CG2	2.47	0.44
7:2H:13:LYS:HA	7:2H:14:GLY:HA2	1.52	0.44
8:2I:1:MET:HE2	8:2I:38:LEU:HD21	1.98	0.44
8:2I:65:ALA:HA	8:2I:68:LEU:HB3	2.00	0.44
10:2O:9:GLU:O	10:2O:83:ALA:HA	2.18	0.44
17:2V:40:LEU:HB2	17:2V:46:VAL:HG13	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:23:4:LEU:O	25:23:36:VAL:HA	2.17	0.44
28:26:13:CYS:SG	28:26:47:THR:HG21	2.58	0.44
32:2a:221:C:H2'	32:2a:222:U:H6	1.83	0.44
32:2a:500:G:N2	32:2a:546:G:H1'	2.32	0.44
32:2a:1135:U:H4'	32:2a:1136:U:H5	1.83	0.44
33:2b:28:PHE:CE1	33:2b:190:THR:HA	2.52	0.44
36:2e:89:ILE:HG13	36:2e:91:LEU:HD23	1.99	0.44
40:2i:3:GLN:HG2	40:2i:20:ARG:HG2	1.98	0.44
41:2j:63:PHE:CE1	45:2n:58:LYS:HG2	2.49	0.44
44:2m:80:ARG:O	44:2m:84:ILE:N	2.42	0.44
52:2u:2:GLY:C	52:2u:4:GLY:N	2.75	0.44
1:1A:99:U:OP1	1:1A:100:G:O2'	2.26	0.44
1:1A:506:G:O3'	1:1A:507:A:H8	2.00	0.44
1:1A:787:U:C5	1:1A:791:C:N3	2.86	0.44
1:1A:1036:G:H2'	1:1A:1037:G:O4'	2.18	0.44
1:1A:1322:A:C5	1:1A:1323:U:C5	3.06	0.44
1:1A:1902:C:H5'	3:1D:246:PRO:HD3	2.00	0.44
1:1A:2171:A:N3	1:1A:2172:U:N3	2.66	0.44
1:1A:2341:G:H2'	1:1A:2342:C:C6	2.53	0.44
3:1D:5:LYS:HE3	3:1D:5:LYS:HB3	1.71	0.44
19:1X:1:MET:HE1	24:12:26:ARG:NH2	2.30	0.44
19:1X:63:LYS:O	19:1X:64:LYS:HD3	2.17	0.44
27:15:37:LYS:HA	27:15:37:LYS:HD3	1.68	0.44
32:1a:101:A:C4	32:1a:102:G:C8	3.06	0.44
32:1a:405:U:O4	35:1d:2:GLY:N	2.50	0.44
32:1a:583:A:H2'	32:1a:584:G:O4'	2.18	0.44
32:1a:1226:C:H4'	32:1a:1227:A:OP1	2.17	0.44
32:1a:1347:G:N7	40:1i:10:ARG:NH2	2.65	0.44
50:1s:63:THR:HG23	50:1s:66:MET:HE3	2.00	0.44
1:2A:189:G:H2'	1:2A:205:G:N2	2.32	0.44
1:2A:221:A:N1	1:2A:265:A:O2'	2.46	0.44
1:2A:776:G:P	63:2A:3959:HOH:O	2.76	0.44
1:2A:958:U:O2	2:2B:90:A:H4'	2.17	0.44
1:2A:1122:G:N3	1:2A:1122:G:H2'	2.32	0.44
1:2A:1195:G:N3	1:2A:1226:A:H2	2.16	0.44
1:2A:1939:5MU:OP1	1:2A:2604:U:O2'	2.29	0.44
1:2A:2080:G:H2'	1:2A:2081:C:H6	1.83	0.44
1:2A:2116:G:O2'	1:2A:2117:A:O4'	2.36	0.44
1:2A:2641:G:H5"	9:2N:76:SER:HB3	1.99	0.44
1:2A:2892:A:C8	1:2A:2893:G:N7	2.86	0.44
4:2E:48:GLN:HE22	4:2E:78:LEU:HD13	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:2R:70:LEU:HA	13:2R:70:LEU:HD23	1.78	0.44
16:2U:85:LYS:HB2	16:2U:116:ALA:HB1	1.99	0.44
21:2Z:3:TYR:O	21:2Z:57:ILE:HA	2.17	0.44
21:2Z:28:MET:HE3	21:2Z:59:LEU:HD12	2.00	0.44
32:2a:359:U:H2'	32:2a:360:A:C8	2.53	0.44
32:2a:397:A:H3'	32:2a:397:A:N3	2.32	0.44
32:2a:451:A:N6	32:2a:480:U:H2'	2.33	0.44
32:2a:749:C:O2'	32:2a:750:G:H5'	2.18	0.44
33:2b:153:ARG:O	33:2b:155:LEU:N	2.44	0.44
38:2g:51:GLN:O	38:2g:55:GLY:HA2	2.17	0.44
38:2g:93:PRO:HA	38:2g:96:GLN:HB2	1.99	0.44
46:2o:24:SER:O	46:2o:25:THR:C	2.59	0.44
1:1A:1790:C:H2'	1:1A:1791:A:C5	2.53	0.43
1:1A:1993:U:H4'	4:1E:128:SER:OG	2.18	0.43
1:1A:2108:C:O2	1:1A:2182:G:N2	2.51	0.43
1:1A:2872:G:H5"	63:1A:4976:HOH:O	2.18	0.43
3:1D:69:ARG:HG2	3:1D:130:ALA:HB2	1.99	0.43
7:1H:154:PRO:HD3	7:1H:162:ILE:O	2.17	0.43
13:1R:44:LEU:O	13:1R:45:ARG:C	2.60	0.43
20:1Y:83:THR:OG1	20:1Y:84:ARG:O	2.31	0.43
28:16:37:ARG:C	28:16:38:LYS:HG2	2.43	0.43
32:1a:542:G:OP1	35:1d:10:ARG:NH1	2.49	0.43
32:1a:925:G:H5"	32:1a:926:G:OP1	2.17	0.43
33:1b:47:THR:HG22	33:1b:51:LEU:HD12	1.99	0.43
35:1d:11:LEU:O	35:1d:15:GLU:HG2	2.18	0.43
39:1h:44:PHE:CZ	39:1h:109:ILE:HG12	2.53	0.43
44:1m:86:CYS:O	44:1m:89:GLY:N	2.49	0.43
45:1n:27:CYS:SG	45:1n:29:ARG:HB2	2.58	0.43
53:1y:38:HIS:O	53:1y:52:ALA:HA	2.17	0.43
1:2A:479:A:N3	1:2A:481:G:H5"	2.33	0.43
1:2A:999:U:O2'	1:2A:1000:A:H5'	2.18	0.43
1:2A:1527:G:H5"	1:2A:1528:A:OP1	2.17	0.43
1:2A:1652:A:N7	1:2A:1653:G:C6	2.86	0.43
1:2A:2345:G:N3	1:2A:2381:C:H2'	2.33	0.43
1:2A:2576:G:H1'	63:2A:5059:HOH:O	2.18	0.43
5:2F:36:VAL:O	5:2F:40:GLN:HG3	2.18	0.43
6:2G:3:LEU:H	6:2G:3:LEU:HG	1.49	0.43
8:2I:63:ALA:HA	8:2I:66:GLU:CB	2.46	0.43
11:2P:90:ARG:HH12	11:2P:105:LEU:HD11	1.81	0.43
16:2U:97:ASP:OD1	16:2U:101:ARG:NH1	2.51	0.43
26:24:51:ASP:HA	26:24:53:GLU:OE2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:232:G:H1'	32:2a:262:A:N1	2.33	0.43
32:2a:399:G:H2'	32:2a:400:C:C6	2.53	0.43
32:2a:874:G:H2'	32:2a:875:C:C6	2.53	0.43
32:2a:1133:G:C5	32:2a:1134:G:N7	2.85	0.43
32:2a:1423:G:H2'	32:2a:1424:C:C6	2.53	0.43
33:2b:211:ILE:O	33:2b:215:LEU:HB2	2.18	0.43
39:2h:104:ARG:HD3	39:2h:104:ARG:HA	1.64	0.43
1:1A:981:A:N1	1:1A:2027:G:O2'	2.50	0.43
1:1A:2143:C:N3	1:1A:2148:G:O6	2.51	0.43
8:1I:77:LEU:HD12	8:1I:77:LEU:HA	1.65	0.43
10:1O:64:ARG:HB2	10:1O:79:PHE:CD2	2.53	0.43
14:1S:34:HIS:ND1	14:1S:53:SER:OG	2.51	0.43
32:1a:1079:G:H2'	32:1a:1080:A:C8	2.53	0.43
32:1a:1173:G:C4	32:1a:1174:G:C8	3.05	0.43
32:1a:1189:C:P	41:1j:51:ARG:HH22	2.41	0.43
32:1a:1198:G:C5	32:1a:1199:U:C4	3.07	0.43
32:1a:1516:G:H2'	32:1a:1518:MA6:OP2	2.17	0.43
33:1b:59:GLU:HG3	33:1b:60:ASP:N	2.33	0.43
36:1e:72:GLN:C	36:1e:74:GLY:N	2.76	0.43
40:1i:34:ASN:H	40:1i:34:ASN:HD22	1.65	0.43
50:1s:62:ILE:HD12	50:1s:62:ILE:N	2.33	0.43
51:1t:9:ASN:O	51:1t:10:LEU:HD23	2.17	0.43
1:2A:1507:A:O2'	1:2A:1508:A:OP2	2.28	0.43
1:2A:1722:A:C2	1:2A:1740:G:C8	3.06	0.43
1:2A:1825:A:O2'	63:2A:3852:HOH:O	2.09	0.43
1:2A:2611:U:H3'	1:2A:2611:U:OP2	2.18	0.43
1:2A:2630:G:H2'	1:2A:2631:G:C8	2.54	0.43
1:2A:2687:U:H2'	1:2A:2688:U:O4'	2.17	0.43
6:2G:111:LEU:HA	6:2G:114:ILE:HG12	1.99	0.43
6:2G:137:GLU:HG2	6:2G:152:LEU:HD21	2.00	0.43
7:2H:45:VAL:HG12	7:2H:50:VAL:HG13	1.99	0.43
21:2Z:24:LEU:HD12	21:2Z:25:PRO:HD2	2.00	0.43
21:2Z:30:ASN:O	21:2Z:32:HIS:N	2.51	0.43
32:2a:309:G:H2'	32:2a:310:G:H8	1.83	0.43
32:2a:331:G:H5"	32:2a:332:G:C5'	2.49	0.43
32:2a:877:C:OP1	39:2h:88:LYS:HE2	2.18	0.43
32:2a:1025:U:H2'	32:2a:1027:C:C4	2.53	0.43
32:2a:1375:A:H2'	32:2a:1376:U:C6	2.54	0.43
32:2a:1501:C:OP2	32:2a:1504:G:O2'	2.20	0.43
33:2b:98:LEU:HA	33:2b:98:LEU:HD23	1.60	0.43
33:2b:110:GLN:O	33:2b:113:HIS:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:83:ARG:C	34:2c:85:ARG:H	2.25	0.43
43:2l:25:PRO:O	43:2l:27:LEU:N	2.51	0.43
51:2t:43:LEU:HD13	51:2t:51:GLU:HB3	2.00	0.43
53:2y:13:THR:OG1	53:2y:16:ILE:HG22	2.18	0.43
1:1A:272(J):C:H42	1:1A:363:G:H1	1.66	0.43
1:1A:1130:U:O2	4:1E:149:ARG:NH2	2.33	0.43
1:1A:2693:A:H2'	1:1A:2694:G:H8	1.83	0.43
4:1E:149:ARG:NH1	63:1E:411:HOH:O	2.50	0.43
5:1F:160:ASN:ND2	5:1F:163:VAL:HG23	2.33	0.43
6:1G:54:GLU:HA	6:1G:57:ALA:HB3	1.99	0.43
14:1S:87:PHE:CZ	14:1S:102:ALA:HB2	2.54	0.43
32:1a:195:A:C6	32:1a:196:A:N1	2.87	0.43
32:1a:437:U:H2'	35:1d:123:HIS:HD2	1.83	0.43
32:1a:1084:G:C5	32:1a:1085:U:C4	3.06	0.43
32:1a:1235:U:H2'	32:1a:1236:A:O4'	2.18	0.43
34:1c:88:ARG:HB2	34:1c:88:ARG:CZ	2.49	0.43
39:1h:33:GLU:HG2	39:1h:59:LEU:HD21	2.01	0.43
40:1i:48:GLU:H	40:1i:49:PRO:CD	2.31	0.43
41:1j:78:ASN:O	41:1j:80:LYS:N	2.52	0.43
42:1k:115:PRO:HB2	42:1k:118:GLY:H	1.83	0.43
43:1l:102:ARG:HA	43:1l:102:ARG:HD2	1.90	0.43
44:1m:79:LYS:O	44:1m:79:LYS:HE3	2.19	0.43
45:1n:23:ARG:O	45:1n:33:VAL:HG11	2.18	0.43
1:2A:372:G:H8	23:21:65:SER:O	2.01	0.43
1:2A:373:U:H2'	1:2A:374:A:C8	2.53	0.43
1:2A:538:G:H2'	1:2A:539:G:C8	2.52	0.43
1:2A:780:G:OP1	3:2D:218:ARG:NH2	2.51	0.43
1:2A:783:A:N3	1:2A:783:A:C2'	2.81	0.43
1:2A:806:C:OP1	63:2P:301:HOH:O	2.21	0.43
1:2A:1305:C:C2	1:2A:1624:G:C2	3.06	0.43
1:2A:1758:G:C2	1:2A:2696:U:H5'	2.53	0.43
1:2A:2196:C:O2'	1:2A:2197:U:H5'	2.18	0.43
3:2D:70:TRP:HB3	3:2D:190:TYR:CZ	2.54	0.43
4:2E:202:LYS:HG3	63:2E:403:HOH:O	2.18	0.43
6:2G:139:LEU:H	6:2G:139:LEU:HG	1.17	0.43
8:2I:14:ASP:O	8:2I:17:GLN:HB2	2.17	0.43
15:2T:41:ARG:NH1	32:2a:346:G:OP1	2.50	0.43
15:2T:117:ASP:OD2	15:2T:120:ARG:NH2	2.46	0.43
18:2W:54:ALA:HB3	18:2W:107:LEU:HD22	2.00	0.43
32:2a:792:A:H4'	32:2a:793:U:O5'	2.17	0.43
32:2a:848:C:O5'	32:2a:848:C:H6	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:857:C:H2'	32:2a:858:G:O4'	2.19	0.43
32:2a:1072:G:C6	32:2a:1073:U:C4	3.06	0.43
32:2a:1122:U:N3	32:2a:1123:A:N7	2.67	0.43
32:2a:1312:G:H5'	50:2s:5:LEU:HD21	2.00	0.43
32:2a:1530:G:H2'	32:2a:1531:A:C8	2.54	0.43
33:2b:39:ILE:HG22	33:2b:41:ILE:HD13	2.00	0.43
34:2c:176:HIS:O	34:2c:178:LEU:HD12	2.17	0.43
37:2f:94:GLN:HB3	49:2r:32:ARG:HD3	1.98	0.43
41:2j:33:GLN:H	41:2j:75:ILE:CB	2.30	0.43
42:2k:34:ASP:HB3	42:2k:40:ILE:HD11	2.00	0.43
1:1A:568:U:H6	1:1A:568:U:H5"	1.83	0.43
1:1A:2197:U:H1'	1:1A:2198:A:C8	2.53	0.43
63:1A:4133:HOH:O	9:1N:102:ALA:HB2	2.17	0.43
63:1A:6723:HOH:O	25:13:17:LYS:HG3	2.18	0.43
2:1B:81:G:O6	59:1B:230:ARG:NH1	2.50	0.43
8:1I:69:LYS:HE2	8:1I:73:GLU:OE2	2.18	0.43
10:1O:10:VAL:HA	10:1O:84:ALA:O	2.18	0.43
30:18:62:LEU:HB3	30:18:65:GLU:HG3	2.01	0.43
32:1a:150:C:C2	32:1a:151:A:C8	3.07	0.43
32:1a:192:U:H2'	32:1a:193:C:C6	2.53	0.43
32:1a:604:G:C6	32:1a:635:G:C6	3.07	0.43
32:1a:657:G:C2	32:1a:658:G:C8	3.05	0.43
32:1a:750:G:N3	46:1o:23:GLY:HA3	2.32	0.43
32:1a:918:A:H2'	32:1a:919:A:O4'	2.17	0.43
32:1a:1318:A:H5"	50:1s:3:ARG:NH1	2.32	0.43
35:1d:173:TRP:C	35:1d:186:LEU:HB2	2.43	0.43
36:1e:142:LEU:HD23	36:1e:142:LEU:HA	1.88	0.43
39:1h:20:TYR:HA	39:1h:65:TYR:CZ	2.53	0.43
46:1o:68:ARG:NH1	63:1o:202:HOH:O	2.39	0.43
1:2A:634:C:H2'	1:2A:635:C:C6	2.52	0.43
1:2A:1170:G:N3	1:2A:1170:G:H2'	2.34	0.43
1:2A:2207:G:H3'	1:2A:2208:A:H5"	2.01	0.43
1:2A:2390:U:O2'	1:2A:2391:G:H5'	2.17	0.43
1:2A:2570:G:H2'	1:2A:2571:C:O4'	2.18	0.43
1:2A:2802:G:C2	1:2A:2803:C:H1'	2.54	0.43
2:2B:6:C:O2'	14:2S:29:PHE:HE2	2.01	0.43
2:2B:8:U:H6	2:2B:8:U:H5"	1.83	0.43
5:2F:178:PRO:HB2	5:2F:201:VAL:CG2	2.47	0.43
7:2H:90:LYS:HD2	7:2H:163:TYR:CG	2.53	0.43
7:2H:124:GLU:O	7:2H:131:VAL:HA	2.19	0.43
10:2O:10:VAL:HG21	10:2O:16:ALA:HB3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2P:81:GLN:HB2	11:2P:110:TYR:HD1	1.84	0.43
14:2S:3:ARG:HD2	14:2S:4:LEU:N	2.31	0.43
19:2X:26:TYR:HB3	19:2X:92:LEU:HD23	2.00	0.43
21:2Z:63:ASP:OD1	21:2Z:65:GLN:HB2	2.18	0.43
32:2a:1125:U:H6	32:2a:1126:U:H2'	1.82	0.43
32:2a:1164:G:H1	32:2a:1172:C:N4	2.15	0.43
32:2a:1238:A:N3	32:2a:1241:G:O2'	2.48	0.43
33:2b:16:HIS:CG	33:2b:210:SER:HB3	2.53	0.43
33:2b:28:PHE:CD1	33:2b:190:THR:HA	2.53	0.43
33:2b:84:GLU:OE2	33:2b:216:SER:HB3	2.18	0.43
33:2b:167:PRO:HG3	33:2b:188:ALA:HB2	2.01	0.43
34:2c:149:ALA:HA	34:2c:201:TYR:O	2.18	0.43
35:2d:173:TRP:O	35:2d:186:LEU:HG	2.18	0.43
36:2e:122:GLU:O	36:2e:123:LEU:HD23	2.18	0.43
45:2n:24:CYS:HB3	45:2n:29:ARG:H	1.82	0.43
45:2n:24:CYS:SG	45:2n:39:LEU:HA	2.59	0.43
50:2s:30:LEU:HD21	50:2s:50:ALA:HB2	2.00	0.43
1:1A:1678:G:H5"	1:1A:1678:G:N3	2.33	0.43
1:1A:1688:U:O2	1:1A:1700:A:H5'	2.18	0.43
1:1A:2346:A:H5'	1:1A:2383:G:O4'	2.18	0.43
1:1A:2572:A:N6	63:1A:4870:HOH:O	2.51	0.43
4:1E:176:ILE:HG22	4:1E:179:GLU:HB2	2.00	0.43
20:1Y:23:ARG:HG2	63:1Y:601:HOH:O	2.18	0.43
25:13:7:LYS:HE2	25:13:32:GLN:HE21	1.82	0.43
27:15:8:LYS:O	27:15:9:LYS:HD2	2.18	0.43
28:16:8:LYS:HG2	30:18:34:TRP:CD1	2.54	0.43
29:17:3:ARG:HD3	29:17:3:ARG:HA	1.64	0.43
32:1a:13:U:OP1	63:1a:3327:HOH:O	2.21	0.43
32:1a:37:U:O2'	32:1a:547:A:N1	2.43	0.43
32:1a:174:C:H2'	32:1a:175:C:C6	2.54	0.43
32:1a:949:A:H1'	32:1a:1364:U:H3	1.83	0.43
32:1a:1356:G:H2'	32:1a:1357:A:H8	1.80	0.43
32:1a:1458:G:H5'	51:1t:32:ALA:HB2	2.01	0.43
35:1d:13:ARG:HA	35:1d:33:MET:SD	2.58	0.43
41:1j:50:ILE:H	41:1j:50:ILE:HD12	1.82	0.43
41:1j:78:ASN:O	41:1j:81:THR:HG23	2.17	0.43
44:1m:14:ARG:HG2	44:1m:44:ARG:NE	2.33	0.43
44:1m:108:ARG:NH1	44:1m:114:ARG:HA	2.34	0.43
47:1p:70:ALA:C	47:1p:74:LEU:HD12	2.43	0.43
49:1r:51:LEU:HD23	49:1r:52:PRO:HD2	2.00	0.43
1:2A:225:A:O2'	1:2A:257:A:H4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1111:A:C2	1:2A:1112:G:H1'	2.53	0.43
1:2A:1203:G:H2'	1:2A:1241:A:N6	2.33	0.43
1:2A:1504:C:H2'	1:2A:1505:C:H6	1.84	0.43
1:2A:2287:A:O2'	1:2A:2288:A:H3'	2.18	0.43
1:2A:2680:C:H5'	4:2E:189:PRO:HA	2.00	0.43
1:2A:2735:G:H2'	1:2A:2736:G:H8	1.83	0.43
1:2A:2747:G:H21	1:2A:2757:A:H62	1.66	0.43
3:2D:124:PRO:HG2	3:2D:129:ASN:ND2	2.34	0.43
5:2F:53:THR:C	5:2F:55:GLY:N	2.75	0.43
6:2G:7:LEU:HD22	6:2G:100:TRP:O	2.18	0.43
9:2N:91:LEU:HA	9:2N:95:PRO:HA	2.00	0.43
11:2P:57:THR:HG22	11:2P:59:LEU:N	2.33	0.43
11:2P:90:ARG:NH1	11:2P:105:LEU:HD11	2.34	0.43
12:2Q:112:GLU:HG3	12:2Q:113:GLN:N	2.33	0.43
14:2S:80:LEU:HD23	14:2S:82:ILE:HD12	2.00	0.43
21:2Z:125:LEU:HB3	21:2Z:165:VAL:HG13	2.01	0.43
26:24:50:VAL:HG11	44:2m:65:LYS:N	2.33	0.43
32:2a:659:U:H2'	32:2a:660:G:O4'	2.18	0.43
32:2a:1035:A:O2'	32:2a:1036:G:H8	2.01	0.43
32:2a:1263:C:H2'	32:2a:1264:C:C6	2.53	0.43
32:2a:1323:G:H2'	32:2a:1324:A:H8	1.83	0.43
35:2d:153:ARG:NH1	35:2d:181:MET:HB2	2.34	0.43
36:2e:41:VAL:HG23	36:2e:67:VAL:CG1	2.49	0.43
36:2e:80:ILE:HG22	36:2e:91:LEU:HB2	1.99	0.43
44:2m:87:TYR:HA	44:2m:90:LEU:HG	2.00	0.43
51:2t:74:LYS:HB3	51:2t:74:LYS:HE2	1.78	0.43
1:1A:7:G:H2'	1:1A:8:A:O4'	2.19	0.43
1:1A:35:G:H2'	1:1A:36:G:O4'	2.19	0.43
1:1A:459:U:H4'	29:17:40:TRP:CZ3	2.53	0.43
1:1A:947:G:N2	1:1A:971:C:C2	2.87	0.43
1:1A:1079:C:C5	1:1A:1088:A:H2	2.36	0.43
1:1A:1567:A:OP2	3:1D:84:TYR:OH	2.24	0.43
1:1A:2352:A:C4	1:1A:2366:A:C2	3.07	0.43
1:1A:2365:G:H4'	22:10:60:PHE:CZ	2.54	0.43
5:1F:12:LEU:HD13	5:1F:124:LEU:HD11	2.01	0.43
8:1I:2:LYS:HA	8:1I:19:VAL:O	2.18	0.43
9:1N:20:GLY:HA2	9:1N:61:ARG:HE	1.84	0.43
14:1S:10:ARG:O	14:1S:14:VAL:HG13	2.18	0.43
24:12:28:LYS:HZ2	24:12:28:LYS:HG2	1.55	0.43
28:16:10:LEU:HB2	28:16:52:VAL:HG12	2.01	0.43
32:1a:185:A:H2'	32:1a:186:C:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:236:G:H5”	48:1q:42:TYR:OH	2.19	0.43
32:1a:1017:G:H2’	32:1a:1018:C:C6	2.54	0.43
36:1e:37:ARG:HH12	36:1e:111:GLU:CG	2.31	0.43
39:1h:4:ASP:OD1	39:1h:85:ARG:NH1	2.51	0.43
39:1h:29:SER:O	39:1h:33:GLU:HG3	2.19	0.43
49:1r:65:ILE:H	49:1r:65:ILE:HG12	1.38	0.43
1:2A:71:A:H5”	1:2A:73:A:C8	2.54	0.43
1:2A:511:U:H4’	1:2A:1235:G:H4’	2.00	0.43
1:2A:1063:G:H2’	1:2A:1065:U:C6	2.54	0.43
1:2A:2261:C:C2	1:2A:2280:G:C2	3.06	0.43
1:2A:2329:G:H2’	1:2A:2330:G:O4’	2.19	0.43
1:2A:2544:G:H1’	1:2A:2646:C:H4’	2.01	0.43
1:2A:2722:G:H2’	1:2A:2723:C:C6	2.53	0.43
2:2B:76:G:H2’	2:2B:77:U:O4’	2.18	0.43
6:2G:91:ARG:HG2	6:2G:92:VAL:N	2.32	0.43
7:2H:98:LEU:HG	7:2H:125:VAL:HG23	2.01	0.43
9:2N:104:LYS:HE2	9:2N:117:PHE:CZ	2.54	0.43
32:2a:658:G:O6	32:2a:746:A:N6	2.52	0.43
32:2a:743:U:H2’	32:2a:744:C:C6	2.53	0.43
32:2a:792:A:O2’	32:2a:794:A:N7	2.39	0.43
32:2a:867:G:O2’	32:2a:868:C:H5’	2.17	0.43
32:2a:979:C:N4	45:2n:18:VAL:HB	2.30	0.43
32:2a:1126:U:C4’	32:2a:1281:U:H1’	2.48	0.43
32:2a:1277:C:O2’	32:2a:1279:A:C8	2.67	0.43
38:2g:108:ALA:O	38:2g:119:ARG:HD2	2.18	0.43
45:2n:52:GLN:O	45:2n:53:LEU:HD23	2.19	0.43
53:2y:87:LYS:O	53:2y:91:LYS:N	2.51	0.43
1:1A:844:C:C2’	1:1A:845:G:H5’	2.49	0.43
1:1A:857:C:C2	1:1A:921:G:N2	2.87	0.43
1:1A:878:A:C2	1:1A:879:G:N7	2.87	0.43
1:1A:1063:G:H2’	1:1A:1063:G:N3	2.34	0.43
1:1A:2889:C:H2’	1:1A:2891:G:O4’	2.18	0.43
2:1B:38:C:H5’	63:1B:372:HOH:O	2.18	0.43
4:1E:118:LYS:NZ	63:1E:407:HOH:O	2.39	0.43
5:1F:192:LEU:HD13	5:1F:194:MET:HE2	2.00	0.43
19:1X:84:ALA:O	19:1X:87:GLN:HG3	2.18	0.43
20:1Y:6:HIS:HB2	20:1Y:85:VAL:HG11	2.00	0.43
21:1Z:58:VAL:HA	21:1Z:67:LEU:O	2.19	0.43
21:1Z:126:VAL:CG2	21:1Z:161:VAL:HG23	2.48	0.43
30:18:4:MET:HE2	30:18:4:MET:HB3	1.92	0.43
32:1a:986:A:C2	32:1a:1220:G:C2	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1330:U:C2'	32:1a:1331:G:H5'	2.48	0.43
32:1a:1343:G:H4'	40:1i:122:ALA:HB3	2.00	0.43
32:1a:1382:C:H2'	32:1a:1383:C:C6	2.53	0.43
32:1a:1439:C:H42	32:1a:1462:G:H1	1.66	0.43
33:1b:40:HIS:CB	33:1b:190:THR:HG21	2.49	0.43
34:1c:114:PRO:HD3	34:1c:183:ASP:OD2	2.19	0.43
35:1d:166:LYS:C	35:1d:168:ARG:HH12	2.24	0.43
45:1n:2:ALA:O	45:1n:6:LEU:HD22	2.19	0.43
48:1q:62:SER:OG	48:1q:72:ARG:HG3	2.18	0.43
1:2A:301:G:H5'	1:2A:334:C:H2'	2.00	0.43
1:2A:315:G:H2'	1:2A:316:C:H6	1.79	0.43
1:2A:398:G:H2'	1:2A:399:G:C8	2.54	0.43
1:2A:700:G:O2'	1:2A:1632:A:N3	2.44	0.43
1:2A:854:G:H2'	1:2A:855:G:C8	2.52	0.43
1:2A:1022:G:N7	9:2N:66:LYS:HE2	2.34	0.43
1:2A:1268:A:H2'	1:2A:1269:A:O4'	2.19	0.43
1:2A:1910:G:H2'	1:2A:1911:PSU:H6	1.84	0.43
1:2A:2014:A:N1	63:2A:4052:HOH:O	2.36	0.43
1:2A:2208:A:H1'	1:2A:2219:G:C6	2.54	0.43
1:2A:2290:G:C2	1:2A:2343:C:O2	2.72	0.43
1:2A:2872:G:C2	1:2A:2873:A:N6	2.87	0.43
8:2I:29:TYR:HD2	8:2I:30:LEU:HD23	1.83	0.43
16:2U:82:GLY:HA3	16:2U:113:ALA:HB1	2.01	0.43
23:21:77:ALA:HA	23:21:80:LEU:HD22	2.00	0.43
26:24:68:ARG:HD2	26:24:68:ARG:HA	1.46	0.43
32:2a:526:C:C5	32:2a:527:G7M:H1'	2.53	0.43
32:2a:579:G:C6	32:2a:580:U:C4	3.07	0.43
32:2a:980:C:H3'	32:2a:981:U:H6	1.84	0.43
32:2a:1005:A:H1'	32:2a:1025:U:C4	2.54	0.43
32:2a:1177:G:H8	32:2a:1177:G:O5'	2.01	0.43
32:2a:1401:G:H2'	32:2a:1402:4OC:O4'	2.17	0.43
32:2a:1441:G:H5"	32:2a:1442:G:H5'	2.00	0.43
39:2h:86:ILE:HG21	39:2h:133:LEU:HD13	2.00	0.43
1:1A:9:U:N3	1:1A:2629:A:C2	2.86	0.43
1:1A:41:C:H2'	1:1A:42:G:O4'	2.18	0.43
1:1A:608:A:C4	1:1A:621:A:C6	3.06	0.43
1:1A:1163:G:O2'	1:1A:1164:G:H5'	2.19	0.43
1:1A:1995:U:H3'	1:1A:1996:C:H2'	2.01	0.43
1:1A:2135:A:C2	1:1A:2136:C:H1'	2.53	0.43
1:1A:2815:C:H2'	1:1A:2816:C:H6	1.83	0.43
4:1E:73:GLU:H	4:1E:73:GLU:CD	2.27	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1G:115:ARG:CZ	6:1G:115:ARG:HB2	2.38	0.43
19:1X:36:LYS:HG2	19:1X:54:VAL:HB	2.01	0.43
21:1Z:53:ILE:HG22	21:1Z:71:VAL:O	2.19	0.43
21:1Z:108:PRO:HB2	21:1Z:111:VAL:HG23	2.01	0.43
27:15:31:VAL:HG22	27:15:42:PRO:HD3	2.00	0.43
32:1a:189(F):U:O4	48:1q:72:ARG:NH1	2.52	0.43
32:1a:509:A:O2'	32:1a:510:A:OP1	2.34	0.43
32:1a:555:C:H2'	32:1a:556:C:C6	2.54	0.43
32:1a:765:G:C6	32:1a:812:C:C2	3.07	0.43
32:1a:1036:G:H5"	32:1a:1037:C:C5	2.54	0.43
32:1a:1058:G:OP1	34:1c:199:LYS:HE3	2.18	0.43
32:1a:1139:G:H4'	32:1a:1140:C:H5"	2.00	0.43
32:1a:1229:A:H4'	53:1y:2:THR:HG23	2.00	0.43
32:1a:1508:G:H2'	32:1a:1509:C:O4'	2.19	0.43
48:1q:81:ARG:HA	48:1q:81:ARG:HD2	1.86	0.43
1:2A:196:A:N3	1:2A:196:A:H2'	2.34	0.43
1:2A:1359:A:H61	1:2A:1372:U:H3	1.67	0.43
1:2A:1385:G:H1'	1:2A:1386:C:C6	2.52	0.43
1:2A:1671:U:O5'	1:2A:1671:U:H6	2.01	0.43
1:2A:1836:C:H2'	1:2A:1837:C:H6	1.83	0.43
1:2A:2303:G:C2	1:2A:2314:C:C2	3.07	0.43
4:2E:11:MET:HE2	4:2E:11:MET:HB3	1.91	0.43
4:2E:47:VAL:HG13	4:2E:47:VAL:O	2.19	0.43
8:2I:45:LYS:O	8:2I:48:GLU:N	2.52	0.43
19:2X:94:GLY:HA3	19:2X:95:LEU:O	2.18	0.43
21:2Z:144:LEU:HD23	21:2Z:144:LEU:HA	1.82	0.43
26:24:8:LYS:O	26:24:27:THR:HG22	2.19	0.43
32:2a:120:A:C6	32:2a:122:G:C2	3.07	0.43
32:2a:233:C:H2'	32:2a:234:C:H6	1.84	0.43
32:2a:1142:G:H3'	32:2a:1143:G:H8	1.83	0.43
32:2a:1496:C:H2'	32:2a:1497:G:O4'	2.19	0.43
35:2d:153:ARG:HH12	35:2d:181:MET:HB2	1.83	0.43
43:2l:60:LEU:N	43:2l:64:TYR:O	2.51	0.43
44:2m:60:VAL:HG23	44:2m:64:TRP:CZ3	2.54	0.43
1:1A:1065:U:N3	1:1A:1073:A:N6	2.62	0.43
1:1A:1098:A:H2'	1:1A:1099:G:O4'	2.18	0.43
1:1A:1292:U:H2'	1:1A:1293:C:C6	2.53	0.43
1:1A:2025:C:H2'	1:1A:2026:C:C6	2.54	0.43
1:1A:2334:G:C6	22:10:75:LEU:HD21	2.54	0.43
1:1A:2344:U:O2'	28:16:36:LEU:HD22	2.19	0.43
1:1A:2606:C:OP2	63:1A:4271:HOH:O	2.21	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:1A:5463:HOH:O	16:1U:51:LYS:HE2	2.19	0.43
5:1F:74:ARG:HD2	63:1F:423:HOH:O	2.18	0.43
6:1G:16:ARG:NH2	6:1G:31:VAL:HG21	2.30	0.43
8:1I:109:ILE:HG23	8:1I:110:ASP:N	2.32	0.43
9:1N:4:TYR:HA	63:1N:325:HOH:O	2.18	0.43
12:1Q:7:MET:HB2	12:1Q:7:MET:HE2	1.52	0.43
32:1a:235:C:H2'	32:1a:236:G:C8	2.54	0.43
32:1a:448:A:C4	32:1a:487:A:C2	3.07	0.43
32:1a:1264:C:H2'	32:1a:1265:G:H8	1.83	0.43
33:1b:76:GLN:NE2	33:1b:206:ASP:OD1	2.52	0.43
34:1c:30:ARG:HE	34:1c:30:ARG:HB2	1.52	0.43
40:1i:33:PHE:O	40:1i:36:TYR:N	2.43	0.43
44:1m:23:TYR:HB3	44:1m:67:GLU:HA	2.01	0.43
47:1p:19:ILE:HG22	47:1p:37:GLY:C	2.44	0.43
51:1t:50:GLU:O	51:1t:54:LYS:HG3	2.19	0.43
1:2A:198:C:H5'	1:2A:2244:U:OP1	2.19	0.43
1:2A:272(G):C:C2	1:2A:363(D):G:C2	3.07	0.43
1:2A:361:G:C2	1:2A:362:U:H5	2.37	0.43
1:2A:571:A:C8	1:2A:2030:A:N6	2.86	0.43
1:2A:909:A:C6	1:2A:912:C:C2	3.07	0.43
1:2A:1049:C:O2	1:2A:1113:U:H4'	2.19	0.43
1:2A:1178:C:H2'	1:2A:1179:C:H6	1.80	0.43
1:2A:1248:G:OP1	63:2A:3933:HOH:O	2.22	0.43
1:2A:1257:C:H5	63:2A:4188:HOH:O	2.01	0.43
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.54	0.43
1:2A:1752:C:H2'	1:2A:1753:G:C8	2.54	0.43
1:2A:2705:A:O2'	1:2A:2852:G:OP1	2.27	0.43
1:2A:2850:A:C2	1:2A:2851:A:C4	3.06	0.43
2:2B:25:A:H2'	2:2B:26:A:C8	2.54	0.43
9:2N:131:GLN:C	9:2N:133:GLN:H	2.27	0.43
10:2O:53:LYS:HG2	10:2O:56:ASP:OD2	2.19	0.43
11:2P:117:GLU:HG3	11:2P:118:GLY:N	2.32	0.43
13:2R:97:VAL:O	13:2R:98:LEU:HD23	2.19	0.43
22:20:66:VAL:O	22:20:81:VAL:HA	2.19	0.43
32:2a:20:U:H2'	32:2a:21:G:O4'	2.19	0.43
32:2a:151:A:H2'	32:2a:152:A:O4'	2.19	0.43
32:2a:475:G:H2'	32:2a:476:G:H8	1.84	0.43
32:2a:690:G:C6	32:2a:691:G:C6	3.06	0.43
32:2a:1353:G:C2	32:2a:1370:G:C2	3.07	0.43
33:2b:127:ILE:H	33:2b:127:ILE:HG13	1.64	0.43
33:2b:212:GLN:O	33:2b:212:GLN:NE2	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:110:PHE:N	35:2d:110:PHE:CD1	2.86	0.43
38:2g:91:VAL:HB	38:2g:96:GLN:HG2	2.00	0.43
40:2i:100:GLY:O	40:2i:103:THR:HG22	2.19	0.43
46:2o:33:THR:HG23	46:2o:63:ARG:NH1	2.34	0.43
46:2o:56:LEU:HD12	46:2o:59:MET:HE2	2.01	0.43
48:2q:40:LYS:HE2	48:2q:42:TYR:CZ	2.53	0.43
1:1A:922:U:H2'	1:1A:923:C:C6	2.53	0.43
1:1A:933:A:OP1	25:13:24:LYS:NZ	2.52	0.43
1:1A:1294:U:C2'	1:1A:1295:C:H5'	2.49	0.43
1:1A:1876:A:H2'	1:1A:1877:A:C8	2.54	0.43
1:1A:2046:G:H5'	27:15:19:ARG:HG3	2.01	0.43
1:1A:2113:U:N3	1:1A:2168:G:H4'	2.31	0.43
1:1A:2321:G:H5"	1:1A:2322:A:OP2	2.19	0.43
4:1E:105:THR:HG21	4:1E:164:ARG:NE	2.34	0.43
5:1F:11:VAL:HB	5:1F:18:ARG:HB2	2.01	0.43
9:1N:15:LEU:HD11	9:1N:55:VAL:HG13	2.00	0.43
16:1U:17:ILE:HG13	16:1U:32:PHE:HE1	1.84	0.43
18:1W:9:TYR:HA	18:1W:100:THR:HG23	2.00	0.43
20:1Y:107:ASP:OD1	20:1Y:107:ASP:N	2.52	0.43
21:1Z:199:LYS:HG3	21:1Z:200:GLY:N	2.34	0.43
31:19:27:CYS:SG	31:19:28:GLU:N	2.92	0.43
32:1a:68:G:C6	32:1a:69:G:N7	2.87	0.43
32:1a:78:G:H1	32:1a:91:C:H42	1.66	0.43
32:1a:191:G:C5	32:1a:192:U:C5	3.07	0.43
32:1a:390:C:H2'	32:1a:391:G:H8	1.81	0.43
32:1a:523:A:N1	43:1l:92:0TD:H6	2.34	0.43
32:1a:655:A:C2	32:1a:656:C:C2	3.06	0.43
32:1a:1028:C:H2'	32:1a:1029:C:C4'	2.49	0.43
32:1a:1127:G:H2'	32:1a:1128:C:C6	2.54	0.43
32:1a:1302:U:OP2	44:1m:21:TYR:OH	2.24	0.43
36:1e:86:ALA:O	36:1e:125:SER:N	2.29	0.43
41:1j:31:GLY:HA2	41:1j:32:ALA:HA	1.64	0.43
41:1j:55:LYS:HE3	41:1j:56:HIS:CE1	2.54	0.43
51:1t:82:SER:O	51:1t:86:ARG:HG3	2.19	0.43
1:2A:17:G:H2'	1:2A:18:C:C6	2.53	0.43
1:2A:888:C:H2'	1:2A:889:C:C4	2.54	0.43
1:2A:2275:C:C6	1:2A:2275:C:H5'	2.54	0.43
1:2A:2637:U:H5"	4:2E:82:ARG:HH12	1.83	0.43
2:2B:100:A:C4	2:2B:101:G:C8	3.07	0.43
4:2E:174:ASP:OD1	4:2E:175:VAL:N	2.52	0.43
5:2F:28:ILE:HG13	5:2F:112:MET:HG2	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:5:VAL:HG13	6:2G:8:LYS:HB3	2.00	0.43
11:2P:55:ARG:HA	63:2P:302:HOH:O	2.18	0.43
32:2a:163:C:H2'	32:2a:164:U:O4'	2.19	0.43
32:2a:954:G:H21	32:2a:1227:A:N6	2.09	0.43
32:2a:1120:G:C6	32:2a:1121:U:C4	3.07	0.43
32:2a:1495:U:H2'	32:2a:1496:C:H6	1.84	0.43
34:2c:6:HIS:HE2	34:2c:184:TYR:HD2	1.65	0.43
40:2i:46:ALA:HA	40:2i:78:LYS:HB3	2.00	0.43
41:2j:50:ILE:HA	41:2j:59:SER:O	2.18	0.43
42:2k:84:VAL:HG21	42:2k:95:ILE:HD11	2.01	0.43
54:2x:76:8AN:H5'A	57:2x:103:SPS:C6	2.49	0.43
1:1A:335:C:H6	1:1A:335:C:O5'	2.02	0.42
1:1A:1490:A:O2'	3:1D:99:ASP:OD1	2.36	0.42
1:1A:1580:A:H5'	1:1A:1581:G:OP2	2.19	0.42
1:1A:1607:C:H4'	1:1A:1608:A:O5'	2.18	0.42
1:1A:2251:OMG:H1'	1:1A:2251:OMG:HM23	1.77	0.42
1:1A:2592:G:H2'	1:1A:2593:U:O4'	2.19	0.42
1:1A:2865:U:C4	1:1A:2866:U:C4	3.07	0.42
3:1D:95:LEU:HD11	3:1D:105:ILE:HG12	2.01	0.42
12:1Q:63:LYS:HG2	12:1Q:65:PHE:CE1	2.54	0.42
14:1S:88:ASP:C	14:1S:90:GLY:N	2.76	0.42
32:1a:66:G:N3	32:1a:66:G:H2'	2.34	0.42
32:1a:412:A:C6	35:1d:35:ARG:HB3	2.54	0.42
32:1a:731:G:OP1	32:1a:766:A:H1'	2.18	0.42
32:1a:1051:C:H2'	32:1a:1052:U:H6	1.83	0.42
32:1a:1157:A:H4'	32:1a:1158:C:O4'	2.18	0.42
32:1a:1255:G:C2	32:1a:1283:G:C2	3.07	0.42
33:1b:27:LYS:HB2	33:1b:194:PRO:HD2	2.00	0.42
34:1c:71:ALA:O	34:1c:73:PRO:HD3	2.19	0.42
35:1d:98:GLU:OE1	35:1d:103:ASN:ND2	2.49	0.42
1:2A:228:A:H8	1:2A:229:A:H5'	1.84	0.42
1:2A:271(J):C:O5'	1:2A:271(J):C:H6	2.01	0.42
1:2A:784:A:OP1	1:2A:2588:G:H5"	2.18	0.42
1:2A:824:A:O2'	1:2A:2358:G:O6	2.32	0.42
1:2A:888:C:H2'	1:2A:889:C:N3	2.34	0.42
1:2A:1092:C:H2'	1:2A:1092:C:O2	2.18	0.42
1:2A:1199:U:H2'	1:2A:1200:C:O4'	2.19	0.42
1:2A:1359:A:H2'	1:2A:1360:A:H5'	2.01	0.42
1:2A:1359:A:N1	1:2A:1372:U:O4	2.52	0.42
1:2A:1946:U:H2'	1:2A:1947:C:C6	2.54	0.42
1:2A:2195:C:O2'	1:2A:2196:C:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2704:C:H2'	1:2A:2705:A:O4'	2.19	0.42
1:2A:2786:U:O2'	4:2E:62:PRO:O	2.35	0.42
1:2A:2895:U:H2'	1:2A:2896:C:C6	2.54	0.42
3:2D:85:ASP:OD2	3:2D:88:ARG:NH1	2.49	0.42
10:2O:104:ARG:NH1	10:2O:104:ARG:HB2	2.34	0.42
11:2P:138:LEU:HD12	11:2P:138:LEU:HA	1.86	0.42
14:2S:26:LEU:HD22	14:2S:87:PHE:HD1	1.84	0.42
32:2a:575:G:H4'	32:2a:575:G:OP1	2.19	0.42
32:2a:1226:C:OP2	44:2m:91:ARG:NH1	2.52	0.42
34:2c:36:ASP:OD2	34:2c:57:ILE:HG21	2.19	0.42
35:2d:196:LEU:H	35:2d:196:LEU:HD12	1.84	0.42
38:2g:114:ARG:H	38:2g:115:ARG:NH2	2.17	0.42
43:2l:41:ARG:HD2	43:2l:43:VAL:HG23	2.00	0.42
44:2m:13:LYS:O	44:2m:45:VAL:HG23	2.19	0.42
49:2r:35:ARG:O	49:2r:37:VAL:N	2.51	0.42
49:2r:40:LEU:HB3	49:2r:79:LEU:HD11	2.01	0.42
51:2t:10:LEU:O	51:2t:14:LYS:N	2.40	0.42
51:2t:39:LYS:HE2	51:2t:39:LYS:HB2	1.78	0.42
1:1A:301:G:H1'	1:1A:302:C:C6	2.54	0.42
1:1A:2314:C:H2'	1:1A:2315:G:C8	2.53	0.42
1:1A:2702:U:H5	63:1A:7421:HOH:O	2.02	0.42
3:1D:175:LEU:HD23	3:1D:175:LEU:HA	1.81	0.42
4:1E:143:ASN:HD22	4:1E:147:PRO:CD	2.32	0.42
6:1G:12:TYR:HA	6:1G:16:ARG:HG3	2.01	0.42
11:1P:58:THR:HA	63:1P:337:HOH:O	2.19	0.42
11:1P:126:VAL:HG12	11:1P:148:LEU:HD11	2.01	0.42
32:1a:288:A:H2'	32:1a:289:G:H4'	2.01	0.42
32:1a:407:G:H5"	35:1d:115:ARG:HB3	2.01	0.42
32:1a:1112:C:N3	34:1c:178:LEU:HB2	2.34	0.42
35:1d:70:ILE:HD13	35:1d:70:ILE:HG21	1.83	0.42
36:1e:90:VAL:O	36:1e:120:THR:HA	2.19	0.42
43:1l:34:ARG:HD3	43:1l:105:TYR:CE2	2.54	0.42
44:1m:49:THR:N	44:1m:52:GLU:OE1	2.51	0.42
47:1p:71:ARG:O	47:1p:74:LEU:N	2.52	0.42
1:2A:228:A:H2'	1:2A:230:U:O4'	2.19	0.42
1:2A:372:G:O2'	1:2A:373:U:P	2.77	0.42
1:2A:805:G:OP1	63:2A:3932:HOH:O	2.22	0.42
1:2A:878:A:C6	1:2A:900:A:C8	3.07	0.42
1:2A:994:C:P	16:2U:54:LYS:HZ1	2.41	0.42
1:2A:1680:U:H2'	1:2A:1681:G:O4'	2.18	0.42
1:2A:2036:C:O2'	1:2A:2037:G:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2189:U:H2'	1:2A:2190:G:C8	2.54	0.42
1:2A:2274:A:C5	1:2A:2276:G:C8	3.07	0.42
1:2A:2328:A:H2'	1:2A:2329:G:C8	2.55	0.42
1:2A:2441:C:OP2	1:2A:2586:C:O2'	2.37	0.42
1:2A:2516:G:C6	1:2A:2517:C:N4	2.87	0.42
1:2A:2885:C:O2'	27:25:34:PRO:HG3	2.19	0.42
8:2I:120:ILE:HG21	8:2I:126:TYR:CE2	2.54	0.42
13:2R:87:TYR:OH	13:2R:117:VAL:O	2.14	0.42
19:2X:12:VAL:HG22	19:2X:29:TRP:CZ2	2.55	0.42
32:2a:107:G:H2'	32:2a:108:G:O4'	2.19	0.42
32:2a:152:A:N6	32:2a:169:C:C2	2.87	0.42
32:2a:517:G:N1	32:2a:533:A:OP2	2.47	0.42
32:2a:625:G:H4'	47:2p:16:HIS:CG	2.54	0.42
32:2a:1058:G:H2'	32:2a:1059:C:C6	2.54	0.42
35:2d:102:ASP:OD2	35:2d:136:PRO:HB3	2.20	0.42
36:2e:79:GLU:CD	36:2e:79:GLU:H	2.27	0.42
39:2h:121:ASP:O	39:2h:125:ARG:HB2	2.19	0.42
41:2j:78:ASN:C	41:2j:80:LYS:N	2.78	0.42
44:2m:107:ALA:HB3	44:2m:111:LYS:HE3	2.01	0.42
50:2s:39:THR:HG22	50:2s:40:ILE:O	2.19	0.42
53:2y:70:MET:HE3	53:2y:70:MET:HB2	1.71	0.42
1:1A:675:A:C8	1:1A:804:A:C6	3.06	0.42
1:1A:873:G:H1	1:1A:904:C:H42	1.65	0.42
1:1A:1192:G:OP2	11:1P:17:LYS:NZ	2.41	0.42
1:1A:2206:G:OP2	1:1A:2206:G:H4'	2.18	0.42
1:1A:2390:U:P	30:18:35:GLN:HE22	2.42	0.42
1:1A:2818:G:OP2	13:1R:42:LYS:NZ	2.52	0.42
7:1H:71:LEU:HD12	7:1H:71:LEU:HA	1.85	0.42
11:1P:132:LYS:O	11:1P:136:GLU:HG3	2.19	0.42
20:1Y:9:LYS:HA	20:1Y:10:GLY:HA2	1.60	0.42
20:1Y:53:PRO:O	20:1Y:56:PRO:HD3	2.19	0.42
21:1Z:116:VAL:O	21:1Z:174:VAL:HA	2.19	0.42
21:1Z:183:LEU:HA	21:1Z:183:LEU:HD23	1.74	0.42
24:12:37:PHE:O	24:12:41:ILE:HG23	2.20	0.42
24:12:50:ILE:O	24:12:54:LYS:HG3	2.19	0.42
32:1a:588:G:C6	32:1a:753:A:C8	3.07	0.42
32:1a:601:C:H2'	32:1a:602:A:C8	2.54	0.42
32:1a:1295:G:O2'	44:1m:14:ARG:NH1	2.52	0.42
38:1g:27:ILE:O	38:1g:30:ILE:HB	2.19	0.42
38:1g:40:ALA:HB3	40:1i:41:VAL:HG21	2.02	0.42
39:1h:113:SER:HA	39:1h:118:VAL:HG22	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:1p:4:ILE:HA	47:1p:20:VAL:O	2.20	0.42
1:2A:796:C:H2'	1:2A:797:C:H6	1.81	0.42
1:2A:1098:A:C2	1:2A:1099:G:H1'	2.54	0.42
1:2A:1790:C:H2'	1:2A:1791:A:C5	2.54	0.42
1:2A:2461:C:H2'	1:2A:2462:U:C6	2.54	0.42
1:2A:2489:G:C6	1:2A:2490:G:C6	3.07	0.42
2:2B:90:A:C5	2:2B:91:C:H1'	2.54	0.42
2:2B:105:A:C2	2:2B:106:G:H1'	2.54	0.42
5:2F:33:LEU:HD13	5:2F:112:MET:HE2	2.01	0.42
5:2F:181:LEU:HD11	5:2F:186:ILE:HD11	2.00	0.42
14:2S:95:HIS:CG	14:2S:96:GLY:N	2.87	0.42
22:20:24:LYS:HA	22:20:24:LYS:HD3	1.76	0.42
32:2a:671:G:H2'	32:2a:672:U:O4'	2.19	0.42
35:2d:201:GLN:HE22	36:2e:116:THR:HB	1.84	0.42
40:2i:37:PHE:CE2	40:2i:74:ILE:HG23	2.54	0.42
44:2m:13:LYS:HA	44:2m:44:ARG:HH11	1.84	0.42
1:1A:616:G:H5'	5:1F:205:ARG:HD3	2.02	0.42
1:1A:818:G:H4'	1:1A:838:C:O3'	2.18	0.42
1:1A:826:U:H4'	11:1P:55:ARG:HB3	2.00	0.42
1:1A:881:G:H2'	1:1A:882:G:H8	1.83	0.42
1:1A:1151:G:H2'	1:1A:1152:C:O4'	2.19	0.42
1:1A:2693:A:H2'	1:1A:2694:G:C8	2.54	0.42
1:1A:2713:A:OP2	63:1A:4273:HOH:O	2.22	0.42
2:1B:78:A:C2	2:1B:100:A:C4	3.06	0.42
5:1F:110:LEU:HD23	5:1F:110:LEU:HA	1.90	0.42
6:1G:56:ALA:HA	6:1G:59:GLU:OE1	2.19	0.42
10:1O:122:LEU:HD23	10:1O:122:LEU:HA	1.75	0.42
15:1T:1:MET:HE2	15:1T:3:ARG:HG2	2.02	0.42
32:1a:124:G:C6	32:1a:125:U:C4	3.07	0.42
32:1a:189:G:H22	32:1a:189(L):G:H1'	1.85	0.42
32:1a:189(F):U:C4	48:1q:72:ARG:NH1	2.87	0.42
32:1a:444:C:H2'	32:1a:445:G:H8	1.84	0.42
32:1a:690:G:N1	32:1a:691:G:C2	2.88	0.42
32:1a:715:A:H2'	32:1a:716:A:C8	2.55	0.42
32:1a:719:C:H1'	49:1r:49:LYS:HB3	2.01	0.42
40:1i:48:GLU:N	40:1i:49:PRO:CD	2.82	0.42
40:1i:93:ARG:O	40:1i:97:LYS:N	2.40	0.42
1:2A:398:G:H2'	1:2A:399:G:H8	1.84	0.42
1:2A:888:C:OP1	44:2m:93:ARG:HD2	2.18	0.42
1:2A:1048:A:N1	1:2A:1112:G:O2'	2.46	0.42
1:2A:1179:C:O2'	1:2A:1180:C:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1778:U:H2'	1:2A:1784:A:N6	2.34	0.42
1:2A:2336:A:H61	22:20:43:THR:CG2	2.32	0.42
1:2A:2579:C:H4'	4:2E:134:ILE:HG12	2.01	0.42
1:2A:2746:U:OP1	7:2H:85:LYS:NZ	2.41	0.42
1:2A:2838:G:C6	1:2A:2839:G:C5	3.08	0.42
63:2A:4032:HOH:O	11:2P:37:GLY:HA3	2.18	0.42
3:2D:139:GLY:H	3:2D:165:ILE:HB	1.84	0.42
3:2D:155:LEU:HG	3:2D:177:LEU:HD22	2.00	0.42
5:2F:53:THR:O	5:2F:55:GLY:N	2.53	0.42
7:2H:23:ARG:HG2	7:2H:34:GLU:OE1	2.19	0.42
7:2H:64:LEU:O	7:2H:67:LEU:HB3	2.18	0.42
9:2N:42:TRP:CH2	9:2N:44:PRO:HB3	2.55	0.42
15:2T:127:ALA:C	15:2T:129:ARG:N	2.69	0.42
32:2a:1302:U:OP2	44:2m:21:TYR:OH	2.27	0.42
32:2a:1320:C:H2'	32:2a:1321:C:O4'	2.18	0.42
33:2b:78:GLN:O	33:2b:81:VAL:HG12	2.19	0.42
33:2b:172:ILE:HD12	33:2b:172:ILE:H	1.83	0.42
34:2c:35:GLU:HA	34:2c:38:ARG:CD	2.50	0.42
35:2d:173:TRP:CD2	35:2d:189:PRO:HB3	2.54	0.42
39:2h:84:ARG:O	39:2h:135:CYS:HB2	2.19	0.42
45:2n:3:ARG:HE	45:2n:3:ARG:HB3	1.59	0.42
51:2t:82:SER:O	51:2t:86:ARG:HB2	2.19	0.42
1:1A:784:A:H5'	1:1A:785:G:OP1	2.20	0.42
1:1A:1266:G:O5'	18:1W:15:ARG:NH2	2.52	0.42
1:1A:1365:A:O4'	23:11:41:ARG:NH2	2.52	0.42
1:1A:1894:C:H6	1:1A:1894:C:O5'	2.02	0.42
1:1A:2001:A:OP1	13:1R:9:LYS:NZ	2.40	0.42
1:1A:2222:G:H2'	1:1A:2223:G:O4'	2.20	0.42
63:1A:4435:HOH:O	18:1W:18:ARG:HD3	2.19	0.42
5:1F:107:LYS:HD2	5:1F:206:ILE:HA	2.01	0.42
5:1F:184:TYR:CE2	5:1F:188:ARG:HD2	2.54	0.42
10:1O:28:SER:OG	63:1O:302:HOH:O	2.22	0.42
19:1X:61:GLY:HA3	19:1X:73:ARG:O	2.19	0.42
19:1X:66:LEU:HD12	19:1X:67:GLY:H	1.83	0.42
20:1Y:44:ILE:HG21	20:1Y:62:GLU:HG2	1.99	0.42
20:1Y:68:HIS:ND1	20:1Y:70:SER:OG	2.47	0.42
32:1a:426:G:H2'	32:1a:427:U:C6	2.53	0.42
32:1a:518:C:H5"	32:1a:519:C:C5	2.55	0.42
32:1a:727:G:N2	32:1a:731:G:C4	2.87	0.42
32:1a:1183:A:H3'	32:1a:1184:G:H5"	2.01	0.42
32:1a:1202:G:C4	45:1n:42:ILE:HD12	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:15:VAL:CG2	33:1b:209:ARG:HD2	2.50	0.42
35:1d:63:LYS:HE3	35:1d:63:LYS:HB2	1.80	0.42
40:1i:96:LEU:HD22	40:1i:101:PHE:HB2	2.01	0.42
41:1j:18:ALA:O	41:1j:22:LYS:HG3	2.19	0.42
1:2A:244:A:C2	1:2A:255:A:C4	3.08	0.42
1:2A:1153:C:H5'	16:2U:76:TYR:HE2	1.84	0.42
1:2A:2074:U:H2'	1:2A:2075:U:C6	2.54	0.42
1:2A:2279:G:O6	22:20:14:ARG:HG3	2.20	0.42
4:2E:116:VAL:HG13	4:2E:122:PHE:HB2	2.01	0.42
5:2F:75:HIS:O	63:2F:404:HOH:O	2.21	0.42
6:2G:41:GLN:HG2	6:2G:154:GLY:O	2.20	0.42
6:2G:129:GLY:O	6:2G:161:THR:HB	2.19	0.42
8:2I:3:VAL:O	8:2I:18:VAL:HA	2.19	0.42
9:2N:47:ALA:HB2	9:2N:112:LEU:HD11	2.01	0.42
14:2S:93:LYS:HG3	14:2S:94:TYR:N	2.34	0.42
17:2V:49:THR:O	17:2V:49:THR:HG22	2.19	0.42
21:2Z:52:SER:C	21:2Z:54:HIS:H	2.27	0.42
25:23:8:LEU:HD23	25:23:30:ARG:O	2.19	0.42
32:2a:500:G:H2'	32:2a:501:C:C6	2.54	0.42
32:2a:658:G:H4'	46:2o:22:THR:HB	2.01	0.42
32:2a:1015:A:N3	32:2a:1218:C:O2'	2.46	0.42
33:2b:70:PHE:O	33:2b:93:VAL:N	2.45	0.42
35:2d:199:ASN:C	35:2d:201:GLN:N	2.77	0.42
37:2f:3:ARG:HA	37:2f:65:VAL:O	2.20	0.42
41:2j:51:ARG:N	41:2j:59:SER:O	2.41	0.42
53:2y:39:ILE:HA	53:2y:51:ASP:O	2.19	0.42
1:1A:69:C:O2'	1:1A:70:G:H5'	2.20	0.42
1:1A:1664:A:H1'	1:1A:2685:G:O2'	2.19	0.42
1:1A:1863:G:C5	1:1A:1864:U:C4	3.08	0.42
1:1A:2412:A:H2'	1:1A:2413:G:O4'	2.20	0.42
4:1E:47:VAL:HG12	4:1E:84:PHE:O	2.19	0.42
6:1G:138:GLN:HE22	6:1G:153:ARG:HG3	1.85	0.42
6:1G:179:PRO:HG3	26:14:43:TYR:OH	2.19	0.42
8:1I:5:LEU:HD12	8:1I:5:LEU:HA	1.67	0.42
18:1W:37:ARG:HD3	18:1W:38:TYR:CZ	2.54	0.42
22:10:73:GLY:C	22:10:75:LEU:N	2.75	0.42
29:17:35:ARG:NH1	63:17:201:HOH:O	2.19	0.42
32:1a:299:G:H2'	32:1a:300:A:C8	2.54	0.42
32:1a:812:C:OP1	32:1a:903:G:H1'	2.19	0.42
32:1a:1186:G:H21	45:1n:61:TRP:C	2.24	0.42
32:1a:1213:A:C8	32:1a:1215:G:C6	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1216:G:H5"	45:1n:5:ALA:CB	2.47	0.42
32:1a:1382:C:H2'	32:1a:1383:C:H6	1.84	0.42
32:1a:1433:A:C4	32:1a:1468:A:C2	3.08	0.42
33:1b:229:VAL:O	33:1b:230:VAL:HG23	2.20	0.42
36:1e:41:VAL:HG23	36:1e:67:VAL:CG1	2.49	0.42
39:1h:10:LEU:CD2	39:1h:83:ILE:HD11	2.49	0.42
45:1n:18:VAL:C	45:1n:20:ALA:H	2.27	0.42
50:1s:11:VAL:C	50:1s:13:ASP:H	2.27	0.42
51:1t:33:ILE:HG12	51:1t:62:LEU:HB3	2.01	0.42
53:1y:81:LEU:HD23	53:1y:81:LEU:HA	1.84	0.42
1:2A:7:G:OP1	9:2N:121:LYS:NZ	2.52	0.42
1:2A:784:A:N6	3:2D:229:VAL:HG11	2.35	0.42
1:2A:934:G:C6	1:2A:935:C:C4	3.07	0.42
1:2A:1794:U:H2'	1:2A:1795:C:H6	1.84	0.42
1:2A:2243:U:OP1	63:2A:3930:HOH:O	2.21	0.42
1:2A:2537:U:H2'	1:2A:2538:C:H6	1.85	0.42
1:2A:2585:U:OP1	57:2x:103:SPS:N2	2.47	0.42
1:2A:2840:C:H2'	1:2A:2841:C:C6	2.55	0.42
7:2H:61:HIS:O	7:2H:62:LYS:C	2.62	0.42
10:2O:2:ILE:O	10:2O:32:TYR:HA	2.19	0.42
10:2O:34:THR:OG1	10:2O:35:VAL:N	2.53	0.42
15:2T:64:ARG:HD2	15:2T:73:GLU:OE2	2.20	0.42
15:2T:108:ARG:HG3	15:2T:109:GLU:N	2.35	0.42
24:22:24:LEU:HA	24:22:24:LEU:HD12	1.70	0.42
26:24:62:ARG:C	26:24:64:GLY:N	2.76	0.42
32:2a:19:C:H5"	36:2e:86:ALA:CB	2.50	0.42
32:2a:76:C:H2'	32:2a:77:G:H8	1.84	0.42
32:2a:674:G:H2'	32:2a:675:A:C8	2.54	0.42
33:2b:209:ARG:HD3	33:2b:209:ARG:HA	1.78	0.42
34:2c:16:ARG:HB2	34:2c:16:ARG:HH11	1.84	0.42
34:2c:114:PRO:HA	34:2c:185:GLY:HA3	2.01	0.42
35:2d:72:GLU:OE2	35:2d:207:TYR:OH	2.37	0.42
38:2g:133:GLY:O	38:2g:137:LYS:N	2.51	0.42
39:2h:97:VAL:HG23	39:2h:129:VAL:C	2.44	0.42
41:2j:7:LYS:C	41:2j:8:LEU:HD23	2.44	0.42
41:2j:65:LEU:HD12	41:2j:65:LEU:HA	1.84	0.42
43:2l:23:LYS:HB3	43:2l:23:LYS:HE3	1.73	0.42
44:2m:57:ARG:HA	44:2m:60:VAL:HG12	2.01	0.42
47:2p:4:ILE:O	47:2p:66:PRO:HA	2.20	0.42
53:2y:20:VAL:O	53:2y:24:LEU:HB2	2.19	0.42
53:2y:24:LEU:HD22	53:2y:24:LEU:HA	1.89	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:2y:38:HIS:HB3	53:2y:53:THR:OG1	2.20	0.42
53:2y:76:GLU:HA	53:2y:79:ASN:ND2	2.34	0.42
1:1A:657:U:H2'	1:1A:658:C:C6	2.55	0.42
1:1A:1175:U:H3'	1:1A:1177:A:P	2.60	0.42
1:1A:1967:C:C4	1:1A:1968:G:C5	3.07	0.42
6:1G:50:ALA:C	6:1G:52:ILE:H	2.23	0.42
7:1H:91:GLY:O	7:1H:92:ILE:C	2.63	0.42
9:1N:47:ALA:HB2	9:1N:112:LEU:HD11	2.01	0.42
11:1P:107:LYS:O	11:1P:110:TYR:HB2	2.20	0.42
14:1S:20:ARG:NH1	63:1S:304:HOH:O	2.52	0.42
14:1S:34:HIS:O	14:1S:97:ARG:NH2	2.53	0.42
18:1W:16:LYS:HA	63:1W:311:HOH:O	2.20	0.42
32:1a:130:A:C8	48:1q:63:ARG:HB2	2.55	0.42
32:1a:499:A:H4'	32:1a:500:G:OP1	2.20	0.42
37:1f:10:LEU:HD11	37:1f:26:ILE:HD11	2.00	0.42
43:1l:97:ARG:HB2	43:1l:98:TYR:CE2	2.55	0.42
46:1o:9:GLN:HA	46:1o:12:ILE:HD12	2.02	0.42
48:1q:66:SER:H	48:1q:69:LYS:HB3	1.85	0.42
1:2A:709:U:H2'	1:2A:710:G:C8	2.54	0.42
1:2A:904:C:H2'	1:2A:905:U:C6	2.54	0.42
1:2A:1540:U:H2'	1:2A:1541:G:O4'	2.19	0.42
1:2A:2508:G:C2	1:2A:2582:G:C6	3.07	0.42
4:2E:5:LEU:HD23	4:2E:5:LEU:HA	1.76	0.42
4:2E:9:VAL:HG13	4:2E:25:VAL:O	2.19	0.42
4:2E:154:LYS:HD2	4:2E:155:LYS:N	2.35	0.42
5:2F:53:THR:O	5:2F:56:GLU:N	2.47	0.42
5:2F:117:ARG:HD3	5:2F:117:ARG:HA	1.75	0.42
5:2F:160:ASN:OD1	5:2F:163:VAL:HG23	2.19	0.42
12:2Q:26:TYR:HD1	12:2Q:27:VAL:O	2.02	0.42
14:2S:27:SER:HB2	14:2S:40:ILE:HD11	2.02	0.42
21:2Z:10:ARG:NH1	21:2Z:26:GLY:H	2.18	0.42
21:2Z:10:ARG:HB3	21:2Z:36:LYS:HB3	2.00	0.42
22:20:21:LEU:HD13	22:20:41:ARG:HG2	2.01	0.42
32:2a:263:A:OP2	51:2t:79:ARG:NH1	2.53	0.42
32:2a:547:A:N3	32:2a:548:G:H1'	2.35	0.42
32:2a:938:A:O5'	32:2a:938:A:H8	2.03	0.42
32:2a:975:A:H5'	32:2a:975:A:H8	1.84	0.42
32:2a:1089:G:C6	32:2a:1090:U:C4	3.08	0.42
32:2a:1205:U:O2'	34:2c:195:VAL:HG23	2.20	0.42
32:2a:1423:G:H2'	32:2a:1424:C:H6	1.85	0.42
38:2g:77:SER:HB3	38:2g:86:GLN:HE21	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:2q:78:GLU:HG2	48:2q:79:SER:N	2.35	0.42
1:1A:685:A:H1'	1:1A:688:U:O4	2.20	0.42
1:1A:861:A:C2	1:1A:917:A:C4	3.07	0.42
1:1A:1525:G:H2'	1:1A:1526:G:C8	2.54	0.42
1:1A:1794:U:H2'	1:1A:1795:C:C6	2.54	0.42
1:1A:1859:A:N6	1:1A:1883:G:O2'	2.53	0.42
1:1A:2248:C:H2'	1:1A:2249:U:O4'	2.18	0.42
1:1A:2602:A:N6	57:1A:4023:SPS:C10	2.83	0.42
63:1A:4941:HOH:O	16:1U:2:PRO:HD3	2.20	0.42
5:1F:129:PHE:HA	5:1F:142:TRP:NE1	2.34	0.42
5:1F:182:ASN:O	5:1F:186:ILE:HG13	2.19	0.42
6:1G:108:ASN:O	6:1G:112:PRO:HG2	2.20	0.42
10:1O:52:VAL:HG12	10:1O:94:ARG:NH2	2.35	0.42
11:1P:84:ASN:HB3	11:1P:117:GLU:O	2.20	0.42
12:1Q:17:LEU:HA	12:1Q:17:LEU:HD23	1.68	0.42
24:12:54:LYS:NZ	63:12:101:HOH:O	2.28	0.42
32:1a:321:A:C2	32:1a:333:G:C2	3.07	0.42
32:1a:683:G:C2	32:1a:708:C:C2	3.08	0.42
32:1a:1005:A:H8	32:1a:1005:A:O5'	2.02	0.42
32:1a:1048:G:C6	32:1a:1210:C:N4	2.88	0.42
32:1a:1124:G:N7	32:1a:1145:C:O2'	2.35	0.42
32:1a:1512:U:H2'	32:1a:1513:A:C8	2.55	0.42
34:1c:6:HIS:HD2	34:1c:8:ILE:H	1.67	0.42
34:1c:110:ASN:ND2	34:1c:140:ARG:HB3	2.34	0.42
39:1h:104:ARG:HD3	39:1h:104:ARG:HA	1.67	0.42
41:1j:23:ILE:C	41:1j:25:GLU:N	2.77	0.42
1:2A:652(T):C:P	1:2A:652(T):C:H6	2.43	0.42
1:2A:873:G:N2	1:2A:905:U:O2	2.52	0.42
6:2G:12:TYR:HA	6:2G:16:ARG:CG	2.49	0.42
7:2H:3:ARG:HG2	7:2H:6:ARG:CZ	2.50	0.42
7:2H:33:LEU:HD11	7:2H:75:ALA:HA	2.02	0.42
12:2Q:45:GLN:OE1	12:2Q:45:GLN:N	2.51	0.42
16:2U:105:VAL:HG13	17:2V:45:THR:HG23	2.01	0.42
32:2a:57:G:C2	32:2a:58:C:C2	3.07	0.42
32:2a:256:U:H2'	32:2a:257:G:H8	1.85	0.42
32:2a:1071:C:H2'	32:2a:1072:G:H8	1.85	0.42
32:2a:1124:G:C8	32:2a:1145:C:O2'	2.70	0.42
33:2b:28:PHE:CD2	33:2b:31:TYR:HB2	2.54	0.42
35:2d:176:LEU:HD12	35:2d:182:LYS:O	2.19	0.42
38:2g:50:ILE:HD11	38:2g:58:PRO:HA	2.02	0.42
39:2h:103:VAL:CG2	39:2h:110:ALA:HB2	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:92:HIS:NE2	44:2m:98:VAL:HG21	2.35	0.42
45:2n:47:LEU:O	45:2n:51:GLY:N	2.50	0.42
47:2p:13:HIS:C	47:2p:15:PRO:HD3	2.44	0.42
48:2q:82:MET:HA	48:2q:85:VAL:HG23	2.01	0.42
1:1A:763:G:H2'	1:1A:765:G:OP2	2.20	0.42
1:1A:774:A:O2'	1:1A:775:G:H5"	2.18	0.42
1:1A:1066:U:O4	1:1A:1069:A:C8	2.68	0.42
1:1A:1170:G:C2	1:1A:1180:C:C2	3.08	0.42
1:1A:1175:U:H1'	1:1A:1176:G:OP1	2.20	0.42
1:1A:1799:G:N7	3:1D:179:SER:OG	2.48	0.42
1:1A:1889:A:N1	1:1A:2234:G:H1'	2.34	0.42
1:1A:2018:G:H1'	63:1A:6025:HOH:O	2.19	0.42
1:1A:2028:U:H2'	1:1A:2029:G:O4'	2.20	0.42
1:1A:2611:U:N3	27:15:3:LYS:HG2	2.34	0.42
1:1A:2773:C:H5"	4:1E:164:ARG:HG2	2.01	0.42
3:1D:71:ASP:HB3	3:1D:103:ARG:HH22	1.85	0.42
7:1H:20:ALA:HB1	7:1H:21:PRO:HD2	2.02	0.42
12:1Q:79:LEU:HD23	12:1Q:79:LEU:HA	1.84	0.42
12:1Q:109:VAL:HG22	12:1Q:113:GLN:CD	2.44	0.42
19:1X:35:THR:HG23	19:1X:36:LYS:N	2.34	0.42
32:1a:435:C:H2'	32:1a:436:C:C6	2.55	0.42
32:1a:620:C:C2	35:1d:135:LEU:HD13	2.54	0.42
32:1a:691:G:H2'	32:1a:692:U:H6	1.84	0.42
32:1a:1003:G:N3	32:1a:1004:A:H1'	2.34	0.42
33:1b:127:ILE:O	33:1b:127:ILE:HG22	2.20	0.42
34:1c:29:TYR:OH	45:1n:54:PRO:O	2.30	0.42
35:1d:150:GLU:C	35:1d:152:SER:H	2.28	0.42
35:1d:186:LEU:HD13	35:1d:186:LEU:HA	1.89	0.42
50:1s:65:ASN:OD1	50:1s:66:MET:N	2.52	0.42
1:2A:139(A):G:C2'	1:2A:140:G:H5'	2.50	0.42
1:2A:447:A:O2'	1:2A:473:G:N7	2.45	0.42
1:2A:696:G:O2'	1:2A:697:C:H5'	2.20	0.42
1:2A:1450(A):C:H2'	1:2A:1451:C:C6	2.54	0.42
1:2A:2156:G:H2'	1:2A:2157:G:H5'	2.01	0.42
1:2A:2242:G:H3'	63:2A:4292:HOH:O	2.19	0.42
1:2A:2275:C:H5'	1:2A:2275:C:H6	1.84	0.42
1:2A:2417:C:P	11:2P:65:ARG:HH21	2.42	0.42
1:2A:2474:C:O2	1:2A:2474:C:H2'	2.20	0.42
1:2A:2497:A:H5"	63:2A:4743:HOH:O	2.20	0.42
1:2A:2637:U:H5"	4:2E:82:ARG:NH1	2.35	0.42
63:2A:5464:HOH:O	22:20:2:ALA:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2D:218:ARG:HG3	3:2D:218:ARG:NH1	2.29	0.42
5:2F:29:ASN:H	5:2F:112:MET:CE	2.33	0.42
6:2G:16:ARG:HA	6:2G:16:ARG:HD2	1.79	0.42
7:2H:117:PRO:HG3	7:2H:123:PHE:CE2	2.54	0.42
8:2I:114:LEU:HD11	8:2I:128:LEU:HB3	2.00	0.42
12:2Q:33:GLY:O	12:2Q:132:VAL:N	2.52	0.42
14:2S:51:ALA:HB1	14:2S:69:VAL:HG23	2.01	0.42
17:2V:31:ALA:O	17:2V:61:VAL:HG22	2.19	0.42
21:2Z:3:TYR:CG	21:2Z:51:ALA:HB2	2.54	0.42
21:2Z:30:ASN:O	21:2Z:31:ARG:C	2.63	0.42
21:2Z:190:GLU:H	21:2Z:190:GLU:HG2	1.73	0.42
32:2a:195:A:H1'	32:2a:222:U:O2'	2.19	0.42
32:2a:611:A:H61	32:2a:629:G:H1	1.67	0.42
32:2a:1442:G:HO2'	32:2a:1442(A):G:P	2.42	0.42
35:2d:106:TYR:HB2	35:2d:113:SER:O	2.19	0.42
36:2e:82:VAL:O	36:2e:88:LYS:HA	2.20	0.42
40:2i:71:SER:HA	40:2i:74:ILE:HD12	2.01	0.42
43:2l:93:LEU:HD23	43:2l:93:LEU:HA	1.85	0.42
47:2p:3:LYS:O	47:2p:21:VAL:HA	2.20	0.42
48:2q:5:VAL:HG13	48:2q:58:GLU:HG2	2.02	0.42
50:2s:33:THR:O	50:2s:57:HIS:HE1	2.03	0.42
1:1A:30:G:H2'	1:1A:31:C:C6	2.54	0.42
1:1A:1082:U:C4	1:1A:1086:A:N1	2.80	0.42
1:1A:1156:A:H5"	63:1A:4629:HOH:O	2.20	0.42
1:1A:1289:C:H2'	1:1A:1290:C:C6	2.54	0.42
1:1A:1364:G:N7	23:11:3:LYS:HE2	2.35	0.42
1:1A:1374:G:H2'	1:1A:1375:C:C6	2.55	0.42
1:1A:1449:A:H5'	1:1A:1541:G:O2'	2.19	0.42
1:1A:2049:G:N7	63:1A:4513:HOH:O	2.37	0.42
1:1A:2114:A:H1'	1:1A:2168:G:H5'	2.02	0.42
1:1A:2149:G:H2'	1:1A:2150:U:H6	1.81	0.42
1:1A:2186:G:C2	1:1A:2187:G:C8	3.07	0.42
1:1A:2243:U:H1'	63:1A:5563:HOH:O	2.19	0.42
1:1A:2569:G:O6	63:1A:4202:HOH:O	2.14	0.42
4:1E:130:GLY:O	4:1E:131:ALA:C	2.62	0.42
5:1F:195:ASP:CB	5:1F:198:ALA:H	2.28	0.42
7:1H:117:PRO:HG3	7:1H:123:PHE:CD2	2.55	0.42
16:1U:101:ARG:NH1	63:1U:305:HOH:O	2.53	0.42
19:1X:35:THR:CG2	19:1X:38:GLU:H	2.27	0.42
22:10:14:ARG:O	22:10:15:ASP:HB2	2.19	0.42
26:14:58:ARG:HG2	50:1s:67:VAL:HB	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:79:G:N1	32:1a:90:U:C2	2.87	0.42
32:1a:337:C:H2'	32:1a:338:A:C8	2.55	0.42
32:1a:439:A:C5	32:1a:441:A:H1'	2.55	0.42
32:1a:747:C:H3'	32:1a:748:C:C6	2.55	0.42
32:1a:785:G:C2'	32:1a:786:G:H5'	2.49	0.42
34:1c:12:LEU:HA	34:1c:12:LEU:HD23	1.82	0.42
34:1c:136:GLN:O	34:1c:140:ARG:HG3	2.20	0.42
44:1m:40:ASN:O	44:1m:43:THR:OG1	2.32	0.42
47:1p:5:ARG:NH2	47:1p:23:ASP:O	2.53	0.42
49:1r:85:LEU:HD22	49:1r:86:VAL:N	2.35	0.42
51:1t:55:ILE:H	51:1t:55:ILE:HG12	1.67	0.42
53:1y:55:ASN:HA	53:1y:60:VAL:HA	2.01	0.42
1:2A:328:U:H4'	20:2Y:68:HIS:CD2	2.55	0.42
1:2A:411:G:C5	11:2P:72:PRO:HB3	2.55	0.42
1:2A:620:G:N3	1:2A:620:G:H5'	2.35	0.42
1:2A:715:G:H2'	1:2A:716:A:C8	2.54	0.42
1:2A:817:C:O2'	1:2A:839:U:H5"	2.19	0.42
1:2A:1112:G:H2'	1:2A:1113:U:O4'	2.19	0.42
1:2A:1199:U:C4	1:2A:1200:C:C4	3.08	0.42
1:2A:1682:G:C2	1:2A:1757:U:H1'	2.55	0.42
1:2A:2135:A:H3'	1:2A:2136:C:H5'	2.02	0.42
1:2A:2735:G:H2'	1:2A:2736:G:C8	2.54	0.42
3:2D:118:VAL:HG22	3:2D:119:ALA:H	1.85	0.42
5:2F:12:LEU:HG	5:2F:13:SER:N	2.34	0.42
7:2H:23:ARG:NH1	7:2H:36:PRO:HB3	2.35	0.42
16:2U:10:ARG:HH11	16:2U:10:ARG:HD2	1.66	0.42
16:2U:94:ASN:O	16:2U:98:LEU:HG	2.20	0.42
19:2X:90:GLU:HA	19:2X:93:GLU:HB2	2.02	0.42
21:2Z:28:MET:HA	21:2Z:88:PHE:O	2.20	0.42
24:22:63:VAL:HA	24:22:66:GLU:OE1	2.20	0.42
26:24:57:GLU:HA	26:24:58:ARG:HA	1.45	0.42
32:2a:73:G:C6	32:2a:76:C:C4	3.08	0.42
32:2a:401:C:P	35:2d:73:ARG:NH2	2.93	0.42
32:2a:767:A:H2'	32:2a:768:A:O4'	2.20	0.42
32:2a:991:U:H2'	32:2a:1212:U:O4	2.19	0.42
32:2a:1212:U:H5'	32:2a:1213:A:C8	2.54	0.42
33:2b:167:PRO:HD3	33:2b:187:LEU:O	2.20	0.42
34:2c:22:TRP:HA	41:2j:93:GLY:HA2	2.00	0.42
34:2c:36:ASP:HA	34:2c:39:ILE:HD12	2.02	0.42
42:2k:95:ILE:HA	42:2k:98:LEU:HD12	2.01	0.42
1:1A:271(O):C:H2'	1:1A:271(P):C:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:336:C:H3'	63:1A:4547:HOH:O	2.20	0.41
1:1A:507:A:H5"	1:1A:508:G:H3'	2.02	0.41
1:1A:729:G:H2'	1:1A:1775:U:O2	2.19	0.41
1:1A:821:A:H2'	1:1A:946:G:H5"	2.02	0.41
1:1A:1419:A:O2'	1:1A:1421:G:N7	2.46	0.41
1:1A:1639:U:O2'	1:1A:1640:C:H5'	2.20	0.41
1:1A:1696:G:N7	63:1A:4516:HOH:O	2.37	0.41
1:1A:2032:G:OP2	1:1A:2454:G:O2'	2.31	0.41
1:1A:2033:A:O2'	1:1A:2035:G:OP2	2.27	0.41
2:1B:19:G:H2'	2:1B:20:C:O4'	2.20	0.41
3:1D:146:GLU:HG2	3:1D:152:GLY:C	2.45	0.41
5:1F:13:SER:HB2	5:1F:127:GLU:OE1	2.20	0.41
6:1G:66:GLN:OE1	6:1G:98:ARG:NE	2.49	0.41
7:1H:152:ARG:HG3	7:1H:152:ARG:O	2.20	0.41
9:1N:18:ALA:O	9:1N:19:GLU:C	2.61	0.41
19:1X:35:THR:HG22	19:1X:38:GLU:N	2.27	0.41
27:15:2:ALA:O	27:15:3:LYS:HG3	2.20	0.41
29:17:1:MET:HE2	29:17:1:MET:HB3	1.84	0.41
32:1a:189(F):U:H1'	48:1q:63:ARG:HH21	1.84	0.41
32:1a:926:G:H2'	32:1a:1505:G:N3	2.35	0.41
32:1a:1031:G:H2'	32:1a:1032:G:H8	1.84	0.41
32:1a:1077:G:N2	32:1a:1081:G:C4	2.88	0.41
32:1a:1201:A:H4'	32:1a:1202:G:O5'	2.20	0.41
32:1a:1400:5MC:H1'	53:1y:80:LYS:HD3	2.01	0.41
38:1g:24:THR:O	38:1g:27:ILE:HB	2.19	0.41
39:1h:87:SER:HA	39:1h:93:VAL:HG23	2.00	0.41
47:1p:8:ARG:C	47:1p:9:PHE:HD1	2.28	0.41
1:2A:58:G:N2	1:2A:70:G:C4	2.88	0.41
1:2A:302:C:H2'	1:2A:303:U:H6	1.84	0.41
1:2A:363(F):A:O4'	1:2A:364:C:H5	2.02	0.41
1:2A:395:U:O2'	1:2A:396:G:N7	2.51	0.41
1:2A:459:U:H4'	29:27:40:TRP:CZ3	2.55	0.41
1:2A:1090:U:H6	1:2A:1090:U:O5'	2.03	0.41
1:2A:1257:C:O2'	5:2F:83:PHE:HA	2.19	0.41
1:2A:2100:G:N2	1:2A:2101:G:H1'	2.35	0.41
1:2A:2315:G:O2'	1:2A:2316:C:H5'	2.20	0.41
1:2A:2749:A:O4'	7:2H:63:SER:HA	2.19	0.41
3:2D:129:ASN:O	3:2D:193:VAL:HG13	2.21	0.41
5:2F:181:LEU:HD12	5:2F:181:LEU:HA	1.85	0.41
6:2G:171:ALA:O	6:2G:175:LEU:HG	2.19	0.41
7:2H:98:LEU:HD11	7:2H:125:VAL:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:126:PRO:HB2	7:2H:127:GLU:H	1.66	0.41
8:2I:62:LYS:O	8:2I:66:GLU:HB2	2.20	0.41
8:2I:93:THR:HA	8:2I:119:PRO:HB3	2.01	0.41
11:2P:2:LYS:HG2	11:2P:5:ASP:OD2	2.20	0.41
17:2V:4:ILE:HA	17:2V:12:TYR:O	2.20	0.41
18:2W:12:ILE:HG12	18:2W:13:SER:H	1.84	0.41
19:2X:60:ARG:CZ	29:27:47:ARG:HH12	2.33	0.41
21:2Z:167:PRO:C	21:2Z:169:GLU:H	2.27	0.41
32:2a:10:A:OP2	36:2e:126:ARG:HD2	2.19	0.41
32:2a:33:A:H5"	32:2a:364:A:H1'	2.01	0.41
32:2a:137:C:H2'	32:2a:138:G:H8	1.85	0.41
32:2a:236:G:H2'	32:2a:237:C:O4'	2.20	0.41
32:2a:391:G:C6	32:2a:392:G:C5	3.08	0.41
32:2a:1038:C:O5'	32:2a:1038:C:H6	2.03	0.41
33:2b:48:MET:HA	33:2b:51:LEU:HD12	2.02	0.41
33:2b:215:LEU:HD23	33:2b:215:LEU:HA	1.86	0.41
35:2d:171:GLY:HA2	35:2d:172:PRO:HD3	1.88	0.41
41:2j:48:THR:HG23	41:2j:62:HIS:CE1	2.55	0.41
42:2k:93:GLN:NE2	42:2k:93:GLN:HA	2.34	0.41
42:2k:109:VAL:HA	49:2r:85:LEU:O	2.20	0.41
43:2l:77:LEU:HD11	43:2l:100:ILE:HG21	2.02	0.41
50:2s:23:ASN:HA	50:2s:27:GLU:OE2	2.20	0.41
1:1A:1002:G:H2'	1:1A:1003:G:O4'	2.20	0.41
1:1A:1174:A:H4'	1:1A:1175:U:OP1	2.20	0.41
1:1A:1184:G:H5'	25:13:29:ARG:NH1	2.36	0.41
1:1A:1260:G:H2'	1:1A:1261:C:O4'	2.20	0.41
1:1A:1301:A:O2'	1:1A:1302:A:H3'	2.20	0.41
1:1A:2262:U:OP1	1:1A:2387:U:O2'	2.36	0.41
5:1F:94:PRO:HB3	63:1F:429:HOH:O	2.20	0.41
11:1P:50:ARG:HD3	30:18:7:HIS:HD2	1.79	0.41
14:1S:59:LYS:HE2	14:1S:68:GLN:HE22	1.85	0.41
26:14:17:GLY:C	26:14:19:GLY:H	2.28	0.41
26:14:46:GLN:H	26:14:46:GLN:HG3	1.53	0.41
30:18:15:LYS:HB2	61:18:104:MRD:H3C1	2.01	0.41
30:18:62:LEU:HD13	30:18:65:GLU:HG3	2.02	0.41
32:1a:256:U:OP1	48:1q:17:LYS:NZ	2.49	0.41
32:1a:309:G:H2'	32:1a:310:G:H8	1.84	0.41
32:1a:437:U:O3'	35:1d:125:HIS:HE1	2.03	0.41
32:1a:1261:A:H3'	32:1a:1262:C:H6	1.85	0.41
32:1a:1277:C:H1'	32:1a:1282:C:O2	2.19	0.41
32:1a:1368:G:H5'	40:1i:112:LYS:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:75:THR:HG21	36:1e:94:ALA:H	1.85	0.41
44:1m:86:CYS:HB2	50:1s:73:GLU:HB3	2.02	0.41
1:2A:314:A:H2'	1:2A:315:G:C8	2.54	0.41
1:2A:484:C:H2'	1:2A:485:C:H6	1.85	0.41
1:2A:1464:C:H2'	1:2A:1465:G:H8	1.85	0.41
1:2A:2375:G:O2'	1:2A:2377:A:N7	2.47	0.41
3:2D:159:ALA:HB1	3:2D:198:ASN:O	2.20	0.41
11:2P:88:LEU:HD23	11:2P:88:LEU:HA	1.83	0.41
12:2Q:1:MET:HE2	12:2Q:1:MET:HB3	1.77	0.41
16:2U:97:ASP:OD1	16:2U:101:ARG:HG3	2.20	0.41
19:2X:14:SER:O	19:2X:16:LYS:N	2.53	0.41
21:2Z:10:ARG:N	21:2Z:36:LYS:O	2.51	0.41
27:25:25:LEU:HA	27:25:25:LEU:HD23	1.81	0.41
32:2a:976:G:P	45:2n:32:SER:H	2.43	0.41
32:2a:1279:A:H5"	41:2j:7:LYS:HE3	2.01	0.41
32:2a:1321:C:H4'	44:2m:87:TYR:CE2	2.55	0.41
32:2a:1531:A:H8	32:2a:1531:A:O5'	2.03	0.41
33:2b:19:HIS:ND1	33:2b:206:ASP:OD2	2.52	0.41
34:2c:139:GLN:NE2	34:2c:143:GLU:HG3	2.35	0.41
37:2f:2:ARG:O	37:2f:66:GLU:HA	2.20	0.41
37:2f:49:ALA:HB2	49:2r:78:LEU:O	2.20	0.41
39:2h:73:ASP:OD1	39:2h:75:ARG:HB2	2.20	0.41
40:2i:8:GLY:HA2	40:2i:79:LEU:HB3	2.00	0.41
51:2t:58:LYS:HE3	51:2t:62:LEU:HD21	2.03	0.41
51:2t:72:LEU:HD23	51:2t:72:LEU:HA	1.89	0.41
1:1A:7:G:H5"	9:1N:121:LYS:NZ	2.35	0.41
1:1A:1007:C:H5"	9:1N:35:ARG:NH1	2.34	0.41
1:1A:1059:G:N2	1:1A:1080:C:O2	2.54	0.41
1:1A:1079:C:N4	1:1A:1080:C:C4	2.87	0.41
1:1A:1174:A:H4'	1:1A:1177:A:N6	2.34	0.41
1:1A:1681:G:HO2'	1:1A:1762:A:HO2'	1.61	0.41
1:1A:1712:C:H2'	1:1A:1713:U:O4'	2.21	0.41
1:1A:1754:C:H5	15:1T:96:ARG:NH2	2.17	0.41
1:1A:1900:A:N1	1:1A:1970:A:C6	2.89	0.41
1:1A:2577:A:H2'	1:1A:2614:A:N6	2.35	0.41
1:1A:2716:U:O2'	1:1A:2717:G:H5'	2.20	0.41
2:1B:42:C:OP1	6:1G:67:LYS:NZ	2.49	0.41
3:1D:254:THR:O	3:1D:254:THR:HG23	2.19	0.41
4:1E:5:LEU:HD22	4:1E:197:ILE:HD13	2.01	0.41
5:1F:34:TRP:CE3	5:1F:35:GLU:HG2	2.56	0.41
7:1H:86:GLU:HG2	7:1H:132:ARG:HG2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:1R:103:ARG:HD3	13:1R:108:GLY:O	2.20	0.41
13:1R:103:ARG:NH1	13:1R:110:PRO:HD3	2.35	0.41
15:1T:80:SER:C	15:1T:82:LEU:N	2.78	0.41
17:1V:40:LEU:HD23	17:1V:40:LEU:HA	1.79	0.41
20:1Y:63:LYS:HG2	20:1Y:64:GLU:N	2.35	0.41
32:1a:33:A:N3	43:1l:32:PHE:HE2	2.18	0.41
32:1a:45:U:H2'	32:1a:46:G:C8	2.55	0.41
32:1a:519:C:H2'	32:1a:520:A:C8	2.55	0.41
32:1a:562:C:H1'	43:1l:15:ARG:HB3	2.02	0.41
32:1a:632:A:H3'	32:1a:633:G:C8	2.54	0.41
32:1a:651:C:N4	32:1a:752:G:O2'	2.53	0.41
32:1a:826:C:H5'	39:1h:12:ARG:NH2	2.35	0.41
32:1a:903:G:OP1	63:1a:3326:HOH:O	2.21	0.41
32:1a:1005:A:HO2'	32:1a:1037:C:HO2'	1.65	0.41
32:1a:1048:G:N1	32:1a:1210:C:C4	2.89	0.41
32:1a:1277:C:O2'	32:1a:1279:A:H8	2.04	0.41
34:1c:92:ALA:O	34:1c:96:GLY:N	2.45	0.41
34:1c:130:VAL:HG11	34:1c:157:ILE:HD13	2.01	0.41
36:1e:60:TYR:CZ	36:1e:64:ARG:HD3	2.55	0.41
42:1k:124:LYS:HE2	42:1k:125:PHE:CZ	2.55	0.41
51:1t:87:LYS:O	51:1t:91:LEU:HB2	2.21	0.41
1:2A:1073:A:C8	1:2A:1073:A:C3'	3.03	0.41
1:2A:1900:A:OP2	63:2A:3934:HOH:O	2.22	0.41
1:2A:2659:G:H4'	7:2H:175:LYS:HD2	2.03	0.41
2:2B:1:U:H2'	2:2B:2:C:C6	2.55	0.41
2:2B:28:C:C2	2:2B:29:A:C8	3.08	0.41
5:2F:18:ARG:O	5:2F:19:GLU:HG3	2.20	0.41
7:2H:31:GLY:O	7:2H:79:VAL:HB	2.20	0.41
8:2I:84:GLY:O	8:2I:85:GLU:C	2.63	0.41
19:2X:94:GLY:HA3	19:2X:95:LEU:C	2.45	0.41
20:2Y:8:LYS:HG2	20:2Y:97:ARG:HH12	1.86	0.41
25:23:3:ARG:NH2	25:23:60:GLU:O	2.53	0.41
32:2a:585:G:H4'	43:2l:8:ASN:OD1	2.19	0.41
32:2a:632:A:H5'	32:2a:633:G:OP2	2.20	0.41
32:2a:921:U:C4	32:2a:922:G:N7	2.88	0.41
32:2a:965:A:C2	32:2a:969:A:C2	3.08	0.41
32:2a:1084:G:H21	32:2a:1102:A:N6	2.17	0.41
32:2a:1103:C:H5"	33:2b:98:LEU:CD2	2.51	0.41
32:2a:1350:A:H2'	32:2a:1351:U:O4'	2.20	0.41
32:2a:1410:G:H2'	32:2a:1411:C:C6	2.56	0.41
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:2g:66:VAL:HG22	38:2g:104:LEU:HD21	2.02	0.41
45:2n:58:LYS:HE2	45:2n:58:LYS:HB3	1.96	0.41
50:2s:66:MET:HB2	50:2s:74:PHE:HZ	1.84	0.41
1:1A:1130:U:N3	1:1A:2025:C:OP1	2.33	0.41
1:1A:1257:C:H4'	5:1F:83:PHE:CE1	2.54	0.41
1:1A:1375:C:H2'	1:1A:1376:C:C6	2.55	0.41
1:1A:1530:C:HO2'	1:1A:1531:C:P	2.42	0.41
1:1A:1965:C:H2'	1:1A:1966:A:C8	2.55	0.41
1:1A:2785:C:H2'	1:1A:2786:U:O4'	2.20	0.41
8:1I:9:LEU:HD12	8:1I:9:LEU:HA	1.86	0.41
21:1Z:14:LYS:HE2	21:1Z:15:PRO:HD2	2.02	0.41
21:1Z:152:ALA:HA	21:1Z:155:LEU:HD22	2.01	0.41
24:12:16:LEU:HD12	24:12:21:LEU:HD23	2.02	0.41
28:16:18:ARG:HD2	28:16:42:TRP:CD1	2.55	0.41
32:1a:392:G:H2'	32:1a:393:A:C8	2.54	0.41
32:1a:575:G:C4	32:1a:881:G:C2	3.07	0.41
32:1a:741:G:H2'	32:1a:742:G:O4'	2.20	0.41
32:1a:834:C:C2	32:1a:853:G:C2	3.08	0.41
32:1a:1227:A:OP1	50:1s:80:TYR:OH	2.35	0.41
32:1a:1277:C:O2'	32:1a:1279:A:H1'	2.20	0.41
32:1a:1353:G:N2	32:1a:1370:G:C2	2.88	0.41
32:1a:1529:G:H4'	32:1a:1530:G:OP2	2.20	0.41
35:1d:172:PRO:C	35:1d:174:LEU:H	2.29	0.41
39:1h:21:LYS:O	39:1h:63:LEU:HD23	2.19	0.41
40:1i:51:ARG:HB2	40:1i:56:LEU:HD12	2.02	0.41
44:1m:86:CYS:HA	50:1s:73:GLU:O	2.20	0.41
51:1t:53:LEU:HA	51:1t:53:LEU:HD23	1.76	0.41
1:2A:117:G:OP2	1:2A:119:A:O2'	2.38	0.41
1:2A:192:C:O2'	1:2A:802:A:N3	2.41	0.41
1:2A:1180:C:H2'	1:2A:1181:C:H6	1.85	0.41
1:2A:1313:U:H2'	1:2A:1610:A:C2	2.56	0.41
1:2A:1317:A:O2'	1:2A:1318:C:H5'	2.20	0.41
1:2A:1627:G:C2	1:2A:1628:G:C8	3.08	0.41
1:2A:2134:A:H8	1:2A:2156:G:N2	2.18	0.41
1:2A:2291:U:H5"	1:2A:2380:C:H1'	2.03	0.41
1:2A:2874:C:H2'	1:2A:2875:C:H6	1.84	0.41
2:2B:111:G:C6	2:2B:112:U:C4	3.09	0.41
5:2F:140:LEU:HA	5:2F:140:LEU:HD23	1.86	0.41
6:2G:58:GLN:O	6:2G:61:ALA:HB3	2.21	0.41
9:2N:23:LEU:HA	9:2N:60:ILE:HD11	2.02	0.41
16:2U:32:PHE:CD2	16:2U:32:PHE:C	2.99	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:2V:27:ALA:O	17:2V:64:HIS:HE1	2.04	0.41
23:21:50:ARG:HA	23:21:59:THR:HA	2.01	0.41
25:23:46:ASN:O	25:23:50:VAL:HG22	2.21	0.41
27:25:35:GLU:HB2	27:25:36:CYS:H	1.67	0.41
32:2a:437:U:H3'	32:2a:438:G:H8	1.85	0.41
32:2a:1235:U:O2'	32:2a:1305:G:O5'	2.38	0.41
32:2a:1458:G:H5'	51:2t:32:ALA:HB2	2.02	0.41
33:2b:80:ILE:O	33:2b:83:MET:HB2	2.20	0.41
34:2c:5:ILE:HD11	45:2n:49:HIS:HE1	1.85	0.41
34:2c:63:ASN:HB3	34:2c:98:ASN:OD1	2.19	0.41
35:2d:90:GLY:CA	35:2d:204:ILE:HD11	2.51	0.41
41:2j:10:GLY:N	41:2j:16:LEU:HD21	2.36	0.41
51:2t:57:ARG:NH2	51:2t:100:ILE:HD12	2.28	0.41
52:2u:6:ARG:C	52:2u:8:THR:H	2.25	0.41
1:1A:310:A:H2'	63:1A:6135:HOH:O	2.20	0.41
1:1A:517:C:OP2	27:15:13:LYS:HE3	2.20	0.41
1:1A:651:G:H4'	30:18:18:ALA:HB3	2.01	0.41
1:1A:718:A:H2'	1:1A:719:C:O4'	2.21	0.41
1:1A:1129:A:O2'	1:1A:2515:C:O2	2.39	0.41
1:1A:1588:C:H2'	1:1A:1589:C:H6	1.84	0.41
1:1A:2319:G:H1	14:1S:3:ARG:HA	1.84	0.41
63:1A:5975:HOH:O	5:1F:84:VAL:HG13	2.20	0.41
2:1B:73:A:C4	2:1B:105:A:C2	3.08	0.41
4:1E:52:LEU:O	4:1E:75:VAL:HG22	2.21	0.41
8:1I:72:LEU:CD2	8:1I:101:LEU:HD11	2.50	0.41
9:1N:75:TYR:CE2	9:1N:77:GLY:HA2	2.56	0.41
12:1Q:64:ILE:HG13	21:1Z:178:GLU:HG3	2.03	0.41
29:17:24:THR:O	29:17:28:ARG:HG3	2.21	0.41
32:1a:198:G:C6	32:1a:220:G:C2	3.08	0.41
32:1a:617:G:C2	32:1a:624:C:O2	2.74	0.41
32:1a:738:C:OP1	37:1f:2:ARG:NH1	2.53	0.41
32:1a:1003:G:O2'	32:1a:1004:A:H4'	2.21	0.41
32:1a:1457:G:H2'	32:1a:1458:G:H8	1.85	0.41
40:1i:17:VAL:CB	40:1i:63:ILE:HG12	2.50	0.41
51:1t:72:LEU:HD23	51:1t:72:LEU:HA	1.79	0.41
1:2A:880:G:C2	1:2A:881:G:C8	3.09	0.41
1:2A:900:A:H2'	1:2A:901:A:O4'	2.20	0.41
1:2A:938:G:H5"	1:2A:938:G:C8	2.54	0.41
1:2A:1169:G:H2'	1:2A:1170:G:O4'	2.20	0.41
1:2A:1753:G:N1	1:2A:1756:G:OP2	2.53	0.41
1:2A:2403:C:C2	1:2A:2415:G:C2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2432:A:H2'	1:2A:2433:A:C8	2.54	0.41
8:2I:130:TYR:HD2	8:2I:138:ILE:HD12	1.84	0.41
13:2R:58:GLY:HA2	13:2R:80:PHE:CE2	2.56	0.41
22:20:31:VAL:HB	22:20:35:ASN:HB2	2.02	0.41
31:29:29:ASN:HB3	31:29:32:HIS:ND1	2.34	0.41
32:2a:408:A:H4'	35:2d:112:VAL:HG21	2.02	0.41
32:2a:620:C:H2'	32:2a:621:A:O4'	2.20	0.41
32:2a:693:G:H2'	32:2a:694:A:C8	2.55	0.41
32:2a:908:A:H2'	32:2a:909:A:H8	1.84	0.41
32:2a:1004:A:C8	32:2a:1038:C:H1'	2.55	0.41
32:2a:1105:A:H2'	32:2a:1106:G:H8	1.86	0.41
32:2a:1206:G:H4'	34:2c:192:THR:O	2.20	0.41
32:2a:1229:A:OP2	44:2m:114:ARG:HD3	2.21	0.41
33:2b:47:THR:HG22	33:2b:51:LEU:HD11	2.03	0.41
35:2d:98:GLU:OE1	35:2d:103:ASN:ND2	2.51	0.41
36:2e:95:ALA:O	36:2e:97:GLY:N	2.53	0.41
38:2g:66:VAL:HG22	38:2g:104:LEU:CD2	2.51	0.41
38:2g:102:ARG:HG2	38:2g:106:GLN:NE2	2.35	0.41
44:2m:13:LYS:HE3	44:2m:13:LYS:HB3	1.88	0.41
47:2p:28:ARG:NH1	47:2p:29:ASP:OD1	2.50	0.41
51:2t:43:LEU:HA	51:2t:43:LEU:HD23	1.74	0.41
53:2y:72:THR:O	53:2y:76:GLU:HG3	2.20	0.41
1:1A:330:A:O2'	1:1A:331:A:H8	2.04	0.41
1:1A:452:G:C4	1:1A:458:G:C6	3.08	0.41
1:1A:1175:U:H3'	1:1A:1177:A:OP2	2.20	0.41
1:1A:1662:C:O2'	1:1A:2687:U:OP1	2.30	0.41
1:1A:1721:G:H8	1:1A:1741:A:N6	2.14	0.41
1:1A:2055:C:H5'	1:1A:2056:G:O5'	2.20	0.41
1:1A:2628:C:H5"	1:1A:2629:A:O5'	2.20	0.41
1:1A:2734:A:H2'	1:1A:2735:G:O4'	2.20	0.41
3:1D:165:ILE:HA	3:1D:175:LEU:HD23	2.02	0.41
4:1E:143:ASN:HD22	4:1E:147:PRO:HD2	1.86	0.41
5:1F:74:ARG:H	5:1F:74:ARG:HG3	1.39	0.41
6:1G:43:LEU:HD12	6:1G:43:LEU:HA	1.85	0.41
6:1G:53:LEU:HD12	6:1G:54:GLU:H	1.85	0.41
6:1G:82:LEU:HD23	6:1G:82:LEU:HA	1.91	0.41
7:1H:117:PRO:HG3	7:1H:123:PHE:CE2	2.55	0.41
9:1N:7:LYS:O	9:1N:8:GLN:C	2.63	0.41
28:16:35:GLU:O	28:16:36:LEU:HG	2.19	0.41
31:19:11:CYS:SG	31:19:13:LYS:HB2	2.60	0.41
32:1a:107:G:H2'	32:1a:108:G:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:344:A:H4'	32:1a:345:C:OP2	2.20	0.41
32:1a:486:U:H2'	32:1a:487:A:H8	1.85	0.41
32:1a:1410:G:H2'	32:1a:1411:C:H6	1.86	0.41
35:1d:30:LYS:HG2	35:1d:35:ARG:HH21	1.86	0.41
43:1l:24:VAL:HB	43:1l:27:LEU:HD12	2.03	0.41
44:1m:17:VAL:O	44:1m:20:THR:OG1	2.29	0.41
48:1q:60:ILE:O	48:1q:62:SER:OG	2.29	0.41
1:2A:270:A:C2	1:2A:366:C:H4'	2.55	0.41
1:2A:1612:C:O2'	29:27:5:TRP:O	2.37	0.41
1:2A:2052:G:N2	1:2A:2618:G:H1'	2.36	0.41
1:2A:2152:G:C2	1:2A:2153:G:N7	2.88	0.41
1:2A:2270:G:H2'	1:2A:2271:G:O4'	2.21	0.41
1:2A:2463:C:O2	1:2A:2488:A:C2	2.74	0.41
1:2A:2542:A:H4'	1:2A:2543:G:C8	2.55	0.41
1:2A:2827:C:H2'	1:2A:2828:C:C6	2.56	0.41
4:2E:67:PHE:CD2	4:2E:74:PRO:HB3	2.56	0.41
6:2G:117:PHE:CE2	6:2G:179:PRO:HG2	2.56	0.41
6:2G:126:ASP:CG	6:2G:130:ASN:HB2	2.46	0.41
7:2H:171:LEU:HD12	7:2H:172:LYS:O	2.20	0.41
8:2I:47:LEU:HD23	8:2I:47:LEU:HA	1.83	0.41
11:2P:26:GLY:O	11:2P:27:HIS:CD2	2.74	0.41
25:23:13:ILE:HG22	63:23:101:HOH:O	2.19	0.41
32:2a:89:C:H2'	32:2a:90:U:O4'	2.21	0.41
32:2a:154:C:O2'	32:2a:155:C:H5'	2.21	0.41
32:2a:520:A:C2	32:2a:536:C:H1'	2.55	0.41
32:2a:636:U:H5"	48:2q:2:PRO:HG3	2.01	0.41
32:2a:721:G:H4'	32:2a:722:A:O4'	2.21	0.41
32:2a:724:G:C2	32:2a:725:G:C8	3.09	0.41
32:2a:1354:C:O2'	32:2a:1355:G:H5'	2.21	0.41
32:2a:1510:U:H2'	32:2a:1511:G:C8	2.55	0.41
33:2b:229:VAL:HG12	33:2b:230:VAL:N	2.35	0.41
35:2d:12:CYS:HB2	35:2d:33:MET:HG3	2.02	0.41
35:2d:120:LEU:HD23	35:2d:120:LEU:HA	1.89	0.41
36:2e:104:ALA:HA	36:2e:107:ARG:HG2	2.02	0.41
50:2s:63:THR:H	50:2s:66:MET:HE3	1.85	0.41
52:2u:6:ARG:O	52:2u:8:THR:N	2.44	0.41
54:2x:76:8AN:H5'A	57:2x:103:SPS:C5	2.51	0.41
1:1A:1138:G:H5"	1:1A:1139:G:OP2	2.21	0.41
1:1A:1165:U:O5'	1:1A:1165:U:H6	2.03	0.41
1:1A:1593:G:H2'	1:1A:1594:G:H8	1.85	0.41
1:1A:1791:A:OP2	1:1A:1791:A:H8	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2083:G:O5'	1:1A:2083:G:H8	2.03	0.41
1:1A:2429:G:H2'	63:1A:7024:HOH:O	2.21	0.41
1:1A:2751:G:H2'	1:1A:2751:G:N3	2.35	0.41
2:1B:7:G:H2'	2:1B:8:U:O4'	2.20	0.41
5:1F:81:PRO:HG3	5:1F:89:VAL:HG23	2.02	0.41
5:1F:135:LYS:HB2	5:1F:138:GLU:CD	2.46	0.41
12:1Q:110:THR:HG22	12:1Q:111:GLU:N	2.36	0.41
13:1R:51:LEU:HD22	13:1R:66:VAL:HG22	2.01	0.41
20:1Y:81:LYS:HB2	20:1Y:81:LYS:HE2	1.85	0.41
32:1a:509:A:C8	32:1a:509:A:H3'	2.55	0.41
32:1a:779:C:H2'	32:1a:780:A:O4'	2.21	0.41
32:1a:952:U:H2'	32:1a:953:G:H8	1.86	0.41
32:1a:994:A:H2'	32:1a:994:A:N3	2.36	0.41
32:1a:1030(C):G:C8	32:1a:1031:G:C2	3.09	0.41
32:1a:1046:A:H3'	32:1a:1047:G:H8	1.84	0.41
32:1a:1375:A:H2'	32:1a:1376:U:O4'	2.21	0.41
32:1a:1457:G:H2'	32:1a:1458:G:C8	2.55	0.41
38:1g:111:ARG:HB2	38:1g:119:ARG:HG2	2.03	0.41
40:1i:118:LYS:HB3	40:1i:118:LYS:HE2	1.81	0.41
49:1r:24:ALA:C	49:1r:26:LEU:H	2.28	0.41
53:1y:32:THR:HG21	53:1y:85:LEU:HD11	2.03	0.41
1:2A:363(A):A:N1	1:2A:363(B):G:C5	2.89	0.41
1:2A:593:G:C2	1:2A:665:C:C2	3.09	0.41
1:2A:712:G:N2	1:2A:720:C:C2	2.89	0.41
1:2A:1294:U:O3'	13:2R:26:LYS:NZ	2.53	0.41
1:2A:1332:G:OP1	63:2A:3878:HOH:O	2.21	0.41
1:2A:1411:C:H2'	1:2A:1412:A:C8	2.55	0.41
1:2A:1453:U:O2'	1:2A:1455:G:N7	2.37	0.41
1:2A:1977:A:OP2	58:2A:3727:MPD:H11	2.21	0.41
1:2A:2111:C:H6	1:2A:2111:C:H2'	1.71	0.41
1:2A:2723:C:H6	1:2A:2723:C:O5'	2.03	0.41
1:2A:2870:C:H6	1:2A:2870:C:O5'	2.04	0.41
2:2B:8:U:OP1	14:2S:15:ARG:NH2	2.54	0.41
5:2F:29:ASN:H	5:2F:112:MET:HE3	1.84	0.41
5:2F:68:LYS:HB3	5:2F:68:LYS:HE3	1.91	0.41
5:2F:126:VAL:HG21	5:2F:129:PHE:CE1	2.55	0.41
6:2G:66:GLN:OE1	6:2G:98:ARG:NE	2.49	0.41
8:2I:62:LYS:HG2	8:2I:133:HIS:NE2	2.35	0.41
10:2O:7:TYR:CE1	10:2O:20:MET:HB2	2.56	0.41
15:2T:114:LEU:HD23	15:2T:114:LEU:HA	1.73	0.41
21:2Z:24:LEU:HA	21:2Z:25:PRO:HD3	1.95	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:41:G:H2'	32:2a:42:G:H8	1.86	0.41
32:2a:135:C:O2	47:2p:1:MET:N	2.53	0.41
32:2a:253:U:H2'	32:2a:254:G:C8	2.55	0.41
32:2a:375:U:OP1	47:2p:69:THR:HG21	2.21	0.41
32:2a:620:C:C2	35:2d:135:LEU:HG	2.55	0.41
32:2a:706:A:O2'	42:2k:31:THR:OG1	2.27	0.41
32:2a:1034:G:C6	32:2a:1035:A:C2	3.08	0.41
32:2a:1056:U:O5'	34:2c:163:ALA:HB2	2.21	0.41
32:2a:1286:A:H2	52:2u:18:TYR:HH	1.65	0.41
32:2a:1323:G:H4'	32:2a:1363:C:N3	2.36	0.41
32:2a:1385:G:H2'	32:2a:1386:G:O4'	2.20	0.41
33:2b:108:ILE:HD13	33:2b:108:ILE:HA	1.82	0.41
44:2m:95:GLY:O	44:2m:110:ARG:HG3	2.20	0.41
47:2p:43:LYS:C	47:2p:45:THR:H	2.27	0.41
51:2t:39:LYS:O	51:2t:42:GLN:HB3	2.21	0.41
1:1A:28:A:H1'	1:1A:513:A:C2	2.55	0.41
1:1A:355:G:O2'	1:1A:356:G:H5'	2.21	0.41
1:1A:494:G:H5'	18:1W:8:ARG:HD3	2.03	0.41
1:1A:909:A:H2'	1:1A:912:C:C5	2.56	0.41
1:1A:1010:A:N3	1:1A:1153:C:H1'	2.36	0.41
1:1A:1255:U:O4	63:1A:4274:HOH:O	2.22	0.41
1:1A:1366:A:H2'	1:1A:1367:A:O4'	2.21	0.41
1:1A:1820:U:C4	3:1D:160:GLY:HA3	2.56	0.41
1:1A:2018:G:H2'	1:1A:2019:A:C8	2.56	0.41
3:1D:146:GLU:HA	3:1D:153:ALA:HA	2.01	0.41
3:1D:242:ARG:HD2	3:1D:246:PRO:HG3	2.03	0.41
4:1E:63:LEU:HA	4:1E:63:LEU:HD23	1.85	0.41
6:1G:56:ALA:HA	6:1G:59:GLU:HB2	2.03	0.41
9:1N:116:LEU:HD23	9:1N:116:LEU:HA	1.63	0.41
10:1O:48:PRO:O	10:1O:49:ARG:HB2	2.21	0.41
11:1P:49:ARG:NH1	30:18:4:MET:HE1	2.35	0.41
13:1R:102:GLU:H	13:1R:102:GLU:HG2	1.65	0.41
14:1S:41:ASP:OD1	14:1S:43:GLU:HB3	2.20	0.41
15:1T:28:VAL:O	15:1T:46:GLU:HA	2.20	0.41
15:1T:80:SER:C	15:1T:82:LEU:H	2.28	0.41
19:1X:90:GLU:HA	19:1X:93:GLU:HB2	2.03	0.41
32:1a:103:C:C2	32:1a:104:G:C8	3.09	0.41
32:1a:1191:A:H5"	34:1c:4:LYS:HZ3	1.85	0.41
32:1a:1441:G:H5"	32:1a:1442:G:C5'	2.49	0.41
34:1c:52:LEU:HD12	34:1c:52:LEU:HA	1.85	0.41
37:1f:7:ASN:N	37:1f:7:ASN:ND2	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1o:66:LEU:O	46:1o:69:TYR:N	2.51	0.41
1:2A:623:G:H2'	1:2A:624:C:C6	2.56	0.41
1:2A:652(T):C:H2'	1:2A:652(U):G:C8	2.55	0.41
1:2A:693:C:C2	1:2A:770:G:N2	2.89	0.41
1:2A:1286:A:C6	1:2A:1329:U:C2	3.09	0.41
1:2A:2122:U:H2'	1:2A:2123:G:H8	1.86	0.41
1:2A:2286:A:N6	28:26:23:THR:OG1	2.53	0.41
2:2B:16:G:H1	2:2B:68:C:N4	2.19	0.41
3:2D:106:ILE:O	3:2D:108:PRO:HD3	2.20	0.41
3:2D:164:GLN:HB3	3:2D:176:ARG:HH12	1.86	0.41
3:2D:175:LEU:HD12	3:2D:185:VAL:HG21	2.02	0.41
6:2G:101:ILE:HG21	26:24:25:TYR:HB2	2.03	0.41
6:2G:172:LEU:O	6:2G:172:LEU:HG	2.21	0.41
7:2H:144:VAL:O	7:2H:147:ASN:N	2.54	0.41
32:2a:137:C:H2'	32:2a:138:G:C8	2.56	0.41
32:2a:576:G:O6	32:2a:880:C:O2'	2.31	0.41
32:2a:1004:A:OP1	32:2a:1024:G:N2	2.53	0.41
32:2a:1069:C:O2'	32:2a:1192:C:O2	2.33	0.41
32:2a:1273:G:C4	32:2a:1274:G:C8	3.09	0.41
33:2b:114:ARG:O	33:2b:118:LEU:N	2.54	0.41
34:2c:79:ARG:H	34:2c:82:GLU:HB2	1.86	0.41
38:2g:115:ARG:HD2	38:2g:118:VAL:HG23	2.01	0.41
39:2h:20:TYR:HA	39:2h:65:TYR:CZ	2.56	0.41
44:2m:74:VAL:O	44:2m:78:ILE:HG13	2.21	0.41
49:2r:42:ARG:HA	49:2r:42:ARG:HD2	1.50	0.41
1:1A:117:G:C6	1:1A:119:A:N6	2.89	0.41
1:1A:189:G:H2'	1:1A:205:G:N2	2.36	0.41
1:1A:394:A:C6	1:1A:395:U:C4	3.09	0.41
1:1A:414:C:H4'	1:1A:1879:C:O2	2.20	0.41
1:1A:562:U:O2'	1:1A:563:G:OP2	2.36	0.41
1:1A:729:G:H5"	63:1D:439:HOH:O	2.20	0.41
1:1A:861:A:H61	1:1A:916:G:H1'	1.85	0.41
1:1A:884:C:H2'	1:1A:885:C:O4'	2.20	0.41
1:1A:947:G:H2'	1:1A:948:G:C8	2.55	0.41
1:1A:1203:G:H5'	11:1P:3:LEU:HD13	2.03	0.41
1:1A:1268:A:H2'	1:1A:1269:A:O4'	2.21	0.41
1:1A:1773:A:N6	63:1A:4296:HOH:O	2.24	0.41
1:1A:1800:C:P	3:1D:183:ARG:HH12	2.44	0.41
1:1A:1857:G:C6	1:1A:1858:G:C6	3.09	0.41
1:1A:2072:G:N2	63:1A:4952:HOH:O	2.54	0.41
1:1A:2464:C:C2	1:1A:2487:G:N2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2664:G:H8	1:1A:2664:G:O5'	2.03	0.41
1:1A:2681:C:OP2	4:1E:109:LYS:NZ	2.46	0.41
1:1A:2848:G:C8	15:1T:97:ALA:HB2	2.56	0.41
1:1A:2848:G:H8	15:1T:97:ALA:HB2	1.85	0.41
1:1A:2882:A:OP1	13:1R:96:ARG:HD3	2.21	0.41
2:1B:50:G:H8	2:1B:50:G:O5'	2.04	0.41
10:1O:107:ARG:C	10:1O:109:LYS:H	2.29	0.41
10:1O:110:GLY:HA2	10:1O:112:MET:HE2	2.03	0.41
12:1Q:37:LEU:HA	12:1Q:37:LEU:HD23	1.82	0.41
13:1R:38:VAL:HG12	13:1R:42:LYS:HE3	2.03	0.41
13:1R:101:ALA:N	63:1R:307:HOH:O	2.49	0.41
14:1S:59:LYS:H	14:1S:59:LYS:HG3	1.62	0.41
21:1Z:120:ILE:HG21	21:1Z:170:THR:O	2.20	0.41
21:1Z:147:GLY:HA2	21:1Z:174:VAL:O	2.20	0.41
28:16:35:GLU:CD	28:16:50:ARG:HH12	2.29	0.41
32:1a:515:G:N2	32:1a:537:G:C4	2.89	0.41
32:1a:602:A:H2'	32:1a:603:U:C6	2.56	0.41
32:1a:678:U:H2'	32:1a:679:C:C6	2.56	0.41
32:1a:838:G:H5"	32:1a:840:C:N4	2.35	0.41
32:1a:1054:C:H4'	32:1a:1055:A:O5'	2.19	0.41
32:1a:1158:C:H5	32:1a:1181:G:H1	1.67	0.41
32:1a:1258:G:O2'	32:1a:1259:C:H5'	2.20	0.41
32:1a:1347:G:C4	32:1a:1373:G:C6	3.09	0.41
33:1b:97:TRP:CZ3	33:1b:99:GLY:HA2	2.53	0.41
33:1b:100:GLY:N	33:1b:176:GLU:OE2	2.53	0.41
33:1b:187:LEU:HD12	33:1b:201:ILE:O	2.21	0.41
33:1b:196:LEU:HA	33:1b:196:LEU:HD12	1.90	0.41
35:1d:81:GLU:CD	35:1d:139:ARG:HH12	2.29	0.41
44:1m:114:ARG:H	44:1m:114:ARG:HG2	1.58	0.41
45:1n:47:LEU:HD23	45:1n:47:LEU:HA	1.87	0.41
45:1n:48:ALA:HB2	45:1n:53:LEU:HD12	2.01	0.41
46:1o:18:PHE:CZ	46:1o:21:ASP:HB2	2.55	0.41
47:1p:5:ARG:HH21	47:1p:22:THR:HG23	1.86	0.41
53:1y:3:MET:HA	53:1y:37:PRO:HD2	2.02	0.41
1:2A:107:C:H2'	1:2A:108:U:C6	2.55	0.41
1:2A:139(A):G:O2'	1:2A:140:G:H5'	2.21	0.41
1:2A:307:G:H2'	1:2A:309:G:OP2	2.21	0.41
1:2A:320:A:H2'	5:2F:136:THR:OG1	2.21	0.41
1:2A:373:U:H2'	1:2A:374:A:H8	1.86	0.41
1:2A:419:C:O2'	1:2A:420:C:H5'	2.20	0.41
1:2A:621:A:H3'	1:2A:622:G:H8	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:861:A:N3	2:2B:79:C:O2'	2.50	0.41
1:2A:1221(A):C:C2	1:2A:1229:G:C2	3.08	0.41
1:2A:1287:A:O4'	13:2R:104:ARG:HD3	2.20	0.41
1:2A:1371:G:N7	63:2A:4070:HOH:O	2.37	0.41
1:2A:1807:G:N2	1:2A:1810:A:OP2	2.44	0.41
1:2A:1850:G:H2'	1:2A:1851:U:C6	2.56	0.41
1:2A:2131:G:OP1	1:2A:2132:U:H5'	2.21	0.41
1:2A:2492:U:C2'	1:2A:2493:U:H5'	2.50	0.41
1:2A:2507:C:C2	1:2A:2508:G:C8	3.08	0.41
2:2B:22:U:H2'	2:2B:23:G:C8	2.56	0.41
4:2E:60:ASN:O	4:2E:64:LYS:HG3	2.21	0.41
4:2E:178:GLU:H	4:2E:178:GLU:CD	2.27	0.41
7:2H:13:LYS:HE3	7:2H:13:LYS:HB2	1.77	0.41
7:2H:109:PHE:C	7:2H:111:HIS:H	2.29	0.41
8:2I:77:LEU:HD13	8:2I:101:LEU:HD23	2.03	0.41
8:2I:104:GLN:NE2	8:2I:105:HIS:HE1	2.19	0.41
10:2O:19:ILE:HA	10:2O:42:SER:O	2.21	0.41
11:2P:135:LEU:HD23	11:2P:135:LEU:HA	1.96	0.41
12:2Q:66:ILE:HG12	12:2Q:104:PHE:CE1	2.56	0.41
15:2T:48:ILE:HD13	15:2T:48:ILE:HG21	1.86	0.41
16:2U:30:LYS:HD3	63:25:202:HOH:O	2.21	0.41
21:2Z:179:ASP:N	21:2Z:182:LYS:HE3	2.36	0.41
23:21:77:ALA:HB2	23:21:94:LEU:HD21	2.01	0.41
23:21:83:GLU:OE1	23:21:83:GLU:N	2.52	0.41
26:24:62:ARG:NH1	26:24:62:ARG:HA	2.35	0.41
32:2a:15:G:H2'	32:2a:16:A:C8	2.56	0.41
32:2a:80:G:H1	32:2a:89:C:N4	2.18	0.41
32:2a:189:G:H2'	32:2a:189(A):C:O4'	2.21	0.41
32:2a:189(D):C:H2'	32:2a:189(E):U:O4'	2.21	0.41
32:2a:272:C:H2'	32:2a:273:A:H8	1.86	0.41
32:2a:437:U:H5'	35:2d:155:LEU:HD21	2.03	0.41
32:2a:495:A:H4'	32:2a:496:A:OP1	2.20	0.41
32:2a:539:A:C6	32:2a:540:G:C6	3.09	0.41
32:2a:563:A:H2'	32:2a:567:G:C8	2.56	0.41
32:2a:938:A:N6	32:2a:939:G:C6	2.89	0.41
32:2a:952:U:H4'	32:2a:964:A:N1	2.35	0.41
32:2a:980:C:H3'	32:2a:981:U:C6	2.55	0.41
32:2a:1342:C:H2'	32:2a:1343:G:C8	2.56	0.41
32:2a:1349:A:H3'	32:2a:1350:A:H8	1.86	0.41
35:2d:22:LYS:HD2	62:2d:501:SF4:S4	2.61	0.41
35:2d:128:VAL:HG12	35:2d:133:VAL:HB	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2f:44:GLY:O	37:2f:59:TYR:HA	2.21	0.41
39:2h:53:VAL:O	39:2h:56:LYS:N	2.27	0.41
40:2i:125:TYR:HE1	40:2i:127:LYS:HB3	1.85	0.41
41:2j:26:ALA:HB1	41:2j:84:GLN:NE2	2.35	0.41
48:2q:26:GLN:O	48:2q:27:PHE:HB3	2.21	0.41
53:2y:3:MET:N	53:2y:37:PRO:HD2	2.36	0.41
1:1A:34:C:HO2'	1:1A:35:G:P	2.40	0.41
1:1A:185:U:H2'	1:1A:186:G:C8	2.55	0.41
1:1A:1027:A:C2	1:1A:2488:A:H5'	2.55	0.41
1:1A:1078:U:H6	1:1A:1078:U:H2'	1.50	0.41
1:1A:1639:U:H4'	1:1A:2699:C:H4'	2.03	0.41
1:1A:2001:A:H2'	1:1A:2002:G:C8	2.56	0.41
1:1A:2653:U:O2'	7:1H:110:SER:HB3	2.21	0.41
6:1G:50:ALA:C	6:1G:52:ILE:N	2.78	0.41
18:1W:6:ILE:HA	18:1W:103:ILE:O	2.21	0.41
20:1Y:15:VAL:HG21	20:1Y:42:VAL:HG11	2.03	0.41
23:11:15:ALA:O	23:11:40:ARG:N	2.52	0.41
32:1a:254:G:OP1	48:1q:67:LYS:O	2.39	0.41
32:1a:324:G:N1	32:1a:327:A:OP2	2.54	0.41
32:1a:502:G:H4'	32:1a:550:G:H4'	2.02	0.41
32:1a:553:A:H2'	32:1a:554:C:O4'	2.21	0.41
32:1a:1071:C:O2'	32:1a:1072:G:H5'	2.21	0.41
33:1b:21:ARG:HB2	33:1b:22:LYS:H	1.65	0.41
33:1b:163:PHE:HB2	33:1b:185:ILE:HD11	2.03	0.41
33:1b:211:ILE:HG13	33:1b:211:ILE:H	1.69	0.41
35:1d:158:ILE:HG13	35:1d:159:ARG:N	2.36	0.41
39:1h:6:ILE:HB	39:1h:85:ARG:NH1	2.36	0.41
41:1j:33:GLN:CB	41:1j:76:ASN:H	2.34	0.41
47:1p:71:ARG:O	47:1p:75:ARG:N	2.40	0.41
48:1q:48:GLU:O	48:1q:49:GLU:C	2.64	0.41
53:1y:23:ARG:HA	53:1y:23:ARG:HD2	1.65	0.41
1:2A:363(B):G:C4	1:2A:363(C):G:C8	3.09	0.41
1:2A:1055:G:H2'	1:2A:1056:G:O4'	2.21	0.41
1:2A:1229:G:H2'	1:2A:1230:C:O4'	2.21	0.41
1:2A:1439:A:C2	1:2A:1553:A:C4	3.09	0.41
1:2A:1545:A:N7	1:2A:1546:C:C2	2.89	0.41
1:2A:1981:A:H2'	63:2A:4759:HOH:O	2.20	0.41
1:2A:2219:G:O2'	1:2A:2220:G:H5'	2.21	0.41
1:2A:2400:G:H2'	1:2A:2401:U:C6	2.51	0.41
1:2A:2688:U:C5	1:2A:2719:G:C5	3.09	0.41
3:2D:26:LYS:HE2	3:2D:28:GLU:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2D:94:LEU:HD12	3:2D:94:LEU:HA	1.82	0.41
6:2G:107:LEU:HD21	6:2G:178:PHE:CE1	2.56	0.41
7:2H:9:ILE:N	7:2H:50:VAL:O	2.42	0.41
14:2S:87:PHE:CE1	14:2S:102:ALA:HB2	2.55	0.41
17:2V:14:VAL:HG12	17:2V:18:LEU:HD23	2.03	0.41
20:2Y:13:VAL:HB	20:2Y:72:VAL:HG13	2.02	0.41
21:2Z:29:TYR:O	21:2Z:89:PHE:HD1	2.04	0.41
21:2Z:151:HIS:HA	21:2Z:170:THR:HA	2.03	0.41
22:20:25:ARG:HD3	22:20:25:ARG:HA	1.71	0.41
32:2a:98:G:H2'	32:2a:99:U:O4'	2.21	0.41
32:2a:562:C:H4'	32:2a:563:A:O5'	2.21	0.41
32:2a:938:A:C6	32:2a:939:G:C5	3.09	0.41
32:2a:950:U:H2'	32:2a:951:G:H8	1.85	0.41
32:2a:1055:A:C2	32:2a:1056:U:H1'	2.56	0.41
32:2a:1136:U:OP2	32:2a:1137:C:N4	2.49	0.41
32:2a:1150:U:H1'	32:2a:1280:A:N6	2.36	0.41
32:2a:1518:MA6:H93	32:2a:1519:MA6:C10	2.48	0.41
35:2d:160:GLN:O	35:2d:163:GLU:HB2	2.21	0.41
48:2q:63:ARG:HG3	48:2q:64:PRO:HD2	2.02	0.41
49:2r:47:THR:O	49:2r:47:THR:OG1	2.37	0.41
51:2t:18:GLN:O	51:2t:22:ARG:HG3	2.21	0.41
1:1A:391:G:H1'	1:1A:411:G:O4'	2.21	0.40
1:1A:555:U:O2'	1:1A:556:G:N7	2.47	0.40
1:1A:718:A:H3'	1:1A:719:C:C6	2.56	0.40
1:1A:1842:G:O2'	3:1D:253:GLN:NE2	2.55	0.40
1:1A:1901:A:OP2	3:1D:255:LYS:NZ	2.53	0.40
1:1A:2512:C:H4'	63:1A:4259:HOH:O	2.20	0.40
4:1E:2:LYS:HE3	4:1E:200:GLU:HG3	2.03	0.40
4:1E:13:ARG:HA	4:1E:23:VAL:HG22	2.03	0.40
6:1G:16:ARG:HH11	6:1G:16:ARG:HD3	1.67	0.40
6:1G:96:ARG:N	6:1G:99:MET:HE2	2.36	0.40
7:1H:174:GLY:O	7:1H:175:LYS:C	2.64	0.40
17:1V:28:GLU:HA	17:1V:29:PRO:HD3	1.93	0.40
32:1a:17:U:H2'	32:1a:18:C:H6	1.80	0.40
32:1a:32:A:C6	32:1a:33:A:C6	3.09	0.40
32:1a:270:A:H2'	32:1a:271:C:O4'	2.20	0.40
32:1a:658:G:C6	32:1a:659:U:C4	3.09	0.40
32:1a:894:G:H2'	32:1a:895:G:O4'	2.21	0.40
32:1a:1058:G:C5	32:1a:1059:C:C4	3.09	0.40
33:1b:160:ASP:OD1	33:1b:160:ASP:N	2.54	0.40
33:1b:189:ASP:OD1	33:1b:189:ASP:N	2.43	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:54:THR:O	38:1g:56:GLN:N	2.53	0.40
38:1g:138:LYS:O	38:1g:142:GLU:HG3	2.21	0.40
39:1h:133:LEU:HD23	39:1h:133:LEU:C	2.46	0.40
41:1j:61:GLU:OE1	45:1n:45:ARG:NE	2.49	0.40
48:1q:56:VAL:HG23	48:1q:81:ARG:HG3	2.02	0.40
51:1t:59:ALA:O	51:1t:62:LEU:N	2.52	0.40
1:2A:2604:U:C2'	1:2A:2605:PSU:H5"	2.51	0.40
3:2D:108:PRO:HB3	3:2D:143:HIS:NE2	2.35	0.40
3:2D:127:VAL:HA	3:2D:193:VAL:CG2	2.50	0.40
5:2F:20:LEU:HD23	5:2F:21:ALA:H	1.86	0.40
11:2P:46:LYS:HE3	11:2P:46:LYS:HB3	1.96	0.40
13:2R:44:LEU:HD23	13:2R:44:LEU:HA	1.70	0.40
21:2Z:130:PRO:O	21:2Z:133:ILE:HG13	2.20	0.40
28:26:6:ARG:NE	28:26:24:GLU:OE2	2.48	0.40
32:2a:160:A:H2'	32:2a:161:A:O4'	2.20	0.40
32:2a:1262:C:H2'	32:2a:1263:C:H6	1.86	0.40
35:2d:75:PHE:HE1	35:2d:93:PHE:CZ	2.37	0.40
35:2d:156:GLU:O	35:2d:159:ARG:N	2.54	0.40
44:2m:34:LEU:HD23	44:2m:39:ILE:HB	2.03	0.40
47:2p:6:LEU:HB3	47:2p:17:TYR:CD1	2.55	0.40
51:2t:89:ARG:HE	51:2t:89:ARG:HB3	1.62	0.40
53:2y:87:LYS:HE3	53:2y:87:LYS:HB2	1.75	0.40
1:1A:479:A:H4'	1:1A:480:A:OP1	2.21	0.40
1:1A:1057:A:C8	1:1A:1086:A:H2'	2.56	0.40
1:1A:1780:A:H5"	63:1A:4979:HOH:O	2.20	0.40
1:1A:1889:A:C6	1:1A:1890:A:C6	3.09	0.40
1:1A:2689:U:H4'	1:1A:2690:C:H5'	2.04	0.40
2:1B:59:A:N6	63:1B:310:HOH:O	2.34	0.40
4:1E:179:GLU:HB3	4:1E:181:LEU:HD22	2.03	0.40
14:1S:61:ASN:O	14:1S:65:VAL:HG23	2.20	0.40
21:1Z:67:LEU:HD23	21:1Z:67:LEU:HA	1.84	0.40
21:1Z:68:PRO:O	21:1Z:91:LEU:HB2	2.22	0.40
32:1a:124:G:C5	32:1a:125:U:C4	3.09	0.40
32:1a:581:G:OP1	46:1o:61:GLY:HA3	2.21	0.40
32:1a:627:G:N3	32:1a:628:G:C8	2.89	0.40
32:1a:857:C:H2'	32:1a:858:G:O4'	2.21	0.40
32:1a:924:C:H2'	32:1a:925:G:H8	1.86	0.40
32:1a:1085:U:C2	32:1a:1094:G:O6	2.74	0.40
32:1a:1291:G:H4'	40:1i:38:GLN:O	2.22	0.40
33:1b:54:THR:HG22	33:1b:58:ILE:HD11	2.02	0.40
34:1c:6:HIS:HD2	34:1c:9:GLY:H	1.65	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:3:ARG:HG3	35:1d:5:ILE:CG2	2.46	0.40
35:1d:107:ARG:HG3	35:1d:173:TRP:HH2	1.86	0.40
45:1n:23:ARG:NH1	45:1n:30:ALA:HB2	2.36	0.40
49:1r:22:VAL:HG23	49:1r:55:ARG:O	2.21	0.40
1:2A:646:A:H3'	1:2A:646:A:OP2	2.21	0.40
1:2A:747:U:H1'	18:2W:92:ARG:HH12	1.86	0.40
1:2A:784:A:C8	1:2A:792:G:C5	3.10	0.40
1:2A:856:C:O2'	1:2A:857:C:OP1	2.28	0.40
1:2A:879:G:H2'	1:2A:880:G:O4'	2.22	0.40
1:2A:1019:U:OP1	1:2A:1035:U:O2'	2.22	0.40
1:2A:1520:G:H3'	1:2A:1523:U:H6	1.86	0.40
1:2A:1747(A):G:C2	1:2A:1748:G:C8	3.09	0.40
1:2A:2079:U:H5"	23:21:21:ARG:NH1	2.36	0.40
1:2A:2259:G:C2	1:2A:2282:G:N1	2.89	0.40
1:2A:2543:G:H2'	1:2A:2544:G:C8	2.56	0.40
1:2A:2820:A:H4'	13:2R:3:HIS:CD2	2.56	0.40
1:2A:2880:C:O3'	13:2R:90:ARG:NH1	2.54	0.40
3:2D:253:GLN:HB3	63:2D:423:HOH:O	2.21	0.40
12:2Q:16:ARG:O	12:2Q:17:LEU:HD23	2.20	0.40
15:2T:105:LEU:HD23	15:2T:105:LEU:HA	1.86	0.40
17:2V:4:ILE:HD12	17:2V:39:LEU:HD22	2.01	0.40
32:2a:186:C:C2	32:2a:187:C:C5	3.10	0.40
32:2a:273:A:N6	32:2a:274:A:C6	2.89	0.40
32:2a:273:A:N6	32:2a:274:A:N6	2.70	0.40
32:2a:421:U:O5'	32:2a:422:C:H5	2.05	0.40
32:2a:604:G:C6	32:2a:605:U:N3	2.89	0.40
32:2a:874:G:H2'	32:2a:875:C:H6	1.86	0.40
32:2a:913:A:H4'	32:2a:914:A:O5'	2.21	0.40
32:2a:965:A:C8	53:2y:8:LYS:NZ	2.85	0.40
32:2a:1133:G:N2	32:2a:1142:G:H1'	2.36	0.40
32:2a:1263:C:C2	32:2a:1273:G:N2	2.89	0.40
34:2c:124:ILE:C	34:2c:127:ARG:H	2.29	0.40
40:2i:3:GLN:HG2	40:2i:20:ARG:HE	1.86	0.40
47:2p:29:ASP:OD1	47:2p:29:ASP:N	2.53	0.40
48:2q:45:HIS:CE1	48:2q:47:PRO:HB3	2.56	0.40
51:2t:14:LYS:O	51:2t:18:GLN:HG3	2.21	0.40
1:1A:66:C:C2	1:1A:89:G:N2	2.90	0.40
1:1A:191:A:H2'	1:1A:192:C:C6	2.57	0.40
1:1A:226:G:C2	1:1A:228:A:N6	2.87	0.40
1:1A:705:A:C8	1:1A:727:A:C2	3.09	0.40
1:1A:711:G:C6	1:1A:712:G:C5	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:828:U:H4'	1:1A:831:G:N1	2.37	0.40
1:1A:2110:G:H4'	1:1A:2111:C:OP2	2.21	0.40
1:1A:2712:U:H2'	1:1A:2714:G:H5"	2.03	0.40
63:1A:6156:HOH:O	4:1E:129:HIS:CE1	2.71	0.40
3:1D:142:VAL:HG23	3:1D:193:VAL:HA	2.03	0.40
4:1E:36:ARG:NH2	4:1E:88:GLY:O	2.49	0.40
4:1E:154:LYS:HG2	4:1E:156:MET:HE3	2.04	0.40
8:1I:72:LEU:O	8:1I:73:GLU:HB2	2.21	0.40
15:1T:36:GLU:HB3	15:1T:37:GLY:H	1.74	0.40
15:1T:80:SER:HA	15:1T:81:PRO:HD2	1.98	0.40
21:1Z:77:ASP:OD2	21:1Z:80:ARG:HD2	2.22	0.40
32:1a:546:G:OP1	35:1d:73:ARG:HG2	2.21	0.40
32:1a:1060:C:C5	34:1c:2:GLY:HA3	2.55	0.40
32:1a:1345:U:H5"	40:1i:120:ARG:HH11	1.87	0.40
33:1b:83:MET:H	33:1b:83:MET:HG2	1.60	0.40
43:1l:47:LYS:HA	43:1l:48:PRO:HA	1.80	0.40
1:2A:79:G:O2'	1:2A:346:A:N3	2.48	0.40
1:2A:277:C:H2'	1:2A:277:C:O2	2.21	0.40
1:2A:572:A:H5"	1:2A:573:G:OP2	2.21	0.40
1:2A:887:A:O2'	1:2A:888:C:H3'	2.22	0.40
1:2A:1014:U:H2'	1:2A:1015:G:H8	1.87	0.40
1:2A:1091:G:H2'	1:2A:1091:G:N3	2.37	0.40
1:2A:1210:A:N6	1:2A:1237:A:O2'	2.54	0.40
1:2A:2093:G:H21	1:2A:2198:A:N6	2.19	0.40
1:2A:2195:C:H2'	1:2A:2196:C:H6	1.86	0.40
1:2A:2821:A:C2	1:2A:2822:G:C4	3.08	0.40
2:2B:11:C:H3'	2:2B:12:C:C6	2.57	0.40
3:2D:4:LYS:HE2	3:2D:4:LYS:HB3	1.89	0.40
5:2F:20:LEU:HD23	5:2F:21:ALA:N	2.36	0.40
5:2F:202:PHE:CZ	5:2F:206:ILE:HD13	2.56	0.40
7:2H:78:GLY:C	7:2H:80:SER:H	2.29	0.40
7:2H:107:VAL:O	7:2H:152:ARG:NH2	2.51	0.40
12:2Q:36:ALA:HB1	12:2Q:127:ILE:HD12	2.03	0.40
26:24:26:SER:OG	26:24:27:THR:N	2.55	0.40
32:2a:60:A:H4'	32:2a:61:G:O5'	2.22	0.40
32:2a:434:U:H2'	32:2a:435:C:C6	2.56	0.40
32:2a:696:A:H2'	32:2a:697:U:C6	2.55	0.40
32:2a:1002:G:N3	32:2a:1003:G:C8	2.89	0.40
32:2a:1006:C:N3	32:2a:1023:G:O6	2.54	0.40
32:2a:1179:A:N6	32:2a:1180:A:N1	2.69	0.40
32:2a:1256:A:H5'	32:2a:1258:G:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:164:VAL:HB	33:2b:186:ALA:CB	2.51	0.40
34:2c:44:GLU:HA	34:2c:52:LEU:CD1	2.51	0.40
35:2d:196:LEU:C	35:2d:198:VAL:H	2.28	0.40
43:2l:5:PRO:HB2	43:2l:6:THR:H	1.72	0.40
50:2s:52:TYR:HA	50:2s:56:GLN:O	2.21	0.40
1:1A:217:G:H8	1:1A:217:G:O5'	2.03	0.40
1:1A:245:G:H2'	1:1A:246:C:H6	1.86	0.40
1:1A:566:U:OP1	17:1V:80:GLN:NE2	2.42	0.40
1:1A:1049:C:H2'	1:1A:1050:A:H8	1.85	0.40
1:1A:1188:U:H4'	17:1V:79:VAL:HG22	2.03	0.40
1:1A:1442:G:H3'	63:1A:4142:HOH:O	2.22	0.40
1:1A:1465:G:N3	1:1A:1545:A:H2	2.19	0.40
1:1A:1721:G:H2'	1:1A:1740:G:O6	2.20	0.40
1:1A:1789:A:O2'	3:1D:219:PRO:HB3	2.22	0.40
1:1A:2580:U:O2'	63:1A:4183:HOH:O	2.12	0.40
7:1H:94:TYR:CD1	7:1H:107:VAL:HA	2.56	0.40
8:1I:81:VAL:O	8:1I:146:ALA:HA	2.21	0.40
15:1T:64:ARG:HB2	15:1T:73:GLU:HG2	2.04	0.40
15:1T:97:ALA:O	15:1T:98:LYS:HD3	2.21	0.40
32:1a:289:G:C6	32:1a:290:C:N4	2.89	0.40
32:1a:300:A:H8	32:1a:300:A:O5'	2.04	0.40
32:1a:409:G:H1	32:1a:433:C:N4	2.19	0.40
33:1b:180:LEU:O	33:1b:182:ILE:HG13	2.22	0.40
39:1h:110:ALA:O	39:1h:120:THR:HA	2.21	0.40
1:2A:629:G:H4'	1:2A:650:C:O2	2.21	0.40
1:2A:663:G:P	11:2P:16:ARG:HG2	2.62	0.40
1:2A:792:G:N3	1:2A:2072:G:O2'	2.45	0.40
1:2A:811:U:H2'	11:2P:21:ARG:HA	2.04	0.40
1:2A:1403:C:O5'	1:2A:1471:A:H1'	2.21	0.40
1:2A:1494:A:C2	1:2A:1495:A:C4	3.10	0.40
1:2A:1686:C:C2	1:2A:1703:G:N2	2.90	0.40
1:2A:1755:A:N6	1:2A:2694:G:O2'	2.54	0.40
1:2A:1990:C:H2'	1:2A:1991:U:O4'	2.21	0.40
1:2A:2604:U:O2'	1:2A:2605:PSU:H5"	2.21	0.40
1:2A:2785:C:C4'	4:2E:35:GLN:HE22	2.35	0.40
2:2B:33:G:C6	2:2B:34:U:C4	3.09	0.40
2:2B:66:A:N6	2:2B:109:C:H5'	2.28	0.40
3:2D:70:TRP:HB3	3:2D:190:TYR:CE2	2.57	0.40
5:2F:64:ILE:HG12	5:2F:76:GLY:O	2.20	0.40
12:2Q:57:HIS:NE2	12:2Q:116:GLU:HB3	2.36	0.40
13:2R:12:ARG:O	13:2R:17:ARG:NH1	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:2R:67:LEU:HD23	13:2R:67:LEU:HA	1.89	0.40
14:2S:34:HIS:C	14:2S:35:ILE:HG13	2.46	0.40
20:2Y:43:ASN:HD22	20:2Y:65:ALA:HB3	1.86	0.40
24:22:18:PRO:O	24:22:22:GLU:HG3	2.21	0.40
30:28:34:TRP:CZ2	30:28:35:GLN:HB3	2.56	0.40
32:2a:66:G:C6	32:2a:67:C:C5	3.10	0.40
32:2a:110:C:O2'	47:2p:25:ARG:O	2.35	0.40
32:2a:1288:A:H1'	32:2a:1353:G:H4'	2.02	0.40
32:2a:1305:G:C2	32:2a:1331:G:N3	2.89	0.40
38:2g:51:GLN:HG3	38:2g:52:GLU:N	2.36	0.40
39:2h:51:VAL:CG2	39:2h:60:ARG:HB2	2.52	0.40
39:2h:97:VAL:HA	39:2h:100:ILE:HD11	2.04	0.40
40:2i:71:SER:HA	40:2i:74:ILE:CD1	2.51	0.40
48:2q:90:ILE:O	48:2q:94:ASN:N	2.39	0.40
1:1A:451:C:H5'	63:1A:4531:HOH:O	2.21	0.40
1:1A:518:G:H2'	1:1A:519:U:C6	2.56	0.40
1:1A:773:U:H2'	1:1A:774:A:H5'	2.04	0.40
1:1A:957:A:H4'	12:1Q:74:TYR:OH	2.22	0.40
1:1A:1043:C:C4	1:1A:1044:G:N7	2.89	0.40
1:1A:1444:G:H5"	1:1A:1445:A:OP1	2.22	0.40
1:1A:1863:G:C5	1:1A:1864:U:C5	3.09	0.40
1:1A:2004:G:C6	1:1A:2005:A:C4	3.09	0.40
1:1A:2113:U:H2'	1:1A:2114:A:O4'	2.22	0.40
1:1A:2488:A:H2'	1:1A:2489:G:O4'	2.22	0.40
1:1A:2583:G:H2'	1:1A:2584:U:H6	1.87	0.40
1:1A:2704:C:H2'	1:1A:2705:A:O4'	2.21	0.40
1:1A:2791:C:H2'	1:1A:2792:G:C8	2.51	0.40
6:1G:49:ASP:HB3	6:1G:50:ALA:H	1.80	0.40
8:1I:52:ARG:CZ	8:1I:52:ARG:HB2	2.52	0.40
13:1R:12:ARG:HG2	13:1R:16:HIS:CE1	2.56	0.40
16:1U:5:LYS:O	16:1U:6:THR:C	2.63	0.40
20:1Y:55:TYR:CE1	20:1Y:61:ILE:HG21	2.56	0.40
32:1a:124:G:C6	32:1a:125:U:N3	2.90	0.40
32:1a:253:U:H5'	63:1a:3323:HOH:O	2.21	0.40
32:1a:458:C:H2'	32:1a:460:G:C8	2.57	0.40
32:1a:542:G:H5'	35:1d:41:GLY:HA3	2.03	0.40
32:1a:600:C:H2'	32:1a:601:C:C6	2.57	0.40
32:1a:640:A:O2'	39:1h:115:SER:O	2.39	0.40
32:1a:838:G:OP2	32:1a:840:C:N4	2.55	0.40
32:1a:1028:C:N3	32:1a:1033:G:O6	2.54	0.40
32:1a:1343:G:O2'	40:1i:121:ARG:HD2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:159:ARG:O	35:1d:163:GLU:N	2.51	0.40
37:1f:30:LEU:O	37:1f:35:ALA:N	2.53	0.40
38:1g:75:VAL:HA	38:1g:87:VAL:O	2.20	0.40
39:1h:95:VAL:HB	39:1h:99:GLU:HG2	2.02	0.40
44:1m:11:ARG:H	44:1m:11:ARG:HG3	1.59	0.40
53:1y:95:ARG:HA	53:1y:95:ARG:HD3	1.83	0.40
1:2A:207:A:H2'	1:2A:208:C:O4'	2.22	0.40
1:2A:271(E):U:H2'	1:2A:271(F):C:C6	2.56	0.40
1:2A:651:G:C6	1:2A:652:C:C4	3.09	0.40
1:2A:711:G:C6	1:2A:712:G:C5	3.09	0.40
1:2A:1109:C:H3'	1:2A:1110:G:C8	2.57	0.40
1:2A:1218:C:H2'	1:2A:1219:G:C8	2.57	0.40
1:2A:1754:C:H5	15:2T:96:ARG:CZ	2.33	0.40
1:2A:2095:C:C4	1:2A:2096:U:C4	3.09	0.40
1:2A:2564:A:C2	1:2A:2647:U:H4'	2.56	0.40
1:2A:2802:G:N2	1:2A:2803:C:H1'	2.36	0.40
2:2B:78:A:C2	2:2B:100:A:C4	3.10	0.40
3:2D:231:HIS:CD2	3:2D:249:PRO:HG3	2.56	0.40
5:2F:32:LEU:HB3	5:2F:112:MET:HE1	2.02	0.40
5:2F:137:LYS:H	5:2F:137:LYS:HG2	1.56	0.40
5:2F:160:ASN:O	5:2F:164:ARG:HG3	2.22	0.40
11:2P:95:VAL:HA	11:2P:99:LEU:HD13	2.04	0.40
12:2Q:6:ARG:C	12:2Q:7:MET:HG3	2.46	0.40
18:2W:82:LEU:HD23	18:2W:82:LEU:HA	1.94	0.40
19:2X:31:HIS:HA	19:2X:32:PRO:HD3	1.99	0.40
32:2a:471:G:C4	32:2a:472:A:C8	3.10	0.40
32:2a:890:G:O2'	32:2a:891:U:OP2	2.40	0.40
32:2a:1246:C:H2'	32:2a:1247:U:O4'	2.21	0.40
32:2a:1308:U:H2'	32:2a:1309:G:C8	2.56	0.40
32:2a:1462:G:H2'	32:2a:1463:C:C6	2.57	0.40
38:2g:23:VAL:HG13	38:2g:43:PHE:HE2	1.86	0.40
38:2g:89:MET:HE3	38:2g:89:MET:HB3	1.94	0.40
38:2g:108:ALA:O	38:2g:110:GLN:N	2.53	0.40
43:2l:27:LEU:O	43:2l:28:LYS:HB2	2.21	0.40
48:2q:18:THR:HG1	48:2q:69:LYS:NZ	2.14	0.40
50:2s:66:MET:HB2	50:2s:74:PHE:CZ	2.56	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%)	246 (90%)	25 (9%)	2 (1%)	18 34
3	2D	273/276 (99%)	248 (91%)	25 (9%)	0	100 100
4	1E	202/206 (98%)	186 (92%)	14 (7%)	2 (1%)	12 24
4	2E	202/206 (98%)	183 (91%)	18 (9%)	1 (0%)	24 43
5	1F	201/210 (96%)	185 (92%)	15 (8%)	1 (0%)	24 43
5	2F	201/210 (96%)	191 (95%)	7 (4%)	3 (2%)	8 15
6	1G	179/182 (98%)	149 (83%)	21 (12%)	9 (5%)	1 2
6	2G	179/182 (98%)	146 (82%)	26 (14%)	7 (4%)	2 4
7	1H	172/180 (96%)	159 (92%)	8 (5%)	5 (3%)	3 6
7	2H	171/180 (95%)	137 (80%)	25 (15%)	9 (5%)	1 2
8	1I	145/148 (98%)	114 (79%)	27 (19%)	4 (3%)	4 6
8	2I	144/148 (97%)	118 (82%)	21 (15%)	5 (4%)	3 5
9	1N	138/140 (99%)	124 (90%)	12 (9%)	2 (1%)	9 17
9	2N	138/140 (99%)	125 (91%)	12 (9%)	1 (1%)	18 34
10	1O	120/122 (98%)	108 (90%)	10 (8%)	2 (2%)	7 14
10	2O	120/122 (98%)	111 (92%)	6 (5%)	3 (2%)	4 8
11	1P	147/150 (98%)	131 (89%)	12 (8%)	4 (3%)	4 7
11	2P	147/150 (98%)	129 (88%)	18 (12%)	0	100 100
12	1Q	139/141 (99%)	128 (92%)	11 (8%)	0	100 100
12	2Q	139/141 (99%)	121 (87%)	16 (12%)	2 (1%)	9 17
13	1R	116/118 (98%)	108 (93%)	7 (6%)	1 (1%)	14 28
13	2R	116/118 (98%)	110 (95%)	4 (3%)	2 (2%)	7 14
14	1S	108/112 (96%)	98 (91%)	7 (6%)	3 (3%)	4 6
14	2S	108/112 (96%)	97 (90%)	10 (9%)	1 (1%)	14 28
15	1T	129/146 (88%)	116 (90%)	11 (8%)	2 (2%)	7 14

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
15	2T	129/146 (88%)	119 (92%)	7 (5%)	3 (2%)	5 9
16	1U	114/118 (97%)	110 (96%)	4 (4%)	0	100 100
16	2U	114/118 (97%)	108 (95%)	6 (5%)	0	100 100
17	1V	99/101 (98%)	91 (92%)	6 (6%)	2 (2%)	6 11
17	2V	99/101 (98%)	86 (87%)	11 (11%)	2 (2%)	6 11
18	1W	110/113 (97%)	105 (96%)	5 (4%)	0	100 100
18	2W	110/113 (97%)	105 (96%)	5 (4%)	0	100 100
19	1X	93/96 (97%)	86 (92%)	6 (6%)	1 (1%)	11 22
19	2X	93/96 (97%)	83 (89%)	8 (9%)	2 (2%)	5 10
20	1Y	105/110 (96%)	93 (89%)	12 (11%)	0	100 100
20	2Y	105/110 (96%)	90 (86%)	14 (13%)	1 (1%)	12 24
21	1Z	201/206 (98%)	178 (89%)	22 (11%)	1 (0%)	24 43
21	2Z	199/206 (97%)	158 (79%)	32 (16%)	9 (4%)	2 2
22	10	81/85 (95%)	69 (85%)	11 (14%)	1 (1%)	10 20
22	20	81/85 (95%)	69 (85%)	9 (11%)	3 (4%)	2 4
23	11	95/98 (97%)	90 (95%)	4 (4%)	1 (1%)	11 22
23	21	95/98 (97%)	87 (92%)	6 (6%)	2 (2%)	5 11
24	12	68/72 (94%)	67 (98%)	1 (2%)	0	100 100
24	22	68/72 (94%)	63 (93%)	5 (7%)	0	100 100
25	13	57/60 (95%)	56 (98%)	1 (2%)	0	100 100
25	23	57/60 (95%)	53 (93%)	3 (5%)	1 (2%)	6 13
26	14	67/71 (94%)	50 (75%)	13 (19%)	4 (6%)	1 1
26	24	67/71 (94%)	40 (60%)	20 (30%)	7 (10%)	0 0
27	15	57/60 (95%)	53 (93%)	4 (7%)	0	100 100
27	25	57/60 (95%)	53 (93%)	4 (7%)	0	100 100
28	16	51/54 (94%)	46 (90%)	5 (10%)	0	100 100
28	26	51/54 (94%)	44 (86%)	7 (14%)	0	100 100
29	17	46/49 (94%)	43 (94%)	3 (6%)	0	100 100
29	27	46/49 (94%)	45 (98%)	1 (2%)	0	100 100
30	18	62/65 (95%)	61 (98%)	1 (2%)	0	100 100
30	28	62/65 (95%)	58 (94%)	4 (6%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
31	19	35/37 (95%)	34 (97%)	1 (3%)	0	100 100
31	29	35/37 (95%)	31 (89%)	4 (11%)	0	100 100
33	1b	229/256 (90%)	188 (82%)	31 (14%)	10 (4%)	2 2
33	2b	229/256 (90%)	174 (76%)	38 (17%)	17 (7%)	1 1
34	1c	204/239 (85%)	172 (84%)	30 (15%)	2 (1%)	12 24
34	2c	204/239 (85%)	158 (78%)	33 (16%)	13 (6%)	1 1
35	1d	206/209 (99%)	175 (85%)	28 (14%)	3 (2%)	8 15
35	2d	206/209 (99%)	176 (85%)	25 (12%)	5 (2%)	4 9
36	1e	146/162 (90%)	129 (88%)	14 (10%)	3 (2%)	5 11
36	2e	146/162 (90%)	128 (88%)	14 (10%)	4 (3%)	4 7
37	1f	98/101 (97%)	91 (93%)	7 (7%)	0	100 100
37	2f	98/101 (97%)	90 (92%)	5 (5%)	3 (3%)	3 6
38	1g	153/156 (98%)	135 (88%)	15 (10%)	3 (2%)	6 11
38	2g	153/156 (98%)	128 (84%)	18 (12%)	7 (5%)	2 2
39	1h	135/138 (98%)	119 (88%)	16 (12%)	0	100 100
39	2h	135/138 (98%)	115 (85%)	16 (12%)	4 (3%)	3 6
40	1i	125/128 (98%)	107 (86%)	15 (12%)	3 (2%)	4 9
40	2i	124/128 (97%)	100 (81%)	20 (16%)	4 (3%)	3 5
41	1j	95/105 (90%)	75 (79%)	12 (13%)	8 (8%)	0 0
41	2j	94/105 (90%)	74 (79%)	14 (15%)	6 (6%)	1 1
42	1k	112/129 (87%)	95 (85%)	15 (13%)	2 (2%)	6 13
42	2k	112/129 (87%)	94 (84%)	12 (11%)	6 (5%)	1 2
43	1l	119/132 (90%)	98 (82%)	20 (17%)	1 (1%)	16 30
43	2l	119/132 (90%)	100 (84%)	17 (14%)	2 (2%)	7 14
44	1m	114/126 (90%)	102 (90%)	10 (9%)	2 (2%)	6 13
44	2m	112/126 (89%)	90 (80%)	16 (14%)	6 (5%)	1 2
45	1n	58/61 (95%)	51 (88%)	5 (9%)	2 (3%)	3 5
45	2n	58/61 (95%)	52 (90%)	5 (9%)	1 (2%)	7 14
46	1o	86/89 (97%)	79 (92%)	6 (7%)	1 (1%)	10 20
46	2o	86/89 (97%)	76 (88%)	9 (10%)	1 (1%)	10 20
47	1p	80/88 (91%)	68 (85%)	11 (14%)	1 (1%)	9 18

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
47	2p	80/88 (91%)	66 (82%)	13 (16%)	1 (1%)	9 18
48	1q	97/105 (92%)	82 (84%)	12 (12%)	3 (3%)	3 6
48	2q	97/105 (92%)	88 (91%)	8 (8%)	1 (1%)	12 24
49	1r	66/88 (75%)	59 (89%)	6 (9%)	1 (2%)	8 15
49	2r	66/88 (75%)	61 (92%)	4 (6%)	1 (2%)	8 15
50	1s	81/93 (87%)	66 (82%)	12 (15%)	3 (4%)	2 4
50	2s	81/93 (87%)	66 (82%)	14 (17%)	1 (1%)	10 20
51	1t	94/106 (89%)	79 (84%)	9 (10%)	6 (6%)	1 1
51	2t	96/106 (91%)	82 (85%)	11 (12%)	3 (3%)	3 6
52	1u	21/27 (78%)	19 (90%)	1 (5%)	1 (5%)	2 2
52	2u	21/27 (78%)	18 (86%)	1 (5%)	2 (10%)	0 0
53	1y	95/113 (84%)	88 (93%)	7 (7%)	0	100 100
53	2y	94/113 (83%)	86 (92%)	4 (4%)	4 (4%)	2 3
55	1v	1/3 (33%)	1 (100%)	0	0	100 100
55	2v	1/3 (33%)	0	1 (100%)	0	100 100
All	All	11643/12360 (94%)	10192 (88%)	1193 (10%)	258 (2%)	5 10

All (258) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	1F	130	ALA
6	1G	53	LEU
6	1G	54	GLU
7	1H	126	PRO
26	14	46	GLN
33	1b	17	PHE
35	1d	5	ILE
38	1g	4	ARG
41	1j	55	LYS
43	1l	12	ARG
44	1m	67	GLU
47	1p	28	ARG
48	1q	34	LYS
48	1q	68	ARG
51	1t	47	GLY
51	1t	95	ALA
5	2F	130	ALA

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Mol	Chain	Res	Type
6	2G	43	LEU
7	2H	126	PRO
8	2I	10	GLU
12	2Q	59	ARG
15	2T	127	ALA
15	2T	128	GLU
19	2X	94	GLY
21	2Z	31	ARG
21	2Z	120	ILE
21	2Z	137	ILE
22	20	4	LYS
23	21	3	LYS
26	24	45	GLY
26	24	46	GLN
26	24	48	ARG
26	24	56	VAL
26	24	62	ARG
33	2b	17	PHE
33	2b	125	PRO
34	2c	18	TRP
34	2c	64	VAL
34	2c	98	ASN
35	2d	156	GLU
37	2f	40	VAL
38	2g	7	ALA
39	2h	54	ASP
40	2i	43	ALA
41	2j	79	ARG
42	2k	89	ALA
42	2k	119	CYS
44	2m	67	GLU
51	2t	100	ILE
52	2u	3	LYS
3	1D	99	ASP
4	1E	52	LEU
6	1G	51	ARG
7	1H	159	GLU
11	1P	36	LYS
11	1P	140	ALA
15	1T	127	ALA
17	1V	79	VAL
19	1X	94	GLY

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Mol	Chain	Res	Type
26	14	39	CYS
26	14	61	ARG
33	1b	95	GLN
35	1d	195	ALA
36	1e	73	ASN
36	1e	146	ALA
38	1g	55	GLY
40	1i	43	ALA
40	1i	55	ALA
41	1j	31	GLY
41	1j	77	PRO
41	1j	79	ARG
44	1m	3	ARG
50	1s	12	ASP
50	1s	13	ASP
51	1t	59	ALA
52	1u	7	ARG
6	2G	3	LEU
6	2G	48	GLU
6	2G	117	PHE
8	2I	99	GLU
8	2I	117	GLU
9	2N	132	ALA
10	2O	5	GLN
10	2O	89	ASN
12	2Q	62	GLY
17	2V	79	VAL
19	2X	15	GLU
21	2Z	60	GLU
26	24	55	ARG
33	2b	16	HIS
33	2b	21	ARG
33	2b	78	GLN
33	2b	83	MET
33	2b	88	ALA
33	2b	154	LEU
33	2b	165	VAL
34	2c	4	LYS
34	2c	85	ARG
34	2c	95	THR
34	2c	156	ARG
36	2e	98	THR

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Mol	Chain	Res	Type
38	2g	55	GLY
38	2g	109	ASN
39	2h	70	GLN
40	2i	44	VAL
40	2i	96	LEU
41	2j	36	GLY
41	2j	78	ASN
42	2k	118	GLY
44	2m	7	VAL
44	2m	8	GLU
44	2m	106	ASN
45	2n	14	PRO
52	2u	7	ARG
53	2y	45	PRO
53	2y	46	GLN
3	1D	171	ASP
7	1H	47	GLU
8	1I	11	ASN
9	1N	8	GLN
10	1O	89	ASN
22	10	55	ARG
26	14	52	THR
33	1b	16	HIS
33	1b	21	ARG
33	1b	231	GLU
36	1e	38	GLN
38	1g	104	LEU
40	1i	33	PHE
6	2G	41	GLN
6	2G	181	ARG
8	2I	116	LEU
10	2O	29	ASN
13	2R	3	HIS
14	2S	95	HIS
15	2T	85	LYS
17	2V	100	ARG
21	2Z	52	SER
21	2Z	93	ASP
22	20	7	LEU
23	21	77	ALA
26	24	47	GLN
33	2b	9	GLU

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Mol	Chain	Res	Type
33	2b	105	PHE
33	2b	124	SER
34	2c	26	LYS
34	2c	84	ILE
34	2c	92	ALA
34	2c	174	PRO
35	2d	42	GLN
38	2g	6	ARG
39	2h	50	ARG
41	2j	55	LYS
42	2k	90	GLY
44	2m	5	ALA
49	2r	74	ARG
6	1G	43	LEU
6	1G	49	ASP
6	1G	180	PHE
7	1H	3	ARG
7	1H	107	VAL
8	1I	58	LEU
14	1S	59	LYS
14	1S	89	ARG
17	1V	43	GLU
23	11	3	LYS
33	1b	8	LYS
33	1b	216	SER
34	1c	12	LEU
34	1c	133	ALA
35	1d	25	ARG
41	1j	24	VAL
41	1j	78	ASN
49	1r	25	THR
50	1s	26	GLY
4	2E	52	LEU
5	2F	54	ARG
7	2H	67	LEU
7	2H	69	ARG
7	2H	165	ALA
8	2I	62	LYS
13	2R	107	ASP
20	2Y	103	GLY
21	2Z	65	GLN
33	2b	24	TRP

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Mol	Chain	Res	Type
34	2c	60	ALA
35	2d	150	GLU
36	2e	27	ARG
36	2e	70	PRO
37	2f	38	GLU
38	2g	117	ALA
38	2g	131	LYS
40	2i	54	ASP
51	2t	52	ALA
53	2y	9	GLN
53	2y	44	GLU
4	1E	12	THR
6	1G	47	LYS
6	1G	147	ASP
9	1N	135	PRO
10	1O	5	GLN
15	1T	68	TYR
33	1b	87	ARG
33	1b	127	ILE
33	1b	158	LEU
41	1j	82	ILE
42	1k	100	ALA
45	1n	52	GLN
48	1q	31	LEU
51	1t	89	ARG
6	2G	30	GLU
7	2H	48	GLY
22	20	15	ASP
33	2b	20	GLU
33	2b	156	LYS
33	2b	204	ASN
34	2c	162	GLN
38	2g	86	GLN
42	2k	49	GLY
44	2m	21	TYR
8	1I	105	HIS
8	1I	117	GLU
11	1P	93	GLY
21	1Z	95	PRO
41	1j	51	ARG
42	1k	117	ASN
51	1t	98	PRO

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Mol	Chain	Res	Type
7	2H	65	HIS
33	2b	15	VAL
36	2e	96	PRO
37	2f	85	VAL
43	2l	28	LYS
43	2l	45	PRO
46	2o	19	PRO
51	2t	102	GLY
25	23	50	VAL
41	2j	91	PRO
48	2q	27	PHE
50	2s	59	PRO
11	1P	122	PRO
13	1R	32	GLY
21	2Z	128	VAL
21	2Z	141	VAL
35	2d	16	GLY
42	2k	34	ASP
47	2p	66	PRO
6	1G	179	PRO
46	1o	23	GLY
51	1t	100	ILE
41	2j	75	ILE
45	1n	14	PRO
5	2F	13	SER
7	2H	118	PRO
39	2h	51	VAL
14	1S	96	GLY
7	2H	17	VAL
7	2H	20	ALA
35	2d	136	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.

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	1D	214/218 (98%)	184 (86%)	30 (14%)	3 6
3	2D	215/218 (99%)	191 (89%)	24 (11%)	6 11
4	1E	164/166 (99%)	144 (88%)	20 (12%)	5 8
4	2E	164/166 (99%)	146 (89%)	18 (11%)	6 11
5	1F	160/166 (96%)	138 (86%)	22 (14%)	3 6
5	2F	159/166 (96%)	140 (88%)	19 (12%)	5 8
6	1G	144/156 (92%)	113 (78%)	31 (22%)	1 1
6	2G	142/156 (91%)	107 (75%)	35 (25%)	1 1
7	1H	144/148 (97%)	128 (89%)	16 (11%)	6 11
7	2H	143/148 (97%)	115 (80%)	28 (20%)	1 2
8	1I	111/124 (90%)	83 (75%)	28 (25%)	0 1
8	2I	108/124 (87%)	87 (81%)	21 (19%)	1 2
9	1N	119/119 (100%)	103 (87%)	16 (13%)	4 7
9	2N	118/119 (99%)	108 (92%)	10 (8%)	10 18
10	1O	100/100 (100%)	87 (87%)	13 (13%)	4 7
10	2O	100/100 (100%)	85 (85%)	15 (15%)	3 5
11	1P	115/116 (99%)	104 (90%)	11 (10%)	8 15
11	2P	115/116 (99%)	102 (89%)	13 (11%)	5 11
12	1Q	111/111 (100%)	100 (90%)	11 (10%)	7 15
12	2Q	111/111 (100%)	100 (90%)	11 (10%)	7 15
13	1R	101/101 (100%)	86 (85%)	15 (15%)	3 5
13	2R	101/101 (100%)	88 (87%)	13 (13%)	4 7
14	1S	87/88 (99%)	72 (83%)	15 (17%)	2 3
14	2S	85/88 (97%)	68 (80%)	17 (20%)	1 2
15	1T	115/127 (91%)	104 (90%)	11 (10%)	8 15
15	2T	113/127 (89%)	102 (90%)	11 (10%)	8 15
16	1U	93/94 (99%)	85 (91%)	8 (9%)	10 18
16	2U	93/94 (99%)	88 (95%)	5 (5%)	20 38
17	1V	81/82 (99%)	69 (85%)	12 (15%)	3 5
17	2V	80/82 (98%)	68 (85%)	12 (15%)	3 5

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
18	1W	90/92 (98%)	75 (83%)	15 (17%)	2 3
18	2W	90/92 (98%)	78 (87%)	12 (13%)	4 7
19	1X	77/78 (99%)	70 (91%)	7 (9%)	9 17
19	2X	77/78 (99%)	70 (91%)	7 (9%)	9 17
20	1Y	86/91 (94%)	68 (79%)	18 (21%)	1 2
20	2Y	86/91 (94%)	70 (81%)	16 (19%)	1 3
21	1Z	169/179 (94%)	144 (85%)	25 (15%)	3 5
21	2Z	165/179 (92%)	136 (82%)	29 (18%)	2 3
22	10	65/67 (97%)	57 (88%)	8 (12%)	4 8
22	20	64/67 (96%)	61 (95%)	3 (5%)	23 45
23	11	79/83 (95%)	73 (92%)	6 (8%)	12 23
23	21	81/83 (98%)	69 (85%)	12 (15%)	3 5
24	12	65/67 (97%)	56 (86%)	9 (14%)	3 6
24	22	66/67 (98%)	51 (77%)	15 (23%)	1 1
25	13	51/52 (98%)	43 (84%)	8 (16%)	2 4
25	23	50/52 (96%)	42 (84%)	8 (16%)	2 4
26	14	58/63 (92%)	48 (83%)	10 (17%)	2 3
26	24	54/63 (86%)	43 (80%)	11 (20%)	1 2
27	15	51/52 (98%)	44 (86%)	7 (14%)	3 6
27	25	50/52 (96%)	43 (86%)	7 (14%)	3 6
28	16	51/52 (98%)	46 (90%)	5 (10%)	7 15
28	26	50/52 (96%)	44 (88%)	6 (12%)	5 8
29	17	41/42 (98%)	37 (90%)	4 (10%)	7 15
29	27	41/42 (98%)	36 (88%)	5 (12%)	5 8
30	18	54/55 (98%)	50 (93%)	4 (7%)	13 24
30	28	54/55 (98%)	52 (96%)	2 (4%)	30 54
31	19	34/34 (100%)	30 (88%)	4 (12%)	5 9
31	29	34/34 (100%)	26 (76%)	8 (24%)	1 1
33	1b	191/220 (87%)	155 (81%)	36 (19%)	1 3
33	2b	187/220 (85%)	155 (83%)	32 (17%)	2 3
34	1c	144/188 (77%)	124 (86%)	20 (14%)	3 6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
34	2c	140/188 (74%)	113 (81%)	27 (19%)	1 2
35	1d	171/181 (94%)	138 (81%)	33 (19%)	1 2
35	2d	172/181 (95%)	145 (84%)	27 (16%)	2 4
36	1e	114/123 (93%)	96 (84%)	18 (16%)	2 4
36	2e	114/123 (93%)	98 (86%)	16 (14%)	3 6
37	1f	85/90 (94%)	76 (89%)	9 (11%)	6 13
37	2f	85/90 (94%)	70 (82%)	15 (18%)	2 3
38	1g	120/127 (94%)	110 (92%)	10 (8%)	10 19
38	2g	119/127 (94%)	96 (81%)	23 (19%)	1 2
39	1h	116/119 (98%)	102 (88%)	14 (12%)	5 8
39	2h	114/119 (96%)	98 (86%)	16 (14%)	3 6
40	1i	91/99 (92%)	74 (81%)	17 (19%)	1 3
40	2i	88/99 (89%)	72 (82%)	16 (18%)	2 3
41	1j	68/92 (74%)	55 (81%)	13 (19%)	1 2
41	2j	68/92 (74%)	54 (79%)	14 (21%)	1 2
42	1k	83/99 (84%)	77 (93%)	6 (7%)	13 25
42	2k	83/99 (84%)	70 (84%)	13 (16%)	2 4
43	1l	96/108 (89%)	87 (91%)	9 (9%)	8 16
43	2l	96/108 (89%)	81 (84%)	15 (16%)	2 4
44	1m	90/101 (89%)	77 (86%)	13 (14%)	3 5
44	2m	87/101 (86%)	76 (87%)	11 (13%)	4 8
45	1n	49/50 (98%)	43 (88%)	6 (12%)	5 8
45	2n	49/50 (98%)	40 (82%)	9 (18%)	1 3
46	1o	78/80 (98%)	72 (92%)	6 (8%)	12 22
46	2o	78/80 (98%)	67 (86%)	11 (14%)	3 6
47	1p	69/74 (93%)	52 (75%)	17 (25%)	1 1
47	2p	68/74 (92%)	56 (82%)	12 (18%)	2 3
48	1q	94/97 (97%)	78 (83%)	16 (17%)	2 3
48	2q	94/97 (97%)	80 (85%)	14 (15%)	3 5
49	1r	59/77 (77%)	50 (85%)	9 (15%)	3 4
49	2r	59/77 (77%)	51 (86%)	8 (14%)	3 6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
50	1s	68/80 (85%)	59 (87%)	9 (13%)	4 7
50	2s	67/80 (84%)	55 (82%)	12 (18%)	2 3
51	1t	71/82 (87%)	59 (83%)	12 (17%)	2 3
51	2t	70/82 (85%)	56 (80%)	14 (20%)	1 2
52	1u	18/22 (82%)	15 (83%)	3 (17%)	2 3
52	2u	18/22 (82%)	16 (89%)	2 (11%)	6 11
53	1y	82/98 (84%)	70 (85%)	12 (15%)	3 5
53	2y	79/98 (81%)	58 (73%)	21 (27%)	0 1
55	1v	3/3 (100%)	1 (33%)	2 (67%)	0 0
55	2v	3/3 (100%)	1 (33%)	2 (67%)	0 0
All	All	9537/10266 (93%)	8135 (85%)	1402 (15%)	3 5

All (1402) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	18	VAL
3	1D	22	SER
3	1D	38	LYS
3	1D	61	LEU
3	1D	88	ARG
3	1D	94	LEU
3	1D	99	ASP
3	1D	105	ILE
3	1D	111	LEU
3	1D	113	VAL
3	1D	131	LEU
3	1D	138	VAL
3	1D	140	THR
3	1D	141	VAL
3	1D	142	VAL
3	1D	155	LEU
3	1D	173	VAL
3	1D	193	VAL
3	1D	200	ASP
3	1D	202	LYS
3	1D	204	ILE
3	1D	206	LEU
3	1D	211	ARG

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Mol	Chain	Res	Type
3	1D	217	ARG
3	1D	221	VAL
3	1D	229	VAL
3	1D	242	ARG
3	1D	259	THR
3	1D	260	ARG
3	1D	270	ILE
4	1E	9	VAL
4	1E	14	ILE
4	1E	47	VAL
4	1E	55	ASN
4	1E	73	GLU
4	1E	75	VAL
4	1E	89	ASP
4	1E	116	VAL
4	1E	118	LYS
4	1E	119	ARG
4	1E	144	ARG
4	1E	170	LEU
4	1E	178	GLU
4	1E	181	LEU
4	1E	182	LEU
4	1E	184	VAL
4	1E	188	VAL
4	1E	195	LEU
4	1E	197	ILE
4	1E	202	LYS
5	1F	12	LEU
5	1F	23	ASP
5	1F	53	THR
5	1F	57	VAL
5	1F	60	SER
5	1F	74	ARG
5	1F	88	VAL
5	1F	89	VAL
5	1F	110	LEU
5	1F	120	GLU
5	1F	132	VAL
5	1F	140	LEU
5	1F	158	THR
5	1F	162	LEU
5	1F	170	LEU

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Mol	Chain	Res	Type
5	1F	176	LEU
5	1F	183	VAL
5	1F	189	THR
5	1F	192	LEU
5	1F	197	ASP
5	1F	201	VAL
5	1F	203	GLN
6	1G	3	LEU
6	1G	5	VAL
6	1G	7	LEU
6	1G	16	ARG
6	1G	34	LEU
6	1G	35	GLU
6	1G	43	LEU
6	1G	45	GLU
6	1G	47	LYS
6	1G	52	ILE
6	1G	53	LEU
6	1G	62	LEU
6	1G	63	ILE
6	1G	70	VAL
6	1G	79	ASN
6	1G	88	ILE
6	1G	111	LEU
6	1G	115	ARG
6	1G	126	ASP
6	1G	133	LEU
6	1G	148	MET
6	1G	149	VAL
6	1G	150	ASP
6	1G	159	VAL
6	1G	165	THR
6	1G	168	GLU
6	1G	170	ARG
6	1G	172	LEU
6	1G	175	LEU
6	1G	176	LEU
6	1G	181	ARG
7	1H	2	SER
7	1H	3	ARG
7	1H	15	VAL
7	1H	23	ARG

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Mol	Chain	Res	Type
7	1H	24	VAL
7	1H	52	VAL
7	1H	70	THR
7	1H	71	LEU
7	1H	95	ARG
7	1H	105	LEU
7	1H	107	VAL
7	1H	119	GLU
7	1H	127	GLU
7	1H	134	SER
7	1H	136	ILE
7	1H	155	SER
8	1I	1	MET
8	1I	5	LEU
8	1I	9	LEU
8	1I	10	GLU
8	1I	12	LEU
8	1I	14	ASP
8	1I	18	VAL
8	1I	37	VAL
8	1I	38	LEU
8	1I	41	GLU
8	1I	44	LEU
8	1I	47	LEU
8	1I	51	ILE
8	1I	54	GLN
8	1I	57	ARG
8	1I	61	ARG
8	1I	64	GLU
8	1I	68	LEU
8	1I	75	LEU
8	1I	78	THR
8	1I	82	ARG
8	1I	92	VAL
8	1I	97	ILE
8	1I	101	LEU
8	1I	102	SER
8	1I	109	ILE
8	1I	123	LEU
8	1I	140	LEU
9	1N	1	MET
9	1N	14	VAL

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Mol	Chain	Res	Type
9	1N	33	LEU
9	1N	48	MET
9	1N	61	ARG
9	1N	62	VAL
9	1N	65	LYS
9	1N	68	GLU
9	1N	73	THR
9	1N	97	ARG
9	1N	99	LEU
9	1N	104	LYS
9	1N	119	ARG
9	1N	121	LYS
9	1N	133	GLN
9	1N	134	ARG
10	1O	1	MET
10	1O	8	LEU
10	1O	9	GLU
10	1O	10	VAL
10	1O	22	ILE
10	1O	23	ARG
10	1O	75	SER
10	1O	91	LEU
10	1O	94	ARG
10	1O	96	THR
10	1O	97	ARG
10	1O	98	VAL
10	1O	116	SER
11	1P	1	MET
11	1P	14	LYS
11	1P	49	ARG
11	1P	56	SER
11	1P	59	LEU
11	1P	75	ILE
11	1P	98	GLU
11	1P	105	LEU
11	1P	121	LYS
11	1P	132	LYS
11	1P	135	LEU
12	1Q	7	MET
12	1Q	18	LYS
12	1Q	21	THR
12	1Q	55	VAL

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Mol	Chain	Res	Type
12	1Q	60	ARG
12	1Q	75	THR
12	1Q	81	VAL
12	1Q	109	VAL
12	1Q	131	ILE
12	1Q	133	ARG
12	1Q	135	ASP
13	1R	15	SER
13	1R	24	GLN
13	1R	29	LEU
13	1R	33	ARG
13	1R	36	THR
13	1R	44	LEU
13	1R	54	LEU
13	1R	59	ASP
13	1R	67	LEU
13	1R	71	GLN
13	1R	75	LEU
13	1R	100	LEU
13	1R	102	GLU
13	1R	104	ARG
13	1R	114	VAL
14	1S	13	ARG
14	1S	14	VAL
14	1S	15	ARG
14	1S	26	LEU
14	1S	43	GLU
14	1S	46	VAL
14	1S	48	LEU
14	1S	52	SER
14	1S	59	LYS
14	1S	63	THR
14	1S	68	GLN
14	1S	75	GLU
14	1S	85	VAL
14	1S	89	ARG
14	1S	110	LEU
15	1T	3	ARG
15	1T	34	VAL
15	1T	53	ARG
15	1T	59	THR
15	1T	74	ARG

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Mol	Chain	Res	Type
15	1T	82	LEU
15	1T	89	VAL
15	1T	96	ARG
15	1T	106	SER
15	1T	109	GLU
15	1T	118	ARG
16	1U	5	LYS
16	1U	8	VAL
16	1U	16	LYS
16	1U	30	LYS
16	1U	59	ARG
16	1U	74	LEU
16	1U	77	SER
16	1U	95	LEU
17	1V	18	LEU
17	1V	22	VAL
17	1V	26	ASP
17	1V	28	GLU
17	1V	40	LEU
17	1V	44	LYS
17	1V	46	VAL
17	1V	61	VAL
17	1V	62	LEU
17	1V	72	VAL
17	1V	73	SER
17	1V	79	VAL
18	1W	4	LYS
18	1W	11	ARG
18	1W	15	ARG
18	1W	17	VAL
18	1W	19	LEU
18	1W	24	ILE
18	1W	49	LYS
18	1W	61	ASN
18	1W	65	LEU
18	1W	82	LEU
18	1W	85	VAL
18	1W	96	ILE
18	1W	100	THR
18	1W	107	LEU
18	1W	109	GLU
19	1X	35	THR

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Mol	Chain	Res	Type
19	1X	65	ARG
19	1X	66	LEU
19	1X	78	LYS
19	1X	81	VAL
19	1X	87	GLN
19	1X	92	LEU
20	1Y	1	MET
20	1Y	7	VAL
20	1Y	9	LYS
20	1Y	11	ASP
20	1Y	14	LEU
20	1Y	23	ARG
20	1Y	34	LYS
20	1Y	43	ASN
20	1Y	64	GLU
20	1Y	72	VAL
20	1Y	73	ARG
20	1Y	83	THR
20	1Y	85	VAL
20	1Y	88	LYS
20	1Y	90	LEU
20	1Y	92	ASN
20	1Y	101	LYS
20	1Y	107	ASP
21	1Z	18	LEU
21	1Z	31	ARG
21	1Z	40	ASP
21	1Z	42	VAL
21	1Z	50	GLN
21	1Z	52	SER
21	1Z	61	LEU
21	1Z	65	GLN
21	1Z	76	LEU
21	1Z	80	ARG
21	1Z	86	VAL
21	1Z	91	LEU
21	1Z	93	ASP
21	1Z	102	LEU
21	1Z	103	ARG
21	1Z	107	THR
21	1Z	120	ILE
21	1Z	126	VAL

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Mol	Chain	Res	Type
21	1Z	155	LEU
21	1Z	161	VAL
21	1Z	162	GLU
21	1Z	165	VAL
21	1Z	170	THR
21	1Z	171	ILE
21	1Z	191	VAL
22	10	5	LYS
22	10	14	ARG
22	10	36	ILE
22	10	49	LYS
22	10	53	MET
22	10	55	ARG
22	10	68	GLU
22	10	74	ARG
23	11	30	VAL
23	11	38	SER
23	11	53	VAL
23	11	58	ILE
23	11	75	GLU
23	11	80	LEU
24	12	1	MET
24	12	3	LEU
24	12	8	LYS
24	12	19	VAL
24	12	32	LEU
24	12	38	GLN
24	12	50	ILE
24	12	53	LEU
24	12	64	LEU
25	13	8	LEU
25	13	31	LEU
25	13	35	ARG
25	13	54	VAL
25	13	56	VAL
25	13	57	GLU
25	13	58	VAL
25	13	60	GLU
26	14	1	MET
26	14	3	GLU
26	14	10	VAL
26	14	33	VAL

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Mol	Chain	Res	Type
26	14	46	GLN
26	14	49	PHE
26	14	50	VAL
26	14	60	GLN
26	14	61	ARG
26	14	69	LYS
27	15	6	VAL
27	15	8	LYS
27	15	16	ARG
27	15	40	LYS
27	15	57	VAL
27	15	58	LEU
27	15	60	VAL
28	16	9	LEU
28	16	14	THR
28	16	38	LYS
28	16	48	VAL
28	16	52	VAL
29	17	1	MET
29	17	42	LEU
29	17	43	THR
29	17	47	ARG
30	18	14	VAL
30	18	15	LYS
30	18	29	LYS
30	18	32	LEU
31	19	15	LYS
31	19	17	ILE
31	19	28	GLU
31	19	35	ARG
33	1b	9	GLU
33	1b	12	GLU
33	1b	15	VAL
33	1b	19	HIS
33	1b	21	ARG
33	1b	22	LYS
33	1b	23	ARG
33	1b	39	ILE
33	1b	41	ILE
33	1b	42	ILE
33	1b	48	MET
33	1b	53	ARG

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Mol	Chain	Res	Type
33	1b	80	ILE
33	1b	83	MET
33	1b	112	VAL
33	1b	113	HIS
33	1b	121	LEU
33	1b	127	ILE
33	1b	140	HIS
33	1b	142	LEU
33	1b	149	LEU
33	1b	154	LEU
33	1b	160	ASP
33	1b	165	VAL
33	1b	168	THR
33	1b	174	VAL
33	1b	185	ILE
33	1b	189	ASP
33	1b	196	LEU
33	1b	200	ILE
33	1b	212	GLN
33	1b	213	LEU
33	1b	223	ILE
33	1b	229	VAL
33	1b	230	VAL
33	1b	235	SER
34	1c	15	THR
34	1c	39	ILE
34	1c	64	VAL
34	1c	70	VAL
34	1c	77	ILE
34	1c	89	GLU
34	1c	98	ASN
34	1c	103	VAL
34	1c	105	GLU
34	1c	115	LEU
34	1c	116	VAL
34	1c	118	GLN
34	1c	123	GLN
34	1c	124	ILE
34	1c	138	VAL
34	1c	190	ARG
34	1c	192	THR
34	1c	201	TYR

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Mol	Chain	Res	Type
34	1c	202	ILE
34	1c	206	GLU
35	1d	3	ARG
35	1d	5	ILE
35	1d	17	VAL
35	1d	18	LYS
35	1d	19	LEU
35	1d	22	LYS
35	1d	28	SER
35	1d	31	CYS
35	1d	56	VAL
35	1d	58	LEU
35	1d	67	ILE
35	1d	76	ARG
35	1d	83	SER
35	1d	85	LYS
35	1d	104	VAL
35	1d	112	VAL
35	1d	127	THR
35	1d	132	ARG
35	1d	140	VAL
35	1d	157	LEU
35	1d	166	LYS
35	1d	168	ARG
35	1d	170	VAL
35	1d	177	ASP
35	1d	178	VAL
35	1d	184	LYS
35	1d	187	ARG
35	1d	190	ASP
35	1d	191	ARG
35	1d	193	ASP
35	1d	194	LEU
35	1d	203	VAL
35	1d	208	SER
36	1e	5	ASP
36	1e	8	GLU
36	1e	10	MET
36	1e	11	ILE
36	1e	16	THR
36	1e	24	ARG
36	1e	27	ARG

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Mol	Chain	Res	Type
36	1e	33	VAL
36	1e	41	VAL
36	1e	53	LEU
36	1e	68	GLU
36	1e	72	GLN
36	1e	80	ILE
36	1e	92	LYS
36	1e	101	ILE
36	1e	140	ARG
36	1e	147	ASP
36	1e	151	LEU
37	1f	7	ASN
37	1f	21	LEU
37	1f	40	VAL
37	1f	45	LEU
37	1f	69	GLU
37	1f	78	GLU
37	1f	81	ILE
37	1f	89	MET
37	1f	92	LYS
38	1g	16	LEU
38	1g	41	ARG
38	1g	66	VAL
38	1g	75	VAL
38	1g	87	VAL
38	1g	98	SER
38	1g	104	LEU
38	1g	106	GLN
38	1g	110	GLN
38	1g	144	MET
39	1h	9	MET
39	1h	12	ARG
39	1h	23	SER
39	1h	26	VAL
39	1h	63	LEU
39	1h	83	ILE
39	1h	88	LYS
39	1h	97	VAL
39	1h	99	GLU
39	1h	105	ARG
39	1h	109	ILE
39	1h	119	LEU

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Mol	Chain	Res	Type
39	1h	120	THR
39	1h	127	LEU
40	1i	2	GLU
40	1i	14	VAL
40	1i	17	VAL
40	1i	25	LYS
40	1i	31	GLN
40	1i	38	GLN
40	1i	42	ARG
40	1i	47	LEU
40	1i	50	LEU
40	1i	56	LEU
40	1i	65	VAL
40	1i	66	ARG
40	1i	81	ILE
40	1i	92	TYR
40	1i	103	THR
40	1i	108	VAL
40	1i	109	VAL
41	1j	5	ARG
41	1j	8	LEU
41	1j	29	ARG
41	1j	34	VAL
41	1j	38	ILE
41	1j	46	ARG
41	1j	49	VAL
41	1j	51	ARG
41	1j	65	LEU
41	1j	67	THR
41	1j	84	GLN
41	1j	94	VAL
41	1j	100	THR
42	1k	14	VAL
42	1k	16	SER
42	1k	79	SER
42	1k	105	VAL
42	1k	109	VAL
42	1k	116	HIS
43	1l	41	ARG
43	1l	43	VAL
43	1l	58	VAL
43	1l	59	ARG

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Mol	Chain	Res	Type
43	1l	60	LEU
43	1l	104	VAL
43	1l	117	ARG
43	1l	118	SER
43	1l	122	THR
44	1m	4	ILE
44	1m	19	LEU
44	1m	40	ASN
44	1m	43	THR
44	1m	48	LEU
44	1m	56	LEU
44	1m	60	VAL
44	1m	70	LEU
44	1m	73	GLU
44	1m	79	LYS
44	1m	99	ARG
44	1m	102	ARG
44	1m	114	ARG
45	1n	8	GLU
45	1n	12	ARG
45	1n	17	LYS
45	1n	18	VAL
45	1n	42	ILE
45	1n	57	ARG
46	1o	5	LYS
46	1o	9	GLN
46	1o	39	LEU
46	1o	47	LYS
46	1o	64	ARG
46	1o	87	ILE
47	1p	2	VAL
47	1p	6	LEU
47	1p	18	ARG
47	1p	20	VAL
47	1p	21	VAL
47	1p	29	ASP
47	1p	33	ILE
47	1p	34	GLU
47	1p	35	LYS
47	1p	43	LYS
47	1p	45	THR
47	1p	50	LYS

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Mol	Chain	Res	Type
47	1p	61	SER
47	1p	62	VAL
47	1p	67	THR
47	1p	74	LEU
47	1p	79	VAL
48	1q	20	THR
48	1q	26	GLN
48	1q	53	LEU
48	1q	60	ILE
48	1q	61	GLU
48	1q	63	ARG
48	1q	66	SER
48	1q	68	ARG
48	1q	72	ARG
48	1q	76	LEU
48	1q	79	SER
48	1q	85	VAL
48	1q	87	LYS
48	1q	97	SER
48	1q	98	LEU
48	1q	99	SER
49	1r	28	GLU
49	1r	37	VAL
49	1r	38	GLU
49	1r	42	ARG
49	1r	54	ARG
49	1r	65	ILE
49	1r	72	ARG
49	1r	85	LEU
49	1r	86	VAL
50	1s	4	SER
50	1s	21	GLU
50	1s	28	LYS
50	1s	35	SER
50	1s	37	ARG
50	1s	41	VAL
50	1s	60	VAL
50	1s	66	MET
50	1s	79	THR
51	1t	8	ARG
51	1t	9	ASN
51	1t	24	LEU

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Mol	Chain	Res	Type
51	1t	34	LYS
51	1t	37	SER
51	1t	38	LYS
51	1t	56	MET
51	1t	62	LEU
51	1t	70	SER
51	1t	72	LEU
51	1t	80	ARG
51	1t	100	ILE
52	1u	12	LYS
52	1u	15	ARG
52	1u	17	THR
53	1y	2	THR
53	1y	3	MET
53	1y	13	THR
53	1y	23	ARG
53	1y	42	SER
53	1y	46	GLN
53	1y	51	ASP
53	1y	53	THR
53	1y	66	LYS
53	1y	82	GLU
53	1y	88	LEU
53	1y	91	LYS
55	1v	1	MET
55	1v	2	THR
3	2D	3	VAL
3	2D	31	LYS
3	2D	78	LYS
3	2D	99	ASP
3	2D	103	ARG
3	2D	111	LEU
3	2D	113	VAL
3	2D	131	LEU
3	2D	138	VAL
3	2D	141	VAL
3	2D	142	VAL
3	2D	143	HIS
3	2D	147	LEU
3	2D	155	LEU
3	2D	162	SER
3	2D	173	VAL

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Mol	Chain	Res	Type
3	2D	193	VAL
3	2D	211	ARG
3	2D	218	ARG
3	2D	221	VAL
3	2D	229	VAL
3	2D	242	ARG
3	2D	266	SER
3	2D	276	LYS
4	2E	9	VAL
4	2E	38	THR
4	2E	40	GLU
4	2E	45	THR
4	2E	59	VAL
4	2E	73	GLU
4	2E	75	VAL
4	2E	76	ARG
4	2E	91	VAL
4	2E	92	THR
4	2E	97	LYS
4	2E	119	ARG
4	2E	134	ILE
4	2E	144	ARG
4	2E	154	LYS
4	2E	181	LEU
4	2E	182	LEU
4	2E	188	VAL
5	2F	23	ASP
5	2F	27	GLU
5	2F	33	LEU
5	2F	38	ARG
5	2F	74	ARG
5	2F	88	VAL
5	2F	106	ARG
5	2F	126	VAL
5	2F	132	VAL
5	2F	135	LYS
5	2F	137	LYS
5	2F	158	THR
5	2F	161	GLU
5	2F	174	VAL
5	2F	176	LEU
5	2F	183	VAL

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Mol	Chain	Res	Type
5	2F	192	LEU
5	2F	197	ASP
5	2F	201	VAL
6	2G	3	LEU
6	2G	5	VAL
6	2G	7	LEU
6	2G	9	ARG
6	2G	25	TYR
6	2G	28	VAL
6	2G	34	LEU
6	2G	53	LEU
6	2G	62	LEU
6	2G	67	LYS
6	2G	70	VAL
6	2G	78	SER
6	2G	84	LYS
6	2G	86	MET
6	2G	88	ILE
6	2G	90	LEU
6	2G	92	VAL
6	2G	98	ARG
6	2G	99	MET
6	2G	101	ILE
6	2G	104	GLU
6	2G	106	LEU
6	2G	109	VAL
6	2G	126	ASP
6	2G	133	LEU
6	2G	138	GLN
6	2G	139	LEU
6	2G	149	VAL
6	2G	152	LEU
6	2G	159	VAL
6	2G	165	THR
6	2G	167	GLU
6	2G	168	GLU
6	2G	172	LEU
6	2G	173	LEU
7	2H	18	GLU
7	2H	32	GLU
7	2H	33	LEU
7	2H	37	VAL

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Mol	Chain	Res	Type
7	2H	38	SER
7	2H	41	MET
7	2H	44	VAL
7	2H	49	VAL
7	2H	57	ASP
7	2H	59	ARG
7	2H	68	THR
7	2H	72	ILE
7	2H	74	ASN
7	2H	76	VAL
7	2H	80	SER
7	2H	88	LEU
7	2H	99	VAL
7	2H	105	LEU
7	2H	106	THR
7	2H	114	VAL
7	2H	127	GLU
7	2H	130	ARG
7	2H	133	VAL
7	2H	134	SER
7	2H	139	GLN
7	2H	143	GLN
7	2H	155	SER
7	2H	172	LYS
8	2I	12	LEU
8	2I	31	LEU
8	2I	37	VAL
8	2I	38	LEU
8	2I	47	LEU
8	2I	50	ARG
8	2I	54	GLN
8	2I	68	LEU
8	2I	76	THR
8	2I	79	ILE
8	2I	82	ARG
8	2I	85	GLU
8	2I	87	LYS
8	2I	97	ILE
8	2I	116	LEU
8	2I	117	GLU
8	2I	121	LYS
8	2I	125	GLU

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Mol	Chain	Res	Type
8	2I	129	THR
8	2I	140	LEU
8	2I	142	VAL
9	2N	12	ARG
9	2N	28	THR
9	2N	32	THR
9	2N	46	VAL
9	2N	54	VAL
9	2N	55	VAL
9	2N	65	LYS
9	2N	70	LYS
9	2N	71	ILE
9	2N	93	THR
10	2O	1	MET
10	2O	8	LEU
10	2O	10	VAL
10	2O	21	CYS
10	2O	23	ARG
10	2O	32	TYR
10	2O	35	VAL
10	2O	47	ILE
10	2O	58	VAL
10	2O	63	VAL
10	2O	69	ILE
10	2O	70	LYS
10	2O	78	ARG
10	2O	94	ARG
10	2O	116	SER
11	2P	3	LEU
11	2P	30	THR
11	2P	45	LEU
11	2P	57	THR
11	2P	59	LEU
11	2P	71	VAL
11	2P	83	VAL
11	2P	88	LEU
11	2P	92	GLU
11	2P	95	VAL
11	2P	96	THR
11	2P	99	LEU
11	2P	149	GLU
12	2Q	7	MET

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Mol	Chain	Res	Type
12	2Q	31	ASP
12	2Q	37	LEU
12	2Q	59	ARG
12	2Q	75	THR
12	2Q	79	LEU
12	2Q	85	LYS
12	2Q	106	VAL
12	2Q	109	VAL
12	2Q	110	THR
12	2Q	112	GLU
13	2R	29	LEU
13	2R	30	THR
13	2R	33	ARG
13	2R	36	THR
13	2R	44	LEU
13	2R	73	VAL
13	2R	75	LEU
13	2R	86	ARG
13	2R	96	ARG
13	2R	100	LEU
13	2R	111	LEU
13	2R	114	VAL
13	2R	118	GLU
14	2S	5	THR
14	2S	8	GLU
14	2S	21	THR
14	2S	33	LYS
14	2S	35	ILE
14	2S	36	TYR
14	2S	40	ILE
14	2S	42	ASP
14	2S	52	SER
14	2S	62	LYS
14	2S	64	GLU
14	2S	69	VAL
14	2S	80	LEU
14	2S	85	VAL
14	2S	95	HIS
14	2S	110	LEU
14	2S	111	GLU
15	2T	6	LEU
15	2T	7	ILE

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Mol	Chain	Res	Type
15	2T	23	ARG
15	2T	34	VAL
15	2T	51	ARG
15	2T	72	VAL
15	2T	85	LYS
15	2T	89	VAL
15	2T	95	ARG
15	2T	96	ARG
15	2T	108	ARG
16	2U	30	LYS
16	2U	55	ARG
16	2U	74	LEU
16	2U	88	ILE
16	2U	95	LEU
17	2V	7	THR
17	2V	14	VAL
17	2V	46	VAL
17	2V	51	VAL
17	2V	56	SER
17	2V	60	GLU
17	2V	70	ILE
17	2V	72	VAL
17	2V	73	SER
17	2V	79	VAL
17	2V	82	ARG
17	2V	98	GLU
18	2W	11	ARG
18	2W	15	ARG
18	2W	17	VAL
18	2W	19	LEU
18	2W	59	VAL
18	2W	67	ASP
18	2W	68	ARG
18	2W	71	VAL
18	2W	95	ILE
18	2W	96	ILE
18	2W	100	THR
18	2W	107	LEU
19	2X	49	VAL
19	2X	50	LYS
19	2X	54	VAL
19	2X	72	LYS

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Mol	Chain	Res	Type
19	2X	81	VAL
19	2X	83	VAL
19	2X	92	LEU
20	2Y	2	ARG
20	2Y	3	VAL
20	2Y	7	VAL
20	2Y	13	VAL
20	2Y	19	LYS
20	2Y	24	VAL
20	2Y	31	LEU
20	2Y	44	ILE
20	2Y	63	LYS
20	2Y	67	LEU
20	2Y	70	SER
20	2Y	72	VAL
20	2Y	75	ILE
20	2Y	85	VAL
20	2Y	98	VAL
20	2Y	99	CYS
21	2Z	18	LEU
21	2Z	23	LYS
21	2Z	33	LEU
21	2Z	35	ARG
21	2Z	39	VAL
21	2Z	41	LEU
21	2Z	50	GLN
21	2Z	53	ILE
21	2Z	56	VAL
21	2Z	60	GLU
21	2Z	65	GLN
21	2Z	71	VAL
21	2Z	72	ARG
21	2Z	73	GLN
21	2Z	76	LEU
21	2Z	86	VAL
21	2Z	91	LEU
21	2Z	94	GLU
21	2Z	121	HIS
21	2Z	126	VAL
21	2Z	128	VAL
21	2Z	129	SER
21	2Z	132	ASN

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Mol	Chain	Res	Type
21	2Z	162	GLU
21	2Z	170	THR
21	2Z	171	ILE
21	2Z	180	VAL
21	2Z	181	GLU
21	2Z	185	GLU
22	20	3	HIS
22	20	14	ARG
22	20	66	VAL
23	21	11	ARG
23	21	21	ARG
23	21	32	LYS
23	21	35	THR
23	21	40	ARG
23	21	46	LEU
23	21	51	VAL
23	21	52	ARG
23	21	80	LEU
23	21	81	LYS
23	21	85	LEU
23	21	95	LEU
24	22	1	MET
24	22	3	LEU
24	22	7	ARG
24	22	15	LYS
24	22	19	VAL
24	22	23	LYS
24	22	32	LEU
24	22	40	SER
24	22	44	LEU
24	22	50	ILE
24	22	53	LEU
24	22	59	ARG
24	22	62	THR
24	22	64	LEU
24	22	70	GLN
25	23	23	LEU
25	23	26	LEU
25	23	31	LEU
25	23	44	ARG
25	23	54	VAL
25	23	56	VAL

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Mol	Chain	Res	Type
25	23	57	GLU
25	23	58	VAL
26	24	20	ASN
26	24	21	VAL
26	24	27	THR
26	24	50	VAL
26	24	52	THR
26	24	53	GLU
26	24	61	ARG
26	24	62	ARG
26	24	67	TYR
26	24	68	ARG
26	24	69	LYS
27	25	6	VAL
27	25	17	ASP
27	25	29	THR
27	25	35	GLU
27	25	39	MET
27	25	40	LYS
27	25	55	ARG
28	26	5	VAL
28	26	14	THR
28	26	19	ARG
28	26	23	THR
28	26	32	ASN
28	26	48	VAL
29	27	4	THR
29	27	9	ARG
29	27	10	ARG
29	27	32	LYS
29	27	47	ARG
30	28	14	VAL
30	28	34	TRP
31	29	4	ARG
31	29	6	SER
31	29	13	LYS
31	29	14	CYS
31	29	15	LYS
31	29	17	ILE
31	29	28	GLU
31	29	35	ARG
33	2b	8	LYS

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Mol	Chain	Res	Type
33	2b	11	LEU
33	2b	12	GLU
33	2b	15	VAL
33	2b	28	PHE
33	2b	42	ILE
33	2b	45	GLN
33	2b	48	MET
33	2b	53	ARG
33	2b	67	THR
33	2b	68	ILE
33	2b	83	MET
33	2b	96	ARG
33	2b	98	LEU
33	2b	101	MET
33	2b	121	LEU
33	2b	127	ILE
33	2b	153	ARG
33	2b	154	LEU
33	2b	158	LEU
33	2b	172	ILE
33	2b	178	ARG
33	2b	189	ASP
33	2b	191	ASP
33	2b	200	ILE
33	2b	204	ASN
33	2b	212	GLN
33	2b	221	LEU
33	2b	222	ILE
33	2b	224	GLN
33	2b	230	VAL
33	2b	233	SER
34	2c	3	ASN
34	2c	5	ILE
34	2c	8	ILE
34	2c	15	THR
34	2c	16	ARG
34	2c	19	GLU
34	2c	31	HIS
34	2c	33	LEU
34	2c	34	LEU
34	2c	49	SER
34	2c	52	LEU

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Mol	Chain	Res	Type
34	2c	56	ASP
34	2c	70	VAL
34	2c	77	ILE
34	2c	82	GLU
34	2c	102	ASN
34	2c	103	VAL
34	2c	104	GLN
34	2c	115	LEU
34	2c	123	GLN
34	2c	128	PHE
34	2c	136	GLN
34	2c	152	ILE
34	2c	178	LEU
34	2c	182	ILE
34	2c	188	LEU
34	2c	193	TYR
35	2d	5	ILE
35	2d	12	CYS
35	2d	52	SER
35	2d	53	ASP
35	2d	70	ILE
35	2d	83	SER
35	2d	89	THR
35	2d	104	VAL
35	2d	106	TYR
35	2d	108	LEU
35	2d	115	ARG
35	2d	122	ARG
35	2d	126	ILE
35	2d	128	VAL
35	2d	133	VAL
35	2d	135	LEU
35	2d	146	ILE
35	2d	150	GLU
35	2d	157	LEU
35	2d	160	GLN
35	2d	166	LYS
35	2d	170	VAL
35	2d	175	SER
35	2d	178	VAL
35	2d	186	LEU
35	2d	188	LEU

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Mol	Chain	Res	Type
35	2d	209	ARG
36	2e	5	ASP
36	2e	9	LYS
36	2e	11	ILE
36	2e	31	LEU
36	2e	33	VAL
36	2e	41	VAL
36	2e	47	LYS
36	2e	55	VAL
36	2e	64	ARG
36	2e	78	HIS
36	2e	82	VAL
36	2e	87	SER
36	2e	91	LEU
36	2e	92	LYS
36	2e	143	ARG
36	2e	152	ARG
37	2f	10	LEU
37	2f	13	ASN
37	2f	18	GLN
37	2f	22	GLU
37	2f	31	GLU
37	2f	40	VAL
37	2f	41	GLU
37	2f	57	GLN
37	2f	61	LEU
37	2f	63	TYR
37	2f	65	VAL
37	2f	70	ASP
37	2f	72	VAL
37	2f	94	GLN
37	2f	95	GLU
38	2g	6	ARG
38	2g	12	LEU
38	2g	24	THR
38	2g	27	ILE
38	2g	30	ILE
38	2g	32	ARG
38	2g	33	ASP
38	2g	42	ILE
38	2g	45	ASP
38	2g	47	CYS

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Mol	Chain	Res	Type
38	2g	50	ILE
38	2g	51	GLN
38	2g	77	SER
38	2g	94	ARG
38	2g	97	GLN
38	2g	104	LEU
38	2g	109	ASN
38	2g	110	GLN
38	2g	115	ARG
38	2g	125	MET
38	2g	141	VAL
38	2g	153	HIS
38	2g	155	ARG
39	2h	19	VAL
39	2h	21	LYS
39	2h	49	GLU
39	2h	51	VAL
39	2h	53	VAL
39	2h	60	ARG
39	2h	84	ARG
39	2h	91	ARG
39	2h	97	VAL
39	2h	104	ARG
39	2h	107	LEU
39	2h	109	ILE
39	2h	111	ILE
39	2h	112	LEU
39	2h	114	THR
39	2h	133	LEU
40	2i	3	GLN
40	2i	7	THR
40	2i	18	PHE
40	2i	23	ASN
40	2i	27	THR
40	2i	31	GLN
40	2i	41	VAL
40	2i	56	LEU
40	2i	71	SER
40	2i	74	ILE
40	2i	75	ASP
40	2i	81	ILE
40	2i	102	LEU

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Mol	Chain	Res	Type
40	2i	104	ARG
40	2i	108	VAL
40	2i	125	TYR
41	2j	7	LYS
41	2j	8	LEU
41	2j	21	GLN
41	2j	29	ARG
41	2j	30	SER
41	2j	34	VAL
41	2j	35	SER
41	2j	38	ILE
41	2j	48	THR
41	2j	67	THR
41	2j	84	GLN
41	2j	95	GLU
41	2j	98	ILE
41	2j	100	THR
42	2k	28	THR
42	2k	40	ILE
42	2k	41	THR
42	2k	48	ILE
42	2k	53	SER
42	2k	63	LEU
42	2k	83	ILE
42	2k	84	VAL
42	2k	93	GLN
42	2k	103	LEU
42	2k	109	VAL
42	2k	112	THR
42	2k	117	ASN
43	2l	6	THR
43	2l	8	ASN
43	2l	18	VAL
43	2l	23	LYS
43	2l	36	VAL
43	2l	41	ARG
43	2l	46	LYS
43	2l	47	LYS
43	2l	55	VAL
43	2l	67	THR
43	2l	81	SER
43	2l	83	VAL

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Mol	Chain	Res	Type
43	2l	97	ARG
43	2l	100	ILE
43	2l	117	ARG
44	2m	3	ARG
44	2m	4	ILE
44	2m	12	ASN
44	2m	15	VAL
44	2m	27	LYS
44	2m	43	THR
44	2m	47	ASP
44	2m	62	ASN
44	2m	80	ARG
44	2m	106	ASN
44	2m	115	LYS
45	2n	7	ILE
45	2n	8	GLU
45	2n	12	ARG
45	2n	13	THR
45	2n	14	PRO
45	2n	17	LYS
45	2n	18	VAL
45	2n	29	ARG
45	2n	42	ILE
46	2o	3	ILE
46	2o	9	GLN
46	2o	21	ASP
46	2o	26	GLU
46	2o	35	ARG
46	2o	38	ARG
46	2o	39	LEU
46	2o	47	LYS
46	2o	59	MET
46	2o	68	ARG
46	2o	87	ILE
47	2p	1	MET
47	2p	2	VAL
47	2p	19	ILE
47	2p	20	VAL
47	2p	21	VAL
47	2p	29	ASP
47	2p	45	THR
47	2p	53	VAL

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Mol	Chain	Res	Type
47	2p	60	LEU
47	2p	62	VAL
47	2p	69	THR
47	2p	74	LEU
48	2q	5	VAL
48	2q	9	VAL
48	2q	19	VAL
48	2q	22	LEU
48	2q	35	VAL
48	2q	58	GLU
48	2q	60	ILE
48	2q	67	LYS
48	2q	68	ARG
48	2q	70	ARG
48	2q	76	LEU
48	2q	87	LYS
48	2q	96	GLU
48	2q	99	SER
49	2r	25	THR
49	2r	37	VAL
49	2r	41	LYS
49	2r	42	ARG
49	2r	54	ARG
49	2r	55	ARG
49	2r	65	ILE
49	2r	85	LEU
50	2s	3	ARG
50	2s	16	LEU
50	2s	23	ASN
50	2s	33	THR
50	2s	35	SER
50	2s	38	SER
50	2s	41	VAL
50	2s	43	GLU
50	2s	63	THR
50	2s	71	LEU
50	2s	77	THR
50	2s	79	THR
51	2t	10	LEU
51	2t	24	LEU
51	2t	30	LYS
51	2t	31	SER

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Mol	Chain	Res	Type
51	2t	36	LEU
51	2t	51	GLU
51	2t	56	MET
51	2t	62	LEU
51	2t	71	THR
51	2t	74	LYS
51	2t	82	SER
51	2t	84	LEU
51	2t	86	ARG
51	2t	100	ILE
52	2u	13	ILE
52	2u	15	ARG
53	2y	3	MET
53	2y	8	LYS
53	2y	10	MET
53	2y	11	GLU
53	2y	13	THR
53	2y	16	ILE
53	2y	23	ARG
53	2y	24	LEU
53	2y	32	THR
53	2y	35	ILE
53	2y	41	LEU
53	2y	46	GLN
53	2y	53	THR
53	2y	54	ILE
53	2y	56	THR
53	2y	60	VAL
53	2y	68	GLU
53	2y	80	LYS
53	2y	87	LYS
53	2y	88	LEU
53	2y	96	ARG
55	2v	1	MET
55	2v	2	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (162) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	87	ASN
3	1D	253	GLN
4	1E	143	ASN

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Mol	Chain	Res	Type
4	1E	180	ASN
5	1F	8	GLN
5	1F	69	HIS
5	1F	203	GLN
6	1G	108	ASN
7	1H	139	GLN
8	1I	105	HIS
9	1N	94	HIS
9	1N	133	GLN
10	1O	89	ASN
11	1P	84	ASN
12	1Q	13	GLN
12	1Q	57	HIS
13	1R	13	HIS
13	1R	71	GLN
14	1S	68	GLN
15	1T	58	ASN
15	1T	123	GLN
16	1U	94	ASN
16	1U	117	GLN
19	1X	31	HIS
19	1X	58	HIS
20	1Y	6	HIS
20	1Y	92	ASN
21	1Z	34	ASN
21	1Z	73	GLN
21	1Z	132	ASN
22	10	35	ASN
23	11	16	ASN
25	13	32	GLN
26	14	60	GLN
30	18	35	GLN
33	1b	78	GLN
33	1b	135	GLN
34	1c	6	HIS
34	1c	31	HIS
34	1c	69	HIS
34	1c	102	ASN
34	1c	123	GLN
35	1d	45	GLN
35	1d	77	ASN
35	1d	123	HIS

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Mol	Chain	Res	Type
35	1d	125	HIS
35	1d	129	ASN
35	1d	201	GLN
37	1f	57	GLN
38	1g	13	GLN
38	1g	28	ASN
38	1g	56	GLN
38	1g	86	GLN
38	1g	110	GLN
38	1g	148	ASN
38	1g	153	HIS
39	1h	70	GLN
40	1i	3	GLN
40	1i	31	GLN
40	1i	34	ASN
40	1i	38	GLN
41	1j	56	HIS
41	1j	84	GLN
42	1k	93	GLN
43	1l	99	HIS
44	1m	12	ASN
46	1o	9	GLN
46	1o	28	GLN
46	1o	71	GLN
47	1p	16	HIS
48	1q	93	GLN
50	1s	47	HIS
50	1s	69	HIS
50	1s	83	HIS
51	1t	18	GLN
51	1t	73	HIS
53	1y	4	ASN
53	1y	46	GLN
3	2D	126	GLN
3	2D	253	GLN
4	2E	48	GLN
4	2E	143	ASN
5	2F	69	HIS
5	2F	133	ASN
5	2F	203	GLN
6	2G	41	GLN
6	2G	132	ASN

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Mol	Chain	Res	Type
7	2H	74	ASN
8	2I	43	ASN
8	2I	74	ASN
8	2I	104	GLN
8	2I	139	GLN
10	2O	3	GLN
11	2P	27	HIS
11	2P	68	GLN
12	2Q	13	GLN
12	2Q	89	ASN
12	2Q	123	HIS
12	2Q	141	GLN
13	2R	71	GLN
15	2T	58	ASN
15	2T	104	ASN
16	2U	71	GLN
17	2V	64	HIS
18	2W	111	HIS
19	2X	31	HIS
19	2X	41	ASN
19	2X	82	GLN
20	2Y	43	ASN
20	2Y	92	ASN
21	2Z	30	ASN
21	2Z	55	HIS
21	2Z	73	GLN
21	2Z	132	ASN
24	22	48	HIS
25	23	32	GLN
26	24	20	ASN
26	24	40	HIS
27	25	4	HIS
28	26	20	ASN
30	28	35	GLN
33	2b	135	GLN
33	2b	204	ASN
33	2b	212	GLN
33	2b	224	GLN
34	2c	37	GLN
34	2c	69	HIS
34	2c	102	ASN
34	2c	139	GLN

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Mol	Chain	Res	Type
35	2d	77	ASN
35	2d	116	GLN
35	2d	123	HIS
35	2d	160	GLN
35	2d	161	ASN
35	2d	201	GLN
37	2f	100	ASN
38	2g	86	GLN
38	2g	106	GLN
38	2g	110	GLN
39	2h	78	GLN
39	2h	81	HIS
39	2h	82	HIS
40	2i	3	GLN
40	2i	38	GLN
40	2i	58	HIS
41	2j	84	GLN
42	2k	26	ASN
43	2l	99	HIS
44	2m	62	ASN
44	2m	77	ASN
45	2n	49	HIS
46	2o	13	GLN
46	2o	28	GLN
47	2p	76	GLN
48	2q	26	GLN
48	2q	45	HIS
50	2s	23	ASN
50	2s	83	HIS
53	2y	4	ASN
53	2y	36	ASN
53	2y	46	GLN
53	2y	79	ASN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2865/2915 (98%)	535 (18%)	42 (1%)
1	2A	2858/2915 (98%)	575 (20%)	39 (1%)
2	1B	119/121 (98%)	19 (15%)	0
2	2B	119/121 (98%)	27 (22%)	0

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
32	1a	1497/1521 (98%)	306 (20%)	0
32	2a	1501/1521 (98%)	325 (21%)	0
54	1x	1/4 (25%)	0	0
54	2x	1/4 (25%)	0	0
All	All	8961/9122 (98%)	1787 (19%)	81 (0%)

All (1787) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	12	U
1	1A	14	A
1	1A	15	G
1	1A	34	C
1	1A	35	G
1	1A	45	C
1	1A	63	U
1	1A	71	A
1	1A	74	A
1	1A	75	G
1	1A	94	C
1	1A	95	G
1	1A	118	A
1	1A	119	A
1	1A	120	U
1	1A	149	A
1	1A	172	C
1	1A	177	G
1	1A	181	A
1	1A	196	A
1	1A	197	A
1	1A	199	A
1	1A	201	C
1	1A	205	G
1	1A	216	A
1	1A	222	A
1	1A	229	A
1	1A	233	A
1	1A	248	G
1	1A	266	G
1	1A	271(I)	G
1	1A	271(K)	U
1	1A	271(L)	U

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Mol	Chain	Res	Type
1	1A	271(M)	G
1	1A	271(N)	U
1	1A	271(O)	C
1	1A	271(S)	G
1	1A	272(A)	U
1	1A	272(B)	G
1	1A	272(H)	C
1	1A	272(J)	C
1	1A	274	G
1	1A	275	G
1	1A	279	C
1	1A	280	C
1	1A	283	A
1	1A	297	C
1	1A	308	G
1	1A	311	A
1	1A	330	A
1	1A	331	A
1	1A	334	C
1	1A	335	C
1	1A	340	A
1	1A	352	G
1	1A	354	G
1	1A	360	G
1	1A	363	G
1	1A	363(B)	G
1	1A	371	A
1	1A	386	G
1	1A	396	G
1	1A	405	U
1	1A	407	G
1	1A	411	G
1	1A	420	C
1	1A	421	U
1	1A	422	A
1	1A	427	U
1	1A	428	A
1	1A	433	C
1	1A	447	A
1	1A	448	U
1	1A	451	C
1	1A	454	A

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Mol	Chain	Res	Type
1	1A	456	C
1	1A	457	A
1	1A	463	G
1	1A	481	G
1	1A	505	A
1	1A	509	C
1	1A	512	G
1	1A	528	A
1	1A	530	G
1	1A	531	C
1	1A	532	A
1	1A	533	G
1	1A	545	G
1	1A	549	G
1	1A	551	G
1	1A	563	G
1	1A	568	U
1	1A	573	G
1	1A	575	A
1	1A	603	A
1	1A	604	G
1	1A	606	U
1	1A	607	U
1	1A	613	G
1	1A	614(A)	U
1	1A	614(B)	G
1	1A	614(C)	A
1	1A	615	G
1	1A	627	A
1	1A	635	C
1	1A	637	A
1	1A	645	C
1	1A	646	A
1	1A	652(E)	G
1	1A	652(T)	C
1	1A	652(U)	G
1	1A	654	A
1	1A	668	G
1	1A	669	G
1	1A	686	G
1	1A	701	G
1	1A	730	C

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Mol	Chain	Res	Type
1	1A	736	C
1	1A	738	G
1	1A	746	A
1	1A	747	U
1	1A	750	A
1	1A	760	G
1	1A	764	A
1	1A	765	G
1	1A	771	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	790	C
1	1A	792	G
1	1A	801	G
1	1A	805	G
1	1A	812	C
1	1A	827	U
1	1A	828	U
1	1A	859	G
1	1A	866	A
1	1A	868	U
1	1A	879	G
1	1A	886	C
1	1A	887	A
1	1A	888	C
1	1A	889	C
1	1A	890	A
1	1A	896	A
1	1A	899	A
1	1A	900	A
1	1A	907	U
1	1A	910	A
1	1A	915	C
1	1A	932	G
1	1A	945	A
1	1A	946	G
1	1A	957	A
1	1A	958	U

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Mol	Chain	Res	Type
1	1A	959	A
1	1A	961	C
1	1A	974	G
1	1A	975	C
1	1A	980	A
1	1A	983	A
1	1A	996	A
1	1A	1009	A
1	1A	1012	U
1	1A	1013	C
1	1A	1022	G
1	1A	1026	U
1	1A	1033	U
1	1A	1036	G
1	1A	1039	G
1	1A	1042	G
1	1A	1043	C
1	1A	1046	A
1	1A	1047	G
1	1A	1048	A
1	1A	1050	A
1	1A	1054	A
1	1A	1058	G
1	1A	1059	G
1	1A	1060	U
1	1A	1061	U
1	1A	1062	G
1	1A	1064	C
1	1A	1065	U
1	1A	1067	A
1	1A	1069	A
1	1A	1070	A
1	1A	1071	G
1	1A	1073	A
1	1A	1074	G
1	1A	1076	C
1	1A	1077	A
1	1A	1078	U
1	1A	1079	C
1	1A	1080	C
1	1A	1083	U
1	1A	1088	A

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Mol	Chain	Res	Type
1	1A	1089	G
1	1A	1090	U
1	1A	1091	G
1	1A	1094	U
1	1A	1096	A
1	1A	1097	U
1	1A	1098	A
1	1A	1100	C
1	1A	1109	C
1	1A	1110	G
1	1A	1111	A
1	1A	1112	G
1	1A	1116	C
1	1A	1128	A
1	1A	1129	A
1	1A	1130	U
1	1A	1135	C
1	1A	1136	G
1	1A	1139	G
1	1A	1144	G
1	1A	1155	A
1	1A	1171	G
1	1A	1173	G
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1177	A
1	1A	1178	C
1	1A	1210	A
1	1A	1211	U
1	1A	1218	C
1	1A	1229	G
1	1A	1244	G
1	1A	1250	G
1	1A	1253	A
1	1A	1256	G
1	1A	1271	G
1	1A	1272	A
1	1A	1274	A
1	1A	1280	G
1	1A	1289	C
1	1A	1300	U

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Mol	Chain	Res	Type
1	1A	1301	A
1	1A	1303	G
1	1A	1311	G
1	1A	1320	C
1	1A	1334	G
1	1A	1345	C
1	1A	1346	G
1	1A	1352	U
1	1A	1359	A
1	1A	1360	A
1	1A	1365	A
1	1A	1370	C
1	1A	1384	A
1	1A	1385	G
1	1A	1390	U
1	1A	1416	G
1	1A	1417	C
1	1A	1420	U
1	1A	1421	G
1	1A	1428	C
1	1A	1445	A
1	1A	1445(A)	C
1	1A	1450	G
1	1A	1452	A
1	1A	1455	G
1	1A	1460	A
1	1A	1464	C
1	1A	1467	C
1	1A	1471	A
1	1A	1478	G
1	1A	1482	G
1	1A	1486	A
1	1A	1490	A
1	1A	1493	C
1	1A	1496	A
1	1A	1497	U
1	1A	1508	A
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1514	U
1	1A	1516	C
1	1A	1531	C

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Mol	Chain	Res	Type
1	1A	1542	A
1	1A	1554	A
1	1A	1558	A
1	1A	1559	G
1	1A	1566	A
1	1A	1569	A
1	1A	1578	U
1	1A	1579	A
1	1A	1580	A
1	1A	1581	G
1	1A	1582	C
1	1A	1584	C
1	1A	1586	A
1	1A	1594	G
1	1A	1605	C
1	1A	1607	C
1	1A	1608	A
1	1A	1609	A
1	1A	1610	A
1	1A	1616	A
1	1A	1628	G
1	1A	1647	G
1	1A	1648	C
1	1A	1653	G
1	1A	1654	A
1	1A	1657	C
1	1A	1674	G
1	1A	1696	G
1	1A	1700	A
1	1A	1701	A
1	1A	1714	G
1	1A	1717	G
1	1A	1721	G
1	1A	1722	A
1	1A	1739	U
1	1A	1747	G
1	1A	1756	G
1	1A	1763	G
1	1A	1764	G
1	1A	1767	C
1	1A	1773	A
1	1A	1780	A

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Mol	Chain	Res	Type
1	1A	1791	A
1	1A	1795	C
1	1A	1800	C
1	1A	1801	G
1	1A	1816	G
1	1A	1828	G
1	1A	1829	A
1	1A	1838	C
1	1A	1839	G
1	1A	1840	G
1	1A	1847	A
1	1A	1848	A
1	1A	1863	G
1	1A	1876	A
1	1A	1877	A
1	1A	1878	G
1	1A	1889	A
1	1A	1896	G
1	1A	1900	A
1	1A	1906	G
1	1A	1913	A
1	1A	1927	A
1	1A	1929	G
1	1A	1930	G
1	1A	1931	U
1	1A	1934	C
1	1A	1937	A
1	1A	1938	A
1	1A	1946	U
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	1985	G
1	1A	1993	U
1	1A	1997	G
1	1A	2020	A
1	1A	2023	G
1	1A	2031	A

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Mol	Chain	Res	Type
1	1A	2032	G
1	1A	2033	A
1	1A	2039	C
1	1A	2043	C
1	1A	2055	C
1	1A	2056	G
1	1A	2060	A
1	1A	2061	G
1	1A	2062	A
1	1A	2069	G
1	1A	2072	G
1	1A	2080	G
1	1A	2085	C
1	1A	2092	U
1	1A	2099	U
1	1A	2102	U
1	1A	2103	C
1	1A	2104	G
1	1A	2107	C
1	1A	2108	C
1	1A	2111	C
1	1A	2116	G
1	1A	2117	A
1	1A	2118	U
1	1A	2119	A
1	1A	2120	G
1	1A	2123	G
1	1A	2127	G
1	1A	2128	C
1	1A	2131	G
1	1A	2132	U
1	1A	2133	G
1	1A	2134	A
1	1A	2136	C
1	1A	2137	C
1	1A	2146	C
1	1A	2158	A
1	1A	2164	C
1	1A	2165	G
1	1A	2172	U
1	1A	2173	A
1	1A	2176	A

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Mol	Chain	Res	Type
1	1A	2180	U
1	1A	2186	G
1	1A	2187	G
1	1A	2189	U
1	1A	2190	G
1	1A	2191	G
1	1A	2192	G
1	1A	2198	A
1	1A	2206	G
1	1A	2207	G
1	1A	2208	A
1	1A	2219	G
1	1A	2225	A
1	1A	2235	G
1	1A	2238	G
1	1A	2239	G
1	1A	2240	C
1	1A	2254	C
1	1A	2268	A
1	1A	2269	A
1	1A	2279	G
1	1A	2280	G
1	1A	2283	C
1	1A	2287	A
1	1A	2288	A
1	1A	2294	C
1	1A	2305	A
1	1A	2308	G
1	1A	2318	G
1	1A	2319	G
1	1A	2320	A
1	1A	2325	G
1	1A	2334	G
1	1A	2336	A
1	1A	2338	G
1	1A	2345	G
1	1A	2347	C
1	1A	2350	C
1	1A	2361	A
1	1A	2363	C
1	1A	2370	G
1	1A	2372	G

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Mol	Chain	Res	Type
1	1A	2383	G
1	1A	2385	C
1	1A	2403	C
1	1A	2406	U
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	2435	A
1	1A	2439	A
1	1A	2440	C
1	1A	2441	C
1	1A	2448	A
1	1A	2449	U
1	1A	2471	C
1	1A	2476	A
1	1A	2494	G
1	1A	2496	C
1	1A	2502	G
1	1A	2505	G
1	1A	2506	U
1	1A	2518	A
1	1A	2525	G
1	1A	2529	G
1	1A	2535	G
1	1A	2536	G
1	1A	2554	U
1	1A	2566	A
1	1A	2567	G
1	1A	2573	C
1	1A	2602	A
1	1A	2608	G
1	1A	2609	U
1	1A	2611	U
1	1A	2612	C
1	1A	2615	U
1	1A	2628	C
1	1A	2629	A
1	1A	2630	G

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Mol	Chain	Res	Type
1	1A	2633	G
1	1A	2638	G
1	1A	2643	G
1	1A	2654	A
1	1A	2662	A
1	1A	2673	G
1	1A	2686	G
1	1A	2689	U
1	1A	2690	C
1	1A	2702	U
1	1A	2703	C
1	1A	2712(A)	A
1	1A	2713	A
1	1A	2714	G
1	1A	2726	U
1	1A	2731	G
1	1A	2733	A
1	1A	2757	A
1	1A	2758	A
1	1A	2764	A
1	1A	2765	A
1	1A	2766	G
1	1A	2767	C
1	1A	2769	C
1	1A	2780	G
1	1A	2789	C
1	1A	2790	A
1	1A	2791	C
1	1A	2792	G
1	1A	2802	G
1	1A	2804	C
1	1A	2820	A
1	1A	2821	A
1	1A	2824	C
1	1A	2833	G
1	1A	2835	A
1	1A	2849	U
1	1A	2872	G
1	1A	2892	A
1	1A	2894	G
2	1B	2	C
2	1B	7	G

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Mol	Chain	Res	Type
2	1B	13	A
2	1B	32	C
2	1B	35	U
2	1B	40	U
2	1B	42	C
2	1B	51	G
2	1B	53	A
2	1B	56	G
2	1B	72	G
2	1B	73	A
2	1B	85	G
2	1B	87	G
2	1B	92	C
2	1B	96	U
2	1B	106	G
2	1B	110	G
2	1B	120	A
32	1a	9	G
32	1a	32	A
32	1a	39	G
32	1a	47	C
32	1a	48	C
32	1a	50	A
32	1a	51	A
32	1a	53	A
32	1a	56	U
32	1a	61	G
32	1a	66	G
32	1a	69	G
32	1a	78	G
32	1a	79	G
32	1a	92	C
32	1a	93	G
32	1a	101	A
32	1a	115	G
32	1a	116	A
32	1a	117	G
32	1a	121	C
32	1a	129(A)	G
32	1a	131	C
32	1a	141	A
32	1a	144	G

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Mol	Chain	Res	Type
32	1a	163	C
32	1a	169	C
32	1a	172	A
32	1a	173	U
32	1a	174	C
32	1a	176	C
32	1a	182	U
32	1a	189(D)	C
32	1a	190	U
32	1a	195	A
32	1a	197	A
32	1a	202	U
32	1a	203	U
32	1a	204	U
32	1a	216	G
32	1a	219	C
32	1a	221	C
32	1a	247	G
32	1a	251	G
32	1a	262	A
32	1a	266	G
32	1a	267	C
32	1a	289	G
32	1a	306	G
32	1a	317	G
32	1a	318	G
32	1a	321	A
32	1a	324	G
32	1a	328	C
32	1a	329	A
32	1a	332	G
32	1a	351	G
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	367	U
32	1a	372	C
32	1a	373	A
32	1a	384	G
32	1a	388	G
32	1a	393	A
32	1a	397	A

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Mol	Chain	Res	Type
32	1a	405	U
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	430	A
32	1a	439	A
32	1a	442	C
32	1a	444	C
32	1a	452	A
32	1a	453	A
32	1a	458	C
32	1a	461	A
32	1a	470	C
32	1a	471	G
32	1a	475	G
32	1a	477	A
32	1a	479	C
32	1a	480	U
32	1a	485	G
32	1a	495	A
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	519	C
32	1a	521	G
32	1a	524	G
32	1a	528	C
32	1a	531	U
32	1a	532	A
32	1a	536	C
32	1a	547	A
32	1a	550	G
32	1a	559	A
32	1a	560	U

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Mol	Chain	Res	Type
32	1a	561	U
32	1a	564	C
32	1a	572	A
32	1a	573	A
32	1a	576	G
32	1a	577	G
32	1a	581	G
32	1a	592	G
32	1a	596	C
32	1a	605	U
32	1a	607	A
32	1a	616	G
32	1a	619	U
32	1a	630	G
32	1a	631	G
32	1a	632	A
32	1a	633	G
32	1a	642	A
32	1a	651	C
32	1a	653	A
32	1a	660	G
32	1a	661	G
32	1a	665	A
32	1a	666	G
32	1a	686	U
32	1a	687	A
32	1a	688	G
32	1a	690	G
32	1a	723	U
32	1a	724	G
32	1a	731	G
32	1a	734	G
32	1a	747	C
32	1a	752	G
32	1a	753	A
32	1a	755	G
32	1a	758	G
32	1a	759	A
32	1a	770	C
32	1a	777	A
32	1a	793	U
32	1a	794	A

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Mol	Chain	Res	Type
32	1a	806	C
32	1a	816	A
32	1a	817	C
32	1a	821	G
32	1a	828	A
32	1a	839	U
32	1a	840	C
32	1a	841	U
32	1a	848	C
32	1a	860	A
32	1a	864	A
32	1a	867	G
32	1a	902	G
32	1a	913	A
32	1a	914	A
32	1a	926	G
32	1a	927	G
32	1a	933	G
32	1a	934	C
32	1a	935	A
32	1a	960	U
32	1a	961	U
32	1a	963	G
32	1a	968	A
32	1a	969	A
32	1a	971	G
32	1a	972	C
32	1a	974	A
32	1a	975	A
32	1a	976	G
32	1a	977	A
32	1a	983	A
32	1a	991	U
32	1a	992	U
32	1a	993	G
32	1a	998	G
32	1a	999	C
32	1a	1000	U
32	1a	1001	A
32	1a	1001(A)	G
32	1a	1002	G
32	1a	1004	A

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Mol	Chain	Res	Type
32	1a	1005	A
32	1a	1020	U
32	1a	1021	G
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	1030(D)	A
32	1a	1032	G
32	1a	1034	G
32	1a	1037	C
32	1a	1044	A
32	1a	1046	A
32	1a	1065	U
32	1a	1066	C
32	1a	1067	A
32	1a	1070	U
32	1a	1081	G
32	1a	1086	U
32	1a	1090	U
32	1a	1091	U
32	1a	1094	G
32	1a	1095	U
32	1a	1101	A
32	1a	1124	G
32	1a	1125	U
32	1a	1126	U
32	1a	1127	G
32	1a	1130	A
32	1a	1131	G
32	1a	1133	G
32	1a	1134	G
32	1a	1135	U
32	1a	1136	U
32	1a	1137	C

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Mol	Chain	Res	Type
32	1a	1138	G
32	1a	1139	G
32	1a	1140	C
32	1a	1146	A
32	1a	1152	A
32	1a	1155	G
32	1a	1166	G
32	1a	1168	A
32	1a	1183	A
32	1a	1184	G
32	1a	1193	G
32	1a	1196	U
32	1a	1197	G
32	1a	1202	G
32	1a	1208	C
32	1a	1212	U
32	1a	1213	A
32	1a	1218	C
32	1a	1224	G
32	1a	1227	A
32	1a	1238	A
32	1a	1240	U
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1270	C
32	1a	1278	U
32	1a	1279	A
32	1a	1280	A
32	1a	1286	A
32	1a	1287	A
32	1a	1299	A
32	1a	1300	G
32	1a	1302	U
32	1a	1320	C
32	1a	1322	C
32	1a	1338	G
32	1a	1340	A
32	1a	1346	A
32	1a	1347	G
32	1a	1353	G
32	1a	1360	A

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Mol	Chain	Res	Type
32	1a	1363	C
32	1a	1364	U
32	1a	1368	G
32	1a	1370	G
32	1a	1379	G
32	1a	1381	U
32	1a	1397	C
32	1a	1406	U
32	1a	1409	C
32	1a	1417	G
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1447	A
32	1a	1452	C
32	1a	1456	G
32	1a	1492	A
32	1a	1493	A
32	1a	1497	G
32	1a	1503	A
32	1a	1504	G
32	1a	1505	G
32	1a	1506	U
32	1a	1517	G
32	1a	1519	MA6
32	1a	1520	G
32	1a	1529	G
32	1a	1530	G
32	1a	1531	A
1	2A	10	G
1	2A	14	A
1	2A	34	C
1	2A	36	G
1	2A	45	C
1	2A	50	U
1	2A	55	G
1	2A	61	G
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	84	A
1	2A	92	A

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Mol	Chain	Res	Type
1	2A	94	C
1	2A	95	G
1	2A	102	G
1	2A	118	A
1	2A	119	A
1	2A	120	U
1	2A	140	G
1	2A	141	A
1	2A	149	A
1	2A	157	U
1	2A	173	G
1	2A	181	A
1	2A	182	A
1	2A	194	G
1	2A	196	A
1	2A	197	A
1	2A	199	A
1	2A	205	G
1	2A	215	G
1	2A	216	A
1	2A	221	A
1	2A	222	A
1	2A	229	A
1	2A	230	U
1	2A	248	G
1	2A	249	C
1	2A	250	G
1	2A	265	A
1	2A	271(K)	U
1	2A	271(L)	U
1	2A	271(M)	G
1	2A	271(N)	U
1	2A	271(O)	C
1	2A	272(A)	U
1	2A	272(B)	G
1	2A	272(J)	C
1	2A	277	C
1	2A	278	A
1	2A	283	A
1	2A	308	G
1	2A	310	A
1	2A	311	A

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Mol	Chain	Res	Type
1	2A	317	G
1	2A	323	G
1	2A	324	A
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	353	G
1	2A	363	G
1	2A	372	G
1	2A	386	G
1	2A	396	G
1	2A	399	G
1	2A	404	C
1	2A	405	U
1	2A	411	G
1	2A	412	A
1	2A	425	G
1	2A	426	C
1	2A	428	A
1	2A	436	C
1	2A	437	G
1	2A	442	G
1	2A	443	A
1	2A	444	C
1	2A	454	A
1	2A	455	C
1	2A	470	A
1	2A	471	A
1	2A	481	G
1	2A	482	A
1	2A	496	G
1	2A	504	U
1	2A	505	A
1	2A	509	C
1	2A	519	U
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	533	G

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Mol	Chain	Res	Type
1	2A	545	G
1	2A	563	G
1	2A	567	A
1	2A	568	U
1	2A	573	G
1	2A	574	C
1	2A	575	A
1	2A	584	C
1	2A	586	A
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	610	G
1	2A	614(A)	U
1	2A	614(C)	A
1	2A	615	G
1	2A	616	G
1	2A	627	A
1	2A	637	A
1	2A	645	C
1	2A	646	A
1	2A	652(A)	A
1	2A	652(B)	A
1	2A	652(C)	G
1	2A	652(V)	C
1	2A	653	A
1	2A	668	G
1	2A	669	G
1	2A	670	A
1	2A	686	G
1	2A	717	G
1	2A	730	C
1	2A	740	U
1	2A	752	A
1	2A	753	C
1	2A	764	A
1	2A	765	G
1	2A	771	G
1	2A	774	A
1	2A	775	G
1	2A	776	G
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	793	A
1	2A	802	A
1	2A	805	G
1	2A	812	C
1	2A	827	U
1	2A	828	U
1	2A	833	U
1	2A	857	C
1	2A	859	G
1	2A	861	A
1	2A	865	C
1	2A	866	A
1	2A	869	G
1	2A	880	G
1	2A	884	C
1	2A	887	A
1	2A	888	C
1	2A	889	C
1	2A	890	A
1	2A	893	C
1	2A	896	A
1	2A	897	C
1	2A	899	A
1	2A	900	A
1	2A	901	A
1	2A	910	A
1	2A	914	C
1	2A	917	A
1	2A	932	G
1	2A	938	G
1	2A	941	A
1	2A	942	G
1	2A	945	A
1	2A	946	G
1	2A	959	A
1	2A	961	C
1	2A	968	G
1	2A	974	G
1	2A	975	C

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Mol	Chain	Res	Type
1	2A	983	A
1	2A	996	A
1	2A	1002	G
1	2A	1006	C
1	2A	1012	U
1	2A	1013	C
1	2A	1020	A
1	2A	1033	U
1	2A	1034	G
1	2A	1036	G
1	2A	1038	C
1	2A	1043	C
1	2A	1044	G
1	2A	1045	A
1	2A	1046	A
1	2A	1047	G
1	2A	1051	G
1	2A	1052	C
1	2A	1053	C
1	2A	1054	A
1	2A	1055	G
1	2A	1058	G
1	2A	1059	G
1	2A	1060	U
1	2A	1063	G
1	2A	1064	C
1	2A	1065	U
1	2A	1066	U
1	2A	1067	A
1	2A	1068	G
1	2A	1069	A
1	2A	1070	A
1	2A	1071	G
1	2A	1073	A
1	2A	1074	G
1	2A	1075	C
1	2A	1076	C
1	2A	1077	A
1	2A	1078	U
1	2A	1079	C
1	2A	1082	U
1	2A	1083	U

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Mol	Chain	Res	Type
1	2A	1084	A
1	2A	1085	A
1	2A	1086	A
1	2A	1088	A
1	2A	1089	G
1	2A	1090	U
1	2A	1091	G
1	2A	1092	C
1	2A	1093	G
1	2A	1094	U
1	2A	1097	U
1	2A	1101	U
1	2A	1108	U
1	2A	1109	C
1	2A	1111	A
1	2A	1112	G
1	2A	1118	C
1	2A	1129	A
1	2A	1130	U
1	2A	1132	A
1	2A	1135	C
1	2A	1136	G
1	2A	1142(A)	A
1	2A	1171	G
1	2A	1186	G
1	2A	1188	U
1	2A	1212	G
1	2A	1220	A
1	2A	1229	G
1	2A	1236	G
1	2A	1253	A
1	2A	1256	G
1	2A	1271	G
1	2A	1272	A
1	2A	1276	A
1	2A	1284	A
1	2A	1296	G
1	2A	1300	U
1	2A	1301	A
1	2A	1303	G
1	2A	1314	C
1	2A	1319	G

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Mol	Chain	Res	Type
1	2A	1321	A
1	2A	1342	A
1	2A	1349	A
1	2A	1352	U
1	2A	1360	A
1	2A	1365	A
1	2A	1368	G
1	2A	1373	A
1	2A	1379	A
1	2A	1384	A
1	2A	1385	G
1	2A	1386	C
1	2A	1406	U
1	2A	1414	G
1	2A	1416	G
1	2A	1419	A
1	2A	1420	U
1	2A	1421	G
1	2A	1428	C
1	2A	1430	C
1	2A	1442	G
1	2A	1445	A
1	2A	1450	G
1	2A	1451	C
1	2A	1455	G
1	2A	1459	G
1	2A	1461	G
1	2A	1467	C
1	2A	1471	A
1	2A	1482	G
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	1514	U
1	2A	1531	C
1	2A	1542	A
1	2A	1543	C
1	2A	1547	C

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Mol	Chain	Res	Type
1	2A	1558	A
1	2A	1559	G
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1580	A
1	2A	1583	A
1	2A	1584	C
1	2A	1586	A
1	2A	1595	G
1	2A	1608	A
1	2A	1609	A
1	2A	1613	G
1	2A	1640	C
1	2A	1647	G
1	2A	1648	C
1	2A	1651	G
1	2A	1660	C
1	2A	1661	G
1	2A	1662	C
1	2A	1664	A
1	2A	1672	C
1	2A	1674	G
1	2A	1696	G
1	2A	1700	A
1	2A	1701	A
1	2A	1703	G
1	2A	1721	G
1	2A	1722	A
1	2A	1750	G
1	2A	1756	G
1	2A	1757	U
1	2A	1758	G
1	2A	1763	G
1	2A	1764	G
1	2A	1773	A
1	2A	1777	U
1	2A	1780	A
1	2A	1782	C
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G

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Mol	Chain	Res	Type
1	2A	1816	G
1	2A	1829	A
1	2A	1835	G
1	2A	1836	C
1	2A	1839	G
1	2A	1847	A
1	2A	1848	A
1	2A	1858	G
1	2A	1877	A
1	2A	1878	G
1	2A	1891	G
1	2A	1900	A
1	2A	1902	C
1	2A	1914	C
1	2A	1927	A
1	2A	1929	G
1	2A	1930	G
1	2A	1936	A
1	2A	1937	A
1	2A	1938	A
1	2A	1955	U
1	2A	1963	U
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1984	G
1	2A	1991	U
1	2A	1993	U
1	2A	1997	G
1	2A	2020	A
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	2049	G
1	2A	2055	C
1	2A	2056	G
1	2A	2060	A
1	2A	2061	G

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Mol	Chain	Res	Type
1	2A	2069	G
1	2A	2076	U
1	2A	2096	U
1	2A	2101	G
1	2A	2103	C
1	2A	2105	C
1	2A	2107	C
1	2A	2108	C
1	2A	2109	U
1	2A	2110	G
1	2A	2111	C
1	2A	2112	G
1	2A	2116	G
1	2A	2117	A
1	2A	2118	U
1	2A	2119	A
1	2A	2120	G
1	2A	2121	G
1	2A	2123	G
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
1	2A	2136	C
1	2A	2137	C
1	2A	2140	C
1	2A	2146	C
1	2A	2147	G
1	2A	2148	G
1	2A	2150	U
1	2A	2151	G
1	2A	2152	G
1	2A	2153	G
1	2A	2154	G
1	2A	2155	G
1	2A	2157	G
1	2A	2158	A
1	2A	2159	G

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Mol	Chain	Res	Type
1	2A	2161	C
1	2A	2166	G
1	2A	2172	U
1	2A	2173	A
1	2A	2183	C
1	2A	2184	G
1	2A	2186	G
1	2A	2187	G
1	2A	2189	U
1	2A	2192	G
1	2A	2197	U
1	2A	2198	A
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2218	U
1	2A	2219	G
1	2A	2220	G
1	2A	2225	A
1	2A	2235	G
1	2A	2238	G
1	2A	2243	U
1	2A	2268	A
1	2A	2269	A
1	2A	2275	C
1	2A	2280	G
1	2A	2283	C
1	2A	2287	A
1	2A	2289	G
1	2A	2300	G
1	2A	2305	A
1	2A	2308	G
1	2A	2309	A
1	2A	2311	A
1	2A	2313	C
1	2A	2319	G
1	2A	2320	A
1	2A	2321	G
1	2A	2322	A
1	2A	2325	G
1	2A	2334	G
1	2A	2335	A

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Mol	Chain	Res	Type
1	2A	2336	A
1	2A	2342	C
1	2A	2343	C
1	2A	2345	G
1	2A	2347	C
1	2A	2350	C
1	2A	2372	G
1	2A	2373	G
1	2A	2379	G
1	2A	2383	G
1	2A	2385	C
1	2A	2389	G
1	2A	2396	G
1	2A	2406	U
1	2A	2407	G
1	2A	2409	G
1	2A	2410	G
1	2A	2413	G
1	2A	2414	G
1	2A	2419	U
1	2A	2422	A
1	2A	2424	C
1	2A	2425	A
1	2A	2428	G
1	2A	2429	G
1	2A	2430	A
1	2A	2435	A
1	2A	2439	A
1	2A	2440	C
1	2A	2441	C
1	2A	2448	A
1	2A	2465	C
1	2A	2468	G
1	2A	2470	G
1	2A	2474	C
1	2A	2476	A
1	2A	2479	G
1	2A	2483	C
1	2A	2486	G
1	2A	2487	G
1	2A	2491	U
1	2A	2493	U

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Mol	Chain	Res	Type
1	2A	2502	G
1	2A	2505	G
1	2A	2518	A
1	2A	2520	C
1	2A	2525	G
1	2A	2529	G
1	2A	2547	U
1	2A	2549	G
1	2A	2554	U
1	2A	2556	C
1	2A	2564	A
1	2A	2565	A
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C
1	2A	2602	A
1	2A	2609	U
1	2A	2611	U
1	2A	2612	C
1	2A	2622	C
1	2A	2630	G
1	2A	2654	A
1	2A	2663	G
1	2A	2667	C
1	2A	2668	G
1	2A	2670	A
1	2A	2682	U
1	2A	2689	U
1	2A	2690	C
1	2A	2702	U
1	2A	2703	C
1	2A	2704	C
1	2A	2707	G
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2726	U
1	2A	2732	G
1	2A	2733	A
1	2A	2744	G
1	2A	2751	G
1	2A	2758	A

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Mol	Chain	Res	Type
1	2A	2764	A
1	2A	2765	A
1	2A	2766	G
1	2A	2778	A
1	2A	2794	C
1	2A	2811	G
1	2A	2818	G
1	2A	2820	A
1	2A	2821	A
1	2A	2835	A
1	2A	2841	C
1	2A	2860	A
1	2A	2872	G
1	2A	2880	C
1	2A	2891	G
1	2A	2894	G
2	2B	8	U
2	2B	9	G
2	2B	12	C
2	2B	13	A
2	2B	15	A
2	2B	21	G
2	2B	24	G
2	2B	25	A
2	2B	31	C
2	2B	34	U
2	2B	41	U
2	2B	42	C
2	2B	52	A
2	2B	53	A
2	2B	54	G
2	2B	56	G
2	2B	73	A
2	2B	84	C
2	2B	89	G
2	2B	93	G
2	2B	101	G
2	2B	105	A
2	2B	106	G
2	2B	108	U
2	2B	110	G
2	2B	111	G

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Mol	Chain	Res	Type
2	2B	118	G
32	2a	5	U
32	2a	9	G
32	2a	14	U
32	2a	15	G
32	2a	31	G
32	2a	32	A
32	2a	33	A
32	2a	38	G
32	2a	39	G
32	2a	47	C
32	2a	48	C
32	2a	50	A
32	2a	51	A
32	2a	61	G
32	2a	66	G
32	2a	67	C
32	2a	78	G
32	2a	88	A
32	2a	89	C
32	2a	97	G
32	2a	101	A
32	2a	115	G
32	2a	116	A
32	2a	121	C
32	2a	131	C
32	2a	142	G
32	2a	144	G
32	2a	148	G
32	2a	156	G
32	2a	163	C
32	2a	166	G
32	2a	173	U
32	2a	174	C
32	2a	179	A
32	2a	182	U
32	2a	189(D)	C
32	2a	189(F)	U
32	2a	195	A
32	2a	197	A
32	2a	201	C
32	2a	202	U

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Mol	Chain	Res	Type
32	2a	203	U
32	2a	204	U
32	2a	216	G
32	2a	220	G
32	2a	240	C
32	2a	247	G
32	2a	251	G
32	2a	258	G
32	2a	262	A
32	2a	266	G
32	2a	267	C
32	2a	281	G
32	2a	289	G
32	2a	298	A
32	2a	301	G
32	2a	306	G
32	2a	316	G
32	2a	321	A
32	2a	328	C
32	2a	329	A
32	2a	332	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	384	G
32	2a	388	G
32	2a	391	G
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	411	A
32	2a	412	A
32	2a	413	G
32	2a	424	G
32	2a	429	U
32	2a	439	A
32	2a	442	C
32	2a	446	G
32	2a	452	A

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Mol	Chain	Res	Type
32	2a	457	C
32	2a	458	C
32	2a	461	A
32	2a	470	C
32	2a	471	G
32	2a	474	G
32	2a	476	G
32	2a	484	G
32	2a	485	G
32	2a	496	A
32	2a	498	U
32	2a	505	G
32	2a	509	A
32	2a	510	A
32	2a	511	C
32	2a	512	U
32	2a	518	C
32	2a	521	G
32	2a	528	C
32	2a	532	A
32	2a	533	A
32	2a	536	C
32	2a	546	G
32	2a	547	A
32	2a	559	A
32	2a	561	U
32	2a	562	C
32	2a	564	C
32	2a	567	G
32	2a	572	A
32	2a	573	A
32	2a	576	G
32	2a	577	G
32	2a	596	C
32	2a	607	A
32	2a	622	A
32	2a	630	G
32	2a	631	G
32	2a	649	G
32	2a	651	C
32	2a	653	A
32	2a	655	A

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Mol	Chain	Res	Type
32	2a	661	G
32	2a	665	A
32	2a	673	G
32	2a	682	G
32	2a	687	A
32	2a	688	G
32	2a	695	A
32	2a	702	A
32	2a	703	G
32	2a	723	U
32	2a	724	G
32	2a	731	G
32	2a	735	C
32	2a	746	A
32	2a	748	C
32	2a	749	C
32	2a	753	A
32	2a	754	C
32	2a	755	G
32	2a	773	G
32	2a	777	A
32	2a	792	A
32	2a	793	U
32	2a	794	A
32	2a	805	C
32	2a	811	C
32	2a	812	C
32	2a	817	C
32	2a	818	G
32	2a	821	G
32	2a	828	A
32	2a	829	G
32	2a	838	G
32	2a	840	C
32	2a	841	U
32	2a	848	C
32	2a	851	G
32	2a	853	G
32	2a	854	G
32	2a	859	A
32	2a	860	A
32	2a	872	A

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Mol	Chain	Res	Type
32	2a	873	A
32	2a	880	C
32	2a	885	G
32	2a	902	G
32	2a	914	A
32	2a	916	G
32	2a	926	G
32	2a	927	G
32	2a	931	C
32	2a	934	C
32	2a	935	A
32	2a	939	G
32	2a	942	G
32	2a	953	G
32	2a	954	G
32	2a	955	U
32	2a	960	U
32	2a	961	U
32	2a	965	A
32	2a	966	M2G
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
32	2a	982	U
32	2a	984	C
32	2a	989	C
32	2a	992	U
32	2a	993	G
32	2a	994	A
32	2a	995	C
32	2a	998	G
32	2a	999	C
32	2a	1004	A
32	2a	1005	A
32	2a	1006	C
32	2a	1007	C
32	2a	1017	G

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Mol	Chain	Res	Type
32	2a	1019	C
32	2a	1020	U
32	2a	1022	G
32	2a	1025	U
32	2a	1026	G
32	2a	1027	C
32	2a	1028	C
32	2a	1029	C
32	2a	1030	C
32	2a	1030(B)	C
32	2a	1031	G
32	2a	1033	G
32	2a	1034	G
32	2a	1040	U
32	2a	1041	A
32	2a	1043	C
32	2a	1047	G
32	2a	1053	G
32	2a	1055	A
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1081	G
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A
32	2a	1103	C
32	2a	1118	C
32	2a	1122	U
32	2a	1124	G
32	2a	1125	U
32	2a	1129	C
32	2a	1130	A
32	2a	1136	U
32	2a	1137	C
32	2a	1138	G
32	2a	1139	G
32	2a	1140	C
32	2a	1147	C
32	2a	1152	A
32	2a	1157	A
32	2a	1159	U

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Mol	Chain	Res	Type
32	2a	1161	C
32	2a	1172	C
32	2a	1176	A
32	2a	1183	A
32	2a	1184	G
32	2a	1186	G
32	2a	1187	G
32	2a	1188	A
32	2a	1196	U
32	2a	1197	G
32	2a	1211	U
32	2a	1212	U
32	2a	1213	A
32	2a	1214	C
32	2a	1224	G
32	2a	1227	A
32	2a	1238	A
32	2a	1241	G
32	2a	1250	A
32	2a	1256	A
32	2a	1257	U
32	2a	1258	G
32	2a	1260	C
32	2a	1265	G
32	2a	1270	C
32	2a	1278	U
32	2a	1279	A
32	2a	1281	U
32	2a	1282	C
32	2a	1285	A
32	2a	1286	A
32	2a	1287	A
32	2a	1290	G
32	2a	1300	G
32	2a	1301	U
32	2a	1303	C
32	2a	1305	G
32	2a	1313	U
32	2a	1319	A
32	2a	1320	C
32	2a	1326	C
32	2a	1340	A

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Mol	Chain	Res	Type
32	2a	1346	A
32	2a	1347	G
32	2a	1353	G
32	2a	1363	C
32	2a	1363(A)	A
32	2a	1368	G
32	2a	1370	G
32	2a	1383	C
32	2a	1391	U
32	2a	1394	A
32	2a	1397	C
32	2a	1400	5MC
32	2a	1402	4OC
32	2a	1406	U
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1447	A
32	2a	1456	G
32	2a	1475	G
32	2a	1492	A
32	2a	1497	G
32	2a	1503	A
32	2a	1504	G
32	2a	1505	G
32	2a	1506	U
32	2a	1507	A
32	2a	1517	G
32	2a	1520	G
32	2a	1528	U
32	2a	1529	G
32	2a	1530	G

All (81) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	196	A
1	1A	249	C
1	1A	266	G
1	1A	278	A
1	1A	334	C
1	1A	669	G

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Mol	Chain	Res	Type
1	1A	685	A
1	1A	746	A
1	1A	764	A
1	1A	774	A
1	1A	800	A
1	1A	827	U
1	1A	839	U
1	1A	840	C
1	1A	895	U
1	1A	974	G
1	1A	1047	G
1	1A	1065	U
1	1A	1069	A
1	1A	1082	U
1	1A	1142(A)	A
1	1A	1145	C
1	1A	1175	U
1	1A	1176	G
1	1A	1210	A
1	1A	1211	U
1	1A	1420	U
1	1A	1442	G
1	1A	1493	C
1	1A	1608	A
1	1A	1653	G
1	1A	2116	G
1	1A	2119	A
1	1A	2126	A
1	1A	2311	A
1	1A	2335	A
1	1A	2406	U
1	1A	2422	A
1	1A	2439	A
1	1A	2611	U
1	1A	2689	U
1	1A	2756	U
1	2A	196	A
1	2A	249	C
1	2A	271(M)	G
1	2A	277	C
1	2A	310	A
1	2A	669	G

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Mol	Chain	Res	Type
1	2A	685	A
1	2A	752	A
1	2A	764	A
1	2A	774	A
1	2A	827	U
1	2A	840	C
1	2A	856	C
1	2A	900	A
1	2A	974	G
1	2A	1053	C
1	2A	1057	A
1	2A	1065	U
1	2A	1067	A
1	2A	1073	A
1	2A	1076	C
1	2A	1118	C
1	2A	1275	A
1	2A	1332	G
1	2A	1359	A
1	2A	1420	U
1	2A	1442	G
1	2A	1491	G
1	2A	1608	A
1	2A	1992	G
1	2A	2126	A
1	2A	2171	A
1	2A	2172	U
1	2A	2288	A
1	2A	2321	G
1	2A	2335	A
1	2A	2406	U
1	2A	2439	A
1	2A	2689	U

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

50 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	PSU	1a	516	56,32	18,21,22	1.40	2 (11%)	21,30,33	1.84	5 (23%)
1	OMC	2A	1920	1	19,22,23	0.83	0	25,31,34	1.32	4 (16%)
1	PSU	1A	2605	1	18,21,22	1.37	3 (16%)	21,30,33	1.78	3 (14%)
32	MA6	2a	1518	32	23,26,27	0.42	0	33,38,41	1.92	9 (27%)
32	2MG	1a	1207	32	23,26,27	1.24	3 (13%)	33,38,41	2.47	11 (33%)
32	4OC	1a	1402	32	20,23,24	0.75	1 (5%)	25,32,35	1.06	2 (8%)
1	OMC	1A	1920	1	19,22,23	0.87	1 (5%)	25,31,34	0.98	1 (4%)
32	M2G	2a	966	56,32	24,27,28	1.42	2 (8%)	33,40,43	1.75	5 (15%)
1	PSU	1A	1917	1	18,21,22	1.35	2 (11%)	21,30,33	2.16	5 (23%)
1	PSU	2A	1917	1	18,21,22	1.37	3 (16%)	21,30,33	2.00	3 (14%)
1	2MA	1A	2503	56,1	22,25,26	1.51	4 (18%)	32,37,40	2.68	8 (25%)
1	5MC	2A	1942	1	19,22,23	1.55	2 (10%)	26,32,35	1.75	7 (26%)
32	M2G	1a	966	32	24,27,28	1.33	3 (12%)	33,40,43	1.99	7 (21%)
1	OMG	2A	2251	56,54,1	23,26,27	1.22	3 (13%)	32,38,41	1.98	5 (15%)
1	5MC	2A	1962	56,1	19,22,23	1.59	3 (15%)	26,32,35	1.26	2 (7%)
32	UR3	2a	1498	32	19,22,23	1.05	2 (10%)	26,32,35	1.58	3 (11%)
32	5MC	1a	1407	32	19,22,23	2.02	2 (10%)	26,32,35	1.51	5 (19%)
1	5MC	1A	1942	56,1	19,22,23	1.83	2 (10%)	26,32,35	1.61	6 (23%)
1	PSU	2A	2605	1	18,21,22	1.57	3 (16%)	21,30,33	2.00	4 (19%)
32	2MG	2a	1207	32	23,26,27	1.23	4 (17%)	33,38,41	1.99	8 (24%)
32	G7M	1a	527	56,32	23,26,27	1.64	3 (13%)	34,39,42	1.76	4 (11%)
32	5MC	2a	1404	32	19,22,23	2.11	2 (10%)	26,32,35	1.42	5 (19%)
32	MA6	1a	1518	32	23,26,27	0.39	0	33,38,41	1.74	8 (24%)
1	PSU	2A	1911	1	18,21,22	1.44	2 (11%)	21,30,33	2.11	4 (19%)
43	0TD	1l	92	43	8,9,10	4.60	3 (37%)	6,11,13	1.90	3 (50%)
32	5MC	1a	967	32	19,22,23	1.58	3 (15%)	26,32,35	1.24	3 (11%)
1	5MU	1A	1915	1	19,22,23	1.54	4 (21%)	27,32,35	2.50	9 (33%)
1	5MU	1A	1939	56,1	19,22,23	1.46	5 (26%)	27,32,35	2.15	8 (29%)
32	5MC	2a	967	32	19,22,23	1.53	2 (10%)	26,32,35	1.00	1 (3%)
1	2MA	2A	2503	56,1	22,25,26	1.23	3 (13%)	32,37,40	2.58	10 (31%)
54	8AN	1x	76	56,54,55	21,24,25	1.55	4 (19%)	26,35,38	2.38	9 (34%)
1	PSU	1A	1911	1	18,21,22	1.38	1 (5%)	21,30,33	1.92	4 (19%)
1	5MU	2A	1915	1	19,22,23	1.53	4 (21%)	27,32,35	2.24	9 (33%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
32	G7M	2a	527	56,32	23,26,27	1.54	3 (13%)	34,39,42	1.56	3 (8%)
32	5MC	1a	1400	32	19,22,23	1.77	3 (15%)	26,32,35	1.31	3 (11%)
1	OMU	1A	2552	56,1	19,22,23	1.50	4 (21%)	25,31,34	1.91	7 (28%)
32	5MC	2a	1400	32	19,22,23	1.62	3 (15%)	26,32,35	1.35	3 (11%)
32	5MC	1a	1404	32	19,22,23	1.66	3 (15%)	26,32,35	1.32	3 (11%)
1	OMU	2A	2552	56,1	19,22,23	1.33	4 (21%)	25,31,34	1.71	5 (20%)
1	OMG	1A	2251	56,54,1	23,26,27	1.44	5 (21%)	32,38,41	2.03	8 (25%)
32	MA6	1a	1519	32	23,26,27	0.45	0	33,38,41	1.90	10 (30%)
1	5MU	2A	1939	56,1	19,22,23	1.55	4 (21%)	27,32,35	2.18	6 (22%)
32	4OC	2a	1402	32	20,23,24	0.74	0	25,32,35	1.07	2 (8%)
32	MA6	2a	1519	32	23,26,27	0.43	0	33,38,41	2.34	12 (36%)
32	PSU	2a	516	56,32	18,21,22	1.34	2 (11%)	21,30,33	2.19	5 (23%)
54	8AN	2x	76	56,57,54,55	21,24,25	1.37	3 (14%)	26,35,38	2.37	9 (34%)
32	UR3	1a	1498	32	19,22,23	1.07	1 (5%)	26,32,35	1.89	5 (19%)
1	5MC	1A	1962	56,1	19,22,23	1.74	3 (15%)	26,32,35	1.47	5 (19%)
32	5MC	2a	1407	32	19,22,23	1.78	3 (15%)	26,32,35	1.44	5 (19%)
43	0TD	2l	92	43	8,9,10	4.52	2 (25%)	6,11,13	2.03	1 (16%)

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	PSU	1a	516	56,32	-	0/7/25/26	0/2/2/2
1	OMC	2A	1920	1	-	1/9/27/28	0/2/2/2
1	PSU	1A	2605	1	-	0/7/25/26	0/2/2/2
32	MA6	2a	1518	32	-	0/11/29/30	0/3/3/3
32	2MG	1a	1207	32	-	0/9/27/28	0/3/3/3
32	4OC	1a	1402	32	-	0/9/29/30	0/2/2/2
1	OMC	1A	1920	1	-	1/9/27/28	0/2/2/2
32	M2G	2a	966	56,32	-	0/11/29/30	0/3/3/3
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
1	2MA	1A	2503	56,1	-	1/7/25/26	0/3/3/3
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
1	OMG	2A	2251	56,54,1	-	0/9/27/28	0/3/3/3
1	5MC	2A	1962	56,1	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	UR3	2a	1498	32	-	1/7/25/26	0/2/2/2
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
1	5MC	1A	1942	56,1	-	0/7/25/26	0/2/2/2
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
32	2MG	2a	1207	32	-	2/9/27/28	0/3/3/3
32	G7M	1a	527	56,32	-	2/7/25/26	0/3/3/3
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2
32	MA6	1a	1518	32	-	0/11/29/30	0/3/3/3
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
43	0TD	1l	92	43	-	3/7/12/14	-
32	5MC	1a	967	32	-	0/7/25/26	0/2/2/2
1	5MU	1A	1915	1	-	2/7/25/26	0/2/2/2
1	5MU	1A	1939	56,1	-	0/7/25/26	0/2/2/2
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
1	2MA	2A	2503	56,1	-	2/7/25/26	0/3/3/3
54	8AN	1x	76	56,54,55	-	3/7/25/26	0/3/3/3
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
1	5MU	2A	1915	1	-	2/7/25/26	0/2/2/2
32	G7M	2a	527	56,32	-	2/7/25/26	0/3/3/3
32	5MC	1a	1400	32	-	0/7/25/26	0/2/2/2
1	OMU	1A	2552	56,1	-	0/9/27/28	0/2/2/2
32	5MC	2a	1400	32	-	6/7/25/26	0/2/2/2
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
1	OMU	2A	2552	56,1	-	0/9/27/28	0/2/2/2
1	OMG	1A	2251	56,54,1	-	2/9/27/28	0/3/3/3
32	MA6	1a	1519	32	-	2/11/29/30	0/3/3/3
1	5MU	2A	1939	56,1	-	0/7/25/26	0/2/2/2
32	4OC	2a	1402	32	-	2/9/29/30	0/2/2/2
32	MA6	2a	1519	32	-	2/11/29/30	0/3/3/3
32	PSU	2a	516	56,32	-	0/7/25/26	0/2/2/2
54	8AN	2x	76	56,57,54,55	-	3/7/25/26	0/3/3/3
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
1	5MC	1A	1962	56,1	-	0/7/25/26	0/2/2/2
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
43	0TD	2l	92	43	-	2/7/12/14	-

All (124) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	2l	92	0TD	CB-SB	-12.28	1.69	1.82
43	1l	92	0TD	CB-SB	-11.67	1.70	1.82
32	2a	1404	5MC	C5-C4	8.09	1.50	1.44
32	1a	1407	5MC	C5-C4	7.69	1.49	1.44
1	1A	1942	5MC	C5-C4	6.46	1.49	1.44
32	1a	1400	5MC	C5-C4	6.45	1.49	1.44
32	2a	1407	5MC	C5-C4	6.39	1.49	1.44
32	1a	1404	5MC	C5-C4	6.26	1.48	1.44
1	1A	1962	5MC	C5-C4	5.76	1.48	1.44
32	2a	1400	5MC	C5-C4	5.73	1.48	1.44
32	1a	967	5MC	C5-C4	5.58	1.48	1.44
1	2A	1962	5MC	C5-C4	5.44	1.48	1.44
32	2a	967	5MC	C5-C4	5.37	1.48	1.44
1	2A	1942	5MC	C5-C4	5.29	1.48	1.44
32	1a	527	G7M	C5-N7	-5.26	1.33	1.39
32	2a	527	G7M	C5-N7	-4.91	1.33	1.39
54	1x	76	8AN	C5-C4	-4.56	1.30	1.39
1	1A	1911	PSU	C6-C5	4.19	1.39	1.35
1	1A	2251	OMG	C6-N1	-4.10	1.31	1.38
32	2a	966	M2G	C2-N2	4.04	1.42	1.35
1	1A	2503	2MA	C5-N7	-3.96	1.31	1.39
1	1A	1915	5MU	C2-N1	3.91	1.44	1.38
1	1A	2552	OMU	C4-N3	-3.88	1.32	1.38
43	1l	92	0TD	CB-CA	3.76	1.56	1.54
32	1a	516	PSU	C6-C5	3.67	1.39	1.35
54	2x	76	8AN	C5-N7	-3.64	1.32	1.39
32	1a	527	G7M	C5-C4	3.59	1.47	1.38
32	2a	966	M2G	C5-C4	3.53	1.48	1.38
1	2A	1939	5MU	C6-C5	3.50	1.40	1.34
1	2A	2503	2MA	C5-C4	3.42	1.45	1.39
1	2A	1915	5MU	C2-N1	3.42	1.43	1.38
1	2A	1915	5MU	C6-C5	3.37	1.40	1.34
1	1A	1917	PSU	C6-C5	3.36	1.39	1.35
32	2a	1404	5MC	C6-C5	3.36	1.40	1.34
1	2A	1939	5MU	C4-C5	3.35	1.50	1.44
1	2A	2605	PSU	C2-N3	-3.35	1.32	1.37
43	1l	92	0TD	CB-CG	3.35	1.57	1.52
32	2a	1207	2MG	C5-C4	3.31	1.47	1.38
1	1A	1942	5MC	C6-N1	-3.31	1.32	1.38
32	1a	966	M2G	C2-N2	3.29	1.41	1.35
1	1A	2605	PSU	C4-N3	-3.27	1.32	1.38
32	1a	1407	5MC	C6-C5	3.26	1.39	1.34
32	2a	527	G7M	C5-C4	3.25	1.46	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	1a	1400	5MC	C6-N1	-3.21	1.32	1.38
1	2A	2605	PSU	C4-N3	-3.20	1.32	1.38
1	1A	2552	OMU	C2-N3	-3.19	1.32	1.38
32	1a	966	M2G	C5-C4	3.17	1.47	1.38
1	1A	2503	2MA	C5-C4	3.17	1.44	1.39
1	1A	1962	5MC	C6-N1	-3.13	1.32	1.38
1	2A	2605	PSU	C2-N1	-3.12	1.32	1.36
1	2A	1911	PSU	C6-C5	3.12	1.38	1.35
1	2A	1911	PSU	C4-N3	-3.08	1.33	1.38
1	1A	2503	2MA	C4-N9	-3.08	1.31	1.37
1	1A	1915	5MU	C6-C5	3.05	1.39	1.34
1	2A	1942	5MC	C6-N1	-2.98	1.32	1.38
1	2A	2552	OMU	C4-N3	-2.95	1.33	1.38
32	2a	1407	5MC	C6-C5	2.95	1.39	1.34
32	2a	967	5MC	C6-C5	2.94	1.39	1.34
1	2A	2251	OMG	C5-C4	2.93	1.46	1.38
1	1A	1939	5MU	C4-C5	2.88	1.49	1.44
32	2a	1400	5MC	C6-C5	2.87	1.39	1.34
1	2A	1962	5MC	C6-N1	-2.86	1.33	1.38
1	2A	2251	OMG	C6-N1	-2.85	1.33	1.38
1	1A	1962	5MC	C6-C5	2.84	1.39	1.34
32	1a	1207	2MG	C5-C4	2.82	1.46	1.38
1	1A	1939	5MU	C6-C5	2.82	1.39	1.34
1	1A	1939	5MU	C6-N1	-2.78	1.33	1.38
32	2a	516	PSU	C6-C5	2.78	1.38	1.35
1	2A	2552	OMU	C2-N3	-2.74	1.33	1.38
1	2A	1962	5MC	C6-C5	2.74	1.39	1.34
1	2A	1915	5MU	C4-N3	-2.73	1.33	1.38
54	1x	76	8AN	C5-N7	-2.73	1.34	1.39
54	1x	76	8AN	C5-C6	-2.73	1.33	1.41
54	2x	76	8AN	C5-C6	-2.72	1.33	1.41
1	2A	2552	OMU	C5-C4	-2.71	1.37	1.43
1	1A	2251	OMG	C5-C4	2.70	1.46	1.38
1	1A	1915	5MU	C4-N3	-2.69	1.33	1.38
1	1A	2605	PSU	C2-N3	-2.68	1.33	1.37
1	2A	1917	PSU	C6-C5	2.67	1.38	1.35
1	2A	1939	5MU	C4-N3	-2.66	1.33	1.38
1	2A	2251	OMG	C5-N7	-2.66	1.33	1.39
32	1a	967	5MC	C6-C5	2.63	1.38	1.34
1	1A	1939	5MU	C4-N3	-2.62	1.33	1.38
32	1a	1207	2MG	C6-N1	-2.59	1.34	1.38
32	2a	516	PSU	C4-N3	-2.54	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2552	OMU	C6-N1	-2.53	1.32	1.38
43	2l	92	0TD	CB-CA	2.53	1.55	1.54
1	1A	2503	2MA	C8-N9	-2.52	1.33	1.37
32	1a	527	G7M	C6-N1	-2.50	1.34	1.38
1	2A	1939	5MU	C6-N1	-2.47	1.33	1.38
1	1A	2251	OMG	C5-N7	-2.45	1.34	1.39
1	1A	1939	5MU	C2-N3	-2.44	1.33	1.38
32	2a	527	G7M	C6-N1	-2.44	1.34	1.38
1	2A	1917	PSU	C4-N3	-2.43	1.34	1.38
1	1A	1917	PSU	C4-N3	-2.43	1.34	1.38
1	2A	1917	PSU	C2-N1	-2.41	1.33	1.36
32	2a	1407	5MC	C6-N1	-2.37	1.34	1.38
1	1A	2552	OMU	C5-C4	-2.36	1.38	1.43
1	2A	1915	5MU	C4-C5	2.35	1.48	1.44
32	1a	516	PSU	C2-N1	-2.35	1.33	1.36
32	2a	1498	UR3	C2-N1	2.35	1.41	1.38
1	2A	2503	2MA	C5-C6	2.33	1.47	1.41
32	1a	1404	5MC	C6-C5	2.32	1.38	1.34
1	1A	2605	PSU	C2-N1	-2.31	1.33	1.36
32	1a	967	5MC	C6-N1	-2.29	1.34	1.38
32	2a	1498	UR3	C6-C5	2.28	1.40	1.35
32	1a	966	M2G	C6-N1	-2.26	1.34	1.38
1	2A	2503	2MA	C5-N7	-2.22	1.35	1.39
32	1a	1400	5MC	C6-C5	2.22	1.38	1.34
32	1a	1404	5MC	C6-N1	-2.18	1.34	1.38
32	2a	1207	2MG	C4-N9	-2.17	1.32	1.38
54	2x	76	8AN	C5-C4	-2.17	1.35	1.39
54	1x	76	8AN	O4'-C4'	-2.15	1.40	1.45
32	1a	1207	2MG	C4-N9	-2.13	1.32	1.38
32	1a	1498	UR3	C6-C5	2.12	1.40	1.35
32	2a	1400	5MC	C6-N1	-2.12	1.34	1.38
32	2a	1207	2MG	C5-N7	-2.12	1.34	1.39
32	2a	1207	2MG	C6-N1	-2.10	1.34	1.38
1	1A	1920	OMC	C6-N1	-2.04	1.33	1.38
1	1A	2251	OMG	C4-N9	-2.03	1.32	1.38
1	1A	2251	OMG	C8-N9	-2.03	1.33	1.37
1	2A	2552	OMU	C6-N1	-2.02	1.33	1.38
1	1A	1915	5MU	C4-C5	2.02	1.48	1.44
32	1a	1402	4OC	C6-C5	2.00	1.39	1.35

All (272) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	2503	2MA	N6-C6-N1	8.37	128.32	117.03
1	2A	2503	2MA	C5-C4-N3	-8.03	118.72	127.18
32	1a	1498	UR3	C4-N3-C2	-7.58	118.48	124.58
1	1A	2503	2MA	C5-C4-N3	-7.54	119.24	127.18
32	1a	1207	2MG	C2-N3-C4	7.37	121.22	112.00
1	2A	1911	PSU	N1-C2-N3	6.72	122.25	115.17
1	2A	2503	2MA	N3-C4-N9	6.65	135.43	126.99
32	1a	966	M2G	C5-C4-N3	-6.56	117.95	128.39
32	2a	516	PSU	N1-C2-N3	6.41	121.92	115.17
1	2A	2251	OMG	C5-C4-N3	-6.37	118.25	128.39
32	2a	1498	UR3	C4-N3-C2	-6.32	119.50	124.58
1	1A	2251	OMG	C5-C4-N3	-6.31	118.35	128.39
1	1A	1917	PSU	N1-C2-N3	6.23	121.74	115.17
1	2A	1939	5MU	N3-C2-N1	6.14	122.88	114.89
1	1A	2503	2MA	N3-C4-N9	6.10	134.74	126.99
1	2A	1917	PSU	N1-C2-N3	6.09	121.59	115.17
1	2A	2605	PSU	N1-C2-N3	6.06	121.56	115.17
32	1a	527	G7M	N9-C4-N3	5.96	137.86	125.95
1	2A	1942	5MC	C5-C6-N1	-5.85	116.96	123.31
1	2A	2503	2MA	N6-C6-N1	5.64	124.63	117.03
32	2a	1207	2MG	C2-N3-C4	5.63	119.04	112.00
1	2A	1915	5MU	N3-C2-N1	5.62	122.21	114.89
32	1a	1207	2MG	C5-C4-N3	-5.52	119.60	128.39
54	2x	76	8AN	N1-C2-N3	-5.51	120.23	128.58
32	1a	527	G7M	C5-C4-N3	-5.47	117.81	128.15
54	1x	76	8AN	N1-C2-N3	-5.47	120.30	128.58
54	1x	76	8AN	C5-C4-N3	-5.46	119.20	126.72
54	2x	76	8AN	C5-C4-N3	-5.39	119.29	126.72
1	1A	1915	5MU	N3-C2-N1	5.38	121.89	114.89
32	2a	966	M2G	C5-C4-N3	-5.25	120.03	128.39
1	2A	1939	5MU	C4-N3-C2	-5.22	120.50	127.34
1	1A	1915	5MU	C5-C4-N3	5.19	119.84	115.32
32	1a	966	M2G	C2-N3-C4	5.15	122.03	112.51
1	1A	1939	5MU	N3-C2-N1	5.12	121.56	114.89
1	2A	2251	OMG	N9-C4-N3	5.07	136.10	125.95
1	2A	2251	OMG	C2-N3-C4	5.07	121.03	112.30
32	2a	1519	MA6	C5-C4-N3	-5.06	119.75	126.72
32	2a	1519	MA6	C4-C5-N7	-5.05	104.80	110.58
32	2a	527	G7M	N9-C4-N3	4.99	135.93	125.95
32	2a	1207	2MG	C5-C4-N3	-4.97	120.49	128.39
1	2A	1917	PSU	O2-C2-N1	-4.96	117.68	122.79
1	1A	1915	5MU	C4-N3-C2	-4.93	120.88	127.34
1	1A	1915	5MU	C1'-N1-C2	4.83	126.27	117.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1939	5MU	C4-N3-C2	-4.79	121.05	127.34
32	2a	527	G7M	C5-C4-N3	-4.79	119.11	128.15
1	1A	2552	OMU	C4-N3-C2	-4.78	120.68	126.61
1	2A	1915	5MU	C4-N3-C2	-4.77	121.08	127.34
1	1A	2251	OMG	C2-N3-C4	4.76	120.50	112.30
32	1a	966	M2G	N9-C4-N3	4.76	135.46	125.95
1	1A	1915	5MU	O4-C4-C5	-4.75	119.48	124.92
32	2a	1518	MA6	N1-C2-N3	-4.75	121.39	128.58
1	1A	1911	PSU	N1-C2-N3	4.71	120.14	115.17
1	1A	1942	5MC	CM5-C5-C6	-4.61	116.61	122.85
32	2a	1519	MA6	N1-C2-N3	-4.59	121.63	128.58
32	2a	966	M2G	C2-N3-C4	4.58	120.97	112.51
32	1a	516	PSU	C6-C5-C4	-4.57	115.09	118.17
32	2a	516	PSU	C4-N3-C2	-4.53	120.13	126.37
1	1A	2552	OMU	N3-C2-N1	4.46	120.70	114.89
32	1a	1518	MA6	N1-C2-N3	-4.43	121.88	128.58
1	1A	1917	PSU	C4-N3-C2	-4.42	120.28	126.37
32	1a	527	G7M	C2-N3-C4	4.37	119.83	112.30
54	1x	76	8AN	C5-C4-N9	4.36	110.56	105.81
32	1a	1519	MA6	C5-C4-N3	-4.35	120.72	126.72
32	1a	1207	2MG	C6-C5-N7	4.34	138.20	130.29
1	2A	1915	5MU	C5-C4-N3	4.34	119.09	115.32
1	1A	1911	PSU	C6-C5-C4	-4.34	115.25	118.17
1	1A	2251	OMG	N9-C4-N3	4.32	134.60	125.95
43	2l	92	0TD	CSB-SB-CB	4.32	110.13	102.36
1	2A	2605	PSU	C4-N3-C2	-4.31	120.43	126.37
1	2A	1962	5MC	C5-C6-N1	-4.28	118.67	123.31
32	1a	967	5MC	C5-C6-N1	-4.27	118.67	123.31
32	2a	1518	MA6	C2-N1-C6	4.27	122.27	111.83
1	1A	1917	PSU	O2-C2-N1	-4.24	118.41	122.79
1	1A	2605	PSU	N1-C2-N3	4.22	119.62	115.17
32	1a	1207	2MG	N1-C2-N2	4.20	120.85	116.56
32	1a	1400	5MC	C5-C6-N1	-4.20	118.76	123.31
1	2A	2552	OMU	C4-N3-C2	-4.19	121.41	126.61
32	2a	527	G7M	C2-N3-C4	4.16	119.46	112.30
32	2a	1519	MA6	C5-N7-C8	4.15	109.97	103.45
32	1a	516	PSU	N1-C2-N3	4.10	119.49	115.17
32	1a	1404	5MC	C5-C6-N1	-4.08	118.88	123.31
1	2A	1939	5MU	O2-C2-N1	-4.06	117.51	122.80
32	1a	1519	MA6	N1-C2-N3	-4.06	122.44	128.58
1	1A	1939	5MU	C5M-C5-C4	4.06	123.11	118.78
1	1A	1962	5MC	CM5-C5-C6	-4.03	117.40	122.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	2552	OMU	N3-C2-N1	4.01	120.11	114.89
54	1x	76	8AN	C6-C5-C4	3.98	122.61	117.18
32	1a	1519	MA6	C2-N1-C6	3.94	121.45	111.83
1	2A	1911	PSU	C4-N3-C2	-3.92	120.97	126.37
1	1A	2605	PSU	C4-N3-C2	-3.90	121.00	126.37
1	1A	2251	OMG	C6-C5-N7	3.86	137.31	130.29
32	2a	966	M2G	N9-C4-N3	3.84	133.64	125.95
32	2a	1518	MA6	C5-C4-N3	-3.83	121.44	126.72
32	2a	516	PSU	O2-C2-N1	-3.81	118.86	122.79
32	1a	1518	MA6	C2-N1-C6	3.80	121.12	111.83
1	2A	1911	PSU	O2-C2-N1	-3.78	118.89	122.79
32	1a	1519	MA6	C4-C5-N7	-3.77	106.27	110.58
1	2A	1939	5MU	C5-C6-N1	-3.75	119.23	123.31
32	1a	1407	5MC	C5-C6-N1	-3.75	119.24	123.31
32	2a	1404	5MC	C5-C4-N3	-3.73	117.93	121.75
32	2a	1407	5MC	O2-C2-N3	-3.71	116.48	122.33
54	2x	76	8AN	C5-N7-C8	3.68	109.24	103.45
1	1A	2503	2MA	CM2-C2-N1	3.67	122.62	117.13
32	2a	1400	5MC	C5-C6-N1	-3.65	119.35	123.31
32	2a	1519	MA6	C2-N3-C4	3.65	120.75	111.83
54	2x	76	8AN	N9-C8-N7	-3.63	108.78	113.94
1	2A	1915	5MU	C1'-N1-C2	3.63	124.11	117.59
32	2a	1207	2MG	N9-C4-N3	3.62	133.20	125.95
32	2a	1404	5MC	C5-C6-N1	-3.61	119.39	123.31
32	2a	1519	MA6	C2-N1-C6	3.61	120.64	111.83
32	1a	1407	5MC	C5-C4-N3	-3.59	118.08	121.75
1	1A	2503	2MA	C5-C6-N6	-3.58	114.42	123.29
1	1A	2552	OMU	CM2-O2'-C2'	-3.57	105.30	114.47
1	1A	1939	5MU	O2-C2-N1	-3.57	118.15	122.80
1	2A	2552	OMU	O2-C2-N1	-3.54	118.18	122.80
32	2a	966	M2G	C6-C5-N7	3.54	136.74	130.29
1	1A	1911	PSU	C4-N3-C2	-3.54	121.50	126.37
32	1a	1518	MA6	C5-C4-N3	-3.50	121.89	126.72
1	1A	1939	5MU	C5-C4-N3	3.50	118.36	115.32
1	1A	1939	5MU	C5-C6-N1	-3.50	119.52	123.31
32	1a	1404	5MC	CM5-C5-C6	-3.47	118.15	122.85
1	1A	1915	5MU	C1'-N1-C6	-3.46	115.44	121.15
1	2A	1917	PSU	C4-N3-C2	-3.44	121.64	126.37
1	1A	1942	5MC	C5-C4-N3	-3.42	118.24	121.75
32	2a	1519	MA6	C5-C4-N9	3.42	109.54	105.81
54	2x	76	8AN	C2-N3-C4	3.40	120.14	111.83
32	1a	1519	MA6	C5-N7-C8	3.38	108.77	103.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	1518	MA6	C5-N7-C8	3.35	108.72	103.45
1	2A	1939	5MU	O4-C4-C5	-3.35	121.09	124.92
1	1A	1962	5MC	C1'-N1-C6	-3.35	115.64	121.15
1	1A	1915	5MU	O2-C2-N3	-3.31	115.38	121.49
1	2A	2552	OMU	C5-C4-N3	3.31	119.43	114.80
32	2a	1518	MA6	C4-C5-N7	-3.31	106.80	110.58
32	1a	966	M2G	C6-C5-N7	3.29	136.28	130.29
32	2a	1207	2MG	N1-C2-N2	3.25	119.88	116.56
1	1A	2605	PSU	C6-C5-C4	-3.24	115.98	118.17
1	2A	2503	2MA	C4-N9-C8	3.24	109.14	105.74
1	1A	1911	PSU	O2-C2-N1	-3.23	119.46	122.79
54	2x	76	8AN	C4-C5-N7	-3.23	106.89	110.58
32	1a	1518	MA6	C5-N7-C8	3.21	108.50	103.45
1	2A	1920	OMC	O2-C2-N3	-3.20	117.28	122.33
32	2a	1207	2MG	N2-C2-N3	-3.19	116.44	120.51
32	1a	1207	2MG	N9-C4-N3	3.19	132.33	125.95
1	2A	1915	5MU	O4-C4-C5	-3.17	121.29	124.92
32	1a	1519	MA6	C4-C5-C6	3.16	119.18	115.91
1	1A	2552	OMU	C5-C4-N3	3.16	119.22	114.80
32	1a	516	PSU	C4-N3-C2	-3.15	122.03	126.37
54	2x	76	8AN	C5-C4-N9	3.15	109.24	105.81
32	2a	1407	5MC	C5-C4-N3	-3.15	118.53	121.75
1	1A	2251	OMG	C4-C5-N7	-3.14	105.69	110.67
1	2A	2503	2MA	C4-C5-N7	-3.13	107.01	110.58
54	1x	76	8AN	C2-N3-C4	3.12	119.45	111.83
1	2A	2503	2MA	CM2-C2-N1	3.11	121.78	117.13
32	2a	1207	2MG	C6-C5-N7	3.10	135.93	130.29
1	1A	1962	5MC	CM5-C5-C4	3.09	125.59	120.51
54	1x	76	8AN	C4'-O4'-C1'	-3.08	102.66	109.47
32	2a	967	5MC	C5-C6-N1	-3.07	119.98	123.31
32	2a	516	PSU	C5-C6-N1	-3.05	117.90	122.14
32	2a	1518	MA6	C2-N3-C4	3.04	119.26	111.83
32	1a	1400	5MC	CM5-C5-C6	-3.04	118.74	122.85
1	1A	1915	5MU	C6-N1-C2	-3.03	118.29	121.30
32	1a	1518	MA6	C4-C5-N7	-3.00	107.15	110.58
1	1A	1939	5MU	C5M-C5-C6	-3.00	118.79	122.85
32	1a	1407	5MC	O2-C2-N3	-2.99	117.61	122.33
32	1a	1518	MA6	N9-C8-N7	-2.99	109.69	113.94
1	2A	1962	5MC	C5-C4-N3	-2.98	118.70	121.75
1	2A	1915	5MU	O2-C2-N3	-2.98	115.99	121.49
32	1a	1207	2MG	N2-C2-N3	-2.98	116.72	120.51
54	1x	76	8AN	N9-C8-N7	-2.97	109.73	113.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	1939	5MU	C5-C4-N3	2.95	117.89	115.32
32	1a	1207	2MG	C4-C5-N7	-2.95	106.00	110.67
32	1a	1519	MA6	C2-N3-C4	2.94	119.02	111.83
1	2A	2503	2MA	C5-N7-C8	2.94	108.07	103.45
32	1a	1518	MA6	C2-N3-C4	2.94	119.00	111.83
32	2a	1519	MA6	N9-C8-N7	-2.94	109.77	113.94
1	2A	1920	OMC	C1'-N1-C2	2.93	124.91	118.44
32	2a	1518	MA6	N9-C8-N7	-2.93	109.78	113.94
32	2a	1404	5MC	CM5-C5-C6	-2.92	118.90	122.85
1	2A	1915	5MU	C6-N1-C2	-2.90	118.42	121.30
32	2a	1519	MA6	N1-C6-N6	-2.87	113.36	116.86
32	1a	1400	5MC	C5-C4-N3	-2.86	118.82	121.75
32	1a	1407	5MC	CM5-C5-C6	-2.85	119.00	122.85
1	2A	2503	2MA	N9-C8-N7	-2.82	109.93	113.94
1	2A	2503	2MA	C5-C6-N6	-2.82	116.30	123.29
54	2x	76	8AN	C4'-O4'-C1'	-2.82	103.24	109.47
1	2A	2605	PSU	O2-C2-N1	-2.82	119.88	122.79
32	2a	1498	UR3	C5-C4-N3	2.81	118.74	115.04
32	1a	1498	UR3	C3U-N3-C2	2.81	122.22	117.33
43	1l	92	0TD	OD2-CG-CB	2.79	119.17	113.15
1	1A	2552	OMU	C5-C6-N1	-2.78	117.32	121.84
32	2a	1207	2MG	CM2-N2-C2	-2.77	117.69	123.65
32	1a	1402	4OC	C6-C5-C4	2.75	120.32	117.00
1	2A	2251	OMG	O6-C6-C5	-2.74	119.31	126.53
32	1a	516	PSU	O2-C2-N1	-2.71	119.99	122.79
32	1a	1498	UR3	C5-C4-N3	2.71	118.61	115.04
1	1A	1942	5MC	O2-C2-N3	-2.70	118.07	122.33
1	1A	2503	2MA	CM2-C2-N3	-2.70	113.08	117.13
32	2a	1400	5MC	C5-C4-N3	-2.68	119.01	121.75
32	2a	966	M2G	C4-C5-N7	-2.62	106.52	110.67
32	2a	1407	5MC	C5-C6-N1	-2.61	120.48	123.31
32	1a	1519	MA6	N9-C8-N7	-2.58	110.27	113.94
1	2A	1942	5MC	C5-C4-N3	-2.58	119.11	121.75
32	1a	966	M2G	C4-C5-N7	-2.54	106.64	110.67
43	1l	92	0TD	CSB-SB-CB	2.53	106.92	102.36
1	1A	1942	5MC	C5-C6-N1	-2.53	120.56	123.31
54	2x	76	8AN	N3-C4-N9	2.53	131.47	127.17
32	1a	1207	2MG	O3'-C3'-C2'	2.53	119.93	111.82
1	1A	2503	2MA	C4-N9-C8	2.53	108.39	105.74
32	2a	1519	MA6	C4-C5-C6	2.50	118.50	115.91
32	1a	966	M2G	O6-C6-C5	-2.50	119.93	126.53
32	2a	1400	5MC	O2-C2-N3	-2.50	118.39	122.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1939	5MU	O4-C4-C5	-2.49	122.07	124.92
1	2A	1915	5MU	C5-C6-N1	-2.46	120.64	123.31
32	1a	1498	UR3	C6-N1-C2	-2.45	119.80	121.80
32	1a	1498	UR3	O2-C2-N1	-2.44	117.34	122.78
32	2a	1207	2MG	C4-C5-N7	-2.41	106.85	110.67
1	2A	2251	OMG	C6-C5-N7	2.39	134.63	130.29
54	1x	76	8AN	C5-N7-C8	2.38	107.19	103.45
32	1a	1404	5MC	C5-C4-N3	-2.38	119.32	121.75
1	2A	1942	5MC	CM5-C5-C6	-2.33	119.69	122.85
1	1A	2503	2MA	C4-C5-N7	-2.33	107.92	110.58
1	1A	1942	5MC	CM5-C5-C4	2.32	124.32	120.51
32	2a	1518	MA6	N3-C4-N9	2.32	131.10	127.17
54	1x	76	8AN	C4-C5-N7	-2.31	107.94	110.58
32	2a	1518	MA6	C4-C5-C6	2.30	118.29	115.91
1	1A	1962	5MC	C5-C4-N3	-2.30	119.40	121.75
32	2a	516	PSU	O4'-C1'-C2'	2.29	108.32	105.15
1	2A	2605	PSU	C5-C6-N1	-2.28	118.98	122.14
1	2A	1942	5MC	N4-C4-N3	2.27	122.61	118.51
32	1a	1519	MA6	N3-C4-N9	2.26	131.01	127.17
32	1a	1519	MA6	C5-C4-N9	2.25	108.27	105.81
1	2A	1915	5MU	C1'-N1-C6	-2.25	117.45	121.15
1	1A	1962	5MC	C1'-N1-C2	2.25	123.40	118.44
32	1a	967	5MC	C5-C4-N3	-2.24	119.45	121.75
1	1A	1920	OMC	C1'-N1-C2	2.24	123.39	118.44
32	1a	966	M2G	C5-C6-N1	2.24	118.94	113.25
32	1a	1407	5MC	N1-C2-N3	2.23	122.68	118.80
32	1a	1518	MA6	N3-C4-N9	2.22	130.95	127.17
1	1A	2552	OMU	O2-C2-N1	-2.22	119.91	122.80
43	1l	92	0TD	OD2-CG-OD1	-2.22	119.04	124.08
1	2A	1942	5MC	C5-C4-N4	-2.22	118.27	121.39
32	1a	516	PSU	O4-C4-C5	-2.21	118.50	124.01
1	1A	1917	PSU	O4-C4-C5	-2.18	118.58	124.01
32	2a	1402	4OC	C6-C5-C4	2.18	119.63	117.00
1	2A	1920	OMC	C1'-N1-C6	-2.18	116.13	120.78
1	1A	1917	PSU	C5-C6-N1	-2.17	119.12	122.14
32	1a	527	G7M	O6-C6-C5	-2.17	123.17	128.01
1	2A	2552	OMU	O4-C4-C5	-2.15	121.45	125.16
1	1A	2251	OMG	C5-C6-N1	2.14	118.70	113.25
32	2a	1407	5MC	C1'-N1-C6	-2.12	117.65	121.15
1	1A	1942	5MC	C1'-N1-C6	-2.12	117.66	121.15
1	2A	1942	5MC	N1-C2-N3	2.12	122.48	118.80
1	2A	1911	PSU	C5-C6-N1	-2.11	119.20	122.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	967	5MC	O2-C2-N3	-2.11	119.00	122.33
32	1a	1402	4OC	C5-C4-N3	-2.10	119.31	122.60
32	1a	1207	2MG	C1'-N9-C4	-2.09	120.30	126.49
1	2A	2503	2MA	C6-C5-N7	2.09	136.12	132.09
32	2a	1404	5MC	O2-C2-N3	-2.09	119.04	122.33
1	1A	2552	OMU	C2'-C1'-N1	-2.08	110.28	114.24
32	2a	1519	MA6	N3-C4-N9	2.08	130.70	127.17
1	2A	1942	5MC	C4-N3-C2	-2.07	117.93	120.81
1	2A	1920	OMC	N4-C4-N3	2.06	121.60	117.91
1	1A	2251	OMG	C8-N7-C5	2.06	107.94	104.26
32	1a	1207	2MG	CM2-N2-C2	-2.06	119.22	123.65
32	2a	1402	4OC	C1'-N1-C2	2.06	122.98	118.44
32	2a	1407	5MC	C1'-N1-C2	2.05	122.98	118.44
32	2a	1519	MA6	C6-C5-N7	2.05	136.70	133.43
1	1A	2251	OMG	C2-N1-C6	-2.02	121.44	125.11
32	2a	1498	UR3	C3U-N3-C4	2.02	120.67	117.87
32	1a	1207	2MG	C6-C5-C4	-2.01	115.80	118.83
1	1A	1915	5MU	C5-C6-N1	-2.00	121.14	123.31
32	2a	1404	5MC	N1-C2-N3	2.00	122.27	118.80

There are no chirality outliers.

All (41) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	1A	1915	5MU	O4'-C1'-N1-C2
1	1A	1915	5MU	O4'-C1'-N1-C6
1	1A	1920	OMC	C1'-C2'-O2'-CM2
1	1A	2251	OMG	C1'-C2'-O2'-CM2
43	1l	92	0TD	CA-CB-SB-CSB
1	2A	1915	5MU	O4'-C1'-N1-C2
1	2A	1915	5MU	O4'-C1'-N1-C6
32	2a	1207	2MG	N3-C2-N2-CM2
54	1x	76	8AN	C3'-C4'-C5'-O5'
54	2x	76	8AN	C3'-C4'-C5'-O5'
32	1a	1519	MA6	O4'-C4'-C5'-O5'
32	2a	1402	4OC	O4'-C4'-C5'-O5'
54	1x	76	8AN	O4'-C4'-C5'-O5'
54	2x	76	8AN	O4'-C4'-C5'-O5'
32	2a	527	G7M	C3'-C4'-C5'-O5'
32	2a	1402	4OC	C3'-C4'-C5'-O5'
32	1a	527	G7M	C3'-C4'-C5'-O5'
32	1a	1519	MA6	C3'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
32	2a	1400	5MC	O4'-C4'-C5'-O5'
32	2a	1400	5MC	C3'-C4'-C5'-O5'
32	2a	527	G7M	O4'-C4'-C5'-O5'
32	2a	1400	5MC	C2'-C1'-N1-C6
1	2A	2503	2MA	O4'-C4'-C5'-O5'
32	2a	1519	MA6	O4'-C4'-C5'-O5'
43	2l	92	0TD	CG-CB-SB-CSB
32	2a	1498	UR3	O4'-C4'-C5'-O5'
43	1l	92	0TD	SB-CB-CG-OD1
43	2l	92	0TD	SB-CB-CG-OD1
54	2x	76	8AN	C4'-C5'-O5'-P
32	2a	1400	5MC	O4'-C1'-N1-C6
54	1x	76	8AN	C4'-C5'-O5'-P
1	2A	2503	2MA	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C4'-C5'-O5'-P
32	2a	1400	5MC	O4'-C1'-N1-C2
32	2a	1400	5MC	C2'-C1'-N1-C2
43	1l	92	0TD	CG-CB-SB-CSB
1	1A	2503	2MA	C4'-C5'-O5'-P
32	1a	527	G7M	O4'-C4'-C5'-O5'
32	2a	1207	2MG	O4'-C4'-C5'-O5'
1	1A	2251	OMG	C4'-C5'-O5'-P
1	2A	1920	OMC	C2'-C1'-N1-C2

There are no ring outliers.

25 monomers are involved in 37 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	2A	1920	OMC	1	0
32	2a	1518	MA6	2	0
32	1a	1402	4OC	2	0
1	2A	1917	PSU	1	0
32	1a	1407	5MC	1	0
1	2A	2605	PSU	2	0
32	2a	1207	2MG	1	0
32	1a	1518	MA6	5	0
1	2A	1911	PSU	1	0
43	1l	92	0TD	2	0
32	1a	967	5MC	1	0
1	1A	1939	5MU	1	0
1	2A	2503	2MA	1	0
54	1x	76	8AN	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	2A	1915	5MU	1	0
32	2a	527	G7M	1	0
32	1a	1400	5MC	1	0
1	1A	2552	OMU	1	0
32	2a	1400	5MC	2	0
1	1A	2251	OMG	2	0
32	1a	1519	MA6	2	0
1	2A	1939	5MU	1	0
32	2a	1402	4OC	2	0
32	2a	1519	MA6	2	0
54	2x	76	8AN	2	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 2517 ligands modelled in this entry, 2507 are monoatomic - leaving 10 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
58	MPD	2A	3728	-	7,7,7	0.53	0	9,10,10	0.41	0
58	MPD	2A	3727	-	7,7,7	0.60	0	9,10,10	0.68	0
58	MPD	1A	4024	-	7,7,7	0.79	0	9,10,10	0.61	0
62	SF4	1d	306	35	0,12,12	-	-	-		
61	MRD	18	104	-	7,7,7	0.69	0	9,10,10	0.57	0
57	SPS	2x	103	56,54	20,23,23	1.29	3 (15%)	23,30,30	3.09	14 (60%)
57	SPS	1A	4023	56	20,23,23	1.67	4 (20%)	23,30,30	2.46	11 (47%)
62	SF4	2d	501	35	0,12,12	-	-	-		
58	MPD	2A	3729	-	7,7,7	0.27	0	9,10,10	0.32	0
59	ARG	1B	230	-	10,11,11	0.89	0	9,13,13	1.35	1 (11%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
58	MPD	2A	3728	-	-	1/5/5/5	-
58	MPD	2A	3727	-	-	0/5/5/5	-
58	MPD	1A	4024	-	-	1/5/5/5	-
62	SF4	1d	306	35	-	-	0/6/5/5
61	MRD	18	104	-	-	4/5/5/5	-
57	SPS	2x	103	56,54	-	2/15/18/18	0/1/1/1
57	SPS	1A	4023	56	-	5/15/18/18	0/1/1/1
62	SF4	2d	501	35	-	-	0/6/5/5
58	MPD	2A	3729	-	-	3/5/5/5	-
59	ARG	1B	230	-	-	8/11/11/11	-

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	1A	4023	SPS	C14-S15	-3.65	1.69	1.80
57	1A	4023	SPS	C16-S17	-3.50	1.76	1.79
57	1A	4023	SPS	C5-N4	-3.39	1.34	1.38
57	2x	103	SPS	C14-S15	-3.03	1.71	1.80
57	1A	4023	SPS	C6-C1	2.41	1.49	1.45
57	2x	103	SPS	C16-S17	-2.34	1.77	1.79
57	2x	103	SPS	C5-N4	-2.26	1.35	1.38

All (26) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	2x	103	SPS	O15-S15-C14	7.23	115.82	106.12
57	2x	103	SPS	C7-C5-N4	6.17	120.59	113.42
57	2x	103	SPS	C7-C5-C6	-5.49	119.36	126.47
57	1A	4023	SPS	C7-C5-N4	5.31	119.59	113.42
57	1A	4023	SPS	C7-C5-C6	-4.62	120.48	126.47
57	2x	103	SPS	C9-C10-N11	4.31	121.98	114.61
57	2x	103	SPS	O1-C1-C6	-4.12	116.90	125.98
57	1A	4023	SPS	C9-C10-N11	4.02	121.48	114.61
59	1B	230	ARG	OXT-C-O	-3.55	116.03	124.08
57	2x	103	SPS	O15-S15-C16	3.39	110.50	106.47
57	1A	4023	SPS	N4-C3-N2	3.35	121.00	115.74
57	1A	4023	SPS	O15-S15-C16	-3.08	102.80	106.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	1A	4023	SPS	O13-C13-C12	-2.96	104.28	111.73
57	2x	103	SPS	O3-C3-N4	-2.89	116.73	121.86
57	1A	4023	SPS	C6-C1-N2	2.83	119.40	114.45
57	1A	4023	SPS	C1-N2-C3	-2.75	122.58	126.37
57	2x	103	SPS	N4-C3-N2	2.49	119.65	115.74
57	1A	4023	SPS	O3-C3-N4	-2.46	117.50	121.86
57	2x	103	SPS	C8-C9-C10	-2.45	115.59	125.43
57	2x	103	SPS	C6-C1-N2	2.38	118.61	114.45
57	2x	103	SPS	O1-C1-N2	2.32	124.48	120.11
57	1A	4023	SPS	O1-C1-C6	-2.16	121.21	125.98
57	2x	103	SPS	C1-N2-C3	-2.13	123.43	126.37
57	2x	103	SPS	O10-C10-N11	-2.10	119.69	122.44
57	1A	4023	SPS	O10-C10-N11	-2.06	119.75	122.44
57	2x	103	SPS	O10-C10-C9	-2.02	118.30	122.95

There are no chirality outliers.

All (24) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
57	1A	4023	SPS	N11-C12-C13-O13
57	1A	4023	SPS	C14-C12-C13-O13
57	1A	4023	SPS	C12-C14-S15-O15
57	1A	4023	SPS	C12-C14-S15-C16
57	2x	103	SPS	N11-C12-C13-O13
57	2x	103	SPS	C14-C12-C13-O13
61	18	104	MRD	C2-C3-C4-O4
61	18	104	MRD	C2-C3-C4-C5
59	1B	230	ARG	OXT-C-CA-N
59	1B	230	ARG	NE-CD-CG-CB
58	1A	4024	MPD	O2-C2-C3-C4
58	2A	3729	MPD	C1-C2-C3-C4
58	2A	3729	MPD	CM-C2-C3-C4
59	1B	230	ARG	N-CA-CB-CG
57	1A	4023	SPS	C5-C6-C8-C9
59	1B	230	ARG	O-C-CA-CB
59	1B	230	ARG	OXT-C-CA-CB
59	1B	230	ARG	C-CA-CB-CG
58	2A	3729	MPD	O2-C2-C3-C4
61	18	104	MRD	O2-C2-C3-C4
58	2A	3728	MPD	C1-C2-C3-C4
61	18	104	MRD	C1-C2-C3-C4
59	1B	230	ARG	CA-CB-CG-CD

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Mol	Chain	Res	Type	Atoms
59	1B	230	ARG	O-C-CA-N

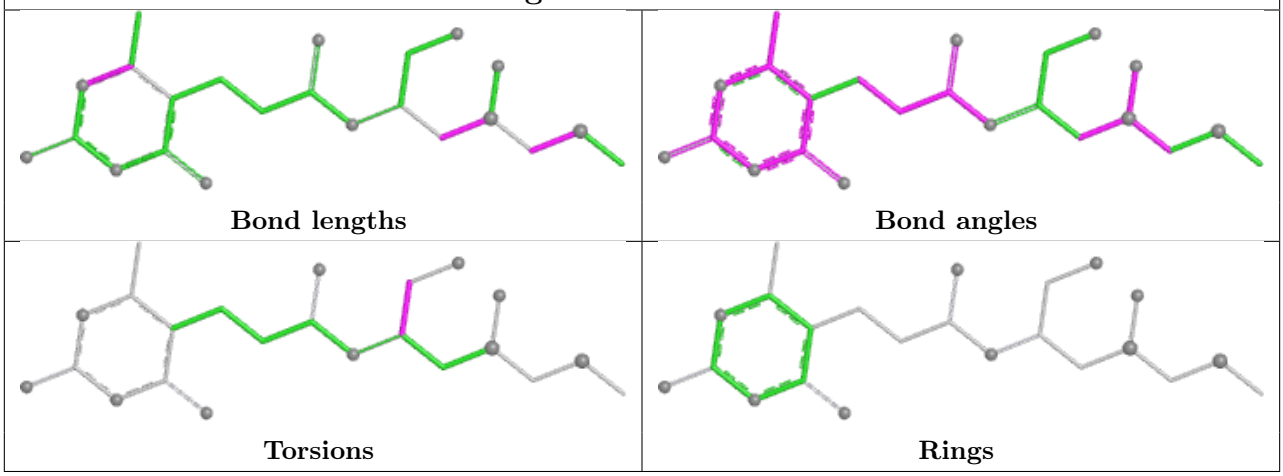
There are no ring outliers.

8 monomers are involved in 18 short contacts:

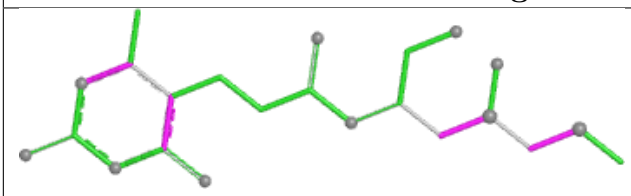
Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	2A	3727	MPD	1	0
58	1A	4024	MPD	2	0
62	1d	306	SF4	1	0
61	18	104	MRD	1	0
57	2x	103	SPS	4	0
57	1A	4023	SPS	4	0
62	2d	501	SF4	1	0
59	1B	230	ARG	4	0

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

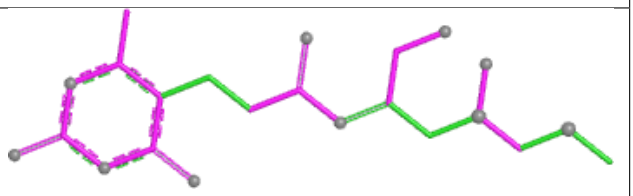
Ligand SPS 2x 103



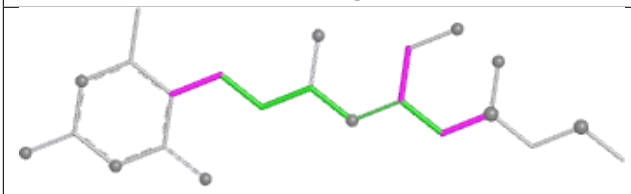
Ligand SPS 1A 4023



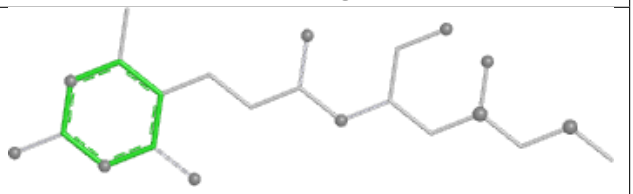
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 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	2861/2915 (98%)	-0.49	89 (3%) 51 49	13, 33, 88, 102	0
1	2A	2856/2915 (97%)	-0.14	115 (4%) 42 40	24, 49, 91, 104	0
2	1B	120/121 (99%)	-0.42	0 100 100	25, 46, 61, 79	0
2	2B	120/121 (99%)	0.41	5 (4%) 40 39	50, 69, 78, 87	0
3	1D	275/276 (99%)	-0.15	3 (1%) 78 77	17, 34, 48, 68	0
3	2D	275/276 (99%)	0.03	2 (0%) 84 84	24, 41, 57, 73	0
4	1E	204/206 (99%)	-0.20	1 (0%) 87 87	16, 37, 57, 72	0
4	2E	204/206 (99%)	0.04	2 (0%) 79 79	27, 51, 66, 76	0
5	1F	203/210 (96%)	-0.08	2 (0%) 79 79	18, 38, 66, 77	0
5	2F	203/210 (96%)	0.34	5 (2%) 58 56	29, 60, 73, 83	0
6	1G	181/182 (99%)	0.37	3 (1%) 69 67	45, 62, 74, 81	0
6	2G	181/182 (99%)	0.88	13 (7%) 21 21	63, 76, 85, 91	0
7	1H	174/180 (96%)	0.09	1 (0%) 85 86	36, 50, 61, 65	0
7	2H	173/180 (96%)	1.10	16 (9%) 14 14	63, 76, 83, 87	0
8	1I	147/148 (99%)	0.61	5 (3%) 48 46	37, 67, 76, 85	0
8	2I	146/148 (98%)	0.79	7 (4%) 35 35	50, 71, 80, 83	0
9	1N	140/140 (100%)	-0.12	4 (2%) 53 52	21, 37, 56, 72	0
9	2N	140/140 (100%)	0.22	0 100 100	37, 55, 69, 80	0
10	1O	122/122 (100%)	-0.14	0 100 100	24, 37, 56, 61	0
10	2O	122/122 (100%)	0.11	0 100 100	35, 49, 63, 68	0
11	1P	149/150 (99%)	-0.05	0 100 100	18, 42, 62, 70	0
11	2P	149/150 (99%)	0.23	1 (0%) 84 84	28, 58, 75, 82	0
12	1Q	141/141 (100%)	-0.17	2 (1%) 73 73	21, 37, 49, 60	0
12	2Q	141/141 (100%)	0.34	1 (0%) 84 84	38, 55, 68, 74	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	1R	118/118 (100%)	-0.19	0 100 100	23, 33, 44, 56	0
13	2R	118/118 (100%)	0.05	0 100 100	32, 45, 56, 69	0
14	1S	110/112 (98%)	0.09	1 (0%) 81 81	35, 44, 60, 64	0
14	2S	110/112 (98%)	1.10	12 (10%) 10 9	54, 65, 72, 75	0
15	1T	131/146 (89%)	0.13	3 (2%) 61 59	30, 42, 62, 78	0
15	2T	131/146 (89%)	0.23	2 (1%) 72 71	43, 53, 75, 81	0
16	1U	116/118 (98%)	-0.28	0 100 100	22, 29, 47, 54	0
16	2U	116/118 (98%)	0.15	1 (0%) 81 81	32, 50, 67, 69	0
17	1V	101/101 (100%)	-0.20	1 (0%) 79 79	19, 41, 58, 66	0
17	2V	101/101 (100%)	0.39	1 (0%) 79 79	37, 62, 72, 84	0
18	1W	112/113 (99%)	-0.15	0 100 100	18, 29, 51, 78	0
18	2W	112/113 (99%)	0.15	2 (1%) 67 65	34, 43, 61, 82	0
19	1X	95/96 (98%)	-0.23	1 (1%) 78 77	22, 33, 56, 68	0
19	2X	95/96 (98%)	0.19	1 (1%) 78 77	39, 52, 66, 73	0
20	1Y	107/110 (97%)	0.03	2 (1%) 66 64	32, 45, 61, 72	0
20	2Y	107/110 (97%)	1.02	9 (8%) 17 17	50, 64, 73, 80	0
21	1Z	203/206 (98%)	0.43	7 (3%) 48 46	38, 54, 71, 78	0
21	2Z	201/206 (97%)	0.74	8 (3%) 42 40	55, 70, 78, 84	0
22	10	83/85 (97%)	0.03	4 (4%) 35 35	26, 34, 63, 74	0
22	20	83/85 (97%)	0.84	9 (10%) 11 9	38, 55, 69, 84	0
23	11	97/98 (98%)	-0.07	2 (2%) 63 61	21, 40, 62, 72	0
23	21	97/98 (98%)	0.40	2 (2%) 63 61	32, 48, 68, 76	0
24	12	70/72 (97%)	-0.11	0 100 100	30, 44, 55, 75	0
24	22	70/72 (97%)	0.25	0 100 100	51, 62, 70, 74	0
25	13	59/60 (98%)	-0.26	1 (1%) 69 67	25, 35, 60, 73	0
25	23	59/60 (98%)	0.34	0 100 100	40, 53, 71, 74	0
26	14	69/71 (97%)	0.78	7 (10%) 12 11	54, 77, 86, 91	0
26	24	69/71 (97%)	1.12	11 (15%) 5 4	75, 84, 91, 95	0
27	15	59/60 (98%)	-0.13	0 100 100	18, 34, 52, 65	0
27	25	59/60 (98%)	-0.02	0 100 100	27, 44, 59, 71	0
28	16	53/54 (98%)	-0.36	0 100 100	27, 38, 53, 60	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	26	53/54 (98%)	0.18	1 (1%) 66 64	41, 52, 62, 71	0
29	17	48/49 (97%)	-0.16	1 (2%) 63 61	17, 22, 51, 57	0
29	27	48/49 (97%)	-0.08	1 (2%) 63 61	25, 35, 54, 64	0
30	18	64/65 (98%)	-0.38	0 100 100	23, 30, 40, 48	0
30	28	64/65 (98%)	-0.00	0 100 100	37, 47, 53, 59	0
31	19	37/37 (100%)	-0.14	0 100 100	29, 37, 56, 58	0
31	29	37/37 (100%)	0.60	1 (2%) 56 54	47, 58, 70, 73	0
32	1a	1488/1521 (97%)	0.19	30 (2%) 65 63	34, 65, 88, 101	0
32	2a	1492/1521 (98%)	0.31	50 (3%) 48 46	40, 69, 90, 102	0
33	1b	231/256 (90%)	0.83	20 (8%) 16 16	66, 74, 83, 88	0
33	2b	231/256 (90%)	0.98	23 (9%) 12 12	64, 77, 84, 89	0
34	1c	206/239 (86%)	0.57	8 (3%) 43 40	53, 69, 79, 84	0
34	2c	206/239 (86%)	1.22	33 (16%) 5 4	65, 76, 83, 87	0
35	1d	208/209 (99%)	0.62	12 (5%) 29 29	53, 67, 77, 82	0
35	2d	208/209 (99%)	0.76	15 (7%) 21 21	55, 67, 74, 80	0
36	1e	148/162 (91%)	0.39	4 (2%) 56 54	50, 63, 70, 76	0
36	2e	148/162 (91%)	0.45	2 (1%) 73 73	53, 65, 74, 82	0
37	1f	100/101 (99%)	0.49	1 (1%) 79 79	48, 62, 71, 76	0
37	2f	100/101 (99%)	0.41	0 100 100	55, 66, 73, 76	0
38	1g	155/156 (99%)	0.59	6 (3%) 43 40	57, 67, 76, 80	0
38	2g	155/156 (99%)	1.08	13 (8%) 17 17	61, 75, 82, 87	0
39	1h	137/138 (99%)	0.45	2 (1%) 72 71	53, 65, 72, 75	0
39	2h	137/138 (99%)	0.42	4 (2%) 53 52	60, 66, 72, 77	0
40	1i	127/128 (99%)	1.17	22 (17%) 4 3	59, 72, 80, 84	0
40	2i	126/128 (98%)	1.66	40 (31%) 1 1	68, 79, 85, 88	0
41	1j	97/105 (92%)	0.79	8 (8%) 17 18	56, 74, 84, 85	0
41	2j	96/105 (91%)	1.50	25 (26%) 1 1	67, 79, 84, 91	0
42	1k	114/129 (88%)	0.21	1 (0%) 81 81	41, 59, 70, 74	0
42	2k	114/129 (88%)	0.75	4 (3%) 47 44	54, 68, 77, 82	0
43	1l	121/132 (91%)	0.32	3 (2%) 58 56	42, 56, 65, 70	0
43	2l	121/132 (91%)	0.45	5 (4%) 41 39	47, 60, 67, 72	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	1m	116/126 (92%)	1.06	16 (13%) 6 5	58, 71, 79, 86	0
44	2m	114/126 (90%)	1.14	15 (13%) 7 6	69, 79, 83, 89	0
45	1n	60/61 (98%)	0.70	3 (5%) 34 34	55, 65, 73, 74	0
45	2n	60/61 (98%)	1.58	16 (26%) 1 1	68, 77, 83, 84	0
46	1o	88/89 (98%)	0.37	2 (2%) 61 59	47, 61, 73, 78	0
46	2o	88/89 (98%)	0.69	7 (7%) 18 18	55, 66, 75, 78	0
47	1p	82/88 (93%)	1.28	16 (19%) 3 2	60, 67, 76, 84	0
47	2p	82/88 (93%)	0.92	6 (7%) 21 21	58, 64, 72, 78	0
48	1q	99/105 (94%)	0.57	1 (1%) 79 79	48, 63, 73, 77	0
48	2q	99/105 (94%)	0.65	2 (2%) 65 63	52, 62, 73, 81	0
49	1r	68/88 (77%)	0.38	3 (4%) 39 38	52, 62, 74, 77	0
49	2r	68/88 (77%)	0.27	0 100 100	57, 65, 74, 76	0
50	1s	83/93 (89%)	1.02	7 (8%) 17 17	64, 72, 78, 85	0
50	2s	83/93 (89%)	1.18	9 (10%) 11 9	57, 79, 85, 88	0
51	1t	96/106 (90%)	1.06	10 (10%) 11 11	55, 66, 77, 82	0
51	2t	98/106 (92%)	0.71	6 (6%) 27 27	52, 63, 74, 76	0
52	1u	23/27 (85%)	1.14	2 (8%) 16 16	63, 69, 72, 77	0
52	2u	23/27 (85%)	1.64	7 (30%) 1 1	70, 73, 78, 78	0
53	1y	97/113 (85%)	0.57	4 (4%) 41 39	47, 61, 71, 76	0
53	2y	96/113 (84%)	1.34	24 (25%) 2 1	64, 75, 82, 84	0
54	1x	3/4 (75%)	0.53	1 (33%) 1 0	30, 30, 31, 59	0
54	2x	3/4 (75%)	0.70	1 (33%) 1 0	40, 40, 43, 65	0
55	1v	3/3 (100%)	0.63	0 100 100	39, 39, 41, 44	0
55	2v	3/3 (100%)	0.52	0 100 100	45, 45, 55, 57	0
All	All	20790/21482 (96%)	0.20	857 (4%) 41 39	13, 58, 83, 104	0

All (857) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
22	20	7	LEU	7.5
38	2g	82	GLY	6.6
23	21	2	SER	5.9
22	10	7	LEU	5.9
33	1b	214	ILE	5.7

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Mol	Chain	Res	Type	RSRZ
1	1A	1094	U	5.3
26	14	59	PHE	5.2
45	2n	2	ALA	5.1
53	2y	12	ILE	5.0
1	1A	1081	U	5.0
1	2A	1087	G	4.9
1	2A	1067	A	4.6
41	2j	34	VAL	4.6
52	2u	14	TRP	4.6
1	1A	1087	G	4.5
1	1A	1080	C	4.5
1	1A	1077	A	4.5
32	2a	93	G	4.4
39	1h	110	ALA	4.4
1	2A	1079	C	4.4
41	2j	46	ARG	4.3
1	2A	1091	G	4.3
1	2A	2148	G	4.3
1	1A	1090	U	4.3
1	1A	1093	G	4.2
1	2A	1085	A	4.2
21	1Z	192	ALA	4.2
1	2A	2121	G	4.2
3	2D	217	ARG	4.2
40	2i	43	ALA	4.1
22	20	2	ALA	4.1
45	2n	30	ALA	4.1
1	1A	1076	C	4.1
1	2A	2174	C	4.1
1	2A	1082	U	4.0
1	2A	2109	U	4.0
1	2A	1086	A	4.0
51	1t	18	GLN	4.0
38	2g	83	ALA	4.0
1	2A	2120	G	4.0
1	2A	2147	G	4.0
1	2A	2139	C	4.0
15	1T	131	ALA	3.9
44	2m	100	GLY	3.9
1	1A	1095	A	3.9
1	1A	1091	G	3.9
1	1A	1079	C	3.9

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Mol	Chain	Res	Type	RSRZ
53	2y	9	GLN	3.8
20	2Y	10	GLY	3.8
1	2A	2142	C	3.8
32	2a	1030(B)	C	3.8
7	2H	165	ALA	3.8
1	2A	2124	G	3.8
1	1A	1092	C	3.8
22	10	3	HIS	3.8
22	20	6	GLY	3.8
40	1i	106	ALA	3.8
54	1x	73	A	3.7
1	2A	1046	A	3.7
1	2A	2169	A	3.7
38	1g	39	ALA	3.7
40	2i	119	ALA	3.7
1	2A	2125	G	3.7
45	1n	2	ALA	3.7
1	1A	2158	A	3.7
1	2A	1056	G	3.7
40	2i	102	LEU	3.7
35	1d	2	GLY	3.7
40	2i	84	ALA	3.7
51	1t	103	GLY	3.7
1	2A	1064	C	3.6
51	1t	47	GLY	3.6
22	20	3	HIS	3.6
40	2i	75	ASP	3.6
40	2i	82	ALA	3.6
1	1A	2143	C	3.6
32	2a	1030(A)	G	3.6
1	1A	1061	U	3.6
1	2A	2132	U	3.6
32	2a	1257	U	3.6
1	2A	1084	A	3.6
41	2j	67	THR	3.5
40	2i	91	ASP	3.5
32	2a	98	G	3.5
38	2g	7	ALA	3.5
47	2p	10	GLY	3.5
15	1T	37	GLY	3.5
33	2b	18	GLY	3.5
1	2A	2138	C	3.5

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Mol	Chain	Res	Type	RSRZ
40	2i	86	VAL	3.5
44	1m	56	LEU	3.5
1	1A	1078	U	3.5
1	2A	1103	A	3.5
32	1a	1286	A	3.5
54	2x	73	A	3.5
6	2G	50	ALA	3.5
1	2A	2140	C	3.5
1	2A	888	C	3.4
1	1A	1059	G	3.4
1	1A	6	A	3.4
34	1c	79	ARG	3.4
5	2F	22	ALA	3.4
44	1m	113	PRO	3.4
26	14	49	PHE	3.4
44	1m	53	VAL	3.4
45	2n	25	VAL	3.4
45	2n	21	TYR	3.4
8	2I	85	GLU	3.4
47	1p	78	GLY	3.4
51	2t	103	GLY	3.4
40	2i	125	TYR	3.4
1	1A	2112	G	3.4
32	2a	1036	G	3.4
38	2g	5	ARG	3.4
40	2i	56	LEU	3.3
1	2A	1089	G	3.3
40	2i	33	PHE	3.3
46	2o	68	ARG	3.3
26	24	56	VAL	3.3
33	2b	163	PHE	3.3
1	1A	1070	A	3.3
1	2A	1057	A	3.3
1	2A	2141	G	3.3
34	2c	87	LEU	3.3
1	1A	1097	U	3.3
22	10	2	ALA	3.3
40	1i	95	LYS	3.3
32	1a	1030(A)	G	3.3
34	2c	154	SER	3.3
43	2l	56	ALA	3.3
1	1A	1104	C	3.2

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Mol	Chain	Res	Type	RSRZ
44	2m	24	GLY	3.2
15	1T	130	ALA	3.2
1	1A	1089	G	3.2
1	2A	2116	G	3.2
40	2i	127	LYS	3.2
52	2u	3	LYS	3.2
26	14	52	THR	3.2
6	2G	42	GLY	3.2
1	1A	2107	C	3.2
1	1A	2142	C	3.2
33	1b	34	ALA	3.2
33	1b	17	PHE	3.2
40	1i	66	ARG	3.2
1	2A	2152	G	3.2
33	1b	222	ILE	3.2
1	1A	1072	C	3.1
40	2i	96	LEU	3.1
51	2t	6	PRO	3.1
40	1i	46	ALA	3.1
34	2c	128	PHE	3.1
38	2g	154	TYR	3.1
41	2j	91	PRO	3.1
36	2e	20	GLN	3.1
32	1a	1019	C	3.1
40	1i	83	ARG	3.1
1	2A	2144	U	3.1
39	2h	2	LEU	3.1
1	1A	2141	G	3.1
1	2A	2149	G	3.1
32	1a	1036	G	3.1
32	2a	1003	G	3.1
34	2c	191	THR	3.1
40	2i	6	GLY	3.1
1	1A	2146	C	3.1
1	2A	1100	C	3.1
1	2A	2143	C	3.1
32	2a	88	A	3.0
35	1d	179	GLU	3.0
14	2S	11	LYS	3.0
40	2i	113	LYS	3.0
40	1i	15	ALA	3.0
44	1m	2	ALA	3.0

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Mol	Chain	Res	Type	RSRZ
34	2c	151	VAL	3.0
1	2A	2162	G	3.0
1	2A	2107	C	3.0
1	2A	2179	C	3.0
40	2i	5	TYR	3.0
1	2A	2150	U	3.0
41	2j	54	PHE	3.0
53	2y	11	GLU	3.0
35	1d	138	TYR	3.0
21	2Z	147	GLY	3.0
47	2p	78	GLY	3.0
36	1e	86	ALA	3.0
1	2A	2180	U	3.0
33	2b	164	VAL	3.0
41	2j	63	PHE	3.0
28	26	11	LEU	3.0
45	2n	61	TRP	3.0
33	1b	131	PRO	3.0
53	2y	14	PRO	3.0
33	2b	22	LYS	3.0
32	1a	1003	G	3.0
26	24	33	VAL	3.0
41	2j	47	PHE	3.0
50	2s	41	VAL	3.0
1	2A	1083	U	2.9
7	2H	116	GLU	2.9
23	11	2	SER	2.9
11	2P	68	GLN	2.9
44	1m	101	GLN	2.9
20	2Y	58	GLY	2.9
44	1m	43	THR	2.9
53	2y	60	VAL	2.9
32	2a	1030	C	2.9
1	1A	1082	U	2.9
14	2S	35	ILE	2.9
40	2i	77	ILE	2.9
38	2g	34	GLY	2.9
5	2F	115	ALA	2.9
41	2j	37	PRO	2.9
16	2U	59	ARG	2.9
1	1A	1074	G	2.9
1	2A	2131	G	2.9

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Mol	Chain	Res	Type	RSRZ
1	2A	2172	U	2.9
33	2b	29	ALA	2.9
7	2H	114	VAL	2.9
33	2b	152	PHE	2.9
8	2I	14	ASP	2.9
32	2a	77	G	2.9
36	1e	91	LEU	2.9
43	2l	17	LYS	2.9
41	2j	64	GLU	2.8
7	2H	3	ARG	2.8
5	1F	208	GLY	2.8
43	1l	64	TYR	2.8
33	1b	187	LEU	2.8
34	2c	168	ALA	2.8
41	2j	32	ALA	2.8
51	1t	20	LEU	2.8
53	1y	98	ALA	2.8
1	1A	2144	U	2.8
1	2A	1050	A	2.8
32	1a	1020	U	2.8
34	2c	130	VAL	2.8
32	2a	1286	A	2.8
1	2A	34	C	2.8
1	2A	1072	C	2.8
1	2A	2161	C	2.8
32	2a	1363	C	2.8
7	2H	41	MET	2.8
34	1c	84	ILE	2.8
41	2j	65	LEU	2.8
45	2n	39	LEU	2.8
35	1d	195	ALA	2.8
8	2I	3	VAL	2.8
47	1p	53	VAL	2.8
1	2A	271(K)	U	2.8
1	2A	1090	U	2.8
44	2m	102	ARG	2.8
1	2A	652(A)	A	2.8
1	2A	1536	C	2.8
1	1A	1071	G	2.8
1	1A	2155	G	2.8
1	2A	2110	G	2.8
32	2a	971	G	2.8

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Mol	Chain	Res	Type	RSRZ
32	2a	1024	G	2.8
32	2a	1033	G	2.8
20	2Y	90	LEU	2.8
7	2H	159	GLU	2.8
8	1I	3	VAL	2.8
51	1t	73	HIS	2.8
14	2S	33	LYS	2.8
32	2a	92	C	2.8
33	1b	218	ALA	2.8
34	2c	153	VAL	2.8
41	2j	92	THR	2.8
1	1A	1068	G	2.8
1	2A	1099	G	2.8
1	2A	2123	G	2.8
32	2a	1026	G	2.8
39	2h	111	ILE	2.7
1	1A	1060	U	2.7
34	2c	175	LEU	2.7
32	2a	1030(D)	A	2.7
38	1g	40	ALA	2.7
43	2l	16	GLU	2.7
38	1g	62	PHE	2.7
40	1i	125	TYR	2.7
8	1I	109	ILE	2.7
31	29	17	ILE	2.7
17	1V	101	GLY	2.7
20	1Y	92	ASN	2.7
42	2k	118	GLY	2.7
6	2G	46	ALA	2.7
26	14	56	VAL	2.7
26	24	21	VAL	2.7
45	2n	13	THR	2.7
1	1A	1086	A	2.7
1	1A	1088	A	2.7
1	2A	652(B)	A	2.7
32	1a	101	A	2.7
32	1a	1492	A	2.7
32	1a	1030(B)	C	2.7
32	2a	1362	C	2.7
53	2y	40	ILE	2.7
50	2s	71	LEU	2.7
37	1f	90	VAL	2.7

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Mol	Chain	Res	Type	RSRZ
45	1n	20	ALA	2.7
47	1p	2	VAL	2.7
47	2p	9	PHE	2.7
7	2H	55	PRO	2.7
40	2i	123	PRO	2.7
47	1p	43	LYS	2.7
1	1A	229	A	2.7
1	1A	2111	C	2.7
1	2A	1076	C	2.7
1	2A	1109	C	2.7
38	2g	153	HIS	2.7
34	2c	2	GLY	2.7
44	1m	102	ARG	2.7
6	2G	80	PHE	2.7
41	2j	48	THR	2.7
1	1A	2127	G	2.6
32	1a	1024	G	2.6
32	2a	1001(A)	G	2.6
40	1i	88	TYR	2.6
1	1A	1067	A	2.6
1	1A	1098	A	2.6
14	2S	32	LEU	2.6
40	2i	117	HIS	2.6
44	2m	93	ARG	2.6
1	2A	2111	C	2.6
32	1a	1018	C	2.6
32	2a	1452	C	2.6
40	2i	126	SER	2.6
26	24	59	PHE	2.6
44	2m	15	VAL	2.6
44	2m	87	TYR	2.6
1	1A	2149	G	2.6
1	2A	2112	G	2.6
1	2A	2159	G	2.6
1	2A	2802	G	2.6
32	2a	97	G	2.6
33	1b	44	LEU	2.6
40	1i	16	ARG	2.6
35	2d	60	GLU	2.6
32	1a	1001	A	2.6
33	1b	37	ASN	2.6
50	2s	9	VAL	2.6

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Mol	Chain	Res	Type	RSRZ
50	2s	59	PRO	2.6
1	2A	2146	C	2.6
52	1u	5	ASP	2.6
20	2Y	96	ILE	2.6
14	2S	3	ARG	2.6
43	1l	89	ARG	2.6
41	2j	36	GLY	2.6
1	1A	2147	G	2.6
1	1A	2153	G	2.6
1	2A	2127	G	2.6
32	2a	78	G	2.6
32	2a	1034	G	2.6
18	2W	60	ASN	2.6
25	13	2	PRO	2.6
40	2i	13	ALA	2.6
8	1I	147	GLN	2.6
53	1y	42	SER	2.6
1	2A	2119	A	2.6
7	2H	42	ARG	2.6
44	1m	100	GLY	2.6
1	1A	2132	U	2.6
1	1A	2167	U	2.6
32	2a	84	U	2.6
35	2d	40	PRO	2.6
41	2j	44	VAL	2.6
34	1c	10	PHE	2.6
1	1A	2206	G	2.5
1	2A	1051	G	2.5
1	2A	2151	G	2.5
1	2A	2165	G	2.5
5	2F	112	MET	2.5
20	2Y	1	MET	2.5
1	1A	1103	A	2.5
1	1A	2176	A	2.5
1	2A	2173	A	2.5
2	2B	25	A	2.5
1	1A	2145	C	2.5
1	2A	1080	C	2.5
35	2d	6	GLY	2.5
40	2i	108	VAL	2.5
41	2j	39	PRO	2.5
47	1p	45	THR	2.5

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Mol	Chain	Res	Type	RSRZ
6	2G	136	ARG	2.5
50	1s	29	ARG	2.5
1	1A	2156	G	2.5
32	2a	1030(C)	G	2.5
40	2i	114	TYR	2.5
33	2b	230	VAL	2.5
43	2l	18	VAL	2.5
34	2c	160	ALA	2.5
38	2g	2	ALA	2.5
44	1m	28	ALA	2.5
1	2A	2108	C	2.5
22	20	43	THR	2.5
26	24	37	SER	2.5
9	1N	115	ARG	2.5
34	2c	32	LEU	2.5
40	2i	120	ARG	2.5
46	2o	69	TYR	2.5
12	1Q	33	GLY	2.5
35	2d	16	GLY	2.5
53	2y	92	GLY	2.5
44	2m	98	VAL	2.5
50	1s	11	VAL	2.5
34	2c	186	PHE	2.5
44	1m	63	THR	2.5
22	10	4	LYS	2.5
34	2c	188	LEU	2.5
35	2d	5	ILE	2.5
48	2q	98	LEU	2.5
1	2A	2118	U	2.5
32	2a	1025	U	2.5
7	2H	82	GLY	2.5
47	2p	38	TYR	2.5
51	2t	102	GLY	2.5
26	14	46	GLN	2.5
34	2c	207	VAL	2.5
53	2y	48	PHE	2.5
53	2y	73	ALA	2.5
44	1m	4	ILE	2.4
44	2m	48	LEU	2.4
1	1A	2159	G	2.4
4	1E	163	GLU	2.4
1	1A	2138	C	2.4

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Mol	Chain	Res	Type	RSRZ
1	1A	2150	U	2.4
14	2S	60	GLY	2.4
47	1p	1	MET	2.4
40	2i	4	TYR	2.4
44	1m	117	VAL	2.4
44	2m	54	VAL	2.4
34	2c	163	ALA	2.4
40	1i	18	PHE	2.4
53	2y	8	LYS	2.4
14	2S	51	ALA	2.4
6	2G	133	LEU	2.4
7	1H	2	SER	2.4
41	2j	62	HIS	2.4
1	2A	229	A	2.4
1	2A	2126	A	2.4
32	2a	1531	A	2.4
3	1D	275	LYS	2.4
22	20	4	LYS	2.4
7	2H	115	VAL	2.4
32	1a	1030	C	2.4
43	1l	18	VAL	2.4
44	1m	60	VAL	2.4
49	1r	86	VAL	2.4
1	2A	2130	U	2.4
32	1a	1257	U	2.4
52	2u	18	TYR	2.4
40	1i	59	PHE	2.4
40	1i	19	LEU	2.4
50	2s	15	LEU	2.4
34	2c	90	GLU	2.4
1	1A	1050	A	2.4
1	1A	2169	A	2.4
8	2I	80	PRO	2.4
44	2m	113	PRO	2.4
52	1u	23	PRO	2.4
7	2H	44	VAL	2.4
1	1A	2133	G	2.4
1	1A	2162	G	2.4
1	2A	1058	G	2.4
6	1G	146	TYR	2.4
32	2a	1202	G	2.4
40	1i	5	TYR	2.4

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Mol	Chain	Res	Type	RSRZ
52	2u	24	ARG	2.4
39	1h	2	LEU	2.4
40	2i	47	LEU	2.4
1	2A	2145	C	2.4
1	2A	2803	C	2.4
32	1a	1037	C	2.4
32	2a	96	U	2.4
53	2y	6	THR	2.4
32	2a	1277	C	2.4
32	2a	1354	C	2.4
33	1b	126	GLU	2.4
40	1i	126	SER	2.4
6	2G	155	MET	2.4
44	2m	13	LYS	2.4
45	2n	9	LYS	2.4
34	2c	80	GLY	2.4
46	2o	86	GLY	2.4
33	1b	230	VAL	2.4
33	2b	136	VAL	2.4
34	2c	11	ARG	2.4
45	2n	29	ARG	2.4
45	2n	35	ARG	2.4
1	1A	1073	A	2.4
33	2b	123	ALA	2.4
5	2F	181	LEU	2.3
34	1c	101	LEU	2.3
6	2G	77	ILE	2.3
33	2b	201	ILE	2.3
1	1A	1062	G	2.3
1	2A	958	U	2.3
1	2A	1060	U	2.3
1	2A	2122	U	2.3
1	2A	2160	G	2.3
32	2a	1031	G	2.3
41	1j	64	GLU	2.3
1	1A	2140	C	2.3
1	2A	1104	C	2.3
4	2E	89	ASP	2.3
14	2S	53	SER	2.3
18	2W	63	ASP	2.3
45	1n	14	PRO	2.3
12	1Q	5	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
21	2Z	141	VAL	2.3
21	1Z	188	ALA	2.3
39	2h	112	LEU	2.3
40	2i	15	ALA	2.3
40	2i	101	PHE	2.3
33	1b	51	LEU	2.3
33	2b	154	LEU	2.3
45	2n	53	LEU	2.3
53	2y	24	LEU	2.3
7	2H	151	ILE	2.3
19	1X	69	TYR	2.3
1	1A	1046	A	2.3
1	2A	1088	A	2.3
1	2A	1096	A	2.3
32	1a	1005	A	2.3
6	2G	137	GLU	2.3
9	1N	68	GLU	2.3
40	1i	127	LYS	2.3
1	2A	1081	U	2.3
2	2B	1	U	2.3
1	1A	1173	G	2.3
1	2A	1093	G	2.3
1	2A	2133	G	2.3
1	2A	2751	G	2.3
32	1a	1001(A)	G	2.3
32	1a	1033	G	2.3
1	2A	2177	C	2.3
34	2c	158	GLY	2.3
46	2o	71	GLN	2.3
6	2G	28	VAL	2.3
7	2H	64	LEU	2.3
44	1m	19	LEU	2.3
34	2c	77	ILE	2.3
3	1D	276	LYS	2.3
1	1A	2173	A	2.3
1	2A	6	A	2.3
32	2a	994	A	2.3
35	2d	7	PRO	2.3
40	2i	105	ASP	2.3
41	1j	35	SER	2.3
9	1N	8	GLN	2.3
46	2o	89	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
1	1A	362	U	2.3
1	1A	2113	U	2.3
32	2a	841	U	2.3
40	1i	17	VAL	2.3
50	1s	60	VAL	2.3
6	2G	125	PHE	2.3
1	2A	1059	G	2.3
34	1c	14	ILE	2.3
34	2c	152	ILE	2.3
1	2A	2129	C	2.3
1	2A	2137	C	2.3
32	1a	100	C	2.3
32	2a	1367	C	2.3
41	2j	56	HIS	2.3
14	2S	59	LYS	2.3
40	2i	7	THR	2.3
34	2c	48	TYR	2.3
42	1k	25	TYR	2.3
40	2i	2	GLU	2.3
34	2c	108	ASN	2.3
36	1e	73	ASN	2.3
35	2d	139	ARG	2.3
38	2g	81	GLY	2.3
50	1s	82	GLY	2.3
47	1p	79	VAL	2.3
6	1G	80	PHE	2.3
1	1A	1065	U	2.2
1	1A	1963	U	2.2
35	2d	48	ALA	2.2
38	2g	152	ALA	2.2
23	21	83	GLU	2.2
34	2c	193	TYR	2.2
1	2A	1102	C	2.2
32	1a	63	C	2.2
1	1A	1058	G	2.2
1	1A	1063	G	2.2
1	1A	2154	G	2.2
1	2A	1047	G	2.2
2	2B	54	G	2.2
32	1a	1032	G	2.2
32	2a	1185	G	2.2
53	2y	58	ASN	2.2

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Mol	Chain	Res	Type	RSRZ
33	2b	131	PRO	2.2
53	2y	45	PRO	2.2
40	2i	38	GLN	2.2
53	1y	51	ASP	2.2
38	2g	156	TRP	2.2
47	1p	59	TRP	2.2
7	2H	52	VAL	2.2
33	1b	165	VAL	2.2
1	2A	2176	A	2.2
3	2D	106	ILE	2.2
40	2i	122	ALA	2.2
45	2n	17	LYS	2.2
8	1I	108	THR	2.2
20	1Y	91	GLU	2.2
23	11	75	GLU	2.2
41	2j	42	THR	2.2
47	1p	44	THR	2.2
53	1y	68	GLU	2.2
21	2Z	29	TYR	2.2
33	2b	148	TYR	2.2
35	1d	4	TYR	2.2
40	1i	4	TYR	2.2
29	27	41	ARG	2.2
51	1t	25	ARG	2.2
8	2I	8	PRO	2.2
47	1p	46	PRO	2.2
1	1A	1075	C	2.2
1	2A	1092	C	2.2
21	2Z	77	ASP	2.2
1	1A	2151	G	2.2
1	1A	2152	G	2.2
1	2A	2153	G	2.2
1	2A	2157	G	2.2
32	2a	976	G	2.2
45	2n	47	LEU	2.2
33	2b	165	VAL	2.2
42	2k	108	ILE	2.2
47	1p	19	ILE	2.2
50	1s	47	HIS	2.2
15	2T	131	ALA	2.2
36	2e	86	ALA	2.2
47	1p	70	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
53	2y	52	ALA	2.2
26	24	30	GLU	2.2
40	2i	110	GLU	2.2
44	1m	103	THR	2.2
45	2n	46	GLU	2.2
32	1a	1447	A	2.2
1	1A	1083	U	2.2
22	20	77	ARG	2.2
34	2c	7	PRO	2.2
7	2H	7	LEU	2.2
38	1g	16	LEU	2.2
39	2h	4	ASP	2.2
41	2j	40	LEU	2.2
50	2s	68	GLY	2.2
34	1c	64	VAL	2.2
1	1A	1064	C	2.2
1	2A	2105	C	2.2
49	1r	43	PHE	2.2
14	2S	66	ALA	2.2
33	2b	207	ALA	2.2
1	2A	100	G	2.2
1	2A	545	G	2.2
1	2A	2154	G	2.2
51	2t	51	GLU	2.2
42	2k	126	ARG	2.2
51	1t	22	ARG	2.2
51	1t	83	ARG	2.2
52	2u	6	ARG	2.2
1	1A	2119	A	2.2
2	2B	120	A	2.2
40	2i	92	TYR	2.2
1	1A	1420	U	2.2
1	1A	2130	U	2.2
1	2A	1065	U	2.2
26	24	28	LYS	2.2
32	1a	991	U	2.2
40	2i	118	LYS	2.2
53	2y	91	LYS	2.2
33	2b	66	GLY	2.2
51	1t	102	GLY	2.2
21	1Z	191	VAL	2.2
50	1s	38	SER	2.2

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Mol	Chain	Res	Type	RSRZ
51	2t	11	SER	2.2
34	2c	176	HIS	2.2
53	2y	33	HIS	2.2
12	2Q	104	PHE	2.2
46	1o	80	ALA	2.1
49	1r	24	ALA	2.1
32	2a	840	C	2.1
32	2a	1006	C	2.1
33	1b	23	ARG	2.1
38	1g	41	ARG	2.1
1	2A	2805	G	2.1
6	2G	2	PRO	2.1
32	2a	80	G	2.1
32	2a	1032	G	2.1
33	2b	26	PRO	2.1
41	2j	41	PRO	2.1
20	2Y	19	LYS	2.1
51	1t	74	LYS	2.1
35	2d	21	LEU	2.1
50	1s	20	LEU	2.1
2	2B	53	A	2.1
32	2a	1256	A	2.1
9	1N	9	VAL	2.1
14	2S	69	VAL	2.1
21	2Z	52	SER	2.1
38	1g	98	SER	2.1
6	1G	46	ALA	2.1
40	2i	94	ALA	2.1
40	2i	106	ALA	2.1
26	14	55	ARG	2.1
1	1A	2139	C	2.1
32	1a	1038	C	2.1
32	2a	1038	C	2.1
35	2d	62	GLN	2.1
20	2Y	55	TYR	2.1
26	24	25	TYR	2.1
33	2b	213	LEU	2.1
34	2c	34	LEU	2.1
47	2p	6	LEU	2.1
21	1Z	147	GLY	2.1
21	1Z	160	GLY	2.1
22	20	76	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
34	1c	51	GLY	2.1
36	1e	85	GLY	2.1
1	1A	2166	G	2.1
1	2A	2894	G	2.1
7	2H	45	VAL	2.1
20	2Y	7	VAL	2.1
40	1i	14	VAL	2.1
41	2j	72	VAL	2.1
43	2l	7	ILE	2.1
20	2Y	60	PHE	2.1
1	2A	1045	A	2.1
1	2A	1073	A	2.1
5	2F	111	ALA	2.1
35	1d	111	ALA	2.1
48	2q	49	GLU	2.1
53	2y	44	GLU	2.1
33	1b	234	PRO	2.1
35	2d	45	GLN	2.1
40	1i	79	LEU	2.1
41	2j	71	LEU	2.1
6	2G	12	TYR	2.1
26	14	45	GLY	2.1
26	24	19	GLY	2.1
34	1c	13	GLY	2.1
21	2Z	47	VAL	2.1
32	1a	479	C	2.1
32	2a	89	C	2.1
32	2a	999	C	2.1
32	2a	1037	C	2.1
33	1b	7	VAL	2.1
35	2d	8	VAL	2.1
41	1j	4	ILE	2.1
8	2I	115	ALA	2.1
15	2T	130	ALA	2.1
35	2d	137	SER	2.1
33	2b	86	GLU	2.1
46	2o	88	ARG	2.1
50	2s	78	ARG	2.1
53	2y	17	ARG	2.1
53	2y	83	ARG	2.1
1	1A	1176	G	2.1
1	1A	2104	G	2.1

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Mol	Chain	Res	Type	RSRZ
1	1A	2131	G	2.1
1	2A	1062	G	2.1
32	1a	1023	G	2.1
32	2a	1182	G	2.1
1	2A	2892	A	2.1
32	2a	1212	U	2.1
21	2Z	68	PRO	2.1
44	2m	41	PRO	2.1
34	2c	28	GLN	2.1
33	2b	149	LEU	2.1
33	2b	196	LEU	2.1
35	1d	174	LEU	2.1
35	1d	194	LEU	2.1
35	2d	162	LEU	2.1
5	1F	133	ASN	2.1
8	2I	71	ILE	2.1
34	2c	157	ILE	2.1
34	2c	182	ILE	2.1
41	1j	98	ILE	2.1
44	2m	59	TYR	2.1
14	2S	65	VAL	2.1
3	1D	263	ARG	2.0
14	1S	20	ARG	2.0
21	1Z	72	ARG	2.0
29	17	47	ARG	2.0
34	2c	79	ARG	2.0
35	1d	3	ARG	2.0
33	2b	225	ALA	2.0
40	1i	43	ALA	2.0
46	1o	6	GLU	2.0
1	1A	1100	C	2.0
4	2E	107	THR	2.0
44	2m	103	THR	2.0
26	24	29	PRO	2.0
48	1q	28	PRO	2.0
53	2y	10	MET	2.0
1	2A	2897	U	2.0
17	2V	20	LEU	2.0
21	2Z	33	LEU	2.0
33	2b	215	LEU	2.0
35	1d	155	LEU	2.0
40	1i	85	LEU	2.0

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Mol	Chain	Res	Type	RSRZ
41	2j	90	LEU	2.0
44	2m	96	LEU	2.0
46	2o	31	LEU	2.0
50	2s	16	LEU	2.0
1	2A	1170	G	2.0
1	2A	2318	G	2.0
32	1a	1035	A	2.0
32	1a	1493	A	2.0
32	2a	1190	G	2.0
33	1b	19	HIS	2.0
26	24	14	ILE	2.0
34	2c	124	ILE	2.0
41	1j	50	ILE	2.0
53	2y	78	ILE	2.0
35	2d	20	TYR	2.0
41	1j	44	VAL	2.0
40	1i	104	ARG	2.0
40	2i	111	ARG	2.0
41	2j	43	ARG	2.0
45	2n	23	ARG	2.0
47	1p	72	ARG	2.0
47	2p	80	PHE	2.0
52	2u	15	ARG	2.0
8	1I	14	ASP	2.0
33	1b	12	GLU	2.0
19	2X	46	ALA	2.0
33	1b	188	ALA	2.0
47	1p	68	ASP	2.0
35	1d	169	LYS	2.0
50	2s	66	MET	2.0
52	2u	23	PRO	2.0
1	1A	2794	C	2.0
1	2A	2183	C	2.0
33	1b	11	LEU	2.0
38	2g	22	LEU	2.0
47	1p	82	GLN	2.0
51	2t	84	LEU	2.0
1	1A	1026	U	2.0
1	1A	2109	U	2.0
32	1a	723	U	2.0
21	1Z	133	ILE	2.0
41	1j	36	GLY	2.0

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Mol	Chain	Res	Type	RSRZ
41	1j	75	ILE	2.0
44	1m	112	GLY	2.0
53	2y	39	ILE	2.0
32	1a	389	A	2.0
35	1d	112	VAL	2.0
40	2i	17	VAL	2.0
53	2y	20	VAL	2.0
22	20	78	TYR	2.0
38	2g	85	TYR	2.0
42	2k	75	TYR	2.0
45	2n	34	TYR	2.0
47	1p	17	TYR	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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	0.11	69,76,86,94	0
32	M2G	2a	966	25/26	0.86	0.16	59,66,77,82	0
32	2MG	2a	1207	24/25	0.86	0.13	75,82,88,93	0
43	0TD	2l	92	10/11	0.87	0.11	55,57,61,84	0
1	5MU	1A	1915	21/22	0.88	0.12	69,75,79,82	0
1	PSU	1A	1917	20/21	0.88	0.11	64,68,77,78	0
1	PSU	2A	1917	20/21	0.91	0.09	64,72,78,78	0
32	5MC	2a	967	21/22	0.91	0.15	63,66,74,80	0
1	PSU	2A	1911	20/21	0.92	0.07	64,69,73,81	0
1	PSU	1A	1911	20/21	0.92	0.10	54,62,68,69	0
43	0TD	1l	92	10/11	0.92	0.13	51,55,58,60	0
32	PSU	2a	516	20/21	0.92	0.09	65,72,75,77	0
32	PSU	1a	516	20/21	0.93	0.10	61,66,71,71	0
32	2MG	1a	1207	24/25	0.94	0.10	66,69,72,75	0
32	5MC	2a	1407	21/22	0.94	0.10	49,60,64,69	0
32	UR3	2a	1498	21/22	0.94	0.10	52,57,63,63	0
32	M2G	1a	966	25/26	0.94	0.10	55,59,62,68	0
32	G7M	2a	527	24/25	0.95	0.09	48,60,65,69	0
32	G7M	1a	527	24/25	0.95	0.09	44,51,58,60	0
32	5MC	1a	1400	21/22	0.95	0.10	40,51,57,65	0
32	MA6	1a	1518	24/25	0.95	0.11	42,47,54,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
32	5MC	2a	1400	21/22	0.95	0.11	60,67,72,78	0
32	5MC	2a	1404	21/22	0.95	0.09	46,59,63,64	0
1	OMC	2A	1920	21/22	0.95	0.07	56,63,67,70	0
1	5MC	2A	1942	21/22	0.95	0.09	40,43,46,49	0
32	MA6	2a	1518	24/25	0.95	0.09	53,58,62,63	0
32	5MC	1a	967	21/22	0.95	0.10	62,68,76,84	0
1	OMC	1A	1920	21/22	0.96	0.10	41,52,57,59	0
1	5MU	2A	1939	21/22	0.96	0.08	29,36,42,43	0
32	4OC	2a	1402	22/23	0.96	0.09	51,58,66,69	0
32	MA6	1a	1519	24/25	0.96	0.10	39,46,50,50	0
1	PSU	1A	2605	20/21	0.96	0.07	22,28,33,34	0
32	4OC	1a	1402	22/23	0.96	0.08	46,52,54,61	0
32	5MC	1a	1407	21/22	0.96	0.09	44,51,55,56	0
32	MA6	2a	1519	24/25	0.96	0.10	50,59,62,64	0
32	UR3	1a	1498	21/22	0.96	0.08	42,51,56,59	0
54	8AN	1x	76	22/23	0.96	0.08	26,33,38,45	0
54	8AN	2x	76	22/23	0.96	0.09	30,37,44,53	0
1	OMU	2A	2552	21/22	0.97	0.07	28,33,34,39	0
32	5MC	1a	1404	21/22	0.97	0.07	39,43,46,51	0
1	OMU	1A	2552	21/22	0.97	0.07	24,27,31,32	0
1	5MC	1A	1942	21/22	0.97	0.07	22,28,37,40	0
1	5MC	1A	1962	21/22	0.97	0.07	26,33,38,41	0
1	5MC	2A	1962	21/22	0.97	0.07	32,40,47,51	0
1	OMG	2A	2251	24/25	0.97	0.09	24,35,38,39	0
1	2MA	2A	2503	23/24	0.97	0.07	21,27,32,34	0
1	PSU	2A	2605	20/21	0.98	0.06	31,35,39,41	0
1	OMG	1A	2251	24/25	0.98	0.07	16,23,26,27	0
1	2MA	1A	2503	23/24	0.98	0.07	13,19,21,22	0
1	5MU	1A	1939	21/22	0.98	0.07	23,28,31,34	0

6.3 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.4 Ligands (i)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1a	3190	1/1	0.39	0.17	91,91,91,91	0
56	MG	1a	3083	1/1	0.45	0.35	75,75,75,75	0
56	MG	1A	4018	1/1	0.54	0.43	94,94,94,94	0
56	MG	1A	3976	1/1	0.55	0.15	58,58,58,58	0
56	MG	2A	3216	1/1	0.55	0.16	68,68,68,68	0
56	MG	1a	3247	1/1	0.61	0.09	76,76,76,76	0
56	MG	1A	4019	1/1	0.61	0.16	58,58,58,58	0
56	MG	2A	3535	1/1	0.61	0.29	81,81,81,81	0
56	MG	1a	3243	1/1	0.62	0.17	56,56,56,56	0
56	MG	1A	3993	1/1	0.62	0.13	84,84,84,84	0
56	MG	1A	3601	1/1	0.63	0.16	53,53,53,53	0
56	MG	1a	3041	1/1	0.64	0.21	69,69,69,69	0
56	MG	2I	201	1/1	0.64	0.21	71,71,71,71	0
58	MPD	2A	3728	8/8	0.64	0.23	52,66,70,74	0
56	MG	1a	3137	1/1	0.65	0.13	87,87,87,87	0
56	MG	1a	3267	1/1	0.65	0.14	68,68,68,68	0
56	MG	1A	3722	1/1	0.67	0.20	52,52,52,52	0
56	MG	2A	3205	1/1	0.67	0.15	62,62,62,62	0
56	MG	1A	3808	1/1	0.68	0.13	28,28,28,28	0
56	MG	1a	3124	1/1	0.68	0.18	84,84,84,84	0
56	MG	2a	3058	1/1	0.68	0.41	81,81,81,81	0
56	MG	1A	3613	1/1	0.68	0.61	67,67,67,67	0
56	MG	2A	3442	1/1	0.69	0.17	71,71,71,71	0
56	MG	2a	3038	1/1	0.69	0.24	83,83,83,83	0
56	MG	1F	320	1/1	0.70	0.18	54,54,54,54	0
56	MG	2A	3062	1/1	0.70	0.16	56,56,56,56	0
56	MG	2a	3047	1/1	0.70	0.30	87,87,87,87	0
56	MG	2A	3526	1/1	0.70	0.20	60,60,60,60	0
56	MG	2a	3069	1/1	0.70	0.17	66,66,66,66	0
56	MG	1a	3234	1/1	0.70	0.16	45,45,45,45	0
56	MG	1A	3547	1/1	0.71	0.26	30,30,30,30	0
56	MG	2j	201	1/1	0.71	0.12	63,63,63,63	0
56	MG	2a	3065	1/1	0.71	0.21	79,79,79,79	0
56	MG	2A	3452	1/1	0.72	0.10	75,75,75,75	0
56	MG	2O	202	1/1	0.72	0.14	74,74,74,74	0
56	MG	2a	3005	1/1	0.72	0.11	69,69,69,69	0
56	MG	2a	3140	1/1	0.72	0.23	77,77,77,77	0
56	MG	2A	3252	1/1	0.72	0.15	58,58,58,58	0
56	MG	1a	3211	1/1	0.72	0.28	82,82,82,82	0
56	MG	1a	3084	1/1	0.73	0.10	60,60,60,60	0
56	MG	2A	3131	1/1	0.73	0.27	65,65,65,65	0
56	MG	1a	3078	1/1	0.73	0.19	70,70,70,70	0
56	MG	1a	3012	1/1	0.73	0.33	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3781	1/1	0.74	0.15	34,34,34,34	0
56	MG	2a	3170	1/1	0.74	0.19	90,90,90,90	0
56	MG	2A	3095	1/1	0.74	0.27	74,74,74,74	0
56	MG	1r	101	1/1	0.74	0.24	60,60,60,60	0
56	MG	2A	3521	1/1	0.75	0.21	50,50,50,50	0
56	MG	1A	3563	1/1	0.75	0.15	51,51,51,51	0
56	MG	1A	3752	1/1	0.75	0.15	68,68,68,68	0
56	MG	2a	3046	1/1	0.75	0.27	71,71,71,71	0
56	MG	2A	3641	1/1	0.75	0.14	68,68,68,68	0
56	MG	1l	203	1/1	0.75	0.11	72,72,72,72	0
56	MG	1A	3036	1/1	0.76	0.19	32,32,32,32	0
56	MG	1a	3177	1/1	0.76	0.22	62,62,62,62	0
56	MG	2A	3572	1/1	0.76	0.14	46,46,46,46	0
56	MG	2A	3603	1/1	0.76	0.18	39,39,39,39	0
56	MG	1A	3625	1/1	0.76	0.15	50,50,50,50	0
56	MG	2A	3081	1/1	0.76	0.12	60,60,60,60	0
56	MG	2a	3145	1/1	0.76	0.14	62,62,62,62	0
56	MG	2A	3446	1/1	0.76	0.13	59,59,59,59	0
56	MG	1a	3266	1/1	0.76	0.21	71,71,71,71	0
56	MG	1A	3685	1/1	0.76	0.15	53,53,53,53	0
56	MG	1A	3434	1/1	0.77	0.24	63,63,63,63	0
56	MG	2A	3471	1/1	0.77	0.21	74,74,74,74	0
56	MG	2a	3044	1/1	0.77	0.22	63,63,63,63	0
56	MG	2A	3509	1/1	0.77	0.12	60,60,60,60	0
56	MG	2A	3121	1/1	0.77	0.13	65,65,65,65	0
56	MG	1A	3458	1/1	0.77	0.16	58,58,58,58	0
56	MG	2A	3165	1/1	0.77	0.14	67,67,67,67	0
56	MG	1A	3985	1/1	0.77	0.24	45,45,45,45	0
56	MG	1A	3587	1/1	0.77	0.20	59,59,59,59	0
56	MG	1a	3082	1/1	0.77	0.30	66,66,66,66	0
56	MG	2A	3653	1/1	0.77	0.28	76,76,76,76	0
56	MG	1A	3760	1/1	0.77	0.17	45,45,45,45	0
56	MG	1A	3679	1/1	0.77	0.12	80,80,80,80	0
56	MG	2A	3282	1/1	0.78	0.12	43,43,43,43	0
56	MG	2A	3437	1/1	0.78	0.12	46,46,46,46	0
56	MG	1a	3003	1/1	0.78	0.10	69,69,69,69	0
56	MG	1A	3804	1/1	0.78	0.18	32,32,32,32	0
56	MG	2A	3055	1/1	0.78	0.19	62,62,62,62	0
56	MG	2A	3464	1/1	0.78	0.14	68,68,68,68	0
56	MG	2A	3709	1/1	0.78	0.09	80,80,80,80	0
56	MG	2B	214	1/1	0.78	0.11	75,75,75,75	0
56	MG	1A	3759	1/1	0.78	0.14	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1a	3201	1/1	0.78	0.10	63,63,63,63	0
56	MG	1A	3864	1/1	0.78	0.17	69,69,69,69	0
56	MG	2a	3008	1/1	0.78	0.13	66,66,66,66	0
56	MG	2B	201	1/1	0.79	0.20	74,74,74,74	0
56	MG	2A	3176	1/1	0.79	0.10	38,38,38,38	0
56	MG	2a	3059	1/1	0.79	0.25	70,70,70,70	0
56	MG	1A	3650	1/1	0.79	0.19	57,57,57,57	0
56	MG	1a	3193	1/1	0.79	0.17	69,69,69,69	0
56	MG	2a	3131	1/1	0.79	0.12	57,57,57,57	0
56	MG	1a	3246	1/1	0.79	0.09	70,70,70,70	0
56	MG	1a	3165	1/1	0.79	0.16	62,62,62,62	0
56	MG	2A	3483	1/1	0.79	0.13	77,77,77,77	0
56	MG	2A	3494	1/1	0.79	0.10	81,81,81,81	0
56	MG	1N	203	1/1	0.79	0.11	60,60,60,60	0
56	MG	2A	3620	1/1	0.80	0.26	46,46,46,46	0
56	MG	1A	3578	1/1	0.80	0.47	38,38,38,38	0
56	MG	1a	3007	1/1	0.80	0.11	74,74,74,74	0
56	MG	2A	3688	1/1	0.80	0.14	49,49,49,49	0
56	MG	1a	3213	1/1	0.80	0.13	64,64,64,64	0
56	MG	1A	3129	1/1	0.80	0.14	57,57,57,57	0
56	MG	1a	3030	1/1	0.80	0.58	67,67,67,67	0
56	MG	2a	3090	1/1	0.80	0.17	68,68,68,68	0
56	MG	2G	202	1/1	0.80	0.13	65,65,65,65	0
56	MG	1D	311	1/1	0.80	0.41	52,52,52,52	0
56	MG	1a	3066	1/1	0.80	0.10	59,59,59,59	0
56	MG	1A	3409	1/1	0.80	0.18	73,73,73,73	0
56	MG	1A	3827	1/1	0.80	0.09	34,34,34,34	0
56	MG	2A	3461	1/1	0.80	0.24	59,59,59,59	0
56	MG	1B	228	1/1	0.81	0.12	70,70,70,70	0
56	MG	1A	3597	1/1	0.81	0.10	38,38,38,38	0
56	MG	1a	3236	1/1	0.81	0.23	78,78,78,78	0
56	MG	1a	3158	1/1	0.81	0.14	60,60,60,60	0
56	MG	1A	3130	1/1	0.81	0.18	41,41,41,41	0
56	MG	1a	3176	1/1	0.81	0.09	76,76,76,76	0
56	MG	1A	3775	1/1	0.81	0.53	78,78,78,78	0
56	MG	2B	203	1/1	0.81	0.12	67,67,67,67	0
56	MG	1a	3187	1/1	0.81	0.25	65,65,65,65	0
56	MG	1A	4014	1/1	0.81	0.09	41,41,41,41	0
56	MG	1A	3862	1/1	0.81	0.12	33,33,33,33	0
56	MG	2A	3533	1/1	0.81	0.12	46,46,46,46	0
56	MG	2a	3161	1/1	0.81	0.12	68,68,68,68	0
56	MG	2T	203	1/1	0.81	0.19	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3526	1/1	0.81	0.09	56,56,56,56	0
56	MG	1a	3097	1/1	0.81	0.15	69,69,69,69	0
56	MG	2A	3047	1/1	0.82	0.13	57,57,57,57	0
56	MG	2A	3547	1/1	0.82	0.10	53,53,53,53	0
56	MG	1A	3372	1/1	0.82	0.12	65,65,65,65	0
56	MG	2a	3040	1/1	0.82	0.25	55,55,55,55	0
56	MG	2A	3593	1/1	0.82	0.13	60,60,60,60	0
56	MG	2A	3441	1/1	0.82	0.10	48,48,48,48	0
56	MG	1A	3995	1/1	0.82	0.21	62,62,62,62	0
56	MG	1a	3174	1/1	0.82	0.12	68,68,68,68	0
56	MG	1A	3915	1/1	0.82	0.12	25,25,25,25	0
56	MG	1a	3244	1/1	0.82	0.17	68,68,68,68	0
56	MG	1A	3934	1/1	0.82	0.15	31,31,31,31	0
56	MG	1A	3961	1/1	0.82	0.16	67,67,67,67	0
56	MG	1A	3264	1/1	0.82	0.15	36,36,36,36	0
56	MG	2A	3190	1/1	0.82	0.18	61,61,61,61	0
56	MG	1a	3099	1/1	0.82	0.15	56,56,56,56	0
56	MG	1a	3040	1/1	0.82	0.31	74,74,74,74	0
56	MG	2a	3163	1/1	0.82	0.12	58,58,58,58	0
56	MG	2A	3238	1/1	0.82	0.19	59,59,59,59	0
56	MG	1A	3762	1/1	0.82	0.12	58,58,58,58	0
56	MG	26	101	1/1	0.82	0.39	49,49,49,49	0
56	MG	1W	204	1/1	0.83	0.13	49,49,49,49	0
56	MG	1a	3072	1/1	0.83	0.09	63,63,63,63	0
56	MG	2A	3174	1/1	0.83	0.12	59,59,59,59	0
56	MG	1f	201	1/1	0.83	0.16	54,54,54,54	0
56	MG	2A	3188	1/1	0.83	0.26	43,43,43,43	0
56	MG	1A	3271	1/1	0.83	0.18	59,59,59,59	0
56	MG	2A	3663	1/1	0.83	0.12	49,49,49,49	0
56	MG	2A	3472	1/1	0.83	0.10	64,64,64,64	0
56	MG	2A	3706	1/1	0.83	0.12	74,74,74,74	0
56	MG	2A	3481	1/1	0.83	0.14	60,60,60,60	0
56	MG	2a	3067	1/1	0.83	0.17	66,66,66,66	0
56	MG	2A	3722	1/1	0.83	0.12	52,52,52,52	0
56	MG	1A	3366	1/1	0.83	0.17	59,59,59,59	0
56	MG	2a	3093	1/1	0.83	0.21	59,59,59,59	0
56	MG	2a	3096	1/1	0.83	0.24	55,55,55,55	0
56	MG	2a	3117	1/1	0.83	0.08	68,68,68,68	0
56	MG	1A	3942	1/1	0.83	0.14	27,27,27,27	0
56	MG	2a	3139	1/1	0.83	0.14	57,57,57,57	0
56	MG	1a	3242	1/1	0.83	0.21	75,75,75,75	0
56	MG	1a	3024	1/1	0.83	0.21	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3273	1/1	0.83	0.35	56,56,56,56	0
56	MG	1A	3787	1/1	0.83	0.17	55,55,55,55	0
56	MG	1G	201	1/1	0.83	0.08	70,70,70,70	0
56	MG	21	102	1/1	0.83	0.14	79,79,79,79	0
56	MG	1A	3558	1/1	0.83	0.16	56,56,56,56	0
56	MG	1a	3052	1/1	0.84	0.13	45,45,45,45	0
56	MG	2a	3009	1/1	0.84	0.17	58,58,58,58	0
56	MG	2a	3024	1/1	0.84	0.15	64,64,64,64	0
56	MG	1a	3202	1/1	0.84	0.20	73,73,73,73	0
56	MG	1a	3001	1/1	0.84	0.20	69,69,69,69	0
56	MG	1A	3844	1/1	0.84	0.14	26,26,26,26	0
56	MG	2A	3470	1/1	0.84	0.12	62,62,62,62	0
56	MG	1a	3075	1/1	0.84	0.19	61,61,61,61	0
56	MG	2a	3048	1/1	0.84	0.12	47,47,47,47	0
56	MG	1A	3994	1/1	0.84	0.18	61,61,61,61	0
56	MG	2A	3692	1/1	0.84	0.35	47,47,47,47	0
56	MG	2a	3061	1/1	0.84	0.17	68,68,68,68	0
56	MG	2A	3475	1/1	0.84	0.12	46,46,46,46	0
56	MG	2A	3707	1/1	0.84	0.11	77,77,77,77	0
56	MG	1A	3846	1/1	0.84	0.21	42,42,42,42	0
56	MG	2A	3718	1/1	0.84	0.15	63,63,63,63	0
56	MG	2A	3250	1/1	0.84	0.17	45,45,45,45	0
56	MG	2A	3493	1/1	0.84	0.11	53,53,53,53	0
56	MG	2A	3075	1/1	0.84	0.10	49,49,49,49	0
56	MG	1A	3145	1/1	0.84	0.30	55,55,55,55	0
56	MG	1a	3178	1/1	0.84	0.08	81,81,81,81	0
56	MG	2A	3524	1/1	0.84	0.11	56,56,56,56	0
56	MG	2A	3283	1/1	0.84	0.25	57,57,57,57	0
56	MG	2a	3156	1/1	0.84	0.16	62,62,62,62	0
56	MG	2A	3376	1/1	0.84	0.16	71,71,71,71	0
56	MG	1A	3243	1/1	0.84	0.12	47,47,47,47	0
56	MG	1A	3024	1/1	0.84	0.31	34,34,34,34	0
56	MG	2a	3003	1/1	0.84	0.14	59,59,59,59	0
56	MG	2p	101	1/1	0.84	0.25	61,61,61,61	0
56	MG	15	3108	1/1	0.84	0.12	66,66,66,66	0
58	MPD	2A	3729	8/8	0.84	0.20	54,62,69,71	0
56	MG	1H	201	1/1	0.85	0.18	68,68,68,68	0
56	MG	1A	3178	1/1	0.85	0.11	57,57,57,57	0
56	MG	2A	3126	1/1	0.85	0.08	59,59,59,59	0
56	MG	2A	3685	1/1	0.85	0.11	50,50,50,50	0
56	MG	1A	3630	1/1	0.85	0.15	55,55,55,55	0
56	MG	1a	3263	1/1	0.85	0.17	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2a	3053	1/1	0.85	0.13	59,59,59,59	0
56	MG	1a	3265	1/1	0.85	0.11	69,69,69,69	0
56	MG	1A	3086	1/1	0.85	0.08	54,54,54,54	0
56	MG	1a	3155	1/1	0.85	0.09	68,68,68,68	0
56	MG	1e	3101	1/1	0.85	0.15	51,51,51,51	0
56	MG	1a	3205	1/1	0.85	0.12	74,74,74,74	0
56	MG	2A	3214	1/1	0.85	0.08	53,53,53,53	0
56	MG	2a	3082	1/1	0.85	0.30	62,62,62,62	0
56	MG	1A	3852	1/1	0.85	0.15	67,67,67,67	0
56	MG	2A	3217	1/1	0.85	0.17	72,72,72,72	0
56	MG	1p	101	1/1	0.85	0.29	68,68,68,68	0
56	MG	1A	3506	1/1	0.85	0.11	25,25,25,25	0
56	MG	2a	3119	1/1	0.85	0.27	60,60,60,60	0
56	MG	2a	3126	1/1	0.85	0.12	49,49,49,49	0
56	MG	1y	201	1/1	0.85	0.12	68,68,68,68	0
56	MG	1A	3288	1/1	0.85	0.20	67,67,67,67	0
56	MG	2Y	201	1/1	0.85	0.13	61,61,61,61	0
56	MG	1a	3235	1/1	0.85	0.08	59,59,59,59	0
56	MG	1A	3987	1/1	0.85	0.15	39,39,39,39	0
56	MG	2A	3308	1/1	0.85	0.17	74,74,74,74	0
56	MG	2A	3329	1/1	0.85	0.11	51,51,51,51	0
56	MG	1A	3989	1/1	0.85	0.16	60,60,60,60	0
56	MG	1A	3908	1/1	0.85	0.14	38,38,38,38	0
56	MG	2A	3091	1/1	0.85	0.10	67,67,67,67	0
56	MG	2a	3025	1/1	0.85	0.27	64,64,64,64	0
56	MG	2a	3035	1/1	0.85	0.14	75,75,75,75	0
60	ZN	14	501	1/1	0.85	0.15	129,129,129,129	0
56	MG	2A	3266	1/1	0.86	0.28	55,55,55,55	0
56	MG	1a	3254	1/1	0.86	0.07	62,62,62,62	0
56	MG	1a	3109	1/1	0.86	0.20	60,60,60,60	0
56	MG	1T	204	1/1	0.86	0.13	79,79,79,79	0
56	MG	2A	3286	1/1	0.86	0.13	42,42,42,42	0
56	MG	1A	3964	1/1	0.86	0.14	31,31,31,31	0
56	MG	1a	3142	1/1	0.86	0.08	43,43,43,43	0
56	MG	2A	3335	1/1	0.86	0.16	54,54,54,54	0
56	MG	2A	3362	1/1	0.86	0.15	44,44,44,44	0
56	MG	2A	3372	1/1	0.86	0.17	64,64,64,64	0
56	MG	1e	3100	1/1	0.86	0.13	63,63,63,63	0
56	MG	20	102	1/1	0.86	0.11	54,54,54,54	0
56	MG	2A	3421	1/1	0.86	0.14	61,61,61,61	0
56	MG	1A	3069	1/1	0.86	0.50	30,30,30,30	0
56	MG	2A	3440	1/1	0.86	0.12	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3740	1/1	0.86	0.12	54,54,54,54	0
56	MG	1l	201	1/1	0.86	0.17	50,50,50,50	0
56	MG	1A	3986	1/1	0.86	0.12	42,42,42,42	0
56	MG	1A	3538	1/1	0.86	0.20	37,37,37,37	0
56	MG	1A	3849	1/1	0.86	0.13	56,56,56,56	0
56	MG	2a	3026	1/1	0.86	0.20	72,72,72,72	0
56	MG	1A	3635	1/1	0.86	0.36	32,32,32,32	0
56	MG	2A	3034	1/1	0.86	0.15	77,77,77,77	0
56	MG	2A	3043	1/1	0.86	0.43	75,75,75,75	0
56	MG	1a	3026	1/1	0.86	0.13	54,54,54,54	0
56	MG	1a	3179	1/1	0.86	0.18	73,73,73,73	0
56	MG	2A	3477	1/1	0.86	0.30	70,70,70,70	0
56	MG	1A	3859	1/1	0.86	0.15	37,37,37,37	0
56	MG	1a	3039	1/1	0.86	0.20	67,67,67,67	0
56	MG	2a	3056	1/1	0.86	0.31	70,70,70,70	0
56	MG	1A	3600	1/1	0.86	0.11	32,32,32,32	0
56	MG	1a	3196	1/1	0.86	0.21	58,58,58,58	0
56	MG	1a	3200	1/1	0.86	0.11	57,57,57,57	0
56	MG	1A	3655	1/1	0.86	0.08	36,36,36,36	0
56	MG	1A	3669	1/1	0.86	0.10	38,38,38,38	0
56	MG	2a	3068	1/1	0.86	0.20	72,72,72,72	0
56	MG	1A	3675	1/1	0.86	0.16	56,56,56,56	0
56	MG	2A	3142	1/1	0.86	0.22	40,40,40,40	0
56	MG	1a	3206	1/1	0.86	0.08	79,79,79,79	0
56	MG	1a	3071	1/1	0.86	0.21	66,66,66,66	0
56	MG	2A	3557	1/1	0.86	0.10	57,57,57,57	0
56	MG	1B	203	1/1	0.86	0.21	66,66,66,66	0
56	MG	2A	3184	1/1	0.86	0.08	39,39,39,39	0
56	MG	2A	3602	1/1	0.86	0.14	73,73,73,73	0
56	MG	1a	3225	1/1	0.86	0.19	44,44,44,44	0
56	MG	1B	210	1/1	0.86	0.11	58,58,58,58	0
56	MG	1A	3917	1/1	0.86	0.09	60,60,60,60	0
56	MG	1A	3931	1/1	0.86	0.11	52,52,52,52	0
56	MG	1A	3574	1/1	0.86	0.10	18,18,18,18	0
56	MG	1A	3684	1/1	0.86	0.07	66,66,66,66	0
56	MG	2A	3237	1/1	0.86	0.12	61,61,61,61	0
56	MG	2A	3690	1/1	0.86	0.15	51,51,51,51	0
56	MG	1A	3955	1/1	0.86	0.15	55,55,55,55	0
56	MG	2A	3699	1/1	0.86	0.14	61,61,61,61	0
56	MG	1A	3436	1/1	0.86	0.28	44,44,44,44	0
56	MG	1a	3106	1/1	0.86	0.19	42,42,42,42	0
56	MG	2A	3708	1/1	0.86	0.15	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3717	1/1	0.87	0.15	48,48,48,48	0
56	MG	1A	3088	1/1	0.87	0.12	48,48,48,48	0
56	MG	2a	3014	1/1	0.87	0.20	59,59,59,59	0
56	MG	2a	3018	1/1	0.87	0.10	82,82,82,82	0
56	MG	2A	3549	1/1	0.87	0.10	68,68,68,68	0
56	MG	2A	3330	1/1	0.87	0.09	53,53,53,53	0
56	MG	1A	3577	1/1	0.87	0.12	67,67,67,67	0
56	MG	2A	3584	1/1	0.87	0.13	42,42,42,42	0
56	MG	2A	3342	1/1	0.87	0.19	57,57,57,57	0
56	MG	2A	3112	1/1	0.87	0.08	67,67,67,67	0
56	MG	2a	3042	1/1	0.87	0.09	69,69,69,69	0
56	MG	2A	3113	1/1	0.87	0.08	63,63,63,63	0
56	MG	2a	3045	1/1	0.87	0.25	54,54,54,54	0
56	MG	1R	205	1/1	0.87	0.12	42,42,42,42	0
56	MG	2A	3377	1/1	0.87	0.25	56,56,56,56	0
56	MG	2A	3378	1/1	0.87	0.23	42,42,42,42	0
56	MG	1A	3741	1/1	0.87	0.09	70,70,70,70	0
56	MG	1A	3940	1/1	0.87	0.07	40,40,40,40	0
56	MG	1A	4000	1/1	0.87	0.14	60,60,60,60	0
56	MG	1a	3197	1/1	0.87	0.15	69,69,69,69	0
56	MG	1A	3192	1/1	0.87	0.12	54,54,54,54	0
56	MG	1A	3952	1/1	0.87	0.15	50,50,50,50	0
56	MG	2a	3066	1/1	0.87	0.10	57,57,57,57	0
56	MG	1A	3296	1/1	0.87	0.08	39,39,39,39	0
56	MG	1h	3300	1/1	0.87	0.20	62,62,62,62	0
56	MG	1i	201	1/1	0.87	0.16	63,63,63,63	0
56	MG	2A	3196	1/1	0.87	0.24	57,57,57,57	0
56	MG	1A	3323	1/1	0.87	0.12	62,62,62,62	0
56	MG	1B	206	1/1	0.87	0.11	50,50,50,50	0
56	MG	1A	3202	1/1	0.87	0.12	46,46,46,46	0
56	MG	2a	3104	1/1	0.87	0.25	41,41,41,41	0
56	MG	1B	214	1/1	0.87	0.13	53,53,53,53	0
56	MG	1a	3223	1/1	0.87	0.16	58,58,58,58	0
56	MG	2D	313	1/1	0.87	0.17	58,58,58,58	0
56	MG	2E	301	1/1	0.87	0.19	58,58,58,58	0
56	MG	2a	3137	1/1	0.87	0.20	69,69,69,69	0
56	MG	2F	303	1/1	0.87	0.15	58,58,58,58	0
56	MG	2A	3001	1/1	0.87	0.33	52,52,52,52	0
56	MG	2a	3143	1/1	0.87	0.10	46,46,46,46	0
56	MG	2A	3486	1/1	0.87	0.20	58,58,58,58	0
56	MG	1B	226	1/1	0.87	0.09	62,62,62,62	0
56	MG	1A	3137	1/1	0.87	0.17	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2W	201	1/1	0.87	0.18	39,39,39,39	0
56	MG	2A	3506	1/1	0.87	0.16	56,56,56,56	0
56	MG	1a	3161	1/1	0.87	0.19	67,67,67,67	0
56	MG	1A	3261	1/1	0.87	0.07	42,42,42,42	0
56	MG	2q	201	1/1	0.87	0.09	54,54,54,54	0
58	MPD	1A	4024	8/8	0.87	0.16	46,49,55,56	0
56	MG	1D	314	1/1	0.87	0.09	55,55,55,55	0
56	MG	1A	3026	1/1	0.87	0.14	71,71,71,71	0
56	MG	2A	3080	1/1	0.87	0.10	43,43,43,43	0
56	MG	1a	3156	1/1	0.88	0.08	57,57,57,57	0
56	MG	1A	3794	1/1	0.88	0.20	45,45,45,45	0
56	MG	1a	3159	1/1	0.88	0.09	72,72,72,72	0
56	MG	1A	3317	1/1	0.88	0.23	49,49,49,49	0
56	MG	1n	101	1/1	0.88	0.17	63,63,63,63	0
56	MG	1a	3162	1/1	0.88	0.10	50,50,50,50	0
56	MG	10	106	1/1	0.88	0.14	58,58,58,58	0
56	MG	2A	3392	1/1	0.88	0.07	48,48,48,48	0
56	MG	1A	3161	1/1	0.88	0.24	39,39,39,39	0
56	MG	2W	203	1/1	0.88	0.08	55,55,55,55	0
56	MG	1a	3175	1/1	0.88	0.11	65,65,65,65	0
56	MG	1A	3812	1/1	0.88	0.11	41,41,41,41	0
56	MG	1A	3980	1/1	0.88	0.11	68,68,68,68	0
56	MG	1A	3826	1/1	0.88	0.09	52,52,52,52	0
56	MG	1A	3349	1/1	0.88	0.15	51,51,51,51	0
56	MG	2A	3060	1/1	0.88	0.07	35,35,35,35	0
56	MG	2A	3460	1/1	0.88	0.13	63,63,63,63	0
56	MG	1a	3180	1/1	0.88	0.20	67,67,67,67	0
56	MG	2A	3462	1/1	0.88	0.20	46,46,46,46	0
56	MG	2a	3017	1/1	0.88	0.08	48,48,48,48	0
56	MG	2A	3064	1/1	0.88	0.15	49,49,49,49	0
56	MG	2A	3466	1/1	0.88	0.14	32,32,32,32	0
56	MG	1a	3183	1/1	0.88	0.24	53,53,53,53	0
56	MG	2A	3079	1/1	0.88	0.15	39,39,39,39	0
56	MG	2a	3034	1/1	0.88	0.14	64,64,64,64	0
56	MG	1a	3184	1/1	0.88	0.13	60,60,60,60	0
56	MG	1a	3014	1/1	0.88	0.23	46,46,46,46	0
56	MG	1a	3018	1/1	0.88	0.12	65,65,65,65	0
56	MG	2a	3041	1/1	0.88	0.18	55,55,55,55	0
56	MG	1A	3696	1/1	0.88	0.25	81,81,81,81	0
56	MG	2A	3096	1/1	0.88	0.37	67,67,67,67	0
56	MG	1A	3845	1/1	0.88	0.22	44,44,44,44	0
56	MG	2A	3487	1/1	0.88	0.18	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3473	1/1	0.88	0.09	24,24,24,24	0
56	MG	1A	3720	1/1	0.88	0.12	30,30,30,30	0
56	MG	2A	3504	1/1	0.88	0.18	49,49,49,49	0
56	MG	1A	3001	1/1	0.88	0.11	28,28,28,28	0
56	MG	2a	3057	1/1	0.88	0.18	49,49,49,49	0
56	MG	1A	3639	1/1	0.88	0.06	64,64,64,64	0
56	MG	1a	3043	1/1	0.88	0.13	57,57,57,57	0
56	MG	1A	3640	1/1	0.88	0.12	56,56,56,56	0
56	MG	2a	3064	1/1	0.88	0.15	80,80,80,80	0
56	MG	1a	3208	1/1	0.88	0.17	52,52,52,52	0
56	MG	1A	3748	1/1	0.88	0.16	62,62,62,62	0
56	MG	2A	3183	1/1	0.88	0.11	63,63,63,63	0
56	MG	1a	3212	1/1	0.88	0.11	69,69,69,69	0
56	MG	1A	3867	1/1	0.88	0.10	66,66,66,66	0
56	MG	2a	3071	1/1	0.88	0.08	71,71,71,71	0
56	MG	2a	3076	1/1	0.88	0.88	68,68,68,68	0
56	MG	2A	3554	1/1	0.88	0.09	31,31,31,31	0
56	MG	1A	3883	1/1	0.88	0.17	50,50,50,50	0
56	MG	2A	3195	1/1	0.88	0.19	61,61,61,61	0
56	MG	1A	3884	1/1	0.88	0.13	50,50,50,50	0
56	MG	2A	3197	1/1	0.88	0.20	45,45,45,45	0
56	MG	1a	3076	1/1	0.88	0.13	58,58,58,58	0
56	MG	2A	3211	1/1	0.88	0.11	46,46,46,46	0
56	MG	2a	3123	1/1	0.88	0.16	65,65,65,65	0
56	MG	1A	3899	1/1	0.88	0.09	15,15,15,15	0
56	MG	2A	3626	1/1	0.88	0.12	47,47,47,47	0
56	MG	1A	3906	1/1	0.88	0.23	53,53,53,53	0
56	MG	1A	3203	1/1	0.88	0.17	55,55,55,55	0
56	MG	1A	3593	1/1	0.88	0.09	38,38,38,38	0
56	MG	1A	3658	1/1	0.88	0.10	19,19,19,19	0
56	MG	1A	3406	1/1	0.88	0.09	26,26,26,26	0
56	MG	1a	3101	1/1	0.88	0.27	56,56,56,56	0
56	MG	2A	3264	1/1	0.88	0.23	56,56,56,56	0
56	MG	1A	3670	1/1	0.88	0.12	49,49,49,49	0
56	MG	1a	3108	1/1	0.88	0.22	61,61,61,61	0
56	MG	1A	3780	1/1	0.88	0.12	45,45,45,45	0
56	MG	1A	3298	1/1	0.88	0.18	44,44,44,44	0
56	MG	1N	202	1/1	0.88	0.16	34,34,34,34	0
56	MG	2A	3307	1/1	0.88	0.14	53,53,53,53	0
56	MG	1A	3945	1/1	0.88	0.11	23,23,23,23	0
56	MG	1a	3143	1/1	0.88	0.12	46,46,46,46	0
56	MG	1A	3676	1/1	0.88	0.23	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3714	1/1	0.89	0.17	31,31,31,31	0
56	MG	1A	3443	1/1	0.89	0.13	53,53,53,53	0
56	MG	1a	3250	1/1	0.89	0.09	64,64,64,64	0
56	MG	1A	3718	1/1	0.89	0.10	43,43,43,43	0
56	MG	2A	3160	1/1	0.89	0.12	63,63,63,63	0
56	MG	2U	202	1/1	0.89	0.08	40,40,40,40	0
56	MG	2A	3459	1/1	0.89	0.17	68,68,68,68	0
56	MG	1A	3927	1/1	0.89	0.18	39,39,39,39	0
56	MG	2A	3166	1/1	0.89	0.30	79,79,79,79	0
56	MG	1a	3264	1/1	0.89	0.11	49,49,49,49	0
56	MG	20	103	1/1	0.89	0.31	46,46,46,46	0
56	MG	1A	3274	1/1	0.89	0.12	63,63,63,63	0
56	MG	2A	3180	1/1	0.89	0.12	62,62,62,62	0
56	MG	1B	215	1/1	0.89	0.09	39,39,39,39	0
56	MG	1A	3579	1/1	0.89	0.18	49,49,49,49	0
56	MG	2A	3187	1/1	0.89	0.18	61,61,61,61	0
56	MG	1a	3272	1/1	0.89	0.10	61,61,61,61	0
56	MG	1a	3059	1/1	0.89	0.08	36,36,36,36	0
56	MG	2A	3192	1/1	0.89	0.23	46,46,46,46	0
56	MG	2A	3193	1/1	0.89	0.20	46,46,46,46	0
56	MG	1A	3731	1/1	0.89	0.09	44,44,44,44	0
56	MG	1A	3838	1/1	0.89	0.16	41,41,41,41	0
56	MG	1A	3843	1/1	0.89	0.12	42,42,42,42	0
56	MG	1a	3073	1/1	0.89	0.18	57,57,57,57	0
56	MG	2A	3499	1/1	0.89	0.10	62,62,62,62	0
56	MG	2a	3037	1/1	0.89	0.17	65,65,65,65	0
56	MG	1A	3584	1/1	0.89	0.10	38,38,38,38	0
56	MG	1A	3030	1/1	0.89	0.07	25,25,25,25	0
56	MG	1A	3295	1/1	0.89	0.09	30,30,30,30	0
56	MG	2A	3510	1/1	0.89	0.06	55,55,55,55	0
56	MG	2A	3511	1/1	0.89	0.19	60,60,60,60	0
56	MG	2A	3516	1/1	0.89	0.27	55,55,55,55	0
56	MG	2A	3518	1/1	0.89	0.20	40,40,40,40	0
56	MG	1a	3194	1/1	0.89	0.10	72,72,72,72	0
56	MG	2A	3219	1/1	0.89	0.21	54,54,54,54	0
56	MG	2a	3052	1/1	0.89	0.19	65,65,65,65	0
56	MG	2A	3525	1/1	0.89	0.24	69,69,69,69	0
56	MG	2A	3220	1/1	0.89	0.21	40,40,40,40	0
56	MG	2A	3231	1/1	0.89	0.15	51,51,51,51	0
56	MG	2A	3232	1/1	0.89	0.15	54,54,54,54	0
56	MG	2A	3537	1/1	0.89	0.09	60,60,60,60	0
56	MG	1A	3402	1/1	0.89	0.20	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2a	3063	1/1	0.89	0.16	74,74,74,74	0
56	MG	1t	201	1/1	0.89	0.16	61,61,61,61	0
56	MG	2A	3246	1/1	0.89	0.16	65,65,65,65	0
56	MG	1A	3255	1/1	0.89	0.09	63,63,63,63	0
56	MG	2A	3560	1/1	0.89	0.14	74,74,74,74	0
56	MG	1P	203	1/1	0.89	0.20	39,39,39,39	0
56	MG	2A	3577	1/1	0.89	0.19	81,81,81,81	0
56	MG	2A	3261	1/1	0.89	0.17	52,52,52,52	0
56	MG	2A	3015	1/1	0.89	0.17	65,65,65,65	0
56	MG	2A	3024	1/1	0.89	0.10	45,45,45,45	0
56	MG	2a	3087	1/1	0.89	0.23	59,59,59,59	0
56	MG	2A	3031	1/1	0.89	0.16	66,66,66,66	0
56	MG	2a	3091	1/1	0.89	0.16	35,35,35,35	0
56	MG	2A	3617	1/1	0.89	0.15	54,54,54,54	0
56	MG	1a	3086	1/1	0.89	0.23	53,53,53,53	0
56	MG	2a	3099	1/1	0.89	0.15	43,43,43,43	0
56	MG	2a	3101	1/1	0.89	0.25	52,52,52,52	0
56	MG	1a	3096	1/1	0.89	0.21	56,56,56,56	0
56	MG	1A	3201	1/1	0.89	0.11	33,33,33,33	0
56	MG	1A	3983	1/1	0.89	0.15	44,44,44,44	0
56	MG	1A	3761	1/1	0.89	0.09	29,29,29,29	0
56	MG	1A	3215	1/1	0.89	0.23	54,54,54,54	0
56	MG	2a	3129	1/1	0.89	0.15	63,63,63,63	0
56	MG	2A	3063	1/1	0.89	0.13	36,36,36,36	0
56	MG	2a	3134	1/1	0.89	0.13	55,55,55,55	0
56	MG	1A	3866	1/1	0.89	0.09	38,38,38,38	0
56	MG	2A	3341	1/1	0.89	0.10	44,44,44,44	0
56	MG	19	101	1/1	0.89	0.20	56,56,56,56	0
56	MG	1A	3773	1/1	0.89	0.15	20,20,20,20	0
56	MG	2A	3370	1/1	0.89	0.15	64,64,64,64	0
56	MG	1A	3868	1/1	0.89	0.10	22,22,22,22	0
56	MG	2a	3157	1/1	0.89	0.15	63,63,63,63	0
56	MG	1A	3559	1/1	0.89	0.08	54,54,54,54	0
56	MG	2A	3712	1/1	0.89	0.19	49,49,49,49	0
56	MG	2A	3717	1/1	0.89	0.12	49,49,49,49	0
56	MG	2a	3171	1/1	0.89	0.08	64,64,64,64	0
56	MG	2a	3185	1/1	0.89	0.09	58,58,58,58	0
56	MG	1A	3242	1/1	0.89	0.24	62,62,62,62	0
56	MG	1A	3442	1/1	0.89	0.11	47,47,47,47	0
56	MG	2A	3389	1/1	0.89	0.09	74,74,74,74	0
56	MG	1a	3016	1/1	0.89	0.10	59,59,59,59	0
56	MG	1A	3903	1/1	0.89	0.11	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3436	1/1	0.89	0.12	37,37,37,37	0
56	MG	1A	3701	1/1	0.89	0.14	42,42,42,42	0
56	MG	2A	3355	1/1	0.90	0.13	63,63,63,63	0
56	MG	2A	3716	1/1	0.90	0.17	56,56,56,56	0
56	MG	1a	3036	1/1	0.90	0.34	56,56,56,56	0
56	MG	1A	3882	1/1	0.90	0.08	34,34,34,34	0
56	MG	1A	3059	1/1	0.90	0.24	47,47,47,47	0
56	MG	2A	3724	1/1	0.90	0.08	53,53,53,53	0
56	MG	2A	3725	1/1	0.90	0.09	41,41,41,41	0
56	MG	1A	3068	1/1	0.90	0.20	31,31,31,31	0
56	MG	1A	3307	1/1	0.90	0.18	32,32,32,32	0
56	MG	2B	213	1/1	0.90	0.12	68,68,68,68	0
56	MG	2A	3067	1/1	0.90	0.06	39,39,39,39	0
56	MG	1A	3315	1/1	0.90	0.14	33,33,33,33	0
56	MG	1A	3444	1/1	0.90	0.09	46,46,46,46	0
56	MG	2E	307	1/1	0.90	0.09	43,43,43,43	0
56	MG	2A	3397	1/1	0.90	0.09	28,28,28,28	0
56	MG	1A	3163	1/1	0.90	0.11	47,47,47,47	0
56	MG	2A	3427	1/1	0.90	0.11	62,62,62,62	0
56	MG	2A	3428	1/1	0.90	0.13	53,53,53,53	0
56	MG	2Q	202	1/1	0.90	0.09	71,71,71,71	0
56	MG	2A	3431	1/1	0.90	0.11	53,53,53,53	0
56	MG	2A	3432	1/1	0.90	0.21	38,38,38,38	0
56	MG	2V	201	1/1	0.90	0.15	61,61,61,61	0
56	MG	1A	3204	1/1	0.90	0.22	38,38,38,38	0
56	MG	2A	3083	1/1	0.90	0.09	53,53,53,53	0
56	MG	1A	3688	1/1	0.90	0.11	40,40,40,40	0
56	MG	1B	227	1/1	0.90	0.07	53,53,53,53	0
56	MG	1A	3803	1/1	0.90	0.20	69,69,69,69	0
56	MG	1B	229	1/1	0.90	0.22	70,70,70,70	0
56	MG	2A	3448	1/1	0.90	0.09	54,54,54,54	0
56	MG	2a	3002	1/1	0.90	0.17	49,49,49,49	0
56	MG	1D	307	1/1	0.90	0.14	46,46,46,46	0
56	MG	2A	3456	1/1	0.90	0.21	54,54,54,54	0
56	MG	2A	3115	1/1	0.90	0.19	42,42,42,42	0
56	MG	1a	3216	1/1	0.90	0.20	66,66,66,66	0
56	MG	1a	3221	1/1	0.90	0.06	57,57,57,57	0
56	MG	1a	3222	1/1	0.90	0.15	74,74,74,74	0
56	MG	1A	3691	1/1	0.90	0.08	55,55,55,55	0
56	MG	1A	3336	1/1	0.90	0.09	36,36,36,36	0
56	MG	1E	302	1/1	0.90	0.19	27,27,27,27	0
56	MG	1E	304	1/1	0.90	0.12	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3167	1/1	0.90	0.15	58,58,58,58	0
56	MG	1a	3095	1/1	0.90	0.33	61,61,61,61	0
56	MG	1a	3237	1/1	0.90	0.20	64,64,64,64	0
56	MG	1A	3512	1/1	0.90	0.08	62,62,62,62	0
56	MG	1A	3603	1/1	0.90	0.25	28,28,28,28	0
56	MG	1G	202	1/1	0.90	0.16	62,62,62,62	0
56	MG	1A	3715	1/1	0.90	0.09	32,32,32,32	0
56	MG	2A	3489	1/1	0.90	0.11	52,52,52,52	0
56	MG	1H	202	1/1	0.90	0.10	47,47,47,47	0
56	MG	1A	3947	1/1	0.90	0.17	47,47,47,47	0
56	MG	1A	3950	1/1	0.90	0.08	50,50,50,50	0
56	MG	1a	3111	1/1	0.90	0.19	52,52,52,52	0
56	MG	1A	3830	1/1	0.90	0.08	49,49,49,49	0
56	MG	2A	3507	1/1	0.90	0.30	78,78,78,78	0
56	MG	1A	3612	1/1	0.90	0.09	42,42,42,42	0
56	MG	1A	3517	1/1	0.90	0.10	51,51,51,51	0
56	MG	2A	3199	1/1	0.90	0.10	49,49,49,49	0
56	MG	2A	3204	1/1	0.90	0.20	66,66,66,66	0
56	MG	1A	3168	1/1	0.90	0.13	49,49,49,49	0
56	MG	2a	3062	1/1	0.90	0.18	55,55,55,55	0
56	MG	1a	3149	1/1	0.90	0.36	68,68,68,68	0
56	MG	1d	305	1/1	0.90	0.07	81,81,81,81	0
56	MG	1A	3968	1/1	0.90	0.19	46,46,46,46	0
56	MG	1A	3721	1/1	0.90	0.09	42,42,42,42	0
56	MG	17	104	1/1	0.90	0.25	29,29,29,29	0
56	MG	1A	3275	1/1	0.90	0.08	46,46,46,46	0
56	MG	2A	3536	1/1	0.90	0.09	60,60,60,60	0
56	MG	2A	3223	1/1	0.90	0.20	55,55,55,55	0
56	MG	2A	3229	1/1	0.90	0.07	47,47,47,47	0
56	MG	1A	3287	1/1	0.90	0.07	35,35,35,35	0
56	MG	1A	3739	1/1	0.90	0.10	64,64,64,64	0
56	MG	2a	3088	1/1	0.90	0.13	53,53,53,53	0
56	MG	1A	3033	1/1	0.90	0.17	30,30,30,30	0
56	MG	1m	201	1/1	0.90	0.13	75,75,75,75	0
56	MG	1a	3166	1/1	0.90	0.11	56,56,56,56	0
56	MG	1n	103	1/1	0.90	0.12	56,56,56,56	0
56	MG	1A	3293	1/1	0.90	0.10	54,54,54,54	0
56	MG	1A	3649	1/1	0.90	0.14	44,44,44,44	0
56	MG	2A	3601	1/1	0.90	0.24	25,25,25,25	0
56	MG	2a	3111	1/1	0.90	0.20	59,59,59,59	0
56	MG	1a	3015	1/1	0.90	0.15	56,56,56,56	0
56	MG	1A	3561	1/1	0.90	0.12	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3056	1/1	0.90	0.19	46,46,46,46	0
56	MG	1a	3020	1/1	0.90	0.16	53,53,53,53	0
56	MG	2A	3023	1/1	0.90	0.10	56,56,56,56	0
56	MG	2A	3629	1/1	0.90	0.12	47,47,47,47	0
56	MG	2A	3639	1/1	0.90	0.08	57,57,57,57	0
56	MG	1A	3430	1/1	0.90	0.08	32,32,32,32	0
56	MG	2A	3645	1/1	0.90	0.08	38,38,38,38	0
56	MG	2A	3648	1/1	0.90	0.10	51,51,51,51	0
56	MG	2a	3141	1/1	0.90	0.18	55,55,55,55	0
56	MG	2A	3288	1/1	0.90	0.29	61,61,61,61	0
56	MG	2A	3291	1/1	0.90	0.11	51,51,51,51	0
56	MG	2A	3670	1/1	0.90	0.06	71,71,71,71	0
56	MG	2A	3680	1/1	0.90	0.16	45,45,45,45	0
56	MG	2A	3683	1/1	0.90	0.14	47,47,47,47	0
56	MG	2A	3292	1/1	0.90	0.35	59,59,59,59	0
56	MG	2a	3169	1/1	0.90	0.16	44,44,44,44	0
56	MG	2A	3304	1/1	0.90	0.27	46,46,46,46	0
56	MG	1a	3182	1/1	0.90	0.09	53,53,53,53	0
56	MG	2a	3184	1/1	0.90	0.29	51,51,51,51	0
56	MG	1A	3878	1/1	0.90	0.10	72,72,72,72	0
56	MG	2e	201	1/1	0.90	0.21	63,63,63,63	0
56	MG	2A	3697	1/1	0.90	0.09	53,53,53,53	0
56	MG	1A	4013	1/1	0.90	0.17	31,31,31,31	0
56	MG	2A	3701	1/1	0.90	0.15	48,48,48,48	0
56	MG	2A	3044	1/1	0.90	0.24	53,53,53,53	0
58	MPD	2A	3727	8/8	0.90	0.20	41,48,53,55	0
56	MG	2A	3046	1/1	0.90	0.10	49,49,49,49	0
56	MG	1a	3033	1/1	0.90	0.23	57,57,57,57	0
56	MG	2A	3050	1/1	0.90	0.14	61,61,61,61	0
56	MG	2A	3369	1/1	0.91	0.08	33,33,33,33	0
56	MG	1A	3081	1/1	0.91	0.21	31,31,31,31	0
56	MG	1a	3004	1/1	0.91	0.10	59,59,59,59	0
56	MG	2A	3721	1/1	0.91	0.09	64,64,64,64	0
56	MG	2A	3373	1/1	0.91	0.09	37,37,37,37	0
56	MG	1A	3085	1/1	0.91	0.24	33,33,33,33	0
56	MG	1A	3014	1/1	0.91	0.16	58,58,58,58	0
56	MG	1A	3990	1/1	0.91	0.49	45,45,45,45	0
56	MG	2A	3385	1/1	0.91	0.08	54,54,54,54	0
56	MG	2B	204	1/1	0.91	0.06	57,57,57,57	0
56	MG	2B	206	1/1	0.91	0.22	65,65,65,65	0
56	MG	2B	209	1/1	0.91	0.15	58,58,58,58	0
56	MG	2B	210	1/1	0.91	0.08	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2B	211	1/1	0.91	0.12	74,74,74,74	0
56	MG	1A	3032	1/1	0.91	0.10	50,50,50,50	0
56	MG	1A	3089	1/1	0.91	0.12	30,30,30,30	0
56	MG	2B	216	1/1	0.91	0.10	64,64,64,64	0
56	MG	1A	3475	1/1	0.91	0.11	18,18,18,18	0
56	MG	2A	3419	1/1	0.91	0.12	60,60,60,60	0
56	MG	2A	3065	1/1	0.91	0.16	41,41,41,41	0
56	MG	2A	3425	1/1	0.91	0.17	64,64,64,64	0
56	MG	1a	3192	1/1	0.91	0.10	51,51,51,51	0
56	MG	2A	3068	1/1	0.91	0.19	34,34,34,34	0
56	MG	2A	3070	1/1	0.91	0.13	56,56,56,56	0
56	MG	1A	3779	1/1	0.91	0.15	43,43,43,43	0
56	MG	2T	201	1/1	0.91	0.10	48,48,48,48	0
56	MG	1A	4004	1/1	0.91	0.09	47,47,47,47	0
56	MG	1A	3476	1/1	0.91	0.12	28,28,28,28	0
56	MG	1A	3100	1/1	0.91	0.11	29,29,29,29	0
56	MG	1A	3289	1/1	0.91	0.15	55,55,55,55	0
56	MG	2A	3088	1/1	0.91	0.19	74,74,74,74	0
56	MG	1A	3602	1/1	0.91	0.10	23,23,23,23	0
56	MG	2A	3094	1/1	0.91	0.24	56,56,56,56	0
56	MG	2A	3451	1/1	0.91	0.11	41,41,41,41	0
56	MG	1A	3801	1/1	0.91	0.09	48,48,48,48	0
56	MG	25	103	1/1	0.91	0.11	63,63,63,63	0
56	MG	25	104	1/1	0.91	0.12	43,43,43,43	0
56	MG	1a	3203	1/1	0.91	0.19	53,53,53,53	0
56	MG	2A	3106	1/1	0.91	0.11	48,48,48,48	0
56	MG	1A	3912	1/1	0.91	0.33	32,32,32,32	0
56	MG	1A	3397	1/1	0.91	0.12	15,15,15,15	0
56	MG	2a	3007	1/1	0.91	0.10	70,70,70,70	0
56	MG	1a	3207	1/1	0.91	0.14	67,67,67,67	0
56	MG	2A	3117	1/1	0.91	0.17	54,54,54,54	0
56	MG	1A	3522	1/1	0.91	0.39	31,31,31,31	0
56	MG	1A	3920	1/1	0.91	0.20	59,59,59,59	0
56	MG	2A	3129	1/1	0.91	0.11	56,56,56,56	0
56	MG	2a	3022	1/1	0.91	0.14	47,47,47,47	0
56	MG	2A	3130	1/1	0.91	0.15	43,43,43,43	0
56	MG	2A	3474	1/1	0.91	0.14	56,56,56,56	0
56	MG	1a	3058	1/1	0.91	0.13	62,62,62,62	0
56	MG	2A	3136	1/1	0.91	0.18	55,55,55,55	0
56	MG	1B	220	1/1	0.91	0.09	30,30,30,30	0
56	MG	2A	3482	1/1	0.91	0.06	54,54,54,54	0
56	MG	2A	3157	1/1	0.91	0.07	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1a	3065	1/1	0.91	0.18	57,57,57,57	0
56	MG	1a	3217	1/1	0.91	0.08	60,60,60,60	0
56	MG	1B	225	1/1	0.91	0.06	33,33,33,33	0
56	MG	1A	3167	1/1	0.91	0.09	27,27,27,27	0
56	MG	1A	3616	1/1	0.91	0.14	46,46,46,46	0
56	MG	1A	3825	1/1	0.91	0.12	46,46,46,46	0
56	MG	1a	3226	1/1	0.91	0.13	56,56,56,56	0
56	MG	1A	3935	1/1	0.91	0.09	21,21,21,21	0
56	MG	1A	3105	1/1	0.91	0.21	34,34,34,34	0
56	MG	1A	3941	1/1	0.91	0.13	64,64,64,64	0
56	MG	1A	3541	1/1	0.91	0.12	50,50,50,50	0
56	MG	1a	3238	1/1	0.91	0.07	66,66,66,66	0
56	MG	2A	3191	1/1	0.91	0.15	65,65,65,65	0
56	MG	2A	3517	1/1	0.91	0.11	49,49,49,49	0
56	MG	2a	3060	1/1	0.91	0.19	67,67,67,67	0
56	MG	1a	3240	1/1	0.91	0.14	52,52,52,52	0
56	MG	1D	315	1/1	0.91	0.11	56,56,56,56	0
56	MG	1A	3631	1/1	0.91	0.11	35,35,35,35	0
56	MG	1A	3251	1/1	0.91	0.24	35,35,35,35	0
56	MG	1a	3090	1/1	0.91	0.19	52,52,52,52	0
56	MG	1F	301	1/1	0.91	0.12	28,28,28,28	0
56	MG	1F	314	1/1	0.91	0.14	29,29,29,29	0
56	MG	1F	315	1/1	0.91	0.13	48,48,48,48	0
56	MG	1a	3255	1/1	0.91	0.09	48,48,48,48	0
56	MG	2A	3538	1/1	0.91	0.21	54,54,54,54	0
56	MG	2a	3072	1/1	0.91	0.15	57,57,57,57	0
56	MG	1F	319	1/1	0.91	0.12	40,40,40,40	0
56	MG	2a	3077	1/1	0.91	0.22	65,65,65,65	0
56	MG	1A	3840	1/1	0.91	0.22	50,50,50,50	0
56	MG	1a	3105	1/1	0.91	0.17	64,64,64,64	0
56	MG	1A	3951	1/1	0.91	0.14	69,69,69,69	0
56	MG	1A	3557	1/1	0.91	0.06	32,32,32,32	0
56	MG	1G	203	1/1	0.91	0.08	47,47,47,47	0
56	MG	1d	303	1/1	0.91	0.09	51,51,51,51	0
56	MG	2A	3581	1/1	0.91	0.15	39,39,39,39	0
56	MG	1d	304	1/1	0.91	0.11	61,61,61,61	0
56	MG	1A	3736	1/1	0.91	0.26	53,53,53,53	0
56	MG	2A	3598	1/1	0.91	0.07	48,48,48,48	0
56	MG	2A	3233	1/1	0.91	0.27	65,65,65,65	0
56	MG	2A	3236	1/1	0.91	0.12	59,59,59,59	0
56	MG	1a	3113	1/1	0.91	0.11	61,61,61,61	0
56	MG	1A	3956	1/1	0.91	0.11	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3244	1/1	0.91	0.28	54,54,54,54	0
56	MG	1A	3957	1/1	0.91	0.09	49,49,49,49	0
56	MG	2a	3130	1/1	0.91	0.08	63,63,63,63	0
56	MG	1A	3958	1/1	0.91	0.23	79,79,79,79	0
56	MG	1A	3960	1/1	0.91	0.12	56,56,56,56	0
56	MG	1a	3144	1/1	0.91	0.12	53,53,53,53	0
56	MG	1a	3148	1/1	0.91	0.11	57,57,57,57	0
56	MG	1A	3171	1/1	0.91	0.06	44,44,44,44	0
56	MG	1A	3431	1/1	0.91	0.23	64,64,64,64	0
56	MG	1U	201	1/1	0.91	0.13	37,37,37,37	0
56	MG	2A	3665	1/1	0.91	0.17	75,75,75,75	0
56	MG	2A	3666	1/1	0.91	0.10	57,57,57,57	0
56	MG	1U	203	1/1	0.91	0.14	43,43,43,43	0
56	MG	1U	206	1/1	0.91	0.14	34,34,34,34	0
56	MG	1a	3160	1/1	0.91	0.12	58,58,58,58	0
56	MG	1A	3433	1/1	0.91	0.08	68,68,68,68	0
56	MG	2A	3687	1/1	0.91	0.09	57,57,57,57	0
56	MG	1y	202	1/1	0.91	0.10	62,62,62,62	0
56	MG	2a	3181	1/1	0.91	0.06	68,68,68,68	0
56	MG	1A	3851	1/1	0.91	0.18	26,26,26,26	0
56	MG	13	104	1/1	0.91	0.19	35,35,35,35	0
56	MG	2a	3187	1/1	0.91	0.25	62,62,62,62	0
56	MG	2A	3694	1/1	0.91	0.14	69,69,69,69	0
56	MG	1A	3747	1/1	0.91	0.12	50,50,50,50	0
56	MG	1a	3173	1/1	0.91	0.09	56,56,56,56	0
56	MG	2A	3027	1/1	0.91	0.13	22,22,22,22	0
56	MG	2t	201	1/1	0.91	0.11	41,41,41,41	0
56	MG	1A	3982	1/1	0.91	0.10	46,46,46,46	0
56	MG	18	101	1/1	0.91	0.14	37,37,37,37	0
56	MG	2A	3037	1/1	0.91	0.26	64,64,64,64	0
56	MG	1A	3302	1/1	0.91	0.23	72,72,72,72	0
59	ARG	1B	230	12/12	0.91	0.12	24,48,58,61	0
56	MG	1A	3122	1/1	0.91	0.13	35,35,35,35	0
56	MG	1a	3199	1/1	0.92	0.13	70,70,70,70	0
56	MG	2D	306	1/1	0.92	0.29	34,34,34,34	0
56	MG	2D	307	1/1	0.92	0.10	38,38,38,38	0
56	MG	1A	3877	1/1	0.92	0.07	18,18,18,18	0
56	MG	1B	216	1/1	0.92	0.08	70,70,70,70	0
56	MG	2A	3465	1/1	0.92	0.25	64,64,64,64	0
56	MG	2A	3005	1/1	0.92	0.14	66,66,66,66	0
56	MG	2A	3006	1/1	0.92	0.08	48,48,48,48	0
56	MG	1B	217	1/1	0.92	0.11	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2O	201	1/1	0.92	0.08	50,50,50,50	0
56	MG	2A	3201	1/1	0.92	0.12	45,45,45,45	0
56	MG	1a	3103	1/1	0.92	0.10	59,59,59,59	0
56	MG	1B	218	1/1	0.92	0.08	39,39,39,39	0
56	MG	2T	202	1/1	0.92	0.14	60,60,60,60	0
56	MG	1A	3728	1/1	0.92	0.09	38,38,38,38	0
56	MG	2T	204	1/1	0.92	0.07	40,40,40,40	0
56	MG	1A	3083	1/1	0.92	0.09	42,42,42,42	0
56	MG	2A	3215	1/1	0.92	0.10	45,45,45,45	0
56	MG	2V	202	1/1	0.92	0.13	49,49,49,49	0
56	MG	1A	3959	1/1	0.92	0.15	44,44,44,44	0
56	MG	2A	3484	1/1	0.92	0.09	51,51,51,51	0
56	MG	1a	3210	1/1	0.92	0.11	71,71,71,71	0
56	MG	1A	3805	1/1	0.92	0.05	40,40,40,40	0
56	MG	1A	3263	1/1	0.92	0.06	31,31,31,31	0
56	MG	2A	3222	1/1	0.92	0.12	43,43,43,43	0
56	MG	1a	3114	1/1	0.92	0.12	49,49,49,49	0
56	MG	2A	3497	1/1	0.92	0.09	40,40,40,40	0
56	MG	1a	3115	1/1	0.92	0.13	31,31,31,31	0
56	MG	1a	3120	1/1	0.92	0.22	53,53,53,53	0
56	MG	2A	3054	1/1	0.92	0.11	47,47,47,47	0
56	MG	1a	3121	1/1	0.92	0.10	66,66,66,66	0
56	MG	2A	3056	1/1	0.92	0.13	59,59,59,59	0
56	MG	1a	3122	1/1	0.92	0.10	63,63,63,63	0
56	MG	1A	3895	1/1	0.92	0.10	56,56,56,56	0
56	MG	2A	3513	1/1	0.92	0.07	51,51,51,51	0
56	MG	2A	3515	1/1	0.92	0.11	53,53,53,53	0
56	MG	2A	3243	1/1	0.92	0.36	46,46,46,46	0
56	MG	2a	3021	1/1	0.92	0.12	49,49,49,49	0
56	MG	1a	3136	1/1	0.92	0.06	59,59,59,59	0
56	MG	1A	3738	1/1	0.92	0.16	55,55,55,55	0
56	MG	1a	3138	1/1	0.92	0.24	42,42,42,42	0
56	MG	1a	3141	1/1	0.92	0.23	57,57,57,57	0
56	MG	2a	3032	1/1	0.92	0.06	42,42,42,42	0
56	MG	1A	3975	1/1	0.92	0.10	44,44,44,44	0
56	MG	1A	3815	1/1	0.92	0.11	34,34,34,34	0
56	MG	2A	3530	1/1	0.92	0.12	60,60,60,60	0
56	MG	2A	3531	1/1	0.92	0.11	39,39,39,39	0
56	MG	2A	3265	1/1	0.92	0.07	47,47,47,47	0
56	MG	2A	3072	1/1	0.92	0.06	47,47,47,47	0
56	MG	1A	3449	1/1	0.92	0.14	54,54,54,54	0
56	MG	2A	3274	1/1	0.92	0.23	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3279	1/1	0.92	0.06	68,68,68,68	0
56	MG	2A	3076	1/1	0.92	0.22	40,40,40,40	0
56	MG	2A	3548	1/1	0.92	0.08	51,51,51,51	0
56	MG	2A	3077	1/1	0.92	0.34	47,47,47,47	0
56	MG	2a	3051	1/1	0.92	0.21	71,71,71,71	0
56	MG	2A	3551	1/1	0.92	0.17	39,39,39,39	0
56	MG	1a	3147	1/1	0.92	0.12	47,47,47,47	0
56	MG	2A	3287	1/1	0.92	0.17	61,61,61,61	0
56	MG	1A	3034	1/1	0.92	0.21	49,49,49,49	0
56	MG	2A	3562	1/1	0.92	0.08	57,57,57,57	0
56	MG	2A	3565	1/1	0.92	0.12	31,31,31,31	0
56	MG	2A	3568	1/1	0.92	0.13	55,55,55,55	0
56	MG	1A	3611	1/1	0.92	0.12	25,25,25,25	0
56	MG	1E	306	1/1	0.92	0.10	52,52,52,52	0
56	MG	2A	3302	1/1	0.92	0.23	42,42,42,42	0
56	MG	1a	3245	1/1	0.92	0.09	38,38,38,38	0
56	MG	1A	3266	1/1	0.92	0.12	52,52,52,52	0
56	MG	2A	3594	1/1	0.92	0.09	29,29,29,29	0
56	MG	1A	3421	1/1	0.92	0.15	32,32,32,32	0
56	MG	1a	3037	1/1	0.92	0.18	48,48,48,48	0
56	MG	1A	3919	1/1	0.92	0.08	53,53,53,53	0
56	MG	2A	3334	1/1	0.92	0.12	71,71,71,71	0
56	MG	2A	3614	1/1	0.92	0.09	37,37,37,37	0
56	MG	2A	3105	1/1	0.92	0.12	55,55,55,55	0
56	MG	2A	3338	1/1	0.92	0.17	47,47,47,47	0
56	MG	2a	3078	1/1	0.92	0.07	54,54,54,54	0
56	MG	1A	3988	1/1	0.92	0.09	52,52,52,52	0
56	MG	2a	3083	1/1	0.92	0.14	75,75,75,75	0
56	MG	1A	3749	1/1	0.92	0.11	34,34,34,34	0
56	MG	1A	3924	1/1	0.92	0.09	50,50,50,50	0
56	MG	1A	3035	1/1	0.92	0.21	50,50,50,50	0
56	MG	2A	3116	1/1	0.92	0.12	38,38,38,38	0
56	MG	2a	3092	1/1	0.92	0.15	59,59,59,59	0
56	MG	1a	3167	1/1	0.92	0.11	64,64,64,64	0
56	MG	1A	3490	1/1	0.92	0.13	34,34,34,34	0
56	MG	2A	3123	1/1	0.92	0.16	31,31,31,31	0
56	MG	2A	3125	1/1	0.92	0.30	59,59,59,59	0
56	MG	1a	3269	1/1	0.92	0.10	58,58,58,58	0
56	MG	1a	3270	1/1	0.92	0.13	77,77,77,77	0
56	MG	2A	3380	1/1	0.92	0.07	77,77,77,77	0
56	MG	2A	3682	1/1	0.92	0.09	51,51,51,51	0
56	MG	2A	3382	1/1	0.92	0.07	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3273	1/1	0.92	0.08	25,25,25,25	0
56	MG	2a	3127	1/1	0.92	0.10	46,46,46,46	0
56	MG	2A	3387	1/1	0.92	0.10	48,48,48,48	0
56	MG	2A	3388	1/1	0.92	0.09	56,56,56,56	0
56	MG	1A	3357	1/1	0.92	0.11	27,27,27,27	0
56	MG	1A	4003	1/1	0.92	0.11	48,48,48,48	0
56	MG	2a	3136	1/1	0.92	0.28	64,64,64,64	0
56	MG	2A	3394	1/1	0.92	0.14	57,57,57,57	0
56	MG	2A	3140	1/1	0.92	0.17	56,56,56,56	0
56	MG	2A	3399	1/1	0.92	0.10	50,50,50,50	0
56	MG	2A	3408	1/1	0.92	0.10	34,34,34,34	0
56	MG	2A	3704	1/1	0.92	0.18	20,20,20,20	0
56	MG	2A	3705	1/1	0.92	0.09	46,46,46,46	0
56	MG	2A	3141	1/1	0.92	0.12	52,52,52,52	0
56	MG	1a	3069	1/1	0.92	0.15	61,61,61,61	0
56	MG	1A	3252	1/1	0.92	0.09	34,34,34,34	0
56	MG	1A	3710	1/1	0.92	0.15	20,20,20,20	0
56	MG	2a	3165	1/1	0.92	0.08	56,56,56,56	0
56	MG	1A	3367	1/1	0.92	0.09	40,40,40,40	0
56	MG	1g	201	1/1	0.92	0.22	53,53,53,53	0
56	MG	1T	201	1/1	0.92	0.11	45,45,45,45	0
56	MG	2A	3435	1/1	0.92	0.09	71,71,71,71	0
56	MG	2A	3172	1/1	0.92	0.14	33,33,33,33	0
56	MG	1A	3586	1/1	0.92	0.15	56,56,56,56	0
56	MG	2A	3438	1/1	0.92	0.08	48,48,48,48	0
56	MG	1A	3644	1/1	0.92	0.09	27,27,27,27	0
56	MG	1A	4021	1/1	0.92	0.10	52,52,52,52	0
56	MG	2A	3181	1/1	0.92	0.19	58,58,58,58	0
56	MG	2A	3182	1/1	0.92	0.10	57,57,57,57	0
56	MG	2B	205	1/1	0.92	0.13	49,49,49,49	0
56	MG	2x	101	1/1	0.92	0.13	35,35,35,35	0
56	MG	1A	3439	1/1	0.92	0.12	70,70,70,70	0
56	MG	1A	3533	1/1	0.92	0.09	47,47,47,47	0
56	MG	10	104	1/1	0.92	0.11	56,56,56,56	0
56	MG	1A	3227	1/1	0.92	0.11	27,27,27,27	0
56	MG	11	102	1/1	0.92	0.13	61,61,61,61	0
56	MG	1A	3656	1/1	0.92	0.07	21,21,21,21	0
56	MG	1A	3112	1/1	0.93	0.20	38,38,38,38	0
56	MG	1a	3085	1/1	0.93	0.07	51,51,51,51	0
56	MG	2A	3423	1/1	0.93	0.08	40,40,40,40	0
56	MG	2A	3134	1/1	0.93	0.14	54,54,54,54	0
56	MG	1A	3925	1/1	0.93	0.15	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3647	1/1	0.93	0.12	58,58,58,58	0
56	MG	2B	207	1/1	0.93	0.14	52,52,52,52	0
56	MG	2B	208	1/1	0.93	0.08	57,57,57,57	0
56	MG	1a	3093	1/1	0.93	0.17	65,65,65,65	0
56	MG	1A	3540	1/1	0.93	0.10	30,30,30,30	0
56	MG	2A	3143	1/1	0.93	0.14	55,55,55,55	0
56	MG	2A	3148	1/1	0.93	0.12	50,50,50,50	0
56	MG	2A	3150	1/1	0.93	0.07	45,45,45,45	0
56	MG	2A	3151	1/1	0.93	0.12	60,60,60,60	0
56	MG	2D	302	1/1	0.93	0.30	39,39,39,39	0
56	MG	1A	3010	1/1	0.93	0.10	36,36,36,36	0
56	MG	1A	3079	1/1	0.93	0.20	32,32,32,32	0
56	MG	2D	309	1/1	0.93	0.08	53,53,53,53	0
56	MG	1A	3937	1/1	0.93	0.08	54,54,54,54	0
56	MG	1A	3552	1/1	0.93	0.09	49,49,49,49	0
56	MG	1F	307	1/1	0.93	0.08	30,30,30,30	0
56	MG	1A	3556	1/1	0.93	0.11	51,51,51,51	0
56	MG	1A	3800	1/1	0.93	0.09	49,49,49,49	0
56	MG	2A	3453	1/1	0.93	0.08	45,45,45,45	0
56	MG	2A	3454	1/1	0.93	0.06	47,47,47,47	0
56	MG	2A	3455	1/1	0.93	0.12	46,46,46,46	0
56	MG	2Q	201	1/1	0.93	0.17	54,54,54,54	0
56	MG	1A	3666	1/1	0.93	0.08	50,50,50,50	0
56	MG	2A	3458	1/1	0.93	0.12	57,57,57,57	0
56	MG	1A	3038	1/1	0.93	0.08	33,33,33,33	0
56	MG	1A	3948	1/1	0.93	0.24	53,53,53,53	0
56	MG	1A	3427	1/1	0.93	0.11	51,51,51,51	0
56	MG	1A	3186	1/1	0.93	0.12	43,43,43,43	0
56	MG	1A	3090	1/1	0.93	0.16	35,35,35,35	0
56	MG	1A	3810	1/1	0.93	0.17	54,54,54,54	0
56	MG	1a	3274	1/1	0.93	0.08	60,60,60,60	0
56	MG	2A	3469	1/1	0.93	0.12	40,40,40,40	0
56	MG	1a	3275	1/1	0.93	0.12	64,64,64,64	0
56	MG	20	101	1/1	0.93	0.10	46,46,46,46	0
56	MG	1A	3432	1/1	0.93	0.13	43,43,43,43	0
56	MG	1A	3813	1/1	0.93	0.06	52,52,52,52	0
56	MG	1O	201	1/1	0.93	0.15	49,49,49,49	0
56	MG	25	101	1/1	0.93	0.45	44,44,44,44	0
56	MG	1a	3126	1/1	0.93	0.10	66,66,66,66	0
56	MG	1a	3130	1/1	0.93	0.10	69,69,69,69	0
56	MG	1A	3572	1/1	0.93	0.09	45,45,45,45	0
56	MG	28	102	1/1	0.93	0.10	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2a	3001	1/1	0.93	0.11	40,40,40,40	0
56	MG	1A	3819	1/1	0.93	0.10	43,43,43,43	0
56	MG	2A	3200	1/1	0.93	0.12	46,46,46,46	0
56	MG	1g	202	1/1	0.93	0.19	60,60,60,60	0
56	MG	1A	3820	1/1	0.93	0.12	13,13,13,13	0
56	MG	1A	3260	1/1	0.93	0.08	60,60,60,60	0
56	MG	2A	3209	1/1	0.93	0.10	54,54,54,54	0
56	MG	2A	3210	1/1	0.93	0.15	59,59,59,59	0
56	MG	1A	3687	1/1	0.93	0.16	46,46,46,46	0
56	MG	2A	3213	1/1	0.93	0.17	56,56,56,56	0
56	MG	1A	3304	1/1	0.93	0.32	38,38,38,38	0
56	MG	1A	3973	1/1	0.93	0.06	50,50,50,50	0
56	MG	2a	3023	1/1	0.93	0.06	61,61,61,61	0
56	MG	1a	3146	1/1	0.93	0.05	58,58,58,58	0
56	MG	1W	201	1/1	0.93	0.16	43,43,43,43	0
56	MG	2A	3508	1/1	0.93	0.10	61,61,61,61	0
56	MG	1A	3193	1/1	0.93	0.09	50,50,50,50	0
56	MG	2a	3033	1/1	0.93	0.11	34,34,34,34	0
56	MG	10	101	1/1	0.93	0.25	41,41,41,41	0
56	MG	1a	3151	1/1	0.93	0.21	55,55,55,55	0
56	MG	1A	3831	1/1	0.93	0.06	30,30,30,30	0
56	MG	1A	3194	1/1	0.93	0.22	50,50,50,50	0
56	MG	10	107	1/1	0.93	0.08	48,48,48,48	0
56	MG	1A	3981	1/1	0.93	0.10	37,37,37,37	0
56	MG	11	104	1/1	0.93	0.18	53,53,53,53	0
56	MG	13	101	1/1	0.93	0.14	29,29,29,29	0
56	MG	1A	3096	1/1	0.93	0.10	55,55,55,55	0
56	MG	15	3103	1/1	0.93	0.40	24,24,24,24	0
56	MG	1A	3702	1/1	0.93	0.14	42,42,42,42	0
56	MG	1A	3984	1/1	0.93	0.05	19,19,19,19	0
56	MG	2A	3245	1/1	0.93	0.13	48,48,48,48	0
56	MG	17	107	1/1	0.93	0.07	39,39,39,39	0
56	MG	2A	3247	1/1	0.93	0.13	38,38,38,38	0
56	MG	2a	3055	1/1	0.93	0.08	56,56,56,56	0
56	MG	1A	3707	1/1	0.93	0.08	34,34,34,34	0
56	MG	1A	3065	1/1	0.93	0.10	44,44,44,44	0
56	MG	2A	3254	1/1	0.93	0.09	52,52,52,52	0
56	MG	2A	3539	1/1	0.93	0.09	48,48,48,48	0
56	MG	2A	3540	1/1	0.93	0.07	22,22,22,22	0
56	MG	1A	3270	1/1	0.93	0.08	44,44,44,44	0
56	MG	1A	3848	1/1	0.93	0.10	66,66,66,66	0
56	MG	1A	3590	1/1	0.93	0.13	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3592	1/1	0.93	0.08	34,34,34,34	0
56	MG	2A	3269	1/1	0.93	0.21	41,41,41,41	0
56	MG	2A	3053	1/1	0.93	0.09	54,54,54,54	0
56	MG	1A	3041	1/1	0.93	0.21	51,51,51,51	0
56	MG	2A	3278	1/1	0.93	0.13	58,58,58,58	0
56	MG	1A	3594	1/1	0.93	0.09	40,40,40,40	0
56	MG	2A	3280	1/1	0.93	0.14	52,52,52,52	0
56	MG	1A	3595	1/1	0.93	0.08	38,38,38,38	0
56	MG	1A	3164	1/1	0.93	0.19	43,43,43,43	0
56	MG	1A	3460	1/1	0.93	0.07	47,47,47,47	0
56	MG	1a	3188	1/1	0.93	0.21	74,74,74,74	0
56	MG	2A	3590	1/1	0.93	0.09	63,63,63,63	0
56	MG	1A	3360	1/1	0.93	0.09	17,17,17,17	0
56	MG	2a	3086	1/1	0.93	0.12	67,67,67,67	0
56	MG	1A	3362	1/1	0.93	0.13	54,54,54,54	0
56	MG	1A	3205	1/1	0.93	0.07	34,34,34,34	0
56	MG	2A	3293	1/1	0.93	0.14	53,53,53,53	0
56	MG	2A	3294	1/1	0.93	0.25	55,55,55,55	0
56	MG	2A	3298	1/1	0.93	0.21	42,42,42,42	0
56	MG	2A	3608	1/1	0.93	0.10	58,58,58,58	0
56	MG	2A	3613	1/1	0.93	0.07	77,77,77,77	0
56	MG	2A	3301	1/1	0.93	0.13	48,48,48,48	0
56	MG	1A	4015	1/1	0.93	0.08	43,43,43,43	0
56	MG	2a	3103	1/1	0.93	0.18	40,40,40,40	0
56	MG	1a	3031	1/1	0.93	0.12	47,47,47,47	0
56	MG	2a	3110	1/1	0.93	0.22	56,56,56,56	0
56	MG	2A	3305	1/1	0.93	0.11	51,51,51,51	0
56	MG	2a	3112	1/1	0.93	0.14	58,58,58,58	0
56	MG	1A	3608	1/1	0.93	0.24	32,32,32,32	0
56	MG	2A	3637	1/1	0.93	0.08	45,45,45,45	0
56	MG	2A	3074	1/1	0.93	0.34	48,48,48,48	0
56	MG	2A	3321	1/1	0.93	0.07	37,37,37,37	0
56	MG	1a	3034	1/1	0.93	0.11	45,45,45,45	0
56	MG	2a	3128	1/1	0.93	0.21	69,69,69,69	0
56	MG	1A	3880	1/1	0.93	0.06	33,33,33,33	0
56	MG	2A	3331	1/1	0.93	0.12	40,40,40,40	0
56	MG	2A	3659	1/1	0.93	0.10	67,67,67,67	0
56	MG	1A	3166	1/1	0.93	0.12	40,40,40,40	0
56	MG	1A	3499	1/1	0.93	0.10	37,37,37,37	0
56	MG	1A	3503	1/1	0.93	0.12	55,55,55,55	0
56	MG	2a	3138	1/1	0.93	0.15	69,69,69,69	0
56	MG	1B	207	1/1	0.93	0.21	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3082	1/1	0.93	0.14	41,41,41,41	0
56	MG	2A	3350	1/1	0.93	0.08	41,41,41,41	0
56	MG	1B	209	1/1	0.93	0.07	49,49,49,49	0
56	MG	1A	3885	1/1	0.93	0.18	39,39,39,39	0
56	MG	2A	3366	1/1	0.93	0.07	35,35,35,35	0
56	MG	1A	3891	1/1	0.93	0.10	57,57,57,57	0
56	MG	1a	3209	1/1	0.93	0.10	64,64,64,64	0
56	MG	2A	3691	1/1	0.93	0.10	51,51,51,51	0
56	MG	1A	3370	1/1	0.93	0.06	36,36,36,36	0
56	MG	2a	3166	1/1	0.93	0.08	56,56,56,56	0
56	MG	2a	3167	1/1	0.93	0.12	65,65,65,65	0
56	MG	1a	3061	1/1	0.93	0.15	66,66,66,66	0
56	MG	2A	3696	1/1	0.93	0.10	59,59,59,59	0
56	MG	2A	3104	1/1	0.93	0.20	53,53,53,53	0
56	MG	2a	3173	1/1	0.93	0.15	71,71,71,71	0
56	MG	1a	3063	1/1	0.93	0.11	63,63,63,63	0
56	MG	1A	3276	1/1	0.93	0.08	37,37,37,37	0
56	MG	2A	3110	1/1	0.93	0.10	43,43,43,43	0
56	MG	1A	3514	1/1	0.93	0.11	46,46,46,46	0
56	MG	1A	3756	1/1	0.93	0.07	48,48,48,48	0
56	MG	2f	201	1/1	0.93	0.12	43,43,43,43	0
56	MG	1A	3757	1/1	0.93	0.11	33,33,33,33	0
56	MG	1B	222	1/1	0.93	0.11	43,43,43,43	0
56	MG	1A	3381	1/1	0.93	0.07	25,25,25,25	0
56	MG	2A	3711	1/1	0.93	0.17	59,59,59,59	0
56	MG	1A	3390	1/1	0.93	0.12	18,18,18,18	0
56	MG	1A	3217	1/1	0.93	0.08	47,47,47,47	0
56	MG	1A	3401	1/1	0.93	0.08	44,44,44,44	0
56	MG	1A	3763	1/1	0.93	0.10	55,55,55,55	0
56	MG	2A	3402	1/1	0.93	0.10	34,34,34,34	0
56	MG	2A	3406	1/1	0.93	0.08	47,47,47,47	0
56	MG	1D	304	1/1	0.93	0.08	47,47,47,47	0
56	MG	1A	3200	1/1	0.94	0.13	43,43,43,43	0
56	MG	2A	3322	1/1	0.94	0.09	51,51,51,51	0
56	MG	1A	3589	1/1	0.94	0.10	26,26,26,26	0
56	MG	1A	3354	1/1	0.94	0.09	24,24,24,24	0
56	MG	1A	3067	1/1	0.94	0.07	35,35,35,35	0
56	MG	1a	3021	1/1	0.94	0.09	50,50,50,50	0
56	MG	1A	3461	1/1	0.94	0.08	54,54,54,54	0
56	MG	1A	3463	1/1	0.94	0.08	42,42,42,42	0
56	MG	1A	3870	1/1	0.94	0.09	23,23,23,23	0
56	MG	1A	3052	1/1	0.94	0.20	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1B	204	1/1	0.94	0.06	41,41,41,41	0
56	MG	1a	3195	1/1	0.94	0.08	54,54,54,54	0
56	MG	2A	3360	1/1	0.94	0.08	33,33,33,33	0
56	MG	1A	3158	1/1	0.94	0.13	36,36,36,36	0
56	MG	1A	3879	1/1	0.94	0.05	23,23,23,23	0
56	MG	2A	3715	1/1	0.94	0.18	69,69,69,69	0
56	MG	2A	3367	1/1	0.94	0.10	72,72,72,72	0
56	MG	1A	3725	1/1	0.94	0.05	25,25,25,25	0
56	MG	2A	3086	1/1	0.94	0.57	45,45,45,45	0
56	MG	2A	3719	1/1	0.94	0.06	58,58,58,58	0
56	MG	2A	3087	1/1	0.94	0.12	33,33,33,33	0
56	MG	1A	3598	1/1	0.94	0.10	48,48,48,48	0
56	MG	2A	3723	1/1	0.94	0.13	46,46,46,46	0
56	MG	2A	3090	1/1	0.94	0.08	62,62,62,62	0
56	MG	1A	3363	1/1	0.94	0.06	25,25,25,25	0
56	MG	1A	3481	1/1	0.94	0.08	18,18,18,18	0
56	MG	1A	3365	1/1	0.94	0.13	25,25,25,25	0
56	MG	1a	3045	1/1	0.94	0.22	53,53,53,53	0
56	MG	2A	3098	1/1	0.94	0.13	58,58,58,58	0
56	MG	2A	3386	1/1	0.94	0.12	34,34,34,34	0
56	MG	2A	3099	1/1	0.94	0.09	43,43,43,43	0
56	MG	2A	3100	1/1	0.94	0.11	48,48,48,48	0
56	MG	1A	3027	1/1	0.94	0.43	22,22,22,22	0
56	MG	1a	3053	1/1	0.94	0.28	64,64,64,64	0
56	MG	1a	3054	1/1	0.94	0.36	55,55,55,55	0
56	MG	2B	212	1/1	0.94	0.09	74,74,74,74	0
56	MG	1A	3071	1/1	0.94	0.11	41,41,41,41	0
56	MG	1A	3505	1/1	0.94	0.11	43,43,43,43	0
56	MG	1A	3210	1/1	0.94	0.16	42,42,42,42	0
56	MG	2A	3403	1/1	0.94	0.07	31,31,31,31	0
56	MG	2D	303	1/1	0.94	0.15	45,45,45,45	0
56	MG	2A	3405	1/1	0.94	0.10	30,30,30,30	0
56	MG	1A	3277	1/1	0.94	0.17	36,36,36,36	0
56	MG	2A	3407	1/1	0.94	0.10	36,36,36,36	0
56	MG	2D	312	1/1	0.94	0.06	46,46,46,46	0
56	MG	1A	3373	1/1	0.94	0.08	48,48,48,48	0
56	MG	2A	3411	1/1	0.94	0.17	59,59,59,59	0
56	MG	2A	3416	1/1	0.94	0.17	47,47,47,47	0
56	MG	2F	302	1/1	0.94	0.16	49,49,49,49	0
56	MG	1a	3214	1/1	0.94	0.08	65,65,65,65	0
56	MG	2G	201	1/1	0.94	0.09	79,79,79,79	0
56	MG	2A	3119	1/1	0.94	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
56	MG	1A	3623	1/1	0.94	0.09	46,46,46,46	0
56	MG	2A	3424	1/1	0.94	0.06	34,34,34,34	0
56	MG	2A	3122	1/1	0.94	0.05	48,48,48,48	0
56	MG	1A	3376	1/1	0.94	0.10	38,38,38,38	0
56	MG	1a	3218	1/1	0.94	0.06	76,76,76,76	0
56	MG	2A	3429	1/1	0.94	0.09	36,36,36,36	0
56	MG	1A	3518	1/1	0.94	0.08	21,21,21,21	0
56	MG	1A	3758	1/1	0.94	0.06	21,21,21,21	0
56	MG	1A	3380	1/1	0.94	0.13	35,35,35,35	0
56	MG	1A	3632	1/1	0.94	0.08	33,33,33,33	0
56	MG	1A	3284	1/1	0.94	0.13	54,54,54,54	0
56	MG	1a	3227	1/1	0.94	0.15	58,58,58,58	0
56	MG	2A	3137	1/1	0.94	0.21	56,56,56,56	0
56	MG	2W	202	1/1	0.94	0.28	55,55,55,55	0
56	MG	1a	3230	1/1	0.94	0.08	58,58,58,58	0
56	MG	1a	3231	1/1	0.94	0.07	63,63,63,63	0
56	MG	1A	3527	1/1	0.94	0.10	62,62,62,62	0
56	MG	1a	3079	1/1	0.94	0.04	33,33,33,33	0
56	MG	1a	3081	1/1	0.94	0.05	52,52,52,52	0
56	MG	2A	3149	1/1	0.94	0.13	38,38,38,38	0
56	MG	1A	3930	1/1	0.94	0.10	41,41,41,41	0
56	MG	1A	3286	1/1	0.94	0.09	68,68,68,68	0
56	MG	2A	3152	1/1	0.94	0.15	39,39,39,39	0
56	MG	2A	3153	1/1	0.94	0.16	44,44,44,44	0
56	MG	27	3300	1/1	0.94	0.12	33,33,33,33	0
56	MG	2A	3457	1/1	0.94	0.11	45,45,45,45	0
56	MG	2A	3155	1/1	0.94	0.06	60,60,60,60	0
56	MG	1A	3641	1/1	0.94	0.09	47,47,47,47	0
56	MG	1A	3643	1/1	0.94	0.09	45,45,45,45	0
56	MG	1A	3777	1/1	0.94	0.25	25,25,25,25	0
56	MG	1a	3087	1/1	0.94	0.14	62,62,62,62	0
56	MG	2A	3463	1/1	0.94	0.17	44,44,44,44	0
56	MG	1a	3089	1/1	0.94	0.07	56,56,56,56	0
56	MG	2a	3010	1/1	0.94	0.17	53,53,53,53	0
56	MG	2A	3168	1/1	0.94	0.10	44,44,44,44	0
56	MG	2a	3015	1/1	0.94	0.14	63,63,63,63	0
56	MG	2A	3170	1/1	0.94	0.12	40,40,40,40	0
56	MG	1A	3099	1/1	0.94	0.10	30,30,30,30	0
56	MG	1A	3025	1/1	0.94	0.18	34,34,34,34	0
56	MG	2A	3175	1/1	0.94	0.15	69,69,69,69	0
56	MG	1a	3094	1/1	0.94	0.15	57,57,57,57	0
56	MG	1A	3648	1/1	0.94	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
56	MG	1A	3782	1/1	0.94	0.09	39,39,39,39	0
56	MG	1a	3261	1/1	0.94	0.05	46,46,46,46	0
56	MG	2A	3479	1/1	0.94	0.06	54,54,54,54	0
56	MG	1a	3262	1/1	0.94	0.09	48,48,48,48	0
56	MG	1A	3946	1/1	0.94	0.06	58,58,58,58	0
56	MG	1A	3785	1/1	0.94	0.08	39,39,39,39	0
56	MG	1a	3100	1/1	0.94	0.15	51,51,51,51	0
56	MG	2A	3485	1/1	0.94	0.08	63,63,63,63	0
56	MG	2a	3039	1/1	0.94	0.25	62,62,62,62	0
56	MG	1A	3786	1/1	0.94	0.10	32,32,32,32	0
56	MG	1A	3218	1/1	0.94	0.16	25,25,25,25	0
56	MG	1a	3268	1/1	0.94	0.11	67,67,67,67	0
56	MG	2A	3491	1/1	0.94	0.12	44,44,44,44	0
56	MG	1A	3220	1/1	0.94	0.07	61,61,61,61	0
56	MG	2A	3194	1/1	0.94	0.11	35,35,35,35	0
56	MG	1A	3654	1/1	0.94	0.14	34,34,34,34	0
56	MG	1A	3954	1/1	0.94	0.12	49,49,49,49	0
56	MG	2A	3503	1/1	0.94	0.09	48,48,48,48	0
56	MG	1a	3273	1/1	0.94	0.10	73,73,73,73	0
56	MG	1A	3550	1/1	0.94	0.08	35,35,35,35	0
56	MG	2a	3054	1/1	0.94	0.07	56,56,56,56	0
56	MG	1A	3101	1/1	0.94	0.07	51,51,51,51	0
56	MG	1d	301	1/1	0.94	0.08	69,69,69,69	0
56	MG	1A	3657	1/1	0.94	0.15	60,60,60,60	0
56	MG	1A	3555	1/1	0.94	0.18	50,50,50,50	0
56	MG	1T	203	1/1	0.94	0.07	38,38,38,38	0
56	MG	2A	3512	1/1	0.94	0.07	78,78,78,78	0
56	MG	1a	3117	1/1	0.94	0.08	62,62,62,62	0
56	MG	2A	3514	1/1	0.94	0.10	61,61,61,61	0
56	MG	1a	3118	1/1	0.94	0.08	61,61,61,61	0
56	MG	1A	3807	1/1	0.94	0.18	35,35,35,35	0
56	MG	1A	3665	1/1	0.94	0.07	37,37,37,37	0
56	MG	1A	3417	1/1	0.94	0.09	54,54,54,54	0
56	MG	1A	3061	1/1	0.94	0.08	41,41,41,41	0
56	MG	1V	203	1/1	0.94	0.17	44,44,44,44	0
56	MG	1a	3128	1/1	0.94	0.16	78,78,78,78	0
56	MG	1V	206	1/1	0.94	0.08	57,57,57,57	0
56	MG	2A	3527	1/1	0.94	0.14	63,63,63,63	0
56	MG	1a	3135	1/1	0.94	0.08	59,59,59,59	0
56	MG	1m	202	1/1	0.94	0.12	60,60,60,60	0
56	MG	2A	3532	1/1	0.94	0.12	81,81,81,81	0
56	MG	2a	3081	1/1	0.94	0.20	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3226	1/1	0.94	0.09	41,41,41,41	0
56	MG	2A	3227	1/1	0.94	0.13	44,44,44,44	0
56	MG	2A	3228	1/1	0.94	0.19	36,36,36,36	0
56	MG	1A	3110	1/1	0.94	0.15	22,22,22,22	0
56	MG	1n	102	1/1	0.94	0.16	62,62,62,62	0
56	MG	1W	203	1/1	0.94	0.25	31,31,31,31	0
56	MG	1o	102	1/1	0.94	0.17	50,50,50,50	0
56	MG	2A	3545	1/1	0.94	0.07	35,35,35,35	0
56	MG	2A	3546	1/1	0.94	0.07	53,53,53,53	0
56	MG	2a	3094	1/1	0.94	0.21	44,44,44,44	0
56	MG	1A	3082	1/1	0.94	0.19	43,43,43,43	0
56	MG	2a	3097	1/1	0.94	0.21	31,31,31,31	0
56	MG	1Z	301	1/1	0.94	0.12	47,47,47,47	0
56	MG	2a	3100	1/1	0.94	0.32	49,49,49,49	0
56	MG	1A	3185	1/1	0.94	0.16	34,34,34,34	0
56	MG	10	102	1/1	0.94	0.10	36,36,36,36	0
56	MG	1A	3118	1/1	0.94	0.29	31,31,31,31	0
56	MG	2a	3108	1/1	0.94	0.23	57,57,57,57	0
56	MG	10	105	1/1	0.94	0.11	28,28,28,28	0
56	MG	2A	3002	1/1	0.94	0.10	42,42,42,42	0
56	MG	1A	3567	1/1	0.94	0.07	67,67,67,67	0
56	MG	2A	3248	1/1	0.94	0.06	35,35,35,35	0
56	MG	1A	3311	1/1	0.94	0.15	39,39,39,39	0
56	MG	2a	3122	1/1	0.94	0.09	45,45,45,45	0
56	MG	2A	3012	1/1	0.94	0.13	52,52,52,52	0
56	MG	2A	3575	1/1	0.94	0.09	40,40,40,40	0
56	MG	2A	3013	1/1	0.94	0.08	27,27,27,27	0
56	MG	2A	3255	1/1	0.94	0.07	27,27,27,27	0
56	MG	2A	3259	1/1	0.94	0.07	45,45,45,45	0
56	MG	1A	3062	1/1	0.94	0.12	33,33,33,33	0
56	MG	1A	3829	1/1	0.94	0.13	49,49,49,49	0
56	MG	2a	3132	1/1	0.94	0.09	46,46,46,46	0
56	MG	1A	3064	1/1	0.94	0.16	45,45,45,45	0
56	MG	2a	3135	1/1	0.94	0.09	78,78,78,78	0
56	MG	2A	3596	1/1	0.94	0.07	33,33,33,33	0
56	MG	13	102	1/1	0.94	0.11	42,42,42,42	0
56	MG	2A	3600	1/1	0.94	0.06	32,32,32,32	0
56	MG	2A	3267	1/1	0.94	0.17	41,41,41,41	0
56	MG	2A	3028	1/1	0.94	0.17	57,57,57,57	0
56	MG	1A	3011	1/1	0.94	0.14	45,45,45,45	0
56	MG	2a	3142	1/1	0.94	0.23	65,65,65,65	0
56	MG	2A	3033	1/1	0.94	0.18	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2a	3144	1/1	0.94	0.13	51,51,51,51	0
56	MG	2A	3610	1/1	0.94	0.10	49,49,49,49	0
56	MG	2a	3149	1/1	0.94	0.11	69,69,69,69	0
56	MG	1A	3695	1/1	0.94	0.23	35,35,35,35	0
56	MG	2A	3036	1/1	0.94	0.30	59,59,59,59	0
56	MG	15	3107	1/1	0.94	0.19	47,47,47,47	0
56	MG	2A	3619	1/1	0.94	0.06	75,75,75,75	0
56	MG	2A	3040	1/1	0.94	0.08	39,39,39,39	0
56	MG	1A	3325	1/1	0.94	0.10	40,40,40,40	0
56	MG	1A	3699	1/1	0.94	0.16	36,36,36,36	0
56	MG	2A	3631	1/1	0.94	0.07	54,54,54,54	0
56	MG	2A	3632	1/1	0.94	0.07	42,42,42,42	0
56	MG	2A	3045	1/1	0.94	0.12	35,35,35,35	0
56	MG	1A	3700	1/1	0.94	0.06	29,29,29,29	0
56	MG	2a	3174	1/1	0.94	0.12	53,53,53,53	0
56	MG	2a	3178	1/1	0.94	0.07	61,61,61,61	0
56	MG	2a	3179	1/1	0.94	0.06	65,65,65,65	0
56	MG	2A	3289	1/1	0.94	0.23	38,38,38,38	0
56	MG	1A	3327	1/1	0.94	0.10	22,22,22,22	0
56	MG	2A	3647	1/1	0.94	0.09	19,19,19,19	0
56	MG	1A	3585	1/1	0.94	0.08	33,33,33,33	0
56	MG	1a	3170	1/1	0.94	0.08	46,46,46,46	0
56	MG	1A	3703	1/1	0.94	0.10	50,50,50,50	0
56	MG	1A	3704	1/1	0.94	0.09	30,30,30,30	0
56	MG	2k	201	1/1	0.94	0.16	58,58,58,58	0
56	MG	1A	3998	1/1	0.94	0.25	26,26,26,26	0
56	MG	2A	3058	1/1	0.94	0.12	38,38,38,38	0
56	MG	1A	3705	1/1	0.94	0.14	64,64,64,64	0
56	MG	1a	3008	1/1	0.94	0.11	53,53,53,53	0
56	MG	1A	4001	1/1	0.94	0.13	45,45,45,45	0
56	MG	1A	3196	1/1	0.94	0.16	61,61,61,61	0
56	MG	2A	3309	1/1	0.94	0.10	28,28,28,28	0
56	MG	2A	3315	1/1	0.94	0.13	30,30,30,30	0
56	MG	2A	3317	1/1	0.94	0.11	44,44,44,44	0
56	MG	2A	3318	1/1	0.94	0.10	62,62,62,62	0
56	MG	1A	3992	1/1	0.95	0.09	26,26,26,26	0
56	MG	1a	3017	1/1	0.95	0.11	62,62,62,62	0
56	MG	1A	3672	1/1	0.95	0.07	61,61,61,61	0
56	MG	2A	3120	1/1	0.95	0.32	51,51,51,51	0
56	MG	1A	3066	1/1	0.95	0.06	31,31,31,31	0
56	MG	2A	3714	1/1	0.95	0.05	41,41,41,41	0
56	MG	1A	3403	1/1	0.95	0.06	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3996	1/1	0.95	0.10	36,36,36,36	0
56	MG	1a	3025	1/1	0.95	0.12	41,41,41,41	0
56	MG	1A	3677	1/1	0.95	0.11	57,57,57,57	0
56	MG	2A	3128	1/1	0.95	0.16	39,39,39,39	0
56	MG	1A	3116	1/1	0.95	0.07	30,30,30,30	0
56	MG	1A	3681	1/1	0.95	0.07	49,49,49,49	0
56	MG	1A	3832	1/1	0.95	0.06	36,36,36,36	0
56	MG	2A	3132	1/1	0.95	0.12	40,40,40,40	0
56	MG	1A	3835	1/1	0.95	0.05	30,30,30,30	0
56	MG	2A	3135	1/1	0.95	0.07	24,24,24,24	0
56	MG	2B	202	1/1	0.95	0.13	60,60,60,60	0
56	MG	1a	3035	1/1	0.95	0.07	48,48,48,48	0
56	MG	1A	3294	1/1	0.95	0.07	40,40,40,40	0
56	MG	2A	3418	1/1	0.95	0.05	36,36,36,36	0
56	MG	2A	3138	1/1	0.95	0.12	45,45,45,45	0
56	MG	2A	3420	1/1	0.95	0.12	32,32,32,32	0
56	MG	2A	3139	1/1	0.95	0.06	45,45,45,45	0
56	MG	1A	3413	1/1	0.95	0.11	22,22,22,22	0
56	MG	1a	3038	1/1	0.95	0.10	32,32,32,32	0
56	MG	1A	3686	1/1	0.95	0.09	59,59,59,59	0
56	MG	1A	3415	1/1	0.95	0.07	52,52,52,52	0
56	MG	2A	3146	1/1	0.95	0.11	51,51,51,51	0
56	MG	2A	3147	1/1	0.95	0.15	31,31,31,31	0
56	MG	2A	3430	1/1	0.95	0.18	57,57,57,57	0
56	MG	2D	301	1/1	0.95	0.27	45,45,45,45	0
56	MG	1A	3093	1/1	0.95	0.07	37,37,37,37	0
56	MG	1a	3042	1/1	0.95	0.06	73,73,73,73	0
56	MG	2D	305	1/1	0.95	0.11	34,34,34,34	0
56	MG	1A	3224	1/1	0.95	0.14	30,30,30,30	0
56	MG	1a	3044	1/1	0.95	0.09	58,58,58,58	0
56	MG	1B	201	1/1	0.95	0.08	51,51,51,51	0
56	MG	2D	310	1/1	0.95	0.08	37,37,37,37	0
56	MG	1a	3051	1/1	0.95	0.09	57,57,57,57	0
56	MG	1A	3121	1/1	0.95	0.12	28,28,28,28	0
56	MG	1A	3569	1/1	0.95	0.06	43,43,43,43	0
56	MG	2E	304	1/1	0.95	0.11	46,46,46,46	0
56	MG	1B	205	1/1	0.95	0.05	44,44,44,44	0
56	MG	2F	301	1/1	0.95	0.28	43,43,43,43	0
56	MG	2A	3445	1/1	0.95	0.06	49,49,49,49	0
56	MG	2A	3163	1/1	0.95	0.29	42,42,42,42	0
56	MG	1a	3056	1/1	0.95	0.20	50,50,50,50	0
56	MG	2A	3450	1/1	0.95	0.08	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1a	3057	1/1	0.95	0.16	51,51,51,51	0
56	MG	1A	3571	1/1	0.95	0.06	57,57,57,57	0
56	MG	1A	3301	1/1	0.95	0.06	44,44,44,44	0
56	MG	2P	201	1/1	0.95	0.06	42,42,42,42	0
56	MG	1A	3232	1/1	0.95	0.06	48,48,48,48	0
56	MG	1A	3233	1/1	0.95	0.20	34,34,34,34	0
56	MG	1B	211	1/1	0.95	0.07	49,49,49,49	0
56	MG	1a	3256	1/1	0.95	0.09	49,49,49,49	0
56	MG	1A	3235	1/1	0.95	0.18	34,34,34,34	0
56	MG	1A	3865	1/1	0.95	0.06	32,32,32,32	0
56	MG	1A	3310	1/1	0.95	0.10	30,30,30,30	0
56	MG	1A	3239	1/1	0.95	0.22	26,26,26,26	0
56	MG	1A	3706	1/1	0.95	0.13	42,42,42,42	0
56	MG	1A	3173	1/1	0.95	0.06	25,25,25,25	0
56	MG	2A	3186	1/1	0.95	0.14	62,62,62,62	0
56	MG	1A	3316	1/1	0.95	0.34	64,64,64,64	0
56	MG	1B	224	1/1	0.95	0.05	43,43,43,43	0
56	MG	2A	3467	1/1	0.95	0.09	57,57,57,57	0
56	MG	1A	3175	1/1	0.95	0.18	28,28,28,28	0
56	MG	1A	3177	1/1	0.95	0.32	27,27,27,27	0
56	MG	20	104	1/1	0.95	0.11	60,60,60,60	0
56	MG	1A	3446	1/1	0.95	0.07	44,44,44,44	0
56	MG	1A	3591	1/1	0.95	0.08	46,46,46,46	0
56	MG	1A	3049	1/1	0.95	0.12	36,36,36,36	0
56	MG	1A	3453	1/1	0.95	0.05	40,40,40,40	0
56	MG	1D	305	1/1	0.95	0.15	33,33,33,33	0
56	MG	2A	3478	1/1	0.95	0.05	38,38,38,38	0
56	MG	28	101	1/1	0.95	0.15	58,58,58,58	0
56	MG	1A	3183	1/1	0.95	0.23	37,37,37,37	0
56	MG	1a	3088	1/1	0.95	0.10	50,50,50,50	0
56	MG	1A	3886	1/1	0.95	0.13	22,22,22,22	0
56	MG	1A	3724	1/1	0.95	0.04	43,43,43,43	0
56	MG	2A	3203	1/1	0.95	0.17	45,45,45,45	0
56	MG	1A	3331	1/1	0.95	0.06	29,29,29,29	0
56	MG	1D	316	1/1	0.95	0.14	44,44,44,44	0
56	MG	1A	3896	1/1	0.95	0.05	54,54,54,54	0
56	MG	1A	3335	1/1	0.95	0.09	58,58,58,58	0
56	MG	2a	3012	1/1	0.95	0.27	52,52,52,52	0
56	MG	1A	3730	1/1	0.95	0.09	43,43,43,43	0
56	MG	1A	3258	1/1	0.95	0.20	24,24,24,24	0
56	MG	1F	306	1/1	0.95	0.14	31,31,31,31	0
56	MG	2A	3495	1/1	0.95	0.08	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2a	3020	1/1	0.95	0.24	50,50,50,50	0
56	MG	1A	3734	1/1	0.95	0.06	32,32,32,32	0
56	MG	1F	311	1/1	0.95	0.18	22,22,22,22	0
56	MG	2A	3500	1/1	0.95	0.07	29,29,29,29	0
56	MG	1F	313	1/1	0.95	0.11	39,39,39,39	0
56	MG	1A	3472	1/1	0.95	0.09	16,16,16,16	0
56	MG	1A	3031	1/1	0.95	0.13	13,13,13,13	0
56	MG	2a	3029	1/1	0.95	0.10	62,62,62,62	0
56	MG	1F	317	1/1	0.95	0.16	40,40,40,40	0
56	MG	1A	3053	1/1	0.95	0.44	26,26,26,26	0
56	MG	2A	3224	1/1	0.95	0.11	49,49,49,49	0
56	MG	1A	3356	1/1	0.95	0.04	52,52,52,52	0
56	MG	1A	3605	1/1	0.95	0.13	42,42,42,42	0
56	MG	1A	3922	1/1	0.95	0.14	54,54,54,54	0
56	MG	1A	3478	1/1	0.95	0.05	24,24,24,24	0
56	MG	1G	204	1/1	0.95	0.05	41,41,41,41	0
56	MG	1x	102	1/1	0.95	0.09	24,24,24,24	0
56	MG	1A	3187	1/1	0.95	0.10	41,41,41,41	0
56	MG	1A	3483	1/1	0.95	0.06	52,52,52,52	0
56	MG	1A	3928	1/1	0.95	0.07	42,42,42,42	0
56	MG	1A	3929	1/1	0.95	0.06	53,53,53,53	0
56	MG	2A	3522	1/1	0.95	0.17	36,36,36,36	0
56	MG	2A	3523	1/1	0.95	0.08	41,41,41,41	0
56	MG	2a	3050	1/1	0.95	0.11	54,54,54,54	0
56	MG	1N	204	1/1	0.95	0.12	41,41,41,41	0
56	MG	1A	3751	1/1	0.95	0.06	27,27,27,27	0
56	MG	1P	202	1/1	0.95	0.13	26,26,26,26	0
56	MG	2A	3019	1/1	0.95	0.15	31,31,31,31	0
56	MG	2A	3529	1/1	0.95	0.09	55,55,55,55	0
56	MG	1a	3131	1/1	0.95	0.09	62,62,62,62	0
56	MG	1A	3188	1/1	0.95	0.16	58,58,58,58	0
56	MG	1Q	201	1/1	0.95	0.05	20,20,20,20	0
56	MG	1R	204	1/1	0.95	0.07	33,33,33,33	0
56	MG	2A	3534	1/1	0.95	0.17	55,55,55,55	0
56	MG	1A	3615	1/1	0.95	0.11	30,30,30,30	0
56	MG	1A	3492	1/1	0.95	0.16	44,44,44,44	0
56	MG	2A	3256	1/1	0.95	0.10	34,34,34,34	0
56	MG	2A	3257	1/1	0.95	0.10	47,47,47,47	0
56	MG	1A	3936	1/1	0.95	0.07	31,31,31,31	0
56	MG	2A	3260	1/1	0.95	0.11	27,27,27,27	0
56	MG	2A	3542	1/1	0.95	0.07	35,35,35,35	0
56	MG	1A	3621	1/1	0.95	0.08	16,16,16,16	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3497	1/1	0.95	0.09	44,44,44,44	0
56	MG	1a	3145	1/1	0.95	0.15	62,62,62,62	0
56	MG	1A	3624	1/1	0.95	0.10	19,19,19,19	0
56	MG	1A	3135	1/1	0.95	0.04	29,29,29,29	0
56	MG	1A	3626	1/1	0.95	0.10	29,29,29,29	0
56	MG	2A	3553	1/1	0.95	0.16	65,65,65,65	0
56	MG	2a	3080	1/1	0.95	0.14	53,53,53,53	0
56	MG	1V	205	1/1	0.95	0.08	40,40,40,40	0
56	MG	2A	3555	1/1	0.95	0.10	56,56,56,56	0
56	MG	1A	3136	1/1	0.95	0.09	20,20,20,20	0
56	MG	2A	3048	1/1	0.95	0.08	45,45,45,45	0
56	MG	1a	3153	1/1	0.95	0.09	59,59,59,59	0
56	MG	2A	3564	1/1	0.95	0.10	27,27,27,27	0
56	MG	1a	3154	1/1	0.95	0.12	61,61,61,61	0
56	MG	2A	3566	1/1	0.95	0.08	60,60,60,60	0
56	MG	1A	3769	1/1	0.95	0.06	27,27,27,27	0
56	MG	1A	3046	1/1	0.95	0.24	45,45,45,45	0
56	MG	2A	3284	1/1	0.95	0.12	52,52,52,52	0
56	MG	1A	3774	1/1	0.95	0.14	39,39,39,39	0
56	MG	2A	3057	1/1	0.95	0.20	52,52,52,52	0
56	MG	2A	3582	1/1	0.95	0.06	49,49,49,49	0
56	MG	1A	3138	1/1	0.95	0.10	36,36,36,36	0
56	MG	2A	3587	1/1	0.95	0.07	45,45,45,45	0
56	MG	1A	3633	1/1	0.95	0.19	45,45,45,45	0
56	MG	2A	3592	1/1	0.95	0.05	28,28,28,28	0
56	MG	1A	3508	1/1	0.95	0.09	19,19,19,19	0
56	MG	10	103	1/1	0.95	0.09	47,47,47,47	0
56	MG	1a	3164	1/1	0.95	0.11	56,56,56,56	0
56	MG	1A	3102	1/1	0.95	0.15	25,25,25,25	0
56	MG	2A	3296	1/1	0.95	0.21	43,43,43,43	0
56	MG	1A	3369	1/1	0.95	0.11	42,42,42,42	0
56	MG	1A	3516	1/1	0.95	0.13	48,48,48,48	0
56	MG	2A	3069	1/1	0.95	0.28	49,49,49,49	0
56	MG	2A	3303	1/1	0.95	0.15	46,46,46,46	0
56	MG	1A	3150	1/1	0.95	0.08	44,44,44,44	0
56	MG	1a	3171	1/1	0.95	0.08	71,71,71,71	0
56	MG	11	101	1/1	0.95	0.08	37,37,37,37	0
56	MG	2A	3616	1/1	0.95	0.14	48,48,48,48	0
56	MG	1A	3371	1/1	0.95	0.08	32,32,32,32	0
56	MG	1A	3152	1/1	0.95	0.35	32,32,32,32	0
56	MG	1A	3792	1/1	0.95	0.06	32,32,32,32	0
56	MG	2A	3622	1/1	0.95	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
56	MG	1A	3103	1/1	0.95	0.42	37,37,37,37	0
56	MG	13	103	1/1	0.95	0.07	62,62,62,62	0
56	MG	1A	3279	1/1	0.95	0.12	42,42,42,42	0
56	MG	15	3102	1/1	0.95	0.17	30,30,30,30	0
56	MG	1A	3530	1/1	0.95	0.09	37,37,37,37	0
56	MG	1A	3974	1/1	0.95	0.11	47,47,47,47	0
56	MG	1A	3652	1/1	0.95	0.10	53,53,53,53	0
56	MG	17	103	1/1	0.95	0.18	31,31,31,31	0
56	MG	1A	3653	1/1	0.95	0.24	52,52,52,52	0
56	MG	1A	3531	1/1	0.95	0.09	56,56,56,56	0
56	MG	2A	3651	1/1	0.95	0.05	65,65,65,65	0
56	MG	2a	3154	1/1	0.95	0.06	67,67,67,67	0
56	MG	2a	3155	1/1	0.95	0.05	74,74,74,74	0
56	MG	2A	3340	1/1	0.95	0.10	50,50,50,50	0
56	MG	2A	3654	1/1	0.95	0.07	65,65,65,65	0
56	MG	2a	3160	1/1	0.95	0.06	51,51,51,51	0
56	MG	2A	3092	1/1	0.95	0.06	45,45,45,45	0
56	MG	2a	3162	1/1	0.95	0.07	46,46,46,46	0
56	MG	2A	3661	1/1	0.95	0.06	29,29,29,29	0
56	MG	1A	3283	1/1	0.95	0.15	32,32,32,32	0
56	MG	2A	3664	1/1	0.95	0.06	42,42,42,42	0
56	MG	2A	3346	1/1	0.95	0.09	39,39,39,39	0
56	MG	2A	3348	1/1	0.95	0.07	29,29,29,29	0
56	MG	18	102	1/1	0.95	0.06	33,33,33,33	0
56	MG	2A	3673	1/1	0.95	0.13	48,48,48,48	0
56	MG	2A	3676	1/1	0.95	0.06	45,45,45,45	0
56	MG	2A	3679	1/1	0.95	0.06	35,35,35,35	0
56	MG	1A	3074	1/1	0.95	0.11	37,37,37,37	0
56	MG	2A	3681	1/1	0.95	0.13	52,52,52,52	0
56	MG	2A	3356	1/1	0.95	0.10	29,29,29,29	0
56	MG	2a	3183	1/1	0.95	0.08	76,76,76,76	0
56	MG	1A	3107	1/1	0.95	0.26	31,31,31,31	0
56	MG	1A	3058	1/1	0.95	0.13	46,46,46,46	0
56	MG	1A	3400	1/1	0.95	0.10	25,25,25,25	0
56	MG	2A	3101	1/1	0.95	0.16	39,39,39,39	0
56	MG	2A	3689	1/1	0.95	0.08	48,48,48,48	0
56	MG	1a	3006	1/1	0.95	0.16	47,47,47,47	0
56	MG	1A	3549	1/1	0.95	0.06	39,39,39,39	0
56	MG	2A	3371	1/1	0.95	0.06	30,30,30,30	0
56	MG	1A	3818	1/1	0.95	0.16	28,28,28,28	0
56	MG	2r	101	1/1	0.95	0.06	61,61,61,61	0
56	MG	2A	3695	1/1	0.95	0.10	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1a	3009	1/1	0.95	0.06	49,49,49,49	0
57	SPS	2x	103	23/23	0.95	0.11	37,48,55,69	0
56	MG	2A	3375	1/1	0.95	0.08	46,46,46,46	0
56	MG	2A	3111	1/1	0.95	0.05	37,37,37,37	0
56	MG	1A	3165	1/1	0.95	0.07	30,30,30,30	0
56	MG	1A	3551	1/1	0.95	0.10	52,52,52,52	0
56	MG	1A	3821	1/1	0.95	0.07	29,29,29,29	0
56	MG	2A	3381	1/1	0.95	0.09	47,47,47,47	0
60	ZN	24	501	1/1	0.95	0.12	134,134,134,134	0
61	MRD	18	104	8/8	0.95	0.10	23,29,36,42	0
56	MG	1A	3833	1/1	0.96	0.10	39,39,39,39	0
56	MG	1A	3267	1/1	0.96	0.26	52,52,52,52	0
56	MG	2A	3007	1/1	0.96	0.10	33,33,33,33	0
56	MG	2A	3009	1/1	0.96	0.09	37,37,37,37	0
56	MG	1a	3091	1/1	0.96	0.11	41,41,41,41	0
56	MG	1a	3092	1/1	0.96	0.08	46,46,46,46	0
56	MG	2A	3014	1/1	0.96	0.07	39,39,39,39	0
56	MG	1A	3837	1/1	0.96	0.10	37,37,37,37	0
56	MG	2A	3295	1/1	0.96	0.27	51,51,51,51	0
56	MG	2A	3016	1/1	0.96	0.20	42,42,42,42	0
56	MG	2A	3667	1/1	0.96	0.05	34,34,34,34	0
56	MG	2A	3018	1/1	0.96	0.19	40,40,40,40	0
56	MG	2A	3671	1/1	0.96	0.08	34,34,34,34	0
56	MG	2A	3299	1/1	0.96	0.07	42,42,42,42	0
56	MG	2A	3300	1/1	0.96	0.23	44,44,44,44	0
56	MG	1A	3528	1/1	0.96	0.09	25,25,25,25	0
56	MG	1A	3668	1/1	0.96	0.06	46,46,46,46	0
56	MG	1A	3018	1/1	0.96	0.10	24,24,24,24	0
56	MG	2A	3025	1/1	0.96	0.10	38,38,38,38	0
56	MG	2A	3026	1/1	0.96	0.08	43,43,43,43	0
56	MG	2A	3684	1/1	0.96	0.07	57,57,57,57	0
56	MG	1A	3140	1/1	0.96	0.07	29,29,29,29	0
56	MG	1a	3098	1/1	0.96	0.19	40,40,40,40	0
56	MG	1A	3671	1/1	0.96	0.08	31,31,31,31	0
56	MG	2A	3311	1/1	0.96	0.06	28,28,28,28	0
56	MG	2A	3032	1/1	0.96	0.12	49,49,49,49	0
56	MG	2A	3316	1/1	0.96	0.06	39,39,39,39	0
56	MG	1D	309	1/1	0.96	0.08	43,43,43,43	0
56	MG	1A	3532	1/1	0.96	0.11	42,42,42,42	0
56	MG	2A	3035	1/1	0.96	0.13	53,53,53,53	0
56	MG	1a	3102	1/1	0.96	0.20	54,54,54,54	0
56	MG	2A	3323	1/1	0.96	0.06	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3698	1/1	0.96	0.06	41,41,41,41	0
56	MG	2A	3325	1/1	0.96	0.06	32,32,32,32	0
56	MG	1A	3673	1/1	0.96	0.14	57,57,57,57	0
56	MG	2A	3702	1/1	0.96	0.12	56,56,56,56	0
56	MG	1a	3104	1/1	0.96	0.12	53,53,53,53	0
56	MG	1A	3674	1/1	0.96	0.04	41,41,41,41	0
56	MG	1A	3850	1/1	0.96	0.07	27,27,27,27	0
56	MG	1a	3107	1/1	0.96	0.10	40,40,40,40	0
56	MG	2A	3337	1/1	0.96	0.10	34,34,34,34	0
56	MG	1A	3375	1/1	0.96	0.09	42,42,42,42	0
56	MG	2A	3710	1/1	0.96	0.13	36,36,36,36	0
56	MG	1A	3536	1/1	0.96	0.07	25,25,25,25	0
56	MG	1E	305	1/1	0.96	0.10	13,13,13,13	0
56	MG	2A	3713	1/1	0.96	0.11	53,53,53,53	0
56	MG	2A	3049	1/1	0.96	0.11	56,56,56,56	0
56	MG	1a	3112	1/1	0.96	0.09	49,49,49,49	0
56	MG	1A	3854	1/1	0.96	0.06	36,36,36,36	0
56	MG	1E	307	1/1	0.96	0.12	30,30,30,30	0
56	MG	2A	3352	1/1	0.96	0.08	26,26,26,26	0
56	MG	1A	3855	1/1	0.96	0.08	51,51,51,51	0
56	MG	2A	3720	1/1	0.96	0.09	64,64,64,64	0
56	MG	1A	3108	1/1	0.96	0.09	50,50,50,50	0
56	MG	2A	3357	1/1	0.96	0.05	44,44,44,44	0
56	MG	2A	3358	1/1	0.96	0.08	34,34,34,34	0
56	MG	2A	3359	1/1	0.96	0.07	22,22,22,22	0
56	MG	1A	3377	1/1	0.96	0.07	35,35,35,35	0
56	MG	2A	3726	1/1	0.96	0.05	42,42,42,42	0
56	MG	1F	309	1/1	0.96	0.20	28,28,28,28	0
56	MG	2A	3059	1/1	0.96	0.20	60,60,60,60	0
56	MG	1A	3379	1/1	0.96	0.09	40,40,40,40	0
56	MG	1F	312	1/1	0.96	0.14	25,25,25,25	0
56	MG	1A	3682	1/1	0.96	0.08	25,25,25,25	0
56	MG	1A	3543	1/1	0.96	0.09	30,30,30,30	0
56	MG	1A	3544	1/1	0.96	0.16	42,42,42,42	0
56	MG	1A	3546	1/1	0.96	0.14	48,48,48,48	0
56	MG	1A	3147	1/1	0.96	0.22	26,26,26,26	0
56	MG	1a	3132	1/1	0.96	0.11	48,48,48,48	0
56	MG	1A	3197	1/1	0.96	0.19	34,34,34,34	0
56	MG	1F	321	1/1	0.96	0.04	41,41,41,41	0
56	MG	1A	3384	1/1	0.96	0.07	26,26,26,26	0
56	MG	1A	3693	1/1	0.96	0.21	32,32,32,32	0
56	MG	1a	3139	1/1	0.96	0.15	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3385	1/1	0.96	0.06	26,26,26,26	0
56	MG	2A	3078	1/1	0.96	0.08	39,39,39,39	0
56	MG	1A	3198	1/1	0.96	0.12	35,35,35,35	0
56	MG	1A	3109	1/1	0.96	0.38	27,27,27,27	0
56	MG	1A	3151	1/1	0.96	0.15	50,50,50,50	0
56	MG	1A	3037	1/1	0.96	0.12	41,41,41,41	0
56	MG	2D	308	1/1	0.96	0.14	36,36,36,36	0
56	MG	2A	3393	1/1	0.96	0.12	51,51,51,51	0
56	MG	1A	3153	1/1	0.96	0.10	34,34,34,34	0
56	MG	2D	311	1/1	0.96	0.07	52,52,52,52	0
56	MG	2A	3084	1/1	0.96	0.09	52,52,52,52	0
56	MG	1A	3285	1/1	0.96	0.09	43,43,43,43	0
56	MG	2A	3400	1/1	0.96	0.14	49,49,49,49	0
56	MG	2A	3401	1/1	0.96	0.07	29,29,29,29	0
56	MG	1A	3157	1/1	0.96	0.12	42,42,42,42	0
56	MG	1P	201	1/1	0.96	0.21	32,32,32,32	0
56	MG	2A	3404	1/1	0.96	0.05	45,45,45,45	0
56	MG	2A	3089	1/1	0.96	0.12	35,35,35,35	0
56	MG	2F	304	1/1	0.96	0.21	42,42,42,42	0
56	MG	1a	3150	1/1	0.96	0.06	35,35,35,35	0
56	MG	1A	3407	1/1	0.96	0.12	42,42,42,42	0
56	MG	2G	203	1/1	0.96	0.07	66,66,66,66	0
56	MG	1A	3111	1/1	0.96	0.12	37,37,37,37	0
56	MG	2A	3410	1/1	0.96	0.11	58,58,58,58	0
56	MG	1P	204	1/1	0.96	0.12	44,44,44,44	0
56	MG	2A	3414	1/1	0.96	0.11	41,41,41,41	0
56	MG	1A	3410	1/1	0.96	0.08	25,25,25,25	0
56	MG	2A	3417	1/1	0.96	0.11	32,32,32,32	0
56	MG	2Q	203	1/1	0.96	0.07	59,59,59,59	0
56	MG	1Q	203	1/1	0.96	0.04	33,33,33,33	0
56	MG	1a	3157	1/1	0.96	0.10	45,45,45,45	0
56	MG	1R	203	1/1	0.96	0.09	47,47,47,47	0
56	MG	1A	3570	1/1	0.96	0.07	34,34,34,34	0
56	MG	1A	3711	1/1	0.96	0.06	30,30,30,30	0
56	MG	1A	3911	1/1	0.96	0.12	30,30,30,30	0
56	MG	1A	3713	1/1	0.96	0.36	30,30,30,30	0
56	MG	2V	203	1/1	0.96	0.17	61,61,61,61	0
56	MG	1a	3163	1/1	0.96	0.09	66,66,66,66	0
56	MG	2A	3109	1/1	0.96	0.06	46,46,46,46	0
56	MG	1A	3411	1/1	0.96	0.06	42,42,42,42	0
56	MG	2X	101	1/1	0.96	0.05	45,45,45,45	0
56	MG	2X	102	1/1	0.96	0.13	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3208	1/1	0.96	0.13	49,49,49,49	0
56	MG	1A	3573	1/1	0.96	0.11	22,22,22,22	0
56	MG	1A	3209	1/1	0.96	0.07	39,39,39,39	0
56	MG	2A	3433	1/1	0.96	0.12	46,46,46,46	0
56	MG	2A	3434	1/1	0.96	0.22	44,44,44,44	0
56	MG	1A	3094	1/1	0.96	0.06	20,20,20,20	0
56	MG	1A	3419	1/1	0.96	0.08	27,27,27,27	0
56	MG	1A	3212	1/1	0.96	0.08	37,37,37,37	0
56	MG	1A	3580	1/1	0.96	0.07	42,42,42,42	0
56	MG	1A	3583	1/1	0.96	0.06	40,40,40,40	0
56	MG	1A	3424	1/1	0.96	0.05	18,18,18,18	0
56	MG	1A	3729	1/1	0.96	0.22	36,36,36,36	0
56	MG	2A	3444	1/1	0.96	0.09	28,28,28,28	0
56	MG	1A	3095	1/1	0.96	0.06	36,36,36,36	0
56	MG	2A	3124	1/1	0.96	0.20	37,37,37,37	0
56	MG	1A	3933	1/1	0.96	0.05	45,45,45,45	0
56	MG	2a	3004	1/1	0.96	0.12	42,42,42,42	0
56	MG	2A	3449	1/1	0.96	0.06	42,42,42,42	0
56	MG	1A	3117	1/1	0.96	0.09	29,29,29,29	0
56	MG	1A	3021	1/1	0.96	0.09	28,28,28,28	0
56	MG	1A	3735	1/1	0.96	0.11	45,45,45,45	0
56	MG	1A	3588	1/1	0.96	0.14	50,50,50,50	0
56	MG	1a	3186	1/1	0.96	0.06	67,67,67,67	0
56	MG	1A	3939	1/1	0.96	0.07	37,37,37,37	0
56	MG	2A	3133	1/1	0.96	0.14	65,65,65,65	0
56	MG	1A	3737	1/1	0.96	0.05	29,29,29,29	0
56	MG	1A	3097	1/1	0.96	0.10	32,32,32,32	0
56	MG	11	103	1/1	0.96	0.13	46,46,46,46	0
56	MG	1A	3221	1/1	0.96	0.25	68,68,68,68	0
56	MG	1A	3004	1/1	0.96	0.06	36,36,36,36	0
56	MG	1A	3305	1/1	0.96	0.08	39,39,39,39	0
56	MG	1A	3743	1/1	0.96	0.06	30,30,30,30	0
56	MG	1A	3123	1/1	0.96	0.29	46,46,46,46	0
56	MG	1A	3228	1/1	0.96	0.60	32,32,32,32	0
56	MG	2a	3028	1/1	0.96	0.11	59,59,59,59	0
56	MG	1A	3170	1/1	0.96	0.10	28,28,28,28	0
56	MG	2a	3030	1/1	0.96	0.11	75,75,75,75	0
56	MG	2a	3031	1/1	0.96	0.15	46,46,46,46	0
56	MG	1A	3750	1/1	0.96	0.09	27,27,27,27	0
56	MG	1A	3953	1/1	0.96	0.06	65,65,65,65	0
56	MG	1A	3313	1/1	0.96	0.10	19,19,19,19	0
56	MG	1A	3124	1/1	0.96	0.12	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2a	3036	1/1	0.96	0.10	68,68,68,68	0
56	MG	17	106	1/1	0.96	0.13	44,44,44,44	0
56	MG	1A	3753	1/1	0.96	0.07	33,33,33,33	0
56	MG	1A	3755	1/1	0.96	0.08	32,32,32,32	0
56	MG	1A	3599	1/1	0.96	0.11	38,38,38,38	0
56	MG	2A	3154	1/1	0.96	0.10	39,39,39,39	0
56	MG	1A	3234	1/1	0.96	0.33	29,29,29,29	0
56	MG	2a	3043	1/1	0.96	0.20	54,54,54,54	0
56	MG	2A	3156	1/1	0.96	0.09	58,58,58,58	0
56	MG	1A	3450	1/1	0.96	0.04	55,55,55,55	0
56	MG	1A	3172	1/1	0.96	0.09	32,32,32,32	0
56	MG	1A	3963	1/1	0.96	0.05	27,27,27,27	0
56	MG	1a	3005	1/1	0.96	0.06	53,53,53,53	0
56	MG	1A	3322	1/1	0.96	0.08	53,53,53,53	0
56	MG	1A	3125	1/1	0.96	0.14	47,47,47,47	0
56	MG	2A	3488	1/1	0.96	0.05	34,34,34,34	0
56	MG	1A	3971	1/1	0.96	0.05	48,48,48,48	0
56	MG	2A	3169	1/1	0.96	0.16	39,39,39,39	0
56	MG	1a	3219	1/1	0.96	0.06	64,64,64,64	0
56	MG	2A	3171	1/1	0.96	0.09	39,39,39,39	0
56	MG	1A	3972	1/1	0.96	0.08	48,48,48,48	0
56	MG	1a	3011	1/1	0.96	0.13	42,42,42,42	0
56	MG	1A	3241	1/1	0.96	0.11	44,44,44,44	0
56	MG	1A	3610	1/1	0.96	0.11	34,34,34,34	0
56	MG	2A	3177	1/1	0.96	0.15	54,54,54,54	0
56	MG	1A	3765	1/1	0.96	0.05	32,32,32,32	0
56	MG	2A	3505	1/1	0.96	0.15	59,59,59,59	0
56	MG	1A	3127	1/1	0.96	0.15	59,59,59,59	0
56	MG	1a	3229	1/1	0.96	0.07	49,49,49,49	0
56	MG	1A	3978	1/1	0.96	0.11	29,29,29,29	0
56	MG	1A	3771	1/1	0.96	0.09	41,41,41,41	0
56	MG	1a	3233	1/1	0.96	0.10	39,39,39,39	0
56	MG	1a	3019	1/1	0.96	0.07	52,52,52,52	0
56	MG	1A	3468	1/1	0.96	0.08	32,32,32,32	0
56	MG	1A	3469	1/1	0.96	0.08	41,41,41,41	0
56	MG	2a	3073	1/1	0.96	0.12	33,33,33,33	0
56	MG	2a	3074	1/1	0.96	0.16	49,49,49,49	0
56	MG	1A	3176	1/1	0.96	0.04	42,42,42,42	0
56	MG	1A	3334	1/1	0.96	0.15	27,27,27,27	0
56	MG	1a	3239	1/1	0.96	0.06	49,49,49,49	0
56	MG	1A	3247	1/1	0.96	0.13	28,28,28,28	0
56	MG	1A	3622	1/1	0.96	0.06	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3519	1/1	0.96	0.06	48,48,48,48	0
56	MG	1A	3248	1/1	0.96	0.07	32,32,32,32	0
56	MG	2a	3084	1/1	0.96	0.10	60,60,60,60	0
56	MG	1a	3032	1/1	0.96	0.14	57,57,57,57	0
56	MG	2A	3198	1/1	0.96	0.25	47,47,47,47	0
56	MG	1A	3477	1/1	0.96	0.08	40,40,40,40	0
56	MG	2a	3089	1/1	0.96	0.18	53,53,53,53	0
56	MG	1A	3784	1/1	0.96	0.09	26,26,26,26	0
56	MG	1A	3338	1/1	0.96	0.05	29,29,29,29	0
56	MG	1A	3341	1/1	0.96	0.11	35,35,35,35	0
56	MG	2A	3528	1/1	0.96	0.07	48,48,48,48	0
56	MG	1a	3252	1/1	0.96	0.07	60,60,60,60	0
56	MG	2a	3095	1/1	0.96	0.24	46,46,46,46	0
56	MG	1a	3253	1/1	0.96	0.13	43,43,43,43	0
56	MG	2A	3206	1/1	0.96	0.26	31,31,31,31	0
56	MG	2a	3098	1/1	0.96	0.24	46,46,46,46	0
56	MG	2A	3207	1/1	0.96	0.07	50,50,50,50	0
56	MG	1A	3629	1/1	0.96	0.10	28,28,28,28	0
56	MG	1A	3788	1/1	0.96	0.23	50,50,50,50	0
56	MG	1A	3789	1/1	0.96	0.14	52,52,52,52	0
56	MG	1a	3257	1/1	0.96	0.06	47,47,47,47	0
56	MG	2a	3107	1/1	0.96	0.24	41,41,41,41	0
56	MG	1A	3790	1/1	0.96	0.09	39,39,39,39	0
56	MG	2a	3109	1/1	0.96	0.25	55,55,55,55	0
56	MG	1A	3344	1/1	0.96	0.07	18,18,18,18	0
56	MG	1A	3345	1/1	0.96	0.05	38,38,38,38	0
56	MG	1A	3798	1/1	0.96	0.06	43,43,43,43	0
56	MG	1A	3799	1/1	0.96	0.08	42,42,42,42	0
56	MG	1A	3128	1/1	0.96	0.05	30,30,30,30	0
56	MG	1a	3049	1/1	0.96	0.18	63,63,63,63	0
56	MG	1a	3050	1/1	0.96	0.08	39,39,39,39	0
56	MG	2a	3124	1/1	0.96	0.07	71,71,71,71	0
56	MG	1A	4008	1/1	0.96	0.06	31,31,31,31	0
56	MG	1A	3496	1/1	0.96	0.10	38,38,38,38	0
56	MG	1A	3353	1/1	0.96	0.10	13,13,13,13	0
56	MG	1A	3636	1/1	0.96	0.10	22,22,22,22	0
56	MG	1A	4016	1/1	0.96	0.10	47,47,47,47	0
56	MG	1A	3638	1/1	0.96	0.14	44,44,44,44	0
56	MG	1b	301	1/1	0.96	0.07	70,70,70,70	0
56	MG	1A	3806	1/1	0.96	0.12	31,31,31,31	0
56	MG	2A	3235	1/1	0.96	0.07	45,45,45,45	0
56	MG	2A	3563	1/1	0.96	0.09	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1d	302	1/1	0.96	0.22	59,59,59,59	0
56	MG	1A	4020	1/1	0.96	0.06	30,30,30,30	0
56	MG	1A	3498	1/1	0.96	0.05	32,32,32,32	0
56	MG	2A	3567	1/1	0.96	0.07	34,34,34,34	0
56	MG	2A	3239	1/1	0.96	0.15	49,49,49,49	0
56	MG	2A	3241	1/1	0.96	0.25	31,31,31,31	0
56	MG	2A	3242	1/1	0.96	0.15	44,44,44,44	0
56	MG	1A	3084	1/1	0.96	0.21	33,33,33,33	0
56	MG	2A	3578	1/1	0.96	0.06	34,34,34,34	0
56	MG	2A	3579	1/1	0.96	0.06	50,50,50,50	0
56	MG	2a	3150	1/1	0.96	0.06	62,62,62,62	0
56	MG	2a	3152	1/1	0.96	0.12	53,53,53,53	0
56	MG	2A	3580	1/1	0.96	0.07	53,53,53,53	0
56	MG	1a	3064	1/1	0.96	0.12	65,65,65,65	0
56	MG	1B	202	1/1	0.96	0.07	47,47,47,47	0
56	MG	1A	3809	1/1	0.96	0.10	37,37,37,37	0
56	MG	2a	3158	1/1	0.96	0.05	56,56,56,56	0
56	MG	2A	3585	1/1	0.96	0.06	44,44,44,44	0
56	MG	1a	3067	1/1	0.96	0.08	58,58,58,58	0
56	MG	1A	3254	1/1	0.96	0.06	40,40,40,40	0
56	MG	2A	3249	1/1	0.96	0.07	37,37,37,37	0
56	MG	2a	3164	1/1	0.96	0.13	62,62,62,62	0
56	MG	1a	3070	1/1	0.96	0.04	57,57,57,57	0
56	MG	1A	3504	1/1	0.96	0.07	48,48,48,48	0
56	MG	1k	201	1/1	0.96	0.14	38,38,38,38	0
56	MG	2A	3597	1/1	0.96	0.05	48,48,48,48	0
56	MG	1A	3007	1/1	0.96	0.11	32,32,32,32	0
56	MG	1A	3257	1/1	0.96	0.09	40,40,40,40	0
56	MG	1B	208	1/1	0.96	0.06	38,38,38,38	0
56	MG	2A	3258	1/1	0.96	0.06	14,14,14,14	0
56	MG	2a	3175	1/1	0.96	0.11	68,68,68,68	0
56	MG	1A	3184	1/1	0.96	0.29	36,36,36,36	0
56	MG	2A	3605	1/1	0.96	0.07	44,44,44,44	0
56	MG	2a	3180	1/1	0.96	0.06	64,64,64,64	0
56	MG	1a	3077	1/1	0.96	0.23	55,55,55,55	0
56	MG	2a	3182	1/1	0.96	0.06	67,67,67,67	0
56	MG	2A	3609	1/1	0.96	0.15	46,46,46,46	0
56	MG	1A	3510	1/1	0.96	0.05	35,35,35,35	0
56	MG	2A	3612	1/1	0.96	0.13	49,49,49,49	0
56	MG	1A	3133	1/1	0.96	0.13	32,32,32,32	0
56	MG	1a	3080	1/1	0.96	0.17	42,42,42,42	0
56	MG	2A	3615	1/1	0.96	0.10	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3364	1/1	0.96	0.08	29,29,29,29	0
56	MG	1A	3515	1/1	0.96	0.07	17,17,17,17	0
56	MG	2n	101	1/1	0.96	0.26	56,56,56,56	0
56	MG	1A	3008	1/1	0.96	0.07	35,35,35,35	0
56	MG	2A	3270	1/1	0.96	0.16	47,47,47,47	0
56	MG	2A	3272	1/1	0.96	0.17	22,22,22,22	0
56	MG	1A	3262	1/1	0.96	0.06	27,27,27,27	0
56	MG	1A	3017	1/1	0.96	0.43	26,26,26,26	0
56	MG	2A	3276	1/1	0.96	0.13	45,45,45,45	0
56	MG	1y	203	1/1	0.96	0.07	65,65,65,65	0
56	MG	1x	101	1/1	0.96	0.07	46,46,46,46	0
56	MG	1A	3075	1/1	0.96	0.25	39,39,39,39	0
56	MG	2A	3640	1/1	0.96	0.07	37,37,37,37	0
56	MG	1A	3190	1/1	0.96	0.08	36,36,36,36	0
56	MG	2A	3643	1/1	0.96	0.09	45,45,45,45	0
56	MG	1A	3664	1/1	0.96	0.08	54,54,54,54	0
56	MG	2A	3003	1/1	0.96	0.13	63,63,63,63	0
56	MG	1A	3745	1/1	0.97	0.06	16,16,16,16	0
56	MG	2A	3345	1/1	0.97	0.06	24,24,24,24	0
56	MG	1U	207	1/1	0.97	0.10	46,46,46,46	0
56	MG	1A	3746	1/1	0.97	0.10	28,28,28,28	0
56	MG	2A	3349	1/1	0.97	0.06	54,54,54,54	0
56	MG	1A	3361	1/1	0.97	0.04	19,19,19,19	0
56	MG	1A	3487	1/1	0.97	0.05	52,52,52,52	0
56	MG	1A	3606	1/1	0.97	0.18	40,40,40,40	0
56	MG	1A	3269	1/1	0.97	0.07	24,24,24,24	0
56	MG	1A	3609	1/1	0.97	0.21	24,24,24,24	0
56	MG	1a	3168	1/1	0.97	0.11	57,57,57,57	0
56	MG	1a	3169	1/1	0.97	0.04	39,39,39,39	0
56	MG	1A	3491	1/1	0.97	0.05	46,46,46,46	0
56	MG	2A	3361	1/1	0.97	0.14	51,51,51,51	0
56	MG	1A	3206	1/1	0.97	0.18	35,35,35,35	0
56	MG	2A	3363	1/1	0.97	0.06	27,27,27,27	0
56	MG	1a	3172	1/1	0.97	0.10	75,75,75,75	0
56	MG	2A	3703	1/1	0.97	0.12	38,38,38,38	0
56	MG	2A	3093	1/1	0.97	0.10	47,47,47,47	0
56	MG	1A	3754	1/1	0.97	0.24	32,32,32,32	0
56	MG	1A	3494	1/1	0.97	0.06	49,49,49,49	0
56	MG	1A	3055	1/1	0.97	0.13	35,35,35,35	0
56	MG	2A	3097	1/1	0.97	0.11	43,43,43,43	0
56	MG	1A	3614	1/1	0.97	0.23	43,43,43,43	0
56	MG	1A	3949	1/1	0.97	0.11	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3169	1/1	0.97	0.12	29,29,29,29	0
56	MG	10	108	1/1	0.97	0.06	59,59,59,59	0
56	MG	2A	3102	1/1	0.97	0.13	48,48,48,48	0
56	MG	2A	3103	1/1	0.97	0.40	58,58,58,58	0
56	MG	1A	3134	1/1	0.97	0.07	33,33,33,33	0
56	MG	1a	3181	1/1	0.97	0.05	54,54,54,54	0
56	MG	1A	3617	1/1	0.97	0.05	36,36,36,36	0
56	MG	2A	3108	1/1	0.97	0.08	52,52,52,52	0
56	MG	1A	3618	1/1	0.97	0.09	10,10,10,10	0
56	MG	1A	3211	1/1	0.97	0.28	41,41,41,41	0
56	MG	1a	3185	1/1	0.97	0.05	74,74,74,74	0
56	MG	1A	3500	1/1	0.97	0.07	32,32,32,32	0
56	MG	1A	3764	1/1	0.97	0.07	20,20,20,20	0
56	MG	2A	3114	1/1	0.97	0.11	48,48,48,48	0
56	MG	2A	3396	1/1	0.97	0.06	44,44,44,44	0
56	MG	1A	3502	1/1	0.97	0.09	24,24,24,24	0
56	MG	2A	3398	1/1	0.97	0.06	29,29,29,29	0
56	MG	1a	3189	1/1	0.97	0.10	42,42,42,42	0
56	MG	1A	3768	1/1	0.97	0.04	28,28,28,28	0
56	MG	1a	3191	1/1	0.97	0.12	73,73,73,73	0
56	MG	1A	3016	1/1	0.97	0.24	29,29,29,29	0
56	MG	1A	3770	1/1	0.97	0.08	18,18,18,18	0
56	MG	1A	3213	1/1	0.97	0.04	29,29,29,29	0
56	MG	1A	3962	1/1	0.97	0.05	39,39,39,39	0
56	MG	1A	3772	1/1	0.97	0.06	27,27,27,27	0
56	MG	1A	3214	1/1	0.97	0.10	31,31,31,31	0
56	MG	1A	3965	1/1	0.97	0.12	63,63,63,63	0
56	MG	2A	3409	1/1	0.97	0.09	34,34,34,34	0
56	MG	1A	3281	1/1	0.97	0.12	25,25,25,25	0
56	MG	1A	3282	1/1	0.97	0.25	26,26,26,26	0
56	MG	2A	3412	1/1	0.97	0.09	31,31,31,31	0
56	MG	2B	217	1/1	0.97	0.09	59,59,59,59	0
56	MG	2A	3413	1/1	0.97	0.06	30,30,30,30	0
56	MG	1A	3776	1/1	0.97	0.09	34,34,34,34	0
56	MG	1A	3009	1/1	0.97	0.11	25,25,25,25	0
56	MG	2D	304	1/1	0.97	0.42	36,36,36,36	0
56	MG	1A	3216	1/1	0.97	0.17	28,28,28,28	0
56	MG	1a	3002	1/1	0.97	0.06	52,52,52,52	0
56	MG	1A	3113	1/1	0.97	0.13	24,24,24,24	0
56	MG	1A	3098	1/1	0.97	0.08	41,41,41,41	0
56	MG	1A	3042	1/1	0.97	0.15	24,24,24,24	0
56	MG	2A	3422	1/1	0.97	0.06	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3141	1/1	0.97	0.11	21,21,21,21	0
56	MG	1A	3223	1/1	0.97	0.10	41,41,41,41	0
56	MG	1A	3142	1/1	0.97	0.04	29,29,29,29	0
56	MG	2A	3426	1/1	0.97	0.10	39,39,39,39	0
56	MG	1A	3523	1/1	0.97	0.14	47,47,47,47	0
56	MG	1a	3010	1/1	0.97	0.13	44,44,44,44	0
56	MG	1A	3524	1/1	0.97	0.07	42,42,42,42	0
56	MG	1A	3525	1/1	0.97	0.06	18,18,18,18	0
56	MG	2A	3145	1/1	0.97	0.08	38,38,38,38	0
56	MG	1A	3646	1/1	0.97	0.06	37,37,37,37	0
56	MG	1A	3386	1/1	0.97	0.05	35,35,35,35	0
56	MG	1a	3220	1/1	0.97	0.21	74,74,74,74	0
56	MG	1A	3387	1/1	0.97	0.06	22,22,22,22	0
56	MG	1A	3797	1/1	0.97	0.12	34,34,34,34	0
56	MG	1A	3226	1/1	0.97	0.16	29,29,29,29	0
56	MG	1a	3224	1/1	0.97	0.13	46,46,46,46	0
56	MG	1A	3179	1/1	0.97	0.08	32,32,32,32	0
56	MG	2P	202	1/1	0.97	0.07	55,55,55,55	0
56	MG	1A	3651	1/1	0.97	0.08	39,39,39,39	0
56	MG	1A	3180	1/1	0.97	0.10	23,23,23,23	0
56	MG	1a	3023	1/1	0.97	0.06	58,58,58,58	0
56	MG	2R	201	1/1	0.97	0.06	44,44,44,44	0
56	MG	2R	202	1/1	0.97	0.09	33,33,33,33	0
56	MG	1A	3802	1/1	0.97	0.06	42,42,42,42	0
56	MG	2A	3158	1/1	0.97	0.11	45,45,45,45	0
56	MG	2A	3159	1/1	0.97	0.14	44,44,44,44	0
56	MG	1A	3297	1/1	0.97	0.16	38,38,38,38	0
56	MG	2A	3161	1/1	0.97	0.12	39,39,39,39	0
56	MG	1A	3997	1/1	0.97	0.07	48,48,48,48	0
56	MG	2A	3164	1/1	0.97	0.07	42,42,42,42	0
56	MG	1a	3028	1/1	0.97	0.23	54,54,54,54	0
56	MG	1a	3029	1/1	0.97	0.08	63,63,63,63	0
56	MG	1A	3231	1/1	0.97	0.11	29,29,29,29	0
56	MG	1A	3534	1/1	0.97	0.34	34,34,34,34	0
56	MG	1A	3535	1/1	0.97	0.05	52,52,52,52	0
56	MG	1A	4002	1/1	0.97	0.06	28,28,28,28	0
56	MG	1A	3181	1/1	0.97	0.11	29,29,29,29	0
56	MG	1A	3537	1/1	0.97	0.06	27,27,27,27	0
56	MG	1A	4005	1/1	0.97	0.04	30,30,30,30	0
56	MG	1A	4007	1/1	0.97	0.05	39,39,39,39	0
56	MG	1A	3659	1/1	0.97	0.04	27,27,27,27	0
56	MG	21	101	1/1	0.97	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
56	MG	1A	4011	1/1	0.97	0.09	39,39,39,39	0
56	MG	2A	3178	1/1	0.97	0.10	53,53,53,53	0
56	MG	1A	3662	1/1	0.97	0.07	36,36,36,36	0
56	MG	1A	3811	1/1	0.97	0.12	39,39,39,39	0
56	MG	2A	3468	1/1	0.97	0.04	54,54,54,54	0
56	MG	1A	3404	1/1	0.97	0.09	54,54,54,54	0
56	MG	1A	3539	1/1	0.97	0.03	28,28,28,28	0
56	MG	1A	4017	1/1	0.97	0.09	45,45,45,45	0
56	MG	1A	3182	1/1	0.97	0.42	28,28,28,28	0
56	MG	2A	3473	1/1	0.97	0.11	51,51,51,51	0
56	MG	1a	3046	1/1	0.97	0.15	38,38,38,38	0
56	MG	1a	3047	1/1	0.97	0.17	42,42,42,42	0
56	MG	2A	3476	1/1	0.97	0.08	39,39,39,39	0
56	MG	2a	3006	1/1	0.97	0.05	50,50,50,50	0
56	MG	2A	3189	1/1	0.97	0.09	61,61,61,61	0
56	MG	1a	3258	1/1	0.97	0.09	59,59,59,59	0
56	MG	1a	3259	1/1	0.97	0.12	61,61,61,61	0
56	MG	2A	3480	1/1	0.97	0.06	26,26,26,26	0
56	MG	2a	3011	1/1	0.97	0.08	44,44,44,44	0
56	MG	1a	3260	1/1	0.97	0.06	29,29,29,29	0
56	MG	2a	3013	1/1	0.97	0.23	47,47,47,47	0
56	MG	1a	3048	1/1	0.97	0.09	58,58,58,58	0
56	MG	1A	3667	1/1	0.97	0.07	38,38,38,38	0
56	MG	2a	3016	1/1	0.97	0.09	44,44,44,44	0
56	MG	1A	3303	1/1	0.97	0.15	48,48,48,48	0
56	MG	1A	3012	1/1	0.97	0.06	27,27,27,27	0
56	MG	2a	3019	1/1	0.97	0.06	54,54,54,54	0
56	MG	1A	4022	1/1	0.97	0.12	44,44,44,44	0
56	MG	1A	3119	1/1	0.97	0.10	17,17,17,17	0
56	MG	1A	3823	1/1	0.97	0.08	32,32,32,32	0
56	MG	1A	3824	1/1	0.97	0.04	36,36,36,36	0
56	MG	1A	3545	1/1	0.97	0.06	47,47,47,47	0
56	MG	2A	3202	1/1	0.97	0.06	46,46,46,46	0
56	MG	1A	3306	1/1	0.97	0.10	43,43,43,43	0
56	MG	1A	3236	1/1	0.97	0.07	32,32,32,32	0
56	MG	1a	3060	1/1	0.97	0.18	50,50,50,50	0
56	MG	2A	3498	1/1	0.97	0.12	46,46,46,46	0
56	MG	1A	3148	1/1	0.97	0.09	45,45,45,45	0
56	MG	1A	3149	1/1	0.97	0.10	28,28,28,28	0
56	MG	2A	3501	1/1	0.97	0.06	41,41,41,41	0
56	MG	1A	3312	1/1	0.97	0.12	46,46,46,46	0
56	MG	1A	3072	1/1	0.97	0.07	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3422	1/1	0.97	0.09	22,22,22,22	0
56	MG	1B	213	1/1	0.97	0.05	33,33,33,33	0
56	MG	1a	3068	1/1	0.97	0.10	47,47,47,47	0
56	MG	1A	3680	1/1	0.97	0.18	68,68,68,68	0
56	MG	1A	3019	1/1	0.97	0.07	24,24,24,24	0
56	MG	1A	3244	1/1	0.97	0.28	41,41,41,41	0
56	MG	2A	3218	1/1	0.97	0.06	53,53,53,53	0
56	MG	1A	3020	1/1	0.97	0.25	37,37,37,37	0
56	MG	1A	3318	1/1	0.97	0.12	27,27,27,27	0
56	MG	2A	3221	1/1	0.97	0.07	55,55,55,55	0
56	MG	1a	3074	1/1	0.97	0.06	42,42,42,42	0
56	MG	1A	3560	1/1	0.97	0.11	40,40,40,40	0
56	MG	1A	3320	1/1	0.97	0.06	26,26,26,26	0
56	MG	2A	3225	1/1	0.97	0.12	49,49,49,49	0
56	MG	1B	223	1/1	0.97	0.09	44,44,44,44	0
56	MG	1A	3562	1/1	0.97	0.11	44,44,44,44	0
56	MG	1l	202	1/1	0.97	0.12	45,45,45,45	0
56	MG	1A	3104	1/1	0.97	0.12	26,26,26,26	0
56	MG	2A	3230	1/1	0.97	0.14	39,39,39,39	0
56	MG	1A	3692	1/1	0.97	0.06	55,55,55,55	0
56	MG	1A	3564	1/1	0.97	0.09	42,42,42,42	0
56	MG	1A	3694	1/1	0.97	0.11	49,49,49,49	0
56	MG	2A	3234	1/1	0.97	0.11	42,42,42,42	0
56	MG	1A	3566	1/1	0.97	0.07	32,32,32,32	0
56	MG	1D	301	1/1	0.97	0.23	26,26,26,26	0
56	MG	1o	101	1/1	0.97	0.17	66,66,66,66	0
56	MG	1D	302	1/1	0.97	0.18	31,31,31,31	0
56	MG	1D	303	1/1	0.97	0.13	38,38,38,38	0
56	MG	2A	3240	1/1	0.97	0.04	50,50,50,50	0
56	MG	1A	3853	1/1	0.97	0.07	34,34,34,34	0
56	MG	1A	3249	1/1	0.97	0.35	40,40,40,40	0
56	MG	1D	306	1/1	0.97	0.04	30,30,30,30	0
56	MG	1A	3697	1/1	0.97	0.11	32,32,32,32	0
56	MG	1A	3856	1/1	0.97	0.06	31,31,31,31	0
56	MG	1A	3568	1/1	0.97	0.09	32,32,32,32	0
56	MG	2A	3541	1/1	0.97	0.06	35,35,35,35	0
56	MG	1D	313	1/1	0.97	0.21	35,35,35,35	0
56	MG	1A	3860	1/1	0.97	0.05	48,48,48,48	0
56	MG	1A	3250	1/1	0.97	0.08	24,24,24,24	0
56	MG	1A	3863	1/1	0.97	0.09	41,41,41,41	0
56	MG	2a	3079	1/1	0.97	0.11	43,43,43,43	0
56	MG	2A	3251	1/1	0.97	0.06	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1E	301	1/1	0.97	0.16	31,31,31,31	0
56	MG	2A	3550	1/1	0.97	0.05	72,72,72,72	0
56	MG	2A	3253	1/1	0.97	0.05	52,52,52,52	0
56	MG	1A	3154	1/1	0.97	0.06	60,60,60,60	0
56	MG	1A	3329	1/1	0.97	0.06	16,16,16,16	0
56	MG	2A	3008	1/1	0.97	0.07	36,36,36,36	0
56	MG	1A	3330	1/1	0.97	0.07	18,18,18,18	0
56	MG	1A	3156	1/1	0.97	0.24	32,32,32,32	0
56	MG	1A	3445	1/1	0.97	0.05	50,50,50,50	0
56	MG	1A	3576	1/1	0.97	0.10	35,35,35,35	0
56	MG	1F	302	1/1	0.97	0.23	27,27,27,27	0
56	MG	2A	3262	1/1	0.97	0.07	33,33,33,33	0
56	MG	1F	304	1/1	0.97	0.17	30,30,30,30	0
56	MG	2A	3017	1/1	0.97	0.06	50,50,50,50	0
56	MG	1F	305	1/1	0.97	0.21	31,31,31,31	0
56	MG	1A	3872	1/1	0.97	0.05	45,45,45,45	0
56	MG	2A	3573	1/1	0.97	0.07	52,52,52,52	0
56	MG	2A	3268	1/1	0.97	0.14	29,29,29,29	0
56	MG	2A	3576	1/1	0.97	0.07	38,38,38,38	0
56	MG	2A	3021	1/1	0.97	0.07	42,42,42,42	0
56	MG	2A	3022	1/1	0.97	0.17	46,46,46,46	0
56	MG	1A	3875	1/1	0.97	0.08	53,53,53,53	0
56	MG	2a	3105	1/1	0.97	0.15	52,52,52,52	0
56	MG	1F	308	1/1	0.97	0.33	33,33,33,33	0
56	MG	1A	3195	1/1	0.97	0.05	51,51,51,51	0
56	MG	2A	3275	1/1	0.97	0.25	26,26,26,26	0
56	MG	1A	3078	1/1	0.97	0.07	34,34,34,34	0
56	MG	2A	3277	1/1	0.97	0.08	48,48,48,48	0
56	MG	2A	3586	1/1	0.97	0.05	28,28,28,28	0
56	MG	2a	3115	1/1	0.97	0.08	57,57,57,57	0
56	MG	2a	3116	1/1	0.97	0.08	45,45,45,45	0
56	MG	1A	3256	1/1	0.97	0.15	55,55,55,55	0
56	MG	2A	3589	1/1	0.97	0.14	52,52,52,52	0
56	MG	1A	3712	1/1	0.97	0.05	33,33,33,33	0
56	MG	1A	3451	1/1	0.97	0.13	38,38,38,38	0
56	MG	1A	3581	1/1	0.97	0.10	42,42,42,42	0
56	MG	2a	3125	1/1	0.97	0.16	67,67,67,67	0
56	MG	1A	3582	1/1	0.97	0.06	32,32,32,32	0
56	MG	2A	3595	1/1	0.97	0.05	38,38,38,38	0
56	MG	1F	318	1/1	0.97	0.29	45,45,45,45	0
56	MG	2A	3285	1/1	0.97	0.12	30,30,30,30	0
56	MG	1A	3452	1/1	0.97	0.10	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3126	1/1	0.97	0.14	34,34,34,34	0
56	MG	1A	3889	1/1	0.97	0.08	38,38,38,38	0
56	MG	2a	3133	1/1	0.97	0.06	59,59,59,59	0
56	MG	2A	3039	1/1	0.97	0.14	41,41,41,41	0
56	MG	2A	3290	1/1	0.97	0.04	36,36,36,36	0
56	MG	1a	3125	1/1	0.97	0.12	63,63,63,63	0
56	MG	2A	3606	1/1	0.97	0.04	22,22,22,22	0
56	MG	2A	3607	1/1	0.97	0.13	15,15,15,15	0
56	MG	2A	3041	1/1	0.97	0.12	40,40,40,40	0
56	MG	1A	3457	1/1	0.97	0.07	49,49,49,49	0
56	MG	1A	3160	1/1	0.97	0.07	20,20,20,20	0
56	MG	1A	3343	1/1	0.97	0.06	34,34,34,34	0
56	MG	1A	3199	1/1	0.97	0.06	40,40,40,40	0
56	MG	2A	3297	1/1	0.97	0.12	35,35,35,35	0
56	MG	1A	3106	1/1	0.97	0.08	37,37,37,37	0
56	MG	2a	3146	1/1	0.97	0.10	65,65,65,65	0
56	MG	2a	3147	1/1	0.97	0.07	42,42,42,42	0
56	MG	2a	3148	1/1	0.97	0.11	52,52,52,52	0
56	MG	1a	3133	1/1	0.97	0.13	35,35,35,35	0
56	MG	1A	3726	1/1	0.97	0.09	30,30,30,30	0
56	MG	1N	201	1/1	0.97	0.18	38,38,38,38	0
56	MG	2A	3051	1/1	0.97	0.14	43,43,43,43	0
56	MG	1A	3727	1/1	0.97	0.09	58,58,58,58	0
56	MG	2A	3623	1/1	0.97	0.07	37,37,37,37	0
56	MG	2A	3624	1/1	0.97	0.05	56,56,56,56	0
56	MG	1A	3909	1/1	0.97	0.07	21,21,21,21	0
56	MG	2A	3627	1/1	0.97	0.05	57,57,57,57	0
56	MG	1A	3467	1/1	0.97	0.09	46,46,46,46	0
56	MG	2A	3630	1/1	0.97	0.05	52,52,52,52	0
56	MG	2A	3306	1/1	0.97	0.04	41,41,41,41	0
56	MG	1A	3347	1/1	0.97	0.05	26,26,26,26	0
56	MG	2A	3635	1/1	0.97	0.12	57,57,57,57	0
56	MG	2A	3636	1/1	0.97	0.03	40,40,40,40	0
56	MG	1A	3091	1/1	0.97	0.13	36,36,36,36	0
56	MG	1A	3352	1/1	0.97	0.05	24,24,24,24	0
56	MG	2A	3310	1/1	0.97	0.11	47,47,47,47	0
56	MG	1A	3918	1/1	0.97	0.07	47,47,47,47	0
56	MG	2a	3172	1/1	0.97	0.08	49,49,49,49	0
56	MG	2A	3313	1/1	0.97	0.11	20,20,20,20	0
56	MG	1A	3732	1/1	0.97	0.06	24,24,24,24	0
56	MG	2A	3646	1/1	0.97	0.12	29,29,29,29	0
56	MG	2A	3061	1/1	0.97	0.05	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1P	205	1/1	0.97	0.06	56,56,56,56	0
56	MG	2A	3650	1/1	0.97	0.07	17,17,17,17	0
56	MG	1A	3003	1/1	0.97	0.06	22,22,22,22	0
56	MG	2A	3319	1/1	0.97	0.05	29,29,29,29	0
56	MG	1A	3474	1/1	0.97	0.06	20,20,20,20	0
56	MG	2A	3655	1/1	0.97	0.05	51,51,51,51	0
56	MG	1R	201	1/1	0.97	0.18	30,30,30,30	0
56	MG	2a	3186	1/1	0.97	0.10	47,47,47,47	0
56	MG	2A	3660	1/1	0.97	0.07	41,41,41,41	0
56	MG	2A	3066	1/1	0.97	0.04	41,41,41,41	0
56	MG	2A	3662	1/1	0.97	0.05	49,49,49,49	0
56	MG	1R	202	1/1	0.97	0.14	31,31,31,31	0
56	MG	2A	3327	1/1	0.97	0.10	22,22,22,22	0
56	MG	2A	3328	1/1	0.97	0.05	34,34,34,34	0
56	MG	1A	3923	1/1	0.97	0.08	26,26,26,26	0
56	MG	1a	3152	1/1	0.97	0.07	53,53,53,53	0
56	MG	2A	3668	1/1	0.97	0.04	28,28,28,28	0
56	MG	2A	3669	1/1	0.97	0.11	61,61,61,61	0
56	MG	1A	3596	1/1	0.97	0.14	31,31,31,31	0
57	SPS	1A	4023	23/23	0.97	0.07	23,36,41,45	0
56	MG	1A	3080	1/1	0.97	0.09	32,32,32,32	0
56	MG	2A	3672	1/1	0.97	0.05	34,34,34,34	0
56	MG	1A	3265	1/1	0.97	0.11	24,24,24,24	0
56	MG	2A	3675	1/1	0.97	0.07	42,42,42,42	0
56	MG	2A	3336	1/1	0.97	0.16	46,46,46,46	0
56	MG	1A	3131	1/1	0.97	0.15	32,32,32,32	0
56	MG	1A	3359	1/1	0.97	0.07	45,45,45,45	0
60	ZN	15	3109	1/1	0.97	0.04	54,54,54,54	0
60	ZN	2Y	202	1/1	0.97	0.05	85,85,85,85	0
56	MG	1A	3479	1/1	0.97	0.08	32,32,32,32	0
60	ZN	2n	102	1/1	0.97	0.05	87,87,87,87	0
56	MG	1A	3132	1/1	0.97	0.20	22,22,22,22	0
56	MG	2E	302	1/1	0.98	0.10	40,40,40,40	0
56	MG	1A	3396	1/1	0.98	0.08	12,12,12,12	0
56	MG	2E	306	1/1	0.98	0.12	51,51,51,51	0
56	MG	1D	310	1/1	0.98	0.10	21,21,21,21	0
56	MG	1A	3482	1/1	0.98	0.11	18,18,18,18	0
56	MG	1D	312	1/1	0.98	0.17	26,26,26,26	0
56	MG	1A	3040	1/1	0.98	0.14	31,31,31,31	0
56	MG	1A	3575	1/1	0.98	0.07	24,24,24,24	0
56	MG	1A	3921	1/1	0.98	0.05	39,39,39,39	0
56	MG	1A	3484	1/1	0.98	0.07	20,20,20,20	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3486	1/1	0.98	0.04	33,33,33,33	0
56	MG	1A	3783	1/1	0.98	0.08	36,36,36,36	0
56	MG	2A	3107	1/1	0.98	0.07	30,30,30,30	0
56	MG	1E	303	1/1	0.98	0.09	29,29,29,29	0
56	MG	2A	3520	1/1	0.98	0.09	33,33,33,33	0
56	MG	1A	3399	1/1	0.98	0.03	19,19,19,19	0
56	MG	1A	3926	1/1	0.98	0.05	29,29,29,29	0
56	MG	1A	3488	1/1	0.98	0.03	23,23,23,23	0
56	MG	1a	3062	1/1	0.98	0.10	51,51,51,51	0
56	MG	1A	3489	1/1	0.98	0.06	18,18,18,18	0
56	MG	1A	3332	1/1	0.98	0.10	13,13,13,13	0
56	MG	1A	3087	1/1	0.98	0.10	41,41,41,41	0
56	MG	1A	3120	1/1	0.98	0.13	22,22,22,22	0
56	MG	1A	3932	1/1	0.98	0.06	49,49,49,49	0
56	MG	2A	3118	1/1	0.98	0.08	48,48,48,48	0
56	MG	2U	201	1/1	0.98	0.14	50,50,50,50	0
56	MG	1A	3073	1/1	0.98	0.09	30,30,30,30	0
56	MG	1a	3241	1/1	0.98	0.08	55,55,55,55	0
56	MG	2A	3312	1/1	0.98	0.04	34,34,34,34	0
56	MG	1A	3495	1/1	0.98	0.05	28,28,28,28	0
56	MG	1A	3793	1/1	0.98	0.10	20,20,20,20	0
56	MG	1A	3337	1/1	0.98	0.04	32,32,32,32	0
56	MG	1F	310	1/1	0.98	0.07	36,36,36,36	0
56	MG	1A	3795	1/1	0.98	0.04	35,35,35,35	0
56	MG	1A	3938	1/1	0.98	0.07	51,51,51,51	0
56	MG	2A	3320	1/1	0.98	0.04	41,41,41,41	0
56	MG	2A	3127	1/1	0.98	0.15	41,41,41,41	0
56	MG	1A	3405	1/1	0.98	0.05	18,18,18,18	0
56	MG	2A	3543	1/1	0.98	0.10	20,20,20,20	0
56	MG	2A	3544	1/1	0.98	0.04	38,38,38,38	0
56	MG	1A	3189	1/1	0.98	0.09	22,22,22,22	0
56	MG	1A	3689	1/1	0.98	0.07	43,43,43,43	0
56	MG	2A	3326	1/1	0.98	0.07	29,29,29,29	0
56	MG	1A	3253	1/1	0.98	0.08	30,30,30,30	0
56	MG	1A	3943	1/1	0.98	0.08	20,20,20,20	0
56	MG	1A	3408	1/1	0.98	0.04	25,25,25,25	0
56	MG	1A	3501	1/1	0.98	0.04	35,35,35,35	0
56	MG	2A	3552	1/1	0.98	0.05	45,45,45,45	0
56	MG	1A	3342	1/1	0.98	0.04	37,37,37,37	0
56	MG	2A	3333	1/1	0.98	0.08	29,29,29,29	0
56	MG	1A	3292	1/1	0.98	0.19	40,40,40,40	0
56	MG	2A	3556	1/1	0.98	0.03	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3050	1/1	0.98	0.19	38,38,38,38	0
56	MG	2A	3558	1/1	0.98	0.05	41,41,41,41	0
56	MG	1A	3412	1/1	0.98	0.13	18,18,18,18	0
56	MG	1A	3698	1/1	0.98	0.08	44,44,44,44	0
56	MG	1A	3191	1/1	0.98	0.29	35,35,35,35	0
56	MG	2A	3339	1/1	0.98	0.08	43,43,43,43	0
56	MG	1A	3414	1/1	0.98	0.07	15,15,15,15	0
56	MG	1A	3509	1/1	0.98	0.12	23,23,23,23	0
56	MG	1A	3219	1/1	0.98	0.07	24,24,24,24	0
56	MG	2A	3344	1/1	0.98	0.05	40,40,40,40	0
56	MG	2A	3569	1/1	0.98	0.06	33,33,33,33	0
56	MG	2A	3570	1/1	0.98	0.04	23,23,23,23	0
56	MG	2A	3571	1/1	0.98	0.10	44,44,44,44	0
56	MG	2A	3144	1/1	0.98	0.07	35,35,35,35	0
56	MG	1A	3348	1/1	0.98	0.07	21,21,21,21	0
56	MG	2A	3347	1/1	0.98	0.07	34,34,34,34	0
56	MG	1A	3513	1/1	0.98	0.06	39,39,39,39	0
56	MG	1A	3814	1/1	0.98	0.10	15,15,15,15	0
56	MG	1A	3063	1/1	0.98	0.06	19,19,19,19	0
56	MG	2A	3351	1/1	0.98	0.05	40,40,40,40	0
56	MG	1A	3816	1/1	0.98	0.09	30,30,30,30	0
56	MG	2A	3353	1/1	0.98	0.04	30,30,30,30	0
56	MG	2A	3354	1/1	0.98	0.11	24,24,24,24	0
56	MG	2a	3027	1/1	0.98	0.11	51,51,51,51	0
56	MG	2A	3583	1/1	0.98	0.06	38,38,38,38	0
56	MG	1A	3420	1/1	0.98	0.09	27,27,27,27	0
56	MG	1A	3143	1/1	0.98	0.05	23,23,23,23	0
56	MG	1A	3709	1/1	0.98	0.05	23,23,23,23	0
56	MG	1A	3259	1/1	0.98	0.06	36,36,36,36	0
56	MG	2A	3588	1/1	0.98	0.04	64,64,64,64	0
56	MG	1A	3607	1/1	0.98	0.12	25,25,25,25	0
56	MG	1A	3966	1/1	0.98	0.10	39,39,39,39	0
56	MG	1A	3967	1/1	0.98	0.07	51,51,51,51	0
56	MG	1A	3300	1/1	0.98	0.10	23,23,23,23	0
56	MG	1A	3519	1/1	0.98	0.07	51,51,51,51	0
56	MG	2A	3364	1/1	0.98	0.06	25,25,25,25	0
56	MG	1A	3425	1/1	0.98	0.04	16,16,16,16	0
56	MG	1S	201	1/1	0.98	0.05	46,46,46,46	0
56	MG	2A	3368	1/1	0.98	0.06	37,37,37,37	0
56	MG	2A	3599	1/1	0.98	0.04	43,43,43,43	0
56	MG	1A	3355	1/1	0.98	0.04	15,15,15,15	0
56	MG	2A	3162	1/1	0.98	0.08	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1T	202	1/1	0.98	0.06	49,49,49,49	0
56	MG	1A	3716	1/1	0.98	0.05	15,15,15,15	0
56	MG	1a	3110	1/1	0.98	0.10	53,53,53,53	0
56	MG	2a	3049	1/1	0.98	0.18	52,52,52,52	0
56	MG	2A	3374	1/1	0.98	0.10	39,39,39,39	0
56	MG	1A	3428	1/1	0.98	0.04	21,21,21,21	0
56	MG	1A	3222	1/1	0.98	0.09	27,27,27,27	0
56	MG	1A	3977	1/1	0.98	0.07	33,33,33,33	0
56	MG	1U	205	1/1	0.98	0.19	30,30,30,30	0
56	MG	2A	3611	1/1	0.98	0.06	57,57,57,57	0
56	MG	2A	3379	1/1	0.98	0.05	35,35,35,35	0
56	MG	1A	3144	1/1	0.98	0.13	22,22,22,22	0
56	MG	1a	3116	1/1	0.98	0.06	27,27,27,27	0
56	MG	1A	3076	1/1	0.98	0.17	23,23,23,23	0
56	MG	2A	3383	1/1	0.98	0.04	33,33,33,33	0
56	MG	2A	3173	1/1	0.98	0.04	34,34,34,34	0
56	MG	1V	201	1/1	0.98	0.07	28,28,28,28	0
56	MG	1V	202	1/1	0.98	0.09	32,32,32,32	0
56	MG	2A	3621	1/1	0.98	0.06	45,45,45,45	0
56	MG	1A	3834	1/1	0.98	0.04	22,22,22,22	0
56	MG	1V	204	1/1	0.98	0.03	34,34,34,34	0
56	MG	2A	3390	1/1	0.98	0.06	49,49,49,49	0
56	MG	2A	3625	1/1	0.98	0.07	59,59,59,59	0
56	MG	2A	3391	1/1	0.98	0.03	23,23,23,23	0
56	MG	2a	3070	1/1	0.98	0.06	54,54,54,54	0
56	MG	1a	3123	1/1	0.98	0.07	46,46,46,46	0
56	MG	2A	3628	1/1	0.98	0.06	66,66,66,66	0
56	MG	1o	103	1/1	0.98	0.04	55,55,55,55	0
56	MG	1A	3146	1/1	0.98	0.12	30,30,30,30	0
56	MG	1A	3836	1/1	0.98	0.09	42,42,42,42	0
56	MG	1A	3529	1/1	0.98	0.07	50,50,50,50	0
56	MG	2A	3633	1/1	0.98	0.06	28,28,28,28	0
56	MG	2A	3634	1/1	0.98	0.03	29,29,29,29	0
56	MG	1a	3127	1/1	0.98	0.07	27,27,27,27	0
56	MG	2A	3185	1/1	0.98	0.05	33,33,33,33	0
56	MG	1W	202	1/1	0.98	0.08	36,36,36,36	0
56	MG	2A	3638	1/1	0.98	0.04	44,44,44,44	0
56	MG	1A	3092	1/1	0.98	0.10	26,26,26,26	0
56	MG	2a	3085	1/1	0.98	0.09	55,55,55,55	0
56	MG	1A	3619	1/1	0.98	0.05	26,26,26,26	0
56	MG	1A	3841	1/1	0.98	0.04	60,60,60,60	0
56	MG	2A	3642	1/1	0.98	0.05	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3842	1/1	0.98	0.07	41,41,41,41	0
56	MG	2A	3644	1/1	0.98	0.09	48,48,48,48	0
56	MG	1a	3134	1/1	0.98	0.04	49,49,49,49	0
56	MG	1A	3435	1/1	0.98	0.04	14,14,14,14	0
56	MG	2A	3004	1/1	0.98	0.08	35,35,35,35	0
56	MG	1A	3005	1/1	0.98	0.09	27,27,27,27	0
56	MG	2A	3649	1/1	0.98	0.04	31,31,31,31	0
56	MG	1A	3991	1/1	0.98	0.05	48,48,48,48	0
56	MG	1A	3437	1/1	0.98	0.05	36,36,36,36	0
56	MG	1A	3229	1/1	0.98	0.14	26,26,26,26	0
56	MG	1a	3140	1/1	0.98	0.04	50,50,50,50	0
56	MG	2A	3010	1/1	0.98	0.11	58,58,58,58	0
56	MG	2A	3011	1/1	0.98	0.07	23,23,23,23	0
56	MG	2a	3102	1/1	0.98	0.10	49,49,49,49	0
56	MG	1A	3847	1/1	0.98	0.07	37,37,37,37	0
56	MG	1A	3441	1/1	0.98	0.06	30,30,30,30	0
56	MG	1A	3309	1/1	0.98	0.11	27,27,27,27	0
56	MG	2a	3106	1/1	0.98	0.11	49,49,49,49	0
56	MG	1A	3627	1/1	0.98	0.03	22,22,22,22	0
56	MG	1A	3015	1/1	0.98	0.11	26,26,26,26	0
56	MG	1A	3999	1/1	0.98	0.08	11,11,11,11	0
56	MG	11	105	1/1	0.98	0.13	39,39,39,39	0
56	MG	2A	3208	1/1	0.98	0.04	44,44,44,44	0
56	MG	1A	3174	1/1	0.98	0.15	29,29,29,29	0
56	MG	2a	3113	1/1	0.98	0.13	40,40,40,40	0
56	MG	2a	3114	1/1	0.98	0.05	66,66,66,66	0
56	MG	2A	3020	1/1	0.98	0.21	38,38,38,38	0
56	MG	1A	3043	1/1	0.98	0.10	18,18,18,18	0
56	MG	1A	3028	1/1	0.98	0.10	29,29,29,29	0
56	MG	2a	3118	1/1	0.98	0.07	45,45,45,45	0
56	MG	1A	3448	1/1	0.98	0.08	18,18,18,18	0
56	MG	2a	3121	1/1	0.98	0.06	56,56,56,56	0
56	MG	1A	3272	1/1	0.98	0.11	37,37,37,37	0
56	MG	2A	3674	1/1	0.98	0.06	44,44,44,44	0
56	MG	1A	3857	1/1	0.98	0.09	30,30,30,30	0
56	MG	15	3104	1/1	0.98	0.12	27,27,27,27	0
56	MG	2A	3678	1/1	0.98	0.04	42,42,42,42	0
56	MG	15	3105	1/1	0.98	0.07	40,40,40,40	0
56	MG	15	3106	1/1	0.98	0.22	33,33,33,33	0
56	MG	2A	3029	1/1	0.98	0.08	28,28,28,28	0
56	MG	1A	3858	1/1	0.98	0.05	35,35,35,35	0
56	MG	1A	3047	1/1	0.98	0.04	20,20,20,20	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	17	101	1/1	0.98	0.05	26,26,26,26	0
56	MG	17	102	1/1	0.98	0.04	23,23,23,23	0
56	MG	2A	3686	1/1	0.98	0.05	51,51,51,51	0
56	MG	2A	3439	1/1	0.98	0.05	35,35,35,35	0
56	MG	1A	4010	1/1	0.98	0.06	49,49,49,49	0
56	MG	1A	3742	1/1	0.98	0.07	38,38,38,38	0
56	MG	17	105	1/1	0.98	0.17	22,22,22,22	0
56	MG	2A	3443	1/1	0.98	0.13	44,44,44,44	0
56	MG	2A	3038	1/1	0.98	0.05	48,48,48,48	0
56	MG	1A	4012	1/1	0.98	0.05	45,45,45,45	0
56	MG	1A	3861	1/1	0.98	0.04	32,32,32,32	0
56	MG	2A	3447	1/1	0.98	0.07	38,38,38,38	0
56	MG	1A	3637	1/1	0.98	0.08	36,36,36,36	0
56	MG	1A	3048	1/1	0.98	0.09	37,37,37,37	0
56	MG	18	103	1/1	0.98	0.05	47,47,47,47	0
56	MG	2A	3700	1/1	0.98	0.05	32,32,32,32	0
56	MG	1A	3238	1/1	0.98	0.06	33,33,33,33	0
56	MG	1A	3114	1/1	0.98	0.08	33,33,33,33	0
56	MG	1A	3548	1/1	0.98	0.05	28,28,28,28	0
56	MG	2a	3151	1/1	0.98	0.07	54,54,54,54	0
56	MG	1A	3642	1/1	0.98	0.10	26,26,26,26	0
56	MG	2a	3153	1/1	0.98	0.15	58,58,58,58	0
56	MG	1A	3455	1/1	0.98	0.04	27,27,27,27	0
56	MG	1A	3869	1/1	0.98	0.04	49,49,49,49	0
56	MG	1A	3321	1/1	0.98	0.09	31,31,31,31	0
56	MG	2A	3052	1/1	0.98	0.04	34,34,34,34	0
56	MG	1A	3155	1/1	0.98	0.19	33,33,33,33	0
56	MG	2a	3159	1/1	0.98	0.09	48,48,48,48	0
56	MG	1A	3873	1/1	0.98	0.08	23,23,23,23	0
56	MG	1A	3874	1/1	0.98	0.07	14,14,14,14	0
56	MG	1A	3459	1/1	0.98	0.07	35,35,35,35	0
56	MG	1A	3553	1/1	0.98	0.05	35,35,35,35	0
56	MG	1A	3554	1/1	0.98	0.04	34,34,34,34	0
56	MG	1A	3378	1/1	0.98	0.05	28,28,28,28	0
56	MG	1A	3278	1/1	0.98	0.09	29,29,29,29	0
56	MG	1A	3881	1/1	0.98	0.03	30,30,30,30	0
56	MG	1A	3324	1/1	0.98	0.08	19,19,19,19	0
56	MG	1A	3466	1/1	0.98	0.07	29,29,29,29	0
56	MG	1B	212	1/1	0.98	0.06	33,33,33,33	0
56	MG	1A	3115	1/1	0.98	0.11	38,38,38,38	0
56	MG	1A	3382	1/1	0.98	0.05	17,17,17,17	0
56	MG	1a	3022	1/1	0.98	0.08	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3383	1/1	0.98	0.09	13,13,13,13	0
56	MG	2a	3176	1/1	0.98	0.05	52,52,52,52	0
56	MG	2a	3177	1/1	0.98	0.05	54,54,54,54	0
56	MG	1A	3471	1/1	0.98	0.08	40,40,40,40	0
56	MG	1A	3890	1/1	0.98	0.07	33,33,33,33	0
56	MG	2A	3071	1/1	0.98	0.09	32,32,32,32	0
56	MG	1A	3326	1/1	0.98	0.07	23,23,23,23	0
56	MG	1a	3027	1/1	0.98	0.06	50,50,50,50	0
56	MG	2A	3263	1/1	0.98	0.14	39,39,39,39	0
56	MG	1B	219	1/1	0.98	0.05	27,27,27,27	0
56	MG	1A	3892	1/1	0.98	0.04	34,34,34,34	0
56	MG	1B	221	1/1	0.98	0.08	57,57,57,57	0
56	MG	1A	3070	1/1	0.98	0.09	28,28,28,28	0
56	MG	1A	3766	1/1	0.98	0.04	24,24,24,24	0
56	MG	1A	3898	1/1	0.98	0.05	43,43,43,43	0
56	MG	1A	3565	1/1	0.98	0.07	14,14,14,14	0
56	MG	1a	3204	1/1	0.98	0.06	47,47,47,47	0
56	MG	1A	3900	1/1	0.98	0.11	11,11,11,11	0
56	MG	2A	3490	1/1	0.98	0.05	34,34,34,34	0
56	MG	2B	215	1/1	0.98	0.07	58,58,58,58	0
56	MG	1A	3901	1/1	0.98	0.07	25,25,25,25	0
56	MG	2A	3492	1/1	0.98	0.04	43,43,43,43	0
56	MG	2A	3085	1/1	0.98	0.06	34,34,34,34	0
56	MG	2x	102	1/1	0.98	0.11	42,42,42,42	0
56	MG	1A	3663	1/1	0.98	0.24	27,27,27,27	0
56	MG	1A	3328	1/1	0.98	0.16	38,38,38,38	0
56	MG	2A	3496	1/1	0.98	0.05	26,26,26,26	0
56	MG	1A	3060	1/1	0.98	0.13	22,22,22,22	0
56	MG	1A	3388	1/1	0.98	0.05	17,17,17,17	0
56	MG	1A	3910	1/1	0.98	0.06	35,35,35,35	0
56	MG	2A	3281	1/1	0.98	0.05	31,31,31,31	0
56	MG	1A	3159	1/1	0.98	0.24	28,28,28,28	0
56	MG	1A	3391	1/1	0.98	0.03	25,25,25,25	0
56	MG	1A	3913	1/1	0.98	0.05	44,44,44,44	0
56	MG	1a	3215	1/1	0.98	0.05	52,52,52,52	0
60	ZN	29	501	1/1	0.98	0.04	69,69,69,69	0
56	MG	1A	3395	1/1	0.98	0.09	16,16,16,16	0
56	MG	1D	308	1/1	0.98	0.05	14,14,14,14	0
62	SF4	2d	501	8/8	0.98	0.04	50,67,72,77	0
56	MG	1A	3661	1/1	0.99	0.05	51,51,51,51	0
56	MG	1Q	202	1/1	0.99	0.05	33,33,33,33	0
56	MG	1A	3817	1/1	0.99	0.10	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1Q	204	1/1	0.99	0.03	39,39,39,39	0
56	MG	2A	3324	1/1	0.99	0.04	32,32,32,32	0
56	MG	1A	3418	1/1	0.99	0.04	18,18,18,18	0
56	MG	1a	3271	1/1	0.99	0.06	43,43,43,43	0
56	MG	2A	3591	1/1	0.99	0.03	35,35,35,35	0
56	MG	1A	3914	1/1	0.99	0.09	35,35,35,35	0
56	MG	1A	3077	1/1	0.99	0.07	25,25,25,25	0
56	MG	1A	3916	1/1	0.99	0.04	31,31,31,31	0
56	MG	2a	3075	1/1	0.99	0.07	68,68,68,68	0
56	MG	1A	3339	1/1	0.99	0.03	26,26,26,26	0
56	MG	1A	3340	1/1	0.99	0.05	33,33,33,33	0
56	MG	2A	3332	1/1	0.99	0.09	36,36,36,36	0
56	MG	1A	3822	1/1	0.99	0.02	23,23,23,23	0
56	MG	1A	3240	1/1	0.99	0.16	22,22,22,22	0
56	MG	1A	3423	1/1	0.99	0.05	16,16,16,16	0
56	MG	2B	218	1/1	0.99	0.07	43,43,43,43	0
56	MG	1A	3207	1/1	0.99	0.06	28,28,28,28	0
56	MG	2A	3212	1/1	0.99	0.11	33,33,33,33	0
56	MG	1A	3744	1/1	0.99	0.10	23,23,23,23	0
56	MG	2A	3604	1/1	0.99	0.03	38,38,38,38	0
56	MG	1a	3055	1/1	0.99	0.04	41,41,41,41	0
56	MG	1U	202	1/1	0.99	0.09	31,31,31,31	0
56	MG	1A	3044	1/1	0.99	0.04	17,17,17,17	0
56	MG	1U	204	1/1	0.99	0.15	29,29,29,29	0
56	MG	2A	3343	1/1	0.99	0.06	39,39,39,39	0
56	MG	1A	3828	1/1	0.99	0.04	48,48,48,48	0
56	MG	1A	3480	1/1	0.99	0.06	19,19,19,19	0
56	MG	1A	3542	1/1	0.99	0.03	28,28,28,28	0
56	MG	1A	3604	1/1	0.99	0.05	60,60,60,60	0
56	MG	1A	3426	1/1	0.99	0.03	23,23,23,23	0
56	MG	1A	3139	1/1	0.99	0.09	38,38,38,38	0
56	MG	2E	303	1/1	0.99	0.06	43,43,43,43	0
56	MG	1A	3314	1/1	0.99	0.07	28,28,28,28	0
56	MG	2E	305	1/1	0.99	0.10	22,22,22,22	0
56	MG	1A	3429	1/1	0.99	0.04	23,23,23,23	0
56	MG	2A	3618	1/1	0.99	0.03	40,40,40,40	0
56	MG	1A	3485	1/1	0.99	0.03	13,13,13,13	0
56	MG	1A	3678	1/1	0.99	0.03	63,63,63,63	0
56	MG	1A	3346	1/1	0.99	0.06	48,48,48,48	0
56	MG	1A	3839	1/1	0.99	0.02	13,13,13,13	0
56	MG	1A	3225	1/1	0.99	0.05	44,44,44,44	0
56	MG	1A	3245	1/1	0.99	0.20	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3290	1/1	0.99	0.05	23,23,23,23	0
56	MG	1A	3683	1/1	0.99	0.02	43,43,43,43	0
56	MG	1A	3350	1/1	0.99	0.04	25,25,25,25	0
56	MG	1A	3351	1/1	0.99	0.02	21,21,21,21	0
56	MG	1A	3389	1/1	0.99	0.07	13,13,13,13	0
56	MG	1A	3944	1/1	0.99	0.09	20,20,20,20	0
56	MG	1A	3493	1/1	0.99	0.09	15,15,15,15	0
56	MG	2A	3365	1/1	0.99	0.02	28,28,28,28	0
56	MG	1A	3291	1/1	0.99	0.14	16,16,16,16	0
56	MG	1A	3438	1/1	0.99	0.06	32,32,32,32	0
56	MG	1A	3690	1/1	0.99	0.07	32,32,32,32	0
56	MG	2a	3120	1/1	0.99	0.06	39,39,39,39	0
56	MG	1A	3767	1/1	0.99	0.03	28,28,28,28	0
56	MG	1A	3620	1/1	0.99	0.07	25,25,25,25	0
56	MG	1A	3319	1/1	0.99	0.05	16,16,16,16	0
56	MG	2A	3502	1/1	0.99	0.05	20,20,20,20	0
56	MG	1A	3440	1/1	0.99	0.02	14,14,14,14	0
56	MG	1A	3392	1/1	0.99	0.04	29,29,29,29	0
56	MG	1a	3198	1/1	0.99	0.06	59,59,59,59	0
56	MG	1A	3393	1/1	0.99	0.05	30,30,30,30	0
56	MG	1A	3246	1/1	0.99	0.12	40,40,40,40	0
56	MG	15	3101	1/1	0.99	0.14	28,28,28,28	0
56	MG	1A	3268	1/1	0.99	0.05	26,26,26,26	0
56	MG	1A	3002	1/1	0.99	0.06	39,39,39,39	0
56	MG	1A	3628	1/1	0.99	0.08	24,24,24,24	0
56	MG	1A	3057	1/1	0.99	0.05	25,25,25,25	0
56	MG	1A	3778	1/1	0.99	0.04	27,27,27,27	0
56	MG	1A	3447	1/1	0.99	0.05	20,20,20,20	0
56	MG	2A	3652	1/1	0.99	0.04	45,45,45,45	0
56	MG	2A	3384	1/1	0.99	0.07	23,23,23,23	0
56	MG	1A	3358	1/1	0.99	0.04	14,14,14,14	0
56	MG	1A	3006	1/1	0.99	0.02	14,14,14,14	0
56	MG	2A	3656	1/1	0.99	0.03	40,40,40,40	0
56	MG	2A	3657	1/1	0.99	0.06	57,57,57,57	0
56	MG	25	102	1/1	0.99	0.11	36,36,36,36	0
56	MG	2A	3658	1/1	0.99	0.08	44,44,44,44	0
56	MG	1A	3507	1/1	0.99	0.06	19,19,19,19	0
56	MG	1A	3634	1/1	0.99	0.09	33,33,33,33	0
56	MG	1A	3039	1/1	0.99	0.13	38,38,38,38	0
56	MG	1A	3230	1/1	0.99	0.15	33,33,33,33	0
56	MG	1A	3708	1/1	0.99	0.03	37,37,37,37	0
56	MG	1A	3969	1/1	0.99	0.03	16,16,16,16	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	3299	1/1	0.99	0.04	28,28,28,28	0
56	MG	1A	3511	1/1	0.99	0.05	14,14,14,14	0
56	MG	2A	3395	1/1	0.99	0.03	43,43,43,43	0
56	MG	1A	3022	1/1	0.99	0.04	38,38,38,38	0
56	MG	1A	3454	1/1	0.99	0.04	54,54,54,54	0
56	MG	1A	3876	1/1	0.99	0.04	34,34,34,34	0
56	MG	2A	3030	1/1	0.99	0.12	21,21,21,21	0
56	MG	2A	3271	1/1	0.99	0.19	29,29,29,29	0
56	MG	1A	3791	1/1	0.99	0.03	47,47,47,47	0
56	MG	1A	3023	1/1	0.99	0.07	20,20,20,20	0
56	MG	1F	303	1/1	0.99	0.12	27,27,27,27	0
56	MG	1A	3456	1/1	0.99	0.05	15,15,15,15	0
56	MG	2A	3677	1/1	0.99	0.08	36,36,36,36	0
56	MG	1A	3979	1/1	0.99	0.04	32,32,32,32	0
56	MG	1A	3051	1/1	0.99	0.20	26,26,26,26	0
56	MG	1A	3029	1/1	0.99	0.06	33,33,33,33	0
56	MG	1a	3228	1/1	0.99	0.04	60,60,60,60	0
56	MG	2a	3168	1/1	0.99	0.09	50,50,50,50	0
56	MG	1A	3796	1/1	0.99	0.04	31,31,31,31	0
56	MG	1A	3645	1/1	0.99	0.09	25,25,25,25	0
56	MG	1a	3119	1/1	0.99	0.06	34,34,34,34	0
56	MG	2A	3042	1/1	0.99	0.04	26,26,26,26	0
56	MG	1a	3232	1/1	0.99	0.05	54,54,54,54	0
56	MG	1A	3013	1/1	0.99	0.06	19,19,19,19	0
56	MG	2A	3415	1/1	0.99	0.04	18,18,18,18	0
56	MG	1A	3719	1/1	0.99	0.04	39,39,39,39	0
56	MG	1a	3013	1/1	0.99	0.03	29,29,29,29	0
56	MG	1A	3368	1/1	0.99	0.09	36,36,36,36	0
56	MG	1A	3887	1/1	0.99	0.03	34,34,34,34	0
56	MG	2A	3693	1/1	0.99	0.03	58,58,58,58	0
56	MG	1A	3888	1/1	0.99	0.03	18,18,18,18	0
56	MG	1A	3520	1/1	0.99	0.03	35,35,35,35	0
56	MG	1F	316	1/1	0.99	0.04	21,21,21,21	0
56	MG	1A	3333	1/1	0.99	0.04	32,32,32,32	0
56	MG	1a	3129	1/1	0.99	0.04	35,35,35,35	0
56	MG	1A	3723	1/1	0.99	0.06	23,23,23,23	0
56	MG	1A	3462	1/1	0.99	0.04	30,30,30,30	0
56	MG	1A	3894	1/1	0.99	0.04	27,27,27,27	0
56	MG	2A	3559	1/1	0.99	0.03	60,60,60,60	0
56	MG	1A	3162	1/1	0.99	0.09	22,22,22,22	0
56	MG	2A	3561	1/1	0.99	0.04	60,60,60,60	0
56	MG	1A	3464	1/1	0.99	0.03	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1a	3248	1/1	0.99	0.03	45,45,45,45	0
56	MG	2A	3179	1/1	0.99	0.05	44,44,44,44	0
56	MG	1a	3249	1/1	0.99	0.04	47,47,47,47	0
56	MG	1A	3897	1/1	0.99	0.05	54,54,54,54	0
56	MG	1A	3465	1/1	0.99	0.05	23,23,23,23	0
56	MG	1A	3237	1/1	0.99	0.16	35,35,35,35	0
56	MG	1A	3054	1/1	0.99	0.06	31,31,31,31	0
56	MG	1A	3308	1/1	0.99	0.11	25,25,25,25	0
56	MG	1A	3902	1/1	0.99	0.03	25,25,25,25	0
56	MG	1A	3416	1/1	0.99	0.04	17,17,17,17	0
56	MG	1A	3904	1/1	0.99	0.02	29,29,29,29	0
56	MG	2A	3574	1/1	0.99	0.05	56,56,56,56	0
56	MG	1A	3470	1/1	0.99	0.04	15,15,15,15	0
60	ZN	1Y	501	1/1	0.99	0.03	52,52,52,52	0
56	MG	1A	3907	1/1	0.99	0.06	15,15,15,15	0
56	MG	1A	4006	1/1	0.99	0.03	46,46,46,46	0
60	ZN	16	501	1/1	0.99	0.04	40,40,40,40	0
60	ZN	19	102	1/1	0.99	0.04	38,38,38,38	0
60	ZN	1n	104	1/1	0.99	0.03	61,61,61,61	0
56	MG	2A	3314	1/1	0.99	0.06	57,57,57,57	0
56	MG	1A	3733	1/1	0.99	0.06	44,44,44,44	0
60	ZN	25	105	1/1	0.99	0.04	56,56,56,56	0
60	ZN	26	102	1/1	0.99	0.02	56,56,56,56	0
56	MG	2A	3073	1/1	0.99	0.08	25,25,25,25	0
56	MG	1A	3374	1/1	0.99	0.04	22,22,22,22	0
56	MG	1A	4009	1/1	0.99	0.07	26,26,26,26	0
62	SF4	1d	306	8/8	0.99	0.04	50,57,68,69	0
56	MG	1A	3660	1/1	0.99	0.11	17,17,17,17	0
56	MG	1A	3905	1/1	1.00	0.08	13,13,13,13	0
56	MG	1A	3970	1/1	1.00	0.02	26,26,26,26	0
56	MG	1a	3251	1/1	1.00	0.03	45,45,45,45	0
56	MG	1A	3394	1/1	1.00	0.05	14,14,14,14	0
56	MG	1A	3398	1/1	1.00	0.03	14,14,14,14	0
56	MG	1A	3893	1/1	1.00	0.08	19,19,19,19	0
56	MG	1A	3280	1/1	1.00	0.04	23,23,23,23	0
56	MG	1A	3045	1/1	1.00	0.02	17,17,17,17	0
56	MG	1A	3871	1/1	1.00	0.07	23,23,23,23	0
56	MG	1A	3521	1/1	1.00	0.06	19,19,19,19	0

6.5 Other polymers (i)

There are no such residues in this entry.