Full wwPDB X-ray Structure Validation Report (i)

Sep 2, 2026 – 09:07 PM EDT

PDB ID	:	9Q6S / pdb_00009q6s
Title	:	Crystal structure of the wild-type Thermus thermophilus 70S ribosome in complex with pleuromutilin-30 triazole derivative and protein Y at 2.90A resolution
Authors	:	Killam, B.Y.; Kopec, I.; Breiner, L.M.; Hoernig, M.; LoPresti, M.; Abdelsattar, A.S.; Abouelkhair, A.A.; Briganti, A.J.; Slowinski, R.P.; Vogelaar, N.J.; Seleem, M.N.; Brown, A.M.; Lowell, A.N.; Polikanov, Y.S.
Deposited on	:	2025-08-22
Resolution	:	2.90 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 (i) symbol.

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

The following versions of software and data (see references (1)) were used in the production of this report:

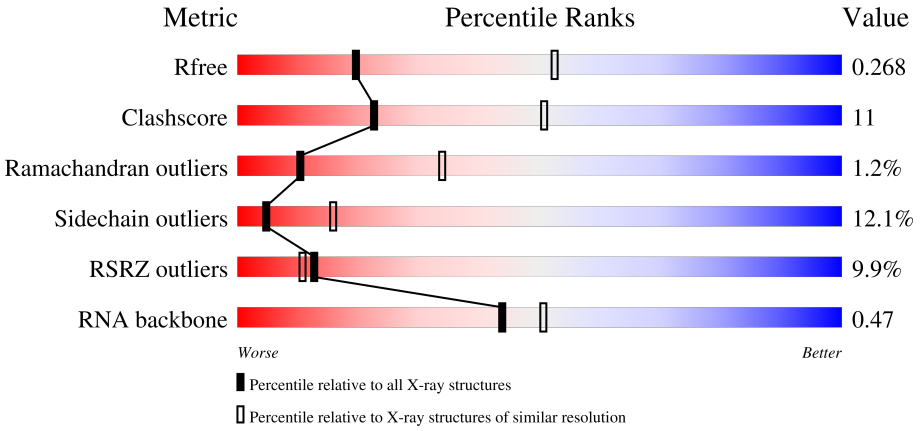
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.50

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 2.90 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	2481 (2.90-2.90)
Clashscore	190562	2690 (2.90-2.90)
Ramachandran outliers	187476	2623 (2.90-2.90)
Sidechain outliers	187428	2625 (2.90-2.90)
RSRZ outliers	180081	2481 (2.90-2.90)
RNA backbone	3983	1120 (3.10-2.70)

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	5% 58% 33% 8%
1	2A	2915	6% 53% 37% 8%
2	1B	121	% 64% 32%
2	2B	121	16% 56% 36% 7%

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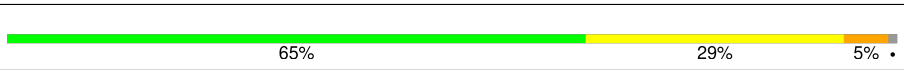
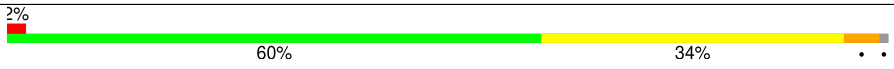
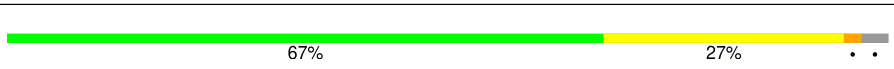
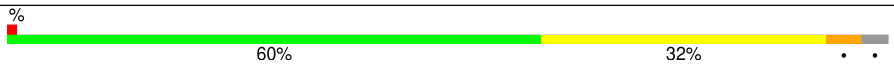
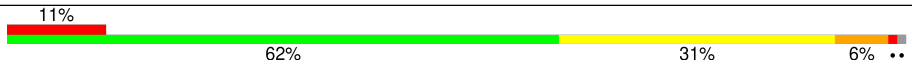
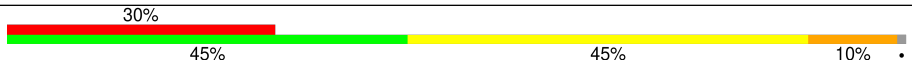
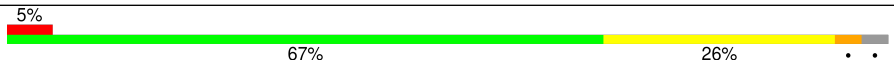
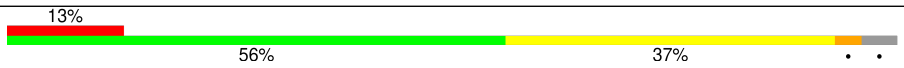
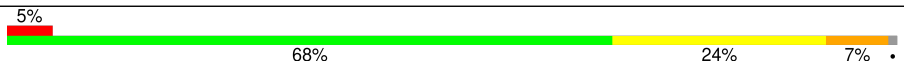
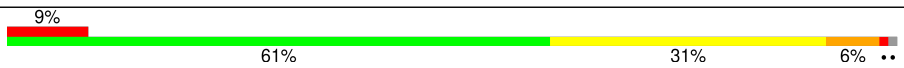
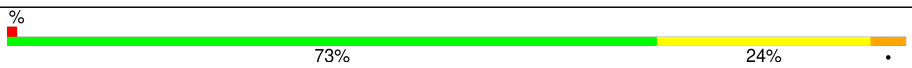
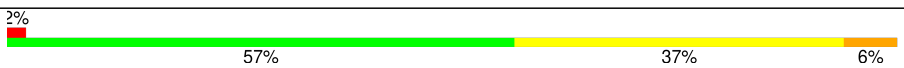
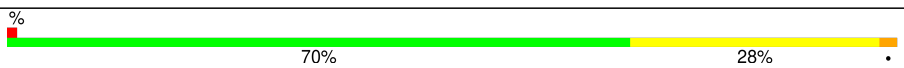
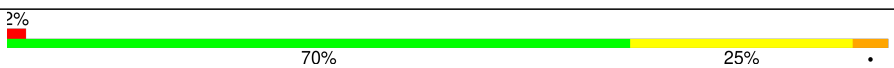
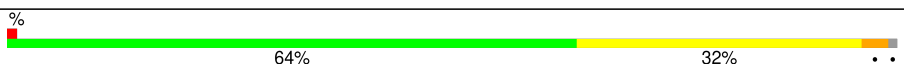
Mol	Chain	Length	Quality of chain
3	1D	276	
3	2D	276	
4	1E	206	
4	2E	206	
5	1F	210	
5	2F	210	
6	1G	182	
6	2G	182	
7	1H	180	
7	2H	180	
8	1I	148	
8	2I	148	
9	1N	140	
9	2N	140	
10	1O	122	
10	2O	122	
11	1P	150	
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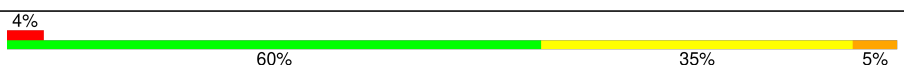
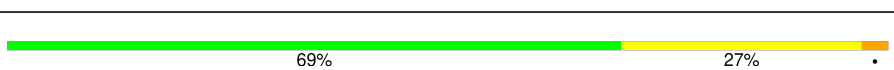
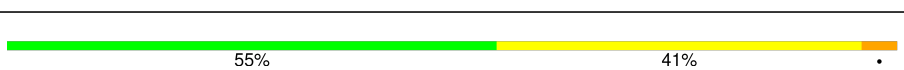
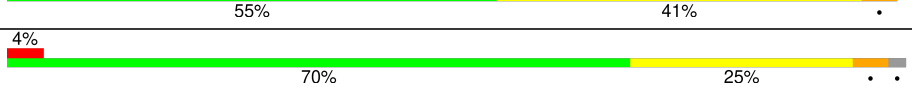
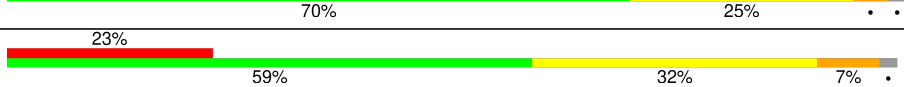
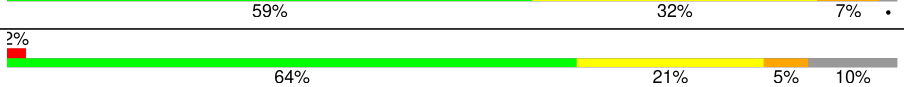
12	1Q	141	
12	2Q	141	
13	1R	118	
13	2R	118	
14	1S	112	
14	2S	112	
15	1T	146	

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Mol	Chain	Length	Quality of chain
15	2T	146	2% 60% 25% 5% 10%
16	1U	118	76% 20%
16	2U	118	4% 76% 19%
17	1V	101	78% 17%
17	2V	101	6% 68% 27%
18	1W	113	% 74% 22%
18	2W	113	% 71% 25%
19	1X	96	% 66% 32%
19	2X	96	5% 59% 38%
20	1Y	110	3% 66% 26% 5%
20	2Y	110	23% 59% 35%
21	1Z	206	4% 71% 24%
21	2Z	206	14% 62% 31%
22	10	85	69% 19% 9%
22	20	85	4% 67% 21% 9%
23	11	98	2% 76% 21%
23	21	98	4% 69% 23% 6%
24	12	72	% 68% 28%
24	22	72	10% 68% 28%
25	13	60	73% 22%
25	23	60	5% 62% 33%
26	14	71	18% 48% 46%
26	24	71	45% 48% 38% 11%
27	15	60	5% 77% 18%
27	25	60	2% 72% 25%

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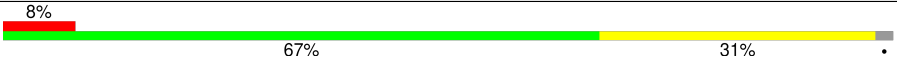
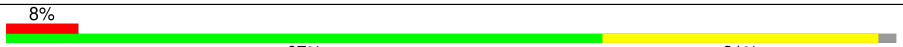
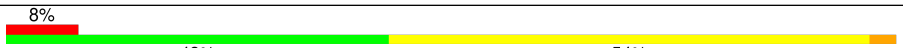
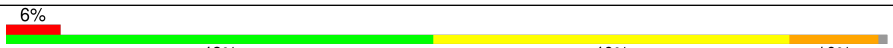
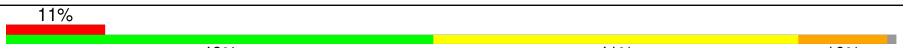
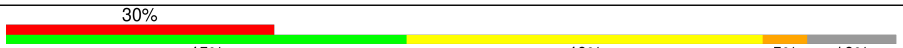
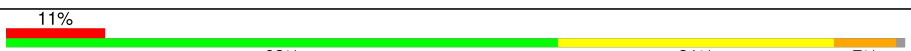
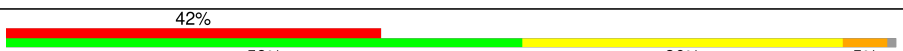
Mol	Chain	Length	Quality of chain
28	16	54	
28	26	54	
29	17	49	
29	27	49	
30	18	65	
30	28	65	
31	19	37	
31	29	37	
32	1a	1521	
32	2a	1521	
33	1b	256	
33	2b	256	
34	1c	239	
34	2c	239	
35	1d	209	
35	2d	209	
36	1e	162	
36	2e	162	
37	1f	101	
37	2f	101	
38	1g	156	
38	2g	156	
39	1h	138	
39	2h	138	
40	1i	128	

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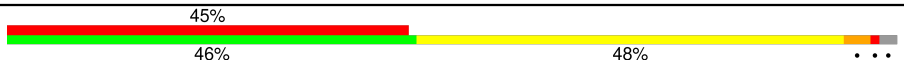
Mol	Chain	Length	Quality of chain
40	2i	128	
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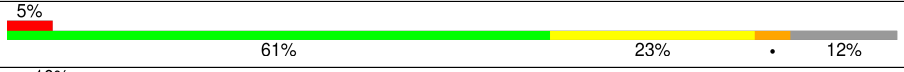
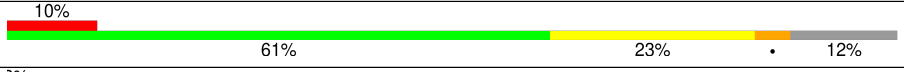
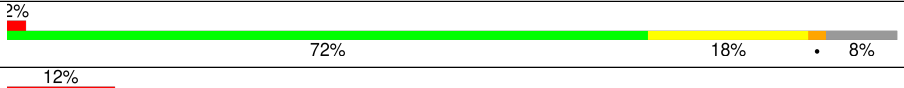
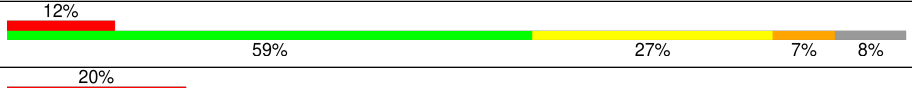
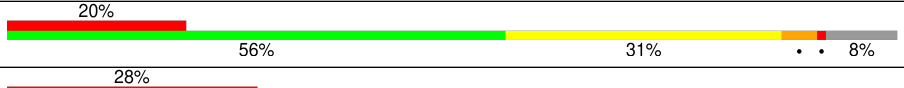
41	2j	105	
42	1k	129	
42	2k	129	
43	1l	132	
43	2l	132	
44	1m	126	
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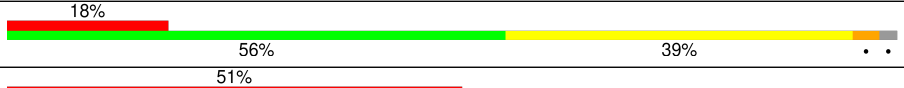
45	1n	61	
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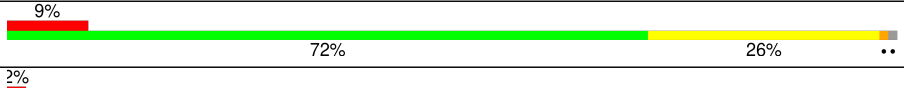
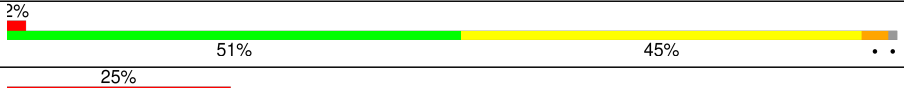
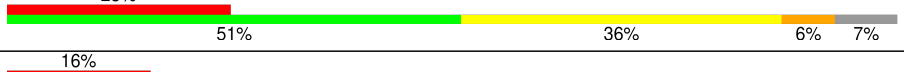
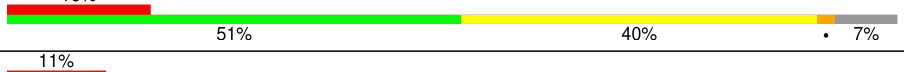
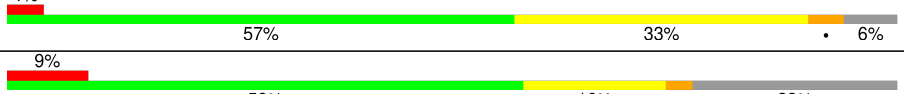
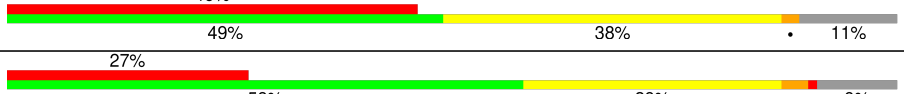
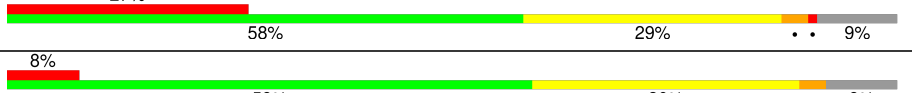
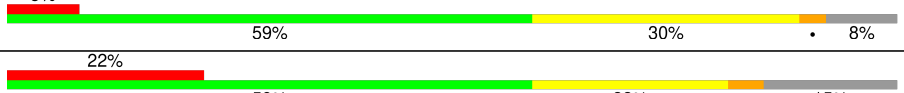
46	1o	89	
46	2o	89	
47	1p	88	
47	2p	88	
48	1q	105	
48	2q	105	
49	1r	88	
49	2r	88	
50	1s	93	
50	2s	93	
51	1t	106	
51	2t	106	
52	1u	27	
52	2u	27	

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Mol	Chain	Length	Quality of chain
53	1y	113	7% 53% 26% 7% 14%
53	2y	113	46% 41% 37% 7% 15%

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
54	MG	1A	3991	-	-	-	X
54	MG	2a	1712	-	-	-	X
57	MPD	1a	1870	-	-	X	-

2 Entry composition (i)

There are 60 unique types of molecules in this entry. The entry contains 297211 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	C	N	O	S	0	0	0
			933	588	171	170	4			

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

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	1V	101	Total	C	N	O	S	0	0	0
			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	77	Total	C	N	O	S	0	0	0
			608	375	129	103	1			
22	20	77	Total	C	N	O	S	0	0	0
			608	375	129	103	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 764	C 478	N 144	O 139	S 3	0	0	0
53	2y	96	Total 749	C 468	N 141	O 137	S 3	0	0	0

- Molecule 54 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	1A	1010	Total 1010	Mg 1010	0	0
54	1B	31	Total 31	Mg 31	0	0
54	1D	18	Total 18	Mg 18	0	0
54	1E	9	Total 9	Mg 9	0	0
54	1F	18	Total 18	Mg 18	0	0
54	1G	4	Total 4	Mg 4	0	0
54	1H	2	Total 2	Mg 2	0	0
54	1N	5	Total 5	Mg 5	0	0
54	1O	2	Total 2	Mg 2	0	0
54	1P	8	Total 8	Mg 8	0	0
54	1Q	7	Total 7	Mg 7	0	0
54	1R	5	Total 5	Mg 5	0	0
54	1S	1	Total 1	Mg 1	0	0
54	1T	5	Total 5	Mg 5	0	0
54	1U	6	Total 6	Mg 6	0	0
54	1V	6	Total 6	Mg 6	0	0
54	1W	4	Total 4	Mg 4	0	0
54	1X	2	Total 2	Mg 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	1Y	1	Total Mg 1 1	0	0
54	1Z	1	Total Mg 1 1	0	0
54	10	10	Total Mg 10 10	0	0
54	11	5	Total Mg 5 5	0	0
54	13	4	Total Mg 4 4	0	0
54	15	6	Total Mg 6 6	0	0
54	17	4	Total Mg 4 4	0	0
54	18	1	Total Mg 1 1	0	0
54	19	2	Total Mg 2 2	0	0
54	1a	269	Total Mg 269 269	0	0
54	1b	1	Total Mg 1 1	0	0
54	1d	5	Total Mg 5 5	0	0
54	1e	3	Total Mg 3 3	0	0
54	1f	2	Total Mg 2 2	0	0
54	1g	3	Total Mg 3 3	0	0
54	1h	1	Total Mg 1 1	0	0
54	1i	1	Total Mg 1 1	0	0
54	1k	1	Total Mg 1 1	0	0
54	1l	2	Total Mg 2 2	0	0
54	1m	1	Total Mg 1 1	0	0
54	1n	2	Total Mg 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	1o	1	Total Mg 1 1	0	0
54	1p	1	Total Mg 1 1	0	0
54	1q	1	Total Mg 1 1	0	0
54	1t	2	Total Mg 2 2	0	0
54	1y	4	Total Mg 4 4	0	0
54	2A	724	Total Mg 724 724	0	0
54	2B	18	Total Mg 18 18	0	0
54	2D	8	Total Mg 8 8	0	0
54	2E	9	Total Mg 9 9	0	0
54	2F	4	Total Mg 4 4	0	0
54	2G	3	Total Mg 3 3	0	0
54	2I	1	Total Mg 1 1	0	0
54	2N	1	Total Mg 1 1	0	0
54	2P	3	Total Mg 3 3	0	0
54	2Q	2	Total Mg 2 2	0	0
54	2R	2	Total Mg 2 2	0	0
54	2T	5	Total Mg 5 5	0	0
54	2V	3	Total Mg 3 3	0	0
54	2W	3	Total Mg 3 3	0	0
54	2X	2	Total Mg 2 2	0	0
54	2Y	1	Total Mg 1 1	0	0

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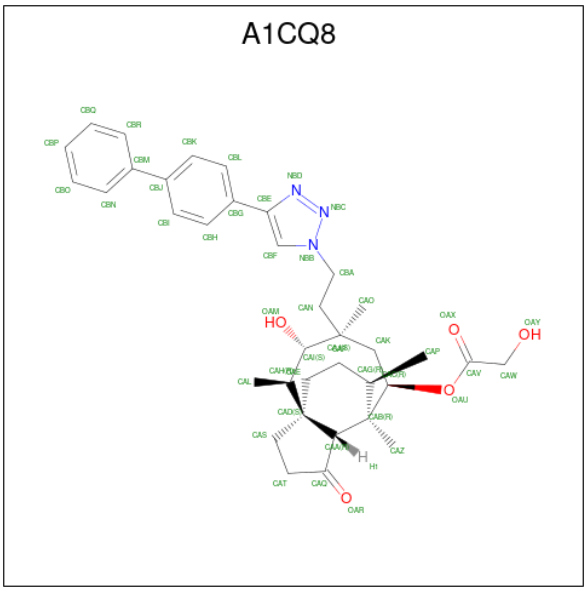
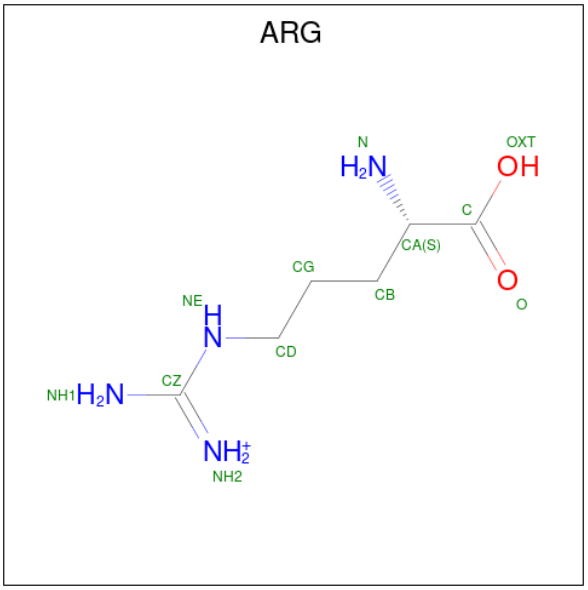
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	20	2	Total Mg 2 2	0	0
54	21	3	Total Mg 3 3	0	0
54	23	1	Total Mg 1 1	0	0
54	25	2	Total Mg 2 2	0	0
54	26	1	Total Mg 1 1	0	0
54	27	1	Total Mg 1 1	0	0
54	28	1	Total Mg 1 1	0	0
54	2a	177	Total Mg 177 177	0	0
54	2e	2	Total Mg 2 2	0	0
54	2f	1	Total Mg 1 1	0	0
54	2j	1	Total Mg 1 1	0	0
54	2n	1	Total Mg 1 1	0	0
54	2r	1	Total Mg 1 1	0	0
54	2t	1	Total Mg 1 1	0	0

- Molecule 55 is (3aS,4R,5S,6S,8R,9R,9aR,10R)-6-{2-[4-([1,1'-biphenyl]-4-yl)-1H-1,2,3-triazol-1-yl]ethyl}-5-hydroxy-4,6,9,10-tetramethyl-1-oxodecahydro-3a,9-propanocyclopenta[8]annulen-8-yl hydroxyacetate (CCD ID: A1CQ8) (formula: $C_{36}H_{45}N_3O_5$) (labeled as "Ligand of Interest" by depositor).



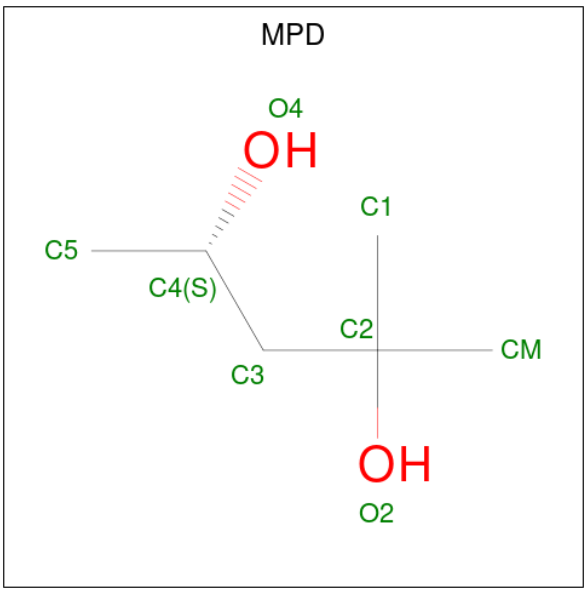
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	1A	1	Total C N O 44 36 3 5	0	0
55	2A	1	Total C N O 44 36 3 5	0	0

- Molecule 56 is ARGININE (CCD ID: ARG) (formula: $C_6H_{15}N_4O_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	1A	1	Total C N O 12 6 4 2	0	0
56	1B	1	Total C N O 12 6 4 2	0	0

- Molecule 57 is (4S)-2-METHYL-2,4-PENTANEDIOL (CCD ID: MPD) (formula: $C_6H_{14}O_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	1A	1	Total C O 8 6 2	0	0
57	1T	1	Total C O 8 6 2	0	0
57	18	1	Total C O 8 6 2	0	0
57	1a	1	Total C O 8 6 2	0	0
57	2A	1	Total C O 8 6 2	0	0
57	2A	1	Total C O 8 6 2	0	0
57	2B	1	Total C O 8 6 2	0	0

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

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	1Y	1	Total Zn 1 1	0	0
58	14	1	Total Zn 1 1	0	0
58	15	1	Total Zn 1 1	0	0
58	16	1	Total Zn 1 1	0	0

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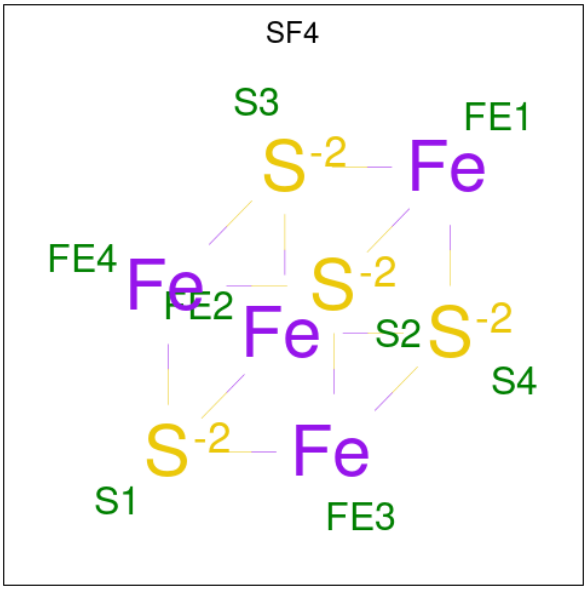
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	19	1	Total Zn 1 1	0	0
58	1n	1	Total Zn 1 1	0	0
58	2Y	1	Total Zn 1 1	0	0
58	24	1	Total Zn 1 1	0	0
58	25	1	Total Zn 1 1	0	0
58	26	1	Total Zn 1 1	0	0
58	29	1	Total Zn 1 1	0	0
58	2n	1	Total Zn 1 1	0	0

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



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

- Molecule 60 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1A	3708	Total O 3708 3708	0	0
60	1B	95	Total O 95 95	0	0
60	1D	105	Total O 105 105	0	0
60	1E	72	Total O 72 72	0	0
60	1F	59	Total O 59 59	0	0
60	1G	13	Total O 13 13	0	0
60	1H	15	Total O 15 15	0	0
60	1I	8	Total O 8 8	0	0
60	1N	55	Total O 55 55	0	0
60	1O	26	Total O 26 26	0	0
60	1P	64	Total O 64 64	0	0
60	1Q	42	Total O 42 42	0	0
60	1R	28	Total O 28 28	0	0
60	1S	10	Total O 10 10	0	0
60	1T	35	Total O 35 35	0	0
60	1U	42	Total O 42 42	0	0
60	1V	35	Total O 35 35	0	0
60	1W	27	Total O 27 27	0	0
60	1X	26	Total O 26 26	0	0
60	1Y	13	Total O 13 13	0	0
60	1Z	12	Total O 12 12	0	0
60	10	27	Total O 27 27	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	11	27	Total O 27 27	0	0
60	12	14	Total O 14 14	0	0
60	13	22	Total O 22 22	0	0
60	14	3	Total O 3 3	0	0
60	15	22	Total O 22 22	0	0
60	16	21	Total O 21 21	0	0
60	17	13	Total O 13 13	0	0
60	18	25	Total O 25 25	0	0
60	19	10	Total O 10 10	0	0
60	1a	503	Total O 503 503	0	0
60	1b	1	Total O 1 1	0	0
60	1c	1	Total O 1 1	0	0
60	1d	7	Total O 7 7	0	0
60	1e	5	Total O 5 5	0	0
60	1f	3	Total O 3 3	0	0
60	1i	1	Total O 1 1	0	0
60	1j	1	Total O 1 1	0	0
60	1l	5	Total O 5 5	0	0
60	1m	2	Total O 2 2	0	0
60	1o	2	Total O 2 2	0	0
60	1p	2	Total O 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1q	1	Total O 1 1	0	0
60	1t	2	Total O 2 2	0	0
60	1u	1	Total O 1 1	0	0
60	1y	3	Total O 3 3	0	0
60	2A	2290	Total O 2290 2290	0	0
60	2B	59	Total O 59 59	0	0
60	2D	46	Total O 46 46	0	0
60	2E	29	Total O 29 29	0	0
60	2F	17	Total O 17 17	0	0
60	2G	5	Total O 5 5	0	0
60	2H	3	Total O 3 3	0	0
60	2I	4	Total O 4 4	0	0
60	2N	6	Total O 6 6	0	0
60	2O	13	Total O 13 13	0	0
60	2P	26	Total O 26 26	0	0
60	2Q	19	Total O 19 19	0	0
60	2R	23	Total O 23 23	0	0
60	2S	5	Total O 5 5	0	0
60	2T	11	Total O 11 11	0	0
60	2U	12	Total O 12 12	0	0
60	2V	5	Total O 5 5	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	2W	24	Total O 24 24	0	0
60	2X	10	Total O 10 10	0	0
60	2Y	6	Total O 6 6	0	0
60	2Z	11	Total O 11 11	0	0
60	20	10	Total O 10 10	0	0
60	21	23	Total O 23 23	0	0
60	22	5	Total O 5 5	0	0
60	23	3	Total O 3 3	0	0
60	24	1	Total O 1 1	0	0
60	25	9	Total O 9 9	0	0
60	26	4	Total O 4 4	0	0
60	27	13	Total O 13 13	0	0
60	28	12	Total O 12 12	0	0
60	2a	250	Total O 250 250	0	0
60	2d	4	Total O 4 4	0	0
60	2e	2	Total O 2 2	0	0
60	2f	4	Total O 4 4	0	0
60	2j	1	Total O 1 1	0	0
60	2l	2	Total O 2 2	0	0
60	2o	1	Total O 1 1	0	0
60	2p	2	Total O 2 2	0	0

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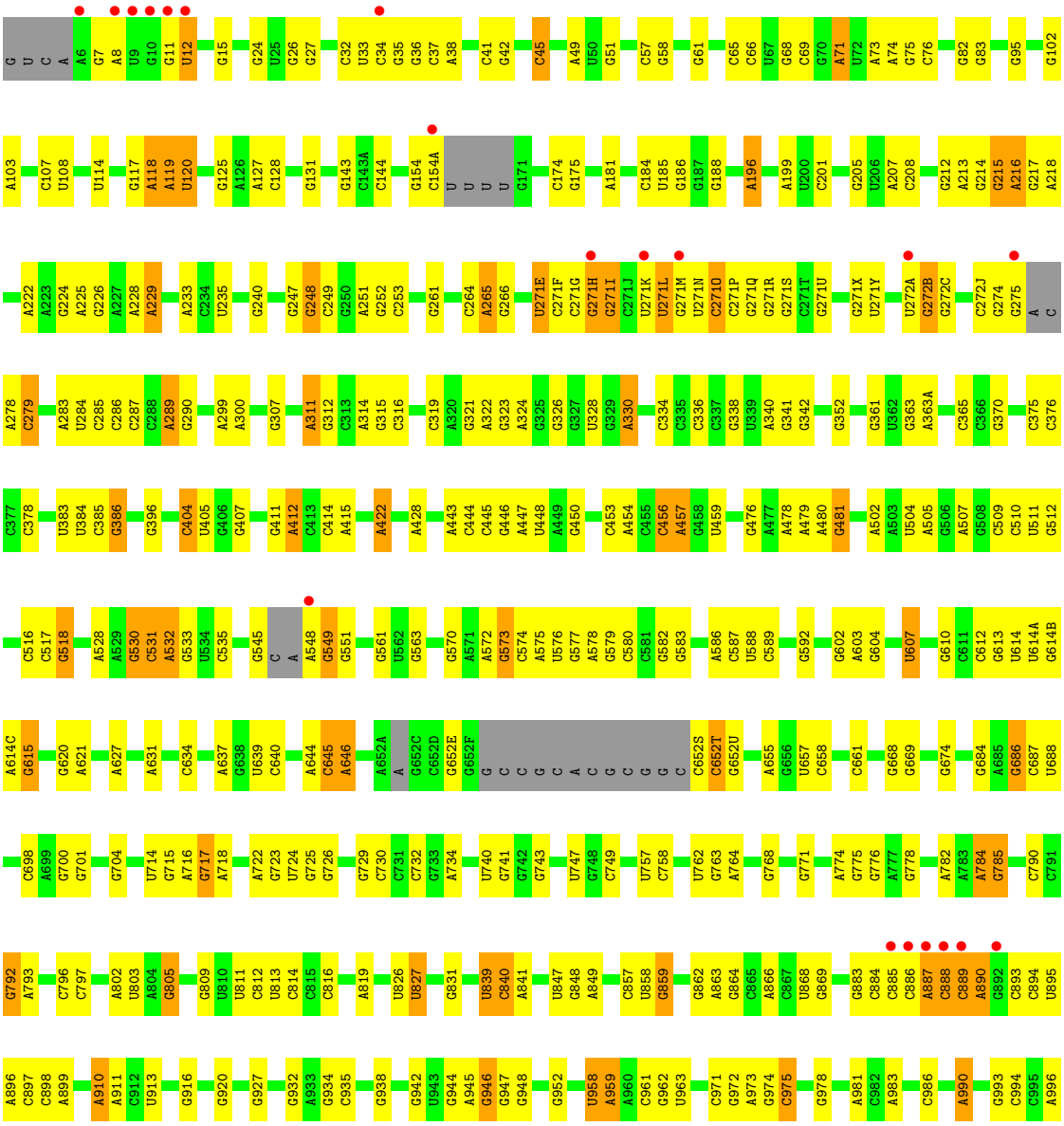
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	2q	1	Total O 1 1	0	0
60	2r	2	Total O 2 2	0	0
60	2t	4	Total O 4 4	0	0
60	2y	2	Total O 2 2	0	0

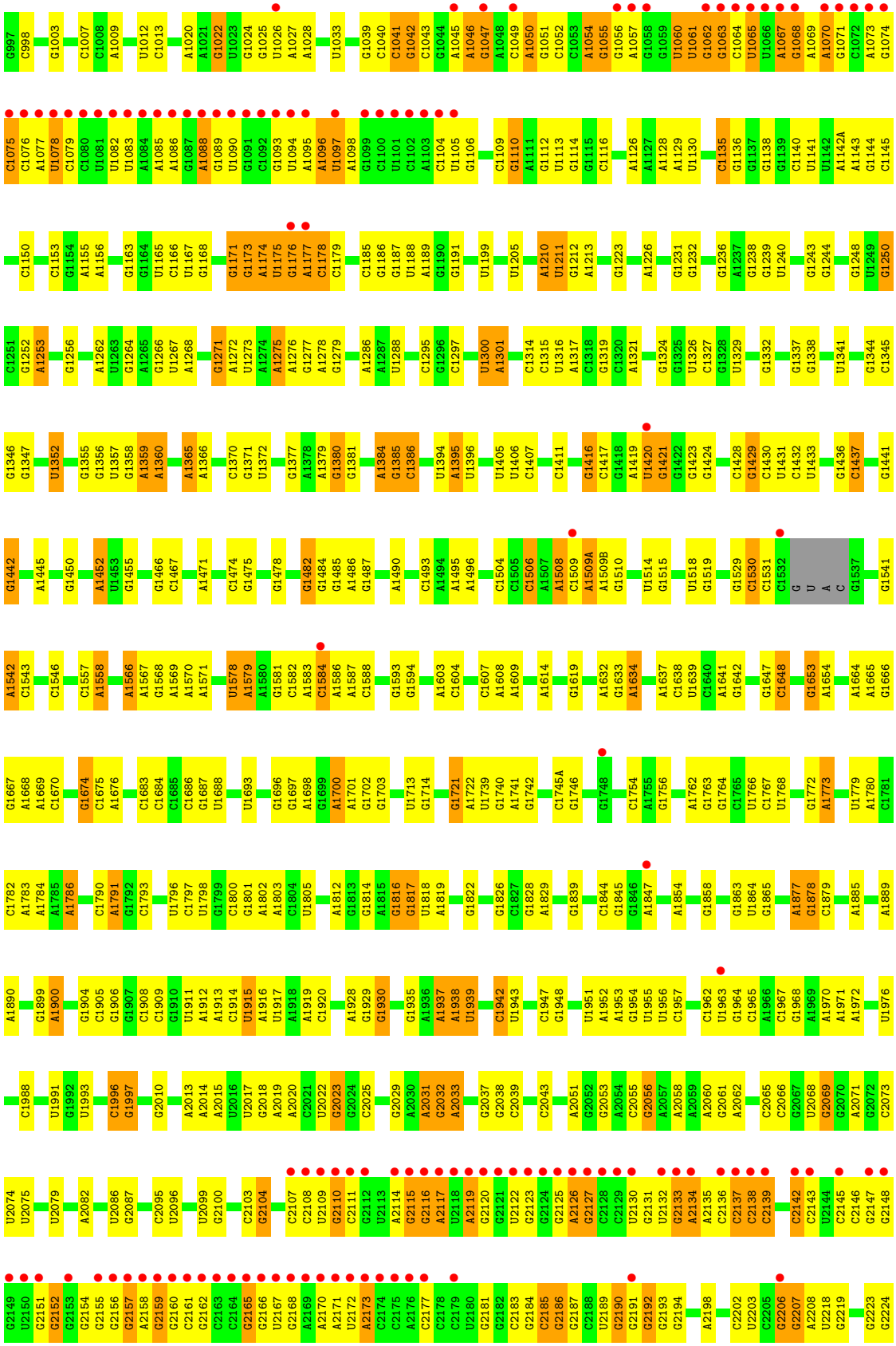
3 Residue-property plots (i)

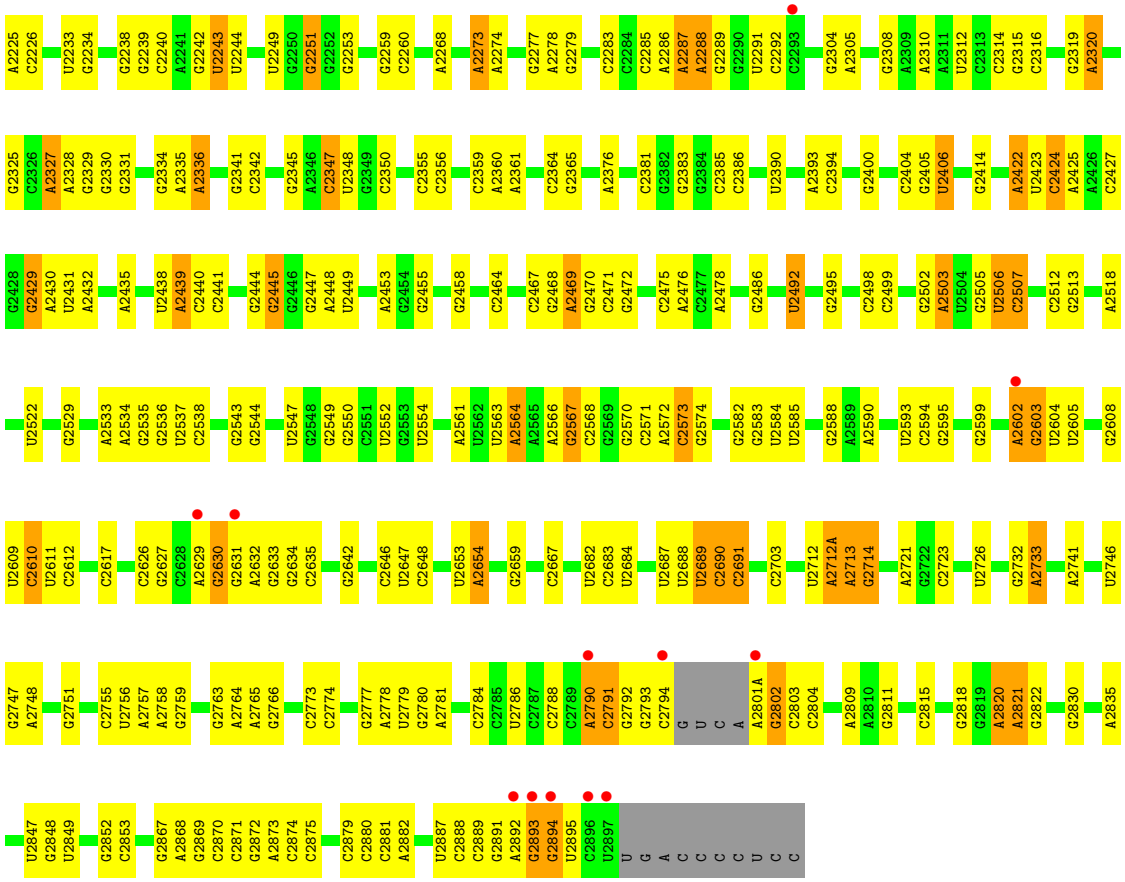
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

- Molecule 1: 23S Ribosomal RNA

Chain 1A:

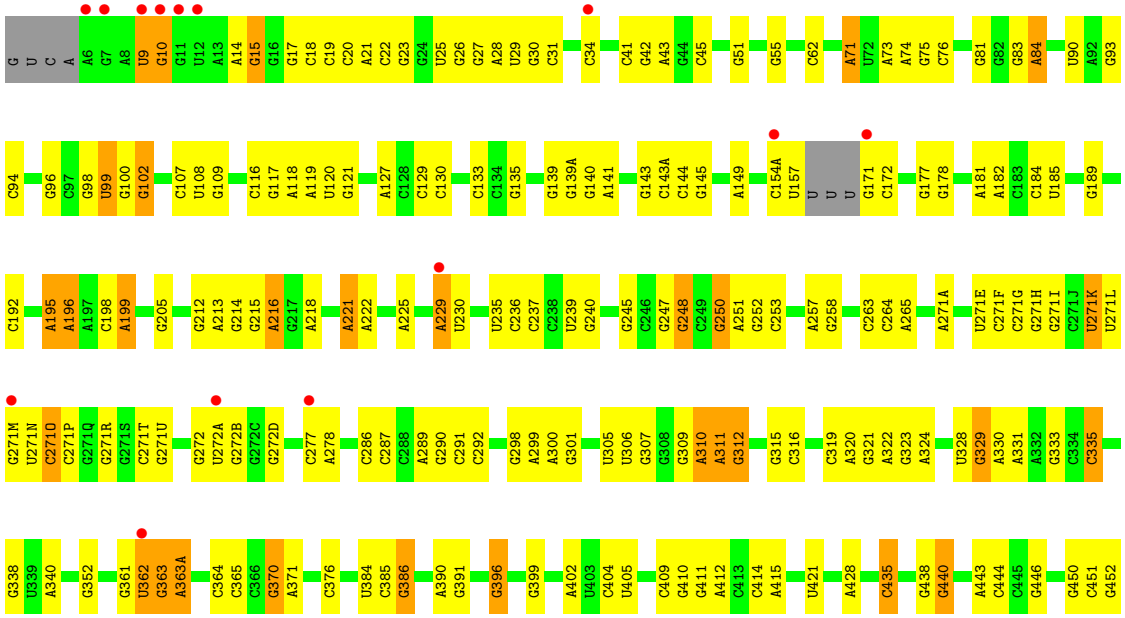


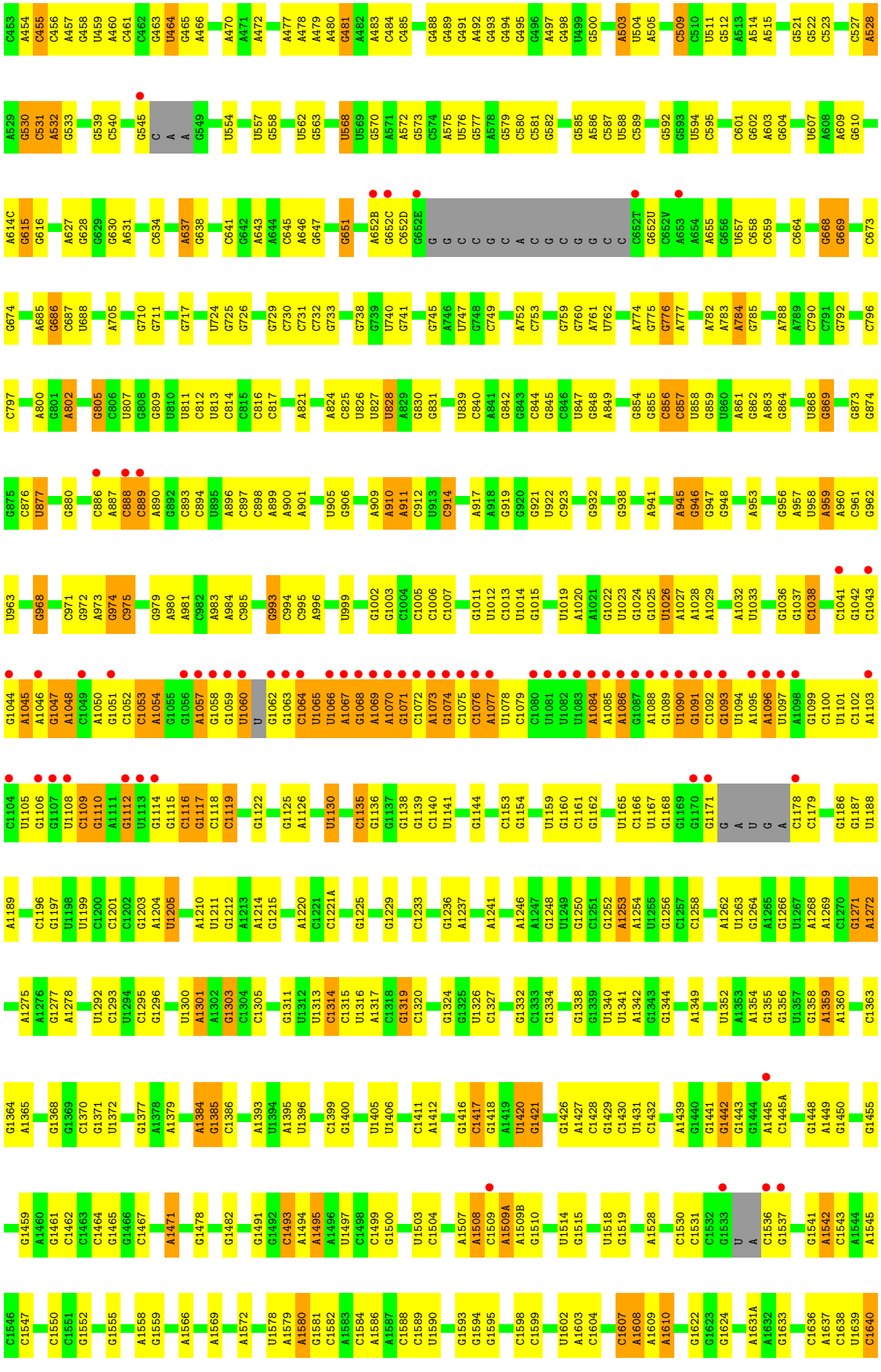

G997 C998 G1003 C1007 C1008 A1009 U1012 C1013 A1020 A1021 G1022 U1023 G1024 G1025 U1026 A1027 A1028 U1033 G1039 C1040 C1041 G1042 C1043 C1044 A1045 A1046 G1047 A1048 C1049 A1050 G1051 C1052 C1053 A1054 G1055 C1056 A1057 G1058 C1059 U1060 U1061 C1062 G1063 C1064 U1065 U1066 A1067 G1068 A1069 A1070 G1071 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 C1109 G1110 A1111 G1112 U1113 G1114 G1115 C1116 A1126 A1127 A1128 A1129 U1130 C1135 G1136 G1137 G1138 G1139 C1140 U1141 U1142 A1142A A1143 G1144 C1145
C1150 C1153 G1154 A1155 A1156 G1163 G1164 U1165 C1166 U1167 G1168 G1171 G1173 A1174 U1175 G1176 A1177 C1178 C1179 C1185 G1186 G1187 U1188 A1189 G1190 G1191 U1199 U1205 A1210 U1211 G1212 A1213 G1223 A1226 G1231 G1232 G1236 A1237 G1238 G1239 U1240 G1243 G1244 G1248 U1249 G1250
C1251 G1252 A1253 G1256 A1262 U1263 G1264 A1265 G1266 U1267 A1268 G1271 A1272 U1273 A1274 A1275 A1276 G1277 A1278 G1279 A1286 A1287 U1288 C1295 G1296 C1297 U1300 A1301 C1314 C1315 U1316 A1317 C1318 G1319 G1320 A1321 G1324 G1325 U1326 C1327 G1328 U1329 G1332 G1337 G1338 U1341 G1344 C1345
G1346 G1347 U1352 G1355 G1356 U1357 G1358 A1359 A1360 A1365 A1366 C1370 G1371 U1372 G1377 A1378 A1379 G1380 G1381 A1384 G1385 C1386 U1394 A1395 U1396 U1405 U1406 C1407 C1411 G1416 C1417 G1418 A1419 U1420 G1421 G1422 G1423 G1424 C1428 G1429 C1430 U1431 C1432 U1433 G1436 C1437 G1441
G1442 A1445 G1450 A1452 U1453 G1455 G1466 C1467 A1471 C1474 G1475 G1478 G1482 G1484 G1485 A1486 G1487 A1490 C1493 A1494 A1495 A1496 C1504 C1505 C1506 A1507 A1508 C1509 A1509A A1509B G1510 U1514 G1515 U1518 G1519 G1529 C1530 C1531 C1532 G U A C G1537 G1541
A1542 C1543 C1546 C1557 A1558 A1566 A1567 G1568 A1569 A1570 A1571 U1578 A1579 A1580 G1581 C1582 A1583 C1584 A1586 A1587 C1588 G1593 G1594 A1603 C1604 C1607 A1608 A1609 A1614 G1619 A1632 G1633 A1634 A1637 C1638 U1639 C1640 A1641 G1642 G1647 C1648 G1653 A1654 A1664 A1665 G1666
G1667 A1668 A1669 C1670 G1674 C1675 A1676 C1683 C1684 C1685 C1686 G1687 U1688 U1693 G1696 G1697 A1698 G1699 A1700 A1701 G1702 G1703 U1713 G1714 G1721 A1722 U1739 G1740 A1741 G1742 C1745A G1746 G1748 C1754 A1755 G1756 A1762 G1763 G1764 C1765 U1766 C1767 U1768 G1772 A1773 U1779 A1780 C1781
C1782 A1783 A1784 A1785 A1786 C1790 A1791 G1792 C1793 U1796 C1797 U1798 G1799 C1800 G1801 A1802 A1803 C1804 U1805 A1812 G1813 G1814 A1815 G1816 G1817 U1818 A1819 G1822 G1826 C1827 G1828 A1829 G1839 C1844 G1845 G1846 A1847 A1854 G1858 G1863 U1864 G1865 A1877 G1878 C1879 A1885 A1889
A1890 G1899 A1900 G1904 C1905 G1906 G1907 C1908 C1909 G1910 U1911 A1912 A1913 C1914 U1915 A1916 U1917 A1918 A1919 C1920 A1928 G1929 G1930 G1935 A1936 A1937 A1938 U1939 C1942 U1943 C1947 G1948 U1951 A1952 A1953 G1954 U1955 U1956 C1957 C1962 U1963 G1964 C1965 A1966 C1967 G1968 A1969 A1970 A1971 A1972 U1976
C1988 U1991 G1992 U1993 C1996 G1997 G2010 A2013 A2014 A2015 U2016 U2017 G2018 A2019 A2020 C2021 U2022 G2023 G2024 C2025 G2029 A2030 A2031 G2032 A2033 G2037 G2038 C2039 C2043 A2051 G2052 G2053 A2054 C2055 G2056 A2057 A2058 A2059 A2060 G2061 A2062 C2065 C2066 G2067 U2068 G2069 G2070 A2071 G2072 C2073
U2074 U2075 U2079 A2082 U2086 G2087 C2095 U2096 U2099 G2100 C2103 G2104 C2107 C2108 U2109 G2110 C2111 G2112 U2113 A2114 G2115 G2116 A2117 U2118 A2119 G2120 G2121 U2122 G2123 G2124 G2125 A2126 G2127 C2128 C2129 U2130 G2131 U2132 G2133 A2134 A2135 C2136 C2137 C2138 C2139 C2142 C2143 U2144 C2145 C2146 G2147 G2148
G2149 U2150 G2151 G2152 G2153 G2154 G2155 G2156 G2157 A2158 G2159 G2160 C2161 G2162 C2163 C2164 G2166 U2167 G2168 A2169 A2170 A2171 U2172 A2173 C2174 C2175 A2176 C2177 C2178 C2179 U2180 G2181 G2182 C2183 G2184 C2185 G2186 G2187 C2188 U2189 G2190 G2191 G2192 G2193 G2194 A2198 C2202 U2203 C2205 G2206 G2207 A2208 U2218 G2219 G2223 G2224

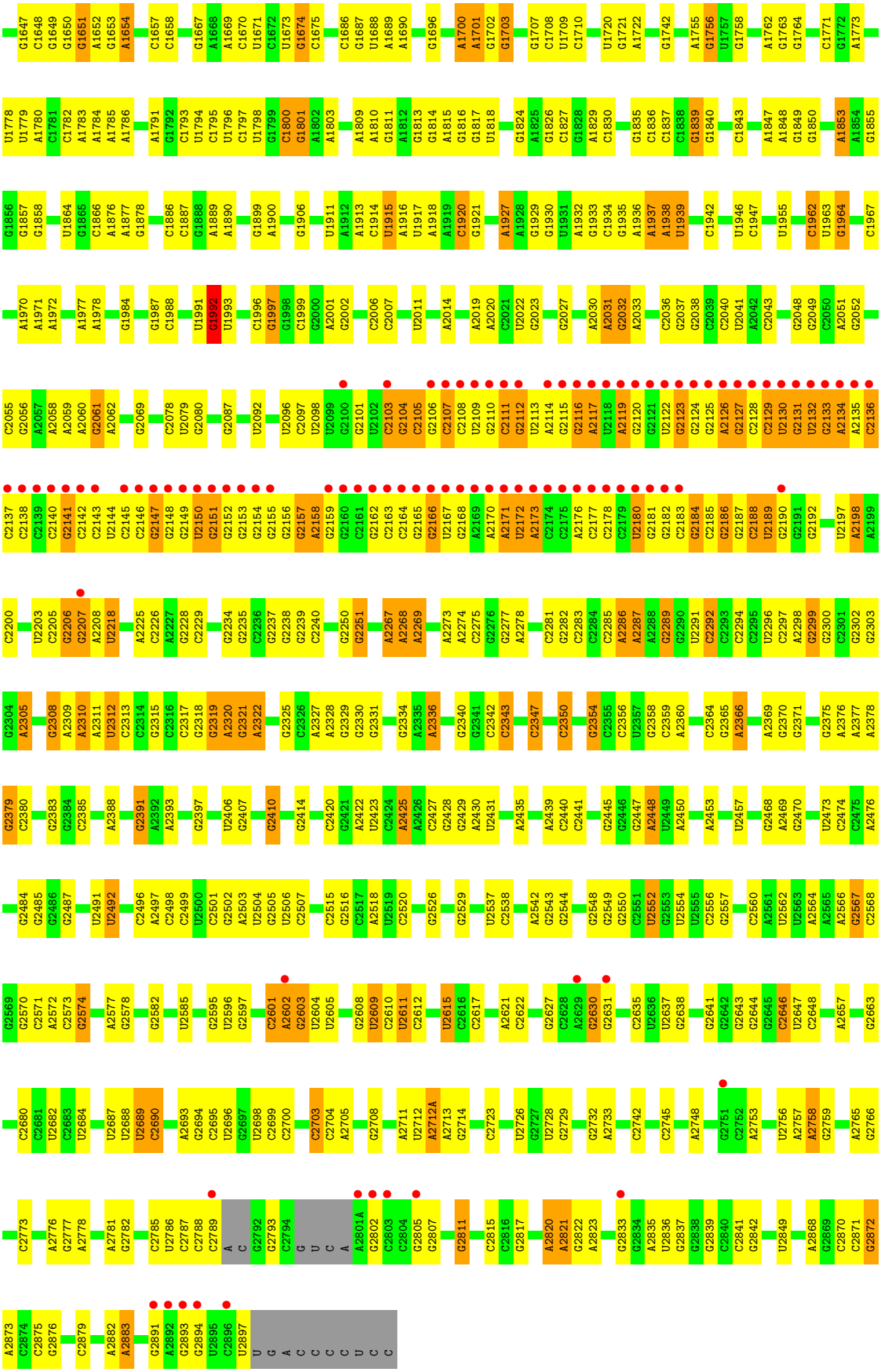


• Molecule 1: 23S Ribosomal RNA

Chain 2A:

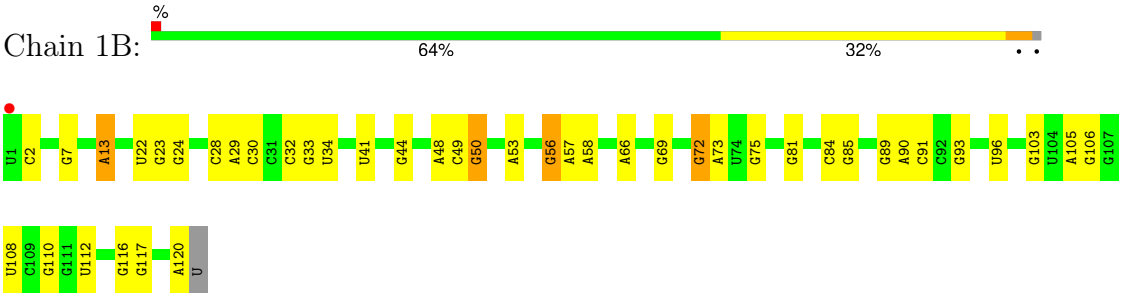






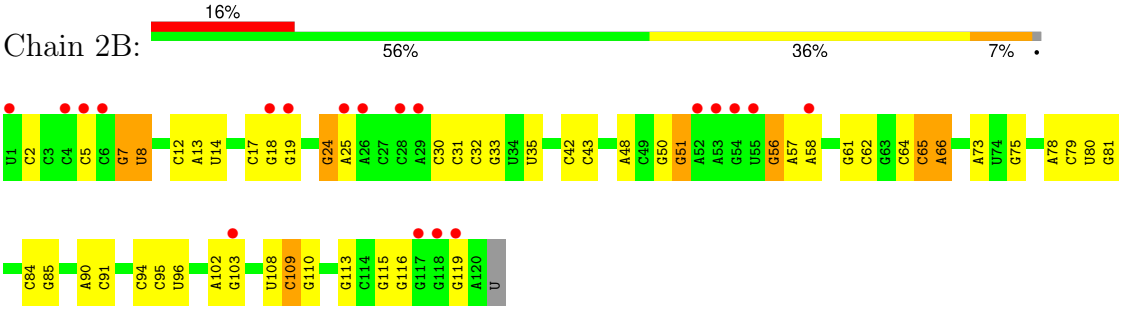
• Molecule 2: 5S Ribosomal RNA

Chain 1B:



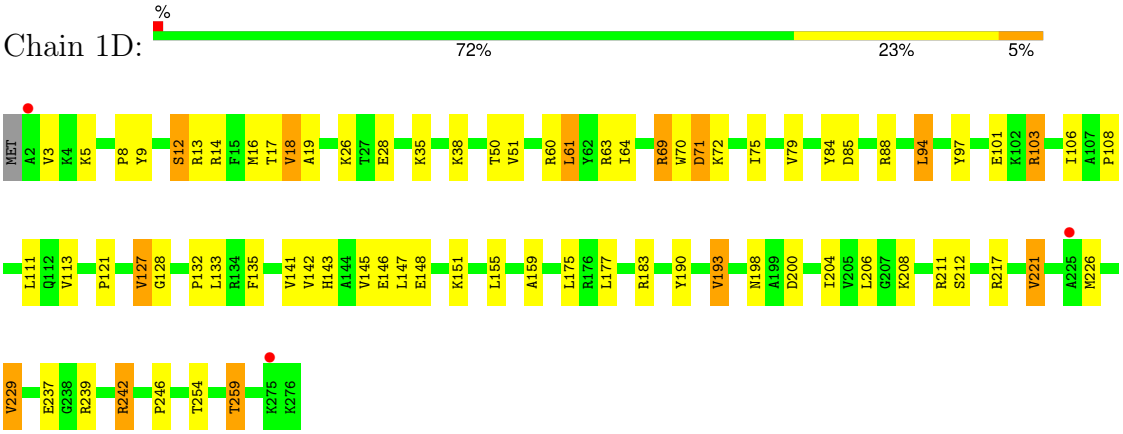
• Molecule 2: 5S Ribosomal RNA

Chain 2B:



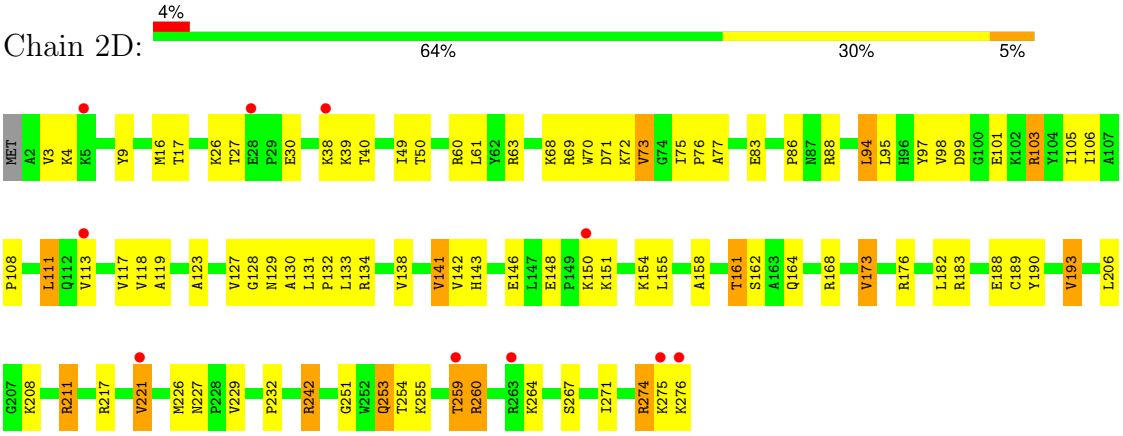
• Molecule 3: 50S ribosomal protein L2

Chain 1D:



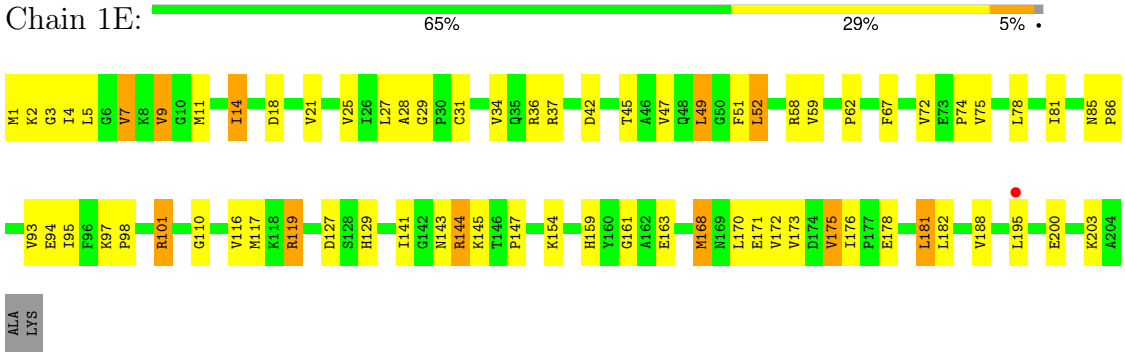
• Molecule 3: 50S ribosomal protein L2

Chain 2D:



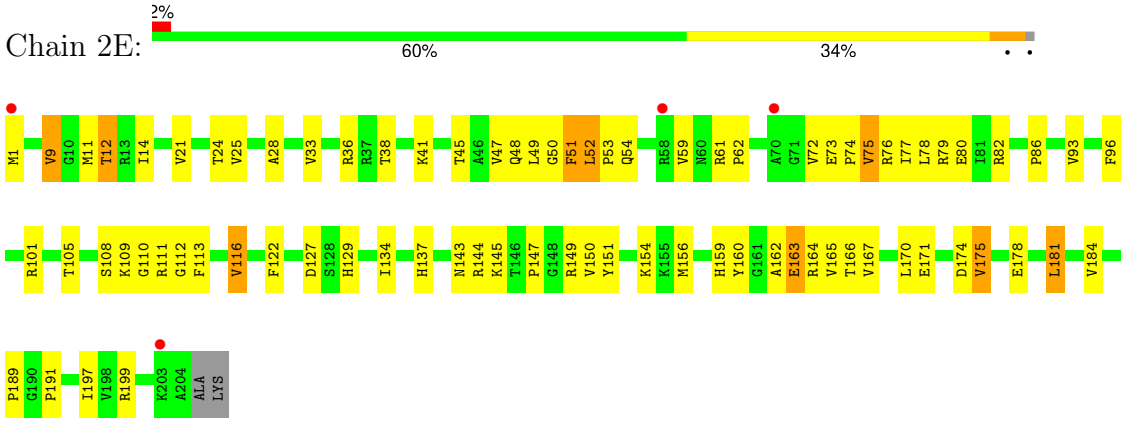
• Molecule 4: 50S ribosomal protein L3

Chain 1E:



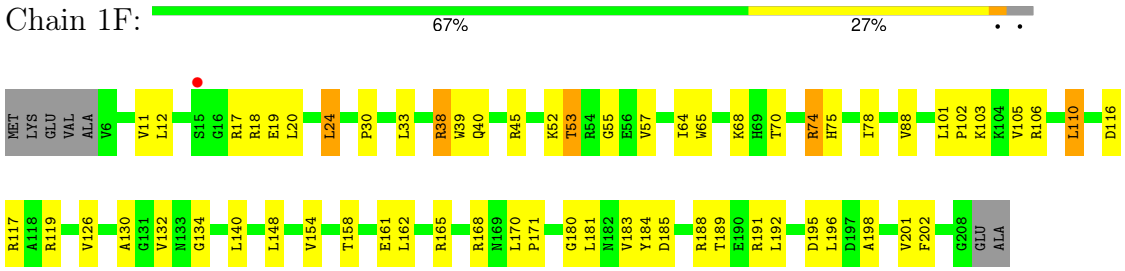
• Molecule 4: 50S ribosomal protein L3

Chain 2E:



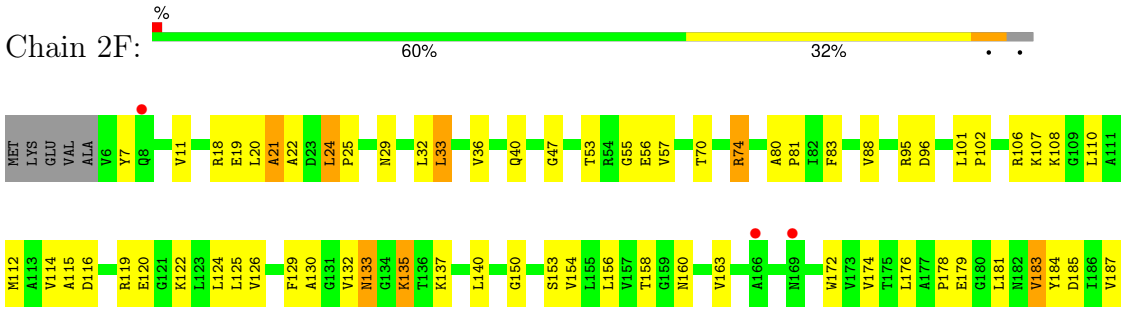
• Molecule 5: 50S ribosomal protein L4

Chain 1F:



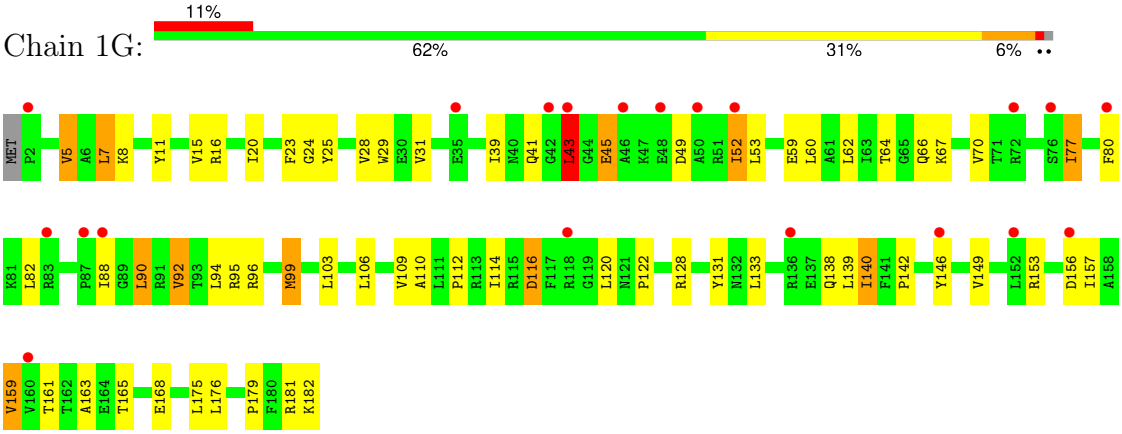
• Molecule 5: 50S ribosomal protein L4

Chain 2F:



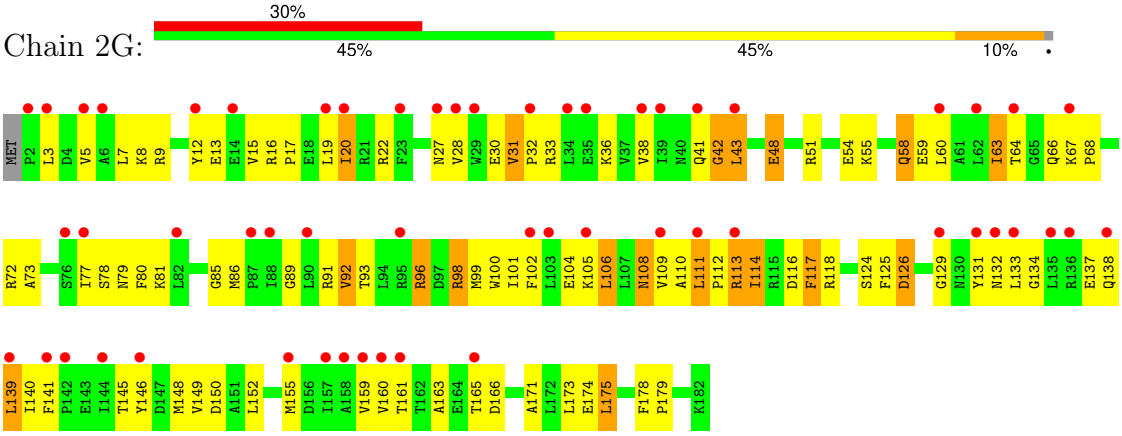
• Molecule 6: 50S ribosomal protein L5

Chain 1G:



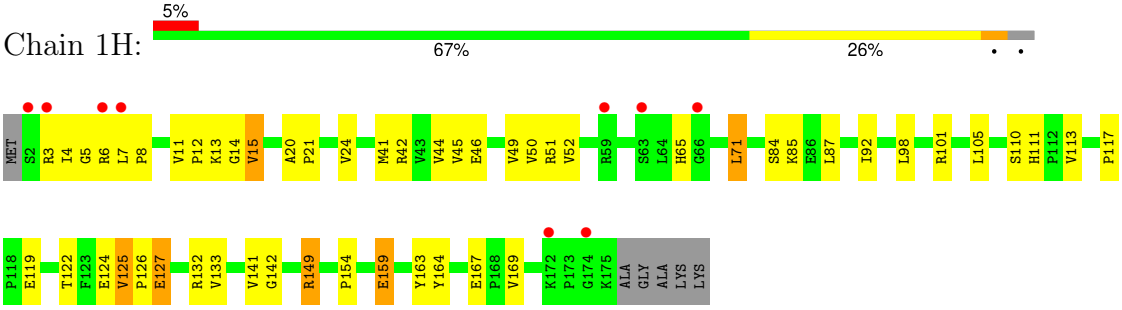
• Molecule 6: 50S ribosomal protein L5

Chain 2G:



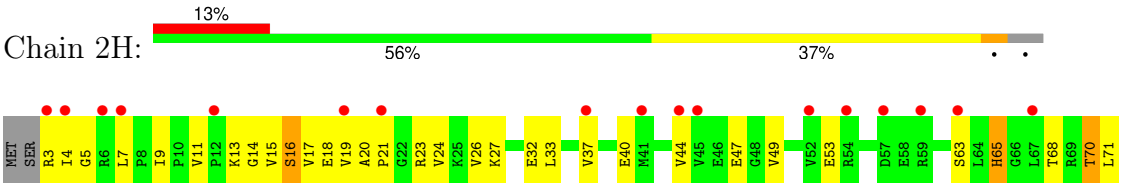
• Molecule 7: 50S ribosomal protein L6

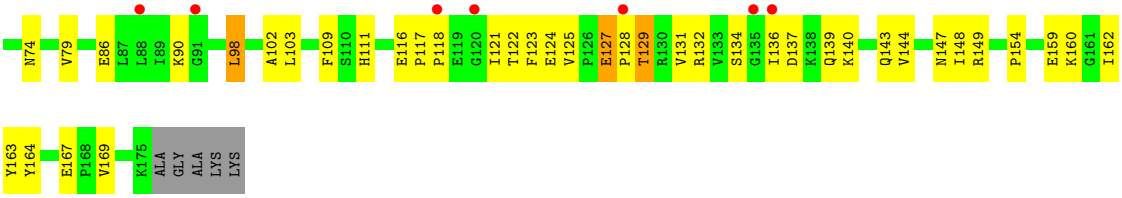
Chain 1H:



• Molecule 7: 50S ribosomal protein L6

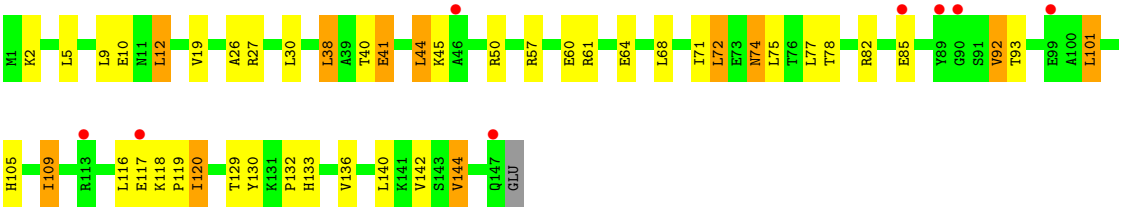
Chain 2H:





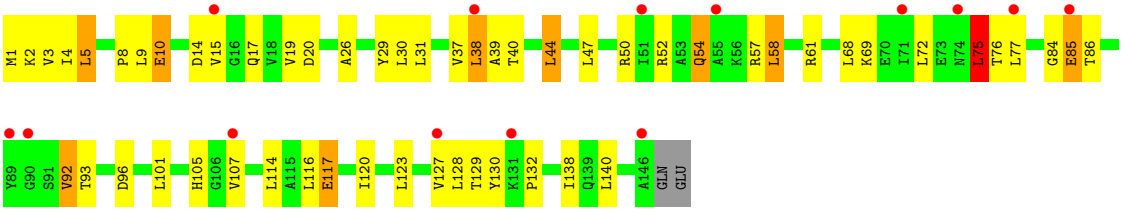
• Molecule 8: 50S ribosomal protein L9

Chain 1I:



• Molecule 8: 50S ribosomal protein L9

Chain 2I:

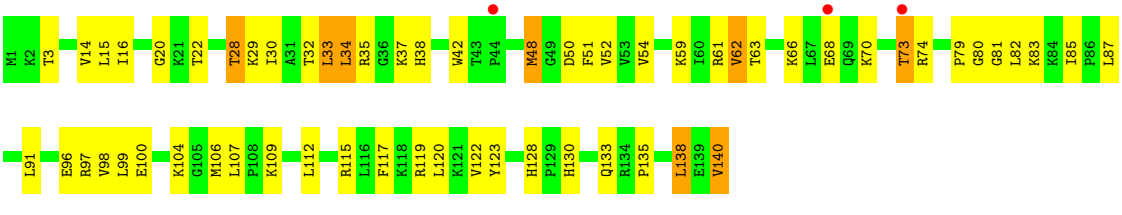


• Molecule 9: 50S ribosomal protein L13

Chain 1N:

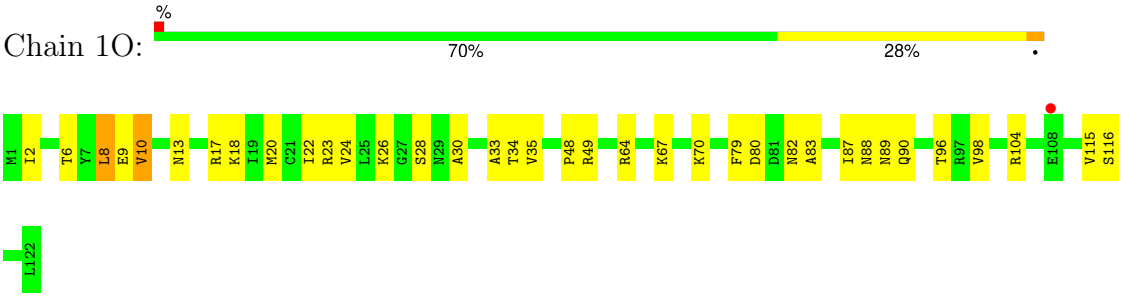
• Molecule 9: 50S ribosomal protein L13

Chain 2N:



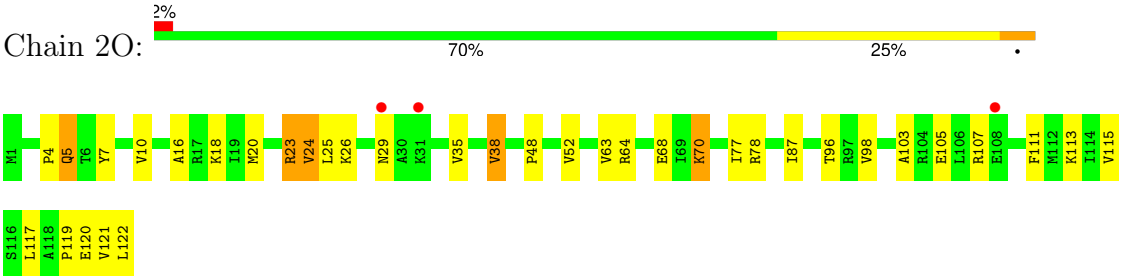
• Molecule 10: 50S ribosomal protein L14

Chain 1O:



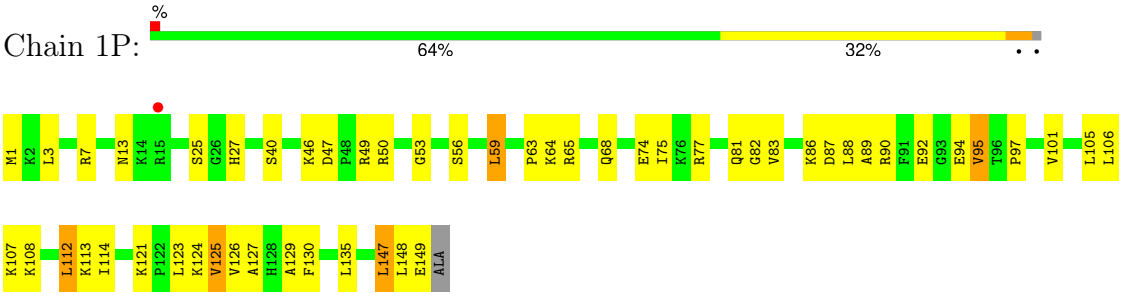
• Molecule 10: 50S ribosomal protein L14

Chain 2O:



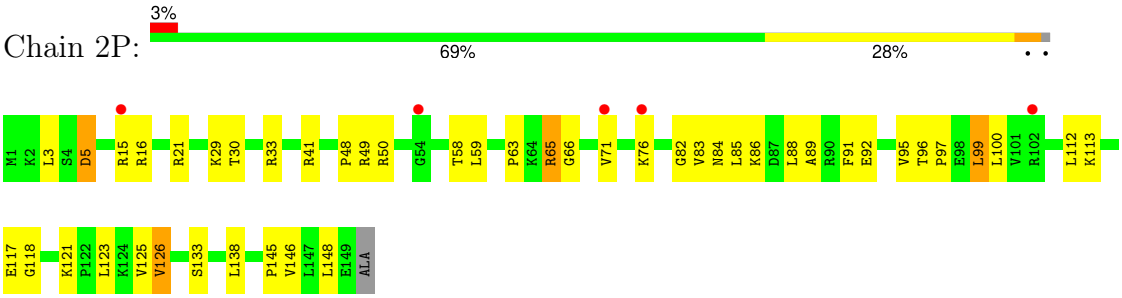
• Molecule 11: 50S ribosomal protein L15

Chain 1P:



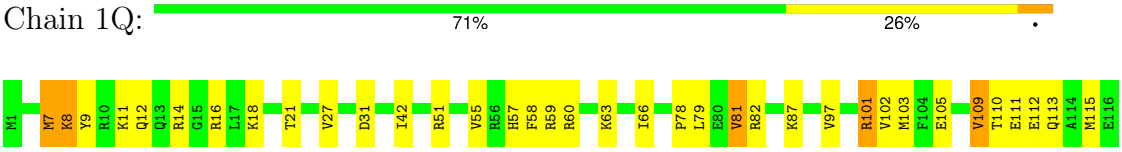
• Molecule 11: 50S ribosomal protein L15

Chain 2P:



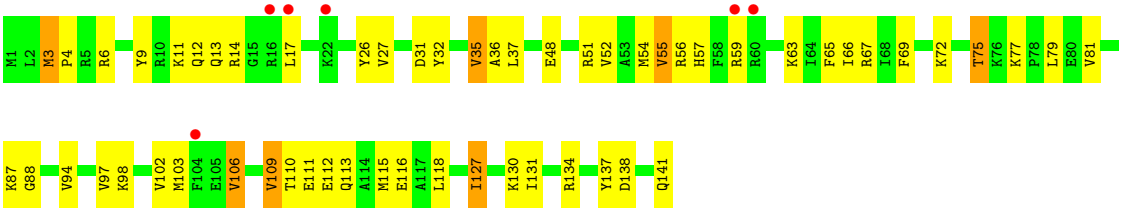
• Molecule 12: 50S ribosomal protein L16

Chain 1Q:



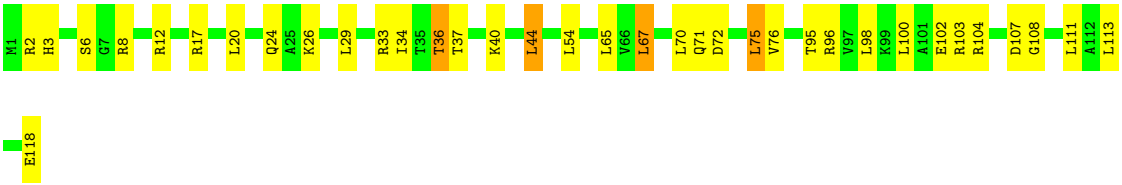
• Molecule 12: 50S ribosomal protein L16

Chain 2Q:



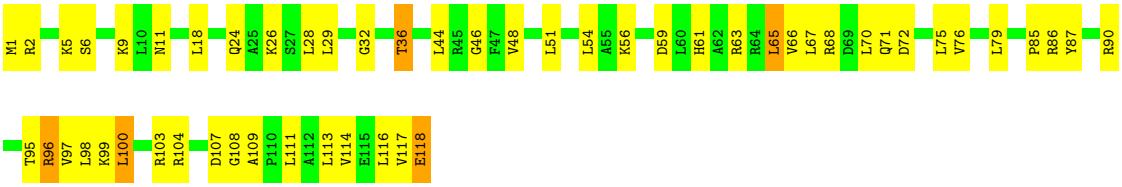
• Molecule 13: 50S ribosomal protein L17

Chain 1R:



• Molecule 13: 50S ribosomal protein L17

Chain 2R:

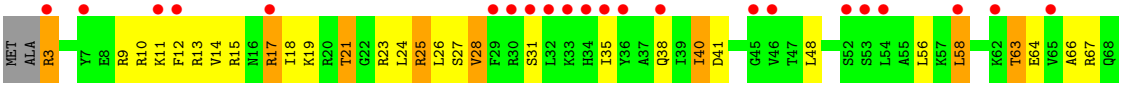


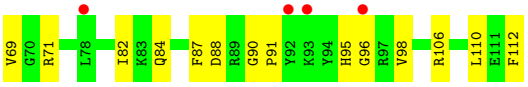
• Molecule 14: 50S ribosomal protein L18

Chain 1S:

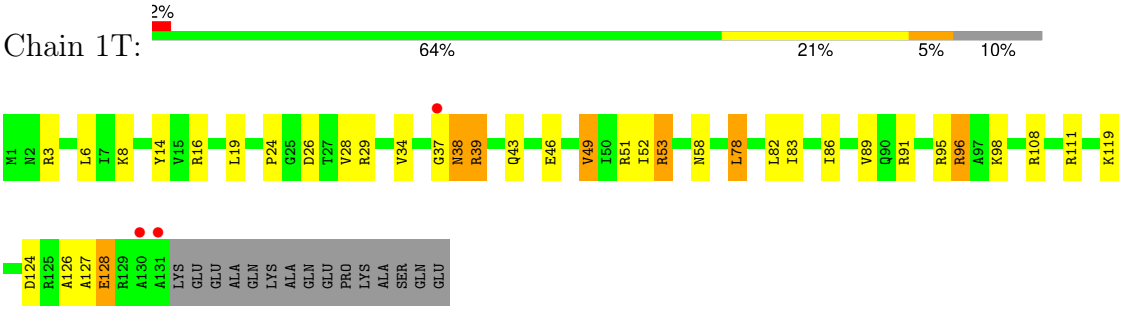
• Molecule 14: 50S ribosomal protein L18

Chain 2S:

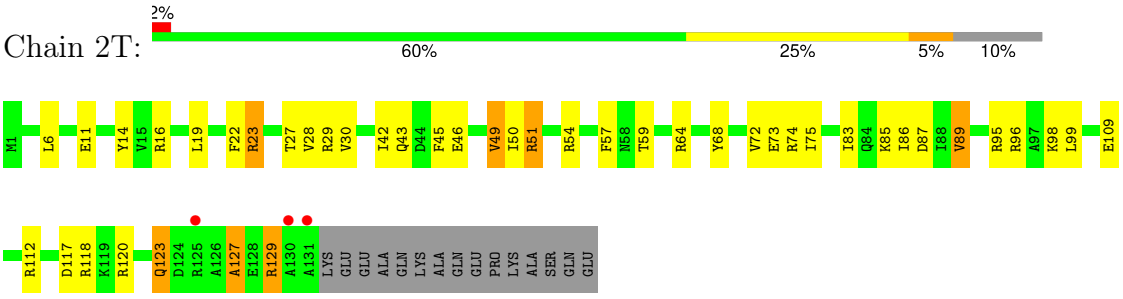




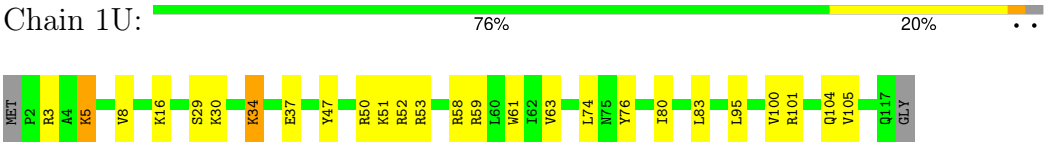
• Molecule 15: 50S ribosomal protein L19



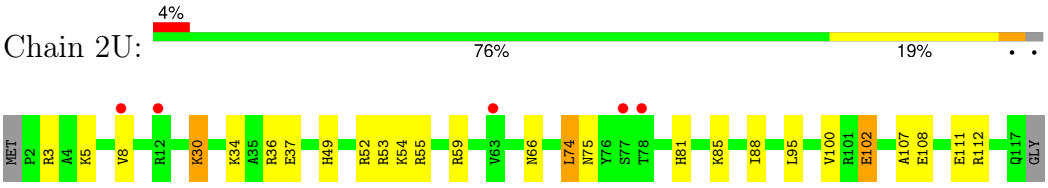
• Molecule 15: 50S ribosomal protein L19



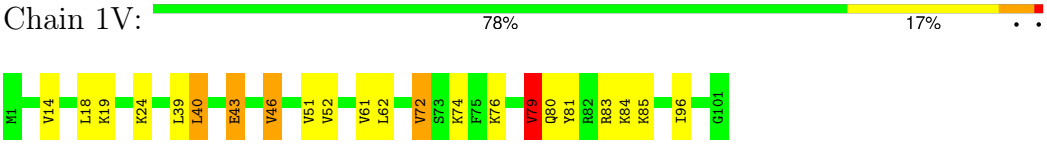
• Molecule 16: 50S ribosomal protein L20



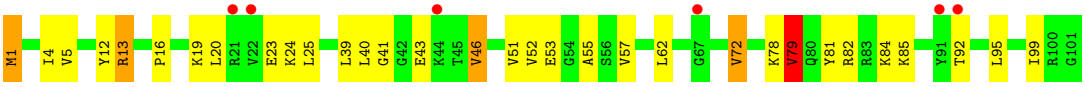
• Molecule 16: 50S ribosomal protein L20



• Molecule 17: 50S ribosomal protein L21

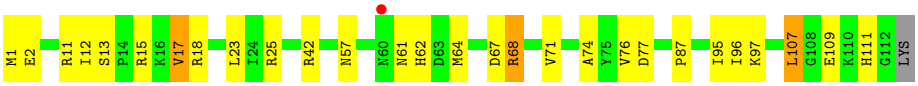


• Molecule 17: 50S ribosomal protein L21



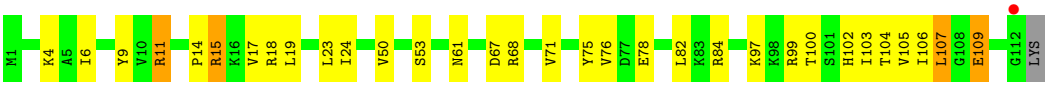
• Molecule 18: 50S ribosomal protein L22

Chain 1W:



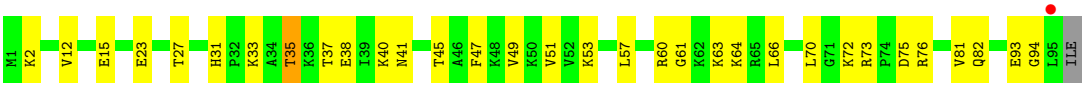
• Molecule 18: 50S ribosomal protein L22

Chain 2W:



• Molecule 19: 50S ribosomal protein L23

Chain 1X:

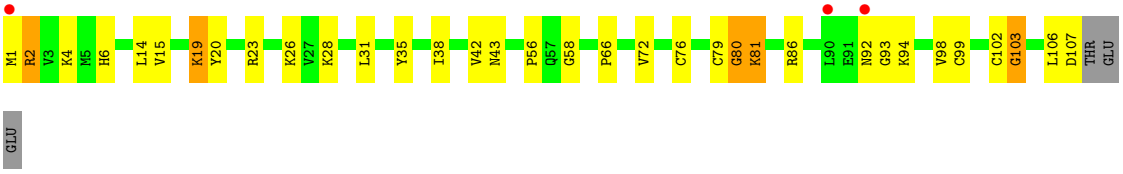


• Molecule 19: 50S ribosomal protein L23

Chain 2X:

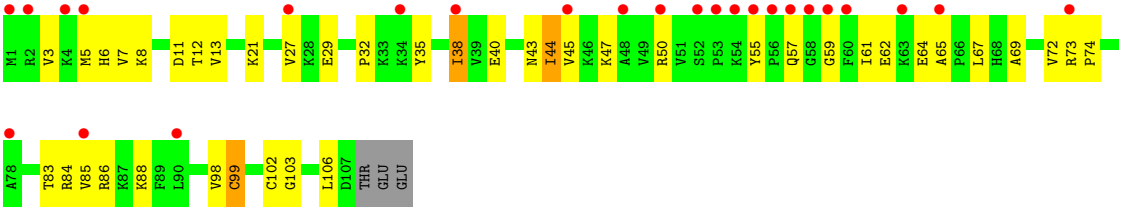
• Molecule 20: 50S ribosomal protein L24

Chain 1Y:

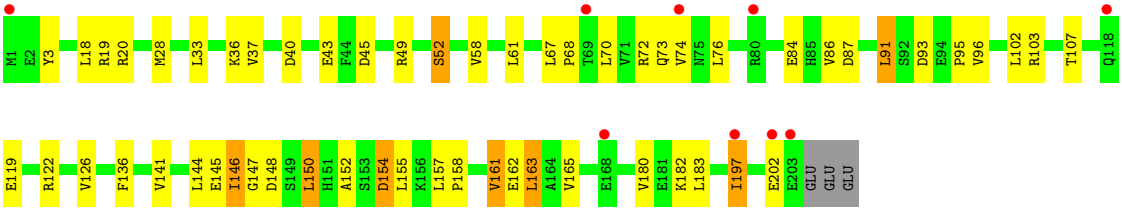


• Molecule 20: 50S ribosomal protein L24

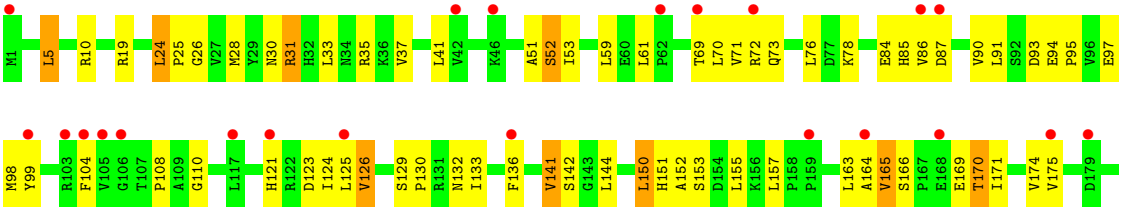
Chain 2Y:



• Molecule 21: 50S ribosomal protein L25



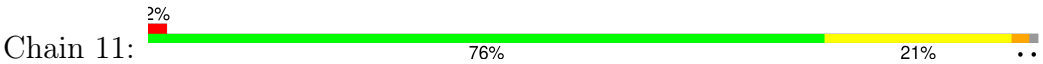
• Molecule 21: 50S ribosomal protein L25

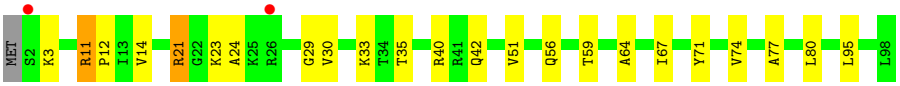


• Molecule 22: 50S ribosomal protein L27

• Molecule 22: 50S ribosomal protein L27

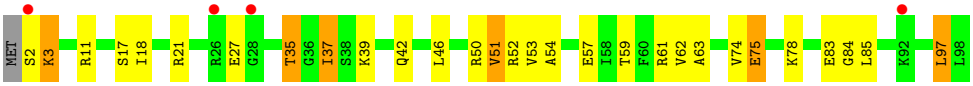
• Molecule 23: 50S ribosomal protein L28





• Molecule 23: 50S ribosomal protein L28

Chain 21:

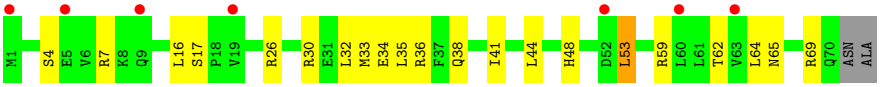


• Molecule 24: 50S ribosomal protein L29

Chain 12:

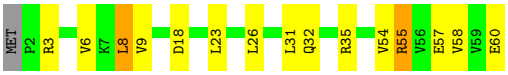
• Molecule 24: 50S ribosomal protein L29

Chain 22:



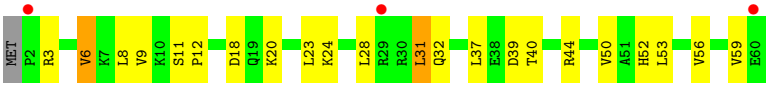
• Molecule 25: 50S ribosomal protein L30

Chain 13:



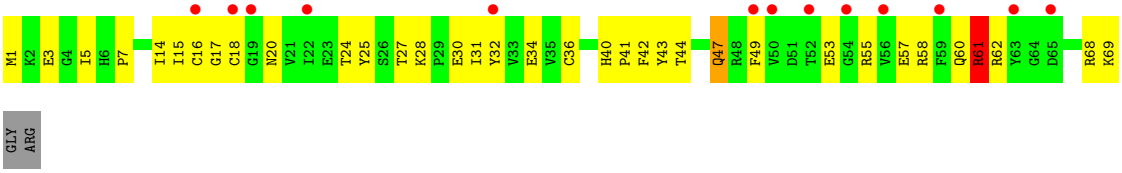
• Molecule 25: 50S ribosomal protein L30

Chain 23:



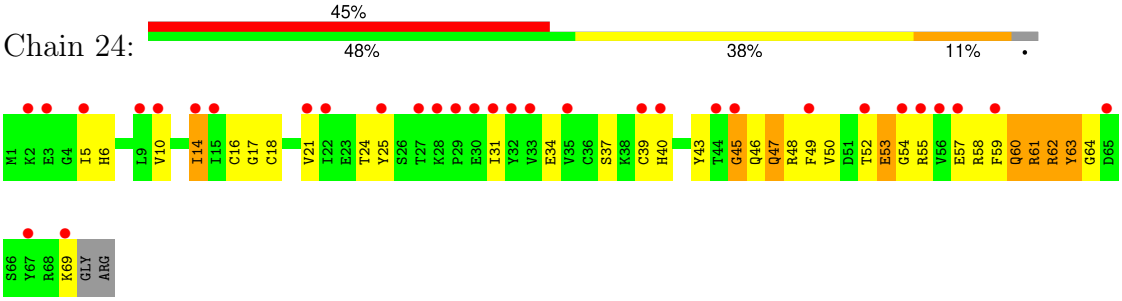
• Molecule 26: 50S ribosomal protein L31

Chain 14:



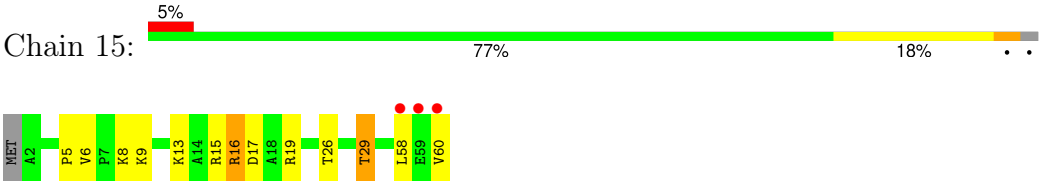
• Molecule 26: 50S ribosomal protein L31

Chain 24:



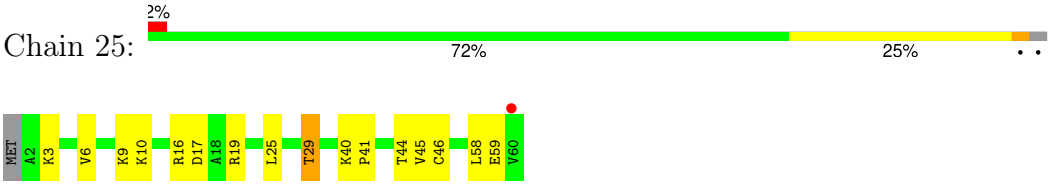
• Molecule 27: 50S ribosomal protein L32

Chain 15:



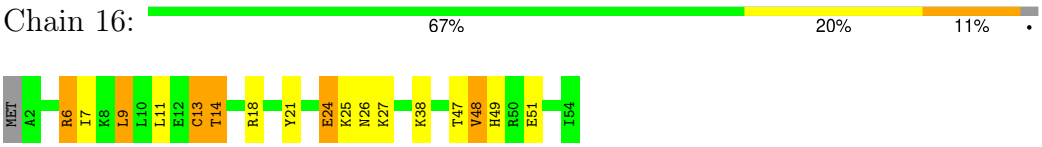
• Molecule 27: 50S ribosomal protein L32

Chain 25:



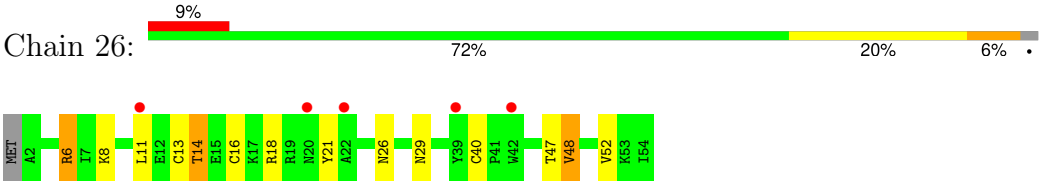
• Molecule 28: 50S ribosomal protein L33

Chain 16:



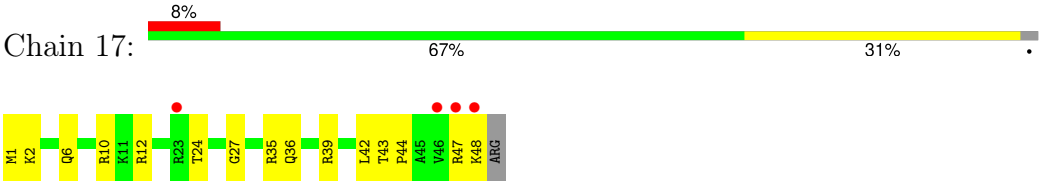
• Molecule 28: 50S ribosomal protein L33

Chain 26:



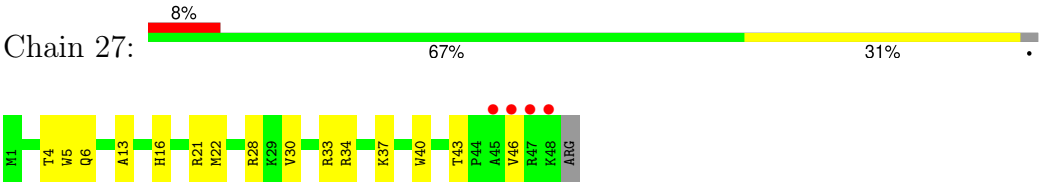
• Molecule 29: 50S ribosomal protein L34

Chain 17:



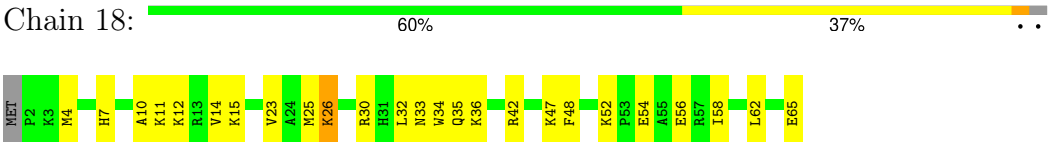
• Molecule 29: 50S ribosomal protein L34

Chain 27:



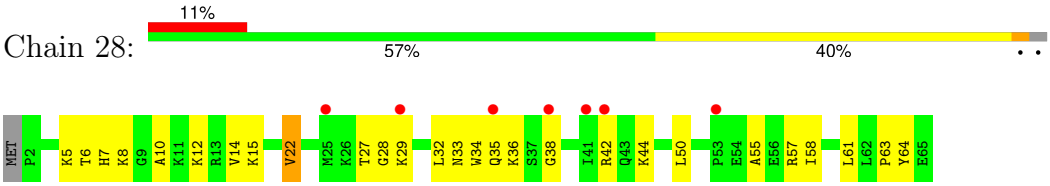
• Molecule 30: 50S ribosomal protein L35

Chain 18:



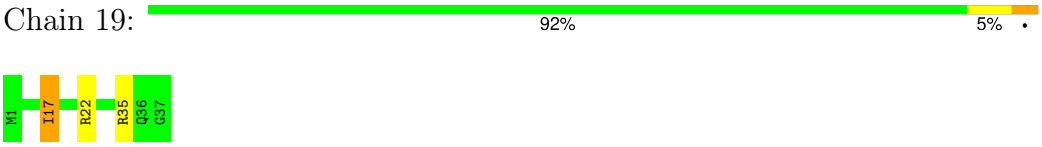
• Molecule 30: 50S ribosomal protein L35

Chain 28:



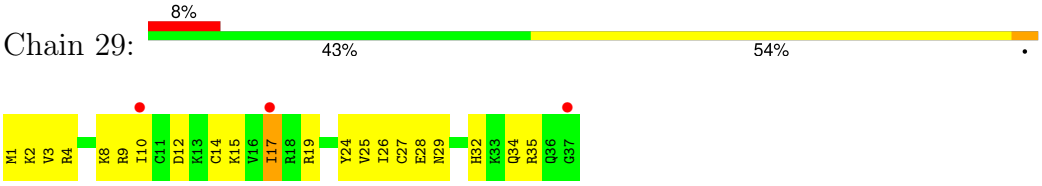
• Molecule 31: 50S ribosomal protein L36

Chain 19:



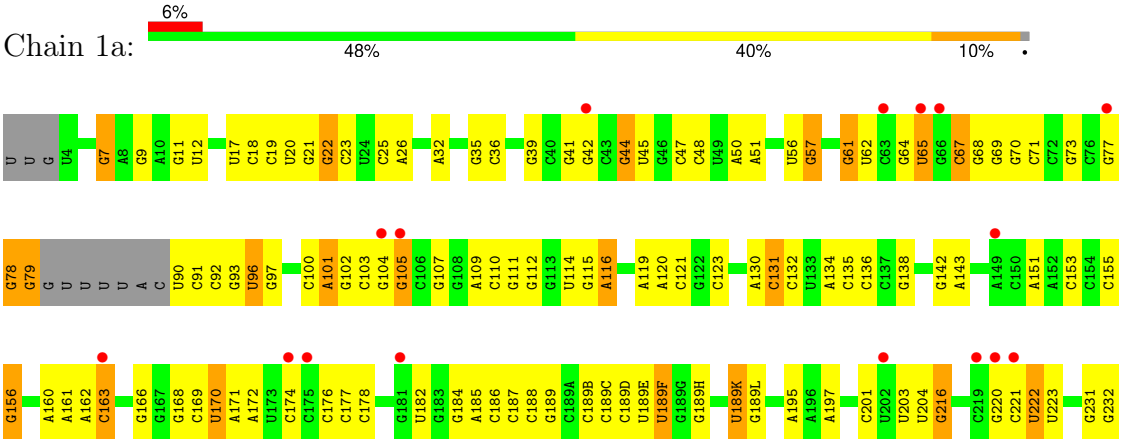
• Molecule 31: 50S ribosomal protein L36

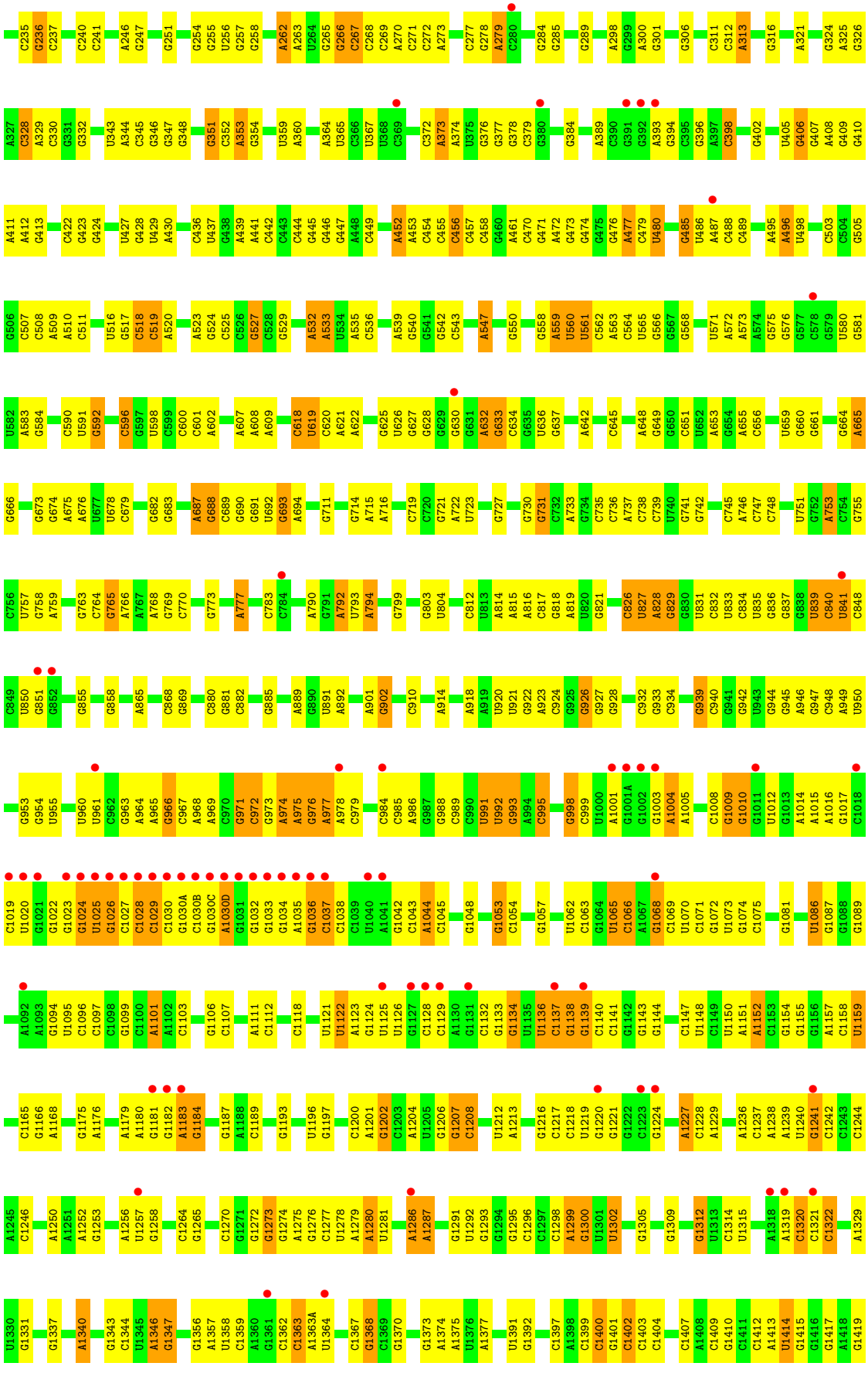
Chain 29:



• Molecule 32: 16S Ribosomal RNA

Chain 1a:

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G506 C507 C508 A509 A510 C511 U516 G517 C518 C519 A520 A523 G524 C525 C526 G527 C528 G529 A532 A533 U534 A535 C536 A539 G540 G541 G542 C543 A547 G550 G558 A559 U560 U561 C562 A563 C564 U565 G566 G567 G568 U571 A572 A573 A574 G575 G576 G577 C578 G579 U580 G581
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G666 G673 G674 A675 A676 U677 U678 C679 G682 G683 A687 G688 C689 G690 G691 U692 G693 A694 G711 G714 A715 A716 C719 C720 G721 A722 U723 G727 G730 G731 C732 A733 G734 C735 C736 A737 C738 C739 U740 G741 G742 C745 A746 C747 C748 U751 G752 A753 C754 G755
C756 U757 G758 A759 G763 C764 G765 A766 A767 A768 G769 C770 G773 A777 C783 C784 A790 G791 A792 U793 A794 G799 G803 U804 C812 U813 A814 A815 A816 C817 G818 A819 U820 G821 C826 U827 A828 G829 G830 U831 C832 U833 C834 U835 G836 G837 G838 U839 C840 U841 C848
C849 U850 G851 G852 G855 G858 A865 C868 G869 C880 G881 C882 G885 A889 G890 U891 A892 A901 G902 C910 A914 A918 A919 U920 U921 G922 A923 C924 G925 G926 G927 G928 C932 G933 C934 G939 C940 G941 G942 U943 G944 G945 A946 G947 C948 A949 U950
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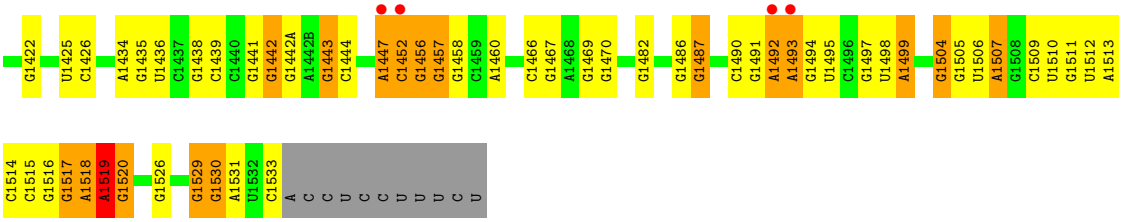
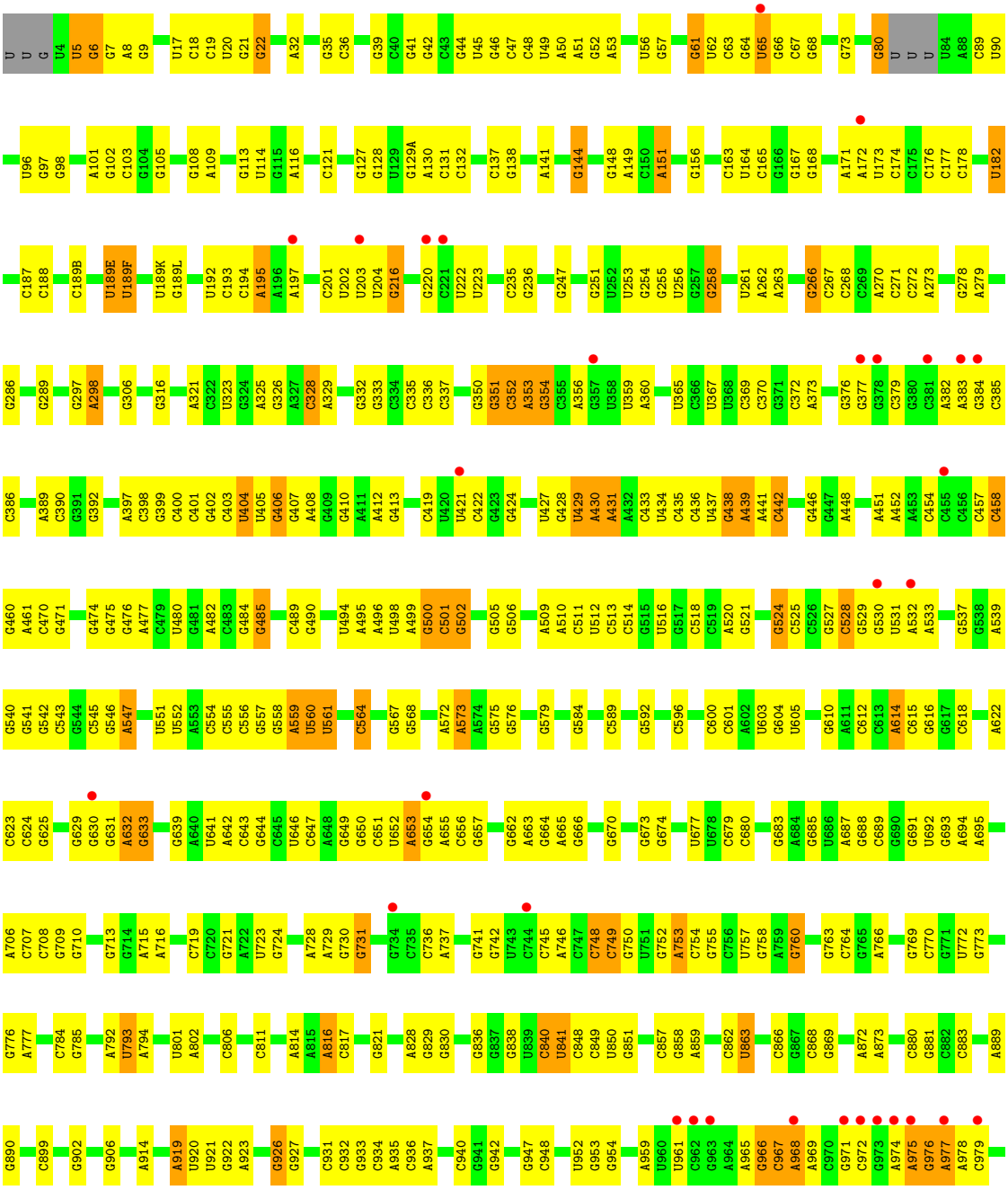
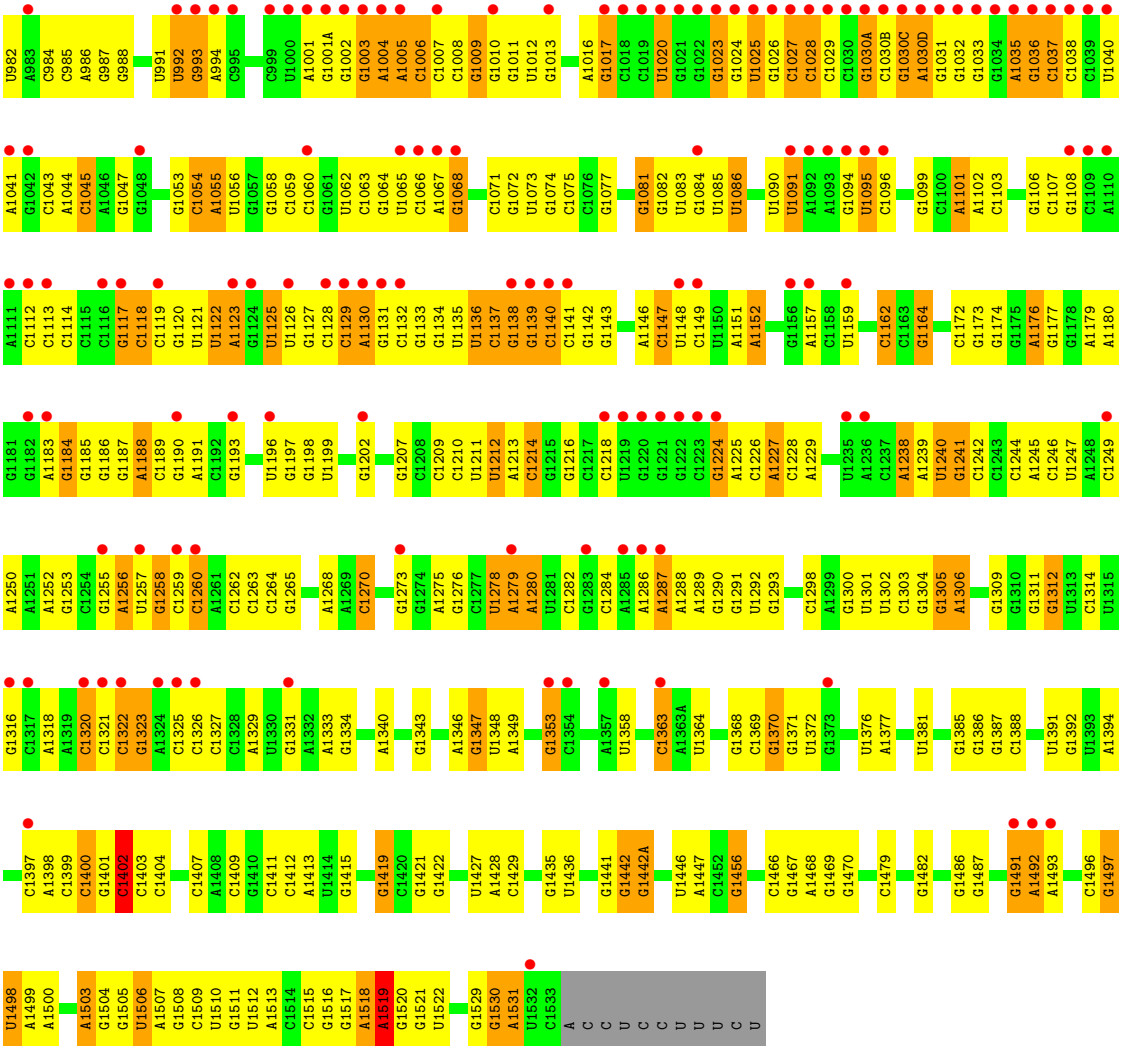
C1019 U1020 G1021 G1022 G1023 G1024 U1025 G1026 C1027 C1028 C1029 C1030 G1030A C1030B C1030C A1030D G1031 C1032 G1033 G1034 A1035 G1036 C1037 C1038 C1039 U1040 A1041 G1042 C1043 A1044 C1045 G1048 G1053 C1054 G1057 U1062 C1063 G1064 U1065 C1066 A1067 G1068 C1069 U1070 C1071 G1072 U1073 C1074 C1075 G1081 U1086 G1087 G1088 G1089
A1092 A1093 G1094 U1095 C1096 C1097 C1098 G1099 C1100 A1101 A1102 C1103 G1106 C1107 A1111 C1112 C1118 U1121 U1122 A1123 G1124 U1125 U1126 G1127 C1128 C1129 A1130 G1131 C1132 G1133 G1134 U1135 U1136 C1137 G1138 G1139 C1140 C1141 G1142 G1143 G1144 C1147 U1148 C1149 U1150 A1151 A1152 C1153 G1154 G1155 G1156 A1157 C1158 U1159
C1165 G1166 A1168 G1175 A1176 A1179 A1180 G1181 G1182 A1183 G1184 G1187 A1188 C1189 G1193 U1196 G1197 C1200 A1201 G1202 C1203 A1204 U1205 G1206 G1207 C1208 U1212 A1213 G1216 C1217 C1218 U1219 G1220 G1221 G1222 C1223 G1224 A1227 C1228 A1229 A1236 C1237 A1238 A1239 U1240 G1241 C1242 C1243 C1244
A1245 C1246 A1250 A1251 A1252 G1253 A1256 U1257 G1258 C1264 G1265 C1270 G1271 G1272 G1273 G1274 A1275 G1276 C1277 U1278 A1279 A1280 U1281 A1286 A1287 G1291 U1292 G1293 G1294 G1295 C1296 C1297 C1298 A1299 G1300 U1301 U1302 G1305 G1309 G1312 U1313 C1314 U1315 A1318 A1319 C1320 C1321 C1322 A1329
U1330 G1331 G1337 A1340 G1343 C1344 U1345 A1346 G1347 G1356 A1357 U1358 C1359 A1360 G1361 C1362 C1363 A1363A U1364 C1367 G1368 C1369 G1370 G1373 A1374 A1375 U1376 A1377 U1391 G1392 C1397 A1398 C1399 C1400 G1401 C1402 C1403 C1404 C1407 A1408 C1409 G1410 C1411 C1412 A1413 U1414 G1415 G1416 G1417 A1418 G1419



• Molecule 32: 16S Ribosomal RNA

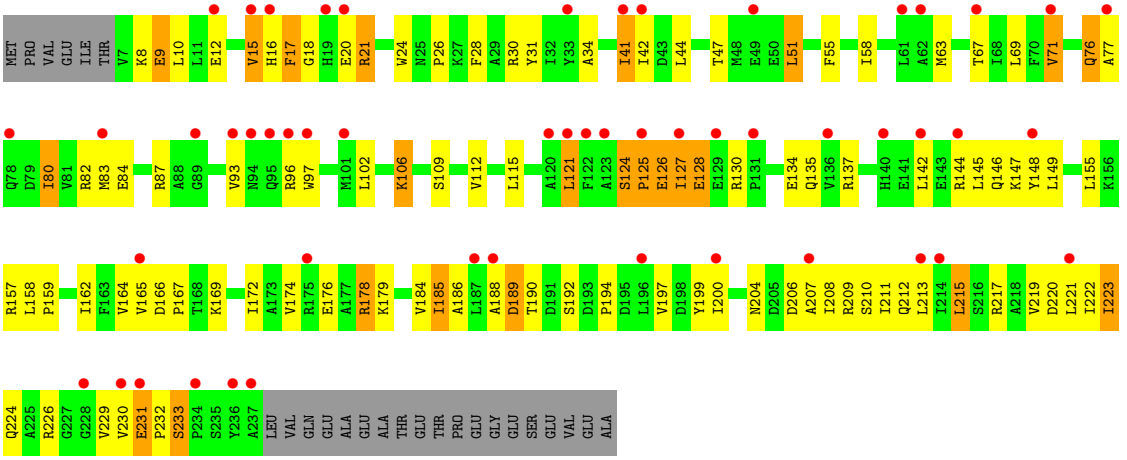
Chain 2a:





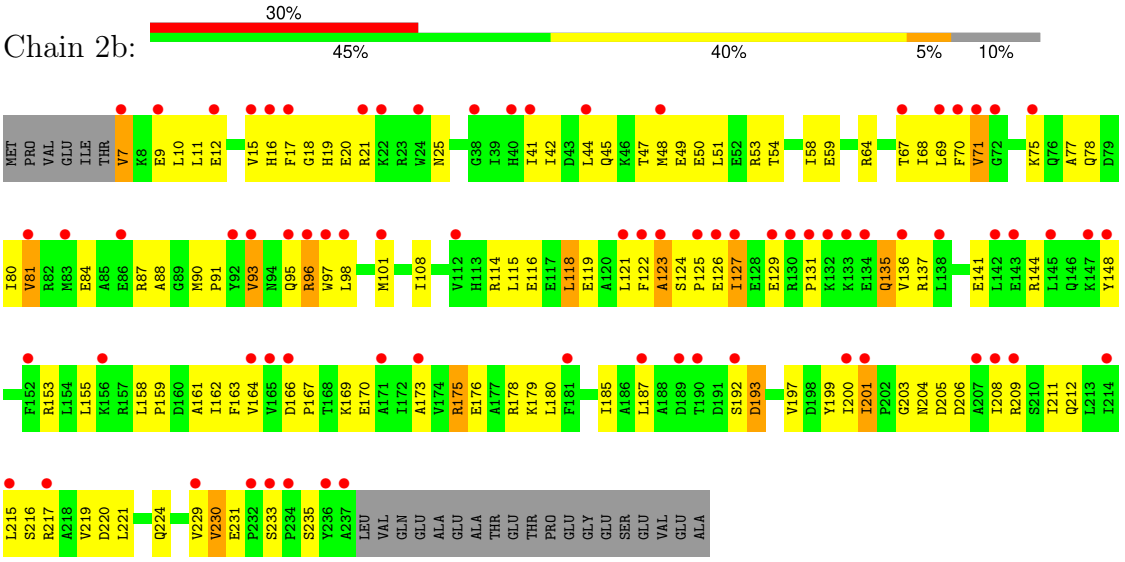
• Molecule 33: 30S ribosomal protein S2

Chain 1b:



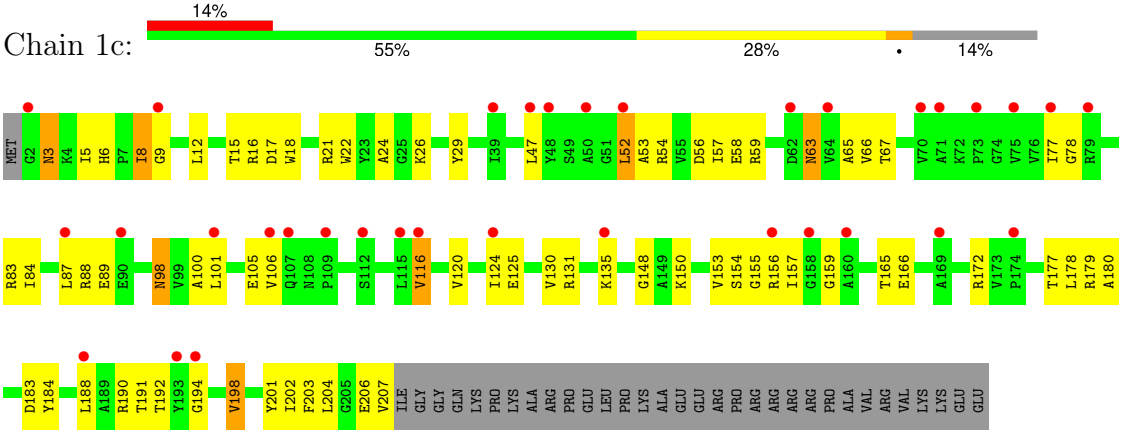
• Molecule 33: 30S ribosomal protein S2

Chain 2b:



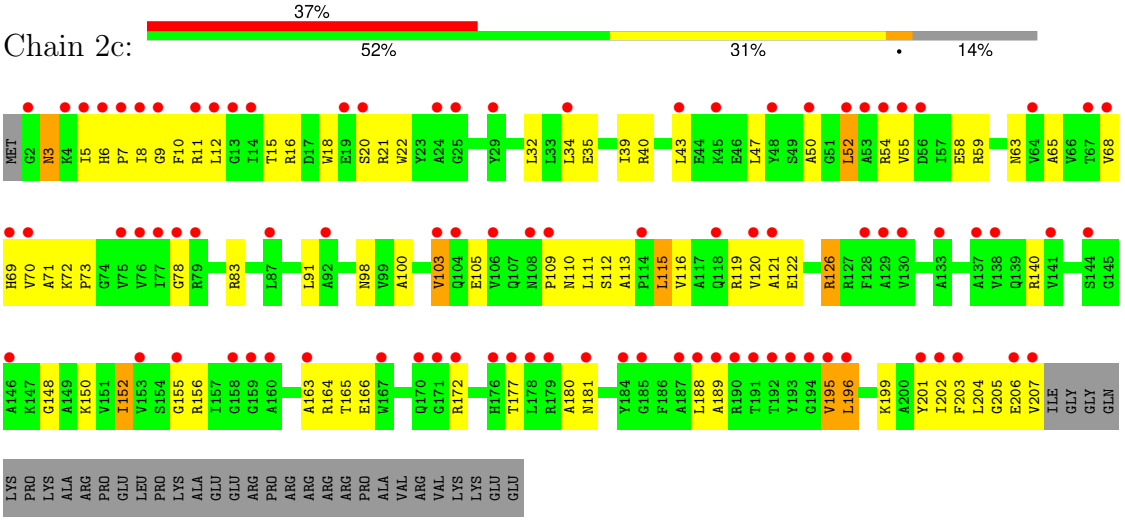
• Molecule 34: 30S ribosomal protein S3

Chain 1c:



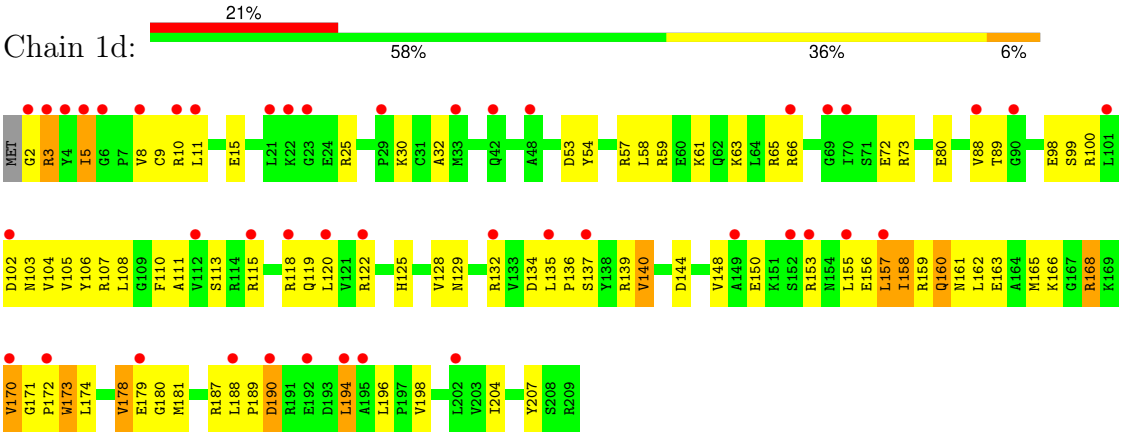
• Molecule 34: 30S ribosomal protein S3

Chain 2c:



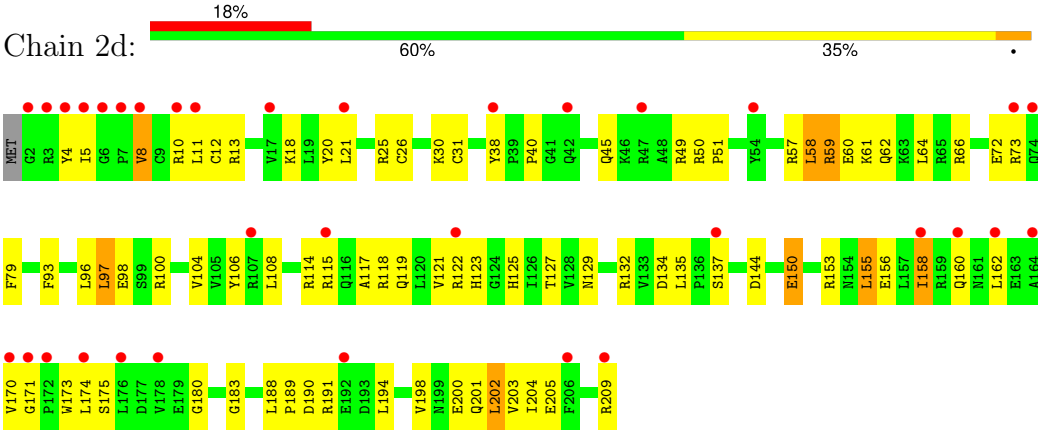
• Molecule 35: 30S ribosomal protein S4

Chain 1d:



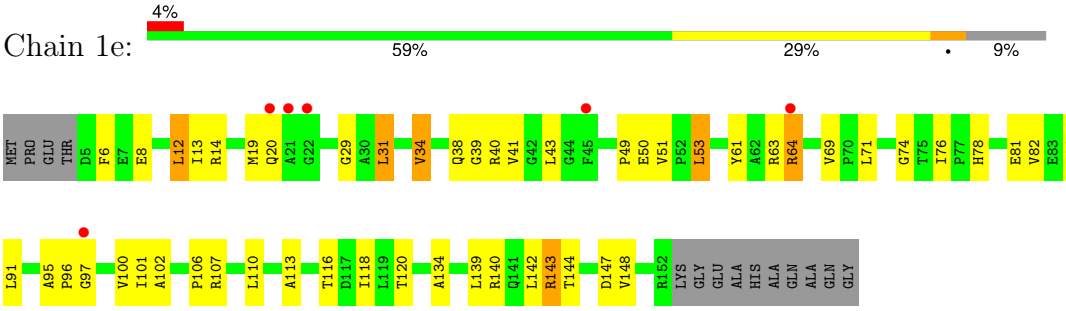
• Molecule 35: 30S ribosomal protein S4

Chain 2d:



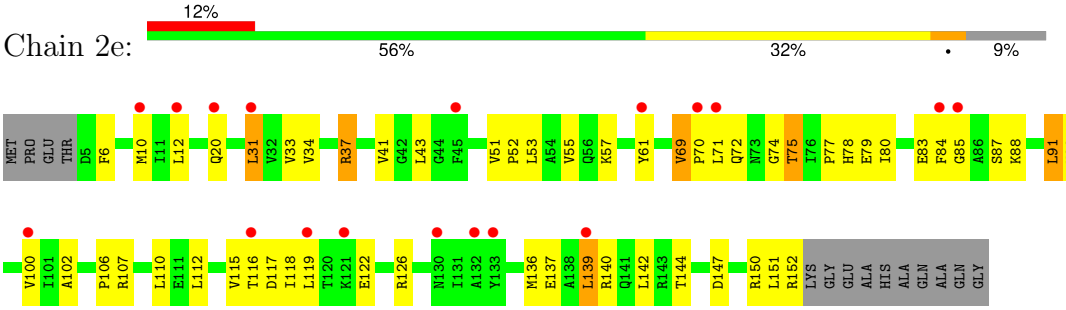
• Molecule 36: 30S ribosomal protein S5

Chain 1e:



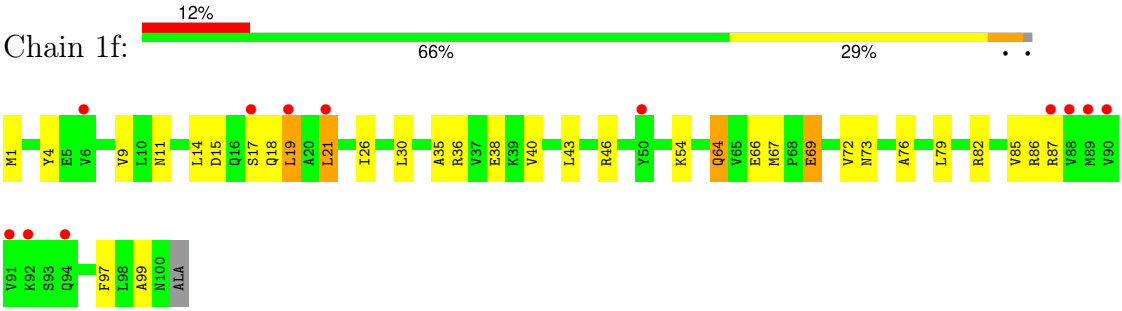
• Molecule 36: 30S ribosomal protein S5

Chain 2e:



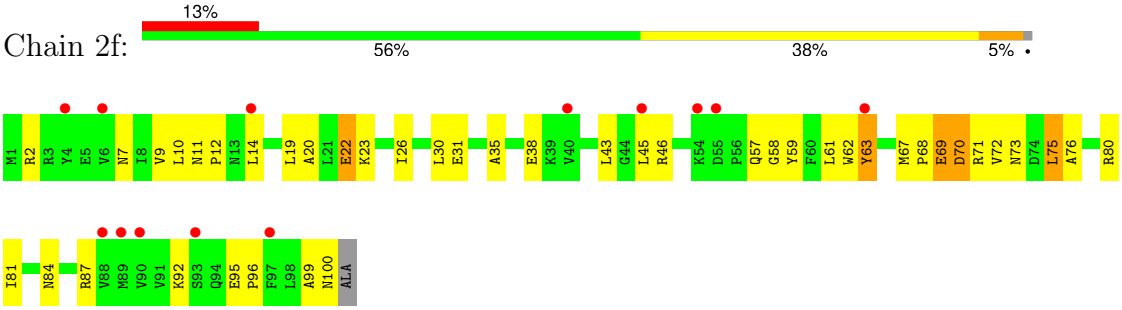
• Molecule 37: 30S ribosomal protein S6

Chain 1f:



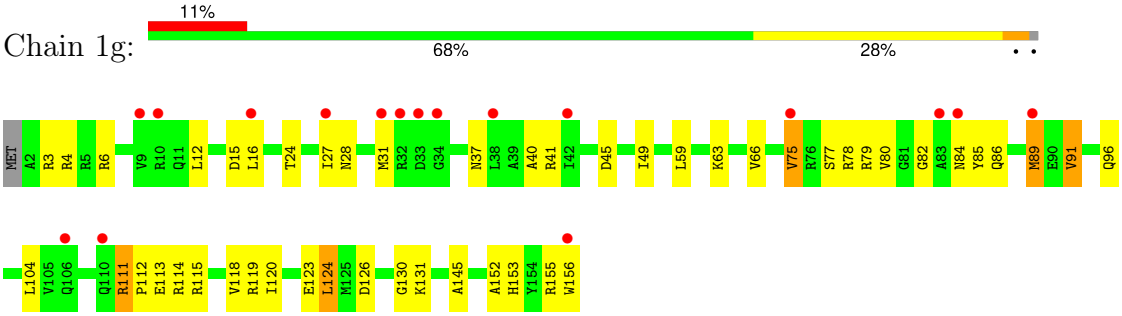
• Molecule 37: 30S ribosomal protein S6

Chain 2f:



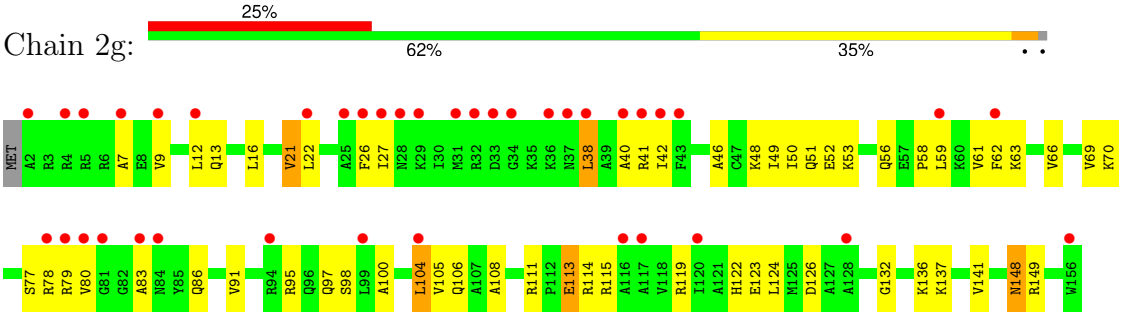
• Molecule 38: 30S ribosomal protein S7

Chain 1g:



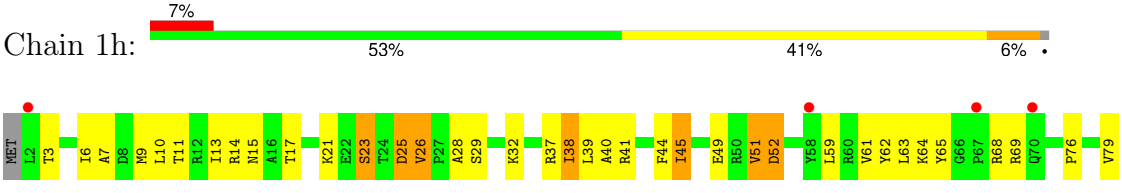
• Molecule 38: 30S ribosomal protein S7

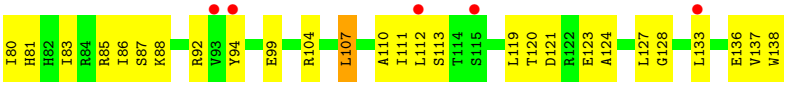
Chain 2g:



• Molecule 39: 30S ribosomal protein S8

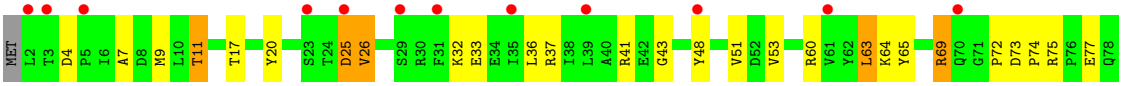
Chain 1h:

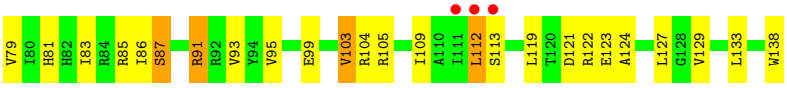




• Molecule 39: 30S ribosomal protein S8

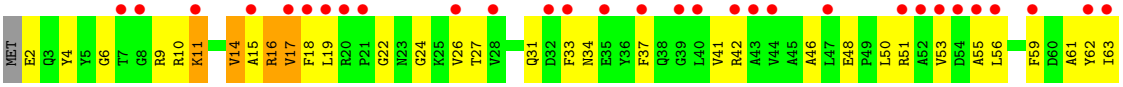
Chain 2h:

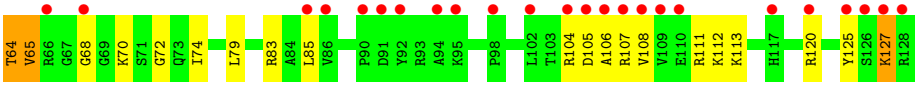




• Molecule 40: 30S ribosomal protein S9

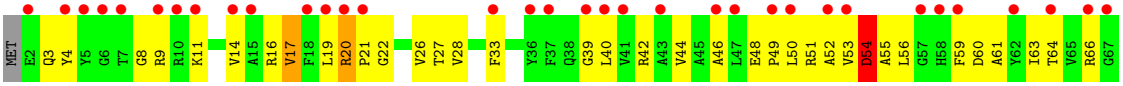
Chain 1i:

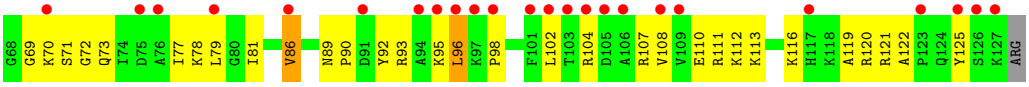




• Molecule 40: 30S ribosomal protein S9

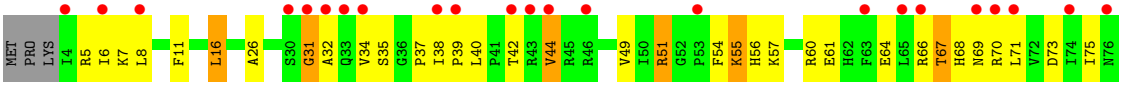
Chain 2i:

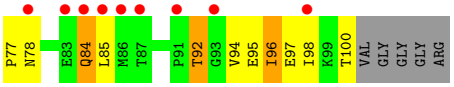




• Molecule 41: 30S ribosomal protein S10

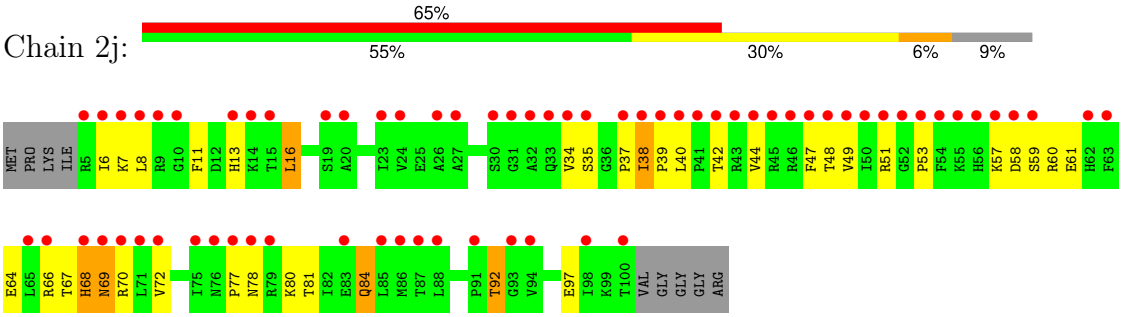
Chain 1j:





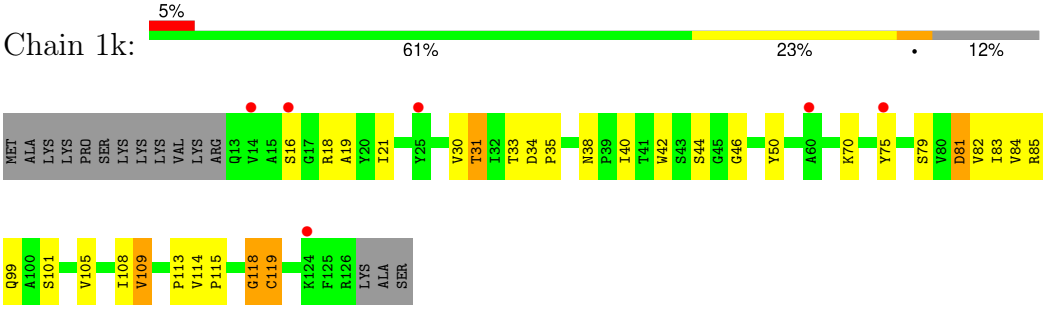
• Molecule 41: 30S ribosomal protein S10

Chain 2j:



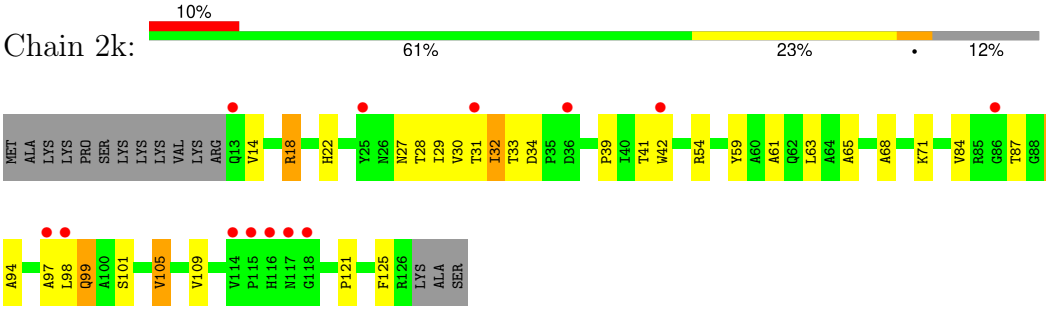
• Molecule 42: 30S ribosomal protein S11

Chain 1k:



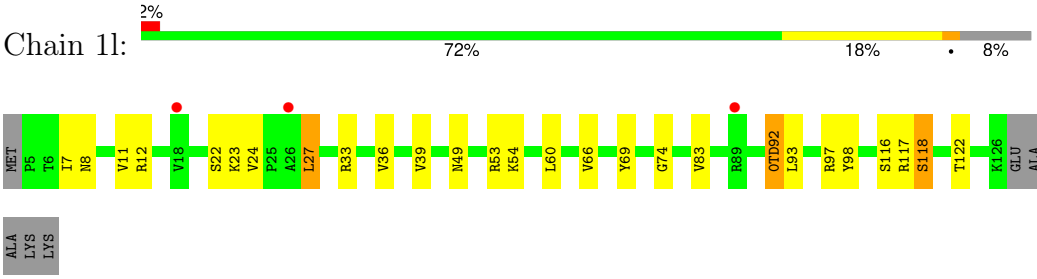
• Molecule 42: 30S ribosomal protein S11

Chain 2k:



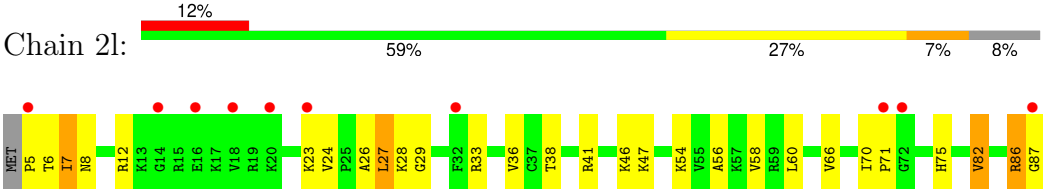
• Molecule 43: 30S ribosomal protein S12

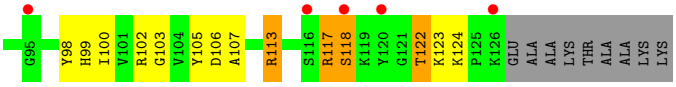
Chain 1l:



• Molecule 43: 30S ribosomal protein S12

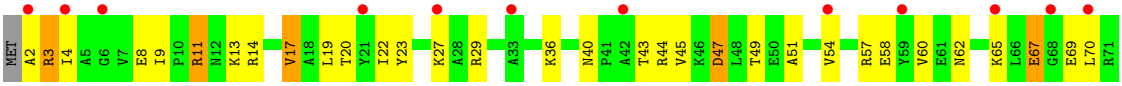
Chain 2l:

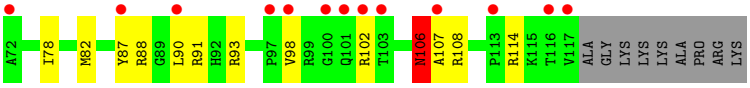




• Molecule 44: 30S ribosomal protein S13

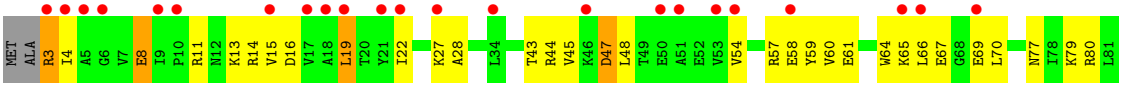
Chain 1m:

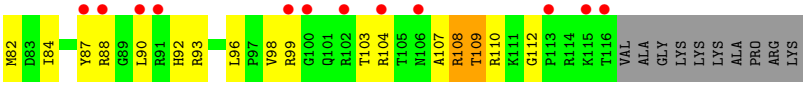




• Molecule 44: 30S ribosomal protein S13

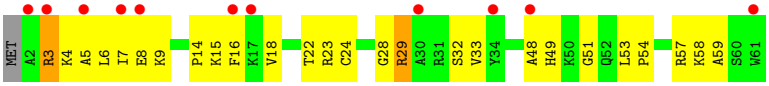
Chain 2m:





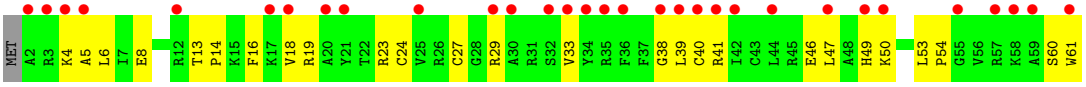
• Molecule 45: 30S ribosomal protein S14 type Z

Chain 1n:



• Molecule 45: 30S ribosomal protein S14 type Z

Chain 2n:

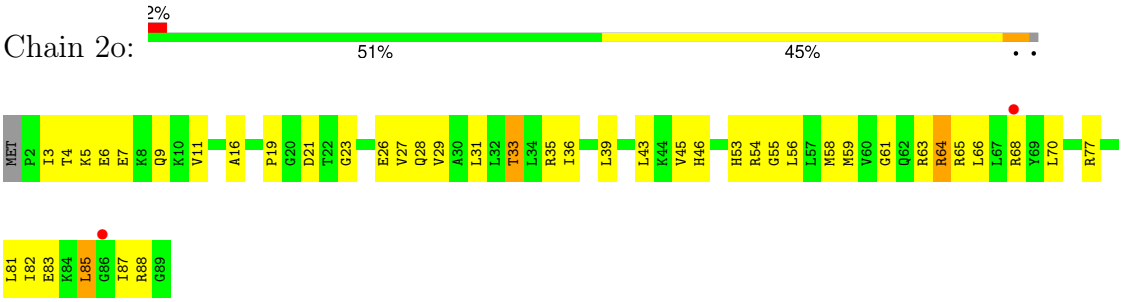


• Molecule 46: 30S ribosomal protein S15

Chain 1o:

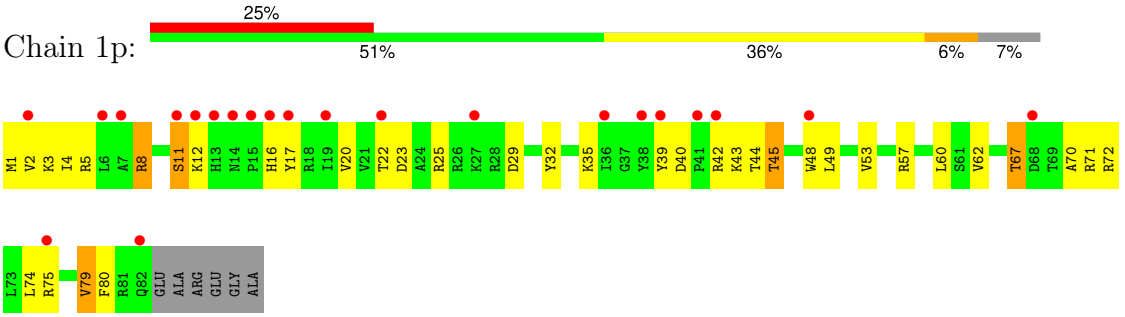
• Molecule 46: 30S ribosomal protein S15

Chain 2o:



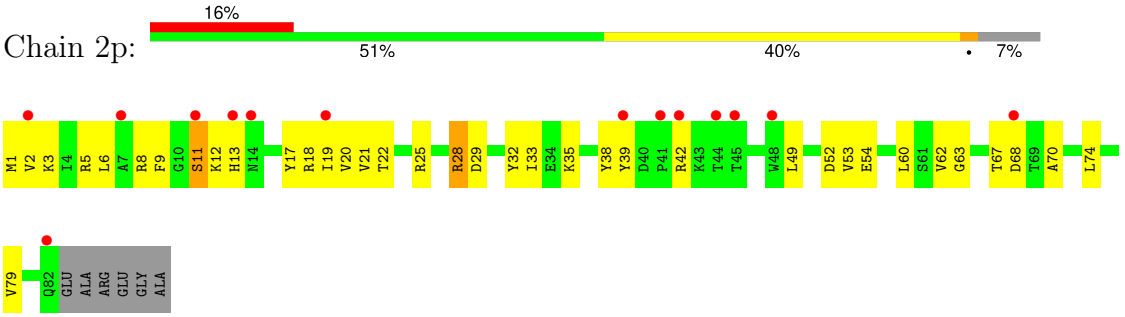
• Molecule 47: 30S ribosomal protein S16

Chain 1p:



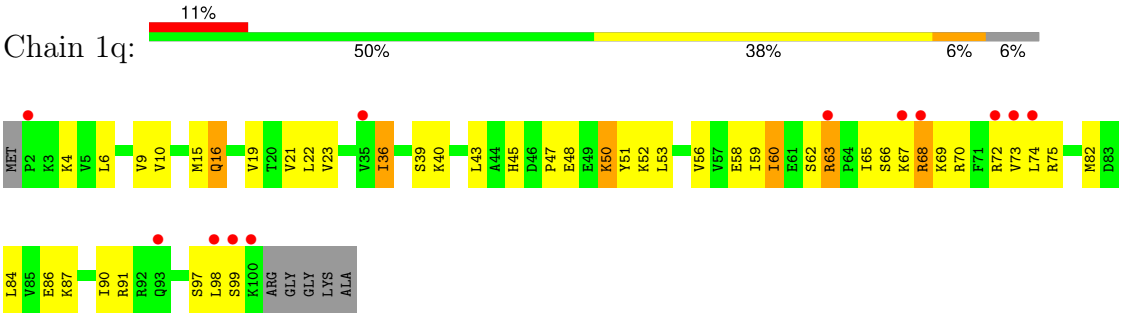
• Molecule 47: 30S ribosomal protein S16

Chain 2p:



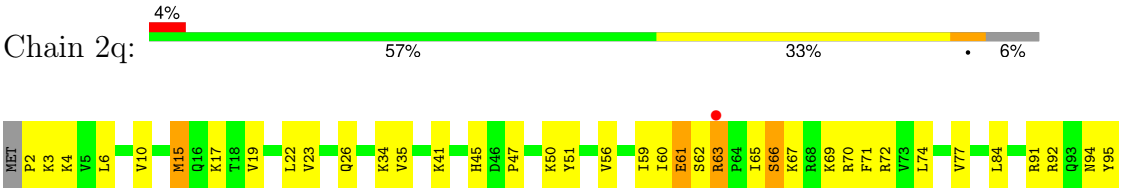
• Molecule 48: 30S ribosomal protein S17

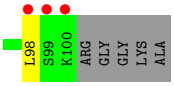
Chain 1q:



• Molecule 48: 30S ribosomal protein S17

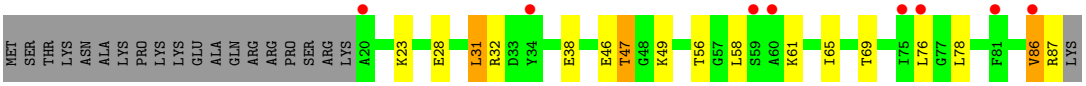
Chain 2q:





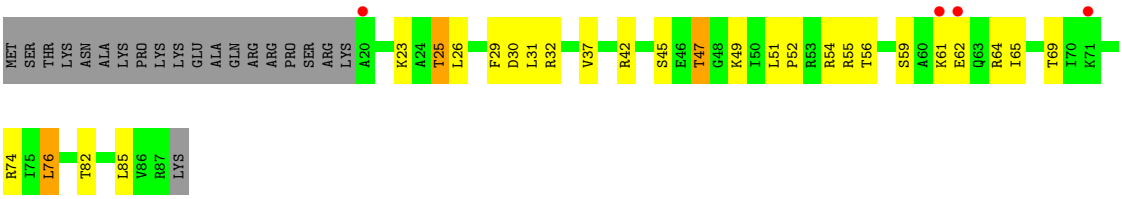
• Molecule 49: 30S ribosomal protein S18

Chain 1r:



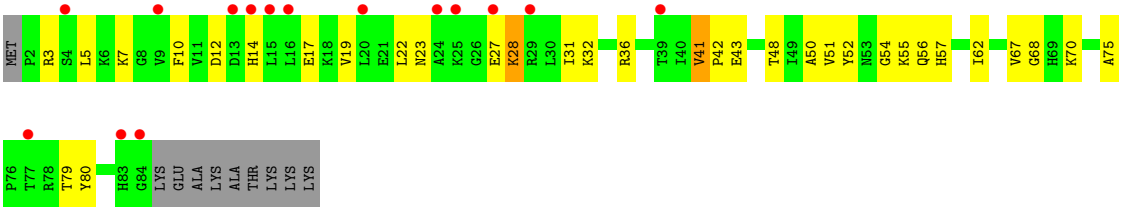
• Molecule 49: 30S ribosomal protein S18

Chain 2r:



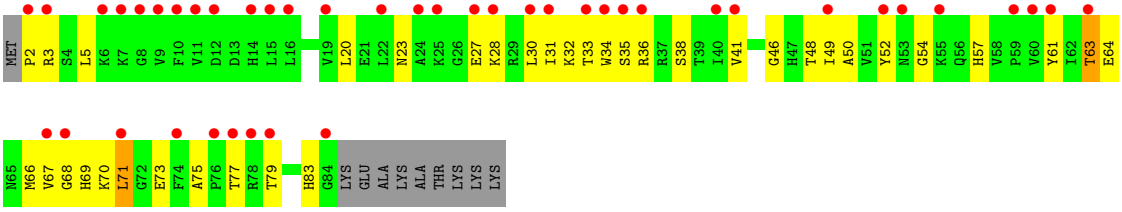
• Molecule 50: 30S ribosomal protein S19

Chain 1s:



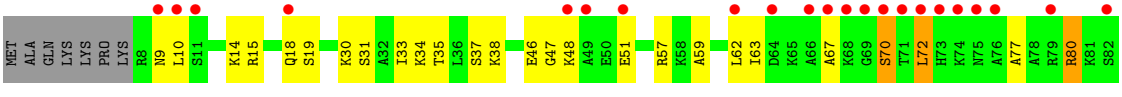
• Molecule 50: 30S ribosomal protein S19

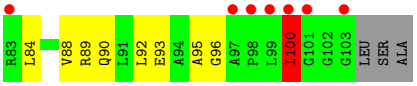
Chain 2s:



• Molecule 51: 30S ribosomal protein S20

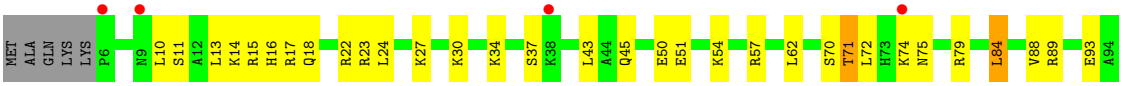
Chain 1t:

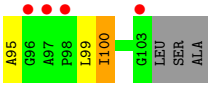




• Molecule 51: 30S ribosomal protein S20

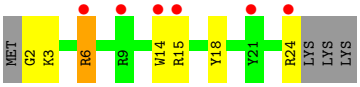
Chain 2t:





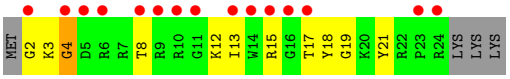
• Molecule 52: 30S ribosomal protein Thx

Chain 1u:



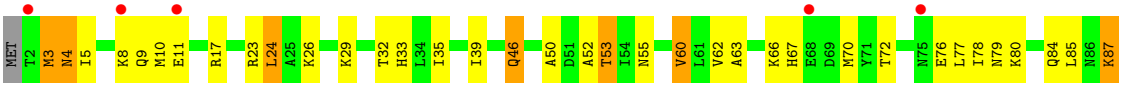
• Molecule 52: 30S ribosomal protein Thx

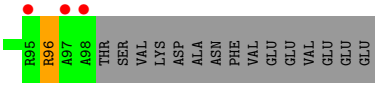
Chain 2u:



• Molecule 53: Ribosome-associated inhibitor A

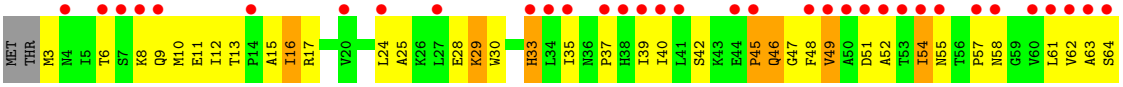
Chain 1y:

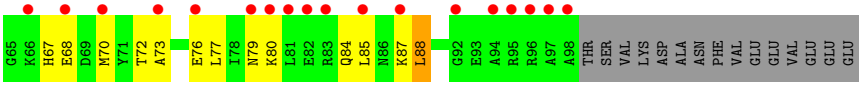




• Molecule 53: Ribosome-associated inhibitor A

Chain 2y:





4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	209.66Å 450.37Å 619.99Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	255.35 – 2.90 255.35 – 2.90	Depositor EDS
% Data completeness (in resolution range)	99.5 (255.35-2.90) 99.6 (255.35-2.90)	Depositor EDS
R_{merge}	0.34	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.28 (at 2.91Å)	Xtriage
Refinement program	PHENIX 1.17.1	Depositor
R, R_{free}	0.217 , 0.271 0.216 , 0.268	Depositor DCC
R_{free} test set	63932 reflections (4.99%)	wwPDB-VP
Wilson B-factor (Å^2)	51.0	Xtriage
Anisotropy	0.153	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.41 , 308.8	EDS
L-test for twinning[2]	$< \|L\| > = 0.42$, $< L^2 > = 0.25$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.85	EDS
Total number of atoms	297211	wwPDB-VP
Average B, all atoms (Å^2)	56.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.53% 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: MG, SF4, 5MU, 4OC, ZN, 2MA, A1CQ8, MPD, 0TD, MA6, OMC, 2MG, M2G, 5MC, OMU, UR3, PSU, OMG, G7M

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	1A	0.29	0/69031	0.45	0/107754
1	2A	0.23	1/68903 (0.0%)	0.41	1/107552 (0.0%)
2	1B	0.22	0/2876	0.39	0/4486
2	2B	0.20	0/2878	0.37	0/4490
3	1D	0.29	0/2181	0.52	0/2940
3	2D	0.24	0/2186	0.49	0/2944
4	1E	0.28	0/1592	0.50	0/2149
4	2E	0.24	0/1592	0.48	0/2149
5	1F	0.27	0/1619	0.48	0/2193
5	2F	0.22	0/1615	0.48	2/2188 (0.1%)
6	1G	0.22	0/1451	0.45	0/1961
6	2G	0.22	0/1449	0.48	0/1957
7	1H	0.22	0/1356	0.45	0/1834
7	2H	0.21	0/1350	0.44	0/1826
8	1I	0.20	0/1109	0.45	0/1512
8	2I	0.20	0/1091	0.42	0/1490
9	1N	0.26	0/1148	0.44	0/1547
9	2N	0.21	0/1144	0.43	0/1543
10	1O	0.28	0/943	0.49	0/1269
10	2O	0.24	0/943	0.47	0/1269
11	1P	0.27	0/1152	0.52	0/1533
11	2P	0.23	0/1152	0.46	0/1533
12	1Q	0.25	0/1143	0.48	0/1527
12	2Q	0.24	0/1143	0.43	0/1527
13	1R	0.27	0/982	0.48	0/1312
13	2R	0.24	0/982	0.49	0/1312
14	1S	0.21	0/887	0.49	0/1180
14	2S	0.20	0/880	0.45	0/1172
15	1T	0.27	0/1105	0.53	0/1477
15	2T	0.23	0/1097	0.44	0/1468
16	1U	0.28	0/977	0.47	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
16	2U	0.23	0/977	0.43	0/1301
17	1V	0.25	0/786	0.45	0/1053
17	2V	0.20	0/782	0.43	0/1049
18	1W	0.27	0/897	0.49	0/1205
18	2W	0.23	0/897	0.42	0/1205
19	1X	0.27	0/764	0.45	0/1025
19	2X	0.23	0/764	0.46	0/1025
20	1Y	0.26	0/823	0.52	0/1099
20	2Y	0.22	0/823	0.44	0/1100
21	1Z	0.22	0/1620	0.44	0/2200
21	2Z	0.21	0/1590	0.45	0/2162
22	10	0.26	0/616	0.50	0/821
22	20	0.27	0/616	0.58	2/821 (0.2%)
23	11	0.25	0/761	0.44	0/1013
23	21	0.24	0/766	0.43	0/1018
24	12	0.24	0/590	0.45	0/781
24	22	0.21	0/594	0.39	0/785
25	13	0.26	0/474	0.54	0/635
25	23	0.18	0/469	0.40	0/630
26	14	0.26	0/559	0.54	0/754
26	24	0.28	0/549	0.68	0/741
27	15	0.27	0/473	0.50	0/639
27	25	0.24	0/469	0.49	0/635
28	16	0.27	0/460	0.49	0/613
28	26	0.21	0/456	0.42	0/608
29	17	0.32	0/426	0.53	0/561
29	27	0.25	0/426	0.47	0/561
30	18	0.29	0/525	0.49	0/691
30	28	0.22	0/525	0.39	0/691
31	19	0.24	0/310	0.46	0/407
31	29	0.18	0/310	0.46	0/407
32	1a	0.21	1/35795 (0.0%)	0.39	1/55864 (0.0%)
32	2a	0.20	0/35890	0.37	0/56012
33	1b	0.25	0/1876	0.54	0/2533
33	2b	0.23	0/1860	0.50	0/2518
34	1c	0.20	0/1582	0.41	0/2137
34	2c	0.21	0/1566	0.42	0/2119
35	1d	0.23	0/1695	0.46	0/2274
35	2d	0.20	0/1698	0.44	0/2277
36	1e	0.22	0/1149	0.47	0/1548
36	2e	0.21	0/1149	0.43	0/1548
37	1f	0.21	0/827	0.45	0/1120
37	2f	0.20	0/829	0.44	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	1g	0.19	0/1254	0.41	0/1683
38	2g	0.21	0/1248	0.44	0/1676
39	1h	0.20	0/1118	0.44	0/1506
39	2h	0.19	0/1108	0.44	0/1494
40	1i	0.21	0/1005	0.46	0/1351
40	2i	0.24	0/985	0.50	0/1329
41	1j	0.22	0/732	0.44	0/993
41	2j	0.23	0/723	0.47	0/984
42	1k	0.19	0/849	0.41	0/1150
42	2k	0.19	0/848	0.46	0/1149
43	1l	0.20	0/937	0.45	0/1260
43	2l	0.20	0/937	0.47	0/1260
44	1m	0.20	0/924	0.45	0/1242
44	2m	0.21	0/905	0.47	0/1217
45	1n	0.19	0/501	0.43	0/664
45	2n	0.23	0/501	0.46	0/664
46	1o	0.20	0/739	0.40	0/985
46	2o	0.22	0/739	0.45	0/985
47	1p	0.23	0/697	0.50	0/939
47	2p	0.21	0/693	0.46	0/935
48	1q	0.22	0/836	0.48	0/1117
48	2q	0.19	0/836	0.43	0/1117
49	1r	0.19	0/560	0.49	0/746
49	2r	0.20	0/560	0.40	0/746
50	1s	0.20	0/663	0.47	0/895
50	2s	0.20	0/660	0.39	0/893
51	1t	0.22	0/734	0.50	0/969
51	2t	0.20	0/736	0.43	0/976
52	1u	0.22	0/203	0.43	0/266
52	2u	0.22	0/203	0.47	0/266
53	1y	0.20	0/776	0.36	0/1048
53	2y	0.21	0/761	0.40	0/1030
All	All	0.24	2/309941 (0.0%)	0.43	6/463239 (0.0%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand.A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
19	1X	0	1
26	24	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
33	1b	0	1
43	2l	0	1
All	All	0	4

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	2552	OMU	O3'-P	5.12	1.61	1.56
32	1a	1498	UR3	O3'-P	5.08	1.61	1.56

All (6) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	20	12	ASN	CB-CA-C	-6.03	108.39	117.07
22	20	12	ASN	N-CA-C	5.46	113.26	108.78
5	2F	21	ALA	CA-C-N	5.24	131.13	121.70
5	2F	21	ALA	C-N-CA	5.24	131.13	121.70
1	2A	1992	G	C2'-C3'-O3'	5.23	117.35	109.50
32	1a	839	U	P-O3'-C3'	5.11	127.87	120.20

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
19	1X	93	GLU	Peptide
33	1b	231	GLU	Peptide
26	24	18	CYS	Peptide
43	2l	86	ARG	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1A	61869	0	31201	802	0
1	2A	61758	0	31152	866	0
2	1B	2572	0	1305	26	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	2B	2573	0	1306	37	0
3	1D	2131	0	2207	61	0
3	2D	2136	0	2218	68	0
4	1E	1559	0	1616	55	0
4	2E	1559	0	1618	56	0
5	1F	1584	0	1625	34	0
5	2F	1580	0	1619	52	0
6	1G	1426	0	1445	44	0
6	2G	1424	0	1441	66	0
7	1H	1330	0	1407	33	0
7	2H	1324	0	1402	38	0
8	1I	1094	0	1127	24	0
8	2I	1076	0	1094	29	0
9	1N	1121	0	1194	19	0
9	2N	1117	0	1184	36	0
10	1O	933	0	996	27	0
10	2O	933	0	996	24	0
11	1P	1135	0	1212	35	0
11	2P	1135	0	1212	39	0
12	1Q	1122	0	1179	28	0
12	2Q	1122	0	1179	34	0
13	1R	968	0	1033	19	0
13	2R	968	0	1033	36	0
14	1S	877	0	938	25	0
14	2S	870	0	923	27	0
15	1T	1091	0	1151	30	0
15	2T	1083	0	1136	33	0
16	1U	959	0	1019	16	0
16	2U	959	0	1019	14	0
17	1V	775	0	841	14	0
17	2V	771	0	830	20	0
18	1W	886	0	940	15	0
18	2W	886	0	940	19	0
19	1X	750	0	814	18	0
19	2X	750	0	814	22	0
20	1Y	810	0	892	23	0
20	2Y	810	0	887	26	0
21	1Z	1587	0	1598	27	0
21	2Z	1557	0	1564	43	0
22	10	608	0	622	13	0
22	20	608	0	622	15	0
23	11	754	0	823	13	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
23	21	759	0	837	21	0
24	12	588	0	643	13	0
24	22	592	0	654	9	0
25	13	469	0	518	8	0
25	23	464	0	514	9	0
26	14	546	0	522	26	0
26	24	536	0	514	25	0
27	15	459	0	476	14	0
27	25	455	0	465	10	0
28	16	453	0	473	14	0
28	26	449	0	469	9	0
29	17	418	0	467	12	0
29	27	418	0	467	9	0
30	18	517	0	582	21	0
30	28	517	0	582	26	0
31	19	307	0	335	2	0
31	29	307	0	335	11	0
32	1a	32246	0	16295	531	0
32	2a	32331	0	16338	526	0
33	1b	1842	0	1862	65	0
33	2b	1825	0	1828	75	0
34	1c	1558	0	1557	50	0
34	2c	1542	0	1517	56	0
35	1d	1665	0	1687	58	0
35	2d	1668	0	1703	59	0
36	1e	1133	0	1191	38	0
36	2e	1133	0	1191	41	0
37	1f	814	0	808	25	0
37	2f	816	0	808	26	0
38	1g	1235	0	1249	30	0
38	2g	1229	0	1238	34	0
39	1h	1098	0	1143	41	0
39	2h	1088	0	1126	35	0
40	1i	986	0	990	37	0
40	2i	966	0	953	49	0
41	1j	719	0	672	29	0
41	2j	710	0	661	25	0
42	1k	834	0	838	20	0
42	2k	833	0	836	20	0
43	1l	932	0	981	19	0
43	2l	932	0	981	30	0
44	1m	914	0	954	31	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
44	2m	895	0	920	34	0
45	1n	492	0	529	18	0
45	2n	492	0	529	22	0
46	1o	728	0	760	15	0
46	2o	728	0	760	32	0
47	1p	681	0	697	28	0
47	2p	677	0	686	21	0
48	1q	823	0	891	32	0
48	2q	823	0	891	31	0
49	1r	555	0	618	12	0
49	2r	555	0	618	19	0
50	1s	648	0	658	22	0
50	2s	645	0	635	22	0
51	1t	732	0	809	23	0
51	2t	733	0	795	24	0
52	1u	199	0	208	5	0
52	2u	199	0	208	7	0
53	1y	764	0	786	29	0
53	2y	749	0	757	33	0
54	10	10	0	0	0	0
54	11	5	0	0	0	0
54	13	4	0	0	0	0
54	15	6	0	0	0	0
54	17	4	0	0	0	0
54	18	1	0	0	0	0
54	19	2	0	0	0	0
54	1A	1010	0	0	1	0
54	1B	31	0	0	0	0
54	1D	18	0	0	0	0
54	1E	9	0	0	0	0
54	1F	18	0	0	0	0
54	1G	4	0	0	0	0
54	1H	2	0	0	0	0
54	1N	5	0	0	0	0
54	1O	2	0	0	0	0
54	1P	8	0	0	0	0
54	1Q	7	0	0	0	0
54	1R	5	0	0	0	0
54	1S	1	0	0	0	0
54	1T	5	0	0	0	0
54	1U	6	0	0	0	0
54	1V	6	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	1W	4	0	0	0	0
54	1X	2	0	0	0	0
54	1Y	1	0	0	0	0
54	1Z	1	0	0	0	0
54	1a	269	0	0	0	0
54	1b	1	0	0	0	0
54	1d	5	0	0	0	0
54	1e	3	0	0	0	0
54	1f	2	0	0	0	0
54	1g	3	0	0	0	0
54	1h	1	0	0	0	0
54	1i	1	0	0	0	0
54	1k	1	0	0	0	0
54	1l	2	0	0	0	0
54	1m	1	0	0	0	0
54	1n	2	0	0	0	0
54	1o	1	0	0	0	0
54	1p	1	0	0	0	0
54	1q	1	0	0	0	0
54	1t	2	0	0	0	0
54	1y	4	0	0	0	0
54	20	2	0	0	0	0
54	21	3	0	0	0	0
54	23	1	0	0	0	0
54	25	2	0	0	0	0
54	26	1	0	0	0	0
54	27	1	0	0	0	0
54	28	1	0	0	0	0
54	2A	724	0	0	0	0
54	2B	18	0	0	0	0
54	2D	8	0	0	0	0
54	2E	9	0	0	0	0
54	2F	4	0	0	0	0
54	2G	3	0	0	0	0
54	2I	1	0	0	0	0
54	2N	1	0	0	0	0
54	2P	3	0	0	0	0
54	2Q	2	0	0	0	0
54	2R	2	0	0	0	0
54	2T	5	0	0	0	0
54	2V	3	0	0	0	0
54	2W	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	2X	2	0	0	0	0
54	2Y	1	0	0	0	0
54	2a	177	0	0	0	0
54	2e	2	0	0	0	0
54	2f	1	0	0	0	0
54	2j	1	0	0	0	0
54	2n	1	0	0	0	0
54	2r	1	0	0	0	0
54	2t	1	0	0	0	0
55	1A	44	0	0	1	0
55	2A	44	0	0	0	0
56	1A	12	0	12	1	0
56	1B	12	0	12	3	0
57	18	8	0	14	3	0
57	1A	8	0	14	0	0
57	1T	8	0	14	0	0
57	1a	8	0	14	6	0
57	2A	16	0	28	3	0
57	2B	8	0	14	0	0
58	14	1	0	0	0	0
58	15	1	0	0	0	0
58	16	1	0	0	0	0
58	19	1	0	0	0	0
58	1Y	1	0	0	0	0
58	1n	1	0	0	0	0
58	24	1	0	0	0	0
58	25	1	0	0	0	0
58	26	1	0	0	0	0
58	29	1	0	0	0	0
58	2Y	1	0	0	0	0
58	2n	1	0	0	0	0
59	1d	8	0	0	1	0
59	2d	8	0	0	1	0
60	10	27	0	0	1	0
60	11	27	0	0	1	0
60	12	14	0	0	0	0
60	13	22	0	0	2	0
60	14	3	0	0	0	0
60	15	22	0	0	3	0
60	16	21	0	0	1	0
60	17	13	0	0	0	0
60	18	25	0	0	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	19	10	0	0	0	0
60	1A	3708	0	0	198	0
60	1B	95	0	0	5	0
60	1D	105	0	0	5	0
60	1E	72	0	0	5	0
60	1F	59	0	0	1	0
60	1G	13	0	0	1	0
60	1H	15	0	0	0	0
60	1I	8	0	0	1	0
60	1N	55	0	0	1	0
60	1O	26	0	0	1	0
60	1P	64	0	0	4	0
60	1Q	42	0	0	3	0
60	1R	28	0	0	4	0
60	1S	10	0	0	1	0
60	1T	35	0	0	3	0
60	1U	42	0	0	2	0
60	1V	35	0	0	1	0
60	1W	27	0	0	0	0
60	1X	26	0	0	1	0
60	1Y	13	0	0	2	0
60	1Z	12	0	0	2	0
60	1a	503	0	0	35	0
60	1b	1	0	0	0	0
60	1c	1	0	0	0	0
60	1d	7	0	0	0	0
60	1e	5	0	0	0	0
60	1f	3	0	0	0	0
60	1i	1	0	0	0	0
60	1j	1	0	0	0	0
60	1l	5	0	0	1	0
60	1m	2	0	0	0	0
60	1o	2	0	0	0	0
60	1p	2	0	0	0	0
60	1q	1	0	0	0	0
60	1t	2	0	0	0	0
60	1u	1	0	0	1	0
60	1y	3	0	0	0	0
60	20	10	0	0	0	0
60	21	23	0	0	1	0
60	22	5	0	0	0	0
60	23	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	24	1	0	0	0	0
60	25	9	0	0	0	0
60	26	4	0	0	0	0
60	27	13	0	0	1	0
60	28	12	0	0	2	0
60	2A	2290	0	0	177	0
60	2B	59	0	0	6	0
60	2D	46	0	0	3	0
60	2E	29	0	0	3	0
60	2F	17	0	0	1	0
60	2G	5	0	0	0	0
60	2H	3	0	0	0	0
60	2I	4	0	0	1	0
60	2N	6	0	0	1	0
60	2O	13	0	0	1	0
60	2P	26	0	0	3	0
60	2Q	19	0	0	1	0
60	2R	23	0	0	2	0
60	2S	5	0	0	0	0
60	2T	11	0	0	3	0
60	2U	12	0	0	0	0
60	2V	5	0	0	0	0
60	2W	24	0	0	1	0
60	2X	10	0	0	1	0
60	2Y	6	0	0	0	0
60	2Z	11	0	0	1	0
60	2a	250	0	0	19	0
60	2d	4	0	0	1	0
60	2e	2	0	0	0	0
60	2f	4	0	0	0	0
60	2j	1	0	0	0	0
60	2l	2	0	0	0	0
60	2o	1	0	0	0	0
60	2p	2	0	0	0	0
60	2q	1	0	0	0	0
60	2r	2	0	0	0	0
60	2t	4	0	0	0	0
60	2y	2	0	0	0	0
All	All	297211	0	194511	4941	0

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

All (4941) 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	1.34	1.24
32:2a:1003:G:H2'	32:2a:1004:A:H4'	1.37	1.04
32:2a:1162:C:H42	32:2a:1174:G:H1	1.09	0.96
1:1A:1082:U:O4	1:1A:1086:A:N1	1.98	0.95
1:1A:792:G:O6	60:1A:4108:HOH:O	1.86	0.92
1:2A:2602:A:H1'	1:2A:2603:G:H5"	1.51	0.92
10:2O:48:PRO:HB3	32:2a:1422:G:H5"	1.50	0.91
32:2a:677:U:H3	32:2a:713:G:H22	1.21	0.89
1:1A:1264:G:OP1	27:15:19:ARG:NH2	2.07	0.88
4:1E:110:GLY:O	60:1R:301:HOH:O	1.92	0.87
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.08	0.87
32:2a:1441:G:H5"	32:2a:1442:G:H5'	1.55	0.86
34:2c:70:VAL:HG22	34:2c:72:LYS:H	1.39	0.86
1:1A:2319:G:H22	14:1S:3:ARG:HH11	1.22	0.86
32:2a:1162:C:N4	32:2a:1174:G:H1	1.74	0.86
32:1a:472:A:H5"	47:1p:80:PHE:HB3	1.57	0.85
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.41	0.85
1:1A:674:G:OP2	60:1A:4109:HOH:O	1.93	0.85
1:1A:762:U:OP1	60:1A:4110:HOH:O	1.94	0.84
1:1A:1082:U:H3	1:1A:1086:A:H61	0.85	0.84
1:1A:1798:U:H5'	3:1D:259:THR:HG22	1.59	0.84
6:1G:41:GLN:HG3	6:1G:60:LEU:HD11	1.59	0.83
1:1A:1295:C:OP2	60:1A:4114:HOH:O	1.96	0.83
10:2O:35:VAL:HG11	10:2O:103:ALA:HB3	1.60	0.83
1:1A:517:C:OP1	27:15:16:ARG:NH2	2.12	0.83
1:1A:631:A:OP1	11:1P:65:ARG:NH1	2.12	0.83
4:1E:168:MET:HE2	4:1E:203:LYS:HE2	1.60	0.83
1:2A:585:G:OP2	60:2A:3819:HOH:O	1.96	0.82
1:1A:1784:A:OP2	60:1A:4111:HOH:O	1.95	0.82
32:2a:1500:A:OP1	60:2a:1803:HOH:O	1.97	0.82
1:1A:1186:G:OP2	60:1A:4113:HOH:O	1.96	0.82
1:2A:1798:U:H5'	3:2D:259:THR:HG22	1.60	0.82
11:2P:59:LEU:HD11	30:28:10:ALA:HB2	1.59	0.82
20:1Y:102:CYS:SG	20:1Y:103:GLY:N	2.51	0.82
22:10:11:ARG:O	22:10:14:ARG:NH2	2.09	0.82
34:1c:58:GLU:HB3	41:1j:92:THR:HG21	1.60	0.82
42:1k:18:ARG:NH2	42:1k:35:PRO:O	2.13	0.82
1:1A:1082:U:N3	1:1A:1086:A:N6	2.14	0.82
39:1h:29:SER:HB3	39:1h:32:LYS:HG3	1.60	0.81
1:2A:745:G:O6	60:2A:3820:HOH:O	1.98	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:559:A:H4'	32:2a:560:U:H3'	1.61	0.81
44:1m:2:ALA:HA	44:1m:8:GLU:HB2	1.62	0.81
50:1s:3:ARG:HH21	50:1s:7:LYS:HE2	1.46	0.81
50:2s:50:ALA:HB1	50:2s:57:HIS:HB3	1.63	0.81
5:1F:165:ARG:HA	5:1F:168:ARG:HD3	1.63	0.80
25:13:3:ARG:NH1	25:13:60:GLU:OE2	2.14	0.80
1:1A:279:C:H42	1:1A:361:G:H1	1.27	0.80
1:2A:1316:U:H2'	1:2A:1317:A:H8	1.45	0.80
46:1o:25:THR:HG21	46:1o:70:LEU:HB2	1.62	0.80
1:2A:1271:G:OP2	60:2A:3821:HOH:O	1.98	0.80
1:2A:1315:C:OP2	60:2A:3823:HOH:O	1.99	0.80
40:2i:51:ARG:HG2	40:2i:56:LEU:HD21	1.64	0.80
1:2A:2615:U:OP1	60:2A:3822:HOH:O	1.99	0.80
23:21:50:ARG:HG2	23:21:59:THR:HG22	1.64	0.80
32:1a:598:U:O4	60:1a:1903:HOH:O	2.00	0.79
1:1A:2588:G:OP1	60:1A:4116:HOH:O	2.00	0.79
1:1A:1068:G:HO2'	1:1A:1096:A:HO2'	1.27	0.79
32:2a:1348:U:H4'	40:2i:120:ARG:HD2	1.65	0.79
1:1A:1603:A:OP1	60:1A:4115:HOH:O	1.99	0.79
41:1j:26:ALA:HB1	41:1j:84:GLN:HE22	1.47	0.79
32:1a:975:A:H4'	32:1a:976:G:H5"	1.65	0.79
1:1A:1271:G:OP2	60:1A:4118:HOH:O	2.01	0.79
22:20:10:THR:HG22	22:20:12:ASN:H	1.47	0.79
6:1G:161:THR:HG22	6:1G:163:ALA:H	1.48	0.79
7:2H:98:LEU:HD22	7:2H:125:VAL:HG23	1.64	0.79
32:1a:1246:C:H42	32:1a:1291:G:H1	1.31	0.78
1:2A:2292:C:OP1	14:2S:17:ARG:NH2	2.16	0.78
32:1a:664:G:H22	32:1a:741:G:H1	1.29	0.78
1:1A:1968:G:OP1	60:1A:4120:HOH:O	2.02	0.78
19:1X:35:THR:HG22	19:1X:38:GLU:H	1.49	0.78
32:1a:794:A:OP2	60:1a:1904:HOH:O	2.00	0.78
1:1A:981:A:OP1	60:1A:4117:HOH:O	2.01	0.78
1:2A:1602:U:O4	60:2A:3824:HOH:O	2.01	0.78
32:1a:742:G:OP2	46:1o:35:ARG:NH2	2.17	0.77
1:1A:1647:G:OP1	60:1A:4118:HOH:O	2.02	0.77
32:1a:201:C:H42	32:1a:216:G:H1	1.32	0.77
40:1i:4:TYR:HB2	40:1i:19:LEU:HB2	1.65	0.77
1:2A:948:G:OP1	60:2A:3825:HOH:O	2.01	0.77
33:2b:84:GLU:HB3	33:2b:219:VAL:HG21	1.65	0.77
32:1a:596:C:OP2	60:1a:1903:HOH:O	2.01	0.77
14:1S:52:SER:HB2	14:1S:55:ALA:H	1.50	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2006:C:OP2	60:2A:3826:HOH:O	2.02	0.77
32:1a:1402:4OC:HM22	32:1a:1403:C:H5'	1.65	0.77
32:2a:1376:U:H2'	32:2a:1377:A:H8	1.48	0.77
1:2A:740:U:OP2	60:2A:3827:HOH:O	2.02	0.77
3:2D:134:ARG:NH1	3:2D:188:GLU:OE2	2.18	0.77
1:2A:962:G:OP1	60:2A:3825:HOH:O	2.02	0.77
1:2A:1793:C:OP1	60:2A:3828:HOH:O	2.03	0.77
15:2T:74:ARG:NH1	60:2T:301:HOH:O	2.09	0.77
33:2b:7:VAL:O	33:2b:217:ARG:NH1	2.18	0.77
1:2A:2807:G:N1	1:2A:2893:G:O6	2.13	0.77
32:2a:959:A:O2'	32:2a:984:C:O2'	2.03	0.77
36:1e:100:VAL:O	36:1e:107:ARG:NH2	2.18	0.76
1:1A:1634:A:OP2	60:1A:4119:HOH:O	2.02	0.76
1:1A:2741:A:OP1	31:19:22:ARG:NH2	2.17	0.76
2:2B:8:U:H3	2:2B:113:G:H1	1.33	0.76
9:2N:123:TYR:HH	9:2N:130:HIS:HE2	1.26	0.76
1:1A:217:G:OP2	60:1A:4125:HOH:O	2.04	0.76
1:1A:816:C:OP2	60:1A:4122:HOH:O	2.03	0.76
39:1h:120:THR:H	39:1h:123:GLU:HB2	1.50	0.76
1:2A:2285:C:OP2	28:26:6:ARG:NH1	2.18	0.76
4:2E:36:ARG:HG2	4:2E:47:VAL:HG12	1.66	0.76
32:2a:1256:A:H61	32:2a:1278:U:H1'	1.51	0.76
3:2D:206:LEU:HD22	3:2D:211:ARG:HG2	1.68	0.76
4:2E:105:THR:OG1	4:2E:199:ARG:NH2	2.19	0.75
43:2l:103:GLY:N	43:2l:107:ALA:O	2.15	0.75
1:1A:365:C:OP2	60:1A:4123:HOH:O	2.03	0.75
32:1a:73:G:H1	32:1a:96:U:H3	1.35	0.75
4:2E:11:MET:HG2	4:2E:24:THR:HG22	1.69	0.75
1:1A:1452:A:OP2	60:1A:4124:HOH:O	2.04	0.75
1:1A:1604:C:OP2	60:1A:4115:HOH:O	2.04	0.75
1:1A:2550:G:OP1	60:1A:4126:HOH:O	2.05	0.75
1:1A:511:U:OP2	60:1A:4121:HOH:O	2.03	0.75
32:2a:656:C:O2'	46:2o:28:GLN:NE2	2.20	0.75
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.20	0.75
1:1A:383:U:O4	60:1A:4127:HOH:O	2.05	0.74
1:2A:805:G:OP1	60:2A:3831:HOH:O	2.05	0.74
1:2A:2849:U:O4	15:2T:23:ARG:NH2	2.20	0.74
1:1A:1702:G:N7	60:1A:4243:HOH:O	2.19	0.74
32:2a:1129:C:OP1	40:2i:16:ARG:NH1	2.20	0.74
32:1a:454:C:OP1	47:1p:75:ARG:NH2	2.20	0.74
1:2A:968:G:O6	60:2A:3829:HOH:O	2.04	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:144:LEU:HD21	21:2Z:150:LEU:HD13	1.69	0.74
1:1A:2431:U:OP1	60:1A:4128:HOH:O	2.06	0.74
12:2Q:26:TYR:O	60:2Q:301:HOH:O	2.04	0.74
32:2a:1402:4OC:HM22	32:2a:1403:C:H5'	1.69	0.74
33:2b:54:THR:HG23	33:2b:199:TYR:HB3	1.68	0.74
36:2e:122:GLU:O	36:2e:126:ARG:NH1	2.21	0.74
1:1A:614(A):U:OP1	56:1A:4012:ARG:NH2	2.21	0.74
32:1a:1409:C:H2'	32:1a:1410:G:H8	1.52	0.74
53:2y:3:MET:HE1	53:2y:24:LEU:HD12	1.70	0.74
1:1A:1064:C:H3'	1:1A:1065:U:H5"	1.70	0.74
1:2A:143:G:H4'	19:2X:35:THR:HG21	1.69	0.73
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.23	0.73
34:2c:78:GLY:HA3	34:2c:83:ARG:H	1.52	0.73
1:1A:2010:G:N7	60:1A:4269:HOH:O	2.22	0.73
1:2A:2379:G:O2'	14:2S:17:ARG:NH1	2.20	0.73
32:2a:1005:A:H5"	32:2a:1006:C:C5	2.23	0.73
1:2A:809:G:O6	60:2A:3833:HOH:O	2.06	0.73
17:2V:62:LEU:HD11	17:2V:95:LEU:HB2	1.70	0.73
1:2A:2410:G:N7	60:2A:3940:HOH:O	2.21	0.73
21:2Z:69:THR:HG22	21:2Z:90:VAL:HA	1.71	0.73
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.70	0.73
41:1j:7:LYS:HB3	41:1j:97:GLU:HB2	1.68	0.73
47:1p:57:ARG:HH21	47:1p:79:VAL:HA	1.51	0.73
1:2A:1314:C:OP1	60:2A:3823:HOH:O	2.05	0.73
3:2D:69:ARG:NH2	3:2D:128:GLY:O	2.22	0.73
2:1B:81:G:N7	56:1B:232:ARG:NH2	2.36	0.73
10:1O:87:ILE:O	60:1O:301:HOH:O	2.06	0.73
44:1m:3:ARG:HG2	44:1m:8:GLU:HG3	1.69	0.73
1:2A:2156:G:N7	1:2A:2157:G:N2	2.37	0.73
1:1A:793:A:OP1	60:1A:4129:HOH:O	2.06	0.73
1:2A:364:C:OP2	60:2A:3832:HOH:O	2.05	0.73
32:1a:407:G:OP1	35:1d:115:ARG:NH2	2.22	0.73
39:2h:37:ARG:HH12	39:2h:41:ARG:HH21	1.33	0.73
32:2a:673:G:H2'	32:2a:674:G:C8	2.24	0.72
34:2c:9:GLY:HA3	45:2n:49:HIS:HA	1.71	0.72
26:14:16:CYS:SG	26:14:17:GLY:N	2.61	0.72
28:16:18:ARG:NH1	60:16:601:HOH:O	2.21	0.72
33:1b:87:ARG:NH2	33:1b:220:ASP:OD1	2.21	0.72
3:1D:69:ARG:NH2	3:1D:128:GLY:O	2.21	0.72
42:1k:99:GLN:HG2	42:1k:105:VAL:HG21	1.72	0.72
1:2A:1798:U:OP2	3:2D:274:ARG:NH2	2.21	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2e:102:ALA:HB1	36:2e:106:PRO:HG2	1.72	0.72
56:1B:232:ARG:N	60:1B:303:HOH:O	2.20	0.72
32:1a:1518:MA6:H93	32:1a:1519:MA6:H92	1.69	0.72
6:2G:7:LEU:HB2	6:2G:104:GLU:HB2	1.70	0.72
32:2a:547:A:OP1	60:2a:1804:HOH:O	2.06	0.72
32:2a:1149:C:O2'	32:2a:1280:A:N1	2.22	0.72
1:1A:771:G:OP1	29:17:10:ARG:NH1	2.23	0.72
1:1A:2130:U:O2'	1:1A:2133:G:O2'	2.08	0.72
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.71	0.72
1:2A:788:A:N6	60:2A:3848:HOH:O	2.22	0.72
1:2A:948:G:N7	60:2A:3946:HOH:O	2.21	0.72
1:2A:1633:G:OP2	60:2A:3835:HOH:O	2.06	0.72
47:2p:28:ARG:NH1	47:2p:29:ASP:OD2	2.22	0.72
32:1a:812:C:N3	60:1a:1927:HOH:O	2.20	0.72
60:2A:3828:HOH:O	32:2a:773:G:OP1	2.08	0.72
1:2A:783:A:OP2	60:2A:3839:HOH:O	2.08	0.72
1:2A:2499:C:OP1	60:2A:3834:HOH:O	2.06	0.72
1:1A:1485:G:N2	1:1A:1504:C:O2	2.19	0.72
1:1A:1937:A:H1'	1:1A:1939:5MU:H72	1.72	0.72
32:1a:792:A:OP2	60:1a:1905:HOH:O	2.07	0.72
32:1a:964:A:OP2	53:1y:9:GLN:NE2	2.23	0.72
1:2A:31:C:OP1	60:2A:3836:HOH:O	2.07	0.72
5:2F:188:ARG:HA	11:2P:3:LEU:HD21	1.71	0.72
27:25:16:ARG:NH1	27:25:17:ASP:OD1	2.22	0.72
1:1A:1793:C:OP1	60:1A:4135:HOH:O	2.08	0.71
1:1A:2058:A:OP1	60:1A:4139:HOH:O	2.08	0.71
1:1A:2822:G:OP2	60:1A:4137:HOH:O	2.08	0.71
11:1P:50:ARG:HD3	30:18:7:HIS:CD2	2.24	0.71
4:2E:47:VAL:HG11	4:2E:86:PRO:HD2	1.72	0.71
46:1o:74:ASP:HB3	46:1o:77:ARG:HB2	1.71	0.71
1:2A:1801:G:OP2	3:2D:154:LYS:NZ	2.23	0.71
33:2b:163:PHE:HE2	33:2b:215:LEU:HD22	1.55	0.71
1:1A:444:C:OP2	60:1A:4130:HOH:O	2.06	0.71
1:1A:1988:C:OP2	60:1A:4131:HOH:O	2.07	0.71
32:1a:868:C:OP2	60:1a:1906:HOH:O	2.08	0.71
53:2y:47:GLY:HA2	53:2y:68:GLU:HA	1.71	0.71
32:2a:1086:U:H3	32:2a:1099:G:H22	1.37	0.71
1:1A:114:U:O2	60:1A:4143:HOH:O	2.09	0.71
1:1A:1976:U:O4	60:1A:4133:HOH:O	2.08	0.71
1:1A:2056:G:OP1	60:1A:4132:HOH:O	2.07	0.71
10:1O:48:PRO:HB3	32:1a:1422:G:H5"	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:577:G:O2'	1:2A:1254:A:OP1	2.09	0.71
32:2a:1278:U:H5"	32:2a:1279:A:H5'	1.70	0.71
1:1A:1300:U:OP1	60:1A:4140:HOH:O	2.08	0.71
1:1A:2304:G:H22	1:1A:2312:U:H3	1.39	0.71
38:1g:79:ARG:HA	38:1g:84:ASN:HA	1.73	0.71
38:1g:152:ALA:O	38:1g:155:ARG:NH1	2.23	0.71
11:1P:83:VAL:HG12	11:1P:112:LEU:HD21	1.71	0.71
36:1e:74:GLY:HA3	36:1e:116:THR:HG22	1.73	0.71
1:2A:199:A:OP1	60:2A:3840:HOH:O	2.09	0.71
1:2A:1316:U:H2'	1:2A:1317:A:C8	2.25	0.71
2:1B:93:G:N7	60:1B:305:HOH:O	2.24	0.70
48:1q:67:LYS:O	48:1q:69:LYS:N	2.23	0.70
1:2A:1246:A:O2'	60:2A:3841:HOH:O	2.09	0.70
32:2a:766:A:OP2	60:2a:1805:HOH:O	2.07	0.70
1:1A:326:G:OP2	60:1A:4142:HOH:O	2.09	0.70
21:1Z:144:LEU:HD11	21:1Z:150:LEU:HD22	1.73	0.70
32:1a:1292:U:OP2	38:1g:41:ARG:NH2	2.24	0.70
32:2a:501:C:OP1	43:2l:117:ARG:NH2	2.25	0.70
1:1A:578:A:OP2	60:1A:4136:HOH:O	2.08	0.70
1:1A:740:U:OP2	60:1A:4111:HOH:O	2.09	0.70
1:1A:2632:A:HO2'	1:1A:2811:G:HO2'	1.38	0.70
6:2G:17:PRO:HA	6:2G:20:ILE:HB	1.72	0.70
17:2V:40:LEU:HB2	17:2V:46:VAL:HG13	1.73	0.70
23:21:51:VAL:HG11	23:21:74:VAL:HG21	1.71	0.70
1:1A:2583:G:OP1	60:1A:4134:HOH:O	2.08	0.70
32:1a:1004:A:H3'	32:1a:1005:A:H8	1.54	0.70
1:2A:749:C:OP1	60:2A:3837:HOH:O	2.08	0.70
32:2a:558:G:OP1	60:2a:1806:HOH:O	2.10	0.70
33:2b:166:ASP:HB3	33:2b:169:LYS:HB3	1.73	0.70
35:2d:18:LYS:NZ	35:2d:31:CYS:SG	2.65	0.70
46:2o:28:GLN:HE21	46:2o:66:LEU:HD21	1.56	0.70
1:1A:1381:G:N7	60:1A:4305:HOH:O	2.25	0.70
4:1E:74:PRO:O	60:1E:401:HOH:O	2.09	0.70
44:1m:58:GLU:O	44:1m:62:ASN:ND2	2.21	0.70
47:1p:20:VAL:HG23	47:1p:35:LYS:HA	1.74	0.70
32:2a:1508:G:OP1	60:2a:1803:HOH:O	2.08	0.70
1:1A:517:C:OP2	60:1A:4147:HOH:O	2.10	0.70
1:1A:990:A:OP2	60:1A:4113:HOH:O	2.09	0.70
1:1A:1948:G:OP2	60:1A:4146:HOH:O	2.10	0.70
1:1A:947:G:OP2	60:1A:4141:HOH:O	2.08	0.70
1:2A:1602:U:OP1	60:2A:3838:HOH:O	2.08	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:143:GLN:NE2	7:2H:147:ASN:OD1	2.25	0.70
35:2d:98:GLU:HG3	35:2d:194:LEU:HD21	1.74	0.70
1:2A:2431:U:OP1	60:2A:3849:HOH:O	2.10	0.70
39:2h:51:VAL:HG11	39:2h:60:ARG:HD2	1.73	0.70
51:2t:50:GLU:HB2	51:2t:99:LEU:HD22	1.72	0.70
1:1A:2018:G:N2	60:1A:4301:HOH:O	2.24	0.70
19:2X:1:MET:HE1	24:22:26:ARG:HH21	1.57	0.70
1:1A:1126:A:OP2	60:1A:4112:HOH:O	2.09	0.70
1:1A:2683:C:O2	10:1O:70:LYS:NZ	2.25	0.70
32:1a:1505:G:OP2	60:1a:1908:HOH:O	2.10	0.70
32:2a:559:A:OP1	36:2e:126:ARG:NH2	2.25	0.70
1:1A:11:G:H2'	1:1A:12:U:H5"	1.74	0.69
1:1A:249:C:O2'	11:1P:64:LYS:NZ	2.22	0.69
1:1A:1900:A:OP2	60:1A:4144:HOH:O	2.09	0.69
1:1A:2029:G:N7	60:1A:4307:HOH:O	2.25	0.69
39:1h:64:LYS:HB3	39:1h:79:VAL:HG21	1.73	0.69
13:2R:97:VAL:HG22	13:2R:114:VAL:HG22	1.73	0.69
32:2a:254:G:OP1	48:2q:66:SER:OG	2.09	0.69
34:2c:180:ALA:HA	34:2c:206:GLU:HA	1.74	0.69
11:1P:25:SER:O	60:1P:301:HOH:O	2.10	0.69
51:1t:46:GLU:HG3	51:1t:48:LYS:HD2	1.74	0.69
1:2A:135:G:N7	60:2A:3976:HOH:O	2.24	0.69
1:2A:826:U:OP1	60:2A:3847:HOH:O	2.09	0.69
1:2A:963:U:OP2	60:2A:3825:HOH:O	2.10	0.69
13:2R:87:TYR:OH	13:2R:117:VAL:O	2.05	0.69
1:1A:2786:U:O2'	4:1E:62:PRO:O	2.09	0.69
41:1j:40:LEU:HB2	41:1j:69:ASN:HB2	1.73	0.69
1:2A:731:C:OP2	60:2A:3844:HOH:O	2.09	0.69
1:2A:1024:G:OP2	60:2A:3842:HOH:O	2.09	0.69
60:1A:4280:HOH:O	30:18:42:ARG:NH1	2.24	0.69
1:2A:562:U:OP1	60:2A:3853:HOH:O	2.10	0.69
1:2A:1311:G:N2	60:2A:3838:HOH:O	2.24	0.69
1:2A:2849:U:OP2	15:2T:95:ARG:NH1	2.24	0.69
1:1A:1138:G:OP1	60:1A:4153:HOH:O	2.10	0.69
14:1S:3:ARG:HH22	14:1S:9:ARG:HH12	1.39	0.69
32:1a:536:C:OP2	60:1a:1907:HOH:O	2.09	0.69
1:1A:962:G:OP1	60:1A:4145:HOH:O	2.09	0.69
25:13:8:LEU:HD13	25:13:31:LEU:HD23	1.75	0.69
1:2A:198:C:OP2	60:2A:3804:HOH:O	2.09	0.69
1:2A:956:G:OP2	12:2Q:14:ARG:NH2	2.25	0.69
1:2A:2712(A):A:OP2	60:2A:3857:HOH:O	2.11	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:975:A:H4'	32:2a:976:G:H5"	1.73	0.69
1:1A:1185:C:OP2	60:1A:4155:HOH:O	2.11	0.69
32:1a:939:G:N7	60:1a:1937:HOH:O	2.24	0.69
1:2A:685:A:OP1	60:2A:3848:HOH:O	2.09	0.69
2:2B:103:G:H21	21:2Z:73:GLN:HE22	1.41	0.69
5:2F:110:LEU:HD11	5:2F:181:LEU:HG	1.75	0.69
21:2Z:99:TYR:HB3	21:2Z:123:ASP:HB2	1.75	0.69
1:1A:802:A:OP1	60:1A:4156:HOH:O	2.11	0.69
3:1D:242:ARG:HG3	3:1D:242:ARG:HH11	1.57	0.69
8:1I:109:ILE:HG13	8:1I:130:TYR:CZ	2.28	0.69
1:2A:511:U:OP2	60:2A:3843:HOH:O	2.09	0.69
1:2A:733:G:OP2	60:2A:3851:HOH:O	2.10	0.69
1:2A:784:A:OP2	60:2A:3839:HOH:O	2.10	0.69
1:2A:1426:G:O2'	1:2A:1572:A:N6	2.26	0.69
1:2A:2427:C:OP1	60:2A:3847:HOH:O	2.11	0.69
2:2B:102:A:OP2	60:2B:304:HOH:O	2.10	0.69
11:2P:50:ARG:HD3	30:28:7:HIS:CD2	2.27	0.69
42:2k:99:GLN:HE21	42:2k:105:VAL:HG21	1.56	0.69
44:2m:82:MET:HE2	44:2m:92:HIS:HB3	1.75	0.69
39:1h:14:ARG:NH1	39:1h:83:ILE:O	2.25	0.69
1:2A:631:A:OP1	11:2P:65:ARG:NH1	2.23	0.69
1:2A:1189:A:OP2	60:2A:3850:HOH:O	2.10	0.69
34:2c:11:ARG:NH2	34:2c:177:THR:O	2.25	0.69
32:1a:116:A:OP1	60:1a:1911:HOH:O	2.11	0.69
32:1a:547:A:OP1	60:1a:1909:HOH:O	2.10	0.69
41:1j:35:SER:HB3	41:1j:73:ASP:HB2	1.73	0.69
1:2A:2596:U:OP2	60:2A:3845:HOH:O	2.09	0.69
8:2I:72:LEU:HD21	8:2I:107:VAL:HG11	1.75	0.69
24:22:65:ASN:OD1	24:22:69:ARG:NH1	2.26	0.69
1:1A:920:G:OP1	60:1A:4148:HOH:O	2.10	0.68
1:1A:2071:A:OP2	60:1A:4152:HOH:O	2.10	0.68
33:1b:80:ILE:HG23	33:1b:215:LEU:HD12	1.73	0.68
11:2P:50:ARG:HH21	30:28:7:HIS:HD2	1.41	0.68
32:2a:266:G:H3'	48:2q:67:LYS:HB2	1.75	0.68
1:1A:998:C:OP1	60:1A:4157:HOH:O	2.11	0.68
3:1D:12:SER:HB3	3:1D:208:LYS:HB3	1.73	0.68
11:1P:59:LEU:HD11	30:18:10:ALA:HB2	1.75	0.68
17:1V:40:LEU:HB2	17:1V:46:VAL:HG13	1.74	0.68
33:1b:69:LEU:HB3	33:1b:162:ILE:HG22	1.76	0.68
33:1b:84:GLU:HB3	33:1b:219:VAL:HG21	1.74	0.68
1:2A:15:G:OP2	60:2A:3855:HOH:O	2.11	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:2T:51:ARG:HB2	15:2T:98:LYS:HD3	1.76	0.68
26:24:16:CYS:SG	26:24:17:GLY:N	2.66	0.68
32:2a:390:C:O3'	47:2p:28:ARG:NH2	2.27	0.68
39:1h:41:ARG:NH2	39:1h:123:GLU:OE2	2.25	0.68
1:2A:1670:C:OP1	60:2A:3861:HOH:O	2.11	0.68
38:2g:111:ARG:NH1	38:2g:113:GLU:OE2	2.25	0.68
1:1A:942:G:O6	60:1A:4138:HOH:O	2.08	0.68
1:1A:1466:G:HO2'	1:1A:1546:C:HO2'	1.36	0.68
1:1A:1542:A:O2'	60:1A:4162:HOH:O	2.12	0.68
32:1a:324:G:N7	60:1a:1944:HOH:O	2.25	0.68
1:2A:1371:G:O6	60:2A:3856:HOH:O	2.11	0.68
1:2A:2822:G:OP2	60:2A:3854:HOH:O	2.11	0.68
13:2R:28:LEU:HD23	13:2R:48:VAL:HG21	1.76	0.68
39:2h:64:LYS:HG2	39:2h:79:VAL:HG21	1.74	0.68
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.76	0.68
32:1a:880:C:OP1	43:1l:8:ASN:ND2	2.27	0.68
1:2A:1827:C:OP1	60:2A:3852:HOH:O	2.10	0.68
3:2D:127:VAL:HA	3:2D:193:VAL:HG22	1.75	0.68
1:1A:2759:G:OP2	60:1A:4154:HOH:O	2.11	0.68
32:1a:619:U:N3	35:1d:134:ASP:OD1	2.24	0.68
4:2E:127:ASP:OD2	60:2E:401:HOH:O	2.11	0.68
1:1A:2125:G:O2'	1:1A:2173:A:N6	2.27	0.68
33:1b:189:ASP:OD1	33:1b:189:ASP:N	2.22	0.68
1:1A:763:G:OP1	60:1A:4167:HOH:O	2.12	0.68
1:1A:1226:A:OP1	17:1V:84:LYS:NZ	2.26	0.68
11:1P:77:ARG:O	60:1P:302:HOH:O	2.12	0.68
32:1a:645:C:OP2	60:1a:1912:HOH:O	2.11	0.68
8:2I:92:VAL:HG23	8:2I:120:ILE:HB	1.74	0.68
1:1A:971:C:OP2	60:1A:4159:HOH:O	2.11	0.68
1:1A:1648:C:OP1	60:1A:4118:HOH:O	2.11	0.68
33:1b:16:HIS:HB3	33:1b:210:SER:HB2	1.75	0.68
1:2A:947:G:OP2	60:2A:3864:HOH:O	2.12	0.68
1:1A:249:C:OP1	60:1A:4164:HOH:O	2.12	0.68
1:1A:1315:C:OP2	60:1A:4168:HOH:O	2.12	0.68
32:1a:1291:G:OP1	38:1g:37:ASN:ND2	2.24	0.68
36:2e:75:THR:OG1	36:2e:117:ASP:O	2.12	0.68
1:1A:1889:A:H2'	1:1A:1890:A:C8	2.29	0.67
1:1A:1957:C:OP1	60:1A:4150:HOH:O	2.10	0.67
34:1c:78:GLY:HA3	34:1c:83:ARG:H	1.58	0.67
1:2A:1272:A:OP1	60:2A:3862:HOH:O	2.11	0.67
1:2A:2048:G:OP1	60:2A:3869:HOH:O	2.13	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:68:ILE:HG12	33:2b:161:ALA:HB3	1.75	0.67
35:2d:122:ARG:NH1	35:2d:134:ASP:O	2.27	0.67
1:1A:947:G:O6	60:1A:4161:HOH:O	2.11	0.67
1:2A:301:G:OP2	20:2Y:84:ARG:NH2	2.27	0.67
2:2B:48:A:H4'	14:2S:95:HIS:HD2	1.59	0.67
32:2a:1376:U:H2'	32:2a:1377:A:C8	2.29	0.67
1:1A:826:U:OP1	60:1A:4169:HOH:O	2.12	0.67
1:1A:888:C:N3	44:1m:93:ARG:NH1	2.41	0.67
48:1q:9:VAL:HG22	48:1q:56:VAL:HG22	1.75	0.67
1:2A:945:A:OP2	60:2A:3865:HOH:O	2.12	0.67
1:2A:2821:A:OP2	60:2R:301:HOH:O	2.12	0.67
1:1A:2260:C:OP2	60:1A:4158:HOH:O	2.11	0.67
5:1F:11:VAL:HB	5:1F:18:ARG:HG3	1.76	0.67
32:1a:407:G:H5"	35:1d:115:ARG:HG2	1.76	0.67
1:2A:1603:A:OP1	60:2A:3858:HOH:O	2.11	0.67
1:2A:2105:C:H42	1:2A:2184:G:H1	1.41	0.67
33:2b:178:ARG:HH22	39:2h:74:PRO:HB3	1.57	0.67
32:1a:376:G:H5"	47:1p:5:ARG:HD2	1.76	0.67
33:1b:15:VAL:HG22	33:1b:209:ARG:HB3	1.75	0.67
1:2A:664:C:OP1	60:2A:3860:HOH:O	2.11	0.67
33:1b:166:ASP:HB3	33:1b:169:LYS:HB3	1.77	0.67
1:2A:527:C:OP1	60:2A:3870:HOH:O	2.13	0.67
1:2A:2235:G:N7	60:2A:4010:HOH:O	2.28	0.67
8:2I:3:VAL:HG12	8:2I:38:LEU:HA	1.77	0.67
13:2R:104:ARG:HD2	13:2R:109:ALA:HB3	1.74	0.67
32:2a:643:C:H2'	32:2a:644:G:H8	1.60	0.67
32:2a:1343:G:H4'	40:2i:122:ALA:HB3	1.77	0.67
1:1A:809:G:O2'	60:1A:4181:HOH:O	2.13	0.67
1:1A:1277:G:OP1	60:1A:4173:HOH:O	2.12	0.67
1:1A:1768:U:OP1	60:1A:4178:HOH:O	2.13	0.67
1:1A:2253:G:OP1	60:1A:4165:HOH:O	2.12	0.67
20:1Y:92:ASN:HB2	20:1Y:94:LYS:H	1.58	0.67
23:21:2:SER:HB3	23:21:46:LEU:HD12	1.77	0.67
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.75	0.67
1:1A:2240:C:OP2	60:1A:4175:HOH:O	2.12	0.67
32:1a:777:A:H2	42:1k:119:CYS:HB3	1.58	0.67
1:2A:797:C:O2	60:2A:3859:HOH:O	2.11	0.67
1:2A:1840:G:OP2	60:2A:3873:HOH:O	2.13	0.67
6:2G:63:ILE:HG22	6:2G:64:THR:HG23	1.75	0.67
30:28:36:LYS:O	60:28:201:HOH:O	2.11	0.67
1:1A:588:U:OP2	60:1A:4163:HOH:O	2.12	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:323:G:HO2'	1:2A:1205:U:H3	1.42	0.67
7:2H:27:LYS:NZ	7:2H:32:GLU:OE1	2.24	0.67
53:2y:3:MET:HB2	53:2y:37:PRO:HG2	1.76	0.67
1:1A:1818:U:OP1	60:1A:4176:HOH:O	2.13	0.67
15:1T:29:ARG:HG3	15:1T:46:GLU:HB2	1.77	0.67
32:1a:1240:U:OP1	38:1g:119:ARG:NH2	2.27	0.67
1:2A:2104:G:O6	1:2A:2185:C:N3	2.28	0.67
1:2A:2492:U:OP1	60:2A:3868:HOH:O	2.12	0.67
1:2A:2805:G:H2'	1:2A:2807:G:H8	1.60	0.67
1:2A:2560:C:OP2	60:2A:3871:HOH:O	2.13	0.66
32:2a:279:A:OP2	48:2q:95:TYR:OH	2.10	0.66
1:2A:1607:C:N4	1:2A:1622:G:OP2	2.28	0.66
1:2A:1830:C:OP2	60:2A:3863:HOH:O	2.11	0.66
3:2D:61:LEU:O	3:2D:63:ARG:NH1	2.28	0.66
32:2a:1198:G:OP1	60:2a:1807:HOH:O	2.12	0.66
1:1A:336:C:HO2'	20:1Y:35:TYR:HH	1.41	0.66
1:1A:1784:A:OP1	60:1A:4171:HOH:O	2.12	0.66
30:18:54:GLU:OE2	60:18:201:HOH:O	2.12	0.66
1:2A:1090:U:H2'	1:2A:1091:G:H8	1.60	0.66
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.27	0.66
2:2B:58:A:OP2	60:2B:305:HOH:O	2.12	0.66
6:2G:36:LYS:HE2	6:2G:160:VAL:HG21	1.76	0.66
35:2d:13:ARG:HB3	35:2d:40:PRO:HD3	1.77	0.66
1:1A:531:C:OP2	60:1A:4189:HOH:O	2.14	0.66
1:1A:1321:A:N1	60:1A:4361:HOH:O	2.29	0.66
1:1A:1346:G:OP2	60:1A:4184:HOH:O	2.13	0.66
3:1D:206:LEU:HD22	3:1D:211:ARG:HG2	1.77	0.66
19:2X:35:THR:HG22	19:2X:37:THR:H	1.60	0.66
38:2g:50:ILE:HD11	38:2g:58:PRO:HA	1.76	0.66
1:1A:1024:G:OP2	60:1A:4177:HOH:O	2.13	0.66
1:1A:1633:G:OP2	60:1A:4180:HOH:O	2.13	0.66
30:18:62:LEU:HB3	30:18:65:GLU:HG3	1.76	0.66
30:28:29:LYS:HG2	30:28:44:LYS:HB3	1.77	0.66
1:1A:2022:U:OP1	60:1A:4183:HOH:O	2.13	0.66
1:1A:2285:C:OP2	28:16:6:ARG:NH1	2.27	0.66
1:2A:1093:G:N2	1:2A:1099:G:O6	2.29	0.66
1:2A:2781:A:H5"	1:2A:2782:G:H5'	1.75	0.66
26:14:61:ARG:HG3	26:14:62:ARG:H	1.61	0.66
32:1a:405:U:OP2	35:1d:3:ARG:NH2	2.28	0.66
32:1a:1309:G:OP1	44:1m:88:ARG:NH2	2.25	0.66
48:1q:22:LEU:HD11	48:1q:39:SER:HB2	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:62:C:OP1	60:2A:3875:HOH:O	2.13	0.66
1:2A:762:U:OP1	60:2A:3878:HOH:O	2.14	0.66
57:2A:3726:MPD:O2	60:2A:3872:HOH:O	2.13	0.66
21:2Z:152:ALA:HB1	21:2Z:163:LEU:HD21	1.78	0.66
32:1a:1033:G:H2'	32:1a:1034:G:H8	1.61	0.66
1:1A:253:C:OP1	60:1A:4185:HOH:O	2.13	0.66
1:1A:2499:C:OP1	60:1A:4160:HOH:O	2.11	0.66
1:2A:365:C:OP2	60:2A:3832:HOH:O	2.13	0.66
1:2A:906:G:O2'	12:2Q:67:ARG:NH2	2.28	0.66
1:2A:1268:A:OP2	60:2A:3877:HOH:O	2.14	0.66
1:2A:2448:A:OP1	60:2A:3834:HOH:O	2.13	0.66
23:21:75:GLU:HA	23:21:78:LYS:HE2	1.77	0.66
31:29:29:ASN:HD22	31:29:32:HIS:CE1	2.13	0.66
53:2y:42:SER:HB2	53:2y:49:VAL:HG23	1.77	0.66
1:1A:1670:C:OP2	60:1A:4126:HOH:O	2.13	0.66
1:1A:1779:U:OP2	60:1A:4182:HOH:O	2.13	0.66
1:1A:1783:A:H5'	1:1A:2608:G:H4'	1.78	0.66
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.31	0.65
6:1G:64:THR:HB	6:1G:94:LEU:HD21	1.78	0.65
32:1a:881:G:OP2	43:1l:12:ARG:NH2	2.28	0.65
34:1c:57:ILE:HG12	34:1c:66:VAL:HG22	1.78	0.65
43:1l:60:LEU:HD21	43:1l:66:VAL:HG22	1.77	0.65
1:2A:1493:C:N4	1:2A:2206:G:O2'	2.29	0.65
1:2A:1647:G:OP1	60:2A:3821:HOH:O	2.13	0.65
33:2b:71:VAL:HA	33:2b:93:VAL:HG22	1.78	0.65
34:2c:43:LEU:HD21	34:2c:91:LEU:HD13	1.79	0.65
1:1A:1416:G:N7	60:1A:4352:HOH:O	2.28	0.65
1:1A:2453:A:OP1	60:1A:4188:HOH:O	2.14	0.65
1:2A:2032:G:N7	60:2A:4042:HOH:O	2.29	0.65
32:2a:56:U:H2'	32:2a:57:G:C8	2.31	0.65
1:2A:1041:C:H42	1:2A:1114:G:H1	1.42	0.65
1:2A:2218:U:O2	23:21:52:ARG:NH1	2.29	0.65
1:1A:2432:A:OP1	60:1A:4164:HOH:O	2.14	0.65
23:11:77:ALA:HA	23:11:80:LEU:HD13	1.78	0.65
32:1a:940:C:OP1	60:1a:1916:HOH:O	2.14	0.65
9:2N:96:GLU:HB2	9:2N:122:VAL:HG12	1.79	0.65
19:2X:31:HIS:HB3	19:2X:34:ALA:HB2	1.79	0.65
21:2Z:19:ARG:NH1	21:2Z:84:GLU:O	2.29	0.65
26:24:62:ARG:O	26:24:64:GLY:N	2.29	0.65
1:1A:120:U:OP2	60:1A:4193:HOH:O	2.14	0.65
21:1Z:144:LEU:HD21	21:1Z:150:LEU:HD13	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1069:C:OP2	60:1a:1919:HOH:O	2.15	0.65
1:2A:1332:G:OP1	60:2A:3823:HOH:O	2.13	0.65
1:2A:2504:U:OP2	60:2A:3879:HOH:O	2.14	0.65
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.78	0.65
32:2a:1056:U:H5'	34:2c:163:ALA:HB2	1.78	0.65
41:2j:8:LEU:HB2	41:2j:70:ARG:HB2	1.77	0.65
1:1A:1267:U:OP1	60:1A:4192:HOH:O	2.14	0.65
2:1B:66:A:H61	2:1B:108:U:H2'	1.61	0.65
32:1a:972:C:OP1	60:1a:1915:HOH:O	2.13	0.65
32:1a:1003:G:H2'	32:1a:1004:A:H4'	1.77	0.65
1:2A:582:G:OP2	60:2A:3876:HOH:O	2.13	0.65
1:2A:1007:C:OP1	9:2N:37:LYS:NZ	2.28	0.65
5:2F:178:PRO:HB2	5:2F:201:VAL:HG21	1.78	0.65
21:2Z:52:SER:OG	21:2Z:53:ILE:N	2.29	0.65
32:2a:286:G:N7	60:2a:1822:HOH:O	2.27	0.65
46:2o:87:ILE:HG22	46:2o:88:ARG:H	1.62	0.65
50:2s:70:LYS:HB2	50:2s:73:GLU:HG3	1.78	0.65
1:1A:2627:G:O2'	1:1A:2781:A:N1	2.25	0.65
5:1F:30:PRO:HB3	11:1P:1:MET:HE1	1.79	0.65
9:1N:12:ARG:NH1	9:1N:50:ASP:OD2	2.29	0.65
32:1a:449:C:OP1	60:1a:1918:HOH:O	2.14	0.65
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.30	0.65
49:2r:47:THR:HG21	49:2r:49:LYS:HE2	1.79	0.65
1:1A:422:A:OP2	60:1A:4197:HOH:O	2.15	0.65
50:1s:36:ARG:HH12	50:1s:75:ALA:HB3	1.60	0.65
1:1A:1352:U:OP2	60:1A:4187:HOH:O	2.14	0.65
1:1A:2127:G:H21	1:1A:2173:A:H1'	1.62	0.65
1:1A:2177:C:O2	60:1A:4151:HOH:O	2.13	0.65
1:1A:2507:C:OP2	60:1A:4179:HOH:O	2.13	0.65
33:2b:16:HIS:HB2	33:2b:204:ASN:HB3	1.77	0.65
37:2f:61:LEU:HB3	37:2f:63:TYR:HE2	1.61	0.65
22:10:27:GLU:HG3	22:10:68:GLU:HA	1.79	0.65
32:2a:1106:G:H5"	34:2c:172:ARG:HG2	1.79	0.65
32:2a:1265:G:H1	32:2a:1270:C:H42	1.45	0.65
28:16:9:LEU:HD13	28:16:51:GLU:HG3	1.79	0.64
1:2A:1817:G:OP1	3:2D:88:ARG:NH2	2.30	0.64
1:2A:2036:C:OP2	60:2A:3887:HOH:O	2.15	0.64
14:1S:34:HIS:O	14:1S:97:ARG:NH2	2.29	0.64
26:14:57:GLU:HB2	26:14:58:ARG:HA	1.78	0.64
33:1b:112:VAL:HG12	33:1b:149:LEU:HD13	1.79	0.64
34:1c:191:THR:OG1	34:1c:194:GLY:O	2.15	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2079:U:OP1	23:21:21:ARG:NH1	2.30	0.64
1:2A:2141:G:O6	1:2A:2150:U:O2	2.15	0.64
10:2O:68:GLU:HB3	10:2O:78:ARG:HD3	1.78	0.64
26:24:46:GLN:O	26:24:48:ARG:N	2.31	0.64
1:1A:2779:U:OP1	60:1A:4201:HOH:O	2.15	0.64
26:14:58:ARG:HG3	50:1s:67:VAL:HB	1.80	0.64
34:1c:52:LEU:HD12	34:1c:53:ALA:H	1.59	0.64
20:2Y:83:THR:HG21	20:2Y:99:CYS:HB2	1.78	0.64
40:2i:86:VAL:HG11	40:2i:93:ARG:HH21	1.62	0.64
41:2j:64:GLU:OE2	41:2j:66:ARG:NH1	2.31	0.64
1:1A:2053:G:OP1	60:1A:4194:HOH:O	2.14	0.64
32:1a:1414:U:H3	32:1a:1486:G:H1	1.44	0.64
1:2A:28:A:OP2	60:2A:3880:HOH:O	2.14	0.64
1:2A:732:C:OP1	60:2A:3886:HOH:O	2.15	0.64
17:2V:5:VAL:HG11	17:2V:57:VAL:HG21	1.80	0.64
1:2A:509:C:OP1	60:2A:3881:HOH:O	2.14	0.64
1:2A:2206:G:H5"	1:2A:2207:G:C8	2.32	0.64
2:2B:58:A:OP2	60:2B:306:HOH:O	2.14	0.64
27:15:17:ASP:OD2	60:15:201:HOH:O	2.15	0.64
32:1a:330:C:O2	60:1a:1914:HOH:O	2.12	0.64
32:1a:408:A:OP1	35:1d:113:SER:OG	2.11	0.64
3:2D:75:ILE:HG21	3:2D:99:ASP:HB2	1.77	0.64
7:2H:24:VAL:HG13	7:2H:37:VAL:HG21	1.79	0.64
46:2o:54:ARG:HG2	46:2o:58:MET:HE2	1.79	0.64
1:1A:300:A:OP2	20:1Y:86:ARG:NH2	2.30	0.64
41:1j:38:ILE:HD11	41:1j:71:LEU:HD23	1.80	0.64
48:1q:53:LEU:HD23	48:1q:82:MET:HE1	1.79	0.64
1:2A:979:G:N7	60:2A:4046:HOH:O	2.30	0.64
32:2a:56:U:H2'	32:2a:57:G:H8	1.62	0.64
32:2a:542:G:OP1	35:2d:10:ARG:NH1	2.30	0.64
32:2a:642:A:N3	39:2h:113:SER:OG	2.30	0.64
33:2b:121:LEU:HG	33:2b:127:ILE:HG23	1.80	0.64
1:1A:732:C:OP1	60:1A:4203:HOH:O	2.15	0.64
20:1Y:92:ASN:N	20:1Y:93:GLY:HA2	2.11	0.64
1:2A:2366:A:OP1	60:2A:3882:HOH:O	2.14	0.64
1:2A:2788:C:OP1	4:2E:61:ARG:NH2	2.31	0.64
32:2a:564:C:O2'	39:2h:91:ARG:NH2	2.31	0.64
48:2q:45:HIS:HB2	48:2q:65:ILE:HD13	1.80	0.64
1:1A:2406:U:OP1	60:1A:4198:HOH:O	2.15	0.64
21:1Z:180:VAL:HG13	21:1Z:183:LEU:HD12	1.80	0.64
35:1d:170:VAL:HG12	35:1d:171:GLY:H	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:2T:43:GLN:OE1	60:2T:302:HOH:O	2.15	0.64
21:1Z:119:GLU:OE1	21:1Z:122:ARG:NH1	2.30	0.64
1:2A:2748:A:H5'	7:2H:4:ILE:HD12	1.80	0.64
36:2e:57:LYS:HG2	36:2e:61:TYR:HE2	1.63	0.64
1:1A:2376:A:N7	60:1A:4376:HOH:O	2.30	0.63
24:12:29:LYS:HG2	24:12:57:ILE:HD13	1.80	0.63
1:2A:1784:A:OP2	60:2A:3827:HOH:O	2.15	0.63
1:1A:887:A:H1'	1:1A:888:C:H5"	1.81	0.63
1:1A:1105:U:H2'	1:1A:1106:G:C8	2.33	0.63
1:1A:2017:U:OP2	60:1A:4190:HOH:O	2.14	0.63
34:1c:179:ARG:NH1	34:1c:206:GLU:OE1	2.31	0.63
43:1l:53:ARG:HB3	43:1l:69:TYR:HE1	1.63	0.63
1:2A:1076:C:H4'	1:2A:1077:A:OP1	1.98	0.63
27:25:45:VAL:HG11	27:25:58:LEU:HD13	1.81	0.63
51:2t:57:ARG:HH22	51:2t:100:ILE:HD12	1.63	0.63
32:1a:783:C:OP1	32:1a:1515:C:O2'	2.14	0.63
32:1a:1300:G:N7	60:1a:1957:HOH:O	2.30	0.63
1:2A:1495:A:OP2	60:2A:3883:HOH:O	2.15	0.63
1:2A:2364:C:OP1	22:20:55:ARG:NH1	2.31	0.63
3:2D:101:GLU:OE2	3:2D:103:ARG:NH1	2.32	0.63
5:2F:80:ALA:HB3	5:2F:83:PHE:HD2	1.63	0.63
6:2G:9:ARG:NH1	6:2G:13:GLU:OE2	2.31	0.63
17:2V:72:VAL:HG13	17:2V:85:LYS:HB3	1.79	0.63
32:2a:610:G:O6	60:2a:1809:HOH:O	2.15	0.63
32:1a:945:G:OP2	60:1a:1921:HOH:O	2.15	0.63
32:1a:1028:C:H2'	32:1a:1029:C:H4'	1.81	0.63
33:1b:231:GLU:HB3	33:1b:232:PRO:CD	2.27	0.63
1:2A:1023:U:OP2	60:2A:3842:HOH:O	2.16	0.63
32:2a:128:G:H4'	48:2q:3:LYS:HG2	1.79	0.63
21:1Z:19:ARG:NH1	21:1Z:84:GLU:O	2.30	0.63
39:1h:25:ASP:N	39:1h:25:ASP:OD1	2.30	0.63
1:2A:861:A:N3	2:2B:79:C:O2'	2.30	0.63
1:1A:83:G:O6	60:1A:4170:HOH:O	2.12	0.63
1:1A:1420:U:O2'	1:1A:1421:G:OP1	2.16	0.63
1:1A:2646:C:OP2	1:1A:2732:G:O2'	2.17	0.63
1:1A:2847:U:OP1	15:1T:98:LYS:NZ	2.32	0.63
33:1b:167:PRO:HG2	33:1b:188:ALA:HB2	1.80	0.63
42:1k:40:ILE:HG22	42:1k:75:TYR:HD2	1.62	0.63
46:1o:29:VAL:HG11	46:1o:67:LEU:HD21	1.79	0.63
1:2A:1843:C:H5'	3:2D:253:GLN:NE2	2.13	0.63
7:2H:164:TYR:HB2	7:2H:167:GLU:HB2	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:24:59:PHE:HA	26:24:60:GLN:C	2.24	0.63
32:2a:67:C:H2'	32:2a:68:G:C8	2.34	0.63
32:2a:1119:C:H2'	32:2a:1120:G:H8	1.62	0.63
1:1A:1762:A:H2'	60:1A:7141:HOH:O	1.97	0.63
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.80	0.63
6:2G:55:LYS:HA	6:2G:58:GLN:HG2	1.80	0.63
16:2U:102:GLU:OE2	17:2V:13:ARG:NH1	2.25	0.63
1:1A:2659:G:O6	60:1A:4195:HOH:O	2.14	0.63
14:1S:15:ARG:NE	14:1S:88:ASP:OD2	2.30	0.63
32:1a:751:U:OP2	60:1a:1920:HOH:O	2.15	0.63
32:1a:1003:G:C2'	32:1a:1004:A:H4'	2.29	0.63
39:1h:86:ILE:HG21	39:1h:133:LEU:HD13	1.81	0.63
1:2A:143:G:N2	60:2A:4067:HOH:O	2.32	0.63
1:2A:2092:U:OP1	60:2A:3893:HOH:O	2.16	0.63
7:1H:3:ARG:HH11	7:1H:4:ILE:H	1.47	0.63
1:2A:1636:C:H2'	1:2A:1637:A:C8	2.33	0.63
1:2A:2572:A:OP1	1:2A:2574:G:O2'	2.16	0.63
12:2Q:11:LYS:NZ	12:2Q:88:GLY:O	2.27	0.63
32:2a:1500:A:OP2	60:2a:1810:HOH:O	2.15	0.63
37:2f:68:PRO:HG2	37:2f:71:ARG:HH11	1.64	0.63
40:2i:42:ARG:NH1	40:2i:71:SER:O	2.31	0.63
32:1a:64:G:H4'	32:1a:65:U:H3'	1.81	0.62
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.14	0.62
1:2A:1814:G:OP1	60:2A:3890:HOH:O	2.16	0.62
32:2a:401:C:OP2	35:2d:73:ARG:NH2	2.32	0.62
1:1A:1045:A:H5'	1:1A:1046:A:H5'	1.80	0.62
1:1A:1762:A:N1	60:1A:4382:HOH:O	2.30	0.62
21:1Z:70:LEU:HG	21:1Z:91:LEU:HD21	1.82	0.62
34:1c:56:ASP:HB2	34:1c:67:THR:HB	1.80	0.62
40:1i:46:ALA:HB2	40:1i:74:ILE:HG23	1.81	0.62
42:1k:98:LEU:O	42:1k:101:SER:OG	2.17	0.62
47:1p:71:ARG:HG3	47:1p:80:PHE:HZ	1.63	0.62
3:2D:148:GLU:OE1	3:2D:151:LYS:NZ	2.27	0.62
5:2F:74:ARG:NH1	60:2F:402:HOH:O	2.31	0.62
13:2R:67:LEU:HD12	13:2R:76:VAL:HG21	1.80	0.62
60:1A:4278:HOH:O	4:1E:101:ARG:NH2	2.32	0.62
32:1a:966:M2G:H1'	53:1y:53:THR:HG21	1.81	0.62
32:1a:973:G:H3'	32:1a:974:A:H5"	1.81	0.62
32:1a:1183:A:O2'	32:1a:1184:G:OP1	2.16	0.62
1:2A:1038:C:H42	1:2A:1117:G:H1	1.44	0.62
32:2a:189(K):U:H2'	32:2a:189(L):G:C8	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1G:62:LEU:HD13	26:14:28:LYS:HZ1	1.63	0.62
36:1e:6:PHE:HZ	36:1e:40:ARG:HE	1.45	0.62
32:2a:1084:G:H5'	32:2a:1102:A:OP2	2.00	0.62
32:2a:1129:C:H2'	32:2a:1139:G:N7	2.14	0.62
1:1A:1359:A:H61	1:1A:1372:U:H3	1.48	0.62
1:1A:2223:G:OP2	60:1A:4202:HOH:O	2.15	0.62
32:1a:1246:C:N4	32:1a:1291:G:H1	1.97	0.62
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.32	0.62
1:2A:2122:U:H3	1:2A:2176:A:H61	1.46	0.62
32:2a:1391:U:H2'	32:2a:1392:G:C8	2.35	0.62
36:2e:12:LEU:HB3	36:2e:31:LEU:HB2	1.81	0.62
49:2r:25:THR:O	49:2r:25:THR:OG1	2.14	0.62
32:1a:965:A:OP2	53:1y:8:LYS:NZ	2.31	0.62
1:2A:641:C:O2'	1:2A:2350:C:OP1	2.17	0.62
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.35	0.62
1:2A:2104:G:O6	1:2A:2185:C:C4	2.53	0.62
1:1A:1223:G:OP2	60:1A:4205:HOH:O	2.16	0.62
1:1A:2316:C:O2'	6:1G:128:ARG:NH2	2.32	0.62
13:1R:71:GLN:NE2	60:1R:303:HOH:O	2.32	0.62
36:1e:8:GLU:HG2	36:1e:34:VAL:HG23	1.82	0.62
41:1j:8:LEU:HB2	41:1j:70:ARG:HB2	1.81	0.62
53:1y:52:ALA:HB2	53:1y:77:LEU:HD21	1.80	0.62
32:1a:7:G:H5'	32:1a:298:A:O4'	1.99	0.62
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.81	0.62
3:2D:26:LYS:NZ	3:2D:30:GLU:OE1	2.31	0.62
21:2Z:10:ARG:NH1	21:2Z:26:GLY:O	2.32	0.62
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.81	0.62
1:1A:1187:G:H5"	17:1V:81:TYR:CE1	2.35	0.62
18:2W:68:ARG:HB3	18:2W:109:GLU:HG2	1.80	0.62
1:1A:1653:G:H3'	13:1R:2:ARG:HD3	1.82	0.62
18:1W:18:ARG:NH1	18:1W:76:VAL:O	2.33	0.62
41:1j:44:VAL:HG13	41:1j:66:ARG:HD2	1.82	0.62
1:2A:9:U:H2'	1:2A:10:G:H8	1.65	0.62
4:2E:1:MET:HE1	4:2E:199:ARG:HG2	1.82	0.62
19:2X:2:LYS:NZ	19:2X:38:GLU:OE2	2.26	0.62
1:1A:312:G:OP2	60:1A:4209:HOH:O	2.16	0.61
32:1a:262:A:H2'	32:1a:263:A:C8	2.35	0.61
32:1a:266:G:H5'	32:1a:268:C:H41	1.65	0.61
32:1a:1123:A:O2'	41:1j:37:PRO:O	2.18	0.61
35:1d:173:TRP:CD1	35:1d:173:TRP:H	2.16	0.61
1:2A:1233:C:N4	60:2A:4070:HOH:O	2.32	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2P:5:ASP:OD1	11:2P:5:ASP:N	2.32	0.61
25:23:39:ASP:OD2	25:23:44:ARG:NH1	2.32	0.61
1:1A:2610:C:O2	60:1A:4196:HOH:O	2.15	0.61
53:1y:26:LYS:HD3	53:1y:78:ILE:HG21	1.82	0.61
1:2A:184:C:H2'	1:2A:185:U:C6	2.36	0.61
1:2A:2602:A:H4'	1:2A:2603:G:OP1	2.00	0.61
32:2a:736:C:H2'	32:2a:737:A:C8	2.35	0.61
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.82	0.61
1:1A:2122:U:O2	60:1A:4151:HOH:O	2.10	0.61
1:1A:2319:G:H22	14:1S:3:ARG:NH1	1.94	0.61
2:1B:23:G:O6	60:1B:301:HOH:O	2.13	0.61
4:1E:42:ASP:OD2	60:1E:402:HOH:O	2.16	0.61
32:1a:394:G:O6	60:1a:1910:HOH:O	2.11	0.61
1:2A:1007:C:OP1	9:2N:35:ARG:NH1	2.32	0.61
1:2A:2133:G:O2'	1:2A:2158:A:N1	2.33	0.61
7:2H:86:GLU:OE2	7:2H:132:ARG:NH2	2.33	0.61
12:2Q:97:VAL:HG11	12:2Q:103:MET:HE3	1.82	0.61
40:2i:40:LEU:HD11	40:2i:70:LYS:HB3	1.82	0.61
43:2l:46:LYS:HE3	43:2l:92:0TD:H4	1.82	0.61
4:1E:47:VAL:HG21	4:1E:86:PRO:HD2	1.83	0.61
20:1Y:20:TYR:HB3	20:1Y:23:ARG:HD2	1.82	0.61
39:1h:28:ALA:HA	39:1h:59:LEU:HG	1.82	0.61
1:2A:2079:U:O3'	23:21:35:THR:OG1	2.17	0.61
32:2a:1228:C:H2'	32:2a:1229:A:H8	1.66	0.61
1:1A:548:A:O2'	1:1A:549:G:OP1	2.16	0.61
1:1A:1865:G:OP1	60:1A:4206:HOH:O	2.16	0.61
4:1E:98:PRO:HG3	4:1E:175:VAL:HG12	1.82	0.61
15:1T:51:ARG:HG3	15:1T:98:LYS:HD2	1.81	0.61
13:2R:51:LEU:HD22	13:2R:66:VAL:HG13	1.82	0.61
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.36	0.61
1:2A:144:C:H2'	1:2A:145:G:H8	1.64	0.61
1:2A:236:C:H2'	1:2A:237:C:C6	2.35	0.61
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.36	0.61
11:2P:59:LEU:HD12	30:28:58:ILE:HG12	1.83	0.61
21:2Z:197:ILE:O	60:2Z:301:HOH:O	2.15	0.61
22:20:9:SER:OG	22:20:10:THR:N	2.33	0.61
32:2a:543:C:OP2	35:2d:10:ARG:NH2	2.34	0.61
40:2i:21:PRO:HA	40:2i:59:PHE:HA	1.81	0.61
1:1A:1009:A:OP2	9:1N:37:LYS:NZ	2.31	0.61
1:1A:1721:G:H8	1:1A:1741:A:H62	1.48	0.61
21:1Z:87:ASP:OD1	60:1Z:401:HOH:O	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:184:G:H2'	32:1a:185:A:H8	1.66	0.61
39:1h:51:VAL:HG12	39:1h:52:ASP:H	1.66	0.61
4:2E:116:VAL:HG13	4:2E:122:PHE:HB2	1.81	0.61
32:1a:92:C:H2'	32:1a:93:G:C8	2.36	0.61
32:1a:1026:G:H5'	32:1a:1027:C:H5	1.66	0.61
39:1h:10:LEU:HD22	39:1h:83:ILE:HD11	1.82	0.61
32:2a:392:G:OP1	47:2p:8:ARG:NH2	2.34	0.61
42:2k:61:ALA:HB1	42:2k:94:ALA:HB2	1.83	0.61
1:1A:271(R):G:O6	60:1A:4172:HOH:O	2.12	0.61
40:1i:9:ARG:HB3	40:1i:104:ARG:HH21	1.66	0.61
49:1r:56:THR:HB	49:1r:58:LEU:HD13	1.83	0.61
1:2A:994:C:OP2	16:2U:54:LYS:NZ	2.31	0.61
1:2A:2820:A:OP1	13:2R:2:ARG:NH2	2.33	0.61
5:2F:116:ASP:OD1	5:2F:119:ARG:NH2	2.33	0.61
5:1F:117:ARG:NH2	5:1F:189:THR:O	2.28	0.61
32:1a:992:U:H4'	32:1a:993:G:H5'	1.80	0.61
1:1A:378:C:O2'	60:1A:4208:HOH:O	2.16	0.60
1:1A:1078:U:C5	1:1A:1088:A:H5"	2.36	0.60
34:1c:12:LEU:HD11	45:1n:51:GLY:HA2	1.82	0.60
1:2A:108:U:H2'	1:2A:109:G:H8	1.65	0.60
1:2A:2142:C:H2'	1:2A:2143:C:C6	2.35	0.60
1:2A:2622:C:OP1	60:2A:3896:HOH:O	2.16	0.60
32:2a:573:A:N3	32:2a:883:C:O2'	2.32	0.60
1:1A:249:C:O2	30:18:12:LYS:NZ	2.32	0.60
1:1A:370:G:OP2	60:1A:4197:HOH:O	2.15	0.60
1:1A:2547:U:O2	10:1O:23:ARG:NH2	2.33	0.60
3:1D:148:GLU:HB2	3:1D:151:LYS:HD2	1.83	0.60
4:1E:14:ILE:HD11	4:1E:173:VAL:HG11	1.83	0.60
23:11:51:VAL:HG11	23:11:74:VAL:HG21	1.82	0.60
32:1a:109:A:OP1	60:1a:1922:HOH:O	2.16	0.60
32:1a:763:G:H2'	32:1a:764:C:C6	2.35	0.60
1:2A:500:G:N1	1:2A:503:A:OP2	2.32	0.60
1:2A:842:G:N7	60:2A:4057:HOH:O	2.31	0.60
32:2a:407:G:H5"	35:2d:115:ARG:HG2	1.82	0.60
32:2a:1226:C:H3'	44:2m:96:LEU:HD21	1.83	0.60
24:12:32:LEU:HD13	24:12:36:ARG:HH12	1.66	0.60
36:1e:69:VAL:HG12	36:1e:139:LEU:HB3	1.84	0.60
36:1e:102:ALA:O	36:1e:107:ARG:NH1	2.35	0.60
1:2A:630:G:OP2	30:28:15:LYS:NZ	2.22	0.60
1:2A:731:C:OP1	60:2A:3898:HOH:O	2.16	0.60
1:2A:1064:C:H3'	1:2A:1065:U:H5'	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:563:A:N6	60:1a:1968:HOH:O	2.33	0.60
1:2A:1855:G:O6	60:2A:3888:HOH:O	2.15	0.60
1:2A:2136:C:C2	1:2A:2155:G:N2	2.64	0.60
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	1.82	0.60
2:2B:66:A:N6	2:2B:109:C:OP2	2.35	0.60
32:2a:728:A:H2'	32:2a:729:A:C8	2.37	0.60
48:2q:41:LYS:NZ	48:2q:92:ARG:HH21	1.98	0.60
1:1A:1430:C:H2'	1:1A:1431:U:C6	2.36	0.60
1:1A:2871:C:N3	60:1A:4402:HOH:O	2.31	0.60
14:1S:27:SER:HA	14:1S:88:ASP:HB3	1.82	0.60
33:1b:80:ILE:HD13	33:1b:211:ILE:HB	1.83	0.60
1:2A:1420:U:O2'	1:2A:1421:G:OP1	2.19	0.60
4:2E:28:ALA:HB3	4:2E:93:VAL:HG12	1.84	0.60
15:2T:22:PHE:HE1	15:2T:49:VAL:HG11	1.67	0.60
32:2a:1068:G:N2	32:2a:1191:A:N3	2.46	0.60
33:2b:77:ALA:HB2	33:2b:211:ILE:HD13	1.83	0.60
36:2e:80:ILE:HD12	39:2h:104:ARG:HH22	1.66	0.60
42:2k:31:THR:HG23	42:2k:42:TRP:HB3	1.84	0.60
48:2q:66:SER:OG	48:2q:67:LYS:N	2.31	0.60
1:1A:774:A:N6	60:1A:4460:HOH:O	2.34	0.60
1:1A:2682:U:O2'	15:1T:58:ASN:ND2	2.35	0.60
32:1a:881:G:P	43:1l:12:ARG:HH22	2.24	0.60
32:1a:1003:G:N2	32:1a:1004:A:N3	2.49	0.60
1:2A:9:U:H2'	1:2A:10:G:C8	2.36	0.60
2:2B:24:G:H4'	2:2B:25:A:C8	2.35	0.60
11:2P:50:ARG:HD3	30:28:7:HIS:HD2	1.66	0.60
46:2o:5:LYS:O	46:2o:9:GLN:HG2	2.01	0.60
1:1A:2138:C:H2'	1:1A:2139:C:C5	2.36	0.60
1:1A:2763:G:OP2	60:1A:4216:HOH:O	2.17	0.60
4:1E:127:ASP:OD2	60:1E:403:HOH:O	2.17	0.60
32:1a:1202:G:O4'	45:1n:29:ARG:NH1	2.34	0.60
39:1h:23:SER:HA	39:1h:63:LEU:HD13	1.83	0.60
1:2A:477:A:OP2	60:2A:3895:HOH:O	2.16	0.60
22:20:15:ASP:OD1	22:20:16:SER:N	2.34	0.60
32:2a:600:C:H2'	32:2a:601:C:C6	2.36	0.60
1:1A:2683:C:OP1	15:1T:53:ARG:NH2	2.34	0.60
32:1a:171:A:H2'	32:1a:172:A:C8	2.37	0.60
47:1p:53:VAL:HG13	47:1p:79:VAL:HG12	1.83	0.60
1:2A:404:C:OP1	60:2A:3894:HOH:O	2.16	0.60
1:2A:1063:G:H1	1:2A:1075:C:H42	1.50	0.60
18:2W:78:GLU:OE2	18:2W:99:ARG:HD3	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1326:C:H2'	32:2a:1327:C:C6	2.36	0.60
32:1a:1183:A:H3'	32:1a:1184:G:H5"	1.84	0.60
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.84	0.60
1:2A:975:C:O2	60:2A:3885:HOH:O	2.15	0.60
1:2A:1188:U:H4'	17:2V:79:VAL:HG22	1.82	0.60
1:2A:2267:A:H5"	1:2A:2268:A:H5'	1.84	0.60
60:2A:3986:HOH:O	5:2F:53:THR:HG21	2.02	0.60
3:2D:49:ILE:O	60:2D:401:HOH:O	2.16	0.60
18:2W:4:LYS:HE2	18:2W:6:ILE:HD11	1.84	0.60
32:2a:1503:A:H5'	32:2a:1531:A:H1'	1.84	0.60
1:1A:934:G:N3	60:1A:4415:HOH:O	2.32	0.60
1:1A:2345:G:N3	1:1A:2381:C:H2'	2.17	0.60
3:1D:85:ASP:OD2	3:1D:88:ARG:NH1	2.30	0.60
8:1I:77:LEU:HB3	8:1I:142:VAL:HG22	1.82	0.60
11:1P:94:GLU:HG3	11:1P:124:LYS:HD3	1.84	0.60
47:1p:22:THR:OG1	47:1p:23:ASP:N	2.35	0.60
1:2A:984:A:H5"	1:2A:985:C:H5	1.67	0.60
1:2A:1349:A:OP1	60:2A:3889:HOH:O	2.15	0.60
32:2a:222:U:H2'	32:2a:223:U:C6	2.37	0.60
32:2a:750:G:N3	46:2o:23:GLY:HA3	2.17	0.60
36:2e:33:VAL:HG13	36:2e:112:LEU:HD12	1.84	0.60
1:1A:827:U:OP1	60:1A:4215:HOH:O	2.16	0.59
1:1A:1509(A):A:H2'	1:1A:1509(B):A:O4'	2.02	0.59
32:1a:1417:G:O6	60:1a:1917:HOH:O	2.14	0.59
44:1m:51:ALA:HA	44:1m:54:VAL:HG22	1.82	0.59
7:2H:26:VAL:HG12	7:2H:79:VAL:HG21	1.84	0.59
32:2a:1073:U:H2'	32:2a:1074:G:H8	1.67	0.59
1:1A:2336:A:H61	22:10:43:THR:HG22	1.66	0.59
32:1a:1053:G:N7	32:1a:1200:C:H5"	2.17	0.59
1:2A:911:A:N6	12:2Q:11:LYS:O	2.35	0.59
1:2A:2785:C:OP1	4:2E:41:LYS:NZ	2.28	0.59
6:2G:41:GLN:O	6:2G:43:LEU:N	2.35	0.59
6:2G:54:GLU:O	6:2G:58:GLN:N	2.32	0.59
1:1A:1341:U:O4'	19:1X:57:LEU:HD23	2.02	0.59
1:1A:2312:U:H5'	6:1G:88:ILE:HD11	1.85	0.59
32:1a:517:G:N2	32:1a:533:A:OP2	2.35	0.59
32:1a:922:G:H1'	36:1e:19:MET:HB3	1.84	0.59
47:1p:71:ARG:HG3	47:1p:80:PHE:CZ	2.37	0.59
1:2A:1795:C:O2	3:2D:255:LYS:NZ	2.34	0.59
32:2a:976:G:H5'	32:2a:1358:U:O2'	2.02	0.59
32:2a:986:A:N3	50:2s:52:TYR:OH	2.31	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1173:G:C2	1:1A:1175:U:H4'	2.37	0.59
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.37	0.59
2:1B:105:A:OP1	21:1Z:72:ARG:NH2	2.24	0.59
11:1P:89:ALA:O	11:1P:121:LYS:NZ	2.31	0.59
30:18:56:GLU:HG2	60:18:222:HOH:O	2.03	0.59
34:1c:29:TYR:OH	45:1n:54:PRO:O	2.20	0.59
1:2A:2149:G:C2	1:2A:2150:U:H1'	2.36	0.59
13:2R:72:ASP:HB3	13:2R:75:LEU:HB3	1.83	0.59
34:2c:40:ARG:NH1	34:2c:55:VAL:O	2.35	0.59
22:10:24:LYS:O	22:10:25:ARG:NH1	2.33	0.59
5:2F:11:VAL:HG22	5:2F:125:LEU:HB2	1.84	0.59
6:2G:171:ALA:O	6:2G:175:LEU:N	2.31	0.59
14:2S:67:ARG:HD2	14:2S:71:ARG:NH2	2.18	0.59
32:2a:1292:U:OP2	38:2g:41:ARG:NH2	2.36	0.59
39:2h:37:ARG:NH1	39:2h:41:ARG:HH21	2.00	0.59
1:1A:778:G:OP2	60:1A:4200:HOH:O	2.15	0.59
5:1F:184:TYR:CE2	5:1F:188:ARG:HD2	2.38	0.59
26:14:18:CYS:SG	26:14:20:ASN:HB2	2.43	0.59
32:1a:1312:G:H5'	50:1s:5:LEU:HD11	1.84	0.59
36:1e:81:GLU:HG2	36:1e:90:VAL:HG22	1.85	0.59
1:2A:2627:G:N2	1:2A:2777:G:OP2	2.30	0.59
32:2a:201:C:H42	32:2a:216:G:H22	1.49	0.59
1:1A:743:G:O6	60:1A:4199:HOH:O	2.15	0.59
1:1A:1173:G:O2'	1:1A:1174:A:O4'	2.21	0.59
1:1A:2458:G:OP2	60:1A:4214:HOH:O	2.16	0.59
53:1y:55:ASN:HA	53:1y:60:VAL:HA	1.85	0.59
1:2A:528:A:O2'	60:2A:3899:HOH:O	2.16	0.59
1:2A:1657:C:H2'	1:2A:1658:C:H6	1.67	0.59
1:2A:1778:U:O2	60:2A:3874:HOH:O	2.13	0.59
4:2E:52:LEU:HB2	4:2E:53:PRO:HD2	1.84	0.59
32:2a:719:C:O2'	49:2r:49:LYS:HB3	2.02	0.59
32:2a:1047:G:H5"	45:2n:4:LYS:HD3	1.85	0.59
33:2b:15:VAL:HB	33:2b:209:ARG:HB3	1.85	0.59
34:2c:5:ILE:HG12	34:2c:6:HIS:H	1.68	0.59
42:2k:22:HIS:HB3	42:2k:29:ILE:HB	1.85	0.59
1:1A:184:C:H2'	1:1A:185:U:C6	2.38	0.59
1:1A:1165:U:H2'	1:1A:1166:C:C6	2.38	0.59
1:1A:2242:G:OP1	60:1A:4207:HOH:O	2.16	0.59
1:2A:1334:G:O6	60:2A:3897:HOH:O	2.16	0.59
32:2a:555:C:H2'	32:2a:556:C:C6	2.37	0.59
49:2r:32:ARG:HA	49:2r:69:THR:HG21	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1O:64:ARG:HG2	10:1O:83:ALA:HB3	1.84	0.59
33:1b:185:ILE:HG22	33:1b:199:TYR:HB2	1.85	0.59
39:1h:49:GLU:HG2	39:1h:62:TYR:HE2	1.68	0.59
48:1q:45:HIS:HD2	48:1q:65:ILE:HG12	1.68	0.59
1:2A:958:U:OP2	12:2Q:14:ARG:NH1	2.36	0.59
1:2A:1250:G:H5"	60:2A:5506:HOH:O	2.03	0.59
1:2A:2305:A:H5"	6:2G:134:GLY:HA3	1.84	0.59
3:2D:260:ARG:NH1	3:2D:267:SER:OG	2.36	0.59
4:2E:174:ASP:OD1	4:2E:175:VAL:N	2.36	0.59
15:2T:29:ARG:NH2	15:2T:46:GLU:OE1	2.36	0.59
23:21:54:ALA:HB1	23:21:83:GLU:HG3	1.85	0.59
32:2a:1263:C:H2'	32:2a:1264:C:H6	1.68	0.59
33:2b:127:ILE:C	33:2b:129:GLU:H	2.11	0.59
7:1H:42:ARG:HG2	7:1H:44:VAL:HG23	1.83	0.59
12:1Q:21:THR:HG21	12:1Q:101:ARG:HB2	1.85	0.59
41:1j:39:PRO:HA	41:1j:70:ARG:HD3	1.84	0.59
1:2A:309:G:N3	1:2A:329:G:O2'	2.35	0.59
15:2T:30:VAL:HG22	15:2T:86:ILE:HG12	1.84	0.59
32:2a:316:G:OP2	32:2a:351:G:O2'	2.20	0.59
32:2a:1372:U:H5"	40:2i:71:SER:HB2	1.84	0.59
38:2g:22:LEU:HD21	38:2g:66:VAL:HG21	1.84	0.59
40:2i:46:ALA:HA	40:2i:78:LYS:HG3	1.84	0.59
53:2y:24:LEU:HD11	53:2y:39:ILE:HD11	1.83	0.59
1:1A:1641:A:OP2	60:1A:4217:HOH:O	2.17	0.58
3:1D:127:VAL:HA	3:1D:193:VAL:HG22	1.84	0.58
32:1a:19:C:H2'	32:1a:20:U:H6	1.67	0.58
32:1a:580:U:H2'	32:1a:581:G:O4'	2.03	0.58
32:1a:1296:C:H5"	44:1m:44:ARG:HH22	1.68	0.58
35:1d:15:GLU:OE2	35:1d:66:ARG:NH1	2.35	0.58
1:2A:488:G:OP2	60:2A:3903:HOH:O	2.17	0.58
1:2A:1053:C:H2'	1:2A:1054:A:H8	1.68	0.58
1:2A:2469:A:H4'	12:2Q:56:ARG:HG2	1.85	0.58
32:2a:537:G:H5"	43:2l:113:ARG:NH1	2.18	0.58
32:2a:1162:C:N3	32:2a:1174:G:N2	2.43	0.58
38:2g:111:ARG:NH2	38:2g:126:ASP:OD2	2.36	0.58
47:2p:53:VAL:HG13	47:2p:79:VAL:HG13	1.85	0.58
1:1A:1419:A:OP2	60:1A:4204:HOH:O	2.15	0.58
25:13:35:ARG:NH2	60:13:201:HOH:O	2.35	0.58
32:1a:373:A:H2'	32:1a:374:A:H8	1.69	0.58
42:1k:81:ASP:N	42:1k:81:ASP:OD1	2.33	0.58
32:2a:1320:C:H2'	32:2a:1321:C:O4'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:927:G:N7	60:1A:4409:HOH:O	2.31	0.58
1:1A:1619:G:OP2	60:1A:4218:HOH:O	2.17	0.58
1:1A:2347:C:OP1	28:16:38:LYS:NZ	2.35	0.58
21:1Z:40:ASP:HB3	21:1Z:43:GLU:HB2	1.84	0.58
32:1a:757:U:H2'	32:1a:758:G:O4'	2.02	0.58
33:1b:231:GLU:HB3	33:1b:232:PRO:HD2	1.85	0.58
5:2F:24:LEU:HD21	5:2F:114:VAL:HG12	1.85	0.58
5:2F:32:LEU:HD22	5:2F:112:MET:HE2	1.83	0.58
22:20:18:ALA:O	22:20:20:ARG:NH1	2.36	0.58
34:2c:47:LEU:HD13	34:2c:68:VAL:HG11	1.84	0.58
40:2i:17:VAL:HB	40:2i:63:ILE:HG12	1.85	0.58
41:2j:44:VAL:HG13	41:2j:66:ARG:HG2	1.85	0.58
1:1A:784:A:H5'	1:1A:785:G:OP1	2.03	0.58
1:1A:1060:U:H4'	1:1A:1061:U:H5'	1.85	0.58
1:1A:2014:A:OP1	60:1A:4219:HOH:O	2.17	0.58
12:1Q:11:LYS:HD3	12:1Q:87:LYS:HG2	1.85	0.58
20:1Y:86:ARG:HG3	20:1Y:98:VAL:HG23	1.85	0.58
1:2A:1063:G:H1	1:2A:1075:C:N4	2.00	0.58
1:2A:1639:U:H2'	1:2A:1640:C:H5"	1.85	0.58
1:2A:1671:U:O4	60:2A:3906:HOH:O	2.17	0.58
1:2A:2870:C:H2'	1:2A:2871:C:O4'	2.03	0.58
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.68	0.58
17:2V:52:VAL:HG23	17:2V:55:ALA:HB3	1.85	0.58
25:23:8:LEU:HB2	25:23:28:LEU:HD13	1.84	0.58
32:2a:1372:U:OP1	40:2i:72:GLY:N	2.36	0.58
35:2d:156:GLU:HB3	35:2d:160:GLN:HE21	1.68	0.58
40:2i:92:TYR:HB3	40:2i:96:LEU:HD12	1.84	0.58
1:2A:2319:G:H22	14:2S:3:ARG:HD3	1.66	0.58
1:2A:2453:A:OP1	60:2A:3892:HOH:O	2.16	0.58
1:2A:2595:G:OP2	60:2A:3900:HOH:O	2.17	0.58
21:2Z:33:LEU:HD11	21:2Z:90:VAL:HG21	1.85	0.58
1:1A:944:G:O3'	60:1A:4222:HOH:O	2.17	0.58
1:1A:2432:A:C8	23:11:33:LYS:HE2	2.39	0.58
1:2A:1364:G:OP2	23:21:3:LYS:HG3	2.03	0.58
11:2P:50:ARG:HH21	30:28:7:HIS:CD2	2.22	0.58
1:1A:615:G:OP1	5:1F:40:GLN:NE2	2.34	0.58
1:1A:2791:C:H2'	1:1A:2792:G:H8	1.69	0.58
32:1a:176:C:H2'	32:1a:177:C:H6	1.69	0.58
32:1a:560:U:O2'	32:1a:561:U:OP2	2.14	0.58
39:1h:83:ILE:HG13	39:1h:137:VAL:HG22	1.86	0.58
47:1p:43:LYS:HG2	47:1p:48:TRP:CE2	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:184:C:H2'	1:2A:185:U:H6	1.68	0.58
1:2A:947:G:OP1	60:2A:3902:HOH:O	2.17	0.58
1:2A:1199:U:O2'	60:2A:3909:HOH:O	2.17	0.58
1:2A:2126:A:H4'	1:2A:2127:G:O5'	2.04	0.58
3:2D:148:GLU:HB2	3:2D:151:LYS:HD2	1.85	0.58
8:2I:4:ILE:HD13	8:2I:47:LEU:HD13	1.85	0.58
21:2Z:97:GLU:HG2	21:2Z:125:LEU:HD11	1.85	0.58
52:2u:2:GLY:O	52:2u:4:GLY:N	2.36	0.58
1:1A:2086:U:H2'	1:1A:2087:G:C8	2.39	0.58
17:1V:14:VAL:HA	17:1V:18:LEU:HD13	1.86	0.58
27:15:58:LEU:HD23	27:15:60:VAL:HG12	1.85	0.58
34:1c:116:VAL:HG21	34:1c:202:ILE:HD11	1.85	0.58
1:2A:338:G:O6	60:2A:3901:HOH:O	2.17	0.58
1:2A:390:A:H4'	1:2A:391:G:H5'	1.86	0.58
26:24:40:HIS:HB3	26:24:43:TYR:CD2	2.39	0.58
32:2a:36:C:OP1	43:2l:123:LYS:NZ	2.37	0.58
32:2a:1309:G:O2'	44:2m:77:ASN:ND2	2.37	0.58
32:2a:1387:G:H2'	32:2a:1388:C:C6	2.39	0.58
32:2a:1518:MA6:H93	32:2a:1519:MA6:H102	1.85	0.58
33:2b:15:VAL:HG12	33:2b:209:ARG:HD2	1.86	0.58
1:1A:2567:G:H2'	1:1A:2568:C:C6	2.39	0.58
1:1A:2572:A:N7	4:1E:144:ARG:HD2	2.18	0.58
3:1D:155:LEU:HD23	3:1D:177:LEU:HD22	1.86	0.58
20:1Y:23:ARG:NH2	60:1Y:304:HOH:O	2.37	0.58
26:14:24:THR:OG1	26:14:25:TYR:N	2.31	0.58
33:1b:134:GLU:HG3	33:1b:137:ARG:HH21	1.68	0.58
1:2A:1803:A:O2'	3:2D:259:THR:HG21	2.03	0.58
34:2c:20:SER:OG	34:2c:22:TRP:NE1	2.34	0.58
1:1A:948:G:OP1	60:1A:4145:HOH:O	2.17	0.58
1:1A:2079:U:O3'	23:11:35:THR:OG1	2.22	0.58
32:1a:1305:G:OP2	52:1u:2:GLY:N	2.36	0.58
33:1b:127:ILE:HG22	33:1b:130:ARG:HG2	1.86	0.58
38:1g:78:ARG:HD2	38:1g:156:TRP:HZ3	1.66	0.58
6:2G:111:LEU:HA	6:2G:114:ILE:HD12	1.86	0.58
32:2a:991:U:N3	32:2a:1212:U:O4'	2.37	0.58
37:2f:30:LEU:HD23	37:2f:75:LEU:HD11	1.85	0.58
1:1A:251:A:C5	1:1A:252:G:H1'	2.39	0.57
1:1A:330:A:H2	1:1A:1210:A:O2'	1.86	0.57
1:1A:1430:C:H2'	1:1A:1431:U:H6	1.69	0.57
1:1A:2308:G:O2'	1:1A:2310:A:N7	2.36	0.57
32:1a:976:G:H5'	32:1a:1358:U:O2'	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2184:G:N1	1:2A:2185:C:O2	2.37	0.57
11:2P:85:LEU:HA	11:2P:88:LEU:HD12	1.86	0.57
11:2P:91:PHE:O	11:2P:121:LYS:NZ	2.37	0.57
33:2b:178:ARG:HB3	39:2h:72:PRO:HA	1.86	0.57
40:2i:116:LYS:HD3	40:2i:122:ALA:HA	1.85	0.57
53:2y:35:ILE:HB	53:2y:55:ASN:HB3	1.85	0.57
6:2G:101:ILE:HG22	6:2G:105:LYS:HE2	1.86	0.57
1:1A:2405:G:O2'	1:1A:2406:U:OP1	2.16	0.57
3:1D:17:THR:O	3:1D:211:ARG:NH2	2.35	0.57
30:18:47:LYS:HD3	57:18:102:MPD:H51	1.86	0.57
32:1a:922:G:H4'	36:1e:20:GLN:HA	1.85	0.57
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.39	0.57
32:1a:1504:G:OP1	32:1a:1507:A:H4'	2.04	0.57
38:1g:59:LEU:HD11	38:1g:63:LYS:HE3	1.87	0.57
1:2A:1153:C:OP2	60:2A:3905:HOH:O	2.17	0.57
1:2A:1962:5MC:N4	60:2A:4112:HOH:O	2.35	0.57
4:2E:143:ASN:HD22	4:2E:147:PRO:HD3	1.69	0.57
5:2F:25:PRO:HD2	5:2F:115:ALA:HB2	1.86	0.57
1:1A:530:G:N1	1:1A:2023:G:OP1	2.32	0.57
4:1E:2:LYS:HG3	4:1E:200:GLU:HB2	1.87	0.57
28:16:25:LYS:NZ	28:16:51:GLU:OE1	2.32	0.57
32:1a:103:C:OP2	51:1t:14:LYS:NZ	2.32	0.57
32:1a:1358:U:OP2	32:1a:1359:C:N4	2.37	0.57
1:2A:451:C:H5'	60:2A:3919:HOH:O	2.04	0.57
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.39	0.57
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.86	0.57
31:29:27:CYS:SG	31:29:28:GLU:N	2.78	0.57
44:2m:57:ARG:HA	44:2m:60:VAL:HG12	1.86	0.57
46:2o:29:VAL:O	46:2o:33:THR:OG1	2.22	0.57
26:14:34:GLU:HB2	44:1m:57:ARG:CZ	2.34	0.57
32:1a:7:G:O2'	36:1e:120:THR:O	2.22	0.57
1:2A:315:G:H2'	1:2A:316:C:C6	2.40	0.57
1:2A:800:A:H8	1:2A:800:A:OP1	1.86	0.57
9:2N:14:VAL:HG11	9:2N:138:LEU:HD12	1.86	0.57
1:1A:841:A:OP1	60:1A:4213:HOH:O	2.16	0.57
4:1E:29:GLY:HA3	60:1E:404:HOH:O	2.04	0.57
8:1I:92:VAL:HG11	8:1I:144:VAL:HG11	1.87	0.57
14:1S:15:ARG:HE	14:1S:88:ASP:CG	2.13	0.57
24:12:32:LEU:HD13	24:12:36:ARG:NH1	2.19	0.57
1:2A:2131:G:N1	1:2A:2158:A:N7	2.53	0.57
1:2A:2273:A:H2'	1:2A:2274:A:C8	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2321:G:O2'	1:2A:2322:A:OP1	2.23	0.57
1:2A:2646:C:OP2	1:2A:2732:G:O2'	2.23	0.57
4:2E:181:LEU:HD11	15:2T:6:LEU:HD23	1.86	0.57
7:2H:18:GLU:HG2	7:2H:19:VAL:H	1.69	0.57
32:2a:683:G:O6	60:2a:1808:HOH:O	2.14	0.57
1:1A:1068:G:O2'	1:1A:1096:A:O2'	2.10	0.57
1:1A:1697:G:OP2	1:1A:1698:A:O2'	2.23	0.57
5:1F:195:ASP:HB3	5:1F:198:ALA:H	1.70	0.57
32:1a:1158:C:H5	32:1a:1181:G:H1	1.51	0.57
32:1a:1295:G:O2'	44:1m:14:ARG:NH1	2.37	0.57
1:2A:570:G:O6	60:2A:3834:HOH:O	2.16	0.57
1:2A:2122:U:H2'	1:2A:2123:G:H8	1.70	0.57
6:2G:161:THR:HG22	6:2G:163:ALA:H	1.69	0.57
18:2W:4:LYS:HB2	18:2W:106:ILE:HG12	1.85	0.57
32:2a:1191:A:OP2	34:2c:3:ASN:ND2	2.38	0.57
34:2c:63:ASN:HB2	34:2c:98:ASN:HB2	1.87	0.57
46:2o:39:LEU:HD13	46:2o:56:LEU:HB2	1.87	0.57
1:1A:1865:G:OP1	60:1A:4225:HOH:O	2.18	0.57
1:1A:2079:U:OP1	23:11:21:ARG:NH2	2.37	0.57
17:1V:14:VAL:HB	17:1V:96:ILE:HG13	1.85	0.57
32:1a:437:U:H5'	35:1d:155:LEU:HD21	1.85	0.57
1:2A:999:U:OP2	60:2A:3905:HOH:O	2.18	0.57
1:2A:1014:U:H2'	1:2A:1015:G:H8	1.69	0.57
1:2A:1026:U:OP1	60:2A:3842:HOH:O	2.17	0.57
1:2A:2773:C:OP1	4:2E:166:THR:OG1	2.23	0.57
3:2D:158:ALA:O	3:2D:161:THR:OG1	2.23	0.57
44:2m:57:ARG:C	44:2m:59:TYR:H	2.13	0.57
10:1O:9:GLU:OE1	10:1O:18:LYS:NZ	2.35	0.57
20:1Y:15:VAL:HG21	20:1Y:42:VAL:HG11	1.87	0.57
35:1d:88:VAL:HG13	36:1e:97:GLY:HA2	1.87	0.57
1:2A:1507:A:O2'	1:2A:1508:A:O5'	2.23	0.57
32:2a:992:U:H4'	32:2a:993:G:O5'	2.05	0.57
32:2a:1421:G:H1	32:2a:1479:C:H42	1.52	0.57
34:2c:181:ASN:ND2	34:2c:204:LEU:HD12	2.19	0.57
9:1N:70:LYS:HB3	9:1N:87:LEU:HB2	1.87	0.57
16:1U:101:ARG:NH2	60:1U:301:HOH:O	2.29	0.57
32:1a:189(D):C:H2'	32:1a:189(E):U:O4'	2.05	0.57
32:1a:473:G:H2'	32:1a:474:G:C8	2.40	0.57
1:2A:993:G:N2	17:2V:23:GLU:OE2	2.38	0.57
1:2A:1064:C:H3'	1:2A:1065:U:C5'	2.35	0.57
1:2A:2849:U:H4'	1:2A:2868:A:C2	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2f:2:ARG:HE	37:2f:69:GLU:HG2	1.70	0.57
1:1A:2506:U:OP1	4:1E:144:ARG:NH2	2.38	0.56
7:2H:159:GLU:HG3	7:2H:169:VAL:HG11	1.87	0.56
18:2W:71:VAL:HA	18:2W:107:LEU:HD12	1.87	0.56
6:1G:59:GLU:OE1	6:1G:153:ARG:NH2	2.38	0.56
7:1H:149:ARG:NH1	7:1H:167:GLU:OE2	2.38	0.56
34:1c:3:ASN:OD1	34:1c:3:ASN:N	2.38	0.56
32:2a:1348:U:H2'	32:2a:1349:A:H8	1.70	0.56
1:1A:226:G:H21	1:1A:228:A:H62	1.53	0.56
1:1A:1047:G:H2'	1:1A:1110:G:H22	1.71	0.56
1:1A:1371:G:OP2	60:1A:4224:HOH:O	2.18	0.56
1:1A:1385:G:O2'	1:1A:1396:U:O2	2.19	0.56
1:1A:2319:G:N2	14:1S:3:ARG:HA	2.19	0.56
1:1A:2319:G:N2	14:1S:3:ARG:HD2	2.20	0.56
1:1A:2815:C:H5'	27:15:29:THR:HG21	1.85	0.56
6:1G:5:VAL:HG22	6:1G:8:LYS:H	1.70	0.56
28:16:6:ARG:NH1	28:16:26:ASN:HB2	2.20	0.56
32:1a:176:C:H2'	32:1a:177:C:C6	2.40	0.56
32:1a:269:C:H2'	32:1a:270:A:C8	2.40	0.56
32:1a:359:U:H2'	32:1a:360:A:C8	2.40	0.56
32:1a:1273:G:H3'	32:1a:1274:G:H8	1.69	0.56
44:1m:78:ILE:HG22	44:1m:82:MET:HE2	1.87	0.56
51:1t:30:LYS:HA	51:1t:33:ILE:HD12	1.86	0.56
1:2A:588:U:H2'	1:2A:589:C:C6	2.40	0.56
1:2A:862:G:OP2	60:2A:3911:HOH:O	2.18	0.56
1:2A:1007:C:N4	60:2A:4132:HOH:O	2.37	0.56
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.06	0.56
1:2A:2112:G:H2'	1:2A:2113:U:C6	2.40	0.56
1:2A:2552:OMU:OP2	60:2A:3912:HOH:O	2.18	0.56
5:2F:33:LEU:HD22	5:2F:112:MET:HE3	1.87	0.56
5:2F:135:LYS:HG2	5:2F:137:LYS:HG2	1.87	0.56
5:2F:154:VAL:HG22	5:2F:191:ARG:HB2	1.87	0.56
32:2a:866:C:H4'	32:2a:919:A:H5'	1.86	0.56
40:2i:28:VAL:HG22	40:2i:63:ILE:HB	1.87	0.56
1:1A:729:G:OP2	3:1D:13:ARG:NH1	2.36	0.56
1:1A:2721:A:H5"	60:1A:5255:HOH:O	2.05	0.56
18:1W:71:VAL:HA	18:1W:107:LEU:HD12	1.87	0.56
32:1a:405:U:O4	35:1d:2:GLY:N	2.38	0.56
32:1a:747:C:H3'	32:1a:748:C:H6	1.70	0.56
1:2A:2470:G:OP2	60:2A:3910:HOH:O	2.17	0.56
1:2A:2637:U:OP1	4:2E:82:ARG:NH1	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1493:A:H4'	53:2y:72:THR:HG23	1.87	0.56
36:2e:77:PRO:HD2	36:2e:142:LEU:HD22	1.86	0.56
38:2g:114:ARG:HB2	38:2g:115:ARG:NH2	2.21	0.56
39:2h:87:SER:HB2	39:2h:93:VAL:HB	1.87	0.56
1:1A:1996:C:H4'	1:1A:1997:G:OP1	2.06	0.56
32:1a:277:C:H5"	48:1q:68:ARG:HH21	1.69	0.56
1:2A:1066:U:O2'	1:2A:1068:G:OP2	2.22	0.56
1:2A:1671:U:N3	1:2A:1674:G:OP2	2.32	0.56
32:2a:457:C:H2'	32:2a:458:C:H6	1.71	0.56
32:2a:632:A:H3'	32:2a:633:G:H8	1.70	0.56
32:2a:987:G:H2'	32:2a:988:G:C8	2.40	0.56
33:2b:48:MET:HA	33:2b:51:LEU:HD12	1.86	0.56
1:1A:2748:A:H5'	7:1H:4:ILE:HD12	1.87	0.56
3:1D:147:LEU:HD13	3:1D:155:LEU:HD11	1.88	0.56
7:1H:101:ARG:HG2	7:1H:117:PRO:HG2	1.88	0.56
7:1H:124:GLU:HG3	7:1H:132:ARG:HB3	1.87	0.56
28:16:13:CYS:SG	28:16:47:THR:HG21	2.46	0.56
32:1a:673:G:O3'	37:1f:87:ARG:NH2	2.38	0.56
34:1c:63:ASN:HB3	34:1c:98:ASN:HB2	1.88	0.56
35:1d:178:VAL:C	35:1d:180:GLY:H	2.14	0.56
42:1k:34:ASP:HB3	42:1k:40:ILE:HD11	1.86	0.56
1:2A:108:U:H2'	1:2A:109:G:C8	2.41	0.56
1:2A:2105:C:N4	1:2A:2184:G:H1	2.04	0.56
1:2A:2693:A:H2'	1:2A:2694:G:H8	1.70	0.56
1:2A:2753:A:N3	31:29:15:LYS:NZ	2.52	0.56
6:2G:27:ASN:HB3	6:2G:30:GLU:HB2	1.87	0.56
10:2O:107:ARG:HG2	10:2O:115:VAL:HG21	1.87	0.56
16:2U:49:HIS:HA	16:2U:52:ARG:HB3	1.88	0.56
22:20:27:GLU:HB2	22:20:69:PHE:HD1	1.69	0.56
32:2a:427:U:OP1	35:2d:13:ARG:NH1	2.36	0.56
36:2e:93:PRO:O	39:2h:105:ARG:NH2	2.38	0.56
1:1A:579:G:H2'	1:1A:580:C:C6	2.40	0.56
1:1A:2142:C:H2'	1:1A:2143:C:C6	2.41	0.56
1:1A:2849:U:H4'	1:1A:2868:A:C2	2.40	0.56
7:1H:3:ARG:NH1	7:1H:4:ILE:H	2.03	0.56
32:1a:1071:C:H5"	36:1e:49:PRO:HG2	1.87	0.56
34:1c:84:ILE:HA	34:1c:87:LEU:HD12	1.88	0.56
32:2a:745:C:H2'	32:2a:746:A:H8	1.70	0.56
32:2a:1314:C:N4	50:2s:2:PRO:O	2.38	0.56
1:1A:2791:C:H2'	1:1A:2792:G:C8	2.41	0.56
25:13:55:ARG:HD3	60:13:218:HOH:O	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.41	0.56
33:1b:16:HIS:HB2	33:1b:204:ASN:HB3	1.88	0.56
5:2F:184:TYR:CE2	5:2F:188:ARG:HD2	2.41	0.56
18:2W:53:SER:OG	60:2W:301:HOH:O	2.18	0.56
20:2Y:44:ILE:HG22	20:2Y:62:GLU:HB3	1.88	0.56
26:24:58:ARG:HH21	50:2s:68:GLY:H	1.53	0.56
32:2a:501:C:H2'	32:2a:502:G:C8	2.41	0.56
32:2a:811:C:N4	60:2a:1827:HOH:O	2.34	0.56
34:2c:58:GLU:HB3	41:2j:92:THR:HG21	1.87	0.56
32:1a:1068:G:H8	32:1a:1068:G:OP2	1.89	0.56
51:1t:63:ILE:HD13	51:1t:80:ARG:HB3	1.87	0.56
1:2A:643:A:N1	1:2A:2369:A:O2'	2.37	0.56
1:2A:1701:A:OP2	60:2A:3913:HOH:O	2.18	0.56
17:2V:24:LYS:HA	17:2V:92:THR:OG1	2.06	0.56
38:2g:12:LEU:HB2	38:2g:21:VAL:HG12	1.88	0.56
41:2j:6:ILE:HB	41:2j:72:VAL:HG23	1.88	0.56
1:1A:958:U:H5"	12:1Q:14:ARG:HD3	1.86	0.56
1:1A:1178:C:H2'	1:1A:1179:C:C6	2.41	0.56
10:1O:2:ILE:HD12	10:1O:6:THR:HG21	1.87	0.56
32:1a:112:G:H4'	32:1a:389:A:H4'	1.87	0.56
32:1a:1218:C:OP2	45:1n:9:LYS:NZ	2.37	0.56
40:1i:16:ARG:HB2	40:1i:64:THR:HG22	1.88	0.56
1:2A:2298:A:H2'	1:2A:2299:G:O4'	2.06	0.56
8:2I:26:ALA:HA	8:2I:30:LEU:HB2	1.88	0.56
32:2a:936:C:H2'	32:2a:937:A:O4'	2.06	0.56
32:2a:1141:C:H2'	32:2a:1142:G:H8	1.70	0.56
32:2a:1292:U:H2'	32:2a:1293:G:C8	2.41	0.56
1:1A:588:U:H2'	1:1A:589:C:C6	2.41	0.55
2:1B:28:C:OP1	14:1S:36:TYR:OH	2.23	0.55
25:13:55:ARG:NH2	25:13:57:GLU:OE1	2.39	0.55
32:1a:325:A:OP2	51:1t:70:SER:HB3	2.05	0.55
32:1a:1409:C:H2'	32:1a:1410:G:C8	2.36	0.55
38:1g:75:VAL:HG13	38:1g:145:ALA:HA	1.86	0.55
1:2A:1920:OMC:HM22	1:2A:1921:G:H5'	1.89	0.55
1:2A:2562:U:H1'	10:2O:23:ARG:HH11	1.71	0.55
9:2N:15:LEU:HB2	9:2N:135:PRO:HB2	1.88	0.55
24:22:35:LEU:HD12	24:22:53:LEU:HD12	1.88	0.55
1:1A:959:A:OP2	60:1A:4232:HOH:O	2.18	0.55
1:1A:1175:U:OP1	1:1A:1177:A:N6	2.39	0.55
1:1A:2137:C:H42	1:1A:2154:G:H1	1.52	0.55
47:1p:11:SER:OG	47:1p:12:LYS:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:1y:24:LEU:HD11	53:1y:39:ILE:HD11	1.89	0.55
1:2A:1978:A:N6	57:2A:3726:MPD:H53	2.21	0.55
1:2A:2635:C:O2'	4:2E:80:GLU:OE2	2.20	0.55
3:2D:108:PRO:HD2	3:2D:111:LEU:HG	1.89	0.55
44:2m:47:ASP:N	44:2m:47:ASP:OD1	2.39	0.55
1:1A:993:G:OP1	16:1U:50:ARG:NH2	2.39	0.55
1:1A:2561:A:H2	10:1O:23:ARG:HH21	1.54	0.55
34:1c:17:ASP:OD1	34:1c:18:TRP:N	2.39	0.55
1:2A:1647:G:H3'	1:2A:1647:G:OP2	2.05	0.55
2:2B:48:A:H4'	14:2S:95:HIS:CD2	2.41	0.55
3:2D:72:LYS:NZ	3:2D:99:ASP:OD2	2.33	0.55
8:2I:57:ARG:O	8:2I:61:ARG:HG2	2.06	0.55
17:2V:1:MET:HG2	17:2V:41:GLY:O	2.07	0.55
32:2a:1400:5MC:H1'	53:2y:80:LYS:HD3	1.87	0.55
1:1A:952:G:OP1	12:1Q:16:ARG:NH2	2.39	0.55
1:1A:1094:U:H2'	1:1A:1096:A:OP2	2.06	0.55
1:1A:2445:G:OP1	5:1F:74:ARG:NH2	2.39	0.55
1:1A:2564:A:C2	1:1A:2647:U:H4'	2.41	0.55
32:2a:552:U:H4'	43:2l:87:GLY:H	1.69	0.55
32:2a:1074:G:H1	32:2a:1083:U:H3	1.52	0.55
32:2a:1176:A:H2'	32:2a:1177:G:C8	2.41	0.55
36:2e:92:LYS:HB3	36:2e:119:LEU:HB2	1.87	0.55
44:2m:80:ARG:HH22	50:2s:69:HIS:CE1	2.25	0.55
1:1A:307:G:H21	1:1A:330:A:H62	1.55	0.55
32:1a:815:A:O2'	32:1a:1526:G:N2	2.38	0.55
32:1a:1182:G:H4'	32:1a:1183:A:H5'	1.87	0.55
1:2A:2610:C:O2'	60:2A:3830:HOH:O	2.04	0.55
6:2G:139:LEU:HD23	6:2G:149:VAL:HG21	1.87	0.55
13:2R:2:ARG:NH1	13:2R:5:LYS:O	2.39	0.55
33:2b:96:ARG:HG3	33:2b:97:TRP:N	2.21	0.55
34:2c:20:SER:HB2	34:2c:40:ARG:HH21	1.72	0.55
36:2e:137:GLU:HG2	36:2e:140:ARG:HH11	1.72	0.55
53:2y:52:ALA:HB2	53:2y:77:LEU:HD21	1.89	0.55
1:1A:1275:A:N1	1:1A:1295:C:O2'	2.39	0.55
1:1A:1714:G:O6	60:1A:4221:HOH:O	2.17	0.55
1:1A:2022:U:O2'	1:1A:2617:C:H5'	2.07	0.55
1:1A:2127:G:H1'	1:1A:2173:A:H2	1.71	0.55
12:1Q:31:ASP:OD1	12:1Q:134:ARG:NH1	2.37	0.55
12:1Q:137:TYR:O	12:1Q:141:GLN:HG2	2.07	0.55
1:2A:144:C:H2'	1:2A:145:G:C8	2.42	0.55
1:2A:236:C:H2'	1:2A:237:C:H6	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:809:G:OP2	60:2A:3916:HOH:O	2.18	0.55
32:2a:763:G:H2'	32:2a:764:C:C6	2.42	0.55
32:2a:1009:G:H1	32:2a:1020:U:H3	1.53	0.55
34:2c:155:GLY:HA3	34:2c:196:LEU:HD13	1.89	0.55
48:2q:56:VAL:O	48:2q:77:VAL:HB	2.06	0.55
1:1A:1942:5MC:OP2	1:1A:1943:U:O2'	2.22	0.55
4:1E:14:ILE:HB	15:1T:14:TYR:CZ	2.42	0.55
32:1a:266:G:H5"	32:1a:267:C:C5	2.42	0.55
32:1a:1279:A:O2'	32:1a:1281:U:OP2	2.20	0.55
36:1e:148:VAL:HG21	39:1h:107:LEU:HB3	1.88	0.55
47:1p:42:ARG:HB3	47:1p:44:THR:HG23	1.88	0.55
15:2T:127:ALA:C	15:2T:129:ARG:H	2.14	0.55
32:2a:748:C:H4'	32:2a:749:C:O5'	2.07	0.55
32:2a:1119:C:H2'	32:2a:1120:G:C8	2.42	0.55
35:2d:62:GLN:HB3	35:2d:66:ARG:HD2	1.88	0.55
37:2f:43:LEU:HD23	37:2f:46:ARG:HH22	1.71	0.55
43:2l:26:ALA:HB1	43:2l:60:LEU:HD22	1.89	0.55
1:1A:687:C:H5"	29:17:2:LYS:HE2	1.88	0.55
1:1A:1816:G:O6	3:1D:35:LYS:NZ	2.28	0.55
1:1A:1844:C:H2'	1:1A:1845:G:H8	1.72	0.55
4:1E:2:LYS:HB2	4:1E:95:ILE:HD12	1.88	0.55
13:1R:118:GLU:OXT	60:1R:302:HOH:O	2.18	0.55
32:1a:1314:C:H2'	32:1a:1315:U:C6	2.42	0.55
40:1i:48:GLU:OE2	40:1i:51:ARG:NE	2.40	0.55
36:2e:83:GLU:HA	36:2e:88:LYS:HA	1.88	0.55
1:1A:847:U:OP2	60:1A:4223:HOH:O	2.17	0.55
25:13:26:LEU:O	25:13:35:ARG:NE	2.39	0.55
32:1a:25:C:H2'	32:1a:26:A:C8	2.42	0.55
9:2N:98:VAL:O	60:2N:301:HOH:O	2.18	0.55
32:2a:646:U:H2'	32:2a:647:C:C6	2.42	0.55
38:2g:113:GLU:HG3	38:2g:119:ARG:HA	1.87	0.55
1:1A:1178:C:H2'	1:1A:1179:C:H6	1.70	0.55
18:1W:25:ARG:NH2	18:1W:74:ALA:O	2.37	0.55
32:1a:711:G:OP1	37:1f:54:LYS:NZ	2.35	0.55
32:1a:840:C:H4'	32:1a:841:U:OP2	2.07	0.55
36:1e:102:ALA:HB1	36:1e:106:PRO:HG2	1.89	0.55
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.70	0.55
4:2E:52:LEU:O	4:2E:76:ARG:N	2.34	0.55
26:24:59:PHE:HB3	26:24:61:ARG:HG2	1.89	0.55
1:1A:272(J):C:H2'	1:1A:274:G:H8	1.71	0.54
1:1A:1939:5MU:OP1	1:1A:2604:U:O2'	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2328:A:H2'	1:1A:2329:G:C8	2.42	0.54
11:1P:130:PHE:HB2	11:1P:135:LEU:HG	1.89	0.54
20:1Y:6:HIS:H	20:1Y:6:HIS:CD2	2.25	0.54
32:1a:186:C:H2'	32:1a:187:C:C6	2.42	0.54
40:1i:50:LEU:HD13	40:1i:56:LEU:HA	1.89	0.54
47:1p:74:LEU:HD23	47:1p:79:VAL:HG11	1.89	0.54
1:2A:81:G:N7	60:2A:4088:HOH:O	2.33	0.54
1:2A:2168:G:O2'	1:2A:2170:A:N6	2.40	0.54
32:2a:64:G:H4'	32:2a:65:U:H3'	1.88	0.54
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.42	0.54
32:2a:1288:A:N1	32:2a:1371:G:H1'	2.22	0.54
1:1A:602:G:O2'	1:1A:655:A:N6	2.40	0.54
1:1A:1175:U:O2'	1:1A:1176:G:O5'	2.23	0.54
1:1A:1583:A:H5'	1:1A:1584:C:OP1	2.07	0.54
1:1A:2143:C:N3	1:1A:2148:G:O6	2.40	0.54
8:1I:5:LEU:HD21	8:1I:12:LEU:HD22	1.89	0.54
17:1V:80:GLN:OE1	60:1V:301:HOH:O	2.18	0.54
32:1a:17:U:H2'	32:1a:18:C:C6	2.42	0.54
37:1f:99:ALA:HB1	49:1r:23:LYS:HE3	1.89	0.54
1:2A:19:C:H2'	1:2A:20:C:H6	1.72	0.54
1:2A:2286:A:OP1	28:26:29:ASN:ND2	2.40	0.54
32:2a:1503:A:OP1	32:2a:1531:A:O2'	2.23	0.54
34:2c:180:ALA:HB1	34:2c:203:PHE:CE1	2.42	0.54
35:2d:100:ARG:NH1	35:2d:137:SER:OG	2.40	0.54
48:2q:45:HIS:HA	48:2q:69:LYS:HZ1	1.72	0.54
16:1U:76:TYR:CZ	16:1U:80:ILE:HG13	2.43	0.54
32:1a:396:G:O2'	32:1a:398:C:OP1	2.21	0.54
37:1f:38:GLU:HB2	37:1f:64:GLN:HG2	1.89	0.54
53:1y:32:THR:HG21	53:1y:85:LEU:HD11	1.89	0.54
1:2A:251:A:C5	1:2A:252:G:H1'	2.42	0.54
1:2A:2130:U:H2'	1:2A:2158:A:N1	2.22	0.54
11:2P:50:ARG:NH1	60:2P:303:HOH:O	2.39	0.54
23:21:50:ARG:NH1	23:21:57:GLU:OE2	2.40	0.54
32:2a:624:C:H2'	32:2a:625:G:H8	1.72	0.54
32:2a:1138:G:H2'	32:2a:1140:C:H5'	1.89	0.54
39:2h:41:ARG:NH1	39:2h:123:GLU:OE2	2.35	0.54
2:1B:96:U:O4	56:1B:232:ARG:NH1	2.39	0.54
10:1O:88:ASN:ND2	10:1O:90:GLN:OE1	2.41	0.54
26:14:16:CYS:HB3	26:14:20:ASN:HB3	1.89	0.54
32:1a:1347:G:N2	32:1a:1373:G:H2'	2.23	0.54
48:1q:10:VAL:HG22	48:1q:21:VAL:HG22	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1073:A:H2'	1:2A:1074:G:C8	2.43	0.54
1:2A:2331:G:O2'	22:20:43:THR:HG22	2.07	0.54
2:2B:56:G:OP1	6:2G:27:ASN:ND2	2.41	0.54
6:2G:55:LYS:O	6:2G:59:GLU:N	2.29	0.54
32:2a:406:G:H5'	35:2d:5:ILE:HD11	1.89	0.54
36:2e:53:LEU:HD12	36:2e:53:LEU:H	1.73	0.54
40:2i:26:VAL:HG22	40:2i:61:ALA:HB3	1.89	0.54
1:1A:1143:A:OP1	9:1N:25:ARG:NH2	2.40	0.54
1:1A:2109:U:H2'	1:1A:2110:G:C8	2.42	0.54
3:1D:106:ILE:HG12	60:1D:405:HOH:O	2.07	0.54
6:1G:15:VAL:HG21	6:1G:176:LEU:HD23	1.88	0.54
36:1e:69:VAL:HG21	36:1e:113:ALA:HB1	1.89	0.54
42:1k:83:ILE:HG12	42:1k:109:VAL:HG13	1.88	0.54
1:2A:248:G:N3	60:2A:4091:HOH:O	2.33	0.54
1:2A:409:C:H2'	1:2A:410:G:C8	2.42	0.54
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.21	0.54
7:2H:90:LYS:HD3	7:2H:159:GLU:HG2	1.90	0.54
12:2Q:37:LEU:HD21	12:2Q:130:LYS:HE3	1.90	0.54
24:22:38:GLN:HB3	24:22:44:LEU:HB2	1.90	0.54
32:2a:35:G:O2'	43:2l:118:SER:O	2.24	0.54
32:2a:164:U:H2'	32:2a:165:C:C6	2.43	0.54
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.43	0.54
1:1A:299:A:N1	1:1A:322:A:O2'	2.33	0.54
1:1A:445:C:OP2	60:1A:4220:HOH:O	2.17	0.54
1:1A:1805:U:O2	3:1D:50:THR:HB	2.08	0.54
32:1a:489:C:OP1	35:1d:132:ARG:NH2	2.36	0.54
35:1d:89:THR:HB	35:1d:204:ILE:HD11	1.88	0.54
28:26:14:THR:OG1	28:26:48:VAL:O	2.19	0.54
32:2a:1275:A:H2'	32:2a:1276:G:O4'	2.08	0.54
1:1A:1798:U:H5'	3:1D:259:THR:CG2	2.36	0.54
1:1A:2319:G:H22	14:1S:3:ARG:HD2	1.72	0.54
5:1F:53:THR:HG22	5:1F:55:GLY:H	1.73	0.54
32:1a:19:C:H2'	32:1a:20:U:C6	2.43	0.54
32:1a:659:U:H2'	32:1a:660:G:H8	1.72	0.54
32:1a:836:G:OP1	49:1r:61:LYS:NZ	2.38	0.54
32:1a:1086:U:H3	32:1a:1099:G:H22	1.55	0.54
1:2A:1072:C:N4	1:2A:1093:G:H1	2.05	0.54
1:2A:2049:G:OP2	60:2A:3918:HOH:O	2.19	0.54
1:2A:2297:C:O2	1:2A:2321:G:N2	2.38	0.54
1:2A:2786:U:O2'	4:2E:62:PRO:O	2.23	0.54
15:2T:64:ARG:HB2	15:2T:73:GLU:HG2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:2Y:13:VAL:HG12	20:2Y:74:PRO:HA	1.89	0.54
32:2a:926:G:C6	53:2y:87:LYS:HG3	2.43	0.54
32:2a:1239:A:H4'	32:2a:1240:U:H5"	1.90	0.54
33:2b:69:LEU:HD13	33:2b:155:LEU:HD22	1.90	0.54
36:2e:144:THR:H	36:2e:147:ASP:HB2	1.72	0.54
1:1A:715:G:H21	46:1o:40:SER:HB2	1.73	0.54
1:1A:1056:G:H5"	1:1A:1057:A:O4'	2.08	0.54
1:1A:2100:G:H1	1:1A:2189:U:H3	1.56	0.54
13:1R:36:THR:HG22	13:1R:37:THR:H	1.72	0.54
32:1a:328:C:OP1	60:1a:1923:HOH:O	2.19	0.54
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.23	0.54
40:1i:55:ALA:HB1	40:1i:59:PHE:HE2	1.73	0.54
1:2A:479:A:N3	1:2A:481:G:H5"	2.23	0.54
1:2A:1598:C:H2'	1:2A:1599:C:H6	1.72	0.54
1:2A:1650:G:OP2	60:2A:3915:HOH:O	2.18	0.54
1:2A:1657:C:H2'	1:2A:1658:C:C6	2.42	0.54
8:2I:2:LYS:HA	8:2I:20:ASP:HA	1.88	0.54
35:2d:12:CYS:HB2	59:2d:501:SF4:S2	2.47	0.54
37:2f:20:ALA:HA	37:2f:23:LYS:HD3	1.90	0.54
39:2h:95:VAL:HB	39:2h:99:GLU:HG3	1.88	0.54
1:1A:2444:G:OP2	5:1F:68:LYS:NZ	2.35	0.54
7:1H:3:ARG:NH1	7:1H:5:GLY:H	2.06	0.54
8:1I:72:LEU:C	8:1I:74:ASN:H	2.16	0.54
18:1W:12:ILE:HD13	18:1W:17:VAL:HG13	1.90	0.54
46:1o:33:THR:HA	46:1o:63:ARG:HH11	1.71	0.54
1:2A:1069:A:C2	1:2A:1073:A:H5'	2.42	0.54
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.42	0.54
1:2A:2140:C:H2'	1:2A:2141:G:H8	1.73	0.54
1:2A:2150:U:H2'	1:2A:2151:G:C8	2.43	0.54
1:2A:2354:G:N7	60:2A:4090:HOH:O	2.33	0.54
6:2G:146:TYR:HB3	44:2m:11:ARG:HH12	1.73	0.54
9:2N:20:GLY:HA2	9:2N:61:ARG:HE	1.73	0.54
11:2P:100:LEU:HD12	11:2P:112:LEU:HD11	1.88	0.54
32:2a:1103:C:OP1	33:2b:96:ARG:NH2	2.41	0.54
34:2c:47:LEU:HB2	34:2c:52:LEU:HD12	1.89	0.54
50:2s:20:LEU:HD23	50:2s:23:ASN:HD22	1.72	0.54
1:1A:286:C:H2'	1:1A:287:C:C6	2.43	0.54
1:1A:2115:G:H2'	1:1A:2117:A:N6	2.22	0.54
16:1U:34:LYS:NZ	16:1U:37:GLU:OE1	2.27	0.54
32:1a:1103:C:OP1	33:1b:96:ARG:NH2	2.38	0.54
32:1a:1298:C:H2'	38:1g:114:ARG:NH2	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:5:ILE:HD11	45:1n:49:HIS:HE1	1.73	0.54
1:2A:973:A:H8	1:2A:973:A:OP1	1.90	0.54
6:2G:31:VAL:O	6:2G:33:ARG:NH1	2.41	0.54
16:2U:81:HIS:CE1	16:2U:85:LYS:HE2	2.42	0.54
32:2a:1148:U:H2'	32:2a:1149:C:O4'	2.07	0.54
50:2s:32:LYS:HA	50:2s:50:ALA:HB3	1.90	0.54
1:1A:336:C:O2'	20:1Y:35:TYR:OH	2.15	0.53
1:1A:1930:G:O2'	1:1A:1968:G:O6	2.21	0.53
32:1a:188:C:H2'	32:1a:189:G:C8	2.43	0.53
48:1q:60:ILE:HG22	48:1q:74:LEU:HB2	1.91	0.53
1:2A:466:A:P	29:27:34:ARG:HH21	2.32	0.53
1:2A:974:G:N2	60:2A:4094:HOH:O	2.34	0.53
3:2D:232:PRO:O	60:2D:402:HOH:O	2.18	0.53
32:2a:1004:A:N7	32:2a:1037:C:H2'	2.24	0.53
33:2b:98:LEU:HB2	33:2b:101:MET:HE3	1.89	0.53
39:2h:7:ALA:O	39:2h:11:THR:OG1	2.21	0.53
47:2p:11:SER:OG	47:2p:12:LYS:N	2.41	0.53
50:2s:52:TYR:HB2	50:2s:57:HIS:CE1	2.43	0.53
1:1A:125:G:O2'	29:17:48:LYS:HE3	2.08	0.53
1:1A:639:U:H2'	1:1A:640:C:C6	2.44	0.53
45:1n:4:LYS:HA	45:1n:7:ILE:HG12	1.90	0.53
1:2A:1069:A:H5'	1:2A:1096:A:H5'	1.90	0.53
1:2A:2728:U:H2'	1:2A:2729:G:C8	2.43	0.53
14:2S:10:ARG:HH21	14:2S:91:PRO:HB2	1.72	0.53
32:2a:545:C:H5'	35:2d:72:GLU:HB2	1.89	0.53
35:2d:8:VAL:HG22	35:2d:21:LEU:HD13	1.90	0.53
43:2l:8:ASN:O	43:2l:12:ARG:HG3	2.07	0.53
1:1A:300:A:H2'	1:1A:334:C:H1'	1.90	0.53
1:1A:456:C:H4'	60:1A:5524:HOH:O	2.08	0.53
1:1A:2364:C:OP1	22:10:55:ARG:NH1	2.40	0.53
8:1I:5:LEU:H	8:1I:5:LEU:HD12	1.73	0.53
57:1a:1870:MPD:H12	57:1a:1870:MPD:H52	1.91	0.53
1:2A:586:A:N1	1:2A:809:G:O2'	2.35	0.53
1:2A:1278:A:OP1	13:2R:36:THR:HG23	2.07	0.53
32:2a:17:U:H2'	32:2a:18:C:C6	2.44	0.53
32:2a:130:A:H5'	48:2q:63:ARG:HE	1.74	0.53
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.23	0.53
1:1A:1156:A:O4'	16:1U:51:LYS:NZ	2.40	0.53
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.43	0.53
1:1A:2279:G:O6	22:10:14:ARG:HG3	2.08	0.53
19:1X:63:LYS:O	19:1X:64:LYS:HD3	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:255:G:H1'	48:1q:16:GLN:HE21	1.73	0.53
32:1a:673:G:H2'	32:1a:674:G:C8	2.44	0.53
43:1l:117:ARG:HB3	43:1l:122:THR:HB	1.90	0.53
44:1m:3:ARG:HG3	44:1m:4:ILE:H	1.72	0.53
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.43	0.53
1:2A:2114:A:H3'	1:2A:2115:G:H8	1.73	0.53
32:2a:335:C:H2'	32:2a:336:C:C6	2.43	0.53
32:2a:1025:U:H3	32:2a:1036:G:H1	1.56	0.53
33:2b:47:THR:O	33:2b:51:LEU:N	2.41	0.53
33:2b:88:ALA:HB2	33:2b:219:VAL:HG13	1.89	0.53
35:2d:4:TYR:O	35:2d:115:ARG:NH2	2.41	0.53
43:2l:28:LYS:N	43:2l:29:GLY:HA2	2.21	0.53
1:1A:1754:C:H5	15:1T:96:ARG:NH2	2.07	0.53
32:1a:69:G:H2'	32:1a:70:G:C8	2.42	0.53
32:1a:1129:C:O2'	32:1a:1139:G:N7	2.22	0.53
38:1g:27:ILE:HD12	38:1g:40:ALA:HA	1.90	0.53
40:1i:22:GLY:H	40:1i:59:PHE:HA	1.73	0.53
40:1i:33:PHE:HZ	40:1i:46:ALA:HB3	1.72	0.53
41:1j:42:THR:HG23	41:1j:68:HIS:HA	1.89	0.53
1:2A:1991:U:H2'	1:2A:1992:G:H5"	1.91	0.53
3:2D:141:VAL:HG23	3:2D:162:SER:HB2	1.91	0.53
15:2T:85:LYS:NZ	15:2T:87:ASP:OD2	2.35	0.53
18:2W:14:PRO:HG2	18:2W:78:GLU:HG3	1.90	0.53
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.22	0.53
1:1A:27:G:N2	1:1A:512:G:H1'	2.23	0.53
1:1A:674:G:O2'	5:1F:74:ARG:HD3	2.09	0.53
1:1A:1186:G:OP1	60:1A:4226:HOH:O	2.18	0.53
9:1N:58:ASP:OD1	9:1N:58:ASP:N	2.38	0.53
32:1a:235:C:H2'	32:1a:236:G:H8	1.73	0.53
32:1a:1111:A:N1	34:1c:177:THR:OG1	2.36	0.53
32:1a:1189:C:OP1	41:1j:51:ARG:NH2	2.40	0.53
1:2A:41:C:H2'	1:2A:42:G:H8	1.74	0.53
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.44	0.53
32:2a:41:G:H2'	32:2a:42:G:C8	2.44	0.53
32:2a:376:G:H5"	47:2p:5:ARG:HB2	1.90	0.53
32:2a:1151:A:N3	41:2j:39:PRO:HG3	2.24	0.53
1:1A:1667:G:O2'	1:1A:1991:U:O4	2.24	0.53
32:1a:473:G:H2'	32:1a:474:G:H8	1.74	0.53
32:1a:964:A:OP1	60:1a:1924:HOH:O	2.19	0.53
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.44	0.53
34:1c:150:LYS:HB3	34:1c:201:TYR:HB2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1i:105:ASP:HB2	40:1i:107:ARG:HG3	1.90	0.53
45:1n:24:CYS:HB3	45:1n:28:GLY:H	1.72	0.53
51:1t:15:ARG:HA	51:1t:18:GLN:HG3	1.90	0.53
51:1t:47:GLY:HA2	51:1t:48:LYS:HB2	1.90	0.53
1:2A:1187:G:H5'	17:2V:81:TYR:CE1	2.44	0.53
1:2A:2130:U:H3'	1:2A:2130:U:H6	1.74	0.53
51:2t:57:ARG:HH12	51:2t:100:ILE:HB	1.74	0.53
1:1A:1250:G:H5"	60:1U:305:HOH:O	2.07	0.53
32:1a:103:C:N4	60:1a:1992:HOH:O	2.41	0.53
32:1a:600:C:H2'	32:1a:601:C:H6	1.73	0.53
32:1a:1086:U:H2'	32:1a:1087:G:H8	1.73	0.53
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.43	0.53
40:1i:9:ARG:HG2	40:1i:14:VAL:HG13	1.90	0.53
41:1j:64:GLU:HB3	45:1n:59:ALA:HB2	1.91	0.53
53:1y:23:ARG:HH11	53:1y:26:LYS:HD2	1.73	0.53
1:2A:271(A):A:N1	1:2A:272(D):G:O2'	2.40	0.53
1:2A:2817:G:OP1	13:2R:99:LYS:NZ	2.40	0.53
15:2T:54:ARG:HA	15:2T:59:THR:HG23	1.89	0.53
21:2Z:155:LEU:HD13	21:2Z:171:ILE:HD13	1.89	0.53
36:2e:94:ALA:HB2	36:2e:119:LEU:HG	1.90	0.53
37:2f:10:LEU:HB2	37:2f:59:TYR:HB3	1.89	0.53
1:1A:2345:G:O6	60:1A:4228:HOH:O	2.18	0.53
20:1Y:76:CYS:O	20:1Y:80:GLY:HA2	2.09	0.53
21:1Z:152:ALA:HB1	21:1Z:163:LEU:HD21	1.89	0.53
32:1a:839:U:H3'	32:1a:840:C:H6	1.73	0.53
35:1d:158:ILE:HG13	35:1d:159:ARG:N	2.24	0.53
1:2A:530:G:H4'	1:2A:531:C:OP1	2.07	0.53
1:2A:615:G:OP1	5:2F:40:GLN:NE2	2.42	0.53
21:2Z:110:GLY:HA3	21:2Z:174:VAL:HG11	1.91	0.53
32:2a:137:C:H2'	32:2a:138:G:C8	2.44	0.53
32:2a:1030(C):G:H2'	32:2a:1030(D):A:C8	2.44	0.53
33:2b:93:VAL:HG21	33:2b:97:TRP:HD1	1.73	0.53
1:1A:207:A:H2'	1:1A:208:C:O4'	2.08	0.53
1:1A:1786:A:H1'	1:1A:1938:A:N6	2.24	0.53
12:1Q:16:ARG:NH1	60:1Q:302:HOH:O	2.31	0.53
32:1a:1412:C:H2'	32:1a:1413:A:H8	1.71	0.53
32:1a:1456:G:N1	51:1t:51:GLU:OE2	2.39	0.53
1:2A:2171:A:H4'	1:2A:2172:U:OP1	2.08	0.53
7:2H:149:ARG:HD3	7:2H:164:TYR:CE2	2.44	0.53
8:2I:4:ILE:HD11	8:2I:44:LEU:HD12	1.90	0.53
32:2a:49:U:OP2	60:2a:1811:HOH:O	2.19	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:707:C:H2'	32:2a:708:C:C6	2.44	0.53
32:2a:737:A:O2'	37:2f:73:ASN:OD1	2.22	0.53
32:2a:1073:U:H2'	32:2a:1074:G:C8	2.44	0.53
33:2b:122:PHE:HA	33:2b:127:ILE:HG12	1.90	0.53
1:1A:729:G:C6	3:1D:208:LYS:HB2	2.44	0.52
1:1A:1587:A:H2'	1:1A:1588:C:C6	2.44	0.52
1:1A:1997:G:H5"	4:1E:117:MET:HE3	1.90	0.52
32:1a:737:A:H2'	32:1a:738:C:C6	2.44	0.52
32:1a:839:U:O2'	32:1a:840:C:OP1	2.25	0.52
1:2A:1550:C:OP1	1:2A:1720:U:O2'	2.23	0.52
7:2H:127:GLU:C	7:2H:129:THR:H	2.17	0.52
19:2X:12:VAL:HG22	19:2X:29:TRP:CE2	2.44	0.52
38:2g:62:PHE:HA	38:2g:124:LEU:HD22	1.91	0.52
1:1A:1028:A:N3	1:1A:2486:G:O2'	2.41	0.52
1:1A:2330:G:O2'	22:10:41:ARG:O	2.20	0.52
4:1E:4:ILE:HD13	4:1E:28:ALA:HB1	1.92	0.52
15:1T:26:ASP:O	15:1T:49:VAL:HG13	2.09	0.52
32:1a:985:C:H2'	32:1a:986:A:H8	1.75	0.52
36:1e:50:GLU:HB2	36:1e:53:LEU:HD22	1.91	0.52
48:1q:66:SER:O	48:1q:70:ARG:NH1	2.42	0.52
1:2A:821:A:H2'	1:2A:946:G:H5"	1.90	0.52
11:2P:3:LEU:H	11:2P:3:LEU:HD22	1.74	0.52
16:2U:108:GLU:OE2	16:2U:112:ARG:NH1	2.43	0.52
1:1A:323:G:C8	5:1F:171:PRO:HG3	2.44	0.52
1:1A:1085:A:O2'	1:1A:1104:C:O2'	2.06	0.52
1:1A:1262:A:OP2	18:1W:97:LYS:NZ	2.43	0.52
1:1A:2127:G:H1'	1:1A:2173:A:C2	2.44	0.52
1:1A:2364:C:H2'	1:1A:2365:G:O4'	2.09	0.52
1:1A:2595:G:O6	60:1A:4227:HOH:O	2.18	0.52
1:1A:2712:U:OP1	1:1A:2714:G:H4'	2.09	0.52
13:1R:12:ARG:O	13:1R:17:ARG:NH1	2.41	0.52
32:1a:978:A:O2'	32:1a:1322:C:N3	2.36	0.52
32:1a:1027:C:H2'	32:1a:1028:C:C5	2.44	0.52
32:1a:1279:A:H4'	32:1a:1281:U:H5	1.74	0.52
40:1i:16:ARG:HD3	40:1i:64:THR:HG21	1.90	0.52
1:2A:2189:U:H2'	1:2A:2190:G:C8	2.45	0.52
2:2B:42:C:O2'	6:2G:66:GLN:HG2	2.10	0.52
3:2D:77:ALA:HA	3:2D:97:TYR:HA	1.90	0.52
8:2I:69:LYS:HG3	8:2I:138:ILE:HG12	1.91	0.52
13:2R:32:GLY:HA2	13:2R:116:LEU:HD12	1.91	0.52
32:2a:1135:U:H4'	32:2a:1136:U:H5	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1209:C:O2'	32:2a:1214:C:N4	2.41	0.52
34:2c:39:ILE:HG23	34:2c:91:LEU:HD11	1.91	0.52
34:2c:148:GLY:HA3	34:2c:172:ARG:O	2.10	0.52
51:2t:27:LYS:HA	51:2t:30:LYS:HE2	1.90	0.52
4:1E:7:VAL:HG13	4:1E:27:LEU:HB3	1.91	0.52
21:1Z:145:GLU:O	21:1Z:148:ASP:N	2.36	0.52
32:1a:621:A:H2'	32:1a:622:A:C8	2.45	0.52
32:1a:689:C:OP1	42:1k:44:SER:OG	2.26	0.52
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.45	0.52
35:1d:53:ASP:HB3	35:1d:57:ARG:HH12	1.73	0.52
35:1d:102:ASP:HB3	35:1d:136:PRO:HB3	1.91	0.52
48:1q:48:GLU:HB2	48:1q:50:LYS:HG2	1.91	0.52
51:1t:31:SER:O	51:1t:35:THR:OG1	2.25	0.52
1:2A:1118:C:H2'	1:2A:1119:C:O4'	2.10	0.52
1:2A:1785:A:N6	60:2A:3874:HOH:O	2.41	0.52
1:2A:2445:G:OP1	5:2F:74:ARG:NH2	2.41	0.52
2:2B:95:C:H2'	2:2B:96:U:C6	2.44	0.52
15:2T:27:THR:HB	15:2T:89:VAL:HG22	1.91	0.52
23:21:18:ILE:HG12	23:21:37:ILE:HG12	1.92	0.52
30:28:8:LYS:HB3	30:28:12:LYS:HE3	1.92	0.52
32:2a:763:G:H2'	32:2a:764:C:H6	1.74	0.52
1:1A:740:U:H2'	1:1A:741:G:C8	2.45	0.52
1:1A:1817:G:OP1	3:1D:88:ARG:NH2	2.42	0.52
1:1A:2074:U:H2'	1:1A:2075:U:C6	2.45	0.52
33:1b:223:ILE:HA	33:1b:226:ARG:HB2	1.92	0.52
35:1d:100:ARG:NH1	35:1d:137:SER:OG	2.43	0.52
1:2A:1141:U:OP2	9:2N:63:THR:OG1	2.25	0.52
1:2A:1263:U:H1'	27:25:10:LYS:HG3	1.90	0.52
6:2G:116:ASP:O	6:2G:118:ARG:N	2.43	0.52
20:2Y:29:GLU:HB3	20:2Y:38:ILE:HG13	1.92	0.52
48:2q:62:SER:OG	48:2q:72:ARG:HG3	2.09	0.52
1:1A:1020:A:N1	1:1A:1141:U:O2'	2.33	0.52
1:1A:1176:G:N2	1:1A:1178:C:OP2	2.42	0.52
1:1A:2499:C:OP2	60:1A:4240:HOH:O	2.19	0.52
9:1N:83:LYS:HG3	60:1N:324:HOH:O	2.09	0.52
12:1Q:109:VAL:HG22	12:1Q:113:GLN:CD	2.35	0.52
32:1a:1367:C:H5'	41:1j:60:ARG:NH1	2.25	0.52
33:1b:128:GLU:O	33:1b:135:GLN:NE2	2.43	0.52
40:1i:53:VAL:HG21	40:1i:85:LEU:HD13	1.90	0.52
20:2Y:43:ASN:CG	20:2Y:65:ALA:HB3	2.35	0.52
32:2a:857:C:H2'	32:2a:858:G:O4'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:212:GLN:NE2	33:2b:235:SER:OG	2.43	0.52
38:2g:69:VAL:HG21	38:2g:104:LEU:HD11	1.90	0.52
1:1A:1344:G:H5'	1:1A:1384:A:C6	2.45	0.52
2:1B:103:G:H21	21:1Z:73:GLN:HE22	1.58	0.52
4:1E:58:ARG:NH1	60:1E:405:HOH:O	2.30	0.52
32:1a:189(B):C:H2'	32:1a:189(C):C:H6	1.74	0.52
32:1a:1004:A:O2'	32:1a:1038:C:O2	2.17	0.52
32:1a:1216:G:H5"	45:1n:5:ALA:CB	2.39	0.52
32:1a:1413:A:H2	32:1a:1487:G:H22	1.58	0.52
47:1p:70:ALA:O	47:1p:74:LEU:HD12	2.10	0.52
1:2A:602:G:O2'	1:2A:655:A:N6	2.43	0.52
1:2A:1048:A:N1	1:2A:1112:G:O2'	2.33	0.52
1:2A:1588:C:H2'	1:2A:1589:C:C6	2.45	0.52
2:2B:17:C:H2'	2:2B:18:G:O4'	2.10	0.52
12:2Q:118:LEU:HD12	12:2Q:131:ILE:HG23	1.92	0.52
32:2a:489:C:H2'	32:2a:490:G:H8	1.74	0.52
35:2d:189:PRO:HB2	35:2d:194:LEU:HD11	1.91	0.52
39:2h:121:ASP:N	39:2h:121:ASP:OD1	2.41	0.52
1:1A:2642:G:OP1	9:1N:76:SER:OG	2.25	0.52
1:1A:2870:C:H2'	1:1A:2871:C:O4'	2.10	0.52
6:1G:20:ILE:O	6:1G:24:GLY:N	2.29	0.52
6:1G:179:PRO:HB2	26:14:42:PHE:HE2	1.74	0.52
1:2A:2375:G:N2	1:2A:2378:A:OP2	2.38	0.52
1:2A:2693:A:H2'	1:2A:2694:G:C8	2.44	0.52
2:2B:75:G:O3'	21:2Z:10:ARG:NH2	2.43	0.52
6:2G:60:LEU:HD23	6:2G:68:PRO:HG3	1.92	0.52
6:2G:109:VAL:O	6:2G:113:ARG:HB2	2.10	0.52
21:2Z:151:HIS:HA	21:2Z:170:THR:HA	1.92	0.52
32:2a:192:U:H2'	32:2a:193:C:H6	1.73	0.52
32:2a:770:C:O2'	32:2a:899:C:N3	2.37	0.52
32:2a:881:G:OP1	43:2l:12:ARG:NH2	2.42	0.52
32:2a:1132:C:H2'	32:2a:1133:G:C8	2.45	0.52
33:2b:48:MET:HA	33:2b:51:LEU:HB2	1.91	0.52
34:2c:113:ALA:HB2	34:2c:202:ILE:HG13	1.92	0.52
53:2y:12:ILE:HG23	53:2y:16:ILE:HG23	1.91	0.52
53:2y:76:GLU:HA	53:2y:79:ASN:ND2	2.25	0.52
1:1A:2360:A:N1	60:1A:4456:HOH:O	2.34	0.52
3:1D:254:THR:N	60:1D:402:HOH:O	2.42	0.52
32:1a:189(C):C:H2'	32:1a:189(D):C:O4'	2.10	0.52
32:1a:591:U:H2'	32:1a:592:G:H8	1.74	0.52
35:1d:156:GLU:O	35:1d:160:GLN:HG2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:8:GLU:OE2	36:1e:63:ARG:NH2	2.43	0.52
40:1i:6:GLY:HA3	40:1i:83:ARG:HB2	1.91	0.52
48:1q:86:GLU:O	48:1q:90:ILE:HG12	2.09	0.52
51:1t:72:LEU:HD11	51:1t:80:ARG:HD2	1.91	0.52
1:2A:2704:C:H2'	1:2A:2705:A:O4'	2.09	0.52
21:2Z:28:MET:HE3	21:2Z:37:VAL:HG11	1.92	0.52
21:2Z:144:LEU:HD11	21:2Z:150:LEU:HD22	1.92	0.52
32:2a:664:G:H22	32:2a:741:G:H1	1.57	0.52
34:2c:58:GLU:HB2	34:2c:65:ALA:HB3	1.90	0.52
34:2c:121:ALA:HB1	34:2c:189:ALA:HB2	1.91	0.52
37:2f:99:ALA:HB2	49:2r:31:LEU:HD11	1.92	0.52
40:2i:3:GLN:HA	40:2i:20:ARG:HG3	1.91	0.52
1:1A:612:C:H2'	1:1A:613:G:O4'	2.10	0.52
1:1A:897:C:H2'	1:1A:898:C:C6	2.44	0.52
1:1A:2023:G:H5'	1:1A:2617:C:H4'	1.91	0.52
1:1A:2879:C:OP2	60:1A:4229:HOH:O	2.18	0.52
32:1a:142:G:H2'	32:1a:143:A:H8	1.75	0.52
33:1b:142:LEU:O	33:1b:146:GLN:HB2	2.10	0.52
36:1e:144:THR:H	36:1e:147:ASP:HB2	1.75	0.52
39:1h:40:ALA:HB2	39:1h:45:ILE:HD12	1.92	0.52
1:2A:99:U:OP1	1:2A:102:G:H5'	2.10	0.52
1:2A:271(H):G:H2'	1:2A:271(I):G:C8	2.44	0.52
1:2A:451:C:OP2	60:2A:3919:HOH:O	2.19	0.52
1:2A:1067:A:H4'	1:2A:1068:G:OP2	2.08	0.52
1:2A:2870:C:H5"	13:2R:65:LEU:HD21	1.91	0.52
21:2Z:104:PHE:HB3	21:2Z:141:VAL:HG21	1.91	0.52
30:28:34:TRP:O	60:28:202:HOH:O	2.19	0.52
32:2a:438:G:O2'	32:2a:494:U:O4	2.25	0.52
32:2a:624:C:H2'	32:2a:625:G:C8	2.45	0.52
32:2a:1411:C:H2'	32:2a:1412:C:C6	2.45	0.52
36:2e:78:HIS:HA	39:2h:105:ARG:HG3	1.92	0.52
48:2q:66:SER:HB3	48:2q:69:LYS:HB2	1.92	0.52
1:1A:272(J):C:H2'	1:1A:274:G:C8	2.45	0.51
1:1A:2447:G:OP2	60:1A:4237:HOH:O	2.19	0.51
1:1A:2801(A):A:N3	1:1A:2895:U:H1'	2.24	0.51
3:1D:132:PRO:HD3	3:1D:190:TYR:CZ	2.45	0.51
15:1T:39:ARG:NH1	60:1T:305:HOH:O	2.42	0.51
33:1b:219:VAL:HA	33:1b:222:ILE:HD12	1.91	0.51
1:2A:1047:G:H2'	1:2A:1110:G:H22	1.75	0.51
1:2A:1053:C:H2'	1:2A:1054:A:C8	2.46	0.51
1:2A:1102:C:H2'	1:2A:1103:A:H8	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1262:A:OP2	18:2W:97:LYS:NZ	2.43	0.51
1:2A:1313:U:OP1	60:2A:3920:HOH:O	2.19	0.51
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.44	0.51
1:2A:2078:C:OP2	60:2A:3922:HOH:O	2.19	0.51
32:2a:730:G:C5	32:2a:731:G:H1'	2.45	0.51
33:2b:216:SER:O	33:2b:220:ASP:N	2.40	0.51
35:2d:50:ARG:HH12	36:2e:10:MET:HB2	1.74	0.51
1:1A:1094:U:H1'	1:1A:1097:U:H5	1.73	0.51
1:1A:1529:G:C6	1:1A:1530:C:N4	2.78	0.51
1:1A:2319:G:H22	14:1S:3:ARG:HA	1.75	0.51
6:1G:39:ILE:HB	6:1G:92:VAL:HG13	1.92	0.51
7:1H:11:VAL:HG21	7:1H:50:VAL:HG23	1.93	0.51
8:1I:117:GLU:HG3	8:1I:118:LYS:H	1.75	0.51
32:1a:56:U:H2'	32:1a:57:G:C8	2.44	0.51
32:1a:826:C:H2'	32:1a:827:U:C6	2.45	0.51
32:1a:1043:C:H2'	32:1a:1044:A:O4'	2.10	0.51
37:1f:15:ASP:OD1	37:1f:18:GLN:N	2.36	0.51
38:1g:77:SER:OG	38:1g:86:GLN:NE2	2.43	0.51
38:1g:115:ARG:HB2	38:1g:118:VAL:HG23	1.92	0.51
48:1q:45:HIS:O	48:1q:73:VAL:HG23	2.10	0.51
1:2A:686:G:N2	1:2A:788:A:H61	2.07	0.51
1:2A:1027:A:C6	1:2A:1126:A:C4	2.98	0.51
4:2E:50:GLY:HA3	4:2E:75:VAL:HG11	1.93	0.51
42:2k:99:GLN:HG2	42:2k:105:VAL:HG11	1.93	0.51
1:1A:1171:G:H3'	1:1A:1173:G:H5'	1.91	0.51
1:1A:1790:C:H5"	1:1A:1791:A:OP1	2.10	0.51
50:1s:36:ARG:NH2	50:1s:75:ALA:O	2.42	0.51
53:1y:33:HIS:CE1	53:1y:35:ILE:HG12	2.45	0.51
1:2A:2166:G:H2'	1:2A:2167:U:O4'	2.10	0.51
9:2N:138:LEU:HD22	9:2N:140:VAL:HG13	1.92	0.51
11:2P:48:PRO:O	30:28:57:ARG:NH2	2.42	0.51
32:2a:114:U:H1'	32:2a:353:A:H1'	1.92	0.51
32:2a:512:U:H2'	32:2a:513:C:C6	2.44	0.51
32:2a:728:A:H2'	32:2a:729:A:H8	1.76	0.51
42:2k:41:THR:HG21	42:2k:71:LYS:HB2	1.91	0.51
43:2l:117:ARG:HG2	43:2l:122:THR:HG22	1.92	0.51
1:1A:757:U:H2'	1:1A:758:C:O4'	2.11	0.51
1:1A:1567:A:OP2	3:1D:84:TYR:OH	2.17	0.51
32:1a:35:G:O2'	43:1l:118:SER:O	2.23	0.51
32:1a:91:C:H2'	32:1a:92:C:C6	2.46	0.51
32:1a:1137:C:H4'	32:1a:1138:G:C2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:185:ILE:CG2	33:1b:199:TYR:HB2	2.40	0.51
34:1c:18:TRP:H	34:1c:18:TRP:HE3	1.59	0.51
53:1y:4:ASN:OD1	53:1y:4:ASN:N	2.43	0.51
1:2A:1385:G:O2'	1:2A:1396:U:O2	2.27	0.51
12:2Q:32:TYR:HB2	12:2Q:106:VAL:HG23	1.92	0.51
18:2W:9:TYR:H	18:2W:102:HIS:CE1	2.28	0.51
32:2a:663:A:O3'	49:2r:64:ARG:NH2	2.43	0.51
34:2c:109:PRO:C	34:2c:111:LEU:H	2.17	0.51
46:2o:4:THR:HG23	46:2o:6:GLU:H	1.75	0.51
48:2q:41:LYS:HZ2	48:2q:92:ARG:HH21	1.58	0.51
1:1A:614(C):A:C4	5:1F:180:GLY:HA3	2.46	0.51
28:16:6:ARG:NE	28:16:24:GLU:OE2	2.41	0.51
32:1a:974:A:H8	32:1a:974:A:OP1	1.92	0.51
32:1a:1027:C:H2'	32:1a:1028:C:C4	2.44	0.51
48:1q:9:VAL:HG21	48:1q:84:LEU:HD12	1.91	0.51
1:2A:1796:U:H2'	1:2A:1797:C:H6	1.75	0.51
1:2A:2058:A:N7	60:2A:4098:HOH:O	2.34	0.51
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.45	0.51
6:2G:106:LEU:HA	6:2G:110:ALA:HB3	1.93	0.51
7:2H:117:PRO:HG3	7:2H:123:PHE:CE2	2.45	0.51
10:2O:120:GLU:HG2	10:2O:122:LEU:HG	1.92	0.51
32:2a:328:C:H4'	32:2a:329:A:H5'	1.92	0.51
32:2a:1227:A:N3	50:2s:83:HIS:HB3	2.26	0.51
26:14:40:HIS:HB3	26:14:43:TYR:HD2	1.74	0.51
32:1a:21:G:H2'	32:1a:22:G:C8	2.46	0.51
32:1a:659:U:H2'	32:1a:660:G:C8	2.46	0.51
34:1c:21:ARG:NH2	34:1c:58:GLU:OE2	2.42	0.51
51:1t:57:ARG:HH22	51:1t:100:ILE:HD12	1.74	0.51
1:2A:922:U:H2'	1:2A:923:C:C6	2.45	0.51
1:2A:2347:C:O2'	28:26:21:TYR:OH	2.29	0.51
8:2I:5:LEU:HG	8:2I:9:LEU:HD12	1.93	0.51
10:2O:23:ARG:HG3	10:2O:24:VAL:N	2.25	0.51
13:2R:96:ARG:NH2	13:2R:118:GLU:OE2	2.43	0.51
18:2W:18:ARG:NH1	18:2W:76:VAL:O	2.44	0.51
32:2a:404:U:OP1	35:2d:118:ARG:NH2	2.43	0.51
38:2g:22:LEU:HD23	38:2g:63:LYS:HG2	1.92	0.51
38:2g:48:LYS:O	38:2g:52:GLU:HG2	2.10	0.51
32:1a:562:C:OP1	60:1a:1925:HOH:O	2.19	0.51
34:1c:180:ALA:HB1	34:1c:203:PHE:CE1	2.45	0.51
44:1m:11:ARG:HA	44:1m:45:VAL:HB	1.91	0.51
48:1q:62:SER:HB3	48:1q:72:ARG:NH1	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1091:G:N2	1:2A:1100:C:O2	2.41	0.51
1:2A:1105:U:H2'	1:2A:1106:G:H8	1.76	0.51
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.46	0.51
9:1N:42:TRP:CH2	9:1N:44:PRO:HB3	2.45	0.51
28:16:7:ILE:HG21	28:16:27:LYS:HE2	1.92	0.51
32:1a:1305:G:H22	32:1a:1331:G:H1'	1.75	0.51
1:2A:2356:C:O3'	22:20:20:ARG:HD3	2.11	0.51
6:2G:32:PRO:HB3	6:2G:163:ALA:HB2	1.93	0.51
32:2a:406:G:H4'	35:2d:5:ILE:HD11	1.92	0.51
32:2a:1122:U:H2'	32:2a:1123:A:C8	2.46	0.51
35:2d:119:GLN:HG3	35:2d:123:HIS:CE1	2.46	0.51
38:2g:108:ALA:HA	38:2g:111:ARG:HD2	1.93	0.51
1:1A:857:C:N4	1:1A:858:U:O4	2.43	0.51
1:1A:1105:U:H2'	1:1A:1106:G:H8	1.73	0.51
1:1A:2032:G:H1'	4:1E:145:LYS:HD3	1.93	0.51
4:1E:31:CYS:HB3	4:1E:49:LEU:HG	1.92	0.51
21:1Z:58:VAL:HG12	21:1Z:68:PRO:HA	1.92	0.51
21:1Z:157:LEU:HD11	21:1Z:163:LEU:HD13	1.93	0.51
27:15:16:ARG:HG3	27:15:17:ASP:N	2.25	0.51
32:1a:928:G:O2'	32:1a:1533:C:OP1	2.28	0.51
32:1a:1239:A:H62	32:1a:1299:A:N6	2.08	0.51
34:1c:124:ILE:HG22	34:1c:130:VAL:HG22	1.93	0.51
38:1g:111:ARG:HD2	38:1g:123:GLU:HB2	1.93	0.51
1:2A:729:G:C6	3:2D:208:LYS:HB2	2.46	0.51
1:2A:857:C:OP2	22:20:77:ARG:NH2	2.44	0.51
1:2A:1356:G:OP1	60:2A:3923:HOH:O	2.19	0.51
1:2A:2450:A:OP2	60:2A:3925:HOH:O	2.19	0.51
32:2a:430:A:H2'	32:2a:431:A:O4'	2.10	0.51
32:2a:1516:G:H2'	32:2a:1518:MA6:OP2	2.11	0.51
35:2d:61:LYS:HA	35:2d:203:VAL:HG22	1.91	0.51
1:1A:576:U:H2'	1:1A:577:G:C8	2.46	0.51
1:1A:911:A:H2'	12:1Q:9:TYR:OH	2.11	0.51
1:1A:1278:A:OP1	13:1R:36:THR:HG23	2.11	0.51
1:1A:2143:C:O2	1:1A:2148:G:N1	2.44	0.51
1:1A:2522:U:O2'	1:1A:2647:U:OP1	2.25	0.51
11:1P:87:ASP:O	11:1P:90:ARG:NH1	2.44	0.51
1:2A:376:C:OP1	60:2A:3927:HOH:O	2.20	0.51
1:2A:668:G:H5'	1:2A:669:G:OP2	2.10	0.51
3:2D:17:THR:O	3:2D:211:ARG:NH2	2.44	0.51
32:2a:137:C:H2'	32:2a:138:G:H8	1.74	0.51
32:2a:490:G:OP2	35:2d:132:ARG:NH2	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:977:A:N6	32:2a:1224:G:OP1	2.39	0.51
32:2a:1023:G:H3'	32:2a:1024:G:H8	1.76	0.51
32:2a:1063:C:H2'	32:2a:1064:G:C8	2.46	0.51
1:1A:516:C:OP1	27:15:13:LYS:NZ	2.36	0.50
1:1A:1025:G:C4	1:1A:1135:C:H1'	2.46	0.50
5:1F:53:THR:CG2	5:1F:55:GLY:H	2.24	0.50
32:1a:984:C:H42	32:1a:1221:G:H1	1.59	0.50
32:1a:1030(C):G:H2'	32:1a:1030(D):A:C8	2.46	0.50
34:1c:8:ILE:HD13	34:1c:184:TYR:HB3	1.93	0.50
34:1c:180:ALA:HB1	34:1c:203:PHE:HE1	1.75	0.50
50:1s:23:ASN:HD21	50:1s:43:GLU:HG2	1.75	0.50
1:2A:1541:G:H3'	1:2A:1542:A:H2'	1.92	0.50
1:2A:2687:U:H2'	1:2A:2688:U:O4'	2.11	0.50
5:2F:133:ASN:N	5:2F:133:ASN:OD1	2.44	0.50
7:2H:144:VAL:O	7:2H:148:ILE:HG12	2.10	0.50
8:2I:29:TYR:HD2	8:2I:30:LEU:HD23	1.76	0.50
33:2b:54:THR:O	33:2b:58:ILE:HG12	2.11	0.50
44:2m:92:HIS:CE1	44:2m:98:VAL:HG21	2.46	0.50
1:1A:704:G:O2'	1:1A:726:G:N2	2.37	0.50
1:1A:862:G:H2'	1:1A:863:A:O4'	2.11	0.50
4:1E:181:LEU:HD11	15:1T:6:LEU:HD23	1.94	0.50
23:11:64:ALA:HA	23:11:67:ILE:HG13	1.94	0.50
30:18:23:VAL:CG1	30:18:47:LYS:HB3	2.41	0.50
32:1a:1016:A:H2'	32:1a:1017:G:O4'	2.10	0.50
32:1a:1033:G:H2'	32:1a:1034:G:C8	2.46	0.50
32:1a:1458:G:OP1	51:1t:35:THR:OG1	2.29	0.50
44:1m:87:TYR:HA	44:1m:90:LEU:HD12	1.92	0.50
1:2A:587:C:O2	11:2P:33:ARG:NH2	2.39	0.50
1:2A:589:C:P	11:2P:16:ARG:HH12	2.34	0.50
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.27	0.50
1:2A:1214:A:OP2	60:2A:3917:HOH:O	2.18	0.50
1:2A:2515:C:H2'	1:2A:2516:G:C8	2.47	0.50
2:2B:25:A:OP2	60:2B:307:HOH:O	2.19	0.50
3:2D:70:TRP:CE2	3:2D:150:LYS:HD2	2.47	0.50
6:2G:96:ARG:O	6:2G:99:MET:HB3	2.11	0.50
25:23:52:HIS:CD2	25:23:53:LEU:HG	2.45	0.50
33:2b:204:ASN:OD1	33:2b:205:ASP:N	2.44	0.50
34:2c:164:ARG:HG2	34:2c:165:THR:H	1.76	0.50
45:2n:29:ARG:HB3	45:2n:40:CYS:HB3	1.93	0.50
1:1A:71:A:N7	19:1X:31:HIS:HE1	2.09	0.50
1:1A:71:A:H5"	1:1A:73:A:C8	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1086:A:H3'	1:1A:1086:A:N3	2.26	0.50
1:1A:1406:U:H2'	1:1A:1407:C:C6	2.46	0.50
1:1A:2687:U:H2'	1:1A:2688:U:O4'	2.11	0.50
2:1B:29:A:O2'	2:1B:58:A:N1	2.43	0.50
6:1G:16:ARG:CZ	6:1G:31:VAL:HG21	2.40	0.50
13:1R:26:LYS:HE2	13:1R:70:LEU:O	2.12	0.50
38:1g:120:ILE:O	38:1g:124:LEU:HB2	2.12	0.50
1:2A:443:A:H1'	1:2A:1201:C:O4'	2.10	0.50
1:2A:484:C:H2'	1:2A:485:C:C6	2.47	0.50
1:2A:774:A:H2'	1:2A:774:A:N3	2.26	0.50
1:2A:2237:G:OP1	60:2A:3928:HOH:O	2.20	0.50
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.11	0.50
3:2D:146:GLU:HB2	3:2D:189:CYS:HB3	1.93	0.50
6:2G:141:PHE:HE2	6:2G:155:MET:HE1	1.76	0.50
13:2R:98:LEU:HB2	13:2R:113:LEU:HG	1.93	0.50
20:2Y:55:TYR:CZ	20:2Y:61:ILE:HG21	2.46	0.50
28:26:16:CYS:HB2	28:26:18:ARG:HE	1.77	0.50
31:29:10:ILE:HD12	31:29:32:HIS:CD2	2.45	0.50
32:2a:1002:G:C4	32:2a:1003:G:C8	3.00	0.50
32:2a:1135:U:H2'	32:2a:1137:C:C4	2.46	0.50
32:2a:1202:G:N2	45:2n:46:GLU:OE2	2.45	0.50
34:2c:180:ALA:HB1	34:2c:203:PHE:HE1	1.75	0.50
37:2f:68:PRO:HB2	37:2f:71:ARG:HD2	1.93	0.50
49:2r:51:LEU:HD22	49:2r:55:ARG:HE	1.75	0.50
49:2r:51:LEU:HB2	49:2r:56:THR:HG23	1.92	0.50
1:1A:796:C:H2'	1:1A:797:C:C6	2.47	0.50
1:1A:910:A:N1	1:1A:2277:G:H1'	2.26	0.50
1:1A:1188:U:H4'	17:1V:79:VAL:HG22	1.93	0.50
1:1A:2099:U:H3	1:1A:2190:G:H1	1.59	0.50
3:1D:70:TRP:HB3	3:1D:190:TYR:CE2	2.46	0.50
32:1a:1112:C:N3	34:1c:178:LEU:HD12	2.27	0.50
1:2A:185:U:H4'	1:2A:218:A:H4'	1.92	0.50
1:2A:312:G:H4'	1:2A:331:A:N3	2.25	0.50
1:2A:492:A:H2'	1:2A:493:G:O4'	2.12	0.50
1:2A:637:A:H8	11:2P:117:GLU:HG3	1.77	0.50
1:2A:1225:G:H4'	17:2V:84:LYS:HG2	1.93	0.50
1:2A:2184:G:H2'	1:2A:2185:C:O4'	2.11	0.50
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.47	0.50
2:2B:42:C:O2	6:2G:93:THR:N	2.37	0.50
10:2O:98:VAL:HG22	10:2O:117:LEU:HB2	1.94	0.50
32:2a:171:A:H2'	32:2a:172:A:C8	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:967:5MC:H2'	32:2a:968:A:C8	2.47	0.50
47:2p:39:TYR:HB2	47:2p:49:LEU:HD12	1.93	0.50
1:1A:1665:A:H4'	10:1O:67:LYS:HB2	1.93	0.50
1:1A:2031:A:C6	1:1A:2498:C:H1'	2.47	0.50
1:1A:2073:C:OP1	60:1A:4239:HOH:O	2.19	0.50
1:1A:2712:U:H1'	1:1A:2712(A):A:C8	2.47	0.50
32:1a:343:U:H1'	32:1a:347:G:N2	2.25	0.50
32:1a:346:G:H21	57:1a:1870:MPD:HO4	1.60	0.50
39:1h:87:SER:HB2	39:1h:133:LEU:O	2.12	0.50
47:1p:40:ASP:OD1	47:1p:43:LYS:N	2.45	0.50
1:2A:2647:U:H2'	1:2A:2648:C:C6	2.46	0.50
11:2P:63:PRO:HD3	30:28:27:THR:HG22	1.93	0.50
32:2a:102:G:H2'	32:2a:103:C:C6	2.46	0.50
32:2a:1530:G:OP1	32:2a:1530:G:H4'	2.12	0.50
40:2i:121:ARG:NH1	40:2i:122:ALA:O	2.44	0.50
1:1A:338:G:OP1	20:1Y:4:LYS:NZ	2.45	0.50
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.47	0.50
1:1A:1529:G:O2'	1:1A:1530:C:H5'	2.12	0.50
1:1A:2691:C:OP2	60:1A:4236:HOH:O	2.19	0.50
1:1A:2723:C:OP1	13:1R:3:HIS:ND1	2.45	0.50
19:1X:60:ARG:HH22	29:17:47:ARG:HH22	1.57	0.50
32:1a:328:C:H4'	32:1a:329:A:H5'	1.93	0.50
33:1b:24:TRP:CZ3	33:1b:26:PRO:HA	2.46	0.50
33:1b:188:ALA:HB1	33:1b:192:SER:HB2	1.93	0.50
38:1g:28:ASN:H	38:1g:28:ASN:HD22	1.59	0.50
39:1h:9:MET:HG3	39:1h:26:VAL:HG21	1.92	0.50
1:2A:251:A:C4	1:2A:252:G:H1'	2.46	0.50
1:2A:315:G:H2'	1:2A:316:C:H6	1.75	0.50
1:2A:2291:U:H2'	1:2A:2292:C:C6	2.47	0.50
7:2H:118:PRO:HD2	7:2H:121:ILE:HG21	1.94	0.50
11:2P:138:LEU:HD23	11:2P:145:PRO:HB3	1.92	0.50
14:2S:106:ARG:HE	14:2S:112:PHE:C	2.20	0.50
32:2a:8:A:N6	35:2d:209:ARG:HB2	2.26	0.50
32:2a:67:C:H2'	32:2a:68:G:H8	1.75	0.50
32:2a:401:C:H2'	32:2a:402:G:C8	2.47	0.50
32:2a:1286:A:H2'	32:2a:1287:A:H4'	1.93	0.50
39:2h:9:MET:HG3	39:2h:26:VAL:HG11	1.93	0.50
40:2i:78:LYS:HA	40:2i:81:ILE:HG22	1.92	0.50
18:1W:57:ASN:HA	18:1W:61:ASN:HD22	1.76	0.50
32:1a:189(F):U:O2	48:1q:63:ARG:NH2	2.45	0.50
32:1a:532:A:N6	32:1a:1206:G:O2'	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:106:TYR:HE2	35:1d:107:ARG:HH11	1.60	0.50
42:1k:85:ARG:HD3	42:1k:113:PRO:HD3	1.92	0.50
1:2A:71:A:H5"	1:2A:73:A:C8	2.46	0.50
1:2A:813:U:H2'	1:2A:814:C:C6	2.47	0.50
1:2A:1889:A:N1	1:2A:2234:G:H1'	2.27	0.50
4:2E:11:MET:CG	4:2E:24:THR:HG22	2.41	0.50
6:2G:108:ASN:HA	26:24:37:SER:HB3	1.93	0.50
32:1a:256:U:C2	32:1a:257:G:C8	3.00	0.50
32:1a:833:U:H2'	32:1a:834:C:C6	2.46	0.50
32:1a:1036:G:H5"	32:1a:1037:C:C5	2.47	0.50
35:1d:25:ARG:NH1	35:1d:30:LYS:O	2.43	0.50
1:2A:628:G:HO2'	1:2A:651:G:HO2'	1.57	0.50
1:2A:749:C:OP2	60:2A:3926:HOH:O	2.20	0.50
1:2A:1038:C:N4	1:2A:1117:G:H1	2.09	0.50
1:2A:1062:G:H22	1:2A:1077:A:H2	1.59	0.50
1:2A:1178:C:H2'	1:2A:1179:C:C6	2.46	0.50
1:2A:2543:G:H2'	1:2A:2544:G:C8	2.47	0.50
7:2H:20:ALA:HB3	7:2H:23:ARG:HB2	1.93	0.50
15:2T:29:ARG:HB3	15:2T:87:ASP:HB2	1.94	0.50
32:2a:102:G:H2'	32:2a:103:C:H6	1.76	0.50
32:2a:1058:G:N2	41:2j:53:PRO:HG3	2.26	0.50
32:2a:1238:A:H2	32:2a:1241:G:N3	2.09	0.50
33:2b:18:GLY:HA2	33:2b:42:ILE:HD12	1.93	0.50
34:2c:6:HIS:HD2	34:2c:8:ILE:H	1.58	0.50
35:2d:170:VAL:HG22	35:2d:171:GLY:H	1.76	0.50
48:2q:66:SER:O	48:2q:70:ARG:NH1	2.44	0.50
1:1A:1191:G:OP2	60:1A:4242:HOH:O	2.19	0.50
1:1A:2286:A:OP2	60:1A:4248:HOH:O	2.20	0.50
19:1X:76:ARG:NH1	60:1X:201:HOH:O	2.43	0.50
32:1a:184:G:H2'	32:1a:185:A:C8	2.46	0.50
33:1b:87:ARG:HD2	33:1b:233:SER:HB2	1.94	0.50
48:1q:59:ILE:HG22	48:1q:73:VAL:HA	1.93	0.50
53:1y:53:THR:HG22	53:1y:62:VAL:HG22	1.94	0.50
1:2A:409:C:H2'	1:2A:410:G:H8	1.76	0.50
1:2A:1062:G:H2'	1:2A:1063:G:H8	1.77	0.50
1:2A:1258:C:OP2	60:2A:3929:HOH:O	2.20	0.50
1:2A:2267:A:H5"	1:2A:2268:A:C5'	2.42	0.50
1:2A:2698:U:H2'	1:2A:2699:C:C6	2.47	0.50
32:2a:664:G:P	49:2r:64:ARG:HH21	2.35	0.50
32:2a:1323:G:H4'	32:2a:1363:C:C2	2.47	0.50
33:2b:155:LEU:HD21	33:2b:159:PRO:HG3	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:96:LEU:H	40:2i:98:PRO:HD2	1.75	0.50
53:2y:61:LEU:HD22	53:2y:84:GLN:HB3	1.94	0.50
1:1A:1300:U:H4'	1:1A:1301:A:H5"	1.93	0.49
1:1A:2630:G:H2'	1:1A:2631:G:H8	1.77	0.49
32:1a:79:G:N1	32:1a:90:U:N3	2.60	0.49
32:1a:591:U:H2'	32:1a:592:G:C8	2.46	0.49
33:1b:76:GLN:HG2	33:1b:206:ASP:O	2.12	0.49
33:1b:167:PRO:HG3	33:1b:186:ALA:HB1	1.93	0.49
36:1e:12:LEU:HD11	36:1e:14:ARG:HD3	1.94	0.49
41:1j:84:GLN:HE21	41:1j:85:LEU:HG	1.77	0.49
42:1k:34:ASP:HB2	42:1k:35:PRO:HD2	1.94	0.49
1:2A:84:A:H5'	20:2Y:8:LYS:HB3	1.93	0.49
1:2A:252:G:OP1	11:2P:50:ARG:NH1	2.45	0.49
1:2A:312:G:H4'	1:2A:331:A:C2	2.47	0.49
1:2A:919:G:N2	1:2A:2269:A:OP2	2.41	0.49
1:2A:2515:C:H2'	1:2A:2516:G:H8	1.77	0.49
1:2A:2611:U:C4	27:25:3:LYS:HG2	2.46	0.49
5:2F:32:LEU:HB3	5:2F:112:MET:HE1	1.94	0.49
5:2F:185:ASP:HA	5:2F:188:ARG:HD3	1.94	0.49
18:2W:82:LEU:HD22	18:2W:84:ARG:HH22	1.77	0.49
32:2a:403:C:N4	60:2a:1804:HOH:O	2.35	0.49
32:2a:1256:A:H61	32:2a:1278:U:C1'	2.22	0.49
1:1A:117:G:OP2	1:1A:119:A:O2'	2.23	0.49
1:1A:868:U:C4	1:1A:869:G:N7	2.80	0.49
1:1A:1341:U:OP2	1:1A:1394:U:O2'	2.24	0.49
1:1A:2249:U:O4	60:1A:4165:HOH:O	2.19	0.49
13:1R:24:GLN:NE2	60:1R:307:HOH:O	2.45	0.49
15:1T:127:ALA:O	15:1T:128:GLU:HB2	2.12	0.49
24:12:16:LEU:O	24:12:67:LYS:NZ	2.40	0.49
32:1a:116:A:H61	32:1a:313:A:H1'	1.75	0.49
32:1a:738:C:H2'	32:1a:739:C:C6	2.47	0.49
32:1a:1025:U:H2'	32:1a:1026:G:H5"	1.93	0.49
33:1b:71:VAL:HB	33:1b:164:VAL:HG13	1.95	0.49
34:1c:172:ARG:NH2	34:1c:206:GLU:OE2	2.38	0.49
35:1d:98:GLU:O	35:1d:103:ASN:ND2	2.45	0.49
39:1h:110:ALA:HB3	39:1h:121:ASP:HB3	1.94	0.49
48:1q:6:LEU:HD23	48:1q:23:VAL:HG21	1.94	0.49
1:2A:807:U:OP2	11:2P:41:ARG:NH2	2.44	0.49
1:2A:1826:G:H4'	3:2D:242:ARG:CZ	2.41	0.49
3:2D:133:LEU:HB3	3:2D:173:VAL:HG11	1.94	0.49
4:2E:111:ARG:HD3	4:2E:160:TYR:CE2	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:2N:97:ARG:HA	9:2N:100:GLU:HB2	1.94	0.49
25:23:9:VAL:HG12	25:23:32:GLN:HE22	1.77	0.49
26:24:50:VAL:HG11	44:2m:64:TRP:C	2.37	0.49
32:2a:985:C:H2'	32:2a:986:A:C8	2.46	0.49
33:2b:71:VAL:HG23	33:2b:164:VAL:HA	1.94	0.49
44:2m:82:MET:SD	44:2m:93:ARG:HG2	2.53	0.49
1:1A:414:C:H2'	1:1A:415:A:C8	2.47	0.49
6:1G:122:PRO:HD3	6:1G:181:ARG:HG2	1.94	0.49
7:1H:154:PRO:HB3	7:1H:163:TYR:CZ	2.48	0.49
11:1P:121:LYS:HD3	11:1P:123:LEU:HD11	1.95	0.49
37:1f:11:ASN:HB3	37:1f:14:LEU:HG	1.94	0.49
38:1g:78:ARG:HD2	38:1g:156:TRP:CZ3	2.47	0.49
46:1o:36:ILE:HG23	46:1o:56:LEU:HD11	1.94	0.49
1:2A:1342:A:OP1	19:2X:36:LYS:NZ	2.27	0.49
1:2A:2787:C:H1'	4:2E:62:PRO:HG3	1.93	0.49
21:2Z:157:LEU:HD11	21:2Z:163:LEU:HB2	1.94	0.49
32:2a:1289:A:H2'	32:2a:1290:G:H5'	1.94	0.49
32:2a:1304:G:OP1	52:2u:2:GLY:N	2.45	0.49
32:2a:1468:A:H2'	32:2a:1469:G:O4'	2.11	0.49
40:2i:9:ARG:O	40:2i:104:ARG:NE	2.45	0.49
1:1A:1912:A:O2'	32:1a:1494:G:O2'	2.23	0.49
1:1A:2341:G:H2'	1:1A:2342:C:C6	2.47	0.49
1:1A:2467:C:H4'	12:1Q:123:HIS:CG	2.47	0.49
7:1H:7:LEU:HD12	7:1H:8:PRO:HD2	1.94	0.49
32:1a:92:C:H2'	32:1a:93:G:H8	1.77	0.49
32:1a:100:C:H2'	32:1a:101:A:C8	2.47	0.49
32:1a:134:A:H61	47:1p:25:ARG:NH1	2.10	0.49
41:1j:16:LEU:HD21	41:1j:70:ARG:HG2	1.94	0.49
44:1m:11:ARG:C	44:1m:13:LYS:H	2.20	0.49
1:2A:1069:A:C6	1:2A:1095:A:H4'	2.48	0.49
1:2A:1462:C:H4'	1:2A:2703:C:H5'	1.93	0.49
1:2A:2116:G:H3'	1:2A:2117:A:C8	2.48	0.49
1:2A:2485:G:O2'	60:2A:3931:HOH:O	2.20	0.49
7:2H:53:GLU:HA	7:2H:65:HIS:HE2	1.76	0.49
15:2T:117:ASP:OD2	15:2T:120:ARG:NE	2.34	0.49
32:2a:524:G:H2'	32:2a:525:C:C6	2.47	0.49
32:2a:1030(A):G:H1'	32:2a:1030(C):G:N7	2.27	0.49
33:2b:19:HIS:CE1	33:2b:206:ASP:HB2	2.48	0.49
36:2e:137:GLU:HG2	36:2e:140:ARG:NH1	2.27	0.49
37:2f:35:ALA:HB2	37:2f:67:MET:HE2	1.94	0.49
1:1A:1045:A:H1'	1:1A:1047:G:N3	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1429:G:H2'	1:1A:1430:C:C6	2.47	0.49
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.48	0.49
1:1A:2455:G:OP1	60:1A:4249:HOH:O	2.20	0.49
1:1A:2773:C:H2'	1:1A:2774:C:H6	1.76	0.49
32:1a:1362:C:H2'	32:1a:1363:C:H5"	1.93	0.49
35:1d:107:ARG:NH2	35:1d:194:LEU:HG	2.27	0.49
41:1j:61:GLU:OE2	45:1n:58:LYS:NZ	2.34	0.49
44:1m:20:THR:C	44:1m:22:ILE:H	2.21	0.49
44:1m:49:THR:HG22	44:1m:51:ALA:H	1.76	0.49
46:1o:39:LEU:HD13	46:1o:56:LEU:HB2	1.95	0.49
52:1u:3:LYS:NZ	60:1u:101:HOH:O	2.41	0.49
1:2A:995:C:O2	9:2N:3:THR:OG1	2.21	0.49
32:2a:539:A:H2'	32:2a:540:G:C8	2.48	0.49
32:2a:1400:5MC:C2	53:2y:63:ALA:HA	2.48	0.49
33:2b:70:PHE:HE2	33:2b:90:MET:HB2	1.78	0.49
44:2m:92:HIS:HA	44:2m:110:ARG:NH2	2.28	0.49
1:1A:644:A:H4'	1:1A:645:C:H5	1.77	0.49
1:1A:1904:G:O2'	1:1A:1928:A:N1	2.42	0.49
16:1U:105:VAL:HG11	17:1V:39:LEU:HD21	1.95	0.49
21:1Z:141:VAL:HB	21:1Z:144:LEU:HD12	1.93	0.49
22:10:38:VAL:HB	22:10:59:LEU:HB2	1.95	0.49
32:1a:735:C:H2'	32:1a:736:C:H6	1.77	0.49
32:1a:926:G:C6	32:1a:1505:G:C6	3.01	0.49
32:1a:1004:A:H3'	32:1a:1005:A:C8	2.42	0.49
32:1a:1443:G:N2	32:1a:1460:A:H1'	2.26	0.49
35:1d:162:LEU:HD13	35:1d:181:MET:HE2	1.94	0.49
46:1o:9:GLN:HA	46:1o:12:ILE:HD12	1.94	0.49
1:2A:784:A:N6	3:2D:229:VAL:HG11	2.27	0.49
1:2A:854:G:H2'	1:2A:855:G:C8	2.48	0.49
60:2B:334:HOH:O	21:2Z:30:ASN:HB2	2.11	0.49
5:2F:29:ASN:HB3	5:2F:112:MET:HE1	1.95	0.49
32:2a:474:G:H2'	32:2a:475:G:C8	2.48	0.49
47:2p:13:HIS:O	47:2p:42:ARG:NH1	2.46	0.49
1:1A:240:G:O6	60:1A:4230:HOH:O	2.18	0.49
1:1A:587:C:OP1	60:1A:4238:HOH:O	2.19	0.49
1:1A:747:U:O2	1:1A:2014:A:H1'	2.12	0.49
1:1A:2630:G:H2'	1:1A:2631:G:C8	2.47	0.49
3:1D:71:ASP:HB3	3:1D:103:ARG:HH22	1.78	0.49
6:1G:142:PRO:HB2	26:14:31:ILE:HG21	1.95	0.49
10:1O:10:VAL:HG13	10:1O:17:ARG:C	2.38	0.49
32:1a:270:A:H2'	32:1a:271:C:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:1m:23:TYR:HB3	44:1m:67:GLU:HA	1.95	0.49
46:1o:29:VAL:HG13	46:1o:63:ARG:HG3	1.94	0.49
1:2A:27:G:O2'	1:2A:28:A:OP2	2.27	0.49
1:2A:271(T):C:N4	60:2A:4149:HOH:O	2.38	0.49
1:2A:652(D):C:H42	1:2A:652(U):G:H1	1.59	0.49
1:2A:1036:G:H1	1:2A:1119:C:H42	1.60	0.49
1:2A:1161:C:H2'	1:2A:1162:G:C8	2.47	0.49
4:2E:109:LYS:HE2	4:2E:191:PRO:HB3	1.95	0.49
5:2F:36:VAL:HG11	5:2F:183:VAL:HG11	1.95	0.49
5:2F:150:GLY:HA2	5:2F:172:TRP:CD2	2.47	0.49
6:2G:15:VAL:HA	6:2G:175:LEU:HD23	1.94	0.49
26:24:14:ILE:O	26:24:21:VAL:HA	2.13	0.49
42:2k:98:LEU:O	42:2k:101:SER:OG	2.30	0.49
51:2t:13:LEU:O	51:2t:17:ARG:HG3	2.12	0.49
1:1A:613:G:N2	1:1A:614(C):A:O2'	2.46	0.49
1:1A:1482:G:H2'	1:1A:1484:G:H8	1.77	0.49
3:1D:242:ARG:HG3	3:1D:242:ARG:NH1	2.25	0.49
4:1E:110:GLY:HA2	4:1E:161:GLY:HA3	1.95	0.49
6:1G:11:TYR:HA	6:1G:15:VAL:HB	1.94	0.49
7:1H:12:PRO:O	7:1H:15:VAL:HG13	2.12	0.49
10:1O:64:ARG:HB2	10:1O:79:PHE:CG	2.48	0.49
10:1O:116:SER:HA	57:1a:1870:MPD:H11	1.95	0.49
32:1a:272:C:H2'	32:1a:273:A:H8	1.77	0.49
32:1a:584:G:H5'	48:1q:91:ARG:HH22	1.78	0.49
32:1a:1008:C:H2'	32:1a:1009:G:O4'	2.13	0.49
32:1a:1036:G:H2'	32:1a:1036:G:N3	2.27	0.49
33:1b:207:ALA:O	33:1b:211:ILE:HG13	2.13	0.49
35:1d:111:ALA:HB2	35:1d:120:LEU:HD12	1.94	0.49
47:1p:39:TYR:HB2	47:1p:49:LEU:HD13	1.94	0.49
50:1s:22:LEU:HD22	50:1s:27:GLU:HA	1.94	0.49
50:1s:41:VAL:HG12	50:1s:43:GLU:H	1.77	0.49
1:2A:455:C:N3	1:2A:472:A:H2'	2.27	0.49
1:2A:1342:A:OP2	60:2A:3824:HOH:O	2.20	0.49
3:2D:123:ALA:HB1	3:2D:129:ASN:HD22	1.76	0.49
5:2F:184:TYR:O	5:2F:188:ARG:HG3	2.13	0.49
6:2G:131:TYR:HE2	6:2G:133:LEU:HB3	1.78	0.49
19:2X:31:HIS:ND1	19:2X:32:PRO:HD2	2.27	0.49
32:2a:977:A:H2'	32:2a:978:A:H5"	1.95	0.49
32:2a:1298:C:H2'	38:2g:114:ARG:HH21	1.78	0.49
35:2d:114:ARG:HA	35:2d:117:ALA:HB3	1.95	0.49
35:2d:191:ARG:HH21	35:2d:200:GLU:CD	2.21	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:89:ASN:HB3	40:2i:92:TYR:CE2	2.47	0.49
1:1A:531:C:H4'	1:1A:532:A:H5"	1.94	0.49
1:1A:1366:A:OP1	23:11:3:LYS:NZ	2.46	0.49
1:1A:2025:C:N4	60:1A:4679:HOH:O	2.46	0.49
1:1A:2599:G:N7	3:1D:237:GLU:HB2	2.28	0.49
1:1A:2746:U:OP2	60:1A:4246:HOH:O	2.20	0.49
3:1D:72:LYS:HB3	3:1D:75:ILE:HD12	1.94	0.49
4:1E:36:ARG:NH1	4:1E:85:ASN:OD1	2.46	0.49
7:1H:11:VAL:HG13	7:1H:15:VAL:HG22	1.95	0.49
23:11:23:LYS:HB3	23:11:29:GLY:HA3	1.95	0.49
32:1a:1227:A:OP1	50:1s:80:TYR:OH	2.23	0.49
32:1a:1320:C:H2'	32:1a:1321:C:O4'	2.13	0.49
49:1r:47:THR:O	49:1r:47:THR:OG1	2.23	0.49
1:2A:239:U:H2'	1:2A:240:G:O4'	2.13	0.49
1:2A:796:C:H2'	1:2A:797:C:C6	2.48	0.49
1:2A:1264:G:H2'	1:2A:2014:A:N6	2.28	0.49
1:2A:2286:A:H4'	1:2A:2287:A:O4'	2.13	0.49
1:2A:2364:C:H2'	1:2A:2365:G:O4'	2.13	0.49
5:2F:183:VAL:O	5:2F:187:VAL:HG23	2.13	0.49
32:2a:187:C:H2'	32:2a:188:C:H6	1.78	0.49
32:2a:352:C:OP2	60:2a:1813:HOH:O	2.20	0.49
32:2a:1172:C:H2'	32:2a:1173:G:C8	2.48	0.49
37:2f:19:LEU:HD11	37:2f:59:TYR:CZ	2.47	0.49
37:2f:22:GLU:OE2	37:2f:84:ASN:ND2	2.45	0.49
38:2g:49:ILE:HG22	38:2g:53:LYS:HG3	1.94	0.49
44:2m:108:ARG:O	44:2m:112:GLY:N	2.46	0.49
1:1A:2137:C:N4	1:1A:2154:G:H1	2.11	0.49
6:1G:131:TYR:HB3	6:1G:159:VAL:HG13	1.95	0.49
7:1H:125:VAL:HG12	7:1H:127:GLU:O	2.13	0.49
19:1X:31:HIS:CD2	19:1X:33:LYS:H	2.31	0.49
26:14:58:ARG:HD2	50:1s:68:GLY:H	1.78	0.49
32:1a:62:U:O2'	32:1a:379:C:O2	2.26	0.49
32:1a:262:A:C6	32:1a:263:A:C6	3.01	0.49
32:1a:632:A:H3'	32:1a:633:G:H8	1.78	0.49
32:1a:839:U:H3'	32:1a:840:C:C6	2.48	0.49
32:1a:1054:C:H5	53:1y:46:GLN:HE22	1.60	0.49
32:1a:1075:C:OP1	33:1b:179:LYS:HE2	2.12	0.49
1:2A:631:A:H1'	11:2P:66:GLY:HA2	1.94	0.49
1:2A:1334:G:N7	60:2A:4108:HOH:O	2.35	0.49
1:2A:2228:G:C5	1:2A:2229:C:C4	3.01	0.49
29:27:5:TRP:O	29:27:6:GLN:NE2	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1187:G:H21	45:2n:60:SER:HG	1.59	0.49
32:2a:1301:U:O2'	32:2a:1302:U:H5'	2.13	0.49
32:2a:1515:C:H2'	32:2a:1516:G:H8	1.77	0.49
35:2d:122:ARG:C	35:2d:123:HIS:HD1	2.20	0.49
47:2p:68:ASP:C	47:2p:70:ALA:H	2.21	0.49
53:2y:8:LYS:C	53:2y:10:MET:H	2.19	0.49
1:1A:1297:C:OP1	60:1A:4253:HOH:O	2.20	0.48
1:1A:2233:U:H2'	1:1A:2234:G:C8	2.48	0.48
1:1A:2438:U:O2'	1:1A:2440:C:OP1	2.22	0.48
1:1A:2537:U:H2'	1:1A:2538:C:C6	2.48	0.48
21:1Z:158:PRO:HG2	21:1Z:161:VAL:HG11	1.95	0.48
32:1a:627:G:H2'	32:1a:628:G:H8	1.77	0.48
32:1a:858:G:O6	32:1a:869:G:H3'	2.13	0.48
32:1a:993:G:O2'	32:1a:995:C:N4	2.28	0.48
34:1c:63:ASN:N	34:1c:63:ASN:OD1	2.46	0.48
1:2A:1588:C:H2'	1:2A:1589:C:H6	1.78	0.48
1:2A:1650:G:OP2	60:2A:3934:HOH:O	2.20	0.48
1:2A:1709:U:H2'	1:2A:1710:C:C6	2.48	0.48
5:2F:124:LEU:HB3	5:2F:193:VAL:HG22	1.94	0.48
12:2Q:4:PRO:HG3	12:2Q:69:PHE:HE2	1.78	0.48
21:2Z:182:LYS:HD3	21:2Z:186:GLU:OE2	2.13	0.48
32:2a:474:G:H2'	32:2a:475:G:H8	1.78	0.48
32:2a:868:C:H2'	32:2a:869:G:O4'	2.13	0.48
32:2a:1491:G:O2'	32:2a:1492:A:OP1	2.30	0.48
33:2b:144:ARG:NH2	33:2b:148:TYR:OH	2.46	0.48
34:2c:18:TRP:NE1	45:2n:53:LEU:O	2.45	0.48
47:2p:74:LEU:O	47:2p:79:VAL:HG23	2.13	0.48
1:1A:621:A:OP2	11:1P:108:LYS:NZ	2.46	0.48
1:1A:994:C:OP1	16:1U:53:ARG:NH2	2.46	0.48
1:1A:2086:U:H2'	1:1A:2087:G:H8	1.78	0.48
1:1A:2287:A:O2'	1:1A:2288:A:H3'	2.12	0.48
1:1A:2667:C:N3	7:1H:110:SER:OG	2.41	0.48
4:1E:47:VAL:HG12	4:1E:49:LEU:HD13	1.95	0.48
19:1X:41:ASN:O	19:1X:45:THR:HG23	2.12	0.48
24:12:1:MET:HE3	24:12:5:GLU:HB3	1.94	0.48
32:1a:189(K):U:H2'	32:1a:189(L):G:H8	1.78	0.48
32:1a:221:C:H2'	32:1a:222:U:H6	1.78	0.48
32:1a:300:A:O2'	32:1a:564:C:N3	2.34	0.48
32:1a:926:G:C5	53:1y:87:LYS:HE2	2.49	0.48
37:1f:79:LEU:O	37:1f:85:VAL:HG11	2.14	0.48
38:1g:126:ASP:HB3	38:1g:131:LYS:HB2	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:1m:65:LYS:HG2	44:1m:69:GLU:HB3	1.95	0.48
47:1p:43:LYS:HG2	47:1p:48:TRP:CD2	2.47	0.48
1:2A:19:C:H2'	1:2A:20:C:C6	2.48	0.48
1:2A:657:U:H2'	1:2A:658:C:C6	2.48	0.48
1:2A:2137:C:C2	1:2A:2154:G:N1	2.81	0.48
1:2A:2155:G:C2	1:2A:2156:G:H1'	2.48	0.48
4:2E:111:ARG:HD3	4:2E:160:TYR:CD2	2.48	0.48
9:2N:120:LEU:HG	9:2N:122:VAL:HG23	1.95	0.48
32:2a:1117:G:H4'	40:2i:104:ARG:NH1	2.28	0.48
32:2a:1515:C:H2'	32:2a:1516:G:C8	2.47	0.48
39:2h:25:ASP:OD1	39:2h:25:ASP:N	2.46	0.48
50:2s:46:GLY:HA2	50:2s:61:TYR:HE1	1.76	0.48
1:1A:131:G:OP1	60:1A:4245:HOH:O	2.20	0.48
1:1A:154:G:C6	1:1A:154(A):C:N4	2.81	0.48
1:1A:1070:A:C5	1:1A:1097:U:H4'	2.48	0.48
1:1A:1814:G:H4'	3:1D:51:VAL:HG21	1.96	0.48
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.49	0.48
1:1A:2404:C:O3'	11:1P:77:ARG:NH2	2.46	0.48
7:1H:3:ARG:HB3	7:1H:6:ARG:HG2	1.94	0.48
32:1a:160:A:H2'	32:1a:161:A:O4'	2.13	0.48
32:1a:1125:U:H4'	41:1j:5:ARG:NH2	2.29	0.48
50:1s:12:ASP:C	50:1s:14:HIS:H	2.21	0.48
1:2A:1518:U:H2'	1:2A:1519:G:O4'	2.12	0.48
1:2A:2036:C:O2'	60:2A:3866:HOH:O	2.12	0.48
17:2V:43:GLU:OE1	17:2V:43:GLU:N	2.46	0.48
32:2a:1068:G:H8	32:2a:1068:G:OP2	1.96	0.48
49:2r:26:LEU:HD11	49:2r:42:ARG:HD3	1.94	0.48
1:1A:1935:G:H1'	1:1A:1964:G:N2	2.28	0.48
1:1A:2867:G:OP2	15:1T:119:LYS:NZ	2.36	0.48
12:1Q:97:VAL:HG11	12:1Q:103:MET:HE3	1.94	0.48
15:1T:91:ARG:NE	15:1T:124:ASP:OD2	2.46	0.48
28:16:6:ARG:HH12	28:16:26:ASN:HB2	1.76	0.48
35:1d:54:TYR:CE2	35:1d:58:LEU:HD12	2.48	0.48
40:1i:18:PHE:O	40:1i:61:ALA:HA	2.12	0.48
47:1p:1:MET:HG3	47:1p:3:LYS:HG3	1.96	0.48
53:1y:8:LYS:HE2	53:1y:9:GLN:HE22	1.78	0.48
1:2A:1464:C:H2'	1:2A:1465:G:C8	2.48	0.48
1:2A:1507:A:O2'	1:2A:1508:A:O4'	2.31	0.48
1:2A:1688:U:O2	1:2A:1700:A:H5'	2.14	0.48
1:2A:1702:G:H2'	1:2A:1703:G:O4'	2.14	0.48
1:2A:2131:G:OP1	1:2A:2132:U:H5'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2641:G:P	9:2N:74:ARG:HH21	2.37	0.48
6:2G:145:THR:HG22	6:2G:148:MET:SD	2.53	0.48
11:2P:89:ALA:C	11:2P:91:PHE:H	2.22	0.48
13:2R:100:LEU:HD21	13:2R:113:LEU:HB3	1.95	0.48
13:2R:103:ARG:NH1	13:2R:108:GLY:O	2.46	0.48
14:2S:14:VAL:O	14:2S:18:ILE:HG12	2.14	0.48
32:2a:706:A:H5"	42:2k:22:HIS:CE1	2.49	0.48
32:2a:1241:G:H2'	32:2a:1242:C:C6	2.49	0.48
41:2j:8:LEU:HB3	41:2j:16:LEU:HD21	1.95	0.48
1:1A:607:U:OP1	5:1F:102:PRO:HA	2.12	0.48
1:1A:1174:A:H4'	1:1A:1175:U:OP1	2.13	0.48
5:1F:116:ASP:OD1	5:1F:119:ARG:NH2	2.47	0.48
7:1H:154:PRO:HB3	7:1H:163:TYR:CE1	2.48	0.48
11:1P:27:HIS:HB2	60:1P:326:HOH:O	2.13	0.48
32:1a:1236:A:H2'	32:1a:1237:C:C6	2.48	0.48
33:1b:162:ILE:O	33:1b:185:ILE:HG13	2.13	0.48
35:1d:63:LYS:HD2	35:1d:198:VAL:HG22	1.96	0.48
1:2A:107:C:H2'	1:2A:108:U:C6	2.49	0.48
1:2A:247:G:H4'	1:2A:386:G:C5	2.49	0.48
1:2A:2162:G:H4'	1:2A:2172:U:O2'	2.13	0.48
10:2O:105:GLU:OE1	10:2O:105:GLU:N	2.44	0.48
30:28:6:THR:HG22	30:28:63:PRO:HD2	1.96	0.48
31:29:14:CYS:HA	31:29:27:CYS:HB2	1.94	0.48
32:2a:555:C:H2'	32:2a:556:C:H6	1.78	0.48
37:2f:96:PRO:HB3	49:2r:30:ASP:CG	2.38	0.48
40:2i:54:ASP:O	40:2i:56:LEU:N	2.47	0.48
53:2y:33:HIS:O	53:2y:57:PRO:HD3	2.13	0.48
1:1A:181:A:H5"	29:17:36:GLN:HE21	1.79	0.48
1:1A:2168:G:C2	1:1A:2171:A:H8	2.31	0.48
1:1A:2202:C:H2'	1:1A:2203:U:O4'	2.13	0.48
3:1D:159:ALA:HB1	3:1D:198:ASN:O	2.14	0.48
8:1I:27:ARG:NH1	60:1I:201:HOH:O	2.44	0.48
13:1R:72:ASP:HB3	13:1R:75:LEU:HB2	1.95	0.48
17:1V:76:LYS:HB2	17:1V:81:TYR:HB3	1.95	0.48
30:18:33:ASN:HA	30:18:36:LYS:HD2	1.95	0.48
33:1b:84:GLU:HG3	33:1b:215:LEU:HB3	1.94	0.48
38:1g:24:THR:O	38:1g:28:ASN:ND2	2.46	0.48
48:1q:67:LYS:C	48:1q:69:LYS:H	2.20	0.48
1:2A:41:C:H2'	1:2A:42:G:C8	2.48	0.48
1:2A:2564:A:N7	60:2A:4106:HOH:O	2.35	0.48
1:2A:2657:A:O3'	7:2H:160:LYS:NZ	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2695:C:H2'	1:2A:2696:U:C6	2.49	0.48
19:2X:46:ALA:HB1	24:22:33:MET:HE1	1.96	0.48
32:2a:148:G:H2'	32:2a:149:A:C8	2.48	0.48
32:2a:272:C:H2'	32:2a:273:A:C8	2.49	0.48
32:2a:932:C:H2'	32:2a:933:G:C8	2.49	0.48
32:2a:954:G:H21	32:2a:1227:A:H62	1.60	0.48
60:2a:1815:HOH:O	43:2l:54:LYS:NZ	2.46	0.48
36:2e:136:MET:HA	36:2e:139:LEU:HD12	1.95	0.48
43:2l:58:VAL:HG12	43:2l:60:LEU:HD12	1.96	0.48
44:2m:54:VAL:O	44:2m:58:GLU:N	2.39	0.48
1:1A:2314:C:H2'	1:1A:2315:G:C8	2.48	0.48
4:1E:51:PHE:CD2	4:1E:52:LEU:HG	2.49	0.48
6:1G:116:ASP:OD1	6:1G:116:ASP:N	2.46	0.48
6:1G:181:ARG:HG3	6:1G:182:LYS:N	2.29	0.48
12:1Q:58:PHE:O	12:1Q:60:ARG:N	2.47	0.48
32:1a:1034:G:H3'	32:1a:1035:A:C8	2.47	0.48
32:1a:1340:A:OP2	60:1a:1926:HOH:O	2.20	0.48
35:1d:65:ARG:HD2	35:1d:72:GLU:HA	1.96	0.48
48:1q:60:ILE:O	48:1q:62:SER:OG	2.30	0.48
1:2A:1277:G:O2'	13:2R:24:GLN:OE1	2.26	0.48
1:2A:2104:G:O6	1:2A:2185:C:C2	2.66	0.48
1:2A:2104:G:N2	1:2A:2105:C:C4	2.82	0.48
6:2G:68:PRO:HA	6:2G:92:VAL:HB	1.96	0.48
28:26:11:LEU:HD12	28:26:21:TYR:HB2	1.95	0.48
32:2a:272:C:H2'	32:2a:273:A:H8	1.78	0.48
32:2a:1505:G:OP1	60:2a:1803:HOH:O	2.19	0.48
38:2g:46:ALA:O	38:2g:50:ILE:HG23	2.14	0.48
46:2o:87:ILE:HG22	46:2o:88:ARG:N	2.26	0.48
1:1A:83:G:OP1	60:1A:4251:HOH:O	2.20	0.48
1:1A:792:G:H5"	1:1A:793:A:H5'	1.95	0.48
1:1A:1175:U:H1'	1:1A:1176:G:OP1	2.14	0.48
1:1A:1766:U:H2'	1:1A:1767:C:H6	1.79	0.48
2:1B:91:C:H5'	12:1Q:18:LYS:HA	1.95	0.48
7:1H:3:ARG:NH2	7:1H:65:HIS:HB3	2.29	0.48
11:1P:106:LEU:HD22	11:1P:112:LEU:HG	1.94	0.48
29:17:24:THR:HG23	29:17:27:GLY:H	1.78	0.48
32:1a:1070:U:H2'	32:1a:1071:C:H6	1.79	0.48
40:1i:16:ARG:HD3	40:1i:64:THR:CG2	2.44	0.48
45:1n:15:LYS:HG2	45:1n:16:PHE:CE2	2.49	0.48
46:1o:43:LEU:HD13	46:1o:53:HIS:HD2	1.78	0.48
1:2A:212:G:H2'	1:2A:213:A:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:363:G:H2'	1:2A:363(A):A:H8	1.79	0.48
1:2A:2183:C:H2'	1:2A:2184:G:C8	2.49	0.48
1:2A:2308:G:H5"	1:2A:2310:A:OP2	2.14	0.48
1:2A:2317:C:H2'	1:2A:2318:G:H5'	1.95	0.48
6:2G:5:VAL:HG22	6:2G:8:LYS:HB3	1.96	0.48
9:2N:109:LYS:HA	9:2N:109:LYS:HD3	1.64	0.48
32:2a:745:C:H2'	32:2a:746:A:C8	2.49	0.48
32:2a:1333:A:H3'	32:2a:1334:G:H8	1.79	0.48
32:2a:1371:G:O3'	40:2i:69:GLY:HA3	2.14	0.48
33:2b:78:GLN:HE22	33:2b:95:GLN:HA	1.79	0.48
46:2o:70:LEU:HD11	46:2o:77:ARG:HB2	1.95	0.48
47:2p:20:VAL:HG23	47:2p:35:LYS:HA	1.96	0.48
53:2y:3:MET:HE3	53:2y:37:PRO:HG2	1.96	0.48
53:2y:25:ALA:HA	53:2y:28:GLU:HG3	1.96	0.48
1:1A:2206:G:OP2	1:1A:2206:G:H4'	2.13	0.48
2:1B:41:U:H5	6:1G:70:VAL:H	1.60	0.48
5:1F:65:TRP:CZ2	5:1F:75:HIS:HD2	2.32	0.48
6:1G:53:LEU:HD13	6:1G:90:LEU:HD21	1.96	0.48
12:1Q:57:HIS:HD2	12:1Q:117:ALA:HB2	1.79	0.48
24:12:64:LEU:HD11	24:12:68:ARG:HH21	1.79	0.48
36:1e:6:PHE:HB3	36:1e:34:VAL:HG22	1.94	0.48
44:1m:40:ASN:O	44:1m:43:THR:OG1	2.30	0.48
1:2A:240:G:O6	60:2A:3914:HOH:O	2.18	0.48
1:2A:320:A:H4'	1:2A:322:A:C8	2.49	0.48
1:2A:963:U:H1'	1:2A:2250:G:O6	2.13	0.48
1:2A:1215:G:O6	60:2A:3924:HOH:O	2.19	0.48
1:2A:1301:A:O2'	1:2A:1303:G:N7	2.40	0.48
1:2A:2115:G:H5'	1:2A:2167:U:H4'	1.95	0.48
7:2H:98:LEU:HD12	7:2H:102:ALA:O	2.13	0.48
18:2W:18:ARG:HG2	18:2W:76:VAL:HB	1.94	0.48
32:2a:952:U:H2'	32:2a:953:G:H8	1.79	0.48
32:2a:987:G:H2'	32:2a:988:G:H8	1.78	0.48
32:2a:1082:G:H2'	32:2a:1083:U:O4'	2.13	0.48
32:2a:1262:C:H2'	32:2a:1263:C:C6	2.49	0.48
32:2a:1304:G:C6	32:2a:1305:G:N1	2.82	0.48
33:2b:19:HIS:HB2	33:2b:204:ASN:HB2	1.95	0.48
36:2e:72:GLN:HE22	36:2e:77:PRO:HB3	1.79	0.48
41:2j:8:LEU:HB3	41:2j:16:LEU:CD2	2.44	0.48
1:1A:848:G:H2'	1:1A:849:A:C8	2.48	0.48
1:1A:1173:G:O2'	1:1A:1174:A:O5'	2.32	0.48
2:1B:34:U:O2'	2:1B:44:G:N7	2.42	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:72:G:OP2	60:1B:302:HOH:O	2.20	0.48
6:1G:146:TYR:O	6:1G:149:VAL:HG12	2.14	0.48
7:1H:87:LEU:HD23	7:1H:164:TYR:HA	1.95	0.48
32:1a:235:C:H5'	48:1q:70:ARG:HG3	1.95	0.48
32:1a:1070:U:H2'	32:1a:1071:C:C6	2.49	0.48
32:1a:1129:C:H42	32:1a:1143:G:H1	1.61	0.48
33:1b:47:THR:HG22	33:1b:51:LEU:HD12	1.95	0.48
40:1i:55:ALA:HB1	40:1i:59:PHE:CE2	2.48	0.48
47:1p:45:THR:HG23	47:1p:48:TRP:HB3	1.96	0.48
1:2A:321:G:O2'	1:2A:340:A:N3	2.46	0.48
1:2A:740:U:H2'	1:2A:741:G:C8	2.49	0.48
1:2A:1024:G:O2'	1:2A:1144:G:O2'	2.32	0.48
1:2A:2125:G:O2'	1:2A:2173:A:N6	2.46	0.48
14:2S:24:LEU:HD22	14:2S:41:ASP:HB2	1.96	0.48
15:2T:118:ARG:HG2	32:2a:1442(A):G:C8	2.49	0.48
32:2a:1263:C:H2'	32:2a:1264:C:C6	2.48	0.48
33:2b:69:LEU:HB3	33:2b:162:ILE:HG22	1.96	0.48
47:2p:22:THR:HA	47:2p:33:ILE:HG13	1.95	0.48
48:2q:62:SER:OG	48:2q:72:ARG:NH1	2.47	0.48
1:1A:212:G:H2'	1:1A:213:A:O4'	2.14	0.47
1:1A:476:G:H4'	1:1A:502:A:N1	2.29	0.47
1:1A:1508:A:H4'	1:1A:1509(A):A:C5	2.49	0.47
1:1A:2830:G:H4'	60:1A:5452:HOH:O	2.14	0.47
3:1D:79:VAL:HG12	3:1D:113:VAL:HA	1.95	0.47
4:1E:101:ARG:HD2	4:1E:171:GLU:HA	1.97	0.47
32:1a:642:A:N3	39:1h:113:SER:OG	2.34	0.47
32:1a:1466:C:H2'	32:1a:1467:G:O4'	2.14	0.47
37:1f:14:LEU:HD22	37:1f:18:GLN:HB3	1.95	0.47
1:2A:116:C:H2'	1:2A:117:G:O4'	2.14	0.47
1:2A:888:C:H2'	1:2A:889:C:C2	2.49	0.47
1:2A:1771:C:OP1	60:2A:3932:HOH:O	2.20	0.47
4:2E:9:VAL:HG13	4:2E:25:VAL:O	2.14	0.47
32:2a:102:G:P	51:2t:10:LEU:HD21	2.54	0.47
32:2a:433:C:H2'	32:2a:434:U:H6	1.78	0.47
32:2a:502:G:OP1	43:2l:117:ARG:N	2.47	0.47
32:2a:1142:G:H2'	32:2a:1143:G:O4'	2.14	0.47
32:2a:1456:G:N1	51:2t:51:GLU:OE2	2.47	0.47
34:2c:18:TRP:HB2	34:2c:21:ARG:HG2	1.95	0.47
43:2l:82:VAL:O	43:2l:106:ASP:HB2	2.14	0.47
49:2r:26:LEU:HD21	49:2r:42:ARG:HD2	1.96	0.47
1:1A:144:C:H5'	19:1X:2:LYS:HD2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:889:C:O2'	1:1A:890:A:O5'	2.26	0.47
1:1A:2406:U:H2'	1:1A:2406:U:OP2	2.14	0.47
15:1T:16:ARG:NH1	15:1T:83:ILE:O	2.43	0.47
32:1a:715:A:H2'	32:1a:716:A:C8	2.49	0.47
32:1a:769:G:H4'	32:1a:1513:A:H4'	1.96	0.47
51:1t:9:ASN:O	51:1t:10:LEU:HD23	2.13	0.47
1:2A:323:G:H1'	1:2A:1205:U:O2	2.13	0.47
1:2A:2111:C:H42	1:2A:2147:G:H22	1.61	0.47
1:2A:2564:A:OP1	1:2A:2648:C:H4'	2.14	0.47
3:2D:70:TRP:HA	3:2D:73:VAL:HG23	1.96	0.47
6:2G:173:LEU:HD22	6:2G:178:PHE:CE1	2.49	0.47
8:2I:8:PRO:O	60:2I:301:HOH:O	2.20	0.47
32:2a:176:C:H2'	32:2a:177:C:C6	2.49	0.47
32:2a:1032:G:H2'	32:2a:1033:G:H8	1.79	0.47
32:2a:1033:G:H2'	32:2a:1033:G:N3	2.29	0.47
32:2a:1189:C:O2	60:2a:1812:HOH:O	2.19	0.47
51:2t:89:ARG:O	51:2t:93:GLU:HG2	2.14	0.47
1:1A:271(O):C:H2'	1:1A:271(P):C:C6	2.49	0.47
1:1A:975:C:OP1	60:1A:4254:HOH:O	2.20	0.47
1:1A:1049:C:C2'	1:1A:1050:A:H5'	2.45	0.47
1:1A:1578:U:H2'	1:1A:1579:A:H5'	1.95	0.47
19:1X:31:HIS:HD2	19:1X:33:LYS:H	1.61	0.47
21:1Z:28:MET:HE1	21:1Z:67:LEU:HD12	1.96	0.47
32:1a:119:A:H4'	32:1a:120:A:C8	2.49	0.47
32:1a:833:U:H2'	32:1a:834:C:H6	1.80	0.47
32:1a:985:C:H2'	32:1a:986:A:C8	2.49	0.47
34:1c:131:ARG:HH21	34:1c:135:LYS:HE3	1.80	0.47
39:1h:21:LYS:O	39:1h:65:TYR:OH	2.21	0.47
1:2A:784:A:C6	3:2D:229:VAL:HG11	2.48	0.47
1:2A:1849:G:H2'	1:2A:1850:G:H8	1.78	0.47
1:2A:2497:A:H5"	60:2A:4413:HOH:O	2.13	0.47
2:2B:90:A:N7	2:2B:91:C:H1'	2.29	0.47
4:2E:101:ARG:CZ	4:2E:171:GLU:HB2	2.44	0.47
5:2F:129:PHE:CD2	5:2F:163:VAL:HG21	2.49	0.47
5:2F:172:TRP:H	5:2F:172:TRP:CD1	2.32	0.47
12:2Q:137:TYR:HB3	21:2Z:76:LEU:HD11	1.96	0.47
13:2R:59:ASP:OD1	13:2R:61:HIS:HB3	2.13	0.47
14:2S:58:LEU:H	14:2S:58:LEU:HG	1.49	0.47
21:2Z:108:PRO:HA	21:2Z:142:SER:HA	1.96	0.47
32:2a:1055:A:H2'	34:2c:156:ARG:HD2	1.97	0.47
34:2c:188:LEU:HD11	34:2c:195:VAL:HG13	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2e:100:VAL:HA	36:2e:118:ILE:HG22	1.97	0.47
45:2n:27:CYS:SG	45:2n:29:ARG:HB2	2.55	0.47
1:1A:340:A:H2'	1:1A:341:G:O4'	2.14	0.47
1:1A:774:A:N3	1:1A:774:A:H2'	2.28	0.47
1:1A:2114:A:H1'	1:1A:2168:G:H5'	1.96	0.47
1:1A:2191:G:H5'	1:1A:2192:G:OP2	2.14	0.47
1:1A:2331:G:O2'	1:1A:2336:A:N1	2.35	0.47
32:1a:1112:C:N4	60:1a:2014:HOH:O	2.47	0.47
35:1d:105:VAL:HG13	35:1d:110:PHE:HB2	1.96	0.47
44:1m:40:ASN:HB3	44:1m:43:THR:HG23	1.96	0.47
1:2A:910:A:N1	1:2A:2277:G:H1'	2.30	0.47
1:2A:1514:U:H2'	1:2A:1515:G:C8	2.48	0.47
1:2A:1977:A:OP2	57:2A:3726:MPD:H11	2.14	0.47
1:2A:2134:A:O2'	1:2A:2159:G:H1'	2.13	0.47
21:2Z:51:ALA:O	21:2Z:52:SER:HB3	2.14	0.47
32:2a:441:A:H3'	32:2a:442:C:C6	2.50	0.47
32:2a:1415:G:C6	32:2a:1486:G:C6	3.03	0.47
38:2g:137:LYS:O	38:2g:141:VAL:HG23	2.15	0.47
44:2m:108:ARG:HD3	44:2m:108:ARG:HA	1.61	0.47
1:1A:37:C:H2'	1:1A:38:A:C8	2.50	0.47
1:1A:607:U:OP1	5:1F:103:LYS:HG3	2.14	0.47
1:1A:1174:A:H1'	1:1A:1175:U:O4'	2.14	0.47
1:1A:1683:C:H2'	1:1A:1684:C:C6	2.48	0.47
1:1A:2593:U:H2'	1:1A:2594:C:C6	2.50	0.47
1:1A:2887:U:H2'	1:1A:2888:C:C6	2.50	0.47
8:1I:9:LEU:HD23	8:1I:12:LEU:HD13	1.96	0.47
10:1O:104:ARG:CZ	15:1T:34:VAL:HG11	2.45	0.47
17:1V:72:VAL:HG13	17:1V:85:LYS:HB3	1.97	0.47
24:12:41:ILE:HG13	24:12:43:GLN:HG3	1.95	0.47
26:14:14:ILE:HG23	26:14:31:ILE:HB	1.96	0.47
32:1a:452:A:O2'	32:1a:453:A:OP2	2.27	0.47
32:1a:601:C:H2'	32:1a:602:A:H8	1.79	0.47
32:1a:954:G:H5'	53:1y:17:ARG:NH2	2.29	0.47
32:1a:991:U:C4	32:1a:1212:U:H1'	2.48	0.47
32:1a:1025:U:C2	32:1a:1036:G:O6	2.68	0.47
43:1l:24:VAL:HB	43:1l:27:LEU:HD23	1.97	0.47
46:1o:82:ILE:HG13	46:1o:83:GLU:N	2.29	0.47
1:2A:658:C:H2'	1:2A:659:C:C6	2.49	0.47
3:2D:132:PRO:HG3	3:2D:190:TYR:CE2	2.50	0.47
9:2N:128:HIS:ND1	9:2N:128:HIS:O	2.48	0.47
32:2a:662:G:H2'	32:2a:663:A:C8	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:979:C:O2	45:2n:19:ARG:HG2	2.14	0.47
32:2a:1067:A:H1'	32:2a:1068:G:C8	2.49	0.47
32:2a:1090:U:H2'	32:2a:1091:U:C6	2.50	0.47
32:2a:1216:G:H5"	45:2n:5:ALA:HB2	1.96	0.47
38:2g:148:ASN:ND2	42:2k:54:ARG:HH22	2.13	0.47
40:2i:46:ALA:O	40:2i:49:PRO:HD2	2.14	0.47
1:1A:307:G:H21	1:1A:330:A:N6	2.11	0.47
1:1A:2133:G:N1	1:1A:2157:G:H2'	2.29	0.47
1:1A:2167:U:H2'	1:1A:2168:G:C8	2.50	0.47
1:1A:2336:A:H61	22:10:43:THR:CG2	2.28	0.47
60:1A:5688:HOH:O	32:1a:770:C:H5"	2.13	0.47
32:1a:747:C:H3'	32:1a:748:C:C6	2.48	0.47
32:1a:834:C:H2'	32:1a:835:U:C6	2.50	0.47
1:2A:300:A:H1'	1:2A:319:C:H1'	1.96	0.47
1:2A:862:G:O2'	2:2B:78:A:N3	2.47	0.47
1:2A:864:G:H1'	1:2A:914:C:H42	1.79	0.47
1:2A:2567:G:H2'	1:2A:2568:C:C6	2.50	0.47
12:2Q:48:GLU:O	12:2Q:52:VAL:HG23	2.14	0.47
14:2S:11:LYS:O	14:2S:15:ARG:HG3	2.15	0.47
18:2W:75:TYR:CZ	18:2W:104:THR:HG21	2.50	0.47
32:2a:437:U:C5'	35:2d:155:LEU:HD11	2.44	0.47
32:2a:1074:G:O2'	32:2a:1101:A:N1	2.47	0.47
32:2a:1226:C:N4	44:2m:104:ARG:HD2	2.30	0.47
40:2i:16:ARG:O	40:2i:64:THR:N	2.40	0.47
1:1A:286:C:H2'	1:1A:287:C:H6	1.80	0.47
1:1A:657:U:H2'	1:1A:658:C:C6	2.50	0.47
1:1A:1049:C:H2'	1:1A:1050:A:H5'	1.97	0.47
1:1A:1252:G:C2	1:1A:1253:A:C2	3.02	0.47
1:1A:1954:G:O2'	1:1A:1956:U:O4	2.30	0.47
1:1A:2138:C:H2'	1:1A:2139:C:H5	1.78	0.47
1:1A:2143:C:N3	1:1A:2148:G:C6	2.83	0.47
2:1B:75:G:N2	60:1Z:401:HOH:O	2.47	0.47
5:1F:101:LEU:HD12	5:1F:102:PRO:HD2	1.97	0.47
6:1G:66:GLN:HE21	6:1G:92:VAL:HG23	1.80	0.47
15:1T:19:LEU:HD22	15:1T:86:ILE:HG13	1.97	0.47
15:1T:96:ARG:NH2	60:1T:303:HOH:O	2.41	0.47
26:14:15:ILE:HB	26:14:32:TYR:CD1	2.50	0.47
30:18:23:VAL:HG12	30:18:47:LYS:HB3	1.96	0.47
32:1a:254:G:H21	48:1q:16:GLN:HE21	1.60	0.47
32:1a:405:U:H5"	32:1a:495:A:H2	1.79	0.47
32:1a:648:A:H2'	32:1a:649:G:H8	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:688:G:H2'	32:1a:689:C:H6	1.79	0.47
32:1a:946:A:H2'	32:1a:947:G:C8	2.50	0.47
32:1a:1037:C:H2'	32:1a:1038:C:C6	2.50	0.47
37:1f:26:ILE:O	37:1f:30:LEU:HG	2.14	0.47
50:1s:32:LYS:HA	50:1s:50:ALA:HB3	1.97	0.47
1:2A:570:G:H2'	1:2A:2030:A:C5	2.49	0.47
1:2A:1358:G:O2'	1:2A:1359:A:H5'	2.14	0.47
1:2A:2251:OMG:HM23	1:2A:2251:OMG:H1'	1.68	0.47
1:2A:2823:A:OP1	4:2E:113:PHE:HB2	2.14	0.47
6:2G:42:GLY:HA2	6:2G:89:GLY:HA2	1.95	0.47
7:2H:3:ARG:HH12	7:2H:5:GLY:H	1.61	0.47
7:2H:70:THR:HG22	7:2H:74:ASN:HD21	1.78	0.47
23:21:21:ARG:NH2	60:21:203:HOH:O	2.48	0.47
32:2a:546:G:OP1	35:2d:73:ARG:HG2	2.15	0.47
32:2a:632:A:H3'	32:2a:633:G:C8	2.50	0.47
32:2a:742:G:P	46:2o:35:ARG:HH22	2.37	0.47
32:2a:869:G:O2'	32:2a:872:A:N7	2.45	0.47
32:2a:1401:G:C2	32:2a:1402:4OC:H1'	2.50	0.47
32:2a:1427:U:H2'	32:2a:1428:A:C8	2.49	0.47
39:2h:9:MET:HB2	39:2h:32:LYS:HD3	1.95	0.47
40:2i:50:LEU:HB2	40:2i:56:LEU:HD23	1.97	0.47
46:2o:55:GLY:HA2	46:2o:58:MET:HE3	1.97	0.47
52:2u:12:LYS:HE3	52:2u:21:TYR:HB2	1.97	0.47
1:1A:311:A:C6	1:1A:328:U:C4	3.03	0.47
1:1A:729:G:C5	3:1D:208:LYS:HB2	2.50	0.47
1:1A:1742:G:O5'	1:1A:1742:G:H8	1.98	0.47
1:1A:2134:A:N7	1:1A:2157:G:O2'	2.48	0.47
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.51	0.47
9:1N:42:TRP:HA	9:1N:48:MET:SD	2.55	0.47
15:1T:37:GLY:HA2	15:1T:38:ASN:HA	1.59	0.47
20:1Y:79:CYS:O	20:1Y:81:LYS:N	2.48	0.47
32:1a:41:G:H2'	32:1a:42:G:C8	2.50	0.47
32:1a:575:G:O2'	32:1a:821:G:H5'	2.14	0.47
32:1a:1207:2MG:H2'	32:1a:1208:C:C6	2.50	0.47
39:1h:112:LEU:HD22	39:1h:133:LEU:HA	1.95	0.47
52:1u:6:ARG:HG2	52:1u:15:ARG:HD2	1.96	0.47
1:2A:2302:G:O2'	6:2G:126:ASP:O	2.28	0.47
4:2E:12:THR:HG21	15:2T:11:GLU:HG2	1.97	0.47
6:2G:73:ALA:HB3	6:2G:85:GLY:H	1.80	0.47
6:2G:146:TYR:HA	6:2G:149:VAL:HG12	1.97	0.47
15:2T:109:GLU:HG2	15:2T:112:ARG:NH2	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:35:ARG:HA	21:2Z:35:ARG:HD2	1.58	0.47
32:2a:1129:C:N4	32:2a:1143:G:H1	2.13	0.47
32:2a:1320:C:H1'	50:2s:73:GLU:HG2	1.96	0.47
32:2a:1469:G:H2'	32:2a:1470:G:C8	2.49	0.47
36:2e:52:PRO:HD2	36:2e:53:LEU:HD12	1.96	0.47
38:2g:22:LEU:HG	38:2g:62:PHE:CE2	2.50	0.47
44:2m:22:ILE:HG21	44:2m:66:LEU:HD13	1.97	0.47
48:2q:59:ILE:HB	48:2q:71:PHE:HB3	1.97	0.47
1:1A:1231:G:H2'	1:1A:1232:G:C8	2.49	0.47
1:1A:1379:A:H4'	1:1A:1380:G:OP2	2.15	0.47
1:1A:1557:C:H5"	1:1A:1558:A:OP2	2.14	0.47
1:1A:2037:G:H2'	1:1A:2038:G:C8	2.50	0.47
32:1a:44:G:H2'	32:1a:45:U:O4'	2.15	0.47
32:1a:61:G:OP2	51:1t:10:LEU:HD22	2.14	0.47
32:1a:447:G:O6	32:1a:485:G:O2'	2.26	0.47
32:1a:676:A:H1'	42:1k:115:PRO:HB3	1.96	0.47
35:1d:172:PRO:C	35:1d:174:LEU:H	2.22	0.47
37:1f:36:ARG:HH12	37:1f:38:GLU:HG2	1.80	0.47
1:2A:214:G:O2'	1:2A:216:A:O2'	2.24	0.47
1:2A:817:C:O2'	1:2A:839:U:H5"	2.15	0.47
1:2A:1059:G:H2'	1:2A:1060:U:C5	2.50	0.47
1:2A:1607:C:N4	60:2A:4075:HOH:O	2.48	0.47
1:2A:1742:G:O6	60:2A:3891:HOH:O	2.16	0.47
1:2A:2040:C:H2'	1:2A:2041:U:O4'	2.14	0.47
60:2A:3971:HOH:O	10:2O:26:LYS:HD2	2.14	0.47
3:2D:68:LYS:O	3:2D:69:ARG:HB2	2.15	0.47
25:23:11:SER:HA	25:23:31:LEU:HD21	1.96	0.47
26:24:24:THR:OG1	26:24:25:TYR:N	2.40	0.47
32:2a:73:G:H1	32:2a:96:U:H3	1.63	0.47
32:2a:772:U:H2'	32:2a:773:G:O4'	2.15	0.47
32:2a:1151:A:O2'	32:2a:1152:A:H8	1.97	0.47
32:2a:1164:G:H1	32:2a:1172:C:H42	1.62	0.47
1:1A:185:U:H4'	1:1A:218:A:H4'	1.97	0.47
1:1A:218:A:C2	1:1A:235:U:H4'	2.49	0.47
1:1A:973:A:OP2	60:1A:4166:HOH:O	2.20	0.47
1:1A:1693:U:H1'	3:1D:14:ARG:NH1	2.30	0.47
1:1A:2033:A:OP1	60:1A:4256:HOH:O	2.21	0.47
6:1G:179:PRO:HG3	26:14:43:TYR:OH	2.15	0.47
9:1N:4:TYR:CD2	16:1U:100:VAL:HG11	2.50	0.47
13:1R:98:LEU:HB2	13:1R:113:LEU:HD11	1.96	0.47
32:1a:171:A:H2'	32:1a:172:A:H8	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:827:U:H5”	32:1a:828:A:OP2	2.14	0.47
38:1g:28:ASN:HA	38:1g:31:MET:HE2	1.97	0.47
53:1y:3:MET:HE1	53:1y:5:ILE:HD11	1.97	0.47
1:2A:1581:G:H2’	1:2A:1582:C:O4’	2.15	0.47
1:2A:2447:G:N2	1:2A:2450:A:OP2	2.48	0.47
10:2O:63:VAL:HG23	10:2O:64:ARG:HG3	1.96	0.47
10:2O:113:LYS:O	10:2O:117:LEU:HG	2.14	0.47
11:2P:49:ARG:NH1	30:28:61:LEU:HD23	2.30	0.47
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.96	0.47
26:24:50:VAL:HG21	44:2m:65:LYS:HB3	1.97	0.47
32:2a:297:G:H4’	32:2a:557:G:H4’	1.96	0.47
32:2a:427:U:H3’	32:2a:428:G:H2’	1.96	0.47
32:2a:513:C:H2’	32:2a:514:C:C6	2.50	0.47
32:2a:984:C:H2’	32:2a:985:C:C6	2.50	0.47
1:1A:1912:A:HO2’	32:1a:1494:G:HO2’	1.59	0.46
1:1A:2869:G:H2’	1:1A:2870:C:O4’	2.15	0.46
2:1B:90:A:C5	2:1B:91:C:H1’	2.50	0.46
3:1D:71:ASP:CB	3:1D:103:ARG:HH22	2.28	0.46
6:1G:67:LYS:HD3	26:14:5:ILE:HD12	1.97	0.46
10:1O:64:ARG:HD3	10:1O:79:PHE:CD1	2.50	0.46
19:1X:60:ARG:NH2	29:17:47:ARG:HH22	2.12	0.46
30:18:34:TRP:O	60:18:202:HOH:O	2.21	0.46
32:1a:1391:U:H2’	32:1a:1392:G:C8	2.50	0.46
32:1a:1511:G:H2’	32:1a:1512:U:O4’	2.14	0.46
37:1f:4:TYR:HD2	37:1f:67:MET:HE3	1.80	0.46
1:2A:456:C:O2’	19:2X:68:ARG:NH1	2.48	0.46
1:2A:2112:G:H2’	1:2A:2113:U:H6	1.79	0.46
1:2A:2119:A:C2	1:2A:2171:A:H5’	2.50	0.46
1:2A:2235:G:O6	60:2A:3933:HOH:O	2.20	0.46
1:2A:2320:A:N3	1:2A:2320:A:H2’	2.29	0.46
1:2A:2473:U:O2	1:2A:2473:U:H2’	2.13	0.46
3:2D:77:ALA:HB2	3:2D:97:TYR:CD1	2.50	0.46
11:2P:86:LYS:HB3	11:2P:118:GLY:HA3	1.96	0.46
22:20:25:ARG:HB3	22:20:67:VAL:HG21	1.96	0.46
32:2a:7:G:H5’	32:2a:298:A:O4’	2.15	0.46
32:2a:920:U:H2’	32:2a:921:U:C6	2.50	0.46
32:2a:1260:C:O5’	32:2a:1284:C:H4’	2.15	0.46
32:2a:1325:C:OP1	52:2u:15:ARG:HD2	2.16	0.46
35:2d:59:ARG:HH11	35:2d:59:ARG:HA	1.80	0.46
37:2f:2:ARG:HH11	37:2f:92:LYS:NZ	2.12	0.46
40:2i:48:GLU:HA	40:2i:51:ARG:HG3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:740:U:O2	60:1A:4231:HOH:O	2.18	0.46
1:1A:1054:A:H5'	1:1A:1055:G:OP2	2.14	0.46
4:1E:9:VAL:HB	15:1T:3:ARG:HG2	1.96	0.46
6:1G:106:LEU:HA	6:1G:110:ALA:HB3	1.97	0.46
10:1O:49:ARG:NH1	32:1a:1422:G:O3'	2.45	0.46
21:1Z:103:ARG:HD3	21:1Z:136:PHE:CD1	2.49	0.46
27:15:9:LYS:HE3	27:15:9:LYS:HB3	1.67	0.46
32:1a:235:C:H2'	32:1a:236:G:C8	2.50	0.46
32:1a:428:G:OP2	35:1d:10:ARG:NH1	2.48	0.46
32:1a:1346:A:N1	32:1a:1374:A:H5"	2.31	0.46
33:1b:97:TRP:HZ2	33:1b:102:LEU:HD13	1.81	0.46
41:1j:5:ARG:HE	41:1j:73:ASP:CG	2.24	0.46
1:2A:876:C:H2'	1:2A:877:U:O4'	2.15	0.46
1:2A:1853:A:N1	1:2A:2087:G:H1'	2.30	0.46
1:2A:2184:G:C2	1:2A:2185:C:H1'	2.50	0.46
1:2A:2647:U:H2'	1:2A:2648:C:H6	1.80	0.46
31:29:19:ARG:HB3	31:29:24:TYR:CD2	2.49	0.46
32:2a:1244:C:H2'	32:2a:1245:A:H8	1.79	0.46
32:2a:1292:U:H2'	32:2a:1293:G:H8	1.79	0.46
32:2a:1428:A:H2'	32:2a:1429:C:O4'	2.15	0.46
35:2d:79:PHE:CE1	35:2d:204:ILE:HD13	2.50	0.46
36:2e:152:ARG:HB2	39:2h:43:GLY:HA3	1.98	0.46
53:2y:46:GLN:HE21	53:2y:46:GLN:HB2	1.57	0.46
1:1A:41:C:H2'	1:1A:42:G:O4'	2.15	0.46
1:1A:2162:G:H4'	1:1A:2172:U:O2'	2.16	0.46
3:1D:26:LYS:HE2	3:1D:28:GLU:O	2.15	0.46
3:1D:61:LEU:O	3:1D:63:ARG:NH1	2.49	0.46
4:1E:176:ILE:HB	4:1E:181:LEU:HB2	1.97	0.46
32:1a:1128:C:H4'	32:1a:1148:U:O2	2.15	0.46
48:1q:45:HIS:CE1	48:1q:47:PRO:HG3	2.51	0.46
1:2A:2336:A:H61	22:20:43:THR:HG21	1.80	0.46
1:2A:2875:C:H2'	1:2A:2876:G:O4'	2.15	0.46
8:2I:129:THR:HA	8:2I:138:ILE:O	2.15	0.46
13:2R:98:LEU:HD12	13:2R:113:LEU:HD11	1.96	0.46
25:23:18:ASP:N	25:23:18:ASP:OD1	2.48	0.46
32:2a:439:A:C5	32:2a:441:A:H1'	2.51	0.46
32:2a:1007:C:H2'	32:2a:1008:C:C6	2.50	0.46
32:2a:1369:C:OP2	40:2i:112:LYS:N	2.39	0.46
46:2o:36:ILE:HG23	46:2o:56:LEU:HD11	1.97	0.46
51:2t:14:LYS:HA	51:2t:17:ARG:CZ	2.46	0.46
1:1A:1213:A:N3	1:1A:1238:G:O2'	2.44	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1593:G:H2'	1:1A:1594:G:C8	2.51	0.46
1:1A:1670:C:O2	4:1E:129:HIS:NE2	2.39	0.46
1:1A:1674:G:H1'	1:1A:1676:A:N6	2.29	0.46
1:1A:2134:A:N6	1:1A:2157:G:H4'	2.30	0.46
1:1A:2394:C:H1'	60:1A:5640:HOH:O	2.16	0.46
1:1A:2732:G:H3'	1:1A:2733:A:O4'	2.16	0.46
6:1G:77:ILE:HG21	6:1G:80:PHE:CD2	2.50	0.46
8:1I:93:THR:HG22	8:1I:119:PRO:HB3	1.96	0.46
24:12:63:VAL:HA	24:12:66:GLU:HB2	1.96	0.46
33:1b:28:PHE:CD2	33:1b:194:PRO:HG3	2.50	0.46
36:1e:31:LEU:HD22	36:1e:43:LEU:HD11	1.97	0.46
45:1n:9:LYS:HB2	45:1n:9:LYS:HE3	1.73	0.46
1:2A:568:U:H5'	1:2A:945:A:N6	2.31	0.46
1:2A:674:G:H1'	5:2F:74:ARG:HD3	1.96	0.46
1:2A:1794:U:H2'	1:2A:1795:C:H6	1.80	0.46
1:2A:1932:A:H2'	1:2A:1933:G:O4'	2.15	0.46
2:2B:24:G:N7	2:2B:56:G:H2'	2.29	0.46
5:2F:160:ASN:HB3	5:2F:163:VAL:HB	1.97	0.46
12:2Q:72:LYS:HB3	12:2Q:94:VAL:HG23	1.96	0.46
14:2S:24:LEU:HD12	14:2S:82:ILE:HG23	1.97	0.46
22:20:39:ARG:HD2	22:20:58:THR:HG23	1.97	0.46
28:26:6:ARG:NH1	28:26:26:ASN:HB2	2.31	0.46
32:2a:130:A:H1'	32:2a:263:A:O2'	2.16	0.46
32:2a:947:G:O3'	44:2m:109:THR:OG1	2.32	0.46
32:2a:1002:G:C4	32:2a:1003:G:H8	2.33	0.46
32:2a:1047:G:H1	32:2a:1210:C:H42	1.64	0.46
32:2a:1250:A:N3	32:2a:1370:G:O2'	2.42	0.46
35:2d:158:ILE:HG23	35:2d:162:LEU:HD12	1.97	0.46
41:2j:13:HIS:HB3	41:2j:68:HIS:CD2	2.50	0.46
47:2p:20:VAL:HG21	47:2p:32:TYR:CG	2.50	0.46
1:1A:279:C:N3	1:1A:361:G:N2	2.54	0.46
1:1A:724:U:H2'	1:1A:725:G:O4'	2.16	0.46
3:1D:106:ILE:N	60:1D:405:HOH:O	2.28	0.46
15:1T:24:PRO:HA	15:1T:49:VAL:HG22	1.96	0.46
16:1U:47:TYR:HA	16:1U:50:ARG:NH2	2.30	0.46
32:1a:266:G:H2'	32:1a:266:G:N3	2.29	0.46
32:1a:376:G:H4'	47:1p:5:ARG:NH1	2.30	0.46
32:1a:921:U:O2	36:1e:19:MET:HB2	2.15	0.46
32:1a:1275:A:H2'	32:1a:1276:G:O4'	2.14	0.46
32:1a:1346:A:OP1	40:1i:120:ARG:NH1	2.48	0.46
32:1a:1402:4OC:O5'	32:1a:1402:4OC:H6	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1139:G:OP2	9:2N:70:LYS:NZ	2.39	0.46
5:2F:7:TYR:HE1	5:2F:119:ARG:HB2	1.80	0.46
7:2H:124:GLU:HB2	7:2H:132:ARG:HB3	1.97	0.46
9:2N:80:GLY:O	9:2N:82:LEU:N	2.45	0.46
10:2O:29:ASN:N	10:2O:29:ASN:OD1	2.49	0.46
19:2X:9:LEU:O	24:22:36:ARG:NE	2.44	0.46
32:2a:144:G:H1	32:2a:178:C:H42	1.62	0.46
32:2a:584:G:H5'	48:2q:91:ARG:HH22	1.80	0.46
34:2c:3:ASN:OD1	34:2c:3:ASN:N	2.48	0.46
37:2f:7:ASN:OD1	37:2f:62:TRP:HD1	1.99	0.46
44:2m:82:MET:O	44:2m:93:ARG:NH1	2.49	0.46
50:2s:32:LYS:HE2	50:2s:34:TRP:CH2	2.51	0.46
1:1A:201:C:O2'	1:1A:251:A:N1	2.48	0.46
1:1A:1286:A:O2'	1:1A:1288:U:OP2	2.29	0.46
1:1A:1359:A:H2'	1:1A:1360:A:H5'	1.96	0.46
1:1A:2471:C:H2'	1:1A:2472:G:O4'	2.15	0.46
3:1D:101:GLU:HG2	3:1D:103:ARG:HD3	1.96	0.46
4:1E:168:MET:HE3	4:1E:168:MET:HB3	1.65	0.46
12:1Q:21:THR:HG21	12:1Q:101:ARG:CB	2.44	0.46
14:1S:3:ARG:NH1	14:1S:4:LEU:H	2.14	0.46
26:14:41:PRO:HA	26:14:47:GLN:HB3	1.97	0.46
29:17:35:ARG:HG3	29:17:42:LEU:HD11	1.98	0.46
32:1a:988:G:H1'	32:1a:1014:A:H61	1.81	0.46
33:1b:41:ILE:HD13	33:1b:41:ILE:HA	1.78	0.46
34:1c:65:ALA:HA	34:1c:100:ALA:O	2.16	0.46
35:1d:73:ARG:HD2	35:1d:73:ARG:HA	1.69	0.46
41:1j:51:ARG:HG2	41:1j:61:GLU:HB2	1.96	0.46
1:2A:2376:A:H2'	1:2A:2377:A:O4'	2.15	0.46
2:2B:7:G:H21	14:2S:38:GLN:CD	2.22	0.46
4:2E:96:PHE:O	4:2E:175:VAL:HG11	2.16	0.46
5:2F:132:VAL:HG21	5:2F:163:VAL:HG22	1.97	0.46
12:2Q:51:ARG:O	12:2Q:55:VAL:HG12	2.15	0.46
14:2S:27:SER:HA	14:2S:88:ASP:HB3	1.98	0.46
21:2Z:5:LEU:O	21:2Z:59:LEU:HA	2.15	0.46
32:2a:1010:G:H2'	32:2a:1011:G:H8	1.80	0.46
32:2a:1228:C:P	44:2m:108:ARG:HH22	2.37	0.46
40:2i:4:TYR:N	40:2i:19:LEU:O	2.43	0.46
1:1A:857:C:H4'	22:10:23:VAL:HG21	1.97	0.46
1:1A:1478:G:O2'	1:1A:1558:A:N7	2.47	0.46
1:1A:1826:G:H4'	3:1D:242:ARG:NH1	2.31	0.46
1:1A:2347:C:HO2'	28:16:21:TYR:HH	1.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2390:U:P	30:18:35:GLN:HE22	2.38	0.46
3:1D:5:LYS:HE3	3:1D:5:LYS:HB3	1.73	0.46
13:1R:70:LEU:O	13:1R:72:ASP:N	2.45	0.46
20:1Y:19:LYS:HB3	20:1Y:19:LYS:HE2	1.67	0.46
32:1a:22:G:H4'	32:1a:885:G:C8	2.51	0.46
32:1a:102:G:O6	60:1a:1928:HOH:O	2.21	0.46
32:1a:153:C:H42	32:1a:168:G:H1	1.64	0.46
32:1a:169:C:H2'	32:1a:170:U:C6	2.50	0.46
32:1a:437:U:O3'	35:1d:125:HIS:HE1	1.99	0.46
32:1a:1277:C:O2'	32:1a:1279:A:H1'	2.15	0.46
46:1o:70:LEU:HD11	46:1o:77:ARG:HB3	1.98	0.46
1:2A:384:U:H2'	1:2A:385:C:H6	1.80	0.46
1:2A:724:U:H2'	1:2A:725:G:O4'	2.16	0.46
1:2A:1045:A:H5'	1:2A:1047:G:P	2.56	0.46
1:2A:2031:A:C6	1:2A:2498:C:H1'	2.51	0.46
12:2Q:137:TYR:O	12:2Q:141:GLN:HG2	2.16	0.46
15:2T:74:ARG:NH2	60:2T:302:HOH:O	2.49	0.46
32:2a:448:A:P	32:2a:485:G:H22	2.39	0.46
32:2a:552:U:H4'	43:2l:87:GLY:N	2.30	0.46
32:2a:801:U:H2'	32:2a:802:A:H8	1.80	0.46
32:2a:1202:G:H1'	45:2n:29:ARG:HD2	1.97	0.46
32:2a:1265:G:H1	32:2a:1270:C:N4	2.11	0.46
37:2f:23:LYS:HA	37:2f:26:ILE:HB	1.97	0.46
38:2g:26:PHE:HE1	38:2g:105:VAL:HG22	1.81	0.46
46:2o:29:VAL:HG11	46:2o:81:LEU:HD21	1.98	0.46
1:1A:2811:G:N2	1:1A:2891:G:H1'	2.31	0.46
2:1B:66:A:N6	2:1B:108:U:H2'	2.29	0.46
12:1Q:78:PRO:O	12:1Q:81:VAL:HG13	2.16	0.46
19:1X:72:LYS:HE3	19:1X:75:ASP:OD1	2.16	0.46
20:1Y:1:MET:HE2	20:1Y:1:MET:HB3	1.90	0.46
32:1a:479:C:H2'	32:1a:480:U:O4'	2.15	0.46
32:1a:790:A:C2	53:1y:29:LYS:HD3	2.50	0.46
32:1a:933:G:O6	38:1g:3:ARG:NH2	2.49	0.46
41:1j:54:PHE:CD2	41:1j:55:LYS:HG2	2.51	0.46
51:1t:67:ALA:HA	51:1t:72:LEU:O	2.16	0.46
52:1u:3:LYS:HB3	52:1u:14:TRP:CD1	2.50	0.46
1:2A:272:G:N7	1:2A:421:U:H2'	2.31	0.46
1:2A:320:A:H4'	1:2A:322:A:N7	2.30	0.46
1:2A:1448:G:H2'	1:2A:1449:A:C8	2.51	0.46
1:2A:2526:G:H5'	1:2A:2742:C:O2'	2.15	0.46
60:2A:3994:HOH:O	30:28:28:GLY:N	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:14:U:H1'	2:2B:108:U:O2'	2.16	0.46
6:2G:33:ARG:O	6:2G:161:THR:HG23	2.16	0.46
9:2N:33:LEU:HD12	9:2N:38:HIS:CE1	2.51	0.46
9:2N:63:THR:O	9:2N:66:LYS:HE3	2.16	0.46
14:2S:26:LEU:HD22	14:2S:87:PHE:CD1	2.51	0.46
23:21:3:LYS:HB2	23:21:61:ARG:HH22	1.81	0.46
32:2a:235:C:H2'	32:2a:236:G:H8	1.80	0.46
32:2a:325:A:OP2	51:2t:70:SER:OG	2.25	0.46
32:2a:792:A:H4'	32:2a:793:U:O5'	2.15	0.46
32:2a:1132:C:H2'	32:2a:1133:G:H8	1.80	0.46
32:2a:1385:G:H2'	32:2a:1386:G:H8	1.80	0.46
32:2a:1512:U:H2'	32:2a:1513:A:C8	2.51	0.46
40:2i:79:LEU:HD22	40:2i:104:ARG:HB2	1.98	0.46
42:2k:14:VAL:HG11	42:2k:34:ASP:HA	1.97	0.46
47:2p:18:ARG:HD3	47:2p:35:LYS:HD2	1.98	0.46
50:2s:36:ARG:HH12	50:2s:75:ALA:HB3	1.81	0.46
1:1A:248:G:H2'	60:1A:4164:HOH:O	2.15	0.46
1:1A:271(P):C:H2'	1:1A:271(Q):G:O4'	2.16	0.46
1:1A:1268:A:C2	1:1A:2013:A:C4	3.04	0.46
1:1A:2115:G:H2'	1:1A:2117:A:H62	1.80	0.46
1:1A:2646:C:H2'	1:1A:2647:U:O4'	2.15	0.46
1:1A:2747:G:O6	1:1A:2755:C:H5"	2.16	0.46
3:1D:133:LEU:HD23	3:1D:133:LEU:HA	1.81	0.46
4:1E:36:ARG:HG2	4:1E:47:VAL:HG22	1.98	0.46
11:1P:63:PRO:HG2	30:18:25:MET:HB2	1.98	0.46
12:1Q:7:MET:HE3	12:1Q:7:MET:HB2	1.62	0.46
12:1Q:110:THR:HG23	12:1Q:113:GLN:OE1	2.15	0.46
18:1W:68:ARG:HB3	18:1W:109:GLU:HG2	1.97	0.46
32:1a:96:U:H2'	32:1a:97:G:C8	2.51	0.46
32:1a:155:C:H2'	32:1a:156:G:O4'	2.15	0.46
32:1a:189(K):U:H2'	32:1a:189(L):G:C8	2.50	0.46
32:1a:265:G:H2'	32:1a:267:C:H5	1.80	0.46
32:1a:1151:A:O2'	32:1a:1152:A:H8	1.98	0.46
33:1b:147:LYS:HZ3	33:1b:148:TYR:HE1	1.63	0.46
34:1c:16:ARG:HH21	34:1c:54:ARG:NH2	2.14	0.46
35:1d:178:VAL:HG12	35:1d:179:GLU:H	1.81	0.46
40:1i:79:LEU:O	40:1i:83:ARG:HG2	2.16	0.46
1:2A:1377:G:O6	60:2A:3930:HOH:O	2.20	0.46
60:2A:4156:HOH:O	16:2U:5:LYS:HG2	2.16	0.46
8:2I:101:LEU:HB3	8:2I:107:VAL:O	2.16	0.46
9:2N:104:LYS:HA	9:2N:107:LEU:HD12	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:130:PRO:O	21:2Z:133:ILE:HG13	2.16	0.46
32:2a:801:U:H2'	32:2a:802:A:C8	2.51	0.46
32:2a:978:A:O2'	32:2a:1322:C:N3	2.42	0.46
32:2a:1060:C:H4'	41:2j:51:ARG:HB3	1.97	0.46
32:2a:1279:A:H2'	32:2a:1279:A:N3	2.30	0.46
48:2q:50:LYS:HE3	48:2q:51:TYR:CE2	2.50	0.46
1:1A:459:U:OP2	29:17:39:ARG:NH1	2.49	0.46
1:1A:1064:C:H3'	1:1A:1065:U:C5'	2.44	0.46
1:1A:1420:U:HO2'	1:1A:1421:G:P	2.39	0.46
3:1D:72:LYS:HD3	3:1D:97:TYR:CE1	2.51	0.46
3:1D:242:ARG:HD2	3:1D:246:PRO:HG3	1.97	0.46
7:1H:164:TYR:HB2	7:1H:167:GLU:HB2	1.99	0.46
9:1N:108:PRO:O	9:1N:113:GLY:HA3	2.15	0.46
10:1O:26:LYS:O	10:1O:30:ALA:HB2	2.16	0.46
11:1P:95:VAL:HG22	11:1P:125:VAL:HB	1.97	0.46
32:1a:430:A:OP1	35:1d:9:CYS:HB2	2.16	0.46
32:1a:1143:G:H2'	32:1a:1144:G:C8	2.52	0.46
35:1d:163:GLU:O	35:1d:166:LYS:HG2	2.15	0.46
37:1f:1:MET:HA	37:1f:67:MET:O	2.15	0.46
41:1j:67:THR:O	41:1j:67:THR:OG1	2.31	0.46
48:1q:58:GLU:OE2	48:1q:75:ARG:NH2	2.48	0.46
1:2A:27:G:N2	1:2A:512:G:H1'	2.31	0.46
1:2A:363:G:H2'	1:2A:363(A):A:C8	2.51	0.46
1:2A:1019:U:H2'	1:2A:1020:A:C8	2.51	0.46
1:2A:1359:A:H61	1:2A:1372:U:H3	1.64	0.46
1:2A:1364:G:P	23:21:3:LYS:HG3	2.56	0.46
1:2A:1886:C:H2'	1:2A:1887:C:C6	2.51	0.46
9:2N:30:ILE:O	9:2N:34:LEU:HD22	2.15	0.46
26:24:57:GLU:CB	26:24:58:ARG:HD2	2.45	0.46
35:2d:25:ARG:NH1	35:2d:30:LYS:O	2.49	0.46
35:2d:58:LEU:O	35:2d:62:GLN:HG2	2.16	0.46
37:2f:9:VAL:HA	37:2f:59:TYR:O	2.15	0.46
43:2l:27:LEU:O	43:2l:33:ARG:NE	2.48	0.46
43:2l:117:ARG:NH2	43:2l:124:LYS:HB2	2.31	0.46
45:2n:24:CYS:HA	45:2n:38:GLY:O	2.16	0.46
51:2t:51:GLU:HA	51:2t:54:LYS:HE2	1.97	0.46
1:1A:1239:G:H2'	1:1A:1240:U:O4'	2.16	0.45
4:1E:143:ASN:HD22	4:1E:147:PRO:CD	2.29	0.45
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	1.97	0.45
32:1a:608:A:H2'	32:1a:609:A:O4'	2.15	0.45
35:1d:32:ALA:HB3	59:1d:306:SF4:S2	2.56	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:1j:31:GLY:HA2	41:1j:32:ALA:HA	1.66	0.45
1:2A:107:C:H2'	1:2A:108:U:H6	1.81	0.45
1:2A:435:C:O2	60:2A:3937:HOH:O	2.20	0.45
1:2A:1075:C:OP1	12:2Q:59:ARG:HD2	2.15	0.45
1:2A:1292:U:H2'	1:2A:1293:C:H6	1.80	0.45
1:2A:1608:A:H1'	1:2A:1610:A:OP2	2.16	0.45
1:2A:2185:C:C6	1:2A:2185:C:H3'	2.51	0.45
19:2X:11:PRO:HB3	19:2X:92:LEU:HD11	1.98	0.45
21:2Z:165:VAL:HG23	21:2Z:166:SER:O	2.16	0.45
23:21:62:VAL:HG22	23:21:63:ALA:O	2.16	0.45
31:29:1:MET:HG3	31:29:2:LYS:N	2.30	0.45
32:2a:437:U:O2'	35:2d:125:HIS:HE1	1.98	0.45
32:2a:814:A:H2'	32:2a:816:A:H5"	1.96	0.45
32:2a:1400:5MC:O2	53:2y:64:SER:N	2.43	0.45
32:2a:1518:MA6:H93	32:2a:1519:MA6:C10	2.46	0.45
33:2b:59:GLU:HG3	33:2b:221:LEU:HD11	1.98	0.45
33:2b:176:GLU:O	33:2b:180:LEU:HG	2.15	0.45
34:2c:73:PRO:HB3	34:2c:103:VAL:HG11	1.98	0.45
48:2q:4:LYS:H	48:2q:61:GLU:HG2	1.81	0.45
1:1A:1614:A:C6	18:1W:87:PRO:HB3	2.51	0.45
1:1A:2429:G:OP2	60:1A:4215:HOH:O	2.21	0.45
1:1A:2653:U:H2'	1:1A:2654:A:N7	2.31	0.45
60:1A:4354:HOH:O	5:1F:52:LYS:NZ	2.49	0.45
5:1F:148:LEU:HD22	5:1F:154:VAL:HG21	1.97	0.45
7:1H:111:HIS:CD2	7:1H:111:HIS:H	2.35	0.45
11:1P:113:LYS:HG3	11:1P:129:ALA:HB3	1.98	0.45
15:1T:78:LEU:HD23	15:1T:78:LEU:O	2.16	0.45
21:1Z:182:LYS:HB3	21:1Z:182:LYS:HE2	1.76	0.45
33:1b:109:SER:O	33:1b:112:VAL:HG22	2.16	0.45
34:1c:6:HIS:NE2	34:1c:8:ILE:HB	2.31	0.45
1:2A:221:A:N1	1:2A:265:A:O2'	2.50	0.45
1:2A:361:G:O2'	1:2A:362:U:H5'	2.17	0.45
1:2A:483:A:H5"	20:2Y:50:ARG:HD3	1.97	0.45
1:2A:828:U:H4'	1:2A:831:G:N1	2.31	0.45
1:2A:1097:U:O2	1:2A:1097:U:H2'	2.16	0.45
1:2A:1598:C:H2'	1:2A:1599:C:C6	2.50	0.45
1:2A:1604:C:OP1	60:2A:3943:HOH:O	2.21	0.45
1:2A:1839:G:N7	1:2A:1927:A:H1'	2.32	0.45
1:2A:1843:C:H5'	3:2D:253:GLN:HE21	1.80	0.45
1:2A:2080:G:H5'	23:21:35:THR:O	2.17	0.45
10:2O:16:ALA:HB2	10:2O:52:VAL:HG21	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:2T:45:PHE:CE1	15:2T:74:ARG:HG3	2.51	0.45
26:24:14:ILE:HD11	26:24:24:THR:HG21	1.98	0.45
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.51	0.45
1:1A:510:C:OP1	60:1A:4121:HOH:O	2.20	0.45
1:1A:2010:G:H5"	18:1W:42:ARG:HB2	1.99	0.45
1:1A:2156:G:C5	1:1A:2157:G:H1'	2.51	0.45
32:1a:114:U:H1'	32:1a:353:A:H1'	1.99	0.45
32:1a:237:C:OP2	48:1q:40:LYS:NZ	2.45	0.45
32:1a:446:G:H1	32:1a:488:C:H42	1.65	0.45
32:1a:1112:C:O2	34:1c:179:ARG:HG2	2.16	0.45
32:1a:1140:C:H2'	32:1a:1141:C:C6	2.52	0.45
34:1c:84:ILE:O	34:1c:88:ARG:HD2	2.16	0.45
37:1f:97:PHE:CZ	49:1r:61:LYS:HE3	2.51	0.45
40:1i:50:LEU:HA	40:1i:53:VAL:HG22	1.98	0.45
1:2A:849:A:H2	25:23:24:LYS:HB3	1.80	0.45
1:2A:1319:G:C6	1:2A:1320:C:N4	2.84	0.45
1:2A:2104:G:O6	1:2A:2186:G:C5	2.69	0.45
1:2A:2128:C:H3'	1:2A:2129:C:H5"	1.97	0.45
6:2G:110:ALA:HB1	6:2G:140:ILE:HG22	1.97	0.45
9:2N:54:VAL:HB	9:2N:122:VAL:HG22	1.98	0.45
11:2P:97:PRO:HD3	11:2P:126:VAL:O	2.15	0.45
20:2Y:7:VAL:HG11	20:2Y:13:VAL:HG11	1.98	0.45
32:2a:520:A:OP1	60:2a:1815:HOH:O	2.21	0.45
32:2a:1002:G:N3	32:2a:1003:G:H8	2.14	0.45
36:2e:151:LEU:HB3	39:2h:79:VAL:HG22	1.97	0.45
37:2f:100:ASN:HD21	49:2r:23:LYS:HD3	1.81	0.45
38:2g:111:ARG:HE	38:2g:123:GLU:HB2	1.81	0.45
45:2n:29:ARG:HD3	45:2n:40:CYS:SG	2.56	0.45
1:1A:582:G:H2'	1:1A:583:G:C8	2.52	0.45
1:1A:2314:C:H2'	1:1A:2315:G:H8	1.81	0.45
1:1A:2330:G:H2'	1:1A:2331:G:O4'	2.17	0.45
2:1B:13:A:N1	2:1B:69:G:O2'	2.44	0.45
9:1N:17:ASP:HA	9:1N:55:VAL:HG23	1.98	0.45
23:11:40:ARG:NH2	23:11:42:GLN:HG2	2.31	0.45
32:1a:67:C:H4'	32:1a:172:A:O4'	2.16	0.45
32:1a:1034:G:H3'	32:1a:1035:A:H8	1.82	0.45
33:1b:18:GLY:HA2	33:1b:204:ASN:HB2	1.97	0.45
45:1n:3:ARG:NH1	45:1n:3:ARG:HA	2.31	0.45
1:2A:290:G:H2'	1:2A:291:C:O4'	2.16	0.45
1:2A:1050:A:H2'	1:2A:1051:G:C8	2.51	0.45
1:2A:1105:U:H2'	1:2A:1106:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1783:A:H5'	1:2A:2608:G:H4'	1.98	0.45
1:2A:2556:C:H2'	1:2A:2557:G:O4'	2.16	0.45
3:2D:71:ASP:HB3	3:2D:103:ARG:NH2	2.31	0.45
5:2F:179:GLU:CD	5:2F:179:GLU:H	2.24	0.45
6:2G:174:GLU:HA	6:2G:178:PHE:H	1.82	0.45
9:2N:62:VAL:CG1	9:2N:66:LYS:HB2	2.46	0.45
11:2P:65:ARG:HE	11:2P:65:ARG:HB2	1.62	0.45
19:2X:11:PRO:HG2	19:2X:13:LEU:HD21	1.99	0.45
32:2a:270:A:H2'	32:2a:271:C:C6	2.51	0.45
32:2a:1121:U:O2'	32:2a:1122:U:H5'	2.16	0.45
32:2a:1125:U:C4	41:2j:38:ILE:HD11	2.52	0.45
34:2c:12:LEU:HB3	34:2c:18:TRP:CH2	2.52	0.45
34:2c:22:TRP:CG	34:2c:59:ARG:HB2	2.51	0.45
38:2g:91:VAL:HG13	38:2g:95:ARG:HG2	1.97	0.45
39:2h:48:TYR:HA	39:2h:60:ARG:O	2.16	0.45
44:2m:13:LYS:O	44:2m:45:VAL:HG23	2.17	0.45
1:1A:614:U:H5'	1:1A:614(C):A:N6	2.32	0.45
1:1A:1163:G:OP1	17:1V:24:LYS:NZ	2.47	0.45
1:1A:1441:G:H2'	1:1A:1442:G:H8	1.82	0.45
1:1A:1541:G:H3'	1:1A:1542:A:H2'	1.97	0.45
1:1A:1947:C:H2'	1:1A:1948:G:H8	1.80	0.45
3:1D:35:LYS:HE2	3:1D:64:ILE:HG12	1.99	0.45
4:1E:3:GLY:HA3	4:1E:81:ILE:HD12	1.98	0.45
5:1F:102:PRO:HB2	5:1F:105:VAL:HG23	1.97	0.45
7:1H:20:ALA:HB1	7:1H:21:PRO:HD2	1.99	0.45
9:1N:34:LEU:HD21	9:1N:120:LEU:HB2	1.99	0.45
11:1P:88:LEU:HD11	11:1P:114:ILE:HD12	1.99	0.45
14:1S:25:ARG:HD3	14:1S:42:ASP:OD1	2.16	0.45
22:10:46:LYS:HB2	22:10:78:TYR:CE1	2.52	0.45
32:1a:1443:G:H2'	32:1a:1444:C:C6	2.51	0.45
34:1c:148:GLY:HA3	34:1c:172:ARG:H	1.81	0.45
40:1i:17:VAL:HA	40:1i:63:ILE:HG12	1.98	0.45
1:2A:271(G):C:H2'	1:2A:271(H):G:H8	1.82	0.45
1:2A:609:A:H2'	1:2A:610:G:O4'	2.17	0.45
1:2A:995:C:OP2	16:2U:54:LYS:HE3	2.16	0.45
1:2A:1028:A:H2'	1:2A:1029:A:C8	2.51	0.45
1:2A:2011:U:O4	60:2A:3908:HOH:O	2.17	0.45
1:2A:2723:C:O3'	13:2R:1:MET:HE1	2.17	0.45
3:2D:71:ASP:HB3	3:2D:103:ARG:HH22	1.81	0.45
7:2H:13:LYS:HA	7:2H:14:GLY:HA2	1.60	0.45
18:2W:11:ARG:HD3	18:2W:82:LEU:HD12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1442:G:O2'	32:2a:1442(A):G:O5'	2.30	0.45
35:2d:150:GLU:HA	35:2d:153:ARG:HG3	1.98	0.45
41:2j:40:LEU:HB2	41:2j:69:ASN:HB3	1.97	0.45
48:2q:22:LEU:HD13	48:2q:41:LYS:HG2	1.99	0.45
1:1A:196:A:H2'	1:1A:196:A:N3	2.30	0.45
1:1A:1324:G:O6	60:1A:4247:HOH:O	2.20	0.45
1:1A:2014:A:H2'	1:1A:2015:A:C8	2.51	0.45
32:1a:814:A:N7	32:1a:816:A:C4	2.85	0.45
32:1a:920:U:H2'	32:1a:921:U:C6	2.52	0.45
39:1h:13:ILE:O	39:1h:17:THR:HG23	2.16	0.45
42:1k:92:GLU:OE2	49:1r:87:ARG:NH1	2.49	0.45
1:2A:257:A:H2'	1:2A:258:G:O4'	2.16	0.45
1:2A:601:C:OP1	5:2F:108:LYS:NZ	2.41	0.45
1:2A:909:A:H2'	1:2A:912:C:H5	1.80	0.45
1:2A:1002:G:H2'	1:2A:1003:G:O4'	2.16	0.45
1:2A:1007:C:H5"	9:2N:35:ARG:NH1	2.32	0.45
1:2A:1417:C:H2'	1:2A:1418:G:O4'	2.17	0.45
6:2G:19:LEU:HD23	6:2G:22:ARG:HD3	1.98	0.45
6:2G:77:ILE:HG22	6:2G:80:PHE:H	1.81	0.45
6:2G:98:ARG:HA	6:2G:101:ILE:HD12	1.99	0.45
14:2S:25:ARG:HD3	14:2S:40:ILE:HD12	1.99	0.45
32:2a:141:A:H1'	32:2a:182:U:O2	2.16	0.45
32:2a:167:G:H2'	32:2a:168:G:H8	1.80	0.45
32:2a:278:G:OP2	48:2q:41:LYS:NZ	2.39	0.45
32:2a:377:G:OP1	47:2p:3:LYS:HD3	2.15	0.45
32:2a:1190:G:O2'	34:2c:3:ASN:HB2	2.17	0.45
32:2a:1325:C:H5"	52:2u:17:THR:HG21	1.98	0.45
33:2b:187:LEU:HA	33:2b:201:ILE:HB	1.98	0.45
35:2d:180:GLY:HA2	60:2d:603:HOH:O	2.15	0.45
41:2j:16:LEU:HD23	41:2j:16:LEU:HA	1.64	0.45
49:2r:52:PRO:HB2	49:2r:54:ARG:HG2	1.98	0.45
1:1A:27:G:C2	1:1A:512:G:N3	2.84	0.45
1:1A:185:U:H2'	1:1A:186:G:C8	2.52	0.45
1:1A:1357:U:H2'	1:1A:1358:G:O4'	2.17	0.45
1:1A:1803:A:O2'	3:1D:259:THR:HG21	2.16	0.45
1:1A:2065:C:H2'	1:1A:2066:C:C6	2.52	0.45
3:1D:19:ALA:HB2	3:1D:204:ILE:HD11	1.98	0.45
4:1E:59:VAL:HG21	4:1E:74:PRO:HB3	1.98	0.45
11:1P:90:ARG:NH1	11:1P:105:LEU:HD11	2.32	0.45
15:1T:108:ARG:HA	15:1T:111:ARG:NH1	2.31	0.45
35:1d:157:LEU:O	35:1d:161:ASN:ND2	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:1f:30:LEU:HB3	37:1f:35:ALA:HB3	1.98	0.45
39:1h:44:PHE:HB3	39:1h:80:ILE:HG12	1.98	0.45
1:2A:494:G:O6	60:2A:3935:HOH:O	2.20	0.45
1:2A:981:A:N1	1:2A:2027:G:O2'	2.45	0.45
1:2A:1292:U:H2'	1:2A:1293:C:C6	2.52	0.45
1:2A:2061:G:H2'	1:2A:2501:C:O2'	2.17	0.45
1:2A:2882:A:H5'	13:2R:96:ARG:HB2	1.98	0.45
5:2F:47:GLY:HA3	5:2F:95:ARG:O	2.17	0.45
32:2a:80:G:N2	32:2a:90:U:H1'	2.31	0.45
32:2a:760:G:N2	48:2q:94:ASN:OD1	2.49	0.45
32:2a:1001:A:H2'	32:2a:1001(A):G:H8	1.82	0.45
32:2a:1126:U:H3	41:2j:40:LEU:HD21	1.82	0.45
32:2a:1239:A:O2'	38:2g:114:ARG:O	2.28	0.45
33:2b:16:HIS:HB2	33:2b:204:ASN:HD22	1.81	0.45
36:2e:110:LEU:HD13	36:2e:118:ILE:HG21	1.99	0.45
44:2m:16:ASP:HA	44:2m:19:LEU:HD22	1.98	0.45
1:1A:271(H):G:O2'	1:1A:271(I):G:H8	2.00	0.45
1:1A:1166:C:H2'	1:1A:1167:U:C6	2.51	0.45
5:1F:64:ILE:HG21	5:1F:78:ILE:HG23	1.99	0.45
10:1O:115:VAL:O	57:1a:1870:MPD:H13	2.16	0.45
15:1T:96:ARG:HH11	15:1T:96:ARG:HB2	1.81	0.45
16:1U:29:SER:C	16:1U:30:LYS:HD2	2.42	0.45
21:1Z:146:ILE:HA	21:1Z:147:GLY:HA2	1.57	0.45
32:1a:690:G:C6	32:1a:691:G:C6	3.05	0.45
32:1a:977:A:O2'	32:1a:979:C:OP2	2.29	0.45
32:1a:1329:A:H5'	44:1m:29:ARG:HD2	1.99	0.45
32:1a:1491:G:H3'	32:1a:1492:A:H8	1.82	0.45
33:1b:71:VAL:O	33:1b:165:VAL:HG23	2.16	0.45
37:1f:82:ARG:HB2	37:1f:85:VAL:HG23	1.99	0.45
39:1h:119:LEU:HD11	39:1h:127:LEU:HD22	1.98	0.45
40:1i:18:PHE:HB2	40:1i:62:TYR:HB3	1.98	0.45
44:1m:91:ARG:HA	44:1m:91:ARG:HD2	1.76	0.45
51:1t:89:ARG:O	51:1t:93:GLU:HG2	2.17	0.45
1:2A:9:U:O2'	1:2A:10:G:OP1	2.35	0.45
1:2A:686:G:H21	1:2A:788:A:H61	1.63	0.45
1:2A:910:A:C5	12:2Q:13:GLN:HG3	2.52	0.45
1:2A:1025:G:C4	1:2A:1135:C:H1'	2.52	0.45
1:2A:1139:G:H5"	9:2N:70:LYS:NZ	2.32	0.45
1:2A:1814:G:H2'	1:2A:1815:A:C8	2.52	0.45
1:2A:2564:A:C2	1:2A:2647:U:H4'	2.52	0.45
7:2H:98:LEU:HD13	7:2H:103:LEU:HD13	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:77:LEU:HD22	8:2I:101:LEU:HG	1.97	0.45
9:2N:104:LYS:HB2	9:2N:117:PHE:CD1	2.52	0.45
32:2a:336:C:H2'	32:2a:337:C:C6	2.52	0.45
32:2a:849:C:H2'	32:2a:850:U:O4'	2.17	0.45
32:2a:1027:C:H5"	32:2a:1028:C:C5	2.52	0.45
34:2c:119:ARG:HD3	34:2c:140:ARG:NH2	2.32	0.45
36:2e:43:LEU:HB2	36:2e:136:MET:SD	2.56	0.45
43:2l:56:ALA:HB3	43:2l:100:ILE:HD11	1.99	0.45
1:1A:32:C:O2'	1:1A:33:U:H5'	2.16	0.45
1:1A:793:A:OP2	1:1A:2071:A:O2'	2.35	0.45
1:1A:1167:U:H2'	1:1A:1168:G:C8	2.52	0.45
1:1A:1423:G:H2'	1:1A:1424:G:H8	1.82	0.45
1:1A:2803:C:H2'	1:1A:2804:C:C6	2.52	0.45
6:1G:95:ARG:O	60:1G:301:HOH:O	2.21	0.45
30:18:26:LYS:HD3	30:18:48:PHE:CG	2.52	0.45
32:1a:240:C:H2'	32:1a:241:C:H6	1.81	0.45
32:1a:738:C:H2'	32:1a:739:C:H6	1.81	0.45
32:1a:1207:2MG:H2'	32:1a:1208:C:H6	1.79	0.45
39:1h:39:LEU:HD12	39:1h:39:LEU:HA	1.77	0.45
43:1l:27:LEU:HD22	43:1l:98:TYR:HE1	1.82	0.45
50:1s:52:TYR:HB2	50:1s:57:HIS:ND1	2.32	0.45
1:2A:2597:G:OP1	60:2A:3938:HOH:O	2.20	0.45
9:2N:51:PHE:CE1	9:2N:119:ARG:HD3	2.52	0.45
10:2O:4:PRO:O	10:2O:5:GLN:HB2	2.17	0.45
20:2Y:11:ASP:O	20:2Y:27:VAL:HG23	2.17	0.45
20:2Y:35:TYR:CE2	20:2Y:69:ALA:HB3	2.51	0.45
33:2b:116:GLU:HG2	33:2b:153:ARG:HH21	1.82	0.45
1:1A:813:U:H2'	1:1A:814:C:C6	2.52	0.45
1:1A:1877:A:H5'	1:1A:1878:G:OP2	2.17	0.45
1:1A:2138:C:N3	1:1A:2139:C:N4	2.63	0.45
5:1F:24:LEU:H	5:1F:24:LEU:HD22	1.82	0.45
11:1P:81:GLN:OE1	11:1P:106:LEU:HD12	2.16	0.45
32:1a:560:U:HO2'	32:1a:561:U:P	2.36	0.45
36:1e:110:LEU:HD13	36:1e:118:ILE:HD13	1.98	0.45
43:1l:54:LYS:HD2	43:1l:54:LYS:N	2.31	0.45
47:1p:20:VAL:HG21	47:1p:32:TYR:CG	2.52	0.45
53:1y:10:MET:HG2	53:1y:11:GLU:H	1.82	0.45
1:2A:84:A:N1	1:2A:98:G:O2'	2.45	0.45
1:2A:452:G:OP2	60:2A:3941:HOH:O	2.21	0.45
1:2A:1338:G:N7	19:2X:62:LYS:NZ	2.61	0.45
4:2E:54:GLN:HB2	4:2E:76:ARG:HG2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:2F:120:GLU:HB3	5:2F:122:LYS:HG2	1.98	0.45
10:2O:77:ILE:HB	15:2T:74:ARG:HD3	1.98	0.45
32:2a:61:G:H2'	32:2a:62:U:O4'	2.17	0.45
32:2a:986:A:H1'	50:2s:54:GLY:O	2.16	0.45
32:2a:1123:A:H4'	41:2j:37:PRO:HD2	1.99	0.45
33:2b:126:GLU:CD	33:2b:126:GLU:H	2.25	0.45
34:2c:122:GLU:O	34:2c:126:ARG:HD2	2.16	0.45
37:2f:11:ASN:HB3	37:2f:14:LEU:HG	1.99	0.45
51:2t:37:SER:HA	51:2t:84:LEU:HD11	1.99	0.45
1:1A:1514:U:H2'	1:1A:1515:G:H8	1.82	0.44
4:1E:18:ASP:HB3	15:1T:82:LEU:HD21	1.99	0.44
5:1F:17:ARG:NH2	5:1F:19:GLU:OE2	2.50	0.44
32:1a:96:U:H2'	32:1a:97:G:H8	1.81	0.44
32:1a:523:A:H61	43:1l:92:0TD:CG	2.30	0.44
32:1a:529:G:O6	43:1l:49:ASN:HA	2.17	0.44
32:1a:799:G:H5"	60:1a:2253:HOH:O	2.17	0.44
32:1a:901:A:C5	32:1a:902:G:H1'	2.51	0.44
32:1a:1136:U:H5"	32:1a:1137:C:C2	2.52	0.44
32:1a:1201:A:H4'	32:1a:1202:G:O5'	2.17	0.44
32:1a:1250:A:H4'	40:1i:68:GLY:N	2.32	0.44
33:1b:30:ARG:NH2	33:1b:194:PRO:HB2	2.32	0.44
34:1c:6:HIS:CD2	34:1c:8:ILE:H	2.35	0.44
47:1p:8:ARG:HB2	47:1p:17:TYR:CE1	2.52	0.44
49:1r:86:VAL:HG12	49:1r:87:ARG:H	1.82	0.44
1:2A:25:U:C4	1:2A:26:G:C6	3.06	0.44
1:2A:1671:U:O2'	1:2A:1673:U:H5	2.00	0.44
1:2A:1755:A:N6	1:2A:2694:G:O2'	2.50	0.44
1:2A:1918:A:O2'	1:2A:1920:OMC:N4	2.50	0.44
3:2D:275:LYS:HE3	3:2D:276:LYS:HA	1.98	0.44
13:2R:85:PRO:C	13:2R:87:TYR:H	2.25	0.44
14:2S:56:LEU:HB3	14:2S:58:LEU:HD21	2.00	0.44
21:2Z:85:HIS:HE1	21:2Z:87:ASP:OD1	2.00	0.44
32:2a:52:G:H2'	32:2a:53:A:O4'	2.18	0.44
32:2a:451:A:N6	32:2a:480:U:H2'	2.32	0.44
32:2a:554:C:H2'	32:2a:555:C:C6	2.52	0.44
32:2a:691:G:H2'	32:2a:692:U:C6	2.52	0.44
32:2a:1179:A:H2'	32:2a:1180:A:O4'	2.17	0.44
33:2b:115:LEU:O	33:2b:119:GLU:N	2.25	0.44
36:2e:74:GLY:HA3	36:2e:116:THR:HG22	1.99	0.44
46:2o:16:ALA:HB1	46:2o:21:ASP:HB3	1.99	0.44
1:1A:570:G:H5"	60:1A:6626:HOH:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1003:G:N2	1:1A:1153:C:C2	2.85	0.44
1:1A:1482:G:H2'	1:1A:1484:G:C8	2.53	0.44
1:1A:2469:A:H5'	1:1A:2470:G:OP2	2.17	0.44
1:1A:2682:U:H5'	4:1E:11:MET:O	2.17	0.44
1:1A:2848:G:O6	60:1A:4259:HOH:O	2.21	0.44
6:1G:112:PRO:HG3	26:14:43:TYR:CE2	2.52	0.44
28:16:14:THR:HB	28:16:48:VAL:O	2.18	0.44
32:1a:590:C:H2'	32:1a:591:U:C6	2.52	0.44
32:1a:745:C:H2'	32:1a:746:A:C8	2.53	0.44
32:1a:1106:G:H2'	32:1a:1107:C:C6	2.53	0.44
32:1a:1272:G:H2'	32:1a:1273:G:O4'	2.17	0.44
33:1b:12:GLU:HB2	33:1b:213:LEU:HD21	1.99	0.44
35:1d:107:ARG:HD2	35:1d:107:ARG:HA	1.65	0.44
47:1p:8:ARG:NH1	47:1p:11:SER:O	2.50	0.44
51:1t:59:ALA:O	51:1t:63:ILE:HG13	2.16	0.44
51:1t:92:LEU:O	51:1t:96:GLY:N	2.49	0.44
1:2A:189:G:OP2	23:21:39:LYS:NZ	2.49	0.44
1:2A:776:G:H4'	1:2A:777:A:O5'	2.17	0.44
1:2A:1937:A:O2'	1:2A:1939:5MU:OP2	2.31	0.44
1:2A:2180:U:H2'	1:2A:2181:G:C8	2.52	0.44
1:2A:2197:U:H1'	1:2A:2198:A:C8	2.52	0.44
1:2A:2336:A:H61	22:20:43:THR:CG2	2.30	0.44
1:2A:2393:A:O3'	11:2P:63:PRO:HA	2.18	0.44
60:2A:5175:HOH:O	4:2E:156:MET:HG2	2.16	0.44
3:2D:16:MET:HG3	3:2D:206:LEU:O	2.17	0.44
7:2H:109:PHE:C	7:2H:111:HIS:H	2.25	0.44
10:2O:119:PRO:HB2	15:2T:68:TYR:CE2	2.53	0.44
21:2Z:72:ARG:NH2	21:2Z:97:GLU:O	2.46	0.44
31:29:17:ILE:HD13	31:29:17:ILE:HA	1.80	0.44
32:2a:192:U:H2'	32:2a:193:C:C6	2.52	0.44
32:2a:501:C:H2'	32:2a:502:G:H8	1.80	0.44
32:2a:1186:G:H4'	40:2i:110:GLU:OE2	2.18	0.44
36:2e:80:ILE:HD12	39:2h:104:ARG:NH2	2.29	0.44
40:2i:3:GLN:NE2	40:2i:20:ARG:HE	2.15	0.44
41:2j:11:PHE:O	41:2j:68:HIS:NE2	2.50	0.44
45:2n:47:LEU:HA	45:2n:50:LYS:HB2	1.98	0.44
53:2y:37:PRO:HB3	53:2y:54:ILE:HG23	1.99	0.44
1:1A:1040:C:H2'	1:1A:1041:C:O4'	2.17	0.44
1:1A:1332:G:OP1	60:1A:4168:HOH:O	2.21	0.44
1:1A:1915:5MU:H2'	1:1A:1916:A:O4'	2.17	0.44
1:1A:2572:A:C8	4:1E:144:ARG:HD2	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2602:A:N3	1:1A:2602:A:H5"	2.33	0.44
1:1A:2820:A:O2'	1:1A:2821:A:OP1	2.35	0.44
7:1H:84:SER:HA	7:1H:133:VAL:O	2.17	0.44
7:1H:85:LYS:HE2	7:1H:142:GLY:HA2	2.00	0.44
10:1O:13:ASN:ND2	10:1O:96:THR:OG1	2.45	0.44
11:1P:47:ASP:OD2	11:1P:49:ARG:NH2	2.50	0.44
32:1a:79:G:N2	32:1a:90:U:O2	2.51	0.44
32:1a:221:C:H2'	32:1a:222:U:C6	2.53	0.44
32:1a:240:C:H2'	32:1a:241:C:C6	2.52	0.44
32:1a:655:A:H2'	32:1a:656:C:O4'	2.17	0.44
32:1a:1217:C:OP1	45:1n:9:LYS:NZ	2.33	0.44
35:1d:173:TRP:CD2	35:1d:189:PRO:HG3	2.53	0.44
37:1f:76:ALA:HA	37:1f:79:LEU:HD12	1.99	0.44
50:1s:3:ARG:HH11	50:1s:10:PHE:HB2	1.82	0.44
1:2A:192:C:O2'	1:2A:802:A:N3	2.49	0.44
1:2A:1649:G:O2'	13:2R:107:ASP:OD2	2.33	0.44
1:2A:1669:A:H5"	1:2A:2550:G:OP1	2.17	0.44
1:2A:2144:U:O2'	1:2A:2147:G:N1	2.48	0.44
1:2A:2313:C:H5"	6:2G:91:ARG:HD3	1.99	0.44
3:2D:164:GLN:OE1	3:2D:176:ARG:NH2	2.47	0.44
3:2D:182:LEU:HB3	3:2D:271:ILE:HB	1.99	0.44
19:2X:50:LYS:HE2	60:2X:203:HOH:O	2.17	0.44
25:23:12:PRO:HB2	25:23:20:LYS:HG2	1.97	0.44
32:2a:8:A:C6	35:2d:209:ARG:HB2	2.53	0.44
32:2a:21:G:H2'	32:2a:22:G:C8	2.52	0.44
32:2a:369:C:H2'	32:2a:370:C:H6	1.82	0.44
33:2b:75:LYS:HA	33:2b:78:GLN:HB2	1.98	0.44
33:2b:91:PRO:HG3	33:2b:155:LEU:HD13	1.98	0.44
33:2b:178:ARG:NH2	39:2h:74:PRO:HB3	2.30	0.44
34:2c:16:ARG:HD2	34:2c:16:ARG:HA	1.83	0.44
34:2c:112:SER:O	34:2c:116:VAL:HG23	2.16	0.44
37:2f:76:ALA:HB1	37:2f:80:ARG:HH22	1.82	0.44
43:2l:66:VAL:HG21	43:2l:98:TYR:CD2	2.52	0.44
1:1A:1365:A:O2'	23:11:11:ARG:NH1	2.51	0.44
1:1A:1568:G:H5'	3:1D:60:ARG:HA	1.99	0.44
1:1A:2069:G:OP2	60:1A:4261:HOH:O	2.21	0.44
1:1A:2095:C:H2'	1:1A:2096:U:O4'	2.17	0.44
1:1A:2626:C:H5'	60:1A:4465:HOH:O	2.17	0.44
1:1A:2791:C:OP2	1:1A:2791:C:H6	2.00	0.44
6:1G:96:ARG:N	6:1G:99:MET:HE2	2.32	0.44
8:1I:38:LEU:HD21	23:11:71:TYR:HB3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:1P:82:GLY:HA2	11:1P:113:LYS:O	2.17	0.44
21:1Z:154:ASP:OD1	21:1Z:154:ASP:N	2.50	0.44
28:16:11:LEU:HB3	28:16:49:HIS:HB3	2.00	0.44
32:1a:272:C:H2'	32:1a:273:A:C8	2.52	0.44
32:1a:721:G:H4'	32:1a:722:A:O4'	2.17	0.44
32:1a:1121:U:O2'	32:1a:1122:U:H5'	2.17	0.44
32:1a:1244:C:H42	32:1a:1293:G:H1	1.65	0.44
33:1b:34:ALA:O	33:1b:41:ILE:HB	2.17	0.44
33:1b:124:SER:HA	33:1b:125:PRO:HA	1.81	0.44
34:1c:105:GLU:HG2	34:1c:106:VAL:N	2.32	0.44
39:1h:38:ILE:H	39:1h:38:ILE:HG12	1.60	0.44
1:2A:154(A):C:H42	1:2A:171:G:H1	1.66	0.44
1:2A:1057:A:N7	1:2A:1086:A:H2'	2.33	0.44
1:2A:1431:U:H2'	1:2A:1432:C:C6	2.52	0.44
1:2A:2328:A:H2'	1:2A:2329:G:C8	2.53	0.44
6:2G:98:ARG:H	6:2G:98:ARG:HG2	1.41	0.44
7:2H:13:LYS:HB2	7:2H:13:LYS:HE3	1.84	0.44
14:2S:66:ALA:O	14:2S:69:VAL:HG12	2.17	0.44
26:24:47:GLN:C	26:24:49:PHE:H	2.25	0.44
32:2a:132:C:OP1	51:2t:75:ASN:ND2	2.44	0.44
32:2a:419:C:OP1	32:2a:513:C:O2'	2.35	0.44
32:2a:560:U:H4'	32:2a:561:U:O5'	2.17	0.44
32:2a:862:C:H2'	32:2a:863:U:H6	1.83	0.44
43:2l:7:ILE:HD13	43:2l:7:ILE:HA	1.89	0.44
1:1A:1142(A):A:C4	1:1A:1144:G:N7	2.85	0.44
1:1A:1355:G:N2	1:1A:1377:G:H1'	2.33	0.44
1:1A:1686:C:H2'	1:1A:1687:G:O4'	2.18	0.44
1:1A:1952:A:C6	1:1A:1953:A:N1	2.86	0.44
1:1A:2154:G:H2'	1:1A:2155:G:O4'	2.18	0.44
1:1A:2751:G:H4'	7:1H:4:ILE:HD11	1.99	0.44
8:1I:116:LEU:HD21	8:1I:119:PRO:HA	2.00	0.44
10:1O:34:THR:OG1	10:1O:35:VAL:N	2.51	0.44
32:1a:22:G:H2'	32:1a:23:C:C6	2.53	0.44
32:1a:69:G:H2'	32:1a:70:G:H8	1.82	0.44
32:1a:625:G:H2'	32:1a:626:U:C6	2.53	0.44
32:1a:998:G:H2'	32:1a:999:C:C6	2.53	0.44
33:1b:157:ARG:HG2	33:1b:158:LEU:H	1.83	0.44
35:1d:148:VAL:HG11	35:1d:158:ILE:HD13	1.99	0.44
35:1d:153:ARG:O	35:1d:181:MET:HE1	2.17	0.44
37:1f:1:MET:HE3	37:1f:66:GLU:HG2	1.99	0.44
1:2A:1915:5MU:H2'	1:2A:1916:A:O4'	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2113:U:H2'	1:2A:2114:A:O4'	2.17	0.44
1:2A:2397:G:N2	1:2A:2420:C:H1'	2.33	0.44
12:2Q:57:HIS:NE2	12:2Q:116:GLU:HB3	2.33	0.44
15:2T:50:ILE:HA	15:2T:99:LEU:HD12	1.98	0.44
32:2a:528:C:H5'	32:2a:529:G:OP2	2.17	0.44
32:2a:612:C:O2	32:2a:629:G:N2	2.51	0.44
34:2c:35:GLU:OE2	34:2c:59:ARG:NH2	2.50	0.44
38:2g:78:ARG:HE	38:2g:80:VAL:HG21	1.82	0.44
42:2k:89:ALA:O	42:2k:91:ARG:N	2.49	0.44
51:2t:57:ARG:NH1	51:2t:100:ILE:HB	2.32	0.44
1:1A:1665:A:H2'	1:1A:1666:G:O4'	2.17	0.44
1:1A:2584:U:O4	60:1A:4255:HOH:O	2.20	0.44
1:1A:2627:G:N2	1:1A:2777:G:OP2	2.41	0.44
32:1a:598:U:H4'	39:1h:94:TYR:CG	2.53	0.44
32:1a:600:C:H2'	32:1a:601:C:C6	2.51	0.44
32:1a:601:C:H2'	32:1a:602:A:C8	2.52	0.44
32:1a:1513:A:H2'	32:1a:1514:C:C6	2.52	0.44
35:1d:100:ARG:HH22	35:1d:118:ARG:NH1	2.16	0.44
36:1e:12:LEU:HD22	36:1e:13:ILE:N	2.32	0.44
37:1f:43:LEU:H	37:1f:43:LEU:HD12	1.83	0.44
37:1f:99:ALA:O	49:1r:28:GLU:HA	2.17	0.44
42:1k:34:ASP:OD2	42:1k:38:ASN:HB2	2.17	0.44
42:1k:46:GLY:HA2	42:1k:50:TYR:O	2.18	0.44
44:1m:17:VAL:O	44:1m:20:THR:OG1	2.24	0.44
1:2A:523:C:O2	1:2A:554:U:O2'	2.32	0.44
1:2A:959:A:N3	1:2A:2457:U:O2'	2.50	0.44
1:2A:1167:U:H2'	1:2A:1168:G:C8	2.52	0.44
1:2A:1203:G:C6	1:2A:1204:A:N6	2.86	0.44
1:2A:2104:G:N7	1:2A:2186:G:N3	2.65	0.44
3:2D:4:LYS:HE2	3:2D:4:LYS:HB3	1.75	0.44
14:2S:48:LEU:HB3	14:2S:82:ILE:HD11	1.99	0.44
20:2Y:43:ASN:HD22	20:2Y:67:LEU:HG	1.82	0.44
21:2Z:95:PRO:HA	21:2Z:129:SER:HA	1.98	0.44
32:2a:109:A:H2'	32:2a:326:G:N2	2.33	0.44
32:2a:858:G:O6	32:2a:869:G:H3'	2.18	0.44
32:2a:1188:A:H2'	32:2a:1189:C:O4'	2.18	0.44
32:2a:1442:G:HO2'	32:2a:1442(A):G:P	2.40	0.44
34:2c:115:LEU:HD12	34:2c:115:LEU:HA	1.83	0.44
44:2m:15:VAL:HG11	44:2m:48:LEU:HD21	1.99	0.44
1:1A:1509(B):A:H2'	1:1A:1510:G:O4'	2.16	0.44
1:1A:1919:A:O2'	32:1a:1517:G:N3	2.42	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2464:C:O2'	60:1A:4112:HOH:O	1.95	0.44
8:1I:2:LYS:HA	8:1I:19:VAL:O	2.18	0.44
14:1S:87:PHE:HB2	14:1S:112:PHE:CE1	2.52	0.44
32:1a:765:G:H5"	32:1a:766:A:OP1	2.17	0.44
32:1a:910:C:P	43:1l:97:ARG:HH22	2.40	0.44
32:1a:1019:C:H2'	32:1a:1020:U:O4'	2.17	0.44
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.52	0.44
38:1g:91:VAL:O	38:1g:96:GLN:NE2	2.51	0.44
43:1l:7:ILE:O	43:1l:11:VAL:HG23	2.18	0.44
1:2A:96:G:H4'	24:22:48:HIS:CD2	2.53	0.44
1:2A:450:G:P	1:2A:1248:G:H22	2.41	0.44
1:2A:579:G:H2'	1:2A:580:C:C6	2.52	0.44
1:2A:2391:G:O6	1:2A:2425:A:H8	2.01	0.44
1:2A:2601:C:H4'	1:2A:2602:A:OP1	2.17	0.44
2:2B:115:G:H2'	2:2B:116:G:O4'	2.18	0.44
8:2I:14:ASP:O	8:2I:17:GLN:HB3	2.17	0.44
9:2N:16:ILE:HD13	9:2N:52:VAL:HG13	2.00	0.44
32:2a:189(F):U:C4	48:2q:72:ARG:NH1	2.86	0.44
32:2a:1521:G:H2'	32:2a:1522:U:C6	2.53	0.44
34:2c:58:GLU:O	34:2c:59:ARG:HG2	2.18	0.44
36:2e:118:ILE:HD12	36:2e:118:ILE:HA	1.83	0.44
40:2i:112:LYS:NZ	40:2i:116:LYS:O	2.50	0.44
41:2j:42:THR:HG21	41:2j:66:ARG:HB3	1.98	0.44
48:2q:10:VAL:HG13	48:2q:19:VAL:HB	1.99	0.44
48:2q:94:ASN:O	48:2q:98:LEU:HD13	2.17	0.44
53:2y:30:TRP:CE3	53:2y:85:LEU:HD23	2.53	0.44
1:1A:271(L):U:H5'	8:1I:50:ARG:HH12	1.82	0.44
1:1A:453:C:O2	1:1A:457:A:O2'	2.36	0.44
1:1A:1314:C:OP1	60:1A:4168:HOH:O	2.21	0.44
1:1A:1919:A:N1	32:1a:1495:U:O2'	2.43	0.44
3:1D:16:MET:HE3	3:1D:16:MET:HB2	1.80	0.44
4:1E:49:LEU:HD12	4:1E:49:LEU:HA	1.78	0.44
6:1G:109:VAL:HG11	6:1G:142:PRO:HB3	2.00	0.44
8:1I:40:THR:O	8:1I:44:LEU:HB2	2.18	0.44
15:1T:8:LYS:HE3	15:1T:8:LYS:HB3	1.89	0.44
17:1V:74:LYS:HB2	17:1V:83:ARG:HB2	1.99	0.44
30:18:15:LYS:CB	57:18:102:MPD:H31	2.48	0.44
32:1a:831:U:H2'	32:1a:832:C:C6	2.53	0.44
32:1a:1417:G:N2	32:1a:1482:G:H2'	2.33	0.44
34:1c:8:ILE:HG13	34:1c:16:ARG:HD3	1.99	0.44
34:1c:153:VAL:HG22	34:1c:198:VAL:HG13	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:88:VAL:HA	36:1e:97:GLY:HA3	1.99	0.44
36:1e:13:ILE:HA	36:1e:29:GLY:O	2.17	0.44
37:1f:4:TYR:CD2	37:1f:67:MET:HE3	2.53	0.44
39:1h:86:ILE:HG13	39:1h:133:LEU:HD22	1.99	0.44
42:1k:115:PRO:HB2	42:1k:118:GLY:H	1.83	0.44
44:1m:87:TYR:O	44:1m:91:ARG:HG2	2.17	0.44
53:1y:46:GLN:H	53:1y:46:GLN:CD	2.26	0.44
1:2A:195:A:H5"	1:2A:196:A:O5'	2.17	0.44
1:2A:335:C:H4'	20:2Y:73:ARG:HD2	2.00	0.44
1:2A:464:U:H2'	1:2A:465:G:O4'	2.17	0.44
1:2A:1429:G:H2'	1:2A:1430:C:C6	2.53	0.44
1:2A:1946:U:H2'	1:2A:1947:C:C6	2.53	0.44
1:2A:2303:G:O2'	6:2G:132:ASN:HB2	2.18	0.44
1:2A:2578:G:H1'	60:2E:415:HOH:O	2.17	0.44
14:2S:35:ILE:HG21	14:2S:66:ALA:HA	1.99	0.44
32:2a:399:G:H2'	32:2a:400:C:C6	2.53	0.44
32:2a:693:G:H2'	32:2a:694:A:C8	2.53	0.44
32:2a:1023:G:H3'	32:2a:1024:G:C8	2.52	0.44
1:1A:228:A:H8	1:1A:229:A:H5'	1.83	0.44
1:1A:1082:U:C4	1:1A:1086:A:N1	2.81	0.44
6:1G:114:ILE:HG12	6:1G:140:ILE:HG12	2.00	0.44
10:1O:70:LYS:HB3	10:1O:70:LYS:HE2	1.59	0.44
11:1P:148:LEU:HD23	11:1P:148:LEU:HA	1.90	0.44
12:1Q:79:LEU:HD23	12:1Q:79:LEU:HA	1.69	0.44
16:1U:58:ARG:HA	16:1U:61:TRP:CE3	2.53	0.44
18:1W:68:ARG:HD3	18:1W:111:HIS:HA	2.00	0.44
26:14:7:PRO:HB2	26:14:27:THR:HG21	2.00	0.44
32:1a:503:C:OP2	43:1l:116:SER:OG	2.29	0.44
32:1a:1012:U:H3	32:1a:1017:G:H1	1.66	0.44
32:1a:1298:C:H2'	38:1g:114:ARG:HH21	1.82	0.44
33:1b:17:PHE:HB3	33:1b:44:LEU:HD21	2.00	0.44
33:1b:145:LEU:O	33:1b:149:LEU:N	2.45	0.44
36:1e:78:HIS:CD2	36:1e:142:LEU:HD23	2.53	0.44
39:1h:7:ALA:HB2	39:1h:85:ARG:HG3	2.00	0.44
45:1n:23:ARG:NH1	45:1n:28:GLY:O	2.50	0.44
1:2A:26:G:C6	1:2A:27:G:N1	2.86	0.44
1:2A:335:C:H4'	20:2Y:73:ARG:NH1	2.33	0.44
1:2A:686:G:H1	29:27:16:HIS:CD2	2.36	0.44
1:2A:1324:G:O2'	1:2A:1326:U:OP2	2.22	0.44
1:2A:2122:U:H2'	1:2A:2123:G:C8	2.52	0.44
12:2Q:27:VAL:HB	12:2Q:138:ASP:OD2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:167:G:H2'	32:2a:168:G:C8	2.52	0.44
32:2a:256:U:OP1	48:2q:17:LYS:NZ	2.48	0.44
32:2a:537:G:H5"	43:2l:113:ARG:HH12	1.82	0.44
32:2a:567:G:O6	43:2l:5:PRO:HD3	2.17	0.44
32:2a:965:A:O2'	53:2y:40:ILE:HG21	2.18	0.44
32:2a:1012:U:H2'	32:2a:1013:G:C8	2.53	0.44
32:2a:1469:G:H2'	32:2a:1470:G:H8	1.82	0.44
37:2f:70:ASP:OD1	37:2f:70:ASP:N	2.40	0.44
41:2j:13:HIS:HA	41:2j:16:LEU:HB2	1.99	0.44
44:2m:103:THR:HA	44:2m:107:ALA:HB2	1.99	0.44
1:1A:749:C:OP2	60:1A:4263:HOH:O	2.21	0.43
1:1A:1385:G:H4'	1:1A:1386:C:OP1	2.17	0.43
1:1A:2104:G:H1	1:1A:2185:C:H42	1.64	0.43
1:1A:2189:U:C2'	1:1A:2190:G:H5'	2.48	0.43
3:1D:9:TYR:CZ	3:1D:13:ARG:HG2	2.53	0.43
25:13:9:VAL:HG12	25:13:32:GLN:HE22	1.83	0.43
32:1a:110:C:H2'	32:1a:111:G:O4'	2.18	0.43
32:1a:1320:C:OP1	50:1s:70:LYS:HE3	2.18	0.43
48:1q:87:LYS:HA	48:1q:87:LYS:HD3	1.85	0.43
1:2A:271(R):G:H5"	23:21:97:LEU:HD21	2.00	0.43
1:2A:414:C:H2'	1:2A:415:A:C8	2.53	0.43
1:2A:489:G:H2'	1:2A:491:G:O4'	2.18	0.43
1:2A:515:A:H1'	1:2A:581:C:H1'	2.00	0.43
1:2A:747:U:O2	1:2A:2014:A:H1'	2.17	0.43
1:2A:1045:A:N3	1:2A:1045:A:H2'	2.33	0.43
1:2A:1115:G:H2'	1:2A:1116:C:C6	2.52	0.43
1:2A:1138:G:N3	9:2N:106:MET:HE2	2.32	0.43
1:2A:1159:U:H2'	1:2A:1160:G:H8	1.82	0.43
1:2A:1631(A):A:N6	60:2A:3884:HOH:O	2.15	0.43
3:2D:26:LYS:O	3:2D:83:GLU:HG2	2.18	0.43
7:2H:20:ALA:HB1	7:2H:21:PRO:HD2	1.99	0.43
16:2U:74:LEU:HD22	16:2U:75:ASN:O	2.18	0.43
27:25:41:PRO:O	27:25:44:THR:OG1	2.28	0.43
32:2a:45:U:H2'	32:2a:46:G:C8	2.53	0.43
32:2a:1011:G:C6	32:2a:1012:U:C2	3.06	0.43
32:2a:1262:C:H2'	32:2a:1263:C:H6	1.83	0.43
32:2a:1289:A:N1	32:2a:1371:G:O2'	2.49	0.43
32:2a:1348:U:H2'	32:2a:1349:A:C8	2.51	0.43
33:2b:131:PRO:O	33:2b:135:GLN:HG2	2.18	0.43
38:2g:27:ILE:HD12	38:2g:40:ALA:HA	2.00	0.43
43:2l:23:LYS:HB3	43:2l:23:LYS:HE2	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:2p:3:LYS:O	47:2p:21:VAL:HA	2.18	0.43
48:2q:15:MET:HE3	48:2q:15:MET:HB2	1.81	0.43
51:2t:18:GLN:O	51:2t:22:ARG:HG3	2.18	0.43
1:1A:300:A:H1'	1:1A:319:C:H1'	2.00	0.43
1:1A:2165:G:H2'	1:1A:2166:G:C8	2.53	0.43
2:1B:22:U:H2'	2:1B:23:G:C8	2.53	0.43
3:1D:8:PRO:HB3	3:1D:14:ARG:HG3	1.99	0.43
3:1D:229:VAL:HG22	60:1D:475:HOH:O	2.18	0.43
5:1F:64:ILE:HD12	5:1F:65:TRP:CZ3	2.53	0.43
11:1P:112:LEU:O	11:1P:127:ALA:HB1	2.18	0.43
14:1S:36:TYR:N	14:1S:36:TYR:CD2	2.86	0.43
16:1U:16:LYS:HE2	16:1U:16:LYS:HB3	1.69	0.43
23:11:24:ALA:N	60:11:203:HOH:O	2.43	0.43
25:13:18:ASP:OD1	25:13:18:ASP:N	2.51	0.43
26:14:16:CYS:HB2	26:14:36:CYS:HB3	1.99	0.43
32:1a:284:G:H2'	32:1a:285:G:C8	2.53	0.43
32:1a:731:G:OP1	32:1a:766:A:H1'	2.17	0.43
41:1j:95:GLU:HG2	41:1j:96:ILE:H	1.83	0.43
44:1m:106:ASN:HB2	44:1m:107:ALA:H	1.45	0.43
1:2A:761:A:OP2	60:2A:3944:HOH:O	2.21	0.43
1:2A:1084:A:N6	1:2A:1086:A:N7	2.62	0.43
1:2A:1826:G:H2'	1:2A:1827:C:O4'	2.18	0.43
1:2A:2312:U:C5	1:2A:2313:C:H5	2.36	0.43
1:2A:2342:C:H2'	1:2A:2343:C:O4'	2.19	0.43
2:2B:42:C:C4	2:2B:43:C:C4	3.07	0.43
3:2D:242:ARG:O	60:2D:403:HOH:O	2.21	0.43
5:2F:53:THR:HG22	5:2F:56:GLU:CD	2.43	0.43
5:2F:126:VAL:HG21	5:2F:129:PHE:CE1	2.53	0.43
7:2H:154:PRO:HB3	7:2H:163:TYR:CE1	2.53	0.43
8:2I:29:TYR:CD2	8:2I:30:LEU:HD23	2.52	0.43
11:2P:91:PHE:CD1	11:2P:99:LEU:HD21	2.53	0.43
15:2T:19:LEU:HD23	15:2T:19:LEU:HA	1.82	0.43
20:2Y:6:HIS:H	20:2Y:6:HIS:CD2	2.36	0.43
32:2a:435:C:H2'	32:2a:436:C:C6	2.53	0.43
32:2a:880:C:H2'	32:2a:881:G:H8	1.84	0.43
32:2a:947:G:H2'	32:2a:948:C:O4'	2.18	0.43
32:2a:1186:G:H21	45:2n:61:TRP:C	2.25	0.43
32:2a:1409:C:H42	32:2a:1491:G:H1	1.66	0.43
32:2a:1498:UR3:O4	60:2a:1814:HOH:O	2.20	0.43
53:2y:13:THR:C	53:2y:15:ALA:H	2.26	0.43
1:1A:384:U:H2'	1:1A:385:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1514:U:H2'	1:1A:1515:G:C8	2.53	0.43
1:1A:1566:A:OP1	3:1D:211:ARG:HD2	2.18	0.43
1:1A:1637:A:OP2	60:1A:4264:HOH:O	2.21	0.43
1:1A:2159:G:H2'	1:1A:2160:G:C8	2.53	0.43
1:1A:2784:C:H1'	4:1E:37:ARG:NH1	2.34	0.43
60:1A:5816:HOH:O	4:1E:144:ARG:HD3	2.17	0.43
12:1Q:27:VAL:HA	12:1Q:105:GLU:OE2	2.19	0.43
15:1T:95:ARG:O	60:1T:301:HOH:O	2.21	0.43
20:1Y:56:PRO:C	20:1Y:58:GLY:H	2.26	0.43
21:1Z:183:LEU:HD23	21:1Z:183:LEU:HA	1.90	0.43
32:1a:131:C:O2'	32:1a:262:A:N3	2.43	0.43
32:1a:476:G:H2'	32:1a:477:A:O4'	2.17	0.43
32:1a:971:G:H22	32:1a:1363(A):A:P	2.40	0.43
34:1c:16:ARG:HH21	34:1c:54:ARG:HH21	1.65	0.43
35:1d:165:MET:HA	35:1d:168:ARG:HB2	2.00	0.43
41:1j:11:PHE:HE1	41:1j:67:THR:HG22	1.82	0.43
1:2A:459:U:H4'	29:27:40:TRP:CZ3	2.53	0.43
1:2A:463:G:H5"	60:2A:4898:HOH:O	2.18	0.43
1:2A:1062:G:N7	1:2A:1070:A:H1'	2.33	0.43
1:2A:1935:G:H1'	1:2A:1964:G:N2	2.33	0.43
1:2A:2129:C:N3	1:2A:2159:G:O6	2.51	0.43
1:2A:2134:A:N7	1:2A:2157:G:H5'	2.34	0.43
1:2A:2287:A:C8	1:2A:2289:G:C8	3.06	0.43
60:2A:5307:HOH:O	4:2E:129:HIS:HD2	2.01	0.43
4:2E:110:GLY:HA3	4:2E:162:ALA:HB2	1.99	0.43
8:2I:54:GLN:O	8:2I:58:LEU:HB3	2.18	0.43
15:2T:16:ARG:NH2	15:2T:83:ILE:O	2.51	0.43
19:2X:65:ARG:CB	19:2X:70:LEU:HD23	2.49	0.43
32:2a:102:G:O2'	32:2a:151:A:N3	2.46	0.43
32:2a:187:C:H2'	32:2a:188:C:C6	2.52	0.43
32:2a:1095:U:H2'	32:2a:1096:C:O4'	2.18	0.43
32:2a:1500:A:H5"	32:2a:1508:G:H5"	2.01	0.43
35:2d:60:GLU:HG3	35:2d:202:LEU:HD12	2.01	0.43
35:2d:64:LEU:HB2	35:2d:198:VAL:HG11	2.01	0.43
35:2d:108:LEU:HD21	35:2d:183:GLY:HA3	1.99	0.43
38:2g:70:LYS:HE2	38:2g:97:GLN:HB2	2.00	0.43
43:2l:71:PRO:O	43:2l:102:ARG:NH1	2.51	0.43
44:2m:80:ARG:O	44:2m:84:ILE:HG23	2.17	0.43
45:2n:50:LYS:HD2	45:2n:50:LYS:HA	1.77	0.43
46:2o:27:VAL:O	46:2o:31:LEU:HG	2.18	0.43
46:2o:43:LEU:HD11	46:2o:53:HIS:HA	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:2o:82:ILE:HD12	46:2o:88:ARG:HB2	2.00	0.43
51:2t:30:LYS:O	51:2t:34:LYS:HE2	2.18	0.43
1:1A:127:A:H5"	1:1A:128:C:C6	2.54	0.43
1:1A:224:G:H2'	1:1A:225:A:O4'	2.18	0.43
1:1A:2563:U:H4'	10:1O:28:SER:HA	2.00	0.43
1:1A:2881:C:H2'	1:1A:2882:A:O4'	2.18	0.43
3:1D:88:ARG:NH1	60:1D:403:HOH:O	2.23	0.43
4:1E:172:VAL:HG13	4:1E:182:LEU:HD11	1.99	0.43
10:1O:104:ARG:NH2	15:1T:43:GLN:OE1	2.51	0.43
11:1P:97:PRO:HD3	11:1P:126:VAL:O	2.17	0.43
14:1S:97:ARG:NE	60:1S:302:HOH:O	2.29	0.43
27:15:5:PRO:O	60:15:202:HOH:O	2.21	0.43
32:1a:524:G:H2'	32:1a:525:C:C6	2.54	0.43
32:1a:1136:U:H2'	32:1a:1136:U:O2	2.19	0.43
38:1g:45:ASP:O	38:1g:49:ILE:HG13	2.18	0.43
1:2A:248:G:H5'	1:2A:250:G:N7	2.33	0.43
1:2A:396:G:H1'	23:21:42:GLN:HB3	2.00	0.43
1:2A:784:A:O4'	3:2D:227:ASN:ND2	2.52	0.43
1:2A:1070:A:H2'	1:2A:1071:G:C8	2.53	0.43
1:2A:1536:C:H1'	1:2A:1537:G:C8	2.53	0.43
1:2A:2630:G:H2'	1:2A:2631:G:C8	2.53	0.43
4:2E:163:GLU:HG2	4:2E:164:ARG:N	2.33	0.43
5:2F:107:LYS:HG3	5:2F:206:ILE:HA	2.00	0.43
17:2V:12:TYR:CG	17:2V:20:LEU:HD21	2.54	0.43
30:28:38:GLY:O	30:28:42:ARG:HB2	2.18	0.43
32:2a:953:G:H5'	32:2a:965:A:H61	1.83	0.43
33:2b:9:GLU:O	33:2b:11:LEU:N	2.51	0.43
1:1A:404:C:OP1	60:1A:4260:HOH:O	2.21	0.43
1:1A:1113:U:H2'	1:1A:1114:G:H8	1.80	0.43
1:1A:2320:A:H2'	1:1A:2320:A:N3	2.33	0.43
12:1Q:63:LYS:HA	12:1Q:63:LYS:HD2	1.84	0.43
32:1a:405:U:H5"	32:1a:495:A:C2	2.53	0.43
32:1a:693:G:H1'	38:1g:82:GLY:HA3	2.01	0.43
32:1a:714:G:H2'	32:1a:715:A:C8	2.52	0.43
32:1a:1241:G:H2'	32:1a:1242:C:C6	2.53	0.43
43:1l:11:VAL:HG11	48:1q:36:ILE:HG21	2.01	0.43
49:1r:31:LEU:HD12	49:1r:31:LEU:HA	1.88	0.43
53:1y:76:GLU:O	53:1y:80:LYS:HG3	2.18	0.43
1:2A:271(O):C:H2'	1:2A:271(P):C:C6	2.53	0.43
1:2A:298:G:H5"	1:2A:299:A:OP1	2.18	0.43
1:2A:458:G:C8	29:27:37:LYS:HG2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1165:U:H2'	1:2A:1166:C:C6	2.53	0.43
1:2A:1448:G:H1'	1:2A:1528:A:N1	2.33	0.43
1:2A:2621:A:H5"	60:2A:4566:HOH:O	2.17	0.43
8:2I:93:THR:H	8:2I:96:ASP:HB2	1.83	0.43
12:2Q:36:ALA:HB2	12:2Q:103:MET:SD	2.59	0.43
32:2a:1107:C:C4	32:2a:1108:G:C8	3.06	0.43
32:2a:1122:U:C4	32:2a:1123:A:N7	2.86	0.43
33:2b:114:ARG:O	33:2b:118:LEU:HB2	2.18	0.43
33:2b:122:PHE:CG	33:2b:123:ALA:N	2.86	0.43
38:2g:113:GLU:OE1	38:2g:122:HIS:ND1	2.47	0.43
39:2h:86:ILE:HG21	39:2h:133:LEU:HD22	1.99	0.43
47:2p:6:LEU:HG	47:2p:17:TYR:HB3	2.01	0.43
47:2p:53:VAL:HG22	47:2p:79:VAL:HG22	2.00	0.43
1:1A:107:C:H2'	1:1A:108:U:H6	1.83	0.43
1:1A:375:C:H2'	1:1A:376:C:C6	2.54	0.43
1:1A:698:C:O2'	1:1A:734:A:N6	2.52	0.43
1:1A:1394:U:H2'	1:1A:1395:A:O4'	2.18	0.43
1:1A:1604:C:H5'	54:1A:3180:MG:MG	1.42	0.43
1:1A:1766:U:H2'	1:1A:1767:C:C6	2.54	0.43
1:1A:2019:A:N7	27:15:9:LYS:HE2	2.33	0.43
1:1A:2347:C:H2'	1:1A:2348:U:C6	2.54	0.43
4:1E:9:VAL:HG13	4:1E:25:VAL:O	2.18	0.43
7:1H:5:GLY:O	7:1H:65:HIS:NE2	2.51	0.43
13:1R:24:GLN:HE21	13:1R:44:LEU:HG	1.83	0.43
21:1Z:103:ARG:HD3	21:1Z:136:PHE:CG	2.54	0.43
32:1a:232:G:H1'	32:1a:262:A:N1	2.33	0.43
32:1a:266:G:C5'	32:1a:268:C:H41	2.31	0.43
32:1a:948:C:H2'	32:1a:949:A:H8	1.84	0.43
32:1a:1065:U:H4'	32:1a:1066:C:O5'	2.18	0.43
34:1c:155:GLY:O	34:1c:157:ILE:N	2.51	0.43
44:1m:47:ASP:OD1	44:1m:47:ASP:N	2.49	0.43
51:1t:57:ARG:HH12	51:1t:100:ILE:HD12	1.84	0.43
1:2A:638:G:N2	1:2A:651:G:H1'	2.33	0.43
1:2A:1186:G:H2'	1:2A:1187:G:O4'	2.18	0.43
1:2A:1203:G:H2'	1:2A:1241:A:N6	2.33	0.43
1:2A:1800:C:OP1	3:2D:264:LYS:NZ	2.45	0.43
1:2A:2122:U:H3	1:2A:2176:A:N6	2.15	0.43
1:2A:2507:C:OP1	60:2A:3939:HOH:O	2.21	0.43
1:2A:2680:C:H5'	4:2E:189:PRO:HA	2.00	0.43
7:2H:163:TYR:CE1	7:2H:169:VAL:HG22	2.54	0.43
11:2P:15:ARG:HD3	11:2P:15:ARG:HA	1.80	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2P:82:GLY:HA2	11:2P:113:LYS:O	2.19	0.43
20:2Y:44:ILE:H	20:2Y:44:ILE:HG12	1.70	0.43
32:2a:328:C:H4'	32:2a:329:A:C5'	2.48	0.43
32:2a:1122:U:H2'	32:2a:1123:A:H8	1.81	0.43
37:2f:45:LEU:HD12	37:2f:45:LEU:H	1.83	0.43
39:2h:17:THR:HG22	39:2h:63:LEU:HG	2.01	0.43
1:1A:68:G:H2'	1:1A:69:C:O4'	2.18	0.43
1:1A:414:C:H2'	1:1A:415:A:H8	1.83	0.43
1:1A:686:G:H8	29:17:6:GLN:O	2.01	0.43
1:1A:863:A:H2'	1:1A:864:G:C8	2.53	0.43
1:1A:2014:A:N1	60:1A:4497:HOH:O	2.36	0.43
1:1A:2224:G:H4'	1:1A:2226:C:C2	2.53	0.43
1:1A:2386:C:H5'	60:10:206:HOH:O	2.19	0.43
1:1A:2712:U:O2'	1:1A:2713:A:H5'	2.19	0.43
20:1Y:38:ILE:HD11	20:1Y:66:PRO:HG3	1.99	0.43
22:10:32:ARG:H	22:10:35:ASN:ND2	2.16	0.43
32:1a:78:G:O2'	32:1a:79:G:OP2	2.34	0.43
32:1a:618:C:H3'	32:1a:620:C:OP2	2.18	0.43
35:1d:122:ARG:HA	35:1d:122:ARG:HD2	1.82	0.43
42:1k:21:ILE:HG12	42:1k:30:VAL:HG22	2.00	0.43
1:2A:1091:G:H2'	1:2A:1091:G:N3	2.33	0.43
1:2A:2841:C:H2'	1:2A:2842:G:C8	2.54	0.43
15:2T:23:ARG:HD3	15:2T:120:ARG:CZ	2.48	0.43
16:2U:107:ALA:O	16:2U:111:GLU:HG2	2.18	0.43
19:2X:18:TYR:O	19:2X:20:GLY:N	2.52	0.43
32:2a:429:U:P	35:2d:13:ARG:HH21	2.40	0.43
32:2a:1347:G:C8	40:2i:107:ARG:HB2	2.53	0.43
33:2b:12:GLU:HA	33:2b:15:VAL:HG22	2.01	0.43
34:2c:152:ILE:HG13	34:2c:199:LYS:HB2	2.01	0.43
40:2i:113:LYS:NZ	40:2i:119:ALA:O	2.50	0.43
50:2s:63:THR:OG1	50:2s:64:GLU:N	2.52	0.43
1:1A:36:G:O2'	1:1A:450:G:H2'	2.19	0.43
1:1A:1177:A:H2'	1:1A:1177:A:N3	2.34	0.43
1:1A:1432:C:H2'	1:1A:1433:U:O4'	2.19	0.43
1:1A:2633:G:H2'	1:1A:2634:G:O4'	2.18	0.43
5:1F:39:TRP:CH2	5:1F:106:ARG:HD3	2.53	0.43
12:1Q:42:ILE:HG13	12:1Q:97:VAL:HG21	2.01	0.43
21:1Z:3:TYR:O	21:1Z:58:VAL:HG22	2.18	0.43
32:1a:346:G:H3'	57:1a:1870:MPD:O4	2.19	0.43
32:1a:865:A:H2	32:1a:918:A:H4'	1.84	0.43
32:1a:1053:G:O5'	32:1a:1054:C:H3'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:1y:50:ALA:HB1	53:1y:77:LEU:HD22	2.00	0.43
1:2A:1653:G:C6	13:2R:9:LYS:HB2	2.54	0.43
1:2A:1818:U:O4	3:2D:154:LYS:HD2	2.19	0.43
1:2A:1886:C:H2'	1:2A:1887:C:H6	1.84	0.43
1:2A:2298:A:C4	1:2A:2321:G:N2	2.87	0.43
1:2A:2732:G:O6	60:2A:3921:HOH:O	2.19	0.43
1:2A:2815:C:H5'	27:25:29:THR:HG21	2.00	0.43
4:2E:28:ALA:HB3	4:2E:93:VAL:CG1	2.48	0.43
5:2F:150:GLY:HA2	5:2F:172:TRP:CE3	2.54	0.43
6:2G:12:TYR:HA	6:2G:16:ARG:HG3	2.00	0.43
6:2G:155:MET:HB3	6:2G:155:MET:HE2	1.77	0.43
8:2I:84:GLY:O	8:2I:86:THR:N	2.51	0.43
9:2N:91:LEU:HD23	9:2N:91:LEU:HA	1.75	0.43
11:2P:84:ASN:HB3	11:2P:117:GLU:O	2.18	0.43
32:2a:258:G:H1	32:2a:268:C:H42	1.67	0.43
38:2g:97:GLN:HA	38:2g:100:ALA:HB3	1.99	0.43
46:2o:81:LEU:O	46:2o:85:LEU:HB2	2.19	0.43
49:2r:59:SER:OG	49:2r:62:GLU:HG2	2.18	0.43
1:1A:196:A:O2'	1:1A:805:G:O6	2.32	0.43
1:1A:700:G:O2'	1:1A:1632:A:N3	2.40	0.43
1:1A:700:G:H2'	1:1A:701:G:O4'	2.19	0.43
1:1A:722:A:H2'	1:1A:723:G:C8	2.53	0.43
2:1B:33:G:C2	2:1B:50:G:C2	3.06	0.43
3:1D:94:LEU:HD23	3:1D:94:LEU:HA	1.85	0.43
6:1G:23:PHE:HB2	6:1G:25:TYR:CE2	2.54	0.43
6:1G:103:LEU:HA	6:1G:103:LEU:HD23	1.77	0.43
11:1P:106:LEU:HD13	11:1P:112:LEU:HD23	2.00	0.43
15:1T:16:ARG:NH2	15:1T:83:ILE:O	2.50	0.43
19:1X:40:LYS:HG3	19:1X:51:VAL:HB	2.01	0.43
30:18:52:LYS:O	30:18:56:GLU:HG3	2.19	0.43
32:1a:406:G:H21	35:1d:119:GLN:HE22	1.67	0.43
32:1a:583:A:N6	32:1a:758:G:O2'	2.52	0.43
32:1a:768:A:H2'	32:1a:769:G:O4'	2.18	0.43
32:1a:1048:G:OP1	45:1n:3:ARG:HB3	2.19	0.43
34:1c:16:ARG:HE	34:1c:16:ARG:HB3	1.67	0.43
39:1h:38:ILE:HG21	39:1h:120:THR:HG22	2.01	0.43
40:1i:10:ARG:HG3	40:1i:11:LYS:HG3	2.00	0.43
1:2A:811:U:H2'	11:2P:21:ARG:HA	2.00	0.43
1:2A:911:A:H2'	12:2Q:9:TYR:OH	2.19	0.43
1:2A:1248:G:C5	16:2U:3:ARG:HB2	2.54	0.43
1:2A:1589:C:H2'	1:2A:1590:U:H6	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1639:U:C2'	1:2A:1640:C:H5"	2.48	0.43
4:2E:59:VAL:HG21	4:2E:74:PRO:HB3	1.99	0.43
18:2W:82:LEU:HD22	18:2W:84:ARG:NH2	2.34	0.43
24:22:4:SER:HA	24:22:7:ARG:NH1	2.32	0.43
29:27:30:VAL:HG22	29:27:33:ARG:NH2	2.34	0.43
32:2a:187:C:O2'	51:2t:89:ARG:HD3	2.18	0.43
32:2a:401:C:H2'	32:2a:402:G:H8	1.83	0.43
32:2a:499:A:H4'	32:2a:500:G:H5'	2.00	0.43
32:2a:1255:G:C6	32:2a:1279:A:C8	3.07	0.43
32:2a:1505:G:H4'	32:2a:1506:U:H5"	2.00	0.43
33:2b:18:GLY:HA3	33:2b:41:ILE:HA	2.00	0.43
36:2e:69:VAL:HA	36:2e:70:PRO:HD3	1.87	0.43
40:2i:14:VAL:HG22	40:2i:66:ARG:O	2.19	0.43
40:2i:92:TYR:O	40:2i:96:LEU:HB2	2.19	0.43
46:2o:63:ARG:HH12	46:2o:87:ILE:HG23	1.84	0.43
48:2q:6:LEU:HD23	48:2q:23:VAL:HG11	2.01	0.43
1:1A:839:U:H2'	1:1A:840:C:C6	2.53	0.43
1:1A:2193:G:H2'	1:1A:2194:G:H8	1.83	0.43
1:1A:2291:U:H2'	1:1A:2292:C:C6	2.54	0.43
1:1A:2536:G:C6	1:1A:2537:U:C4	3.06	0.43
6:1G:109:VAL:C	6:1G:112:PRO:HD2	2.44	0.43
8:1I:26:ALA:HA	8:1I:30:LEU:HB2	2.01	0.43
8:1I:77:LEU:HD22	8:1I:101:LEU:HG	2.01	0.43
9:1N:13:TRP:HB3	9:1N:135:PRO:HB3	2.00	0.43
11:1P:147:LEU:HD23	11:1P:147:LEU:HA	1.79	0.43
21:1Z:146:ILE:H	21:1Z:146:ILE:HG13	1.66	0.43
30:18:26:LYS:HD2	30:18:26:LYS:HA	1.66	0.43
32:1a:300:A:H1'	32:1a:565:U:O2	2.19	0.43
32:1a:636:U:H2'	32:1a:637:G:C8	2.54	0.43
32:1a:944:G:OP1	60:1a:1921:HOH:O	2.21	0.43
32:1a:1026:G:H3'	32:1a:1027:C:C6	2.54	0.43
32:1a:1057:G:H5"	34:1c:154:SER:HB2	2.01	0.43
33:1b:55:PHE:CD1	33:1b:58:ILE:HD12	2.54	0.43
34:1c:47:LEU:HB2	34:1c:52:LEU:HD22	2.00	0.43
36:1e:95:ALA:HB1	36:1e:96:PRO:HD2	2.00	0.43
38:1g:80:VAL:HB	38:1g:85:TYR:HE2	1.84	0.43
38:1g:153:HIS:C	38:1g:155:ARG:H	2.27	0.43
39:1h:81:HIS:N	39:1h:138:TRP:O	2.51	0.43
51:1t:33:ILE:O	51:1t:37:SER:OG	2.32	0.43
1:2A:271(E):U:H2'	1:2A:271(F):C:C6	2.54	0.43
1:2A:299:A:N1	1:2A:322:A:O2'	2.45	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1268:A:H2'	1:2A:1269:A:O4'	2.19	0.43
1:2A:1541:G:OP2	1:2A:1542:A:O2'	2.37	0.43
1:2A:2602:A:H1'	1:2A:2603:G:C5'	2.36	0.43
4:2E:51:PHE:HA	4:2E:52:LEU:HA	1.90	0.43
5:2F:80:ALA:HB3	5:2F:83:PHE:CD2	2.51	0.43
7:2H:16:SER:O	7:2H:26:VAL:HA	2.19	0.43
11:2P:63:PRO:O	60:2P:301:HOH:O	2.22	0.43
14:2S:23:ARG:NH2	14:2S:84:GLN:HG2	2.34	0.43
15:2T:28:VAL:HG13	15:2T:86:ILE:HG23	2.01	0.43
21:2Z:125:LEU:HG	21:2Z:164:ALA:HB3	2.01	0.43
23:21:52:ARG:HA	23:21:52:ARG:HD3	1.87	0.43
32:2a:109:A:C6	32:2a:326:G:C6	3.07	0.43
32:2a:932:C:H2'	32:2a:933:G:H8	1.84	0.43
32:2a:1118:C:H2'	32:2a:1119:C:C6	2.54	0.43
33:2b:175:ARG:HB3	33:2b:175:ARG:NH1	2.33	0.43
41:2j:6:ILE:HA	41:2j:97:GLU:O	2.19	0.43
49:2r:45:SER:OG	49:2r:47:THR:HG22	2.19	0.43
1:1A:143:G:H1'	19:1X:37:THR:HG21	2.00	0.42
1:1A:884:C:H2'	1:1A:885:C:O4'	2.19	0.42
1:1A:958:U:O2	2:1B:90:A:O2'	2.35	0.42
1:1A:1041:C:H5'	1:1A:1042:G:OP2	2.19	0.42
1:1A:2126:A:H4'	1:1A:2127:G:O4'	2.19	0.42
1:1A:2206:G:H5"	1:1A:2207:G:C5	2.54	0.42
1:1A:2393:A:H5'	11:1P:63:PRO:HB3	2.00	0.42
1:1A:2564:A:OP1	1:1A:2648:C:O2'	2.33	0.42
1:1A:2790:A:H2'	1:1A:2790:A:N3	2.34	0.42
1:1A:2794:C:H42	1:1A:2802:G:H1	1.67	0.42
14:1S:84:GLN:HG2	14:1S:111:GLU:HB2	2.01	0.42
16:1U:59:ARG:O	16:1U:63:VAL:HG23	2.19	0.42
26:14:68:ARG:HD3	26:14:69:LYS:H	1.84	0.42
32:1a:279:A:C5	48:1q:98:LEU:HD23	2.54	0.42
32:1a:1024:G:H2'	32:1a:1024:G:N3	2.34	0.42
32:1a:1438:G:H2'	32:1a:1439:C:H6	1.84	0.42
33:1b:197:VAL:O	39:1h:68:ARG:NH2	2.52	0.42
33:1b:211:ILE:O	33:1b:215:LEU:HB2	2.18	0.42
34:1c:24:ALA:HB3	34:1c:29:TYR:CD1	2.54	0.42
36:1e:31:LEU:HD23	36:1e:31:LEU:HA	1.71	0.42
37:1f:9:VAL:HB	37:1f:87:ARG:HB2	2.00	0.42
39:1h:11:THR:HG22	39:1h:15:ASN:ND2	2.34	0.42
1:2A:143(A):C:H2'	1:2A:144:C:C6	2.54	0.42
1:2A:286:C:H2'	1:2A:287:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:539:G:H2'	1:2A:540:C:H6	1.85	0.42
1:2A:824:A:H2'	1:2A:825:C:O4'	2.19	0.42
1:2A:1411:C:H2'	1:2A:1412:A:C8	2.54	0.42
1:2A:2037:G:C6	1:2A:2038:G:C6	3.07	0.42
1:2A:2370:G:C6	1:2A:2371:G:C6	3.07	0.42
2:2B:61:G:H2'	2:2B:62:C:C6	2.54	0.42
3:2D:60:ARG:NH1	3:2D:86:PRO:O	2.52	0.42
4:2E:48:GLN:OE1	4:2E:78:LEU:HD23	2.19	0.42
5:2F:53:THR:HG23	5:2F:56:GLU:H	1.84	0.42
7:2H:3:ARG:HA	7:2H:3:ARG:HD2	1.90	0.42
19:2X:43:VAL:HG21	19:2X:81:VAL:HG11	2.00	0.42
21:2Z:99:TYR:HA	21:2Z:124:ILE:O	2.18	0.42
30:28:33:ASN:HA	30:28:36:LYS:HG3	2.01	0.42
32:2a:559:A:H4'	32:2a:560:U:H5"	2.00	0.42
32:2a:922:G:C2	32:2a:923:A:C4	3.07	0.42
32:2a:1016:A:H2'	32:2a:1017:G:O4'	2.19	0.42
32:2a:1036:G:H3'	32:2a:1037:C:C6	2.54	0.42
32:2a:1077:G:N1	32:2a:1081:G:C6	2.88	0.42
32:2a:1258:G:H2'	32:2a:1259:C:C6	2.54	0.42
33:2b:9:GLU:C	33:2b:11:LEU:H	2.25	0.42
34:2c:181:ASN:N	34:2c:205:GLY:O	2.29	0.42
36:2e:84:PHE:N	36:2e:87:SER:O	2.51	0.42
40:2i:26:VAL:HG11	40:2i:33:PHE:HD1	1.84	0.42
1:1A:45:C:OP2	1:1A:215:G:H5'	2.19	0.42
1:1A:1212:G:N3	1:1A:1236:G:C2	2.87	0.42
1:1A:1495:A:H2'	1:1A:1496:A:C8	2.53	0.42
1:1A:2065:C:H4'	1:1A:2251:OMG:HM22	2.00	0.42
1:1A:2533:A:H2'	1:1A:2534:A:O4'	2.19	0.42
13:1R:67:LEU:HD13	13:1R:76:VAL:HG21	2.00	0.42
19:1X:47:PHE:O	19:1X:49:VAL:HG13	2.19	0.42
32:1a:188:C:H2'	32:1a:189:G:H8	1.83	0.42
32:1a:343:U:O2'	32:1a:346:G:O6	2.37	0.42
32:1a:666:G:C6	32:1a:741:G:C5	3.06	0.42
32:1a:1054:C:N4	53:1y:46:GLN:OE1	2.52	0.42
32:1a:1229:A:OP2	44:1m:114:ARG:HD3	2.19	0.42
32:1a:1292:U:H2'	32:1a:1293:G:C8	2.54	0.42
35:1d:190:ASP:N	35:1d:190:ASP:OD1	2.52	0.42
36:1e:69:VAL:O	36:1e:71:LEU:N	2.50	0.42
36:1e:76:ILE:HD12	36:1e:142:LEU:HD21	2.02	0.42
40:1i:16:ARG:O	40:1i:63:ILE:HA	2.18	0.42
1:2A:76:C:O3'	24:22:59:ARG:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:307:G:N1	1:2A:310:A:OP2	2.51	0.42
1:2A:497:A:H2'	1:2A:498:G:O4'	2.19	0.42
1:2A:531:C:H4'	1:2A:532:A:H5"	2.01	0.42
1:2A:687:C:H2'	1:2A:688:U:O4'	2.18	0.42
1:2A:738:G:C2	1:2A:759:G:C5	3.08	0.42
1:2A:824:A:H1'	1:2A:2358:G:N7	2.34	0.42
1:2A:1654:A:H1'	1:2A:2823:A:H5'	2.01	0.42
1:2A:1756:G:H4'	1:2A:1758:G:O4'	2.19	0.42
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.54	0.42
1:2A:2037:G:H2'	1:2A:2038:G:C8	2.54	0.42
1:2A:2115:G:N2	1:2A:2119:A:H5'	2.34	0.42
1:2A:2602:A:H8	60:2A:4775:HOH:O	2.01	0.42
1:2A:2689:U:H4'	1:2A:2690:C:H5'	2.01	0.42
14:2S:14:VAL:HG21	14:2S:90:GLY:O	2.19	0.42
15:2T:22:PHE:CE1	15:2T:49:VAL:HG11	2.52	0.42
18:2W:11:ARG:HA	18:2W:11:ARG:HD2	1.71	0.42
32:2a:194:C:H2'	32:2a:195:A:H5"	2.01	0.42
32:2a:625:G:OP1	47:2p:9:PHE:HB3	2.18	0.42
32:2a:922:G:N3	32:2a:1398:A:H2	2.18	0.42
32:2a:1054:C:C6	53:2y:45:PRO:HG2	2.54	0.42
33:2b:50:GLU:O	33:2b:54:THR:OG1	2.20	0.42
33:2b:53:ARG:HH12	33:2b:199:TYR:HA	1.83	0.42
33:2b:97:TRP:CH2	33:2b:173:ALA:HA	2.54	0.42
36:2e:37:ARG:HG2	36:2e:112:LEU:HD23	2.00	0.42
41:2j:57:LYS:HE3	41:2j:60:ARG:HH21	1.84	0.42
42:2k:63:LEU:HD23	42:2k:63:LEU:HA	1.86	0.42
43:2l:7:ILE:HG22	48:2q:34:LYS:HD2	2.01	0.42
1:1A:827:U:O2'	1:1A:2068:U:C2	2.65	0.42
1:1A:859:G:O2'	1:1A:916:G:O6	2.33	0.42
1:1A:1211:U:H4'	1:1A:1212:G:OP2	2.19	0.42
1:1A:2119:A:C2	1:1A:2171:A:H5'	2.54	0.42
1:1A:2690:C:N4	1:1A:2713:A:H1'	2.34	0.42
7:1H:71:LEU:HD12	7:1H:71:LEU:HA	1.86	0.42
28:16:13:CYS:HB2	28:16:49:HIS:CE1	2.54	0.42
32:1a:104:G:C2	32:1a:105:G:C8	3.07	0.42
32:1a:316:G:OP2	32:1a:351:G:O2'	2.31	0.42
32:1a:376:G:H2'	32:1a:377:G:H8	1.84	0.42
32:1a:828:A:H2'	32:1a:829:G:O4'	2.19	0.42
32:1a:1072:G:H2'	32:1a:1073:U:C6	2.54	0.42
32:1a:1490:C:H2'	32:1a:1491:G:O4'	2.19	0.42
40:1i:42:ARG:O	40:1i:74:ILE:HG21	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:1s:27:GLU:HA	50:1s:28:LYS:HA	1.86	0.42
1:2A:1338:G:N3	1:2A:1393:A:H2	2.17	0.42
1:2A:2200:C:O2	1:2A:2226:C:N4	2.53	0.42
13:2R:1:MET:N	60:2R:307:HOH:O	2.52	0.42
18:2W:50:VAL:HG12	18:2W:105:VAL:HB	2.00	0.42
30:28:32:LEU:C	30:28:36:LYS:HZ2	2.27	0.42
32:2a:579:G:H4'	46:2o:54:ARG:HH21	1.84	0.42
32:2a:614:A:H2'	32:2a:615:C:C6	2.54	0.42
32:2a:890:G:O2'	32:2a:906:G:O6	2.35	0.42
35:2d:100:ARG:O	35:2d:104:VAL:HG23	2.19	0.42
36:2e:71:LEU:HD21	36:2e:115:VAL:HG22	2.01	0.42
36:2e:137:GLU:HA	36:2e:140:ARG:HB2	2.01	0.42
40:2i:111:ARG:O	40:2i:111:ARG:HG3	2.19	0.42
42:2k:121:PRO:HB2	42:2k:125:PHE:HB2	2.01	0.42
47:2p:28:ARG:HH11	47:2p:29:ASP:CG	2.27	0.42
49:2r:61:LYS:HA	49:2r:64:ARG:NH1	2.34	0.42
1:1A:321:G:H5'	5:1F:134:GLY:O	2.19	0.42
1:1A:2259:G:C8	1:1A:2427:C:C4	3.08	0.42
3:1D:108:PRO:HG3	3:1D:143:HIS:CE1	2.55	0.42
4:1E:67:PHE:HB3	4:1E:72:VAL:O	2.18	0.42
5:1F:196:LEU:HD23	5:1F:196:LEU:HA	1.79	0.42
7:1H:41:MET:HE2	7:1H:65:HIS:HA	2.00	0.42
7:1H:124:GLU:CG	7:1H:132:ARG:HB3	2.50	0.42
14:1S:3:ARG:HH11	14:1S:3:ARG:HA	1.83	0.42
20:1Y:23:ARG:NH1	60:1Y:302:HOH:O	2.36	0.42
31:19:17:ILE:HD13	31:19:17:ILE:HA	1.76	0.42
32:1a:932:C:H5"	38:1g:4:ARG:CZ	2.50	0.42
32:1a:1014:A:H4'	50:1s:14:HIS:CE1	2.55	0.42
32:1a:1154:G:H2'	32:1a:1155:G:H8	1.85	0.42
43:1l:27:LEU:HD22	43:1l:98:TYR:CE1	2.54	0.42
1:2A:62:C:H42	1:2A:93:G:H1	1.66	0.42
1:2A:370:G:H4'	1:2A:371:A:OP2	2.20	0.42
1:2A:477:A:H2'	1:2A:478:A:C8	2.54	0.42
1:2A:514:A:N3	1:2A:581:C:O2'	2.45	0.42
1:2A:576:U:H2'	1:2A:577:G:C8	2.54	0.42
1:2A:760:G:H2'	1:2A:761:A:O4'	2.18	0.42
1:2A:862:G:H2'	1:2A:863:A:O4'	2.19	0.42
1:2A:1032:A:OP1	31:29:8:LYS:HE3	2.20	0.42
1:2A:1032:A:H2	1:2A:1122:G:H22	1.67	0.42
1:2A:1295:C:H2'	1:2A:1296:G:H8	1.84	0.42
1:2A:1508:A:H4'	1:2A:1509(A):A:C5	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1509(B):A:H2'	1:2A:1510:G:C8	2.55	0.42
1:2A:2097:C:H2'	1:2A:2098:U:C6	2.54	0.42
1:2A:2315:G:OP1	6:2G:36:LYS:NZ	2.37	0.42
1:2A:2758:A:C2	1:2A:2759:G:H1'	2.54	0.42
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	2.02	0.42
32:2a:407:G:H2'	32:2a:408:A:C8	2.54	0.42
32:2a:1121:U:H2'	32:2a:1122:U:C6	2.55	0.42
32:2a:1130:A:H2'	32:2a:1131:G:H8	1.84	0.42
32:2a:1291:G:H4'	40:2i:39:GLY:HA3	2.01	0.42
33:2b:11:LEU:HD13	33:2b:217:ARG:HH22	1.84	0.42
38:2g:132:GLY:O	38:2g:136:LYS:HG2	2.20	0.42
40:2i:3:GLN:HE21	40:2i:20:ARG:HE	1.67	0.42
46:2o:83:GLU:C	46:2o:85:LEU:H	2.26	0.42
53:2y:48:PHE:HD2	53:2y:70:MET:HB2	1.85	0.42
53:2y:58:ASN:HB3	53:2y:88:LEU:HD13	2.01	0.42
1:1A:26:G:C6	1:1A:27:G:N1	2.87	0.42
1:1A:384:U:H2'	1:1A:385:C:H6	1.84	0.42
1:1A:412:A:H8	1:1A:412:A:O5'	2.02	0.42
1:1A:819:A:C4	1:1A:1189:A:C2	3.07	0.42
1:1A:913:U:OP1	60:1A:4257:HOH:O	2.21	0.42
1:1A:1316:U:H2'	1:1A:1317:A:C8	2.54	0.42
1:1A:1326:U:H2'	1:1A:1327:C:C6	2.54	0.42
1:1A:1405:U:H2'	1:1A:1406:U:H6	1.82	0.42
1:1A:1568:G:O5'	3:1D:61:LEU:HD22	2.19	0.42
1:1A:2189:U:O2'	1:1A:2190:G:H5'	2.19	0.42
3:1D:121:PRO:HB3	3:1D:135:PHE:CE2	2.53	0.42
5:1F:38:ARG:NH2	60:1F:411:HOH:O	2.51	0.42
7:1H:41:MET:HE3	7:1H:41:MET:HB3	1.85	0.42
9:1N:138:LEU:HA	9:1N:138:LEU:HD23	1.82	0.42
13:1R:20:LEU:HD11	13:1R:40:LYS:HD3	2.02	0.42
27:15:16:ARG:NH1	27:15:17:ASP:OD1	2.44	0.42
32:1a:923:A:H2'	32:1a:924:C:C6	2.54	0.42
32:1a:1044:A:C5	32:1a:1045:C:H1'	2.54	0.42
32:1a:1469:G:H2'	32:1a:1470:G:C8	2.55	0.42
32:1a:1486:G:H2'	32:1a:1487:G:O4'	2.18	0.42
1:2A:83:G:O2'	1:2A:102:G:N2	2.52	0.42
1:2A:229:A:H2'	1:2A:229:A:N3	2.35	0.42
1:2A:539:G:H2'	1:2A:540:C:C6	2.55	0.42
1:2A:898:C:H2'	1:2A:899:A:O4'	2.19	0.42
1:2A:1196:C:H2'	1:2A:1197:G:C8	2.55	0.42
1:2A:1305:C:C2	1:2A:1624:G:C2	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1686:C:H2'	1:2A:1687:G:O4'	2.20	0.42
1:2A:1782:C:H1'	1:2A:2609:U:H5"	2.02	0.42
1:2A:2134:A:N3	1:2A:2158:A:H4'	2.34	0.42
2:2B:64:C:H2'	2:2B:65:C:C6	2.54	0.42
4:2E:109:LYS:O	4:2E:111:ARG:NH1	2.52	0.42
5:2F:32:LEU:O	5:2F:36:VAL:HG23	2.19	0.42
12:2Q:35:VAL:HG23	12:2Q:102:VAL:HG22	2.01	0.42
20:2Y:5:MET:HE2	20:2Y:32:PRO:HA	2.01	0.42
30:28:22:VAL:HB	30:28:55:ALA:HB1	2.02	0.42
32:2a:255:G:H2'	32:2a:256:U:C6	2.54	0.42
32:2a:385:C:H2'	32:2a:386:C:C6	2.54	0.42
32:2a:841:U:H6	32:2a:841:U:P	2.42	0.42
32:2a:1002:G:C2	32:2a:1003:G:C8	3.07	0.42
32:2a:1146:A:H5'	32:2a:1147:C:OP2	2.20	0.42
33:2b:197:VAL:HG12	33:2b:200:ILE:HG13	2.01	0.42
38:2g:38:LEU:HD12	38:2g:38:LEU:O	2.19	0.42
51:2t:50:GLU:HG3	51:2t:100:ILE:HD11	2.00	0.42
1:1A:35:G:H1'	1:1A:454:A:C4	2.54	0.42
1:1A:714:U:O2'	1:1A:716:A:N7	2.42	0.42
1:1A:1171:G:N3	1:1A:1171:G:H2'	2.34	0.42
1:1A:1359:A:N6	1:1A:1372:U:H3	2.14	0.42
1:1A:1754:C:OP1	15:1T:96:ARG:NH1	2.53	0.42
1:1A:1772:G:O6	60:1A:4241:HOH:O	2.19	0.42
1:1A:1796:U:H2'	1:1A:1797:C:H6	1.84	0.42
1:1A:1904:G:H2'	1:1A:1905:C:O4'	2.19	0.42
1:1A:2111:C:H42	1:1A:2147:G:N2	2.17	0.42
7:1H:46:GLU:OE2	7:1H:51:ARG:NH2	2.40	0.42
10:1O:64:ARG:HB2	10:1O:79:PHE:CD2	2.55	0.42
13:1R:103:ARG:NH1	13:1R:108:GLY:O	2.52	0.42
19:1X:61:GLY:HA3	19:1X:73:ARG:O	2.20	0.42
24:12:3:LEU:O	24:12:7:ARG:HG3	2.18	0.42
32:1a:411:A:OP2	35:1d:25:ARG:NH2	2.52	0.42
32:1a:444:C:H2'	32:1a:445:G:H8	1.85	0.42
32:1a:665:A:H1'	32:1a:733:A:O4'	2.20	0.42
32:1a:674:G:H2'	32:1a:675:A:C8	2.55	0.42
32:1a:674:G:H2'	32:1a:675:A:H8	1.83	0.42
32:1a:803:G:H2'	32:1a:804:U:O4'	2.19	0.42
32:1a:939:G:O2'	32:1a:1375:A:N3	2.50	0.42
33:1b:102:LEU:HB2	33:1b:176:GLU:HB3	2.01	0.42
33:1b:158:LEU:HD12	33:1b:158:LEU:HA	1.86	0.42
36:1e:39:GLY:O	36:1e:69:VAL:HG22	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:1f:97:PHE:HZ	49:1r:61:LYS:HE3	1.84	0.42
39:1h:83:ILE:HA	39:1h:136:GLU:O	2.19	0.42
40:1i:106:ALA:O	40:1i:108:VAL:HG23	2.19	0.42
42:1k:19:ALA:HB3	42:1k:82:VAL:HG22	2.01	0.42
1:2A:29:U:H2'	1:2A:30:G:C8	2.54	0.42
1:2A:480:A:OP2	20:2Y:47:LYS:HD3	2.20	0.42
1:2A:673:C:H5"	5:2F:81:PRO:HD2	2.01	0.42
1:2A:1275:A:N1	1:2A:1295:C:O2'	2.48	0.42
1:2A:2310:A:H61	6:2G:79:ASN:HD22	1.67	0.42
1:2A:2330:G:H2'	1:2A:2331:G:O4'	2.19	0.42
5:2F:101:LEU:HD12	5:2F:102:PRO:HD2	2.02	0.42
6:2G:112:PRO:HG3	26:24:43:TYR:HE2	1.84	0.42
12:2Q:111:GLU:O	12:2Q:115:MET:HG2	2.20	0.42
21:2Z:98:MET:O	21:2Z:126:VAL:N	2.51	0.42
31:29:3:VAL:HA	31:29:35:ARG:O	2.20	0.42
32:2a:382:A:H2'	32:2a:383:A:C8	2.55	0.42
32:2a:410:G:C2	32:2a:429:U:C2	3.07	0.42
32:2a:615:C:H2'	32:2a:616:G:O4'	2.20	0.42
32:2a:679:C:H2'	32:2a:680:C:C6	2.55	0.42
32:2a:1010:G:H2'	32:2a:1011:G:C8	2.54	0.42
32:2a:1496:C:H2'	32:2a:1497:G:O4'	2.19	0.42
35:2d:59:ARG:HH12	35:2d:62:GLN:HG3	1.84	0.42
39:2h:36:LEU:HD23	39:2h:36:LEU:HA	1.91	0.42
39:2h:69:ARG:HH21	39:2h:77:GLU:HB2	1.85	0.42
42:2k:32:ILE:H	42:2k:32:ILE:HG12	1.47	0.42
1:1A:284:U:H2'	1:1A:285:C:C6	2.54	0.42
1:1A:898:C:H2'	1:1A:899:A:O4'	2.20	0.42
1:1A:946:G:OP1	60:1A:4272:HOH:O	2.22	0.42
1:1A:1007:C:OP1	9:1N:37:LYS:NZ	2.53	0.42
1:1A:1045:A:H8	1:1A:1047:G:H21	1.67	0.42
1:1A:1185:C:H5"	1:1A:1186:G:OP1	2.19	0.42
1:1A:1355:G:C6	1:1A:1356:G:C5	3.08	0.42
1:1A:1802:A:H2'	1:1A:1803:A:C8	2.54	0.42
1:1A:2017:U:H4'	27:15:8:LYS:O	2.20	0.42
1:1A:2570:G:H2'	1:1A:2571:C:O4'	2.19	0.42
60:1A:6868:HOH:O	16:1U:5:LYS:HE2	2.19	0.42
8:1I:109:ILE:HD12	8:1I:109:ILE:HA	1.90	0.42
32:1a:109:A:H2'	32:1a:326:G:N2	2.34	0.42
32:1a:651:C:N4	32:1a:753:A:OP2	2.52	0.42
32:1a:1034:G:C2	32:1a:1035:A:H1'	2.54	0.42
32:1a:1492:A:H4'	32:1a:1493:A:C2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:99:SER:O	35:1d:140:VAL:HG23	2.19	0.42
40:1i:10:ARG:HB3	40:1i:72:GLY:O	2.20	0.42
46:1o:82:ILE:O	46:1o:86:GLY:N	2.52	0.42
1:2A:438:G:H2'	1:2A:440:G:C8	2.54	0.42
1:2A:594:U:H2'	1:2A:595:C:C6	2.55	0.42
1:2A:1354:A:H2'	1:2A:1355:G:O4'	2.19	0.42
1:2A:2051:A:H5'	1:2A:2578:G:O4'	2.20	0.42
1:2A:2106:G:C2	1:2A:2184:G:C2	3.07	0.42
1:2A:2281:C:O2'	1:2A:2282:G:H5'	2.20	0.42
1:2A:2359:C:H2'	1:2A:2360:A:O4'	2.19	0.42
2:2B:5:C:OP1	2:2B:61:G:O2'	2.34	0.42
2:2B:42:C:OP1	6:2G:67:LYS:NZ	2.50	0.42
4:2E:101:ARG:NH2	4:2E:171:GLU:HB2	2.35	0.42
4:2E:108:SER:HB3	4:2E:165:VAL:HG21	2.02	0.42
7:2H:70:THR:HG22	7:2H:74:ASN:ND2	2.35	0.42
8:2I:38:LEU:O	8:2I:40:THR:N	2.53	0.42
9:2N:73:THR:HA	9:2N:83:LYS:O	2.20	0.42
12:2Q:109:VAL:HG22	12:2Q:113:GLN:OE1	2.19	0.42
17:2V:4:ILE:HD12	17:2V:39:LEU:HD22	2.01	0.42
22:20:27:GLU:HG3	22:20:68:GLU:HA	2.02	0.42
26:24:48:ARG:HD2	26:24:52:THR:HA	2.01	0.42
29:27:21:ARG:HD3	60:27:207:HOH:O	2.20	0.42
32:2a:44:G:C2	32:2a:399:G:C2	3.07	0.42
32:2a:389:A:C5	32:2a:390:C:H1'	2.54	0.42
32:2a:623:C:H2'	32:2a:624:C:O4'	2.19	0.42
32:2a:692:U:O2'	32:2a:694:A:N7	2.41	0.42
32:2a:1198:G:H2'	32:2a:1199:U:C6	2.54	0.42
32:2a:1252:A:H2'	32:2a:1253:G:O4'	2.20	0.42
32:2a:1256:A:N6	32:2a:1278:U:H1'	2.25	0.42
33:2b:137:ARG:O	33:2b:141:GLU:HG3	2.19	0.42
35:2d:20:TYR:HD1	35:2d:26:CYS:HB3	1.84	0.42
38:2g:79:ARG:HA	38:2g:83:ALA:O	2.19	0.42
1:1A:289:A:H2'	1:1A:290:G:O4'	2.19	0.42
1:1A:888:C:H6	1:1A:888:C:H2'	1.55	0.42
1:1A:897:C:H2'	1:1A:898:C:H6	1.84	0.42
1:1A:934:G:H2'	1:1A:935:C:H6	1.85	0.42
1:1A:1063:G:H1	1:1A:1075:C:H42	1.66	0.42
1:1A:1097:U:H2'	1:1A:1098:A:O4'	2.19	0.42
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.34	0.42
6:1G:43:LEU:C	6:1G:45:GLU:H	2.27	0.42
10:1O:8:LEU:HD13	10:1O:82:ASN:HB3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:1Y:6:HIS:H	20:1Y:6:HIS:HD2	1.66	0.42
32:1a:44:G:C2	32:1a:45:U:H1'	2.55	0.42
32:1a:123:C:OP1	32:1a:311:C:O2'	2.28	0.42
32:1a:364:A:H2'	32:1a:365:U:O2	2.20	0.42
32:1a:486:U:H2'	32:1a:487:A:H8	1.85	0.42
32:1a:678:U:H2'	32:1a:679:C:C6	2.54	0.42
32:1a:1438:G:H2'	32:1a:1439:C:C6	2.55	0.42
33:1b:31:TYR:O	33:1b:42:ILE:HG23	2.20	0.42
34:1c:150:LYS:HB2	34:1c:150:LYS:HE3	1.85	0.42
42:1k:82:VAL:HB	42:1k:108:ILE:HG13	2.00	0.42
45:1n:48:ALA:HB2	45:1n:53:LEU:HD12	2.02	0.42
1:2A:300:A:OP1	20:2Y:86:ARG:NH2	2.52	0.42
1:2A:1443:G:N7	60:2A:4131:HOH:O	2.37	0.42
1:2A:1800:C:O2'	1:2A:1818:U:N3	2.41	0.42
8:2I:130:TYR:HB3	8:2I:138:ILE:HB	2.02	0.42
9:2N:42:TRP:HA	9:2N:48:MET:HE1	2.02	0.42
26:24:57:GLU:HA	26:24:58:ARG:HA	1.67	0.42
29:27:22:MET:HA	29:27:28:ARG:HG2	2.01	0.42
32:2a:108:G:C6	51:2t:15:ARG:HG2	2.54	0.42
32:2a:113:G:N3	32:2a:353:A:O2'	2.49	0.42
32:2a:384:G:H2'	32:2a:385:C:C6	2.55	0.42
32:2a:1353:G:C2	32:2a:1370:G:C2	3.07	0.42
38:2g:56:GLN:HE21	38:2g:61:VAL:HG21	1.83	0.42
43:2l:70:ILE:HG21	43:2l:75:HIS:CD2	2.54	0.42
48:2q:45:HIS:CD2	48:2q:47:PRO:HD3	2.54	0.42
50:2s:38:SER:HB2	50:2s:71:LEU:HD22	2.02	0.42
1:1A:49:A:H5"	1:1A:51:G:O4'	2.20	0.42
1:1A:323:G:H1'	1:1A:1205:U:O2	2.19	0.42
1:1A:1638:C:H2'	1:1A:1639:U:O4'	2.19	0.42
1:1A:2151:G:H2'	1:1A:2152:G:O4'	2.19	0.42
1:1A:2286:A:H4'	1:1A:2287:A:O4'	2.19	0.42
22:10:43:THR:O	22:10:43:THR:HG23	2.19	0.42
24:12:10:LEU:HD21	24:12:59:ARG:HG2	2.01	0.42
26:14:36:CYS:O	26:14:40:HIS:HB2	2.19	0.42
26:14:44:THR:O	26:14:44:THR:OG1	2.36	0.42
30:18:4:MET:HE2	30:18:4:MET:HB3	1.90	0.42
32:1a:519:C:H2'	32:1a:520:A:C8	2.55	0.42
32:1a:565:U:H3'	32:1a:566:G:H2'	2.00	0.42
32:1a:950:U:OP2	44:1m:102:ARG:HD3	2.19	0.42
32:1a:1134:G:H2'	32:1a:1134:G:N3	2.35	0.42
32:1a:1400:5MC:C2	53:1y:63:ALA:HA	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1457:G:H2'	32:1a:1458:G:O4'	2.19	0.42
1:2A:495:G:H21	18:2W:61:ASN:HD21	1.67	0.42
1:2A:1344:G:H5'	1:2A:1384:A:N1	2.35	0.42
1:2A:1864:U:OP1	1:2A:2410:G:O2'	2.36	0.42
1:2A:2699:C:H2'	1:2A:2700:C:O4'	2.20	0.42
2:2B:7:G:H5'	2:2B:8:U:OP2	2.20	0.42
10:2O:111:PHE:O	10:2O:115:VAL:HG23	2.20	0.42
30:28:34:TRP:CG	30:28:35:GLN:N	2.87	0.42
32:2a:745:C:H1'	32:2a:836:G:O2'	2.20	0.42
32:2a:975:A:C6	41:2j:48:THR:HB	2.55	0.42
32:2a:982:U:H5"	45:2n:6:LEU:HD21	2.01	0.42
32:2a:1095:U:P	32:2a:1108:G:H1	2.42	0.42
40:2i:22:GLY:HA3	40:2i:60:ASP:OD2	2.19	0.42
1:1A:1210:A:H5"	1:1A:1212:G:O4'	2.20	0.42
1:1A:1688:U:O2	1:1A:1700:A:H5'	2.20	0.42
1:1A:2422:A:H2'	60:1A:7248:HOH:O	2.19	0.42
3:1D:18:VAL:HG23	3:1D:19:ALA:O	2.20	0.42
3:1D:71:ASP:HB3	3:1D:103:ARG:NH2	2.35	0.42
4:1E:11:MET:HE2	4:1E:11:MET:HB3	1.90	0.42
8:1I:9:LEU:HD12	8:1I:9:LEU:HA	1.82	0.42
20:1Y:106:LEU:O	20:1Y:107:ASP:HB2	2.20	0.42
32:1a:130:A:O2'	32:1a:131:C:O5'	2.34	0.42
32:1a:719:C:O2'	49:1r:49:LYS:HB3	2.20	0.42
32:1a:953:G:C2	32:1a:954:G:H1'	2.55	0.42
32:1a:1010:G:N2	32:1a:1020:U:H1'	2.34	0.42
32:1a:1015:A:H2'	32:1a:1016:A:O4'	2.20	0.42
39:1h:69:ARG:HD3	39:1h:76:PRO:HA	2.01	0.42
39:1h:124:ALA:O	39:1h:128:GLY:N	2.47	0.42
1:2A:1011:G:OP2	16:2U:66:ASN:ND2	2.51	0.42
1:2A:1503:U:H2'	1:2A:1504:C:C6	2.55	0.42
2:2B:57:A:H4'	6:2G:30:GLU:HG3	2.02	0.42
60:2B:334:HOH:O	21:2Z:31:ARG:HG3	2.20	0.42
3:2D:76:PRO:O	3:2D:98:VAL:HG22	2.19	0.42
9:2N:85:ILE:HD13	9:2N:85:ILE:HA	1.94	0.42
13:2R:118:GLU:CD	13:2R:118:GLU:H	2.27	0.42
14:2S:88:ASP:OD1	14:2S:90:GLY:N	2.52	0.42
15:2T:120:ARG:HA	15:2T:123:GLN:HB2	2.02	0.42
21:2Z:124:ILE:HG12	21:2Z:155:LEU:HD21	2.02	0.42
32:2a:333:G:H4'	51:2t:16:HIS:CE1	2.55	0.42
32:2a:458:C:H2'	32:2a:460:G:O4'	2.19	0.42
32:2a:540:G:H2'	32:2a:541:G:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:604:G:C6	32:2a:605:U:C4	3.08	0.42
32:2a:1035:A:O2'	32:2a:1036:G:O5'	2.37	0.42
32:2a:1134:G:N1	32:2a:1141:C:N3	2.68	0.42
32:2a:1321:C:H4'	44:2m:87:TYR:CE1	2.55	0.42
33:2b:45:GLN:O	33:2b:49:GLU:HG2	2.20	0.42
34:2c:54:ARG:HB2	34:2c:69:HIS:HB2	2.02	0.42
35:2d:38:TYR:CE1	35:2d:45:GLN:HG3	2.54	0.42
39:2h:73:ASP:OD1	39:2h:75:ARG:HG3	2.20	0.42
40:2i:8:GLY:HA2	40:2i:79:LEU:HB3	2.02	0.42
44:2m:65:LYS:HB2	44:2m:69:GLU:HB3	2.02	0.42
53:2y:67:HIS:ND1	53:2y:72:THR:HB	2.35	0.42
1:1A:247:G:H4'	1:1A:386:G:C5	2.55	0.41
1:1A:535:C:O3'	16:1U:53:ARG:NH1	2.52	0.41
1:1A:1641:A:H2'	1:1A:1642:G:O4'	2.19	0.41
1:1A:1668:A:H4'	1:1A:1669:A:O5'	2.20	0.41
1:1A:1951:U:O2	1:1A:1953:A:H8	2.04	0.41
1:1A:2185:C:H2'	1:1A:2186:G:O4'	2.20	0.41
1:1A:2292:C:OP1	14:1S:17:ARG:NH2	2.51	0.41
3:1D:145:VAL:HG12	3:1D:146:GLU:O	2.20	0.41
4:1E:34:VAL:HG12	4:1E:72:VAL:HG21	2.01	0.41
12:1Q:111:GLU:O	12:1Q:115:MET:HG2	2.20	0.41
26:14:61:ARG:HH21	50:1s:42:PRO:CD	2.32	0.41
32:1a:135:C:H2'	32:1a:136:C:H5'	2.00	0.41
32:1a:402:G:H4'	32:1a:620:C:N3	2.35	0.41
32:1a:518:C:H5"	32:1a:519:C:C6	2.55	0.41
32:1a:571:U:OP1	32:1a:819:A:O2'	2.31	0.41
32:1a:1417:G:H22	32:1a:1482:G:H2'	1.85	0.41
32:1a:1499:A:O2'	32:1a:1520:G:H5'	2.20	0.41
34:1c:6:HIS:HD2	34:1c:9:GLY:H	1.68	0.41
36:1e:90:VAL:O	36:1e:120:THR:HA	2.20	0.41
37:1f:21:LEU:HD13	37:1f:21:LEU:HA	1.96	0.41
37:1f:86:ARG:O	37:1f:87:ARG:HG2	2.19	0.41
41:1j:5:ARG:O	41:1j:98:ILE:HA	2.20	0.41
41:1j:55:LYS:HE3	41:1j:56:HIS:CE1	2.55	0.41
48:1q:50:LYS:HE2	48:1q:51:TYR:CZ	2.55	0.41
1:2A:42:G:H2'	1:2A:43:A:O4'	2.20	0.41
1:2A:55:G:O2'	1:2A:127:A:N1	2.50	0.41
1:2A:844:C:C5	1:2A:845:G:C6	3.08	0.41
1:2A:858:U:O2	1:2A:2268:A:H2'	2.20	0.41
1:2A:956:G:H2'	1:2A:957:A:H2'	2.02	0.41
1:2A:1800:C:HO2'	1:2A:1818:U:H3	1.61	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2D:95:LEU:HD11	3:2D:105:ILE:HG12	2.02	0.41
4:2E:52:LEU:CB	4:2E:53:PRO:HD2	2.50	0.41
4:2E:181:LEU:HD12	4:2E:181:LEU:HA	1.67	0.41
10:2O:25:LEU:HB2	10:2O:38:VAL:O	2.20	0.41
13:2R:100:LEU:HD11	13:2R:113:LEU:HD23	2.02	0.41
26:24:5:ILE:HG13	26:24:6:HIS:CD2	2.55	0.41
32:2a:103:C:P	51:2t:17:ARG:HH21	2.42	0.41
32:2a:105:G:N2	32:2a:379:C:O3'	2.53	0.41
32:2a:129(A):G:C6	32:2a:189(E):U:H4'	2.55	0.41
32:2a:707:C:H2'	32:2a:708:C:H6	1.85	0.41
32:2a:993:G:H1	32:2a:1045:C:H42	1.68	0.41
32:2a:1002:G:N3	32:2a:1003:G:C8	2.88	0.41
32:2a:1227:A:C4	50:2s:83:HIS:HB3	2.55	0.41
32:2a:1246:C:H2'	32:2a:1247:U:H6	1.85	0.41
32:2a:1268:A:H4'	52:2u:19:GLY:C	2.45	0.41
34:2c:18:TRP:CD1	45:2n:54:PRO:HA	2.54	0.41
35:2d:129:ASN:HD21	35:2d:144:ASP:HA	1.85	0.41
39:2h:4:ASP:OD2	39:2h:85:ARG:NH1	2.50	0.41
39:2h:69:ARG:H	39:2h:69:ARG:HG2	1.64	0.41
49:2r:65:ILE:H	49:2r:65:ILE:HG12	1.62	0.41
53:2y:87:LYS:HB2	53:2y:87:LYS:HE2	1.84	0.41
1:1A:57:C:H2'	1:1A:58:G:O4'	2.20	0.41
1:1A:620:G:N3	1:1A:620:G:H5'	2.34	0.41
1:1A:1436:G:H2'	1:1A:1437:C:O4'	2.20	0.41
3:1D:221:VAL:HG22	3:1D:226:MET:CE	2.50	0.41
23:11:3:LYS:O	23:11:12:PRO:HD3	2.19	0.41
32:1a:406:G:H4'	35:1d:5:ILE:HD11	2.02	0.41
32:1a:486:U:H2'	32:1a:487:A:C8	2.54	0.41
32:1a:648:A:H2'	32:1a:649:G:C8	2.55	0.41
32:1a:693:G:C4	53:1y:96:ARG:HD2	2.54	0.41
32:1a:1121:U:C2'	32:1a:1122:U:H5'	2.51	0.41
32:1a:1252:A:H2'	32:1a:1253:G:O4'	2.20	0.41
32:1a:1302:U:H5	44:1m:17:VAL:HG21	1.85	0.41
33:1b:15:VAL:HG11	33:1b:213:LEU:HD13	2.01	0.41
36:1e:140:ARG:O	36:1e:143:ARG:NH2	2.53	0.41
42:1k:31:THR:HA	42:1k:42:TRP:HA	2.02	0.41
1:2A:1461:G:H2'	1:2A:1462:C:C6	2.55	0.41
1:2A:2059:A:OP2	60:2A:3953:HOH:O	2.22	0.41
1:2A:2107:C:H42	1:2A:2182:G:H1	1.67	0.41
1:2A:2643:G:H2'	1:2A:2644:G:O4'	2.20	0.41
4:2E:49:LEU:N	4:2E:79:ARG:O	2.48	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2P:76:LYS:HE3	11:2P:76:LYS:HB2	1.93	0.41
14:2S:28:VAL:HG11	14:2S:98:VAL:HG13	2.02	0.41
21:2Z:153:SER:C	21:2Z:155:LEU:H	2.28	0.41
30:28:50:LEU:HA	30:28:50:LEU:HD23	1.76	0.41
32:2a:253:U:H2'	32:2a:254:G:C8	2.54	0.41
32:2a:261:U:OP2	51:2t:79:ARG:NH2	2.53	0.41
32:2a:1054:C:H5	53:2y:45:PRO:HB2	1.86	0.41
32:2a:1071:C:H2'	32:2a:1072:G:C8	2.55	0.41
32:2a:1326:C:H5"	52:2u:18:TYR:O	2.20	0.41
34:2c:152:ILE:CG1	34:2c:199:LYS:HB2	2.50	0.41
35:2d:173:TRP:CD1	35:2d:174:LEU:HG	2.55	0.41
37:2f:30:LEU:HB3	37:2f:35:ALA:HB3	2.02	0.41
44:2m:3:ARG:N	44:2m:8:GLU:HA	2.36	0.41
45:2n:6:LEU:HD23	45:2n:23:ARG:NH2	2.36	0.41
46:2o:7:GLU:O	46:2o:11:VAL:HG23	2.19	0.41
46:2o:82:ILE:HB	46:2o:87:ILE:HB	2.02	0.41
1:1A:185:U:H2'	1:1A:186:G:H8	1.85	0.41
1:1A:272(B):G:N7	1:1A:404:C:O2'	2.51	0.41
1:1A:717:G:H2'	1:1A:718:A:O4'	2.20	0.41
1:1A:1176:G:H4'	1:1A:1177:A:OP1	2.20	0.41
1:1A:1359:A:N1	1:1A:1372:U:O4	2.53	0.41
1:1A:2359:C:H2'	1:1A:2360:A:O4'	2.21	0.41
2:1B:41:U:H5	6:1G:70:VAL:N	2.19	0.41
32:1a:222:U:H2'	32:1a:223:U:C6	2.55	0.41
32:1a:344:A:H4'	32:1a:345:C:OP2	2.20	0.41
32:1a:507:C:OP2	32:1a:508:C:O2'	2.25	0.41
32:1a:539:A:H2'	32:1a:540:G:C8	2.55	0.41
32:1a:731:G:H5'	32:1a:766:A:H4'	2.02	0.41
32:1a:1074:G:O2'	32:1a:1101:A:N1	2.41	0.41
32:1a:1363(A):A:H4'	32:1a:1364:U:H2'	2.01	0.41
33:1b:121:LEU:HA	33:1b:121:LEU:HD13	1.81	0.41
34:1c:22:TRP:CH2	45:1n:54:PRO:HG2	2.56	0.41
35:1d:139:ARG:HE	35:1d:139:ARG:HB2	1.73	0.41
1:2A:479:A:H4'	1:2A:480:A:OP1	2.19	0.41
1:2A:1221(A):C:C2	1:2A:1229:G:C2	3.08	0.41
1:2A:1471:A:OP2	1:2A:1519:G:N1	2.47	0.41
1:2A:1652:A:N6	13:2R:11:ASN:OD1	2.48	0.41
1:2A:1803:A:H4'	3:2D:259:THR:HG23	2.02	0.41
1:2A:2125:G:H22	1:2A:2172:U:H3'	1.85	0.41
1:2A:2134:A:N6	1:2A:2156:G:O2'	2.52	0.41
4:2E:150:VAL:HG13	4:2E:154:LYS:HD2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:111:LEU:HB2	6:2G:112:PRO:HD3	2.02	0.41
8:2I:9:LEU:O	8:2I:10:GLU:C	2.62	0.41
12:2Q:63:LYS:HE3	12:2Q:65:PHE:CE1	2.54	0.41
16:2U:30:LYS:HD2	16:2U:30:LYS:N	2.36	0.41
20:2Y:45:VAL:O	20:2Y:62:GLU:HA	2.19	0.41
32:2a:389:A:C6	32:2a:390:C:H1'	2.55	0.41
32:2a:603:U:H2'	32:2a:604:G:C8	2.55	0.41
32:2a:947:G:O2'	32:2a:1306:A:H4'	2.20	0.41
32:2a:1131:G:H2'	32:2a:1132:C:C6	2.55	0.41
32:2a:1486:G:H2'	32:2a:1487:G:O4'	2.21	0.41
32:2a:1521:G:H2'	32:2a:1522:U:H6	1.85	0.41
36:2e:91:LEU:HD11	36:2e:110:LEU:HD11	2.02	0.41
39:2h:20:TYR:HA	39:2h:65:TYR:CZ	2.55	0.41
42:2k:65:ALA:HB3	42:2k:97:ALA:HB3	2.02	0.41
50:2s:20:LEU:HD23	50:2s:23:ASN:HB2	2.01	0.41
53:2y:67:HIS:HB3	53:2y:73:ALA:HB2	2.02	0.41
1:1A:272(B):G:H2'	1:1A:272(C):G:C8	2.56	0.41
1:1A:831:G:N2	11:1P:53:GLY:O	2.54	0.41
1:1A:962:G:H2'	1:1A:963:U:C6	2.55	0.41
1:1A:971:C:H2'	1:1A:972:G:O4'	2.20	0.41
1:1A:1063:G:H1	1:1A:1075:C:N4	2.18	0.41
1:1A:1067:A:N3	1:1A:1067:A:H2'	2.36	0.41
1:1A:1266:G:O6	18:1W:13:SER:OG	2.33	0.41
1:1A:1482:G:H1	1:1A:1506:C:H42	1.68	0.41
1:1A:1878:G:H2'	1:1A:1879:C:C6	2.55	0.41
2:1B:48:A:H2'	2:1B:49:C:C6	2.55	0.41
4:1E:119:ARG:NH1	4:1E:159:HIS:O	2.52	0.41
12:1Q:109:VAL:N	60:1Q:307:HOH:O	2.50	0.41
14:1S:31:SER:O	14:1S:97:ARG:NH2	2.46	0.41
32:1a:439:A:N1	32:1a:496:A:H1'	2.36	0.41
32:1a:456:C:H2'	32:1a:457:C:C6	2.55	0.41
32:1a:692:U:O2'	32:1a:694:A:N7	2.44	0.41
32:1a:1183:A:H3'	32:1a:1184:G:C5'	2.50	0.41
32:1a:1264:C:H2'	32:1a:1265:G:C8	2.55	0.41
32:1a:1441:G:H5"	32:1a:1442:G:H5'	2.01	0.41
33:1b:155:LEU:HD11	33:1b:159:PRO:HG3	2.02	0.41
35:1d:110:PHE:CE2	35:1d:148:VAL:HG23	2.55	0.41
36:1e:139:LEU:HA	36:1e:142:LEU:HD12	2.02	0.41
39:1h:6:ILE:HB	39:1h:85:ARG:NH1	2.35	0.41
1:2A:17:G:H2'	1:2A:18:C:C6	2.56	0.41
1:2A:572:A:OP2	17:2V:78:LYS:NZ	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1987:G:H2'	1:2A:1988:C:H6	1.85	0.41
1:2A:2153:G:H2'	1:2A:2154:G:C8	2.56	0.41
1:2A:2379:G:H2'	1:2A:2380:C:C6	2.56	0.41
1:2A:2711:A:H5"	1:2A:2712:U:H5"	2.02	0.41
1:2A:2839:G:C5'	13:2R:46:GLY:HA2	2.50	0.41
3:2D:168:ARG:HA	3:2D:173:VAL:HA	2.03	0.41
9:2N:28:THR:HG22	9:2N:29:LYS:N	2.35	0.41
11:2P:121:LYS:O	11:2P:123:LEU:N	2.53	0.41
13:2R:26:LYS:HE2	13:2R:70:LEU:O	2.20	0.41
20:2Y:102:CYS:SG	20:2Y:103:GLY:N	2.93	0.41
25:23:6:VAL:HG21	25:23:37:LEU:HD12	2.03	0.41
32:2a:757:U:H2'	32:2a:758:G:O4'	2.21	0.41
32:2a:1318:A:H5"	50:2s:3:ARG:NH2	2.35	0.41
35:2d:50:ARG:HA	35:2d:51:PRO:HD3	1.92	0.41
46:2o:33:THR:HA	46:2o:36:ILE:HD12	2.02	0.41
46:2o:39:LEU:HD12	46:2o:59:MET:HE1	2.02	0.41
53:2y:29:LYS:HB3	53:2y:30:TRP:CE3	2.55	0.41
1:1A:687:C:H2'	1:1A:688:U:O4'	2.20	0.41
1:1A:1022:G:C5	1:1A:1140:C:C4	3.09	0.41
1:1A:1062:G:H1'	1:1A:1088:A:H62	1.85	0.41
1:1A:2512:C:H2'	1:1A:2513:G:O4'	2.20	0.41
1:1A:2784:C:H1'	4:1E:37:ARG:HH12	1.85	0.41
8:1I:72:LEU:C	8:1I:74:ASN:N	2.79	0.41
32:1a:115:G:H1	32:1a:312:C:H42	1.69	0.41
32:1a:162:A:C8	32:1a:163:C:H1'	2.56	0.41
32:1a:837:G:N2	32:1a:850:U:O2	2.53	0.41
32:1a:1026:G:H5'	32:1a:1027:C:C5	2.50	0.41
34:1c:157:ILE:C	34:1c:159:GLY:H	2.28	0.41
37:1f:69:GLU:O	37:1f:72:VAL:HG12	2.20	0.41
51:1t:63:ILE:HG22	51:1t:77:ALA:HB1	2.02	0.41
1:2A:263:C:H2'	1:2A:264:C:O4'	2.20	0.41
1:2A:521:G:H2'	1:2A:522:G:H8	1.86	0.41
1:2A:710:G:H2'	1:2A:711:G:C8	2.56	0.41
1:2A:1130:U:O2	4:2E:149:ARG:NH2	2.53	0.41
1:2A:1263:U:C4	1:2A:1264:G:C6	3.09	0.41
1:2A:2136:C:H42	1:2A:2156:G:N2	2.18	0.41
1:2A:2149:G:N1	1:2A:2150:U:O2	2.53	0.41
1:2A:2240:C:OP2	60:2A:3947:HOH:O	2.22	0.41
1:2A:2287:A:O2'	1:2A:2289:G:N7	2.37	0.41
1:2A:2484:G:C2	1:2A:2485:G:C8	3.08	0.41
1:2A:2785:C:H2'	1:2A:2786:U:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:134:ILE:HA	4:2E:137:HIS:CD2	2.55	0.41
6:2G:129:GLY:O	6:2G:161:THR:HB	2.20	0.41
7:2H:137:ASP:HB3	7:2H:140:LYS:HB3	2.02	0.41
8:2I:75:LEU:HD11	8:2I:105:HIS:CE1	2.56	0.41
10:2O:107:ARG:HE	10:2O:107:ARG:HB3	1.51	0.41
12:2Q:17:LEU:HA	12:2Q:98:LYS:HE2	2.03	0.41
12:2Q:75:THR:HG21	12:2Q:87:LYS:HE3	2.03	0.41
17:2V:16:PRO:HD3	17:2V:99:ILE:HD11	2.01	0.41
32:2a:127:G:O2'	48:2q:2:PRO:O	2.38	0.41
32:2a:359:U:H2'	32:2a:360:A:C8	2.55	0.41
32:2a:652:U:O4	32:2a:752:G:O2'	2.32	0.41
32:2a:673:G:H5"	37:2f:87:ARG:CZ	2.50	0.41
32:2a:1126:U:H3	41:2j:40:LEU:HD11	1.85	0.41
32:2a:1147:C:C4	32:2a:1148:U:C4	3.09	0.41
32:2a:1259:C:C4	32:2a:1260:C:H1'	2.56	0.41
33:2b:16:HIS:O	33:2b:18:GLY:N	2.52	0.41
33:2b:87:ARG:CZ	33:2b:233:SER:HB3	2.50	0.41
33:2b:97:TRP:CZ2	33:2b:173:ALA:HA	2.56	0.41
35:2d:79:PHE:HE1	35:2d:204:ILE:HD13	1.85	0.41
35:2d:93:PHE:O	35:2d:97:LEU:HB2	2.20	0.41
38:2g:77:SER:OG	38:2g:86:GLN:NE2	2.46	0.41
1:1A:174:C:H2'	1:1A:175:G:O4'	2.20	0.41
1:1A:479:A:H4'	1:1A:480:A:OP1	2.21	0.41
1:1A:572:A:H5"	1:1A:573:G:OP2	2.20	0.41
1:1A:803:U:O2'	60:1A:4266:HOH:O	2.21	0.41
1:1A:1045:A:O2'	1:1A:1047:G:C4	2.72	0.41
1:1A:1908:C:H2'	1:1A:1909:C:C6	2.56	0.41
6:1G:96:ARG:H	6:1G:99:MET:HE2	1.84	0.41
32:1a:142:G:H2'	32:1a:143:A:C8	2.54	0.41
32:1a:1425:U:H2'	32:1a:1426:C:C6	2.56	0.41
39:1h:121:ASP:N	39:1h:121:ASP:OD1	2.53	0.41
40:1i:15:ALA:HB2	40:1i:65:VAL:HG23	2.03	0.41
43:1l:53:ARG:HB2	43:1l:93:LEU:HD11	2.02	0.41
1:2A:245:G:O6	30:28:8:LYS:NZ	2.36	0.41
1:2A:253:C:OP2	30:28:5:LYS:NZ	2.41	0.41
1:2A:271(K):U:O2	8:2I:50:ARG:HD3	2.20	0.41
1:2A:856:C:O4'	22:20:27:GLU:HB3	2.21	0.41
1:2A:971:C:H2'	1:2A:972:G:O4'	2.20	0.41
1:2A:1153:C:H2'	1:2A:1154:G:O4'	2.20	0.41
1:2A:1689:A:H2'	1:2A:1690:A:H8	1.86	0.41
1:2A:1824:G:N3	3:2D:254:THR:OG1	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2051:A:O2'	60:2A:3950:HOH:O	2.22	0.41
2:2B:95:C:H2'	2:2B:96:U:H6	1.86	0.41
3:2D:123:ALA:HB3	3:2D:131:LEU:HG	2.02	0.41
4:2E:167:VAL:CG1	4:2E:189:PRO:HD3	2.50	0.41
6:2G:78:SER:OG	6:2G:79:ASN:N	2.52	0.41
8:2I:128:LEU:HD23	8:2I:128:LEU:HA	1.88	0.41
20:2Y:6:HIS:CD2	20:2Y:7:VAL:HG23	2.56	0.41
28:26:11:LEU:HB2	28:26:21:TYR:HB2	2.03	0.41
29:27:13:ALA:HB2	29:27:46:VAL:HG11	2.02	0.41
32:2a:353:A:H5'	32:2a:353:A:H8	1.85	0.41
32:2a:709:G:H2'	32:2a:710:G:H8	1.85	0.41
32:2a:838:G:H3'	32:2a:840:C:H41	1.84	0.41
32:2a:1075:C:H5"	33:2b:179:LYS:HE2	2.03	0.41
33:2b:77:ALA:O	33:2b:81:VAL:HG12	2.21	0.41
43:2l:47:LYS:HB3	43:2l:47:LYS:HE2	1.82	0.41
1:1A:24:G:O2'	18:1W:77:ASP:HB3	2.20	0.41
1:1A:271(E):U:H2'	1:1A:271(F):C:C6	2.56	0.41
1:1A:315:G:H2'	1:1A:316:C:C6	2.55	0.41
1:1A:481:G:C4	1:1A:507:A:C2	3.09	0.41
1:1A:1110:G:OP2	1:1A:1110:G:H8	2.04	0.41
1:1A:1199:U:OP1	60:1A:4273:HOH:O	2.22	0.41
1:1A:1486:A:H2'	1:1A:1487:G:C8	2.55	0.41
1:1A:1773:A:OP1	60:1A:4267:HOH:O	2.21	0.41
1:1A:1802:A:N1	1:1A:1822:G:H1'	2.35	0.41
1:1A:2361:A:OP2	30:18:26:LYS:HE3	2.20	0.41
1:1A:2439:A:H5'	1:1A:2439:A:C8	2.55	0.41
1:1A:2543:G:H2'	1:1A:2544:G:O4'	2.19	0.41
2:1B:24:G:H3'	60:1B:306:HOH:O	2.20	0.41
4:1E:37:ARG:O	4:1E:45:THR:HA	2.20	0.41
4:1E:181:LEU:HA	4:1E:181:LEU:HD12	1.76	0.41
5:1F:110:LEU:HD22	5:1F:202:PHE:CE1	2.56	0.41
6:1G:7:LEU:HD23	6:1G:7:LEU:HA	1.89	0.41
32:1a:346:G:N2	57:1a:1870:MPD:O4	2.47	0.41
32:1a:446:G:H2'	32:1a:447:G:O4'	2.21	0.41
32:1a:815:A:N7	32:1a:1509:C:O2'	2.50	0.41
32:1a:1126:U:O2	32:1a:1280:A:H2'	2.21	0.41
32:1a:1136:U:H5"	32:1a:1137:C:O2	2.21	0.41
32:1a:1343:G:H2'	32:1a:1344:C:C6	2.55	0.41
32:1a:1529:G:H4'	32:1a:1530:G:OP2	2.20	0.41
33:1b:9:GLU:OE2	33:1b:217:ARG:NH1	2.54	0.41
33:1b:217:ARG:HA	33:1b:217:ARG:HD3	1.76	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:223:ILE:H	33:1b:223:ILE:HG13	1.69	0.41
35:1d:157:LEU:HD23	35:1d:161:ASN:HD21	1.84	0.41
41:1j:57:LYS:O	41:1j:60:ARG:NE	2.42	0.41
53:1y:3:MET:HB3	53:1y:3:MET:HE3	1.76	0.41
1:2A:218:A:C2	1:2A:235:U:H4'	2.56	0.41
1:2A:1431:U:H2'	1:2A:1432:C:H6	1.84	0.41
1:2A:2103:C:H2'	1:2A:2104:G:H5"	2.02	0.41
1:2A:2185:C:C6	1:2A:2185:C:C3'	3.03	0.41
6:2G:117:PHE:CE2	6:2G:179:PRO:HG2	2.56	0.41
7:2H:98:LEU:HD13	7:2H:98:LEU:HA	1.93	0.41
12:2Q:127:ILE:HD13	12:2Q:127:ILE:H	1.85	0.41
26:24:59:PHE:HA	26:24:61:ARG:N	2.35	0.41
32:2a:401:C:H1'	32:2a:622:A:H1'	2.03	0.41
32:2a:1114:C:O2'	45:2n:60:SER:O	2.21	0.41
33:2b:167:PRO:HG2	33:2b:192:SER:HB3	2.02	0.41
42:2k:32:ILE:HD11	42:2k:68:ALA:HB1	2.02	0.41
43:2l:86:ARG:HH11	43:2l:87:GLY:HA2	1.86	0.41
44:2m:54:VAL:HA	44:2m:57:ARG:HB3	2.02	0.41
45:2n:24:CYS:SG	45:2n:39:LEU:HA	2.61	0.41
46:2o:64:ARG:O	46:2o:68:ARG:HB2	2.21	0.41
1:1A:1144:G:C6	1:1A:1145:C:C4	3.09	0.41
1:1A:1854:A:OP2	60:1A:4262:HOH:O	2.21	0.41
1:1A:2126:A:O4'	1:1A:2162:G:N2	2.54	0.41
1:1A:2503:2MA:H8	55:1A:4011:A1CQ8:OAM	2.21	0.41
1:1A:2689:U:H4'	1:1A:2690:C:H5'	2.03	0.41
2:1B:24:G:N7	2:1B:56:G:H2'	2.35	0.41
6:1G:28:VAL:HG23	6:1G:29:TRP:CD1	2.55	0.41
9:1N:23:LEU:HD12	9:1N:99:LEU:HD23	2.03	0.41
17:1V:43:GLU:OE1	17:1V:43:GLU:N	2.54	0.41
26:14:15:ILE:HB	26:14:32:TYR:HD1	1.85	0.41
29:17:12:ARG:NH2	29:17:44:PRO:HB3	2.36	0.41
30:18:15:LYS:HB3	57:18:102:MPD:H31	2.02	0.41
32:1a:107:G:N7	51:1t:15:ARG:NH2	2.68	0.41
32:1a:407:G:N2	32:1a:436:C:C2	2.89	0.41
32:1a:457:C:H2'	32:1a:458:C:C6	2.56	0.41
32:1a:1447:A:H5"	32:1a:1452:C:OP2	2.21	0.41
1:2A:21:A:H2'	1:2A:22:C:O4'	2.20	0.41
1:2A:196:A:N3	1:2A:196:A:H2'	2.35	0.41
1:2A:271(T):C:H2'	1:2A:271(U):G:H8	1.86	0.41
1:2A:321:G:OP1	5:2F:135:LYS:NZ	2.45	0.41
1:2A:959:A:C6	1:2A:960:A:C6	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1439:A:N6	1:2A:1552:G:O2'	2.54	0.41
1:2A:1499:C:H2'	1:2A:1500:G:H8	1.86	0.41
1:2A:1866:C:H2'	1:2A:1876:A:O4'	2.21	0.41
1:2A:2115:G:C2	1:2A:2117:A:N7	2.89	0.41
1:2A:2187:G:N7	1:2A:2188:C:C4	2.89	0.41
1:2A:2637:U:C4	1:2A:2638:G:C6	3.09	0.41
1:2A:2684:U:H1'	10:2O:70:LYS:HD2	2.03	0.41
2:2B:75:G:H22	21:2Z:73:GLN:NE2	2.18	0.41
2:2B:80:U:H2'	2:2B:81:G:C8	2.56	0.41
4:2E:14:ILE:HB	15:2T:14:TYR:CE1	2.55	0.41
6:2G:125:PHE:HB3	6:2G:166:ASP:OD1	2.20	0.41
7:2H:149:ARG:HG3	7:2H:162:ILE:O	2.20	0.41
19:2X:27:THR:OG1	19:2X:80:ILE:HG12	2.20	0.41
20:2Y:88:LYS:HA	20:2Y:88:LYS:HD2	1.86	0.41
26:24:53:GLU:H	26:24:53:GLU:CD	2.28	0.41
30:28:63:PRO:HG2	30:28:64:TYR:CE2	2.56	0.41
32:2a:383:A:OP1	32:2a:454:C:O2'	2.28	0.41
32:2a:551:U:H2'	32:2a:552:U:C6	2.55	0.41
32:2a:1063:C:H3'	32:2a:1064:G:H2'	2.03	0.41
32:2a:1084:G:C8	32:2a:1085:U:H2'	2.56	0.41
32:2a:1311:G:C2	32:2a:1312:G:H1'	2.56	0.41
33:2b:70:PHE:CD1	33:2b:163:PHE:HB3	2.56	0.41
34:2c:150:LYS:N	34:2c:201:TYR:O	2.49	0.41
40:2i:90:PRO:C	40:2i:92:TYR:H	2.28	0.41
50:2s:31:ILE:HD12	50:2s:49:ILE:HD11	2.03	0.41
53:2y:80:LYS:O	53:2y:84:GLN:N	2.44	0.41
1:1A:65:C:H2'	1:1A:66:C:H6	1.85	0.41
1:1A:314:A:H2'	1:1A:315:G:H8	1.85	0.41
1:1A:443:A:N7	5:1F:45:ARG:HG2	2.36	0.41
1:1A:446:G:OP1	16:1U:3:ARG:NH1	2.53	0.41
1:1A:531:C:OP1	1:1A:561:G:N1	2.54	0.41
1:1A:684:G:H2'	60:1A:4460:HOH:O	2.21	0.41
1:1A:978:G:C2	1:1A:986:C:C2	3.09	0.41
1:1A:1243:G:O2'	11:1P:7:ARG:NH2	2.53	0.41
1:1A:1509(A):A:H2'	1:1A:1509(B):A:C8	2.56	0.41
1:1A:1713:U:H2'	1:1A:1714:G:H8	1.84	0.41
1:1A:1863:G:H2'	1:1A:1864:U:O4'	2.21	0.41
1:1A:2424:C:H5"	60:1A:6223:HOH:O	2.20	0.41
1:1A:2495:G:H5"	12:1Q:82:ARG:HG2	2.02	0.41
1:1A:2602:A:H4'	1:1A:2603:G:OP1	2.21	0.41
1:1A:2788:C:O2'	1:1A:2809:A:N3	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:181:LEU:HD12	5:1F:181:LEU:HA	1.73	0.41
6:1G:163:ALA:HB1	6:1G:168:GLU:HB2	2.03	0.41
8:1I:75:LEU:HD13	8:1I:105:HIS:CE1	2.56	0.41
10:1O:2:ILE:HB	10:1O:33:ALA:HB3	2.02	0.41
10:1O:9:GLU:O	10:1O:83:ALA:HA	2.21	0.41
11:1P:68:GLN:HG3	60:1P:311:HOH:O	2.21	0.41
13:1R:24:GLN:NE2	13:1R:44:LEU:HG	2.36	0.41
13:1R:104:ARG:HD2	13:1R:107:ASP:OD1	2.20	0.41
14:1S:58:LEU:HA	14:1S:58:LEU:HD23	1.61	0.41
14:1S:87:PHE:HB2	14:1S:112:PHE:CD1	2.56	0.41
19:1X:12:VAL:HG21	19:1X:27:THR:HG22	2.03	0.41
19:1X:53:LYS:HB3	19:1X:82:GLN:HB3	2.03	0.41
24:12:60:LEU:HD23	24:12:60:LEU:HA	1.92	0.41
32:1a:408:A:H2'	32:1a:409:G:C8	2.56	0.41
32:1a:682:G:H2'	32:1a:683:G:O4'	2.21	0.41
32:1a:687:A:N3	32:1a:688:G:H1'	2.36	0.41
32:1a:933:G:OP2	38:1g:3:ARG:HB2	2.21	0.41
32:1a:1028:C:H2'	32:1a:1029:C:C4'	2.49	0.41
32:1a:1096:C:H2'	32:1a:1097:C:C6	2.56	0.41
32:1a:1159:U:C2	32:1a:1182:G:C2	3.09	0.41
32:1a:1368:G:OP1	40:1i:111:ARG:NH2	2.48	0.41
32:1a:1516:G:H2'	32:1a:1518:MA6:OP2	2.21	0.41
60:1a:2278:HOH:O	48:1q:4:LYS:HB2	2.21	0.41
33:1b:77:ALA:HB2	33:1b:211:ILE:HD13	2.03	0.41
33:1b:106:LYS:HE2	33:1b:106:LYS:HB2	1.93	0.41
33:1b:190:THR:H	33:1b:190:THR:HG23	1.66	0.41
34:1c:22:TRP:CZ3	34:1c:24:ALA:HB2	2.56	0.41
35:1d:160:GLN:HG2	35:1d:160:GLN:H	1.66	0.41
46:1o:40:SER:O	46:1o:44:LYS:HG3	2.20	0.41
47:1p:67:THR:H	47:1p:70:ALA:HB3	1.85	0.41
53:1y:76:GLU:HA	53:1y:79:ASN:HD22	1.86	0.41
1:2A:289:A:H2'	1:2A:290:G:C8	2.56	0.41
1:2A:647:G:H8	1:2A:647:G:O5'	2.04	0.41
1:2A:868:U:C4	1:2A:869:G:N7	2.89	0.41
1:2A:1091:G:O6	1:2A:1101:U:N3	2.54	0.41
1:2A:1465:G:O2'	1:2A:1545:A:N1	2.52	0.41
1:2A:1813:G:H1'	3:2D:50:THR:OG1	2.20	0.41
1:2A:1936:A:OP1	1:2A:1937:A:H5'	2.21	0.41
1:2A:1999:C:H5"	1:2A:2723:C:O2'	2.20	0.41
1:2A:2601:C:OP2	60:2A:3948:HOH:O	2.22	0.41
1:2A:2708:G:H1'	13:2R:71:GLN:HE22	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2D:94:LEU:HD23	3:2D:94:LEU:HA	1.93	0.41
3:2D:221:VAL:O	3:2D:226:MET:HE3	2.21	0.41
5:2F:107:LYS:HE3	5:2F:107:LYS:HB2	1.85	0.41
6:2G:108:ASN:OD1	6:2G:108:ASN:N	2.54	0.41
7:2H:9:ILE:HG22	7:2H:11:VAL:HG23	2.03	0.41
12:2Q:79:LEU:HD23	12:2Q:79:LEU:HA	1.87	0.41
13:2R:95:THR:HG22	13:2R:116:LEU:HA	2.03	0.41
16:2U:34:LYS:NZ	16:2U:37:GLU:OE1	2.52	0.41
21:2Z:125:LEU:HB3	21:2Z:165:VAL:CG1	2.50	0.41
23:21:83:GLU:HA	23:21:84:GLY:HA2	1.56	0.41
32:2a:5:U:H4'	32:2a:6:G:C4	2.55	0.41
32:2a:46:G:O2'	32:2a:365:U:H1'	2.21	0.41
32:2a:102:G:OP1	51:2t:10:LEU:HD11	2.21	0.41
32:2a:323:U:H5'	51:2t:23:ARG:HB2	2.02	0.41
32:2a:404:U:H2'	32:2a:405:U:C6	2.56	0.41
32:2a:652:U:H1'	32:2a:653:A:H2	1.85	0.41
32:2a:793:U:O2	32:2a:1516:G:H4'	2.20	0.41
32:2a:1072:G:H2'	32:2a:1073:U:C6	2.56	0.41
32:2a:1292:U:C2	32:2a:1293:G:C8	3.09	0.41
32:2a:1466:C:H2'	32:2a:1467:G:O4'	2.21	0.41
35:2d:57:ARG:NH2	36:2e:107:ARG:HD3	2.36	0.41
35:2d:76:ARG:HD2	35:2d:76:ARG:HA	1.82	0.41
36:2e:6:PHE:HB2	36:2e:34:VAL:HG22	2.03	0.41
36:2e:78:HIS:CD2	36:2e:142:LEU:HD23	2.56	0.41
36:2e:110:LEU:HD23	36:2e:110:LEU:HA	1.90	0.41
38:2g:149:ARG:NE	42:2k:59:TYR:OH	2.53	0.41
46:2o:45:VAL:HB	46:2o:46:HIS:CD2	2.56	0.41
1:1A:518:G:H4'	18:1W:18:ARG:NH1	2.35	0.41
1:1A:661:C:H4'	11:1P:13:ASN:OD1	2.20	0.41
1:1A:784:A:C5	3:1D:229:VAL:HG21	2.55	0.41
1:1A:1022:G:N7	9:1N:66:LYS:HE2	2.36	0.41
1:1A:1175:U:HO2'	1:1A:1176:G:P	2.43	0.41
1:1A:1570:A:H2'	1:1A:1571:A:C8	2.55	0.41
1:1A:2573:C:OP1	1:1A:2574:G:H5"	2.20	0.41
2:1B:90:A:N7	2:1B:91:C:H1'	2.36	0.41
7:1H:159:GLU:HG2	7:1H:169:VAL:HG11	2.02	0.41
12:1Q:8:LYS:HA	21:1Z:197:ILE:HB	2.03	0.41
14:1S:14:VAL:O	14:1S:18:ILE:HG12	2.20	0.41
32:1a:11:G:H2'	32:1a:12:U:C6	2.56	0.41
32:1a:254:G:H21	48:1q:16:GLN:NE2	2.18	0.41
32:1a:1182:G:C4'	32:1a:1183:A:H5'	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1220:G:N2	50:1s:54:GLY:O	2.48	0.41
32:1a:1228:C:P	44:1m:108:ARG:HH22	2.44	0.41
33:1b:162:ILE:O	33:1b:162:ILE:HG13	2.21	0.41
34:1c:120:VAL:HB	34:1c:198:VAL:HG11	2.03	0.41
35:1d:61:LYS:HD2	35:1d:207:TYR:OH	2.21	0.41
35:1d:194:LEU:HD22	35:1d:194:LEU:HA	1.91	0.41
39:1h:104:ARG:HD3	39:1h:104:ARG:HA	1.80	0.41
40:1i:37:PHE:CE1	40:1i:70:LYS:HD3	2.56	0.41
50:1s:55:LYS:HG2	50:1s:56:GLN:HG3	2.03	0.41
52:1u:18:TYR:CE1	52:1u:24:ARG:HB3	2.56	0.41
53:1y:62:VAL:O	53:1y:84:GLN:NE2	2.47	0.41
1:2A:483:A:O2'	20:2Y:59:GLY:N	2.54	0.41
1:2A:705:A:H1'	3:2D:9:TYR:CE2	2.56	0.41
1:2A:830:G:H4'	1:2A:831:G:OP2	2.20	0.41
1:2A:947:G:N3	1:2A:984:A:H2	2.19	0.41
1:2A:1022:G:C5	1:2A:1140:C:C4	3.08	0.41
1:2A:1065:U:H4'	1:2A:1066:U:H5'	2.02	0.41
1:2A:1108:U:H2'	1:2A:1109:C:C6	2.56	0.41
1:2A:1252:G:C2	1:2A:1253:A:C2	3.08	0.41
1:2A:1651:G:C2	1:2A:2007:C:C2	3.09	0.41
1:2A:1707:G:H2'	1:2A:1708:C:C6	2.56	0.41
1:2A:1810:A:H2'	1:2A:1811:G:O4'	2.21	0.41
1:2A:2019:A:N7	27:25:9:LYS:HE2	2.35	0.41
1:2A:2785:C:H2'	1:2A:2786:U:C6	2.56	0.41
3:2D:119:ALA:HA	3:2D:130:ALA:O	2.21	0.41
5:2F:18:ARG:C	5:2F:19:GLU:HG2	2.46	0.41
6:2G:19:LEU:HG	6:2G:175:LEU:HD22	2.02	0.41
6:2G:48:GLU:HA	6:2G:51:ARG:HE	1.87	0.41
15:2T:11:GLU:OE1	15:2T:57:PHE:HB3	2.21	0.41
21:2Z:25:PRO:O	21:2Z:85:HIS:HA	2.21	0.41
26:24:45:GLY:C	26:24:47:GLN:H	2.29	0.41
26:24:59:PHE:CE2	50:2s:67:VAL:HG21	2.56	0.41
32:2a:336:C:H2'	32:2a:337:C:H6	1.84	0.41
32:2a:814:A:N7	32:2a:816:A:C4	2.89	0.41
32:2a:1027:C:H2'	32:2a:1028:C:C2	2.56	0.41
32:2a:1347:G:C8	40:2i:107:ARG:HD2	2.56	0.41
33:2b:42:ILE:HD13	33:2b:203:GLY:HA2	2.03	0.41
33:2b:230:VAL:HG22	33:2b:231:GLU:H	1.85	0.41
41:2j:80:LYS:O	41:2j:84:GLN:HB3	2.20	0.41
44:2m:15:VAL:HG13	44:2m:43:THR:O	2.21	0.41
44:2m:16:ASP:OD2	44:2m:27:LYS:NZ	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:2o:4:THR:HG23	46:2o:6:GLU:N	2.35	0.41
1:1A:7:G:H2'	1:1A:8:A:O4'	2.21	0.40
1:1A:32:C:N4	1:1A:447:A:OP2	2.54	0.40
1:1A:214:G:O2'	1:1A:216:A:O2'	2.29	0.40
1:1A:271(G):C:O2'	1:1A:271(H):G:H5'	2.21	0.40
1:1A:1093:G:O2'	1:1A:1098:A:N6	2.48	0.40
1:1A:1474:C:H2'	1:1A:1475:G:C8	2.55	0.40
1:1A:1779:U:OP2	1:1A:1784:A:N6	2.43	0.40
1:1A:2492:U:OP1	60:1A:4271:HOH:O	2.22	0.40
1:1A:2852:G:H2'	1:1A:2853:C:O4'	2.21	0.40
2:1B:89:G:H8	2:1B:89:G:OP2	2.04	0.40
4:1E:34:VAL:HG21	4:1E:78:LEU:HD12	2.02	0.40
4:1E:143:ASN:HD22	4:1E:147:PRO:HD3	1.85	0.40
18:1W:67:ASP:N	18:1W:67:ASP:OD1	2.54	0.40
32:1a:246:A:N1	32:1a:278:G:O2'	2.46	0.40
32:1a:527:G7M:O2'	32:1a:535:A:N1	2.50	0.40
32:1a:1132:C:H2'	32:1a:1133:G:C8	2.56	0.40
32:1a:1399:C:C2	32:1a:1401:G:C5	3.09	0.40
33:1b:174:VAL:O	33:1b:178:ARG:HB2	2.22	0.40
35:1d:128:VAL:HG12	35:1d:129:ASN:ND2	2.36	0.40
36:1e:61:TYR:HA	36:1e:64:ARG:HB2	2.02	0.40
40:1i:125:TYR:HE1	40:1i:127:LYS:HG3	1.86	0.40
53:1y:67:HIS:ND1	53:1y:72:THR:HB	2.35	0.40
1:2A:460:A:H2'	1:2A:461:C:O4'	2.21	0.40
1:2A:1670:C:O2	4:2E:129:HIS:NE2	2.48	0.40
1:2A:1815:A:C5	1:2A:1817:G:C6	3.09	0.40
1:2A:1815:A:OP2	60:2A:3954:HOH:O	2.22	0.40
1:2A:1837:C:OP1	32:2a:784:C:H4'	2.21	0.40
1:2A:2113:U:H3'	1:2A:2114:A:H8	1.86	0.40
1:2A:2141:G:H2'	1:2A:2142:C:O4'	2.22	0.40
1:2A:2319:G:C6	1:2A:2320:A:N6	2.89	0.40
1:2A:2420:C:OP1	30:28:34:TRP:HB3	2.21	0.40
1:2A:2872:G:O2'	1:2A:2873:A:H5'	2.21	0.40
7:2H:16:SER:OG	7:2H:27:LYS:HB2	2.20	0.40
8:2I:130:TYR:CE2	8:2I:132:PRO:HB3	2.56	0.40
11:2P:41:ARG:HD3	60:2P:308:HOH:O	2.21	0.40
12:2Q:6:ARG:HH21	21:2Z:197:ILE:HD13	1.86	0.40
12:2Q:31:ASP:HA	12:2Q:134:ARG:NH1	2.36	0.40
13:2R:65:LEU:O	13:2R:68:ARG:HG2	2.20	0.40
17:2V:12:TYR:CD1	17:2V:20:LEU:HD21	2.56	0.40
32:2a:8:A:N6	35:2d:205:GLU:O	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:113:G:O4'	32:2a:354:G:H4'	2.21	0.40
32:2a:1028:C:C1'	32:2a:1033:G:H22	2.33	0.40
32:2a:1225:A:H2'	32:2a:1226:C:C5	2.55	0.40
32:2a:1329:A:P	44:2m:28:ALA:HB3	2.61	0.40
32:2a:1419:G:C6	32:2a:1482:G:C2	3.09	0.40
33:2b:25:ASN:ND2	33:2b:193:ASP:HB2	2.36	0.40
34:2c:50:ALA:HB1	34:2c:70:VAL:HG21	2.03	0.40
35:2d:108:LEU:HD12	35:2d:108:LEU:HA	1.90	0.40
39:2h:103:VAL:HG21	39:2h:109:ILE:C	2.46	0.40
1:1A:102:G:OP1	24:12:7:ARG:NH2	2.49	0.40
1:1A:181:A:H5"	29:17:36:GLN:NE2	2.36	0.40
1:1A:271(X):G:C2	1:1A:271(Y):U:O4	2.73	0.40
1:1A:478:A:C6	1:1A:480:A:C6	3.09	0.40
1:1A:652(S):C:H2'	1:1A:652(T):C:O4'	2.21	0.40
1:1A:1423:G:H2'	1:1A:1424:G:C8	2.57	0.40
1:1A:1518:U:H2'	1:1A:1519:G:O4'	2.21	0.40
1:1A:1582:C:C2	1:1A:1583:A:C8	3.10	0.40
1:1A:2355:C:H2'	1:1A:2356:C:O4'	2.21	0.40
1:1A:2590:A:H5"	3:1D:239:ARG:HG3	2.02	0.40
9:1N:82:LEU:HD12	9:1N:82:LEU:HA	1.89	0.40
20:1Y:26:LYS:HB3	20:1Y:26:LYS:HE3	1.84	0.40
24:12:10:LEU:HD23	24:12:10:LEU:HA	1.94	0.40
32:1a:954:G:C2	32:1a:955:U:C2	3.09	0.40
32:1a:1140:C:H2'	32:1a:1141:C:H6	1.86	0.40
32:1a:1374:A:C4	32:1a:1375:A:C8	3.09	0.40
34:1c:183:ASP:HB2	34:1c:204:LEU:HD11	2.04	0.40
36:1e:84:PHE:HB3	36:1e:134:ALA:HB2	2.03	0.40
40:1i:34:ASN:N	40:1i:34:ASN:HD22	2.18	0.40
44:1m:27:LYS:HE3	44:1m:27:LYS:HB3	1.94	0.40
1:2A:873:G:N2	1:2A:905:U:C2	2.90	0.40
1:2A:1363:C:O2'	1:2A:1809:A:N3	2.52	0.40
1:2A:1399:C:H2'	1:2A:1400:G:H8	1.86	0.40
1:2A:1441:G:H2'	1:2A:1442:G:H8	1.86	0.40
1:2A:1814:G:OP1	3:2D:40:THR:OG1	2.39	0.40
1:2A:1996:C:H4'	1:2A:1997:G:OP1	2.20	0.40
1:2A:2548:G:H2'	1:2A:2549:G:O4'	2.21	0.40
3:2D:61:LEU:HA	3:2D:61:LEU:HD12	1.84	0.40
6:2G:102:PHE:O	6:2G:106:LEU:HB3	2.21	0.40
6:2G:137:GLU:HB2	6:2G:140:ILE:HG12	2.04	0.40
13:2R:56:LYS:NZ	13:2R:90:ARG:O	2.54	0.40
28:26:13:CYS:SG	28:26:47:THR:HG21	2.62	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:62:U:H2'	32:2a:63:C:C6	2.56	0.40
32:2a:567:G:H2'	32:2a:568:G:O4'	2.21	0.40
32:2a:1305:G:O2'	32:2a:1331:G:N2	2.55	0.40
32:2a:1510:U:H2'	32:2a:1511:G:C8	2.56	0.40
33:2b:163:PHE:HD1	33:2b:185:ILE:HB	1.86	0.40
33:2b:211:ILE:O	33:2b:215:LEU:HG	2.21	0.40
34:2c:71:ALA:C	34:2c:73:PRO:HD3	2.46	0.40
39:2h:112:LEU:HD11	39:2h:124:ALA:HB2	2.02	0.40
46:2o:81:LEU:HD11	46:2o:85:LEU:HD12	2.03	0.40
1:1A:27:G:H22	1:1A:512:G:H1'	1.85	0.40
1:1A:76:C:H5'	60:1A:4889:HOH:O	2.20	0.40
1:1A:264:C:O2'	1:1A:265:A:H2'	2.22	0.40
1:1A:517:C:OP2	27:15:13:LYS:HE3	2.20	0.40
1:1A:548:A:N6	17:1V:19:LYS:H	2.18	0.40
1:1A:645:C:H5'	1:1A:646:A:OP2	2.21	0.40
1:1A:1051:G:H2'	1:1A:1052:C:O4'	2.22	0.40
1:1A:2065:C:H2'	1:1A:2066:C:H6	1.85	0.40
1:1A:2304:G:O2'	6:1G:156:ASP:OD1	2.31	0.40
1:1A:2882:A:OP1	13:1R:96:ARG:HD3	2.21	0.40
1:1A:2893:G:H4'	1:1A:2894:G:O5'	2.22	0.40
6:1G:133:LEU:HD11	6:1G:157:ILE:HD12	2.04	0.40
8:1I:41:GLU:HG3	8:1I:45:LYS:HE3	2.03	0.40
8:1I:132:PRO:HD2	8:1I:136:VAL:O	2.22	0.40
12:1Q:51:ARG:HD3	12:1Q:66:ILE:HD11	2.03	0.40
21:1Z:45:ASP:OD1	21:1Z:49:ARG:NE	2.54	0.40
27:15:15:ARG:NH1	60:15:203:HOH:O	2.24	0.40
32:1a:409:G:H2'	32:1a:410:G:O4'	2.22	0.40
32:1a:1187:G:H5'	40:1i:113:LYS:HE3	2.03	0.40
32:1a:1530:G:H4'	32:1a:1530:G:OP1	2.21	0.40
39:1h:92:ARG:HD3	39:1h:92:ARG:HA	1.81	0.40
40:1i:26:VAL:HG13	40:1i:61:ALA:HB3	2.03	0.40
50:1s:52:TYR:HB2	50:1s:57:HIS:CE1	2.56	0.40
1:2A:557:U:H2'	1:2A:558:G:C8	2.57	0.40
1:2A:1075:C:O2	1:2A:1076:C:H2'	2.22	0.40
1:2A:1340:U:OP1	19:2X:16:LYS:NZ	2.42	0.40
1:2A:1341:U:C4	1:2A:1395:A:H2	2.40	0.40
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.35	0.40
1:2A:2130:U:H3'	1:2A:2130:U:C6	2.56	0.40
1:2A:2570:G:H2'	1:2A:2571:C:O4'	2.21	0.40
1:2A:2811:G:N2	1:2A:2891:G:H1'	2.37	0.40
1:2A:2872:G:C2	1:2A:2873:A:N6	2.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2D:71:ASP:CG	3:2D:103:ARG:HH22	2.30	0.40
4:2E:178:GLU:H	4:2E:178:GLU:CD	2.30	0.40
5:2F:11:VAL:HA	5:2F:125:LEU:O	2.21	0.40
8:2I:75:LEU:HG	8:2I:76:THR:N	2.36	0.40
17:2V:19:LYS:HE2	17:2V:19:LYS:HB2	1.92	0.40
20:2Y:21:LYS:HB2	20:2Y:21:LYS:HE3	1.69	0.40
26:24:14:ILE:HG23	26:24:31:ILE:HB	2.04	0.40
26:24:46:GLN:HB3	26:24:48:ARG:NH1	2.37	0.40
27:25:40:LYS:HD3	27:25:46:CYS:HB2	2.02	0.40
32:2a:19:C:H2'	32:2a:20:U:C6	2.56	0.40
32:2a:540:G:C6	32:2a:541:G:C5	3.10	0.40
32:2a:689:C:OP1	42:2k:27:ASN:ND2	2.48	0.40
32:2a:715:A:H2'	32:2a:716:A:C8	2.56	0.40
32:2a:1059:C:OP1	34:2c:199:LYS:NZ	2.53	0.40
32:2a:1184:G:H2'	32:2a:1185:G:C8	2.55	0.40
34:2c:7:PRO:HA	34:2c:10:PHE:HB3	2.02	0.40
40:2i:33:PHE:C	40:2i:33:PHE:CD2	2.99	0.40
42:2k:18:ARG:HH11	42:2k:18:ARG:HB3	1.85	0.40
42:2k:33:THR:HG22	42:2k:39:PRO:HA	2.02	0.40
49:2r:76:LEU:HD12	49:2r:76:LEU:HA	1.97	0.40
1:1A:271(G):C:C2'	1:1A:271(H):G:H5'	2.51	0.40
1:1A:574:C:N3	4:1E:145:LYS:NZ	2.67	0.40
1:1A:1745(A):C:H2'	1:1A:1746:G:O4'	2.21	0.40
1:1A:2051:A:H4'	4:1E:141:ILE:HG12	2.04	0.40
1:1A:2683:C:H2'	1:1A:2684:U:H6	1.86	0.40
1:1A:2889:C:H2'	1:1A:2891:G:O4'	2.21	0.40
18:1W:62:HIS:O	18:1W:64:MET:HG3	2.22	0.40
20:1Y:28:LYS:N	20:1Y:38:ILE:O	2.50	0.40
32:1a:452:A:H4'	47:1p:72:ARG:NH1	2.36	0.40
32:1a:558:G:H5"	32:1a:559:A:OP2	2.21	0.40
32:1a:625:G:H4'	47:1p:16:HIS:CD2	2.56	0.40
32:1a:881:G:H2'	32:1a:882:C:O4'	2.22	0.40
32:1a:892:A:O2'	32:1a:1415:G:H4'	2.22	0.40
32:1a:1175:G:H2'	32:1a:1176:A:C8	2.56	0.40
40:1i:16:ARG:HB2	40:1i:16:ARG:HH11	1.86	0.40
1:2A:1857:G:C6	1:2A:1858:G:C6	3.09	0.40
1:2A:2203:U:H2'	1:2A:2205:C:C6	2.57	0.40
1:2A:2250:G:O2'	1:2A:2496:C:OP1	2.31	0.40
1:2A:2836:U:C4	1:2A:2883:A:N6	2.89	0.40
4:2E:93:VAL:HG13	60:2E:409:HOH:O	2.20	0.40
8:2I:114:LEU:HD11	8:2I:128:LEU:HB3	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:3:MET:HE2	12:2Q:3:MET:HB3	1.89	0.40
14:2S:18:ILE:O	14:2S:21:THR:HG23	2.22	0.40
15:2T:127:ALA:C	15:2T:129:ARG:N	2.80	0.40
17:2V:23:GLU:H	17:2V:23:GLU:HG2	1.74	0.40
21:2Z:24:LEU:HA	21:2Z:25:PRO:HD3	1.97	0.40
32:2a:753:A:H5"	32:2a:754:C:C5	2.56	0.40
37:2f:12:PRO:HB3	37:2f:58:GLY:HA2	2.04	0.40
39:2h:81:HIS:HB2	39:2h:138:TRP:OXT	2.22	0.40
40:2i:73:GLN:O	40:2i:77:ILE:HG13	2.21	0.40
44:2m:14:ARG:HG3	44:2m:44:ARG:NH1	2.36	0.40
1:1A:82:G:N1	1:1A:103:A:OP2	2.42	0.40
1:1A:118:A:H3'	1:1A:119:A:H5"	2.04	0.40
1:1A:768:G:O2'	1:1A:1379:A:N1	2.45	0.40
1:1A:1279:G:OP2	60:1A:4270:HOH:O	2.22	0.40
1:1A:1337:G:H2'	1:1A:1338:G:O4'	2.22	0.40
1:1A:2116:G:P	1:1A:2166:G:H21	2.44	0.40
6:1G:120:LEU:HA	6:1G:120:LEU:HD23	1.86	0.40
12:1Q:12:GLN:HG2	60:1Q:339:HOH:O	2.20	0.40
32:1a:131:C:H2'	32:1a:132:C:C6	2.56	0.40
32:1a:393:A:OP2	47:1p:12:LYS:HD3	2.21	0.40
32:1a:445:G:H2'	32:1a:446:G:C8	2.56	0.40
32:1a:542:G:H2'	32:1a:543:C:C6	2.56	0.40
32:1a:727:G:N2	32:1a:730:G:OP2	2.36	0.40
32:1a:834:C:H2'	32:1a:835:U:H6	1.85	0.40
32:1a:1237:C:H42	32:1a:1337:G:H1	1.70	0.40
32:1a:1434:A:H2'	32:1a:1435:G:O4'	2.20	0.40
38:1g:16:LEU:HD12	40:1i:41:VAL:O	2.21	0.40
38:1g:89:MET:HE2	38:1g:155:ARG:HB2	2.04	0.40
39:1h:111:ILE:C	39:1h:112:LEU:HD23	2.47	0.40
41:1j:6:ILE:HA	41:1j:97:GLU:O	2.22	0.40
43:1l:23:LYS:N	60:1l:3201:HOH:O	2.37	0.40
51:1t:34:LYS:O	51:1t:38:LYS:HG2	2.22	0.40
1:2A:129:C:H2'	1:2A:130:C:C6	2.57	0.40
1:2A:139:G:H21	19:2X:41:ASN:HD21	1.69	0.40
1:2A:177:G:H3'	1:2A:178:G:H8	1.86	0.40
1:2A:305:U:H2'	1:2A:306:U:C6	2.57	0.40
1:2A:311:A:C6	1:2A:328:U:C4	3.10	0.40
1:2A:854:G:H2'	1:2A:855:G:H8	1.86	0.40
1:2A:888:C:H2'	1:2A:889:C:N3	2.36	0.40
1:2A:897:C:H2'	1:2A:898:C:C6	2.57	0.40
1:2A:921:G:H4'	1:2A:2269:A:C5	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1005:C:H2'	1:2A:1006:C:C6	2.57	0.40
1:2A:1006:C:C2	1:2A:1138:G:N2	2.90	0.40
1:2A:1638:C:H1'	1:2A:2698:U:O2'	2.21	0.40
1:2A:2239:G:H5'	3:2D:251:GLY:HA3	2.04	0.40
1:2A:2577:A:O4'	27:25:3:LYS:HB2	2.21	0.40
2:2B:19:G:H1	2:2B:64:C:H42	1.69	0.40
2:2B:50:G:H2'	2:2B:51:G:O4'	2.22	0.40
2:2B:61:G:C6	2:2B:62:C:C4	3.09	0.40
2:2B:75:G:H22	21:2Z:73:GLN:HE22	1.68	0.40
4:2E:112:GLY:O	4:2E:159:HIS:HA	2.21	0.40
4:2E:151:TYR:HB3	9:2N:79:PRO:HG3	2.03	0.40
5:2F:176:LEU:HD23	5:2F:176:LEU:HA	1.72	0.40
6:2G:15:VAL:HG22	6:2G:175:LEU:HB3	2.03	0.40
10:2O:7:TYR:CE1	10:2O:20:MET:HB2	2.56	0.40
10:2O:38:VAL:HG23	60:2O:204:HOH:O	2.21	0.40
11:2P:126:VAL:HG13	11:2P:146:VAL:HB	2.04	0.40
32:2a:1509:C:H2'	32:2a:1510:U:O4'	2.22	0.40
34:2c:6:HIS:HB3	45:2n:49:HIS:ND1	2.36	0.40
35:2d:13:ARG:NH1	35:2d:40:PRO:HA	2.37	0.40
35:2d:122:ARG:HA	35:2d:122:ARG:HD2	1.78	0.40
46:2o:61:GLY:O	46:2o:65:ARG:HG3	2.22	0.40
47:2p:19:ILE:H	47:2p:19:ILE:HG13	1.75	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%)	255 (93%)	17 (6%)	1 (0%)	30 59
3	2D	273/276 (99%)	257 (94%)	16 (6%)	0	100 100
4	1E	202/206 (98%)	191 (95%)	10 (5%)	1 (0%)	24 54

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
4	2E	202/206 (98%)	184 (91%)	17 (8%)	1 (0%)	24 54
5	1F	201/210 (96%)	190 (94%)	10 (5%)	1 (0%)	24 54
5	2F	201/210 (96%)	189 (94%)	11 (6%)	1 (0%)	24 54
6	1G	179/182 (98%)	159 (89%)	18 (10%)	2 (1%)	11 36
6	2G	179/182 (98%)	155 (87%)	17 (10%)	7 (4%)	2 10
7	1H	172/180 (96%)	158 (92%)	11 (6%)	3 (2%)	7 26
7	2H	171/180 (95%)	154 (90%)	15 (9%)	2 (1%)	10 34
8	1I	145/148 (98%)	121 (83%)	21 (14%)	3 (2%)	5 21
8	2I	144/148 (97%)	122 (85%)	17 (12%)	5 (4%)	3 12
9	1N	138/140 (99%)	133 (96%)	5 (4%)	0	100 100
9	2N	138/140 (99%)	130 (94%)	7 (5%)	1 (1%)	18 48
10	1O	120/122 (98%)	113 (94%)	7 (6%)	0	100 100
10	2O	120/122 (98%)	113 (94%)	6 (5%)	1 (1%)	16 44
11	1P	147/150 (98%)	137 (93%)	10 (7%)	0	100 100
11	2P	147/150 (98%)	136 (92%)	10 (7%)	1 (1%)	18 48
12	1Q	139/141 (99%)	130 (94%)	8 (6%)	1 (1%)	18 48
12	2Q	139/141 (99%)	132 (95%)	7 (5%)	0	100 100
13	1R	116/118 (98%)	108 (93%)	8 (7%)	0	100 100
13	2R	116/118 (98%)	108 (93%)	8 (7%)	0	100 100
14	1S	108/112 (96%)	94 (87%)	12 (11%)	2 (2%)	6 23
14	2S	108/112 (96%)	99 (92%)	6 (6%)	3 (3%)	4 15
15	1T	129/146 (88%)	120 (93%)	7 (5%)	2 (2%)	7 27
15	2T	129/146 (88%)	121 (94%)	7 (5%)	1 (1%)	16 44
16	1U	114/118 (97%)	112 (98%)	2 (2%)	0	100 100
16	2U	114/118 (97%)	107 (94%)	7 (6%)	0	100 100
17	1V	99/101 (98%)	93 (94%)	5 (5%)	1 (1%)	12 39
17	2V	99/101 (98%)	90 (91%)	7 (7%)	2 (2%)	6 22
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%)	89 (96%)	3 (3%)	1 (1%)	11 36
19	2X	93/96 (97%)	83 (89%)	9 (10%)	1 (1%)	11 36

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
20	1Y	105/110 (96%)	92 (88%)	10 (10%)	3 (3%)	3 15
20	2Y	105/110 (96%)	99 (94%)	6 (6%)	0	100 100
21	1Z	201/206 (98%)	186 (92%)	13 (6%)	2 (1%)	12 39
21	2Z	199/206 (97%)	177 (89%)	20 (10%)	2 (1%)	12 39
22	10	75/85 (88%)	72 (96%)	3 (4%)	0	100 100
22	20	75/85 (88%)	66 (88%)	8 (11%)	1 (1%)	9 32
23	11	95/98 (97%)	94 (99%)	1 (1%)	0	100 100
23	21	95/98 (97%)	90 (95%)	4 (4%)	1 (1%)	11 36
24	12	68/72 (94%)	68 (100%)	0	0	100 100
24	22	68/72 (94%)	66 (97%)	2 (3%)	0	100 100
25	13	57/60 (95%)	51 (90%)	6 (10%)	0	100 100
25	23	57/60 (95%)	55 (96%)	1 (2%)	1 (2%)	6 25
26	14	67/71 (94%)	55 (82%)	9 (13%)	3 (4%)	2 8
26	24	67/71 (94%)	49 (73%)	11 (16%)	7 (10%)	0 1
27	15	57/60 (95%)	53 (93%)	4 (7%)	0	100 100
27	25	57/60 (95%)	51 (90%)	6 (10%)	0	100 100
28	16	51/54 (94%)	49 (96%)	2 (4%)	0	100 100
28	26	51/54 (94%)	49 (96%)	2 (4%)	0	100 100
29	17	46/49 (94%)	45 (98%)	1 (2%)	0	100 100
29	27	46/49 (94%)	44 (96%)	2 (4%)	0	100 100
30	18	62/65 (95%)	62 (100%)	0	0	100 100
30	28	62/65 (95%)	61 (98%)	1 (2%)	0	100 100
31	19	35/37 (95%)	35 (100%)	0	0	100 100
31	29	35/37 (95%)	34 (97%)	1 (3%)	0	100 100
33	1b	229/256 (90%)	187 (82%)	32 (14%)	10 (4%)	2 8
33	2b	229/256 (90%)	195 (85%)	27 (12%)	7 (3%)	3 14
34	1c	204/239 (85%)	183 (90%)	20 (10%)	1 (0%)	24 54
34	2c	204/239 (85%)	176 (86%)	26 (13%)	2 (1%)	12 39
35	1d	206/209 (99%)	183 (89%)	22 (11%)	1 (0%)	24 54
35	2d	206/209 (99%)	184 (89%)	22 (11%)	0	100 100
36	1e	146/162 (90%)	134 (92%)	12 (8%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
36	2e	146/162 (90%)	134 (92%)	11 (8%)	1 (1%)	18 48
37	1f	98/101 (97%)	88 (90%)	8 (8%)	2 (2%)	6 22
37	2f	98/101 (97%)	90 (92%)	7 (7%)	1 (1%)	12 39
38	1g	153/156 (98%)	144 (94%)	7 (5%)	2 (1%)	9 32
38	2g	153/156 (98%)	140 (92%)	12 (8%)	1 (1%)	18 48
39	1h	135/138 (98%)	126 (93%)	9 (7%)	0	100 100
39	2h	135/138 (98%)	122 (90%)	13 (10%)	0	100 100
40	1i	125/128 (98%)	105 (84%)	18 (14%)	2 (2%)	7 27
40	2i	124/128 (97%)	107 (86%)	10 (8%)	7 (6%)	1 4
41	1j	95/105 (90%)	76 (80%)	14 (15%)	5 (5%)	1 5
41	2j	94/105 (90%)	79 (84%)	12 (13%)	3 (3%)	3 13
42	1k	112/129 (87%)	100 (89%)	11 (10%)	1 (1%)	14 41
42	2k	112/129 (87%)	98 (88%)	11 (10%)	3 (3%)	4 16
43	1l	119/132 (90%)	105 (88%)	13 (11%)	1 (1%)	16 44
43	2l	119/132 (90%)	106 (89%)	12 (10%)	1 (1%)	16 44
44	1m	114/126 (90%)	102 (90%)	8 (7%)	4 (4%)	3 12
44	2m	112/126 (89%)	98 (88%)	12 (11%)	2 (2%)	6 25
45	1n	58/61 (95%)	50 (86%)	7 (12%)	1 (2%)	7 26
45	2n	58/61 (95%)	53 (91%)	4 (7%)	1 (2%)	7 26
46	1o	86/89 (97%)	79 (92%)	7 (8%)	0	100 100
46	2o	86/89 (97%)	74 (86%)	11 (13%)	1 (1%)	10 34
47	1p	80/88 (91%)	67 (84%)	13 (16%)	0	100 100
47	2p	80/88 (91%)	72 (90%)	6 (8%)	2 (2%)	4 17
48	1q	97/105 (92%)	86 (89%)	10 (10%)	1 (1%)	12 39
48	2q	97/105 (92%)	89 (92%)	8 (8%)	0	100 100
49	1r	66/88 (75%)	60 (91%)	6 (9%)	0	100 100
49	2r	66/88 (75%)	63 (96%)	3 (4%)	0	100 100
50	1s	81/93 (87%)	71 (88%)	10 (12%)	0	100 100
50	2s	81/93 (87%)	71 (88%)	8 (10%)	2 (2%)	4 17
51	1t	94/106 (89%)	85 (90%)	7 (7%)	2 (2%)	5 21
51	2t	96/106 (91%)	87 (91%)	7 (7%)	2 (2%)	5 21

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
52	1u	21/27 (78%)	20 (95%)	1 (5%)	0	100 100
52	2u	21/27 (78%)	17 (81%)	2 (10%)	2 (10%)	0 1
53	1y	95/113 (84%)	94 (99%)	1 (1%)	0	100 100
53	2y	94/113 (83%)	81 (86%)	11 (12%)	2 (2%)	5 21
All	All	11629/12354 (94%)	10577 (91%)	915 (8%)	137 (1%)	10 34

All (137) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	1F	130	ALA
6	1G	43	LEU
7	1H	92	ILE
15	1T	128	GLU
20	1Y	80	GLY
33	1b	8	LYS
33	1b	9	GLU
33	1b	17	PHE
33	1b	124	SER
33	1b	125	PRO
44	1m	67	GLU
4	2E	51	PHE
5	2F	130	ALA
6	2G	126	ASP
8	2I	10	GLU
8	2I	85	GLU
17	2V	53	GLU
17	2V	79	VAL
19	2X	94	GLY
26	24	63	TYR
33	2b	17	PHE
40	2i	55	ALA
17	1V	79	VAL
26	14	47	GLN
33	1b	127	ILE
35	1d	173	TRP
41	1j	55	LYS
44	1m	3	ARG
51	1t	95	ALA
6	2G	42	GLY
6	2G	96	ARG
6	2G	117	PHE

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Mol	Chain	Res	Type
8	2I	117	GLU
10	2O	5	GLN
14	2S	96	GLY
22	20	73	GLY
23	21	3	LYS
26	24	47	GLN
26	24	54	GLY
33	2b	10	LEU
33	2b	20	GLU
36	2e	85	GLY
40	2i	95	LYS
42	2k	89	ALA
53	2y	45	PRO
7	1H	126	PRO
21	1Z	52	SER
26	14	55	ARG
26	14	61	ARG
33	1b	83	MET
34	1c	156	ARG
40	1i	11	LYS
41	1j	31	GLY
41	1j	75	ILE
41	1j	78	ASN
44	1m	106	ASN
48	1q	68	ARG
6	2G	48	GLU
6	2G	72	ARG
8	2I	39	ALA
11	2P	29	LYS
21	2Z	169	GLU
26	24	62	ARG
34	2c	100	ALA
40	2i	52	ALA
40	2i	54	ASP
40	2i	96	LEU
41	2j	78	ASN
43	2l	105	TYR
44	2m	67	GLU
50	2s	66	MET
51	2t	95	ALA
52	2u	3	LYS
52	2u	4	GLY

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Mol	Chain	Res	Type
4	1E	52	LEU
7	1H	159	GLU
8	1I	85	GLU
15	1T	126	ALA
20	1Y	2	ARG
20	1Y	103	GLY
33	1b	21	ARG
33	1b	126	GLU
37	1f	19	LEU
37	1f	46	ARG
40	1i	24	GLY
45	1n	14	PRO
6	2G	81	LYS
21	2Z	52	SER
33	2b	123	ALA
37	2f	38	GLU
38	2g	7	ALA
40	2i	44	VAL
41	2j	35	SER
47	2p	52	ASP
50	2s	28	LYS
3	1D	38	LYS
8	1I	133	HIS
12	1Q	59	ARG
19	1X	94	GLY
33	1b	20	GLU
44	1m	36	LYS
7	2H	65	HIS
8	2I	75	LEU
14	2S	31	SER
14	2S	63	THR
15	2T	127	ALA
26	24	39	CYS
26	24	55	ARG
33	2b	64	ARG
34	2c	110	ASN
40	2i	11	LYS
45	2n	14	PRO
51	2t	71	THR
14	1S	59	LYS
14	1S	94	TYR
9	2N	81	GLY

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Mol	Chain	Res	Type
26	24	45	GLY
33	2b	21	ARG
47	2p	63	GLY
53	2y	33	HIS
38	1g	112	PRO
38	1g	130	GLY
43	1l	74	GLY
8	1I	71	ILE
33	2b	125	PRO
44	2m	4	ILE
46	2o	19	PRO
6	1G	52	ILE
41	1j	77	PRO
42	1k	118	GLY
42	2k	105	VAL
21	1Z	95	PRO
51	1t	100	ILE
7	2H	128	PRO
25	23	50	VAL
42	2k	90	GLY
41	2j	77	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	1D	214/218 (98%)	192 (90%)	22 (10%)	7 23
3	2D	215/218 (99%)	187 (87%)	28 (13%)	4 13
4	1E	164/166 (99%)	140 (85%)	24 (15%)	3 10
4	2E	164/166 (99%)	144 (88%)	20 (12%)	5 16
5	1F	160/166 (96%)	138 (86%)	22 (14%)	3 12
5	2F	159/166 (96%)	137 (86%)	22 (14%)	3 12
6	1G	144/156 (92%)	126 (88%)	18 (12%)	4 15
6	2G	142/156 (91%)	117 (82%)	25 (18%)	2 6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
7	1H	144/148 (97%)	129 (90%)	15 (10%)	7 23
7	2H	143/148 (97%)	121 (85%)	22 (15%)	2 9
8	1I	111/124 (90%)	90 (81%)	21 (19%)	1 5
8	2I	108/124 (87%)	88 (82%)	20 (18%)	1 5
9	1N	119/119 (100%)	102 (86%)	17 (14%)	3 11
9	2N	118/119 (99%)	100 (85%)	18 (15%)	3 9
10	1O	100/100 (100%)	92 (92%)	8 (8%)	11 34
10	2O	100/100 (100%)	92 (92%)	8 (8%)	11 34
11	1P	115/116 (99%)	99 (86%)	16 (14%)	3 11
11	2P	115/116 (99%)	101 (88%)	14 (12%)	5 16
12	1Q	111/111 (100%)	103 (93%)	8 (7%)	13 39
12	2Q	111/111 (100%)	97 (87%)	14 (13%)	4 14
13	1R	101/101 (100%)	86 (85%)	15 (15%)	3 10
13	2R	101/101 (100%)	87 (86%)	14 (14%)	3 11
14	1S	87/88 (99%)	75 (86%)	12 (14%)	3 12
14	2S	85/88 (97%)	72 (85%)	13 (15%)	3 9
15	1T	115/127 (91%)	107 (93%)	8 (7%)	14 40
15	2T	113/127 (89%)	103 (91%)	10 (9%)	9 29
16	1U	93/94 (99%)	85 (91%)	8 (9%)	10 30
16	2U	93/94 (99%)	83 (89%)	10 (11%)	6 21
17	1V	81/82 (99%)	72 (89%)	9 (11%)	6 20
17	2V	80/82 (98%)	72 (90%)	8 (10%)	7 24
18	1W	90/92 (98%)	80 (89%)	10 (11%)	6 20
18	2W	90/92 (98%)	79 (88%)	11 (12%)	5 16
19	1X	77/78 (99%)	71 (92%)	6 (8%)	11 35
19	2X	77/78 (99%)	69 (90%)	8 (10%)	7 23
20	1Y	86/91 (94%)	78 (91%)	8 (9%)	8 27
20	2Y	86/91 (94%)	74 (86%)	12 (14%)	3 11
21	1Z	169/179 (94%)	143 (85%)	26 (15%)	2 9
21	2Z	165/179 (92%)	142 (86%)	23 (14%)	3 11
22	10	61/67 (91%)	57 (93%)	4 (7%)	15 43

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
22	20	61/67 (91%)	58 (95%)	3 (5%)	22 54
23	11	79/83 (95%)	72 (91%)	7 (9%)	9 28
23	21	81/83 (98%)	71 (88%)	10 (12%)	4 15
24	12	65/67 (97%)	62 (95%)	3 (5%)	24 57
24	22	66/67 (98%)	57 (86%)	9 (14%)	3 12
25	13	51/52 (98%)	45 (88%)	6 (12%)	5 17
25	23	50/52 (96%)	43 (86%)	7 (14%)	3 11
26	14	58/63 (92%)	51 (88%)	7 (12%)	5 16
26	24	54/63 (86%)	46 (85%)	8 (15%)	3 10
27	15	51/52 (98%)	47 (92%)	4 (8%)	11 35
27	25	50/52 (96%)	46 (92%)	4 (8%)	11 34
28	16	51/52 (98%)	45 (88%)	6 (12%)	5 17
28	26	50/52 (96%)	44 (88%)	6 (12%)	5 16
29	17	41/42 (98%)	39 (95%)	2 (5%)	22 54
29	27	41/42 (98%)	39 (95%)	2 (5%)	22 54
30	18	54/55 (98%)	48 (89%)	6 (11%)	6 20
30	28	54/55 (98%)	52 (96%)	2 (4%)	30 64
31	19	34/34 (100%)	32 (94%)	2 (6%)	18 48
31	29	34/34 (100%)	29 (85%)	5 (15%)	3 10
33	1b	191/220 (87%)	158 (83%)	33 (17%)	2 7
33	2b	187/220 (85%)	164 (88%)	23 (12%)	4 15
34	1c	144/188 (77%)	124 (86%)	20 (14%)	3 11
34	2c	140/188 (74%)	125 (89%)	15 (11%)	6 22
35	1d	171/181 (94%)	148 (86%)	23 (14%)	4 12
35	2d	172/181 (95%)	152 (88%)	20 (12%)	5 18
36	1e	114/123 (93%)	102 (90%)	12 (10%)	6 22
36	2e	114/123 (93%)	103 (90%)	11 (10%)	8 26
37	1f	85/90 (94%)	78 (92%)	7 (8%)	10 32
37	2f	85/90 (94%)	75 (88%)	10 (12%)	5 17
38	1g	120/127 (94%)	109 (91%)	11 (9%)	8 27
38	2g	119/127 (94%)	106 (89%)	13 (11%)	6 20

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
39	1h	116/119 (98%)	103 (89%)	13 (11%)	6 19
39	2h	114/119 (96%)	98 (86%)	16 (14%)	3 11
40	1i	91/99 (92%)	81 (89%)	10 (11%)	6 20
40	2i	88/99 (89%)	79 (90%)	9 (10%)	7 23
41	1j	68/92 (74%)	57 (84%)	11 (16%)	2 8
41	2j	68/92 (74%)	54 (79%)	14 (21%)	1 4
42	1k	83/99 (84%)	73 (88%)	10 (12%)	5 16
42	2k	83/99 (84%)	75 (90%)	8 (10%)	8 26
43	1l	96/108 (89%)	89 (93%)	7 (7%)	13 38
43	2l	96/108 (89%)	82 (85%)	14 (15%)	3 10
44	1m	90/101 (89%)	81 (90%)	9 (10%)	7 24
44	2m	87/101 (86%)	75 (86%)	12 (14%)	3 12
45	1n	49/50 (98%)	40 (82%)	9 (18%)	1 6
45	2n	49/50 (98%)	44 (90%)	5 (10%)	7 23
46	1o	78/80 (98%)	74 (95%)	4 (5%)	21 53
46	2o	78/80 (98%)	73 (94%)	5 (6%)	16 44
47	1p	69/74 (93%)	59 (86%)	10 (14%)	3 10
47	2p	68/74 (92%)	58 (85%)	10 (15%)	3 10
48	1q	94/97 (97%)	83 (88%)	11 (12%)	5 17
48	2q	94/97 (97%)	85 (90%)	9 (10%)	8 26
49	1r	59/77 (77%)	51 (86%)	8 (14%)	3 12
49	2r	59/77 (77%)	51 (86%)	8 (14%)	3 12
50	1s	68/80 (85%)	59 (87%)	9 (13%)	4 13
50	2s	67/80 (84%)	56 (84%)	11 (16%)	2 8
51	1t	71/82 (87%)	62 (87%)	9 (13%)	4 14
51	2t	70/82 (85%)	59 (84%)	11 (16%)	2 9
52	1u	18/22 (82%)	17 (94%)	1 (6%)	19 50
52	2u	18/22 (82%)	16 (89%)	2 (11%)	6 20
53	1y	82/98 (84%)	72 (88%)	10 (12%)	5 16
53	2y	79/98 (81%)	67 (85%)	12 (15%)	3 9
All	All	9524/10260 (93%)	8373 (88%)	1151 (12%)	5 16

All (1151) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	3	VAL
3	1D	12	SER
3	1D	18	VAL
3	1D	61	LEU
3	1D	69	ARG
3	1D	71	ASP
3	1D	94	LEU
3	1D	103	ARG
3	1D	111	LEU
3	1D	127	VAL
3	1D	141	VAL
3	1D	142	VAL
3	1D	175	LEU
3	1D	183	ARG
3	1D	193	VAL
3	1D	200	ASP
3	1D	212	SER
3	1D	217	ARG
3	1D	221	VAL
3	1D	229	VAL
3	1D	242	ARG
3	1D	259	THR
4	1E	1	MET
4	1E	5	LEU
4	1E	7	VAL
4	1E	9	VAL
4	1E	14	ILE
4	1E	21	VAL
4	1E	49	LEU
4	1E	75	VAL
4	1E	93	VAL
4	1E	94	GLU
4	1E	97	LYS
4	1E	101	ARG
4	1E	116	VAL
4	1E	119	ARG
4	1E	144	ARG
4	1E	154	LYS
4	1E	163	GLU
4	1E	168	MET
4	1E	170	LEU
4	1E	175	VAL

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Mol	Chain	Res	Type
4	1E	178	GLU
4	1E	181	LEU
4	1E	188	VAL
4	1E	195	LEU
5	1F	12	LEU
5	1F	20	LEU
5	1F	24	LEU
5	1F	33	LEU
5	1F	38	ARG
5	1F	53	THR
5	1F	57	VAL
5	1F	70	THR
5	1F	74	ARG
5	1F	88	VAL
5	1F	110	LEU
5	1F	126	VAL
5	1F	132	VAL
5	1F	140	LEU
5	1F	158	THR
5	1F	161	GLU
5	1F	162	LEU
5	1F	170	LEU
5	1F	183	VAL
5	1F	191	ARG
5	1F	192	LEU
5	1F	201	VAL
6	1G	5	VAL
6	1G	7	LEU
6	1G	43	LEU
6	1G	45	GLU
6	1G	49	ASP
6	1G	52	ILE
6	1G	77	ILE
6	1G	82	LEU
6	1G	90	LEU
6	1G	92	VAL
6	1G	99	MET
6	1G	116	ASP
6	1G	138	GLN
6	1G	139	LEU
6	1G	140	ILE
6	1G	159	VAL

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Mol	Chain	Res	Type
6	1G	165	THR
6	1G	175	LEU
7	1H	15	VAL
7	1H	24	VAL
7	1H	45	VAL
7	1H	49	VAL
7	1H	52	VAL
7	1H	71	LEU
7	1H	98	LEU
7	1H	105	LEU
7	1H	113	VAL
7	1H	119	GLU
7	1H	122	THR
7	1H	125	VAL
7	1H	127	GLU
7	1H	141	VAL
7	1H	149	ARG
8	1I	10	GLU
8	1I	12	LEU
8	1I	38	LEU
8	1I	41	GLU
8	1I	44	LEU
8	1I	57	ARG
8	1I	60	GLU
8	1I	61	ARG
8	1I	64	GLU
8	1I	68	LEU
8	1I	72	LEU
8	1I	74	ASN
8	1I	78	THR
8	1I	82	ARG
8	1I	92	VAL
8	1I	101	LEU
8	1I	109	ILE
8	1I	120	ILE
8	1I	129	THR
8	1I	140	LEU
8	1I	144	VAL
9	1N	14	VAL
9	1N	15	LEU
9	1N	33	LEU
9	1N	34	LEU

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Mol	Chain	Res	Type
9	1N	46	VAL
9	1N	48	MET
9	1N	60	ILE
9	1N	62	VAL
9	1N	65	LYS
9	1N	67	LEU
9	1N	87	LEU
9	1N	97	ARG
9	1N	99	LEU
9	1N	121	LYS
9	1N	133	GLN
9	1N	138	LEU
9	1N	140	VAL
10	1O	8	LEU
10	1O	10	VAL
10	1O	20	MET
10	1O	22	ILE
10	1O	24	VAL
10	1O	80	ASP
10	1O	89	ASN
10	1O	98	VAL
11	1P	3	LEU
11	1P	40	SER
11	1P	46	LYS
11	1P	56	SER
11	1P	59	LEU
11	1P	74	GLU
11	1P	75	ILE
11	1P	86	LYS
11	1P	92	GLU
11	1P	95	VAL
11	1P	101	VAL
11	1P	107	LYS
11	1P	112	LEU
11	1P	125	VAL
11	1P	147	LEU
11	1P	149	GLU
12	1Q	7	MET
12	1Q	8	LYS
12	1Q	55	VAL
12	1Q	81	VAL
12	1Q	101	ARG

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Mol	Chain	Res	Type
12	1Q	102	VAL
12	1Q	109	VAL
12	1Q	112	GLU
13	1R	6	SER
13	1R	8	ARG
13	1R	29	LEU
13	1R	33	ARG
13	1R	34	ILE
13	1R	36	THR
13	1R	44	LEU
13	1R	54	LEU
13	1R	65	LEU
13	1R	67	LEU
13	1R	75	LEU
13	1R	95	THR
13	1R	100	LEU
13	1R	102	GLU
13	1R	111	LEU
14	1S	14	VAL
14	1S	36	TYR
14	1S	46	VAL
14	1S	49	VAL
14	1S	50	SER
14	1S	52	SER
14	1S	53	SER
14	1S	59	LYS
14	1S	69	VAL
14	1S	78	LEU
14	1S	83	LYS
14	1S	110	LEU
15	1T	28	VAL
15	1T	38	ASN
15	1T	39	ARG
15	1T	49	VAL
15	1T	53	ARG
15	1T	78	LEU
15	1T	89	VAL
15	1T	96	ARG
16	1U	5	LYS
16	1U	8	VAL
16	1U	34	LYS
16	1U	52	ARG

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Mol	Chain	Res	Type
16	1U	74	LEU
16	1U	83	LEU
16	1U	95	LEU
16	1U	104	GLN
17	1V	40	LEU
17	1V	43	GLU
17	1V	46	VAL
17	1V	51	VAL
17	1V	52	VAL
17	1V	61	VAL
17	1V	62	LEU
17	1V	72	VAL
17	1V	79	VAL
18	1W	1	MET
18	1W	2	GLU
18	1W	11	ARG
18	1W	15	ARG
18	1W	17	VAL
18	1W	23	LEU
18	1W	68	ARG
18	1W	95	ILE
18	1W	96	ILE
18	1W	107	LEU
19	1X	15	GLU
19	1X	23	GLU
19	1X	35	THR
19	1X	66	LEU
19	1X	70	LEU
19	1X	81	VAL
20	1Y	2	ARG
20	1Y	14	LEU
20	1Y	19	LYS
20	1Y	31	LEU
20	1Y	43	ASN
20	1Y	72	VAL
20	1Y	81	LYS
20	1Y	99	CYS
21	1Z	18	LEU
21	1Z	20	ARG
21	1Z	33	LEU
21	1Z	36	LYS
21	1Z	37	VAL

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Mol	Chain	Res	Type
21	1Z	52	SER
21	1Z	61	LEU
21	1Z	74	VAL
21	1Z	76	LEU
21	1Z	86	VAL
21	1Z	91	LEU
21	1Z	93	ASP
21	1Z	96	VAL
21	1Z	102	LEU
21	1Z	107	THR
21	1Z	126	VAL
21	1Z	146	ILE
21	1Z	150	LEU
21	1Z	154	ASP
21	1Z	155	LEU
21	1Z	161	VAL
21	1Z	162	GLU
21	1Z	163	LEU
21	1Z	165	VAL
21	1Z	197	ILE
21	1Z	202	GLU
22	10	10	THR
22	10	39	ARG
22	10	46	LYS
22	10	59	LEU
23	11	11	ARG
23	11	14	VAL
23	11	21	ARG
23	11	30	VAL
23	11	56	GLN
23	11	59	THR
23	11	95	LEU
24	12	32	LEU
24	12	53	LEU
24	12	70	GLN
25	13	6	VAL
25	13	8	LEU
25	13	23	LEU
25	13	54	VAL
25	13	55	ARG
25	13	58	VAL
26	14	1	MET

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Mol	Chain	Res	Type
26	14	3	GLU
26	14	30	GLU
26	14	49	PHE
26	14	53	GLU
26	14	60	GLN
26	14	61	ARG
27	15	6	VAL
27	15	16	ARG
27	15	26	THR
27	15	29	THR
28	16	6	ARG
28	16	9	LEU
28	16	13	CYS
28	16	14	THR
28	16	24	GLU
28	16	48	VAL
29	17	1	MET
29	17	43	THR
30	18	11	LYS
30	18	14	VAL
30	18	26	LYS
30	18	30	ARG
30	18	32	LEU
30	18	58	ILE
31	19	17	ILE
31	19	35	ARG
33	1b	10	LEU
33	1b	15	VAL
33	1b	21	ARG
33	1b	41	ILE
33	1b	51	LEU
33	1b	63	MET
33	1b	67	THR
33	1b	71	VAL
33	1b	76	GLN
33	1b	80	ILE
33	1b	82	ARG
33	1b	93	VAL
33	1b	106	LYS
33	1b	115	LEU
33	1b	121	LEU
33	1b	126	GLU

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Mol	Chain	Res	Type
33	1b	128	GLU
33	1b	144	ARG
33	1b	172	ILE
33	1b	178	ARG
33	1b	184	VAL
33	1b	185	ILE
33	1b	189	ASP
33	1b	200	ILE
33	1b	208	ILE
33	1b	212	GLN
33	1b	215	LEU
33	1b	221	LEU
33	1b	223	ILE
33	1b	224	GLN
33	1b	229	VAL
33	1b	230	VAL
33	1b	233	SER
34	1c	3	ASN
34	1c	8	ILE
34	1c	15	THR
34	1c	26	LYS
34	1c	52	LEU
34	1c	59	ARG
34	1c	63	ASN
34	1c	77	ILE
34	1c	89	GLU
34	1c	98	ASN
34	1c	101	LEU
34	1c	116	VAL
34	1c	125	GLU
34	1c	165	THR
34	1c	166	GLU
34	1c	188	LEU
34	1c	190	ARG
34	1c	192	THR
34	1c	198	VAL
34	1c	207	VAL
35	1d	3	ARG
35	1d	5	ILE
35	1d	8	VAL
35	1d	11	LEU
35	1d	59	ARG

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Mol	Chain	Res	Type
35	1d	80	GLU
35	1d	104	VAL
35	1d	108	LEU
35	1d	135	LEU
35	1d	140	VAL
35	1d	144	ASP
35	1d	150	GLU
35	1d	157	LEU
35	1d	158	ILE
35	1d	160	GLN
35	1d	168	ARG
35	1d	170	VAL
35	1d	178	VAL
35	1d	187	ARG
35	1d	188	LEU
35	1d	190	ASP
35	1d	194	LEU
35	1d	196	LEU
36	1e	12	LEU
36	1e	31	LEU
36	1e	34	VAL
36	1e	38	GLN
36	1e	41	VAL
36	1e	51	VAL
36	1e	53	LEU
36	1e	64	ARG
36	1e	82	VAL
36	1e	91	LEU
36	1e	101	ILE
36	1e	143	ARG
37	1f	17	SER
37	1f	19	LEU
37	1f	21	LEU
37	1f	40	VAL
37	1f	64	GLN
37	1f	69	GLU
37	1f	73	ASN
38	1g	6	ARG
38	1g	12	LEU
38	1g	15	ASP
38	1g	66	VAL
38	1g	75	VAL

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Mol	Chain	Res	Type
38	1g	89	MET
38	1g	91	VAL
38	1g	104	LEU
38	1g	111	ARG
38	1g	113	GLU
38	1g	124	LEU
39	1h	3	THR
39	1h	23	SER
39	1h	25	ASP
39	1h	26	VAL
39	1h	37	ARG
39	1h	38	ILE
39	1h	45	ILE
39	1h	51	VAL
39	1h	52	ASP
39	1h	61	VAL
39	1h	88	LYS
39	1h	99	GLU
39	1h	107	LEU
40	1i	2	GLU
40	1i	14	VAL
40	1i	16	ARG
40	1i	17	VAL
40	1i	27	THR
40	1i	31	GLN
40	1i	64	THR
40	1i	65	VAL
40	1i	112	LYS
40	1i	127	LYS
41	1j	16	LEU
41	1j	34	VAL
41	1j	44	VAL
41	1j	49	VAL
41	1j	51	ARG
41	1j	67	THR
41	1j	84	GLN
41	1j	92	THR
41	1j	94	VAL
41	1j	96	ILE
41	1j	100	THR
42	1k	16	SER
42	1k	31	THR

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Mol	Chain	Res	Type
42	1k	33	THR
42	1k	70	LYS
42	1k	79	SER
42	1k	81	ASP
42	1k	84	VAL
42	1k	109	VAL
42	1k	114	VAL
42	1k	119	CYS
43	1l	22	SER
43	1l	27	LEU
43	1l	33	ARG
43	1l	36	VAL
43	1l	39	VAL
43	1l	83	VAL
43	1l	118	SER
44	1m	9	ILE
44	1m	11	ARG
44	1m	17	VAL
44	1m	19	LEU
44	1m	47	ASP
44	1m	60	VAL
44	1m	70	LEU
44	1m	98	VAL
44	1m	106	ASN
45	1n	3	ARG
45	1n	6	LEU
45	1n	8	GLU
45	1n	18	VAL
45	1n	22	THR
45	1n	29	ARG
45	1n	32	SER
45	1n	33	VAL
45	1n	57	ARG
46	1o	3	ILE
46	1o	28	GLN
46	1o	39	LEU
46	1o	66	LEU
47	1p	2	VAL
47	1p	4	ILE
47	1p	8	ARG
47	1p	11	SER
47	1p	29	ASP

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Mol	Chain	Res	Type
47	1p	45	THR
47	1p	60	LEU
47	1p	62	VAL
47	1p	67	THR
47	1p	79	VAL
48	1q	15	MET
48	1q	16	GLN
48	1q	19	VAL
48	1q	36	ILE
48	1q	43	LEU
48	1q	50	LYS
48	1q	52	LYS
48	1q	60	ILE
48	1q	63	ARG
48	1q	97	SER
48	1q	99	SER
49	1r	31	LEU
49	1r	38	GLU
49	1r	46	GLU
49	1r	47	THR
49	1r	65	ILE
49	1r	76	LEU
49	1r	78	LEU
49	1r	86	VAL
50	1s	17	GLU
50	1s	19	VAL
50	1s	28	LYS
50	1s	31	ILE
50	1s	41	VAL
50	1s	48	THR
50	1s	51	VAL
50	1s	62	ILE
50	1s	79	THR
51	1t	19	SER
51	1t	62	LEU
51	1t	70	SER
51	1t	72	LEU
51	1t	80	ARG
51	1t	84	LEU
51	1t	88	VAL
51	1t	90	GLN
51	1t	100	ILE

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Mol	Chain	Res	Type
52	1u	6	ARG
53	1y	3	MET
53	1y	4	ASN
53	1y	24	LEU
53	1y	46	GLN
53	1y	53	THR
53	1y	60	VAL
53	1y	66	LYS
53	1y	70	MET
53	1y	87	LYS
53	1y	96	ARG
3	2D	3	VAL
3	2D	27	THR
3	2D	38	LYS
3	2D	39	LYS
3	2D	73	VAL
3	2D	94	LEU
3	2D	103	ARG
3	2D	106	ILE
3	2D	111	LEU
3	2D	113	VAL
3	2D	117	VAL
3	2D	118	VAL
3	2D	138	VAL
3	2D	141	VAL
3	2D	142	VAL
3	2D	155	LEU
3	2D	161	THR
3	2D	173	VAL
3	2D	183	ARG
3	2D	193	VAL
3	2D	211	ARG
3	2D	217	ARG
3	2D	221	VAL
3	2D	242	ARG
3	2D	253	GLN
3	2D	259	THR
3	2D	260	ARG
3	2D	274	ARG
4	2E	9	VAL
4	2E	12	THR
4	2E	21	VAL

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Mol	Chain	Res	Type
4	2E	33	VAL
4	2E	38	THR
4	2E	45	THR
4	2E	52	LEU
4	2E	72	VAL
4	2E	73	GLU
4	2E	75	VAL
4	2E	77	ILE
4	2E	116	VAL
4	2E	144	ARG
4	2E	145	LYS
4	2E	163	GLU
4	2E	170	LEU
4	2E	175	VAL
4	2E	181	LEU
4	2E	184	VAL
4	2E	197	ILE
5	2F	20	LEU
5	2F	24	LEU
5	2F	33	LEU
5	2F	57	VAL
5	2F	70	THR
5	2F	74	ARG
5	2F	88	VAL
5	2F	96	ASP
5	2F	106	ARG
5	2F	133	ASN
5	2F	135	LYS
5	2F	140	LEU
5	2F	153	SER
5	2F	156	LEU
5	2F	158	THR
5	2F	174	VAL
5	2F	183	VAL
5	2F	192	LEU
5	2F	195	ASP
5	2F	197	ASP
5	2F	200	GLU
5	2F	201	VAL
6	2G	3	LEU
6	2G	20	ILE
6	2G	28	VAL

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Mol	Chain	Res	Type
6	2G	31	VAL
6	2G	38	VAL
6	2G	43	LEU
6	2G	58	GLN
6	2G	63	ILE
6	2G	86	MET
6	2G	92	VAL
6	2G	98	ARG
6	2G	100	TRP
6	2G	106	LEU
6	2G	108	ASN
6	2G	111	LEU
6	2G	113	ARG
6	2G	114	ILE
6	2G	124	SER
6	2G	138	GLN
6	2G	139	LEU
6	2G	150	ASP
6	2G	152	LEU
6	2G	159	VAL
6	2G	165	THR
6	2G	175	LEU
7	2H	7	LEU
7	2H	15	VAL
7	2H	16	SER
7	2H	17	VAL
7	2H	33	LEU
7	2H	40	GLU
7	2H	44	VAL
7	2H	47	GLU
7	2H	49	VAL
7	2H	63	SER
7	2H	68	THR
7	2H	70	THR
7	2H	71	LEU
7	2H	98	LEU
7	2H	116	GLU
7	2H	122	THR
7	2H	127	GLU
7	2H	129	THR
7	2H	131	VAL
7	2H	134	SER

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Mol	Chain	Res	Type
7	2H	136	ILE
7	2H	139	GLN
8	2I	1	MET
8	2I	5	LEU
8	2I	15	VAL
8	2I	19	VAL
8	2I	31	LEU
8	2I	37	VAL
8	2I	38	LEU
8	2I	44	LEU
8	2I	52	ARG
8	2I	54	GLN
8	2I	58	LEU
8	2I	68	LEU
8	2I	75	LEU
8	2I	85	GLU
8	2I	92	VAL
8	2I	116	LEU
8	2I	117	GLU
8	2I	123	LEU
8	2I	127	VAL
8	2I	140	LEU
9	2N	22	THR
9	2N	28	THR
9	2N	32	THR
9	2N	33	LEU
9	2N	34	LEU
9	2N	48	MET
9	2N	50	ASP
9	2N	59	LYS
9	2N	62	VAL
9	2N	68	GLU
9	2N	73	THR
9	2N	87	LEU
9	2N	99	LEU
9	2N	112	LEU
9	2N	115	ARG
9	2N	133	GLN
9	2N	138	LEU
9	2N	140	VAL
10	2O	10	VAL
10	2O	18	LYS

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Mol	Chain	Res	Type
10	2O	23	ARG
10	2O	24	VAL
10	2O	38	VAL
10	2O	70	LYS
10	2O	87	ILE
10	2O	96	THR
11	2P	5	ASP
11	2P	30	THR
11	2P	58	THR
11	2P	65	ARG
11	2P	71	VAL
11	2P	83	VAL
11	2P	92	GLU
11	2P	95	VAL
11	2P	96	THR
11	2P	99	LEU
11	2P	125	VAL
11	2P	126	VAL
11	2P	133	SER
11	2P	148	LEU
12	2Q	3	MET
12	2Q	12	GLN
12	2Q	35	VAL
12	2Q	54	MET
12	2Q	55	VAL
12	2Q	66	ILE
12	2Q	75	THR
12	2Q	77	LYS
12	2Q	81	VAL
12	2Q	106	VAL
12	2Q	109	VAL
12	2Q	110	THR
12	2Q	112	GLU
12	2Q	127	ILE
13	2R	6	SER
13	2R	18	LEU
13	2R	29	LEU
13	2R	36	THR
13	2R	44	LEU
13	2R	54	LEU
13	2R	63	ARG
13	2R	65	LEU

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Mol	Chain	Res	Type
13	2R	79	LEU
13	2R	86	ARG
13	2R	96	ARG
13	2R	100	LEU
13	2R	111	LEU
13	2R	118	GLU
14	2S	3	ARG
14	2S	12	PHE
14	2S	13	ARG
14	2S	17	ARG
14	2S	19	LYS
14	2S	21	THR
14	2S	25	ARG
14	2S	28	VAL
14	2S	40	ILE
14	2S	58	LEU
14	2S	63	THR
14	2S	64	GLU
14	2S	110	LEU
15	2T	23	ARG
15	2T	42	ILE
15	2T	49	VAL
15	2T	51	ARG
15	2T	72	VAL
15	2T	75	ILE
15	2T	89	VAL
15	2T	96	ARG
15	2T	123	GLN
15	2T	129	ARG
16	2U	8	VAL
16	2U	30	LYS
16	2U	36	ARG
16	2U	55	ARG
16	2U	59	ARG
16	2U	74	LEU
16	2U	88	ILE
16	2U	95	LEU
16	2U	100	VAL
16	2U	102	GLU
17	2V	1	MET
17	2V	13	ARG
17	2V	25	LEU

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Mol	Chain	Res	Type
17	2V	46	VAL
17	2V	51	VAL
17	2V	72	VAL
17	2V	79	VAL
17	2V	82	ARG
18	2W	11	ARG
18	2W	15	ARG
18	2W	17	VAL
18	2W	19	LEU
18	2W	23	LEU
18	2W	24	ILE
18	2W	67	ASP
18	2W	100	THR
18	2W	103	ILE
18	2W	107	LEU
18	2W	109	GLU
19	2X	38	GLU
19	2X	52	VAL
19	2X	57	LEU
19	2X	65	ARG
19	2X	66	LEU
19	2X	76	ARG
19	2X	83	VAL
19	2X	89	ILE
20	2Y	3	VAL
20	2Y	12	THR
20	2Y	38	ILE
20	2Y	40	GLU
20	2Y	44	ILE
20	2Y	57	GLN
20	2Y	64	GLU
20	2Y	72	VAL
20	2Y	85	VAL
20	2Y	98	VAL
20	2Y	99	CYS
20	2Y	106	LEU
21	2Z	5	LEU
21	2Z	24	LEU
21	2Z	31	ARG
21	2Z	41	LEU
21	2Z	61	LEU
21	2Z	70	LEU

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Mol	Chain	Res	Type
21	2Z	71	VAL
21	2Z	78	LYS
21	2Z	86	VAL
21	2Z	91	LEU
21	2Z	93	ASP
21	2Z	94	GLU
21	2Z	121	HIS
21	2Z	126	VAL
21	2Z	132	ASN
21	2Z	136	PHE
21	2Z	141	VAL
21	2Z	150	LEU
21	2Z	165	VAL
21	2Z	170	THR
21	2Z	175	VAL
21	2Z	185	GLU
21	2Z	191	VAL
22	20	14	ARG
22	20	39	ARG
22	20	63	VAL
23	21	11	ARG
23	21	17	SER
23	21	27	GLU
23	21	35	THR
23	21	37	ILE
23	21	51	VAL
23	21	53	VAL
23	21	75	GLU
23	21	85	LEU
23	21	97	LEU
24	22	16	LEU
24	22	17	SER
24	22	30	ARG
24	22	32	LEU
24	22	34	GLU
24	22	41	ILE
24	22	53	LEU
24	22	62	THR
24	22	64	LEU
25	23	3	ARG
25	23	6	VAL
25	23	23	LEU

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Mol	Chain	Res	Type
25	23	31	LEU
25	23	40	THR
25	23	56	VAL
25	23	59	VAL
26	24	10	VAL
26	24	14	ILE
26	24	34	GLU
26	24	53	GLU
26	24	60	GLN
26	24	61	ARG
26	24	63	TYR
26	24	69	LYS
27	25	6	VAL
27	25	25	LEU
27	25	29	THR
27	25	59	GLU
28	26	6	ARG
28	26	8	LYS
28	26	14	THR
28	26	40	CYS
28	26	48	VAL
28	26	52	VAL
29	27	4	THR
29	27	43	THR
30	28	14	VAL
30	28	22	VAL
31	29	4	ARG
31	29	9	ARG
31	29	12	ASP
31	29	17	ILE
31	29	26	ILE
33	2b	7	VAL
33	2b	44	LEU
33	2b	67	THR
33	2b	71	VAL
33	2b	80	ILE
33	2b	81	VAL
33	2b	93	VAL
33	2b	96	ARG
33	2b	108	ILE
33	2b	118	LEU
33	2b	124	SER

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Mol	Chain	Res	Type
33	2b	127	ILE
33	2b	135	GLN
33	2b	136	VAL
33	2b	158	LEU
33	2b	170	GLU
33	2b	175	ARG
33	2b	193	ASP
33	2b	201	ILE
33	2b	208	ILE
33	2b	224	GLN
33	2b	229	VAL
33	2b	230	VAL
34	2c	3	ASN
34	2c	15	THR
34	2c	32	LEU
34	2c	34	LEU
34	2c	52	LEU
34	2c	103	VAL
34	2c	105	GLU
34	2c	115	LEU
34	2c	120	VAL
34	2c	126	ARG
34	2c	152	ILE
34	2c	166	GLU
34	2c	195	VAL
34	2c	196	LEU
34	2c	207	VAL
35	2d	8	VAL
35	2d	11	LEU
35	2d	49	ARG
35	2d	58	LEU
35	2d	59	ARG
35	2d	76	ARG
35	2d	96	LEU
35	2d	97	LEU
35	2d	106	TYR
35	2d	121	VAL
35	2d	127	THR
35	2d	135	LEU
35	2d	150	GLU
35	2d	155	LEU
35	2d	158	ILE

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Mol	Chain	Res	Type
35	2d	175	SER
35	2d	188	LEU
35	2d	190	ASP
35	2d	201	GLN
35	2d	202	LEU
36	2e	31	LEU
36	2e	37	ARG
36	2e	41	VAL
36	2e	51	VAL
36	2e	55	VAL
36	2e	69	VAL
36	2e	75	THR
36	2e	79	GLU
36	2e	91	LEU
36	2e	139	LEU
36	2e	150	ARG
37	2f	22	GLU
37	2f	31	GLU
37	2f	57	GLN
37	2f	63	TYR
37	2f	69	GLU
37	2f	70	ASP
37	2f	72	VAL
37	2f	75	LEU
37	2f	81	ILE
37	2f	95	GLU
38	2g	9	VAL
38	2g	13	GLN
38	2g	16	LEU
38	2g	21	VAL
38	2g	38	LEU
38	2g	42	ILE
38	2g	51	GLN
38	2g	59	LEU
38	2g	98	SER
38	2g	104	LEU
38	2g	106	GLN
38	2g	113	GLU
38	2g	148	ASN
39	2h	11	THR
39	2h	25	ASP
39	2h	26	VAL

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Mol	Chain	Res	Type
39	2h	33	GLU
39	2h	53	VAL
39	2h	63	LEU
39	2h	69	ARG
39	2h	83	ILE
39	2h	87	SER
39	2h	91	ARG
39	2h	103	VAL
39	2h	112	LEU
39	2h	119	LEU
39	2h	122	ARG
39	2h	127	LEU
39	2h	129	VAL
40	2i	17	VAL
40	2i	20	ARG
40	2i	27	THR
40	2i	53	VAL
40	2i	54	ASP
40	2i	86	VAL
40	2i	102	LEU
40	2i	108	VAL
40	2i	125	TYR
41	2j	7	LYS
41	2j	16	LEU
41	2j	34	VAL
41	2j	38	ILE
41	2j	47	PHE
41	2j	58	ASP
41	2j	59	SER
41	2j	61	GLU
41	2j	67	THR
41	2j	68	HIS
41	2j	69	ASN
41	2j	81	THR
41	2j	84	GLN
41	2j	92	THR
42	2k	18	ARG
42	2k	28	THR
42	2k	30	VAL
42	2k	32	ILE
42	2k	84	VAL
42	2k	87	THR

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Mol	Chain	Res	Type
42	2k	99	GLN
42	2k	109	VAL
43	2l	6	THR
43	2l	7	ILE
43	2l	24	VAL
43	2l	27	LEU
43	2l	36	VAL
43	2l	38	THR
43	2l	41	ARG
43	2l	82	VAL
43	2l	89	ARG
43	2l	99	HIS
43	2l	113	ARG
43	2l	117	ARG
43	2l	118	SER
43	2l	122	THR
44	2m	3	ARG
44	2m	8	GLU
44	2m	19	LEU
44	2m	47	ASP
44	2m	61	GLU
44	2m	70	LEU
44	2m	79	LYS
44	2m	88	ARG
44	2m	90	LEU
44	2m	99	ARG
44	2m	108	ARG
44	2m	109	THR
45	2n	8	GLU
45	2n	13	THR
45	2n	16	PHE
45	2n	18	VAL
45	2n	33	VAL
46	2o	3	ILE
46	2o	26	GLU
46	2o	33	THR
46	2o	64	ARG
46	2o	85	LEU
47	2p	1	MET
47	2p	2	VAL
47	2p	11	SER
47	2p	25	ARG

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Mol	Chain	Res	Type
47	2p	28	ARG
47	2p	38	TYR
47	2p	54	GLU
47	2p	60	LEU
47	2p	62	VAL
47	2p	67	THR
48	2q	15	MET
48	2q	26	GLN
48	2q	35	VAL
48	2q	60	ILE
48	2q	61	GLU
48	2q	63	ARG
48	2q	66	SER
48	2q	74	LEU
48	2q	84	LEU
49	2r	25	THR
49	2r	29	PHE
49	2r	37	VAL
49	2r	47	THR
49	2r	74	ARG
49	2r	76	LEU
49	2r	82	THR
49	2r	85	LEU
50	2s	5	LEU
50	2s	27	GLU
50	2s	30	LEU
50	2s	33	THR
50	2s	35	SER
50	2s	41	VAL
50	2s	48	THR
50	2s	63	THR
50	2s	71	LEU
50	2s	77	THR
50	2s	79	THR
51	2t	11	SER
51	2t	24	LEU
51	2t	43	LEU
51	2t	45	GLN
51	2t	62	LEU
51	2t	71	THR
51	2t	72	LEU
51	2t	74	LYS

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Mol	Chain	Res	Type
51	2t	84	LEU
51	2t	88	VAL
51	2t	100	ILE
52	2u	8	THR
52	2u	13	ILE
53	2y	6	THR
53	2y	9	GLN
53	2y	11	GLU
53	2y	16	ILE
53	2y	17	ARG
53	2y	29	LYS
53	2y	46	GLN
53	2y	49	VAL
53	2y	51	ASP
53	2y	54	ILE
53	2y	62	VAL
53	2y	88	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (142) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	253	GLN
4	1E	55	ASN
4	1E	60	ASN
5	1F	69	HIS
5	1F	133	ASN
5	1F	203	GLN
6	1G	41	GLN
6	1G	108	ASN
7	1H	158	HIS
8	1I	104	GLN
8	1I	105	HIS
8	1I	139	GLN
9	1N	133	GLN
10	1O	3	GLN
11	1P	70	GLN
12	1Q	57	HIS
13	1R	24	GLN
13	1R	31	HIS
13	1R	50	HIS
13	1R	71	GLN
14	1S	68	GLN

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Mol	Chain	Res	Type
15	1T	58	ASN
17	1V	80	GLN
19	1X	31	HIS
19	1X	82	GLN
20	1Y	6	HIS
20	1Y	92	ASN
22	10	35	ASN
23	11	16	ASN
23	11	56	GLN
24	12	56	GLN
25	13	32	GLN
28	16	20	ASN
30	18	35	GLN
31	19	34	GLN
33	1b	19	HIS
33	1b	78	GLN
34	1c	6	HIS
34	1c	162	GLN
34	1c	170	GLN
35	1d	116	GLN
35	1d	123	HIS
35	1d	161	ASN
36	1e	65	ASN
36	1e	141	GLN
37	1f	32	ASN
37	1f	73	ASN
37	1f	100	ASN
38	1g	86	GLN
38	1g	110	GLN
40	1i	34	ASN
40	1i	73	GLN
40	1i	87	GLN
40	1i	117	HIS
41	1j	13	HIS
41	1j	56	HIS
41	1j	84	GLN
42	1k	116	HIS
43	1l	80	HIS
48	1q	16	GLN
48	1q	45	HIS
50	1s	23	ASN
50	1s	56	GLN

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Mol	Chain	Res	Type
50	1s	83	HIS
53	1y	9	GLN
53	1y	31	GLN
53	1y	38	HIS
53	1y	46	GLN
53	1y	79	ASN
53	1y	90	HIS
3	2D	129	ASN
3	2D	253	GLN
4	2E	85	ASN
4	2E	169	ASN
5	2F	69	HIS
6	2G	121	ASN
6	2G	138	GLN
7	2H	74	ASN
8	2I	43	ASN
8	2I	104	GLN
9	2N	133	GLN
10	2O	3	GLN
10	2O	89	ASN
10	2O	90	GLN
12	2Q	12	GLN
13	2R	71	GLN
14	2S	68	GLN
15	2T	58	ASN
15	2T	79	HIS
16	2U	94	ASN
17	2V	80	GLN
18	2W	60	ASN
18	2W	61	ASN
19	2X	41	ASN
19	2X	82	GLN
20	2Y	6	HIS
20	2Y	43	ASN
21	2Z	73	GLN
22	20	50	ASN
22	20	70	GLN
25	23	32	GLN
29	27	6	GLN
30	28	43	GLN
31	29	29	ASN
33	2b	19	HIS

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Mol	Chain	Res	Type
33	2b	78	GLN
33	2b	135	GLN
33	2b	212	GLN
34	2c	37	GLN
34	2c	108	ASN
34	2c	136	GLN
34	2c	162	GLN
35	2d	42	GLN
35	2d	77	ASN
35	2d	116	GLN
35	2d	125	HIS
35	2d	160	GLN
35	2d	201	GLN
36	2e	127	ASN
37	2f	94	GLN
38	2g	13	GLN
38	2g	28	ASN
38	2g	86	GLN
38	2g	148	ASN
40	2i	3	GLN
41	2j	13	HIS
42	2k	38	ASN
42	2k	93	GLN
42	2k	99	GLN
44	2m	77	ASN
44	2m	92	HIS
46	2o	28	GLN
47	2p	16	HIS
50	2s	14	HIS
50	2s	23	ASN
50	2s	47	HIS
50	2s	57	HIS
51	2t	16	HIS
51	2t	18	GLN
53	2y	9	GLN
53	2y	46	GLN
53	2y	89	GLN

5.3.3 RNA

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2865/2915 (98%)	465 (16%)	29 (1%)
1	2A	2858/2915 (98%)	527 (18%)	32 (1%)
2	1B	119/121 (98%)	19 (15%)	0
2	2B	119/121 (98%)	22 (18%)	0
32	1a	1497/1521 (98%)	279 (18%)	0
32	2a	1501/1521 (98%)	322 (21%)	0
All	All	8959/9114 (98%)	1634 (18%)	61 (0%)

All (1634) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	12	U
1	1A	15	G
1	1A	34	C
1	1A	45	C
1	1A	61	G
1	1A	71	A
1	1A	74	A
1	1A	75	G
1	1A	95	G
1	1A	118	A
1	1A	119	A
1	1A	120	U
1	1A	188	G
1	1A	196	A
1	1A	199	A
1	1A	205	G
1	1A	215	G
1	1A	216	A
1	1A	222	A
1	1A	229	A
1	1A	233	A
1	1A	248	G
1	1A	261	G
1	1A	265	A
1	1A	266	G
1	1A	271(E)	U
1	1A	271(H)	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	271(U)	G
1	1A	272(A)	U
1	1A	272(B)	G
1	1A	275	G
1	1A	279	C
1	1A	283	A
1	1A	289	A
1	1A	311	A
1	1A	324	A
1	1A	330	A
1	1A	342	G
1	1A	352	G
1	1A	363	G
1	1A	363(A)	A
1	1A	386	G
1	1A	396	G
1	1A	404	C
1	1A	405	U
1	1A	407	G
1	1A	411	G
1	1A	412	A
1	1A	422	A
1	1A	428	A
1	1A	448	U
1	1A	456	C
1	1A	457	A
1	1A	481	G
1	1A	504	U
1	1A	505	A
1	1A	509	C
1	1A	518	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

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Mol	Chain	Res	Type
1	1A	551	G
1	1A	563	G
1	1A	573	G
1	1A	575	A
1	1A	586	A
1	1A	592	G
1	1A	603	A
1	1A	604	G
1	1A	607	U
1	1A	610	G
1	1A	614(B)	G
1	1A	615	G
1	1A	627	A
1	1A	634	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	668	G
1	1A	669	G
1	1A	686	G
1	1A	717	G
1	1A	730	C
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	805	G
1	1A	811	U
1	1A	812	C
1	1A	827	U
1	1A	859	G
1	1A	866	A
1	1A	883	G
1	1A	886	C
1	1A	887	A
1	1A	888	C

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Mol	Chain	Res	Type
1	1A	889	C
1	1A	890	A
1	1A	893	C
1	1A	894	C
1	1A	896	A
1	1A	910	A
1	1A	932	G
1	1A	938	G
1	1A	945	A
1	1A	946	G
1	1A	958	U
1	1A	959	A
1	1A	961	C
1	1A	974	G
1	1A	975	C
1	1A	983	A
1	1A	990	A
1	1A	996	A
1	1A	1012	U
1	1A	1013	C
1	1A	1022	G
1	1A	1026	U
1	1A	1027	A
1	1A	1033	U
1	1A	1039	G
1	1A	1041	C
1	1A	1042	G
1	1A	1043	C
1	1A	1046	A
1	1A	1047	G
1	1A	1050	A
1	1A	1054	A
1	1A	1055	G
1	1A	1060	U
1	1A	1061	U
1	1A	1062	G
1	1A	1063	G
1	1A	1065	U
1	1A	1067	A
1	1A	1068	G
1	1A	1069	A
1	1A	1070	A

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Mol	Chain	Res	Type
1	1A	1071	G
1	1A	1073	A
1	1A	1074	G
1	1A	1075	C
1	1A	1076	C
1	1A	1077	A
1	1A	1078	U
1	1A	1079	C
1	1A	1083	U
1	1A	1088	A
1	1A	1090	U
1	1A	1095	A
1	1A	1096	A
1	1A	1097	U
1	1A	1109	C
1	1A	1110	G
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	1150	C
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	1244	G
1	1A	1248	G
1	1A	1250	G
1	1A	1253	A
1	1A	1256	G
1	1A	1271	G
1	1A	1272	A
1	1A	1273	U

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Mol	Chain	Res	Type
1	1A	1276	A
1	1A	1300	U
1	1A	1301	A
1	1A	1319	G
1	1A	1329	U
1	1A	1345	C
1	1A	1347	G
1	1A	1352	U
1	1A	1359	A
1	1A	1360	A
1	1A	1365	A
1	1A	1370	C
1	1A	1380	G
1	1A	1384	A
1	1A	1385	G
1	1A	1386	C
1	1A	1395	A
1	1A	1411	C
1	1A	1416	G
1	1A	1417	C
1	1A	1420	U
1	1A	1421	G
1	1A	1428	C
1	1A	1429	G
1	1A	1437	C
1	1A	1445	A
1	1A	1450	G
1	1A	1452	A
1	1A	1455	G
1	1A	1467	C
1	1A	1471	A
1	1A	1482	G
1	1A	1490	A
1	1A	1493	C
1	1A	1506	C
1	1A	1508	A
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1530	C
1	1A	1531	C
1	1A	1542	A
1	1A	1543	C

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Mol	Chain	Res	Type
1	1A	1558	A
1	1A	1566	A
1	1A	1569	A
1	1A	1578	U
1	1A	1579	A
1	1A	1581	G
1	1A	1584	C
1	1A	1586	A
1	1A	1607	C
1	1A	1608	A
1	1A	1609	A
1	1A	1634	A
1	1A	1648	C
1	1A	1654	A
1	1A	1664	A
1	1A	1674	G
1	1A	1675	C
1	1A	1696	G
1	1A	1700	A
1	1A	1701	A
1	1A	1703	G
1	1A	1721	G
1	1A	1722	A
1	1A	1739	U
1	1A	1740	G
1	1A	1756	G
1	1A	1763	G
1	1A	1764	G
1	1A	1773	A
1	1A	1780	A
1	1A	1782	C
1	1A	1786	A
1	1A	1791	A
1	1A	1800	C
1	1A	1801	G
1	1A	1812	A
1	1A	1816	G
1	1A	1817	G
1	1A	1819	A
1	1A	1828	G
1	1A	1829	A
1	1A	1839	G

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Mol	Chain	Res	Type
1	1A	1847	A
1	1A	1858	G
1	1A	1877	A
1	1A	1878	G
1	1A	1885	A
1	1A	1900	A
1	1A	1906	G
1	1A	1913	A
1	1A	1914	C
1	1A	1929	G
1	1A	1930	G
1	1A	1937	A
1	1A	1938	A
1	1A	1955	U
1	1A	1963	U
1	1A	1965	C
1	1A	1967	C
1	1A	1970	A
1	1A	1971	A
1	1A	1972	A
1	1A	1993	U
1	1A	1996	C
1	1A	1997	G
1	1A	2020	A
1	1A	2023	G
1	1A	2031	A
1	1A	2032	G
1	1A	2033	A
1	1A	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	2082	A
1	1A	2103	C
1	1A	2104	G
1	1A	2107	C
1	1A	2108	C
1	1A	2110	G

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Mol	Chain	Res	Type
1	1A	2115	G
1	1A	2116	G
1	1A	2117	A
1	1A	2119	A
1	1A	2120	G
1	1A	2123	G
1	1A	2126	A
1	1A	2127	G
1	1A	2131	G
1	1A	2132	U
1	1A	2133	G
1	1A	2134	A
1	1A	2135	A
1	1A	2136	C
1	1A	2137	C
1	1A	2138	C
1	1A	2139	C
1	1A	2142	C
1	1A	2145	C
1	1A	2146	C
1	1A	2152	G
1	1A	2157	G
1	1A	2158	A
1	1A	2159	G
1	1A	2161	C
1	1A	2165	G
1	1A	2170	A
1	1A	2173	A
1	1A	2181	G
1	1A	2183	C
1	1A	2184	G
1	1A	2185	C
1	1A	2186	G
1	1A	2187	G
1	1A	2190	G
1	1A	2192	G
1	1A	2198	A
1	1A	2206	G
1	1A	2207	G
1	1A	2208	A
1	1A	2218	U
1	1A	2219	G

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Mol	Chain	Res	Type
1	1A	2225	A
1	1A	2238	G
1	1A	2239	G
1	1A	2243	U
1	1A	2268	A
1	1A	2273	A
1	1A	2278	A
1	1A	2283	C
1	1A	2287	A
1	1A	2289	G
1	1A	2305	A
1	1A	2320	A
1	1A	2325	G
1	1A	2327	A
1	1A	2334	G
1	1A	2335	A
1	1A	2336	A
1	1A	2347	C
1	1A	2350	C
1	1A	2383	G
1	1A	2385	C
1	1A	2400	G
1	1A	2406	U
1	1A	2414	G
1	1A	2422	A
1	1A	2423	U
1	1A	2424	C
1	1A	2425	A
1	1A	2429	G
1	1A	2430	A
1	1A	2435	A
1	1A	2439	A
1	1A	2441	C
1	1A	2445	G
1	1A	2448	A
1	1A	2449	U
1	1A	2468	G
1	1A	2469	A
1	1A	2475	C
1	1A	2476	A
1	1A	2478	A
1	1A	2492	U

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Mol	Chain	Res	Type
1	1A	2502	G
1	1A	2505	G
1	1A	2506	U
1	1A	2507	C
1	1A	2518	A
1	1A	2529	G
1	1A	2535	G
1	1A	2549	G
1	1A	2554	U
1	1A	2564	A
1	1A	2566	A
1	1A	2567	G
1	1A	2573	C
1	1A	2582	G
1	1A	2585	U
1	1A	2602	A
1	1A	2603	G
1	1A	2609	U
1	1A	2610	C
1	1A	2611	U
1	1A	2612	C
1	1A	2629	A
1	1A	2630	G
1	1A	2635	C
1	1A	2654	A
1	1A	2689	U
1	1A	2690	C
1	1A	2691	C
1	1A	2703	C
1	1A	2712(A)	A
1	1A	2713	A
1	1A	2714	G
1	1A	2726	U
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	2778	A
1	1A	2780	G
1	1A	2790	A

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Mol	Chain	Res	Type
1	1A	2791	C
1	1A	2793	G
1	1A	2802	G
1	1A	2818	G
1	1A	2820	A
1	1A	2821	A
1	1A	2835	A
1	1A	2872	G
1	1A	2873	A
1	1A	2874	C
1	1A	2875	C
1	1A	2880	C
1	1A	2892	A
1	1A	2893	G
1	1A	2894	G
2	1B	2	C
2	1B	7	G
2	1B	13	A
2	1B	30	C
2	1B	32	C
2	1B	50	G
2	1B	53	A
2	1B	56	G
2	1B	57	A
2	1B	72	G
2	1B	73	A
2	1B	84	C
2	1B	85	G
2	1B	106	G
2	1B	110	G
2	1B	112	U
2	1B	116	G
2	1B	117	G
2	1B	120	A
32	1a	7	G
32	1a	9	G
32	1a	22	G
32	1a	32	A
32	1a	36	C
32	1a	39	G
32	1a	44	G
32	1a	47	C

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Mol	Chain	Res	Type
32	1a	48	C
32	1a	50	A
32	1a	51	A
32	1a	57	G
32	1a	61	G
32	1a	65	U
32	1a	67	C
32	1a	68	G
32	1a	71	C
32	1a	77	G
32	1a	78	G
32	1a	79	G
32	1a	96	U
32	1a	101	A
32	1a	105	G
32	1a	116	A
32	1a	121	C
32	1a	131	C
32	1a	138	G
32	1a	151	A
32	1a	156	G
32	1a	163	C
32	1a	166	G
32	1a	170	U
32	1a	174	C
32	1a	178	C
32	1a	182	U
32	1a	189(F)	U
32	1a	189(H)	G
32	1a	189(K)	U
32	1a	195	A
32	1a	197	A
32	1a	203	U
32	1a	204	U
32	1a	216	G
32	1a	220	G
32	1a	222	U
32	1a	231	G
32	1a	236	G
32	1a	247	G
32	1a	251	G
32	1a	258	G

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Mol	Chain	Res	Type
32	1a	262	A
32	1a	266	G
32	1a	267	C
32	1a	279	A
32	1a	289	G
32	1a	301	G
32	1a	306	G
32	1a	313	A
32	1a	321	A
32	1a	328	C
32	1a	332	G
32	1a	348	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	378	G
32	1a	384	G
32	1a	398	C
32	1a	406	G
32	1a	412	A
32	1a	413	G
32	1a	422	C
32	1a	423	G
32	1a	424	G
32	1a	427	U
32	1a	429	U
32	1a	441	A
32	1a	442	C
32	1a	452	A
32	1a	455	C
32	1a	456	C
32	1a	461	A
32	1a	470	C
32	1a	471	G
32	1a	477	A
32	1a	480	U
32	1a	485	G
32	1a	496	A

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Mol	Chain	Res	Type
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	532	A
32	1a	533	A
32	1a	547	A
32	1a	550	G
32	1a	559	A
32	1a	560	U
32	1a	561	U
32	1a	568	G
32	1a	572	A
32	1a	573	A
32	1a	576	G
32	1a	592	G
32	1a	596	C
32	1a	607	A
32	1a	618	C
32	1a	619	U
32	1a	630	G
32	1a	632	A
32	1a	633	G
32	1a	634	C
32	1a	653	A
32	1a	661	G
32	1a	665	A
32	1a	687	A
32	1a	688	G
32	1a	693	G
32	1a	723	U
32	1a	731	G
32	1a	753	A
32	1a	755	G
32	1a	759	A
32	1a	765	G
32	1a	773	G
32	1a	777	A
32	1a	792	A

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Mol	Chain	Res	Type
32	1a	793	U
32	1a	794	A
32	1a	817	C
32	1a	818	G
32	1a	826	C
32	1a	827	U
32	1a	828	A
32	1a	829	G
32	1a	840	C
32	1a	841	U
32	1a	848	C
32	1a	851	G
32	1a	855	G
32	1a	889	A
32	1a	891	U
32	1a	902	G
32	1a	914	A
32	1a	926	G
32	1a	927	G
32	1a	934	C
32	1a	939	G
32	1a	942	G
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	989	C
32	1a	991	U
32	1a	992	U
32	1a	993	G
32	1a	995	C
32	1a	998	G
32	1a	1001	A
32	1a	1004	A
32	1a	1009	G

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Mol	Chain	Res	Type
32	1a	1010	G
32	1a	1022	G
32	1a	1023	G
32	1a	1024	G
32	1a	1025	U
32	1a	1026	G
32	1a	1028	C
32	1a	1029	C
32	1a	1030	C
32	1a	1030(A)	G
32	1a	1030(B)	C
32	1a	1030(D)	A
32	1a	1032	G
32	1a	1036	G
32	1a	1037	C
32	1a	1042	G
32	1a	1044	A
32	1a	1053	G
32	1a	1065	U
32	1a	1066	C
32	1a	1068	G
32	1a	1081	G
32	1a	1086	U
32	1a	1089	G
32	1a	1094	G
32	1a	1095	U
32	1a	1101	A
32	1a	1122	U
32	1a	1124	G
32	1a	1134	G
32	1a	1136	U
32	1a	1137	C
32	1a	1138	G
32	1a	1139	G
32	1a	1147	C
32	1a	1150	U
32	1a	1152	A
32	1a	1157	A
32	1a	1159	U
32	1a	1165	C
32	1a	1166	G
32	1a	1168	A

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Mol	Chain	Res	Type
32	1a	1180	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	1204	A
32	1a	1208	C
32	1a	1213	A
32	1a	1224	G
32	1a	1227	A
32	1a	1238	A
32	1a	1241	G
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1270	C
32	1a	1273	G
32	1a	1278	U
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	1312	G
32	1a	1319	A
32	1a	1320	C
32	1a	1322	C
32	1a	1340	A
32	1a	1346	A
32	1a	1347	G
32	1a	1363	C
32	1a	1368	G
32	1a	1370	G
32	1a	1377	A
32	1a	1397	C
32	1a	1414	U
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G

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Mol	Chain	Res	Type
32	1a	1443	G
32	1a	1447	A
32	1a	1452	C
32	1a	1456	G
32	1a	1457	G
32	1a	1487	G
32	1a	1492	A
32	1a	1493	A
32	1a	1497	G
32	1a	1499	A
32	1a	1504	G
32	1a	1506	U
32	1a	1507	A
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	9	U
1	2A	10	G
1	2A	14	A
1	2A	15	G
1	2A	23	G
1	2A	34	C
1	2A	45	C
1	2A	51	G
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	84	A
1	2A	90	U
1	2A	94	C
1	2A	99	U
1	2A	100	G
1	2A	102	G
1	2A	118	A
1	2A	119	A
1	2A	120	U
1	2A	121	G
1	2A	133	C
1	2A	139(A)	G

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Mol	Chain	Res	Type
1	2A	140	G
1	2A	141	A
1	2A	149	A
1	2A	157	U
1	2A	172	C
1	2A	181	A
1	2A	182	A
1	2A	196	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	225	A
1	2A	229	A
1	2A	230	U
1	2A	248	G
1	2A	250	G
1	2A	271(K)	U
1	2A	271(L)	U
1	2A	271(M)	G
1	2A	271(N)	U
1	2A	271(O)	C
1	2A	272(A)	U
1	2A	272(B)	G
1	2A	277	C
1	2A	278	A
1	2A	292	C
1	2A	310	A
1	2A	311	A
1	2A	312	G
1	2A	324	A
1	2A	329	G
1	2A	330	A
1	2A	333	G
1	2A	335	C
1	2A	352	G
1	2A	362	U
1	2A	363	G
1	2A	363(A)	A
1	2A	370	G

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Mol	Chain	Res	Type
1	2A	386	G
1	2A	396	G
1	2A	399	G
1	2A	402	A
1	2A	405	U
1	2A	411	G
1	2A	412	A
1	2A	428	A
1	2A	435	C
1	2A	440	G
1	2A	444	C
1	2A	446	G
1	2A	454	A
1	2A	455	C
1	2A	457	A
1	2A	464	U
1	2A	470	A
1	2A	481	G
1	2A	503	A
1	2A	504	U
1	2A	505	A
1	2A	509	C
1	2A	528	A
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	533	G
1	2A	545	G
1	2A	563	G
1	2A	568	U
1	2A	573	G
1	2A	575	A
1	2A	592	G
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	614(C)	A
1	2A	615	G
1	2A	616	G
1	2A	627	A
1	2A	634	C
1	2A	637	A

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Mol	Chain	Res	Type
1	2A	645	C
1	2A	646	A
1	2A	651	G
1	2A	652(B)	A
1	2A	652(C)	G
1	2A	668	G
1	2A	669	G
1	2A	686	G
1	2A	717	G
1	2A	726	G
1	2A	730	C
1	2A	752	A
1	2A	753	C
1	2A	775	G
1	2A	776	G
1	2A	782	A
1	2A	784	A
1	2A	785	G
1	2A	790	C
1	2A	792	G
1	2A	802	A
1	2A	805	G
1	2A	812	C
1	2A	816	C
1	2A	827	U
1	2A	828	U
1	2A	847	U
1	2A	848	G
1	2A	857	C
1	2A	859	G
1	2A	869	G
1	2A	874	G
1	2A	877	U
1	2A	880	G
1	2A	886	C
1	2A	887	A
1	2A	888	C
1	2A	889	C
1	2A	890	A
1	2A	893	C
1	2A	894	C
1	2A	896	A

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Mol	Chain	Res	Type
1	2A	900	A
1	2A	901	A
1	2A	910	A
1	2A	911	A
1	2A	914	C
1	2A	917	A
1	2A	932	G
1	2A	938	G
1	2A	941	A
1	2A	945	A
1	2A	946	G
1	2A	953	A
1	2A	959	A
1	2A	961	C
1	2A	968	G
1	2A	974	G
1	2A	975	C
1	2A	980	A
1	2A	983	A
1	2A	996	A
1	2A	1012	U
1	2A	1013	C
1	2A	1026	U
1	2A	1033	U
1	2A	1037	G
1	2A	1038	C
1	2A	1042	G
1	2A	1043	C
1	2A	1044	G
1	2A	1045	A
1	2A	1046	A
1	2A	1047	G
1	2A	1048	A
1	2A	1052	C
1	2A	1053	C
1	2A	1054	A
1	2A	1058	G
1	2A	1060	U
1	2A	1064	C
1	2A	1065	U
1	2A	1066	U
1	2A	1067	A

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Mol	Chain	Res	Type
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	1076	C
1	2A	1077	A
1	2A	1078	U
1	2A	1079	C
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	1096	A
1	2A	1109	C
1	2A	1110	G
1	2A	1112	G
1	2A	1116	C
1	2A	1117	G
1	2A	1119	C
1	2A	1130	U
1	2A	1135	C
1	2A	1136	G
1	2A	1171	G
1	2A	1205	U
1	2A	1210	A
1	2A	1211	U
1	2A	1212	G
1	2A	1220	A
1	2A	1236	G
1	2A	1237	A
1	2A	1253	A
1	2A	1256	G
1	2A	1271	G
1	2A	1272	A

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Mol	Chain	Res	Type
1	2A	1300	U
1	2A	1301	A
1	2A	1303	G
1	2A	1314	C
1	2A	1319	G
1	2A	1327	C
1	2A	1352	U
1	2A	1359	A
1	2A	1360	A
1	2A	1365	A
1	2A	1368	G
1	2A	1370	C
1	2A	1379	A
1	2A	1384	A
1	2A	1385	G
1	2A	1386	C
1	2A	1416	G
1	2A	1417	C
1	2A	1420	U
1	2A	1421	G
1	2A	1427	A
1	2A	1428	C
1	2A	1445	A
1	2A	1445(A)	C
1	2A	1450	G
1	2A	1455	G
1	2A	1459	G
1	2A	1467	C
1	2A	1471	A
1	2A	1478	G
1	2A	1482	G
1	2A	1493	C
1	2A	1494	A
1	2A	1495	A
1	2A	1497	U
1	2A	1508	A
1	2A	1509	C
1	2A	1509(A)	A
1	2A	1530	C
1	2A	1531	C
1	2A	1542	A
1	2A	1543	C

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Mol	Chain	Res	Type
1	2A	1547	C
1	2A	1555	G
1	2A	1558	A
1	2A	1559	G
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1580	A
1	2A	1584	C
1	2A	1586	A
1	2A	1595	G
1	2A	1607	C
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A
1	2A	1640	C
1	2A	1648	C
1	2A	1651	G
1	2A	1654	A
1	2A	1667	G
1	2A	1674	G
1	2A	1675	C
1	2A	1696	G
1	2A	1700	A
1	2A	1701	A
1	2A	1703	G
1	2A	1721	G
1	2A	1722	A
1	2A	1756	G
1	2A	1762	A
1	2A	1763	G
1	2A	1764	G
1	2A	1773	A
1	2A	1779	U
1	2A	1780	A
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1816	G
1	2A	1829	A
1	2A	1835	G
1	2A	1836	C

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Mol	Chain	Res	Type
1	2A	1839	G
1	2A	1847	A
1	2A	1848	A
1	2A	1853	A
1	2A	1877	A
1	2A	1878	G
1	2A	1900	A
1	2A	1906	G
1	2A	1913	A
1	2A	1914	C
1	2A	1927	A
1	2A	1929	G
1	2A	1930	G
1	2A	1934	C
1	2A	1937	A
1	2A	1938	A
1	2A	1955	U
1	2A	1963	U
1	2A	1964	G
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1984	G
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	2043	C
1	2A	2052	G
1	2A	2055	C
1	2A	2056	G
1	2A	2060	A
1	2A	2061	G
1	2A	2062	A
1	2A	2069	G
1	2A	2096	U
1	2A	2101	G
1	2A	2103	C

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Mol	Chain	Res	Type
1	2A	2104	G
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	2119	A
1	2A	2120	G
1	2A	2123	G
1	2A	2124	G
1	2A	2126	A
1	2A	2127	G
1	2A	2129	C
1	2A	2130	U
1	2A	2131	G
1	2A	2132	U
1	2A	2133	G
1	2A	2134	A
1	2A	2135	A
1	2A	2136	C
1	2A	2138	C
1	2A	2141	G
1	2A	2145	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	2157	G
1	2A	2158	A
1	2A	2163	C
1	2A	2164	C
1	2A	2165	G
1	2A	2166	G
1	2A	2171	A
1	2A	2172	U
1	2A	2173	A

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Mol	Chain	Res	Type
1	2A	2177	C
1	2A	2178	C
1	2A	2180	U
1	2A	2184	G
1	2A	2186	G
1	2A	2188	C
1	2A	2189	U
1	2A	2192	G
1	2A	2198	A
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2218	U
1	2A	2225	A
1	2A	2238	G
1	2A	2267	A
1	2A	2268	A
1	2A	2269	A
1	2A	2275	C
1	2A	2278	A
1	2A	2283	C
1	2A	2286	A
1	2A	2287	A
1	2A	2289	G
1	2A	2292	C
1	2A	2294	C
1	2A	2299	G
1	2A	2300	G
1	2A	2305	A
1	2A	2308	G
1	2A	2309	A
1	2A	2310	A
1	2A	2311	A
1	2A	2312	U
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	2336	A
1	2A	2340	G

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Mol	Chain	Res	Type
1	2A	2343	C
1	2A	2347	C
1	2A	2350	C
1	2A	2354	G
1	2A	2366	A
1	2A	2379	G
1	2A	2383	G
1	2A	2385	C
1	2A	2388	A
1	2A	2391	G
1	2A	2406	U
1	2A	2407	G
1	2A	2410	G
1	2A	2414	G
1	2A	2422	A
1	2A	2423	U
1	2A	2425	A
1	2A	2428	G
1	2A	2429	G
1	2A	2430	A
1	2A	2435	A
1	2A	2439	A
1	2A	2440	C
1	2A	2441	C
1	2A	2448	A
1	2A	2468	G
1	2A	2474	C
1	2A	2476	A
1	2A	2487	G
1	2A	2491	U
1	2A	2492	U
1	2A	2502	G
1	2A	2505	G
1	2A	2506	U
1	2A	2518	A
1	2A	2520	C
1	2A	2529	G
1	2A	2542	A
1	2A	2554	U
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C

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Mol	Chain	Res	Type
1	2A	2574	G
1	2A	2582	G
1	2A	2585	U
1	2A	2602	A
1	2A	2603	G
1	2A	2604	U
1	2A	2609	U
1	2A	2611	U
1	2A	2612	C
1	2A	2615	U
1	2A	2630	G
1	2A	2646	C
1	2A	2663	G
1	2A	2682	U
1	2A	2689	U
1	2A	2690	C
1	2A	2703	C
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2726	U
1	2A	2733	A
1	2A	2745	C
1	2A	2757	A
1	2A	2758	A
1	2A	2765	A
1	2A	2766	G
1	2A	2776	A
1	2A	2778	A
1	2A	2789	C
1	2A	2793	G
1	2A	2802	G
1	2A	2811	G
1	2A	2820	A
1	2A	2821	A
1	2A	2833	G
1	2A	2835	A
1	2A	2872	G
1	2A	2879	C
1	2A	2883	A
1	2A	2894	G
1	2A	2897	U

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Mol	Chain	Res	Type
2	2B	2	C
2	2B	7	G
2	2B	8	U
2	2B	12	C
2	2B	13	A
2	2B	24	G
2	2B	30	C
2	2B	31	C
2	2B	32	C
2	2B	33	G
2	2B	35	U
2	2B	51	G
2	2B	56	G
2	2B	65	C
2	2B	66	A
2	2B	73	A
2	2B	84	C
2	2B	85	G
2	2B	94	C
2	2B	109	C
2	2B	110	G
2	2B	119	G
32	2a	5	U
32	2a	6	G
32	2a	9	G
32	2a	22	G
32	2a	32	A
32	2a	39	G
32	2a	47	C
32	2a	48	C
32	2a	50	A
32	2a	51	A
32	2a	61	G
32	2a	65	U
32	2a	66	G
32	2a	80	G
32	2a	89	C
32	2a	97	G
32	2a	98	G
32	2a	101	A
32	2a	116	A
32	2a	121	C

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Mol	Chain	Res	Type
32	2a	131	C
32	2a	144	G
32	2a	151	A
32	2a	156	G
32	2a	163	C
32	2a	173	U
32	2a	174	C
32	2a	182	U
32	2a	189(B)	C
32	2a	189(E)	U
32	2a	189(F)	U
32	2a	195	A
32	2a	197	A
32	2a	202	U
32	2a	203	U
32	2a	204	U
32	2a	216	G
32	2a	220	G
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	289	G
32	2a	298	A
32	2a	306	G
32	2a	321	A
32	2a	328	C
32	2a	332	G
32	2a	350	G
32	2a	351	G
32	2a	352	C
32	2a	353	A
32	2a	354	G
32	2a	356	A
32	2a	367	U
32	2a	372	C
32	2a	373	A
32	2a	397	A
32	2a	398	C
32	2a	404	U

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Mol	Chain	Res	Type
32	2a	406	G
32	2a	412	A
32	2a	413	G
32	2a	421	U
32	2a	422	C
32	2a	424	G
32	2a	429	U
32	2a	430	A
32	2a	431	A
32	2a	438	G
32	2a	439	A
32	2a	442	C
32	2a	446	G
32	2a	452	A
32	2a	458	C
32	2a	461	A
32	2a	470	C
32	2a	471	G
32	2a	476	G
32	2a	477	A
32	2a	482	A
32	2a	484	G
32	2a	485	G
32	2a	495	A
32	2a	496	A
32	2a	498	U
32	2a	500	G
32	2a	501	C
32	2a	502	G
32	2a	505	G
32	2a	506	G
32	2a	509	A
32	2a	510	A
32	2a	511	C
32	2a	518	C
32	2a	521	G
32	2a	524	G
32	2a	528	C
32	2a	530	G
32	2a	531	U
32	2a	532	A
32	2a	533	A

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Mol	Chain	Res	Type
32	2a	547	A
32	2a	559	A
32	2a	560	U
32	2a	561	U
32	2a	564	C
32	2a	572	A
32	2a	573	A
32	2a	575	G
32	2a	576	G
32	2a	589	C
32	2a	592	G
32	2a	596	C
32	2a	614	A
32	2a	618	C
32	2a	630	G
32	2a	631	G
32	2a	632	A
32	2a	633	G
32	2a	639	G
32	2a	641	U
32	2a	649	G
32	2a	650	G
32	2a	651	C
32	2a	653	A
32	2a	654	G
32	2a	655	A
32	2a	657	G
32	2a	665	A
32	2a	666	G
32	2a	670	G
32	2a	685	G
32	2a	687	A
32	2a	688	G
32	2a	695	A
32	2a	721	G
32	2a	723	U
32	2a	724	G
32	2a	731	G
32	2a	748	C
32	2a	749	C
32	2a	753	A
32	2a	755	G

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Mol	Chain	Res	Type
32	2a	760	G
32	2a	776	G
32	2a	777	A
32	2a	785	G
32	2a	793	U
32	2a	794	A
32	2a	806	C
32	2a	816	A
32	2a	817	C
32	2a	821	G
32	2a	828	A
32	2a	829	G
32	2a	830	G
32	2a	840	C
32	2a	841	U
32	2a	848	C
32	2a	851	G
32	2a	859	A
32	2a	863	U
32	2a	873	A
32	2a	889	A
32	2a	902	G
32	2a	914	A
32	2a	919	A
32	2a	926	G
32	2a	927	G
32	2a	931	C
32	2a	934	C
32	2a	935	A
32	2a	940	C
32	2a	942	G
32	2a	961	U
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	992	U

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Mol	Chain	Res	Type
32	2a	993	G
32	2a	994	A
32	2a	1003	G
32	2a	1004	A
32	2a	1005	A
32	2a	1006	C
32	2a	1009	G
32	2a	1017	G
32	2a	1020	U
32	2a	1023	G
32	2a	1025	U
32	2a	1026	G
32	2a	1027	C
32	2a	1028	C
32	2a	1029	C
32	2a	1030(A)	G
32	2a	1030(B)	C
32	2a	1030(C)	G
32	2a	1030(D)	A
32	2a	1031	G
32	2a	1035	A
32	2a	1036	G
32	2a	1037	C
32	2a	1038	C
32	2a	1040	U
32	2a	1041	A
32	2a	1043	C
32	2a	1044	A
32	2a	1045	C
32	2a	1053	G
32	2a	1054	C
32	2a	1055	A
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1081	G
32	2a	1086	U
32	2a	1091	U
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A
32	2a	1112	C

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Mol	Chain	Res	Type
32	2a	1113	C
32	2a	1117	G
32	2a	1118	C
32	2a	1122	U
32	2a	1123	A
32	2a	1125	U
32	2a	1127	G
32	2a	1128	C
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
32	2a	1162	C
32	2a	1164	G
32	2a	1176	A
32	2a	1183	A
32	2a	1184	G
32	2a	1188	A
32	2a	1193	G
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	1218	C
32	2a	1224	G
32	2a	1227	A
32	2a	1238	A
32	2a	1240	U
32	2a	1241	G
32	2a	1249	C
32	2a	1256	A
32	2a	1257	U
32	2a	1258	G

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Mol	Chain	Res	Type
32	2a	1260	C
32	2a	1270	C
32	2a	1273	G
32	2a	1278	U
32	2a	1279	A
32	2a	1280	A
32	2a	1282	C
32	2a	1287	A
32	2a	1300	G
32	2a	1303	C
32	2a	1305	G
32	2a	1306	A
32	2a	1312	G
32	2a	1316	G
32	2a	1320	C
32	2a	1322	C
32	2a	1323	G
32	2a	1340	A
32	2a	1346	A
32	2a	1347	G
32	2a	1353	G
32	2a	1363	C
32	2a	1364	U
32	2a	1368	G
32	2a	1370	G
32	2a	1381	U
32	2a	1394	A
32	2a	1397	C
32	2a	1399	C
32	2a	1402	4OC
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1446	U
32	2a	1447	A
32	2a	1456	G
32	2a	1491	G
32	2a	1492	A
32	2a	1497	G
32	2a	1499	A
32	2a	1503	A
32	2a	1504	G

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Mol	Chain	Res	Type
32	2a	1506	U
32	2a	1507	A
32	2a	1517	G
32	2a	1519	MA6
32	2a	1520	G
32	2a	1529	G
32	2a	1530	G
32	2a	1531	A

All (61) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	34	C
1	1A	266	G
1	1A	271(K)	U
1	1A	278	A
1	1A	764	A
1	1A	827	U
1	1A	839	U
1	1A	840	C
1	1A	887	A
1	1A	895	U
1	1A	958	U
1	1A	1065	U
1	1A	1067	A
1	1A	1078	U
1	1A	1089	G
1	1A	1175	U
1	1A	1176	G
1	1A	1210	A
1	1A	1275	A
1	1A	1420	U
1	1A	1442	G
1	1A	1608	A
1	1A	1653	G
1	1A	2288	A
1	1A	2406	U
1	1A	2602	A
1	1A	2689	U
1	1A	2756	U
1	1A	2893	G
1	2A	9	U

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Mol	Chain	Res	Type
1	2A	195	A
1	2A	196	A
1	2A	271(M)	G
1	2A	277	C
1	2A	752	A
1	2A	827	U
1	2A	840	C
1	2A	856	C
1	2A	900	A
1	2A	993	G
1	2A	1047	G
1	2A	1053	C
1	2A	1057	A
1	2A	1065	U
1	2A	1067	A
1	2A	1076	C
1	2A	1210	A
1	2A	1420	U
1	2A	1442	G
1	2A	1491	G
1	2A	1992	G
1	2A	2126	A
1	2A	2171	A
1	2A	2172	U
1	2A	2321	G
1	2A	2406	U
1	2A	2439	A
1	2A	2601	C
1	2A	2602	A
1	2A	2689	U
1	2A	2756	U

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

48 non-standard protein/DNA/RNA residues are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
32	MA6	1a	1518	32	23,26,27	0.41	0	33,38,41	2.01	10 (30%)
32	UR3	2a	1498	32	19,22,23	0.95	0	26,32,35	1.79	3 (11%)
1	5MU	1A	1915	1	19,22,23	1.39	6 (31%)	27,32,35	2.29	9 (33%)
1	5MC	1A	1962	1,54	19,22,23	1.51	3 (15%)	26,32,35	1.27	4 (15%)
1	OMG	1A	2251	1,54	23,26,27	1.27	3 (13%)	32,38,41	2.14	6 (18%)
1	5MC	1A	1942	1	19,22,23	1.63	3 (15%)	26,32,35	1.14	2 (7%)
32	5MC	1a	1404	32	19,22,23	1.80	3 (15%)	26,32,35	1.21	3 (11%)
1	OMG	2A	2251	1,54	23,26,27	1.23	3 (13%)	32,38,41	2.01	6 (18%)
1	5MC	2A	1962	1,54	19,22,23	1.60	3 (15%)	26,32,35	1.25	3 (11%)
32	5MC	2a	967	32	19,22,23	1.82	3 (15%)	26,32,35	1.16	2 (7%)
32	2MG	2a	1207	32	23,26,27	1.24	4 (17%)	33,38,41	2.10	8 (24%)
1	OMC	1A	1920	1	19,22,23	0.82	0	25,31,34	0.97	1 (4%)
1	PSU	1A	2605	1	18,21,22	1.29	3 (16%)	21,30,33	1.86	5 (23%)
1	5MC	2A	1942	1	19,22,23	1.59	3 (15%)	26,32,35	1.14	2 (7%)
32	5MC	1a	1407	32	19,22,23	1.82	2 (10%)	26,32,35	1.12	3 (11%)
32	M2G	2a	966	32,54	24,27,28	1.30	3 (12%)	33,40,43	1.85	6 (18%)
1	PSU	1A	1911	1	18,21,22	1.40	2 (11%)	21,30,33	2.06	3 (14%)
1	2MA	1A	2503	1,54	22,25,26	1.44	4 (18%)	32,37,40	2.50	8 (25%)
32	5MC	2a	1404	32	19,22,23	1.60	3 (15%)	26,32,35	1.13	2 (7%)
32	M2G	1a	966	32	24,27,28	1.26	4 (16%)	33,40,43	1.77	6 (18%)
32	4OC	1a	1402	32	20,23,24	0.79	0	25,32,35	0.94	1 (4%)
32	2MG	1a	1207	32	23,26,27	1.26	3 (13%)	33,38,41	2.36	8 (24%)
32	5MC	1a	967	32	19,22,23	1.58	3 (15%)	26,32,35	1.06	2 (7%)
1	5MU	2A	1939	1,54	19,22,23	1.44	5 (26%)	27,32,35	2.26	6 (22%)
1	PSU	2A	2605	1	18,21,22	1.39	2 (11%)	21,30,33	1.89	4 (19%)
32	MA6	1a	1519	32	23,26,27	0.42	0	33,38,41	2.02	9 (27%)
1	PSU	2A	1911	1	18,21,22	1.37	2 (11%)	21,30,33	2.13	4 (19%)
1	2MA	2A	2503	1,54	22,25,26	1.47	5 (22%)	32,37,40	2.34	9 (28%)
32	MA6	2a	1518	32	23,26,27	0.39	0	33,38,41	2.05	9 (27%)
1	OMU	1A	2552	1,54	19,22,23	1.24	2 (10%)	25,31,34	1.83	5 (20%)
32	G7M	2a	527	32,54	23,26,27	1.44	3 (13%)	34,39,42	1.72	5 (14%)
32	5MC	2a	1407	32	19,22,23	1.66	3 (15%)	26,32,35	1.15	2 (7%)
1	5MU	1A	1939	1	19,22,23	1.40	5 (26%)	27,32,35	2.11	6 (22%)
1	5MU	2A	1915	1	19,22,23	1.46	4 (21%)	27,32,35	2.26	9 (33%)
1	PSU	1A	1917	1	18,21,22	1.37	2 (11%)	21,30,33	1.94	3 (14%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
32	PSU	1a	516	32,54	18,21,22	1.40	2 (11%)	21,30,33	1.99	4 (19%)
43	0TD	1l	92	43	8,9,10	4.49	1 (12%)	6,11,13	1.51	1 (16%)
32	G7M	1a	527	32,54	23,26,27	1.59	3 (13%)	34,39,42	1.77	5 (14%)
32	5MC	2a	1400	32	19,22,23	1.73	3 (15%)	26,32,35	1.20	2 (7%)
43	0TD	2l	92	43	8,9,10	4.46	1 (12%)	6,11,13	3.48	3 (50%)
32	4OC	2a	1402	32	20,23,24	0.75	0	25,32,35	0.96	1 (4%)
1	PSU	2A	1917	1	18,21,22	1.34	2 (11%)	21,30,33	1.99	4 (19%)
32	MA6	2a	1519	32	23,26,27	0.42	0	33,38,41	2.11	8 (24%)
32	5MC	1a	1400	32	19,22,23	1.68	3 (15%)	26,32,35	1.22	3 (11%)
1	OMU	2A	2552	1,54	19,22,23	1.19	2 (10%)	25,31,34	1.94	5 (20%)
32	PSU	2a	516	32,54	18,21,22	1.36	2 (11%)	21,30,33	1.95	5 (23%)
1	OMC	2A	1920	1	19,22,23	0.80	0	25,31,34	0.91	1 (4%)
32	UR3	1a	1498	32	19,22,23	0.99	2 (10%)	26,32,35	1.72	3 (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
32	MA6	1a	1518	32	-	0/11/29/30	0/3/3/3
32	UR3	2a	1498	32	-	0/7/25/26	0/2/2/2
1	5MU	1A	1915	1	-	2/7/25/26	0/2/2/2
1	5MC	1A	1962	1,54	-	0/7/25/26	0/2/2/2
1	OMG	1A	2251	1,54	-	1/9/27/28	0/3/3/3
1	5MC	1A	1942	1	-	0/7/25/26	0/2/2/2
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
1	OMG	2A	2251	1,54	-	1/9/27/28	0/3/3/3
1	5MC	2A	1962	1,54	-	0/7/25/26	0/2/2/2
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
32	2MG	2a	1207	32	-	0/9/27/28	0/3/3/3
1	OMC	1A	1920	1	-	2/9/27/28	0/2/2/2
1	PSU	1A	2605	1	-	0/7/25/26	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
32	M2G	2a	966	32,54	-	0/11/29/30	0/3/3/3
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
1	2MA	1A	2503	1,54	-	2/7/25/26	0/3/3/3
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
32	4OC	1a	1402	32	-	1/9/29/30	0/2/2/2
32	2MG	1a	1207	32	-	0/9/27/28	0/3/3/3
32	5MC	1a	967	32	-	0/7/25/26	0/2/2/2
1	5MU	2A	1939	1,54	-	0/7/25/26	0/2/2/2
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
32	MA6	1a	1519	32	-	3/11/29/30	0/3/3/3
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
1	2MA	2A	2503	1,54	-	2/7/25/26	0/3/3/3
32	MA6	2a	1518	32	-	0/11/29/30	0/3/3/3
1	OMU	1A	2552	1,54	-	0/9/27/28	0/2/2/2
32	G7M	2a	527	32,54	-	1/7/25/26	0/3/3/3
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
1	5MU	1A	1939	1	-	0/7/25/26	0/2/2/2
1	5MU	2A	1915	1	-	2/7/25/26	0/2/2/2
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2
32	PSU	1a	516	32,54	-	0/7/25/26	0/2/2/2
43	0TD	1l	92	43	-	4/7/12/14	-
32	G7M	1a	527	32,54	-	2/7/25/26	0/3/3/3
32	5MC	2a	1400	32	-	2/7/25/26	0/2/2/2
43	0TD	2l	92	43	-	2/7/12/14	-
32	4OC	2a	1402	32	-	2/9/29/30	0/2/2/2
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
32	MA6	2a	1519	32	-	3/11/29/30	0/3/3/3
32	5MC	1a	1400	32	-	1/7/25/26	0/2/2/2
1	OMU	2A	2552	1,54	-	0/9/27/28	0/2/2/2
32	PSU	2a	516	32,54	-	0/7/25/26	0/2/2/2
1	OMC	2A	1920	1	-	1/9/27/28	0/2/2/2
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2

All (115) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	1l	92	0TD	CB-SB	-12.31	1.69	1.82
43	2l	92	0TD	CB-SB	-12.25	1.69	1.82
32	2a	967	5MC	C5-C4	6.85	1.49	1.44
32	1a	1407	5MC	C5-C4	6.80	1.49	1.44
32	1a	1404	5MC	C5-C4	6.65	1.49	1.44
32	2a	1400	5MC	C5-C4	6.41	1.49	1.44
32	1a	1400	5MC	C5-C4	6.10	1.48	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	1407	5MC	C5-C4	6.05	1.48	1.44
1	1A	1942	5MC	C5-C4	5.88	1.48	1.44
32	2a	1404	5MC	C5-C4	5.80	1.48	1.44
1	2A	1962	5MC	C5-C4	5.66	1.48	1.44
32	1a	967	5MC	C5-C4	5.58	1.48	1.44
1	2A	1942	5MC	C5-C4	5.57	1.48	1.44
1	1A	1962	5MC	C5-C4	5.30	1.48	1.44
32	1a	527	G7M	C5-N7	-5.11	1.33	1.39
1	2A	2503	2MA	C5-C4	4.28	1.46	1.39
32	2a	527	G7M	C5-N7	-4.14	1.34	1.39
1	1A	2503	2MA	C5-C4	3.94	1.46	1.39
32	1a	516	PSU	C6-C5	3.74	1.39	1.35
1	2A	2605	PSU	C6-C5	3.74	1.39	1.35
1	1A	1911	PSU	C6-C5	3.71	1.39	1.35
32	2a	516	PSU	C6-C5	3.45	1.39	1.35
1	2A	1917	PSU	C6-C5	3.45	1.39	1.35
32	1a	527	G7M	C5-C4	3.41	1.46	1.38
1	1A	1917	PSU	C6-C5	3.28	1.38	1.35
1	2A	1915	5MU	C2-N1	3.26	1.43	1.38
32	2a	1207	2MG	C5-C4	3.23	1.47	1.38
1	1A	2251	OMG	C6-N1	-3.22	1.32	1.38
1	2A	1911	PSU	C6-C5	3.21	1.38	1.35
32	2a	527	G7M	C5-C4	3.14	1.46	1.38
32	1a	966	M2G	C5-C4	3.11	1.47	1.38
32	1a	1207	2MG	C5-C4	3.11	1.47	1.38
1	2A	2251	OMG	C5-C4	3.11	1.47	1.38
32	2a	966	M2G	C5-C4	3.11	1.47	1.38
32	2a	966	M2G	C2-N2	3.06	1.40	1.35
1	1A	2251	OMG	C5-C4	3.03	1.47	1.38
32	1a	1407	5MC	C6-C5	2.99	1.39	1.34
1	2A	1939	5MU	C6-C5	2.94	1.39	1.34
1	1A	2552	OMU	C4-N3	-2.90	1.33	1.38
1	2A	1915	5MU	C6-C5	2.85	1.39	1.34
32	1a	1404	5MC	C6-C5	2.84	1.39	1.34
32	2a	1400	5MC	C6-C5	2.78	1.39	1.34
1	2A	2552	OMU	C4-N3	-2.78	1.33	1.38
1	1A	1915	5MU	C2-N1	2.75	1.42	1.38
1	2A	1911	PSU	C4-N3	-2.75	1.33	1.38
1	2A	1939	5MU	C4-N3	-2.74	1.33	1.38
32	1a	1400	5MC	C6-C5	2.72	1.39	1.34
32	2a	967	5MC	C6-C5	2.71	1.39	1.34
1	1A	1962	5MC	C6-N1	-2.69	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	2251	OMG	C6-N1	-2.69	1.33	1.38
1	2A	1942	5MC	C6-C5	2.68	1.39	1.34
32	2a	1407	5MC	C6-C5	2.68	1.39	1.34
1	1A	1915	5MU	C4-N3	-2.66	1.33	1.38
1	1A	2503	2MA	C5-N7	-2.66	1.34	1.39
32	2a	1404	5MC	C6-C5	2.65	1.38	1.34
1	1A	1917	PSU	C4-N3	-2.65	1.33	1.38
32	1a	967	5MC	C6-C5	2.65	1.38	1.34
1	1A	1939	5MU	C4-N3	-2.64	1.33	1.38
1	2A	1962	5MC	C6-C5	2.61	1.38	1.34
1	1A	1942	5MC	C6-C5	2.61	1.38	1.34
1	2A	2503	2MA	C8-N7	2.59	1.36	1.31
1	1A	2503	2MA	C5-C6	2.58	1.48	1.41
32	2a	527	G7M	C6-N1	-2.58	1.34	1.38
32	2a	516	PSU	C4-N3	-2.56	1.34	1.38
1	2A	2605	PSU	C4-N3	-2.56	1.34	1.38
1	1A	2552	OMU	C2-N3	-2.55	1.33	1.38
32	1a	966	M2G	C2-N2	2.54	1.39	1.35
32	1a	527	G7M	C6-N1	-2.53	1.34	1.38
1	1A	1939	5MU	C6-N1	-2.51	1.33	1.38
1	2A	1939	5MU	C4-C5	2.51	1.48	1.44
1	2A	1962	5MC	C6-N1	-2.50	1.33	1.38
1	1A	1915	5MU	C6-C5	2.50	1.38	1.34
32	1a	1207	2MG	C6-N1	-2.49	1.34	1.38
1	2A	1915	5MU	C4-C5	2.49	1.48	1.44
1	1A	1942	5MC	C6-N1	-2.49	1.33	1.38
32	1a	966	M2G	C6-N1	-2.49	1.34	1.38
1	1A	1939	5MU	C6-C5	2.48	1.38	1.34
1	1A	1911	PSU	C4-N3	-2.43	1.34	1.38
1	1A	2605	PSU	C4-N3	-2.43	1.34	1.38
32	1a	516	PSU	C4-N3	-2.41	1.34	1.38
1	1A	1939	5MU	C4-C5	2.39	1.48	1.44
1	2A	2552	OMU	C2-N3	-2.39	1.33	1.38
32	1a	1400	5MC	C6-N1	-2.39	1.33	1.38
1	2A	1917	PSU	C4-N3	-2.38	1.34	1.38
1	2A	2503	2MA	C5-C6	2.36	1.47	1.41
1	2A	2503	2MA	C5-N7	-2.36	1.34	1.39
32	2a	966	M2G	C6-N1	-2.36	1.34	1.38
1	1A	2503	2MA	C8-N7	2.34	1.36	1.31
1	2A	1915	5MU	C4-N3	-2.31	1.34	1.38
1	2A	1942	5MC	C6-N1	-2.31	1.34	1.38
1	2A	2251	OMG	C5-N7	-2.30	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	1939	5MU	C6-N1	-2.29	1.34	1.38
1	1A	2605	PSU	C6-C5	2.23	1.37	1.35
32	2a	1400	5MC	C6-N1	-2.23	1.34	1.38
32	2a	967	5MC	C6-N1	-2.23	1.34	1.38
1	1A	2251	OMG	C5-N7	-2.22	1.34	1.39
32	2a	1407	5MC	C6-N1	-2.22	1.34	1.38
32	1a	1207	2MG	C2-N3	2.21	1.36	1.32
1	1A	1939	5MU	C2-N3	-2.21	1.34	1.38
1	2A	1939	5MU	C2-N3	-2.21	1.34	1.38
32	2a	1404	5MC	C6-N1	-2.21	1.34	1.38
32	2a	1207	2MG	C6-N1	-2.20	1.34	1.38
32	1a	1404	5MC	C6-N1	-2.20	1.34	1.38
32	1a	1498	UR3	C6-C5	2.12	1.40	1.35
1	1A	1915	5MU	C4-C5	2.09	1.48	1.44
32	2a	1207	2MG	C5-N7	-2.07	1.34	1.39
32	1a	967	5MC	C6-N1	-2.07	1.34	1.38
32	1a	1498	UR3	C2-N1	2.07	1.41	1.38
1	1A	2605	PSU	C2-N3	-2.06	1.34	1.37
1	1A	1915	5MU	C6-N1	-2.05	1.34	1.38
1	1A	1962	5MC	C6-C5	2.04	1.37	1.34
32	1a	966	M2G	C5-N7	-2.03	1.35	1.39
1	2A	2503	2MA	C4-N9	-2.03	1.33	1.37
32	2a	1207	2MG	C4-N9	-2.02	1.32	1.38
1	1A	1915	5MU	C2-N3	-2.01	1.34	1.38

All (219) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	2503	2MA	C5-C4-N3	-9.40	117.28	127.18
1	2A	2503	2MA	C5-C4-N3	-8.64	118.08	127.18
32	2a	1498	UR3	C4-N3-C2	-7.35	118.66	124.58
43	2l	92	0TD	CSB-SB-CB	-7.24	89.34	102.36
32	1a	1207	2MG	C2-N3-C4	7.24	121.05	112.00
1	1A	2251	OMG	C5-C4-N3	-6.92	117.38	128.39
32	1a	1498	UR3	C4-N3-C2	-6.84	119.08	124.58
1	2A	1911	PSU	N1-C2-N3	6.59	122.12	115.17
1	1A	1911	PSU	N1-C2-N3	6.57	122.10	115.17
1	2A	2251	OMG	C5-C4-N3	-6.52	118.01	128.39
1	1A	2503	2MA	N3-C4-N9	6.51	135.25	126.99
32	2a	1207	2MG	C2-N3-C4	6.50	120.13	112.00
1	2A	2503	2MA	N3-C4-N9	6.34	135.03	126.99
1	1A	1917	PSU	N1-C2-N3	6.16	121.67	115.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	516	PSU	N1-C2-N3	6.04	121.54	115.17
32	1a	1207	2MG	C5-C4-N3	-5.92	118.96	128.39
1	2A	1917	PSU	N1-C2-N3	5.91	121.40	115.17
32	2a	516	PSU	N1-C2-N3	5.85	121.33	115.17
1	2A	2605	PSU	N1-C2-N3	5.76	121.25	115.17
32	2a	966	M2G	C5-C4-N3	-5.71	119.30	128.39
32	1a	966	M2G	C5-C4-N3	-5.70	119.33	128.39
32	1a	527	G7M	N9-C4-N3	5.70	137.34	125.95
1	2A	1939	5MU	C4-N3-C2	-5.64	119.95	127.34
1	2A	1939	5MU	N3-C2-N1	5.57	122.14	114.89
32	1a	527	G7M	C5-C4-N3	-5.55	117.66	128.15
1	1A	2251	OMG	C2-N3-C4	5.55	121.85	112.30
32	2a	1207	2MG	C5-C4-N3	-5.53	119.60	128.39
32	2a	527	G7M	N9-C4-N3	5.38	136.71	125.95
1	2A	2552	OMU	C4-N3-C2	-5.27	120.07	126.61
32	2a	1519	MA6	N1-C2-N3	-5.25	120.64	128.58
32	2a	527	G7M	C5-C4-N3	-5.20	118.32	128.15
1	1A	1939	5MU	C4-N3-C2	-5.18	120.55	127.34
1	1A	2251	OMG	N9-C4-N3	5.05	136.06	125.95
1	1A	2605	PSU	N1-C2-N3	5.00	120.44	115.17
1	2A	2251	OMG	N9-C4-N3	4.97	135.89	125.95
1	2A	2251	OMG	C2-N3-C4	4.96	120.84	112.30
1	1A	2552	OMU	C4-N3-C2	-4.95	120.46	126.61
32	1a	1518	MA6	N1-C2-N3	-4.95	121.09	128.58
1	2A	1915	5MU	C1'-N1-C2	4.84	126.29	117.59
1	2A	2552	OMU	N3-C2-N1	4.80	121.15	114.89
1	1A	1915	5MU	N3-C2-N1	4.76	121.09	114.89
32	2a	1518	MA6	N1-C2-N3	-4.74	121.41	128.58
32	1a	1519	MA6	C5-C4-N3	-4.73	120.21	126.72
32	2a	527	G7M	C2-N3-C4	4.72	120.43	112.30
1	2A	1915	5MU	N3-C2-N1	4.69	121.00	114.89
1	1A	1915	5MU	C4-N3-C2	-4.64	121.25	127.34
32	1a	527	G7M	C2-N3-C4	4.59	120.21	112.30
1	2A	1939	5MU	C5-C4-N3	4.55	119.28	115.32
32	2a	1518	MA6	C5-C4-N3	-4.55	120.45	126.72
32	2a	966	M2G	C2-N3-C4	4.53	120.89	112.51
1	1A	1939	5MU	C5-C4-N3	4.51	119.24	115.32
1	1A	1939	5MU	N3-C2-N1	4.48	120.72	114.89
1	1A	1939	5MU	C5-C6-N1	-4.47	118.46	123.31
1	1A	1915	5MU	C1'-N1-C2	4.46	125.61	117.59
32	1a	966	M2G	N9-C4-N3	4.44	134.84	125.95
32	1a	1519	MA6	N1-C2-N3	-4.42	121.89	128.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1915	5MU	C5-C4-N3	4.35	119.11	115.32
1	2A	1911	PSU	C4-N3-C2	-4.34	120.40	126.37
1	1A	2552	OMU	N3-C2-N1	4.30	120.49	114.89
1	2A	1915	5MU	C4-N3-C2	-4.30	121.71	127.34
1	2A	1939	5MU	C5-C6-N1	-4.29	118.65	123.31
32	2a	1519	MA6	C5-C4-N3	-4.28	120.82	126.72
32	2a	1400	5MC	C5-C6-N1	-4.20	118.75	123.31
32	1a	1518	MA6	C2-N1-C6	4.19	122.07	111.83
32	2a	966	M2G	N9-C4-N3	4.16	134.28	125.95
1	2A	1939	5MU	O4-C4-C5	-4.12	120.20	124.92
1	2A	1915	5MU	C1'-N1-C6	-4.11	114.38	121.15
32	1a	966	M2G	C2-N3-C4	4.10	120.08	112.51
32	1a	1207	2MG	C6-C5-N7	4.07	137.70	130.29
32	2a	1519	MA6	C2-N1-C6	4.04	121.69	111.83
1	1A	2605	PSU	C4-N3-C2	-4.03	120.82	126.37
1	1A	2503	2MA	C4-C5-N7	-4.01	106.00	110.58
1	1A	1911	PSU	C4-N3-C2	-4.00	120.85	126.37
32	1a	1518	MA6	C5-C4-N3	-4.00	121.21	126.72
1	2A	1917	PSU	C4-N3-C2	-3.99	120.87	126.37
1	1A	2552	OMU	C5-C4-N3	3.98	120.38	114.80
32	2a	1519	MA6	C5-N7-C8	3.98	109.70	103.45
1	1A	1915	5MU	O4-C4-C5	-3.96	120.39	124.92
32	2a	1519	MA6	C4-C5-N7	-3.94	106.08	110.58
1	1A	1915	5MU	C1'-N1-C6	-3.92	114.70	121.15
32	2a	1518	MA6	C2-N1-C6	3.91	121.38	111.83
32	2a	516	PSU	C4-N3-C2	-3.90	120.99	126.37
32	2a	1518	MA6	C5-N7-C8	3.90	109.58	103.45
1	2A	2552	OMU	C5-C4-N3	3.89	120.25	114.80
32	1a	1207	2MG	N9-C4-N3	3.88	133.72	125.95
1	1A	1939	5MU	O4-C4-C5	-3.88	120.48	124.92
32	2a	967	5MC	C5-C6-N1	-3.87	119.11	123.31
32	1a	1518	MA6	C5-N7-C8	3.87	109.53	103.45
1	2A	1911	PSU	O2-C2-N1	-3.86	118.81	122.79
32	2a	1518	MA6	C4-C5-N7	-3.84	106.19	110.58
32	1a	1519	MA6	C2-N1-C6	3.83	121.18	111.83
32	1a	516	PSU	C4-N3-C2	-3.81	121.13	126.37
1	2A	1917	PSU	O2-C2-N1	-3.77	118.91	122.79
1	1A	1917	PSU	C4-N3-C2	-3.74	121.21	126.37
1	2A	2605	PSU	C4-N3-C2	-3.74	121.22	126.37
1	2A	1915	5MU	O4-C4-C5	-3.73	120.65	124.92
1	1A	1911	PSU	O2-C2-N1	-3.69	118.98	122.79
1	2A	2503	2MA	C4-C5-N7	-3.69	106.37	110.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	1519	MA6	C4-C5-N7	-3.67	106.39	110.58
32	1a	516	PSU	O2-C2-N1	-3.67	119.00	122.79
32	1a	1519	MA6	C5-N7-C8	3.66	109.21	103.45
32	1a	1518	MA6	N9-C8-N7	-3.66	108.74	113.94
1	2A	1915	5MU	C5-C4-N3	3.66	118.50	115.32
32	2a	1207	2MG	N9-C4-N3	3.65	133.24	125.95
32	2a	1519	MA6	C2-N3-C4	3.61	120.64	111.83
32	2a	966	M2G	C6-C5-N7	3.58	136.81	130.29
1	1A	1917	PSU	O2-C2-N1	-3.56	119.12	122.79
32	1a	1518	MA6	C4-C5-N7	-3.55	106.52	110.58
32	2a	1207	2MG	C6-C5-N7	3.51	136.69	130.29
32	2a	1519	MA6	N9-C8-N7	-3.47	109.01	113.94
32	2a	1518	MA6	N9-C8-N7	-3.45	109.04	113.94
43	2l	92	0TD	OD2-CG-CB	3.44	120.59	113.15
1	2A	2552	OMU	O2-C2-N1	-3.43	118.33	122.80
32	2a	1518	MA6	C2-N3-C4	3.41	120.17	111.83
32	1a	1404	5MC	C5-C6-N1	-3.41	119.61	123.31
1	2A	1942	5MC	C5-C6-N1	-3.36	119.67	123.31
32	2a	1498	UR3	C5-C4-N3	3.34	119.44	115.04
32	1a	1519	MA6	C2-N3-C4	3.32	119.94	111.83
32	2a	516	PSU	O2-C2-N1	-3.31	119.38	122.79
1	1A	2503	2MA	N6-C6-N1	3.28	121.45	117.03
1	2A	1939	5MU	O2-C2-N1	-3.26	118.55	122.80
1	1A	1942	5MC	C5-C6-N1	-3.25	119.78	123.31
32	2a	1407	5MC	C5-C6-N1	-3.25	119.78	123.31
32	1a	1518	MA6	C2-N3-C4	3.23	119.72	111.83
1	1A	2251	OMG	C6-C5-N7	3.22	136.16	130.29
32	1a	1207	2MG	C4-C5-N7	-3.22	105.56	110.67
32	1a	1400	5MC	C5-C6-N1	-3.14	119.90	123.31
1	2A	1962	5MC	C5-C6-N1	-3.12	119.92	123.31
32	2a	1404	5MC	C5-C4-N3	-3.12	118.56	121.75
32	2a	1404	5MC	C5-C6-N1	-3.09	119.96	123.31
32	2a	1407	5MC	C5-C4-N3	-3.07	118.61	121.75
1	1A	2605	PSU	O2-C2-N1	-3.06	119.63	122.79
32	2a	1207	2MG	N1-C2-N2	3.05	119.68	116.56
32	1a	1498	UR3	C5-C4-N3	3.05	119.06	115.04
32	1a	1519	MA6	C4-C5-C6	3.04	119.06	115.91
32	1a	1519	MA6	N9-C8-N7	-3.00	109.68	113.94
32	1a	1404	5MC	C5-C4-N3	-2.98	118.70	121.75
32	1a	1400	5MC	C5-C4-N3	-2.91	118.77	121.75
32	1a	966	M2G	C6-C5-N7	2.90	135.58	130.29
1	1A	1942	5MC	C5-C4-N3	-2.90	118.78	121.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	1519	MA6	N3-C4-N9	2.90	132.10	127.17
1	1A	1962	5MC	C5-C6-N1	-2.89	120.18	123.31
32	2a	1207	2MG	C4-C5-N7	-2.87	106.13	110.67
32	1a	967	5MC	C5-C6-N1	-2.85	120.22	123.31
32	2a	1207	2MG	N2-C2-N3	-2.85	116.88	120.51
32	1a	1407	5MC	C5-C4-N3	-2.85	118.83	121.75
1	2A	2251	OMG	C6-C5-N7	2.83	135.45	130.29
32	2a	1518	MA6	N3-C4-N9	2.82	131.97	127.17
1	1A	2552	OMU	O4-C4-C5	-2.79	120.35	125.16
1	2A	2552	OMU	O4-C4-C5	-2.77	120.38	125.16
1	1A	2503	2MA	C5-N7-C8	2.76	107.78	103.45
1	1A	2251	OMG	C4-C5-N7	-2.74	106.33	110.67
1	2A	1942	5MC	C5-C4-N3	-2.72	118.96	121.75
1	1A	1962	5MC	C1'-N1-C6	-2.70	116.70	121.15
32	1a	1407	5MC	C5-C6-N1	-2.70	120.38	123.31
1	2A	2503	2MA	N6-C6-N1	2.69	120.66	117.03
1	1A	1962	5MC	C5-C4-N3	-2.68	119.01	121.75
1	2A	1962	5MC	C1'-N1-C6	-2.65	116.78	121.15
32	1a	1207	2MG	N1-C2-N2	2.64	119.25	116.56
32	1a	1518	MA6	N3-C4-N9	2.63	131.65	127.17
32	2a	966	M2G	C4-C5-N7	-2.62	106.52	110.67
1	2A	2503	2MA	C5-N7-C8	2.61	107.55	103.45
1	1A	1962	5MC	CM5-C5-C6	-2.57	119.37	122.85
32	2a	1518	MA6	C4-C5-C6	2.54	118.54	115.91
32	1a	967	5MC	C5-C4-N3	-2.54	119.15	121.75
1	2A	2605	PSU	O2-C2-N1	-2.54	120.17	122.79
43	1l	92	0TD	CSB-SB-CB	2.53	106.92	102.36
32	2a	1519	MA6	N3-C4-N9	2.53	131.47	127.17
1	2A	2503	2MA	C4-N9-C8	2.52	108.39	105.74
1	1A	2552	OMU	O2-C2-N1	-2.52	119.51	122.80
1	2A	2251	OMG	C4-C5-N7	-2.52	106.68	110.67
1	1A	1939	5MU	O2-C2-N1	-2.51	119.53	122.80
1	1A	2605	PSU	C5-C6-N1	-2.46	118.73	122.14
1	1A	1920	OMC	O2-C2-N3	-2.45	118.47	122.33
32	1a	527	G7M	O6-C6-C5	-2.45	122.55	128.01
32	2a	527	G7M	O6-C6-C5	-2.44	122.56	128.01
1	2A	1962	5MC	C5-C4-N3	-2.42	119.27	121.75
43	2l	92	0TD	OD1-CG-CB	-2.42	117.37	122.44
32	2a	527	G7M	C5-C6-N1	2.42	116.84	111.84
1	2A	1917	PSU	C6-C5-C4	-2.42	116.54	118.17
1	2A	1915	5MU	O2-C2-N3	-2.39	117.08	121.49
32	2a	516	PSU	O4'-C1'-C2'	2.39	108.46	105.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1915	5MU	C5-C6-N1	-2.38	120.73	123.31
1	1A	1915	5MU	O2-C2-N3	-2.36	117.14	121.49
32	1a	1402	4OC	C6-C5-C4	2.34	119.82	117.00
1	2A	1915	5MU	C5M-C5-C4	2.33	121.27	118.78
1	1A	1915	5MU	C5M-C5-C4	2.33	121.27	118.78
32	2a	1400	5MC	C5-C4-N3	-2.32	119.38	121.75
1	1A	2503	2MA	C6-C5-N7	2.30	136.53	132.09
1	2A	1911	PSU	C5-C6-N1	-2.28	118.98	122.14
32	1a	516	PSU	O4'-C1'-C2'	2.27	108.29	105.15
1	1A	2503	2MA	CM2-C2-N1	2.27	120.52	117.13
32	2a	1402	4OC	C6-C5-C4	2.25	119.71	117.00
1	2A	1920	OMC	O2-C2-N3	-2.24	118.79	122.33
32	1a	1404	5MC	O2-C2-N3	-2.24	118.80	122.33
32	1a	966	M2G	O6-C6-C5	-2.22	120.67	126.53
32	1a	1518	MA6	C4-N9-C8	2.21	108.06	105.74
32	2a	967	5MC	C5-C4-N3	-2.21	119.49	121.75
1	2A	2503	2MA	N9-C8-N7	-2.21	110.81	113.94
32	1a	1207	2MG	C8-N7-C5	2.20	108.18	104.26
1	2A	2503	2MA	C2-N1-C6	2.18	121.46	118.10
1	1A	2503	2MA	C2-N3-C4	2.17	122.46	115.02
1	2A	2251	OMG	O6-C6-C5	-2.16	120.84	126.53
32	1a	966	M2G	C4-C5-N7	-2.15	107.26	110.67
1	2A	2503	2MA	C6-C5-N7	2.15	136.23	132.09
32	1a	527	G7M	C5-C6-N1	2.13	116.25	111.84
1	1A	2251	OMG	C5-C6-N1	2.13	118.67	113.25
32	1a	1407	5MC	O2-C2-N3	-2.13	118.98	122.33
32	1a	1518	MA6	C4-C5-C6	2.13	118.11	115.91
32	2a	966	M2G	O6-C6-C5	-2.12	120.92	126.53
32	1a	1400	5MC	O2-C2-N3	-2.12	118.98	122.33
32	2a	516	PSU	C5-C6-N1	-2.08	119.26	122.14
1	2A	1915	5MU	C5-C6-N1	-2.07	121.07	123.31
32	1a	1207	2MG	O3'-C3'-C2'	2.05	118.40	111.82
32	1a	1498	UR3	C6-N1-C2	-2.05	120.12	121.80
32	2a	1498	UR3	C3U-N3-C2	2.05	120.91	117.33
1	2A	2605	PSU	C5-C6-N1	-2.02	119.34	122.14
1	1A	2605	PSU	O4-C4-C5	-2.01	119.00	124.01
32	2a	1207	2MG	CM2-N2-C2	-2.01	119.34	123.65

There are no chirality outliers.

All (34) 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
32	1a	1519	MA6	O4'-C4'-C5'-O5'
43	1l	92	0TD	O-C-CA-CB
43	1l	92	0TD	CG-CB-SB-CSB
1	2A	1915	5MU	O4'-C1'-N1-C2
1	2A	1915	5MU	O4'-C1'-N1-C6
1	2A	2251	OMG	C1'-C2'-O2'-CM2
32	2a	1402	4OC	O4'-C4'-C5'-O5'
32	2a	1402	4OC	C3'-C4'-C5'-O5'
32	2a	1519	MA6	O4'-C4'-C5'-O5'
43	2l	92	0TD	CG-CB-SB-CSB
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
32	1a	527	G7M	C3'-C4'-C5'-O5'
32	2a	527	G7M	C3'-C4'-C5'-O5'
43	1l	92	0TD	SB-CB-CG-OD1
32	1a	527	G7M	O4'-C4'-C5'-O5'
1	2A	1920	OMC	C3'-C2'-O2'-CM2
32	1a	1402	4OC	O4'-C4'-C5'-O5'
32	2a	1519	MA6	C4'-C5'-O5'-P
43	1l	92	0TD	CA-CB-SB-CSB
43	2l	92	0TD	CA-CB-SB-CSB
32	1a	1400	5MC	O4'-C4'-C5'-O5'
1	1A	2503	2MA	O4'-C4'-C5'-O5'
1	2A	2503	2MA	O4'-C4'-C5'-O5'
1	1A	2251	OMG	C4'-C5'-O5'-P
1	1A	1920	OMC	C2'-C1'-N1-C2
1	1A	1920	OMC	C3'-C2'-O2'-CM2
32	2a	1400	5MC	O4'-C1'-N1-C6
32	2a	1400	5MC	C2'-C1'-N1-C6
1	1A	2503	2MA	C4'-C5'-O5'-P
32	1a	1519	MA6	C4'-C5'-O5'-P
1	2A	2503	2MA	C4'-C5'-O5'-P

There are no ring outliers.

26 monomers are involved in 34 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	1a	1518	MA6	2	0
32	2a	1498	UR3	1	0
1	1A	1915	5MU	1	0
1	1A	2251	OMG	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	1A	1942	5MC	1	0
1	2A	2251	OMG	1	0
1	2A	1962	5MC	1	0
32	2a	967	5MC	1	0
1	1A	2503	2MA	1	0
32	1a	966	M2G	1	0
32	1a	1402	4OC	2	0
32	1a	1207	2MG	2	0
1	2A	1939	5MU	1	0
32	1a	1519	MA6	1	0
32	2a	1518	MA6	3	0
1	1A	1939	5MU	2	0
1	2A	1915	5MU	1	0
43	1l	92	0TD	1	0
32	1a	527	G7M	1	0
32	2a	1400	5MC	3	0
43	2l	92	0TD	1	0
32	2a	1402	4OC	2	0
32	2a	1519	MA6	2	0
32	1a	1400	5MC	1	0
1	2A	2552	OMU	1	0
1	2A	1920	OMC	2	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 2486 ligands modelled in this entry, 2473 are monoatomic - leaving 13 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
57	MPD	1a	1870	-	7,7,7	0.41	0	9,10,10	0.47	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
57	MPD	2A	3727	-	7,7,7	0.32	0	9,10,10	0.28	0
56	ARG	1A	4012	-	10,11,11	0.73	1 (10%)	9,13,13	1.08	1 (11%)
57	MPD	2A	3726	-	7,7,7	0.32	0	9,10,10	0.22	0
55	A1CQ8	1A	4011	-	47,49,49	2.87	13 (27%)	64,75,75	2.44	24 (37%)
57	MPD	1A	4013	-	7,7,7	0.35	0	9,10,10	0.33	0
57	MPD	18	102	-	7,7,7	0.40	0	9,10,10	0.48	0
59	SF4	1d	306	35	0,12,12	-	-	-		
59	SF4	2d	501	35	0,12,12	-	-	-		
57	MPD	2B	219	-	7,7,7	0.32	0	9,10,10	0.21	0
57	MPD	1T	206	-	7,7,7	0.31	0	9,10,10	0.50	0
56	ARG	1B	232	-	10,11,11	0.75	1 (10%)	9,13,13	0.99	1 (11%)
55	A1CQ8	2A	3725	-	47,49,49	2.89	13 (27%)	64,75,75	2.32	21 (32%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	MPD	1a	1870	-	-	5/5/5/5	-
57	MPD	2A	3727	-	-	4/5/5/5	-
56	ARG	1A	4012	-	-	2/11/11/11	-
57	MPD	2A	3726	-	-	1/5/5/5	-
55	A1CQ8	1A	4011	-	-	0/19/81/81	0/6/6/6
57	MPD	1A	4013	-	-	3/5/5/5	-
57	MPD	18	102	-	-	3/5/5/5	-
59	SF4	1d	306	35	-	-	0/6/5/5
59	SF4	2d	501	35	-	-	0/6/5/5
57	MPD	2B	219	-	-	4/5/5/5	-
57	MPD	1T	206	-	-	5/5/5/5	-
56	ARG	1B	232	-	-	4/11/11/11	-
55	A1CQ8	2A	3725	-	-	0/19/81/81	0/6/6/6

All (28) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	2A	3725	A1CQ8	CBG-CBE	-10.10	1.32	1.47
55	1A	4011	A1CQ8	CBG-CBE	-9.97	1.32	1.47
55	2A	3725	A1CQ8	CAA-CAQ	-8.81	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	2A	3725	A1CQ8	CAT-CAQ	-8.66	1.37	1.51
55	1A	4011	A1CQ8	CAA-CAQ	-8.52	1.40	1.53
55	1A	4011	A1CQ8	CAT-CAQ	-8.32	1.37	1.51
55	2A	3725	A1CQ8	CAH-CAI	-4.62	1.51	1.56
55	1A	4011	A1CQ8	CBJ-CBM	-4.51	1.38	1.49
55	1A	4011	A1CQ8	CAH-CAI	-4.48	1.51	1.56
55	2A	3725	A1CQ8	CBJ-CBM	-4.38	1.38	1.49
55	1A	4011	A1CQ8	OAU-CAC	-4.21	1.39	1.46
55	1A	4011	A1CQ8	CAS-CAD	-4.18	1.46	1.54
55	2A	3725	A1CQ8	CAB-CAC	-4.10	1.53	1.56
55	2A	3725	A1CQ8	OAU-CAC	-3.62	1.40	1.46
55	1A	4011	A1CQ8	CAB-CAC	-3.46	1.53	1.56
55	2A	3725	A1CQ8	CAS-CAD	-3.33	1.47	1.54
55	1A	4011	A1CQ8	CBF-CBE	-3.12	1.32	1.37
55	2A	3725	A1CQ8	CBF-CBE	-3.10	1.32	1.37
55	2A	3725	A1CQ8	CAB-CAG	-2.71	1.52	1.56
55	2A	3725	A1CQ8	CBE-NBD	-2.68	1.31	1.36
55	1A	4011	A1CQ8	CBE-NBD	-2.67	1.31	1.36
55	2A	3725	A1CQ8	CAF-CAG	-2.62	1.49	1.53
55	1A	4011	A1CQ8	CAB-CAG	-2.28	1.52	1.56
55	1A	4011	A1CQ8	CAS-CAT	-2.28	1.47	1.52
56	1B	232	ARG	OXT-C	-2.21	1.23	1.30
55	1A	4011	A1CQ8	CAF-CAG	-2.16	1.50	1.53
55	2A	3725	A1CQ8	CAD-CAH	-2.10	1.53	1.56
56	1A	4012	ARG	OXT-C	-2.06	1.24	1.30

All (47) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	2A	3725	A1CQ8	CAK-CAC-CAB	-8.71	106.93	116.28
55	1A	4011	A1CQ8	CAK-CAC-CAB	-8.66	106.98	116.28
55	1A	4011	A1CQ8	CAZ-CAB-CAC	-5.35	103.34	108.81
55	2A	3725	A1CQ8	CAZ-CAB-CAC	-4.69	104.02	108.81
55	2A	3725	A1CQ8	CAE-CAF-CAG	-4.68	106.34	112.38
55	1A	4011	A1CQ8	CAG-CAB-CAC	4.63	115.27	112.13
55	1A	4011	A1CQ8	CAL-CAH-CAI	-4.35	108.70	112.20
55	2A	3725	A1CQ8	CAD-CAA-CAB	-4.12	112.38	117.94
55	2A	3725	A1CQ8	CAF-CAG-CAB	-4.09	107.01	111.57
55	1A	4011	A1CQ8	CAD-CAA-CAB	-4.09	112.42	117.94
55	1A	4011	A1CQ8	CAE-CAF-CAG	-4.00	107.22	112.38
55	2A	3725	A1CQ8	CAC-OAU-CAV	-3.93	110.87	118.03
55	1A	4011	A1CQ8	CAE-CAD-CAA	3.81	113.41	106.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	2A	3725	A1CQ8	CAE-CAD-CAA	3.79	113.39	106.82
55	1A	4011	A1CQ8	CAT-CAQ-CAA	3.69	112.45	108.53
55	2A	3725	A1CQ8	CAG-CAB-CAC	3.64	114.60	112.13
55	2A	3725	A1CQ8	CAL-CAH-CAI	-3.63	109.27	112.20
55	1A	4011	A1CQ8	CBA-NBB-NBC	3.59	127.98	120.78
55	1A	4011	A1CQ8	CAF-CAG-CAB	-3.45	107.72	111.57
55	2A	3725	A1CQ8	OAM-CAI-CAH	-3.43	106.42	110.91
55	2A	3725	A1CQ8	CBG-CBE-CBF	-3.39	124.47	129.65
55	1A	4011	A1CQ8	CBG-CBE-CBF	-3.35	124.53	129.65
55	1A	4011	A1CQ8	CAC-OAU-CAV	-3.28	112.06	118.03
55	1A	4011	A1CQ8	OAR-CAQ-CAT	-3.26	120.86	125.52
56	1A	4012	ARG	OXT-C-O	-3.16	116.92	124.08
55	1A	4011	A1CQ8	CAS-CAD-CAH	-3.15	106.90	110.55
55	1A	4011	A1CQ8	OAM-CAI-CAH	-3.15	106.79	110.91
55	2A	3725	A1CQ8	OAU-CAC-CAB	3.12	111.18	106.32
55	2A	3725	A1CQ8	CBA-NBB-NBC	3.10	127.01	120.78
55	1A	4011	A1CQ8	OAU-CAC-CAB	3.05	111.08	106.32
55	1A	4011	A1CQ8	CAL-CAH-CAD	-3.01	107.34	111.23
55	1A	4011	A1CQ8	CBF-NBB-NBC	-2.96	107.87	110.75
55	2A	3725	A1CQ8	CBE-NBD-NBC	-2.88	106.14	109.23
55	1A	4011	A1CQ8	CAT-CAS-CAD	-2.84	102.07	105.63
56	1B	232	ARG	OXT-C-O	-2.84	117.64	124.08
55	2A	3725	A1CQ8	OAR-CAQ-CAT	-2.83	121.47	125.52
55	1A	4011	A1CQ8	CBE-NBD-NBC	-2.72	106.31	109.23
55	2A	3725	A1CQ8	CBF-NBB-NBC	-2.71	108.11	110.75
55	2A	3725	A1CQ8	CBF-CBE-NBD	2.55	110.31	107.85
55	1A	4011	A1CQ8	CBE-CBF-NBB	2.54	107.33	105.28
55	1A	4011	A1CQ8	CBA-NBB-CBF	-2.51	124.14	128.83
55	2A	3725	A1CQ8	CAS-CAD-CAH	-2.38	107.79	110.55
55	2A	3725	A1CQ8	CAL-CAH-CAD	-2.28	108.29	111.23
55	1A	4011	A1CQ8	CBG-CBE-NBD	2.18	125.55	122.05
55	2A	3725	A1CQ8	CBA-NBB-CBF	-2.12	124.87	128.83
55	1A	4011	A1CQ8	CBF-CBE-NBD	2.10	109.88	107.85
55	2A	3725	A1CQ8	CBE-CBF-NBB	2.05	106.93	105.28

There are no chirality outliers.

All (31) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
57	1T	206	MPD	C1-C2-C3-C4
57	1T	206	MPD	O2-C2-C3-C4
57	1a	1870	MPD	C2-C3-C4-O4

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Mol	Chain	Res	Type	Atoms
57	1a	1870	MPD	C2-C3-C4-C5
57	2B	219	MPD	C2-C3-C4-C5
56	1A	4012	ARG	OXT-C-CA-N
56	1B	232	ARG	O-C-CA-N
56	1B	232	ARG	NE-CD-CG-CB
57	1A	4013	MPD	CM-C2-C3-C4
57	1T	206	MPD	CM-C2-C3-C4
57	18	102	MPD	C1-C2-C3-C4
57	1a	1870	MPD	CM-C2-C3-C4
57	2A	3727	MPD	CM-C2-C3-C4
57	2B	219	MPD	CM-C2-C3-C4
57	1T	206	MPD	C2-C3-C4-C5
57	2A	3727	MPD	C2-C3-C4-C5
56	1B	232	ARG	OXT-C-CA-N
56	1B	232	ARG	CA-CB-CG-CD
57	1a	1870	MPD	O2-C2-C3-C4
57	1A	4013	MPD	C2-C3-C4-O4
57	1T	206	MPD	C2-C3-C4-O4
57	18	102	MPD	C2-C3-C4-O4
57	2A	3726	MPD	C2-C3-C4-O4
57	2A	3727	MPD	C2-C3-C4-O4
57	2B	219	MPD	C2-C3-C4-O4
57	1A	4013	MPD	C1-C2-C3-C4
57	18	102	MPD	CM-C2-C3-C4
57	1a	1870	MPD	C1-C2-C3-C4
57	2A	3727	MPD	C1-C2-C3-C4
57	2B	219	MPD	C1-C2-C3-C4
56	1A	4012	ARG	O-C-CA-N

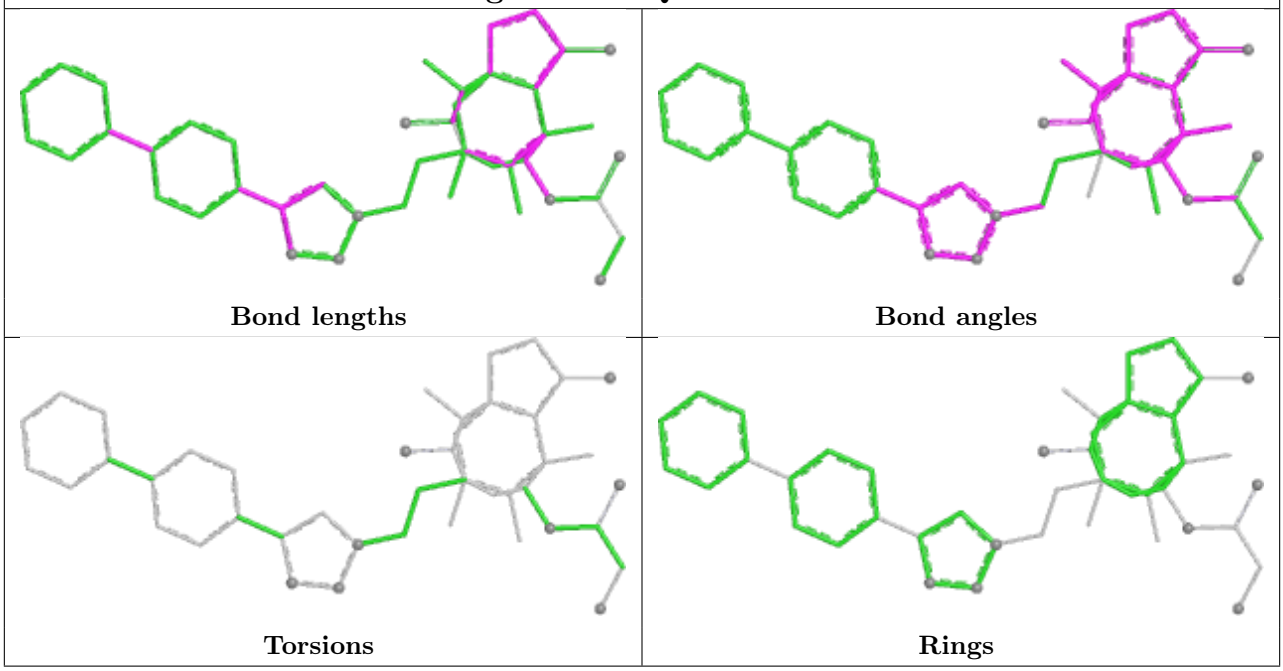
There are no ring outliers.

8 monomers are involved in 19 short contacts:

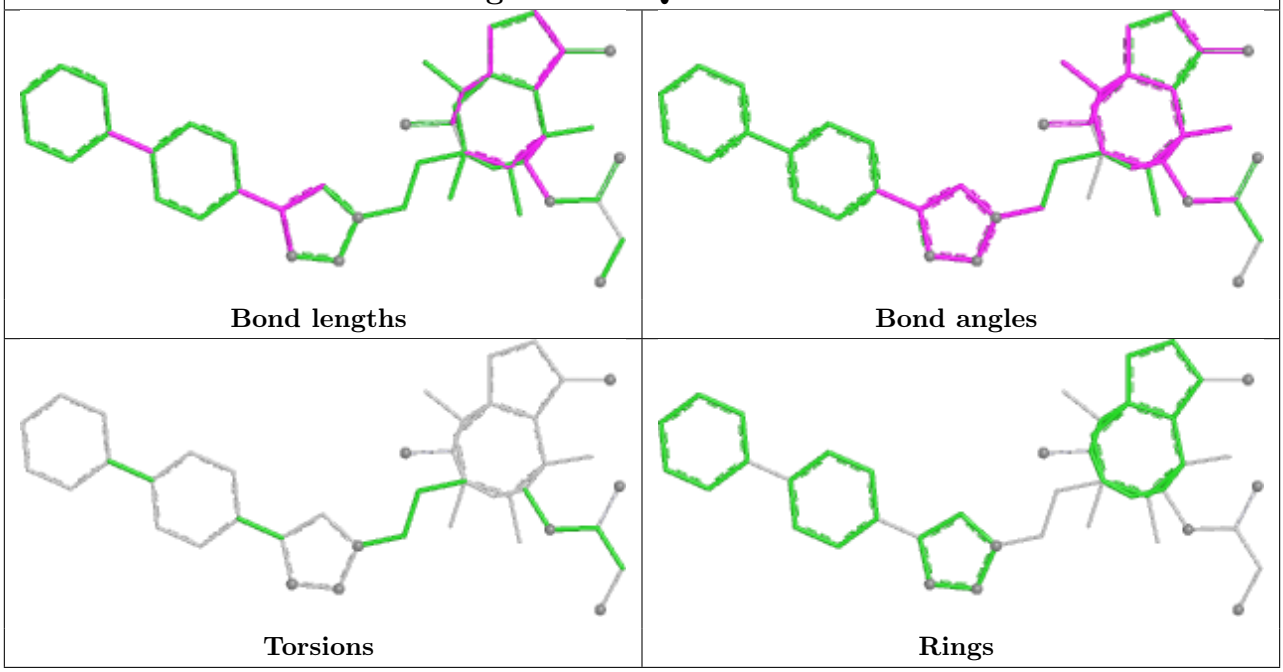
Mol	Chain	Res	Type	Clashes	Symm-Clashes
57	1a	1870	MPD	6	0
56	1A	4012	ARG	1	0
57	2A	3726	MPD	3	0
55	1A	4011	A1CQ8	1	0
57	18	102	MPD	3	0
59	1d	306	SF4	1	0
59	2d	501	SF4	1	0
56	1B	232	ARG	3	0

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 A1CQ8 1A 4011



Ligand A1CQ8 2A 3725



5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	1A	2861/2915 (98%)	-0.16	154 (5%) 31 24	14, 32, 94, 111	0
1	2A	2856/2915 (97%)	0.24	175 (6%) 27 21	28, 51, 96, 112	0
2	1B	120/121 (99%)	-0.05	1 (0%) 82 77	27, 49, 65, 78	0
2	2B	120/121 (99%)	1.18	19 (15%) 5 4	54, 79, 88, 89	0
3	1D	275/276 (99%)	-0.03	3 (1%) 78 71	16, 31, 47, 69	0
3	2D	275/276 (99%)	0.35	10 (3%) 46 38	27, 46, 59, 73	0
4	1E	204/206 (99%)	-0.06	1 (0%) 87 83	15, 37, 58, 71	0
4	2E	204/206 (99%)	0.45	4 (1%) 65 56	29, 50, 69, 79	0
5	1F	203/210 (96%)	0.03	1 (0%) 87 83	14, 36, 65, 85	0
5	2F	203/210 (96%)	0.52	3 (1%) 72 64	30, 57, 76, 84	0
6	1G	181/182 (99%)	0.87	20 (11%) 10 9	43, 63, 77, 85	0
6	2G	181/182 (99%)	1.71	55 (30%) 1 1	73, 83, 89, 92	0
7	1H	174/180 (96%)	0.40	9 (5%) 33 26	35, 49, 64, 72	0
7	2H	173/180 (96%)	1.26	24 (13%) 6 5	64, 76, 86, 94	0
8	1I	147/148 (99%)	0.79	8 (5%) 31 24	41, 68, 79, 84	0
8	2I	146/148 (98%)	0.98	14 (9%) 13 11	48, 71, 82, 89	0
9	1N	140/140 (100%)	0.10	2 (1%) 73 65	24, 36, 59, 70	0
9	2N	140/140 (100%)	0.51	3 (2%) 63 54	34, 57, 72, 77	0
10	1O	122/122 (100%)	0.03	1 (0%) 82 77	24, 34, 55, 61	0
10	2O	122/122 (100%)	0.38	3 (2%) 58 48	39, 48, 60, 68	0
11	1P	149/150 (99%)	0.09	1 (0%) 84 79	16, 41, 62, 78	0
11	2P	149/150 (99%)	0.60	5 (3%) 48 39	30, 61, 77, 87	0
12	1Q	141/141 (100%)	-0.04	0 100 100	21, 36, 49, 67	0
12	2Q	141/141 (100%)	0.66	6 (4%) 40 31	38, 57, 68, 81	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	1R	118/118 (100%)	-0.09	0 100 100	21, 32, 50, 60	0
13	2R	118/118 (100%)	0.13	0 100 100	30, 45, 55, 64	0
14	1S	110/112 (98%)	0.44	4 (3%) 46 38	35, 48, 61, 68	0
14	2S	110/112 (98%)	1.62	26 (23%) 2 2	60, 72, 79, 85	0
15	1T	131/146 (89%)	0.15	3 (2%) 61 52	31, 40, 62, 70	0
15	2T	131/146 (89%)	0.44	3 (2%) 61 52	39, 52, 69, 76	0
16	1U	116/118 (98%)	-0.18	0 100 100	18, 28, 45, 62	0
16	2U	116/118 (98%)	0.50	5 (4%) 40 31	34, 53, 67, 75	0
17	1V	101/101 (100%)	-0.13	0 100 100	19, 39, 56, 63	0
17	2V	101/101 (100%)	0.70	6 (5%) 28 22	34, 64, 75, 81	0
18	1W	112/113 (99%)	-0.10	1 (0%) 81 75	19, 28, 48, 76	0
18	2W	112/113 (99%)	0.18	1 (0%) 81 75	28, 42, 61, 92	0
19	1X	95/96 (98%)	-0.09	1 (1%) 78 71	22, 33, 55, 67	0
19	2X	95/96 (98%)	0.67	5 (5%) 32 25	40, 54, 69, 78	0
20	1Y	107/110 (97%)	0.44	3 (2%) 55 46	32, 47, 70, 78	0
20	2Y	107/110 (97%)	1.33	25 (23%) 2 2	51, 65, 81, 87	0
21	1Z	203/206 (98%)	0.62	9 (4%) 39 30	36, 55, 74, 80	0
21	2Z	201/206 (97%)	1.21	28 (13%) 6 5	61, 72, 83, 89	0
22	10	77/85 (90%)	0.17	0 100 100	24, 33, 46, 60	0
22	20	77/85 (90%)	0.79	3 (3%) 43 35	44, 55, 68, 72	0
23	11	97/98 (98%)	0.18	2 (2%) 63 54	22, 37, 64, 75	0
23	21	97/98 (98%)	0.48	4 (4%) 41 33	32, 48, 69, 74	0
24	12	70/72 (97%)	0.19	1 (1%) 73 65	31, 42, 54, 72	0
24	22	70/72 (97%)	1.08	7 (10%) 12 10	52, 64, 73, 76	0
25	13	59/60 (98%)	0.08	0 100 100	24, 32, 56, 65	0
25	23	59/60 (98%)	0.74	3 (5%) 33 26	41, 54, 74, 83	0
26	14	69/71 (97%)	1.25	13 (18%) 3 3	60, 80, 91, 95	0
26	24	69/71 (97%)	2.04	32 (46%) 0 0	79, 90, 98, 102	0
27	15	59/60 (98%)	0.11	3 (5%) 33 26	17, 31, 62, 73	0
27	25	59/60 (98%)	0.46	1 (1%) 69 61	30, 48, 72, 76	0
28	16	53/54 (98%)	0.03	0 100 100	29, 37, 48, 57	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	26	53/54 (98%)	0.46	5 (9%) 14 12	46, 56, 64, 74	0
29	17	48/49 (97%)	-0.04	4 (8%) 17 14	16, 22, 54, 62	0
29	27	48/49 (97%)	0.26	4 (8%) 17 14	29, 37, 56, 65	0
30	18	64/65 (98%)	-0.19	0 100 100	20, 28, 36, 44	0
30	28	64/65 (98%)	0.71	7 (10%) 10 9	40, 47, 56, 63	0
31	19	37/37 (100%)	-0.04	0 100 100	28, 37, 53, 60	0
31	29	37/37 (100%)	1.04	3 (8%) 18 15	53, 61, 72, 78	0
32	1a	1488/1521 (97%)	0.72	89 (5%) 27 21	31, 70, 95, 113	0
32	2a	1492/1521 (98%)	0.91	161 (10%) 11 9	38, 75, 97, 111	0
33	1b	231/256 (90%)	1.44	52 (22%) 2 2	66, 78, 89, 95	0
33	2b	231/256 (90%)	1.65	76 (32%) 1 1	68, 83, 92, 98	0
34	1c	206/239 (86%)	1.32	34 (16%) 4 3	63, 76, 86, 89	0
34	2c	206/239 (86%)	1.95	88 (42%) 0 0	70, 84, 91, 95	0
35	1d	208/209 (99%)	1.53	44 (21%) 2 2	52, 71, 81, 85	0
35	2d	208/209 (99%)	1.36	38 (18%) 3 3	56, 71, 80, 85	0
36	1e	148/162 (91%)	0.72	6 (4%) 41 33	42, 65, 73, 78	0
36	2e	148/162 (91%)	1.22	19 (12%) 7 6	60, 72, 80, 89	0
37	1f	100/101 (99%)	1.04	12 (12%) 9 7	56, 67, 77, 79	0
37	2f	100/101 (99%)	1.02	13 (13%) 7 6	59, 70, 79, 82	0
38	1g	155/156 (99%)	1.03	17 (10%) 10 9	61, 72, 81, 91	0
38	2g	155/156 (99%)	1.39	39 (25%) 1 1	72, 80, 86, 91	0
39	1h	137/138 (99%)	0.85	9 (6%) 24 19	53, 66, 74, 80	0
39	2h	137/138 (99%)	1.04	15 (10%) 10 9	62, 71, 78, 86	0
40	1i	127/128 (99%)	1.82	54 (42%) 0 0	64, 80, 87, 89	0
40	2i	126/128 (98%)	2.14	58 (46%) 0 0	75, 86, 92, 95	0
41	1j	97/105 (92%)	1.78	32 (32%) 1 1	65, 80, 90, 93	0
41	2j	96/105 (91%)	2.42	68 (70%) 0 0	77, 85, 94, 97	0
42	1k	114/129 (88%)	0.94	7 (6%) 27 21	38, 61, 74, 79	0
42	2k	114/129 (88%)	1.09	13 (11%) 10 8	54, 70, 79, 84	0
43	1l	121/132 (91%)	0.69	3 (2%) 58 48	47, 56, 69, 75	0
43	2l	121/132 (91%)	1.03	16 (13%) 7 6	55, 65, 73, 78	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	1m	116/126 (92%)	1.39	25 (21%) 2 2	65, 76, 84, 89	0
44	2m	114/126 (90%)	1.59	35 (30%) 1 1	74, 85, 90, 96	0
45	1n	60/61 (98%)	1.45	11 (18%) 3 3	66, 74, 80, 84	0
45	2n	60/61 (98%)	2.18	31 (51%) 0 0	78, 85, 90, 91	0
46	1o	88/89 (98%)	0.97	8 (9%) 15 12	51, 65, 75, 84	0
46	2o	88/89 (98%)	0.77	2 (2%) 61 52	59, 70, 78, 85	0
47	1p	82/88 (93%)	1.60	22 (26%) 1 1	61, 71, 79, 85	0
47	2p	82/88 (93%)	1.23	14 (17%) 4 3	55, 66, 79, 85	0
48	1q	99/105 (94%)	0.99	12 (12%) 8 7	52, 65, 72, 76	0
48	2q	99/105 (94%)	0.76	4 (4%) 42 34	52, 67, 76, 79	0
49	1r	68/88 (77%)	0.99	8 (11%) 9 7	56, 65, 78, 82	0
49	2r	68/88 (77%)	0.96	4 (5%) 28 22	61, 71, 81, 84	0
50	1s	83/93 (89%)	1.39	15 (18%) 3 3	68, 79, 87, 89	0
50	2s	83/93 (89%)	2.20	43 (51%) 0 0	79, 88, 94, 101	0
51	1t	96/106 (90%)	1.60	29 (30%) 1 1	57, 70, 77, 81	0
51	2t	98/106 (92%)	0.98	8 (8%) 17 14	55, 66, 77, 80	0
52	1u	23/27 (85%)	1.60	6 (26%) 1 1	67, 73, 76, 79	0
52	2u	23/27 (85%)	2.41	15 (65%) 0 0	79, 83, 88, 89	0
53	1y	97/113 (85%)	0.84	8 (8%) 17 14	52, 68, 76, 86	0
53	2y	96/113 (84%)	2.15	52 (54%) 0 0	69, 82, 90, 92	0
All	All	20766/21468 (96%)	0.61	2049 (9%) 13 11	14, 60, 89, 113	0

All (2049) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	1A	2174	C	9.3
1	1A	1087	G	8.9
1	1A	1091	G	8.8
1	1A	2173	A	8.7
1	2A	2174	C	8.4
7	1H	2	SER	8.3
1	1A	1092	C	8.0
1	1A	1093	G	7.9
14	2S	32	LEU	7.7
1	1A	2175	C	7.6

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Mol	Chain	Res	Type	RSRZ
12	2Q	59	ARG	7.5
1	2A	2172	U	7.4
1	1A	2176	A	7.3
35	1d	4	TYR	7.2
1	2A	2147	G	7.2
1	2A	2118	U	7.0
44	2m	102	ARG	7.0
53	2y	98	ALA	7.0
1	2A	2124	G	6.9
1	2A	2173	A	6.9
1	1A	1089	G	6.9
40	2i	127	LYS	6.7
53	1y	98	ALA	6.7
1	1A	1076	C	6.6
1	2A	2125	G	6.6
1	2A	1076	C	6.6
1	1A	2123	G	6.5
1	1A	1072	C	6.5
1	1A	2172	U	6.5
40	2i	102	LEU	6.4
1	2A	2119	A	6.3
45	2n	2	ALA	6.3
1	2A	1075	C	6.2
36	2e	133	TYR	6.2
1	2A	2175	C	6.2
14	2S	33	LYS	6.0
1	2A	2108	C	5.9
34	2c	8	ILE	5.9
1	2A	2148	G	5.9
1	1A	1086	A	5.8
42	2k	117	ASN	5.7
1	1A	1088	A	5.7
40	2i	126	SER	5.7
1	2A	2176	A	5.6
1	1A	1064	C	5.6
38	1g	32	ARG	5.6
40	1i	106	ALA	5.6
1	1A	2168	G	5.6
20	2Y	1	MET	5.5
1	1A	2125	G	5.5
20	2Y	58	GLY	5.5
1	2A	2120	G	5.5

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Mol	Chain	Res	Type	RSRZ
1	2A	2162	G	5.5
1	1A	1063	G	5.4
1	1A	1074	G	5.4
34	1c	2	GLY	5.3
35	2d	4	TYR	5.3
1	2A	2109	U	5.3
1	2A	2171	A	5.3
45	2n	18	VAL	5.3
45	1n	2	ALA	5.3
1	1A	2126	A	5.3
26	24	49	PHE	5.2
40	2i	62	TYR	5.2
51	1t	74	LYS	5.1
1	2A	1083	U	5.1
1	2A	1085	A	5.1
26	14	59	PHE	5.1
1	2A	2168	G	5.0
45	1n	30	ALA	5.0
38	2g	2	ALA	5.0
1	1A	1102	C	5.0
1	1A	2128	C	5.0
23	11	2	SER	4.9
23	21	26	ARG	4.9
35	1d	3	ARG	4.9
1	1A	1067	A	4.9
1	1A	1071	G	4.9
1	2A	2123	G	4.9
1	2A	1070	A	4.9
1	1A	1090	U	4.8
1	1A	1078	U	4.8
43	1l	89	ARG	4.8
25	23	2	PRO	4.8
51	2t	6	PRO	4.8
1	2A	2107	C	4.7
51	1t	68	LYS	4.7
1	2A	2116	G	4.7
1	2A	2151	G	4.7
41	1j	44	VAL	4.7
1	1A	1104	C	4.7
1	2A	1178	C	4.7
32	1a	1029	C	4.7
32	2a	1092	A	4.7

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Mol	Chain	Res	Type	RSRZ
1	1A	2147	G	4.7
47	1p	12	LYS	4.7
33	2b	121	LEU	4.7
1	2A	2167	U	4.7
7	2H	6	ARG	4.7
47	1p	68	ASP	4.7
32	2a	1034	G	4.7
1	2A	2169	A	4.7
1	1A	2161	C	4.7
35	1d	11	LEU	4.6
40	2i	109	VAL	4.6
1	1A	2117	A	4.6
32	2a	1286	A	4.6
14	2S	31	SER	4.6
20	2Y	60	PHE	4.6
1	2A	2110	G	4.6
53	2y	38	HIS	4.6
50	2s	9	VAL	4.6
51	1t	103	GLY	4.6
35	1d	21	LEU	4.5
1	2A	2602	A	4.5
51	1t	76	ALA	4.5
1	1A	2127	G	4.5
34	1c	193	TYR	4.5
35	1d	29	PRO	4.5
1	2A	1046	A	4.5
34	2c	2	GLY	4.5
1	1A	2132	U	4.5
51	1t	70	SER	4.5
1	1A	2124	G	4.5
1	2A	1074	G	4.5
32	2a	1224	G	4.5
6	2G	35	GLU	4.5
53	2y	97	ALA	4.4
50	1s	84	GLY	4.4
1	1A	2150	U	4.4
1	1A	2167	U	4.4
32	2a	1036	G	4.4
48	1q	63	ARG	4.4
1	1A	1077	A	4.4
1	1A	1103	A	4.4
52	2u	6	ARG	4.4

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Mol	Chain	Res	Type	RSRZ
1	1A	2894	G	4.4
52	2u	13	ILE	4.4
32	2a	1027	C	4.4
38	2g	33	ASP	4.4
1	1A	2162	G	4.4
32	1a	1036	G	4.4
1	2A	1084	A	4.4
1	2A	1088	A	4.4
1	2A	2117	A	4.4
1	1A	1062	G	4.3
32	2a	1030(A)	G	4.3
1	1A	1057	A	4.3
41	2j	37	PRO	4.3
7	1H	66	GLY	4.3
26	24	9	LEU	4.3
41	2j	59	SER	4.3
44	1m	87	TYR	4.3
50	2s	2	PRO	4.3
1	2A	1171	G	4.3
1	1A	1080	C	4.3
1	1A	2129	C	4.3
34	2c	79	ARG	4.3
32	2a	1093	A	4.2
53	2y	9	GLN	4.2
33	2b	214	ILE	4.2
1	1A	2108	C	4.2
40	2i	105	ASP	4.2
1	2A	2106	G	4.2
32	2a	1094	G	4.2
51	1t	18	GLN	4.2
47	1p	17	TYR	4.2
41	2j	34	VAL	4.2
41	2j	71	LEU	4.2
1	2A	2121	G	4.2
1	2A	2150	U	4.2
1	2A	1086	A	4.2
1	1A	2107	C	4.1
32	2a	1001(A)	G	4.1
23	21	2	SER	4.1
47	1p	11	SER	4.1
40	2i	15	ALA	4.1
1	2A	2126	A	4.1

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Mol	Chain	Res	Type	RSRZ
32	1a	1001	A	4.1
53	2y	79	ASN	4.1
8	1I	89	TYR	4.1
1	2A	2170	A	4.1
41	2j	63	PHE	4.1
14	2S	34	HIS	4.1
33	2b	237	ALA	4.1
7	2H	4	ILE	4.1
1	2A	2127	G	4.1
36	2e	20	GLN	4.1
41	2j	44	VAL	4.1
15	1T	131	ALA	4.1
14	2S	36	TYR	4.1
1	2A	2136	C	4.1
26	24	67	TYR	4.0
10	1O	108	GLU	4.0
44	1m	102	ARG	4.0
37	1f	90	VAL	4.0
40	1i	128	ARG	4.0
52	1u	24	ARG	4.0
26	14	56	VAL	4.0
1	1A	2116	G	4.0
1	2A	1087	G	4.0
32	1a	1030(A)	G	4.0
32	2a	1026	G	4.0
32	2a	1202	G	4.0
1	1A	1081	U	4.0
1	2A	1536	C	4.0
6	1G	88	ILE	4.0
32	2a	1030(B)	C	4.0
21	2Z	103	ARG	4.0
46	1o	89	GLY	4.0
1	1A	2166	G	4.0
5	1F	15	SER	4.0
33	2b	22	LYS	4.0
34	1c	73	PRO	4.0
41	2j	75	ILE	3.9
34	2c	158	GLY	3.9
1	1A	1075	C	3.9
40	2i	18	PHE	3.9
41	1j	71	LEU	3.9
1	2A	2149	G	3.9

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Mol	Chain	Res	Type	RSRZ
44	1m	98	VAL	3.9
1	1A	6	A	3.9
1	1A	2169	A	3.9
32	2a	1067	A	3.9
50	2s	79	THR	3.9
32	2a	1040	U	3.9
50	2s	15	LEU	3.9
38	2g	28	ASN	3.9
34	2c	170	GLN	3.9
1	2A	1064	C	3.9
3	2D	38	LYS	3.9
14	2S	29	PHE	3.9
39	1h	94	TYR	3.9
40	1i	125	TYR	3.9
33	2b	72	GLY	3.8
35	2d	2	GLY	3.8
50	2s	10	PHE	3.8
38	2g	80	VAL	3.8
38	1g	84	ASN	3.8
52	2u	9	ARG	3.8
51	1t	97	ALA	3.8
1	1A	1058	G	3.8
26	14	52	THR	3.8
45	2n	17	LYS	3.8
35	1d	2	GLY	3.8
1	2A	2129	C	3.8
1	2A	2179	C	3.8
32	2a	1354	C	3.8
20	1Y	1	MET	3.8
26	24	35	VAL	3.8
32	2a	1001	A	3.8
41	2j	54	PHE	3.8
1	2A	2131	G	3.8
32	1a	1026	G	3.8
32	2a	1032	G	3.8
28	26	20	ASN	3.8
41	1j	76	ASN	3.8
50	2s	28	LYS	3.8
50	2s	35	SER	3.8
1	1A	1083	U	3.8
1	1A	1085	A	3.8
6	2G	141	PHE	3.8

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Mol	Chain	Res	Type	RSRZ
21	2Z	72	ARG	3.7
34	2c	141	VAL	3.7
41	2j	68	HIS	3.7
33	1b	97	TRP	3.7
51	1t	66	ALA	3.7
14	2S	54	LEU	3.7
32	2a	1003	G	3.7
41	2j	72	VAL	3.7
35	1d	5	ILE	3.7
47	1p	13	HIS	3.7
34	1c	52	LEU	3.7
34	1c	87	LEU	3.7
34	2c	189	ALA	3.7
19	2X	86	GLY	3.7
1	1A	2160	G	3.7
1	2A	2802	G	3.7
1	2A	1067	A	3.7
20	2Y	4	LYS	3.7
41	2j	6	ILE	3.7
53	2y	14	PRO	3.7
35	2d	164	ALA	3.7
18	2W	112	GLY	3.7
7	1H	3	ARG	3.7
38	2g	32	ARG	3.7
45	2n	50	LYS	3.7
53	1y	2	THR	3.7
32	2a	1109	C	3.7
1	2A	2165	G	3.7
33	1b	131	PRO	3.7
6	2G	133	LEU	3.7
47	2p	82	GLN	3.7
38	2g	83	ALA	3.7
52	2u	14	TRP	3.7
45	1n	16	PHE	3.7
1	1A	1105	U	3.7
41	2j	39	PRO	3.6
34	2c	104	GLN	3.6
1	2A	1095	A	3.6
34	2c	155	GLY	3.6
50	2s	84	GLY	3.6
6	2G	88	ILE	3.6
37	2f	90	VAL	3.6

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Mol	Chain	Res	Type	RSRZ
51	1t	100	ILE	3.6
1	2A	2130	U	3.6
46	1o	57	LEU	3.6
53	2y	81	LEU	3.6
1	1A	2163	C	3.6
1	2A	2146	C	3.6
1	1A	1084	A	3.6
14	2S	93	LYS	3.6
33	1b	96	ARG	3.6
40	2i	11	LYS	3.6
52	2u	11	GLY	3.6
6	1G	48	GLU	3.6
50	2s	31	ILE	3.6
26	24	56	VAL	3.6
34	2c	195	VAL	3.6
35	2d	170	VAL	3.6
50	2s	71	LEU	3.6
19	2X	33	LYS	3.6
1	1A	2119	A	3.6
33	2b	165	VAL	3.6
53	2y	41	LEU	3.6
32	1a	1001(A)	G	3.6
40	2i	104	ARG	3.6
51	1t	79	ARG	3.6
33	1b	127	ILE	3.6
50	2s	49	ILE	3.6
37	2f	6	VAL	3.6
1	2A	2111	C	3.6
1	2A	652(B)	A	3.6
32	2a	1130	A	3.6
40	2i	96	LEU	3.6
50	2s	53	ASN	3.6
34	2c	7	PRO	3.6
11	2P	15	ARG	3.5
1	2A	545	G	3.5
1	2A	2133	G	3.5
44	1m	100	GLY	3.5
51	2t	9	ASN	3.5
1	2A	2128	C	3.5
32	2a	1004	A	3.5
41	1j	33	GLN	3.5
32	2a	1219	U	3.5

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Mol	Chain	Res	Type	RSRZ
7	1H	63	SER	3.5
1	1A	2115	G	3.5
1	2A	1091	G	3.5
33	2b	142	LEU	3.5
40	2i	21	PRO	3.5
40	2i	10	ARG	3.5
53	2y	63	ALA	3.5
32	2a	1223	C	3.5
36	2e	85	GLY	3.5
38	2g	7	ALA	3.5
14	2S	35	ILE	3.5
1	1A	1079	C	3.5
32	1a	221	C	3.5
40	2i	39	GLY	3.5
1	1A	2109	U	3.5
6	2G	34	LEU	3.5
14	2S	30	ARG	3.5
33	2b	97	TRP	3.5
47	1p	14	ASN	3.5
26	24	5	ILE	3.4
41	1j	38	ILE	3.4
1	1A	2120	G	3.4
1	2A	2115	G	3.4
32	2a	1002	G	3.4
1	2A	1081	U	3.4
1	2A	1104	C	3.4
1	2A	2138	C	3.4
1	2A	2139	C	3.4
32	1a	1027	C	3.4
35	2d	54	TYR	3.4
41	1j	87	THR	3.4
44	1m	4	ILE	3.4
33	2b	70	PHE	3.4
45	2n	36	PHE	3.4
6	2G	28	VAL	3.4
38	2g	9	VAL	3.4
40	1i	19	LEU	3.4
1	2A	2152	G	3.4
32	1a	630	G	3.4
32	1a	1002	G	3.4
35	1d	10	ARG	3.4
41	2j	46	ARG	3.4

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Mol	Chain	Res	Type	RSRZ
1	2A	1082	U	3.4
41	2j	19	SER	3.4
6	2G	29	TRP	3.4
34	2c	14	ILE	3.4
38	1g	42	ILE	3.4
51	1t	75	ASN	3.4
39	2h	112	LEU	3.4
44	2m	116	THR	3.4
1	2A	2142	C	3.4
1	2A	2164	C	3.4
21	1Z	118	GLN	3.4
40	2i	125	TYR	3.4
41	2j	40	LEU	3.4
41	2j	10	GLY	3.4
6	1G	2	PRO	3.4
53	2y	45	PRO	3.4
35	2d	5	ILE	3.4
47	2p	19	ILE	3.4
50	1s	4	SER	3.4
53	2y	8	LYS	3.4
35	2d	74	GLN	3.4
34	2c	184	TYR	3.4
24	22	60	LEU	3.3
35	2d	162	LEU	3.3
51	1t	72	LEU	3.3
1	2A	1071	G	3.3
40	2i	86	VAL	3.3
44	2m	106	ASN	3.3
45	1n	5	ALA	3.3
7	2H	41	MET	3.3
53	2y	54	ILE	3.3
1	1A	1066	U	3.3
14	2S	52	SER	3.3
45	2n	34	TYR	3.3
1	2A	2140	C	3.3
32	1a	174	C	3.3
47	1p	41	PRO	3.3
4	2E	203	LYS	3.3
26	24	28	LYS	3.3
45	2n	59	ALA	3.3
9	1N	115	ARG	3.3
21	2Z	191	VAL	3.3

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Mol	Chain	Res	Type	RSRZ
33	1b	165	VAL	3.3
37	1f	88	VAL	3.3
38	2g	5	ARG	3.3
35	1d	6	GLY	3.3
8	2I	74	ASN	3.3
1	1A	1073	A	3.3
6	2G	2	PRO	3.3
1	2A	2137	C	3.3
32	2a	1031	G	3.3
40	2i	40	LEU	3.3
53	2y	61	LEU	3.3
40	1i	108	VAL	3.3
53	2y	62	VAL	3.3
41	2j	93	GLY	3.3
1	1A	2130	U	3.3
1	2A	1096	A	3.3
32	1a	393	A	3.3
32	2a	1035	A	3.3
34	2c	6	HIS	3.3
6	2G	62	LEU	3.3
35	1d	120	LEU	3.3
39	2h	31	PHE	3.3
40	2i	101	PHE	3.3
7	1H	6	ARG	3.3
34	2c	64	VAL	3.3
44	2m	54	VAL	3.3
53	2y	60	VAL	3.3
40	2i	7	THR	3.3
41	2j	87	THR	3.3
32	1a	1003	G	3.3
51	1t	101	GLY	3.3
45	2n	32	SER	3.3
1	2A	2122	U	3.2
52	2u	5	ASP	3.2
35	2d	172	PRO	3.2
33	2b	145	LEU	3.2
41	1j	8	LEU	3.2
44	2m	19	LEU	3.2
50	1s	16	LEU	3.2
50	2s	16	LEU	3.2
35	1d	115	ARG	3.2
38	2g	41	ARG	3.2

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Mol	Chain	Res	Type	RSRZ
47	1p	82	GLN	3.2
53	2y	49	VAL	3.2
1	2A	2161	C	3.2
32	2a	1030	C	3.2
42	2k	118	GLY	3.2
50	1s	77	THR	3.2
33	1b	148	TYR	3.2
2	2B	118	G	3.2
53	2y	37	PRO	3.2
40	1i	66	ARG	3.2
47	2p	42	ARG	3.2
14	2S	46	VAL	3.2
50	1s	9	VAL	3.2
50	2s	11	VAL	3.2
1	1A	2171	A	3.2
3	2D	276	LYS	3.2
34	2c	4	LYS	3.2
32	1a	1028	C	3.2
32	1a	1030(B)	C	3.2
47	1p	19	ILE	3.2
1	1A	1082	U	3.2
6	1G	43	LEU	3.2
14	2S	78	LEU	3.2
32	1a	1031	G	3.2
50	2s	55	LYS	3.2
40	2i	103	THR	3.2
35	2d	165	MET	3.2
26	24	22	ILE	3.2
40	1i	126	SER	3.2
50	2s	52	TYR	3.2
41	2j	58	ASP	3.2
32	2a	1119	C	3.2
40	1i	56	LEU	3.2
2	2B	55	U	3.2
49	2r	20	ALA	3.2
43	2l	32	PHE	3.2
34	2c	138	VAL	3.2
34	2c	153	VAL	3.2
1	2A	271(M)	G	3.2
32	2a	973	G	3.2
35	2d	158	ILE	3.2
32	2a	1287	A	3.1

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Mol	Chain	Res	Type	RSRZ
6	2G	76	SER	3.1
40	1i	20	ARG	3.1
41	2j	5	ARG	3.1
41	2j	88	LEU	3.1
49	1r	76	LEU	3.1
34	2c	163	ALA	3.1
41	2j	47	PHE	3.1
50	2s	7	LYS	3.1
1	2A	1509	C	3.1
6	2G	109	VAL	3.1
21	2Z	105	VAL	3.1
33	2b	164	VAL	3.1
42	1k	14	VAL	3.1
44	2m	15	VAL	3.1
15	1T	37	GLY	3.1
38	2g	34	GLY	3.1
33	2b	12	GLU	3.1
41	1j	39	PRO	3.1
1	2A	2153	G	3.1
32	2a	1068	G	3.1
17	2V	91	TYR	3.1
37	2f	63	TYR	3.1
33	2b	81	VAL	3.1
1	1A	12	U	3.1
2	2B	5	C	3.1
32	2a	1129	C	3.1
40	1i	39	GLY	3.1
8	2I	71	ILE	3.1
33	2b	127	ILE	3.1
41	2j	98	ILE	3.1
35	1d	194	LEU	3.1
35	2d	21	LEU	3.1
41	1j	70	ARG	3.1
33	2b	147	LYS	3.1
53	2y	87	LYS	3.1
35	1d	195	ALA	3.1
38	2g	117	ALA	3.1
40	1i	15	ALA	3.1
42	2k	116	HIS	3.1
1	1A	2110	G	3.1
37	1f	91	VAL	3.1
1	1A	1095	A	3.1

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Mol	Chain	Res	Type	RSRZ
20	2Y	59	GLY	3.1
51	2t	103	GLY	3.1
44	2m	9	ILE	3.1
40	2i	79	LEU	3.1
33	1b	77	ALA	3.1
34	2c	129	ALA	3.1
34	2c	187	ALA	3.1
53	2y	52	ALA	3.1
40	2i	108	VAL	3.1
45	2n	33	VAL	3.1
30	28	35	GLN	3.1
1	1A	2893	G	3.1
32	2a	1220	G	3.1
26	24	15	ILE	3.1
6	2G	103	LEU	3.1
8	1I	99	GLU	3.1
39	2h	2	LEU	3.1
48	2q	98	LEU	3.1
44	1m	116	THR	3.1
1	2A	2896	C	3.1
32	1a	63	C	3.1
32	2a	1029	C	3.1
40	2i	43	ALA	3.0
41	1j	32	ALA	3.0
6	2G	146	TYR	3.0
40	1i	62	TYR	3.0
40	1i	109	VAL	3.0
45	2n	21	TYR	3.0
37	2f	89	MET	3.0
53	2y	64	SER	3.0
6	2G	39	ILE	3.0
17	2V	21	ARG	3.0
33	2b	201	ILE	3.0
39	2h	111	ILE	3.0
20	2Y	56	PRO	3.0
33	1b	125	PRO	3.0
41	2j	53	PRO	3.0
41	2j	65	LEU	3.0
1	1A	2629	A	3.0
16	2U	78	THR	3.0
1	2A	2141	G	3.0
51	1t	67	ALA	3.0

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Mol	Chain	Res	Type	RSRZ
6	2G	160	VAL	3.0
34	2c	68	VAL	3.0
40	1i	28	VAL	3.0
50	2s	14	HIS	3.0
50	2s	41	VAL	3.0
1	2A	2177	C	3.0
28	26	39	TYR	3.0
32	2a	1149	C	3.0
44	2m	104	ARG	3.0
19	1X	95	LEU	3.0
36	2e	12	LEU	3.0
34	1c	90	GLU	3.0
1	1A	1094	U	3.0
32	2a	1235	U	3.0
50	1s	39	THR	3.0
52	2u	8	THR	3.0
8	1I	46	ALA	3.0
32	1a	1030(D)	A	3.0
40	2i	106	ALA	3.0
41	2j	27	ALA	3.0
51	2t	97	ALA	3.0
14	2S	12	PHE	3.0
24	22	1	MET	3.0
40	1i	33	PHE	3.0
41	1j	34	VAL	3.0
45	2n	25	VAL	3.0
1	1A	2112	G	3.0
1	1A	2148	G	3.0
32	1a	1034	G	3.0
32	2a	1124	G	3.0
44	1m	21	TYR	3.0
1	2A	1049	C	3.0
10	2O	31	LYS	3.0
35	1d	42	GLN	3.0
41	2j	50	ILE	3.0
34	2c	178	LEU	3.0
44	1m	90	LEU	3.0
50	2s	30	LEU	3.0
35	1d	179	GLU	3.0
26	24	27	THR	3.0
1	1A	271(K)	U	3.0
33	2b	17	PHE	3.0

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Mol	Chain	Res	Type	RSRZ
1	2A	6	A	3.0
32	2a	1111	A	3.0
32	2a	1493	A	3.0
8	2I	89	TYR	3.0
34	1c	135	LYS	3.0
43	2l	120	TYR	3.0
45	2n	58	LYS	3.0
40	2i	9	ARG	3.0
7	2H	120	GLY	3.0
8	2I	90	GLY	3.0
34	2c	9	GLY	3.0
1	1A	2165	G	3.0
1	2A	1059	G	3.0
40	1i	105	ASP	3.0
47	2p	68	ASP	3.0
1	1A	154(A)	C	3.0
1	1A	1049	C	3.0
1	1A	2136	C	3.0
1	1A	2177	C	3.0
32	2a	1028	C	3.0
41	2j	91	PRO	3.0
50	2s	76	PRO	3.0
35	1d	48	ALA	3.0
41	2j	32	ALA	3.0
33	2b	71	VAL	3.0
40	1i	86	VAL	3.0
44	2m	53	VAL	3.0
25	23	29	ARG	2.9
41	1j	43	ARG	2.9
52	1u	6	ARG	2.9
1	2A	2135	A	2.9
20	2Y	55	TYR	2.9
34	2c	48	TYR	2.9
30	28	38	GLY	2.9
34	2c	13	GLY	2.9
33	2b	126	GLU	2.9
33	2b	166	ASP	2.9
38	1g	33	ASP	2.9
1	1A	2149	G	2.9
1	2A	2159	G	2.9
1	2A	2160	G	2.9
2	2B	54	G	2.9

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Mol	Chain	Res	Type	RSRZ
6	2G	155	MET	2.9
32	2a	220	G	2.9
32	2a	378	G	2.9
1	2A	1072	C	2.9
8	2I	55	ALA	2.9
15	1T	130	ALA	2.9
45	2n	30	ALA	2.9
26	14	50	VAL	2.9
38	2g	43	PHE	2.9
41	2j	42	THR	2.9
14	1S	93	LYS	2.9
14	1S	13	ARG	2.9
32	1a	1025	U	2.9
35	1d	153	ARG	2.9
41	1j	46	ARG	2.9
35	2d	176	LEU	2.9
51	1t	10	LEU	2.9
32	1a	1035	A	2.9
44	1m	97	PRO	2.9
33	1b	94	ASN	2.9
33	1b	120	ALA	2.9
33	2b	7	VAL	2.9
34	2c	160	ALA	2.9
35	1d	170	VAL	2.9
9	2N	73	THR	2.9
35	2d	3	ARG	2.9
35	2d	73	ARG	2.9
1	1A	2151	G	2.9
1	1A	2153	G	2.9
1	2A	1044	G	2.9
2	2B	117	G	2.9
32	2a	1010	G	2.9
6	2G	82	LEU	2.9
33	1b	236	TYR	2.9
33	2b	95	GLN	2.9
1	1A	2170	A	2.9
32	1a	978	A	2.9
32	2a	1005	A	2.9
34	2c	92	ALA	2.9
35	1d	149	ALA	2.9
35	2d	178	VAL	2.9
21	2Z	136	PHE	2.9

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Mol	Chain	Res	Type	RSRZ
37	2f	97	PHE	2.9
33	2b	16	HIS	2.9
35	2d	122	ARG	2.9
41	2j	45	ARG	2.9
45	2n	41	ARG	2.9
26	24	31	ILE	2.9
1	2A	888	C	2.9
32	2a	455	C	2.9
1	2A	2180	U	2.9
8	1I	90	GLY	2.9
1	2A	2166	G	2.9
32	2a	1222	G	2.9
40	1i	21	PRO	2.9
34	2c	19	GLU	2.9
40	1i	95	LYS	2.9
41	2j	55	LYS	2.9
41	1j	78	ASN	2.9
24	22	52	ASP	2.9
38	2g	116	ALA	2.9
42	1k	60	ALA	2.9
53	2y	51	ASP	2.9
53	2y	73	ALA	2.9
35	1d	70	ILE	2.9
40	1i	47	LEU	2.9
41	1j	4	ILE	2.9
34	2c	114	PRO	2.8
1	1A	2111	C	2.8
1	2A	2132	U	2.8
32	2a	962	C	2.8
40	1i	127	LYS	2.8
40	2i	2	GLU	2.8
40	2i	5	TYR	2.8
41	2j	7	LYS	2.8
32	1a	1033	G	2.8
32	2a	1033	G	2.8
33	2b	93	VAL	2.8
35	1d	88	VAL	2.8
7	2H	3	ARG	2.8
22	20	55	ARG	2.8
34	2c	190	ARG	2.8
38	2g	128	ALA	2.8
53	2y	55	ASN	2.8

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Mol	Chain	Res	Type	RSRZ
53	2y	96	ARG	2.8
47	1p	16	HIS	2.8
8	2I	38	LEU	2.8
36	2e	31	LEU	2.8
36	2e	119	LEU	2.8
45	2n	44	LEU	2.8
47	1p	6	LEU	2.8
32	2a	197	A	2.8
32	2a	1110	A	2.8
26	24	39	CYS	2.8
38	2g	31	MET	2.8
52	2u	2	GLY	2.8
36	1e	20	GLN	2.8
14	2S	11	LYS	2.8
53	2y	66	LYS	2.8
8	1I	117	GLU	2.8
32	2a	1025	U	2.8
1	1A	2137	C	2.8
1	2A	2143	C	2.8
8	2I	146	ALA	2.8
32	2a	972	C	2.8
34	2c	207	VAL	2.8
40	1i	107	ARG	2.8
44	1m	54	VAL	2.8
35	2d	11	LEU	2.8
40	1i	91	ASP	2.8
41	2j	23	ILE	2.8
41	2j	38	ILE	2.8
51	1t	64	ASP	2.8
51	1t	73	HIS	2.8
6	2G	139	LEU	2.8
14	2S	58	LEU	2.8
41	1j	65	LEU	2.8
32	2a	1024	G	2.8
47	2p	44	THR	2.8
1	2A	1069	A	2.8
1	2A	1073	A	2.8
26	24	57	GLU	2.8
33	1b	12	GLU	2.8
26	24	33	VAL	2.8
35	1d	132	ARG	2.8
41	2j	79	ARG	2.8

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Mol	Chain	Res	Type	RSRZ
45	2n	12	ARG	2.8
40	1i	18	PHE	2.8
38	2g	42	ILE	2.8
32	2a	1116	C	2.8
50	1s	13	ASP	2.8
35	2d	137	SER	2.8
37	2f	93	SER	2.8
21	2Z	46	LYS	2.8
32	2a	1017	G	2.8
40	2i	49	PRO	2.8
34	1c	107	GLN	2.8
42	2k	13	GLN	2.8
2	2B	29	A	2.8
45	2n	57	ARG	2.8
27	15	60	VAL	2.8
43	2l	18	VAL	2.8
44	1m	117	VAL	2.8
26	14	63	TYR	2.8
34	1c	71	ALA	2.8
34	2c	137	ALA	2.8
36	2e	84	PHE	2.8
40	1i	94	ALA	2.8
40	2i	4	TYR	2.8
22	20	84	LEU	2.8
34	1c	39	ILE	2.8
35	2d	78	LEU	2.8
40	2i	50	LEU	2.8
33	1b	140	HIS	2.8
34	2c	69	HIS	2.8
26	24	52	THR	2.8
34	2c	56	ASP	2.8
53	2y	7	SER	2.8
17	2V	67	GLY	2.8
35	2d	171	GLY	2.8
44	2m	113	PRO	2.8
24	12	70	GLN	2.7
35	2d	160	GLN	2.7
37	1f	87	ARG	2.7
29	27	46	VAL	2.7
34	2c	76	VAL	2.7
1	1A	8	A	2.7
1	1A	1068	G	2.7

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Mol	Chain	Res	Type	RSRZ
1	2A	1089	G	2.7
1	2A	2112	G	2.7
1	2A	2894	G	2.7
7	2H	136	ILE	2.7
32	1a	1032	G	2.7
32	1a	1092	A	2.7
32	1a	1361	G	2.7
32	2a	377	G	2.7
32	2a	1283	G	2.7
33	1b	33	TYR	2.7
33	1b	196	LEU	2.7
41	1j	98	ILE	2.7
41	2j	62	HIS	2.7
45	2n	49	HIS	2.7
29	17	48	LYS	2.7
50	2s	6	LYS	2.7
33	2b	190	THR	2.7
34	1c	62	ASP	2.7
40	2i	64	THR	2.7
34	2c	185	GLY	2.7
44	2m	100	GLY	2.7
46	2o	86	GLY	2.7
48	1q	2	PRO	2.7
6	1G	136	ARG	2.7
19	2X	68	ARG	2.7
35	2d	115	ARG	2.7
38	2g	79	ARG	2.7
40	2i	66	ARG	2.7
50	2s	3	ARG	2.7
1	2A	886	C	2.7
1	2A	2163	C	2.7
32	2a	1066	C	2.7
32	2a	1321	C	2.7
41	2j	83	GLU	2.7
43	1l	18	VAL	2.7
7	2H	88	LEU	2.7
29	27	45	ALA	2.7
21	1Z	197	ILE	2.7
21	2Z	104	PHE	2.7
34	1c	101	LEU	2.7
34	2c	12	LEU	2.7
38	1g	16	LEU	2.7

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Mol	Chain	Res	Type	RSRZ
40	2i	76	ALA	2.7
31	29	10	ILE	2.7
38	2g	156	TRP	2.7
39	2h	39	LEU	2.7
46	1o	87	ILE	2.7
50	2s	34	TRP	2.7
53	2y	24	LEU	2.7
6	2G	12	TYR	2.7
33	1b	19	HIS	2.7
44	2m	87	TYR	2.7
46	1o	69	TYR	2.7
2	2B	53	A	2.7
32	2a	1236	A	2.7
33	2b	75	LYS	2.7
1	2A	11	G	2.7
32	1a	852	G	2.7
32	1a	1011	G	2.7
32	1a	1023	G	2.7
32	2a	1353	G	2.7
33	1b	228	GLY	2.7
51	1t	83	ARG	2.7
44	2m	58	GLU	2.7
45	1n	8	GLU	2.7
34	1c	64	VAL	2.7
1	1A	888	C	2.7
15	2T	131	ALA	2.7
33	1b	187	LEU	2.7
49	1r	20	ALA	2.7
41	2j	57	LYS	2.7
1	1A	2114	A	2.7
32	1a	65	U	2.7
6	1G	72	ARG	2.7
16	2U	12	ARG	2.7
34	1c	109	PRO	2.7
1	1A	11	G	2.7
1	2A	2891	G	2.7
2	2B	119	G	2.7
32	1a	1220	G	2.7
39	2h	70	GLN	2.7
6	2G	5	VAL	2.7
35	1d	8	VAL	2.7
37	2f	45	LEU	2.7

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Mol	Chain	Res	Type	RSRZ
15	2T	130	ALA	2.7
33	2b	171	ALA	2.7
45	2n	5	ALA	2.7
1	1A	2164	C	2.7
21	2Z	99	TYR	2.7
6	1G	83	ARG	2.7
14	2S	3	ARG	2.7
33	2b	217	ARG	2.7
38	2g	4	ARG	2.7
6	2G	132	ASN	2.7
6	2G	142	PRO	2.7
26	24	29	PRO	2.7
38	2g	81	GLY	2.7
50	2s	33	THR	2.7
51	2t	96	GLY	2.7
1	1A	1045	A	2.7
2	2B	52	A	2.7
21	2Z	179	ASP	2.7
8	1I	147	GLN	2.7
33	1b	15	VAL	2.7
40	2i	41	VAL	2.7
7	2H	63	SER	2.7
3	2D	275	LYS	2.6
33	1b	200	ILE	2.6
33	1b	214	ILE	2.6
39	1h	2	LEU	2.7
39	1h	115	SER	2.7
38	1g	83	ALA	2.6
40	1i	52	ALA	2.6
40	2i	59	PHE	2.6
42	1k	124	LYS	2.6
44	2m	18	ALA	2.6
47	1p	7	ALA	2.6
1	1A	2159	G	2.6
1	2A	10	G	2.6
32	1a	851	G	2.6
32	2a	530	G	2.6
32	2a	1131	G	2.6
32	2a	1491	G	2.6
33	1b	101	MET	2.6
34	2c	176	HIS	2.6
6	2G	136	ARG	2.6

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Mol	Chain	Res	Type	RSRZ
14	1S	17	ARG	2.6
40	1i	42	ARG	2.6
32	2a	1039	C	2.6
26	14	54	GLY	2.6
34	2c	171	GLY	2.6
50	2s	8	GLY	2.6
6	2G	161	THR	2.6
1	2A	1097	U	2.6
2	2B	1	U	2.6
9	1N	5	VAL	2.6
32	2a	1257	U	2.6
34	2c	118	GLN	2.6
38	1g	9	VAL	2.6
40	2i	97	LYS	2.6
49	2r	62	GLU	2.6
50	2s	25	LYS	2.6
1	1A	2892	A	2.6
1	2A	1077	A	2.6
32	2a	968	A	2.6
33	1b	122	PHE	2.6
34	2c	24	ALA	2.6
40	2i	52	ALA	2.6
44	1m	107	ALA	2.6
1	1A	10	G	2.6
32	2a	1117	G	2.6
32	2a	1139	G	2.6
32	2a	1331	G	2.6
40	2i	36	TYR	2.6
40	1i	90	PRO	2.6
44	2m	10	PRO	2.6
1	1A	34	C	2.6
1	1A	1509	C	2.6
1	1A	1584	C	2.6
1	1A	2138	C	2.6
1	1A	2139	C	2.6
1	2A	277	C	2.6
1	2A	2145	C	2.6
20	2Y	54	LYS	2.6
6	2G	159	VAL	2.6
19	2X	95	LEU	2.6
32	1a	578	C	2.6
44	2m	27	LYS	2.6

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Mol	Chain	Res	Type	RSRZ
34	2c	75	VAL	2.6
38	2g	59	LEU	2.6
20	2Y	57	GLN	2.6
38	1g	110	GLN	2.6
39	1h	93	VAL	2.6
50	1s	27	GLU	2.6
40	1i	32	ASP	2.6
32	2a	975	A	2.6
32	2a	1030(D)	A	2.6
33	2b	40	HIS	2.6
34	2c	172	ARG	2.6
52	2u	24	ARG	2.6
6	2G	87	PRO	2.6
7	1H	174	GLY	2.6
33	2b	38	GLY	2.6
46	1o	19	PRO	2.6
29	27	48	LYS	2.6
40	2i	70	LYS	2.6
21	1Z	69	THR	2.6
21	1Z	74	VAL	2.6
33	2b	44	LEU	2.6
33	2b	67	THR	2.6
34	2c	191	THR	2.6
35	1d	188	LEU	2.6
33	2b	208	ILE	2.6
40	1i	53	VAL	2.6
53	2y	35	ILE	2.6
3	1D	225	ALA	2.6
34	2c	203	PHE	2.6
36	2e	94	ALA	2.6
1	2A	2803	C	2.6
32	1a	1129	C	2.6
32	2a	1037	C	2.6
32	2a	1128	C	2.6
32	2a	1259	C	2.6
34	2c	144	SER	2.6
41	1j	30	SER	2.6
43	2l	118	SER	2.6
12	2Q	60	ARG	2.6
29	17	47	ARG	2.6
33	1b	175	ARG	2.6
38	1g	156	TRP	2.6

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Mol	Chain	Res	Type	RSRZ
26	24	32	TYR	2.6
30	28	29	LYS	2.6
33	2b	236	TYR	2.6
40	1i	98	PRO	2.6
6	2G	3	LEU	2.6
33	2b	98	LEU	2.6
53	2y	27	LEU	2.6
3	2D	259	THR	2.6
29	17	46	VAL	2.6
35	2d	17	VAL	2.6
38	1g	89	MET	2.6
40	1i	7	THR	2.6
53	2y	40	ILE	2.6
6	2G	41	GLN	2.6
6	1G	50	ALA	2.6
21	2Z	164	ALA	2.6
53	1y	97	ALA	2.6
1	1A	271(M)	G	2.5
1	2A	1063	G	2.5
50	2s	12	ASP	2.6
32	1a	1364	U	2.5
32	2a	1148	U	2.5
40	1i	117	HIS	2.5
52	2u	10	ARG	2.5
32	2a	999	C	2.5
51	1t	82	SER	2.5
38	2g	29	LYS	2.5
32	1a	1493	A	2.5
52	2u	16	GLY	2.5
52	2u	23	PRO	2.5
35	2d	174	LEU	2.5
37	1f	19	LEU	2.5
37	1f	21	LEU	2.5
4	2E	1	MET	2.5
34	2c	77	ILE	2.5
41	2j	24	VAL	2.5
10	2O	108	GLU	2.5
34	2c	108	ASN	2.5
51	1t	9	ASN	2.5
11	2P	102	ARG	2.5
14	2S	17	ARG	2.5
46	1o	88	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
32	2a	65	U	2.5
33	2b	132	LYS	2.5
1	2A	1051	G	2.5
1	2A	2154	G	2.5
1	2A	2805	G	2.5
1	2A	2893	G	2.5
32	1a	1024	G	2.5
32	1a	1068	G	2.5
1	1A	886	C	2.5
1	2A	1043	C	2.5
32	2a	1018	C	2.5
42	2k	115	PRO	2.5
33	1b	89	GLY	2.5
34	1c	158	GLY	2.5
38	1g	34	GLY	2.5
20	2Y	5	MET	2.5
35	1d	33	MET	2.5
36	2e	100	VAL	2.5
40	1i	92	TYR	2.5
40	2i	53	VAL	2.5
41	1j	74	ILE	2.5
45	2n	42	ILE	2.5
1	2A	1057	A	2.5
32	1a	1492	A	2.5
32	2a	532	A	2.5
32	2a	1157	A	2.5
33	2b	129	GLU	2.5
6	2G	23	PHE	2.5
24	22	9	GLN	2.5
33	2b	152	PHE	2.5
33	2b	181	PHE	2.5
40	1i	59	PHE	2.5
50	2s	77	THR	2.5
33	1b	62	ALA	2.5
33	2b	123	ALA	2.5
34	1c	50	ALA	2.5
40	2i	94	ALA	2.5
26	14	18	CYS	2.5
33	1b	144	ARG	2.5
43	2l	89	ARG	2.5
1	2A	1060	U	2.5
32	1a	1125	U	2.5

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Mol	Chain	Res	Type	RSRZ
33	1b	221	LEU	2.5
33	1b	234	PRO	2.5
30	28	41	ILE	2.5
34	1c	124	ILE	2.5
14	2S	65	VAL	2.5
47	1p	48	TRP	2.5
1	1A	1176	G	2.5
1	2A	7	G	2.5
1	2A	1062	G	2.5
1	2A	2207	G	2.5
26	24	25	TYR	2.5
32	2a	1038	C	2.5
32	1a	380	G	2.5
34	2c	29	TYR	2.5
47	1p	39	TYR	2.5
3	2D	28	GLU	2.5
21	1Z	202	GLU	2.5
26	24	30	GLU	2.5
26	24	59	PHE	2.5
35	2d	206	PHE	2.5
36	2e	45	PHE	2.5
41	1j	42	THR	2.5
51	1t	71	THR	2.5
11	1P	15	ARG	2.5
21	1Z	80	ARG	2.5
41	1j	66	ARG	2.5
41	2j	43	ARG	2.5
26	14	65	ASP	2.5
42	2k	98	LEU	2.5
51	1t	98	PRO	2.5
1	1A	272(A)	U	2.5
1	2A	1066	U	2.5
1	2A	1090	U	2.5
26	24	45	GLY	2.5
32	1a	202	U	2.5
34	2c	194	GLY	2.5
36	1e	22	GLY	2.5
44	2m	4	ILE	2.5
53	2y	39	ILE	2.5
7	2H	52	VAL	2.5
40	1i	17	VAL	2.5
40	2i	14	VAL	2.5

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Mol	Chain	Res	Type	RSRZ
47	1p	2	VAL	2.5
6	1G	35	GLU	2.5
34	2c	193	TYR	2.5
37	1f	50	TYR	2.5
40	2i	37	PHE	2.5
8	1I	113	ARG	2.5
26	24	55	ARG	2.5
53	2y	95	ARG	2.5
1	1A	885	C	2.5
1	2A	34	C	2.5
2	2B	4	C	2.5
6	2G	64	THR	2.5
3	1D	275	LYS	2.5
32	1a	175	C	2.5
32	1a	1018	C	2.5
32	2a	1096	C	2.5
32	2a	1317	C	2.5
33	2b	133	LYS	2.5
38	2g	36	LYS	2.5
43	2l	126	LYS	2.5
2	2B	19	G	2.5
32	1a	392	G	2.5
32	2a	1023	G	2.5
32	2a	1221	G	2.5
1	1A	2801(A)	A	2.5
18	1W	60	ASN	2.5
32	2a	983	A	2.5
7	1H	7	LEU	2.4
21	1Z	1	MET	2.4
45	2n	39	LEU	2.4
50	1s	15	LEU	2.4
20	2Y	53	PRO	2.4
33	2b	234	PRO	2.4
44	2m	22	ILE	2.4
6	2G	38	VAL	2.4
11	2P	71	VAL	2.4
34	1c	106	VAL	2.4
34	2c	130	VAL	2.4
35	2d	8	VAL	2.4
40	2i	67	GLY	2.4
43	2l	14	GLY	2.4
43	2l	72	GLY	2.4

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Mol	Chain	Res	Type	RSRZ
42	1k	16	SER	2.4
1	1A	2118	U	2.4
1	2A	12	U	2.4
7	1H	59	ARG	2.4
8	1I	85	GLU	2.4
35	1d	122	ARG	2.4
35	2d	192	GLU	2.4
53	2y	48	PHE	2.4
8	2I	131	LYS	2.4
14	1S	59	LYS	2.4
41	2j	33	GLN	2.4
44	2m	46	LYS	2.4
34	2c	177	THR	2.4
1	1A	2896	C	2.4
32	1a	1030	C	2.4
32	2a	1112	C	2.4
35	1d	135	LEU	2.4
41	2j	86	MET	2.4
1	1A	275	G	2.4
1	2A	2181	G	2.4
32	1a	220	G	2.4
32	1a	391	G	2.4
32	2a	1255	G	2.4
33	2b	200	ILE	2.4
36	2e	70	PRO	2.4
38	2g	27	ILE	2.4
47	1p	15	PRO	2.4
53	2y	57	PRO	2.4
35	1d	69	GLY	2.4
34	2c	20	SER	2.4
45	1n	3	ARG	2.4
52	1u	9	ARG	2.4
23	21	92	LYS	2.4
33	2b	122	PHE	2.4
38	2g	26	PHE	2.4
40	1i	11	LYS	2.4
40	1i	35	GLU	2.4
44	2m	69	GLU	2.4
51	1t	49	ALA	2.4
52	1u	14	TRP	2.4
53	2y	76	GLU	2.4
21	2Z	192	ALA	2.4

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Mol	Chain	Res	Type	RSRZ
36	1e	21	ALA	2.4
33	2b	92	TYR	2.4
37	2f	4	TYR	2.4
49	1r	34	TYR	2.4
17	2V	92	THR	2.4
34	2c	196	LEU	2.4
41	2j	8	LEU	2.4
38	2g	120	ILE	2.4
32	1a	163	C	2.4
40	2i	123	PRO	2.4
20	2Y	27	VAL	2.4
34	1c	194	GLY	2.4
35	1d	102	ASP	2.4
36	1e	97	GLY	2.4
42	2k	114	VAL	2.4
44	1m	6	GLY	2.4
45	2n	55	GLY	2.4
1	1A	548	A	2.4
32	1a	1286	A	2.4
32	2a	1492	A	2.4
35	1d	22	LYS	2.4
45	1n	17	LYS	2.4
45	2n	29	ARG	2.4
48	1q	68	ARG	2.4
1	2A	652(E)	G	2.4
8	2I	85	GLU	2.4
21	1Z	203	GLU	2.4
32	2a	993	G	2.4
32	2a	1193	G	2.4
33	1b	129	GLU	2.4
33	2b	9	GLU	2.4
40	1i	110	GLU	2.4
41	2j	35	SER	2.4
50	2s	27	GLU	2.4
38	2g	40	ALA	2.4
41	1j	84	GLN	2.4
1	2A	1113	U	2.4
40	2i	58	HIS	2.4
41	2j	56	HIS	2.4
38	1g	27	ILE	2.4
7	2H	19	VAL	2.4
16	2U	63	VAL	2.4

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Mol	Chain	Res	Type	RSRZ
21	2Z	42	VAL	2.4
24	22	19	VAL	2.4
27	25	60	VAL	2.4
34	2c	120	VAL	2.4
44	2m	115	LYS	2.4
45	2n	40	CYS	2.4
51	1t	48	LYS	2.4
53	1y	95	ARG	2.4
1	1A	2143	C	2.4
1	2A	2183	C	2.4
32	2a	381	C	2.4
32	2a	1113	C	2.4
1	1A	2602	A	2.4
2	2B	26	A	2.4
32	2a	383	A	2.4
32	2a	1041	A	2.4
33	1b	20	GLU	2.4
33	2b	134	GLU	2.4
53	2y	44	GLU	2.4
6	1G	76	SER	2.4
38	1g	106	GLN	2.4
47	2p	11	SER	2.4
1	1A	1097	U	2.4
1	1A	2133	G	2.4
1	2A	272(A)	U	2.4
1	2A	1533	G	2.4
1	2A	2100	G	2.4
32	2a	971	G	2.4
32	2a	1013	G	2.4
32	2a	1020	U	2.4
32	2a	1021	G	2.4
32	2a	1084	G	2.4
32	2a	1095	U	2.4
33	2b	48	MET	2.4
52	1u	21	TYR	2.4
33	2b	138	LEU	2.4
35	1d	202	LEU	2.4
38	2g	12	LEU	2.4
47	2p	13	HIS	2.4
50	1s	20	LEU	2.4
53	2y	34	LEU	2.4
34	2c	5	ILE	2.4

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Mol	Chain	Res	Type	RSRZ
41	1j	6	ILE	2.4
50	2s	40	ILE	2.4
3	2D	221	VAL	2.3
6	1G	160	VAL	2.3
8	2I	15	VAL	2.3
20	2Y	45	VAL	2.3
35	2d	168	ARG	2.3
36	1e	64	ARG	2.3
41	1j	69	ASN	2.3
41	2j	78	ASN	2.3
44	2m	99	ARG	2.3
47	1p	42	ARG	2.3
53	2y	4	ASN	2.3
53	2y	20	VAL	2.3
53	2y	58	ASN	2.3
14	2S	45	GLY	2.3
41	1j	31	GLY	2.3
40	1i	54	ASP	2.3
28	26	22	ALA	2.3
41	1j	83	GLU	2.3
49	1r	60	ALA	2.3
1	2A	1092	C	2.3
2	2B	6	C	2.3
6	2G	138	GLN	2.3
33	1b	78	GLN	2.3
1	1A	887	A	2.3
1	2A	2801(A)	A	2.3
32	2a	994	A	2.3
32	2a	1357	A	2.3
34	2c	167	TRP	2.3
39	2h	113	SER	2.3
41	2j	30	SER	2.3
7	2H	7	LEU	2.3
20	2Y	90	LEU	2.3
21	2Z	69	THR	2.3
33	1b	213	LEU	2.3
34	1c	47	LEU	2.3
34	2c	67	THR	2.3
35	1d	101	LEU	2.3
1	1A	1420	U	2.3
32	2a	1126	U	2.3
6	2G	157	ILE	2.3

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Mol	Chain	Res	Type	RSRZ
20	2Y	38	ILE	2.3
45	1n	7	ILE	2.3
3	2D	5	LYS	2.3
3	2D	150	LYS	2.3
6	2G	105	LYS	2.3
35	2d	7	PRO	2.3
40	2i	95	LYS	2.3
1	2A	171	G	2.3
1	2A	1056	G	2.3
30	28	42	ARG	2.3
32	1a	181	G	2.3
32	1a	1131	G	2.3
32	2a	630	G	2.3
32	2a	1182	G	2.3
33	2b	130	ARG	2.3
33	2b	209	ARG	2.3
48	2q	63	ARG	2.3
40	1i	8	GLY	2.3
26	24	65	ASP	2.3
6	1G	46	ALA	2.3
33	2b	86	GLU	2.3
40	2i	46	ALA	2.3
44	1m	2	ALA	2.3
50	1s	24	ALA	2.3
41	1j	86	MET	2.3
33	2b	69	LEU	2.3
33	2b	215	LEU	2.3
42	1k	98	LEU	2.3
44	2m	34	LEU	2.3
32	1a	219	C	2.3
32	1a	280	C	2.3
32	2a	1322	C	2.3
32	2a	1326	C	2.3
32	2a	1363	C	2.3
1	2A	653	A	2.3
1	2A	2629	A	2.3
1	2A	2892	A	2.3
33	1b	42	ILE	2.3
33	1b	67	THR	2.3
33	2b	148	TYR	2.3
39	2h	3	THR	2.3
53	2y	53	THR	2.3

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Mol	Chain	Res	Type	RSRZ
2	1B	1	U	2.3
6	1G	118	ARG	2.3
12	2Q	16	ARG	2.3
32	1a	1257	U	2.3
21	2Z	159	PRO	2.3
29	27	47	ARG	2.3
33	2b	125	PRO	2.3
34	1c	156	ARG	2.3
34	2c	179	ARG	2.3
40	1i	104	ARG	2.3
34	1c	75	VAL	2.3
34	1c	116	VAL	2.3
34	2c	103	VAL	2.3
48	1q	35	VAL	2.3
35	1d	90	GLY	2.3
6	2G	102	PHE	2.3
1	1A	2121	G	2.3
1	2A	1106	G	2.3
1	2A	1107	G	2.3
1	2A	1112	G	2.3
1	2A	2155	G	2.3
1	2A	2182	G	2.3
20	2Y	48	ALA	2.3
32	1a	1241	G	2.3
32	2a	1190	G	2.3
50	2s	24	ALA	2.3
5	2F	8	GLN	2.3
6	2G	90	LEU	2.3
8	2I	77	LEU	2.3
34	1c	188	LEU	2.3
44	1m	70	LEU	2.3
40	1i	63	ILE	2.3
46	1o	3	ILE	2.3
53	1y	8	LYS	2.3
53	2y	80	LYS	2.3
53	2y	6	THR	2.3
3	2D	263	ARG	2.3
19	2X	69	TYR	2.3
20	2Y	73	ARG	2.3
26	14	32	TYR	2.3
34	2c	11	ARG	2.3
35	2d	47	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
7	2H	21	PRO	2.3
1	1A	889	C	2.3
2	2B	28	C	2.3
7	2H	45	VAL	2.3
1	1A	1065	U	2.3
1	1A	1177	A	2.3
1	2A	362	U	2.3
32	2a	172	A	2.3
32	2a	1019	C	2.3
32	2a	1140	C	2.3
32	2a	992	U	2.3
42	2k	86	GLY	2.3
43	2l	95	GLY	2.3
51	1t	69	GLY	2.3
38	2g	37	ASN	2.3
50	2s	74	PHE	2.3
21	2Z	168	GLU	2.3
33	1b	207	ALA	2.3
44	1m	72	ALA	2.3
21	2Z	125	LEU	2.3
33	1b	95	GLN	2.3
34	2c	52	LEU	2.3
37	1f	94	GLN	2.3
38	1g	38	LEU	2.3
38	2g	38	LEU	2.3
39	1h	133	LEU	2.3
41	1j	85	LEU	2.3
41	2j	85	LEU	2.3
11	2P	76	LYS	2.3
43	2l	23	LYS	2.3
51	2t	38	LYS	2.3
1	2A	1170	G	2.3
31	29	17	ILE	2.3
32	1a	42	G	2.3
32	2a	963	G	2.3
32	2a	1042	G	2.3
49	1r	75	ILE	2.3
20	2Y	2	ARG	2.3
26	24	44	THR	2.3
33	2b	96	ARG	2.3
35	1d	118	ARG	2.3
52	1u	15	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
6	1G	87	PRO	2.3
6	2G	131	TYR	2.3
30	28	53	PRO	2.3
33	1b	136	VAL	2.3
33	2b	232	PRO	2.3
39	1h	67	PRO	2.3
34	2c	78	GLY	2.3
40	1i	68	GLY	2.3
41	2j	31	GLY	2.3
32	2a	1091	U	2.3
1	1A	1532	C	2.2
1	1A	2179	C	2.2
1	2A	229	A	2.2
1	2A	2114	A	2.2
32	1a	1318	A	2.2
32	2a	1260	C	2.2
32	2a	1325	C	2.2
25	23	60	GLU	2.2
33	1b	237	ALA	2.2
40	1i	55	ALA	2.2
41	2j	76	ASN	2.2
44	2m	5	ALA	2.2
45	2n	20	ALA	2.2
53	1y	75	ASN	2.2
6	2G	43	LEU	2.2
6	2G	60	LEU	2.2
6	2G	111	LEU	2.2
28	26	11	LEU	2.2
34	2c	188	LEU	2.2
39	1h	112	LEU	2.2
40	1i	85	LEU	2.2
40	2i	47	LEU	2.2
35	2d	42	GLN	2.2
40	2i	91	ASP	2.2
40	1i	51	ARG	2.2
50	2s	36	ARG	2.2
53	2y	83	ARG	2.2
34	2c	109	PRO	2.2
34	2c	192	THR	2.2
42	2k	42	TRP	2.2
3	2D	113	VAL	2.2
7	2H	128	PRO	2.2

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Mol	Chain	Res	Type	RSRZ
47	1p	22	THR	2.2
35	1d	137	SER	2.2
47	2p	41	PRO	2.2
14	2S	92	TYR	2.2
44	1m	59	TYR	2.2
47	2p	39	TYR	2.2
1	1A	1047	G	2.2
32	1a	66	G	2.2
32	1a	1139	G	2.2
32	1a	1181	G	2.2
32	2a	734	G	2.2
32	2a	1156	G	2.2
26	24	54	GLY	2.2
34	2c	25	GLY	2.2
41	1j	93	GLY	2.2
26	14	49	PHE	2.2
33	1b	83	MET	2.2
32	2a	1000	U	2.2
20	2Y	78	ALA	2.2
34	2c	121	ALA	2.2
40	1i	43	ALA	2.2
44	1m	42	ALA	2.2
1	1A	2293	C	2.2
1	2A	1080	C	2.2
1	2A	2178	C	2.2
6	2G	67	LYS	2.2
26	24	2	LYS	2.2
27	15	58	LEU	2.2
32	1a	1128	C	2.2
32	1a	1447	A	2.2
32	2a	977	A	2.2
33	1b	61	LEU	2.2
34	2c	34	LEU	2.2
35	1d	157	LEU	2.2
38	2g	84	ASN	2.2
40	2i	19	LEU	2.2
48	1q	100	LYS	2.2
48	2q	100	LYS	2.2
51	2t	74	LYS	2.2
26	24	14	ILE	2.2
47	1p	36	ILE	2.2
33	2b	189	ASP	2.2

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Mol	Chain	Res	Type	RSRZ
34	1c	79	ARG	2.2
35	2d	10	ARG	2.2
35	2d	107	ARG	2.2
40	2i	75	ASP	2.2
45	2n	3	ARG	2.2
50	1s	29	ARG	2.2
9	2N	44	PRO	2.2
28	26	42	TRP	2.2
33	2b	112	VAL	2.2
33	2b	229	VAL	2.2
34	2c	55	VAL	2.2
35	1d	112	VAL	2.2
43	2l	5	PRO	2.2
44	1m	103	THR	2.2
44	2m	17	VAL	2.2
33	2b	192	SER	2.2
42	1k	75	TYR	2.2
35	1d	23	GLY	2.2
43	2l	87	GLY	2.2
52	2u	4	GLY	2.2
53	2y	92	GLY	2.2
21	2Z	1	MET	2.2
38	2g	62	PHE	2.2
20	2Y	63	LYS	2.2
1	1A	1748	G	2.2
6	2G	158	ALA	2.2
12	2Q	22	LYS	2.2
1	2A	2190	G	2.2
1	2A	2833	G	2.2
27	15	59	GLU	2.2
32	2a	1030(C)	G	2.2
32	2a	1048	G	2.2
32	2a	1316	G	2.2
33	1b	49	GLU	2.2
33	1b	121	LEU	2.2
33	2b	207	ALA	2.2
38	2g	22	LEU	2.2
47	2p	7	ALA	2.2
51	1t	62	LEU	2.2
1	2A	9	U	2.2
32	1a	1040	U	2.2
41	2j	69	ASN	2.2

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Mol	Chain	Res	Type	RSRZ
33	2b	41	ILE	2.2
41	2j	9	ARG	2.2
2	2B	58	A	2.2
32	2a	1183	A	2.2
32	2a	1279	A	2.2
1	1A	2145	C	2.2
1	2A	154(A)	C	2.2
1	2A	889	C	2.2
32	1a	984	C	2.2
32	1a	1037	C	2.2
32	2a	1132	C	2.2
40	2i	117	HIS	2.2
37	2f	55	ASP	2.2
42	2k	36	ASP	2.2
7	2H	12	PRO	2.2
7	2H	37	VAL	2.2
8	2I	107	VAL	2.2
21	2Z	62	PRO	2.2
26	24	10	VAL	2.2
33	2b	131	PRO	2.2
37	2f	40	VAL	2.2
40	1i	44	VAL	2.2
41	1j	91	PRO	2.2
41	2j	94	VAL	2.2
48	1q	73	VAL	2.2
49	1r	86	VAL	2.2
41	2j	48	THR	2.2
42	2k	31	THR	2.2
45	1n	61	TRP	2.2
45	2n	61	TRP	2.2
47	2p	48	TRP	2.2
52	2u	17	THR	2.2
14	2S	53	SER	2.2
16	2U	77	SER	2.2
23	21	28	GLY	2.2
31	29	37	GLY	2.2
37	1f	89	MET	2.2
34	1c	112	SER	2.2
35	1d	152	SER	2.2
35	2d	38	TYR	2.2
49	1r	59	SER	2.2
41	1j	63	PHE	2.2

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Mol	Chain	Res	Type	RSRZ
41	2j	14	LYS	2.2
45	2n	4	LYS	2.2
20	1Y	90	LEU	2.2
33	2b	187	LEU	2.2
34	1c	115	LEU	2.2
36	2e	71	LEU	2.2
44	2m	90	LEU	2.2
9	2N	68	GLU	2.2
24	22	5	GLU	2.2
33	1b	123	ALA	2.2
34	1c	169	ALA	2.2
44	2m	50	GLU	2.2
1	1A	9	U	2.2
1	1A	2897	U	2.2
7	2H	54	ARG	2.2
8	2I	51	ILE	2.2
32	1a	1020	U	2.2
32	2a	961	U	2.2
32	2a	1196	U	2.2
33	2b	21	ARG	2.2
34	1c	77	ILE	2.2
35	1d	66	ARG	2.2
38	2g	94	ARG	2.2
44	2m	3	ARG	2.2
44	2m	88	ARG	2.2
45	2n	35	ARG	2.2
52	2u	15	ARG	2.2
36	2e	130	ASN	2.2
47	2p	14	ASN	2.2
1	1A	2155	G	2.2
1	1A	2157	G	2.2
1	1A	2206	G	2.2
1	2A	1058	G	2.2
1	2A	1093	G	2.2
32	1a	1030(C)	G	2.2
32	1a	1224	G	2.2
1	1A	1070	A	2.2
1	2A	1098	A	2.2
2	2B	25	A	2.2
20	2Y	85	VAL	2.2
32	1a	1183	A	2.2
50	2s	60	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
50	2s	67	VAL	2.2
1	2A	1041	C	2.2
1	2A	2789	C	2.2
32	1a	784	C	2.2
32	2a	995	C	2.2
32	2a	1218	C	2.2
32	2a	1397	C	2.2
6	2G	165	THR	2.2
36	2e	10	MET	2.2
47	2p	45	THR	2.2
7	2H	135	GLY	2.2
20	2Y	34	LYS	2.2
26	24	69	LYS	2.2
34	2c	159	GLY	2.2
36	2e	121	LYS	2.2
40	2i	6	GLY	2.2
40	2i	57	GLY	2.2
45	1n	34	TYR	2.2
37	1f	17	SER	2.2
49	1r	81	PHE	2.2
6	2G	19	LEU	2.2
53	2y	85	LEU	2.2
20	2Y	65	ALA	2.2
53	1y	11	GLU	2.2
4	2E	58	ARG	2.1
33	1b	41	ILE	2.1
34	2c	202	ILE	2.1
41	2j	51	ARG	2.1
41	2j	66	ARG	2.1
41	2j	70	ARG	2.1
5	2F	169	ASN	2.1
21	2Z	121	HIS	2.1
32	2a	1532	U	2.1
6	2G	32	PRO	2.1
17	2V	22	VAL	2.1
33	1b	93	VAL	2.1
34	1c	174	PRO	2.1
39	2h	61	VAL	2.1
44	1m	113	PRO	2.1
33	2b	83	MET	2.1
33	2b	101	MET	2.1
35	1d	190	ASP	2.1

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Mol	Chain	Res	Type	RSRZ
14	2S	62	LYS	2.1
1	1A	1847	A	2.1
1	2A	1103	A	2.1
1	2A	1537	G	2.1
2	2B	18	G	2.1
6	1G	42	GLY	2.1
7	2H	91	GLY	2.1
22	20	8	GLY	2.1
32	1a	77	G	2.1
48	1q	67	LYS	2.1
32	1a	487	A	2.1
44	2m	6	GLY	2.1
1	1A	2794	C	2.1
32	1a	1321	C	2.1
32	1a	1452	C	2.1
32	2a	221	C	2.1
32	2a	1007	C	2.1
32	2a	1320	C	2.1
36	1e	45	PHE	2.1
38	2g	104	LEU	2.1
40	1i	102	LEU	2.1
51	1t	99	LEU	2.1
39	1h	58	TYR	2.1
34	1c	160	ALA	2.1
34	2c	133	ALA	2.1
38	2g	25	ALA	2.1
39	2h	29	SER	2.1
41	2j	26	ALA	2.1
42	2k	97	ALA	2.1
23	11	26	ARG	2.1
35	1d	192	GLU	2.1
51	1t	51	GLU	2.1
6	2G	77	ILE	2.1
6	2G	27	ASN	2.1
7	2H	44	VAL	2.1
7	2H	118	PRO	2.1
33	1b	230	VAL	2.1
37	1f	6	VAL	2.1
33	2b	156	LYS	2.1
37	1f	92	LYS	2.1
37	2f	54	LYS	2.1
47	1p	27	LYS	2.1

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Mol	Chain	Res	Type	RSRZ
44	1m	68	GLY	2.1
50	2s	63	THR	2.1
50	2s	68	GLY	2.1
6	1G	152	LEU	2.1
7	2H	67	LEU	2.1
34	2c	43	LEU	2.1
36	2e	139	LEU	2.1
40	1i	40	LEU	2.1
48	1q	98	LEU	2.1
50	2s	22	LEU	2.1
1	1A	2158	A	2.1
3	1D	2	ALA	2.1
5	2F	166	ALA	2.1
6	2G	6	ALA	2.1
7	2H	59	ARG	2.1
21	2Z	189	ALA	2.1
32	1a	149	A	2.1
32	2a	1123	A	2.1
34	1c	48	TYR	2.1
36	2e	61	TYR	2.1
39	2h	48	TYR	2.1
44	1m	33	ALA	2.1
44	2m	91	ARG	2.1
50	2s	61	TYR	2.1
50	2s	78	ARG	2.1
1	1A	271(H)	G	2.1
1	1A	892	G	2.1
1	1A	1056	G	2.1
1	2A	1114	G	2.1
6	2G	144	ILE	2.1
20	2Y	52	SER	2.1
26	14	22	ILE	2.1
32	1a	1223	C	2.1
32	2a	1249	C	2.1
33	2b	233	SER	2.1
43	2l	116	SER	2.1
39	1h	70	GLN	2.1
44	1m	101	GLN	2.1
50	1s	83	HIS	2.1
8	2I	127	VAL	2.1
35	2d	169	LYS	2.1
44	1m	27	LYS	2.1

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Mol	Chain	Res	Type	RSRZ
1	1A	2122	U	2.1
32	1a	841	U	2.1
14	2S	96	GLY	2.1
21	2Z	106	GLY	2.1
21	2Z	117	LEU	2.1
6	1G	80	PHE	2.1
6	1G	156	ASP	2.1
6	2G	129	GLY	2.1
7	2H	57	ASP	2.1
12	2Q	17	LEU	2.1
37	2f	14	LEU	2.1
44	2m	66	LEU	2.1
40	1i	37	PHE	2.1
40	2i	20	ARG	2.1
6	2G	20	ILE	2.1
34	2c	50	ALA	2.1
41	2j	20	ALA	2.1
53	2y	94	ALA	2.1
21	1Z	168	GLU	2.1
33	1b	231	GLU	2.1
34	2c	201	TYR	2.1
34	2c	206	GLU	2.1
42	2k	25	TYR	2.1
53	1y	68	GLU	2.1
53	2y	82	GLU	2.1
1	2A	1445	A	2.1
32	2a	974	A	2.1
32	2a	1285	A	2.1
1	1A	2156	G	2.1
1	1A	2191	G	2.1
1	2A	652(T)	C	2.1
32	2a	744	C	2.1
32	2a	1141	C	2.1
34	2c	45	LYS	2.1
41	2j	13	HIS	2.1
53	2y	33	HIS	2.1
53	2y	70	MET	2.1
24	22	63	VAL	2.1
34	2c	70	VAL	2.1
34	2c	106	VAL	2.1
38	1g	75	VAL	2.1
35	1d	172	PRO	2.1

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Mol	Chain	Res	Type	RSRZ
43	2l	71	PRO	2.1
50	2s	59	PRO	2.1
20	1Y	92	ASN	2.1
33	1b	142	LEU	2.1
45	2n	47	LEU	2.1
1	1A	1963	U	2.1
11	2P	54	GLY	2.1
12	2Q	104	PHE	2.1
34	1c	9	GLY	2.1
34	2c	128	PHE	2.1
6	2G	113	ARG	2.1
20	2Y	50	ARG	2.1
21	2Z	87	ASP	2.1
29	17	23	ARG	2.1
41	2j	100	THR	2.1
46	2o	68	ARG	2.1
47	1p	75	ARG	2.1
48	1q	72	ARG	2.1
6	1G	52	ILE	2.1
44	2m	51	ALA	2.1
6	2G	14	GLU	2.1
43	2l	16	GLU	2.1
14	2S	38	GLN	2.0
17	2V	44	LYS	2.0
30	28	25	MET	2.0
43	2l	20	LYS	2.0
48	2q	99	SER	2.0
51	1t	11	SER	2.0
48	1q	93	GLN	2.0
49	2r	61	LYS	2.0
26	24	40	HIS	2.0
1	2A	2134	A	2.0
32	1a	1041	A	2.0
33	2b	15	VAL	2.0
34	1c	70	VAL	2.0
41	2j	49	VAL	2.0
50	2s	19	VAL	2.0
40	2i	98	PRO	2.0
1	1A	2142	C	2.0
4	1E	195	LEU	2.0
10	2O	29	ASN	2.0
32	1a	369	C	2.0

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Mol	Chain	Res	Type	RSRZ
32	1a	1019	C	2.0
32	1a	1137	C	2.0
35	1d	155	LEU	2.0
48	1q	74	LEU	2.0
1	1A	2631	G	2.0
1	2A	652(C)	G	2.0
1	2A	1068	G	2.0
1	2A	2631	G	2.0
1	2A	2751	G	2.0
2	2B	103	G	2.0
32	1a	105	G	2.0
32	1a	1021	G	2.0
32	1a	1182	G	2.0
32	2a	384	G	2.0
32	2a	1022	G	2.0
32	2a	1373	G	2.0
35	2d	209	ARG	2.0
38	1g	10	ARG	2.0
41	2j	52	GLY	2.0
45	2n	38	GLY	2.0
1	1A	1026	U	2.0
1	1A	1101	U	2.0
32	1a	961	U	2.0
32	2a	1159	U	2.0
39	2h	35	ILE	2.0
41	2j	15	THR	2.0
4	2E	70	ALA	2.0
34	2c	53	ALA	2.0
36	2e	132	ALA	2.0
45	1n	48	ALA	2.0
21	2Z	193	GLU	2.0
26	24	3	GLU	2.0
33	2b	24	TRP	2.0
33	2b	143	GLU	2.0
53	2y	68	GLU	2.0
6	1G	146	TYR	2.0
7	1H	172	LYS	2.0
21	2Z	201	LYS	2.0
47	1p	38	TYR	2.0
49	2r	71	LYS	2.0
38	1g	31	MET	2.0
21	2Z	86	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
33	1b	16	HIS	2.0
39	2h	23	SER	2.0
40	1i	26	VAL	2.0
46	1o	62	GLN	2.0
48	1q	99	SER	2.0
50	1s	14	HIS	2.0
26	14	16	CYS	2.0
39	2h	5	PRO	2.0
41	1j	53	PRO	2.0
41	2j	41	PRO	2.0
41	2j	77	PRO	2.0
51	2t	98	PRO	2.0
1	1A	2134	A	2.0
1	1A	2790	A	2.0
6	2G	135	LEU	2.0
32	1a	1319	A	2.0
32	2a	1324	A	2.0
34	2c	87	LEU	2.0
38	2g	99	LEU	2.0
6	2G	95	ARG	2.0
15	2T	125	ARG	2.0
34	2c	54	ARG	2.0
34	2c	181	ASN	2.0
38	2g	78	ARG	2.0
40	1i	120	ARG	2.0
26	14	19	GLY	2.0
35	2d	6	GLY	2.0
40	2i	33	PHE	2.0
1	1A	1100	C	2.0
1	2A	2103	C	2.0
32	2a	979	C	2.0
32	2a	1060	C	2.0
33	1b	188	ALA	2.0
33	2b	173	ALA	2.0
34	2c	146	ALA	2.0
36	2e	116	THR	2.0
43	1l	26	ALA	2.0
53	2y	50	ALA	2.0
1	2A	1108	U	2.0
32	2a	203	U	2.0
32	2a	421	U	2.0
32	2a	1065	U	2.0

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Mol	Chain	Res	Type	RSRZ
39	2h	25	ASP	2.0
1	1A	1099	G	2.0
21	2Z	198	LYS	2.0
32	1a	104	G	2.0
32	1a	1127	G	2.0
32	2a	357	G	2.0
32	2a	654	G	2.0
32	2a	1108	G	2.0
32	2a	1138	G	2.0
32	2a	1273	G	2.0
44	1m	65	LYS	2.0
44	2m	65	LYS	2.0
50	1s	25	LYS	2.0
14	2S	7	TYR	2.0
42	1k	25	TYR	2.0
44	2m	21	TYR	2.0
16	2U	8	VAL	2.0
21	2Z	175	VAL	2.0
26	24	21	VAL	2.0
33	1b	71	VAL	2.0
33	2b	136	VAL	2.0
37	2f	88	VAL	2.0
47	2p	2	VAL	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
32	5MC	2a	967	21/22	0.82	0.19	72,75,84,93	0
32	2MG	2a	1207	24/25	0.82	0.14	84,88,94,97	0
1	5MU	2A	1915	21/22	0.83	0.13	75,81,89,98	0
1	5MU	1A	1915	21/22	0.84	0.14	71,78,88,102	0
32	PSU	2a	516	20/21	0.85	0.12	76,82,90,91	0
32	M2G	2a	966	25/26	0.86	0.19	70,76,86,92	0
32	2MG	1a	1207	24/25	0.88	0.13	73,80,81,93	0
1	PSU	1A	1917	20/21	0.88	0.11	62,73,80,81	0
32	G7M	2a	527	24/25	0.89	0.15	63,69,75,79	0
43	0TD	1l	92	10/11	0.89	0.14	55,59,63,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
1	PSU	2A	1917	20/21	0.90	0.10	76,79,85,86	0
1	PSU	2A	1911	20/21	0.90	0.10	67,70,75,77	0
1	PSU	1A	1911	20/21	0.91	0.11	48,62,66,71	0
32	5MC	1a	967	21/22	0.91	0.11	59,65,78,81	0
32	4OC	2a	1402	22/23	0.91	0.12	55,65,68,73	0
32	5MC	2a	1400	21/22	0.92	0.13	63,72,77,81	0
32	PSU	1a	516	20/21	0.92	0.10	62,69,73,73	0
43	0TD	2l	92	10/11	0.92	0.11	59,64,68,82	0
32	4OC	1a	1402	22/23	0.93	0.12	49,53,57,63	0
1	5MC	2A	1942	21/22	0.94	0.12	41,51,57,63	0
32	M2G	1a	966	25/26	0.94	0.11	54,61,68,78	0
32	5MC	1a	1407	21/22	0.94	0.11	45,52,57,59	0
1	OMC	2A	1920	21/22	0.95	0.09	59,66,71,73	0
32	5MC	1a	1400	21/22	0.95	0.11	40,58,63,64	0
32	G7M	1a	527	24/25	0.95	0.09	48,54,57,62	0
1	5MC	1A	1942	21/22	0.95	0.09	25,34,39,44	0
32	5MC	2a	1404	21/22	0.95	0.10	47,57,62,66	0
32	UR3	2a	1498	21/22	0.95	0.09	53,60,63,66	0
32	MA6	2a	1518	24/25	0.95	0.10	51,60,63,65	0
32	UR3	1a	1498	21/22	0.95	0.10	43,48,52,58	0
1	2MA	2A	2503	23/24	0.96	0.10	23,29,35,41	0
32	MA6	1a	1518	24/25	0.96	0.10	42,44,50,54	0
32	MA6	1a	1519	24/25	0.96	0.09	39,45,51,53	0
32	5MC	2a	1407	21/22	0.96	0.09	51,58,63,63	0
1	OMC	1A	1920	21/22	0.96	0.09	42,52,58,61	0
32	5MC	1a	1404	21/22	0.96	0.09	37,44,49,52	0
32	MA6	2a	1519	24/25	0.96	0.13	53,60,66,68	0
1	OMG	2A	2251	24/25	0.96	0.08	31,34,39,40	0
1	PSU	1A	2605	20/21	0.97	0.09	17,22,27,33	0
1	5MC	2A	1962	21/22	0.97	0.08	36,44,49,57	0
1	5MU	1A	1939	21/22	0.97	0.09	17,27,31,32	0
1	2MA	1A	2503	23/24	0.97	0.08	13,17,22,22	0
1	OMU	2A	2552	21/22	0.97	0.08	29,35,38,42	0
1	5MU	2A	1939	21/22	0.97	0.08	32,35,40,43	0
1	5MC	1A	1962	21/22	0.98	0.07	24,34,39,44	0
1	OMU	1A	2552	21/22	0.98	0.07	18,25,31,32	0
1	PSU	2A	2605	20/21	0.98	0.08	27,34,37,39	0
1	OMG	1A	2251	24/25	0.98	0.07	14,19,22,25	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, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3730	1/1	0.47	0.29	59,59,59,59	0
54	MG	1A	3661	1/1	0.48	0.18	73,73,73,73	0
54	MG	1a	1821	1/1	0.51	0.18	82,82,82,82	0
54	MG	2B	214	1/1	0.51	0.17	82,82,82,82	0
54	MG	2a	1738	1/1	0.52	0.22	84,84,84,84	0
54	MG	1A	3672	1/1	0.54	0.31	59,59,59,59	0
54	MG	2A	3335	1/1	0.55	0.22	69,69,69,69	0
54	MG	1A	3520	1/1	0.56	0.19	33,33,33,33	0
54	MG	1a	1773	1/1	0.57	0.20	85,85,85,85	0
54	MG	1p	101	1/1	0.58	0.18	83,83,83,83	0
54	MG	2a	1735	1/1	0.59	0.13	64,64,64,64	0
54	MG	2a	1712	1/1	0.59	0.42	75,75,75,75	0
54	MG	2a	1729	1/1	0.60	0.27	76,76,76,76	0
54	MG	1a	1632	1/1	0.61	0.23	59,59,59,59	0
54	MG	2a	1601	1/1	0.61	0.24	67,67,67,67	0
54	MG	1a	1764	1/1	0.61	0.18	72,72,72,72	0
54	MG	2A	3045	1/1	0.62	0.20	60,60,60,60	0
54	MG	2A	3459	1/1	0.62	0.18	58,58,58,58	0
54	MG	2a	1745	1/1	0.62	0.25	65,65,65,65	0
54	MG	2A	3506	1/1	0.63	0.25	70,70,70,70	0
54	MG	1h	201	1/1	0.63	0.16	69,69,69,69	0
54	MG	1a	1794	1/1	0.64	0.21	65,65,65,65	0
54	MG	2A	3112	1/1	0.64	0.18	79,79,79,79	0
54	MG	1A	3990	1/1	0.65	0.30	89,89,89,89	0
54	MG	1a	1723	1/1	0.66	0.12	90,90,90,90	0
54	MG	1A	3840	1/1	0.66	0.22	70,70,70,70	0
54	MG	1a	1800	1/1	0.66	0.16	64,64,64,64	0
54	MG	2A	3513	1/1	0.67	0.17	76,76,76,76	0
54	MG	2a	1760	1/1	0.67	0.23	66,66,66,66	0
54	MG	1A	3617	1/1	0.68	0.14	54,54,54,54	0
54	MG	2A	3357	1/1	0.69	0.18	72,72,72,72	0
54	MG	15	106	1/1	0.69	0.14	67,67,67,67	0
54	MG	2a	1674	1/1	0.69	0.22	68,68,68,68	0
54	MG	2a	1682	1/1	0.69	0.31	72,72,72,72	0
54	MG	2A	3720	1/1	0.69	0.19	60,60,60,60	0
54	MG	2A	3570	1/1	0.70	0.20	98,98,98,98	0
54	MG	2A	3440	1/1	0.70	0.30	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3554	1/1	0.70	0.16	53,53,53,53	0
54	MG	1B	205	1/1	0.71	0.19	55,55,55,55	0
54	MG	1a	1859	1/1	0.71	0.20	76,76,76,76	0
54	MG	1B	227	1/1	0.71	0.15	70,70,70,70	0
54	MG	1A	3608	1/1	0.71	0.17	41,41,41,41	0
54	MG	1A	3876	1/1	0.72	0.28	41,41,41,41	0
54	MG	2A	3410	1/1	0.72	0.17	71,71,71,71	0
54	MG	1a	1817	1/1	0.72	0.17	76,76,76,76	0
54	MG	2A	3120	1/1	0.72	0.32	70,70,70,70	0
54	MG	2A	3166	1/1	0.72	0.19	61,61,61,61	0
54	MG	1F	315	1/1	0.72	0.24	39,39,39,39	0
54	MG	2n	101	1/1	0.72	0.28	69,69,69,69	0
54	MG	2a	1673	1/1	0.73	0.17	60,60,60,60	0
54	MG	2A	3449	1/1	0.73	0.23	62,62,62,62	0
54	MG	1B	210	1/1	0.73	0.22	55,55,55,55	0
54	MG	1A	3360	1/1	0.73	0.15	40,40,40,40	0
54	MG	2A	3039	1/1	0.73	0.10	59,59,59,59	0
54	MG	1F	314	1/1	0.73	0.34	66,66,66,66	0
54	MG	2A	3649	1/1	0.73	0.32	94,94,94,94	0
54	MG	2A	3384	1/1	0.73	0.20	59,59,59,59	0
54	MG	2A	3080	1/1	0.73	0.26	58,58,58,58	0
54	MG	1a	1715	1/1	0.73	0.24	75,75,75,75	0
54	MG	2A	3502	1/1	0.74	0.20	46,46,46,46	0
54	MG	1A	3758	1/1	0.74	0.22	62,62,62,62	0
54	MG	1A	3389	1/1	0.74	0.19	67,67,67,67	0
54	MG	2a	1716	1/1	0.74	0.15	49,49,49,49	0
54	MG	2B	217	1/1	0.74	0.24	81,81,81,81	0
54	MG	2G	203	1/1	0.74	0.15	66,66,66,66	0
54	MG	2A	3433	1/1	0.74	0.17	68,68,68,68	0
54	MG	2a	1615	1/1	0.74	0.24	82,82,82,82	0
54	MG	2a	1649	1/1	0.74	0.34	75,75,75,75	0
54	MG	2A	3610	1/1	0.74	0.17	79,79,79,79	0
54	MG	1A	3937	1/1	0.75	0.37	75,75,75,75	0
54	MG	1a	1753	1/1	0.75	0.21	70,70,70,70	0
54	MG	2a	1676	1/1	0.75	0.22	65,65,65,65	0
54	MG	1A	3076	1/1	0.75	0.14	52,52,52,52	0
54	MG	1B	217	1/1	0.75	0.20	69,69,69,69	0
54	MG	1a	1831	1/1	0.75	0.20	64,64,64,64	0
54	MG	1g	202	1/1	0.76	0.10	51,51,51,51	0
54	MG	2A	3658	1/1	0.76	0.27	80,80,80,80	0
54	MG	2A	3675	1/1	0.76	0.17	47,47,47,47	0
54	MG	2A	3677	1/1	0.76	0.19	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1a	1725	1/1	0.76	0.25	65,65,65,65	0
54	MG	1A	3995	1/1	0.76	0.23	55,55,55,55	0
54	MG	2a	1727	1/1	0.76	0.24	67,67,67,67	0
54	MG	1A	4007	1/1	0.76	0.27	77,77,77,77	0
54	MG	1A	3754	1/1	0.76	0.14	50,50,50,50	0
54	MG	25	102	1/1	0.76	0.18	53,53,53,53	0
54	MG	1A	3930	1/1	0.76	0.14	76,76,76,76	0
54	MG	2a	1758	1/1	0.76	0.28	78,78,78,78	0
54	MG	2A	3083	1/1	0.76	0.28	60,60,60,60	0
54	MG	2a	1768	1/1	0.76	0.16	62,62,62,62	0
54	MG	2e	202	1/1	0.76	0.23	71,71,71,71	0
54	MG	2A	3090	1/1	0.76	0.15	58,58,58,58	0
54	MG	1a	1675	1/1	0.77	0.15	82,82,82,82	0
54	MG	2A	3415	1/1	0.77	0.25	67,67,67,67	0
54	MG	2A	3722	1/1	0.77	0.18	61,61,61,61	0
54	MG	1A	3214	1/1	0.77	0.21	57,57,57,57	0
54	MG	1Z	301	1/1	0.77	0.15	60,60,60,60	0
54	MG	1d	303	1/1	0.77	0.19	68,68,68,68	0
54	MG	2X	102	1/1	0.77	0.28	57,57,57,57	0
54	MG	2a	1775	1/1	0.77	0.20	66,66,66,66	0
54	MG	1A	3663	1/1	0.77	0.15	76,76,76,76	0
54	MG	1A	3272	1/1	0.77	0.17	80,80,80,80	0
57	MPD	1T	206	8/8	0.77	0.25	55,64,66,72	0
57	MPD	2B	219	8/8	0.77	0.33	61,71,75,83	0
54	MG	1a	1692	1/1	0.78	0.23	62,62,62,62	0
54	MG	2B	207	1/1	0.78	0.25	76,76,76,76	0
54	MG	1f	202	1/1	0.78	0.18	61,61,61,61	0
54	MG	1a	1777	1/1	0.78	0.23	80,80,80,80	0
54	MG	1a	1792	1/1	0.78	0.20	74,74,74,74	0
54	MG	1B	228	1/1	0.78	0.11	73,73,73,73	0
54	MG	2A	3591	1/1	0.78	0.13	58,58,58,58	0
54	MG	1D	315	1/1	0.78	0.22	62,62,62,62	0
54	MG	2a	1610	1/1	0.78	0.13	63,63,63,63	0
54	MG	1A	3734	1/1	0.78	0.35	55,55,55,55	0
54	MG	2a	1762	1/1	0.78	0.18	72,72,72,72	0
54	MG	2a	1630	1/1	0.78	0.16	73,73,73,73	0
54	MG	2a	1771	1/1	0.78	0.15	65,65,65,65	0
54	MG	2A	3056	1/1	0.78	0.23	59,59,59,59	0
54	MG	2a	1652	1/1	0.78	0.32	67,67,67,67	0
54	MG	1a	1733	1/1	0.78	0.15	60,60,60,60	0
54	MG	1A	3688	1/1	0.78	0.26	37,37,37,37	0
54	MG	1a	1687	1/1	0.78	0.25	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	ZN	14	501	1/1	0.78	0.22	161,161,161,161	0
54	MG	1A	3808	1/1	0.79	0.13	31,31,31,31	0
54	MG	2A	3517	1/1	0.79	0.14	57,57,57,57	0
54	MG	1A	3271	1/1	0.79	0.18	67,67,67,67	0
54	MG	1A	3943	1/1	0.79	0.12	43,43,43,43	0
54	MG	1a	1640	1/1	0.79	0.22	66,66,66,66	0
54	MG	1b	301	1/1	0.79	0.25	66,66,66,66	0
54	MG	1A	3958	1/1	0.79	0.18	30,30,30,30	0
57	MPD	2A	3726	8/8	0.79	0.30	47,52,62,64	0
54	MG	2A	3071	1/1	0.79	0.25	44,44,44,44	0
54	MG	1A	3510	1/1	0.79	0.12	38,38,38,38	0
54	MG	2A	3697	1/1	0.80	0.16	78,78,78,78	0
54	MG	2a	1688	1/1	0.80	0.22	53,53,53,53	0
54	MG	2A	3226	1/1	0.80	0.19	57,57,57,57	0
54	MG	1F	312	1/1	0.80	0.51	43,43,43,43	0
54	MG	2A	3605	1/1	0.80	0.18	55,55,55,55	0
54	MG	1a	1868	1/1	0.80	0.34	69,69,69,69	0
54	MG	1A	3991	1/1	0.80	0.48	48,48,48,48	0
54	MG	1A	3542	1/1	0.80	0.13	57,57,57,57	0
54	MG	1G	202	1/1	0.80	0.14	68,68,68,68	0
54	MG	2a	1750	1/1	0.80	0.28	71,71,71,71	0
54	MG	1A	3636	1/1	0.80	0.20	45,45,45,45	0
54	MG	1A	3190	1/1	0.81	0.10	57,57,57,57	0
54	MG	2A	3708	1/1	0.81	0.13	67,67,67,67	0
54	MG	2A	3718	1/1	0.81	0.12	54,54,54,54	0
54	MG	2A	3331	1/1	0.81	0.14	39,39,39,39	0
54	MG	1a	1786	1/1	0.81	0.21	61,61,61,61	0
54	MG	2A	3343	1/1	0.81	0.20	65,65,65,65	0
54	MG	1A	3863	1/1	0.81	0.40	29,29,29,29	0
54	MG	1a	1603	1/1	0.81	0.20	74,74,74,74	0
54	MG	1y	203	1/1	0.81	0.16	73,73,73,73	0
54	MG	2A	3093	1/1	0.81	0.16	61,61,61,61	0
54	MG	2A	3096	1/1	0.81	0.15	50,50,50,50	0
54	MG	1A	3947	1/1	0.81	0.34	79,79,79,79	0
54	MG	1P	207	1/1	0.81	0.17	48,48,48,48	0
54	MG	2A	3050	1/1	0.81	0.16	54,54,54,54	0
54	MG	1a	1673	1/1	0.82	0.10	48,48,48,48	0
54	MG	2a	1709	1/1	0.82	0.16	68,68,68,68	0
54	MG	2A	3201	1/1	0.82	0.12	53,53,53,53	0
54	MG	1A	3740	1/1	0.82	0.17	56,56,56,56	0
54	MG	2A	3227	1/1	0.82	0.13	59,59,59,59	0
54	MG	1B	203	1/1	0.82	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
54	MG	2E	305	1/1	0.82	0.13	43,43,43,43	0
54	MG	1A	3456	1/1	0.82	0.11	23,23,23,23	0
54	MG	2N	201	1/1	0.82	0.10	67,67,67,67	0
54	MG	1a	1695	1/1	0.82	0.23	60,60,60,60	0
54	MG	1d	305	1/1	0.82	0.11	84,84,84,84	0
54	MG	1F	317	1/1	0.82	0.15	50,50,50,50	0
54	MG	1a	1722	1/1	0.82	0.15	61,61,61,61	0
54	MG	1a	1607	1/1	0.82	0.13	77,77,77,77	0
54	MG	1A	3514	1/1	0.82	0.15	53,53,53,53	0
54	MG	1y	201	1/1	0.82	0.16	70,70,70,70	0
54	MG	2A	3444	1/1	0.82	0.14	37,37,37,37	0
54	MG	2a	1653	1/1	0.82	0.15	77,77,77,77	0
54	MG	2A	3702	1/1	0.82	0.38	53,53,53,53	0
54	MG	2A	3707	1/1	0.82	0.14	55,55,55,55	0
54	MG	1N	203	1/1	0.82	0.15	56,56,56,56	0
54	MG	2A	3458	1/1	0.82	0.11	57,57,57,57	0
54	MG	1T	204	1/1	0.83	0.14	61,61,61,61	0
54	MG	2A	3295	1/1	0.83	0.10	26,26,26,26	0
54	MG	2a	1672	1/1	0.83	0.16	56,56,56,56	0
54	MG	1Y	201	1/1	0.83	0.30	61,61,61,61	0
54	MG	2A	3001	1/1	0.83	0.20	52,52,52,52	0
54	MG	2A	3026	1/1	0.83	0.17	53,53,53,53	0
54	MG	1F	302	1/1	0.83	0.35	33,33,33,33	0
54	MG	1a	1712	1/1	0.83	0.15	52,52,52,52	0
54	MG	2a	1707	1/1	0.83	0.13	74,74,74,74	0
54	MG	10	110	1/1	0.83	0.17	61,61,61,61	0
54	MG	1A	3889	1/1	0.83	0.59	44,44,44,44	0
54	MG	2a	1715	1/1	0.83	0.16	49,49,49,49	0
54	MG	2A	3716	1/1	0.83	0.23	56,56,56,56	0
54	MG	2A	3432	1/1	0.83	0.19	57,57,57,57	0
54	MG	1a	1846	1/1	0.83	0.13	59,59,59,59	0
54	MG	2A	3076	1/1	0.83	0.18	51,51,51,51	0
54	MG	1A	3912	1/1	0.83	0.10	50,50,50,50	0
54	MG	2a	1739	1/1	0.83	0.13	82,82,82,82	0
54	MG	1a	1867	1/1	0.83	0.13	72,72,72,72	0
54	MG	1A	3668	1/1	0.83	0.13	57,57,57,57	0
54	MG	2a	1752	1/1	0.83	0.22	59,59,59,59	0
54	MG	1a	1612	1/1	0.83	0.13	64,64,64,64	0
54	MG	2A	3499	1/1	0.83	0.16	55,55,55,55	0
54	MG	1A	3124	1/1	0.83	0.17	46,46,46,46	0
54	MG	2a	1765	1/1	0.83	0.10	58,58,58,58	0
54	MG	2V	201	1/1	0.83	0.24	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3504	1/1	0.83	0.18	46,46,46,46	0
54	MG	2A	3507	1/1	0.83	0.19	50,50,50,50	0
54	MG	2A	3114	1/1	0.83	0.18	51,51,51,51	0
54	MG	1a	1663	1/1	0.83	0.19	51,51,51,51	0
54	MG	1D	303	1/1	0.83	0.17	52,52,52,52	0
54	MG	1a	1783	1/1	0.83	0.26	79,79,79,79	0
54	MG	1A	3881	1/1	0.83	0.14	41,41,41,41	0
54	MG	2a	1650	1/1	0.83	0.13	78,78,78,78	0
54	MG	1A	3577	1/1	0.84	0.36	39,39,39,39	0
54	MG	2a	1625	1/1	0.84	0.12	50,50,50,50	0
54	MG	1A	3402	1/1	0.84	0.12	24,24,24,24	0
54	MG	2A	3095	1/1	0.84	0.26	56,56,56,56	0
54	MG	1A	3359	1/1	0.84	0.17	48,48,48,48	0
54	MG	2A	3510	1/1	0.84	0.15	69,69,69,69	0
54	MG	1A	3796	1/1	0.84	0.14	58,58,58,58	0
54	MG	1A	4001	1/1	0.84	0.14	43,43,43,43	0
54	MG	2A	3557	1/1	0.84	0.13	64,64,64,64	0
54	MG	1A	3925	1/1	0.84	0.12	17,17,17,17	0
54	MG	1a	1608	1/1	0.84	0.19	60,60,60,60	0
54	MG	2A	3198	1/1	0.84	0.17	58,58,58,58	0
54	MG	1A	3798	1/1	0.84	0.26	33,33,33,33	0
54	MG	2a	1695	1/1	0.84	0.25	76,76,76,76	0
54	MG	2A	3204	1/1	0.84	0.18	67,67,67,67	0
54	MG	1a	1617	1/1	0.84	0.21	72,72,72,72	0
54	MG	1a	1734	1/1	0.84	0.12	63,63,63,63	0
54	MG	2A	3254	1/1	0.84	0.20	59,59,59,59	0
54	MG	2A	3258	1/1	0.84	0.13	36,36,36,36	0
54	MG	2A	3700	1/1	0.84	0.12	54,54,54,54	0
54	MG	1A	3933	1/1	0.84	0.20	75,75,75,75	0
54	MG	2a	1732	1/1	0.84	0.28	58,58,58,58	0
54	MG	1A	3547	1/1	0.84	0.15	56,56,56,56	0
54	MG	1a	1641	1/1	0.84	0.16	63,63,63,63	0
54	MG	1a	1650	1/1	0.84	0.22	55,55,55,55	0
54	MG	1a	1656	1/1	0.84	0.34	74,74,74,74	0
54	MG	2A	3719	1/1	0.84	0.23	59,59,59,59	0
54	MG	2A	3378	1/1	0.84	0.16	29,29,29,29	0
54	MG	1a	1784	1/1	0.84	0.14	68,68,68,68	0
54	MG	1a	1661	1/1	0.84	0.18	61,61,61,61	0
54	MG	1a	1787	1/1	0.84	0.15	73,73,73,73	0
54	MG	1A	3655	1/1	0.84	0.13	54,54,54,54	0
54	MG	1B	224	1/1	0.84	0.11	37,37,37,37	0
54	MG	1a	1674	1/1	0.84	0.28	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3075	1/1	0.84	0.46	45,45,45,45	0
54	MG	1A	3484	1/1	0.84	0.15	78,78,78,78	0
54	MG	2A	3450	1/1	0.84	0.21	80,80,80,80	0
56	ARG	1A	4012	12/12	0.84	0.17	48,62,68,73	0
54	MG	1a	1818	1/1	0.84	0.20	74,74,74,74	0
54	MG	1a	1679	1/1	0.84	0.29	62,62,62,62	0
54	MG	2a	1609	1/1	0.84	0.17	69,69,69,69	0
54	MG	2A	3498	1/1	0.84	0.16	31,31,31,31	0
58	ZN	24	501	1/1	0.84	0.20	159,159,159,159	0
54	MG	2a	1642	1/1	0.85	0.18	37,37,37,37	0
54	MG	2A	3207	1/1	0.85	0.18	50,50,50,50	0
54	MG	2A	3564	1/1	0.85	0.15	68,68,68,68	0
54	MG	2a	1651	1/1	0.85	0.30	69,69,69,69	0
54	MG	1A	3893	1/1	0.85	0.14	31,31,31,31	0
54	MG	1A	3061	1/1	0.85	0.22	56,56,56,56	0
54	MG	2A	3602	1/1	0.85	0.13	33,33,33,33	0
54	MG	1A	3571	1/1	0.85	0.13	52,52,52,52	0
54	MG	1A	3828	1/1	0.85	0.15	60,60,60,60	0
54	MG	2A	3290	1/1	0.85	0.12	59,59,59,59	0
54	MG	1a	1686	1/1	0.85	0.11	33,33,33,33	0
54	MG	2A	3313	1/1	0.85	0.11	38,38,38,38	0
54	MG	2A	3027	1/1	0.85	0.20	49,49,49,49	0
54	MG	1A	4003	1/1	0.85	0.13	59,59,59,59	0
54	MG	1A	3931	1/1	0.85	0.12	48,48,48,48	0
54	MG	1a	1795	1/1	0.85	0.14	59,59,59,59	0
54	MG	1A	3163	1/1	0.85	0.14	48,48,48,48	0
54	MG	1a	1700	1/1	0.85	0.14	67,67,67,67	0
54	MG	2A	3402	1/1	0.85	0.28	66,66,66,66	0
54	MG	1A	3581	1/1	0.85	0.11	50,50,50,50	0
54	MG	2a	1730	1/1	0.85	0.12	54,54,54,54	0
54	MG	2A	3414	1/1	0.85	0.12	65,65,65,65	0
54	MG	1H	201	1/1	0.85	0.13	71,71,71,71	0
54	MG	1A	3658	1/1	0.85	0.13	22,22,22,22	0
54	MG	2B	201	1/1	0.85	0.11	73,73,73,73	0
54	MG	2B	205	1/1	0.85	0.10	50,50,50,50	0
54	MG	1A	3781	1/1	0.85	0.12	70,70,70,70	0
54	MG	1a	1651	1/1	0.85	0.17	51,51,51,51	0
54	MG	2a	1754	1/1	0.85	0.12	63,63,63,63	0
54	MG	1a	1866	1/1	0.85	0.08	51,51,51,51	0
54	MG	1a	1653	1/1	0.85	0.25	58,58,58,58	0
54	MG	1A	3711	1/1	0.85	0.19	47,47,47,47	0
54	MG	2I	201	1/1	0.85	0.11	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1a	1744	1/1	0.85	0.14	57,57,57,57	0
54	MG	1a	1752	1/1	0.85	0.12	67,67,67,67	0
54	MG	2A	3117	1/1	0.85	0.16	53,53,53,53	0
54	MG	1a	1657	1/1	0.85	0.21	61,61,61,61	0
54	MG	2A	3125	1/1	0.85	0.18	64,64,64,64	0
54	MG	1e	201	1/1	0.85	0.27	47,47,47,47	0
54	MG	2A	3175	1/1	0.85	0.16	50,50,50,50	0
54	MG	2a	1612	1/1	0.85	0.24	58,58,58,58	0
54	MG	1A	3963	1/1	0.85	0.13	53,53,53,53	0
54	MG	1a	1765	1/1	0.85	0.38	66,66,66,66	0
54	MG	1A	3976	1/1	0.85	0.13	54,54,54,54	0
54	MG	1A	3679	1/1	0.86	0.13	48,48,48,48	0
54	MG	2a	1623	1/1	0.86	0.29	64,64,64,64	0
54	MG	1A	3751	1/1	0.86	0.10	19,19,19,19	0
54	MG	2A	3587	1/1	0.86	0.12	43,43,43,43	0
54	MG	1a	1844	1/1	0.86	0.21	77,77,77,77	0
54	MG	2A	3594	1/1	0.86	0.21	56,56,56,56	0
54	MG	2A	3600	1/1	0.86	0.12	37,37,37,37	0
54	MG	1a	1740	1/1	0.86	0.17	49,49,49,49	0
54	MG	1A	3860	1/1	0.86	0.20	52,52,52,52	0
54	MG	2A	3608	1/1	0.86	0.15	37,37,37,37	0
54	MG	2a	1656	1/1	0.86	0.12	64,64,64,64	0
54	MG	1a	1746	1/1	0.86	0.10	57,57,57,57	0
54	MG	2A	3644	1/1	0.86	0.16	66,66,66,66	0
54	MG	2A	3089	1/1	0.86	0.19	62,62,62,62	0
54	MG	1A	3624	1/1	0.86	0.12	65,65,65,65	0
54	MG	2A	3371	1/1	0.86	0.21	68,68,68,68	0
54	MG	2A	3373	1/1	0.86	0.18	42,42,42,42	0
54	MG	2A	3689	1/1	0.86	0.20	69,69,69,69	0
54	MG	2A	3695	1/1	0.86	0.12	54,54,54,54	0
54	MG	1A	3690	1/1	0.86	0.38	31,31,31,31	0
54	MG	1a	1756	1/1	0.86	0.18	68,68,68,68	0
54	MG	1A	3691	1/1	0.86	0.20	38,38,38,38	0
54	MG	2A	3098	1/1	0.86	0.12	57,57,57,57	0
54	MG	1a	1681	1/1	0.86	0.17	48,48,48,48	0
54	MG	1a	1623	1/1	0.86	0.15	50,50,50,50	0
54	MG	1A	3786	1/1	0.86	0.13	43,43,43,43	0
54	MG	1a	1689	1/1	0.86	0.18	58,58,58,58	0
54	MG	1A	3972	1/1	0.86	0.09	68,68,68,68	0
54	MG	2A	3139	1/1	0.86	0.16	69,69,69,69	0
54	MG	2A	3723	1/1	0.86	0.14	61,61,61,61	0
54	MG	1A	3506	1/1	0.86	0.18	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2a	1747	1/1	0.86	0.17	51,51,51,51	0
54	MG	2A	3167	1/1	0.86	0.11	93,93,93,93	0
54	MG	1A	3250	1/1	0.86	0.38	47,47,47,47	0
54	MG	2B	213	1/1	0.86	0.12	57,57,57,57	0
54	MG	1a	1704	1/1	0.86	0.19	65,65,65,65	0
54	MG	2A	3480	1/1	0.86	0.13	54,54,54,54	0
54	MG	2D	308	1/1	0.86	0.16	63,63,63,63	0
54	MG	1V	204	1/1	0.86	0.24	46,46,46,46	0
54	MG	1A	3058	1/1	0.86	0.09	57,57,57,57	0
54	MG	1A	3817	1/1	0.86	0.12	53,53,53,53	0
54	MG	2A	3504	1/1	0.86	0.19	53,53,53,53	0
54	MG	2A	3224	1/1	0.86	0.15	46,46,46,46	0
54	MG	2W	203	1/1	0.86	0.15	65,65,65,65	0
54	MG	1a	1804	1/1	0.86	0.22	65,65,65,65	0
57	MPD	1A	4013	8/8	0.86	0.30	48,54,61,62	0
54	MG	1D	318	1/1	0.86	0.10	61,61,61,61	0
54	MG	2A	3234	1/1	0.86	0.15	55,55,55,55	0
54	MG	2A	3235	1/1	0.86	0.26	51,51,51,51	0
54	MG	2A	3553	1/1	0.86	0.14	44,44,44,44	0
54	MG	1a	1659	1/1	0.86	0.20	64,64,64,64	0
54	MG	2A	3074	1/1	0.87	0.16	54,54,54,54	0
54	MG	1A	3694	1/1	0.87	0.13	46,46,46,46	0
54	MG	1A	3438	1/1	0.87	0.15	55,55,55,55	0
54	MG	13	102	1/1	0.87	0.12	35,35,35,35	0
54	MG	1a	1799	1/1	0.87	0.18	61,61,61,61	0
54	MG	15	104	1/1	0.87	0.34	27,27,27,27	0
54	MG	1a	1803	1/1	0.87	0.11	72,72,72,72	0
54	MG	1A	3165	1/1	0.87	0.13	48,48,48,48	0
54	MG	1B	211	1/1	0.87	0.11	55,55,55,55	0
54	MG	26	101	1/1	0.87	0.14	57,57,57,57	0
54	MG	2A	3494	1/1	0.87	0.10	58,58,58,58	0
54	MG	1a	1696	1/1	0.87	0.19	47,47,47,47	0
54	MG	1A	3462	1/1	0.87	0.11	20,20,20,20	0
54	MG	2A	3500	1/1	0.87	0.15	58,58,58,58	0
54	MG	1a	1823	1/1	0.87	0.10	55,55,55,55	0
54	MG	1a	1828	1/1	0.87	0.17	71,71,71,71	0
54	MG	1A	3612	1/1	0.87	0.19	54,54,54,54	0
54	MG	1a	1836	1/1	0.87	0.08	65,65,65,65	0
54	MG	2a	1634	1/1	0.87	0.27	62,62,62,62	0
54	MG	2A	3122	1/1	0.87	0.23	42,42,42,42	0
54	MG	2a	1647	1/1	0.87	0.12	68,68,68,68	0
54	MG	1A	3746	1/1	0.87	0.16	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1a	1614	1/1	0.87	0.20	59,59,59,59	0
54	MG	2A	3529	1/1	0.87	0.12	84,84,84,84	0
54	MG	2A	3545	1/1	0.87	0.13	65,65,65,65	0
54	MG	2A	3550	1/1	0.87	0.18	40,40,40,40	0
54	MG	1a	1852	1/1	0.87	0.23	66,66,66,66	0
54	MG	2a	1662	1/1	0.87	0.21	53,53,53,53	0
54	MG	2a	1665	1/1	0.87	0.22	51,51,51,51	0
54	MG	1A	3469	1/1	0.87	0.11	26,26,26,26	0
54	MG	1A	3179	1/1	0.87	0.22	30,30,30,30	0
54	MG	2A	3565	1/1	0.87	0.11	36,36,36,36	0
54	MG	1a	1626	1/1	0.87	0.17	60,60,60,60	0
54	MG	1A	3289	1/1	0.87	0.16	69,69,69,69	0
54	MG	2a	1684	1/1	0.87	0.15	71,71,71,71	0
54	MG	2a	1685	1/1	0.87	0.17	58,58,58,58	0
54	MG	2A	3589	1/1	0.87	0.23	75,75,75,75	0
54	MG	1A	3769	1/1	0.87	0.12	50,50,50,50	0
54	MG	2a	1702	1/1	0.87	0.18	70,70,70,70	0
54	MG	1A	3780	1/1	0.87	0.11	48,48,48,48	0
54	MG	2A	3220	1/1	0.87	0.15	48,48,48,48	0
54	MG	1A	3295	1/1	0.87	0.26	52,52,52,52	0
54	MG	1A	3311	1/1	0.87	0.10	13,13,13,13	0
54	MG	1e	202	1/1	0.87	0.24	57,57,57,57	0
54	MG	2a	1725	1/1	0.87	0.18	58,58,58,58	0
54	MG	1f	201	1/1	0.87	0.20	63,63,63,63	0
54	MG	2A	3611	1/1	0.87	0.14	76,76,76,76	0
54	MG	2A	3640	1/1	0.87	0.13	98,98,98,98	0
54	MG	1a	1748	1/1	0.87	0.15	68,68,68,68	0
54	MG	2A	3244	1/1	0.87	0.17	48,48,48,48	0
54	MG	2A	3250	1/1	0.87	0.26	54,54,54,54	0
54	MG	2A	3669	1/1	0.87	0.10	65,65,65,65	0
54	MG	1A	3056	1/1	0.87	0.12	37,37,37,37	0
54	MG	1a	1654	1/1	0.87	0.14	63,63,63,63	0
54	MG	2A	3265	1/1	0.87	0.22	54,54,54,54	0
54	MG	1A	3027	1/1	0.87	0.24	47,47,47,47	0
54	MG	2A	3292	1/1	0.87	0.10	48,48,48,48	0
54	MG	1A	3237	1/1	0.87	0.15	57,57,57,57	0
54	MG	2A	3298	1/1	0.87	0.27	61,61,61,61	0
54	MG	1G	204	1/1	0.87	0.07	51,51,51,51	0
54	MG	1a	1767	1/1	0.87	0.17	55,55,55,55	0
54	MG	2A	3024	1/1	0.87	0.30	65,65,65,65	0
54	MG	2a	1770	1/1	0.87	0.33	76,76,76,76	0
54	MG	1A	3034	1/1	0.87	0.14	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3408	1/1	0.87	0.12	22,22,22,22	0
54	MG	2A	3035	1/1	0.87	0.20	44,44,44,44	0
54	MG	2j	201	1/1	0.87	0.12	68,68,68,68	0
54	MG	1A	3838	1/1	0.87	0.10	49,49,49,49	0
54	MG	2t	201	1/1	0.87	0.11	55,55,55,55	0
54	MG	2A	3374	1/1	0.87	0.13	32,32,32,32	0
54	MG	1A	3558	1/1	0.87	0.16	27,27,27,27	0
54	MG	1A	3564	1/1	0.87	0.14	47,47,47,47	0
54	MG	2A	3055	1/1	0.87	0.23	65,65,65,65	0
57	MPD	2A	3727	8/8	0.87	0.23	64,70,73,73	0
54	MG	1A	3431	1/1	0.87	0.10	44,44,44,44	0
54	MG	2A	3058	1/1	0.87	0.11	51,51,51,51	0
54	MG	1a	1789	1/1	0.87	0.10	61,61,61,61	0
54	MG	1a	1774	1/1	0.88	0.15	70,70,70,70	0
54	MG	2A	3215	1/1	0.88	0.32	65,65,65,65	0
54	MG	1A	3490	1/1	0.88	0.10	14,14,14,14	0
54	MG	2a	1614	1/1	0.88	0.13	55,55,55,55	0
54	MG	2A	3539	1/1	0.88	0.21	72,72,72,72	0
54	MG	1a	1778	1/1	0.88	0.09	76,76,76,76	0
54	MG	10	105	1/1	0.88	0.10	44,44,44,44	0
54	MG	1A	3701	1/1	0.88	0.17	36,36,36,36	0
54	MG	2A	3554	1/1	0.88	0.12	38,38,38,38	0
54	MG	2a	1638	1/1	0.88	0.21	52,52,52,52	0
54	MG	1A	3590	1/1	0.88	0.20	42,42,42,42	0
54	MG	1A	3724	1/1	0.88	0.30	46,46,46,46	0
54	MG	1A	3592	1/1	0.88	0.24	39,39,39,39	0
54	MG	1A	3596	1/1	0.88	0.14	15,15,15,15	0
54	MG	2A	3573	1/1	0.88	0.14	53,53,53,53	0
54	MG	2A	3030	1/1	0.88	0.15	44,44,44,44	0
54	MG	1a	1690	1/1	0.88	0.10	58,58,58,58	0
54	MG	1A	3012	1/1	0.88	0.13	33,33,33,33	0
54	MG	2a	1661	1/1	0.88	0.08	66,66,66,66	0
54	MG	2A	3270	1/1	0.88	0.14	56,56,56,56	0
54	MG	2A	3282	1/1	0.88	0.18	55,55,55,55	0
54	MG	2a	1668	1/1	0.88	0.28	63,63,63,63	0
54	MG	2A	3040	1/1	0.88	0.16	54,54,54,54	0
54	MG	1A	3126	1/1	0.88	0.19	45,45,45,45	0
54	MG	1A	3395	1/1	0.88	0.09	57,57,57,57	0
54	MG	1B	230	1/1	0.88	0.10	42,42,42,42	0
54	MG	1a	1702	1/1	0.88	0.18	55,55,55,55	0
54	MG	1a	1813	1/1	0.88	0.12	66,66,66,66	0
54	MG	2A	3060	1/1	0.88	0.13	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1a	1814	1/1	0.88	0.09	57,57,57,57	0
54	MG	2A	3651	1/1	0.88	0.12	32,32,32,32	0
54	MG	2A	3344	1/1	0.88	0.27	47,47,47,47	0
54	MG	1A	3209	1/1	0.88	0.14	53,53,53,53	0
54	MG	2A	3370	1/1	0.88	0.14	50,50,50,50	0
54	MG	1A	3627	1/1	0.88	0.24	48,48,48,48	0
54	MG	1A	3102	1/1	0.88	0.32	37,37,37,37	0
54	MG	2A	3077	1/1	0.88	0.16	45,45,45,45	0
54	MG	1A	3532	1/1	0.88	0.13	42,42,42,42	0
54	MG	1a	1824	1/1	0.88	0.17	53,53,53,53	0
54	MG	2A	3399	1/1	0.88	0.13	49,49,49,49	0
54	MG	2A	3084	1/1	0.88	0.26	46,46,46,46	0
54	MG	2A	3407	1/1	0.88	0.19	70,70,70,70	0
54	MG	2a	1733	1/1	0.88	0.14	62,62,62,62	0
54	MG	1a	1639	1/1	0.88	0.23	81,81,81,81	0
54	MG	1A	3534	1/1	0.88	0.18	42,42,42,42	0
54	MG	1A	3953	1/1	0.88	0.13	53,53,53,53	0
54	MG	1a	1649	1/1	0.88	0.17	50,50,50,50	0
54	MG	2a	1746	1/1	0.88	0.22	47,47,47,47	0
54	MG	1A	3215	1/1	0.88	0.11	51,51,51,51	0
54	MG	2A	3437	1/1	0.88	0.14	57,57,57,57	0
54	MG	1A	3116	1/1	0.88	0.13	34,34,34,34	0
54	MG	1A	3967	1/1	0.88	0.13	28,28,28,28	0
54	MG	1a	1862	1/1	0.88	0.12	68,68,68,68	0
54	MG	1A	3321	1/1	0.88	0.16	48,48,48,48	0
54	MG	1A	3459	1/1	0.88	0.10	25,25,25,25	0
54	MG	1A	3334	1/1	0.88	0.11	18,18,18,18	0
54	MG	2D	303	1/1	0.88	0.27	44,44,44,44	0
54	MG	1a	1869	1/1	0.88	0.21	81,81,81,81	0
54	MG	2A	3483	1/1	0.88	0.24	67,67,67,67	0
54	MG	2G	201	1/1	0.88	0.13	83,83,83,83	0
54	MG	2A	3131	1/1	0.88	0.17	44,44,44,44	0
54	MG	1a	1755	1/1	0.88	0.12	54,54,54,54	0
54	MG	1A	3824	1/1	0.88	0.12	57,57,57,57	0
54	MG	1A	3336	1/1	0.88	0.14	53,53,53,53	0
54	MG	1A	3576	1/1	0.88	0.18	65,65,65,65	0
54	MG	2A	3184	1/1	0.88	0.12	52,52,52,52	0
54	MG	21	102	1/1	0.88	0.11	50,50,50,50	0
54	MG	25	101	1/1	0.88	0.43	44,44,44,44	0
54	MG	1a	1670	1/1	0.88	0.19	70,70,70,70	0
54	MG	1a	1772	1/1	0.88	0.12	68,68,68,68	0
54	MG	1A	3245	1/1	0.88	0.21	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2a	1608	1/1	0.88	0.12	63,63,63,63	0
54	MG	2B	203	1/1	0.89	0.30	72,72,72,72	0
54	MG	1A	3533	1/1	0.89	0.10	49,49,49,49	0
54	MG	1A	3191	1/1	0.89	0.12	49,49,49,49	0
54	MG	2A	3375	1/1	0.89	0.08	52,52,52,52	0
54	MG	2A	3377	1/1	0.89	0.12	45,45,45,45	0
54	MG	2B	216	1/1	0.89	0.11	77,77,77,77	0
54	MG	1A	3704	1/1	0.89	0.20	28,28,28,28	0
54	MG	1A	3705	1/1	0.89	0.21	56,56,56,56	0
54	MG	2D	306	1/1	0.89	0.19	48,48,48,48	0
54	MG	2A	3386	1/1	0.89	0.16	36,36,36,36	0
54	MG	2E	302	1/1	0.89	0.13	43,43,43,43	0
54	MG	2A	3390	1/1	0.89	0.10	56,56,56,56	0
54	MG	2A	3062	1/1	0.89	0.14	48,48,48,48	0
54	MG	2A	3067	1/1	0.89	0.35	43,43,43,43	0
54	MG	2A	3068	1/1	0.89	0.19	45,45,45,45	0
54	MG	1A	3862	1/1	0.89	0.23	38,38,38,38	0
54	MG	1A	3707	1/1	0.89	0.19	32,32,32,32	0
54	MG	1B	229	1/1	0.89	0.16	63,63,63,63	0
54	MG	2A	3417	1/1	0.89	0.21	53,53,53,53	0
54	MG	2A	3425	1/1	0.89	0.10	51,51,51,51	0
54	MG	1A	3868	1/1	0.89	0.12	51,51,51,51	0
54	MG	1A	3125	1/1	0.89	0.18	47,47,47,47	0
54	MG	2A	3436	1/1	0.89	0.12	50,50,50,50	0
54	MG	1a	1662	1/1	0.89	0.14	58,58,58,58	0
54	MG	1A	3721	1/1	0.89	0.13	32,32,32,32	0
54	MG	1a	1665	1/1	0.89	0.22	58,58,58,58	0
54	MG	1A	3544	1/1	0.89	0.20	36,36,36,36	0
54	MG	1A	3621	1/1	0.89	0.17	50,50,50,50	0
54	MG	1A	3911	1/1	0.89	0.22	60,60,60,60	0
54	MG	2A	3094	1/1	0.89	0.12	58,58,58,58	0
54	MG	2a	1617	1/1	0.89	0.17	52,52,52,52	0
54	MG	2A	3469	1/1	0.89	0.19	51,51,51,51	0
54	MG	2a	1624	1/1	0.89	0.19	72,72,72,72	0
54	MG	1A	3343	1/1	0.89	0.11	39,39,39,39	0
54	MG	1A	3916	1/1	0.89	0.15	45,45,45,45	0
54	MG	2a	1631	1/1	0.89	0.19	53,53,53,53	0
54	MG	1A	3167	1/1	0.89	0.11	32,32,32,32	0
54	MG	2A	3496	1/1	0.89	0.24	63,63,63,63	0
54	MG	1A	3742	1/1	0.89	0.10	22,22,22,22	0
54	MG	2A	3113	1/1	0.89	0.09	56,56,56,56	0
54	MG	1A	3745	1/1	0.89	0.14	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3279	1/1	0.89	0.12	40,40,40,40	0
54	MG	2A	3503	1/1	0.89	0.43	50,50,50,50	0
54	MG	1H	202	1/1	0.89	0.08	46,46,46,46	0
54	MG	1A	3384	1/1	0.89	0.18	54,54,54,54	0
54	MG	1a	1837	1/1	0.89	0.11	65,65,65,65	0
54	MG	2a	1657	1/1	0.89	0.29	64,64,64,64	0
54	MG	1A	3569	1/1	0.89	0.14	22,22,22,22	0
54	MG	1T	202	1/1	0.89	0.10	45,45,45,45	0
54	MG	2A	3514	1/1	0.89	0.09	59,59,59,59	0
54	MG	1A	3570	1/1	0.89	0.14	28,28,28,28	0
54	MG	2A	3520	1/1	0.89	0.11	57,57,57,57	0
54	MG	2A	3521	1/1	0.89	0.11	38,38,38,38	0
54	MG	1a	1701	1/1	0.89	0.14	59,59,59,59	0
54	MG	2A	3532	1/1	0.89	0.10	60,60,60,60	0
54	MG	2a	1677	1/1	0.89	0.31	60,60,60,60	0
54	MG	2a	1681	1/1	0.89	0.26	50,50,50,50	0
54	MG	1A	3761	1/1	0.89	0.18	53,53,53,53	0
54	MG	1a	1864	1/1	0.89	0.19	56,56,56,56	0
54	MG	2A	3193	1/1	0.89	0.14	49,49,49,49	0
54	MG	1A	3956	1/1	0.89	0.15	43,43,43,43	0
54	MG	2a	1691	1/1	0.89	0.40	74,74,74,74	0
54	MG	2a	1692	1/1	0.89	0.14	90,90,90,90	0
54	MG	1A	3284	1/1	0.89	0.29	30,30,30,30	0
54	MG	10	104	1/1	0.89	0.12	39,39,39,39	0
54	MG	1A	3050	1/1	0.89	0.49	33,33,33,33	0
54	MG	10	106	1/1	0.89	0.39	46,46,46,46	0
54	MG	1A	3965	1/1	0.89	0.39	44,44,44,44	0
54	MG	1A	3671	1/1	0.89	0.28	53,53,53,53	0
54	MG	1A	3968	1/1	0.89	0.19	34,34,34,34	0
54	MG	1A	3236	1/1	0.89	0.11	59,59,59,59	0
54	MG	2A	3228	1/1	0.89	0.20	57,57,57,57	0
54	MG	2A	3593	1/1	0.89	0.10	36,36,36,36	0
54	MG	1e	203	1/1	0.89	0.19	46,46,46,46	0
54	MG	1a	1602	1/1	0.89	0.17	62,62,62,62	0
54	MG	2A	3238	1/1	0.89	0.09	45,45,45,45	0
54	MG	2A	3242	1/1	0.89	0.13	56,56,56,56	0
54	MG	1A	3975	1/1	0.89	0.13	63,63,63,63	0
54	MG	2A	3609	1/1	0.89	0.10	42,42,42,42	0
54	MG	2a	1740	1/1	0.89	0.12	73,73,73,73	0
54	MG	1a	1747	1/1	0.89	0.14	60,60,60,60	0
54	MG	1a	1604	1/1	0.89	0.30	64,64,64,64	0
54	MG	2A	3256	1/1	0.89	0.21	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1i	201	1/1	0.89	0.14	49,49,49,49	0
54	MG	2A	3263	1/1	0.89	0.15	43,43,43,43	0
54	MG	1n	101	1/1	0.89	0.27	61,61,61,61	0
54	MG	2a	1755	1/1	0.89	0.14	67,67,67,67	0
54	MG	2a	1757	1/1	0.89	0.22	59,59,59,59	0
54	MG	2A	3655	1/1	0.89	0.10	25,25,25,25	0
54	MG	2A	3266	1/1	0.89	0.17	49,49,49,49	0
54	MG	1a	1751	1/1	0.89	0.11	76,76,76,76	0
54	MG	1A	3187	1/1	0.89	0.11	57,57,57,57	0
54	MG	1A	3686	1/1	0.89	0.54	32,32,32,32	0
54	MG	1y	204	1/1	0.89	0.13	69,69,69,69	0
54	MG	2A	3690	1/1	0.89	0.10	49,49,49,49	0
54	MG	1A	3803	1/1	0.89	0.18	58,58,58,58	0
54	MG	1A	3806	1/1	0.89	0.10	44,44,44,44	0
54	MG	2f	201	1/1	0.89	0.12	58,58,58,58	0
54	MG	2A	3308	1/1	0.89	0.11	35,35,35,35	0
54	MG	1A	3588	1/1	0.89	0.24	51,51,51,51	0
54	MG	2A	3318	1/1	0.89	0.10	52,52,52,52	0
54	MG	1A	4002	1/1	0.89	0.11	52,52,52,52	0
54	MG	1A	3809	1/1	0.89	0.11	50,50,50,50	0
54	MG	1a	1771	1/1	0.89	0.12	62,62,62,62	0
54	MG	1A	3315	1/1	0.89	0.16	21,21,21,21	0
54	MG	2A	3349	1/1	0.89	0.10	67,67,67,67	0
54	MG	1A	4009	1/1	0.89	0.20	59,59,59,59	0
54	MG	1A	3105	1/1	0.89	0.11	29,29,29,29	0
54	MG	1A	3827	1/1	0.89	0.12	24,24,24,24	0
54	MG	2A	3299	1/1	0.90	0.12	49,49,49,49	0
54	MG	1A	3819	1/1	0.90	0.22	52,52,52,52	0
54	MG	2A	3709	1/1	0.90	0.11	57,57,57,57	0
54	MG	2A	3712	1/1	0.90	0.21	50,50,50,50	0
54	MG	10	108	1/1	0.90	0.09	40,40,40,40	0
54	MG	1A	3610	1/1	0.90	0.09	46,46,46,46	0
54	MG	1A	3994	1/1	0.90	0.10	60,60,60,60	0
54	MG	2A	3003	1/1	0.90	0.15	54,54,54,54	0
54	MG	2A	3007	1/1	0.90	0.10	56,56,56,56	0
54	MG	13	104	1/1	0.90	0.28	38,38,38,38	0
54	MG	1A	3337	1/1	0.90	0.09	43,43,43,43	0
54	MG	2B	202	1/1	0.90	0.20	49,49,49,49	0
54	MG	2A	3352	1/1	0.90	0.08	57,57,57,57	0
54	MG	1A	3997	1/1	0.90	0.12	47,47,47,47	0
54	MG	2A	3028	1/1	0.90	0.35	49,49,49,49	0
54	MG	18	101	1/1	0.90	0.33	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3372	1/1	0.90	0.12	32,32,32,32	0
54	MG	1A	4000	1/1	0.90	0.10	35,35,35,35	0
54	MG	1A	3112	1/1	0.90	0.17	44,44,44,44	0
54	MG	1A	3709	1/1	0.90	0.25	44,44,44,44	0
54	MG	1A	3421	1/1	0.90	0.12	37,37,37,37	0
54	MG	1A	3841	1/1	0.90	0.07	31,31,31,31	0
54	MG	2A	3054	1/1	0.90	0.27	54,54,54,54	0
54	MG	2E	303	1/1	0.90	0.33	41,41,41,41	0
54	MG	1a	1759	1/1	0.90	0.12	59,59,59,59	0
54	MG	2A	3388	1/1	0.90	0.08	47,47,47,47	0
54	MG	1a	1761	1/1	0.90	0.12	64,64,64,64	0
54	MG	2A	3057	1/1	0.90	0.16	55,55,55,55	0
54	MG	1A	4008	1/1	0.90	0.08	48,48,48,48	0
54	MG	2P	201	1/1	0.90	0.14	49,49,49,49	0
54	MG	2T	203	1/1	0.90	0.10	63,63,63,63	0
54	MG	1a	1613	1/1	0.90	0.13	19,19,19,19	0
54	MG	1A	3552	1/1	0.90	0.09	60,60,60,60	0
54	MG	2A	3063	1/1	0.90	0.13	52,52,52,52	0
54	MG	2A	3065	1/1	0.90	0.10	40,40,40,40	0
54	MG	1a	1615	1/1	0.90	0.09	49,49,49,49	0
54	MG	1A	3494	1/1	0.90	0.14	53,53,53,53	0
54	MG	2A	3070	1/1	0.90	0.30	42,42,42,42	0
54	MG	1A	3429	1/1	0.90	0.08	49,49,49,49	0
54	MG	2a	1604	1/1	0.90	0.18	60,60,60,60	0
54	MG	1A	3639	1/1	0.90	0.17	69,69,69,69	0
54	MG	1A	3875	1/1	0.90	0.13	30,30,30,30	0
54	MG	1a	1633	1/1	0.90	0.13	68,68,68,68	0
54	MG	1B	214	1/1	0.90	0.10	66,66,66,66	0
54	MG	2A	3445	1/1	0.90	0.10	54,54,54,54	0
54	MG	2A	3447	1/1	0.90	0.08	56,56,56,56	0
54	MG	1A	3738	1/1	0.90	0.09	32,32,32,32	0
54	MG	2a	1622	1/1	0.90	0.15	66,66,66,66	0
54	MG	1A	3641	1/1	0.90	0.10	56,56,56,56	0
54	MG	1a	1643	1/1	0.90	0.18	56,56,56,56	0
54	MG	2A	3086	1/1	0.90	0.26	52,52,52,52	0
54	MG	2A	3463	1/1	0.90	0.12	30,30,30,30	0
54	MG	1A	3643	1/1	0.90	0.11	54,54,54,54	0
54	MG	2A	3471	1/1	0.90	0.09	54,54,54,54	0
54	MG	2A	3472	1/1	0.90	0.10	56,56,56,56	0
54	MG	1a	1790	1/1	0.90	0.17	53,53,53,53	0
54	MG	2a	1644	1/1	0.90	0.20	68,68,68,68	0
54	MG	2a	1646	1/1	0.90	0.12	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3079	1/1	0.90	0.38	33,33,33,33	0
54	MG	1A	3898	1/1	0.90	0.10	51,51,51,51	0
54	MG	1A	3910	1/1	0.90	0.10	45,45,45,45	0
54	MG	1a	1798	1/1	0.90	0.10	62,62,62,62	0
54	MG	1A	3509	1/1	0.90	0.11	22,22,22,22	0
54	MG	1A	3316	1/1	0.90	0.09	34,34,34,34	0
54	MG	1A	3662	1/1	0.90	0.14	55,55,55,55	0
54	MG	1a	1658	1/1	0.90	0.15	56,56,56,56	0
54	MG	1A	3755	1/1	0.90	0.21	29,29,29,29	0
54	MG	2A	3505	1/1	0.90	0.13	57,57,57,57	0
54	MG	1F	303	1/1	0.90	0.19	27,27,27,27	0
54	MG	1a	1816	1/1	0.90	0.09	61,61,61,61	0
54	MG	1F	304	1/1	0.90	0.31	44,44,44,44	0
54	MG	2A	3511	1/1	0.90	0.10	51,51,51,51	0
54	MG	1A	3513	1/1	0.90	0.13	43,43,43,43	0
54	MG	1F	313	1/1	0.90	0.10	37,37,37,37	0
54	MG	2A	3143	1/1	0.90	0.10	35,35,35,35	0
54	MG	2A	3518	1/1	0.90	0.09	39,39,39,39	0
54	MG	2A	3158	1/1	0.90	0.10	52,52,52,52	0
54	MG	1a	1667	1/1	0.90	0.17	44,44,44,44	0
54	MG	2A	3524	1/1	0.90	0.14	28,28,28,28	0
54	MG	2A	3526	1/1	0.90	0.14	54,54,54,54	0
54	MG	1A	3760	1/1	0.90	0.14	53,53,53,53	0
54	MG	1a	1672	1/1	0.90	0.26	57,57,57,57	0
54	MG	2A	3176	1/1	0.90	0.22	49,49,49,49	0
54	MG	2A	3540	1/1	0.90	0.10	47,47,47,47	0
54	MG	2a	1705	1/1	0.90	0.11	59,59,59,59	0
54	MG	1a	1830	1/1	0.90	0.15	74,74,74,74	0
54	MG	2A	3546	1/1	0.90	0.09	66,66,66,66	0
54	MG	2A	3188	1/1	0.90	0.12	55,55,55,55	0
54	MG	1A	3439	1/1	0.90	0.09	51,51,51,51	0
54	MG	1F	316	1/1	0.90	0.17	48,48,48,48	0
54	MG	1A	3518	1/1	0.90	0.14	34,34,34,34	0
54	MG	2A	3558	1/1	0.90	0.13	47,47,47,47	0
54	MG	1A	3940	1/1	0.90	0.18	68,68,68,68	0
54	MG	1A	3771	1/1	0.90	0.13	48,48,48,48	0
54	MG	1a	1848	1/1	0.90	0.12	50,50,50,50	0
54	MG	1A	3454	1/1	0.90	0.12	33,33,33,33	0
54	MG	2A	3581	1/1	0.90	0.10	61,61,61,61	0
54	MG	1A	3586	1/1	0.90	0.26	27,27,27,27	0
54	MG	1A	3133	1/1	0.90	0.39	35,35,35,35	0
54	MG	1P	204	1/1	0.90	0.29	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3790	1/1	0.90	0.11	58,58,58,58	0
54	MG	1a	1694	1/1	0.90	0.19	68,68,68,68	0
54	MG	1A	3181	1/1	0.90	0.10	55,55,55,55	0
54	MG	1A	3108	1/1	0.90	0.51	48,48,48,48	0
54	MG	2A	3239	1/1	0.90	0.10	54,54,54,54	0
54	MG	1a	1698	1/1	0.90	0.22	60,60,60,60	0
54	MG	1a	1699	1/1	0.90	0.10	46,46,46,46	0
54	MG	1U	203	1/1	0.90	0.13	46,46,46,46	0
54	MG	2A	3251	1/1	0.90	0.24	46,46,46,46	0
54	MG	2A	3621	1/1	0.90	0.09	61,61,61,61	0
54	MG	2A	3638	1/1	0.90	0.21	60,60,60,60	0
54	MG	1A	3540	1/1	0.90	0.09	40,40,40,40	0
54	MG	2a	1766	1/1	0.90	0.15	60,60,60,60	0
54	MG	1V	206	1/1	0.90	0.10	47,47,47,47	0
54	MG	1W	204	1/1	0.90	0.11	58,58,58,58	0
54	MG	1a	1705	1/1	0.90	0.10	59,59,59,59	0
54	MG	1a	1706	1/1	0.90	0.13	45,45,45,45	0
54	MG	1A	3541	1/1	0.90	0.09	45,45,45,45	0
54	MG	2A	3659	1/1	0.90	0.11	64,64,64,64	0
54	MG	1A	3698	1/1	0.90	0.12	24,24,24,24	0
54	MG	2A	3670	1/1	0.90	0.13	43,43,43,43	0
54	MG	2r	101	1/1	0.90	0.12	67,67,67,67	0
54	MG	2A	3277	1/1	0.90	0.10	43,43,43,43	0
54	MG	1a	1720	1/1	0.90	0.12	73,73,73,73	0
54	MG	2A	3283	1/1	0.90	0.27	48,48,48,48	0
54	MG	1A	3700	1/1	0.90	0.13	44,44,44,44	0
54	MG	2A	3291	1/1	0.90	0.12	39,39,39,39	0
54	MG	1A	3609	1/1	0.90	0.15	28,28,28,28	0
54	MG	1q	201	1/1	0.90	0.20	51,51,51,51	0
54	MG	1t	202	1/1	0.90	0.09	56,56,56,56	0
54	MG	2A	3705	1/1	0.90	0.11	69,69,69,69	0
54	MG	1A	3545	1/1	0.91	0.09	16,16,16,16	0
54	MG	2B	204	1/1	0.91	0.11	47,47,47,47	0
54	MG	1A	3763	1/1	0.91	0.09	34,34,34,34	0
54	MG	1A	3287	1/1	0.91	0.15	65,65,65,65	0
54	MG	1A	3141	1/1	0.91	0.10	50,50,50,50	0
54	MG	2A	3426	1/1	0.91	0.10	50,50,50,50	0
54	MG	2A	3427	1/1	0.91	0.11	49,49,49,49	0
54	MG	1P	206	1/1	0.91	0.12	73,73,73,73	0
54	MG	1a	1822	1/1	0.91	0.10	59,59,59,59	0
54	MG	1A	3471	1/1	0.91	0.13	34,34,34,34	0
54	MG	2D	307	1/1	0.91	0.11	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1R	204	1/1	0.91	0.14	33,33,33,33	0
54	MG	1a	1684	1/1	0.91	0.12	63,63,63,63	0
54	MG	1A	3477	1/1	0.91	0.07	34,34,34,34	0
54	MG	1A	3782	1/1	0.91	0.20	27,27,27,27	0
54	MG	2E	306	1/1	0.91	0.11	27,27,27,27	0
54	MG	2A	3446	1/1	0.91	0.09	72,72,72,72	0
54	MG	1a	1688	1/1	0.91	0.31	68,68,68,68	0
54	MG	1A	3180	1/1	0.91	0.22	40,40,40,40	0
54	MG	1A	3300	1/1	0.91	0.09	30,30,30,30	0
54	MG	2A	3453	1/1	0.91	0.09	52,52,52,52	0
54	MG	2P	203	1/1	0.91	0.20	60,60,60,60	0
54	MG	1a	1691	1/1	0.91	0.19	60,60,60,60	0
54	MG	1V	205	1/1	0.91	0.11	48,48,48,48	0
54	MG	2W	202	1/1	0.91	0.23	51,51,51,51	0
54	MG	2A	3145	1/1	0.91	0.19	47,47,47,47	0
54	MG	2A	3151	1/1	0.91	0.09	60,60,60,60	0
54	MG	1a	1693	1/1	0.91	0.13	53,53,53,53	0
54	MG	1A	3974	1/1	0.91	0.19	55,55,55,55	0
54	MG	2A	3473	1/1	0.91	0.09	52,52,52,52	0
54	MG	2A	3478	1/1	0.91	0.12	45,45,45,45	0
54	MG	1A	3492	1/1	0.91	0.07	40,40,40,40	0
54	MG	2A	3168	1/1	0.91	0.15	45,45,45,45	0
54	MG	1A	3797	1/1	0.91	0.11	18,18,18,18	0
54	MG	1A	3985	1/1	0.91	0.08	29,29,29,29	0
54	MG	1A	3393	1/1	0.91	0.11	18,18,18,18	0
54	MG	1A	3681	1/1	0.91	0.19	72,72,72,72	0
54	MG	2A	3191	1/1	0.91	0.22	56,56,56,56	0
54	MG	1A	3683	1/1	0.91	0.15	24,24,24,24	0
54	MG	1A	3685	1/1	0.91	0.27	49,49,49,49	0
54	MG	2a	1618	1/1	0.91	0.12	49,49,49,49	0
54	MG	1d	302	1/1	0.91	0.13	60,60,60,60	0
54	MG	2A	3202	1/1	0.91	0.14	54,54,54,54	0
54	MG	1A	3497	1/1	0.91	0.08	31,31,31,31	0
54	MG	11	105	1/1	0.91	0.12	39,39,39,39	0
54	MG	2a	1627	1/1	0.91	0.10	46,46,46,46	0
54	MG	2A	3208	1/1	0.91	0.17	52,52,52,52	0
54	MG	1A	3147	1/1	0.91	0.11	40,40,40,40	0
54	MG	1a	1710	1/1	0.91	0.12	53,53,53,53	0
54	MG	1A	3580	1/1	0.91	0.14	39,39,39,39	0
54	MG	2a	1639	1/1	0.91	0.14	73,73,73,73	0
54	MG	2a	1641	1/1	0.91	0.12	47,47,47,47	0
54	MG	2A	3516	1/1	0.91	0.10	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3820	1/1	0.91	0.13	23,23,23,23	0
54	MG	1A	3159	1/1	0.91	0.23	27,27,27,27	0
54	MG	1A	3131	1/1	0.91	0.17	36,36,36,36	0
54	MG	2a	1648	1/1	0.91	0.10	41,41,41,41	0
54	MG	1A	3047	1/1	0.91	0.13	37,37,37,37	0
54	MG	1A	3193	1/1	0.91	0.14	36,36,36,36	0
54	MG	2A	3236	1/1	0.91	0.16	50,50,50,50	0
54	MG	1A	3591	1/1	0.91	0.11	53,53,53,53	0
54	MG	1n	102	1/1	0.91	0.11	66,66,66,66	0
54	MG	2a	1655	1/1	0.91	0.08	61,61,61,61	0
54	MG	2A	3536	1/1	0.91	0.30	41,41,41,41	0
54	MG	1A	3195	1/1	0.91	0.07	29,29,29,29	0
54	MG	1A	3843	1/1	0.91	0.09	62,62,62,62	0
54	MG	2A	3245	1/1	0.91	0.14	50,50,50,50	0
54	MG	2a	1663	1/1	0.91	0.19	57,57,57,57	0
54	MG	1a	1609	1/1	0.91	0.19	64,64,64,64	0
54	MG	1a	1611	1/1	0.91	0.11	46,46,46,46	0
54	MG	2a	1670	1/1	0.91	0.14	61,61,61,61	0
54	MG	2A	3551	1/1	0.91	0.12	27,27,27,27	0
54	MG	1y	202	1/1	0.91	0.11	64,64,64,64	0
54	MG	1A	3515	1/1	0.91	0.13	39,39,39,39	0
54	MG	2a	1675	1/1	0.91	0.23	52,52,52,52	0
54	MG	1A	3600	1/1	0.91	0.11	52,52,52,52	0
54	MG	1A	3708	1/1	0.91	0.11	37,37,37,37	0
54	MG	2a	1680	1/1	0.91	0.19	55,55,55,55	0
54	MG	2A	3562	1/1	0.91	0.10	47,47,47,47	0
54	MG	1B	218	1/1	0.91	0.12	51,51,51,51	0
54	MG	2A	3004	1/1	0.91	0.22	54,54,54,54	0
54	MG	2A	3267	1/1	0.91	0.09	38,38,38,38	0
54	MG	1A	3139	1/1	0.91	0.12	47,47,47,47	0
54	MG	2a	1689	1/1	0.91	0.18	48,48,48,48	0
54	MG	2A	3579	1/1	0.91	0.10	59,59,59,59	0
54	MG	2A	3275	1/1	0.91	0.19	41,41,41,41	0
54	MG	1a	1618	1/1	0.91	0.19	58,58,58,58	0
54	MG	2A	3025	1/1	0.91	0.12	53,53,53,53	0
54	MG	1a	1621	1/1	0.91	0.17	60,60,60,60	0
54	MG	2a	1706	1/1	0.91	0.13	54,54,54,54	0
54	MG	1B	225	1/1	0.91	0.12	42,42,42,42	0
54	MG	1A	3519	1/1	0.91	0.11	25,25,25,25	0
54	MG	1A	3716	1/1	0.91	0.08	48,48,48,48	0
54	MG	2A	3293	1/1	0.91	0.19	52,52,52,52	0
54	MG	1A	3340	1/1	0.91	0.15	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1a	1638	1/1	0.91	0.11	60,60,60,60	0
54	MG	1a	1769	1/1	0.91	0.11	69,69,69,69	0
54	MG	2A	3301	1/1	0.91	0.14	49,49,49,49	0
54	MG	1A	3528	1/1	0.91	0.08	30,30,30,30	0
54	MG	2A	3614	1/1	0.91	0.12	83,83,83,83	0
54	MG	1A	3531	1/1	0.91	0.21	46,46,46,46	0
54	MG	2A	3053	1/1	0.91	0.16	44,44,44,44	0
54	MG	2A	3639	1/1	0.91	0.09	46,46,46,46	0
54	MG	1D	313	1/1	0.91	0.11	32,32,32,32	0
54	MG	1A	3620	1/1	0.91	0.17	57,57,57,57	0
54	MG	2A	3342	1/1	0.91	0.12	40,40,40,40	0
54	MG	1a	1648	1/1	0.91	0.08	39,39,39,39	0
54	MG	1D	316	1/1	0.91	0.11	44,44,44,44	0
54	MG	2a	1748	1/1	0.91	0.09	66,66,66,66	0
54	MG	1a	1780	1/1	0.91	0.10	71,71,71,71	0
54	MG	1a	1782	1/1	0.91	0.19	69,69,69,69	0
54	MG	2A	3355	1/1	0.91	0.09	58,58,58,58	0
54	MG	1A	3440	1/1	0.91	0.13	40,40,40,40	0
54	MG	2A	3358	1/1	0.91	0.15	48,48,48,48	0
54	MG	2A	3361	1/1	0.91	0.17	52,52,52,52	0
54	MG	2A	3683	1/1	0.91	0.10	47,47,47,47	0
54	MG	2A	3684	1/1	0.91	0.26	73,73,73,73	0
54	MG	2a	1764	1/1	0.91	0.09	61,61,61,61	0
54	MG	1A	3623	1/1	0.91	0.09	46,46,46,46	0
54	MG	1A	3445	1/1	0.91	0.12	57,57,57,57	0
54	MG	1A	3448	1/1	0.91	0.12	49,49,49,49	0
54	MG	1A	3635	1/1	0.91	0.09	18,18,18,18	0
54	MG	2A	3069	1/1	0.91	0.28	45,45,45,45	0
54	MG	1A	3449	1/1	0.91	0.10	31,31,31,31	0
54	MG	2e	201	1/1	0.91	0.19	55,55,55,55	0
54	MG	1a	1791	1/1	0.91	0.19	60,60,60,60	0
54	MG	1A	3211	1/1	0.91	0.12	51,51,51,51	0
54	MG	2A	3380	1/1	0.91	0.13	53,53,53,53	0
54	MG	2A	3383	1/1	0.91	0.10	32,32,32,32	0
54	MG	1A	3932	1/1	0.91	0.09	66,66,66,66	0
54	MG	1a	1660	1/1	0.91	0.13	62,62,62,62	0
54	MG	1A	3351	1/1	0.91	0.13	40,40,40,40	0
54	MG	1A	3353	1/1	0.91	0.15	60,60,60,60	0
54	MG	2A	3395	1/1	0.91	0.10	33,33,33,33	0
57	MPD	1a	1870	8/8	0.91	0.15	55,64,73,74	0
54	MG	1G	201	1/1	0.91	0.13	65,65,65,65	0
54	MG	1A	3759	1/1	0.91	0.10	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3724	1/1	0.91	0.13	53,53,53,53	0
54	MG	1a	1666	1/1	0.91	0.11	51,51,51,51	0
54	MG	1A	3644	1/1	0.91	0.10	36,36,36,36	0
54	MG	1A	3258	1/1	0.92	0.06	43,43,43,43	0
54	MG	2A	3701	1/1	0.92	0.11	44,44,44,44	0
54	MG	1A	3846	1/1	0.92	0.41	34,34,34,34	0
54	MG	1A	3848	1/1	0.92	0.25	50,50,50,50	0
54	MG	1A	3268	1/1	0.92	0.35	42,42,42,42	0
54	MG	1B	220	1/1	0.92	0.09	30,30,30,30	0
54	MG	2A	3367	1/1	0.92	0.12	56,56,56,56	0
54	MG	2A	3369	1/1	0.92	0.14	26,26,26,26	0
54	MG	1a	1776	1/1	0.92	0.18	67,67,67,67	0
54	MG	1A	3717	1/1	0.92	0.07	54,54,54,54	0
54	MG	1A	3031	1/1	0.92	0.13	22,22,22,22	0
54	MG	1A	3460	1/1	0.92	0.10	28,28,28,28	0
54	MG	1A	3630	1/1	0.92	0.28	54,54,54,54	0
54	MG	1A	3347	1/1	0.92	0.09	35,35,35,35	0
54	MG	1A	3879	1/1	0.92	0.14	29,29,29,29	0
54	MG	1A	3196	1/1	0.92	0.14	47,47,47,47	0
54	MG	1A	3885	1/1	0.92	0.10	18,18,18,18	0
54	MG	2A	3382	1/1	0.92	0.08	36,36,36,36	0
54	MG	1a	1788	1/1	0.92	0.12	59,59,59,59	0
54	MG	1A	3886	1/1	0.92	0.17	36,36,36,36	0
54	MG	2B	206	1/1	0.92	0.12	38,38,38,38	0
54	MG	1A	3197	1/1	0.92	0.09	40,40,40,40	0
54	MG	2B	210	1/1	0.92	0.13	60,60,60,60	0
54	MG	1A	3890	1/1	0.92	0.34	38,38,38,38	0
54	MG	1E	305	1/1	0.92	0.17	49,49,49,49	0
54	MG	1E	308	1/1	0.92	0.08	27,27,27,27	0
54	MG	2A	3398	1/1	0.92	0.13	44,44,44,44	0
54	MG	1A	3640	1/1	0.92	0.09	55,55,55,55	0
54	MG	2D	304	1/1	0.92	0.18	42,42,42,42	0
54	MG	1A	3897	1/1	0.92	0.25	59,59,59,59	0
54	MG	2A	3405	1/1	0.92	0.09	54,54,54,54	0
54	MG	1A	3281	1/1	0.92	0.10	47,47,47,47	0
54	MG	1F	309	1/1	0.92	0.18	41,41,41,41	0
54	MG	1A	3483	1/1	0.92	0.08	16,16,16,16	0
54	MG	2E	304	1/1	0.92	0.20	37,37,37,37	0
54	MG	1A	3199	1/1	0.92	0.26	56,56,56,56	0
54	MG	1a	1805	1/1	0.92	0.13	63,63,63,63	0
54	MG	1A	3651	1/1	0.92	0.08	51,51,51,51	0
54	MG	2G	202	1/1	0.92	0.20	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3111	1/1	0.92	0.13	61,61,61,61	0
54	MG	1A	3915	1/1	0.92	0.08	31,31,31,31	0
54	MG	2A	3431	1/1	0.92	0.10	57,57,57,57	0
54	MG	1a	1669	1/1	0.92	0.22	52,52,52,52	0
54	MG	1A	3652	1/1	0.92	0.17	45,45,45,45	0
54	MG	1a	1671	1/1	0.92	0.11	48,48,48,48	0
54	MG	2A	3119	1/1	0.92	0.13	41,41,41,41	0
54	MG	2V	202	1/1	0.92	0.23	46,46,46,46	0
54	MG	1A	3489	1/1	0.92	0.09	18,18,18,18	0
54	MG	2A	3442	1/1	0.92	0.09	75,75,75,75	0
54	MG	2A	3443	1/1	0.92	0.09	59,59,59,59	0
54	MG	1A	3567	1/1	0.92	0.15	68,68,68,68	0
54	MG	2A	3124	1/1	0.92	0.15	43,43,43,43	0
54	MG	1A	3367	1/1	0.92	0.09	20,20,20,20	0
54	MG	2A	3127	1/1	0.92	0.22	35,35,35,35	0
54	MG	28	101	1/1	0.92	0.13	46,46,46,46	0
54	MG	1A	3033	1/1	0.92	0.31	48,48,48,48	0
54	MG	2a	1602	1/1	0.92	0.17	51,51,51,51	0
54	MG	1a	1825	1/1	0.92	0.16	49,49,49,49	0
54	MG	2a	1607	1/1	0.92	0.21	53,53,53,53	0
54	MG	2A	3141	1/1	0.92	0.11	53,53,53,53	0
54	MG	2A	3457	1/1	0.92	0.11	55,55,55,55	0
54	MG	1a	1678	1/1	0.92	0.12	59,59,59,59	0
54	MG	1A	3055	1/1	0.92	0.28	30,30,30,30	0
54	MG	1A	3391	1/1	0.92	0.12	26,26,26,26	0
54	MG	2A	3467	1/1	0.92	0.12	26,26,26,26	0
54	MG	2A	3157	1/1	0.92	0.07	35,35,35,35	0
54	MG	1A	3669	1/1	0.92	0.30	29,29,29,29	0
54	MG	2A	3165	1/1	0.92	0.19	55,55,55,55	0
54	MG	1O	201	1/1	0.92	0.08	40,40,40,40	0
54	MG	2A	3475	1/1	0.92	0.18	68,68,68,68	0
54	MG	1O	202	1/1	0.92	0.18	41,41,41,41	0
54	MG	1a	1845	1/1	0.92	0.08	43,43,43,43	0
54	MG	2A	3169	1/1	0.92	0.06	48,48,48,48	0
54	MG	2A	3484	1/1	0.92	0.09	55,55,55,55	0
54	MG	2a	1633	1/1	0.92	0.14	54,54,54,54	0
54	MG	2A	3491	1/1	0.92	0.09	47,47,47,47	0
54	MG	2a	1636	1/1	0.92	0.16	73,73,73,73	0
54	MG	2A	3492	1/1	0.92	0.09	55,55,55,55	0
54	MG	2A	3493	1/1	0.92	0.26	50,50,50,50	0
54	MG	2a	1640	1/1	0.92	0.13	61,61,61,61	0
54	MG	1A	3773	1/1	0.92	0.22	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3776	1/1	0.92	0.27	45,45,45,45	0
54	MG	2A	3178	1/1	0.92	0.10	45,45,45,45	0
54	MG	1a	1850	1/1	0.92	0.12	51,51,51,51	0
54	MG	2A	3186	1/1	0.92	0.11	58,58,58,58	0
54	MG	2A	3187	1/1	0.92	0.68	41,41,41,41	0
54	MG	1A	3778	1/1	0.92	0.11	46,46,46,46	0
54	MG	1a	1854	1/1	0.92	0.18	86,86,86,86	0
54	MG	1a	1855	1/1	0.92	0.12	55,55,55,55	0
54	MG	2A	3195	1/1	0.92	0.18	42,42,42,42	0
54	MG	1a	1857	1/1	0.92	0.12	88,88,88,88	0
54	MG	2A	3199	1/1	0.92	0.09	46,46,46,46	0
54	MG	1A	3150	1/1	0.92	0.07	41,41,41,41	0
54	MG	1A	3183	1/1	0.92	0.35	57,57,57,57	0
54	MG	1A	3961	1/1	0.92	0.18	36,36,36,36	0
54	MG	1A	3962	1/1	0.92	0.08	58,58,58,58	0
54	MG	1A	3675	1/1	0.92	0.21	32,32,32,32	0
54	MG	2A	3212	1/1	0.92	0.08	43,43,43,43	0
54	MG	2A	3213	1/1	0.92	0.13	56,56,56,56	0
54	MG	1A	3302	1/1	0.92	0.16	46,46,46,46	0
54	MG	1a	1697	1/1	0.92	0.42	71,71,71,71	0
54	MG	2A	3223	1/1	0.92	0.08	44,44,44,44	0
54	MG	2A	3527	1/1	0.92	0.15	81,81,81,81	0
54	MG	1A	3583	1/1	0.92	0.19	35,35,35,35	0
54	MG	2A	3530	1/1	0.92	0.08	59,59,59,59	0
54	MG	1A	3792	1/1	0.92	0.21	30,30,30,30	0
54	MG	2a	1678	1/1	0.92	0.17	68,68,68,68	0
54	MG	2A	3535	1/1	0.92	0.11	79,79,79,79	0
54	MG	1A	3307	1/1	0.92	0.14	33,33,33,33	0
54	MG	1A	3511	1/1	0.92	0.10	44,44,44,44	0
54	MG	2a	1683	1/1	0.92	0.23	49,49,49,49	0
54	MG	2A	3233	1/1	0.92	0.10	57,57,57,57	0
54	MG	1A	3414	1/1	0.92	0.17	47,47,47,47	0
54	MG	1A	3801	1/1	0.92	0.15	38,38,38,38	0
54	MG	1A	3977	1/1	0.92	0.18	57,57,57,57	0
54	MG	2a	1690	1/1	0.92	0.21	40,40,40,40	0
54	MG	2A	3237	1/1	0.92	0.09	45,45,45,45	0
54	MG	1A	3983	1/1	0.92	0.26	33,33,33,33	0
54	MG	2a	1694	1/1	0.92	0.10	49,49,49,49	0
54	MG	1a	1709	1/1	0.92	0.10	48,48,48,48	0
54	MG	2a	1696	1/1	0.92	0.14	48,48,48,48	0
54	MG	1A	3802	1/1	0.92	0.23	43,43,43,43	0
54	MG	2a	1704	1/1	0.92	0.12	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	11	102	1/1	0.92	0.19	45,45,45,45	0
54	MG	1A	3986	1/1	0.92	0.09	21,21,21,21	0
54	MG	1a	1719	1/1	0.92	0.13	45,45,45,45	0
54	MG	1A	3130	1/1	0.92	0.09	31,31,31,31	0
54	MG	2A	3566	1/1	0.92	0.12	63,63,63,63	0
54	MG	2A	3569	1/1	0.92	0.09	55,55,55,55	0
54	MG	1o	101	1/1	0.92	0.07	41,41,41,41	0
54	MG	2a	1717	1/1	0.92	0.18	71,71,71,71	0
54	MG	2a	1722	1/1	0.92	0.11	64,64,64,64	0
54	MG	2a	1724	1/1	0.92	0.09	58,58,58,58	0
54	MG	1A	3804	1/1	0.92	0.09	44,44,44,44	0
54	MG	2A	3575	1/1	0.92	0.08	32,32,32,32	0
54	MG	1A	3313	1/1	0.92	0.10	33,33,33,33	0
54	MG	1t	201	1/1	0.92	0.10	52,52,52,52	0
54	MG	1A	3161	1/1	0.92	0.16	50,50,50,50	0
54	MG	1a	1731	1/1	0.92	0.08	45,45,45,45	0
54	MG	2a	1734	1/1	0.92	0.14	71,71,71,71	0
54	MG	1A	3996	1/1	0.92	0.17	49,49,49,49	0
54	MG	2A	3269	1/1	0.92	0.10	36,36,36,36	0
54	MG	1A	3692	1/1	0.92	0.09	21,21,21,21	0
54	MG	1A	3241	1/1	0.92	0.51	28,28,28,28	0
54	MG	1a	1741	1/1	0.92	0.10	45,45,45,45	0
54	MG	2A	3278	1/1	0.92	0.19	45,45,45,45	0
54	MG	2A	3607	1/1	0.92	0.13	45,45,45,45	0
54	MG	2A	3002	1/1	0.92	0.24	62,62,62,62	0
54	MG	1A	3604	1/1	0.92	0.07	37,37,37,37	0
54	MG	2A	3286	1/1	0.92	0.10	33,33,33,33	0
54	MG	1a	1606	1/1	0.92	0.10	49,49,49,49	0
54	MG	2A	3612	1/1	0.92	0.10	63,63,63,63	0
54	MG	1A	3320	1/1	0.92	0.20	41,41,41,41	0
54	MG	2A	3618	1/1	0.92	0.31	49,49,49,49	0
54	MG	2A	3619	1/1	0.92	0.09	79,79,79,79	0
54	MG	2a	1761	1/1	0.92	0.15	59,59,59,59	0
54	MG	2A	3023	1/1	0.92	0.24	44,44,44,44	0
54	MG	2A	3631	1/1	0.92	0.09	80,80,80,80	0
54	MG	1A	3527	1/1	0.92	0.19	32,32,32,32	0
54	MG	1a	1750	1/1	0.92	0.09	50,50,50,50	0
54	MG	2A	3296	1/1	0.92	0.09	47,47,47,47	0
54	MG	2A	3297	1/1	0.92	0.13	51,51,51,51	0
54	MG	1A	4006	1/1	0.92	0.15	44,44,44,44	0
54	MG	1a	1610	1/1	0.92	0.09	49,49,49,49	0
54	MG	1A	3028	1/1	0.92	0.32	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3328	1/1	0.92	0.12	57,57,57,57	0
54	MG	2A	3034	1/1	0.92	0.19	53,53,53,53	0
54	MG	1A	3831	1/1	0.92	0.09	61,61,61,61	0
54	MG	1a	1758	1/1	0.92	0.09	66,66,66,66	0
54	MG	1A	4010	1/1	0.92	0.12	51,51,51,51	0
54	MG	2A	3336	1/1	0.92	0.07	43,43,43,43	0
54	MG	2A	3337	1/1	0.92	0.12	46,46,46,46	0
54	MG	2A	3341	1/1	0.92	0.07	30,30,30,30	0
54	MG	1B	202	1/1	0.92	0.11	50,50,50,50	0
54	MG	1A	3616	1/1	0.92	0.13	48,48,48,48	0
54	MG	2A	3693	1/1	0.92	0.13	60,60,60,60	0
54	MG	1A	3094	1/1	0.92	0.45	28,28,28,28	0
54	MG	1A	3256	1/1	0.92	0.36	30,30,30,30	0
54	MG	2A	3698	1/1	0.92	0.15	61,61,61,61	0
54	MG	2A	3699	1/1	0.92	0.14	43,43,43,43	0
54	MG	15	103	1/1	0.93	0.25	38,38,38,38	0
54	MG	2A	3721	1/1	0.93	0.09	53,53,53,53	0
54	MG	2A	3411	1/1	0.93	0.08	44,44,44,44	0
54	MG	1A	3157	1/1	0.93	0.30	31,31,31,31	0
54	MG	1A	3348	1/1	0.93	0.12	49,49,49,49	0
54	MG	2A	3148	1/1	0.93	0.09	48,48,48,48	0
54	MG	2A	3421	1/1	0.93	0.23	38,38,38,38	0
54	MG	1A	3349	1/1	0.93	0.09	28,28,28,28	0
54	MG	1A	3010	1/1	0.93	0.07	24,24,24,24	0
54	MG	1A	3650	1/1	0.93	0.09	57,57,57,57	0
54	MG	2A	3164	1/1	0.93	0.15	46,46,46,46	0
54	MG	1a	1708	1/1	0.93	0.08	50,50,50,50	0
54	MG	1a	1860	1/1	0.93	0.09	57,57,57,57	0
54	MG	1A	3160	1/1	0.93	0.15	30,30,30,30	0
54	MG	1B	216	1/1	0.93	0.13	57,57,57,57	0
54	MG	1a	1865	1/1	0.93	0.08	51,51,51,51	0
54	MG	2A	3174	1/1	0.93	0.14	46,46,46,46	0
54	MG	1A	3555	1/1	0.93	0.10	26,26,26,26	0
54	MG	1A	3654	1/1	0.93	0.07	75,75,75,75	0
54	MG	1A	3478	1/1	0.93	0.13	50,50,50,50	0
54	MG	2A	3179	1/1	0.93	0.13	38,38,38,38	0
54	MG	1A	3762	1/1	0.93	0.18	34,34,34,34	0
54	MG	2A	3448	1/1	0.93	0.19	66,66,66,66	0
54	MG	2A	3185	1/1	0.93	0.13	58,58,58,58	0
54	MG	1a	1721	1/1	0.93	0.07	46,46,46,46	0
54	MG	2A	3451	1/1	0.93	0.13	56,56,56,56	0
54	MG	1d	301	1/1	0.93	0.12	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2F	302	1/1	0.93	0.12	34,34,34,34	0
54	MG	2A	3454	1/1	0.93	0.14	56,56,56,56	0
54	MG	1A	3909	1/1	0.93	0.20	34,34,34,34	0
54	MG	1A	3562	1/1	0.93	0.16	45,45,45,45	0
54	MG	1A	3563	1/1	0.93	0.06	25,25,25,25	0
54	MG	1a	1727	1/1	0.93	0.10	56,56,56,56	0
54	MG	2A	3196	1/1	0.93	0.09	39,39,39,39	0
54	MG	2A	3197	1/1	0.93	0.13	38,38,38,38	0
54	MG	2Q	202	1/1	0.93	0.10	59,59,59,59	0
54	MG	1A	3083	1/1	0.93	0.20	35,35,35,35	0
54	MG	2T	204	1/1	0.93	0.11	52,52,52,52	0
54	MG	1A	3088	1/1	0.93	0.15	49,49,49,49	0
54	MG	1A	3203	1/1	0.93	0.09	34,34,34,34	0
54	MG	1a	1735	1/1	0.93	0.11	73,73,73,73	0
54	MG	1a	1736	1/1	0.93	0.15	43,43,43,43	0
54	MG	1A	3923	1/1	0.93	0.10	34,34,34,34	0
54	MG	1a	1619	1/1	0.93	0.08	70,70,70,70	0
54	MG	21	103	1/1	0.93	0.08	73,73,73,73	0
54	MG	2A	3211	1/1	0.93	0.17	45,45,45,45	0
54	MG	2A	3486	1/1	0.93	0.14	72,72,72,72	0
54	MG	2A	3487	1/1	0.93	0.16	49,49,49,49	0
54	MG	2A	3489	1/1	0.93	0.08	58,58,58,58	0
54	MG	1l	3101	1/1	0.93	0.13	43,43,43,43	0
54	MG	1m	201	1/1	0.93	0.06	65,65,65,65	0
54	MG	2a	1603	1/1	0.93	0.08	43,43,43,43	0
54	MG	1a	1620	1/1	0.93	0.07	50,50,50,50	0
54	MG	2a	1606	1/1	0.93	0.15	67,67,67,67	0
54	MG	1A	3372	1/1	0.93	0.08	29,29,29,29	0
54	MG	1A	3670	1/1	0.93	0.11	48,48,48,48	0
54	MG	1A	3491	1/1	0.93	0.10	39,39,39,39	0
54	MG	1a	1627	1/1	0.93	0.14	54,54,54,54	0
54	MG	1a	1629	1/1	0.93	0.13	59,59,59,59	0
54	MG	2A	3501	1/1	0.93	0.12	22,22,22,22	0
54	MG	1A	3375	1/1	0.93	0.11	12,12,12,12	0
54	MG	1A	3673	1/1	0.93	0.17	34,34,34,34	0
54	MG	1a	1754	1/1	0.93	0.16	49,49,49,49	0
54	MG	1A	3286	1/1	0.93	0.16	54,54,54,54	0
54	MG	1A	3938	1/1	0.93	0.10	36,36,36,36	0
54	MG	1A	3204	1/1	0.93	0.22	34,34,34,34	0
54	MG	2A	3508	1/1	0.93	0.08	51,51,51,51	0
54	MG	1F	306	1/1	0.93	0.08	31,31,31,31	0
54	MG	2a	1629	1/1	0.93	0.10	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3501	1/1	0.93	0.11	49,49,49,49	0
54	MG	1a	1762	1/1	0.93	0.11	58,58,58,58	0
54	MG	1a	1644	1/1	0.93	0.13	62,62,62,62	0
54	MG	2A	3013	1/1	0.93	0.19	52,52,52,52	0
54	MG	2a	1635	1/1	0.93	0.14	73,73,73,73	0
54	MG	2A	3246	1/1	0.93	0.08	45,45,45,45	0
54	MG	2A	3249	1/1	0.93	0.14	48,48,48,48	0
54	MG	2A	3017	1/1	0.93	0.10	65,65,65,65	0
54	MG	2A	3019	1/1	0.93	0.63	50,50,50,50	0
54	MG	2A	3252	1/1	0.93	0.09	49,49,49,49	0
54	MG	2A	3253	1/1	0.93	0.19	53,53,53,53	0
54	MG	1A	3129	1/1	0.93	0.06	60,60,60,60	0
54	MG	2A	3528	1/1	0.93	0.07	58,58,58,58	0
54	MG	1A	3948	1/1	0.93	0.16	42,42,42,42	0
54	MG	1a	1768	1/1	0.93	0.11	45,45,45,45	0
54	MG	1A	3003	1/1	0.93	0.09	23,23,23,23	0
54	MG	2A	3264	1/1	0.93	0.14	53,53,53,53	0
54	MG	1A	3213	1/1	0.93	0.44	26,26,26,26	0
54	MG	2A	3538	1/1	0.93	0.10	56,56,56,56	0
54	MG	1A	3401	1/1	0.93	0.12	42,42,42,42	0
54	MG	1A	3172	1/1	0.93	0.13	43,43,43,43	0
54	MG	1a	1655	1/1	0.93	0.11	69,69,69,69	0
54	MG	1A	3177	1/1	0.93	0.20	27,27,27,27	0
54	MG	2a	1659	1/1	0.93	0.14	70,70,70,70	0
54	MG	2A	3547	1/1	0.93	0.08	54,54,54,54	0
54	MG	2A	3548	1/1	0.93	0.09	77,77,77,77	0
54	MG	1A	3216	1/1	0.93	0.09	36,36,36,36	0
54	MG	1A	3219	1/1	0.93	0.08	40,40,40,40	0
54	MG	2a	1666	1/1	0.93	0.18	64,64,64,64	0
54	MG	2A	3552	1/1	0.93	0.10	69,69,69,69	0
54	MG	2a	1669	1/1	0.93	0.17	56,56,56,56	0
54	MG	2A	3042	1/1	0.93	0.20	41,41,41,41	0
54	MG	2a	1671	1/1	0.93	0.23	43,43,43,43	0
54	MG	1A	3695	1/1	0.93	0.11	24,24,24,24	0
54	MG	2A	3049	1/1	0.93	0.08	55,55,55,55	0
54	MG	1A	3516	1/1	0.93	0.07	20,20,20,20	0
54	MG	2A	3560	1/1	0.93	0.17	69,69,69,69	0
54	MG	1N	202	1/1	0.93	0.20	38,38,38,38	0
54	MG	1A	3970	1/1	0.93	0.08	33,33,33,33	0
54	MG	1A	3059	1/1	0.93	0.20	21,21,21,21	0
54	MG	1a	1664	1/1	0.93	0.11	50,50,50,50	0
54	MG	2A	3294	1/1	0.93	0.07	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3060	1/1	0.93	0.09	49,49,49,49	0
54	MG	1A	3433	1/1	0.93	0.15	57,57,57,57	0
54	MG	1A	3826	1/1	0.93	0.27	33,33,33,33	0
54	MG	1A	3523	1/1	0.93	0.21	35,35,35,35	0
54	MG	1A	3613	1/1	0.93	0.29	22,22,22,22	0
54	MG	1S	201	1/1	0.93	0.23	49,49,49,49	0
54	MG	2A	3304	1/1	0.93	0.15	46,46,46,46	0
54	MG	1T	201	1/1	0.93	0.11	47,47,47,47	0
54	MG	2A	3311	1/1	0.93	0.08	46,46,46,46	0
54	MG	2a	1693	1/1	0.93	0.08	75,75,75,75	0
54	MG	1A	3829	1/1	0.93	0.17	32,32,32,32	0
54	MG	1A	3524	1/1	0.93	0.17	33,33,33,33	0
54	MG	2A	3319	1/1	0.93	0.09	32,32,32,32	0
54	MG	2A	3603	1/1	0.93	0.09	48,48,48,48	0
54	MG	1T	205	1/1	0.93	0.17	39,39,39,39	0
54	MG	2A	3606	1/1	0.93	0.13	79,79,79,79	0
54	MG	1a	1802	1/1	0.93	0.14	80,80,80,80	0
54	MG	1a	1676	1/1	0.93	0.10	40,40,40,40	0
54	MG	1A	3134	1/1	0.93	0.20	28,28,28,28	0
54	MG	2A	3339	1/1	0.93	0.13	56,56,56,56	0
54	MG	1A	3242	1/1	0.93	0.11	36,36,36,36	0
54	MG	1a	1811	1/1	0.93	0.11	93,93,93,93	0
54	MG	2A	3078	1/1	0.93	0.11	38,38,38,38	0
54	MG	2A	3079	1/1	0.93	0.33	47,47,47,47	0
54	MG	2A	3345	1/1	0.93	0.08	39,39,39,39	0
54	MG	1a	1812	1/1	0.93	0.17	64,64,64,64	0
54	MG	2A	3630	1/1	0.93	0.07	68,68,68,68	0
54	MG	1A	3015	1/1	0.93	0.16	28,28,28,28	0
54	MG	2A	3353	1/1	0.93	0.12	31,31,31,31	0
54	MG	1a	1682	1/1	0.93	0.17	58,58,58,58	0
54	MG	1a	1683	1/1	0.93	0.10	56,56,56,56	0
54	MG	2A	3643	1/1	0.93	0.17	65,65,65,65	0
54	MG	1A	3110	1/1	0.93	0.20	32,32,32,32	0
54	MG	2A	3648	1/1	0.93	0.08	44,44,44,44	0
54	MG	2A	3359	1/1	0.93	0.07	21,21,21,21	0
54	MG	1W	201	1/1	0.93	0.09	22,22,22,22	0
54	MG	2A	3363	1/1	0.93	0.12	57,57,57,57	0
54	MG	2A	3364	1/1	0.93	0.08	61,61,61,61	0
54	MG	2A	3091	1/1	0.93	0.09	36,36,36,36	0
54	MG	1A	3072	1/1	0.93	0.47	33,33,33,33	0
54	MG	1A	3025	1/1	0.93	0.24	38,38,38,38	0
54	MG	2A	3672	1/1	0.93	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
54	MG	1A	3998	1/1	0.93	0.09	44,44,44,44	0
54	MG	1A	3850	1/1	0.93	0.08	29,29,29,29	0
54	MG	2A	3678	1/1	0.93	0.14	81,81,81,81	0
54	MG	2A	3679	1/1	0.93	0.10	43,43,43,43	0
54	MG	2a	1759	1/1	0.93	0.08	61,61,61,61	0
54	MG	2A	3682	1/1	0.93	0.14	60,60,60,60	0
54	MG	1A	3855	1/1	0.93	0.12	71,71,71,71	0
54	MG	2A	3100	1/1	0.93	0.18	31,31,31,31	0
54	MG	2A	3103	1/1	0.93	0.06	42,42,42,42	0
54	MG	1A	3857	1/1	0.93	0.11	43,43,43,43	0
54	MG	2A	3691	1/1	0.93	0.17	52,52,52,52	0
54	MG	2A	3692	1/1	0.93	0.11	75,75,75,75	0
54	MG	1a	1829	1/1	0.93	0.10	66,66,66,66	0
54	MG	1A	3538	1/1	0.93	0.17	42,42,42,42	0
54	MG	2a	1773	1/1	0.93	0.11	57,57,57,57	0
54	MG	2a	1774	1/1	0.93	0.15	62,62,62,62	0
54	MG	1A	3633	1/1	0.93	0.09	13,13,13,13	0
54	MG	1a	1833	1/1	0.93	0.12	61,61,61,61	0
54	MG	1a	1834	1/1	0.93	0.21	53,53,53,53	0
54	MG	1a	1835	1/1	0.93	0.10	44,44,44,44	0
54	MG	1A	3259	1/1	0.93	0.11	50,50,50,50	0
54	MG	2A	3123	1/1	0.93	0.11	36,36,36,36	0
54	MG	1A	3341	1/1	0.93	0.08	11,11,11,11	0
54	MG	1A	3869	1/1	0.93	0.10	49,49,49,49	0
54	MG	1A	3266	1/1	0.93	0.14	38,38,38,38	0
54	MG	15	102	1/1	0.93	0.31	31,31,31,31	0
54	MG	2A	3711	1/1	0.93	0.25	67,67,67,67	0
57	MPD	18	102	8/8	0.93	0.14	21,29,33,34	0
54	MG	2A	3132	1/1	0.93	0.15	56,56,56,56	0
54	MG	2A	3715	1/1	0.93	0.18	54,54,54,54	0
54	MG	2A	3406	1/1	0.93	0.32	39,39,39,39	0
54	MG	2A	3717	1/1	0.93	0.13	43,43,43,43	0
54	MG	1a	1847	1/1	0.93	0.08	51,51,51,51	0
58	ZN	2Y	202	1/1	0.93	0.11	136,136,136,136	0
54	MG	2A	3408	1/1	0.93	0.17	49,49,49,49	0
54	MG	2B	209	1/1	0.94	0.08	37,37,37,37	0
54	MG	1A	3364	1/1	0.94	0.06	18,18,18,18	0
54	MG	1A	3723	1/1	0.94	0.09	18,18,18,18	0
54	MG	1A	3901	1/1	0.94	0.22	50,50,50,50	0
54	MG	2A	3189	1/1	0.94	0.08	42,42,42,42	0
54	MG	1A	3907	1/1	0.94	0.08	39,39,39,39	0
54	MG	1A	3603	1/1	0.94	0.12	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3194	1/1	0.94	0.15	49,49,49,49	0
54	MG	1A	3143	1/1	0.94	0.19	14,14,14,14	0
54	MG	2A	3460	1/1	0.94	0.12	42,42,42,42	0
54	MG	2A	3461	1/1	0.94	0.08	48,48,48,48	0
54	MG	1A	3732	1/1	0.94	0.14	42,42,42,42	0
54	MG	1A	3275	1/1	0.94	0.09	24,24,24,24	0
54	MG	1P	202	1/1	0.94	0.16	23,23,23,23	0
54	MG	1A	3914	1/1	0.94	0.09	45,45,45,45	0
54	MG	1P	205	1/1	0.94	0.10	38,38,38,38	0
54	MG	1A	3737	1/1	0.94	0.09	55,55,55,55	0
54	MG	1A	3099	1/1	0.94	0.13	52,52,52,52	0
54	MG	1Q	202	1/1	0.94	0.12	34,34,34,34	0
54	MG	1Q	206	1/1	0.94	0.09	33,33,33,33	0
54	MG	2A	3209	1/1	0.94	0.10	46,46,46,46	0
54	MG	2A	3210	1/1	0.94	0.09	49,49,49,49	0
54	MG	1A	3919	1/1	0.94	0.12	48,48,48,48	0
54	MG	1g	201	1/1	0.94	0.16	49,49,49,49	0
54	MG	1A	3739	1/1	0.94	0.09	27,27,27,27	0
54	MG	1A	3101	1/1	0.94	0.25	36,36,36,36	0
54	MG	1A	3152	1/1	0.94	0.18	35,35,35,35	0
54	MG	1A	3744	1/1	0.94	0.08	27,27,27,27	0
54	MG	1A	3200	1/1	0.94	0.13	26,26,26,26	0
54	MG	1A	3002	1/1	0.94	0.11	44,44,44,44	0
54	MG	1U	206	1/1	0.94	0.19	41,41,41,41	0
54	MG	1A	3288	1/1	0.94	0.17	45,45,45,45	0
54	MG	20	101	1/1	0.94	0.14	40,40,40,40	0
54	MG	2A	3230	1/1	0.94	0.09	44,44,44,44	0
54	MG	1A	3619	1/1	0.94	0.21	28,28,28,28	0
54	MG	1A	3021	1/1	0.94	0.20	32,32,32,32	0
54	MG	1A	3290	1/1	0.94	0.09	29,29,29,29	0
54	MG	1A	3944	1/1	0.94	0.12	52,52,52,52	0
54	MG	1A	3037	1/1	0.94	0.13	37,37,37,37	0
54	MG	1a	1730	1/1	0.94	0.09	67,67,67,67	0
54	MG	1A	3409	1/1	0.94	0.10	32,32,32,32	0
54	MG	1A	3951	1/1	0.94	0.10	41,41,41,41	0
54	MG	1A	3410	1/1	0.94	0.15	44,44,44,44	0
54	MG	1A	3955	1/1	0.94	0.18	53,53,53,53	0
54	MG	10	107	1/1	0.94	0.09	49,49,49,49	0
54	MG	2A	3247	1/1	0.94	0.09	45,45,45,45	0
54	MG	1A	3629	1/1	0.94	0.14	56,56,56,56	0
54	MG	1A	3038	1/1	0.94	0.20	42,42,42,42	0
54	MG	11	101	1/1	0.94	0.26	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3960	1/1	0.94	0.09	65,65,65,65	0
54	MG	1A	3042	1/1	0.94	0.05	30,30,30,30	0
54	MG	2A	3020	1/1	0.94	0.40	43,43,43,43	0
54	MG	1A	3770	1/1	0.94	0.08	82,82,82,82	0
54	MG	13	103	1/1	0.94	0.12	54,54,54,54	0
54	MG	2A	3261	1/1	0.94	0.15	46,46,46,46	0
54	MG	1A	3423	1/1	0.94	0.14	63,63,63,63	0
54	MG	1A	3964	1/1	0.94	0.08	23,23,23,23	0
54	MG	2A	3531	1/1	0.94	0.10	52,52,52,52	0
54	MG	1A	3425	1/1	0.94	0.10	32,32,32,32	0
54	MG	1A	3774	1/1	0.94	0.09	40,40,40,40	0
54	MG	1A	3775	1/1	0.94	0.11	41,41,41,41	0
54	MG	2A	3032	1/1	0.94	0.15	21,21,21,21	0
54	MG	2A	3033	1/1	0.94	0.05	34,34,34,34	0
54	MG	1A	3303	1/1	0.94	0.10	26,26,26,26	0
54	MG	19	102	1/1	0.94	0.09	62,62,62,62	0
54	MG	2A	3036	1/1	0.94	0.12	43,43,43,43	0
54	MG	2A	3279	1/1	0.94	0.17	60,60,60,60	0
54	MG	1A	3064	1/1	0.94	0.12	40,40,40,40	0
54	MG	1a	1760	1/1	0.94	0.14	42,42,42,42	0
54	MG	2A	3041	1/1	0.94	0.12	57,57,57,57	0
54	MG	1A	3071	1/1	0.94	0.46	30,30,30,30	0
54	MG	1A	3043	1/1	0.94	0.14	7,7,7,7	0
54	MG	1A	3314	1/1	0.94	0.14	37,37,37,37	0
54	MG	1A	3645	1/1	0.94	0.14	39,39,39,39	0
54	MG	1a	1766	1/1	0.94	0.12	59,59,59,59	0
54	MG	1A	3646	1/1	0.94	0.28	32,32,32,32	0
54	MG	1A	3649	1/1	0.94	0.11	46,46,46,46	0
54	MG	1A	3795	1/1	0.94	0.38	30,30,30,30	0
54	MG	1A	3073	1/1	0.94	0.08	36,36,36,36	0
54	MG	1A	3442	1/1	0.94	0.07	40,40,40,40	0
54	MG	1A	3992	1/1	0.94	0.10	62,62,62,62	0
54	MG	1A	3228	1/1	0.94	0.43	32,32,32,32	0
54	MG	1a	1775	1/1	0.94	0.09	66,66,66,66	0
54	MG	2a	1660	1/1	0.94	0.19	58,58,58,58	0
54	MG	2A	3064	1/1	0.94	0.07	33,33,33,33	0
54	MG	2A	3578	1/1	0.94	0.08	38,38,38,38	0
54	MG	1A	3800	1/1	0.94	0.08	20,20,20,20	0
54	MG	2a	1664	1/1	0.94	0.21	38,38,38,38	0
54	MG	1A	3230	1/1	0.94	0.77	34,34,34,34	0
54	MG	2A	3585	1/1	0.94	0.12	51,51,51,51	0
54	MG	1A	3178	1/1	0.94	0.25	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3320	1/1	0.94	0.09	32,32,32,32	0
54	MG	1A	3550	1/1	0.94	0.14	45,45,45,45	0
54	MG	1A	3551	1/1	0.94	0.07	55,55,55,55	0
54	MG	1A	3326	1/1	0.94	0.06	19,19,19,19	0
54	MG	1A	3022	1/1	0.94	0.14	31,31,31,31	0
54	MG	1a	1624	1/1	0.94	0.08	47,47,47,47	0
54	MG	2A	3340	1/1	0.94	0.07	28,28,28,28	0
54	MG	1A	3238	1/1	0.94	0.28	34,34,34,34	0
54	MG	1A	4005	1/1	0.94	0.12	45,45,45,45	0
54	MG	1A	3816	1/1	0.94	0.10	38,38,38,38	0
54	MG	1A	3240	1/1	0.94	0.08	26,26,26,26	0
54	MG	1A	3559	1/1	0.94	0.22	42,42,42,42	0
54	MG	2A	3347	1/1	0.94	0.06	53,53,53,53	0
54	MG	1a	1634	1/1	0.94	0.12	48,48,48,48	0
54	MG	1a	1793	1/1	0.94	0.09	40,40,40,40	0
54	MG	1A	3030	1/1	0.94	0.12	22,22,22,22	0
54	MG	2A	3087	1/1	0.94	0.12	38,38,38,38	0
54	MG	2A	3356	1/1	0.94	0.11	58,58,58,58	0
54	MG	1A	3822	1/1	0.94	0.17	32,32,32,32	0
54	MG	2A	3625	1/1	0.94	0.09	43,43,43,43	0
54	MG	2A	3627	1/1	0.94	0.11	75,75,75,75	0
54	MG	1A	3823	1/1	0.94	0.10	46,46,46,46	0
54	MG	1A	3464	1/1	0.94	0.09	54,54,54,54	0
54	MG	2A	3092	1/1	0.94	0.25	44,44,44,44	0
54	MG	1A	3468	1/1	0.94	0.09	69,69,69,69	0
54	MG	2a	1698	1/1	0.94	0.24	49,49,49,49	0
54	MG	1B	206	1/1	0.94	0.08	45,45,45,45	0
54	MG	2A	3641	1/1	0.94	0.08	54,54,54,54	0
54	MG	1B	209	1/1	0.94	0.27	50,50,50,50	0
54	MG	2A	3368	1/1	0.94	0.10	27,27,27,27	0
54	MG	1A	3566	1/1	0.94	0.17	52,52,52,52	0
54	MG	1A	3677	1/1	0.94	0.27	51,51,51,51	0
54	MG	2a	1710	1/1	0.94	0.11	56,56,56,56	0
54	MG	1a	1806	1/1	0.94	0.09	41,41,41,41	0
54	MG	2a	1713	1/1	0.94	0.10	67,67,67,67	0
54	MG	2A	3652	1/1	0.94	0.10	22,22,22,22	0
54	MG	2A	3653	1/1	0.94	0.10	44,44,44,44	0
54	MG	1A	3052	1/1	0.94	0.34	34,34,34,34	0
54	MG	2a	1721	1/1	0.94	0.06	57,57,57,57	0
54	MG	2A	3657	1/1	0.94	0.12	59,59,59,59	0
54	MG	1A	3680	1/1	0.94	0.09	38,38,38,38	0
54	MG	1A	3835	1/1	0.94	0.09	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3664	1/1	0.94	0.10	70,70,70,70	0
54	MG	1A	3568	1/1	0.94	0.08	47,47,47,47	0
54	MG	2A	3376	1/1	0.94	0.10	29,29,29,29	0
54	MG	1B	219	1/1	0.94	0.09	37,37,37,37	0
54	MG	1A	3839	1/1	0.94	0.11	44,44,44,44	0
54	MG	1A	3243	1/1	0.94	0.27	35,35,35,35	0
54	MG	2A	3381	1/1	0.94	0.17	62,62,62,62	0
54	MG	2a	1736	1/1	0.94	0.12	77,77,77,77	0
54	MG	1A	3472	1/1	0.94	0.19	46,46,46,46	0
54	MG	1A	3182	1/1	0.94	0.08	37,37,37,37	0
54	MG	1A	3844	1/1	0.94	0.07	26,26,26,26	0
54	MG	2a	1741	1/1	0.94	0.20	49,49,49,49	0
54	MG	2a	1743	1/1	0.94	0.21	58,58,58,58	0
54	MG	1A	3344	1/1	0.94	0.07	26,26,26,26	0
54	MG	2A	3685	1/1	0.94	0.08	51,51,51,51	0
54	MG	2A	3688	1/1	0.94	0.12	45,45,45,45	0
54	MG	1A	3053	1/1	0.94	0.19	28,28,28,28	0
54	MG	2a	1749	1/1	0.94	0.28	39,39,39,39	0
54	MG	2A	3126	1/1	0.94	0.31	41,41,41,41	0
54	MG	2A	3394	1/1	0.94	0.10	63,63,63,63	0
54	MG	1A	3579	1/1	0.94	0.07	25,25,25,25	0
54	MG	2A	3130	1/1	0.94	0.25	71,71,71,71	0
54	MG	2a	1756	1/1	0.94	0.14	47,47,47,47	0
54	MG	1A	3854	1/1	0.94	0.07	13,13,13,13	0
54	MG	1A	3185	1/1	0.94	0.18	31,31,31,31	0
54	MG	2A	3135	1/1	0.94	0.12	55,55,55,55	0
54	MG	2A	3137	1/1	0.94	0.12	47,47,47,47	0
54	MG	1A	3091	1/1	0.94	0.13	32,32,32,32	0
54	MG	1A	3582	1/1	0.94	0.12	57,57,57,57	0
54	MG	1A	3136	1/1	0.94	0.07	26,26,26,26	0
54	MG	2A	3704	1/1	0.94	0.13	62,62,62,62	0
54	MG	1A	3352	1/1	0.94	0.10	59,59,59,59	0
54	MG	2A	3706	1/1	0.94	0.14	69,69,69,69	0
54	MG	1E	309	1/1	0.94	0.10	51,51,51,51	0
54	MG	1A	3587	1/1	0.94	0.30	25,25,25,25	0
54	MG	1a	1841	1/1	0.94	0.07	63,63,63,63	0
54	MG	1A	3023	1/1	0.94	0.20	26,26,26,26	0
54	MG	1A	3589	1/1	0.94	0.23	30,30,30,30	0
54	MG	1A	3493	1/1	0.94	0.09	18,18,18,18	0
54	MG	1a	1677	1/1	0.94	0.09	49,49,49,49	0
54	MG	2A	3430	1/1	0.94	0.09	47,47,47,47	0
54	MG	1A	3192	1/1	0.94	0.10	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3098	1/1	0.94	0.09	41,41,41,41	0
54	MG	1A	3883	1/1	0.94	0.10	16,16,16,16	0
54	MG	2A	3172	1/1	0.94	0.10	40,40,40,40	0
54	MG	1A	3593	1/1	0.94	0.13	34,34,34,34	0
54	MG	2A	3439	1/1	0.94	0.06	50,50,50,50	0
54	MG	1A	3712	1/1	0.94	0.07	21,21,21,21	0
54	MG	1A	3595	1/1	0.94	0.10	51,51,51,51	0
54	MG	1A	3499	1/1	0.94	0.11	54,54,54,54	0
54	MG	1F	318	1/1	0.94	0.07	44,44,44,44	0
54	MG	2A	3181	1/1	0.94	0.20	45,45,45,45	0
54	MG	2A	3183	1/1	0.94	0.21	51,51,51,51	0
58	ZN	1Y	202	1/1	0.94	0.11	109,109,109,109	0
54	MG	1a	1861	1/1	0.94	0.08	78,78,78,78	0
54	MG	1A	3719	1/1	0.94	0.13	45,45,45,45	0
54	MG	2B	208	1/1	0.94	0.15	62,62,62,62	0
54	MG	2A	3073	1/1	0.95	0.09	33,33,33,33	0
54	MG	1A	3842	1/1	0.95	0.08	30,30,30,30	0
54	MG	1A	3999	1/1	0.95	0.27	32,32,32,32	0
54	MG	1A	3715	1/1	0.95	0.12	32,32,32,32	0
54	MG	1A	3155	1/1	0.95	0.10	35,35,35,35	0
54	MG	1A	3611	1/1	0.95	0.19	26,26,26,26	0
54	MG	1A	3070	1/1	0.95	0.29	40,40,40,40	0
54	MG	1A	3026	1/1	0.95	0.42	31,31,31,31	0
54	MG	2A	3081	1/1	0.95	0.06	42,42,42,42	0
54	MG	2A	3082	1/1	0.95	0.09	38,38,38,38	0
54	MG	1a	1779	1/1	0.95	0.14	75,75,75,75	0
54	MG	1A	3852	1/1	0.95	0.10	36,36,36,36	0
54	MG	1A	3615	1/1	0.95	0.48	27,27,27,27	0
54	MG	1A	3417	1/1	0.95	0.09	28,28,28,28	0
54	MG	2A	3088	1/1	0.95	0.11	28,28,28,28	0
54	MG	1A	3521	1/1	0.95	0.10	36,36,36,36	0
54	MG	1a	1785	1/1	0.95	0.09	72,72,72,72	0
54	MG	1A	3324	1/1	0.95	0.10	25,25,25,25	0
54	MG	1A	3861	1/1	0.95	0.16	47,47,47,47	0
54	MG	1A	3422	1/1	0.95	0.12	47,47,47,47	0
54	MG	1A	3263	1/1	0.95	0.08	45,45,45,45	0
54	MG	1A	3264	1/1	0.95	0.19	49,49,49,49	0
54	MG	1A	3426	1/1	0.95	0.08	38,38,38,38	0
54	MG	1a	1622	1/1	0.95	0.14	42,42,42,42	0
54	MG	2A	3385	1/1	0.95	0.11	35,35,35,35	0
54	MG	1A	3873	1/1	0.95	0.10	49,49,49,49	0
54	MG	1A	3331	1/1	0.95	0.07	17,17,17,17	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3105	1/1	0.95	0.28	38,38,38,38	0
54	MG	2A	3392	1/1	0.95	0.09	48,48,48,48	0
54	MG	2A	3108	1/1	0.95	0.20	44,44,44,44	0
54	MG	2A	3110	1/1	0.95	0.15	42,42,42,42	0
54	MG	2A	3396	1/1	0.95	0.07	35,35,35,35	0
54	MG	1A	3186	1/1	0.95	0.20	31,31,31,31	0
54	MG	1a	1797	1/1	0.95	0.12	60,60,60,60	0
54	MG	2A	3400	1/1	0.95	0.10	43,43,43,43	0
54	MG	2A	3401	1/1	0.95	0.07	42,42,42,42	0
54	MG	1A	3877	1/1	0.95	0.10	14,14,14,14	0
54	MG	1a	1628	1/1	0.95	0.22	41,41,41,41	0
54	MG	2A	3115	1/1	0.95	0.09	35,35,35,35	0
54	MG	1A	3335	1/1	0.95	0.09	37,37,37,37	0
54	MG	2B	211	1/1	0.95	0.08	46,46,46,46	0
54	MG	2A	3118	1/1	0.95	0.07	42,42,42,42	0
54	MG	1a	1801	1/1	0.95	0.11	53,53,53,53	0
54	MG	2B	215	1/1	0.95	0.08	53,53,53,53	0
54	MG	1a	1630	1/1	0.95	0.12	43,43,43,43	0
54	MG	2A	3412	1/1	0.95	0.06	27,27,27,27	0
54	MG	1A	3267	1/1	0.95	0.12	56,56,56,56	0
54	MG	1A	3115	1/1	0.95	0.11	42,42,42,42	0
54	MG	1A	3884	1/1	0.95	0.12	33,33,33,33	0
54	MG	2A	3418	1/1	0.95	0.11	32,32,32,32	0
54	MG	2A	3419	1/1	0.95	0.14	44,44,44,44	0
54	MG	2A	3420	1/1	0.95	0.07	40,40,40,40	0
54	MG	1a	1637	1/1	0.95	0.30	62,62,62,62	0
54	MG	1a	1808	1/1	0.95	0.06	69,69,69,69	0
54	MG	1A	3189	1/1	0.95	0.07	34,34,34,34	0
54	MG	2A	3128	1/1	0.95	0.06	58,58,58,58	0
54	MG	2E	307	1/1	0.95	0.09	67,67,67,67	0
54	MG	2E	309	1/1	0.95	0.16	44,44,44,44	0
54	MG	2F	301	1/1	0.95	0.10	34,34,34,34	0
54	MG	2A	3429	1/1	0.95	0.10	51,51,51,51	0
54	MG	2F	303	1/1	0.95	0.06	50,50,50,50	0
54	MG	1A	3752	1/1	0.95	0.12	36,36,36,36	0
54	MG	1B	226	1/1	0.95	0.09	48,48,48,48	0
54	MG	1A	3013	1/1	0.95	0.12	20,20,20,20	0
54	MG	1A	3444	1/1	0.95	0.08	37,37,37,37	0
54	MG	2A	3434	1/1	0.95	0.13	58,58,58,58	0
54	MG	2A	3435	1/1	0.95	0.11	48,48,48,48	0
54	MG	2A	3136	1/1	0.95	0.07	63,63,63,63	0
54	MG	1A	3220	1/1	0.95	0.07	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2R	201	1/1	0.95	0.10	42,42,42,42	0
54	MG	2T	201	1/1	0.95	0.10	51,51,51,51	0
54	MG	2T	202	1/1	0.95	0.08	37,37,37,37	0
54	MG	2A	3438	1/1	0.95	0.23	43,43,43,43	0
54	MG	1a	1647	1/1	0.95	0.07	60,60,60,60	0
54	MG	1a	1820	1/1	0.95	0.05	46,46,46,46	0
54	MG	2A	3441	1/1	0.95	0.10	28,28,28,28	0
54	MG	2W	201	1/1	0.95	0.27	36,36,36,36	0
54	MG	1A	3222	1/1	0.95	0.34	27,27,27,27	0
54	MG	1B	231	1/1	0.95	0.07	64,64,64,64	0
54	MG	1A	3345	1/1	0.95	0.11	35,35,35,35	0
54	MG	2A	3150	1/1	0.95	0.14	40,40,40,40	0
54	MG	21	101	1/1	0.95	0.08	42,42,42,42	0
54	MG	1D	306	1/1	0.95	0.18	20,20,20,20	0
54	MG	2A	3153	1/1	0.95	0.14	33,33,33,33	0
54	MG	2A	3156	1/1	0.95	0.07	39,39,39,39	0
54	MG	1D	307	1/1	0.95	0.11	43,43,43,43	0
54	MG	1a	1826	1/1	0.95	0.07	57,57,57,57	0
54	MG	27	101	1/1	0.95	0.14	46,46,46,46	0
54	MG	2A	3161	1/1	0.95	0.29	48,48,48,48	0
54	MG	1a	1827	1/1	0.95	0.09	61,61,61,61	0
54	MG	1D	308	1/1	0.95	0.08	34,34,34,34	0
54	MG	1D	311	1/1	0.95	0.08	37,37,37,37	0
54	MG	1D	312	1/1	0.95	0.10	26,26,26,26	0
54	MG	1A	3346	1/1	0.95	0.07	31,31,31,31	0
54	MG	1a	1832	1/1	0.95	0.07	71,71,71,71	0
54	MG	2A	3170	1/1	0.95	0.14	36,36,36,36	0
54	MG	1D	314	1/1	0.95	0.10	49,49,49,49	0
54	MG	1A	3904	1/1	0.95	0.12	64,64,64,64	0
54	MG	1A	3225	1/1	0.95	0.28	38,38,38,38	0
54	MG	1D	317	1/1	0.95	0.09	39,39,39,39	0
54	MG	1A	3283	1/1	0.95	0.10	39,39,39,39	0
54	MG	1A	3764	1/1	0.95	0.06	40,40,40,40	0
54	MG	2A	3180	1/1	0.95	0.13	49,49,49,49	0
54	MG	2a	1620	1/1	0.95	0.24	53,53,53,53	0
54	MG	2a	1621	1/1	0.95	0.17	57,57,57,57	0
54	MG	1a	1842	1/1	0.95	0.08	58,58,58,58	0
54	MG	1A	3766	1/1	0.95	0.13	48,48,48,48	0
54	MG	1A	3768	1/1	0.95	0.12	54,54,54,54	0
54	MG	1A	3913	1/1	0.95	0.09	55,55,55,55	0
54	MG	2a	1626	1/1	0.95	0.14	47,47,47,47	0
54	MG	2A	3485	1/1	0.95	0.22	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3137	1/1	0.95	0.08	39,39,39,39	0
54	MG	1A	3556	1/1	0.95	0.14	38,38,38,38	0
54	MG	2A	3488	1/1	0.95	0.08	47,47,47,47	0
54	MG	2a	1632	1/1	0.95	0.07	68,68,68,68	0
54	MG	1A	3461	1/1	0.95	0.06	29,29,29,29	0
54	MG	1F	307	1/1	0.95	0.14	20,20,20,20	0
54	MG	2A	3190	1/1	0.95	0.08	50,50,50,50	0
54	MG	1A	3350	1/1	0.95	0.11	29,29,29,29	0
54	MG	2A	3192	1/1	0.95	0.06	29,29,29,29	0
54	MG	1A	3921	1/1	0.95	0.13	69,69,69,69	0
54	MG	1A	3463	1/1	0.95	0.10	15,15,15,15	0
54	MG	1A	3138	1/1	0.95	0.40	32,32,32,32	0
54	MG	1A	3928	1/1	0.95	0.11	49,49,49,49	0
54	MG	2a	1643	1/1	0.95	0.07	35,35,35,35	0
54	MG	1A	3231	1/1	0.95	0.14	35,35,35,35	0
54	MG	2a	1645	1/1	0.95	0.10	52,52,52,52	0
54	MG	1A	3014	1/1	0.95	0.06	31,31,31,31	0
54	MG	1A	3779	1/1	0.95	0.15	45,45,45,45	0
54	MG	1a	1680	1/1	0.95	0.10	54,54,54,54	0
54	MG	1A	3355	1/1	0.95	0.10	50,50,50,50	0
54	MG	1A	3935	1/1	0.95	0.09	38,38,38,38	0
54	MG	1A	3936	1/1	0.95	0.08	31,31,31,31	0
54	MG	1A	3665	1/1	0.95	0.10	49,49,49,49	0
54	MG	1A	3358	1/1	0.95	0.09	32,32,32,32	0
54	MG	1N	201	1/1	0.95	0.10	40,40,40,40	0
54	MG	2A	3512	1/1	0.95	0.08	58,58,58,58	0
54	MG	1A	3939	1/1	0.95	0.10	44,44,44,44	0
54	MG	1A	3168	1/1	0.95	0.07	23,23,23,23	0
54	MG	1A	3941	1/1	0.95	0.37	43,43,43,43	0
54	MG	2A	3214	1/1	0.95	0.10	62,62,62,62	0
54	MG	1A	3942	1/1	0.95	0.07	26,26,26,26	0
54	MG	2A	3519	1/1	0.95	0.06	40,40,40,40	0
54	MG	1A	3005	1/1	0.95	0.04	14,14,14,14	0
54	MG	1P	203	1/1	0.95	0.26	23,23,23,23	0
54	MG	1A	3479	1/1	0.95	0.06	35,35,35,35	0
54	MG	2A	3225	1/1	0.95	0.14	47,47,47,47	0
54	MG	1A	3946	1/1	0.95	0.15	27,27,27,27	0
54	MG	1A	3575	1/1	0.95	0.13	55,55,55,55	0
54	MG	1A	3362	1/1	0.95	0.07	23,23,23,23	0
54	MG	1g	203	1/1	0.95	0.24	55,55,55,55	0
54	MG	1P	208	1/1	0.95	0.09	47,47,47,47	0
54	MG	1Q	201	1/1	0.95	0.29	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1k	3100	1/1	0.95	0.11	42,42,42,42	0
54	MG	1A	3949	1/1	0.95	0.11	18,18,18,18	0
54	MG	1l	3102	1/1	0.95	0.07	52,52,52,52	0
54	MG	1Q	203	1/1	0.95	0.09	26,26,26,26	0
54	MG	1A	3291	1/1	0.95	0.19	31,31,31,31	0
54	MG	2A	3541	1/1	0.95	0.08	75,75,75,75	0
54	MG	2A	3543	1/1	0.95	0.06	45,45,45,45	0
54	MG	1a	1703	1/1	0.95	0.07	65,65,65,65	0
54	MG	1Q	207	1/1	0.95	0.08	36,36,36,36	0
54	MG	1R	201	1/1	0.95	0.16	30,30,30,30	0
54	MG	1A	3486	1/1	0.95	0.10	45,45,45,45	0
54	MG	1a	1707	1/1	0.95	0.17	52,52,52,52	0
54	MG	2A	3248	1/1	0.95	0.21	36,36,36,36	0
54	MG	1A	3365	1/1	0.95	0.11	38,38,38,38	0
54	MG	1A	3041	1/1	0.95	0.16	46,46,46,46	0
54	MG	1A	3128	1/1	0.95	0.08	48,48,48,48	0
54	MG	1a	1711	1/1	0.95	0.12	59,59,59,59	0
54	MG	1T	203	1/1	0.95	0.06	49,49,49,49	0
54	MG	1A	3959	1/1	0.95	0.10	35,35,35,35	0
54	MG	2A	3255	1/1	0.95	0.06	47,47,47,47	0
54	MG	1a	1717	1/1	0.95	0.07	37,37,37,37	0
54	MG	2a	1703	1/1	0.95	0.14	70,70,70,70	0
54	MG	1A	3682	1/1	0.95	0.12	40,40,40,40	0
54	MG	1U	201	1/1	0.95	0.09	22,22,22,22	0
54	MG	2A	3262	1/1	0.95	0.19	36,36,36,36	0
54	MG	2A	3005	1/1	0.95	0.09	42,42,42,42	0
54	MG	1A	3017	1/1	0.95	0.24	17,17,17,17	0
54	MG	2A	3009	1/1	0.95	0.11	27,27,27,27	0
54	MG	2a	1711	1/1	0.95	0.09	64,64,64,64	0
54	MG	2A	3010	1/1	0.95	0.10	32,32,32,32	0
54	MG	1A	3381	1/1	0.95	0.08	38,38,38,38	0
54	MG	2a	1714	1/1	0.95	0.10	46,46,46,46	0
54	MG	2A	3268	1/1	0.95	0.09	46,46,46,46	0
54	MG	2A	3584	1/1	0.95	0.07	30,30,30,30	0
54	MG	2A	3015	1/1	0.95	0.11	34,34,34,34	0
54	MG	2a	1718	1/1	0.95	0.11	55,55,55,55	0
54	MG	2a	1719	1/1	0.95	0.07	65,65,65,65	0
54	MG	1V	202	1/1	0.95	0.18	28,28,28,28	0
54	MG	1a	1724	1/1	0.95	0.10	64,64,64,64	0
54	MG	2a	1723	1/1	0.95	0.13	65,65,65,65	0
54	MG	1A	3382	1/1	0.95	0.16	39,39,39,39	0
54	MG	2A	3021	1/1	0.95	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
54	MG	1A	3151	1/1	0.95	0.12	31,31,31,31	0
54	MG	2A	3595	1/1	0.95	0.11	69,69,69,69	0
54	MG	2A	3599	1/1	0.95	0.07	33,33,33,33	0
54	MG	2A	3281	1/1	0.95	0.12	41,41,41,41	0
54	MG	1A	3812	1/1	0.95	0.07	28,28,28,28	0
54	MG	1A	3966	1/1	0.95	0.12	19,19,19,19	0
54	MG	2A	3284	1/1	0.95	0.07	46,46,46,46	0
54	MG	1W	202	1/1	0.95	0.10	35,35,35,35	0
54	MG	2A	3288	1/1	0.95	0.06	32,32,32,32	0
54	MG	1A	3387	1/1	0.95	0.18	35,35,35,35	0
54	MG	1X	102	1/1	0.95	0.09	33,33,33,33	0
54	MG	1A	3304	1/1	0.95	0.12	56,56,56,56	0
54	MG	2a	1742	1/1	0.95	0.16	61,61,61,61	0
54	MG	1a	1738	1/1	0.95	0.12	49,49,49,49	0
54	MG	1a	1739	1/1	0.95	0.17	69,69,69,69	0
54	MG	1A	3502	1/1	0.95	0.06	32,32,32,32	0
54	MG	10	101	1/1	0.95	0.06	35,35,35,35	0
54	MG	1A	3971	1/1	0.95	0.15	31,31,31,31	0
54	MG	2A	3620	1/1	0.95	0.09	69,69,69,69	0
54	MG	1A	3306	1/1	0.95	0.07	17,17,17,17	0
54	MG	2a	1751	1/1	0.95	0.07	52,52,52,52	0
54	MG	2A	3623	1/1	0.95	0.20	78,78,78,78	0
54	MG	1A	3067	1/1	0.95	0.08	33,33,33,33	0
54	MG	1A	3594	1/1	0.95	0.09	58,58,58,58	0
54	MG	2A	3303	1/1	0.95	0.07	39,39,39,39	0
54	MG	1A	3699	1/1	0.95	0.06	35,35,35,35	0
54	MG	2A	3637	1/1	0.95	0.09	83,83,83,83	0
54	MG	2A	3307	1/1	0.95	0.10	23,23,23,23	0
54	MG	2A	3044	1/1	0.95	0.14	21,21,21,21	0
54	MG	2A	3310	1/1	0.95	0.08	32,32,32,32	0
54	MG	1A	3507	1/1	0.95	0.13	47,47,47,47	0
54	MG	2A	3642	1/1	0.95	0.06	39,39,39,39	0
54	MG	2A	3048	1/1	0.95	0.16	42,42,42,42	0
54	MG	1A	3978	1/1	0.95	0.12	45,45,45,45	0
54	MG	2a	1767	1/1	0.95	0.07	48,48,48,48	0
54	MG	1A	3246	1/1	0.95	0.18	32,32,32,32	0
54	MG	2A	3052	1/1	0.95	0.14	51,51,51,51	0
54	MG	2A	3323	1/1	0.95	0.11	39,39,39,39	0
54	MG	2a	1772	1/1	0.95	0.11	45,45,45,45	0
54	MG	2A	3324	1/1	0.95	0.12	42,42,42,42	0
54	MG	2A	3325	1/1	0.95	0.09	39,39,39,39	0
54	MG	2A	3654	1/1	0.95	0.08	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2a	1776	1/1	0.95	0.09	53,53,53,53	0
54	MG	2a	1777	1/1	0.95	0.24	54,54,54,54	0
54	MG	11	104	1/1	0.95	0.07	39,39,39,39	0
54	MG	2A	3332	1/1	0.95	0.10	62,62,62,62	0
54	MG	1A	3599	1/1	0.95	0.08	23,23,23,23	0
54	MG	1A	3397	1/1	0.95	0.08	58,58,58,58	0
54	MG	1a	1757	1/1	0.95	0.07	50,50,50,50	0
54	MG	2A	3665	1/1	0.95	0.09	54,54,54,54	0
54	MG	2A	3667	1/1	0.95	0.10	35,35,35,35	0
54	MG	1A	3987	1/1	0.95	0.07	32,32,32,32	0
56	ARG	1B	232	12/12	0.95	0.12	31,44,50,55	0
54	MG	1A	3399	1/1	0.95	0.07	28,28,28,28	0
54	MG	15	101	1/1	0.95	0.20	31,31,31,31	0
54	MG	1A	3205	1/1	0.95	0.24	37,37,37,37	0
54	MG	1A	3837	1/1	0.95	0.09	34,34,34,34	0
54	MG	1A	3993	1/1	0.95	0.11	51,51,51,51	0
54	MG	1A	3606	1/1	0.95	0.08	24,24,24,24	0
54	MG	1A	3252	1/1	0.95	0.10	72,72,72,72	0
54	MG	19	101	1/1	0.95	0.07	43,43,43,43	0
54	MG	1A	3255	1/1	0.95	0.11	31,31,31,31	0
54	MG	1a	1601	1/1	0.95	0.07	61,61,61,61	0
54	MG	1A	3713	1/1	0.95	0.06	38,38,38,38	0
54	MG	1A	3557	1/1	0.96	0.10	35,35,35,35	0
54	MG	1a	1645	1/1	0.96	0.20	49,49,49,49	0
54	MG	1A	3435	1/1	0.96	0.12	30,30,30,30	0
54	MG	2A	3140	1/1	0.96	0.17	45,45,45,45	0
54	MG	1A	3436	1/1	0.96	0.07	13,13,13,13	0
54	MG	2A	3142	1/1	0.96	0.09	40,40,40,40	0
54	MG	1A	3560	1/1	0.96	0.10	52,52,52,52	0
54	MG	2A	3144	1/1	0.96	0.11	36,36,36,36	0
54	MG	1A	3689	1/1	0.96	0.12	83,83,83,83	0
54	MG	1A	3561	1/1	0.96	0.05	47,47,47,47	0
54	MG	1a	1652	1/1	0.96	0.13	48,48,48,48	0
54	MG	1A	3063	1/1	0.96	0.05	22,22,22,22	0
54	MG	1A	3859	1/1	0.96	0.07	43,43,43,43	0
54	MG	1D	301	1/1	0.96	0.35	33,33,33,33	0
54	MG	1A	3092	1/1	0.96	0.05	38,38,38,38	0
54	MG	1A	3093	1/1	0.96	0.23	30,30,30,30	0
54	MG	2A	3160	1/1	0.96	0.09	51,51,51,51	0
54	MG	1a	1838	1/1	0.96	0.13	78,78,78,78	0
54	MG	2A	3162	1/1	0.96	0.19	50,50,50,50	0
54	MG	2B	212	1/1	0.96	0.10	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3029	1/1	0.96	0.08	35,35,35,35	0
54	MG	1A	3024	1/1	0.96	0.08	20,20,20,20	0
54	MG	1D	309	1/1	0.96	0.20	31,31,31,31	0
54	MG	1A	3327	1/1	0.96	0.07	29,29,29,29	0
54	MG	1A	3054	1/1	0.96	0.13	26,26,26,26	0
54	MG	2D	301	1/1	0.96	0.15	38,38,38,38	0
54	MG	2D	302	1/1	0.96	0.38	45,45,45,45	0
54	MG	1A	3019	1/1	0.96	0.19	20,20,20,20	0
54	MG	1A	3453	1/1	0.96	0.07	14,14,14,14	0
54	MG	2D	305	1/1	0.96	0.08	48,48,48,48	0
54	MG	1A	3573	1/1	0.96	0.12	36,36,36,36	0
54	MG	1a	1851	1/1	0.96	0.07	27,27,27,27	0
54	MG	1A	3004	1/1	0.96	0.06	27,27,27,27	0
54	MG	2E	301	1/1	0.96	0.09	41,41,41,41	0
54	MG	1A	3104	1/1	0.96	0.14	46,46,46,46	0
54	MG	1a	1668	1/1	0.96	0.16	42,42,42,42	0
54	MG	1A	3457	1/1	0.96	0.11	23,23,23,23	0
54	MG	1E	301	1/1	0.96	0.20	33,33,33,33	0
54	MG	1E	302	1/1	0.96	0.37	39,39,39,39	0
54	MG	1A	3045	1/1	0.96	0.43	29,29,29,29	0
54	MG	1A	3247	1/1	0.96	0.07	38,38,38,38	0
54	MG	1a	1863	1/1	0.96	0.07	54,54,54,54	0
54	MG	1A	3248	1/1	0.96	0.08	51,51,51,51	0
54	MG	1A	3714	1/1	0.96	0.10	39,39,39,39	0
54	MG	2F	304	1/1	0.96	0.17	46,46,46,46	0
54	MG	1A	3188	1/1	0.96	0.08	34,34,34,34	0
54	MG	1A	3251	1/1	0.96	0.32	33,33,33,33	0
54	MG	1F	305	1/1	0.96	0.12	31,31,31,31	0
54	MG	1A	3892	1/1	0.96	0.16	59,59,59,59	0
54	MG	1A	3585	1/1	0.96	0.09	41,41,41,41	0
54	MG	2A	3456	1/1	0.96	0.08	21,21,21,21	0
54	MG	1A	3894	1/1	0.96	0.21	37,37,37,37	0
54	MG	1F	311	1/1	0.96	0.24	26,26,26,26	0
54	MG	1A	3895	1/1	0.96	0.07	43,43,43,43	0
54	MG	2R	202	1/1	0.96	0.07	28,28,28,28	0
54	MG	1d	304	1/1	0.96	0.27	53,53,53,53	0
54	MG	1A	3142	1/1	0.96	0.05	27,27,27,27	0
54	MG	2A	3462	1/1	0.96	0.13	50,50,50,50	0
54	MG	1A	3467	1/1	0.96	0.07	33,33,33,33	0
54	MG	2T	205	1/1	0.96	0.07	29,29,29,29	0
54	MG	2A	3466	1/1	0.96	0.06	41,41,41,41	0
54	MG	1A	3899	1/1	0.96	0.05	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2V	203	1/1	0.96	0.09	38,38,38,38	0
54	MG	2A	3468	1/1	0.96	0.07	47,47,47,47	0
54	MG	1A	3722	1/1	0.96	0.06	30,30,30,30	0
54	MG	1A	3107	1/1	0.96	0.56	28,28,28,28	0
54	MG	2X	101	1/1	0.96	0.08	49,49,49,49	0
54	MG	2A	3203	1/1	0.96	0.10	46,46,46,46	0
54	MG	1A	3145	1/1	0.96	0.07	24,24,24,24	0
54	MG	20	102	1/1	0.96	0.08	57,57,57,57	0
54	MG	2A	3205	1/1	0.96	0.05	45,45,45,45	0
54	MG	2A	3206	1/1	0.96	0.17	37,37,37,37	0
54	MG	1A	3007	1/1	0.96	0.06	31,31,31,31	0
54	MG	23	101	1/1	0.96	0.10	46,46,46,46	0
54	MG	1A	3731	1/1	0.96	0.05	42,42,42,42	0
54	MG	1A	3149	1/1	0.96	0.36	30,30,30,30	0
54	MG	1A	3475	1/1	0.96	0.10	63,63,63,63	0
54	MG	1A	3735	1/1	0.96	0.06	38,38,38,38	0
54	MG	1A	3736	1/1	0.96	0.11	33,33,33,33	0
54	MG	1A	3260	1/1	0.96	0.07	43,43,43,43	0
54	MG	1A	3194	1/1	0.96	0.14	46,46,46,46	0
54	MG	2A	3490	1/1	0.96	0.04	32,32,32,32	0
54	MG	1N	205	1/1	0.96	0.08	49,49,49,49	0
54	MG	2A	3216	1/1	0.96	0.12	46,46,46,46	0
54	MG	2A	3217	1/1	0.96	0.12	39,39,39,39	0
54	MG	2A	3219	1/1	0.96	0.07	40,40,40,40	0
54	MG	1A	3077	1/1	0.96	0.46	40,40,40,40	0
54	MG	1A	3265	1/1	0.96	0.08	43,43,43,43	0
54	MG	1P	201	1/1	0.96	0.39	25,25,25,25	0
54	MG	1A	3741	1/1	0.96	0.07	49,49,49,49	0
54	MG	1A	3597	1/1	0.96	0.07	19,19,19,19	0
54	MG	1A	3111	1/1	0.96	0.16	38,38,38,38	0
54	MG	1A	3929	1/1	0.96	0.10	55,55,55,55	0
54	MG	2a	1619	1/1	0.96	0.22	42,42,42,42	0
54	MG	1A	3048	1/1	0.96	0.05	24,24,24,24	0
54	MG	2A	3231	1/1	0.96	0.50	45,45,45,45	0
54	MG	1A	3601	1/1	0.96	0.09	38,38,38,38	0
54	MG	1A	3748	1/1	0.96	0.12	14,14,14,14	0
54	MG	1A	3750	1/1	0.96	0.10	42,42,42,42	0
54	MG	1A	3602	1/1	0.96	0.10	15,15,15,15	0
54	MG	1A	3356	1/1	0.96	0.05	28,28,28,28	0
54	MG	1A	3753	1/1	0.96	0.07	24,24,24,24	0
54	MG	2a	1628	1/1	0.96	0.10	39,39,39,39	0
54	MG	1a	1716	1/1	0.96	0.07	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3240	1/1	0.96	0.12	51,51,51,51	0
54	MG	1A	3198	1/1	0.96	0.33	43,43,43,43	0
54	MG	2A	3006	1/1	0.96	0.17	44,44,44,44	0
54	MG	1a	1718	1/1	0.96	0.09	49,49,49,49	0
54	MG	2A	3008	1/1	0.96	0.11	41,41,41,41	0
54	MG	1A	3114	1/1	0.96	0.27	26,26,26,26	0
54	MG	1A	3156	1/1	0.96	0.18	33,33,33,33	0
54	MG	2a	1637	1/1	0.96	0.14	41,41,41,41	0
54	MG	2A	3011	1/1	0.96	0.09	51,51,51,51	0
54	MG	2A	3525	1/1	0.96	0.06	43,43,43,43	0
54	MG	2A	3012	1/1	0.96	0.11	36,36,36,36	0
54	MG	1A	3273	1/1	0.96	0.07	32,32,32,32	0
54	MG	2A	3014	1/1	0.96	0.05	25,25,25,25	0
54	MG	1A	3201	1/1	0.96	0.32	31,31,31,31	0
54	MG	1A	3495	1/1	0.96	0.10	50,50,50,50	0
54	MG	2A	3018	1/1	0.96	0.14	38,38,38,38	0
54	MG	1A	3277	1/1	0.96	0.10	32,32,32,32	0
54	MG	2A	3533	1/1	0.96	0.06	73,73,73,73	0
54	MG	2A	3534	1/1	0.96	0.09	67,67,67,67	0
54	MG	1A	3945	1/1	0.96	0.14	39,39,39,39	0
54	MG	2A	3259	1/1	0.96	0.10	21,21,21,21	0
54	MG	1A	3498	1/1	0.96	0.13	21,21,21,21	0
54	MG	1a	1729	1/1	0.96	0.07	55,55,55,55	0
54	MG	1A	3278	1/1	0.96	0.47	29,29,29,29	0
54	MG	2a	1654	1/1	0.96	0.12	48,48,48,48	0
54	MG	1A	3765	1/1	0.96	0.12	60,60,60,60	0
54	MG	1U	204	1/1	0.96	0.42	34,34,34,34	0
54	MG	1U	205	1/1	0.96	0.08	37,37,37,37	0
54	MG	1A	3500	1/1	0.96	0.12	19,19,19,19	0
54	MG	1A	3767	1/1	0.96	0.05	88,88,88,88	0
54	MG	1a	1737	1/1	0.96	0.08	48,48,48,48	0
54	MG	1A	3952	1/1	0.96	0.09	41,41,41,41	0
54	MG	2A	3273	1/1	0.96	0.10	18,18,18,18	0
54	MG	1A	3370	1/1	0.96	0.07	13,13,13,13	0
54	MG	1A	3202	1/1	0.96	0.28	38,38,38,38	0
54	MG	1A	3280	1/1	0.96	0.05	30,30,30,30	0
54	MG	2A	3556	1/1	0.96	0.06	27,27,27,27	0
54	MG	2A	3037	1/1	0.96	0.27	54,54,54,54	0
54	MG	2A	3038	1/1	0.96	0.10	52,52,52,52	0
54	MG	2A	3559	1/1	0.96	0.10	46,46,46,46	0
54	MG	1a	1742	1/1	0.96	0.06	43,43,43,43	0
54	MG	1a	1743	1/1	0.96	0.12	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3563	1/1	0.96	0.06	48,48,48,48	0
54	MG	1A	3957	1/1	0.96	0.07	48,48,48,48	0
54	MG	1A	3080	1/1	0.96	0.14	48,48,48,48	0
54	MG	1A	3282	1/1	0.96	0.25	33,33,33,33	0
54	MG	2A	3568	1/1	0.96	0.08	57,57,57,57	0
54	MG	2a	1679	1/1	0.96	0.37	52,52,52,52	0
54	MG	2A	3289	1/1	0.96	0.07	30,30,30,30	0
54	MG	1A	3158	1/1	0.96	0.14	28,28,28,28	0
54	MG	2A	3571	1/1	0.96	0.07	65,65,65,65	0
54	MG	2A	3046	1/1	0.96	0.10	47,47,47,47	0
54	MG	2A	3574	1/1	0.96	0.08	40,40,40,40	0
54	MG	1a	1749	1/1	0.96	0.08	52,52,52,52	0
54	MG	2a	1686	1/1	0.96	0.21	47,47,47,47	0
54	MG	2a	1687	1/1	0.96	0.25	41,41,41,41	0
54	MG	2A	3576	1/1	0.96	0.06	43,43,43,43	0
54	MG	1A	3626	1/1	0.96	0.09	46,46,46,46	0
54	MG	1A	3081	1/1	0.96	0.25	34,34,34,34	0
54	MG	1A	3285	1/1	0.96	0.10	24,24,24,24	0
54	MG	1A	3390	1/1	0.96	0.05	31,31,31,31	0
54	MG	1A	3631	1/1	0.96	0.11	33,33,33,33	0
54	MG	1A	3206	1/1	0.96	0.10	35,35,35,35	0
54	MG	1A	3634	1/1	0.96	0.09	42,42,42,42	0
54	MG	2A	3300	1/1	0.96	0.11	43,43,43,43	0
54	MG	10	109	1/1	0.96	0.10	61,61,61,61	0
54	MG	2a	1701	1/1	0.96	0.17	63,63,63,63	0
54	MG	2A	3302	1/1	0.96	0.07	66,66,66,66	0
54	MG	1A	3783	1/1	0.96	0.14	32,32,32,32	0
54	MG	1A	3969	1/1	0.96	0.07	40,40,40,40	0
54	MG	2A	3305	1/1	0.96	0.09	35,35,35,35	0
54	MG	1A	3785	1/1	0.96	0.13	47,47,47,47	0
54	MG	1A	3392	1/1	0.96	0.06	16,16,16,16	0
54	MG	2A	3309	1/1	0.96	0.05	46,46,46,46	0
54	MG	1A	3788	1/1	0.96	0.10	45,45,45,45	0
54	MG	1A	3973	1/1	0.96	0.12	36,36,36,36	0
54	MG	1A	3789	1/1	0.96	0.09	47,47,47,47	0
54	MG	2A	3314	1/1	0.96	0.07	43,43,43,43	0
54	MG	2A	3317	1/1	0.96	0.14	28,28,28,28	0
54	MG	1A	3207	1/1	0.96	0.26	34,34,34,34	0
54	MG	1A	3637	1/1	0.96	0.10	13,13,13,13	0
54	MG	1A	3794	1/1	0.96	0.12	50,50,50,50	0
54	MG	2A	3615	1/1	0.96	0.09	59,59,59,59	0
54	MG	2A	3322	1/1	0.96	0.07	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3394	1/1	0.96	0.07	12,12,12,12	0
54	MG	1A	3981	1/1	0.96	0.08	21,21,21,21	0
54	MG	1A	3118	1/1	0.96	0.06	27,27,27,27	0
54	MG	2A	3327	1/1	0.96	0.06	38,38,38,38	0
54	MG	2A	3328	1/1	0.96	0.11	44,44,44,44	0
54	MG	17	101	1/1	0.96	0.13	31,31,31,31	0
54	MG	2A	3629	1/1	0.96	0.07	48,48,48,48	0
54	MG	17	103	1/1	0.96	0.31	29,29,29,29	0
54	MG	2A	3333	1/1	0.96	0.06	43,43,43,43	0
54	MG	2A	3334	1/1	0.96	0.06	25,25,25,25	0
54	MG	1A	3396	1/1	0.96	0.06	18,18,18,18	0
54	MG	1A	3120	1/1	0.96	0.14	31,31,31,31	0
54	MG	1A	3522	1/1	0.96	0.06	27,27,27,27	0
54	MG	1A	3212	1/1	0.96	0.14	25,25,25,25	0
54	MG	1A	3008	1/1	0.96	0.06	34,34,34,34	0
54	MG	1A	3647	1/1	0.96	0.05	41,41,41,41	0
54	MG	1a	1781	1/1	0.96	0.09	54,54,54,54	0
54	MG	2A	3646	1/1	0.96	0.07	40,40,40,40	0
54	MG	1A	3526	1/1	0.96	0.11	50,50,50,50	0
54	MG	1a	1605	1/1	0.96	0.07	43,43,43,43	0
54	MG	1A	3805	1/1	0.96	0.07	36,36,36,36	0
54	MG	1A	3164	1/1	0.96	0.05	21,21,21,21	0
54	MG	1A	3405	1/1	0.96	0.05	22,22,22,22	0
54	MG	1A	3529	1/1	0.96	0.09	45,45,45,45	0
54	MG	1A	3810	1/1	0.96	0.08	37,37,37,37	0
54	MG	2A	3354	1/1	0.96	0.05	23,23,23,23	0
54	MG	1A	3653	1/1	0.96	0.14	61,61,61,61	0
54	MG	2a	1753	1/1	0.96	0.07	75,75,75,75	0
54	MG	1A	3407	1/1	0.96	0.16	50,50,50,50	0
54	MG	2A	3660	1/1	0.96	0.06	68,68,68,68	0
54	MG	1A	3297	1/1	0.96	0.07	37,37,37,37	0
54	MG	1A	3657	1/1	0.96	0.06	38,38,38,38	0
54	MG	1A	3299	1/1	0.96	0.07	33,33,33,33	0
54	MG	2A	3360	1/1	0.96	0.05	54,54,54,54	0
54	MG	1a	1616	1/1	0.96	0.13	52,52,52,52	0
54	MG	2A	3099	1/1	0.96	0.19	47,47,47,47	0
54	MG	1A	4004	1/1	0.96	0.12	42,42,42,42	0
54	MG	2a	1763	1/1	0.96	0.08	72,72,72,72	0
54	MG	2A	3365	1/1	0.96	0.08	52,52,52,52	0
54	MG	2A	3101	1/1	0.96	0.19	49,49,49,49	0
54	MG	2A	3102	1/1	0.96	0.25	57,57,57,57	0
54	MG	2A	3680	1/1	0.96	0.05	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3681	1/1	0.96	0.07	40,40,40,40	0
54	MG	1A	3085	1/1	0.96	0.14	25,25,25,25	0
54	MG	1A	3536	1/1	0.96	0.07	47,47,47,47	0
54	MG	1A	3411	1/1	0.96	0.09	45,45,45,45	0
54	MG	1A	3166	1/1	0.96	0.26	34,34,34,34	0
54	MG	2A	3687	1/1	0.96	0.15	35,35,35,35	0
54	MG	1A	3086	1/1	0.96	0.27	34,34,34,34	0
54	MG	1A	3127	1/1	0.96	0.06	17,17,17,17	0
54	MG	1B	201	1/1	0.96	0.09	37,37,37,37	0
54	MG	1a	1625	1/1	0.96	0.06	50,50,50,50	0
54	MG	1A	3305	1/1	0.96	0.08	18,18,18,18	0
54	MG	2A	3116	1/1	0.96	0.22	44,44,44,44	0
54	MG	1A	3170	1/1	0.96	0.17	33,33,33,33	0
54	MG	1A	3834	1/1	0.96	0.09	26,26,26,26	0
54	MG	1a	1809	1/1	0.96	0.07	53,53,53,53	0
54	MG	1A	3424	1/1	0.96	0.06	36,36,36,36	0
55	A1CQ8	1A	4011	44/44	0.96	0.10	17,24,31,34	0
55	A1CQ8	2A	3725	44/44	0.96	0.10	29,34,40,43	0
54	MG	1B	208	1/1	0.96	0.09	35,35,35,35	0
54	MG	1A	3836	1/1	0.96	0.06	48,48,48,48	0
54	MG	1A	3224	1/1	0.96	0.21	29,29,29,29	0
54	MG	1A	3062	1/1	0.96	0.10	29,29,29,29	0
54	MG	2A	3389	1/1	0.96	0.10	28,28,28,28	0
54	MG	1A	3173	1/1	0.96	0.09	27,27,27,27	0
54	MG	1A	3678	1/1	0.96	0.10	43,43,43,43	0
54	MG	1A	3553	1/1	0.96	0.09	12,12,12,12	0
54	MG	2A	3129	1/1	0.96	0.16	43,43,43,43	0
54	MG	1A	3229	1/1	0.96	0.56	30,30,30,30	0
54	MG	1A	3432	1/1	0.96	0.11	35,35,35,35	0
54	MG	1a	1642	1/1	0.96	0.15	40,40,40,40	0
54	MG	1A	3174	1/1	0.96	0.07	42,42,42,42	0
54	MG	1A	3208	1/1	0.97	0.19	31,31,31,31	0
54	MG	1A	3920	1/1	0.97	0.10	49,49,49,49	0
54	MG	2A	3549	1/1	0.97	0.06	60,60,60,60	0
54	MG	1A	3318	1/1	0.97	0.07	19,19,19,19	0
54	MG	1A	3922	1/1	0.97	0.14	24,24,24,24	0
54	MG	1A	3400	1/1	0.97	0.10	27,27,27,27	0
54	MG	1A	3319	1/1	0.97	0.05	37,37,37,37	0
54	MG	1A	3926	1/1	0.97	0.08	43,43,43,43	0
54	MG	1A	3927	1/1	0.97	0.14	42,42,42,42	0
54	MG	1A	3176	1/1	0.97	0.06	25,25,25,25	0
54	MG	1A	3584	1/1	0.97	0.06	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3787	1/1	0.97	0.05	35,35,35,35	0
54	MG	1a	1763	1/1	0.97	0.05	35,35,35,35	0
54	MG	1A	3404	1/1	0.97	0.04	16,16,16,16	0
54	MG	1E	303	1/1	0.97	0.17	29,29,29,29	0
54	MG	1A	3090	1/1	0.97	0.05	37,37,37,37	0
54	MG	1E	307	1/1	0.97	0.05	34,34,34,34	0
54	MG	1A	3113	1/1	0.97	0.20	25,25,25,25	0
54	MG	2A	3567	1/1	0.97	0.13	35,35,35,35	0
54	MG	2A	3366	1/1	0.97	0.07	66,66,66,66	0
54	MG	2A	3182	1/1	0.97	0.06	64,64,64,64	0
54	MG	1A	3934	1/1	0.97	0.06	31,31,31,31	0
54	MG	2a	1605	1/1	0.97	0.05	38,38,38,38	0
54	MG	1a	1770	1/1	0.97	0.13	57,57,57,57	0
54	MG	1a	1631	1/1	0.97	0.09	41,41,41,41	0
54	MG	2A	3016	1/1	0.97	0.12	37,37,37,37	0
54	MG	1A	3684	1/1	0.97	0.05	25,25,25,25	0
54	MG	1A	3793	1/1	0.97	0.09	34,34,34,34	0
54	MG	1A	3074	1/1	0.97	0.29	26,26,26,26	0
54	MG	1a	1635	1/1	0.97	0.05	38,38,38,38	0
54	MG	1a	1636	1/1	0.97	0.09	54,54,54,54	0
54	MG	2a	1616	1/1	0.97	0.06	53,53,53,53	0
54	MG	2A	3022	1/1	0.97	0.08	34,34,34,34	0
54	MG	1A	3144	1/1	0.97	0.11	25,25,25,25	0
54	MG	1A	3075	1/1	0.97	0.21	34,34,34,34	0
54	MG	1A	3505	1/1	0.97	0.08	43,43,43,43	0
54	MG	2A	3590	1/1	0.97	0.06	55,55,55,55	0
54	MG	1A	3146	1/1	0.97	0.12	26,26,26,26	0
54	MG	1A	3799	1/1	0.97	0.06	20,20,20,20	0
54	MG	1A	3413	1/1	0.97	0.10	35,35,35,35	0
54	MG	1A	3217	1/1	0.97	0.07	39,39,39,39	0
54	MG	2A	3031	1/1	0.97	0.07	36,36,36,36	0
54	MG	2A	3387	1/1	0.97	0.07	46,46,46,46	0
54	MG	2A	3601	1/1	0.97	0.06	57,57,57,57	0
54	MG	1A	3415	1/1	0.97	0.08	17,17,17,17	0
54	MG	1A	3269	1/1	0.97	0.05	43,43,43,43	0
54	MG	1A	3418	1/1	0.97	0.09	35,35,35,35	0
54	MG	1A	3419	1/1	0.97	0.07	41,41,41,41	0
54	MG	1A	3218	1/1	0.97	0.23	42,42,42,42	0
54	MG	1A	3035	1/1	0.97	0.08	28,28,28,28	0
54	MG	1A	3702	1/1	0.97	0.07	34,34,34,34	0
54	MG	2A	3397	1/1	0.97	0.05	28,28,28,28	0
54	MG	1A	3703	1/1	0.97	0.05	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3954	1/1	0.97	0.06	33,33,33,33	0
54	MG	2A	3613	1/1	0.97	0.12	56,56,56,56	0
54	MG	1A	3517	1/1	0.97	0.11	29,29,29,29	0
54	MG	1A	3813	1/1	0.97	0.11	34,34,34,34	0
54	MG	2A	3616	1/1	0.97	0.08	45,45,45,45	0
54	MG	2A	3617	1/1	0.97	0.06	50,50,50,50	0
54	MG	1A	3339	1/1	0.97	0.04	33,33,33,33	0
54	MG	2A	3403	1/1	0.97	0.11	58,58,58,58	0
54	MG	1a	1796	1/1	0.97	0.06	57,57,57,57	0
54	MG	1A	3184	1/1	0.97	0.23	26,26,26,26	0
54	MG	1N	204	1/1	0.97	0.12	61,61,61,61	0
54	MG	1A	3818	1/1	0.97	0.12	35,35,35,35	0
54	MG	2A	3409	1/1	0.97	0.11	54,54,54,54	0
54	MG	2A	3218	1/1	0.97	0.20	53,53,53,53	0
54	MG	1A	3274	1/1	0.97	0.14	45,45,45,45	0
54	MG	1A	3607	1/1	0.97	0.09	59,59,59,59	0
54	MG	2A	3413	1/1	0.97	0.07	40,40,40,40	0
54	MG	1A	3821	1/1	0.97	0.09	21,21,21,21	0
54	MG	1A	3710	1/1	0.97	0.08	22,22,22,22	0
54	MG	1A	3117	1/1	0.97	0.22	26,26,26,26	0
54	MG	1A	3276	1/1	0.97	0.07	12,12,12,12	0
54	MG	1A	3825	1/1	0.97	0.16	47,47,47,47	0
54	MG	1a	1807	1/1	0.97	0.05	85,85,85,85	0
54	MG	2A	3229	1/1	0.97	0.07	41,41,41,41	0
54	MG	2A	3422	1/1	0.97	0.07	52,52,52,52	0
54	MG	2A	3647	1/1	0.97	0.06	46,46,46,46	0
54	MG	2A	3424	1/1	0.97	0.09	59,59,59,59	0
54	MG	1A	3430	1/1	0.97	0.05	46,46,46,46	0
54	MG	2a	1667	1/1	0.97	0.13	56,56,56,56	0
54	MG	2A	3650	1/1	0.97	0.06	45,45,45,45	0
54	MG	1A	3223	1/1	0.97	0.18	34,34,34,34	0
54	MG	2A	3232	1/1	0.97	0.32	51,51,51,51	0
54	MG	1A	3018	1/1	0.97	0.18	27,27,27,27	0
54	MG	1A	3119	1/1	0.97	0.18	31,31,31,31	0
54	MG	1A	3226	1/1	0.97	0.28	25,25,25,25	0
54	MG	2A	3656	1/1	0.97	0.05	71,71,71,71	0
54	MG	1A	3833	1/1	0.97	0.10	51,51,51,51	0
54	MG	1Q	205	1/1	0.97	0.14	34,34,34,34	0
54	MG	1A	3227	1/1	0.97	0.18	55,55,55,55	0
54	MG	1A	3530	1/1	0.97	0.08	31,31,31,31	0
54	MG	2A	3661	1/1	0.97	0.07	56,56,56,56	0
54	MG	1A	3095	1/1	0.97	0.17	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1R	202	1/1	0.97	0.09	30,30,30,30	0
54	MG	2A	3243	1/1	0.97	0.16	43,43,43,43	0
54	MG	2A	3668	1/1	0.97	0.05	33,33,33,33	0
54	MG	1A	3153	1/1	0.97	0.10	25,25,25,25	0
54	MG	1R	205	1/1	0.97	0.13	35,35,35,35	0
54	MG	1A	3122	1/1	0.97	0.05	33,33,33,33	0
54	MG	1A	3725	1/1	0.97	0.05	42,42,42,42	0
54	MG	1A	3727	1/1	0.97	0.09	19,19,19,19	0
54	MG	1A	3728	1/1	0.97	0.06	31,31,31,31	0
54	MG	1A	3729	1/1	0.97	0.05	39,39,39,39	0
54	MG	1A	3123	1/1	0.97	0.11	32,32,32,32	0
54	MG	1A	3235	1/1	0.97	0.25	33,33,33,33	0
54	MG	1U	202	1/1	0.97	0.55	36,36,36,36	0
54	MG	1A	3988	1/1	0.97	0.04	22,22,22,22	0
54	MG	2A	3085	1/1	0.97	0.23	33,33,33,33	0
54	MG	1A	3537	1/1	0.97	0.07	34,34,34,34	0
54	MG	1A	3097	1/1	0.97	0.07	9,9,9,9	0
54	MG	2a	1699	1/1	0.97	0.04	43,43,43,43	0
54	MG	2a	1700	1/1	0.97	0.12	53,53,53,53	0
54	MG	1A	3628	1/1	0.97	0.05	45,45,45,45	0
54	MG	2A	3455	1/1	0.97	0.16	58,58,58,58	0
54	MG	2A	3260	1/1	0.97	0.08	26,26,26,26	0
54	MG	1A	3066	1/1	0.97	0.06	51,51,51,51	0
54	MG	1V	203	1/1	0.97	0.10	33,33,33,33	0
54	MG	1A	3011	1/1	0.97	0.07	32,32,32,32	0
54	MG	2A	3694	1/1	0.97	0.08	57,57,57,57	0
54	MG	1a	1840	1/1	0.97	0.06	66,66,66,66	0
54	MG	2A	3696	1/1	0.97	0.12	49,49,49,49	0
54	MG	1A	3451	1/1	0.97	0.06	10,10,10,10	0
54	MG	1A	3632	1/1	0.97	0.07	29,29,29,29	0
54	MG	1a	1843	1/1	0.97	0.10	62,62,62,62	0
54	MG	2A	3465	1/1	0.97	0.10	45,45,45,45	0
54	MG	1A	3543	1/1	0.97	0.14	38,38,38,38	0
54	MG	1A	3100	1/1	0.97	0.12	24,24,24,24	0
54	MG	2A	3703	1/1	0.97	0.09	63,63,63,63	0
54	MG	1A	3068	1/1	0.97	0.06	10,10,10,10	0
54	MG	2A	3272	1/1	0.97	0.08	41,41,41,41	0
54	MG	1X	101	1/1	0.97	0.08	50,50,50,50	0
54	MG	1A	3294	1/1	0.97	0.30	26,26,26,26	0
54	MG	1A	3549	1/1	0.97	0.07	39,39,39,39	0
54	MG	2A	3474	1/1	0.97	0.06	32,32,32,32	0
54	MG	1A	3082	1/1	0.97	0.24	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3477	1/1	0.97	0.08	76,76,76,76	0
54	MG	2A	3713	1/1	0.97	0.12	65,65,65,65	0
54	MG	2A	3104	1/1	0.97	0.07	53,53,53,53	0
54	MG	1A	3747	1/1	0.97	0.05	24,24,24,24	0
54	MG	2A	3106	1/1	0.97	0.07	27,27,27,27	0
54	MG	2A	3107	1/1	0.97	0.10	39,39,39,39	0
54	MG	1A	3458	1/1	0.97	0.04	31,31,31,31	0
54	MG	1A	3749	1/1	0.97	0.14	43,43,43,43	0
54	MG	2a	1737	1/1	0.97	0.06	51,51,51,51	0
54	MG	1A	3296	1/1	0.97	0.20	30,30,30,30	0
54	MG	1a	1858	1/1	0.97	0.09	74,74,74,74	0
54	MG	1A	3368	1/1	0.97	0.05	18,18,18,18	0
54	MG	1A	3039	1/1	0.97	0.05	42,42,42,42	0
54	MG	1A	3371	1/1	0.97	0.09	16,16,16,16	0
54	MG	1A	3882	1/1	0.97	0.05	21,21,21,21	0
54	MG	2a	1744	1/1	0.97	0.08	39,39,39,39	0
54	MG	1A	3298	1/1	0.97	0.06	18,18,18,18	0
54	MG	1A	3374	1/1	0.97	0.09	13,13,13,13	0
54	MG	2A	3495	1/1	0.97	0.06	40,40,40,40	0
54	MG	11	103	1/1	0.97	0.05	32,32,32,32	0
54	MG	1A	3757	1/1	0.97	0.07	34,34,34,34	0
54	MG	1B	204	1/1	0.97	0.08	43,43,43,43	0
54	MG	1A	3648	1/1	0.97	0.06	56,56,56,56	0
54	MG	1A	3466	1/1	0.97	0.07	12,12,12,12	0
54	MG	1A	3244	1/1	0.97	0.32	35,35,35,35	0
54	MG	1A	3379	1/1	0.97	0.05	14,14,14,14	0
54	MG	1A	3084	1/1	0.97	0.06	24,24,24,24	0
54	MG	1A	3301	1/1	0.97	0.06	41,41,41,41	0
54	MG	1A	3106	1/1	0.97	0.25	20,20,20,20	0
54	MG	15	105	1/1	0.97	0.08	27,27,27,27	0
54	MG	1A	3386	1/1	0.97	0.04	39,39,39,39	0
54	MG	2B	218	1/1	0.97	0.05	54,54,54,54	0
54	MG	2A	3509	1/1	0.97	0.04	44,44,44,44	0
54	MG	1A	3032	1/1	0.97	0.09	47,47,47,47	0
54	MG	2A	3133	1/1	0.97	0.14	32,32,32,32	0
54	MG	2A	3134	1/1	0.97	0.06	35,35,35,35	0
54	MG	2A	3312	1/1	0.97	0.07	53,53,53,53	0
54	MG	17	102	1/1	0.97	0.14	18,18,18,18	0
54	MG	2A	3515	1/1	0.97	0.07	36,36,36,36	0
54	MG	1A	3135	1/1	0.97	0.23	30,30,30,30	0
54	MG	2A	3316	1/1	0.97	0.10	24,24,24,24	0
54	MG	1A	3020	1/1	0.97	0.17	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3138	1/1	0.97	0.13	41,41,41,41	0
54	MG	1A	3903	1/1	0.97	0.12	48,48,48,48	0
54	MG	1B	222	1/1	0.97	0.10	49,49,49,49	0
54	MG	2A	3522	1/1	0.97	0.09	32,32,32,32	0
54	MG	2A	3523	1/1	0.97	0.06	28,28,28,28	0
54	MG	1A	3109	1/1	0.97	0.07	32,32,32,32	0
54	MG	1A	3087	1/1	0.97	0.46	38,38,38,38	0
54	MG	1A	3664	1/1	0.97	0.06	23,23,23,23	0
54	MG	1A	3772	1/1	0.97	0.05	20,20,20,20	0
54	MG	1A	3485	1/1	0.97	0.10	43,43,43,43	0
54	MG	2A	3146	1/1	0.97	0.13	46,46,46,46	0
54	MG	2A	3329	1/1	0.97	0.09	41,41,41,41	0
54	MG	2A	3147	1/1	0.97	0.17	56,56,56,56	0
54	MG	1A	3253	1/1	0.97	0.07	24,24,24,24	0
54	MG	2A	3149	1/1	0.97	0.08	35,35,35,35	0
54	MG	1A	3574	1/1	0.97	0.08	34,34,34,34	0
54	MG	2P	202	1/1	0.97	0.09	62,62,62,62	0
54	MG	1A	3001	1/1	0.97	0.08	26,26,26,26	0
54	MG	2Q	201	1/1	0.97	0.12	46,46,46,46	0
54	MG	2A	3152	1/1	0.97	0.16	48,48,48,48	0
54	MG	2A	3537	1/1	0.97	0.06	51,51,51,51	0
54	MG	1A	3175	1/1	0.97	0.17	30,30,30,30	0
54	MG	2A	3338	1/1	0.97	0.09	28,28,28,28	0
54	MG	2A	3155	1/1	0.97	0.06	40,40,40,40	0
54	MG	1A	3257	1/1	0.97	0.12	33,33,33,33	0
54	MG	1D	304	1/1	0.97	0.15	22,22,22,22	0
54	MG	1A	3917	1/1	0.97	0.14	50,50,50,50	0
54	MG	1A	3918	1/1	0.97	0.08	31,31,31,31	0
58	ZN	29	501	1/1	0.97	0.05	58,58,58,58	0
54	MG	2A	3097	1/1	0.98	0.07	52,52,52,52	0
54	MG	1D	302	1/1	0.98	0.18	25,25,25,25	0
54	MG	1A	3811	1/1	0.98	0.06	30,30,30,30	0
54	MG	1A	3638	1/1	0.98	0.05	49,49,49,49	0
54	MG	1D	305	1/1	0.98	0.34	26,26,26,26	0
54	MG	1A	3330	1/1	0.98	0.03	19,19,19,19	0
54	MG	2a	1611	1/1	0.98	0.14	45,45,45,45	0
54	MG	1A	3814	1/1	0.98	0.11	31,31,31,31	0
54	MG	2a	1613	1/1	0.98	0.11	45,45,45,45	0
54	MG	1A	3006	1/1	0.98	0.07	16,16,16,16	0
54	MG	2A	3428	1/1	0.98	0.05	35,35,35,35	0
54	MG	1A	3332	1/1	0.98	0.06	9,9,9,9	0
54	MG	2A	3257	1/1	0.98	0.06	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3642	1/1	0.98	0.07	34,34,34,34	0
54	MG	1A	3376	1/1	0.98	0.05	11,11,11,11	0
54	MG	1A	3377	1/1	0.98	0.07	16,16,16,16	0
54	MG	2A	3622	1/1	0.98	0.07	56,56,56,56	0
54	MG	1A	3333	1/1	0.98	0.10	21,21,21,21	0
54	MG	2A	3624	1/1	0.98	0.06	64,64,64,64	0
54	MG	1A	3572	1/1	0.98	0.04	28,28,28,28	0
54	MG	1A	3733	1/1	0.98	0.04	38,38,38,38	0
54	MG	2A	3628	1/1	0.98	0.12	45,45,45,45	0
54	MG	1A	3503	1/1	0.98	0.05	24,24,24,24	0
54	MG	1A	3380	1/1	0.98	0.04	28,28,28,28	0
54	MG	1A	3036	1/1	0.98	0.05	22,22,22,22	0
54	MG	2A	3635	1/1	0.98	0.09	56,56,56,56	0
54	MG	2A	3636	1/1	0.98	0.04	34,34,34,34	0
54	MG	1A	3437	1/1	0.98	0.07	33,33,33,33	0
54	MG	1A	3249	1/1	0.98	0.07	24,24,24,24	0
54	MG	1A	3578	1/1	0.98	0.05	33,33,33,33	0
54	MG	1A	3049	1/1	0.98	0.21	37,37,37,37	0
54	MG	2A	3271	1/1	0.98	0.04	23,23,23,23	0
54	MG	1A	3385	1/1	0.98	0.05	18,18,18,18	0
54	MG	1A	3132	1/1	0.98	0.08	29,29,29,29	0
54	MG	2A	3274	1/1	0.98	0.05	60,60,60,60	0
54	MG	1F	301	1/1	0.98	0.17	22,22,22,22	0
54	MG	1A	3656	1/1	0.98	0.05	14,14,14,14	0
54	MG	1A	3950	1/1	0.98	0.04	22,22,22,22	0
54	MG	1A	3512	1/1	0.98	0.08	50,50,50,50	0
54	MG	2A	3280	1/1	0.98	0.08	28,28,28,28	0
54	MG	1A	3443	1/1	0.98	0.10	43,43,43,43	0
54	MG	1A	3659	1/1	0.98	0.09	33,33,33,33	0
54	MG	1A	3338	1/1	0.98	0.08	17,17,17,17	0
54	MG	1A	3057	1/1	0.98	0.07	30,30,30,30	0
54	MG	1F	310	1/1	0.98	0.05	38,38,38,38	0
54	MG	2A	3287	1/1	0.98	0.09	35,35,35,35	0
54	MG	1A	3446	1/1	0.98	0.07	30,30,30,30	0
54	MG	1A	3148	1/1	0.98	0.08	23,23,23,23	0
54	MG	1A	3254	1/1	0.98	0.05	36,36,36,36	0
54	MG	1A	3667	1/1	0.98	0.09	28,28,28,28	0
54	MG	1A	3342	1/1	0.98	0.07	44,44,44,44	0
54	MG	2A	3662	1/1	0.98	0.06	46,46,46,46	0
54	MG	1A	3232	1/1	0.98	0.19	27,27,27,27	0
54	MG	2a	1658	1/1	0.98	0.15	34,34,34,34	0
54	MG	1A	3756	1/1	0.98	0.14	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3851	1/1	0.98	0.05	16,16,16,16	0
54	MG	1A	3234	1/1	0.98	0.25	25,25,25,25	0
54	MG	1A	3065	1/1	0.98	0.08	30,30,30,30	0
54	MG	1G	203	1/1	0.98	0.12	52,52,52,52	0
54	MG	1A	3096	1/1	0.98	0.14	29,29,29,29	0
54	MG	2A	3674	1/1	0.98	0.04	36,36,36,36	0
54	MG	1A	3856	1/1	0.98	0.11	32,32,32,32	0
54	MG	2A	3676	1/1	0.98	0.12	70,70,70,70	0
54	MG	1A	3308	1/1	0.98	0.05	14,14,14,14	0
54	MG	2A	3476	1/1	0.98	0.07	37,37,37,37	0
54	MG	1A	3858	1/1	0.98	0.04	40,40,40,40	0
54	MG	1A	3674	1/1	0.98	0.05	33,33,33,33	0
54	MG	2A	3479	1/1	0.98	0.06	29,29,29,29	0
54	MG	1A	3309	1/1	0.98	0.07	14,14,14,14	0
54	MG	2A	3482	1/1	0.98	0.05	43,43,43,43	0
54	MG	1A	3676	1/1	0.98	0.06	38,38,38,38	0
54	MG	2A	3306	1/1	0.98	0.05	51,51,51,51	0
54	MG	1A	3044	1/1	0.98	0.12	22,22,22,22	0
54	MG	1A	3016	1/1	0.98	0.41	30,30,30,30	0
54	MG	1a	1646	1/1	0.98	0.08	40,40,40,40	0
54	MG	1A	3864	1/1	0.98	0.09	27,27,27,27	0
54	MG	2A	3154	1/1	0.98	0.08	31,31,31,31	0
54	MG	1A	3865	1/1	0.98	0.04	25,25,25,25	0
54	MG	1A	3866	1/1	0.98	0.04	43,43,43,43	0
54	MG	1A	3261	1/1	0.98	0.10	45,45,45,45	0
54	MG	2A	3315	1/1	0.98	0.11	23,23,23,23	0
54	MG	1A	3979	1/1	0.98	0.14	7,7,7,7	0
54	MG	2A	3159	1/1	0.98	0.04	31,31,31,31	0
54	MG	1A	3980	1/1	0.98	0.07	32,32,32,32	0
54	MG	1A	3403	1/1	0.98	0.05	20,20,20,20	0
54	MG	1A	3982	1/1	0.98	0.04	28,28,28,28	0
54	MG	2A	3163	1/1	0.98	0.07	44,44,44,44	0
54	MG	1A	3872	1/1	0.98	0.08	50,50,50,50	0
54	MG	1A	3046	1/1	0.98	0.11	14,14,14,14	0
54	MG	1A	3465	1/1	0.98	0.09	15,15,15,15	0
54	MG	2A	3326	1/1	0.98	0.06	27,27,27,27	0
54	MG	1A	3171	1/1	0.98	0.27	20,20,20,20	0
54	MG	2a	1697	1/1	0.98	0.04	46,46,46,46	0
54	MG	1Q	204	1/1	0.98	0.04	23,23,23,23	0
54	MG	1A	3406	1/1	0.98	0.09	28,28,28,28	0
54	MG	1A	3878	1/1	0.98	0.07	12,12,12,12	0
54	MG	2A	3710	1/1	0.98	0.11	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3171	1/1	0.98	0.19	42,42,42,42	0
54	MG	1A	3605	1/1	0.98	0.04	24,24,24,24	0
54	MG	2A	3173	1/1	0.98	0.08	43,43,43,43	0
54	MG	2A	3714	1/1	0.98	0.06	37,37,37,37	0
54	MG	1A	3880	1/1	0.98	0.07	47,47,47,47	0
54	MG	1A	3535	1/1	0.98	0.07	34,34,34,34	0
54	MG	2a	1708	1/1	0.98	0.07	38,38,38,38	0
54	MG	2A	3029	1/1	0.98	0.04	23,23,23,23	0
54	MG	2A	3177	1/1	0.98	0.05	54,54,54,54	0
54	MG	1R	203	1/1	0.98	0.05	35,35,35,35	0
54	MG	1A	3687	1/1	0.98	0.05	31,31,31,31	0
54	MG	1A	3317	1/1	0.98	0.06	22,22,22,22	0
54	MG	1A	3221	1/1	0.98	0.06	32,32,32,32	0
54	MG	1A	3777	1/1	0.98	0.13	54,54,54,54	0
54	MG	1A	3470	1/1	0.98	0.06	17,17,17,17	0
54	MG	1A	3888	1/1	0.98	0.11	53,53,53,53	0
54	MG	1A	3357	1/1	0.98	0.05	37,37,37,37	0
54	MG	2A	3348	1/1	0.98	0.05	47,47,47,47	0
54	MG	1A	3154	1/1	0.98	0.14	42,42,42,42	0
54	MG	2A	3350	1/1	0.98	0.06	31,31,31,31	0
54	MG	1A	3473	1/1	0.98	0.08	42,42,42,42	0
54	MG	1A	3474	1/1	0.98	0.05	11,11,11,11	0
54	MG	1A	3697	1/1	0.98	0.05	62,62,62,62	0
54	MG	1A	3784	1/1	0.98	0.10	22,22,22,22	0
54	MG	2a	1728	1/1	0.98	0.07	67,67,67,67	0
54	MG	2A	3043	1/1	0.98	0.06	40,40,40,40	0
54	MG	1A	3896	1/1	0.98	0.06	49,49,49,49	0
54	MG	2a	1731	1/1	0.98	0.08	42,42,42,42	0
54	MG	1a	1810	1/1	0.98	0.04	50,50,50,50	0
54	MG	1A	3078	1/1	0.98	0.23	35,35,35,35	0
54	MG	2A	3047	1/1	0.98	0.09	48,48,48,48	0
54	MG	1V	201	1/1	0.98	0.13	19,19,19,19	0
54	MG	1A	3476	1/1	0.98	0.07	28,28,28,28	0
54	MG	1A	3412	1/1	0.98	0.07	37,37,37,37	0
54	MG	1a	1815	1/1	0.98	0.18	59,59,59,59	0
54	MG	2A	3200	1/1	0.98	0.05	40,40,40,40	0
54	MG	1A	3900	1/1	0.98	0.04	39,39,39,39	0
54	MG	2A	3542	1/1	0.98	0.09	25,25,25,25	0
54	MG	1A	3618	1/1	0.98	0.05	32,32,32,32	0
54	MG	1a	1685	1/1	0.98	0.13	32,32,32,32	0
54	MG	1A	3902	1/1	0.98	0.06	30,30,30,30	0
54	MG	1A	3548	1/1	0.98	0.14	19,19,19,19	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3089	1/1	0.98	0.10	34,34,34,34	0
54	MG	2A	3059	1/1	0.98	0.19	30,30,30,30	0
54	MG	1W	203	1/1	0.98	0.10	21,21,21,21	0
54	MG	2A	3061	1/1	0.98	0.06	28,28,28,28	0
54	MG	1A	3905	1/1	0.98	0.08	36,36,36,36	0
54	MG	1A	3906	1/1	0.98	0.07	36,36,36,36	0
54	MG	1B	207	1/1	0.98	0.10	43,43,43,43	0
54	MG	2A	3555	1/1	0.98	0.04	48,48,48,48	0
54	MG	2A	3379	1/1	0.98	0.05	29,29,29,29	0
54	MG	1A	3323	1/1	0.98	0.04	21,21,21,21	0
54	MG	2A	3066	1/1	0.98	0.05	45,45,45,45	0
54	MG	1A	3480	1/1	0.98	0.06	36,36,36,36	0
54	MG	1A	3481	1/1	0.98	0.07	27,27,27,27	0
54	MG	10	102	1/1	0.98	0.15	38,38,38,38	0
54	MG	10	103	1/1	0.98	0.11	40,40,40,40	0
54	MG	1A	3625	1/1	0.98	0.05	30,30,30,30	0
54	MG	2A	3072	1/1	0.98	0.10	31,31,31,31	0
54	MG	2A	3221	1/1	0.98	0.07	38,38,38,38	0
54	MG	2A	3222	1/1	0.98	0.09	45,45,45,45	0
54	MG	1A	3482	1/1	0.98	0.08	36,36,36,36	0
54	MG	1B	215	1/1	0.98	0.07	31,31,31,31	0
54	MG	2A	3393	1/1	0.98	0.05	26,26,26,26	0
54	MG	1A	3363	1/1	0.98	0.09	12,12,12,12	0
54	MG	2a	1769	1/1	0.98	0.10	47,47,47,47	0
54	MG	1A	3416	1/1	0.98	0.12	42,42,42,42	0
54	MG	1A	3292	1/1	0.98	0.19	13,13,13,13	0
54	MG	1A	3325	1/1	0.98	0.10	38,38,38,38	0
54	MG	1A	3366	1/1	0.98	0.04	34,34,34,34	0
54	MG	1B	221	1/1	0.98	0.09	54,54,54,54	0
54	MG	1A	3420	1/1	0.98	0.04	18,18,18,18	0
54	MG	2A	3580	1/1	0.98	0.10	51,51,51,51	0
54	MG	1B	223	1/1	0.98	0.04	38,38,38,38	0
54	MG	1A	3293	1/1	0.98	0.23	27,27,27,27	0
54	MG	13	101	1/1	0.98	0.11	23,23,23,23	0
54	MG	2A	3586	1/1	0.98	0.06	23,23,23,23	0
54	MG	2A	3404	1/1	0.98	0.20	37,37,37,37	0
54	MG	1A	3069	1/1	0.98	0.06	32,32,32,32	0
54	MG	1A	3718	1/1	0.98	0.12	38,38,38,38	0
54	MG	1a	1714	1/1	0.98	0.07	36,36,36,36	0
54	MG	2Y	201	1/1	0.98	0.14	45,45,45,45	0
54	MG	2A	3592	1/1	0.98	0.04	26,26,26,26	0
54	MG	1a	1849	1/1	0.98	0.06	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3369	1/1	0.98	0.06	12,12,12,12	0
54	MG	1A	3807	1/1	0.98	0.04	37,37,37,37	0
54	MG	2A	3596	1/1	0.98	0.07	28,28,28,28	0
54	MG	2A	3597	1/1	0.98	0.04	44,44,44,44	0
54	MG	2A	3241	1/1	0.98	0.21	38,38,38,38	0
54	MG	1A	3924	1/1	0.98	0.18	25,25,25,25	0
54	MG	1a	1853	1/1	0.98	0.05	53,53,53,53	0
54	MG	1A	3720	1/1	0.98	0.06	29,29,29,29	0
54	MG	1A	3270	1/1	0.98	0.08	37,37,37,37	0
54	MG	2A	3604	1/1	0.98	0.10	71,71,71,71	0
54	MG	2A	3416	1/1	0.98	0.07	50,50,50,50	0
54	MG	1a	1856	1/1	0.98	0.10	46,46,46,46	0
54	MG	1A	3329	1/1	0.98	0.04	23,23,23,23	0
58	ZN	2n	102	1/1	0.98	0.07	103,103,103,103	0
59	SF4	1d	306	8/8	0.98	0.04	54,64,67,81	0
59	SF4	2d	501	8/8	0.98	0.05	62,71,77,83	0
54	MG	1A	3373	1/1	0.99	0.04	28,28,28,28	0
54	MG	1A	3310	1/1	0.99	0.07	20,20,20,20	0
54	MG	2A	3577	1/1	0.99	0.07	31,31,31,31	0
54	MG	1A	3539	1/1	0.99	0.03	56,56,56,56	0
54	MG	1A	3262	1/1	0.99	0.20	29,29,29,29	0
54	MG	2A	3686	1/1	0.99	0.04	28,28,28,28	0
54	MG	1E	304	1/1	0.99	0.04	28,28,28,28	0
54	MG	1A	3614	1/1	0.99	0.12	34,34,34,34	0
54	MG	2A	3582	1/1	0.99	0.06	63,63,63,63	0
54	MG	2A	3583	1/1	0.99	0.06	32,32,32,32	0
54	MG	1E	306	1/1	0.99	0.09	9,9,9,9	0
54	MG	1A	3693	1/1	0.99	0.04	11,11,11,11	0
54	MG	1A	3312	1/1	0.99	0.03	24,24,24,24	0
54	MG	1A	3508	1/1	0.99	0.05	58,58,58,58	0
54	MG	2A	3588	1/1	0.99	0.04	41,41,41,41	0
54	MG	1A	3830	1/1	0.99	0.08	33,33,33,33	0
54	MG	1A	3887	1/1	0.99	0.10	21,21,21,21	0
54	MG	2A	3321	1/1	0.99	0.05	37,37,37,37	0
54	MG	1a	1839	1/1	0.99	0.09	43,43,43,43	0
54	MG	2A	3497	1/1	0.99	0.06	41,41,41,41	0
54	MG	1A	3398	1/1	0.99	0.09	14,14,14,14	0
54	MG	1A	3832	1/1	0.99	0.09	28,28,28,28	0
54	MG	1A	3447	1/1	0.99	0.10	31,31,31,31	0
54	MG	1A	3891	1/1	0.99	0.03	36,36,36,36	0
54	MG	2A	3598	1/1	0.99	0.03	40,40,40,40	0
54	MG	2a	1720	1/1	0.99	0.04	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3162	1/1	0.99	0.05	26,26,26,26	0
54	MG	1F	308	1/1	0.99	0.11	26,26,26,26	0
54	MG	1A	3743	1/1	0.99	0.03	23,23,23,23	0
54	MG	2A	3330	1/1	0.99	0.05	31,31,31,31	0
54	MG	1A	3546	1/1	0.99	0.04	23,23,23,23	0
54	MG	2a	1726	1/1	0.99	0.05	52,52,52,52	0
54	MG	1A	3378	1/1	0.99	0.03	14,14,14,14	0
54	MG	1A	3660	1/1	0.99	0.11	46,46,46,46	0
54	MG	1A	3791	1/1	0.99	0.10	14,14,14,14	0
54	MG	1A	3622	1/1	0.99	0.13	34,34,34,34	0
54	MG	1A	3450	1/1	0.99	0.03	38,38,38,38	0
54	MG	1A	3051	1/1	0.99	0.27	30,30,30,30	0
54	MG	2A	3423	1/1	0.99	0.05	45,45,45,45	0
54	MG	1A	3706	1/1	0.99	0.03	35,35,35,35	0
54	MG	1A	3361	1/1	0.99	0.04	23,23,23,23	0
54	MG	1A	3845	1/1	0.99	0.05	42,42,42,42	0
54	MG	1B	212	1/1	0.99	0.05	39,39,39,39	0
54	MG	1B	213	1/1	0.99	0.03	45,45,45,45	0
54	MG	1a	1713	1/1	0.99	0.05	41,41,41,41	0
54	MG	2A	3109	1/1	0.99	0.08	42,42,42,42	0
54	MG	1A	3103	1/1	0.99	0.21	24,24,24,24	0
54	MG	1A	3847	1/1	0.99	0.04	21,21,21,21	0
54	MG	1A	3666	1/1	0.99	0.10	39,39,39,39	0
54	MG	1A	3849	1/1	0.99	0.04	25,25,25,25	0
54	MG	1A	3908	1/1	0.99	0.11	53,53,53,53	0
54	MG	2A	3351	1/1	0.99	0.04	34,34,34,34	0
54	MG	1A	3455	1/1	0.99	0.07	14,14,14,14	0
54	MG	1A	3140	1/1	0.99	0.04	32,32,32,32	0
54	MG	2A	3626	1/1	0.99	0.04	49,49,49,49	0
54	MG	1A	3427	1/1	0.99	0.05	21,21,21,21	0
54	MG	1A	3853	1/1	0.99	0.03	29,29,29,29	0
54	MG	1A	3487	1/1	0.99	0.06	8,8,8,8	0
54	MG	1A	3428	1/1	0.99	0.04	16,16,16,16	0
54	MG	2A	3121	1/1	0.99	0.15	37,37,37,37	0
54	MG	2A	3632	1/1	0.99	0.13	61,61,61,61	0
54	MG	2A	3633	1/1	0.99	0.03	34,34,34,34	0
54	MG	2A	3276	1/1	0.99	0.06	34,34,34,34	0
54	MG	1A	3383	1/1	0.99	0.03	16,16,16,16	0
54	MG	1a	1726	1/1	0.99	0.04	27,27,27,27	0
54	MG	2A	3362	1/1	0.99	0.05	30,30,30,30	0
54	MG	1A	3233	1/1	0.99	0.15	18,18,18,18	0
54	MG	1a	1728	1/1	0.99	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
54	MG	1A	3009	1/1	0.99	0.15	21,21,21,21	0
54	MG	1A	3525	1/1	0.99	0.04	48,48,48,48	0
54	MG	2A	3452	1/1	0.99	0.07	34,34,34,34	0
54	MG	2A	3051	1/1	0.99	0.25	40,40,40,40	0
54	MG	2A	3645	1/1	0.99	0.03	31,31,31,31	0
54	MG	2A	3544	1/1	0.99	0.04	40,40,40,40	0
54	MG	1A	3121	1/1	0.99	0.07	15,15,15,15	0
54	MG	2A	3285	1/1	0.99	0.04	32,32,32,32	0
54	MG	1a	1732	1/1	0.99	0.03	47,47,47,47	0
54	MG	1A	3040	1/1	0.99	0.10	30,30,30,30	0
54	MG	1A	3434	1/1	0.99	0.05	47,47,47,47	0
54	MG	2E	308	1/1	0.99	0.06	21,21,21,21	0
54	MG	17	104	1/1	0.99	0.05	45,45,45,45	0
54	MG	1A	3496	1/1	0.99	0.04	41,41,41,41	0
54	MG	1A	3565	1/1	0.99	0.06	32,32,32,32	0
54	MG	1A	3388	1/1	0.99	0.04	13,13,13,13	0
54	MG	1A	3169	1/1	0.99	0.14	29,29,29,29	0
54	MG	1A	3984	1/1	0.99	0.07	48,48,48,48	0
54	MG	1A	3867	1/1	0.99	0.05	42,42,42,42	0
54	MG	1A	3815	1/1	0.99	0.03	12,12,12,12	0
54	MG	1A	3726	1/1	0.99	0.04	33,33,33,33	0
54	MG	1A	3871	1/1	0.99	0.03	22,22,22,22	0
54	MG	2A	3470	1/1	0.99	0.03	36,36,36,36	0
54	MG	2A	3663	1/1	0.99	0.03	40,40,40,40	0
54	MG	2A	3561	1/1	0.99	0.04	52,52,52,52	0
54	MG	1a	1745	1/1	0.99	0.04	48,48,48,48	0
54	MG	2A	3666	1/1	0.99	0.03	60,60,60,60	0
54	MG	1D	310	1/1	0.99	0.08	15,15,15,15	0
54	MG	1a	1819	1/1	0.99	0.04	54,54,54,54	0
54	MG	1A	3989	1/1	0.99	0.11	18,18,18,18	0
54	MG	1A	3322	1/1	0.99	0.06	36,36,36,36	0
54	MG	2A	3671	1/1	0.99	0.04	55,55,55,55	0
54	MG	1A	3210	1/1	0.99	0.15	28,28,28,28	0
54	MG	2A	3673	1/1	0.99	0.06	57,57,57,57	0
54	MG	1A	3874	1/1	0.99	0.08	44,44,44,44	0
58	ZN	15	107	1/1	0.99	0.03	57,57,57,57	0
58	ZN	16	501	1/1	0.99	0.02	38,38,38,38	0
58	ZN	1n	103	1/1	0.99	0.02	72,72,72,72	0
54	MG	1A	3354	1/1	0.99	0.05	15,15,15,15	0
54	MG	2A	3391	1/1	0.99	0.05	45,45,45,45	0
58	ZN	25	103	1/1	0.99	0.04	88,88,88,88	0
58	ZN	26	102	1/1	0.99	0.02	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3239	1/1	0.99	0.18	38,38,38,38	0
54	MG	2A	3572	1/1	0.99	0.04	58,58,58,58	0
54	MG	2A	3481	1/1	0.99	0.05	28,28,28,28	0
54	MG	1A	3441	1/1	0.99	0.06	36,36,36,36	0
54	MG	2A	3464	1/1	1.00	0.03	21,21,21,21	0
54	MG	1A	3598	1/1	1.00	0.06	19,19,19,19	0
54	MG	2A	3634	1/1	1.00	0.03	37,37,37,37	0
54	MG	1A	3488	1/1	1.00	0.05	14,14,14,14	0
54	MG	2A	3346	1/1	1.00	0.03	25,25,25,25	0
54	MG	1A	3696	1/1	1.00	0.06	28,28,28,28	0
54	MG	1A	3452	1/1	1.00	0.02	32,32,32,32	0
54	MG	1A	3870	1/1	1.00	0.02	19,19,19,19	0
58	ZN	19	103	1/1	1.00	0.02	39,39,39,39	0

6.5 Other polymers (i)

There are no such residues in this entry.