Full wwPDB X-ray Structure Validation Report (i)

Sep 16, 2026 – 07:53 AM EDT

PDB ID	:	7RQA / pdb_00007rqa
Title	:	Crystal structure of the Thermus thermophilus 70S ribosome in complex with protein Y, A-site aminoacyl-tRNA analog ACC-PMN, and P-site MTI-tripeptidyl-tRNA analog ACCA-ITM at 2.40A resolution
Authors	:	Syroegin, E.A.; Flemmich, L.; Klepacki, D.; Vazquez-Laslop, N.; Micura, R.; Polikanov, Y.S.
Deposited on	:	2021-08-06
Resolution	:	2.40 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 (i)) were used in the production of this report:

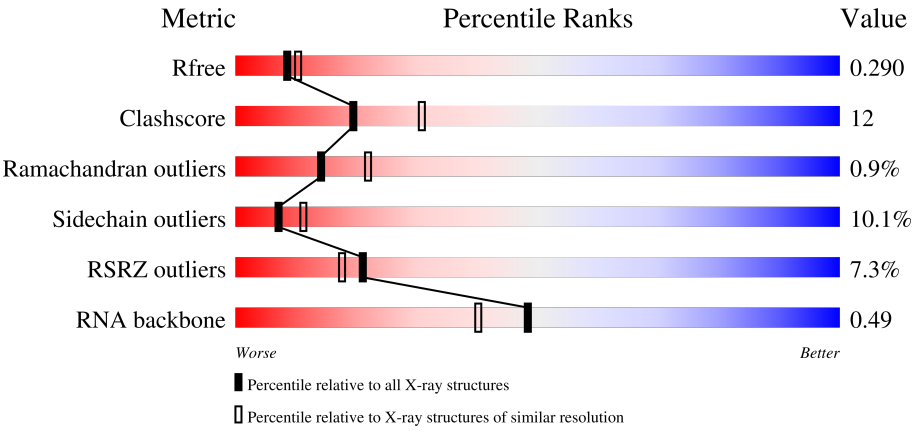
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry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

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 2.40 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	4912 (2.40-2.40)
Clashscore	190562	5391 (2.40-2.40)
Ramachandran outliers	187476	5320 (2.40-2.40)
Sidechain outliers	187428	5321 (2.40-2.40)
RSRZ outliers	180081	4916 (2.40-2.40)
RNA backbone	3983	1155 (2.70-2.10)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	1A	2915	4% 57% 34% 7% •
1	2A	2915	5% 53% 37% 8% •
2	1B	121	53% 40% 6% •

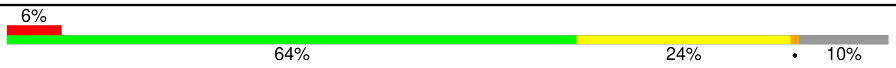
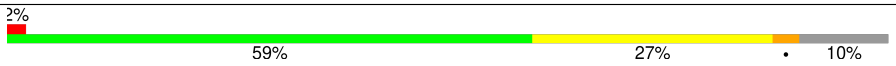
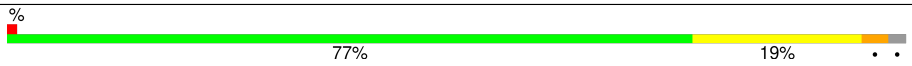
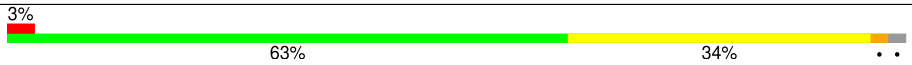
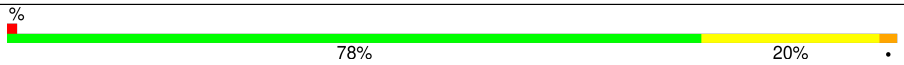
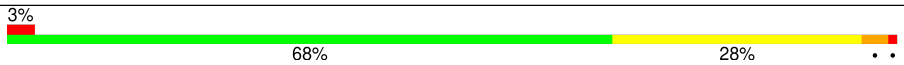
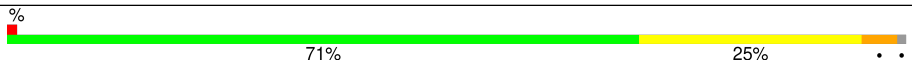
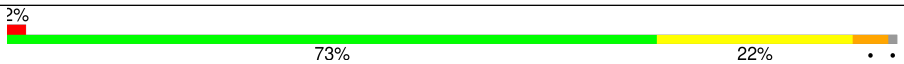
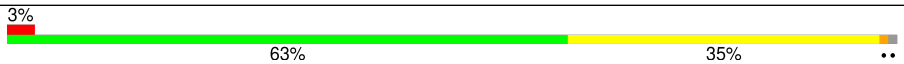
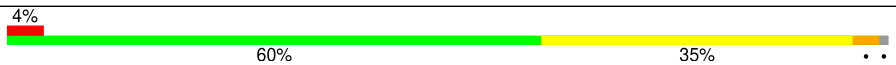
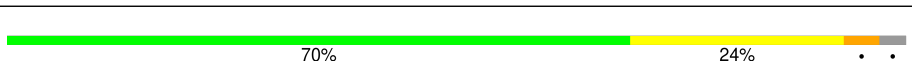
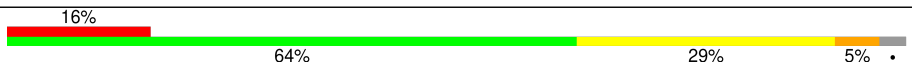
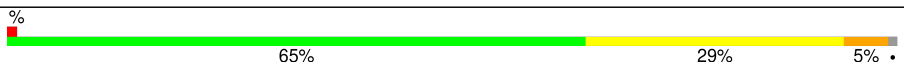
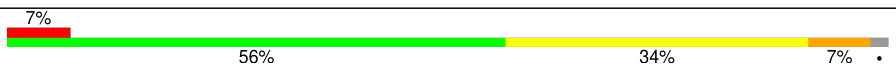
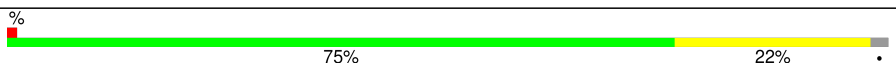
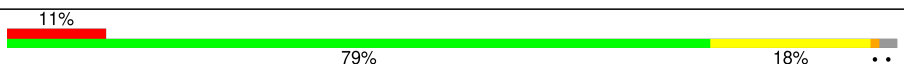
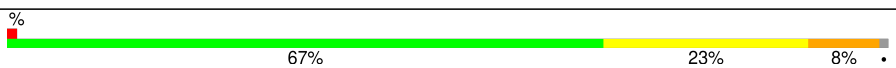
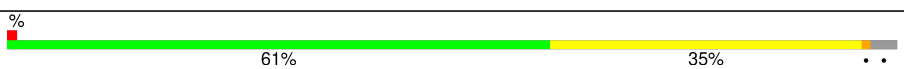
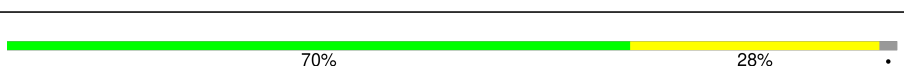
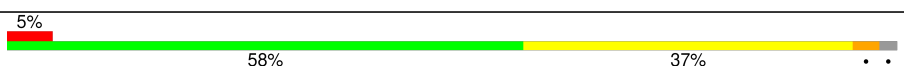
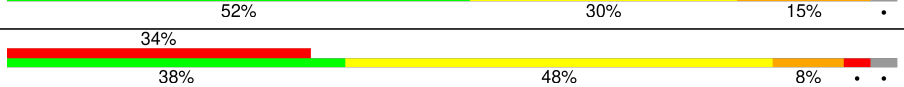
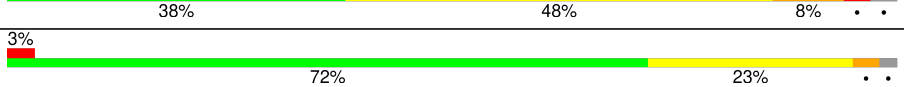
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Mol	Chain	Length	Quality of chain
2	2B	121	2% 60% 36%
3	1D	276	% 70% 25%
3	2D	276	% 74% 21%
4	1E	206	% 77% 20%
4	2E	206	3% 62% 33%
5	1F	210	2% 68% 25%
5	2F	210	4% 51% 40% 6%
6	1G	182	7% 60% 34% 5%
6	2G	182	26% 56% 34% 9%
7	1H	180	% 68% 27%
7	2H	180	14% 49% 43%
8	1I	148	9% 64% 30% 5%
8	2I	148	21% 64% 30% 5%
9	1N	140	68% 30%
9	2N	140	4% 76% 21%
10	1O	122	64% 35%
10	2O	122	% 66% 33%
11	1P	150	% 74% 23%
11	2P	150	6% 70% 27%
12	1Q	141	78% 18%
12	2Q	141	4% 63% 33%
13	1R	118	71% 24% 5%
13	2R	118	% 69% 27%
14	1S	112	% 69% 25%
14	2S	112	12% 63% 32%

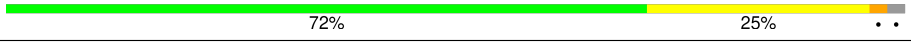
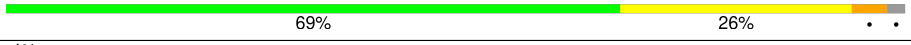
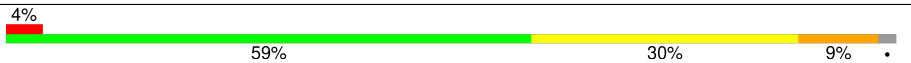
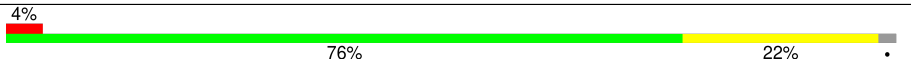
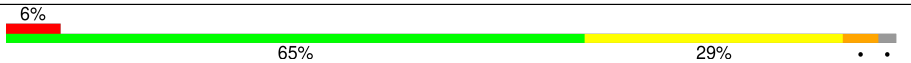
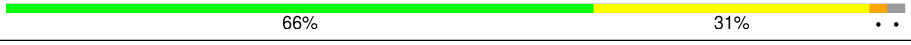
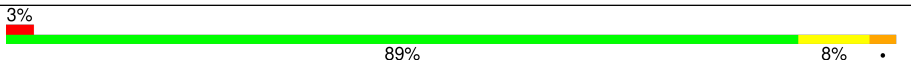
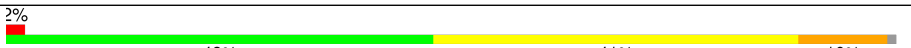
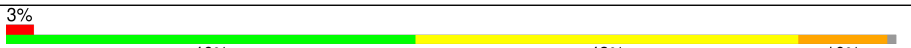
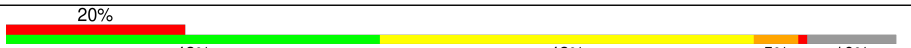
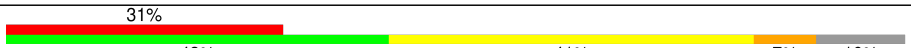
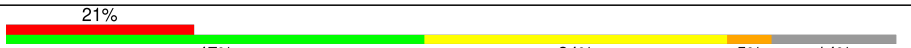
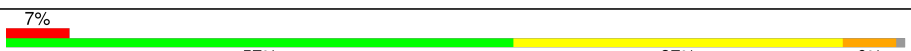
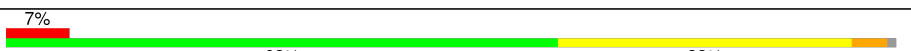
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Mol	Chain	Length	Quality of chain
15	1T	146	
15	2T	146	
16	1U	118	
16	2U	118	
17	1V	101	
17	2V	101	
18	1W	113	
18	2W	113	
19	1X	96	
19	2X	96	
20	1Y	110	
20	2Y	110	
21	1Z	206	
21	2Z	206	
22	10	85	
22	20	85	
23	11	98	
23	21	98	
24	12	72	
24	22	72	
25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

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

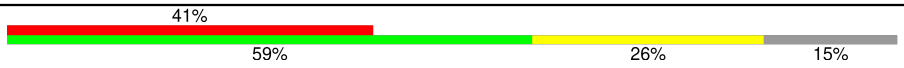
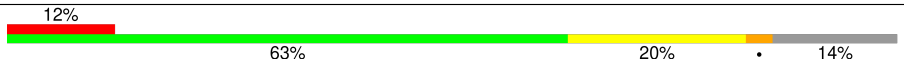
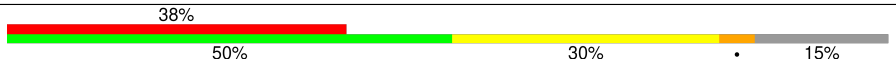
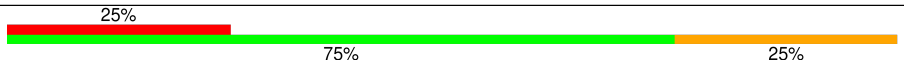
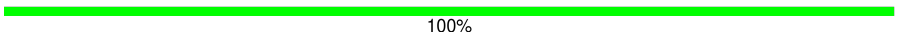
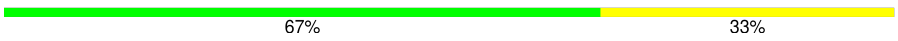
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Mol	Chain	Length	Quality of chain
40	1i	128	32% 52% 43% 5%
40	2i	128	45% 46% 47% 5%
41	1j	105	26% 60% 30% 8%
41	2j	105	45% 57% 30% 9%
42	1k	129	5% 63% 21% 5% 12%
42	2k	129	5% 60% 26% 12%
43	1l	132	3% 68% 23% 8%
43	2l	132	5% 67% 24% 8%
44	1m	126	9% 49% 41% 8%
44	2m	126	27% 40% 44% 6% 10%
45	1n	61	20% 67% 28%
45	2n	61	41% 49% 43% 7%
46	1o	89	4% 66% 31%
46	2o	89	6% 64% 34%
47	1p	88	28% 48% 44% 7%
47	2p	88	10% 53% 33% 7% 7%
48	1q	105	6% 55% 34% 5% 6%
48	2q	105	5% 59% 30% 5% 6%
49	1r	88	5% 43% 32% 23%
49	2r	88	6% 45% 32% 23%
50	1s	93	14% 52% 38% 11%
50	2s	93	27% 46% 40% 11%
51	1t	106	23% 49% 38% 9%
51	2t	106	10% 61% 29% 8%
52	1u	27	19% 56% 30% 15%

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Mol	Chain	Length	Quality of chain
52	2u	27	
53	1y	113	
53	2y	113	
54	1w	4	
54	2w	4	
55	1x	4	
55	2x	4	
56	1v	3	
56	2v	3	

2 Entry composition (i)

There are 63 unique types of molecules in this entry. The entry contains 297986 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called 23S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	1A	2872	Total	C	N	O	P	0	0	0
			61869	27540	11574	19884	2871			
1	2A	2867	Total	C	N	O	P	0	0	0
			61758	27491	11552	19850	2865			

- Molecule 2 is a RNA chain called 5S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1B	120	Total	C	N	O	P	0	0	0
			2572	1145	476	832	119			
2	2B	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			

- Molecule 3 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	1D	275	Total	C	N	O	S	0	0	0
			2131	1346	422	360	3			
3	2D	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	1H	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			
7	2H	173	Total	C	N	O	S	0	0	0
			1324	842	247	234	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	1I	147	Total	C	N	O	S	0	0	0
			1094	699	191	203	1			
8	2I	146	Total	C	N	O	S	0	0	0
			1076	687	186	202	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	1N	140	Total	C	N	O	S	0	0	0
			1121	722	208	187	4			
9	2N	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	1V	101	Total	C	N	O	S	0	0	0
			775	498	141	135	1			
17	2V	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	1Z	203	Total	C	N	O	S	0	0	0
			1587	1011	282	292	2			
21	2Z	201	Total	C	N	O	S	0	0	0
			1557	995	274	286	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	10	83	Total	C	N	O	S	0	0	0
			653	404	139	109	1			
22	20	83	Total	C	N	O	S	0	0	0
			650	401	139	109	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	11	97	Total	C	N	O	S	0	0	0
			754	475	148	130	1			
23	21	97	Total	C	N	O	S	0	0	0
			759	478	149	131	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	12	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			
24	22	70	Total	C	N	O	S	0	0	0
			592	368	119	103	2			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	14	69	Total	C	N	O	S	0	0	0
			546	346	96	99	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	24	69	Total	C	N	O	S	0	0	0
			536	342	98	91	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	15	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			
27	25	59	Total	C	N	O	S	0	0	0
			455	285	89	76	5			

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	1a	1500	Total	C	N	O	P	0	0	0
			32246	14358	5975	10413	1500			
32	2a	1504	Total	C	N	O	P	0	0	0
			32331	14396	5990	10441	1504			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	1b	231	Total	C	N	O	S	0	0	0
			1842	1175	330	332	5			
33	2b	231	Total	C	N	O	S	0	0	0
			1825	1167	326	327	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	1c	206	Total	C	N	O	S	0	0	0
			1558	979	305	273	1			
34	2c	206	Total	C	N	O	S	0	0	0
			1542	968	300	273	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	1d	208	Total	C	N	O	S	0	0	0
			1665	1043	329	286	7			
35	2d	208	Total	C	N	O	S	0	0	0
			1668	1047	330	284	7			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	1f	100	Total	C	N	O	S	0	0	0
			814	516	144	151	3			
37	2f	100	Total	C	N	O	S	0	0	0
			816	516	146	151	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	1g	155	Total	C	N	O	S	0	0	0
			1235	769	244	216	6			
38	2g	155	Total	C	N	O	S	0	0	0
			1229	766	241	216	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	1h	137	Total	C	N	O	S	0	0	0
			1098	694	210	192	2			
39	2h	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
40	1i	127	Total	C	N	O	0	0	0
			986	625	193	168			
40	2i	126	Total	C	N	O	0	0	0
			966	613	186	167			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
41	1j	97	Total	C	N	O	0	0	0
			719	446	142	131			
41	2j	96	Total	C	N	O	0	0	0
			710	442	137	131			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	1k	114	Total	C	N	O	S	0	0	0
			834	520	156	155	3			

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	1m	116	Total	C	N	O	S	0	0	0
			914	564	189	159	2			
44	2m	114	Total	C	N	O	S	0	0	0
			895	550	186	157	2			

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	1s	83	Total	C	N	O	S	0	0	0
			648	415	120	111	2			
50	2s	83	Total	C	N	O	S	0	0	0
			645	410	118	115	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	1t	96	Total	C	N	O	S	0	0	0
			732	449	157	124	2			
51	2t	98	Total	C	N	O	S	0	0	0
			733	451	154	126	2			

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

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

- Molecule 53 is a protein called Ribosome-associated inhibitor A.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	1w	4	Total	C	N	O	P	0	0	1
			78	40	13	22	3			
54	2w	4	Total	C	N	O	P	0	0	1
			78	40	13	22	3			

- Molecule 55 is a RNA chain called P-site Peptidyl-tRNA Analog RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	1x	4	Total	C	N	O	P	0	0	1
			63	28	12	20	3			
55	2x	4	Total	C	N	O	P	0	0	1
			63	28	12	20	3			

- Molecule 56 is a protein called P-site Peptidyl-tRNA Analog Peptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	1v	3	Total	C	N	O	S	0	0	0
			23	15	3	4	1			
56	2v	3	Total	C	N	O	S	0	0	0
			23	15	3	4	1			

- Molecule 57 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	1A	1028	Total	Mg	0	0
			1028	1028		
57	1B	30	Total	Mg	0	0
			30	30		
57	1D	18	Total	Mg	0	0
			18	18		
57	1E	10	Total	Mg	0	0
			10	10		
57	1F	16	Total	Mg	0	0
			16	16		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	1G	4	Total Mg 4 4	0	0
57	1H	2	Total Mg 2 2	0	0
57	1N	4	Total Mg 4 4	0	0
57	1O	1	Total Mg 1 1	0	0
57	1P	4	Total Mg 4 4	0	0
57	1Q	5	Total Mg 5 5	0	0
57	1R	4	Total Mg 4 4	0	0
57	1T	4	Total Mg 4 4	0	0
57	1U	8	Total Mg 8 8	0	0
57	1V	7	Total Mg 7 7	0	0
57	1W	2	Total Mg 2 2	0	0
57	1X	1	Total Mg 1 1	0	0
57	1Z	1	Total Mg 1 1	0	0
57	10	8	Total Mg 8 8	0	0
57	11	5	Total Mg 5 5	0	0
57	13	3	Total Mg 3 3	0	0
57	15	8	Total Mg 8 8	0	0
57	17	5	Total Mg 5 5	0	0
57	18	3	Total Mg 3 3	0	0
57	19	3	Total Mg 3 3	0	0
57	1a	280	Total Mg 280 280	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	1b	1	Total Mg 1 1	0	0
57	1d	6	Total Mg 6 6	0	0
57	1e	3	Total Mg 3 3	0	0
57	1f	2	Total Mg 2 2	0	0
57	1g	2	Total Mg 2 2	0	0
57	1h	2	Total Mg 2 2	0	0
57	1i	1	Total Mg 1 1	0	0
57	1l	2	Total Mg 2 2	0	0
57	1m	1	Total Mg 1 1	0	0
57	1n	1	Total Mg 1 1	0	0
57	1o	2	Total Mg 2 2	0	0
57	1t	2	Total Mg 2 2	0	0
57	1y	3	Total Mg 3 3	0	0
57	1w	1	Total Mg 1 1	0	0
57	1x	2	Total Mg 2 2	0	0
57	2A	737	Total Mg 737 737	0	0
57	2B	20	Total Mg 20 20	0	0
57	2D	11	Total Mg 11 11	0	0
57	2E	6	Total Mg 6 6	0	0
57	2F	4	Total Mg 4 4	0	0
57	2G	2	Total Mg 2 2	0	0

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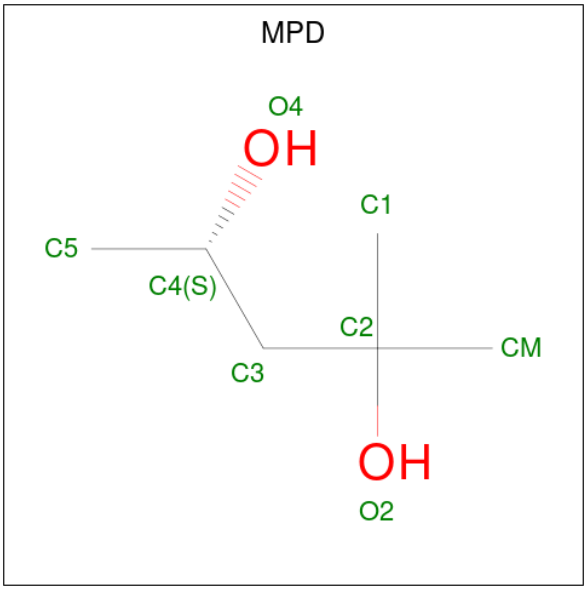
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	2I	1	Total Mg 1 1	0	0
57	2N	1	Total Mg 1 1	0	0
57	2O	1	Total Mg 1 1	0	0
57	2P	3	Total Mg 3 3	0	0
57	2Q	4	Total Mg 4 4	0	0
57	2R	3	Total Mg 3 3	0	0
57	2T	4	Total Mg 4 4	0	0
57	2U	1	Total Mg 1 1	0	0
57	2V	3	Total Mg 3 3	0	0
57	2W	2	Total Mg 2 2	0	0
57	2Y	1	Total Mg 1 1	0	0
57	20	2	Total Mg 2 2	0	0
57	21	1	Total Mg 1 1	0	0
57	23	1	Total Mg 1 1	0	0
57	25	3	Total Mg 3 3	0	0
57	26	1	Total Mg 1 1	0	0
57	27	1	Total Mg 1 1	0	0
57	28	1	Total Mg 1 1	0	0
57	2a	191	Total Mg 191 191	0	0
57	2e	2	Total Mg 2 2	0	0
57	2f	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	2h	1	Total Mg 1 1	0	0
57	2j	1	Total Mg 1 1	0	0
57	2k	2	Total Mg 2 2	0	0
57	2p	1	Total Mg 1 1	0	0
57	2r	1	Total Mg 1 1	0	0
57	2t	1	Total Mg 1 1	0	0
57	2x	1	Total Mg 1 1	0	0

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



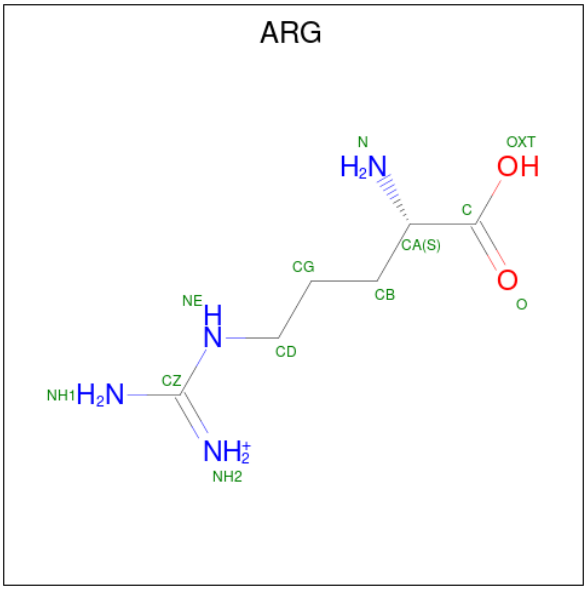
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	1A	1	Total C O 8 6 2	0	0
58	1T	1	Total C O 8 6 2	0	0
58	18	1	Total C O 8 6 2	0	0
58	1a	1	Total C O 8 6 2	0	0

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

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



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

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

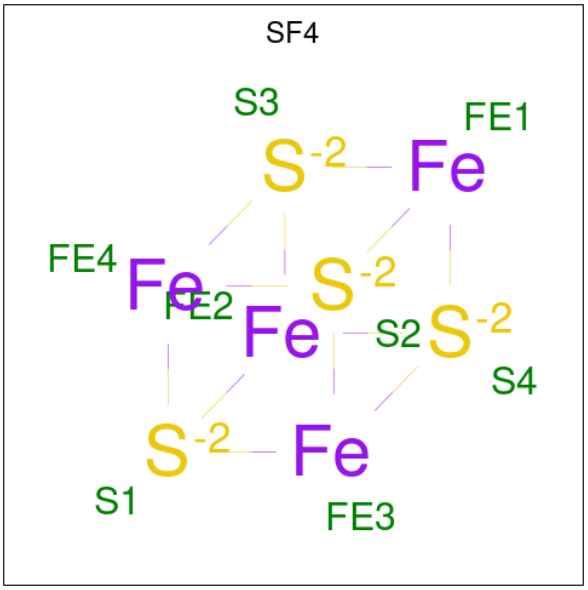
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1Y	1	Total Zn 1 1	0	0
60	14	1	Total Zn 1 1	0	0
60	15	1	Total Zn 1 1	0	0
60	16	1	Total Zn 1 1	0	0
60	19	1	Total Zn 1 1	0	0

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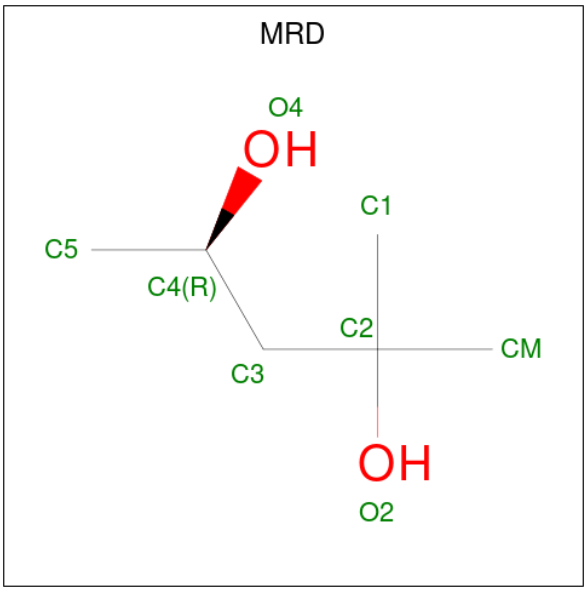
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1n	1	Total Zn 1 1	0	0
60	2Y	1	Total Zn 1 1	0	0
60	24	1	Total Zn 1 1	0	0
60	25	1	Total Zn 1 1	0	0
60	26	1	Total Zn 1 1	0	0
60	29	1	Total Zn 1 1	0	0
60	2n	1	Total Zn 1 1	0	0

- Molecule 61 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	1d	1	Total Fe S 8 4 4	0	0
61	2d	1	Total Fe S 8 4 4	0	0

- Molecule 62 is (4R)-2-METHYLPENTANE-2,4-DIOL (CCD ID: MRD) (formula: $C_6H_{14}O_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	2A	1	Total C O 8 6 2	0	0

- Molecule 63 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	1A	3988	Total O 3988 3988	0	0
63	1B	97	Total O 97 97	0	0
63	1D	113	Total O 113 113	0	0
63	1E	76	Total O 76 76	0	0
63	1F	67	Total O 67 67	0	0
63	1G	19	Total O 19 19	0	0
63	1H	11	Total O 11 11	0	0
63	1I	8	Total O 8 8	0	0
63	1N	52	Total O 52 52	0	0
63	1O	22	Total O 22 22	0	0
63	1P	66	Total O 66 66	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	1Q	36	Total O 36 36	0	0
63	1R	32	Total O 32 32	0	0
63	1S	12	Total O 12 12	0	0
63	1T	34	Total O 34 34	0	0
63	1U	47	Total O 47 47	0	0
63	1V	40	Total O 40 40	0	0
63	1W	33	Total O 33 33	0	0
63	1X	26	Total O 26 26	0	0
63	1Y	16	Total O 16 16	0	0
63	1Z	14	Total O 14 14	0	0
63	10	24	Total O 24 24	0	0
63	11	27	Total O 27 27	0	0
63	12	18	Total O 18 18	0	0
63	13	24	Total O 24 24	0	0
63	14	3	Total O 3 3	0	0
63	15	24	Total O 24 24	0	0
63	16	18	Total O 18 18	0	0
63	17	12	Total O 12 12	0	0
63	18	27	Total O 27 27	0	0
63	19	6	Total O 6 6	0	0
63	1a	511	Total O 511 511	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	1b	1	Total O 1 1	0	0
63	1d	8	Total O 8 8	0	0
63	1e	3	Total O 3 3	0	0
63	1f	2	Total O 2 2	0	0
63	1j	1	Total O 1 1	0	0
63	1k	1	Total O 1 1	0	0
63	1l	3	Total O 3 3	0	0
63	1m	1	Total O 1 1	0	0
63	1o	3	Total O 3 3	0	0
63	1p	2	Total O 2 2	0	0
63	1t	1	Total O 1 1	0	0
63	1y	7	Total O 7 7	0	0
63	1w	6	Total O 6 6	0	0
63	1x	5	Total O 5 5	0	0
63	2A	2224	Total O 2224 2224	0	0
63	2B	45	Total O 45 45	0	0
63	2D	50	Total O 50 50	0	0
63	2E	29	Total O 29 29	0	0
63	2F	22	Total O 22 22	0	0
63	2G	7	Total O 7 7	0	0
63	2H	2	Total O 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	2I	3	Total O 3 3	0	0
63	2N	2	Total O 2 2	0	0
63	2O	16	Total O 16 16	0	0
63	2P	25	Total O 25 25	0	0
63	2Q	16	Total O 16 16	0	0
63	2R	20	Total O 20 20	0	0
63	2S	5	Total O 5 5	0	0
63	2T	10	Total O 10 10	0	0
63	2U	12	Total O 12 12	0	0
63	2V	9	Total O 9 9	0	0
63	2W	23	Total O 23 23	0	0
63	2X	7	Total O 7 7	0	0
63	2Y	6	Total O 6 6	0	0
63	2Z	11	Total O 11 11	0	0
63	20	14	Total O 14 14	0	0
63	21	20	Total O 20 20	0	0
63	22	3	Total O 3 3	0	0
63	23	4	Total O 4 4	0	0
63	24	2	Total O 2 2	0	0
63	25	9	Total O 9 9	0	0
63	26	5	Total O 5 5	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	27	9	Total O 9 9	0	0
63	28	12	Total O 12 12	0	0
63	29	1	Total O 1 1	0	0
63	2a	384	Total O 384 384	0	0
63	2d	4	Total O 4 4	0	0
63	2e	2	Total O 2 2	0	0
63	2f	3	Total O 3 3	0	0
63	2j	2	Total O 2 2	0	0
63	2l	4	Total O 4 4	0	0
63	2m	1	Total O 1 1	0	0
63	2o	4	Total O 4 4	0	0
63	2p	1	Total O 1 1	0	0
63	2q	1	Total O 1 1	0	0
63	2r	3	Total O 3 3	0	0
63	2t	2	Total O 2 2	0	0
63	2u	1	Total O 1 1	0	0
63	2y	3	Total O 3 3	0	0
63	2w	3	Total O 3 3	0	0
63	2x	3	Total O 3 3	0	0

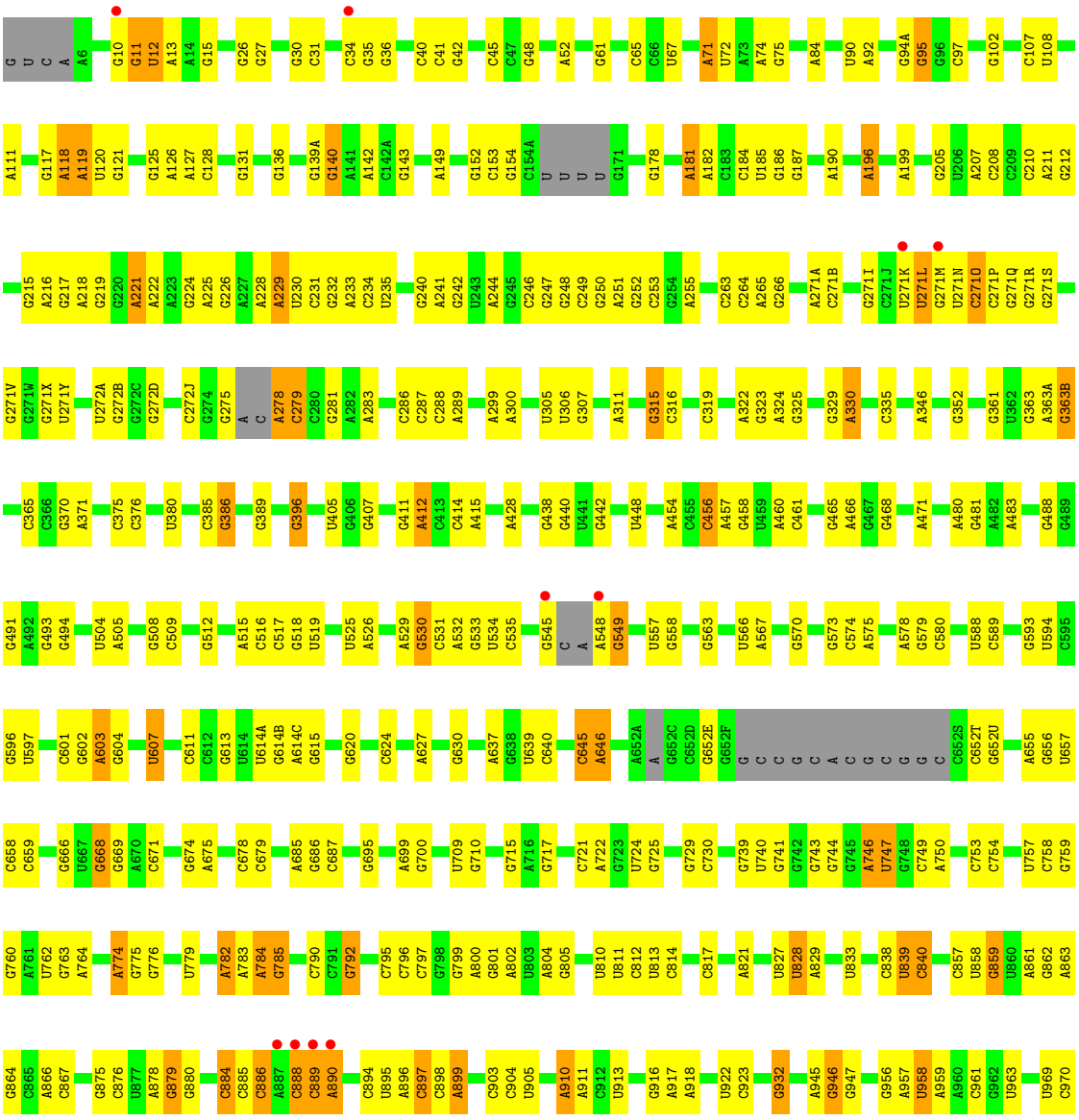
3 Residue-property plots (i)

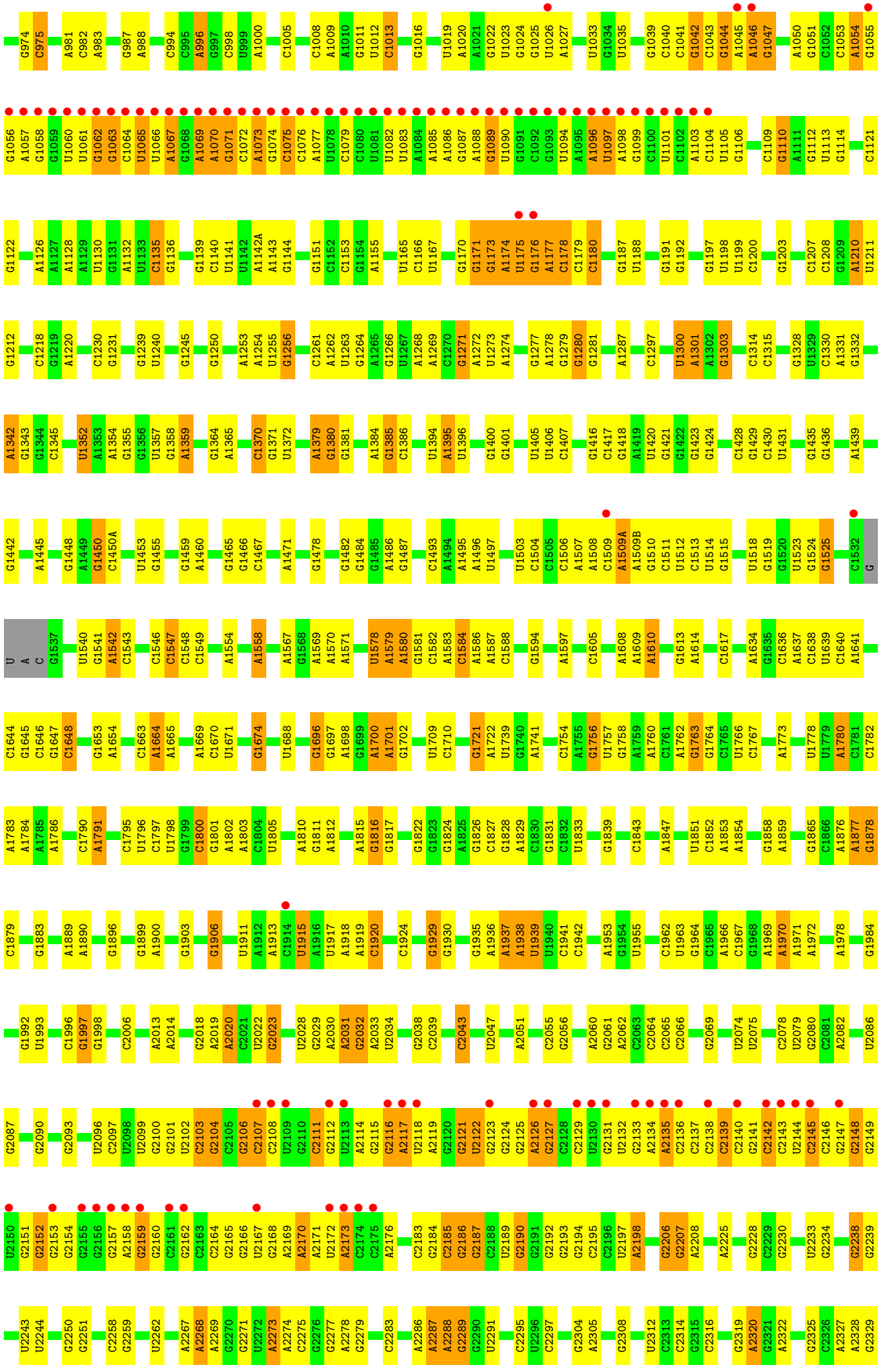
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

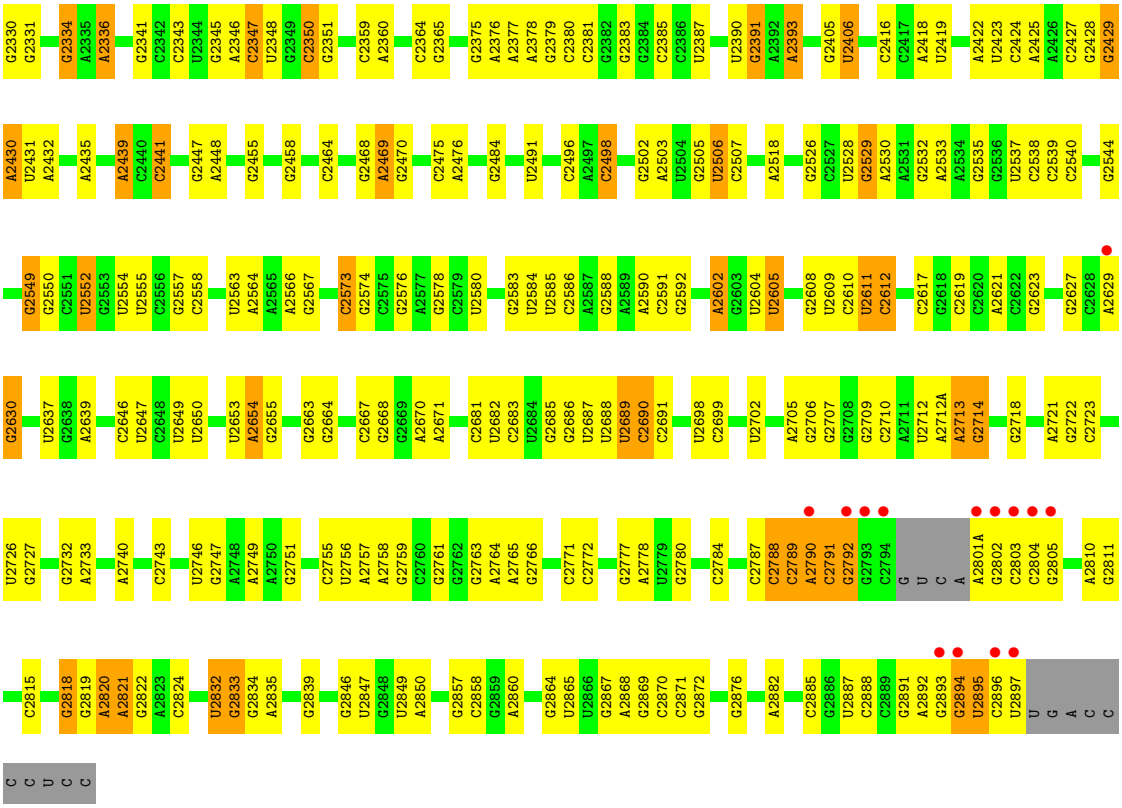
- Molecule 1: 23S Ribosomal RNA

Chain 1A:



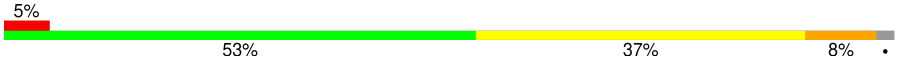


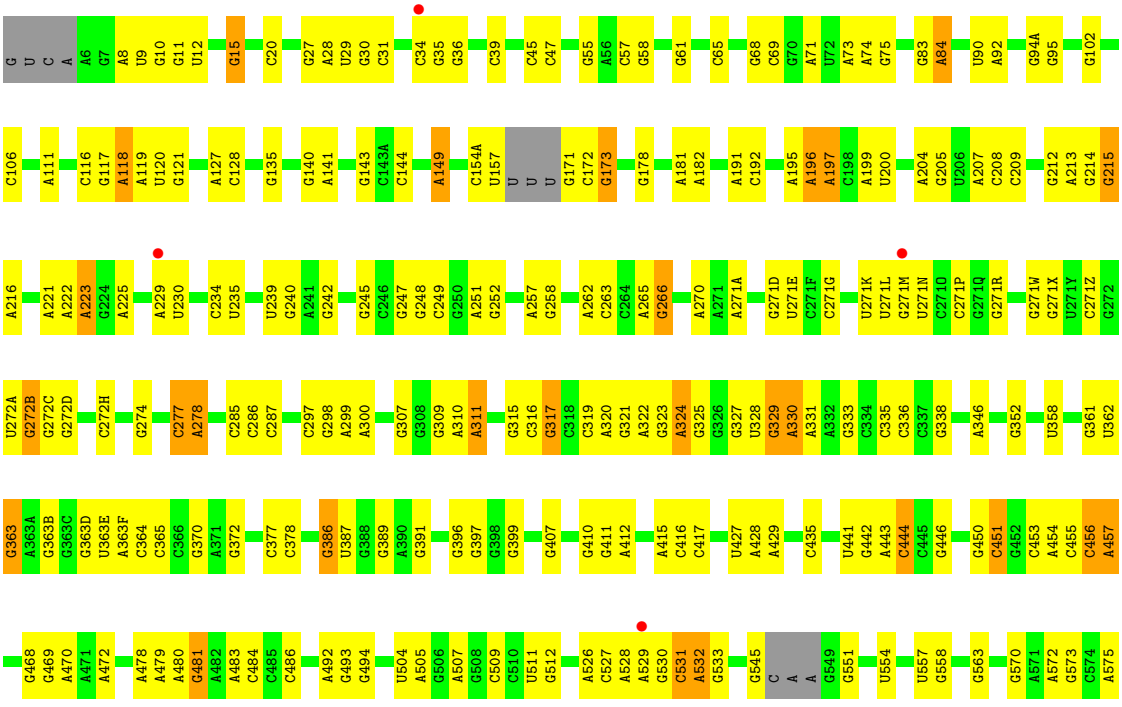

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G1056 A1057 G1058 G1059 U1060 U1061 G1062 G1063 C1064 U1065 U1066 A1067 G1068 A1069 A1070 G1071 C1072 A1073 G1074 C1075 C1076 A1077 U1078 C1079 C1080 U1081 U1082 U1083 A1084 A1085 A1086 G1087 A1088 G1089 U1090 G1091 C1092 G1093 U1094 A1095 A1096 U1097 A1098 G1099 C1100 U1101 C1102 A1103 C1104 U1105 G1106 C1109 G1110 A1111 G1112 U1113 G1114 C1121
G1122 A1126 A1127 A1128 A1129 U1130 G1131 A1132 U1133 C1135 G1136 G1139 C1140 U1141 U1142 A1142A A1143 G1144 G1151 C1152 C1153 G1154 A1155 U1165 C1166 U1167 G1170 G1171 A1172 G1173 A1174 U1175 G1176 A1177 C1178 C1179 C1180 G1187 U1188 G1191 G1192 G1197 U1198 U1199 C1200 G1203 C1207 C1208 G1209 A1210 U1211
G1212 C1218 G1219 A1220 C1230 G1231 G1239 U1240 G1245 G1250 A1253 A1254 U1255 G1256 C1261 A1262 U1263 G1264 A1265 G1266 U1267 A1268 A1269 C1270 G1271 A1272 U1273 A1274 G1277 A1278 G1279 G1280 G1281 A1287 C1297 U1300 A1301 A1302 G1303 C1314 C1315 G1328 U1329 C1330 A1331 G1332
A1342 G1343 G1344 C1345 U1352 A1353 A1354 G1355 G1356 U1357 G1358 A1359 G1364 A1365 C1370 G1371 U1372 A1379 G1380 G1381 A1384 G1385 C1386 U1394 A1395 U1396 G1400 G1401 U1405 U1406 C1407 G1416 C1417 G1418 A1419 U1420 G1421 G1422 G1423 G1424 C1428 G1429 C1430 U1431 G1435 G1436 A1439
G1442 A1445 G1448 A1449 G1450 C1450A U1453 G1455 G1459 A1460 G1465 G1466 C1467 A1471 G1478 G1482 G1484 G1485 A1486 G1487 C1493 A1494 A1495 A1496 U1497 U1503 C1504 C1505 C1506 A1507 A1508 C1509 A1509A A1509B G1510 C1511 U1512 C1513 U1514 G1515 U1518 G1519 G1520 U1523 G1524 G1525 C1532 G
U A C G1537 U1540 G1541 A1542 C1543 C1546 C1547 C1548 C1549 A1554 A1558 A1567 G1568 A1569 A1570 A1571 U1578 A1579 A1580 G1581 C1582 A1583 C1584 A1586 A1587 C1588 G1594 A1597 C1605 A1608 A1609 A1610 G1613 A1614 C1617 A1634 G1635 C1636 A1637 C1638 U1639 C1640 A1641
C1644 G1645 C1646 G1647 C1648 G1653 A1654 C1663 A1664 A1665 A1669 C1670 U1671 C1674 U1688 G1696 G1697 A1698 G1699 A1700 A1701 G1702 U1709 C1710 C1721 A1722 U1739 C1740 A1741 C1754 A1755 G1756 U1757 G1758 A1759 A1760 C1761 A1762 G1763 G1764 C1765 U1766 C1767 A1773 U1778 U1779 A1780 C1781 C1782
A1783 A1784 A1785 A1786 C1790 A1791 C1795 U1796 C1797 U1798 G1799 C1800 G1801 A1802 A1803 C1804 U1805 A1810 G1811 A1812 A1815 G1816 G1817 G1822 G1823 G1824 A1825 G1826 C1827 G1828 A1829 C1830 G1831 C1832 U1833 G1839 C1843 A1847 U1851 C1852 A1853 A1854 G1858 A1859 G1865 C1866 A1876 A1877 G1878
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G1992 U1993 C1996 G1997 G1998 C2006 A2013 A2014 G2018 A2019 A2020 C2021 U2022 G2023 U2028 G2029 A2030 A2031 G2032 A2033 U2034 G2038 C2039 C2043 U2047 A2051 C2055 G2056 A2060 G2061 A2062 C2063 C2064 C2065 C2066 G2069 U2074 U2075 C2078 U2079 G2080 C2081 A2082 U2086
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U2150 G2151 G2152 G2153 G2154 G2155 G2156 G2157 A2158 G2159 G2160 C2161 G2162 C2163 C2164 G2165 G2166 U2167 G2168 A2169 A2170 A2171 U2172 A2173 C2174 C2175 A2176 C2183 G2184 C2185 G2186 G2187 C2188 U2189 G2190 G2191 G2192 G2193 G2194 C2195 C2196 U2197 A2198 G2206 G2207 A2208 A2225 G2228 C2229 G2230 U2233 G2234 G2238 G2239
U2243 U2244 G2250 G2251 C2258 G2259 U2262 A2267 A2268 A2269 G2270 G2271 U2272 A2273 A2274 C2275 G2276 G2277 A2278 G2279 C2283 A2286 A2287 A2288 G2289 C2290 U2291 C2295 U2296 C2297 G2304 A2305 G2308 U2312 C2313 C2314 G2315 C2316 G2319 A2320 G2321 A2322 G2325 C2326 A2327 A2328 G2329

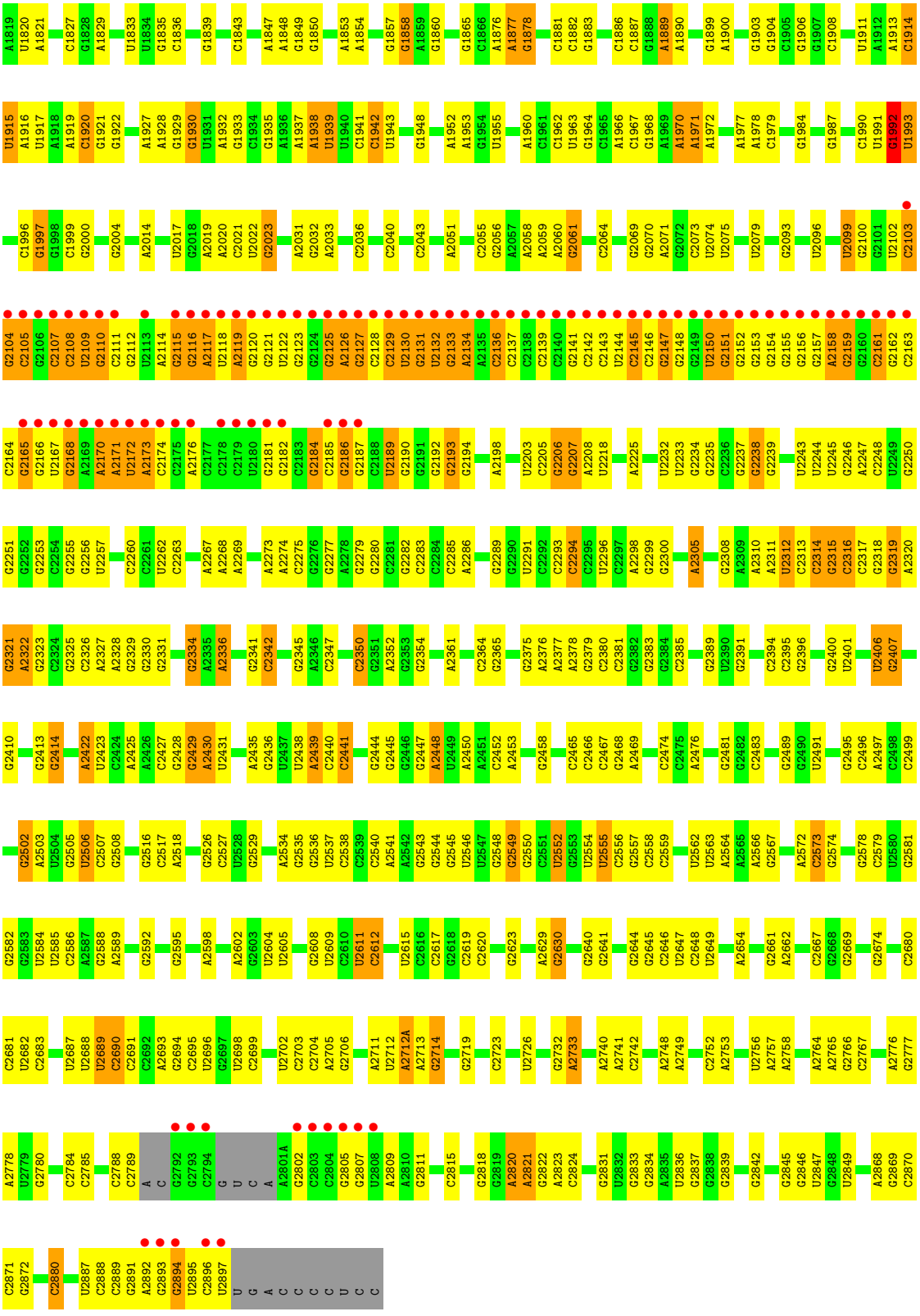


• Molecule 1: 23S Ribosomal RNA

Chain 2A:



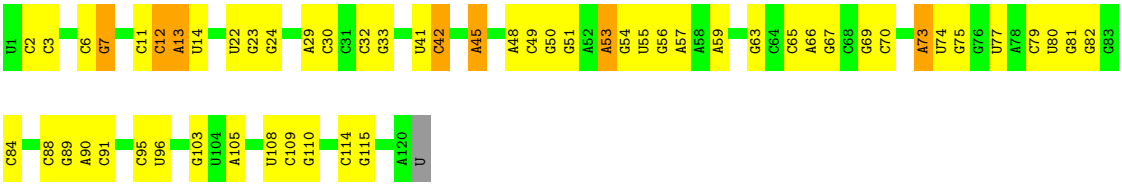




• Molecule 2: 5S Ribosomal RNA

Chain 1B:





• Molecule 2: 5S Ribosomal RNA

Chain 2B:





• Molecule 3: 50S ribosomal protein L2

Chain 1D:

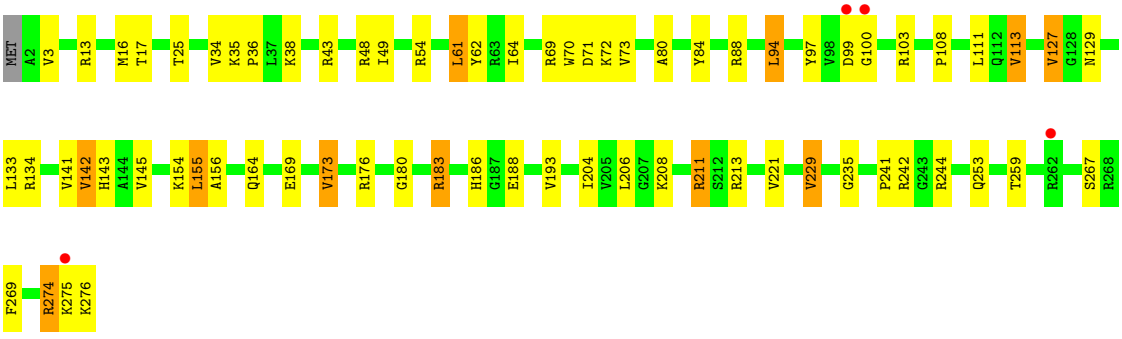




• Molecule 3: 50S ribosomal protein L2

Chain 2D:

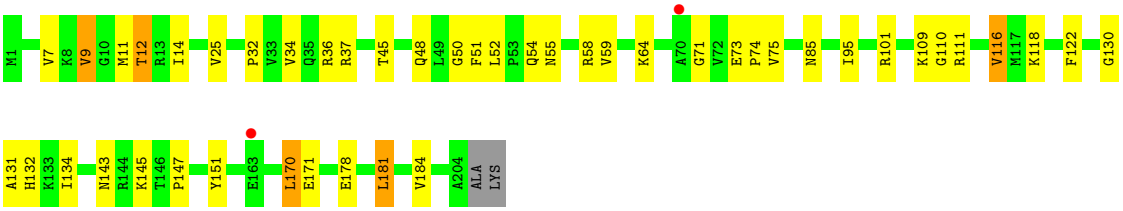




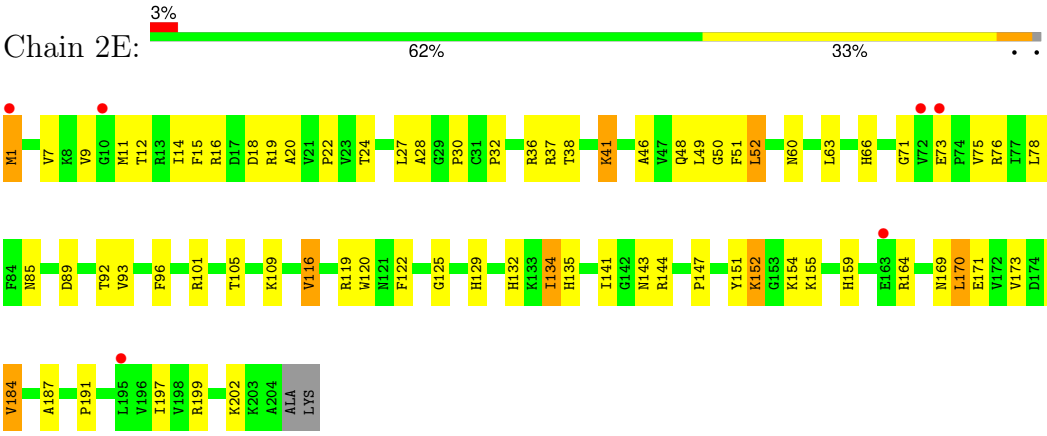
• Molecule 4: 50S ribosomal protein L3

Chain 1E:

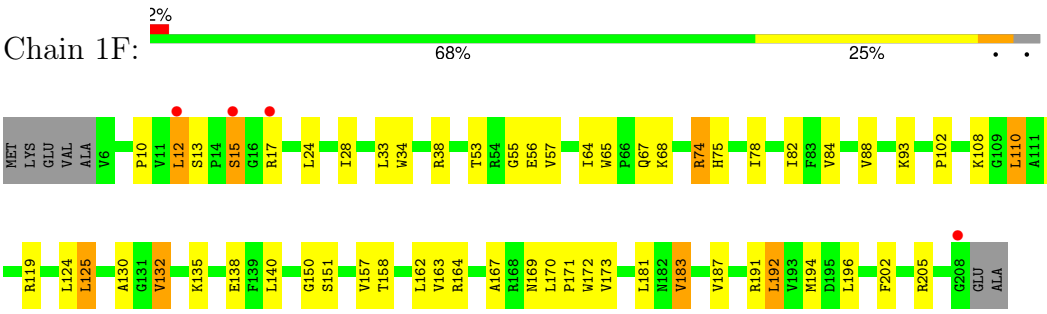




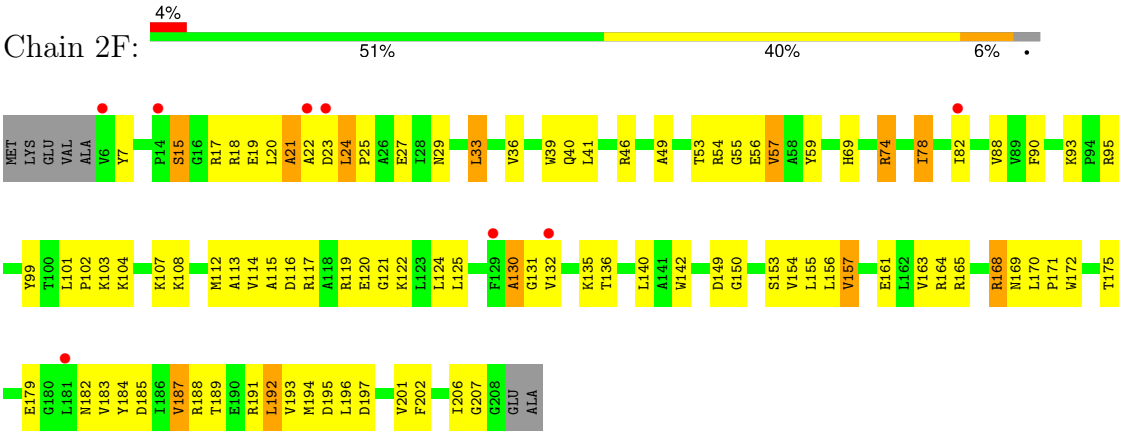
• Molecule 4: 50S ribosomal protein L3



• Molecule 5: 50S ribosomal protein L4

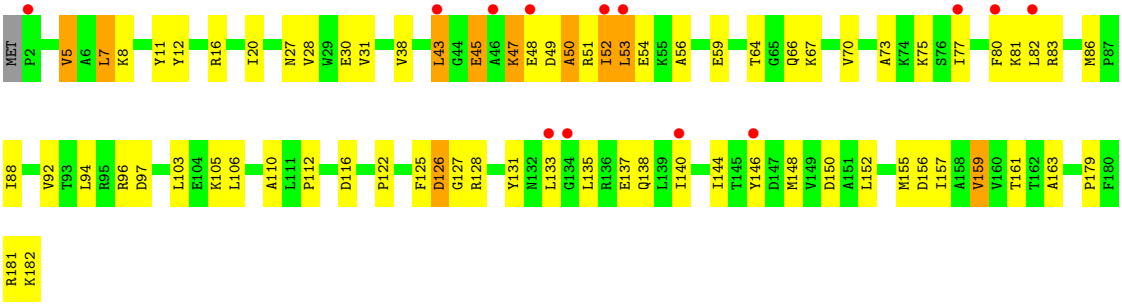


• Molecule 5: 50S ribosomal protein L4

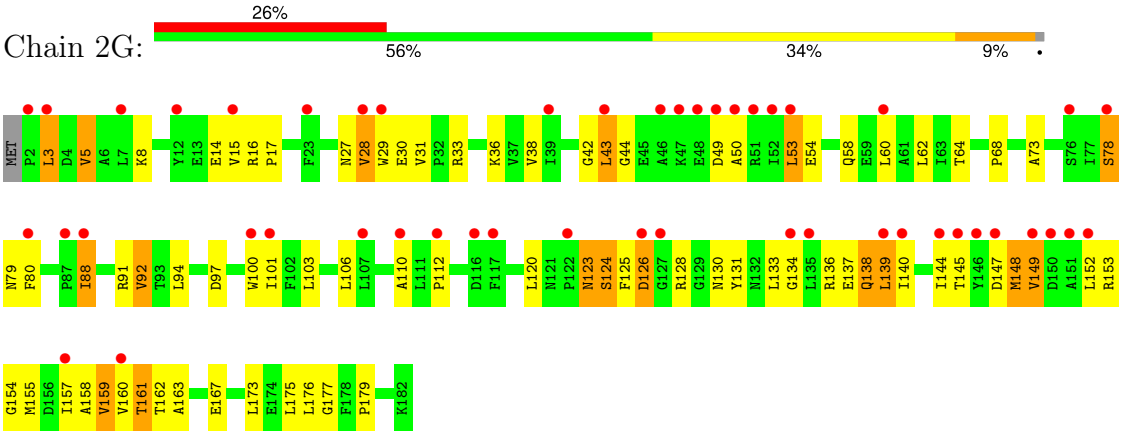


• Molecule 6: 50S ribosomal protein L5

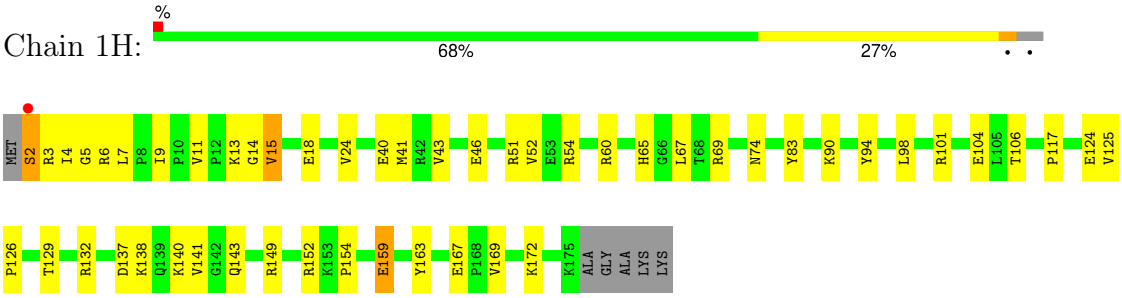




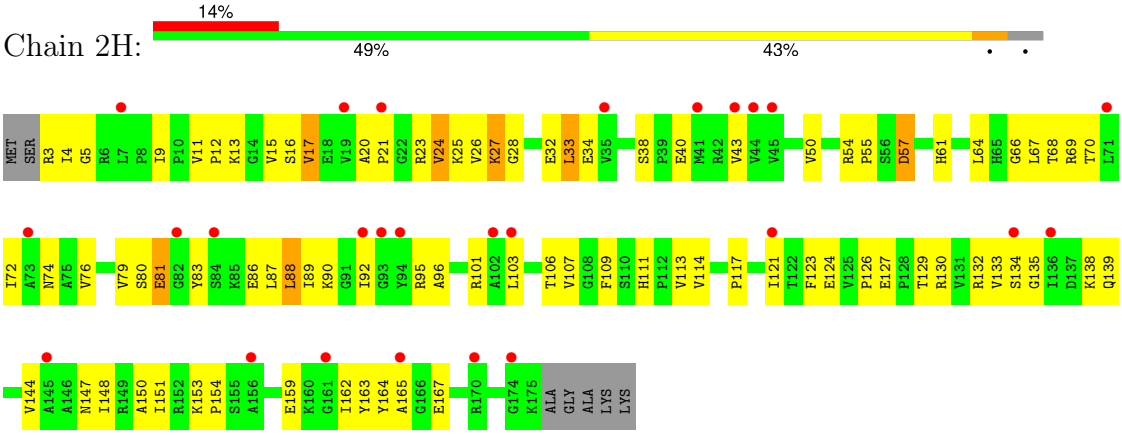
• Molecule 6: 50S ribosomal protein L5



• Molecule 7: 50S ribosomal protein L6

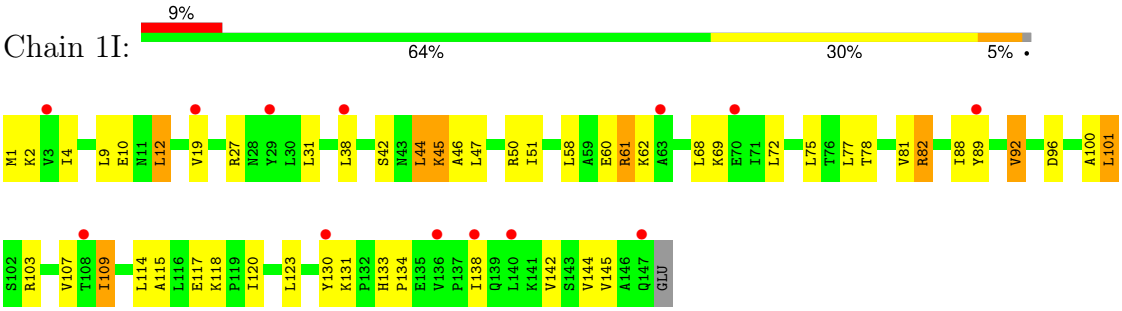


• Molecule 7: 50S ribosomal protein L6



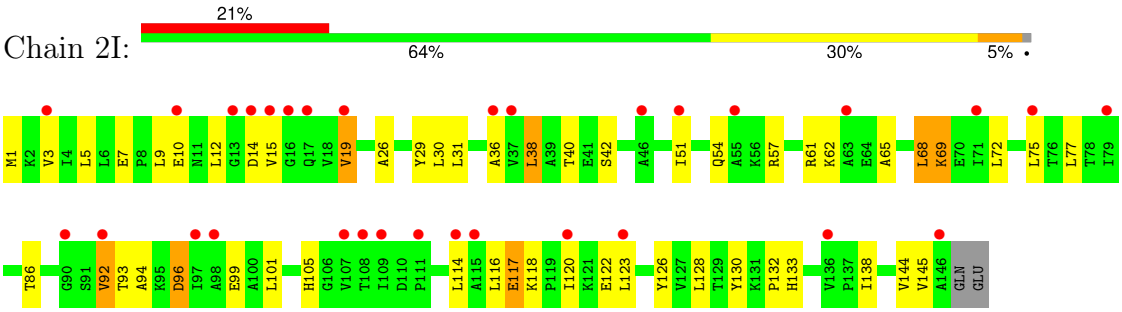
• Molecule 8: 50S ribosomal protein L9

Chain 1I:



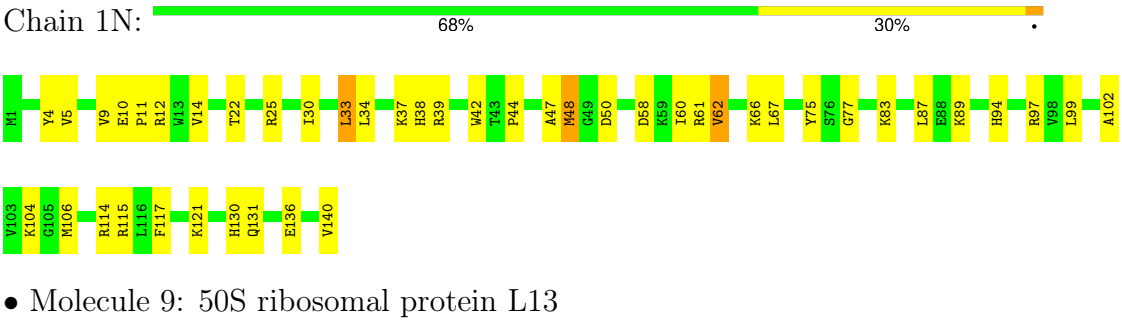
• Molecule 8: 50S ribosomal protein L9

Chain 2I:



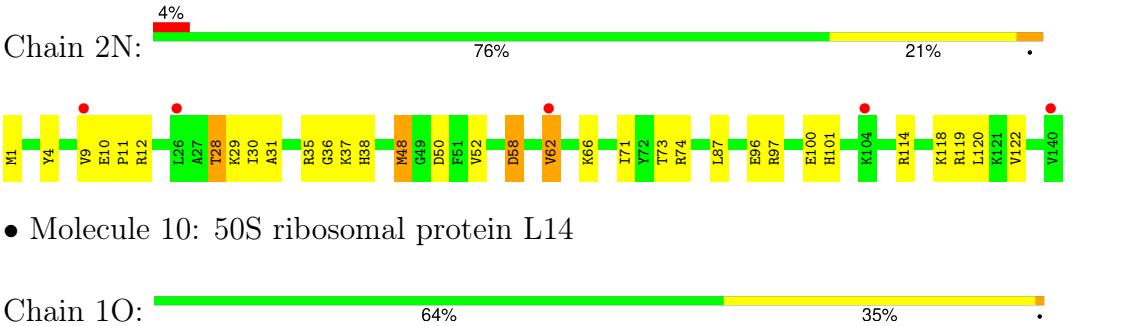
• Molecule 9: 50S ribosomal protein L13

Chain 1N:



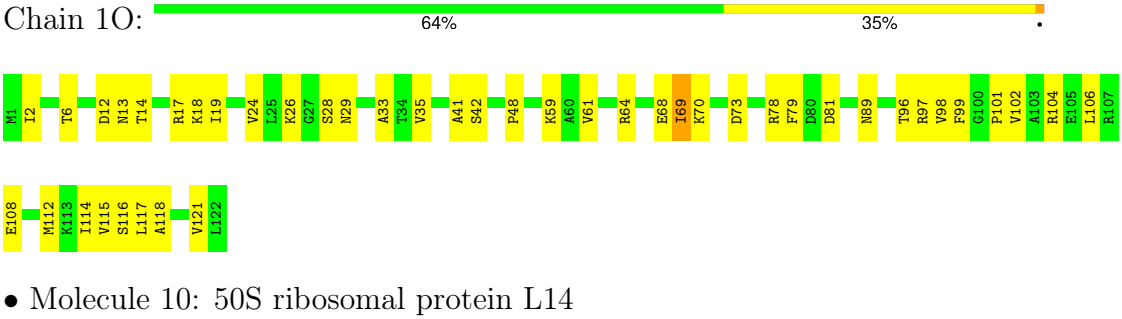
• Molecule 9: 50S ribosomal protein L13

Chain 2N:



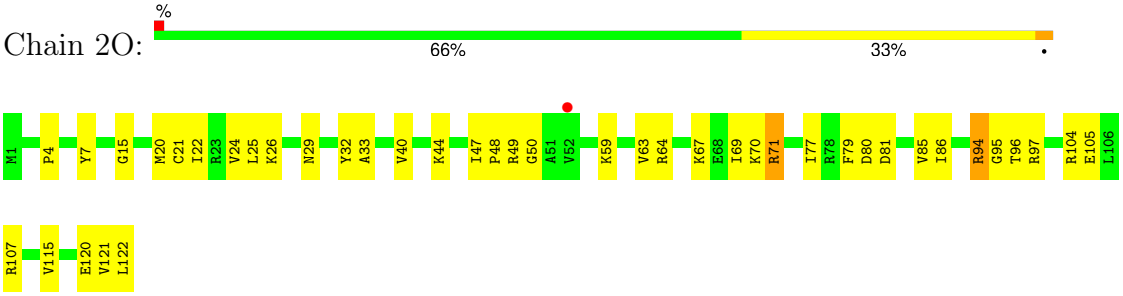
• Molecule 10: 50S ribosomal protein L14

Chain 1O:



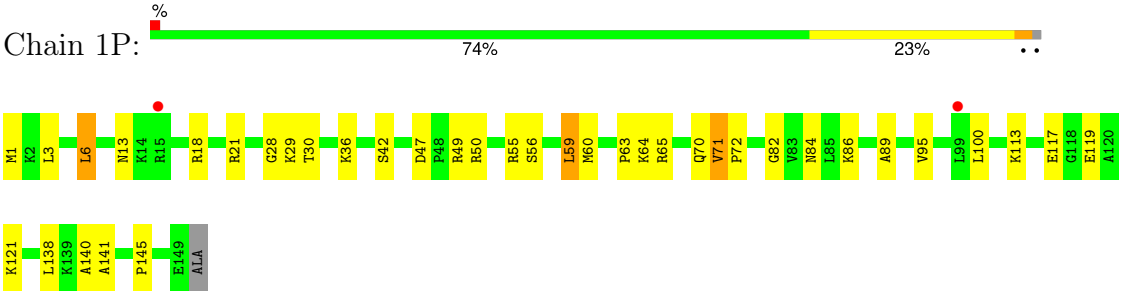
• Molecule 10: 50S ribosomal protein L14

Chain 2O:



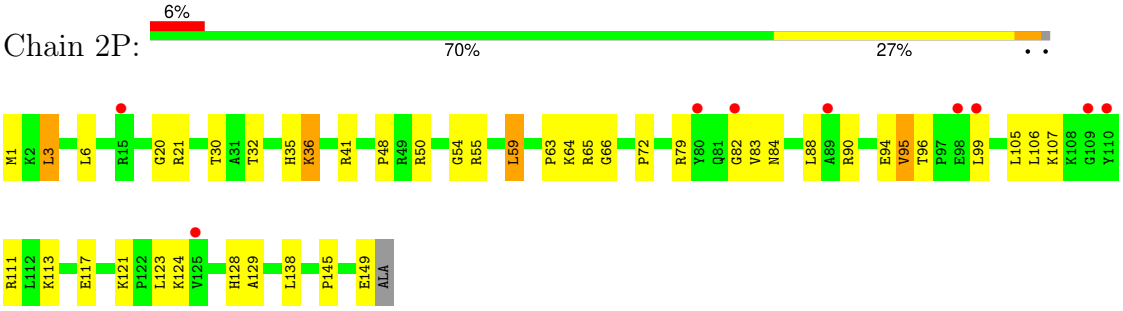
• Molecule 11: 50S ribosomal protein L15

Chain 1P:



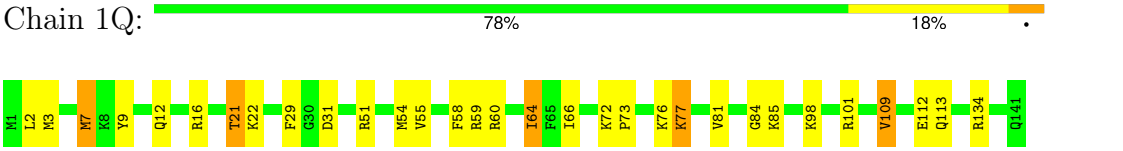
• Molecule 11: 50S ribosomal protein L15

Chain 2P:



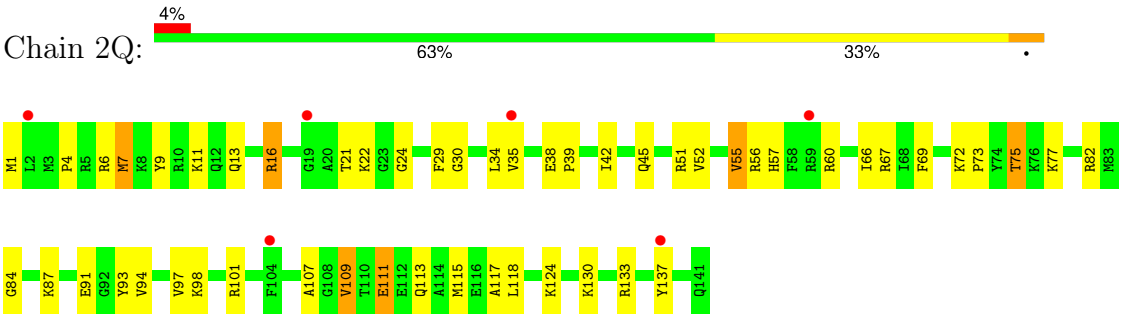
• Molecule 12: 50S ribosomal protein L16

Chain 1Q:



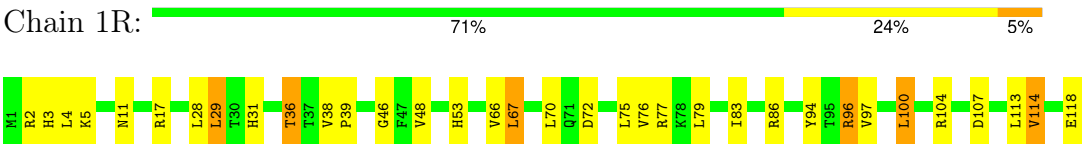
• Molecule 12: 50S ribosomal protein L16

Chain 2Q:



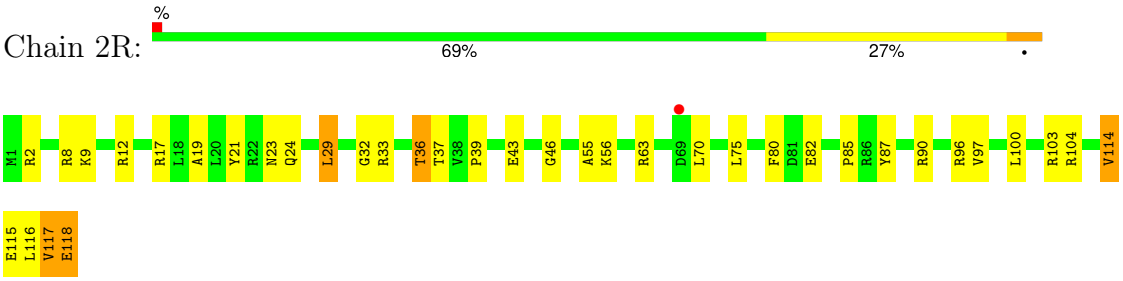
• Molecule 13: 50S ribosomal protein L17

Chain 1R:



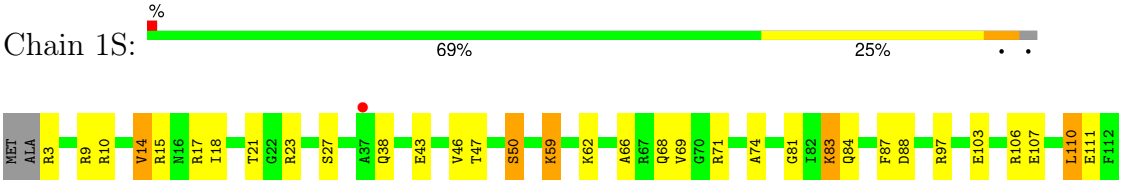
• Molecule 13: 50S ribosomal protein L17

Chain 2R:



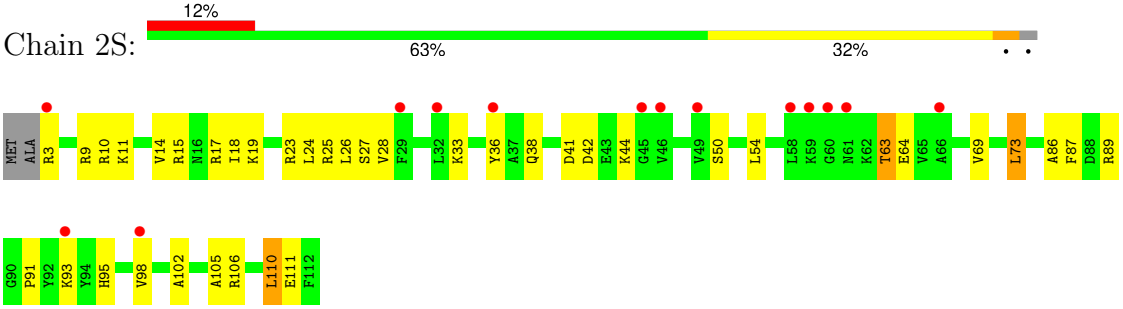
• Molecule 14: 50S ribosomal protein L18

Chain 1S:



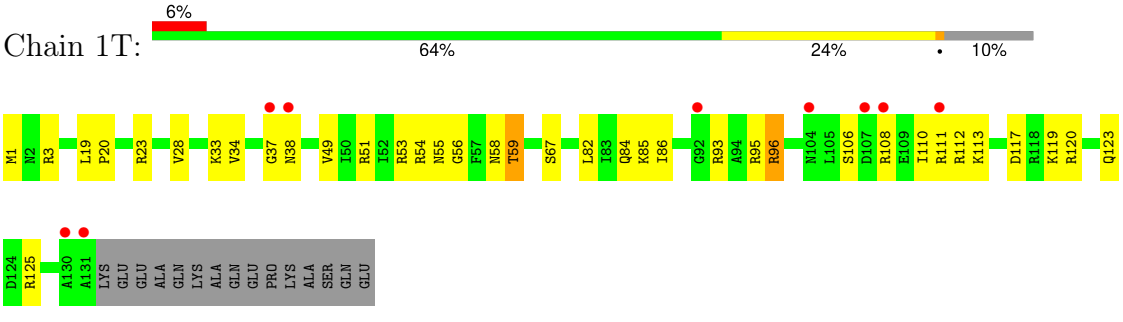
• Molecule 14: 50S ribosomal protein L18

Chain 2S:



• Molecule 15: 50S ribosomal protein L19

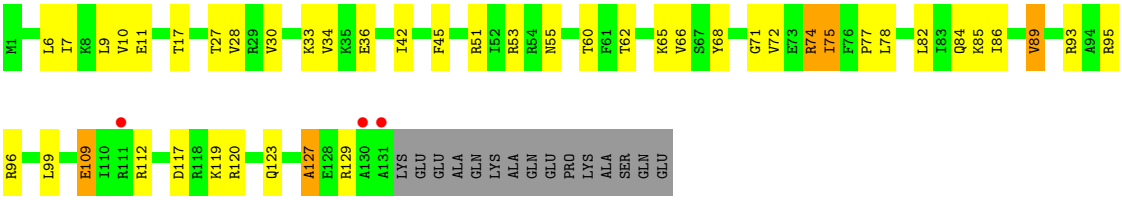
Chain 1T:



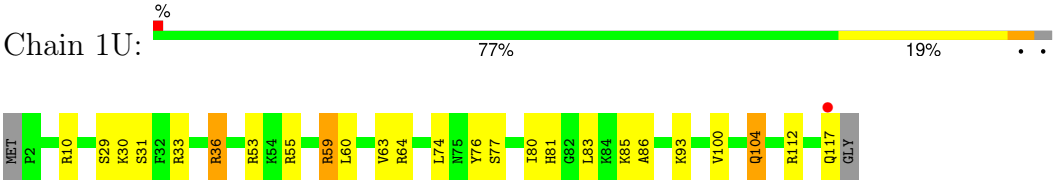
• Molecule 15: 50S ribosomal protein L19

Chain 2T:

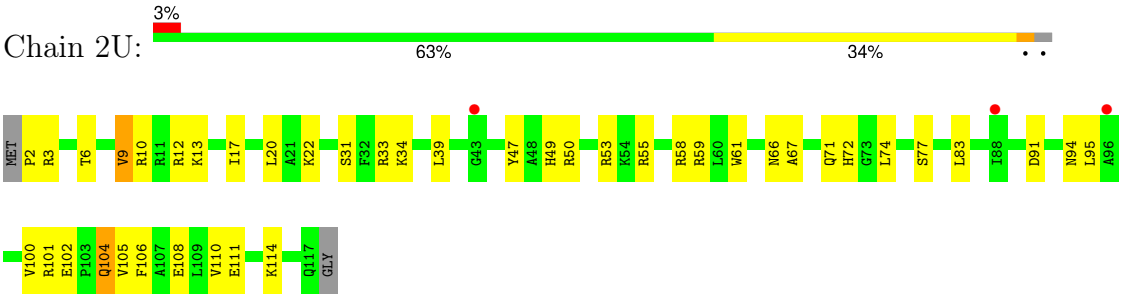




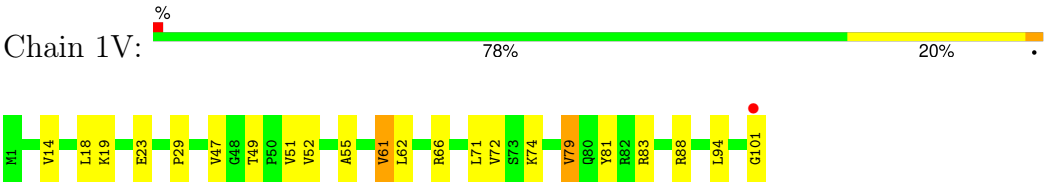
• Molecule 16: 50S ribosomal protein L20



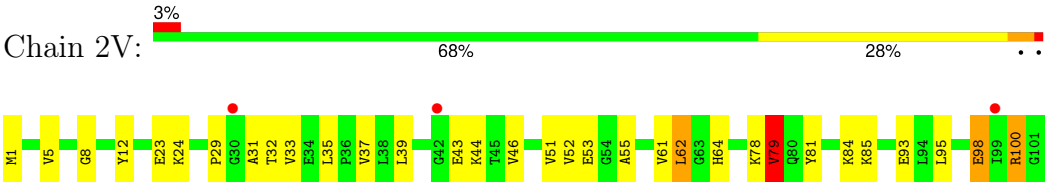
• Molecule 16: 50S ribosomal protein L20



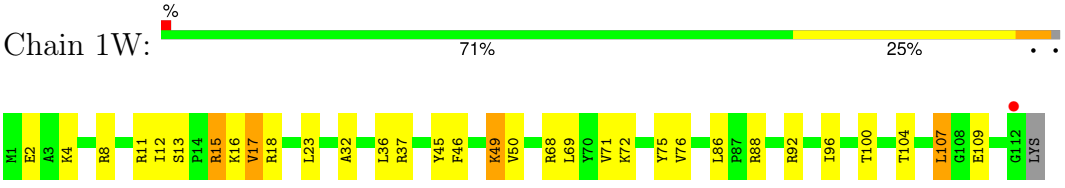
• Molecule 17: 50S ribosomal protein L21



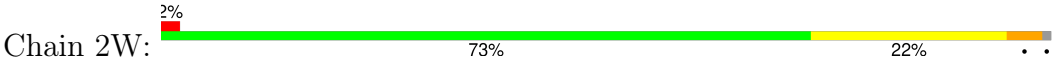
• Molecule 17: 50S ribosomal protein L21

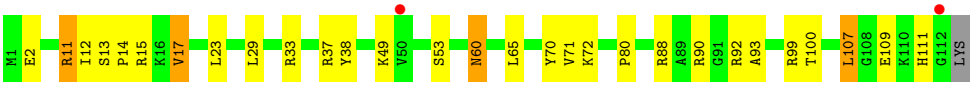


• Molecule 18: 50S ribosomal protein L22



• Molecule 18: 50S ribosomal protein L22

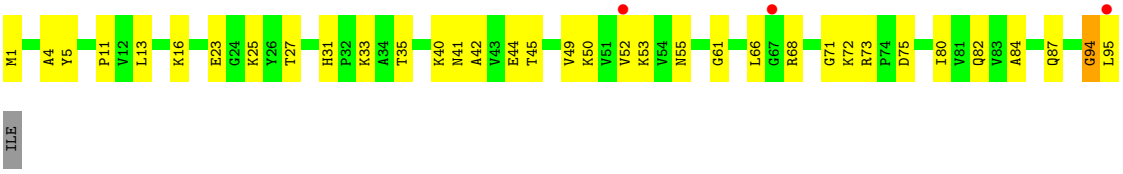




• Molecule 19: 50S ribosomal protein L23

Chain 1X:





• Molecule 19: 50S ribosomal protein L23

Chain 2X:

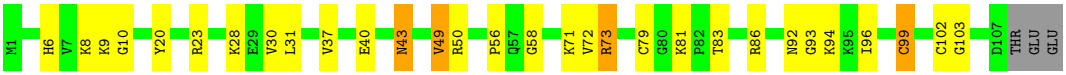




• Molecule 20: 50S ribosomal protein L24

Chain 1Y:

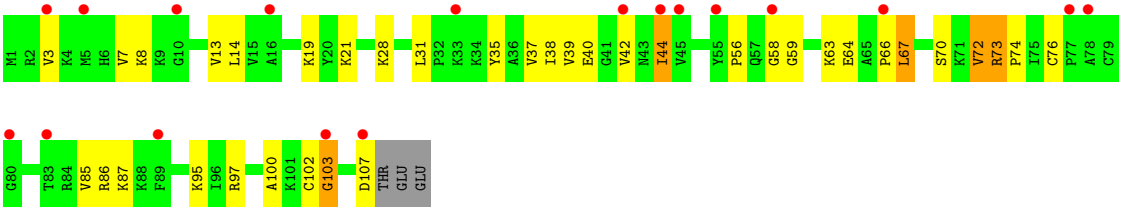




• Molecule 20: 50S ribosomal protein L24

Chain 2Y:

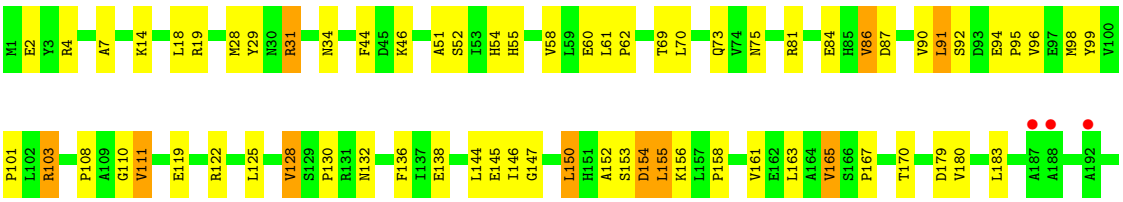


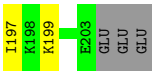


• Molecule 21: 50S ribosomal protein L25

Chain 1Z:



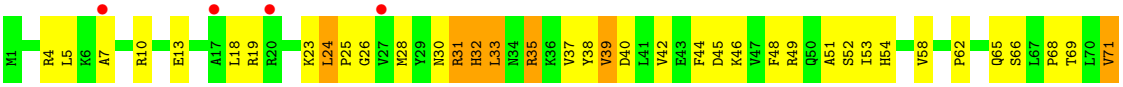


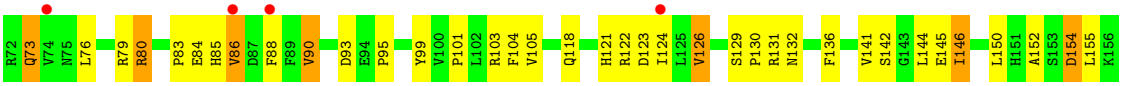


• Molecule 21: 50S ribosomal protein L25

Chain 2Z:





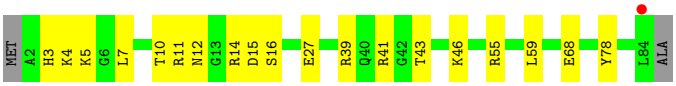




• Molecule 22: 50S ribosomal protein L27

Chain 10:

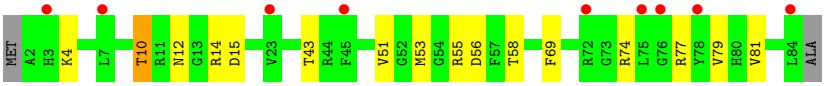




• Molecule 22: 50S ribosomal protein L27

Chain 20:

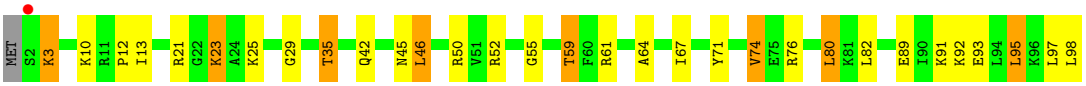




• Molecule 23: 50S ribosomal protein L28

Chain 11:

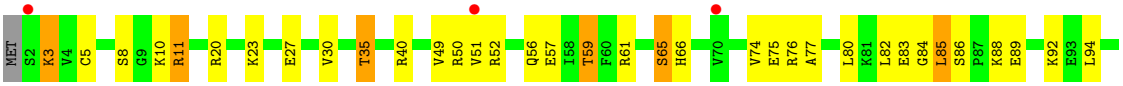




• Molecule 23: 50S ribosomal protein L28

Chain 21:

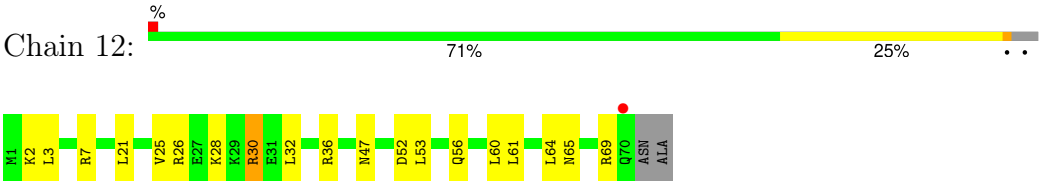






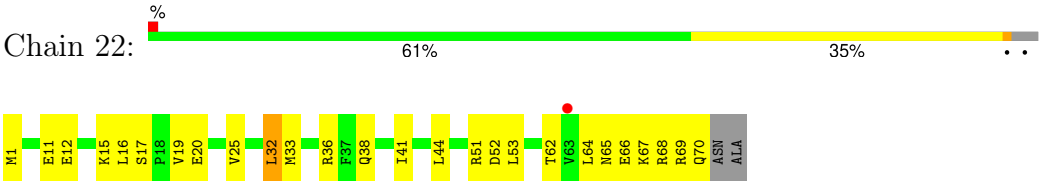
• Molecule 24: 50S ribosomal protein L29

Chain 12:



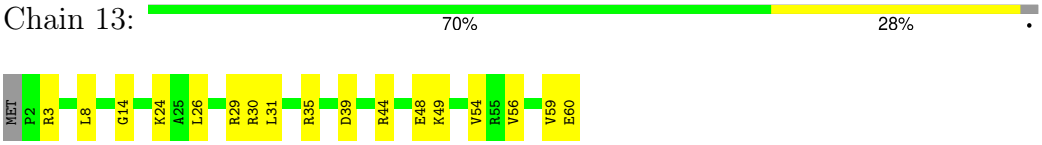
• Molecule 24: 50S ribosomal protein L29

Chain 22:



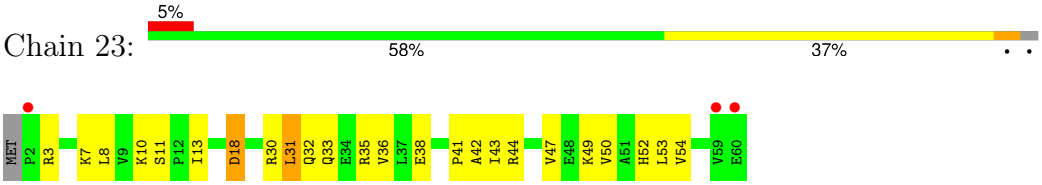
• Molecule 25: 50S ribosomal protein L30

Chain 13:



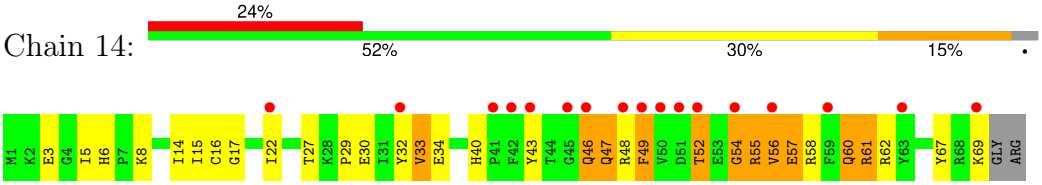
• Molecule 25: 50S ribosomal protein L30

Chain 23:



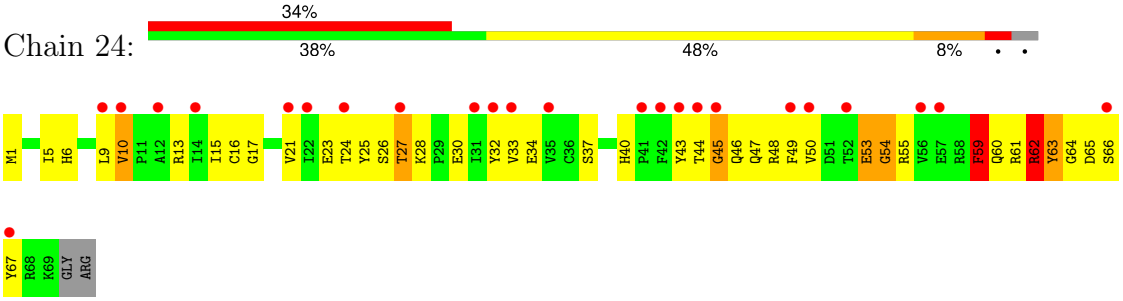
• Molecule 26: 50S ribosomal protein L31

Chain 14:



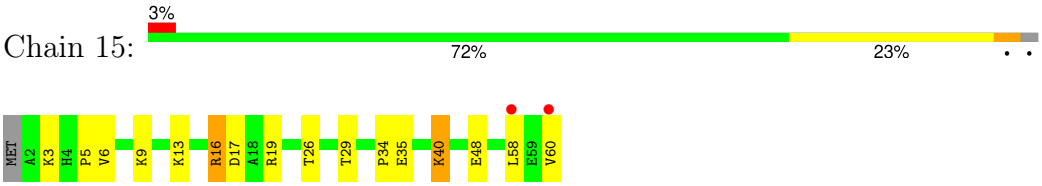
• Molecule 26: 50S ribosomal protein L31

Chain 24:



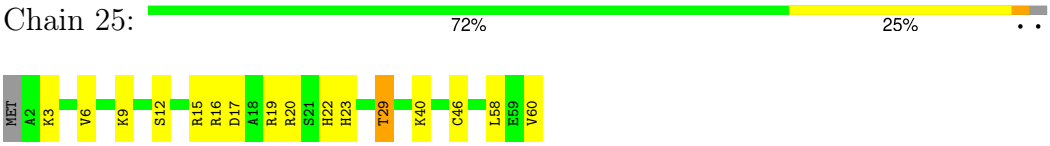
• Molecule 27: 50S ribosomal protein L32

Chain 15:



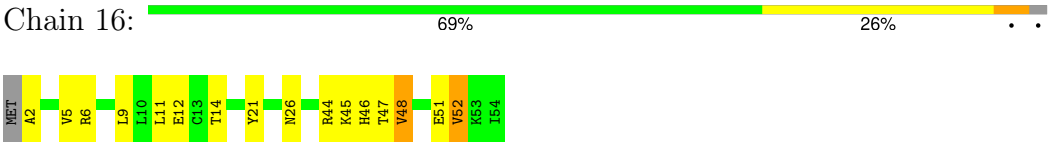
• Molecule 27: 50S ribosomal protein L32

Chain 25:



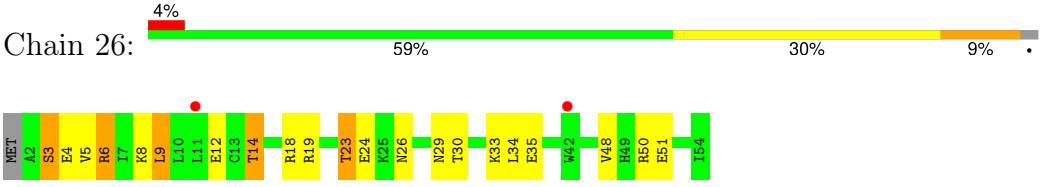
• Molecule 28: 50S ribosomal protein L33

Chain 16:



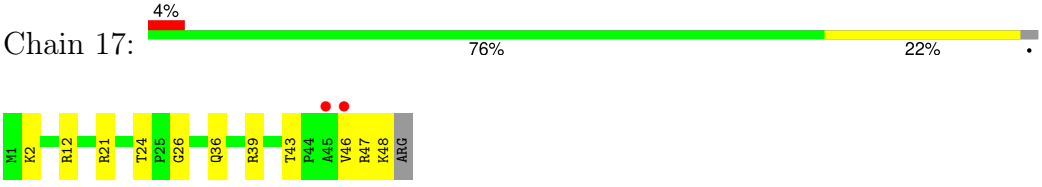
• Molecule 28: 50S ribosomal protein L33

Chain 26:



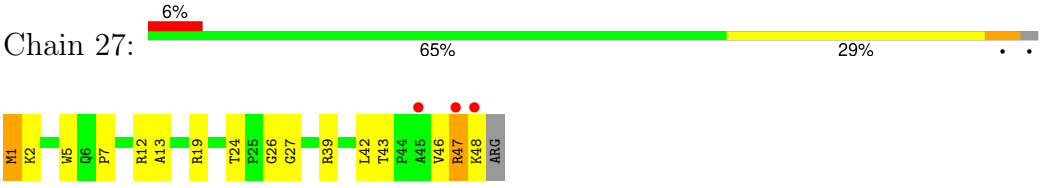
• Molecule 29: 50S ribosomal protein L34

Chain 17:



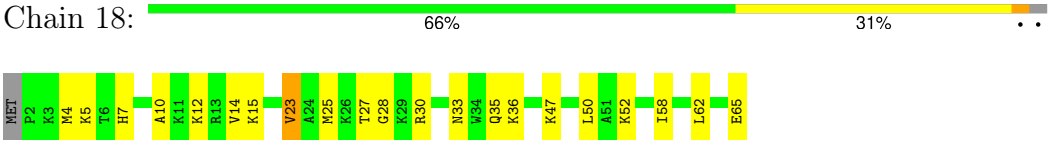
• Molecule 29: 50S ribosomal protein L34

Chain 27:



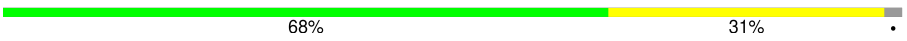
• Molecule 30: 50S ribosomal protein L35

Chain 18:



• Molecule 30: 50S ribosomal protein L35

Chain 28:

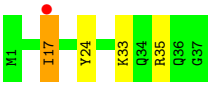




• Molecule 31: 50S ribosomal protein L36

Chain 19:

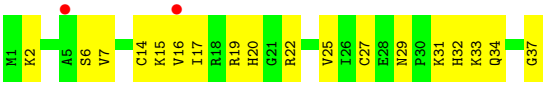




• Molecule 31: 50S ribosomal protein L36

Chain 29:

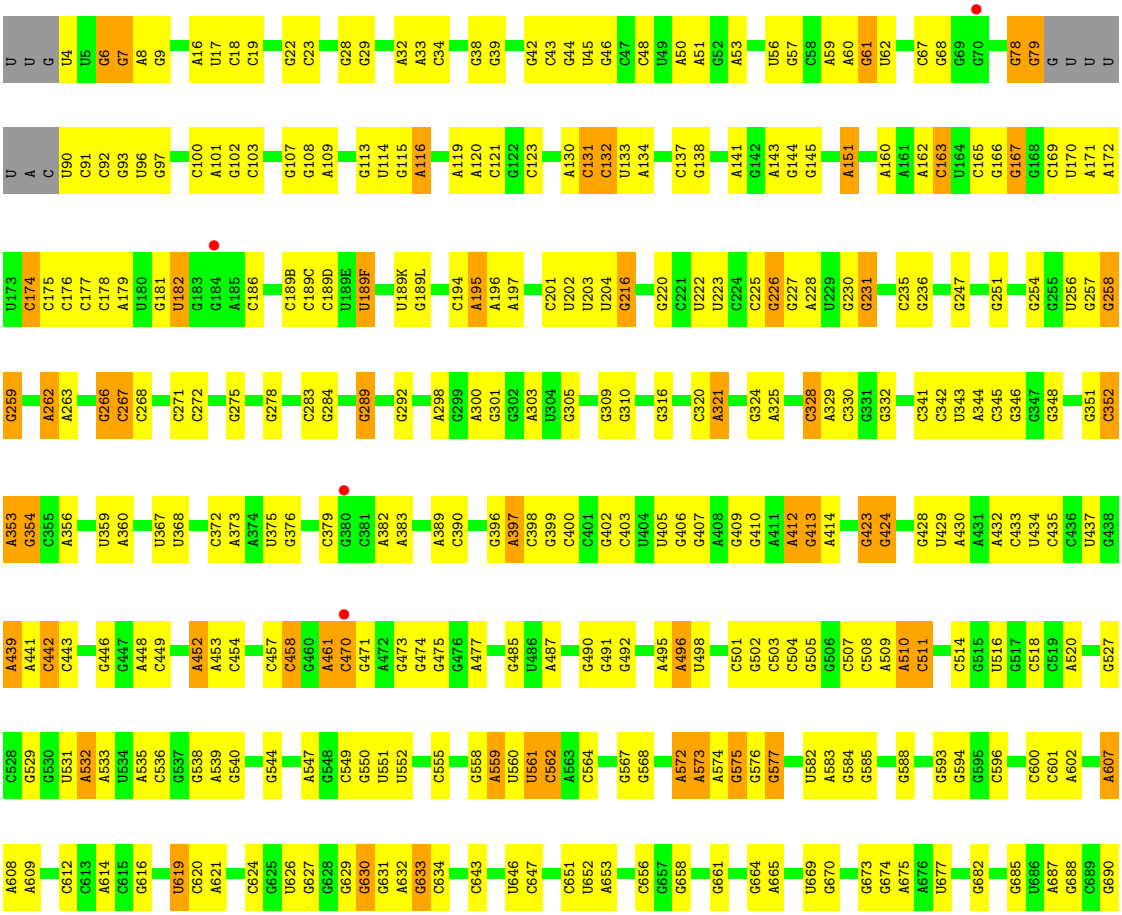


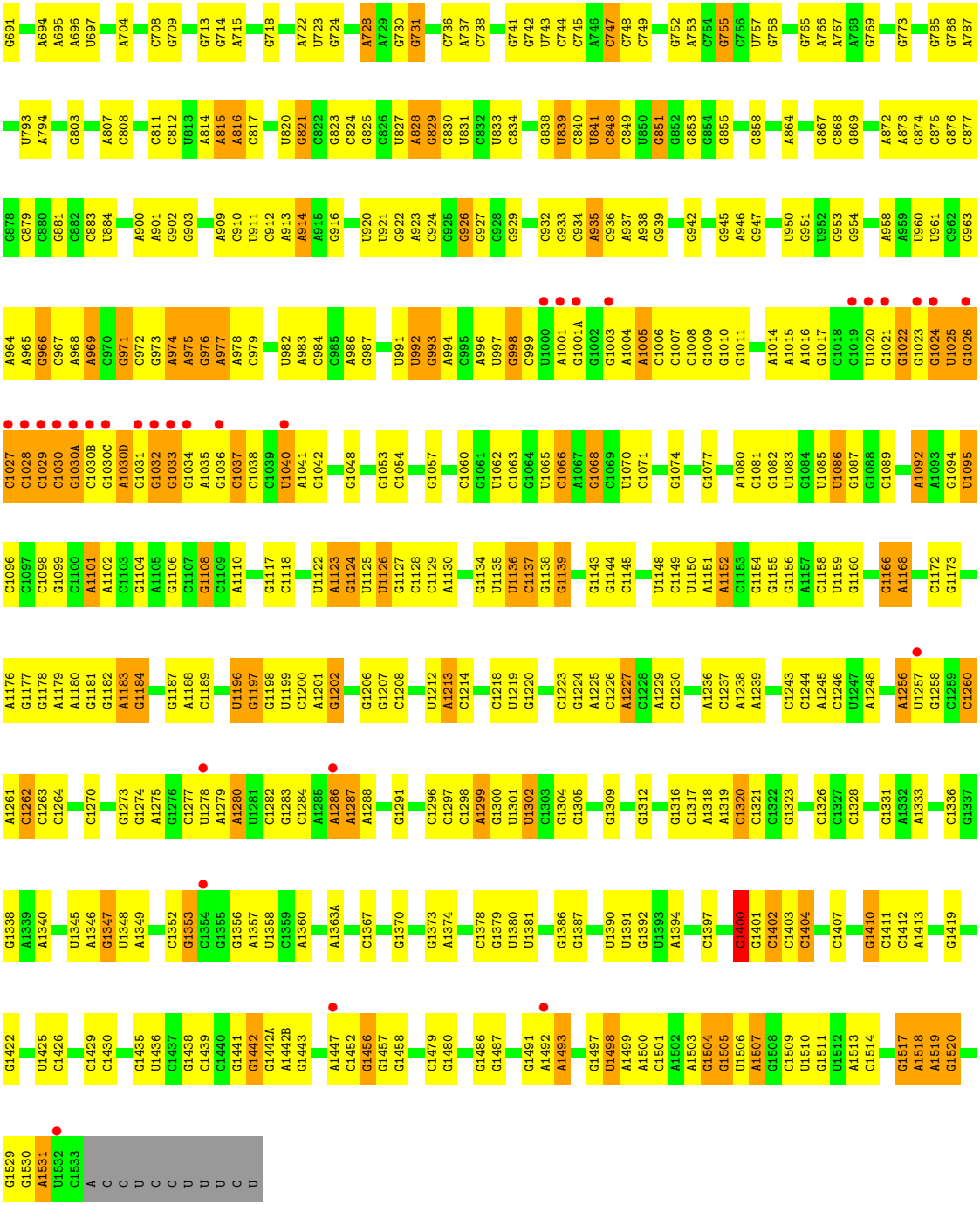


• Molecule 32: 16S Ribosomal RNA

Chain 1a:



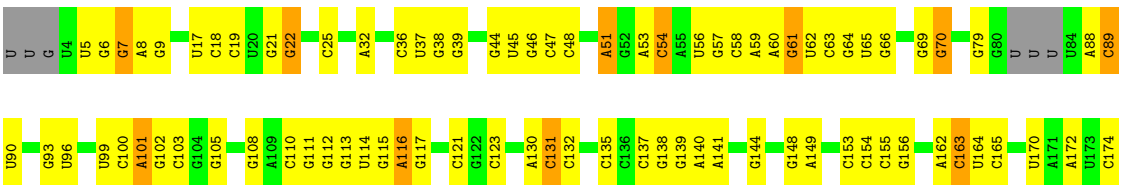


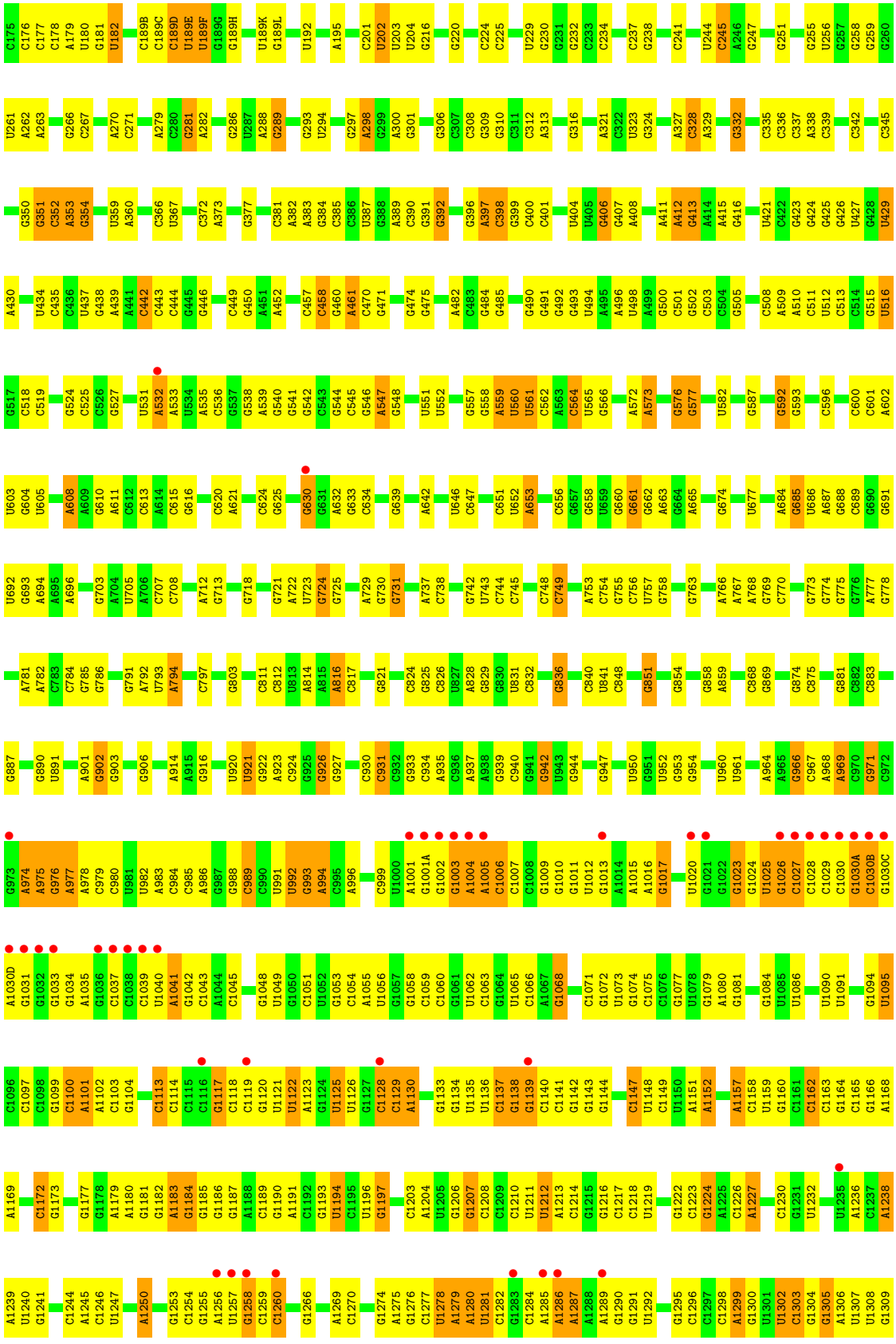


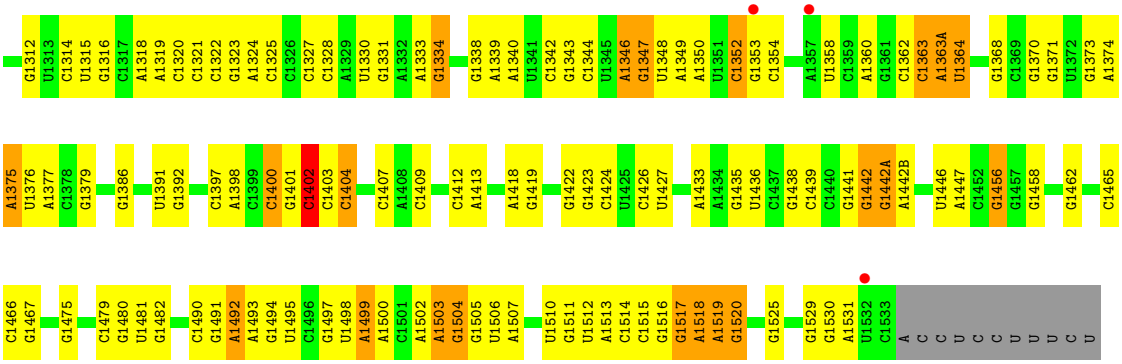
• Molecule 32: 16S Ribosomal RNA

Chain 2a:





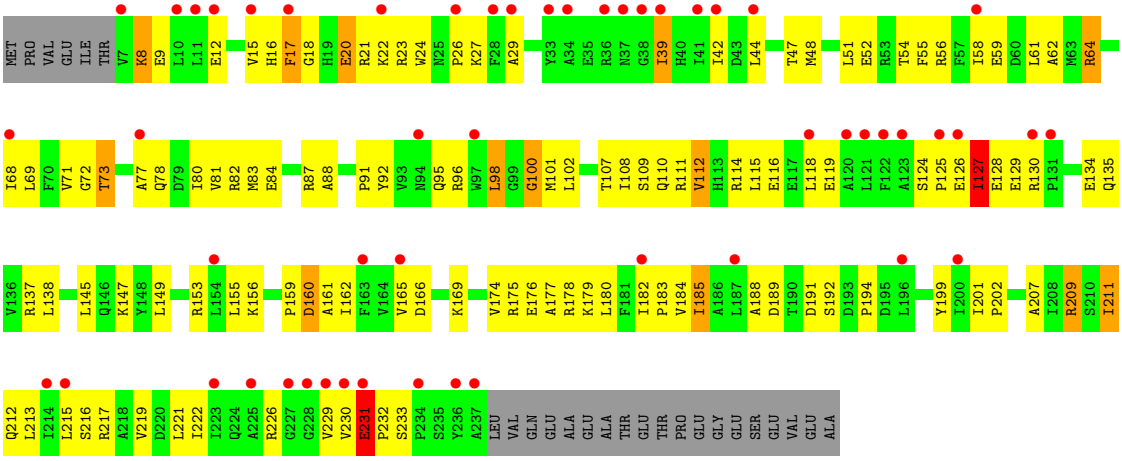

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A781 A782 C783 C784 G785 G786 G791 A792 U793 A794 C797 G803 C811 C812 U813 A814 A815 A816 C817 G821 C824 G825 G826 U827 A828 G829 G830 U831 C832 G836 C840 U841 C848 G851 G854 G858 A859 C868 G869 G874 C875 G881 C882 C883
G887 G890 U891 A901 G902 G903 G906 A914 A915 G916 U920 U921 G922 A923 C924 G925 G926 G927 C930 C931 C932 G933 C934 G935 C936 A937 A938 G939 C940 G941 G942 U943 G944 G947 U950 G951 U952 G953 G954 U960 U961 A964 A965 G966 C967 A968 A969 C970 G971 C972
G973 A974 A975 G976 A977 A978 C979 C980 U981 U982 A983 C984 C985 A986 G987 G988 C989 C990 U991 U992 G993 A994 C995 A996 C999 U1000 A1001 G1001A G1002 G1003 A1004 A1005 C1006 C1007 C1008 G1009 G1010 G1011 U1012 G1013 A1014 A1015 A1016 G1017 U1020 G1021 G1022 G1023 G1024 U1025 G1026 C1027 C1028 C1029 C1030 G1030A C1030B C1030C
A1030D G1031 G1032 G1033 G1034 A1035 G1036 C1037 C1038 C1039 U1040 A1041 G1042 C1043 A1044 C1045 G1048 U1049 G1050 C1051 U1052 G1053 C1054 A1055 U1056 G1057 G1058 C1059 C1060 G1061 U1062 C1063 G1064 U1065 C1066 A1067 G1068 C1071 G1072 U1073 G1074 C1075 C1076 G1077 U1078 G1079 A1080 G1081 G1084 U1085 U1086 U1090 U1091 G1094 U1095
C1096 C1097 C1098 G1099 C1100 A1101 A1102 C1103 G1104 C1113 C1114 C1115 C1116 G1117 C1118 C1119 G1120 U1121 U1122 A1123 G1124 U1125 U1126 G1127 C1128 C1129 A1130 G1133 G1134 U1135 U1136 C1137 G1138 G1139 C1140 C1141 G1142 G1143 G1144 C1147 U1148 C1149 U1150 A1151 A1152 A1157 C1158 U1159 G1160 C1161 C1162 C1163 G1164 C1165 G1166 A1168
A1169 C1172 G1173 G1177 G1178 A1179 A1180 G1181 G1182 A1183 G1184 G1185 G1186 G1187 A1188 C1189 G1190 A1191 C1192 G1193 U1194 C1195 U1196 G1197 C1203 A1204 U1205 G1206 G1207 C1208 C1209 C1210 U1211 U1212 A1213 C1214 G1215 G1216 C1217 C1218 U1219 G1222 C1223 G1224 A1225 C1226 A1227 C1230 G1231 U1232 U1235 A1236 C1237 A1238
A1239 U1240 G1241 C1244 A1245 C1246 U1247 A1250 G1253 C1254 G1255 A1256 U1257 G1258 C1259 C1260 G1266 A1269 C1270 G1274 A1275 G1276 C1277 U1278 A1279 A1280 U1281 C1282 G1283 C1284 A1285 A1286 A1287 A1288 A1289 G1290 G1291 U1292 G1295 C1296 C1297 C1298 A1299 G1300 U1301 U1302 C1303 G1304 G1305 A1306 U1307 U1308 G1309



• Molecule 33: 30S ribosomal protein S2

Chain 1b:

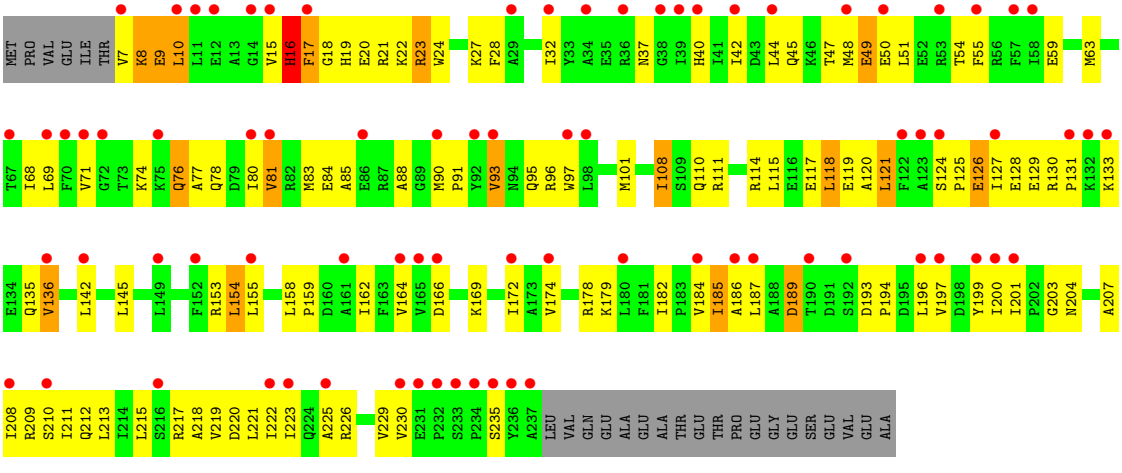




• Molecule 33: 30S ribosomal protein S2

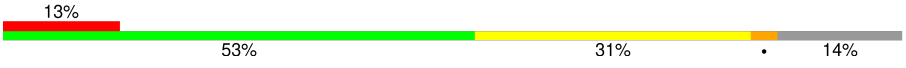
Chain 2b:

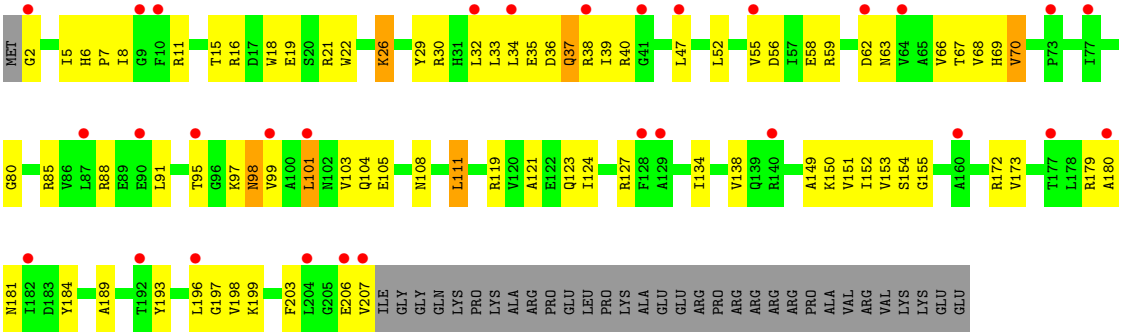




• Molecule 34: 30S ribosomal protein S3

Chain 1c:

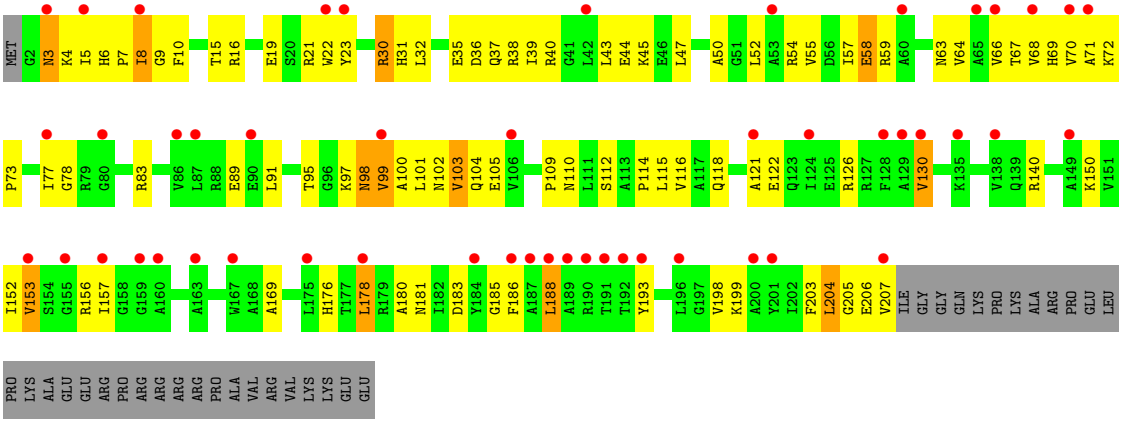




• Molecule 34: 30S ribosomal protein S3

Chain 2c:

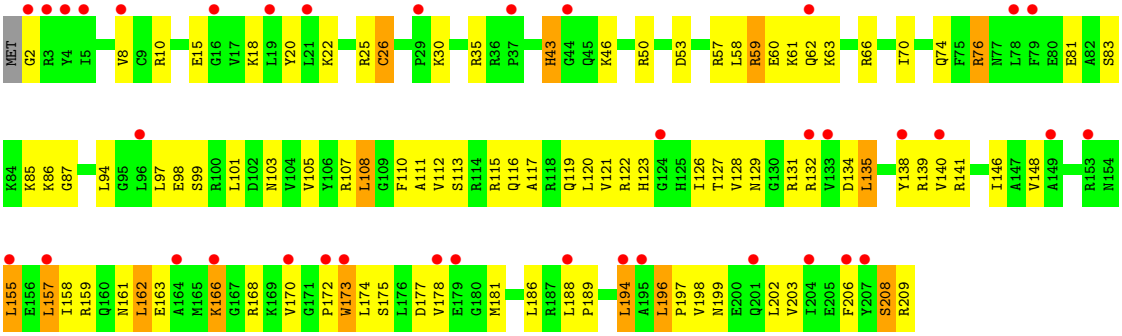




• Molecule 35: 30S ribosomal protein S4

Chain 1d:

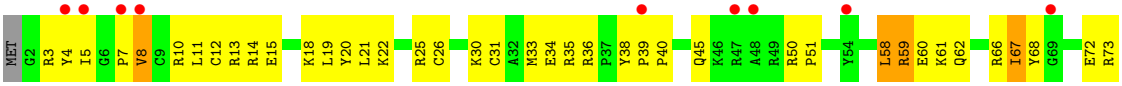


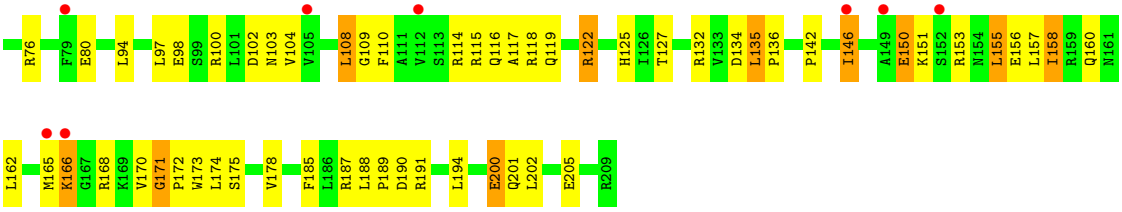


• Molecule 35: 30S ribosomal protein S4

Chain 2d:



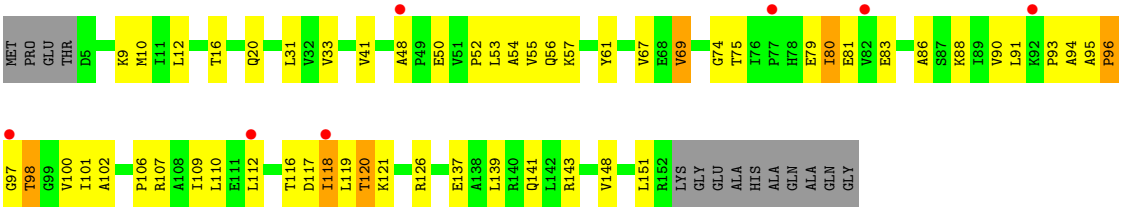




• Molecule 36: 30S ribosomal protein S5

Chain 1e:

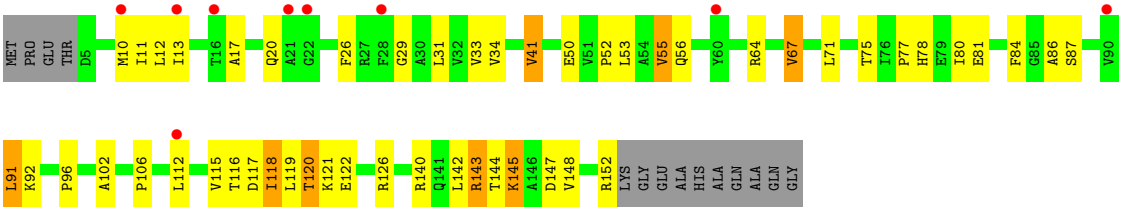




• Molecule 36: 30S ribosomal protein S5

Chain 2e:

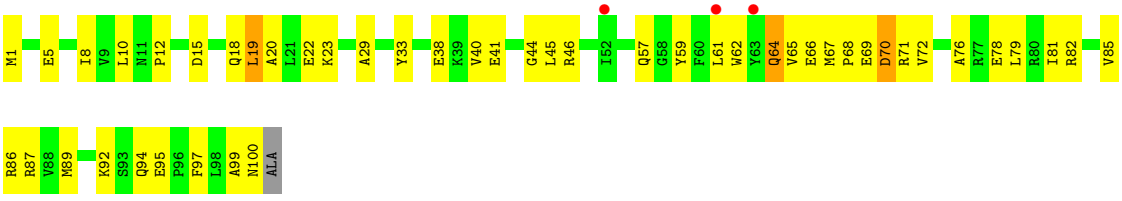




• Molecule 37: 30S ribosomal protein S6

Chain 1f:





• Molecule 37: 30S ribosomal protein S6

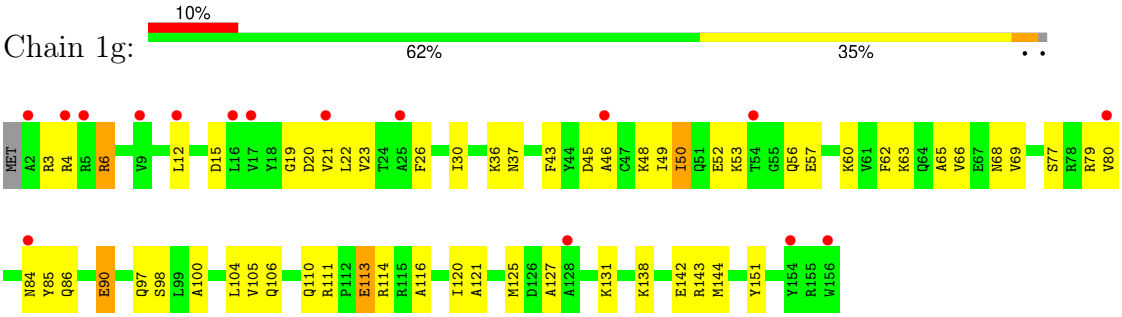
Chain 2f:





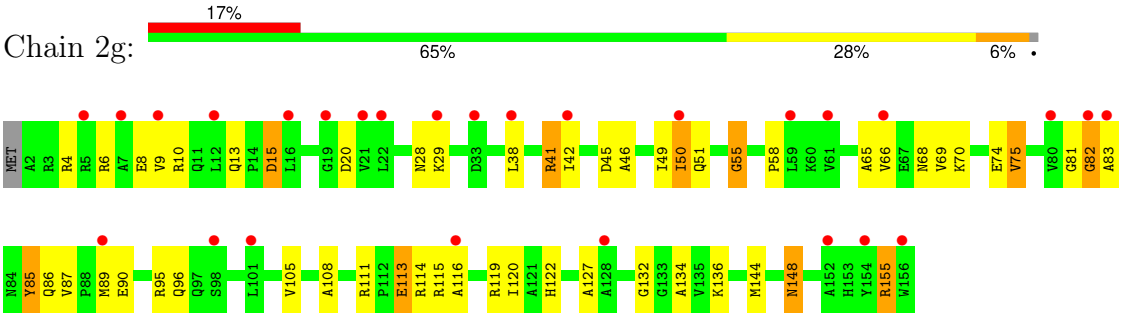
• Molecule 38: 30S ribosomal protein S7

Chain 1g:



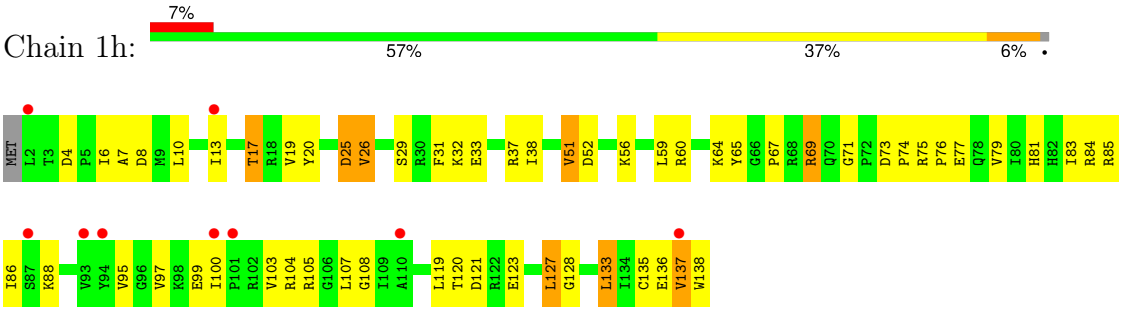
• Molecule 38: 30S ribosomal protein S7

Chain 2g:



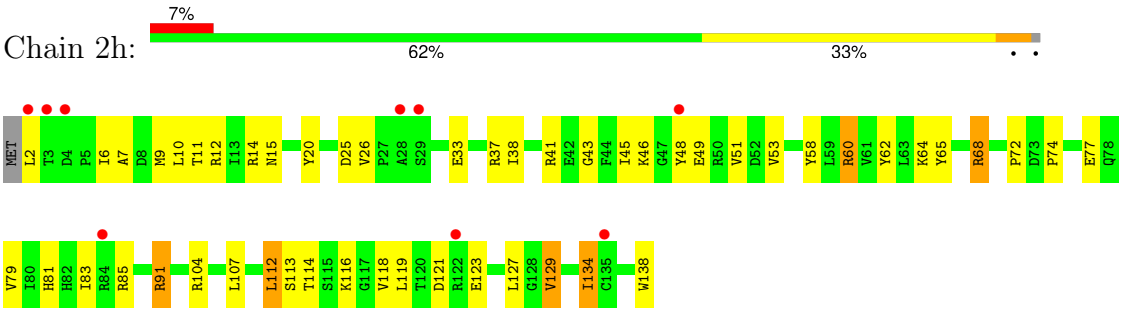
• Molecule 39: 30S ribosomal protein S8

Chain 1h:



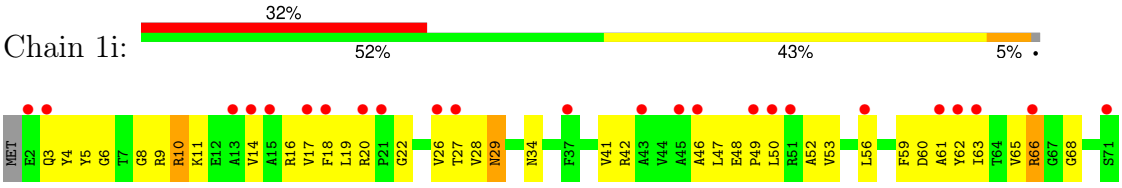
• Molecule 39: 30S ribosomal protein S8

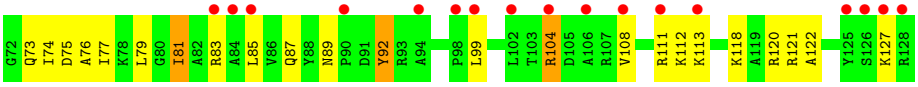
Chain 2h:



• Molecule 40: 30S ribosomal protein S9

Chain 1i:

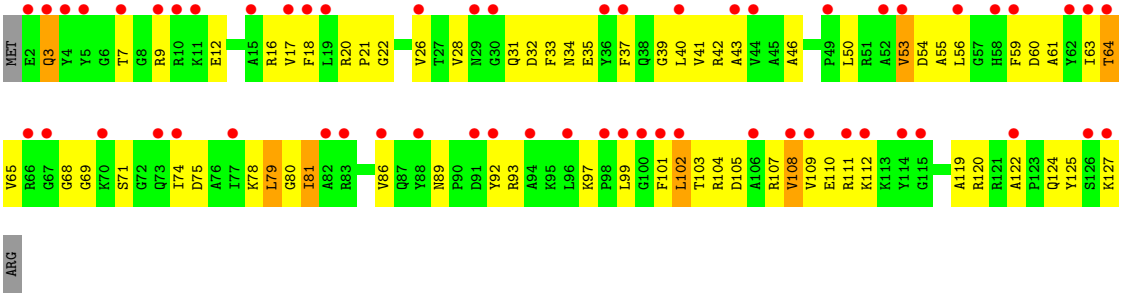




• Molecule 40: 30S ribosomal protein S9

Chain 2i:

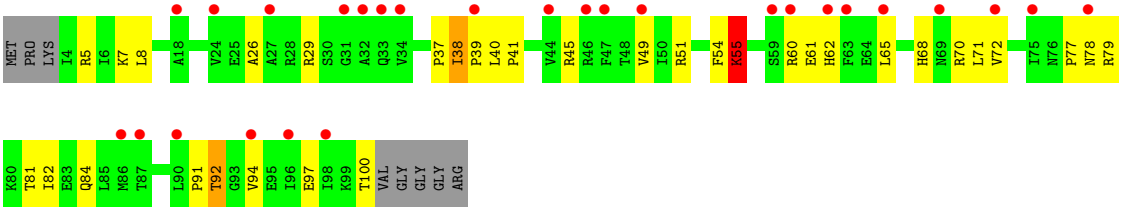




• Molecule 41: 30S ribosomal protein S10

Chain 1j:

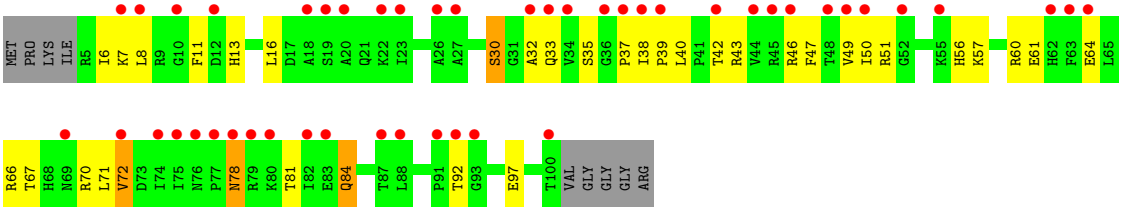




• Molecule 41: 30S ribosomal protein S10

Chain 2j:

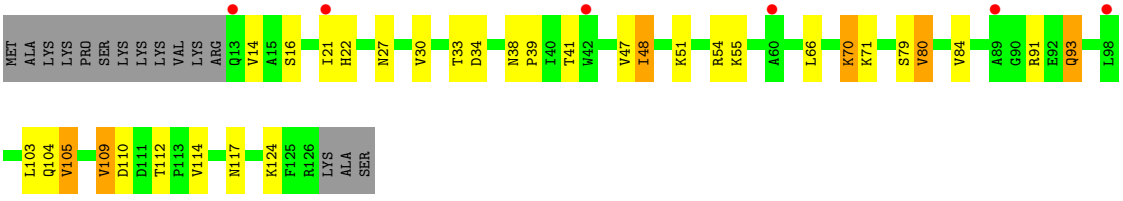




• Molecule 42: 30S ribosomal protein S11

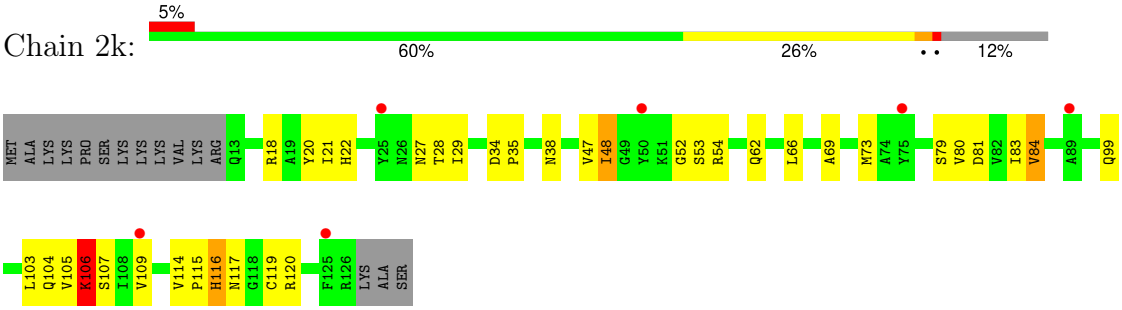
Chain 1k:





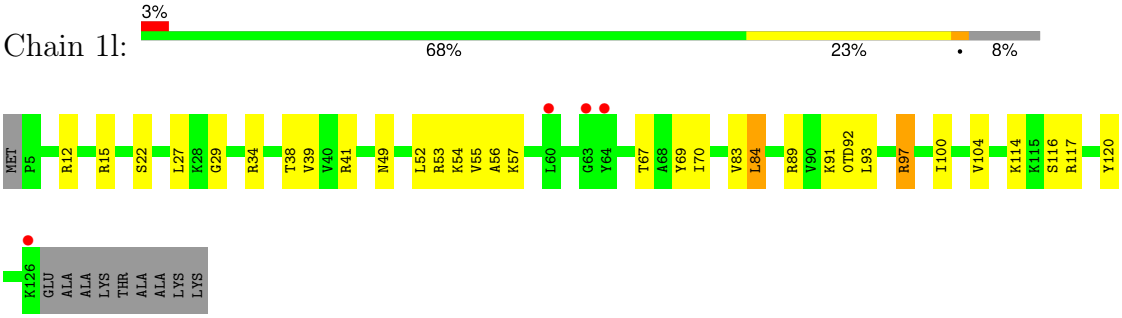
• Molecule 42: 30S ribosomal protein S11

Chain 2k:



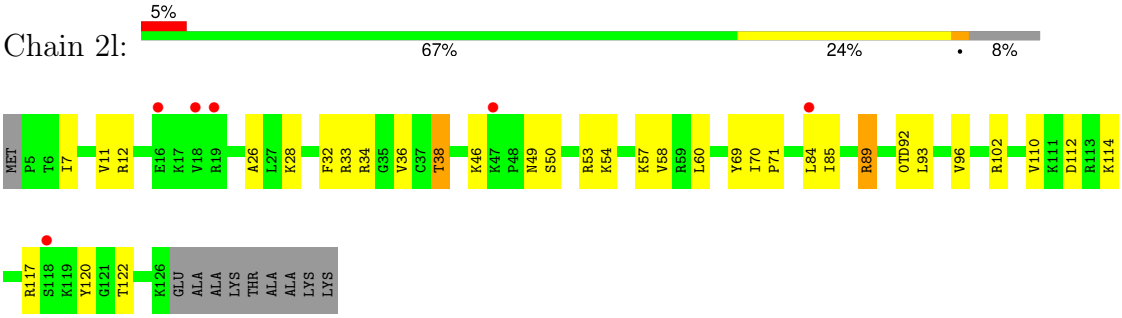
• Molecule 43: 30S ribosomal protein S12

Chain 1l:



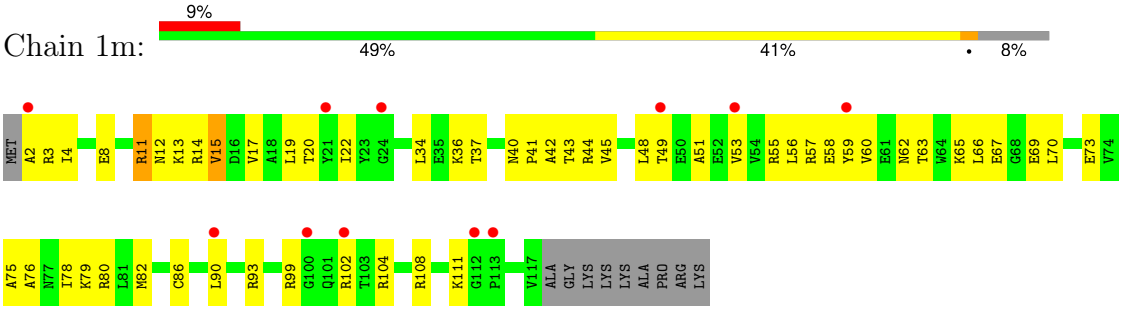
• Molecule 43: 30S ribosomal protein S12

Chain 2l:



• Molecule 44: 30S ribosomal protein S13

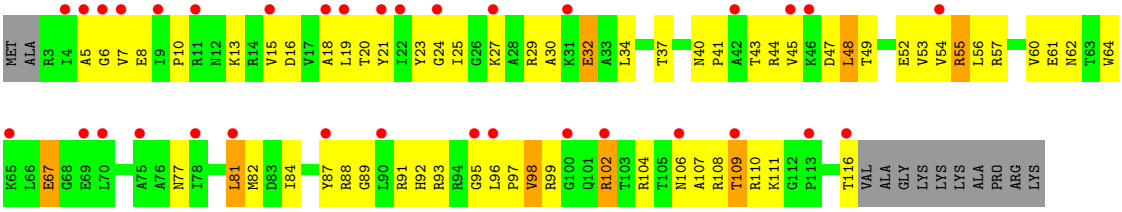
Chain 1m:



• Molecule 44: 30S ribosomal protein S13

Chain 2m:

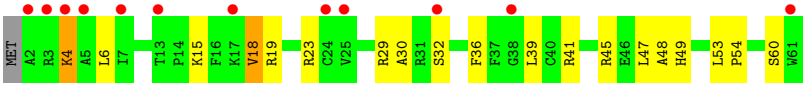




• Molecule 45: 30S ribosomal protein S14 type Z

Chain 1n:

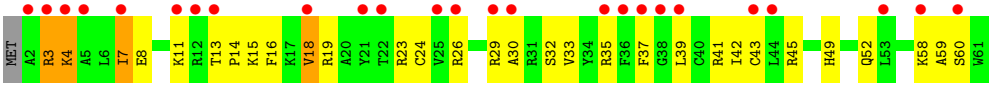




• Molecule 45: 30S ribosomal protein S14 type Z

Chain 2n:

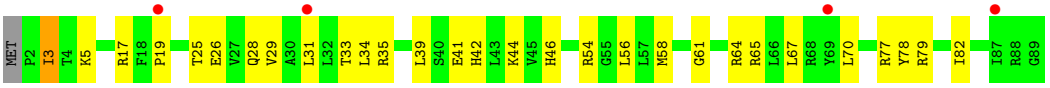




• Molecule 46: 30S ribosomal protein S15

Chain 1o:

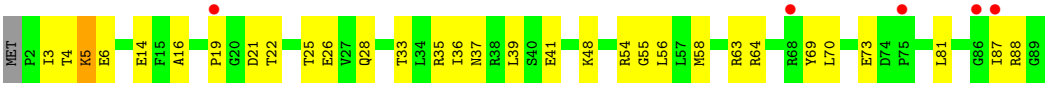




• Molecule 46: 30S ribosomal protein S15

Chain 2o:

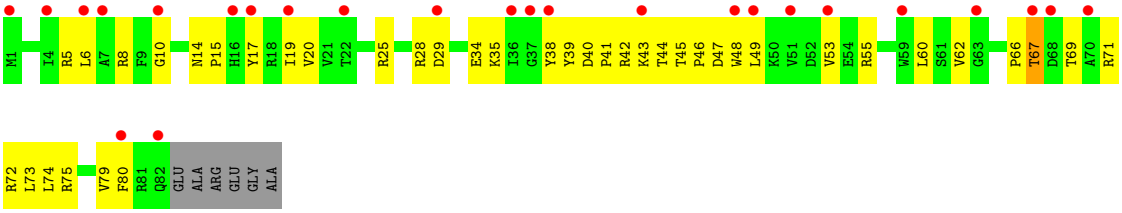




• Molecule 47: 30S ribosomal protein S16

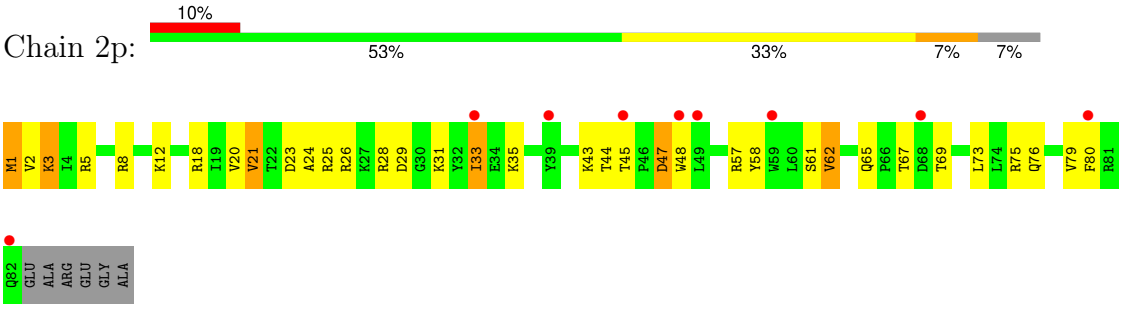
Chain 1p:





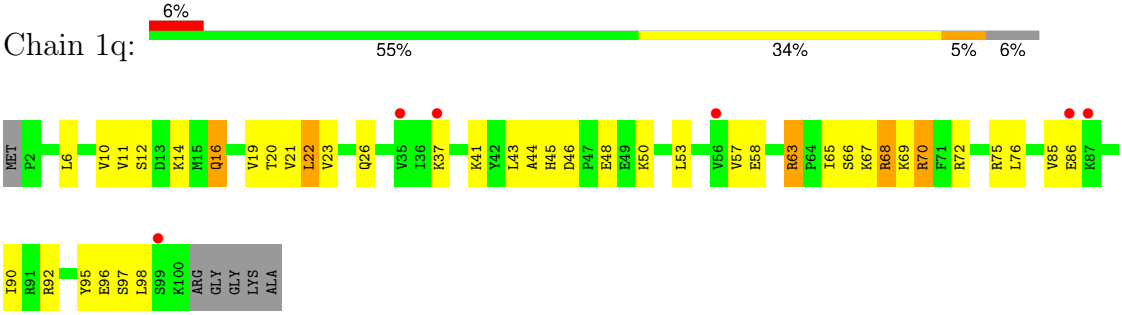
• Molecule 47: 30S ribosomal protein S16

Chain 2p:



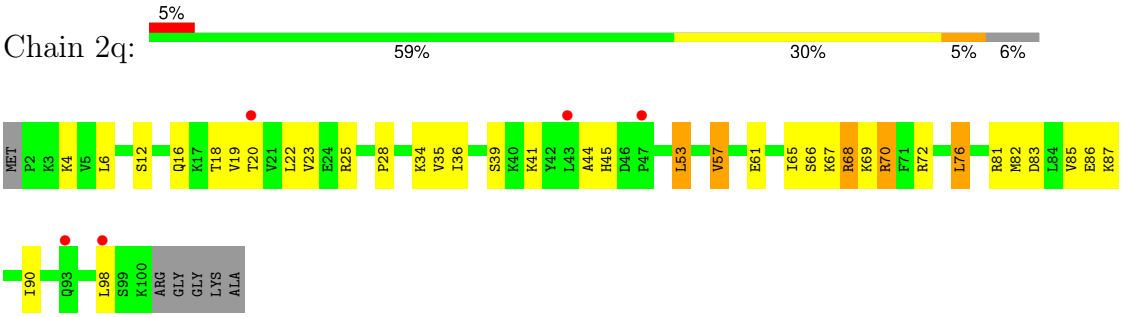
• Molecule 48: 30S ribosomal protein S17

Chain 1q:



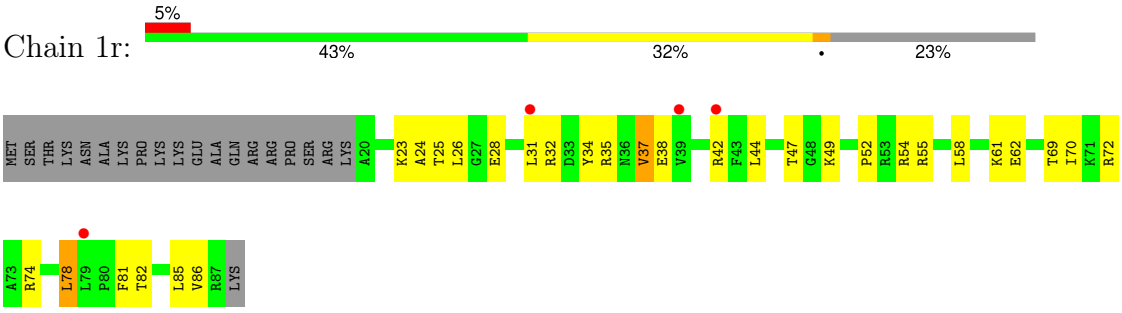
• Molecule 48: 30S ribosomal protein S17

Chain 2q:



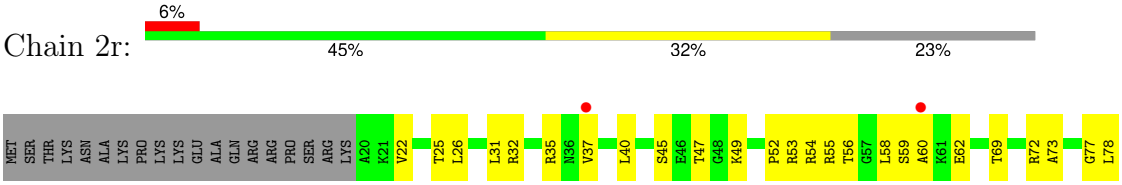
• Molecule 49: 30S ribosomal protein S18

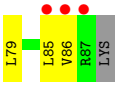
Chain 1r:



• Molecule 49: 30S ribosomal protein S18

Chain 2r:

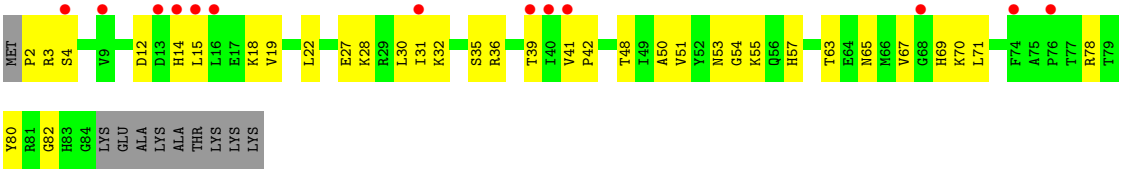




• Molecule 50: 30S ribosomal protein S19

Chain 1s:

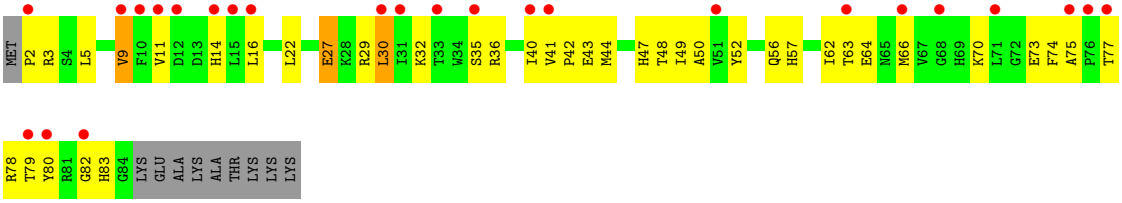




• Molecule 50: 30S ribosomal protein S19

Chain 2s:

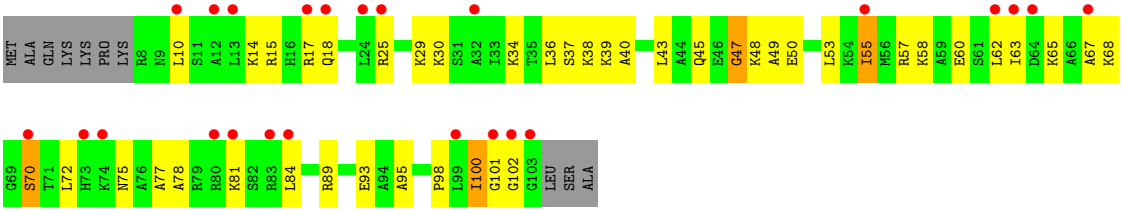




• Molecule 51: 30S ribosomal protein S20

Chain 1t:

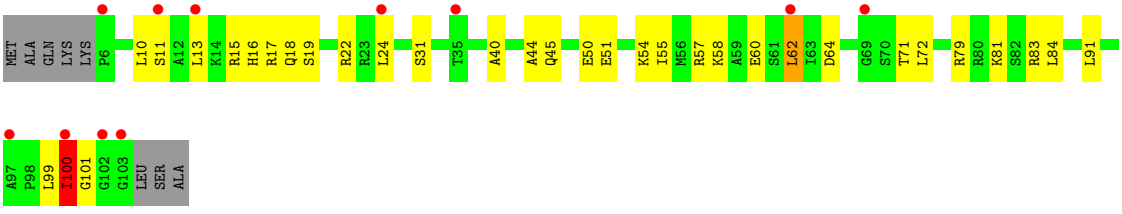




• Molecule 51: 30S ribosomal protein S20

Chain 2t:

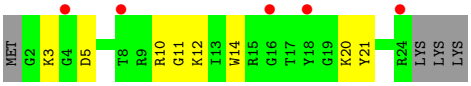




• Molecule 52: 30S ribosomal protein Thx

Chain 1u:

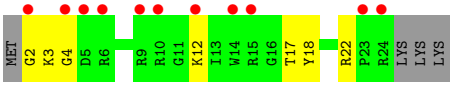




• Molecule 52: 30S ribosomal protein Thx

Chain 2u:

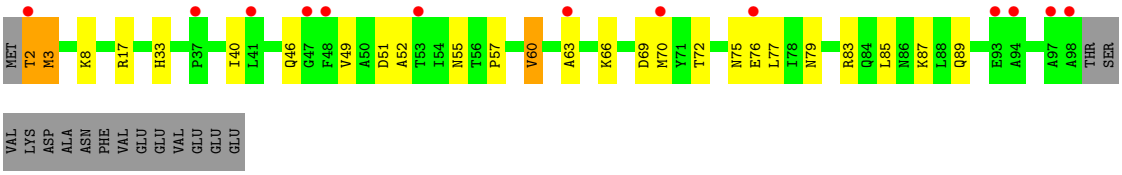




• Molecule 53: Ribosome-associated inhibitor A

Chain 1y:

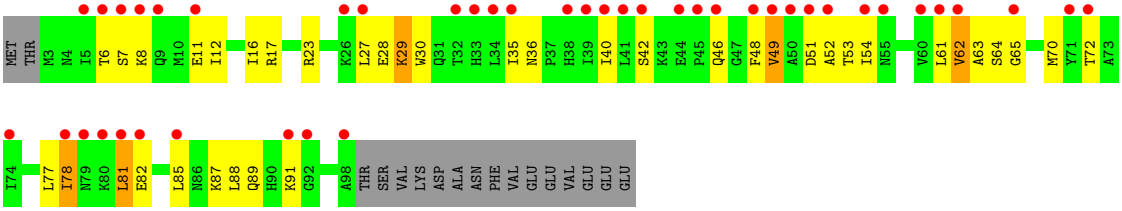




• Molecule 53: Ribosome-associated inhibitor A

Chain 2y:





• Molecule 54: A-site Aminoacyl-tRNA Analog

Chain 1w:





• Molecule 54: A-site Aminoacyl-tRNA Analog

Chain 2w:





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

Chain 1x:





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

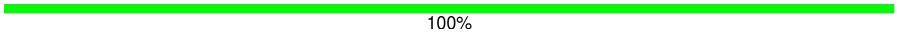
Chain 2x:





• Molecule 56: P-site Peptidyl-tRNA Analog Peptide

Chain 1v:



There are no outlier residues recorded for this chain.

• Molecule 56: P-site Peptidyl-tRNA Analog Peptide

Chain 2v:





4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	209.64Å 448.67Å 619.79Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	181.72 – 2.40 181.72 – 2.40	Depositor EDS
% Data completeness (in resolution range)	99.7 (181.72-2.40) 99.7 (181.72-2.40)	Depositor EDS
R_{merge}	0.18	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.16 (at 2.40Å)	Xtriage
Refinement program	PHENIX 1.8.2	Depositor
R, R_{free}	0.239 , 0.289 0.241 , 0.290	Depositor DCC
R_{free} test set	112220 reflections (5.00%)	wwPDB-VP
Wilson B-factor (Å^2)	44.8	Xtriage
Anisotropy	0.085	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.34 , 58.6	EDS
L-test for twinning[2]	$< \|L\| > = 0.33$, $< L^2 > = 0.16$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.90	EDS
Total number of atoms	297986	wwPDB-VP
Average B, all atoms (Å^2)	54.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.64% 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: 2MA, OMU, MA6, M2G, 0TD, PPU, UR3, PSU, SF4, 2MG, MG, G7M, 5MU, 4OC, 5MC, OMC, OMG, ZN, 8AN, MPD, MRD

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	0.30	0/69031	0.50	2/107754 (0.0%)
1	2A	0.23	0/68903	0.42	1/107552 (0.0%)
2	1B	0.25	0/2876	0.45	0/4486
2	2B	0.19	0/2878	0.37	0/4490
3	1D	0.28	0/2181	0.53	0/2940
3	2D	0.23	0/2186	0.49	0/2944
4	1E	0.27	0/1592	0.53	0/2149
4	2E	0.23	0/1592	0.46	0/2149
5	1F	0.28	0/1619	0.50	0/2193
5	2F	0.22	0/1615	0.49	3/2188 (0.1%)
6	1G	0.22	0/1451	0.45	0/1961
6	2G	0.20	0/1449	0.44	0/1957
7	1H	0.23	0/1356	0.45	0/1834
7	2H	0.21	0/1350	0.43	0/1826
8	1I	0.20	0/1109	0.43	0/1512
8	2I	0.19	0/1091	0.41	0/1490
9	1N	0.27	0/1148	0.49	0/1547
9	2N	0.20	0/1144	0.42	0/1543
10	1O	0.25	0/943	0.47	0/1269
10	2O	0.23	0/943	0.44	0/1269
11	1P	0.28	0/1152	0.52	0/1533
11	2P	0.20	0/1152	0.49	0/1533
12	1Q	0.26	0/1143	0.49	0/1527
12	2Q	0.21	0/1143	0.42	0/1527
13	1R	0.30	0/982	0.52	0/1312
13	2R	0.22	0/982	0.44	0/1312
14	1S	0.24	0/887	0.49	0/1180
14	2S	0.21	0/880	0.49	0/1172
15	1T	0.28	0/1105	0.54	0/1477
15	2T	0.22	0/1097	0.47	0/1468
16	1U	0.31	0/977	0.54	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
16	2U	0.21	0/977	0.43	0/1301
17	1V	0.30	0/786	0.53	0/1053
17	2V	0.23	0/782	0.48	0/1049
18	1W	0.30	0/897	0.49	0/1205
18	2W	0.23	0/897	0.44	0/1205
19	1X	0.26	0/764	0.51	0/1025
19	2X	0.21	0/764	0.44	0/1025
20	1Y	0.25	0/823	0.53	0/1099
20	2Y	0.21	0/823	0.40	0/1100
21	1Z	0.25	0/1620	0.52	0/2200
21	2Z	0.22	0/1590	0.47	0/2162
22	10	0.29	0/662	0.53	0/881
22	20	0.23	0/659	0.53	0/877
23	11	0.25	0/761	0.48	0/1013
23	21	0.24	0/766	0.44	0/1018
24	12	0.24	0/590	0.46	0/781
24	22	0.21	0/594	0.43	0/785
25	13	0.31	0/474	0.52	0/635
25	23	0.21	0/469	0.44	0/630
26	14	0.26	0/559	0.66	2/754 (0.3%)
26	24	0.30	0/549	0.71	3/741 (0.4%)
27	15	0.33	0/473	0.55	0/639
27	25	0.23	0/469	0.52	0/635
28	16	0.27	0/460	0.50	0/613
28	26	0.22	0/456	0.43	0/608
29	17	0.34	0/426	0.60	0/561
29	27	0.24	0/426	0.47	0/561
30	18	0.30	0/525	0.50	0/691
30	28	0.21	0/525	0.40	0/691
31	19	0.29	0/310	0.50	0/407
31	29	0.20	0/310	0.44	0/407
32	1a	0.21	0/35795	0.40	0/55864
32	2a	0.20	1/35890 (0.0%)	0.39	0/56012
33	1b	0.24	0/1876	0.53	1/2533 (0.0%)
33	2b	0.23	0/1860	0.54	2/2518 (0.1%)
34	1c	0.21	0/1582	0.43	0/2137
34	2c	0.23	0/1566	0.45	0/2119
35	1d	0.20	0/1695	0.46	0/2274
35	2d	0.19	0/1698	0.44	0/2277
36	1e	0.20	0/1149	0.44	0/1548
36	2e	0.20	0/1149	0.45	0/1548
37	1f	0.20	0/827	0.41	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	0.20	0/1254	0.40	0/1683
38	2g	0.18	0/1248	0.40	0/1676
39	1h	0.20	0/1118	0.41	0/1506
39	2h	0.19	0/1108	0.43	0/1494
40	1i	0.19	0/1005	0.46	0/1351
40	2i	0.21	0/985	0.47	0/1329
41	1j	0.20	0/732	0.48	1/993 (0.1%)
41	2j	0.22	0/723	0.49	0/984
42	1k	0.21	0/849	0.46	0/1150
42	2k	0.20	0/848	0.49	0/1149
43	1l	0.21	0/937	0.43	0/1260
43	2l	0.21	0/937	0.44	0/1260
44	1m	0.21	0/924	0.49	0/1242
44	2m	0.25	0/905	0.55	0/1217
45	1n	0.22	0/501	0.46	0/664
45	2n	0.21	0/501	0.45	0/664
46	1o	0.19	0/739	0.38	0/985
46	2o	0.19	0/739	0.40	0/985
47	1p	0.20	0/697	0.44	0/939
47	2p	0.22	0/693	0.51	0/935
48	1q	0.20	0/836	0.44	0/1117
48	2q	0.19	0/836	0.48	0/1117
49	1r	0.20	0/560	0.41	0/746
49	2r	0.20	0/560	0.44	0/746
50	1s	0.20	0/663	0.47	0/895
50	2s	0.21	0/660	0.46	0/893
51	1t	0.20	0/734	0.46	0/969
51	2t	0.20	0/736	0.41	0/976
52	1u	0.23	0/203	0.44	0/266
52	2u	0.20	0/203	0.42	0/266
53	1y	0.22	0/776	0.39	0/1048
53	2y	0.20	0/761	0.42	0/1030
54	1w	0.24	0/44	0.58	0/67
54	2w	0.21	0/44	0.45	0/67
55	1x	0.36	0/44	0.62	0/67
55	2x	0.22	0/44	0.53	0/67
56	1v	0.32	0/22	0.42	0/28
56	2v	0.30	0/22	0.37	0/28
All	All	0.24	1/310250 (0.0%)	0.45	15/463679 (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
21	2Z	0	1
26	14	0	1
33	1b	0	2
33	2b	0	1
All	All	0	5

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	1498	UR3	O3'-P	5.26	1.61	1.56

All (15) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1042	G	OP1-P-O3'	-9.05	80.86	108.00
26	24	65	ASP	N-CA-C	-7.46	102.38	113.72
1	1A	1042	G	OP2-P-O3'	-6.62	88.14	108.00
33	2b	23	ARG	N-CA-C	-6.51	105.21	112.57
5	2F	121	GLY	N-CA-C	-6.32	107.05	115.40
41	1j	82	ILE	N-CA-C	-6.12	105.33	112.98
33	1b	100	GLY	N-CA-C	-5.96	107.43	115.36
5	2F	21	ALA	CA-C-N	5.46	131.52	121.70
5	2F	21	ALA	C-N-CA	5.46	131.52	121.70
1	2A	1992	G	C2'-C3'-O3'	5.36	117.55	109.50
26	24	59	PHE	CA-C-N	5.24	131.12	121.70
26	24	59	PHE	C-N-CA	5.24	131.12	121.70
26	14	54	GLY	CA-C-N	5.12	131.33	121.54
26	14	54	GLY	C-N-CA	5.12	131.33	121.54
33	2b	128	GLU	N-CA-C	-5.07	105.32	113.28

There are no chirality outliers.

All (5) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
26	14	52	THR	Peptide
33	1b	127	ILE	Peptide
33	1b	231	GLU	Peptide
21	2Z	136	PHE	Peptide
33	2b	126	GLU	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1A	61869	0	31206	853	0
1	2A	61758	0	31149	979	0
2	1B	2572	0	1305	39	0
2	2B	2573	0	1306	33	0
3	1D	2131	0	2207	71	0
3	2D	2136	0	2218	51	0
4	1E	1559	0	1618	32	0
4	2E	1559	0	1618	51	0
5	1F	1584	0	1625	42	0
5	2F	1580	0	1619	65	0
6	1G	1426	0	1445	54	0
6	2G	1424	0	1441	57	0
7	1H	1330	0	1407	34	0
7	2H	1324	0	1402	49	0
8	1I	1094	0	1127	30	0
8	2I	1076	0	1094	30	0
9	1N	1121	0	1193	27	0
9	2N	1117	0	1184	24	0
10	1O	933	0	996	27	0
10	2O	933	0	996	30	0
11	1P	1135	0	1212	37	0
11	2P	1135	0	1212	34	0
12	1Q	1122	0	1179	25	0
12	2Q	1122	0	1179	38	0
13	1R	968	0	1033	29	0
13	2R	968	0	1033	27	0
14	1S	877	0	938	27	0
14	2S	870	0	923	30	0
15	1T	1091	0	1151	29	0
15	2T	1083	0	1136	23	0
16	1U	959	0	1019	20	0
16	2U	959	0	1019	28	0
17	1V	775	0	841	18	0
17	2V	771	0	830	18	0
18	1W	886	0	940	19	0
18	2W	886	0	940	17	0
19	1X	750	0	814	27	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	2X	750	0	814	23	0
20	1Y	810	0	892	19	0
20	2Y	810	0	887	26	0
21	1Z	1587	0	1598	45	0
21	2Z	1557	0	1564	52	0
22	10	653	0	674	13	0
22	20	650	0	665	10	0
23	11	754	0	823	23	0
23	21	759	0	837	29	0
24	12	588	0	643	16	0
24	22	592	0	654	13	0
25	13	469	0	518	9	0
25	23	464	0	514	20	0
26	14	546	0	522	22	0
26	24	536	0	514	35	0
27	15	459	0	476	15	0
27	25	455	0	465	12	0
28	16	453	0	473	9	0
28	26	449	0	469	15	0
29	17	418	0	467	9	0
29	27	418	0	466	12	0
30	18	517	0	582	23	0
30	28	517	0	582	17	0
31	19	307	0	335	5	0
31	29	307	0	335	16	0
32	1a	32246	0	16293	582	0
32	2a	32331	0	16338	597	0
33	1b	1842	0	1862	92	0
33	2b	1825	0	1828	81	0
34	1c	1558	0	1557	57	0
34	2c	1542	0	1517	62	0
35	1d	1665	0	1687	76	0
35	2d	1668	0	1703	87	0
36	1e	1133	0	1191	37	0
36	2e	1133	0	1191	33	0
37	1f	814	0	808	30	0
37	2f	816	0	808	23	0
38	1g	1235	0	1249	43	0
38	2g	1229	0	1238	44	0
39	1h	1098	0	1143	43	0
39	2h	1088	0	1126	36	0
40	1i	986	0	990	51	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
40	2i	966	0	953	53	0
41	1j	719	0	672	21	0
41	2j	710	0	661	31	0
42	1k	834	0	838	19	0
42	2k	833	0	836	29	0
43	1l	932	0	980	19	0
43	2l	932	0	981	23	0
44	1m	914	0	954	41	0
44	2m	895	0	920	50	0
45	1n	492	0	529	20	0
45	2n	492	0	529	27	0
46	1o	728	0	760	18	0
46	2o	728	0	760	20	0
47	1p	681	0	697	31	0
47	2p	677	0	686	24	0
48	1q	823	0	891	25	0
48	2q	823	0	891	30	0
49	1r	555	0	618	24	0
49	2r	555	0	618	21	0
50	1s	648	0	658	24	0
50	2s	645	0	635	29	0
51	1t	732	0	809	26	0
51	2t	733	0	795	20	0
52	1u	199	0	208	7	0
52	2u	199	0	208	6	0
53	1y	764	0	786	25	0
53	2y	749	0	757	29	0
54	1w	78	0	50	3	0
54	2w	78	0	50	4	0
55	1x	63	0	33	2	0
55	2x	63	0	33	2	0
56	1v	23	0	29	0	0
56	2v	23	0	29	1	0
57	10	8	0	0	0	0
57	11	5	0	0	0	0
57	13	3	0	0	0	0
57	15	8	0	0	0	0
57	17	5	0	0	0	0
57	18	3	0	0	0	0
57	19	3	0	0	0	0
57	1A	1028	0	0	0	0
57	1B	30	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	1D	18	0	0	0	0
57	1E	10	0	0	0	0
57	1F	16	0	0	0	0
57	1G	4	0	0	0	0
57	1H	2	0	0	0	0
57	1N	4	0	0	0	0
57	1O	1	0	0	0	0
57	1P	4	0	0	0	0
57	1Q	5	0	0	0	0
57	1R	4	0	0	0	0
57	1T	4	0	0	0	0
57	1U	8	0	0	0	0
57	1V	7	0	0	0	0
57	1W	2	0	0	0	0
57	1X	1	0	0	0	0
57	1Z	1	0	0	0	0
57	1a	280	0	0	0	0
57	1b	1	0	0	0	0
57	1d	6	0	0	0	0
57	1e	3	0	0	0	0
57	1f	2	0	0	0	0
57	1g	2	0	0	0	0
57	1h	2	0	0	0	0
57	1i	1	0	0	0	0
57	1l	2	0	0	0	0
57	1m	1	0	0	0	0
57	1n	1	0	0	0	0
57	1o	2	0	0	0	0
57	1t	2	0	0	0	0
57	1w	1	0	0	0	0
57	1x	2	0	0	0	0
57	1y	3	0	0	0	0
57	20	2	0	0	0	0
57	21	1	0	0	0	0
57	23	1	0	0	0	0
57	25	3	0	0	0	0
57	26	1	0	0	0	0
57	27	1	0	0	0	0
57	28	1	0	0	0	0
57	2A	737	0	0	0	0
57	2B	20	0	0	0	0
57	2D	11	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	2E	6	0	0	0	0
57	2F	4	0	0	0	0
57	2G	2	0	0	0	0
57	2I	1	0	0	0	0
57	2N	1	0	0	0	0
57	2O	1	0	0	0	0
57	2P	3	0	0	0	0
57	2Q	4	0	0	0	0
57	2R	3	0	0	0	0
57	2T	4	0	0	0	0
57	2U	1	0	0	0	0
57	2V	3	0	0	0	0
57	2W	2	0	0	0	0
57	2Y	1	0	0	0	0
57	2a	191	0	0	0	0
57	2e	2	0	0	0	0
57	2f	1	0	0	0	0
57	2h	1	0	0	0	0
57	2j	1	0	0	0	0
57	2k	2	0	0	0	0
57	2p	1	0	0	0	0
57	2r	1	0	0	0	0
57	2t	1	0	0	0	0
57	2x	1	0	0	0	0
58	18	8	0	14	2	0
58	1A	8	0	14	1	0
58	1T	8	0	14	1	0
58	1a	8	0	14	2	0
58	2A	8	0	14	0	0
58	2B	8	0	14	0	0
59	1B	12	0	12	4	0
59	1F	12	0	12	2	0
60	14	1	0	0	0	0
60	15	1	0	0	0	0
60	16	1	0	0	0	0
60	19	1	0	0	0	0
60	1Y	1	0	0	0	0
60	1n	1	0	0	0	0
60	24	1	0	0	0	0
60	25	1	0	0	0	0
60	26	1	0	0	0	0
60	29	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	2Y	1	0	0	0	0
60	2n	1	0	0	0	0
61	1d	8	0	0	0	0
61	2d	8	0	0	1	0
62	2A	8	0	14	0	0
63	10	24	0	0	1	0
63	11	27	0	0	1	0
63	12	18	0	0	4	0
63	13	24	0	0	1	0
63	14	3	0	0	0	0
63	15	24	0	0	3	0
63	16	18	0	0	2	0
63	17	12	0	0	1	0
63	18	27	0	0	1	0
63	19	6	0	0	1	0
63	1A	3988	0	0	192	0
63	1B	97	0	0	8	0
63	1D	113	0	0	9	0
63	1E	76	0	0	4	0
63	1F	67	0	0	5	0
63	1G	19	0	0	0	0
63	1H	11	0	0	0	0
63	1I	8	0	0	0	0
63	1N	52	0	0	4	0
63	1O	22	0	0	0	0
63	1P	66	0	0	3	0
63	1Q	36	0	0	3	0
63	1R	32	0	0	2	0
63	1S	12	0	0	2	0
63	1T	34	0	0	3	0
63	1U	47	0	0	5	0
63	1V	40	0	0	6	0
63	1W	33	0	0	2	0
63	1X	26	0	0	4	0
63	1Y	16	0	0	1	0
63	1Z	14	0	0	3	0
63	1a	511	0	0	45	0
63	1b	1	0	0	0	0
63	1d	8	0	0	2	0
63	1e	3	0	0	0	0
63	1f	2	0	0	0	0
63	1j	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
63	1k	1	0	0	1	0
63	1l	3	0	0	2	0
63	1m	1	0	0	0	0
63	1o	3	0	0	0	0
63	1p	2	0	0	0	0
63	1t	1	0	0	0	0
63	1w	6	0	0	0	0
63	1x	5	0	0	0	0
63	1y	7	0	0	0	0
63	20	14	0	0	0	0
63	21	20	0	0	1	0
63	22	3	0	0	0	0
63	23	4	0	0	2	0
63	24	2	0	0	2	0
63	25	9	0	0	1	0
63	26	5	0	0	1	0
63	27	9	0	0	0	0
63	28	12	0	0	2	0
63	29	1	0	0	0	0
63	2A	2224	0	0	191	0
63	2B	45	0	0	4	0
63	2D	50	0	0	3	0
63	2E	29	0	0	2	0
63	2F	22	0	0	1	0
63	2G	7	0	0	0	0
63	2H	2	0	0	0	0
63	2I	3	0	0	0	0
63	2N	2	0	0	1	0
63	2O	16	0	0	1	0
63	2P	25	0	0	3	0
63	2Q	16	0	0	3	0
63	2R	20	0	0	2	0
63	2S	5	0	0	1	0
63	2T	10	0	0	0	0
63	2U	12	0	0	2	0
63	2V	9	0	0	2	0
63	2W	23	0	0	1	0
63	2X	7	0	0	0	0
63	2Y	6	0	0	2	0
63	2Z	11	0	0	1	0
63	2a	384	0	0	29	0
63	2d	4	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
63	2e	2	0	0	0	0
63	2f	3	0	0	0	0
63	2j	2	0	0	0	0
63	2l	4	0	0	1	0
63	2m	1	0	0	0	0
63	2o	4	0	0	0	0
63	2p	1	0	0	0	0
63	2q	1	0	0	0	0
63	2r	3	0	0	0	0
63	2t	2	0	0	0	0
63	2u	1	0	0	0	0
63	2w	3	0	0	0	0
63	2x	3	0	0	1	0
63	2y	3	0	0	0	0
All	All	297986	0	194829	5395	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 12.

All (5395) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1003:G:H2'	32:2a:1004:A:H4'	1.38	1.05
1:1A:1063:G:H1	1:1A:1075:C:N4	1.60	1.00
32:2a:1129:C:N4	32:2a:1143:G:H1	1.59	0.99
1:1A:2096:U:H3	1:1A:2193:G:H1	1.09	0.99
1:1A:2319:G:H22	14:1S:3:ARG:HD3	1.27	0.98
32:1a:1158:C:H5	32:1a:1181:G:H1	1.05	0.98
15:1T:55:ASN:H	15:1T:59:THR:HG22	1.28	0.98
1:1A:1082:U:H3	1:1A:1086:A:N6	1.62	0.95
1:2A:2122:U:H3	1:2A:2176:A:H61	1.14	0.94
5:1F:53:THR:HG23	5:1F:55:GLY:H	1.33	0.93
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.52	0.92
1:2A:2499:C:OP1	63:2A:3802:HOH:O	1.87	0.91
1:1A:2822:G:OP2	63:1A:8502:HOH:O	1.90	0.90
1:2A:1055:G:H21	1:2A:1086:A:H8	1.19	0.90
1:2A:2139:C:N3	1:2A:2152:G:N2	2.20	0.90
32:2a:70:G:H1	32:2a:99:U:H3	1.21	0.89
32:2a:1051:C:H42	32:2a:1207:2MG:HN1	1.19	0.89
1:1A:1063:G:N2	1:1A:1075:C:N3	2.19	0.89
22:10:10:THR:HG22	22:10:12:ASN:H	1.38	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:10:11:ARG:O	22:10:14:ARG:NH2	2.07	0.88
32:2a:1129:C:H42	32:2a:1143:G:H1	1.17	0.88
1:1A:1082:U:O4	1:1A:1086:A:N1	2.06	0.88
32:2a:559:A:H4'	32:2a:560:U:H3'	1.55	0.87
32:1a:559:A:OP1	36:1e:126:ARG:NH2	2.08	0.86
19:1X:31:HIS:HD2	19:1X:33:LYS:H	1.20	0.86
33:2b:91:PRO:HG3	33:2b:155:LEU:HD13	1.58	0.86
24:12:65:ASN:OD1	24:12:69:ARG:NH1	2.10	0.85
1:1A:1757:U:OP1	63:1A:8503:HOH:O	1.93	0.85
10:1O:48:PRO:HB3	32:1a:1422:G:H5"	1.56	0.85
40:1i:4:TYR:HB2	40:1i:19:LEU:HB2	1.59	0.84
1:2A:2427:C:OP1	63:2A:3803:HOH:O	1.95	0.84
1:1A:1315:C:OP2	63:1A:8504:HOH:O	1.95	0.84
32:2a:79:G:H1	32:2a:90:U:H3	1.26	0.84
1:2A:2122:U:H3	1:2A:2176:A:N6	1.76	0.84
11:1P:42:SER:O	63:1P:301:HOH:O	1.94	0.84
1:2A:792:G:O6	63:2A:3804:HOH:O	1.96	0.84
1:1A:1798:U:H5'	3:1D:259:THR:HG22	1.58	0.83
40:1i:17:VAL:HG21	40:1i:81:ILE:HG22	1.59	0.83
32:2a:999:C:H42	32:2a:1042:G:H1	1.27	0.83
32:2a:1086:U:H3	32:2a:1099:G:H22	1.24	0.83
32:2a:1403:C:O2	32:2a:1499:A:N6	2.11	0.83
1:1A:2630:G:O6	1:1A:2788:C:N4	2.11	0.82
6:1G:161:THR:HG22	6:1G:163:ALA:H	1.44	0.82
1:2A:2139:C:N4	1:2A:2152:G:H1	1.77	0.82
1:1A:1045:A:H5'	1:1A:1046:A:H5'	1.61	0.82
1:1A:741:G:OP2	63:1A:8505:HOH:O	1.95	0.82
1:1A:1352:U:OP1	63:1A:8506:HOH:O	1.97	0.82
1:2A:2141:G:O6	1:2A:2150:U:O2	1.98	0.82
1:1A:1063:G:N1	1:1A:1075:C:N4	2.24	0.82
3:2D:108:PRO:HB3	3:2D:143:HIS:HE1	1.45	0.82
32:1a:116:A:OP1	63:1a:1903:HOH:O	1.99	0.81
32:2a:1285:A:H4'	32:2a:1286:A:H5'	1.61	0.81
1:2A:948:G:OP1	63:2A:3805:HOH:O	1.98	0.81
32:2a:406:G:H21	35:2d:119:GLN:HE22	1.26	0.81
1:2A:1064:C:N4	1:2A:1074:G:O6	2.14	0.81
12:2Q:29:PHE:O	21:2Z:122:ARG:NH2	2.14	0.81
1:2A:962:G:OP1	63:2A:3805:HOH:O	1.97	0.81
1:2A:1332:G:OP1	63:2A:3806:HOH:O	1.99	0.81
32:1a:1230:C:OP2	63:1a:1902:HOH:O	1.98	0.81
1:2A:2134:A:O2'	1:2A:2159:G:N3	2.13	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2018:G:N2	63:1A:8562:HOH:O	2.14	0.81
1:1A:2137:C:N4	1:1A:2154:G:H1	1.78	0.81
4:1E:55:ASN:HB3	4:1E:58:ARG:HG3	1.62	0.81
32:1a:803:G:OP1	63:1a:1904:HOH:O	1.99	0.81
1:2A:1315:C:OP2	63:2A:3806:HOH:O	1.97	0.81
1:1A:1314:C:OP1	63:1A:8504:HOH:O	1.99	0.80
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.62	0.80
32:2a:1013:G:N2	32:2a:1016:A:OP2	2.14	0.80
32:1a:664:G:H22	32:1a:741:G:H1	1.29	0.80
1:1A:601:C:OP1	5:1F:108:LYS:NZ	2.13	0.80
32:1a:1500:A:OP1	63:1a:1905:HOH:O	2.00	0.80
2:2B:102:A:OP2	63:2B:302:HOH:O	1.99	0.80
1:1A:2062:A:OP1	63:1A:8508:HOH:O	2.00	0.80
33:1b:84:GLU:OE1	33:1b:87:ARG:NH1	2.15	0.80
1:2A:1670:C:OP1	63:2A:3807:HOH:O	2.00	0.80
36:2e:122:GLU:O	36:2e:126:ARG:NH1	2.13	0.80
1:1A:2789:C:O2	1:1A:2894:G:N1	2.14	0.80
1:2A:570:G:O6	63:2A:3802:HOH:O	2.00	0.80
1:1A:2129:C:N3	1:1A:2159:G:O6	2.14	0.80
1:1A:1082:U:N3	1:1A:1086:A:N6	2.26	0.80
16:1U:33:ARG:NH2	63:1U:301:HOH:O	2.15	0.80
1:2A:2683:C:OP1	15:2T:53:ARG:NH2	2.14	0.79
32:1a:577:G:OP2	63:1a:1906:HOH:O	2.00	0.79
32:2a:426:G:OP1	35:2d:38:TYR:OH	2.00	0.79
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.16	0.79
25:13:3:ARG:NH1	25:13:60:GLU:OE2	2.15	0.79
55:2x:76:8AN:O2P	63:2x:201:HOH:O	2.01	0.78
1:1A:330:A:H2	1:1A:1210:A:HO2'	1.32	0.78
1:1A:2507:C:OP1	63:1A:8509:HOH:O	2.01	0.78
32:1a:877:C:OP1	39:1h:88:LYS:NZ	2.16	0.78
43:1l:117:ARG:NH1	63:1l:301:HOH:O	2.17	0.78
1:2A:1647:G:OP1	63:2A:3808:HOH:O	2.01	0.78
1:1A:2583:G:OP2	63:1A:8507:HOH:O	2.00	0.78
31:29:2:LYS:NZ	31:29:31:LYS:O	2.16	0.78
1:2A:1041:C:H42	1:2A:1114:G:H1	1.32	0.78
26:24:59:PHE:HB3	26:24:61:ARG:HB2	1.64	0.78
46:2o:54:ARG:HG2	46:2o:58:MET:HE2	1.65	0.78
32:1a:330:C:OP2	63:1a:1907:HOH:O	2.02	0.78
51:1t:40:ALA:HB2	51:1t:55:ILE:HB	1.66	0.78
32:1a:1129:C:H5"	40:1i:16:ARG:HH12	1.49	0.78
44:2m:16:ASP:HB3	44:2m:34:LEU:HD11	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:61:G:OP2	63:1A:8510:HOH:O	2.02	0.77
32:1a:130:A:H5'	48:1q:63:ARG:HH21	1.49	0.77
33:1b:15:VAL:HG13	33:1b:209:ARG:HB3	1.66	0.77
34:1c:63:ASN:HB3	34:1c:98:ASN:HB2	1.65	0.77
3:2D:276:LYS:NZ	32:2a:775:G:OP2	2.16	0.77
4:2E:199:ARG:NH1	63:2E:401:HOH:O	2.17	0.77
28:26:12:GLU:OE1	28:26:19:ARG:NH1	2.17	0.77
32:1a:289:G:OP2	63:1a:1903:HOH:O	2.03	0.77
32:1a:1003:G:H2'	32:1a:1004:A:H4'	1.66	0.77
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.66	0.77
1:2A:1342:A:OP2	63:2A:3809:HOH:O	2.03	0.77
1:1A:2137:C:N3	1:1A:2154:G:N2	2.33	0.77
33:1b:160:ASP:N	33:1b:160:ASP:OD1	2.16	0.77
34:1c:35:GLU:OE2	34:1c:59:ARG:NH2	2.18	0.77
1:1A:346:A:OP2	63:1A:8511:HOH:O	2.03	0.77
32:1a:975:A:H4'	32:1a:976:G:H5"	1.67	0.77
1:2A:848:G:OP1	63:2A:3810:HOH:O	2.03	0.77
13:2R:8:ARG:HE	13:2R:43:GLU:HG2	1.47	0.77
32:1a:916:G:N7	63:1a:1929:HOH:O	2.18	0.77
1:2A:826:U:OP1	63:2A:3803:HOH:O	2.03	0.77
1:1A:1047:G:H2'	1:1A:1110:G:H22	1.50	0.77
1:1A:1816:G:O6	3:1D:35:LYS:NZ	2.15	0.77
1:2A:309:G:N3	1:2A:329:G:O2'	2.18	0.77
10:2O:24:VAL:HG13	10:2O:33:ALA:HB2	1.65	0.77
1:1A:1998:G:N3	63:1A:8578:HOH:O	2.16	0.77
32:1a:1182:G:H4'	32:1a:1183:A:H5'	1.66	0.77
32:2a:1376:U:H2'	32:2a:1377:A:H8	1.50	0.76
40:2i:9:ARG:HB2	40:2i:104:ARG:HE	1.49	0.76
33:1b:82:ARG:NH1	33:1b:92:TYR:OH	2.18	0.76
23:21:51:VAL:HG11	23:21:74:VAL:HG21	1.66	0.76
32:2a:501:C:OP1	43:2l:117:ARG:NH2	2.19	0.76
32:2a:1500:A:OP2	63:2a:3201:HOH:O	2.04	0.76
25:23:13:ILE:O	63:23:201:HOH:O	2.04	0.76
32:2a:1305:G:OP1	52:2u:2:GLY:N	2.19	0.76
1:1A:2683:C:H5'	15:1T:58:ASN:HD22	1.50	0.76
26:24:13:ARG:HH21	26:24:21:VAL:HB	1.51	0.76
32:1a:78:G:H1	32:1a:91:C:H42	1.32	0.76
32:1a:1260:C:O2	32:1a:1275:A:N6	2.19	0.76
1:2A:2644:G:O6	63:2A:3811:HOH:O	2.04	0.76
1:1A:2129:C:O2	1:1A:2159:G:N1	2.18	0.76
32:1a:352:C:OP2	63:1a:1908:HOH:O	2.04	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:6:HIS:HD2	34:1c:8:ILE:H	1.34	0.76
19:2X:50:LYS:HB3	19:2X:84:ALA:HB2	1.68	0.75
32:1a:1402:4OC:HM22	32:1a:1403:C:H5'	1.66	0.75
1:2A:585:G:OP2	63:2A:3814:HOH:O	2.05	0.75
32:1a:538:G:H5"	43:1l:114:LYS:HB2	1.68	0.75
1:2A:2430:A:OP2	63:2A:3815:HOH:O	2.05	0.75
1:1A:2121:G:N2	63:1A:8606:HOH:O	2.19	0.75
1:2A:1065:U:O4	1:2A:1073:A:N6	2.17	0.75
48:2q:22:LEU:HD11	48:2q:39:SER:HB2	1.67	0.75
1:2A:1697:G:O6	63:2A:3812:HOH:O	2.04	0.75
1:2A:2361:A:N7	63:2A:3911:HOH:O	2.19	0.75
10:1O:116:SER:HA	58:1a:1881:MPD:HM2	1.66	0.75
1:2A:1550:C:OP1	1:2A:1720:U:O2'	2.03	0.75
6:1G:5:VAL:HG22	6:1G:8:LYS:H	1.51	0.75
18:1W:37:ARG:NH1	27:15:48:GLU:OE2	2.20	0.75
26:14:16:CYS:SG	26:14:17:GLY:N	2.60	0.75
1:1A:471:A:OP1	63:1A:8512:HOH:O	2.03	0.74
33:1b:166:ASP:HB3	33:1b:169:LYS:HB3	1.67	0.74
32:2a:1182:G:H4'	32:2a:1183:A:H3'	1.67	0.74
1:1A:1648:C:OP1	63:1A:8515:HOH:O	2.05	0.74
48:2q:12:SER:HB3	48:2q:20:THR:HB	1.69	0.74
6:1G:135:LEU:HD13	6:1G:155:MET:HG2	1.69	0.74
1:2A:2483:C:N3	12:2Q:124:LYS:NZ	2.36	0.74
1:2A:751:A:H5'	18:2W:90:ARG:HA	1.68	0.74
1:2A:2507:C:OP1	63:2A:3813:HOH:O	2.05	0.74
1:1A:2718:G:O6	63:1A:8513:HOH:O	2.03	0.74
1:2A:1090:U:H2'	1:2A:1091:G:H8	1.51	0.74
1:1A:2690:C:OP1	13:1R:17:ARG:NH2	2.20	0.74
1:2A:468:G:N7	29:27:39:ARG:NH2	2.35	0.74
10:2O:48:PRO:HB3	32:2a:1422:G:H5"	1.70	0.74
1:1A:2727:G:O6	63:1A:8514:HOH:O	2.04	0.74
40:1i:121:ARG:NH1	40:1i:122:ALA:O	2.21	0.74
46:1o:54:ARG:HG2	46:1o:58:MET:HE2	1.67	0.74
1:2A:2128:C:H1'	1:2A:2173:A:H2	1.52	0.74
1:2A:2131:G:H5"	1:2A:2132:U:H5'	1.70	0.74
1:1A:1702:G:N7	63:1A:8618:HOH:O	2.20	0.74
3:1D:16:MET:HG2	3:1D:211:ARG:HH21	1.52	0.74
40:2i:21:PRO:HA	40:2i:59:PHE:HA	1.68	0.74
11:1P:59:LEU:HD11	30:18:10:ALA:HB2	1.68	0.74
21:1Z:144:LEU:HD21	21:1Z:150:LEU:HD13	1.70	0.74
32:1a:1189:C:OP1	41:1j:51:ARG:NH2	2.19	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:364:C:OP2	63:2A:3816:HOH:O	2.06	0.74
6:2G:101:ILE:HD13	26:24:25:TYR:HB2	1.69	0.74
32:2a:1278:U:H5"	32:2a:1279:A:H5'	1.69	0.74
33:1b:88:ALA:HB2	33:1b:219:VAL:HG13	1.70	0.73
1:1A:749:C:OP2	63:1A:8517:HOH:O	2.06	0.73
1:2A:596:G:N7	63:2A:3922:HOH:O	2.21	0.73
1:1A:2102:U:O2	1:1A:2187:G:O6	2.06	0.73
1:1A:2143:C:N3	1:1A:2148:G:O6	2.21	0.73
6:1G:67:LYS:HD3	26:14:5:ILE:HB	1.71	0.73
20:1Y:28:LYS:HG3	20:1Y:40:GLU:HG2	1.70	0.73
22:10:27:GLU:HG3	22:10:68:GLU:HA	1.71	0.73
39:1h:119:LEU:HB3	39:1h:123:GLU:HB3	1.70	0.73
1:1A:307:G:N7	63:1A:8635:HOH:O	2.21	0.73
1:1A:2464:C:O2'	63:1A:8520:HOH:O	2.06	0.73
2:1B:77:U:OP1	21:1Z:19:ARG:NH2	2.22	0.73
7:2H:90:LYS:NZ	7:2H:159:GLU:OE2	2.21	0.73
36:1e:100:VAL:O	36:1e:107:ARG:NH2	2.20	0.73
32:2a:1129:C:H2'	32:2a:1139:G:N7	2.03	0.73
1:1A:1637:A:N7	63:1A:8641:HOH:O	2.22	0.73
1:1A:2183:C:H2'	1:1A:2184:G:H8	1.53	0.73
11:1P:63:PRO:HD3	30:18:27:THR:HG22	1.71	0.73
32:1a:413:G:N7	35:1d:35:ARG:NH1	2.36	0.73
1:2A:2139:C:N4	1:2A:2152:G:N1	2.32	0.73
1:2A:2807:G:N2	1:2A:2893:G:O6	2.18	0.73
32:2a:443:C:O2	32:2a:491:G:N2	2.19	0.73
1:1A:2821:A:OP2	63:1A:8502:HOH:O	2.07	0.73
32:1a:1030(C):G:N7	32:1a:1031:G:N2	2.36	0.73
32:1a:1346:A:OP1	40:1i:120:ARG:NH1	2.22	0.73
32:1a:812:C:N3	63:1a:1934:HOH:O	2.21	0.73
32:2a:1138:G:H2'	32:2a:1140:C:H5'	1.71	0.73
32:2a:1304:G:O2'	32:2a:1333:A:N6	2.21	0.73
1:1A:1567:A:OP2	3:1D:84:TYR:OH	2.08	0.72
32:1a:1441:G:H5"	32:1a:1442:G:H5'	1.71	0.72
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.22	0.72
1:2A:2589:A:N3	63:2A:3918:HOH:O	2.20	0.72
32:2a:1030:C:H42	32:2a:1031:G:H1	1.36	0.72
1:1A:1332:G:OP1	63:1A:8504:HOH:O	2.06	0.72
1:1A:1418:G:OP2	63:1A:8516:HOH:O	2.06	0.72
1:1A:2623:G:OP1	63:1A:8518:HOH:O	2.06	0.72
33:2b:166:ASP:HB3	33:2b:169:LYS:HB3	1.69	0.72
6:1G:64:THR:HB	6:1G:94:LEU:HD21	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1013:C:OP2	63:1A:8523:HOH:O	2.07	0.72
1:2A:2845:G:OP2	63:2A:3817:HOH:O	2.06	0.72
46:1o:25:THR:HG21	46:1o:70:LEU:HB2	1.70	0.72
1:2A:2391:G:N7	63:2A:3924:HOH:O	2.21	0.72
26:24:59:PHE:HA	26:24:60:GLN:C	2.14	0.72
38:2g:50:ILE:HD11	38:2g:58:PRO:HA	1.71	0.72
1:1A:2683:C:O2	10:1O:70:LYS:NZ	2.20	0.72
1:2A:1314:C:OP1	63:2A:3806:HOH:O	2.07	0.72
1:2A:2248:C:OP2	63:2A:3818:HOH:O	2.07	0.72
1:2A:2748:A:H5'	7:2H:4:ILE:HD12	1.70	0.72
31:29:29:ASN:HD22	31:29:32:HIS:CE1	2.07	0.72
35:2d:166:LYS:HA	35:2d:178:VAL:HG21	1.70	0.72
23:11:46:LEU:HD11	23:11:61:ARG:HB3	1.71	0.72
1:2A:2107:C:H42	1:2A:2182:G:H1	1.35	0.72
7:2H:3:ARG:HH21	7:2H:54:ARG:HH12	1.37	0.72
32:2a:1379:G:OP1	38:2g:6:ARG:NH1	2.23	0.72
36:1e:95:ALA:O	36:1e:98:THR:OG1	2.08	0.72
1:2A:2102:U:O2	1:2A:2187:G:O6	2.07	0.72
32:2a:1503:A:H5'	32:2a:1531:A:H1'	1.72	0.72
1:1A:1664:A:OP1	63:1A:8525:HOH:O	2.07	0.72
15:1T:56:GLY:O	15:1T:59:THR:HG23	1.90	0.72
1:2A:991:C:OP2	63:2A:3819:HOH:O	2.08	0.72
1:2A:1798:U:H5'	3:2D:259:THR:HG22	1.72	0.72
1:2A:2156:G:N7	1:2A:2157:G:N2	2.37	0.72
32:2a:407:G:OP1	35:2d:115:ARG:NH2	2.23	0.72
36:2e:50:GLU:HB2	36:2e:53:LEU:HD13	1.72	0.72
12:1Q:12:GLN:HE21	12:1Q:73:PRO:HD2	1.53	0.71
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.25	0.71
1:2A:1257:C:OP2	63:2A:3821:HOH:O	2.08	0.71
1:1A:863:A:OP2	63:1A:8526:HOH:O	2.07	0.71
1:1A:240:G:O6	63:1A:8527:HOH:O	2.08	0.71
32:1a:186:C:H5'	51:1t:78:ALA:HB1	1.71	0.71
32:2a:573:A:OP2	63:2a:3202:HOH:O	2.07	0.71
32:2a:642:A:N3	39:2h:113:SER:OG	2.23	0.71
35:2d:165:MET:SD	35:2d:168:ARG:NH1	2.64	0.71
1:1A:674:G:O6	63:1A:8524:HOH:O	2.07	0.71
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.72	0.71
32:2a:1164:G:H1	32:2a:1172:C:H42	1.36	0.71
40:2i:53:VAL:O	40:2i:55:ALA:N	2.23	0.71
41:2j:51:ARG:O	45:2n:45:ARG:NH1	2.23	0.71
1:1A:517:C:OP1	27:15:16:ARG:NH2	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1938:A:OP2	63:2A:3822:HOH:O	2.08	0.71
1:1A:11:G:H2'	1:1A:12:U:H5'	1.72	0.71
32:1a:38:G:H22	32:1a:397:A:H5'	1.56	0.71
1:2A:1602:U:O4	63:2A:3809:HOH:O	2.07	0.71
35:2d:122:ARG:NH1	35:2d:134:ASP:O	2.24	0.71
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.55	0.71
12:2Q:11:LYS:HD3	12:2Q:87:LYS:HG2	1.70	0.71
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.24	0.71
34:2c:70:VAL:HG12	34:2c:72:LYS:H	1.56	0.71
41:1j:81:THR:HA	41:1j:84:GLN:HG2	1.71	0.71
1:2A:1153:C:OP2	63:2A:3828:HOH:O	2.09	0.71
1:2A:1568:G:N7	63:2A:3943:HOH:O	2.23	0.71
1:2A:1652:A:OP2	63:2A:3824:HOH:O	2.09	0.71
49:2r:32:ARG:HA	49:2r:69:THR:HG21	1.73	0.71
1:1A:1817:G:OP1	3:1D:88:ARG:NH2	2.23	0.71
15:1T:96:ARG:NH2	63:1T:301:HOH:O	2.23	0.71
1:2A:1762:A:N1	63:2A:3955:HOH:O	2.24	0.71
1:2A:1941:C:OP2	63:2A:3825:HOH:O	2.09	0.71
1:1A:143:G:H4'	19:1X:35:THR:HG21	1.72	0.70
1:2A:1527:G:OP1	63:2A:3823:HOH:O	2.08	0.70
43:2l:71:PRO:O	43:2l:102:ARG:NH1	2.24	0.70
1:1A:67:U:O4	63:1A:8522:HOH:O	2.07	0.70
1:1A:2271:G:O6	63:1A:8519:HOH:O	2.06	0.70
32:1a:922:G:H4'	36:1e:20:GLN:HA	1.73	0.70
7:2H:164:TYR:HB2	7:2H:167:GLU:HB2	1.72	0.70
19:1X:80:ILE:O	63:1X:7201:HOH:O	2.08	0.70
46:2o:25:THR:HG21	46:2o:70:LEU:HB2	1.74	0.70
51:2t:57:ARG:HH22	51:2t:100:ILE:HD12	1.55	0.70
48:1q:66:SER:O	48:1q:70:ARG:NH1	2.25	0.70
23:21:76:ARG:NH1	23:21:97:LEU:O	2.24	0.70
1:1A:2447:G:OP2	63:1A:8529:HOH:O	2.08	0.70
32:1a:971:G:N2	32:1a:1363(A):A:OP2	2.21	0.70
32:1a:992:U:H4'	32:1a:993:G:H5'	1.73	0.70
1:2A:965:C:OP2	63:2A:3829:HOH:O	2.09	0.70
1:2A:2313:C:H5"	6:2G:91:ARG:HD3	1.73	0.70
7:2H:9:ILE:HD11	7:2H:69:ARG:HG2	1.73	0.70
21:2Z:69:THR:HG22	21:2Z:90:VAL:HA	1.73	0.70
1:1A:1140:C:O3'	9:1N:25:ARG:NH1	2.22	0.70
1:2A:990:A:OP2	63:2A:3819:HOH:O	2.09	0.70
3:2D:17:THR:O	3:2D:211:ARG:NH2	2.23	0.70
11:2P:35:HIS:O	63:2P:301:HOH:O	2.09	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:887:G:N7	63:2a:3225:HOH:O	2.25	0.70
40:2i:105:ASP:HB2	40:2i:107:ARG:HE	1.57	0.70
30:18:15:LYS:HB3	58:18:104:MPD:H52	1.73	0.70
1:2A:2377:A:N6	63:2A:3948:HOH:O	2.24	0.70
1:1A:1831:G:O6	63:1A:8528:HOH:O	2.08	0.70
1:2A:775:G:O3'	63:2A:3826:HOH:O	2.09	0.70
1:2A:881:G:H1	1:2A:895:U:H3	1.38	0.70
32:2a:1404:5MC:O2	32:2a:1519:MA6:O2'	2.08	0.70
2:1B:51:G:N7	14:1S:62:LYS:NZ	2.36	0.70
15:1T:1:MET:HE2	15:1T:3:ARG:HG2	1.73	0.70
1:1A:376:C:OP1	63:1A:8539:HOH:O	2.10	0.70
32:2a:1129:C:N3	32:2a:1143:G:N2	2.34	0.70
32:1a:501:C:OP1	43:1l:117:ARG:NH2	2.24	0.69
20:2Y:102:CYS:SG	20:2Y:103:GLY:N	2.64	0.69
21:2Z:79:ARG:HD2	21:2Z:80:ARG:HH22	1.57	0.69
1:1A:1381:G:N7	63:1A:8680:HOH:O	2.25	0.69
32:1a:324:G:N7	63:1a:1950:HOH:O	2.25	0.69
32:1a:1033:G:H2'	32:1a:1034:G:H8	1.55	0.69
42:1k:79:SER:HA	42:1k:104:GLN:HB3	1.74	0.69
1:1A:674:G:OP2	63:1A:8531:HOH:O	2.09	0.69
21:1Z:199:LYS:NZ	63:1Z:402:HOH:O	2.25	0.69
32:1a:964:A:OP1	63:1a:1910:HOH:O	2.10	0.69
39:1h:64:LYS:HG2	39:1h:79:VAL:HG21	1.73	0.69
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.74	0.69
35:2d:153:ARG:NH1	63:2d:601:HOH:O	2.21	0.69
32:1a:560:U:OP1	63:1a:1909:HOH:O	2.09	0.69
1:2A:1671:U:OP2	63:2A:3807:HOH:O	2.09	0.69
32:2a:980:C:OP2	63:2a:3203:HOH:O	2.09	0.69
1:1A:988:A:OP1	63:1A:8537:HOH:O	2.10	0.69
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.27	0.69
19:1X:31:HIS:CD2	19:1X:33:LYS:H	2.07	0.69
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.27	0.69
1:1A:2099:U:H3	1:1A:2190:G:H1	1.40	0.69
44:1m:37:THR:O	44:1m:55:ARG:NH1	2.22	0.69
12:2Q:52:VAL:HG13	21:2Z:183:LEU:HD13	1.74	0.69
1:1A:2857:G:N2	1:1A:2860:A:OP2	2.24	0.69
33:1b:21:ARG:O	33:1b:23:ARG:N	2.25	0.69
33:1b:84:GLU:HA	33:1b:87:ARG:HD3	1.74	0.69
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.73	0.69
1:2A:802:A:OP1	63:2A:3827:HOH:O	2.09	0.69
1:2A:2448:A:OP1	63:2A:3802:HOH:O	2.09	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:253:C:OP1	63:1A:8534:HOH:O	2.10	0.69
7:1H:137:ASP:HB3	7:1H:140:LYS:HB3	1.75	0.69
32:1a:189(K):U:H2'	32:1a:189(L):G:H8	1.56	0.69
32:1a:278:G:OP2	48:1q:92:ARG:NH2	2.26	0.69
1:2A:1053:C:H2'	1:2A:1054:A:H8	1.57	0.69
1:2A:1621:U:OP1	63:2A:3832:HOH:O	2.10	0.69
1:2A:2319:G:H22	14:2S:3:ARG:HD3	1.58	0.69
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.26	0.69
6:2G:145:THR:HG22	6:2G:148:MET:HG2	1.75	0.69
21:2Z:4:ARG:NH2	21:2Z:66:SER:OG	2.26	0.69
32:2a:53:A:OP2	63:2a:3204:HOH:O	2.10	0.69
32:2a:939:G:H1	32:2a:1344:C:H42	1.41	0.69
34:2c:52:LEU:HD21	34:2c:55:VAL:HG23	1.74	0.69
1:2A:2712(A):A:OP2	63:2A:3836:HOH:O	2.11	0.69
1:1A:763:G:OP1	63:1A:8532:HOH:O	2.09	0.69
48:1q:6:LEU:HD23	48:1q:23:VAL:HG11	1.75	0.69
1:2A:963:U:OP2	63:2A:3805:HOH:O	2.11	0.69
12:2Q:24:GLY:O	63:2Q:301:HOH:O	2.10	0.69
32:2a:1292:U:OP2	38:2g:41:ARG:NH2	2.26	0.69
32:1a:608:A:OP2	63:1a:1913:HOH:O	2.12	0.68
32:1a:1518:MA6:OP2	63:1a:1911:HOH:O	2.11	0.68
44:1m:2:ALA:HA	44:1m:8:GLU:HB2	1.73	0.68
1:2A:1058:G:H2'	1:2A:1059:G:H8	1.56	0.68
5:2F:154:VAL:HG22	5:2F:191:ARG:HB2	1.75	0.68
20:2Y:107:ASP:OD2	63:2Y:301:HOH:O	2.10	0.68
41:1j:5:ARG:HD3	41:1j:71:LEU:HD11	1.73	0.68
6:2G:144:ILE:HD11	6:2G:149:VAL:HB	1.74	0.68
1:1A:2350:C:OP2	63:1A:8538:HOH:O	2.10	0.68
3:1D:242:ARG:HG3	3:1D:242:ARG:HH11	1.59	0.68
34:1c:58:GLU:HB3	41:1j:92:THR:HG21	1.74	0.68
40:1i:46:ALA:HB2	40:1i:74:ILE:HG23	1.76	0.68
1:2A:2206:G:H5"	1:2A:2207:G:C8	2.28	0.68
21:2Z:95:PRO:HA	21:2Z:129:SER:HA	1.76	0.68
48:2q:19:VAL:HG23	48:2q:44:ALA:HB3	1.75	0.68
21:1Z:110:GLY:HA3	21:1Z:145:GLU:HA	1.75	0.68
1:1A:1016:G:N7	63:1A:8701:HOH:O	2.26	0.68
1:1A:1086:A:O2'	1:1A:1103:A:N1	2.25	0.68
1:1A:2166:G:N1	1:1A:2172:U:O4	2.19	0.68
32:1a:1183:A:H3'	32:1a:1184:G:H5"	1.75	0.68
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.28	0.68
1:2A:2233:U:OP1	63:2A:3833:HOH:O	2.10	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1291:G:H4'	40:2i:39:GLY:HA3	1.75	0.68
32:2a:1402:4OC:HM22	32:2a:1403:C:H5'	1.75	0.68
1:1A:1670:C:OP2	63:1A:8530:HOH:O	2.11	0.68
1:1A:2183:C:H2'	1:1A:2184:G:C8	2.28	0.68
20:1Y:50:ARG:NH1	63:1Y:601:HOH:O	2.25	0.68
1:2A:1345:C:OP2	63:2A:3831:HOH:O	2.10	0.68
5:1F:67:GLN:NE2	63:1F:403:HOH:O	2.25	0.68
37:2f:1:MET:N	37:2f:69:GLU:OE2	2.25	0.68
53:1y:49:VAL:HG22	53:1y:66:LYS:HG2	1.75	0.68
1:2A:1210:A:OP2	63:2A:3839:HOH:O	2.12	0.68
1:2A:2051:A:N7	63:2A:3992:HOH:O	2.27	0.68
1:2A:2502:G:OP2	63:2A:3843:HOH:O	2.12	0.68
5:2F:117:ARG:NH2	5:2F:189:THR:O	2.27	0.68
13:2R:29:LEU:HB3	13:2R:75:LEU:HD21	1.76	0.68
32:2a:975:A:H4'	32:2a:976:G:H5"	1.75	0.68
1:1A:2646:C:OP2	1:1A:2732:G:O2'	2.08	0.68
32:1a:1025:U:C2	32:1a:1036:G:O6	2.46	0.68
28:26:14:THR:OG1	28:26:48:VAL:O	2.12	0.68
3:1D:108:PRO:HD2	3:1D:111:LEU:HG	1.76	0.68
32:1a:309:G:O2'	32:1a:607:A:N1	2.27	0.68
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.73	0.68
35:2d:201:GLN:NE2	36:2e:116:THR:O	2.25	0.68
24:12:47:ASN:O	63:12:101:HOH:O	2.12	0.67
32:1a:7:G:O2'	36:1e:120:THR:O	2.13	0.67
32:1a:787:A:N7	63:1a:1948:HOH:O	2.25	0.67
32:1a:974:A:OP2	45:1n:29:ARG:NH1	2.27	0.67
32:1a:976:G:OP2	32:1a:1358:U:O2'	2.09	0.67
1:2A:1971:A:OP1	63:2A:3834:HOH:O	2.10	0.67
24:22:16:LEU:O	24:22:67:LYS:NZ	2.27	0.67
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.76	0.67
1:1A:412:A:OP2	63:1A:8540:HOH:O	2.11	0.67
1:1A:2876:G:OP1	63:1A:8551:HOH:O	2.13	0.67
32:1a:1130:A:O2'	40:1i:3:GLN:NE2	2.27	0.67
37:1f:95:GLU:O	49:1r:32:ARG:NH1	2.27	0.67
1:2A:2036:C:O2'	63:2A:3835:HOH:O	2.10	0.67
32:2a:953:G:N7	44:2m:104:ARG:NH2	2.41	0.67
38:2g:75:VAL:HB	38:2g:86:GLN:HB3	1.75	0.67
1:1A:94(A):G:O6	63:1A:8535:HOH:O	2.10	0.67
32:1a:656:C:O2'	46:1o:28:GLN:NE2	2.26	0.67
37:1f:33:TYR:OH	37:1f:78:GLU:OE1	2.11	0.67
1:2A:2548:G:O6	63:2A:3820:HOH:O	2.08	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:2R:19:ALA:O	13:2R:23:ASN:ND2	2.27	0.67
6:1G:83:ARG:H	6:1G:86:MET:HE3	1.59	0.67
1:2A:731:C:OP1	63:2A:3837:HOH:O	2.11	0.67
1:2A:1776:G:OP1	63:2A:3840:HOH:O	2.12	0.67
1:2A:2562:U:OP2	63:2A:3844:HOH:O	2.12	0.67
2:2B:58:A:OP2	63:2B:303:HOH:O	2.11	0.67
32:2a:937:A:OP2	63:2a:3205:HOH:O	2.11	0.67
33:2b:21:ARG:O	33:2b:23:ARG:N	2.25	0.67
42:2k:99:GLN:HE21	42:2k:105:VAL:HG21	1.59	0.67
1:1A:2763:G:OP2	63:1A:8544:HOH:O	2.12	0.67
1:1A:2780:G:OP1	63:1A:8545:HOH:O	2.12	0.67
10:1O:2:ILE:HD12	10:1O:6:THR:HG21	1.76	0.67
26:14:40:HIS:HB3	26:14:43:TYR:HD2	1.58	0.67
51:1t:57:ARG:HH22	51:1t:100:ILE:HD12	1.59	0.67
1:2A:47:C:O2	1:2A:178:G:N2	2.19	0.67
1:2A:733:G:OP2	63:2A:3838:HOH:O	2.12	0.67
1:2A:749:C:OP2	63:2A:3841:HOH:O	2.12	0.67
32:2a:406:G:H21	35:2d:119:GLN:NE2	1.92	0.67
1:1A:1139:G:OP2	63:1A:8543:HOH:O	2.12	0.67
1:1A:1173:G:O2'	1:1A:1174:A:O5'	2.12	0.67
1:1A:1395:A:OP1	63:1A:8541:HOH:O	2.11	0.67
1:1A:1439:A:OP1	63:1A:8546:HOH:O	2.12	0.67
1:1A:2111:C:OP2	1:1A:2145:C:N4	2.28	0.67
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.29	0.67
42:2k:27:ASN:OD1	42:2k:28:THR:N	2.27	0.67
1:1A:2140:C:N3	1:1A:2151:G:O6	2.27	0.67
32:1a:137:C:N4	32:1a:226:G:O6	2.18	0.67
48:1q:45:HIS:HB3	48:1q:72:ARG:HG2	1.75	0.67
1:2A:197:A:O2'	63:2A:3848:HOH:O	2.13	0.67
6:2G:64:THR:HB	6:2G:94:LEU:HD21	1.77	0.67
32:2a:390:C:O3'	47:2p:28:ARG:NH2	2.27	0.67
32:2a:535:A:OP1	63:2a:3206:HOH:O	2.11	0.67
35:2d:162:LEU:HD22	35:2d:178:VAL:HG13	1.75	0.67
1:1A:2637:U:OP2	63:1A:8554:HOH:O	2.13	0.67
63:1A:8502:HOH:O	4:1E:110:GLY:O	2.12	0.67
32:2a:1376:U:H2'	32:2a:1377:A:C8	2.30	0.67
1:1A:859:G:OP1	63:1A:8549:HOH:O	2.12	0.67
3:1D:66:ASP:OD2	63:1D:402:HOH:O	2.13	0.67
39:1h:29:SER:HB3	39:1h:32:LYS:HG3	1.76	0.67
1:1A:1020:A:OP1	63:1A:8557:HOH:O	2.13	0.67
1:1A:1264:G:OP1	27:15:19:ARG:NH2	2.21	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2020:A:OP2	63:1A:8542:HOH:O	2.11	0.67
3:1D:52:ARG:O	63:1D:401:HOH:O	2.13	0.67
30:18:33:ASN:HA	30:18:36:LYS:HD2	1.75	0.67
32:1a:945:G:OP2	63:1a:1914:HOH:O	2.12	0.67
32:1a:1110:A:OP2	63:1a:1915:HOH:O	2.12	0.67
35:1d:148:VAL:HG11	35:1d:158:ILE:HD12	1.77	0.67
32:2a:542:G:OP1	35:2d:10:ARG:NH1	2.21	0.67
13:1R:4:LEU:O	63:1R:301:HOH:O	2.12	0.66
32:1a:562:C:H1'	43:1l:15:ARG:HB3	1.75	0.66
32:1a:1015:A:O3'	45:1n:15:LYS:NZ	2.28	0.66
1:2A:1638:C:OP1	63:2A:3842:HOH:O	2.12	0.66
1:1A:799:G:N7	63:1A:8744:HOH:O	2.28	0.66
32:1a:572:A:OP1	63:1a:1912:HOH:O	2.11	0.66
44:1m:65:LYS:HE2	44:1m:69:GLU:HG2	1.77	0.66
5:2F:116:ASP:OD1	5:2F:119:ARG:NH2	2.29	0.66
15:2T:30:VAL:HG22	15:2T:86:ILE:HG12	1.76	0.66
26:24:59:PHE:HZ	50:2s:64:GLU:HB2	1.58	0.66
32:2a:1051:C:N4	32:2a:1207:2MG:HN1	1.89	0.66
1:1A:2139:C:H42	1:1A:2152:G:H1	1.41	0.66
33:1b:81:VAL:HG12	33:1b:215:LEU:HD11	1.77	0.66
35:1d:60:GLU:HG3	35:1d:202:LEU:HD12	1.77	0.66
48:1q:48:GLU:HB2	48:1q:50:LYS:HG2	1.77	0.66
32:2a:1346:A:N6	32:2a:1375:A:OP2	2.28	0.66
1:1A:1610:A:N7	63:1A:8728:HOH:O	2.28	0.66
1:1A:1640:C:OP2	63:1A:8548:HOH:O	2.12	0.66
32:1a:758:G:OP2	63:1a:1920:HOH:O	2.14	0.66
32:1a:1126:U:H3	41:1j:40:LEU:HD11	1.61	0.66
30:28:33:ASN:HA	30:28:36:LYS:HD2	1.77	0.66
35:2d:13:ARG:HB3	35:2d:39:PRO:HA	1.78	0.66
18:1W:12:ILE:HD13	18:1W:17:VAL:HG13	1.76	0.66
32:1a:503:C:OP1	63:1a:1919:HOH:O	2.14	0.66
32:1a:773:G:OP1	63:1a:1916:HOH:O	2.13	0.66
32:1a:814:A:OP2	63:1a:1917:HOH:O	2.13	0.66
33:1b:69:LEU:HB3	33:1b:162:ILE:HG22	1.76	0.66
1:2A:2706:G:N7	63:2A:3983:HOH:O	2.27	0.66
32:2a:547:A:OP1	63:2a:3209:HOH:O	2.14	0.66
32:2a:1518:MA6:H93	32:2a:1519:MA6:H102	1.77	0.66
33:2b:185:ILE:HG23	33:2b:199:TYR:HB2	1.77	0.66
1:1A:981:A:OP1	63:1A:8558:HOH:O	2.14	0.66
1:1A:2275:C:OP1	63:1A:8556:HOH:O	2.13	0.66
17:1V:66:ARG:NH1	63:1V:307:HOH:O	2.27	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1518:MA6:H93	32:1a:1519:MA6:H92	1.77	0.66
1:2A:135:G:N7	63:2A:4002:HOH:O	2.28	0.66
1:2A:2453:A:OP1	63:2A:3849:HOH:O	2.13	0.66
7:2H:70:THR:O	7:2H:74:ASN:ND2	2.26	0.66
7:2H:101:ARG:NH1	7:2H:121:ILE:O	2.26	0.66
32:2a:770:C:OP1	63:2a:3208:HOH:O	2.13	0.66
14:1S:87:PHE:O	63:1S:201:HOH:O	2.13	0.66
21:1Z:81:ARG:NH2	63:1Z:403:HOH:O	2.29	0.66
32:1a:1086:U:H3	32:1a:1099:G:H22	1.42	0.66
47:1p:28:ARG:NH1	47:1p:29:ASP:OD2	2.25	0.66
1:2A:154(A):C:H42	1:2A:171:G:H1	1.44	0.66
3:2D:97:TYR:OH	63:2D:401:HOH:O	2.12	0.66
46:2o:5:LYS:H	46:2o:5:LYS:HD2	1.60	0.66
1:1A:1019:U:OP1	1:1A:1035:U:O2'	2.11	0.66
1:1A:2331:G:O2'	1:1A:2336:A:N1	2.27	0.66
1:2A:1272:A:OP1	63:2A:3852:HOH:O	2.13	0.66
1:2A:1798:U:OP2	3:2D:274:ARG:NH2	2.28	0.66
1:2A:2061:G:OP2	63:2A:3843:HOH:O	2.14	0.66
1:2A:2550:G:OP1	63:2A:3847:HOH:O	2.13	0.66
14:2S:15:ARG:HB3	14:2S:19:LYS:HE3	1.76	0.66
32:2a:1222:G:O6	63:2a:3203:HOH:O	2.12	0.66
34:2c:6:HIS:CD2	45:2n:49:HIS:HB3	2.31	0.66
47:2p:5:ARG:HH21	47:2p:28:ARG:HA	1.60	0.66
1:1A:1938:A:N1	63:1A:8734:HOH:O	2.28	0.66
5:2F:101:LEU:HD12	5:2F:102:PRO:HD2	1.77	0.66
5:2F:130:ALA:O	5:2F:132:VAL:N	2.23	0.66
1:1A:210:C:OP2	63:1A:8553:HOH:O	2.13	0.66
1:2A:862:G:OP2	63:2A:3850:HOH:O	2.13	0.66
1:2A:1452:A:N1	63:2A:3998:HOH:O	2.28	0.66
17:2V:12:TYR:OH	63:2V:301:HOH:O	2.12	0.66
32:2a:718:G:C8	42:2k:116:HIS:HB3	2.30	0.66
33:2b:78:GLN:NE2	33:2b:95:GLN:OE1	2.29	0.66
1:1A:271(L):U:H5'	8:1I:50:ARG:HH12	1.59	0.65
1:1A:2142:C:O2	1:1A:2149:G:N1	2.29	0.65
1:2A:864:G:H1'	1:2A:914:C:H42	1.61	0.65
1:2A:1299:G:OP1	63:2A:3857:HOH:O	2.14	0.65
32:2a:548:G:OP1	63:2a:3209:HOH:O	2.14	0.65
32:2a:737:A:H1'	37:2f:73:ASN:HD21	1.59	0.65
1:1A:412:A:OP1	63:1A:8560:HOH:O	2.14	0.65
39:1h:86:ILE:HG21	39:1h:133:LEU:HD13	1.79	0.65
1:2A:775:G:OP1	63:2A:3845:HOH:O	2.12	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1090:U:H3	1:2A:1102:C:H1'	1.59	0.65
1:2A:1187:G:N2	1:2A:1188:U:O4	2.30	0.65
1:2A:2104:G:N7	1:2A:2186:G:N2	2.44	0.65
11:2P:54:GLY:O	63:2P:302:HOH:O	2.14	0.65
21:2Z:19:ARG:NH1	21:2Z:84:GLU:O	2.30	0.65
32:2a:492:G:OP2	63:2a:3207:HOH:O	2.13	0.65
42:2k:105:VAL:O	42:2k:107:SER:N	2.29	0.65
1:1A:136:G:N7	63:1A:8755:HOH:O	2.29	0.65
1:1A:184:C:H2'	1:1A:185:U:C6	2.31	0.65
1:1A:749:C:OP2	63:1A:8550:HOH:O	2.12	0.65
1:1A:1763:G:OP1	63:1A:8565:HOH:O	2.15	0.65
63:1A:8502:HOH:O	13:1R:3:HIS:NE2	2.29	0.65
44:1m:17:VAL:O	44:1m:20:THR:OG1	2.14	0.65
1:2A:204:A:N1	63:2A:3996:HOH:O	2.27	0.65
1:2A:1366:A:OP1	23:21:3:LYS:NZ	2.29	0.65
32:2a:854:G:N7	63:2a:3241:HOH:O	2.29	0.65
1:1A:153:C:OP2	23:11:92:LYS:NZ	2.30	0.65
1:1A:246:C:OP1	63:1A:8564:HOH:O	2.15	0.65
1:1A:2458:G:OP2	63:1A:8555:HOH:O	2.13	0.65
1:2A:1287:A:H8	13:2R:104:ARG:HD3	1.60	0.65
32:2a:1129:C:N4	32:2a:1143:G:N1	2.40	0.65
39:2h:9:MET:HG3	39:2h:26:VAL:HG11	1.76	0.65
48:2q:6:LEU:HB3	48:2q:23:VAL:HG11	1.76	0.65
1:1A:1671:U:O4	63:1A:8530:HOH:O	2.09	0.65
1:1A:2142:C:N3	1:1A:2149:G:O6	2.29	0.65
17:1V:23:GLU:OE2	63:1V:301:HOH:O	2.14	0.65
26:14:61:ARG:HG3	26:14:62:ARG:H	1.61	0.65
1:2A:2107:C:N4	1:2A:2182:G:H1	1.94	0.65
1:2A:2235:G:O6	63:2A:3830:HOH:O	2.10	0.65
1:2A:2563:U:OP2	63:2A:3859:HOH:O	2.14	0.65
2:2B:7:G:N3	14:2S:38:GLN:NE2	2.37	0.65
3:2D:275:LYS:HE3	3:2D:276:LYS:HA	1.77	0.65
32:2a:564:C:O2'	39:2h:91:ARG:NH2	2.29	0.65
51:2t:50:GLU:HG3	51:2t:100:ILE:HD11	1.79	0.65
1:1A:913:U:OP1	63:1A:8563:HOH:O	2.14	0.65
32:1a:176:C:H2'	32:1a:177:C:H6	1.62	0.65
38:1g:69:VAL:HG21	38:1g:104:LEU:HD21	1.77	0.65
1:1A:48:G:N7	63:1A:8732:HOH:O	2.28	0.65
32:1a:1003:G:C2'	32:1a:1004:A:H4'	2.27	0.65
49:1r:26:LEU:HD11	49:1r:42:ARG:HD3	1.77	0.65
1:2A:622:G:O2'	63:2A:3870:HOH:O	2.15	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:656:C:O2'	46:2o:28:GLN:NE2	2.30	0.65
34:2c:58:GLU:HB3	41:2j:92:THR:HG21	1.79	0.65
1:1A:271(O):C:H2'	1:1A:271(P):C:C6	2.32	0.65
1:1A:998:C:OP1	63:1A:8567:HOH:O	2.15	0.65
1:1A:2137:C:N4	1:1A:2154:G:N1	2.45	0.65
1:2A:673:C:OP1	5:2F:54:ARG:NH1	2.28	0.65
1:2A:2444:G:OP2	63:2A:3866:HOH:O	2.15	0.65
32:2a:812:C:N3	63:2a:3238:HOH:O	2.29	0.65
32:2a:1189:C:OP1	41:2j:51:ARG:NH2	2.29	0.65
32:2a:1342:C:H2'	32:2a:1343:G:H8	1.62	0.65
32:2a:1360:A:OP2	45:2n:35:ARG:NH2	2.30	0.65
36:2e:33:VAL:HG13	36:2e:112:LEU:HD12	1.79	0.65
37:2f:35:ALA:HA	37:2f:67:MET:HB3	1.77	0.65
38:2g:70:LYS:HE2	38:2g:96:GLN:HB3	1.78	0.65
1:1A:578:A:OP2	63:1A:8566:HOH:O	2.15	0.65
32:1a:1025:U:O2	32:1a:1036:G:O6	2.15	0.65
35:1d:20:TYR:HA	35:1d:26:CYS:SG	2.36	0.65
1:2A:802:A:OP1	63:2A:3854:HOH:O	2.14	0.65
1:2A:1084:A:H3'	1:2A:1085:A:H4'	1.78	0.65
1:2A:2640:G:N7	63:2A:4013:HOH:O	2.29	0.65
17:2V:62:LEU:HD23	17:2V:93:GLU:HG2	1.78	0.65
32:2a:316:G:OP2	32:2a:351:G:O2'	2.13	0.65
32:2a:803:G:OP1	63:2a:3210:HOH:O	2.14	0.65
1:1A:414:C:H2'	1:1A:415:A:C8	2.32	0.65
1:1A:2277:G:OP2	22:10:10:THR:HG21	1.97	0.65
8:1I:4:ILE:HD11	8:1I:44:LEU:HD13	1.79	0.65
40:1i:16:ARG:HD3	40:1i:66:ARG:HH12	1.61	0.65
41:1j:39:PRO:HA	41:1j:70:ARG:HD3	1.79	0.65
1:2A:851:U:OP1	25:23:49:LYS:NZ	2.30	0.65
37:2f:10:LEU:HD22	37:2f:61:LEU:HD11	1.79	0.65
1:1A:1277:G:OP1	63:1A:8559:HOH:O	2.14	0.64
1:2A:2585:U:H1'	56:2v:1:MET:HE3	1.78	0.64
15:2T:109:GLU:HG3	15:2T:112:ARG:NH2	2.12	0.64
34:2c:156:ARG:NH1	34:2c:193:TYR:O	2.30	0.64
33:1b:47:THR:HA	33:1b:202:PRO:HG2	1.79	0.64
1:2A:2481:G:O2'	63:2A:3855:HOH:O	2.14	0.64
32:2a:407:G:H5"	35:2d:115:ARG:HB3	1.78	0.64
32:2a:1197:G:OP2	63:2a:3211:HOH:O	2.14	0.64
33:2b:189:ASP:OD1	33:2b:189:ASP:N	2.26	0.64
1:1A:759:G:N7	63:1A:8759:HOH:O	2.29	0.64
1:1A:2129:C:C2	1:1A:2159:G:N1	2.65	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2550:G:O6	63:1A:8533:HOH:O	2.09	0.64
13:1R:29:LEU:HB3	13:1R:75:LEU:HD21	1.78	0.64
32:1a:607:A:OP1	63:1a:1913:HOH:O	2.14	0.64
1:2A:1352:U:OP2	63:2A:3872:HOH:O	2.15	0.64
1:2A:1890:A:OP2	63:2A:3868:HOH:O	2.15	0.64
7:2H:154:PRO:HB3	7:2H:163:TYR:CZ	2.33	0.64
42:2k:18:ARG:NH2	42:2k:35:PRO:O	2.29	0.64
3:1D:71:ASP:HB3	3:1D:103:ARG:HH22	1.63	0.64
1:2A:2099:U:O2	1:2A:2190:G:N2	2.26	0.64
6:2G:97:ASP:HA	6:2G:100:TRP:HD1	1.62	0.64
8:2I:92:VAL:HG13	8:2I:120:ILE:HB	1.79	0.64
1:1A:1062:G:H2'	1:1A:1063:G:H8	1.62	0.64
48:1q:22:LEU:HD22	48:1q:41:LYS:HG2	1.78	0.64
39:2h:112:LEU:HA	39:2h:134:ILE:HG12	1.79	0.64
44:2m:54:VAL:HA	44:2m:57:ARG:HB3	1.80	0.64
1:1A:271(Q):G:N7	63:1A:8766:HOH:O	2.30	0.64
1:1A:982:C:OP2	63:1A:8568:HOH:O	2.15	0.64
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.80	0.64
1:2A:1352:U:OP1	63:2A:3860:HOH:O	2.14	0.64
1:2A:2079:U:O3'	23:21:35:THR:OG1	2.14	0.64
2:2B:14:U:OP2	2:2B:70:C:O2'	2.13	0.64
48:2q:81:ARG:NH1	48:2q:83:ASP:OD2	2.31	0.64
1:1A:187:G:OP2	63:1A:8569:HOH:O	2.15	0.64
1:1A:2430:A:N3	1:1A:2430:A:H2'	2.13	0.64
1:1A:2749:A:OP1	7:1H:3:ARG:NH1	2.30	0.64
27:15:40:LYS:NZ	63:15:203:HOH:O	2.26	0.64
31:19:24:TYR:CE1	31:19:35:ARG:HG3	2.33	0.64
32:1a:864:A:OP1	63:1a:1918:HOH:O	2.14	0.64
36:1e:50:GLU:HB2	36:1e:53:LEU:HD13	1.79	0.64
1:2A:2099:U:H3	1:2A:2190:G:H1	0.76	0.64
32:2a:662:G:O2'	32:2a:836:G:OP1	2.15	0.64
14:1S:81:GLY:O	14:1S:83:LYS:NZ	2.31	0.64
32:1a:446:G:OP2	63:1a:1922:HOH:O	2.15	0.64
35:1d:50:ARG:HH12	36:1e:10:MET:HE2	1.62	0.64
1:2A:1288:U:OP1	63:2A:3864:HOH:O	2.14	0.64
1:2A:1939:5MU:OP1	1:2A:2604:U:O2'	2.15	0.64
1:2A:1993:U:OP2	63:2A:3871:HOH:O	2.15	0.64
5:2F:130:ALA:H	5:2F:142:TRP:CD1	2.16	0.64
4:1E:36:ARG:NH1	4:1E:85:ASN:OD1	2.31	0.64
15:1T:51:ARG:NH1	63:1T:303:HOH:O	2.31	0.64
32:1a:1066:C:OP2	63:1a:1921:HOH:O	2.14	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:407:G:OP2	63:2A:3863:HOH:O	2.14	0.64
1:2A:1495:A:OP2	63:2A:3865:HOH:O	2.15	0.64
1:2A:2099:U:O4	1:2A:2190:G:O6	2.15	0.64
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.62	0.64
32:2a:391:G:N7	63:2a:3244:HOH:O	2.30	0.64
33:2b:162:ILE:HD11	33:2b:184:VAL:HG22	1.78	0.64
1:1A:2328:A:H2'	1:1A:2329:G:C8	2.32	0.64
32:1a:752:G:N7	63:1a:1967:HOH:O	2.30	0.64
32:1a:1095:U:OP2	32:1a:1108:G:N1	2.27	0.64
1:1A:1271:G:OP2	63:1A:8515:HOH:O	2.15	0.63
28:16:2:ALA:N	63:16:602:HOH:O	2.32	0.63
31:19:17:ILE:HG22	31:19:24:TYR:HB2	1.79	0.63
1:2A:572:A:OP2	17:2V:78:LYS:NZ	2.31	0.63
1:2A:2732:G:O6	63:2A:3856:HOH:O	2.14	0.63
13:2R:63:ARG:NH1	63:2R:302:HOH:O	2.31	0.63
1:1A:1132:A:N3	63:1A:8775:HOH:O	2.30	0.63
33:1b:134:GLU:HG3	33:1b:137:ARG:HH21	1.64	0.63
1:2A:1023:U:OP2	63:2A:3869:HOH:O	2.15	0.63
1:2A:1607:C:N4	1:2A:1622:G:OP2	2.27	0.63
13:2R:32:GLY:HA2	13:2R:116:LEU:HD12	1.79	0.63
32:2a:164:U:H2'	32:2a:165:C:C6	2.34	0.63
32:2a:677:U:H1'	42:2k:119:CYS:SG	2.38	0.63
32:2a:977:A:N6	32:2a:1224:G:OP1	2.30	0.63
5:1F:28:ILE:HD11	5:1F:115:ALA:HB3	1.80	0.63
1:2A:387:U:OP1	63:2A:3873:HOH:O	2.15	0.63
1:2A:667:U:O4	63:2A:3861:HOH:O	2.14	0.63
32:2a:38:G:H22	32:2a:397:A:H5"	1.62	0.63
32:2a:954:G:H21	32:2a:1227:A:H62	1.45	0.63
1:1A:1085:A:O2'	1:1A:1104:C:O2'	2.17	0.63
1:1A:1192:G:O6	63:1A:8552:HOH:O	2.13	0.63
1:1A:1605:C:OP2	63:1A:8570:HOH:O	2.15	0.63
3:1D:69:ARG:HE	3:1D:130:ALA:HB2	1.61	0.63
3:1D:99:ASP:OD1	63:1D:403:HOH:O	2.15	0.63
32:1a:939:G:N7	63:1a:1964:HOH:O	2.29	0.63
1:2A:2617:C:OP1	63:2A:3867:HOH:O	2.15	0.63
1:2A:2690:C:OP1	13:2R:17:ARG:NH2	2.32	0.63
12:2Q:91:GLU:O	63:2Q:302:HOH:O	2.15	0.63
1:1A:1055:G:O6	1:1A:1104:C:N3	2.32	0.63
32:1a:300:A:O2'	32:1a:564:C:N3	2.24	0.63
1:2A:2136:C:C2	1:2A:2155:G:N2	2.65	0.63
32:2a:234:C:H5"	48:2q:70:ARG:HH21	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1358:G:OP2	63:1A:8571:HOH:O	2.16	0.63
2:1B:11:C:OP1	63:1B:301:HOH:O	2.16	0.63
20:1Y:92:ASN:N	20:1Y:93:GLY:HA2	2.14	0.63
32:1a:853:G:O2'	63:1a:1923:HOH:O	2.15	0.63
30:28:34:TRP:O	63:28:201:HOH:O	2.15	0.63
32:2a:286:G:N7	63:2a:3242:HOH:O	2.30	0.63
34:2c:110:ASN:OD1	34:2c:140:ARG:NH1	2.32	0.63
1:1A:668:G:N7	63:1A:8787:HOH:O	2.31	0.63
32:1a:814:A:H2'	32:1a:816:A:H5"	1.79	0.63
37:1f:68:PRO:HG2	37:1f:71:ARG:HD2	1.80	0.63
1:2A:2526:G:O2'	31:29:33:LYS:NZ	2.31	0.63
33:2b:69:LEU:HB3	33:2b:162:ILE:HG22	1.80	0.63
32:2a:1318:A:H5"	50:2s:3:ARG:NH2	2.14	0.63
33:2b:15:VAL:O	33:2b:17:PHE:N	2.26	0.63
38:2g:113:GLU:HG3	38:2g:119:ARG:HG2	1.81	0.63
40:2i:3:GLN:HG3	40:2i:20:ARG:HE	1.64	0.63
14:1S:97:ARG:NH1	63:1S:202:HOH:O	2.32	0.63
13:2R:87:TYR:OH	13:2R:117:VAL:O	2.07	0.63
13:2R:103:ARG:NH1	63:2R:301:HOH:O	2.31	0.63
32:2a:1059:C:OP2	34:2c:199:LYS:NZ	2.31	0.63
46:2o:55:GLY:HA2	46:2o:58:MET:HE3	1.81	0.63
1:1A:889:C:O2'	1:1A:890:A:O5'	2.14	0.62
32:1a:222:U:H2'	32:1a:223:U:C6	2.34	0.62
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.81	0.62
37:1f:1:MET:HE3	37:1f:66:GLU:HG2	1.81	0.62
1:2A:483:A:O2'	20:2Y:59:GLY:N	2.31	0.62
1:2A:2379:G:O2'	14:2S:17:ARG:NH2	2.31	0.62
17:2V:24:LYS:HG3	17:2V:64:HIS:HD2	1.63	0.62
1:1A:987:G:O2'	1:1A:1000:A:N3	2.29	0.62
33:1b:231:GLU:HB3	33:1b:232:PRO:CD	2.29	0.62
35:1d:166:LYS:HA	35:1d:178:VAL:HG21	1.81	0.62
1:2A:857:C:OP2	22:20:77:ARG:NH2	2.32	0.62
32:2a:56:U:H2'	32:2a:57:G:H8	1.64	0.62
1:1A:1721:G:H8	1:1A:1741:A:H62	1.47	0.62
12:1Q:31:ASP:OD1	12:1Q:134:ARG:NH1	2.32	0.62
32:1a:573:A:N1	63:1a:1966:HOH:O	2.30	0.62
33:1b:100:GLY:N	33:1b:176:GLU:OE2	2.30	0.62
35:1d:111:ALA:HB1	35:1d:116:GLN:HB3	1.81	0.62
36:1e:9:LYS:HB2	36:1e:112:LEU:HD11	1.81	0.62
1:2A:2125:G:N2	1:2A:2172:U:OP2	2.29	0.62
1:2A:2145:C:O2'	1:2A:2147:G:N2	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:80:ARG:HB2	21:2Z:80:ARG:HH11	1.63	0.62
32:2a:460:G:H2'	32:2a:461:A:H2'	1.81	0.62
36:2e:71:LEU:HD21	36:2e:115:VAL:HG22	1.80	0.62
51:2t:58:LYS:HE3	51:2t:62:LEU:HD12	1.81	0.62
2:1B:45:A:OP2	6:1G:96:ARG:NH2	2.32	0.62
46:1o:39:LEU:HD23	46:1o:56:LEU:HB2	1.81	0.62
1:2A:2546:U:OP1	63:2A:3874:HOH:O	2.16	0.62
5:2F:207:GLY:O	63:2F:401:HOH:O	2.16	0.62
8:2I:75:LEU:HD11	8:2I:105:HIS:CG	2.34	0.62
27:25:20:ARG:NH1	63:25:203:HOH:O	2.28	0.62
33:2b:84:GLU:HB3	33:2b:219:VAL:HG21	1.81	0.62
32:1a:677:U:H3	32:1a:713:G:H22	1.47	0.62
32:1a:953:G:N7	44:1m:104:ARG:NH2	2.48	0.62
32:2a:1510:U:H2'	32:2a:1511:G:C8	2.34	0.62
1:1A:271(L):U:OP1	8:1I:50:ARG:NH1	2.33	0.62
1:1A:1055:G:N1	1:1A:1104:C:O2	2.32	0.62
1:1A:1815:A:OP2	3:1D:54:ARG:NH2	2.32	0.62
35:1d:85:LYS:O	63:1d:401:HOH:O	2.16	0.62
14:2S:28:VAL:HG11	14:2S:98:VAL:HG13	1.80	0.62
1:1A:859:G:O2'	1:1A:916:G:O6	2.13	0.62
8:1I:31:LEU:HD21	8:1I:38:LEU:HG	1.82	0.62
32:1a:1183:A:O2'	32:1a:1184:G:OP1	2.15	0.62
35:1d:98:GLU:OE1	35:1d:103:ASN:ND2	2.30	0.62
1:2A:271(W):G:OP2	63:2A:3879:HOH:O	2.16	0.62
5:2F:29:ASN:H	5:2F:112:MET:HE3	1.63	0.62
32:2a:539:A:H2'	32:2a:540:G:C8	2.34	0.62
1:2A:822:U:OP2	63:2A:3878:HOH:O	2.16	0.62
1:2A:2316:C:O2'	6:2G:128:ARG:NH2	2.33	0.62
6:2G:137:GLU:HB3	6:2G:139:LEU:HG	1.82	0.62
25:23:10:LYS:NZ	63:23:202:HOH:O	2.32	0.62
32:2a:978:A:H61	32:2a:1316:G:H1'	1.65	0.62
47:2p:3:LYS:NZ	47:2p:65:GLN:O	2.27	0.62
50:2s:50:ALA:HB1	50:2s:57:HIS:HB3	1.81	0.62
1:1A:779:U:OP2	63:1A:8572:HOH:O	2.16	0.62
32:1a:730:G:N2	32:1a:766:A:OP1	2.29	0.62
32:1a:1219:U:OP1	45:1n:19:ARG:NH1	2.29	0.62
1:2A:192:C:O2'	1:2A:802:A:N3	2.33	0.62
32:2a:811:C:O2'	32:2a:901:A:N1	2.32	0.62
1:1A:2681:C:OP2	4:1E:109:LYS:NZ	2.30	0.62
1:1A:2849:U:P	15:1T:95:ARG:HH12	2.22	0.62
1:2A:2104:G:N2	1:2A:2105:C:N3	2.47	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:50:G:OP1	14:2S:63:THR:OG1	2.18	0.62
32:2a:999:C:N4	32:2a:1042:G:H1	1.95	0.62
39:2h:51:VAL:HG21	39:2h:60:ARG:HD2	1.82	0.62
6:1G:8:LYS:NZ	6:1G:97:ASP:OD1	2.31	0.61
21:1Z:152:ALA:HB1	21:1Z:163:LEU:HD21	1.82	0.61
32:1a:8:A:N7	35:1d:208:SER:OG	2.33	0.61
33:1b:8:LYS:O	33:1b:217:ARG:NH2	2.33	0.61
41:1j:45:ARG:HB3	41:1j:65:LEU:HB3	1.81	0.61
1:2A:2189:U:H2'	1:2A:2190:G:C8	2.35	0.61
19:2X:31:HIS:CD2	19:2X:33:LYS:H	2.18	0.61
32:2a:117:G:OP2	63:2a:3213:HOH:O	2.16	0.61
32:2a:677:U:H3	32:2a:713:G:H22	1.47	0.61
33:2b:63:MET:HG3	33:2b:225:ALA:HB1	1.81	0.61
37:2f:95:GLU:O	49:2r:32:ARG:NH1	2.30	0.61
23:11:23:LYS:HB3	23:11:29:GLY:HA3	1.82	0.61
32:1a:189(K):U:H2'	32:1a:189(L):G:C8	2.34	0.61
32:1a:1053:G:N7	32:1a:1200:C:H5"	2.14	0.61
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.15	0.61
6:2G:42:GLY:O	6:2G:44:GLY:N	2.33	0.61
24:22:65:ASN:OD1	24:22:69:ARG:NH1	2.34	0.61
33:2b:119:GLU:HG3	33:2b:153:ARG:HH12	1.64	0.61
48:2q:67:LYS:O	48:2q:69:LYS:N	2.33	0.61
1:1A:864:G:N7	12:1Q:22:LYS:NZ	2.45	0.61
1:1A:1023:U:OP2	63:1A:8575:HOH:O	2.16	0.61
1:1A:2682:U:O2'	15:1T:58:ASN:ND2	2.32	0.61
1:1A:2743:C:OP1	31:19:33:LYS:NZ	2.29	0.61
21:1Z:46:LYS:NZ	63:1Z:404:HOH:O	2.31	0.61
33:1b:12:GLU:HA	33:1b:213:LEU:HD11	1.82	0.61
1:2A:1340:U:OP1	19:2X:16:LYS:NZ	2.31	0.61
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.35	0.61
7:2H:144:VAL:O	7:2H:148:ILE:HG12	2.00	0.61
36:2e:77:PRO:HD2	36:2e:142:LEU:HD22	1.82	0.61
1:1A:2849:U:OP2	15:1T:95:ARG:NH1	2.32	0.61
21:1Z:19:ARG:NH1	21:1Z:84:GLU:O	2.34	0.61
1:2A:365:C:OP2	63:2A:3876:HOH:O	2.16	0.61
9:2N:30:ILE:HG23	9:2N:52:VAL:HG11	1.81	0.61
18:2W:12:ILE:HD13	18:2W:17:VAL:HG13	1.81	0.61
27:25:16:ARG:NH1	27:25:17:ASP:OD1	2.33	0.61
32:2a:952:U:H4'	32:2a:964:A:N1	2.14	0.61
35:2d:18:LYS:NZ	35:2d:31:CYS:SG	2.73	0.61
35:2d:19:LEU:HD23	35:2d:67:ILE:HG13	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:548:A:O2'	1:1A:549:G:OP1	2.15	0.61
1:1A:639:U:H2'	1:1A:640:C:C6	2.36	0.61
3:1D:148:GLU:HB2	3:1D:151:LYS:HD2	1.83	0.61
13:1R:97:VAL:HG22	13:1R:114:VAL:HG13	1.81	0.61
32:1a:1352:C:OP1	52:1u:3:LYS:NZ	2.25	0.61
36:1e:143:ARG:NH1	39:1h:77:GLU:OE1	2.34	0.61
1:2A:631:A:OP1	11:2P:65:ARG:NH1	2.34	0.61
1:2A:2788:C:O2'	1:2A:2809:A:N3	2.34	0.61
8:2I:57:ARG:O	8:2I:61:ARG:HG2	2.01	0.61
34:2c:54:ARG:HB2	34:2c:69:HIS:HB2	1.83	0.61
3:1D:265:PRO:O	63:1D:405:HOH:O	2.16	0.61
32:1a:673:G:H2'	32:1a:674:G:C8	2.35	0.61
1:2A:2162:G:H4'	1:2A:2172:U:O2'	1.99	0.61
2:1B:59:A:N6	63:1B:309:HOH:O	2.29	0.61
1:2A:2133:G:O2'	1:2A:2158:A:N1	2.33	0.61
1:2A:2364:C:OP1	22:20:55:ARG:NH1	2.34	0.61
32:2a:674:G:OP1	37:2f:87:ARG:NH2	2.33	0.61
32:2a:1203:C:H2'	32:2a:1204:A:H8	1.66	0.61
44:2m:81:LEU:HD22	44:2m:88:ARG:HD2	1.83	0.61
44:1m:60:VAL:HG12	44:1m:66:LEU:HD11	1.81	0.61
1:2A:143:G:H4'	19:2X:35:THR:HG21	1.83	0.61
1:2A:854:G:O6	63:2A:3862:HOH:O	2.14	0.61
1:2A:2074:U:OP2	63:2A:3875:HOH:O	2.16	0.61
33:2b:118:LEU:HD22	33:2b:142:LEU:HB2	1.82	0.61
21:1Z:152:ALA:HB3	21:1Z:167:PRO:HA	1.82	0.61
34:1c:47:LEU:HD13	34:1c:68:VAL:HG11	1.83	0.61
41:1j:49:VAL:HG23	45:1n:41:ARG:HB2	1.83	0.61
1:2A:1007:C:H5"	9:2N:35:ARG:NH1	2.16	0.61
22:20:10:THR:HG22	22:20:12:ASN:H	1.66	0.61
33:2b:77:ALA:HB2	33:2b:211:ILE:HD13	1.83	0.61
35:2d:109:GLY:HA3	35:2d:165:MET:HG3	1.82	0.61
1:1A:975:C:O2	63:1A:8573:HOH:O	2.16	0.60
1:1A:1266:G:O5'	18:1W:15:ARG:NH2	2.34	0.60
1:2A:1062:G:C8	1:2A:1070:A:H1'	2.36	0.60
32:2a:401:C:OP2	35:2d:73:ARG:NH2	2.34	0.60
1:1A:370:G:OP2	63:1A:8580:HOH:O	2.17	0.60
32:1a:262:A:H2'	32:1a:263:A:C8	2.36	0.60
32:1a:407:G:OP1	35:1d:115:ARG:NH2	2.35	0.60
53:1y:52:ALA:HB2	53:1y:77:LEU:HD21	1.82	0.60
12:2Q:137:TYR:HB3	21:2Z:76:LEU:HD21	1.83	0.60
32:2a:328:C:H4'	32:2a:329:A:H5'	1.81	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2f:22:GLU:OE1	37:2f:84:ASN:ND2	2.25	0.60
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.35	0.60
36:1e:81:GLU:HG2	36:1e:90:VAL:HG13	1.83	0.60
48:1q:67:LYS:O	48:1q:69:LYS:N	2.33	0.60
1:2A:1007:C:H5"	9:2N:35:ARG:HH11	1.66	0.60
1:2A:2206:G:H5"	1:2A:2207:G:N7	2.16	0.60
1:2A:2321:G:O2'	1:2A:2322:A:OP1	2.20	0.60
1:2A:2376:A:N3	14:2S:106:ARG:NH2	2.48	0.60
32:2a:544:G:OP1	35:2d:62:GLN:NE2	2.27	0.60
32:2a:662:G:H2'	32:2a:663:A:H8	1.66	0.60
17:1V:14:VAL:HA	17:1V:18:LEU:HD23	1.83	0.60
32:1a:176:C:H2'	32:1a:177:C:C6	2.37	0.60
32:1a:356:A:N3	32:1a:368:U:O2'	2.30	0.60
32:1a:612:C:O2	32:1a:629:G:N2	2.35	0.60
6:2G:106:LEU:HA	6:2G:110:ALA:HB3	1.84	0.60
32:2a:745:C:H5'	32:2a:851:G:H21	1.65	0.60
33:2b:164:VAL:HB	33:2b:186:ALA:HB2	1.84	0.60
53:2y:53:THR:HG22	53:2y:62:VAL:HG12	1.82	0.60
1:1A:396:G:H1'	23:11:42:GLN:HB3	1.84	0.60
1:1A:802:A:OP1	63:1A:8579:HOH:O	2.16	0.60
32:1a:7:G:H5'	32:1a:298:A:O4'	2.01	0.60
32:1a:1026:G:H5'	32:1a:1027:C:H5	1.66	0.60
1:2A:2243:U:H2'	1:2A:2244:U:C6	2.36	0.60
1:2A:2849:U:H4'	1:2A:2868:A:C2	2.36	0.60
2:2B:103:G:O2'	63:2B:304:HOH:O	2.16	0.60
21:2Z:58:VAL:HA	21:2Z:68:PRO:HA	1.83	0.60
28:26:8:LYS:NZ	63:26:201:HOH:O	2.34	0.60
32:1a:946:A:H2'	32:1a:947:G:C8	2.35	0.60
32:1a:1102:A:O3'	33:1b:96:ARG:NH2	2.34	0.60
39:1h:13:ILE:O	39:1h:17:THR:OG1	2.20	0.60
40:1i:20:ARG:O	40:1i:60:ASP:N	2.32	0.60
47:1p:71:ARG:HB2	47:1p:80:PHE:HZ	1.67	0.60
1:2A:1446:C:H42	1:2A:1465:G:H1	1.49	0.60
32:2a:17:U:H2'	32:2a:18:C:C6	2.37	0.60
33:2b:178:ARG:HH22	39:2h:68:ARG:HH22	1.49	0.60
53:2y:54:ILE:HB	53:2y:61:LEU:HD12	1.83	0.60
1:1A:1178:C:H2'	1:1A:1179:C:C6	2.37	0.60
1:1A:1778:U:H2'	1:1A:1784:A:N6	2.17	0.60
8:1I:72:LEU:HD12	8:1I:138:ILE:HG21	1.82	0.60
32:1a:574:A:OP2	63:1a:1924:HOH:O	2.16	0.60
32:1a:728:A:OP1	32:1a:742:G:O2'	2.20	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:1k:22:HIS:ND1	63:1k:201:HOH:O	2.31	0.60
14:2S:15:ARG:O	14:2S:19:LYS:HG2	2.02	0.60
32:2a:45:U:H2'	32:2a:46:G:C8	2.35	0.60
32:2a:1035:A:H2'	32:2a:1037:C:H41	1.66	0.60
1:1A:219:G:O6	63:1A:8576:HOH:O	2.16	0.60
1:1A:1359:A:H61	1:1A:1372:U:H3	1.50	0.60
19:1X:27:THR:HG23	19:1X:80:ILE:HG13	1.82	0.60
1:2A:2119:A:H61	1:2A:2168:G:H21	1.49	0.60
7:2H:24:VAL:HG21	7:2H:72:ILE:HD11	1.84	0.60
26:24:40:HIS:HB3	26:24:43:TYR:CD2	2.37	0.60
28:26:6:ARG:HH12	28:26:26:ASN:HB2	1.67	0.60
32:2a:743:U:H2'	32:2a:744:C:C6	2.36	0.60
34:2c:150:LYS:HG3	34:2c:169:ALA:HB2	1.83	0.60
40:2i:40:LEU:HB2	40:2i:43:ALA:HB2	1.83	0.60
42:2k:99:GLN:HG2	42:2k:105:VAL:HG11	1.83	0.60
8:1I:109:ILE:HG13	8:1I:130:TYR:CZ	2.37	0.60
32:1a:731:G:OP2	63:1a:1926:HOH:O	2.16	0.60
1:2A:1503:U:H2'	1:2A:1504:C:C6	2.36	0.60
6:2G:68:PRO:HA	6:2G:92:VAL:HB	1.84	0.60
11:2P:20:GLY:O	11:2P:21:ARG:NH1	2.29	0.60
32:2a:181:G:N2	32:2a:182:U:O4	2.26	0.60
32:2a:881:G:P	43:2l:12:ARG:HH22	2.25	0.60
32:1a:177:C:OP1	51:1t:65:LYS:NZ	2.33	0.60
38:1g:68:ASN:ND2	38:1g:127:ALA:O	2.35	0.60
1:2A:752:A:H3'	29:27:1:MET:HE2	1.83	0.60
1:2A:1287:A:C8	13:2R:104:ARG:HD3	2.35	0.60
32:2a:545:C:OP1	35:2d:61:LYS:NZ	2.35	0.60
32:2a:1006:C:OP1	32:2a:1037:C:O2'	2.20	0.60
44:2m:95:GLY:O	44:2m:110:ARG:HG3	2.02	0.60
1:1A:1064:C:H3'	1:1A:1065:U:H5"	1.83	0.59
1:1A:2885:C:O2'	27:15:34:PRO:HG3	2.02	0.59
11:1P:71:VAL:HG22	11:1P:72:PRO:HA	1.83	0.59
13:1R:67:LEU:HG	13:1R:76:VAL:HG21	1.84	0.59
1:2A:1658:C:OP1	4:2E:135:HIS:NE2	2.33	0.59
46:2o:6:GLU:OE1	46:2o:6:GLU:N	2.33	0.59
1:1A:1970:A:OP1	63:1A:8582:HOH:O	2.17	0.59
1:2A:1161:C:H2'	1:2A:1162:G:H8	1.67	0.59
36:2e:143:ARG:NH1	39:2h:77:GLU:OE2	2.32	0.59
48:2q:45:HIS:HB3	48:2q:72:ARG:HG2	1.85	0.59
1:1A:2153:G:H2'	1:1A:2154:G:C8	2.36	0.59
1:1A:2810:A:N6	1:1A:2891:G:O2'	2.34	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:8:PRO:HB3	3:1D:14:ARG:HG3	1.82	0.59
10:1O:59:LYS:NZ	10:1O:89:ASN:OD1	2.34	0.59
32:1a:1030:C:N4	32:1a:1032:G:O6	2.35	0.59
34:1c:152:ILE:HB	34:1c:199:LYS:HB2	1.83	0.59
1:2A:817:C:O2'	1:2A:839:U:H5"	2.02	0.59
1:2A:1161:C:H2'	1:2A:1162:G:C8	2.37	0.59
32:2a:1128:C:H1'	32:2a:1147:C:H42	1.67	0.59
44:2m:29:ARG:HA	44:2m:32:GLU:HB3	1.84	0.59
1:1A:299:A:N7	63:1A:8801:HOH:O	2.32	0.59
1:1A:2777:G:O6	63:1A:8574:HOH:O	2.16	0.59
1:1A:2850:A:N7	1:1A:2868:A:O2'	2.36	0.59
6:1G:47:LYS:HZ1	6:1G:81:LYS:HE2	1.66	0.59
16:1U:33:ARG:NH1	63:1U:305:HOH:O	2.35	0.59
32:1a:1277:C:O2'	32:1a:1279:A:H1'	2.02	0.59
44:1m:11:ARG:O	44:1m:13:LYS:N	2.35	0.59
1:2A:271(A):A:N1	1:2A:272(D):G:O2'	2.35	0.59
1:2A:1258:C:OP2	63:2A:3877:HOH:O	2.16	0.59
18:2W:53:SER:OG	63:2W:301:HOH:O	2.17	0.59
20:2Y:13:VAL:HG12	20:2Y:74:PRO:HA	1.84	0.59
32:2a:984:C:H2'	32:2a:985:C:H6	1.67	0.59
1:1A:1645:G:H5"	1:1A:1646:C:H5'	1.83	0.59
33:1b:212:GLN:O	33:1b:216:SER:OG	2.21	0.59
41:1j:61:GLU:OE1	45:1n:45:ARG:NE	2.35	0.59
1:2A:668:G:H5'	1:2A:669:G:OP2	2.03	0.59
1:2A:2506:U:H1'	54:2w:76:PPU:HD1	1.84	0.59
5:2F:185:ASP:HA	5:2F:188:ARG:HD3	1.83	0.59
9:2N:50:ASP:OD1	63:2N:301:HOH:O	2.17	0.59
10:2O:120:GLU:HG2	10:2O:122:LEU:HG	1.84	0.59
12:2Q:42:ILE:HD12	12:2Q:97:VAL:HG21	1.84	0.59
14:2S:93:LYS:HG2	14:2S:95:HIS:HB3	1.85	0.59
32:2a:982:U:OP2	45:2n:23:ARG:NH2	2.35	0.59
32:2a:992:U:H4'	32:2a:993:G:O5'	2.02	0.59
32:2a:1172:C:H2'	32:2a:1173:G:H8	1.67	0.59
32:2a:1342:C:H2'	32:2a:1343:G:C8	2.36	0.59
3:1D:63:ARG:O	63:1D:404:HOH:O	2.16	0.59
16:1U:36:ARG:NH2	63:1U:306:HOH:O	2.36	0.59
32:1a:1302:U:C5	44:1m:17:VAL:HG21	2.37	0.59
1:2A:1335:U:OP2	63:2A:3882:HOH:O	2.16	0.59
1:2A:1815:A:OP2	3:2D:54:ARG:NH2	2.33	0.59
1:2A:2406:U:C2	11:2P:72:PRO:HG2	2.38	0.59
7:2H:89:ILE:HD11	7:2H:96:ALA:HB2	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:2N:58:ASP:N	9:2N:58:ASP:OD1	2.35	0.59
25:23:41:PRO:HA	25:23:44:ARG:HB3	1.84	0.59
38:2g:83:ALA:HB3	38:2g:85:TYR:HE1	1.68	0.59
4:1E:59:VAL:HG21	4:1E:74:PRO:HB3	1.84	0.59
20:1Y:102:CYS:SG	20:1Y:103:GLY:N	2.75	0.59
32:1a:56:U:H2'	32:1a:57:G:C8	2.38	0.59
32:1a:1135:U:H5"	32:1a:1136:U:H5	1.67	0.59
35:1d:107:ARG:HH21	35:1d:194:LEU:HD21	1.68	0.59
43:1l:53:ARG:HB3	43:1l:69:TYR:HE1	1.68	0.59
1:2A:2023:G:H5'	1:2A:2617:C:H4'	1.83	0.59
1:2A:2129:C:N3	1:2A:2159:G:O6	2.35	0.59
32:2a:1010:G:H2'	32:2a:1011:G:C8	2.37	0.59
44:2m:107:ALA:HB3	44:2m:111:LYS:HE3	1.84	0.59
53:2y:87:LYS:O	53:2y:91:LYS:HB2	2.03	0.59
1:1A:305:U:H2'	1:1A:306:U:C6	2.38	0.59
1:2A:1066:U:O2'	1:2A:1068:G:OP2	2.18	0.59
1:2A:1818:U:O2'	3:2D:154:LYS:O	2.17	0.59
15:2T:84:GLN:HG2	15:2T:85:LYS:HG3	1.85	0.59
35:2d:15:GLU:OE2	35:2d:59:ARG:NH1	2.36	0.59
44:2m:23:TYR:HB3	44:2m:67:GLU:HA	1.84	0.59
32:1a:325:A:OP2	51:1t:70:SER:HB3	2.03	0.59
32:1a:601:C:H2'	32:1a:602:A:H8	1.68	0.59
32:1a:629:G:H2'	32:1a:630:G:O4'	2.03	0.59
1:2A:1371:G:N7	63:2A:4047:HOH:O	2.31	0.59
35:2d:122:ARG:HH11	35:2d:122:ARG:HA	1.67	0.59
1:1A:286:C:H2'	1:1A:287:C:C6	2.38	0.59
32:2a:976:G:H5'	32:2a:1358:U:O2'	2.03	0.59
1:1A:247:G:H4'	1:1A:386:G:C5	2.38	0.58
1:1A:1385:G:O2'	1:1A:1396:U:O2	2.19	0.58
1:1A:1786:A:H1'	1:1A:1938:A:N6	2.17	0.58
1:1A:2153:G:H2'	1:1A:2154:G:H8	1.67	0.58
32:1a:926:G:O6	63:1a:1925:HOH:O	2.16	0.58
1:2A:1081:U:H3'	1:2A:1085:A:H61	1.68	0.58
10:2O:97:ARG:NH1	32:2a:339:C:OP2	2.29	0.58
38:2g:111:ARG:NH1	38:2g:113:GLU:OE2	2.36	0.58
38:2g:116:ALA:O	38:2g:120:ILE:HG12	2.03	0.58
32:1a:275:G:H5'	48:1q:14:LYS:HD2	1.86	0.58
1:2A:1011:G:OP2	16:2U:66:ASN:ND2	2.36	0.58
21:2Z:33:LEU:HD11	21:2Z:90:VAL:HG21	1.84	0.58
23:21:77:ALA:HA	23:21:80:LEU:HD13	1.84	0.58
32:2a:1001:A:H2'	32:2a:1001(A):G:H8	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:530:G:N1	1:1A:2023:G:OP1	2.30	0.58
2:1B:13:A:N1	2:1B:69:G:O2'	2.31	0.58
26:14:34:GLU:OE2	26:14:34:GLU:N	2.33	0.58
32:1a:614:A:OP1	35:1d:85:LYS:NZ	2.36	0.58
33:1b:185:ILE:HG22	33:1b:199:TYR:HB2	1.85	0.58
1:2A:2058:A:N7	63:2A:4024:HOH:O	2.31	0.58
1:2A:2136:C:H42	1:2A:2156:G:N2	2.02	0.58
26:24:48:ARG:O	26:24:50:VAL:N	2.35	0.58
32:2a:392:G:OP1	47:2p:8:ARG:NH2	2.37	0.58
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.38	0.58
1:1A:1541:G:H3'	1:1A:1542:A:H2'	1.85	0.58
18:1W:88:ARG:HG3	18:1W:92:ARG:HH21	1.67	0.58
44:1m:40:ASN:HB3	44:1m:43:THR:HG23	1.85	0.58
1:2A:607:U:OP1	5:2F:102:PRO:HA	2.03	0.58
1:2A:791:C:OP2	63:2A:3883:HOH:O	2.16	0.58
1:2A:827:U:OP1	63:2A:3815:HOH:O	2.17	0.58
1:2A:2820:A:OP2	1:2A:2821:A:N6	2.26	0.58
7:2H:17:VAL:HG13	7:2H:26:VAL:HG22	1.84	0.58
22:20:56:ASP:OD1	22:20:58:THR:OG1	2.21	0.58
33:2b:93:VAL:HG21	33:2b:97:TRP:HD1	1.68	0.58
34:2c:35:GLU:HA	34:2c:38:ARG:HD2	1.85	0.58
44:2m:91:ARG:NE	44:2m:97:PRO:O	2.25	0.58
11:1P:63:PRO:HG2	30:18:25:MET:HB2	1.85	0.58
32:1a:1068:G:H8	32:1a:1068:G:OP2	1.87	0.58
32:1a:1129:C:O2'	32:1a:1139:G:N7	2.21	0.58
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.39	0.58
33:1b:102:LEU:HD23	33:1b:182:ILE:HD12	1.84	0.58
21:2Z:19:ARG:NE	63:2Z:301:HOH:O	2.22	0.58
26:24:64:GLY:C	26:24:66:SER:H	2.09	0.58
32:2a:1184:G:H2'	32:2a:1185:G:H8	1.67	0.58
41:2j:6:ILE:HB	41:2j:72:VAL:HG22	1.84	0.58
1:1A:2605:PSU:OP1	63:1A:8583:HOH:O	2.17	0.58
1:1A:2689:U:H4'	1:1A:2690:C:H5'	1.86	0.58
6:1G:27:ASN:HB3	6:1G:30:GLU:HG3	1.86	0.58
6:1G:67:LYS:H	26:14:6:HIS:CE1	2.22	0.58
32:1a:194:C:H2'	32:1a:195:A:H5"	1.85	0.58
32:1a:1302:U:H5	44:1m:17:VAL:HG21	1.69	0.58
1:2A:1247:A:OP1	5:2F:95:ARG:NH2	2.36	0.58
1:2A:2144:U:O2'	1:2A:2147:G:N1	2.36	0.58
3:2D:25:THR:HG21	3:2D:113:VAL:HG11	1.85	0.58
4:2E:14:ILE:HD11	4:2E:173:VAL:HG11	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:750:A:OP1	63:1A:8584:HOH:O	2.17	0.58
1:1A:2316:C:O2'	6:1G:128:ARG:NH2	2.37	0.58
26:14:57:GLU:HB2	26:14:58:ARG:HA	1.85	0.58
43:1l:84:LEU:HB3	43:1l:104:VAL:HG11	1.85	0.58
1:2A:300:A:OP1	20:2Y:86:ARG:NH2	2.37	0.58
1:2A:2237:G:OP1	63:2A:3881:HOH:O	2.16	0.58
13:2R:70:LEU:HD13	13:2R:75:LEU:HD22	1.86	0.58
32:2a:201:C:H2'	32:2a:202:U:H2'	1.85	0.58
50:2s:22:LEU:HB3	50:2s:27:GLU:HA	1.85	0.58
1:1A:1364:G:N7	23:11:3:LYS:HE2	2.19	0.58
32:1a:254:G:N2	48:1q:16:GLN:OE1	2.35	0.58
32:1a:769:G:H4'	32:1a:1513:A:H4'	1.85	0.58
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.37	0.58
1:2A:2285:C:OP2	28:26:6:ARG:NH1	2.36	0.58
32:2a:1015:A:H1'	32:2a:1219:U:H5'	1.84	0.58
38:2g:69:VAL:HG11	38:2g:134:ALA:HB1	1.85	0.58
1:1A:2832:U:OP1	63:1A:8590:HOH:O	2.17	0.58
17:1V:101:GLY:OXT	63:1V:302:HOH:O	2.17	0.58
32:1a:501:C:H2'	32:1a:502:G:C8	2.39	0.58
32:2a:613:C:O3'	63:2a:3215:HOH:O	2.17	0.58
33:2b:204:ASN:HD21	33:2b:207:ALA:HB3	1.69	0.58
39:2h:41:ARG:NH2	39:2h:123:GLU:OE2	2.36	0.58
1:1A:1113:U:H2'	1:1A:1114:G:H8	1.69	0.58
1:1A:2639:A:OP2	63:1A:8581:HOH:O	2.17	0.58
21:1Z:180:VAL:HG13	21:1Z:183:LEU:HD12	1.86	0.58
32:1a:1034:G:C2	32:1a:1035:A:H1'	2.39	0.58
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.38	0.58
32:1a:1374:A:OP1	38:1g:36:LYS:NZ	2.37	0.58
33:1b:231:GLU:HB3	33:1b:232:PRO:HD3	1.86	0.58
1:2A:529:A:OP2	9:2N:114:ARG:NH2	2.29	0.58
1:2A:733:G:OP1	63:2A:3886:HOH:O	2.17	0.58
1:2A:1065:U:H4'	1:2A:1066:U:H5'	1.84	0.58
1:2A:1648:C:OP1	63:2A:3808:HOH:O	2.17	0.58
32:2a:974:A:OP2	45:2n:29:ARG:NH1	2.36	0.58
32:2a:1090:U:H3	32:2a:1095:U:H3	1.50	0.58
50:2s:41:VAL:HG22	50:2s:42:PRO:HD2	1.86	0.58
1:1A:181:A:OP1	63:1A:8577:HOH:O	2.16	0.57
32:1a:911:U:OP2	43:1l:97:ARG:NH2	2.37	0.57
32:1a:1054:C:N4	53:1y:46:GLN:OE1	2.32	0.57
39:1h:81:HIS:N	39:1h:138:TRP:O	2.36	0.57
39:1h:120:THR:H	39:1h:123:GLU:HB2	1.67	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2273:A:H2'	1:2A:2274:A:C8	2.38	0.57
32:2a:1364:U:O2	63:2a:3214:HOH:O	2.16	0.57
33:2b:110:GLN:HG2	33:2b:111:ARG:HH12	1.68	0.57
51:2t:64:ASP:OD2	51:2t:81:LYS:NZ	2.36	0.57
7:1H:3:ARG:HH21	7:1H:65:HIS:HB3	1.68	0.57
32:1a:942:G:OP1	63:1a:1928:HOH:O	2.17	0.57
1:2A:144:C:O2'	63:2A:3885:HOH:O	2.17	0.57
3:2D:145:VAL:HB	3:2D:155:LEU:HB2	1.86	0.57
7:2H:107:VAL:HG11	7:2H:162:ILE:HD11	1.84	0.57
13:2R:37:THR:HB	13:2R:39:PRO:HD2	1.85	0.57
32:2a:620:C:C2	35:2d:135:LEU:HG	2.38	0.57
40:2i:50:LEU:HB3	40:2i:56:LEU:HA	1.86	0.57
1:1A:1430:C:H2'	1:1A:1431:U:C6	2.39	0.57
1:1A:2167:U:H2'	1:1A:2168:G:C8	2.39	0.57
6:1G:106:LEU:HA	6:1G:110:ALA:HB3	1.86	0.57
7:1H:46:GLU:OE2	7:1H:51:ARG:NH2	2.36	0.57
32:1a:1143:G:H2'	32:1a:1144:G:C8	2.39	0.57
48:1q:10:VAL:HG22	48:1q:21:VAL:HG22	1.87	0.57
1:2A:1073:A:H2'	1:2A:1074:G:H8	1.68	0.57
1:2A:1084:A:N6	1:2A:1086:A:N7	2.52	0.57
1:2A:2218:U:O4'	23:21:52:ARG:NH2	2.37	0.57
44:2m:49:THR:O	44:2m:53:VAL:HG23	2.04	0.57
1:1A:1166:C:H2'	1:1A:1167:U:C6	2.39	0.57
1:1A:2439:A:N6	55:1x:76:8AN:O1P	2.36	0.57
18:1W:68:ARG:HB3	18:1W:109:GLU:HG2	1.86	0.57
32:1a:951:G:OP2	44:1m:102:ARG:NH1	2.37	0.57
32:1a:1229:A:H4'	53:1y:2:THR:HG23	1.86	0.57
32:1a:1328:C:OP1	52:1u:20:LYS:NZ	2.35	0.57
1:2A:140:G:N2	1:2A:1596:A:H4'	2.20	0.57
1:2A:1364:G:N7	23:21:3:LYS:HD2	2.19	0.57
1:2A:1602:U:OP1	63:2A:3889:HOH:O	2.17	0.57
1:2A:2849:U:OP2	15:2T:95:ARG:NH1	2.35	0.57
32:2a:593:G:N2	32:2a:646:U:O2	2.29	0.57
32:2a:662:G:H2'	32:2a:663:A:C8	2.38	0.57
33:2b:178:ARG:HH22	39:2h:74:PRO:HB3	1.70	0.57
1:1A:1094:U:H1'	1:1A:1097:U:H5	1.69	0.57
20:1Y:92:ASN:HB2	20:1Y:94:LYS:H	1.69	0.57
15:2T:117:ASP:OD2	15:2T:120:ARG:NE	2.37	0.57
32:2a:1149:C:O2'	32:2a:1280:A:N1	2.36	0.57
32:2a:1318:A:H5"	50:2s:3:ARG:HH22	1.69	0.57
35:2d:100:ARG:NH2	35:2d:102:ASP:OD2	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:947:G:OP2	63:1A:8589:HOH:O	2.17	0.57
32:1a:1256:A:OP2	32:1a:1279:A:N6	2.38	0.57
32:1a:1373:G:H5"	38:1g:36:LYS:HE2	1.87	0.57
1:2A:2104:G:N2	1:2A:2105:C:C4	2.68	0.57
3:2D:206:LEU:HD22	3:2D:211:ARG:HG2	1.86	0.57
4:2E:125:GLY:O	63:2E:402:HOH:O	2.17	0.57
32:2a:255:G:OP1	48:2q:69:LYS:NZ	2.33	0.57
32:2a:1274:G:N2	32:2a:1275:A:N7	2.52	0.57
45:2n:41:ARG:HG3	45:2n:42:ILE:HG13	1.87	0.57
1:1A:279:C:H42	1:1A:361:G:H1	1.51	0.57
1:1A:2580:U:O2'	63:1A:8561:HOH:O	2.14	0.57
1:1A:2870:C:H2'	1:1A:2871:C:O4'	2.03	0.57
37:1f:38:GLU:HB2	37:1f:64:GLN:HG2	1.85	0.57
14:2S:14:VAL:O	14:2S:18:ILE:HG12	2.04	0.57
32:2a:1030(B):C:H41	32:2a:1030(C):G:H21	1.52	0.57
35:2d:25:ARG:NH1	35:2d:30:LYS:O	2.37	0.57
40:2i:46:ALA:HB2	40:2i:74:ILE:HG23	1.87	0.57
41:2j:7:LYS:HB3	41:2j:97:GLU:HB2	1.87	0.57
41:2j:57:LYS:HE3	41:2j:60:ARG:NH2	2.20	0.57
1:1A:2079:U:OP2	63:1A:8586:HOH:O	2.17	0.57
3:1D:72:LYS:HB3	3:1D:75:ILE:HD12	1.86	0.57
32:1a:619:U:C2	35:1d:135:LEU:HD22	2.40	0.57
40:1i:52:ALA:HB2	40:1i:99:LEU:HD12	1.85	0.57
1:2A:821:A:N1	63:2A:4066:HOH:O	2.32	0.57
1:2A:2445:G:OP1	5:2F:74:ARG:NH2	2.34	0.57
32:2a:1141:C:H2'	32:2a:1142:G:H8	1.70	0.57
3:1D:221:VAL:HG22	3:1D:226:MET:HE3	1.86	0.57
2:2B:66:A:H61	2:2B:109:C:H5'	1.70	0.57
32:2a:559:A:OP1	36:2e:126:ARG:NH2	2.37	0.57
32:2a:1073:U:H2'	32:2a:1074:G:H8	1.70	0.57
32:2a:1164:G:H1	32:2a:1172:C:N4	2.02	0.57
1:1A:468:G:N7	29:17:39:ARG:NH2	2.53	0.57
1:1A:2114:A:H3'	1:1A:2115:G:C8	2.40	0.57
2:1B:81:G:N7	59:1B:231:ARG:NH2	2.53	0.57
23:11:50:ARG:HG2	23:11:59:THR:HG23	1.86	0.57
32:1a:67:C:H2'	32:1a:68:G:C8	2.40	0.57
32:1a:1309:G:OP2	44:1m:99:ARG:NH2	2.35	0.57
34:1c:8:ILE:HG23	34:1c:16:ARG:HD3	1.87	0.57
43:1l:34:ARG:NH2	63:1l:302:HOH:O	2.37	0.57
48:1q:45:HIS:HB2	48:1q:65:ILE:HD13	1.85	0.57
1:2A:469:G:OP2	63:2A:3884:HOH:O	2.16	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2070:G:H2'	1:2A:2071:A:C8	2.39	0.57
1:2A:2870:C:H2'	1:2A:2871:C:O4'	2.05	0.57
4:2E:36:ARG:NH1	4:2E:85:ASN:OD1	2.38	0.57
6:2G:60:LEU:HD23	6:2G:68:PRO:HG3	1.87	0.57
17:2V:43:GLU:OE1	17:2V:43:GLU:N	2.38	0.57
32:2a:261:U:OP2	51:2t:79:ARG:NH2	2.38	0.57
1:1A:1701:A:OP2	63:1A:8594:HOH:O	2.18	0.56
1:1A:2250:G:O2'	1:1A:2496:C:OP1	2.19	0.56
47:1p:38:TYR:OH	47:1p:47:ASP:OD2	2.22	0.56
1:2A:387:U:OP1	63:2A:3892:HOH:O	2.18	0.56
1:2A:1428:C:O2'	1:2A:1569:A:OP2	2.14	0.56
1:2A:2317:C:N4	1:2A:2318:G:O6	2.37	0.56
6:2G:78:SER:OG	6:2G:79:ASN:N	2.38	0.56
32:2a:1002:G:H2'	32:2a:1003:G:C8	2.39	0.56
32:2a:1184:G:H2'	32:2a:1185:G:C8	2.38	0.56
1:1A:1486:A:H2'	1:1A:1487:G:C8	2.40	0.56
1:1A:1918:A:O2'	1:1A:1920:OMC:N4	2.37	0.56
18:1W:69:LEU:HD13	18:1W:107:LEU:HD23	1.86	0.56
33:1b:111:ARG:HH21	33:1b:114:ARG:HB2	1.69	0.56
35:1d:70:ILE:HD11	35:1d:74:GLN:HB3	1.86	0.56
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	1.87	0.56
7:2H:3:ARG:NH2	7:2H:54:ARG:HH12	2.01	0.56
39:2h:7:ALA:O	39:2h:11:THR:OG1	2.17	0.56
46:2o:26:GLU:HG3	46:2o:81:LEU:HD13	1.87	0.56
1:1A:1300:U:H4'	1:1A:1301:A:H5"	1.87	0.56
1:1A:1803:A:O2'	3:1D:259:THR:HG21	2.04	0.56
1:1A:2345:G:N3	1:1A:2381:C:H2'	2.20	0.56
1:1A:2751:G:C2	7:1H:2:SER:HB3	2.40	0.56
19:1X:5:TYR:CZ	24:12:30:ARG:HG3	2.39	0.56
30:18:23:VAL:HG13	30:18:47:LYS:HB3	1.87	0.56
33:1b:54:THR:HG23	33:1b:199:TYR:HB3	1.86	0.56
34:1c:7:PRO:O	34:1c:11:ARG:NH1	2.37	0.56
37:1f:8:ILE:HB	37:1f:61:LEU:HB2	1.87	0.56
45:1n:48:ALA:HB2	45:1n:53:LEU:HD12	1.87	0.56
47:1p:53:VAL:HG13	47:1p:79:VAL:HG12	1.88	0.56
1:2A:271(Z):C:N4	63:2A:4048:HOH:O	2.32	0.56
1:2A:397:G:N7	63:2A:4072:HOH:O	2.33	0.56
1:2A:989:G:O2'	63:2A:3853:HOH:O	2.14	0.56
1:2A:1090:U:H2'	1:2A:1091:G:C8	2.37	0.56
1:2A:1721:G:H2'	1:2A:1740:G:O6	2.05	0.56
19:2X:12:VAL:HG22	19:2X:29:TRP:CE2	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1030:C:N4	32:2a:1031:G:H1	2.03	0.56
38:2g:132:GLY:O	38:2g:136:LYS:HG2	2.05	0.56
1:1A:762:U:OP1	63:1A:8587:HOH:O	2.17	0.56
1:1A:2334:G:H5'	14:1S:9:ARG:HG2	1.86	0.56
17:1V:88:ARG:NH1	63:1V:307:HOH:O	2.38	0.56
1:2A:687:C:H5"	29:27:2:LYS:HE2	1.88	0.56
1:2A:2889:C:H2'	1:2A:2891:G:O4'	2.06	0.56
17:2V:29:PRO:HA	17:2V:61:VAL:HG23	1.87	0.56
29:27:24:THR:HG22	29:27:26:GLY:N	2.20	0.56
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.40	0.56
34:2c:3:ASN:N	34:2c:3:ASN:OD1	2.38	0.56
38:2g:70:LYS:HB3	38:2g:96:GLN:HB3	1.86	0.56
1:1A:27:G:N2	1:1A:512:G:H1'	2.21	0.56
1:1A:329:G:OP1	20:1Y:71:LYS:NZ	2.33	0.56
30:18:35:GLN:OE1	63:18:201:HOH:O	2.18	0.56
39:1h:95:VAL:HB	39:1h:99:GLU:HG3	1.86	0.56
1:2A:1668:A:O2'	1:2A:1674:G:N7	2.26	0.56
1:2A:2126:A:H4'	1:2A:2127:G:O5'	2.03	0.56
11:2P:82:GLY:HA2	11:2P:113:LYS:O	2.05	0.56
12:2Q:45:GLN:O	63:2Q:303:HOH:O	2.18	0.56
43:2l:117:ARG:HB3	43:2l:122:THR:O	2.06	0.56
51:2t:50:GLU:HB2	51:2t:99:LEU:HD12	1.87	0.56
1:1A:1098:A:H2'	1:1A:1099:G:O4'	2.05	0.56
1:1A:2746:U:OP2	63:1A:8591:HOH:O	2.17	0.56
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.20	0.56
34:1c:180:ALA:HB1	34:1c:203:PHE:CE1	2.41	0.56
1:2A:1064:C:H3'	1:2A:1065:U:C5'	2.35	0.56
2:2B:90:A:C5	2:2B:91:C:H1'	2.40	0.56
32:2a:1289:A:N1	32:2a:1371:G:O2'	2.31	0.56
36:2e:102:ALA:HB1	36:2e:106:PRO:HG2	1.87	0.56
40:2i:17:VAL:HG11	40:2i:80:GLY:C	2.30	0.56
40:2i:42:ARG:NH1	40:2i:71:SER:O	2.25	0.56
1:1A:2115:G:H2'	1:1A:2117:A:N6	2.20	0.56
1:1A:2140:C:O2	1:1A:2151:G:N1	2.38	0.56
14:1S:59:LYS:NZ	14:1S:68:GLN:OE1	2.38	0.56
32:1a:258:G:H2'	32:1a:259:G:H8	1.71	0.56
32:1a:457:C:H2'	32:1a:458:C:H6	1.71	0.56
46:1o:42:HIS:CE1	46:1o:46:HIS:HD2	2.24	0.56
18:2W:2:GLU:OE2	18:2W:72:LYS:NZ	2.27	0.56
28:26:35:GLU:OE2	28:26:50:ARG:NH1	2.39	0.56
1:1A:2185:C:H2'	1:1A:2186:G:O4'	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1E:111:ARG:HG2	4:1E:118:LYS:HD3	1.88	0.56
1:2A:581:C:H2'	1:2A:582:G:C8	2.40	0.56
1:2A:1009:A:OP2	63:2A:3893:HOH:O	2.18	0.56
1:2A:2623:G:N7	63:2A:4069:HOH:O	2.33	0.56
16:2U:49:HIS:O	16:2U:53:ARG:N	2.36	0.56
32:2a:309:G:H2'	32:2a:310:G:H8	1.71	0.56
32:2a:624:C:H2'	32:2a:625:G:H8	1.70	0.56
33:2b:114:ARG:NH1	33:2b:117:GLU:OE1	2.38	0.56
53:2y:48:PHE:HD2	53:2y:70:MET:HB2	1.71	0.56
3:1D:141:VAL:HG12	3:1D:164:GLN:HG3	1.86	0.56
32:1a:410:G:OP1	35:1d:30:LYS:NZ	2.32	0.56
32:1a:1104:G:H4'	33:1b:111:ARG:HH11	1.70	0.56
35:1d:30:LYS:HG2	35:1d:35:ARG:HH21	1.70	0.56
1:2A:336:C:O2'	20:2Y:35:TYR:OH	2.23	0.56
1:2A:362:U:O2'	1:2A:363:G:H5'	2.05	0.56
1:2A:451:C:H5'	63:2A:4269:HOH:O	2.04	0.56
1:2A:746:A:H2'	1:2A:2612:C:H5"	1.86	0.56
1:2A:1063:G:H1	1:2A:1075:C:N4	2.03	0.56
6:2G:123:ASN:O	6:2G:125:PHE:N	2.38	0.56
32:2a:993:G:H1	32:2a:1045:C:H42	1.52	0.56
32:2a:1054:C:H41	53:2y:46:GLN:HG3	1.69	0.56
39:2h:14:ARG:NH1	39:2h:83:ILE:O	2.38	0.56
40:2i:32:ASP:HB3	40:2i:35:GLU:HB3	1.87	0.56
1:1A:1798:U:H5'	3:1D:259:THR:CG2	2.35	0.56
1:1A:2286:A:H4'	1:1A:2287:A:O4'	2.06	0.56
32:1a:998:G:H2'	32:1a:999:C:C6	2.41	0.56
38:1g:80:VAL:HB	38:1g:85:TYR:CD2	2.40	0.56
47:1p:43:LYS:HG2	47:1p:48:TRP:CE2	2.41	0.56
1:2A:639:U:H2'	1:2A:640:C:C6	2.41	0.56
3:2D:235:GLY:O	63:2D:402:HOH:O	2.17	0.56
24:22:67:LYS:HA	24:22:70:GLN:HE21	1.71	0.56
32:2a:757:U:H2'	32:2a:758:G:O4'	2.06	0.56
32:2a:1296:C:OP1	44:2m:44:ARG:NH2	2.38	0.56
1:1A:1141:U:P	9:1N:25:ARG:HH12	2.29	0.55
6:1G:131:TYR:HB3	6:1G:159:VAL:HG13	1.88	0.55
14:1S:14:VAL:O	14:1S:18:ILE:HG12	2.06	0.55
33:1b:24:TRP:HZ3	33:1b:29:ALA:HB2	1.71	0.55
35:1d:121:VAL:O	35:1d:134:ASP:HA	2.05	0.55
37:1f:20:ALA:HA	37:1f:23:LYS:HD3	1.87	0.55
53:1y:40:ILE:HB	53:1y:51:ASP:HB2	1.88	0.55
11:2P:94:GLU:HG3	11:2P:124:LYS:HD3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:2Y:37:VAL:HG21	20:2Y:72:VAL:HG21	1.88	0.55
21:2Z:10:ARG:NH1	21:2Z:26:GLY:O	2.39	0.55
1:1A:1379:A:H4'	1:1A:1380:G:OP2	2.06	0.55
1:1A:1665:A:OP2	63:1A:8525:HOH:O	2.18	0.55
11:1P:50:ARG:HD3	30:18:7:HIS:CD2	2.41	0.55
25:13:26:LEU:O	25:13:35:ARG:NE	2.33	0.55
32:1a:1243:C:H2'	32:1a:1244:C:C6	2.41	0.55
1:2A:2263:C:N4	22:20:15:ASP:OD1	2.39	0.55
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.41	0.55
2:2B:75:G:OP2	63:2B:305:HOH:O	2.18	0.55
7:2H:11:VAL:HG13	7:2H:15:VAL:HG23	1.88	0.55
11:2P:63:PRO:O	63:2P:303:HOH:O	2.18	0.55
40:2i:53:VAL:C	40:2i:55:ALA:H	2.14	0.55
44:2m:10:PRO:HD2	44:2m:18:ALA:HB1	1.87	0.55
6:1G:16:ARG:NE	6:1G:31:VAL:HG21	2.21	0.55
32:1a:56:U:H2'	32:1a:57:G:H8	1.69	0.55
32:1a:201:C:H42	32:1a:216:G:H1	1.54	0.55
32:1a:434:U:H2'	32:1a:435:C:C6	2.41	0.55
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.41	0.55
1:2A:1058:G:H2'	1:2A:1059:G:C8	2.41	0.55
7:2H:109:PHE:C	7:2H:111:HIS:H	2.13	0.55
18:2W:11:ARG:NH1	18:2W:99:ARG:O	2.37	0.55
32:2a:56:U:H2'	32:2a:57:G:C8	2.41	0.55
32:2a:903:G:OP1	63:2a:3216:HOH:O	2.17	0.55
32:2a:1298:C:H2'	38:2g:114:ARG:HH21	1.71	0.55
35:2d:150:GLU:HA	35:2d:153:ARG:HG3	1.87	0.55
39:2h:10:LEU:HD22	39:2h:83:ILE:HD11	1.88	0.55
1:1A:2646:C:H2'	1:1A:2647:U:O4'	2.06	0.55
3:1D:17:THR:O	3:1D:211:ARG:NH2	2.39	0.55
3:1D:85:ASP:OD2	3:1D:88:ARG:NH1	2.39	0.55
32:1a:62:U:H1'	32:1a:379:C:H1'	1.88	0.55
32:1a:169:C:H2'	32:1a:170:U:C6	2.41	0.55
43:1l:57:LYS:HD2	43:1l:67:THR:HG22	1.88	0.55
44:1m:11:ARG:C	44:1m:13:LYS:H	2.14	0.55
44:1m:76:ALA:HA	44:1m:79:LYS:HB3	1.87	0.55
15:2T:109:GLU:HG3	15:2T:112:ARG:HH22	1.70	0.55
32:2a:7:G:O2'	36:2e:120:THR:O	2.25	0.55
32:2a:691:G:H2'	32:2a:692:U:C6	2.42	0.55
32:2a:758:G:N7	63:2a:3252:HOH:O	2.32	0.55
32:2a:1323:G:H4'	32:2a:1363:C:C2	2.41	0.55
34:2c:97:LYS:O	34:2c:99:VAL:N	2.38	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1510:G:H2'	1:1A:1511:C:C6	2.41	0.55
1:1A:1877:A:H5'	1:1A:1878:G:OP2	2.07	0.55
1:1A:2295:C:OP1	14:1S:10:ARG:NH1	2.39	0.55
32:1a:1187:G:H2'	32:1a:1188:A:C8	2.40	0.55
1:2A:1332:G:OP2	63:2A:3898:HOH:O	2.18	0.55
1:2A:1503:U:H2'	1:2A:1504:C:H6	1.71	0.55
1:2A:1614:A:N6	18:2W:92:ARG:O	2.39	0.55
1:2A:2161:C:O2'	1:2A:2173:A:O2'	2.13	0.55
1:2A:2788:C:N3	1:2A:2789:C:N4	2.54	0.55
12:2Q:51:ARG:HD3	12:2Q:66:ILE:HD11	1.89	0.55
32:2a:238:G:OP1	48:2q:25:ARG:NH2	2.40	0.55
32:2a:731:G:H5'	32:2a:766:A:H4'	1.88	0.55
1:1A:286:C:H2'	1:1A:287:C:H6	1.71	0.55
5:1F:192:LEU:HD13	5:1F:194:MET:HE2	1.88	0.55
8:1I:81:VAL:HG22	8:1I:145:VAL:O	2.07	0.55
34:1c:15:THR:HG21	34:1c:181:ASN:HA	1.89	0.55
39:1h:86:ILE:HG13	39:1h:133:LEU:HD22	1.88	0.55
50:1s:15:LEU:O	50:1s:19:VAL:HG23	2.07	0.55
1:2A:1057:A:N7	1:2A:1086:A:H2'	2.22	0.55
32:2a:1004:A:H5"	32:2a:1025:U:C5	2.42	0.55
32:2a:1129:C:H1'	32:2a:1130:A:N7	2.22	0.55
1:1A:2710:C:OP2	63:1A:8588:HOH:O	2.17	0.55
6:1G:144:ILE:HA	6:1G:148:MET:HE2	1.88	0.55
15:1T:112:ARG:HH21	15:1T:113:LYS:HD3	1.72	0.55
32:1a:593:G:H2'	32:1a:594:G:O4'	2.06	0.55
32:1a:1479:C:H2'	32:1a:1480:G:C8	2.41	0.55
36:1e:96:PRO:O	36:1e:98:THR:N	2.40	0.55
51:1t:49:ALA:HB1	51:1t:98:PRO:HA	1.88	0.55
1:2A:247:G:H4'	1:2A:386:G:C5	2.42	0.55
1:2A:2375:G:N2	1:2A:2378:A:OP2	2.34	0.55
1:2A:2820:A:OP1	13:2R:2:ARG:NH2	2.40	0.55
2:2B:112:U:H2'	2:2B:113:G:H8	1.72	0.55
21:2Z:121:HIS:HB2	21:2Z:171:ILE:HG22	1.87	0.55
26:24:59:PHE:CZ	50:2s:64:GLU:HB2	2.40	0.55
28:26:6:ARG:NH1	28:26:26:ASN:HB2	2.22	0.55
32:2a:792:A:O2'	32:2a:794:A:N7	2.33	0.55
32:2a:1048:G:OP1	45:2n:4:LYS:HD2	2.07	0.55
32:2a:1210:C:H2'	32:2a:1211:U:H5"	1.89	0.55
33:2b:101:MET:HA	33:2b:108:ILE:HD12	1.87	0.55
53:2y:30:TRP:HD1	53:2y:89:GLN:HG3	1.72	0.55
1:1A:548:A:N6	17:1V:19:LYS:H	2.04	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2820:A:O2'	1:1A:2821:A:OP1	2.23	0.55
8:1I:77:LEU:HB3	8:1I:142:VAL:HG22	1.87	0.55
32:1a:1492:A:H4'	32:1a:1493:A:N1	2.22	0.55
33:1b:207:ALA:O	33:1b:211:ILE:HG13	2.07	0.55
49:1r:52:PRO:HB2	49:1r:54:ARG:HG2	1.87	0.55
1:2A:692:C:O2'	3:2D:38:LYS:NZ	2.39	0.55
1:2A:2142:C:H2'	1:2A:2143:C:C6	2.42	0.55
6:2G:15:VAL:HG22	6:2G:175:LEU:HB3	1.87	0.55
26:24:26:SER:OG	26:24:27:THR:N	2.39	0.55
1:1A:278:A:H2'	1:1A:279:C:C6	2.42	0.55
4:1E:54:GLN:OE1	63:1E:402:HOH:O	2.17	0.55
21:1Z:75:ASN:O	21:1Z:84:GLU:HG2	2.07	0.55
33:1b:118:LEU:HD22	33:1b:138:LEU:HD22	1.89	0.55
1:2A:1073:A:H2'	1:2A:1074:G:C8	2.42	0.55
1:2A:2753:A:N3	31:29:15:LYS:NZ	2.53	0.55
12:2Q:34:LEU:HB2	12:2Q:118:LEU:HD22	1.88	0.55
24:22:38:GLN:HB3	24:22:44:LEU:HB2	1.89	0.55
35:2d:15:GLU:OE2	35:2d:66:ARG:NH1	2.40	0.55
1:1A:1020:A:N1	1:1A:1141:U:O2'	2.38	0.55
12:1Q:58:PHE:O	12:1Q:60:ARG:N	2.40	0.55
15:1T:120:ARG:HA	15:1T:123:GLN:HB2	1.88	0.55
32:1a:828:A:H2'	32:1a:829:G:O4'	2.07	0.55
32:1a:1456:G:H22	51:1t:43:LEU:HD11	1.72	0.55
34:1c:7:PRO:HB2	34:1c:11:ARG:HH12	1.72	0.55
35:1d:59:ARG:HA	35:1d:59:ARG:HH11	1.73	0.55
35:1d:81:GLU:OE1	35:1d:139:ARG:NH2	2.37	0.55
1:2A:324:A:N6	1:2A:338:G:O2'	2.38	0.55
1:2A:583:G:OP2	16:2U:10:ARG:HD2	2.06	0.55
1:2A:2447:G:N2	1:2A:2450:A:OP2	2.40	0.55
5:2F:195:ASP:OD1	5:2F:196:LEU:N	2.40	0.55
25:23:11:SER:HA	25:23:31:LEU:HD21	1.89	0.55
32:2a:1125:U:OP2	41:2j:35:SER:OG	2.25	0.55
1:1A:1570:A:H2'	1:1A:1571:A:C8	2.43	0.54
1:1A:2709:G:N7	63:1A:8817:HOH:O	2.33	0.54
36:1e:74:GLY:HA3	36:1e:116:THR:HG22	1.88	0.54
44:1m:90:LEU:HD23	44:1m:93:ARG:HH21	1.70	0.54
63:2A:3893:HOH:O	9:2N:37:LYS:NZ	2.39	0.54
41:2j:8:LEU:HB2	41:2j:70:ARG:HB2	1.88	0.54
50:2s:49:ILE:HG12	50:2s:62:ILE:HD11	1.89	0.54
53:2y:12:ILE:HG22	53:2y:17:ARG:HG3	1.88	0.54
6:1G:133:LEU:HD11	6:1G:157:ILE:HD12	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:1H:149:ARG:NH1	7:1H:167:GLU:OE2	2.38	0.54
29:17:12:ARG:HG2	29:17:46:VAL:HG22	1.89	0.54
32:1a:38:G:N2	32:1a:397:A:H5'	2.22	0.54
32:1a:413:G:N2	32:1a:428:G:H1'	2.23	0.54
32:1a:881:G:P	43:1l:12:ARG:HH22	2.31	0.54
34:1c:119:ARG:O	34:1c:123:GLN:HB2	2.07	0.54
1:2A:1882:C:H2'	1:2A:1883:G:O4'	2.06	0.54
11:2P:48:PRO:O	30:28:57:ARG:NH2	2.28	0.54
28:26:23:THR:OG1	28:26:24:GLU:N	2.40	0.54
32:2a:1103:C:OP1	33:2b:96:ARG:NH2	2.40	0.54
33:2b:19:HIS:HB2	33:2b:204:ASN:HB2	1.89	0.54
34:2c:103:VAL:HG12	34:2c:104:GLN:H	1.72	0.54
39:2h:11:THR:HG22	39:2h:15:ASN:ND2	2.23	0.54
39:2h:11:THR:HG22	39:2h:15:ASN:HD21	1.72	0.54
1:1A:1245:G:OP2	63:1A:8595:HOH:O	2.18	0.54
1:1A:2312:U:H5'	6:1G:88:ILE:HD11	1.90	0.54
12:1Q:98:LYS:NZ	63:1Q:302:HOH:O	2.39	0.54
33:1b:68:ILE:HG12	33:1b:161:ALA:HB3	1.90	0.54
39:1h:6:ILE:HB	39:1h:85:ARG:NH1	2.23	0.54
1:2A:720:C:H2'	1:2A:721:C:H6	1.72	0.54
1:2A:2310:A:H61	6:2G:79:ASN:HD22	1.53	0.54
1:2A:2629:A:H1'	1:2A:2630:G:H5"	1.89	0.54
8:2I:5:LEU:HD23	8:2I:36:ALA:HB2	1.89	0.54
32:2a:1010:G:H2'	32:2a:1011:G:H8	1.73	0.54
33:2b:42:ILE:HD13	33:2b:203:GLY:HA2	1.88	0.54
33:2b:120:ALA:O	33:2b:125:PRO:HG2	2.06	0.54
34:2c:30:ARG:NH1	45:2n:35:ARG:O	2.40	0.54
1:1A:2116:G:OP2	1:1A:2166:G:N2	2.27	0.54
1:1A:2707:G:N3	63:1A:8815:HOH:O	2.33	0.54
32:1a:266:G:H5"	32:1a:267:C:C5	2.42	0.54
32:1a:765:G:H1	32:1a:812:C:HO2'	1.55	0.54
33:1b:114:ARG:O	33:1b:118:LEU:HG	2.07	0.54
47:1p:6:LEU:HB3	47:1p:17:TYR:HB3	1.89	0.54
1:2A:1475:G:H2'	1:2A:1476:C:C6	2.42	0.54
3:2D:164:GLN:CD	3:2D:176:ARG:HH22	2.15	0.54
7:2H:150:ALA:HA	7:2H:153:LYS:HG3	1.88	0.54
21:2Z:24:LEU:HD12	21:2Z:25:PRO:HD2	1.89	0.54
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.22	0.54
36:2e:140:ARG:O	36:2e:143:ARG:NH2	2.40	0.54
46:2o:69:TYR:CE1	46:2o:73:GLU:HG3	2.42	0.54
1:1A:1542:A:O2'	63:1A:8592:HOH:O	2.18	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1030(C):G:H2'	32:1a:1030(D):A:H8	1.73	0.54
48:1q:26:GLN:HG2	48:1q:37:LYS:HG2	1.89	0.54
1:2A:628:G:O6	63:2A:3900:HOH:O	2.18	0.54
1:2A:1996:C:H4'	1:2A:1997:G:OP1	2.06	0.54
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.43	0.54
5:2F:25:PRO:HD2	5:2F:115:ALA:HB2	1.88	0.54
20:2Y:87:LYS:HB3	20:2Y:95:LYS:HD2	1.88	0.54
24:22:12:GLU:O	24:22:16:LEU:HD12	2.07	0.54
32:2a:100:C:H2'	32:2a:101:A:C8	2.41	0.54
53:2y:30:TRP:CD1	53:2y:89:GLN:HG3	2.43	0.54
1:1A:903:C:H2'	1:1A:904:C:C6	2.42	0.54
1:1A:1025:G:C4	1:1A:1135:C:H1'	2.42	0.54
1:1A:1370:C:OP2	63:1A:8597:HOH:O	2.18	0.54
1:1A:2787:C:N4	63:1A:8647:HOH:O	2.22	0.54
5:1F:84:VAL:O	63:1F:402:HOH:O	2.18	0.54
1:2A:1025:G:C4	1:2A:1135:C:H1'	2.42	0.54
1:2A:1047:G:H21	1:2A:1111:A:H62	1.53	0.54
1:2A:1096:A:C5	1:2A:1097:U:H5	2.26	0.54
1:2A:1987:G:OP2	63:2A:3897:HOH:O	2.18	0.54
1:2A:2438:U:O2'	1:2A:2440:C:OP1	2.17	0.54
21:2Z:28:MET:HE3	21:2Z:37:VAL:HG11	1.88	0.54
32:2a:944:G:N1	32:2a:1338:G:OP2	2.34	0.54
32:2a:1286:A:C8	32:2a:1287:A:H4'	2.43	0.54
34:2c:153:VAL:HG22	34:2c:198:VAL:HG22	1.90	0.54
40:2i:97:LYS:HA	40:2i:102:LEU:HD11	1.89	0.54
1:1A:657:U:H2'	1:1A:658:C:C6	2.42	0.54
1:1A:1166:C:H2'	1:1A:1167:U:H6	1.72	0.54
1:1A:1256:G:H1'	5:1F:82:ILE:HD11	1.89	0.54
1:1A:2047:U:OP2	63:1A:8602:HOH:O	2.19	0.54
3:1D:146:GLU:HG2	3:1D:152:GLY:C	2.33	0.54
7:1H:98:LEU:HD13	7:1H:125:VAL:HG23	1.88	0.54
22:10:3:HIS:HB3	63:10:222:HOH:O	2.07	0.54
32:1a:4:U:O4	39:1h:105:ARG:HG3	2.08	0.54
1:2A:270:A:OP2	1:2A:271(X):G:N1	2.33	0.54
1:2A:1063:G:H2'	1:2A:1065:U:H6	1.73	0.54
3:2D:127:VAL:HA	3:2D:193:VAL:HG23	1.89	0.54
19:2X:60:ARG:HH22	29:27:47:ARG:HH12	1.53	0.54
32:2a:784:C:H2'	32:2a:785:G:O4'	2.07	0.54
32:2a:993:G:O2'	32:2a:994:A:N7	2.41	0.54
32:2a:1255:G:O2'	32:2a:1258:G:O2'	2.19	0.54
35:2d:173:TRP:CD1	35:2d:189:PRO:HG3	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:323:G:C8	5:1F:171:PRO:HG3	2.42	0.54
1:1A:839:U:H2'	1:1A:840:C:C6	2.43	0.54
1:1A:1800:C:OP1	3:1D:260:ARG:NH2	2.40	0.54
1:1A:2441:C:OP2	1:1A:2586:C:O2'	2.23	0.54
9:1N:4:TYR:CD2	16:1U:100:VAL:HG11	2.43	0.54
13:1R:11:ASN:O	63:1R:302:HOH:O	2.18	0.54
32:1a:189(F):U:H3	48:1q:72:ARG:HH12	1.54	0.54
32:1a:437:U:H5'	35:1d:155:LEU:HD21	1.89	0.54
44:1m:34:LEU:HD13	44:1m:41:PRO:HA	1.88	0.54
50:1s:3:ARG:HG3	50:1s:4:SER:N	2.23	0.54
1:2A:856:C:H2'	1:2A:857:C:C6	2.43	0.54
1:2A:2846:G:OP2	63:2A:3895:HOH:O	2.18	0.54
3:2D:80:ALA:HB3	3:2D:94:LEU:HB3	1.89	0.54
6:2G:144:ILE:HA	6:2G:148:MET:SD	2.48	0.54
43:2l:11:VAL:HG11	48:2q:36:ILE:HG21	1.89	0.54
1:1A:249:C:O2	30:18:12:LYS:NZ	2.38	0.54
1:1A:2537:U:H2'	1:1A:2538:C:C6	2.42	0.54
9:1N:42:TRP:CH2	9:1N:44:PRO:HB3	2.43	0.54
32:1a:300:A:N6	63:1a:1947:HOH:O	2.25	0.54
33:1b:116:GLU:HA	33:1b:119:GLU:HG3	1.90	0.54
35:1d:173:TRP:CD1	35:1d:173:TRP:H	2.26	0.54
36:1e:102:ALA:HB1	36:1e:106:PRO:HG2	1.90	0.54
40:1i:29:ASN:ND2	40:1i:65:VAL:O	2.41	0.54
1:2A:1056:G:H4'	1:2A:1057:A:H8	1.73	0.54
1:2A:1637:A:OP2	63:2A:3891:HOH:O	2.18	0.54
19:2X:31:HIS:HD2	19:2X:33:LYS:H	1.56	0.54
32:2a:62:U:OP1	32:2a:385:C:O2'	2.26	0.54
32:2a:64:G:H4'	32:2a:65:U:H3'	1.90	0.54
32:2a:135:C:O2	47:2p:1:MET:N	2.32	0.54
32:2a:270:A:H2'	32:2a:271:C:C6	2.43	0.54
32:2a:1035:A:H2'	32:2a:1037:C:N4	2.23	0.54
47:2p:75:ARG:HG3	47:2p:80:PHE:HB2	1.89	0.54
1:1A:607:U:OP1	5:1F:102:PRO:HA	2.08	0.54
1:1A:878:A:H2'	1:1A:879:G:H5'	1.90	0.54
4:1E:58:ARG:NH1	63:1E:402:HOH:O	2.41	0.54
34:1c:8:ILE:HD11	34:1c:184:TYR:HB3	1.89	0.54
44:1m:11:ARG:HA	44:1m:45:VAL:HB	1.89	0.54
1:2A:885:C:H2'	1:2A:886:C:O4'	2.08	0.54
1:2A:1064:C:H3'	1:2A:1065:U:H5'	1.90	0.54
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.43	0.54
1:2A:2131:G:N1	1:2A:2158:A:N7	2.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:23:18:ASP:N	25:23:18:ASP:OD1	2.37	0.54
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.43	0.54
36:2e:92:LYS:HB3	36:2e:119:LEU:HB2	1.89	0.54
47:2p:47:ASP:OD1	47:2p:47:ASP:N	2.37	0.54
51:2t:57:ARG:NH1	51:2t:101:GLY:O	2.36	0.54
1:1A:493:G:H2'	1:1A:494:G:O4'	2.07	0.53
32:1a:134:A:H61	47:1p:25:ARG:NH1	2.05	0.53
32:1a:1456:G:N2	51:1t:43:LEU:HD11	2.23	0.53
34:1c:35:GLU:HA	34:1c:38:ARG:HB2	1.89	0.53
1:2A:327:G:N2	20:2Y:70:SER:OG	2.41	0.53
1:2A:911:A:H2'	12:2Q:9:TYR:OH	2.06	0.53
1:2A:2004:G:OP2	63:2A:3901:HOH:O	2.18	0.53
1:2A:2693:A:H2'	1:2A:2694:G:H8	1.73	0.53
9:2N:28:THR:HG22	9:2N:29:LYS:HG3	1.88	0.53
32:2a:1117:G:H4'	40:2i:104:ARG:NH1	2.23	0.53
32:2a:1258:G:H2'	32:2a:1259:C:C6	2.43	0.53
47:2p:58:TYR:O	47:2p:61:SER:OG	2.18	0.53
1:1A:324:A:H2'	1:1A:325:G:O4'	2.08	0.53
1:1A:2228:G:OP1	3:1D:261:LYS:NZ	2.38	0.53
1:1A:2405:G:O2'	1:1A:2406:U:OP1	2.24	0.53
1:1A:2610:C:O2'	63:1A:8599:HOH:O	2.18	0.53
5:1F:56:GLU:OE2	5:1F:93:LYS:NZ	2.41	0.53
5:1F:164:ARG:NH1	63:1F:405:HOH:O	2.28	0.53
18:1W:2:GLU:OE2	18:1W:72:LYS:NZ	2.31	0.53
32:1a:1492:A:H4'	32:1a:1493:A:C2	2.43	0.53
1:2A:848:G:H2'	1:2A:849:A:C8	2.43	0.53
1:2A:1379:A:H4'	1:2A:1380:G:OP2	2.08	0.53
1:2A:1793:C:OP1	63:2A:3899:HOH:O	2.18	0.53
9:2N:120:LEU:HG	9:2N:122:VAL:HG23	1.89	0.53
22:20:53:MET:HA	22:20:58:THR:O	2.08	0.53
32:2a:413:G:N7	35:2d:35:ARG:NH1	2.55	0.53
32:2a:544:G:OP1	35:2d:59:ARG:NH2	2.41	0.53
32:2a:1004:A:H62	32:2a:1037:C:H3'	1.72	0.53
32:2a:1347:G:H5"	40:2i:107:ARG:HB3	1.91	0.53
1:1A:828:U:H2'	1:1A:829:A:C8	2.43	0.53
1:1A:1597:A:OP1	63:1A:8596:HOH:O	2.18	0.53
21:1Z:54:HIS:HB3	21:1Z:101:PRO:HD3	1.89	0.53
26:14:14:ILE:HB	26:14:22:ILE:HB	1.91	0.53
32:1a:266:G:H2'	32:1a:266:G:N3	2.22	0.53
51:1t:14:LYS:HG2	51:1t:18:GLN:HE21	1.72	0.53
5:2F:183:VAL:O	5:2F:187:VAL:HG23	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:124:GLU:HB2	7:2H:132:ARG:HB3	1.89	0.53
16:2U:91:ASP:O	16:2U:95:LEU:HG	2.08	0.53
32:2a:102:G:H2'	32:2a:103:C:H6	1.74	0.53
32:2a:538:G:H5"	43:2l:114:LYS:HB2	1.90	0.53
32:2a:1004:A:H5"	32:2a:1025:U:C4	2.43	0.53
32:2a:1347:G:HO2'	32:2a:1373:G:H1	1.55	0.53
33:2b:178:ARG:NH2	39:2h:74:PRO:HB3	2.22	0.53
33:2b:218:ALA:O	33:2b:222:ILE:HG23	2.08	0.53
34:2c:181:ASN:HB3	34:2c:205:GLY:H	1.73	0.53
1:1A:739:G:N7	63:1A:8833:HOH:O	2.34	0.53
1:1A:1758:G:OP2	63:1A:8598:HOH:O	2.18	0.53
10:1O:24:VAL:HG13	10:1O:33:ALA:HB2	1.90	0.53
19:1X:41:ASN:O	19:1X:45:THR:HG23	2.07	0.53
32:1a:544:G:OP1	35:1d:62:GLN:NE2	2.42	0.53
32:1a:1118:C:OP1	40:1i:104:ARG:NE	2.40	0.53
33:1b:69:LEU:HD13	33:1b:155:LEU:HD22	1.90	0.53
33:1b:127:ILE:HD12	33:1b:130:ARG:HD3	1.90	0.53
46:1o:67:LEU:HB3	46:1o:78:TYR:HE1	1.74	0.53
1:2A:453:C:O2	1:2A:457:A:O2'	2.26	0.53
1:2A:729:G:C6	3:2D:208:LYS:HB2	2.43	0.53
1:2A:1833:U:OP1	63:2A:3904:HOH:O	2.18	0.53
32:2a:611:A:H2	32:2a:630:G:H22	1.54	0.53
32:2a:1226:C:N4	44:2m:104:ARG:HD2	2.23	0.53
1:1A:2591:C:H2'	1:1A:2592:G:C8	2.43	0.53
2:1B:7:G:H5"	2:1B:7:G:H8	1.74	0.53
3:1D:71:ASP:HB3	3:1D:103:ARG:NH2	2.24	0.53
28:16:6:ARG:NH1	28:16:26:ASN:HB2	2.24	0.53
32:1a:669:U:H2'	32:1a:670:G:C8	2.43	0.53
32:1a:714:G:H2'	32:1a:715:A:C8	2.43	0.53
33:1b:130:ARG:O	33:1b:135:GLN:NE2	2.41	0.53
34:1c:153:VAL:HG22	34:1c:198:VAL:HG22	1.90	0.53
1:2A:68:G:O6	63:2A:3890:HOH:O	2.18	0.53
1:2A:2260:C:OP1	63:2A:3907:HOH:O	2.19	0.53
10:2O:63:VAL:HG11	10:2O:85:VAL:HG23	1.89	0.53
1:1A:1570:A:OP1	63:1A:8603:HOH:O	2.19	0.53
1:1A:2135:A:N6	1:1A:2136:C:O2	2.42	0.53
6:1G:179:PRO:HG3	26:14:43:TYR:OH	2.09	0.53
23:11:59:THR:O	23:11:91:LYS:NZ	2.41	0.53
32:1a:1085:U:H3'	32:1a:1086:U:H6	1.73	0.53
32:1a:1130:A:OP1	40:1i:16:ARG:NH2	2.41	0.53
42:1k:21:ILE:HG12	42:1k:30:VAL:HG22	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:910:A:N1	1:2A:2277:G:H1'	2.23	0.53
4:2E:101:ARG:CZ	4:2E:171:GLU:HB2	2.39	0.53
6:2G:112:PRO:HG3	26:24:43:TYR:HE2	1.74	0.53
32:2a:427:U:P	35:2d:13:ARG:HH22	2.32	0.53
32:2a:1003:G:H3'	32:2a:1003:G:N3	2.24	0.53
32:2a:1074:G:O2'	32:2a:1101:A:N1	2.42	0.53
3:1D:39:LYS:NZ	3:1D:57:GLY:O	2.42	0.53
25:13:8:LEU:HG	25:13:31:LEU:HD23	1.90	0.53
32:1a:130:A:H1'	32:1a:263:A:O2'	2.08	0.53
32:1a:1312:G:N7	50:1s:2:PRO:HD2	2.24	0.53
39:1h:73:ASP:OD1	39:1h:75:ARG:NH1	2.41	0.53
1:2A:526:A:OP1	63:2A:3908:HOH:O	2.19	0.53
1:2A:740:U:H2'	1:2A:741:G:C8	2.44	0.53
1:2A:1031:G:O2'	31:29:7:VAL:O	2.27	0.53
1:2A:1518:U:H2'	1:2A:1519:G:O4'	2.09	0.53
1:2A:1778:U:H2'	1:2A:1784:A:N6	2.24	0.53
1:2A:2245:U:O2'	1:2A:2436:G:OP2	2.27	0.53
5:2F:192:LEU:HD13	5:2F:194:MET:HE2	1.89	0.53
6:2G:126:ASP:HB2	6:2G:130:ASN:H	1.74	0.53
21:2Z:154:ASP:N	21:2Z:154:ASP:OD1	2.41	0.53
1:1A:2142:C:H2'	1:1A:2143:C:C6	2.44	0.53
1:1A:2347:C:H2'	1:1A:2348:U:C6	2.44	0.53
21:1Z:152:ALA:HA	21:1Z:155:LEU:HD22	1.91	0.53
32:1a:352:C:O2'	32:1a:354:G:OP1	2.24	0.53
32:1a:454:C:OP1	47:1p:75:ARG:NH2	2.42	0.53
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.23	0.53
32:1a:1513:A:H2'	32:1a:1514:C:C6	2.43	0.53
33:1b:162:ILE:HD11	33:1b:184:VAL:HG13	1.91	0.53
46:1o:29:VAL:HG11	46:1o:67:LEU:HD21	1.90	0.53
1:2A:630:G:N2	1:2A:633:A:OP2	2.36	0.53
1:2A:2646:C:OP2	1:2A:2732:G:O2'	2.19	0.53
6:2G:145:THR:HG23	6:2G:147:ASP:H	1.73	0.53
8:2I:1:MET:HE2	8:2I:38:LEU:HD21	1.90	0.53
21:2Z:23:LYS:HD2	21:2Z:40:ASP:HA	1.90	0.53
32:2a:1323:G:H4'	32:2a:1363:C:N3	2.24	0.53
34:2c:9:GLY:HA3	45:2n:49:HIS:HA	1.89	0.53
1:1A:1155:A:OP1	16:1U:55:ARG:HD3	2.08	0.53
1:1A:1359:A:N6	1:1A:1372:U:H3	2.06	0.53
13:1R:104:ARG:HD2	13:1R:107:ASP:OD1	2.09	0.53
32:1a:1106:G:H5"	34:1c:172:ARG:HG3	1.91	0.53
43:1l:53:ARG:HB2	43:1l:93:LEU:HD11	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:240:G:O6	63:2A:3846:HOH:O	2.13	0.53
1:2A:2155:G:C2	1:2A:2156:G:H1'	2.44	0.53
1:2A:2400:G:H4'	28:26:18:ARG:HG2	1.91	0.53
3:2D:133:LEU:HB3	3:2D:173:VAL:HG11	1.90	0.53
5:2F:157:VAL:HB	5:2F:194:MET:HG2	1.91	0.53
32:2a:1030:C:N3	32:2a:1031:G:N2	2.57	0.53
32:2a:1075:C:H5"	33:2b:179:LYS:HE2	1.91	0.53
32:2a:1189:C:O2	63:2a:3217:HOH:O	2.17	0.53
32:2a:1275:A:H2'	32:2a:1276:G:H8	1.73	0.53
34:2c:181:ASN:N	34:2c:205:GLY:O	2.30	0.53
1:1A:1634:A:OP2	63:1A:8604:HOH:O	2.19	0.53
2:1B:66:A:H61	2:1B:108:U:H2'	1.74	0.53
32:1a:520:A:N1	32:1a:536:C:H1'	2.23	0.53
32:1a:1326:C:OP1	52:1u:12:LYS:NZ	2.42	0.53
37:1f:97:PHE:O	49:1r:31:LEU:N	2.26	0.53
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.44	0.53
21:2Z:126:VAL:HG11	21:2Z:161:VAL:HG13	1.91	0.53
32:2a:1073:U:H2'	32:2a:1074:G:C8	2.44	0.53
32:2a:1130:A:H5'	40:2i:18:PHE:CE2	2.44	0.53
32:2a:1401:G:C2	32:2a:1402:4OC:H1'	2.44	0.53
36:2e:52:PRO:HA	36:2e:55:VAL:HB	1.91	0.53
36:2e:78:HIS:HD2	39:2h:107:LEU:HD12	1.73	0.53
48:2q:57:VAL:HG12	48:2q:76:LEU:HA	1.90	0.53
1:1A:957:A:H5'	12:1Q:76:LYS:HG3	1.91	0.52
1:1A:1047:G:H2'	1:1A:1110:G:N2	2.21	0.52
5:1F:64:ILE:HG21	5:1F:78:ILE:HG23	1.91	0.52
6:1G:77:ILE:HG22	6:1G:80:PHE:H	1.74	0.52
8:1I:133:HIS:ND1	8:1I:134:PRO:O	2.42	0.52
32:1a:1033:G:H2'	32:1a:1034:G:C8	2.42	0.52
1:2A:922:U:H2'	1:2A:923:C:C6	2.44	0.52
1:2A:1494:A:H2'	1:2A:1495:A:C8	2.44	0.52
1:2A:2203:U:H2'	1:2A:2205:C:C6	2.44	0.52
1:2A:2698:U:H2'	1:2A:2699:C:C6	2.44	0.52
8:2I:69:LYS:HA	8:2I:138:ILE:HG12	1.91	0.52
36:2e:78:HIS:CE1	36:2e:142:LEU:HD23	2.44	0.52
38:2g:68:ASN:ND2	38:2g:127:ALA:O	2.39	0.52
43:2l:32:PHE:HB3	43:2l:84:LEU:HD11	1.91	0.52
44:2m:60:VAL:HG23	44:2m:64:TRP:CZ3	2.44	0.52
49:2r:52:PRO:HB2	49:2r:54:ARG:HG2	1.90	0.52
1:1A:2564:A:C2	1:1A:2647:U:H4'	2.44	0.52
8:1I:117:GLU:HG3	8:1I:118:LYS:H	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:1V:74:LYS:HB2	17:1V:83:ARG:HB2	1.91	0.52
32:1a:1183:A:H3'	32:1a:1184:G:C5'	2.39	0.52
32:1a:1236:A:H4'	32:1a:1304:G:H4'	1.91	0.52
37:1f:97:PHE:CZ	49:1r:61:LYS:HE3	2.43	0.52
1:2A:443:A:H1'	1:2A:1201:C:O4'	2.08	0.52
1:2A:443:A:N6	5:2F:41:LEU:O	2.36	0.52
1:2A:1839:G:C8	1:2A:1927:A:H1'	2.43	0.52
1:2A:2291:U:OP1	1:2A:2380:C:O2'	2.27	0.52
7:2H:101:ARG:HG2	7:2H:117:PRO:HG2	1.90	0.52
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.91	0.52
32:2a:942:G:N2	40:2i:124:GLN:OE1	2.35	0.52
32:2a:1001:A:H2'	32:2a:1001(A):G:C8	2.45	0.52
34:2c:37:GLN:NE2	45:2n:52:GLN:OE1	2.35	0.52
44:2m:89:GLY:HA2	44:2m:92:HIS:HB2	1.92	0.52
48:2q:22:LEU:HD13	48:2q:41:LYS:HG2	1.91	0.52
1:1A:1354:A:H2'	1:1A:1355:G:O4'	2.09	0.52
1:1A:1486:A:H2'	1:1A:1487:G:H8	1.73	0.52
1:1A:2139:C:N4	1:1A:2152:G:H1	2.07	0.52
5:1F:191:ARG:NH2	63:1F:412:HOH:O	2.42	0.52
21:1Z:158:PRO:HG2	21:1Z:161:VAL:HG11	1.89	0.52
32:1a:1151:A:O2'	32:1a:1152:A:H8	1.92	0.52
32:1a:1297:C:O2	38:1g:114:ARG:NH1	2.43	0.52
33:1b:59:GLU:HB2	33:1b:221:LEU:HD21	1.91	0.52
33:1b:155:LEU:HD21	33:1b:159:PRO:HD3	1.91	0.52
36:1e:94:ALA:HB1	36:1e:98:THR:HG21	1.91	0.52
49:1r:58:LEU:HB3	49:1r:62:GLU:HG3	1.91	0.52
1:2A:277:C:H1'	1:2A:278:A:P	2.49	0.52
1:2A:1073:A:C8	1:2A:1073:A:H3'	2.44	0.52
1:2A:1364:G:C8	23:21:3:LYS:HD2	2.44	0.52
4:2E:120:TRP:HB3	4:2E:155:LYS:HD3	1.89	0.52
20:2Y:73:ARG:HB3	20:2Y:73:ARG:HH11	1.73	0.52
32:2a:1376:U:O4	38:2g:10:ARG:NH1	2.43	0.52
1:1A:330:A:H2	1:1A:1210:A:O2'	1.89	0.52
1:1A:796:C:H2'	1:1A:797:C:C6	2.44	0.52
1:1A:1011:G:OP1	16:1U:77:SER:OG	2.21	0.52
4:1E:132:HIS:O	63:1E:403:HOH:O	2.19	0.52
32:1a:473:G:H2'	32:1a:474:G:H8	1.74	0.52
32:1a:718:G:H5'	42:1k:117:ASN:HB2	1.92	0.52
32:1a:975:A:H4'	32:1a:976:G:C5'	2.38	0.52
32:1a:1027:C:N3	32:1a:1034:G:C6	2.77	0.52
32:1a:1027:C:H2'	32:1a:1028:C:C4	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:1m:48:LEU:HB3	44:1m:53:VAL:HG23	1.92	0.52
1:2A:747:U:O2	1:2A:2014:A:H1'	2.09	0.52
1:2A:2880:C:O3'	13:2R:90:ARG:NH1	2.42	0.52
4:2E:37:ARG:N	4:2E:46:ALA:O	2.42	0.52
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.44	0.52
40:2i:16:ARG:HB2	40:2i:64:THR:HG22	1.90	0.52
1:1A:956:G:O6	63:1A:8607:HOH:O	2.19	0.52
1:1A:1429:G:H2'	1:1A:1430:C:C6	2.45	0.52
32:1a:452:A:H1'	32:1a:453:A:C8	2.44	0.52
33:1b:80:ILE:HD13	33:1b:211:ILE:HB	1.92	0.52
35:1d:162:LEU:HD23	35:1d:178:VAL:HG13	1.90	0.52
1:2A:774:A:H2'	1:2A:774:A:N3	2.24	0.52
11:2P:138:LEU:HD23	11:2P:145:PRO:HB3	1.92	0.52
26:24:59:PHE:HA	26:24:61:ARG:N	2.24	0.52
30:28:54:GLU:OE2	63:28:202:HOH:O	2.19	0.52
40:2i:16:ARG:HD3	40:2i:64:THR:HG21	1.91	0.52
40:2i:42:ARG:NH1	40:2i:75:ASP:OD1	2.43	0.52
1:1A:709:U:H2'	1:1A:710:G:C8	2.45	0.52
1:1A:996:A:OP2	16:1U:93:LYS:HE2	2.10	0.52
1:1A:2712:U:O2'	1:1A:2713:A:H5'	2.10	0.52
2:1B:45:A:P	6:1G:96:ARG:HH21	2.33	0.52
9:1N:9:VAL:N	63:1N:305:HOH:O	2.43	0.52
32:1a:1158:C:O2'	32:1a:1160:G:OP1	2.25	0.52
37:1f:99:ALA:HB1	49:1r:23:LYS:HE3	1.91	0.52
49:1r:24:ALA:O	49:1r:26:LEU:N	2.41	0.52
6:2G:16:ARG:NH1	6:2G:31:VAL:HG21	2.24	0.52
10:2O:95:GLY:N	63:2O:302:HOH:O	2.37	0.52
21:2Z:104:PHE:HB3	21:2Z:141:VAL:HG11	1.92	0.52
32:2a:601:C:H2'	32:2a:602:A:C8	2.45	0.52
32:2a:891:U:OP2	63:2a:3219:HOH:O	2.19	0.52
33:2b:212:GLN:NE2	33:2b:235:SER:OG	2.42	0.52
39:2h:49:GLU:HG2	39:2h:62:TYR:HE2	1.75	0.52
42:2k:22:HIS:HB3	42:2k:29:ILE:HB	1.91	0.52
44:2m:92:HIS:CE1	44:2m:98:VAL:HG11	2.45	0.52
1:1A:2243:U:OP2	63:1A:8601:HOH:O	2.19	0.52
32:1a:651:C:N4	32:1a:753:A:OP2	2.40	0.52
32:1a:1404:5MC:O2	32:1a:1519:MA6:O2'	2.27	0.52
33:1b:21:ARG:C	33:1b:23:ARG:H	2.18	0.52
37:1f:22:GLU:CD	37:1f:82:ARG:HH21	2.18	0.52
53:1y:55:ASN:OD1	53:1y:60:VAL:HG12	2.09	0.52
1:2A:1453:U:O2'	1:2A:1455:G:N7	2.35	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:204:ASN:HD21	33:2b:207:ALA:H	1.58	0.52
35:2d:13:ARG:HD2	35:2d:38:TYR:O	2.10	0.52
40:2i:26:VAL:HG22	40:2i:61:ALA:HB3	1.90	0.52
53:2y:30:TRP:CE3	53:2y:85:LEU:HD23	2.45	0.52
1:1A:2379:G:O2'	14:1S:17:ARG:NH2	2.43	0.52
21:1Z:144:LEU:HD11	21:1Z:150:LEU:HD22	1.91	0.52
32:1a:138:G:H1	32:1a:225:C:H42	1.56	0.52
32:1a:736:C:OP1	49:1r:72:ARG:NE	2.42	0.52
32:1a:737:A:H2'	32:1a:738:C:C6	2.45	0.52
32:1a:1479:C:H2'	32:1a:1480:G:H8	1.75	0.52
35:1d:85:LYS:HG3	35:1d:86:LYS:H	1.75	0.52
44:1m:58:GLU:O	44:1m:62:ASN:ND2	2.43	0.52
1:2A:973:A:H8	1:2A:973:A:OP1	1.93	0.52
1:2A:1068:G:H3'	1:2A:1096:A:OP2	2.10	0.52
1:2A:2130:U:H2'	1:2A:2158:A:N1	2.25	0.52
10:2O:49:ARG:NH1	32:2a:1422:G:O3'	2.43	0.52
15:2T:27:THR:HB	15:2T:89:VAL:HG22	1.92	0.52
17:2V:31:ALA:O	17:2V:61:VAL:HG22	2.09	0.52
32:2a:108:G:C6	51:2t:15:ARG:HG2	2.45	0.52
34:2c:22:TRP:CD1	34:2c:59:ARG:HG3	2.45	0.52
44:2m:25:ILE:HD11	44:2m:60:VAL:HG21	1.91	0.52
1:1A:810:U:C4	11:1P:29:LYS:O	2.63	0.52
1:1A:1054:A:H61	1:1A:1105:U:H3	1.58	0.52
1:1A:1268:A:C2	1:1A:2013:A:C4	2.98	0.52
33:1b:80:ILE:HG23	33:1b:215:LEU:HD12	1.91	0.52
40:1i:111:ARG:HH22	41:1j:62:HIS:CD2	2.28	0.52
1:2A:898:C:H2'	1:2A:899:A:O4'	2.10	0.52
1:2A:1676:A:N7	63:2A:4087:HOH:O	2.34	0.52
1:2A:1782:C:H1'	1:2A:2609:U:H5"	1.92	0.52
1:2A:1827:C:O2'	1:2A:1970:A:N3	2.32	0.52
1:2A:2394:C:H5"	11:2P:64:LYS:HD3	1.92	0.52
1:2A:2552:OMU:H6	1:2A:2552:OMU:O5'	2.10	0.52
1:2A:2749:A:OP1	7:2H:3:ARG:NH1	2.43	0.52
8:2I:9:LEU:HD12	8:2I:12:LEU:HD23	1.92	0.52
10:2O:15:GLY:O	10:2O:47:ILE:HG13	2.09	0.52
11:2P:88:LEU:HD22	11:2P:95:VAL:HG11	1.92	0.52
11:2P:111:ARG:HD3	11:2P:128:HIS:CD2	2.45	0.52
12:2Q:77:LYS:NZ	12:2Q:84:GLY:O	2.38	0.52
21:2Z:99:TYR:HB3	21:2Z:123:ASP:HB2	1.92	0.52
32:2a:8:A:N6	35:2d:205:GLU:O	2.43	0.52
32:2a:1004:A:N7	32:2a:1037:C:H2'	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:155:LEU:HD21	33:2b:159:PRO:HG3	1.92	0.52
47:2p:43:LYS:HG2	47:2p:48:TRP:CD2	2.44	0.52
1:1A:666:G:H1'	30:18:4:MET:HE3	1.92	0.52
1:1A:760:G:OP1	63:1A:8605:HOH:O	2.19	0.52
1:1A:1066:U:C2	1:1A:1067:A:N1	2.78	0.52
1:1A:2111:C:H42	1:1A:2147:G:N2	2.08	0.52
1:1A:2882:A:H5'	13:1R:96:ARG:HB2	1.92	0.52
8:1I:123:LEU:HD23	8:1I:144:VAL:HG12	1.91	0.52
34:1c:56:ASP:HB2	34:1c:67:THR:HB	1.92	0.52
1:2A:61:G:OP1	24:22:51:ARG:NH2	2.43	0.52
1:2A:589:C:H2'	1:2A:590:A:C8	2.45	0.52
1:2A:1449:A:O2'	1:2A:1529:G:N2	2.30	0.52
1:2A:1641:A:H2'	1:2A:1642:G:O4'	2.10	0.52
6:2G:16:ARG:CZ	6:2G:31:VAL:HG21	2.40	0.52
26:24:16:CYS:HA	26:24:33:VAL:HG22	1.91	0.52
1:1A:185:U:H4'	1:1A:218:A:H4'	1.92	0.51
1:1A:2687:U:H2'	1:1A:2688:U:O4'	2.09	0.51
15:1T:84:GLN:HG2	15:1T:85:LYS:HG3	1.91	0.51
32:1a:457:C:H2'	32:1a:458:C:C6	2.45	0.51
32:1a:1239:A:H62	32:1a:1299:A:N6	2.07	0.51
32:1a:1504:G:OP1	32:1a:1507:A:H4'	2.10	0.51
33:1b:54:THR:HG21	33:1b:201:ILE:HD11	1.91	0.51
36:1e:52:PRO:HA	36:1e:55:VAL:HB	1.92	0.51
1:2A:479:A:N3	1:2A:481:G:H5"	2.25	0.51
1:2A:652(T):C:H2'	1:2A:652(U):G:C8	2.45	0.51
1:2A:1057:A:N6	1:2A:1087:G:OP1	2.42	0.51
1:2A:1506:C:N4	1:2A:1507:A:H62	2.08	0.51
1:2A:1860:G:H22	1:2A:1883:G:H1'	1.75	0.51
1:2A:2414:G:OP2	63:2A:3902:HOH:O	2.18	0.51
1:2A:2584:U:H5'	54:2w:76:PPU:H103	1.91	0.51
32:2a:401:C:O2'	32:2a:621:A:N3	2.35	0.51
37:2f:50:TYR:CE2	49:2r:77:GLY:HA2	2.45	0.51
49:2r:31:LEU:HD13	49:2r:62:GLU:HB2	1.92	0.51
1:1A:744:G:OP1	4:1E:132:HIS:ND1	2.41	0.51
1:1A:1245:G:OP1	11:1P:13:ASN:ND2	2.28	0.51
1:1A:2023:G:H5'	1:1A:2617:C:H4'	1.91	0.51
2:1B:95:C:N4	63:1B:318:HOH:O	2.38	0.51
32:1a:141:A:H1'	32:1a:182:U:O2	2.10	0.51
32:1a:328:C:H4'	32:1a:329:A:H5'	1.92	0.51
32:1a:1124:G:N7	32:1a:1145:C:O2'	2.43	0.51
33:1b:178:ARG:HG3	39:1h:71:GLY:O	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:43:HIS:HB3	35:1d:46:LYS:HD2	1.92	0.51
35:1d:111:ALA:HB2	35:1d:120:LEU:HD22	1.91	0.51
48:1q:19:VAL:HG23	48:1q:44:ALA:HB3	1.92	0.51
1:2A:966:G:H2'	1:2A:967:C:C6	2.45	0.51
1:2A:1720:U:H2'	1:2A:1721:G:O4'	2.10	0.51
16:2U:67:ALA:O	16:2U:71:GLN:HG3	2.10	0.51
32:2a:259:G:OP2	51:2t:83:ARG:NH1	2.33	0.51
32:2a:531:U:O3'	32:2a:532:A:H4'	2.11	0.51
34:2c:39:ILE:HG23	34:2c:91:LEU:HD11	1.92	0.51
34:2c:66:VAL:HG12	34:2c:68:VAL:HG23	1.91	0.51
1:1A:71:A:N7	19:1X:31:HIS:HE1	2.08	0.51
1:1A:630:G:OP1	30:18:47:LYS:NZ	2.37	0.51
1:1A:729:G:C6	3:1D:208:LYS:HB2	2.44	0.51
1:1A:1964:G:N3	63:1A:8848:HOH:O	2.34	0.51
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.45	0.51
1:1A:2540:C:O2'	1:1A:2740:A:N3	2.40	0.51
32:1a:92:C:H2'	32:1a:93:G:C8	2.45	0.51
32:1a:619:U:H3	35:1d:135:LEU:HD13	1.74	0.51
32:1a:900:A:H2'	32:1a:901:A:C8	2.44	0.51
32:1a:1025:U:H2'	32:1a:1026:G:H5"	1.92	0.51
33:1b:8:LYS:H	33:1b:8:LYS:HD2	1.74	0.51
33:1b:15:VAL:HG22	33:1b:209:ARG:HD2	1.91	0.51
1:2A:630:G:OP2	30:28:15:LYS:NZ	2.35	0.51
1:2A:885:C:H1'	1:2A:892:G:H22	1.76	0.51
1:2A:1219:G:H1	1:2A:1230:C:H42	1.57	0.51
1:2A:1450:G:H2'	1:2A:1450(A):C:C6	2.46	0.51
1:2A:2115:G:N1	1:2A:2119:A:OP2	2.44	0.51
1:2A:2364:C:H2'	1:2A:2365:G:O4'	2.10	0.51
29:27:24:THR:HG22	29:27:26:GLY:H	1.73	0.51
32:2a:1074:G:OP1	36:2e:64:ARG:NH1	2.28	0.51
46:2o:16:ALA:HB1	46:2o:21:ASP:HB3	1.92	0.51
1:1A:1255:U:O5'	1:1A:1256:G:H5"	2.10	0.51
1:1A:2279:G:O6	22:10:14:ARG:HG3	2.10	0.51
7:1H:3:ARG:NH2	7:1H:65:HIS:HB3	2.24	0.51
32:1a:1158:C:H5	32:1a:1181:G:N1	1.89	0.51
32:1a:1386:G:H2'	32:1a:1387:G:H8	1.75	0.51
37:1f:46:ARG:HH21	49:1r:37:VAL:HG11	1.75	0.51
39:1h:33:GLU:O	39:1h:37:ARG:N	2.36	0.51
1:2A:511:U:H4'	1:2A:1235:G:H4'	1.91	0.51
1:2A:2315:G:OP1	6:2G:36:LYS:NZ	2.25	0.51
1:2A:2489:G:N2	1:2A:2491:U:O4	2.39	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:161:THR:HG22	6:2G:163:ALA:H	1.76	0.51
20:2Y:97:ARG:HH21	20:2Y:107:ASP:C	2.18	0.51
32:2a:70:G:O6	63:2a:3212:HOH:O	2.15	0.51
32:2a:189(K):U:H2'	32:2a:189(L):G:C8	2.45	0.51
32:2a:1314:C:N4	50:2s:2:PRO:O	2.43	0.51
33:2b:16:HIS:CB	33:2b:210:SER:HB3	2.41	0.51
39:2h:11:THR:HG23	39:2h:14:ARG:HH21	1.74	0.51
48:2q:67:LYS:C	48:2q:69:LYS:H	2.18	0.51
1:1A:2115:G:N3	1:1A:2117:A:N6	2.58	0.51
5:1F:110:LEU:HD21	5:1F:181:LEU:HG	1.92	0.51
8:1I:60:GLU:HG3	8:1I:61:ARG:HD3	1.92	0.51
32:1a:977:A:H1'	32:1a:982:U:O4	2.11	0.51
32:1a:1429:C:H2'	32:1a:1430:C:C6	2.46	0.51
1:2A:1657:C:H2'	1:2A:1658:C:C6	2.46	0.51
1:2A:2165:G:H2'	1:2A:2166:G:O4'	2.09	0.51
4:2E:7:VAL:HG23	4:2E:51:PHE:HE2	1.74	0.51
32:2a:1040:U:H2'	32:2a:1041:A:O4'	2.10	0.51
32:2a:1302:U:OP2	44:2m:21:TYR:OH	2.28	0.51
32:2a:1309:G:N7	44:2m:99:ARG:NH2	2.58	0.51
34:2c:121:ALA:HB1	34:2c:188:LEU:O	2.10	0.51
35:2d:146:ILE:HD11	35:2d:185:PHE:HB2	1.91	0.51
38:2g:108:ALA:O	38:2g:119:ARG:HD2	2.10	0.51
1:1A:744:G:O6	63:1A:8608:HOH:O	2.19	0.51
1:1A:811:U:H2'	11:1P:21:ARG:HA	1.93	0.51
1:1A:1171:G:H3'	1:1A:1173:G:H5'	1.92	0.51
1:1A:1669:A:O2'	1:1A:2549:G:OP1	2.25	0.51
1:1A:2336:A:H61	22:10:43:THR:HG22	1.75	0.51
21:1Z:28:MET:O	21:1Z:34:ASN:HA	2.10	0.51
32:1a:731:G:H5'	32:1a:766:A:H4'	1.92	0.51
32:1a:1391:U:H2'	32:1a:1392:G:H8	1.75	0.51
32:1a:1401:G:N7	53:1y:83:ARG:NH2	2.59	0.51
1:2A:315:G:H2'	1:2A:316:C:C6	2.46	0.51
1:2A:588:U:O2'	63:2A:3896:HOH:O	2.18	0.51
1:2A:1188:U:H4'	17:2V:79:VAL:HG22	1.92	0.51
1:2A:2752:C:OP2	7:2H:4:ILE:HD11	2.10	0.51
20:2Y:7:VAL:HG11	20:2Y:13:VAL:HG11	1.93	0.51
32:2a:707:C:H2'	32:2a:708:C:H6	1.75	0.51
32:2a:1391:U:H2'	32:2a:1392:G:C8	2.46	0.51
33:2b:222:ILE:HG13	33:2b:223:ILE:HG23	1.93	0.51
40:2i:9:ARG:O	40:2i:104:ARG:HG3	2.11	0.51
1:1A:2805:G:N7	63:1A:8831:HOH:O	2.34	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1O:13:ASN:OD1	10:1O:97:ARG:N	2.43	0.51
13:1R:53:HIS:ND1	13:1R:94:TYR:OH	2.34	0.51
32:1a:632:A:H3'	32:1a:633:G:H8	1.76	0.51
33:1b:52:GLU:HG2	33:1b:56:ARG:HH12	1.76	0.51
33:1b:134:GLU:HG3	33:1b:137:ARG:NH2	2.26	0.51
37:1f:44:GLY:HA2	37:1f:59:TYR:CE1	2.46	0.51
42:1k:80:VAL:O	42:1k:105:VAL:HA	2.10	0.51
53:1y:33:HIS:HB3	53:1y:57:PRO:HD3	1.93	0.51
1:2A:1076:C:H1'	1:2A:1077:A:H5'	1.93	0.51
1:2A:1098:A:H3'	1:2A:1099:G:H8	1.76	0.51
1:2A:2103:C:N4	1:2A:2185:C:H42	2.08	0.51
1:2A:2579:C:H4'	4:2E:134:ILE:HG12	1.92	0.51
2:2B:24:G:H4'	2:2B:25:A:N7	2.26	0.51
32:2a:1230:C:O2	63:2a:3218:HOH:O	2.18	0.51
1:1A:1239:G:H2'	1:1A:1240:U:O4'	2.11	0.51
1:1A:2114:A:H3'	1:1A:2115:G:H8	1.75	0.51
1:1A:2820:A:OP2	13:1R:2:ARG:NH2	2.42	0.51
13:1R:2:ARG:HG2	13:1R:5:LYS:HB2	1.91	0.51
32:1a:757:U:H2'	32:1a:758:G:O4'	2.10	0.51
32:1a:1304:G:C6	32:1a:1305:G:N1	2.79	0.51
1:2A:850:C:H5"	25:23:18:ASP:HB3	1.93	0.51
1:2A:2820:A:O2'	1:2A:2821:A:OP1	2.29	0.51
9:2N:36:GLY:HA3	9:2N:48:MET:HE2	1.92	0.51
32:2a:748:C:H4'	32:2a:749:C:O5'	2.09	0.51
32:2a:902:G:N7	63:2a:3256:HOH:O	2.34	0.51
32:2a:1060:C:HO2'	41:2j:56:HIS:HD1	1.59	0.51
40:2i:89:ASN:HB3	40:2i:92:TYR:CE2	2.46	0.51
41:2j:42:THR:HG21	41:2j:66:ARG:HB3	1.92	0.51
43:2l:7:ILE:O	43:2l:11:VAL:HG23	2.11	0.51
1:1A:548:A:H61	17:1V:19:LYS:H	1.59	0.51
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.46	0.51
1:1A:2698:U:H2'	1:1A:2699:C:C6	2.45	0.51
18:1W:18:ARG:HG3	18:1W:76:VAL:HB	1.92	0.51
32:1a:78:G:H1	32:1a:91:C:N4	2.03	0.51
32:1a:341:C:H2'	32:1a:342:C:C6	2.46	0.51
32:1a:1010:G:H22	32:1a:1020:U:H1'	1.75	0.51
32:1a:1098:C:H2'	32:1a:1099:G:H8	1.76	0.51
32:1a:1412:C:H2'	32:1a:1413:A:H8	1.76	0.51
32:1a:1429:C:H2'	32:1a:1430:C:H6	1.75	0.51
37:1f:97:PHE:HZ	49:1r:61:LYS:HE3	1.75	0.51
39:1h:6:ILE:O	39:1h:10:LEU:HG	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1599:C:OP1	63:2A:3913:HOH:O	2.19	0.51
1:2A:1639:U:H2'	1:2A:1640:C:H5"	1.91	0.51
1:2A:1803:A:O2'	3:2D:259:THR:HG21	2.10	0.51
32:2a:501:C:H2'	32:2a:502:G:H8	1.76	0.51
32:2a:519:C:OP2	43:2l:50:SER:OG	2.29	0.51
32:2a:1352:C:P	52:2u:3:LYS:HZ1	2.34	0.51
37:2f:97:PHE:HD2	49:2r:31:LEU:HD12	1.76	0.51
7:1H:154:PRO:HB3	7:1H:163:TYR:CZ	2.46	0.51
9:1N:30:ILE:O	9:1N:34:LEU:HG	2.11	0.51
10:1O:98:VAL:HG22	10:1O:117:LEU:HB3	1.93	0.51
32:1a:1143:G:H2'	32:1a:1144:G:H8	1.75	0.51
33:1b:95:GLN:OE1	33:1b:147:LYS:HE3	2.10	0.51
36:1e:12:LEU:HB3	36:1e:31:LEU:HB3	1.92	0.51
40:1i:17:VAL:HG23	40:1i:63:ILE:HG12	1.93	0.51
1:2A:154(A):C:N4	1:2A:171:G:H1	2.07	0.51
1:2A:196:A:N3	1:2A:196:A:H2'	2.26	0.51
1:2A:377:C:H2'	1:2A:378:C:H6	1.76	0.51
1:2A:811:U:H2'	11:2P:21:ARG:HA	1.93	0.51
1:2A:2115:G:H3'	1:2A:2116:G:C5'	2.41	0.51
63:2A:4374:HOH:O	5:2F:53:THR:HG21	2.11	0.51
4:2E:116:VAL:HG13	4:2E:122:PHE:HB2	1.93	0.51
28:26:12:GLU:HB2	28:26:19:ARG:HG3	1.92	0.51
31:29:14:CYS:HA	31:29:27:CYS:HB2	1.93	0.51
32:2a:1260:C:O5'	32:2a:1284:C:H4'	2.10	0.51
33:2b:178:ARG:HB3	39:2h:72:PRO:HA	1.92	0.51
48:2q:83:ASP:O	48:2q:87:LYS:HG3	2.11	0.51
1:1A:375:C:H2'	1:1A:376:C:C6	2.46	0.50
1:1A:385:C:O2	11:1P:71:VAL:HG21	2.11	0.50
1:1A:910:A:N1	1:1A:2277:G:H1'	2.26	0.50
1:1A:1540:U:H2'	1:1A:1541:G:O4'	2.11	0.50
1:1A:2846:G:H2'	1:1A:2847:U:O4'	2.11	0.50
11:1P:141:ALA:HA	25:23:38:GLU:HG2	1.93	0.50
18:1W:4:LYS:NZ	63:1W:302:HOH:O	2.41	0.50
32:1a:96:U:H2'	32:1a:97:G:C8	2.46	0.50
32:1a:736:C:H2'	32:1a:737:A:C8	2.47	0.50
32:1a:1128:C:H4'	32:1a:1148:U:O2	2.11	0.50
32:1a:1223:C:P	50:1s:78:ARG:HH21	2.34	0.50
40:1i:53:VAL:HG21	40:1i:85:LEU:HD13	1.92	0.50
46:1o:26:GLU:OE1	46:1o:77:ARG:NH2	2.38	0.50
47:1p:47:ASP:OD1	47:1p:47:ASP:N	2.41	0.50
1:2A:299:A:N1	1:2A:322:A:O2'	2.39	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:588:U:H2'	1:2A:589:C:C6	2.46	0.50
1:2A:613:G:O2'	1:2A:614(C):A:N1	2.42	0.50
1:2A:800:A:H8	1:2A:800:A:OP1	1.94	0.50
1:2A:1187:G:H5'	17:2V:81:TYR:CE1	2.45	0.50
1:2A:1948:G:OP2	63:2A:3912:HOH:O	2.19	0.50
1:2A:2109:U:O2	1:2A:2181:G:N2	2.43	0.50
1:2A:2150:U:H2'	1:2A:2151:G:C8	2.47	0.50
6:2G:43:LEU:HD11	6:2G:153:ARG:HD2	1.92	0.50
32:2a:930:C:H2'	32:2a:931:C:O4'	2.10	0.50
38:2g:65:ALA:HB1	38:2g:127:ALA:HB3	1.93	0.50
44:2m:52:GLU:HG2	44:2m:55:ARG:HH21	1.76	0.50
51:2t:16:HIS:O	51:2t:19:SER:OG	2.28	0.50
1:1A:131:G:OP1	63:1A:8600:HOH:O	2.19	0.50
1:1A:1796:U:H2'	1:1A:1797:C:H6	1.72	0.50
1:1A:1851:U:H2'	1:1A:1852:C:O4'	2.11	0.50
32:1a:1015:A:H2'	32:1a:1016:A:C8	2.46	0.50
51:1t:34:LYS:O	51:1t:38:LYS:HG2	2.12	0.50
53:1y:55:ASN:HA	53:1y:60:VAL:HA	1.93	0.50
1:2A:1588:C:H2'	1:2A:1589:C:C6	2.46	0.50
1:2A:2059:A:O2'	5:2F:69:HIS:HD2	1.93	0.50
1:2A:2064:C:OP2	63:2A:3906:HOH:O	2.19	0.50
32:2a:1316:G:N1	32:2a:1319:A:OP2	2.41	0.50
32:2a:1325:C:H5"	52:2u:17:THR:HG21	1.93	0.50
32:2a:1525:G:OP1	42:2k:120:ARG:NH2	2.44	0.50
1:1A:121:G:H4'	1:1A:149:A:H5'	1.93	0.50
1:1A:185:U:H2'	1:1A:186:G:C8	2.47	0.50
1:1A:242:G:C8	30:18:5:LYS:HG2	2.45	0.50
1:1A:1328:G:N3	63:1A:8852:HOH:O	2.35	0.50
1:1A:1503:U:H2'	1:1A:1504:C:H6	1.75	0.50
59:1B:231:ARG:HB3	63:1B:324:HOH:O	2.11	0.50
32:1a:258:G:H2'	32:1a:259:G:C8	2.46	0.50
32:1a:507:C:OP2	32:1a:508:C:O2'	2.23	0.50
32:1a:1085:U:H3'	32:1a:1086:U:C6	2.45	0.50
33:1b:87:ARG:HD2	33:1b:233:SER:HB3	1.92	0.50
37:1f:15:ASP:OD1	37:1f:18:GLN:N	2.27	0.50
1:2A:154(A):C:N3	1:2A:171:G:N2	2.59	0.50
1:2A:579:G:H2'	1:2A:580:C:C6	2.45	0.50
1:2A:1216:G:OP2	16:2U:12:ARG:NH2	2.45	0.50
1:2A:2104:G:O6	1:2A:2185:C:N3	2.44	0.50
1:2A:2152:G:H2'	1:2A:2153:G:C8	2.46	0.50
6:2G:120:LEU:N	6:2G:179:PRO:O	2.37	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1320:C:H2'	32:2a:1321:C:O4'	2.11	0.50
33:2b:95:GLN:HG3	33:2b:96:ARG:H	1.77	0.50
34:2c:112:SER:O	34:2c:116:VAL:HG23	2.11	0.50
35:2d:116:GLN:NE2	35:2d:157:LEU:HD21	2.26	0.50
36:2e:91:LEU:HD12	36:2e:118:ILE:HD11	1.94	0.50
47:2p:57:ARG:NH2	47:2p:79:VAL:O	2.44	0.50
1:1A:2100:G:H1	1:1A:2189:U:H3	1.60	0.50
1:1A:2126:A:H2	1:1A:2173:A:N7	2.08	0.50
1:1A:2135:A:C6	1:1A:2136:C:H1'	2.47	0.50
1:1A:2475:C:OP2	63:1A:8610:HOH:O	2.20	0.50
7:1H:124:GLU:CG	7:1H:132:ARG:HB3	2.41	0.50
11:1P:64:LYS:NZ	63:1P:302:HOH:O	2.20	0.50
32:1a:181:G:H4'	32:1a:182:U:H5'	1.92	0.50
34:1c:35:GLU:OE1	34:1c:95:THR:HA	2.12	0.50
35:1d:173:TRP:CE3	35:1d:174:LEU:HG	2.47	0.50
1:2A:271(D):G:H2'	1:2A:271(E):U:C6	2.47	0.50
1:2A:1655:A:N1	63:2A:4094:HOH:O	2.34	0.50
1:2A:2811:G:OP1	4:2E:60:ASN:HB2	2.11	0.50
5:2F:36:VAL:O	5:2F:40:GLN:HG3	2.12	0.50
33:2b:127:ILE:C	33:2b:129:GLU:H	2.20	0.50
44:2m:15:VAL:HG11	44:2m:48:LEU:HD11	1.93	0.50
1:1A:212:G:N2	63:1A:8972:HOH:O	2.39	0.50
2:1B:79:C:OP2	63:1B:302:HOH:O	2.19	0.50
5:1F:183:VAL:O	5:1F:187:VAL:HG23	2.12	0.50
19:1X:1:MET:HE1	24:12:26:ARG:HH21	1.76	0.50
19:1X:49:VAL:O	63:1X:7202:HOH:O	2.19	0.50
20:1Y:79:CYS:SG	20:1Y:81:LYS:HG3	2.51	0.50
30:18:28:GLY:O	30:18:36:LYS:NZ	2.40	0.50
32:1a:926:G:O6	53:1y:87:LYS:HE2	2.12	0.50
33:1b:88:ALA:O	33:1b:226:ARG:NH2	2.42	0.50
34:1c:19:GLU:HB3	34:1c:40:ARG:NH2	2.27	0.50
34:1c:155:GLY:HA3	34:1c:196:LEU:HD22	1.92	0.50
35:1d:162:LEU:HD13	35:1d:181:MET:HG2	1.92	0.50
1:2A:27:G:O2'	1:2A:28:A:OP2	2.29	0.50
1:2A:321:G:OP2	5:2F:135:LYS:HG3	2.12	0.50
1:2A:855:G:H2'	1:2A:856:C:C6	2.46	0.50
1:2A:1047:G:H21	1:2A:1111:A:N6	2.10	0.50
1:2A:1218:C:OP1	63:2A:3888:HOH:O	2.17	0.50
8:2I:117:GLU:HG3	8:2I:118:LYS:H	1.76	0.50
32:2a:696:A:N1	32:2a:797:C:O2'	2.39	0.50
32:2a:1002:G:N3	32:2a:1003:G:H8	2.08	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2f:6:VAL:HG13	37:2f:90:VAL:HG22	1.93	0.50
39:2h:81:HIS:HB2	39:2h:138:TRP:OXT	2.12	0.50
47:2p:26:ARG:HE	47:2p:31:LYS:HB3	1.76	0.50
1:1A:1098:A:H3'	1:1A:1099:G:H8	1.76	0.50
1:1A:1795:C:OP1	63:1A:8609:HOH:O	2.19	0.50
1:1A:2164:C:H5	1:1A:2165:G:C6	2.30	0.50
1:1A:2319:G:H4'	1:1A:2320:A:OP1	2.10	0.50
59:1B:231:ARG:HB2	63:1B:318:HOH:O	2.12	0.50
32:1a:501:C:H2'	32:1a:502:G:H8	1.77	0.50
32:1a:503:C:H2'	32:1a:504:C:H6	1.75	0.50
32:1a:685:G:N1	32:1a:704:A:OP2	2.33	0.50
32:1a:825:G:O2'	39:1h:8:ASP:OD1	2.20	0.50
32:1a:1010:G:N2	32:1a:1020:U:H1'	2.27	0.50
33:1b:17:PHE:HB3	33:1b:44:LEU:HD21	1.94	0.50
34:1c:150:LYS:HB2	34:1c:173:VAL:HG21	1.93	0.50
35:1d:22:LYS:O	35:1d:113:SER:HB3	2.12	0.50
40:1i:8:GLY:HA3	40:1i:76:ALA:O	2.12	0.50
40:1i:79:LEU:HD22	40:1i:104:ARG:HB2	1.92	0.50
48:1q:67:LYS:C	48:1q:69:LYS:H	2.20	0.50
1:2A:252:G:P	11:2P:50:ARG:HH12	2.34	0.50
1:2A:285:C:H2'	1:2A:286:C:C6	2.47	0.50
1:2A:649:G:H4'	30:28:46:ARG:NH2	2.27	0.50
1:2A:2019:A:OP2	27:25:9:LYS:NZ	2.40	0.50
1:2A:2104:G:N7	1:2A:2186:G:C2	2.80	0.50
2:2B:48:A:H4'	14:2S:95:HIS:HD2	1.76	0.50
12:2Q:109:VAL:HG22	12:2Q:113:GLN:OE1	2.12	0.50
25:23:50:VAL:HB	25:23:53:LEU:HD12	1.94	0.50
26:24:24:THR:OG1	26:24:25:TYR:N	2.44	0.50
26:24:59:PHE:CB	26:24:61:ARG:HB2	2.40	0.50
32:2a:587:G:N2	32:2a:754:C:OP2	2.33	0.50
32:2a:646:U:H2'	32:2a:647:C:C6	2.47	0.50
32:2a:693:G:O2'	38:2g:82:GLY:N	2.44	0.50
32:2a:1160:G:H22	32:2a:1177:G:H21	1.60	0.50
38:2g:148:ASN:ND2	42:2k:54:ARG:HH22	2.10	0.50
1:1A:721:C:H2'	1:1A:722:A:H8	1.77	0.50
1:1A:1203:G:O6	63:1A:8613:HOH:O	2.20	0.50
2:1B:103:G:H21	21:1Z:73:GLN:HE22	1.60	0.50
3:1D:102:LYS:C	3:1D:103:ARG:HG2	2.35	0.50
5:1F:65:TRP:CZ2	5:1F:75:HIS:HD2	2.29	0.50
32:1a:402:G:O6	63:1a:1930:HOH:O	2.19	0.50
32:1a:1034:G:H2'	32:1a:1035:A:O4'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1129:C:H42	32:1a:1143:G:H1	1.59	0.50
35:1d:87:GLY:O	63:1d:402:HOH:O	2.19	0.50
47:1p:71:ARG:O	47:1p:75:ARG:N	2.41	0.50
1:2A:956:G:H5"	12:2Q:77:LYS:HD2	1.92	0.50
1:2A:2581:G:N7	63:2A:4089:HOH:O	2.34	0.50
63:2A:3899:HOH:O	32:2a:773:G:OP1	2.20	0.50
9:2N:96:GLU:HB2	9:2N:122:VAL:HG12	1.94	0.50
26:24:62:ARG:O	26:24:64:GLY:N	2.45	0.50
32:2a:359:U:H2'	32:2a:360:A:C8	2.47	0.50
32:2a:1012:U:H2'	32:2a:1013:G:C8	2.47	0.50
48:2q:82:MET:HA	48:2q:85:VAL:HB	1.93	0.50
1:1A:624:C:O2'	1:1A:657:U:OP1	2.26	0.50
1:1A:857:C:N4	1:1A:858:U:O4	2.44	0.50
1:1A:1261:C:OP2	63:1A:8611:HOH:O	2.20	0.50
1:1A:1826:G:H4'	3:1D:242:ARG:CZ	2.40	0.50
1:1A:2122:U:H3	1:1A:2176:A:H61	1.60	0.50
32:1a:17:U:H1'	32:1a:1080:A:N3	2.26	0.50
32:1a:838:G:H2'	32:1a:839:U:H2'	1.93	0.50
32:1a:971:G:OP1	32:1a:972:C:H5"	2.11	0.50
32:1a:1007:C:N3	32:1a:1022:G:O6	2.45	0.50
32:1a:1348:U:H4'	40:1i:120:ARG:HD2	1.94	0.50
34:1c:29:TYR:OH	45:1n:54:PRO:O	2.27	0.50
48:1q:86:GLU:O	48:1q:90:ILE:HG12	2.12	0.50
1:2A:1139:G:OP1	9:2N:101:HIS:ND1	2.45	0.50
1:2A:1889:A:N1	1:2A:2234:G:H1'	2.26	0.50
1:2A:2413:G:O6	63:2A:3915:HOH:O	2.20	0.50
5:2F:172:TRP:H	5:2F:172:TRP:CD1	2.30	0.50
6:2G:3:LEU:HD23	6:2G:3:LEU:H	1.77	0.50
7:2H:103:LEU:HB2	7:2H:123:PHE:CD2	2.46	0.50
8:2I:9:LEU:HB2	8:2I:12:LEU:HB3	1.92	0.50
19:2X:46:ALA:HB1	24:22:33:MET:HE1	1.94	0.50
32:2a:1187:G:N2	45:2n:60:SER:OG	2.40	0.50
35:2d:187:ARG:NH1	35:2d:190:ASP:OD2	2.44	0.50
36:2e:41:VAL:HG23	36:2e:67:VAL:HG22	1.94	0.50
40:2i:53:VAL:HG21	40:2i:92:TYR:CE1	2.47	0.50
53:2y:6:THR:HB	53:2y:40:ILE:HG12	1.94	0.50
1:1A:1187:G:H5"	17:1V:81:TYR:CE1	2.47	0.50
1:1A:1503:U:H2'	1:1A:1504:C:C6	2.47	0.50
1:1A:2506:U:C2	1:1A:2585:U:O4	2.65	0.50
7:1H:3:ARG:HE	7:1H:54:ARG:HH12	1.60	0.50
7:1H:83:TYR:CZ	7:1H:138:LYS:HD2	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:1Q:12:GLN:HG3	12:1Q:73:PRO:HD2	1.93	0.50
25:13:44:ARG:O	25:13:48:GLU:HG3	2.11	0.50
32:1a:950:U:H2'	32:1a:951:G:H8	1.76	0.50
38:1g:106:GLN:O	38:1g:110:GLN:HG2	2.12	0.50
42:1k:84:VAL:HG11	42:1k:91:ARG:HD2	1.94	0.50
1:2A:666:G:N7	63:2A:4091:HOH:O	2.34	0.50
1:2A:2336:A:H61	22:20:43:THR:CG2	2.25	0.50
2:2B:52:A:N6	14:2S:33:LYS:HG2	2.27	0.50
5:2F:122:LYS:HD2	5:2F:191:ARG:HD2	1.94	0.50
19:2X:60:ARG:HH22	29:27:47:ARG:NH1	2.10	0.50
32:2a:114:U:H2'	32:2a:115:G:C8	2.47	0.50
32:2a:1245:A:H2'	32:2a:1246:C:O4'	2.11	0.50
45:2n:26:ARG:HD3	45:2n:43:CYS:HB3	1.93	0.50
50:2s:52:TYR:HA	50:2s:56:GLN:O	2.12	0.50
1:1A:414:C:H2'	1:1A:415:A:H8	1.74	0.49
1:1A:1466:G:O2'	1:1A:1546:C:O2'	2.09	0.49
1:1A:2771:C:H2'	1:1A:2772:C:C6	2.46	0.49
1:1A:2791:C:H5'	1:1A:2893:G:N2	2.27	0.49
27:15:5:PRO:O	63:15:201:HOH:O	2.19	0.49
32:1a:626:U:H2'	32:1a:627:G:C8	2.47	0.49
37:1f:62:TRP:CD1	49:1r:35:ARG:HE	2.29	0.49
1:2A:223:A:N1	1:2A:407:G:O2'	2.35	0.49
1:2A:1190:G:OP1	11:2P:30:THR:OG1	2.18	0.49
1:2A:2193:G:H2'	1:2A:2194:G:H8	1.77	0.49
1:2A:2674:G:H5'	10:2O:26:LYS:HD2	1.94	0.49
3:2D:142:VAL:HG23	3:2D:193:VAL:HA	1.93	0.49
4:2E:48:GLN:NE2	4:2E:78:LEU:HD13	2.26	0.49
10:2O:86:ILE:HG22	10:2O:94:ARG:HG3	1.93	0.49
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	1.92	0.49
11:2P:59:LEU:HD11	30:28:10:ALA:HB2	1.94	0.49
45:2n:4:LYS:HA	45:2n:7:ILE:HG23	1.93	0.49
1:1A:1094:U:H1'	1:1A:1097:U:C5	2.47	0.49
1:1A:1175:U:O3'	1:1A:1176:G:H4'	2.12	0.49
21:1Z:70:LEU:HD11	21:1Z:98:MET:HE3	1.93	0.49
32:1a:44:G:N7	63:1a:1976:HOH:O	2.35	0.49
32:1a:45:U:H2'	32:1a:46:G:C8	2.47	0.49
32:1a:412:A:OP2	35:1d:35:ARG:NH2	2.44	0.49
32:1a:974:A:H8	32:1a:974:A:OP1	1.95	0.49
32:1a:1353:G:OP1	52:1u:10:ARG:NH1	2.45	0.49
34:1c:88:ARG:HA	34:1c:91:LEU:HB3	1.94	0.49
1:2A:272(H):C:H42	1:2A:363(B):G:H1	1.58	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:667:U:O2	30:28:2:PRO:HD2	2.13	0.49
1:2A:1574:C:H2'	1:2A:1575:C:C6	2.46	0.49
1:2A:1815:A:P	3:2D:54:ARG:HH22	2.35	0.49
1:2A:2895:U:H2'	1:2A:2896:C:O4'	2.13	0.49
14:2S:25:ARG:HD3	14:2S:42:ASP:OD2	2.11	0.49
21:2Z:130:PRO:C	21:2Z:132:ASN:H	2.19	0.49
24:22:66:GLU:O	24:22:70:GLN:NE2	2.45	0.49
32:2a:308:C:H2'	32:2a:309:G:C8	2.47	0.49
32:2a:1054:C:H4'	32:2a:1055:A:O5'	2.12	0.49
32:2a:1126:U:O4'	32:2a:1281:U:H1'	2.12	0.49
36:2e:84:PHE:N	36:2e:87:SER:O	2.42	0.49
44:2m:91:ARG:HD2	44:2m:96:LEU:HB2	1.94	0.49
1:1A:620:G:O2'	63:1A:8521:HOH:O	2.06	0.49
1:1A:904:C:H2'	1:1A:905:U:C6	2.47	0.49
1:1A:1053:C:N3	1:1A:1106:G:O6	2.45	0.49
1:1A:2126:A:H4'	1:1A:2127:G:O5'	2.13	0.49
1:1A:2206:G:H5"	1:1A:2207:G:C5	2.47	0.49
5:1F:172:TRP:CD1	5:1F:172:TRP:H	2.30	0.49
32:1a:115:G:H4'	32:1a:116:A:O5'	2.12	0.49
32:1a:1237:C:H3'	32:1a:1336:C:H41	1.78	0.49
33:1b:16:HIS:CG	33:1b:17:PHE:N	2.79	0.49
39:1h:83:ILE:HB	39:1h:137:VAL:HG13	1.93	0.49
1:2A:15:G:OP2	63:2A:3914:HOH:O	2.20	0.49
1:2A:335:C:H5"	20:2Y:73:ARG:NH2	2.27	0.49
1:2A:861:A:N3	2:2B:79:C:O2'	2.40	0.49
5:2F:164:ARG:O	5:2F:168:ARG:HG3	2.12	0.49
7:2H:20:ALA:HB3	7:2H:23:ARG:HB2	1.93	0.49
8:2I:93:THR:H	8:2I:96:ASP:HB2	1.77	0.49
26:24:16:CYS:SG	26:24:17:GLY:N	2.86	0.49
32:2a:1126:U:C4	41:2j:71:LEU:HD12	2.47	0.49
34:2c:91:LEU:HD22	34:2c:101:LEU:HD22	1.95	0.49
32:1a:103:C:P	51:1t:17:ARG:HH21	2.35	0.49
32:1a:646:U:H2'	32:1a:647:C:C6	2.46	0.49
37:1f:76:ALA:HA	37:1f:79:LEU:HB2	1.95	0.49
41:1j:37:PRO:HA	41:1j:72:VAL:HG12	1.95	0.49
1:2A:39:C:O2	5:2F:46:ARG:NH2	2.45	0.49
1:2A:581:C:H2'	1:2A:582:G:H8	1.77	0.49
1:2A:1093:G:N2	1:2A:1099:G:O6	2.44	0.49
1:2A:1198:U:H2'	1:2A:1199:U:C6	2.48	0.49
1:2A:1783:A:H5'	1:2A:2608:G:H4'	1.95	0.49
1:2A:1857:G:O6	63:2A:3909:HOH:O	2.19	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1930:G:N2	1:2A:1968:G:H2'	2.27	0.49
1:2A:1990:C:N4	63:2A:4200:HOH:O	2.41	0.49
1:2A:1991:U:H2'	1:2A:1992:G:H5"	1.94	0.49
1:2A:2075:U:OP1	3:2D:244:ARG:NH2	2.46	0.49
11:2P:84:ASN:OD1	11:2P:117:GLU:HB3	2.13	0.49
32:2a:427:U:OP1	35:2d:13:ARG:NH2	2.45	0.49
32:2a:1030(A):G:H2'	32:2a:1030(B):C:H5"	1.94	0.49
32:2a:1179:A:H2'	32:2a:1180:A:O4'	2.11	0.49
32:2a:1266:G:N2	32:2a:1269:A:OP2	2.39	0.49
32:2a:1314:C:H2'	32:2a:1315:U:C6	2.47	0.49
34:2c:8:ILE:HD11	34:2c:183:ASP:HA	1.94	0.49
49:2r:25:THR:HG23	49:2r:26:LEU:HD12	1.93	0.49
49:2r:73:ALA:HB1	49:2r:78:LEU:HB2	1.94	0.49
1:1A:1919:A:O2'	32:1a:1517:G:N3	2.46	0.49
2:1B:82:G:OP2	63:1B:303:HOH:O	2.19	0.49
59:1B:231:ARG:N	63:1B:323:HOH:O	2.44	0.49
16:1U:29:SER:C	16:1U:30:LYS:HD2	2.38	0.49
21:1Z:7:ALA:O	21:1Z:62:PRO:HD3	2.13	0.49
32:1a:1122:U:N3	32:1a:1123:A:N7	2.60	0.49
38:1g:48:LYS:O	38:1g:52:GLU:HG2	2.13	0.49
1:2A:2887:U:H2'	1:2A:2888:C:O4'	2.12	0.49
9:2N:11:PRO:HG3	9:2N:119:ARG:HH12	1.78	0.49
32:2a:112:G:H4'	32:2a:389:A:H4'	1.95	0.49
32:2a:224:C:H2'	32:2a:225:C:H6	1.77	0.49
32:2a:336:C:H2'	32:2a:337:C:C6	2.48	0.49
32:2a:939:G:H1	32:2a:1344:C:N4	2.08	0.49
32:2a:1030(A):G:H21	32:2a:1030(C):G:H3'	1.78	0.49
32:2a:1097:C:H1'	32:2a:1169:A:H2	1.78	0.49
32:2a:1255:G:N1	32:2a:1279:A:N7	2.61	0.49
38:2g:51:GLN:O	38:2g:55:GLY:HA2	2.13	0.49
40:2i:33:PHE:HZ	40:2i:46:ALA:HB3	1.78	0.49
41:2j:81:THR:HA	41:2j:84:GLN:NE2	2.27	0.49
1:1A:620:G:N3	1:1A:620:G:H5'	2.28	0.49
3:1D:242:ARG:HD2	3:1D:246:PRO:HG3	1.94	0.49
4:1E:178:GLU:H	4:1E:178:GLU:CD	2.20	0.49
6:1G:66:GLN:HB3	6:1G:92:VAL:HG21	1.94	0.49
18:1W:75:TYR:CZ	18:1W:104:THR:HG21	2.48	0.49
23:11:35:THR:OG1	23:11:35:THR:O	2.30	0.49
32:1a:958:A:C2	50:1s:55:LYS:HB2	2.48	0.49
32:1a:1036:G:H2'	32:1a:1036:G:N3	2.28	0.49
32:1a:1101:A:OP2	33:1b:96:ARG:NH1	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1367:C:H5'	41:1j:60:ARG:NH1	2.27	0.49
33:1b:18:GLY:HA3	33:1b:42:ILE:HG13	1.95	0.49
47:1p:17:TYR:O	47:1p:39:TYR:N	2.46	0.49
1:2A:1087:G:H2'	1:2A:1088:A:H5'	1.94	0.49
1:2A:1255:U:O5'	1:2A:1256:G:H5"	2.12	0.49
1:2A:2328:A:H2'	1:2A:2329:G:C8	2.47	0.49
1:2A:2336:A:H61	22:20:43:THR:HG21	1.78	0.49
1:2A:2506:U:O2'	54:2w:76:PPU:H4'	2.12	0.49
3:2D:213:ARG:NH2	63:2D:410:HOH:O	2.36	0.49
26:24:64:GLY:C	26:24:66:SER:N	2.70	0.49
32:2a:1330:U:H2'	32:2a:1331:G:H5'	1.94	0.49
36:2e:145:LYS:HA	36:2e:148:VAL:HB	1.94	0.49
43:2l:54:LYS:NZ	63:2l:202:HOH:O	2.34	0.49
1:1A:574:C:N3	4:1E:145:LYS:NZ	2.52	0.49
1:1A:2377:A:H2'	1:1A:2378:A:C8	2.47	0.49
9:1N:12:ARG:NH1	9:1N:50:ASP:OD2	2.46	0.49
21:1Z:69:THR:HG22	21:1Z:90:VAL:HA	1.95	0.49
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.48	0.49
32:1a:1492:A:H4'	32:1a:1493:A:C6	2.47	0.49
33:1b:51:LEU:HD23	33:1b:201:ILE:HD12	1.93	0.49
34:1c:33:LEU:O	34:1c:37:GLN:HG2	2.12	0.49
40:1i:34:ASN:H	40:1i:34:ASN:HD22	1.59	0.49
44:1m:49:THR:HG22	44:1m:51:ALA:H	1.77	0.49
1:2A:84:A:H5'	20:2Y:8:LYS:HB3	1.93	0.49
1:2A:307:G:N1	1:2A:310:A:OP2	2.44	0.49
1:2A:695:G:OP1	1:2A:1380:G:O2'	2.27	0.49
1:2A:854:G:H2'	1:2A:855:G:H8	1.78	0.49
1:2A:1098:A:H3'	1:2A:1099:G:C8	2.48	0.49
1:2A:1204:A:H8	1:2A:1204:A:OP1	1.95	0.49
1:2A:2334:G:H5'	14:2S:9:ARG:HG2	1.95	0.49
1:2A:2361:A:OP2	30:28:26:LYS:NZ	2.46	0.49
1:2A:2815:C:H5'	27:25:29:THR:HG21	1.95	0.49
9:2N:97:ARG:HA	9:2N:100:GLU:HB2	1.94	0.49
23:21:88:LYS:O	23:21:92:LYS:HG3	2.13	0.49
32:2a:59:A:H5"	32:2a:387:U:H5"	1.94	0.49
32:2a:110:C:H2'	32:2a:111:G:O4'	2.12	0.49
32:2a:524:G:H2'	32:2a:525:C:C6	2.48	0.49
32:2a:848:C:O5'	32:2a:848:C:H6	1.96	0.49
32:2a:1512:U:H2'	32:2a:1513:A:C8	2.47	0.49
33:2b:179:LYS:HA	39:2h:72:PRO:HG3	1.93	0.49
43:2l:58:VAL:HG12	43:2l:60:LEU:HD12	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:40:C:H2'	1:1A:41:C:C6	2.47	0.49
1:1A:743:G:OP1	4:1E:130:GLY:HA2	2.13	0.49
3:1D:148:GLU:OE1	3:1D:151:LYS:NZ	2.38	0.49
12:1Q:109:VAL:HG22	12:1Q:113:GLN:CD	2.37	0.49
19:1X:11:PRO:HG2	19:1X:13:LEU:HD21	1.95	0.49
32:1a:6:G:H4'	32:1a:298:A:H4'	1.95	0.49
1:2A:1069:A:H5'	1:2A:1096:A:H5'	1.95	0.49
6:2G:5:VAL:HG22	6:2G:8:LYS:HB3	1.94	0.49
26:24:13:ARG:HH12	26:24:23:GLU:HG2	1.76	0.49
31:29:19:ARG:HG2	31:29:20:HIS:ND1	2.26	0.49
32:2a:737:A:H2'	32:2a:738:C:C6	2.48	0.49
32:2a:971:G:N2	32:2a:1363(A):A:OP2	2.38	0.49
32:2a:1100:C:H2'	32:2a:1102:A:O5'	2.13	0.49
32:2a:1333:A:H2'	32:2a:1334:G:O4'	2.12	0.49
34:2c:122:GLU:O	34:2c:126:ARG:NH1	2.44	0.49
40:2i:99:LEU:HB3	40:2i:101:PHE:CD1	2.48	0.49
50:2s:41:VAL:HG12	50:2s:44:MET:HG3	1.94	0.49
1:1A:2006:C:OP2	63:1A:8615:HOH:O	2.20	0.49
1:1A:2137:C:C2	1:1A:2154:G:N2	2.79	0.49
11:1P:119:GLU:HG3	25:23:3:ARG:HH22	1.78	0.49
32:1a:736:C:H2'	32:1a:737:A:H8	1.78	0.49
32:1a:812:C:OP1	32:1a:903:G:H1'	2.13	0.49
32:1a:938:A:C5	32:1a:939:G:C8	3.01	0.49
37:1f:78:GLU:O	37:1f:81:ILE:HG22	2.12	0.49
1:2A:140:G:H22	1:2A:1596:A:H4'	1.76	0.49
1:2A:1225:G:H4'	17:2V:84:LYS:HG2	1.94	0.49
1:2A:1860:G:N2	1:2A:1883:G:H1'	2.27	0.49
1:2A:1915:5MU:H2'	1:2A:1916:A:O4'	2.12	0.49
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.12	0.49
1:2A:2074:U:H2'	1:2A:2075:U:C6	2.47	0.49
1:2A:2564:A:C2	1:2A:2647:U:H4'	2.47	0.49
1:2A:2784:C:H2'	1:2A:2785:C:C6	2.48	0.49
14:2S:11:LYS:HE2	14:2S:91:PRO:HD3	1.94	0.49
32:2a:1068:G:N2	32:2a:1191:A:H1'	2.28	0.49
32:2a:1465:C:H2'	32:2a:1466:C:O4'	2.12	0.49
44:2m:81:LEU:HD13	44:2m:88:ARG:HD3	1.94	0.49
47:2p:18:ARG:HG2	47:2p:35:LYS:HE3	1.95	0.49
47:2p:75:ARG:HG3	47:2p:80:PHE:HD2	1.77	0.49
1:1A:813:U:H2'	1:1A:814:C:C6	2.48	0.49
1:1A:884:C:H2'	1:1A:885:C:O4'	2.13	0.49
1:1A:885:C:H2'	1:1A:886:C:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1175:U:O2'	1:1A:1176:G:O5'	2.28	0.49
1:1A:1297:C:OP1	1:1A:2710:C:H4'	2.13	0.49
1:1A:1466:G:H2'	1:1A:1547:C:H41	1.77	0.49
1:1A:1802:A:N1	1:1A:1822:G:H1'	2.28	0.49
1:1A:2346:A:N1	63:1A:8865:HOH:O	2.35	0.49
1:1A:2364:C:H2'	1:1A:2365:G:O4'	2.12	0.49
1:1A:2789:C:O3'	1:1A:2790:A:H4'	2.13	0.49
6:1G:112:PRO:HG3	26:14:43:TYR:CE2	2.48	0.49
10:1O:19:ILE:HB	10:1O:41:ALA:HB1	1.94	0.49
32:1a:405:U:O4	35:1d:2:GLY:N	2.46	0.49
32:1a:1201:A:H4'	32:1a:1202:G:O5'	2.13	0.49
33:1b:73:THR:OG1	33:1b:169:LYS:NZ	2.44	0.49
33:1b:107:THR:O	33:1b:110:GLN:HB3	2.13	0.49
34:1c:6:HIS:HB3	45:1n:49:HIS:ND1	2.27	0.49
39:1h:20:TYR:HA	39:1h:65:TYR:CZ	2.47	0.49
52:1u:3:LYS:HB3	52:1u:14:TRP:CD1	2.48	0.49
1:2A:1257:C:N4	63:2A:4298:HOH:O	2.46	0.49
1:2A:2619:C:OP1	4:2E:152:LYS:NZ	2.40	0.49
6:2G:139:LEU:HA	6:2G:144:ILE:HG23	1.95	0.49
10:2O:64:ARG:HD2	10:2O:81:ASP:OD1	2.13	0.49
32:2a:335:C:O2'	32:2a:1433:A:N3	2.39	0.49
32:2a:501:C:H2'	32:2a:502:G:C8	2.48	0.49
32:2a:1151:A:O2'	32:2a:1152:A:H8	1.96	0.49
34:2c:10:PHE:CE2	34:2c:178:LEU:HD11	2.48	0.49
1:1A:1254:A:N1	63:1A:8863:HOH:O	2.35	0.48
1:1A:1406:U:H2'	1:1A:1407:C:C6	2.47	0.48
1:1A:1803:A:H4'	3:1D:259:THR:HG23	1.94	0.48
1:1A:2712:U:H2'	1:1A:2714:G:H5"	1.95	0.48
4:1E:7:VAL:HG23	4:1E:51:PHE:HE2	1.78	0.48
5:1F:164:ARG:HE	59:1F:317:ARG:HH12	1.58	0.48
32:1a:376:G:O3'	47:1p:5:ARG:NH1	2.41	0.48
32:1a:413:G:H21	32:1a:428:G:H1'	1.78	0.48
32:1a:937:A:N6	32:1a:1345:U:O4	2.37	0.48
32:1a:1126:U:C4	41:1j:71:LEU:HD22	2.48	0.48
33:1b:72:GLY:HA2	33:1b:165:VAL:HG12	1.95	0.48
33:1b:175:ARG:O	33:1b:179:LYS:HG3	2.13	0.48
34:1c:32:LEU:HD22	34:1c:59:ARG:NH1	2.28	0.48
37:1f:70:ASP:OD1	37:1f:70:ASP:N	2.45	0.48
38:1g:46:ALA:HB1	38:1g:121:ALA:HB2	1.94	0.48
45:1n:23:ARG:NH1	45:1n:30:ALA:HB2	2.28	0.48
1:2A:208:C:H2'	1:2A:209:C:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:744:G:OP1	4:2E:132:HIS:ND1	2.46	0.48
1:2A:1025:G:O2'	63:2A:3869:HOH:O	2.19	0.48
1:2A:1449:A:N3	1:2A:1529:G:H1'	2.28	0.48
1:2A:2352:A:N6	1:2A:2365:G:O2'	2.46	0.48
1:2A:2495:G:OP1	12:2Q:82:ARG:NE	2.33	0.48
5:2F:156:LEU:HD21	5:2F:163:VAL:HG12	1.95	0.48
32:2a:7:G:H5'	32:2a:298:A:O4'	2.12	0.48
32:2a:826:C:H4'	39:2h:12:ARG:HG2	1.95	0.48
32:2a:1023:G:H3'	32:2a:1024:G:H8	1.78	0.48
32:2a:1024:G:H2'	32:2a:1025:U:H5"	1.95	0.48
32:2a:1181:G:O2'	32:2a:1182:G:N7	2.46	0.48
32:2a:1479:C:H2'	32:2a:1480:G:H8	1.78	0.48
33:2b:48:MET:HA	33:2b:51:LEU:HD12	1.94	0.48
38:2g:46:ALA:HA	38:2g:49:ILE:HD12	1.95	0.48
1:1A:655:A:H2'	1:1A:656:G:O4'	2.12	0.48
1:1A:675:A:C8	1:1A:804:A:C6	3.01	0.48
1:1A:740:U:H2'	1:1A:741:G:C8	2.48	0.48
1:1A:1524:G:H2'	1:1A:1525:G:O4'	2.13	0.48
1:1A:2106:G:C4	1:1A:2107:C:H1'	2.48	0.48
1:1A:2822:G:O2'	1:1A:2824:C:OP2	2.25	0.48
11:1P:138:LEU:HD23	11:1P:145:PRO:HB3	1.95	0.48
14:1S:27:SER:HA	14:1S:88:ASP:HB3	1.95	0.48
19:1X:1:MET:HE1	24:12:26:ARG:NH2	2.27	0.48
21:1Z:92:SER:O	21:1Z:130:PRO:HG2	2.14	0.48
26:14:15:ILE:HB	26:14:32:TYR:CD1	2.48	0.48
39:1h:86:ILE:HG12	39:1h:135:CYS:HA	1.94	0.48
50:1s:39:THR:HG23	50:1s:70:LYS:HE2	1.94	0.48
1:2A:1053:C:H2'	1:2A:1054:A:C8	2.42	0.48
1:2A:1155:A:H5"	16:2U:55:ARG:HD3	1.95	0.48
1:2A:1942:5MC:OP2	1:2A:1943:U:O2'	2.27	0.48
1:2A:2595:G:N2	1:2A:2598:A:OP2	2.43	0.48
12:2Q:75:THR:HG21	12:2Q:87:LYS:HE3	1.95	0.48
18:2W:80:PRO:O	18:2W:100:THR:HB	2.13	0.48
32:2a:329:A:O2'	32:2a:332:G:N7	2.46	0.48
32:2a:502:G:H2'	32:2a:503:C:O4'	2.14	0.48
32:2a:811:C:H4'	32:2a:901:A:H61	1.77	0.48
33:2b:16:HIS:HB2	33:2b:210:SER:HB3	1.95	0.48
33:2b:47:THR:O	33:2b:51:LEU:N	2.46	0.48
35:2d:12:CYS:HB2	61:2d:501:SF4:S2	2.52	0.48
35:2d:122:ARG:HH12	35:2d:134:ASP:CG	2.21	0.48
37:2f:15:ASP:O	37:2f:19:LEU:HB2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:2j:46:ARG:HG2	41:2j:64:GLU:HB3	1.95	0.48
53:2y:40:ILE:HB	53:2y:51:ASP:HB2	1.95	0.48
1:1A:271(P):C:O3'	8:1I:42:SER:HB2	2.13	0.48
1:1A:897:C:H2'	1:1A:898:C:C6	2.48	0.48
1:1A:1063:G:H2'	1:1A:1063:G:N3	2.27	0.48
1:1A:1279:G:C2'	1:1A:1280:G:H5'	2.43	0.48
1:1A:1453:U:OP1	13:1R:77:ARG:NE	2.45	0.48
19:1X:72:LYS:NZ	19:1X:75:ASP:OD1	2.40	0.48
32:1a:7:G:H21	36:1e:121:LYS:HG2	1.78	0.48
32:1a:320:C:H2'	32:1a:321:A:C8	2.48	0.48
32:1a:1003:G:N2	32:1a:1004:A:N3	2.61	0.48
32:1a:1198:G:H2'	32:1a:1199:U:C6	2.49	0.48
38:1g:100:ALA:O	38:1g:104:LEU:HD23	2.12	0.48
44:1m:78:ILE:HG22	44:1m:82:MET:HE2	1.95	0.48
49:1r:24:ALA:C	49:1r:26:LEU:H	2.20	0.48
1:2A:212:G:H2'	1:2A:213:A:O4'	2.13	0.48
1:2A:818:G:O6	63:2A:3880:HOH:O	2.16	0.48
1:2A:862:G:H2'	1:2A:863:A:O4'	2.13	0.48
1:2A:2115:G:H3'	1:2A:2116:G:H5'	1.94	0.48
1:2A:2784:C:H2'	1:2A:2785:C:H6	1.78	0.48
7:2H:20:ALA:HB1	7:2H:21:PRO:HD2	1.94	0.48
10:2O:64:ARG:HB2	10:2O:79:PHE:CD2	2.48	0.48
19:2X:68:ARG:HD3	19:2X:69:TYR:CZ	2.48	0.48
23:21:49:VAL:HG12	23:21:51:VAL:HG23	1.95	0.48
32:2a:443:C:H2'	32:2a:444:C:C6	2.49	0.48
32:2a:1015:A:H2'	32:2a:1016:A:C8	2.48	0.48
34:2c:57:ILE:HG12	34:2c:66:VAL:HG13	1.95	0.48
35:2d:8:VAL:HG13	35:2d:21:LEU:HD12	1.96	0.48
43:2l:60:LEU:HD21	43:2l:85:ILE:HD11	1.95	0.48
44:2m:24:GLY:O	44:2m:29:ARG:NH1	2.42	0.48
50:2s:70:LYS:HB2	50:2s:73:GLU:HG3	1.94	0.48
53:2y:54:ILE:O	53:2y:61:LEU:N	2.43	0.48
1:1A:1697:G:OP2	1:1A:1698:A:O2'	2.22	0.48
1:1A:2329:G:N7	63:1A:8858:HOH:O	2.35	0.48
1:1A:2330:G:O2'	22:10:41:ARG:O	2.30	0.48
1:1A:2336:A:H61	22:10:43:THR:CG2	2.26	0.48
7:1H:3:ARG:NH1	7:1H:5:GLY:H	2.11	0.48
32:1a:1349:A:H62	32:1a:1373:G:H21	1.61	0.48
35:1d:59:ARG:HA	35:1d:59:ARG:NH1	2.29	0.48
39:1h:69:ARG:NH2	39:1h:73:ASP:HB3	2.29	0.48
44:1m:15:VAL:O	44:1m:19:LEU:HG	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:1r:54:ARG:HG3	49:1r:55:ARG:HG2	1.94	0.48
1:2A:116:C:H2'	1:2A:117:G:O4'	2.13	0.48
1:2A:614:U:H2'	1:2A:614(A):U:O4'	2.13	0.48
4:2E:1:MET:N	4:2E:83:ASP:O	2.34	0.48
10:2O:107:ARG:CZ	15:2T:36:GLU:HG2	2.44	0.48
13:2R:97:VAL:HG22	13:2R:114:VAL:HG13	1.95	0.48
21:2Z:79:ARG:HD2	21:2Z:80:ARG:NH2	2.27	0.48
32:2a:262:A:H2'	32:2a:263:A:C8	2.47	0.48
33:2b:24:TRP:HB3	33:2b:40:HIS:CE1	2.48	0.48
1:1A:335:C:H4'	20:1Y:73:ARG:HD2	1.94	0.48
1:1A:645:C:O2	1:1A:645:C:H2'	2.14	0.48
1:1A:699:A:H2'	1:1A:700:G:O4'	2.13	0.48
1:1A:1199:U:H2'	1:1A:1200:C:C6	2.49	0.48
1:1A:1647:G:OP1	63:1A:8515:HOH:O	2.20	0.48
3:1D:70:TRP:HB3	3:1D:190:TYR:CE2	2.48	0.48
4:1E:9:VAL:HG13	4:1E:25:VAL:O	2.13	0.48
18:1W:49:LYS:HB3	63:1W:313:HOH:O	2.13	0.48
32:1a:230:G:H2'	32:1a:231:G:O4'	2.13	0.48
32:1a:744:C:O2'	32:1a:851:G:N2	2.46	0.48
32:1a:811:C:O2'	32:1a:901:A:N1	2.42	0.48
32:1a:815:A:N7	32:1a:1509:C:O2'	2.41	0.48
32:1a:932:C:H4'	38:1g:4:ARG:NH2	2.29	0.48
32:1a:976:G:H5'	32:1a:1358:U:O2'	2.13	0.48
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.48	0.48
32:1a:1296:C:OP1	44:1m:44:ARG:NH2	2.46	0.48
33:1b:24:TRP:CZ3	33:1b:26:PRO:HA	2.47	0.48
35:1d:105:VAL:HG21	35:1d:126:ILE:HG13	1.95	0.48
37:1f:5:GLU:OE1	49:1r:34:TYR:OH	2.25	0.48
44:1m:59:TYR:O	44:1m:63:THR:OG1	2.28	0.48
47:1p:44:THR:OG1	47:1p:45:THR:N	2.46	0.48
1:2A:55:G:O2'	1:2A:127:A:N1	2.44	0.48
1:2A:657:U:H2'	1:2A:658:C:C6	2.48	0.48
1:2A:871:U:H2'	1:2A:872:A:C8	2.49	0.48
1:2A:1062:G:N7	1:2A:1070:A:H1'	2.27	0.48
1:2A:1115:G:H2'	1:2A:1116:C:C6	2.49	0.48
1:2A:1504:C:H2'	1:2A:1505:C:C6	2.48	0.48
1:2A:1849:G:H2'	1:2A:1850:G:H8	1.78	0.48
1:2A:2262:U:H4'	1:2A:2328:A:C2	2.48	0.48
32:2a:766:A:H2'	32:2a:767:A:O4'	2.13	0.48
32:2a:1142:G:H3'	32:2a:1143:G:H8	1.79	0.48
32:2a:1203:C:H2'	32:2a:1204:A:C8	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:84:ILE:HB	50:2s:66:MET:HE2	1.95	0.48
1:1A:743:G:N7	63:1A:8870:HOH:O	2.35	0.48
1:1A:1071:G:N3	1:1A:1089:G:O2'	2.33	0.48
1:1A:2583:G:OP1	63:1A:8614:HOH:O	2.20	0.48
2:1B:41:U:C4	6:1G:70:VAL:HB	2.48	0.48
8:1I:88:ILE:HD11	8:1I:144:VAL:HG11	1.94	0.48
9:1N:39:ARG:NH1	63:1N:302:HOH:O	2.32	0.48
32:1a:17:U:H2'	32:1a:18:C:C6	2.49	0.48
32:1a:551:U:H2'	32:1a:552:U:C6	2.48	0.48
32:1a:1277:C:H1'	32:1a:1282:C:O2	2.13	0.48
32:1a:1410:G:H2'	32:1a:1411:C:C6	2.47	0.48
32:1a:1441:G:H4'	32:1a:1442:G:C4	2.49	0.48
34:1c:52:LEU:HA	34:1c:70:VAL:HG23	1.95	0.48
35:1d:148:VAL:HB	35:1d:181:MET:HB3	1.95	0.48
37:1f:94:GLN:HG3	49:1r:32:ARG:HD3	1.95	0.48
52:1u:5:ASP:O	52:1u:11:GLY:HA3	2.14	0.48
1:2A:310:A:H1'	1:2A:311:A:H2'	1.96	0.48
1:2A:985:C:H2'	1:2A:986:C:C6	2.49	0.48
1:2A:2267:A:H5"	1:2A:2268:A:H5'	1.94	0.48
5:2F:179:GLU:CD	5:2F:179:GLU:H	2.21	0.48
8:2I:114:LEU:HD11	8:2I:128:LEU:HB3	1.96	0.48
32:2a:1244:C:H2'	32:2a:1245:A:H8	1.79	0.48
42:2k:34:ASP:OD2	42:2k:38:ASN:HB2	2.14	0.48
49:2r:22:VAL:HG23	49:2r:55:ARG:O	2.14	0.48
1:1A:1641:A:OP2	63:1A:8593:HOH:O	2.18	0.48
1:1A:1815:A:P	3:1D:54:ARG:HH22	2.37	0.48
1:1A:2022:U:O2'	1:1A:2617:C:H5'	2.14	0.48
3:1D:196:VAL:O	63:1D:406:HOH:O	2.20	0.48
15:1T:125:ARG:NH1	32:1a:1443:G:H5'	2.28	0.48
32:1a:68:G:H1	32:1a:101:A:H61	1.61	0.48
32:1a:262:A:H4'	51:1t:75:ASN:HB2	1.95	0.48
32:1a:609:A:N6	63:1a:1994:HOH:O	2.40	0.48
32:1a:743:U:H2'	32:1a:744:C:C6	2.49	0.48
32:1a:966:M2G:O2'	40:1i:127:LYS:O	2.31	0.48
32:1a:1074:G:O2'	32:1a:1101:A:N1	2.46	0.48
32:1a:1498:UR3:H4'	32:1a:1519:MA6:H2	1.96	0.48
33:1b:69:LEU:HD22	33:1b:159:PRO:HG3	1.95	0.48
36:1e:57:LYS:HG2	36:1e:61:TYR:CE2	2.49	0.48
46:1o:61:GLY:O	46:1o:65:ARG:HG3	2.14	0.48
51:1t:67:ALA:HB2	51:1t:77:ALA:HB2	1.94	0.48
1:2A:876:C:H2'	1:2A:877:U:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2116:G:H3'	1:2A:2117:A:C8	2.49	0.48
1:2A:2507:C:H5"	1:2A:2573:C:N4	2.28	0.48
7:2H:88:LEU:HD21	7:2H:165:ALA:HA	1.94	0.48
15:2T:6:LEU:O	15:2T:10:VAL:HG23	2.14	0.48
32:2a:985:C:H2'	32:2a:986:A:C8	2.49	0.48
44:2m:92:HIS:HE1	44:2m:98:VAL:HG11	1.78	0.48
45:2n:24:CYS:HB3	45:2n:29:ARG:H	1.79	0.48
48:2q:4:LYS:N	48:2q:61:GLU:HG2	2.29	0.48
1:1A:1056:G:H5"	1:1A:1057:A:O4'	2.14	0.48
1:1A:2031:A:H5'	63:1A:9480:HOH:O	2.14	0.48
1:1A:2887:U:H2'	1:1A:2888:C:C6	2.48	0.48
7:1H:154:PRO:HB3	7:1H:163:TYR:CE1	2.49	0.48
9:1N:33:LEU:HD12	9:1N:38:HIS:CE1	2.48	0.48
32:1a:1070:U:H2'	32:1a:1071:C:H6	1.79	0.48
32:1a:1457:G:H2'	32:1a:1458:G:H8	1.79	0.48
35:1d:119:GLN:HG2	35:1d:123:HIS:CD2	2.48	0.48
38:1g:65:ALA:O	38:1g:69:VAL:HG23	2.13	0.48
1:2A:879:G:H2'	1:2A:880:G:O4'	2.14	0.48
1:2A:1001:A:OP2	63:2A:3917:HOH:O	2.20	0.48
1:2A:1290:C:H2'	1:2A:1291:C:C6	2.48	0.48
1:2A:1771:C:OP1	63:2A:3921:HOH:O	2.20	0.48
1:2A:2611:U:C4	27:25:3:LYS:HG2	2.49	0.48
7:2H:103:LEU:O	7:2H:114:VAL:HA	2.14	0.48
32:2a:244:U:H4'	32:2a:245:C:H5"	1.94	0.48
32:2a:490:G:P	35:2d:132:ARG:HH22	2.37	0.48
32:2a:707:C:H2'	32:2a:708:C:C6	2.48	0.48
32:2a:1218:C:H2'	32:2a:1219:U:C6	2.48	0.48
32:2a:1349:A:H2'	32:2a:1350:A:H8	1.78	0.48
32:2a:1512:U:H2'	32:2a:1513:A:H8	1.78	0.48
33:2b:74:LYS:HD3	33:2b:76:GLN:NE2	2.29	0.48
35:2d:20:TYR:CD1	35:2d:26:CYS:HB3	2.48	0.48
36:2e:144:THR:O	36:2e:148:VAL:N	2.47	0.48
53:2y:52:ALA:HB1	53:2y:81:LEU:HD11	1.96	0.48
1:1A:142:A:OP2	63:1A:8617:HOH:O	2.20	0.48
1:1A:2129:C:N3	1:1A:2159:G:C6	2.82	0.48
1:1A:2233:U:H2'	1:1A:2234:G:C8	2.49	0.48
15:1T:59:THR:HG21	63:1T:317:HOH:O	2.13	0.48
17:1V:55:ALA:O	63:1V:303:HOH:O	2.20	0.48
26:14:54:GLY:C	26:14:56:VAL:HA	2.39	0.48
32:1a:601:C:H2'	32:1a:602:A:C8	2.47	0.48
32:1a:1027:C:N3	32:1a:1034:G:O6	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.49	0.48
33:1b:119:GLU:OE2	33:1b:153:ARG:NH1	2.39	0.48
38:1g:22:LEU:HD23	38:1g:62:PHE:CE2	2.49	0.48
38:1g:80:VAL:HB	38:1g:85:TYR:HD2	1.78	0.48
50:1s:32:LYS:HA	50:1s:50:ALA:HB3	1.96	0.48
63:2A:3873:HOH:O	23:21:20:ARG:NH1	2.45	0.48
5:2F:150:GLY:HA2	5:2F:172:TRP:CE3	2.48	0.48
6:2G:27:ASN:HB3	6:2G:30:GLU:HG3	1.95	0.48
7:2H:83:TYR:CE2	7:2H:138:LYS:HB2	2.49	0.48
21:2Z:145:GLU:O	21:2Z:174:VAL:HB	2.14	0.48
33:2b:74:LYS:O	33:2b:78:GLN:N	2.45	0.48
33:2b:81:VAL:HG23	33:2b:215:LEU:HD13	1.96	0.48
38:2g:113:GLU:CG	38:2g:119:ARG:HG2	2.42	0.48
53:2y:42:SER:HB2	53:2y:49:VAL:HB	1.96	0.48
53:2y:52:ALA:HB2	53:2y:77:LEU:HD21	1.96	0.48
1:1A:153:C:H2'	1:1A:154:G:C8	2.49	0.48
1:1A:288:C:H2'	1:1A:289:A:H8	1.78	0.48
1:1A:744:G:N3	63:1A:8864:HOH:O	2.35	0.48
6:1G:47:LYS:NZ	6:1G:80:PHE:O	2.36	0.48
7:1H:90:LYS:HD3	7:1H:159:GLU:HG2	1.94	0.48
15:1T:125:ARG:HH11	32:1a:1443:G:H5'	1.79	0.48
21:1Z:130:PRO:C	21:1Z:132:ASN:H	2.22	0.48
27:15:35:GLU:OE1	27:15:35:GLU:N	2.47	0.48
32:1a:60:A:H4'	32:1a:61:G:H5'	1.95	0.48
32:1a:935:A:N6	38:1g:3:ARG:HG3	2.28	0.48
40:1i:3:GLN:HE21	40:1i:20:ARG:NH2	2.12	0.48
44:1m:15:VAL:HG22	44:1m:43:THR:O	2.14	0.48
1:2A:200:U:O2	1:2A:386:G:N2	2.47	0.48
1:2A:656:G:H2'	1:2A:657:U:O4'	2.14	0.48
1:2A:746:A:O2'	1:2A:2611:U:O2'	2.27	0.48
1:2A:833:U:O2	11:2P:55:ARG:NH1	2.46	0.48
1:2A:1147:C:H2'	1:2A:1148:A:H8	1.79	0.48
1:2A:2017:U:OP1	63:2A:3920:HOH:O	2.20	0.48
9:2N:4:TYR:CD2	16:2U:100:VAL:HG11	2.48	0.48
21:2Z:45:ASP:O	21:2Z:49:ARG:HG2	2.14	0.48
24:22:16:LEU:HD23	24:22:20:GLU:HB3	1.95	0.48
25:23:7:LYS:NZ	25:23:32:GLN:O	2.44	0.48
31:29:2:LYS:HB2	31:29:34:GLN:HG2	1.96	0.48
32:2a:874:G:H2'	32:2a:875:C:H6	1.79	0.48
33:2b:91:PRO:HB3	33:2b:154:LEU:O	2.14	0.48
1:1A:1578:U:H2'	1:1A:1579:A:H5'	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2351:G:O6	63:1A:8616:HOH:O	2.20	0.47
1:1A:2691:C:O3'	1:1A:2871:C:H4'	2.14	0.47
23:11:95:LEU:O	23:11:98:LEU:HB2	2.14	0.47
32:1a:954:G:H5'	53:1y:17:ARG:CZ	2.44	0.47
32:1a:1202:G:O4'	45:1n:29:ARG:NE	2.42	0.47
32:1a:1425:U:H2'	32:1a:1426:C:C6	2.49	0.47
36:1e:137:GLU:HG3	36:1e:141:GLN:HE21	1.78	0.47
37:1f:65:VAL:HG21	37:1f:67:MET:HE2	1.96	0.47
48:1q:58:GLU:OE2	48:1q:75:ARG:NH2	2.47	0.47
1:2A:191:A:H2'	1:2A:192:C:C6	2.49	0.47
1:2A:483:A:OP2	1:2A:484:C:N4	2.42	0.47
1:2A:493:G:H2'	1:2A:494:G:O4'	2.13	0.47
2:2B:48:A:H4'	14:2S:95:HIS:CD2	2.49	0.47
7:2H:38:SER:C	7:2H:40:GLU:H	2.22	0.47
12:2Q:57:HIS:HD2	12:2Q:117:ALA:HB2	1.77	0.47
29:27:48:LYS:HE3	29:27:48:LYS:HB2	1.50	0.47
32:2a:288:A:H2'	32:2a:289:G:H4'	1.96	0.47
32:2a:397:A:H3'	32:2a:397:A:N3	2.29	0.47
32:2a:1333:A:H3'	32:2a:1334:G:H8	1.79	0.47
33:2b:114:ARG:HG3	33:2b:118:LEU:HD12	1.96	0.47
33:2b:162:ILE:HG13	33:2b:184:VAL:HA	1.95	0.47
33:2b:219:VAL:HA	33:2b:222:ILE:HG12	1.94	0.47
35:2d:103:ASN:OD1	35:2d:114:ARG:NE	2.36	0.47
40:2i:12:GLU:O	40:2i:68:GLY:N	2.47	0.47
44:2m:82:MET:HB3	44:2m:93:ARG:HD3	1.95	0.47
1:1A:526:A:O2'	1:1A:2043:C:O2	2.25	0.47
1:1A:958:U:O2	2:1B:90:A:O2'	2.30	0.47
1:1A:1301:A:C8	1:1A:1303:G:C8	3.01	0.47
1:1A:1423:G:H2'	1:1A:1424:G:H8	1.79	0.47
5:1F:170:LEU:HD13	5:1F:172:TRP:CZ2	2.49	0.47
8:1I:77:LEU:HD22	8:1I:101:LEU:HG	1.95	0.47
12:1Q:85:LYS:HB2	22:10:7:LEU:HD12	1.96	0.47
19:1X:61:GLY:HA3	19:1X:73:ARG:O	2.14	0.47
29:17:21:ARG:NH1	63:17:202:HOH:O	2.46	0.47
32:1a:102:G:O2'	32:1a:151:A:N3	2.40	0.47
32:1a:107:G:H2'	32:1a:108:G:O4'	2.14	0.47
32:1a:747:C:OP2	32:1a:748:C:N4	2.39	0.47
34:1c:22:TRP:CH2	45:1n:54:PRO:HG2	2.49	0.47
39:1h:69:ARG:HH21	39:1h:73:ASP:HB3	1.78	0.47
1:2A:320:A:H4'	1:2A:322:A:C8	2.49	0.47
1:2A:2298:A:N6	1:2A:2318:G:C8	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2544:G:H2'	1:2A:2545:G:O4'	2.13	0.47
15:2T:60:THR:HG22	15:2T:77:PRO:HA	1.95	0.47
21:2Z:146:ILE:H	21:2Z:146:ILE:HD12	1.79	0.47
32:2a:163:C:H2'	32:2a:164:U:O4'	2.13	0.47
38:2g:81:GLY:C	38:2g:83:ALA:H	2.21	0.47
42:2k:20:TYR:CZ	42:2k:83:ILE:HD12	2.49	0.47
50:2s:9:VAL:O	50:2s:11:VAL:N	2.42	0.47
53:2y:65:GLY:H	53:2y:77:LEU:HD13	1.79	0.47
1:1A:875:G:H2'	1:1A:876:C:O4'	2.15	0.47
1:1A:1939:5MU:OP1	1:1A:2604:U:O2'	2.23	0.47
1:1A:2116:G:P	1:1A:2166:G:H21	2.36	0.47
1:1A:2291:U:OP1	1:1A:2380:C:O2'	2.30	0.47
2:1B:95:C:H2'	2:1B:96:U:C6	2.50	0.47
6:1G:47:LYS:HB2	6:1G:86:MET:SD	2.54	0.47
8:1I:69:LYS:HD2	8:1I:138:ILE:HG12	1.96	0.47
24:12:28:LYS:HD2	24:12:60:LEU:HD11	1.95	0.47
32:1a:473:G:H2'	32:1a:474:G:C8	2.48	0.47
32:1a:983:A:H2	32:1a:984:C:C6	2.32	0.47
35:1d:117:ALA:O	35:1d:121:VAL:HG23	2.14	0.47
38:1g:53:LYS:HB2	38:1g:125:MET:HE1	1.96	0.47
39:1h:4:ASP:OD1	39:1h:7:ALA:N	2.39	0.47
41:1j:7:LYS:N	41:1j:97:GLU:O	2.40	0.47
1:2A:298:G:H5"	1:2A:299:A:OP1	2.14	0.47
1:2A:641:C:O2'	1:2A:2350:C:OP1	2.21	0.47
1:2A:1056:G:H21	1:2A:1103:A:H62	1.61	0.47
1:2A:1110:G:H8	1:2A:1110:G:OP2	1.97	0.47
1:2A:2193:G:H2'	1:2A:2194:G:C8	2.50	0.47
3:2D:43:ARG:NH2	3:2D:49:ILE:HD11	2.29	0.47
11:2P:50:ARG:HD3	30:28:7:HIS:CD2	2.49	0.47
12:2Q:137:TYR:CE1	21:2Z:83:PRO:HG3	2.50	0.47
29:27:13:ALA:HB2	29:27:46:VAL:HG11	1.97	0.47
32:2a:1519:MA6:H92	32:2a:1520:G:O2'	2.14	0.47
34:2c:44:GLU:HA	34:2c:52:LEU:HD13	1.95	0.47
34:2c:50:ALA:HB1	34:2c:70:VAL:HG11	1.96	0.47
36:2e:53:LEU:HD12	36:2e:53:LEU:H	1.79	0.47
39:2h:20:TYR:HA	39:2h:65:TYR:CZ	2.48	0.47
1:1A:721:C:H2'	1:1A:722:A:C8	2.49	0.47
1:1A:784:A:OP1	1:1A:2588:G:H5"	2.14	0.47
1:1A:1865:G:O2'	1:1A:1876:A:N7	2.43	0.47
1:1A:2103:C:C2'	1:1A:2104:G:H5'	2.44	0.47
1:1A:2406:U:C2	11:1P:72:PRO:HG2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:88:ARG:NH1	63:1D:404:HOH:O	2.37	0.47
7:1H:83:TYR:CE2	7:1H:138:LYS:HB2	2.49	0.47
11:1P:140:ALA:O	25:23:38:GLU:HG2	2.14	0.47
28:16:2:ALA:N	63:16:604:HOH:O	2.47	0.47
32:1a:114:U:H1'	32:1a:353:A:H1'	1.96	0.47
32:1a:303:A:HO2'	32:1a:555:C:HO2'	1.61	0.47
32:1a:316:G:OP2	32:1a:351:G:O2'	2.32	0.47
33:1b:188:ALA:HB1	33:1b:192:SER:HB2	1.96	0.47
40:1i:9:ARG:O	40:1i:104:ARG:HG3	2.13	0.47
48:1q:43:LEU:HD12	48:1q:68:ARG:HB3	1.96	0.47
1:2A:576:U:H2'	1:2A:577:G:C8	2.48	0.47
1:2A:626:U:O4	11:2P:107:LYS:HE2	2.14	0.47
1:2A:1914:C:N4	32:2a:1409:C:O3'	2.48	0.47
1:2A:2645:G:N2	1:2A:2767:C:OP2	2.47	0.47
2:2B:17:C:H2'	2:2B:18:G:O4'	2.14	0.47
3:2D:186:HIS:HE1	3:2D:188:GLU:HG2	1.79	0.47
6:2G:124:SER:O	6:2G:124:SER:OG	2.28	0.47
14:2S:87:PHE:CZ	14:2S:102:ALA:HB2	2.49	0.47
32:2a:490:G:H2'	32:2a:491:G:C8	2.49	0.47
32:2a:926:G:C6	53:2y:87:LYS:HG3	2.50	0.47
32:2a:991:U:H2'	32:2a:1212:U:C4	2.49	0.47
34:2c:6:HIS:HB3	45:2n:49:HIS:ND1	2.29	0.47
35:2d:22:LYS:HD3	35:2d:25:ARG:HD2	1.96	0.47
37:2f:99:ALA:HB2	49:2r:31:LEU:HD11	1.95	0.47
41:2j:16:LEU:HD23	41:2j:16:LEU:HA	1.78	0.47
44:2m:87:TYR:N	50:2s:73:GLU:O	2.47	0.47
51:2t:13:LEU:O	51:2t:17:ARG:HG3	2.14	0.47
1:1A:1230:C:H2'	1:1A:1231:G:C8	2.50	0.47
1:1A:1509(A):A:H2'	1:1A:1509(B):A:O4'	2.15	0.47
1:1A:1583:A:H5'	1:1A:1584:C:OP1	2.14	0.47
7:1H:159:GLU:HG3	7:1H:169:VAL:HG11	1.97	0.47
32:1a:658:G:C2	32:1a:749:C:N3	2.83	0.47
33:1b:109:SER:HA	33:1b:112:VAL:HG13	1.96	0.47
33:1b:178:ARG:NH2	39:1h:74:PRO:HB3	2.30	0.47
36:1e:143:ARG:HA	36:1e:143:ARG:HD3	1.80	0.47
38:1g:131:LYS:HB2	38:1g:131:LYS:HE3	1.65	0.47
45:1n:39:LEU:HD11	45:1n:47:LEU:HD12	1.95	0.47
53:1y:75:ASN:O	53:1y:79:ASN:N	2.44	0.47
1:2A:839:U:H2'	1:2A:840:C:C6	2.50	0.47
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.49	0.47
1:2A:2147:G:C8	1:2A:2147:G:H3'	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2186:G:C2	1:2A:2187:G:C5	3.02	0.47
1:2A:2400:G:H2'	1:2A:2401:U:H6	1.80	0.47
16:2U:106:PHE:O	16:2U:110:VAL:HG23	2.15	0.47
32:2a:412:A:O4'	35:2d:35:ARG:NH1	2.48	0.47
32:2a:1226:C:OP2	44:2m:91:ARG:NH1	2.47	0.47
34:2c:130:VAL:HG21	34:2c:157:ILE:HG23	1.95	0.47
38:2g:111:ARG:NH2	38:2g:122:HIS:O	2.48	0.47
42:2k:79:SER:HA	42:2k:104:GLN:H	1.79	0.47
48:2q:45:HIS:HB2	48:2q:65:ILE:HD13	1.97	0.47
1:1A:2193:G:H2'	1:1A:2194:G:C8	2.50	0.47
8:1I:109:ILE:HG13	8:1I:130:TYR:CE1	2.50	0.47
12:1Q:2:LEU:HB2	63:1Q:312:HOH:O	2.15	0.47
15:1T:93:ARG:HB2	15:1T:117:ASP:HB2	1.97	0.47
19:1X:53:LYS:HB3	19:1X:82:GLN:HB3	1.97	0.47
33:1b:211:ILE:O	33:1b:215:LEU:HB2	2.14	0.47
34:1c:193:TYR:HE1	34:1c:196:LEU:HD21	1.79	0.47
40:1i:10:ARG:HG2	40:1i:75:ASP:HB2	1.96	0.47
1:2A:906:G:O2'	12:2Q:67:ARG:NH2	2.37	0.47
1:2A:999:U:OP2	63:2A:3828:HOH:O	2.20	0.47
1:2A:1074:G:C2	1:2A:1075:C:H1'	2.49	0.47
1:2A:1239:G:H2'	1:2A:1240:U:O4'	2.14	0.47
1:2A:2312:U:H5'	6:2G:88:ILE:HD11	1.96	0.47
1:2A:2822:G:O2'	1:2A:2824:C:OP2	2.32	0.47
3:2D:186:HIS:CE1	3:2D:188:GLU:HG2	2.49	0.47
4:2E:20:ALA:O	4:2E:22:PRO:HD3	2.14	0.47
20:2Y:21:LYS:NZ	63:2Y:302:HOH:O	2.43	0.47
21:2Z:103:ARG:O	21:2Z:105:VAL:N	2.47	0.47
32:2a:1077:G:N2	32:2a:1080:A:OP2	2.36	0.47
32:2a:1239:A:H62	32:2a:1299:A:H62	1.61	0.47
34:2c:30:ARG:HD3	34:2c:31:HIS:CE1	2.49	0.47
36:2e:152:ARG:HB2	39:2h:43:GLY:O	2.14	0.47
43:2l:110:VAL:HG23	43:2l:120:TYR:HB3	1.96	0.47
50:2s:66:MET:HB2	50:2s:74:PHE:HZ	1.80	0.47
1:1A:41:C:H2'	1:1A:42:G:O4'	2.15	0.47
1:1A:210:C:OP1	63:1A:8623:HOH:O	2.20	0.47
1:1A:579:G:H2'	1:1A:580:C:C6	2.50	0.47
1:1A:879:G:H2'	1:1A:880:G:O4'	2.14	0.47
1:1A:1518:U:H2'	1:1A:1519:G:O4'	2.15	0.47
1:1A:1833:U:O2'	1:1A:1969:A:N1	2.36	0.47
1:1A:1878:G:H2'	1:1A:1879:C:C6	2.50	0.47
1:1A:2086:U:H2'	1:1A:2087:G:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2563:U:H4'	10:1O:28:SER:HA	1.96	0.47
1:1A:2621:A:H5"	63:1A:8687:HOH:O	2.15	0.47
1:1A:2833:G:O2'	1:1A:2834:G:H5'	2.15	0.47
6:1G:52:ILE:C	6:1G:54:GLU:N	2.73	0.47
8:1I:46:ALA:O	8:1I:50:ARG:HG2	2.14	0.47
20:1Y:56:PRO:C	20:1Y:58:GLY:H	2.23	0.47
32:1a:376:G:OP1	47:1p:5:ARG:HB2	2.15	0.47
32:1a:442:C:H2'	32:1a:443:C:H6	1.79	0.47
32:1a:501:C:H1'	32:1a:549:C:H1'	1.96	0.47
32:1a:588:G:OP2	63:1a:1931:HOH:O	2.20	0.47
32:1a:713:G:H2'	32:1a:714:G:C8	2.50	0.47
32:1a:747:C:H3'	32:1a:748:C:C6	2.50	0.47
32:1a:977:A:H2'	32:1a:978:A:H5"	1.96	0.47
32:1a:1070:U:H2'	32:1a:1071:C:C6	2.50	0.47
32:1a:1227:A:P	44:1m:111:LYS:HZ2	2.37	0.47
32:1a:1392:G:H5'	32:1a:1531:A:H5'	1.97	0.47
34:1c:80:GLY:O	34:1c:85:ARG:NH1	2.48	0.47
34:1c:179:ARG:HG3	34:1c:206:GLU:HB2	1.96	0.47
35:1d:25:ARG:NH1	35:1d:30:LYS:HB3	2.29	0.47
40:1i:6:GLY:O	40:1i:17:VAL:HG12	2.14	0.47
40:1i:50:LEU:HD13	40:1i:56:LEU:HA	1.96	0.47
47:1p:49:LEU:HD21	47:1p:73:LEU:HB3	1.97	0.47
1:2A:954:G:H5"	12:2Q:13:GLN:HB3	1.97	0.47
1:2A:1035:U:H2'	1:2A:1036:G:C8	2.49	0.47
1:2A:1065:U:H4'	1:2A:1066:U:C5'	2.45	0.47
1:2A:1108:U:H2'	1:2A:1109:C:C6	2.50	0.47
1:2A:1165:U:H2'	1:2A:1166:C:C6	2.50	0.47
1:2A:1794:U:H2'	1:2A:1795:C:H6	1.78	0.47
1:2A:2377:A:H2'	1:2A:2378:A:C8	2.50	0.47
1:2A:2687:U:H2'	1:2A:2688:U:O4'	2.15	0.47
1:2A:2693:A:H2'	1:2A:2694:G:C8	2.50	0.47
6:2G:36:LYS:HE2	6:2G:160:VAL:HG21	1.97	0.47
7:2H:127:GLU:C	7:2H:129:THR:H	2.22	0.47
10:2O:29:ASN:N	10:2O:29:ASN:OD1	2.47	0.47
12:2Q:45:GLN:N	12:2Q:45:GLN:OE1	2.45	0.47
21:2Z:5:LEU:HD21	21:2Z:39:VAL:HG21	1.96	0.47
21:2Z:25:PRO:O	21:2Z:85:HIS:HA	2.14	0.47
32:2a:60:A:H4'	32:2a:61:G:O5'	2.14	0.47
32:2a:954:G:OP1	53:2y:7:SER:HB2	2.13	0.47
32:2a:1084:G:H5'	32:2a:1102:A:OP2	2.15	0.47
32:2a:1097:C:O2'	32:2a:1169:A:N3	2.38	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1133:G:H2'	32:2a:1134:G:O4'	2.15	0.47
32:2a:1239:A:O2'	38:2g:114:ARG:O	2.30	0.47
32:2a:1368:G:H5'	40:2i:112:LYS:O	2.14	0.47
32:2a:1479:C:H2'	32:2a:1480:G:C8	2.49	0.47
32:2a:1493:A:H4'	53:2y:72:THR:HG23	1.97	0.47
33:2b:48:MET:HA	33:2b:51:LEU:HB2	1.96	0.47
34:2c:36:ASP:OD1	34:2c:57:ILE:HG21	2.13	0.47
40:2i:125:TYR:HE1	40:2i:127:LYS:HB3	1.79	0.47
42:2k:79:SER:CB	42:2k:104:GLN:HB3	2.44	0.47
44:2m:10:PRO:HB2	44:2m:13:LYS:HG3	1.96	0.47
44:2m:19:LEU:HD21	44:2m:56:LEU:HD21	1.97	0.47
1:1A:229:A:H3'	1:1A:230:U:H5'	1.96	0.47
1:1A:724:U:H2'	1:1A:725:G:O4'	2.14	0.47
1:1A:800:A:H8	1:1A:800:A:OP1	1.96	0.47
1:1A:994:C:OP1	16:1U:53:ARG:NH2	2.48	0.47
1:1A:1105:U:H2'	1:1A:1106:G:C8	2.50	0.47
1:1A:1512:U:H2'	1:1A:1513:C:C6	2.50	0.47
5:1F:132:VAL:HG22	5:1F:163:VAL:HG22	1.96	0.47
21:1Z:153:SER:OG	21:1Z:167:PRO:O	2.29	0.47
29:17:24:THR:HG22	29:17:26:GLY:H	1.79	0.47
32:1a:976:G:OP1	45:1n:32:SER:N	2.44	0.47
35:1d:128:VAL:HG12	35:1d:129:ASN:HD22	1.79	0.47
40:1i:8:GLY:HA2	40:1i:79:LEU:HD23	1.95	0.47
40:1i:9:ARG:HD3	40:1i:14:VAL:HG22	1.96	0.47
1:2A:31:C:H5"	1:2A:1239:G:OP1	2.15	0.47
1:2A:623:G:H2'	1:2A:624:C:C6	2.50	0.47
1:2A:1364:G:P	23:21:3:LYS:HG3	2.54	0.47
1:2A:1449:A:HO2'	1:2A:1529:G:H21	1.55	0.47
1:2A:1876:A:H2'	1:2A:1877:A:C8	2.50	0.47
1:2A:2070:G:H2'	1:2A:2071:A:H8	1.79	0.47
1:2A:2206:G:H8	1:2A:2207:G:N7	2.12	0.47
2:2B:7:G:H3'	2:2B:8:U:H5"	1.97	0.47
5:2F:125:LEU:HD22	5:2F:196:LEU:HD23	1.96	0.47
23:21:86:SER:N	23:21:89:GLU:OE1	2.43	0.47
32:2a:592:G:H2'	32:2a:593:G:H8	1.78	0.47
40:2i:78:LYS:HA	40:2i:81:ILE:HG22	1.97	0.47
1:1A:810:U:C5	11:1P:29:LYS:O	2.68	0.47
1:1A:897:C:H2'	1:1A:898:C:H6	1.80	0.47
1:1A:2078:C:H3'	63:1A:8586:HOH:O	2.14	0.47
5:1F:10:PRO:HB3	5:1F:17:ARG:NH2	2.30	0.47
9:1N:121:LYS:HG2	9:1N:130:HIS:CE1	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:10:15:ASP:OD1	22:10:16:SER:N	2.48	0.47
32:1a:399:G:H2'	32:1a:400:C:C6	2.50	0.47
32:1a:585:G:N3	32:1a:879:C:H4'	2.29	0.47
32:1a:1086:U:H3	32:1a:1099:G:N2	2.12	0.47
32:1a:1348:U:H2'	32:1a:1349:A:C8	2.50	0.47
34:1c:134:ILE:HG23	34:1c:151:VAL:HB	1.96	0.47
35:1d:101:LEU:HB2	35:1d:138:TYR:HB3	1.97	0.47
38:1g:79:ARG:HA	38:1g:84:ASN:HA	1.97	0.47
40:1i:16:ARG:HH11	40:1i:66:ARG:NH1	2.13	0.47
47:1p:67:THR:O	47:1p:71:ARG:HG2	2.15	0.47
50:1s:63:THR:OG1	50:1s:65:ASN:OD1	2.29	0.47
1:2A:234:C:H2'	1:2A:235:U:C6	2.50	0.47
1:2A:974:G:N2	63:2A:3853:HOH:O	2.24	0.47
1:2A:1166:C:H2'	1:2A:1167:U:C6	2.50	0.47
1:2A:2051:A:H5'	1:2A:2578:G:O4'	2.15	0.47
1:2A:2680:C:H1'	4:2E:187:ALA:HB1	1.97	0.47
16:2U:20:LEU:O	63:2U:301:HOH:O	2.21	0.47
18:2W:65:LEU:N	18:2W:109:GLU:OE2	2.40	0.47
21:2Z:180:VAL:HG13	21:2Z:183:LEU:HD12	1.97	0.47
33:2b:28:PHE:CD1	33:2b:194:PRO:HG3	2.50	0.47
37:2f:2:ARG:NE	37:2f:69:GLU:HG2	2.30	0.47
41:2j:32:ALA:HB1	41:2j:33:GLN:CD	2.39	0.47
48:2q:53:LEU:HD21	48:2q:85:VAL:HG11	1.96	0.47
1:1A:458:G:O2'	29:17:39:ARG:HD3	2.15	0.47
1:1A:588:U:H2'	1:1A:589:C:C6	2.49	0.47
1:1A:603:A:C8	1:1A:655:A:C6	3.03	0.47
1:1A:1826:G:H2'	1:1A:1827:C:O4'	2.15	0.47
1:1A:2267:A:H5"	1:1A:2268:A:H5'	1.97	0.47
1:1A:2771:C:H2'	1:1A:2772:C:H6	1.80	0.47
63:1A:9238:HOH:O	5:1F:74:ARG:HD2	2.15	0.47
2:1B:91:C:OP1	12:1Q:16:ARG:NH1	2.48	0.47
10:1O:35:VAL:HG21	10:1O:69:ILE:HD12	1.97	0.47
17:1V:29:PRO:HA	17:1V:61:VAL:HG22	1.97	0.47
23:11:89:GLU:O	23:11:93:GLU:HG2	2.15	0.47
25:13:39:ASP:OD1	25:13:44:ARG:NE	2.47	0.47
32:1a:490:G:OP2	35:1d:132:ARG:NH2	2.47	0.47
32:1a:1040:U:H2'	32:1a:1041:A:H8	1.79	0.47
32:1a:1176:A:H2'	32:1a:1177:G:C8	2.50	0.47
40:1i:28:VAL:HA	40:1i:63:ILE:O	2.14	0.47
1:2A:27:G:N2	1:2A:512:G:H1'	2.30	0.47
1:2A:492:A:H2'	1:2A:493:G:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1638:C:H2'	1:2A:1639:U:O4'	2.14	0.47
1:2A:1999:C:H5"	1:2A:2723:C:O2'	2.14	0.47
1:2A:2540:C:H2'	1:2A:2541:A:O4'	2.14	0.47
1:2A:2543:G:H2'	1:2A:2544:G:C8	2.50	0.47
4:2E:48:GLN:HB2	4:2E:80:GLU:HG2	1.97	0.47
7:2H:55:PRO:HB2	7:2H:61:HIS:HD1	1.78	0.47
8:2I:62:LYS:HG3	8:2I:133:HIS:NE2	2.30	0.47
11:2P:6:LEU:HD23	11:2P:6:LEU:HA	1.66	0.47
13:2R:118:GLU:CD	13:2R:118:GLU:H	2.23	0.47
23:21:11:ARG:NH1	63:21:205:HOH:O	2.48	0.47
23:21:52:ARG:HA	23:21:56:GLN:O	2.15	0.47
32:2a:116:A:H61	32:2a:313:A:H1'	1.80	0.47
32:2a:153:C:H2'	32:2a:154:C:C6	2.50	0.47
32:2a:624:C:H2'	32:2a:625:G:C8	2.50	0.47
34:2c:67:THR:HG22	34:2c:102:ASN:HB2	1.95	0.47
41:2j:16:LEU:HD13	41:2j:70:ARG:HG2	1.97	0.47
1:1A:84:A:OP2	20:1Y:8:LYS:NZ	2.38	0.46
1:1A:2079:U:O3'	23:11:35:THR:OG1	2.21	0.46
1:1A:2667:C:H2'	1:1A:2668:G:O4'	2.15	0.46
4:1E:64:LYS:HB3	63:1E:466:HOH:O	2.15	0.46
7:1H:74:ASN:ND2	7:1H:138:LYS:HD3	2.30	0.46
16:1U:104:GLN:H	16:1U:104:GLN:HG3	1.44	0.46
21:1Z:103:ARG:HD3	21:1Z:136:PHE:CG	2.50	0.46
32:1a:196:A:N3	32:1a:222:U:H1'	2.30	0.46
35:1d:196:LEU:O	35:1d:198:VAL:N	2.48	0.46
1:2A:271(Z):C:H1'	1:2A:272(C):G:H1'	1.97	0.46
1:2A:363(D):G:H2'	1:2A:363(E):U:O4'	2.15	0.46
1:2A:720:C:H2'	1:2A:721:C:C6	2.49	0.46
1:2A:2641:G:P	9:2N:74:ARG:HH21	2.38	0.46
1:2A:2711:A:OP2	63:2A:3836:HOH:O	2.20	0.46
4:2E:15:PHE:HA	4:2E:19:ARG:O	2.16	0.46
5:2F:107:LYS:HG3	5:2F:206:ILE:HA	1.97	0.46
9:2N:62:VAL:HG13	9:2N:66:LYS:HE3	1.97	0.46
13:2R:29:LEU:HD23	13:2R:70:LEU:HD11	1.97	0.46
21:2Z:7:ALA:O	21:2Z:62:PRO:HD3	2.15	0.46
21:2Z:152:ALA:HA	21:2Z:155:LEU:HB2	1.97	0.46
32:2a:401:C:P	35:2d:73:ARG:HH21	2.38	0.46
32:2a:1030(C):G:H2'	32:2a:1030(D):A:C8	2.50	0.46
34:2c:47:LEU:HB2	34:2c:52:LEU:HD12	1.97	0.46
35:2d:201:GLN:NE2	36:2e:116:THR:OG1	2.47	0.46
39:2h:64:LYS:HG2	39:2h:79:VAL:HG11	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:42:ARG:NH2	40:2i:71:SER:HB2	2.30	0.46
42:2k:115:PRO:HB2	42:2k:117:ASN:O	2.15	0.46
45:2n:3:ARG:HB3	45:2n:4:LYS:HE3	1.97	0.46
48:2q:4:LYS:H	48:2q:61:GLU:HG2	1.80	0.46
1:1A:613:G:N2	1:1A:614(C):A:O2'	2.48	0.46
1:1A:687:C:H5"	29:17:2:LYS:HE2	1.98	0.46
1:1A:2375:G:N2	1:1A:2378:A:OP2	2.44	0.46
3:1D:121:PRO:HA	3:1D:135:PHE:CD2	2.50	0.46
5:1F:12:LEU:HD12	5:1F:12:LEU:HA	1.70	0.46
5:1F:150:GLY:HA2	5:1F:172:TRP:CE3	2.50	0.46
58:1T:205:MPD:H11	58:1T:205:MPD:H4	1.70	0.46
34:1c:34:LEU:HD21	34:1c:38:ARG:HH21	1.80	0.46
1:2A:695:G:N7	63:2A:4121:HOH:O	2.36	0.46
1:2A:992:C:OP1	16:2U:47:TYR:OH	2.21	0.46
1:2A:2436:G:N3	1:2A:2598:A:H2	2.13	0.46
21:2Z:52:SER:OG	21:2Z:53:ILE:N	2.47	0.46
32:2a:241:C:C2	32:2a:286:G:C2	3.03	0.46
32:2a:660:G:H2'	32:2a:661:G:O4'	2.14	0.46
32:2a:1128:C:H4'	32:2a:1148:U:O2	2.15	0.46
33:2b:135:GLN:HE21	33:2b:135:GLN:HB3	1.59	0.46
36:2e:102:ALA:HB2	36:2e:120:THR:HG21	1.97	0.46
46:2o:36:ILE:HG23	46:2o:56:LEU:HD11	1.97	0.46
1:1A:184:C:H2'	1:1A:185:U:H6	1.80	0.46
1:1A:488:G:OP1	63:1A:8626:HOH:O	2.21	0.46
1:1A:862:G:H2'	1:1A:863:A:O4'	2.16	0.46
1:1A:1178:C:H2'	1:1A:1179:C:H6	1.80	0.46
7:1H:101:ARG:NH2	7:1H:117:PRO:HB2	2.30	0.46
15:1T:106:SER:O	15:1T:110:ILE:HG13	2.14	0.46
19:1X:94:GLY:HA3	19:1X:95:LEU:C	2.41	0.46
32:1a:62:U:O2'	32:1a:379:C:O2	2.30	0.46
32:1a:1226:C:N4	44:1m:104:ARG:HD2	2.30	0.46
44:1m:108:ARG:HD3	44:1m:108:ARG:HA	1.68	0.46
1:2A:8:A:H2'	1:2A:9:U:H6	1.80	0.46
1:2A:35:G:H1'	1:2A:454:A:C4	2.49	0.46
1:2A:686:G:N2	1:2A:788:A:H61	2.13	0.46
1:2A:1316:U:H2'	1:2A:1317:A:C8	2.50	0.46
1:2A:1843:C:H5'	3:2D:253:GLN:NE2	2.30	0.46
4:2E:28:ALA:HB3	4:2E:93:VAL:HG12	1.97	0.46
23:21:5:CYS:HB3	23:21:10:LYS:H	1.80	0.46
34:2c:63:ASN:HB2	34:2c:98:ASN:HB2	1.97	0.46
35:2d:4:TYR:HE2	35:2d:7:PRO:O	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:2k:62:GLN:O	42:2k:66:LEU:HG	2.15	0.46
44:2m:13:LYS:O	44:2m:45:VAL:HG23	2.15	0.46
51:2t:44:ALA:O	51:2t:91:LEU:HB3	2.15	0.46
1:1A:1197:G:H2'	1:1A:1198:U:H6	1.81	0.46
1:1A:1978:A:N6	63:1A:9200:HOH:O	2.48	0.46
1:1A:2287:A:O2'	1:1A:2288:A:H3'	2.15	0.46
1:1A:2573:C:H2'	63:1A:8851:HOH:O	2.14	0.46
1:1A:2655:G:O2'	1:1A:2664:G:O6	2.34	0.46
1:1A:2690:C:N4	1:1A:2713:A:H1'	2.30	0.46
1:1A:2705:A:H2'	1:1A:2706:G:O4'	2.15	0.46
1:1A:2721:A:H2'	1:1A:2722:G:O4'	2.16	0.46
6:1G:7:LEU:HD23	6:1G:7:LEU:HA	1.80	0.46
15:1T:23:ARG:HD2	15:1T:120:ARG:CZ	2.45	0.46
32:1a:171:A:H2'	32:1a:172:A:C8	2.51	0.46
32:1a:201:C:N4	32:1a:216:G:H1	2.13	0.46
32:1a:848:C:H2'	32:1a:849:C:H6	1.81	0.46
33:1b:77:ALA:HA	33:1b:80:ILE:HG22	1.97	0.46
35:1d:108:LEU:HD23	35:1d:110:PHE:CZ	2.51	0.46
38:1g:116:ALA:O	38:1g:120:ILE:HG12	2.14	0.46
42:1k:33:THR:HG22	42:1k:39:PRO:HA	1.97	0.46
47:1p:66:PRO:HG2	47:1p:71:ARG:HE	1.80	0.46
53:1y:3:MET:HE3	53:1y:3:MET:HB3	1.62	0.46
1:2A:286:C:H2'	1:2A:287:C:C6	2.50	0.46
1:2A:954:G:H2'	1:2A:955:C:O4'	2.15	0.46
1:2A:1266:G:O6	18:2W:13:SER:OG	2.23	0.46
1:2A:1665:A:H2'	1:2A:1666:G:O4'	2.15	0.46
1:2A:1970:A:OP1	63:2A:3834:HOH:O	2.20	0.46
1:2A:2422:A:OP2	63:2A:3923:HOH:O	2.21	0.46
26:24:13:ARG:HH22	26:24:23:GLU:HG2	1.81	0.46
32:2a:413:G:O6	35:2d:35:ARG:HD2	2.15	0.46
34:2c:114:PRO:HA	34:2c:185:GLY:HA3	1.97	0.46
40:2i:108:VAL:HG12	40:2i:109:VAL:H	1.81	0.46
1:1A:2590:A:O2'	1:1A:2591:C:H5'	2.16	0.46
4:1E:101:ARG:CZ	4:1E:171:GLU:HB2	2.46	0.46
6:1G:77:ILE:HG21	6:1G:80:PHE:CD2	2.51	0.46
6:1G:125:PHE:O	6:1G:127:GLY:N	2.49	0.46
12:1Q:7:MET:HB2	12:1Q:7:MET:HE3	1.60	0.46
32:1a:1077:G:N7	63:1a:1979:HOH:O	2.36	0.46
32:1a:1390:U:H2'	32:1a:1391:U:C6	2.50	0.46
40:1i:127:LYS:HB3	40:1i:127:LYS:HE2	1.73	0.46
46:1o:42:HIS:CE1	46:1o:46:HIS:CD2	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:323:G:H1'	1:2A:1205:U:O2	2.15	0.46
1:2A:985:C:H2'	1:2A:986:C:H6	1.80	0.46
1:2A:1075:C:H2'	1:2A:1076:C:H5'	1.97	0.46
1:2A:2683:C:OP1	15:2T:55:ASN:ND2	2.37	0.46
1:2A:2784:C:O2'	4:2E:37:ARG:NH1	2.48	0.46
1:2A:2842:G:N7	63:2A:4116:HOH:O	2.35	0.46
2:2B:75:G:H22	21:2Z:73:GLN:HE22	1.61	0.46
5:2F:24:LEU:HD21	5:2F:114:VAL:HG12	1.98	0.46
32:2a:179:A:H2'	32:2a:180:U:H6	1.81	0.46
32:2a:601:C:H2'	32:2a:602:A:H8	1.80	0.46
38:2g:75:VAL:HA	38:2g:87:VAL:O	2.14	0.46
38:2g:144:MET:HB2	38:2g:144:MET:HE3	1.81	0.46
42:2k:21:ILE:HB	42:2k:84:VAL:HG22	1.96	0.46
1:1A:1141:U:OP1	9:1N:25:ARG:NH1	2.48	0.46
1:1A:1802:A:H2'	1:1A:1803:A:C8	2.50	0.46
1:1A:1889:A:H2'	1:1A:1890:A:C8	2.51	0.46
1:1A:2151:G:H2'	1:1A:2152:G:O4'	2.15	0.46
1:1A:2262:U:OP1	1:1A:2387:U:O2'	2.29	0.46
1:1A:2319:G:N1	14:1S:3:ARG:HA	2.30	0.46
9:1N:10:GLU:OE1	9:1N:11:PRO:HD2	2.15	0.46
28:16:12:GLU:OE1	28:16:52:VAL:HG21	2.16	0.46
32:1a:1028:C:H2'	32:1a:1029:C:H4'	1.98	0.46
38:1g:22:LEU:HD21	38:1g:66:VAL:HG21	1.97	0.46
1:2A:29:U:H2'	1:2A:30:G:C8	2.51	0.46
1:2A:285:C:H2'	1:2A:286:C:H6	1.79	0.46
1:2A:649:G:H4'	30:28:46:ARG:HH21	1.80	0.46
1:2A:2540:C:O2'	1:2A:2740:A:N3	2.45	0.46
1:2A:2681:C:OP2	4:2E:109:LYS:NZ	2.40	0.46
3:2D:13:ARG:HD3	3:2D:13:ARG:HA	1.70	0.46
3:2D:34:VAL:HA	3:2D:62:TYR:O	2.16	0.46
5:2F:150:GLY:HA2	5:2F:172:TRP:CD2	2.49	0.46
7:2H:25:LYS:HE3	7:2H:27:LYS:HZ1	1.79	0.46
14:2S:93:LYS:NZ	63:2S:202:HOH:O	2.48	0.46
28:26:3:SER:OG	28:26:4:GLU:N	2.47	0.46
32:2a:224:C:H2'	32:2a:225:C:C6	2.51	0.46
32:2a:931:C:H42	32:2a:1386:G:H1	1.62	0.46
37:2f:76:ALA:O	37:2f:80:ARG:HG3	2.16	0.46
41:2j:64:GLU:HG2	45:2n:59:ALA:HB2	1.97	0.46
1:1A:1175:U:H1'	1:1A:1176:G:OP1	2.16	0.46
6:1G:12:TYR:HA	6:1G:16:ARG:HG3	1.98	0.46
11:1P:64:LYS:O	30:18:30:ARG:NH2	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1Z:146:ILE:HA	21:1Z:147:GLY:HA2	1.58	0.46
23:11:64:ALA:HA	23:11:67:ILE:HG13	1.97	0.46
32:1a:582:U:OP1	46:1o:64:ARG:NH1	2.49	0.46
32:1a:1152:A:OP1	41:1j:68:HIS:ND1	2.42	0.46
34:1c:66:VAL:HB	34:1c:101:LEU:HD12	1.96	0.46
38:1g:45:ASP:O	38:1g:49:ILE:HG13	2.16	0.46
1:2A:1047:G:N2	1:2A:1111:A:H62	2.14	0.46
1:2A:1353:A:H62	1:2A:1377:G:H2'	1.81	0.46
1:2A:2109:U:H2'	1:2A:2110:G:C8	2.51	0.46
1:2A:2318:G:H21	14:2S:3:ARG:HG2	1.80	0.46
15:2T:51:ARG:HB3	15:2T:62:THR:HB	1.98	0.46
21:2Z:18:LEU:HD21	21:2Z:38:TYR:CG	2.51	0.46
23:21:83:GLU:HA	23:21:84:GLY:HA2	1.58	0.46
32:2a:144:G:H1	32:2a:178:C:H42	1.62	0.46
32:2a:297:G:N2	32:2a:300:A:OP2	2.49	0.46
32:2a:324:G:N1	32:2a:327:A:OP2	2.46	0.46
32:2a:1122:U:H2'	32:2a:1123:A:O4'	2.16	0.46
32:2a:1305:G:H5'	52:2u:4:GLY:HA3	1.98	0.46
33:2b:158:LEU:HD21	33:2b:182:ILE:HD11	1.98	0.46
46:2o:39:LEU:HD23	46:2o:56:LEU:HB2	1.98	0.46
48:2q:66:SER:O	48:2q:70:ARG:NH1	2.47	0.46
50:2s:36:ARG:HH12	50:2s:75:ALA:HB3	1.80	0.46
1:1A:35:G:H2'	1:1A:36:G:O4'	2.16	0.46
1:1A:190:A:N3	1:1A:679:C:O2'	2.44	0.46
1:1A:1197:G:H2'	1:1A:1198:U:C6	2.50	0.46
1:1A:1700:A:OP2	63:1A:8620:HOH:O	2.20	0.46
1:1A:1754:C:H5	15:1T:96:ARG:NH2	2.14	0.46
1:1A:2584:U:H5'	54:1w:76:PPU:H103	1.97	0.46
1:1A:2751:G:H4'	7:1H:4:ILE:HD11	1.98	0.46
10:1O:101:PRO:HD3	15:1T:67:SER:O	2.15	0.46
32:1a:539:A:H2'	32:1a:540:G:C8	2.51	0.46
32:1a:1401:G:O6	53:1y:83:ARG:NH2	2.49	0.46
35:1d:157:LEU:HD23	35:1d:161:ASN:ND2	2.31	0.46
40:1i:49:PRO:HD2	40:1i:81:ILE:HD11	1.98	0.46
41:1j:38:ILE:HD11	41:1j:71:LEU:HD23	1.98	0.46
43:1l:56:ALA:HB3	43:1l:100:ILE:HD11	1.97	0.46
1:2A:121:G:H4'	1:2A:149:A:H5'	1.97	0.46
1:2A:311:A:C6	1:2A:328:U:C4	3.04	0.46
1:2A:577:G:O2'	1:2A:1254:A:OP1	2.31	0.46
1:2A:601:C:O2'	1:2A:605:C:H5"	2.15	0.46
1:2A:603:A:N1	1:2A:625:G:O2'	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:885:C:H1'	1:2A:892:G:N2	2.31	0.46
1:2A:1209:G:OP2	63:2A:3925:HOH:O	2.21	0.46
1:2A:1355:G:O6	63:2A:3910:HOH:O	2.19	0.46
1:2A:2171:A:H4'	1:2A:2172:U:OP1	2.14	0.46
1:2A:2299:G:H2'	1:2A:2300:G:C8	2.50	0.46
27:25:20:ARG:C	27:25:22:HIS:H	2.24	0.46
32:2a:154:C:H2'	32:2a:155:C:H6	1.81	0.46
32:2a:684:A:H2'	32:2a:685:G:C8	2.50	0.46
32:2a:1320:C:N4	50:2s:36:ARG:HB2	2.31	0.46
32:2a:1346:A:OP1	40:2i:120:ARG:NH1	2.44	0.46
32:2a:1426:C:H2'	32:2a:1427:U:C6	2.51	0.46
33:2b:71:VAL:HA	33:2b:93:VAL:HG22	1.97	0.46
38:2g:15:ASP:OD1	38:2g:20:ASP:N	2.47	0.46
1:1A:958:U:H5"	63:1A:8607:HOH:O	2.16	0.46
1:1A:969:U:H2'	1:1A:970:C:C6	2.51	0.46
1:1A:1810:A:H2'	1:1A:1811:G:O4'	2.15	0.46
1:1A:2259:G:C8	1:1A:2427:C:C4	3.04	0.46
1:1A:2390:U:P	30:18:35:GLN:HE22	2.39	0.46
1:1A:2526:G:N2	63:1A:9159:HOH:O	2.47	0.46
3:1D:143:HIS:CE1	3:1D:192:THR:HB	2.50	0.46
4:1E:7:VAL:HG23	4:1E:51:PHE:CE2	2.51	0.46
26:14:60:GLN:HE21	26:14:60:GLN:HB2	1.59	0.46
32:1a:682:G:N7	63:1a:1981:HOH:O	2.36	0.46
32:1a:694:A:C2	32:1a:695:A:H1'	2.50	0.46
32:1a:1004:A:O2'	32:1a:1038:C:O2	2.27	0.46
32:1a:1005:A:C2	32:1a:1025:U:H1'	2.51	0.46
32:1a:1024:G:H2'	32:1a:1024:G:N3	2.31	0.46
32:1a:1438:G:H2'	32:1a:1439:C:C6	2.51	0.46
33:1b:95:GLN:HG3	33:1b:147:LYS:HG2	1.98	0.46
34:1c:5:ILE:HD11	45:1n:49:HIS:HE1	1.81	0.46
40:1i:10:ARG:HD3	40:1i:10:ARG:HA	1.57	0.46
40:1i:22:GLY:HA3	40:1i:60:ASP:OD2	2.15	0.46
1:2A:2122:U:O2	1:2A:2176:A:N1	2.49	0.46
1:2A:2732:G:H3'	1:2A:2733:A:O4'	2.16	0.46
4:2E:7:VAL:HG23	4:2E:51:PHE:CE2	2.51	0.46
7:2H:12:PRO:O	7:2H:15:VAL:HG22	2.16	0.46
19:2X:32:PRO:HA	19:2X:77:LYS:HB3	1.96	0.46
25:23:3:ARG:HD2	25:23:36:VAL:HG12	1.97	0.46
32:2a:44:G:OP2	47:2p:12:LYS:NZ	2.40	0.46
32:2a:615:C:H2'	32:2a:616:G:O4'	2.15	0.46
32:2a:939:G:H2'	32:2a:940:C:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:978:A:O2'	32:2a:1322:C:N3	2.39	0.46
32:2a:1027:C:C4	32:2a:1034:G:O6	2.69	0.46
32:2a:1323:G:H2'	32:2a:1324:A:C8	2.51	0.46
33:2b:50:GLU:O	33:2b:54:THR:OG1	2.30	0.46
34:2c:181:ASN:HB3	34:2c:204:LEU:HB2	1.97	0.46
43:2l:38:THR:OG1	43:2l:57:LYS:O	2.33	0.46
50:2s:62:ILE:H	50:2s:62:ILE:HD12	1.80	0.46
1:1A:1268:A:H2'	1:1A:1269:A:O4'	2.16	0.46
1:1A:1287:A:H8	13:1R:104:ARG:HD3	1.81	0.46
3:1D:134:ARG:HB2	3:1D:135:PHE:CE1	2.51	0.46
21:1Z:29:TYR:HB3	21:1Z:34:ASN:HD22	1.80	0.46
24:12:21:LEU:HB2	24:12:64:LEU:HD12	1.97	0.46
32:1a:67:C:H4'	32:1a:172:A:O4'	2.16	0.46
32:1a:452:A:H4'	47:1p:72:ARG:NH1	2.31	0.46
32:1a:992:U:H4'	32:1a:993:G:C5'	2.42	0.46
32:1a:1340:A:OP1	53:1y:57:PRO:HB3	2.15	0.46
34:1c:11:ARG:HB3	34:1c:15:THR:HB	1.97	0.46
44:1m:48:LEU:HD13	44:1m:53:VAL:HG22	1.97	0.46
51:1t:36:LEU:HD13	51:1t:58:LYS:HG3	1.97	0.46
1:2A:272(B):G:H2'	1:2A:272(C):G:C8	2.51	0.46
1:2A:2534:A:H2'	1:2A:2535:G:O4'	2.17	0.46
1:2A:2556:C:H2'	1:2A:2557:G:O4'	2.16	0.46
1:2A:2712:U:H2'	1:2A:2714:G:H5"	1.97	0.46
3:2D:36:PRO:HA	3:2D:61:LEU:HD12	1.98	0.46
5:2F:29:ASN:H	5:2F:112:MET:CE	2.28	0.46
18:2W:71:VAL:HA	18:2W:107:LEU:HD12	1.97	0.46
21:2Z:118:GLN:N	21:2Z:173:ALA:O	2.44	0.46
32:2a:93:G:H2'	32:2a:96:U:O4'	2.16	0.46
32:2a:323:U:H2'	32:2a:324:G:O4'	2.16	0.46
32:2a:557:G:N1	32:2a:558:G:C2	2.84	0.46
35:2d:191:ARG:HE	35:2d:200:GLU:CD	2.23	0.46
44:2m:40:ASN:HB3	44:2m:43:THR:HG23	1.98	0.46
45:2n:37:PHE:HB3	45:2n:39:LEU:HD12	1.98	0.46
51:2t:40:ALA:HB2	51:2t:55:ILE:HG22	1.98	0.46
1:1A:247:G:H4'	1:1A:386:G:C6	2.51	0.45
1:1A:363(A):A:H2'	1:1A:363(B):G:C8	2.51	0.45
1:1A:782:A:H5'	1:1A:783:A:N7	2.30	0.45
4:1E:181:LEU:HD12	4:1E:181:LEU:HA	1.63	0.45
12:1Q:54:MET:HE3	12:1Q:64:ILE:HG12	1.98	0.45
12:1Q:77:LYS:HG2	12:1Q:81:VAL:HG21	1.96	0.45
21:1Z:4:ARG:NE	21:1Z:60:GLU:OE2	2.37	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:12:3:LEU:HD23	24:12:3:LEU:HA	1.84	0.45
32:1a:28:G:H2'	32:1a:29:G:O4'	2.16	0.45
32:1a:491:G:H2'	32:1a:492:G:O4'	2.15	0.45
32:1a:867:G:O2'	32:1a:873:A:N1	2.39	0.45
32:1a:965:A:O2'	53:1y:40:ILE:HG21	2.15	0.45
34:1c:32:LEU:HD22	34:1c:59:ARG:HH12	1.80	0.45
42:1k:91:ARG:NH1	42:1k:110:ASP:OD2	2.49	0.45
46:1o:79:ARG:HA	46:1o:82:ILE:HG12	1.98	0.45
47:1p:34:GLU:OE1	47:1p:55:ARG:NH2	2.49	0.45
1:2A:262:A:H2'	1:2A:263:C:O4'	2.17	0.45
1:2A:1062:G:O2'	1:2A:1063:G:H5'	2.16	0.45
1:2A:1525:G:H2'	1:2A:1526:G:C8	2.51	0.45
1:2A:1939:5MU:H2'	63:2A:4027:HOH:O	2.16	0.45
1:2A:1999:C:H2'	1:2A:2000:G:O4'	2.16	0.45
4:2E:105:THR:HB	4:2E:197:ILE:HB	1.97	0.45
4:2E:105:THR:HG21	4:2E:164:ARG:CZ	2.46	0.45
8:2I:26:ALA:O	8:2I:31:LEU:HB2	2.16	0.45
12:2Q:73:PRO:HB3	12:2Q:93:TYR:CE1	2.51	0.45
21:2Z:53:ILE:HG22	21:2Z:71:VAL:O	2.16	0.45
28:26:9:LEU:HD13	28:26:51:GLU:HG3	1.99	0.45
32:2a:54:C:N4	32:2a:353:A:OP2	2.46	0.45
32:2a:600:C:H2'	32:2a:601:C:C6	2.51	0.45
33:2b:9:GLU:CD	33:2b:10:LEU:H	2.24	0.45
33:2b:133:LYS:HE2	33:2b:136:VAL:HG11	1.97	0.45
34:2c:78:GLY:HA3	34:2c:83:ARG:H	1.81	0.45
35:2d:20:TYR:HD1	35:2d:26:CYS:HB3	1.80	0.45
35:2d:114:ARG:HA	35:2d:117:ALA:HB3	1.97	0.45
39:2h:49:GLU:OE2	39:2h:62:TYR:OH	2.31	0.45
39:2h:121:ASP:N	39:2h:121:ASP:OD1	2.48	0.45
40:2i:31:GLN:NE2	40:2i:35:GLU:OE2	2.49	0.45
49:2r:58:LEU:HB3	49:2r:62:GLU:HG3	1.97	0.45
1:1A:281:G:O5'	1:1A:281:G:H8	1.99	0.45
1:1A:1009:A:OP2	9:1N:37:LYS:NZ	2.49	0.45
1:1A:1278:A:OP1	13:1R:36:THR:HG23	2.16	0.45
1:1A:2801(A):A:H1'	1:1A:2895:U:H1'	1.98	0.45
6:1G:59:GLU:OE2	6:1G:138:GLN:NE2	2.43	0.45
9:1N:104:LYS:HE3	9:1N:117:PHE:CE1	2.51	0.45
32:1a:119:A:H4'	32:1a:120:A:C8	2.51	0.45
32:1a:567:G:H2'	32:1a:568:G:O4'	2.15	0.45
32:1a:620:C:H2'	32:1a:621:A:O4'	2.16	0.45
32:1a:1030:C:C4	32:1a:1030(A):G:H1'	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1456:G:O3'	51:1t:39:LYS:NZ	2.49	0.45
35:1d:172:PRO:C	35:1d:174:LEU:H	2.24	0.45
37:1f:29:ALA:O	37:1f:33:TYR:HD2	1.99	0.45
46:1o:3:ILE:H	46:1o:3:ILE:HG13	1.43	0.45
1:2A:1125:G:H5'	31:29:37:GLY:HA2	1.99	0.45
1:2A:1203:G:C6	1:2A:1204:A:N6	2.84	0.45
1:2A:2168:G:H2'	1:2A:2170:A:OP2	2.17	0.45
1:2A:2305:A:H5"	6:2G:134:GLY:HA3	1.98	0.45
1:2A:2573:C:OP1	1:2A:2574:G:H5"	2.15	0.45
5:2F:15:SER:OG	5:2F:18:ARG:NH2	2.48	0.45
6:2G:106:LEU:HD12	6:2G:110:ALA:HB3	1.98	0.45
7:2H:16:SER:OG	7:2H:27:LYS:HD2	2.16	0.45
10:2O:64:ARG:HB2	10:2O:79:PHE:CG	2.52	0.45
23:21:3:LYS:HB2	23:21:61:ARG:HH22	1.81	0.45
32:2a:21:G:H2'	32:2a:22:G:C8	2.52	0.45
32:2a:37:U:O2'	32:2a:547:A:N1	2.48	0.45
36:2e:144:THR:H	36:2e:147:ASP:HB2	1.81	0.45
38:2g:148:ASN:HD22	42:2k:54:ARG:HH22	1.63	0.45
40:2i:22:GLY:H	40:2i:59:PHE:HA	1.81	0.45
1:1A:614(A):U:OP1	59:1F:317:ARG:HD2	2.17	0.45
1:1A:1056:G:O3'	1:1A:1057:A:H8	2.00	0.45
1:1A:1096:A:H3'	1:1A:1097:U:H5"	1.98	0.45
2:1B:6:C:H2'	2:1B:7:G:H5"	1.97	0.45
6:1G:43:LEU:C	6:1G:45:GLU:H	2.23	0.45
6:1G:56:ALA:HA	6:1G:59:GLU:HB2	1.99	0.45
10:1O:104:ARG:CZ	15:1T:34:VAL:HG11	2.47	0.45
13:1R:100:LEU:HD11	13:1R:113:LEU:HD23	1.98	0.45
15:1T:54:ARG:HA	15:1T:59:THR:HB	1.99	0.45
16:1U:10:ARG:NH2	63:1U:310:HOH:O	2.49	0.45
28:16:11:LEU:HB2	28:16:21:TYR:HB2	1.97	0.45
32:1a:423:G:H5'	32:1a:424:G:OP2	2.16	0.45
32:1a:1291:G:OP1	38:1g:37:ASN:ND2	2.50	0.45
32:1a:1400:5MC:C2	53:1y:63:ALA:HA	2.50	0.45
42:1k:41:THR:HG21	42:1k:71:LYS:HB3	1.97	0.45
44:1m:14:ARG:NE	44:1m:42:ALA:HA	2.32	0.45
1:2A:271(P):C:O3'	8:2I:42:SER:OG	2.27	0.45
1:2A:478:A:C6	1:2A:480:A:C6	3.04	0.45
1:2A:582:G:H2'	1:2A:583:G:C8	2.51	0.45
1:2A:840:C:H2'	1:2A:841:A:C8	2.52	0.45
1:2A:974:G:OP1	1:2A:1187:G:O2'	2.22	0.45
1:2A:2184:G:H2'	1:2A:2185:C:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2648:C:H2'	1:2A:2649:U:C6	2.51	0.45
2:2B:13:A:N1	2:2B:69:G:O2'	2.31	0.45
4:2E:60:ASN:OD1	4:2E:63:LEU:HG	2.16	0.45
16:2U:6:THR:O	16:2U:9:VAL:HG23	2.16	0.45
21:2Z:28:MET:HA	21:2Z:88:PHE:O	2.16	0.45
21:2Z:48:PHE:HE1	21:2Z:71:VAL:HG21	1.80	0.45
22:20:69:PHE:CE2	22:20:79:VAL:HG22	2.51	0.45
32:2a:137:C:H2'	32:2a:138:G:C8	2.51	0.45
32:2a:1466:C:H2'	32:2a:1467:G:O4'	2.17	0.45
33:2b:88:ALA:HB1	33:2b:222:ILE:HD11	1.97	0.45
35:2d:104:VAL:O	35:2d:108:LEU:HB2	2.16	0.45
35:2d:191:ARG:NE	35:2d:200:GLU:OE2	2.46	0.45
1:1A:315:G:H2'	1:1A:316:C:C6	2.50	0.45
1:1A:529:A:OP2	9:1N:114:ARG:NH2	2.37	0.45
1:1A:1614:A:OP1	1:1A:1617:C:N4	2.45	0.45
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.30	0.45
1:1A:2287:A:O2'	1:1A:2289:G:N7	2.46	0.45
1:1A:2791:C:H2'	1:1A:2792:G:C8	2.51	0.45
8:1I:96:ASP:O	8:1I:100:ALA:N	2.49	0.45
9:1N:75:TYR:CE2	9:1N:77:GLY:HA2	2.51	0.45
14:1S:84:GLN:HG2	14:1S:111:GLU:HB2	1.98	0.45
19:1X:4:ALA:HB1	19:1X:42:ALA:HA	1.98	0.45
32:1a:109:A:OP1	63:1a:1932:HOH:O	2.21	0.45
32:1a:344:A:H4'	32:1a:345:C:OP2	2.17	0.45
32:1a:868:C:H2'	32:1a:869:G:O4'	2.17	0.45
32:1a:1380:U:C4	38:1g:3:ARG:HG2	2.51	0.45
32:1a:1491:G:H3'	32:1a:1492:A:H8	1.81	0.45
38:1g:20:ASP:OD2	38:1g:23:VAL:HG23	2.17	0.45
51:1t:55:ILE:H	51:1t:55:ILE:HG12	1.59	0.45
51:1t:65:LYS:O	51:1t:68:LYS:HB2	2.16	0.45
1:2A:455:C:N3	1:2A:472:A:H2'	2.32	0.45
7:2H:90:LYS:HD2	7:2H:163:TYR:CD2	2.51	0.45
32:2a:947:G:O3'	44:2m:109:THR:OG1	2.35	0.45
53:2y:27:LEU:C	53:2y:29:LYS:H	2.24	0.45
1:1A:695:G:OP1	1:1A:1380:G:O2'	2.32	0.45
1:1A:839:U:H2'	1:1A:840:C:H6	1.82	0.45
1:1A:2030:A:H4'	1:1A:2031:A:C8	2.51	0.45
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.52	0.45
4:1E:143:ASN:HB2	4:1E:147:PRO:HD2	1.98	0.45
6:1G:16:ARG:O	6:1G:20:ILE:HG13	2.16	0.45
21:1Z:44:PHE:CE1	21:1Z:86:VAL:HG11	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1Z:125:LEU:HB3	21:1Z:165:VAL:CG1	2.47	0.45
32:1a:1060:C:C5	34:1c:2:GLY:HA3	2.51	0.45
32:1a:1347:G:H22	32:1a:1374:A:P	2.39	0.45
35:1d:76:ARG:HA	35:1d:76:ARG:HD2	1.72	0.45
1:2A:322:A:OP2	5:2F:169:ASN:HB2	2.16	0.45
1:2A:554:U:O4	63:2A:3851:HOH:O	2.13	0.45
1:2A:586:A:N1	1:2A:809:G:O2'	2.39	0.45
1:2A:1614:A:N1	18:2W:93:ALA:HB2	2.32	0.45
15:2T:7:ILE:O	15:2T:11:GLU:HG3	2.16	0.45
20:2Y:39:VAL:HB	20:2Y:42:VAL:HB	1.98	0.45
26:24:44:THR:O	26:24:46:GLN:N	2.49	0.45
32:2a:103:C:P	51:2t:17:ARG:HH21	2.39	0.45
32:2a:1426:C:H2'	32:2a:1427:U:H6	1.82	0.45
35:2d:166:LYS:HE3	35:2d:166:LYS:HB3	1.48	0.45
50:2s:30:LEU:HD11	50:2s:50:ALA:HB2	1.99	0.45
1:1A:52:A:OP2	1:1A:117:G:N1	2.38	0.45
1:1A:566:U:H5"	11:1P:29:LYS:HE3	1.98	0.45
1:1A:784:A:N6	3:1D:229:VAL:HG11	2.32	0.45
1:1A:2019:A:N7	27:15:9:LYS:HE2	2.31	0.45
1:1A:2165:G:H2'	1:1A:2166:G:C8	2.52	0.45
3:1D:132:PRO:HD3	3:1D:190:TYR:CZ	2.52	0.45
8:1I:72:LEU:HD23	8:1I:75:LEU:HD21	1.99	0.45
23:11:76:ARG:NH1	23:11:97:LEU:O	2.50	0.45
32:1a:107:G:OP1	32:1a:325:A:N6	2.50	0.45
32:1a:166:G:H2'	32:1a:167:G:H8	1.82	0.45
32:1a:428:G:OP2	35:1d:10:ARG:NH1	2.50	0.45
32:1a:1082:G:H2'	32:1a:1083:U:O4'	2.16	0.45
35:1d:59:ARG:HH12	35:1d:62:GLN:HG3	1.82	0.45
40:1i:73:GLN:O	40:1i:77:ILE:HG13	2.17	0.45
44:1m:11:ARG:C	44:1m:13:LYS:N	2.74	0.45
1:2A:415:A:H2'	1:2A:416:C:O4'	2.17	0.45
1:2A:1223:G:N2	1:2A:1226:A:OP2	2.27	0.45
1:2A:2119:A:C2	1:2A:2170:A:H2'	2.51	0.45
1:2A:2262:U:H2'	1:2A:2263:C:C6	2.52	0.45
3:2D:108:PRO:HD2	3:2D:111:LEU:HD22	1.99	0.45
12:2Q:30:GLY:HA2	12:2Q:107:ALA:HB2	1.98	0.45
13:2R:82:GLU:O	13:2R:85:PRO:HD2	2.16	0.45
18:2W:14:PRO:HA	18:2W:17:VAL:HG23	1.97	0.45
32:2a:103:C:O2'	32:2a:172:A:N1	2.49	0.45
32:2a:131:C:H2'	32:2a:132:C:H6	1.81	0.45
32:2a:179:A:H2'	32:2a:180:U:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1368:G:OP2	40:2i:112:LYS:HG3	2.17	0.45
32:2a:1438:G:H2'	32:2a:1439:C:C6	2.52	0.45
33:2b:126:GLU:CD	33:2b:126:GLU:H	2.24	0.45
36:2e:13:ILE:HA	36:2e:29:GLY:O	2.17	0.45
44:2m:5:ALA:HB2	44:2m:61:GLU:HG2	1.98	0.45
47:2p:28:ARG:NH1	47:2p:29:ASP:OD2	2.50	0.45
1:1A:602:G:O6	63:1A:8585:HOH:O	2.17	0.45
1:1A:1514:U:H2'	1:1A:1515:G:C8	2.51	0.45
1:1A:1756:G:OP2	63:1A:8629:HOH:O	2.21	0.45
1:1A:2528:U:H2'	1:1A:2530:A:O5'	2.17	0.45
1:1A:2602:A:N6	55:1x:76:8AN:H2'	2.32	0.45
2:1B:48:A:H2'	2:1B:49:C:C6	2.51	0.45
3:1D:130:ALA:HA	3:1D:191:ALA:O	2.17	0.45
18:1W:46:PHE:O	18:1W:50:VAL:HG23	2.17	0.45
19:1X:1:MET:HG2	24:12:61:LEU:HD21	1.99	0.45
23:11:10:LYS:NZ	63:11:207:HOH:O	2.45	0.45
32:1a:271:C:H2'	32:1a:272:C:H6	1.80	0.45
33:1b:21:ARG:H	33:1b:21:ARG:HG2	1.64	0.45
33:1b:165:VAL:HG13	33:1b:166:ASP:H	1.82	0.45
47:1p:28:ARG:HE	47:1p:29:ASP:CG	2.25	0.45
1:2A:321:G:C2	5:2F:165:ARG:HD2	2.52	0.45
1:2A:927:G:H2'	1:2A:928:G:O4'	2.16	0.45
1:2A:1045:A:H5'	1:2A:1047:G:O5'	2.17	0.45
1:2A:1109:C:H3'	1:2A:1110:G:C8	2.52	0.45
1:2A:1147:C:H2'	1:2A:1148:A:C8	2.52	0.45
1:2A:1324:G:C4	1:2A:1328:G:O6	2.70	0.45
1:2A:1748:G:H2'	1:2A:1749:A:O4'	2.16	0.45
7:2H:5:GLY:HA3	7:2H:66:GLY:HA2	1.98	0.45
16:2U:17:ILE:HG23	16:2U:39:LEU:HD12	1.99	0.45
32:2a:229:U:H2'	32:2a:230:G:C8	2.52	0.45
32:2a:582:U:OP1	46:2o:64:ARG:NH1	2.50	0.45
32:2a:890:G:O2'	32:2a:906:G:O6	2.28	0.45
32:2a:1239:A:C4	32:2a:1298:C:N4	2.84	0.45
32:2a:1371:G:O3'	40:2i:69:GLY:HA3	2.16	0.45
33:2b:174:VAL:O	33:2b:178:ARG:HG2	2.17	0.45
35:2d:173:TRP:CD1	35:2d:174:LEU:HG	2.52	0.45
39:2h:6:ILE:HB	39:2h:85:ARG:NH1	2.32	0.45
48:2q:18:THR:OG1	48:2q:69:LYS:NZ	2.26	0.45
48:2q:83:ASP:OD1	48:2q:83:ASP:N	2.49	0.45
50:2s:27:GLU:OE1	50:2s:47:HIS:NE2	2.50	0.45
1:1A:1040:C:H2'	1:1A:1041:C:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1638:C:H2'	1:1A:1639:U:O4'	2.17	0.45
1:1A:2023:G:H4'	1:1A:2617:C:O3'	2.17	0.45
1:1A:2846:G:P	15:1T:54:ARG:HB2	2.56	0.45
5:1F:135:LYS:HB2	5:1F:138:GLU:CD	2.42	0.45
6:1G:181:ARG:HG3	6:1G:182:LYS:N	2.31	0.45
9:1N:94:HIS:HB3	9:1N:97:ARG:HD3	1.98	0.45
19:1X:25:LYS:NZ	63:1X:7206:HOH:O	2.42	0.45
32:1a:560:U:O2'	32:1a:561:U:OP2	2.32	0.45
32:1a:626:U:H2'	32:1a:627:G:H8	1.80	0.45
32:1a:630:G:O2'	32:1a:631:G:H5'	2.17	0.45
32:1a:814:A:N7	32:1a:816:A:C4	2.85	0.45
32:1a:1008:C:H2'	32:1a:1009:G:O4'	2.17	0.45
32:1a:1104:G:H4'	33:1b:111:ARG:NH1	2.31	0.45
32:1a:1261:A:H3'	32:1a:1262:C:C6	2.52	0.45
33:1b:27:LYS:HB2	33:1b:194:PRO:HD2	1.99	0.45
34:1c:184:TYR:OH	34:1c:199:LYS:HD3	2.15	0.45
42:1k:48:ILE:H	42:1k:48:ILE:HG13	1.52	0.45
53:1y:2:THR:OG1	53:1y:3:MET:N	2.47	0.45
1:2A:214:G:O2'	1:2A:215:G:O4'	2.27	0.45
1:2A:863:A:N6	63:2A:4341:HOH:O	2.48	0.45
1:2A:1131:G:O6	1:2A:2040:C:H1'	2.17	0.45
1:2A:2785:C:OP1	4:2E:41:LYS:HE2	2.17	0.45
4:2E:32:PRO:HD2	4:2E:50:GLY:O	2.16	0.45
5:2F:120:GLU:C	5:2F:122:LYS:H	2.24	0.45
17:2V:5:VAL:HG12	17:2V:37:VAL:HG22	1.99	0.45
17:2V:62:LEU:HD21	17:2V:95:LEU:HB2	1.99	0.45
25:23:30:ARG:O	25:23:33:GLN:HB3	2.17	0.45
31:29:32:HIS:O	31:29:34:GLN:HG3	2.17	0.45
32:2a:964:A:N3	32:2a:969:A:O2'	2.44	0.45
32:2a:1058:G:H2'	32:2a:1059:C:O4'	2.16	0.45
32:2a:1343:G:H4'	40:2i:122:ALA:HB3	1.97	0.45
32:2a:1518:MA6:H93	32:2a:1519:MA6:C10	2.46	0.45
35:2d:191:ARG:HD2	35:2d:191:ARG:HA	1.69	0.45
50:2s:14:HIS:HE1	50:2s:35:SER:OG	1.99	0.45
52:2u:18:TYR:HD1	52:2u:22:ARG:HG2	1.81	0.45
1:1A:747:U:O2	1:1A:2014:A:H1'	2.17	0.45
1:1A:2064:C:H2'	1:1A:2065:C:C6	2.52	0.45
2:1B:74:U:H2'	2:1B:75:G:O4'	2.17	0.45
2:1B:88:C:H2'	2:1B:89:G:O4'	2.17	0.45
23:11:3:LYS:O	23:11:12:PRO:HD3	2.17	0.45
32:1a:757:U:O2'	32:1a:879:C:O2	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:883:C:N4	32:1a:884:U:O4	2.49	0.45
32:1a:1092:A:H5"	38:1g:4:ARG:NH1	2.32	0.45
33:1b:174:VAL:O	33:1b:178:ARG:HB2	2.17	0.45
34:1c:121:ALA:HA	34:1c:189:ALA:HB2	1.99	0.45
36:1e:80:ILE:HG23	36:1e:91:LEU:HB2	1.99	0.45
42:1k:66:LEU:O	42:1k:70:LYS:HB2	2.17	0.45
44:1m:75:ALA:O	44:1m:79:LYS:N	2.34	0.45
1:2A:251:A:C5	1:2A:252:G:H1'	2.52	0.45
1:2A:1786:A:H1'	1:2A:1938:A:H61	1.81	0.45
1:2A:1853:A:H2'	1:2A:1854:A:C8	2.52	0.45
1:2A:2780:G:OP2	9:2N:118:LYS:HE2	2.17	0.45
4:2E:30:PRO:HA	4:2E:92:THR:HG22	1.97	0.45
19:2X:65:ARG:HB3	19:2X:70:LEU:HD23	1.98	0.45
32:2a:279:A:N6	48:2q:98:LEU:O	2.50	0.45
32:2a:979:C:O2	45:2n:19:ARG:NE	2.40	0.45
32:2a:1255:G:C6	32:2a:1279:A:N7	2.85	0.45
33:2b:16:HIS:O	33:2b:18:GLY:N	2.50	0.45
33:2b:18:GLY:HA2	33:2b:42:ILE:HD12	1.99	0.45
34:2c:8:ILE:HD12	34:2c:8:ILE:HA	1.78	0.45
40:2i:102:LEU:H	40:2i:102:LEU:HD12	1.82	0.45
51:2t:18:GLN:O	51:2t:22:ARG:HG3	2.17	0.45
1:1A:746:A:H2'	1:1A:2612:C:H5"	1.98	0.45
1:1A:1044:G:H5'	1:1A:1045:A:OP2	2.17	0.45
1:1A:1342:A:H5'	19:1X:55:ASN:ND2	2.31	0.45
1:1A:2312:U:OP1	6:1G:73:ALA:HA	2.16	0.45
2:1B:115:G:O2'	14:1S:50:SER:OG	2.33	0.45
3:1D:71:ASP:CB	3:1D:103:ARG:HH22	2.29	0.45
14:1S:15:ARG:HE	14:1S:88:ASP:CG	2.25	0.45
32:1a:432:A:H3'	32:1a:433:C:C6	2.52	0.45
32:1a:600:C:H2'	32:1a:601:C:C6	2.52	0.45
32:1a:911:U:H2'	32:1a:912:C:C6	2.52	0.45
33:1b:84:GLU:HB3	33:1b:219:VAL:HG21	1.98	0.45
36:1e:96:PRO:C	36:1e:98:THR:H	2.26	0.45
39:1h:103:VAL:HB	39:1h:108:GLY:C	2.42	0.45
1:2A:981:A:HO2'	1:2A:2036:C:HO2'	1.63	0.45
1:2A:1048:A:N1	1:2A:1112:G:O2'	2.46	0.45
1:2A:1110:G:H1'	1:2A:1111:A:H8	1.81	0.45
1:2A:1796:U:H2'	1:2A:1797:C:H6	1.78	0.45
1:2A:2298:A:H2'	1:2A:2299:G:O4'	2.17	0.45
1:2A:2376:A:H2'	1:2A:2377:A:O4'	2.17	0.45
1:2A:2466:C:H5"	31:29:6:SER:HB2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2508:G:O3'	1:2A:2555:U:H5'	2.16	0.45
1:2A:2689:U:OP2	1:2A:2719:G:N2	2.50	0.45
3:2D:267:SER:C	3:2D:269:PHE:H	2.25	0.45
4:2E:52:LEU:O	4:2E:76:ARG:N	2.42	0.45
10:2O:77:ILE:HB	15:2T:74:ARG:HD3	1.99	0.45
15:2T:127:ALA:C	15:2T:129:ARG:H	2.25	0.45
32:2a:539:A:H2'	32:2a:540:G:H8	1.79	0.45
33:2b:15:VAL:HB	33:2b:209:ARG:HB3	1.99	0.45
48:2q:87:LYS:HB3	48:2q:87:LYS:HE2	1.63	0.45
1:1A:2544:G:H1'	1:1A:2646:C:H4'	1.99	0.44
3:1D:183:ARG:HG3	3:1D:270:ILE:HG12	1.99	0.44
3:1D:223:GLY:HA3	3:1D:231:HIS:CE1	2.52	0.44
10:1O:98:VAL:HG11	10:1O:114:ILE:HG23	1.99	0.44
32:1a:343:U:O2'	32:1a:344:A:H2'	2.16	0.44
32:1a:414:A:H62	32:1a:430:A:N6	2.15	0.44
32:1a:1441:G:H5"	32:1a:1442:G:C5'	2.44	0.44
1:2A:361:G:C2	1:2A:362:U:C4	3.05	0.44
1:2A:1508:A:H5'	1:2A:1509:C:OP1	2.17	0.44
1:2A:1877:A:H5'	1:2A:1878:G:OP2	2.17	0.44
1:2A:2111:C:H42	1:2A:2147:G:N2	2.15	0.44
1:2A:2572:A:C8	4:2E:144:ARG:HD3	2.52	0.44
5:2F:124:LEU:HB3	5:2F:193:VAL:HG22	1.98	0.44
5:2F:155:LEU:HB3	5:2F:192:LEU:HD23	1.99	0.44
6:2G:54:GLU:O	6:2G:58:GLN:N	2.50	0.44
8:2I:77:LEU:HD13	8:2I:101:LEU:HD23	1.98	0.44
12:2Q:7:MET:HB2	12:2Q:7:MET:HE3	1.70	0.44
25:23:52:HIS:CD2	25:23:53:LEU:HG	2.52	0.44
32:2a:130:A:H1'	32:2a:263:A:O2'	2.17	0.44
32:2a:1030(A):G:H1'	32:2a:1030(C):G:C5	2.51	0.44
32:2a:1240:U:OP1	38:2g:119:ARG:NH2	2.50	0.44
32:2a:1374:A:O2'	38:2g:28:ASN:HB3	2.16	0.44
35:2d:68:TYR:HE1	35:2d:103:ASN:ND2	2.15	0.44
35:2d:118:ARG:HG3	35:2d:136:PRO:HB3	1.99	0.44
35:2d:171:GLY:HA2	35:2d:172:PRO:HD3	1.86	0.44
46:2o:33:THR:HG23	46:2o:63:ARG:NH1	2.32	0.44
53:2y:52:ALA:O	53:2y:62:VAL:HA	2.16	0.44
1:1A:438:G:H2'	1:1A:440:G:C8	2.52	0.44
1:1A:491:G:OP1	63:1A:8633:HOH:O	2.21	0.44
1:1A:596:G:H2'	1:1A:597:U:O4'	2.17	0.44
1:1A:1055:G:N1	1:1A:1104:C:C2	2.84	0.44
1:1A:1578:U:C2'	1:1A:1579:A:H5'	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1815:A:C5	1:1A:1817:G:C6	3.05	0.44
1:1A:2065:C:H2'	1:1A:2066:C:C6	2.52	0.44
1:1A:2791:C:OP2	1:1A:2791:C:H6	2.00	0.44
3:1D:134:ARG:HB2	3:1D:135:PHE:CD1	2.53	0.44
9:1N:22:THR:OG1	63:1N:301:HOH:O	2.03	0.44
11:1P:59:LEU:HD21	30:18:10:ALA:HA	1.99	0.44
25:13:49:LYS:O	63:13:202:HOH:O	2.21	0.44
32:1a:833:U:H2'	32:1a:834:C:H6	1.81	0.44
32:1a:1166:G:H5'	32:1a:1168:A:OP2	2.17	0.44
34:1c:18:TRP:O	34:1c:21:ARG:NH1	2.50	0.44
34:1c:95:THR:O	34:1c:97:LYS:HD2	2.17	0.44
35:1d:99:SER:O	35:1d:140:VAL:N	2.35	0.44
37:1f:19:LEU:O	37:1f:23:LYS:HG3	2.17	0.44
39:1h:25:ASP:N	39:1h:25:ASP:OD1	2.48	0.44
43:1l:27:LEU:O	43:1l:29:GLY:N	2.50	0.44
1:2A:57:C:H2'	1:2A:58:G:O4'	2.17	0.44
1:2A:595:C:H2'	1:2A:596:G:C8	2.53	0.44
1:2A:1278:A:OP1	13:2R:36:THR:HG23	2.17	0.44
1:2A:1567:A:OP2	3:2D:84:TYR:OH	2.25	0.44
11:2P:84:ASN:HB3	11:2P:117:GLU:O	2.17	0.44
16:2U:72:HIS:HB2	16:2U:110:VAL:HG11	2.00	0.44
18:2W:88:ARG:HA	18:2W:88:ARG:HD2	1.76	0.44
32:2a:545:C:H5'	35:2d:72:GLU:HB2	1.99	0.44
32:2a:868:C:H2'	32:2a:869:G:O4'	2.18	0.44
32:2a:1223:C:OP2	50:2s:78:ARG:NH2	2.50	0.44
32:2a:1244:C:H2'	32:2a:1245:A:C8	2.52	0.44
32:2a:1305:G:H22	32:2a:1331:G:H1'	1.82	0.44
32:2a:1423:G:H2'	32:2a:1424:C:C6	2.53	0.44
35:2d:155:LEU:HD22	35:2d:156:GLU:H	1.82	0.44
35:2d:173:TRP:NE1	35:2d:189:PRO:HG3	2.32	0.44
39:2h:38:ILE:HD11	39:2h:118:VAL:O	2.17	0.44
1:1A:1173:G:O2'	1:1A:1174:A:O4'	2.35	0.44
1:1A:1780:A:OP1	63:1A:8627:HOH:O	2.21	0.44
1:1A:1805:U:O2	3:1D:50:THR:HB	2.17	0.44
1:1A:2552:OMU:O5'	1:1A:2552:OMU:H6	2.17	0.44
4:1E:32:PRO:HD2	4:1E:50:GLY:O	2.18	0.44
5:1F:196:LEU:HD23	5:1F:196:LEU:HA	1.79	0.44
11:1P:141:ALA:HA	25:23:38:GLU:CG	2.47	0.44
25:13:29:ARG:HG3	25:13:30:ARG:HG3	1.99	0.44
27:15:16:ARG:HD2	27:15:17:ASP:OD1	2.18	0.44
32:1a:235:C:H2'	32:1a:236:G:H8	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:254:G:H21	48:1q:16:GLN:CD	2.24	0.44
32:1a:266:G:H5"	32:1a:267:C:H5	1.82	0.44
32:1a:461:A:O2'	32:1a:470:C:H5'	2.17	0.44
32:1a:755:G:OP2	46:1o:65:ARG:HD2	2.18	0.44
32:1a:954:G:H5'	53:1y:17:ARG:NH2	2.32	0.44
32:1a:991:U:H4'	32:1a:992:U:O5'	2.17	0.44
32:1a:1101:A:H4'	32:1a:1102:A:O5'	2.17	0.44
34:1c:62:ASP:O	34:1c:97:LYS:HB2	2.18	0.44
40:1i:112:LYS:HD2	40:1i:118:LYS:O	2.18	0.44
44:1m:79:LYS:HA	44:1m:82:MET:HE3	1.99	0.44
1:2A:878:A:H3'	1:2A:879:G:H8	1.81	0.44
1:2A:1647:G:H3'	1:2A:1647:G:OP2	2.17	0.44
1:2A:1754:C:H2'	1:2A:1755:A:O4'	2.17	0.44
1:2A:2282:G:H4'	1:2A:2389:G:O2'	2.16	0.44
2:2B:55:U:O3'	6:2G:27:ASN:ND2	2.51	0.44
7:2H:70:THR:HG22	7:2H:74:ASN:HD21	1.81	0.44
8:2I:130:TYR:HB3	8:2I:138:ILE:HB	1.99	0.44
19:2X:94:GLY:HA3	19:2X:95:LEU:C	2.42	0.44
23:21:50:ARG:NH1	23:21:57:GLU:OE2	2.43	0.44
32:2a:189(B):C:H2'	32:2a:189(C):C:C6	2.52	0.44
32:2a:294:U:OP1	32:2a:610:G:O2'	2.31	0.44
32:2a:382:A:H2'	32:2a:383:A:C8	2.52	0.44
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.53	0.44
32:2a:1135:U:H2'	32:2a:1137:C:N3	2.33	0.44
32:2a:1400:5MC:N3	53:2y:63:ALA:HA	2.33	0.44
32:2a:1516:G:N1	32:2a:1519:MA6:OP2	2.50	0.44
49:2r:56:THR:HB	49:2r:58:LEU:HD13	1.99	0.44
1:1A:250:G:H2'	1:1A:251:A:C8	2.53	0.44
1:1A:817:C:H4'	1:1A:932:G:C5	2.53	0.44
1:1A:1394:U:H2'	1:1A:1395:A:O4'	2.18	0.44
3:1D:206:LEU:HD22	3:1D:211:ARG:HG2	1.99	0.44
5:1F:116:ASP:OD1	5:1F:119:ARG:NH2	2.50	0.44
9:1N:58:ASP:OD1	9:1N:58:ASP:N	2.48	0.44
13:1R:96:ARG:NH2	13:1R:118:GLU:OE2	2.51	0.44
32:1a:1004:A:C6	32:1a:1037:C:C2	3.06	0.44
39:1h:81:HIS:ND1	39:1h:138:TRP:OXT	2.51	0.44
40:1i:5:TYR:HE1	40:1i:16:ARG:HB3	1.82	0.44
40:1i:42:ARG:O	40:1i:74:ILE:HG21	2.18	0.44
42:1k:27:ASN:HA	42:1k:55:LYS:O	2.18	0.44
49:1r:55:ARG:CZ	49:1r:55:ARG:HB3	2.47	0.44
1:2A:299:A:N3	1:2A:319:C:O2'	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:828:U:H4'	1:2A:831:G:N1	2.32	0.44
1:2A:888:C:OP1	44:2m:93:ARG:HD2	2.16	0.44
1:2A:1047:G:H2'	1:2A:1110:G:H22	1.82	0.44
1:2A:1055:G:H2'	1:2A:1056:G:O4'	2.17	0.44
1:2A:1482:G:O6	1:2A:1507:A:N6	2.50	0.44
2:2B:43:C:C4	2:2B:45:A:C6	3.05	0.44
5:2F:113:ALA:HB2	5:2F:183:VAL:HG13	1.99	0.44
12:2Q:1:MET:HB3	12:2Q:1:MET:HE2	1.80	0.44
20:2Y:86:ARG:NH1	20:2Y:100:ALA:HA	2.31	0.44
32:2a:1118:C:H1'	32:2a:1179:A:C4	2.53	0.44
32:2a:1458:G:H5"	51:2t:31:SER:HB2	1.98	0.44
35:2d:166:LYS:HG2	35:2d:166:LYS:O	2.16	0.44
1:1A:1139:G:OP1	63:1A:8630:HOH:O	2.21	0.44
1:1A:1142(A):A:O2'	1:1A:1143:A:H3'	2.18	0.44
1:1A:1890:A:OP2	63:1A:8636:HOH:O	2.21	0.44
1:1A:2032:G:H1'	4:1E:145:LYS:HD3	2.00	0.44
1:1A:2761:G:H1'	7:1H:143:GLN:OE1	2.18	0.44
1:1A:2811:G:N2	1:1A:2891:G:H1'	2.32	0.44
1:1A:2849:U:H4'	1:1A:2868:A:C2	2.53	0.44
2:1B:33:G:C2	2:1B:50:G:C2	3.06	0.44
3:1D:97:TYR:HE2	3:1D:103:ARG:HG3	1.82	0.44
8:1I:114:LEU:HD12	8:1I:130:TYR:HA	1.98	0.44
32:1a:309:G:H2'	32:1a:310:G:H8	1.81	0.44
32:1a:1057:G:H4'	34:1c:197:GLY:H	1.83	0.44
32:1a:1273:G:H5'	32:1a:1274:G:OP2	2.17	0.44
33:1b:102:LEU:HB3	33:1b:180:LEU:HD13	1.99	0.44
39:1h:83:ILE:HA	39:1h:136:GLU:O	2.16	0.44
41:1j:40:LEU:HB3	41:1j:41:PRO:HD2	2.00	0.44
44:1m:20:THR:C	44:1m:22:ILE:H	2.26	0.44
1:2A:58:G:O2'	1:2A:73:A:N1	2.46	0.44
1:2A:706:A:H2'	1:2A:707:G:O4'	2.18	0.44
1:2A:953:A:OP2	12:2Q:16:ARG:NE	2.50	0.44
1:2A:1153:C:H2'	1:2A:1154:G:O4'	2.17	0.44
6:2G:38:VAL:HB	6:2G:158:ALA:HB3	1.99	0.44
8:2I:14:ASP:OD1	8:2I:15:VAL:N	2.49	0.44
12:2Q:52:VAL:HA	12:2Q:55:VAL:HG13	2.00	0.44
17:2V:1:MET:HE3	17:2V:44:LYS:H	1.83	0.44
18:2W:37:ARG:HG2	18:2W:38:TYR:CE2	2.52	0.44
32:2a:604:G:H2'	32:2a:605:U:O4'	2.18	0.44
32:2a:737:A:H5"	37:2f:92:LYS:HG3	1.99	0.44
32:2a:1002:G:N3	32:2a:1003:G:C8	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1051:C:N3	32:2a:1207:2MG:N2	2.61	0.44
32:2a:1346:A:N1	32:2a:1374:A:H5"	2.32	0.44
33:2b:155:LEU:HD12	33:2b:155:LEU:HA	1.85	0.44
34:2c:98:ASN:O	34:2c:100:ALA:N	2.50	0.44
34:2c:181:ASN:ND2	34:2c:204:LEU:HD12	2.33	0.44
35:2d:68:TYR:CD2	35:2d:97:LEU:HD22	2.53	0.44
35:2d:108:LEU:HD12	35:2d:108:LEU:HA	1.82	0.44
42:2k:20:TYR:CE1	42:2k:83:ILE:HD12	2.53	0.44
1:1A:181:A:H5"	29:17:36:GLN:NE2	2.33	0.44
1:1A:729:G:O5'	3:1D:208:LYS:NZ	2.51	0.44
1:1A:801:G:O6	5:1F:53:THR:OG1	2.36	0.44
1:1A:1165:U:H2'	1:1A:1166:C:C6	2.53	0.44
1:1A:1174:A:H4'	1:1A:1175:U:OP1	2.17	0.44
1:1A:2864:G:H2'	1:1A:2865:U:C6	2.52	0.44
3:1D:54:ARG:HD3	63:1D:401:HOH:O	2.17	0.44
4:1E:170:LEU:HB3	4:1E:184:VAL:CG2	2.47	0.44
5:1F:125:LEU:HD12	5:1F:194:MET:HB2	2.00	0.44
13:1R:70:LEU:O	13:1R:72:ASP:N	2.50	0.44
32:1a:575:G:O2'	32:1a:821:G:H5'	2.17	0.44
32:1a:965:A:OP2	53:1y:8:LYS:NZ	2.51	0.44
32:1a:1148:U:O3'	40:1i:14:VAL:HG11	2.17	0.44
32:1a:1298:C:H2'	38:1g:114:ARG:HH21	1.82	0.44
1:2A:9:U:O4	1:2A:2629:A:H2	2.01	0.44
1:2A:68:G:H2'	1:2A:69:C:O4'	2.18	0.44
1:2A:239:U:H2'	1:2A:240:G:O4'	2.17	0.44
1:2A:1074:G:N1	1:2A:1075:C:H1'	2.33	0.44
2:2B:33:G:C2	2:2B:50:G:C2	3.06	0.44
10:2O:40:VAL:HG22	10:2O:59:LYS:HG2	2.00	0.44
21:2Z:13:GLU:OE1	21:2Z:13:GLU:N	2.41	0.44
25:23:18:ASP:HB2	25:23:49:LYS:HE2	2.00	0.44
32:2a:415:A:H2'	32:2a:416:G:O4'	2.18	0.44
32:2a:592:G:H2'	32:2a:593:G:C8	2.52	0.44
32:2a:1025:U:O2'	32:2a:1026:G:N7	2.51	0.44
32:2a:1126:U:O4	41:2j:71:LEU:HD12	2.18	0.44
34:2c:180:ALA:HB1	34:2c:203:PHE:CE1	2.53	0.44
35:2d:108:LEU:HB3	35:2d:110:PHE:CD1	2.52	0.44
1:1A:271(B):C:H42	1:1A:271(V):G:H1	1.66	0.44
1:1A:1371:G:H2'	1:1A:1372:U:H5	1.82	0.44
1:1A:1859:A:N6	1:1A:1883:G:O2'	2.51	0.44
3:1D:17:THR:HG1	3:1D:205:VAL:H	1.65	0.44
3:1D:97:TYR:CE2	3:1D:103:ARG:HG3	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1E:73:GLU:H	4:1E:73:GLU:CD	2.26	0.44
5:1F:116:ASP:OD2	11:1P:1:MET:HB3	2.17	0.44
6:1G:126:ASP:HB3	6:1G:128:ARG:H	1.82	0.44
6:1G:137:GLU:HG2	6:1G:152:LEU:HD22	1.99	0.44
18:1W:71:VAL:HA	18:1W:107:LEU:HD12	1.99	0.44
32:1a:227:G:H2'	32:1a:228:A:O4'	2.17	0.44
32:1a:1048:G:OP1	45:1n:4:LYS:HD2	2.17	0.44
32:1a:1125:U:C6	41:1j:38:ILE:HD13	2.53	0.44
32:1a:1226:C:H4'	50:1s:80:TYR:OH	2.17	0.44
32:1a:1245:A:H2'	32:1a:1246:C:O4'	2.17	0.44
32:1a:1317:C:OP1	45:1n:18:VAL:HG22	2.18	0.44
32:1a:1318:A:H5"	50:1s:3:ARG:NH1	2.32	0.44
35:1d:128:VAL:O	35:1d:131:ARG:N	2.44	0.44
37:1f:19:LEU:HD11	37:1f:59:TYR:CZ	2.53	0.44
44:1m:36:LYS:HG3	44:1m:59:TYR:CZ	2.53	0.44
1:2A:27:G:HO2'	1:2A:28:A:P	2.40	0.44
1:2A:634:C:H2'	1:2A:635:C:C6	2.53	0.44
1:2A:765:G:O2'	63:2A:3887:HOH:O	2.17	0.44
1:2A:854:G:H2'	1:2A:855:G:C8	2.52	0.44
1:2A:1096:A:C4	1:2A:1097:U:H5	2.35	0.44
1:2A:1561:G:H2'	1:2A:1562:A:C8	2.53	0.44
1:2A:2023:G:H4'	1:2A:2617:C:O3'	2.17	0.44
1:2A:2144:U:H1'	1:2A:2147:G:O6	2.18	0.44
1:2A:2619:C:H4'	4:2E:151:TYR:O	2.18	0.44
1:2A:2741:A:H5"	31:29:22:ARG:HH12	1.83	0.44
2:2B:3:C:H2'	2:2B:4:C:H6	1.81	0.44
2:2B:24:G:H4'	2:2B:25:A:C8	2.53	0.44
4:2E:48:GLN:HA	4:2E:80:GLU:HA	1.98	0.44
6:2G:15:VAL:HG21	6:2G:176:LEU:HD23	1.99	0.44
8:2I:86:THR:HA	8:2I:123:LEU:HD12	1.99	0.44
26:24:32:TYR:HD1	63:24:602:HOH:O	2.01	0.44
32:2a:438:G:O2'	32:2a:494:U:O4	2.24	0.44
32:2a:560:U:H4'	32:2a:561:U:O5'	2.16	0.44
32:2a:988:G:C2	32:2a:989:C:H1'	2.52	0.44
32:2a:1275:A:H2'	32:2a:1276:G:C8	2.51	0.44
34:2c:73:PRO:O	34:2c:77:ILE:HG12	2.18	0.44
37:2f:70:ASP:OD1	37:2f:70:ASP:N	2.50	0.44
40:2i:3:GLN:HG3	40:2i:20:ARG:NE	2.30	0.44
40:2i:7:THR:O	40:2i:79:LEU:HD23	2.17	0.44
53:2y:88:LEU:HA	53:2y:88:LEU:HD23	1.69	0.44
1:1A:784:A:C8	1:1A:792:G:C5	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1055:G:C6	1:1A:1104:C:N3	2.86	0.44
1:1A:1400:G:H2'	1:1A:1401:G:C8	2.53	0.44
1:1A:2038:G:O6	63:1A:8612:HOH:O	2.20	0.44
1:1A:2258:C:OP1	63:1A:8628:HOH:O	2.21	0.44
1:1A:2418:A:H2'	1:1A:2419:U:C6	2.52	0.44
1:1A:2867:G:OP2	15:1T:119:LYS:NZ	2.30	0.44
12:1Q:21:THR:HG21	12:1Q:101:ARG:HB2	2.00	0.44
14:1S:74:ALA:HA	14:1S:110:LEU:HD22	2.00	0.44
16:1U:112:ARG:HD2	17:1V:47:VAL:HG11	2.00	0.44
19:1X:40:LYS:O	19:1X:44:GLU:HG3	2.17	0.44
24:12:36:ARG:HD3	63:12:111:HOH:O	2.18	0.44
24:12:52:ASP:O	24:12:56:GLN:HG3	2.18	0.44
28:16:45:LYS:HG3	28:16:46:HIS:O	2.18	0.44
32:1a:113:G:H2'	32:1a:114:U:C6	2.53	0.44
32:1a:973:G:H3'	32:1a:974:A:H5"	1.99	0.44
32:1a:1027:C:H2'	32:1a:1028:C:C5	2.52	0.44
33:1b:98:LEU:HG	33:1b:101:MET:HE2	1.99	0.44
33:1b:160:ASP:O	33:1b:183:PRO:HD2	2.17	0.44
38:1g:111:ARG:HB3	38:1g:113:GLU:OE2	2.18	0.44
39:1h:26:VAL:HG22	39:1h:59:LEU:HB2	2.00	0.44
39:1h:67:PRO:O	39:1h:76:PRO:HB3	2.17	0.44
1:2A:1011:G:OP1	16:2U:77:SER:OG	2.36	0.44
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.33	0.44
1:2A:2137:C:N3	1:2A:2154:G:O6	2.51	0.44
1:2A:2341:G:H2'	1:2A:2342:C:C6	2.53	0.44
1:2A:2785:C:O2'	4:2E:66:HIS:ND1	2.45	0.44
63:2A:4948:HOH:O	5:2F:74:ARG:HG3	2.18	0.44
5:2F:57:VAL:HG13	5:2F:59:TYR:H	1.83	0.44
6:2G:49:ASP:N	6:2G:49:ASP:OD1	2.51	0.44
18:2W:29:LEU:HD21	18:2W:33:ARG:NH2	2.33	0.44
21:2Z:30:ASN:O	21:2Z:32:HIS:N	2.50	0.44
21:2Z:54:HIS:NE2	21:2Z:123:ASP:HB3	2.33	0.44
23:21:11:ARG:HE	23:21:11:ARG:HB3	1.51	0.44
32:2a:384:G:H2'	32:2a:385:C:C6	2.53	0.44
32:2a:722:A:N6	32:2a:724:G:C2	2.86	0.44
32:2a:1160:G:H1	32:2a:1177:G:N2	2.16	0.44
32:2a:1206:G:O2'	34:2c:193:TYR:HA	2.17	0.44
32:2a:1269:A:H2	32:2a:1312:G:N3	2.16	0.44
37:2f:15:ASP:OD1	37:2f:18:GLN:N	2.34	0.44
1:1A:299:A:N1	1:1A:322:A:O2'	2.39	0.44
1:1A:784:A:H5'	1:1A:785:G:OP1	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1858:G:N2	1:1A:1883:G:H2'	2.33	0.44
1:1A:2096:U:O2	1:1A:2193:G:N2	2.39	0.44
1:1A:2230:G:O6	63:1A:8634:HOH:O	2.21	0.44
1:1A:2393:A:O2'	11:1P:60:MET:O	2.30	0.44
1:1A:2670:A:H2'	1:1A:2671:A:O4'	2.18	0.44
2:1B:41:U:H5	6:1G:70:VAL:O	2.01	0.44
2:1B:42:C:O2	6:1G:92:VAL:HA	2.18	0.44
6:1G:146:TYR:HD2	6:1G:146:TYR:O	2.01	0.44
8:1I:130:TYR:HB3	8:1I:138:ILE:HB	1.99	0.44
9:1N:117:PHE:HB2	63:1N:317:HOH:O	2.18	0.44
20:1Y:83:THR:HG21	20:1Y:99:CYS:HB2	2.00	0.44
32:1a:979:C:O2	45:1n:19:ARG:NE	2.36	0.44
32:1a:1026:G:H3'	32:1a:1027:C:C6	2.52	0.44
32:1a:1155:G:H2'	32:1a:1156:G:O4'	2.18	0.44
33:1b:128:GLU:C	33:1b:130:ARG:H	2.24	0.44
35:1d:94:LEU:HA	35:1d:97:LEU:HD12	1.99	0.44
39:1h:97:VAL:HA	39:1h:100:ILE:HD11	1.99	0.44
51:1t:101:GLY:HA2	51:1t:102:GLY:HA2	1.81	0.44
1:2A:195:A:C8	1:2A:197:A:OP1	2.70	0.44
1:2A:1409:C:H2'	1:2A:1410:G:C8	2.53	0.44
1:2A:2073:C:H3'	63:2A:3875:HOH:O	2.18	0.44
2:2B:8:U:H3	2:2B:113:G:H1	1.66	0.44
3:2D:72:LYS:NZ	3:2D:99:ASP:OD2	2.42	0.44
5:2F:7:TYR:O	5:2F:22:ALA:N	2.51	0.44
26:24:9:LEU:HA	26:24:26:SER:O	2.18	0.44
32:2a:130:A:O2'	32:2a:131:C:O5'	2.33	0.44
32:2a:950:U:OP2	44:2m:102:ARG:HD3	2.18	0.44
32:2a:1232:U:H5"	40:2i:124:GLN:O	2.18	0.44
34:2c:39:ILE:O	34:2c:43:LEU:HG	2.18	0.44
39:2h:53:VAL:HB	39:2h:58:TYR:CD2	2.53	0.44
40:2i:99:LEU:HD23	40:2i:101:PHE:CE2	2.52	0.44
42:2k:69:ALA:O	42:2k:73:MET:HG3	2.17	0.44
1:1A:185:U:H2'	1:1A:186:G:H8	1.83	0.43
1:1A:234:C:H2'	1:1A:235:U:C6	2.53	0.43
1:1A:1448:G:N7	63:1A:8891:HOH:O	2.36	0.43
1:1A:2147:G:H2'	1:1A:2148:G:O4'	2.17	0.43
1:1A:2686:G:H5'	63:1A:8718:HOH:O	2.18	0.43
2:1B:77:U:P	21:1Z:19:ARG:HH22	2.41	0.43
5:1F:110:LEU:HD22	5:1F:202:PHE:HE1	1.83	0.43
17:1V:61:VAL:HA	17:1V:94:LEU:HD23	2.00	0.43
21:1Z:29:TYR:HB3	21:1Z:34:ASN:ND2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:11:80:LEU:HB3	23:11:82:LEU:HG	2.00	0.43
26:14:15:ILE:HB	26:14:32:TYR:HD1	1.83	0.43
32:1a:131:C:O2'	32:1a:262:A:N3	2.43	0.43
32:1a:731:G:OP1	32:1a:766:A:H1'	2.18	0.43
32:1a:909:A:H2'	32:1a:910:C:O4'	2.18	0.43
32:1a:969:A:OP1	41:1j:55:LYS:NZ	2.50	0.43
32:1a:1287:A:C6	32:1a:1288:A:C6	3.06	0.43
35:1d:157:LEU:HD23	35:1d:161:ASN:HD21	1.83	0.43
35:1d:168:ARG:N	35:1d:168:ARG:HH11	2.15	0.43
1:2A:1466:G:O2'	1:2A:1546:C:O2'	2.18	0.43
1:2A:1800:C:P	3:2D:183:ARG:HH12	2.41	0.43
13:2R:33:ARG:NH2	13:2R:115:GLU:OE1	2.43	0.43
23:21:23:LYS:HD3	23:21:27:GLU:O	2.18	0.43
28:26:33:LYS:HA	28:26:33:LYS:HD3	1.74	0.43
29:27:12:ARG:HG2	29:27:46:VAL:HG22	2.00	0.43
32:2a:434:U:H2'	32:2a:435:C:O4'	2.18	0.43
32:2a:1347:G:N2	32:2a:1373:G:H2'	2.32	0.43
35:2d:58:LEU:O	35:2d:62:GLN:HG2	2.17	0.43
38:2g:90:GLU:H	38:2g:90:GLU:CD	2.26	0.43
45:2n:23:ARG:NH1	45:2n:30:ALA:HB2	2.33	0.43
49:2r:35:ARG:O	49:2r:37:VAL:N	2.51	0.43
49:2r:40:LEU:HB3	49:2r:79:LEU:HD11	2.00	0.43
1:1A:196:A:H2'	1:1A:196:A:N3	2.33	0.43
1:1A:221:A:N1	1:1A:265:A:O2'	2.46	0.43
1:1A:888:C:H5'	44:1m:93:ARG:HD2	1.98	0.43
1:1A:922:U:H2'	1:1A:923:C:C6	2.53	0.43
1:1A:1450:G:H2'	1:1A:1450(A):C:H6	1.83	0.43
1:1A:2169:A:H8	1:1A:2169:A:OP1	2.00	0.43
1:1A:2304:G:N2	6:1G:156:ASP:OD2	2.49	0.43
1:1A:2882:A:OP1	13:1R:96:ARG:HD3	2.17	0.43
8:1I:45:LYS:H	8:1I:45:LYS:HG3	1.54	0.43
10:1O:73:ASP:HB2	15:1T:82:LEU:HD13	1.99	0.43
16:1U:59:ARG:NH1	63:1U:309:HOH:O	2.46	0.43
26:14:34:GLU:HB2	44:1m:57:ARG:NE	2.32	0.43
26:14:46:GLN:O	26:14:48:ARG:N	2.50	0.43
28:16:44:ARG:HG2	28:16:44:ARG:HH11	1.83	0.43
32:1a:341:C:H2'	32:1a:342:C:H6	1.81	0.43
32:1a:510:A:H5"	32:1a:511:C:P	2.58	0.43
32:1a:1027:C:O2	32:1a:1034:G:N1	2.52	0.43
32:1a:1123:A:O2'	41:1j:38:ILE:HG23	2.18	0.43
35:1d:61:LYS:HD3	35:1d:206:PHE:CD2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1i:26:VAL:HG22	40:1i:61:ALA:HB3	1.99	0.43
1:2A:634:C:O5'	1:2A:634:C:H6	2.01	0.43
1:2A:1403:C:P	1:2A:1520:G:H1	2.40	0.43
1:2A:2168:G:O2'	1:2A:2170:A:N7	2.35	0.43
1:2A:2544:G:H1'	1:2A:2646:C:H4'	2.01	0.43
5:2F:17:ARG:NH1	5:2F:19:GLU:HG3	2.33	0.43
6:2G:14:GLU:C	6:2G:17:PRO:HD2	2.43	0.43
6:2G:179:PRO:HB3	26:24:43:TYR:HE1	1.83	0.43
13:2R:9:LYS:O	13:2R:17:ARG:HD3	2.18	0.43
14:2S:105:ALA:HB1	14:2S:110:LEU:HD23	2.01	0.43
15:2T:119:LYS:O	15:2T:123:GLN:HG3	2.19	0.43
21:2Z:54:HIS:CD2	21:2Z:101:PRO:HG3	2.53	0.43
24:22:32:LEU:HD22	24:22:36:ARG:NH1	2.32	0.43
26:24:5:ILE:HG13	26:24:6:HIS:CD2	2.53	0.43
32:2a:742:G:P	46:2o:35:ARG:HH22	2.41	0.43
32:2a:1071:C:H2'	32:2a:1072:G:H8	1.82	0.43
32:2a:1206:G:H2'	32:2a:1207:2MG:O4'	2.17	0.43
35:2d:60:GLU:HG3	35:2d:202:LEU:HD13	2.00	0.43
35:2d:76:ARG:HA	35:2d:76:ARG:HD2	1.84	0.43
40:2i:110:GLU:HG2	40:2i:119:ALA:HB1	2.00	0.43
49:2r:47:THR:HG21	49:2r:49:LYS:HE2	2.00	0.43
1:1A:465:G:C6	1:1A:466:A:N6	2.87	0.43
1:1A:1510:G:H2'	1:1A:1511:C:H6	1.82	0.43
1:1A:2020:A:C6	1:1A:2022:U:C2	3.07	0.43
1:1A:2101:G:H2'	1:1A:2102:U:O4'	2.18	0.43
5:1F:13:SER:C	5:1F:15:SER:H	2.26	0.43
12:1Q:12:GLN:NE2	12:1Q:72:LYS:HA	2.32	0.43
32:1a:266:G:H5'	32:1a:268:C:H41	1.84	0.43
32:1a:389:A:C6	32:1a:390:C:H1'	2.54	0.43
32:1a:708:C:H2'	32:1a:709:G:H8	1.82	0.43
32:1a:820:U:H4'	32:1a:821:G:OP2	2.19	0.43
32:1a:841:U:C5	32:1a:848:C:H1'	2.54	0.43
32:1a:1029:C:C5	32:1a:1030:C:H5	2.35	0.43
33:1b:128:GLU:O	33:1b:135:GLN:NE2	2.50	0.43
1:2A:94(A):G:H2'	1:2A:95:G:O4'	2.18	0.43
1:2A:377:C:H2'	1:2A:378:C:C6	2.53	0.43
1:2A:1631(A):A:N6	63:2A:3894:HOH:O	2.18	0.43
1:2A:1886:C:H2'	1:2A:1887:C:H6	1.83	0.43
5:2F:53:THR:HG22	5:2F:56:GLU:CD	2.44	0.43
5:2F:104:LYS:O	5:2F:108:LYS:HG3	2.19	0.43
7:2H:15:VAL:HG12	7:2H:28:GLY:HA2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:99:TYR:HA	21:2Z:124:ILE:O	2.18	0.43
32:2a:407:G:H2'	32:2a:408:A:C8	2.53	0.43
32:2a:1307:U:H2'	32:2a:1308:U:O4'	2.18	0.43
33:2b:32:ILE:HD13	33:2b:40:HIS:HB3	2.01	0.43
38:2g:74:GLU:OE2	38:2g:95:ARG:HD3	2.18	0.43
53:2y:78:ILE:HG22	53:2y:82:GLU:HG3	2.00	0.43
1:1A:380:U:OP1	63:1A:8638:HOH:O	2.21	0.43
1:1A:1073:A:N3	1:1A:1073:A:H2'	2.34	0.43
1:1A:1579:A:H2'	1:1A:1580:A:O4'	2.19	0.43
1:1A:2591:C:H2'	1:1A:2592:G:H8	1.81	0.43
3:1D:232:PRO:HB3	3:1D:244:ARG:CZ	2.47	0.43
5:1F:183:VAL:HG13	63:1F:440:HOH:O	2.17	0.43
6:1G:122:PRO:HD3	6:1G:181:ARG:HG2	2.00	0.43
9:1N:102:ALA:O	9:1N:106:MET:HG3	2.18	0.43
13:1R:28:LEU:HD23	13:1R:48:VAL:HG21	2.00	0.43
15:1T:20:PRO:HD2	15:1T:86:ILE:HB	1.99	0.43
15:1T:108:ARG:HA	15:1T:111:ARG:NH1	2.32	0.43
17:1V:71:LEU:HD23	17:1V:71:LEU:HA	1.91	0.43
21:1Z:91:LEU:HD13	21:1Z:91:LEU:HA	1.72	0.43
26:14:55:ARG:N	26:14:56:VAL:HA	2.32	0.43
28:16:9:LEU:HD13	28:16:51:GLU:HG3	2.00	0.43
37:1f:100:ASN:HB2	49:1r:28:GLU:HA	2.01	0.43
1:2A:242:G:C8	30:28:5:LYS:HG2	2.53	0.43
1:2A:595:C:H2'	1:2A:596:G:H8	1.82	0.43
1:2A:748:G:OP1	1:2A:2612:C:N4	2.51	0.43
1:2A:1686:C:H2'	1:2A:1687:G:O4'	2.17	0.43
1:2A:2253:G:O6	63:2A:3903:HOH:O	2.18	0.43
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.54	0.43
3:2D:70:TRP:HA	3:2D:73:VAL:HG23	1.99	0.43
3:2D:129:ASN:O	3:2D:193:VAL:HG22	2.18	0.43
4:2E:143:ASN:HD22	4:2E:147:PRO:HD3	1.83	0.43
19:2X:43:VAL:HG21	19:2X:81:VAL:HG11	2.01	0.43
32:2a:565:U:H3'	32:2a:566:G:H2'	2.00	0.43
32:2a:920:U:H2'	32:2a:921:U:C6	2.53	0.43
32:2a:1030(A):G:N2	32:2a:1030(D):A:OP2	2.51	0.43
32:2a:1490:C:H2'	32:2a:1491:G:C8	2.54	0.43
38:2g:46:ALA:O	38:2g:50:ILE:HG23	2.18	0.43
47:2p:3:LYS:HE3	47:2p:3:LYS:HB3	1.77	0.43
1:1A:94(A):G:H2'	1:1A:95:G:O4'	2.18	0.43
1:1A:152:G:H2'	1:1A:153:C:C6	2.53	0.43
1:1A:217:G:OP2	63:1A:8632:HOH:O	2.21	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:322:A:OP2	5:1F:169:ASN:HB2	2.18	0.43
1:1A:645:C:H5'	1:1A:646:A:OP2	2.19	0.43
1:1A:1053:C:O2	1:1A:1106:G:N1	2.51	0.43
1:1A:1423:G:H2'	1:1A:1424:G:C8	2.53	0.43
1:1A:2028:U:H2'	1:1A:2029:G:O4'	2.18	0.43
1:1A:2168:G:C2	1:1A:2171:A:C8	3.06	0.43
1:1A:2722:G:H2'	1:1A:2723:C:C6	2.54	0.43
3:1D:10:THR:OG1	3:1D:13:ARG:HG2	2.17	0.43
6:1G:150:ASP:OD1	6:1G:150:ASP:N	2.50	0.43
7:1H:94:TYR:HE2	7:1H:152:ARG:HG2	1.84	0.43
14:1S:10:ARG:O	14:1S:14:VAL:HG13	2.17	0.43
19:1X:5:TYR:CE1	24:12:30:ARG:HG3	2.54	0.43
33:1b:165:VAL:HG13	33:1b:166:ASP:N	2.33	0.43
36:1e:83:GLU:HG2	36:1e:88:LYS:HB2	1.99	0.43
39:1h:97:VAL:HG21	39:1h:128:GLY:HA2	1.99	0.43
40:1i:4:TYR:HD1	40:1i:87:GLN:HG2	1.82	0.43
46:1o:41:GLU:OE2	46:1o:44:LYS:NZ	2.37	0.43
50:1s:36:ARG:NH1	50:1s:53:ASN:HA	2.33	0.43
1:2A:207:A:H2'	1:2A:208:C:O4'	2.19	0.43
1:2A:744:G:P	4:2E:132:HIS:HD1	2.41	0.43
1:2A:1062:G:H2'	1:2A:1062:G:N3	2.33	0.43
1:2A:1111:A:N3	1:2A:1111:A:H2'	2.33	0.43
1:2A:1919:A:O3'	32:2a:1517:G:H1'	2.19	0.43
1:2A:1999:C:H4'	1:2A:2723:C:O2	2.18	0.43
1:2A:2661:G:H2'	1:2A:2662:A:C8	2.53	0.43
1:2A:2789:C:O2	1:2A:2894:G:N2	2.51	0.43
11:2P:59:LEU:HD22	30:28:13:ARG:HD2	2.01	0.43
11:2P:79:ARG:O	11:2P:111:ARG:N	2.34	0.43
20:2Y:38:ILE:HD13	20:2Y:66:PRO:HA	2.00	0.43
28:26:12:GLU:HA	28:26:19:ARG:HA	2.01	0.43
29:27:24:THR:HG22	29:27:27:GLY:H	1.82	0.43
32:2a:25:C:H5'	32:2a:524:G:H1'	2.00	0.43
32:2a:176:C:H2'	32:2a:177:C:H6	1.83	0.43
32:2a:352:C:H4'	32:2a:354:G:OP1	2.18	0.43
32:2a:425:G:O3'	35:2d:45:GLN:NE2	2.51	0.43
32:2a:437:U:H5'	35:2d:155:LEU:HD11	2.01	0.43
32:2a:573:A:N3	32:2a:883:C:O2'	2.49	0.43
32:2a:983:A:H1'	32:2a:1049:U:O2	2.19	0.43
32:2a:1305:G:O2'	32:2a:1306:A:OP2	2.35	0.43
34:2c:32:LEU:O	34:2c:36:ASP:N	2.43	0.43
35:2d:13:ARG:HB2	35:2d:40:PRO:HD3	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:2g:115:ARG:O	38:2g:119:ARG:HG3	2.18	0.43
40:2i:37:PHE:HB3	40:2i:43:ALA:HB1	2.00	0.43
41:2j:40:LEU:HD11	41:2j:71:LEU:HB2	2.01	0.43
1:1A:784:A:C5	3:1D:229:VAL:HG21	2.54	0.43
1:1A:898:C:H2'	1:1A:899:A:O4'	2.18	0.43
1:1A:1173:G:OP2	1:1A:1173:G:H2'	2.19	0.43
1:1A:1696:G:N7	63:1A:8901:HOH:O	2.37	0.43
1:1A:1795:C:H2'	1:1A:1796:U:O4'	2.19	0.43
1:1A:2142:C:C2	1:1A:2149:G:N1	2.86	0.43
63:1A:9172:HOH:O	3:1D:274:ARG:HD3	2.18	0.43
7:1H:3:ARG:HE	7:1H:54:ARG:NH1	2.16	0.43
29:17:48:LYS:HB2	29:17:48:LYS:HE3	1.58	0.43
30:18:62:LEU:HB3	30:18:65:GLU:HG3	2.01	0.43
32:1a:690:G:C6	32:1a:691:G:C6	3.07	0.43
32:1a:1125:U:C2	32:1a:1127:G:C8	3.06	0.43
32:1a:1486:G:H2'	32:1a:1487:G:O4'	2.17	0.43
33:1b:48:MET:HE2	33:1b:48:MET:HA	2.01	0.43
34:1c:22:TRP:CH2	34:1c:32:LEU:HB2	2.54	0.43
38:1g:69:VAL:HG21	38:1g:104:LEU:CD2	2.48	0.43
50:1s:15:LEU:HD22	50:1s:35:SER:HB2	2.01	0.43
1:2A:652(A):A:H2'	1:2A:652(A):A:N3	2.34	0.43
1:2A:795:C:H2'	1:2A:796:C:C6	2.54	0.43
1:2A:1580:A:H8	1:2A:1580:A:OP2	2.01	0.43
1:2A:2032:G:H4'	63:2A:5059:HOH:O	2.17	0.43
7:2H:32:GLU:C	7:2H:33:LEU:HD23	2.43	0.43
11:2P:121:LYS:O	11:2P:123:LEU:N	2.52	0.43
23:21:50:ARG:HG2	23:21:59:THR:CG2	2.48	0.43
32:2a:512:U:H2'	32:2a:513:C:C6	2.53	0.43
32:2a:1071:C:H2'	32:2a:1072:G:C8	2.53	0.43
32:2a:1495:U:OP1	53:2y:23:ARG:NH1	2.52	0.43
42:2k:81:ASP:OD1	42:2k:106:LYS:HB3	2.19	0.43
1:1A:389:G:O6	11:1P:70:GLN:HB3	2.17	0.43
1:1A:2319:G:H1	14:1S:3:ARG:HA	1.83	0.43
4:1E:37:ARG:O	4:1E:45:THR:HA	2.19	0.43
8:1I:12:LEU:O	8:1I:19:VAL:HG11	2.18	0.43
11:1P:86:LYS:HG2	11:1P:117:GLU:O	2.19	0.43
21:1Z:128:VAL:HB	21:1Z:161:VAL:HG23	2.00	0.43
30:18:47:LYS:HE2	58:18:104:MPD:H51	2.00	0.43
32:1a:1003:G:H2'	32:1a:1004:A:C4'	2.43	0.43
32:1a:1117:G:H21	32:1a:1180:A:H1'	1.84	0.43
32:1a:1212:U:H5"	32:1a:1213:A:O5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1298:C:H4'	32:1a:1299:A:O4'	2.18	0.43
34:1c:180:ALA:HB1	34:1c:203:PHE:HE1	1.82	0.43
36:1e:69:VAL:HG13	36:1e:139:LEU:HB3	2.01	0.43
38:1g:26:PHE:CE2	38:1g:30:ILE:HD11	2.53	0.43
38:1g:26:PHE:HE2	38:1g:30:ILE:HD11	1.84	0.43
40:1i:49:PRO:O	40:1i:53:VAL:HG22	2.19	0.43
1:2A:239:U:O2'	1:2A:622:G:H4'	2.19	0.43
1:2A:878:A:H2'	1:2A:879:G:O4'	2.19	0.43
1:2A:881:G:H2'	1:2A:882:G:C8	2.53	0.43
1:2A:2704:C:H2'	1:2A:2705:A:O4'	2.18	0.43
63:2A:5054:HOH:O	4:2E:129:HIS:HD2	2.02	0.43
2:2B:90:A:N7	2:2B:91:C:H1'	2.33	0.43
3:2D:16:MET:HG3	3:2D:206:LEU:O	2.18	0.43
14:2S:105:ALA:O	14:2S:110:LEU:HB2	2.19	0.43
19:2X:9:LEU:HB2	19:2X:29:TRP:O	2.19	0.43
19:2X:53:LYS:NZ	19:2X:55:ASN:OD1	2.49	0.43
21:2Z:144:LEU:HD21	21:2Z:150:LEU:HG	2.01	0.43
26:24:9:LEU:HD23	26:24:26:SER:O	2.18	0.43
32:2a:189(E):U:O2'	32:2a:189(F):U:H5'	2.19	0.43
32:2a:390:C:H2'	32:2a:391:G:C8	2.53	0.43
32:2a:691:G:H1	42:2k:52:GLY:HA2	1.83	0.43
32:2a:718:G:H4'	42:2k:117:ASN:HD21	1.84	0.43
32:2a:1004:A:OP1	32:2a:1024:G:N2	2.49	0.43
32:2a:1216:G:H2'	32:2a:1217:C:C6	2.54	0.43
33:2b:115:LEU:HB2	33:2b:145:LEU:HD13	2.00	0.43
41:2j:78:ASN:O	41:2j:81:THR:N	2.51	0.43
1:1A:231:C:H2'	1:1A:232:G:O4'	2.19	0.43
1:1A:671:C:N4	63:1A:9324:HOH:O	2.52	0.43
1:1A:674:G:O2'	5:1F:74:ARG:HD3	2.19	0.43
1:1A:1906:G:H1	1:1A:1924:C:H42	1.66	0.43
10:1O:17:ARG:O	10:1O:18:LYS:HD2	2.19	0.43
11:1P:28:GLY:O	11:1P:30:THR:N	2.50	0.43
17:1V:66:ARG:NH1	63:1V:309:HOH:O	2.40	0.43
21:1Z:51:ALA:HA	21:1Z:55:HIS:HD2	1.83	0.43
32:1a:529:G:O6	43:1l:49:ASN:HA	2.18	0.43
32:1a:583:A:H2'	32:1a:584:G:O4'	2.19	0.43
32:1a:722:A:N6	32:1a:724:G:C2	2.87	0.43
35:1d:60:GLU:OE1	35:1d:199:ASN:N	2.49	0.43
36:1e:148:VAL:HG21	39:1h:107:LEU:HB3	2.01	0.43
43:1l:39:VAL:HG12	43:1l:41:ARG:HG2	2.01	0.43
43:1l:54:LYS:HD2	43:1l:54:LYS:N	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:1s:35:SER:O	50:1s:71:LEU:HD12	2.19	0.43
1:2A:65:C:O2'	1:2A:456:C:N3	2.50	0.43
1:2A:271(R):G:H4'	23:21:97:LEU:HD21	2.00	0.43
1:2A:796:C:H2'	1:2A:797:C:C6	2.54	0.43
1:2A:879:G:C5	1:2A:880:G:C8	3.06	0.43
1:2A:1479:G:H5"	1:2A:1560:G:H4'	2.01	0.43
1:2A:2312:U:OP1	6:2G:73:ALA:HA	2.19	0.43
1:2A:2313:C:H2'	1:2A:2314:C:C6	2.54	0.43
1:2A:2526:G:C6	1:2A:2527:C:C4	3.07	0.43
1:2A:2558:C:H2'	1:2A:2559:C:O4'	2.19	0.43
2:2B:78:A:C2	2:2B:100:A:C4	3.06	0.43
4:2E:96:PHE:O	4:2E:175:VAL:HG21	2.18	0.43
5:2F:103:LYS:H	5:2F:103:LYS:HG3	1.61	0.43
10:2O:80:ASP:OD2	15:2T:71:GLY:HA3	2.18	0.43
15:2T:62:THR:OG1	15:2T:75:ILE:HD13	2.18	0.43
16:2U:104:GLN:NE2	16:2U:105:VAL:H	2.16	0.43
24:22:11:GLU:O	24:22:15:LYS:HG3	2.18	0.43
26:24:45:GLY:O	26:24:47:GLN:N	2.47	0.43
32:2a:689:C:OP1	42:2k:27:ASN:ND2	2.46	0.43
32:2a:692:U:H2'	32:2a:694:A:OP2	2.18	0.43
32:2a:768:A:N6	63:2a:3296:HOH:O	2.51	0.43
32:2a:781:A:H5'	32:2a:782:A:OP2	2.18	0.43
32:2a:824:C:H2'	32:2a:825:G:H8	1.84	0.43
32:2a:1068:G:H8	32:2a:1068:G:OP2	2.02	0.43
32:2a:1216:G:H2'	32:2a:1217:C:H6	1.83	0.43
32:2a:1324:A:O4'	32:2a:1362:C:H4'	2.19	0.43
32:2a:1503:A:OP1	32:2a:1531:A:O2'	2.37	0.43
34:2c:21:ARG:NH2	34:2c:58:GLU:OE2	2.52	0.43
35:2d:11:LEU:O	35:2d:15:GLU:HG2	2.18	0.43
41:2j:13:HIS:HA	41:2j:16:LEU:HB2	2.01	0.43
43:2l:7:ILE:HG21	48:2q:34:LYS:HB2	2.01	0.43
43:2l:53:ARG:HB2	43:2l:93:LEU:HD11	1.99	0.43
1:1A:460:A:H2'	1:1A:461:C:O4'	2.18	0.43
1:1A:534:U:H2'	1:1A:535:C:C6	2.53	0.43
1:1A:1045:A:H1'	1:1A:1047:G:N3	2.34	0.43
1:1A:1935:G:H1'	1:1A:1964:G:N2	2.34	0.43
1:1A:2839:G:H5'	13:1R:46:GLY:HA2	2.00	0.43
12:1Q:81:VAL:HB	22:10:7:LEU:HD21	2.01	0.43
12:1Q:109:VAL:HG22	12:1Q:113:GLN:OE1	2.19	0.43
13:1R:70:LEU:C	13:1R:72:ASP:H	2.27	0.43
14:1S:38:GLN:HB2	14:1S:47:THR:HG23	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:11:23:LYS:HD2	23:11:29:GLY:CA	2.49	0.43
32:1a:1020:U:H2'	32:1a:1021:G:H8	1.84	0.43
35:1d:61:LYS:HD3	35:1d:206:PHE:CE2	2.54	0.43
35:1d:81:GLU:O	35:1d:85:LYS:HB2	2.19	0.43
1:2A:331:A:C4	1:2A:1209:G:C6	3.06	0.43
1:2A:335:C:H5"	20:2Y:73:ARG:HH21	1.84	0.43
1:2A:602:G:O2'	1:2A:604:G:O2'	2.32	0.43
1:2A:724:U:H2'	1:2A:725:G:O4'	2.19	0.43
1:2A:821:A:H2'	1:2A:946:G:H5"	2.01	0.43
1:2A:1292:U:H2'	1:2A:1293:C:C6	2.53	0.43
1:2A:1527:G:O2'	1:2A:1544:A:N6	2.41	0.43
1:2A:2428:G:H5"	1:2A:2429:G:OP1	2.19	0.43
1:2A:2469:A:H4'	12:2Q:56:ARG:HG2	2.00	0.43
8:2I:65:ALA:O	8:2I:68:LEU:N	2.51	0.43
10:2O:7:TYR:CE1	10:2O:20:MET:HB2	2.54	0.43
13:2R:17:ARG:HG2	13:2R:21:TYR:CE2	2.53	0.43
30:28:23:VAL:HG13	30:28:47:LYS:HB3	2.01	0.43
32:2a:858:G:O6	32:2a:869:G:H3'	2.18	0.43
32:2a:975:A:H5"	32:2a:1363(A):A:N6	2.34	0.43
32:2a:1190:G:H5'	34:2c:176:HIS:CE1	2.54	0.43
32:2a:1327:C:H2'	32:2a:1328:C:C6	2.54	0.43
35:2d:50:ARG:HA	35:2d:51:PRO:HD3	1.90	0.43
38:2g:29:LYS:HB3	38:2g:105:VAL:HG21	2.01	0.43
38:2g:45:ASP:O	38:2g:49:ILE:HG13	2.19	0.43
42:2k:114:VAL:HA	42:2k:115:PRO:HD3	1.81	0.43
48:2q:86:GLU:O	48:2q:90:ILE:HG12	2.17	0.43
49:2r:53:ARG:NH1	49:2r:60:ALA:HB2	2.34	0.43
50:2s:40:ILE:HD11	50:2s:74:PHE:HE2	1.83	0.43
51:2t:51:GLU:HA	51:2t:54:LYS:HE2	2.01	0.43
1:1A:365:C:OP2	63:1A:8640:HOH:O	2.22	0.43
1:1A:911:A:H2'	12:1Q:9:TYR:OH	2.19	0.43
1:1A:2345:G:H4'	1:1A:2346:A:H5"	2.00	0.43
1:1A:2590:A:H2'	1:1A:2591:C:H6	1.83	0.43
3:1D:53:PHE:HA	3:1D:218:ARG:HB2	2.01	0.43
7:1H:7:LEU:O	7:1H:69:ARG:NE	2.46	0.43
7:1H:43:VAL:HG22	7:1H:52:VAL:HG22	2.01	0.43
9:1N:61:ARG:HD3	9:1N:61:ARG:HA	1.65	0.43
10:1O:12:ASP:OD1	10:1O:14:THR:OG1	2.25	0.43
20:1Y:6:HIS:CD2	20:1Y:6:HIS:H	2.36	0.43
22:10:46:LYS:HD2	22:10:78:TYR:CZ	2.54	0.43
30:18:62:LEU:HB3	30:18:65:GLU:CG	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:262:A:C6	32:1a:263:A:C6	3.06	0.43
32:1a:403:C:H4'	35:1d:122:ARG:NH1	2.34	0.43
43:1l:89:ARG:NH2	43:1l:91:LYS:HA	2.33	0.43
1:2A:8:A:H2'	1:2A:9:U:C6	2.54	0.43
1:2A:83:G:H1	1:2A:102:G:HO2'	1.65	0.43
1:2A:252:G:OP1	11:2P:50:ARG:NH1	2.48	0.43
1:2A:372:G:H8	23:21:65:SER:O	2.02	0.43
1:2A:783:A:H4'	1:2A:2588:G:H4'	2.00	0.43
1:2A:1669:A:O2'	1:2A:2549:G:OP1	2.29	0.43
1:2A:2439:A:N6	55:2x:76:8AN:O1P	2.52	0.43
1:2A:2497:A:H5"	63:2A:4632:HOH:O	2.18	0.43
1:2A:2589:A:OP1	63:2A:3928:HOH:O	2.21	0.43
10:2O:104:ARG:N	10:2O:122:LEU:O	2.45	0.43
19:2X:88:LYS:HG2	19:2X:93:GLU:HG3	2.00	0.43
28:26:26:ASN:HB3	28:26:29:ASN:HB2	2.00	0.43
35:2d:142:PRO:HA	35:2d:185:PHE:HD2	1.83	0.43
38:2g:89:MET:SD	38:2g:155:ARG:HB2	2.59	0.43
44:2m:81:LEU:HA	44:2m:84:ILE:HG12	2.00	0.43
49:2r:53:ARG:NH2	49:2r:59:SER:HA	2.33	0.43
1:1A:13:A:N1	1:1A:525:U:H2'	2.33	0.42
1:1A:207:A:H2'	1:1A:208:C:O4'	2.18	0.42
1:1A:1636:C:O2'	1:1A:1760:A:N3	2.50	0.42
1:1A:1688:U:O2	1:1A:1700:A:H5'	2.19	0.42
1:1A:1790:C:H5"	1:1A:1791:A:OP1	2.19	0.42
1:1A:2528:U:O3'	1:1A:2529:G:H8	2.02	0.42
1:1A:2627:G:N2	1:1A:2777:G:OP2	2.43	0.42
1:1A:2784:C:H1'	4:1E:37:ARG:HH12	1.84	0.42
7:1H:11:VAL:HG13	7:1H:15:VAL:HG22	2.00	0.42
12:1Q:29:PHE:O	21:1Z:122:ARG:NH2	2.51	0.42
14:1S:66:ALA:O	14:1S:69:VAL:HG22	2.19	0.42
16:1U:59:ARG:O	16:1U:63:VAL:HG23	2.19	0.42
32:1a:22:G:H2'	32:1a:23:C:C6	2.54	0.42
32:1a:674:G:H2'	32:1a:675:A:H8	1.83	0.42
32:1a:1086:U:H2'	32:1a:1087:G:H8	1.84	0.42
32:1a:1125:U:O2	32:1a:1126:U:O2'	2.35	0.42
32:1a:1149:C:H2'	32:1a:1150:U:O4'	2.18	0.42
32:1a:1273:G:H3'	32:1a:1274:G:H8	1.84	0.42
32:1a:1328:C:OP1	52:1u:21:TYR:OH	2.26	0.42
36:1e:33:VAL:HG21	36:1e:109:ILE:HA	2.00	0.42
36:1e:118:ILE:HG13	36:1e:119:LEU:N	2.34	0.42
38:1g:23:VAL:HG13	38:1g:43:PHE:CZ	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:1m:65:LYS:NZ	44:1m:73:GLU:OE1	2.45	0.42
48:1q:95:TYR:HA	48:1q:98:LEU:HD13	2.00	0.42
50:1s:30:LEU:HD12	50:1s:48:THR:O	2.18	0.42
50:1s:80:TYR:CZ	50:1s:82:GLY:HA2	2.54	0.42
51:1t:67:ALA:HA	51:1t:72:LEU:O	2.18	0.42
1:2A:118:A:H1'	1:2A:178:G:O4'	2.19	0.42
1:2A:1200:C:H1'	16:2U:2:PRO:HG3	2.01	0.42
1:2A:1807:G:N2	1:2A:1810:A:OP2	2.48	0.42
1:2A:1820:U:H4'	1:2A:1821:A:OP2	2.19	0.42
1:2A:1935:G:H1'	1:2A:1964:G:N2	2.34	0.42
1:2A:2322:A:H2'	1:2A:2323:G:O4'	2.18	0.42
1:2A:2695:C:H2'	1:2A:2696:U:C6	2.54	0.42
1:2A:2846:G:H2'	1:2A:2847:U:O4'	2.19	0.42
2:2B:34:U:O2'	2:2B:44:G:N7	2.42	0.42
7:2H:26:VAL:O	7:2H:79:VAL:HG11	2.19	0.42
22:20:51:VAL:HG22	22:20:81:VAL:HG23	1.99	0.42
26:24:10:VAL:HG22	63:24:601:HOH:O	2.19	0.42
32:2a:138:G:H2'	32:2a:139:G:H8	1.83	0.42
32:2a:652:U:H1'	32:2a:653:A:H2	1.84	0.42
32:2a:1491:G:O2'	32:2a:1492:A:OP1	2.30	0.42
33:2b:15:VAL:HG12	33:2b:209:ARG:HD2	2.00	0.42
34:2c:101:LEU:HD12	34:2c:101:LEU:HA	1.84	0.42
34:2c:186:PHE:HA	34:2c:198:VAL:O	2.19	0.42
43:2l:49:ASN:HD22	43:2l:53:ARG:HH11	1.66	0.42
1:1A:263:C:H2'	1:1A:264:C:O4'	2.19	0.42
1:1A:330:A:H2	1:1A:1210:A:C2'	2.32	0.42
1:1A:903:C:H2'	1:1A:904:C:H6	1.82	0.42
1:1A:1082:U:C4	1:1A:1086:A:N1	2.84	0.42
1:1A:1086:A:H3'	1:1A:1086:A:N3	2.35	0.42
1:1A:1207:C:H2'	1:1A:1208:C:C6	2.55	0.42
7:1H:52:VAL:HG12	7:1H:65:HIS:CD2	2.53	0.42
13:1R:79:LEU:HA	13:1R:83:ILE:HB	2.00	0.42
20:1Y:30:VAL:HG13	20:1Y:37:VAL:HG12	2.01	0.42
21:1Z:136:PHE:HE1	21:1Z:138:GLU:HG3	1.84	0.42
32:1a:42:G:H2'	32:1a:43:C:C6	2.55	0.42
32:1a:830:G:H2'	32:1a:831:U:O4'	2.19	0.42
32:1a:839:U:OP1	32:1a:839:U:H6	2.02	0.42
32:1a:986:A:H1'	50:1s:54:GLY:O	2.19	0.42
32:1a:1187:G:H5"	40:1i:113:LYS:HD3	2.00	0.42
36:1e:102:ALA:HB2	36:1e:120:THR:HG21	2.00	0.42
51:1t:60:GLU:HG3	51:1t:81:LYS:HD2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:486:C:H4'	18:2W:60:ASN:HD21	1.84	0.42
1:2A:688:U:O4	63:2A:3905:HOH:O	2.19	0.42
1:2A:784:A:C5	3:2D:229:VAL:HG21	2.53	0.42
1:2A:1417:C:H2'	1:2A:1418:G:O4'	2.20	0.42
1:2A:1865:G:N2	1:2A:1877:A:OP2	2.47	0.42
1:2A:1952:A:N3	10:2O:22:ILE:HD12	2.34	0.42
1:2A:2573:C:O2	63:2A:3916:HOH:O	2.20	0.42
1:2A:2682:U:H5'	4:2E:11:MET:O	2.18	0.42
15:2T:33:LYS:NZ	15:2T:82:LEU:HA	2.33	0.42
20:2Y:44:ILE:HA	20:2Y:63:LYS:O	2.19	0.42
20:2Y:56:PRO:C	20:2Y:58:GLY:H	2.28	0.42
32:2a:45:U:H2'	32:2a:46:G:H8	1.80	0.42
32:2a:123:C:OP1	32:2a:312:C:H5'	2.19	0.42
32:2a:1090:U:H2'	32:2a:1091:U:C6	2.54	0.42
33:2b:187:LEU:HA	33:2b:201:ILE:HB	2.01	0.42
35:2d:108:LEU:HB3	35:2d:110:PHE:CE1	2.54	0.42
37:2f:97:PHE:CD2	49:2r:31:LEU:HD12	2.53	0.42
47:2p:23:ASP:OD1	47:2p:25:ARG:HG2	2.19	0.42
1:1A:715:G:C2	46:1o:56:LEU:HD21	2.55	0.42
1:1A:1514:U:H2'	1:1A:1515:G:H8	1.84	0.42
1:1A:1523:U:H6	1:1A:1523:U:O5'	2.01	0.42
6:1G:11:TYR:CZ	6:1G:16:ARG:HD3	2.54	0.42
27:15:16:ARG:HG3	27:15:17:ASP:N	2.35	0.42
32:1a:19:C:H5"	36:1e:86:ALA:HB3	2.00	0.42
32:1a:533:A:O2'	32:1a:535:A:OP2	2.26	0.42
32:1a:848:C:H2'	32:1a:849:C:C6	2.55	0.42
32:1a:1054:C:H41	53:1y:46:GLN:CD	2.22	0.42
32:1a:1263:C:H2'	32:1a:1264:C:H6	1.83	0.42
35:1d:146:ILE:H	35:1d:146:ILE:HD12	1.84	0.42
39:1h:84:ARG:NH1	39:1h:136:GLU:OE2	2.52	0.42
47:1p:49:LEU:HD22	47:1p:73:LEU:HD22	2.00	0.42
1:2A:527:C:H4'	1:2A:528:A:O5'	2.19	0.42
1:2A:1063:G:H2'	1:2A:1065:U:C6	2.54	0.42
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.33	0.42
2:2B:40:U:O2'	2:2B:43:C:OP2	2.31	0.42
3:2D:69:ARG:C	3:2D:71:ASP:N	2.78	0.42
4:2E:49:LEU:N	4:2E:79:ARG:O	2.44	0.42
6:2G:50:ALA:O	6:2G:53:LEU:HD23	2.19	0.42
14:2S:41:ASP:OD2	14:2S:44:LYS:HE2	2.19	0.42
32:2a:1104:G:OP1	33:2b:111:ARG:HG3	2.19	0.42
32:2a:1138:G:C6	32:2a:1140:C:H1'	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1375:A:O2'	38:2g:29:LYS:NZ	2.40	0.42
44:2m:30:ALA:C	44:2m:32:GLU:H	2.25	0.42
44:2m:82:MET:HG2	44:2m:93:ARG:HG3	2.01	0.42
47:2p:23:ASP:OD1	47:2p:24:ALA:N	2.52	0.42
1:1A:118:A:C8	1:1A:119:A:C8	3.07	0.42
1:1A:709:U:H2'	1:1A:710:G:H8	1.85	0.42
1:1A:1936:A:OP1	1:1A:1937:A:H5'	2.19	0.42
1:1A:2074:U:H2'	1:1A:2075:U:C6	2.54	0.42
1:1A:2106:G:C5	1:1A:2107:C:H1'	2.54	0.42
1:1A:2189:U:C2'	1:1A:2190:G:H5'	2.49	0.42
1:1A:2359:C:H2'	1:1A:2360:A:O4'	2.20	0.42
1:1A:2820:A:P	13:1R:2:ARG:HH22	2.42	0.42
7:1H:40:GLU:CD	7:1H:60:ARG:HH12	2.27	0.42
7:1H:40:GLU:OE2	7:1H:60:ARG:NH1	2.52	0.42
9:1N:62:VAL:CG1	9:1N:66:LYS:HB2	2.49	0.42
10:1O:64:ARG:NH2	10:1O:99:PHE:O	2.53	0.42
19:1X:84:ALA:HB3	19:1X:87:GLN:CD	2.45	0.42
32:1a:189(B):C:H2'	32:1a:189(C):C:C6	2.54	0.42
33:1b:84:GLU:O	33:1b:87:ARG:HB2	2.19	0.42
33:1b:115:LEU:HD23	33:1b:153:ARG:HD2	2.01	0.42
38:1g:50:ILE:HG23	38:1g:121:ALA:HB1	2.01	0.42
48:1q:14:LYS:H	48:1q:14:LYS:HG3	1.54	0.42
49:1r:74:ARG:HB3	49:1r:81:PHE:CZ	2.54	0.42
1:2A:20:C:OP1	16:2U:22:LYS:NZ	2.40	0.42
1:2A:320:A:H4'	1:2A:322:A:N7	2.33	0.42
1:2A:407:G:H5"	63:2A:3863:HOH:O	2.19	0.42
1:2A:599:G:N7	63:2A:4135:HOH:O	2.37	0.42
1:2A:776:G:N7	1:2A:793:A:O2'	2.52	0.42
1:2A:875:G:H2'	1:2A:876:C:O4'	2.19	0.42
1:2A:907:U:O2'	12:2Q:101:ARG:NH2	2.44	0.42
1:2A:1032:A:H4'	31:29:16:VAL:HG11	2.01	0.42
1:2A:1190:G:H5"	11:2P:32:THR:O	2.20	0.42
1:2A:1665:A:H4'	10:2O:67:LYS:HB2	2.00	0.42
1:2A:1857:G:C6	1:2A:1858:G:N1	2.87	0.42
8:2I:122:GLU:O	8:2I:126:TYR:OH	2.35	0.42
12:2Q:111:GLU:O	12:2Q:115:MET:HG2	2.19	0.42
32:2a:62:U:H2'	32:2a:63:C:C6	2.54	0.42
32:2a:300:A:H2'	32:2a:301:G:O4'	2.19	0.42
32:2a:406:G:N2	35:2d:119:GLN:HE22	2.06	0.42
32:2a:756:C:H2'	32:2a:757:U:O4'	2.18	0.42
32:2a:942:G:C2	32:2a:1342:C:C2	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1277:C:O2'	32:2a:1279:A:C8	2.64	0.42
32:2a:1338:G:C6	32:2a:1339:A:C6	3.08	0.42
32:2a:1516:G:N2	32:2a:1519:MA6:OP2	2.53	0.42
36:2e:12:LEU:HB3	36:2e:31:LEU:HB3	2.01	0.42
40:2i:34:ASN:N	40:2i:34:ASN:OD1	2.52	0.42
43:2l:33:ARG:O	43:2l:84:LEU:HD12	2.19	0.42
1:1A:861:A:C2	1:1A:917:A:C4	3.07	0.42
1:1A:1121:C:H2'	1:1A:1122:G:O4'	2.20	0.42
1:1A:1151:G:H5"	16:1U:81:HIS:CD2	2.54	0.42
1:1A:2038:G:H2'	1:1A:2039:C:O4'	2.19	0.42
1:1A:2269:A:OP1	63:1A:8624:HOH:O	2.20	0.42
1:1A:2378:A:H2'	14:1S:21:THR:HG21	2.01	0.42
58:1A:4029:MPD:H4	58:1A:4029:MPD:HM2	1.79	0.42
16:1U:86:ALA:O	17:1V:49:THR:HG23	2.18	0.42
30:18:23:VAL:HG11	30:18:47:LYS:HD3	2.01	0.42
31:19:24:TYR:CZ	31:19:35:ARG:HG3	2.54	0.42
32:1a:292:G:OP2	32:1a:305:G:N2	2.39	0.42
33:1b:15:VAL:HG12	33:1b:16:HIS:HB3	2.00	0.42
1:2A:557:U:H2'	1:2A:558:G:H8	1.83	0.42
1:2A:1364:G:OP2	23:21:3:LYS:HG3	2.19	0.42
1:2A:2019:A:O4'	16:2U:34:LYS:HD2	2.20	0.42
1:2A:2184:G:N1	1:2A:2185:C:O2	2.52	0.42
1:2A:2294:C:P	14:2S:89:ARG:HH22	2.41	0.42
1:2A:2831:G:OP1	1:2A:2834:G:H4'	2.20	0.42
5:2F:184:TYR:CE1	11:2P:3:LEU:HD21	2.55	0.42
7:2H:24:VAL:O	7:2H:34:GLU:HA	2.19	0.42
12:2Q:4:PRO:HG3	12:2Q:69:PHE:HE2	1.84	0.42
13:2R:56:LYS:NZ	13:2R:90:ARG:O	2.53	0.42
16:2U:102:GLU:HB3	16:2U:104:GLN:HE22	1.84	0.42
20:2Y:67:LEU:HD23	20:2Y:67:LEU:HA	1.71	0.42
32:2a:689:C:H4'	32:2a:705:U:H1'	2.01	0.42
32:2a:824:C:H2'	32:2a:825:G:C8	2.54	0.42
32:2a:1162:C:H2'	32:2a:1163:C:H6	1.84	0.42
32:2a:1168:A:H2'	32:2a:1169:A:C8	2.55	0.42
32:2a:1253:G:H2'	32:2a:1254:C:C6	2.54	0.42
32:2a:1316:G:H4'	45:2n:18:VAL:HG13	2.02	0.42
34:2c:3:ASN:HB2	34:2c:4:LYS:H	1.69	0.42
36:2e:17:ALA:HB2	36:2e:26:PHE:CD1	2.55	0.42
37:2f:22:GLU:OE2	37:2f:82:ARG:NE	2.51	0.42
40:2i:40:LEU:C	40:2i:42:ARG:N	2.77	0.42
46:2o:22:THR:O	46:2o:22:THR:OG1	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:127:A:H5"	1:1A:128:C:C6	2.54	0.42
1:1A:516:C:OP1	27:15:13:LYS:NZ	2.47	0.42
1:1A:518:G:H2'	1:1A:519:U:C6	2.54	0.42
1:1A:838:C:O2'	1:1A:839:U:H5'	2.19	0.42
1:1A:1210:A:H5"	1:1A:1212:G:H5'	2.01	0.42
1:1A:2896:C:H2'	1:1A:2897:U:C6	2.53	0.42
2:1B:73:A:C4	2:1B:105:A:C2	3.07	0.42
2:1B:108:U:H2'	2:1B:109:C:H5"	2.01	0.42
6:1G:50:ALA:HB1	6:1G:52:ILE:HD12	2.01	0.42
6:1G:75:LYS:HE3	6:1G:77:ILE:HD11	2.02	0.42
8:1I:115:ALA:HB2	8:1I:131:LYS:HE2	2.00	0.42
10:1O:115:VAL:HG13	10:1O:121:VAL:HG21	2.02	0.42
15:1T:19:LEU:HD22	15:1T:86:ILE:HG13	2.01	0.42
32:1a:375:U:OP1	47:1p:69:THR:HG21	2.20	0.42
32:1a:632:A:H3'	32:1a:633:G:C8	2.55	0.42
32:1a:674:G:OP1	37:1f:87:ARG:NH2	2.46	0.42
32:1a:807:A:H2'	32:1a:808:C:C6	2.54	0.42
32:1a:1010:G:H2'	32:1a:1011:G:H8	1.84	0.42
33:1b:8:LYS:O	33:1b:9:GLU:HB2	2.20	0.42
35:1d:15:GLU:OE2	35:1d:66:ARG:NH1	2.52	0.42
35:1d:101:LEU:HD21	35:1d:126:ILE:HG21	2.02	0.42
39:1h:25:ASP:OD1	39:1h:60:ARG:HG3	2.20	0.42
47:1p:40:ASP:N	47:1p:48:TRP:O	2.50	0.42
1:2A:257:A:H2'	1:2A:258:G:O4'	2.20	0.42
1:2A:265:A:N1	1:2A:427:U:O2'	2.50	0.42
1:2A:1053:C:O2'	1:2A:1054:A:O5'	2.25	0.42
1:2A:1490:A:O2'	3:2D:99:ASP:OD1	2.37	0.42
1:2A:1529:G:C6	1:2A:1530:C:C4	3.08	0.42
1:2A:1977:A:OP2	63:2A:3929:HOH:O	2.21	0.42
8:2I:26:ALA:HA	8:2I:30:LEU:HB2	2.01	0.42
8:2I:94:ALA:HB2	8:2I:116:LEU:HD23	2.02	0.42
8:2I:130:TYR:HD2	8:2I:138:ILE:HD12	1.85	0.42
14:2S:23:ARG:HD2	14:2S:86:ALA:HB2	2.02	0.42
14:2S:26:LEU:HD11	14:2S:73:LEU:HD21	2.02	0.42
15:2T:45:PHE:CZ	15:2T:65:LYS:HG2	2.54	0.42
16:2U:105:VAL:O	16:2U:108:GLU:HB3	2.20	0.42
20:2Y:85:VAL:HG11	20:2Y:97:ARG:HD2	2.01	0.42
32:2a:154:C:H2'	32:2a:155:C:C6	2.54	0.42
32:2a:281:G:O3'	32:2a:282:A:H8	2.01	0.42
32:2a:338:A:H2'	32:2a:339:C:C6	2.55	0.42
32:2a:831:U:H2'	32:2a:832:C:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:923:A:H2'	32:2a:924:C:C6	2.55	0.42
32:2a:1157:A:H4'	32:2a:1158:C:O5'	2.20	0.42
42:2k:99:GLN:HG2	42:2k:105:VAL:HG21	2.00	0.42
50:2s:41:VAL:HG13	50:2s:43:GLU:H	1.85	0.42
1:1A:244:A:C2	1:1A:255:A:C4	3.08	0.42
1:1A:251:A:C5	1:1A:252:G:H1'	2.55	0.42
1:1A:593:G:H2'	1:1A:594:U:C6	2.55	0.42
1:1A:753:C:H2'	1:1A:754:C:H6	1.85	0.42
1:1A:821:A:H2'	1:1A:946:G:H5"	2.01	0.42
1:1A:1207:C:H2'	1:1A:1208:C:H6	1.85	0.42
1:1A:1478:G:O2'	1:1A:1558:A:N7	2.50	0.42
1:1A:1506:C:H2'	1:1A:1507:A:O4'	2.20	0.42
1:1A:1766:U:H2'	1:1A:1767:C:C6	2.55	0.42
1:1A:2031:A:C6	1:1A:2498:C:H1'	2.55	0.42
1:1A:2124:G:H2'	1:1A:2125:G:H5'	2.02	0.42
9:1N:62:VAL:HG13	9:1N:66:LYS:HD2	2.01	0.42
18:1W:86:LEU:HB2	18:1W:96:ILE:HG13	2.02	0.42
32:1a:131:C:H2'	32:1a:132:C:C6	2.54	0.42
32:1a:256:U:H2'	32:1a:257:G:C8	2.55	0.42
32:1a:643:C:H5'	39:1h:31:PHE:CD1	2.55	0.42
32:1a:823:G:H2'	32:1a:824:C:C6	2.54	0.42
32:1a:858:G:O6	32:1a:869:G:H3'	2.20	0.42
32:1a:1137:C:H5'	32:1a:1138:G:C5	2.53	0.42
32:1a:1237:C:H3'	32:1a:1336:C:N4	2.34	0.42
33:1b:115:LEU:O	33:1b:119:GLU:HG2	2.19	0.42
33:1b:222:ILE:H	33:1b:222:ILE:HG13	1.66	0.42
35:1d:63:LYS:HD3	35:1d:197:PRO:O	2.20	0.42
36:1e:79:GLU:HG3	36:1e:93:PRO:CD	2.49	0.42
40:1i:19:LEU:HB3	40:1i:59:PHE:CE1	2.54	0.42
42:1k:93:GLN:HA	42:1k:93:GLN:HE21	1.85	0.42
42:1k:109:VAL:HA	49:1r:85:LEU:O	2.19	0.42
48:1q:46:ASP:C	48:1q:48:GLU:H	2.27	0.42
51:1t:30:LYS:HB2	51:1t:30:LYS:HE2	1.91	0.42
1:2A:798:G:N7	63:2A:4125:HOH:O	2.36	0.42
1:2A:806:C:O2	1:2A:2444:G:O2'	2.35	0.42
1:2A:1920:OMC:HM22	1:2A:1921:G:H5'	2.01	0.42
1:2A:1932:A:H2'	1:2A:1933:G:O4'	2.20	0.42
1:2A:2869:G:H2'	1:2A:2870:C:O4'	2.19	0.42
5:2F:202:PHE:O	5:2F:206:ILE:HG12	2.20	0.42
32:2a:51:A:N7	32:2a:114:U:O2'	2.48	0.42
38:2g:66:VAL:O	38:2g:70:LYS:HG3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:2g:113:GLU:H	38:2g:113:GLU:HG2	1.42	0.42
1:1A:253:C:OP2	30:18:5:LYS:NZ	2.41	0.42
1:1A:578:A:OP1	1:1A:1255:U:O2'	2.29	0.42
1:1A:833:U:O2	11:1P:55:ARG:NH1	2.50	0.42
1:1A:1024:G:O2'	1:1A:1144:G:O2'	2.37	0.42
1:1A:2031:A:N3	1:1A:2455:G:O2'	2.41	0.42
1:1A:2347:C:H2'	1:1A:2348:U:H6	1.83	0.42
1:1A:2685:G:H5'	10:1O:68:GLU:OE2	2.20	0.42
3:1D:145:VAL:HG12	3:1D:146:GLU:O	2.20	0.42
4:1E:34:VAL:HB	4:1E:48:GLN:HE21	1.84	0.42
9:1N:47:ALA:HB2	9:1N:115:ARG:HD3	2.02	0.42
10:1O:98:VAL:HG23	10:1O:118:ALA:HA	2.01	0.42
10:1O:102:VAL:HB	10:1O:106:LEU:HD12	2.01	0.42
16:1U:60:LEU:HD21	16:1U:64:ARG:NE	2.34	0.42
32:1a:165:C:H2'	32:1a:166:G:H8	1.85	0.42
32:1a:174:C:H2'	32:1a:175:C:C6	2.55	0.42
32:1a:946:A:O2'	32:1a:1333:A:N3	2.46	0.42
32:1a:1004:A:C5	32:1a:1037:C:C2	3.07	0.42
32:1a:1263:C:H2'	32:1a:1264:C:C6	2.55	0.42
34:1c:69:HIS:HA	34:1c:104:GLN:O	2.20	0.42
35:1d:138:TYR:HD2	35:1d:139:ARG:N	2.18	0.42
36:1e:79:GLU:HG3	36:1e:93:PRO:HD2	2.02	0.42
37:1f:82:ARG:HB2	37:1f:85:VAL:HG23	2.02	0.42
1:2A:297:C:H2'	1:2A:298:G:O4'	2.19	0.42
1:2A:1354:A:H2'	1:2A:1355:G:O4'	2.19	0.42
1:2A:1359:A:H61	1:2A:1372:U:H3	1.66	0.42
1:2A:1540:U:H2'	1:2A:1541:G:O4'	2.20	0.42
1:2A:2317:C:N4	1:2A:2318:G:C6	2.88	0.42
1:2A:2395:C:H2'	1:2A:2396:G:O4'	2.19	0.42
1:2A:2592:G:OP2	63:2A:3932:HOH:O	2.22	0.42
1:2A:2611:U:H6	1:2A:2611:U:H5'	1.84	0.42
32:2a:406:G:O2'	35:2d:3:ARG:NH2	2.53	0.42
32:2a:1348:U:H2'	32:2a:1349:A:H8	1.84	0.42
34:2c:19:GLU:C	34:2c:40:ARG:HH22	2.27	0.42
35:2d:14:ARG:HA	35:2d:14:ARG:HD3	1.82	0.42
38:2g:155:ARG:O	38:2g:155:ARG:HG2	2.20	0.42
40:2i:40:LEU:C	40:2i:42:ARG:H	2.27	0.42
41:2j:32:ALA:HA	41:2j:33:GLN:HA	1.87	0.42
42:2k:79:SER:HB2	42:2k:104:GLN:HB3	2.00	0.42
44:2m:81:LEU:HD13	44:2m:88:ARG:CD	2.50	0.42
1:1A:30:G:H2'	1:1A:31:C:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:111:A:H4'	24:12:69:ARG:NH1	2.34	0.42
1:1A:330:A:C2	1:1A:1210:A:O2'	2.68	0.42
1:1A:335:C:H4'	20:1Y:73:ARG:CD	2.50	0.42
1:1A:557:U:H2'	1:1A:558:G:C8	2.55	0.42
1:1A:567:A:OP2	11:1P:29:LYS:NZ	2.36	0.42
1:1A:918:A:N3	2:1B:80:U:O2'	2.44	0.42
1:1A:1188:U:H4'	17:1V:79:VAL:HG22	2.02	0.42
1:1A:2111:C:H1'	1:1A:2118:U:H4'	2.02	0.42
1:1A:2555:U:OP1	63:1A:8639:HOH:O	2.22	0.42
2:1B:14:U:O2	2:1B:108:U:H4'	2.20	0.42
16:1U:76:TYR:CZ	16:1U:80:ILE:HG13	2.55	0.42
23:11:71:TYR:O	23:11:74:VAL:HG22	2.20	0.42
26:14:16:CYS:HA	26:14:33:VAL:HG23	2.02	0.42
32:1a:79:G:N1	32:1a:90:U:N3	2.68	0.42
32:1a:100:C:H2'	32:1a:101:A:O4'	2.19	0.42
32:1a:1127:G:H5'	32:1a:1280:A:O2'	2.19	0.42
32:1a:1349:A:H62	32:1a:1373:G:N2	2.18	0.42
33:1b:21:ARG:HA	33:1b:39:ILE:HA	2.02	0.42
35:1d:53:ASP:HB3	35:1d:57:ARG:NH1	2.35	0.42
41:1j:54:PHE:HD2	41:1j:55:LYS:HD3	1.84	0.42
43:1l:116:SER:O	43:1l:120:TYR:HD2	2.03	0.42
1:2A:363(F):A:O4'	1:2A:364:C:H5	2.03	0.42
1:2A:839:U:H1'	1:2A:1191:G:H1'	2.01	0.42
1:2A:1316:U:H2'	1:2A:1317:A:H8	1.83	0.42
1:2A:1400:G:H2'	1:2A:1401:G:C8	2.54	0.42
1:2A:1422:G:H1'	1:2A:1496:A:N1	2.35	0.42
1:2A:1657:C:H2'	1:2A:1658:C:H6	1.83	0.42
1:2A:1669:A:H5"	1:2A:2550:G:OP1	2.20	0.42
1:2A:1927:A:H2'	1:2A:1928:A:C8	2.55	0.42
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.20	0.42
1:2A:2667:C:H1'	7:2H:109:PHE:CD1	2.54	0.42
4:2E:18:ASP:HB3	15:2T:82:LEU:HD21	2.02	0.42
6:2G:28:VAL:O	6:2G:31:VAL:HG13	2.20	0.42
6:2G:138:GLN:NE2	6:2G:152:LEU:HA	2.35	0.42
8:2I:130:TYR:CE2	8:2I:132:PRO:HB3	2.55	0.42
11:2P:90:ARG:NH1	11:2P:105:LEU:HD11	2.34	0.42
17:2V:23:GLU:HB2	63:2V:305:HOH:O	2.19	0.42
21:2Z:157:LEU:HD22	21:2Z:161:VAL:HG12	2.02	0.42
32:2a:36:C:H2'	32:2a:37:U:O4'	2.20	0.42
32:2a:457:C:H2'	32:2a:458:C:C6	2.55	0.42
32:2a:986:A:N3	50:2s:52:TYR:OH	2.43	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1121:U:H2'	32:2a:1122:U:O4'	2.20	0.42
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.35	0.42
33:2b:220:ASP:O	33:2b:223:ILE:HG13	2.19	0.42
45:2n:15:LYS:HB3	45:2n:16:PHE:CE2	2.55	0.42
1:1A:271(A):A:N1	1:1A:272(D):G:O2'	2.42	0.42
1:1A:271(R):G:H5"	23:11:97:LEU:HD21	2.02	0.42
1:1A:1262:A:C6	1:1A:1263:U:C4	3.08	0.42
1:1A:1495:A:C6	1:1A:1496:A:C6	3.08	0.42
1:1A:1709:U:H2'	1:1A:1710:C:C6	2.55	0.42
1:1A:1824:G:O3'	3:1D:249:PRO:HD3	2.20	0.42
1:1A:2111:C:H2'	1:1A:2145:C:O2	2.20	0.42
1:1A:2747:G:O6	1:1A:2755:C:H5"	2.20	0.42
3:1D:37:LEU:HD22	3:1D:60:ARG:HB2	2.02	0.42
4:1E:143:ASN:HD22	4:1E:147:PRO:HD3	1.85	0.42
6:1G:110:ALA:HB1	6:1G:140:ILE:HG22	2.02	0.42
14:1S:18:ILE:O	14:1S:21:THR:OG1	2.36	0.42
14:1S:23:ARG:NH2	14:1S:84:GLN:OE1	2.53	0.42
32:1a:79:G:C6	32:1a:90:U:N3	2.84	0.42
32:1a:346:G:N2	58:1a:1881:MPD:O4	2.47	0.42
35:1d:15:GLU:OE2	35:1d:59:ARG:NH1	2.53	0.42
35:1d:108:LEU:HD23	35:1d:110:PHE:CE2	2.55	0.42
38:1g:77:SER:OG	38:1g:86:GLN:NE2	2.52	0.42
46:1o:17:ARG:HH11	46:1o:17:ARG:HG3	1.85	0.42
46:1o:29:VAL:O	46:1o:33:THR:OG1	2.36	0.42
1:2A:111:A:H4'	24:22:69:ARG:NH1	2.35	0.42
1:2A:323:G:C8	5:2F:171:PRO:HG3	2.55	0.42
1:2A:441:U:H2'	1:2A:442:G:C8	2.55	0.42
1:2A:729:G:C5	3:2D:208:LYS:HB2	2.54	0.42
1:2A:749:C:H4'	1:2A:1271:G:N3	2.34	0.42
1:2A:861:A:C2	1:2A:917:A:C4	3.08	0.42
1:2A:1790:C:H5"	1:2A:1791:A:OP1	2.19	0.42
1:2A:2021:C:OP1	27:25:12:SER:OG	2.35	0.42
1:2A:2255:G:OP2	63:2A:3933:HOH:O	2.22	0.42
1:2A:2572:A:OP1	1:2A:2574:G:O2'	2.29	0.42
3:2D:38:LYS:HD2	3:2D:38:LYS:HA	1.83	0.42
4:2E:24:THR:HB	4:2E:184:VAL:HG12	2.02	0.42
5:2F:182:ASN:HD21	5:2F:185:ASP:CG	2.28	0.42
6:2G:131:TYR:HB3	6:2G:159:VAL:HG13	2.01	0.42
6:2G:136:ARG:HA	6:2G:154:GLY:HA3	2.02	0.42
6:2G:145:THR:H	6:2G:148:MET:HE3	1.84	0.42
9:2N:12:ARG:HG2	9:2N:50:ASP:OD1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:2V:52:VAL:CG2	17:2V:55:ALA:HB3	2.49	0.42
20:2Y:21:LYS:HB2	20:2Y:21:LYS:HE3	1.75	0.42
30:28:8:LYS:HD3	30:28:8:LYS:HA	1.82	0.42
32:2a:46:G:H2'	32:2a:366:C:C5	2.55	0.42
32:2a:137:C:H1'	47:2p:62:VAL:O	2.20	0.42
32:2a:189(F):U:H3	48:2q:72:ARG:HH12	1.65	0.42
32:2a:442:C:H42	32:2a:492:G:H1	1.68	0.42
32:2a:515:G:H2'	32:2a:516:PSU:O4'	2.20	0.42
33:2b:166:ASP:CB	33:2b:169:LYS:HB3	2.46	0.42
34:2c:7:PRO:HA	34:2c:10:PHE:HB3	2.02	0.42
35:2d:94:LEU:O	35:2d:98:GLU:N	2.47	0.42
35:2d:150:GLU:OE1	35:2d:151:LYS:N	2.53	0.42
43:2l:26:ALA:HB1	43:2l:60:LEU:HD22	2.02	0.42
1:1A:90:U:H1'	1:1A:92:A:C8	2.55	0.41
1:1A:139(A):G:O2'	1:1A:140:G:H5'	2.20	0.41
1:1A:300:A:N3	1:1A:319:C:H1'	2.36	0.41
1:1A:1343:G:OP2	63:1A:8643:HOH:O	2.22	0.41
1:1A:2090:G:N2	23:11:45:ASN:OD1	2.36	0.41
1:1A:2611:U:C4	27:15:3:LYS:HG2	2.54	0.41
1:1A:2619:C:H4'	4:1E:151:TYR:O	2.19	0.41
1:1A:2653:U:H2'	1:1A:2654:A:N7	2.35	0.41
1:1A:2803:C:H2'	1:1A:2804:C:C6	2.55	0.41
5:1F:33:LEU:HD11	5:1F:112:MET:HB2	2.02	0.41
6:1G:52:ILE:C	6:1G:54:GLU:H	2.28	0.41
11:1P:47:ASP:OD2	11:1P:49:ARG:NH2	2.50	0.41
11:1P:84:ASN:CG	11:1P:117:GLU:HB3	2.44	0.41
11:1P:89:ALA:HA	11:1P:121:LYS:HD3	2.02	0.41
12:1Q:77:LYS:NZ	12:1Q:84:GLY:O	2.51	0.41
15:1T:37:GLY:HA2	15:1T:38:ASN:HA	1.70	0.41
18:1W:45:TYR:CZ	18:1W:49:LYS:HE2	2.55	0.41
20:1Y:9:LYS:HA	20:1Y:10:GLY:HA2	1.64	0.41
26:14:29:PRO:O	26:14:30:GLU:HG3	2.20	0.41
32:1a:113:G:O2'	32:1a:354:G:H5'	2.20	0.41
32:1a:382:A:H2'	32:1a:383:A:H8	1.85	0.41
32:1a:396:G:O2'	32:1a:398:C:OP1	2.25	0.41
32:1a:409:G:H2'	32:1a:410:G:O4'	2.20	0.41
32:1a:439:A:H2'	32:1a:441:A:O4'	2.20	0.41
32:1a:785:G:O2'	32:1a:786:G:H5'	2.20	0.41
32:1a:1172:C:H2'	32:1a:1173:G:H8	1.85	0.41
32:1a:1225:A:H2'	32:1a:1226:C:C5	2.55	0.41
33:1b:20:GLU:HG3	33:1b:23:ARG:HH21	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:91:PRO:HG2	33:1b:155:LEU:HD13	2.02	0.41
38:1g:111:ARG:NH1	38:1g:113:GLU:OE2	2.52	0.41
47:1p:15:PRO:HB2	47:1p:41:PRO:HG3	2.02	0.41
49:1r:78:LEU:H	49:1r:78:LEU:HG	1.70	0.41
1:2A:999:U:O2'	1:2A:1000:A:H5'	2.20	0.41
1:2A:1057:A:HO2'	1:2A:1058:G:P	2.43	0.41
1:2A:1161:C:H4'	17:2V:8:GLY:HA2	2.02	0.41
1:2A:1179:C:H2'	1:2A:1180:C:C6	2.55	0.41
1:2A:1341:U:H3'	1:2A:1397:U:O2	2.20	0.41
1:2A:1702:G:H2'	1:2A:1703:G:O4'	2.20	0.41
1:2A:2431:U:OP2	63:2A:3931:HOH:O	2.22	0.41
63:2A:4403:HOH:O	3:2D:48:ARG:HD2	2.19	0.41
3:2D:180:GLY:HA3	3:2D:275:LYS:O	2.20	0.41
13:2R:12:ARG:O	13:2R:17:ARG:NH1	2.53	0.41
13:2R:70:LEU:HA	13:2R:70:LEU:HD23	1.81	0.41
23:21:8:SER:HB3	23:21:66:HIS:CD2	2.55	0.41
26:24:1:MET:HE2	26:24:6:HIS:CE1	2.55	0.41
32:2a:633:G:H2'	32:2a:634:C:C6	2.55	0.41
32:2a:1250:A:H61	32:2a:1354:C:H1'	1.85	0.41
33:2b:55:PHE:O	33:2b:59:GLU:N	2.37	0.41
33:2b:213:LEU:HD23	33:2b:217:ARG:HG3	2.02	0.41
40:2i:53:VAL:C	40:2i:55:ALA:N	2.76	0.41
43:2l:69:TYR:HB2	43:2l:96:VAL:HG11	2.01	0.41
1:1A:27:G:C2	1:1A:512:G:N3	2.89	0.41
1:1A:1141:U:P	9:1N:25:ARG:NH1	2.92	0.41
1:1A:1644:C:H6	1:1A:1644:C:H5"	1.85	0.41
1:1A:2341:G:N7	63:1A:8898:HOH:O	2.37	0.41
1:1A:2532:G:C6	1:1A:2533:A:C6	3.07	0.41
3:1D:69:ARG:HG2	3:1D:69:ARG:HH11	1.85	0.41
4:1E:116:VAL:HG13	4:1E:122:PHE:HB2	2.01	0.41
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.62	0.41
7:1H:41:MET:HE2	7:1H:65:HIS:HA	2.02	0.41
13:1R:38:VAL:HB	13:1R:39:PRO:HD3	2.01	0.41
28:16:47:THR:HG22	28:16:48:VAL:O	2.20	0.41
32:1a:16:A:O2'	36:1e:16:THR:HB	2.20	0.41
32:1a:920:U:H2'	32:1a:921:U:C6	2.55	0.41
32:1a:986:A:H2'	32:1a:987:G:O4'	2.20	0.41
32:1a:1095:U:P	32:1a:1108:G:H1	2.39	0.41
32:1a:1316:G:H5'	32:1a:1360:A:H1'	2.03	0.41
33:1b:209:ARG:HD3	33:1b:209:ARG:HA	1.71	0.41
37:1f:12:PRO:HG3	37:1f:57:GLN:O	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:1n:45:ARG:O	45:1n:49:HIS:HD2	2.03	0.41
1:2A:2137:C:O2	1:2A:2154:G:N1	2.53	0.41
1:2A:2139:C:N3	1:2A:2152:G:C2	2.87	0.41
1:2A:2507:C:H2'	1:2A:2508:G:O4'	2.20	0.41
6:2G:33:ARG:HB2	6:2G:162:THR:OG1	2.20	0.41
7:2H:72:ILE:O	7:2H:76:VAL:HG23	2.21	0.41
9:2N:38:HIS:NE2	9:2N:50:ASP:OD2	2.53	0.41
12:2Q:38:GLU:HB2	12:2Q:39:PRO:HD2	2.02	0.41
32:2a:685:G:O2'	32:2a:686:U:H5'	2.21	0.41
32:2a:778:G:O2'	42:2k:119:CYS:HB3	2.20	0.41
32:2a:1165:C:H2'	32:2a:1166:G:O4'	2.19	0.41
32:2a:1193:G:H2'	32:2a:1194:U:H6	1.85	0.41
36:2e:96:PRO:HA	36:2e:117:ASP:OD2	2.20	0.41
43:2l:93:LEU:HD23	43:2l:93:LEU:HA	1.89	0.41
46:2o:48:LYS:HD3	46:2o:48:LYS:HA	1.86	0.41
47:2p:73:LEU:H	47:2p:73:LEU:HG	1.65	0.41
53:2y:48:PHE:CD2	53:2y:70:MET:HB2	2.53	0.41
1:1A:107:C:H2'	1:1A:108:U:H6	1.84	0.41
1:1A:271(L):U:C5'	8:1I:50:ARG:HH12	2.28	0.41
1:1A:1852:C:O5'	1:1A:1852:C:H6	2.04	0.41
1:1A:1906:G:H5"	1:1A:1929:G:O2'	2.19	0.41
1:1A:2320:A:N3	1:1A:2320:A:H2'	2.35	0.41
1:1A:2869:G:H2'	1:1A:2870:C:C6	2.54	0.41
2:1B:114:C:O2'	14:1S:46:VAL:HG13	2.20	0.41
5:1F:167:ALA:HB1	5:1F:173:VAL:HG11	2.02	0.41
6:1G:103:LEU:HD23	6:1G:103:LEU:HA	1.86	0.41
8:1I:82:ARG:O	8:1I:89:TYR:HD2	2.02	0.41
12:1Q:60:ARG:HG3	21:1Z:179:ASP:CG	2.46	0.41
21:1Z:31:ARG:H	21:1Z:31:ARG:HG3	1.51	0.41
30:18:52:LYS:HB2	30:18:52:LYS:HE3	1.83	0.41
31:19:33:LYS:HD3	63:19:204:HOH:O	2.19	0.41
32:1a:441:A:H8	32:1a:441:A:OP2	2.01	0.41
33:1b:62:ALA:C	33:1b:64:ARG:H	2.28	0.41
34:1c:30:ARG:HB3	45:1n:36:PHE:O	2.20	0.41
34:1c:108:ASN:HB3	34:1c:111:LEU:HB2	2.01	0.41
39:1h:51:VAL:HG11	39:1h:60:ARG:NH1	2.35	0.41
44:1m:4:ILE:HD13	44:1m:56:LEU:HD22	2.01	0.41
49:1r:47:THR:HG23	49:1r:49:LYS:HG3	2.01	0.41
50:1s:12:ASP:O	50:1s:14:HIS:N	2.50	0.41
53:1y:76:GLU:HA	53:1y:79:ASN:HB2	2.02	0.41
1:2A:391:G:O2'	1:2A:410:G:OP1	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:829:A:N7	1:2A:2247:A:O2'	2.49	0.41
1:2A:851:U:O2'	25:23:42:ALA:O	2.36	0.41
1:2A:1073:A:C8	1:2A:1073:A:C3'	3.02	0.41
1:2A:1224:C:O2'	17:2V:85:LYS:HA	2.20	0.41
1:2A:1385:G:H1'	1:2A:1386:C:C6	2.55	0.41
1:2A:1479:G:N2	1:2A:1513:C:H1'	2.34	0.41
1:2A:1668:A:C8	1:2A:1674:G:C6	3.09	0.41
1:2A:1978:A:H2'	1:2A:1979:C:O4'	2.21	0.41
1:2A:2250:G:C8	1:2A:2496:C:H5"	2.56	0.41
1:2A:2319:G:C2	14:2S:3:ARG:HA	2.55	0.41
1:2A:2330:G:H2'	1:2A:2331:G:O4'	2.20	0.41
1:2A:2776:A:H4'	1:2A:2777:G:H5"	2.01	0.41
8:2I:12:LEU:O	8:2I:19:VAL:HG11	2.21	0.41
10:2O:71:ARG:NH2	10:2O:105:GLU:OE1	2.43	0.41
20:2Y:28:LYS:HE2	20:2Y:40:GLU:OE1	2.20	0.41
32:2a:297:G:H4'	32:2a:557:G:H4'	2.03	0.41
32:2a:396:G:O2'	32:2a:398:C:OP1	2.23	0.41
32:2a:603:U:H2'	32:2a:604:G:C8	2.55	0.41
32:2a:1493:A:H2'	32:2a:1494:G:H5'	2.02	0.41
33:2b:85:ALA:HA	33:2b:88:ALA:HB3	2.02	0.41
38:2g:81:GLY:O	38:2g:83:ALA:N	2.53	0.41
45:2n:4:LYS:HG3	45:2n:7:ILE:HD13	2.02	0.41
47:2p:21:VAL:HG22	47:2p:33:ILE:HD12	2.02	0.41
1:1A:118:A:N3	1:1A:178:G:H1'	2.34	0.41
1:1A:570:G:H2'	1:1A:2030:A:C5	2.55	0.41
1:1A:1070:A:H2'	1:1A:1097:U:O5'	2.20	0.41
1:1A:1357:U:H2'	1:1A:1358:G:O4'	2.20	0.41
1:1A:2390:U:O2'	1:1A:2391:G:H5'	2.20	0.41
2:1B:22:U:H2'	2:1B:23:G:C8	2.55	0.41
5:1F:12:LEU:HD22	5:1F:124:LEU:HD21	2.02	0.41
10:1O:70:LYS:HB3	10:1O:70:LYS:HE2	1.73	0.41
12:1Q:31:ASP:HA	12:1Q:134:ARG:NH1	2.34	0.41
21:1Z:108:PRO:HB2	21:1Z:111:VAL:HB	2.01	0.41
26:14:61:ARG:HH21	50:1s:42:PRO:CD	2.34	0.41
32:1a:1124:G:N2	32:1a:1125:U:O4	2.54	0.41
32:1a:1226:C:H4'	32:1a:1227:A:OP1	2.21	0.41
32:1a:1283:G:H2'	32:1a:1284:C:C6	2.55	0.41
32:1a:1319:A:O2'	32:1a:1323:G:N7	2.39	0.41
32:1a:1378:C:C5	32:1a:1379:G:C8	3.08	0.41
47:1p:14:ASN:OD1	47:1p:42:ARG:NH2	2.53	0.41
1:2A:28:A:O2'	1:2A:583:G:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:324:A:H2'	1:2A:325:G:O4'	2.20	0.41
1:2A:417:C:H1'	1:2A:2407:G:N2	2.34	0.41
1:2A:947:G:H5"	63:2A:5301:HOH:O	2.20	0.41
1:2A:1110:G:H1'	1:2A:1111:A:C8	2.54	0.41
1:2A:1406:U:H2'	1:2A:1407:C:C6	2.55	0.41
1:2A:1881:C:H2'	1:2A:1882:C:H6	1.85	0.41
1:2A:2167:U:H2'	1:2A:2168:G:C4	2.55	0.41
1:2A:2467:C:OP1	31:29:6:SER:OG	2.31	0.41
2:2B:31:C:H4'	6:2G:29:TRP:CH2	2.54	0.41
2:2B:78:A:H2'	2:2B:79:C:O4'	2.21	0.41
4:2E:101:ARG:NH1	4:2E:169:ASN:O	2.51	0.41
4:2E:101:ARG:NH2	4:2E:171:GLU:HB2	2.35	0.41
5:2F:33:LEU:HD13	5:2F:112:MET:HE2	2.02	0.41
6:2G:126:ASP:CG	6:2G:130:ASN:HD22	2.28	0.41
7:2H:57:ASP:OD1	7:2H:57:ASP:N	2.52	0.41
7:2H:64:LEU:HD23	7:2H:64:LEU:HA	1.87	0.41
7:2H:109:PHE:C	7:2H:111:HIS:N	2.76	0.41
11:2P:35:HIS:O	11:2P:36:LYS:O	2.39	0.41
14:2S:24:LEU:HD22	14:2S:41:ASP:HB2	2.02	0.41
16:2U:9:VAL:O	16:2U:13:LYS:HG3	2.20	0.41
26:24:53:GLU:H	26:24:53:GLU:HG3	1.61	0.41
32:2a:102:G:H2'	32:2a:103:C:C6	2.54	0.41
32:2a:423:G:C2	32:2a:424:G:C8	3.09	0.41
32:2a:551:U:H2'	32:2a:552:U:C6	2.55	0.41
32:2a:1247:U:H1'	32:2a:1291:G:N2	2.36	0.41
32:2a:1442:G:O2'	32:2a:1442(A):G:O5'	2.30	0.41
34:2c:71:ALA:HB1	34:2c:109:PRO:HG3	2.03	0.41
37:2f:62:TRP:NE1	49:2r:35:ARG:HE	2.18	0.41
39:2h:123:GLU:O	39:2h:127:LEU:HG	2.21	0.41
44:2m:97:PRO:HA	44:2m:110:ARG:HG2	2.02	0.41
47:2p:75:ARG:HG3	47:2p:80:PHE:CD2	2.54	0.41
48:2q:28:PRO:HA	48:2q:35:VAL:HA	2.02	0.41
1:1A:224:G:H2'	1:1A:225:A:O4'	2.20	0.41
1:1A:483:A:O3'	20:1Y:50:ARG:HA	2.20	0.41
1:1A:2080:G:OP1	23:11:35:THR:HG21	2.20	0.41
1:1A:2096:U:H2'	1:1A:2097:C:C6	2.54	0.41
1:1A:2314:C:H5'	6:1G:38:VAL:HG11	2.01	0.41
1:1A:2663:G:C6	1:1A:2664:G:C4	3.08	0.41
10:1O:17:ARG:C	10:1O:18:LYS:HD2	2.45	0.41
11:1P:100:LEU:HD23	11:1P:100:LEU:HA	1.90	0.41
21:1Z:99:TYR:CE2	21:1Z:125:LEU:HD13	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:12:7:ARG:NH2	63:12:104:HOH:O	2.53	0.41
32:1a:359:U:H2'	32:1a:360:A:C8	2.55	0.41
32:1a:600:C:H4'	39:1h:128:GLY:O	2.21	0.41
32:1a:646:U:H2'	32:1a:647:C:H6	1.86	0.41
32:1a:933:G:O6	38:1g:3:ARG:NH2	2.48	0.41
32:1a:1277:C:H2'	32:1a:1279:A:H8	1.85	0.41
38:1g:151:TYR:HE2	42:1k:54:ARG:NH1	2.18	0.41
42:1k:103:LEU:O	42:1k:105:VAL:N	2.54	0.41
43:1l:52:LEU:O	43:1l:54:LYS:NZ	2.46	0.41
44:1m:76:ALA:O	44:1m:80:ARG:HG2	2.20	0.41
1:2A:36:G:N3	1:2A:450:G:O2'	2.52	0.41
1:2A:172:C:H2'	1:2A:173:G:H8	1.85	0.41
1:2A:316:C:H2'	1:2A:317:G:O4'	2.21	0.41
1:2A:446:G:OP1	16:2U:3:ARG:NH1	2.52	0.41
1:2A:993:G:OP1	16:2U:50:ARG:NH2	2.51	0.41
1:2A:1080:C:H2'	1:2A:1081:U:O4'	2.20	0.41
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.55	0.41
1:2A:1903:G:OP1	3:2D:241:PRO:HB2	2.20	0.41
1:2A:1908:C:H42	1:2A:1922:G:H1	1.68	0.41
1:2A:2144:U:H5"	1:2A:2145:C:C5	2.55	0.41
1:2A:2256:G:C6	1:2A:2257:U:C4	3.08	0.41
3:2D:35:LYS:HE2	3:2D:64:ILE:HD11	2.01	0.41
5:2F:202:PHE:CZ	5:2F:206:ILE:HD13	2.55	0.41
6:2G:110:ALA:HB1	6:2G:140:ILE:HG22	2.01	0.41
6:2G:144:ILE:HG13	6:2G:148:MET:HG3	2.01	0.41
7:2H:147:ASN:O	7:2H:151:ILE:HG13	2.20	0.41
19:2X:88:LYS:HE2	19:2X:93:GLU:HG3	2.02	0.41
32:2a:57:G:C2	32:2a:58:C:C2	3.08	0.41
32:2a:691:G:H1'	32:2a:696:A:N6	2.36	0.41
32:2a:999:C:N3	32:2a:1042:G:N2	2.56	0.41
32:2a:1039:C:H2'	32:2a:1040:U:O4'	2.20	0.41
32:2a:1504:G:H4'	32:2a:1505:G:C4	2.55	0.41
33:2b:45:GLN:O	33:2b:49:GLU:HB2	2.21	0.41
39:2h:25:ASP:OD1	39:2h:60:ARG:NE	2.53	0.41
41:2j:11:PHE:CE1	41:2j:67:THR:HG22	2.55	0.41
44:2m:110:ARG:HD2	44:2m:110:ARG:HA	1.91	0.41
1:1A:300:A:P	20:1Y:86:ARG:HH22	2.42	0.41
1:1A:483:A:O2'	20:1Y:49:VAL:O	2.29	0.41
1:1A:1179:C:H2'	1:1A:1180:C:C6	2.55	0.41
1:1A:1274:A:N3	1:1A:1297:C:H1'	2.35	0.41
1:1A:2034:U:OP1	63:1A:8621:HOH:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2539:C:OP2	63:1A:8631:HOH:O	2.21	0.41
1:1A:2815:C:H5'	27:15:29:THR:HG21	2.02	0.41
4:1E:11:MET:O	4:1E:12:THR:HG23	2.21	0.41
7:1H:94:TYR:HA	7:1H:106:THR:O	2.20	0.41
11:1P:82:GLY:HA2	11:1P:113:LYS:O	2.21	0.41
32:1a:256:U:H2'	32:1a:257:G:H8	1.85	0.41
32:1a:398:C:H2'	32:1a:399:G:C8	2.56	0.41
32:1a:696:A:O5'	32:1a:696:A:H8	2.04	0.41
32:1a:913:A:H4'	32:1a:914:A:O5'	2.20	0.41
32:1a:1053:G:O5'	32:1a:1054:C:H3'	2.20	0.41
32:1a:1320:C:H2'	32:1a:1321:C:O4'	2.21	0.41
34:1c:26:LYS:HA	45:1n:36:PHE:HE1	1.84	0.41
35:1d:140:VAL:HG11	35:1d:146:ILE:HD11	2.03	0.41
38:1g:121:ALA:O	38:1g:125:MET:N	2.48	0.41
40:1i:18:PHE:HB2	40:1i:62:TYR:O	2.20	0.41
42:1k:34:ASP:OD2	42:1k:38:ASN:HB2	2.20	0.41
51:1t:47:GLY:HA2	51:1t:48:LYS:C	2.46	0.41
1:2A:588:U:H1'	5:2F:90:PHE:CG	2.54	0.41
1:2A:601:C:O2	1:2A:605:C:H4'	2.20	0.41
1:2A:1005:C:H2'	1:2A:1006:C:C6	2.56	0.41
1:2A:1005:C:H2'	1:2A:1006:C:H6	1.85	0.41
1:2A:1075:C:N4	1:2A:1077:A:C5	2.89	0.41
1:2A:1301:A:C8	1:2A:1303:G:C8	3.09	0.41
1:2A:1556:C:H2'	1:2A:1557:C:C6	2.55	0.41
1:2A:1790:C:H2'	1:2A:1791:A:C5	2.56	0.41
1:2A:2319:G:N1	14:2S:3:ARG:HA	2.34	0.41
3:2D:97:TYR:O	3:2D:100:GLY:N	2.44	0.41
5:2F:39:TRP:NE1	5:2F:99:TYR:O	2.51	0.41
5:2F:120:GLU:C	5:2F:122:LYS:N	2.78	0.41
8:2I:38:LEU:HB3	8:2I:40:THR:HG23	2.03	0.41
10:2O:25:LEU:HD23	10:2O:25:LEU:HA	1.88	0.41
11:2P:113:LYS:HA	11:2P:129:ALA:O	2.21	0.41
23:21:82:LEU:O	23:21:85:LEU:HD22	2.20	0.41
29:27:5:TRP:CD1	29:27:7:PRO:HD3	2.55	0.41
32:2a:189(D):C:O2	32:2a:189(H):G:C6	2.73	0.41
32:2a:309:G:H1'	32:2a:608:A:C2	2.55	0.41
32:2a:399:G:H2'	32:2a:400:C:C6	2.56	0.41
32:2a:474:G:H2'	32:2a:475:G:H8	1.86	0.41
32:2a:500:G:C6	32:2a:546:G:C2	3.09	0.41
32:2a:786:G:C2	32:2a:797:C:C2	3.09	0.41
32:2a:976:G:C8	32:2a:1358:U:C2	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1456:G:H1	51:2t:51:GLU:HG2	1.85	0.41
32:2a:1502:A:H5'	32:2a:1504:G:N7	2.36	0.41
33:2b:8:LYS:HB2	33:2b:9:GLU:H	1.76	0.41
34:2c:5:ILE:HD12	34:2c:5:ILE:HA	1.90	0.41
51:2t:11:SER:O	51:2t:15:ARG:HB2	2.21	0.41
53:2y:51:ASP:OD1	53:2y:64:SER:OG	2.24	0.41
1:1A:578:A:H3'	63:1A:8867:HOH:O	2.20	0.41
1:1A:1153:C:H5'	16:1U:76:TYR:HE2	1.86	0.41
1:1A:1636:C:H2'	1:1A:1637:A:C8	2.56	0.41
1:1A:1784:A:OP2	63:1A:8642:HOH:O	2.22	0.41
1:1A:2506:U:H1'	54:1w:76:PPU:HD1	2.01	0.41
1:1A:2557:G:H2'	1:1A:2558:C:C6	2.55	0.41
2:1B:11:C:H3'	2:1B:12:C:C6	2.56	0.41
7:1H:3:ARG:HG2	7:1H:6:ARG:NE	2.35	0.41
10:1O:64:ARG:HB2	10:1O:79:PHE:CG	2.56	0.41
10:1O:68:GLU:OE1	10:1O:78:ARG:NH1	2.54	0.41
14:1S:110:LEU:HD12	14:1S:110:LEU:HA	1.86	0.41
18:1W:13:SER:HB3	18:1W:16:LYS:HD2	2.03	0.41
32:1a:398:C:H2'	32:1a:399:G:H8	1.86	0.41
32:1a:624:C:O3'	47:1p:10:GLY:HA2	2.21	0.41
32:1a:673:G:H5"	37:1f:87:ARG:NH1	2.36	0.41
32:1a:991:U:H1'	32:1a:992:U:OP2	2.21	0.41
32:1a:1014:A:H4'	50:1s:14:HIS:CE1	2.55	0.41
32:1a:1402:4OC:HN4	53:1y:83:ARG:NH1	2.19	0.41
34:1c:52:LEU:HD11	34:1c:55:VAL:HG22	2.01	0.41
34:1c:56:ASP:OD2	34:1c:69:HIS:HE1	2.03	0.41
35:1d:122:ARG:HA	35:1d:122:ARG:HD2	1.75	0.41
39:1h:127:LEU:HA	39:1h:127:LEU:HD13	1.63	0.41
40:1i:89:ASN:HB3	40:1i:92:TYR:CD2	2.55	0.41
47:1p:43:LYS:HG2	47:1p:48:TRP:CD2	2.56	0.41
48:1q:12:SER:HB3	48:1q:20:THR:HB	2.02	0.41
51:1t:25:ARG:HB3	51:1t:29:LYS:NZ	2.35	0.41
51:1t:63:ILE:HG22	51:1t:77:ALA:HB1	2.03	0.41
1:2A:35:G:H2'	1:2A:36:G:O4'	2.20	0.41
1:2A:444:C:H4'	5:2F:49:ALA:HB2	2.01	0.41
1:2A:848:G:O6	1:2A:928:G:H2'	2.20	0.41
1:2A:1063:G:C5	1:2A:1065:U:H5	2.39	0.41
1:2A:1084:A:OP1	1:2A:1085:A:H1'	2.20	0.41
1:2A:1426:G:O2'	1:2A:1572:A:N6	2.53	0.41
1:2A:1592:C:H2'	1:2A:1593:G:C8	2.56	0.41
1:2A:2238:G:N3	1:2A:2238:G:H2'	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2245:U:H5"	1:2A:2246:G:H5'	2.02	0.41
1:2A:2823:A:OP1	4:2E:159:HIS:NE2	2.54	0.41
4:2E:16:ARG:O	4:2E:19:ARG:HB2	2.21	0.41
5:2F:78:ILE:H	5:2F:78:ILE:HG12	1.65	0.41
5:2F:93:LYS:HA	5:2F:93:LYS:HD3	1.86	0.41
6:2G:161:THR:CG2	6:2G:163:ALA:H	2.34	0.41
8:2I:75:LEU:HD11	8:2I:105:HIS:ND1	2.36	0.41
25:23:43:ILE:O	25:23:47:VAL:HG23	2.21	0.41
27:25:20:ARG:C	27:25:22:HIS:N	2.79	0.41
32:2a:1016:A:N6	32:2a:1017:G:N3	2.68	0.41
32:2a:1097:C:H1'	32:2a:1169:A:C2	2.54	0.41
33:2b:15:VAL:HG23	33:2b:16:HIS:HD2	1.85	0.41
34:2c:23:TYR:HA	41:2j:11:PHE:CE2	2.56	0.41
35:2d:156:GLU:O	35:2d:160:GLN:HG3	2.21	0.41
41:2j:30:SER:HG	41:2j:84:GLN:HE22	1.67	0.41
42:2k:48:ILE:HD13	42:2k:48:ILE:HA	1.81	0.41
44:2m:34:LEU:HD13	44:2m:41:PRO:HB3	2.01	0.41
44:2m:53:VAL:HG12	44:2m:57:ARG:NH1	2.35	0.41
1:1A:1050:A:H2'	1:1A:1051:G:O4'	2.20	0.41
1:1A:1669:A:OP2	63:1A:8530:HOH:O	2.21	0.41
1:1A:2759:G:N7	63:1A:8912:HOH:O	2.37	0.41
1:1A:2820:A:C5	13:1R:4:LEU:HD11	2.55	0.41
2:1B:53:A:H2'	2:1B:54:G:O4'	2.21	0.41
5:1F:34:TRP:HA	11:1P:6:LEU:HD13	2.03	0.41
6:1G:45:GLU:O	6:1G:49:ASP:HB2	2.21	0.41
19:1X:50:LYS:HB3	19:1X:84:ALA:HB2	2.02	0.41
21:1Z:94:GLU:HB2	21:1Z:95:PRO:HD2	2.02	0.41
32:1a:1220:G:N2	50:1s:54:GLY:O	2.45	0.41
35:1d:173:TRP:NE1	35:1d:189:PRO:HB3	2.35	0.41
36:1e:48:ALA:HB3	36:1e:54:ALA:HB2	2.03	0.41
39:1h:86:ILE:HD11	39:1h:136:GLU:HG2	2.03	0.41
40:1i:3:GLN:HE21	40:1i:20:ARG:HH21	1.69	0.41
40:1i:19:LEU:HD11	40:1i:85:LEU:HG	2.02	0.41
50:1s:22:LEU:O	50:1s:27:GLU:N	2.54	0.41
53:1y:85:LEU:O	53:1y:89:GLN:HG2	2.19	0.41
1:2A:481:G:C2	1:2A:507:A:C4	3.09	0.41
1:2A:557:U:H2'	1:2A:558:G:C8	2.56	0.41
1:2A:1913:A:N1	32:2a:1491:G:N2	2.69	0.41
1:2A:1952:A:C6	1:2A:1953:A:N1	2.88	0.41
1:2A:2119:A:H61	1:2A:2168:G:N2	2.18	0.41
1:2A:2321:G:OP2	63:2A:3919:HOH:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2441:C:OP2	1:2A:2586:C:O2'	2.32	0.41
1:2A:2820:A:O2'	4:2E:191:PRO:HG3	2.21	0.41
10:2O:120:GLU:HB2	15:2T:68:TYR:HE2	1.86	0.41
16:2U:33:ARG:NH2	63:2U:304:HOH:O	2.54	0.41
17:2V:98:GLU:OE1	17:2V:100:ARG:NH1	2.48	0.41
23:21:83:GLU:OE1	23:21:83:GLU:N	2.54	0.41
32:2a:192:U:O2'	51:2t:60:GLU:OE1	2.23	0.41
32:2a:377:G:OP1	47:2p:3:LYS:HD3	2.19	0.41
32:2a:492:G:C2	32:2a:493:G:H1'	2.56	0.41
32:2a:557:G:C6	32:2a:558:G:C6	3.09	0.41
32:2a:1006:C:H2'	32:2a:1007:C:C6	2.55	0.41
32:2a:1151:A:O4'	41:2j:39:PRO:HB2	2.21	0.41
32:2a:1295:G:H21	32:2a:1302:U:H3	1.69	0.41
45:2n:8:GLU:HA	45:2n:11:LYS:HD2	2.02	0.41
45:2n:23:ARG:CZ	45:2n:30:ALA:HB2	2.51	0.41
1:1A:65:C:H5'	19:1X:71:GLY:HA3	2.02	0.41
1:1A:210:C:H2'	1:1A:211:A:C8	2.55	0.41
1:1A:757:U:H2'	1:1A:758:C:O4'	2.21	0.41
1:1A:774:A:N3	1:1A:774:A:H2'	2.35	0.41
1:1A:795:C:H2'	1:1A:796:C:C6	2.56	0.41
1:1A:1053:C:H2'	1:1A:1054:A:C8	2.56	0.41
1:1A:1179:C:H2'	1:1A:1180:C:H6	1.86	0.41
1:1A:1435:G:H2'	1:1A:1436:G:O4'	2.21	0.41
1:1A:1466:G:H2'	1:1A:1547:C:N4	2.35	0.41
1:1A:1903:G:OP1	3:1D:243:GLY:N	2.46	0.41
1:1A:2142:C:N3	1:1A:2149:G:C6	2.88	0.41
1:1A:2197:U:H1'	1:1A:2198:A:C8	2.56	0.41
1:1A:2690:C:H6	1:1A:2690:C:OP2	2.04	0.41
1:1A:2712:U:OP1	1:1A:2714:G:H4'	2.21	0.41
2:1B:96:U:OP1	21:1Z:14:LYS:NZ	2.54	0.41
4:1E:131:ALA:HB1	4:1E:134:ILE:HD11	2.03	0.41
9:1N:48:MET:HB2	9:1N:48:MET:HE2	1.83	0.41
10:1O:64:ARG:HD2	10:1O:81:ASP:OD1	2.21	0.41
11:1P:3:LEU:HB2	63:1P:344:HOH:O	2.20	0.41
12:1Q:3:MET:HE2	63:1Q:324:HOH:O	2.19	0.41
12:1Q:51:ARG:HD3	12:1Q:66:ILE:HD11	2.02	0.41
13:1R:83:ILE:O	13:1R:86:ARG:HG2	2.19	0.41
21:1Z:29:TYR:OH	21:1Z:87:ASP:HB3	2.21	0.41
23:11:52:ARG:NH2	23:11:55:GLY:O	2.54	0.41
24:12:30:ARG:HD3	63:12:112:HOH:O	2.20	0.41
27:15:17:ASP:OD2	63:15:202:HOH:O	2.22	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:448:A:H2'	32:1a:449:C:C6	2.56	0.41
32:1a:651:C:H2'	32:1a:652:U:C6	2.56	0.41
32:1a:669:U:H2'	32:1a:670:G:H8	1.85	0.41
35:1d:173:TRP:C	35:1d:186:LEU:HB2	2.45	0.41
38:1g:22:LEU:HD23	38:1g:62:PHE:HE2	1.85	0.41
38:1g:138:LYS:NZ	38:1g:142:GLU:OE1	2.50	0.41
47:1p:71:ARG:HA	47:1p:74:LEU:HB2	2.02	0.41
51:1t:89:ARG:O	51:1t:93:GLU:HG2	2.21	0.41
1:2A:265:A:H1'	1:2A:266:G:O4'	2.21	0.41
1:2A:309:G:C5	1:2A:330:A:C6	3.08	0.41
1:2A:631:A:H1'	11:2P:66:GLY:HA2	2.02	0.41
1:2A:855:G:O6	63:2A:3862:HOH:O	2.17	0.41
1:2A:897:C:H6	1:2A:897:C:O5'	2.02	0.41
1:2A:1081:U:H3'	1:2A:1085:A:N6	2.33	0.41
1:2A:1421:G:C2	1:2A:1422:G:C8	3.09	0.41
1:2A:1489:U:HO2'	1:2A:1490:A:H8	1.64	0.41
1:2A:2526:G:H5'	1:2A:2742:C:O2'	2.20	0.41
1:2A:2780:G:OP1	63:2A:3926:HOH:O	2.21	0.41
6:2G:155:MET:HE2	6:2G:155:MET:HB3	1.93	0.41
8:2I:12:LEU:HD12	8:2I:12:LEU:HA	1.91	0.41
10:2O:15:GLY:HA3	10:2O:50:GLY:HA3	2.01	0.41
12:2Q:35:VAL:HG12	12:2Q:130:LYS:O	2.21	0.41
12:2Q:72:LYS:HB3	12:2Q:94:VAL:HG23	2.03	0.41
21:2Z:44:PHE:CZ	21:2Z:86:VAL:HG11	2.56	0.41
21:2Z:130:PRO:O	21:2Z:132:ASN:N	2.44	0.41
21:2Z:163:LEU:HD11	21:2Z:165:VAL:HG22	2.02	0.41
26:24:53:GLU:OE1	26:24:54:GLY:N	2.44	0.41
26:24:59:PHE:HA	26:24:61:ARG:HB2	2.03	0.41
32:2a:148:G:H2'	32:2a:149:A:C8	2.56	0.41
32:2a:384:G:H2'	32:2a:385:C:H6	1.85	0.41
32:2a:658:G:H4'	46:2o:22:THR:HB	2.02	0.41
32:2a:724:G:C2	32:2a:725:G:C8	3.09	0.41
32:2a:791:G:H8	32:2a:791:G:O5'	2.04	0.41
32:2a:954:G:H5'	53:2y:17:ARG:CZ	2.51	0.41
32:2a:1004:A:N6	32:2a:1037:C:C6	2.89	0.41
32:2a:1238:A:N7	32:2a:1303:C:H1'	2.36	0.41
32:2a:1418:A:O5'	32:2a:1418:A:H8	2.03	0.41
32:2a:1481:U:H2'	32:2a:1482:G:C8	2.56	0.41
33:2b:27:LYS:HB3	33:2b:194:PRO:HD2	2.02	0.41
33:2b:121:LEU:HD12	33:2b:121:LEU:HA	1.87	0.41
34:2c:59:ARG:HE	34:2c:64:VAL:CB	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:178:LEU:HD12	34:2c:178:LEU:HA	1.89	0.41
35:2d:8:VAL:HG11	35:2d:22:LYS:HG3	2.02	0.41
36:2e:80:ILE:HD12	39:2h:104:ARG:NH2	2.36	0.41
37:2f:91:VAL:HG11	49:2r:72:ARG:NH1	2.35	0.41
37:2f:91:VAL:HG12	37:2f:92:LYS:O	2.20	0.41
39:2h:48:TYR:HA	39:2h:60:ARG:O	2.21	0.41
40:2i:28:VAL:HG13	40:2i:63:ILE:HG22	2.03	0.41
41:2j:61:GLU:OE2	45:2n:58:LYS:HE2	2.21	0.41
44:2m:13:LYS:O	44:2m:44:ARG:HA	2.20	0.41
44:2m:108:ARG:NH1	44:2m:111:LYS:HD2	2.36	0.41
49:2r:45:SER:OG	49:2r:47:THR:HG22	2.21	0.41
50:2s:80:TYR:CZ	50:2s:82:GLY:HA2	2.56	0.41
52:2u:12:LYS:HB3	52:2u:17:THR:O	2.21	0.41
53:2y:78:ILE:H	53:2y:78:ILE:HG12	1.41	0.41
1:1A:659:C:N4	63:1A:8988:HOH:O	2.40	0.41
1:1A:1069:A:O2'	1:1A:1073:A:N6	2.49	0.41
1:1A:1587:A:H2'	1:1A:1588:C:C6	2.56	0.41
1:1A:2018:G:OP1	27:15:9:LYS:NZ	2.53	0.41
1:1A:2170:A:H8	1:1A:2170:A:OP2	2.04	0.41
1:1A:2193:G:H2'	1:1A:2194:G:H8	1.85	0.41
1:1A:2376:A:N3	14:1S:106:ARG:NH2	2.69	0.41
7:1H:9:ILE:HG12	7:1H:69:ARG:NE	2.35	0.41
18:1W:32:ALA:O	18:1W:36:LEU:HG	2.20	0.41
32:1a:453:A:H4'	47:1p:72:ARG:HB2	2.03	0.41
32:1a:495:A:H4'	32:1a:496:A:OP1	2.20	0.41
32:1a:745:C:OP1	32:1a:851:G:O2'	2.33	0.41
32:1a:1394:A:C5	32:1a:1501:C:H4'	2.56	0.41
34:1c:6:HIS:CD2	34:1c:8:ILE:H	2.25	0.41
34:1c:138:VAL:HG13	34:1c:149:ALA:HB3	2.03	0.41
1:2A:358:U:H6	1:2A:358:U:O5'	2.03	0.41
1:2A:652(D):C:H2'	1:2A:652(E):G:H8	1.86	0.41
1:2A:962:G:H4'	1:2A:2496:C:O2'	2.21	0.41
1:2A:1090:U:N3	1:2A:1102:C:H1'	2.32	0.41
1:2A:1166:C:H2'	1:2A:1167:U:H6	1.85	0.41
1:2A:1284:A:N7	63:2A:4142:HOH:O	2.37	0.41
1:2A:1525:G:H2'	1:2A:1526:G:H8	1.86	0.41
1:2A:2136:C:C6	1:2A:2137:C:H5	2.39	0.41
3:2D:143:HIS:HB2	3:2D:156:ALA:O	2.21	0.41
5:2F:165:ARG:HG2	5:2F:168:ARG:CZ	2.51	0.41
7:2H:95:ARG:CZ	7:2H:106:THR:HG21	2.51	0.41
10:2O:4:PRO:HA	10:2O:21:CYS:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:2Y:8:LYS:HG2	20:2Y:97:ARG:NH1	2.36	0.41
25:23:8:LEU:HG	25:23:31:LEU:HD22	2.03	0.41
26:24:28:LYS:O	26:24:30:GLU:N	2.54	0.41
32:2a:162:A:C5	32:2a:163:C:H1'	2.56	0.41
32:2a:255:G:H2'	32:2a:256:U:C6	2.55	0.41
32:2a:255:G:P	48:2q:69:LYS:HZ3	2.42	0.41
32:2a:406:G:H2'	32:2a:407:G:H8	1.85	0.41
32:2a:429:U:OP2	35:2d:36:ARG:NH2	2.49	0.41
32:2a:730:G:C5	32:2a:731:G:H1'	2.55	0.41
32:2a:1119:C:H2'	32:2a:1120:G:C8	2.55	0.41
32:2a:1223:C:P	50:2s:78:ARG:HH21	2.44	0.41
35:2d:158:ILE:O	35:2d:162:LEU:HB2	2.21	0.41
40:2i:81:ILE:O	40:2i:81:ILE:HG12	2.21	0.41
1:1A:97:C:OP1	24:12:2:LYS:HE2	2.22	0.40
1:1A:674:G:H1'	5:1F:74:ARG:HD3	2.03	0.40
1:1A:969:U:O3'	25:13:14:GLY:HA2	2.21	0.40
1:1A:1027:A:C6	1:1A:1126:A:C4	3.09	0.40
1:1A:1279:G:H4'	13:1R:31:HIS:CD2	2.56	0.40
1:1A:1843:C:H5'	3:1D:253:GLN:NE2	2.36	0.40
1:1A:2238:G:N3	1:1A:2238:G:H5"	2.36	0.40
1:1A:2297:C:OP2	63:1A:8637:HOH:O	2.21	0.40
63:1A:9278:HOH:O	5:1F:68:LYS:HE2	2.20	0.40
3:1D:113:VAL:HG12	63:1D:497:HOH:O	2.20	0.40
6:1G:47:LYS:HG3	6:1G:48:GLU:H	1.86	0.40
13:1R:2:ARG:HG2	13:1R:2:ARG:O	2.21	0.40
19:1X:44:GLU:OE1	63:1X:7203:HOH:O	2.22	0.40
20:1Y:20:TYR:CE2	20:1Y:43:ASN:HA	2.55	0.40
26:14:62:ARG:HD3	26:14:62:ARG:HA	1.88	0.40
32:1a:42:G:O6	63:1a:1936:HOH:O	2.22	0.40
32:1a:44:G:H2'	32:1a:45:U:O4'	2.20	0.40
32:1a:558:G:H5"	32:1a:559:A:O5'	2.20	0.40
32:1a:875:C:C4	32:1a:876:G:N7	2.89	0.40
34:1c:124:ILE:HD12	34:1c:196:LEU:HD12	2.02	0.40
47:1p:20:VAL:HG23	47:1p:35:LYS:HA	2.02	0.40
50:1s:15:LEU:HD12	50:1s:15:LEU:HA	1.75	0.40
50:1s:67:VAL:C	50:1s:69:HIS:H	2.29	0.40
1:2A:947:G:H2'	1:2A:948:G:C8	2.55	0.40
1:2A:1005:C:H4'	1:2A:1012:U:C6	2.56	0.40
1:2A:1050:A:H2'	1:2A:1051:G:C8	2.56	0.40
1:2A:1212:G:H1'	1:2A:1236:G:N2	2.36	0.40
1:2A:1268:A:H2'	1:2A:1269:A:O4'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1444:G:N2	1:2A:1548:C:C2	2.89	0.40
1:2A:2516:G:C6	1:2A:2517:C:C4	3.09	0.40
1:2A:2526:G:HO2'	31:29:33:LYS:HZ1	1.62	0.40
2:2B:14:U:O3'	2:2B:108:U:O2'	2.39	0.40
7:2H:80:SER:OG	7:2H:81:GLU:N	2.54	0.40
7:2H:83:TYR:N	7:2H:135:GLY:O	2.35	0.40
10:2O:105:GLU:OE1	10:2O:105:GLU:N	2.51	0.40
19:2X:4:ALA:HB1	19:2X:42:ALA:HA	2.03	0.40
19:2X:59:VAL:HB	19:2X:76:ARG:HB2	2.03	0.40
21:2Z:54:HIS:CG	21:2Z:101:PRO:HG3	2.56	0.40
26:24:62:ARG:O	26:24:63:TYR:C	2.65	0.40
32:2a:19:C:H5"	36:2e:86:ALA:HB3	2.02	0.40
32:2a:113:G:N3	32:2a:353:A:O2'	2.46	0.40
32:2a:1113:C:H2'	32:2a:1114:C:H6	1.86	0.40
32:2a:1123:A:H4'	41:2j:37:PRO:HD2	2.02	0.40
32:2a:1212:U:H4'	32:2a:1213:A:C8	2.56	0.40
33:2b:55:PHE:HD1	33:2b:221:LEU:HD23	1.87	0.40
33:2b:130:ARG:HA	33:2b:131:PRO:HD3	1.94	0.40
37:2f:40:VAL:HA	37:2f:62:TRP:O	2.21	0.40
43:2l:89:ARG:H	43:2l:89:ARG:HG3	1.68	0.40
1:1A:40:C:H2'	1:1A:41:C:H6	1.86	0.40
1:1A:218:A:C2	1:1A:235:U:H4'	2.56	0.40
1:1A:494:G:OP1	18:1W:8:ARG:NH1	2.54	0.40
1:1A:1287:A:N1	1:1A:1648:C:O2'	2.51	0.40
1:1A:1548:C:H2'	1:1A:1549:C:H6	1.86	0.40
1:1A:1783:A:H5'	1:1A:2608:G:H4'	2.03	0.40
1:1A:1966:A:H8	1:1A:1966:A:OP1	2.04	0.40
1:1A:2406:U:H6	1:1A:2406:U:H2'	1.65	0.40
1:1A:2416:C:O5'	1:1A:2416:C:H6	2.05	0.40
2:1B:29:A:H2'	2:1B:30:C:O4'	2.21	0.40
2:1B:69:G:C6	2:1B:70:C:C4	3.09	0.40
3:1D:13:ARG:HD2	3:1D:16:MET:HE3	2.02	0.40
8:1I:2:LYS:HA	8:1I:19:VAL:O	2.22	0.40
8:1I:27:ARG:HH11	8:1I:27:ARG:HD3	1.76	0.40
21:1Z:99:TYR:CE1	21:1Z:125:LEU:HB2	2.56	0.40
32:1a:8:A:N1	35:1d:209:ARG:HG3	2.36	0.40
32:1a:1457:G:H2'	32:1a:1458:G:C8	2.56	0.40
34:1c:36:ASP:HA	34:1c:39:ILE:HD12	2.03	0.40
35:1d:105:VAL:HG13	35:1d:110:PHE:HB2	2.03	0.40
38:1g:15:ASP:OD1	38:1g:19:GLY:N	2.53	0.40
42:1k:21:ILE:HB	42:1k:84:VAL:HG22	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:144:C:H5'	19:2X:2:LYS:HD3	2.02	0.40
1:2A:807:U:OP2	11:2P:41:ARG:NH2	2.55	0.40
1:2A:981:A:H8	1:2A:982:C:C5	2.39	0.40
1:2A:1045:A:H5"	1:2A:1046:A:OP1	2.22	0.40
1:2A:1059:G:C2	1:2A:1079:C:N4	2.89	0.40
1:2A:1062:G:H5"	1:2A:1070:A:N3	2.36	0.40
1:2A:1256:G:H1'	5:2F:82:ILE:HD11	2.02	0.40
1:2A:2345:G:N3	1:2A:2381:C:H2'	2.36	0.40
1:2A:2365:G:O6	30:28:43:GLN:NE2	2.48	0.40
1:2A:2452:C:N3	54:2w:76:PPU:HM2	2.36	0.40
63:2A:3967:HOH:O	27:25:15:ARG:HG2	2.20	0.40
6:2G:112:PRO:HG3	26:24:43:TYR:CE2	2.56	0.40
9:2N:1:MET:HE1	16:2U:94:ASN:ND2	2.36	0.40
10:2O:20:MET:HE3	10:2O:44:LYS:HE3	2.03	0.40
21:2Z:35:ARG:HD2	21:2Z:35:ARG:HA	1.74	0.40
23:21:94:LEU:O	23:21:97:LEU:HB2	2.21	0.40
24:22:64:LEU:O	24:22:68:ARG:HG2	2.21	0.40
30:28:46:ARG:CZ	30:28:46:ARG:HB3	2.51	0.40
32:2a:17:U:O2'	32:2a:1079:G:N3	2.51	0.40
32:2a:140:A:H2'	32:2a:141:A:H8	1.86	0.40
32:2a:540:G:C6	32:2a:541:G:C5	3.09	0.40
32:2a:576:G:OP2	32:2a:577:G:H5"	2.21	0.40
32:2a:814:A:H2'	32:2a:816:A:H5"	2.01	0.40
32:2a:1352:C:H1'	32:2a:1371:G:N2	2.37	0.40
34:2c:150:LYS:HE2	34:2c:150:LYS:HB3	1.85	0.40
41:2j:49:VAL:HG22	41:2j:50:ILE:O	2.22	0.40
43:2l:54:LYS:HB3	43:2l:70:ILE:HD12	2.03	0.40
1:1A:250:G:C6	1:1A:251:A:C6	3.09	0.40
1:1A:396:G:H1'	23:11:42:GLN:CB	2.51	0.40
1:1A:657:U:H2'	1:1A:658:C:H6	1.82	0.40
1:1A:839:U:H1'	1:1A:1191:G:H1'	2.04	0.40
1:1A:1054:A:N6	1:1A:1105:U:H3	2.20	0.40
1:1A:1177:A:N3	1:1A:1177:A:H2'	2.35	0.40
1:1A:1330:C:O2'	1:1A:1331:A:H5'	2.21	0.40
1:1A:1953:A:OP1	63:1A:8645:HOH:O	2.22	0.40
1:1A:2818:G:O2'	1:1A:2819:G:H5'	2.22	0.40
14:1S:103:GLU:O	14:1S:107:GLU:HG3	2.22	0.40
16:1U:59:ARG:HB3	16:1U:59:ARG:HH11	1.85	0.40
32:1a:53:A:OP1	63:1a:1935:HOH:O	2.22	0.40
32:1a:133:U:O5'	32:1a:133:U:H6	2.04	0.40
32:1a:283:C:H2'	32:1a:284:G:O4'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:309:G:H2'	32:1a:310:G:C8	2.57	0.40
32:1a:437:U:O2	35:1d:119:GLN:NE2	2.54	0.40
32:1a:607:A:H2'	32:1a:608:A:C8	2.56	0.40
32:1a:926:G:C6	32:1a:1505:G:C6	3.10	0.40
32:1a:1196:U:OP1	32:1a:1197:G:H5'	2.21	0.40
33:1b:55:PHE:HA	33:1b:58:ILE:HB	2.03	0.40
36:1e:151:LEU:HD11	39:1h:77:GLU:CD	2.47	0.40
38:1g:6:ARG:H	38:1g:6:ARG:HG3	1.66	0.40
39:1h:51:VAL:HG12	39:1h:52:ASP:H	1.85	0.40
40:1i:4:TYR:O	40:1i:19:LEU:N	2.54	0.40
40:1i:79:LEU:HD21	40:1i:83:ARG:HH12	1.87	0.40
49:1r:44:LEU:HD21	49:1r:70:ILE:HD13	2.03	0.40
1:2A:247:G:OP2	1:2A:249:C:N4	2.52	0.40
1:2A:598:G:H2'	1:2A:599:G:O4'	2.21	0.40
1:2A:1076:C:H4'	1:2A:1077:A:OP1	2.22	0.40
1:2A:1849:G:H2'	1:2A:1850:G:C8	2.55	0.40
1:2A:1919:A:N1	32:2a:1495:U:O2'	2.48	0.40
1:2A:2108:C:H5'	1:2A:2109:U:OP2	2.21	0.40
1:2A:2620:C:O2'	4:2E:119:ARG:NH1	2.49	0.40
2:2B:68:C:H2'	2:2B:69:G:O4'	2.22	0.40
4:2E:141:ILE:HA	4:2E:154:LYS:HE2	2.02	0.40
9:2N:28:THR:HG22	9:2N:29:LYS:N	2.36	0.40
13:2R:55:ALA:HA	13:2R:80:PHE:CZ	2.56	0.40
32:2a:293:G:C6	32:2a:294:U:C4	3.10	0.40
32:2a:782:A:O3'	32:2a:1515:C:H4'	2.22	0.40
32:2a:901:A:O2'	32:2a:1513:A:OP1	2.35	0.40
32:2a:1304:G:C6	32:2a:1305:G:N1	2.89	0.40
32:2a:1309:G:O2'	44:2m:77:ASN:ND2	2.54	0.40
44:2m:20:THR:HA	44:2m:25:ILE:O	2.21	0.40
46:2o:33:THR:HA	46:2o:63:ARG:HH11	1.86	0.40
1:1A:226:G:H21	1:1A:228:A:H62	1.68	0.40
1:1A:1250:G:OP2	11:1P:18:ARG:NH2	2.52	0.40
1:1A:1992:G:C2	1:1A:1997:G:C5	3.09	0.40
1:1A:2429:G:N7	11:1P:56:SER:OG	2.54	0.40
1:1A:2506:U:O2'	54:1w:76:PPU:H4'	2.21	0.40
1:1A:2649:U:H2'	1:1A:2650:U:C6	2.56	0.40
2:1B:55:U:O2'	2:1B:57:A:N7	2.51	0.40
5:1F:10:PRO:HB3	5:1F:17:ARG:CZ	2.52	0.40
26:14:8:LYS:HB3	26:14:8:LYS:HE2	1.76	0.40
29:17:24:THR:HG22	29:17:26:GLY:N	2.37	0.40
32:1a:166:G:H2'	32:1a:167:G:C8	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:923:A:H2'	32:1a:924:C:C6	2.57	0.40
32:1a:1499:A:H1'	32:1a:1520:G:H5'	2.04	0.40
35:1d:159:ARG:O	35:1d:163:GLU:HG3	2.21	0.40
36:1e:116:THR:HG23	36:1e:117:ASP:OD2	2.21	0.40
40:1i:42:ARG:HD2	40:1i:42:ARG:HA	1.92	0.40
1:2A:531:C:H4'	1:2A:532:A:H5"	2.03	0.40
1:2A:624:C:H6	1:2A:624:C:O5'	2.04	0.40
1:2A:864:G:N7	12:2Q:22:LYS:NZ	2.61	0.40
1:2A:910:A:C5	12:2Q:13:GLN:HG3	2.57	0.40
1:2A:911:A:N6	12:2Q:11:LYS:O	2.39	0.40
1:2A:1814:G:H2'	1:2A:1815:A:C8	2.56	0.40
8:2I:75:LEU:HD21	8:2I:105:HIS:ND1	2.37	0.40
14:2S:36:TYR:OH	14:2S:54:LEU:HD22	2.21	0.40
27:25:20:ARG:HG2	27:25:23:HIS:CE1	2.56	0.40
27:25:40:LYS:HD3	27:25:46:CYS:HB2	2.04	0.40
32:2a:89:C:H2'	32:2a:90:U:O4'	2.22	0.40
32:2a:1143:G:H2'	32:2a:1144:G:C8	2.56	0.40
32:2a:1402:4OC:CM2	32:2a:1403:C:H5'	2.48	0.40
1:1A:26:G:H1'	1:1A:515:A:H61	1.87	0.40
1:1A:234:C:H2'	1:1A:235:U:H6	1.87	0.40
1:1A:271(X):G:C2	1:1A:271(Y):U:O4	2.74	0.40
1:1A:678:C:H5"	63:1A:9775:HOH:O	2.22	0.40
1:1A:729:G:C5	3:1D:208:LYS:HB2	2.57	0.40
1:1A:1853:A:H2'	1:1A:1854:A:C8	2.57	0.40
1:1A:1996:C:H4'	1:1A:1997:G:OP1	2.21	0.40
1:1A:2051:A:H5'	1:1A:2578:G:O4'	2.21	0.40
1:1A:2469:A:H5'	1:1A:2470:G:OP2	2.22	0.40
17:1V:49:THR:O	17:1V:49:THR:HG22	2.20	0.40
21:1Z:154:ASP:OD1	21:1Z:154:ASP:N	2.54	0.40
30:18:50:LEU:HD23	30:18:50:LEU:HA	1.91	0.40
32:1a:33:A:H2'	32:1a:34:C:C6	2.57	0.40
32:1a:162:A:H3'	32:1a:163:C:H4'	2.04	0.40
32:1a:178:C:H2'	32:1a:179:A:O4'	2.22	0.40
32:1a:189(F):U:O2	48:1q:63:ARG:NH1	2.55	0.40
32:1a:532:A:N6	32:1a:1206:G:O2'	2.54	0.40
32:1a:766:A:H2'	32:1a:767:A:O4'	2.22	0.40
32:1a:827:U:O5'	32:1a:827:U:H6	2.05	0.40
32:1a:1201:A:H1'	32:1a:1202:G:OP2	2.21	0.40
33:1b:177:ALA:HB1	33:1b:182:ILE:HB	2.03	0.40
34:1c:97:LYS:O	34:1c:99:VAL:N	2.55	0.40
36:1e:137:GLU:O	36:1e:141:GLN:HG3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:57:GLU:HB2	38:1g:60:LYS:CB	2.51	0.40
38:1g:90:GLU:CD	38:1g:90:GLU:H	2.30	0.40
42:1k:103:LEU:C	42:1k:105:VAL:H	2.30	0.40
44:1m:37:THR:HG21	44:1m:55:ARG:O	2.22	0.40
47:1p:55:ARG:HE	47:1p:55:ARG:HB3	1.69	0.40
51:1t:53:LEU:HD23	51:1t:53:LEU:HA	1.88	0.40
53:1y:69:ASP:HB3	53:1y:72:THR:HB	2.04	0.40
1:2A:484:C:O5'	1:2A:484:C:H6	2.04	0.40
1:2A:1156:A:H5"	63:2A:4204:HOH:O	2.21	0.40
1:2A:1359:A:N6	1:2A:1372:U:H3	2.19	0.40
1:2A:1598:C:O3'	19:2X:35:THR:HG23	2.21	0.40
1:2A:1803:A:H2'	1:2A:1804:C:O4'	2.21	0.40
1:2A:1817:G:C6	1:2A:1818:U:C4	3.09	0.40
4:2E:170:LEU:HA	4:2E:170:LEU:HD12	1.90	0.40
8:2I:29:TYR:HD2	8:2I:30:LEU:HD23	1.87	0.40
9:2N:9:VAL:HG12	9:2N:10:GLU:N	2.37	0.40
9:2N:31:ALA:O	9:2N:35:ARG:HG2	2.21	0.40
16:2U:58:ARG:HA	16:2U:61:TRP:CE3	2.57	0.40
32:2a:437:U:O2'	35:2d:125:HIS:HE1	2.04	0.40
32:2a:449:C:H2'	32:2a:450:G:O4'	2.22	0.40
32:2a:582:U:H5"	46:2o:64:ARG:NH1	2.36	0.40
32:2a:984:C:H2'	32:2a:985:C:C6	2.51	0.40
32:2a:1005:A:H1'	32:2a:1025:U:C2	2.57	0.40
32:2a:1151:A:N3	41:2j:39:PRO:HG3	2.36	0.40
32:2a:1441:G:O5'	32:2a:1441:G:H8	2.04	0.40
35:2d:122:ARG:HA	35:2d:122:ARG:HD2	1.86	0.40
38:2g:38:LEU:O	38:2g:42:ILE:HG13	2.21	0.40
39:2h:104:ARG:O	39:2h:107:LEU:HB2	2.21	0.40
39:2h:116:LYS:HD2	39:2h:129:VAL:HG11	2.04	0.40
40:2i:86:VAL:HG11	40:2i:93:ARG:HH21	1.87	0.40
44:2m:37:THR:HG21	44:2m:56:LEU:HA	2.03	0.40
46:2o:37:ASN:O	46:2o:41:GLU:HG2	2.20	0.40
47:2p:43:LYS:HA	47:2p:48:TRP:HB3	2.04	0.40
50:2s:63:THR:OG1	50:2s:66:MET:HE3	2.21	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%)	254 (93%)	19 (7%)	0	100 100
3	2D	273/276 (99%)	259 (95%)	14 (5%)	0	100 100
4	1E	202/206 (98%)	189 (94%)	11 (5%)	2 (1%)	12 20
4	2E	202/206 (98%)	192 (95%)	8 (4%)	2 (1%)	12 20
5	1F	201/210 (96%)	192 (96%)	8 (4%)	1 (0%)	24 37
5	2F	201/210 (96%)	189 (94%)	10 (5%)	2 (1%)	12 20
6	1G	179/182 (98%)	162 (90%)	12 (7%)	5 (3%)	4 3
6	2G	179/182 (98%)	153 (86%)	23 (13%)	3 (2%)	7 10
7	1H	172/180 (96%)	159 (92%)	11 (6%)	2 (1%)	10 16
7	2H	171/180 (95%)	150 (88%)	20 (12%)	1 (1%)	21 32
8	1I	145/148 (98%)	128 (88%)	17 (12%)	0	100 100
8	2I	144/148 (97%)	125 (87%)	18 (12%)	1 (1%)	18 28
9	1N	138/140 (99%)	131 (95%)	7 (5%)	0	100 100
9	2N	138/140 (99%)	127 (92%)	11 (8%)	0	100 100
10	1O	120/122 (98%)	112 (93%)	7 (6%)	1 (1%)	16 25
10	2O	120/122 (98%)	114 (95%)	6 (5%)	0	100 100
11	1P	147/150 (98%)	138 (94%)	8 (5%)	1 (1%)	18 28
11	2P	147/150 (98%)	138 (94%)	8 (5%)	1 (1%)	18 28
12	1Q	139/141 (99%)	131 (94%)	7 (5%)	1 (1%)	18 28
12	2Q	139/141 (99%)	130 (94%)	9 (6%)	0	100 100
13	1R	116/118 (98%)	109 (94%)	7 (6%)	0	100 100
13	2R	116/118 (98%)	114 (98%)	2 (2%)	0	100 100
14	1S	108/112 (96%)	99 (92%)	8 (7%)	1 (1%)	14 22
14	2S	108/112 (96%)	98 (91%)	10 (9%)	0	100 100
15	1T	129/146 (88%)	121 (94%)	8 (6%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
15	2T	129/146 (88%)	121 (94%)	7 (5%)	1 (1%)	16 25
16	1U	114/118 (97%)	114 (100%)	0	0	100 100
16	2U	114/118 (97%)	113 (99%)	1 (1%)	0	100 100
17	1V	99/101 (98%)	93 (94%)	6 (6%)	0	100 100
17	2V	99/101 (98%)	93 (94%)	5 (5%)	1 (1%)	12 20
18	1W	110/113 (97%)	107 (97%)	3 (3%)	0	100 100
18	2W	110/113 (97%)	108 (98%)	1 (1%)	1 (1%)	14 22
19	1X	93/96 (97%)	91 (98%)	1 (1%)	1 (1%)	11 18
19	2X	93/96 (97%)	87 (94%)	5 (5%)	1 (1%)	11 18
20	1Y	105/110 (96%)	97 (92%)	8 (8%)	0	100 100
20	2Y	105/110 (96%)	97 (92%)	7 (7%)	1 (1%)	12 20
21	1Z	201/206 (98%)	186 (92%)	14 (7%)	1 (0%)	24 37
21	2Z	199/206 (97%)	169 (85%)	26 (13%)	4 (2%)	6 7
22	10	81/85 (95%)	78 (96%)	3 (4%)	0	100 100
22	20	81/85 (95%)	78 (96%)	2 (2%)	1 (1%)	10 16
23	11	95/98 (97%)	90 (95%)	4 (4%)	1 (1%)	11 18
23	21	95/98 (97%)	91 (96%)	3 (3%)	1 (1%)	11 18
24	12	68/72 (94%)	68 (100%)	0	0	100 100
24	22	68/72 (94%)	67 (98%)	1 (2%)	0	100 100
25	13	57/60 (95%)	54 (95%)	3 (5%)	0	100 100
25	23	57/60 (95%)	55 (96%)	2 (4%)	0	100 100
26	14	67/71 (94%)	50 (75%)	12 (18%)	5 (8%)	1 0
26	24	67/71 (94%)	43 (64%)	18 (27%)	6 (9%)	0 0
27	15	57/60 (95%)	56 (98%)	1 (2%)	0	100 100
27	25	57/60 (95%)	54 (95%)	3 (5%)	0	100 100
28	16	51/54 (94%)	47 (92%)	4 (8%)	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%)	46 (100%)	0	0	100 100
30	18	62/65 (95%)	61 (98%)	1 (2%)	0	100 100
30	28	62/65 (95%)	62 (100%)	0	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
31	19	35/37 (95%)	35 (100%)	0	0	100 100
31	29	35/37 (95%)	33 (94%)	2 (6%)	0	100 100
33	1b	229/256 (90%)	193 (84%)	26 (11%)	10 (4%)	2 1
33	2b	229/256 (90%)	194 (85%)	31 (14%)	4 (2%)	7 10
34	1c	204/239 (85%)	179 (88%)	25 (12%)	0	100 100
34	2c	204/239 (85%)	171 (84%)	29 (14%)	4 (2%)	6 7
35	1d	206/209 (99%)	182 (88%)	23 (11%)	1 (0%)	24 37
35	2d	206/209 (99%)	188 (91%)	17 (8%)	1 (0%)	24 37
36	1e	146/162 (90%)	133 (91%)	11 (8%)	2 (1%)	9 13
36	2e	146/162 (90%)	138 (94%)	8 (6%)	0	100 100
37	1f	98/101 (97%)	94 (96%)	4 (4%)	0	100 100
37	2f	98/101 (97%)	89 (91%)	9 (9%)	0	100 100
38	1g	153/156 (98%)	139 (91%)	14 (9%)	0	100 100
38	2g	153/156 (98%)	143 (94%)	7 (5%)	3 (2%)	6 7
39	1h	135/138 (98%)	130 (96%)	5 (4%)	0	100 100
39	2h	135/138 (98%)	122 (90%)	12 (9%)	1 (1%)	18 28
40	1i	125/128 (98%)	108 (86%)	13 (10%)	4 (3%)	3 3
40	2i	124/128 (97%)	102 (82%)	21 (17%)	1 (1%)	16 25
41	1j	95/105 (90%)	80 (84%)	9 (10%)	6 (6%)	1 0
41	2j	94/105 (90%)	81 (86%)	12 (13%)	1 (1%)	11 18
42	1k	112/129 (87%)	99 (88%)	12 (11%)	1 (1%)	14 22
42	2k	112/129 (87%)	102 (91%)	9 (8%)	1 (1%)	14 22
43	1l	119/132 (90%)	113 (95%)	6 (5%)	0	100 100
43	2l	119/132 (90%)	111 (93%)	8 (7%)	0	100 100
44	1m	114/126 (90%)	100 (88%)	11 (10%)	3 (3%)	4 4
44	2m	112/126 (89%)	93 (83%)	16 (14%)	3 (3%)	4 4
45	1n	58/61 (95%)	54 (93%)	4 (7%)	0	100 100
45	2n	58/61 (95%)	53 (91%)	4 (7%)	1 (2%)	7 10
46	1o	86/89 (97%)	81 (94%)	4 (5%)	1 (1%)	10 16
46	2o	86/89 (97%)	81 (94%)	4 (5%)	1 (1%)	10 16
47	1p	80/88 (91%)	72 (90%)	7 (9%)	1 (1%)	9 14

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
47	2p	80/88 (91%)	68 (85%)	12 (15%)	0	100 100
48	1q	97/105 (92%)	87 (90%)	9 (9%)	1 (1%)	12 20
48	2q	97/105 (92%)	89 (92%)	7 (7%)	1 (1%)	12 20
49	1r	66/88 (75%)	64 (97%)	1 (2%)	1 (2%)	8 12
49	2r	66/88 (75%)	63 (96%)	3 (4%)	0	100 100
50	1s	81/93 (87%)	66 (82%)	15 (18%)	0	100 100
50	2s	81/93 (87%)	67 (83%)	12 (15%)	2 (2%)	4 5
51	1t	94/106 (89%)	87 (93%)	5 (5%)	2 (2%)	5 7
51	2t	96/106 (91%)	87 (91%)	7 (7%)	2 (2%)	5 7
52	1u	21/27 (78%)	19 (90%)	2 (10%)	0	100 100
52	2u	21/27 (78%)	18 (86%)	3 (14%)	0	100 100
53	1y	95/113 (84%)	92 (97%)	3 (3%)	0	100 100
53	2y	94/113 (83%)	85 (90%)	7 (7%)	2 (2%)	5 7
56	1v	1/3 (33%)	1 (100%)	0	0	100 100
56	2v	1/3 (33%)	1 (100%)	0	0	100 100
All	All	11643/12360 (94%)	10671 (92%)	862 (7%)	110 (1%)	14 22

All (110) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
21	1Z	52	SER
26	14	55	ARG
33	1b	8	LYS
33	1b	17	PHE
33	1b	22	LYS
33	1b	124	SER
33	1b	125	PRO
33	1b	127	ILE
41	1j	55	LYS
42	1k	105	VAL
44	1m	3	ARG
5	2F	130	ALA
11	2P	36	LYS
26	24	62	ARG
33	2b	17	PHE
33	2b	22	LYS
40	2i	54	ASP

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Mol	Chain	Res	Type
4	1E	71	GLY
5	1F	130	ALA
6	1G	47	LYS
6	1G	50	ALA
6	1G	126	ASP
11	1P	36	LYS
14	1S	59	LYS
19	1X	94	GLY
35	1d	173	TRP
40	1i	11	LYS
41	1j	77	PRO
44	1m	12	ASN
44	1m	67	GLU
48	1q	68	ARG
51	1t	47	GLY
4	2E	71	GLY
5	2F	131	GLY
6	2G	78	SER
6	2G	124	SER
8	2I	10	GLU
17	2V	79	VAL
19	2X	94	GLY
21	2Z	131	ARG
26	24	45	GLY
34	2c	95	THR
34	2c	98	ASN
38	2g	55	GLY
41	2j	78	ASN
44	2m	7	VAL
44	2m	67	GLU
6	1G	53	LEU
7	1H	126	PRO
10	1O	29	ASN
26	14	57	GLU
33	1b	129	GLU
36	1e	97	GLY
49	1r	25	THR
23	21	3	LYS
26	24	63	TYR
33	2b	16	HIS
34	2c	204	LEU
38	2g	4	ARG

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Mol	Chain	Res	Type
48	2q	68	ARG
4	1E	52	LEU
6	1G	51	ARG
26	14	49	PHE
26	14	61	ARG
33	1b	126	GLU
41	1j	26	ALA
4	2E	52	LEU
18	2W	60	ASN
20	2Y	103	GLY
21	2Z	31	ARG
21	2Z	193	GLU
22	20	4	LYS
42	2k	106	LYS
50	2s	29	ARG
50	2s	83	HIS
51	2t	45	GLN
53	2y	28	GLU
7	1H	159	GLU
33	1b	191	ASP
41	1j	78	ASN
41	1j	79	ARG
41	1j	91	PRO
47	1p	46	PRO
21	2Z	51	ALA
26	24	49	PHE
26	24	55	ARG
33	2b	20	GLU
12	1Q	59	ARG
23	11	3	LYS
26	14	47	GLN
40	1i	29	ASN
51	1t	95	ALA
7	2H	126	PRO
15	2T	127	ALA
36	1e	96	PRO
46	1o	19	PRO
26	24	54	GLY
34	2c	99	VAL
44	2m	6	GLY
33	1b	231	GLU
38	2g	82	GLY

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Mol	Chain	Res	Type
51	2t	100	ILE
53	2y	36	ASN
40	1i	48	GLU
6	2G	177	GLY
40	1i	68	GLY
35	2d	171	GLY
39	2h	134	ILE
46	2o	19	PRO
45	2n	14	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%)	195 (91%)	19 (9%)	9 15
3	2D	215/218 (99%)	195 (91%)	20 (9%)	8 14
4	1E	164/166 (99%)	156 (95%)	8 (5%)	22 39
4	2E	164/166 (99%)	148 (90%)	16 (10%)	7 12
5	1F	160/166 (96%)	142 (89%)	18 (11%)	5 8
5	2F	159/166 (96%)	136 (86%)	23 (14%)	3 4
6	1G	144/156 (92%)	133 (92%)	11 (8%)	12 21
6	2G	142/156 (91%)	120 (84%)	22 (16%)	2 3
7	1H	144/148 (97%)	135 (94%)	9 (6%)	16 29
7	2H	143/148 (97%)	123 (86%)	20 (14%)	3 4
8	1I	111/124 (90%)	92 (83%)	19 (17%)	2 2
8	2I	108/124 (87%)	93 (86%)	15 (14%)	3 4
9	1N	119/119 (100%)	105 (88%)	14 (12%)	5 7
9	2N	118/119 (99%)	111 (94%)	7 (6%)	18 31
10	1O	100/100 (100%)	93 (93%)	7 (7%)	14 24
10	2O	100/100 (100%)	94 (94%)	6 (6%)	17 31
11	1P	115/116 (99%)	110 (96%)	5 (4%)	26 44

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
11	2P	115/116 (99%)	106 (92%)	9 (8%)	11 20
12	1Q	111/111 (100%)	104 (94%)	7 (6%)	16 29
12	2Q	111/111 (100%)	100 (90%)	11 (10%)	7 11
13	1R	101/101 (100%)	94 (93%)	7 (7%)	14 24
13	2R	101/101 (100%)	93 (92%)	8 (8%)	11 19
14	1S	87/88 (99%)	81 (93%)	6 (7%)	14 24
14	2S	85/88 (97%)	76 (89%)	9 (11%)	6 10
15	1T	115/127 (91%)	109 (95%)	6 (5%)	21 36
15	2T	113/127 (89%)	98 (87%)	15 (13%)	4 5
16	1U	93/94 (99%)	85 (91%)	8 (9%)	10 16
16	2U	93/94 (99%)	84 (90%)	9 (10%)	8 12
17	1V	81/82 (99%)	75 (93%)	6 (7%)	13 22
17	2V	80/82 (98%)	69 (86%)	11 (14%)	3 4
18	1W	90/92 (98%)	83 (92%)	7 (8%)	11 20
18	2W	90/92 (98%)	83 (92%)	7 (8%)	11 20
19	1X	77/78 (99%)	73 (95%)	4 (5%)	21 36
19	2X	77/78 (99%)	69 (90%)	8 (10%)	7 10
20	1Y	86/91 (94%)	78 (91%)	8 (9%)	8 14
20	2Y	86/91 (94%)	76 (88%)	10 (12%)	5 8
21	1Z	169/179 (94%)	150 (89%)	19 (11%)	6 9
21	2Z	165/179 (92%)	144 (87%)	21 (13%)	4 6
22	10	65/67 (97%)	60 (92%)	5 (8%)	12 20
22	20	64/67 (96%)	61 (95%)	3 (5%)	23 41
23	11	79/83 (95%)	69 (87%)	10 (13%)	4 6
23	21	81/83 (98%)	73 (90%)	8 (10%)	7 11
24	12	65/67 (97%)	61 (94%)	4 (6%)	16 29
24	22	66/67 (98%)	57 (86%)	9 (14%)	3 5
25	13	51/52 (98%)	48 (94%)	3 (6%)	18 31
25	23	50/52 (96%)	46 (92%)	4 (8%)	11 19
26	14	58/63 (92%)	47 (81%)	11 (19%)	1 2
26	24	54/63 (86%)	45 (83%)	9 (17%)	2 3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
27	15	51/52 (98%)	45 (88%)	6 (12%)	5 7
27	25	50/52 (96%)	46 (92%)	4 (8%)	11 19
28	16	51/52 (98%)	47 (92%)	4 (8%)	11 20
28	26	50/52 (96%)	42 (84%)	8 (16%)	2 3
29	17	41/42 (98%)	39 (95%)	2 (5%)	22 39
29	27	41/42 (98%)	36 (88%)	5 (12%)	5 7
30	18	54/55 (98%)	51 (94%)	3 (6%)	19 33
30	28	54/55 (98%)	51 (94%)	3 (6%)	19 33
31	19	34/34 (100%)	33 (97%)	1 (3%)	37 60
31	29	34/34 (100%)	33 (97%)	1 (3%)	37 60
33	1b	191/220 (87%)	168 (88%)	23 (12%)	5 7
33	2b	187/220 (85%)	155 (83%)	32 (17%)	2 2
34	1c	144/188 (77%)	133 (92%)	11 (8%)	12 21
34	2c	140/188 (74%)	121 (86%)	19 (14%)	3 5
35	1d	171/181 (94%)	146 (85%)	25 (15%)	3 4
35	2d	172/181 (95%)	150 (87%)	22 (13%)	4 6
36	1e	114/123 (93%)	104 (91%)	10 (9%)	9 15
36	2e	114/123 (93%)	99 (87%)	15 (13%)	4 5
37	1f	85/90 (94%)	73 (86%)	12 (14%)	3 4
37	2f	85/90 (94%)	76 (89%)	9 (11%)	6 10
38	1g	120/127 (94%)	107 (89%)	13 (11%)	6 9
38	2g	119/127 (94%)	108 (91%)	11 (9%)	8 14
39	1h	116/119 (98%)	103 (89%)	13 (11%)	6 9
39	2h	114/119 (96%)	102 (90%)	12 (10%)	6 10
40	1i	91/99 (92%)	82 (90%)	9 (10%)	7 11
40	2i	88/99 (89%)	76 (86%)	12 (14%)	3 5
41	1j	68/92 (74%)	61 (90%)	7 (10%)	7 11
41	2j	68/92 (74%)	62 (91%)	6 (9%)	9 15
42	1k	83/99 (84%)	71 (86%)	12 (14%)	3 4
42	2k	83/99 (84%)	74 (89%)	9 (11%)	6 9
43	1l	96/108 (89%)	89 (93%)	7 (7%)	13 22

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
43	2l	96/108 (89%)	89 (93%)	7 (7%)	13 22
44	1m	90/101 (89%)	86 (96%)	4 (4%)	25 43
44	2m	87/101 (86%)	74 (85%)	13 (15%)	3 3
45	1n	49/50 (98%)	45 (92%)	4 (8%)	10 18
45	2n	49/50 (98%)	42 (86%)	7 (14%)	3 4
46	1o	78/80 (98%)	73 (94%)	5 (6%)	16 28
46	2o	78/80 (98%)	72 (92%)	6 (8%)	12 20
47	1p	69/74 (93%)	64 (93%)	5 (7%)	13 23
47	2p	68/74 (92%)	55 (81%)	13 (19%)	1 2
48	1q	94/97 (97%)	83 (88%)	11 (12%)	5 7
48	2q	94/97 (97%)	88 (94%)	6 (6%)	16 28
49	1r	59/77 (77%)	54 (92%)	5 (8%)	10 16
49	2r	59/77 (77%)	57 (97%)	2 (3%)	32 54
50	1s	68/80 (85%)	63 (93%)	5 (7%)	13 22
50	2s	67/80 (84%)	58 (87%)	9 (13%)	4 5
51	1t	71/82 (87%)	61 (86%)	10 (14%)	3 4
51	2t	70/82 (85%)	63 (90%)	7 (10%)	7 11
52	1u	18/22 (82%)	18 (100%)	0	100 100
52	2u	18/22 (82%)	18 (100%)	0	100 100
53	1y	82/98 (84%)	78 (95%)	4 (5%)	22 39
53	2y	79/98 (81%)	70 (89%)	9 (11%)	5 8
56	1v	3/3 (100%)	3 (100%)	0	100 100
56	2v	3/3 (100%)	3 (100%)	0	100 100
All	All	9537/10266 (93%)	8578 (90%)	959 (10%)	7 11

All (959) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	37	LEU
3	1D	61	LEU
3	1D	94	LEU
3	1D	99	ASP
3	1D	103	ARG
3	1D	111	LEU

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Mol	Chain	Res	Type
3	1D	116	GLN
3	1D	135	PHE
3	1D	136	ILE
3	1D	141	VAL
3	1D	142	VAL
3	1D	155	LEU
3	1D	173	VAL
3	1D	183	ARG
3	1D	193	VAL
3	1D	221	VAL
3	1D	229	VAL
3	1D	242	ARG
3	1D	259	THR
4	1E	9	VAL
4	1E	12	THR
4	1E	14	ILE
4	1E	75	VAL
4	1E	95	ILE
4	1E	116	VAL
4	1E	170	LEU
4	1E	181	LEU
5	1F	12	LEU
5	1F	15	SER
5	1F	24	LEU
5	1F	38	ARG
5	1F	57	VAL
5	1F	74	ARG
5	1F	88	VAL
5	1F	110	LEU
5	1F	125	LEU
5	1F	132	VAL
5	1F	140	LEU
5	1F	151	SER
5	1F	157	VAL
5	1F	158	THR
5	1F	162	LEU
5	1F	183	VAL
5	1F	192	LEU
5	1F	205	ARG
6	1G	5	VAL
6	1G	7	LEU
6	1G	28	VAL

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Mol	Chain	Res	Type
6	1G	43	LEU
6	1G	45	GLU
6	1G	52	ILE
6	1G	53	LEU
6	1G	82	LEU
6	1G	105	LYS
6	1G	116	ASP
6	1G	159	VAL
7	1H	2	SER
7	1H	15	VAL
7	1H	18	GLU
7	1H	24	VAL
7	1H	67	LEU
7	1H	104	GLU
7	1H	129	THR
7	1H	141	VAL
7	1H	172	LYS
8	1I	1	MET
8	1I	9	LEU
8	1I	10	GLU
8	1I	12	LEU
8	1I	44	LEU
8	1I	45	LYS
8	1I	47	LEU
8	1I	51	ILE
8	1I	58	LEU
8	1I	61	ARG
8	1I	62	LYS
8	1I	68	LEU
8	1I	78	THR
8	1I	82	ARG
8	1I	92	VAL
8	1I	101	LEU
8	1I	103	ARG
8	1I	107	VAL
8	1I	109	ILE
9	1N	5	VAL
9	1N	14	VAL
9	1N	33	LEU
9	1N	48	MET
9	1N	60	ILE
9	1N	62	VAL

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Mol	Chain	Res	Type
9	1N	67	LEU
9	1N	83	LYS
9	1N	87	LEU
9	1N	89	LYS
9	1N	99	LEU
9	1N	131	GLN
9	1N	136	GLU
9	1N	140	VAL
10	1O	26	LYS
10	1O	42	SER
10	1O	61	VAL
10	1O	69	ILE
10	1O	96	THR
10	1O	108	GLU
10	1O	112	MET
11	1P	6	LEU
11	1P	59	LEU
11	1P	65	ARG
11	1P	71	VAL
11	1P	95	VAL
12	1Q	7	MET
12	1Q	21	THR
12	1Q	55	VAL
12	1Q	64	ILE
12	1Q	77	LYS
12	1Q	109	VAL
12	1Q	112	GLU
13	1R	29	LEU
13	1R	36	THR
13	1R	66	VAL
13	1R	67	LEU
13	1R	96	ARG
13	1R	100	LEU
13	1R	114	VAL
14	1S	14	VAL
14	1S	43	GLU
14	1S	50	SER
14	1S	71	ARG
14	1S	83	LYS
14	1S	110	LEU
15	1T	28	VAL
15	1T	33	LYS

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Mol	Chain	Res	Type
15	1T	49	VAL
15	1T	53	ARG
15	1T	59	THR
15	1T	96	ARG
16	1U	31	SER
16	1U	36	ARG
16	1U	59	ARG
16	1U	74	LEU
16	1U	83	LEU
16	1U	85	LYS
16	1U	104	GLN
16	1U	117	GLN
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	11	ARG
18	1W	15	ARG
18	1W	17	VAL
18	1W	23	LEU
18	1W	49	LYS
18	1W	100	THR
18	1W	107	LEU
19	1X	23	GLU
19	1X	52	VAL
19	1X	66	LEU
19	1X	68	ARG
20	1Y	23	ARG
20	1Y	31	LEU
20	1Y	43	ASN
20	1Y	49	VAL
20	1Y	72	VAL
20	1Y	73	ARG
20	1Y	96	ILE
20	1Y	99	CYS
21	1Z	2	GLU
21	1Z	18	LEU
21	1Z	31	ARG
21	1Z	58	VAL
21	1Z	61	LEU

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Mol	Chain	Res	Type
21	1Z	86	VAL
21	1Z	91	LEU
21	1Z	96	VAL
21	1Z	103	ARG
21	1Z	111	VAL
21	1Z	119	GLU
21	1Z	128	VAL
21	1Z	150	LEU
21	1Z	154	ASP
21	1Z	155	LEU
21	1Z	156	LYS
21	1Z	165	VAL
21	1Z	170	THR
21	1Z	197	ILE
22	10	4	LYS
22	10	5	LYS
22	10	39	ARG
22	10	55	ARG
22	10	59	LEU
23	11	13	ILE
23	11	21	ARG
23	11	23	LYS
23	11	25	LYS
23	11	35	THR
23	11	46	LEU
23	11	59	THR
23	11	74	VAL
23	11	80	LEU
23	11	95	LEU
24	12	25	VAL
24	12	30	ARG
24	12	32	LEU
24	12	53	LEU
25	13	54	VAL
25	13	56	VAL
25	13	59	VAL
26	14	3	GLU
26	14	27	THR
26	14	33	VAL
26	14	46	GLN
26	14	47	GLN
26	14	49	PHE

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Mol	Chain	Res	Type
26	14	52	THR
26	14	56	VAL
26	14	60	GLN
26	14	67	TYR
26	14	69	LYS
27	15	6	VAL
27	15	16	ARG
27	15	26	THR
27	15	40	LYS
27	15	58	LEU
27	15	60	VAL
28	16	5	VAL
28	16	14	THR
28	16	48	VAL
28	16	52	VAL
29	17	43	THR
29	17	47	ARG
30	18	14	VAL
30	18	23	VAL
30	18	58	ILE
31	19	17	ILE
33	1b	20	GLU
33	1b	39	ILE
33	1b	61	LEU
33	1b	64	ARG
33	1b	71	VAL
33	1b	73	THR
33	1b	78	GLN
33	1b	83	MET
33	1b	98	LEU
33	1b	108	ILE
33	1b	112	VAL
33	1b	127	ILE
33	1b	145	LEU
33	1b	149	LEU
33	1b	156	LYS
33	1b	160	ASP
33	1b	185	ILE
33	1b	189	ASP
33	1b	209	ARG
33	1b	211	ILE
33	1b	229	VAL

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Mol	Chain	Res	Type
33	1b	230	VAL
33	1b	231	GLU
34	1c	26	LYS
34	1c	37	GLN
34	1c	70	VAL
34	1c	98	ASN
34	1c	101	LEU
34	1c	103	VAL
34	1c	105	GLU
34	1c	111	LEU
34	1c	127	ARG
34	1c	154	SER
34	1c	207	VAL
35	1d	8	VAL
35	1d	18	LYS
35	1d	26	CYS
35	1d	43	HIS
35	1d	58	LEU
35	1d	59	ARG
35	1d	76	ARG
35	1d	83	SER
35	1d	108	LEU
35	1d	112	VAL
35	1d	127	THR
35	1d	135	LEU
35	1d	141	ARG
35	1d	155	LEU
35	1d	157	LEU
35	1d	162	LEU
35	1d	166	LYS
35	1d	170	VAL
35	1d	175	SER
35	1d	177	ASP
35	1d	188	LEU
35	1d	194	LEU
35	1d	196	LEU
35	1d	203	VAL
35	1d	208	SER
36	1e	41	VAL
36	1e	56	GLN
36	1e	67	VAL
36	1e	69	VAL

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Mol	Chain	Res	Type
36	1e	75	THR
36	1e	80	ILE
36	1e	98	THR
36	1e	101	ILE
36	1e	118	ILE
36	1e	120	THR
37	1f	10	LEU
37	1f	19	LEU
37	1f	40	VAL
37	1f	41	GLU
37	1f	45	LEU
37	1f	64	GLN
37	1f	69	GLU
37	1f	70	ASP
37	1f	72	VAL
37	1f	86	ARG
37	1f	89	MET
37	1f	92	LYS
38	1g	6	ARG
38	1g	12	LEU
38	1g	21	VAL
38	1g	50	ILE
38	1g	56	GLN
38	1g	63	LYS
38	1g	90	GLU
38	1g	97	GLN
38	1g	98	SER
38	1g	105	VAL
38	1g	113	GLU
38	1g	143	ARG
38	1g	144	MET
39	1h	17	THR
39	1h	19	VAL
39	1h	25	ASP
39	1h	26	VAL
39	1h	38	ILE
39	1h	51	VAL
39	1h	56	LYS
39	1h	69	ARG
39	1h	104	ARG
39	1h	121	ASP
39	1h	127	LEU

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Mol	Chain	Res	Type
39	1h	133	LEU
39	1h	137	VAL
40	1i	10	ARG
40	1i	27	THR
40	1i	41	VAL
40	1i	47	LEU
40	1i	66	ARG
40	1i	81	ILE
40	1i	92	TYR
40	1i	104	ARG
40	1i	108	VAL
41	1j	8	LEU
41	1j	29	ARG
41	1j	38	ILE
41	1j	55	LYS
41	1j	92	THR
41	1j	94	VAL
41	1j	100	THR
42	1k	14	VAL
42	1k	16	SER
42	1k	47	VAL
42	1k	48	ILE
42	1k	51	LYS
42	1k	70	LYS
42	1k	80	VAL
42	1k	93	GLN
42	1k	109	VAL
42	1k	112	THR
42	1k	114	VAL
42	1k	124	LYS
43	1l	22	SER
43	1l	38	THR
43	1l	55	VAL
43	1l	70	ILE
43	1l	83	VAL
43	1l	84	LEU
43	1l	97	ARG
44	1m	11	ARG
44	1m	15	VAL
44	1m	70	LEU
44	1m	86	CYS
45	1n	4	LYS

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Mol	Chain	Res	Type
45	1n	6	LEU
45	1n	18	VAL
45	1n	60	SER
46	1o	3	ILE
46	1o	5	LYS
46	1o	31	LEU
46	1o	34	LEU
46	1o	35	ARG
47	1p	8	ARG
47	1p	19	ILE
47	1p	60	LEU
47	1p	62	VAL
47	1p	67	THR
48	1q	11	VAL
48	1q	16	GLN
48	1q	22	LEU
48	1q	53	LEU
48	1q	57	VAL
48	1q	63	ARG
48	1q	70	ARG
48	1q	76	LEU
48	1q	85	VAL
48	1q	96	GLU
48	1q	97	SER
49	1r	37	VAL
49	1r	38	GLU
49	1r	78	LEU
49	1r	82	THR
49	1r	86	VAL
50	1s	18	LYS
50	1s	28	LYS
50	1s	31	ILE
50	1s	41	VAL
50	1s	51	VAL
51	1t	10	LEU
51	1t	15	ARG
51	1t	37	SER
51	1t	45	GLN
51	1t	50	GLU
51	1t	55	ILE
51	1t	62	LEU
51	1t	70	SER

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Mol	Chain	Res	Type
51	1t	84	LEU
51	1t	100	ILE
53	1y	2	THR
53	1y	3	MET
53	1y	60	VAL
53	1y	70	MET
3	2D	3	VAL
3	2D	61	LEU
3	2D	88	ARG
3	2D	94	LEU
3	2D	103	ARG
3	2D	113	VAL
3	2D	127	VAL
3	2D	134	ARG
3	2D	141	VAL
3	2D	142	VAL
3	2D	155	LEU
3	2D	169	GLU
3	2D	173	VAL
3	2D	183	ARG
3	2D	204	ILE
3	2D	211	ARG
3	2D	221	VAL
3	2D	229	VAL
3	2D	242	ARG
3	2D	274	ARG
4	2E	1	MET
4	2E	9	VAL
4	2E	12	THR
4	2E	27	LEU
4	2E	38	THR
4	2E	41	LYS
4	2E	73	GLU
4	2E	75	VAL
4	2E	89	ASP
4	2E	116	VAL
4	2E	134	ILE
4	2E	152	LYS
4	2E	170	LEU
4	2E	181	LEU
4	2E	184	VAL
4	2E	202	LYS

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Mol	Chain	Res	Type
5	2F	15	SER
5	2F	20	LEU
5	2F	23	ASP
5	2F	24	LEU
5	2F	27	GLU
5	2F	33	LEU
5	2F	57	VAL
5	2F	74	ARG
5	2F	78	ILE
5	2F	88	VAL
5	2F	136	THR
5	2F	140	LEU
5	2F	149	ASP
5	2F	153	SER
5	2F	157	VAL
5	2F	161	GLU
5	2F	168	ARG
5	2F	170	LEU
5	2F	175	THR
5	2F	187	VAL
5	2F	192	LEU
5	2F	197	ASP
5	2F	201	VAL
6	2G	3	LEU
6	2G	5	VAL
6	2G	28	VAL
6	2G	43	LEU
6	2G	53	LEU
6	2G	62	LEU
6	2G	80	PHE
6	2G	88	ILE
6	2G	92	VAL
6	2G	103	LEU
6	2G	123	ASN
6	2G	126	ASP
6	2G	133	LEU
6	2G	138	GLN
6	2G	139	LEU
6	2G	148	MET
6	2G	149	VAL
6	2G	157	ILE
6	2G	159	VAL

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Mol	Chain	Res	Type
6	2G	161	THR
6	2G	167	GLU
6	2G	173	LEU
7	2H	13	LYS
7	2H	17	VAL
7	2H	24	VAL
7	2H	27	LYS
7	2H	33	LEU
7	2H	43	VAL
7	2H	50	VAL
7	2H	57	ASP
7	2H	67	LEU
7	2H	68	THR
7	2H	81	GLU
7	2H	86	GLU
7	2H	87	LEU
7	2H	88	LEU
7	2H	92	ILE
7	2H	113	VAL
7	2H	130	ARG
7	2H	133	VAL
7	2H	134	SER
7	2H	139	GLN
8	2I	3	VAL
8	2I	7	GLU
8	2I	19	VAL
8	2I	38	LEU
8	2I	51	ILE
8	2I	54	GLN
8	2I	68	LEU
8	2I	69	LYS
8	2I	72	LEU
8	2I	92	VAL
8	2I	96	ASP
8	2I	99	GLU
8	2I	117	GLU
8	2I	144	VAL
8	2I	145	VAL
9	2N	28	THR
9	2N	48	MET
9	2N	58	ASP
9	2N	62	VAL

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Mol	Chain	Res	Type
9	2N	71	ILE
9	2N	73	THR
9	2N	87	LEU
10	2O	32	TYR
10	2O	69	ILE
10	2O	70	LYS
10	2O	71	ARG
10	2O	94	ARG
10	2O	96	THR
11	2P	1	MET
11	2P	3	LEU
11	2P	59	LEU
11	2P	83	VAL
11	2P	95	VAL
11	2P	96	THR
11	2P	99	LEU
11	2P	106	LEU
11	2P	149	GLU
12	2Q	6	ARG
12	2Q	7	MET
12	2Q	16	ARG
12	2Q	21	THR
12	2Q	55	VAL
12	2Q	60	ARG
12	2Q	75	THR
12	2Q	98	LYS
12	2Q	109	VAL
12	2Q	111	GLU
12	2Q	133	ARG
13	2R	24	GLN
13	2R	29	LEU
13	2R	36	THR
13	2R	96	ARG
13	2R	100	LEU
13	2R	114	VAL
13	2R	117	VAL
13	2R	118	GLU
14	2S	10	ARG
14	2S	27	SER
14	2S	50	SER
14	2S	63	THR
14	2S	64	GLU

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Mol	Chain	Res	Type
14	2S	69	VAL
14	2S	73	LEU
14	2S	110	LEU
14	2S	111	GLU
15	2T	9	LEU
15	2T	17	THR
15	2T	28	VAL
15	2T	34	VAL
15	2T	42	ILE
15	2T	66	VAL
15	2T	72	VAL
15	2T	74	ARG
15	2T	75	ILE
15	2T	78	LEU
15	2T	89	VAL
15	2T	93	ARG
15	2T	96	ARG
15	2T	99	LEU
15	2T	109	GLU
16	2U	9	VAL
16	2U	31	SER
16	2U	59	ARG
16	2U	74	LEU
16	2U	83	LEU
16	2U	101	ARG
16	2U	104	GLN
16	2U	111	GLU
16	2U	114	LYS
17	2V	32	THR
17	2V	33	VAL
17	2V	35	LEU
17	2V	39	LEU
17	2V	46	VAL
17	2V	51	VAL
17	2V	53	GLU
17	2V	62	LEU
17	2V	79	VAL
17	2V	98	GLU
17	2V	100	ARG
18	2W	11	ARG
18	2W	17	VAL
18	2W	23	LEU

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Mol	Chain	Res	Type
18	2W	49	LYS
18	2W	70	TYR
18	2W	107	LEU
18	2W	111	HIS
19	2X	5	TYR
19	2X	37	THR
19	2X	52	VAL
19	2X	66	LEU
19	2X	68	ARG
19	2X	75	ASP
19	2X	81	VAL
19	2X	92	LEU
20	2Y	3	VAL
20	2Y	14	LEU
20	2Y	19	LYS
20	2Y	31	LEU
20	2Y	44	ILE
20	2Y	64	GLU
20	2Y	67	LEU
20	2Y	72	VAL
20	2Y	73	ARG
20	2Y	76	CYS
21	2Z	24	LEU
21	2Z	31	ARG
21	2Z	32	HIS
21	2Z	33	LEU
21	2Z	35	ARG
21	2Z	39	VAL
21	2Z	42	VAL
21	2Z	46	LYS
21	2Z	65	GLN
21	2Z	71	VAL
21	2Z	73	GLN
21	2Z	80	ARG
21	2Z	86	VAL
21	2Z	90	VAL
21	2Z	93	ASP
21	2Z	126	VAL
21	2Z	142	SER
21	2Z	146	ILE
21	2Z	154	ASP
21	2Z	170	THR

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Mol	Chain	Res	Type
21	2Z	193	GLU
22	20	10	THR
22	20	14	ARG
22	20	74	ARG
23	21	11	ARG
23	21	30	VAL
23	21	35	THR
23	21	40	ARG
23	21	59	THR
23	21	65	SER
23	21	75	GLU
23	21	85	LEU
24	22	1	MET
24	22	17	SER
24	22	19	VAL
24	22	25	VAL
24	22	32	LEU
24	22	41	ILE
24	22	52	ASP
24	22	53	LEU
24	22	62	THR
25	23	18	ASP
25	23	31	LEU
25	23	35	ARG
25	23	54	VAL
26	24	10	VAL
26	24	15	ILE
26	24	27	THR
26	24	34	GLU
26	24	37	SER
26	24	53	GLU
26	24	59	PHE
26	24	62	ARG
26	24	67	TYR
27	25	6	VAL
27	25	29	THR
27	25	58	LEU
27	25	60	VAL
28	26	3	SER
28	26	5	VAL
28	26	6	ARG
28	26	9	LEU

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Mol	Chain	Res	Type
28	26	14	THR
28	26	23	THR
28	26	30	THR
28	26	34	LEU
29	27	1	MET
29	27	19	ARG
29	27	42	LEU
29	27	43	THR
29	27	47	ARG
30	28	14	VAL
30	28	48	PHE
30	28	49	VAL
31	29	17	ILE
33	2b	7	VAL
33	2b	8	LYS
33	2b	9	GLU
33	2b	10	LEU
33	2b	16	HIS
33	2b	37	ASN
33	2b	44	LEU
33	2b	49	GLU
33	2b	68	ILE
33	2b	76	GLN
33	2b	80	ILE
33	2b	81	VAL
33	2b	83	MET
33	2b	90	MET
33	2b	93	VAL
33	2b	108	ILE
33	2b	118	LEU
33	2b	121	LEU
33	2b	124	SER
33	2b	136	VAL
33	2b	154	LEU
33	2b	172	ILE
33	2b	185	ILE
33	2b	189	ASP
33	2b	193	ASP
33	2b	196	LEU
33	2b	197	VAL
33	2b	200	ILE
33	2b	208	ILE

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Mol	Chain	Res	Type
33	2b	226	ARG
33	2b	229	VAL
33	2b	230	VAL
34	2c	3	ASN
34	2c	8	ILE
34	2c	15	THR
34	2c	16	ARG
34	2c	30	ARG
34	2c	45	LYS
34	2c	58	GLU
34	2c	89	GLU
34	2c	103	VAL
34	2c	105	GLU
34	2c	115	LEU
34	2c	118	GLN
34	2c	130	VAL
34	2c	152	ILE
34	2c	153	VAL
34	2c	178	LEU
34	2c	188	LEU
34	2c	206	GLU
34	2c	207	VAL
35	2d	5	ILE
35	2d	8	VAL
35	2d	33	MET
35	2d	34	GLU
35	2d	58	LEU
35	2d	59	ARG
35	2d	67	ILE
35	2d	80	GLU
35	2d	108	LEU
35	2d	122	ARG
35	2d	127	THR
35	2d	135	LEU
35	2d	146	ILE
35	2d	150	GLU
35	2d	155	LEU
35	2d	158	ILE
35	2d	166	LYS
35	2d	170	VAL
35	2d	175	SER
35	2d	188	LEU

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Mol	Chain	Res	Type
35	2d	194	LEU
35	2d	200	GLU
36	2e	10	MET
36	2e	11	ILE
36	2e	34	VAL
36	2e	41	VAL
36	2e	55	VAL
36	2e	56	GLN
36	2e	67	VAL
36	2e	75	THR
36	2e	81	GLU
36	2e	91	LEU
36	2e	118	ILE
36	2e	120	THR
36	2e	121	LYS
36	2e	143	ARG
36	2e	145	LYS
37	2f	10	LEU
37	2f	19	LEU
37	2f	22	GLU
37	2f	46	ARG
37	2f	48	LEU
37	2f	63	TYR
37	2f	72	VAL
37	2f	75	LEU
37	2f	95	GLU
38	2g	8	GLU
38	2g	9	VAL
38	2g	13	GLN
38	2g	15	ASP
38	2g	41	ARG
38	2g	50	ILE
38	2g	75	VAL
38	2g	85	TYR
38	2g	113	GLU
38	2g	148	ASN
38	2g	155	ARG
39	2h	2	LEU
39	2h	33	GLU
39	2h	37	ARG
39	2h	45	ILE
39	2h	46	LYS

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Mol	Chain	Res	Type
39	2h	60	ARG
39	2h	68	ARG
39	2h	91	ARG
39	2h	112	LEU
39	2h	114	THR
39	2h	119	LEU
39	2h	129	VAL
40	2i	3	GLN
40	2i	41	VAL
40	2i	53	VAL
40	2i	60	ASP
40	2i	64	THR
40	2i	65	VAL
40	2i	79	LEU
40	2i	81	ILE
40	2i	102	LEU
40	2i	103	THR
40	2i	108	VAL
40	2i	111	ARG
41	2j	30	SER
41	2j	38	ILE
41	2j	43	ARG
41	2j	47	PHE
41	2j	72	VAL
41	2j	84	GLN
42	2k	47	VAL
42	2k	48	ILE
42	2k	53	SER
42	2k	80	VAL
42	2k	84	VAL
42	2k	103	LEU
42	2k	106	LYS
42	2k	109	VAL
42	2k	116	HIS
43	2l	28	LYS
43	2l	34	ARG
43	2l	36	VAL
43	2l	38	THR
43	2l	46	LYS
43	2l	89	ARG
43	2l	112	ASP
44	2m	8	GLU

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Mol	Chain	Res	Type
44	2m	27	LYS
44	2m	32	GLU
44	2m	47	ASP
44	2m	48	LEU
44	2m	55	ARG
44	2m	62	ASN
44	2m	81	LEU
44	2m	98	VAL
44	2m	102	ARG
44	2m	106	ASN
44	2m	109	THR
44	2m	116	THR
45	2n	3	ARG
45	2n	4	LYS
45	2n	7	ILE
45	2n	13	THR
45	2n	18	VAL
45	2n	32	SER
45	2n	33	VAL
46	2o	3	ILE
46	2o	4	THR
46	2o	5	LYS
46	2o	14	GLU
46	2o	87	ILE
46	2o	88	ARG
47	2p	1	MET
47	2p	2	VAL
47	2p	3	LYS
47	2p	20	VAL
47	2p	21	VAL
47	2p	33	ILE
47	2p	44	THR
47	2p	45	THR
47	2p	47	ASP
47	2p	62	VAL
47	2p	67	THR
47	2p	69	THR
47	2p	76	GLN
48	2q	16	GLN
48	2q	53	LEU
48	2q	57	VAL
48	2q	68	ARG

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Mol	Chain	Res	Type
48	2q	70	ARG
48	2q	76	LEU
49	2r	85	LEU
49	2r	86	VAL
50	2s	5	LEU
50	2s	9	VAL
50	2s	16	LEU
50	2s	27	GLU
50	2s	30	LEU
50	2s	32	LYS
50	2s	48	THR
50	2s	77	THR
50	2s	79	THR
51	2t	10	LEU
51	2t	24	LEU
51	2t	62	LEU
51	2t	71	THR
51	2t	72	LEU
51	2t	84	LEU
51	2t	100	ILE
53	2y	8	LYS
53	2y	11	GLU
53	2y	16	ILE
53	2y	29	LYS
53	2y	35	ILE
53	2y	49	VAL
53	2y	62	VAL
53	2y	78	ILE
53	2y	81	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (147) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	203	ASN
3	1D	253	GLN
4	1E	48	GLN
4	1E	143	ASN
5	1F	69	HIS
5	1F	133	ASN
5	1F	203	GLN
6	1G	26	GLN
7	1H	74	ASN

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Mol	Chain	Res	Type
7	1H	139	GLN
8	1I	104	GLN
9	1N	69	GLN
9	1N	133	GLN
12	1Q	12	GLN
13	1R	50	HIS
13	1R	71	GLN
13	1R	91	GLN
15	1T	58	ASN
15	1T	123	GLN
16	1U	72	HIS
16	1U	94	ASN
16	1U	117	GLN
18	1W	60	ASN
19	1X	31	HIS
20	1Y	92	ASN
21	1Z	32	HIS
21	1Z	34	ASN
21	1Z	55	HIS
21	1Z	73	GLN
22	10	35	ASN
25	13	32	GLN
26	14	47	GLN
26	14	60	GLN
28	16	20	ASN
30	18	35	GLN
33	1b	40	HIS
34	1c	3	ASN
34	1c	6	HIS
34	1c	102	ASN
34	1c	104	GLN
35	1d	45	GLN
35	1d	77	ASN
35	1d	119	GLN
35	1d	123	HIS
35	1d	129	ASN
35	1d	160	GLN
36	1e	20	GLN
36	1e	141	GLN
37	1f	57	GLN
37	1f	73	ASN
37	1f	100	ASN

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Mol	Chain	Res	Type
38	1g	13	GLN
38	1g	28	ASN
38	1g	56	GLN
38	1g	64	GLN
38	1g	86	GLN
38	1g	109	ASN
40	1i	3	GLN
40	1i	34	ASN
41	1j	56	HIS
42	1k	93	GLN
42	1k	116	HIS
44	1m	62	ASN
46	1o	28	GLN
46	1o	46	HIS
46	1o	50	HIS
48	1q	94	ASN
50	1s	57	HIS
50	1s	83	HIS
51	1t	18	GLN
51	1t	73	HIS
53	1y	38	HIS
53	1y	79	ASN
3	2D	115	GLN
3	2D	126	GLN
3	2D	143	HIS
3	2D	253	GLN
4	2E	143	ASN
5	2F	69	HIS
5	2F	75	HIS
5	2F	203	GLN
6	2G	79	ASN
7	2H	143	GLN
7	2H	147	ASN
8	2I	43	ASN
9	2N	94	HIS
10	2O	5	GLN
12	2Q	89	ASN
13	2R	91	GLN
15	2T	38	ASN
16	2U	72	HIS
16	2U	94	ASN
16	2U	104	GLN

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Mol	Chain	Res	Type
17	2V	64	HIS
18	2W	60	ASN
19	2X	31	HIS
19	2X	82	GLN
20	2Y	6	HIS
21	2Z	34	ASN
21	2Z	118	GLN
24	22	70	GLN
26	24	60	GLN
28	26	20	ASN
31	29	29	ASN
33	2b	76	GLN
33	2b	78	GLN
33	2b	135	GLN
33	2b	140	HIS
33	2b	212	GLN
34	2c	28	GLN
34	2c	31	HIS
34	2c	69	HIS
34	2c	102	ASN
35	2d	77	ASN
35	2d	116	GLN
35	2d	119	GLN
35	2d	125	HIS
35	2d	161	ASN
35	2d	201	GLN
36	2e	78	HIS
37	2f	13	ASN
37	2f	94	GLN
38	2g	11	GLN
38	2g	13	GLN
38	2g	64	GLN
38	2g	106	GLN
38	2g	122	HIS
38	2g	148	ASN
40	2i	31	GLN
40	2i	58	HIS
40	2i	73	GLN
41	2j	69	ASN
41	2j	84	GLN
42	2k	99	GLN
42	2k	117	ASN

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Mol	Chain	Res	Type
43	2l	99	HIS
44	2m	62	ASN
44	2m	77	ASN
44	2m	92	HIS
46	2o	28	GLN
46	2o	50	HIS
46	2o	62	GLN
47	2p	76	GLN
50	2s	14	HIS
50	2s	83	HIS
53	2y	19	HIS
53	2y	89	GLN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2865/2915 (98%)	449 (15%)	32 (1%)
1	2A	2858/2915 (98%)	500 (17%)	32 (1%)
2	1B	119/121 (98%)	17 (14%)	0
2	2B	119/121 (98%)	13 (10%)	0
32	1a	1497/1521 (98%)	253 (16%)	0
32	2a	1501/1521 (98%)	281 (18%)	0
54	1w	1/4 (25%)	0	0
54	2w	1/4 (25%)	0	0
55	1x	1/4 (25%)	0	0
55	2x	1/4 (25%)	0	0
All	All	8963/9130 (98%)	1513 (16%)	64 (0%)

All (1513) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	10	G
1	1A	11	G
1	1A	12	U
1	1A	15	G
1	1A	34	C
1	1A	45	C
1	1A	71	A
1	1A	72	U
1	1A	74	A
1	1A	75	G

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Mol	Chain	Res	Type
1	1A	95	G
1	1A	102	G
1	1A	118	A
1	1A	119	A
1	1A	120	U
1	1A	125	G
1	1A	126	A
1	1A	140	G
1	1A	181	A
1	1A	182	A
1	1A	196	A
1	1A	199	A
1	1A	205	G
1	1A	215	G
1	1A	216	A
1	1A	221	A
1	1A	222	A
1	1A	229	A
1	1A	233	A
1	1A	248	G
1	1A	266	G
1	1A	271(I)	G
1	1A	271(K)	U
1	1A	271(L)	U
1	1A	271(M)	G
1	1A	271(N)	U
1	1A	271(O)	C
1	1A	271(S)	G
1	1A	272(A)	U
1	1A	272(B)	G
1	1A	272(J)	C
1	1A	275	G
1	1A	279	C
1	1A	283	A
1	1A	311	A
1	1A	315	G
1	1A	330	A
1	1A	352	G
1	1A	363	G
1	1A	363(B)	G
1	1A	371	A
1	1A	386	G

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Mol	Chain	Res	Type
1	1A	396	G
1	1A	405	U
1	1A	407	G
1	1A	411	G
1	1A	412	A
1	1A	428	A
1	1A	442	G
1	1A	448	U
1	1A	454	A
1	1A	456	C
1	1A	457	A
1	1A	480	A
1	1A	481	G
1	1A	504	U
1	1A	505	A
1	1A	508	G
1	1A	509	C
1	1A	530	G
1	1A	531	C
1	1A	532	A
1	1A	533	G
1	1A	545	G
1	1A	549	G
1	1A	563	G
1	1A	573	G
1	1A	575	A
1	1A	603	A
1	1A	604	G
1	1A	607	U
1	1A	611	C
1	1A	614(B)	G
1	1A	615	G
1	1A	627	A
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

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Mol	Chain	Res	Type
1	1A	717	G
1	1A	730	C
1	1A	746	A
1	1A	747	U
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	812	C
1	1A	827	U
1	1A	828	U
1	1A	859	G
1	1A	866	A
1	1A	867	C
1	1A	879	G
1	1A	884	C
1	1A	886	C
1	1A	888	C
1	1A	889	C
1	1A	890	A
1	1A	894	C
1	1A	896	A
1	1A	897	C
1	1A	899	A
1	1A	910	A
1	1A	932	G
1	1A	945	A
1	1A	946	G
1	1A	958	U
1	1A	959	A
1	1A	961	C
1	1A	963	U
1	1A	974	G
1	1A	975	C
1	1A	983	A
1	1A	996	A
1	1A	1005	C
1	1A	1008	C

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Mol	Chain	Res	Type
1	1A	1012	U
1	1A	1013	C
1	1A	1022	G
1	1A	1026	U
1	1A	1033	U
1	1A	1039	G
1	1A	1042	G
1	1A	1043	C
1	1A	1044	G
1	1A	1046	A
1	1A	1047	G
1	1A	1054	A
1	1A	1058	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	1069	A
1	1A	1070	A
1	1A	1071	G
1	1A	1072	C
1	1A	1073	A
1	1A	1074	G
1	1A	1075	C
1	1A	1076	C
1	1A	1077	A
1	1A	1079	C
1	1A	1083	U
1	1A	1087	G
1	1A	1088	A
1	1A	1089	G
1	1A	1090	U
1	1A	1096	A
1	1A	1097	U
1	1A	1101	U
1	1A	1109	C
1	1A	1110	G
1	1A	1112	G
1	1A	1128	A
1	1A	1130	U

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Mol	Chain	Res	Type
1	1A	1135	C
1	1A	1136	G
1	1A	1170	G
1	1A	1171	G
1	1A	1173	G
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1177	A
1	1A	1178	C
1	1A	1180	C
1	1A	1210	A
1	1A	1211	U
1	1A	1218	C
1	1A	1220	A
1	1A	1253	A
1	1A	1256	G
1	1A	1271	G
1	1A	1272	A
1	1A	1273	U
1	1A	1280	G
1	1A	1281	G
1	1A	1300	U
1	1A	1301	A
1	1A	1303	G
1	1A	1342	A
1	1A	1345	C
1	1A	1352	U
1	1A	1359	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	1416	G
1	1A	1417	C
1	1A	1420	U
1	1A	1421	G
1	1A	1428	C
1	1A	1445	A

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Mol	Chain	Res	Type
1	1A	1450	G
1	1A	1455	G
1	1A	1459	G
1	1A	1460	A
1	1A	1465	G
1	1A	1467	C
1	1A	1471	A
1	1A	1482	G
1	1A	1484	G
1	1A	1493	C
1	1A	1497	U
1	1A	1508	A
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1525	G
1	1A	1542	A
1	1A	1543	C
1	1A	1547	C
1	1A	1554	A
1	1A	1558	A
1	1A	1569	A
1	1A	1578	U
1	1A	1579	A
1	1A	1580	A
1	1A	1581	G
1	1A	1582	C
1	1A	1584	C
1	1A	1586	A
1	1A	1608	A
1	1A	1609	A
1	1A	1610	A
1	1A	1613	G
1	1A	1648	C
1	1A	1654	A
1	1A	1664	A
1	1A	1674	G
1	1A	1696	G
1	1A	1700	A
1	1A	1701	A
1	1A	1721	G
1	1A	1722	A
1	1A	1739	U

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Mol	Chain	Res	Type
1	1A	1756	G
1	1A	1762	A
1	1A	1763	G
1	1A	1764	G
1	1A	1773	A
1	1A	1780	A
1	1A	1782	C
1	1A	1791	A
1	1A	1800	C
1	1A	1801	G
1	1A	1812	A
1	1A	1816	G
1	1A	1828	G
1	1A	1829	A
1	1A	1839	G
1	1A	1847	A
1	1A	1877	A
1	1A	1878	G
1	1A	1896	G
1	1A	1900	A
1	1A	1906	G
1	1A	1913	A
1	1A	1915	5MU
1	1A	1929	G
1	1A	1930	G
1	1A	1937	A
1	1A	1938	A
1	1A	1941	C
1	1A	1955	U
1	1A	1963	U
1	1A	1967	C
1	1A	1970	A
1	1A	1971	A
1	1A	1972	A
1	1A	1984	G
1	1A	1993	U
1	1A	1997	G
1	1A	2020	A
1	1A	2023	G
1	1A	2031	A
1	1A	2032	G
1	1A	2033	A

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Mol	Chain	Res	Type
1	1A	2043	C
1	1A	2055	C
1	1A	2056	G
1	1A	2060	A
1	1A	2061	G
1	1A	2069	G
1	1A	2082	A
1	1A	2093	G
1	1A	2103	C
1	1A	2104	G
1	1A	2106	G
1	1A	2107	C
1	1A	2108	C
1	1A	2111	C
1	1A	2112	G
1	1A	2116	G
1	1A	2117	A
1	1A	2119	A
1	1A	2121	G
1	1A	2122	U
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	2138	C
1	1A	2139	C
1	1A	2141	G
1	1A	2142	C
1	1A	2144	U
1	1A	2145	C
1	1A	2146	C
1	1A	2148	G
1	1A	2152	G
1	1A	2157	G
1	1A	2158	A
1	1A	2159	G
1	1A	2160	G
1	1A	2162	G

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Mol	Chain	Res	Type
1	1A	2170	A
1	1A	2173	A
1	1A	2185	C
1	1A	2186	G
1	1A	2187	G
1	1A	2190	G
1	1A	2192	G
1	1A	2195	C
1	1A	2198	A
1	1A	2206	G
1	1A	2207	G
1	1A	2208	A
1	1A	2225	A
1	1A	2238	G
1	1A	2239	G
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	2308	G
1	1A	2320	A
1	1A	2322	A
1	1A	2325	G
1	1A	2334	G
1	1A	2336	A
1	1A	2347	C
1	1A	2350	C
1	1A	2383	G
1	1A	2385	C
1	1A	2391	G
1	1A	2393	A
1	1A	2406	U
1	1A	2422	A
1	1A	2423	U
1	1A	2424	C
1	1A	2425	A
1	1A	2428	G
1	1A	2429	G
1	1A	2430	A

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Mol	Chain	Res	Type
1	1A	2431	U
1	1A	2435	A
1	1A	2439	A
1	1A	2441	C
1	1A	2448	A
1	1A	2468	G
1	1A	2469	A
1	1A	2476	A
1	1A	2484	G
1	1A	2491	U
1	1A	2498	C
1	1A	2502	G
1	1A	2505	G
1	1A	2506	U
1	1A	2518	A
1	1A	2529	G
1	1A	2535	G
1	1A	2549	G
1	1A	2554	U
1	1A	2566	A
1	1A	2567	G
1	1A	2573	C
1	1A	2574	G
1	1A	2602	A
1	1A	2609	U
1	1A	2611	U
1	1A	2612	C
1	1A	2629	A
1	1A	2630	G
1	1A	2654	A
1	1A	2689	U
1	1A	2690	C
1	1A	2702	U
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

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Mol	Chain	Res	Type
1	1A	2766	G
1	1A	2778	A
1	1A	2788	C
1	1A	2789	C
1	1A	2790	A
1	1A	2791	C
1	1A	2792	G
1	1A	2802	G
1	1A	2818	G
1	1A	2820	A
1	1A	2821	A
1	1A	2832	U
1	1A	2833	G
1	1A	2835	A
1	1A	2858	C
1	1A	2872	G
1	1A	2892	A
1	1A	2894	G
1	1A	2895	U
2	1B	2	C
2	1B	3	C
2	1B	7	G
2	1B	12	C
2	1B	13	A
2	1B	24	G
2	1B	32	C
2	1B	42	C
2	1B	45	A
2	1B	53	A
2	1B	56	G
2	1B	63	G
2	1B	65	C
2	1B	67	G
2	1B	73	A
2	1B	84	C
2	1B	110	G
32	1a	6	G
32	1a	7	G
32	1a	9	G
32	1a	32	A
32	1a	39	G
32	1a	48	C

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Mol	Chain	Res	Type
32	1a	50	A
32	1a	51	A
32	1a	59	A
32	1a	61	G
32	1a	78	G
32	1a	79	G
32	1a	116	A
32	1a	121	C
32	1a	123	C
32	1a	131	C
32	1a	132	C
32	1a	143	A
32	1a	144	G
32	1a	145	G
32	1a	151	A
32	1a	160	A
32	1a	163	C
32	1a	167	G
32	1a	174	C
32	1a	182	U
32	1a	189(D)	C
32	1a	189(F)	U
32	1a	195	A
32	1a	197	A
32	1a	202	U
32	1a	203	U
32	1a	204	U
32	1a	216	G
32	1a	220	G
32	1a	226	G
32	1a	231	G
32	1a	247	G
32	1a	251	G
32	1a	258	G
32	1a	259	G
32	1a	262	A
32	1a	266	G
32	1a	267	C
32	1a	289	G
32	1a	301	G
32	1a	321	A
32	1a	328	C

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Mol	Chain	Res	Type
32	1a	332	G
32	1a	348	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	397	A
32	1a	406	G
32	1a	412	A
32	1a	413	G
32	1a	423	G
32	1a	424	G
32	1a	429	U
32	1a	439	A
32	1a	442	C
32	1a	452	A
32	1a	458	C
32	1a	461	A
32	1a	470	C
32	1a	471	G
32	1a	475	G
32	1a	477	A
32	1a	485	G
32	1a	487	A
32	1a	496	A
32	1a	498	U
32	1a	505	G
32	1a	509	A
32	1a	510	A
32	1a	511	C
32	1a	514	C
32	1a	518	C
32	1a	531	U
32	1a	532	A
32	1a	547	A
32	1a	550	G
32	1a	559	A
32	1a	561	U
32	1a	562	C
32	1a	572	A

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Mol	Chain	Res	Type
32	1a	573	A
32	1a	575	G
32	1a	576	G
32	1a	577	G
32	1a	596	C
32	1a	607	A
32	1a	616	G
32	1a	619	U
32	1a	630	G
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	697	U
32	1a	723	U
32	1a	728	A
32	1a	731	G
32	1a	747	C
32	1a	755	G
32	1a	793	U
32	1a	794	A
32	1a	815	A
32	1a	816	A
32	1a	817	C
32	1a	821	G
32	1a	828	A
32	1a	829	G
32	1a	839	U
32	1a	840	C
32	1a	841	U
32	1a	848	C
32	1a	851	G
32	1a	855	G
32	1a	872	A
32	1a	874	G
32	1a	902	G
32	1a	914	A
32	1a	926	G
32	1a	927	G

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Mol	Chain	Res	Type
32	1a	929	G
32	1a	934	C
32	1a	935	A
32	1a	936	C
32	1a	960	U
32	1a	961	U
32	1a	963	G
32	1a	968	A
32	1a	969	A
32	1a	971	G
32	1a	974	A
32	1a	975	A
32	1a	976	G
32	1a	977	A
32	1a	992	U
32	1a	993	G
32	1a	994	A
32	1a	996	A
32	1a	997	U
32	1a	998	G
32	1a	1001	A
32	1a	1001(A)	G
32	1a	1005	A
32	1a	1006	C
32	1a	1017	G
32	1a	1022	G
32	1a	1023	G
32	1a	1024	G
32	1a	1025	U
32	1a	1026	G
32	1a	1027	C
32	1a	1028	C
32	1a	1029	C
32	1a	1030	C
32	1a	1030(A)	G
32	1a	1030(B)	C
32	1a	1030(D)	A
32	1a	1032	G
32	1a	1033	G
32	1a	1037	C
32	1a	1040	U
32	1a	1042	G

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Mol	Chain	Res	Type
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	1092	A
32	1a	1094	G
32	1a	1095	U
32	1a	1096	C
32	1a	1101	A
32	1a	1108	G
32	1a	1123	A
32	1a	1124	G
32	1a	1126	U
32	1a	1134	G
32	1a	1136	U
32	1a	1137	C
32	1a	1139	G
32	1a	1152	A
32	1a	1154	G
32	1a	1159	U
32	1a	1166	G
32	1a	1168	A
32	1a	1178	G
32	1a	1183	A
32	1a	1184	G
32	1a	1196	U
32	1a	1197	G
32	1a	1202	G
32	1a	1208	C
32	1a	1213	A
32	1a	1214	C
32	1a	1224	G
32	1a	1227	A
32	1a	1238	A
32	1a	1248	A
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1260	C
32	1a	1262	C

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Mol	Chain	Res	Type
32	1a	1270	C
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	1301	U
32	1a	1302	U
32	1a	1320	C
32	1a	1338	G
32	1a	1347	G
32	1a	1353	G
32	1a	1370	G
32	1a	1381	U
32	1a	1397	C
32	1a	1400	5MC
32	1a	1410	G
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1442(B)	A
32	1a	1447	A
32	1a	1452	C
32	1a	1456	G
32	1a	1493	A
32	1a	1497	G
32	1a	1503	A
32	1a	1504	G
32	1a	1505	G
32	1a	1506	U
32	1a	1507	A
32	1a	1517	G
32	1a	1520	G
32	1a	1529	G
32	1a	1530	G
32	1a	1531	A
1	2A	10	G
1	2A	11	G
1	2A	12	U
1	2A	15	G
1	2A	34	C

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Mol	Chain	Res	Type
1	2A	45	C
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	84	A
1	2A	90	U
1	2A	92	A
1	2A	106	C
1	2A	118	A
1	2A	119	A
1	2A	120	U
1	2A	128	C
1	2A	141	A
1	2A	149	A
1	2A	157	U
1	2A	173	G
1	2A	181	A
1	2A	182	A
1	2A	196	A
1	2A	197	A
1	2A	199	A
1	2A	205	G
1	2A	215	G
1	2A	216	A
1	2A	221	A
1	2A	222	A
1	2A	223	A
1	2A	225	A
1	2A	229	A
1	2A	230	U
1	2A	245	G
1	2A	248	G
1	2A	271(G)	C
1	2A	271(K)	U
1	2A	271(L)	U
1	2A	271(M)	G
1	2A	271(N)	U
1	2A	272(A)	U
1	2A	272(B)	G
1	2A	274	G
1	2A	277	C
1	2A	278	A

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Mol	Chain	Res	Type
1	2A	311	A
1	2A	317	G
1	2A	324	A
1	2A	329	G
1	2A	330	A
1	2A	333	G
1	2A	346	A
1	2A	352	G
1	2A	363	G
1	2A	370	G
1	2A	386	G
1	2A	389	G
1	2A	396	G
1	2A	399	G
1	2A	411	G
1	2A	412	A
1	2A	428	A
1	2A	429	A
1	2A	435	C
1	2A	444	C
1	2A	451	C
1	2A	456	C
1	2A	457	A
1	2A	470	A
1	2A	481	G
1	2A	504	U
1	2A	505	A
1	2A	509	C
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	533	G
1	2A	545	G
1	2A	551	G
1	2A	563	G
1	2A	573	G
1	2A	575	A
1	2A	586	A
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	614(B)	G

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Mol	Chain	Res	Type
1	2A	615	G
1	2A	616	G
1	2A	619	G
1	2A	623	G
1	2A	627	A
1	2A	634	C
1	2A	637	A
1	2A	645	C
1	2A	646	A
1	2A	652(B)	A
1	2A	652(C)	G
1	2A	652(D)	C
1	2A	652(U)	G
1	2A	653	A
1	2A	669	G
1	2A	686	G
1	2A	726	G
1	2A	730	C
1	2A	740	U
1	2A	751	A
1	2A	752	A
1	2A	753	C
1	2A	771	G
1	2A	775	G
1	2A	776	G
1	2A	782	A
1	2A	784	A
1	2A	785	G
1	2A	786	C
1	2A	790	C
1	2A	792	G
1	2A	805	G
1	2A	812	C
1	2A	827	U
1	2A	828	U
1	2A	847	U
1	2A	857	C
1	2A	859	G
1	2A	869	G
1	2A	877	U
1	2A	880	G
1	2A	882	G

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Mol	Chain	Res	Type
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	896	A
1	2A	897	C
1	2A	910	A
1	2A	915	C
1	2A	917	A
1	2A	926	A
1	2A	932	G
1	2A	938	G
1	2A	941	A
1	2A	945	A
1	2A	946	G
1	2A	959	A
1	2A	961	C
1	2A	974	G
1	2A	975	C
1	2A	983	A
1	2A	996	A
1	2A	1005	C
1	2A	1012	U
1	2A	1013	C
1	2A	1020	A
1	2A	1026	U
1	2A	1033	U
1	2A	1034	G
1	2A	1045	A
1	2A	1046	A
1	2A	1047	G
1	2A	1048	A
1	2A	1049	C
1	2A	1052	C
1	2A	1053	C
1	2A	1054	A
1	2A	1058	G
1	2A	1060	U
1	2A	1063	G
1	2A	1064	C

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Mol	Chain	Res	Type
1	2A	1065	U
1	2A	1066	U
1	2A	1067	A
1	2A	1068	G
1	2A	1069	A
1	2A	1070	A
1	2A	1071	G
1	2A	1073	A
1	2A	1074	G
1	2A	1076	C
1	2A	1077	A
1	2A	1078	U
1	2A	1079	C
1	2A	1080	C
1	2A	1082	U
1	2A	1083	U
1	2A	1084	A
1	2A	1085	A
1	2A	1086	A
1	2A	1088	A
1	2A	1090	U
1	2A	1091	G
1	2A	1092	C
1	2A	1093	G
1	2A	1095	A
1	2A	1096	A
1	2A	1097	U
1	2A	1098	A
1	2A	1109	C
1	2A	1110	G
1	2A	1111	A
1	2A	1112	G
1	2A	1114	G
1	2A	1116	C
1	2A	1117	G
1	2A	1135	C
1	2A	1136	G
1	2A	1171	G
1	2A	1181	C
1	2A	1211	U
1	2A	1212	G
1	2A	1220	A

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Mol	Chain	Res	Type
1	2A	1229	G
1	2A	1236	G
1	2A	1244	G
1	2A	1247	A
1	2A	1248	G
1	2A	1253	A
1	2A	1256	G
1	2A	1271	G
1	2A	1272	A
1	2A	1273	U
1	2A	1275	A
1	2A	1287	A
1	2A	1300	U
1	2A	1301	A
1	2A	1303	G
1	2A	1314	C
1	2A	1342	A
1	2A	1345	C
1	2A	1352	U
1	2A	1359	A
1	2A	1360	A
1	2A	1365	A
1	2A	1368	G
1	2A	1380	G
1	2A	1384	A
1	2A	1385	G
1	2A	1386	C
1	2A	1416	G
1	2A	1417	C
1	2A	1419	A
1	2A	1420	U
1	2A	1421	G
1	2A	1428	C
1	2A	1445	A
1	2A	1450	G
1	2A	1459	G
1	2A	1460	A
1	2A	1467	C
1	2A	1471	A
1	2A	1482	G
1	2A	1493	C
1	2A	1494	A

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Mol	Chain	Res	Type
1	2A	1497	U
1	2A	1508	A
1	2A	1509	C
1	2A	1509(A)	A
1	2A	1514	U
1	2A	1520	G
1	2A	1531	C
1	2A	1533	G
1	2A	1539	G
1	2A	1542	A
1	2A	1543	C
1	2A	1558	A
1	2A	1559	G
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1580	A
1	2A	1584	C
1	2A	1586	A
1	2A	1593	G
1	2A	1594	G
1	2A	1595	G
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A
1	2A	1616	A
1	2A	1639	U
1	2A	1640	C
1	2A	1648	C
1	2A	1674	G
1	2A	1696	G
1	2A	1700	A
1	2A	1703	G
1	2A	1721	G
1	2A	1722	A
1	2A	1750	G
1	2A	1756	G
1	2A	1758	G
1	2A	1762	A
1	2A	1763	G
1	2A	1764	G
1	2A	1773	A

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Mol	Chain	Res	Type
1	2A	1780	A
1	2A	1782	C
1	2A	1786	A
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1816	G
1	2A	1817	G
1	2A	1829	A
1	2A	1835	G
1	2A	1836	C
1	2A	1847	A
1	2A	1848	A
1	2A	1858	G
1	2A	1877	A
1	2A	1878	G
1	2A	1889	A
1	2A	1900	A
1	2A	1904	G
1	2A	1906	G
1	2A	1914	C
1	2A	1929	G
1	2A	1930	G
1	2A	1937	A
1	2A	1938	A
1	2A	1955	U
1	2A	1960	A
1	2A	1963	U
1	2A	1966	A
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	2033	A
1	2A	2043	C
1	2A	2055	C

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Mol	Chain	Res	Type
1	2A	2056	G
1	2A	2060	A
1	2A	2061	G
1	2A	2069	G
1	2A	2093	G
1	2A	2096	U
1	2A	2099	U
1	2A	2100	G
1	2A	2103	C
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	2112	G
1	2A	2114	A
1	2A	2115	G
1	2A	2116	G
1	2A	2117	A
1	2A	2118	U
1	2A	2119	A
1	2A	2120	G
1	2A	2121	G
1	2A	2123	G
1	2A	2125	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	2136	C
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	2158	A

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Mol	Chain	Res	Type
1	2A	2159	G
1	2A	2161	C
1	2A	2163	C
1	2A	2164	C
1	2A	2165	G
1	2A	2168	G
1	2A	2170	A
1	2A	2172	U
1	2A	2173	A
1	2A	2174	C
1	2A	2184	G
1	2A	2186	G
1	2A	2189	U
1	2A	2192	G
1	2A	2193	G
1	2A	2198	A
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2225	A
1	2A	2232	U
1	2A	2238	G
1	2A	2239	G
1	2A	2269	A
1	2A	2275	C
1	2A	2279	G
1	2A	2280	G
1	2A	2283	C
1	2A	2286	A
1	2A	2289	G
1	2A	2293	C
1	2A	2294	C
1	2A	2305	A
1	2A	2308	G
1	2A	2311	A
1	2A	2312	U
1	2A	2314	C
1	2A	2315	G
1	2A	2316	C
1	2A	2319	G
1	2A	2320	A
1	2A	2321	G

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Mol	Chain	Res	Type
1	2A	2322	A
1	2A	2325	G
1	2A	2326	C
1	2A	2334	G
1	2A	2336	A
1	2A	2342	C
1	2A	2347	C
1	2A	2350	C
1	2A	2354	G
1	2A	2383	G
1	2A	2385	C
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	2429	G
1	2A	2430	A
1	2A	2435	A
1	2A	2439	A
1	2A	2441	C
1	2A	2448	A
1	2A	2458	G
1	2A	2465	C
1	2A	2468	G
1	2A	2474	C
1	2A	2476	A
1	2A	2502	G
1	2A	2505	G
1	2A	2506	U
1	2A	2518	A
1	2A	2529	G
1	2A	2536	G
1	2A	2549	G
1	2A	2554	U
1	2A	2555	U
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C
1	2A	2582	G

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Mol	Chain	Res	Type
1	2A	2602	A
1	2A	2611	U
1	2A	2612	C
1	2A	2615	U
1	2A	2630	G
1	2A	2654	A
1	2A	2669	G
1	2A	2689	U
1	2A	2690	C
1	2A	2691	C
1	2A	2702	U
1	2A	2703	C
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2726	U
1	2A	2733	A
1	2A	2757	A
1	2A	2758	A
1	2A	2764	A
1	2A	2765	A
1	2A	2766	G
1	2A	2778	A
1	2A	2802	G
1	2A	2818	G
1	2A	2820	A
1	2A	2821	A
1	2A	2833	G
1	2A	2872	G
1	2A	2880	C
1	2A	2892	A
1	2A	2894	G
1	2A	2897	U
2	2B	2	C
2	2B	5	C
2	2B	8	U
2	2B	30	C
2	2B	32	C
2	2B	33	G
2	2B	41	U
2	2B	45	A
2	2B	56	G

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Mol	Chain	Res	Type
2	2B	73	A
2	2B	84	C
2	2B	91	C
2	2B	110	G
32	2a	5	U
32	2a	6	G
32	2a	7	G
32	2a	9	G
32	2a	22	G
32	2a	32	A
32	2a	39	G
32	2a	47	C
32	2a	48	C
32	2a	51	A
32	2a	54	C
32	2a	61	G
32	2a	66	G
32	2a	69	G
32	2a	70	G
32	2a	88	A
32	2a	89	C
32	2a	101	A
32	2a	105	G
32	2a	116	A
32	2a	121	C
32	2a	131	C
32	2a	156	G
32	2a	163	C
32	2a	170	U
32	2a	174	C
32	2a	182	U
32	2a	189(D)	C
32	2a	189(E)	U
32	2a	189(F)	U
32	2a	195	A
32	2a	202	U
32	2a	203	U
32	2a	204	U
32	2a	216	G
32	2a	220	G
32	2a	232	G
32	2a	237	C

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Mol	Chain	Res	Type
32	2a	245	C
32	2a	247	G
32	2a	251	G
32	2a	258	G
32	2a	266	G
32	2a	267	C
32	2a	281	G
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	342	C
32	2a	345	C
32	2a	350	G
32	2a	351	G
32	2a	352	C
32	2a	353	A
32	2a	354	G
32	2a	367	U
32	2a	372	C
32	2a	373	A
32	2a	381	C
32	2a	392	G
32	2a	397	A
32	2a	398	C
32	2a	404	U
32	2a	406	G
32	2a	411	A
32	2a	412	A
32	2a	413	G
32	2a	421	U
32	2a	429	U
32	2a	430	A
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

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Mol	Chain	Res	Type
32	2a	471	G
32	2a	482	A
32	2a	484	G
32	2a	485	G
32	2a	496	A
32	2a	498	U
32	2a	505	G
32	2a	508	C
32	2a	509	A
32	2a	510	A
32	2a	511	C
32	2a	518	C
32	2a	532	A
32	2a	533	A
32	2a	536	C
32	2a	547	A
32	2a	559	A
32	2a	560	U
32	2a	561	U
32	2a	562	C
32	2a	564	C
32	2a	572	A
32	2a	573	A
32	2a	576	G
32	2a	577	G
32	2a	592	G
32	2a	596	C
32	2a	608	A
32	2a	630	G
32	2a	632	A
32	2a	639	G
32	2a	651	C
32	2a	653	A
32	2a	661	G
32	2a	665	A
32	2a	685	G
32	2a	687	A
32	2a	688	G
32	2a	703	G
32	2a	712	A
32	2a	721	G
32	2a	723	U

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Mol	Chain	Res	Type
32	2a	724	G
32	2a	729	A
32	2a	731	G
32	2a	749	C
32	2a	753	A
32	2a	755	G
32	2a	763	G
32	2a	774	G
32	2a	777	A
32	2a	793	U
32	2a	794	A
32	2a	816	A
32	2a	817	C
32	2a	821	G
32	2a	828	A
32	2a	829	G
32	2a	836	G
32	2a	840	C
32	2a	841	U
32	2a	851	G
32	2a	859	A
32	2a	902	G
32	2a	914	A
32	2a	916	G
32	2a	921	U
32	2a	926	G
32	2a	927	G
32	2a	931	C
32	2a	933	G
32	2a	934	C
32	2a	935	A
32	2a	942	G
32	2a	960	U
32	2a	961	U
32	2a	966	M2G
32	2a	968	A
32	2a	969	A
32	2a	971	G
32	2a	974	A
32	2a	975	A
32	2a	976	G
32	2a	977	A

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Mol	Chain	Res	Type
32	2a	989	C
32	2a	992	U
32	2a	993	G
32	2a	994	A
32	2a	996	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	1033	G
32	2a	1041	A
32	2a	1043	C
32	2a	1053	G
32	2a	1056	U
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1081	G
32	2a	1094	G
32	2a	1095	U
32	2a	1100	C
32	2a	1101	A
32	2a	1113	C
32	2a	1117	G
32	2a	1122	U
32	2a	1125	U
32	2a	1128	C
32	2a	1129	C
32	2a	1130	A
32	2a	1136	U
32	2a	1137	C

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Mol	Chain	Res	Type
32	2a	1138	G
32	2a	1139	G
32	2a	1147	C
32	2a	1152	A
32	2a	1157	A
32	2a	1159	U
32	2a	1162	C
32	2a	1172	C
32	2a	1183	A
32	2a	1184	G
32	2a	1186	G
32	2a	1194	U
32	2a	1196	U
32	2a	1197	G
32	2a	1208	C
32	2a	1212	U
32	2a	1214	C
32	2a	1224	G
32	2a	1227	A
32	2a	1236	A
32	2a	1238	A
32	2a	1241	G
32	2a	1250	A
32	2a	1256	A
32	2a	1257	U
32	2a	1258	G
32	2a	1260	C
32	2a	1270	C
32	2a	1278	U
32	2a	1279	A
32	2a	1280	A
32	2a	1281	U
32	2a	1282	C
32	2a	1286	A
32	2a	1287	A
32	2a	1290	G
32	2a	1299	A
32	2a	1300	G
32	2a	1302	U
32	2a	1303	C
32	2a	1305	G
32	2a	1334	G

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Mol	Chain	Res	Type
32	2a	1340	A
32	2a	1346	A
32	2a	1347	G
32	2a	1352	C
32	2a	1353	G
32	2a	1363	C
32	2a	1363(A)	A
32	2a	1364	U
32	2a	1370	G
32	2a	1375	A
32	2a	1397	C
32	2a	1398	A
32	2a	1402	4OC
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1442(B)	A
32	2a	1446	U
32	2a	1447	A
32	2a	1456	G
32	2a	1462	G
32	2a	1475	G
32	2a	1492	A
32	2a	1497	G
32	2a	1499	A
32	2a	1503	A
32	2a	1504	G
32	2a	1506	U
32	2a	1507	A
32	2a	1517	G
32	2a	1520	G
32	2a	1529	G
32	2a	1530	G

All (64) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	196	A
1	1A	266	G
1	1A	271(K)	U
1	1A	278	A
1	1A	685	A

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Mol	Chain	Res	Type
1	1A	746	A
1	1A	764	A
1	1A	774	A
1	1A	839	U
1	1A	840	C
1	1A	888	C
1	1A	895	U
1	1A	974	G
1	1A	1065	U
1	1A	1067	A
1	1A	1089	G
1	1A	1175	U
1	1A	1176	G
1	1A	1210	A
1	1A	1379	A
1	1A	1442	G
1	1A	1608	A
1	1A	1653	G
1	1A	1663	C
1	1A	2126	A
1	1A	2238	G
1	1A	2288	A
1	1A	2406	U
1	1A	2430	A
1	1A	2439	A
1	1A	2689	U
1	1A	2756	U
1	2A	196	A
1	2A	266	G
1	2A	271(M)	G
1	2A	277	C
1	2A	752	A
1	2A	764	A
1	2A	774	A
1	2A	827	U
1	2A	840	C
1	2A	856	C
1	2A	1004	C
1	2A	1047	G
1	2A	1053	C
1	2A	1057	A
1	2A	1065	U

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Mol	Chain	Res	Type
1	2A	1067	A
1	2A	1073	A
1	2A	1076	C
1	2A	1210	A
1	2A	1379	A
1	2A	1420	U
1	2A	1442	G
1	2A	1491	G
1	2A	1493	C
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	2689	U
1	2A	2756	U

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

52 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	2a	1518	32	23,26,27	0.39	0	33,38,41	2.06	10 (30%)
32	5MC	2a	1407	32	19,22,23	1.67	3 (15%)	26,32,35	1.23	3 (11%)
32	G7M	2a	527	32	23,26,27	1.48	3 (13%)	34,39,42	1.74	5 (14%)
1	2MA	1A	2503	1,57	22,25,26	1.50	5 (22%)	32,37,40	2.27	9 (28%)
43	0TD	2l	92	43	8,9,10	4.62	1 (12%)	6,11,13	5.01	3 (50%)
32	5MC	1a	967	32	19,22,23	1.70	3 (15%)	26,32,35	1.16	3 (11%)
32	PSU	1a	516	57,32	18,21,22	1.39	2 (11%)	21,30,33	2.02	5 (23%)
32	M2G	2a	966	32	24,27,28	1.32	4 (16%)	33,40,43	1.85	5 (15%)
32	5MC	2a	1404	32	19,22,23	1.73	3 (15%)	26,32,35	1.22	3 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
54	PPU	2w	76	1,54	37,40,41	1.24	4 (10%)	47,57,60	2.01	14 (29%)
1	PSU	2A	1911	1	18,21,22	1.39	2 (11%)	21,30,33	1.95	3 (14%)
1	OMG	1A	2251	1,57,55	23,26,27	1.23	3 (13%)	32,38,41	2.06	6 (18%)
1	OMU	2A	2552	1,57	19,22,23	1.17	2 (10%)	25,31,34	1.94	6 (24%)
1	5MU	1A	1939	1,57	19,22,23	1.43	5 (26%)	27,32,35	2.21	7 (25%)
1	5MU	2A	1915	1	19,22,23	1.41	4 (21%)	27,32,35	2.18	7 (25%)
32	5MC	2a	967	32	19,22,23	1.81	3 (15%)	26,32,35	1.02	2 (7%)
1	PSU	2A	2605	1	18,21,22	1.34	3 (16%)	21,30,33	2.02	4 (19%)
1	PSU	1A	1911	1	18,21,22	1.35	2 (11%)	21,30,33	2.00	4 (19%)
1	5MC	1A	1942	1	19,22,23	1.72	3 (15%)	26,32,35	1.15	2 (7%)
32	4OC	2a	1402	32	20,23,24	0.75	0	25,32,35	0.93	1 (4%)
54	PPU	1w	76	1,54	37,40,41	1.26	3 (8%)	47,57,60	2.02	13 (27%)
43	0TD	1l	92	43	8,9,10	4.60	1 (12%)	6,11,13	6.80	3 (50%)
1	PSU	1A	1917	1	18,21,22	1.35	2 (11%)	21,30,33	2.05	3 (14%)
32	MA6	1a	1519	32	23,26,27	0.43	0	33,38,41	2.01	10 (30%)
1	OMC	2A	1920	1	19,22,23	0.84	0	25,31,34	1.05	2 (8%)
1	2MA	2A	2503	1,57	22,25,26	1.45	4 (18%)	32,37,40	2.42	9 (28%)
1	5MC	1A	1962	1,57	19,22,23	1.68	3 (15%)	26,32,35	1.16	2 (7%)
1	PSU	1A	2605	1	18,21,22	1.42	3 (16%)	21,30,33	1.91	4 (19%)
1	5MC	2A	1962	1,57	19,22,23	1.66	3 (15%)	26,32,35	1.13	3 (11%)
32	UR3	2a	1498	57,32	19,22,23	1.02	1 (5%)	26,32,35	1.60	3 (11%)
1	OMC	1A	1920	1	19,22,23	0.82	0	25,31,34	1.01	1 (4%)
1	PSU	2A	1917	1	18,21,22	1.33	2 (11%)	21,30,33	1.96	3 (14%)
32	M2G	1a	966	32	24,27,28	1.28	4 (16%)	33,40,43	1.84	6 (18%)
1	5MC	2A	1942	1	19,22,23	1.54	3 (15%)	26,32,35	1.15	2 (7%)
1	5MU	2A	1939	1,57	19,22,23	1.44	4 (21%)	27,32,35	2.17	6 (22%)
32	UR3	1a	1498	32	19,22,23	1.00	2 (10%)	26,32,35	1.79	4 (15%)
32	5MC	1a	1404	32	19,22,23	1.73	3 (15%)	26,32,35	1.18	2 (7%)
32	MA6	1a	1518	32	23,26,27	0.40	0	33,38,41	1.96	10 (30%)
1	OMG	2A	2251	1,57,55	23,26,27	1.23	3 (13%)	32,38,41	1.88	6 (18%)
32	G7M	1a	527	57,32	23,26,27	1.56	4 (17%)	34,39,42	1.66	4 (11%)
32	5MC	1a	1400	32	19,22,23	1.82	3 (15%)	26,32,35	1.21	2 (7%)
32	5MC	2a	1400	32	19,22,23	1.63	3 (15%)	26,32,35	1.22	3 (11%)
32	4OC	1a	1402	32	20,23,24	0.77	0	25,32,35	0.84	1 (4%)
32	PSU	2a	516	57,32	18,21,22	1.36	3 (16%)	21,30,33	2.06	5 (23%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
32	MA6	2a	1519	32	23,26,27	0.44	0	33,38,41	2.16	10 (30%)
32	2MG	2a	1207	32	23,26,27	1.25	4 (17%)	33,38,41	2.11	7 (21%)
55	8AN	2x	76	57,56,55	21,24,25	1.40	3 (14%)	26,35,38	2.25	10 (38%)
32	2MG	1a	1207	32	23,26,27	1.25	3 (13%)	33,38,41	2.30	8 (24%)
55	8AN	1x	76	57,56,55	21,24,25	1.41	3 (14%)	26,35,38	2.40	11 (42%)
1	OMU	1A	2552	1,57	19,22,23	1.26	3 (15%)	25,31,34	1.88	6 (24%)
32	5MC	1a	1407	32	19,22,23	1.76	2 (10%)	26,32,35	1.10	2 (7%)
1	5MU	1A	1915	1	19,22,23	1.39	4 (21%)	27,32,35	2.33	8 (29%)

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	2a	1518	32	-	0/11/29/30	0/3/3/3
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
32	G7M	2a	527	32	-	1/7/25/26	0/3/3/3
1	2MA	1A	2503	1,57	-	0/7/25/26	0/3/3/3
43	0TD	2l	92	43	-	1/7/12/14	-
32	5MC	1a	967	32	-	0/7/25/26	0/2/2/2
32	PSU	1a	516	57,32	-	0/7/25/26	0/2/2/2
32	M2G	2a	966	32	-	0/11/29/30	0/3/3/3
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2
54	PPU	2w	76	1,54	-	0/25/43/44	0/4/4/4
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
1	OMG	1A	2251	1,57,55	-	1/9/27/28	0/3/3/3
1	OMU	2A	2552	1,57	-	1/9/27/28	0/2/2/2
1	5MU	1A	1939	1,57	-	0/7/25/26	0/2/2/2
1	5MU	2A	1915	1	-	4/7/25/26	0/2/2/2
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
1	5MC	1A	1942	1	-	0/7/25/26	0/2/2/2
32	4OC	2a	1402	32	-	2/9/29/30	0/2/2/2
54	PPU	1w	76	1,54	-	1/25/43/44	0/4/4/4
43	0TD	1l	92	43	-	2/7/12/14	-
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2
32	MA6	1a	1519	32	-	3/11/29/30	0/3/3/3
1	OMC	2A	1920	1	-	1/9/27/28	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	2MA	2A	2503	1,57	-	0/7/25/26	0/3/3/3
1	5MC	1A	1962	1,57	-	2/7/25/26	0/2/2/2
1	PSU	1A	2605	1	-	0/7/25/26	0/2/2/2
1	5MC	2A	1962	1,57	-	0/7/25/26	0/2/2/2
32	UR3	2a	1498	57,32	-	0/7/25/26	0/2/2/2
1	OMC	1A	1920	1	-	1/9/27/28	0/2/2/2
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
1	5MU	2A	1939	1,57	-	0/7/25/26	0/2/2/2
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
32	MA6	1a	1518	32	-	0/11/29/30	0/3/3/3
1	OMG	2A	2251	1,57,55	-	0/9/27/28	0/3/3/3
32	G7M	1a	527	57,32	-	2/7/25/26	0/3/3/3
32	5MC	1a	1400	32	-	2/7/25/26	0/2/2/2
32	5MC	2a	1400	32	-	0/7/25/26	0/2/2/2
32	4OC	1a	1402	32	-	2/9/29/30	0/2/2/2
32	PSU	2a	516	57,32	-	2/7/25/26	0/2/2/2
32	MA6	2a	1519	32	-	2/11/29/30	0/3/3/3
32	2MG	2a	1207	32	-	2/9/27/28	0/3/3/3
55	8AN	2x	76	57,56,55	-	3/7/25/26	0/3/3/3
32	2MG	1a	1207	32	-	2/9/27/28	0/3/3/3
55	8AN	1x	76	57,56,55	-	3/7/25/26	0/3/3/3
1	OMU	1A	2552	1,57	-	0/9/27/28	0/2/2/2
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
1	5MU	1A	1915	1	-	2/7/25/26	0/2/2/2

All (131) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	2l	92	0TD	CB-SB	-12.71	1.69	1.82
43	1l	92	0TD	CB-SB	-12.64	1.69	1.82
32	2a	967	5MC	C5-C4	6.79	1.49	1.44
32	1a	1400	5MC	C5-C4	6.72	1.49	1.44
32	1a	1407	5MC	C5-C4	6.55	1.49	1.44
1	1A	1942	5MC	C5-C4	6.35	1.48	1.44
32	1a	1404	5MC	C5-C4	6.31	1.48	1.44
32	2a	1404	5MC	C5-C4	6.29	1.48	1.44
32	1a	967	5MC	C5-C4	6.23	1.48	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	1407	5MC	C5-C4	6.10	1.48	1.44
1	1A	1962	5MC	C5-C4	6.00	1.48	1.44
1	2A	1962	5MC	C5-C4	5.84	1.48	1.44
32	2a	1400	5MC	C5-C4	5.83	1.48	1.44
1	2A	1942	5MC	C5-C4	5.44	1.48	1.44
32	1a	527	G7M	C5-N7	-4.98	1.33	1.39
54	2w	76	PPU	C5-C4	4.68	1.47	1.39
54	1w	76	PPU	C5-C4	4.66	1.47	1.39
32	2a	527	G7M	C5-N7	-4.56	1.33	1.39
1	1A	2503	2MA	C5-C4	4.41	1.46	1.39
1	2A	2503	2MA	C5-C4	4.38	1.46	1.39
55	2x	76	8AN	C5-N7	-4.29	1.31	1.39
55	1x	76	8AN	C5-N7	-3.84	1.32	1.39
32	1a	516	PSU	C6-C5	3.62	1.39	1.35
1	2A	1911	PSU	C6-C5	3.53	1.39	1.35
1	1A	1917	PSU	C6-C5	3.38	1.39	1.35
32	2a	966	M2G	C5-C4	3.35	1.48	1.38
32	1a	527	G7M	C5-C4	3.34	1.46	1.38
32	2a	1207	2MG	C5-C4	3.33	1.47	1.38
1	1A	1911	PSU	C6-C5	3.32	1.39	1.35
32	2a	516	PSU	C6-C5	3.27	1.38	1.35
1	1A	2605	PSU	C6-C5	3.24	1.38	1.35
1	2A	1939	5MU	C6-C5	3.23	1.39	1.34
1	2A	1917	PSU	C6-C5	3.20	1.38	1.35
32	1a	966	M2G	C5-C4	3.16	1.47	1.38
1	2A	2251	OMG	C5-C4	3.15	1.47	1.38
32	2a	527	G7M	C5-C4	3.09	1.46	1.38
1	2A	1962	5MC	C6-C5	3.08	1.39	1.34
32	1a	1207	2MG	C5-C4	3.06	1.47	1.38
1	1A	1939	5MU	C6-C5	3.04	1.39	1.34
1	1A	2605	PSU	C4-N3	-3.00	1.33	1.38
32	1a	1407	5MC	C6-C5	3.00	1.39	1.34
1	2A	2605	PSU	C6-C5	2.98	1.38	1.35
1	1A	2251	OMG	C5-C4	2.97	1.46	1.38
32	2a	967	5MC	C6-C5	2.96	1.39	1.34
54	2w	76	PPU	C5-C6	2.95	1.49	1.41
1	2A	1915	5MU	C6-C5	2.90	1.39	1.34
32	1a	1404	5MC	C6-C5	2.90	1.39	1.34
1	1A	1939	5MU	C4-C5	2.87	1.49	1.44
32	2a	1404	5MC	C6-C5	2.85	1.39	1.34
55	2x	76	8AN	C5-C4	-2.81	1.34	1.39
32	2a	1400	5MC	C6-C5	2.78	1.39	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	1915	5MU	C2-N1	2.78	1.42	1.38
1	2A	2251	OMG	C6-N1	-2.78	1.33	1.38
1	2A	1915	5MU	C2-N1	2.77	1.42	1.38
1	2A	1942	5MC	C6-C5	2.76	1.39	1.34
55	1x	76	8AN	C5-C4	-2.76	1.34	1.39
32	2a	1407	5MC	C6-C5	2.74	1.39	1.34
32	1a	1400	5MC	C6-C5	2.72	1.39	1.34
1	2A	1939	5MU	C4-N3	-2.71	1.33	1.38
32	2a	966	M2G	C2-N2	2.70	1.40	1.35
1	2A	1939	5MU	C4-C5	2.69	1.49	1.44
1	1A	1962	5MC	C6-C5	2.68	1.39	1.34
54	1w	76	PPU	C5-N7	-2.66	1.34	1.39
32	2a	966	M2G	C6-N1	-2.65	1.33	1.38
1	1A	1942	5MC	C6-C5	2.62	1.38	1.34
55	2x	76	8AN	C5-C6	-2.61	1.33	1.41
1	1A	2251	OMG	C6-N1	-2.61	1.34	1.38
54	1w	76	PPU	C5-C6	2.61	1.48	1.41
1	1A	2503	2MA	C8-N7	2.60	1.36	1.31
1	1A	2503	2MA	C5-N7	-2.59	1.34	1.39
1	1A	1917	PSU	C4-N3	-2.59	1.34	1.38
32	1a	966	M2G	C2-N2	2.55	1.39	1.35
1	1A	1915	5MU	C6-C5	2.55	1.38	1.34
55	1x	76	8AN	C5-C6	-2.55	1.33	1.41
1	2A	1911	PSU	C4-N3	-2.54	1.34	1.38
1	1A	1911	PSU	C4-N3	-2.52	1.34	1.38
32	1a	516	PSU	C4-N3	-2.51	1.34	1.38
1	1A	2552	OMU	C4-N3	-2.51	1.34	1.38
32	1a	966	M2G	C6-N1	-2.50	1.34	1.38
32	1a	1400	5MC	C6-N1	-2.47	1.33	1.38
32	1a	967	5MC	C6-C5	2.47	1.38	1.34
1	2A	2503	2MA	C5-C6	2.47	1.47	1.41
1	1A	1915	5MU	C4-C5	2.47	1.48	1.44
32	2a	516	PSU	C4-N3	-2.46	1.34	1.38
32	2a	1207	2MG	C6-N1	-2.46	1.34	1.38
1	1A	1962	5MC	C6-N1	-2.46	1.33	1.38
1	2A	1915	5MU	C4-N3	-2.45	1.34	1.38
1	1A	2552	OMU	C5-C4	2.45	1.49	1.43
1	2A	1917	PSU	C4-N3	-2.43	1.34	1.38
1	2A	2605	PSU	C4-N3	-2.43	1.34	1.38
1	2A	2552	OMU	C5-C4	2.42	1.49	1.43
1	1A	1942	5MC	C6-N1	-2.42	1.33	1.38
32	2a	1404	5MC	C6-N1	-2.39	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	1a	1207	2MG	C6-N1	-2.36	1.34	1.38
1	1A	2605	PSU	C2-N3	-2.36	1.33	1.37
32	2a	527	G7M	C6-N1	-2.36	1.34	1.38
32	1a	527	G7M	C6-N1	-2.35	1.34	1.38
32	1a	1498	UR3	C2-N1	2.34	1.41	1.38
1	1A	1939	5MU	C2-N1	2.31	1.42	1.38
1	1A	2503	2MA	C5-C6	2.31	1.47	1.41
1	2A	2552	OMU	C4-N3	-2.31	1.34	1.38
54	2w	76	PPU	C5-N7	-2.29	1.34	1.39
1	2A	1915	5MU	C4-C5	2.26	1.48	1.44
1	2A	2251	OMG	C5-N7	-2.25	1.34	1.39
1	1A	1915	5MU	C4-N3	-2.25	1.34	1.38
1	2A	2503	2MA	C5-N7	-2.23	1.35	1.39
1	1A	1939	5MU	C6-N1	-2.23	1.34	1.38
1	2A	2605	PSU	C2-N3	-2.21	1.33	1.37
1	1A	2251	OMG	C5-N7	-2.21	1.34	1.39
1	2A	2503	2MA	C8-N7	2.21	1.35	1.31
32	1a	967	5MC	C6-N1	-2.19	1.34	1.38
32	2a	1400	5MC	C6-N1	-2.14	1.34	1.38
32	2a	1407	5MC	C6-N1	-2.12	1.34	1.38
32	2a	516	PSU	O4'-C1'	-2.11	1.40	1.43
32	1a	1498	UR3	C6-C5	2.11	1.40	1.35
32	1a	1404	5MC	C6-N1	-2.11	1.34	1.38
32	1a	1207	2MG	C2-N3	2.11	1.36	1.32
32	2a	1207	2MG	C2-N3	2.10	1.36	1.32
32	2a	1498	UR3	C6-C5	2.10	1.39	1.35
32	2a	1207	2MG	C5-N7	-2.09	1.34	1.39
54	2w	76	PPU	C8-N7	2.09	1.35	1.31
32	1a	966	M2G	C5-N7	-2.08	1.34	1.39
1	2A	1962	5MC	C6-N1	-2.08	1.34	1.38
1	2A	1942	5MC	C6-N1	-2.07	1.34	1.38
1	1A	1939	5MU	C4-N3	-2.06	1.35	1.38
1	1A	2503	2MA	C4-N9	-2.06	1.33	1.37
32	1a	527	G7M	C4-N9	-2.05	1.32	1.38
32	2a	966	M2G	C5-N7	-2.03	1.35	1.39
1	2A	1939	5MU	C2-N3	-2.03	1.34	1.38
32	2a	967	5MC	C6-N1	-2.03	1.34	1.38
1	1A	2552	OMU	C2-N1	2.01	1.41	1.38

All (271) bond angle outliers are listed below:

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
43	1l	92	0TD	CSB-SB-CB	-16.13	73.36	102.36
43	2l	92	0TD	CSB-SB-CB	-11.71	81.31	102.36
1	2A	2503	2MA	C5-C4-N3	-8.11	118.64	127.18
1	1A	2503	2MA	C5-C4-N3	-7.71	119.06	127.18
32	1a	1207	2MG	C2-N3-C4	7.21	121.02	112.00
32	1a	1498	UR3	C4-N3-C2	-7.11	118.86	124.58
1	2A	2503	2MA	N3-C4-N9	6.81	135.63	126.99
32	2a	1207	2MG	C2-N3-C4	6.73	120.42	112.00
32	2a	516	PSU	N1-C2-N3	6.31	121.82	115.17
1	1A	2251	OMG	C5-C4-N3	-6.30	118.37	128.39
32	2a	966	M2G	C5-C4-N3	-6.29	118.39	128.39
32	2a	1498	UR3	C4-N3-C2	-6.28	119.53	124.58
1	1A	1917	PSU	N1-C2-N3	6.26	121.77	115.17
1	1A	1911	PSU	N1-C2-N3	6.22	121.73	115.17
32	2a	1207	2MG	C5-C4-N3	-6.14	118.62	128.39
32	1a	516	PSU	N1-C2-N3	6.11	121.61	115.17
1	1A	2605	PSU	N1-C2-N3	6.10	121.61	115.17
1	2A	1911	PSU	N1-C2-N3	6.08	121.58	115.17
55	1x	76	8AN	N1-C2-N3	-6.07	119.39	128.58
32	1a	966	M2G	C5-C4-N3	-6.06	118.74	128.39
1	2A	2605	PSU	N1-C2-N3	6.01	121.50	115.17
32	1a	1207	2MG	C5-C4-N3	-5.96	118.90	128.39
1	2A	1917	PSU	N1-C2-N3	5.91	121.40	115.17
54	2w	76	PPU	C5-C4-N3	-5.91	118.58	126.72
1	1A	2503	2MA	N3-C4-N9	5.88	134.45	126.99
1	2A	2251	OMG	C5-C4-N3	-5.70	119.31	128.39
1	2A	1939	5MU	N3-C2-N1	5.70	122.31	114.89
54	1w	76	PPU	C5-C4-N3	-5.66	118.92	126.72
55	2x	76	8AN	N1-C2-N3	-5.64	120.04	128.58
55	1x	76	8AN	C5-C4-N3	-5.39	119.30	126.72
1	1A	1939	5MU	C4-N3-C2	-5.38	120.29	127.34
32	2a	527	G7M	N9-C4-N3	5.34	136.63	125.95
1	2A	2552	OMU	N3-C2-N1	5.33	121.83	114.89
32	1a	527	G7M	N9-C4-N3	5.31	136.56	125.95
1	2A	1939	5MU	C4-N3-C2	-5.26	120.45	127.34
1	1A	2251	OMG	C2-N3-C4	5.20	121.25	112.30
32	2a	527	G7M	C5-C4-N3	-5.14	118.43	128.15
1	1A	2552	OMU	N3-C2-N1	5.13	121.57	114.89
32	1a	527	G7M	C5-C4-N3	-5.07	118.58	128.15
32	2a	1518	MA6	N1-C2-N3	-5.03	120.96	128.58
1	1A	1939	5MU	C5-C4-N3	4.83	119.52	115.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1915	5MU	C1'-N1-C2	4.82	126.24	117.59
32	2a	527	G7M	C2-N3-C4	4.79	120.55	112.30
32	2a	966	M2G	N9-C4-N3	4.78	135.50	125.95
32	2a	1519	MA6	N1-C2-N3	-4.76	121.38	128.58
55	2x	76	8AN	C5-C4-N3	-4.72	120.21	126.72
1	2A	2251	OMG	C2-N3-C4	4.71	120.42	112.30
54	1w	76	PPU	N3-C4-N9	4.71	135.18	127.17
1	2A	1915	5MU	N3-C2-N1	4.71	121.03	114.89
32	1a	1519	MA6	N1-C2-N3	-4.65	121.54	128.58
1	2A	2552	OMU	C4-N3-C2	-4.64	120.85	126.61
32	2a	1519	MA6	C5-C4-N3	-4.61	120.37	126.72
1	2A	2251	OMG	N9-C4-N3	4.60	135.15	125.95
1	1A	1939	5MU	N3-C2-N1	4.60	120.88	114.89
1	1A	1915	5MU	N3-C2-N1	4.58	120.85	114.89
1	1A	2251	OMG	N9-C4-N3	4.55	135.04	125.95
1	2A	1915	5MU	C4-N3-C2	-4.52	121.42	127.34
32	2a	1519	MA6	C4-C5-N7	-4.47	105.47	110.58
1	1A	1915	5MU	C4-N3-C2	-4.45	121.51	127.34
32	1a	966	M2G	N9-C4-N3	4.44	134.83	125.95
32	1a	1519	MA6	C5-C4-N3	-4.42	120.64	126.72
32	2a	1207	2MG	N9-C4-N3	4.41	134.77	125.95
1	1A	1939	5MU	O4-C4-C5	-4.40	119.88	124.92
1	1A	1915	5MU	C1'-N1-C6	-4.38	113.94	121.15
32	2a	966	M2G	C2-N3-C4	4.35	120.56	112.51
1	1A	2552	OMU	C4-N3-C2	-4.34	121.22	126.61
1	1A	1915	5MU	O4-C4-C5	-4.34	119.95	124.92
32	1a	1518	MA6	N1-C2-N3	-4.32	122.04	128.58
54	2w	76	PPU	N3-C4-N9	4.32	134.51	127.17
32	1a	527	G7M	C2-N3-C4	4.32	119.73	112.30
32	1a	966	M2G	C2-N3-C4	4.31	120.48	112.51
1	2A	2605	PSU	C4-N3-C2	-4.29	120.47	126.37
32	2a	1518	MA6	C5-C4-N3	-4.25	120.87	126.72
32	1a	516	PSU	C4-N3-C2	-4.24	120.53	126.37
1	2A	1915	5MU	C5-C4-N3	4.23	119.00	115.32
54	1w	76	PPU	C2-N1-C6	4.22	122.14	111.83
1	2A	1915	5MU	O4-C4-C5	-4.22	120.09	124.92
32	2a	1519	MA6	C5-N7-C8	4.20	110.04	103.45
32	1a	1207	2MG	N9-C4-N3	4.17	134.29	125.95
32	2a	516	PSU	C4-N3-C2	-4.16	120.64	126.37
1	2A	1939	5MU	C5-C4-N3	4.16	118.94	115.32
54	2w	76	PPU	C2-N1-C6	4.11	121.87	111.83
1	2A	2552	OMU	O2-C2-N1	-4.11	117.45	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
54	2w	76	PPU	C4-C5-N7	-4.10	105.89	110.58
32	1a	1518	MA6	C5-C4-N3	-4.10	121.07	126.72
1	1A	1917	PSU	C4-N3-C2	-4.10	120.73	126.37
32	2a	1518	MA6	C2-N1-C6	4.05	121.72	111.83
1	1A	1911	PSU	C4-N3-C2	-4.03	120.82	126.37
32	2a	1518	MA6	C5-N7-C8	3.95	109.66	103.45
32	1a	1519	MA6	C2-N1-C6	3.95	121.48	111.83
1	2A	1917	PSU	O2-C2-N1	-3.92	118.74	122.79
1	2A	1917	PSU	C4-N3-C2	-3.92	120.97	126.37
1	1A	1917	PSU	O2-C2-N1	-3.90	118.76	122.79
1	1A	1915	5MU	C5-C4-N3	3.90	118.71	115.32
1	1A	2605	PSU	C4-N3-C2	-3.90	121.00	126.37
32	1a	1519	MA6	C4-C5-N7	-3.88	106.15	110.58
32	2a	1519	MA6	C2-N1-C6	3.87	121.29	111.83
32	1a	1518	MA6	C2-N1-C6	3.87	121.27	111.83
54	2w	76	PPU	C2-N3-C4	3.82	121.16	111.83
32	1a	1518	MA6	C5-N7-C8	3.82	109.45	103.45
32	1a	1400	5MC	C5-C6-N1	-3.77	119.22	123.31
32	2a	1400	5MC	C5-C6-N1	-3.76	119.23	123.31
1	1A	1939	5MU	C5-C6-N1	-3.74	119.25	123.31
1	1A	1942	5MC	C5-C6-N1	-3.74	119.25	123.31
1	2A	1939	5MU	O2-C2-N1	-3.72	117.95	122.80
1	2A	1911	PSU	C4-N3-C2	-3.71	121.26	126.37
32	1a	1207	2MG	C6-C5-N7	3.70	137.02	130.29
1	2A	1939	5MU	C5-C6-N1	-3.68	119.31	123.31
32	1a	1519	MA6	C5-N7-C8	3.68	109.24	103.45
32	2a	1518	MA6	C4-C5-N7	-3.68	106.38	110.58
32	2a	1518	MA6	N9-C8-N7	-3.67	108.73	113.94
55	1x	76	8AN	C2-N3-C4	3.67	120.79	111.83
1	2A	1942	5MC	C5-C6-N1	-3.66	119.33	123.31
1	2A	1915	5MU	C1'-N1-C2	3.66	124.17	117.59
32	1a	1518	MA6	N9-C8-N7	-3.63	108.79	113.94
1	2A	2503	2MA	C4-C5-N7	-3.60	106.47	110.58
1	1A	1911	PSU	O2-C2-N1	-3.60	119.08	122.79
54	1w	76	PPU	C4-C5-N7	-3.57	106.50	110.58
55	1x	76	8AN	N9-C8-N7	-3.56	108.89	113.94
1	2A	2503	2MA	C4-N9-C8	3.56	109.47	105.74
54	1w	76	PPU	N1-C6-N6	3.55	121.18	116.86
32	2a	516	PSU	O2-C2-N1	-3.54	119.14	122.79
55	2x	76	8AN	N9-C8-N7	-3.53	108.93	113.94
1	1A	2251	OMG	C6-C5-N7	3.50	136.65	130.29
32	2a	1519	MA6	N9-C8-N7	-3.49	108.98	113.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	967	5MC	C5-C6-N1	-3.49	119.53	123.31
32	2a	1519	MA6	C2-N3-C4	3.48	120.32	111.83
32	1a	1518	MA6	C4-C5-N7	-3.46	106.62	110.58
1	2A	1911	PSU	O2-C2-N1	-3.46	119.22	122.79
32	1a	516	PSU	O2-C2-N1	-3.45	119.23	122.79
54	1w	76	PPU	C2-N3-C4	3.44	120.22	111.83
32	2a	1518	MA6	C2-N3-C4	3.43	120.20	111.83
1	1A	2503	2MA	N6-C6-N1	3.42	121.64	117.03
1	1A	2503	2MA	C4-C5-N7	-3.41	106.68	110.58
1	2A	1939	5MU	O4-C4-C5	-3.38	121.05	124.92
1	1A	1962	5MC	C5-C6-N1	-3.35	119.68	123.31
32	2a	1404	5MC	C5-C6-N1	-3.34	119.69	123.31
55	2x	76	8AN	C2-N3-C4	3.32	119.93	111.83
32	1a	1519	MA6	C2-N3-C4	3.31	119.90	111.83
32	1a	1404	5MC	C5-C4-N3	-3.29	118.39	121.75
1	1A	2552	OMU	O2-C2-N1	-3.27	118.54	122.80
54	2w	76	PPU	N3-C2-N1	-3.27	123.64	128.58
55	2x	76	8AN	C5-N7-C8	3.24	108.55	103.45
32	2a	1404	5MC	C5-C4-N3	-3.24	118.44	121.75
32	1a	1498	UR3	C5-C4-N3	3.22	119.28	115.04
1	2A	2605	PSU	O2-C2-N1	-3.21	119.48	122.79
1	2A	1962	5MC	C5-C6-N1	-3.16	119.88	123.31
43	1l	92	0TD	OD2-CG-CB	3.16	119.98	113.15
32	2a	1407	5MC	C5-C6-N1	-3.13	119.91	123.31
32	1a	1404	5MC	C5-C6-N1	-3.12	119.93	123.31
32	1a	966	M2G	C6-C5-N7	3.11	135.95	130.29
54	1w	76	PPU	C10-N6-C6	-3.10	112.63	120.52
1	1A	2503	2MA	C2-N1-C6	3.10	122.87	118.10
1	2A	1915	5MU	C1'-N1-C6	-3.10	116.05	121.15
54	2w	76	PPU	C10-N6-C6	-3.08	112.69	120.52
1	1A	2251	OMG	C4-C5-N7	-3.06	105.82	110.67
32	1a	1519	MA6	N9-C8-N7	-3.05	109.61	113.94
55	1x	76	8AN	C4'-O4'-C1'	-3.05	102.74	109.47
32	1a	1518	MA6	C2-N3-C4	3.04	119.26	111.83
55	1x	76	8AN	C5-N7-C8	3.04	108.23	103.45
1	1A	1939	5MU	O2-C2-N1	-3.03	118.85	122.80
54	1w	76	PPU	N3-C2-N1	-3.02	124.01	128.58
32	2a	1498	UR3	C5-C4-N3	3.01	119.00	115.04
55	1x	76	8AN	N3-C4-N9	2.99	132.25	127.17
1	1A	2552	OMU	C2'-C1'-N1	-2.96	108.61	114.24
1	2A	2503	2MA	C5-N7-C8	2.96	108.09	103.45
32	1a	1407	5MC	C5-C4-N3	-2.93	118.75	121.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	1207	2MG	C6-C5-N7	2.92	135.61	130.29
32	1a	967	5MC	C5-C6-N1	-2.91	120.16	123.31
54	2w	76	PPU	C5-N7-C8	2.89	107.99	103.45
32	1a	1400	5MC	C5-C4-N3	-2.89	118.79	121.75
55	2x	76	8AN	C4'-O4'-C1'	-2.89	103.09	109.47
32	2a	966	M2G	C6-C5-N7	2.89	135.54	130.29
32	1a	1207	2MG	C4-C5-N7	-2.88	106.11	110.67
1	2A	2251	OMG	C6-C5-N7	2.88	135.52	130.29
1	2A	2503	2MA	N6-C6-N1	2.85	120.88	117.03
43	2l	92	0TD	OD2-CG-CB	2.84	119.29	113.15
32	2a	1407	5MC	O2-C2-N3	-2.81	117.90	122.33
54	1w	76	PPU	C5-N7-C8	2.80	107.84	103.45
1	2A	2552	OMU	O4-C4-C5	-2.79	120.34	125.16
32	1a	1518	MA6	N3-C4-N9	2.79	131.92	127.17
32	2a	1518	MA6	N3-C4-N9	2.77	131.88	127.17
1	1A	2503	2MA	C4-N9-C8	2.76	108.63	105.74
54	1w	76	PPU	C4-N9-C8	2.74	108.62	105.74
1	2A	1962	5MC	C5-C4-N3	-2.74	118.94	121.75
1	2A	2503	2MA	C2-N1-C6	2.66	122.19	118.10
32	2a	1407	5MC	C5-C4-N3	-2.66	119.03	121.75
55	2x	76	8AN	O4'-C1'-N9	2.66	113.19	108.09
1	1A	1962	5MC	C5-C4-N3	-2.64	119.05	121.75
32	1a	1407	5MC	C5-C6-N1	-2.64	120.45	123.31
1	1A	2503	2MA	C5-N7-C8	2.61	107.56	103.45
32	1a	967	5MC	C5-C4-N3	-2.61	119.08	121.75
1	2A	2503	2MA	N9-C8-N7	-2.61	110.24	113.94
32	1a	966	M2G	C4-C5-N7	-2.60	106.55	110.67
32	2a	1207	2MG	C4-C5-N7	-2.55	106.62	110.67
1	2A	1920	OMC	O2-C2-N3	-2.55	118.32	122.33
1	1A	1915	5MU	C5M-C5-C4	2.54	121.49	118.78
32	2a	527	G7M	O6-C6-C5	-2.53	122.36	128.01
55	2x	76	8AN	N3-C4-N9	2.53	131.46	127.17
54	2w	76	PPU	CG-CB-CA	-2.52	108.97	114.13
1	1A	2552	OMU	C5-C4-N3	2.48	118.27	114.80
32	1a	1519	MA6	C4-C5-C6	2.47	118.47	115.91
1	2A	2251	OMG	O6-C6-C5	-2.47	120.00	126.53
1	1A	2552	OMU	O4-C4-C5	-2.46	120.93	125.16
32	1a	1518	MA6	C4-C5-C6	2.45	118.45	115.91
32	2a	1400	5MC	C5-C4-N3	-2.45	119.24	121.75
1	2A	2552	OMU	C5-C4-N3	2.45	118.23	114.80
1	1A	2605	PSU	C5-C6-N1	-2.44	118.75	122.14
1	2A	1942	5MC	C5-C4-N3	-2.44	119.26	121.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	1519	MA6	N3-C4-N9	2.44	131.31	127.17
32	1a	1519	MA6	N3-C4-N9	2.42	131.29	127.17
54	1w	76	PPU	C3'-N3'-C	-2.42	119.52	123.20
55	1x	76	8AN	C5-C4-N9	2.41	108.44	105.81
32	1a	527	G7M	O6-C6-C5	-2.41	122.63	128.01
32	2a	966	M2G	C4-C5-N7	-2.40	106.86	110.67
32	2a	1519	MA6	C4-C5-C6	2.40	118.39	115.91
32	1a	1498	UR3	C6-N1-C2	-2.40	119.84	121.80
1	1A	1939	5MU	C5M-C5-C4	2.40	121.34	118.78
1	1A	2605	PSU	O2-C2-N3	-2.38	117.63	121.86
32	2a	516	PSU	O4'-C1'-C2'	2.38	108.45	105.15
54	2w	76	PPU	N1-C6-N6	2.35	119.72	116.86
1	1A	1920	OMC	O2-C2-N3	-2.34	118.64	122.33
32	2a	1402	4OC	C6-C5-C4	2.33	119.81	117.00
1	1A	2503	2MA	N9-C8-N7	-2.33	110.64	113.94
1	1A	2251	OMG	C8-N7-C5	2.32	108.40	104.26
55	1x	76	8AN	O4'-C1'-N9	2.32	112.54	108.09
54	1w	76	PPU	C5-C6-N6	-2.31	121.67	125.33
43	1l	92	0TD	OD1-CG-CB	-2.31	117.61	122.44
55	2x	76	8AN	C5-C4-N9	2.30	108.32	105.81
55	1x	76	8AN	C6-C5-C4	2.30	120.32	117.18
32	2a	1519	MA6	C5-C4-N9	2.30	108.31	105.81
32	2a	967	5MC	C5-C4-N3	-2.30	119.40	121.75
1	2A	1920	OMC	C1'-N1-C2	2.29	123.51	118.44
1	2A	1915	5MU	C5-C6-N1	-2.29	120.83	123.31
55	1x	76	8AN	C4-C5-N7	-2.27	107.98	110.58
32	1a	1518	MA6	C4-N9-C8	2.27	108.12	105.74
32	2a	1400	5MC	O2-C2-N3	-2.27	118.75	122.33
32	1a	516	PSU	C5-C6-N1	-2.27	118.99	122.14
54	2w	76	PPU	C2'-C1'-N9	-2.26	107.69	113.30
1	2A	2605	PSU	C5-C6-N1	-2.25	119.01	122.14
1	2A	2503	2MA	C6-C5-N7	2.25	136.42	132.09
1	1A	1942	5MC	C5-C4-N3	-2.25	119.45	121.75
32	1a	967	5MC	C1'-N1-C6	-2.24	117.46	121.15
32	2a	527	G7M	C5-C6-N1	2.23	116.44	111.84
54	2w	76	PPU	C4-N9-C8	2.22	108.06	105.74
54	1w	76	PPU	C2'-C1'-N9	-2.21	107.80	113.30
32	1a	516	PSU	O4'-C1'-C2'	2.21	108.21	105.15
1	1A	1911	PSU	C5-C6-N1	-2.16	119.14	122.14
32	2a	516	PSU	C5-C6-N1	-2.16	119.15	122.14
32	1a	1207	2MG	N1-C2-N2	2.15	118.75	116.56
32	2a	1498	UR3	C3U-N3-C2	2.14	121.06	117.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	1518	MA6	C4-N9-C8	2.14	107.98	105.74
55	2x	76	8AN	C4-C5-N7	-2.13	108.15	110.58
32	1a	1207	2MG	O3'-C3'-C2'	2.12	118.62	111.82
32	1a	1498	UR3	C3U-N3-C4	2.10	120.79	117.87
1	1A	1915	5MU	C5-C6-N1	-2.10	121.03	123.31
54	2w	76	PPU	C6-C5-N7	2.10	136.79	133.43
32	2a	1207	2MG	N1-C2-N2	2.08	118.69	116.56
32	2a	1207	2MG	N2-C2-N3	-2.08	117.86	120.51
32	1a	1519	MA6	C5-C4-N9	2.08	108.08	105.81
32	1a	1207	2MG	C8-N7-C5	2.06	107.94	104.26
1	2A	2251	OMG	C5-C6-N1	2.05	118.47	113.25
32	2a	1518	MA6	C4-C5-C6	2.04	118.02	115.91
1	2A	1962	5MC	O2-C2-N3	-2.04	119.12	122.33
54	2w	76	PPU	C3'-N3'-C	-2.03	120.11	123.20
43	2l	92	0TD	OD1-CG-CB	-2.03	118.19	122.44
32	1a	966	M2G	O6-C6-C5	-2.03	121.18	126.53
32	1a	1402	4OC	C6-C5-C4	2.02	119.44	117.00
1	1A	2503	2MA	C6-C5-N7	2.02	135.98	132.09
32	2a	1404	5MC	O2-C2-N3	-2.01	119.16	122.33
1	2A	2552	OMU	C2'-C1'-N1	-2.00	110.44	114.24

There are no chirality outliers.

All (42) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	1A	1915	5MU	O4'-C1'-N1-C2
1	1A	1915	5MU	O4'-C1'-N1-C6
1	1A	2251	OMG	C1'-C2'-O2'-CM2
32	1a	1207	2MG	N1-C2-N2-CM2
32	1a	1207	2MG	N3-C2-N2-CM2
1	2A	1915	5MU	O4'-C1'-N1-C2
1	2A	1915	5MU	O4'-C1'-N1-C6
32	2a	1207	2MG	N1-C2-N2-CM2
32	2a	1207	2MG	N3-C2-N2-CM2
55	1x	76	8AN	O4'-C4'-C5'-O5'
55	2x	76	8AN	C3'-C4'-C5'-O5'
55	1x	76	8AN	C3'-C4'-C5'-O5'
32	1a	1400	5MC	O4'-C4'-C5'-O5'
32	1a	1519	MA6	O4'-C4'-C5'-O5'
32	2a	1402	4OC	O4'-C4'-C5'-O5'
32	2a	1519	MA6	O4'-C4'-C5'-O5'
32	1a	1402	4OC	O4'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
1	2A	1915	5MU	O4'-C4'-C5'-O5'
55	2x	76	8AN	O4'-C4'-C5'-O5'
55	2x	76	8AN	C4'-C5'-O5'-P
32	1a	527	G7M	C3'-C4'-C5'-O5'
32	1a	1400	5MC	C3'-C4'-C5'-O5'
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	2a	1402	4OC	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
55	1x	76	8AN	C4'-C5'-O5'-P
32	1a	1402	4OC	C3'-C4'-C5'-O5'
43	1l	92	0TD	CG-CB-SB-CSB
1	2A	1920	OMC	C3'-C2'-O2'-CM2
32	2a	516	PSU	O4'-C1'-C5-C4
32	1a	527	G7M	O4'-C4'-C5'-O5'
43	1l	92	0TD	CA-CB-SB-CSB
32	1a	1519	MA6	C4'-C5'-O5'-P
1	2A	1915	5MU	C3'-C4'-C5'-O5'
32	2a	516	PSU	O4'-C1'-C5-C6
54	1w	76	PPU	CA-C-N3'-C3'
1	1A	1962	5MC	C2'-C1'-N1-C6
1	1A	1962	5MC	O4'-C1'-N1-C6
43	2l	92	0TD	CG-CB-SB-CSB
1	2A	2552	OMU	O4'-C4'-C5'-O5'
1	1A	1920	OMC	C2'-C1'-N1-C2
32	2a	527	G7M	C4'-C5'-O5'-P

There are no ring outliers.

27 monomers are involved in 44 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	2a	1518	MA6	2	0
32	2a	1404	5MC	1	0
54	2w	76	PPU	4	0
1	2A	2552	OMU	1	0
1	1A	1939	5MU	1	0
1	2A	1915	5MU	1	0
32	2a	1402	4OC	3	0
54	1w	76	PPU	3	0
32	1a	1519	MA6	3	0
1	2A	1920	OMC	1	0
1	1A	2605	PSU	1	0
1	1A	1920	OMC	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	1a	966	M2G	1	0
1	2A	1942	5MC	1	0
1	2A	1939	5MU	2	0
32	1a	1498	UR3	1	0
32	1a	1404	5MC	1	0
32	1a	1518	MA6	2	0
32	1a	1400	5MC	1	0
32	2a	1400	5MC	1	0
32	1a	1402	4OC	2	0
32	2a	516	PSU	1	0
32	2a	1519	MA6	6	0
32	2a	1207	2MG	4	0
55	2x	76	8AN	2	0
55	1x	76	8AN	2	0
1	1A	2552	OMU	1	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 2534 ligands modelled in this entry, 2523 are monoatomic - leaving 11 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	$\#\|Z\| > 2$
59	ARG	1F	317	-	10,11,11	0.76	1 (10%)	9,13,13	0.97	1 (11%)
62	MRD	2A	3738	-	7,7,7	0.31	0	9,10,10	0.42	0
58	MPD	2A	3739	-	7,7,7	0.29	0	9,10,10	0.22	0
58	MPD	1a	1881	-	7,7,7	0.37	0	9,10,10	0.29	0
61	SF4	2d	501	35	0,12,12	-	-	-		
58	MPD	1T	205	-	7,7,7	0.26	0	9,10,10	0.29	0
58	MPD	2B	221	-	7,7,7	0.31	0	9,10,10	0.15	0
58	MPD	18	104	-	7,7,7	0.40	0	9,10,10	0.35	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
58	MPD	1A	4029	-	7,7,7	0.41	0	9,10,10	0.38	0
59	ARG	1B	231	57	10,11,11	0.81	1 (10%)	9,13,13	1.04	1 (11%)
61	SF4	1d	307	35	0,12,12	-	-	-		

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
59	ARG	1F	317	-	-	1/11/11/11	-
62	MRD	2A	3738	-	-	1/5/5/5	-
58	MPD	2A	3739	-	-	5/5/5/5	-
58	MPD	1a	1881	-	-	3/5/5/5	-
61	SF4	2d	501	35	-	-	0/6/5/5
58	MPD	1T	205	-	-	3/5/5/5	-
58	MPD	2B	221	-	-	4/5/5/5	-
58	MPD	18	104	-	-	1/5/5/5	-
58	MPD	1A	4029	-	-	2/5/5/5	-
59	ARG	1B	231	57	-	0/11/11/11	-
61	SF4	1d	307	35	-	-	0/6/5/5

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	1B	231	ARG	OXT-C	-2.37	1.23	1.30
59	1F	317	ARG	OXT-C	-2.20	1.23	1.30

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
59	1B	231	ARG	OXT-C-O	-2.89	117.52	124.08
59	1F	317	ARG	OXT-C-O	-2.83	117.66	124.08

There are no chirality outliers.

All (20) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
58	1T	205	MPD	C1-C2-C3-C4
58	2A	3739	MPD	C2-C3-C4-O4

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Mol	Chain	Res	Type	Atoms
58	2A	3739	MPD	C2-C3-C4-C5
58	1A	4029	MPD	O2-C2-C3-C4
58	1T	205	MPD	CM-C2-C3-C4
58	2A	3739	MPD	C1-C2-C3-C4
58	2A	3739	MPD	CM-C2-C3-C4
58	18	104	MPD	C2-C3-C4-C5
58	1a	1881	MPD	C2-C3-C4-C5
58	2B	221	MPD	C2-C3-C4-C5
58	1a	1881	MPD	O2-C2-C3-C4
58	2A	3739	MPD	O2-C2-C3-C4
58	1A	4029	MPD	C2-C3-C4-O4
58	1T	205	MPD	C2-C3-C4-O4
58	2B	221	MPD	C2-C3-C4-O4
62	2A	3738	MRD	C2-C3-C4-O4
58	1a	1881	MPD	C1-C2-C3-C4
58	2B	221	MPD	C1-C2-C3-C4
58	2B	221	MPD	CM-C2-C3-C4
59	1F	317	ARG	CG-CD-NE-CZ

There are no ring outliers.

7 monomers are involved in 13 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
59	1F	317	ARG	2	0
58	1a	1881	MPD	2	0
61	2d	501	SF4	1	0
58	1T	205	MPD	1	0
58	18	104	MPD	2	0
58	1A	4029	MPD	1	0
59	1B	231	ARG	4	0

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%)	-0.34	121 (4%) 40 36	19, 36, 80, 92	0
1	2A	2856/2915 (97%)	0.16	138 (4%) 35 32	33, 53, 81, 91	0
2	1B	120/121 (99%)	-0.10	0 100 100	28, 49, 63, 76	0
2	2B	120/121 (99%)	0.56	2 (1%) 69 65	52, 68, 73, 78	0
3	1D	275/276 (99%)	0.04	2 (0%) 84 81	22, 38, 48, 62	0
3	2D	275/276 (99%)	0.42	4 (1%) 72 68	34, 48, 58, 68	0
4	1E	204/206 (99%)	0.14	2 (0%) 79 76	20, 40, 57, 68	0
4	2E	204/206 (99%)	0.70	6 (2%) 53 50	32, 54, 64, 79	0
5	1F	203/210 (96%)	0.16	4 (1%) 65 60	18, 39, 63, 74	0
5	2F	203/210 (96%)	0.87	8 (3%) 43 39	37, 58, 68, 75	0
6	1G	181/182 (99%)	0.84	13 (7%) 21 18	42, 59, 67, 73	0
6	2G	181/182 (99%)	1.55	48 (26%) 1 1	60, 70, 75, 82	0
7	1H	174/180 (96%)	0.49	1 (0%) 85 83	34, 50, 59, 64	0
7	2H	173/180 (96%)	1.35	26 (15%) 5 4	59, 69, 74, 77	0
8	1I	147/148 (99%)	1.09	13 (8%) 15 12	41, 64, 71, 75	0
8	2I	146/148 (98%)	1.37	31 (21%) 2 2	50, 66, 73, 77	0
9	1N	140/140 (100%)	0.14	0 100 100	24, 36, 53, 64	0
9	2N	140/140 (100%)	0.77	5 (3%) 46 42	42, 57, 67, 71	0
10	1O	122/122 (100%)	0.16	0 100 100	29, 42, 56, 63	0
10	2O	122/122 (100%)	0.64	1 (0%) 82 80	44, 52, 62, 66	0
11	1P	149/150 (99%)	0.20	2 (1%) 75 71	20, 44, 59, 65	0
11	2P	149/150 (99%)	0.81	9 (6%) 27 24	36, 59, 70, 80	0
12	1Q	141/141 (100%)	0.14	0 100 100	26, 40, 50, 61	0
12	2Q	141/141 (100%)	0.75	6 (4%) 40 36	41, 56, 65, 75	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	1R	118/118 (100%)	0.06	0 100 100	26, 35, 47, 57	0
13	2R	118/118 (100%)	0.54	1 (0%) 82 80	39, 50, 58, 60	0
14	1S	110/112 (98%)	0.55	1 (0%) 81 78	36, 49, 58, 61	0
14	2S	110/112 (98%)	1.30	14 (12%) 8 6	56, 62, 70, 72	0
15	1T	131/146 (89%)	0.46	9 (6%) 23 19	34, 44, 60, 70	0
15	2T	131/146 (89%)	0.71	3 (2%) 61 57	45, 55, 65, 73	0
16	1U	116/118 (98%)	-0.19	1 (0%) 81 78	20, 29, 42, 53	0
16	2U	116/118 (98%)	0.71	3 (2%) 57 53	38, 53, 64, 69	0
17	1V	101/101 (100%)	-0.04	1 (0%) 79 76	21, 38, 52, 59	0
17	2V	101/101 (100%)	0.83	3 (2%) 52 48	37, 60, 67, 71	0
18	1W	112/113 (99%)	-0.05	1 (0%) 81 78	22, 30, 50, 66	0
18	2W	112/113 (99%)	0.46	2 (1%) 67 63	41, 49, 58, 71	0
19	1X	95/96 (98%)	0.30	3 (3%) 50 46	28, 38, 56, 65	0
19	2X	95/96 (98%)	0.87	4 (4%) 40 36	47, 55, 63, 67	0
20	1Y	107/110 (97%)	0.41	0 100 100	34, 46, 59, 67	0
20	2Y	107/110 (97%)	1.36	18 (16%) 4 3	52, 62, 69, 75	0
21	1Z	203/206 (98%)	0.71	3 (1%) 72 68	34, 52, 64, 70	0
21	2Z	201/206 (97%)	1.13	15 (7%) 20 17	54, 65, 71, 77	0
22	10	83/85 (97%)	0.08	1 (1%) 76 73	26, 37, 45, 54	0
22	20	83/85 (97%)	1.07	9 (10%) 11 8	41, 55, 62, 66	0
23	11	97/98 (98%)	0.32	1 (1%) 79 76	28, 43, 64, 66	0
23	21	97/98 (98%)	0.64	3 (3%) 51 47	41, 52, 63, 68	0
24	12	70/72 (97%)	0.50	1 (1%) 73 69	36, 47, 57, 71	0
24	22	70/72 (97%)	0.83	1 (1%) 73 69	51, 61, 67, 70	0
25	13	59/60 (98%)	-0.05	0 100 100	24, 34, 57, 63	0
25	23	59/60 (98%)	0.65	3 (5%) 33 30	46, 54, 68, 75	0
26	14	69/71 (97%)	1.37	17 (24%) 2 1	56, 70, 76, 80	0
26	24	69/71 (97%)	1.75	24 (34%) 1 1	65, 75, 82, 83	0
27	15	59/60 (98%)	0.07	2 (3%) 48 44	21, 34, 48, 54	0
27	25	59/60 (98%)	0.41	0 100 100	37, 47, 62, 72	0
28	16	53/54 (98%)	0.06	0 100 100	35, 41, 52, 57	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	26	53/54 (98%)	0.65	2 (3%) 44 40	49, 56, 62, 65	0
29	17	48/49 (97%)	0.06	2 (4%) 40 36	21, 28, 53, 60	0
29	27	48/49 (97%)	0.42	3 (6%) 26 22	34, 43, 58, 65	0
30	18	64/65 (98%)	0.01	0 100 100	27, 33, 42, 49	0
30	28	64/65 (98%)	0.81	0 100 100	42, 52, 57, 61	0
31	19	37/37 (100%)	0.24	1 (2%) 56 52	28, 39, 50, 59	0
31	29	37/37 (100%)	1.03	2 (5%) 31 28	53, 59, 64, 66	0
32	1a	1488/1521 (97%)	0.54	34 (2%) 61 57	37, 65, 80, 90	0
32	2a	1492/1521 (98%)	0.64	45 (3%) 52 48	47, 67, 80, 88	0
33	1b	231/256 (90%)	1.49	52 (22%) 2 2	58, 69, 76, 79	0
33	2b	231/256 (90%)	1.67	79 (34%) 1 1	61, 71, 76, 81	0
34	1c	206/239 (86%)	1.28	30 (14%) 6 4	56, 68, 75, 80	0
34	2c	206/239 (86%)	1.51	50 (24%) 2 1	60, 71, 76, 79	0
35	1d	208/209 (99%)	1.33	38 (18%) 3 3	54, 66, 72, 76	0
35	2d	208/209 (99%)	1.15	17 (8%) 17 14	55, 64, 70, 73	0
36	1e	148/162 (91%)	0.89	7 (4%) 36 32	45, 61, 67, 72	0
36	2e	148/162 (91%)	1.02	9 (6%) 27 23	52, 63, 71, 78	0
37	1f	100/101 (99%)	0.97	3 (3%) 52 48	52, 62, 67, 71	0
37	2f	100/101 (99%)	0.88	3 (3%) 52 48	52, 62, 68, 70	0
38	1g	155/156 (99%)	1.09	16 (10%) 12 9	58, 65, 72, 77	0
38	2g	155/156 (99%)	1.36	27 (17%) 4 3	60, 69, 73, 77	0
39	1h	137/138 (99%)	1.05	9 (6%) 24 20	53, 62, 68, 71	0
39	2h	137/138 (99%)	1.13	9 (6%) 24 20	57, 63, 68, 72	0
40	1i	127/128 (99%)	1.71	41 (32%) 1 1	58, 69, 74, 78	0
40	2i	126/128 (98%)	1.93	58 (46%) 0 0	64, 71, 76, 79	0
41	1j	97/105 (92%)	1.60	27 (27%) 1 1	57, 69, 76, 78	0
41	2j	96/105 (91%)	1.98	47 (48%) 0 0	63, 72, 75, 78	0
42	1k	114/129 (88%)	0.88	6 (5%) 32 28	45, 59, 66, 70	0
42	2k	114/129 (88%)	0.99	6 (5%) 32 28	54, 63, 70, 72	0
43	1l	121/132 (91%)	0.88	4 (3%) 49 45	50, 58, 64, 67	0
43	2l	121/132 (91%)	1.03	6 (4%) 34 30	52, 62, 68, 72	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	1m	116/126 (92%)	1.22	11 (9%) 14 11	56, 67, 71, 76	0
44	2m	114/126 (90%)	1.62	34 (29%) 1 1	64, 70, 75, 77	0
45	1n	60/61 (98%)	1.57	12 (20%) 3 2	60, 67, 71, 72	0
45	2n	60/61 (98%)	1.92	25 (41%) 0 0	63, 70, 76, 79	0
46	1o	88/89 (98%)	0.92	4 (4%) 38 34	47, 59, 68, 75	0
46	2o	88/89 (98%)	1.10	5 (5%) 29 25	54, 63, 69, 72	0
47	1p	82/88 (93%)	1.72	25 (30%) 1 1	57, 66, 72, 73	0
47	2p	82/88 (93%)	1.23	9 (10%) 10 8	56, 62, 68, 71	0
48	1q	99/105 (94%)	1.15	6 (6%) 27 23	53, 63, 69, 72	0
48	2q	99/105 (94%)	1.09	5 (5%) 33 30	54, 62, 68, 73	0
49	1r	68/88 (77%)	0.98	4 (5%) 28 24	54, 61, 69, 75	0
49	2r	68/88 (77%)	0.94	5 (7%) 20 17	56, 62, 69, 71	0
50	1s	83/93 (89%)	1.45	13 (15%) 5 4	53, 68, 73, 78	0
50	2s	83/93 (89%)	1.54	25 (30%) 1 1	66, 72, 76, 79	0
51	1t	96/106 (90%)	1.48	24 (25%) 2 1	56, 66, 72, 75	0
51	2t	98/106 (92%)	1.23	11 (11%) 10 7	53, 63, 70, 74	0
52	1u	23/27 (85%)	1.66	5 (21%) 2 2	63, 67, 70, 71	0
52	2u	23/27 (85%)	2.13	11 (47%) 0 0	65, 69, 72, 74	0
53	1y	97/113 (85%)	1.13	13 (13%) 7 5	50, 60, 67, 71	0
53	2y	96/113 (84%)	2.00	43 (44%) 0 0	62, 68, 74, 75	0
54	1w	3/4 (75%)	-0.20	0 100 100	28, 28, 36, 40	0
54	2w	3/4 (75%)	0.28	0 100 100	44, 44, 47, 53	0
55	1x	3/4 (75%)	0.19	1 (33%) 1 1	27, 27, 29, 44	0
55	2x	3/4 (75%)	0.36	0 100 100	43, 43, 46, 52	0
56	1v	3/3 (100%)	-0.50	0 100 100	22, 22, 23, 26	0
56	2v	3/3 (100%)	0.84	0 100 100	46, 46, 49, 52	0
All	All	20796/21490 (96%)	0.57	1510 (7%) 21 17	18, 58, 76, 92	0

All (1510) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	1A	1091	G	6.7
1	1A	1090	U	6.5

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Mol	Chain	Res	Type	RSRZ
1	1A	1087	G	6.4
45	2n	2	ALA	6.4
45	1n	2	ALA	6.3
7	1H	2	SER	6.0
1	2A	2138	C	5.9
32	2a	1030(B)	C	5.8
1	1A	1089	G	5.7
1	1A	1102	C	5.4
1	1A	1093	G	5.4
1	1A	1078	U	5.3
1	1A	1103	A	5.1
1	1A	1077	A	5.1
1	1A	1072	C	5.0
1	2A	2139	C	4.8
1	1A	1088	A	4.8
1	1A	1080	C	4.8
43	2l	18	VAL	4.8
12	2Q	59	ARG	4.8
1	1A	1071	G	4.7
53	1y	98	ALA	4.7
6	2G	146	TYR	4.6
15	2T	131	ALA	4.6
1	2A	2793	G	4.6
40	2i	102	LEU	4.5
1	2A	2147	G	4.5
40	1i	46	ALA	4.5
38	2g	5	ARG	4.4
41	2j	75	ILE	4.4
26	24	56	VAL	4.4
44	1m	2	ALA	4.4
1	1A	1081	U	4.4
1	1A	1064	C	4.3
51	1t	103	GLY	4.3
1	1A	1079	C	4.3
1	1A	1092	C	4.3
26	14	49	PHE	4.3
53	1y	97	ALA	4.3
1	1A	1073	A	4.2
40	2i	115	GLY	4.2
40	2i	126	SER	4.2
1	2A	2154	G	4.2
8	2I	10	GLU	4.1

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Mol	Chain	Res	Type	RSRZ
1	2A	1076	C	4.1
45	2n	13	THR	4.1
1	1A	1076	C	4.1
1	1A	2803	C	4.1
51	2t	103	GLY	4.1
6	2G	2	PRO	4.1
35	2d	146	ILE	4.0
39	2h	2	LEU	4.0
33	1b	131	PRO	4.0
6	2G	139	LEU	4.0
1	1A	1062	G	4.0
33	1b	7	VAL	4.0
41	2j	34	VAL	4.0
1	2A	2153	G	3.9
47	1p	19	ILE	3.9
1	1A	1086	A	3.9
1	2A	1046	A	3.9
1	1A	1066	U	3.9
1	2A	2804	C	3.9
1	1A	1099	G	3.8
1	2A	2152	G	3.8
34	2c	65	ALA	3.8
1	2A	2116	G	3.8
1	1A	1094	U	3.8
45	2n	5	ALA	3.8
32	2a	1030(A)	G	3.8
26	14	59	PHE	3.8
1	1A	1104	C	3.8
1	1A	1074	G	3.8
1	1A	1065	U	3.7
1	2A	2125	G	3.7
34	2c	187	ALA	3.7
53	2y	81	LEU	3.7
1	2A	2135	A	3.7
40	2i	62	TYR	3.7
40	2i	64	THR	3.7
33	2b	11	LEU	3.7
1	2A	1085	A	3.7
41	2j	44	VAL	3.7
1	2A	2110	G	3.7
24	12	70	GLN	3.7
26	14	63	TYR	3.7

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Mol	Chain	Res	Type	RSRZ
35	1d	179	GLU	3.6
1	1A	2804	C	3.6
34	2c	160	ALA	3.6
53	2y	98	ALA	3.6
1	2A	2155	G	3.6
45	2n	25	VAL	3.6
6	2G	50	ALA	3.6
45	2n	4	LYS	3.6
33	2b	10	LEU	3.6
1	2A	2141	G	3.6
1	2A	2162	G	3.6
41	1j	49	VAL	3.6
1	2A	1536	C	3.6
6	2G	46	ALA	3.6
21	1Z	192	ALA	3.6
1	2A	2136	C	3.5
1	2A	2137	C	3.5
6	2G	149	VAL	3.5
40	2i	108	VAL	3.5
33	1b	237	ALA	3.5
47	1p	37	GLY	3.5
46	1o	19	PRO	3.5
53	2y	44	GLU	3.5
29	17	45	ALA	3.5
40	1i	106	ALA	3.5
51	2t	6	PRO	3.5
38	2g	33	ASP	3.5
52	2u	15	ARG	3.5
41	1j	34	VAL	3.5
23	21	2	SER	3.5
1	2A	2149	G	3.5
29	17	46	VAL	3.5
32	2a	1257	U	3.5
53	2y	27	LEU	3.5
32	2a	1030(D)	A	3.4
1	2A	2124	G	3.4
33	2b	15	VAL	3.4
53	2y	45	PRO	3.4
1	1A	1083	U	3.4
1	2A	2107	C	3.4
1	2A	2143	C	3.4
41	2j	76	ASN	3.4

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Mol	Chain	Res	Type	RSRZ
36	2e	10	MET	3.4
33	1b	234	PRO	3.4
33	2b	200	ILE	3.4
53	2y	35	ILE	3.4
1	2A	652(B)	A	3.4
6	2G	7	LEU	3.4
1	1A	1068	G	3.4
33	2b	201	ILE	3.4
39	2h	28	ALA	3.4
53	2y	39	ILE	3.4
41	2j	19	SER	3.4
33	2b	231	GLU	3.4
52	1u	18	TYR	3.4
26	24	49	PHE	3.4
1	2A	2140	C	3.4
1	2A	2146	C	3.4
47	1p	48	TRP	3.4
42	1k	98	LEU	3.4
7	2H	145	ALA	3.4
33	1b	225	ALA	3.4
46	2o	68	ARG	3.4
1	2A	2168	G	3.3
1	2A	2803	C	3.3
33	1b	10	LEU	3.3
6	2G	140	ILE	3.3
40	2i	36	TYR	3.3
1	2A	2109	U	3.3
1	2A	2172	U	3.3
1	1A	1063	G	3.3
32	1a	1030(A)	G	3.3
40	2i	29	ASN	3.3
47	1p	82	GLN	3.3
48	2q	98	LEU	3.3
8	2I	3	VAL	3.3
26	14	56	VAL	3.3
33	2b	164	VAL	3.3
40	2i	109	VAL	3.3
34	2c	159	GLY	3.3
1	1A	1085	A	3.3
1	1A	1098	A	3.3
21	1Z	188	ALA	3.3
45	1n	4	LYS	3.3

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Mol	Chain	Res	Type	RSRZ
1	2A	2118	U	3.3
1	1A	1075	C	3.3
35	1d	2	GLY	3.3
1	1A	1070	A	3.3
53	2y	48	PHE	3.3
50	1s	13	ASP	3.3
33	1b	37	ASN	3.3
1	1A	1061	U	3.3
40	2i	10	ARG	3.3
32	2a	1036	G	3.3
46	1o	87	ILE	3.3
1	1A	1067	A	3.2
26	24	67	TYR	3.2
39	1h	94	TYR	3.2
52	2u	9	ARG	3.2
32	1a	1257	U	3.2
5	2F	6	VAL	3.2
41	1j	44	VAL	3.2
34	2c	8	ILE	3.2
53	2y	40	ILE	3.2
1	2A	1064	C	3.2
1	2A	2179	C	3.2
53	2y	50	ALA	3.2
35	1d	132	ARG	3.2
41	1j	46	ARG	3.2
34	1c	41	GLY	3.2
50	2s	82	GLY	3.2
40	2i	94	ALA	3.2
1	1A	1058	G	3.2
1	1A	2805	G	3.2
1	2A	2126	A	3.2
1	2A	2173	A	3.2
33	2b	155	LEU	3.2
40	1i	125	TYR	3.2
41	2j	48	THR	3.2
46	2o	86	GLY	3.2
35	2d	5	ILE	3.2
40	1i	94	ALA	3.2
23	11	2	SER	3.2
1	1A	2159	G	3.2
1	2A	2165	G	3.2
6	2G	43	LEU	3.2

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Mol	Chain	Res	Type	RSRZ
34	1c	90	GLU	3.2
35	2d	166	LYS	3.2
20	2Y	5	MET	3.2
1	1A	1095	A	3.2
32	1a	1001	A	3.2
21	2Z	191	VAL	3.2
34	1c	2	GLY	3.2
34	1c	55	VAL	3.2
35	1d	170	VAL	3.2
52	2u	2	GLY	3.2
53	2y	62	VAL	3.2
6	2G	145	THR	3.2
39	2h	3	THR	3.2
33	1b	120	ALA	3.1
45	1n	61	TRP	3.1
1	2A	1075	C	3.1
1	2A	2111	C	3.1
7	2H	21	PRO	3.1
25	23	60	GLU	3.1
33	2b	44	LEU	3.1
41	2j	62	HIS	3.1
1	1A	1059	G	3.1
1	2A	229	A	3.1
5	1F	208	GLY	3.1
50	2s	33	THR	3.1
1	2A	2150	U	3.1
52	2u	14	TRP	3.1
1	2A	34	C	3.1
8	2I	13	GLY	3.1
1	2A	2159	G	3.1
1	1A	2117	A	3.1
33	2b	199	TYR	3.1
36	2e	16	THR	3.1
53	1y	94	ALA	3.1
51	1t	73	HIS	3.1
33	2b	69	LEU	3.1
53	2y	7	SER	3.1
1	1A	2145	C	3.1
33	1b	165	VAL	3.1
53	2y	49	VAL	3.1
31	19	17	ILE	3.1
35	1d	138	TYR	3.1

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Mol	Chain	Res	Type	RSRZ
1	2A	2144	U	3.1
40	2i	18	PHE	3.1
51	1t	62	LEU	3.1
44	2m	24	GLY	3.1
26	14	32	TYR	3.0
44	2m	75	ALA	3.0
1	1A	1057	A	3.0
1	1A	1101	U	3.0
1	1A	2147	G	3.0
32	2a	1031	G	3.0
40	2i	99	LEU	3.0
41	1j	47	PHE	3.0
44	2m	19	LEU	3.0
40	1i	66	ARG	3.0
33	2b	72	GLY	3.0
14	2S	98	VAL	3.0
41	2j	82	ILE	3.0
44	2m	7	VAL	3.0
1	1A	1100	C	3.0
1	1A	2794	C	3.0
1	2A	1079	C	3.0
1	2A	2108	C	3.0
1	2A	2145	C	3.0
1	1A	1069	A	3.0
1	2A	2119	A	3.0
35	1d	29	PRO	3.0
34	2c	128	PHE	3.0
1	2A	2805	G	3.0
49	1r	42	ARG	3.0
51	2t	11	SER	3.0
29	27	48	LYS	3.0
8	1I	108	THR	3.0
41	2j	87	THR	3.0
1	1A	1082	U	3.0
41	2j	46	ARG	3.0
44	2m	102	ARG	3.0
13	2R	69	ASP	3.0
50	1s	74	PHE	3.0
1	2A	2106	G	3.0
32	2a	1033	G	3.0
44	2m	100	GLY	3.0
7	2H	45	VAL	3.0

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Mol	Chain	Res	Type	RSRZ
14	2S	49	VAL	3.0
45	2n	7	ILE	3.0
41	2j	77	PRO	3.0
52	2u	23	PRO	3.0
29	27	47	ARG	3.0
32	1a	1030	C	3.0
1	1A	1060	U	3.0
14	2S	60	GLY	3.0
33	2b	14	GLY	3.0
6	2G	101	ILE	2.9
38	1g	17	VAL	2.9
40	1i	14	VAL	2.9
50	1s	9	VAL	2.9
1	2A	1071	G	2.9
26	24	52	THR	2.9
15	1T	131	ALA	2.9
33	2b	29	ALA	2.9
34	2c	200	ALA	2.9
50	2s	2	PRO	2.9
42	2k	50	TYR	2.9
1	2A	2105	C	2.9
2	2B	1	U	2.9
32	2a	1286	A	2.9
52	1u	16	GLY	2.9
44	2m	78	ILE	2.9
53	2y	78	ILE	2.9
12	2Q	35	VAL	2.9
26	14	50	VAL	2.9
50	2s	9	VAL	2.9
8	2I	55	ALA	2.9
1	2A	1091	G	2.9
3	1D	275	LYS	2.9
15	1T	107	ASP	2.9
33	2b	122	PHE	2.9
18	1W	112	GLY	2.9
33	1b	38	GLY	2.9
41	2j	93	GLY	2.9
53	1y	70	MET	2.9
41	2j	23	ILE	2.9
40	2i	122	ALA	2.9
6	1G	82	LEU	2.9
1	1A	2793	G	2.9

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Mol	Chain	Res	Type	RSRZ
35	2d	152	SER	2.9
52	2u	4	GLY	2.9
33	2b	39	ILE	2.9
1	2A	2176	A	2.9
31	29	16	VAL	2.9
33	1b	130	ARG	2.9
47	1p	53	VAL	2.9
33	2b	190	THR	2.9
38	2g	7	ALA	2.9
38	2g	156	TRP	2.9
32	1a	1031	G	2.9
33	1b	236	TYR	2.9
45	2n	37	PHE	2.9
53	2y	9	GLN	2.9
7	2H	84	SER	2.8
14	2S	61	ASN	2.8
40	1i	126	SER	2.8
43	2l	118	SER	2.8
38	2g	50	ILE	2.8
1	1A	2172	U	2.8
48	1q	37	LYS	2.8
1	2A	645	C	2.8
26	24	27	THR	2.8
34	1c	177	THR	2.8
40	2i	49	PRO	2.8
20	2Y	78	ALA	2.8
33	1b	123	ALA	2.8
33	2b	237	ALA	2.8
38	2g	128	ALA	2.8
19	1X	95	LEU	2.8
34	2c	87	LEU	2.8
37	2f	45	LEU	2.8
38	1g	16	LEU	2.8
33	2b	57	PHE	2.8
53	1y	76	GLU	2.8
26	14	45	GLY	2.8
26	14	48	ARG	2.8
33	1b	228	GLY	2.8
52	1u	24	ARG	2.8
1	1A	1056	G	2.8
1	1A	1176	G	2.8
32	2a	1021	G	2.8

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Mol	Chain	Res	Type	RSRZ
38	1g	84	ASN	2.8
53	2y	42	SER	2.8
33	1b	229	VAL	2.8
39	1h	137	VAL	2.8
53	2y	60	VAL	2.8
1	1A	34	C	2.8
1	1A	888	C	2.8
1	2A	886	C	2.8
51	1t	12	ALA	2.8
47	1p	6	LEU	2.8
7	2H	41	MET	2.8
11	2P	109	GLY	2.8
50	1s	68	GLY	2.8
53	2y	65	GLY	2.8
35	1d	178	VAL	2.8
38	2g	61	VAL	2.8
1	1A	2157	G	2.8
1	2A	2157	G	2.8
1	2A	2160	G	2.8
1	2A	2122	U	2.8
8	1I	38	LEU	2.8
21	1Z	187	ALA	2.8
50	2s	63	THR	2.8
1	2A	2174	C	2.8
1	2A	2178	C	2.8
52	2u	5	ASP	2.8
40	2i	59	PHE	2.8
41	2j	10	GLY	2.8
6	2G	144	ILE	2.8
41	2j	38	ILE	2.8
43	1l	64	TYR	2.8
38	1g	9	VAL	2.8
40	1i	98	PRO	2.8
1	2A	1083	U	2.8
11	2P	89	ALA	2.8
33	1b	29	ALA	2.8
33	2b	123	ALA	2.8
34	1c	87	LEU	2.8
35	1d	155	LEU	2.8
41	2j	88	LEU	2.8
1	2A	2148	G	2.8
32	2a	1030(C)	G	2.8

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Mol	Chain	Res	Type	RSRZ
33	2b	86	GLU	2.8
51	1t	74	LYS	2.8
1	2A	1073	A	2.8
1	2A	2142	C	2.8
32	1a	1286	A	2.8
8	2I	14	ASP	2.8
26	14	51	ASP	2.8
20	2Y	80	GLY	2.7
38	2g	82	GLY	2.7
40	2i	101	PHE	2.8
33	2b	172	ILE	2.7
35	2d	4	TYR	2.7
53	2y	79	ASN	2.7
26	24	10	VAL	2.7
41	2j	49	VAL	2.7
15	2T	130	ALA	2.7
21	2Z	188	ALA	2.7
26	14	52	THR	2.7
53	2y	34	LEU	2.7
1	2A	2132	U	2.7
6	2G	51	ARG	2.7
1	2A	2892	A	2.7
20	2Y	58	GLY	2.7
33	2b	17	PHE	2.7
43	1l	63	GLY	2.7
47	1p	10	GLY	2.7
44	2m	22	ILE	2.7
6	2G	12	TYR	2.7
33	2b	71	VAL	2.7
34	2c	23	TYR	2.7
34	2c	207	VAL	2.7
42	2k	109	VAL	2.7
50	1s	4	SER	2.7
6	1G	133	LEU	2.7
7	2H	165	ALA	2.7
33	2b	132	LYS	2.7
41	2j	27	ALA	2.7
41	2j	100	THR	2.7
45	1n	3	ARG	2.7
1	1A	271(K)	U	2.7
1	1A	2144	U	2.7
1	1A	2156	G	2.7

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Mol	Chain	Res	Type	RSRZ
1	2A	2133	G	2.7
7	2H	82	GLY	2.7
1	1A	1509	C	2.7
41	2j	74	ILE	2.7
51	2t	100	ILE	2.7
41	2j	37	PRO	2.7
35	2d	105	VAL	2.7
41	2j	72	VAL	2.7
45	2n	18	VAL	2.7
50	1s	41	VAL	2.7
20	2Y	55	TYR	2.7
33	2b	236	TYR	2.7
34	1c	204	LEU	2.7
40	1i	102	LEU	2.7
53	2y	8	LYS	2.7
34	2c	71	ALA	2.7
26	24	57	GLU	2.7
42	1k	13	GLN	2.7
1	1A	1026	U	2.7
36	1e	97	GLY	2.7
44	2m	95	GLY	2.7
12	2Q	104	PHE	2.7
1	1A	887	A	2.7
1	1A	2162	G	2.7
1	2A	1089	G	2.7
1	2A	2123	G	2.7
32	1a	1023	G	2.7
1	1A	2896	C	2.7
1	2A	2175	C	2.7
6	2G	47	LYS	2.7
6	2G	53	LEU	2.7
33	1b	118	LEU	2.7
41	1j	86	MET	2.7
26	24	43	TYR	2.7
38	2g	116	ALA	2.7
41	2j	42	THR	2.7
47	1p	67	THR	2.7
50	2s	79	THR	2.7
53	2y	72	THR	2.7
41	2j	36	GLY	2.6
5	2F	14	PRO	2.6
33	1b	39	ILE	2.6

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Mol	Chain	Res	Type	RSRZ
33	2b	222	ILE	2.6
41	2j	91	PRO	2.6
47	1p	43	LYS	2.6
50	2s	76	PRO	2.6
40	1i	111	ARG	2.6
1	2A	1095	A	2.6
1	2A	2134	A	2.6
44	2m	106	ASN	2.6
33	2b	7	VAL	2.6
34	1c	99	VAL	2.6
38	2g	12	LEU	2.6
49	2r	86	VAL	2.6
50	2s	16	LEU	2.6
1	2A	1062	G	2.6
4	2E	73	GLU	2.6
32	1a	1024	G	2.6
35	1d	149	ALA	2.6
40	2i	5	TYR	2.6
44	2m	116	THR	2.6
14	2S	59	LYS	2.6
18	2W	112	GLY	2.6
44	1m	24	GLY	2.6
7	2H	136	ILE	2.6
8	2I	51	ILE	2.6
26	24	14	ILE	2.6
33	1b	122	PHE	2.6
33	1b	182	ILE	2.6
39	1h	101	PRO	2.6
41	1j	96	ILE	2.6
50	2s	66	MET	2.6
6	2G	3	LEU	2.6
33	1b	215	LEU	2.6
34	1c	34	LEU	2.6
34	2c	196	LEU	2.6
35	1d	19	LEU	2.6
41	1j	78	ASN	2.6
40	2i	2	GLU	2.6
1	2A	2117	A	2.6
38	2g	98	SER	2.6
33	2b	34	ALA	2.6
41	1j	27	ALA	2.6
52	1u	8	THR	2.6

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Mol	Chain	Res	Type	RSRZ
45	2n	21	TYR	2.6
6	2G	147	ASP	2.6
40	1i	21	PRO	2.6
41	1j	75	ILE	2.6
52	2u	10	ARG	2.6
22	20	7	LEU	2.6
36	2e	112	LEU	2.6
26	24	35	VAL	2.6
35	1d	133	VAL	2.6
41	1j	94	VAL	2.6
49	2r	60	ALA	2.6
1	1A	2134	A	2.6
1	1A	2135	A	2.6
53	1y	53	THR	2.6
32	1a	1027	C	2.6
44	2m	21	TYR	2.6
1	1A	2155	G	2.6
1	2A	2156	G	2.6
32	2a	1003	G	2.6
36	2e	22	GLY	2.6
40	1i	90	PRO	2.6
40	2i	67	GLY	2.6
44	2m	11	ARG	2.6
52	1u	4	GLY	2.6
53	1y	47	GLY	2.6
6	1G	140	ILE	2.6
33	1b	58	ILE	2.6
21	2Z	88	PHE	2.6
32	1a	1532	U	2.6
33	1b	126	GLU	2.6
35	1d	78	LEU	2.6
36	1e	82	VAL	2.6
40	2i	86	VAL	2.6
50	2s	41	VAL	2.6
34	2c	53	ALA	2.6
34	2c	60	ALA	2.6
37	2f	29	ALA	2.6
40	2i	52	ALA	2.6
42	2k	89	ALA	2.6
50	1s	14	HIS	2.6
51	2t	97	ALA	2.6
48	1q	87	LYS	2.6

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Mol	Chain	Res	Type	RSRZ
1	2A	529	A	2.6
40	2i	4	TYR	2.6
40	2i	92	TYR	2.6
40	2i	66	ARG	2.5
51	1t	80	ARG	2.5
33	1b	97	TRP	2.5
42	1k	42	TRP	2.5
7	2H	161	GLY	2.5
19	1X	67	GLY	2.5
20	2Y	77	PRO	2.5
33	2b	232	PRO	2.5
1	2A	2131	G	2.5
1	2A	2792	G	2.5
1	2A	2807	G	2.5
41	1j	98	ILE	2.5
33	1b	12	GLU	2.5
34	1c	128	PHE	2.5
1	2A	1090	U	2.5
12	2Q	2	LEU	2.5
22	20	84	LEU	2.5
40	1i	85	LEU	2.5
51	1t	10	LEU	2.5
53	2y	61	LEU	2.5
7	2H	19	VAL	2.5
18	2W	50	VAL	2.5
21	2Z	86	VAL	2.5
34	2c	130	VAL	2.5
34	2c	153	VAL	2.5
35	2d	8	VAL	2.5
4	1E	70	ALA	2.5
7	2H	156	ALA	2.5
26	14	69	LYS	2.5
33	2b	192	SER	2.5
38	1g	46	ALA	2.5
44	2m	109	THR	2.5
47	1p	22	THR	2.5
19	2X	65	ARG	2.5
40	1i	20	ARG	2.5
1	2A	1070	A	2.5
1	2A	1084	A	2.5
1	2A	1096	A	2.5
40	2i	114	TYR	2.5

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Mol	Chain	Res	Type	RSRZ
25	23	2	PRO	2.5
1	1A	2108	C	2.5
32	1a	1028	C	2.5
33	2b	38	GLY	2.5
1	2A	2893	G	2.5
11	2P	99	LEU	2.5
26	24	9	LEU	2.5
32	1a	1003	G	2.5
39	1h	2	LEU	2.5
40	1i	50	LEU	2.5
51	2t	13	LEU	2.5
32	1a	1020	U	2.5
20	2Y	42	VAL	2.5
40	1i	26	VAL	2.5
45	1n	25	VAL	2.5
53	2y	91	LYS	2.5
34	1c	129	ALA	2.5
33	2b	233	SER	2.5
34	2c	190	ARG	2.5
40	1i	51	ARG	2.5
11	2P	110	TYR	2.5
38	1g	154	TYR	2.5
46	2o	19	PRO	2.5
50	2s	80	TYR	2.5
1	2A	2169	A	2.5
1	2A	2170	A	2.5
53	2y	92	GLY	2.5
8	1I	70	GLU	2.5
33	2b	12	GLU	2.5
43	2l	16	GLU	2.5
47	2p	68	ASP	2.5
51	1t	55	ILE	2.5
33	2b	149	LEU	2.5
34	1c	47	LEU	2.5
34	2c	178	LEU	2.5
35	1d	188	LEU	2.5
40	2i	37	PHE	2.5
40	2i	96	LEU	2.5
53	2y	41	LEU	2.5
8	2I	19	VAL	2.5
33	2b	81	VAL	2.5
33	2b	93	VAL	2.5

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Mol	Chain	Res	Type	RSRZ
33	2b	184	VAL	2.5
33	2b	197	VAL	2.5
34	2c	3	ASN	2.5
38	2g	21	VAL	2.5
53	2y	33	HIS	2.5
1	1A	2894	G	2.5
1	2A	2104	G	2.5
1	2A	2181	G	2.5
32	1a	1036	G	2.5
32	2a	1001(A)	G	2.5
33	1b	34	ALA	2.5
40	2i	111	ARG	2.5
41	2j	32	ALA	2.5
34	2c	191	THR	2.5
40	1i	27	THR	2.5
53	1y	2	THR	2.5
40	2i	98	PRO	2.5
16	2U	43	GLY	2.5
6	2G	88	ILE	2.5
33	1b	200	ILE	2.5
32	2a	532	A	2.5
32	2a	1285	A	2.5
34	2c	175	LEU	2.5
38	2g	38	LEU	2.5
53	1y	41	LEU	2.5
34	1c	10	PHE	2.5
47	2p	80	PHE	2.5
53	2y	46	GLN	2.5
1	1A	2129	C	2.5
32	2a	1030	C	2.5
32	2a	1037	C	2.5
7	2H	44	VAL	2.5
21	2Z	27	VAL	2.5
34	1c	64	VAL	2.5
34	2c	66	VAL	2.5
1	1A	2109	U	2.5
1	2A	1065	U	2.5
14	2S	3	ARG	2.5
32	1a	1000	U	2.5
38	1g	4	ARG	2.5
40	1i	15	ALA	2.5
41	2j	26	ALA	2.5

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Mol	Chain	Res	Type	RSRZ
1	2A	2802	G	2.5
26	24	66	SER	2.5
32	2a	1026	G	2.5
44	1m	113	PRO	2.4
22	20	76	GLY	2.4
26	14	54	GLY	2.4
51	2t	102	GLY	2.4
33	1b	41	ILE	2.4
39	1h	100	ILE	2.4
44	2m	4	ILE	2.4
47	1p	68	ASP	2.4
50	1s	31	ILE	2.4
22	20	75	LEU	2.4
33	1b	121	LEU	2.4
38	1g	12	LEU	2.4
41	1j	65	LEU	2.4
44	2m	96	LEU	2.4
1	1A	2790	A	2.4
1	2A	1086	A	2.4
48	2q	93	GLN	2.4
6	2G	117	PHE	2.4
26	24	42	PHE	2.4
33	1b	28	PHE	2.4
38	1g	156	TRP	2.4
1	1A	2107	C	2.4
1	1A	2161	C	2.4
1	2A	2161	C	2.4
7	2H	43	VAL	2.4
32	1a	1029	C	2.4
1	2A	2167	U	2.4
8	2I	146	ALA	2.4
32	1a	1040	U	2.4
41	2j	92	THR	2.4
6	2G	76	SER	2.4
39	2h	29	SER	2.4
35	1d	37	PRO	2.4
1	2A	2121	G	2.4
35	1d	166	LYS	2.4
53	2y	80	LYS	2.4
8	2I	79	ILE	2.4
33	2b	208	ILE	2.4
45	1n	7	ILE	2.4

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Mol	Chain	Res	Type	RSRZ
50	2s	40	ILE	2.4
5	2F	181	LEU	2.4
38	2g	101	LEU	2.4
33	2b	55	PHE	2.4
35	2d	79	PHE	2.4
38	1g	5	ARG	2.4
40	1i	18	PHE	2.4
1	1A	2173	A	2.4
1	1A	2629	A	2.4
4	2E	72	VAL	2.4
33	2b	97	TRP	2.4
47	2p	48	TRP	2.4
40	2i	82	ALA	2.4
1	1A	1097	U	2.4
38	1g	54	THR	2.4
45	1n	13	THR	2.4
33	2b	131	PRO	2.4
41	1j	39	PRO	2.4
41	2j	83	GLU	2.4
51	1t	102	GLY	2.4
6	1G	77	ILE	2.4
1	1A	2131	G	2.4
6	2G	135	LEU	2.4
6	2G	152	LEU	2.4
35	1d	96	LEU	2.4
40	1i	3	GLN	2.4
50	2s	30	LEU	2.4
33	2b	53	ARG	2.4
41	2j	79	ARG	2.4
35	2d	54	TYR	2.4
47	1p	38	TYR	2.4
23	21	51	VAL	2.4
35	1d	8	VAL	2.4
32	1a	1492	A	2.4
21	2Z	17	ALA	2.4
34	2c	121	ALA	2.4
44	2m	18	ALA	2.4
47	1p	70	ALA	2.4
1	2A	1104	C	2.4
1	2A	2103	C	2.4
1	2A	2163	C	2.4
6	2G	112	PRO	2.4

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Mol	Chain	Res	Type	RSRZ
32	1a	470	C	2.4
35	1d	172	PRO	2.4
32	2a	1040	U	2.4
41	1j	59	SER	2.4
37	1f	52	ILE	2.4
42	1k	21	ILE	2.4
50	1s	40	ILE	2.4
53	2y	74	ILE	2.4
33	2b	98	LEU	2.4
40	2i	40	LEU	2.4
40	2i	83	ARG	2.4
40	2i	91	ASP	2.4
45	2n	39	LEU	2.4
45	2n	44	LEU	2.4
47	1p	29	ASP	2.4
47	1p	49	LEU	2.4
50	1s	16	LEU	2.4
51	2t	62	LEU	2.4
53	2y	38	HIS	2.4
1	1A	2133	G	2.4
1	1A	2153	G	2.4
1	1A	2802	G	2.4
6	2G	80	PHE	2.4
6	2G	15	VAL	2.4
6	2G	160	VAL	2.4
8	2I	37	VAL	2.4
22	20	23	VAL	2.4
37	2f	6	VAL	2.4
38	1g	80	VAL	2.4
38	2g	80	VAL	2.4
1	2A	1050	A	2.4
21	2Z	189	ALA	2.4
32	2a	1004	A	2.4
35	2d	48	ALA	2.4
40	1i	45	ALA	2.4
44	2m	5	ALA	2.4
45	2n	30	ALA	2.4
21	2Z	170	THR	2.3
51	1t	70	SER	2.3
1	1A	2897	U	2.3
1	1A	2136	C	2.3
1	2A	1072	C	2.3

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Mol	Chain	Res	Type	RSRZ
8	2I	16	GLY	2.3
8	2I	90	GLY	2.3
15	1T	37	GLY	2.3
35	1d	44	GLY	2.3
51	1t	101	GLY	2.3
8	2I	109	ILE	2.3
40	2i	9	ARG	2.3
11	1P	99	LEU	2.3
33	1b	11	LEU	2.3
40	1i	99	LEU	2.3
40	2i	73	GLN	2.3
40	2i	74	ILE	2.3
53	2y	51	ASP	2.3
19	2X	69	TYR	2.3
8	1I	3	VAL	2.3
9	2N	140	VAL	2.3
27	15	60	VAL	2.3
34	2c	68	VAL	2.3
34	2c	135	LYS	2.3
43	2l	47	LYS	2.3
44	2m	46	LYS	2.3
45	2n	58	LYS	2.3
1	2A	2127	G	2.3
1	2A	2182	G	2.3
32	2a	1353	G	2.3
21	2Z	7	ALA	2.3
38	1g	2	ALA	2.3
38	1g	25	ALA	2.3
53	1y	63	ALA	2.3
53	2y	52	ALA	2.3
50	1s	39	THR	2.3
1	2A	2171	A	2.3
32	1a	1447	A	2.3
11	1P	15	ARG	2.3
33	2b	124	SER	2.3
26	24	45	GLY	2.3
7	2H	71	LEU	2.3
33	1b	42	ILE	2.3
40	2i	3	GLN	2.3
51	1t	18	GLN	2.3
37	1f	61	LEU	2.3
1	1A	2174	C	2.3

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Mol	Chain	Res	Type	RSRZ
1	1A	2175	C	2.3
1	2A	888	C	2.3
6	2G	116	ASP	2.3
51	1t	64	ASP	2.3
35	2d	165	MET	2.3
40	2i	70	LYS	2.3
42	2k	125	PHE	2.3
53	2y	26	LYS	2.3
6	2G	28	VAL	2.3
9	2N	9	VAL	2.3
9	2N	62	VAL	2.3
35	1d	4	TYR	2.3
40	1i	108	VAL	2.3
53	2y	71	TYR	2.3
15	1T	38	ASN	2.3
35	2d	7	PRO	2.3
40	1i	43	ALA	2.3
41	1j	32	ALA	2.3
1	1A	2112	G	2.3
50	2s	77	THR	2.3
41	2j	45	ARG	2.3
45	2n	12	ARG	2.3
49	2r	87	ARG	2.3
6	2G	100	TRP	2.3
17	2V	42	GLY	2.3
33	2b	210	SER	2.3
33	2b	216	SER	2.3
34	2c	80	GLY	2.3
35	1d	173	TRP	2.3
41	2j	52	GLY	2.3
50	2s	68	GLY	2.3
14	2S	32	LEU	2.3
17	2V	99	ILE	2.3
26	24	31	ILE	2.3
33	2b	58	ILE	2.3
50	1s	15	LEU	2.3
4	2E	1	MET	2.3
6	2G	49	ASP	2.3
6	2G	150	ASP	2.3
33	2b	90	MET	2.3
33	2b	133	LYS	2.3
40	2i	112	LYS	2.3

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Mol	Chain	Res	Type	RSRZ
40	2i	127	LYS	2.3
41	2j	80	LYS	2.3
45	2n	11	LYS	2.3
41	2j	63	PHE	2.3
33	2b	174	VAL	2.3
44	2m	69	GLU	2.3
42	2k	75	TYR	2.3
48	1q	35	VAL	2.3
34	2c	149	ALA	2.3
40	1i	49	PRO	2.3
44	2m	113	PRO	2.3
51	1t	32	ALA	2.3
22	20	72	ARG	2.3
47	2p	45	THR	2.3
6	2G	127	GLY	2.3
34	2c	155	GLY	2.3
1	1A	545	G	2.3
1	1A	2123	G	2.3
1	2A	2120	G	2.3
1	2A	2894	G	2.3
7	2H	134	SER	2.3
1	1A	2126	A	2.3
1	2A	1088	A	2.3
6	2G	39	ILE	2.3
7	2H	103	LEU	2.3
20	2Y	44	ILE	2.3
32	1a	1026	G	2.3
32	1a	1033	G	2.3
32	2a	1139	G	2.3
33	2b	32	ILE	2.3
35	1d	157	LEU	2.3
38	2g	42	ILE	2.3
38	2g	59	LEU	2.3
49	1r	31	LEU	2.3
51	1t	99	LEU	2.3
5	2F	23	ASP	2.3
40	1i	113	LYS	2.3
40	1i	127	LYS	2.3
1	2A	2808	U	2.3
1	2A	2128	C	2.3
1	2A	2129	C	2.3
1	2A	2185	C	2.3

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Mol	Chain	Res	Type	RSRZ
6	1G	80	PHE	2.3
6	2G	48	GLU	2.3
8	2I	107	VAL	2.3
26	24	21	VAL	2.3
33	2b	230	VAL	2.3
34	1c	207	VAL	2.3
19	2X	32	PRO	2.3
33	1b	36	ARG	2.3
35	1d	3	ARG	2.3
34	2c	189	ALA	2.2
35	1d	195	ALA	2.2
39	2h	48	TYR	2.3
44	2m	87	TYR	2.3
52	2u	24	ARG	2.3
15	1T	130	ALA	2.2
26	24	12	ALA	2.2
51	1t	67	ALA	2.2
8	2I	108	THR	2.2
6	1G	134	GLY	2.2
20	2Y	10	GLY	2.2
26	14	46	GLN	2.2
6	2G	60	LEU	2.2
27	15	58	LEU	2.2
33	1b	223	ILE	2.2
33	2b	48	MET	2.2
33	2b	196	LEU	2.2
33	2b	223	ILE	2.2
33	2b	235	SER	2.2
34	1c	182	ILE	2.2
34	2c	77	ILE	2.2
35	1d	5	ILE	2.2
38	2g	16	LEU	2.2
39	1h	13	ILE	2.2
41	2j	22	LYS	2.2
44	2m	27	LYS	2.2
45	2n	60	SER	2.2
53	2y	85	LEU	2.2
1	1A	1096	A	2.2
1	2A	1067	A	2.2
32	2a	1001	A	2.2
1	2A	1533	G	2.2
32	2a	1013	G	2.2

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Mol	Chain	Res	Type	RSRZ
32	2a	1032	G	2.2
1	1A	2130	U	2.2
1	2A	1097	U	2.2
11	2P	98	GLU	2.2
33	1b	231	GLU	2.2
34	2c	90	GLU	2.2
53	2y	11	GLU	2.2
6	2G	87	PRO	2.2
19	1X	52	VAL	2.2
34	1c	73	PRO	2.2
34	2c	86	VAL	2.2
38	2g	9	VAL	2.2
39	1h	93	VAL	2.2
40	1i	128	ARG	2.2
43	2l	19	ARG	2.2
46	2o	75	PRO	2.2
51	1t	17	ARG	2.2
32	1a	1354	C	2.2
32	2a	1119	C	2.2
32	2a	1260	C	2.2
6	2G	110	ALA	2.2
8	2I	63	ALA	2.2
38	2g	83	ALA	2.2
38	2g	152	ALA	2.2
42	1k	60	ALA	2.2
8	1I	29	TYR	2.2
47	1p	17	TYR	2.2
8	1I	147	GLN	2.2
22	20	3	HIS	2.2
33	2b	40	HIS	2.2
34	1c	95	THR	2.2
15	1T	92	GLY	2.2
21	2Z	201	LYS	2.2
6	1G	43	LEU	2.2
6	2G	107	LEU	2.2
22	10	84	LEU	2.2
33	1b	187	LEU	2.2
33	2b	142	LEU	2.2
51	1t	84	LEU	2.2
8	1I	138	ILE	2.2
26	14	22	ILE	2.2
26	24	22	ILE	2.2

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Mol	Chain	Res	Type	RSRZ
35	1d	204	ILE	2.2
40	1i	63	ILE	2.2
50	2s	35	SER	2.2
53	2y	54	ILE	2.2
6	2G	29	TRP	2.2
6	1G	48	GLU	2.2
1	1A	2150	U	2.2
32	1a	1278	U	2.2
1	1A	1055	G	2.2
1	2A	1074	G	2.2
7	2H	170	ARG	2.2
32	1a	1034	G	2.2
34	1c	140	ARG	2.2
41	1j	60	ARG	2.2
33	2b	152	PHE	2.2
35	1d	79	PHE	2.2
53	1y	48	PHE	2.2
8	1I	19	VAL	2.2
8	2I	92	VAL	2.2
26	14	41	PRO	2.2
47	1p	51	VAL	2.2
1	1A	889	C	2.2
1	2A	2794	C	2.2
6	1G	46	ALA	2.2
8	1I	63	ALA	2.2
8	2I	36	ALA	2.2
33	1b	94	ASN	2.2
40	1i	13	ALA	2.2
40	1i	84	ALA	2.2
41	1j	69	ASN	2.2
33	1b	33	TYR	2.2
35	1d	62	GLN	2.2
44	2m	31	LYS	2.2
50	2s	14	HIS	2.2
5	1F	12	LEU	2.2
14	2S	58	LEU	2.2
35	1d	21	LEU	2.2
50	2s	15	LEU	2.2
51	1t	13	LEU	2.2
6	2G	52	ILE	2.2
33	2b	127	ILE	2.2
34	1c	77	ILE	2.2

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Mol	Chain	Res	Type	RSRZ
50	2s	31	ILE	2.2
1	1A	1046	A	2.2
1	2A	887	A	2.2
1	2A	2130	U	2.2
8	2I	111	PRO	2.2
45	2n	36	PHE	2.2
48	2q	47	PRO	2.2
8	1I	136	VAL	2.2
26	24	50	VAL	2.2
33	1b	230	VAL	2.2
33	2b	165	VAL	2.2
38	1g	21	VAL	2.2
44	1m	53	VAL	2.2
44	2m	54	VAL	2.2
1	1A	2792	G	2.2
1	2A	1087	G	2.2
32	1a	1021	G	2.2
32	2a	1002	G	2.2
32	2a	1283	G	2.2
7	2H	73	ALA	2.2
31	29	5	ALA	2.2
33	1b	77	ALA	2.2
33	2b	186	ALA	2.2
36	1e	92	LYS	2.2
40	1i	61	ALA	2.2
45	1n	5	ALA	2.2
50	2s	75	ALA	2.2
1	1A	2138	C	2.2
2	2B	88	C	2.2
3	2D	100	GLY	2.2
6	1G	53	LEU	2.2
6	2G	134	GLY	2.2
11	2P	82	GLY	2.2
20	2Y	103	GLY	2.2
32	2a	1027	C	2.2
32	2a	1038	C	2.2
33	1b	154	LEU	2.2
33	2b	92	TYR	2.2
34	1c	9	GLY	2.2
35	1d	124	GLY	2.2
36	2e	60	TYR	2.2
47	2p	39	TYR	2.2

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Mol	Chain	Res	Type	RSRZ
49	1r	79	LEU	2.2
50	2s	71	LEU	2.2
7	2H	121	ILE	2.2
8	2I	120	ILE	2.2
40	1i	71	SER	2.2
48	1q	99	SER	2.2
4	1E	163	GLU	2.2
20	2Y	107	ASP	2.2
40	1i	2	GLU	2.2
53	2y	82	GLU	2.2
15	1T	108	ARG	2.2
45	2n	3	ARG	2.2
45	2n	26	ARG	2.2
34	2c	22	TRP	2.2
36	1e	77	PRO	2.2
47	1p	59	TRP	2.2
47	2p	59	TRP	2.2
1	1A	1084	A	2.1
1	2A	1066	U	2.2
1	2A	2113	U	2.2
8	2I	15	VAL	2.1
8	2I	136	VAL	2.1
14	2S	46	VAL	2.1
26	24	33	VAL	2.1
33	2b	136	VAL	2.1
36	2e	90	VAL	2.1
20	2Y	16	ALA	2.1
40	2i	106	ALA	2.1
41	2j	18	ALA	2.1
1	1A	10	G	2.1
1	1A	2127	G	2.1
1	1A	2893	G	2.1
1	2A	271(M)	G	2.1
12	2Q	19	GLY	2.1
28	26	11	LEU	2.1
32	2a	630	G	2.1
32	2a	1258	G	2.1
33	1b	227	GLY	2.1
33	2b	67	THR	2.1
33	2b	180	LEU	2.1
35	1d	16	GLY	2.1
36	1e	112	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
41	1j	90	LEU	2.1
45	2n	22	THR	2.1
51	2t	69	GLY	2.1
53	2y	6	THR	2.1
6	2G	157	ILE	2.1
11	2P	80	TYR	2.1
33	1b	214	ILE	2.1
44	1m	21	TYR	2.1
44	2m	9	ILE	2.1
47	2p	33	ILE	2.1
1	1A	2140	C	2.1
1	2A	889	C	2.1
32	2a	1039	C	2.1
45	1n	24	CYS	2.1
3	2D	262	ARG	2.1
5	1F	17	ARG	2.1
15	1T	111	ARG	2.1
33	2b	166	ASP	2.1
34	1c	62	ASP	2.1
26	24	41	PRO	2.1
33	2b	234	PRO	2.1
41	2j	7	LYS	2.1
7	2H	35	VAL	2.1
28	26	42	TRP	2.1
33	1b	163	PHE	2.1
34	2c	186	PHE	2.1
35	1d	206	PHE	2.1
20	2Y	45	VAL	2.1
33	1b	15	VAL	2.1
34	2c	70	VAL	2.1
38	2g	66	VAL	2.1
50	2s	51	VAL	2.1
1	2A	2180	U	2.1
1	2A	2897	U	2.1
1	1A	548	A	2.1
1	1A	2158	A	2.1
1	1A	2801(A)	A	2.1
1	2A	1103	A	2.1
16	1U	117	GLN	2.1
35	1d	201	GLN	2.1
5	2F	22	ALA	2.1
33	2b	161	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
34	1c	160	ALA	2.1
35	2d	149	ALA	2.1
38	1g	128	ALA	2.1
41	2j	20	ALA	2.1
47	1p	7	ALA	2.1
15	1T	104	ASN	2.1
34	1c	101	LEU	2.1
34	2c	42	LEU	2.1
44	2m	90	LEU	2.1
45	2n	38	GLY	2.1
5	2F	82	ILE	2.1
33	1b	68	ILE	2.1
33	2b	42	ILE	2.1
33	2b	80	ILE	2.1
34	2c	5	ILE	2.1
40	2i	77	ILE	2.1
26	14	43	TYR	2.1
26	24	32	TYR	2.1
45	2n	29	ARG	2.1
51	1t	25	ARG	2.1
1	1A	271(M)	G	2.1
32	1a	184	G	2.1
32	1a	380	G	2.1
39	2h	135	CYS	2.1
1	1A	1914	C	2.1
1	1A	2143	C	2.1
3	2D	99	ASP	2.1
32	1a	1030(B)	C	2.1
32	2a	1028	C	2.1
3	1D	276	LYS	2.1
9	2N	104	LYS	2.1
14	2S	93	LYS	2.1
33	2b	75	LYS	2.1
38	2g	29	LYS	2.1
6	1G	2	PRO	2.1
33	1b	125	PRO	2.1
33	1b	17	PHE	2.1
33	2b	70	PHE	2.1
40	2i	58	HIS	2.1
41	1j	62	HIS	2.1
47	1p	80	PHE	2.1
50	2s	10	PHE	2.1

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Mol	Chain	Res	Type	RSRZ
34	2c	138	VAL	2.1
40	2i	26	VAL	2.1
41	1j	24	VAL	2.1
41	1j	72	VAL	2.1
44	2m	45	VAL	2.1
1	1A	1175	U	2.1
1	1A	2167	U	2.1
6	2G	151	ALA	2.1
7	2H	102	ALA	2.1
16	2U	96	ALA	2.1
21	2Z	187	ALA	2.1
21	2Z	192	ALA	2.1
32	2a	1235	U	2.1
36	2e	21	ALA	2.1
1	2A	2158	A	2.1
4	2E	10	GLY	2.1
7	2H	7	LEU	2.1
8	1I	140	LEU	2.1
8	2I	123	LEU	2.1
34	1c	32	LEU	2.1
35	2d	69	GLY	2.1
43	1l	60	LEU	2.1
44	2m	81	LEU	2.1
47	2p	49	LEU	2.1
26	24	44	THR	2.1
44	1m	49	THR	2.1
48	2q	20	THR	2.1
11	2P	15	ARG	2.1
35	2d	47	ARG	2.1
44	1m	102	ARG	2.1
8	2I	97	ILE	2.1
16	2U	88	ILE	2.1
33	2b	50	GLU	2.1
34	2c	157	ILE	2.1
47	1p	4	ILE	2.1
48	1q	86	GLU	2.1
12	2Q	137	TYR	2.1
14	2S	36	TYR	2.1
34	2c	201	TYR	2.1
39	2h	4	ASP	2.1
40	2i	11	LYS	2.1
41	2j	55	LYS	2.1

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Mol	Chain	Res	Type	RSRZ
44	2m	65	LYS	2.1
45	2n	43	CYS	2.1
1	2A	1063	G	2.1
1	2A	1537	G	2.1
1	2A	2186	G	2.1
32	2a	973	G	2.1
32	2a	1029	C	2.1
32	2a	1116	C	2.1
33	1b	26	PRO	2.1
50	1s	76	PRO	2.1
47	1p	16	HIS	2.1
8	2I	17	GLN	2.1
5	2F	132	VAL	2.1
6	2G	23	PHE	2.1
11	2P	125	VAL	2.1
14	2S	29	PHE	2.1
41	1j	33	GLN	2.1
41	2j	33	GLN	2.1
21	2Z	74	VAL	2.1
24	22	63	VAL	2.1
34	2c	106	VAL	2.1
35	1d	140	VAL	2.1
49	2r	37	VAL	2.1
34	1c	180	ALA	2.1
44	2m	42	ALA	2.1
1	1A	2118	U	2.1
8	2I	114	LEU	2.1
14	2S	45	GLY	2.1
15	2T	111	ARG	2.1
19	2X	92	LEU	2.1
33	1b	44	LEU	2.1
33	1b	196	LEU	2.1
34	2c	188	LEU	2.1
35	1d	194	LEU	2.1
41	2j	69	ASN	2.1
46	1o	31	LEU	2.1
51	1t	24	LEU	2.1
51	1t	83	ARG	2.1
51	2t	24	LEU	2.1
53	2y	55	ASN	2.1
38	2g	19	GLY	2.1
39	2h	84	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
40	2i	100	GLY	2.1
44	1m	100	GLY	2.1
52	2u	6	ARG	2.1
4	2E	163	GLU	2.1
34	1c	192	THR	2.1
34	1c	206	GLU	2.1
34	2c	192	THR	2.1
1	1A	890	A	2.1
6	1G	52	ILE	2.1
7	2H	92	ILE	2.1
32	2a	1005	A	2.1
34	2c	124	ILE	2.1
41	2j	50	ILE	2.1
46	2o	87	ILE	2.1
47	1p	36	ILE	2.1
53	2y	5	ILE	2.1
55	1x	73	A	2.1
3	2D	275	LYS	2.1
33	1b	22	LYS	2.1
6	1G	146	TYR	2.1
8	1I	89	TYR	2.1
8	1I	130	TYR	2.1
22	20	78	TYR	2.1
40	1i	62	TYR	2.1
41	2j	12	ASP	2.1
6	2G	78	SER	2.1
6	2G	122	PRO	2.1
20	2Y	66	PRO	2.1
38	2g	89	MET	2.1
1	1A	2116	G	2.0
1	1A	2142	C	2.1
1	2A	2115	G	2.0
1	2A	2166	G	2.0
1	2A	2896	C	2.1
32	1a	70	G	2.0
20	2Y	89	PHE	2.0
22	20	45	PHE	2.0
25	23	59	VAL	2.0
34	2c	99	VAL	2.0
40	1i	17	VAL	2.0
40	2i	17	VAL	2.0
40	2i	44	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
40	2i	53	VAL	2.0
41	1j	63	PHE	2.0
48	1q	56	VAL	2.0
21	2Z	20	ARG	2.0
29	27	45	ALA	2.0
33	2b	225	ALA	2.0
34	1c	38	ARG	2.0
34	2c	163	ALA	2.0
36	1e	48	ALA	2.0
39	1h	110	ALA	2.0
39	2h	122	ARG	2.0
40	2i	15	ALA	2.0
40	2i	43	ALA	2.0
41	1j	18	ALA	2.0
45	2n	35	ARG	2.0
4	2E	195	LEU	2.0
40	1i	56	LEU	2.0
40	2i	56	LEU	2.0
41	2j	8	LEU	2.0
44	2m	70	LEU	2.0
45	2n	53	LEU	2.0
48	2q	43	LEU	2.0
49	2r	85	LEU	2.0
7	2H	93	GLY	2.0
7	2H	174	GLY	2.0
34	2c	167	TRP	2.0
40	2i	30	GLY	2.0
41	1j	31	GLY	2.0
41	2j	64	GLU	2.0
36	2e	13	ILE	2.0
40	2i	63	ILE	2.0
51	1t	81	LYS	2.0
1	1A	1045	A	2.0
1	2A	1045	A	2.0
32	2a	1357	A	2.0
7	2H	94	TYR	2.0
34	2c	184	TYR	2.0
34	2c	193	TYR	2.0
35	2d	39	PRO	2.0
37	1f	63	TYR	2.0
38	2g	154	TYR	2.0
40	2i	88	TYR	2.0

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Mol	Chain	Res	Type	RSRZ
46	1o	69	TYR	2.0
5	1F	15	SER	2.0
39	1h	87	SER	2.0
47	2p	82	GLN	2.0
1	1A	1532	C	2.0
1	2A	885	C	2.0
5	2F	129	PHE	2.0
10	2O	52	VAL	2.0
20	2Y	3	VAL	2.0
23	21	70	VAL	2.0
26	14	42	PHE	2.0
32	1a	1019	C	2.0
32	2a	1128	C	2.0
33	2b	36	ARG	2.0
35	1d	153	ARG	2.0
35	2d	112	VAL	2.0
36	2e	28	PHE	2.0
40	1i	37	PHE	2.0
40	1i	83	ARG	2.0
40	1i	104	ARG	2.0
44	2m	15	VAL	2.0
49	1r	39	VAL	2.0
50	2s	11	VAL	2.0
1	2A	2151	G	2.0
1	2A	2187	G	2.0
8	2I	46	ALA	2.0
8	2I	75	LEU	2.0
8	2I	98	ALA	2.0
8	2I	115	ALA	2.0
9	2N	26	LEU	2.0
14	1S	37	ALA	2.0
14	2S	66	ALA	2.0
32	1a	1001(A)	G	2.0
32	1a	1030(C)	G	2.0
32	1a	1032	G	2.0
33	2b	187	LEU	2.0
34	1c	196	LEU	2.0
34	2c	129	ALA	2.0
35	1d	164	ALA	2.0
38	2g	22	LEU	2.0
40	2i	19	LEU	2.0
42	1k	89	ALA	2.0

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Mol	Chain	Res	Type	RSRZ
43	2l	84	LEU	2.0
44	1m	90	LEU	2.0
17	1V	101	GLY	2.0
17	2V	30	GLY	2.0
20	2Y	33	LYS	2.0
41	2j	78	ASN	2.0
43	1l	126	LYS	2.0
44	1m	112	GLY	2.0
44	2m	6	GLY	2.0
45	1n	17	LYS	2.0
52	2u	12	LYS	2.0
53	1y	93	GLU	2.0
45	1n	38	GLY	2.0
47	1p	63	GLY	2.0
8	2I	71	ILE	2.0
20	2Y	83	THR	2.0
21	2Z	124	ILE	2.0
26	24	24	THR	2.0
36	1e	118	ILE	2.0
40	2i	7	THR	2.0
41	1j	87	THR	2.0
51	1t	63	ILE	2.0
51	2t	35	THR	2.0
53	2y	32	THR	2.0
1	1A	2113	U	2.0
32	2a	1020	U	2.0
32	2a	1532	U	2.0
6	2G	126	ASP	2.0
32	2a	1256	A	2.0
32	2a	1289	A	2.0
41	2j	39	PRO	2.0
47	1p	1	MET	2.0
50	2s	12	ASP	2.0
53	1y	37	PRO	2.0
35	1d	207	TYR	2.0
42	2k	25	TYR	2.0
44	1m	59	TYR	2.0
45	1n	32	SER	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
1	5MU	2A	1915	21/22	0.80	0.14	69,74,81,90	0
1	5MU	1A	1915	21/22	0.87	0.13	66,72,75,80	0
32	M2G	2a	966	25/26	0.87	0.17	55,68,78,84	0
32	2MG	2a	1207	24/25	0.87	0.13	70,78,81,86	0
43	0TD	2l	92	10/11	0.88	0.14	59,63,66,74	0
1	PSU	2A	1911	20/21	0.89	0.11	61,67,79,80	0
32	PSU	2a	516	20/21	0.90	0.11	66,71,77,78	0
1	PSU	1A	1917	20/21	0.90	0.12	58,67,76,76	0
32	2MG	1a	1207	24/25	0.90	0.12	61,67,72,75	0
1	PSU	2A	1917	20/21	0.90	0.11	59,73,81,83	0
1	PSU	1A	1911	20/21	0.92	0.10	52,63,68,72	0
1	OMC	2A	1920	21/22	0.92	0.11	57,62,65,66	0
43	0TD	1l	92	10/11	0.92	0.12	51,58,60,75	0
32	5MC	2a	967	21/22	0.93	0.13	60,67,70,78	0
32	G7M	1a	527	24/25	0.94	0.11	43,55,59,61	0
32	4OC	2a	1402	22/23	0.94	0.12	57,63,65,66	0
32	5MC	2a	1407	21/22	0.94	0.12	52,57,62,63	0
32	MA6	2a	1518	24/25	0.94	0.12	56,60,64,67	0
32	G7M	2a	527	24/25	0.94	0.10	52,63,66,68	0
32	5MC	1a	967	21/22	0.95	0.12	59,66,70,74	0
32	PSU	1a	516	20/21	0.95	0.09	55,60,66,67	0
32	5MC	1a	1400	21/22	0.95	0.11	51,57,63,66	0
32	5MC	2a	1400	21/22	0.95	0.12	56,63,67,67	0
32	UR3	1a	1498	21/22	0.95	0.10	40,53,56,66	0
32	5MC	2a	1404	21/22	0.95	0.09	54,58,61,62	0
1	5MC	2A	1942	21/22	0.95	0.10	47,54,57,58	0
32	UR3	2a	1498	21/22	0.95	0.12	52,62,65,67	0
32	MA6	1a	1519	24/25	0.95	0.11	44,48,53,53	0
32	MA6	2a	1519	24/25	0.95	0.12	46,58,62,63	0
1	OMC	1A	1920	21/22	0.95	0.11	44,56,61,62	0
32	4OC	1a	1402	22/23	0.96	0.10	46,54,57,66	0
32	5MC	1a	1404	21/22	0.96	0.11	47,54,59,66	0
32	5MC	1a	1407	21/22	0.96	0.10	43,52,57,61	0
32	M2G	1a	966	25/26	0.96	0.10	57,63,68,71	0
32	MA6	1a	1518	24/25	0.96	0.10	45,48,51,57	0
55	8AN	2x	76	22/23	0.96	0.10	34,41,51,60	0
1	OMG	2A	2251	24/25	0.97	0.10	33,38,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
1	2MA	2A	2503	23/24	0.97	0.09	22,36,41,43	0
1	OMU	2A	2552	21/22	0.97	0.08	33,40,43,53	0
1	PSU	2A	2605	20/21	0.97	0.09	33,38,45,48	0
1	5MC	1A	1942	21/22	0.97	0.08	28,40,44,46	0
1	5MC	1A	1962	21/22	0.97	0.08	30,41,45,47	0
1	5MU	2A	1939	21/22	0.97	0.08	34,43,48,49	0
1	PSU	1A	2605	20/21	0.97	0.07	18,28,32,34	0
54	PPU	2w	76	37/38	0.97	0.09	29,38,43,44	0
55	8AN	1x	76	22/23	0.97	0.08	18,24,29,40	0
1	5MC	2A	1962	21/22	0.97	0.09	35,46,49,52	0
1	OMG	1A	2251	24/25	0.98	0.06	18,25,29,35	0
54	PPU	1w	76	37/38	0.98	0.08	15,24,31,33	0
1	2MA	1A	2503	23/24	0.98	0.07	17,22,25,26	0
1	OMU	1A	2552	21/22	0.98	0.06	25,28,30,31	0
1	5MU	1A	1939	21/22	0.98	0.07	25,30,38,43	0

6.3 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.4 Ligands (i)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3726	1/1	0.58	0.21	65,65,65,65	0
57	MG	1a	1792	1/1	0.59	0.21	78,78,78,78	0
57	MG	1A	3703	1/1	0.65	0.17	64,64,64,64	0
57	MG	2A	3383	1/1	0.66	0.20	78,78,78,78	0
57	MG	2A	3437	1/1	0.66	0.19	72,72,72,72	0
57	MG	1A	3997	1/1	0.66	0.17	62,62,62,62	0
57	MG	1A	3435	1/1	0.67	0.19	80,80,80,80	0
57	MG	1A	3533	1/1	0.70	0.20	64,64,64,64	0
57	MG	1a	1738	1/1	0.70	0.20	86,86,86,86	0
57	MG	2B	201	1/1	0.71	0.20	68,68,68,68	0
57	MG	1A	3440	1/1	0.72	0.17	43,43,43,43	0
57	MG	1a	1675	1/1	0.73	0.28	68,68,68,68	0
57	MG	1a	1722	1/1	0.73	0.21	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3960	1/1	0.73	0.15	81,81,81,81	0
57	MG	1A	3902	1/1	0.73	0.19	41,41,41,41	0
57	MG	2A	3364	1/1	0.74	0.15	57,57,57,57	0
57	MG	1A	3448	1/1	0.74	0.13	29,29,29,29	0
57	MG	1E	304	1/1	0.74	0.10	34,34,34,34	0
57	MG	1A	3714	1/1	0.74	0.20	49,49,49,49	0
57	MG	2A	3223	1/1	0.74	0.26	69,69,69,69	0
57	MG	2A	3536	1/1	0.76	0.27	71,71,71,71	0
57	MG	1A	3812	1/1	0.77	0.15	55,55,55,55	0
57	MG	2A	3484	1/1	0.77	0.21	55,55,55,55	0
57	MG	2A	3323	1/1	0.77	0.16	70,70,70,70	0
57	MG	1a	1751	1/1	0.77	0.15	72,72,72,72	0
57	MG	2A	3731	1/1	0.77	0.21	59,59,59,59	0
57	MG	1A	3900	1/1	0.77	0.14	58,58,58,58	0
58	MPD	2B	221	8/8	0.77	0.27	52,63,69,73	0
57	MG	2A	3246	1/1	0.78	0.28	68,68,68,68	0
57	MG	2A	3582	1/1	0.78	0.15	64,64,64,64	0
57	MG	2a	3062	1/1	0.78	0.22	66,66,66,66	0
57	MG	1A	3803	1/1	0.78	0.23	53,53,53,53	0
62	MRD	2A	3738	8/8	0.78	0.29	46,55,58,59	0
57	MG	1R	202	1/1	0.79	0.21	48,48,48,48	0
57	MG	1a	1664	1/1	0.79	0.24	72,72,72,72	0
57	MG	2A	3489	1/1	0.79	0.14	48,48,48,48	0
57	MG	2A	3173	1/1	0.79	0.20	60,60,60,60	0
57	MG	2A	3199	1/1	0.79	0.20	64,64,64,64	0
57	MG	1A	3617	1/1	0.79	0.11	42,42,42,42	0
57	MG	1a	1682	1/1	0.79	0.22	66,66,66,66	0
57	MG	1a	1706	1/1	0.79	0.15	64,64,64,64	0
57	MG	1A	3463	1/1	0.79	0.16	70,70,70,70	0
57	MG	1P	204	1/1	0.79	0.13	73,73,73,73	0
57	MG	2A	3431	1/1	0.79	0.16	77,77,77,77	0
57	MG	1a	1808	1/1	0.80	0.16	70,70,70,70	0
57	MG	1a	1671	1/1	0.80	0.20	68,68,68,68	0
57	MG	2A	3423	1/1	0.80	0.19	67,67,67,67	0
57	MG	1a	1729	1/1	0.80	0.18	69,69,69,69	0
57	MG	2A	3735	1/1	0.80	0.23	69,69,69,69	0
57	MG	1A	3779	1/1	0.80	0.13	41,41,41,41	0
57	MG	1a	1636	1/1	0.80	0.34	71,71,71,71	0
57	MG	2a	3091	1/1	0.80	0.27	70,70,70,70	0
57	MG	1A	4024	1/1	0.80	0.13	60,60,60,60	0
57	MG	2A	3529	1/1	0.80	0.20	67,67,67,67	0
57	MG	2A	3623	1/1	0.81	0.14	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3627	1/1	0.81	0.22	30,30,30,30	0
57	MG	1A	3535	1/1	0.81	0.12	53,53,53,53	0
57	MG	2A	3733	1/1	0.81	0.15	65,65,65,65	0
57	MG	2A	3165	1/1	0.81	0.12	48,48,48,48	0
57	MG	2A	3526	1/1	0.81	0.28	55,55,55,55	0
57	MG	1B	230	1/1	0.81	0.11	56,56,56,56	0
57	MG	1a	1748	1/1	0.81	0.15	63,63,63,63	0
57	MG	2a	3156	1/1	0.81	0.17	77,77,77,77	0
57	MG	2a	3185	1/1	0.81	0.15	70,70,70,70	0
57	MG	1A	3852	1/1	0.81	0.12	54,54,54,54	0
57	MG	2A	3590	1/1	0.81	0.14	45,45,45,45	0
57	MG	1A	3995	1/1	0.82	0.12	66,66,66,66	0
57	MG	2A	3402	1/1	0.82	0.15	48,48,48,48	0
57	MG	1A	3097	1/1	0.82	0.19	61,61,61,61	0
57	MG	1a	1762	1/1	0.82	0.18	75,75,75,75	0
57	MG	1a	1779	1/1	0.82	0.13	65,65,65,65	0
57	MG	2A	3460	1/1	0.82	0.19	44,44,44,44	0
57	MG	2A	3464	1/1	0.82	0.11	65,65,65,65	0
57	MG	2A	3472	1/1	0.82	0.18	61,61,61,61	0
57	MG	2a	3010	1/1	0.82	0.14	70,70,70,70	0
57	MG	1A	3729	1/1	0.82	0.12	39,39,39,39	0
57	MG	2A	3247	1/1	0.82	0.27	77,77,77,77	0
57	MG	2A	3496	1/1	0.82	0.14	66,66,66,66	0
57	MG	2A	3320	1/1	0.82	0.21	68,68,68,68	0
57	MG	1A	3705	1/1	0.82	0.18	61,61,61,61	0
59	ARG	1F	317	12/12	0.82	0.19	42,62,67,68	0
57	MG	1a	1837	1/1	0.82	0.16	63,63,63,63	0
57	MG	2A	3146	1/1	0.83	0.20	60,60,60,60	0
57	MG	1A	4014	1/1	0.83	0.12	57,57,57,57	0
57	MG	1A	3630	1/1	0.83	0.20	58,58,58,58	0
57	MG	2A	3513	1/1	0.83	0.12	60,60,60,60	0
57	MG	1A	3768	1/1	0.83	0.23	57,57,57,57	0
57	MG	1A	3496	1/1	0.83	0.10	27,27,27,27	0
57	MG	1A	3969	1/1	0.83	0.12	63,63,63,63	0
57	MG	1A	3987	1/1	0.83	0.13	45,45,45,45	0
57	MG	1R	204	1/1	0.83	0.23	52,52,52,52	0
57	MG	1a	1609	1/1	0.83	0.17	68,68,68,68	0
57	MG	2A	3681	1/1	0.83	0.12	64,64,64,64	0
57	MG	2A	3694	1/1	0.83	0.21	59,59,59,59	0
57	MG	1A	3870	1/1	0.83	0.08	19,19,19,19	0
57	MG	1a	1776	1/1	0.83	0.12	66,66,66,66	0
57	MG	2A	3394	1/1	0.83	0.15	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1a	1777	1/1	0.83	0.14	69,69,69,69	0
57	MG	1a	1638	1/1	0.83	0.24	71,71,71,71	0
57	MG	1a	1663	1/1	0.83	0.17	70,70,70,70	0
57	MG	2A	3433	1/1	0.83	0.20	57,57,57,57	0
57	MG	1A	3885	1/1	0.83	0.11	72,72,72,72	0
57	MG	2a	3125	1/1	0.83	0.16	68,68,68,68	0
57	MG	2a	3135	1/1	0.83	0.19	61,61,61,61	0
57	MG	2a	3148	1/1	0.83	0.14	51,51,51,51	0
57	MG	2A	3447	1/1	0.83	0.14	55,55,55,55	0
57	MG	2a	3170	1/1	0.83	0.12	76,76,76,76	0
57	MG	2a	3175	1/1	0.83	0.14	68,68,68,68	0
57	MG	2A	3454	1/1	0.83	0.13	60,60,60,60	0
57	MG	1A	4000	1/1	0.83	0.27	51,51,51,51	0
57	MG	1a	1860	1/1	0.83	0.11	55,55,55,55	0
57	MG	1h	202	1/1	0.83	0.17	67,67,67,67	0
57	MG	1a	1667	1/1	0.84	0.28	74,74,74,74	0
57	MG	2A	3044	1/1	0.84	0.28	66,66,66,66	0
57	MG	2A	3132	1/1	0.84	0.20	70,70,70,70	0
57	MG	1a	1758	1/1	0.84	0.14	66,66,66,66	0
57	MG	1A	3849	1/1	0.84	0.12	50,50,50,50	0
57	MG	1A	3890	1/1	0.84	0.20	54,54,54,54	0
57	MG	2A	3178	1/1	0.84	0.15	53,53,53,53	0
57	MG	1A	3246	1/1	0.84	0.21	64,64,64,64	0
57	MG	2B	207	1/1	0.84	0.17	68,68,68,68	0
57	MG	1B	202	1/1	0.84	0.16	63,63,63,63	0
57	MG	2a	3060	1/1	0.84	0.24	64,64,64,64	0
57	MG	1B	225	1/1	0.84	0.18	60,60,60,60	0
57	MG	2a	3068	1/1	0.84	0.21	65,65,65,65	0
57	MG	1A	3292	1/1	0.84	0.17	74,74,74,74	0
57	MG	1D	313	1/1	0.84	0.14	48,48,48,48	0
57	MG	1a	1845	1/1	0.84	0.21	73,73,73,73	0
57	MG	2A	3522	1/1	0.84	0.22	56,56,56,56	0
57	MG	2A	3357	1/1	0.84	0.17	64,64,64,64	0
57	MG	2a	3166	1/1	0.84	0.15	60,60,60,60	0
57	MG	1a	1851	1/1	0.84	0.13	62,62,62,62	0
57	MG	2A	3532	1/1	0.84	0.11	66,66,66,66	0
57	MG	2a	3177	1/1	0.84	0.22	72,72,72,72	0
57	MG	1a	1856	1/1	0.84	0.15	64,64,64,64	0
57	MG	1A	3951	1/1	0.84	0.09	51,51,51,51	0
57	MG	1f	202	1/1	0.84	0.12	52,52,52,52	0
57	MG	2A	3592	1/1	0.84	0.15	50,50,50,50	0
57	MG	1Z	301	1/1	0.85	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
57	MG	2A	3665	1/1	0.85	0.11	66,66,66,66	0
57	MG	2A	3422	1/1	0.85	0.13	50,50,50,50	0
57	MG	1A	3896	1/1	0.85	0.09	28,28,28,28	0
57	MG	2A	3703	1/1	0.85	0.15	56,56,56,56	0
57	MG	2A	3705	1/1	0.85	0.13	53,53,53,53	0
57	MG	1A	4003	1/1	0.85	0.14	54,54,54,54	0
57	MG	1A	3394	1/1	0.85	0.12	43,43,43,43	0
57	MG	1a	1774	1/1	0.85	0.14	67,67,67,67	0
57	MG	1A	3824	1/1	0.85	0.12	71,71,71,71	0
57	MG	1A	3198	1/1	0.85	0.18	63,63,63,63	0
57	MG	1A	3753	1/1	0.85	0.15	44,44,44,44	0
57	MG	2B	218	1/1	0.85	0.13	61,61,61,61	0
57	MG	2G	3302	1/1	0.85	0.16	70,70,70,70	0
57	MG	2A	3193	1/1	0.85	0.15	60,60,60,60	0
57	MG	2a	3021	1/1	0.85	0.15	70,70,70,70	0
57	MG	2a	3025	1/1	0.85	0.16	64,64,64,64	0
57	MG	1A	3967	1/1	0.85	0.12	59,59,59,59	0
57	MG	2A	3480	1/1	0.85	0.17	69,69,69,69	0
57	MG	1a	1803	1/1	0.85	0.16	67,67,67,67	0
57	MG	1A	3863	1/1	0.85	0.12	56,56,56,56	0
57	MG	1a	1809	1/1	0.85	0.14	70,70,70,70	0
57	MG	2A	3511	1/1	0.85	0.10	67,67,67,67	0
57	MG	2A	3282	1/1	0.85	0.16	66,66,66,66	0
57	MG	1A	3687	1/1	0.85	0.17	61,61,61,61	0
57	MG	1P	203	1/1	0.85	0.17	36,36,36,36	0
57	MG	1A	3993	1/1	0.85	0.09	29,29,29,29	0
57	MG	2A	3363	1/1	0.85	0.19	69,69,69,69	0
57	MG	1A	3612	1/1	0.85	0.11	40,40,40,40	0
57	MG	2a	3179	1/1	0.85	0.13	65,65,65,65	0
57	MG	2A	3372	1/1	0.85	0.17	61,61,61,61	0
57	MG	2e	201	1/1	0.85	0.30	70,70,70,70	0
57	MG	2A	3583	1/1	0.85	0.12	50,50,50,50	0
57	MG	1A	3355	1/1	0.85	0.14	57,57,57,57	0
57	MG	1a	1874	1/1	0.85	0.19	74,74,74,74	0
57	MG	2A	3441	1/1	0.86	0.13	58,58,58,58	0
57	MG	2A	3171	1/1	0.86	0.12	65,65,65,65	0
57	MG	1A	3637	1/1	0.86	0.10	38,38,38,38	0
57	MG	1A	3311	1/1	0.86	0.27	67,67,67,67	0
57	MG	1a	1789	1/1	0.86	0.16	75,75,75,75	0
57	MG	1G	202	1/1	0.86	0.12	55,55,55,55	0
57	MG	1A	3593	1/1	0.86	0.18	40,40,40,40	0
57	MG	1a	1805	1/1	0.86	0.17	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1a	1696	1/1	0.86	0.19	70,70,70,70	0
57	MG	1a	1703	1/1	0.86	0.11	64,64,64,64	0
57	MG	2A	3318	1/1	0.86	0.26	68,68,68,68	0
57	MG	1a	1704	1/1	0.86	0.16	57,57,57,57	0
57	MG	1A	3454	1/1	0.86	0.18	62,62,62,62	0
57	MG	1a	1707	1/1	0.86	0.24	61,61,61,61	0
57	MG	2a	3066	1/1	0.86	0.13	74,74,74,74	0
57	MG	1A	3710	1/1	0.86	0.11	72,72,72,72	0
57	MG	1A	4007	1/1	0.86	0.12	73,73,73,73	0
57	MG	2A	3533	1/1	0.86	0.26	66,66,66,66	0
57	MG	1A	4011	1/1	0.86	0.23	53,53,53,53	0
57	MG	2a	3141	1/1	0.86	0.10	61,61,61,61	0
57	MG	2A	3558	1/1	0.86	0.12	62,62,62,62	0
57	MG	2A	3569	1/1	0.86	0.15	44,44,44,44	0
57	MG	1A	3841	1/1	0.86	0.18	34,34,34,34	0
57	MG	1a	1626	1/1	0.86	0.13	74,74,74,74	0
57	MG	2A	3399	1/1	0.86	0.13	58,58,58,58	0
57	MG	1A	3422	1/1	0.86	0.10	53,53,53,53	0
57	MG	2A	3093	1/1	0.86	0.25	67,67,67,67	0
57	MG	2A	3643	1/1	0.86	0.09	74,74,74,74	0
57	MG	2A	3107	1/1	0.86	0.20	56,56,56,56	0
57	MG	1A	3034	1/1	0.86	0.27	56,56,56,56	0
57	MG	1A	3361	1/1	0.86	0.20	50,50,50,50	0
57	MG	1A	3767	1/1	0.86	0.09	29,29,29,29	0
57	MG	2A	3331	1/1	0.87	0.18	57,57,57,57	0
57	MG	1A	3493	1/1	0.87	0.12	23,23,23,23	0
57	MG	1A	3078	1/1	0.87	0.13	56,56,56,56	0
57	MG	1A	4002	1/1	0.87	0.12	38,38,38,38	0
57	MG	2A	3626	1/1	0.87	0.13	59,59,59,59	0
57	MG	2A	3632	1/1	0.87	0.17	63,63,63,63	0
57	MG	1A	3521	1/1	0.87	0.12	49,49,49,49	0
57	MG	2A	3659	1/1	0.87	0.16	74,74,74,74	0
57	MG	1a	1725	1/1	0.87	0.13	74,74,74,74	0
57	MG	1A	3944	1/1	0.87	0.15	59,59,59,59	0
57	MG	1a	1880	1/1	0.87	0.15	66,66,66,66	0
57	MG	1A	3749	1/1	0.87	0.13	47,47,47,47	0
57	MG	2A	3404	1/1	0.87	0.20	69,69,69,69	0
57	MG	2A	3715	1/1	0.87	0.17	72,72,72,72	0
57	MG	1h	201	1/1	0.87	0.13	57,57,57,57	0
57	MG	1A	3109	1/1	0.87	0.13	64,64,64,64	0
57	MG	1A	3666	1/1	0.87	0.12	42,42,42,42	0
57	MG	2A	3056	1/1	0.87	0.18	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1a	1658	1/1	0.87	0.17	71,71,71,71	0
57	MG	2A	3096	1/1	0.87	0.16	68,68,68,68	0
57	MG	2B	213	1/1	0.87	0.13	56,56,56,56	0
57	MG	2A	3106	1/1	0.87	0.26	69,69,69,69	0
57	MG	2A	3451	1/1	0.87	0.16	65,65,65,65	0
57	MG	2Q	203	1/1	0.87	0.21	50,50,50,50	0
57	MG	1a	1659	1/1	0.87	0.20	47,47,47,47	0
57	MG	2a	3011	1/1	0.87	0.31	65,65,65,65	0
57	MG	2A	3116	1/1	0.87	0.12	66,66,66,66	0
57	MG	1A	3272	1/1	0.87	0.29	67,67,67,67	0
57	MG	2a	3059	1/1	0.87	0.25	67,67,67,67	0
57	MG	1A	3972	1/1	0.87	0.11	58,58,58,58	0
57	MG	2A	3475	1/1	0.87	0.17	70,70,70,70	0
57	MG	1A	3983	1/1	0.87	0.13	39,39,39,39	0
57	MG	1a	1778	1/1	0.87	0.11	82,82,82,82	0
57	MG	2a	3071	1/1	0.87	0.20	68,68,68,68	0
57	MG	2a	3078	1/1	0.87	0.17	58,58,58,58	0
57	MG	2a	3080	1/1	0.87	0.13	55,55,55,55	0
57	MG	2A	3487	1/1	0.87	0.12	59,59,59,59	0
57	MG	2a	3102	1/1	0.87	0.17	74,74,74,74	0
57	MG	2a	3116	1/1	0.87	0.15	60,60,60,60	0
57	MG	1D	303	1/1	0.87	0.13	48,48,48,48	0
57	MG	1A	3277	1/1	0.87	0.23	63,63,63,63	0
57	MG	1A	3990	1/1	0.87	0.12	55,55,55,55	0
57	MG	1a	1793	1/1	0.87	0.09	68,68,68,68	0
57	MG	1a	1798	1/1	0.87	0.14	52,52,52,52	0
57	MG	2a	3162	1/1	0.87	0.10	67,67,67,67	0
57	MG	2a	3164	1/1	0.87	0.12	54,54,54,54	0
57	MG	1a	1799	1/1	0.87	0.13	63,63,63,63	0
57	MG	1a	1685	1/1	0.87	0.16	59,59,59,59	0
57	MG	1a	1688	1/1	0.87	0.21	68,68,68,68	0
57	MG	2A	3292	1/1	0.87	0.17	59,59,59,59	0
57	MG	2A	3312	1/1	0.87	0.15	58,58,58,58	0
57	MG	2A	3549	1/1	0.87	0.14	74,74,74,74	0
57	MG	2A	3556	1/1	0.87	0.20	72,72,72,72	0
57	MG	1A	3152	1/1	0.87	0.14	63,63,63,63	0
57	MG	1A	3892	1/1	0.87	0.12	50,50,50,50	0
57	MG	1a	1836	1/1	0.87	0.12	57,57,57,57	0
57	MG	1a	1833	1/1	0.88	0.12	68,68,68,68	0
57	MG	2A	3610	1/1	0.88	0.15	53,53,53,53	0
57	MG	1a	1834	1/1	0.88	0.11	71,71,71,71	0
57	MG	2A	3625	1/1	0.88	0.13	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3341	1/1	0.88	0.09	43,43,43,43	0
57	MG	2A	3346	1/1	0.88	0.16	62,62,62,62	0
57	MG	1B	212	1/1	0.88	0.09	54,54,54,54	0
57	MG	1a	1690	1/1	0.88	0.17	60,60,60,60	0
57	MG	1A	3377	1/1	0.88	0.11	47,47,47,47	0
57	MG	2A	3678	1/1	0.88	0.11	41,41,41,41	0
57	MG	2A	3679	1/1	0.88	0.12	56,56,56,56	0
57	MG	1a	1698	1/1	0.88	0.30	62,62,62,62	0
57	MG	2A	3682	1/1	0.88	0.16	54,54,54,54	0
57	MG	1A	3726	1/1	0.88	0.11	48,48,48,48	0
57	MG	1A	3606	1/1	0.88	0.17	63,63,63,63	0
57	MG	1A	3736	1/1	0.88	0.09	33,33,33,33	0
57	MG	2A	3401	1/1	0.88	0.12	57,57,57,57	0
57	MG	1A	3461	1/1	0.88	0.21	35,35,35,35	0
57	MG	1A	3210	1/1	0.88	0.43	50,50,50,50	0
57	MG	1H	202	1/1	0.88	0.12	58,58,58,58	0
57	MG	1N	204	1/1	0.88	0.07	52,52,52,52	0
57	MG	1i	201	1/1	0.88	0.16	65,65,65,65	0
57	MG	1y	203	1/1	0.88	0.13	73,73,73,73	0
57	MG	2B	210	1/1	0.88	0.28	68,68,68,68	0
57	MG	1A	3763	1/1	0.88	0.18	55,55,55,55	0
57	MG	1A	3621	1/1	0.88	0.15	35,35,35,35	0
57	MG	2A	3444	1/1	0.88	0.11	52,52,52,52	0
57	MG	2A	3076	1/1	0.88	0.23	61,61,61,61	0
57	MG	21	101	1/1	0.88	0.09	59,59,59,59	0
57	MG	1A	3482	1/1	0.88	0.12	59,59,59,59	0
57	MG	1A	3416	1/1	0.88	0.06	18,18,18,18	0
57	MG	2a	3018	1/1	0.88	0.14	63,63,63,63	0
57	MG	1A	3795	1/1	0.88	0.10	33,33,33,33	0
57	MG	10	105	1/1	0.88	0.16	58,58,58,58	0
57	MG	2a	3037	1/1	0.88	0.18	59,59,59,59	0
57	MG	2a	3047	1/1	0.88	0.14	63,63,63,63	0
57	MG	2a	3050	1/1	0.88	0.09	60,60,60,60	0
57	MG	1A	3334	1/1	0.88	0.12	55,55,55,55	0
57	MG	1A	3648	1/1	0.88	0.12	40,40,40,40	0
57	MG	1A	3651	1/1	0.88	0.29	37,37,37,37	0
57	MG	1A	3660	1/1	0.88	0.13	56,56,56,56	0
57	MG	1A	3502	1/1	0.88	0.08	24,24,24,24	0
57	MG	1A	3336	1/1	0.88	0.29	65,65,65,65	0
57	MG	2A	3493	1/1	0.88	0.09	50,50,50,50	0
57	MG	1A	3691	1/1	0.88	0.11	43,43,43,43	0
57	MG	2A	3507	1/1	0.88	0.13	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3218	1/1	0.88	0.21	67,67,67,67	0
57	MG	2A	3198	1/1	0.88	0.16	46,46,46,46	0
57	MG	2A	3520	1/1	0.88	0.15	43,43,43,43	0
57	MG	2a	3132	1/1	0.88	0.14	56,56,56,56	0
57	MG	1A	3871	1/1	0.88	0.11	55,55,55,55	0
57	MG	2a	3138	1/1	0.88	0.08	65,65,65,65	0
57	MG	2A	3525	1/1	0.88	0.20	42,42,42,42	0
57	MG	2A	3200	1/1	0.88	0.24	57,57,57,57	0
57	MG	2A	3222	1/1	0.88	0.14	59,59,59,59	0
57	MG	2A	3530	1/1	0.88	0.19	55,55,55,55	0
57	MG	2a	3163	1/1	0.88	0.11	60,60,60,60	0
57	MG	1A	3884	1/1	0.88	0.07	33,33,33,33	0
57	MG	2A	3240	1/1	0.88	0.11	57,57,57,57	0
57	MG	1A	3189	1/1	0.88	0.19	59,59,59,59	0
57	MG	1a	1807	1/1	0.88	0.21	69,69,69,69	0
57	MG	2A	3272	1/1	0.88	0.28	51,51,51,51	0
57	MG	1A	3888	1/1	0.88	0.15	33,33,33,33	0
57	MG	2a	3181	1/1	0.88	0.15	74,74,74,74	0
57	MG	2a	3183	1/1	0.88	0.15	65,65,65,65	0
57	MG	1A	3591	1/1	0.88	0.14	61,61,61,61	0
57	MG	2a	3189	1/1	0.88	0.15	59,59,59,59	0
57	MG	2A	3573	1/1	0.88	0.12	46,46,46,46	0
57	MG	1a	1826	1/1	0.88	0.21	59,59,59,59	0
57	MG	1a	1828	1/1	0.88	0.12	70,70,70,70	0
57	MG	1a	1829	1/1	0.88	0.17	73,73,73,73	0
57	MG	1A	3408	1/1	0.89	0.11	31,31,31,31	0
57	MG	2A	3624	1/1	0.89	0.12	64,64,64,64	0
57	MG	1A	3607	1/1	0.89	0.15	59,59,59,59	0
57	MG	1G	201	1/1	0.89	0.11	65,65,65,65	0
57	MG	2A	3627	1/1	0.89	0.10	48,48,48,48	0
57	MG	1a	1858	1/1	0.89	0.11	63,63,63,63	0
57	MG	2A	3348	1/1	0.89	0.09	49,49,49,49	0
57	MG	2A	3652	1/1	0.89	0.09	49,49,49,49	0
57	MG	1A	3479	1/1	0.89	0.15	59,59,59,59	0
57	MG	1a	1869	1/1	0.89	0.16	65,65,65,65	0
57	MG	1a	1872	1/1	0.89	0.14	70,70,70,70	0
57	MG	1a	1717	1/1	0.89	0.11	67,67,67,67	0
57	MG	2A	3374	1/1	0.89	0.10	58,58,58,58	0
57	MG	1A	3959	1/1	0.89	0.09	53,53,53,53	0
57	MG	1A	3757	1/1	0.89	0.07	37,37,37,37	0
57	MG	2A	3395	1/1	0.89	0.15	59,59,59,59	0
57	MG	1A	3346	1/1	0.89	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
57	MG	2A	3712	1/1	0.89	0.17	62,62,62,62	0
57	MG	1A	3156	1/1	0.89	0.10	47,47,47,47	0
57	MG	1Q	205	1/1	0.89	0.10	51,51,51,51	0
57	MG	2A	3727	1/1	0.89	0.10	54,54,54,54	0
57	MG	1A	3430	1/1	0.89	0.08	37,37,37,37	0
57	MG	2A	3003	1/1	0.89	0.12	58,58,58,58	0
57	MG	1A	3973	1/1	0.89	0.12	55,55,55,55	0
57	MG	2A	3428	1/1	0.89	0.24	45,45,45,45	0
57	MG	2A	3429	1/1	0.89	0.16	52,52,52,52	0
57	MG	2A	3430	1/1	0.89	0.18	55,55,55,55	0
57	MG	1A	3497	1/1	0.89	0.13	32,32,32,32	0
57	MG	2A	3061	1/1	0.89	0.23	56,56,56,56	0
57	MG	1a	1771	1/1	0.89	0.17	51,51,51,51	0
57	MG	1a	1772	1/1	0.89	0.19	65,65,65,65	0
57	MG	1A	3632	1/1	0.89	0.12	53,53,53,53	0
57	MG	1a	1775	1/1	0.89	0.14	57,57,57,57	0
57	MG	18	103	1/1	0.89	0.08	53,53,53,53	0
57	MG	1A	3988	1/1	0.89	0.12	50,50,50,50	0
57	MG	2A	3456	1/1	0.89	0.10	61,61,61,61	0
57	MG	1A	3331	1/1	0.89	0.10	59,59,59,59	0
57	MG	2a	3035	1/1	0.89	0.23	69,69,69,69	0
57	MG	1a	1630	1/1	0.89	0.10	52,52,52,52	0
57	MG	2A	3470	1/1	0.89	0.14	62,62,62,62	0
57	MG	2A	3147	1/1	0.89	0.17	50,50,50,50	0
57	MG	2A	3161	1/1	0.89	0.14	55,55,55,55	0
57	MG	2A	3478	1/1	0.89	0.10	34,34,34,34	0
57	MG	2A	3162	1/1	0.89	0.19	63,63,63,63	0
57	MG	1a	1634	1/1	0.89	0.08	47,47,47,47	0
57	MG	1A	3640	1/1	0.89	0.09	21,21,21,21	0
57	MG	1A	3644	1/1	0.89	0.08	42,42,42,42	0
57	MG	2a	3072	1/1	0.89	0.16	62,62,62,62	0
57	MG	1a	1797	1/1	0.89	0.11	61,61,61,61	0
57	MG	1a	1651	1/1	0.89	0.17	55,55,55,55	0
57	MG	2a	3086	1/1	0.89	0.14	65,65,65,65	0
57	MG	2A	3505	1/1	0.89	0.11	47,47,47,47	0
57	MG	1A	3510	1/1	0.89	0.13	37,37,37,37	0
57	MG	2a	3105	1/1	0.89	0.14	63,63,63,63	0
57	MG	2a	3111	1/1	0.89	0.20	63,63,63,63	0
57	MG	1A	3212	1/1	0.89	0.13	51,51,51,51	0
57	MG	1A	3379	1/1	0.89	0.08	42,42,42,42	0
57	MG	2a	3130	1/1	0.89	0.23	68,68,68,68	0
57	MG	2A	3516	1/1	0.89	0.15	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3207	1/1	0.89	0.13	55,55,55,55	0
57	MG	2a	3137	1/1	0.89	0.12	65,65,65,65	0
57	MG	2A	3521	1/1	0.89	0.09	57,57,57,57	0
57	MG	1A	3385	1/1	0.89	0.12	27,27,27,27	0
57	MG	1A	3681	1/1	0.89	0.11	58,58,58,58	0
57	MG	2A	3235	1/1	0.89	0.16	60,60,60,60	0
57	MG	1A	3555	1/1	0.89	0.09	45,45,45,45	0
57	MG	2A	3241	1/1	0.89	0.20	63,63,63,63	0
57	MG	1A	3581	1/1	0.89	0.11	63,63,63,63	0
57	MG	1A	3582	1/1	0.89	0.09	44,44,44,44	0
57	MG	2A	3249	1/1	0.89	0.32	49,49,49,49	0
57	MG	2a	3171	1/1	0.89	0.12	59,59,59,59	0
57	MG	2A	3252	1/1	0.89	0.16	63,63,63,63	0
57	MG	1A	3586	1/1	0.89	0.09	53,53,53,53	0
57	MG	2A	3279	1/1	0.89	0.15	62,62,62,62	0
57	MG	1A	3458	1/1	0.89	0.12	60,60,60,60	0
57	MG	2a	3182	1/1	0.89	0.16	68,68,68,68	0
57	MG	1A	3592	1/1	0.89	0.09	29,29,29,29	0
57	MG	2A	3297	1/1	0.89	0.15	38,38,38,38	0
57	MG	1A	3261	1/1	0.89	0.10	46,46,46,46	0
57	MG	2A	3314	1/1	0.89	0.08	36,36,36,36	0
57	MG	2h	201	1/1	0.89	0.14	73,73,73,73	0
57	MG	2x	101	1/1	0.89	0.10	42,42,42,42	0
58	MPD	1T	205	8/8	0.89	0.17	52,60,64,64	0
58	MPD	1a	1881	8/8	0.89	0.16	54,63,67,70	0
57	MG	1A	3603	1/1	0.89	0.09	48,48,48,48	0
57	MG	1a	1838	1/1	0.89	0.17	65,65,65,65	0
57	MG	2A	3616	1/1	0.89	0.14	66,66,66,66	0
57	MG	1a	1812	1/1	0.90	0.14	63,63,63,63	0
57	MG	1a	1668	1/1	0.90	0.14	62,62,62,62	0
57	MG	2A	3276	1/1	0.90	0.28	59,59,59,59	0
57	MG	1A	3433	1/1	0.90	0.10	28,28,28,28	0
57	MG	2A	3615	1/1	0.90	0.13	48,48,48,48	0
57	MG	1B	206	1/1	0.90	0.21	56,56,56,56	0
57	MG	2A	3621	1/1	0.90	0.13	63,63,63,63	0
57	MG	1a	1676	1/1	0.90	0.13	56,56,56,56	0
57	MG	1A	3245	1/1	0.90	0.24	61,61,61,61	0
57	MG	2A	3298	1/1	0.90	0.19	61,61,61,61	0
57	MG	1A	3716	1/1	0.90	0.11	38,38,38,38	0
57	MG	1a	1687	1/1	0.90	0.13	64,64,64,64	0
57	MG	1B	226	1/1	0.90	0.11	53,53,53,53	0
57	MG	1a	1839	1/1	0.90	0.14	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1a	1689	1/1	0.90	0.20	58,58,58,58	0
57	MG	1A	3186	1/1	0.90	0.13	42,42,42,42	0
57	MG	1a	1695	1/1	0.90	0.09	61,61,61,61	0
57	MG	2A	3667	1/1	0.90	0.11	63,63,63,63	0
57	MG	1A	3444	1/1	0.90	0.10	26,26,26,26	0
57	MG	1A	3446	1/1	0.90	0.14	45,45,45,45	0
57	MG	1A	3738	1/1	0.90	0.12	49,49,49,49	0
57	MG	2A	3359	1/1	0.90	0.12	51,51,51,51	0
57	MG	2A	3684	1/1	0.90	0.15	69,69,69,69	0
57	MG	2A	3360	1/1	0.90	0.10	63,63,63,63	0
57	MG	2A	3699	1/1	0.90	0.10	51,51,51,51	0
57	MG	1A	3932	1/1	0.90	0.08	48,48,48,48	0
57	MG	1A	3934	1/1	0.90	0.11	22,22,22,22	0
57	MG	2A	3368	1/1	0.90	0.10	37,37,37,37	0
57	MG	1a	1878	1/1	0.90	0.13	57,57,57,57	0
57	MG	1A	3629	1/1	0.90	0.18	39,39,39,39	0
57	MG	2A	3381	1/1	0.90	0.08	58,58,58,58	0
57	MG	1d	301	1/1	0.90	0.20	73,73,73,73	0
57	MG	2A	3385	1/1	0.90	0.10	44,44,44,44	0
57	MG	2A	3389	1/1	0.90	0.10	59,59,59,59	0
57	MG	2A	3393	1/1	0.90	0.09	33,33,33,33	0
57	MG	2B	202	1/1	0.90	0.15	59,59,59,59	0
57	MG	2B	204	1/1	0.90	0.15	65,65,65,65	0
57	MG	1d	306	1/1	0.90	0.10	79,79,79,79	0
57	MG	1e	201	1/1	0.90	0.17	62,62,62,62	0
57	MG	1a	1709	1/1	0.90	0.11	53,53,53,53	0
57	MG	2B	214	1/1	0.90	0.07	58,58,58,58	0
57	MG	2B	215	1/1	0.90	0.10	62,62,62,62	0
57	MG	2A	3400	1/1	0.90	0.11	55,55,55,55	0
57	MG	2D	311	1/1	0.90	0.12	55,55,55,55	0
57	MG	1g	3102	1/1	0.90	0.09	54,54,54,54	0
57	MG	1a	1714	1/1	0.90	0.12	58,58,58,58	0
57	MG	2R	202	1/1	0.90	0.14	44,44,44,44	0
57	MG	2V	201	1/1	0.90	0.16	67,67,67,67	0
57	MG	1N	203	1/1	0.90	0.08	50,50,50,50	0
57	MG	2a	3001	1/1	0.90	0.10	50,50,50,50	0
57	MG	2A	3408	1/1	0.90	0.10	59,59,59,59	0
57	MG	2A	3421	1/1	0.90	0.20	47,47,47,47	0
57	MG	2a	3013	1/1	0.90	0.09	63,63,63,63	0
57	MG	1A	3249	1/1	0.90	0.13	51,51,51,51	0
57	MG	1o	102	1/1	0.90	0.21	57,57,57,57	0
57	MG	1a	1723	1/1	0.90	0.13	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3388	1/1	0.90	0.09	49,49,49,49	0
57	MG	2A	3025	1/1	0.90	0.17	54,54,54,54	0
57	MG	2a	3039	1/1	0.90	0.09	71,71,71,71	0
57	MG	2A	3039	1/1	0.90	0.11	48,48,48,48	0
57	MG	1A	3759	1/1	0.90	0.13	50,50,50,50	0
57	MG	2A	3434	1/1	0.90	0.16	58,58,58,58	0
57	MG	1a	1736	1/1	0.90	0.10	66,66,66,66	0
57	MG	1A	3341	1/1	0.90	0.13	36,36,36,36	0
57	MG	2a	3065	1/1	0.90	0.23	62,62,62,62	0
57	MG	2A	3068	1/1	0.90	0.09	52,52,52,52	0
57	MG	2A	3075	1/1	0.90	0.13	46,46,46,46	0
57	MG	1A	3561	1/1	0.90	0.14	46,46,46,46	0
57	MG	2A	3082	1/1	0.90	0.17	64,64,64,64	0
57	MG	1A	3570	1/1	0.90	0.11	51,51,51,51	0
57	MG	1T	204	1/1	0.90	0.09	60,60,60,60	0
57	MG	1a	1759	1/1	0.90	0.12	57,57,57,57	0
57	MG	1A	3774	1/1	0.90	0.12	36,36,36,36	0
57	MG	1a	1765	1/1	0.90	0.11	53,53,53,53	0
57	MG	2A	3124	1/1	0.90	0.17	54,54,54,54	0
57	MG	1a	1769	1/1	0.90	0.21	66,66,66,66	0
57	MG	2A	3136	1/1	0.90	0.12	63,63,63,63	0
57	MG	2A	3481	1/1	0.90	0.12	57,57,57,57	0
57	MG	2a	3127	1/1	0.90	0.13	54,54,54,54	0
57	MG	1A	3645	1/1	0.90	0.12	28,28,28,28	0
57	MG	10	106	1/1	0.90	0.11	46,46,46,46	0
57	MG	15	106	1/1	0.90	0.14	38,38,38,38	0
57	MG	1A	3575	1/1	0.90	0.13	59,59,59,59	0
57	MG	1A	3801	1/1	0.90	0.12	52,52,52,52	0
57	MG	1a	1611	1/1	0.90	0.19	51,51,51,51	0
57	MG	1A	3342	1/1	0.90	0.09	41,41,41,41	0
57	MG	1A	3806	1/1	0.90	0.12	57,57,57,57	0
57	MG	2A	3181	1/1	0.90	0.12	57,57,57,57	0
57	MG	2A	3187	1/1	0.90	0.11	57,57,57,57	0
57	MG	2A	3188	1/1	0.90	0.26	67,67,67,67	0
57	MG	1a	1780	1/1	0.90	0.16	75,75,75,75	0
57	MG	2a	3168	1/1	0.90	0.17	56,56,56,56	0
57	MG	1A	3173	1/1	0.90	0.10	49,49,49,49	0
57	MG	1A	3464	1/1	0.90	0.10	60,60,60,60	0
57	MG	2a	3172	1/1	0.90	0.18	62,62,62,62	0
57	MG	1A	3676	1/1	0.90	0.13	52,52,52,52	0
57	MG	2A	3527	1/1	0.90	0.11	52,52,52,52	0
57	MG	1a	1795	1/1	0.90	0.10	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3208	1/1	0.90	0.20	53,53,53,53	0
57	MG	1a	1642	1/1	0.90	0.10	57,57,57,57	0
57	MG	1a	1645	1/1	0.90	0.16	59,59,59,59	0
57	MG	2A	3534	1/1	0.90	0.12	55,55,55,55	0
57	MG	2A	3225	1/1	0.90	0.21	54,54,54,54	0
57	MG	1A	3312	1/1	0.90	0.10	40,40,40,40	0
57	MG	1A	3480	1/1	0.90	0.11	37,37,37,37	0
57	MG	2k	201	1/1	0.90	0.16	61,61,61,61	0
57	MG	2r	101	1/1	0.90	0.12	64,64,64,64	0
57	MG	1A	3423	1/1	0.90	0.07	33,33,33,33	0
57	MG	1A	3700	1/1	0.90	0.08	33,33,33,33	0
57	MG	2A	3570	1/1	0.90	0.11	42,42,42,42	0
57	MG	2A	3571	1/1	0.90	0.09	58,58,58,58	0
57	MG	1A	3484	1/1	0.90	0.11	43,43,43,43	0
57	MG	1A	3313	1/1	0.90	0.13	79,79,79,79	0
57	MG	1A	3733	1/1	0.91	0.08	51,51,51,51	0
57	MG	2A	3319	1/1	0.91	0.12	50,50,50,50	0
57	MG	1a	1877	1/1	0.91	0.12	67,67,67,67	0
57	MG	1A	3894	1/1	0.91	0.12	60,60,60,60	0
57	MG	1D	316	1/1	0.91	0.09	51,51,51,51	0
57	MG	2A	3334	1/1	0.91	0.08	54,54,54,54	0
57	MG	2A	3630	1/1	0.91	0.16	59,59,59,59	0
57	MG	1b	301	1/1	0.91	0.14	67,67,67,67	0
57	MG	2A	3641	1/1	0.91	0.10	49,49,49,49	0
57	MG	1A	3577	1/1	0.91	0.10	51,51,51,51	0
57	MG	1A	3898	1/1	0.91	0.08	34,34,34,34	0
57	MG	1A	3580	1/1	0.91	0.12	47,47,47,47	0
57	MG	1A	3359	1/1	0.91	0.08	30,30,30,30	0
57	MG	1A	3910	1/1	0.91	0.09	45,45,45,45	0
57	MG	2A	3676	1/1	0.91	0.10	63,63,63,63	0
57	MG	1A	3920	1/1	0.91	0.08	25,25,25,25	0
57	MG	1O	201	1/1	0.91	0.09	45,45,45,45	0
57	MG	1A	3404	1/1	0.91	0.06	31,31,31,31	0
57	MG	1l	201	1/1	0.91	0.09	55,55,55,55	0
57	MG	1a	1737	1/1	0.91	0.09	69,69,69,69	0
57	MG	1y	201	1/1	0.91	0.09	56,56,56,56	0
57	MG	2A	3695	1/1	0.91	0.13	55,55,55,55	0
57	MG	1A	3491	1/1	0.91	0.07	24,24,24,24	0
57	MG	2A	3700	1/1	0.91	0.14	61,61,61,61	0
57	MG	1w	101	1/1	0.91	0.12	54,54,54,54	0
57	MG	2A	3001	1/1	0.91	0.24	66,66,66,66	0
57	MG	1a	1739	1/1	0.91	0.14	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3008	1/1	0.91	0.26	45,45,45,45	0
57	MG	2A	3723	1/1	0.91	0.17	56,56,56,56	0
57	MG	1A	3587	1/1	0.91	0.15	36,36,36,36	0
57	MG	2A	3038	1/1	0.91	0.16	52,52,52,52	0
57	MG	2A	3728	1/1	0.91	0.12	52,52,52,52	0
57	MG	1A	3950	1/1	0.91	0.11	43,43,43,43	0
57	MG	2A	3732	1/1	0.91	0.15	71,71,71,71	0
57	MG	1a	1753	1/1	0.91	0.13	60,60,60,60	0
57	MG	1A	3165	1/1	0.91	0.20	50,50,50,50	0
57	MG	2A	3058	1/1	0.91	0.22	56,56,56,56	0
57	MG	2A	3405	1/1	0.91	0.18	61,61,61,61	0
57	MG	2B	203	1/1	0.91	0.11	63,63,63,63	0
57	MG	1A	3664	1/1	0.91	0.11	54,54,54,54	0
57	MG	1V	207	1/1	0.91	0.08	46,46,46,46	0
57	MG	2A	3073	1/1	0.91	0.16	54,54,54,54	0
57	MG	1A	3366	1/1	0.91	0.12	60,60,60,60	0
57	MG	2A	3424	1/1	0.91	0.16	53,53,53,53	0
57	MG	1a	1766	1/1	0.91	0.10	62,62,62,62	0
57	MG	1A	3675	1/1	0.91	0.06	12,12,12,12	0
57	MG	2D	303	1/1	0.91	0.42	55,55,55,55	0
57	MG	2A	3084	1/1	0.91	0.10	53,53,53,53	0
57	MG	2A	3090	1/1	0.91	0.18	70,70,70,70	0
57	MG	2N	201	1/1	0.91	0.13	55,55,55,55	0
57	MG	2P	203	1/1	0.91	0.16	64,64,64,64	0
57	MG	1A	3968	1/1	0.91	0.10	68,68,68,68	0
57	MG	1A	3778	1/1	0.91	0.15	63,63,63,63	0
57	MG	2T	203	1/1	0.91	0.09	55,55,55,55	0
57	MG	1A	3970	1/1	0.91	0.08	48,48,48,48	0
57	MG	2V	202	1/1	0.91	0.14	46,46,46,46	0
57	MG	19	101	1/1	0.91	0.18	46,46,46,46	0
57	MG	28	101	1/1	0.91	0.14	54,54,54,54	0
57	MG	2A	3442	1/1	0.91	0.10	44,44,44,44	0
57	MG	2A	3115	1/1	0.91	0.09	60,60,60,60	0
57	MG	1A	3419	1/1	0.91	0.08	29,29,29,29	0
57	MG	1A	3791	1/1	0.91	0.07	37,37,37,37	0
57	MG	2a	3015	1/1	0.91	0.17	55,55,55,55	0
57	MG	1a	1614	1/1	0.91	0.11	67,67,67,67	0
57	MG	2A	3455	1/1	0.91	0.13	78,78,78,78	0
57	MG	1a	1616	1/1	0.91	0.16	56,56,56,56	0
57	MG	2a	3028	1/1	0.91	0.13	64,64,64,64	0
57	MG	2a	3030	1/1	0.91	0.14	63,63,63,63	0
57	MG	2A	3141	1/1	0.91	0.12	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3982	1/1	0.91	0.12	44,44,44,44	0
57	MG	1a	1787	1/1	0.91	0.09	71,71,71,71	0
57	MG	2a	3040	1/1	0.91	0.17	57,57,57,57	0
57	MG	2A	3154	1/1	0.91	0.08	44,44,44,44	0
57	MG	2a	3048	1/1	0.91	0.26	61,61,61,61	0
57	MG	2A	3160	1/1	0.91	0.16	56,56,56,56	0
57	MG	1a	1628	1/1	0.91	0.16	57,57,57,57	0
57	MG	1A	3680	1/1	0.91	0.12	29,29,29,29	0
57	MG	1A	3598	1/1	0.91	0.15	45,45,45,45	0
57	MG	2A	3483	1/1	0.91	0.13	54,54,54,54	0
57	MG	1a	1794	1/1	0.91	0.12	55,55,55,55	0
57	MG	2a	3067	1/1	0.91	0.12	74,74,74,74	0
57	MG	2A	3172	1/1	0.91	0.15	78,78,78,78	0
57	MG	1A	3683	1/1	0.91	0.08	42,42,42,42	0
57	MG	2A	3490	1/1	0.91	0.13	58,58,58,58	0
57	MG	1A	3373	1/1	0.91	0.07	21,21,21,21	0
57	MG	2A	3495	1/1	0.91	0.10	51,51,51,51	0
57	MG	1A	3809	1/1	0.91	0.12	64,64,64,64	0
57	MG	2a	3088	1/1	0.91	0.15	65,65,65,65	0
57	MG	2A	3498	1/1	0.91	0.08	62,62,62,62	0
57	MG	2a	3094	1/1	0.91	0.11	59,59,59,59	0
57	MG	2a	3100	1/1	0.91	0.10	68,68,68,68	0
57	MG	1A	3811	1/1	0.91	0.10	54,54,54,54	0
57	MG	2a	3103	1/1	0.91	0.11	47,47,47,47	0
57	MG	1a	1647	1/1	0.91	0.12	60,60,60,60	0
57	MG	2a	3107	1/1	0.91	0.15	57,57,57,57	0
57	MG	1A	3293	1/1	0.91	0.10	76,76,76,76	0
57	MG	2a	3112	1/1	0.91	0.08	76,76,76,76	0
57	MG	2a	3113	1/1	0.91	0.14	58,58,58,58	0
57	MG	2A	3197	1/1	0.91	0.19	73,73,73,73	0
57	MG	2a	3119	1/1	0.91	0.09	60,60,60,60	0
57	MG	1A	3698	1/1	0.91	0.11	19,19,19,19	0
57	MG	1A	3833	1/1	0.91	0.12	60,60,60,60	0
57	MG	2a	3129	1/1	0.91	0.14	68,68,68,68	0
57	MG	1A	3834	1/1	0.91	0.08	27,27,27,27	0
57	MG	1A	3462	1/1	0.91	0.09	44,44,44,44	0
57	MG	2A	3523	1/1	0.91	0.07	41,41,41,41	0
57	MG	1a	1824	1/1	0.91	0.10	68,68,68,68	0
57	MG	2A	3214	1/1	0.91	0.24	71,71,71,71	0
57	MG	2a	3140	1/1	0.91	0.12	61,61,61,61	0
57	MG	2A	3217	1/1	0.91	0.11	60,60,60,60	0
57	MG	2a	3144	1/1	0.91	0.10	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3528	1/1	0.91	0.09	54,54,54,54	0
57	MG	2a	3154	1/1	0.91	0.12	67,67,67,67	0
57	MG	1A	3531	1/1	0.91	0.10	60,60,60,60	0
57	MG	2a	3160	1/1	0.91	0.10	48,48,48,48	0
57	MG	1A	3429	1/1	0.91	0.17	59,59,59,59	0
57	MG	1A	3041	1/1	0.91	0.10	47,47,47,47	0
57	MG	1a	1832	1/1	0.91	0.10	61,61,61,61	0
57	MG	1A	4026	1/1	0.91	0.10	46,46,46,46	0
57	MG	1A	3469	1/1	0.91	0.14	64,64,64,64	0
57	MG	2A	3538	1/1	0.91	0.18	68,68,68,68	0
57	MG	2A	3540	1/1	0.91	0.12	64,64,64,64	0
57	MG	1a	1835	1/1	0.91	0.16	57,57,57,57	0
57	MG	1B	203	1/1	0.91	0.17	52,52,52,52	0
57	MG	1a	1683	1/1	0.91	0.16	69,69,69,69	0
57	MG	2A	3564	1/1	0.91	0.17	61,61,61,61	0
57	MG	1A	3478	1/1	0.91	0.15	53,53,53,53	0
57	MG	1B	207	1/1	0.91	0.22	49,49,49,49	0
57	MG	1a	1842	1/1	0.91	0.16	62,62,62,62	0
57	MG	1B	210	1/1	0.91	0.20	54,54,54,54	0
57	MG	2a	3187	1/1	0.91	0.16	68,68,68,68	0
57	MG	1A	3721	1/1	0.91	0.19	51,51,51,51	0
57	MG	2A	3283	1/1	0.91	0.25	58,58,58,58	0
57	MG	1B	219	1/1	0.91	0.08	45,45,45,45	0
57	MG	1B	223	1/1	0.91	0.07	55,55,55,55	0
57	MG	2A	3596	1/1	0.91	0.10	61,61,61,61	0
57	MG	2A	3606	1/1	0.91	0.09	57,57,57,57	0
58	MPD	1A	4029	8/8	0.91	0.17	37,50,57,60	0
57	MG	2A	3608	1/1	0.91	0.10	49,49,49,49	0
57	MG	2A	3609	1/1	0.91	0.11	42,42,42,42	0
57	MG	1A	3352	1/1	0.91	0.10	13,13,13,13	0
57	MG	1A	3179	1/1	0.91	0.22	52,52,52,52	0
57	MG	1A	3731	1/1	0.91	0.09	35,35,35,35	0
57	MG	2A	3366	1/1	0.92	0.08	37,37,37,37	0
57	MG	18	102	1/1	0.92	0.28	42,42,42,42	0
57	MG	1A	3609	1/1	0.92	0.12	51,51,51,51	0
57	MG	1A	3206	1/1	0.92	0.16	58,58,58,58	0
57	MG	1a	1768	1/1	0.92	0.15	64,64,64,64	0
57	MG	2A	3382	1/1	0.92	0.12	65,65,65,65	0
57	MG	2A	3685	1/1	0.92	0.09	43,43,43,43	0
57	MG	2A	3689	1/1	0.92	0.13	55,55,55,55	0
57	MG	1a	1608	1/1	0.92	0.07	70,70,70,70	0
57	MG	1A	3477	1/1	0.92	0.06	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3697	1/1	0.92	0.11	54,54,54,54	0
57	MG	2A	3698	1/1	0.92	0.11	58,58,58,58	0
57	MG	2A	3049	1/1	0.92	0.08	55,55,55,55	0
57	MG	1A	3544	1/1	0.92	0.11	52,52,52,52	0
57	MG	1A	3994	1/1	0.92	0.10	39,39,39,39	0
57	MG	2A	3060	1/1	0.92	0.19	47,47,47,47	0
57	MG	2A	3706	1/1	0.92	0.13	60,60,60,60	0
57	MG	1a	1615	1/1	0.92	0.10	58,58,58,58	0
57	MG	1A	3706	1/1	0.92	0.16	45,45,45,45	0
57	MG	2A	3722	1/1	0.92	0.18	61,61,61,61	0
57	MG	1A	3835	1/1	0.92	0.21	37,37,37,37	0
57	MG	1A	3708	1/1	0.92	0.08	48,48,48,48	0
57	MG	1A	3208	1/1	0.92	0.17	50,50,50,50	0
57	MG	1a	1631	1/1	0.92	0.15	50,50,50,50	0
57	MG	2A	3083	1/1	0.92	0.10	59,59,59,59	0
57	MG	2A	3410	1/1	0.92	0.08	37,37,37,37	0
57	MG	1a	1784	1/1	0.92	0.08	52,52,52,52	0
57	MG	1a	1785	1/1	0.92	0.12	63,63,63,63	0
57	MG	2A	3092	1/1	0.92	0.16	63,63,63,63	0
57	MG	1a	1786	1/1	0.92	0.10	63,63,63,63	0
57	MG	2A	3426	1/1	0.92	0.19	56,56,56,56	0
57	MG	1A	3628	1/1	0.92	0.12	45,45,45,45	0
57	MG	2A	3098	1/1	0.92	0.11	49,49,49,49	0
57	MG	2B	208	1/1	0.92	0.26	59,59,59,59	0
57	MG	2A	3104	1/1	0.92	0.16	63,63,63,63	0
57	MG	1A	3854	1/1	0.92	0.07	38,38,38,38	0
57	MG	2A	3432	1/1	0.92	0.15	47,47,47,47	0
57	MG	1A	4010	1/1	0.92	0.13	55,55,55,55	0
57	MG	1A	3059	1/1	0.92	0.09	52,52,52,52	0
57	MG	2D	302	1/1	0.92	0.18	46,46,46,46	0
57	MG	1A	3438	1/1	0.92	0.16	32,32,32,32	0
57	MG	2A	3438	1/1	0.92	0.15	57,57,57,57	0
57	MG	2A	3121	1/1	0.92	0.23	60,60,60,60	0
57	MG	1A	4022	1/1	0.92	0.07	47,47,47,47	0
57	MG	2P	201	1/1	0.92	0.11	54,54,54,54	0
57	MG	1A	3725	1/1	0.92	0.09	58,58,58,58	0
57	MG	2A	3134	1/1	0.92	0.22	62,62,62,62	0
57	MG	2A	3135	1/1	0.92	0.11	57,57,57,57	0
57	MG	1a	1652	1/1	0.92	0.13	64,64,64,64	0
57	MG	1a	1653	1/1	0.92	0.08	51,51,51,51	0
57	MG	1A	3877	1/1	0.92	0.12	47,47,47,47	0
57	MG	1a	1804	1/1	0.92	0.11	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	25	101	1/1	0.92	0.59	51,51,51,51	0
57	MG	2A	3461	1/1	0.92	0.14	60,60,60,60	0
57	MG	1A	3881	1/1	0.92	0.09	34,34,34,34	0
57	MG	2a	3002	1/1	0.92	0.12	52,52,52,52	0
57	MG	2a	3007	1/1	0.92	0.17	62,62,62,62	0
57	MG	1A	3066	1/1	0.92	0.11	40,40,40,40	0
57	MG	1A	3343	1/1	0.92	0.08	44,44,44,44	0
57	MG	1A	3399	1/1	0.92	0.11	47,47,47,47	0
57	MG	1a	1810	1/1	0.92	0.10	60,60,60,60	0
57	MG	2A	3169	1/1	0.92	0.10	56,56,56,56	0
57	MG	2a	3019	1/1	0.92	0.09	44,44,44,44	0
57	MG	2A	3170	1/1	0.92	0.33	68,68,68,68	0
57	MG	1A	3191	1/1	0.92	0.11	56,56,56,56	0
57	MG	1a	1813	1/1	0.92	0.14	61,61,61,61	0
57	MG	1a	1669	1/1	0.92	0.14	45,45,45,45	0
57	MG	2A	3174	1/1	0.92	0.17	58,58,58,58	0
57	MG	1A	3494	1/1	0.92	0.09	27,27,27,27	0
57	MG	2a	3038	1/1	0.92	0.14	58,58,58,58	0
57	MG	1a	1674	1/1	0.92	0.16	56,56,56,56	0
57	MG	2A	3182	1/1	0.92	0.09	61,61,61,61	0
57	MG	2a	3045	1/1	0.92	0.22	65,65,65,65	0
57	MG	2a	3046	1/1	0.92	0.14	65,65,65,65	0
57	MG	1B	215	1/1	0.92	0.10	58,58,58,58	0
57	MG	1A	3647	1/1	0.92	0.07	39,39,39,39	0
57	MG	2a	3049	1/1	0.92	0.21	62,62,62,62	0
57	MG	2A	3504	1/1	0.92	0.10	66,66,66,66	0
57	MG	2a	3051	1/1	0.92	0.16	52,52,52,52	0
57	MG	1a	1678	1/1	0.92	0.14	64,64,64,64	0
57	MG	2A	3506	1/1	0.92	0.10	57,57,57,57	0
57	MG	1A	3223	1/1	0.92	0.10	65,65,65,65	0
57	MG	2A	3510	1/1	0.92	0.09	61,61,61,61	0
57	MG	1A	3752	1/1	0.92	0.11	56,56,56,56	0
57	MG	1A	3295	1/1	0.92	0.09	67,67,67,67	0
57	MG	1B	229	1/1	0.92	0.09	58,58,58,58	0
57	MG	2A	3203	1/1	0.92	0.24	56,56,56,56	0
57	MG	1A	3588	1/1	0.92	0.12	42,42,42,42	0
57	MG	2a	3074	1/1	0.92	0.15	53,53,53,53	0
57	MG	1A	3499	1/1	0.92	0.07	32,32,32,32	0
57	MG	1A	3915	1/1	0.92	0.07	52,52,52,52	0
57	MG	2A	3524	1/1	0.92	0.15	50,50,50,50	0
57	MG	1a	1843	1/1	0.92	0.15	65,65,65,65	0
57	MG	2A	3221	1/1	0.92	0.11	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1D	314	1/1	0.92	0.29	38,38,38,38	0
57	MG	1a	1849	1/1	0.92	0.14	63,63,63,63	0
57	MG	1A	3227	1/1	0.92	0.15	42,42,42,42	0
57	MG	2A	3226	1/1	0.92	0.10	49,49,49,49	0
57	MG	2A	3230	1/1	0.92	0.12	56,56,56,56	0
57	MG	1D	318	1/1	0.92	0.11	51,51,51,51	0
57	MG	1a	1700	1/1	0.92	0.23	65,65,65,65	0
57	MG	1A	3923	1/1	0.92	0.09	26,26,26,26	0
57	MG	2A	3245	1/1	0.92	0.12	60,60,60,60	0
57	MG	2a	3114	1/1	0.92	0.10	63,63,63,63	0
57	MG	1a	1865	1/1	0.92	0.11	66,66,66,66	0
57	MG	1F	308	1/1	0.92	0.10	52,52,52,52	0
57	MG	1a	1871	1/1	0.92	0.15	63,63,63,63	0
57	MG	1A	3668	1/1	0.92	0.11	61,61,61,61	0
57	MG	2A	3559	1/1	0.92	0.09	45,45,45,45	0
57	MG	2A	3253	1/1	0.92	0.27	50,50,50,50	0
57	MG	2A	3565	1/1	0.92	0.10	59,59,59,59	0
57	MG	2A	3254	1/1	0.92	0.13	52,52,52,52	0
57	MG	2A	3269	1/1	0.92	0.15	52,52,52,52	0
57	MG	1a	1873	1/1	0.92	0.10	57,57,57,57	0
57	MG	2A	3274	1/1	0.92	0.14	47,47,47,47	0
57	MG	2A	3577	1/1	0.92	0.11	47,47,47,47	0
57	MG	1A	3669	1/1	0.92	0.13	56,56,56,56	0
57	MG	1A	3769	1/1	0.92	0.07	35,35,35,35	0
57	MG	2a	3153	1/1	0.92	0.11	65,65,65,65	0
57	MG	2A	3584	1/1	0.92	0.10	43,43,43,43	0
57	MG	2A	3588	1/1	0.92	0.09	58,58,58,58	0
57	MG	2a	3158	1/1	0.92	0.12	69,69,69,69	0
57	MG	1A	3947	1/1	0.92	0.07	43,43,43,43	0
57	MG	1A	3504	1/1	0.92	0.08	25,25,25,25	0
57	MG	1A	3597	1/1	0.92	0.17	33,33,33,33	0
57	MG	2A	3603	1/1	0.92	0.12	39,39,39,39	0
57	MG	1A	3232	1/1	0.92	0.13	37,37,37,37	0
57	MG	1d	303	1/1	0.92	0.11	56,56,56,56	0
57	MG	2A	3307	1/1	0.92	0.08	49,49,49,49	0
57	MG	1d	305	1/1	0.92	0.10	57,57,57,57	0
57	MG	2A	3611	1/1	0.92	0.08	36,36,36,36	0
57	MG	2a	3174	1/1	0.92	0.11	61,61,61,61	0
57	MG	1A	3789	1/1	0.92	0.08	34,34,34,34	0
57	MG	1a	1727	1/1	0.92	0.14	63,63,63,63	0
57	MG	2A	3619	1/1	0.92	0.07	60,60,60,60	0
57	MG	1f	201	1/1	0.92	0.26	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3965	1/1	0.92	0.10	47,47,47,47	0
57	MG	1A	3599	1/1	0.92	0.11	50,50,50,50	0
57	MG	1A	3512	1/1	0.92	0.16	40,40,40,40	0
57	MG	1A	3797	1/1	0.92	0.09	38,38,38,38	0
57	MG	2A	3336	1/1	0.92	0.11	48,48,48,48	0
57	MG	1A	3798	1/1	0.92	0.11	44,44,44,44	0
57	MG	1A	3100	1/1	0.92	0.32	36,36,36,36	0
57	MG	2A	3634	1/1	0.92	0.12	59,59,59,59	0
57	MG	1A	3199	1/1	0.92	0.20	56,56,56,56	0
57	MG	1t	202	1/1	0.92	0.11	56,56,56,56	0
57	MG	1A	3692	1/1	0.92	0.10	59,59,59,59	0
57	MG	1a	1756	1/1	0.92	0.13	47,47,47,47	0
57	MG	2A	3661	1/1	0.92	0.10	38,38,38,38	0
58	MPD	2A	3739	8/8	0.92	0.15	46,56,63,64	0
57	MG	1A	3694	1/1	0.92	0.11	58,58,58,58	0
57	MG	2A	3666	1/1	0.92	0.09	48,48,48,48	0
57	MG	15	107	1/1	0.92	0.10	54,54,54,54	0
57	MG	2A	3258	1/1	0.93	0.08	47,47,47,47	0
57	MG	2A	3261	1/1	0.93	0.13	62,62,62,62	0
57	MG	2A	3617	1/1	0.93	0.07	38,38,38,38	0
57	MG	2A	3266	1/1	0.93	0.20	52,52,52,52	0
57	MG	2A	3267	1/1	0.93	0.10	51,51,51,51	0
57	MG	1a	1662	1/1	0.93	0.12	55,55,55,55	0
57	MG	1A	3781	1/1	0.93	0.10	57,57,57,57	0
57	MG	1A	3788	1/1	0.93	0.07	47,47,47,47	0
57	MG	2A	3275	1/1	0.93	0.09	48,48,48,48	0
57	MG	1a	1850	1/1	0.93	0.10	59,59,59,59	0
57	MG	2A	3629	1/1	0.93	0.08	64,64,64,64	0
57	MG	2A	3277	1/1	0.93	0.14	54,54,54,54	0
57	MG	1a	1665	1/1	0.93	0.10	62,62,62,62	0
57	MG	1a	1666	1/1	0.93	0.17	52,52,52,52	0
57	MG	2A	3637	1/1	0.93	0.08	59,59,59,59	0
57	MG	1A	3150	1/1	0.93	0.08	41,41,41,41	0
57	MG	2A	3286	1/1	0.93	0.10	42,42,42,42	0
57	MG	1a	1859	1/1	0.93	0.10	49,49,49,49	0
57	MG	2A	3654	1/1	0.93	0.08	63,63,63,63	0
57	MG	1A	3413	1/1	0.93	0.05	36,36,36,36	0
57	MG	1a	1861	1/1	0.93	0.15	57,57,57,57	0
57	MG	1A	3999	1/1	0.93	0.07	23,23,23,23	0
57	MG	1A	3503	1/1	0.93	0.07	44,44,44,44	0
57	MG	1a	1673	1/1	0.93	0.09	56,56,56,56	0
57	MG	2A	3672	1/1	0.93	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
57	MG	1A	3197	1/1	0.93	0.13	45,45,45,45	0
57	MG	1A	3639	1/1	0.93	0.12	46,46,46,46	0
57	MG	1A	3508	1/1	0.93	0.08	33,33,33,33	0
57	MG	1a	1677	1/1	0.93	0.18	57,57,57,57	0
57	MG	1A	3088	1/1	0.93	0.10	42,42,42,42	0
57	MG	2A	3332	1/1	0.93	0.09	59,59,59,59	0
57	MG	1A	3421	1/1	0.93	0.10	45,45,45,45	0
57	MG	2A	3688	1/1	0.93	0.11	56,56,56,56	0
57	MG	1A	3646	1/1	0.93	0.15	53,53,53,53	0
57	MG	2A	3691	1/1	0.93	0.07	43,43,43,43	0
57	MG	2A	3339	1/1	0.93	0.08	44,44,44,44	0
57	MG	1A	3514	1/1	0.93	0.06	49,49,49,49	0
57	MG	1A	3516	1/1	0.93	0.12	48,48,48,48	0
57	MG	1A	3817	1/1	0.93	0.09	59,59,59,59	0
57	MG	2A	3351	1/1	0.93	0.12	47,47,47,47	0
57	MG	1A	3022	1/1	0.93	0.14	49,49,49,49	0
57	MG	1A	3828	1/1	0.93	0.11	44,44,44,44	0
57	MG	2A	3704	1/1	0.93	0.12	58,58,58,58	0
57	MG	1a	1693	1/1	0.93	0.14	57,57,57,57	0
57	MG	1A	3832	1/1	0.93	0.09	49,49,49,49	0
57	MG	1A	3522	1/1	0.93	0.05	27,27,27,27	0
57	MG	2A	3713	1/1	0.93	0.12	47,47,47,47	0
57	MG	2A	3365	1/1	0.93	0.10	65,65,65,65	0
57	MG	2A	3717	1/1	0.93	0.10	65,65,65,65	0
57	MG	2A	3718	1/1	0.93	0.10	53,53,53,53	0
57	MG	2A	3721	1/1	0.93	0.12	59,59,59,59	0
57	MG	1A	3523	1/1	0.93	0.12	56,56,56,56	0
57	MG	2A	3367	1/1	0.93	0.09	41,41,41,41	0
57	MG	2A	3725	1/1	0.93	0.12	67,67,67,67	0
57	MG	1a	1699	1/1	0.93	0.18	50,50,50,50	0
57	MG	1A	3259	1/1	0.93	0.13	61,61,61,61	0
57	MG	1a	1701	1/1	0.93	0.23	51,51,51,51	0
57	MG	2A	3730	1/1	0.93	0.09	57,57,57,57	0
57	MG	2A	3378	1/1	0.93	0.12	64,64,64,64	0
57	MG	1l	202	1/1	0.93	0.10	55,55,55,55	0
57	MG	1A	3202	1/1	0.93	0.08	39,39,39,39	0
57	MG	2A	3734	1/1	0.93	0.11	61,61,61,61	0
57	MG	1A	3842	1/1	0.93	0.10	35,35,35,35	0
57	MG	2A	3737	1/1	0.93	0.11	47,47,47,47	0
57	MG	1B	221	1/1	0.93	0.07	27,27,27,27	0
57	MG	1A	3846	1/1	0.93	0.09	34,34,34,34	0
57	MG	1a	1708	1/1	0.93	0.15	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3344	1/1	0.93	0.12	28,28,28,28	0
57	MG	1A	3850	1/1	0.93	0.07	43,43,43,43	0
57	MG	2A	3396	1/1	0.93	0.09	49,49,49,49	0
57	MG	2A	3398	1/1	0.93	0.07	46,46,46,46	0
57	MG	2B	212	1/1	0.93	0.09	58,58,58,58	0
57	MG	2A	3007	1/1	0.93	0.08	45,45,45,45	0
57	MG	1B	228	1/1	0.93	0.07	53,53,53,53	0
57	MG	2A	3011	1/1	0.93	0.15	45,45,45,45	0
57	MG	2A	3014	1/1	0.93	0.14	61,61,61,61	0
57	MG	2A	3403	1/1	0.93	0.08	48,48,48,48	0
57	MG	1a	1721	1/1	0.93	0.08	58,58,58,58	0
57	MG	2D	309	1/1	0.93	0.12	64,64,64,64	0
57	MG	2A	3033	1/1	0.93	0.13	54,54,54,54	0
57	MG	1A	3851	1/1	0.93	0.07	32,32,32,32	0
57	MG	1A	3538	1/1	0.93	0.09	45,45,45,45	0
57	MG	2A	3412	1/1	0.93	0.08	55,55,55,55	0
57	MG	2A	3419	1/1	0.93	0.09	39,39,39,39	0
57	MG	2A	3420	1/1	0.93	0.13	40,40,40,40	0
57	MG	2A	3040	1/1	0.93	0.18	58,58,58,58	0
57	MG	2T	201	1/1	0.93	0.13	56,56,56,56	0
57	MG	2A	3042	1/1	0.93	0.12	53,53,53,53	0
57	MG	1A	3540	1/1	0.93	0.07	48,48,48,48	0
57	MG	2A	3048	1/1	0.93	0.07	53,53,53,53	0
57	MG	1A	3431	1/1	0.93	0.06	37,37,37,37	0
57	MG	2A	3051	1/1	0.93	0.27	57,57,57,57	0
57	MG	26	101	1/1	0.93	0.10	56,56,56,56	0
57	MG	1A	3550	1/1	0.93	0.08	44,44,44,44	0
57	MG	1A	3553	1/1	0.93	0.08	48,48,48,48	0
57	MG	1A	3345	1/1	0.93	0.09	55,55,55,55	0
57	MG	1A	3688	1/1	0.93	0.15	33,33,33,33	0
57	MG	2A	3063	1/1	0.93	0.17	60,60,60,60	0
57	MG	2A	3065	1/1	0.93	0.17	60,60,60,60	0
57	MG	1E	305	1/1	0.93	0.07	52,52,52,52	0
57	MG	2a	3014	1/1	0.93	0.12	54,54,54,54	0
57	MG	1a	1742	1/1	0.93	0.11	63,63,63,63	0
57	MG	2a	3016	1/1	0.93	0.16	60,60,60,60	0
57	MG	2a	3017	1/1	0.93	0.15	56,56,56,56	0
57	MG	1a	1743	1/1	0.93	0.11	50,50,50,50	0
57	MG	1a	1744	1/1	0.93	0.07	60,60,60,60	0
57	MG	1A	3882	1/1	0.93	0.11	40,40,40,40	0
57	MG	2A	3446	1/1	0.93	0.17	64,64,64,64	0
57	MG	1a	1750	1/1	0.93	0.19	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3270	1/1	0.93	0.11	27,27,27,27	0
57	MG	2a	3031	1/1	0.93	0.20	54,54,54,54	0
57	MG	2A	3452	1/1	0.93	0.12	61,61,61,61	0
57	MG	2A	3453	1/1	0.93	0.09	51,51,51,51	0
57	MG	1A	3564	1/1	0.93	0.07	51,51,51,51	0
57	MG	1A	3569	1/1	0.93	0.09	34,34,34,34	0
57	MG	1A	3347	1/1	0.93	0.09	20,20,20,20	0
57	MG	2a	3041	1/1	0.93	0.13	61,61,61,61	0
57	MG	2a	3043	1/1	0.93	0.23	60,60,60,60	0
57	MG	2A	3458	1/1	0.93	0.13	47,47,47,47	0
57	MG	1A	3573	1/1	0.93	0.07	38,38,38,38	0
57	MG	1A	3350	1/1	0.93	0.07	24,24,24,24	0
57	MG	2A	3099	1/1	0.93	0.09	52,52,52,52	0
57	MG	1a	1763	1/1	0.93	0.10	62,62,62,62	0
57	MG	1A	3704	1/1	0.93	0.10	51,51,51,51	0
57	MG	1A	3271	1/1	0.93	0.07	50,50,50,50	0
57	MG	2a	3053	1/1	0.93	0.20	48,48,48,48	0
57	MG	2a	3058	1/1	0.93	0.15	67,67,67,67	0
57	MG	1Q	204	1/1	0.93	0.12	53,53,53,53	0
57	MG	2A	3479	1/1	0.93	0.09	53,53,53,53	0
57	MG	1A	3579	1/1	0.93	0.08	43,43,43,43	0
57	MG	2a	3063	1/1	0.93	0.15	63,63,63,63	0
57	MG	2A	3117	1/1	0.93	0.12	59,59,59,59	0
57	MG	1A	3901	1/1	0.93	0.13	40,40,40,40	0
57	MG	1A	3203	1/1	0.93	0.08	47,47,47,47	0
57	MG	2A	3128	1/1	0.93	0.19	47,47,47,47	0
57	MG	2A	3129	1/1	0.93	0.17	64,64,64,64	0
57	MG	1T	202	1/1	0.93	0.11	55,55,55,55	0
57	MG	1A	3906	1/1	0.93	0.11	42,42,42,42	0
57	MG	1V	204	1/1	0.93	0.11	45,45,45,45	0
57	MG	1A	3273	1/1	0.93	0.11	40,40,40,40	0
57	MG	2a	3082	1/1	0.93	0.13	61,61,61,61	0
57	MG	2a	3083	1/1	0.93	0.23	48,48,48,48	0
57	MG	1W	201	1/1	0.93	0.15	45,45,45,45	0
57	MG	2A	3501	1/1	0.93	0.07	48,48,48,48	0
57	MG	2A	3144	1/1	0.93	0.11	47,47,47,47	0
57	MG	2a	3093	1/1	0.93	0.24	62,62,62,62	0
57	MG	1W	202	1/1	0.93	0.15	40,40,40,40	0
57	MG	2a	3097	1/1	0.93	0.22	60,60,60,60	0
57	MG	2a	3098	1/1	0.93	0.22	50,50,50,50	0
57	MG	1A	3453	1/1	0.93	0.07	58,58,58,58	0
57	MG	2A	3153	1/1	0.93	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
57	MG	1A	3919	1/1	0.93	0.06	13,13,13,13	0
57	MG	2A	3158	1/1	0.93	0.14	51,51,51,51	0
57	MG	1A	3083	1/1	0.93	0.17	32,32,32,32	0
57	MG	2a	3110	1/1	0.93	0.12	52,52,52,52	0
57	MG	1A	3290	1/1	0.93	0.09	52,52,52,52	0
57	MG	1A	3925	1/1	0.93	0.08	21,21,21,21	0
57	MG	1a	1788	1/1	0.93	0.08	69,69,69,69	0
57	MG	1A	3367	1/1	0.93	0.11	29,29,29,29	0
57	MG	1a	1791	1/1	0.93	0.11	55,55,55,55	0
57	MG	2a	3117	1/1	0.93	0.21	65,65,65,65	0
57	MG	1A	3168	1/1	0.93	0.11	52,52,52,52	0
57	MG	2a	3122	1/1	0.93	0.17	57,57,57,57	0
57	MG	1A	3376	1/1	0.93	0.10	42,42,42,42	0
57	MG	1a	1606	1/1	0.93	0.09	68,68,68,68	0
57	MG	2a	3128	1/1	0.93	0.09	60,60,60,60	0
57	MG	1A	3945	1/1	0.93	0.13	55,55,55,55	0
57	MG	1A	3946	1/1	0.93	0.11	46,46,46,46	0
57	MG	2a	3131	1/1	0.93	0.08	54,54,54,54	0
57	MG	1A	3170	1/1	0.93	0.08	49,49,49,49	0
57	MG	1A	3949	1/1	0.93	0.09	61,61,61,61	0
57	MG	1A	3594	1/1	0.93	0.08	23,23,23,23	0
57	MG	1A	3596	1/1	0.93	0.15	53,53,53,53	0
57	MG	1a	1618	1/1	0.93	0.16	56,56,56,56	0
57	MG	1a	1619	1/1	0.93	0.20	59,59,59,59	0
57	MG	1a	1623	1/1	0.93	0.12	57,57,57,57	0
57	MG	2a	3147	1/1	0.93	0.08	70,70,70,70	0
57	MG	1A	3087	1/1	0.93	0.08	38,38,38,38	0
57	MG	2A	3543	1/1	0.93	0.08	39,39,39,39	0
57	MG	2A	3546	1/1	0.93	0.15	37,37,37,37	0
57	MG	1A	3741	1/1	0.93	0.08	38,38,38,38	0
57	MG	2A	3550	1/1	0.93	0.08	58,58,58,58	0
57	MG	2A	3554	1/1	0.93	0.09	52,52,52,52	0
57	MG	1A	3963	1/1	0.93	0.09	26,26,26,26	0
57	MG	1A	3125	1/1	0.93	0.21	58,58,58,58	0
57	MG	1a	1814	1/1	0.93	0.19	68,68,68,68	0
57	MG	2a	3165	1/1	0.93	0.08	53,53,53,53	0
57	MG	1a	1816	1/1	0.93	0.09	58,58,58,58	0
57	MG	1a	1819	1/1	0.93	0.09	57,57,57,57	0
57	MG	2A	3218	1/1	0.93	0.10	43,43,43,43	0
57	MG	1a	1822	1/1	0.93	0.07	68,68,68,68	0
57	MG	1A	3387	1/1	0.93	0.13	50,50,50,50	0
57	MG	2A	3572	1/1	0.93	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
57	MG	1A	3132	1/1	0.93	0.32	41,41,41,41	0
57	MG	1a	1827	1/1	0.93	0.11	62,62,62,62	0
57	MG	2A	3580	1/1	0.93	0.07	59,59,59,59	0
57	MG	2A	3581	1/1	0.93	0.07	63,63,63,63	0
57	MG	1A	3389	1/1	0.93	0.11	46,46,46,46	0
57	MG	1A	3390	1/1	0.93	0.09	35,35,35,35	0
57	MG	1A	3392	1/1	0.93	0.09	53,53,53,53	0
57	MG	2A	3587	1/1	0.93	0.12	60,60,60,60	0
57	MG	1A	3393	1/1	0.93	0.10	56,56,56,56	0
57	MG	2a	3191	1/1	0.93	0.10	73,73,73,73	0
57	MG	1a	1648	1/1	0.93	0.21	56,56,56,56	0
57	MG	2A	3591	1/1	0.93	0.10	52,52,52,52	0
57	MG	2A	3242	1/1	0.93	0.18	61,61,61,61	0
57	MG	1A	3139	1/1	0.93	0.09	45,45,45,45	0
57	MG	2t	201	1/1	0.93	0.14	51,51,51,51	0
57	MG	2A	3601	1/1	0.93	0.09	66,66,66,66	0
57	MG	1A	3320	1/1	0.93	0.14	41,41,41,41	0
57	MG	1A	3623	1/1	0.93	0.09	53,53,53,53	0
58	MPD	18	104	8/8	0.93	0.13	25,36,38,39	0
57	MG	2A	3607	1/1	0.93	0.12	56,56,56,56	0
57	MG	1A	3321	1/1	0.93	0.15	27,27,27,27	0
57	MG	1A	3405	1/1	0.93	0.07	41,41,41,41	0
57	MG	1a	1840	1/1	0.93	0.11	62,62,62,62	0
57	MG	1a	1661	1/1	0.93	0.11	62,62,62,62	0
57	MG	2A	3639	1/1	0.94	0.10	50,50,50,50	0
57	MG	2A	3305	1/1	0.94	0.12	47,47,47,47	0
57	MG	1A	3713	1/1	0.94	0.07	32,32,32,32	0
57	MG	2A	3308	1/1	0.94	0.14	38,38,38,38	0
57	MG	1a	1705	1/1	0.94	0.11	59,59,59,59	0
57	MG	2A	3656	1/1	0.94	0.10	65,65,65,65	0
57	MG	2A	3658	1/1	0.94	0.08	49,49,49,49	0
57	MG	1A	3131	1/1	0.94	0.14	49,49,49,49	0
57	MG	2A	3316	1/1	0.94	0.05	34,34,34,34	0
57	MG	1A	3891	1/1	0.94	0.16	55,55,55,55	0
57	MG	1A	3228	1/1	0.94	0.12	39,39,39,39	0
57	MG	1A	3296	1/1	0.94	0.11	49,49,49,49	0
57	MG	1a	1713	1/1	0.94	0.10	69,69,69,69	0
57	MG	2A	3325	1/1	0.94	0.13	58,58,58,58	0
57	MG	2A	3326	1/1	0.94	0.12	41,41,41,41	0
57	MG	2A	3328	1/1	0.94	0.09	54,54,54,54	0
57	MG	2A	3680	1/1	0.94	0.07	51,51,51,51	0
57	MG	1F	310	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
57	MG	1o	101	1/1	0.94	0.15	59,59,59,59	0
57	MG	1a	1715	1/1	0.94	0.07	38,38,38,38	0
57	MG	1F	314	1/1	0.94	0.18	60,60,60,60	0
57	MG	2A	3687	1/1	0.94	0.07	49,49,49,49	0
57	MG	1a	1720	1/1	0.94	0.09	62,62,62,62	0
57	MG	1A	3427	1/1	0.94	0.14	39,39,39,39	0
57	MG	1A	3301	1/1	0.94	0.08	36,36,36,36	0
57	MG	1A	3505	1/1	0.94	0.07	27,27,27,27	0
57	MG	2A	3349	1/1	0.94	0.09	44,44,44,44	0
57	MG	1N	202	1/1	0.94	0.10	42,42,42,42	0
57	MG	2A	3353	1/1	0.94	0.11	48,48,48,48	0
57	MG	2A	3005	1/1	0.94	0.10	57,57,57,57	0
57	MG	1a	1726	1/1	0.94	0.10	62,62,62,62	0
57	MG	2A	3701	1/1	0.94	0.10	50,50,50,50	0
57	MG	1A	3067	1/1	0.94	0.08	40,40,40,40	0
57	MG	2A	3361	1/1	0.94	0.13	47,47,47,47	0
57	MG	1A	3369	1/1	0.94	0.17	60,60,60,60	0
57	MG	1a	1732	1/1	0.94	0.13	64,64,64,64	0
57	MG	2A	3708	1/1	0.94	0.10	51,51,51,51	0
57	MG	2A	3711	1/1	0.94	0.08	53,53,53,53	0
57	MG	2A	3016	1/1	0.94	0.16	54,54,54,54	0
57	MG	2A	3023	1/1	0.94	0.19	60,60,60,60	0
57	MG	2A	3714	1/1	0.94	0.13	42,42,42,42	0
57	MG	1A	3905	1/1	0.94	0.22	35,35,35,35	0
57	MG	2A	3029	1/1	0.94	0.10	63,63,63,63	0
57	MG	2A	3369	1/1	0.94	0.11	51,51,51,51	0
57	MG	1A	3233	1/1	0.94	0.12	34,34,34,34	0
57	MG	2A	3034	1/1	0.94	0.28	64,64,64,64	0
57	MG	1A	3613	1/1	0.94	0.09	57,57,57,57	0
57	MG	2A	3724	1/1	0.94	0.20	59,59,59,59	0
57	MG	1A	3914	1/1	0.94	0.07	50,50,50,50	0
57	MG	1a	1741	1/1	0.94	0.07	52,52,52,52	0
57	MG	1A	3434	1/1	0.94	0.13	33,33,33,33	0
57	MG	1A	3743	1/1	0.94	0.07	38,38,38,38	0
57	MG	2A	3045	1/1	0.94	0.07	48,48,48,48	0
57	MG	2A	3046	1/1	0.94	0.15	50,50,50,50	0
57	MG	1A	3745	1/1	0.94	0.06	28,28,28,28	0
57	MG	1a	1746	1/1	0.94	0.09	63,63,63,63	0
57	MG	1a	1747	1/1	0.94	0.09	52,52,52,52	0
57	MG	2A	3397	1/1	0.94	0.12	42,42,42,42	0
57	MG	2A	3736	1/1	0.94	0.21	59,59,59,59	0
57	MG	1A	3921	1/1	0.94	0.08	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3057	1/1	0.94	0.20	62,62,62,62	0
57	MG	1A	3374	1/1	0.94	0.08	25,25,25,25	0
57	MG	1U	201	1/1	0.94	0.18	27,27,27,27	0
57	MG	1A	3622	1/1	0.94	0.14	30,30,30,30	0
57	MG	1a	1754	1/1	0.94	0.09	66,66,66,66	0
57	MG	2A	3064	1/1	0.94	0.06	37,37,37,37	0
57	MG	1A	3436	1/1	0.94	0.05	26,26,26,26	0
57	MG	2A	3066	1/1	0.94	0.07	53,53,53,53	0
57	MG	2A	3067	1/1	0.94	0.08	49,49,49,49	0
57	MG	1A	3626	1/1	0.94	0.17	35,35,35,35	0
57	MG	2A	3415	1/1	0.94	0.07	56,56,56,56	0
57	MG	2A	3418	1/1	0.94	0.09	62,62,62,62	0
57	MG	1A	3938	1/1	0.94	0.09	50,50,50,50	0
57	MG	1A	3758	1/1	0.94	0.10	42,42,42,42	0
57	MG	2D	308	1/1	0.94	0.13	44,44,44,44	0
57	MG	1A	3234	1/1	0.94	0.17	38,38,38,38	0
57	MG	1A	3762	1/1	0.94	0.23	59,59,59,59	0
57	MG	2E	302	1/1	0.94	0.07	43,43,43,43	0
57	MG	2F	303	1/1	0.94	0.14	44,44,44,44	0
57	MG	10	107	1/1	0.94	0.08	50,50,50,50	0
57	MG	11	102	1/1	0.94	0.21	52,52,52,52	0
57	MG	2A	3425	1/1	0.94	0.07	55,55,55,55	0
57	MG	1A	3235	1/1	0.94	0.11	51,51,51,51	0
57	MG	2A	3091	1/1	0.94	0.09	42,42,42,42	0
57	MG	2Q	204	1/1	0.94	0.07	46,46,46,46	0
57	MG	1A	3526	1/1	0.94	0.06	22,22,22,22	0
57	MG	17	104	1/1	0.94	0.16	46,46,46,46	0
57	MG	2A	3094	1/1	0.94	0.13	45,45,45,45	0
57	MG	1A	3528	1/1	0.94	0.11	29,29,29,29	0
57	MG	2A	3097	1/1	0.94	0.11	68,68,68,68	0
57	MG	2W	201	1/1	0.94	0.18	44,44,44,44	0
57	MG	20	102	1/1	0.94	0.13	58,58,58,58	0
57	MG	1A	3631	1/1	0.94	0.07	24,24,24,24	0
57	MG	1A	3529	1/1	0.94	0.10	22,22,22,22	0
57	MG	25	103	1/1	0.94	0.09	48,48,48,48	0
57	MG	1a	1604	1/1	0.94	0.12	48,48,48,48	0
57	MG	1a	1605	1/1	0.94	0.10	62,62,62,62	0
57	MG	1A	3776	1/1	0.94	0.13	35,35,35,35	0
57	MG	2A	3109	1/1	0.94	0.10	49,49,49,49	0
57	MG	1A	3962	1/1	0.94	0.07	36,36,36,36	0
57	MG	2a	3008	1/1	0.94	0.11	60,60,60,60	0
57	MG	2a	3009	1/1	0.94	0.16	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1a	1781	1/1	0.94	0.10	57,57,57,57	0
57	MG	1A	3634	1/1	0.94	0.07	16,16,16,16	0
57	MG	2A	3118	1/1	0.94	0.17	46,46,46,46	0
57	MG	1a	1610	1/1	0.94	0.09	58,58,58,58	0
57	MG	2A	3123	1/1	0.94	0.21	49,49,49,49	0
57	MG	1A	3441	1/1	0.94	0.11	34,34,34,34	0
57	MG	1a	1612	1/1	0.94	0.17	60,60,60,60	0
57	MG	1A	3027	1/1	0.94	0.09	51,51,51,51	0
57	MG	1A	3383	1/1	0.94	0.11	40,40,40,40	0
57	MG	1A	3384	1/1	0.94	0.06	31,31,31,31	0
57	MG	1A	3790	1/1	0.94	0.10	47,47,47,47	0
57	MG	2a	3027	1/1	0.94	0.31	65,65,65,65	0
57	MG	2A	3465	1/1	0.94	0.09	54,54,54,54	0
57	MG	2A	3469	1/1	0.94	0.10	57,57,57,57	0
57	MG	1A	3449	1/1	0.94	0.08	40,40,40,40	0
57	MG	2a	3032	1/1	0.94	0.16	60,60,60,60	0
57	MG	2a	3033	1/1	0.94	0.14	57,57,57,57	0
57	MG	2A	3471	1/1	0.94	0.11	62,62,62,62	0
57	MG	2A	3137	1/1	0.94	0.18	52,52,52,52	0
57	MG	1a	1622	1/1	0.94	0.07	51,51,51,51	0
57	MG	2A	3476	1/1	0.94	0.07	53,53,53,53	0
57	MG	1A	3450	1/1	0.94	0.08	36,36,36,36	0
57	MG	2A	3145	1/1	0.94	0.09	55,55,55,55	0
57	MG	1A	3977	1/1	0.94	0.09	52,52,52,52	0
57	MG	1A	3978	1/1	0.94	0.08	55,55,55,55	0
57	MG	2A	3482	1/1	0.94	0.14	53,53,53,53	0
57	MG	2A	3151	1/1	0.94	0.07	53,53,53,53	0
57	MG	1a	1629	1/1	0.94	0.08	50,50,50,50	0
57	MG	1a	1800	1/1	0.94	0.13	60,60,60,60	0
57	MG	2A	3488	1/1	0.94	0.09	31,31,31,31	0
57	MG	1A	3330	1/1	0.94	0.07	37,37,37,37	0
57	MG	1A	3551	1/1	0.94	0.07	36,36,36,36	0
57	MG	2a	3054	1/1	0.94	0.07	38,38,38,38	0
57	MG	2a	3055	1/1	0.94	0.11	66,66,66,66	0
57	MG	2a	3056	1/1	0.94	0.10	60,60,60,60	0
57	MG	1A	3800	1/1	0.94	0.08	31,31,31,31	0
57	MG	1A	3006	1/1	0.94	0.10	35,35,35,35	0
57	MG	1a	1637	1/1	0.94	0.07	43,43,43,43	0
57	MG	2a	3061	1/1	0.94	0.14	54,54,54,54	0
57	MG	1A	3652	1/1	0.94	0.10	41,41,41,41	0
57	MG	2A	3499	1/1	0.94	0.11	53,53,53,53	0
57	MG	2a	3064	1/1	0.94	0.12	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3039	1/1	0.94	0.13	41,41,41,41	0
57	MG	1a	1644	1/1	0.94	0.16	49,49,49,49	0
57	MG	1A	3661	1/1	0.94	0.13	40,40,40,40	0
57	MG	1A	3810	1/1	0.94	0.07	73,73,73,73	0
57	MG	2a	3070	1/1	0.94	0.08	56,56,56,56	0
57	MG	1A	3011	1/1	0.94	0.08	50,50,50,50	0
57	MG	2A	3508	1/1	0.94	0.16	56,56,56,56	0
57	MG	2A	3177	1/1	0.94	0.21	50,50,50,50	0
57	MG	2a	3077	1/1	0.94	0.13	64,64,64,64	0
57	MG	1a	1817	1/1	0.94	0.07	78,78,78,78	0
57	MG	1A	3562	1/1	0.94	0.07	38,38,38,38	0
57	MG	1A	3563	1/1	0.94	0.10	40,40,40,40	0
57	MG	2A	3517	1/1	0.94	0.17	59,59,59,59	0
57	MG	2A	3186	1/1	0.94	0.15	62,62,62,62	0
57	MG	2a	3087	1/1	0.94	0.07	60,60,60,60	0
57	MG	1A	3338	1/1	0.94	0.09	42,42,42,42	0
57	MG	2a	3090	1/1	0.94	0.19	50,50,50,50	0
57	MG	1A	3670	1/1	0.94	0.14	52,52,52,52	0
57	MG	2A	3190	1/1	0.94	0.14	59,59,59,59	0
57	MG	1A	3568	1/1	0.94	0.08	52,52,52,52	0
57	MG	1a	1660	1/1	0.94	0.22	61,61,61,61	0
57	MG	1A	3047	1/1	0.94	0.08	37,37,37,37	0
57	MG	1a	1831	1/1	0.94	0.14	59,59,59,59	0
57	MG	1A	3166	1/1	0.94	0.16	49,49,49,49	0
57	MG	2A	3201	1/1	0.94	0.10	54,54,54,54	0
57	MG	1A	3014	1/1	0.94	0.16	55,55,55,55	0
57	MG	2A	3204	1/1	0.94	0.10	51,51,51,51	0
57	MG	2a	3108	1/1	0.94	0.09	45,45,45,45	0
57	MG	2A	3205	1/1	0.94	0.07	52,52,52,52	0
57	MG	1A	4019	1/1	0.94	0.06	24,24,24,24	0
57	MG	1A	4021	1/1	0.94	0.08	39,39,39,39	0
57	MG	2A	3209	1/1	0.94	0.18	56,56,56,56	0
57	MG	2A	3539	1/1	0.94	0.10	60,60,60,60	0
57	MG	2A	3211	1/1	0.94	0.11	41,41,41,41	0
57	MG	1A	3474	1/1	0.94	0.08	55,55,55,55	0
57	MG	2A	3216	1/1	0.94	0.14	57,57,57,57	0
57	MG	2a	3120	1/1	0.94	0.12	60,60,60,60	0
57	MG	1A	3475	1/1	0.94	0.09	29,29,29,29	0
57	MG	1A	4025	1/1	0.94	0.23	45,45,45,45	0
57	MG	2A	3552	1/1	0.94	0.08	50,50,50,50	0
57	MG	1A	3845	1/1	0.94	0.08	41,41,41,41	0
57	MG	1a	1670	1/1	0.94	0.10	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3395	1/1	0.94	0.08	42,42,42,42	0
57	MG	1a	1672	1/1	0.94	0.17	57,57,57,57	0
57	MG	1A	3107	1/1	0.94	0.09	37,37,37,37	0
57	MG	2a	3133	1/1	0.94	0.14	63,63,63,63	0
57	MG	2A	3227	1/1	0.94	0.14	55,55,55,55	0
57	MG	1a	1846	1/1	0.94	0.11	59,59,59,59	0
57	MG	2A	3232	1/1	0.94	0.10	64,64,64,64	0
57	MG	2A	3233	1/1	0.94	0.11	53,53,53,53	0
57	MG	1B	205	1/1	0.94	0.11	50,50,50,50	0
57	MG	1A	3172	1/1	0.94	0.08	41,41,41,41	0
57	MG	2a	3146	1/1	0.94	0.09	56,56,56,56	0
57	MG	2A	3576	1/1	0.94	0.10	51,51,51,51	0
57	MG	1A	3276	1/1	0.94	0.13	58,58,58,58	0
57	MG	2a	3152	1/1	0.94	0.09	69,69,69,69	0
57	MG	1a	1852	1/1	0.94	0.07	60,60,60,60	0
57	MG	2A	3244	1/1	0.94	0.12	55,55,55,55	0
57	MG	1A	3697	1/1	0.94	0.09	75,75,75,75	0
57	MG	2a	3157	1/1	0.94	0.14	63,63,63,63	0
57	MG	1A	3583	1/1	0.94	0.11	40,40,40,40	0
57	MG	1a	1679	1/1	0.94	0.10	52,52,52,52	0
57	MG	2a	3161	1/1	0.94	0.10	47,47,47,47	0
57	MG	1a	1680	1/1	0.94	0.07	48,48,48,48	0
57	MG	1B	213	1/1	0.94	0.09	47,47,47,47	0
57	MG	1a	1864	1/1	0.94	0.08	59,59,59,59	0
57	MG	1A	3855	1/1	0.94	0.09	34,34,34,34	0
57	MG	1B	218	1/1	0.94	0.08	52,52,52,52	0
57	MG	2A	3595	1/1	0.94	0.08	46,46,46,46	0
57	MG	1a	1870	1/1	0.94	0.08	64,64,64,64	0
57	MG	2A	3597	1/1	0.94	0.07	63,63,63,63	0
57	MG	1A	3860	1/1	0.94	0.09	36,36,36,36	0
57	MG	1A	3481	1/1	0.94	0.07	43,43,43,43	0
57	MG	1A	3868	1/1	0.94	0.07	45,45,45,45	0
57	MG	1A	3061	1/1	0.94	0.20	43,43,43,43	0
57	MG	2a	3178	1/1	0.94	0.14	53,53,53,53	0
57	MG	1a	1875	1/1	0.94	0.10	61,61,61,61	0
57	MG	1a	1691	1/1	0.94	0.09	53,53,53,53	0
57	MG	1A	3412	1/1	0.94	0.05	33,33,33,33	0
57	MG	1a	1879	1/1	0.94	0.13	65,65,65,65	0
57	MG	1A	3874	1/1	0.94	0.07	40,40,40,40	0
57	MG	2A	3281	1/1	0.94	0.18	56,56,56,56	0
57	MG	1A	3348	1/1	0.94	0.12	43,43,43,43	0
57	MG	1A	3002	1/1	0.94	0.10	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3418	1/1	0.94	0.08	21,21,21,21	0
57	MG	2e	202	1/1	0.94	0.10	65,65,65,65	0
57	MG	2A	3287	1/1	0.94	0.19	56,56,56,56	0
57	MG	1A	3181	1/1	0.94	0.15	46,46,46,46	0
57	MG	2A	3293	1/1	0.94	0.12	54,54,54,54	0
57	MG	2A	3295	1/1	0.94	0.16	56,56,56,56	0
57	MG	2A	3296	1/1	0.94	0.12	60,60,60,60	0
57	MG	2A	3628	1/1	0.94	0.06	64,64,64,64	0
57	MG	1A	3711	1/1	0.94	0.07	38,38,38,38	0
57	MG	1D	315	1/1	0.94	0.19	63,63,63,63	0
57	MG	2A	3631	1/1	0.94	0.12	53,53,53,53	0
57	MG	2A	3299	1/1	0.94	0.08	38,38,38,38	0
57	MG	2A	3301	1/1	0.94	0.11	21,21,21,21	0
57	MG	2A	3635	1/1	0.94	0.10	55,55,55,55	0
57	MG	2A	3304	1/1	0.94	0.07	49,49,49,49	0
57	MG	1A	3974	1/1	0.95	0.07	45,45,45,45	0
57	MG	2A	3108	1/1	0.95	0.13	58,58,58,58	0
57	MG	1A	3782	1/1	0.95	0.11	36,36,36,36	0
57	MG	2A	3112	1/1	0.95	0.09	47,47,47,47	0
57	MG	2A	3113	1/1	0.95	0.20	45,45,45,45	0
57	MG	1A	3783	1/1	0.95	0.05	27,27,27,27	0
57	MG	2A	3707	1/1	0.95	0.06	73,73,73,73	0
57	MG	1A	3981	1/1	0.95	0.09	46,46,46,46	0
57	MG	2A	3710	1/1	0.95	0.06	53,53,53,53	0
57	MG	1A	3070	1/1	0.95	0.13	22,22,22,22	0
57	MG	1a	1802	1/1	0.95	0.10	55,55,55,55	0
57	MG	2A	3119	1/1	0.95	0.11	43,43,43,43	0
57	MG	1A	3456	1/1	0.95	0.14	51,51,51,51	0
57	MG	2A	3122	1/1	0.95	0.08	41,41,41,41	0
57	MG	2A	3411	1/1	0.95	0.10	56,56,56,56	0
57	MG	1a	1635	1/1	0.95	0.19	63,63,63,63	0
57	MG	2A	3719	1/1	0.95	0.08	58,58,58,58	0
57	MG	1A	3537	1/1	0.95	0.18	40,40,40,40	0
57	MG	1a	1806	1/1	0.95	0.09	66,66,66,66	0
57	MG	1A	3269	1/1	0.95	0.09	31,31,31,31	0
57	MG	2A	3130	1/1	0.95	0.25	45,45,45,45	0
57	MG	1A	3642	1/1	0.95	0.08	51,51,51,51	0
57	MG	2A	3133	1/1	0.95	0.15	46,46,46,46	0
57	MG	1a	1639	1/1	0.95	0.16	60,60,60,60	0
57	MG	1a	1640	1/1	0.95	0.11	53,53,53,53	0
57	MG	1A	3398	1/1	0.95	0.14	49,49,49,49	0
57	MG	1a	1643	1/1	0.95	0.10	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3427	1/1	0.95	0.10	52,52,52,52	0
57	MG	1A	3541	1/1	0.95	0.07	47,47,47,47	0
57	MG	2A	3143	1/1	0.95	0.14	56,56,56,56	0
57	MG	1A	3205	1/1	0.95	0.16	46,46,46,46	0
57	MG	1A	3548	1/1	0.95	0.07	43,43,43,43	0
57	MG	1A	3549	1/1	0.95	0.06	25,25,25,25	0
57	MG	1A	3804	1/1	0.95	0.09	51,51,51,51	0
57	MG	1A	4001	1/1	0.95	0.09	28,28,28,28	0
57	MG	2A	3435	1/1	0.95	0.07	36,36,36,36	0
57	MG	1a	1825	1/1	0.95	0.08	49,49,49,49	0
57	MG	2B	205	1/1	0.95	0.08	49,49,49,49	0
57	MG	2B	206	1/1	0.95	0.06	42,42,42,42	0
57	MG	1A	3075	1/1	0.95	0.10	41,41,41,41	0
57	MG	2A	3439	1/1	0.95	0.12	64,64,64,64	0
57	MG	2A	3156	1/1	0.95	0.09	60,60,60,60	0
57	MG	1A	3031	1/1	0.95	0.08	16,16,16,16	0
57	MG	1A	4006	1/1	0.95	0.10	29,29,29,29	0
57	MG	1A	3655	1/1	0.95	0.11	39,39,39,39	0
57	MG	1A	3656	1/1	0.95	0.12	52,52,52,52	0
57	MG	2B	217	1/1	0.95	0.10	57,57,57,57	0
57	MG	2A	3450	1/1	0.95	0.11	57,57,57,57	0
57	MG	2A	3163	1/1	0.95	0.11	56,56,56,56	0
57	MG	1A	3659	1/1	0.95	0.07	30,30,30,30	0
57	MG	2D	305	1/1	0.95	0.26	46,46,46,46	0
57	MG	1A	3552	1/1	0.95	0.07	47,47,47,47	0
57	MG	1A	4018	1/1	0.95	0.10	41,41,41,41	0
57	MG	1A	3407	1/1	0.95	0.07	35,35,35,35	0
57	MG	1A	3470	1/1	0.95	0.07	60,60,60,60	0
57	MG	2F	301	1/1	0.95	0.13	42,42,42,42	0
57	MG	1A	3831	1/1	0.95	0.07	40,40,40,40	0
57	MG	2G	3301	1/1	0.95	0.06	68,68,68,68	0
57	MG	1A	3471	1/1	0.95	0.11	50,50,50,50	0
57	MG	1A	3176	1/1	0.95	0.10	39,39,39,39	0
57	MG	1A	3211	1/1	0.95	0.24	40,40,40,40	0
57	MG	2P	202	1/1	0.95	0.05	41,41,41,41	0
57	MG	1B	201	1/1	0.95	0.10	46,46,46,46	0
57	MG	2A	3466	1/1	0.95	0.12	48,48,48,48	0
57	MG	2A	3467	1/1	0.95	0.10	60,60,60,60	0
57	MG	1A	3476	1/1	0.95	0.08	22,22,22,22	0
57	MG	2A	3183	1/1	0.95	0.08	46,46,46,46	0
57	MG	1A	3840	1/1	0.95	0.07	15,15,15,15	0
57	MG	1B	204	1/1	0.95	0.12	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3474	1/1	0.95	0.15	46,46,46,46	0
57	MG	1a	1848	1/1	0.95	0.07	52,52,52,52	0
57	MG	2W	202	1/1	0.95	0.12	51,51,51,51	0
57	MG	1A	3672	1/1	0.95	0.06	38,38,38,38	0
57	MG	2A	3477	1/1	0.95	0.07	57,57,57,57	0
57	MG	1A	3140	1/1	0.95	0.09	39,39,39,39	0
57	MG	2A	3196	1/1	0.95	0.11	51,51,51,51	0
57	MG	1A	3351	1/1	0.95	0.06	37,37,37,37	0
57	MG	1A	3677	1/1	0.95	0.07	27,27,27,27	0
57	MG	1a	1853	1/1	0.95	0.06	53,53,53,53	0
57	MG	1A	3847	1/1	0.95	0.07	44,44,44,44	0
57	MG	2a	3003	1/1	0.95	0.19	57,57,57,57	0
57	MG	1a	1857	1/1	0.95	0.12	64,64,64,64	0
57	MG	1A	3679	1/1	0.95	0.16	47,47,47,47	0
57	MG	1A	3417	1/1	0.95	0.10	21,21,21,21	0
57	MG	1A	3572	1/1	0.95	0.06	45,45,45,45	0
57	MG	2A	3206	1/1	0.95	0.07	40,40,40,40	0
57	MG	2a	3012	1/1	0.95	0.22	58,58,58,58	0
57	MG	2A	3492	1/1	0.95	0.07	61,61,61,61	0
57	MG	1A	3280	1/1	0.95	0.08	52,52,52,52	0
57	MG	2A	3494	1/1	0.95	0.08	33,33,33,33	0
57	MG	1a	1863	1/1	0.95	0.14	50,50,50,50	0
57	MG	1A	3685	1/1	0.95	0.12	47,47,47,47	0
57	MG	1A	3282	1/1	0.95	0.08	38,38,38,38	0
57	MG	1A	3857	1/1	0.95	0.21	50,50,50,50	0
57	MG	1A	3284	1/1	0.95	0.07	37,37,37,37	0
57	MG	2a	3023	1/1	0.95	0.09	54,54,54,54	0
57	MG	2a	3024	1/1	0.95	0.06	46,46,46,46	0
57	MG	1B	227	1/1	0.95	0.07	52,52,52,52	0
57	MG	2a	3026	1/1	0.95	0.24	69,69,69,69	0
57	MG	1A	3578	1/1	0.95	0.07	62,62,62,62	0
57	MG	2A	3219	1/1	0.95	0.12	53,53,53,53	0
57	MG	2a	3029	1/1	0.95	0.09	51,51,51,51	0
57	MG	1A	3864	1/1	0.95	0.08	25,25,25,25	0
57	MG	1A	3866	1/1	0.95	0.14	44,44,44,44	0
57	MG	2A	3509	1/1	0.95	0.06	39,39,39,39	0
57	MG	1A	3483	1/1	0.95	0.07	41,41,41,41	0
57	MG	2a	3034	1/1	0.95	0.17	52,52,52,52	0
57	MG	2A	3224	1/1	0.95	0.09	51,51,51,51	0
57	MG	1a	1876	1/1	0.95	0.11	69,69,69,69	0
57	MG	2A	3514	1/1	0.95	0.09	66,66,66,66	0
57	MG	1A	3360	1/1	0.95	0.09	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3488	1/1	0.95	0.11	51,51,51,51	0
57	MG	2A	3229	1/1	0.95	0.09	43,43,43,43	0
57	MG	1A	3489	1/1	0.95	0.08	46,46,46,46	0
57	MG	2a	3044	1/1	0.95	0.18	56,56,56,56	0
57	MG	1A	3875	1/1	0.95	0.08	47,47,47,47	0
57	MG	1A	3214	1/1	0.95	0.21	38,38,38,38	0
57	MG	1A	3584	1/1	0.95	0.07	17,17,17,17	0
57	MG	2A	3238	1/1	0.95	0.19	45,45,45,45	0
57	MG	2A	3239	1/1	0.95	0.21	43,43,43,43	0
57	MG	1A	3585	1/1	0.95	0.11	36,36,36,36	0
57	MG	1d	304	1/1	0.95	0.14	62,62,62,62	0
57	MG	2a	3052	1/1	0.95	0.14	43,43,43,43	0
57	MG	1E	306	1/1	0.95	0.08	38,38,38,38	0
57	MG	1E	308	1/1	0.95	0.09	48,48,48,48	0
57	MG	1A	3425	1/1	0.95	0.05	19,19,19,19	0
57	MG	1a	1710	1/1	0.95	0.17	52,52,52,52	0
57	MG	1A	3426	1/1	0.95	0.19	41,41,41,41	0
57	MG	2A	3248	1/1	0.95	0.08	51,51,51,51	0
57	MG	1F	311	1/1	0.95	0.18	39,39,39,39	0
57	MG	1F	312	1/1	0.95	0.20	42,42,42,42	0
57	MG	1A	3142	1/1	0.95	0.08	39,39,39,39	0
57	MG	1F	316	1/1	0.95	0.11	32,32,32,32	0
57	MG	1A	3889	1/1	0.95	0.06	28,28,28,28	0
57	MG	2A	3259	1/1	0.95	0.18	56,56,56,56	0
57	MG	2A	3260	1/1	0.95	0.17	57,57,57,57	0
57	MG	1A	3590	1/1	0.95	0.16	59,59,59,59	0
57	MG	1A	3185	1/1	0.95	0.23	37,37,37,37	0
57	MG	2a	3069	1/1	0.95	0.09	57,57,57,57	0
57	MG	2A	3555	1/1	0.95	0.06	56,56,56,56	0
57	MG	1A	3058	1/1	0.95	0.07	25,25,25,25	0
57	MG	2A	3268	1/1	0.95	0.11	21,21,21,21	0
57	MG	1A	3500	1/1	0.95	0.15	25,25,25,25	0
57	MG	2A	3562	1/1	0.95	0.13	48,48,48,48	0
57	MG	1A	3188	1/1	0.95	0.09	32,32,32,32	0
57	MG	2a	3079	1/1	0.95	0.08	55,55,55,55	0
57	MG	1A	3718	1/1	0.95	0.13	60,60,60,60	0
57	MG	2A	3568	1/1	0.95	0.09	52,52,52,52	0
57	MG	1a	1731	1/1	0.95	0.10	55,55,55,55	0
57	MG	2a	3084	1/1	0.95	0.20	54,54,54,54	0
57	MG	1x	101	1/1	0.95	0.07	46,46,46,46	0
57	MG	1A	3719	1/1	0.95	0.19	38,38,38,38	0
57	MG	2A	3002	1/1	0.95	0.08	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2a	3089	1/1	0.95	0.08	52,52,52,52	0
57	MG	2A	3280	1/1	0.95	0.09	47,47,47,47	0
57	MG	1a	1733	1/1	0.95	0.09	65,65,65,65	0
57	MG	1A	3432	1/1	0.95	0.05	33,33,33,33	0
57	MG	1A	3724	1/1	0.95	0.11	25,25,25,25	0
57	MG	2A	3285	1/1	0.95	0.07	53,53,53,53	0
57	MG	1A	3086	1/1	0.95	0.10	43,43,43,43	0
57	MG	1A	3190	1/1	0.95	0.09	53,53,53,53	0
57	MG	2A	3289	1/1	0.95	0.09	46,46,46,46	0
57	MG	2A	3585	1/1	0.95	0.09	46,46,46,46	0
57	MG	1A	3117	1/1	0.95	0.06	31,31,31,31	0
57	MG	1T	201	1/1	0.95	0.07	36,36,36,36	0
57	MG	2A	3017	1/1	0.95	0.11	52,52,52,52	0
57	MG	1A	3600	1/1	0.95	0.11	35,35,35,35	0
57	MG	1A	3601	1/1	0.95	0.07	40,40,40,40	0
57	MG	2A	3028	1/1	0.95	0.08	38,38,38,38	0
57	MG	1A	3602	1/1	0.95	0.07	35,35,35,35	0
57	MG	1U	203	1/1	0.95	0.26	55,55,55,55	0
57	MG	1A	3195	1/1	0.95	0.15	60,60,60,60	0
57	MG	2A	3602	1/1	0.95	0.07	35,35,35,35	0
57	MG	2a	3118	1/1	0.95	0.18	60,60,60,60	0
57	MG	1A	3739	1/1	0.95	0.07	31,31,31,31	0
57	MG	2A	3605	1/1	0.95	0.07	64,64,64,64	0
57	MG	2A	3306	1/1	0.95	0.15	37,37,37,37	0
57	MG	2a	3123	1/1	0.95	0.07	61,61,61,61	0
57	MG	2a	3124	1/1	0.95	0.11	73,73,73,73	0
57	MG	1A	3511	1/1	0.95	0.10	48,48,48,48	0
57	MG	1A	3437	1/1	0.95	0.08	45,45,45,45	0
57	MG	1X	101	1/1	0.95	0.07	40,40,40,40	0
57	MG	1A	3239	1/1	0.95	0.33	39,39,39,39	0
57	MG	1A	3933	1/1	0.95	0.09	48,48,48,48	0
57	MG	2A	3612	1/1	0.95	0.06	50,50,50,50	0
57	MG	1A	3748	1/1	0.95	0.13	43,43,43,43	0
57	MG	2A	3047	1/1	0.95	0.17	51,51,51,51	0
57	MG	1a	1760	1/1	0.95	0.11	57,57,57,57	0
57	MG	1a	1761	1/1	0.95	0.08	61,61,61,61	0
57	MG	2A	3324	1/1	0.95	0.17	64,64,64,64	0
57	MG	2A	3622	1/1	0.95	0.09	43,43,43,43	0
57	MG	1A	3936	1/1	0.95	0.08	55,55,55,55	0
57	MG	1A	3610	1/1	0.95	0.07	43,43,43,43	0
57	MG	2a	3145	1/1	0.95	0.07	56,56,56,56	0
57	MG	1A	3244	1/1	0.95	0.08	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3517	1/1	0.95	0.07	46,46,46,46	0
57	MG	1a	1767	1/1	0.95	0.10	56,56,56,56	0
57	MG	15	108	1/1	0.95	0.10	47,47,47,47	0
57	MG	1A	3520	1/1	0.95	0.06	44,44,44,44	0
57	MG	1A	3618	1/1	0.95	0.10	33,33,33,33	0
57	MG	1A	3948	1/1	0.95	0.13	53,53,53,53	0
57	MG	1A	3324	1/1	0.95	0.08	40,40,40,40	0
57	MG	2A	3633	1/1	0.95	0.07	67,67,67,67	0
57	MG	1A	3761	1/1	0.95	0.15	47,47,47,47	0
57	MG	1A	3159	1/1	0.95	0.05	35,35,35,35	0
57	MG	2A	3070	1/1	0.95	0.08	49,49,49,49	0
57	MG	2A	3638	1/1	0.95	0.06	63,63,63,63	0
57	MG	2A	3352	1/1	0.95	0.10	57,57,57,57	0
57	MG	1A	3952	1/1	0.95	0.09	55,55,55,55	0
57	MG	2A	3354	1/1	0.95	0.10	39,39,39,39	0
57	MG	2A	3647	1/1	0.95	0.10	60,60,60,60	0
57	MG	2A	3650	1/1	0.95	0.07	49,49,49,49	0
57	MG	1A	3955	1/1	0.95	0.05	20,20,20,20	0
57	MG	1A	3015	1/1	0.95	0.14	33,33,33,33	0
57	MG	2A	3078	1/1	0.95	0.15	57,57,57,57	0
57	MG	2A	3079	1/1	0.95	0.09	51,51,51,51	0
57	MG	2A	3362	1/1	0.95	0.07	40,40,40,40	0
57	MG	2A	3081	1/1	0.95	0.16	66,66,66,66	0
57	MG	2A	3662	1/1	0.95	0.10	44,44,44,44	0
57	MG	1A	3625	1/1	0.95	0.14	29,29,29,29	0
57	MG	1A	3524	1/1	0.95	0.09	39,39,39,39	0
57	MG	1a	1783	1/1	0.95	0.08	55,55,55,55	0
57	MG	2A	3671	1/1	0.95	0.07	59,59,59,59	0
57	MG	2a	3186	1/1	0.95	0.07	52,52,52,52	0
57	MG	1A	3525	1/1	0.95	0.07	42,42,42,42	0
57	MG	1A	3770	1/1	0.95	0.15	44,44,44,44	0
57	MG	2a	3190	1/1	0.95	0.14	58,58,58,58	0
57	MG	1A	3772	1/1	0.95	0.05	50,50,50,50	0
57	MG	2A	3371	1/1	0.95	0.08	49,49,49,49	0
57	MG	1A	3127	1/1	0.95	0.10	46,46,46,46	0
57	MG	1a	1617	1/1	0.95	0.13	54,54,54,54	0
57	MG	2j	3201	1/1	0.95	0.09	60,60,60,60	0
57	MG	2A	3375	1/1	0.95	0.06	59,59,59,59	0
57	MG	1A	3253	1/1	0.95	0.19	30,30,30,30	0
57	MG	1a	1790	1/1	0.95	0.13	62,62,62,62	0
57	MG	1A	3255	1/1	0.95	0.19	43,43,43,43	0
57	MG	1a	1621	1/1	0.95	0.20	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3100	1/1	0.95	0.07	53,53,53,53	0
57	MG	2A	3101	1/1	0.95	0.06	50,50,50,50	0
57	MG	2A	3391	1/1	0.95	0.08	58,58,58,58	0
57	MG	2A	3392	1/1	0.95	0.07	40,40,40,40	0
57	MG	1A	3130	1/1	0.95	0.06	33,33,33,33	0
59	ARG	1B	231	12/12	0.95	0.09	24,39,48,53	0
57	MG	2A	3105	1/1	0.95	0.14	45,45,45,45	0
60	ZN	24	501	1/1	0.95	0.13	122,122,122,122	0
57	MG	1A	3532	1/1	0.95	0.10	25,25,25,25	0
57	MG	1a	1625	1/1	0.96	0.07	42,42,42,42	0
57	MG	1A	3942	1/1	0.96	0.12	49,49,49,49	0
57	MG	1A	3267	1/1	0.96	0.07	43,43,43,43	0
57	MG	1a	1867	1/1	0.96	0.06	52,52,52,52	0
57	MG	1A	3382	1/1	0.96	0.15	67,67,67,67	0
57	MG	1A	3734	1/1	0.96	0.29	40,40,40,40	0
57	MG	2A	3640	1/1	0.96	0.12	68,68,68,68	0
57	MG	2A	3278	1/1	0.96	0.06	55,55,55,55	0
57	MG	1A	3735	1/1	0.96	0.14	34,34,34,34	0
57	MG	1A	3268	1/1	0.96	0.06	31,31,31,31	0
57	MG	1A	3007	1/1	0.96	0.06	28,28,28,28	0
57	MG	1A	3032	1/1	0.96	0.09	44,44,44,44	0
57	MG	1A	3010	1/1	0.96	0.07	39,39,39,39	0
57	MG	2A	3284	1/1	0.96	0.06	45,45,45,45	0
57	MG	1A	3742	1/1	0.96	0.09	39,39,39,39	0
57	MG	1A	3953	1/1	0.96	0.14	53,53,53,53	0
57	MG	2A	3660	1/1	0.96	0.12	50,50,50,50	0
57	MG	1A	3071	1/1	0.96	0.11	27,27,27,27	0
57	MG	1a	1641	1/1	0.96	0.10	68,68,68,68	0
57	MG	2A	3290	1/1	0.96	0.28	48,48,48,48	0
57	MG	1A	3956	1/1	0.96	0.09	41,41,41,41	0
57	MG	1A	3957	1/1	0.96	0.15	61,61,61,61	0
57	MG	1A	3016	1/1	0.96	0.13	32,32,32,32	0
57	MG	1d	302	1/1	0.96	0.11	57,57,57,57	0
57	MG	2A	3673	1/1	0.96	0.10	66,66,66,66	0
57	MG	1A	3746	1/1	0.96	0.07	48,48,48,48	0
57	MG	2A	3677	1/1	0.96	0.09	65,65,65,65	0
57	MG	1a	1646	1/1	0.96	0.31	64,64,64,64	0
57	MG	1A	3194	1/1	0.96	0.10	46,46,46,46	0
57	MG	1A	3134	1/1	0.96	0.16	34,34,34,34	0
57	MG	2A	3303	1/1	0.96	0.07	37,37,37,37	0
57	MG	1A	3196	1/1	0.96	0.08	44,44,44,44	0
57	MG	2A	3683	1/1	0.96	0.07	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1e	202	1/1	0.96	0.07	48,48,48,48	0
57	MG	1e	203	1/1	0.96	0.13	49,49,49,49	0
57	MG	1A	3135	1/1	0.96	0.06	32,32,32,32	0
57	MG	1A	3498	1/1	0.96	0.06	42,42,42,42	0
57	MG	2A	3309	1/1	0.96	0.10	51,51,51,51	0
57	MG	2A	3690	1/1	0.96	0.07	51,51,51,51	0
57	MG	2A	3310	1/1	0.96	0.07	52,52,52,52	0
57	MG	2A	3692	1/1	0.96	0.06	54,54,54,54	0
57	MG	1g	3101	1/1	0.96	0.14	52,52,52,52	0
57	MG	2A	3313	1/1	0.96	0.06	44,44,44,44	0
57	MG	1a	1654	1/1	0.96	0.06	42,42,42,42	0
57	MG	1a	1655	1/1	0.96	0.12	60,60,60,60	0
57	MG	2A	3317	1/1	0.96	0.07	37,37,37,37	0
57	MG	1A	3138	1/1	0.96	0.13	31,31,31,31	0
57	MG	1A	3611	1/1	0.96	0.05	41,41,41,41	0
57	MG	1A	3396	1/1	0.96	0.06	40,40,40,40	0
57	MG	1A	3397	1/1	0.96	0.07	38,38,38,38	0
57	MG	1m	201	1/1	0.96	0.07	65,65,65,65	0
57	MG	1n	101	1/1	0.96	0.07	58,58,58,58	0
57	MG	1A	3614	1/1	0.96	0.07	51,51,51,51	0
57	MG	1A	3766	1/1	0.96	0.09	34,34,34,34	0
57	MG	1A	3615	1/1	0.96	0.15	41,41,41,41	0
57	MG	1A	3980	1/1	0.96	0.05	21,21,21,21	0
57	MG	1A	3616	1/1	0.96	0.04	40,40,40,40	0
57	MG	2A	3335	1/1	0.96	0.10	34,34,34,34	0
57	MG	1A	3288	1/1	0.96	0.07	23,23,23,23	0
57	MG	2A	3337	1/1	0.96	0.06	45,45,45,45	0
57	MG	1A	3020	1/1	0.96	0.22	31,31,31,31	0
57	MG	1x	102	1/1	0.96	0.06	26,26,26,26	0
57	MG	2A	3342	1/1	0.96	0.06	53,53,53,53	0
57	MG	2A	3720	1/1	0.96	0.05	40,40,40,40	0
57	MG	1A	3985	1/1	0.96	0.06	32,32,32,32	0
57	MG	1A	3986	1/1	0.96	0.18	46,46,46,46	0
57	MG	1A	3620	1/1	0.96	0.07	48,48,48,48	0
57	MG	2A	3350	1/1	0.96	0.09	31,31,31,31	0
57	MG	1A	3403	1/1	0.96	0.05	23,23,23,23	0
57	MG	1A	3989	1/1	0.96	0.07	41,41,41,41	0
57	MG	1A	3506	1/1	0.96	0.07	42,42,42,42	0
57	MG	1A	3777	1/1	0.96	0.06	39,39,39,39	0
57	MG	1A	3507	1/1	0.96	0.06	49,49,49,49	0
57	MG	1A	3201	1/1	0.96	0.19	46,46,46,46	0
57	MG	1A	3780	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
57	MG	2A	3018	1/1	0.96	0.18	37,37,37,37	0
57	MG	2A	3021	1/1	0.96	0.06	37,37,37,37	0
57	MG	1A	3080	1/1	0.96	0.14	35,35,35,35	0
57	MG	2A	3024	1/1	0.96	0.08	63,63,63,63	0
57	MG	1A	3082	1/1	0.96	0.09	41,41,41,41	0
57	MG	2A	3026	1/1	0.96	0.10	46,46,46,46	0
57	MG	1A	3144	1/1	0.96	0.07	35,35,35,35	0
57	MG	1A	3785	1/1	0.96	0.07	52,52,52,52	0
57	MG	2A	3032	1/1	0.96	0.14	51,51,51,51	0
57	MG	2A	3370	1/1	0.96	0.12	60,60,60,60	0
57	MG	1A	3787	1/1	0.96	0.06	35,35,35,35	0
57	MG	1a	1686	1/1	0.96	0.16	52,52,52,52	0
57	MG	2A	3035	1/1	0.96	0.07	49,49,49,49	0
57	MG	2B	209	1/1	0.96	0.19	60,60,60,60	0
57	MG	2A	3037	1/1	0.96	0.07	39,39,39,39	0
57	MG	2B	211	1/1	0.96	0.11	57,57,57,57	0
57	MG	1A	4004	1/1	0.96	0.13	47,47,47,47	0
57	MG	1A	3299	1/1	0.96	0.22	31,31,31,31	0
57	MG	1A	3515	1/1	0.96	0.06	31,31,31,31	0
57	MG	1A	3046	1/1	0.96	0.07	12,12,12,12	0
57	MG	2A	3384	1/1	0.96	0.10	58,58,58,58	0
57	MG	1A	3302	1/1	0.96	0.10	33,33,33,33	0
57	MG	2D	301	1/1	0.96	0.10	42,42,42,42	0
57	MG	2A	3387	1/1	0.96	0.06	46,46,46,46	0
57	MG	1a	1692	1/1	0.96	0.07	49,49,49,49	0
57	MG	1A	4012	1/1	0.96	0.11	15,15,15,15	0
57	MG	1a	1694	1/1	0.96	0.12	39,39,39,39	0
57	MG	1A	3792	1/1	0.96	0.07	17,17,17,17	0
57	MG	2D	310	1/1	0.96	0.07	42,42,42,42	0
57	MG	1A	4016	1/1	0.96	0.07	42,42,42,42	0
57	MG	2E	301	1/1	0.96	0.13	59,59,59,59	0
57	MG	1A	4017	1/1	0.96	0.06	51,51,51,51	0
57	MG	2E	304	1/1	0.96	0.08	57,57,57,57	0
57	MG	2A	3053	1/1	0.96	0.07	42,42,42,42	0
57	MG	2A	3055	1/1	0.96	0.10	62,62,62,62	0
57	MG	1A	3633	1/1	0.96	0.05	39,39,39,39	0
57	MG	1A	3518	1/1	0.96	0.08	53,53,53,53	0
57	MG	1A	3635	1/1	0.96	0.06	20,20,20,20	0
57	MG	2A	3059	1/1	0.96	0.07	41,41,41,41	0
57	MG	1A	3799	1/1	0.96	0.09	43,43,43,43	0
57	MG	1A	4023	1/1	0.96	0.06	53,53,53,53	0
57	MG	2Q	202	1/1	0.96	0.24	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3062	1/1	0.96	0.07	48,48,48,48	0
57	MG	1A	3303	1/1	0.96	0.05	31,31,31,31	0
57	MG	1A	3309	1/1	0.96	0.12	33,33,33,33	0
57	MG	1A	3310	1/1	0.96	0.14	34,34,34,34	0
57	MG	2T	202	1/1	0.96	0.09	65,65,65,65	0
57	MG	1A	4028	1/1	0.96	0.10	46,46,46,46	0
57	MG	2T	204	1/1	0.96	0.08	45,45,45,45	0
57	MG	1A	3084	1/1	0.96	0.10	41,41,41,41	0
57	MG	1A	3805	1/1	0.96	0.12	22,22,22,22	0
57	MG	2A	3417	1/1	0.96	0.06	33,33,33,33	0
57	MG	1a	1711	1/1	0.96	0.05	44,44,44,44	0
57	MG	2A	3071	1/1	0.96	0.12	56,56,56,56	0
57	MG	1A	3153	1/1	0.96	0.09	54,54,54,54	0
57	MG	1A	3021	1/1	0.96	0.13	36,36,36,36	0
57	MG	1A	3315	1/1	0.96	0.08	46,46,46,46	0
57	MG	2A	3077	1/1	0.96	0.09	47,47,47,47	0
57	MG	27	101	1/1	0.96	0.19	40,40,40,40	0
57	MG	1A	3316	1/1	0.96	0.10	33,33,33,33	0
57	MG	1a	1718	1/1	0.96	0.05	48,48,48,48	0
57	MG	2A	3080	1/1	0.96	0.07	50,50,50,50	0
57	MG	1a	1719	1/1	0.96	0.05	42,42,42,42	0
57	MG	2a	3004	1/1	0.96	0.16	60,60,60,60	0
57	MG	2a	3006	1/1	0.96	0.07	51,51,51,51	0
57	MG	1A	3158	1/1	0.96	0.19	34,34,34,34	0
57	MG	1B	209	1/1	0.96	0.07	48,48,48,48	0
57	MG	1A	3814	1/1	0.96	0.05	50,50,50,50	0
57	MG	2A	3085	1/1	0.96	0.15	49,49,49,49	0
57	MG	2A	3086	1/1	0.96	0.10	50,50,50,50	0
57	MG	1A	3213	1/1	0.96	0.07	36,36,36,36	0
57	MG	1a	1724	1/1	0.96	0.07	55,55,55,55	0
57	MG	1A	3819	1/1	0.96	0.14	46,46,46,46	0
57	MG	1A	3049	1/1	0.96	0.12	36,36,36,36	0
57	MG	1B	216	1/1	0.96	0.13	45,45,45,45	0
57	MG	1B	217	1/1	0.96	0.08	56,56,56,56	0
57	MG	1a	1730	1/1	0.96	0.08	53,53,53,53	0
57	MG	1A	3653	1/1	0.96	0.11	28,28,28,28	0
57	MG	2a	3020	1/1	0.96	0.11	46,46,46,46	0
57	MG	2A	3443	1/1	0.96	0.07	39,39,39,39	0
57	MG	2a	3022	1/1	0.96	0.07	49,49,49,49	0
57	MG	1A	3654	1/1	0.96	0.06	28,28,28,28	0
57	MG	1B	220	1/1	0.96	0.07	37,37,37,37	0
57	MG	1A	3160	1/1	0.96	0.10	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3448	1/1	0.96	0.06	51,51,51,51	0
57	MG	2A	3103	1/1	0.96	0.08	42,42,42,42	0
57	MG	1B	222	1/1	0.96	0.08	35,35,35,35	0
57	MG	1A	3219	1/1	0.96	0.14	25,25,25,25	0
57	MG	1B	224	1/1	0.96	0.06	44,44,44,44	0
57	MG	1A	3657	1/1	0.96	0.07	50,50,50,50	0
57	MG	1A	3220	1/1	0.96	0.05	43,43,43,43	0
57	MG	1A	3839	1/1	0.96	0.08	59,59,59,59	0
57	MG	2A	3457	1/1	0.96	0.09	48,48,48,48	0
57	MG	1A	3162	1/1	0.96	0.20	32,32,32,32	0
57	MG	1a	1745	1/1	0.96	0.10	59,59,59,59	0
57	MG	2A	3114	1/1	0.96	0.21	55,55,55,55	0
57	MG	2A	3462	1/1	0.96	0.10	62,62,62,62	0
57	MG	1A	3224	1/1	0.96	0.07	53,53,53,53	0
57	MG	1A	3662	1/1	0.96	0.06	34,34,34,34	0
57	MG	2a	3042	1/1	0.96	0.25	60,60,60,60	0
57	MG	1A	3844	1/1	0.96	0.06	43,43,43,43	0
57	MG	1D	304	1/1	0.96	0.09	49,49,49,49	0
57	MG	1D	306	1/1	0.96	0.07	38,38,38,38	0
57	MG	2A	3120	1/1	0.96	0.16	57,57,57,57	0
57	MG	1A	3663	1/1	0.96	0.07	44,44,44,44	0
57	MG	1A	3057	1/1	0.96	0.12	47,47,47,47	0
57	MG	1a	1755	1/1	0.96	0.10	64,64,64,64	0
57	MG	1A	3543	1/1	0.96	0.15	31,31,31,31	0
57	MG	2A	3125	1/1	0.96	0.07	53,53,53,53	0
57	MG	2A	3126	1/1	0.96	0.18	45,45,45,45	0
57	MG	1A	3848	1/1	0.96	0.04	32,32,32,32	0
57	MG	1A	3091	1/1	0.96	0.10	35,35,35,35	0
57	MG	1A	3547	1/1	0.96	0.08	47,47,47,47	0
57	MG	1A	3230	1/1	0.96	0.06	29,29,29,29	0
57	MG	1A	3231	1/1	0.96	0.19	40,40,40,40	0
57	MG	1E	307	1/1	0.96	0.11	25,25,25,25	0
57	MG	1A	3853	1/1	0.96	0.04	36,36,36,36	0
57	MG	2A	3486	1/1	0.96	0.08	53,53,53,53	0
57	MG	1E	309	1/1	0.96	0.09	32,32,32,32	0
57	MG	1E	310	1/1	0.96	0.07	40,40,40,40	0
57	MG	1A	3673	1/1	0.96	0.06	20,20,20,20	0
57	MG	1A	3674	1/1	0.96	0.20	55,55,55,55	0
57	MG	1A	3167	1/1	0.96	0.09	30,30,30,30	0
57	MG	1A	3858	1/1	0.96	0.07	49,49,49,49	0
57	MG	1A	3859	1/1	0.96	0.04	15,15,15,15	0
57	MG	1A	3442	1/1	0.96	0.06	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3148	1/1	0.96	0.10	42,42,42,42	0
57	MG	2A	3497	1/1	0.96	0.05	41,41,41,41	0
57	MG	2A	3149	1/1	0.96	0.20	53,53,53,53	0
57	MG	2a	3073	1/1	0.96	0.05	44,44,44,44	0
57	MG	1A	3861	1/1	0.96	0.11	53,53,53,53	0
57	MG	2a	3075	1/1	0.96	0.20	48,48,48,48	0
57	MG	2a	3076	1/1	0.96	0.14	54,54,54,54	0
57	MG	1A	3443	1/1	0.96	0.05	28,28,28,28	0
57	MG	1A	3093	1/1	0.96	0.11	34,34,34,34	0
57	MG	2A	3155	1/1	0.96	0.05	37,37,37,37	0
57	MG	1A	3003	1/1	0.96	0.04	28,28,28,28	0
57	MG	2a	3081	1/1	0.96	0.09	54,54,54,54	0
57	MG	2A	3157	1/1	0.96	0.09	55,55,55,55	0
57	MG	1A	3558	1/1	0.96	0.06	20,20,20,20	0
57	MG	1A	3682	1/1	0.96	0.07	52,52,52,52	0
57	MG	2a	3085	1/1	0.96	0.26	53,53,53,53	0
57	MG	1a	1782	1/1	0.96	0.10	54,54,54,54	0
57	MG	1A	3171	1/1	0.96	0.12	24,24,24,24	0
57	MG	1A	3872	1/1	0.96	0.12	36,36,36,36	0
57	MG	2A	3164	1/1	0.96	0.12	39,39,39,39	0
57	MG	2A	3515	1/1	0.96	0.09	42,42,42,42	0
57	MG	1A	3684	1/1	0.96	0.06	34,34,34,34	0
57	MG	1Q	202	1/1	0.96	0.11	43,43,43,43	0
57	MG	1Q	203	1/1	0.96	0.07	27,27,27,27	0
57	MG	2a	3095	1/1	0.96	0.24	64,64,64,64	0
57	MG	2a	3096	1/1	0.96	0.27	48,48,48,48	0
57	MG	1A	3237	1/1	0.96	0.11	31,31,31,31	0
57	MG	1A	3686	1/1	0.96	0.11	36,36,36,36	0
57	MG	1R	201	1/1	0.96	0.14	32,32,32,32	0
57	MG	2a	3101	1/1	0.96	0.06	65,65,65,65	0
57	MG	1A	3878	1/1	0.96	0.09	31,31,31,31	0
57	MG	2A	3176	1/1	0.96	0.11	44,44,44,44	0
57	MG	1A	3879	1/1	0.96	0.08	37,37,37,37	0
57	MG	1A	3012	1/1	0.96	0.22	40,40,40,40	0
57	MG	2A	3180	1/1	0.96	0.05	37,37,37,37	0
57	MG	1A	3451	1/1	0.96	0.07	57,57,57,57	0
57	MG	1T	203	1/1	0.96	0.05	43,43,43,43	0
57	MG	1A	3689	1/1	0.96	0.07	54,54,54,54	0
57	MG	2A	3184	1/1	0.96	0.05	41,41,41,41	0
57	MG	1A	3567	1/1	0.96	0.05	30,30,30,30	0
57	MG	1U	202	1/1	0.96	0.17	27,27,27,27	0
57	MG	2A	3537	1/1	0.96	0.16	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3886	1/1	0.96	0.08	22,22,22,22	0
57	MG	1U	206	1/1	0.96	0.10	28,28,28,28	0
57	MG	2A	3191	1/1	0.96	0.08	55,55,55,55	0
57	MG	2a	3121	1/1	0.96	0.11	60,60,60,60	0
57	MG	2A	3542	1/1	0.96	0.10	54,54,54,54	0
57	MG	1A	3452	1/1	0.96	0.10	30,30,30,30	0
57	MG	1V	205	1/1	0.96	0.08	46,46,46,46	0
57	MG	1V	206	1/1	0.96	0.14	56,56,56,56	0
57	MG	1A	3693	1/1	0.96	0.16	57,57,57,57	0
57	MG	2A	3551	1/1	0.96	0.05	63,63,63,63	0
57	MG	1A	3030	1/1	0.96	0.06	21,21,21,21	0
57	MG	2A	3553	1/1	0.96	0.06	63,63,63,63	0
57	MG	1A	3696	1/1	0.96	0.05	55,55,55,55	0
57	MG	1A	3353	1/1	0.96	0.08	37,37,37,37	0
57	MG	2A	3202	1/1	0.96	0.21	56,56,56,56	0
57	MG	1A	3893	1/1	0.96	0.08	35,35,35,35	0
57	MG	1a	1811	1/1	0.96	0.06	68,68,68,68	0
57	MG	10	101	1/1	0.96	0.11	31,31,31,31	0
57	MG	10	103	1/1	0.96	0.07	36,36,36,36	0
57	MG	1A	3174	1/1	0.96	0.13	38,38,38,38	0
57	MG	2a	3142	1/1	0.96	0.06	55,55,55,55	0
57	MG	2A	3567	1/1	0.96	0.06	55,55,55,55	0
57	MG	1a	1815	1/1	0.96	0.14	55,55,55,55	0
57	MG	1A	3895	1/1	0.96	0.05	43,43,43,43	0
57	MG	1A	3356	1/1	0.96	0.06	29,29,29,29	0
57	MG	1a	1818	1/1	0.96	0.08	45,45,45,45	0
57	MG	2a	3150	1/1	0.96	0.12	60,60,60,60	0
57	MG	2A	3215	1/1	0.96	0.07	53,53,53,53	0
57	MG	1A	3574	1/1	0.96	0.08	47,47,47,47	0
57	MG	1a	1821	1/1	0.96	0.06	73,73,73,73	0
57	MG	2a	3155	1/1	0.96	0.09	60,60,60,60	0
57	MG	11	104	1/1	0.96	0.09	47,47,47,47	0
57	MG	1a	1823	1/1	0.96	0.13	64,64,64,64	0
57	MG	2A	3220	1/1	0.96	0.07	47,47,47,47	0
57	MG	2a	3159	1/1	0.96	0.10	58,58,58,58	0
57	MG	15	102	1/1	0.96	0.10	27,27,27,27	0
57	MG	1A	3459	1/1	0.96	0.09	50,50,50,50	0
57	MG	1A	3064	1/1	0.96	0.06	35,35,35,35	0
57	MG	1A	3113	1/1	0.96	0.09	26,26,26,26	0
57	MG	2A	3586	1/1	0.96	0.06	48,48,48,48	0
57	MG	1A	3251	1/1	0.96	0.17	38,38,38,38	0
57	MG	17	105	1/1	0.96	0.06	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	18	101	1/1	0.96	0.09	31,31,31,31	0
57	MG	2a	3169	1/1	0.96	0.06	65,65,65,65	0
57	MG	1A	3252	1/1	0.96	0.08	44,44,44,44	0
57	MG	1A	3909	1/1	0.96	0.07	39,39,39,39	0
57	MG	2A	3593	1/1	0.96	0.08	48,48,48,48	0
57	MG	2A	3231	1/1	0.96	0.15	53,53,53,53	0
57	MG	1A	3465	1/1	0.96	0.04	36,36,36,36	0
57	MG	2a	3176	1/1	0.96	0.09	51,51,51,51	0
57	MG	19	102	1/1	0.96	0.18	46,46,46,46	0
57	MG	2A	3599	1/1	0.96	0.07	49,49,49,49	0
57	MG	2A	3600	1/1	0.96	0.06	41,41,41,41	0
57	MG	19	103	1/1	0.96	0.06	55,55,55,55	0
57	MG	2A	3236	1/1	0.96	0.08	39,39,39,39	0
57	MG	1a	1602	1/1	0.96	0.09	41,41,41,41	0
57	MG	1a	1603	1/1	0.96	0.07	66,66,66,66	0
57	MG	1A	3466	1/1	0.96	0.07	39,39,39,39	0
57	MG	1A	3065	1/1	0.96	0.06	53,53,53,53	0
57	MG	2a	3188	1/1	0.96	0.10	58,58,58,58	0
57	MG	1A	3918	1/1	0.96	0.09	21,21,21,21	0
57	MG	2A	3243	1/1	0.96	0.08	49,49,49,49	0
57	MG	1A	3368	1/1	0.96	0.05	32,32,32,32	0
57	MG	1a	1844	1/1	0.96	0.06	64,64,64,64	0
57	MG	1A	3254	1/1	0.96	0.14	33,33,33,33	0
57	MG	1A	3370	1/1	0.96	0.07	27,27,27,27	0
57	MG	1A	3372	1/1	0.96	0.05	28,28,28,28	0
57	MG	1A	3722	1/1	0.96	0.05	38,38,38,38	0
57	MG	2p	101	1/1	0.96	0.06	37,37,37,37	0
57	MG	2A	3250	1/1	0.96	0.20	55,55,55,55	0
57	MG	1A	3928	1/1	0.96	0.08	45,45,45,45	0
57	MG	1A	3931	1/1	0.96	0.13	33,33,33,33	0
57	MG	1A	3723	1/1	0.96	0.06	39,39,39,39	0
57	MG	2A	3256	1/1	0.96	0.10	54,54,54,54	0
57	MG	1A	3182	1/1	0.96	0.26	36,36,36,36	0
57	MG	1A	3183	1/1	0.96	0.07	31,31,31,31	0
57	MG	1A	3260	1/1	0.96	0.13	55,55,55,55	0
57	MG	1A	3121	1/1	0.96	0.05	25,25,25,25	0
57	MG	2A	3262	1/1	0.96	0.29	49,49,49,49	0
57	MG	1A	3939	1/1	0.96	0.05	47,47,47,47	0
57	MG	1A	3940	1/1	0.96	0.08	50,50,50,50	0
57	MG	1a	1624	1/1	0.96	0.07	41,41,41,41	0
57	MG	2A	3390	1/1	0.97	0.06	52,52,52,52	0
57	MG	1A	3755	1/1	0.97	0.10	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3111	1/1	0.97	0.09	63,63,63,63	0
57	MG	1A	3305	1/1	0.97	0.07	39,39,39,39	0
57	MG	1A	3115	1/1	0.97	0.13	41,41,41,41	0
57	MG	1A	3935	1/1	0.97	0.10	30,30,30,30	0
57	MG	1A	3226	1/1	0.97	0.14	31,31,31,31	0
57	MG	1A	3116	1/1	0.97	0.12	32,32,32,32	0
57	MG	1A	3411	1/1	0.97	0.14	25,25,25,25	0
57	MG	1A	3079	1/1	0.97	0.14	41,41,41,41	0
57	MG	11	101	1/1	0.97	0.12	37,37,37,37	0
57	MG	1A	3764	1/1	0.97	0.07	64,64,64,64	0
57	MG	11	103	1/1	0.97	0.08	37,37,37,37	0
57	MG	1A	3943	1/1	0.97	0.05	29,29,29,29	0
57	MG	11	105	1/1	0.97	0.07	28,28,28,28	0
57	MG	13	102	1/1	0.97	0.08	58,58,58,58	0
57	MG	15	101	1/1	0.97	0.07	29,29,29,29	0
57	MG	1A	3765	1/1	0.97	0.08	21,21,21,21	0
57	MG	1a	1801	1/1	0.97	0.06	52,52,52,52	0
57	MG	1A	3119	1/1	0.97	0.06	28,28,28,28	0
57	MG	2A	3413	1/1	0.97	0.04	42,42,42,42	0
57	MG	1A	3414	1/1	0.97	0.06	17,17,17,17	0
57	MG	1A	3314	1/1	0.97	0.24	33,33,33,33	0
57	MG	17	101	1/1	0.97	0.10	38,38,38,38	0
57	MG	17	103	1/1	0.97	0.15	33,33,33,33	0
57	MG	1A	3040	1/1	0.97	0.08	33,33,33,33	0
57	MG	1A	3519	1/1	0.97	0.06	39,39,39,39	0
57	MG	1A	3771	1/1	0.97	0.10	36,36,36,36	0
57	MG	2A	3140	1/1	0.97	0.19	47,47,47,47	0
57	MG	1A	3175	1/1	0.97	0.10	19,19,19,19	0
57	MG	1A	3773	1/1	0.97	0.05	32,32,32,32	0
57	MG	1A	3317	1/1	0.97	0.09	31,31,31,31	0
57	MG	1A	3954	1/1	0.97	0.05	47,47,47,47	0
57	MG	1A	3775	1/1	0.97	0.04	42,42,42,42	0
57	MG	1a	1601	1/1	0.97	0.06	46,46,46,46	0
57	MG	1A	3124	1/1	0.97	0.08	36,36,36,36	0
57	MG	1A	3081	1/1	0.97	0.10	32,32,32,32	0
57	MG	1A	3958	1/1	0.97	0.05	48,48,48,48	0
57	MG	2A	3152	1/1	0.97	0.16	46,46,46,46	0
57	MG	1A	3004	1/1	0.97	0.10	45,45,45,45	0
57	MG	1a	1820	1/1	0.97	0.12	62,62,62,62	0
57	MG	2A	3436	1/1	0.97	0.12	58,58,58,58	0
57	MG	1A	3424	1/1	0.97	0.08	55,55,55,55	0
57	MG	1a	1607	1/1	0.97	0.08	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3326	1/1	0.97	0.06	35,35,35,35	0
57	MG	1A	3328	1/1	0.97	0.10	34,34,34,34	0
57	MG	2A	3159	1/1	0.97	0.07	33,33,33,33	0
57	MG	1A	3964	1/1	0.97	0.05	50,50,50,50	0
57	MG	1A	3329	1/1	0.97	0.06	43,43,43,43	0
57	MG	2A	3445	1/1	0.97	0.04	48,48,48,48	0
57	MG	1A	3966	1/1	0.97	0.12	47,47,47,47	0
57	MG	2D	306	1/1	0.97	0.11	38,38,38,38	0
57	MG	2D	307	1/1	0.97	0.12	42,42,42,42	0
57	MG	1a	1613	1/1	0.97	0.14	37,37,37,37	0
57	MG	1A	3530	1/1	0.97	0.07	37,37,37,37	0
57	MG	1A	3784	1/1	0.97	0.08	40,40,40,40	0
57	MG	2A	3167	1/1	0.97	0.25	43,43,43,43	0
57	MG	1A	3236	1/1	0.97	0.20	27,27,27,27	0
57	MG	1A	3786	1/1	0.97	0.04	24,24,24,24	0
57	MG	2E	303	1/1	0.97	0.06	45,45,45,45	0
57	MG	1A	3971	1/1	0.97	0.07	65,65,65,65	0
57	MG	1A	3044	1/1	0.97	0.07	22,22,22,22	0
57	MG	2F	302	1/1	0.97	0.06	43,43,43,43	0
57	MG	1a	1620	1/1	0.97	0.06	56,56,56,56	0
57	MG	2F	304	1/1	0.97	0.18	49,49,49,49	0
57	MG	1A	3062	1/1	0.97	0.06	33,33,33,33	0
57	MG	1A	3649	1/1	0.97	0.10	41,41,41,41	0
57	MG	2I	201	1/1	0.97	0.09	52,52,52,52	0
57	MG	1A	3976	1/1	0.97	0.10	32,32,32,32	0
57	MG	2O	201	1/1	0.97	0.08	47,47,47,47	0
57	MG	1A	3650	1/1	0.97	0.10	37,37,37,37	0
57	MG	2A	3179	1/1	0.97	0.07	49,49,49,49	0
57	MG	2A	3463	1/1	0.97	0.05	32,32,32,32	0
57	MG	2Q	201	1/1	0.97	0.05	46,46,46,46	0
57	MG	1A	3534	1/1	0.97	0.04	44,44,44,44	0
57	MG	1A	3979	1/1	0.97	0.20	41,41,41,41	0
57	MG	1A	3240	1/1	0.97	0.19	36,36,36,36	0
57	MG	1A	3793	1/1	0.97	0.09	44,44,44,44	0
57	MG	2R	203	1/1	0.97	0.13	51,51,51,51	0
57	MG	2A	3468	1/1	0.97	0.06	61,61,61,61	0
57	MG	1A	3794	1/1	0.97	0.09	35,35,35,35	0
57	MG	2A	3185	1/1	0.97	0.18	53,53,53,53	0
57	MG	1a	1847	1/1	0.97	0.07	64,64,64,64	0
57	MG	1A	3241	1/1	0.97	0.09	31,31,31,31	0
57	MG	1A	3984	1/1	0.97	0.07	25,25,25,25	0
57	MG	2V	203	1/1	0.97	0.08	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3796	1/1	0.97	0.07	43,43,43,43	0
57	MG	1A	3340	1/1	0.97	0.04	32,32,32,32	0
57	MG	2Y	201	1/1	0.97	0.11	45,45,45,45	0
57	MG	20	101	1/1	0.97	0.06	46,46,46,46	0
57	MG	2A	3192	1/1	0.97	0.07	45,45,45,45	0
57	MG	1A	3539	1/1	0.97	0.05	19,19,19,19	0
57	MG	1A	3013	1/1	0.97	0.09	18,18,18,18	0
57	MG	25	102	1/1	0.97	0.11	41,41,41,41	0
57	MG	1A	3036	1/1	0.97	0.07	28,28,28,28	0
57	MG	1A	3658	1/1	0.97	0.05	46,46,46,46	0
57	MG	1A	3991	1/1	0.97	0.07	52,52,52,52	0
57	MG	1A	3802	1/1	0.97	0.04	25,25,25,25	0
57	MG	1A	3542	1/1	0.97	0.05	24,24,24,24	0
57	MG	1A	3187	1/1	0.97	0.06	31,31,31,31	0
57	MG	1a	1862	1/1	0.97	0.07	46,46,46,46	0
57	MG	1A	3996	1/1	0.97	0.07	38,38,38,38	0
57	MG	2a	3005	1/1	0.97	0.07	52,52,52,52	0
57	MG	1A	3048	1/1	0.97	0.03	23,23,23,23	0
57	MG	1A	3998	1/1	0.97	0.04	38,38,38,38	0
57	MG	1A	3545	1/1	0.97	0.14	45,45,45,45	0
57	MG	1a	1868	1/1	0.97	0.08	46,46,46,46	0
57	MG	1A	3808	1/1	0.97	0.10	48,48,48,48	0
57	MG	1A	3250	1/1	0.97	0.21	35,35,35,35	0
57	MG	2A	3212	1/1	0.97	0.10	47,47,47,47	0
57	MG	2A	3213	1/1	0.97	0.05	38,38,38,38	0
57	MG	1A	3137	1/1	0.97	0.15	30,30,30,30	0
57	MG	1A	3665	1/1	0.97	0.06	28,28,28,28	0
57	MG	2A	3500	1/1	0.97	0.06	31,31,31,31	0
57	MG	1A	3089	1/1	0.97	0.06	34,34,34,34	0
57	MG	1a	1656	1/1	0.97	0.06	45,45,45,45	0
57	MG	1A	4005	1/1	0.97	0.05	45,45,45,45	0
57	MG	1A	3813	1/1	0.97	0.05	61,61,61,61	0
57	MG	1A	3090	1/1	0.97	0.07	42,42,42,42	0
57	MG	1A	3815	1/1	0.97	0.05	32,32,32,32	0
57	MG	1A	3349	1/1	0.97	0.05	24,24,24,24	0
57	MG	1A	3192	1/1	0.97	0.12	32,32,32,32	0
57	MG	1A	4013	1/1	0.97	0.12	44,44,44,44	0
57	MG	2A	3512	1/1	0.97	0.07	47,47,47,47	0
57	MG	1A	3820	1/1	0.97	0.05	52,52,52,52	0
57	MG	1A	4015	1/1	0.97	0.04	29,29,29,29	0
57	MG	1A	3447	1/1	0.97	0.07	49,49,49,49	0
57	MG	2A	3228	1/1	0.97	0.07	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3825	1/1	0.97	0.11	24,24,24,24	0
57	MG	2A	3519	1/1	0.97	0.06	46,46,46,46	0
57	MG	1A	3193	1/1	0.97	0.09	30,30,30,30	0
57	MG	1A	3829	1/1	0.97	0.12	37,37,37,37	0
57	MG	1A	3556	1/1	0.97	0.06	17,17,17,17	0
57	MG	1A	3557	1/1	0.97	0.04	31,31,31,31	0
57	MG	2A	3234	1/1	0.97	0.20	50,50,50,50	0
57	MG	1A	3258	1/1	0.97	0.10	42,42,42,42	0
57	MG	1A	3038	1/1	0.97	0.08	34,34,34,34	0
57	MG	2A	3237	1/1	0.97	0.16	48,48,48,48	0
57	MG	1A	3678	1/1	0.97	0.04	40,40,40,40	0
57	MG	1A	3836	1/1	0.97	0.05	33,33,33,33	0
57	MG	1A	3354	1/1	0.97	0.06	25,25,25,25	0
57	MG	2A	3531	1/1	0.97	0.07	48,48,48,48	0
57	MG	1A	3092	1/1	0.97	0.16	28,28,28,28	0
57	MG	1A	3050	1/1	0.97	0.06	38,38,38,38	0
57	MG	1A	3566	1/1	0.97	0.11	18,18,18,18	0
57	MG	1a	1681	1/1	0.97	0.07	48,48,48,48	0
57	MG	1A	3262	1/1	0.97	0.15	28,28,28,28	0
57	MG	1A	3455	1/1	0.97	0.04	14,14,14,14	0
57	MG	1A	3263	1/1	0.97	0.05	33,33,33,33	0
57	MG	1A	3457	1/1	0.97	0.08	34,34,34,34	0
57	MG	1B	208	1/1	0.97	0.05	41,41,41,41	0
57	MG	1A	3571	1/1	0.97	0.09	41,41,41,41	0
57	MG	2A	3544	1/1	0.97	0.11	43,43,43,43	0
57	MG	2A	3545	1/1	0.97	0.08	34,34,34,34	0
57	MG	1A	3265	1/1	0.97	0.05	54,54,54,54	0
57	MG	1y	202	1/1	0.97	0.07	51,51,51,51	0
57	MG	1B	211	1/1	0.97	0.09	42,42,42,42	0
57	MG	1A	3362	1/1	0.97	0.06	41,41,41,41	0
57	MG	2A	3257	1/1	0.97	0.08	41,41,41,41	0
57	MG	1A	3690	1/1	0.97	0.06	42,42,42,42	0
57	MG	1A	3364	1/1	0.97	0.06	20,20,20,20	0
57	MG	1A	3266	1/1	0.97	0.14	34,34,34,34	0
57	MG	1A	3145	1/1	0.97	0.05	27,27,27,27	0
57	MG	2A	3557	1/1	0.97	0.08	41,41,41,41	0
57	MG	1A	3147	1/1	0.97	0.12	49,49,49,49	0
57	MG	2A	3264	1/1	0.97	0.07	48,48,48,48	0
57	MG	1A	3094	1/1	0.97	0.05	25,25,25,25	0
57	MG	2A	3563	1/1	0.97	0.06	49,49,49,49	0
57	MG	2A	3006	1/1	0.97	0.06	43,43,43,43	0
57	MG	1A	3096	1/1	0.97	0.08	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3051	1/1	0.97	0.16	35,35,35,35	0
57	MG	2A	3010	1/1	0.97	0.07	52,52,52,52	0
57	MG	1A	3154	1/1	0.97	0.20	28,28,28,28	0
57	MG	2A	3013	1/1	0.97	0.05	27,27,27,27	0
57	MG	1A	3701	1/1	0.97	0.05	37,37,37,37	0
57	MG	2A	3015	1/1	0.97	0.09	34,34,34,34	0
57	MG	1A	3204	1/1	0.97	0.06	40,40,40,40	0
57	MG	1A	3472	1/1	0.97	0.05	42,42,42,42	0
57	MG	1A	3473	1/1	0.97	0.06	51,51,51,51	0
57	MG	2A	3578	1/1	0.97	0.05	55,55,55,55	0
57	MG	2A	3020	1/1	0.97	0.10	45,45,45,45	0
57	MG	1A	3375	1/1	0.97	0.04	16,16,16,16	0
57	MG	1A	3707	1/1	0.97	0.06	45,45,45,45	0
57	MG	1A	3274	1/1	0.97	0.15	26,26,26,26	0
57	MG	1A	3709	1/1	0.97	0.11	42,42,42,42	0
57	MG	1A	3155	1/1	0.97	0.07	31,31,31,31	0
57	MG	1a	1712	1/1	0.97	0.10	44,44,44,44	0
57	MG	2a	3092	1/1	0.97	0.09	53,53,53,53	0
57	MG	1A	3589	1/1	0.97	0.15	30,30,30,30	0
57	MG	2A	3030	1/1	0.97	0.06	38,38,38,38	0
57	MG	2A	3589	1/1	0.97	0.04	48,48,48,48	0
57	MG	2A	3291	1/1	0.97	0.06	37,37,37,37	0
57	MG	1A	3876	1/1	0.97	0.06	45,45,45,45	0
57	MG	1D	312	1/1	0.97	0.14	23,23,23,23	0
57	MG	1A	3072	1/1	0.97	0.05	30,30,30,30	0
57	MG	1A	3380	1/1	0.97	0.05	22,22,22,22	0
57	MG	2A	3036	1/1	0.97	0.12	41,41,41,41	0
57	MG	1A	3715	1/1	0.97	0.12	47,47,47,47	0
57	MG	2a	3104	1/1	0.97	0.05	55,55,55,55	0
57	MG	2A	3598	1/1	0.97	0.04	48,48,48,48	0
57	MG	1A	3278	1/1	0.97	0.10	42,42,42,42	0
57	MG	2A	3300	1/1	0.97	0.05	40,40,40,40	0
57	MG	1D	317	1/1	0.97	0.04	38,38,38,38	0
57	MG	1A	3717	1/1	0.97	0.12	38,38,38,38	0
57	MG	2A	3041	1/1	0.97	0.14	37,37,37,37	0
57	MG	2A	3604	1/1	0.97	0.06	41,41,41,41	0
57	MG	1A	3883	1/1	0.97	0.07	39,39,39,39	0
57	MG	2a	3115	1/1	0.97	0.07	51,51,51,51	0
57	MG	1A	3207	1/1	0.97	0.13	39,39,39,39	0
57	MG	1A	3281	1/1	0.97	0.08	48,48,48,48	0
57	MG	1A	3102	1/1	0.97	0.06	46,46,46,46	0
57	MG	1A	3386	1/1	0.97	0.04	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3105	1/1	0.97	0.05	29,29,29,29	0
57	MG	2A	3311	1/1	0.97	0.14	52,52,52,52	0
57	MG	1A	3486	1/1	0.97	0.05	19,19,19,19	0
57	MG	2A	3614	1/1	0.97	0.06	26,26,26,26	0
57	MG	2A	3050	1/1	0.97	0.04	43,43,43,43	0
57	MG	1F	301	1/1	0.97	0.05	26,26,26,26	0
57	MG	2A	3052	1/1	0.97	0.10	51,51,51,51	0
57	MG	1A	3106	1/1	0.97	0.06	30,30,30,30	0
57	MG	2A	3054	1/1	0.97	0.04	38,38,38,38	0
57	MG	1F	309	1/1	0.97	0.06	35,35,35,35	0
57	MG	1a	1734	1/1	0.97	0.15	47,47,47,47	0
57	MG	2A	3321	1/1	0.97	0.08	47,47,47,47	0
57	MG	1a	1735	1/1	0.97	0.04	49,49,49,49	0
57	MG	2a	3134	1/1	0.97	0.10	66,66,66,66	0
57	MG	1A	3056	1/1	0.97	0.07	41,41,41,41	0
57	MG	1A	3727	1/1	0.97	0.07	39,39,39,39	0
57	MG	1A	3490	1/1	0.97	0.12	45,45,45,45	0
57	MG	2A	3327	1/1	0.97	0.08	56,56,56,56	0
57	MG	1F	313	1/1	0.97	0.07	31,31,31,31	0
57	MG	2A	3329	1/1	0.97	0.10	53,53,53,53	0
57	MG	1A	3291	1/1	0.97	0.08	49,49,49,49	0
57	MG	1F	315	1/1	0.97	0.09	46,46,46,46	0
57	MG	1A	3732	1/1	0.97	0.18	28,28,28,28	0
57	MG	1A	3897	1/1	0.97	0.05	47,47,47,47	0
57	MG	2A	3636	1/1	0.97	0.08	64,64,64,64	0
57	MG	1A	3604	1/1	0.97	0.07	44,44,44,44	0
57	MG	2a	3151	1/1	0.97	0.06	68,68,68,68	0
57	MG	1G	204	1/1	0.97	0.07	45,45,45,45	0
57	MG	2A	3338	1/1	0.97	0.08	46,46,46,46	0
57	MG	1A	3899	1/1	0.97	0.09	37,37,37,37	0
57	MG	2A	3340	1/1	0.97	0.07	59,59,59,59	0
57	MG	1A	3605	1/1	0.97	0.06	44,44,44,44	0
57	MG	1A	3391	1/1	0.97	0.05	37,37,37,37	0
57	MG	2A	3649	1/1	0.97	0.16	49,49,49,49	0
57	MG	2A	3344	1/1	0.97	0.09	32,32,32,32	0
57	MG	2A	3345	1/1	0.97	0.06	35,35,35,35	0
57	MG	2A	3072	1/1	0.97	0.10	32,32,32,32	0
57	MG	1A	3163	1/1	0.97	0.11	36,36,36,36	0
57	MG	2A	3657	1/1	0.97	0.07	51,51,51,51	0
57	MG	1A	3903	1/1	0.97	0.06	45,45,45,45	0
57	MG	1P	202	1/1	0.97	0.07	25,25,25,25	0
57	MG	1A	3904	1/1	0.97	0.12	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3164	1/1	0.97	0.08	29,29,29,29	0
57	MG	1a	1757	1/1	0.97	0.07	57,57,57,57	0
57	MG	2A	3663	1/1	0.97	0.07	38,38,38,38	0
57	MG	2A	3664	1/1	0.97	0.08	38,38,38,38	0
57	MG	1Q	201	1/1	0.97	0.05	29,29,29,29	0
57	MG	2a	3173	1/1	0.97	0.06	63,63,63,63	0
57	MG	2A	3356	1/1	0.97	0.07	46,46,46,46	0
57	MG	1A	3215	1/1	0.97	0.06	27,27,27,27	0
57	MG	2A	3668	1/1	0.97	0.06	63,63,63,63	0
57	MG	2A	3670	1/1	0.97	0.05	41,41,41,41	0
57	MG	1A	3908	1/1	0.97	0.04	41,41,41,41	0
57	MG	1A	3740	1/1	0.97	0.06	38,38,38,38	0
57	MG	1A	3217	1/1	0.97	0.18	30,30,30,30	0
57	MG	2A	3674	1/1	0.97	0.05	44,44,44,44	0
57	MG	2A	3675	1/1	0.97	0.05	42,42,42,42	0
57	MG	1A	3077	1/1	0.97	0.14	28,28,28,28	0
57	MG	1A	3300	1/1	0.97	0.11	32,32,32,32	0
57	MG	2A	3087	1/1	0.97	0.10	41,41,41,41	0
57	MG	2A	3089	1/1	0.97	0.14	48,48,48,48	0
57	MG	1R	203	1/1	0.97	0.09	45,45,45,45	0
57	MG	1A	3917	1/1	0.97	0.05	39,39,39,39	0
57	MG	1A	3744	1/1	0.97	0.06	41,41,41,41	0
57	MG	1A	3110	1/1	0.97	0.09	25,25,25,25	0
57	MG	1a	1770	1/1	0.97	0.08	51,51,51,51	0
57	MG	1A	3023	1/1	0.97	0.10	33,33,33,33	0
57	MG	1A	3400	1/1	0.97	0.07	27,27,27,27	0
57	MG	1A	3922	1/1	0.97	0.06	37,37,37,37	0
57	MG	2k	202	1/1	0.97	0.06	58,58,58,58	0
57	MG	1A	3402	1/1	0.97	0.06	18,18,18,18	0
57	MG	1A	3924	1/1	0.97	0.05	28,28,28,28	0
57	MG	2A	3379	1/1	0.97	0.08	40,40,40,40	0
57	MG	2A	3380	1/1	0.97	0.14	60,60,60,60	0
57	MG	1A	3750	1/1	0.97	0.05	49,49,49,49	0
57	MG	1U	208	1/1	0.97	0.10	30,30,30,30	0
57	MG	1A	3926	1/1	0.97	0.07	39,39,39,39	0
57	MG	1A	3927	1/1	0.97	0.11	22,22,22,22	0
57	MG	1A	3114	1/1	0.97	0.07	30,30,30,30	0
57	MG	2A	3386	1/1	0.97	0.06	35,35,35,35	0
57	MG	1A	3930	1/1	0.97	0.12	38,38,38,38	0
57	MG	2A	3702	1/1	0.97	0.07	53,53,53,53	0
60	ZN	14	501	1/1	0.97	0.12	101,101,101,101	0
57	MG	2A	3388	1/1	0.97	0.09	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3619	1/1	0.97	0.13	52,52,52,52	0
57	MG	2A	3265	1/1	0.98	0.12	27,27,27,27	0
57	MG	1A	3136	1/1	0.98	0.04	33,33,33,33	0
57	MG	1A	3243	1/1	0.98	0.06	24,24,24,24	0
57	MG	1A	3608	1/1	0.98	0.04	21,21,21,21	0
57	MG	1A	3095	1/1	0.98	0.03	14,14,14,14	0
57	MG	2A	3503	1/1	0.98	0.08	52,52,52,52	0
57	MG	2A	3270	1/1	0.98	0.17	44,44,44,44	0
57	MG	2A	3271	1/1	0.98	0.05	26,26,26,26	0
57	MG	1A	4008	1/1	0.98	0.05	55,55,55,55	0
57	MG	1A	4009	1/1	0.98	0.06	43,43,43,43	0
57	MG	1A	3033	1/1	0.98	0.07	29,29,29,29	0
57	MG	1A	3406	1/1	0.98	0.07	52,52,52,52	0
57	MG	1A	3865	1/1	0.98	0.07	28,28,28,28	0
57	MG	1A	3730	1/1	0.98	0.20	26,26,26,26	0
57	MG	1A	3867	1/1	0.98	0.07	40,40,40,40	0
57	MG	1A	3318	1/1	0.98	0.03	16,16,16,16	0
57	MG	2A	3069	1/1	0.98	0.05	38,38,38,38	0
57	MG	1A	3869	1/1	0.98	0.05	34,34,34,34	0
57	MG	1A	3319	1/1	0.98	0.26	29,29,29,29	0
57	MG	1A	3409	1/1	0.98	0.06	20,20,20,20	0
57	MG	1A	3410	1/1	0.98	0.07	26,26,26,26	0
57	MG	2A	3074	1/1	0.98	0.07	30,30,30,30	0
57	MG	1A	4020	1/1	0.98	0.04	54,54,54,54	0
57	MG	2A	3288	1/1	0.98	0.11	52,52,52,52	0
57	MG	1A	3509	1/1	0.98	0.04	29,29,29,29	0
57	MG	1A	3017	1/1	0.98	0.12	28,28,28,28	0
57	MG	1a	1796	1/1	0.98	0.05	45,45,45,45	0
57	MG	1A	3737	1/1	0.98	0.04	27,27,27,27	0
57	MG	1A	3247	1/1	0.98	0.11	25,25,25,25	0
57	MG	2A	3294	1/1	0.98	0.05	34,34,34,34	0
57	MG	2R	201	1/1	0.98	0.09	46,46,46,46	0
57	MG	1A	3322	1/1	0.98	0.05	27,27,27,27	0
57	MG	1A	3513	1/1	0.98	0.10	20,20,20,20	0
57	MG	1A	4027	1/1	0.98	0.15	47,47,47,47	0
57	MG	1A	3248	1/1	0.98	0.11	39,39,39,39	0
57	MG	1A	3415	1/1	0.98	0.05	26,26,26,26	0
57	MG	1A	3099	1/1	0.98	0.05	43,43,43,43	0
57	MG	2U	201	1/1	0.98	0.22	48,48,48,48	0
57	MG	2A	3535	1/1	0.98	0.07	55,55,55,55	0
57	MG	1A	3624	1/1	0.98	0.08	55,55,55,55	0
57	MG	2A	3302	1/1	0.98	0.05	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3327	1/1	0.98	0.10	42,42,42,42	0
57	MG	1a	1627	1/1	0.98	0.06	50,50,50,50	0
57	MG	1A	3141	1/1	0.98	0.17	35,35,35,35	0
57	MG	1A	3887	1/1	0.98	0.03	38,38,38,38	0
57	MG	1A	3747	1/1	0.98	0.05	34,34,34,34	0
57	MG	1A	3073	1/1	0.98	0.04	32,32,32,32	0
57	MG	2A	3095	1/1	0.98	0.06	51,51,51,51	0
57	MG	1a	1632	1/1	0.98	0.13	47,47,47,47	0
57	MG	2A	3548	1/1	0.98	0.05	44,44,44,44	0
57	MG	1A	3420	1/1	0.98	0.04	32,32,32,32	0
57	MG	1A	3143	1/1	0.98	0.05	18,18,18,18	0
57	MG	1A	3751	1/1	0.98	0.05	30,30,30,30	0
57	MG	1A	3074	1/1	0.98	0.04	32,32,32,32	0
57	MG	2A	3315	1/1	0.98	0.05	36,36,36,36	0
57	MG	1A	3332	1/1	0.98	0.04	37,37,37,37	0
57	MG	2A	3102	1/1	0.98	0.14	50,50,50,50	0
57	MG	1B	214	1/1	0.98	0.06	37,37,37,37	0
57	MG	1A	3333	1/1	0.98	0.07	19,19,19,19	0
57	MG	1A	3035	1/1	0.98	0.11	44,44,44,44	0
57	MG	1A	3335	1/1	0.98	0.06	23,23,23,23	0
57	MG	2A	3560	1/1	0.98	0.04	60,60,60,60	0
57	MG	2A	3561	1/1	0.98	0.04	26,26,26,26	0
57	MG	2A	3322	1/1	0.98	0.06	36,36,36,36	0
57	MG	1A	3076	1/1	0.98	0.10	29,29,29,29	0
57	MG	1A	3760	1/1	0.98	0.10	42,42,42,42	0
57	MG	1A	3428	1/1	0.98	0.04	26,26,26,26	0
57	MG	2A	3566	1/1	0.98	0.07	66,66,66,66	0
57	MG	1A	3256	1/1	0.98	0.12	35,35,35,35	0
57	MG	1A	3339	1/1	0.98	0.10	23,23,23,23	0
57	MG	1A	3641	1/1	0.98	0.06	42,42,42,42	0
57	MG	1a	1650	1/1	0.98	0.13	53,53,53,53	0
57	MG	2A	3330	1/1	0.98	0.12	51,51,51,51	0
57	MG	1A	3257	1/1	0.98	0.08	40,40,40,40	0
57	MG	1a	1830	1/1	0.98	0.08	57,57,57,57	0
57	MG	2A	3575	1/1	0.98	0.10	39,39,39,39	0
57	MG	1A	3643	1/1	0.98	0.07	32,32,32,32	0
57	MG	1A	3149	1/1	0.98	0.09	33,33,33,33	0
57	MG	1A	3052	1/1	0.98	0.07	26,26,26,26	0
57	MG	2A	3579	1/1	0.98	0.06	44,44,44,44	0
57	MG	1A	3151	1/1	0.98	0.05	33,33,33,33	0
57	MG	1A	3536	1/1	0.98	0.05	23,23,23,23	0
57	MG	1a	1657	1/1	0.98	0.07	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3911	1/1	0.98	0.06	44,44,44,44	0
57	MG	1D	302	1/1	0.98	0.06	32,32,32,32	0
57	MG	1A	3912	1/1	0.98	0.04	31,31,31,31	0
57	MG	2A	3343	1/1	0.98	0.11	37,37,37,37	0
57	MG	1A	3108	1/1	0.98	0.08	29,29,29,29	0
57	MG	2a	3036	1/1	0.98	0.08	46,46,46,46	0
57	MG	2A	3127	1/1	0.98	0.07	42,42,42,42	0
57	MG	1a	1841	1/1	0.98	0.05	54,54,54,54	0
57	MG	1D	305	1/1	0.98	0.10	28,28,28,28	0
57	MG	1A	3053	1/1	0.98	0.12	29,29,29,29	0
57	MG	1D	307	1/1	0.98	0.10	41,41,41,41	0
57	MG	1D	309	1/1	0.98	0.05	36,36,36,36	0
57	MG	1D	310	1/1	0.98	0.10	31,31,31,31	0
57	MG	1D	311	1/1	0.98	0.13	42,42,42,42	0
57	MG	1A	3916	1/1	0.98	0.06	54,54,54,54	0
57	MG	1A	3054	1/1	0.98	0.12	33,33,33,33	0
57	MG	2A	3139	1/1	0.98	0.10	53,53,53,53	0
57	MG	2A	3358	1/1	0.98	0.05	38,38,38,38	0
57	MG	1A	3264	1/1	0.98	0.08	32,32,32,32	0
57	MG	1A	3439	1/1	0.98	0.07	37,37,37,37	0
57	MG	2A	3142	1/1	0.98	0.05	40,40,40,40	0
57	MG	1A	3112	1/1	0.98	0.10	29,29,29,29	0
57	MG	1A	3024	1/1	0.98	0.03	14,14,14,14	0
57	MG	1a	1854	1/1	0.98	0.06	49,49,49,49	0
57	MG	1A	3157	1/1	0.98	0.15	37,37,37,37	0
57	MG	1E	301	1/1	0.98	0.05	42,42,42,42	0
57	MG	2a	3057	1/1	0.98	0.08	57,57,57,57	0
57	MG	1E	302	1/1	0.98	0.11	36,36,36,36	0
57	MG	1E	303	1/1	0.98	0.05	32,32,32,32	0
57	MG	2A	3150	1/1	0.98	0.04	52,52,52,52	0
57	MG	1A	3037	1/1	0.98	0.04	34,34,34,34	0
57	MG	2A	3613	1/1	0.98	0.08	50,50,50,50	0
57	MG	1A	3546	1/1	0.98	0.04	25,25,25,25	0
57	MG	1A	3025	1/1	0.98	0.10	35,35,35,35	0
57	MG	2A	3373	1/1	0.98	0.04	42,42,42,42	0
57	MG	1A	3445	1/1	0.98	0.04	12,12,12,12	0
57	MG	2A	3618	1/1	0.98	0.06	60,60,60,60	0
57	MG	1A	3209	1/1	0.98	0.11	44,44,44,44	0
57	MG	2A	3620	1/1	0.98	0.06	46,46,46,46	0
57	MG	2A	3376	1/1	0.98	0.05	47,47,47,47	0
57	MG	1A	3026	1/1	0.98	0.18	25,25,25,25	0
57	MG	1a	1684	1/1	0.98	0.05	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3161	1/1	0.98	0.09	22,22,22,22	0
57	MG	1A	3019	1/1	0.98	0.10	20,20,20,20	0
57	MG	1F	304	1/1	0.98	0.07	36,36,36,36	0
57	MG	1F	306	1/1	0.98	0.10	24,24,24,24	0
57	MG	1A	3357	1/1	0.98	0.06	37,37,37,37	0
57	MG	1A	3554	1/1	0.98	0.21	21,21,21,21	0
57	MG	1A	3358	1/1	0.98	0.04	23,23,23,23	0
57	MG	1A	3667	1/1	0.98	0.12	42,42,42,42	0
57	MG	1A	3118	1/1	0.98	0.14	21,21,21,21	0
57	MG	2A	3168	1/1	0.98	0.15	36,36,36,36	0
57	MG	1A	3937	1/1	0.98	0.10	53,53,53,53	0
57	MG	1A	3275	1/1	0.98	0.16	25,25,25,25	0
57	MG	1A	3085	1/1	0.98	0.17	29,29,29,29	0
57	MG	1a	1697	1/1	0.98	0.10	55,55,55,55	0
57	MG	1A	3671	1/1	0.98	0.08	29,29,29,29	0
57	MG	1A	3560	1/1	0.98	0.03	32,32,32,32	0
57	MG	2A	3175	1/1	0.98	0.09	43,43,43,43	0
57	MG	1A	3120	1/1	0.98	0.08	17,17,17,17	0
57	MG	2A	3642	1/1	0.98	0.04	49,49,49,49	0
57	MG	1G	203	1/1	0.98	0.06	58,58,58,58	0
57	MG	2A	3644	1/1	0.98	0.06	54,54,54,54	0
57	MG	1a	1702	1/1	0.98	0.10	48,48,48,48	0
57	MG	2A	3648	1/1	0.98	0.05	51,51,51,51	0
57	MG	1A	3363	1/1	0.98	0.07	38,38,38,38	0
57	MG	1H	201	1/1	0.98	0.06	34,34,34,34	0
57	MG	2A	3651	1/1	0.98	0.06	50,50,50,50	0
57	MG	1A	3216	1/1	0.98	0.10	38,38,38,38	0
57	MG	2A	3653	1/1	0.98	0.04	44,44,44,44	0
57	MG	1A	3365	1/1	0.98	0.04	33,33,33,33	0
57	MG	2A	3655	1/1	0.98	0.05	49,49,49,49	0
57	MG	1A	3565	1/1	0.98	0.08	41,41,41,41	0
57	MG	1A	3279	1/1	0.98	0.09	38,38,38,38	0
57	MG	2a	3106	1/1	0.98	0.06	53,53,53,53	0
57	MG	2A	3406	1/1	0.98	0.09	39,39,39,39	0
57	MG	2A	3407	1/1	0.98	0.06	37,37,37,37	0
57	MG	2a	3109	1/1	0.98	0.07	52,52,52,52	0
57	MG	1A	3460	1/1	0.98	0.03	23,23,23,23	0
57	MG	2A	3409	1/1	0.98	0.16	53,53,53,53	0
57	MG	1P	201	1/1	0.98	0.14	29,29,29,29	0
57	MG	1A	3028	1/1	0.98	0.18	22,22,22,22	0
57	MG	1A	3122	1/1	0.98	0.10	27,27,27,27	0
57	MG	2A	3189	1/1	0.98	0.04	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3414	1/1	0.98	0.05	52,52,52,52	0
57	MG	1A	3123	1/1	0.98	0.10	36,36,36,36	0
57	MG	2A	3416	1/1	0.98	0.12	50,50,50,50	0
57	MG	2A	3669	1/1	0.98	0.04	52,52,52,52	0
57	MG	1A	3283	1/1	0.98	0.11	38,38,38,38	0
57	MG	1A	3807	1/1	0.98	0.05	29,29,29,29	0
57	MG	1a	1716	1/1	0.98	0.07	41,41,41,41	0
57	MG	2A	3194	1/1	0.98	0.07	40,40,40,40	0
57	MG	2A	3195	1/1	0.98	0.07	48,48,48,48	0
57	MG	1A	3169	1/1	0.98	0.04	25,25,25,25	0
57	MG	2a	3126	1/1	0.98	0.06	60,60,60,60	0
57	MG	1A	3285	1/1	0.98	0.13	39,39,39,39	0
57	MG	1A	3467	1/1	0.98	0.07	24,24,24,24	0
57	MG	1A	3286	1/1	0.98	0.05	25,25,25,25	0
57	MG	1A	3576	1/1	0.98	0.07	43,43,43,43	0
57	MG	1A	3287	1/1	0.98	0.15	27,27,27,27	0
57	MG	1A	3221	1/1	0.98	0.08	29,29,29,29	0
57	MG	1A	3289	1/1	0.98	0.14	33,33,33,33	0
57	MG	1A	3063	1/1	0.98	0.11	44,44,44,44	0
57	MG	1A	3818	1/1	0.98	0.04	36,36,36,36	0
57	MG	2a	3136	1/1	0.98	0.07	50,50,50,50	0
57	MG	1A	3043	1/1	0.98	0.04	13,13,13,13	0
57	MG	1a	1728	1/1	0.98	0.05	39,39,39,39	0
57	MG	2a	3139	1/1	0.98	0.09	59,59,59,59	0
57	MG	1A	3225	1/1	0.98	0.04	20,20,20,20	0
57	MG	1A	3822	1/1	0.98	0.04	32,32,32,32	0
57	MG	2A	3210	1/1	0.98	0.10	52,52,52,52	0
57	MG	2a	3143	1/1	0.98	0.07	47,47,47,47	0
57	MG	1A	3823	1/1	0.98	0.05	43,43,43,43	0
57	MG	1A	3695	1/1	0.98	0.04	57,57,57,57	0
57	MG	2A	3693	1/1	0.98	0.03	35,35,35,35	0
57	MG	1U	207	1/1	0.98	0.07	32,32,32,32	0
57	MG	2A	3440	1/1	0.98	0.04	34,34,34,34	0
57	MG	2A	3696	1/1	0.98	0.05	53,53,53,53	0
57	MG	1A	3126	1/1	0.98	0.05	34,34,34,34	0
57	MG	2A	3009	1/1	0.98	0.12	41,41,41,41	0
57	MG	1V	201	1/1	0.98	0.14	28,28,28,28	0
57	MG	1A	3029	1/1	0.98	0.06	30,30,30,30	0
57	MG	1A	3128	1/1	0.98	0.09	62,62,62,62	0
57	MG	1A	3830	1/1	0.98	0.05	26,26,26,26	0
57	MG	1A	3298	1/1	0.98	0.03	14,14,14,14	0
57	MG	1a	1740	1/1	0.98	0.03	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3449	1/1	0.98	0.05	49,49,49,49	0
57	MG	1A	3229	1/1	0.98	0.08	27,27,27,27	0
57	MG	1A	3702	1/1	0.98	0.03	41,41,41,41	0
57	MG	2A	3019	1/1	0.98	0.06	40,40,40,40	0
57	MG	1A	3129	1/1	0.98	0.07	31,31,31,31	0
57	MG	1A	3005	1/1	0.98	0.10	21,21,21,21	0
57	MG	2A	3022	1/1	0.98	0.11	42,42,42,42	0
57	MG	1A	3178	1/1	0.98	0.12	19,19,19,19	0
57	MG	10	102	1/1	0.98	0.04	34,34,34,34	0
57	MG	1A	3837	1/1	0.98	0.23	34,34,34,34	0
57	MG	2A	3716	1/1	0.98	0.05	55,55,55,55	0
57	MG	2A	3459	1/1	0.98	0.07	48,48,48,48	0
57	MG	10	104	1/1	0.98	0.08	39,39,39,39	0
57	MG	2A	3027	1/1	0.98	0.06	50,50,50,50	0
57	MG	1a	1749	1/1	0.98	0.05	68,68,68,68	0
57	MG	1A	3838	1/1	0.98	0.15	26,26,26,26	0
57	MG	1A	3008	1/1	0.98	0.06	29,29,29,29	0
57	MG	2A	3031	1/1	0.98	0.09	36,36,36,36	0
57	MG	1A	3485	1/1	0.98	0.05	44,44,44,44	0
57	MG	10	108	1/1	0.98	0.15	32,32,32,32	0
57	MG	2a	3180	1/1	0.98	0.04	63,63,63,63	0
57	MG	1A	3304	1/1	0.98	0.04	37,37,37,37	0
57	MG	1A	3487	1/1	0.98	0.04	25,25,25,25	0
57	MG	1A	3843	1/1	0.98	0.06	21,21,21,21	0
57	MG	2a	3184	1/1	0.98	0.04	47,47,47,47	0
57	MG	1A	3595	1/1	0.98	0.06	29,29,29,29	0
57	MG	1A	3180	1/1	0.98	0.12	28,28,28,28	0
57	MG	2A	3473	1/1	0.98	0.09	54,54,54,54	0
57	MG	1A	3712	1/1	0.98	0.17	31,31,31,31	0
57	MG	1A	3992	1/1	0.98	0.04	45,45,45,45	0
57	MG	1A	3306	1/1	0.98	0.18	40,40,40,40	0
57	MG	15	104	1/1	0.98	0.05	33,33,33,33	0
57	MG	2A	3043	1/1	0.98	0.04	24,24,24,24	0
57	MG	1a	1764	1/1	0.98	0.03	41,41,41,41	0
57	MG	2f	201	1/1	0.98	0.05	54,54,54,54	0
57	MG	1A	3307	1/1	0.98	0.11	34,34,34,34	0
57	MG	2A	3251	1/1	0.98	0.06	41,41,41,41	0
57	MG	1A	3068	1/1	0.98	0.10	33,33,33,33	0
57	MG	1A	3133	1/1	0.98	0.08	28,28,28,28	0
57	MG	1A	3069	1/1	0.98	0.19	32,32,32,32	0
57	MG	2A	3255	1/1	0.98	0.11	39,39,39,39	0
57	MG	17	102	1/1	0.98	0.04	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3495	1/1	0.98	0.04	24,24,24,24	0
57	MG	1A	3184	1/1	0.98	0.08	28,28,28,28	0
57	MG	1A	3720	1/1	0.98	0.04	38,38,38,38	0
57	MG	2A	3491	1/1	0.98	0.04	56,56,56,56	0
57	MG	1a	1773	1/1	0.98	0.06	63,63,63,63	0
57	MG	1A	3001	1/1	0.98	0.04	25,25,25,25	0
57	MG	1A	3856	1/1	0.98	0.06	41,41,41,41	0
57	MG	2B	216	1/1	0.98	0.09	54,54,54,54	0
57	MG	2A	3263	1/1	0.98	0.04	38,38,38,38	0
57	MG	1A	3401	1/1	0.98	0.04	31,31,31,31	0
60	ZN	2Y	202	1/1	0.98	0.04	75,75,75,75	0
57	MG	2B	219	1/1	0.98	0.06	59,59,59,59	0
60	ZN	2n	501	1/1	0.98	0.05	85,85,85,85	0
61	SF4	2d	501	8/8	0.98	0.06	65,72,77,83	0
57	MG	2B	220	1/1	0.98	0.09	43,43,43,43	0
57	MG	1a	1855	1/1	0.99	0.04	51,51,51,51	0
57	MG	1D	301	1/1	0.99	0.14	27,27,27,27	0
57	MG	2A	3088	1/1	0.99	0.19	38,38,38,38	0
57	MG	1A	3325	1/1	0.99	0.04	32,32,32,32	0
57	MG	1A	3101	1/1	0.99	0.17	26,26,26,26	0
57	MG	2A	3166	1/1	0.99	0.12	42,42,42,42	0
57	MG	1A	3754	1/1	0.99	0.04	31,31,31,31	0
57	MG	1A	3200	1/1	0.99	0.06	27,27,27,27	0
57	MG	1A	3873	1/1	0.99	0.04	36,36,36,36	0
57	MG	1A	3756	1/1	0.99	0.04	17,17,17,17	0
57	MG	1D	308	1/1	0.99	0.05	14,14,14,14	0
57	MG	1A	3146	1/1	0.99	0.05	35,35,35,35	0
57	MG	1A	3045	1/1	0.99	0.08	34,34,34,34	0
57	MG	1a	1866	1/1	0.99	0.08	46,46,46,46	0
57	MG	1A	3308	1/1	0.99	0.08	29,29,29,29	0
57	MG	1A	3148	1/1	0.99	0.05	28,28,28,28	0
57	MG	1A	3103	1/1	0.99	0.07	32,32,32,32	0
57	MG	1A	3880	1/1	0.99	0.04	28,28,28,28	0
57	MG	1A	3381	1/1	0.99	0.06	13,13,13,13	0
57	MG	2D	304	1/1	0.99	0.11	37,37,37,37	0
57	MG	2A	3333	1/1	0.99	0.04	42,42,42,42	0
57	MG	1A	3104	1/1	0.99	0.22	29,29,29,29	0
57	MG	1A	3728	1/1	0.99	0.04	28,28,28,28	0
57	MG	1A	3929	1/1	0.99	0.02	12,12,12,12	0
57	MG	1A	3177	1/1	0.99	0.12	18,18,18,18	0
57	MG	1A	3238	1/1	0.99	0.11	35,35,35,35	0
57	MG	2A	3502	1/1	0.99	0.03	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1U	204	1/1	0.99	0.14	32,32,32,32	0
57	MG	2A	3110	1/1	0.99	0.03	31,31,31,31	0
57	MG	1U	205	1/1	0.99	0.09	35,35,35,35	0
57	MG	2a	3149	1/1	0.99	0.09	52,52,52,52	0
57	MG	1A	3222	1/1	0.99	0.07	22,22,22,22	0
57	MG	2E	305	1/1	0.99	0.06	36,36,36,36	0
57	MG	2E	306	1/1	0.99	0.11	44,44,44,44	0
57	MG	1A	3337	1/1	0.99	0.07	22,22,22,22	0
57	MG	2A	3594	1/1	0.99	0.05	34,34,34,34	0
57	MG	1A	3699	1/1	0.99	0.03	37,37,37,37	0
57	MG	1A	3294	1/1	0.99	0.03	31,31,31,31	0
57	MG	1V	202	1/1	0.99	0.06	29,29,29,29	0
57	MG	2A	3686	1/1	0.99	0.03	41,41,41,41	0
57	MG	2A	3347	1/1	0.99	0.07	37,37,37,37	0
57	MG	1V	203	1/1	0.99	0.03	35,35,35,35	0
57	MG	1A	3636	1/1	0.99	0.09	38,38,38,38	0
57	MG	1a	1752	1/1	0.99	0.04	47,47,47,47	0
57	MG	1A	3042	1/1	0.99	0.05	29,29,29,29	0
57	MG	2A	3273	1/1	0.99	0.03	31,31,31,31	0
57	MG	1A	3638	1/1	0.99	0.06	33,33,33,33	0
57	MG	2A	3518	1/1	0.99	0.04	49,49,49,49	0
57	MG	2a	3167	1/1	0.99	0.05	63,63,63,63	0
57	MG	1A	3060	1/1	0.99	0.07	36,36,36,36	0
57	MG	2A	3355	1/1	0.99	0.03	35,35,35,35	0
57	MG	1A	3242	1/1	0.99	0.05	26,26,26,26	0
57	MG	1F	302	1/1	0.99	0.04	23,23,23,23	0
57	MG	1F	303	1/1	0.99	0.20	27,27,27,27	0
57	MG	1A	3941	1/1	0.99	0.03	46,46,46,46	0
57	MG	1F	305	1/1	0.99	0.05	29,29,29,29	0
57	MG	1A	3492	1/1	0.99	0.06	45,45,45,45	0
57	MG	1F	307	1/1	0.99	0.03	25,25,25,25	0
57	MG	1A	3055	1/1	0.99	0.07	27,27,27,27	0
57	MG	2A	3131	1/1	0.99	0.06	45,45,45,45	0
57	MG	1a	1633	1/1	0.99	0.03	32,32,32,32	0
57	MG	1A	3098	1/1	0.99	0.05	33,33,33,33	0
57	MG	1A	3468	1/1	0.99	0.06	18,18,18,18	0
57	MG	2A	3709	1/1	0.99	0.03	49,49,49,49	0
57	MG	1A	3816	1/1	0.99	0.10	36,36,36,36	0
57	MG	1A	3018	1/1	0.99	0.05	23,23,23,23	0
57	MG	1A	3009	1/1	0.99	0.03	22,22,22,22	0
57	MG	2A	3138	1/1	0.99	0.05	29,29,29,29	0
57	MG	23	101	1/1	0.99	0.07	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1t	201	1/1	0.99	0.04	56,56,56,56	0
57	MG	1A	3323	1/1	0.99	0.06	16,16,16,16	0
57	MG	1A	3527	1/1	0.99	0.10	22,22,22,22	0
57	MG	1A	3821	1/1	0.99	0.04	41,41,41,41	0
57	MG	2A	3541	1/1	0.99	0.03	49,49,49,49	0
57	MG	1A	3862	1/1	0.99	0.04	40,40,40,40	0
57	MG	2A	3377	1/1	0.99	0.03	36,36,36,36	0
57	MG	13	101	1/1	0.99	0.10	26,26,26,26	0
57	MG	1A	3111	1/1	0.99	0.14	26,26,26,26	0
57	MG	2a	3099	1/1	0.99	0.02	63,63,63,63	0
57	MG	13	103	1/1	0.99	0.04	41,41,41,41	0
57	MG	2A	3547	1/1	0.99	0.07	44,44,44,44	0
57	MG	1A	3907	1/1	0.99	0.03	34,34,34,34	0
57	MG	1A	3371	1/1	0.99	0.08	27,27,27,27	0
57	MG	15	103	1/1	0.99	0.05	29,29,29,29	0
57	MG	2A	3004	1/1	0.99	0.05	38,38,38,38	0
57	MG	2A	3729	1/1	0.99	0.08	38,38,38,38	0
57	MG	1a	1649	1/1	0.99	0.06	35,35,35,35	0
57	MG	1A	3559	1/1	0.99	0.03	29,29,29,29	0
57	MG	15	105	1/1	0.99	0.14	28,28,28,28	0
57	MG	1A	3501	1/1	0.99	0.03	23,23,23,23	0
57	MG	1N	201	1/1	0.99	0.03	43,43,43,43	0
57	MG	1A	3826	1/1	0.99	0.04	32,32,32,32	0
60	ZN	1Y	501	1/1	0.99	0.03	55,55,55,55	0
57	MG	2A	3645	1/1	0.99	0.02	34,34,34,34	0
60	ZN	15	109	1/1	0.99	0.02	38,38,38,38	0
60	ZN	16	501	1/1	0.99	0.04	39,39,39,39	0
60	ZN	1n	102	1/1	0.99	0.03	68,68,68,68	0
57	MG	2A	3646	1/1	0.99	0.06	35,35,35,35	0
57	MG	1A	3827	1/1	0.99	0.06	23,23,23,23	0
60	ZN	25	104	1/1	0.99	0.03	51,51,51,51	0
60	ZN	29	501	1/1	0.99	0.03	57,57,57,57	0
57	MG	2A	3012	1/1	0.99	0.07	55,55,55,55	0
61	SF4	1d	307	8/8	0.99	0.05	58,62,71,72	0
57	MG	1A	3913	1/1	0.99	0.03	43,43,43,43	0
57	MG	1A	3961	1/1	0.99	0.05	22,22,22,22	0
57	MG	1A	3378	1/1	1.00	0.01	11,11,11,11	0
60	ZN	26	102	1/1	1.00	0.02	52,52,52,52	0
57	MG	2A	3485	1/1	1.00	0.04	33,33,33,33	0
60	ZN	19	104	1/1	1.00	0.02	38,38,38,38	0
57	MG	2A	3574	1/1	1.00	0.03	58,58,58,58	0
57	MG	1A	3975	1/1	1.00	0.02	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3297	1/1	1.00	0.06	23,23,23,23	0

6.5 Other polymers (i)

There are no such residues in this entry.