



Full wwPDB X-ray Structure Validation Report ⓘ

Aug 4, 2026 – 01:59 PM EDT

PDB ID : 5HCP / pdb_00005hcp
Title : Crystal structure of antimicrobial peptide Metalnikowin bound to the *Thermus thermophilus* 70S ribosome
Authors : Gagnon, M.G.; Roy, R.N.; Lomakin, I.B.; Florin, T.; Mankin, A.S.; Steitz, T.A.
Deposited on : 2016-01-04
Resolution : 2.89 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

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

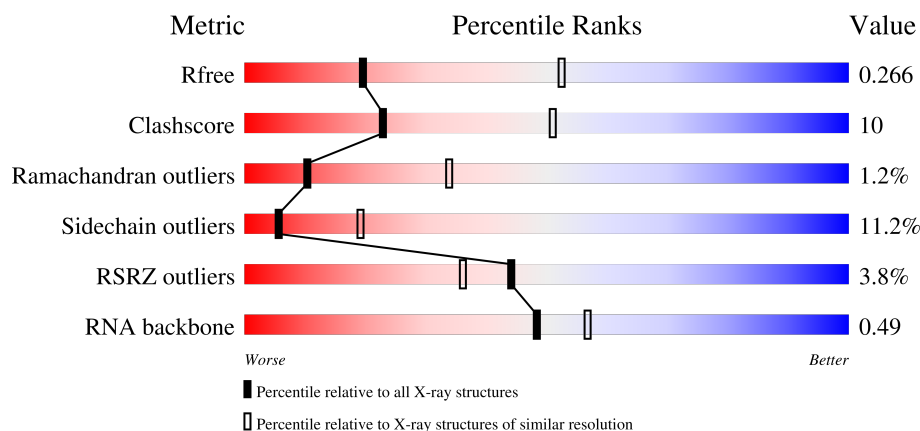
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.89 Å.

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



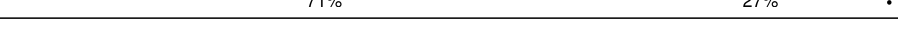
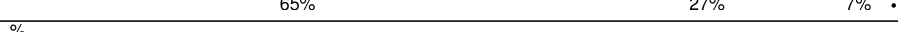
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	2481 (2.90-2.90)
Clashscore	190562	2690 (2.90-2.90)
Ramachandran outliers	187476	2623 (2.90-2.90)
Sidechain outliers	187428	2625 (2.90-2.90)
RSRZ outliers	180081	2481 (2.90-2.90)
RNA backbone	3983	1120 (3.10-2.70)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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	
1	2A	2915	
2	1B	121	
2	2B	121	

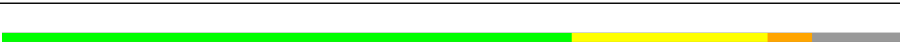
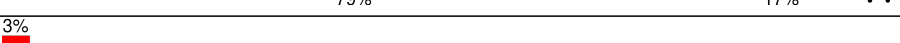
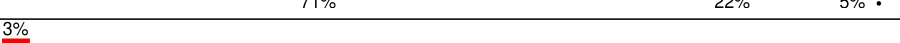
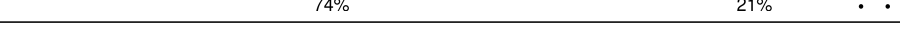
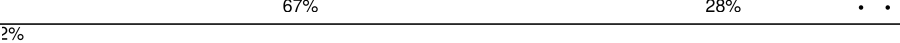
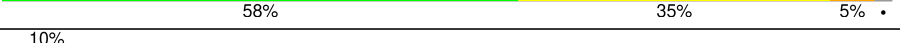
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Mol	Chain	Length	Quality of chain
3	1D	276	
3	2D	276	
4	1E	206	
4	2E	206	
5	1F	210	
5	2F	210	
6	1G	182	
6	2G	182	
7	1H	180	
7	2H	180	
8	1I	148	
8	2I	148	
9	1N	140	
9	2N	140	
10	1O	122	
10	2O	122	
11	1P	150	
11	2P	150	
12	1Q	141	
12	2Q	141	
13	1R	118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

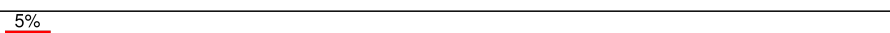
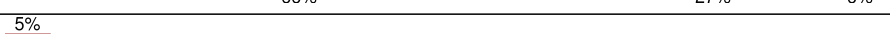
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Mol	Chain	Length	Quality of chain
15	2T	146	
16	1U	118	
16	2U	118	
17	1V	101	
17	2V	101	
18	1W	113	
18	2W	113	
19	1X	96	
19	2X	96	
20	1Y	110	
20	2Y	110	
21	1Z	206	
21	2Z	206	
22	10	85	
22	20	85	
23	11	98	
23	21	98	
24	12	72	
24	22	72	
25	13	60	
25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

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

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

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Mol	Chain	Length	Quality of chain
53	1v	24	4%8%8%79%
53	2v	24	4%8%8%79%
54	1x	77	56%34%9%
54	2x	77	43%45%10%
55	1z	15	13%60%20%20%
55	2z	15	27%53%20%13%13%

2 Entry composition

There are 59 unique types of molecules in this entry. The entry contains 288976 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	2746	Total	C	N	O	P	0	0	0
			59154	26327	11077	19005	2745			
1	2A	2790	Total	C	N	O	P	0	0	0
			60091	26746	11243	19313	2789			

- 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	1146	476	831	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
			2136	1349	423	361	3			
3	2D	275	Total	C	N	O	S	0	0	0
			2142	1352	426	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
			1425	914	256	251	4			
6	2G	181	Total	C	N	O	S	0	0	0
			1424	911	258	251	4			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	1I	146	Total	C	N	O	S	0	0	0
			1085	693	189	202	1			
8	2I	146	Total	C	N	O	S	0	0	0
			1061	680	186	194	1			

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	1P	149	Total	C	N	O	S	0	0	0
			1139	709	231	196	3			
11	2P	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	1Z	186	Total	C	N	O	S	0	0	0
			1470	937	262	269	2			
21	2Z	186	Total	C	N	O	S	0	0	0
			1454	929	256	267	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	10	75	Total	C	N	O	S	0	0	0
			598	370	127	100	1			
22	20	75	Total	C	N	O	S	0	0	0
			598	370	127	100	1			

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	14	69	Total	C	N	O	S	0	0	0
			558	352	102	99	5			

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	1a	1477	Total	C	N	O	P	0	0	0
			31750	14131	5883	10259	1477			
32	2a	1483	Total	C	N	O	P	0	0	0
			31877	14188	5905	10301	1483			

- 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
			1786	1136	321	325	4			
33	2b	231	Total	C	N	O	S	0	0	0
			1697	1079	292	321	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
			1480	932	281	266	1			
34	2c	206	Total	C	N	O	S	0	0	0
			1412	883	269	259	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
			1618	1013	312	286	7			
35	2d	208	Total	C	N	O	S	0	0	0
			1630	1022	321	280	7			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	1e	148	Total	C	N	O	S	0	0	0
			1129	714	213	198	4			
36	2e	148	Total	C	N	O	S	0	0	0
			1095	695	203	193	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
			806	511	143	149	3			
37	2f	100	Total	C	N	O	S	0	0	0
			817	516	146	152	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
			1183	732	232	213	6			
38	2g	155	Total	C	N	O	S	0	0	0
			1167	728	220	213	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	1h	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			
39	2h	137	Total	C	N	O	S	0	0	0
			1074	681	202	189	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
			976	620	189	167			
40	2i	127	Total	C	N	O	0	0	0
			932	589	177	166			

- 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
			682	424	130	128			
41	2j	96	Total	C	N	O	0	0	0
			678	424	126	128			

- 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
			826	513	156	154	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	2k	114	Total	C	N	O	S	0	0	0
			829	516	155	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
			920	579	181	159	1			
43	2l	122	Total	C	N	O	S	0	0	0
			918	576	182	159	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	1m	118	Total	C	N	O	S	0	0	0
			923	569	191	161	2			
44	2m	116	Total	C	N	O	S	0	0	0
			903	555	187	159	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
			482	306	100	72	4			
45	2n	60	Total	C	N	O	S	0	0	0
			459	291	93	71	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
			715	447	140	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
			671	424	133	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
			811	519	148	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	84	Total	C	N	O	S	0	0	0
			642	409	119	112	2			
50	2s	83	Total	C	N	O	S	0	0	0
			646	412	119	113	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	1t	96	Total	C	N	O	S	0	0	0
			712	435	152	123	2			
51	2t	96	Total	C	N	O	S	0	0	0
			731	449	156	124	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
52	1u	23	Total	C	N	O	0	0	0
			187	116	42	29			
52	2u	23	Total	C	N	O	0	0	0
			199	122	48	29			

- Molecule 53 is a RNA chain called mRNA.

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

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

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

- Molecule 55 is a protein called Metalnikowin-1.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
55	1z	12	Total	C	N	O	0	0	0
			105	66	22	17			
55	2z	13	Total	C	N	O	0	0	0
			112	71	23	18			

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1A	1090	Total	Mg	0	0
			1090	1090		
56	1B	30	Total	Mg	0	0
			30	30		
56	1D	13	Total	Mg	0	0
			13	13		
56	1E	12	Total	Mg	0	0
			12	12		
56	1F	8	Total	Mg	0	0
			8	8		
56	1G	3	Total	Mg	0	0
			3	3		
56	1H	4	Total	Mg	0	0
			4	4		
56	1N	7	Total	Mg	0	0
			7	7		
56	1O	3	Total	Mg	0	0
			3	3		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1P	6	Total 6	Mg 6	0	0
56	1Q	9	Total 9	Mg 9	0	0
56	1R	6	Total 6	Mg 6	0	0
56	1T	6	Total 6	Mg 6	0	0
56	1U	6	Total 6	Mg 6	0	0
56	1V	2	Total 2	Mg 2	0	0
56	1W	6	Total 6	Mg 6	0	0
56	1X	1	Total 1	Mg 1	0	0
56	1Y	1	Total 1	Mg 1	0	0
56	1Z	2	Total 2	Mg 2	0	0
56	10	6	Total 6	Mg 6	0	0
56	11	3	Total 3	Mg 3	0	0
56	12	1	Total 1	Mg 1	0	0
56	13	2	Total 2	Mg 2	0	0
56	14	1	Total 1	Mg 1	0	0
56	15	3	Total 3	Mg 3	0	0
56	16	4	Total 4	Mg 4	0	0
56	17	2	Total 2	Mg 2	0	0
56	18	3	Total 3	Mg 3	0	0
56	19	5	Total 5	Mg 5	0	0
56	1a	309	Total 309	Mg 309	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1b	1	Total 1	Mg 1	0	0
56	1d	2	Total 2	Mg 2	0	0
56	1e	3	Total 3	Mg 3	0	0
56	1f	1	Total 1	Mg 1	0	0
56	1h	2	Total 2	Mg 2	0	0
56	1k	1	Total 1	Mg 1	0	0
56	1l	2	Total 2	Mg 2	0	0
56	1m	1	Total 1	Mg 1	0	0
56	1n	1	Total 1	Mg 1	0	0
56	1o	3	Total 3	Mg 3	0	0
56	1p	2	Total 2	Mg 2	0	0
56	1q	3	Total 3	Mg 3	0	0
56	1r	3	Total 3	Mg 3	0	0
56	1t	1	Total 1	Mg 1	0	0
56	1u	1	Total 1	Mg 1	0	0
56	1v	1	Total 1	Mg 1	0	0
56	1x	10	Total 10	Mg 10	0	0
56	1z	1	Total 1	Mg 1	0	0
56	2A	561	Total 561	Mg 561	0	0
56	2B	10	Total 10	Mg 10	0	0
56	2D	5	Total 5	Mg 5	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	2E	4	Total 4	Mg 4	0	0
56	2F	4	Total 4	Mg 4	0	0
56	2G	1	Total 1	Mg 1	0	0
56	2N	1	Total 1	Mg 1	0	0
56	2O	3	Total 3	Mg 3	0	0
56	2P	1	Total 1	Mg 1	0	0
56	2Q	5	Total 5	Mg 5	0	0
56	2R	2	Total 2	Mg 2	0	0
56	2T	1	Total 1	Mg 1	0	0
56	2U	1	Total 1	Mg 1	0	0
56	2X	1	Total 1	Mg 1	0	0
56	2Y	1	Total 1	Mg 1	0	0
56	2Z	1	Total 1	Mg 1	0	0
56	20	1	Total 1	Mg 1	0	0
56	23	1	Total 1	Mg 1	0	0
56	25	1	Total 1	Mg 1	0	0
56	28	3	Total 3	Mg 3	0	0
56	2a	255	Total 255	Mg 255	0	0
56	2d	2	Total 2	Mg 2	0	0
56	2e	2	Total 2	Mg 2	0	0
56	2f	1	Total 1	Mg 1	0	0

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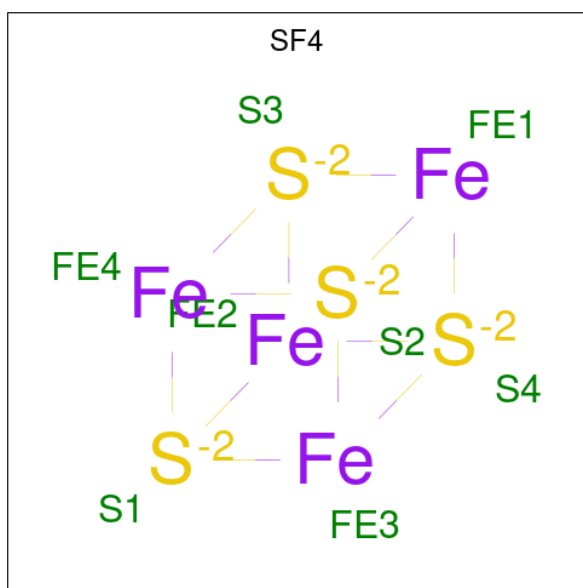
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	2l	5	Total 5	Mg 5	0	0
56	2q	3	Total 3	Mg 3	0	0
56	2r	1	Total 1	Mg 1	0	0
56	2t	1	Total 1	Mg 1	0	0
56	2v	1	Total 1	Mg 1	0	0
56	2x	7	Total 7	Mg 7	0	0
56	2z	1	Total 1	Mg 1	0	0

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

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

- Molecule 58 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe₄S₄).



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

- Molecule 59 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	1A	2412	Total	O	0	0
			2412	2412		
59	1B	46	Total	O	0	0
			46	46		
59	1D	25	Total	O	0	0
			25	25		
59	1E	30	Total	O	0	0
			30	30		
59	1F	21	Total	O	0	0
			21	21		
59	1G	8	Total	O	0	0
			8	8		
59	1H	4	Total	O	0	0
			4	4		
59	1I	3	Total	O	0	0
			3	3		
59	1N	8	Total	O	0	0
			8	8		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	1O	5	Total 5	O 5	0	0
59	1P	25	Total 25	O 25	0	0
59	1Q	13	Total 13	O 13	0	0
59	1R	18	Total 18	O 18	0	0
59	1S	2	Total 2	O 2	0	0
59	1T	13	Total 13	O 13	0	0
59	1U	18	Total 18	O 18	0	0
59	1V	5	Total 5	O 5	0	0
59	1W	14	Total 14	O 14	0	0
59	1X	5	Total 5	O 5	0	0
59	1Y	1	Total 1	O 1	0	0
59	1Z	6	Total 6	O 6	0	0
59	10	8	Total 8	O 8	0	0
59	11	7	Total 7	O 7	0	0
59	12	2	Total 2	O 2	0	0
59	13	3	Total 3	O 3	0	0
59	15	7	Total 7	O 7	0	0
59	16	11	Total 11	O 11	0	0
59	17	9	Total 9	O 9	0	0
59	18	16	Total 16	O 16	0	0
59	19	3	Total 3	O 3	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	1a	394	Total 394	O 394	0	0
59	1b	1	Total 1	O 1	0	0
59	1c	1	Total 1	O 1	0	0
59	1d	3	Total 3	O 3	0	0
59	1e	4	Total 4	O 4	0	0
59	1f	1	Total 1	O 1	0	0
59	1h	2	Total 2	O 2	0	0
59	1j	1	Total 1	O 1	0	0
59	1k	2	Total 2	O 2	0	0
59	1l	3	Total 3	O 3	0	0
59	1m	1	Total 1	O 1	0	0
59	1p	1	Total 1	O 1	0	0
59	1q	1	Total 1	O 1	0	0
59	1s	1	Total 1	O 1	0	0
59	1u	1	Total 1	O 1	0	0
59	1v	3	Total 3	O 3	0	0
59	1x	10	Total 10	O 10	0	0
59	1z	5	Total 5	O 5	0	0
59	2A	824	Total 824	O 824	0	0
59	2B	9	Total 9	O 9	0	0
59	2D	18	Total 18	O 18	0	0

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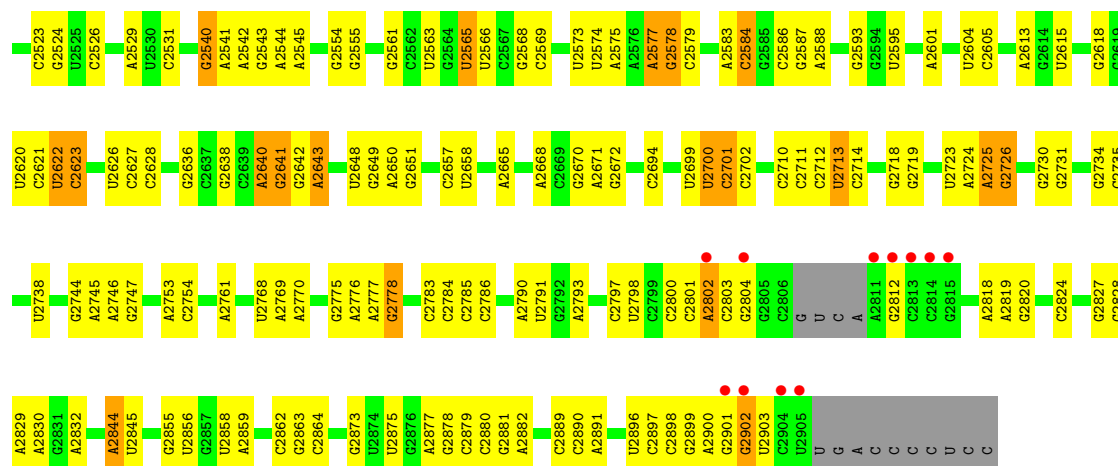
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	2E	11	Total 11	O 11	0	0
59	2F	6	Total 6	O 6	0	0
59	2N	2	Total 2	O 2	0	0
59	2O	1	Total 1	O 1	0	0
59	2P	6	Total 6	O 6	0	0
59	2R	1	Total 1	O 1	0	0
59	2T	1	Total 1	O 1	0	0
59	2U	3	Total 3	O 3	0	0
59	2W	1	Total 1	O 1	0	0
59	2X	3	Total 3	O 3	0	0
59	2Y	2	Total 2	O 2	0	0
59	2Z	5	Total 5	O 5	0	0
59	20	2	Total 2	O 2	0	0
59	21	1	Total 1	O 1	0	0
59	23	2	Total 2	O 2	0	0
59	25	1	Total 1	O 1	0	0
59	27	1	Total 1	O 1	0	0
59	28	4	Total 4	O 4	0	0
59	2a	329	Total 329	O 329	0	0
59	2c	1	Total 1	O 1	0	0
59	2d	1	Total 1	O 1	0	0

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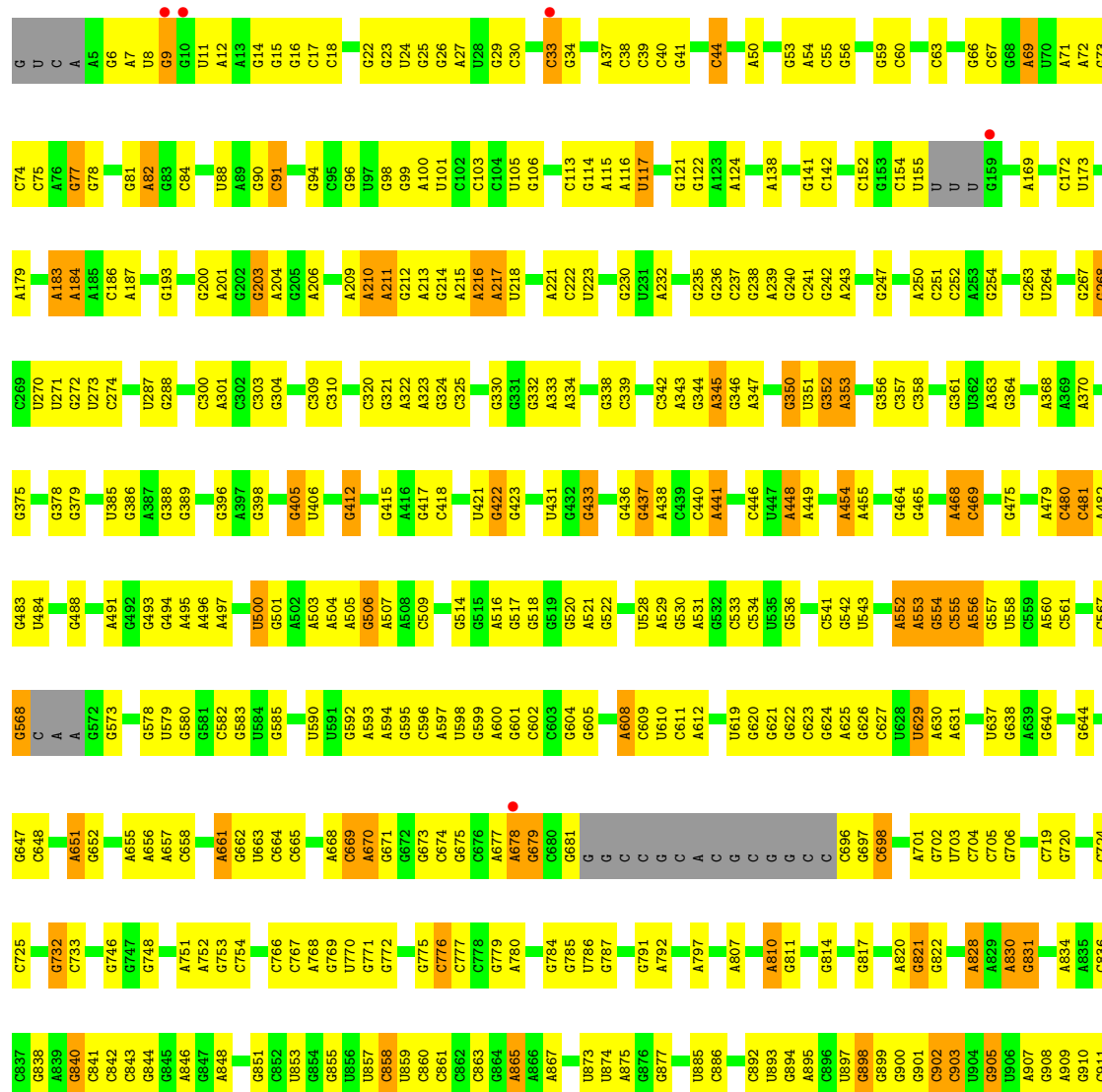
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	2e	4	Total 4	O 4	0	0
59	2g	1	Total 1	O 1	0	0
59	2i	2	Total 2	O 2	0	0
59	2l	2	Total 2	O 2	0	0
59	2m	1	Total 1	O 1	0	0
59	2o	1	Total 1	O 1	0	0
59	2p	2	Total 2	O 2	0	0
59	2q	1	Total 1	O 1	0	0
59	2t	4	Total 4	O 4	0	0
59	2u	1	Total 1	O 1	0	0
59	2x	6	Total 6	O 6	0	0
59	2z	2	Total 2	O 2	0	0

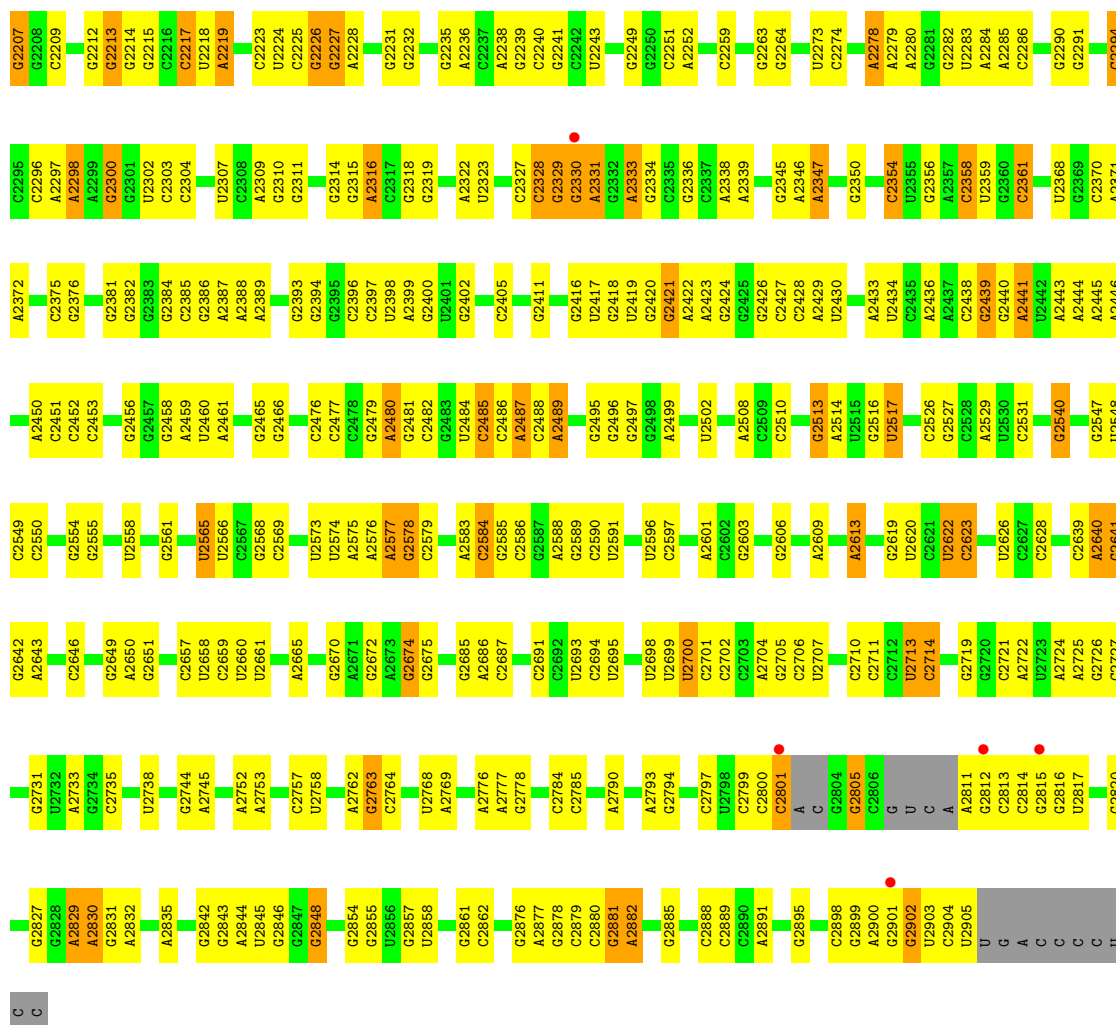
A2433	G2307	A1833	C2064	U1952	A1834	A1711	C1603	G1505	U1397	A1257	G1154	A1090
U2334	G2208	C1834	G2074	A1953	A1845	A1715	A1604	A1506	U1402	A1264	G1155	A1091
G2335	C2209	C	A2075	G1954	G1846	U1717	A1612	C1507	U1403	U1157	A1156	G1092
A2336	U2210	U	C2076	A1958	A1849	G1720	G1613	C1509	A1404	U1158	G1157	C1097
A2337	G2211	G	A2077	U1960	A1854	U1738	A1614	C1510	A1405	U1159	A1158	C1098
G2338	C2212	U	A2078	U1961	G1855	U1739	A1615	C1511	U1170	U	A1159	A1099
A2339	U2213	U	A2079	U1962	G1856	A1723	A1616	C1512	G1176	U	G1100	G
G2340	C2214	G	A2080	U1963	G1857	A1724	A1617	C1513	A1173	A	A	A
A2341	G2215	C	A2081	A1964	G1858	U1734	A1618	C1514	A1174	G	A	A
U2342	U2216	A	G2082	U1965	G1859	A1735	A1619	C1515	A1175	U	G	A
A2343	C2217	C	A2083	A1966	A1860	U1736	A1620	C1516	U1176	U	U	U
G2344	U2218	C	C2084	U1967	G1861	A1737	C1621	C1517	A1177	U	U	U
A2345	G2219	C	C2085	A1968	G1862	U1738	C1622	C1518	A1178	U	U	U
G2346	C2220	C	C2086	U1969	C1863	A1739	C1623	C1519	A1179	U	U	U
A2347	U2221	C	C2087	U1970	G1864	A1740	A1624	C1520	G1179	U	U	U
G2348	G2222	G	G2088	U1971	C1865	U1741	A1625	C1521	G1180	U	U	U
U2349	C2223	C	G2089	A1972	G1866	U1742	A1626	C1522	G1181	U	U	U
G2350	U2224	C	G2090	U1973	C1867	U1743	A1627	C1523	G1182	U	U	U
A2351	G2225	C	G2091	A1974	G1868	A1744	C1628	C1524	G1183	U	U	U
C2352	C2226	C	G2092	U1975	C1869	U1745	C1629	C1525	G1184	U	U	U
A2353	G2227	C	A2093	U1976	G1870	U1746	C1630	C1526	G1185	U	U	U
G2354	C2228	C	G2094	U1977	C1871	U1747	A1631	C1527	U1186	U	U	U
U2355	U2229	C	C2095	A1978	G1872	U1748	A1632	C1528	A1188	U	U	U
G2356	C2230	C	U2096	U1979	C1873	U1749	A1633	C1529	G1189	U	U	U
A2357	G2231	C	U2097	A1980	G1874	U1750	C1634	C1530	G1190	U	U	U
C2358	U2232	C	U2098	U1981	C1875	U1751	C1635	C1531	A1200	U	U	U
G2359	C2233	C	U2099	A1982	G1876	U1752	C1636	C1532	G1201	U	U	U
U2360	G2234	C	U2100	U1983	C1877	U1753	C1637	C1533	G1202	U	U	U
A2361	C2235	C	G2101	A1984	G1878	U1754	C1638	C1534	U1210	U	U	U
G2362	U2236	C	G2102	U1985	C1879	U1755	C1639	C1535	G1211	U	U	U
A2363	G2237	C	G2103	A1986	G1880	U1756	C1640	C1536	G1212	U	U	U
C2364	C2238	C	G2104	U1987	C1881	U1757	C1641	C1537	G1213	U	U	U
U2365	U2239	C	A2095	U1988	G1882	U1758	C1642	C1538	G1214	U	U	U
G2366	C2240	C	U2096	U1989	C1883	U1759	C1643	C1539	G1215	U	U	U
A2367	G2241	C	U2097	A1990	G1884	U1760	C1644	C1540	G1216	U	U	U
C2368	U2242	C	U2098	U1991	C1885	U1761	C1645	C1541	G1217	U	U	U
G2369	C2243	C	U2099	A1992	G1886	U1762	C1646	C1542	A1218	U	U	U
U2370	G2244	C	U2100	U1993	C1887	U1763	C1647	C1543	U1219	U	U	U
A2371	C2245	C	G2101	A1994	G1888	U1764	C1648	C1544	G1220	U	U	U
G2372	U2246	C	G2102	U1995	C1889	U1765	C1649	C1545	A1221	U	U	U
A2373	G2247	C	G2103	U1996	G1890	U1766	C1650	C1546	C1222	U	U	U
C2374	C2248	C	G2104	U1997	C1891	U1767	C1651	C1547	C1223	U	U	U
U2375	U2249	C	G2105	A1998	G1892	U1768	C1652	C1548	C1224	U	U	U
G2376	C2250	C	G2106	U1999	C1893	U1769	C1653	C1549	C1225	U	U	U
A2377	G2251	C	G2107	U2000	G1894	U1770	C1654	C1550	G1226	U	U	U
C2378	U2252	C	G2108	U2001	C1895	U1771	C1655	C1551	G1227	U	U	U
G2379	C2253	C	G2109	U2002	G1896	U1772	C1656	C1552	C1228	U	U	U
A2380	G2254	C	G2110	U2003	C1897	U1773	C1657	C1553	C1229	U	U	U
U2381	U2255	C	G2111	U2004	G1898	U1774	C1658	C1554	C1230	U	U	U
G2382	C2256	C	G2112	U2005	C1899	U1775	C1659	C1555	G1231	U	U	U
A2383	U2257	C	G2113	U2006	G1900	U1776	C1660	C1556	U1232	U	U	U
C2384	C2258	C	G2114	U2007	C1901	U1777	C1661	C1557	G1233	U	U	U
U2385	G2259	C	G2115	U2008	G1902	U1778	C1662	C1558	G1234	U	U	U
A2386	C2260	C	G2116	U2009	C1903	U1779	C1663	C1559	C1235	U	U	U
G2387	U2261	C	G2117	U2010	G1904	U1780	C1664	C1560	G1236	U	U	U
A2388	C2262	C	G2118	U2011	C1905	U1781	C1665	C1561	C1237	U	U	U
C2389	U2263	C	G2119	U2012	G1906	U1782	C1666	C1562	C1238	U	U	U
U2390	G2264	C	G2120	U2013	C1907	U1783	C1667	C1563	C1239	U	U	U
A2391	C2265	C	G2121	U2014	G1908	U1784	C1668	C1564	C1240	U	U	U
G2392	U2266	C	G2122	U2015	C1909	U1785	C1669	C1565	C1241	U	U	U
A2393	C2267	C	G2123	U2016	G1910	U1786	C1670	C1566	C1242	U	U	U
C2394	U2268	C	G2124	U2017	C1911	U1787	C1671	C1567	C1243	U	U	U
U2395	G2269	C	G2125	U2018	G1912	U1788	C1672	C1568	C1244	U	U	U
A2396	C2270	C	G2126	U2019	C1913	U1789	C1673	C1569	C1245	U	U	U
G2397	U2271	C	G2127	U2020	G1914	U1790	C1674	C1570	C1246	U	U	U
A2398	C2272	C	G2128	U2021	C1915	U1791	C1675	C1571	C1247	U	U	U
U2399	G2273	C	G2129	U2022	G1916	U1792	C1676	C1572	C1248	U	U	U
A2400	C2274	C	G2130	U2023	C1917	U1793	C1677	C1573	C1249	U	U	U
G2401	U2275	C	G2131	U2024	G1918	U1794	C1678	C1574	C1250	U	U	U
A2402	C2276	C	G2132	U2025	C1919	U1795	C1679	C1575	C1251	U	U	U
U2403	G2277	C	G2133	U2026	G1920	U1796	C1680	C1576	C1252	U	U	U
A2404	C2278	C	G2134	U2027	C1921	U1797	C1681	C1577	C1253	U	U	U
G2405	U2279	C	G2135	U2028	G1922	U1798	C1682	C1578	C1254	U	U	U
A2406	C2280	C	G2136	U2029	C1923	U1799	C1683	C1579	C1255	U	U	U
U2407	G2281	C	G2137	U2030	G1924	U1800	C1684	C1580	C1256	U	U	U
A2408	C2282	C	G2138	U2031	C1925	U1801	C1685	C1581	C1257	U	U	U
G2409	U2283	C	G2139	U2032	G1926	U1802	C1686	C1582	C1258	U	U	U
A2410	C2284	C	G2140	U2033	C1927	U1803	C1687	C1583	C1259	U	U	U
U2411	G2285	C	G2141	U2034	G1928	U1804	C1688	C1584	C1260	U	U	U
A2412	C2286	C	G2142	U2035	C1929	U1805	C1689	C1585	C1261	U	U	U
G2413	U2287	C	G2143	U2036	G1930	U1806	C1690	C1586	C1262	U	U	U
A2414	C2288	C	G2144	U2037	C1931	U1807	C1691	C1587	C1263	U	U	U
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A2416	C2290	C	G2146	U2039	C1933	U1809	C1693	C1589	C1265	U	U	U
G2417	U2291	C	G2147	U2040	G1934	U1810	C1694	C1590	C1266	U	U	U
A2418	C2292	C	G2148	U2041	C1935	U1811	C1695	C1591	C1267	U	U	U
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U2427	G2301	C	G2157	U2050	G1944	U1820	C1704	C1600	C1276	U	U	U
A2428	C2302	C	G2158	U2051	C1945	U1821	C1705	C1601	C1277	U	U	U
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A2436	C2310	C	G2166	U2059	C1953	U1829	C1713	C1609	C1285	U	U	U
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A2438	C2312	C	G2168	U2061	C1955	U1831	C1715	C1611	C1287	U	U	U
U2439	G2313	C	G2169	U2062	G1956	U1832	C1716	C1612	C1288	U	U	U
A2440	C2314	C	G2170	U2063	C1957	U1833	C1717	C1613	C1289	U	U	U
G2441	U2315	C	G2171	U2064	G1958	U1834	C1718	C1614	C1290	U	U	U
A2442	C2316	C	G2172	U2065	C1959	U1835	C1719	C1615	C1291	U	U	U
U2443	G2317	C	G2173	U2066	G196							



• Molecule 1: 23S Ribosomal RNA



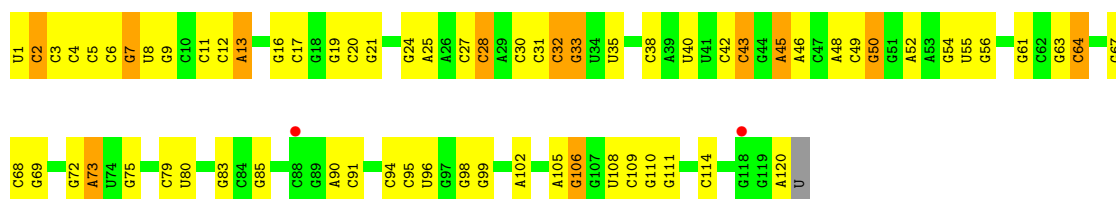
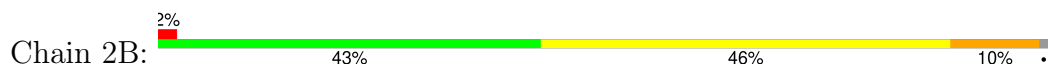




• Molecule 2: 5S Ribosomal RNA

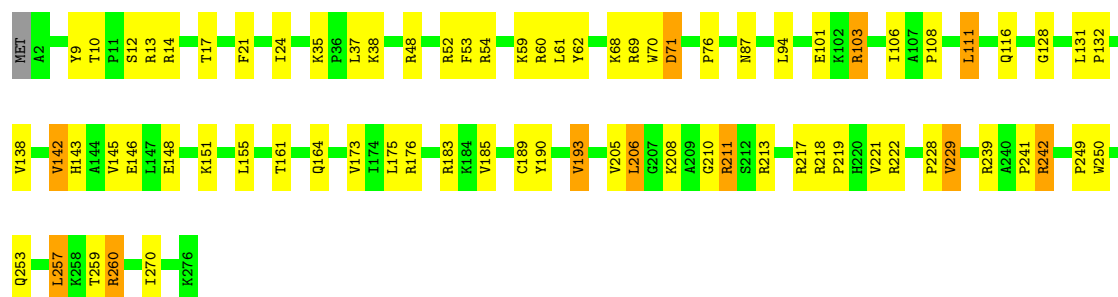


• Molecule 2: 5S Ribosomal RNA



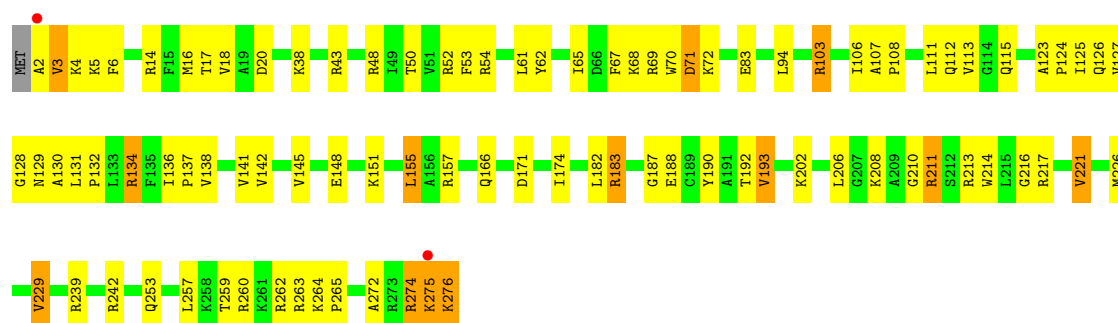
• Molecule 3: 50S ribosomal protein L2

Chain 1D:  72% 24%



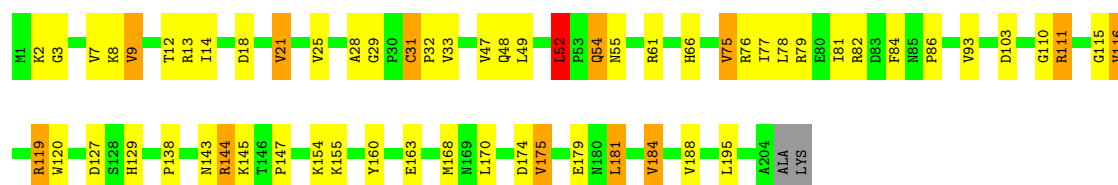
• Molecule 3: 50S ribosomal protein L2

Chain 2D:  66% 29% 5%



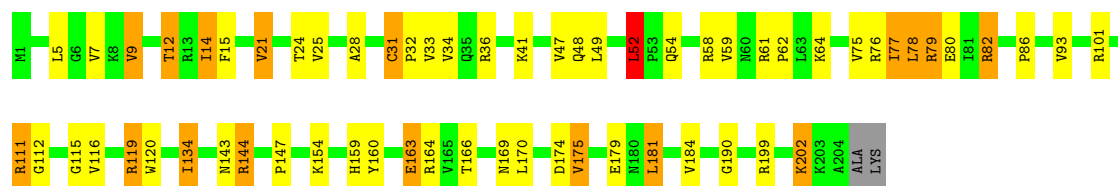
• Molecule 4: 50S ribosomal protein L3

Chain 1E:  69% 23% 6%



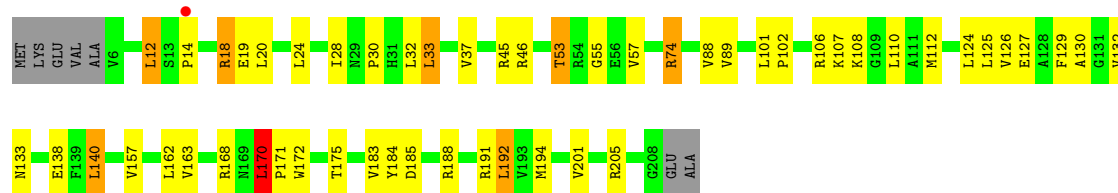
• Molecule 4: 50S ribosomal protein L3

Chain 2E:  69% 21% 8%



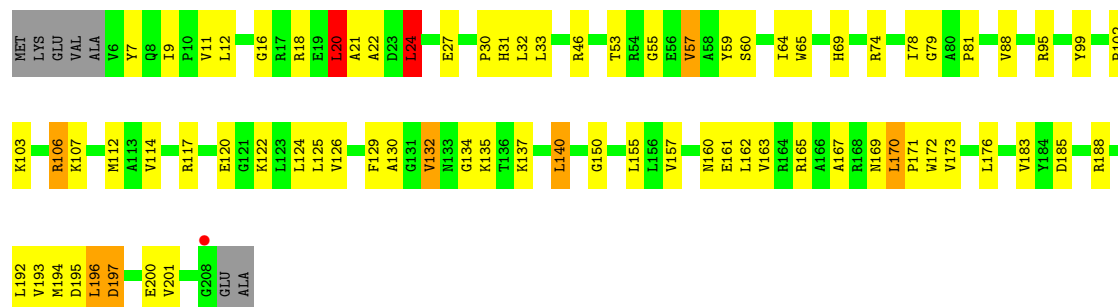
• Molecule 5: 50S ribosomal protein L4

Chain 1F:  71% 21%



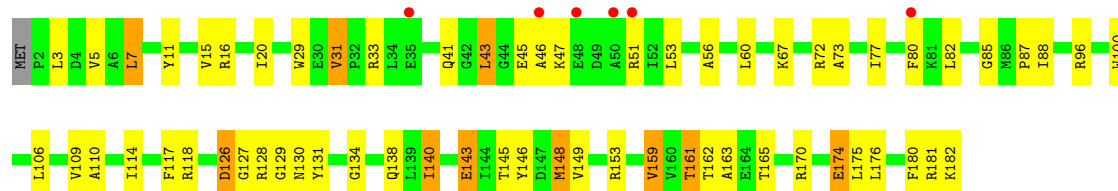
• Molecule 5: 50S ribosomal protein L4

Chain 2F: 60% 32%



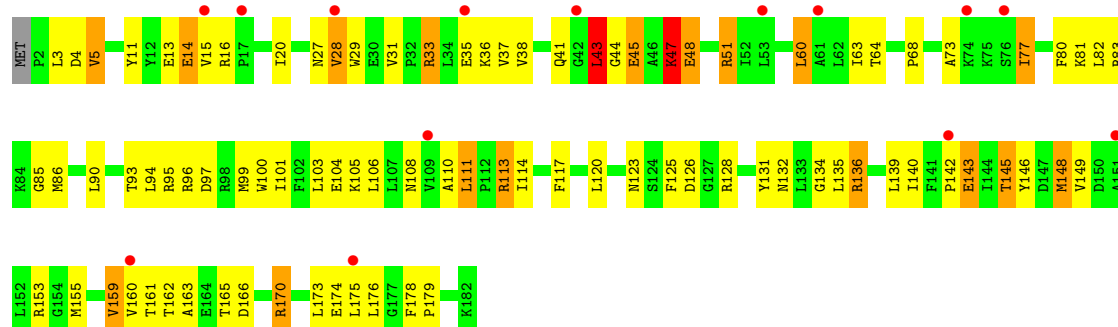
• Molecule 6: 50S ribosomal protein L5

Chain 1G: 3% 65% 29% 5%



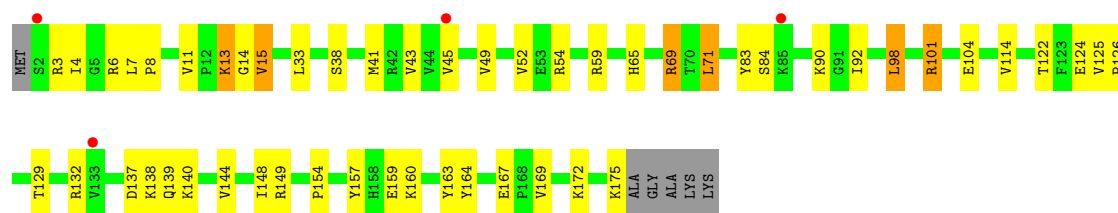
• Molecule 6: 50S ribosomal protein L5

Chain 2G: 8% 50% 39% 9%

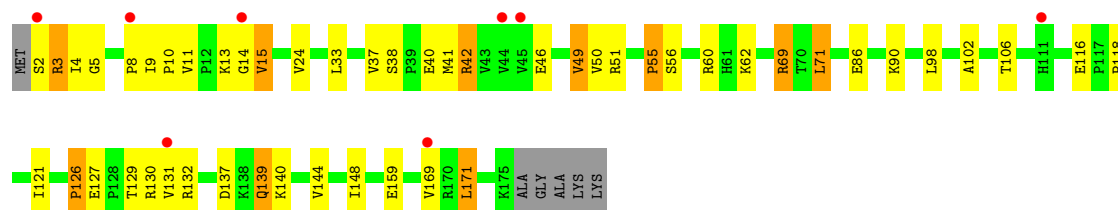


• Molecule 7: 50S ribosomal protein L6

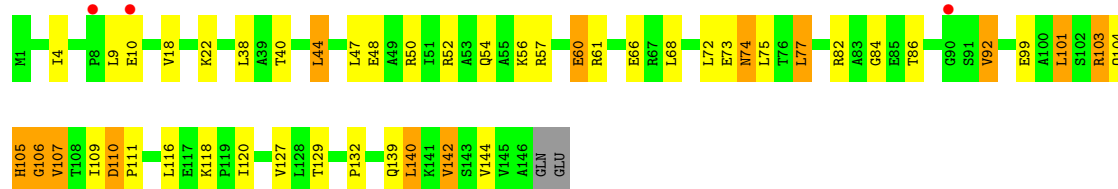
Chain 1H: 2% 68% 26%



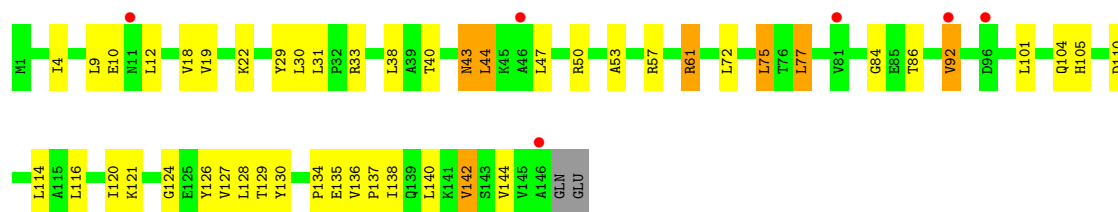
• Molecule 7: 50S ribosomal protein L6



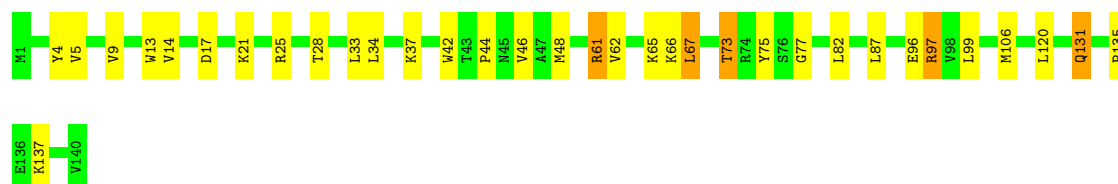
• Molecule 8: 50S ribosomal protein L9



• Molecule 8: 50S ribosomal protein L9

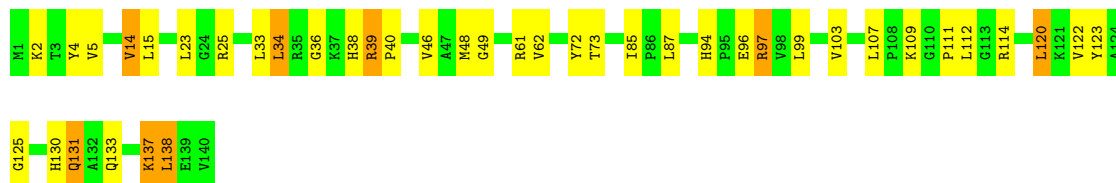


• Molecule 9: 50S ribosomal protein L13



- Molecule 9: 50S ribosomal protein L13

Chain 2N:  71% 24% 6%



- Molecule 10: 50S ribosomal protein L14

Chain 1O:  72% 22% 6%



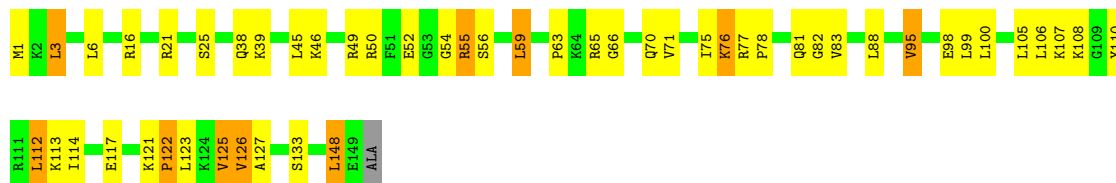
- Molecule 10: 50S ribosomal protein L14

Chain 2O:  71% 27% 2%



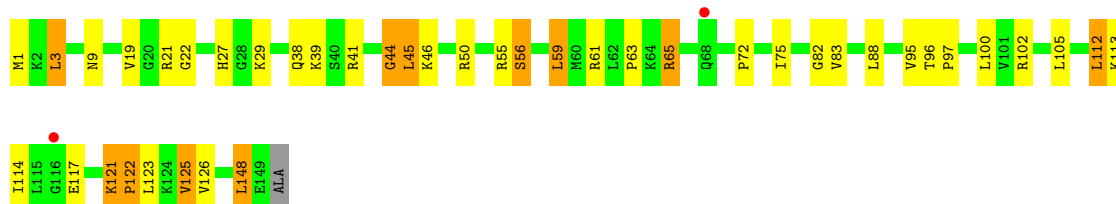
- Molecule 11: 50S ribosomal protein L15

Chain 1P:  65% 27% 7%



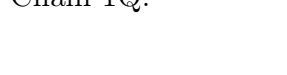
- Molecule 11: 50S ribosomal protein L15

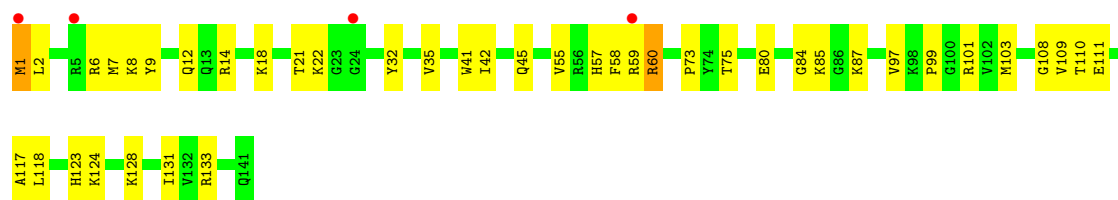
Chain 2P:  71% 21% 7%



- Molecule 12: 50S ribosomal protein L16

Chain 1Q:  70% 28% 3%

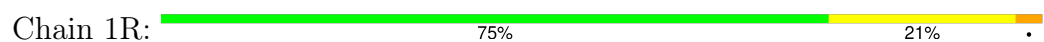




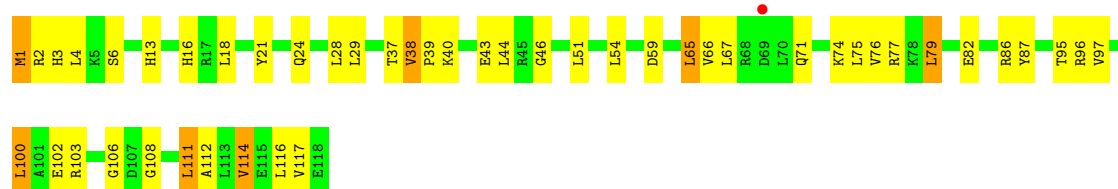
- Molecule 12: 50S ribosomal protein L16



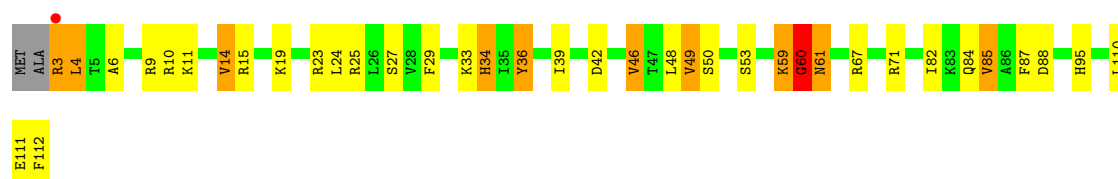
- Molecule 13: 50S ribosomal protein L17



- Molecule 13: 50S ribosomal protein L17

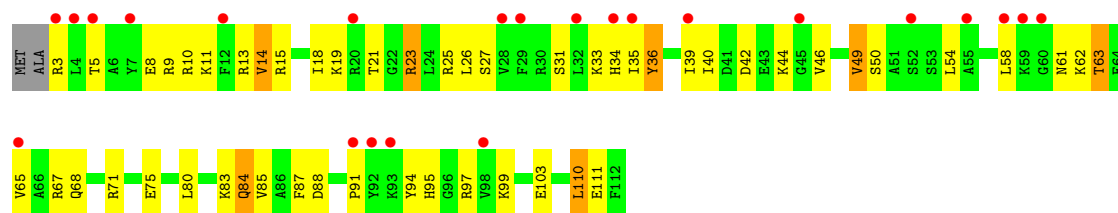


- Molecule 14: 50S ribosomal protein L18

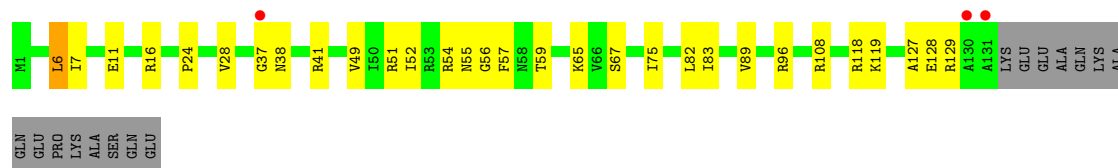


- Molecule 14: 50S ribosomal protein L18





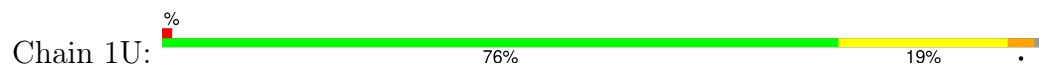
- Molecule 15: 50S ribosomal protein L19



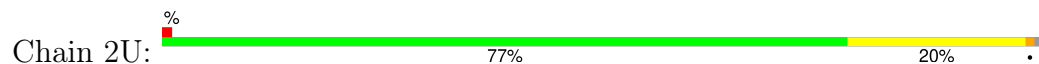
- Molecule 15: 50S ribosomal protein L19



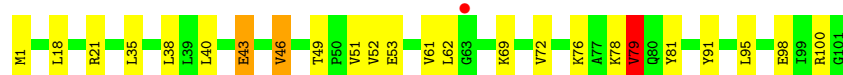
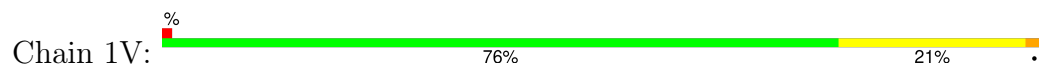
- Molecule 16: 50S ribosomal protein L20



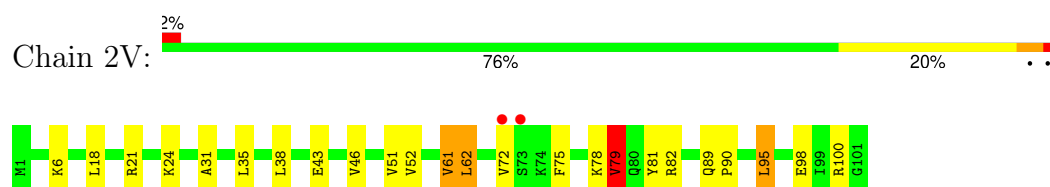
- Molecule 16: 50S ribosomal protein L20



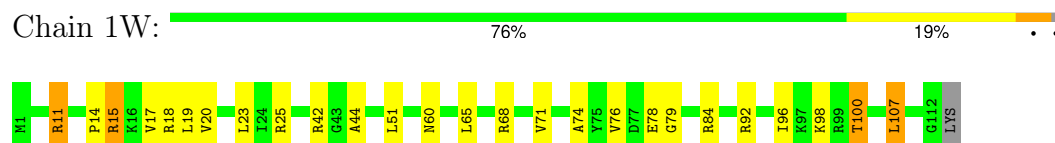
- Molecule 17: 50S ribosomal protein L21



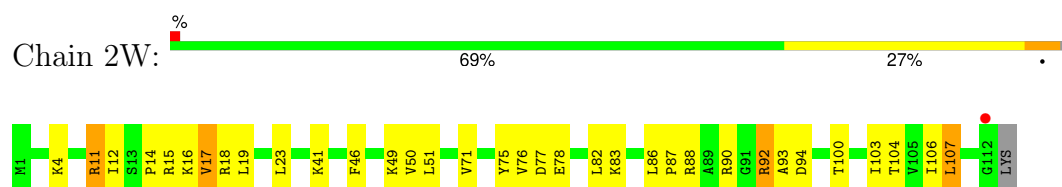
- Molecule 17: 50S ribosomal protein L21



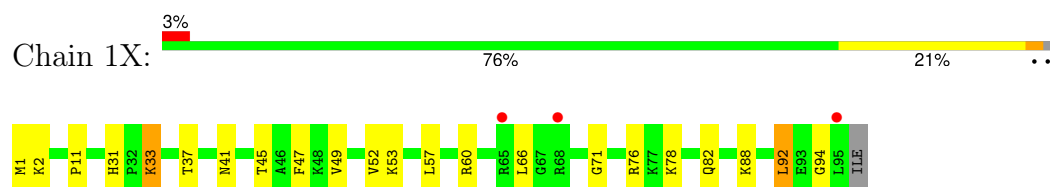
- Molecule 18: 50S ribosomal protein L22



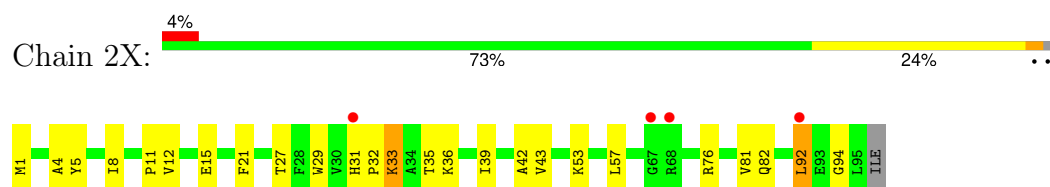
- Molecule 18: 50S ribosomal protein L22



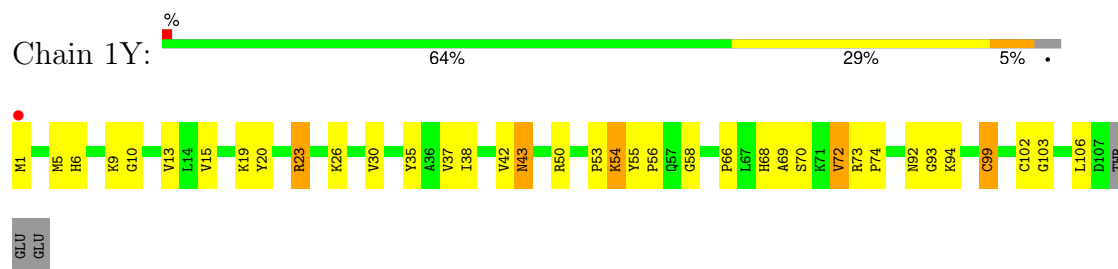
- Molecule 19: 50S ribosomal protein L23



- Molecule 19: 50S ribosomal protein L23



- Molecule 20: 50S ribosomal protein L24



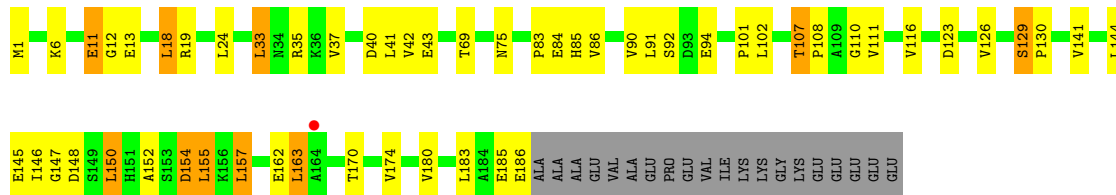
- Molecule 20: 50S ribosomal protein L24





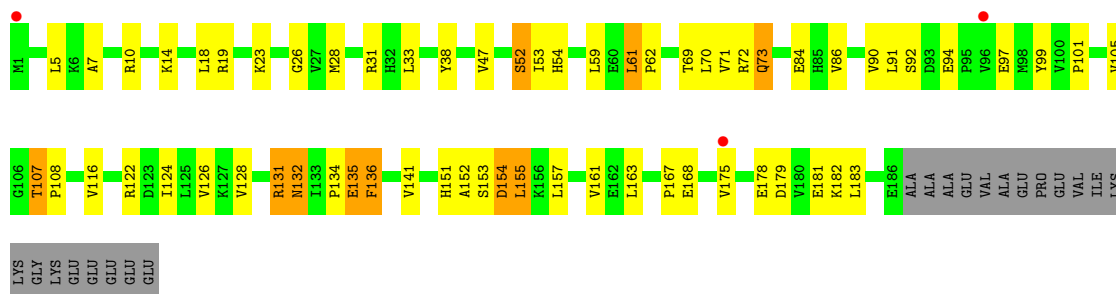
- Molecule 21: 50S ribosomal protein L25

Chain 1Z: 64% 22% 5% 10%



- Molecule 21: 50S ribosomal protein L25

Chain 2Z: 60% 26% 5% 10%



- Molecule 22: 50S ribosomal protein L27

Chain 10: 66% 19% 12%



- Molecule 22: 50S ribosomal protein L27

Chain 20: 5% 66% 21% 12%

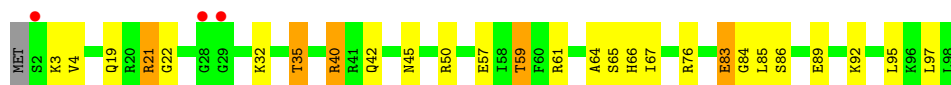


- Molecule 23: 50S ribosomal protein L28

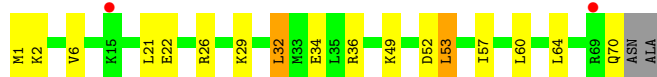
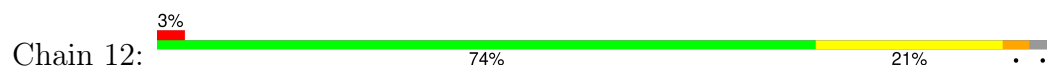
Chain 11: 79% 17% 4%



- Molecule 23: 50S ribosomal protein L28



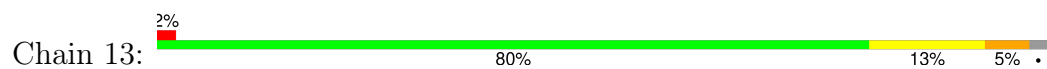
- Molecule 24: 50S ribosomal protein L29



- Molecule 24: 50S ribosomal protein L29



- Molecule 25: 50S ribosomal protein L30



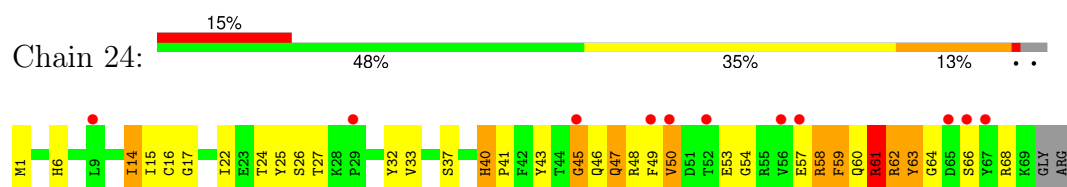
- Molecule 25: 50S ribosomal protein L30



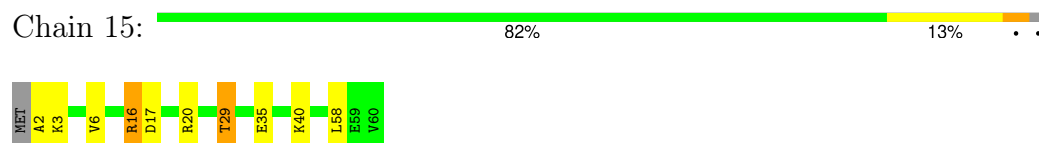
- Molecule 26: 50S ribosomal protein L31



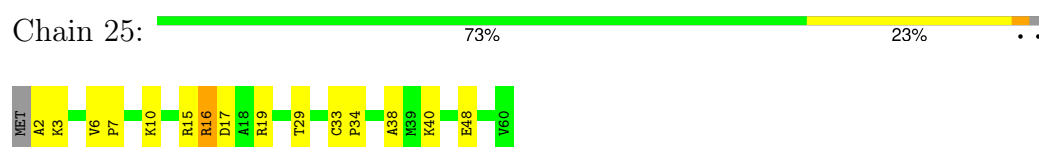
- Molecule 26: 50S ribosomal protein L31



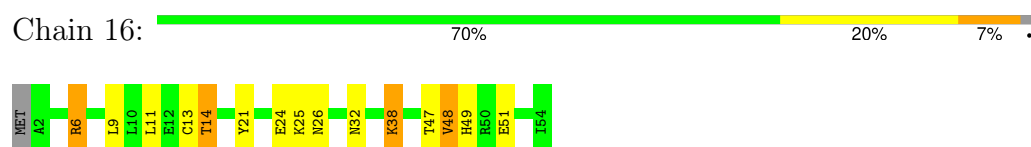
- Molecule 27: 50S ribosomal protein L32



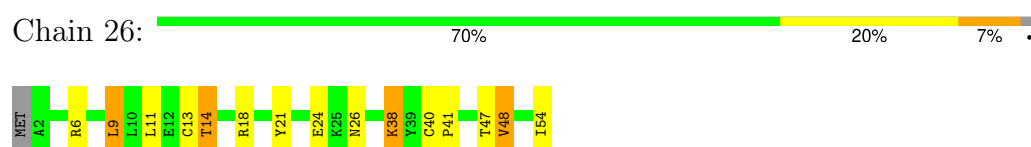
- Molecule 27: 50S ribosomal protein L32



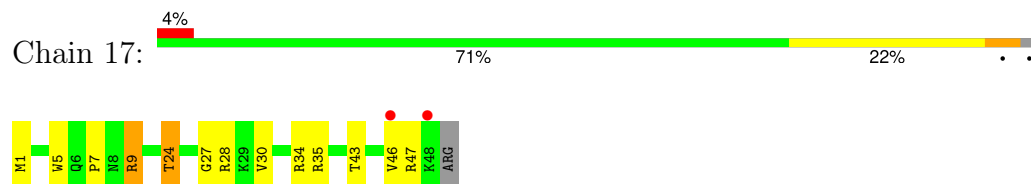
- Molecule 28: 50S ribosomal protein L33



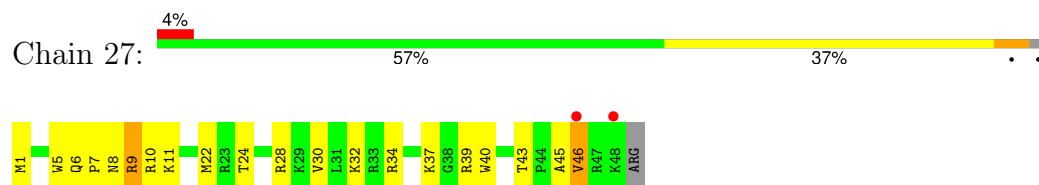
- Molecule 28: 50S ribosomal protein L33



- Molecule 29: 50S ribosomal protein L34



- Molecule 29: 50S ribosomal protein L34



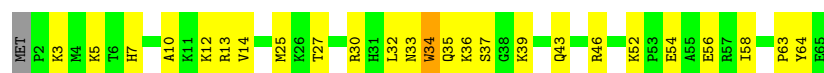
- Molecule 30: 50S ribosomal protein L35

Chain 18:  68% 31% .



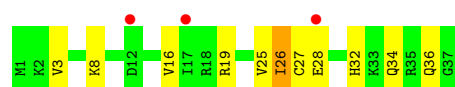
- Molecule 30: 50S ribosomal protein L35

Chain 28:  60% 37% ..



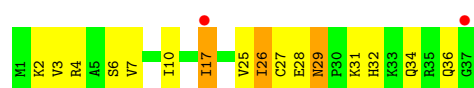
- Molecule 31: 50S ribosomal protein L36

Chain 19:  8% 70% 27% .



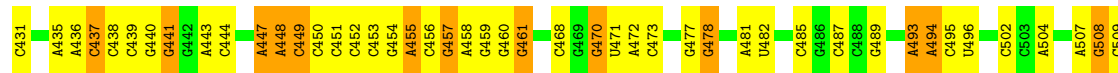
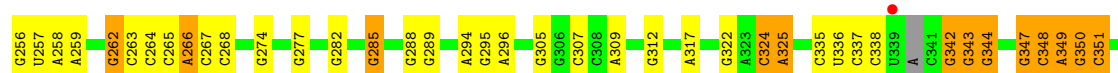
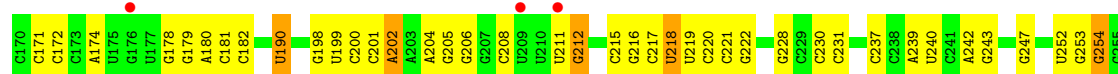
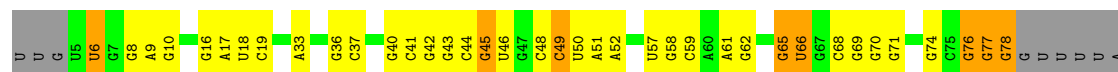
- Molecule 31: 50S ribosomal protein L36

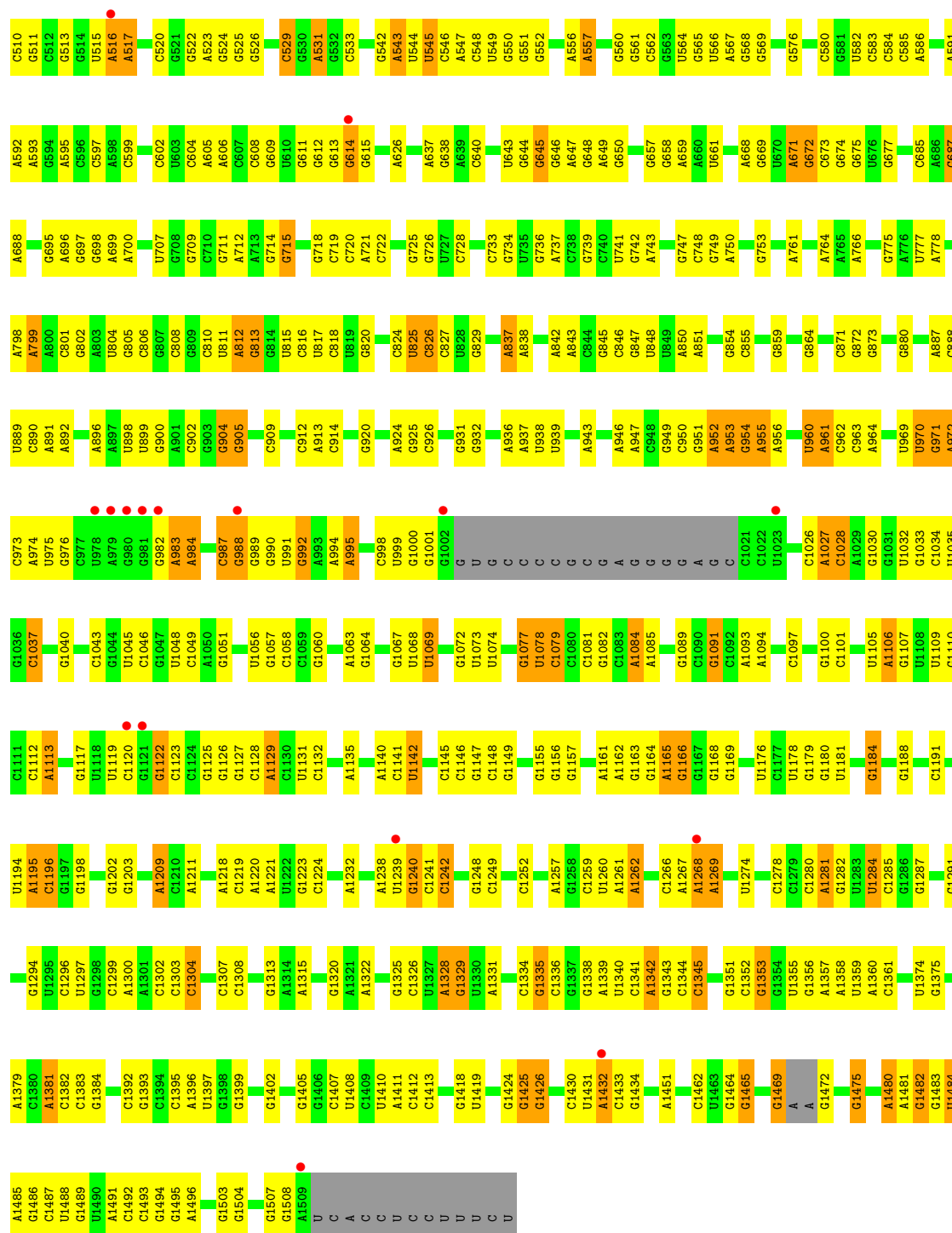
Chain 29:  5% 57% 35% 8%



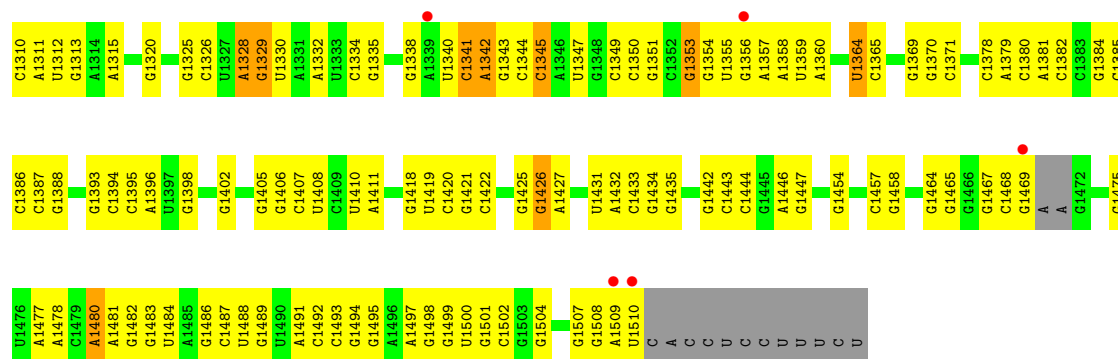
- Molecule 32: 16S Ribosomal RNA

Chain 1a:  2% 50% 38% 9% .

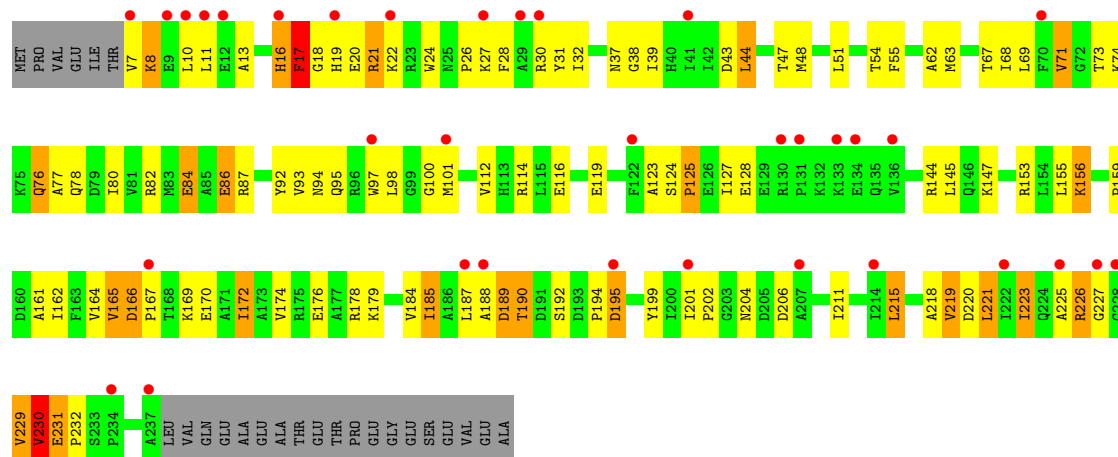




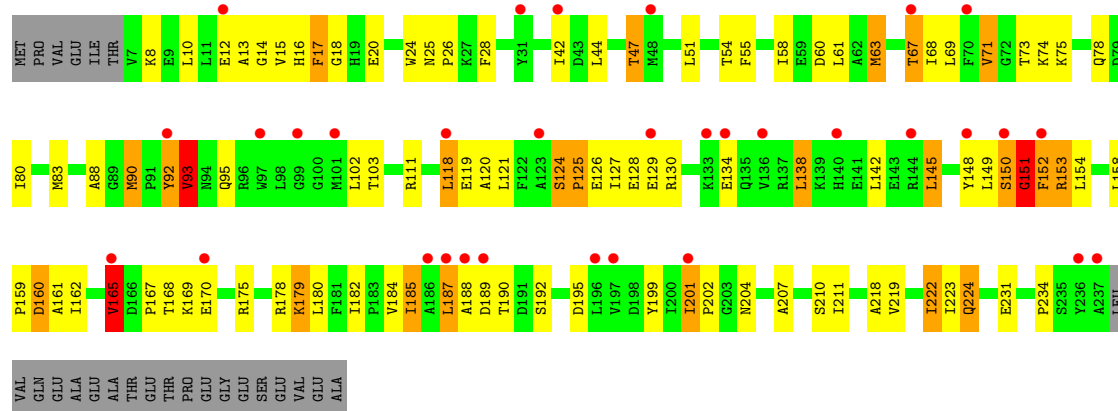




• Molecule 33: 30S ribosomal protein S2

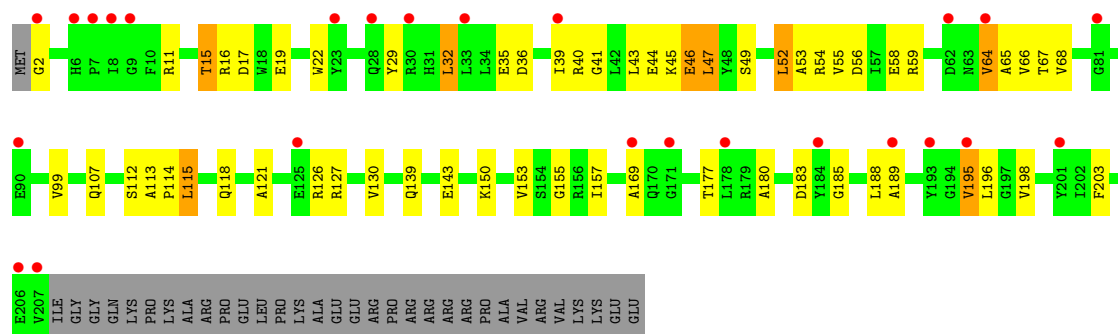


• Molecule 33: 30S ribosomal protein S2

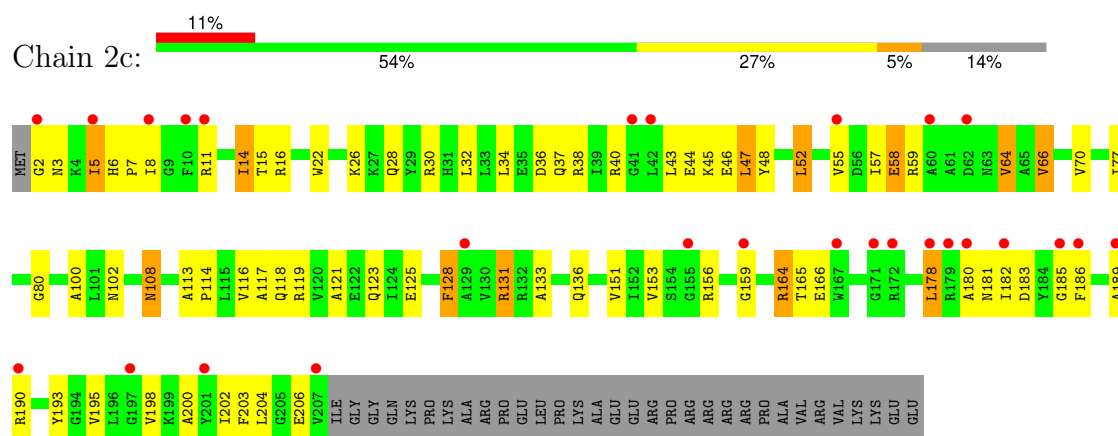


• Molecule 34: 30S ribosomal protein S3

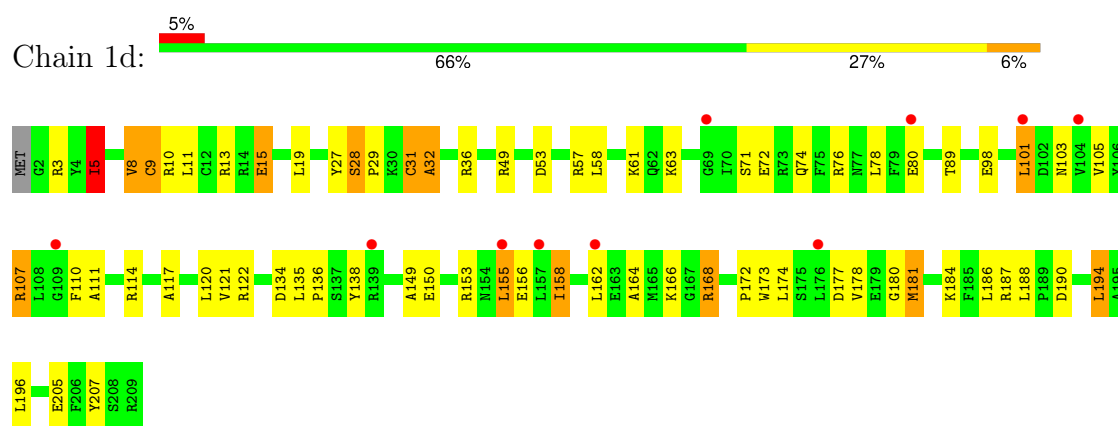




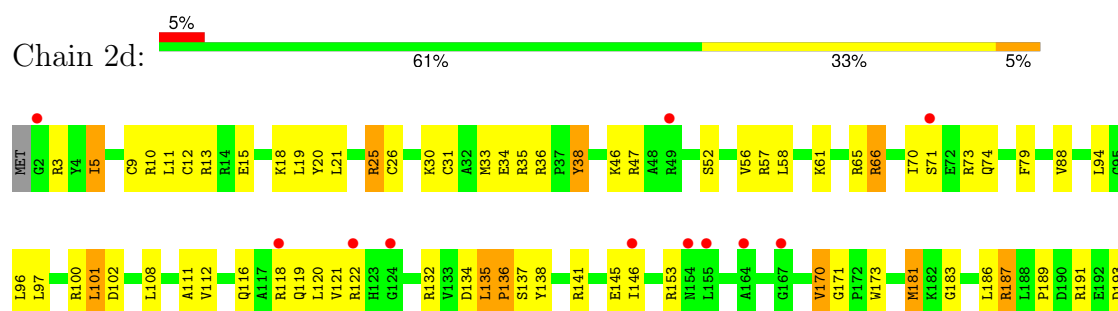
• Molecule 34: 30S ribosomal protein S3



• Molecule 35: 30S ribosomal protein S4

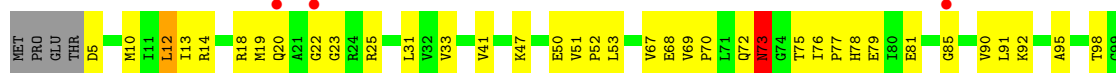


• Molecule 35: 30S ribosomal protein S4





- Molecule 36: 30S ribosomal protein S5



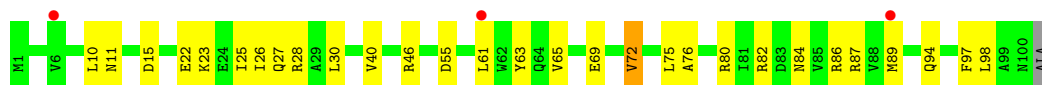
- Molecule 36: 30S ribosomal protein S5



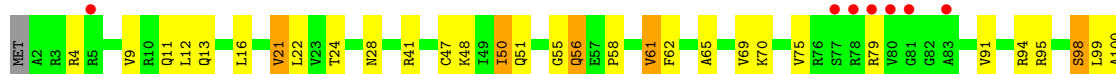
- Molecule 37: 30S ribosomal protein S6



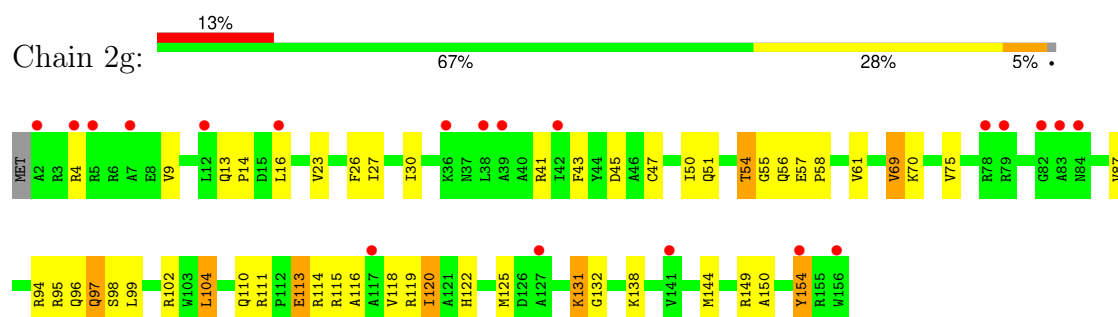
- Molecule 37: 30S ribosomal protein S6



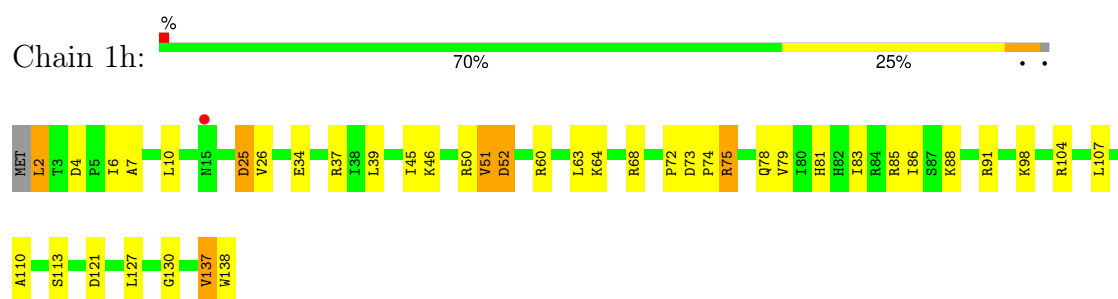
- Molecule 38: 30S ribosomal protein S7



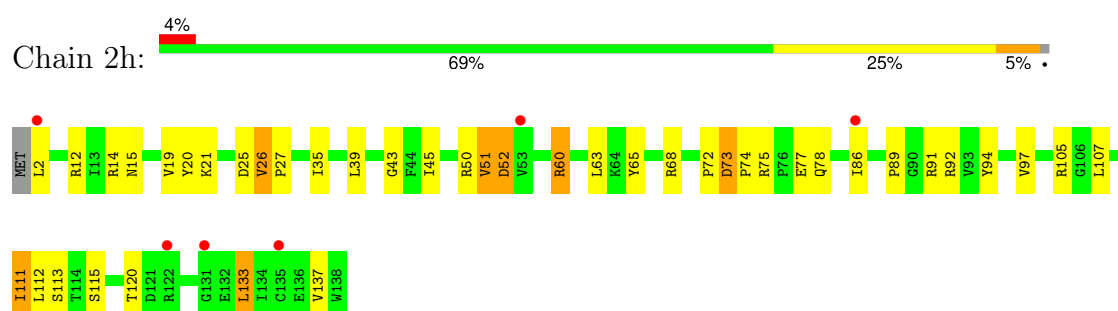
- Molecule 38: 30S ribosomal protein S7



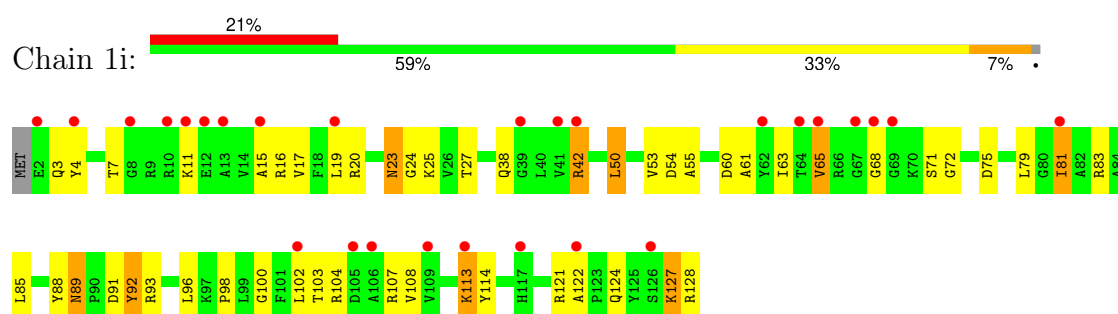
- Molecule 39: 30S ribosomal protein S8



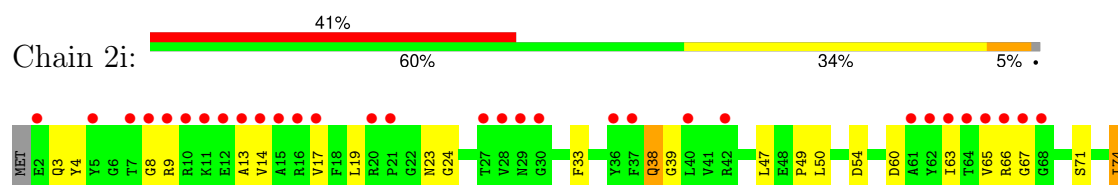
- Molecule 39: 30S ribosomal protein S8

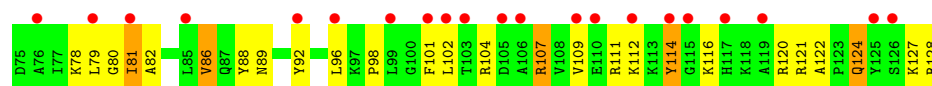


- Molecule 40: 30S ribosomal protein S9



- Molecule 40: 30S ribosomal protein S9

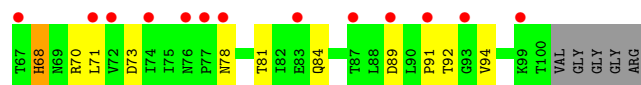
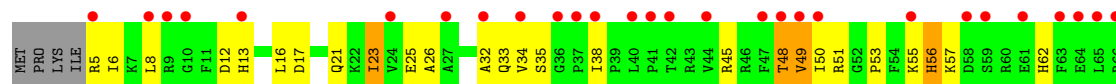
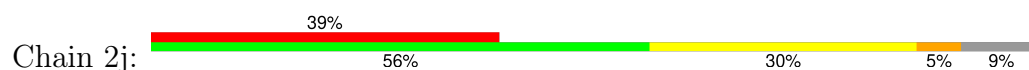




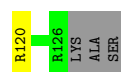
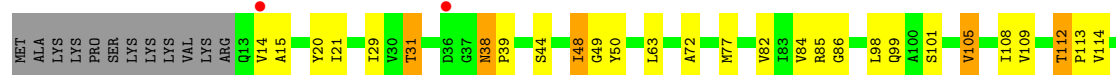
• Molecule 41: 30S ribosomal protein S10



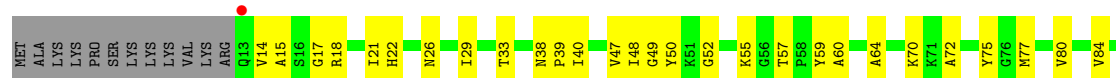
• Molecule 41: 30S ribosomal protein S10



• Molecule 42: 30S ribosomal protein S11

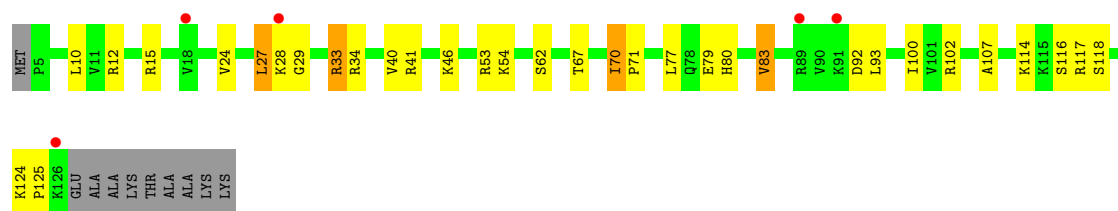


• Molecule 42: 30S ribosomal protein S11

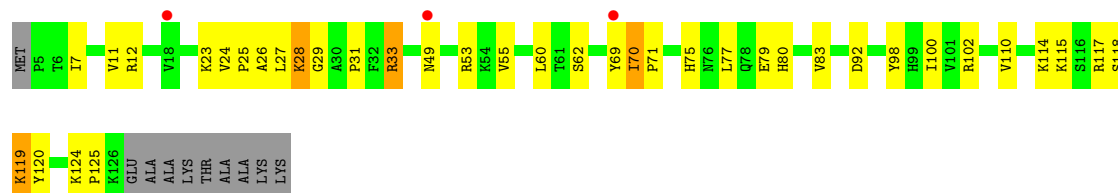


• Molecule 43: 30S ribosomal protein S12

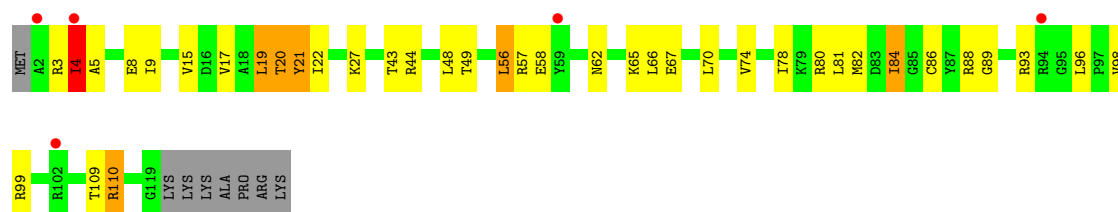




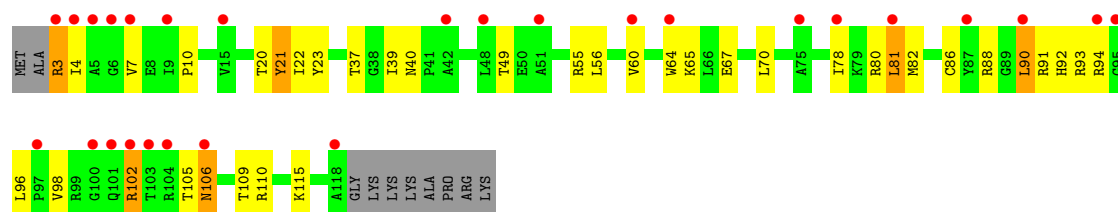
- Molecule 43: 30S ribosomal protein S12



- Molecule 44: 30S ribosomal protein S13



- Molecule 44: 30S ribosomal protein S13

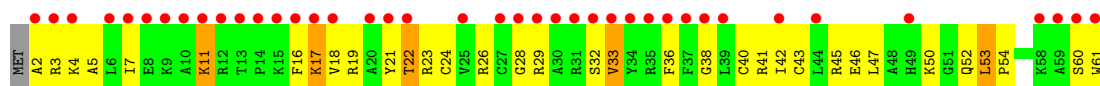


- Molecule 45: 30S ribosomal protein S14 type Z



- Molecule 45: 30S ribosomal protein S14 type Z





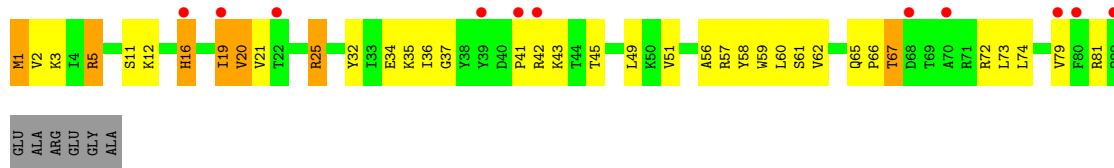
- Molecule 46: 30S ribosomal protein S15



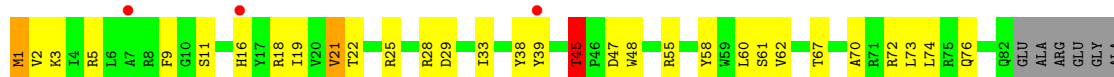
- Molecule 46: 30S ribosomal protein S15



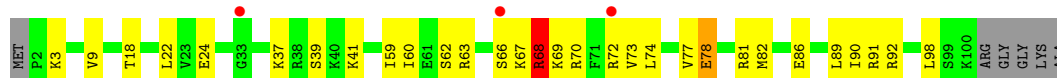
- Molecule 47: 30S ribosomal protein S16



- Molecule 47: 30S ribosomal protein S16



- Molecule 48: 30S ribosomal protein S17



- Molecule 48: 30S ribosomal protein S17



LYS
ALA

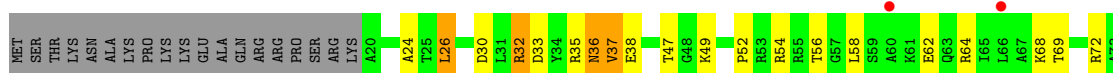
• Molecule 49: 30S ribosomal protein S18

Chain 1r: 



• Molecule 49: 30S ribosomal protein S18

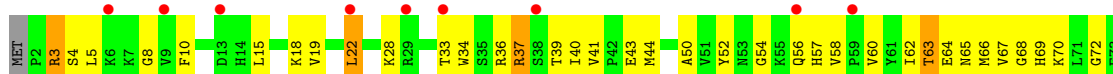
Chain 2r: 

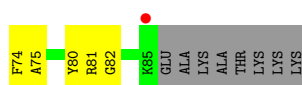




• Molecule 50: 30S ribosomal protein S19

Chain 1s: 

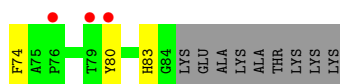




• Molecule 50: 30S ribosomal protein S19

Chain 2s: 





• Molecule 51: 30S ribosomal protein S20

Chain 1t: 

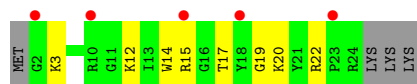




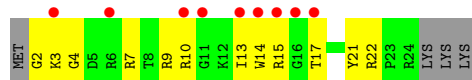
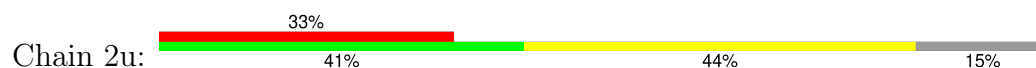
- Molecule 51: 30S ribosomal protein S20



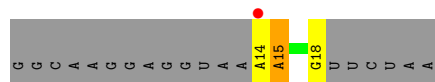
- Molecule 52: 30S ribosomal protein Thx



- Molecule 52: 30S ribosomal protein Thx



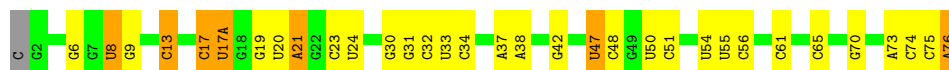
- Molecule 53: mRNA



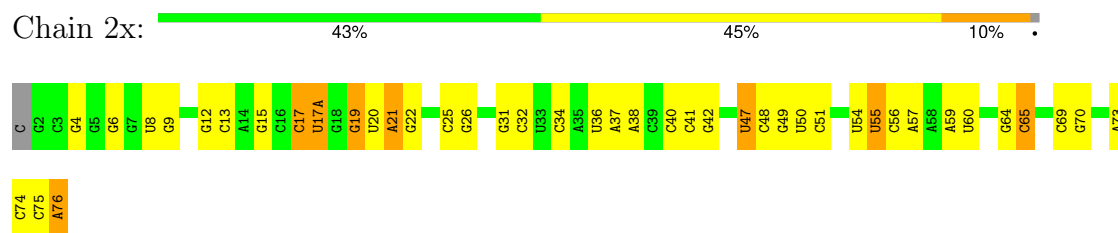
- Molecule 53: mRNA



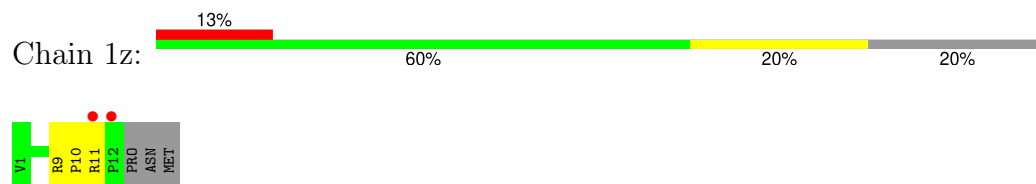
- Molecule 54: P-site tRNA



- Molecule 54: P-site tRNA



- Molecule 55: Metalnikowin-1



- Molecule 55: Metalnikowin-1



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	209.87Å 450.49Å 623.11Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.85 – 2.89 49.85 – 2.89	Depositor EDS
% Data completeness (in resolution range)	98.6 (49.85-2.89) 98.6 (49.85-2.89)	Depositor EDS
R_{merge}	0.22	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.25 (at 2.91Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.212 , 0.268 0.212 , 0.266	Depositor DCC
R_{free} test set	64043 reflections (4.94%)	wwPDB-VP
Wilson B-factor (Å ²)	56.9	Xtriage
Anisotropy	0.146	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.29 , 61.9	EDS
L-test for twinning ²	$\langle L \rangle = 0.42$, $\langle L^2 \rangle = 0.24$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.91	EDS
Total number of atoms	288976	wwPDB-VP
Average B, all atoms (Å ²)	59.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.69% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ 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: ZN, 4SU, PSU, 5MC, MG, SF4, 5MU

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	0.33	0/66249	0.47	1/103407 (0.0%)
1	2A	0.26	0/67298	0.45	1/105044 (0.0%)
2	1B	0.25	0/2877	0.40	0/4488
2	2B	0.28	0/2878	0.44	0/4490
3	1D	0.53	0/2186	0.91	2/2944 (0.1%)
3	2D	0.45	0/2192	0.92	2/2951 (0.1%)
4	1E	0.55	0/1592	0.94	4/2149 (0.2%)
4	2E	0.47	0/1592	0.93	4/2149 (0.2%)
5	1F	0.55	0/1619	0.92	2/2193 (0.1%)
5	2F	0.43	0/1615	0.96	8/2188 (0.4%)
6	1G	0.43	0/1450	0.86	3/1959 (0.2%)
6	2G	0.42	0/1449	0.96	2/1958 (0.1%)
7	1H	0.47	0/1356	0.87	0/1834
7	2H	0.42	0/1356	0.87	0/1834
8	1I	0.42	0/1100	0.95	6/1501 (0.4%)
8	2I	0.42	0/1076	0.93	3/1471 (0.2%)
9	1N	0.54	0/1144	0.86	0/1543
9	2N	0.41	0/1144	0.90	4/1543 (0.3%)
10	1O	0.55	0/943	0.90	2/1269 (0.2%)
10	2O	0.45	0/943	0.88	0/1269
11	1P	0.51	0/1156	0.88	0/1537
11	2P	0.43	0/1152	0.94	4/1533 (0.3%)
12	1Q	0.52	0/1143	0.82	0/1527
12	2Q	0.45	0/1143	0.92	4/1527 (0.3%)
13	1R	0.58	1/982 (0.1%)	0.88	0/1312
13	2R	0.43	0/982	0.81	1/1312 (0.1%)
14	1S	0.46	0/887	0.89	2/1180 (0.2%)
14	2S	0.39	0/880	0.85	0/1172
15	1T	0.51	0/1105	0.85	0/1477
15	2T	0.42	0/1097	0.82	0/1468
16	1U	0.56	0/977	0.85	1/1301 (0.1%)
16	2U	0.42	0/977	0.81	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	1V	0.55	0/782	0.86	1/1049 (0.1%)
17	2V	0.44	0/782	0.86	0/1049
18	1W	0.60	0/897	0.85	0/1205
18	2W	0.47	0/897	0.89	0/1205
19	1X	0.51	0/764	0.83	0/1025
19	2X	0.43	0/764	0.86	0/1025
20	1Y	0.47	0/819	0.91	2/1095 (0.2%)
20	2Y	0.40	0/819	0.85	1/1095 (0.1%)
21	1Z	0.44	0/1502	0.94	3/2041 (0.1%)
21	2Z	0.44	0/1486	1.00	11/2022 (0.5%)
22	10	0.52	0/606	0.89	0/808
22	20	0.41	0/606	0.96	2/808 (0.2%)
23	11	0.53	0/762	0.80	0/1014
23	21	0.44	0/762	0.82	0/1014
24	12	0.50	0/590	0.84	0/781
24	22	0.38	0/590	0.77	0/781
25	13	0.52	0/474	0.85	0/635
25	23	0.41	0/469	0.88	0/630
26	14	0.46	0/571	1.09	3/768 (0.4%)
26	24	0.48	0/545	1.09	6/737 (0.8%)
27	15	0.55	0/469	0.83	0/635
27	25	0.45	0/469	0.85	0/635
28	16	0.49	0/460	0.76	0/613
28	26	0.42	0/456	0.80	0/608
29	17	0.54	0/426	0.86	0/561
29	27	0.50	0/426	0.86	2/561 (0.4%)
30	18	0.57	0/525	0.85	1/691 (0.1%)
30	28	0.47	0/525	0.87	0/691
31	19	0.52	0/310	0.83	0/407
31	29	0.42	0/310	0.93	2/407 (0.5%)
32	1a	0.22	0/35537	0.40	0/55456
32	2a	0.21	0/35680	0.38	0/55681
33	1b	0.41	0/1820	0.95	5/2468 (0.2%)
33	2b	1.62	8/1728 (0.5%)	1.12	9/2352 (0.4%)
34	1c	0.38	0/1504	0.83	0/2047
34	2c	0.45	0/1435	0.92	5/1960 (0.3%)
35	1d	0.40	0/1648	0.89	2/2222 (0.1%)
35	2d	0.40	0/1659	0.89	0/2230
36	1e	0.42	0/1145	0.94	5/1543 (0.3%)
36	2e	0.41	0/1111	0.99	6/1504 (0.4%)
37	1f	0.39	0/819	0.78	0/1111
37	2f	0.42	0/830	0.80	2/1125 (0.2%)
38	1g	0.39	0/1198	0.86	1/1613 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	2g	0.38	0/1185	0.89	1/1602 (0.1%)
39	1h	0.38	0/1108	0.87	0/1494
39	2h	0.36	0/1094	0.85	0/1478
40	1i	0.38	0/995	0.86	2/1339 (0.1%)
40	2i	0.45	0/949	0.87	0/1284
41	1j	0.45	0/695	1.01	3/950 (0.3%)
41	2j	0.41	0/690	0.94	0/943
42	1k	0.40	0/840	0.87	2/1138 (0.2%)
42	2k	0.39	0/844	0.85	3/1145 (0.3%)
43	1l	0.41	0/936	0.81	0/1263
43	2l	0.42	0/934	0.92	3/1262 (0.2%)
44	1m	0.37	0/933	0.88	2/1254 (0.2%)
44	2m	0.41	0/913	0.89	0/1230
45	1n	0.39	0/491	0.88	0/653
45	2n	0.40	0/467	0.90	1/624 (0.2%)
46	1o	0.41	0/726	0.97	3/970 (0.3%)
46	2o	0.38	0/739	0.87	2/985 (0.2%)
47	1p	0.39	0/686	0.88	0/926
47	2p	0.41	0/693	0.84	2/935 (0.2%)
48	1q	0.38	0/824	0.80	0/1105
48	2q	0.36	0/836	0.82	2/1117 (0.2%)
49	1r	0.37	0/560	0.78	2/746 (0.3%)
49	2r	0.37	0/560	0.81	0/746
50	1s	0.38	0/657	0.89	2/890 (0.2%)
50	2s	0.43	0/661	0.97	0/893
51	1t	0.39	0/714	1.02	1/948 (0.1%)
51	2t	0.40	0/733	0.91	1/969 (0.1%)
52	1u	0.32	0/191	0.73	0/252
52	2u	0.34	0/203	0.89	0/266
53	1v	0.29	0/122	0.47	0/188
53	2v	0.31	0/122	0.43	0/188
54	1x	0.29	0/1725	0.46	0/2689
54	2x	0.28	0/1725	0.45	0/2689
55	1z	0.51	0/109	0.95	0/148
55	2z	0.46	0/117	1.46	2/160 (1.2%)
All	All	0.35	9/306294 (0.0%)	0.60	159/458208 (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
5	2F	0	1

All (9) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	2b	92	TYR	CD1-CE1	29.85	2.28	1.38
33	2b	92	TYR	CD2-CE2	26.82	2.19	1.38
33	2b	151	GLY	N-CA	24.08	1.80	1.45
33	2b	92	TYR	CE1-CZ	22.68	1.92	1.38
33	2b	92	TYR	CE2-CZ	22.54	1.92	1.38
33	2b	92	TYR	CG-CD1	20.84	1.83	1.39
33	2b	92	TYR	CG-CD2	19.95	1.81	1.39
33	2b	150	SER	C-N	12.64	1.51	1.33
13	1R	38	VAL	CA-CB	-5.42	1.51	1.54

All (159) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	2b	150	SER	CA-C-N	18.01	156.71	121.41
33	2b	150	SER	C-N-CA	18.01	156.71	121.41
33	2b	151	GLY	N-CA-C	9.18	134.95	113.18
22	20	82	ARG	CA-C-N	8.85	129.39	119.92
22	20	82	ARG	C-N-CA	8.85	129.39	119.92
55	2z	9	ARG	CA-C-N	8.65	130.65	119.84
55	2z	9	ARG	C-N-CA	8.65	130.65	119.84
26	14	52	THR	N-CA-C	-8.42	103.14	113.50
21	1Z	107	THR	CA-C-N	7.40	127.44	119.89
21	1Z	107	THR	C-N-CA	7.40	127.44	119.89
46	1o	87	ILE	N-CA-C	7.36	118.30	112.12
1	1A	2013	G	C2'-C3'-O3'	7.34	120.51	109.50
21	2Z	61	LEU	CA-C-N	7.34	127.04	119.56
21	2Z	61	LEU	C-N-CA	7.34	127.04	119.56
8	2I	124	GLY	N-CA-C	7.07	119.98	110.43
33	2b	231	GLU	CA-C-N	6.95	127.33	119.83
33	2b	231	GLU	C-N-CA	6.95	127.33	119.83
45	2n	28	GLY	N-CA-C	-6.89	105.81	115.32
5	2F	24	LEU	CA-C-N	6.78	126.82	119.90
5	2F	24	LEU	C-N-CA	6.78	126.82	119.90
6	1G	127	GLY	N-CA-C	-6.62	106.49	113.58
11	2P	44	GLY	CA-C-N	6.48	133.37	121.70
11	2P	44	GLY	C-N-CA	6.48	133.37	121.70
11	2P	22	GLY	CA-C-N	6.45	126.21	119.05
11	2P	22	GLY	C-N-CA	6.45	126.21	119.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	2G	48	GLU	N-CA-C	-6.44	105.24	113.23
21	2Z	132	ASN	CA-C-N	-6.44	118.22	122.60
21	2Z	132	ASN	C-N-CA	-6.44	118.22	122.60
36	1e	105	VAL	CA-C-N	-6.39	113.10	119.56
36	1e	105	VAL	C-N-CA	-6.39	113.10	119.56
51	1t	10	LEU	N-CA-C	6.37	124.37	110.80
36	2e	95	ALA	CA-C-N	6.37	127.80	119.84
36	2e	95	ALA	C-N-CA	6.37	127.80	119.84
12	2Q	28	ALA	N-CA-C	6.32	124.26	110.80
36	1e	95	ALA	CA-C-N	6.31	127.73	119.84
36	1e	95	ALA	C-N-CA	6.31	127.73	119.84
5	2F	16	GLY	N-CA-C	6.26	119.86	110.97
36	2e	105	VAL	CA-C-N	-6.26	113.28	120.04
36	2e	105	VAL	C-N-CA	-6.26	113.28	120.04
20	2Y	91	GLU	N-CA-C	-6.21	105.19	112.89
5	2F	79	GLY	N-CA-C	-6.16	106.06	115.66
36	2e	23	GLY	N-CA-C	6.16	119.59	110.42
3	2D	275	LYS	N-CA-C	-6.12	100.66	110.14
51	2t	11	SER	N-CA-C	-6.09	104.35	112.94
10	1O	118	ALA	CA-C-N	6.05	125.94	119.28
10	1O	118	ALA	C-N-CA	6.05	125.94	119.28
48	2q	29	HIS	CA-C-N	6.03	125.91	119.28
48	2q	29	HIS	C-N-CA	6.03	125.91	119.28
33	1b	166	ASP	CA-C-N	6.03	125.58	119.19
33	1b	166	ASP	C-N-CA	6.03	125.58	119.19
1	2A	2013	G	C2'-C3'-O3'	6.00	118.50	109.50
3	1D	131	LEU	CA-C-N	-6.00	114.09	120.03
3	1D	131	LEU	C-N-CA	-6.00	114.09	120.03
8	1I	110	ASP	CA-C-N	6.00	125.48	119.24
8	1I	110	ASP	C-N-CA	6.00	125.48	119.24
43	2l	29	GLY	N-CA-C	-5.99	95.92	113.30
34	2c	108	ASN	CA-C-N	5.97	125.52	119.19
34	2c	108	ASN	C-N-CA	5.97	125.52	119.19
41	1j	86	MET	N-CA-C	-5.94	105.52	112.89
6	2G	43	LEU	CB-CA-C	-5.86	109.80	116.54
20	1Y	55	TYR	CA-C-N	-5.84	114.73	120.52
20	1Y	55	TYR	C-N-CA	-5.84	114.73	120.52
26	14	40	HIS	CA-C-N	5.75	127.02	119.84
26	14	40	HIS	C-N-CA	5.75	127.02	119.84
33	2b	150	SER	CA-C-O	-5.69	112.38	120.51
41	1j	28	ARG	N-CA-C	-5.68	105.61	112.54
8	2I	110	ASP	CA-C-N	5.67	125.14	119.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	2I	110	ASP	C-N-CA	5.67	125.14	119.24
12	2Q	47	ILE	N-CA-C	5.67	115.86	110.42
37	2f	55	ASP	CA-C-N	5.66	125.33	119.56
37	2f	55	ASP	C-N-CA	5.66	125.33	119.56
8	1I	118	LYS	CA-C-N	5.58	126.81	119.84
8	1I	118	LYS	C-N-CA	5.58	126.81	119.84
4	1E	31	CYS	CA-C-N	5.56	125.74	119.90
4	1E	31	CYS	C-N-CA	5.56	125.74	119.90
5	2F	65	TRP	N-CA-C	5.56	113.22	108.22
34	2c	190	ARG	N-CA-C	5.56	117.79	108.23
47	2p	45	THR	CA-C-N	5.55	126.78	119.84
47	2p	45	THR	C-N-CA	5.55	126.78	119.84
5	2F	9	ILE	N-CA-C	5.54	113.98	107.77
35	1d	135	LEU	CA-C-N	5.53	126.75	119.84
35	1d	135	LEU	C-N-CA	5.53	126.75	119.84
36	2e	68	GLU	N-CA-C	5.51	117.29	111.28
30	18	38	GLY	N-CA-C	-5.49	106.02	113.37
4	2E	31	CYS	CA-C-N	5.47	125.65	119.90
4	2E	31	CYS	C-N-CA	5.47	125.65	119.90
43	2l	119	LYS	N-CA-C	-5.47	102.18	110.28
40	1i	89	ASN	CA-C-N	5.44	125.11	119.56
40	1i	89	ASN	C-N-CA	5.44	125.11	119.56
21	2Z	14	LYS	CA-C-N	5.43	125.10	119.56
21	2Z	14	LYS	C-N-CA	5.43	125.10	119.56
44	1m	84	ILE	N-CA-C	5.43	118.71	111.44
21	1Z	157	LEU	N-CA-C	5.41	116.48	109.72
21	2Z	175	VAL	CA-C-N	5.39	123.60	119.66
21	2Z	175	VAL	C-N-CA	5.39	123.60	119.66
33	2b	130	ARG	CA-C-N	5.38	126.57	119.84
33	2b	130	ARG	C-N-CA	5.38	126.57	119.84
34	2c	77	ILE	N-CA-C	5.38	115.52	110.30
13	2R	38	VAL	CB-CA-C	-5.38	108.59	113.70
33	1b	17	PHE	N-CA-C	5.34	122.18	110.80
3	2D	83	GLU	N-CA-C	5.34	117.80	109.52
41	1j	27	ALA	N-CA-C	-5.33	107.79	114.56
44	1m	66	LEU	N-CA-C	5.33	116.75	109.18
29	27	6	GLN	CA-C-N	5.32	125.62	119.93
29	27	6	GLN	C-N-CA	5.32	125.62	119.93
33	1b	114	ARG	N-CA-C	-5.31	107.35	113.88
43	2l	28	LYS	N-CA-C	5.31	117.66	111.02
26	24	40	HIS	CA-C-N	5.29	125.61	119.47
26	24	40	HIS	C-N-CA	5.29	125.61	119.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	2Z	52	SER	CB-CA-C	-5.28	110.47	116.54
9	2N	125	GLY	CA-C-N	5.27	124.94	119.56
9	2N	125	GLY	C-N-CA	5.27	124.94	119.56
16	1U	9	VAL	N-CA-C	5.25	115.46	110.42
5	1F	170	LEU	CA-C-N	5.24	125.04	119.28
5	1F	170	LEU	C-N-CA	5.24	125.04	119.28
26	24	66	SER	N-CA-C	-5.24	106.94	113.38
33	2b	73	THR	N-CA-C	-5.22	107.93	114.56
34	2c	80	GLY	N-CA-C	-5.22	107.58	114.95
26	24	61	ARG	N-CA-C	-5.22	105.27	111.69
6	1G	31	VAL	CA-C-N	5.21	126.35	119.84
6	1G	31	VAL	C-N-CA	5.21	126.35	119.84
49	1r	51	LEU	CA-C-N	5.16	125.89	120.11
49	1r	51	LEU	C-N-CA	5.16	125.89	120.11
17	1V	53	GLU	N-CA-C	5.16	116.98	111.36
36	1e	23	GLY	N-CA-C	5.16	118.22	110.18
50	1s	75	ALA	CA-C-N	5.15	125.15	119.90
50	1s	75	ALA	C-N-CA	5.15	125.15	119.90
12	2Q	69	PHE	CA-C-N	5.14	126.26	119.84
12	2Q	69	PHE	C-N-CA	5.14	126.26	119.84
14	1S	60	GLY	N-CA-C	5.13	125.35	113.18
26	24	59	PHE	CA-C-N	5.13	130.93	121.70
26	24	59	PHE	C-N-CA	5.13	130.93	121.70
42	1k	38	ASN	CA-C-N	5.12	125.13	119.90
42	1k	38	ASN	C-N-CA	5.12	125.13	119.90
21	2Z	107	THR	CA-C-N	5.12	125.12	119.90
21	2Z	107	THR	C-N-CA	5.12	125.12	119.90
38	2g	69	VAL	N-CA-C	-5.11	108.30	113.20
46	2o	18	PHE	CA-C-N	5.09	126.20	119.84
46	2o	18	PHE	C-N-CA	5.09	126.20	119.84
42	2k	38	ASN	CA-C-N	5.08	125.37	119.93
42	2k	38	ASN	C-N-CA	5.08	125.37	119.93
42	2k	47	VAL	N-CA-C	-5.07	104.76	111.09
9	2N	39	ARG	CA-C-N	5.04	124.76	119.82
9	2N	39	ARG	C-N-CA	5.04	124.76	119.82
14	1S	34	HIS	N-CA-C	5.04	116.34	109.18
33	1b	84	GLU	N-CA-C	5.04	116.86	111.36
4	2E	190	GLY	CA-C-N	5.03	126.15	120.66
4	2E	190	GLY	C-N-CA	5.03	126.15	120.66
38	1g	79	ARG	N-CA-C	-5.03	108.42	114.75
46	1o	74	ASP	CA-C-N	5.03	124.47	119.24
46	1o	74	ASP	C-N-CA	5.03	124.47	119.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	1E	52	LEU	CA-C-N	5.02	124.78	119.76
4	1E	52	LEU	C-N-CA	5.02	124.78	119.76
8	1I	22	LYS	CA-C-N	5.02	125.04	119.32
8	1I	22	LYS	C-N-CA	5.02	125.04	119.32
5	2F	9	ILE	CA-C-N	5.02	125.25	119.83
5	2F	9	ILE	C-N-CA	5.02	125.25	119.83
31	29	29	ASN	CA-C-N	5.01	124.61	119.05
31	29	29	ASN	C-N-CA	5.01	124.61	119.05

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
5	2F	20	LEU	Peptide

5.2 Too-close contacts ⓘ

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	59154	0	29827	655	0
1	2A	60091	0	30297	880	0
2	1B	2572	0	1306	22	0
2	2B	2573	0	1306	51	0
3	1D	2136	0	2218	61	0
3	2D	2142	0	2229	66	0
4	1E	1559	0	1617	37	0
4	2E	1559	0	1618	40	0
5	1F	1584	0	1625	31	0
5	2F	1580	0	1619	45	0
6	1G	1425	0	1443	37	0
6	2G	1424	0	1434	72	0
7	1H	1330	0	1407	32	0
7	2H	1330	0	1407	33	0
8	1I	1085	0	1114	27	0
8	2I	1061	0	1080	26	0
9	1N	1117	0	1184	18	0
9	2N	1117	0	1184	23	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
10	1O	933	0	996	20	0
10	2O	933	0	996	23	0
11	1P	1139	0	1223	39	0
11	2P	1135	0	1212	40	0
12	1Q	1122	0	1178	31	0
12	2Q	1122	0	1179	28	0
13	1R	968	0	1033	14	0
13	2R	968	0	1033	28	0
14	1S	877	0	938	29	0
14	2S	870	0	923	34	0
15	1T	1091	0	1151	20	0
15	2T	1083	0	1136	23	0
16	1U	959	0	1019	19	0
16	2U	959	0	1018	20	0
17	1V	771	0	830	11	0
17	2V	771	0	830	13	0
18	1W	886	0	940	15	0
18	2W	886	0	940	23	0
19	1X	750	0	814	16	0
19	2X	750	0	814	20	0
20	1Y	806	0	881	27	0
20	2Y	806	0	881	26	0
21	1Z	1470	0	1478	29	0
21	2Z	1454	0	1452	36	0
22	10	598	0	614	15	0
22	20	598	0	614	15	0
23	11	755	0	826	15	0
23	21	755	0	826	19	0
24	12	588	0	643	10	0
24	22	588	0	643	15	0
25	13	469	0	518	4	0
25	23	464	0	514	15	0
26	14	558	0	544	27	0
26	24	532	0	503	25	0
27	15	455	0	465	9	0
27	25	455	0	465	14	0
28	16	453	0	473	11	0
28	26	449	0	469	11	0
29	17	418	0	467	10	0
29	27	418	0	467	13	0
30	18	517	0	582	15	0
30	28	517	0	582	21	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
31	19	307	0	335	7	0
31	29	307	0	335	11	0
32	1a	31750	0	16028	533	0
32	2a	31877	0	16088	570	0
33	1b	1786	0	1744	69	0
33	2b	1697	0	1574	104	0
34	1c	1480	0	1400	45	0
34	2c	1412	0	1246	56	0
35	1d	1618	0	1579	52	1
35	2d	1630	0	1633	64	0
36	1e	1129	0	1185	31	0
36	2e	1095	0	1124	37	0
37	1f	806	0	793	26	0
37	2f	817	0	808	18	1
38	1g	1183	0	1165	27	0
38	2g	1167	0	1119	33	0
39	1h	1088	0	1126	29	0
39	2h	1074	0	1100	29	0
40	1i	976	0	973	40	0
40	2i	932	0	891	40	0
41	1j	682	0	598	17	0
41	2j	678	0	612	19	0
42	1k	826	0	829	15	0
42	2k	829	0	825	25	0
43	1l	920	0	958	23	0
43	2l	918	0	947	29	0
44	1m	923	0	962	30	0
44	2m	903	0	923	30	0
45	1n	482	0	507	20	0
45	2n	459	0	467	33	0
46	1o	715	0	729	18	0
46	2o	728	0	760	20	0
47	1p	671	0	679	28	0
47	2p	677	0	686	19	0
48	1q	811	0	858	21	0
48	2q	823	0	891	22	0
49	1r	555	0	618	15	0
49	2r	555	0	618	19	0
50	1s	642	0	629	34	0
50	2s	646	0	644	28	0
51	1t	712	0	759	20	0
51	2t	731	0	807	17	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
52	1u	187	0	186	6	0
52	2u	199	0	208	10	0
53	1v	109	0	54	2	0
53	2v	109	0	55	3	0
54	1x	1625	0	829	13	0
54	2x	1625	0	829	21	0
55	1z	105	0	108	3	0
55	2z	112	0	115	4	0
56	10	6	0	0	0	0
56	11	3	0	0	0	0
56	12	1	0	0	0	0
56	13	2	0	0	0	0
56	14	1	0	0	0	0
56	15	3	0	0	0	0
56	16	4	0	0	0	0
56	17	2	0	0	0	0
56	18	3	0	0	0	0
56	19	5	0	0	0	0
56	1A	1090	0	0	0	0
56	1B	30	0	0	0	0
56	1D	13	0	0	0	0
56	1E	12	0	0	0	0
56	1F	8	0	0	0	0
56	1G	3	0	0	0	0
56	1H	4	0	0	0	0
56	1N	7	0	0	0	0
56	1O	3	0	0	0	0
56	1P	6	0	0	0	0
56	1Q	9	0	0	0	0
56	1R	6	0	0	0	0
56	1T	6	0	0	0	0
56	1U	6	0	0	0	0
56	1V	2	0	0	0	0
56	1W	6	0	0	0	0
56	1X	1	0	0	0	0
56	1Y	1	0	0	0	0
56	1Z	2	0	0	0	0
56	1a	309	0	0	0	0
56	1b	1	0	0	0	0
56	1d	2	0	0	0	0
56	1e	3	0	0	0	0
56	1f	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	1h	2	0	0	0	0
56	1k	1	0	0	0	0
56	1l	2	0	0	0	0
56	1m	1	0	0	0	0
56	1n	1	0	0	0	0
56	1o	3	0	0	0	0
56	1p	2	0	0	0	0
56	1q	3	0	0	0	0
56	1r	3	0	0	0	0
56	1t	1	0	0	0	0
56	1u	1	0	0	0	0
56	1v	1	0	0	0	0
56	1x	10	0	0	0	0
56	1z	1	0	0	0	0
56	20	1	0	0	0	0
56	23	1	0	0	0	0
56	25	1	0	0	0	0
56	28	3	0	0	0	0
56	2A	561	0	0	0	0
56	2B	10	0	0	0	0
56	2D	5	0	0	0	0
56	2E	4	0	0	0	0
56	2F	4	0	0	0	0
56	2G	1	0	0	0	0
56	2N	1	0	0	0	0
56	2O	3	0	0	0	0
56	2P	1	0	0	0	0
56	2Q	5	0	0	0	0
56	2R	2	0	0	0	0
56	2T	1	0	0	0	0
56	2U	1	0	0	0	0
56	2X	1	0	0	0	0
56	2Y	1	0	0	0	0
56	2Z	1	0	0	0	0
56	2a	255	0	0	0	0
56	2d	2	0	0	0	0
56	2e	2	0	0	0	0
56	2f	1	0	0	0	0
56	2l	5	0	0	0	0
56	2q	3	0	0	0	0
56	2r	1	0	0	0	0
56	2t	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	2v	1	0	0	0	0
56	2x	7	0	0	0	0
56	2z	1	0	0	0	0
57	14	1	0	0	0	0
57	15	1	0	0	0	0
57	16	1	0	0	0	0
57	19	1	0	0	0	0
57	1Y	1	0	0	0	0
57	1n	1	0	0	0	0
57	24	1	0	0	0	0
57	25	1	0	0	0	0
57	26	1	0	0	0	0
57	29	1	0	0	0	0
57	2Y	1	0	0	0	0
57	2n	1	0	0	0	0
58	1d	8	0	0	0	0
58	2d	8	0	0	0	0
59	10	8	0	0	2	0
59	11	7	0	0	0	0
59	12	2	0	0	0	0
59	13	3	0	0	0	0
59	15	7	0	0	1	0
59	16	11	0	0	2	0
59	17	9	0	0	0	0
59	18	16	0	0	0	0
59	19	3	0	0	1	0
59	1A	2412	0	0	134	0
59	1B	46	0	0	5	0
59	1D	25	0	0	2	0
59	1E	30	0	0	5	0
59	1F	21	0	0	1	0
59	1G	8	0	0	0	0
59	1H	4	0	0	0	0
59	1I	3	0	0	2	0
59	1N	8	0	0	0	0
59	1O	5	0	0	0	0
59	1P	25	0	0	3	0
59	1Q	13	0	0	3	0
59	1R	18	0	0	1	0
59	1S	2	0	0	0	0
59	1T	13	0	0	2	0
59	1U	18	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	1V	5	0	0	1	0
59	1W	14	0	0	1	0
59	1X	5	0	0	0	0
59	1Y	1	0	0	0	0
59	1Z	6	0	0	1	0
59	1a	394	0	0	34	0
59	1b	1	0	0	0	0
59	1c	1	0	0	0	0
59	1d	3	0	0	1	0
59	1e	4	0	0	1	0
59	1f	1	0	0	0	0
59	1h	2	0	0	0	0
59	1j	1	0	0	0	0
59	1k	2	0	0	1	0
59	1l	3	0	0	1	0
59	1m	1	0	0	0	0
59	1p	1	0	0	0	0
59	1q	1	0	0	0	0
59	1s	1	0	0	1	0
59	1u	1	0	0	0	0
59	1v	3	0	0	1	0
59	1x	10	0	0	0	0
59	1z	5	0	0	0	0
59	20	2	0	0	0	0
59	21	1	0	0	0	0
59	23	2	0	0	0	0
59	25	1	0	0	0	0
59	27	1	0	0	0	0
59	28	4	0	0	0	0
59	2A	824	0	0	85	0
59	2B	9	0	0	0	0
59	2D	18	0	0	0	0
59	2E	11	0	0	0	0
59	2F	6	0	0	0	0
59	2N	2	0	0	0	0
59	2O	1	0	0	0	0
59	2P	6	0	0	0	0
59	2R	1	0	0	0	0
59	2T	1	0	0	0	0
59	2U	3	0	0	0	0
59	2W	1	0	0	0	0
59	2X	3	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	2Y	2	0	0	1	0
59	2Z	5	0	0	1	0
59	2a	329	0	0	38	0
59	2c	1	0	0	1	0
59	2d	1	0	0	0	0
59	2e	4	0	0	1	0
59	2g	1	0	0	0	0
59	2i	2	0	0	0	0
59	2l	2	0	0	0	0
59	2m	1	0	0	0	0
59	2o	1	0	0	0	0
59	2p	2	0	0	0	0
59	2q	1	0	0	1	0
59	2t	4	0	0	1	0
59	2u	1	0	0	0	0
59	2x	6	0	0	1	0
59	2z	2	0	0	0	0
All	All	288976	0	189961	4693	1

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 10.

All (4693) 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)
33:2b:92:TYR:CD1	33:2b:92:TYR:CG	1.83	1.61
33:2b:92:TYR:CG	33:2b:92:TYR:CD2	1.81	1.57
33:2b:92:TYR:CZ	33:2b:92:TYR:CE2	1.92	1.57
33:2b:92:TYR:CZ	33:2b:92:TYR:CE1	1.92	1.53
33:2b:151:GLY:N	33:2b:151:GLY:CA	1.80	1.43
33:2b:92:TYR:CZ	33:2b:151:GLY:N	1.88	1.38
33:2b:92:TYR:CE2	33:2b:151:GLY:N	1.91	1.35
33:2b:92:TYR:CE1	33:2b:151:GLY:N	1.95	1.35
33:2b:92:TYR:CD2	33:2b:92:TYR:CE2	2.19	1.31
33:2b:92:TYR:CD2	33:2b:151:GLY:N	2.04	1.25
33:2b:92:TYR:CD1	33:2b:92:TYR:CE1	2.28	1.20
33:2b:92:TYR:CD1	33:2b:151:GLY:N	2.10	1.19
33:2b:92:TYR:CG	33:2b:151:GLY:HA3	1.87	1.10
33:2b:92:TYR:CG	33:2b:151:GLY:N	2.19	1.09
32:2a:981:G:H1	32:2a:1021:C:N4	1.49	1.09
33:2b:92:TYR:CD1	33:2b:151:GLY:CA	2.36	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1112:C:N4	32:2a:1126:G:H1	1.53	1.04
33:2b:92:TYR:CG	33:2b:151:GLY:CA	2.41	1.03
33:2b:92:TYR:CD2	33:2b:151:GLY:CA	2.49	0.96
32:2a:976:G:H1	32:2a:1026:C:N4	1.63	0.95
38:2g:50:ILE:HD11	38:2g:58:PRO:HA	1.47	0.95
32:1a:1100:G:H5''	40:1i:104:ARG:HH21	1.31	0.95
1:1A:598:U:OP1	59:1A:4101:HOH:O	1.83	0.94
32:1a:1112:C:H42	32:1a:1126:G:H1	1.09	0.94
33:2b:92:TYR:CE1	33:2b:151:GLY:CA	2.52	0.93
32:1a:77:G:H1	32:1a:87:C:H42	0.97	0.92
4:1E:110:GLY:O	59:1E:401:HOH:O	1.86	0.92
32:1a:1141:C:H5	32:1a:1163:G:H1	1.15	0.91
32:1a:77:G:H1	32:1a:87:C:N4	1.68	0.91
15:2T:55:ASN:H	15:2T:59:THR:HG22	1.36	0.91
32:2a:976:G:H1	32:2a:1026:C:H42	0.99	0.91
33:2b:92:TYR:CD1	33:2b:151:GLY:HA2	2.05	0.90
1:2A:786:U:OP2	59:2A:3601:HOH:O	1.89	0.90
33:2b:92:TYR:CD1	33:2b:150:SER:C	2.50	0.90
15:1T:16:ARG:NH2	15:1T:83:ILE:O	2.03	0.90
1:1A:2123:U:H3	1:1A:2208:G:H1	1.12	0.90
32:1a:962:C:H42	32:1a:1203:G:H1	0.98	0.90
32:1a:1112:C:N4	32:1a:1126:G:H1	1.70	0.89
1:1A:2330:G:N7	59:1A:4115:HOH:O	2.05	0.88
32:1a:1480:A:H2	32:1a:1483:G:H1	1.21	0.88
32:2a:981:G:N2	32:2a:1021:C:N3	2.22	0.87
21:1Z:1:MET:N	59:1Z:401:HOH:O	2.07	0.87
32:1a:962:C:N4	32:1a:1203:G:H1	1.71	0.87
1:2A:1649:C:OP2	59:2A:3602:HOH:O	1.91	0.87
1:2A:621:G:N7	59:2A:3614:HOH:O	2.07	0.87
15:1T:55:ASN:H	15:1T:59:THR:HG22	1.39	0.87
32:2a:543:A:H4'	32:2a:544:U:H3'	1.55	0.86
1:1A:786:U:OP2	59:1A:4102:HOH:O	1.92	0.86
33:2b:92:TYR:CG	33:2b:150:SER:C	2.54	0.85
1:1A:893:U:O4	1:1A:977:A:N6	2.09	0.85
40:1i:128:ARG:NH2	54:1x:33:U:OP2	2.10	0.85
40:1i:17:VAL:HG21	40:1i:81:ILE:HG22	1.57	0.84
32:2a:1145:C:H42	32:2a:1156:G:H1	1.23	0.84
33:1b:16:HIS:O	33:1b:18:GLY:N	2.09	0.84
2:2B:20:C:H42	2:2B:63:G:H1	1.25	0.84
1:1A:2466:G:OP2	59:1A:4103:HOH:O	1.94	0.84
32:2a:1256:G:N2	32:2a:1257:A:N7	2.26	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1355:G:OP2	29:17:9:ARG:NH1	2.11	0.83
1:1A:2510:C:OP1	59:1A:4104:HOH:O	1.95	0.83
29:17:24:THR:HG22	29:17:27:GLY:H	1.41	0.83
1:2A:1083:C:H42	1:2A:1162:G:H1	1.24	0.83
33:1b:69:LEU:HB3	33:1b:162:ILE:HG22	1.59	0.83
1:1A:2699:U:O4	59:1A:4107:HOH:O	1.97	0.83
31:19:19:ARG:NH2	59:19:5001:HOH:O	2.10	0.83
1:1A:2586:C:OP2	59:1A:4106:HOH:O	1.96	0.83
32:2a:566:U:OP1	46:2o:64:ARG:NH1	2.12	0.83
1:2A:1188:A:OP1	9:2N:25:ARG:NH2	2.12	0.82
35:2d:11:LEU:HG	35:2d:66:ARG:HE	1.44	0.82
34:2c:186:PHE:CZ	34:2c:200:ALA:HB3	2.14	0.82
11:1P:52:GLU:OE1	11:1P:55:ARG:NH1	2.13	0.82
1:2A:1981:A:N7	59:2A:3623:HOH:O	2.11	0.81
12:1Q:58:PHE:O	12:1Q:60:ARG:NH1	2.13	0.81
1:1A:1828:U:H5'	3:1D:259:THR:HG22	1.62	0.81
22:10:11:ARG:O	22:10:14:ARG:NH2	2.13	0.81
32:1a:77:G:N2	32:1a:87:C:N3	2.28	0.81
2:2B:16:G:N2	2:2B:68:C:N3	2.28	0.81
1:2A:2067:G:H5'	27:25:19:ARG:HA	1.62	0.81
33:2b:92:TYR:CE2	33:2b:151:GLY:CA	2.63	0.81
47:2p:28:ARG:NH1	47:2p:29:ASP:OD2	2.14	0.81
15:2T:41:ARG:NH2	32:2a:342:G:OP1	2.12	0.81
27:25:16:ARG:HG2	27:25:16:ARG:HH11	1.46	0.81
32:2a:648:G:H22	32:2a:725:G:H1	1.28	0.81
41:2j:35:SER:HB3	41:2j:73:ASP:HB2	1.62	0.81
42:1k:48:ILE:HG21	42:1k:63:LEU:HB3	1.63	0.81
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.43	0.81
32:1a:1242:C:O2	32:1a:1257:A:N6	2.14	0.80
5:2F:157:VAL:HB	5:2F:194:MET:HG2	1.63	0.80
32:2a:109:G:OP1	59:2a:3301:HOH:O	1.99	0.80
32:2a:568:G:H5'	48:2q:91:ARG:HH22	1.46	0.80
32:1a:460:G:H2'	32:1a:461:G:H8	1.46	0.80
32:2a:951:G:OP1	41:2j:57:LYS:NZ	2.14	0.80
1:1A:972:G:N7	59:1A:4152:HOH:O	2.13	0.80
1:2A:1036:C:OP2	59:2A:3603:HOH:O	2.00	0.80
1:1A:1100:G:N2	1:1A:1149:C:O2	2.15	0.80
32:2a:1480:A:H2	32:2a:1483:G:H1	1.29	0.80
33:2b:92:TYR:CD2	33:2b:151:GLY:HA3	2.15	0.80
1:1A:1155:G:H21	1:1A:1156:A:H2	1.26	0.79
33:2b:92:TYR:CD2	33:2b:150:SER:C	2.59	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:92:TYR:CZ	33:2b:151:GLY:CA	2.65	0.79
1:1A:2298:A:H62	1:1A:2355:U:H3	1.28	0.79
12:2Q:27:VAL:O	12:2Q:29:PHE:N	2.13	0.79
1:2A:1109:C:H42	1:2A:1119:G:H1	1.29	0.79
1:1A:838:G:O6	59:1A:4109:HOH:O	2.00	0.79
32:1a:1030:G:H5''	45:1n:4:LYS:HD3	1.64	0.79
1:2A:1735:A:H62	1:2A:1744:A:H2	1.26	0.79
1:1A:1068:U:OP2	59:1A:4108:HOH:O	1.99	0.79
32:1a:1164:G:H4'	32:1a:1165:A:H5'	1.65	0.79
32:2a:1379:A:OP1	59:2a:3302:HOH:O	2.00	0.79
1:1A:2643:A:HO2'	1:1A:2820:G:HO2'	1.29	0.78
32:2a:982:G:H2'	32:2a:983:A:H4'	1.64	0.78
32:2a:931:G:H5'	32:2a:943:A:H61	1.48	0.78
7:2H:159:GLU:HG3	7:2H:169:VAL:HG11	1.65	0.78
32:2a:423:U:OP1	35:2d:13:ARG:NH2	2.17	0.78
32:2a:1112:C:H42	32:2a:1126:G:H1	0.82	0.78
42:1k:15:ALA:HA	42:1k:77:MET:HA	1.64	0.78
1:2A:1316:G:OP2	59:2A:3605:HOH:O	2.02	0.78
50:2s:50:ALA:HB1	50:2s:57:HIS:HB3	1.66	0.78
32:2a:1218:A:N6	59:2a:3314:HOH:O	2.16	0.77
20:1Y:92:ASN:HB2	20:1Y:94:LYS:H	1.49	0.77
6:2G:80:PHE:O	6:2G:82:LEU:N	2.16	0.77
32:1a:932:G:H21	32:1a:1209:A:H62	1.30	0.77
54:1x:47:U:H4'	54:1x:48:C:H5'	1.64	0.77
1:2A:1248:A:H2	1:2A:1286:A:H62	1.31	0.77
28:26:14:THR:OG1	28:26:48:VAL:O	2.02	0.77
54:2x:47:U:H4'	54:2x:48:C:H5'	1.65	0.77
32:1a:423:U:OP1	35:1d:13:ARG:NH2	2.15	0.77
12:2Q:29:PHE:O	21:2Z:122:ARG:NH2	2.17	0.77
1:2A:186:C:OP2	59:2A:3604:HOH:O	2.01	0.77
33:2b:92:TYR:CE1	33:2b:151:GLY:HA2	2.18	0.77
1:1A:1735:A:H62	1:1A:1744:A:H2	1.30	0.77
33:1b:87:ARG:NH2	33:1b:220:ASP:OD1	2.18	0.76
20:1Y:54:LYS:HA	20:1Y:56:PRO:HD3	1.67	0.76
11:2P:59:LEU:HD11	30:28:10:ALA:HB2	1.68	0.76
1:1A:771:G:N1	59:1A:4121:HOH:O	2.16	0.76
54:1x:8:4SU:O2	54:1x:21:A:H2	1.69	0.76
1:1A:682:G:H1	1:1A:695:C:H42	1.33	0.76
1:2A:2848:G:H5'	13:2R:46:GLY:HA2	1.66	0.76
32:2a:1112:C:N3	32:2a:1126:G:N2	2.27	0.76
1:1A:2510:C:OP2	59:1A:4111:HOH:O	2.03	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:199:ARG:HH12	4:2E:202:LYS:HE3	1.51	0.76
1:2A:1355:G:OP2	29:27:9:ARG:NH1	2.18	0.75
10:2O:48:PRO:HB3	32:2a:1405:G:H5'	1.68	0.75
1:2A:702:G:O6	59:2A:3608:HOH:O	2.04	0.75
1:2A:831:G:OP2	59:2A:3606:HOH:O	2.03	0.75
26:14:53:GLU:HB3	26:14:54:GLY:HA2	1.67	0.75
1:2A:2603:G:OP2	59:2A:3607:HOH:O	2.03	0.75
38:2g:47:CYS:HB3	38:2g:58:PRO:HB3	1.68	0.75
27:25:16:ARG:NH1	27:25:17:ASP:OD1	2.19	0.75
32:2a:386:C:O3'	47:2p:28:ARG:NH2	2.20	0.75
1:1A:1647:U:O4	59:1A:4110:HOH:O	2.03	0.75
32:1a:76:G:O6	32:1a:88:C:N3	2.19	0.75
1:2A:1991:A:OP1	59:2A:3611:HOH:O	2.05	0.75
34:1c:52:LEU:HD23	34:1c:53:ALA:H	1.50	0.75
33:2b:92:TYR:CE1	33:2b:150:SER:C	2.64	0.75
41:2j:5:ARG:N	41:2j:73:ASP:OD1	2.19	0.75
42:2k:72:ALA:HB1	42:2k:77:MET:HE3	1.69	0.75
32:2a:442:G:OP2	59:2a:3303:HOH:O	2.04	0.75
32:2a:715:G:OP1	59:2a:3304:HOH:O	2.04	0.75
1:1A:1518:A:OP2	59:1A:4114:HOH:O	2.05	0.75
22:20:27:GLU:HG3	22:20:68:GLU:HA	1.68	0.75
1:1A:2024:G:OP2	59:1A:4113:HOH:O	2.04	0.74
44:1m:58:GLU:O	44:1m:62:ASN:ND2	2.15	0.74
1:2A:1377:G:OP1	59:2A:3609:HOH:O	2.04	0.74
32:2a:460:G:H2'	32:2a:461:G:H8	1.52	0.74
1:1A:2844:A:N3	59:1A:4188:HOH:O	2.20	0.74
32:1a:962:C:N3	32:1a:1203:G:N2	2.32	0.74
32:2a:646:G:O2'	32:2a:820:G:OP1	2.04	0.74
1:1A:1378:C:OP1	59:1A:4112:HOH:O	2.04	0.74
36:1e:78:HIS:HD1	39:1h:104:ARG:HD2	1.51	0.74
32:2a:976:G:N2	32:2a:1026:C:N3	2.31	0.74
1:1A:1038:G:OP1	16:1U:50:ARG:NH2	2.21	0.74
10:1O:2:ILE:HD12	10:1O:6:THR:HG21	1.68	0.74
1:2A:1361:U:H2'	1:2A:1362:A:H8	1.50	0.74
14:2S:84:GLN:HA	14:2S:111:GLU:HB2	1.69	0.74
32:1a:543:A:OP1	36:1e:126:ARG:NH2	2.21	0.74
1:2A:2517:U:OP1	4:2E:144:ARG:NH2	2.20	0.74
1:1A:2898:C:OP2	59:1A:4119:HOH:O	2.06	0.74
48:2q:45:HIS:NE2	59:2q:5001:HOH:O	2.20	0.74
32:1a:507:A:H61	43:1l:92:ASP:HB2	1.53	0.74
32:2a:929:G:N3	32:2a:948:C:O2'	2.21	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:929:G:O6	1:1A:938:C:N4	2.21	0.74
32:1a:1093:A:OP2	59:1a:2001:HOH:O	2.06	0.74
1:2A:900:G:H2'	1:2A:901:G:H8	1.52	0.74
4:2E:179:GLU:HB3	4:2E:181:LEU:HD22	1.69	0.74
32:2a:953:A:H4'	32:2a:954:G:H5''	1.70	0.74
1:1A:2456:G:OP1	5:1F:74:ARG:NH2	2.21	0.73
32:1a:568:G:O6	59:1a:2002:HOH:O	2.06	0.73
1:1A:655:A:OP1	11:1P:65:ARG:NH1	2.20	0.73
1:1A:1000:G:OP2	12:1Q:14:ARG:NH2	2.21	0.73
1:2A:1823:C:OP1	59:2A:3612:HOH:O	2.05	0.73
11:2P:126:VAL:HG12	11:2P:148:LEU:HD22	1.70	0.73
32:2a:1116:G:H1	32:2a:1124:C:H42	1.34	0.73
1:1A:138:A:H8	1:1A:1453:C:HO2'	1.36	0.73
1:1A:772:G:N2	59:1A:4121:HOH:O	2.15	0.73
35:1d:31:CYS:SG	35:1d:32:ALA:N	2.60	0.73
1:1A:1070:G:O2'	59:1A:4108:HOH:O	2.07	0.73
12:1Q:32:TYR:OH	12:1Q:111:GLU:OE1	2.04	0.73
1:2A:323:A:OP1	20:2Y:86:ARG:NH2	2.20	0.73
1:2A:2513:G:N7	59:2A:3657:HOH:O	2.22	0.73
32:2a:1057:G:O2'	59:2a:3305:HOH:O	2.05	0.73
33:2b:92:TYR:CG	33:2b:150:SER:O	2.41	0.73
1:1A:550:A:OP1	59:1A:4117:HOH:O	2.06	0.73
1:1A:723:A:OP1	59:1A:4120:HOH:O	2.06	0.73
1:1A:2014:U:OP2	59:1A:4122:HOH:O	2.07	0.73
1:2A:828:A:OP2	59:2A:3610:HOH:O	2.05	0.73
32:2a:49:C:OP2	59:2a:3301:HOH:O	2.05	0.73
32:2a:1226:C:H42	32:2a:1275:G:H1	1.37	0.73
35:1d:107:ARG:HH12	35:1d:194:LEU:HG	1.53	0.73
1:2A:2043:U:OP1	59:2A:3615:HOH:O	2.07	0.73
32:2a:573:C:O2	32:2a:634:G:N2	2.16	0.73
32:2a:506:C:H41	43:2l:53:ARG:HH22	1.34	0.73
1:2A:655:A:OP1	11:2P:65:ARG:NH1	2.22	0.73
36:1e:152:ARG:NH2	39:1h:107:LEU:O	2.22	0.73
1:2A:117:U:OP2	59:2A:3616:HOH:O	2.07	0.73
1:2A:1039:C:OP1	16:2U:53:ARG:NH2	2.21	0.73
32:2a:981:G:H1	32:2a:1021:C:H42	0.78	0.73
42:2k:52:GLY:H	42:2k:55:LYS:HE3	1.54	0.73
1:1A:593:A:O2'	17:1V:78:LYS:NZ	2.21	0.72
1:1A:2079:A:N7	59:1A:4200:HOH:O	2.21	0.72
32:1a:872:G:N7	59:1a:2025:HOH:O	2.21	0.72
1:2A:673:G:H4'	30:28:46:ARG:HH22	1.53	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2588:A:H5'	27:25:3:LYS:HD2	1.71	0.72
1:2A:1360:C:OP2	59:2A:3609:HOH:O	2.05	0.72
1:2A:677:A:O2'	59:2A:3613:HOH:O	2.06	0.72
19:2X:43:VAL:HG21	19:2X:81:VAL:HG11	1.70	0.72
1:1A:1007:U:OP2	59:1A:4123:HOH:O	2.07	0.72
1:2A:1108:G:N2	1:2A:1121:C:O2	2.16	0.72
1:1A:535:U:OP2	59:1A:4118:HOH:O	2.06	0.72
33:1b:51:LEU:HD23	33:1b:201:ILE:HD12	1.71	0.72
1:2A:2310:G:H2'	1:2A:2311:G:H8	1.54	0.72
10:2O:49:ARG:NH1	32:2a:1406:G:OP1	2.22	0.72
4:1E:127:ASP:OD2	59:1E:402:HOH:O	2.08	0.72
32:1a:661:U:H3	32:1a:697:G:H22	1.38	0.72
1:1A:751:A:OP2	59:1A:4121:HOH:O	2.06	0.72
32:1a:1397:U:H3	32:1a:1464:G:H1	1.36	0.72
1:1A:991:G:OP1	59:1A:4126:HOH:O	2.08	0.72
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.72	0.72
7:1H:43:VAL:HG12	7:1H:52:VAL:HG22	1.72	0.71
1:1A:2719:G:H1'	13:1R:71:GLN:HE22	1.55	0.71
32:1a:638:G:OP2	59:1a:2004:HOH:O	2.08	0.71
2:2B:17:C:O2	2:2B:67:G:N2	2.20	0.71
3:2D:276:LYS:HD3	3:2D:276:LYS:H	1.52	0.71
1:2A:1648:A:OP1	59:2A:3602:HOH:O	2.07	0.71
32:2a:975:U:H3	32:2a:1027:A:H61	1.38	0.71
1:1A:353:A:H2	1:1A:1254:A:HO2'	1.37	0.71
1:1A:1354:G:H4'	29:17:7:PRO:HB2	1.70	0.71
4:1E:47:VAL:HG11	4:1E:86:PRO:HD2	1.73	0.71
1:2A:267:G:HO2'	1:2A:268:G:H8	1.37	0.71
1:2A:1214:G:H1	1:2A:1224:C:H42	1.39	0.71
18:2W:92:ARG:NH2	18:2W:94:ASP:OD1	2.23	0.71
32:2a:488:C:OP1	59:2a:3306:HOH:O	2.07	0.71
46:2o:54:ARG:HG2	46:2o:58:MET:HE2	1.73	0.71
32:1a:971:G:H1	32:1a:1028:C:H42	1.39	0.71
32:2a:640:C:O2'	46:2o:28:GLN:NE2	2.22	0.71
21:1Z:19:ARG:NH1	21:1Z:84:GLU:O	2.23	0.71
1:2A:396:G:N7	59:2A:3668:HOH:O	2.23	0.71
32:2a:980:G:C5	32:2a:981:G:H1'	2.25	0.71
1:1A:2100:U:OP1	23:11:21:ARG:NH2	2.23	0.71
32:1a:110:A:H61	32:1a:309:A:H1'	1.53	0.71
1:2A:665:C:O2'	1:2A:2361:C:OP1	2.06	0.71
40:2i:17:VAL:HG21	40:2i:81:ILE:HG22	1.72	0.71
33:1b:71:VAL:HB	33:1b:164:VAL:HG13	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:1r:58:LEU:HD12	49:1r:62:GLU:HB3	1.71	0.71
1:2A:1002:U:OP2	12:2Q:14:ARG:NH1	2.23	0.71
1:1A:847:G:O6	5:1F:53:THR:OG1	2.09	0.71
1:1A:1360:C:OP2	59:1A:4124:HOH:O	2.08	0.71
32:1a:262:G:H5''	32:1a:264:C:H41	1.55	0.71
1:2A:2606:G:N7	59:2A:3670:HOH:O	2.23	0.71
32:2a:65:G:H4'	32:2a:66:U:H3'	1.71	0.71
32:2a:1128:C:H4'	32:2a:1129:A:H5'	1.73	0.71
39:2h:51:VAL:HG21	39:2h:60:ARG:HB2	1.73	0.71
1:2A:343:A:O2'	1:2A:345:A:OP2	2.06	0.70
32:2a:580:C:O2	32:2a:628:G:N2	2.16	0.70
8:1I:77:LEU:HB3	8:1I:142:VAL:HG13	1.73	0.70
1:2A:2800:C:OP1	4:2E:61:ARG:NH2	2.24	0.70
32:2a:932:G:H21	32:2a:1209:A:H62	1.39	0.70
1:1A:478:C:OP1	59:1A:4125:HOH:O	2.08	0.70
1:1A:830:A:OP2	59:1A:4129:HOH:O	2.09	0.70
1:1A:2650:A:OP2	59:1A:4131:HOH:O	2.09	0.70
32:1a:557:A:OP2	59:1a:2006:HOH:O	2.09	0.70
32:2a:36:G:O2'	43:2I:118:SER:O	2.08	0.70
1:1A:710:C:O2'	59:1A:4127:HOH:O	2.08	0.70
1:1A:932:C:H2'	1:1A:933:A:H5''	1.72	0.70
14:1S:27:SER:HA	14:1S:88:ASP:HB3	1.72	0.70
32:1a:764:A:OP2	59:1a:2003:HOH:O	2.07	0.70
32:1a:1145:C:H42	32:1a:1156:G:H1	1.39	0.70
42:1k:72:ALA:HB1	42:1k:77:MET:HE3	1.71	0.70
1:2A:183:A:N7	59:2A:3604:HOH:O	2.25	0.70
1:1A:2718:G:OP2	59:1A:4128:HOH:O	2.09	0.70
32:1a:953:A:H4'	32:1a:954:G:H5''	1.72	0.70
32:1a:1058:C:OP1	33:1b:179:LYS:NZ	2.23	0.70
24:22:64:LEU:HD11	24:22:68:ARG:HH21	1.56	0.70
32:2a:900:G:H4'	36:2e:20:GLN:HA	1.74	0.70
32:1a:77:G:N1	32:1a:87:C:N4	2.34	0.70
1:2A:396:G:OP2	59:2A:3619:HOH:O	2.09	0.70
1:2A:1360:C:N4	1:2A:1382:G:O6	2.20	0.70
1:2A:1401:G:O6	59:2A:3617:HOH:O	2.08	0.70
1:2A:1828:U:H5'	3:2D:259:THR:HG22	1.71	0.70
12:2Q:26:TYR:O	12:2Q:67:ARG:NH1	2.22	0.70
35:2d:57:ARG:HB3	35:2d:206:PHE:HB2	1.73	0.70
32:1a:372:G:H4'	47:1p:5:ARG:HE	1.55	0.70
7:2H:9:ILE:HB	7:2H:50:VAL:HB	1.73	0.70
32:2a:428:A:OP2	59:2a:3307:HOH:O	2.09	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:71:VAL:HA	33:2b:93:VAL:HG23	1.72	0.70
35:2d:187:ARG:NH2	35:2d:193:ASP:OD2	2.25	0.70
17:1V:40:LEU:HB2	17:1V:46:VAL:HG13	1.74	0.70
32:1a:1375:G:H21	32:1a:1480:A:H8	1.40	0.70
40:1i:79:LEU:HG	40:1i:83:ARG:HD2	1.73	0.70
20:2Y:44:ILE:H	20:2Y:44:ILE:HD13	1.55	0.70
41:2j:32:ALA:HB1	41:2j:33:GLN:HE21	1.57	0.70
1:1A:2339:A:H2'	1:1A:2340:G:C8	2.27	0.70
35:1d:53:ASP:HB3	35:1d:57:ARG:HH12	1.56	0.70
44:1m:3:ARG:HD2	44:1m:9:ILE:HG12	1.73	0.70
1:2A:1310:A:OP2	59:2A:3618:HOH:O	2.09	0.70
6:2G:33:ARG:HH11	6:2G:33:ARG:HB2	1.56	0.70
44:2m:102:ARG:NH1	44:2m:105:THR:OG1	2.25	0.70
1:1A:1067:G:N2	1:1A:1068:U:O4	2.25	0.69
1:1A:2502:U:OP2	59:1A:4132:HOH:O	2.09	0.69
59:1E:401:HOH:O	13:1R:3:HIS:NE2	2.24	0.69
33:1b:195:ASP:O	39:1h:68:ARG:NH2	2.25	0.69
1:2A:609:C:OP2	11:2P:21:ARG:NH2	2.25	0.69
1:2A:1682:C:OP2	59:2A:3621:HOH:O	2.10	0.69
6:2G:15:VAL:HG13	6:2G:175:LEU:HD23	1.74	0.69
1:1A:38:C:O2	5:1F:46:ARG:NH2	2.24	0.69
1:1A:396:G:OP2	59:1A:4135:HOH:O	2.10	0.69
1:1A:1043:C:OP1	59:1A:4133:HOH:O	2.10	0.69
39:1h:34:GLU:OE1	39:1h:37:ARG:NH1	2.25	0.69
11:2P:59:LEU:HD21	30:28:10:ALA:HA	1.73	0.69
12:2Q:57:HIS:HD2	12:2Q:117:ALA:HB2	1.56	0.69
32:2a:1286:G:O2'	32:2a:1315:A:N6	2.23	0.69
2:1B:77:U:OP1	21:1Z:19:ARG:NH2	2.26	0.69
32:1a:1072:G:H1	32:1a:1079:C:H42	1.39	0.69
1:2A:1613:A:OP2	59:2A:3622:HOH:O	2.11	0.69
24:22:29:LYS:HG2	24:22:57:ILE:HD13	1.74	0.69
48:2q:66:SER:O	48:2q:70:ARG:NH1	2.25	0.69
1:1A:1680:A:OP2	59:1A:4130:HOH:O	2.09	0.69
1:2A:179:A:N1	59:2A:3676:HOH:O	2.24	0.69
1:2A:679:G:O6	1:2A:698:C:N4	2.16	0.69
1:2A:1035:A:OP2	59:2A:3603:HOH:O	2.10	0.69
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	1.74	0.69
1:1A:1619:G:OP2	59:1A:4136:HOH:O	2.11	0.69
16:2U:44:ASN:HD21	17:2V:75:PHE:HB3	1.57	0.69
34:2c:151:VAL:HG13	34:2c:200:ALA:HB2	1.75	0.69
25:13:3:ARG:NH1	25:13:60:GLU:OE1	2.23	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:372:G:H2'	32:1a:373:G:H8	1.58	0.69
33:1b:185:ILE:HG23	33:1b:199:TYR:HB2	1.75	0.69
51:1t:9:ASN:HD22	51:1t:10:LEU:H	1.39	0.69
1:2A:1240:C:H2'	1:2A:1241:G:H8	1.58	0.69
17:1V:98:GLU:OE2	17:1V:100:ARG:NH1	2.25	0.69
32:1a:542:G:OP1	59:1a:2007:HOH:O	2.10	0.69
32:1a:864:G:N7	59:1a:2037:HOH:O	2.25	0.69
32:1a:1469:G:O3'	59:1a:2005:HOH:O	2.09	0.69
1:2A:1010:G:OP1	59:2A:3620:HOH:O	2.09	0.69
1:2A:2733:A:OP1	59:2A:3625:HOH:O	2.11	0.69
32:2a:512:C:N4	43:2l:49:ASN:OD1	2.26	0.69
34:2c:40:ARG:NH2	34:2c:55:VAL:O	2.25	0.69
54:2x:75:C:OP1	59:2x:201:HOH:O	2.10	0.69
1:1A:2573:U:H1'	10:1O:23:ARG:HH11	1.56	0.69
1:2A:2284:A:H2'	1:2A:2285:A:C8	2.28	0.69
1:1A:1663:A:OP2	59:1A:4137:HOH:O	2.11	0.69
6:2G:135:LEU:HB2	6:2G:155:MET:HG2	1.75	0.69
32:2a:1084:A:N1	59:2a:3305:HOH:O	2.25	0.69
33:2b:68:ILE:HG12	33:2b:161:ALA:HB3	1.74	0.69
1:1A:1218:A:H4'	1:1A:1219:U:OP1	1.94	0.68
5:1F:157:VAL:HB	5:1F:194:MET:HG2	1.74	0.68
33:1b:95:GLN:OE1	33:1b:147:LYS:NZ	2.20	0.68
35:1d:8:VAL:HG23	35:1d:11:LEU:HD22	1.75	0.68
5:2F:185:ASP:OD1	5:2F:188:ARG:NH1	2.25	0.68
1:1A:1430:G:O2'	1:1A:1441:U:O2	2.08	0.68
32:1a:258:A:H2'	32:1a:259:A:C8	2.27	0.68
1:2A:60:C:H42	1:2A:90:G:H1	1.41	0.68
1:2A:596:C:OP1	59:2A:3624:HOH:O	2.11	0.68
1:2A:1066:A:H62	1:2A:1185:U:H3	1.39	0.68
1:2A:1064:U:H3	1:2A:1187:A:H62	1.38	0.68
1:2A:1716:C:OP1	59:2A:3627:HOH:O	2.11	0.68
4:1E:145:LYS:NZ	59:1E:403:HOH:O	2.24	0.68
20:1Y:102:CYS:SG	20:1Y:103:GLY:N	2.66	0.68
41:1j:55:LYS:HG3	41:1j:56:HIS:H	1.58	0.68
1:2A:957:C:OP1	12:2Q:8:LYS:NZ	2.26	0.68
32:2a:1219:C:O2'	32:2a:1282:G:N1	2.24	0.68
4:1E:181:LEU:HD21	15:1T:6:LEU:HD12	1.75	0.68
47:2p:22:THR:HA	47:2p:33:ILE:HG13	1.74	0.68
1:1A:1188:A:OP1	9:1N:25:ARG:NH2	2.26	0.68
2:1B:23:G:O6	59:1B:301:HOH:O	2.07	0.68
32:1a:454:G:N2	32:1a:457:G:OP2	2.27	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:552:A:O2'	1:2A:553:A:H5'	1.94	0.68
1:2A:2053:G:N7	59:2A:3693:HOH:O	2.27	0.68
1:2A:2226:G:H5''	1:2A:2227:G:N7	2.09	0.68
23:11:21:ARG:HD3	23:11:35:THR:HG21	1.75	0.68
38:1g:62:PHE:HA	38:1g:124:LEU:HD22	1.75	0.68
35:2d:57:ARG:NH2	35:2d:205:GLU:OE2	2.27	0.68
1:1A:2694:C:O2	10:1O:70:LYS:NZ	2.17	0.68
32:1a:295:G:O6	59:1a:2008:HOH:O	2.10	0.68
1:2A:330:G:N1	1:2A:333:A:OP2	2.25	0.68
32:2a:923:G:N7	59:2a:3338:HOH:O	2.25	0.68
59:2a:3305:HOH:O	33:2b:103:THR:OG1	2.11	0.68
44:2m:80:ARG:HH22	50:2s:69:HIS:HE1	1.40	0.68
1:1A:1229:C:OP2	59:1A:4138:HOH:O	2.11	0.68
1:2A:1026:A:OP1	59:2A:3629:HOH:O	2.12	0.68
6:2G:113:ARG:NH2	6:2G:139:LEU:O	2.25	0.68
1:1A:426:G:N7	59:1A:4258:HOH:O	2.27	0.67
1:1A:2480:A:OP2	59:1A:4139:HOH:O	2.12	0.67
32:1a:544:U:O2'	32:1a:545:U:OP2	2.09	0.67
1:2A:2888:C:OP2	59:2A:3628:HOH:O	2.11	0.67
4:2E:14:ILE:HG13	4:2E:21:VAL:HG13	1.75	0.67
8:2I:31:LEU:HD21	8:2I:38:LEU:HG	1.76	0.67
40:2i:9:ARG:H	40:2i:79:LEU:HD23	1.58	0.67
1:1A:807:A:OP1	59:1A:4144:HOH:O	2.12	0.67
1:2A:1958:A:OP1	59:2A:3630:HOH:O	2.12	0.67
32:2a:1116:G:H2'	32:2a:1117:G:H8	1.58	0.67
1:1A:780:A:N3	59:1A:4214:HOH:O	2.27	0.67
1:1A:1951:G:O2'	1:1A:1989:G:O6	2.09	0.67
32:1a:143:G:H1	32:1a:169:C:H42	1.42	0.67
32:1a:1297:U:OP2	59:1a:2009:HOH:O	2.11	0.67
34:1c:54:ARG:NH1	34:1c:56:ASP:OD2	2.27	0.67
41:1j:35:SER:HB3	41:1j:73:ASP:HB2	1.77	0.67
43:1l:71:PRO:O	43:1l:102:ARG:NH1	2.28	0.67
35:2d:101:LEU:HD12	35:2d:138:TYR:HB3	1.75	0.67
1:1A:1479:A:H61	1:1A:1604:A:H62	1.40	0.67
1:1A:1813:A:N7	59:1A:4240:HOH:O	2.25	0.67
1:1A:2493:G:OP2	59:1A:4142:HOH:O	2.12	0.67
8:1I:104:GLN:HG3	8:1I:105:HIS:HD2	1.59	0.67
10:1O:48:PRO:HB3	32:1a:1405:G:H5'	1.75	0.67
15:1T:51:ARG:NH1	59:1T:301:HOH:O	2.24	0.67
36:1e:100:VAL:O	36:1e:107:ARG:NH2	2.27	0.67
46:1o:5:LYS:H	46:1o:5:LYS:HE2	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:867:A:H2'	1:2A:990:G:H5''	1.77	0.67
1:2A:903:C:OP2	22:20:77:ARG:NH2	2.28	0.67
36:2e:147:ASP:OD2	59:2e:3101:HOH:O	2.12	0.67
1:1A:541:C:OP1	27:15:16:ARG:NH2	2.27	0.67
1:2A:2316:A:H5''	6:2G:134:GLY:HA3	1.74	0.67
32:2a:74:G:H1	32:2a:90:U:H3	1.43	0.67
33:2b:69:LEU:HB3	33:2b:162:ILE:HG22	1.75	0.67
1:1A:271:U:H4'	8:1I:50:ARG:HH12	1.57	0.67
1:1A:1358:U:OP1	59:1A:4148:HOH:O	2.13	0.67
1:1A:2013:G:N7	59:1A:4260:HOH:O	2.28	0.67
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.76	0.67
1:2A:69:A:H5''	1:2A:71:A:C8	2.29	0.67
2:2B:13:A:N1	2:2B:69:G:O2'	2.22	0.67
26:24:62:ARG:O	26:24:64:GLY:N	2.27	0.67
1:1A:2670:G:O2'	7:1H:175:LYS:NZ	2.28	0.67
32:1a:1037:C:OP2	59:1a:2012:HOH:O	2.13	0.67
1:2A:2694:C:OP1	15:2T:53:ARG:NH2	2.21	0.67
32:2a:396:C:H5''	35:2d:73:ARG:HH22	1.60	0.67
1:1A:302:C:H42	1:1A:384:G:H1	1.42	0.67
1:1A:1845:A:OP2	3:1D:54:ARG:NH2	2.27	0.67
1:1A:2563:U:OP2	59:1A:4143:HOH:O	2.12	0.67
32:1a:855:C:H5''	39:1h:88:LYS:HD3	1.77	0.67
44:1m:96:LEU:O	44:1m:110:ARG:NH1	2.28	0.67
1:2A:622:G:N2	1:2A:627:C:O3'	2.28	0.67
1:2A:1088:C:O2'	1:2A:1093:A:O2'	2.11	0.67
1:2A:2643:A:HO2'	1:2A:2820:G:HO2'	1.38	0.67
32:2a:1149:G:H1'	32:2a:1153:G:H22	1.60	0.67
32:2a:1237:G:OP1	41:2j:45:ARG:NH2	2.23	0.67
1:1A:909:A:N6	59:1A:4261:HOH:O	2.28	0.67
1:1A:1211:C:O2'	59:1A:4146:HOH:O	2.13	0.67
1:2A:560:A:H2'	1:2A:561:C:C6	2.30	0.67
2:2B:43:C:OP1	26:24:6:HIS:NE2	2.28	0.67
6:2G:63:ILE:HA	6:2G:143:GLU:HG3	1.75	0.67
1:1A:2443:A:OP2	59:1A:4141:HOH:O	2.12	0.66
14:1S:84:GLN:HA	14:1S:111:GLU:HB2	1.77	0.66
32:2a:466:G:O2'	32:2a:468:C:N4	2.25	0.66
32:2a:1329:G:H2'	40:2i:107:ARG:HG3	1.77	0.66
1:1A:609:C:OP2	11:1P:21:ARG:NH2	2.28	0.66
32:2a:1107:G:N2	32:2a:1108:U:O4	2.26	0.66
2:1B:58:A:OP2	59:1B:302:HOH:O	2.14	0.66
32:2a:1478:A:OP1	59:2a:3309:HOH:O	2.13	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1514:C:OP1	59:1A:4140:HOH:O	2.12	0.66
1:1A:2123:U:O2	1:1A:2208:G:N2	2.26	0.66
1:2A:1306:C:OP2	18:2W:83:LYS:NZ	2.25	0.66
1:2A:1499:A:OP2	59:2A:3632:HOH:O	2.13	0.66
34:2c:113:ALA:HB1	34:2c:186:PHE:HE2	1.61	0.66
11:1P:25:SER:O	59:1P:301:HOH:O	2.12	0.66
32:1a:900:G:H4'	36:1e:20:GLN:HA	1.76	0.66
32:1a:1374:U:H2'	32:1a:1375:G:C8	2.30	0.66
7:2H:3:ARG:HH22	7:2H:5:GLY:H	1.42	0.66
32:2a:1121:G:C6	32:2a:1123:C:H1'	2.31	0.66
1:1A:2083:A:OP1	59:1A:4153:HOH:O	2.14	0.66
2:1B:48:A:H4'	14:1S:95:HIS:HD2	1.61	0.66
22:10:16:SER:O	59:10:201:HOH:O	2.14	0.66
33:1b:82:ARG:NH1	33:1b:86:GLU:OE1	2.28	0.66
1:2A:2846:G:N7	59:2A:3695:HOH:O	2.27	0.66
32:2a:853:C:H1'	39:2h:15:ASN:HD21	1.61	0.66
1:2A:2356:G:OP2	28:26:38:LYS:NZ	2.29	0.66
16:2U:49:HIS:HA	16:2U:52:ARG:HG2	1.77	0.66
1:1A:553:A:O3'	59:1A:4150:HOH:O	2.13	0.66
1:1A:1530:G:N2	1:1A:1549:C:O2	2.17	0.66
26:24:50:VAL:HG11	44:2m:65:LYS:HB3	1.78	0.66
33:2b:179:LYS:HA	39:2h:72:PRO:HG3	1.76	0.66
40:2i:121:ARG:NH1	40:2i:122:ALA:O	2.29	0.66
1:1A:81:G:OP1	59:1A:4145:HOH:O	2.13	0.66
1:1A:1377:G:OP1	59:1A:4124:HOH:O	2.14	0.66
1:1A:1813:A:OP1	59:1A:4151:HOH:O	2.13	0.66
1:1A:2518:C:OP2	59:1A:4155:HOH:O	2.14	0.66
6:1G:161:THR:HG23	6:1G:163:ALA:H	1.61	0.66
1:2A:1282:A:OP1	59:2A:3631:HOH:O	2.13	0.66
32:2a:517:A:OP1	59:2a:3310:HOH:O	2.13	0.66
32:2a:657:G:H2'	32:2a:658:G:C8	2.30	0.66
1:1A:2323:U:H5'	6:1G:88:ILE:HD11	1.77	0.65
1:1A:2383:G:N3	59:1A:4268:HOH:O	2.29	0.65
4:1E:179:GLU:HB3	4:1E:181:LEU:HD22	1.78	0.65
1:2A:2079:A:N7	59:2A:3706:HOH:O	2.30	0.65
8:2I:77:LEU:HB3	8:2I:142:VAL:HG13	1.76	0.65
1:1A:345:A:OP1	5:1F:168:ARG:NH1	2.29	0.65
41:1j:37:PRO:HA	41:1j:72:VAL:HG12	1.78	0.65
40:2i:79:LEU:HD22	40:2i:104:ARG:HB2	1.77	0.65
1:1A:534:C:OP1	59:1A:4118:HOH:O	2.13	0.65
1:1A:2700:U:H4'	1:1A:2701:C:H5'	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1E:28:ALA:HB3	4:1E:93:VAL:HG12	1.79	0.65
1:2A:206:A:OP2	59:2A:3633:HOH:O	2.14	0.65
1:2A:663:U:H2'	1:2A:664:C:C6	2.32	0.65
1:2A:842:C:H2'	1:2A:843:C:C6	2.32	0.65
1:2A:2376:G:O6	30:28:43:GLN:NE2	2.20	0.65
17:2V:6:LYS:HB2	17:2V:38:LEU:HD21	1.77	0.65
32:2a:630:U:H2'	32:2a:631:C:C6	2.31	0.65
1:1A:1316:G:OP2	59:1A:4156:HOH:O	2.14	0.65
1:2A:82:A:N1	1:2A:96:G:O2'	2.23	0.65
2:2B:16:G:H1	2:2B:68:C:H42	1.43	0.65
2:2B:83:G:H1	2:2B:94:C:H42	1.45	0.65
32:2a:1285:C:OP1	59:2a:3311:HOH:O	2.14	0.65
42:2k:22:HIS:HB3	42:2k:29:ILE:HB	1.77	0.65
1:1A:236:G:OP2	59:1A:4157:HOH:O	2.14	0.65
8:1I:82:ARG:NH1	59:1I:5002:HOH:O	2.29	0.65
32:1a:49:C:OP2	59:1a:2014:HOH:O	2.14	0.65
32:2a:1145:C:N4	32:2a:1156:G:H1	1.93	0.65
32:1a:372:G:OP2	59:1a:2015:HOH:O	2.14	0.65
32:1a:1287:G:H22	32:1a:1313:G:H1'	1.60	0.65
40:1i:96:LEU:H	40:1i:98:PRO:HD2	1.62	0.65
1:2A:2368:U:OP1	22:20:20:ARG:NH1	2.29	0.65
32:2a:307:C:OP1	59:2a:3313:HOH:O	2.15	0.65
32:2a:1294:G:H1	32:2a:1307:C:H42	1.42	0.65
1:1A:1314:A:N7	59:1A:4278:HOH:O	2.30	0.65
1:1A:1517:A:OP2	59:1A:4154:HOH:O	2.14	0.65
32:1a:200:C:H2'	32:1a:201:C:C6	2.32	0.65
7:2H:118:PRO:HG2	7:2H:121:ILE:HG13	1.79	0.65
1:1A:1354:G:O6	59:1A:4149:HOH:O	2.13	0.65
32:1a:626:A:N3	39:1h:113:SER:OG	2.28	0.65
42:1k:99:GLN:O	59:1k:301:HOH:O	2.14	0.65
7:2H:8:PRO:HB3	7:2H:51:ARG:HG2	1.79	0.65
42:2k:104:GLN:HE21	42:2k:106:LYS:HG2	1.62	0.65
3:1D:148:GLU:HB2	3:1D:151:LYS:HD2	1.79	0.65
3:1D:239:ARG:NH2	59:1D:403:HOH:O	2.29	0.65
2:2B:55:U:H1'	6:2G:29:TRP:HE1	1.60	0.65
34:2c:181:ASN:HD21	34:2c:204:LEU:HD12	1.61	0.65
38:2g:111:ARG:NH1	38:2g:113:GLU:OE1	2.30	0.65
6:1G:145:THR:OG1	6:1G:148:MET:SD	2.53	0.65
32:1a:516:A:O2'	32:1a:517:A:OP1	2.15	0.65
32:1a:640:C:O2'	46:1o:28:GLN:NE2	2.30	0.65
34:1c:40:ARG:NH2	34:1c:55:VAL:O	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:64:VAL:HG12	34:1c:99:VAL:HA	1.78	0.65
1:2A:1625:A:N7	59:2A:3703:HOH:O	2.29	0.65
1:2A:2513:G:OP2	59:2A:3634:HOH:O	2.14	0.65
8:2I:114:LEU:HD11	8:2I:128:LEU:HD13	1.78	0.65
29:27:5:TRP:NE1	29:27:7:PRO:HG3	2.11	0.65
35:1d:89:THR:OG1	59:1d:601:HOH:O	2.15	0.64
39:1h:10:LEU:HD23	39:1h:83:ILE:HD11	1.78	0.64
41:1j:4:ILE:N	41:1j:100:THR:HG1	1.96	0.64
1:1A:1000:G:O6	59:1A:4134:HOH:O	2.10	0.64
1:1A:2642:G:OP2	59:1A:4160:HOH:O	2.15	0.64
33:2b:80:ILE:HD11	33:2b:211:ILE:HG22	1.79	0.64
37:2f:89:MET:HE1	49:2r:72:ARG:HB3	1.79	0.64
1:1A:2494:C:N3	12:1Q:124:LYS:NZ	2.45	0.64
32:1a:1040:G:OP2	59:1a:2016:HOH:O	2.14	0.64
32:1a:1296:C:OP2	50:1s:4:SER:OG	2.15	0.64
32:2a:661:U:H3	32:2a:697:G:H22	1.45	0.64
32:1a:460:G:H2'	32:1a:461:G:C8	2.32	0.64
43:1l:24:VAL:HB	43:1l:27:LEU:HD23	1.79	0.64
32:2a:1204:G:O6	59:2a:3308:HOH:O	2.10	0.64
32:2a:1305:G:H2'	32:2a:1306:A:H8	1.63	0.64
1:1A:260:A:N7	1:1A:282:G:N2	2.45	0.64
1:1A:2444:A:OP2	59:1A:4163:HOH:O	2.15	0.64
17:1V:21:ARG:HG2	17:1V:91:TYR:CD1	2.32	0.64
38:2g:122:HIS:HA	38:2g:125:MET:HE2	1.79	0.64
1:1A:2429:A:N7	59:1A:4281:HOH:O	2.30	0.64
17:1V:78:LYS:O	59:1V:301:HOH:O	2.13	0.64
32:1a:449:C:H5''	32:1a:450:C:C5	2.33	0.64
32:1a:954:G:O6	59:1a:2011:HOH:O	2.12	0.64
11:2P:97:PRO:HD3	11:2P:126:VAL:O	1.97	0.64
32:2a:915:A:O2'	59:2a:3312:HOH:O	2.14	0.64
33:2b:61:LEU:HD21	33:2b:160:ASP:HB3	1.79	0.64
1:1A:2007:A:OP1	59:1A:4159:HOH:O	2.15	0.64
5:1F:18:ARG:NH2	5:1F:127:GLU:OE2	2.31	0.64
1:2A:2307:U:OP2	14:2S:9:ARG:NH2	2.31	0.64
1:2A:2829:A:OP1	13:2R:2:ARG:NH2	2.31	0.64
6:2G:13:GLU:O	6:2G:15:VAL:N	2.31	0.64
16:2U:92:ARG:HA	16:2U:95:LEU:HB2	1.80	0.64
32:2a:868:G:O2'	32:2a:884:G:O6	2.14	0.64
38:2g:111:ARG:HB2	38:2g:119:ARG:HD2	1.80	0.64
1:1A:358:C:H4'	20:1Y:73:ARG:HD3	1.79	0.64
7:1H:41:MET:HE2	7:1H:65:HIS:HA	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:73:THR:HB	33:1b:169:LYS:HE3	1.80	0.64
33:1b:74:LYS:HD2	33:1b:166:ASP:HB2	1.80	0.64
1:2A:661:A:H8	11:2P:117:GLU:HG3	1.63	0.64
2:2B:45:A:O4'	6:2G:95:ARG:NH1	2.30	0.64
1:1A:237:C:O2	30:18:12:LYS:NZ	2.26	0.64
1:1A:710:C:OP2	59:1A:4162:HOH:O	2.15	0.64
1:1A:2775:G:OP2	59:1A:4161:HOH:O	2.15	0.64
6:1G:77:ILE:HG22	6:1G:80:PHE:H	1.62	0.64
1:2A:600:A:OP2	59:2A:3635:HOH:O	2.15	0.64
1:2A:1830:C:OP2	3:2D:183:ARG:NH2	2.31	0.64
6:2G:41:GLN:HE22	6:2G:153:ARG:HB3	1.63	0.64
32:2a:751:A:N7	59:2a:3348:HOH:O	2.30	0.64
34:2c:121:ALA:HB1	34:2c:189:ALA:HB2	1.79	0.64
35:2d:100:ARG:NH1	35:2d:137:SER:OG	2.30	0.64
1:1A:2657:C:OP2	1:1A:2744:G:O2'	2.14	0.63
3:1D:108:PRO:HD2	3:1D:111:LEU:HG	1.80	0.63
49:1r:56:THR:HB	49:1r:58:LEU:HD23	1.79	0.63
1:2A:2583:A:OP1	1:2A:2585:G:O2'	2.15	0.63
26:14:58:ARG:O	26:14:61:ARG:N	2.31	0.63
32:1a:1259:C:O2'	32:1a:1261:A:H1'	1.99	0.63
3:2D:206:LEU:HD22	3:2D:211:ARG:HG2	1.79	0.63
36:2e:36:ASP:O	36:2e:38:GLN:N	2.31	0.63
50:2s:27:GLU:HB2	50:2s:28:LYS:HD3	1.79	0.63
8:1I:132:PRO:O	59:1I:5001:HOH:O	2.15	0.63
14:1S:59:LYS:HE3	14:1S:60:GLY:H	1.63	0.63
1:2A:2226:G:H3'	1:2A:2227:G:C8	2.33	0.63
1:2A:2623:C:OP2	27:25:2:ALA:N	2.31	0.63
21:2Z:151:HIS:ND1	21:2Z:168:GLU:O	2.32	0.63
26:24:46:GLN:O	26:24:48:ARG:N	2.32	0.63
49:2r:56:THR:HB	49:2r:58:LEU:HD23	1.81	0.63
50:2s:27:GLU:HG2	50:2s:47:HIS:NE2	2.14	0.63
32:1a:871:C:O2	59:1a:2010:HOH:O	2.11	0.63
32:1a:1274:U:OP2	38:1g:41:ARG:NH2	2.31	0.63
4:2E:111:ARG:HG3	4:2E:160:TYR:CD2	2.33	0.63
51:2t:43:LEU:O	51:2t:47:GLY:N	2.28	0.63
1:2A:590:U:O4	59:2A:3626:HOH:O	2.11	0.63
1:2A:989:A:OP2	59:2A:3636:HOH:O	2.15	0.63
32:2a:195:U:H2'	32:2a:196:G:C8	2.34	0.63
1:1A:1220:G:H1'	1:1A:1221:A:H5'	1.79	0.63
1:1A:2648:U:OP2	59:1A:4164:HOH:O	2.16	0.63
46:1o:74:ASP:HB3	46:1o:77:ARG:HB2	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1739:U:O2'	3:2D:14:ARG:NH2	2.32	0.63
26:24:60:GLN:HA	26:24:62:ARG:HG2	1.80	0.63
45:2n:26:ARG:HH11	45:2n:43:CYS:HB2	1.63	0.63
1:1A:1450:U:H2'	1:1A:1451:U:C6	2.34	0.63
1:2A:1361:U:H2'	1:2A:1362:A:C8	2.32	0.63
1:2A:1845:A:OP2	3:2D:54:ARG:NH2	2.30	0.63
36:2e:110:LEU:HD13	36:2e:118:ILE:HG21	1.80	0.63
33:2b:92:TYR:CE2	33:2b:150:SER:C	2.77	0.63
1:2A:2251:C:H2'	1:2A:2252:A:H8	1.62	0.63
2:2B:19:G:H1	2:2B:64:C:H42	1.44	0.63
32:1a:1069:U:H3	32:1a:1082:G:H22	1.45	0.62
1:2A:720:G:H1'	5:2F:74:ARG:HD3	1.81	0.62
1:2A:2657:C:OP2	1:2A:2744:G:O2'	2.15	0.62
6:2G:11:TYR:HB2	6:2G:176:LEU:HD21	1.81	0.62
34:2c:164:ARG:NH1	34:2c:166:GLU:OE1	2.31	0.62
1:1A:648:C:O2'	1:1A:703:U:OP1	2.16	0.62
19:1X:60:ARG:HH22	29:17:47:ARG:HH22	1.47	0.62
1:1A:296:C:H2'	1:1A:297:G:H8	1.64	0.62
32:1a:471:U:H2'	32:1a:472:A:H8	1.65	0.62
32:1a:1221:A:H62	32:1a:1281:A:N6	1.97	0.62
1:2A:2858:U:OP2	15:2T:95:ARG:NH1	2.33	0.62
23:21:76:ARG:NH1	23:21:97:LEU:O	2.30	0.62
1:2A:907:A:N3	2:2B:79:C:O2'	2.32	0.62
4:2E:181:LEU:HD21	15:2T:6:LEU:HD12	1.81	0.62
32:2a:955:A:O3'	32:2a:958:C:N4	2.32	0.62
34:2c:181:ASN:HD22	34:2c:204:LEU:HB2	1.63	0.62
1:1A:1540:A:H2'	1:1A:1541:A:C8	2.35	0.62
6:1G:41:GLN:HE22	6:1G:153:ARG:HB3	1.64	0.62
33:1b:47:THR:HG22	33:1b:202:PRO:HB2	1.82	0.62
51:1t:56:MET:HE3	51:1t:88:VAL:HG21	1.82	0.62
1:2A:917:U:OP1	12:2Q:5:ARG:HG2	1.99	0.62
1:2A:2100:U:O3'	23:21:35:THR:OG1	2.18	0.62
10:2O:64:ARG:NH1	10:2O:81:ASP:OD1	2.33	0.62
33:2b:188:ALA:HB1	33:2b:192:SER:HB2	1.82	0.62
32:1a:372:G:H2'	32:1a:373:G:C8	2.35	0.62
32:1a:1191:C:O2'	32:1a:1196:C:N4	2.33	0.62
4:2E:28:ALA:HB3	4:2E:93:VAL:HG12	1.82	0.62
32:2a:522:G:H5''	43:2l:114:LYS:HB2	1.82	0.62
1:1A:1311:G:O2'	1:1A:2033:G:O6	2.18	0.62
1:1A:1502:G:OP2	59:1A:4168:HOH:O	2.16	0.62
20:1Y:92:ASN:N	20:1Y:93:GLY:HA2	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:78:G:H1	1:2A:103:C:H42	1.46	0.62
1:2A:152:C:OP2	23:21:92:LYS:NZ	2.32	0.62
32:2a:954:G:H5'	32:2a:1340:U:O2'	2.00	0.62
34:2c:117:ALA:O	34:2c:121:ALA:N	2.28	0.62
35:2d:108:LEU:HD21	35:2d:183:GLY:HA3	1.82	0.62
44:2m:3:ARG:N	44:2m:7:VAL:O	2.33	0.62
1:1A:595:G:N1	1:1A:2052:A:OP2	2.29	0.62
32:1a:1142:U:O4'	32:1a:1164:G:N2	2.33	0.62
1:2A:1056:G:OP2	16:2U:66:ASN:ND2	2.33	0.62
6:2G:35:GLU:HG2	6:2G:36:LYS:HE2	1.82	0.62
1:1A:492:G:HO2'	1:1A:842:C:HO2'	1.45	0.62
15:2T:56:GLY:O	15:2T:59:THR:HG23	2.00	0.62
32:2a:1284:U:OP2	44:2m:21:TYR:OH	2.08	0.62
41:1j:55:LYS:O	41:1j:57:LYS:N	2.33	0.61
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.82	0.61
38:1g:24:THR:O	38:1g:28:ASN:ND2	2.33	0.61
1:2A:63:C:O2'	1:2A:481:C:N3	2.29	0.61
32:2a:989:G:H2'	32:2a:990:G:H8	1.64	0.61
34:2c:131:ARG:NH1	36:2e:50:GLU:HG2	2.15	0.61
1:1A:1715:A:OP2	59:1A:4170:HOH:O	2.16	0.61
39:1h:25:ASP:N	39:1h:25:ASP:OD1	2.33	0.61
1:2A:1570:G:H2'	1:2A:1571:G:C8	2.35	0.61
1:2A:1910:A:H2'	1:2A:1911:A:C8	2.35	0.61
3:2D:123:ALA:HB1	3:2D:129:ASN:HD22	1.65	0.61
32:2a:626:A:N3	39:2h:113:SER:OG	2.33	0.61
1:1A:610:U:H2'	1:1A:611:C:C6	2.35	0.61
1:1A:1541:A:N3	1:1A:1623:C:O2'	2.31	0.61
21:1Z:144:LEU:HD21	21:1Z:150:LEU:HD13	1.80	0.61
42:1k:99:GLN:HG2	42:1k:105:VAL:HG21	1.83	0.61
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.80	0.61
1:1A:645:A:OP2	11:1P:108:LYS:NZ	2.33	0.61
1:1A:1359:C:OP1	59:1A:4124:HOH:O	2.16	0.61
1:1A:2043:U:O2'	1:1A:2628:C:H5'	2.01	0.61
35:1d:9:CYS:O	35:1d:13:ARG:HG3	2.01	0.61
1:2A:475:G:N7	59:2A:3717:HOH:O	2.31	0.61
1:2A:1022:G:OP2	59:2A:3640:HOH:O	2.16	0.61
1:2A:2061:C:OP2	9:2N:109:LYS:NZ	2.28	0.61
2:2B:55:U:O3'	6:2G:27:ASN:ND2	2.33	0.61
5:2F:120:GLU:HG3	5:2F:122:LYS:HG2	1.83	0.61
8:2I:4:ILE:HD11	8:2I:44:LEU:HD12	1.81	0.61
33:2b:127:ILE:HG12	33:2b:128:GLU:H	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2f:94:GLN:OE1	49:2r:32:ARG:NH1	2.33	0.61
1:1A:1210:U:H2'	1:1A:1211:C:C6	2.35	0.61
10:1O:71:ARG:NH2	10:1O:105:GLU:OE1	2.32	0.61
1:2A:346:G:HO2'	1:2A:1249:U:H3	1.49	0.61
1:2A:1813:A:OP1	59:2A:3601:HOH:O	2.16	0.61
1:2A:2762:A:OP2	7:2H:62:LYS:NZ	2.32	0.61
11:2P:121:LYS:O	11:2P:123:LEU:N	2.33	0.61
18:2W:17:VAL:HG11	18:2W:103:ILE:HD11	1.82	0.61
32:2a:646:G:H2'	32:2a:647:A:C8	2.36	0.61
36:2e:36:ASP:C	36:2e:38:GLN:H	2.08	0.61
54:2x:4:G:H1	54:2x:69:C:H42	1.48	0.61
11:1P:54:GLY:O	59:1P:302:HOH:O	2.16	0.61
20:1Y:6:HIS:H	20:1Y:6:HIS:CD2	2.16	0.61
32:1a:699:A:H2'	32:1a:700:A:C8	2.35	0.61
1:2A:1092:G:H1'	1:2A:1155:G:H22	1.65	0.61
1:2A:2012:U:H2'	1:2A:2013:G:H5''	1.83	0.61
5:2F:103:LYS:HA	5:2F:106:ARG:HG3	1.81	0.61
32:2a:1033:G:OP2	59:2a:3315:HOH:O	2.16	0.61
34:2c:153:VAL:HG22	34:2c:198:VAL:HG12	1.81	0.61
1:1A:2368:U:OP1	22:10:20:ARG:NH1	2.33	0.61
18:1W:14:PRO:HG2	18:1W:78:GLU:HG2	1.82	0.61
32:1a:68:C:H2'	32:1a:69:G:H8	1.64	0.61
32:1a:154:G:H21	32:1a:156:A:H8	1.48	0.61
32:1a:424:G:O2'	35:1d:36:ARG:NH2	2.33	0.61
46:1o:54:ARG:HG2	46:1o:58:MET:HE2	1.83	0.61
6:2G:83:ARG:N	6:2G:86:MET:SD	2.64	0.61
1:1A:2493:G:OP1	59:1A:4169:HOH:O	2.16	0.61
8:1I:72:LEU:C	8:1I:74:ASN:H	2.07	0.61
1:2A:2338:A:H2'	1:2A:2339:A:C8	2.35	0.61
32:2a:630:U:H2'	32:2a:631:C:H6	1.66	0.61
36:2e:100:VAL:O	36:2e:107:ARG:NH2	2.34	0.61
4:1E:120:TRP:CE3	4:1E:155:LYS:HD3	2.36	0.60
32:1a:1101:C:H1'	32:1a:1161:A:C4	2.36	0.60
44:1m:80:ARG:HH21	50:1s:69:HIS:HE1	1.49	0.60
1:2A:2027:C:OP2	59:2A:3643:HOH:O	2.17	0.60
32:2a:726:G:OP2	46:2o:35:ARG:NH2	2.29	0.60
32:2a:1273:G:O3'	40:2i:38:GLN:NE2	2.34	0.60
34:2c:47:LEU:HD21	34:2c:52:LEU:HB3	1.82	0.60
26:14:16:CYS:SG	26:14:17:GLY:N	2.74	0.60
32:1a:1057:G:O2'	32:1a:1084:A:N1	2.32	0.60
32:1a:1434:G:N1	51:1t:51:GLU:OE1	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:54:THR:HG23	33:1b:199:TYR:HB3	1.82	0.60
1:2A:1212:U:O2	1:2A:1227:G:N2	2.34	0.60
26:14:68:ARG:HH21	26:14:68:ARG:HA	1.66	0.60
35:2d:191:ARG:NH1	35:2d:191:ARG:O	2.33	0.60
24:12:21:LEU:HD13	24:12:64:LEU:HA	1.82	0.60
32:1a:312:G:OP2	32:1a:347:G:O2'	2.20	0.60
32:1a:648:G:H22	32:1a:725:G:H1	1.48	0.60
32:1a:741:U:H2'	32:1a:742:G:O4'	2.01	0.60
1:2A:50:A:OP2	1:2A:114:G:N1	2.27	0.60
1:2A:1240:C:H2'	1:2A:1241:G:C8	2.35	0.60
8:2I:104:GLN:HG3	8:2I:105:HIS:CD2	2.35	0.60
32:2a:1101:C:OP1	40:2i:104:ARG:NH1	2.34	0.60
33:2b:67:THR:HA	33:2b:90:MET:HE2	1.83	0.60
44:2m:60:VAL:HG23	44:2m:64:TRP:CE3	2.36	0.60
32:1a:169:C:OP1	59:1a:2017:HOH:O	2.16	0.60
1:2A:2573:U:H1'	10:2O:23:ARG:HD3	1.82	0.60
11:2P:56:SER:HB2	11:2P:61:ARG:HD2	1.83	0.60
1:1A:1739:U:O2'	3:1D:14:ARG:NH2	2.34	0.60
1:2A:1029:A:H5''	1:2A:1030:C:H5	1.67	0.60
2:2B:90:A:C5	2:2B:91:C:H1'	2.36	0.60
14:2S:39:ILE:HB	14:2S:49:VAL:HG22	1.84	0.60
33:2b:92:TYR:H	33:2b:151:GLY:HA3	1.67	0.60
1:1A:405:G:OP1	59:1A:4165:HOH:O	2.16	0.60
7:1H:90:LYS:NZ	7:1H:159:GLU:OE1	2.31	0.60
46:1o:56:LEU:O	46:1o:60:VAL:HG23	2.01	0.60
2:2B:75:G:H22	21:2Z:73:GLN:NE2	2.00	0.60
18:2W:88:ARG:NH1	18:2W:94:ASP:OD2	2.34	0.60
33:2b:92:TYR:CZ	33:2b:150:SER:C	2.79	0.60
36:2e:72:GLN:O	36:2e:73:ASN:HB2	2.02	0.60
1:1A:909:A:OP2	59:1A:4173:HOH:O	2.16	0.60
32:1a:920:G:H21	40:1i:124:GLN:NE2	2.00	0.60
32:1a:1203:G:OP1	32:1a:1302:C:N4	2.34	0.60
35:1d:28:SER:OG	35:1d:29:PRO:O	2.20	0.60
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.84	0.60
38:1g:111:ARG:NH1	38:1g:113:GLU:OE2	2.33	0.60
18:2W:14:PRO:HG2	18:2W:78:GLU:HG2	1.83	0.60
21:2Z:131:ARG:NH2	59:2Z:402:HOH:O	2.34	0.60
26:24:14:ILE:HG22	26:24:22:ILE:HD13	1.82	0.60
41:2j:12:ASP:OD1	41:2j:13:HIS:N	2.35	0.60
11:1P:121:LYS:O	11:1P:123:LEU:N	2.35	0.60
18:1W:15:ARG:NH1	59:1W:3101:HOH:O	2.29	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:807:A:N7	59:2A:3713:HOH:O	2.31	0.60
5:2F:124:LEU:HB3	5:2F:193:VAL:HG22	1.83	0.60
32:2a:523:A:OP2	43:2l:115:LYS:NZ	2.33	0.60
32:1a:1278:C:OP1	44:1m:44:ARG:NH2	2.34	0.60
32:1a:1287:G:N2	32:1a:1313:G:H1'	2.17	0.60
36:1e:50:GLU:HB2	36:1e:53:LEU:HD13	1.84	0.60
1:2A:2694:C:O2	10:2O:70:LYS:NZ	2.25	0.60
33:2b:12:GLU:C	33:2b:14:GLY:HA3	2.25	0.60
44:2m:23:TYR:HB3	44:2m:67:GLU:HA	1.84	0.60
5:1F:53:THR:HG23	5:1F:55:GLY:H	1.66	0.59
1:2A:733:C:OP2	59:2A:3639:HOH:O	2.16	0.59
1:2A:1050:C:H2'	1:2A:1051:C:C6	2.37	0.59
32:2a:500:U:O2'	32:2a:503:C:N3	2.34	0.59
32:2a:909:C:H42	32:2a:1369:G:H1	1.49	0.59
35:2d:3:ARG:HD3	35:2d:118:ARG:HD3	1.84	0.59
1:1A:1511:G:O2'	1:1A:1591:A:N1	2.31	0.59
32:1a:1194:U:H4'	32:1a:1195:A:C8	2.37	0.59
32:1a:1418:G:H2'	32:1a:1419:U:C6	2.36	0.59
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.84	0.59
31:29:29:ASN:HD22	31:29:32:HIS:CE1	2.20	0.59
32:2a:1134:A:HO2'	32:2a:1135:A:H8	1.50	0.59
1:1A:172:C:H2'	1:1A:173:U:C6	2.38	0.59
32:1a:1338:G:H2'	32:1a:1339:A:C8	2.37	0.59
38:1g:50:ILE:HD11	38:1g:58:PRO:HA	1.84	0.59
3:2D:68:LYS:HD2	3:2D:70:TRP:CZ2	2.37	0.59
32:2a:383:U:OP1	59:2a:3316:HOH:O	2.17	0.59
39:2h:20:TYR:HA	39:2h:65:TYR:CZ	2.38	0.59
28:16:6:ARG:NH2	59:16:5001:HOH:O	2.35	0.59
32:1a:1434:G:O3'	51:1t:39:LYS:NZ	2.35	0.59
54:1x:17:C:H2'	54:1x:17(A):U:H2'	1.83	0.59
1:2A:1359:C:OP1	59:2A:3609:HOH:O	2.16	0.59
1:2A:2405:C:OP2	30:28:30:ARG:NH1	2.35	0.59
32:2a:459:G:H2'	32:2a:460:G:H8	1.67	0.59
32:2a:989:G:H2'	32:2a:990:G:C8	2.37	0.59
32:2a:1088:A:H2'	32:2a:1089:G:H8	1.66	0.59
33:2b:92:TYR:CD1	33:2b:150:SER:O	2.54	0.59
49:2r:58:LEU:HD12	49:2r:62:GLU:HB3	1.84	0.59
32:1a:343:G:C2	32:1a:344:G:H1'	2.38	0.59
32:1a:1198:G:H5''	45:1n:5:ALA:HB2	1.84	0.59
37:1f:69:GLU:O	37:1f:72:VAL:HG12	2.02	0.59
40:1i:23:ASN:ND2	40:1i:25:LYS:HG2	2.18	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:1l:70:ILE:HD13	43:1l:77:LEU:HD12	1.84	0.59
1:2A:1512:G:O2'	1:2A:1592:C:O2'	2.12	0.59
11:2P:121:LYS:HD2	11:2P:122:PRO:HD2	1.84	0.59
32:2a:408:A:O4'	35:2d:35:ARG:NH2	2.35	0.59
32:2a:485:C:H2'	32:2a:486:G:H8	1.66	0.59
32:2a:937:A:O2'	32:2a:962:C:O2'	2.20	0.59
37:1f:26:ILE:O	37:1f:30:LEU:HG	2.02	0.59
41:1j:49:VAL:HG23	45:1n:41:ARG:HD2	1.83	0.59
1:2A:885:U:H2'	1:2A:886:C:C6	2.37	0.59
1:2A:1297:G:OP1	16:2U:36:ARG:NH2	2.35	0.59
3:2D:145:VAL:HB	3:2D:155:LEU:HB2	1.85	0.59
42:2k:48:ILE:O	42:2k:50:TYR:N	2.29	0.59
1:1A:1833:A:O2'	3:1D:259:THR:HG21	2.02	0.59
1:1A:2032:U:OP1	18:1W:42:ARG:NH1	2.35	0.59
1:2A:2124:C:O2	1:2A:2207:G:N2	2.21	0.59
1:2A:2226:G:H8	1:2A:2227:G:N7	2.01	0.59
32:2a:10:G:H2'	32:2a:11:A:H8	1.67	0.59
32:2a:348:C:OP2	59:2a:3317:HOH:O	2.17	0.59
32:2a:1241:C:C4	32:2a:1242:C:H1'	2.38	0.59
33:2b:16:HIS:O	33:2b:18:GLY:N	2.36	0.59
6:1G:143:GLU:O	26:14:28:LYS:NZ	2.34	0.59
1:2A:1311:G:O5'	18:2W:15:ARG:NH2	2.36	0.59
1:2A:1423:A:OP1	29:27:10:ARG:NH2	2.35	0.59
1:2A:1894:U:OP1	1:2A:2421:G:O2'	2.20	0.59
1:2A:2482:C:N4	1:2A:2487:A:O2'	2.36	0.59
32:2a:1226:C:N4	32:2a:1275:G:H1	2.00	0.59
12:1Q:32:TYR:CE1	12:1Q:133:ARG:HG3	2.38	0.59
15:1T:54:ARG:HA	15:1T:59:THR:HG22	1.85	0.59
38:1g:51:GLN:O	38:1g:55:GLY:HA2	2.03	0.59
1:2A:105:U:H2'	1:2A:106:G:C8	2.38	0.59
32:2a:582:U:H4'	39:2h:94:TYR:CG	2.38	0.59
46:2o:39:LEU:HD13	46:2o:56:LEU:HB2	1.84	0.59
1:1A:1612:A:OP1	3:1D:211:ARG:NH1	2.35	0.59
6:1G:131:TYR:HB3	6:1G:159:VAL:HG13	1.84	0.59
21:1Z:154:ASP:OD1	21:1Z:154:ASP:N	2.36	0.59
28:16:13:CYS:SG	28:16:47:THR:HG21	2.43	0.59
37:1f:1:MET:HB3	37:1f:66:GLU:HG2	1.85	0.59
1:2A:105:U:H2'	1:2A:106:G:H8	1.67	0.59
7:2H:38:SER:HB3	7:2H:41:MET:HG2	1.85	0.59
28:26:9:LEU:HA	28:26:54:ILE:HB	1.84	0.59
32:2a:986:C:H42	32:2a:1001:G:H1	1.50	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:2h:89:PRO:HA	39:2h:92:ARG:HE	1.68	0.59
1:1A:1853:G:OP1	3:1D:54:ARG:NH1	2.36	0.58
32:1a:68:C:H2'	32:1a:69:G:C8	2.37	0.58
32:1a:1285:C:OP1	59:1a:2018:HOH:O	2.17	0.58
33:1b:17:PHE:HB2	33:1b:44:LEU:HD21	1.84	0.58
34:1c:56:ASP:HB2	34:1c:67:THR:HB	1.85	0.58
1:2A:330:G:N2	1:2A:333:A:O5'	2.34	0.58
1:2A:608:A:N1	1:2A:855:G:O2'	2.32	0.58
1:2A:1098:C:H42	1:2A:1151:G:H1	1.51	0.58
32:2a:57:U:H2'	32:2a:58:G:C8	2.38	0.58
34:2c:180:ALA:HB1	34:2c:203:PHE:HE1	1.67	0.58
1:1A:2463:C:OP2	59:1A:4176:HOH:O	2.17	0.58
21:1Z:157:LEU:HD11	21:1Z:163:LEU:HD13	1.85	0.58
32:1a:1072:G:H1	32:1a:1079:C:N4	2.00	0.58
43:1l:33:ARG:HD3	43:1l:62:SER:HB3	1.83	0.58
21:2Z:52:SER:OG	21:2Z:53:ILE:N	2.36	0.58
32:2a:959:U:O4	59:2a:3308:HOH:O	2.14	0.58
32:2a:1221:A:H62	32:2a:1281:A:N6	2.02	0.58
32:2a:1298:G:N2	32:2a:1300:A:H3'	2.18	0.58
36:2e:91:LEU:HG	36:2e:118:ILE:HD11	1.84	0.58
32:1a:139:G:N2	32:1a:174:A:H1'	2.19	0.58
32:1a:657:G:H2'	32:1a:658:G:C8	2.38	0.58
38:1g:47:CYS:HB3	38:1g:58:PRO:HB3	1.85	0.58
50:1s:80:TYR:O	59:1s:101:HOH:O	2.17	0.58
1:2A:493:G:N7	29:27:39:ARG:NH2	2.50	0.58
1:2A:947:C:H2'	1:2A:948:C:C6	2.38	0.58
20:2Y:102:CYS:SG	20:2Y:103:GLY:N	2.76	0.58
32:2a:1043:C:H5'	45:2n:45:ARG:HH12	1.68	0.58
38:2g:87:VAL:HG22	38:2g:154:TYR:HB3	1.85	0.58
1:1A:276:G:N7	59:1A:4300:HOH:O	2.32	0.58
1:1A:2338:A:H2'	1:1A:2339:A:C8	2.38	0.58
1:1A:2441:A:N3	1:1A:2441:A:H2'	2.18	0.58
1:1A:2636:G:OP1	59:1A:4171:HOH:O	2.16	0.58
1:1A:2803:C:H2'	1:1A:2804:G:H8	1.67	0.58
32:1a:179:G:H2'	32:1a:180:A:H8	1.68	0.58
1:2A:2719:G:H1'	13:2R:71:GLN:HE22	1.68	0.58
15:1T:127:ALA:C	15:1T:129:ARG:H	2.12	0.58
33:1b:229:VAL:HG12	33:1b:230:VAL:H	1.68	0.58
47:1p:49:LEU:HD11	47:1p:51:VAL:HG23	1.84	0.58
1:2A:746:G:O6	59:2A:3637:HOH:O	2.16	0.58
32:2a:1260:U:H5''	32:2a:1261:A:O4'	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1287:G:N2	32:2a:1313:G:H1'	2.18	0.58
33:2b:178:ARG:HH12	39:2h:68:ARG:HH22	1.50	0.58
35:2d:25:ARG:NH1	35:2d:30:LYS:O	2.36	0.58
1:1A:404:C:O2'	59:1A:4147:HOH:O	2.13	0.58
1:1A:629:U:OP1	5:1F:102:PRO:HA	2.04	0.58
1:1A:1520:C:H2'	1:1A:1521:G:C8	2.39	0.58
19:1X:11:PRO:HB3	19:1X:92:LEU:HD11	1.85	0.58
32:1a:57:U:H2'	32:1a:58:G:C8	2.39	0.58
32:1a:859:G:P	43:1l:12:ARG:HH22	2.27	0.58
32:1a:1297:U:O2'	32:1a:1342:A:N3	2.36	0.58
1:2A:1912:G:O6	59:2A:3641:HOH:O	2.16	0.58
11:2P:50:ARG:HD3	30:28:7:HIS:CD2	2.39	0.58
13:2R:95:THR:HG22	13:2R:116:LEU:HD23	1.85	0.58
27:25:16:ARG:HG2	27:25:16:ARG:NH1	2.17	0.58
1:1A:2801:C:O2	1:1A:2902:G:N2	2.30	0.58
32:1a:955:A:H1'	32:1a:960:U:O4	2.03	0.58
32:1a:1303:C:H5''	32:1a:1304:C:H2'	1.85	0.58
33:1b:223:ILE:HA	33:1b:226:ARG:HG3	1.85	0.58
34:1c:153:VAL:HG22	34:1c:198:VAL:HG22	1.86	0.58
48:1q:24:GLU:HG3	48:1q:39:SER:HB3	1.85	0.58
32:2a:402:G:N2	35:2d:119:GLN:OE1	2.30	0.58
34:2c:178:LEU:H	34:2c:178:LEU:HD13	1.68	0.58
43:2l:70:ILE:HD13	43:2l:77:LEU:HD12	1.84	0.58
1:1A:1184:C:O3'	9:1N:25:ARG:NH1	2.37	0.58
11:1P:126:VAL:HG12	11:1P:148:LEU:HD13	1.84	0.58
4:2E:47:VAL:HG11	4:2E:86:PRO:HD2	1.84	0.58
18:2W:86:LEU:HD12	18:2W:87:PRO:HD2	1.86	0.58
32:2a:782:G:N7	59:2a:3353:HOH:O	2.32	0.58
33:2b:119:GLU:HG3	33:2b:142:LEU:HD11	1.85	0.58
38:2g:70:LYS:HD3	38:2g:96:GLN:HB3	1.85	0.58
1:1A:1723:A:OP1	59:1A:4177:HOH:O	2.17	0.58
32:1a:989:G:N2	32:1a:999:U:H1'	2.19	0.58
32:1a:1078:U:OP1	32:1a:1091:G:N2	2.34	0.58
1:2A:1110:U:O2	1:2A:1119:G:N2	2.37	0.58
1:2A:2578:G:H2'	1:2A:2579:C:C6	2.38	0.58
51:2t:61:SER:OG	51:2t:65:LYS:NZ	2.25	0.58
1:1A:661:A:OP1	11:1P:133:SER:OG	2.18	0.58
32:1a:504:A:N1	32:1a:520:C:H1'	2.19	0.58
32:1a:1375:G:N2	32:1a:1480:A:H8	2.02	0.58
36:1e:14:ARG:NH1	59:1e:5001:HOH:O	2.36	0.58
1:2A:346:G:H5'	5:2F:169:ASN:HD21	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:420:G:H2'	32:2a:421:G:H8	1.68	0.58
32:2a:507:A:H61	43:2l:92:ASP:HB2	1.68	0.58
32:2a:1359:U:H2'	32:2a:1360:A:C8	2.39	0.58
32:1a:9:A:H5'	36:1e:101:ILE:HG22	1.86	0.57
32:1a:61:A:OP1	32:1a:105:G:N2	2.37	0.57
32:1a:1266:C:H3'	32:1a:1267:A:H8	1.69	0.57
32:1a:1484:U:OP1	59:1a:2019:HOH:O	2.17	0.57
40:1i:3:GLN:OE1	40:1i:20:ARG:NH2	2.32	0.57
42:1k:20:TYR:HB2	42:1k:31:THR:HG23	1.86	0.57
1:2A:2100:U:OP1	23:21:21:ARG:NH2	2.36	0.57
3:2D:112:GLN:N	3:2D:115:GLN:OE1	2.36	0.57
10:2O:80:ASP:OD1	15:2T:64:ARG:NH2	2.37	0.57
32:2a:449:C:N4	32:2a:464:C:N3	2.51	0.57
32:2a:956:A:H61	32:2a:1298:G:H1'	1.69	0.57
32:2a:1305:G:H2'	32:2a:1306:A:C8	2.39	0.57
1:1A:893:U:OP2	59:1A:4172:HOH:O	2.16	0.57
32:1a:57:U:H2'	32:1a:58:G:H8	1.68	0.57
4:2E:199:ARG:NH1	4:2E:202:LYS:HE3	2.16	0.57
18:2W:18:ARG:HG3	18:2W:76:VAL:HB	1.86	0.57
23:21:64:ALA:HA	23:21:67:ILE:HG13	1.86	0.57
43:2l:71:PRO:O	43:2l:102:ARG:NH1	2.35	0.57
51:2t:43:LEU:HD13	51:2t:51:GLU:HB3	1.84	0.57
1:1A:481:C:H4'	59:1A:5923:HOH:O	2.03	0.57
32:1a:205:G:H2'	32:1a:206:G:H8	1.69	0.57
32:1a:1112:C:N3	32:1a:1126:G:N2	2.41	0.57
49:1r:54:ARG:HB3	49:1r:54:ARG:HH11	1.70	0.57
1:2A:590:U:H5''	1:2A:989:A:N1	2.19	0.57
1:2A:598:U:OP1	59:2A:3644:HOH:O	2.17	0.57
1:2A:1625:A:H2'	1:2A:1626:A:C8	2.39	0.57
1:2A:1734:U:O2	1:2A:1746:A:H5'	2.04	0.57
6:2G:41:GLN:HG3	6:2G:60:LEU:HD21	1.85	0.57
32:2a:1210:C:OP1	44:2m:115:LYS:N	2.37	0.57
50:2s:36:ARG:NH2	50:2s:72:GLY:O	2.37	0.57
1:1A:1846:G:O6	3:1D:35:LYS:NZ	2.31	0.57
1:1A:2244:U:H2'	1:1A:2245:G:C8	2.40	0.57
32:1a:1488:U:H2'	32:1a:1489:G:C8	2.38	0.57
34:2c:44:GLU:HA	34:2c:47:LEU:HD22	1.84	0.57
36:2e:152:ARG:HG3	39:2h:43:GLY:O	2.05	0.57
1:1A:182:G:OP2	59:1A:4178:HOH:O	2.18	0.57
1:1A:682:G:N2	1:1A:695:C:N3	2.47	0.57
5:1F:30:PRO:HB3	11:1P:1:MET:HE1	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:104:C:O2'	47:1p:25:ARG:O	2.20	0.57
32:1a:975:U:H3	32:1a:1027:A:H61	1.52	0.57
1:2A:1194:G:H2'	1:2A:1195:C:C6	2.39	0.57
1:2A:1231:G:H5'	17:2V:81:TYR:CE1	2.40	0.57
32:2a:526:G:OP1	35:2d:10:ARG:NH2	2.34	0.57
47:2p:21:VAL:HG22	47:2p:33:ILE:HD12	1.87	0.57
1:1A:301:A:O2'	1:1A:302:C:OP1	2.23	0.57
1:1A:2124:C:N3	1:1A:2207:G:O6	2.37	0.57
1:1A:2342:G:O2'	1:1A:2347:A:N1	2.33	0.57
3:1D:17:THR:O	3:1D:211:ARG:NH2	2.33	0.57
46:1o:39:LEU:HD13	46:1o:56:LEU:HB2	1.85	0.57
50:1s:3:ARG:NH1	50:1s:8:GLY:O	2.38	0.57
51:1t:13:LEU:H	51:1t:13:LEU:HD12	1.67	0.57
1:2A:75:C:H42	1:2A:106:G:H1	1.52	0.57
1:2A:2832:A:OP1	4:2E:159:HIS:NE2	2.38	0.57
15:2T:127:ALA:C	15:2T:129:ARG:H	2.11	0.57
32:2a:425:U:H3'	35:2d:9:CYS:SG	2.45	0.57
34:2c:30:ARG:HH21	45:2n:38:GLY:HA2	1.70	0.57
42:2k:98:LEU:O	42:2k:101:SER:OG	2.22	0.57
43:2l:33:ARG:HH11	43:2l:62:SER:HB3	1.69	0.57
1:1A:720:G:OP2	59:1A:4175:HOH:O	2.17	0.57
15:2T:65:LYS:HE2	15:2T:67:SER:HB3	1.86	0.57
18:2W:4:LYS:HB2	18:2W:106:ILE:HG12	1.87	0.57
38:2g:26:PHE:CE1	38:2g:30:ILE:HD11	2.39	0.57
1:1A:353:A:H2	1:1A:1254:A:O2'	1.88	0.57
1:1A:924:A:H2'	1:1A:925:G:H5'	1.87	0.57
33:1b:32:ILE:HD11	33:1b:190:THR:HG23	1.86	0.57
1:2A:1992:A:OP2	3:2D:242:ARG:NH2	2.38	0.57
1:2A:2830:A:H2'	1:2A:2831:G:C8	2.40	0.57
6:2G:36:LYS:HG2	6:2G:160:VAL:HB	1.85	0.57
1:1A:1552:A:HO2'	1:1A:1553:A:H8	1.52	0.57
1:1A:2012:U:H2'	1:1A:2013:G:H5''	1.86	0.57
9:1N:17:ASP:O	9:1N:21:LYS:NZ	2.28	0.57
11:1P:50:ARG:HD3	30:18:7:HIS:CD2	2.39	0.57
34:1c:150:LYS:HG3	34:1c:169:ALA:HB2	1.87	0.57
1:2A:29:G:N2	1:2A:534:C:O2	2.35	0.57
1:2A:2310:G:H2'	1:2A:2311:G:C8	2.39	0.57
1:2A:2858:U:H4'	1:2A:2877:A:C2	2.40	0.57
20:2Y:9:LYS:NZ	20:2Y:28:LYS:O	2.37	0.57
32:2a:262:G:O2'	48:2q:67:LYS:HB2	2.05	0.57
13:1R:11:ASN:ND2	59:1R:301:HOH:O	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:454:G:H2'	32:1a:455:A:H2'	1.86	0.57
40:1i:53:VAL:O	40:1i:55:ALA:N	2.38	0.57
1:2A:17:C:H2'	1:2A:18:C:H6	1.70	0.57
1:2A:324:G:N2	1:2A:339:C:O2	2.36	0.57
1:2A:1828:U:H5'	3:2D:259:THR:CG2	2.34	0.57
1:2A:2622:U:C4	27:25:3:LYS:HG2	2.40	0.57
5:2F:150:GLY:HA2	5:2F:172:TRP:CE3	2.40	0.57
1:1A:230:G:C8	30:18:5:LYS:HG2	2.40	0.56
1:1A:2315:G:H22	1:1A:2323:U:H3	1.52	0.56
6:1G:118:ARG:O	6:1G:181:ARG:HB3	2.05	0.56
14:1S:39:ILE:HB	14:1S:49:VAL:HG13	1.87	0.56
32:1a:424:G:OP2	35:1d:10:ARG:NH1	2.38	0.56
32:1a:672:G:O2'	32:1a:688:A:N1	2.31	0.56
33:1b:13:ALA:HB2	33:1b:44:LEU:HG	1.86	0.56
1:2A:1135:U:H2'	1:2A:1136:G:C8	2.40	0.56
1:2A:1232:U:H4'	17:2V:79:VAL:HG22	1.87	0.56
1:2A:2044:G:H5'	1:2A:2628:C:H4'	1.87	0.56
32:2a:1287:G:H22	32:2a:1313:G:H1'	1.69	0.56
1:1A:81:G:H1	1:1A:99:G:HO2'	1.52	0.56
1:1A:552:A:C2	1:1A:2063:A:H2'	2.40	0.56
6:1G:7:LEU:HD13	6:1G:100:TRP:HE3	1.70	0.56
32:1a:305:G:O2'	32:1a:591:A:N1	2.38	0.56
32:1a:1073:U:H2'	32:1a:1074:U:C6	2.40	0.56
32:1a:1300:A:H1'	50:1s:37:ARG:HH21	1.68	0.56
32:1a:1355:U:OP1	40:1i:72:GLY:N	2.39	0.56
40:1i:42:ARG:NH1	40:1i:71:SER:OG	2.38	0.56
1:2A:542:G:H2'	1:2A:543:U:C6	2.41	0.56
1:2A:1309:G:H2'	1:2A:2035:A:N6	2.20	0.56
1:2A:1973:A:OP1	10:2O:42:SER:OG	2.21	0.56
6:2G:5:VAL:HG23	6:2G:104:GLU:OE2	2.04	0.56
6:2G:16:ARG:O	6:2G:20:ILE:HG13	2.05	0.56
1:1A:601:G:H2'	1:1A:602:C:C6	2.40	0.56
1:1A:1933:A:O2'	32:1a:1472:G:O2'	2.18	0.56
7:1H:3:ARG:HG2	7:1H:6:ARG:HG2	1.86	0.56
7:1H:41:MET:HE1	7:1H:54:ARG:HB3	1.87	0.56
18:1W:18:ARG:HG3	18:1W:76:VAL:HB	1.88	0.56
37:1f:75:LEU:HD22	37:1f:79:LEU:HG	1.88	0.56
41:1j:11:PHE:HE1	41:1j:67:THR:HG22	1.70	0.56
41:1j:49:VAL:HG23	45:1n:41:ARG:HB2	1.86	0.56
50:1s:43:GLU:OE1	50:1s:43:GLU:N	2.38	0.56
1:2A:1067:G:N7	1:2A:1184:C:N4	2.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1685:U:H2'	1:2A:1686:C:H5''	1.86	0.56
1:2A:1820:C:H5''	1:2A:1821:A:OP1	2.06	0.56
1:2A:1873:C:H5'	3:2D:253:GLN:NE2	2.19	0.56
1:2A:2558:U:O2	10:2O:23:ARG:NH1	2.35	0.56
1:2A:2704:A:H2'	1:2A:2705:G:H8	1.70	0.56
11:2P:19:VAL:HG12	11:2P:27:HIS:HB3	1.86	0.56
20:2Y:83:THR:HG21	20:2Y:99:CYS:HB2	1.87	0.56
30:28:33:ASN:HA	30:28:36:LYS:HD2	1.86	0.56
32:2a:10:G:H2'	32:2a:11:A:C8	2.39	0.56
32:2a:431:C:H2'	32:2a:432:C:H6	1.70	0.56
32:2a:1031:G:OP1	45:2n:3:ARG:HB3	2.05	0.56
49:2r:33:ASP:OD2	49:2r:36:ASN:HB2	2.05	0.56
1:1A:550:A:O2'	1:1A:2064:C:O2	2.23	0.56
11:1P:113:LYS:NZ	59:1P:304:HOH:O	2.37	0.56
32:1a:936:A:N6	32:1a:937:A:N1	2.54	0.56
32:1a:1060:G:N2	32:1a:1063:A:OP2	2.31	0.56
40:1i:121:ARG:NH1	40:1i:122:ALA:O	2.39	0.56
2:2B:50:G:OP1	14:2S:63:THR:N	2.38	0.56
21:2Z:134:PRO:O	21:2Z:136:PHE:N	2.36	0.56
45:2n:17:LYS:N	45:2n:17:LYS:HE2	2.19	0.56
1:1A:869:G:OP1	59:1A:4180:HOH:O	2.18	0.56
6:1G:114:ILE:HA	6:1G:140:ILE:HD11	1.88	0.56
32:1a:924:A:O2'	32:1a:1315:A:N3	2.36	0.56
32:1a:971:G:H2'	32:1a:973:C:H41	1.70	0.56
36:1e:53:LEU:H	36:1e:53:LEU:HD12	1.70	0.56
38:1g:152:ALA:HB1	38:1g:155:ARG:HE	1.70	0.56
1:2A:2017:C:H4'	1:2A:2018:G:OP1	2.04	0.56
1:2A:2441:A:OP2	59:2A:3645:HOH:O	2.17	0.56
32:2a:549:U:OP2	32:2a:550:G:O2'	2.21	0.56
32:2a:863:G:O2'	32:2a:892:A:N1	2.37	0.56
1:1A:1889:A:N6	1:1A:1904:G:O2'	2.39	0.56
32:1a:1056:U:H2'	32:1a:1057:G:C8	2.41	0.56
32:1a:1280:C:OP2	38:1g:114:ARG:NH2	2.38	0.56
32:1a:1331:A:H5''	40:1i:121:ARG:HB2	1.88	0.56
43:1l:70:ILE:HG12	43:1l:100:ILE:HD12	1.88	0.56
44:1m:20:THR:C	44:1m:22:ILE:H	2.11	0.56
6:2G:37:VAL:HG22	6:2G:159:VAL:HB	1.88	0.56
19:2X:31:HIS:CD2	19:2X:33:LYS:H	2.23	0.56
32:2a:1154:C:H2'	32:2a:1155:G:C8	2.40	0.56
32:2a:1270:A:H2'	32:2a:1271:A:C8	2.40	0.56
39:2h:35:ILE:HG12	39:2h:111:ILE:HD11	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:81:LEU:HD11	44:2m:88:ARG:HH21	1.69	0.56
12:1Q:118:LEU:HD12	12:1Q:131:ILE:HG23	1.86	0.56
15:1T:118:ARG:HG2	32:1a:1426:G:C8	2.40	0.56
24:12:29:LYS:HG2	24:12:57:ILE:HD13	1.86	0.56
32:1a:409:G:H21	32:1a:424:G:H1'	1.70	0.56
37:1f:10:LEU:HD23	37:1f:61:LEU:HD23	1.86	0.56
46:1o:55:GLY:HA2	46:1o:58:MET:HE3	1.88	0.56
2:2B:32:C:H2'	2:2B:33:G:O4'	2.05	0.56
6:2G:161:THR:HG22	6:2G:163:ALA:H	1.69	0.56
32:2a:958:C:OP2	59:2a:3308:HOH:O	2.18	0.56
44:2m:86:CYS:HA	50:2s:73:GLU:O	2.05	0.56
54:2x:15:G:H2'	54:2x:59:A:N1	2.20	0.56
5:1F:89:VAL:O	59:1F:401:HOH:O	2.18	0.56
32:1a:1308:C:OP1	52:1u:12:LYS:NZ	2.39	0.56
1:2A:652:G:HO2'	1:2A:675:G:HO2'	1.54	0.56
1:2A:1638:G:H2'	1:2A:1639:G:C8	2.41	0.56
59:2A:3929:HOH:O	18:2W:11:ARG:HD3	2.04	0.56
32:2a:1097:C:O2'	45:2n:60:SER:O	2.18	0.56
1:1A:173:U:H4'	1:1A:206:A:H4'	1.88	0.56
1:1A:206:A:C2	1:1A:223:U:H4'	2.41	0.56
32:1a:447:A:O2'	32:1a:448:A:OP2	2.20	0.56
37:1f:18:GLN:HA	37:1f:21:LEU:HD12	1.88	0.56
1:2A:454:A:H3'	1:2A:455:A:H8	1.71	0.56
1:2A:1184:C:O3'	9:2N:25:ARG:NH1	2.39	0.56
1:2A:2091:G:H2'	1:2A:2092:A:H8	1.69	0.56
1:2A:2095:U:H2'	1:2A:2096:U:C6	2.41	0.56
1:2A:2641:G:H2'	1:2A:2642:G:C8	2.41	0.56
1:2A:2797:C:OP1	4:2E:41:LYS:NZ	2.29	0.56
32:2a:388:G:H2'	32:2a:389:A:C8	2.41	0.56
34:2c:48:TYR:HE1	34:2c:118:GLN:HG2	1.70	0.56
1:1A:2019:G:OP1	59:1A:4181:HOH:O	2.18	0.56
6:1G:129:GLY:O	6:1G:161:THR:HG22	2.05	0.56
32:1a:355:U:H2'	32:1a:356:A:C8	2.41	0.56
32:1a:611:G:H2'	32:1a:612:G:H8	1.71	0.56
32:1a:1248:G:N7	59:1a:2058:HOH:O	2.33	0.56
42:1k:29:ILE:HG23	42:1k:44:SER:HB3	1.88	0.56
1:2A:1098:C:H2'	1:2A:1099:A:H5'	1.87	0.56
1:2A:2043:U:O2'	1:2A:2628:C:H5'	2.06	0.56
34:2c:123:GLN:O	34:2c:128:PHE:HB2	2.05	0.56
50:2s:70:LYS:HB2	50:2s:73:GLU:HG2	1.87	0.56
1:1A:2824:C:H5'	27:15:29:THR:HG21	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1E:111:ARG:HG3	4:1E:160:TYR:CD2	2.41	0.55
6:1G:41:GLN:HB3	6:1G:43:LEU:HD13	1.86	0.55
10:1O:18:LYS:HB2	10:1O:45:GLU:HB2	1.87	0.55
1:2A:976:G:H4'	1:2A:977:A:O5'	2.06	0.55
5:2F:20:LEU:HD13	5:2F:21:ALA:H	1.71	0.55
7:2H:8:PRO:O	7:2H:10:PRO:HD3	2.06	0.55
43:2I:70:ILE:HG12	43:2I:100:ILE:HD12	1.87	0.55
1:1A:185:A:N6	1:1A:2441:A:O2'	2.39	0.55
1:1A:235:G:H4'	1:1A:412:G:C5	2.41	0.55
1:1A:1198:C:OP1	16:1U:92:ARG:NH1	2.38	0.55
1:1A:2803:C:H2'	1:1A:2804:G:C8	2.41	0.55
11:1P:95:VAL:HG22	11:1P:125:VAL:HB	1.89	0.55
32:1a:736:G:N7	59:1a:2060:HOH:O	2.33	0.55
48:1q:67:LYS:O	48:1q:68:ARG:HG2	2.06	0.55
1:2A:668:A:H4'	1:2A:669:C:C5	2.41	0.55
1:2A:1570:G:H2'	1:2A:1571:G:H8	1.70	0.55
1:2A:1741:G:N7	3:2D:14:ARG:NH2	2.49	0.55
32:2a:526:G:P	35:2d:10:ARG:HH22	2.29	0.55
32:2a:994:A:H1'	32:2a:1201:U:H5'	1.88	0.55
35:2d:19:LEU:O	35:2d:21:LEU:N	2.38	0.55
1:1A:508:A:OP1	20:1Y:50:ARG:NH2	2.39	0.55
1:1A:1828:U:H5''	3:1D:260:ARG:HB3	1.89	0.55
8:1I:129:THR:HG22	8:1I:139:GLN:HE22	1.71	0.55
23:1I:3:LYS:HB2	23:1I:61:ARG:HH11	1.71	0.55
32:1a:36:G:O2'	43:1I:118:SER:O	2.22	0.55
32:1a:523:A:H2'	32:1a:524:G:C8	2.41	0.55
32:1a:1145:C:N4	32:1a:1156:G:H1	2.03	0.55
7:2H:86:GLU:OE2	7:2H:132:ARG:NH2	2.40	0.55
18:2W:18:ARG:NH1	18:2W:76:VAL:O	2.39	0.55
32:2a:548:C:OP1	59:2a:3318:HOH:O	2.17	0.55
43:2I:33:ARG:HD3	43:2I:62:SER:HB3	1.87	0.55
1:1A:1039:C:OP1	16:1U:53:ARG:NH2	2.39	0.55
1:1A:1054:A:OP2	9:1N:37:LYS:NZ	2.25	0.55
1:1A:1520:C:H2'	1:1A:1521:G:H8	1.69	0.55
1:1A:2761:A:OP1	7:1H:3:ARG:NH2	2.27	0.55
32:1a:18:U:H2'	32:1a:19:C:C6	2.42	0.55
32:1a:1223:G:H2'	32:1a:1224:C:C6	2.41	0.55
14:2S:99:LYS:NZ	14:2S:103:GLU:OE2	2.23	0.55
21:2Z:179:ASP:HB3	21:2Z:182:LYS:HB2	1.89	0.55
50:2s:30:LEU:HD21	50:2s:32:LYS:HG3	1.89	0.55
1:1A:2618:G:O6	59:1A:4167:HOH:O	2.16	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:1Q:60:ARG:NH1	12:1Q:60:ARG:H	2.04	0.55
15:1T:41:ARG:NH2	32:1a:342:G:OP1	2.38	0.55
32:1a:1395:C:H2'	32:1a:1396:A:C8	2.42	0.55
46:1o:17:ARG:HH21	46:1o:77:ARG:HD3	1.71	0.55
21:2Z:53:ILE:HG22	21:2Z:71:VAL:HB	1.87	0.55
32:2a:46:U:H2'	32:2a:47:G:C8	2.41	0.55
32:2a:1488:U:H2'	32:2a:1489:G:C8	2.41	0.55
33:2b:24:TRP:CZ3	33:2b:26:PRO:HA	2.42	0.55
35:2d:153:ARG:HH11	35:2d:181:MET:HE3	1.72	0.55
48:2q:66:SER:OG	48:2q:67:LYS:N	2.39	0.55
1:1A:1248:A:H2	1:1A:1286:A:H62	1.54	0.55
1:1A:1475:C:H2'	1:1A:1476:U:C6	2.41	0.55
43:1l:53:ARG:HG3	43:1l:93:LEU:HD21	1.88	0.55
1:2A:1067:G:N2	1:2A:1068:U:O4	2.40	0.55
1:2A:2660:U:H2'	1:2A:2661:U:C6	2.42	0.55
2:2B:54:G:H21	6:2G:29:TRP:HZ2	1.54	0.55
16:2U:44:ASN:ND2	17:2V:75:PHE:HB3	2.21	0.55
21:2Z:152:ALA:O	21:2Z:155:LEU:HB2	2.06	0.55
32:2a:1172:G:H3'	59:2c:301:HOH:O	2.06	0.55
34:2c:114:PRO:HG3	34:2c:185:GLY:HA3	1.88	0.55
1:1A:509:C:H2'	1:1A:510:C:C6	2.41	0.55
1:1A:628:U:H4'	1:1A:704:C:H4'	1.89	0.55
4:1E:54:GLN:HE21	4:1E:55:ASN:H	1.55	0.55
45:1n:41:ARG:HG3	45:1n:42:ILE:N	2.21	0.55
1:2A:1174:A:N6	1:2A:2502:U:OP1	2.40	0.55
1:2A:1713:G:O2'	1:2A:2012:U:O4	2.14	0.55
13:2R:87:TYR:OH	13:2R:117:VAL:O	2.20	0.55
32:2a:37:C:O2'	43:2l:117:ARG:NH2	2.40	0.55
32:2a:564:U:H2'	32:2a:565:G:O4'	2.07	0.55
32:2a:1260:U:O2'	59:2a:3319:HOH:O	2.18	0.55
34:2c:116:VAL:HB	34:2c:186:PHE:CZ	2.42	0.55
45:2n:43:CYS:HA	45:2n:46:GLU:HB2	1.88	0.55
1:1A:1920:G:N3	1:1A:1920:G:H2'	2.21	0.55
1:1A:2347:A:H61	22:10:43:THR:CG2	2.19	0.55
1:1A:2800:C:O2'	1:1A:2818:A:N3	2.35	0.55
32:1a:1097:C:H42	32:1a:1168:G:H1	1.54	0.55
1:2A:1059:U:H2'	1:2A:1060:G:C8	2.42	0.55
1:2A:1147:C:H2'	1:2A:1148:A:H8	1.72	0.55
4:2E:54:GLN:HE21	4:2E:58:ARG:HB2	1.72	0.55
32:2a:18:U:H2'	32:2a:19:C:C6	2.42	0.55
32:2a:859:G:P	43:2l:12:ARG:HH22	2.30	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1287:G:H5'	52:2u:4:GLY:HA3	1.88	0.55
35:2d:173:TRP:HB3	35:2d:187:ARG:HE	1.71	0.55
26:14:63:TYR:N	26:14:64:GLY:HA2	2.20	0.55
32:1a:902:C:O2'	32:1a:1480:A:N6	2.39	0.55
1:2A:885:U:H2'	1:2A:886:C:H6	1.71	0.55
1:2A:1403:G:N1	1:2A:1417:U:OP2	2.33	0.55
3:2D:71:ASP:HB3	3:2D:103:ARG:NH2	2.21	0.55
5:2F:167:ALA:HB1	5:2F:173:VAL:HG11	1.89	0.55
1:1A:1603:C:OP2	1:1A:1604:A:O2'	2.18	0.55
35:1d:61:LYS:HD2	35:1d:207:TYR:OH	2.08	0.55
1:2A:263:G:H2'	1:2A:264:U:C6	2.41	0.55
1:2A:2799:C:H1'	4:2E:62:PRO:HG3	1.89	0.55
3:2D:20:ASP:OD1	3:2D:20:ASP:N	2.37	0.55
7:2H:11:VAL:HG13	7:2H:15:VAL:HG22	1.87	0.55
33:2b:162:ILE:HD11	33:2b:184:VAL:HG22	1.88	0.55
1:1A:6:G:O6	59:1A:4174:HOH:O	2.17	0.54
1:1A:714:G:H5'	1:1A:715:G:OP2	2.07	0.54
12:1Q:59:ARG:HA	12:1Q:60:ARG:NH2	2.21	0.54
32:1a:1223:G:H2'	32:1a:1224:C:H6	1.72	0.54
32:1a:1280:C:C4	38:1g:114:ARG:HD2	2.42	0.54
32:1a:1425:G:O2'	32:1a:1426:G:OP1	2.22	0.54
1:2A:841:C:H2'	1:2A:842:C:C6	2.42	0.54
1:2A:1116:G:H1'	1:2A:1134:G:C8	2.41	0.54
1:2A:1833:A:H4'	3:2D:259:THR:HG23	1.89	0.54
5:2F:64:ILE:HG21	5:2F:78:ILE:HG23	1.89	0.54
8:2I:120:ILE:HG21	8:2I:126:TYR:CE2	2.41	0.54
15:2T:122:ASP:OD2	32:2a:1426:G:O2'	2.24	0.54
46:2o:5:LYS:HZ2	46:2o:5:LYS:H	1.54	0.54
26:14:26:SER:OG	26:14:27:THR:N	2.40	0.54
34:1c:180:ALA:HB1	34:1c:203:PHE:HE1	1.72	0.54
36:1e:52:PRO:HD2	36:1e:53:LEU:HD12	1.89	0.54
1:2A:56:G:O2'	1:2A:71:A:N1	2.35	0.54
1:2A:483:G:C8	29:27:37:LYS:HG2	2.41	0.54
1:2A:661:A:H5''	11:2P:117:GLU:HG2	1.90	0.54
1:2A:1227:G:O3'	25:23:29:ARG:NH1	2.40	0.54
2:2B:83:G:H4'	25:23:52:HIS:CG	2.43	0.54
6:2G:103:LEU:HD23	6:2G:106:LEU:HD23	1.89	0.54
11:2P:88:LEU:HD11	11:2P:114:ILE:HD12	1.87	0.54
32:2a:1311:A:OP2	52:2u:7:ARG:NH1	2.29	0.54
40:2i:49:PRO:HG2	40:2i:81:ILE:HD11	1.89	0.54
1:1A:1092:G:H1'	1:1A:1155:G:N2	2.21	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:113:A:H4'	32:1a:114:A:C8	2.42	0.54
32:1a:485:C:OP1	43:1l:117:ARG:NH2	2.30	0.54
35:1d:188:LEU:HD23	35:1d:188:LEU:H	1.72	0.54
48:1q:66:SER:OG	48:1q:67:LYS:N	2.39	0.54
1:2A:1154:C:H3'	1:2A:1155:G:C8	2.42	0.54
6:2G:97:ASP:HA	6:2G:100:TRP:HD1	1.72	0.54
34:2c:113:ALA:HB1	34:2c:186:PHE:CE2	2.42	0.54
1:1A:1992:A:OP1	59:1A:4179:HOH:O	2.18	0.54
1:1A:2354:C:OP1	59:1A:4182:HOH:O	2.18	0.54
26:14:58:ARG:HB3	26:14:58:ARG:NH1	2.22	0.54
32:1a:972:A:H2	45:1n:4:LYS:HG2	1.72	0.54
1:2A:894:G:H2'	1:2A:895:A:C8	2.43	0.54
1:2A:1103:G:H2'	1:2A:1104:G:C8	2.42	0.54
20:2Y:13:VAL:HG12	20:2Y:74:PRO:HA	1.89	0.54
32:2a:8:G:H5'	32:2a:294:A:O4'	2.08	0.54
32:2a:651:G:O2'	46:2o:49:ASP:OD1	2.23	0.54
43:2l:75:HIS:HD2	43:2l:77:LEU:H	1.55	0.54
1:1A:2797:C:H2'	1:1A:2798:U:O4'	2.08	0.54
1:2A:555:C:H4'	1:2A:556:A:H5''	1.88	0.54
1:2A:1295:G:OP2	11:2P:21:ARG:NH1	2.40	0.54
1:2A:1457:A:H2'	1:2A:1458:G:C8	2.43	0.54
2:2B:114:C:H4'	14:2S:46:VAL:HG22	1.89	0.54
7:2H:3:ARG:NH2	7:2H:5:GLY:H	2.04	0.54
32:2a:1255:G:H3'	32:2a:1256:G:H8	1.72	0.54
32:2a:1263:U:H5''	32:2a:1264:C:H5	1.72	0.54
1:1A:1066:A:H62	1:1A:1185:U:H3	1.55	0.54
32:1a:181:C:O4'	51:1t:81:LYS:NZ	2.41	0.54
35:1d:166:LYS:HA	35:1d:178:VAL:HG21	1.88	0.54
1:2A:26:G:N2	1:2A:536:G:H1'	2.23	0.54
1:2A:1906:A:H2'	1:2A:1907:C:O4'	2.08	0.54
1:2A:2304:C:H42	1:2A:2350:G:H1	1.55	0.54
1:2A:2815:G:H2'	1:2A:2816:G:H8	1.72	0.54
16:2U:76:TYR:OH	16:2U:92:ARG:NH1	2.41	0.54
21:2Z:19:ARG:NH1	21:2Z:84:GLU:O	2.41	0.54
34:2c:119:ARG:O	34:2c:123:GLN:NE2	2.33	0.54
1:1A:955:A:N3	1:1A:2275:C:O2'	2.38	0.54
1:1A:1232:U:H4'	17:1V:79:VAL:HG22	1.89	0.54
2:1B:8:U:O3'	14:1S:25:ARG:NH2	2.27	0.54
32:1a:199:U:H2'	32:1a:200:C:C6	2.43	0.54
37:1f:62:TRP:CD1	49:1r:35:ARG:HD3	2.42	0.54
9:2N:94:HIS:HB3	9:2N:97:ARG:HD3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:2T:55:ASN:N	15:2T:59:THR:HG22	2.16	0.54
32:2a:1274:U:OP1	38:2g:41:ARG:NH2	2.40	0.54
34:2c:32:LEU:O	34:2c:36:ASP:HB2	2.08	0.54
34:2c:34:LEU:O	34:2c:38:ARG:HG3	2.08	0.54
34:2c:181:ASN:ND2	34:2c:204:LEU:HD12	2.23	0.54
1:1A:2121:G:H1	1:1A:2210:U:H3	1.54	0.54
33:1b:77:ALA:HB2	33:1b:211:ILE:HD13	1.89	0.54
1:2A:2578:G:H2'	1:2A:2579:C:H6	1.73	0.54
2:2B:31:C:H4'	6:2G:29:TRP:CH2	2.43	0.54
6:2G:114:ILE:HB	6:2G:117:PHE:HB2	1.90	0.54
47:2p:58:TYR:O	47:2p:61:SER:OG	2.21	0.54
1:1A:1064:U:O2'	1:1A:1066:A:H2	1.91	0.54
1:1A:2210:U:H2'	1:1A:2211:G:C8	2.43	0.54
1:1A:2405:C:OP2	30:18:30:ARG:NH1	2.40	0.54
14:1S:23:ARG:NH2	14:1S:84:GLN:OE1	2.41	0.54
32:1a:994:A:H2'	32:1a:995:A:C8	2.43	0.54
35:1d:111:ALA:HB2	35:1d:120:LEU:HD12	1.90	0.54
50:1s:36:ARG:NH2	50:1s:72:GLY:O	2.41	0.54
1:2A:681:G:H1	1:2A:696:C:N4	2.06	0.54
1:2A:895:A:H2	25:23:24:LYS:HB3	1.73	0.54
1:2A:1354:G:H4'	29:27:7:PRO:HB2	1.89	0.54
6:2G:101:ILE:HD13	26:24:25:TYR:HB2	1.90	0.54
32:2a:132:C:H2'	32:2a:133:G:H8	1.73	0.54
45:2n:11:LYS:NZ	45:2n:11:LYS:HB2	2.23	0.54
47:2p:45:THR:HG22	47:2p:47:ASP:H	1.71	0.54
1:1A:17:C:O2'	1:1A:576:U:OP1	2.20	0.54
1:1A:1450:U:H2'	1:1A:1451:U:H6	1.73	0.54
32:1a:371:U:N3	32:1a:372:G:N7	2.57	0.54
32:1a:672:G:H2'	32:1a:673:C:H6	1.73	0.54
32:1a:931:G:H5'	32:1a:943:A:H61	1.73	0.54
32:1a:1078:U:P	32:1a:1091:G:H1	2.31	0.54
7:2H:144:VAL:O	7:2H:148:ILE:HG12	2.08	0.54
19:2X:21:PHE:CZ	19:2X:92:LEU:HD12	2.43	0.54
32:2a:975:U:H3	32:2a:1027:A:N6	2.05	0.54
32:2a:1328:A:N6	32:2a:1358:A:OP2	2.40	0.54
33:2b:16:HIS:CD2	33:2b:204:ASN:H	2.25	0.54
33:2b:187:LEU:HA	33:2b:201:ILE:HB	1.90	0.54
1:1A:1409:G:P	23:11:3:LYS:HG3	2.49	0.53
1:1A:2595:U:O4	55:1z:9:ARG:NH1	2.40	0.53
6:1G:15:VAL:HG22	6:1G:175:LEU:HB3	1.90	0.53
13:1R:51:LEU:HD22	13:1R:66:VAL:HG22	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:17:5:TRP:NE1	29:17:7:PRO:HG3	2.23	0.53
34:1c:41:GLY:O	34:1c:45:LYS:HG2	2.08	0.53
35:1d:8:VAL:C	35:1d:10:ARG:H	2.16	0.53
35:1d:71:SER:HB2	35:1d:74:GLN:HB2	1.89	0.53
35:1d:107:ARG:HH22	35:1d:194:LEU:HD11	1.73	0.53
44:1m:17:VAL:O	44:1m:20:THR:OG1	2.17	0.53
1:2A:483:G:O2'	1:2A:494:G:O6	2.16	0.53
1:2A:1942:G:H2'	1:2A:1943:G:H8	1.73	0.53
1:2A:2083:A:N7	1:2A:2514:A:N6	2.55	0.53
32:2a:108:U:H2'	32:2a:109:G:C8	2.42	0.53
34:2c:43:LEU:HD22	34:2c:47:LEU:HD13	1.90	0.53
38:2g:131:LYS:HG2	38:2g:132:GLY:H	1.73	0.53
1:1A:1220:G:H1'	1:1A:1221:A:C5'	2.37	0.53
1:1A:2404:A:OP2	59:1A:4183:HOH:O	2.18	0.53
3:1D:228:PRO:O	59:1D:401:HOH:O	2.18	0.53
11:1P:63:PRO:HD3	30:18:27:THR:HG22	1.90	0.53
36:1e:33:VAL:HG13	36:1e:112:LEU:HD12	1.90	0.53
42:1k:86:GLY:N	42:1k:112:THR:OG1	2.28	0.53
45:1n:43:CYS:HA	45:1n:46:GLU:HB2	1.89	0.53
1:2A:321:G:H5''	1:2A:322:A:OP1	2.08	0.53
1:2A:405:G:N2	23:21:42:GLN:OE1	2.32	0.53
1:2A:601:G:H2'	1:2A:602:C:C6	2.43	0.53
1:2A:663:U:H2'	1:2A:664:C:H6	1.72	0.53
1:2A:962:A:H5'	1:2A:963:A:OP2	2.08	0.53
1:2A:1450:U:H2'	1:2A:1451:U:C6	2.43	0.53
1:2A:1768:G:H2'	1:2A:1769:A:C8	2.44	0.53
1:2A:2226:G:H3'	1:2A:2227:G:H8	1.74	0.53
18:2W:11:ARG:HD2	18:2W:82:LEU:HD12	1.89	0.53
32:2a:647:A:O3'	49:2r:64:ARG:NH2	2.38	0.53
32:2a:1114:G:H2'	32:2a:1115:C:C6	2.43	0.53
33:2b:92:TYR:CE2	33:2b:152:PHE:N	2.75	0.53
29:17:24:THR:O	29:17:28:ARG:HG3	2.09	0.53
32:1a:522:G:H5''	43:1l:114:LYS:HB2	1.90	0.53
32:1a:562:C:O2'	32:1a:712:A:N3	2.38	0.53
1:2A:183:A:H5''	1:2A:184:A:O5'	2.06	0.53
1:2A:1072:A:C2	1:2A:2499:A:H5'	2.44	0.53
7:2H:46:GLU:HB2	7:2H:49:VAL:HG12	1.90	0.53
15:2T:60:THR:HG22	15:2T:77:PRO:HA	1.90	0.53
30:28:63:PRO:HG2	30:28:64:TYR:CE2	2.43	0.53
31:29:27:CYS:SG	31:29:28:GLU:N	2.81	0.53
36:2e:110:LEU:O	36:2e:115:VAL:HG13	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:2n:22:THR:HB	45:2n:33:VAL:HG21	1.88	0.53
1:1A:138:A:H8	1:1A:1453:C:O2'	1.89	0.53
2:1B:33:G:C2	2:1B:50:G:C2	2.97	0.53
14:1S:10:ARG:O	14:1S:14:VAL:HG13	2.09	0.53
16:1U:33:ARG:NH1	59:1U:5003:HOH:O	2.42	0.53
24:12:32:LEU:HD13	24:12:36:ARG:HH11	1.73	0.53
33:1b:172:ILE:H	33:1b:172:ILE:HD12	1.72	0.53
47:1p:19:ILE:HG12	47:1p:36:ILE:HG13	1.89	0.53
1:2A:332:G:N3	1:2A:352:G:O2'	2.41	0.53
3:2D:129:ASN:O	3:2D:193:VAL:HG12	2.07	0.53
11:2P:83:VAL:HG12	11:2P:112:LEU:HD21	1.91	0.53
32:2a:719:C:H2'	32:2a:720:C:C6	2.42	0.53
35:2d:18:LYS:NZ	35:2d:31:CYS:SG	2.81	0.53
36:2e:5:ASP:N	36:2e:5:ASP:OD1	2.41	0.53
51:2t:10:LEU:HB3	51:2t:12:ALA:H	1.74	0.53
1:1A:2083:A:N6	55:1z:11:ARG:HG2	2.23	0.53
59:1A:5041:HOH:O	13:1R:15:SER:HB3	2.07	0.53
2:1B:50:G:H5''	14:1S:61:ASN:HD22	1.73	0.53
8:1I:4:ILE:HG12	8:1I:18:VAL:HG22	1.90	0.53
15:1T:56:GLY:O	15:1T:59:THR:HG23	2.09	0.53
32:1a:409:G:N2	32:1a:424:G:H1'	2.23	0.53
32:1a:508:G:H2'	32:1a:509:C:C6	2.42	0.53
35:1d:8:VAL:HG22	35:1d:9:CYS:H	1.72	0.53
44:1m:15:VAL:HG21	44:1m:48:LEU:HD21	1.91	0.53
1:2A:909:A:H2'	1:2A:910:G:C8	2.44	0.53
1:2A:934:C:OP1	44:2m:93:ARG:NH1	2.40	0.53
1:2A:948:C:H2'	1:2A:949:C:C6	2.43	0.53
10:2O:68:GLU:HB3	10:2O:78:ARG:HB2	1.90	0.53
32:2a:293:G:N2	32:2a:296:A:OP2	2.41	0.53
32:2a:753:G:H4'	32:2a:1491:A:H4'	1.89	0.53
32:2a:846:C:H2'	32:2a:847:G:O4'	2.07	0.53
32:2a:966:G:H2'	32:2a:967:C:O4'	2.09	0.53
32:2a:1491:A:H2'	32:2a:1492:C:C6	2.43	0.53
40:2i:17:VAL:HG23	40:2i:63:ILE:HG12	1.90	0.53
45:2n:17:LYS:HE3	45:2n:18:VAL:HG13	1.90	0.53
1:1A:1792:A:H2'	59:1A:6196:HOH:O	2.07	0.53
1:1A:2061:C:H2'	1:1A:2062:U:O4'	2.09	0.53
1:1A:2210:U:H2'	1:1A:2211:G:H8	1.72	0.53
1:1A:2307:U:OP2	14:1S:9:ARG:NH2	2.42	0.53
32:1a:217:C:H2'	32:1a:218:U:H6	1.73	0.53
32:1a:720:C:H2'	32:1a:721:A:C8	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:1f:22:GLU:O	37:1f:26:ILE:HG13	2.09	0.53
9:2N:36:GLY:HA2	9:2N:38:HIS:CE1	2.43	0.53
32:2a:403:G:H2'	32:2a:404:A:C8	2.43	0.53
38:2g:116:ALA:O	38:2g:120:ILE:HG12	2.08	0.53
1:1A:1158:U:H2'	1:1A:1159:G:C8	2.44	0.53
1:1A:1219:U:OP1	1:1A:1221:A:N6	2.42	0.53
5:1F:184:TYR:CE2	5:1F:188:ARG:HD2	2.43	0.53
6:1G:109:VAL:HG13	26:14:33:VAL:HG11	1.90	0.53
32:1a:153:G:H2'	32:1a:154:G:C8	2.44	0.53
44:1m:84:ILE:HD12	50:1s:74:PHE:HZ	1.73	0.53
1:2A:2815:G:H2'	1:2A:2816:G:C8	2.43	0.53
26:24:24:THR:OG1	26:24:25:TYR:N	2.41	0.53
32:2a:1307:C:C2'	32:2a:1308:C:H5'	2.39	0.53
35:2d:173:TRP:CZ3	35:2d:193:ASP:HB3	2.44	0.53
38:2g:115:ARG:HB2	38:2g:118:VAL:HG23	1.91	0.53
44:2m:39:ILE:HD12	44:2m:56:LEU:HD13	1.90	0.53
51:2t:16:HIS:O	51:2t:19:SER:OG	2.26	0.53
1:1A:2302:U:OP1	1:1A:2391:C:O2'	2.22	0.53
4:1E:54:GLN:HB2	4:1E:76:ARG:HG3	1.91	0.53
32:1a:90:U:H2'	32:1a:91:G:H5'	1.89	0.53
1:2A:1638:G:H2'	1:2A:1639:G:H8	1.73	0.53
1:2A:2700:U:OP2	1:2A:2731:G:N2	2.39	0.53
2:2B:5:C:OP1	2:2B:61:G:O2'	2.22	0.53
11:2P:63:PRO:HD3	30:28:27:THR:HG22	1.91	0.53
32:2a:459:G:H2'	32:2a:460:G:C8	2.44	0.53
32:2a:612:G:H2'	32:2a:613:G:C8	2.44	0.53
32:2a:1038:A:N3	34:2c:156:ARG:NH1	2.57	0.53
32:2a:1077:G:O2'	32:2a:1091:G:N1	2.42	0.53
32:2a:1233:A:H2'	32:2a:1234:A:C8	2.44	0.53
1:1A:1992:A:OP2	3:1D:242:ARG:NH2	2.42	0.53
2:1B:66:A:H61	2:1B:108:U:H2'	1.74	0.53
32:1a:614:G:H2'	32:1a:615:G:C8	2.43	0.53
32:1a:1051:G:N7	32:1a:1077:G:H2'	2.23	0.53
34:1c:32:LEU:HD13	34:1c:59:ARG:HD3	1.90	0.53
35:1d:172:PRO:HB2	35:1d:187:ARG:NH2	2.24	0.53
1:2A:1092:G:H1'	1:2A:1155:G:N2	2.24	0.53
32:2a:61:A:N6	32:2a:104:C:N3	2.55	0.53
32:2a:1435:G:OP1	51:2t:39:LYS:NZ	2.41	0.53
45:2n:17:LYS:HE2	45:2n:18:VAL:H	1.73	0.53
1:1A:1066:A:C8	1:1A:1066:A:H3'	2.44	0.53
1:1A:2086:C:H2'	1:1A:2087:C:C6	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2505:G:O2'	12:1Q:80:GLU:HA	2.09	0.53
1:1A:2878:G:H2'	1:1A:2879:C:O4'	2.09	0.53
3:1D:10:THR:OG1	3:1D:13:ARG:HB2	2.09	0.53
10:1O:35:VAL:HG21	10:1O:105:GLU:HG3	1.91	0.53
21:1Z:180:VAL:HG13	21:1Z:183:LEU:HD12	1.90	0.53
32:1a:526:G:P	35:1d:10:ARG:HH22	2.32	0.53
32:1a:925:G:O3'	44:1m:109:THR:OG1	2.27	0.53
33:1b:87:ARG:HH21	33:1b:219:VAL:HG23	1.74	0.53
1:2A:2115:G:H2'	1:2A:2116:C:H6	1.73	0.53
1:2A:2700:U:P	1:2A:2731:G:H22	2.32	0.53
1:1A:1218:A:H5'	1:1A:1221:A:H61	1.74	0.52
5:1F:32:LEU:HB3	5:1F:112:MET:HE1	1.91	0.52
32:1a:373:G:OP1	47:1p:3:LYS:HD2	2.08	0.52
32:1a:487:C:OP2	43:1l:116:SER:OG	2.16	0.52
32:1a:1068:U:OP2	59:1a:2020:HOH:O	2.19	0.52
42:1k:48:ILE:O	42:1k:50:TYR:N	2.36	0.52
1:2A:830:A:H5'	1:2A:831:G:OP1	2.09	0.52
32:2a:324:C:H4'	32:2a:325:A:H5'	1.91	0.52
37:2f:22:GLU:O	37:2f:26:ILE:HG13	2.09	0.52
51:2t:13:LEU:O	51:2t:17:ARG:HG3	2.09	0.52
1:1A:448:A:OP2	59:1A:4135:HOH:O	2.19	0.52
1:1A:1076:G:H21	31:19:36:GLN:HE22	1.57	0.52
1:1A:1826:U:H2'	1:1A:1827:C:C6	2.44	0.52
1:1A:2544:A:H2'	1:1A:2545:A:O4'	2.09	0.52
35:1d:173:TRP:CD1	35:1d:173:TRP:H	2.27	0.52
1:2A:592:G:H2'	1:2A:2051:A:C5	2.44	0.52
1:2A:656:A:H2'	1:2A:657:A:C8	2.44	0.52
1:2A:2117:U:H2'	1:2A:2118:C:C6	2.45	0.52
32:2a:1087:G:H4'	33:2b:111:ARG:NH1	2.24	0.52
35:2d:12:CYS:SG	35:2d:19:LEU:HB2	2.49	0.52
44:2m:20:THR:C	44:2m:22:ILE:H	2.17	0.52
45:2n:32:SER:O	45:2n:40:CYS:HA	2.09	0.52
55:2z:9:ARG:HB3	55:2z:10:PRO:HD2	1.91	0.52
1:1A:267:G:H5''	23:11:81:LYS:HE2	1.91	0.52
4:1E:54:GLN:HE21	4:1E:54:GLN:HA	1.75	0.52
32:1a:584:C:H2'	32:1a:585:C:C6	2.45	0.52
32:1a:1073:U:H2'	32:1a:1074:U:H6	1.73	0.52
1:2A:670:A:H2'	1:2A:671:G:O4'	2.09	0.52
1:2A:1109:C:N4	1:2A:1119:G:H1	2.00	0.52
1:2A:1373:G:H2'	1:2A:1375:C:C5	2.45	0.52
25:23:6:VAL:HG22	25:23:56:VAL:HG12	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1273:G:H4'	40:2i:38:GLN:OE1	2.09	0.52
32:2a:1290:U:H5''	44:2m:98:VAL:HG22	1.91	0.52
33:2b:120:ALA:O	33:2b:125:PRO:HD2	2.08	0.52
35:2d:121:VAL:O	35:2d:134:ASP:HA	2.09	0.52
1:1A:903:C:H4'	22:10:23:VAL:HG21	1.91	0.52
1:1A:1231:G:H5''	17:1V:81:TYR:CE1	2.44	0.52
1:1A:1416:G:H2'	1:1A:1417:U:H5	1.75	0.52
15:1T:65:LYS:HE2	15:1T:67:SER:HB3	1.91	0.52
19:1X:31:HIS:CD2	19:1X:33:LYS:H	2.27	0.52
26:14:15:ILE:HD12	26:14:21:VAL:HG22	1.92	0.52
32:1a:1211:A:O2'	54:1x:30:G:OP1	2.27	0.52
33:1b:24:TRP:CZ3	33:1b:26:PRO:HA	2.45	0.52
33:1b:63:MET:HG3	33:1b:225:ALA:HB1	1.90	0.52
53:1v:18:G:O3'	59:1v:3101:HOH:O	2.18	0.52
1:2A:405:G:O2'	1:2A:2243:U:OP1	2.27	0.52
1:2A:775:G:C6	3:2D:208:LYS:HB2	2.44	0.52
1:2A:1239:G:N2	1:2A:1240:C:C2	2.78	0.52
1:2A:2848:G:H5'	13:2R:46:GLY:CA	2.36	0.52
32:2a:1394:C:H2'	32:2a:1395:C:H6	1.75	0.52
38:2g:69:VAL:HG21	38:2g:104:LEU:HD11	1.91	0.52
1:1A:1869:G:C8	1:1A:1948:A:H1'	2.44	0.52
32:1a:143:G:N2	32:1a:169:C:N3	2.49	0.52
32:1a:351:C:H5''	32:1a:385:A:OP2	2.10	0.52
32:1a:741:U:OP1	32:1a:806:C:O2'	2.25	0.52
54:1x:17:C:HO2'	54:1x:17(A):U:H6	1.57	0.52
54:1x:75:C:H2'	54:1x:76:A:C2	2.45	0.52
1:2A:648:C:OP1	59:2A:3647:HOH:O	2.18	0.52
1:2A:1404:A:H2'	1:2A:1405:A:H5'	1.92	0.52
1:2A:2854:G:H2'	1:2A:2855:G:C8	2.45	0.52
32:2a:218:U:H2'	32:2a:219:U:C6	2.44	0.52
34:2c:26:LYS:HA	45:2n:36:PHE:HE2	1.75	0.52
35:2d:65:ARG:NH1	35:2d:70:ILE:O	2.43	0.52
26:14:58:ARG:HH11	50:1s:68:GLY:H	1.56	0.52
32:1a:1034:C:H2'	32:1a:1035:U:H6	1.75	0.52
1:2A:610:U:H2'	1:2A:611:C:C6	2.44	0.52
1:2A:2226:G:H5''	1:2A:2227:G:C8	2.45	0.52
2:2B:55:U:HO2'	6:2G:29:TRP:HD1	1.57	0.52
28:26:13:CYS:SG	28:26:47:THR:HG21	2.50	0.52
32:2a:312:G:OP2	32:2a:347:G:O2'	2.25	0.52
32:2a:1214:U:OP1	40:2i:124:GLN:NE2	2.29	0.52
32:2a:1294:G:H1	32:2a:1307:C:N4	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1953:A:H2'	1:1A:1954:G:O4'	2.09	0.52
32:1a:444:C:O2	47:1p:42:ARG:NH1	2.43	0.52
32:1a:825:U:C4	32:1a:826:C:H1'	2.44	0.52
32:1a:898:U:H2'	32:1a:899:U:C6	2.45	0.52
32:1a:1110:G:H5'	32:1a:1262:A:O2'	2.09	0.52
34:1c:45:LYS:HG3	34:1c:46:GLU:HG2	1.92	0.52
5:2F:197:ASP:O	5:2F:200:GLU:HB2	2.10	0.52
12:2Q:118:LEU:HD12	12:2Q:131:ILE:HG23	1.91	0.52
13:2R:38:VAL:HG22	13:2R:112:ALA:HB2	1.92	0.52
21:2Z:10:ARG:NH1	21:2Z:26:GLY:H	2.08	0.52
32:2a:436:A:H3'	32:2a:437:C:C6	2.45	0.52
36:2e:94:ALA:HB2	36:2e:119:LEU:HG	1.91	0.52
1:1A:877:G:O2'	11:1P:38:GLN:NE2	2.43	0.52
1:1A:1614:G:H5'	3:1D:60:ARG:HA	1.92	0.52
32:1a:611:G:H2'	32:1a:612:G:C8	2.43	0.52
1:2A:554:G:N1	59:2A:3724:HOH:O	2.33	0.52
1:2A:724:C:H2'	1:2A:725:C:C6	2.45	0.52
1:2A:1393:G:O6	1:2A:1394:A:N6	2.43	0.52
1:2A:2601:A:O3'	3:2D:239:ARG:NH2	2.43	0.52
6:2G:101:ILE:HG22	6:2G:105:LYS:HE2	1.91	0.52
32:2a:453:C:H2'	32:2a:454:G:O4'	2.09	0.52
32:2a:1088:A:H2'	32:2a:1089:G:C8	2.45	0.52
34:2c:113:ALA:HB3	34:2c:114:PRO:HD3	1.91	0.52
44:2m:37:THR:O	44:2m:55:ARG:NH1	2.43	0.52
50:2s:12:ASP:HB3	50:2s:14:HIS:CD2	2.45	0.52
1:1A:793:U:O2	1:1A:2035:A:H1'	2.09	0.52
28:16:32:ASN:HB2	59:16:5009:HOH:O	2.10	0.52
32:1a:117:C:OP1	32:1a:307:C:O2'	2.26	0.52
32:1a:721:A:H2'	32:1a:722:C:C6	2.45	0.52
35:1d:101:LEU:HD23	35:1d:138:TYR:HB3	1.91	0.52
39:1h:4:ASP:OD2	39:1h:85:ARG:NH1	2.42	0.52
39:1h:46:LYS:HG3	39:1h:64:LYS:HG2	1.90	0.52
40:1i:127:LYS:O	40:1i:128:ARG:HG2	2.09	0.52
46:1o:71:GLN:HG2	46:1o:78:TYR:CG	2.44	0.52
1:2A:2026:A:H5''	1:2A:2027:C:OP2	2.09	0.52
1:2A:2284:A:H2'	1:2A:2285:A:H8	1.73	0.52
6:2G:125:PHE:HB3	6:2G:166:ASP:CG	2.34	0.52
19:2X:21:PHE:HZ	19:2X:92:LEU:HD12	1.74	0.52
32:2a:208:C:H42	32:2a:212:G:H22	1.56	0.52
32:2a:504:A:OP2	59:2a:3320:HOH:O	2.18	0.52
32:2a:691:C:H2'	32:2a:692:C:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:28:PHE:CD1	33:2b:190:THR:HA	2.45	0.52
36:2e:51:VAL:HG23	36:2e:52:PRO:HD3	1.92	0.52
36:2e:78:HIS:CD2	36:2e:142:LEU:HD23	2.45	0.52
47:2p:28:ARG:HH11	47:2p:29:ASP:CG	2.16	0.52
1:1A:224:C:H2'	1:1A:225:C:C6	2.45	0.52
1:1A:550:A:H2'	59:1A:4629:HOH:O	2.09	0.52
4:1E:29:GLY:HA3	59:1E:404:HOH:O	2.10	0.52
15:1T:55:ASN:N	15:1T:59:THR:HG22	2.18	0.52
32:1a:1325:G:H2'	32:1a:1326:C:C6	2.45	0.52
45:1n:4:LYS:HA	45:1n:7:ILE:HG12	1.90	0.52
1:2A:15:G:H2'	1:2A:16:G:H8	1.74	0.52
1:2A:267:G:O2'	1:2A:268:G:H8	1.93	0.52
1:2A:1573:A:OP2	59:2A:3649:HOH:O	2.19	0.52
1:2A:1703:C:H2'	1:2A:1704:C:C6	2.45	0.52
1:2A:2411:G:H4'	28:26:18:ARG:HG2	1.92	0.52
32:2a:810:C:H2'	32:2a:811:U:C6	2.45	0.52
32:2a:954:G:H22	32:2a:1345:C:H5'	1.75	0.52
35:2d:61:LYS:HA	35:2d:203:VAL:HG22	1.92	0.52
1:1A:1717:U:OP2	59:1A:4184:HOH:O	2.19	0.51
1:1A:1799:G:O2'	1:1A:1979:C:OP1	2.23	0.51
36:1e:33:VAL:HG21	36:1e:109:ILE:HA	1.93	0.51
1:2A:494:G:N7	29:27:37:LYS:NZ	2.55	0.51
1:2A:1102:A:H62	1:2A:1131:A:H2'	1.74	0.51
1:2A:1397:U:OP2	59:2A:3650:HOH:O	2.19	0.51
5:2F:195:ASP:OD1	5:2F:196:LEU:N	2.43	0.51
16:2U:83:LEU:HG	16:2U:88:ILE:HB	1.91	0.51
32:2a:485:C:H1'	32:2a:533:C:H1'	1.93	0.51
32:2a:1198:G:H5''	45:2n:5:ALA:HB2	1.90	0.51
1:1A:894:G:H2'	1:1A:895:A:C8	2.46	0.51
1:1A:1734:U:O2	1:1A:1746:A:H5'	2.10	0.51
32:1a:77:G:H4'	32:1a:78:G:OP1	2.10	0.51
32:1a:715:G:H5'	32:1a:750:A:H4'	1.92	0.51
32:1a:1094:A:N1	34:1c:177:THR:OG1	2.42	0.51
33:1b:21:ARG:HB3	33:1b:38:GLY:O	2.09	0.51
35:1d:187:ARG:NH1	35:1d:190:ASP:OD1	2.42	0.51
1:2A:905:G:O2'	1:2A:961:G:O6	2.28	0.51
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.45	0.51
2:2B:45:A:C8	6:2G:95:ARG:NH1	2.78	0.51
7:2H:40:GLU:OE2	7:2H:60:ARG:NH1	2.43	0.51
32:2a:388:G:H2'	32:2a:389:A:H8	1.75	0.51
32:2a:751:A:O2'	32:2a:1502:C:O2	2.28	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1112:C:H2'	32:2a:1122:G:N7	2.26	0.51
32:2a:1307:C:H2'	32:2a:1308:C:H5'	1.90	0.51
40:2i:116:LYS:HD2	40:2i:122:ALA:HA	1.93	0.51
41:2j:48:THR:HB	41:2j:62:HIS:CE1	2.44	0.51
48:2q:6:LEU:O	48:2q:58:GLU:HA	2.11	0.51
1:1A:1510:C:H2'	1:1A:1511:G:C8	2.46	0.51
1:1A:1512:G:H2'	1:1A:1593:C:H41	1.76	0.51
1:1A:2052:A:C6	1:1A:2509:C:H1'	2.45	0.51
7:1H:157:TYR:CE1	7:1H:172:LYS:HG3	2.46	0.51
9:1N:13:TRP:HB3	9:1N:135:PRO:HB3	1.90	0.51
41:1j:55:LYS:HE3	41:1j:56:HIS:CE1	2.45	0.51
1:2A:26:G:O2'	1:2A:27:A:OP2	2.24	0.51
1:2A:671:G:H8	1:2A:671:G:O5'	1.93	0.51
1:2A:704:C:H2'	1:2A:705:C:C6	2.45	0.51
29:27:24:THR:O	29:27:28:ARG:HG3	2.10	0.51
32:2a:485:C:H2'	32:2a:486:G:C8	2.45	0.51
32:2a:1117:G:C6	32:2a:1118:U:H1'	2.45	0.51
33:2b:83:MET:SD	33:2b:234:PRO:HB2	2.50	0.51
49:2r:32:ARG:HA	49:2r:69:THR:HG21	1.91	0.51
52:2u:9:ARG:HA	52:2u:22:ARG:HB2	1.92	0.51
1:1A:266:C:H3'	59:1A:4245:HOH:O	2.10	0.51
1:1A:468:A:H1'	1:1A:1245:C:O4'	2.10	0.51
1:1A:876:G:OP2	59:1A:4187:HOH:O	2.19	0.51
1:1A:1200:A:OP1	16:1U:55:ARG:HD3	2.10	0.51
1:1A:2858:U:H4'	1:1A:2877:A:C2	2.45	0.51
20:1Y:13:VAL:HB	20:1Y:72:VAL:HG13	1.93	0.51
26:14:53:GLU:CB	26:14:54:GLY:HA2	2.40	0.51
1:2A:1346:A:H2	1:2A:1671:G:N3	2.08	0.51
1:2A:1494:G:O2'	1:2A:1574:A:N1	2.40	0.51
1:2A:1967:U:H2'	1:2A:1968:C:C6	2.45	0.51
1:2A:2043:U:OP2	27:25:15:ARG:NH2	2.44	0.51
1:2A:2302:U:H2'	1:2A:2303:C:C6	2.46	0.51
32:2a:425:U:H1'	32:2a:426:A:H5''	1.91	0.51
32:2a:1201:U:O2'	50:2s:34:TRP:HB3	2.11	0.51
34:2c:180:ALA:HA	34:2c:206:GLU:HA	1.92	0.51
1:1A:830:A:H5'	1:1A:831:G:OP1	2.10	0.51
7:1H:101:ARG:NH2	7:1H:122:THR:OG1	2.41	0.51
12:1Q:57:HIS:HD2	12:1Q:117:ALA:HB2	1.76	0.51
31:19:27:CYS:SG	31:19:28:GLU:N	2.84	0.51
32:1a:961:A:H1'	32:1a:1032:U:O2	2.11	0.51
33:1b:92:TYR:CE1	33:1b:94:ASN:HB2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:843:C:OP1	5:2F:60:SER:OG	2.24	0.51
1:2A:2347:A:H61	22:20:43:THR:HG22	1.75	0.51
2:2B:24:G:N2	2:2B:27:C:N3	2.45	0.51
3:2D:242:ARG:HD3	3:2D:242:ARG:N	2.26	0.51
12:2Q:65:PHE:HB2	12:2Q:105:GLU:HB2	1.91	0.51
32:2a:691:C:H2'	32:2a:692:C:H6	1.75	0.51
32:2a:1382:C:C2	32:2a:1480:A:N6	2.79	0.51
1:1A:1092:G:H1'	1:1A:1155:G:H22	1.76	0.51
20:1Y:92:ASN:CB	20:1Y:94:LYS:H	2.22	0.51
22:10:27:GLU:HG3	22:10:68:GLU:HA	1.92	0.51
1:2A:94:G:H4'	24:22:48:HIS:CD2	2.46	0.51
1:2A:350:G:N2	20:2Y:70:SER:OG	2.43	0.51
1:2A:555:C:OP1	1:2A:583:G:N1	2.43	0.51
1:2A:972:G:H2'	1:2A:973:G:O4'	2.10	0.51
1:2A:1833:A:O2'	3:2D:259:THR:HG21	2.10	0.51
1:2A:1863:U:O2'	1:2A:1990:A:N1	2.41	0.51
2:2B:19:G:H1	2:2B:64:C:N4	2.09	0.51
24:22:24:LEU:HG	24:22:28:LYS:HD3	1.93	0.51
32:2a:493:A:N3	32:2a:527:C:O2'	2.42	0.51
32:2a:1395:C:H2'	32:2a:1396:A:C8	2.45	0.51
34:2c:133:ALA:HA	34:2c:136:GLN:HG2	1.93	0.51
1:1A:184:A:H62	11:1P:38:GLN:HE22	1.59	0.51
1:2A:754:C:H42	1:2A:769:G:H1	1.56	0.51
1:2A:1715:A:H5''	1:2A:2561:G:OP1	2.10	0.51
1:2A:2443:A:C6	1:2A:2444:A:C6	2.99	0.51
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.92	0.51
7:2H:137:ASP:HB3	7:2H:140:LYS:HB3	1.93	0.51
1:1A:1072:A:C2	1:1A:2499:A:H5'	2.45	0.51
1:1A:1073:A:H61	1:1A:1170:G:H2'	1.76	0.51
1:1A:1924:G:OP1	3:1D:241:PRO:HB2	2.10	0.51
32:1a:924:A:H2'	32:1a:925:G:C8	2.45	0.51
32:1a:1156:G:H2'	32:1a:1157:G:H8	1.74	0.51
1:2A:703:U:H2'	1:2A:704:C:C6	2.45	0.51
1:2A:1073:A:N6	1:2A:1170:G:H2'	2.25	0.51
1:2A:1083:C:N4	1:2A:1162:G:H1	2.01	0.51
1:2A:1327:U:H2'	1:2A:1328:G:O4'	2.11	0.51
1:2A:1369:G:O6	59:2A:3638:HOH:O	2.16	0.51
1:2A:2309:A:H2'	1:2A:2310:G:O4'	2.10	0.51
1:2A:2359:U:O4	1:2A:2393:G:N1	2.44	0.51
3:2D:126:GLN:HE21	3:2D:127:VAL:H	1.59	0.51
18:2W:12:ILE:HD13	18:2W:17:VAL:HG13	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:54:HIS:CG	21:2Z:101:PRO:HG3	2.46	0.51
32:2a:762:G:H2'	32:2a:763:C:O4'	2.11	0.51
33:2b:168:THR:OG1	33:2b:192:SER:HA	2.11	0.51
1:1A:143:C:H5'	19:1X:2:LYS:HD2	1.92	0.51
1:1A:2828:G:OP1	59:1A:4186:HOH:O	2.19	0.51
3:1D:9:TYR:CZ	3:1D:13:ARG:HG2	2.46	0.51
11:1P:88:LEU:HD11	11:1P:114:ILE:HD12	1.91	0.51
32:1a:584:C:H2'	32:1a:585:C:H6	1.75	0.51
37:1f:25:ILE:HD12	37:1f:82:ARG:NH1	2.26	0.51
1:2A:1424:A:H4'	1:2A:1425:G:OP2	2.09	0.51
32:2a:451:C:H42	32:2a:461:G:H1	1.59	0.51
32:2a:698:G:H2'	32:2a:699:A:C8	2.46	0.51
36:2e:6:PHE:HD2	36:2e:63:ARG:HD3	1.76	0.51
1:1A:10:G:H2'	1:1A:11:U:H5''	1.92	0.51
1:1A:2033:G:OP1	18:1W:11:ARG:NH2	2.34	0.51
14:1S:15:ARG:NE	14:1S:88:ASP:OD2	2.37	0.51
31:19:26:ILE:H	31:19:26:ILE:HD13	1.75	0.51
32:1a:1155:G:H2'	32:1a:1156:G:O4'	2.10	0.51
1:2A:900:G:H2'	1:2A:901:G:C8	2.40	0.51
1:2A:1093:A:H61	1:2A:1157:G:HO2'	1.59	0.51
1:2A:1513:C:C5	1:2A:1592:C:H2'	2.46	0.51
1:2A:1711:A:H4'	10:2O:67:LYS:HB2	1.93	0.51
1:2A:1942:G:H2'	1:2A:1943:G:C8	2.46	0.51
1:2A:2845:U:H2'	1:2A:2846:G:C8	2.45	0.51
5:2F:30:PRO:HB3	11:2P:1:MET:HE1	1.93	0.51
5:2F:135:LYS:HG2	5:2F:137:LYS:HG2	1.93	0.51
32:2a:1070:G:N2	32:2a:1082:G:H1'	2.25	0.51
33:2b:103:THR:HA	33:2b:180:LEU:HD11	1.93	0.51
46:2o:24:SER:OG	46:2o:25:THR:N	2.43	0.51
2:1B:25:A:OP1	59:1B:304:HOH:O	2.19	0.50
4:1E:143:ASN:HD22	4:1E:147:PRO:HD3	1.76	0.50
7:1H:154:PRO:HB3	7:1H:163:TYR:CZ	2.45	0.50
12:1Q:1:MET:SD	12:1Q:1:MET:N	2.69	0.50
32:1a:76:G:N1	32:1a:88:C:O2	2.32	0.50
32:1a:449:C:H5''	32:1a:450:C:H5	1.74	0.50
33:1b:167:PRO:HG3	33:1b:188:ALA:HB2	1.92	0.50
40:1i:19:LEU:HD23	40:1i:61:ALA:HB2	1.94	0.50
50:1s:36:ARG:HB3	50:1s:72:GLY:HA3	1.93	0.50
1:2A:238:G:C6	1:2A:239:A:C6	2.99	0.50
1:2A:2416:G:H5'	11:2P:75:ILE:HD13	1.92	0.50
2:2B:72:G:O2'	2:2B:105:A:N6	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:92:VAL:HG13	8:2I:120:ILE:HB	1.94	0.50
21:2Z:154:ASP:N	21:2Z:154:ASP:OD1	2.43	0.50
32:2a:125:A:O2'	32:2a:126:C:O5'	2.29	0.50
36:2e:83:GLU:HA	36:2e:88:LYS:HA	1.93	0.50
1:1A:239:A:C5	1:1A:240:G:H1'	2.45	0.50
1:1A:1614:G:H4'	3:1D:59:LYS:HG2	1.93	0.50
13:1R:44:LEU:HD22	13:1R:48:VAL:HG23	1.94	0.50
32:1a:734:G:H1'	46:1o:22:THR:HG23	1.92	0.50
35:1d:117:ALA:O	35:1d:121:VAL:HG23	2.11	0.50
54:1x:17:C:H5''	54:1x:61:C:H5''	1.94	0.50
1:2A:1682:C:H2'	1:2A:1683:A:C8	2.46	0.50
4:2E:9:VAL:HG13	4:2E:25:VAL:O	2.11	0.50
11:2P:63:PRO:O	30:28:13:ARG:HB2	2.12	0.50
12:2Q:97:VAL:HG21	12:2Q:103:MET:HE3	1.92	0.50
17:2V:98:GLU:OE2	17:2V:100:ARG:NH1	2.44	0.50
28:26:21:TYR:CE1	28:26:38:LYS:HG2	2.46	0.50
32:2a:628:G:H5'	39:2h:92:ARG:HH12	1.76	0.50
1:1A:26:G:N2	1:1A:536:G:H1'	2.26	0.50
1:1A:141:G:H2'	1:1A:142:C:C6	2.47	0.50
1:1A:1694:C:OP1	59:1A:4156:HOH:O	2.19	0.50
1:1A:2862:C:H2'	1:1A:2863:G:C8	2.46	0.50
9:1N:131:GLN:CD	9:1N:131:GLN:H	2.20	0.50
11:1P:49:ARG:NH1	30:18:61:LEU:HD23	2.26	0.50
20:1Y:13:VAL:HG12	20:1Y:74:PRO:HA	1.94	0.50
32:1a:1240:G:H2'	32:1a:1241:C:C6	2.45	0.50
35:1d:61:LYS:NZ	35:1d:72:GLU:OE2	2.30	0.50
36:1e:78:HIS:NE2	36:1e:142:LEU:HA	2.26	0.50
1:2A:53:G:O2'	1:2A:124:A:N1	2.41	0.50
1:2A:346:G:O2'	1:2A:1249:U:N3	2.43	0.50
1:2A:1104:G:H3'	1:2A:1105:U:H6	1.74	0.50
1:2A:1826:U:H2'	1:2A:1827:C:C6	2.46	0.50
3:2D:202:LYS:NZ	32:2a:757:G:O3'	2.43	0.50
8:2I:4:ILE:HG12	8:2I:18:VAL:HG22	1.91	0.50
24:22:1:MET:SD	24:22:56:GLN:NE2	2.84	0.50
32:2a:349:A:H5'	32:2a:349:A:H8	1.76	0.50
32:2a:739:G:OP2	46:2o:65:ARG:HD2	2.12	0.50
32:2a:1243:A:H5'	32:2a:1266:C:OP1	2.11	0.50
33:2b:95:GLN:HB2	33:2b:148:TYR:HA	1.92	0.50
1:1A:517:G:H2'	1:1A:518:G:O4'	2.11	0.50
1:1A:1091:A:H3'	1:1A:1092:G:H5'	1.93	0.50
1:1A:1182:G:N3	9:1N:106:MET:HE2	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2819:A:N6	1:1A:2899:G:O2'	2.45	0.50
7:1H:149:ARG:NH1	7:1H:167:GLU:OE2	2.45	0.50
7:1H:159:GLU:HG3	7:1H:169:VAL:HG11	1.93	0.50
33:1b:54:THR:HG21	33:1b:201:ILE:HD11	1.94	0.50
1:2A:78:G:H1	1:2A:103:C:N4	2.09	0.50
1:2A:504:A:N3	1:2A:506:G:H5''	2.27	0.50
1:2A:898:G:H2'	1:2A:899:G:C8	2.46	0.50
5:2F:129:PHE:O	5:2F:132:VAL:HG13	2.12	0.50
12:2Q:60:ARG:NH2	21:2Z:181:GLU:OE2	2.31	0.50
32:2a:66:U:OP2	59:2a:3321:HOH:O	2.20	0.50
32:2a:354:U:H2'	32:2a:355:U:C6	2.46	0.50
32:2a:405:G:H1	32:2a:429:C:H42	1.59	0.50
32:2a:1112:C:H2'	32:2a:1122:G:C5	2.47	0.50
36:2e:57:LYS:HG2	36:2e:61:TYR:CE2	2.47	0.50
37:2f:10:LEU:HD23	37:2f:61:LEU:HD13	1.94	0.50
41:2j:38:ILE:HD11	41:2j:71:LEU:HD23	1.93	0.50
44:2m:78:ILE:HD13	44:2m:92:HIS:CD2	2.47	0.50
1:1A:322:A:N1	1:1A:345:A:O2'	2.39	0.50
1:1A:829:A:OP2	59:1A:4129:HOH:O	2.20	0.50
1:1A:905:G:O2'	1:1A:961:G:O6	2.26	0.50
1:1A:2283:U:H5''	1:1A:2284:A:OP1	2.12	0.50
10:1O:63:VAL:HG12	10:1O:106:LEU:HD11	1.93	0.50
32:1a:58:G:H2'	32:1a:59:C:C6	2.47	0.50
32:1a:77:G:C2	32:1a:87:C:N3	2.79	0.50
32:1a:529:C:OP1	35:1d:61:LYS:NZ	2.45	0.50
32:1a:672:G:H2'	32:1a:673:C:C6	2.47	0.50
32:1a:695:G:H2'	32:1a:696:A:C8	2.46	0.50
33:1b:47:THR:O	33:1b:51:LEU:N	2.43	0.50
39:1h:7:ALA:HA	39:1h:10:LEU:HD12	1.93	0.50
48:1q:66:SER:HB3	48:1q:69:LYS:HB2	1.93	0.50
48:1q:66:SER:O	48:1q:70:ARG:NH1	2.44	0.50
1:2A:211:A:O2'	1:2A:446:C:O2	2.29	0.50
1:2A:2805:G:N2	1:2A:2814:C:H1'	2.27	0.50
6:2G:96:ARG:N	6:2G:99:MET:HE2	2.27	0.50
13:2R:51:LEU:HD22	13:2R:66:VAL:HG13	1.92	0.50
32:2a:397:C:O2'	32:2a:605:A:N3	2.36	0.50
32:2a:703:C:O2'	49:2r:49:LYS:HB3	2.12	0.50
32:2a:1309:C:H2'	32:2a:1310:C:C6	2.47	0.50
32:2a:1394:C:H2'	32:2a:1395:C:C6	2.47	0.50
32:2a:1457:C:H2'	32:2a:1458:G:H8	1.75	0.50
54:2x:40:C:H2'	54:2x:41:C:H6	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:680:C:H2'	1:1A:681:G:O4'	2.11	0.50
1:1A:703:U:H2'	1:1A:704:C:C6	2.47	0.50
20:1Y:38:ILE:HD13	20:1Y:66:PRO:HA	1.94	0.50
32:1a:154:G:H2'	32:1a:156:A:OP2	2.12	0.50
32:1a:1034:C:H2'	32:1a:1035:U:C6	2.47	0.50
39:1h:51:VAL:HG12	39:1h:52:ASP:H	1.76	0.50
39:1h:110:ALA:HB3	39:1h:121:ASP:HB3	1.93	0.50
47:1p:57:ARG:NH1	47:1p:79:VAL:O	2.45	0.50
1:2A:858:C:H2'	1:2A:859:U:H6	1.77	0.50
2:2B:24:G:H4'	2:2B:25:A:C8	2.47	0.50
6:2G:77:ILE:HG22	6:2G:80:PHE:H	1.77	0.50
32:2a:543:A:OP1	36:2e:126:ARG:NH2	2.43	0.50
32:2a:763:C:H5''	42:2k:122:LYS:HG2	1.94	0.50
32:2a:964:A:H1'	50:2s:54:GLY:O	2.12	0.50
35:2d:3:ARG:NH1	35:2d:3:ARG:HB2	2.27	0.50
38:2g:23:VAL:O	38:2g:27:ILE:HG13	2.12	0.50
39:2h:12:ARG:HD2	39:2h:26:VAL:HG12	1.92	0.50
1:1A:598:U:H2'	1:1A:599:G:C8	2.46	0.50
1:1A:989:A:H8	59:1A:5971:HOH:O	1.93	0.50
1:1A:1626:A:OP2	1:1A:1626:A:H8	1.95	0.50
1:1A:2862:C:H2'	1:1A:2863:G:H8	1.75	0.50
16:1U:36:ARG:HD2	16:1U:40:PHE:CZ	2.47	0.50
32:1a:267:C:H2'	32:1a:268:C:C6	2.47	0.50
32:1a:685:C:O2	32:1a:687:G:N1	2.45	0.50
32:1a:972:A:N1	32:1a:1030:G:H4'	2.27	0.50
34:1c:44:GLU:HG2	34:1c:52:LEU:HD13	1.94	0.50
1:2A:706:G:H5'	5:2F:99:TYR:CE2	2.47	0.50
1:2A:1548:U:H2'	1:2A:1549:C:C6	2.47	0.50
1:2A:2205:G:H2'	1:2A:2206:C:C6	2.47	0.50
1:2A:2554:G:H2'	1:2A:2555:G:C8	2.46	0.50
15:2T:27:THR:HB	15:2T:89:VAL:HG22	1.94	0.50
19:2X:11:PRO:HB3	19:2X:92:LEU:HD21	1.92	0.50
32:2a:1354:G:C6	32:2a:1355:U:C4	2.99	0.50
34:2c:100:ALA:O	34:2c:102:ASN:ND2	2.44	0.50
35:2d:112:VAL:HG22	35:2d:116:GLN:OE1	2.11	0.50
38:2g:26:PHE:O	38:2g:30:ILE:HG13	2.12	0.50
41:2j:50:ILE:HD11	41:2j:57:LYS:HD3	1.93	0.50
1:1A:6:G:H2'	1:1A:7:A:O4'	2.12	0.50
7:1H:164:TYR:HB2	7:1H:167:GLU:HB2	1.94	0.50
14:1S:33:LYS:HB3	14:1S:34:HIS:CD2	2.47	0.50
25:13:29:ARG:HG3	25:13:30:ARG:HG3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:231:C:H5'	48:1q:70:ARG:HG2	1.94	0.50
37:1f:2:ARG:NE	37:1f:69:GLU:HG2	2.26	0.50
51:1t:47:GLY:HA2	51:1t:48:LYS:C	2.36	0.50
1:2A:29:G:H2'	1:2A:30:C:C6	2.46	0.50
1:2A:841:C:H2'	1:2A:842:C:H6	1.75	0.50
1:2A:948:C:H2'	1:2A:949:C:H6	1.77	0.50
1:2A:1059:U:H2'	1:2A:1060:G:H8	1.77	0.50
1:2A:1796:U:H2'	1:2A:1797:C:H6	1.76	0.50
3:2D:134:ARG:NH1	3:2D:188:GLU:OE2	2.44	0.50
17:2V:31:ALA:O	17:2V:61:VAL:HG12	2.10	0.50
23:21:50:ARG:HG2	23:21:59:THR:HG22	1.94	0.50
26:24:59:PHE:HA	26:24:61:ARG:N	2.27	0.50
32:2a:22:G:H2'	32:2a:23:G:C8	2.47	0.50
32:2a:420:G:H2'	32:2a:421:G:C8	2.47	0.50
32:2a:422:G:OP1	35:2d:38:TYR:OH	2.21	0.50
1:1A:885:U:H1'	1:1A:1235:G:H1'	1.94	0.50
1:1A:2563:U:C2	1:1A:2565:U:H5'	2.47	0.50
12:1Q:108:GLY:HA3	21:1Z:116:VAL:HG13	1.93	0.50
32:1a:202:A:N3	32:1a:218:U:O2'	2.43	0.50
34:1c:130:VAL:HG21	34:1c:157:ILE:HG23	1.94	0.50
38:1g:28:ASN:H	38:1g:28:ASN:HD22	1.58	0.50
1:2A:644:G:N3	1:2A:644:G:H5'	2.26	0.50
1:2A:661:A:H2'	11:2P:117:GLU:OE2	2.11	0.50
1:2A:821:G:N2	1:2A:840:G:H5'	2.26	0.50
1:2A:2575:A:C2	1:2A:2658:U:H4'	2.47	0.50
5:2F:117:ARG:HH12	11:2P:1:MET:N	2.10	0.50
6:2G:11:TYR:O	6:2G:16:ARG:HG3	2.12	0.50
12:2Q:108:GLY:HA3	21:2Z:116:VAL:HG13	1.94	0.50
18:2W:71:VAL:HA	18:2W:107:LEU:HD12	1.94	0.50
26:24:26:SER:OG	26:24:27:THR:N	2.44	0.50
32:2a:751:A:H2'	32:2a:752:A:O4'	2.12	0.50
32:2a:925:G:O3'	44:2m:109:THR:OG1	2.30	0.50
33:2b:88:ALA:HB2	33:2b:219:VAL:HG13	1.93	0.50
34:2c:183:ASP:N	34:2c:202:ILE:O	2.30	0.50
40:2i:14:VAL:HG22	40:2i:66:ARG:O	2.12	0.50
1:1A:859:U:H2'	1:1A:860:C:C6	2.46	0.49
1:1A:928:G:N7	59:1A:4328:HOH:O	2.34	0.49
1:1A:1295:G:OP2	11:1P:21:ARG:NH1	2.43	0.49
1:1A:2044:G:H5'	1:1A:2628:C:H4'	1.94	0.49
1:1A:2623:C:OP2	27:15:2:ALA:N	2.45	0.49
7:1H:98:LEU:HD13	7:1H:125:VAL:HG23	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:1H:144:VAL:O	7:1H:148:ILE:HG12	2.12	0.49
32:1a:171:C:H2'	32:1a:172:C:C6	2.46	0.49
37:1f:10:LEU:HB2	37:1f:59:TYR:HB3	1.94	0.49
37:1f:19:LEU:HD11	37:1f:59:TYR:CZ	2.47	0.49
37:1f:97:PHE:O	49:1r:31:LEU:HD23	2.12	0.49
38:1g:91:VAL:HG13	38:1g:95:ARG:HD3	1.92	0.49
39:1h:51:VAL:HG11	39:1h:60:ARG:NH1	2.27	0.49
41:1j:75:ILE:O	41:1j:77:PRO:HD3	2.11	0.49
50:1s:15:LEU:O	50:1s:19:VAL:HG23	2.12	0.49
1:2A:779:G:N7	59:2A:3713:HOH:O	2.34	0.49
1:2A:1262:C:H42	1:2A:1276:G:H1	1.60	0.49
1:2A:2641:G:H2'	1:2A:2642:G:H8	1.77	0.49
19:2X:36:LYS:HA	19:2X:39:ILE:HD12	1.92	0.49
51:2t:103:GLY:O	59:2t:301:HOH:O	2.19	0.49
1:1A:2901:G:N2	59:1A:4418:HOH:O	2.41	0.49
3:1D:164:GLN:NE2	3:1D:176:ARG:HH12	2.09	0.49
19:1X:31:HIS:CD2	19:1X:33:LYS:HB2	2.46	0.49
26:14:58:ARG:O	26:14:60:GLN:N	2.45	0.49
32:1a:37:C:O2'	32:1a:485:C:OP1	2.30	0.49
32:1a:200:C:H2'	32:1a:201:C:H6	1.76	0.49
32:1a:258:A:C6	32:1a:259:A:C6	3.00	0.49
36:1e:68:GLU:HG3	36:1e:70:PRO:HD3	1.92	0.49
48:1q:18:THR:OG1	48:1q:69:LYS:NZ	2.30	0.49
1:2A:2297:A:H4'	1:2A:2298:A:O4'	2.12	0.49
6:2G:73:ALA:HB3	6:2G:85:GLY:H	1.76	0.49
22:20:32:ARG:H	22:20:35:ASN:ND2	2.10	0.49
23:21:22:GLY:O	23:21:32:LYS:NZ	2.45	0.49
25:23:8:LEU:HD13	25:23:31:LEU:HD23	1.93	0.49
34:2c:8:ILE:HD12	34:2c:16:ARG:HE	1.77	0.49
1:1A:675:G:OP1	30:18:19:SER:OG	2.24	0.49
1:1A:2083:A:C2	1:1A:2514:A:N6	2.80	0.49
8:1I:72:LEU:HD21	8:1I:107:VAL:HG11	1.95	0.49
32:1a:443:A:OP2	32:1a:470:G:N1	2.35	0.49
32:1a:472:A:H2'	32:1a:473:C:O4'	2.12	0.49
32:1a:954:G:H5'	32:1a:1340:U:O2'	2.11	0.49
33:1b:119:GLU:O	33:1b:123:ALA:HB3	2.11	0.49
1:2A:766:C:H2'	1:2A:767:C:C6	2.47	0.49
1:2A:2219:A:O2'	1:2A:2235:G:N2	2.45	0.49
1:2A:2568:G:H2'	1:2A:2569:C:C6	2.47	0.49
9:2N:14:VAL:HG13	9:2N:138:LEU:HB2	1.95	0.49
32:2a:1406:G:H2'	32:2a:1407:C:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:207:G:OP2	59:1A:4189:HOH:O	2.20	0.49
1:1A:1416:G:H2'	1:1A:1417:U:C5	2.48	0.49
12:1Q:21:THR:HG21	12:1Q:101:ARG:N	2.27	0.49
32:1a:199:U:H2'	32:1a:200:C:H6	1.76	0.49
32:1a:205:G:H2'	32:1a:206:G:C8	2.47	0.49
32:1a:239:A:H4'	32:1a:240:U:H5''	1.93	0.49
32:1a:566:U:H2'	32:1a:567:A:H8	1.76	0.49
32:1a:837:A:H2'	32:1a:838:A:O4'	2.13	0.49
33:1b:144:ARG:O	33:1b:147:LYS:HB2	2.13	0.49
33:1b:231:GLU:H	33:1b:232:PRO:HD2	1.77	0.49
20:2Y:94:LYS:NZ	59:2Y:601:HOH:O	2.45	0.49
32:2a:1261:A:O2'	32:2a:1263:U:OP2	2.24	0.49
36:2e:10:MET:HB2	36:2e:13:ILE:HD11	1.94	0.49
1:1A:867:A:H2'	1:1A:990:G:H5''	1.94	0.49
1:1A:1070:G:C4	1:1A:1179:C:H1'	2.48	0.49
5:1F:140:LEU:HD21	5:1F:170:LEU:HD11	1.93	0.49
21:1Z:24:LEU:HB2	21:1Z:41:LEU:HD23	1.94	0.49
37:1f:22:GLU:OE2	37:1f:82:ARG:NH1	2.45	0.49
1:2A:1225:C:H2'	1:2A:1226:A:H8	1.78	0.49
1:2A:1475:C:H2'	1:2A:1476:U:C6	2.47	0.49
1:2A:1643:C:H2'	1:2A:1644:C:H6	1.76	0.49
1:2A:1910:A:H2'	1:2A:1911:A:H8	1.76	0.49
1:2A:1920:G:H2'	1:2A:1920:G:N3	2.28	0.49
32:2a:677:G:H2'	32:2a:678:A:C8	2.48	0.49
33:2b:219:VAL:O	33:2b:222:ILE:HG13	2.12	0.49
46:2o:5:LYS:H	46:2o:5:LYS:NZ	2.10	0.49
51:2t:54:LYS:HA	51:2t:57:ARG:CZ	2.43	0.49
1:1A:1899:G:H2'	1:1A:1900:C:C6	2.47	0.49
1:1A:2107:U:H2'	1:1A:2108:G:C8	2.47	0.49
6:1G:73:ALA:HB3	6:1G:85:GLY:H	1.77	0.49
9:1N:61:ARG:HA	9:1N:61:ARG:HE	1.78	0.49
32:1a:1073:U:H3	32:1a:1078:U:H3	1.59	0.49
33:1b:16:HIS:HB2	33:1b:204:ASN:HB3	1.94	0.49
39:1h:51:VAL:HG21	39:1h:60:ARG:HB2	1.93	0.49
1:2A:8:U:H3	1:2A:2640:A:H2	1.59	0.49
32:2a:424:G:OP2	35:2d:10:ARG:NH1	2.45	0.49
32:2a:749:G:N1	32:2a:796:C:O2'	2.38	0.49
32:2a:930:U:H4'	32:2a:942:A:N1	2.27	0.49
32:2a:1306:A:H4'	32:2a:1344:C:H4'	1.94	0.49
33:2b:16:HIS:HB3	33:2b:210:SER:HB3	1.94	0.49
1:1A:121:G:OP1	1:1A:1421:C:O2'	2.17	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:161:G:H2'	1:1A:162:C:C6	2.48	0.49
1:1A:352:G:O6	20:1Y:19:LYS:N	2.37	0.49
1:1A:670:A:H2'	1:1A:671:G:O4'	2.13	0.49
4:1E:8:LYS:NZ	4:1E:188:VAL:O	2.45	0.49
10:1O:115:VAL:HG13	10:1O:121:VAL:HG21	1.95	0.49
32:1a:983:A:H5''	32:1a:984:A:C2	2.48	0.49
32:1a:1232:A:N1	32:1a:1335:G:N2	2.61	0.49
34:1c:35:GLU:OE2	34:1c:59:ARG:NH2	2.45	0.49
1:2A:863:C:O2'	1:2A:885:U:H5''	2.13	0.49
1:2A:910:G:C6	1:2A:911:C:N4	2.81	0.49
1:2A:1102:A:N6	1:2A:1131:A:H2'	2.27	0.49
6:2G:64:THR:HB	6:2G:94:LEU:HD11	1.95	0.49
22:20:11:ARG:NH1	54:2x:64:G:OP1	2.45	0.49
32:2a:531:A:H4'	32:2a:532:G:O5'	2.13	0.49
32:2a:754:C:O2'	32:2a:877:C:N3	2.40	0.49
32:2a:1101:C:H1'	32:2a:1161:A:C5	2.48	0.49
32:2a:1149:G:H1'	32:2a:1153:G:N2	2.27	0.49
33:2b:187:LEU:HD12	33:2b:201:ILE:HD12	1.94	0.49
45:2n:24:CYS:HB3	45:2n:29:ARG:N	2.28	0.49
2:1B:76:G:O6	59:1B:303:HOH:O	2.18	0.49
13:1R:21:TYR:OH	13:1R:43:GLU:HG2	2.13	0.49
32:1a:108:U:OP1	59:1a:2023:HOH:O	2.20	0.49
32:1a:440:G:H2'	32:1a:441:G:C8	2.48	0.49
32:1a:447:A:H4'	47:1p:72:ARG:HH21	1.77	0.49
1:2A:993:C:N4	59:2A:3761:HOH:O	2.45	0.49
1:2A:1047:G:H2'	1:2A:1048:G:O4'	2.13	0.49
1:2A:2370:C:H2'	1:2A:2371:A:O4'	2.12	0.49
41:2j:23:ILE:HA	41:2j:26:ALA:HB3	1.95	0.49
47:2p:55:ARG:O	47:2p:58:TYR:HB3	2.13	0.49
1:1A:152:C:OP2	23:11:92:LYS:NZ	2.46	0.49
1:1A:2622:U:C4	27:15:3:LYS:HG2	2.48	0.49
1:1A:2800:C:OP1	4:1E:61:ARG:NH2	2.45	0.49
6:1G:41:GLN:NE2	6:1G:153:ARG:HB3	2.27	0.49
12:1Q:22:LYS:N	59:1Q:5002:HOH:O	2.46	0.49
32:1a:568:G:H2'	32:1a:569:G:C8	2.47	0.49
32:1a:1464:G:H2'	32:1a:1465:G:O4'	2.13	0.49
32:1a:1482:G:OP1	32:1a:1485:A:H4'	2.12	0.49
39:1h:73:ASP:OD1	39:1h:75:ARG:HD3	2.13	0.49
47:1p:41:PRO:O	47:1p:43:LYS:HG3	2.13	0.49
49:1r:38:GLU:HA	49:1r:41:LYS:HD3	1.93	0.49
1:2A:200:G:H2'	1:2A:201:A:O4'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1369:G:C2	1:2A:1376:A:C2	3.00	0.49
1:2A:1915:C:H2'	1:2A:1916:C:H6	1.76	0.49
32:2a:1116:G:H1	32:2a:1124:C:N4	2.04	0.49
32:2a:1480:A:H2	32:2a:1483:G:N1	2.02	0.49
33:2b:102:LEU:HD23	33:2b:182:ILE:HD12	1.94	0.49
36:2e:75:THR:OG1	36:2e:76:ILE:N	2.46	0.49
46:2o:16:ALA:HB1	46:2o:21:ASP:HB3	1.94	0.49
47:2p:72:ARG:HG3	47:2p:73:LEU:N	2.28	0.49
49:2r:47:THR:HG23	49:2r:49:LYS:HG3	1.94	0.49
1:1A:69:A:N7	19:1X:31:HIS:HE1	2.10	0.49
1:1A:309:C:H2'	1:1A:310:C:C6	2.48	0.49
19:1X:60:ARG:NH2	29:17:47:ARG:HH22	2.11	0.49
28:16:6:ARG:NH1	28:16:26:ASN:HB2	2.28	0.49
32:1a:582:U:H2'	32:1a:583:C:H6	1.76	0.49
32:1a:812:A:H2'	32:1a:813:G:O4'	2.13	0.49
32:1a:936:A:C6	32:1a:937:A:N1	2.81	0.49
47:1p:20:VAL:HG21	47:1p:32:TYR:CD2	2.48	0.49
1:2A:1231:G:H8	1:2A:1231:G:OP2	1.96	0.49
1:2A:1379:G:OP2	59:2A:3648:HOH:O	2.19	0.49
19:2X:8:ILE:O	24:22:36:ARG:NH2	2.45	0.49
20:2Y:43:ASN:CG	20:2Y:65:ALA:HB3	2.38	0.49
21:2Z:153:SER:HB3	21:2Z:167:PRO:HB3	1.94	0.49
26:24:16:CYS:SG	26:24:17:GLY:N	2.86	0.49
32:2a:810:C:H2'	32:2a:811:U:H6	1.77	0.49
32:2a:887:A:H2'	32:2a:888:C:O4'	2.12	0.49
32:2a:1170:A:H2'	32:2a:1171:C:O4'	2.13	0.49
33:2b:92:TYR:CD1	33:2b:151:GLY:HA3	2.40	0.49
37:2f:26:ILE:O	37:2f:30:LEU:HG	2.13	0.49
37:2f:97:PHE:HE1	49:2r:62:GLU:HG2	1.78	0.49
43:2l:75:HIS:CD2	43:2l:77:LEU:HB2	2.48	0.49
1:1A:1073:A:N6	1:1A:1170:G:H2'	2.27	0.48
1:1A:1076:G:H5''	31:19:8:LYS:HE3	1.94	0.48
8:1I:104:GLN:O	8:1I:106:GLY:N	2.45	0.48
1:2A:786:U:H2'	1:2A:787:G:C8	2.48	0.48
1:2A:2088:G:O2'	1:2A:2090:G:H5''	2.13	0.48
1:2A:2646:C:O2'	4:2E:48:GLN:NE2	2.44	0.48
2:2B:55:U:HO2'	6:2G:29:TRP:CD1	2.30	0.48
5:2F:126:VAL:HG21	5:2F:129:PHE:CZ	2.49	0.48
21:2Z:99:TYR:HA	21:2Z:124:ILE:O	2.13	0.48
32:2a:823:U:O2'	32:2a:824:C:OP1	2.30	0.48
32:2a:1335:G:OP1	52:2u:10:ARG:NH1	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2f:46:ARG:HB3	37:2f:46:ARG:HH11	1.77	0.48
43:2l:117:ARG:NH2	43:2l:124:LYS:HB2	2.28	0.48
1:1A:211:A:O2'	1:1A:446:C:O2	2.26	0.48
1:1A:964:G:N2	1:1A:2280:A:OP2	2.46	0.48
1:1A:1410:A:O4'	23:11:41:ARG:NH2	2.46	0.48
1:1A:2254:U:H2'	1:1A:2255:U:C6	2.48	0.48
1:1A:2290:G:N7	22:10:14:ARG:NH1	2.61	0.48
1:1A:2578:G:H2'	1:1A:2579:C:C6	2.48	0.48
32:1a:154:G:H21	32:1a:156:A:H3'	1.78	0.48
32:1a:1328:A:N1	32:1a:1357:A:H5''	2.27	0.48
35:1d:57:ARG:HD3	35:1d:205:GLU:HB2	1.94	0.48
40:1i:17:VAL:HG23	40:1i:63:ILE:HG12	1.95	0.48
44:1m:4:ILE:HG13	44:1m:57:ARG:HG3	1.95	0.48
44:1m:15:VAL:HG12	44:1m:19:LEU:HD22	1.94	0.48
49:1r:47:THR:HG23	49:1r:49:LYS:HG3	1.95	0.48
1:2A:2375:C:OP1	22:20:55:ARG:NH1	2.45	0.48
1:2A:2386:G:N2	1:2A:2389:A:OP2	2.40	0.48
32:2a:443:A:P	32:2a:470:G:H22	2.35	0.48
32:2a:604:C:C2	35:2d:135:LEU:HG	2.47	0.48
32:2a:1138:G:H3'	32:2a:1139:G:C8	2.48	0.48
33:2b:47:THR:OG1	33:2b:202:PRO:O	2.31	0.48
39:2h:39:LEU:HB3	39:2h:45:ILE:HG12	1.93	0.48
45:2n:26:ARG:HD3	45:2n:43:CYS:HB2	1.95	0.48
54:2x:19:G:H5''	54:2x:60:U:O4	2.14	0.48
1:1A:35:G:N3	1:1A:475:G:O2'	2.45	0.48
1:1A:2638:G:O2'	1:1A:2793:A:N1	2.46	0.48
1:1A:2896:U:H2'	1:1A:2897:C:C6	2.48	0.48
26:14:57:GLU:HA	26:14:58:ARG:HA	1.56	0.48
32:1a:45:G:C2	32:1a:46:U:H1'	2.48	0.48
32:1a:585:C:H2'	32:1a:586:A:C8	2.48	0.48
32:1a:1267:A:H4'	32:1a:1268:A:O5'	2.13	0.48
49:1r:24:ALA:C	49:1r:26:LEU:H	2.21	0.48
1:2A:1000:G:H2'	1:2A:1001:A:H2'	1.94	0.48
1:2A:1423:A:O2'	1:2A:1425:G:N7	2.39	0.48
1:2A:1856:G:H4'	3:2D:242:ARG:NH1	2.29	0.48
7:2H:127:GLU:C	7:2H:129:THR:H	2.21	0.48
17:2V:81:TYR:C	17:2V:82:ARG:HD2	2.37	0.48
32:2a:149:C:H2'	32:2a:150:C:H6	1.77	0.48
32:2a:935:U:H2'	32:2a:937:A:OP2	2.13	0.48
32:2a:937:A:HO2'	32:2a:962:C:HO2'	1.52	0.48
32:2a:1054:C:H2'	32:2a:1055:G:H8	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1246:C:C2	32:2a:1254:G:N2	2.81	0.48
32:2a:1393:G:H2'	32:2a:1394:C:C6	2.48	0.48
33:2b:127:ILE:C	33:2b:129:GLU:H	2.21	0.48
36:2e:144:THR:OG1	36:2e:147:ASP:OD1	2.22	0.48
39:2h:51:VAL:CG2	39:2h:60:ARG:HB2	2.42	0.48
1:1A:271:U:OP1	8:1I:50:ARG:NH2	2.46	0.48
1:1A:720:G:H1'	5:1F:74:ARG:HD3	1.96	0.48
1:1A:1217:G:H22	1:1A:1221:A:P	2.37	0.48
1:1A:1659:A:OP1	1:1A:1662:C:N4	2.46	0.48
1:1A:2249:G:N3	1:1A:2249:G:H2'	2.28	0.48
11:1P:82:GLY:HA2	11:1P:113:LYS:O	2.12	0.48
24:12:2:LYS:O	24:12:6:VAL:HG23	2.14	0.48
37:1f:100:ASN:ND2	49:1r:23:LYS:HE2	2.29	0.48
44:1m:15:VAL:HG23	44:1m:43:THR:O	2.13	0.48
5:2F:7:TYR:O	5:2F:22:ALA:N	2.46	0.48
7:2H:42:ARG:HB3	7:2H:42:ARG:HH11	1.77	0.48
14:2S:35:ILE:HG12	14:2S:97:ARG:HH21	1.78	0.48
23:21:19:GLN:HB3	23:21:35:THR:HG23	1.95	0.48
32:2a:571:G:N2	32:2a:738:C:OP2	2.39	0.48
33:2b:92:TYR:CE2	33:2b:150:SER:N	2.81	0.48
41:2j:55:LYS:HG3	41:2j:56:HIS:H	1.78	0.48
45:2n:21:TYR:OH	45:2n:23:ARG:NH2	2.39	0.48
48:2q:95:TYR:HA	48:2q:98:LEU:HG	1.95	0.48
1:1A:558:U:H2'	1:1A:559:C:C6	2.48	0.48
1:1A:1056:G:OP1	16:1U:77:SER:OG	2.30	0.48
1:1A:2542:A:H5''	7:1H:157:TYR:CZ	2.47	0.48
9:1N:73:THR:HG23	9:1N:82:LEU:HD11	1.96	0.48
43:1l:79:GLU:HG2	43:1l:80:HIS:CD2	2.49	0.48
1:2A:235:G:H4'	1:2A:412:G:C5	2.49	0.48
1:2A:241:C:OP2	30:28:5:LYS:NZ	2.37	0.48
1:2A:967:U:H2'	1:2A:968:C:C6	2.49	0.48
1:2A:1077:A:H2	1:2A:1167:G:H22	1.61	0.48
1:2A:1323:A:H2'	1:2A:1324:G:C8	2.48	0.48
6:2G:43:LEU:HB3	6:2G:44:GLY:H	1.47	0.48
16:2U:86:ALA:HB2	16:2U:116:ALA:HB2	1.95	0.48
19:2X:12:VAL:HG22	19:2X:29:TRP:CE2	2.48	0.48
22:20:27:GLU:HB2	22:20:69:PHE:HD1	1.78	0.48
29:27:8:ASN:HB3	29:27:11:LYS:HB3	1.94	0.48
32:2a:57:U:H2'	32:2a:58:G:H8	1.78	0.48
32:2a:1185:C:H2'	32:2a:1186:A:C8	2.48	0.48
32:2a:1408:U:H1'	32:2a:1454:G:N2	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:57:ILE:HD13	34:2c:66:VAL:HA	1.95	0.48
44:2m:10:PRO:HG3	44:2m:21:TYR:HD2	1.78	0.48
48:2q:19:VAL:HG23	48:2q:44:ALA:HB3	1.95	0.48
1:1A:141:G:H2'	1:1A:142:C:H6	1.79	0.48
1:1A:761:G:C2	46:1o:56:LEU:HD21	2.48	0.48
1:1A:1224:C:H2'	1:1A:1225:C:C6	2.48	0.48
1:1A:2601:A:H5''	3:1D:239:ARG:HG3	1.96	0.48
10:1O:16:ALA:HB2	10:1O:52:VAL:HG21	1.95	0.48
28:16:25:LYS:NZ	28:16:51:GLU:OE2	2.44	0.48
30:18:6:THR:HB	30:18:8:LYS:HE2	1.95	0.48
32:1a:97:C:P	51:1t:17:ARG:HH21	2.36	0.48
32:1a:468:C:OP1	59:1a:2024:HOH:O	2.20	0.48
32:1a:961:A:H5''	32:1a:962:C:OP2	2.13	0.48
32:1a:1112:C:O2'	32:1a:1122:G:N7	2.29	0.48
1:2A:309:C:H2'	1:2A:310:C:C6	2.49	0.48
1:2A:440:C:O2'	1:2A:441:A:H5'	2.13	0.48
1:2A:1076:G:H21	31:29:36:GLN:HE22	1.61	0.48
1:2A:1856:G:H4'	3:2D:242:ARG:CZ	2.44	0.48
1:2A:2328:C:N4	1:2A:2329:G:O6	2.47	0.48
1:2A:2574:U:O2	1:2A:2576:A:H8	1.97	0.48
4:2E:143:ASN:HD22	4:2E:147:PRO:HD3	1.77	0.48
6:2G:97:ASP:O	6:2G:101:ILE:HG13	2.13	0.48
21:2Z:5:LEU:HD13	21:2Z:47:VAL:HG21	1.95	0.48
28:26:11:LEU:HB2	28:26:21:TYR:HB2	1.94	0.48
32:2a:104:C:H2'	32:2a:105:G:O4'	2.14	0.48
32:2a:125:A:N3	32:2a:259:A:O2'	2.45	0.48
32:2a:604:C:H2'	32:2a:605:A:O4'	2.13	0.48
32:2a:831:G:H2'	32:2a:832:G:H8	1.78	0.48
32:2a:963:C:H2'	32:2a:964:A:C8	2.48	0.48
32:2a:1329:G:O2'	32:2a:1356:G:O6	2.31	0.48
33:2b:16:HIS:CG	33:2b:17:PHE:N	2.81	0.48
1:1A:307:U:H2'	1:1A:308:C:C6	2.49	0.48
1:1A:2873:G:OP1	15:1T:119:LYS:HD2	2.14	0.48
32:1a:658:G:H2'	32:1a:659:A:C8	2.48	0.48
41:1j:11:PHE:CE1	41:1j:67:THR:HG22	2.49	0.48
1:2A:338:G:H2'	1:2A:339:C:C6	2.48	0.48
1:2A:1403:G:O2'	1:2A:1404:A:H5''	2.12	0.48
1:2A:1480:G:H2'	1:2A:1481:G:O4'	2.14	0.48
1:2A:2477:C:H5''	31:29:6:SER:HB2	1.95	0.48
8:2I:72:LEU:HA	8:2I:75:LEU:HD22	1.96	0.48
32:2a:110:A:H61	32:2a:309:A:H1'	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:176:G:N2	32:2a:177:U:O4	2.30	0.48
32:2a:251:G:OP1	48:2q:69:LYS:NZ	2.40	0.48
32:2a:255:G:H2'	32:2a:256:G:O4'	2.14	0.48
32:2a:1378:C:O2'	32:2a:1384:G:O2'	2.25	0.48
33:2b:63:MET:HE2	33:2b:63:MET:HB2	1.79	0.48
36:2e:105:VAL:HB	36:2e:106:PRO:HD3	1.94	0.48
1:1A:931:C:H3'	1:1A:932:C:H5''	1.96	0.48
1:1A:1735:A:N6	1:1A:1744:A:H2	2.05	0.48
1:1A:2863:G:H2'	1:1A:2864:C:C6	2.49	0.48
32:1a:354:U:H2'	32:1a:355:U:H6	1.79	0.48
32:1a:825:U:H6	32:1a:825:U:P	2.37	0.48
38:1g:100:ALA:O	38:1g:104:LEU:HD23	2.14	0.48
44:1m:82:MET:O	44:1m:93:ARG:NH2	2.47	0.48
1:2A:26:G:HO2'	1:2A:27:A:P	2.34	0.48
1:2A:172:C:H2'	1:2A:173:U:C6	2.49	0.48
1:2A:1297:G:N3	16:2U:33:ARG:HG2	2.28	0.48
1:2A:1765:G:H8	1:2A:1769:A:H62	1.60	0.48
1:2A:2465:G:H1'	59:2A:3693:HOH:O	2.13	0.48
1:2A:2480:A:H2'	1:2A:2481:G:O4'	2.13	0.48
1:2A:2801:C:O2	1:2A:2902:G:N2	2.46	0.48
6:2G:114:ILE:HD12	6:2G:117:PHE:CD2	2.48	0.48
10:2O:98:VAL:HG11	10:2O:114:ILE:HG23	1.95	0.48
32:2a:932:G:H2'	32:2a:933:U:C6	2.49	0.48
32:2a:1309:C:H2'	32:2a:1310:C:H6	1.79	0.48
33:2b:165:VAL:HA	33:2b:187:LEU:HD23	1.96	0.48
35:2d:31:CYS:SG	35:2d:33:MET:N	2.82	0.48
36:2e:84:PHE:N	36:2e:87:SER:O	2.46	0.48
40:2i:114:TYR:O	40:2i:114:TYR:HD2	1.95	0.48
45:2n:4:LYS:O	45:2n:7:ILE:HG12	2.14	0.48
54:2x:17:C:H2'	54:2x:17(A):U:H2'	1.95	0.48
1:1A:1548:U:H2'	1:1A:1549:C:C6	2.49	0.48
2:1B:65:C:H2'	59:1B:312:HOH:O	2.14	0.48
3:1D:37:LEU:HD13	3:1D:62:TYR:HB2	1.95	0.48
4:1E:9:VAL:HG13	4:1E:25:VAL:O	2.14	0.48
7:1H:11:VAL:HG13	7:1H:15:VAL:HG22	1.95	0.48
12:1Q:42:ILE:HG12	12:1Q:103:MET:HE1	1.95	0.48
20:1Y:35:TYR:CE2	20:1Y:69:ALA:HB3	2.49	0.48
23:11:64:ALA:HA	23:11:67:ILE:HG13	1.95	0.48
26:14:53:GLU:OE1	44:1m:65:LYS:NZ	2.46	0.48
32:1a:16:G:H1'	36:1e:19:MET:HE2	1.96	0.48
32:1a:144:A:H2'	32:1a:145:C:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:28:PHE:HD2	33:1b:194:PRO:HG3	1.79	0.48
1:2A:84:C:H4'	1:2A:101:U:H1'	1.95	0.48
1:2A:2095:U:O4	59:2A:3651:HOH:O	2.19	0.48
1:2A:2691:C:OP2	4:2E:111:ARG:NH2	2.46	0.48
3:2D:132:PRO:HD3	3:2D:190:TYR:CZ	2.49	0.48
6:2G:173:LEU:HB3	6:2G:178:PHE:CG	2.48	0.48
13:2R:103:ARG:NH1	13:2R:108:GLY:O	2.47	0.48
32:2a:262:G:H5''	32:2a:264:C:H41	1.79	0.48
32:2a:541:G:N1	32:2a:542:G:C2	2.82	0.48
32:2a:1232:A:O3'	40:2i:67:GLY:HA2	2.14	0.48
32:2a:1286:G:OP1	52:2u:2:GLY:N	2.47	0.48
37:2f:61:LEU:HD23	37:2f:63:TYR:OH	2.14	0.48
39:2h:12:ARG:NH1	39:2h:27:PRO:HD3	2.28	0.48
42:2k:80:VAL:HG13	42:2k:103:LEU:HD12	1.96	0.48
1:1A:8:U:N3	1:1A:2640:A:C2	2.82	0.48
1:1A:955:A:N1	1:1A:2288:G:H1'	2.29	0.48
1:1A:1878:A:H2'	1:1A:1879:G:H8	1.79	0.48
1:1A:2095:U:H2'	1:1A:2096:U:C6	2.49	0.48
1:1A:2555:G:H1'	1:1A:2657:C:H4'	1.96	0.48
11:1P:59:LEU:HD21	30:18:10:ALA:HA	1.95	0.48
11:1P:81:GLN:NE2	11:1P:105:LEU:O	2.47	0.48
14:1S:3:ARG:C	14:1S:3:ARG:HD3	2.39	0.48
32:1a:171:C:H2'	32:1a:172:C:H6	1.78	0.48
32:1a:402:G:H5'	35:1d:5:ILE:HD11	1.95	0.48
39:1h:81:HIS:ND1	39:1h:138:TRP:OXT	2.44	0.48
1:2A:55:C:H2'	1:2A:56:G:O4'	2.14	0.48
1:2A:1529:G:C6	1:2A:1530:G:C5	3.02	0.48
2:2B:106:G:OP1	21:2Z:31:ARG:HG2	2.14	0.48
32:2a:712:A:H2'	32:2a:713:A:C8	2.49	0.48
32:2a:1306:A:O2'	32:2a:1344:C:H5''	2.13	0.48
44:2m:37:THR:HG21	44:2m:56:LEU:HD12	1.96	0.48
54:2x:55:PSU:O2'	54:2x:57:A:N7	2.40	0.48
1:1A:1475:C:H2'	1:1A:1476:U:H6	1.79	0.47
1:1A:2053:G:O2'	4:1E:145:LYS:HE3	2.14	0.47
1:1A:2554:G:H2'	1:1A:2555:G:C8	2.48	0.47
6:1G:33:ARG:O	6:1G:161:THR:OG1	2.26	0.47
15:1T:11:GLU:OE1	15:1T:57:PHE:HB3	2.14	0.47
20:1Y:15:VAL:HG21	20:1Y:42:VAL:HG11	1.95	0.47
21:1Z:41:LEU:HD21	21:1Z:83:PRO:HG2	1.96	0.47
32:1a:218:U:H2'	32:1a:219:U:C6	2.49	0.47
32:1a:296:A:H1'	32:1a:549:U:O2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1109:U:O2	32:1a:1262:A:H2'	2.14	0.47
44:1m:3:ARG:HG2	44:1m:8:GLU:HA	1.96	0.47
50:1s:50:ALA:HA	50:1s:58:VAL:O	2.14	0.47
1:2A:1114:A:H4'	1:2A:1115:A:H5''	1.95	0.47
1:2A:1465:U:O2'	1:2A:1466:G:OP1	2.29	0.47
1:2A:2022:A:H2'	1:2A:2023:G:C8	2.49	0.47
4:2E:34:VAL:HG21	4:2E:78:LEU:HD11	1.96	0.47
15:2T:106:SER:O	15:2T:110:ILE:HG13	2.14	0.47
20:2Y:38:ILE:HD13	20:2Y:66:PRO:HA	1.95	0.47
32:2a:153:G:H2'	32:2a:154:G:H8	1.79	0.47
32:2a:489:G:H2'	32:2a:490:G:H8	1.79	0.47
32:2a:806:C:OP2	59:2a:3322:HOH:O	2.20	0.47
44:2m:60:VAL:HG23	44:2m:64:TRP:HE3	1.77	0.47
46:2o:56:LEU:O	46:2o:60:VAL:HG23	2.14	0.47
1:1A:346:G:C8	5:1F:171:PRO:HG3	2.49	0.47
1:1A:1402:U:H2'	1:1A:1403:G:O4'	2.15	0.47
1:1A:1409:G:OP2	23:11:3:LYS:HG3	2.14	0.47
1:1A:1457:A:H2'	1:1A:1458:G:C8	2.49	0.47
1:1A:1802:G:OP1	59:1A:4193:HOH:O	2.20	0.47
3:1D:37:LEU:HD22	3:1D:87:ASN:ND2	2.29	0.47
8:1I:72:LEU:O	8:1I:74:ASN:N	2.47	0.47
33:1b:189:ASP:OD1	33:1b:189:ASP:N	2.39	0.47
50:1s:63:THR:OG1	50:1s:64:GLU:N	2.47	0.47
51:1t:29:LYS:O	51:1t:33:ILE:HG13	2.14	0.47
1:2A:344:G:H5'	5:2F:134:GLY:O	2.14	0.47
1:2A:2548:U:N3	1:2A:2549:C:C4	2.83	0.47
1:2A:2565:U:H2'	1:2A:2566:U:C6	2.48	0.47
4:2E:48:GLN:HA	4:2E:80:GLU:HA	1.96	0.47
6:2G:47:LYS:HB3	6:2G:48:GLU:H	1.39	0.47
12:2Q:1:MET:SD	12:2Q:1:MET:N	2.83	0.47
13:2R:13:HIS:CE1	13:2R:16:HIS:HB2	2.48	0.47
28:26:6:ARG:NH1	28:26:26:ASN:HB2	2.29	0.47
32:2a:127:C:H4'	32:2a:258:A:H1'	1.96	0.47
32:2a:295:G:H2'	32:2a:296:A:C8	2.49	0.47
32:2a:758:G:O6	32:2a:789:C:N4	2.47	0.47
32:2a:938:U:O2'	32:2a:1207:A:N7	2.45	0.47
32:2a:1274:U:H2'	32:2a:1275:G:O4'	2.14	0.47
33:2b:119:GLU:OE2	33:2b:153:ARG:NH2	2.47	0.47
50:2s:32:LYS:HE3	50:2s:57:HIS:CE1	2.49	0.47
1:1A:1383:G:O2'	1:1A:1438:A:N1	2.46	0.47
1:1A:1845:A:H8	1:1A:1845:A:OP1	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2227:G:O2'	1:1A:2228:A:OP1	2.31	0.47
1:1A:2302:U:H2'	1:1A:2303:C:C6	2.49	0.47
1:1A:2583:A:N7	4:1E:144:ARG:HD2	2.29	0.47
1:1A:2640:A:O2'	1:1A:2641:G:OP2	2.24	0.47
3:1D:69:ARG:NH2	3:1D:128:GLY:O	2.46	0.47
11:1P:121:LYS:HG2	11:1P:122:PRO:HD2	1.96	0.47
32:1a:17:A:OP1	59:1a:2022:HOH:O	2.19	0.47
32:1a:91:G:HO2'	32:1a:92:G:H8	1.57	0.47
32:1a:256:G:H2'	32:1a:257:U:C6	2.49	0.47
32:1a:646:G:H2'	32:1a:647:A:C8	2.49	0.47
32:1a:711:G:N2	32:1a:714:G:OP2	2.35	0.47
34:1c:58:GLU:H	34:1c:65:ALA:HB3	1.79	0.47
37:1f:94:GLN:OE1	49:1r:32:ARG:NH2	2.48	0.47
46:1o:18:PHE:HB2	46:1o:19:PRO:HD2	1.95	0.47
1:2A:323:A:P	20:2Y:86:ARG:HH21	2.38	0.47
1:2A:898:G:H2'	1:2A:899:G:H8	1.77	0.47
1:2A:2218:U:H1'	1:2A:2219:A:C8	2.49	0.47
6:2G:106:LEU:O	6:2G:111:LEU:HD22	2.14	0.47
13:2R:97:VAL:HG22	13:2R:114:VAL:HG13	1.96	0.47
25:23:9:VAL:HG12	25:23:32:GLN:HE22	1.79	0.47
30:28:54:GLU:O	30:28:58:ILE:HG13	2.15	0.47
32:2a:159:U:H2'	32:2a:160:C:C6	2.49	0.47
32:2a:169:C:H2'	32:2a:170:C:H6	1.79	0.47
32:2a:524:G:H2'	32:2a:525:G:O4'	2.14	0.47
32:2a:676:U:O4	42:2k:26:ASN:ND2	2.44	0.47
32:2a:954:G:C8	32:2a:1344:C:N4	2.82	0.47
32:2a:1410:U:H2'	32:2a:1411:A:C8	2.50	0.47
33:2b:92:TYR:CD2	33:2b:92:TYR:C	2.92	0.47
35:2d:31:CYS:O	35:2d:35:ARG:HG3	2.14	0.47
35:2d:79:PHE:HE1	35:2d:204:ILE:HD13	1.79	0.47
50:2s:22:LEU:HB3	50:2s:27:GLU:HG3	1.96	0.47
1:1A:1552:A:O2'	1:1A:1553:A:H8	1.97	0.47
1:1A:1856:G:H4'	3:1D:242:ARG:CZ	2.44	0.47
1:1A:2206:C:O2'	1:1A:2207:G:H5'	2.14	0.47
14:1S:15:ARG:O	14:1S:19:LYS:HG3	2.14	0.47
32:1a:1043:C:C5	34:1c:2:GLY:HA3	2.48	0.47
32:1a:1161:A:H2'	32:1a:1162:A:O4'	2.14	0.47
44:1m:19:LEU:HD11	44:1m:56:LEU:HD11	1.95	0.47
1:2A:100:A:H5'	24:22:3:LEU:HD11	1.97	0.47
1:2A:1050:C:C2	1:2A:1188:A:C5	3.01	0.47
1:2A:1121:C:H3'	1:2A:1122:A:H8	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2670:G:N2	1:2A:2672:G:H3'	2.30	0.47
3:2D:16:MET:HG3	3:2D:206:LEU:O	2.14	0.47
7:2H:24:VAL:HG13	7:2H:37:VAL:HG21	1.96	0.47
32:2a:646:G:H2'	32:2a:647:A:H8	1.77	0.47
32:2a:1067:G:H5'	32:2a:1085:A:OP2	2.14	0.47
33:2b:71:VAL:O	33:2b:165:VAL:HG22	2.14	0.47
35:2d:88:VAL:HG22	36:2e:96:PRO:HB2	1.96	0.47
1:1A:1715:A:H5''	1:1A:2561:G:OP1	2.14	0.47
1:1A:1827:C:H4'	3:1D:257:LEU:O	2.15	0.47
1:1A:2020:C:H4'	1:1A:2735:C:O2	2.15	0.47
1:1A:2086:C:H2'	1:1A:2087:C:H6	1.79	0.47
2:1B:28:C:H2'	2:1B:29:A:O4'	2.14	0.47
16:1U:81:HIS:CE1	16:1U:85:LYS:HD2	2.49	0.47
34:1c:112:SER:OG	34:1c:115:LEU:HD11	2.14	0.47
40:1i:100:GLY:O	40:1i:103:THR:HG22	2.14	0.47
44:1m:80:ARG:NH2	50:1s:69:HIS:HE1	2.10	0.47
46:1o:61:GLY:O	46:1o:65:ARG:HG3	2.14	0.47
1:2A:1683:A:H4'	1:2A:2722:A:O2'	2.15	0.47
1:2A:2278:A:H5''	1:2A:2279:A:H5'	1.96	0.47
1:2A:2879:C:H2'	1:2A:2880:C:O4'	2.14	0.47
2:2B:3:C:H2'	2:2B:4:C:C6	2.49	0.47
6:2G:179:PRO:HG3	26:24:43:TYR:OH	2.15	0.47
8:2I:84:GLY:O	8:2I:86:THR:N	2.44	0.47
14:2S:10:ARG:HH21	14:2S:91:PRO:HB2	1.80	0.47
21:2Z:69:THR:HG22	21:2Z:90:VAL:HA	1.97	0.47
23:21:40:ARG:HD3	23:21:40:ARG:C	2.39	0.47
23:21:65:SER:OG	23:21:66:HIS:ND1	2.37	0.47
32:2a:89:G:H2'	32:2a:90:U:C6	2.50	0.47
32:2a:560:G:O6	32:2a:858:C:O2'	2.25	0.47
32:2a:804:U:H4'	32:2a:805:G:OP2	2.14	0.47
1:1A:398:G:H8	23:11:65:SER:O	1.97	0.47
1:1A:935:C:O2'	1:1A:936:A:O4'	2.31	0.47
3:1D:142:VAL:HG23	3:1D:193:VAL:HA	1.97	0.47
4:1E:14:ILE:HG12	4:1E:21:VAL:HG13	1.96	0.47
17:1V:76:LYS:HB2	17:1V:81:TYR:HB3	1.94	0.47
21:1Z:146:ILE:HA	21:1Z:147:GLY:HA2	1.68	0.47
32:1a:90:U:C2'	32:1a:91:G:H5'	2.44	0.47
32:1a:426:A:OP2	35:1d:8:VAL:HG12	2.15	0.47
32:1a:1269:A:H2	32:1a:1335:G:N3	2.12	0.47
33:1b:27:LYS:C	33:1b:194:PRO:HG2	2.40	0.47
49:1r:76:LEU:HA	49:1r:76:LEU:HD13	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:26:G:C2	1:2A:536:G:N3	2.81	0.47
1:2A:892:C:H4'	1:2A:893:U:O4'	2.15	0.47
1:2A:945:A:H2'	1:2A:946:A:O4'	2.15	0.47
1:2A:1095:A:H2'	1:2A:1096:G:C8	2.48	0.47
1:2A:1280:G:C6	1:2A:1281:G:N1	2.82	0.47
1:2A:2333:A:H2'	1:2A:2334:G:O4'	2.15	0.47
1:2A:2854:G:H2'	1:2A:2855:G:H8	1.80	0.47
6:2G:170:ARG:NH1	6:2G:174:GLU:OE1	2.46	0.47
32:2a:812:A:H2'	32:2a:813:G:O4'	2.15	0.47
32:2a:1200:C:H2'	32:2a:1201:U:C6	2.49	0.47
44:2m:91:ARG:HB2	44:2m:98:VAL:HG12	1.96	0.47
52:2u:9:ARG:O	52:2u:13:ILE:HG13	2.14	0.47
1:1A:161:G:H2'	1:1A:162:C:H6	1.80	0.47
1:1A:329:U:H2'	1:1A:330:G:O4'	2.14	0.47
1:1A:663:U:H2'	1:1A:664:C:C6	2.50	0.47
1:1A:842:C:H2'	1:1A:843:C:C6	2.50	0.47
1:1A:894:G:O6	1:1A:973:G:H2'	2.15	0.47
1:1A:1813:A:OP1	59:1A:4102:HOH:O	2.20	0.47
1:1A:1822:G:H5'	3:1D:205:VAL:HG13	1.97	0.47
1:1A:1934:A:C5	32:1a:1472:G:H5'	2.50	0.47
1:1A:1984:U:H4'	1:1A:1985:G:OP1	2.15	0.47
1:1A:2298:A:N6	1:1A:2355:U:H3	2.05	0.47
1:1A:2575:A:C2	1:1A:2658:U:H4'	2.49	0.47
7:1H:7:LEU:HG	7:1H:69:ARG:NH1	2.29	0.47
32:1a:50:U:O4	32:1a:361:U:H5	1.98	0.47
32:1a:266:A:H2'	32:1a:267:C:C6	2.50	0.47
32:1a:1147:G:H2'	32:1a:1148:C:C6	2.49	0.47
32:1a:1240:G:H2'	32:1a:1241:C:H6	1.79	0.47
32:1a:1482:G:H4'	32:1a:1483:G:C4	2.50	0.47
33:1b:68:ILE:HG12	33:1b:161:ALA:HB3	1.96	0.47
36:1e:5:ASP:OD1	36:1e:5:ASP:N	2.45	0.47
1:2A:121:G:OP1	1:2A:1421:C:O2'	2.30	0.47
1:2A:239:A:C5	1:2A:240:G:H1'	2.50	0.47
1:2A:751:A:H2'	1:2A:752:A:O4'	2.15	0.47
1:2A:1470:G:N2	1:2A:1619:G:N7	2.63	0.47
1:2A:1673:G:H2'	1:2A:1674:U:C6	2.50	0.47
1:2A:1883:A:N1	1:2A:2108:G:H1'	2.29	0.47
1:2A:2049:U:O4	59:2A:3642:HOH:O	2.16	0.47
1:2A:2115:G:OP1	8:2I:22:LYS:HD2	2.14	0.47
1:2A:2376:G:O6	30:28:39:LYS:HE3	2.15	0.47
4:2E:101:ARG:NH1	4:2E:169:ASN:O	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:2R:21:TYR:OH	13:2R:43:GLU:HG2	2.15	0.47
13:2R:59:ASP:OD1	13:2R:59:ASP:N	2.48	0.47
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.96	0.47
32:2a:99:G:C6	32:2a:100:C:C4	3.03	0.47
32:2a:452:C:H2'	32:2a:453:C:H6	1.80	0.47
32:2a:675:G:H2'	32:2a:676:U:C6	2.49	0.47
32:2a:741:U:H2'	32:2a:742:G:O4'	2.15	0.47
32:2a:898:U:H2'	32:2a:899:U:C6	2.49	0.47
32:2a:1121:G:N1	32:2a:1123:C:H1'	2.30	0.47
32:2a:1158:A:H2'	32:2a:1159:G:C8	2.50	0.47
32:2a:1302:C:H1'	50:2s:73:GLU:HB3	1.96	0.47
34:2c:59:ARG:HG2	34:2c:64:VAL:HG12	1.97	0.47
36:2e:53:LEU:HD12	36:2e:53:LEU:H	1.80	0.47
36:2e:78:HIS:HD1	39:2h:107:LEU:HD12	1.80	0.47
51:2t:18:GLN:O	51:2t:22:ARG:HG3	2.14	0.47
1:1A:2657:C:H2'	1:1A:2658:U:O4'	2.15	0.47
3:1D:21:PHE:HB3	3:1D:24:ILE:HD12	1.96	0.47
6:1G:11:TYR:HA	6:1G:15:VAL:HB	1.96	0.47
9:1N:62:VAL:HG22	9:1N:66:LYS:HD2	1.97	0.47
24:12:32:LEU:HD13	24:12:36:ARG:NH1	2.30	0.47
32:1a:613:G:H3'	32:1a:614:G:H5''	1.96	0.47
32:1a:843:A:H2	32:1a:896:A:H4'	1.79	0.47
32:1a:964:A:H1'	50:1s:54:GLY:O	2.15	0.47
35:1d:180:GLY:O	35:1d:181:MET:HG2	2.14	0.47
38:1g:70:LYS:O	38:1g:138:LYS:NZ	2.47	0.47
50:1s:52:TYR:HA	50:1s:56:GLN:O	2.14	0.47
1:2A:113:C:H2'	1:2A:114:G:O4'	2.15	0.47
1:2A:330:G:H21	1:2A:353:A:H62	1.63	0.47
1:2A:448:A:H2'	1:2A:449:A:C8	2.50	0.47
1:2A:598:U:H2'	1:2A:599:G:C8	2.50	0.47
1:2A:732:G:N2	1:2A:834:A:H61	2.13	0.47
1:2A:914:U:O2'	12:2Q:8:LYS:HE3	2.15	0.47
1:2A:1108:G:H2'	1:2A:1109:C:O4'	2.14	0.47
1:2A:1673:G:H2'	1:2A:1674:U:H6	1.80	0.47
1:2A:2805:G:H22	1:2A:2814:C:H1'	1.79	0.47
6:2G:3:LEU:HD12	26:24:25:TYR:CZ	2.50	0.47
9:2N:123:TYR:OH	9:2N:130:HIS:NE2	2.42	0.47
32:2a:765:A:OP1	32:2a:1501:G:H5'	2.14	0.47
32:2a:881:G:OP1	59:2a:3323:HOH:O	2.20	0.47
32:2a:986:C:H2'	32:2a:987:C:H6	1.80	0.47
32:2a:993:A:N3	32:2a:1201:U:H1'	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1273:G:H2'	32:2a:1274:U:C6	2.50	0.47
32:2a:1325:G:H2'	32:2a:1326:C:C6	2.49	0.47
33:2b:207:ALA:O	33:2b:211:ILE:HG13	2.15	0.47
34:2c:180:ALA:HB1	34:2c:203:PHE:CE1	2.47	0.47
38:2g:23:VAL:HG13	38:2g:43:PHE:CZ	2.50	0.47
40:2i:33:PHE:HE2	40:2i:47:LEU:HD21	1.79	0.47
1:1A:1091:A:H3'	1:1A:1092:G:C5'	2.45	0.47
1:1A:2330:G:N2	14:1S:3:ARG:HA	2.30	0.47
11:1P:112:LEU:HD13	11:1P:127:ALA:HB2	1.97	0.47
27:15:16:ARG:HG3	27:15:17:ASP:N	2.29	0.47
32:1a:8:G:H5'	32:1a:294:A:O4'	2.15	0.47
32:1a:70:G:H2'	32:1a:71:G:C8	2.49	0.47
32:1a:448:A:H4'	47:1p:72:ARG:HB2	1.96	0.47
32:1a:566:U:H2'	32:1a:567:A:C8	2.50	0.47
32:1a:987:C:H5'	32:1a:988:G:OP2	2.15	0.47
32:1a:1131:U:H2'	32:1a:1132:C:O4'	2.14	0.47
32:1a:1184:G:N2	45:1n:43:CYS:HB3	2.30	0.47
33:1b:16:HIS:CG	33:1b:17:PHE:N	2.83	0.47
33:1b:24:TRP:CD1	33:1b:24:TRP:H	2.32	0.47
39:1h:75:ARG:HH11	39:1h:75:ARG:HB2	1.80	0.47
51:1t:16:HIS:O	51:1t:19:SER:OG	2.24	0.47
1:2A:25:G:C6	1:2A:26:G:N1	2.83	0.47
1:2A:325:C:H42	1:2A:338:G:H1	1.63	0.47
1:2A:2327:C:H2'	1:2A:2328:C:H6	1.80	0.47
1:2A:2495:G:C2	1:2A:2496:G:C8	3.03	0.47
1:2A:2573:U:H4'	10:2O:25:LEU:HD21	1.97	0.47
1:2A:2609:A:OP1	59:2A:3653:HOH:O	2.21	0.47
3:2D:72:LYS:HG3	3:2D:103:ARG:NH2	2.29	0.47
6:2G:13:GLU:HG3	6:2G:14:GLU:HG2	1.96	0.47
17:2V:43:GLU:N	17:2V:43:GLU:OE2	2.47	0.47
21:2Z:108:PRO:HG3	21:2Z:141:VAL:HB	1.96	0.47
25:23:46:ASN:O	25:23:50:VAL:HG22	2.13	0.47
32:2a:600:G:OP2	35:2d:141:ARG:NH2	2.46	0.47
34:2c:117:ALA:HB2	34:2c:186:PHE:CD1	2.50	0.47
45:2n:47:LEU:HB3	45:2n:53:LEU:HD23	1.97	0.47
1:1A:264:U:H2'	1:1A:265:C:C6	2.50	0.47
1:1A:330:G:N2	1:1A:332:G:H3'	2.30	0.47
1:1A:1217:G:O2'	1:1A:1218:A:O5'	2.32	0.47
5:1F:18:ARG:HG2	5:1F:19:GLU:H	1.79	0.47
25:13:8:LEU:HD13	25:13:31:LEU:HD23	1.95	0.47
27:15:35:GLU:HG2	59:15:207:HOH:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:198:G:H21	51:1t:103:GLY:HA2	1.80	0.47
33:1b:51:LEU:HD22	33:1b:55:PHE:HE2	1.80	0.47
41:1j:16:LEU:HD12	41:1j:94:VAL:HG13	1.95	0.47
44:1m:84:ILE:HB	50:1s:66:MET:HE2	1.96	0.47
48:1q:59:ILE:HG22	48:1q:73:VAL:HA	1.97	0.47
1:2A:141:G:H4'	19:2X:35:THR:HG21	1.96	0.47
1:2A:909:A:H2'	1:2A:910:G:H8	1.81	0.47
1:2A:1389:G:O2'	1:2A:1430:G:H2'	2.14	0.47
1:2A:1552:A:H2'	1:2A:1553:A:O4'	2.15	0.47
1:2A:2239:G:C5	1:2A:2240:C:C4	3.03	0.47
1:2A:2813:C:H2'	1:2A:2814:C:H6	1.79	0.47
3:2D:71:ASP:HB3	3:2D:103:ARG:HH22	1.80	0.47
3:2D:124:PRO:O	3:2D:126:GLN:N	2.48	0.47
32:2a:516:A:H4'	32:2a:517:A:OP2	2.15	0.47
42:2k:21:ILE:HB	42:2k:84:VAL:HG22	1.96	0.47
43:2l:24:VAL:CG2	43:2l:27:LEU:HD22	2.45	0.47
1:1A:552:A:C2	1:1A:2064:C:H4'	2.51	0.46
1:1A:922:C:H2'	1:1A:923:U:O4'	2.14	0.46
1:1A:1616:A:H2'	1:1A:1617:A:C8	2.50	0.46
1:1A:2095:U:OP2	59:1A:4194:HOH:O	2.21	0.46
1:1A:2207:G:H2'	1:1A:2208:G:O4'	2.15	0.46
1:1A:2588:A:H5'	27:15:3:LYS:HD2	1.96	0.46
2:1B:66:A:N6	2:1B:108:U:H2'	2.30	0.46
21:1Z:13:GLU:HB3	21:1Z:18:LEU:HD21	1.97	0.46
32:1a:526:G:OP1	35:1d:10:ARG:NH2	2.47	0.46
32:1a:989:G:H1	32:1a:998:C:H42	1.63	0.46
33:1b:155:LEU:HD11	33:1b:159:PRO:HG3	1.97	0.46
1:2A:792:A:H2'	1:2A:2623:C:H5''	1.97	0.46
1:2A:810:A:H5'	3:2D:210:GLY:CA	2.45	0.46
1:2A:907:A:H2'	1:2A:908:G:O4'	2.15	0.46
1:2A:1457:A:H2'	1:2A:1458:G:H8	1.79	0.46
1:2A:2103:A:H5'	59:2A:3920:HOH:O	2.14	0.46
1:2A:2274:C:N4	22:20:15:ASP:OD1	2.48	0.46
1:2A:2375:C:H2'	1:2A:2376:G:O4'	2.15	0.46
3:2D:5:LYS:HG2	3:2D:17:THR:HG22	1.96	0.46
4:2E:77:ILE:HD13	4:2E:77:ILE:HA	1.74	0.46
5:2F:140:LEU:HD21	5:2F:170:LEU:HD11	1.98	0.46
7:2H:9:ILE:HG12	7:2H:69:ARG:HD2	1.96	0.46
8:2I:135:GLU:C	8:2I:137:PRO:HD3	2.40	0.46
9:2N:34:LEU:O	9:2N:49:GLY:HA3	2.14	0.46
32:2a:1135:A:H2'	32:2a:1136:C:H6	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1302:C:H2'	32:2a:1303:C:O4'	2.16	0.46
32:2a:1330:U:H4'	40:2i:120:ARG:HD2	1.97	0.46
32:2a:1370:G:H2'	32:2a:1371:C:C6	2.50	0.46
33:2b:145:LEU:O	33:2b:149:LEU:HB2	2.15	0.46
35:2d:11:LEU:O	35:2d:15:GLU:HG2	2.15	0.46
1:1A:1222:C:H2'	1:1A:1223:C:C6	2.50	0.46
1:1A:1934:A:N6	32:1a:1472:G:OP1	2.49	0.46
1:1A:2734:G:H2'	1:1A:2735:C:C6	2.50	0.46
32:1a:90:U:N3	32:1a:91:G:N7	2.63	0.46
32:1a:239:A:C2	32:1a:242:A:C8	3.03	0.46
32:1a:288:G:C5	32:1a:289:G:H1'	2.49	0.46
32:1a:409:G:H1'	32:1a:424:G:H21	1.79	0.46
32:1a:524:G:H2'	32:1a:525:G:O4'	2.15	0.46
32:1a:817:U:H2'	32:1a:818:C:C6	2.50	0.46
32:1a:1334:C:H2'	32:1a:1335:G:C8	2.49	0.46
48:1q:3:LYS:HB2	48:1q:60:ILE:HD11	1.98	0.46
1:2A:324:G:OP2	20:2Y:84:ARG:NH2	2.48	0.46
1:2A:785:G:OP1	59:2A:3654:HOH:O	2.21	0.46
1:2A:1039:C:O2'	1:2A:1041:A:OP1	2.28	0.46
9:2N:94:HIS:O	9:2N:97:ARG:HB2	2.15	0.46
14:2S:15:ARG:NE	14:2S:88:ASP:OD2	2.29	0.46
19:2X:1:MET:HE1	24:22:22:GLU:HB3	1.96	0.46
21:2Z:134:PRO:C	21:2Z:136:PHE:H	2.23	0.46
32:2a:982:G:H3'	32:2a:982:G:N3	2.30	0.46
32:2a:1281:A:H2'	32:2a:1281:A:N3	2.31	0.46
32:2a:1306:A:C4'	32:2a:1344:C:H4'	2.45	0.46
34:2c:5:ILE:HG22	41:2j:51:ARG:HH12	1.79	0.46
35:2d:122:ARG:NH1	35:2d:134:ASP:HB2	2.30	0.46
38:2g:95:ARG:HE	38:2g:99:LEU:HD11	1.80	0.46
44:2m:37:THR:HB	44:2m:55:ARG:HH12	1.81	0.46
1:1A:552:A:O2'	1:1A:553:A:H5'	2.15	0.46
6:1G:126:ASP:HB2	6:1G:130:ASN:HB2	1.96	0.46
8:1I:48:GLU:HG2	8:1I:52:ARG:HH22	1.81	0.46
10:1O:7:TYR:HE1	10:1O:20:MET:HE3	1.80	0.46
20:1Y:68:HIS:ND1	20:1Y:70:SER:HB3	2.29	0.46
24:12:22:GLU:HG2	24:12:64:LEU:HD11	1.96	0.46
32:1a:161:G:H2'	32:1a:162:G:C8	2.50	0.46
32:1a:220:C:H2'	32:1a:221:C:C6	2.50	0.46
35:1d:98:GLU:OE1	35:1d:103:ASN:ND2	2.42	0.46
1:2A:303:C:H2'	1:2A:304:G:O4'	2.15	0.46
1:2A:1017:A:OP2	59:2A:3626:HOH:O	2.20	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1050:C:H2'	1:2A:1051:C:H6	1.79	0.46
1:2A:1897:A:H2'	1:2A:1898:A:C8	2.51	0.46
1:2A:2785:C:OP1	4:2E:166:THR:OG1	2.28	0.46
4:2E:174:ASP:OD1	4:2E:175:VAL:N	2.47	0.46
5:2F:57:VAL:HG13	5:2F:59:TYR:H	1.80	0.46
14:2S:11:LYS:O	14:2S:15:ARG:HG3	2.15	0.46
15:2T:23:ARG:HG3	15:2T:120:ARG:NH1	2.31	0.46
15:2T:64:ARG:HB2	15:2T:73:GLU:HG2	1.98	0.46
32:2a:914:C:H2'	32:2a:915:A:O4'	2.15	0.46
32:2a:1329:G:C5	40:2i:107:ARG:HD2	2.51	0.46
33:2b:92:TYR:CZ	33:2b:152:PHE:N	2.84	0.46
36:2e:78:HIS:CE1	36:2e:143:ARG:H	2.33	0.46
40:2i:82:ALA:O	40:2i:86:VAL:HG23	2.15	0.46
50:2s:43:GLU:N	50:2s:43:GLU:OE2	2.48	0.46
1:1A:301:A:HO2'	1:1A:302:C:P	2.39	0.46
1:1A:402:C:OP1	59:1A:4196:HOH:O	2.21	0.46
1:1A:1830:C:OP2	3:1D:183:ARG:NH2	2.49	0.46
1:1A:2078:A:N7	59:1A:4335:HOH:O	2.35	0.46
1:1A:2543:G:O2'	1:1A:2668:A:N1	2.47	0.46
5:1F:129:PHE:CD1	5:1F:163:VAL:HG21	2.50	0.46
10:1O:68:GLU:HB3	10:1O:78:ARG:HB2	1.96	0.46
23:11:85:LEU:HB3	23:11:89:GLU:HB2	1.97	0.46
32:1a:447:A:OP1	47:1p:43:LYS:NZ	2.43	0.46
32:1a:568:G:H5'	48:1q:91:ARG:HH22	1.80	0.46
32:1a:826:C:H2'	32:1a:827:C:H6	1.80	0.46
38:1g:111:ARG:HB3	38:1g:113:GLU:OE2	2.16	0.46
47:1p:72:ARG:NH1	47:1p:73:LEU:HD21	2.30	0.46
48:1q:62:SER:HB3	48:1q:72:ARG:HD3	1.97	0.46
1:2A:138:A:C8	1:2A:1453:C:O2'	2.68	0.46
1:2A:594:A:OP2	17:2V:78:LYS:HE2	2.16	0.46
1:2A:1067:G:C6	1:2A:1184:C:N3	2.83	0.46
1:2A:2298:A:C5	1:2A:2300:G:C5	3.04	0.46
1:2A:2540:G:N7	31:29:31:LYS:NZ	2.54	0.46
2:2B:49:C:H2'	2:2B:50:G:C8	2.51	0.46
6:2G:48:GLU:O	6:2G:51:ARG:HG3	2.15	0.46
10:2O:63:VAL:HG11	10:2O:85:VAL:HG23	1.98	0.46
14:2S:67:ARG:HG2	14:2S:71:ARG:CZ	2.45	0.46
32:2a:59:C:O2'	32:2a:384:G:N7	2.34	0.46
32:2a:65:G:H4'	32:2a:66:U:C3'	2.44	0.46
32:2a:143:G:H2'	32:2a:144:A:H8	1.80	0.46
32:2a:395:G:H2'	32:2a:396:C:C6	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:547:A:N7	32:2a:551:G:H1'	2.31	0.46
32:2a:775:G:O6	32:2a:776:A:N6	2.47	0.46
32:2a:817:U:H2'	32:2a:818:C:H6	1.80	0.46
32:2a:977:C:H42	32:2a:1025:G:H1	1.64	0.46
1:1A:654:G:OP1	30:18:47:LYS:NZ	2.40	0.46
1:1A:767:C:H2'	1:1A:768:A:C8	2.51	0.46
1:1A:820:A:H2'	1:1A:820:A:N3	2.30	0.46
1:1A:2710:C:H2'	1:1A:2711:C:O4'	2.15	0.46
6:1G:138:GLN:HE22	6:1G:153:ARG:NH2	2.13	0.46
32:1a:648:G:N2	32:1a:725:G:H1	2.13	0.46
32:1a:925:G:H2'	32:1a:926:C:O4'	2.15	0.46
32:1a:1249:C:O2	52:1u:20:LYS:HE3	2.15	0.46
32:1a:1374:U:H2'	32:1a:1375:G:H8	1.80	0.46
1:2A:9:G:H1'	1:2A:2811:A:H62	1.81	0.46
1:2A:853:U:OP2	11:2P:41:ARG:NH2	2.45	0.46
1:2A:998:G:H5''	12:2Q:13:GLN:HB3	1.97	0.46
1:2A:1118:A:H3'	1:2A:1119:G:C8	2.51	0.46
1:2A:1685:U:C2'	1:2A:1686:C:H5''	2.45	0.46
1:2A:2224:U:H1'	3:2D:151:LYS:HE2	1.97	0.46
1:2A:2898:C:H2'	1:2A:2899:G:O4'	2.15	0.46
1:2A:2901:G:H5''	1:2A:2902:G:O4'	2.16	0.46
6:2G:33:ARG:HD3	6:2G:33:ARG:N	2.30	0.46
7:2H:169:VAL:HG12	7:2H:171:LEU:HD21	1.96	0.46
30:28:63:PRO:HG2	30:28:64:TYR:CD2	2.50	0.46
32:2a:522:G:H2'	32:2a:523:A:H8	1.80	0.46
32:2a:667:G:H2'	32:2a:668:A:C8	2.51	0.46
35:2d:191:ARG:HE	35:2d:200:GLU:CD	2.22	0.46
1:1A:1174:A:O2'	1:1A:2526:C:O2	2.34	0.46
1:1A:2723:U:OP1	1:1A:2726:G:H4'	2.16	0.46
3:1D:175:LEU:HD12	3:1D:185:VAL:HG21	1.96	0.46
8:1I:56:LYS:O	8:1I:60:GLU:HB3	2.15	0.46
12:1Q:42:ILE:HD13	12:1Q:97:VAL:HB	1.96	0.46
18:1W:18:ARG:NH1	18:1W:76:VAL:O	2.49	0.46
22:10:27:GLU:HB2	22:10:69:PHE:HD1	1.80	0.46
32:1a:1302:C:OP1	50:1s:70:LYS:NZ	2.48	0.46
34:1c:45:LYS:HG3	34:1c:46:GLU:H	1.80	0.46
34:1c:45:LYS:HG3	34:1c:46:GLU:N	2.30	0.46
51:1t:9:ASN:HB3	51:1t:10:LEU:HD12	1.97	0.46
1:2A:901:G:H2'	1:2A:902:C:C6	2.50	0.46
1:2A:1399:A:H2'	1:2A:1400:G:O4'	2.15	0.46
1:2A:2484:U:O2	1:2A:2484:U:H2'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2568:G:H2'	1:2A:2569:C:H6	1.81	0.46
23:21:3:LYS:H	23:21:61:ARG:NH1	2.14	0.46
34:2c:185:GLY:H	34:2c:186:PHE:HD2	1.64	0.46
35:2d:71:SER:OG	35:2d:74:GLN:HB2	2.16	0.46
54:2x:40:C:H2'	54:2x:41:C:C6	2.50	0.46
3:1D:206:LEU:HD22	3:1D:211:ARG:HG2	1.96	0.46
21:1Z:152:ALA:O	21:1Z:155:LEU:HB2	2.16	0.46
32:1a:436:A:H5'	59:1a:2113:HOH:O	2.15	0.46
32:1a:734:G:H1'	46:1o:22:THR:O	2.16	0.46
32:1a:825:U:H6	32:1a:825:U:OP2	1.99	0.46
33:1b:30:ARG:HG3	33:1b:31:TYR:CD1	2.51	0.46
33:1b:78:GLN:O	33:1b:94:ASN:ND2	2.45	0.46
36:1e:78:HIS:CD2	36:1e:78:HIS:H	2.34	0.46
40:1i:23:ASN:HD21	40:1i:25:LYS:HG2	1.81	0.46
44:1m:84:ILE:HG13	44:1m:86:CYS:N	2.31	0.46
1:2A:488:G:N2	1:2A:491:A:OP2	2.48	0.46
1:2A:1102:A:O2'	1:2A:1103:G:OP1	2.28	0.46
1:2A:1305:G:C6	1:2A:1306:C:C4	3.03	0.46
1:2A:1846:G:H3'	3:2D:62:TYR:CE1	2.51	0.46
1:2A:2583:A:N7	4:2E:144:ARG:HD2	2.31	0.46
7:2H:13:LYS:HA	7:2H:14:GLY:HA2	1.64	0.46
32:2a:836:G:O6	32:2a:847:G:H3'	2.16	0.46
32:2a:986:C:N4	32:2a:1001:G:H1	2.13	0.46
32:2a:1077:G:HO2'	32:2a:1091:G:N2	2.13	0.46
33:2b:178:ARG:NH2	39:2h:74:PRO:HB3	2.31	0.46
33:2b:185:ILE:HG23	33:2b:199:TYR:HB2	1.98	0.46
35:2d:135:LEU:C	35:2d:137:SER:H	2.24	0.46
35:2d:173:TRP:CD2	35:2d:189:PRO:HB3	2.51	0.46
36:2e:140:ARG:O	36:2e:143:ARG:NH2	2.49	0.46
54:2x:49:G:H1	54:2x:65:C:H42	1.64	0.46
1:1A:1311:G:O5'	18:1W:15:ARG:NH2	2.48	0.46
1:1A:1512:G:H2'	1:1A:1593:C:N4	2.31	0.46
1:1A:1828:U:H5'	3:1D:259:THR:CG2	2.38	0.46
59:1A:4363:HOH:O	12:1Q:75:THR:HG23	2.15	0.46
3:1D:183:ARG:HG3	3:1D:270:ILE:HG12	1.98	0.46
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.65	0.46
32:1a:415:C:H2'	32:1a:416:U:H6	1.81	0.46
32:1a:843:A:C2	32:1a:896:A:H4'	2.50	0.46
50:1s:18:LYS:O	50:1s:22:LEU:HB2	2.16	0.46
54:1x:50:U:H2'	54:1x:51:C:C6	2.51	0.46
1:2A:40:C:H2'	1:2A:41:G:H8	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:468:A:H5''	1:2A:469:C:OP1	2.16	0.46
1:2A:874:U:H4'	1:2A:877:G:N1	2.31	0.46
1:2A:1937:A:H2'	1:2A:1938:U:O4'	2.16	0.46
1:2A:2354:C:O2'	1:2A:2384:G:H4'	2.16	0.46
1:2A:2757:C:C4	1:2A:2758:U:C4	3.04	0.46
3:2D:2:ALA:O	3:2D:3:VAL:HB	2.16	0.46
11:2P:44:GLY:CA	11:2P:45:LEU:HB2	2.45	0.46
26:24:57:GLU:HA	26:24:58:ARG:HA	1.63	0.46
26:24:68:ARG:HB3	26:24:68:ARG:HH21	1.80	0.46
32:2a:68:C:H2'	32:2a:69:G:C8	2.51	0.46
32:2a:74:G:C6	32:2a:91:G:C6	3.04	0.46
32:2a:143:G:H2'	32:2a:144:A:C8	2.51	0.46
40:2i:111:ARG:HD2	45:2n:61:TRP:O	2.16	0.46
1:1A:604:G:H2'	1:1A:605:G:C8	2.51	0.46
1:1A:1014:C:HO2'	1:1A:1029:A:HO2'	1.63	0.46
1:1A:1716:C:O2	4:1E:129:HIS:NE2	2.42	0.46
16:1U:76:TYR:CE1	16:1U:80:ILE:HG13	2.51	0.46
19:1X:57:LEU:CD1	19:1X:78:LYS:HB2	2.46	0.46
32:1a:1308:C:OP1	52:1u:17:THR:OG1	2.25	0.46
1:2A:480:C:N3	1:2A:497:A:H2'	2.31	0.46
1:2A:1132:G:C6	1:2A:1134:G:C4	3.04	0.46
1:2A:1508:C:H4'	1:2A:2714:C:H5'	1.98	0.46
7:2H:2:SER:O	7:2H:3:ARG:HG2	2.16	0.46
11:2P:121:LYS:HB3	11:2P:121:LYS:HE2	1.78	0.46
23:21:50:ARG:HD2	23:21:57:GLU:OE1	2.16	0.46
26:24:58:ARG:HB3	26:24:59:PHE:HD1	1.81	0.46
32:2a:5:U:C4	39:2h:105:ARG:HD3	2.51	0.46
32:2a:1208:C:O2	50:2s:83:HIS:HE1	1.99	0.46
32:2a:1301:A:H61	32:2a:1343:G:H21	1.64	0.46
33:2b:178:ARG:HH12	39:2h:68:ARG:NH2	2.13	0.46
41:2j:23:ILE:HD13	41:2j:26:ALA:HB3	1.97	0.46
41:2j:49:VAL:HG13	45:2n:41:ARG:HB2	1.98	0.46
42:2k:48:ILE:C	42:2k:50:TYR:H	2.21	0.46
43:2l:27:LEU:HD13	43:2l:98:TYR:CE1	2.51	0.46
48:2q:18:THR:HG23	48:2q:69:LYS:HD3	1.97	0.46
1:1A:539:A:H1'	1:1A:603:C:H1'	1.98	0.46
1:1A:1313:A:C2	1:1A:2034:A:C4	3.04	0.46
1:1A:1939:A:O2'	1:1A:1941:C:N4	2.48	0.46
3:1D:145:VAL:HG12	3:1D:146:GLU:O	2.17	0.46
6:1G:72:ARG:NH1	6:1G:87:PRO:HG3	2.31	0.46
20:1Y:9:LYS:HA	20:1Y:10:GLY:HA2	1.69	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:493:A:O2'	32:1a:494:A:OP1	2.23	0.46
32:1a:605:A:H2'	32:1a:606:A:C8	2.51	0.46
32:1a:1056:U:H2'	32:1a:1057:G:H8	1.81	0.46
32:1a:1169:G:N3	45:1n:60:SER:OG	2.48	0.46
33:1b:55:PHE:HE1	33:1b:218:ALA:HA	1.81	0.46
40:1i:7:THR:O	40:1i:83:ARG:NH1	2.44	0.46
48:1q:41:LYS:NZ	48:1q:92:ARG:HH21	2.14	0.46
50:1s:33:THR:OG1	50:1s:34:TRP:N	2.49	0.46
51:1t:13:LEU:O	51:1t:17:ARG:HG3	2.15	0.46
52:1u:12:LYS:HB3	52:1u:22:ARG:HD2	1.97	0.46
1:2A:678:A:H61	1:2A:701:A:H1'	1.81	0.46
1:2A:1176:G:C2	1:2A:1177:A:C4	3.04	0.46
1:2A:2713:U:H4'	1:2A:2714:C:OP1	2.16	0.46
2:2B:98:G:H2'	2:2B:99:G:O4'	2.15	0.46
6:2G:33:ARG:O	6:2G:161:THR:HG23	2.16	0.46
7:2H:9:ILE:N	7:2H:50:VAL:O	2.27	0.46
20:2Y:7:VAL:HG21	20:2Y:72:VAL:HG12	1.97	0.46
20:2Y:48:ALA:HB2	20:2Y:60:PHE:CE2	2.51	0.46
32:2a:132:C:H2'	32:2a:133:G:C8	2.51	0.46
32:2a:720:C:H2'	32:2a:721:A:C8	2.51	0.46
32:2a:1310:C:OP1	52:2u:21:TYR:OH	2.30	0.46
36:2e:41:VAL:HG23	36:2e:67:VAL:HG13	1.97	0.46
43:2l:119:LYS:O	43:2l:120:TYR:HB2	2.16	0.46
44:2m:94:ARG:HB3	44:2m:96:LEU:HD23	1.97	0.46
50:2s:41:VAL:HG22	50:2s:42:PRO:HD2	1.96	0.46
1:1A:907:A:H2'	1:1A:908:G:O4'	2.17	0.45
1:1A:1158:U:H2'	1:1A:1159:G:H8	1.80	0.45
1:1A:1217:G:N2	1:1A:1221:A:OP2	2.48	0.45
1:1A:1317:A:H3'	1:1A:1318:U:H5''	1.97	0.45
1:1A:2540:G:H5''	1:1A:2541:A:H5''	1.98	0.45
1:1A:2730:G:O2'	1:1A:2856:U:OP1	2.29	0.45
5:1F:107:LYS:HE3	5:1F:205:ARG:O	2.14	0.45
6:1G:106:LEU:HD12	6:1G:110:ALA:HB3	1.98	0.45
8:1I:72:LEU:C	8:1I:74:ASN:N	2.74	0.45
13:1R:55:ALA:HB2	13:1R:79:LEU:HD13	1.96	0.45
16:1U:86:ALA:O	17:1V:49:THR:HG23	2.16	0.45
32:1a:288:G:N7	32:1a:289:G:H1'	2.31	0.45
32:1a:845:G:O2'	32:1a:851:A:N1	2.38	0.45
32:1a:1325:G:O2'	40:1i:121:ARG:HD2	2.17	0.45
35:1d:15:GLU:CG	35:1d:63:LYS:HB3	2.46	0.45
36:1e:122:GLU:O	36:1e:126:ARG:NH1	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:1s:3:ARG:HD3	50:1s:4:SER:N	2.31	0.45
53:1v:14:A:O2'	53:1v:15:A:H8	1.99	0.45
1:2A:417:G:O2'	1:2A:436:G:OP1	2.32	0.45
1:2A:748:G:C2	1:2A:777:C:C2	3.05	0.45
1:2A:1225:C:H2'	1:2A:1226:A:C8	2.51	0.45
4:2E:12:THR:HG22	15:2T:58:ASN:OD1	2.16	0.45
7:2H:121:ILE:HD11	7:2H:140:LYS:HG2	1.98	0.45
14:2S:10:ARG:HG2	14:2S:13:ARG:HH21	1.82	0.45
32:2a:360:A:H2'	32:2a:361:U:C6	2.51	0.45
32:2a:544:U:H5'	32:2a:550:G:N2	2.31	0.45
32:2a:655:G:H1	32:2a:719:C:H42	1.64	0.45
32:2a:955:A:O2'	32:2a:957:C:OP2	2.26	0.45
32:2a:1251:A:N1	32:2a:1294:G:O2'	2.44	0.45
32:2a:1257:A:H2'	32:2a:1258:G:O4'	2.16	0.45
32:2a:1307:C:H4'	52:2u:17:THR:HG21	1.97	0.45
32:2a:1493:C:H2'	32:2a:1494:G:H8	1.81	0.45
47:2p:9:PHE:CE1	47:2p:18:ARG:HD2	2.50	0.45
50:2s:41:VAL:HG13	50:2s:43:GLU:H	1.81	0.45
52:2u:9:ARG:HE	52:2u:9:ARG:HB3	1.54	0.45
1:1A:288:G:N3	59:1A:4192:HOH:O	2.36	0.45
1:1A:904:U:O2	1:1A:2279:A:H2'	2.16	0.45
1:1A:1633:C:H2'	1:1A:1634:C:H6	1.80	0.45
1:1A:2584:C:H3'	59:1A:4454:HOH:O	2.15	0.45
1:1A:2890:C:H2'	1:1A:2891:A:O4'	2.16	0.45
4:1E:18:ASP:HB3	15:1T:82:LEU:HD21	1.96	0.45
10:1O:10:VAL:HG13	10:1O:17:ARG:C	2.40	0.45
26:14:63:TYR:N	26:14:63:TYR:CD1	2.83	0.45
32:1a:650:G:OP2	32:1a:709:G:N2	2.43	0.45
32:1a:842:A:H2'	32:1a:843:A:C8	2.51	0.45
32:1a:1218:A:H2'	32:1a:1219:C:C6	2.51	0.45
34:1c:36:ASP:O	34:1c:40:ARG:HG3	2.16	0.45
35:1d:121:VAL:O	35:1d:134:ASP:HA	2.16	0.45
42:1k:98:LEU:O	42:1k:101:SER:OG	2.33	0.45
1:2A:820:A:N3	1:2A:820:A:H2'	2.31	0.45
1:2A:902:C:HO2'	1:2A:903:C:P	2.38	0.45
1:2A:1067:G:C5	1:2A:1184:C:C4	3.05	0.45
1:2A:1404:A:N1	1:2A:1417:U:O4	2.49	0.45
1:2A:2059:G:H2'	1:2A:2060:C:O4'	2.16	0.45
1:2A:2674:G:H3'	1:2A:2675:G:H8	1.80	0.45
5:2F:20:LEU:HD22	5:2F:20:LEU:HA	1.73	0.45
12:2Q:52:VAL:HG13	21:2Z:183:LEU:HD11	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:23:LYS:HB3	21:2Z:38:TYR:CD1	2.51	0.45
32:2a:1127:G:N2	32:2a:1129:A:H62	2.14	0.45
35:2d:196:LEU:O	35:2d:198:VAL:N	2.46	0.45
36:2e:24:ARG:HB2	36:2e:24:ARG:HH11	1.81	0.45
49:2r:52:PRO:HB2	49:2r:54:ARG:HG2	1.98	0.45
52:2u:3:LYS:HB3	52:2u:14:TRP:CD1	2.51	0.45
1:1A:330:G:H21	1:1A:353:A:H62	1.64	0.45
1:1A:334:A:C6	1:1A:351:U:C4	3.04	0.45
1:1A:1960:U:OP1	1:1A:2615:U:O2'	2.35	0.45
3:1D:12:SER:HB3	3:1D:208:LYS:HB3	1.98	0.45
4:1E:143:ASN:HD22	4:1E:147:PRO:CD	2.29	0.45
11:1P:76:LYS:HE2	11:1P:76:LYS:HB3	1.51	0.45
22:10:10:THR:HA	59:10:207:HOH:O	2.16	0.45
32:1a:65:G:H4'	32:1a:66:U:H3'	1.97	0.45
32:1a:252:U:H2'	32:1a:253:G:C8	2.52	0.45
34:1c:44:GLU:HA	34:1c:52:LEU:CD1	2.46	0.45
34:1c:180:ALA:HB1	34:1c:203:PHE:CE1	2.51	0.45
44:1m:84:ILE:HG13	44:1m:86:CYS:H	1.80	0.45
54:1x:73:A:H5''	54:1x:74:C:H5'	1.98	0.45
1:2A:468:A:H1'	1:2A:1245:C:O4'	2.16	0.45
1:2A:655:A:N3	1:2A:2426:G:O2'	2.47	0.45
1:2A:2640:A:H1'	1:2A:2641:G:H5''	1.98	0.45
1:2A:2830:A:O2'	1:2A:2835:A:N1	2.49	0.45
6:2G:123:ASN:C	6:2G:125:PHE:H	2.25	0.45
32:2a:332:C:H2'	32:2a:333:C:C6	2.51	0.45
32:2a:1030:G:H1	32:2a:1192:C:H42	1.64	0.45
32:2a:1273:G:H4'	40:2i:38:GLN:CD	2.41	0.45
32:2a:1468:C:H2'	32:2a:1469:G:C8	2.51	0.45
38:2g:54:THR:O	38:2g:56:GLN:N	2.48	0.45
38:2g:110:GLN:HA	38:2g:110:GLN:HE21	1.81	0.45
42:2k:110:ASP:HB3	49:2r:85:LEU:HB3	1.97	0.45
47:2p:1:MET:SD	47:2p:3:LYS:NZ	2.88	0.45
1:1A:1587:G:H5''	1:1A:1588:A:OP2	2.17	0.45
3:1D:68:LYS:HD2	3:1D:70:TRP:CZ2	2.51	0.45
4:1E:48:GLN:OE1	4:1E:66:HIS:NE2	2.41	0.45
4:1E:119:ARG:HG2	4:1E:160:TYR:CG	2.52	0.45
5:1F:37:VAL:HG21	11:1P:6:LEU:HD11	1.98	0.45
7:1H:13:LYS:HE2	7:1H:13:LYS:HB3	1.82	0.45
10:1O:35:VAL:HG21	10:1O:69:ILE:HD12	1.98	0.45
13:1R:55:ALA:HB1	13:1R:84:ALA:HB2	1.98	0.45
16:1U:76:TYR:CZ	16:1U:80:ILE:HG13	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:19:32:HIS:O	31:19:34:GLN:HG3	2.17	0.45
32:1a:817:U:H2'	32:1a:818:C:H6	1.80	0.45
32:1a:859:G:OP2	43:1l:12:ARG:NH2	2.49	0.45
32:1a:1125:G:H3'	32:1a:1126:G:H8	1.82	0.45
32:1a:1242:C:OP1	32:1a:1266:C:O2'	2.33	0.45
33:1b:71:VAL:O	33:1b:165:VAL:HG23	2.17	0.45
33:1b:94:ASN:OD1	33:1b:95:GLN:NE2	2.49	0.45
1:2A:378:G:H2'	1:2A:379:G:C8	2.51	0.45
1:2A:1243:U:H2'	1:2A:1244:C:C6	2.51	0.45
1:2A:1603:C:OP2	1:2A:1604:A:O2'	2.30	0.45
1:2A:1739:U:H4'	1:2A:1740:C:OP2	2.17	0.45
1:2A:1887:G:C6	1:2A:1888:G:C6	3.04	0.45
1:2A:2223:C:H42	1:2A:2232:G:H1	1.65	0.45
10:2O:68:GLU:OE2	10:2O:78:ARG:NH1	2.49	0.45
16:2U:97:ASP:OD1	16:2U:101:ARG:NH1	2.42	0.45
21:2Z:132:ASN:O	21:2Z:134:PRO:HD3	2.16	0.45
26:24:41:PRO:HG3	26:24:49:PHE:CZ	2.50	0.45
32:2a:422:G:OP1	35:2d:36:ARG:NH1	2.50	0.45
34:2c:6:HIS:HD2	34:2c:8:ILE:H	1.63	0.45
38:2g:150:ALA:HA	42:2k:59:TYR:HB3	1.98	0.45
1:1A:1312:U:OP1	59:1A:4198:HOH:O	2.21	0.45
1:1A:2879:C:H2'	1:1A:2880:C:O4'	2.17	0.45
14:1S:48:LEU:HD23	14:1S:82:ILE:HD11	1.98	0.45
19:1X:41:ASN:O	19:1X:45:THR:HG23	2.17	0.45
32:1a:385:A:C6	32:1a:386:C:H1'	2.52	0.45
32:1a:472:A:C2	32:1a:473:C:H1'	2.51	0.45
32:1a:645:G:H1	32:1a:728:C:H42	1.65	0.45
32:1a:697:G:H2'	32:1a:698:G:C8	2.52	0.45
32:1a:753:G:H4'	32:1a:1491:A:H4'	1.99	0.45
32:1a:826:C:H2'	32:1a:827:C:C6	2.52	0.45
32:1a:976:G:H1	32:1a:1026:C:H42	1.64	0.45
36:1e:100:VAL:HG22	36:1e:118:ILE:HG22	1.98	0.45
37:1f:45:LEU:HD12	37:1f:59:TYR:HD1	1.82	0.45
1:2A:619:U:H2'	1:2A:620:G:C8	2.51	0.45
1:2A:668:A:H5''	1:2A:669:C:OP1	2.16	0.45
13:2R:1:MET:HE3	13:2R:3:HIS:CE1	2.52	0.45
32:2a:1073:U:H2'	32:2a:1074:U:C6	2.52	0.45
32:2a:1329:G:C8	40:2i:107:ARG:HB2	2.52	0.45
38:2g:70:LYS:HE3	38:2g:97:GLN:HA	1.99	0.45
40:2i:9:ARG:HA	40:2i:13:ALA:O	2.17	0.45
51:2t:10:LEU:HD22	51:2t:11:SER:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:346:G:H1'	1:1A:1249:U:O2	2.17	0.45
1:1A:435:C:OP1	59:1A:4197:HOH:O	2.21	0.45
1:1A:2393:G:H21	30:18:42:ARG:NH2	2.14	0.45
6:1G:114:ILE:HB	6:1G:117:PHE:HB2	1.99	0.45
26:14:40:HIS:O	26:14:43:TYR:N	2.50	0.45
32:1a:388:G:H2'	32:1a:389:A:H8	1.82	0.45
32:1a:1291:G:N7	44:1m:99:ARG:NH2	2.65	0.45
32:1a:1343:G:H2'	32:1a:1344:C:O4'	2.17	0.45
35:1d:173:TRP:CE3	35:1d:174:LEU:HG	2.51	0.45
54:1x:23:C:H2'	54:1x:24:U:C6	2.52	0.45
1:2A:1765:G:H8	1:2A:1769:A:N6	2.14	0.45
1:2A:2091:G:H2'	1:2A:2092:A:C8	2.50	0.45
1:2A:2331:A:N3	1:2A:2331:A:H2'	2.32	0.45
1:2A:2488:C:O2	31:29:4:ARG:NH2	2.36	0.45
1:2A:2590:C:H2'	1:2A:2591:U:O4'	2.17	0.45
2:2B:48:A:H4'	14:2S:95:HIS:HD2	1.82	0.45
6:2G:142:PRO:HB3	26:24:14:ILE:HD11	1.99	0.45
8:2I:134:PRO:C	8:2I:136:VAL:H	2.25	0.45
13:2R:67:LEU:HD23	13:2R:76:VAL:HG21	1.98	0.45
32:2a:182:C:O2'	51:2t:89:ARG:HD2	2.17	0.45
32:2a:401:U:H5''	32:2a:480:A:H2	1.82	0.45
33:2b:17:PHE:HB2	33:2b:44:LEU:HD11	1.97	0.45
33:2b:224:GLN:HE21	33:2b:224:GLN:HB2	1.49	0.45
36:2e:143:ARG:HD2	39:2h:77:GLU:OE2	2.16	0.45
49:2r:24:ALA:C	49:2r:26:LEU:H	2.24	0.45
54:2x:21:A:H5'	54:2x:22:G:OP1	2.17	0.45
1:1A:468:A:H3'	5:1F:45:ARG:HH21	1.81	0.45
1:1A:872:U:H4'	11:1P:55:ARG:HB2	1.98	0.45
1:1A:1783:G:N7	59:1A:4348:HOH:O	2.36	0.45
1:1A:2802:A:H2'	1:1A:2802:A:N3	2.31	0.45
5:1F:133:ASN:N	5:1F:138:GLU:OE1	2.37	0.45
7:1H:7:LEU:HA	7:1H:8:PRO:HD3	1.82	0.45
14:1S:6:ALA:O	14:1S:10:ARG:HB2	2.17	0.45
16:1U:34:LYS:HE2	16:1U:34:LYS:HA	1.98	0.45
16:1U:85:LYS:HD3	16:1U:116:ALA:O	2.17	0.45
32:1a:143:G:H1	32:1a:169:C:N4	2.12	0.45
32:1a:348:C:O2'	32:1a:350:G:OP1	2.29	0.45
32:1a:401:U:OP2	35:1d:3:ARG:NH2	2.50	0.45
32:1a:551:G:H2'	32:1a:552:G:O4'	2.17	0.45
32:1a:1351:G:OP1	40:1i:114:TYR:N	2.50	0.45
33:1b:43:ASP:O	33:1b:47:THR:HG23	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:192:SER:O	33:1b:194:PRO:HD3	2.16	0.45
36:1e:75:THR:OG1	36:1e:76:ILE:N	2.50	0.45
1:2A:74:C:O2'	24:22:62:THR:OG1	2.28	0.45
1:2A:184:A:H2'	1:2A:184:A:N3	2.31	0.45
1:2A:440:C:H2'	1:2A:441:A:C8	2.52	0.45
1:2A:979:C:H2'	1:2A:980:C:C6	2.52	0.45
1:2A:2657:C:H2'	1:2A:2658:U:O4'	2.17	0.45
2:2B:11:C:H3'	2:2B:12:C:C6	2.52	0.45
6:2G:15:VAL:HG22	6:2G:175:LEU:HB3	1.99	0.45
9:2N:4:TYR:CD2	16:2U:100:VAL:HG11	2.51	0.45
32:2a:460:G:H2'	32:2a:461:G:C8	2.41	0.45
32:2a:1328:A:N1	32:2a:1357:A:H5''	2.31	0.45
37:2f:86:ARG:O	37:2f:87:ARG:HG3	2.17	0.45
40:2i:96:LEU:H	40:2i:98:PRO:HD2	1.82	0.45
46:2o:69:TYR:O	46:2o:73:GLU:HG2	2.17	0.45
1:1A:236:G:OP1	59:1A:4199:HOH:O	2.21	0.45
1:1A:1804:C:O5'	1:1A:1804:C:H6	2.00	0.45
2:1B:45:A:OP2	6:1G:96:ARG:NH2	2.47	0.45
4:1E:174:ASP:OD1	4:1E:175:VAL:N	2.49	0.45
21:1Z:110:GLY:HA3	21:1Z:174:VAL:HG11	1.98	0.45
23:11:67:ILE:N	23:11:68:PRO:HD2	2.31	0.45
32:1a:343:G:N1	32:1a:344:G:H1'	2.32	0.45
32:1a:439:C:H2'	32:1a:440:G:H8	1.82	0.45
32:1a:453:C:H2'	32:1a:454:G:O4'	2.17	0.45
32:1a:1106:A:C2	41:1j:39:PRO:HD2	2.52	0.45
32:1a:1126:G:H2'	32:1a:1127:G:C8	2.51	0.45
34:1c:22:TRP:CD1	34:1c:59:ARG:HD2	2.52	0.45
37:1f:9:VAL:HB	37:1f:87:ARG:HB2	1.98	0.45
38:1g:65:ALA:HB1	38:1g:127:ALA:HB3	1.99	0.45
40:1i:79:LEU:HD22	40:1i:104:ARG:HB2	1.98	0.45
42:1k:38:ASN:HA	42:1k:39:PRO:HD3	1.82	0.45
1:2A:530:G:O3'	1:2A:531:A:H8	2.00	0.45
1:2A:857:U:H2'	11:2P:21:ARG:HA	1.99	0.45
1:2A:1041:A:C2	1:2A:1042:G:C8	3.05	0.45
1:2A:1789:A:H4'	1:2A:2727:C:O4'	2.17	0.45
1:2A:1902:C:H2'	1:2A:1903:C:H6	1.82	0.45
10:2O:71:ARG:O	10:2O:74:GLY:N	2.44	0.45
14:2S:62:LYS:O	14:2S:65:VAL:HB	2.17	0.45
32:2a:1134:A:O2'	32:2a:1135:A:H8	1.98	0.45
35:2d:57:ARG:N	35:2d:57:ARG:HD2	2.32	0.45
1:1A:33:C:H5''	1:1A:34:G:OP2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1155:G:N2	1:1A:1156:A:H2	2.04	0.45
1:1A:2478:C:H4'	12:1Q:123:HIS:CD2	2.51	0.45
5:1F:168:ARG:HG2	5:1F:175:THR:HG21	1.99	0.45
9:1N:42:TRP:CH2	9:1N:44:PRO:HB3	2.51	0.45
14:1S:15:ARG:HE	14:1S:88:ASP:CG	2.24	0.45
20:1Y:20:TYR:O	20:1Y:23:ARG:HB2	2.17	0.45
29:17:30:VAL:O	29:17:34:ARG:HG3	2.16	0.45
32:1a:403:G:H2'	32:1a:404:A:C8	2.52	0.45
32:1a:1127:G:N2	32:1a:1129:A:H62	2.15	0.45
48:1q:66:SER:H	48:1q:69:LYS:HB2	1.81	0.45
1:2A:1038:G:OP1	16:2U:50:ARG:NH2	2.50	0.45
1:2A:1472:A:H4'	1:2A:1473:C:O4'	2.16	0.45
1:2A:2294:C:C2	1:2A:2400:G:C2	3.05	0.45
1:2A:2451:C:H5'	59:2A:3759:HOH:O	2.15	0.45
1:2A:2586:C:H2'	1:2A:2589:G:O6	2.17	0.45
1:2A:2626:U:C2	27:25:7:PRO:HA	2.52	0.45
1:2A:2659:C:H2'	1:2A:2660:U:C6	2.51	0.45
1:2A:2784:C:H2'	1:2A:2785:C:C6	2.52	0.45
4:2E:15:PHE:CD2	15:2T:81:PRO:HD3	2.51	0.45
6:2G:136:ARG:HD2	6:2G:136:ARG:C	2.42	0.45
13:2R:37:THR:OG1	13:2R:40:LYS:HG3	2.17	0.45
32:2a:403:G:C2	32:2a:432:C:C2	3.05	0.45
32:2a:901:A:O2'	32:2a:1382:C:OP2	2.30	0.45
32:2a:917:G:H5'	38:2g:102:ARG:CZ	2.47	0.45
32:2a:995:A:H2'	32:2a:996:G:O4'	2.17	0.45
32:2a:1198:G:H5''	45:2n:5:ALA:CB	2.47	0.45
32:2a:1296:C:H2'	32:2a:1297:U:C6	2.52	0.45
32:2a:1504:G:H4'	59:2a:3304:HOH:O	2.17	0.45
34:2c:43:LEU:HD23	34:2c:43:LEU:HA	1.81	0.45
35:2d:181:MET:HE3	35:2d:181:MET:HB2	1.74	0.45
38:2g:150:ALA:HB1	42:2k:57:THR:HG21	1.98	0.45
39:2h:51:VAL:HG12	39:2h:52:ASP:H	1.82	0.45
42:2k:33:THR:C	42:2k:40:ILE:HG12	2.42	0.45
1:1A:307:U:H2'	1:1A:308:C:H6	1.81	0.45
1:1A:846:A:H8	1:1A:846:A:OP1	2.00	0.45
6:1G:128:ARG:HE	6:1G:128:ARG:HB2	1.65	0.45
32:1a:58:G:H2'	32:1a:59:C:H6	1.82	0.45
32:1a:1045:U:H2'	32:1a:1046:C:C6	2.51	0.45
32:1a:1232:A:H61	32:1a:1336:C:H1'	1.82	0.45
33:1b:174:VAL:O	33:1b:178:ARG:HG3	2.17	0.45
35:1d:155:LEU:HD23	35:1d:156:GLU:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:1f:82:ARG:HB2	37:1f:85:VAL:HG23	1.99	0.45
1:2A:1332:A:H5''	1:2A:1333:U:OP2	2.16	0.45
1:2A:2327:C:O2'	6:2G:128:ARG:NH2	2.50	0.45
1:2A:2427:C:H2'	1:2A:2428:C:H6	1.82	0.45
1:2A:2649:G:OP1	4:2E:82:ARG:NH2	2.50	0.45
1:2A:2704:A:H2'	1:2A:2705:G:C8	2.50	0.45
3:2D:221:VAL:HG22	3:2D:226:MET:HE3	1.99	0.45
4:2E:112:GLY:O	4:2E:159:HIS:HA	2.17	0.45
6:2G:120:LEU:HB3	6:2G:131:TYR:OH	2.17	0.45
11:2P:82:GLY:HA2	11:2P:113:LYS:O	2.17	0.45
32:2a:1398:G:C6	32:2a:1464:G:C6	3.05	0.45
49:2r:30:ASP:C	49:2r:32:ARG:H	2.24	0.45
1:1A:266:C:O2	1:1A:277:G:N2	2.50	0.44
1:1A:286:G:N7	1:1A:447:U:H2'	2.32	0.44
1:1A:1821:A:H3'	1:1A:1822:G:H8	1.82	0.44
1:1A:1873:C:H5'	3:1D:253:GLN:NE2	2.32	0.44
1:1A:2400:G:H5''	1:1A:2401:U:O4'	2.17	0.44
32:1a:181:C:H2'	32:1a:182:C:C6	2.52	0.44
32:1a:267:C:H2'	32:1a:268:C:H6	1.82	0.44
32:1a:643:U:H2'	32:1a:644:G:O4'	2.17	0.44
32:1a:1329:G:N2	32:1a:1356:G:H2'	2.31	0.44
33:1b:178:ARG:HB3	39:1h:72:PRO:HA	1.99	0.44
46:1o:84:LYS:O	46:1o:84:LYS:HD3	2.17	0.44
47:1p:19:ILE:HG23	47:1p:37:GLY:C	2.42	0.44
54:1x:23:C:H2'	54:1x:24:U:H6	1.82	0.44
1:2A:629:U:OP1	5:2F:102:PRO:HA	2.16	0.44
1:2A:909:A:OP2	12:2Q:22:LYS:HD2	2.17	0.44
1:2A:1703:C:H2'	1:2A:1704:C:H6	1.82	0.44
1:2A:2080:A:O2'	5:2F:69:HIS:HD2	2.01	0.44
1:2A:2427:C:H2'	1:2A:2428:C:C6	2.52	0.44
1:2A:2526:C:H2'	1:2A:2527:G:H8	1.83	0.44
4:2E:163:GLU:HG2	4:2E:164:ARG:N	2.31	0.44
7:2H:4:ILE:O	7:2H:69:ARG:HG2	2.17	0.44
9:2N:111:PRO:HA	9:2N:114:ARG:NH1	2.32	0.44
14:2S:14:VAL:O	14:2S:18:ILE:HG12	2.17	0.44
17:2V:62:LEU:HD11	17:2V:95:LEU:HB2	1.99	0.44
21:2Z:28:MET:HE3	21:2Z:59:LEU:HD12	1.99	0.44
32:2a:1076:A:N3	32:2a:1092:C:O2'	2.47	0.44
32:2a:1101:C:OP1	40:2i:9:ARG:NH1	2.50	0.44
32:2a:1221:A:H62	32:2a:1281:A:H62	1.64	0.44
32:2a:1282:G:N2	32:2a:1283:U:O4	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1457:C:H2'	32:2a:1458:G:C8	2.52	0.44
36:2e:36:ASP:C	36:2e:38:GLN:N	2.74	0.44
43:2l:124:LYS:HA	43:2l:125:PRO:HD3	1.72	0.44
46:2o:21:ASP:OD2	46:2o:24:SER:HB3	2.18	0.44
1:1A:1833:A:H4'	3:1D:259:THR:HG23	1.98	0.44
4:1E:31:CYS:HA	4:1E:32:PRO:HD2	1.81	0.44
6:1G:16:ARG:O	6:1G:20:ILE:HG13	2.17	0.44
10:1O:4:PRO:O	10:1O:5:GLN:HB2	2.18	0.44
13:1R:38:VAL:HB	13:1R:39:PRO:HD3	1.99	0.44
21:1Z:40:ASP:HB3	21:1Z:43:GLU:HB2	1.99	0.44
21:1Z:69:THR:HG22	21:1Z:90:VAL:HA	1.98	0.44
32:1a:45:G:H2'	32:1a:46:U:O4'	2.16	0.44
32:1a:459:G:H2'	32:1a:460:G:C8	2.52	0.44
32:1a:531:A:H5'	59:1a:2109:HOH:O	2.16	0.44
32:1a:747:G:H2'	32:1a:748:C:C6	2.52	0.44
32:1a:1140:A:H4'	32:1a:1141:C:O4'	2.16	0.44
32:1a:1491:A:H2'	32:1a:1492:C:C6	2.53	0.44
34:1c:29:TYR:CZ	45:1n:54:PRO:HG2	2.52	0.44
35:1d:168:ARG:H	35:1d:168:ARG:CD	2.31	0.44
45:1n:23:ARG:CZ	45:1n:30:ALA:HB2	2.46	0.44
50:1s:3:ARG:NH1	50:1s:10:PHE:HB2	2.32	0.44
1:2A:966:G:C6	1:2A:967:U:C4	3.05	0.44
1:2A:982:G:OP2	30:28:52:LYS:NZ	2.39	0.44
1:2A:1333:U:O4	13:2R:106:GLY:HA3	2.17	0.44
1:2A:2311:G:N1	1:2A:2328:C:N3	2.65	0.44
2:2B:1:U:H2'	2:2B:2:C:C5	2.52	0.44
4:2E:143:ASN:HD22	4:2E:147:PRO:CD	2.31	0.44
9:2N:131:GLN:H	9:2N:131:GLN:CD	2.25	0.44
15:2T:98:LYS:HD2	15:2T:98:LYS:N	2.33	0.44
32:2a:386:C:H2'	32:2a:387:G:C8	2.52	0.44
32:2a:407:A:O2'	59:2a:3324:HOH:O	2.21	0.44
32:2a:621:G:H2'	32:2a:622:G:C8	2.53	0.44
32:2a:1154:C:H2'	32:2a:1155:G:H8	1.83	0.44
45:2n:16:PHE:HB3	45:2n:17:LYS:HZ3	1.81	0.44
1:1A:1633:C:H2'	1:1A:1634:C:C6	2.51	0.44
5:1F:33:LEU:HD12	5:1F:33:LEU:HA	1.89	0.44
31:19:16:VAL:HG22	31:19:25:VAL:HG22	1.99	0.44
32:1a:237:C:C2	32:1a:282:G:C2	3.05	0.44
32:1a:1274:U:H5'	40:1i:38:GLN:HG2	1.99	0.44
34:1c:155:GLY:HA3	34:1c:196:LEU:HD13	1.99	0.44
36:1e:73:ASN:O	36:1e:73:ASN:ND2	2.45	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:69:VAL:HG21	38:1g:104:LEU:HD21	2.00	0.44
44:1m:43:THR:HG22	44:1m:44:ARG:O	2.18	0.44
46:1o:8:LYS:O	46:1o:12:ILE:HG13	2.16	0.44
47:1p:34:GLU:CD	47:1p:59:TRP:HE1	2.25	0.44
49:1r:26:LEU:HD21	49:1r:39:VAL:HG13	1.97	0.44
1:2A:330:G:H2'	1:2A:332:G:OP2	2.17	0.44
1:2A:661:A:H4'	1:2A:662:G:O5'	2.18	0.44
1:2A:775:G:O5'	3:2D:208:LYS:NZ	2.49	0.44
1:2A:1025:A:N3	1:2A:2058:G:O2'	2.44	0.44
1:2A:1056:G:C5	1:2A:1058:C:C4	3.05	0.44
1:2A:1702:C:H2'	1:2A:1703:C:H6	1.82	0.44
1:2A:2830:A:H2'	1:2A:2831:G:H8	1.81	0.44
3:2D:148:GLU:HB2	3:2D:151:LYS:HD2	1.98	0.44
20:2Y:9:LYS:HA	20:2Y:10:GLY:HA2	1.60	0.44
22:20:24:LYS:O	22:20:25:ARG:HD3	2.18	0.44
32:2a:837:A:H2'	32:2a:838:A:O4'	2.18	0.44
32:2a:1493:C:H2'	32:2a:1494:G:C8	2.51	0.44
33:2b:55:PHE:CD1	33:2b:58:ILE:HD12	2.52	0.44
34:2c:6:HIS:HA	34:2c:7:PRO:HD3	1.86	0.44
38:2g:9:VAL:HG13	38:2g:94:ARG:HE	1.82	0.44
40:2i:71:SER:HA	40:2i:74:ILE:HB	1.97	0.44
47:2p:70:ALA:O	47:2p:74:LEU:HD12	2.17	0.44
1:1A:26:G:C2	1:1A:536:G:N3	2.85	0.44
1:1A:195:A:H2'	1:1A:196:C:O4'	2.17	0.44
1:1A:359:C:HO2'	20:1Y:35:TYR:HH	1.61	0.44
1:1A:830:A:C6	3:1D:229:VAL:HG11	2.53	0.44
1:1A:1565:U:H2'	1:1A:1566:G:O4'	2.17	0.44
1:1A:1816:A:H1'	1:1A:1959:A:N6	2.32	0.44
1:1A:1934:A:N7	32:1a:1472:G:H5'	2.33	0.44
1:1A:2316:A:H5''	6:1G:134:GLY:HA3	1.99	0.44
1:1A:2346:A:C8	1:1A:2348:G:C5	3.06	0.44
7:1H:137:ASP:HB3	7:1H:140:LYS:HB3	1.98	0.44
10:1O:98:VAL:HG13	10:1O:117:LEU:HB3	2.00	0.44
14:1S:34:HIS:ND1	14:1S:53:SER:OG	2.46	0.44
20:1Y:56:PRO:C	20:1Y:58:GLY:H	2.24	0.44
32:1a:673:C:H2'	32:1a:674:G:O4'	2.17	0.44
34:1c:15:THR:HG23	34:1c:16:ARG:HG2	1.99	0.44
35:1d:8:VAL:O	35:1d:10:ARG:N	2.46	0.44
47:1p:1:MET:HE1	47:1p:3:LYS:HE2	1.99	0.44
1:2A:222:C:H2'	1:2A:223:U:C6	2.53	0.44
1:2A:309:C:H2'	1:2A:310:C:H6	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:464:G:H2'	1:2A:465:G:H8	1.83	0.44
1:2A:567:C:H5''	1:2A:568:G:OP2	2.18	0.44
1:2A:648:C:O2'	1:2A:703:U:H5''	2.17	0.44
1:2A:1887:G:C6	1:2A:1888:G:N1	2.86	0.44
1:2A:2354:C:O2'	1:2A:2384:G:O2'	2.30	0.44
1:2A:2830:A:C2	1:2A:2831:G:C4	3.05	0.44
2:2B:19:G:H2'	2:2B:20:C:O4'	2.17	0.44
2:2B:95:C:H2'	2:2B:96:U:C6	2.53	0.44
4:2E:59:VAL:HG12	4:2E:64:LYS:HG3	1.97	0.44
4:2E:111:ARG:HA	13:2R:1:MET:SD	2.58	0.44
4:2E:119:ARG:HD2	4:2E:120:TRP:CE2	2.52	0.44
14:2S:67:ARG:O	14:2S:71:ARG:HG3	2.18	0.44
19:2X:31:HIS:CD2	19:2X:33:LYS:HB2	2.53	0.44
20:2Y:23:ARG:HG2	20:2Y:42:VAL:HG22	1.99	0.44
26:24:40:HIS:HB3	26:24:43:TYR:HB2	2.00	0.44
32:2a:131:C:O4'	47:2p:1:MET:HG2	2.17	0.44
32:2a:734:G:N2	46:2o:23:GLY:O	2.38	0.44
32:2a:1037:C:O2'	32:2a:1038:A:H5'	2.16	0.44
32:2a:1385:C:H2'	32:2a:1386:C:O4'	2.18	0.44
35:2d:135:LEU:O	35:2d:137:SER:N	2.50	0.44
43:2l:7:ILE:O	43:2l:11:VAL:HG23	2.17	0.44
1:1A:219:C:H2'	1:1A:220:G:O4'	2.18	0.44
1:1A:800:C:H2'	1:1A:801:C:H6	1.82	0.44
1:1A:1337:U:H2'	1:1A:1338:C:C6	2.53	0.44
1:1A:1531:A:H2'	1:1A:1532:G:C8	2.52	0.44
1:1A:2211:G:H2'	1:1A:2212:G:O4'	2.17	0.44
2:1B:89:G:H2'	2:1B:90:A:C8	2.53	0.44
6:1G:67:LYS:HD3	26:14:5:ILE:HB	2.00	0.44
7:1H:7:LEU:HD12	7:1H:8:PRO:HD2	1.98	0.44
13:1R:59:ASP:OD1	13:1R:59:ASP:N	2.50	0.44
14:1S:24:LEU:HB2	14:1S:85:VAL:HG23	1.99	0.44
20:1Y:5:MET:HG2	20:1Y:30:VAL:HG11	2.00	0.44
26:14:14:ILE:HG13	26:14:22:ILE:HB	2.00	0.44
28:16:14:THR:OG1	28:16:48:VAL:HG13	2.17	0.44
32:1a:548:C:OP1	43:1l:15:ARG:NE	2.49	0.44
32:1a:954:G:OP2	32:1a:1340:U:O2'	2.31	0.44
32:1a:963:C:H2'	32:1a:964:A:C8	2.52	0.44
34:1c:114:PRO:O	34:1c:118:GLN:NE2	2.51	0.44
34:1c:121:ALA:HB1	34:1c:189:ALA:HB2	2.00	0.44
37:1f:8:ILE:HB	37:1f:61:LEU:HB2	1.99	0.44
41:1j:81:THR:O	41:1j:85:LEU:HD22	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:1m:81:LEU:HD22	44:1m:88:ARG:HE	1.81	0.44
48:1q:86:GLU:O	48:1q:90:ILE:HG13	2.17	0.44
1:2A:60:C:N3	1:2A:90:G:N2	2.49	0.44
1:2A:412:G:OP1	59:2A:3652:HOH:O	2.21	0.44
1:2A:875:A:N7	1:2A:2259:C:H5'	2.33	0.44
1:2A:1404:A:N3	1:2A:1404:A:H5'	2.32	0.44
1:2A:2488:C:N4	31:29:10:ILE:HG23	2.32	0.44
20:2Y:6:HIS:H	20:2Y:6:HIS:CD2	2.35	0.44
21:2Z:54:HIS:ND1	21:2Z:101:PRO:HG3	2.33	0.44
26:24:59:PHE:N	26:24:60:GLN:HB2	2.33	0.44
32:2a:425:U:H5'	35:2d:9:CYS:HB2	2.00	0.44
32:2a:431:C:H2'	32:2a:432:C:C6	2.50	0.44
32:2a:451:C:N4	32:2a:461:G:H1	2.16	0.44
32:2a:982:G:H2'	32:2a:983:A:C4'	2.43	0.44
32:2a:1118:U:H2'	32:2a:1120:C:C2	2.52	0.44
33:2b:74:LYS:HG2	33:2b:169:LYS:HD2	1.98	0.44
34:2c:45:LYS:HG3	34:2c:46:GLU:H	1.82	0.44
37:2f:98:LEU:HD23	49:2r:30:ASP:HA	1.99	0.44
46:2o:5:LYS:HZ3	46:2o:5:LYS:HB2	1.81	0.44
1:1A:810:A:H2	3:1D:219:PRO:HG3	1.82	0.44
1:1A:933:A:H1'	1:1A:935:C:OP2	2.18	0.44
1:1A:1729:C:H2'	1:1A:1730:C:C6	2.52	0.44
1:1A:2218:U:H1'	1:1A:2219:A:C8	2.53	0.44
1:1A:2330:G:N2	14:1S:3:ARG:HG2	2.32	0.44
1:1A:2347:A:H61	22:10:43:THR:HG22	1.82	0.44
3:1D:146:GLU:HB2	3:1D:189:CYS:HB3	1.99	0.44
32:1a:372:G:H5''	47:1p:5:ARG:HB2	1.99	0.44
32:1a:458:A:O3'	47:1p:81:ARG:HA	2.18	0.44
32:1a:1105:U:C4	32:1a:1106:A:N7	2.85	0.44
32:1a:1399:G:N7	59:1a:2062:HOH:O	2.36	0.44
40:1i:93:ARG:HB2	40:1i:93:ARG:HH11	1.83	0.44
12:2Q:54:MET:HE1	12:2Q:104:PHE:HB3	1.99	0.44
19:2X:8:ILE:HD11	19:2X:42:ALA:C	2.42	0.44
25:23:8:LEU:O	25:23:32:GLN:N	2.44	0.44
33:2b:158:LEU:HA	33:2b:159:PRO:HD2	1.85	0.44
38:2g:149:ARG:HG2	42:2k:59:TYR:CZ	2.53	0.44
45:2n:41:ARG:HG3	45:2n:42:ILE:HG13	2.00	0.44
48:2q:40:LYS:HD3	48:2q:42:TYR:OH	2.18	0.44
54:2x:73:A:H5''	54:2x:74:C:H5'	2.00	0.44
55:2z:9:ARG:CB	55:2z:10:PRO:HD2	2.47	0.44
1:1A:296:C:H2'	1:1A:297:G:C8	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:956:A:H2'	12:1Q:9:TYR:OH	2.17	0.44
1:1A:1649:C:H5'	59:1A:5078:HOH:O	2.18	0.44
1:1A:1849:A:H5''	3:1D:161:THR:HG21	2.00	0.44
1:1A:2785:C:H2'	1:1A:2786:C:H6	1.83	0.44
2:1B:12:C:H2'	22:10:73:GLY:HA3	2.00	0.44
8:1I:40:THR:O	8:1I:44:LEU:HB2	2.18	0.44
11:1P:107:LYS:O	11:1P:110:TYR:HB2	2.18	0.44
12:1Q:14:ARG:HG2	12:1Q:41:TRP:HH2	1.83	0.44
26:14:15:ILE:HB	26:14:32:TYR:CD2	2.53	0.44
32:1a:324:C:H4'	32:1a:325:A:H5''	2.00	0.44
32:1a:437:C:H2'	32:1a:438:C:H6	1.83	0.44
32:1a:719:C:H2'	32:1a:720:C:H6	1.83	0.44
32:1a:725:G:H2'	32:1a:726:G:O4'	2.17	0.44
32:1a:1382:C:C2	32:1a:1384:G:C5	3.06	0.44
34:1c:44:GLU:HA	34:1c:52:LEU:HD13	1.99	0.44
40:1i:15:ALA:HB2	40:1i:65:VAL:HG23	2.00	0.44
40:1i:53:VAL:C	40:1i:55:ALA:H	2.26	0.44
1:2A:213:A:N6	1:2A:214:G:C2	2.86	0.44
1:2A:1493:G:N2	1:2A:1510:C:O2	2.36	0.44
1:2A:1556:A:H2'	1:2A:1557:G:H8	1.83	0.44
1:2A:1714:A:O2'	1:2A:1720:G:N7	2.49	0.44
1:2A:2376:G:OP1	22:20:55:ARG:HG2	2.18	0.44
1:2A:2508:A:OP2	1:2A:2508:A:H8	2.00	0.44
1:2A:2861:G:H2'	1:2A:2862:C:O4'	2.18	0.44
1:2A:2891:A:OP1	13:2R:96:ARG:NE	2.50	0.44
3:2D:171:ASP:O	3:2D:187:GLY:N	2.50	0.44
3:2D:275:LYS:HA	3:2D:275:LYS:HD2	1.69	0.44
5:2F:161:GLU:O	5:2F:165:ARG:HB2	2.18	0.44
6:2G:29:TRP:HE3	6:2G:33:ARG:HH21	1.66	0.44
14:2S:61:ASN:O	14:2S:65:VAL:HG23	2.17	0.44
15:2T:118:ARG:HG2	32:2a:1426:G:C8	2.53	0.44
24:22:65:ASN:O	24:22:69:ARG:HG3	2.18	0.44
32:2a:1224:C:H2'	32:2a:1225:C:O4'	2.18	0.44
33:2b:25:ASN:HA	33:2b:26:PRO:HD3	1.68	0.44
40:2i:49:PRO:HG3	40:2i:78:LYS:HG2	1.99	0.44
42:2k:50:TYR:CD2	42:2k:60:ALA:HB2	2.53	0.44
42:2k:98:LEU:C	42:2k:101:SER:HG	2.24	0.44
44:2m:92:HIS:CE1	44:2m:98:VAL:HG11	2.53	0.44
50:2s:23:ASN:HA	50:2s:27:GLU:CD	2.43	0.44
50:2s:27:GLU:O	50:2s:28:LYS:NZ	2.47	0.44
1:1A:661:A:H8	11:1P:117:GLU:HG3	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1524:G:O2'	1:1A:1604:A:N1	2.49	0.44
1:1A:2341:G:H2'	1:1A:2342:G:O4'	2.18	0.44
2:1B:7:G:H5'	14:1S:29:PHE:CE2	2.53	0.44
7:1H:101:ARG:HD2	7:1H:101:ARG:HA	1.74	0.44
16:1U:48:ALA:O	16:1U:51:LYS:HB2	2.18	0.44
32:1a:437:C:H2'	32:1a:438:C:C6	2.53	0.44
33:1b:7:VAL:HG11	33:1b:221:LEU:HD23	2.00	0.44
36:1e:90:VAL:O	36:1e:120:THR:HA	2.18	0.44
40:1i:89:ASN:O	40:1i:92:TYR:HB2	2.18	0.44
43:1l:124:LYS:HA	43:1l:125:PRO:HD3	1.79	0.44
1:2A:33:C:H5''	1:2A:34:G:OP2	2.18	0.44
1:2A:902:C:H2'	1:2A:903:C:C6	2.53	0.44
1:2A:2651:G:OP1	9:2N:97:ARG:NH2	2.51	0.44
1:2A:2881:G:O2'	1:2A:2882:A:H5'	2.18	0.44
3:2D:130:ALA:C	3:2D:131:LEU:HD12	2.43	0.44
4:2E:52:LEU:O	4:2E:76:ARG:N	2.39	0.44
7:2H:126:PRO:HD2	7:2H:130:ARG:O	2.18	0.44
8:2I:130:TYR:HB3	8:2I:138:ILE:HB	2.00	0.44
13:2R:38:VAL:HB	13:2R:39:PRO:HD3	2.00	0.44
18:2W:75:TYR:CZ	18:2W:104:THR:HG21	2.53	0.44
31:29:17:ILE:HB	31:29:26:ILE:HD11	2.00	0.44
32:2a:121:G:OP1	32:2a:619:G:H1'	2.17	0.44
34:2c:117:ALA:HB2	34:2c:186:PHE:HA	2.00	0.44
35:2d:9:CYS:O	35:2d:13:ARG:HG3	2.18	0.44
38:2g:51:GLN:O	38:2g:55:GLY:HA2	2.17	0.44
43:2l:24:VAL:N	43:2l:25:PRO:HD3	2.32	0.44
45:2n:50:LYS:HD2	45:2n:50:LYS:HA	1.83	0.44
6:1G:174:GLU:HG2	6:1G:180:PHE:CE2	2.52	0.44
14:1S:11:LYS:O	14:1S:15:ARG:HG3	2.18	0.44
24:12:53:LEU:HD23	24:12:53:LEU:HA	1.75	0.44
32:1a:360:A:H2'	32:1a:361:U:C6	2.53	0.44
32:1a:405:G:H2'	32:1a:406:G:O4'	2.17	0.44
32:1a:417:U:O2'	32:1a:419:G:N7	2.51	0.44
32:1a:798:A:O2'	32:1a:799:A:H5'	2.18	0.44
32:1a:1156:G:H2'	32:1a:1157:G:C8	2.53	0.44
32:1a:1299:C:O2	50:1s:37:ARG:NH2	2.44	0.44
34:1c:22:TRP:CZ2	45:1n:54:PRO:HG3	2.52	0.44
40:1i:93:ARG:HB2	40:1i:93:ARG:NH1	2.33	0.44
1:2A:75:C:N4	1:2A:106:G:H1	2.15	0.44
1:2A:580:G:H5'	9:2N:112:LEU:HD23	1.99	0.44
1:2A:668:A:H2'	1:2A:670:A:C2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1814:A:OP2	59:2A:3601:HOH:O	2.20	0.44
1:2A:2314:G:O2'	6:2G:132:ASN:HB2	2.17	0.44
1:2A:2458:G:N2	1:2A:2461:A:OP2	2.50	0.44
1:2A:2639:C:H1'	1:2A:2793:A:H2'	1.99	0.44
3:2D:214:TRP:C	3:2D:216:GLY:H	2.26	0.44
9:2N:96:GLU:HB2	9:2N:122:VAL:HG12	2.00	0.44
11:2P:21:ARG:HA	11:2P:21:ARG:HD3	1.84	0.44
32:2a:1312:U:H4'	44:2m:23:TYR:CZ	2.53	0.44
37:2f:23:LYS:HG2	37:2f:61:LEU:HD21	1.99	0.44
43:2l:28:LYS:HE3	43:2l:62:SER:HB2	2.00	0.44
47:2p:19:ILE:HD12	47:2p:38:TYR:N	2.33	0.44
47:2p:48:TRP:HH2	47:2p:76:GLN:HE22	1.66	0.44
1:1A:141:G:H1'	19:1X:37:THR:HG21	2.00	0.43
1:1A:1075:G:OP2	12:1Q:128:LYS:NZ	2.51	0.43
1:1A:1424:A:H4'	1:1A:1425:G:OP2	2.17	0.43
1:1A:1878:A:H2'	1:1A:1879:G:C8	2.52	0.43
1:1A:2753:A:H2'	1:1A:2754:C:O4'	2.18	0.43
1:1A:2855:G:H2'	1:1A:2856:U:O4'	2.18	0.43
12:1Q:60:ARG:NH1	21:1Z:180:VAL:HG23	2.33	0.43
16:1U:108:GLU:OE2	16:1U:112:ARG:NH1	2.51	0.43
32:1a:200:C:H2'	32:1a:201:C:C5	2.52	0.43
32:1a:668:A:C6	32:1a:669:G:C6	3.06	0.43
32:1a:952:A:H8	32:1a:952:A:OP1	2.01	0.43
33:1b:76:GLN:HG3	33:1b:206:ASP:HA	2.00	0.43
46:1o:17:ARG:NH2	46:1o:77:ARG:HD3	2.32	0.43
1:2A:77:G:H2'	1:2A:78:G:H8	1.83	0.43
1:2A:216:A:H2'	1:2A:217:A:H5'	2.00	0.43
1:2A:877:G:O2'	11:2P:38:GLN:NE2	2.51	0.43
1:2A:1209:G:H2'	1:2A:1210:U:C6	2.53	0.43
1:2A:1266:C:C2	1:2A:1274:G:C2	3.05	0.43
3:2D:107:ALA:HA	3:2D:108:PRO:HD3	1.79	0.43
13:2R:21:TYR:CZ	13:2R:43:GLU:HG2	2.52	0.43
32:2a:148:C:H2'	32:2a:149:C:C6	2.53	0.43
32:2a:355:U:H2'	32:2a:356:A:C8	2.53	0.43
32:2a:436:A:H3'	32:2a:437:C:H6	1.83	0.43
32:2a:452:C:H2'	32:2a:453:C:C6	2.52	0.43
32:2a:662:U:H2'	32:2a:663:C:C6	2.53	0.43
32:2a:1312:U:H4'	44:2m:23:TYR:CE1	2.53	0.43
43:2l:110:VAL:HG23	43:2l:120:TYR:HB3	1.98	0.43
47:2p:39:TYR:HA	47:2p:48:TRP:O	2.18	0.43
55:2z:7:ARG:HG2	55:2z:8:PRO:HD2	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:319:C:H2'	1:1A:320:C:H6	1.82	0.43
1:1A:510:C:H2'	1:1A:511:C:C6	2.54	0.43
1:1A:623:C:OP1	5:1F:108:LYS:HE2	2.18	0.43
1:1A:1536:G:O2'	3:1D:101:GLU:HB2	2.17	0.43
2:1B:79:C:H2'	2:1B:80:U:O4'	2.18	0.43
3:1D:54:ARG:O	3:1D:218:ARG:HD3	2.18	0.43
4:1E:52:LEU:O	4:1E:75:VAL:HG22	2.18	0.43
8:1I:38:LEU:HB2	8:1I:40:THR:HG23	1.99	0.43
15:1T:127:ALA:C	15:1T:129:ARG:N	2.76	0.43
32:1a:230:C:H2'	32:1a:231:C:C6	2.53	0.43
32:1a:936:A:N3	32:1a:963:C:O2'	2.49	0.43
39:1h:39:LEU:HB3	39:1h:45:ILE:HG12	2.00	0.43
1:2A:211:A:N1	1:2A:433:G:O2'	2.47	0.43
1:2A:241:C:H2'	1:2A:242:G:O4'	2.17	0.43
1:2A:507:A:H1'	1:2A:522:G:N2	2.33	0.43
1:2A:830:A:C5	3:2D:229:VAL:HG21	2.53	0.43
1:2A:1015:C:H2'	1:2A:1016:G:O4'	2.18	0.43
1:2A:1288:G:H2'	1:2A:1289:G:O4'	2.17	0.43
1:2A:2251:C:H2'	1:2A:2252:A:C8	2.50	0.43
1:2A:2438:C:H5''	1:2A:2439:G:OP1	2.17	0.43
2:2B:40:U:C2	2:2B:43:C:OP2	2.71	0.43
3:2D:3:VAL:HG13	3:2D:17:THR:HB	2.00	0.43
14:2S:94:TYR:CE1	14:2S:99:LYS:HG3	2.52	0.43
19:2X:4:ALA:HB1	19:2X:42:ALA:HA	2.00	0.43
32:2a:676:U:O2'	32:2a:678:A:N7	2.44	0.43
32:2a:854:G:O5'	39:2h:14:ARG:NH1	2.51	0.43
32:2a:918:C:H2'	32:2a:919:G:C8	2.53	0.43
32:2a:1100:G:H4'	40:2i:104:ARG:NH2	2.33	0.43
32:2a:1334:C:H2'	32:2a:1335:G:C8	2.53	0.43
33:2b:178:ARG:NH1	39:2h:68:ARG:HH22	2.16	0.43
39:2h:19:VAL:HG23	39:2h:21:LYS:HD3	1.99	0.43
48:2q:74:LEU:HD23	48:2q:74:LEU:HA	1.84	0.43
1:1A:283:G:C2	1:1A:284:U:O4	2.71	0.43
1:1A:839:A:OP2	1:1A:2092:A:O2'	2.32	0.43
1:1A:1833:A:H2'	1:1A:1834:C:O4'	2.18	0.43
1:1A:2712:C:H2'	1:1A:2713:U:H2'	1.99	0.43
1:1A:2820:G:N2	1:1A:2899:G:H1'	2.33	0.43
4:1E:3:GLY:HA3	4:1E:81:ILE:HD12	1.99	0.43
16:1U:8:VAL:HG22	16:1U:11:ARG:NH2	2.33	0.43
32:1a:42:G:H2'	32:1a:43:G:C8	2.52	0.43
32:1a:516:A:H2	32:1a:1188:G:H21	1.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:900:G:N3	32:1a:1381:A:H2	2.16	0.43
32:1a:1105:U:H2'	32:1a:1106:A:O4'	2.17	0.43
33:1b:124:SER:HA	33:1b:125:PRO:HA	1.69	0.43
34:1c:113:ALA:N	34:1c:183:ASP:OD2	2.44	0.43
35:1d:164:ALA:C	35:1d:168:ARG:HH11	2.25	0.43
36:1e:77:PRO:HG2	36:1e:78:HIS:HD2	1.84	0.43
39:1h:83:ILE:HB	39:1h:137:VAL:HG13	2.01	0.43
1:2A:1039:C:OP2	16:2U:54:LYS:NZ	2.40	0.43
1:2A:1314:A:H2'	1:2A:1315:C:C6	2.52	0.43
1:2A:2030:G:OP1	18:2W:41:LYS:NZ	2.26	0.43
1:2A:2063:A:OP1	59:2A:3655:HOH:O	2.21	0.43
1:2A:2419:U:H2'	1:2A:2420:G:H8	1.83	0.43
1:2A:2685:G:H2'	1:2A:2686:A:C8	2.53	0.43
1:2A:2706:C:H2'	1:2A:2707:U:C6	2.53	0.43
1:2A:2857:G:O2'	1:2A:2876:G:N1	2.39	0.43
7:2H:55:PRO:HB2	7:2H:56:SER:H	1.65	0.43
11:2P:39:LYS:HA	11:2P:45:LEU:HG	1.99	0.43
11:2P:114:ILE:HG13	11:2P:125:VAL:HG21	2.00	0.43
21:2Z:92:SER:O	21:2Z:94:GLU:N	2.42	0.43
32:2a:6:U:H5''	32:2a:7:G:C5	2.53	0.43
32:2a:476:G:H2'	32:2a:477:G:H8	1.83	0.43
32:2a:506:C:OP2	43:2I:69:TYR:OH	2.26	0.43
32:2a:1341:C:O2'	32:2a:1343:G:N7	2.51	0.43
34:2c:22:TRP:HD1	34:2c:58:GLU:HA	1.82	0.43
1:1A:1055:A:N3	1:1A:1198:C:H1'	2.34	0.43
1:1A:2221:C:O2	1:1A:2237:C:N4	2.49	0.43
12:1Q:21:THR:HG23	12:1Q:99:PRO:O	2.18	0.43
21:1Z:108:PRO:HB2	21:1Z:111:VAL:HG23	1.99	0.43
30:18:62:LEU:HB3	30:18:65:GLU:HG3	2.00	0.43
32:1a:154:G:N2	32:1a:156:A:H3'	2.32	0.43
32:1a:371:U:C2	32:1a:372:G:C8	3.05	0.43
32:1a:604:C:H2'	32:1a:605:A:O4'	2.18	0.43
32:1a:658:G:H2'	32:1a:659:A:H8	1.83	0.43
32:1a:674:G:C6	32:1a:675:G:C6	3.06	0.43
32:1a:999:U:H2'	32:1a:1000:G:C8	2.53	0.43
32:1a:1344:C:H2'	32:1a:1345:C:H5''	2.01	0.43
34:1c:53:ALA:HB2	34:1c:115:LEU:HD12	2.00	0.43
34:1c:188:LEU:HD12	34:1c:196:LEU:O	2.18	0.43
39:1h:51:VAL:HG11	39:1h:60:ARG:HH11	1.82	0.43
43:1I:28:LYS:HG3	43:1I:62:SER:HB2	2.01	0.43
1:2A:38:C:O2	5:2F:46:ARG:NH2	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:897:U:H5'	25:23:49:LYS:HD2	2.00	0.43
1:2A:1176:G:N2	1:2A:1177:A:N3	2.67	0.43
1:2A:2027:C:O5'	1:2A:2027:C:H6	2.01	0.43
1:2A:2241:G:H1'	23:21:45:ASN:OD1	2.18	0.43
1:2A:2302:U:O2'	1:2A:2385:C:O2	2.33	0.43
1:2A:2381:G:C6	1:2A:2382:G:C6	3.06	0.43
1:2A:2590:C:H4'	4:2E:134:ILE:HG12	2.00	0.43
2:2B:21:G:C2	2:2B:63:G:C2	3.07	0.43
2:2B:28:C:H5''	14:2S:31:SER:OG	2.18	0.43
2:2B:73:A:C4	2:2B:105:A:C2	3.06	0.43
24:22:32:LEU:HD12	24:22:57:ILE:HD12	2.01	0.43
32:2a:23:G:O2'	32:2a:891:A:N1	2.51	0.43
32:2a:90:U:C2'	32:2a:91:G:H5'	2.49	0.43
32:2a:117:C:O2'	32:2a:286:C:O2	2.34	0.43
33:2b:124:SER:OG	33:2b:125:PRO:HD3	2.18	0.43
35:2d:3:ARG:HG2	35:2d:118:ARG:NH1	2.34	0.43
35:2d:135:LEU:HA	35:2d:136:PRO:HD2	1.82	0.43
41:2j:17:ASP:OD1	41:2j:70:ARG:NH1	2.33	0.43
50:2s:66:MET:HB2	50:2s:74:PHE:CZ	2.54	0.43
1:1A:438:A:O5'	1:1A:438:A:H8	2.02	0.43
1:1A:515:G:H2'	1:1A:516:A:C8	2.54	0.43
1:1A:2123:U:H2'	1:1A:2124:C:C6	2.54	0.43
1:1A:2331:A:H2'	1:1A:2331:A:N3	2.33	0.43
4:1E:12:THR:HG22	4:1E:13:ARG:N	2.34	0.43
19:1X:57:LEU:HD12	19:1X:78:LYS:HB2	2.00	0.43
32:1a:220:C:H2'	32:1a:221:C:H6	1.82	0.43
32:1a:368:C:H4'	59:1a:2085:HOH:O	2.17	0.43
32:1a:523:A:H2'	32:1a:524:G:H8	1.82	0.43
32:1a:810:C:H2'	32:1a:811:U:C6	2.53	0.43
32:1a:962:C:N4	32:1a:1203:G:N1	2.42	0.43
32:1a:1056:U:H3	32:1a:1085:A:H61	1.66	0.43
39:1h:6:ILE:HG22	39:1h:10:LEU:HD11	2.00	0.43
1:2A:37:A:H2'	1:2A:38:C:C6	2.54	0.43
2:2B:6:C:H2'	2:2B:7:G:O4'	2.18	0.43
3:2D:166:GLN:HB2	3:2D:174:ILE:HG22	2.01	0.43
5:2F:129:PHE:CD2	5:2F:163:VAL:HG21	2.54	0.43
8:2I:29:TYR:HD2	8:2I:30:LEU:HD23	1.83	0.43
32:2a:538:C:H2'	32:2a:539:C:C6	2.54	0.43
32:2a:1418:G:H2'	32:2a:1419:U:C6	2.53	0.43
33:2b:134:GLU:O	33:2b:138:LEU:HD22	2.18	0.43
33:2b:167:PRO:HG3	33:2b:188:ALA:HB2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:62:A:O3'	19:1X:71:GLY:HA3	2.18	0.43
1:1A:661:A:H4'	1:1A:662:G:O5'	2.19	0.43
1:1A:2224:U:O2'	1:1A:2225:C:H5'	2.18	0.43
1:1A:2339:A:H2'	1:1A:2340:G:H8	1.76	0.43
1:1A:2574:U:H1'	1:1A:2577:A:N6	2.33	0.43
1:1A:2671:A:H2'	1:1A:2672:G:O4'	2.19	0.43
13:1R:38:VAL:HG22	13:1R:112:ALA:HB2	2.00	0.43
27:15:16:ARG:O	27:15:20:ARG:HG3	2.18	0.43
32:1a:103:A:H2'	32:1a:322:G:N2	2.33	0.43
32:1a:546:C:H1'	43:1l:15:ARG:HD2	2.00	0.43
32:1a:802:G:HO2'	32:1a:804:U:H5	1.64	0.43
38:1g:138:LYS:HE3	38:1g:142:GLU:CD	2.43	0.43
42:1k:82:VAL:HB	42:1k:108:ILE:HG12	2.01	0.43
1:2A:54:A:H2'	1:2A:55:C:O4'	2.19	0.43
1:2A:1248:A:N6	1:2A:1285:U:H2'	2.33	0.43
1:2A:1854:G:OP1	3:2D:52:ARG:NH1	2.48	0.43
1:2A:2020:C:H4'	1:2A:2735:C:O2	2.19	0.43
1:2A:2421:G:C2	1:2A:2422:A:H1'	2.53	0.43
1:2A:2429:A:C6	1:2A:2430:U:C4	3.06	0.43
6:2G:41:GLN:NE2	6:2G:153:ARG:HB3	2.31	0.43
8:2I:61:ARG:HA	8:2I:61:ARG:HD3	1.76	0.43
14:2S:31:SER:N	14:2S:34:HIS:O	2.45	0.43
18:2W:14:PRO:HG2	18:2W:78:GLU:CG	2.48	0.43
26:24:45:GLY:C	26:24:47:GLN:H	2.27	0.43
27:25:33:CYS:HA	27:25:34:PRO:HD3	1.89	0.43
32:2a:658:G:H2'	32:2a:659:A:H8	1.84	0.43
32:2a:795:C:O2'	32:2a:879:A:N1	2.51	0.43
32:2a:1241:C:N4	32:2a:1242:C:O2	2.52	0.43
32:2a:1486:G:H2'	32:2a:1487:C:O4'	2.19	0.43
33:2b:75:LYS:HA	33:2b:78:GLN:NE2	2.33	0.43
33:2b:118:LEU:HG	33:2b:142:LEU:HD13	2.00	0.43
38:2g:47:CYS:O	38:2g:50:ILE:HG12	2.18	0.43
40:2i:9:ARG:HD2	40:2i:104:ARG:HH12	1.84	0.43
54:2x:50:U:H2'	54:2x:51:C:C6	2.53	0.43
1:1A:746:G:O2'	1:1A:1678:A:N3	2.50	0.43
1:1A:1247:G:H5'	11:1P:3:LEU:HD22	2.01	0.43
1:1A:1700:A:C1'	1:1A:2832:A:H5'	2.49	0.43
3:1D:70:TRP:HB3	3:1D:190:TYR:CE1	2.54	0.43
21:1Z:102:LEU:HD13	21:1Z:123:ASP:HA	2.01	0.43
32:1a:513:G:OP1	59:1a:2026:HOH:O	2.21	0.43
32:1a:1424:G:H5''	32:1a:1425:G:OP1	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:32:LEU:HD22	34:1c:59:ARG:NH1	2.33	0.43
34:1c:115:LEU:H	34:1c:115:LEU:HD13	1.84	0.43
1:2A:417:G:H2'	1:2A:418:C:O4'	2.19	0.43
1:2A:423:G:N7	59:2A:3739:HOH:O	2.37	0.43
1:2A:503:A:C6	1:2A:505:A:C6	3.07	0.43
1:2A:1003:A:C6	1:2A:1004:A:C6	3.07	0.43
1:2A:1041:A:C6	1:2A:1205:G:N1	2.87	0.43
1:2A:2397:C:H2'	1:2A:2398:U:C6	2.53	0.43
1:2A:2793:A:H5''	1:2A:2794:G:H5'	2.00	0.43
3:2D:132:PRO:HG3	3:2D:190:TYR:CE1	2.53	0.43
3:2D:182:LEU:HB2	3:2D:272:ALA:HB3	2.00	0.43
5:2F:167:ALA:O	5:2F:170:LEU:HB2	2.19	0.43
20:2Y:68:HIS:ND1	20:2Y:70:SER:HB3	2.34	0.43
21:2Z:157:LEU:HD11	21:2Z:163:LEU:HD13	2.01	0.43
32:2a:420:G:H8	32:2a:420:G:O5'	2.01	0.43
32:2a:502:C:O2'	32:2a:514:G:N2	2.51	0.43
32:2a:925:G:O2'	32:2a:1288:A:H4'	2.19	0.43
32:2a:1105:U:C4	32:2a:1106:A:N7	2.87	0.43
33:2b:92:TYR:CZ	33:2b:150:SER:CA	3.01	0.43
33:2b:218:ALA:O	33:2b:222:ILE:HG23	2.17	0.43
37:2f:69:GLU:O	37:2f:72:VAL:HG12	2.18	0.43
43:2l:79:GLU:HG2	43:2l:80:HIS:CD2	2.54	0.43
46:2o:61:GLY:O	46:2o:64:ARG:HG2	2.19	0.43
1:1A:1311:G:O4'	18:1W:15:ARG:NH2	2.51	0.43
1:1A:1857:C:OP2	3:1D:222:ARG:NH1	2.52	0.43
4:1E:2:LYS:HA	4:1E:84:PHE:CG	2.54	0.43
4:1E:170:LEU:HB3	4:1E:184:VAL:HG22	2.01	0.43
7:1H:83:TYR:CE2	7:1H:138:LYS:HB2	2.54	0.43
12:1Q:75:THR:HG21	12:1Q:87:LYS:NZ	2.33	0.43
21:1Z:152:ALA:HB1	21:1Z:163:LEU:HD21	2.01	0.43
32:1a:44:C:H5''	47:1p:12:LYS:HB3	2.01	0.43
32:1a:141:G:H2'	32:1a:142:G:H8	1.83	0.43
32:1a:208:C:H42	32:1a:212:G:H1	1.65	0.43
32:1a:265:C:H2'	32:1a:266:A:C8	2.53	0.43
32:1a:951:G:OP1	41:1j:57:LYS:NZ	2.42	0.43
32:1a:983:A:H2'	32:1a:984:A:H5'	2.00	0.43
32:1a:1358:A:C6	32:1a:1359:U:C4	3.07	0.43
32:1a:1494:G:H2'	32:1a:1496:A:OP2	2.19	0.43
33:1b:98:LEU:HB2	33:1b:101:MET:HE3	2.00	0.43
34:1c:39:ILE:HG22	34:1c:43:LEU:HD12	2.00	0.43
35:1d:158:ILE:H	35:1d:158:ILE:HG12	1.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:612:A:OP1	5:2F:95:ARG:NH1	2.52	0.43
1:2A:915:G:C2	1:2A:954:A:C2	3.07	0.43
1:2A:2212:G:H2'	1:2A:2213:G:O4'	2.19	0.43
1:2A:2225:C:H1'	1:2A:2231:G:N2	2.34	0.43
1:2A:2388:A:H2'	1:2A:2389:A:C8	2.53	0.43
2:2B:38:C:O2	2:2B:48:A:H1'	2.19	0.43
8:2I:40:THR:O	8:2I:44:LEU:HB2	2.19	0.43
8:2I:43:ASN:HD22	8:2I:43:ASN:C	2.27	0.43
11:2P:100:LEU:HD22	11:2P:105:LEU:HD12	2.00	0.43
32:2a:1232:A:N3	32:2a:1353:G:O2'	2.41	0.43
32:2a:1276:G:H2'	32:2a:1277:G:C8	2.53	0.43
32:2a:1288:A:N6	32:2a:1313:G:O4'	2.51	0.43
33:2b:13:ALA:N	33:2b:14:GLY:HA3	2.32	0.43
38:2g:114:ARG:O	38:2g:119:ARG:NH1	2.51	0.43
40:2i:23:ASN:H	40:2i:23:ASN:HD22	1.65	0.43
48:2q:5:VAL:HA	48:2q:59:ILE:O	2.19	0.43
1:1A:28:U:H2'	1:1A:29:G:C8	2.53	0.43
1:1A:263:G:H2'	1:1A:264:U:O4'	2.19	0.43
1:1A:363:A:H2'	1:1A:364:G:O4'	2.19	0.43
3:1D:53:PHE:C	3:1D:218:ARG:HB2	2.43	0.43
4:1E:115:GLY:O	4:1E:119:ARG:HB2	2.19	0.43
12:1Q:84:GLY:O	12:1Q:85:LYS:HB2	2.18	0.43
15:1T:51:ARG:HD3	59:1T:302:HOH:O	2.18	0.43
24:12:1:MET:N	24:12:52:ASP:OD2	2.50	0.43
32:1a:608:C:H2'	32:1a:609:G:C8	2.53	0.43
32:1a:846:C:H2'	32:1a:847:G:O4'	2.18	0.43
33:1b:62:ALA:HB3	33:1b:225:ALA:HB3	2.01	0.43
50:1s:80:TYR:CZ	50:1s:82:GLY:HA2	2.54	0.43
51:1t:60:GLU:HG3	51:1t:85:MET:HE3	2.01	0.43
1:2A:344:G:OP1	5:2F:135:LYS:NZ	2.52	0.43
1:2A:590:U:O2'	1:2A:592:G:N7	2.43	0.43
1:2A:673:G:C5	1:2A:674:C:C4	3.07	0.43
1:2A:1313:A:C2	1:2A:2034:A:C4	3.06	0.43
2:2B:33:G:C2	2:2B:50:G:C2	3.07	0.43
2:2B:40:U:N3	2:2B:43:C:OP2	2.52	0.43
4:2E:5:LEU:HD11	4:2E:79:ARG:HB2	2.01	0.43
6:2G:114:ILE:HD12	6:2G:117:PHE:HD2	1.83	0.43
11:2P:38:GLN:HG2	11:2P:45:LEU:H	1.83	0.43
23:21:86:SER:OG	23:21:89:GLU:HG3	2.19	0.43
24:22:3:LEU:HD23	24:22:3:LEU:HA	1.80	0.43
32:2a:719:C:H2'	32:2a:720:C:H6	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:835:C:H2'	32:2a:836:G:O4'	2.18	0.43
32:2a:1207:A:H2'	32:2a:1208:C:C5	2.53	0.43
32:2a:1338:G:N2	32:2a:1350:C:C2	2.86	0.43
59:2a:3389:HOH:O	45:2n:2:ALA:N	2.52	0.43
43:2l:26:ALA:HB1	43:2l:60:LEU:HD12	2.00	0.43
1:1A:52:G:O2'	29:17:35:ARG:HD3	2.19	0.43
1:1A:806:G:H2'	1:1A:807:A:O4'	2.19	0.43
1:1A:1632:A:H2'	1:1A:1633:C:C6	2.54	0.43
7:1H:4:ILE:O	7:1H:69:ARG:HG2	2.18	0.43
8:1I:38:LEU:O	8:1I:40:THR:N	2.46	0.43
8:1I:84:GLY:O	8:1I:86:THR:N	2.52	0.43
8:1I:140:LEU:HD23	8:1I:140:LEU:HA	1.77	0.43
32:1a:190:U:O2	48:1q:63:ARG:NH2	2.51	0.43
32:1a:388:G:H2'	32:1a:389:A:C8	2.54	0.43
32:1a:453:C:H3'	32:1a:454:G:C8	2.54	0.43
32:1a:766:A:O3'	32:1a:1493:C:H4'	2.18	0.43
33:1b:147:LYS:HE3	33:1b:147:LYS:HB3	1.72	0.43
38:1g:12:LEU:HB2	38:1g:21:VAL:HG12	2.01	0.43
1:2A:323:A:H1'	1:2A:342:C:H1'	2.01	0.43
1:2A:768:A:H2'	1:2A:769:G:C8	2.54	0.43
1:2A:1333:U:C2	1:2A:1372:C:O2	2.72	0.43
1:2A:1556:A:H2'	1:2A:1557:G:C8	2.54	0.43
1:2A:1835:U:O2	3:2D:50:THR:HB	2.19	0.43
1:2A:2091:G:C2	1:2A:2453:C:C2	3.06	0.43
1:2A:2330:G:C2	14:2S:3:ARG:HA	2.54	0.43
1:2A:2589:G:H1'	59:2A:3961:HOH:O	2.19	0.43
2:2B:79:C:H2'	2:2B:80:U:O4'	2.19	0.43
8:2I:12:LEU:HD22	8:2I:19:VAL:HG21	2.01	0.43
20:2Y:76:CYS:HA	20:2Y:77:PRO:HD3	1.93	0.43
32:2a:86:U:H2'	32:2a:87:C:C6	2.53	0.43
32:2a:1078:U:H2'	32:2a:1079:C:O4'	2.18	0.43
32:2a:1112:C:N4	32:2a:1126:G:N1	2.35	0.43
32:2a:1469:G:H5'	59:2a:3559:HOH:O	2.18	0.43
33:2b:15:VAL:O	33:2b:16:HIS:ND1	2.52	0.43
33:2b:162:ILE:O	33:2b:185:ILE:HG13	2.19	0.43
34:2c:37:GLN:HE22	45:2n:52:GLN:HB3	1.84	0.43
34:2c:151:VAL:HG22	34:2c:200:ALA:HB1	2.00	0.43
40:2i:17:VAL:HG11	40:2i:80:GLY:C	2.44	0.43
42:2k:48:ILE:HD11	42:2k:64:ALA:HA	2.00	0.43
46:2o:25:THR:HG21	46:2o:70:LEU:HB2	2.01	0.43
1:1A:214:G:H21	1:1A:216:A:H62	1.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:216:A:H3'	1:1A:217:A:C5'	2.46	0.42
1:1A:1380:U:H2'	1:1A:1381:A:O4'	2.19	0.42
1:1A:1862:C:OP2	59:1A:4202:HOH:O	2.22	0.42
1:1A:2568:G:H2'	1:1A:2569:C:C6	2.54	0.42
1:1A:2731:G:OP2	59:1A:4201:HOH:O	2.21	0.42
3:1D:249:PRO:HD2	3:1D:250:TRP:CZ3	2.53	0.42
21:1Z:101:PRO:O	21:1Z:102:LEU:HD12	2.18	0.42
26:14:40:HIS:HB3	26:14:43:TYR:CD1	2.54	0.42
32:1a:108:U:H1'	32:1a:349:A:H1'	2.02	0.42
32:1a:451:C:H2'	32:1a:452:C:C6	2.54	0.42
34:1c:188:LEU:HD11	34:1c:195:VAL:HB	2.00	0.42
40:1i:89:ASN:ND2	40:1i:91:ASP:H	2.17	0.42
1:2A:24:U:C4	1:2A:25:G:C6	3.07	0.42
1:2A:44:C:OP2	1:2A:203:G:H5'	2.19	0.42
1:2A:232:A:C2	1:2A:243:A:C4	3.07	0.42
1:2A:351:U:H4'	20:2Y:68:HIS:CG	2.54	0.42
1:2A:493:G:H2'	1:2A:494:G:O4'	2.19	0.42
1:2A:719:C:H5''	5:2F:81:PRO:HD2	1.99	0.42
1:2A:846:A:H8	1:2A:846:A:OP1	2.03	0.42
1:2A:1402:U:H2'	1:2A:1403:G:O4'	2.19	0.42
1:2A:1543:C:O4'	1:2A:1623:C:H4'	2.19	0.42
1:2A:2263:G:H2'	1:2A:2264:G:O4'	2.19	0.42
1:2A:2584:C:N3	55:2z:1:VAL:N	2.65	0.42
1:2A:2878:G:H2'	1:2A:2879:C:O4'	2.19	0.42
5:2F:24:LEU:HD21	5:2F:114:VAL:HG12	2.01	0.42
8:2I:129:THR:HA	8:2I:138:ILE:O	2.19	0.42
11:2P:63:PRO:HG2	30:28:25:MET:HB2	2.01	0.42
25:23:48:GLU:HA	25:23:51:ALA:HB2	2.00	0.42
32:2a:904:G:H22	53:2v:16:A:P	2.42	0.42
33:2b:204:ASN:HB3	33:2b:210:SER:OG	2.19	0.42
35:2d:94:LEU:HA	35:2d:97:LEU:HD12	2.01	0.42
35:2d:191:ARG:HA	35:2d:191:ARG:HD2	1.84	0.42
38:2g:13:GLN:HA	38:2g:14:PRO:HD3	1.87	0.42
40:2i:127:LYS:O	40:2i:128:ARG:HG2	2.19	0.42
44:2m:3:ARG:HG3	44:2m:4:ILE:N	2.34	0.42
1:1A:703:U:H2'	1:1A:704:C:H6	1.84	0.42
1:1A:1638:G:H2'	1:1A:1639:G:C8	2.54	0.42
1:1A:2059:G:H2'	1:1A:2060:C:O4'	2.19	0.42
9:1N:96:GLU:H	9:1N:96:GLU:CD	2.27	0.42
10:1O:64:ARG:NH1	10:1O:81:ASP:OD1	2.52	0.42
15:1T:37:GLY:HA2	15:1T:38:ASN:HA	1.65	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:354:U:H2'	32:1a:355:U:C6	2.55	0.42
32:1a:1412:C:H2'	32:1a:1413:C:H6	1.83	0.42
34:1c:11:ARG:HB3	34:1c:15:THR:HG22	2.00	0.42
35:1d:15:GLU:HG2	35:1d:63:LYS:HB3	2.01	0.42
40:1i:50:LEU:HD12	40:1i:85:LEU:HD11	2.02	0.42
42:1k:85:ARG:HD3	42:1k:113:PRO:HD3	2.00	0.42
44:1m:86:CYS:O	44:1m:89:GLY:N	2.52	0.42
50:1s:40:ILE:HD12	50:1s:62:ILE:HD13	2.02	0.42
1:2A:17:C:H2'	1:2A:18:C:C6	2.52	0.42
1:2A:237:C:O2	30:28:12:LYS:NZ	2.32	0.42
1:2A:325:C:P	20:2Y:73:ARG:HH12	2.42	0.42
1:2A:754:C:N4	1:2A:769:G:H1	2.17	0.42
1:2A:770:U:H2'	1:2A:771:G:O4'	2.19	0.42
1:2A:885:U:H1'	1:2A:1235:G:H1'	2.01	0.42
1:2A:956:A:H2'	12:2Q:9:TYR:OH	2.18	0.42
1:2A:1147:C:H2'	1:2A:1148:A:C8	2.51	0.42
1:2A:1567:G:H3'	1:2A:1568:U:H6	1.83	0.42
1:2A:1569:G:N2	1:2A:1570:G:H1'	2.34	0.42
1:2A:1813:A:H5'	1:2A:2619:G:H4'	2.01	0.42
1:2A:2327:C:H2'	1:2A:2328:C:C6	2.54	0.42
2:2B:95:C:H2'	2:2B:96:U:H6	1.84	0.42
6:2G:108:ASN:HA	26:24:37:SER:HB2	2.00	0.42
32:2a:119:U:H2'	32:2a:120:G:C8	2.54	0.42
32:2a:184:G:H2'	32:2a:185:C:C6	2.54	0.42
32:2a:544:U:H6	32:2a:544:U:H2'	1.67	0.42
32:2a:1176:U:H2'	32:2a:1177:C:C6	2.54	0.42
32:2a:1270:A:N1	32:2a:1354:G:H1'	2.34	0.42
33:2b:54:THR:O	33:2b:58:ILE:HG13	2.19	0.42
38:2g:104:LEU:HD12	38:2g:104:LEU:HA	1.84	0.42
41:2j:53:PRO:O	45:2n:41:ARG:NH2	2.50	0.42
42:2k:50:TYR:HD2	42:2k:60:ALA:HB2	1.84	0.42
48:2q:29:HIS:CE1	48:2q:32:TYR:HD2	2.37	0.42
48:2q:40:LYS:HD3	48:2q:42:TYR:CZ	2.53	0.42
50:2s:28:LYS:HB2	50:2s:29:ARG:CB	2.50	0.42
1:1A:875:A:N7	1:1A:2259:C:H5'	2.34	0.42
1:1A:1809:U:H2'	59:1A:4240:HOH:O	2.19	0.42
4:1E:103:ASP:OD2	4:1E:168:MET:HE3	2.19	0.42
4:1E:116:VAL:HG11	4:1E:138:PRO:HB3	2.00	0.42
8:1I:129:THR:HG22	8:1I:139:GLN:NE2	2.32	0.42
11:1P:46:LYS:HE3	11:1P:46:LYS:HB3	1.78	0.42
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:10:38:VAL:HB	22:10:59:LEU:HB2	2.01	0.42
23:11:23:LYS:HB3	23:11:29:GLY:HA3	2.01	0.42
30:18:62:LEU:HB3	30:18:65:GLU:CG	2.49	0.42
32:1a:262:G:H8	32:1a:262:G:H2'	1.73	0.42
32:1a:430:U:H2'	32:1a:431:C:C6	2.55	0.42
32:1a:799:A:N7	32:1a:1487:C:O2'	2.50	0.42
32:1a:889:U:H2'	32:1a:890:C:C6	2.54	0.42
32:1a:891:A:OP1	43:1l:46:LYS:NZ	2.52	0.42
32:1a:1145:C:H2'	32:1a:1146:C:C6	2.54	0.42
32:1a:1352:C:H2'	32:1a:1353:G:C8	2.53	0.42
32:1a:1410:U:H2'	32:1a:1411:A:C8	2.54	0.42
45:1n:21:TYR:HE2	45:1n:23:ARG:NE	2.17	0.42
1:2A:90:G:H2'	1:2A:91:C:C6	2.55	0.42
1:2A:138:A:H8	1:2A:1453:C:HO2'	1.64	0.42
1:2A:860:C:O2'	1:2A:861:C:H5'	2.20	0.42
1:2A:1051:C:C2	1:2A:1182:G:N2	2.87	0.42
1:2A:1409:G:OP2	23:21:3:LYS:HG3	2.19	0.42
1:2A:1929:C:O2	54:2x:12:G:H4'	2.19	0.42
2:2B:102:A:O5'	2:2B:102:A:H8	2.01	0.42
3:2D:274:ARG:HE	3:2D:274:ARG:HB3	1.67	0.42
4:2E:36:ARG:HG2	4:2E:47:VAL:HG12	2.01	0.42
5:2F:106:ARG:H	5:2F:106:ARG:HG2	1.46	0.42
11:2P:38:GLN:HG2	11:2P:45:LEU:N	2.34	0.42
12:2Q:32:TYR:CE1	12:2Q:133:ARG:HG3	2.54	0.42
14:2S:26:LEU:HD22	14:2S:87:PHE:CD1	2.54	0.42
32:2a:13:U:H2'	32:2a:14:U:H5''	2.01	0.42
32:2a:584:C:OP1	39:2h:97:VAL:HG12	2.19	0.42
32:2a:843:A:H8	32:2a:843:A:O5'	2.01	0.42
32:2a:901:A:OP1	36:2e:21:ALA:HB2	2.18	0.42
32:2a:1036:G:N7	32:2a:1182:C:H5''	2.35	0.42
34:2c:45:LYS:HG3	34:2c:46:GLU:N	2.34	0.42
37:2f:46:ARG:HB3	37:2f:46:ARG:NH1	2.34	0.42
41:2j:6:ILE:O	41:2j:71:LEU:HA	2.18	0.42
47:2p:28:ARG:HG3	47:2p:29:ASP:N	2.34	0.42
48:2q:14:LYS:N	48:2q:14:LYS:HD2	2.34	0.42
51:2t:42:GLN:O	51:2t:45:GLN:HB3	2.19	0.42
3:1D:37:LEU:HD22	3:1D:87:ASN:HD21	1.84	0.42
6:1G:7:LEU:HD13	6:1G:100:TRP:CE3	2.51	0.42
32:1a:43:G:O2'	32:1a:606:A:N1	2.47	0.42
32:1a:109:G:C2	32:1a:285:G:N7	2.87	0.42
32:1a:155:A:H2	32:1a:156:A:C6	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:398:G:C6	32:1a:399:C:C4	3.07	0.42
1:2A:352:G:H8	1:2A:352:G:OP1	2.02	0.42
1:2A:630:A:H2'	1:2A:631:A:C8	2.54	0.42
1:2A:865:A:C4	1:2A:1233:A:C2	3.07	0.42
1:2A:1879:G:H2'	1:2A:1880:G:H8	1.85	0.42
1:2A:1953:A:H2'	1:2A:1954:G:O4'	2.19	0.42
1:2A:2485:C:H5''	1:2A:2486:C:OP2	2.19	0.42
1:2A:2588:A:O4'	27:25:3:LYS:HB2	2.19	0.42
3:2D:4:LYS:HG2	3:2D:18:VAL:HG22	2.00	0.42
7:2H:102:ALA:HB2	7:2H:116:GLU:OE2	2.19	0.42
8:2I:77:LEU:HG	8:2I:101:LEU:HD12	2.02	0.42
21:2Z:108:PRO:HD3	21:2Z:141:VAL:HG23	2.02	0.42
32:2a:796:C:OP1	32:2a:881:G:H1'	2.20	0.42
32:2a:1081:C:H2'	32:2a:1082:G:O4'	2.19	0.42
32:2a:1102:C:H2'	32:2a:1103:G:C8	2.54	0.42
35:2d:61:LYS:HE3	35:2d:61:LYS:HB3	1.65	0.42
53:2v:14:A:H2'	53:2v:15:A:O4'	2.19	0.42
1:1A:1320:A:O2'	1:1A:1691:G:N3	2.52	0.42
1:1A:2523:C:H2'	1:1A:2524:G:O4'	2.19	0.42
7:1H:83:TYR:CZ	7:1H:138:LYS:HD2	2.55	0.42
10:1O:7:TYR:CE1	10:1O:20:MET:HB2	2.54	0.42
11:1P:65:ARG:HG3	11:1P:66:GLY:N	2.33	0.42
21:1Z:145:GLU:O	21:1Z:148:ASP:N	2.36	0.42
32:1a:138:A:H5''	32:1a:139:G:H5'	2.01	0.42
35:1d:177:ASP:O	35:1d:181:MET:N	2.52	0.42
44:1m:78:ILE:HG22	44:1m:82:MET:HE2	2.01	0.42
1:2A:29:G:C5	1:2A:30:C:C4	3.07	0.42
1:2A:558:U:O2'	16:2U:49:HIS:ND1	2.51	0.42
1:2A:1409:G:P	23:21:3:LYS:HG3	2.60	0.42
1:2A:1717:U:O2'	1:2A:1719:U:H5	2.03	0.42
1:2A:2291:G:O6	22:20:14:ARG:HD3	2.20	0.42
5:2F:160:ASN:HB3	5:2F:163:VAL:HB	2.00	0.42
6:2G:38:VAL:HG22	6:2G:93:THR:HG23	2.01	0.42
6:2G:106:LEU:O	6:2G:110:ALA:HB3	2.19	0.42
9:2N:4:TYR:HB2	16:2U:101:ARG:NH1	2.35	0.42
9:2N:96:GLU:CD	9:2N:96:GLU:H	2.27	0.42
9:2N:120:LEU:HD22	9:2N:122:VAL:HG23	2.00	0.42
11:2P:65:ARG:HG3	30:28:25:MET:HG3	2.01	0.42
14:2S:84:GLN:CA	14:2S:111:GLU:HB2	2.46	0.42
25:23:30:ARG:H	25:23:33:GLN:NE2	2.18	0.42
32:2a:554:G:H1'	32:2a:804:U:C4	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:600:G:P	35:2d:141:ARG:HH22	2.43	0.42
32:2a:835:C:OP2	59:2a:3326:HOH:O	2.22	0.42
32:2a:1185:C:H2'	32:2a:1186:A:H8	1.84	0.42
32:2a:1420:C:H42	32:2a:1442:G:H1	1.67	0.42
33:2b:189:ASP:OD1	33:2b:189:ASP:N	2.41	0.42
36:2e:57:LYS:HG2	36:2e:61:TYR:HE2	1.83	0.42
41:2j:89:ASP:O	41:2j:91:PRO:HD3	2.20	0.42
46:2o:28:GLN:O	46:2o:32:LEU:HG	2.19	0.42
49:2r:74:ARG:HG2	49:2r:80:PRO:O	2.20	0.42
54:2x:75:C:H2'	54:2x:76:A:C2	2.55	0.42
1:1A:274:C:H2'	1:1A:275:C:C6	2.54	0.42
1:1A:282:G:O6	59:1A:4166:HOH:O	2.16	0.42
1:1A:682:G:H1	1:1A:695:C:N4	2.08	0.42
1:1A:769:G:H2'	1:1A:770:U:O4'	2.20	0.42
1:1A:2031:G:O6	59:1A:4195:HOH:O	2.21	0.42
1:1A:2449:U:O2'	1:1A:2451:C:OP1	2.35	0.42
2:1B:57:A:H1'	6:1G:29:TRP:HB2	2.01	0.42
6:1G:11:TYR:HB2	6:1G:176:LEU:HD21	2.01	0.42
19:1X:53:LYS:HB3	19:1X:82:GLN:HB3	2.02	0.42
26:14:61:ARG:HH22	50:1s:41:VAL:HG12	1.84	0.42
28:16:6:ARG:NE	28:16:24:GLU:OE1	2.25	0.42
32:1a:220:C:OP1	51:1t:74:LYS:NZ	2.42	0.42
32:1a:721:A:H2'	32:1a:722:C:H6	1.84	0.42
33:1b:100:GLY:N	33:1b:176:GLU:OE2	2.39	0.42
45:1n:41:ARG:HG3	45:1n:42:ILE:HG13	2.02	0.42
1:2A:378:G:H2'	1:2A:379:G:H8	1.84	0.42
1:2A:541:C:OP1	27:25:16:ARG:NH2	2.52	0.42
1:2A:1726:U:O2	1:2A:1793:G:H3'	2.20	0.42
1:2A:2052:A:N3	1:2A:2466:G:O2'	2.39	0.42
1:2A:2347:A:H61	22:20:43:THR:CG2	2.33	0.42
1:2A:2752:A:H2'	1:2A:2753:A:C8	2.54	0.42
1:2A:2801:C:H3'	59:2A:4107:HOH:O	2.20	0.42
1:2A:2880:C:N4	59:2A:3823:HOH:O	2.52	0.42
3:2D:213:ARG:HA	3:2D:213:ARG:HD2	1.83	0.42
6:2G:47:LYS:HE2	6:2G:47:LYS:HB2	1.71	0.42
6:2G:146:TYR:O	6:2G:149:VAL:HG12	2.20	0.42
32:2a:423:U:O2'	32:2a:525:G:OP1	2.32	0.42
32:2a:529:C:O2'	32:2a:533:C:OP1	2.26	0.42
32:2a:853:C:H1'	39:2h:15:ASN:ND2	2.32	0.42
32:2a:925:G:H2'	32:2a:926:C:O4'	2.19	0.42
32:2a:932:G:H21	32:2a:1209:A:N6	2.11	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1045:U:H2'	32:2a:1046:C:C6	2.54	0.42
32:2a:1120:C:O2'	32:2a:1121:G:H5''	2.20	0.42
32:2a:1443:C:H2'	32:2a:1444:C:O4'	2.20	0.42
34:2c:182:ILE:HG12	34:2c:203:PHE:CD1	2.55	0.42
1:1A:838:G:H5''	1:1A:839:A:H5'	2.02	0.42
1:1A:963:A:N3	2:1B:80:U:O2'	2.46	0.42
1:1A:2356:G:OP2	28:16:38:LYS:NZ	2.53	0.42
12:1Q:12:GLN:OE1	12:1Q:73:PRO:HD2	2.20	0.42
15:1T:7:ILE:O	15:1T:11:GLU:HG3	2.20	0.42
32:1a:6:U:O2	59:1a:2021:HOH:O	2.19	0.42
32:1a:585:C:H2'	32:1a:586:A:H8	1.84	0.42
32:1a:747:G:H2'	32:1a:748:C:H6	1.83	0.42
33:1b:8:LYS:HG3	33:1b:48:MET:SD	2.60	0.42
1:2A:903:C:H4'	22:20:23:VAL:HG21	2.01	0.42
1:2A:1332:A:C5	1:2A:1333:U:C4	3.08	0.42
1:2A:1350:C:C2	1:2A:1669:G:C2	3.08	0.42
1:2A:2687:C:O2	1:2A:2744:G:N2	2.51	0.42
5:2F:11:VAL:HG22	5:2F:125:LEU:HB2	2.01	0.42
12:2Q:47:ILE:HD12	12:2Q:70:PRO:HG3	2.01	0.42
28:26:40:CYS:HA	28:26:41:PRO:HD3	1.85	0.42
32:2a:354:U:H2'	32:2a:355:U:H6	1.84	0.42
32:2a:1070:G:H22	32:2a:1082:G:H1'	1.84	0.42
32:2a:1305:G:H4'	32:2a:1345:C:N3	2.35	0.42
32:2a:1387:C:H2'	32:2a:1388:G:C8	2.55	0.42
38:2g:50:ILE:HD12	38:2g:61:VAL:HB	2.02	0.42
49:2r:26:LEU:HD13	49:2r:26:LEU:HA	1.92	0.42
50:2s:63:THR:OG1	50:2s:64:GLU:N	2.52	0.42
54:2x:4:G:H1	54:2x:69:C:N4	2.15	0.42
1:1A:411:C:O2	11:1P:71:VAL:HG21	2.20	0.42
1:1A:462:C:H2'	1:1A:463:G:C8	2.54	0.42
1:1A:1540:A:H2'	1:1A:1541:A:H8	1.81	0.42
1:1A:2735:C:OP1	13:1R:3:HIS:ND1	2.47	0.42
1:1A:2746:A:H2'	1:1A:2747:G:O4'	2.20	0.42
7:1H:38:SER:HB3	7:1H:41:MET:HG2	2.01	0.42
7:1H:71:LEU:HD12	7:1H:71:LEU:HA	1.88	0.42
8:1I:44:LEU:HD12	8:1I:44:LEU:HA	1.91	0.42
13:1R:28:LEU:HD12	13:1R:44:LEU:HD13	2.01	0.42
18:1W:84:ARG:HG3	18:1W:98:LYS:HD2	2.01	0.42
32:1a:143:G:H2'	32:1a:144:A:H8	1.85	0.42
32:1a:477:G:H2'	32:1a:478:G:O4'	2.18	0.42
32:1a:549:U:H3'	32:1a:550:G:H2'	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:748:C:H2'	32:1a:749:G:O4'	2.20	0.42
32:1a:1307:C:H2'	32:1a:1308:C:C6	2.54	0.42
32:1a:1392:C:H2'	32:1a:1393:G:C8	2.55	0.42
32:1a:1503:G:P	42:1k:120:ARG:HH22	2.43	0.42
36:1e:81:GLU:HG2	36:1e:90:VAL:HG13	2.01	0.42
1:2A:250:A:H2'	1:2A:251:C:O4'	2.20	0.42
1:2A:582:C:H2'	1:2A:583:G:O4'	2.20	0.42
1:2A:623:C:O2	1:2A:627:C:H4'	2.20	0.42
1:2A:753:G:H2'	1:2A:754:C:O4'	2.19	0.42
1:2A:925:G:N7	1:2A:926:G:C8	2.88	0.42
1:2A:1701:A:H4'	4:2E:115:GLY:N	2.35	0.42
1:2A:1847:G:H3'	3:2D:157:ARG:HH21	1.85	0.42
1:2A:2091:G:C4	1:2A:2092:A:C8	3.08	0.42
1:2A:2589:G:H2'	1:2A:2590:C:C6	2.55	0.42
1:2A:2695:U:H1'	10:2O:70:LYS:HE3	2.01	0.42
6:2G:16:ARG:NH2	6:2G:28:VAL:HG12	2.34	0.42
20:2Y:90:LEU:HB3	20:2Y:92:ASN:H	1.85	0.42
32:2a:202:A:N3	32:2a:218:U:O2'	2.49	0.42
32:2a:613:G:H2'	32:2a:614:G:O4'	2.20	0.42
33:2b:178:ARG:HH22	39:2h:68:ARG:HH22	1.68	0.42
42:2k:17:GLY:O	42:2k:80:VAL:HA	2.20	0.42
45:2n:17:LYS:HE2	45:2n:17:LYS:H	1.81	0.42
1:1A:963:A:H5''	2:1B:98:G:O2'	2.20	0.42
1:1A:1176:G:H21	9:1N:73:THR:HG21	1.85	0.42
1:1A:1343:C:N4	1:1A:1344:G:C6	2.88	0.42
5:1F:126:VAL:HG21	5:1F:129:PHE:CZ	2.54	0.42
14:1S:87:PHE:HB2	14:1S:112:PHE:CD2	2.55	0.42
21:1Z:129:SER:HA	21:1Z:130:PRO:HD3	1.91	0.42
32:1a:144:A:H2'	32:1a:145:C:H6	1.84	0.42
32:1a:397:C:O2'	32:1a:605:A:N3	2.48	0.42
32:1a:595:A:H61	32:1a:613:G:H1	1.68	0.42
32:1a:971:G:H1	32:1a:1028:C:N4	2.11	0.42
32:1a:1196:C:H5''	59:1a:2035:HOH:O	2.19	0.42
32:1a:1299:C:H2'	32:1a:1300:A:O4'	2.19	0.42
35:1d:194:LEU:HD22	35:1d:194:LEU:HA	1.80	0.42
37:1f:89:MET:HE3	49:1r:76:LEU:HD22	2.01	0.42
40:1i:11:LYS:HG2	40:1i:107:ARG:O	2.19	0.42
55:1z:9:ARG:HA	55:1z:10:PRO:HD3	1.85	0.42
1:2A:437:G:C5	11:2P:72:PRO:HB3	2.55	0.42
1:2A:861:C:C2	1:2A:1237:G:C2	3.08	0.42
1:2A:919:G:N2	1:2A:950:U:C2	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1184:C:OP1	9:2N:23:LEU:HB3	2.19	0.42
1:2A:2547:G:H2'	1:2A:2548:U:O4'	2.20	0.42
1:2A:2596:U:H4'	1:2A:2597:C:OP1	2.19	0.42
3:2D:72:LYS:HG3	3:2D:103:ARG:HH22	1.85	0.42
12:2Q:12:GLN:HG2	12:2Q:73:PRO:HD2	2.02	0.42
32:2a:1176:U:H4'	36:2e:22:GLY:O	2.20	0.42
32:2a:1308:C:H2'	32:2a:1309:C:C6	2.54	0.42
36:2e:122:GLU:O	36:2e:126:ARG:NH1	2.41	0.42
49:2r:35:ARG:O	49:2r:37:VAL:N	2.51	0.42
50:2s:27:GLU:C	50:2s:28:LYS:HZ2	2.26	0.42
1:1A:503:A:N1	1:1A:524:G:H4'	2.35	0.42
1:1A:510:C:H2'	1:1A:511:C:H6	1.84	0.42
1:1A:610:U:H2'	1:1A:611:C:H6	1.82	0.42
1:1A:1153:U:H6	1:1A:1154:C:C6	2.38	0.42
1:1A:1620:C:N4	59:1A:4136:HOH:O	2.53	0.42
1:1A:2093:G:O6	59:1A:4203:HOH:O	2.22	0.42
3:1D:213:ARG:HA	3:1D:213:ARG:HD2	1.84	0.42
6:1G:56:ALA:HA	6:1G:153:ARG:NH2	2.35	0.42
9:1N:4:TYR:CD2	16:1U:100:VAL:HG11	2.55	0.42
18:1W:65:LEU:HD12	18:1W:68:ARG:NH2	2.35	0.42
20:1Y:99:CYS:HB2	20:1Y:106:LEU:HD21	2.02	0.42
32:1a:953:A:N1	41:1j:48:THR:HB	2.34	0.42
32:1a:1112:C:H5''	40:1i:16:ARG:NH1	2.35	0.42
33:1b:162:ILE:HD11	33:1b:184:VAL:HG22	2.01	0.42
34:1c:114:PRO:HA	34:1c:185:GLY:HA3	2.01	0.42
35:1d:105:VAL:HG13	35:1d:110:PHE:HB2	2.01	0.42
36:1e:10:MET:HB2	36:1e:13:ILE:HD11	2.01	0.42
38:1g:50:ILE:HD13	38:1g:61:VAL:HB	2.01	0.42
49:1r:54:ARG:HB3	49:1r:54:ARG:NH1	2.34	0.42
1:2A:897:U:O2'	25:23:42:ALA:O	2.31	0.42
1:2A:1118:A:H3'	1:2A:1119:G:H8	1.84	0.42
1:2A:1450:U:H2'	1:2A:1451:U:H6	1.85	0.42
1:2A:2273:U:H4'	1:2A:2339:A:C2	2.55	0.42
1:2A:2282:G:H2'	1:2A:2283:U:C6	2.55	0.42
1:2A:2389:A:H4'	14:2S:23:ARG:HH11	1.84	0.42
1:2A:2698:U:H2'	1:2A:2699:U:O4'	2.20	0.42
3:2D:17:THR:O	3:2D:211:ARG:NH2	2.53	0.42
13:2R:100:LEU:HD12	13:2R:100:LEU:HA	1.90	0.42
18:2W:16:LYS:O	18:2W:19:LEU:HB2	2.20	0.42
29:27:22:MET:HA	29:27:28:ARG:HG2	2.00	0.42
32:2a:353:G:OP1	32:2a:363:U:H5''	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:359:A:C6	43:2l:31:PRO:HD2	2.55	0.42
32:2a:547:A:C5	32:2a:551:G:H1'	2.55	0.42
32:2a:768:C:H2'	32:2a:769:G:C8	2.54	0.42
40:2i:96:LEU:HD22	40:2i:101:PHE:HB2	2.02	0.42
48:2q:66:SER:HB3	48:2q:69:LYS:HB2	2.01	0.42
51:2t:72:LEU:HD23	51:2t:72:LEU:HA	1.91	0.42
1:1A:738:C:O2'	3:1D:38:LYS:NZ	2.53	0.41
1:1A:910:G:O2'	1:1A:911:C:H5'	2.20	0.41
1:1A:1043:C:P	16:1U:92:ARG:HH22	2.43	0.41
1:1A:1301:G:O6	59:1A:4191:HOH:O	2.20	0.41
1:1A:1345:U:H4'	1:1A:1346:A:H5'	2.01	0.41
1:1A:2778:G:H2'	1:1A:2778:G:N3	2.34	0.41
5:1F:12:LEU:HG	5:1F:124:LEU:HD11	2.01	0.41
18:1W:25:ARG:NH2	18:1W:74:ALA:O	2.51	0.41
21:1Z:11:GLU:HB3	21:1Z:12:GLY:H	1.65	0.41
21:1Z:185:GLU:OE2	21:1Z:186:GLU:HG3	2.20	0.41
32:1a:154:G:N2	32:1a:156:A:O5'	2.53	0.41
32:1a:215:C:H2'	32:1a:216:G:O4'	2.20	0.41
32:1a:355:U:H2'	32:1a:356:A:H8	1.85	0.41
32:1a:904:G:H5''	32:1a:905:G:O5'	2.20	0.41
34:1c:139:GLN:O	34:1c:143:GLU:HG3	2.20	0.41
36:1e:92:LYS:HB3	36:1e:119:LEU:HB2	2.02	0.41
39:1h:64:LYS:HB2	39:1h:79:VAL:HG21	2.02	0.41
40:1i:23:ASN:HD22	40:1i:24:GLY:N	2.18	0.41
1:2A:398:G:H8	23:21:65:SER:O	2.03	0.41
1:2A:766:C:H2'	1:2A:767:C:H6	1.84	0.41
1:2A:1090:A:H4'	1:2A:1091:A:H5''	2.02	0.41
1:2A:1200:A:H5''	16:2U:55:ARG:HD3	2.02	0.41
1:2A:1404:A:C6	1:2A:1417:U:O4	2.73	0.41
1:2A:1883:A:H2'	1:2A:1884:A:C8	2.55	0.41
1:2A:2549:C:H2'	1:2A:2550:C:H6	1.84	0.41
4:2E:31:CYS:HA	4:2E:32:PRO:HD2	1.82	0.41
14:2S:25:ARG:NH1	14:2S:42:ASP:OD1	2.46	0.41
25:23:22:ALA:HB2	25:23:49:LYS:HD3	2.01	0.41
31:29:17:ILE:HD12	31:29:17:ILE:HA	1.76	0.41
32:2a:488:C:H1'	32:2a:494:A:C4	2.55	0.41
32:2a:1043:C:H5	34:2c:2:GLY:HA3	1.84	0.41
32:2a:1208:C:H3'	44:2m:96:LEU:HD11	2.01	0.41
32:2a:1384:G:C2	32:2a:1385:C:H1'	2.55	0.41
34:2c:159:GLY:HA2	34:2c:193:TYR:CD1	2.54	0.41
37:2f:76:ALA:O	37:2f:80:ARG:HG3	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:2q:9:VAL:HG23	48:2q:11:VAL:HG13	2.01	0.41
1:1A:62:A:C5	19:1X:66:LEU:HD13	2.55	0.41
1:1A:909:A:H2'	1:1A:910:G:C8	2.55	0.41
5:1F:172:TRP:CD1	5:1F:172:TRP:H	2.39	0.41
11:1P:100:LEU:HD23	11:1P:100:LEU:HA	1.86	0.41
14:1S:4:LEU:HD12	14:1S:4:LEU:HA	1.69	0.41
32:1a:228:G:H1'	32:1a:258:A:N1	2.35	0.41
32:1a:335:C:H2'	32:1a:336:U:C6	2.55	0.41
32:1a:413:C:H2'	32:1a:414:C:H6	1.85	0.41
32:1a:1431:U:O2'	32:1a:1432:A:H3'	2.21	0.41
34:1c:40:ARG:HG2	34:1c:55:VAL:HG11	2.01	0.41
37:1f:35:ALA:HA	37:1f:67:MET:HB3	2.01	0.41
37:1f:86:ARG:O	37:1f:87:ARG:HG2	2.19	0.41
43:1l:34:ARG:NH2	59:1l:5001:HOH:O	2.32	0.41
43:1l:77:LEU:HD21	43:1l:107:ALA:HA	2.02	0.41
1:2A:6:G:H2'	1:2A:7:A:C8	2.55	0.41
1:2A:38:C:H2'	1:2A:39:C:C6	2.55	0.41
1:2A:573:G:O2'	1:2A:1264:A:N3	2.50	0.41
1:2A:624:G:O2'	1:2A:701:A:N6	2.52	0.41
1:2A:930:C:H3'	1:2A:931:C:C6	2.55	0.41
1:2A:2429:A:C5	1:2A:2430:U:C4	3.07	0.41
3:2D:65:ILE:HB	3:2D:67:PHE:CE2	2.56	0.41
6:2G:145:THR:HG23	6:2G:148:MET:SD	2.60	0.41
12:2Q:27:VAL:O	12:2Q:27:VAL:HG12	2.20	0.41
16:2U:83:LEU:O	16:2U:87:GLY:N	2.50	0.41
32:2a:438:C:H2'	32:2a:439:C:H6	1.84	0.41
32:2a:621:G:H2'	32:2a:622:G:H8	1.84	0.41
32:2a:972:A:N7	32:2a:1198:G:H4'	2.35	0.41
35:2d:3:ARG:HH22	35:2d:5:ILE:HG13	1.85	0.41
40:2i:24:GLY:N	40:2i:60:ASP:OD1	2.46	0.41
54:2x:25:C:H2'	54:2x:26:G:O4'	2.20	0.41
1:1A:810:A:H5'	3:1D:210:GLY:HA2	2.02	0.41
1:1A:1270:G:OP1	17:1V:69:LYS:NZ	2.47	0.41
1:1A:1711:A:H4'	10:1O:67:LYS:HB2	2.02	0.41
1:1A:2588:A:O4'	27:15:3:LYS:HB2	2.20	0.41
1:1A:2668:A:O3'	7:1H:160:LYS:NZ	2.53	0.41
6:1G:67:LYS:H	26:14:6:HIS:CE1	2.38	0.41
8:1I:110:ASP:HA	8:1I:111:PRO:HD2	1.72	0.41
12:1Q:18:LYS:HE3	12:1Q:18:LYS:HB2	1.91	0.41
18:1W:79:GLY:HA3	18:1W:100:THR:HG22	2.02	0.41
20:1Y:43:ASN:HD22	20:1Y:43:ASN:HA	1.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:1Y:54:LYS:CA	20:1Y:56:PRO:HD3	2.44	0.41
32:1a:1165:A:H3'	32:1a:1166:G:C5'	2.50	0.41
32:1a:1268:A:H2'	32:1a:1269:A:H4'	2.01	0.41
33:1b:19:HIS:CD2	33:1b:20:GLU:HG2	2.56	0.41
35:1d:3:ARG:O	35:1d:5:ILE:HG22	2.20	0.41
35:1d:78:LEU:HD23	35:1d:78:LEU:HA	1.83	0.41
37:1f:17:SER:O	37:1f:21:LEU:HG	2.20	0.41
40:1i:20:ARG:O	40:1i:60:ASP:N	2.45	0.41
43:1l:83:VAL:HG13	43:1l:100:ILE:HG23	2.02	0.41
47:1p:1:MET:SD	47:1p:1:MET:N	2.90	0.41
1:2A:604:G:H2'	1:2A:605:G:C8	2.55	0.41
1:2A:1713:G:H22	1:2A:2013:G:H5'	1.84	0.41
7:2H:90:LYS:NZ	7:2H:159:GLU:OE2	2.52	0.41
10:2O:93:PRO:HG3	10:2O:113:LYS:HB3	2.01	0.41
15:2T:54:ARG:HA	15:2T:59:THR:HG22	2.03	0.41
17:2V:89:GLN:HA	17:2V:90:PRO:HD3	1.86	0.41
26:24:60:GLN:H	26:24:62:ARG:HE	1.68	0.41
32:2a:602:C:N4	32:2a:605:A:N7	2.67	0.41
32:2a:1041:G:H2'	32:2a:1042:C:O4'	2.20	0.41
32:2a:1052:C:H42	32:2a:1089:G:H1	1.69	0.41
32:2a:1055:G:C6	32:2a:1056:U:C4	3.08	0.41
32:2a:1237:G:O2'	32:2a:1240:G:H1'	2.20	0.41
32:2a:1259:C:O2'	32:2a:1261:A:H1'	2.19	0.41
33:2b:18:GLY:HA2	33:2b:42:ILE:HG13	2.02	0.41
35:2d:36:ARG:HD2	35:2d:38:TYR:CE2	2.55	0.41
37:2f:97:PHE:HB2	49:2r:32:ARG:HH21	1.85	0.41
45:2n:53:LEU:HA	45:2n:54:PRO:HD2	1.87	0.41
51:2t:20:LEU:HD23	51:2t:20:LEU:HA	1.83	0.41
1:1A:1066:A:C8	1:1A:1066:A:C3'	3.04	0.41
1:1A:1067:G:N7	9:1N:66:LYS:HE2	2.36	0.41
5:1F:192:LEU:HD22	5:1F:194:MET:HG3	2.01	0.41
7:1H:104:GLU:HG3	7:1H:114:VAL:HG22	2.01	0.41
12:1Q:75:THR:HG22	59:1Q:5006:HOH:O	2.21	0.41
28:16:14:THR:OG1	28:16:48:VAL:O	2.27	0.41
28:16:21:TYR:CE2	28:16:38:LYS:HG2	2.56	0.41
32:1a:116:G:H8	32:1a:116:G:OP1	2.04	0.41
32:1a:274:G:OP2	48:1q:92:ARG:NH2	2.53	0.41
32:1a:447:A:H4'	47:1p:72:ARG:NH2	2.36	0.41
33:1b:21:ARG:HE	33:1b:21:ARG:H	1.67	0.41
34:1c:47:LEU:HD12	34:1c:68:VAL:HG11	2.01	0.41
40:1i:113:LYS:HD2	40:1i:113:LYS:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:1s:58:VAL:O	50:1s:60:VAL:HG23	2.20	0.41
1:2A:320:C:H2'	1:2A:321:G:O4'	2.21	0.41
1:2A:517:G:H2'	1:2A:518:G:O4'	2.19	0.41
1:2A:579:U:H2'	1:2A:580:G:H8	1.85	0.41
1:2A:1067:G:C6	1:2A:1184:C:C4	3.08	0.41
1:2A:1073:A:N6	1:2A:1171:A:OP1	2.54	0.41
1:2A:2062:U:H2'	1:2A:2063:A:C8	2.56	0.41
1:2A:2358:C:H2'	1:2A:2359:U:C6	2.55	0.41
1:2A:2547:G:H2'	1:2A:2548:U:H6	1.85	0.41
3:2D:264:LYS:HA	3:2D:265:PRO:HD3	1.93	0.41
12:2Q:69:PHE:HA	12:2Q:70:PRO:HD3	1.66	0.41
25:23:12:PRO:O	25:23:15:TYR:HB2	2.20	0.41
32:2a:623:G:H3'	59:2a:3359:HOH:O	2.20	0.41
32:2a:1024:A:H2'	32:2a:1025:G:C8	2.56	0.41
32:2a:1202:G:H21	50:2s:54:GLY:CA	2.34	0.41
32:2a:1356:G:O6	40:2i:107:ARG:NH1	2.54	0.41
32:2a:1421:G:H2'	32:2a:1422:C:C6	2.55	0.41
33:2b:44:LEU:HD13	33:2b:44:LEU:HA	1.85	0.41
34:2c:164:ARG:HG2	34:2c:165:THR:N	2.36	0.41
35:2d:100:ARG:NH2	35:2d:102:ASP:OD2	2.53	0.41
40:2i:4:TYR:CE2	40:2i:88:TYR:HA	2.55	0.41
40:2i:111:ARG:HG2	40:2i:112:LYS:N	2.35	0.41
45:2n:24:CYS:HB3	45:2n:29:ARG:H	1.85	0.41
1:1A:359:C:O2'	20:1Y:35:TYR:OH	2.34	0.41
1:1A:1945:C:H4'	54:1x:13:C:O2'	2.21	0.41
3:1D:132:PRO:HA	3:1D:190:TYR:HA	2.03	0.41
5:1F:101:LEU:HD12	5:1F:102:PRO:HD2	2.02	0.41
6:1G:46:ALA:HB2	6:1G:53:LEU:HD12	2.01	0.41
11:1P:63:PRO:HG2	30:18:25:MET:HB2	2.02	0.41
17:1V:1:MET:HB2	17:1V:43:GLU:OE2	2.20	0.41
18:1W:20:VAL:HG11	18:1W:44:ALA:HA	2.02	0.41
20:1Y:92:ASN:HB2	20:1Y:94:LYS:N	2.26	0.41
26:14:48:ARG:O	26:14:50:VAL:N	2.53	0.41
32:1a:955:A:H2'	32:1a:956:A:H5''	2.02	0.41
33:1b:156:LYS:O	33:1b:156:LYS:HE2	2.21	0.41
38:1g:48:LYS:O	38:1g:51:GLN:HB2	2.20	0.41
44:1m:74:VAL:O	44:1m:78:ILE:HG13	2.19	0.41
45:1n:52:GLN:O	45:1n:53:LEU:HD23	2.20	0.41
50:1s:39:THR:OG1	50:1s:70:LYS:HE2	2.21	0.41
52:1u:19:GLY:N	52:1u:22:ARG:O	2.51	0.41
1:2A:183:A:OP1	11:2P:46:LYS:NZ	2.42	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:363:A:H2'	1:2A:364:G:O4'	2.20	0.41
1:2A:483:G:O2'	29:27:39:ARG:HD3	2.20	0.41
1:2A:514:G:N7	18:2W:49:LYS:NZ	2.68	0.41
1:2A:776:C:H3'	59:2A:3981:HOH:O	2.21	0.41
1:2A:1044:U:H5''	1:2A:1199:G:O6	2.21	0.41
1:2A:1337:U:H2'	1:2A:1338:C:C6	2.56	0.41
1:2A:1585:G:H2'	1:2A:1586:U:O4'	2.20	0.41
1:2A:1808:U:H2'	1:2A:1814:A:N6	2.34	0.41
1:2A:2371:A:C2	1:2A:2372:A:H1'	2.55	0.41
1:2A:2763:G:C4	7:2H:2:SER:HA	2.56	0.41
10:2O:71:ARG:NE	10:2O:105:GLU:OE2	2.54	0.41
13:2R:65:LEU:HD12	13:2R:65:LEU:HA	1.86	0.41
20:2Y:40:GLU:O	20:2Y:42:VAL:HG23	2.20	0.41
32:2a:474:C:H2'	32:2a:475:G:C8	2.56	0.41
32:2a:1244:C:H42	32:2a:1255:G:H1	1.69	0.41
33:2b:90:MET:HA	33:2b:90:MET:HE3	2.03	0.41
35:2d:13:ARG:NH1	35:2d:38:TYR:O	2.48	0.41
41:2j:13:HIS:CE1	41:2j:68:HIS:NE2	2.89	0.41
42:2k:33:THR:HG22	42:2k:39:PRO:HA	2.03	0.41
48:2q:22:LEU:HD13	48:2q:41:LYS:HG3	2.00	0.41
1:1A:136:G:N7	59:1A:4364:HOH:O	2.37	0.41
1:1A:2208:G:H5''	1:1A:2209:C:OP1	2.21	0.41
1:1A:2367:C:O3'	22:10:20:ARG:HD3	2.20	0.41
3:1D:106:ILE:O	3:1D:108:PRO:HD3	2.21	0.41
26:14:56:VAL:HG12	26:14:60:GLN:HE22	1.85	0.41
32:1a:671:A:N3	32:1a:672:G:H1'	2.35	0.41
32:1a:815:U:H2'	32:1a:816:C:C6	2.56	0.41
32:1a:872:G:C6	32:1a:873:G:C5	3.08	0.41
32:1a:1176:U:H4'	36:1e:22:GLY:O	2.20	0.41
33:1b:27:LYS:HB2	33:1b:194:PRO:HD2	2.03	0.41
45:1n:4:LYS:O	45:1n:7:ILE:HG12	2.19	0.41
47:1p:20:VAL:HG23	47:1p:35:LYS:HA	2.02	0.41
50:1s:40:ILE:HB	50:1s:67:VAL:O	2.21	0.41
1:2A:784:G:C6	1:2A:785:G:C2	3.08	0.41
1:2A:1114:A:C5	1:2A:1118:A:C5	3.09	0.41
1:2A:2214:G:H2'	1:2A:2215:G:C8	2.56	0.41
1:2A:2296:C:OP2	28:26:6:ARG:NH1	2.53	0.41
1:2A:2613:A:H2'	54:2x:74:C:OP2	2.21	0.41
1:2A:2735:C:H4'	13:2R:1:MET:HG3	2.02	0.41
3:2D:43:ARG:HA	3:2D:48:ARG:O	2.21	0.41
3:2D:53:PHE:CE1	3:2D:221:VAL:HG12	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:68:PRO:HB2	6:2G:90:LEU:HB3	2.02	0.41
18:2W:46:PHE:O	18:2W:50:VAL:HG23	2.20	0.41
19:2X:5:TYR:CE1	24:22:30:ARG:HB2	2.56	0.41
21:2Z:105:VAL:O	21:2Z:141:VAL:HG22	2.21	0.41
22:20:43:THR:OG1	22:20:46:LYS:HG2	2.21	0.41
29:27:30:VAL:O	29:27:34:ARG:HG3	2.21	0.41
30:28:52:LYS:O	30:28:56:GLU:HG3	2.21	0.41
32:2a:205:G:C6	32:2a:216:G:C2	3.09	0.41
32:2a:551:G:H2'	32:2a:552:G:O4'	2.20	0.41
32:2a:993:A:C2	32:2a:1201:U:H1'	2.55	0.41
32:2a:1330:U:OP2	32:2a:1356:G:N1	2.30	0.41
35:2d:111:ALA:HB2	35:2d:120:LEU:HD12	2.03	0.41
39:2h:86:ILE:HG13	39:2h:133:LEU:HD22	2.03	0.41
1:1A:275:C:H2'	1:1A:276:G:O4'	2.21	0.41
1:1A:819:U:O2'	3:1D:48:ARG:HD3	2.21	0.41
1:1A:1034:G:OP1	1:1A:1202:G:O2'	2.35	0.41
1:1A:2096:U:OP2	1:1A:2249:G:O2'	2.36	0.41
3:1D:76:PRO:HB2	3:1D:116:GLN:HE21	1.86	0.41
4:1E:12:THR:HG21	15:1T:11:GLU:HG2	2.02	0.41
23:11:73:LEU:HD23	23:11:73:LEU:HA	1.86	0.41
32:1a:139:G:C2	32:1a:174:A:H1'	2.55	0.41
32:1a:153:G:H2'	32:1a:154:G:H8	1.85	0.41
32:1a:372:G:P	47:1p:67:THR:HG21	2.60	0.41
32:1a:373:G:H5'	47:1p:5:ARG:NH2	2.35	0.41
32:1a:887:A:H2'	32:1a:888:C:O4'	2.20	0.41
36:1e:105:VAL:HB	36:1e:106:PRO:HD3	2.02	0.41
45:1n:3:ARG:O	45:1n:7:ILE:HG23	2.20	0.41
47:1p:65:GLN:HA	47:1p:66:PRO:HD3	1.76	0.41
47:1p:74:LEU:HD23	47:1p:79:VAL:HG21	2.03	0.41
50:1s:37:ARG:H	50:1s:37:ARG:HG3	1.39	0.41
1:2A:230:G:C8	30:28:3:LYS:HG3	2.56	0.41
1:2A:368:A:N3	1:2A:370:A:N6	2.67	0.41
1:2A:542:G:H2'	1:2A:543:U:H6	1.85	0.41
1:2A:619:U:H2'	1:2A:620:G:H8	1.86	0.41
1:2A:1342:C:OP1	1:2A:2721:C:H4'	2.20	0.41
1:2A:1488:G:H1	1:2A:1594:C:H42	1.68	0.41
1:2A:1887:G:O2'	1:2A:1906:A:N6	2.43	0.41
1:2A:2115:G:N2	1:2A:2217:C:H1'	2.35	0.41
1:2A:2547:G:C5	1:2A:2548:U:C5	3.08	0.41
1:2A:2574:U:N3	1:2A:2577:A:OP2	2.34	0.41
7:2H:71:LEU:HD22	7:2H:71:LEU:HA	1.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:60:ARG:HA	21:2Z:178:GLU:O	2.20	0.41
12:2Q:84:GLY:O	12:2Q:85:LYS:HB2	2.20	0.41
15:2T:127:ALA:C	15:2T:129:ARG:N	2.79	0.41
19:2X:12:VAL:HG22	19:2X:29:TRP:NE1	2.36	0.41
21:2Z:72:ARG:NH2	21:2Z:97:GLU:O	2.50	0.41
30:28:34:TRP:CE2	30:28:35:GLN:HB2	2.56	0.41
32:2a:412:G:H2'	32:2a:413:C:O4'	2.20	0.41
32:2a:1102:C:H2'	32:2a:1103:G:H8	1.86	0.41
32:2a:1351:G:H4'	45:2n:61:TRP:HZ2	1.86	0.41
48:2q:89:LEU:HD23	48:2q:89:LEU:HA	1.84	0.41
1:1A:551:C:C5	1:1A:2791:U:H2'	2.55	0.41
1:1A:1153:U:H1'	1:1A:1154:C:O5'	2.20	0.41
1:1A:1709:C:O2'	1:1A:1710:A:O5'	2.38	0.41
1:1A:2604:U:H2'	1:1A:2605:C:C6	2.55	0.41
1:1A:2651:G:OP1	9:1N:97:ARG:NH2	2.48	0.41
5:1F:14:PRO:HD2	5:1F:127:GLU:OE1	2.21	0.41
18:1W:71:VAL:HA	18:1W:107:LEU:HD12	2.01	0.41
22:10:82:ARG:HA	22:10:83:PRO:HD3	1.86	0.41
26:14:68:ARG:HA	26:14:68:ARG:HD2	1.88	0.41
32:1a:199:U:O3'	51:1t:57:ARG:HD2	2.20	0.41
32:1a:485:C:H1'	32:1a:533:C:H1'	2.02	0.41
32:1a:1084:A:H4'	32:1a:1085:A:O5'	2.21	0.41
32:1a:1488:U:H1'	32:1a:1504:G:N2	2.35	0.41
35:1d:114:ARG:HA	35:1d:117:ALA:HB3	2.02	0.41
37:1f:67:MET:SD	37:1f:75:LEU:HD12	2.61	0.41
1:2A:141:G:C2	1:2A:142:C:C2	3.09	0.41
1:2A:173:U:H4'	1:2A:206:A:H4'	2.03	0.41
1:2A:421:U:O2'	1:2A:422:G:N7	2.45	0.41
1:2A:496:A:H2'	1:2A:497:A:O4'	2.20	0.41
1:2A:780:A:O2'	1:2A:1681:G:H5'	2.20	0.41
1:2A:797:A:H5'	18:2W:90:ARG:HA	2.03	0.41
1:2A:1205:G:C6	1:2A:1206:C:N3	2.89	0.41
1:2A:1700:A:H1'	1:2A:2832:A:H5'	2.03	0.41
1:2A:2038:U:O2	27:25:10:LYS:HB2	2.20	0.41
1:2A:2710:C:H2'	1:2A:2711:C:O4'	2.20	0.41
2:2B:19:G:N2	2:2B:64:C:N3	2.61	0.41
8:2I:53:ALA:O	8:2I:57:ARG:HG2	2.21	0.41
14:2S:36:TYR:N	14:2S:36:TYR:CD1	2.89	0.41
32:2a:231:C:H5'	48:2q:70:ARG:HG2	2.03	0.41
32:2a:798:A:H2'	32:2a:800:A:H5'	2.03	0.41
32:2a:939:U:H1'	32:2a:962:C:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1349:C:H2'	32:2a:1350:C:C6	2.56	0.41
35:2d:170:VAL:HG22	35:2d:171:GLY:H	1.85	0.41
40:2i:4:TYR:O	40:2i:19:LEU:N	2.41	0.41
47:2p:3:LYS:O	47:2p:21:VAL:HA	2.21	0.41
1:1A:25:G:C6	1:1A:26:G:C6	3.08	0.41
1:1A:764:A:C5	1:1A:765:C:H1'	2.56	0.41
1:1A:815:G:H5'	1:1A:1424:A:N6	2.35	0.41
1:1A:1222:C:H2'	1:1A:1223:C:H6	1.85	0.41
1:1A:1575:G:H2'	1:1A:1576:C:C6	2.55	0.41
1:1A:1631:A:O5'	1:1A:1631:A:H8	2.03	0.41
1:1A:1685:U:O2'	1:1A:1686:C:H5'	2.21	0.41
1:1A:2046:C:H2'	1:1A:2047:C:C6	2.56	0.41
1:1A:2587:G:H1'	59:1A:4867:HOH:O	2.19	0.41
1:1A:2783:C:H2'	1:1A:2784:C:C6	2.55	0.41
4:1E:144:ARG:HB3	4:1E:145:LYS:H	1.39	0.41
7:1H:124:GLU:HB2	7:1H:132:ARG:HB3	2.03	0.41
11:1P:39:LYS:HB2	11:1P:45:LEU:HD21	2.03	0.41
11:1P:59:LEU:HD22	11:1P:59:LEU:O	2.21	0.41
19:1X:1:MET:HE1	24:12:26:ARG:HH21	1.85	0.41
20:1Y:6:HIS:H	20:1Y:6:HIS:HD2	1.63	0.41
20:1Y:30:VAL:HG22	20:1Y:37:VAL:HG12	2.03	0.41
21:1Z:33:LEU:HD12	21:1Z:35:ARG:HG2	2.03	0.41
21:1Z:92:SER:O	21:1Z:94:GLU:N	2.40	0.41
24:12:60:LEU:HA	24:12:60:LEU:HD23	1.87	0.41
26:14:50:VAL:HG13	44:1m:65:LYS:HD3	2.03	0.41
28:16:11:LEU:HB3	28:16:49:HIS:HB3	2.01	0.41
32:1a:97:C:OP2	51:1t:17:ARG:NH2	2.53	0.41
32:1a:101:G:H2'	32:1a:102:G:O4'	2.21	0.41
32:1a:135:A:H2'	32:1a:136:A:O4'	2.21	0.41
32:1a:253:G:H2'	32:1a:254:G:O4'	2.20	0.41
32:1a:348:C:OP2	59:1a:2030:HOH:O	2.22	0.41
32:1a:775:G:N2	32:1a:1475:G:O3'	2.50	0.41
32:1a:931:G:H2'	32:1a:932:G:O4'	2.21	0.41
32:1a:972:A:H2'	32:1a:973:C:H6	1.85	0.41
33:1b:28:PHE:CD2	33:1b:194:PRO:HG3	2.56	0.41
33:1b:215:LEU:O	33:1b:219:VAL:HG22	2.20	0.41
35:1d:172:PRO:HB2	35:1d:187:ARG:HH21	1.85	0.41
38:1g:50:ILE:HD11	38:1g:58:PRO:CA	2.49	0.41
40:1i:96:LEU:HD23	40:1i:96:LEU:HA	1.97	0.41
42:1k:21:ILE:HD11	42:1k:98:LEU:HD12	2.02	0.41
43:1l:40:VAL:HG11	43:1l:77:LEU:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:1m:19:LEU:HD21	44:1m:56:LEU:HD11	2.03	0.41
50:1s:39:THR:HA	50:1s:70:LYS:HD3	2.02	0.41
51:1t:39:LYS:O	51:1t:42:GLN:HB3	2.21	0.41
1:2A:66:G:H2'	1:2A:67:C:O4'	2.21	0.41
1:2A:338:G:H2'	1:2A:339:C:H6	1.86	0.41
1:2A:346:G:C8	5:2F:171:PRO:HG3	2.56	0.41
1:2A:622:G:H5'	5:2F:32:LEU:HD12	2.03	0.41
1:2A:791:G:C2'	1:2A:792:A:H5'	2.51	0.41
1:2A:979:C:H2'	1:2A:980:C:H6	1.85	0.41
1:2A:1067:G:C5	1:2A:1184:C:N4	2.89	0.41
1:2A:1072:A:N6	1:2A:1171:A:C4	2.89	0.41
1:2A:1093:A:N6	1:2A:1157:G:HO2'	2.17	0.41
1:2A:1101:G:H5''	1:2A:1102:A:H5'	2.02	0.41
1:2A:2048:G:C6	1:2A:2049:U:C4	3.09	0.41
1:2A:2224:U:H2'	1:2A:2225:C:H6	1.86	0.41
1:2A:2423:A:H2'	1:2A:2424:G:O4'	2.20	0.41
1:2A:2829:A:C5	13:2R:4:LEU:HD11	2.56	0.41
1:2A:2829:A:O2'	1:2A:2830:A:OP1	2.35	0.41
3:2D:6:PHE:HE1	3:2D:18:VAL:HG13	1.86	0.41
3:2D:136:ILE:HA	3:2D:137:PRO:HD3	1.90	0.41
9:2N:103:VAL:O	9:2N:107:LEU:HG	2.20	0.41
14:2S:15:ARG:O	14:2S:19:LYS:HG3	2.21	0.41
19:2X:5:TYR:HD1	24:22:33:MET:SD	2.44	0.41
19:2X:12:VAL:HG21	19:2X:27:THR:HG22	2.03	0.41
26:24:60:GLN:N	26:24:62:ARG:HE	2.19	0.41
27:25:38:ALA:CB	27:25:48:GLU:HG3	2.50	0.41
28:26:6:ARG:NE	28:26:24:GLU:OE1	2.25	0.41
32:2a:23:G:H4'	32:2a:863:G:C8	2.56	0.41
32:2a:104:C:O2'	47:2p:25:ARG:O	2.35	0.41
32:2a:144:A:H2'	32:2a:145:C:C6	2.56	0.41
32:2a:455:A:H8	32:2a:455:A:OP1	2.04	0.41
32:2a:484:G:C6	32:2a:530:G:C2	3.09	0.41
32:2a:504:A:N1	32:2a:520:C:H1'	2.35	0.41
32:2a:584:C:H2'	32:2a:585:C:C6	2.56	0.41
32:2a:909:C:N4	32:2a:1369:G:H1	2.16	0.41
32:2a:910:C:H2'	32:2a:911:G:H8	1.86	0.41
32:2a:972:A:N3	32:2a:972:A:H2'	2.36	0.41
32:2a:1217:U:O2'	32:2a:1287:G:O5'	2.39	0.41
32:2a:1251:A:H2	32:2a:1294:G:N3	2.19	0.41
32:2a:1342:A:H3'	32:2a:1343:G:C8	2.56	0.41
32:2a:1353:G:N7	40:2i:109:VAL:HG11	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:116:VAL:HB	34:2c:186:PHE:HZ	1.83	0.41
35:2d:52:SER:O	35:2d:56:VAL:HG23	2.21	0.41
38:2g:69:VAL:C	38:2g:138:LYS:HG3	2.46	0.41
38:2g:144:MET:HE2	38:2g:144:MET:HB3	1.82	0.41
42:2k:112:THR:HA	42:2k:113:PRO:HD3	1.83	0.41
44:2m:90:LEU:HD22	44:2m:90:LEU:HA	1.84	0.41
50:2s:27:GLU:HB3	50:2s:28:LYS:HA	2.03	0.41
53:2v:16:A:H61	54:2x:36:U:H3	1.69	0.41
1:1A:200:G:H2'	1:1A:201:A:O4'	2.21	0.41
1:1A:238:G:OP2	30:18:13:ARG:NH2	2.47	0.41
1:1A:268:G:H2'	1:1A:269:C:C6	2.56	0.41
1:1A:485:A:H2'	1:1A:486:C:O4'	2.21	0.41
1:1A:873:U:O2	1:1A:2257:G:H4'	2.21	0.41
1:1A:909:A:H2'	1:1A:910:G:H8	1.85	0.41
1:1A:1245:C:H2'	1:1A:1246:C:H6	1.86	0.41
1:1A:1319:A:N3	1:1A:1342:C:H1'	2.36	0.41
1:1A:1854:G:OP1	3:1D:52:ARG:NH1	2.53	0.41
1:1A:2330:G:C2	14:1S:3:ARG:HA	2.55	0.41
2:1B:29:A:C2	2:1B:30:C:C2	3.09	0.41
3:1D:68:LYS:O	3:1D:69:ARG:HB2	2.20	0.41
3:1D:71:ASP:CB	3:1D:103:ARG:HH22	2.34	0.41
3:1D:108:PRO:HG3	3:1D:143:HIS:CE1	2.56	0.41
9:1N:67:LEU:HD12	9:1N:67:LEU:HA	1.79	0.41
14:1S:67:ARG:O	14:1S:71:ARG:HG3	2.20	0.41
32:1a:103:A:C6	32:1a:322:G:C6	3.09	0.41
32:1a:1147:G:H2'	32:1a:1148:C:H6	1.86	0.41
32:1a:1299:C:OP1	45:1n:17:LYS:HG2	2.20	0.41
36:1e:12:LEU:HD22	36:1e:13:ILE:N	2.35	0.41
38:1g:9:VAL:HG13	38:1g:94:ARG:CZ	2.51	0.41
50:1s:44:MET:HB3	50:1s:62:ILE:HD12	2.02	0.41
1:2A:16:G:C6	1:2A:17:C:N4	2.89	0.41
1:2A:251:C:H2'	1:2A:252:C:O4'	2.21	0.41
1:2A:521:A:H2'	1:2A:522:G:O4'	2.20	0.41
1:2A:593:A:N6	1:2A:2510:C:O3'	2.53	0.41
1:2A:1090:A:N1	1:2A:1155:G:O2'	2.50	0.41
1:2A:1311:G:O2'	1:2A:2033:G:O6	2.37	0.41
1:2A:1433:G:H2'	1:2A:1434:G:H8	1.86	0.41
1:2A:1803:A:C5	1:2A:1859:A:H1'	2.56	0.41
1:2A:2046:C:H2'	1:2A:2047:C:C6	2.56	0.41
1:2A:2489:A:OP2	31:29:2:LYS:NZ	2.51	0.41
2:2B:8:U:O2'	14:2S:40:ILE:HD13	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:2F:155:LEU:HD11	5:2F:176:LEU:HD12	2.01	0.41
9:2N:72:TYR:N	9:2N:85:ILE:O	2.37	0.41
13:2R:74:LYS:HG2	13:2R:77:ARG:HH21	1.85	0.41
14:2S:5:THR:OG1	14:2S:8:GLU:HG3	2.20	0.41
14:2S:27:SER:HA	14:2S:88:ASP:HB3	2.03	0.41
14:2S:33:LYS:HB3	14:2S:34:HIS:CD2	2.56	0.41
19:2X:31:HIS:HA	19:2X:32:PRO:HD3	1.84	0.41
32:2a:896:A:H2'	32:2a:897:A:O4'	2.21	0.41
32:2a:900:G:C6	32:2a:901:A:C6	3.09	0.41
32:2a:933:U:H3	32:2a:1207:A:H2	1.68	0.41
32:2a:1053:U:H2'	32:2a:1054:C:H6	1.85	0.41
32:2a:1058:C:H3'	59:2a:3347:HOH:O	2.19	0.41
32:2a:1208:C:H4'	50:2s:80:TYR:OH	2.21	0.41
32:2a:1342:A:H8	32:2a:1342:A:OP1	2.04	0.41
37:2f:23:LYS:O	37:2f:27:GLN:HG2	2.21	0.41
37:2f:25:ILE:HD12	37:2f:82:ARG:HE	1.86	0.41
39:2h:73:ASP:OD1	39:2h:75:ARG:HG3	2.20	0.41
40:2i:8:GLY:HA2	40:2i:79:LEU:HD23	2.02	0.41
51:2t:24:LEU:HA	51:2t:24:LEU:HD13	1.81	0.41
1:1A:115:A:C8	1:1A:116:A:C8	3.09	0.40
1:1A:154:C:H42	1:1A:159:G:H1	1.67	0.40
1:1A:504:A:N3	1:1A:506:G:H5''	2.36	0.40
1:1A:767:C:H2'	1:1A:768:A:H8	1.86	0.40
1:1A:793:U:O2'	18:1W:92:ARG:NH2	2.54	0.40
1:1A:1297:G:N3	16:1U:33:ARG:HG2	2.37	0.40
1:1A:1320:A:H4'	1:1A:1321:A:O5'	2.20	0.40
1:1A:1738:U:H2'	1:1A:1740:C:C5	2.56	0.40
1:1A:2505:G:HO2'	12:1Q:80:GLU:HA	1.85	0.40
6:1G:146:TYR:O	6:1G:149:VAL:HG12	2.20	0.40
6:1G:181:ARG:HG3	6:1G:182:LYS:H	1.86	0.40
9:1N:75:TYR:CE2	9:1N:77:GLY:HA2	2.56	0.40
12:1Q:2:LEU:HB2	59:1Q:5008:HOH:O	2.21	0.40
12:1Q:7:MET:HE3	12:1Q:7:MET:HB2	1.87	0.40
21:1Z:75:ASN:HB2	21:1Z:85:HIS:HB3	2.02	0.40
25:13:59:VAL:HG23	25:13:60:GLU:HG2	2.03	0.40
32:1a:103:A:H2'	32:1a:322:G:H21	1.86	0.40
32:1a:415:C:H2'	32:1a:416:U:C6	2.55	0.40
32:1a:1113:A:O2'	40:1i:3:GLN:NE2	2.46	0.40
32:1a:1232:A:H4'	40:1i:68:GLY:H	1.84	0.40
38:1g:56:GLN:HE21	38:1g:56:GLN:HB2	1.66	0.40
47:1p:56:ALA:O	47:1p:60:LEU:HD23	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1q:41:LYS:HZ2	48:1q:92:ARG:HH21	1.68	0.40
51:1t:43:LEU:O	51:1t:47:GLY:N	2.37	0.40
51:1t:66:ALA:HB1	51:1t:71:THR:HB	2.03	0.40
1:2A:82:A:H5'	20:2Y:8:LYS:HG2	2.03	0.40
1:2A:500:U:H5''	1:2A:501:G:OP2	2.21	0.40
1:2A:651:A:C6	1:2A:661:A:C8	3.09	0.40
1:2A:821:G:C4	1:2A:840:G:C8	3.09	0.40
1:2A:1140:A:N7	1:2A:1141:A:C5	2.89	0.40
1:2A:1330:G:N2	1:2A:1374:U:OP1	2.50	0.40
1:2A:1381:A:H2'	1:2A:1382:G:H8	1.86	0.40
1:2A:1387:A:O2'	1:2A:1389:G:OP2	2.31	0.40
1:2A:1456:C:H2'	1:2A:1457:A:H8	1.85	0.40
1:2A:1466:G:H2'	1:2A:1467:G:H8	1.86	0.40
1:2A:1659:A:N1	18:2W:93:ALA:HB2	2.36	0.40
1:2A:2314:G:C2'	1:2A:2315:G:H5'	2.51	0.40
5:2F:31:HIS:HB2	11:2P:9:ASN:OD1	2.22	0.40
8:2I:9:LEU:HD13	8:2I:9:LEU:HA	1.97	0.40
8:2I:12:LEU:HD23	8:2I:12:LEU:HA	1.90	0.40
10:2O:7:TYR:HE1	10:2O:20:MET:HE3	1.86	0.40
10:2O:71:ARG:HA	10:2O:72:PRO:HD3	1.92	0.40
13:2R:66:VAL:HG11	13:2R:79:LEU:HD12	2.03	0.40
14:2S:110:LEU:HA	14:2S:110:LEU:HD12	1.79	0.40
20:2Y:5:MET:HE2	20:2Y:5:MET:HB2	1.88	0.40
32:2a:522:G:H2'	32:2a:523:A:C8	2.56	0.40
32:2a:674:G:C6	32:2a:675:G:C6	3.08	0.40
32:2a:982:G:C2'	32:2a:983:A:H4'	2.45	0.40
32:2a:1034:C:H2'	32:2a:1035:U:H6	1.86	0.40
32:2a:1183:A:H4'	32:2a:1184:G:O5'	2.21	0.40
32:2a:1446:A:H2'	32:2a:1447:G:O4'	2.21	0.40
33:2b:47:THR:O	33:2b:51:LEU:N	2.55	0.40
34:2c:11:ARG:C	34:2c:14:ILE:HG13	2.46	0.40
42:2k:15:ALA:HA	42:2k:77:MET:HA	2.03	0.40
1:1A:710:C:H2'	1:1A:711:C:C6	2.56	0.40
1:1A:2100:U:H2'	1:1A:2101:G:O4'	2.21	0.40
1:1A:2319:G:O2'	1:1A:2321:A:N7	2.54	0.40
8:1I:99:GLU:O	8:1I:103:ARG:HG2	2.21	0.40
32:1a:564:U:H2'	32:1a:565:G:O4'	2.21	0.40
32:1a:583:C:HO2'	39:1h:130:GLY:H	1.67	0.40
32:1a:592:A:H2'	32:1a:593:A:O4'	2.21	0.40
32:1a:854:G:H2'	32:1a:855:C:C6	2.56	0.40
32:1a:1067:G:C5	32:1a:1068:U:C4	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1281:A:H5''	32:1a:1281:A:N3	2.37	0.40
34:1c:19:GLU:O	34:1c:40:ARG:NH2	2.51	0.40
35:1d:76:ARG:NE	35:1d:80:GLU:OE1	2.50	0.40
36:1e:18:ARG:HG2	36:1e:25:ARG:O	2.21	0.40
38:1g:95:ARG:HE	38:1g:99:LEU:HD11	1.86	0.40
41:1j:26:ALA:O	41:1j:81:THR:OG1	2.34	0.40
48:1q:22:LEU:HD13	48:1q:41:LYS:HG3	2.02	0.40
50:1s:52:TYR:HB2	50:1s:57:HIS:CE1	2.56	0.40
52:1u:3:LYS:HB3	52:1u:14:TRP:CD1	2.56	0.40
1:2A:210:A:N6	1:2A:212:G:C2	2.89	0.40
1:2A:1475:C:H2'	1:2A:1476:U:H6	1.86	0.40
1:2A:1684:C:H5''	1:2A:2721:C:O2'	2.21	0.40
1:2A:2239:G:C6	1:2A:2240:C:C4	3.09	0.40
5:2F:32:LEU:HB3	5:2F:112:MET:HE1	2.03	0.40
10:2O:20:MET:HE3	10:2O:44:LYS:HE3	2.03	0.40
11:2P:3:LEU:HD12	11:2P:3:LEU:HA	1.87	0.40
12:2Q:72:LYS:HA	12:2Q:73:PRO:HD3	1.79	0.40
14:2S:36:TYR:OH	14:2S:54:LEU:HD22	2.20	0.40
23:21:83:GLU:HA	23:21:84:GLY:HA2	1.76	0.40
32:2a:38:U:O2'	32:2a:484:G:H4'	2.21	0.40
32:2a:580:C:N3	32:2a:628:G:N1	2.45	0.40
32:2a:654:G:H2'	32:2a:655:G:O4'	2.21	0.40
32:2a:756:U:H2'	32:2a:757:G:O4'	2.21	0.40
32:2a:1089:G:H2'	32:2a:1090:C:C6	2.57	0.40
32:2a:1100:G:N2	32:2a:1162:A:O2'	2.55	0.40
32:2a:1111:C:H1'	32:2a:1130:C:H42	1.86	0.40
32:2a:1187:U:O2'	34:2c:195:VAL:HG23	2.20	0.40
32:2a:1406:G:H2'	32:2a:1407:C:H6	1.86	0.40
32:2a:1499:G:H2'	32:2a:1500:U:O4'	2.21	0.40
35:2d:122:ARG:HH12	35:2d:134:ASP:HB2	1.87	0.40
37:2f:11:ASN:ND2	37:2f:84:ASN:OD1	2.40	0.40
44:2m:81:LEU:HD11	44:2m:88:ARG:NH2	2.36	0.40
1:1A:1001:A:N1	1:1A:2469:G:H4'	2.37	0.40
1:1A:1404:A:C2	1:1A:1417:U:O4	2.74	0.40
1:1A:1528:G:O6	1:1A:1552:A:N6	2.55	0.40
1:1A:1687:A:N6	1:1A:1688:G:C2	2.88	0.40
1:1A:1687:A:H2'	1:1A:1688:G:O4'	2.21	0.40
1:1A:1981:A:O2'	32:1a:1462:C:O2'	2.30	0.40
1:1A:2111:G:H21	23:11:45:ASN:CG	2.28	0.40
1:1A:2247:C:H2'	1:1A:2248:G:O4'	2.21	0.40
1:1A:2458:G:O2'	1:1A:2511:U:OP2	2.28	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2626:U:H2'	1:1A:2627:C:H6	1.87	0.40
1:1A:2859:A:OP2	1:1A:2875:U:H5	2.04	0.40
10:1O:23:ARG:HG3	10:1O:24:VAL:N	2.36	0.40
14:1S:36:TYR:CD1	14:1S:36:TYR:N	2.89	0.40
19:1X:47:PHE:O	19:1X:49:VAL:HG13	2.21	0.40
22:10:43:THR:OG1	22:10:46:LYS:HG2	2.21	0.40
32:1a:70:G:H2'	32:1a:71:G:H8	1.86	0.40
32:1a:230:C:H2'	32:1a:231:C:H6	1.86	0.40
32:1a:808:C:O2'	39:1h:2:LEU:HD23	2.21	0.40
32:1a:969:U:H4'	32:1a:970:U:C5'	2.51	0.40
32:1a:1180:G:H2'	32:1a:1181:U:C6	2.56	0.40
32:1a:1430:C:C4	32:1a:1431:U:C4	3.10	0.40
32:1a:1486:G:H2'	32:1a:1487:C:O4'	2.22	0.40
33:1b:97:TRP:HH2	33:1b:176:GLU:CD	2.29	0.40
35:1d:149:ALA:O	35:1d:153:ARG:N	2.54	0.40
38:1g:113:GLU:HG2	38:1g:119:ARG:HG2	2.02	0.40
39:1h:72:PRO:O	39:1h:74:PRO:HD3	2.21	0.40
48:1q:78:GLU:OE2	48:1q:81:ARG:HG2	2.21	0.40
1:2A:484:U:H5''	29:27:40:TRP:CD2	2.57	0.40
1:2A:814:G:O2'	1:2A:1424:A:N6	2.55	0.40
1:2A:1050:C:O2	1:2A:1188:A:C6	2.75	0.40
1:2A:1799:G:O2'	1:2A:1979:C:OP1	2.21	0.40
1:2A:1824:U:H2'	1:2A:1825:C:C6	2.57	0.40
1:2A:1873:C:H2'	1:2A:1874:C:C6	2.57	0.40
1:2A:2219:A:OP1	8:2I:33:ARG:NH2	2.54	0.40
6:2G:33:ARG:HB2	6:2G:33:ARG:NH1	2.31	0.40
6:2G:45:GLU:H	6:2G:45:GLU:HG2	1.42	0.40
9:2N:39:ARG:HA	9:2N:40:PRO:HD3	1.93	0.40
13:2R:100:LEU:HB2	13:2R:111:LEU:O	2.21	0.40
26:24:15:ILE:HB	26:24:32:TYR:CD1	2.57	0.40
32:2a:484:G:H2'	32:2a:485:C:C6	2.56	0.40
32:2a:833:G:C6	32:2a:834:C:C4	3.09	0.40
32:2a:845:G:H8	32:2a:845:G:OP2	2.03	0.40
32:2a:951:G:H3'	32:2a:952:A:H5''	2.02	0.40
1:1A:214:G:N2	1:1A:216:A:H62	2.19	0.40
1:1A:224:C:H2'	1:1A:225:C:H6	1.87	0.40
1:1A:863:C:O2'	1:1A:885:U:H5''	2.21	0.40
1:1A:1868:C:H41	1:1A:1920:G:P	2.44	0.40
8:1I:106:GLY:HA2	8:1I:107:VAL:O	2.21	0.40
11:1P:77:ARG:HB2	11:1P:78:PRO:HD2	2.02	0.40
14:1S:46:VAL:HG12	14:1S:48:LEU:HD12	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:597:C:H42	32:1a:611:G:H1	1.69	0.40
32:1a:991:U:H2'	32:1a:992:G:O4'	2.21	0.40
32:1a:1081:C:C2	32:1a:1082:G:C8	3.10	0.40
32:1a:1407:C:H2'	32:1a:1408:U:O4'	2.21	0.40
33:1b:37:ASN:C	33:1b:39:ILE:H	2.30	0.40
33:1b:82:ARG:O	33:1b:86:GLU:HB2	2.21	0.40
34:1c:22:TRP:CH2	45:1n:54:PRO:HG3	2.56	0.40
35:1d:122:ARG:HA	35:1d:122:ARG:HE	1.85	0.40
40:1i:113:LYS:HD2	40:1i:113:LYS:H	1.86	0.40
46:1o:25:THR:HG21	46:1o:70:LEU:HB2	2.02	0.40
48:1q:67:LYS:HA	48:1q:70:ARG:HH12	1.86	0.40
1:2A:23:G:O2'	18:2W:77:ASP:HB3	2.22	0.40
1:2A:215:A:C2	1:2A:2418:G:H1'	2.55	0.40
1:2A:611:C:H2'	1:2A:612:A:C8	2.57	0.40
1:2A:724:C:H2'	1:2A:725:C:H6	1.83	0.40
1:2A:843:C:H2'	1:2A:844:G:O4'	2.22	0.40
1:2A:905:G:N2	1:2A:962:A:OP2	2.52	0.40
1:2A:1087:G:C5	1:2A:1088:C:C4	3.10	0.40
1:2A:1734:U:H2'	1:2A:1744:A:N6	2.36	0.40
1:2A:2589:G:OP1	59:2A:3659:HOH:O	2.22	0.40
2:2B:108:U:H2'	2:2B:109:C:H5''	2.03	0.40
3:2D:69:ARG:NH2	3:2D:128:GLY:O	2.54	0.40
6:2G:96:ARG:O	6:2G:99:MET:HB3	2.21	0.40
7:2H:139:GLN:HG3	7:2H:140:LYS:N	2.35	0.40
9:2N:15:LEU:HD12	9:2N:137:LYS:HG2	2.02	0.40
12:2Q:29:PHE:HB2	12:2Q:105:GLU:OE2	2.22	0.40
17:2V:62:LEU:HD21	17:2V:95:LEU:HB2	2.04	0.40
21:2Z:10:ARG:HH12	21:2Z:26:GLY:H	1.69	0.40
25:23:24:LYS:HB2	25:23:24:LYS:HE2	1.89	0.40
32:2a:261:G:H5'	48:2q:64:PRO:O	2.21	0.40
32:2a:544:U:H4'	32:2a:545:U:O5'	2.19	0.40
32:2a:933:U:H2'	32:2a:934:U:O4'	2.20	0.40
32:2a:958:C:H1'	45:2n:19:ARG:HA	2.03	0.40
32:2a:1208:C:H4'	50:2s:80:TYR:CZ	2.56	0.40
32:2a:1364:U:H2'	32:2a:1365:C:H5'	2.04	0.40
32:2a:1464:G:H2'	32:2a:1465:G:O4'	2.20	0.40
35:2d:146:ILE:N	35:2d:146:ILE:HD12	2.36	0.40
42:2k:33:THR:HA	42:2k:40:ILE:HG12	2.03	0.40
43:2l:53:ARG:NH1	43:2l:92:ASP:OD2	2.54	0.40
51:2t:39:LYS:HB2	51:2t:39:LYS:HE3	1.73	0.40
1:1A:611:C:P	11:1P:16:ARG:HH12	2.44	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:798:A:H3'	29:17:1:MET:HE1	2.02	0.40
1:1A:981:U:H2'	1:1A:982:G:O4'	2.21	0.40
1:1A:1219:U:HO2'	1:1A:1220:G:P	2.44	0.40
1:1A:1257:A:N3	1:1A:1283:G:O2'	2.42	0.40
1:1A:1305:G:C6	1:1A:1306:C:C4	3.10	0.40
1:1A:1907:C:O5'	1:1A:1907:C:H6	2.04	0.40
1:1A:2723:U:O2'	1:1A:2725:A:H5'	2.21	0.40
8:1I:77:LEU:HG	8:1I:101:LEU:HG	2.03	0.40
21:1Z:108:PRO:HG3	21:1Z:141:VAL:HB	2.03	0.40
32:1a:68:C:H1'	32:1a:166:A:C2	2.57	0.40
32:1a:370:A:C6	32:1a:371:U:C4	3.09	0.40
32:1a:390:G:H2'	32:1a:391:C:H6	1.87	0.40
32:1a:975:U:H3	32:1a:1027:A:N6	2.17	0.40
32:1a:1284:U:OP2	44:1m:21:TYR:OH	2.35	0.40
32:1a:1359:U:OP1	38:1g:98:SER:HB3	2.22	0.40
33:1b:178:ARG:NH2	39:1h:68:ARG:HH22	2.18	0.40
37:1f:19:LEU:HD11	37:1f:59:TYR:CE1	2.57	0.40
39:1h:51:VAL:CG2	39:1h:60:ARG:HB2	2.51	0.40
40:1i:4:TYR:CE2	40:1i:88:TYR:HA	2.57	0.40
47:1p:58:TYR:O	47:1p:61:SER:OG	2.38	0.40
48:1q:62:SER:CB	48:1q:72:ARG:HD3	2.51	0.40
1:2A:325:C:OP2	20:2Y:73:ARG:NH1	2.54	0.40
1:2A:647:G:C6	1:2A:648:C:C4	3.10	0.40
1:2A:1861:G:H2'	1:2A:1862:C:C6	2.57	0.40
1:2A:2040:A:H4'	16:2U:34:LYS:HD2	2.04	0.40
1:2A:2238:A:OP1	3:2D:263:ARG:HD2	2.22	0.40
1:2A:2328:C:O2'	1:2A:2329:G:OP1	2.33	0.40
1:2A:2389:A:H2'	14:2S:21:THR:HG21	2.04	0.40
1:2A:2419:U:H2'	1:2A:2420:G:C8	2.56	0.40
1:2A:2421:G:N2	1:2A:2422:A:H1'	2.37	0.40
6:2G:148:MET:H	6:2G:148:MET:HG3	1.52	0.40
7:2H:8:PRO:O	7:2H:69:ARG:NH1	2.54	0.40
8:2I:50:ARG:HE	8:2I:50:ARG:HB3	1.68	0.40
10:2O:122:LEU:HD13	15:2T:72:VAL:HG11	2.03	0.40
19:2X:15:GLU:HG2	59:2X:8103:HOH:O	2.21	0.40
21:2Z:7:ALA:O	21:2Z:62:PRO:HD3	2.21	0.40
21:2Z:70:LEU:HD23	21:2Z:70:LEU:HA	1.80	0.40
24:22:9:GLN:OE1	24:22:56:GLN:HG2	2.22	0.40
32:2a:30:G:C2'	32:2a:31:U:H5'	2.52	0.40
32:2a:357:G:H2'	32:2a:358:G:O4'	2.22	0.40
32:2a:474:C:H2'	32:2a:475:G:H8	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1051:G:N7	32:2a:1077:G:C8	2.90	0.40
46:2o:48:LYS:HA	46:2o:48:LYS:HD3	1.82	0.40
54:2x:50:U:H2'	54:2x:51:C:H6	1.85	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:27:TYR:OH	37:2f:15:ASP:OD2[2_655]	2.16	0.04

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%)	253 (93%)	20 (7%)	0	100	100
3	2D	273/276 (99%)	252 (92%)	19 (7%)	2 (1%)	18	48
4	1E	202/206 (98%)	195 (96%)	6 (3%)	1 (0%)	24	54
4	2E	202/206 (98%)	194 (96%)	7 (4%)	1 (0%)	24	54
5	1F	201/210 (96%)	196 (98%)	3 (2%)	2 (1%)	12	39
5	2F	201/210 (96%)	193 (96%)	6 (3%)	2 (1%)	12	39
6	1G	179/182 (98%)	161 (90%)	15 (8%)	3 (2%)	7	26
6	2G	179/182 (98%)	156 (87%)	18 (10%)	5 (3%)	4	15
7	1H	172/180 (96%)	161 (94%)	9 (5%)	2 (1%)	10	34
7	2H	172/180 (96%)	159 (92%)	11 (6%)	2 (1%)	10	34
8	1I	144/148 (97%)	126 (88%)	14 (10%)	4 (3%)	4	15
8	2I	144/148 (97%)	124 (86%)	19 (13%)	1 (1%)	18	48
9	1N	138/140 (99%)	136 (99%)	2 (1%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	2N	138/140 (99%)	135 (98%)	2 (1%)	1 (1%)	18	48
10	1O	120/122 (98%)	115 (96%)	4 (3%)	1 (1%)	16	44
10	2O	120/122 (98%)	115 (96%)	4 (3%)	1 (1%)	16	44
11	1P	147/150 (98%)	137 (93%)	9 (6%)	1 (1%)	18	48
11	2P	147/150 (98%)	135 (92%)	10 (7%)	2 (1%)	9	30
12	1Q	139/141 (99%)	132 (95%)	7 (5%)	0	100	100
12	2Q	139/141 (99%)	129 (93%)	9 (6%)	1 (1%)	18	48
13	1R	116/118 (98%)	107 (92%)	9 (8%)	0	100	100
13	2R	116/118 (98%)	107 (92%)	9 (8%)	0	100	100
14	1S	108/112 (96%)	98 (91%)	9 (8%)	1 (1%)	14	41
14	2S	108/112 (96%)	98 (91%)	9 (8%)	1 (1%)	14	41
15	1T	129/146 (88%)	123 (95%)	6 (5%)	0	100	100
15	2T	129/146 (88%)	124 (96%)	5 (4%)	0	100	100
16	1U	114/118 (97%)	113 (99%)	1 (1%)	0	100	100
16	2U	114/118 (97%)	112 (98%)	2 (2%)	0	100	100
17	1V	99/101 (98%)	96 (97%)	2 (2%)	1 (1%)	12	39
17	2V	99/101 (98%)	95 (96%)	3 (3%)	1 (1%)	12	39
18	1W	110/113 (97%)	109 (99%)	1 (1%)	0	100	100
18	2W	110/113 (97%)	107 (97%)	3 (3%)	0	100	100
19	1X	93/96 (97%)	92 (99%)	0	1 (1%)	11	36
19	2X	93/96 (97%)	91 (98%)	1 (1%)	1 (1%)	11	36
20	1Y	105/110 (96%)	93 (89%)	10 (10%)	2 (2%)	6	23
20	2Y	105/110 (96%)	94 (90%)	11 (10%)	0	100	100
21	1Z	184/206 (89%)	169 (92%)	15 (8%)	0	100	100
21	2Z	184/206 (89%)	167 (91%)	15 (8%)	2 (1%)	11	36
22	10	73/85 (86%)	70 (96%)	2 (3%)	1 (1%)	9	30
22	20	73/85 (86%)	70 (96%)	3 (4%)	0	100	100
23	11	95/98 (97%)	92 (97%)	3 (3%)	0	100	100
23	21	95/98 (97%)	90 (95%)	5 (5%)	0	100	100
24	12	68/72 (94%)	67 (98%)	1 (2%)	0	100	100
24	22	68/72 (94%)	67 (98%)	1 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
25	13	57/60 (95%)	56 (98%)	1 (2%)	0	100	100
25	23	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
26	14	67/71 (94%)	50 (75%)	8 (12%)	9 (13%)	0	0
26	24	67/71 (94%)	53 (79%)	9 (13%)	5 (8%)	1	2
27	15	57/60 (95%)	56 (98%)	1 (2%)	0	100	100
27	25	57/60 (95%)	56 (98%)	1 (2%)	0	100	100
28	16	51/54 (94%)	50 (98%)	1 (2%)	0	100	100
28	26	51/54 (94%)	50 (98%)	1 (2%)	0	100	100
29	17	46/49 (94%)	46 (100%)	0	0	100	100
29	27	46/49 (94%)	43 (94%)	1 (2%)	2 (4%)	2	8
30	18	62/65 (95%)	59 (95%)	3 (5%)	0	100	100
30	28	62/65 (95%)	59 (95%)	3 (5%)	0	100	100
31	19	35/37 (95%)	35 (100%)	0	0	100	100
31	29	35/37 (95%)	35 (100%)	0	0	100	100
33	1b	229/256 (90%)	190 (83%)	31 (14%)	8 (4%)	3	12
33	2b	229/256 (90%)	188 (82%)	32 (14%)	9 (4%)	2	10
34	1c	204/239 (85%)	178 (87%)	22 (11%)	4 (2%)	6	22
34	2c	204/239 (85%)	173 (85%)	29 (14%)	2 (1%)	12	39
35	1d	206/209 (99%)	188 (91%)	13 (6%)	5 (2%)	4	18
35	2d	206/209 (99%)	188 (91%)	15 (7%)	3 (2%)	8	28
36	1e	146/162 (90%)	126 (86%)	15 (10%)	5 (3%)	3	12
36	2e	146/162 (90%)	129 (88%)	13 (9%)	4 (3%)	4	16
37	1f	98/101 (97%)	94 (96%)	4 (4%)	0	100	100
37	2f	98/101 (97%)	93 (95%)	5 (5%)	0	100	100
38	1g	153/156 (98%)	132 (86%)	20 (13%)	1 (1%)	18	48
38	2g	153/156 (98%)	132 (86%)	19 (12%)	2 (1%)	9	32
39	1h	135/138 (98%)	128 (95%)	7 (5%)	0	100	100
39	2h	135/138 (98%)	130 (96%)	3 (2%)	2 (2%)	8	28
40	1i	125/128 (98%)	110 (88%)	14 (11%)	1 (1%)	16	44
40	2i	125/128 (98%)	110 (88%)	13 (10%)	2 (2%)	7	27
41	1j	95/105 (90%)	80 (84%)	8 (8%)	7 (7%)	1	2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
41	2j	94/105 (90%)	79 (84%)	13 (14%)	2 (2%)	5	21
42	1k	112/129 (87%)	100 (89%)	10 (9%)	2 (2%)	6	25
42	2k	112/129 (87%)	101 (90%)	9 (8%)	2 (2%)	6	25
43	1l	120/132 (91%)	115 (96%)	4 (3%)	1 (1%)	16	44
43	2l	120/132 (91%)	113 (94%)	7 (6%)	0	100	100
44	1m	116/126 (92%)	103 (89%)	9 (8%)	4 (3%)	3	12
44	2m	114/126 (90%)	101 (89%)	11 (10%)	2 (2%)	6	25
45	1n	58/61 (95%)	53 (91%)	4 (7%)	1 (2%)	7	26
45	2n	58/61 (95%)	52 (90%)	6 (10%)	0	100	100
46	1o	86/89 (97%)	82 (95%)	4 (5%)	0	100	100
46	2o	86/89 (97%)	82 (95%)	4 (5%)	0	100	100
47	1p	80/88 (91%)	70 (88%)	9 (11%)	1 (1%)	9	32
47	2p	80/88 (91%)	69 (86%)	11 (14%)	0	100	100
48	1q	97/105 (92%)	89 (92%)	7 (7%)	1 (1%)	12	39
48	2q	97/105 (92%)	91 (94%)	6 (6%)	0	100	100
49	1r	66/88 (75%)	59 (89%)	5 (8%)	2 (3%)	3	14
49	2r	66/88 (75%)	60 (91%)	5 (8%)	1 (2%)	8	28
50	1s	82/93 (88%)	72 (88%)	10 (12%)	0	100	100
50	2s	81/93 (87%)	69 (85%)	12 (15%)	0	100	100
51	1t	94/106 (89%)	79 (84%)	12 (13%)	3 (3%)	3	13
51	2t	94/106 (89%)	82 (87%)	8 (8%)	4 (4%)	2	8
52	1u	21/27 (78%)	18 (86%)	3 (14%)	0	100	100
52	2u	21/27 (78%)	18 (86%)	3 (14%)	0	100	100
55	1z	10/15 (67%)	9 (90%)	1 (10%)	0	100	100
55	2z	11/15 (73%)	7 (64%)	3 (27%)	1 (9%)	0	1
All	All	11431/12158 (94%)	10499 (92%)	791 (7%)	141 (1%)	10	34

All (141) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	1F	130	ALA
6	1G	51	ARG
6	1G	126	ASP

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Mol	Chain	Res	Type
7	1H	126	PRO
14	1S	60	GLY
19	1X	94	GLY
26	14	50	VAL
26	14	53	GLU
26	14	59	PHE
26	14	68	ARG
33	1b	17	PHE
33	1b	125	PRO
33	1b	128	GLU
34	1c	107	GLN
35	1d	32	ALA
36	1e	73	ASN
40	1i	54	ASP
41	1j	55	LYS
41	1j	56	HIS
43	1l	29	GLY
44	1m	4	ILE
45	1n	3	ARG
51	1t	95	ALA
3	2D	125	ILE
5	2F	130	ALA
6	2G	14	GLU
6	2G	47	LYS
6	2G	51	ARG
6	2G	81	LYS
7	2H	55	PRO
7	2H	126	PRO
8	2I	10	GLU
12	2Q	28	ALA
17	2V	79	VAL
19	2X	94	GLY
21	2Z	128	VAL
26	24	47	GLN
26	24	50	VAL
26	24	63	TYR
29	27	46	VAL
33	2b	17	PHE
33	2b	121	LEU
33	2b	124	SER
36	2e	37	ARG
36	2e	73	ASN

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Mol	Chain	Res	Type
51	2t	95	ALA
51	2t	99	LEU
55	2z	10	PRO
6	1G	47	LYS
7	1H	92	ILE
8	1I	106	GLY
17	1V	79	VAL
22	10	13	GLY
26	14	45	GLY
26	14	49	PHE
33	1b	165	VAL
34	1c	127	ARG
42	1k	49	GLY
44	1m	5	ALA
51	1t	47	GLY
26	24	45	GLY
26	24	54	GLY
33	2b	20	GLU
33	2b	93	VAL
33	2b	126	GLU
33	2b	165	VAL
34	2c	66	VAL
35	2d	20	TYR
41	2j	78	ASN
4	1E	52	LEU
8	1I	73	GLU
10	1O	5	GLN
11	1P	122	PRO
26	14	48	ARG
33	1b	231	GLU
35	1d	9	CYS
35	1d	136	PRO
38	1g	4	ARG
41	1j	78	ASN
44	1m	21	TYR
6	2G	126	ASP
9	2N	2	LYS
35	2d	136	PRO
40	2i	39	GLY
40	2i	54	ASP
44	2m	106	ASN
49	2r	36	ASN

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Mol	Chain	Res	Type
20	1Y	54	LYS
36	1e	72	GLN
41	1j	32	ALA
48	1q	68	ARG
4	2E	52	LEU
5	2F	18	ARG
10	2O	5	GLN
33	2b	125	PRO
33	2b	151	GLY
35	2d	46	LYS
36	2e	69	VAL
44	2m	21	TYR
20	1Y	53	PRO
34	1c	66	VAL
36	1e	69	VAL
36	1e	98	THR
47	1p	16	HIS
51	1t	100	ILE
3	2D	3	VAL
11	2P	29	LYS
11	2P	122	PRO
14	2S	84	GLN
34	2c	108	ASN
38	2g	4	ARG
38	2g	54	THR
39	2h	73	ASP
39	2h	133	LEU
42	2k	49	GLY
51	2t	47	GLY
5	1F	18	ARG
8	1I	105	HIS
8	1I	107	VAL
26	14	47	GLN
33	1b	22	LYS
34	1c	126	ARG
41	1j	51	ARG
44	1m	67	GLU
49	1r	25	THR
49	1r	36	ASN
21	2Z	135	GLU
29	27	45	ALA
41	2j	56	HIS

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Mol	Chain	Res	Type
26	14	54	GLY
42	1k	105	VAL
33	1b	230	VAL
35	1d	8	VAL
41	1j	77	PRO
42	2k	105	VAL
51	2t	100	ILE
36	1e	85	GLY
33	1b	227	GLY
35	1d	5	ILE
41	1j	75	ILE
36	2e	96	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	1D	215/218 (99%)	197 (92%)	18 (8%)	10	31
3	2D	216/218 (99%)	191 (88%)	25 (12%)	5	18
4	1E	164/166 (99%)	143 (87%)	21 (13%)	4	14
4	2E	164/166 (99%)	138 (84%)	26 (16%)	2	8
5	1F	160/166 (96%)	140 (88%)	20 (12%)	4	15
5	2F	159/166 (96%)	141 (89%)	18 (11%)	5	19
6	1G	143/156 (92%)	126 (88%)	17 (12%)	5	16
6	2G	142/156 (91%)	121 (85%)	21 (15%)	3	10
7	1H	144/148 (97%)	131 (91%)	13 (9%)	9	28
7	2H	144/148 (97%)	132 (92%)	12 (8%)	10	32
8	1I	110/124 (89%)	88 (80%)	22 (20%)	1	4
8	2I	104/124 (84%)	91 (88%)	13 (12%)	4	15
9	1N	118/119 (99%)	100 (85%)	18 (15%)	3	9
9	2N	118/119 (99%)	101 (86%)	17 (14%)	3	11

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
10	1O	100/100 (100%)	92 (92%)	8 (8%)	11	34
10	2O	100/100 (100%)	92 (92%)	8 (8%)	11	34
11	1P	116/116 (100%)	100 (86%)	16 (14%)	3	12
11	2P	115/116 (99%)	102 (89%)	13 (11%)	5	19
12	1Q	111/111 (100%)	102 (92%)	9 (8%)	11	33
12	2Q	111/111 (100%)	104 (94%)	7 (6%)	16	45
13	1R	101/101 (100%)	87 (86%)	14 (14%)	3	11
13	2R	101/101 (100%)	84 (83%)	17 (17%)	2	7
14	1S	87/88 (99%)	75 (86%)	12 (14%)	3	12
14	2S	85/88 (97%)	71 (84%)	14 (16%)	2	8
15	1T	115/127 (91%)	107 (93%)	8 (7%)	14	40
15	2T	113/127 (89%)	105 (93%)	8 (7%)	13	40
16	1U	93/94 (99%)	86 (92%)	7 (8%)	12	37
16	2U	93/94 (99%)	89 (96%)	4 (4%)	26	60
17	1V	80/82 (98%)	68 (85%)	12 (15%)	3	10
17	2V	80/82 (98%)	68 (85%)	12 (15%)	3	10
18	1W	90/92 (98%)	80 (89%)	10 (11%)	6	20
18	2W	90/92 (98%)	83 (92%)	7 (8%)	11	35
19	1X	77/78 (99%)	72 (94%)	5 (6%)	15	44
19	2X	77/78 (99%)	73 (95%)	4 (5%)	21	52
20	1Y	85/91 (93%)	79 (93%)	6 (7%)	13	40
20	2Y	85/91 (93%)	78 (92%)	7 (8%)	10	32
21	1Z	159/179 (89%)	142 (89%)	17 (11%)	6	22
21	2Z	156/179 (87%)	142 (91%)	14 (9%)	9	28
22	10	60/67 (90%)	55 (92%)	5 (8%)	10	32
22	20	60/67 (90%)	57 (95%)	3 (5%)	22	53
23	11	80/83 (96%)	74 (92%)	6 (8%)	12	37
23	21	80/83 (96%)	72 (90%)	8 (10%)	7	24
24	12	65/67 (97%)	60 (92%)	5 (8%)	12	35
24	22	65/67 (97%)	60 (92%)	5 (8%)	12	35
25	13	51/52 (98%)	44 (86%)	7 (14%)	3	12

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
25	23	50/52 (96%)	43 (86%)	7 (14%)	3	11
26	14	60/63 (95%)	50 (83%)	10 (17%)	2	7
26	24	53/63 (84%)	45 (85%)	8 (15%)	3	10
27	15	50/52 (96%)	45 (90%)	5 (10%)	7	24
27	25	50/52 (96%)	46 (92%)	4 (8%)	11	34
28	16	51/52 (98%)	46 (90%)	5 (10%)	7	25
28	26	50/52 (96%)	46 (92%)	4 (8%)	11	34
29	17	41/42 (98%)	37 (90%)	4 (10%)	7	25
29	27	41/42 (98%)	36 (88%)	5 (12%)	5	16
30	18	54/55 (98%)	51 (94%)	3 (6%)	19	50
30	28	54/55 (98%)	50 (93%)	4 (7%)	13	38
31	19	34/34 (100%)	32 (94%)	2 (6%)	18	48
31	29	34/34 (100%)	30 (88%)	4 (12%)	5	17
33	1b	177/220 (80%)	143 (81%)	34 (19%)	1	5
33	2b	158/220 (72%)	131 (83%)	27 (17%)	2	7
34	1c	127/188 (68%)	117 (92%)	10 (8%)	11	34
34	2c	108/188 (57%)	93 (86%)	15 (14%)	3	11
35	1d	161/181 (89%)	142 (88%)	19 (12%)	5	17
35	2d	164/181 (91%)	145 (88%)	19 (12%)	5	18
36	1e	113/123 (92%)	103 (91%)	10 (9%)	9	29
36	2e	106/123 (86%)	94 (89%)	12 (11%)	5	19
37	1f	83/90 (92%)	76 (92%)	7 (8%)	10	31
37	2f	86/90 (96%)	81 (94%)	5 (6%)	18	49
38	1g	111/127 (87%)	98 (88%)	13 (12%)	5	17
38	2g	107/127 (84%)	96 (90%)	11 (10%)	7	23
39	1h	114/119 (96%)	100 (88%)	14 (12%)	4	15
39	2h	111/119 (93%)	96 (86%)	15 (14%)	4	12
40	1i	89/99 (90%)	77 (86%)	12 (14%)	4	12
40	2i	80/99 (81%)	67 (84%)	13 (16%)	2	8
41	1j	60/92 (65%)	50 (83%)	10 (17%)	2	7
41	2j	62/92 (67%)	49 (79%)	13 (21%)	1	4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
42	1k	82/99 (83%)	75 (92%)	7 (8%)	10	31
42	2k	82/99 (83%)	74 (90%)	8 (10%)	7	25
43	1l	95/109 (87%)	87 (92%)	8 (8%)	10	31
43	2l	94/109 (86%)	89 (95%)	5 (5%)	20	52
44	1m	90/101 (89%)	81 (90%)	9 (10%)	7	24
44	2m	87/101 (86%)	77 (88%)	10 (12%)	5	18
45	1n	47/50 (94%)	42 (89%)	5 (11%)	6	22
45	2n	43/50 (86%)	38 (88%)	5 (12%)	5	18
46	1o	75/80 (94%)	64 (85%)	11 (15%)	3	10
46	2o	78/80 (98%)	70 (90%)	8 (10%)	7	23
47	1p	67/74 (90%)	55 (82%)	12 (18%)	2	6
47	2p	68/74 (92%)	58 (85%)	10 (15%)	3	10
48	1q	91/97 (94%)	82 (90%)	9 (10%)	7	24
48	2q	94/97 (97%)	89 (95%)	5 (5%)	20	52
49	1r	59/77 (77%)	52 (88%)	7 (12%)	5	16
49	2r	59/77 (77%)	51 (86%)	8 (14%)	3	12
50	1s	65/80 (81%)	57 (88%)	8 (12%)	4	15
50	2s	67/80 (84%)	61 (91%)	6 (9%)	9	28
51	1t	66/82 (80%)	57 (86%)	9 (14%)	3	12
51	2t	71/82 (87%)	64 (90%)	7 (10%)	7	24
52	1u	16/22 (73%)	15 (94%)	1 (6%)	16	45
52	2u	18/22 (82%)	17 (94%)	1 (6%)	19	50
55	1z	12/15 (80%)	12 (100%)	0	100	100
55	2z	13/15 (87%)	13 (100%)	0	100	100
All	All	9160/10096 (91%)	8138 (89%)	1022 (11%)	6	19

All (1022) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	61	LEU
3	1D	71	ASP
3	1D	94	LEU
3	1D	103	ARG
3	1D	111	LEU

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Mol	Chain	Res	Type
3	1D	138	VAL
3	1D	142	VAL
3	1D	155	LEU
3	1D	173	VAL
3	1D	193	VAL
3	1D	206	LEU
3	1D	211	ARG
3	1D	217	ARG
3	1D	221	VAL
3	1D	229	VAL
3	1D	242	ARG
3	1D	257	LEU
3	1D	260	ARG
4	1E	7	VAL
4	1E	9	VAL
4	1E	21	VAL
4	1E	33	VAL
4	1E	49	LEU
4	1E	54	GLN
4	1E	75	VAL
4	1E	77	ILE
4	1E	78	LEU
4	1E	79	ARG
4	1E	82	ARG
4	1E	111	ARG
4	1E	116	VAL
4	1E	119	ARG
4	1E	144	ARG
4	1E	154	LYS
4	1E	163	GLU
4	1E	175	VAL
4	1E	181	LEU
4	1E	184	VAL
4	1E	195	LEU
5	1F	12	LEU
5	1F	20	LEU
5	1F	24	LEU
5	1F	28	ILE
5	1F	33	LEU
5	1F	53	THR
5	1F	57	VAL
5	1F	74	ARG

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Mol	Chain	Res	Type
5	1F	88	VAL
5	1F	106	ARG
5	1F	110	LEU
5	1F	125	LEU
5	1F	132	VAL
5	1F	140	LEU
5	1F	162	LEU
5	1F	170	LEU
5	1F	183	VAL
5	1F	191	ARG
5	1F	192	LEU
5	1F	201	VAL
6	1G	3	LEU
6	1G	5	VAL
6	1G	7	LEU
6	1G	31	VAL
6	1G	43	LEU
6	1G	45	GLU
6	1G	60	LEU
6	1G	82	LEU
6	1G	140	ILE
6	1G	143	GLU
6	1G	148	MET
6	1G	159	VAL
6	1G	161	THR
6	1G	162	THR
6	1G	165	THR
6	1G	170	ARG
6	1G	174	GLU
7	1H	13	LYS
7	1H	15	VAL
7	1H	33	LEU
7	1H	45	VAL
7	1H	49	VAL
7	1H	59	ARG
7	1H	69	ARG
7	1H	71	LEU
7	1H	84	SER
7	1H	98	LEU
7	1H	101	ARG
7	1H	129	THR
7	1H	139	GLN

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Mol	Chain	Res	Type
8	1I	9	LEU
8	1I	10	GLU
8	1I	44	LEU
8	1I	47	LEU
8	1I	54	GLN
8	1I	57	ARG
8	1I	60	GLU
8	1I	61	ARG
8	1I	66	GLU
8	1I	68	LEU
8	1I	74	ASN
8	1I	75	LEU
8	1I	77	LEU
8	1I	92	VAL
8	1I	101	LEU
8	1I	103	ARG
8	1I	109	ILE
8	1I	116	LEU
8	1I	127	VAL
8	1I	140	LEU
8	1I	142	VAL
8	1I	144	VAL
9	1N	5	VAL
9	1N	9	VAL
9	1N	14	VAL
9	1N	28	THR
9	1N	33	LEU
9	1N	34	LEU
9	1N	46	VAL
9	1N	48	MET
9	1N	61	ARG
9	1N	65	LYS
9	1N	67	LEU
9	1N	73	THR
9	1N	87	LEU
9	1N	97	ARG
9	1N	99	LEU
9	1N	120	LEU
9	1N	131	GLN
9	1N	137	LYS
10	1O	8	LEU
10	1O	10	VAL

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Mol	Chain	Res	Type
10	1O	18	LYS
10	1O	23	ARG
10	1O	24	VAL
10	1O	94	ARG
10	1O	98	VAL
10	1O	105	GLU
11	1P	3	LEU
11	1P	55	ARG
11	1P	56	SER
11	1P	59	LEU
11	1P	70	GLN
11	1P	75	ILE
11	1P	76	LYS
11	1P	83	VAL
11	1P	95	VAL
11	1P	98	GLU
11	1P	99	LEU
11	1P	106	LEU
11	1P	112	LEU
11	1P	125	VAL
11	1P	126	VAL
11	1P	148	LEU
12	1Q	1	MET
12	1Q	6	ARG
12	1Q	8	LYS
12	1Q	35	VAL
12	1Q	45	GLN
12	1Q	55	VAL
12	1Q	60	ARG
12	1Q	109	VAL
12	1Q	110	THR
13	1R	18	LEU
13	1R	28	LEU
13	1R	29	LEU
13	1R	33	ARG
13	1R	36	THR
13	1R	44	LEU
13	1R	54	LEU
13	1R	67	LEU
13	1R	75	LEU
13	1R	79	LEU
13	1R	91	GLN

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Mol	Chain	Res	Type
13	1R	100	LEU
13	1R	111	LEU
13	1R	114	VAL
14	1S	3	ARG
14	1S	4	LEU
14	1S	14	VAL
14	1S	36	TYR
14	1S	42	ASP
14	1S	46	VAL
14	1S	49	VAL
14	1S	50	SER
14	1S	59	LYS
14	1S	61	ASN
14	1S	85	VAL
14	1S	110	LEU
15	1T	6	LEU
15	1T	28	VAL
15	1T	49	VAL
15	1T	75	ILE
15	1T	89	VAL
15	1T	96	ARG
15	1T	108	ARG
15	1T	128	GLU
16	1U	8	VAL
16	1U	36	ARG
16	1U	74	LEU
16	1U	77	SER
16	1U	95	LEU
16	1U	104	GLN
16	1U	108	GLU
17	1V	18	LEU
17	1V	35	LEU
17	1V	38	LEU
17	1V	43	GLU
17	1V	46	VAL
17	1V	51	VAL
17	1V	52	VAL
17	1V	61	VAL
17	1V	62	LEU
17	1V	72	VAL
17	1V	79	VAL
17	1V	95	LEU

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Mol	Chain	Res	Type
18	1W	11	ARG
18	1W	15	ARG
18	1W	17	VAL
18	1W	19	LEU
18	1W	23	LEU
18	1W	51	LEU
18	1W	60	ASN
18	1W	96	ILE
18	1W	100	THR
18	1W	107	LEU
19	1X	33	LYS
19	1X	52	VAL
19	1X	76	ARG
19	1X	88	LYS
19	1X	92	LEU
20	1Y	1	MET
20	1Y	23	ARG
20	1Y	26	LYS
20	1Y	43	ASN
20	1Y	72	VAL
20	1Y	99	CYS
21	1Z	6	LYS
21	1Z	11	GLU
21	1Z	18	LEU
21	1Z	33	LEU
21	1Z	37	VAL
21	1Z	42	VAL
21	1Z	86	VAL
21	1Z	91	LEU
21	1Z	107	THR
21	1Z	126	VAL
21	1Z	129	SER
21	1Z	150	LEU
21	1Z	154	ASP
21	1Z	155	LEU
21	1Z	162	GLU
21	1Z	163	LEU
21	1Z	170	THR
22	10	10	THR
22	10	20	ARG
22	10	43	THR
22	10	49	LYS

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Mol	Chain	Res	Type
22	10	55	ARG
23	11	21	ARG
23	11	23	LYS
23	11	40	ARG
23	11	59	THR
23	11	85	LEU
23	11	95	LEU
24	12	32	LEU
24	12	34	GLU
24	12	49	LYS
24	12	53	LEU
24	12	70	GLN
25	13	6	VAL
25	13	8	LEU
25	13	23	LEU
25	13	31	LEU
25	13	54	VAL
25	13	56	VAL
25	13	60	GLU
26	14	14	ILE
26	14	33	VAL
26	14	34	GLU
26	14	37	SER
26	14	49	PHE
26	14	56	VAL
26	14	58	ARG
26	14	60	GLN
26	14	63	TYR
26	14	68	ARG
27	15	6	VAL
27	15	16	ARG
27	15	29	THR
27	15	40	LYS
27	15	58	LEU
28	16	6	ARG
28	16	9	LEU
28	16	14	THR
28	16	38	LYS
28	16	48	VAL
29	17	9	ARG
29	17	24	THR
29	17	43	THR

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Mol	Chain	Res	Type
29	17	46	VAL
30	18	14	VAL
30	18	32	LEU
30	18	34	TRP
31	19	3	VAL
31	19	26	ILE
33	1b	8	LYS
33	1b	10	LEU
33	1b	11	LEU
33	1b	16	HIS
33	1b	17	PHE
33	1b	21	ARG
33	1b	44	LEU
33	1b	67	THR
33	1b	71	VAL
33	1b	76	GLN
33	1b	80	ILE
33	1b	84	GLU
33	1b	86	GLU
33	1b	93	VAL
33	1b	112	VAL
33	1b	116	GLU
33	1b	127	ILE
33	1b	145	LEU
33	1b	153	ARG
33	1b	156	LYS
33	1b	170	GLU
33	1b	172	ILE
33	1b	185	ILE
33	1b	187	LEU
33	1b	189	ASP
33	1b	190	THR
33	1b	195	ASP
33	1b	215	LEU
33	1b	219	VAL
33	1b	221	LEU
33	1b	223	ILE
33	1b	226	ARG
33	1b	229	VAL
33	1b	230	VAL
34	1c	15	THR
34	1c	17	ASP

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Mol	Chain	Res	Type
34	1c	32	LEU
34	1c	46	GLU
34	1c	47	LEU
34	1c	49	SER
34	1c	52	LEU
34	1c	64	VAL
34	1c	115	LEU
34	1c	195	VAL
35	1d	5	ILE
35	1d	15	GLU
35	1d	19	LEU
35	1d	28	SER
35	1d	31	CYS
35	1d	49	ARG
35	1d	58	LEU
35	1d	101	LEU
35	1d	107	ARG
35	1d	150	GLU
35	1d	155	LEU
35	1d	158	ILE
35	1d	162	LEU
35	1d	168	ARG
35	1d	181	MET
35	1d	184	LYS
35	1d	186	LEU
35	1d	194	LEU
35	1d	196	LEU
36	1e	12	LEU
36	1e	31	LEU
36	1e	41	VAL
36	1e	47	LYS
36	1e	51	VAL
36	1e	67	VAL
36	1e	73	ASN
36	1e	79	GLU
36	1e	91	LEU
36	1e	147	ASP
37	1f	40	VAL
37	1f	55	ASP
37	1f	65	VAL
37	1f	72	VAL
37	1f	74	ASP

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Mol	Chain	Res	Type
37	1f	75	LEU
37	1f	89	MET
38	1g	11	GLN
38	1g	13	GLN
38	1g	16	LEU
38	1g	21	VAL
38	1g	22	LEU
38	1g	50	ILE
38	1g	56	GLN
38	1g	61	VAL
38	1g	75	VAL
38	1g	98	SER
38	1g	113	GLU
38	1g	114	ARG
38	1g	131	LYS
39	1h	2	LEU
39	1h	25	ASP
39	1h	26	VAL
39	1h	50	ARG
39	1h	51	VAL
39	1h	52	ASP
39	1h	63	LEU
39	1h	75	ARG
39	1h	78	GLN
39	1h	86	ILE
39	1h	91	ARG
39	1h	98	LYS
39	1h	127	LEU
39	1h	137	VAL
40	1i	23	ASN
40	1i	27	THR
40	1i	42	ARG
40	1i	50	LEU
40	1i	65	VAL
40	1i	75	ASP
40	1i	81	ILE
40	1i	92	TYR
40	1i	102	LEU
40	1i	108	VAL
40	1i	113	LYS
40	1i	127	LYS
41	1j	23	ILE

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Mol	Chain	Res	Type
41	1j	30	SER
41	1j	34	VAL
41	1j	43	ARG
41	1j	49	VAL
41	1j	81	THR
41	1j	85	LEU
41	1j	92	THR
41	1j	94	VAL
41	1j	98	ILE
42	1k	14	VAL
42	1k	31	THR
42	1k	48	ILE
42	1k	84	VAL
42	1k	109	VAL
42	1k	112	THR
42	1k	114	VAL
43	1l	10	LEU
43	1l	27	LEU
43	1l	33	ARG
43	1l	41	ARG
43	1l	54	LYS
43	1l	67	THR
43	1l	70	ILE
43	1l	83	VAL
44	1m	4	ILE
44	1m	19	LEU
44	1m	20	THR
44	1m	27	LYS
44	1m	49	THR
44	1m	56	LEU
44	1m	70	LEU
44	1m	98	VAL
44	1m	110	ARG
45	1n	6	LEU
45	1n	8	GLU
45	1n	18	VAL
45	1n	22	THR
45	1n	33	VAL
46	1o	3	ILE
46	1o	5	LYS
46	1o	14	GLU
46	1o	17	ARG

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Mol	Chain	Res	Type
46	1o	22	THR
46	1o	26	GLU
46	1o	39	LEU
46	1o	41	GLU
46	1o	71	GLN
46	1o	84	LYS
46	1o	87	ILE
47	1p	1	MET
47	1p	2	VAL
47	1p	5	ARG
47	1p	11	SER
47	1p	16	HIS
47	1p	19	ILE
47	1p	20	VAL
47	1p	21	VAL
47	1p	25	ARG
47	1p	45	THR
47	1p	62	VAL
47	1p	67	THR
48	1q	9	VAL
48	1q	37	LYS
48	1q	68	ARG
48	1q	74	LEU
48	1q	77	VAL
48	1q	78	GLU
48	1q	82	MET
48	1q	89	LEU
48	1q	98	LEU
49	1r	26	LEU
49	1r	32	ARG
49	1r	37	VAL
49	1r	38	GLU
49	1r	54	ARG
49	1r	68	LYS
49	1r	76	LEU
50	1s	3	ARG
50	1s	5	LEU
50	1s	22	LEU
50	1s	28	LYS
50	1s	37	ARG
50	1s	63	THR
50	1s	65	ASN

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Mol	Chain	Res	Type
50	1s	81	ARG
51	1t	9	ASN
51	1t	10	LEU
51	1t	24	LEU
51	1t	30	LYS
51	1t	45	GLN
51	1t	60	GLU
51	1t	62	LEU
51	1t	86	ARG
51	1t	90	GLN
52	1u	15	ARG
3	2D	38	LYS
3	2D	61	LEU
3	2D	71	ASP
3	2D	94	LEU
3	2D	103	ARG
3	2D	106	ILE
3	2D	111	LEU
3	2D	113	VAL
3	2D	134	ARG
3	2D	138	VAL
3	2D	141	VAL
3	2D	142	VAL
3	2D	155	LEU
3	2D	183	ARG
3	2D	192	THR
3	2D	193	VAL
3	2D	211	ARG
3	2D	217	ARG
3	2D	221	VAL
3	2D	229	VAL
3	2D	257	LEU
3	2D	260	ARG
3	2D	262	ARG
3	2D	274	ARG
3	2D	276	LYS
4	2E	7	VAL
4	2E	9	VAL
4	2E	12	THR
4	2E	14	ILE
4	2E	21	VAL
4	2E	24	THR

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Mol	Chain	Res	Type
4	2E	33	VAL
4	2E	49	LEU
4	2E	52	LEU
4	2E	75	VAL
4	2E	77	ILE
4	2E	78	LEU
4	2E	79	ARG
4	2E	82	ARG
4	2E	111	ARG
4	2E	116	VAL
4	2E	119	ARG
4	2E	134	ILE
4	2E	144	ARG
4	2E	154	LYS
4	2E	163	GLU
4	2E	170	LEU
4	2E	175	VAL
4	2E	181	LEU
4	2E	184	VAL
4	2E	202	LYS
5	2F	12	LEU
5	2F	20	LEU
5	2F	24	LEU
5	2F	27	GLU
5	2F	33	LEU
5	2F	57	VAL
5	2F	88	VAL
5	2F	106	ARG
5	2F	107	LYS
5	2F	132	VAL
5	2F	140	LEU
5	2F	162	LEU
5	2F	170	LEU
5	2F	183	VAL
5	2F	192	LEU
5	2F	196	LEU
5	2F	197	ASP
5	2F	201	VAL
6	2G	4	ASP
6	2G	5	VAL
6	2G	28	VAL
6	2G	31	VAL

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Mol	Chain	Res	Type
6	2G	33	ARG
6	2G	43	LEU
6	2G	45	GLU
6	2G	47	LYS
6	2G	60	LEU
6	2G	77	ILE
6	2G	111	LEU
6	2G	113	ARG
6	2G	136	ARG
6	2G	140	ILE
6	2G	143	GLU
6	2G	145	THR
6	2G	148	MET
6	2G	159	VAL
6	2G	162	THR
6	2G	165	THR
6	2G	170	ARG
7	2H	3	ARG
7	2H	15	VAL
7	2H	33	LEU
7	2H	42	ARG
7	2H	49	VAL
7	2H	69	ARG
7	2H	71	LEU
7	2H	98	LEU
7	2H	106	THR
7	2H	131	VAL
7	2H	139	GLN
7	2H	171	LEU
8	2I	43	ASN
8	2I	44	LEU
8	2I	47	LEU
8	2I	61	ARG
8	2I	75	LEU
8	2I	77	LEU
8	2I	92	VAL
8	2I	116	LEU
8	2I	121	LYS
8	2I	127	VAL
8	2I	140	LEU
8	2I	142	VAL
8	2I	144	VAL

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Mol	Chain	Res	Type
9	2N	5	VAL
9	2N	14	VAL
9	2N	33	LEU
9	2N	34	LEU
9	2N	46	VAL
9	2N	48	MET
9	2N	61	ARG
9	2N	62	VAL
9	2N	73	THR
9	2N	87	LEU
9	2N	97	ARG
9	2N	99	LEU
9	2N	120	LEU
9	2N	131	GLN
9	2N	133	GLN
9	2N	137	LYS
9	2N	138	LEU
10	2O	10	VAL
10	2O	18	LYS
10	2O	23	ARG
10	2O	24	VAL
10	2O	69	ILE
10	2O	94	ARG
10	2O	98	VAL
10	2O	108	GLU
11	2P	3	LEU
11	2P	45	LEU
11	2P	55	ARG
11	2P	56	SER
11	2P	59	LEU
11	2P	65	ARG
11	2P	95	VAL
11	2P	96	THR
11	2P	102	ARG
11	2P	112	LEU
11	2P	121	LYS
11	2P	125	VAL
11	2P	148	LEU
12	2Q	1	MET
12	2Q	21	THR
12	2Q	35	VAL
12	2Q	45	GLN

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Mol	Chain	Res	Type
12	2Q	106	VAL
12	2Q	109	VAL
12	2Q	110	THR
13	2R	1	MET
13	2R	6	SER
13	2R	18	LEU
13	2R	24	GLN
13	2R	28	LEU
13	2R	29	LEU
13	2R	44	LEU
13	2R	54	LEU
13	2R	65	LEU
13	2R	75	LEU
13	2R	79	LEU
13	2R	82	GLU
13	2R	86	ARG
13	2R	100	LEU
13	2R	102	GLU
13	2R	111	LEU
13	2R	114	VAL
14	2S	14	VAL
14	2S	23	ARG
14	2S	36	TYR
14	2S	44	LYS
14	2S	49	VAL
14	2S	50	SER
14	2S	58	LEU
14	2S	63	THR
14	2S	68	GLN
14	2S	75	GLU
14	2S	80	LEU
14	2S	83	LYS
14	2S	85	VAL
14	2S	110	LEU
15	2T	6	LEU
15	2T	8	LYS
15	2T	28	VAL
15	2T	49	VAL
15	2T	75	ILE
15	2T	89	VAL
15	2T	96	ARG
15	2T	98	LYS

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Mol	Chain	Res	Type
16	2U	5	LYS
16	2U	36	ARG
16	2U	74	LEU
16	2U	104	GLN
17	2V	18	LEU
17	2V	21	ARG
17	2V	24	LYS
17	2V	35	LEU
17	2V	46	VAL
17	2V	51	VAL
17	2V	52	VAL
17	2V	61	VAL
17	2V	62	LEU
17	2V	72	VAL
17	2V	79	VAL
17	2V	95	LEU
18	2W	11	ARG
18	2W	17	VAL
18	2W	23	LEU
18	2W	51	LEU
18	2W	92	ARG
18	2W	100	THR
18	2W	107	LEU
19	2X	33	LYS
19	2X	57	LEU
19	2X	76	ARG
19	2X	92	LEU
20	2Y	43	ASN
20	2Y	44	ILE
20	2Y	63	LYS
20	2Y	67	LEU
20	2Y	72	VAL
20	2Y	90	LEU
20	2Y	99	CYS
21	2Z	18	LEU
21	2Z	33	LEU
21	2Z	61	LEU
21	2Z	73	GLN
21	2Z	86	VAL
21	2Z	91	LEU
21	2Z	107	THR
21	2Z	126	VAL

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Mol	Chain	Res	Type
21	2Z	131	ARG
21	2Z	135	GLU
21	2Z	136	PHE
21	2Z	154	ASP
21	2Z	155	LEU
21	2Z	161	VAL
22	20	10	THR
22	20	49	LYS
22	20	82	ARG
23	21	4	VAL
23	21	21	ARG
23	21	35	THR
23	21	40	ARG
23	21	59	THR
23	21	83	GLU
23	21	85	LEU
23	21	95	LEU
24	22	32	LEU
24	22	34	GLU
24	22	53	LEU
24	22	64	LEU
24	22	70	GLN
25	23	5	LYS
25	23	8	LEU
25	23	23	LEU
25	23	31	LEU
25	23	40	THR
25	23	54	VAL
25	23	56	VAL
26	24	1	MET
26	24	14	ILE
26	24	33	VAL
26	24	53	GLU
26	24	58	ARG
26	24	61	ARG
26	24	62	ARG
26	24	63	TYR
27	25	6	VAL
27	25	16	ARG
27	25	29	THR
27	25	40	LYS
28	26	9	LEU

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Mol	Chain	Res	Type
28	26	14	THR
28	26	38	LYS
28	26	48	VAL
29	27	1	MET
29	27	9	ARG
29	27	32	LYS
29	27	43	THR
29	27	46	VAL
30	28	14	VAL
30	28	32	LEU
30	28	34	TRP
30	28	37	SER
31	29	3	VAL
31	29	7	VAL
31	29	17	ILE
31	29	26	ILE
33	2b	8	LYS
33	2b	10	LEU
33	2b	47	THR
33	2b	60	ASP
33	2b	63	MET
33	2b	67	THR
33	2b	71	VAL
33	2b	90	MET
33	2b	93	VAL
33	2b	118	LEU
33	2b	138	LEU
33	2b	145	LEU
33	2b	152	PHE
33	2b	153	ARG
33	2b	154	LEU
33	2b	160	ASP
33	2b	165	VAL
33	2b	170	GLU
33	2b	175	ARG
33	2b	179	LYS
33	2b	185	ILE
33	2b	187	LEU
33	2b	195	ASP
33	2b	201	ILE
33	2b	222	ILE
33	2b	223	ILE

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Mol	Chain	Res	Type
33	2b	224	GLN
34	2c	3	ASN
34	2c	5	ILE
34	2c	14	ILE
34	2c	15	THR
34	2c	28	GLN
34	2c	47	LEU
34	2c	52	LEU
34	2c	58	GLU
34	2c	64	VAL
34	2c	70	VAL
34	2c	125	GLU
34	2c	128	PHE
34	2c	131	ARG
34	2c	164	ARG
34	2c	178	LEU
35	2d	5	ILE
35	2d	25	ARG
35	2d	26	CYS
35	2d	34	GLU
35	2d	38	TYR
35	2d	47	ARG
35	2d	58	LEU
35	2d	66	ARG
35	2d	96	LEU
35	2d	101	LEU
35	2d	132	ARG
35	2d	135	LEU
35	2d	145	GLU
35	2d	170	VAL
35	2d	181	MET
35	2d	186	LEU
35	2d	187	ARG
35	2d	194	LEU
35	2d	201	GLN
36	2e	12	LEU
36	2e	27	ARG
36	2e	34	VAL
36	2e	41	VAL
36	2e	47	LYS
36	2e	50	GLU
36	2e	51	VAL

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Mol	Chain	Res	Type
36	2e	71	LEU
36	2e	91	LEU
36	2e	100	VAL
36	2e	115	VAL
36	2e	147	ASP
37	2f	28	ARG
37	2f	40	VAL
37	2f	65	VAL
37	2f	72	VAL
37	2f	75	LEU
38	2g	16	LEU
38	2g	45	ASP
38	2g	57	GLU
38	2g	75	VAL
38	2g	97	GLN
38	2g	98	SER
38	2g	104	LEU
38	2g	113	GLU
38	2g	120	ILE
38	2g	131	LYS
38	2g	154	TYR
39	2h	2	LEU
39	2h	25	ASP
39	2h	26	VAL
39	2h	50	ARG
39	2h	51	VAL
39	2h	52	ASP
39	2h	60	ARG
39	2h	63	LEU
39	2h	78	GLN
39	2h	91	ARG
39	2h	111	ILE
39	2h	112	LEU
39	2h	115	SER
39	2h	120	THR
39	2h	137	VAL
40	2i	3	GLN
40	2i	38	GLN
40	2i	50	LEU
40	2i	65	VAL
40	2i	74	ILE
40	2i	81	ILE

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Mol	Chain	Res	Type
40	2i	86	VAL
40	2i	89	ASN
40	2i	92	TYR
40	2i	102	LEU
40	2i	107	ARG
40	2i	114	TYR
40	2i	124	GLN
41	2j	8	LEU
41	2j	16	LEU
41	2j	21	GLN
41	2j	23	ILE
41	2j	25	GLU
41	2j	34	VAL
41	2j	48	THR
41	2j	49	VAL
41	2j	68	HIS
41	2j	81	THR
41	2j	84	GLN
41	2j	92	THR
41	2j	94	VAL
42	2k	14	VAL
42	2k	18	ARG
42	2k	70	LYS
42	2k	75	TYR
42	2k	109	VAL
42	2k	112	THR
42	2k	114	VAL
42	2k	126	ARG
43	2l	23	LYS
43	2l	33	ARG
43	2l	55	VAL
43	2l	70	ILE
43	2l	83	VAL
44	2m	3	ARG
44	2m	40	ASN
44	2m	49	THR
44	2m	70	LEU
44	2m	81	LEU
44	2m	82	MET
44	2m	90	LEU
44	2m	102	ARG
44	2m	106	ASN

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Mol	Chain	Res	Type
44	2m	110	ARG
45	2n	11	LYS
45	2n	17	LYS
45	2n	22	THR
45	2n	33	VAL
45	2n	53	LEU
46	2o	3	ILE
46	2o	5	LYS
46	2o	10	LYS
46	2o	22	THR
46	2o	24	SER
46	2o	26	GLU
46	2o	39	LEU
46	2o	41	GLU
47	2p	1	MET
47	2p	2	VAL
47	2p	5	ARG
47	2p	11	SER
47	2p	16	HIS
47	2p	21	VAL
47	2p	45	THR
47	2p	60	LEU
47	2p	62	VAL
47	2p	67	THR
48	2q	24	GLU
48	2q	37	LYS
48	2q	63	ARG
48	2q	74	LEU
48	2q	77	VAL
49	2r	26	LEU
49	2r	32	ARG
49	2r	37	VAL
49	2r	38	GLU
49	2r	68	LYS
49	2r	76	LEU
49	2r	82	THR
49	2r	85	LEU
50	2s	18	LYS
50	2s	22	LEU
50	2s	28	LYS
50	2s	41	VAL
50	2s	48	THR

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Mol	Chain	Res	Type
50	2s	63	THR
51	2t	10	LEU
51	2t	24	LEU
51	2t	25	ARG
51	2t	30	LYS
51	2t	62	LEU
51	2t	71	THR
51	2t	99	LEU
52	2u	15	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (170) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	87	ASN
3	1D	164	GLN
3	1D	253	GLN
4	1E	54	GLN
4	1E	143	ASN
4	1E	180	ASN
5	1F	8	GLN
5	1F	69	HIS
5	1F	133	ASN
5	1F	169	ASN
5	1F	203	GLN
5	1F	204	ASN
6	1G	26	GLN
6	1G	41	GLN
6	1G	138	GLN
8	1I	104	GLN
8	1I	105	HIS
8	1I	139	GLN
9	1N	8	GLN
9	1N	94	HIS
10	1O	3	GLN
10	1O	5	GLN
11	1P	38	GLN
11	1P	70	GLN
12	1Q	45	GLN
13	1R	24	GLN
13	1R	31	HIS
13	1R	50	HIS
13	1R	61	HIS

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Mol	Chain	Res	Type
13	1R	71	GLN
13	1R	91	GLN
14	1S	95	HIS
15	1T	123	GLN
16	1U	72	HIS
16	1U	81	HIS
19	1X	31	HIS
19	1X	82	GLN
20	1Y	6	HIS
20	1Y	43	ASN
20	1Y	92	ASN
21	1Z	73	GLN
21	1Z	151	HIS
24	12	70	GLN
25	13	32	GLN
26	14	46	GLN
26	14	60	GLN
28	16	20	ASN
28	16	32	ASN
30	18	35	GLN
31	19	36	GLN
33	1b	110	GLN
33	1b	146	GLN
35	1d	43	HIS
35	1d	45	GLN
35	1d	77	ASN
35	1d	123	HIS
36	1e	141	GLN
37	1f	13	ASN
37	1f	100	ASN
38	1g	11	GLN
38	1g	13	GLN
38	1g	56	GLN
38	1g	86	GLN
40	1i	23	ASN
40	1i	73	GLN
40	1i	89	ASN
40	1i	117	HIS
40	1i	124	GLN
41	1j	56	HIS
42	1k	93	GLN
42	1k	116	HIS

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Mol	Chain	Res	Type
43	1l	78	GLN
44	1m	77	ASN
44	1m	92	HIS
46	1o	28	GLN
46	1o	62	GLN
47	1p	13	HIS
48	1q	16	GLN
48	1q	26	GLN
50	1s	47	HIS
50	1s	56	GLN
50	1s	65	ASN
50	1s	69	HIS
51	1t	9	ASN
51	1t	26	ASN
51	1t	45	GLN
3	2D	126	GLN
3	2D	129	ASN
3	2D	164	GLN
3	2D	166	GLN
3	2D	253	GLN
4	2E	192	ASN
5	2F	69	HIS
5	2F	169	ASN
5	2F	203	GLN
6	2G	40	ASN
6	2G	41	GLN
6	2G	108	ASN
6	2G	132	ASN
8	2I	43	ASN
8	2I	105	HIS
8	2I	139	GLN
9	2N	101	HIS
11	2P	38	GLN
12	2Q	45	GLN
13	2R	24	GLN
13	2R	50	HIS
13	2R	71	GLN
14	2S	68	GLN
14	2S	95	HIS
15	2T	123	GLN
16	2U	44	ASN
17	2V	64	HIS

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Mol	Chain	Res	Type
19	2X	31	HIS
19	2X	82	GLN
20	2Y	43	ASN
21	2Z	55	HIS
21	2Z	73	GLN
21	2Z	75	ASN
25	23	32	GLN
28	26	20	ASN
28	26	32	ASN
31	29	36	GLN
33	2b	16	HIS
33	2b	19	HIS
33	2b	45	GLN
33	2b	78	GLN
33	2b	110	GLN
33	2b	224	GLN
34	2c	6	HIS
34	2c	28	GLN
34	2c	37	GLN
34	2c	69	HIS
34	2c	136	GLN
34	2c	176	HIS
34	2c	181	ASN
35	2d	77	ASN
35	2d	123	HIS
35	2d	160	GLN
36	2e	141	GLN
37	2f	73	ASN
38	2g	28	ASN
38	2g	86	GLN
38	2g	97	GLN
38	2g	110	GLN
38	2g	122	HIS
38	2g	148	ASN
39	2h	78	GLN
40	2i	58	HIS
40	2i	73	GLN
40	2i	89	ASN
41	2j	13	HIS
41	2j	33	GLN
41	2j	56	HIS
41	2j	62	HIS

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Mol	Chain	Res	Type
42	2k	93	GLN
42	2k	104	GLN
43	2l	75	HIS
43	2l	78	GLN
43	2l	99	HIS
44	2m	77	ASN
44	2m	92	HIS
44	2m	106	ASN
46	2o	28	GLN
47	2p	16	HIS
50	2s	56	GLN
50	2s	69	HIS
50	2s	83	HIS
51	2t	16	HIS
51	2t	42	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2737/2915 (93%)	384 (14%)	19 (0%)
1	2A	2781/2915 (95%)	475 (17%)	25 (0%)
2	1B	119/121 (98%)	9 (7%)	0
2	2B	119/121 (98%)	22 (18%)	2 (1%)
32	1a	1472/1521 (96%)	257 (17%)	0
32	2a	1479/1521 (97%)	268 (18%)	0
53	1v	4/24 (16%)	1 (25%)	0
53	2v	4/24 (16%)	1 (25%)	0
54	1x	75/77 (97%)	18 (24%)	0
54	2x	75/77 (97%)	18 (24%)	0
All	All	8865/9316 (95%)	1453 (16%)	46 (0%)

All (1453) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	11	U
1	1A	33	C
1	1A	35	G
1	1A	44	C
1	1A	61	U
1	1A	62	A
1	1A	69	A

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Mol	Chain	Res	Type
1	1A	72	A
1	1A	73	G
1	1A	82	A
1	1A	91	C
1	1A	115	A
1	1A	116	A
1	1A	117	U
1	1A	122	G
1	1A	128	G
1	1A	148	A
1	1A	170	A
1	1A	176	G
1	1A	184	A
1	1A	187	A
1	1A	193	G
1	1A	203	G
1	1A	204	A
1	1A	210	A
1	1A	211	A
1	1A	216	A
1	1A	217	A
1	1A	221	A
1	1A	236	G
1	1A	262	C
1	1A	268	G
1	1A	270	U
1	1A	271	U
1	1A	272	G
1	1A	273	U
1	1A	285	C
1	1A	287	U
1	1A	288	G
1	1A	294	C
1	1A	295	U
1	1A	302	C
1	1A	334	A
1	1A	347	A
1	1A	352	G
1	1A	353	A
1	1A	365	G
1	1A	375	G
1	1A	386	G

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Mol	Chain	Res	Type
1	1A	398	G
1	1A	406	U
1	1A	412	G
1	1A	422	G
1	1A	431	U
1	1A	433	G
1	1A	437	G
1	1A	438	A
1	1A	454	A
1	1A	467	G
1	1A	468	A
1	1A	469	C
1	1A	473	U
1	1A	476	C
1	1A	482	A
1	1A	495	A
1	1A	500	U
1	1A	506	G
1	1A	528	U
1	1A	529	A
1	1A	533	C
1	1A	554	G
1	1A	555	C
1	1A	556	A
1	1A	557	G
1	1A	572	G
1	1A	585	G
1	1A	595	G
1	1A	597	A
1	1A	608	A
1	1A	614	G
1	1A	615	G
1	1A	625	A
1	1A	626	G
1	1A	629	U
1	1A	638	G
1	1A	640	G
1	1A	658	C
1	1A	661	A
1	1A	669	C
1	1A	670	A
1	1A	682	G

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Mol	Chain	Res	Type
1	1A	696	C
1	1A	697	G
1	1A	715	G
1	1A	732	G
1	1A	744	C
1	1A	763	G
1	1A	776	C
1	1A	803	U
1	1A	821	G
1	1A	822	G
1	1A	828	A
1	1A	830	A
1	1A	831	G
1	1A	835	A
1	1A	836	C
1	1A	838	G
1	1A	848	A
1	1A	851	G
1	1A	858	C
1	1A	873	U
1	1A	874	U
1	1A	905	G
1	1A	912	A
1	1A	925	G
1	1A	931	C
1	1A	932	C
1	1A	933	A
1	1A	934	C
1	1A	935	C
1	1A	936	A
1	1A	938	C
1	1A	941	A
1	1A	944	A
1	1A	955	A
1	1A	976	G
1	1A	985	A
1	1A	989	A
1	1A	990	G
1	1A	1002	U
1	1A	1003	A
1	1A	1005	C
1	1A	1008	C

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Mol	Chain	Res	Type
1	1A	1018	G
1	1A	1019	C
1	1A	1028	A
1	1A	1041	A
1	1A	1057	U
1	1A	1058	C
1	1A	1067	G
1	1A	1071	U
1	1A	1078	U
1	1A	1086	C
1	1A	1090	A
1	1A	1091	A
1	1A	1092	G
1	1A	1150	U
1	1A	1153	U
1	1A	1154	C
1	1A	1156	A
1	1A	1157	G
1	1A	1173	A
1	1A	1174	A
1	1A	1175	U
1	1A	1179	C
1	1A	1180	G
1	1A	1183	G
1	1A	1215	G
1	1A	1217	G
1	1A	1218	A
1	1A	1219	U
1	1A	1220	G
1	1A	1221	A
1	1A	1264	A
1	1A	1286	A
1	1A	1298	A
1	1A	1301	G
1	1A	1316	G
1	1A	1317	A
1	1A	1318	U
1	1A	1321	A
1	1A	1345	U
1	1A	1346	A
1	1A	1348	G
1	1A	1360	C

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Mol	Chain	Res	Type
1	1A	1366	A
1	1A	1397	U
1	1A	1404	A
1	1A	1405	A
1	1A	1410	A
1	1A	1429	A
1	1A	1430	G
1	1A	1440	A
1	1A	1461	G
1	1A	1462	C
1	1A	1465	U
1	1A	1466	G
1	1A	1467	G
1	1A	1472	A
1	1A	1473	C
1	1A	1482	C
1	1A	1490	A
1	1A	1495	A
1	1A	1496	G
1	1A	1501	G
1	1A	1505	G
1	1A	1507	G
1	1A	1508	C
1	1A	1513	C
1	1A	1524	G
1	1A	1528	G
1	1A	1553	A
1	1A	1554	C
1	1A	1555	A
1	1A	1570	G
1	1A	1578	C
1	1A	1588	A
1	1A	1604	A
1	1A	1612	A
1	1A	1615	A
1	1A	1624	U
1	1A	1626	A
1	1A	1627	G
1	1A	1630	C
1	1A	1631	A
1	1A	1653	A
1	1A	1654	A

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Mol	Chain	Res	Type
1	1A	1655	A
1	1A	1694	C
1	1A	1700	A
1	1A	1704	C
1	1A	1710	A
1	1A	1720	G
1	1A	1746	A
1	1A	1747	A
1	1A	1766	A
1	1A	1767	U
1	1A	1776	G
1	1A	1793	G
1	1A	1794	G
1	1A	1799	G
1	1A	1803	A
1	1A	1804	C
1	1A	1810	A
1	1A	1812	C
1	1A	1821	A
1	1A	1830	C
1	1A	1831	G
1	1A	1846	G
1	1A	1858	G
1	1A	1859	A
1	1A	1869	G
1	1A	1877	A
1	1A	1899	G
1	1A	1910	A
1	1A	1921	A
1	1A	1927	G
1	1A	1933	A
1	1A	1934	A
1	1A	1936	U
1	1A	1940	A
1	1A	1948	A
1	1A	1950	G
1	1A	1951	G
1	1A	1958	A
1	1A	1959	A
1	1A	1976	U
1	1A	1984	U
1	1A	1986	C

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Mol	Chain	Res	Type
1	1A	1988	C
1	1A	1991	A
1	1A	1992	A
1	1A	1993	A
1	1A	2013	G
1	1A	2014	U
1	1A	2018	G
1	1A	2041	A
1	1A	2044	G
1	1A	2052	A
1	1A	2053	G
1	1A	2054	A
1	1A	2064	C
1	1A	2074	G
1	1A	2076	C
1	1A	2077	G
1	1A	2081	A
1	1A	2082	G
1	1A	2083	A
1	1A	2090	G
1	1A	2114	G
1	1A	2205	G
1	1A	2206	C
1	1A	2207	G
1	1A	2209	C
1	1A	2212	G
1	1A	2216	C
1	1A	2219	A
1	1A	2226	G
1	1A	2227	G
1	1A	2228	A
1	1A	2229	U
1	1A	2236	A
1	1A	2249	G
1	1A	2250	G
1	1A	2279	A
1	1A	2280	A
1	1A	2284	A
1	1A	2286	C
1	1A	2290	G
1	1A	2291	G
1	1A	2294	C

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Mol	Chain	Res	Type
1	1A	2298	A
1	1A	2316	A
1	1A	2319	G
1	1A	2331	A
1	1A	2332	G
1	1A	2336	G
1	1A	2338	A
1	1A	2345	G
1	1A	2346	A
1	1A	2347	A
1	1A	2354	C
1	1A	2358	C
1	1A	2361	C
1	1A	2394	G
1	1A	2396	C
1	1A	2417	U
1	1A	2421	G
1	1A	2433	A
1	1A	2435	C
1	1A	2436	A
1	1A	2440	G
1	1A	2441	A
1	1A	2446	A
1	1A	2449	U
1	1A	2450	A
1	1A	2452	C
1	1A	2459	A
1	1A	2460	U
1	1A	2479	G
1	1A	2485	C
1	1A	2487	A
1	1A	2489	A
1	1A	2513	G
1	1A	2516	G
1	1A	2517	U
1	1A	2529	A
1	1A	2531	C
1	1A	2540	G
1	1A	2565	U
1	1A	2566	U
1	1A	2577	A
1	1A	2578	G

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Mol	Chain	Res	Type
1	1A	2584	C
1	1A	2593	G
1	1A	2613	A
1	1A	2620	U
1	1A	2621	C
1	1A	2622	U
1	1A	2623	C
1	1A	2640	A
1	1A	2641	G
1	1A	2643	A
1	1A	2649	G
1	1A	2665	A
1	1A	2700	U
1	1A	2701	C
1	1A	2702	C
1	1A	2713	U
1	1A	2714	C
1	1A	2724	A
1	1A	2725	A
1	1A	2726	G
1	1A	2738	U
1	1A	2745	A
1	1A	2769	A
1	1A	2770	A
1	1A	2776	A
1	1A	2777	A
1	1A	2778	G
1	1A	2790	A
1	1A	2802	A
1	1A	2812	G
1	1A	2827	G
1	1A	2829	A
1	1A	2830	A
1	1A	2844	A
1	1A	2845	U
1	1A	2881	G
1	1A	2882	A
1	1A	2889	C
1	1A	2900	A
1	1A	2902	G
1	1A	2903	U
2	1B	13	A

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Mol	Chain	Res	Type
2	1B	24	G
2	1B	56	G
2	1B	65	C
2	1B	67	G
2	1B	73	A
2	1B	85	G
2	1B	106	G
2	1B	110	G
32	1a	6	U
32	1a	10	G
32	1a	33	A
32	1a	40	G
32	1a	41	C
32	1a	45	G
32	1a	48	C
32	1a	49	C
32	1a	51	A
32	1a	52	A
32	1a	62	G
32	1a	65	G
32	1a	66	U
32	1a	74	G
32	1a	76	G
32	1a	77	G
32	1a	78	G
32	1a	90	U
32	1a	91	G
32	1a	92	G
32	1a	95	A
32	1a	109	G
32	1a	110	A
32	1a	115	C
32	1a	126	C
32	1a	132	C
32	1a	139	G
32	1a	156	A
32	1a	161	G
32	1a	162	G
32	1a	168	U
32	1a	169	C
32	1a	178	G
32	1a	190	U

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Mol	Chain	Res	Type
32	1a	202	A
32	1a	204	A
32	1a	211	U
32	1a	212	G
32	1a	218	U
32	1a	222	G
32	1a	243	G
32	1a	247	G
32	1a	254	G
32	1a	262	G
32	1a	263	C
32	1a	266	A
32	1a	277	G
32	1a	285	G
32	1a	317	A
32	1a	324	C
32	1a	325	A
32	1a	337	C
32	1a	338	C
32	1a	342	G
32	1a	343	G
32	1a	344	G
32	1a	347	G
32	1a	348	C
32	1a	349	A
32	1a	350	G
32	1a	351	C
32	1a	363	U
32	1a	368	C
32	1a	369	A
32	1a	380	G
32	1a	393	A
32	1a	394	C
32	1a	402	G
32	1a	408	A
32	1a	409	G
32	1a	419	G
32	1a	420	G
32	1a	425	U
32	1a	435	A
32	1a	437	C
32	1a	441	G

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Mol	Chain	Res	Type
32	1a	447	A
32	1a	448	A
32	1a	449	C
32	1a	455	A
32	1a	456	C
32	1a	457	G
32	1a	461	G
32	1a	470	G
32	1a	478	G
32	1a	481	A
32	1a	482	U
32	1a	489	G
32	1a	493	A
32	1a	494	A
32	1a	495	C
32	1a	496	U
32	1a	502	C
32	1a	508	G
32	1a	510	C
32	1a	511	G
32	1a	515	U
32	1a	516	A
32	1a	517	A
32	1a	529	C
32	1a	531	A
32	1a	543	A
32	1a	545	U
32	1a	547	A
32	1a	556	A
32	1a	557	A
32	1a	560	G
32	1a	561	G
32	1a	576	G
32	1a	580	C
32	1a	599	C
32	1a	602	C
32	1a	614	G
32	1a	637	A
32	1a	645	G
32	1a	649	A
32	1a	671	A
32	1a	672	G

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Mol	Chain	Res	Type
32	1a	677	G
32	1a	687	G
32	1a	707	U
32	1a	715	G
32	1a	718	G
32	1a	733	C
32	1a	737	A
32	1a	739	G
32	1a	743	A
32	1a	761	A
32	1a	777	U
32	1a	778	A
32	1a	799	A
32	1a	801	C
32	1a	805	G
32	1a	812	A
32	1a	813	G
32	1a	820	G
32	1a	824	C
32	1a	825	U
32	1a	826	C
32	1a	829	G
32	1a	837	A
32	1a	848	U
32	1a	850	A
32	1a	880	G
32	1a	892	A
32	1a	904	G
32	1a	905	G
32	1a	909	C
32	1a	912	C
32	1a	913	A
32	1a	914	C
32	1a	938	U
32	1a	939	U
32	1a	946	A
32	1a	947	A
32	1a	949	G
32	1a	950	C
32	1a	952	A
32	1a	953	A
32	1a	954	G

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Mol	Chain	Res	Type
32	1a	955	A
32	1a	960	U
32	1a	961	A
32	1a	970	U
32	1a	971	G
32	1a	972	A
32	1a	974	A
32	1a	982	G
32	1a	983	A
32	1a	984	A
32	1a	987	C
32	1a	988	G
32	1a	990	G
32	1a	992	G
32	1a	995	A
32	1a	1001	G
32	1a	1027	A
32	1a	1028	C
32	1a	1033	G
32	1a	1037	C
32	1a	1048	U
32	1a	1049	C
32	1a	1064	G
32	1a	1069	U
32	1a	1077	G
32	1a	1078	U
32	1a	1079	C
32	1a	1084	A
32	1a	1089	G
32	1a	1091	G
32	1a	1106	A
32	1a	1107	G
32	1a	1113	A
32	1a	1117	G
32	1a	1119	U
32	1a	1120	C
32	1a	1122	G
32	1a	1123	C
32	1a	1128	C
32	1a	1129	A
32	1a	1135	A
32	1a	1142	U

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Mol	Chain	Res	Type
32	1a	1149	G
32	1a	1165	A
32	1a	1166	G
32	1a	1178	U
32	1a	1179	G
32	1a	1184	G
32	1a	1195	A
32	1a	1196	C
32	1a	1202	G
32	1a	1209	A
32	1a	1220	A
32	1a	1238	A
32	1a	1239	U
32	1a	1240	G
32	1a	1242	C
32	1a	1252	C
32	1a	1260	U
32	1a	1262	A
32	1a	1268	A
32	1a	1269	A
32	1a	1281	A
32	1a	1282	G
32	1a	1284	U
32	1a	1294	G
32	1a	1304	C
32	1a	1320	G
32	1a	1322	A
32	1a	1328	A
32	1a	1329	G
32	1a	1335	G
32	1a	1341	C
32	1a	1342	A
32	1a	1345	C
32	1a	1353	G
32	1a	1360	A
32	1a	1361	C
32	1a	1379	A
32	1a	1381	A
32	1a	1383	C
32	1a	1402	G
32	1a	1425	G
32	1a	1426	G

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Mol	Chain	Res	Type
32	1a	1432	A
32	1a	1433	C
32	1a	1451	A
32	1a	1465	G
32	1a	1469	G
32	1a	1475	G
32	1a	1480	A
32	1a	1481	A
32	1a	1482	G
32	1a	1484	U
32	1a	1495	G
32	1a	1507	G
32	1a	1508	G
53	1v	15	A
54	1x	6	G
54	1x	9	G
54	1x	13	C
54	1x	17	C
54	1x	17(A)	U
54	1x	19	G
54	1x	20	U
54	1x	21	A
54	1x	31	G
54	1x	34	C
54	1x	37	A
54	1x	38	A
54	1x	42	G
54	1x	47	U
54	1x	56	C
54	1x	65	C
54	1x	70	G
54	1x	76	A
1	2A	9	G
1	2A	11	U
1	2A	12	A
1	2A	14	G
1	2A	22	G
1	2A	33	C
1	2A	44	C
1	2A	59	G
1	2A	69	A
1	2A	72	A

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Mol	Chain	Res	Type
1	2A	73	G
1	2A	77	G
1	2A	81	G
1	2A	82	A
1	2A	88	U
1	2A	91	C
1	2A	98	G
1	2A	99	G
1	2A	115	A
1	2A	116	A
1	2A	117	U
1	2A	122	G
1	2A	154	C
1	2A	155	U
1	2A	169	A
1	2A	184	A
1	2A	187	A
1	2A	193	G
1	2A	203	G
1	2A	204	A
1	2A	209	A
1	2A	210	A
1	2A	211	A
1	2A	216	A
1	2A	217	A
1	2A	218	U
1	2A	221	A
1	2A	236	G
1	2A	254	G
1	2A	268	G
1	2A	270	U
1	2A	271	U
1	2A	272	G
1	2A	273	U
1	2A	274	C
1	2A	287	U
1	2A	288	G
1	2A	300	C
1	2A	301	A
1	2A	334	A
1	2A	345	A
1	2A	347	A

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Mol	Chain	Res	Type
1	2A	350	G
1	2A	352	G
1	2A	353	A
1	2A	356	G
1	2A	357	C
1	2A	358	C
1	2A	361	G
1	2A	375	G
1	2A	385	U
1	2A	386	G
1	2A	388	G
1	2A	389	G
1	2A	405	G
1	2A	406	U
1	2A	412	G
1	2A	415	G
1	2A	422	G
1	2A	431	U
1	2A	433	G
1	2A	437	G
1	2A	438	A
1	2A	441	A
1	2A	448	A
1	2A	454	A
1	2A	468	A
1	2A	469	C
1	2A	479	A
1	2A	480	C
1	2A	481	C
1	2A	482	A
1	2A	495	A
1	2A	500	U
1	2A	506	G
1	2A	509	C
1	2A	516	A
1	2A	520	G
1	2A	528	U
1	2A	529	A
1	2A	533	C
1	2A	552	A
1	2A	553	A
1	2A	554	G

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Mol	Chain	Res	Type
1	2A	555	C
1	2A	556	A
1	2A	557	G
1	2A	568	G
1	2A	578	G
1	2A	585	G
1	2A	595	G
1	2A	597	A
1	2A	608	A
1	2A	625	A
1	2A	626	G
1	2A	629	U
1	2A	637	U
1	2A	638	G
1	2A	640	G
1	2A	651	A
1	2A	658	C
1	2A	661	A
1	2A	669	C
1	2A	670	A
1	2A	678	A
1	2A	679	G
1	2A	697	G
1	2A	698	C
1	2A	732	G
1	2A	772	G
1	2A	776	C
1	2A	811	G
1	2A	817	G
1	2A	821	G
1	2A	822	G
1	2A	828	A
1	2A	830	A
1	2A	831	G
1	2A	836	C
1	2A	838	G
1	2A	840	G
1	2A	848	A
1	2A	851	G
1	2A	858	C
1	2A	865	A
1	2A	873	U

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Mol	Chain	Res	Type
1	2A	898	G
1	2A	903	C
1	2A	905	G
1	2A	912	A
1	2A	913	C
1	2A	915	G
1	2A	921	G
1	2A	925	G
1	2A	926	G
1	2A	930	C
1	2A	932	C
1	2A	933	A
1	2A	934	C
1	2A	935	C
1	2A	936	A
1	2A	941	A
1	2A	945	A
1	2A	946	A
1	2A	955	A
1	2A	959	C
1	2A	962	A
1	2A	976	G
1	2A	977	A
1	2A	982	G
1	2A	985	A
1	2A	989	A
1	2A	990	G
1	2A	1001	A
1	2A	1003	A
1	2A	1005	C
1	2A	1017	A
1	2A	1018	G
1	2A	1019	C
1	2A	1025	A
1	2A	1028	A
1	2A	1041	A
1	2A	1050	C
1	2A	1057	U
1	2A	1058	C
1	2A	1062	G
1	2A	1065	A
1	2A	1066	A

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Mol	Chain	Res	Type
1	2A	1067	G
1	2A	1070	G
1	2A	1072	A
1	2A	1078	U
1	2A	1082	G
1	2A	1083	C
1	2A	1084	G
1	2A	1087	G
1	2A	1088	C
1	2A	1091	A
1	2A	1092	G
1	2A	1093	A
1	2A	1103	G
1	2A	1105	U
1	2A	1106	U
1	2A	1107	G
1	2A	1108	G
1	2A	1109	C
1	2A	1110	U
1	2A	1115	A
1	2A	1118	A
1	2A	1120	C
1	2A	1121	C
1	2A	1126	U
1	2A	1127	U
1	2A	1128	U
1	2A	1131	A
1	2A	1133	A
1	2A	1140	A
1	2A	1142	U
1	2A	1143	A
1	2A	1146	U
1	2A	1156	A
1	2A	1157	G
1	2A	1158	U
1	2A	1159	G
1	2A	1161	C
1	2A	1167	G
1	2A	1175	U
1	2A	1179	C
1	2A	1180	G
1	2A	1183	G

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Mol	Chain	Res	Type
1	2A	1187	A
1	2A	1216	G
1	2A	1240	C
1	2A	1256	G
1	2A	1285	U
1	2A	1289	G
1	2A	1298	A
1	2A	1301	G
1	2A	1307	A
1	2A	1316	G
1	2A	1317	A
1	2A	1318	U
1	2A	1332	A
1	2A	1345	U
1	2A	1346	A
1	2A	1350	C
1	2A	1359	C
1	2A	1364	G
1	2A	1374	U
1	2A	1397	U
1	2A	1404	A
1	2A	1405	A
1	2A	1410	A
1	2A	1413	G
1	2A	1415	C
1	2A	1425	G
1	2A	1429	A
1	2A	1430	G
1	2A	1431	C
1	2A	1447	C
1	2A	1448	C
1	2A	1461	G
1	2A	1462	C
1	2A	1465	U
1	2A	1466	G
1	2A	1472	A
1	2A	1473	C
1	2A	1490	A
1	2A	1495	A
1	2A	1496	G
1	2A	1501	G
1	2A	1506	A

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Mol	Chain	Res	Type
1	2A	1513	C
1	2A	1517	A
1	2A	1528	G
1	2A	1534	U
1	2A	1535	A
1	2A	1538	C
1	2A	1542	U
1	2A	1554	C
1	2A	1555	A
1	2A	1579	G
1	2A	1583	G
1	2A	1589	C
1	2A	1590	A
1	2A	1593	C
1	2A	1601	G
1	2A	1604	A
1	2A	1605	G
1	2A	1612	A
1	2A	1615	A
1	2A	1624	U
1	2A	1626	A
1	2A	1630	C
1	2A	1631	A
1	2A	1639	G
1	2A	1652	C
1	2A	1653	A
1	2A	1654	A
1	2A	1655	A
1	2A	1661	A
1	2A	1686	C
1	2A	1694	C
1	2A	1700	A
1	2A	1710	A
1	2A	1720	G
1	2A	1746	A
1	2A	1747	A
1	2A	1765	G
1	2A	1766	A
1	2A	1768	G
1	2A	1771	C
1	2A	1786	G
1	2A	1788	G

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Mol	Chain	Res	Type
1	2A	1792	A
1	2A	1793	G
1	2A	1794	G
1	2A	1799	G
1	2A	1803	A
1	2A	1810	A
1	2A	1812	C
1	2A	1821	A
1	2A	1830	C
1	2A	1831	G
1	2A	1846	G
1	2A	1858	G
1	2A	1877	A
1	2A	1889	A
1	2A	1891	G
1	2A	1898	A
1	2A	1899	G
1	2A	1921	A
1	2A	1924	G
1	2A	1925	G
1	2A	1927	G
1	2A	1934	A
1	2A	1935	C
1	2A	1948	A
1	2A	1950	G
1	2A	1951	G
1	2A	1952	U
1	2A	1959	A
1	2A	1976	U
1	2A	1984	U
1	2A	1988	C
1	2A	1991	A
1	2A	1992	A
1	2A	1993	A
1	2A	2014	U
1	2A	2018	G
1	2A	2026	A
1	2A	2041	A
1	2A	2044	G
1	2A	2051	A
1	2A	2052	A
1	2A	2054	A

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Mol	Chain	Res	Type
1	2A	2060	C
1	2A	2064	C
1	2A	2067	G
1	2A	2076	C
1	2A	2077	G
1	2A	2081	A
1	2A	2082	G
1	2A	2083	A
1	2A	2090	G
1	2A	2120	U
1	2A	2207	G
1	2A	2209	C
1	2A	2213	G
1	2A	2217	C
1	2A	2219	A
1	2A	2226	G
1	2A	2227	G
1	2A	2228	A
1	2A	2236	A
1	2A	2249	G
1	2A	2278	A
1	2A	2280	A
1	2A	2286	C
1	2A	2290	G
1	2A	2294	C
1	2A	2298	A
1	2A	2300	G
1	2A	2316	A
1	2A	2318	G
1	2A	2319	G
1	2A	2322	A
1	2A	2323	U
1	2A	2328	C
1	2A	2329	G
1	2A	2330	G
1	2A	2331	A
1	2A	2333	A
1	2A	2336	G
1	2A	2345	G
1	2A	2346	A
1	2A	2347	A
1	2A	2354	C

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Mol	Chain	Res	Type
1	2A	2358	C
1	2A	2361	C
1	2A	2387	A
1	2A	2394	G
1	2A	2396	C
1	2A	2399	A
1	2A	2402	G
1	2A	2417	U
1	2A	2421	G
1	2A	2433	A
1	2A	2434	U
1	2A	2436	A
1	2A	2439	G
1	2A	2440	G
1	2A	2441	A
1	2A	2445	A
1	2A	2446	A
1	2A	2450	A
1	2A	2452	C
1	2A	2456	G
1	2A	2459	A
1	2A	2460	U
1	2A	2476	C
1	2A	2479	G
1	2A	2480	A
1	2A	2485	C
1	2A	2487	A
1	2A	2489	A
1	2A	2497	G
1	2A	2513	G
1	2A	2516	G
1	2A	2517	U
1	2A	2529	A
1	2A	2531	C
1	2A	2540	G
1	2A	2565	U
1	2A	2577	A
1	2A	2578	G
1	2A	2584	C
1	2A	2613	A
1	2A	2620	U
1	2A	2622	U

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Mol	Chain	Res	Type
1	2A	2623	C
1	2A	2640	A
1	2A	2641	G
1	2A	2650	A
1	2A	2665	A
1	2A	2674	G
1	2A	2693	U
1	2A	2700	U
1	2A	2701	C
1	2A	2702	C
1	2A	2713	U
1	2A	2714	C
1	2A	2724	A
1	2A	2725	A
1	2A	2726	G
1	2A	2738	U
1	2A	2745	A
1	2A	2763	G
1	2A	2764	C
1	2A	2769	A
1	2A	2776	A
1	2A	2777	A
1	2A	2778	G
1	2A	2790	A
1	2A	2801	C
1	2A	2805	G
1	2A	2812	G
1	2A	2817	U
1	2A	2827	G
1	2A	2829	A
1	2A	2830	A
1	2A	2842	G
1	2A	2843	G
1	2A	2844	A
1	2A	2848	G
1	2A	2881	G
1	2A	2882	A
1	2A	2885	G
1	2A	2889	C
1	2A	2895	G
1	2A	2900	A
1	2A	2902	G

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Mol	Chain	Res	Type
1	2A	2903	U
1	2A	2904	C
1	2A	2905	U
2	2B	2	C
2	2B	7	G
2	2B	9	G
2	2B	13	A
2	2B	28	C
2	2B	30	C
2	2B	32	C
2	2B	33	G
2	2B	35	U
2	2B	43	C
2	2B	45	A
2	2B	46	A
2	2B	50	G
2	2B	52	A
2	2B	56	G
2	2B	64	C
2	2B	73	A
2	2B	85	G
2	2B	106	G
2	2B	110	G
2	2B	111	G
2	2B	120	A
32	2a	6	U
32	2a	7	G
32	2a	10	G
32	2a	11	A
32	2a	15	U
32	2a	16	G
32	2a	23	G
32	2a	31	U
32	2a	33	A
32	2a	40	G
32	2a	43	G
32	2a	48	C
32	2a	49	C
32	2a	51	A
32	2a	52	A
32	2a	66	U
32	2a	67	G

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Mol	Chain	Res	Type
32	2a	74	G
32	2a	79	G
32	2a	85	C
32	2a	91	G
32	2a	92	G
32	2a	110	A
32	2a	115	C
32	2a	124	G
32	2a	126	C
32	2a	138	A
32	2a	151	G
32	2a	158	C
32	2a	169	C
32	2a	177	U
32	2a	189	U
32	2a	190	U
32	2a	202	A
32	2a	204	A
32	2a	208	C
32	2a	210	U
32	2a	211	U
32	2a	212	G
32	2a	243	G
32	2a	247	G
32	2a	248	U
32	2a	254	G
32	2a	262	G
32	2a	263	C
32	2a	275	A
32	2a	277	G
32	2a	285	G
32	2a	297	G
32	2a	310	C
32	2a	317	A
32	2a	324	C
32	2a	328	G
32	2a	340	A
32	2a	345	A
32	2a	346	G
32	2a	347	G
32	2a	348	C
32	2a	349	A

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Mol	Chain	Res	Type
32	2a	350	G
32	2a	363	U
32	2a	368	C
32	2a	369	A
32	2a	380	G
32	2a	394	C
32	2a	402	G
32	2a	408	A
32	2a	417	U
32	2a	419	G
32	2a	425	U
32	2a	426	A
32	2a	435	A
32	2a	437	C
32	2a	447	A
32	2a	455	A
32	2a	456	C
32	2a	457	G
32	2a	463	A
32	2a	469	G
32	2a	470	G
32	2a	481	A
32	2a	482	U
32	2a	489	G
32	2a	493	A
32	2a	494	A
32	2a	495	C
32	2a	497	C
32	2a	502	C
32	2a	505	G
32	2a	511	G
32	2a	515	U
32	2a	516	A
32	2a	517	A
32	2a	531	A
32	2a	543	A
32	2a	545	U
32	2a	546	C
32	2a	552	G
32	2a	556	A
32	2a	557	A
32	2a	560	G

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Mol	Chain	Res	Type
32	2a	561	G
32	2a	580	C
32	2a	611	G
32	2a	614	G
32	2a	637	A
32	2a	645	G
32	2a	649	A
32	2a	650	G
32	2a	672	G
32	2a	677	G
32	2a	679	A
32	2a	696	A
32	2a	701	C
32	2a	704	C
32	2a	707	U
32	2a	708	G
32	2a	715	G
32	2a	733	C
32	2a	739	G
32	2a	744	G
32	2a	761	A
32	2a	776	A
32	2a	777	U
32	2a	778	A
32	2a	783	G
32	2a	800	A
32	2a	801	C
32	2a	812	A
32	2a	813	G
32	2a	822	G
32	2a	824	C
32	2a	825	U
32	2a	826	C
32	2a	837	A
32	2a	845	G
32	2a	880	G
32	2a	892	A
32	2a	898	U
32	2a	904	G
32	2a	905	G
32	2a	909	C
32	2a	912	C

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Mol	Chain	Res	Type
32	2a	913	A
32	2a	920	G
32	2a	938	U
32	2a	939	U
32	2a	946	A
32	2a	947	A
32	2a	949	G
32	2a	950	C
32	2a	952	A
32	2a	953	A
32	2a	954	G
32	2a	955	A
32	2a	956	A
32	2a	967	C
32	2a	970	U
32	2a	971	G
32	2a	973	C
32	2a	974	A
32	2a	977	C
32	2a	981	G
32	2a	983	A
32	2a	984	A
32	2a	985	C
32	2a	986	C
32	2a	988	G
32	2a	1001	G
32	2a	1002	G
32	2a	1027	A
32	2a	1028	C
32	2a	1033	G
32	2a	1036	G
32	2a	1037	C
32	2a	1038	A
32	2a	1039	U
32	2a	1047	G
32	2a	1048	U
32	2a	1049	C
32	2a	1064	G
32	2a	1077	G
32	2a	1078	U
32	2a	1084	A
32	2a	1091	G

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Mol	Chain	Res	Type
32	2a	1096	C
32	2a	1101	C
32	2a	1105	U
32	2a	1109	U
32	2a	1112	C
32	2a	1113	A
32	2a	1116	G
32	2a	1118	U
32	2a	1119	U
32	2a	1120	C
32	2a	1121	G
32	2a	1122	G
32	2a	1129	A
32	2a	1130	C
32	2a	1140	A
32	2a	1142	U
32	2a	1165	A
32	2a	1168	G
32	2a	1171	C
32	2a	1172	G
32	2a	1178	U
32	2a	1184	G
32	2a	1193	U
32	2a	1194	U
32	2a	1196	C
32	2a	1210	C
32	2a	1220	A
32	2a	1222	U
32	2a	1223	G
32	2a	1235	G
32	2a	1239	U
32	2a	1240	G
32	2a	1242	C
32	2a	1243	A
32	2a	1244	C
32	2a	1251	A
32	2a	1255	G
32	2a	1262	A
32	2a	1263	U
32	2a	1264	C
32	2a	1268	A
32	2a	1269	A

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Mol	Chain	Res	Type
32	2a	1281	A
32	2a	1285	C
32	2a	1287	G
32	2a	1300	A
32	2a	1304	C
32	2a	1305	G
32	2a	1308	C
32	2a	1320	G
32	2a	1328	A
32	2a	1329	G
32	2a	1332	A
32	2a	1341	C
32	2a	1342	A
32	2a	1345	C
32	2a	1347	U
32	2a	1353	G
32	2a	1364	U
32	2a	1380	C
32	2a	1381	A
32	2a	1402	G
32	2a	1425	G
32	2a	1426	G
32	2a	1427	A
32	2a	1431	U
32	2a	1432	A
32	2a	1433	C
32	2a	1434	G
32	2a	1467	G
32	2a	1475	G
32	2a	1477	A
32	2a	1480	A
32	2a	1481	A
32	2a	1482	G
32	2a	1484	U
32	2a	1495	G
32	2a	1497	A
32	2a	1498	G
32	2a	1507	G
32	2a	1508	G
32	2a	1509	A
32	2a	1510	U
53	2v	15	A

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Mol	Chain	Res	Type
54	2x	6	G
54	2x	9	G
54	2x	13	C
54	2x	17	C
54	2x	17(A)	U
54	2x	19	G
54	2x	20	U
54	2x	21	A
54	2x	31	G
54	2x	34	C
54	2x	37	A
54	2x	38	A
54	2x	42	G
54	2x	47	U
54	2x	56	C
54	2x	65	C
54	2x	70	G
54	2x	76	A

All (46) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	183	A
1	1A	184	A
1	1A	301	A
1	1A	516	A
1	1A	873	U
1	1A	1153	U
1	1A	1218	A
1	1A	1220	G
1	1A	1285	U
1	1A	1320	A
1	1A	1425	G
1	1A	1465	U
1	1A	1653	A
1	1A	1709	C
1	1A	1792	A
1	1A	2013	G
1	1A	2417	U
1	1A	2700	U
1	1A	2768	U
1	2A	183	A

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Mol	Chain	Res	Type
1	2A	184	A
1	2A	247	G
1	2A	357	C
1	2A	516	A
1	2A	810	A
1	2A	873	U
1	2A	902	C
1	2A	945	A
1	2A	1071	U
1	2A	1087	G
1	2A	1102	A
1	2A	1114	A
1	2A	1238	A
1	2A	1424	A
1	2A	1425	G
1	2A	1465	U
1	2A	1604	A
1	2A	1820	C
1	2A	1934	A
1	2A	2013	G
1	2A	2328	C
1	2A	2417	U
1	2A	2700	U
1	2A	2768	U
2	2B	42	C
2	2B	45	A

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

8 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	$\# Z > 2$
54	PSU	1x	55	54	18,21,22	1.33	2 (11%)	21,30,33	1.87	3 (14%)
54	5MU	1x	54	54	19,22,23	1.54	5 (26%)	27,32,35	1.90	5 (18%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
54	5MU	2x	54	54	19,22,23	1.43	5 (26%)	27,32,35	1.98	6 (22%)
54	5MC	1x	32	54	19,22,23	1.62	3 (15%)	26,32,35	1.16	2 (7%)
54	5MC	2x	32	54	19,22,23	1.70	2 (10%)	26,32,35	1.27	3 (11%)
54	PSU	2x	55	54	18,21,22	1.36	2 (11%)	21,30,33	1.95	4 (19%)
54	4SU	2x	8	54	18,21,22	2.00	5 (27%)	25,30,33	1.25	4 (16%)
54	4SU	1x	8	54	18,21,22	2.13	4 (22%)	25,30,33	1.34	4 (16%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
54	PSU	1x	55	54	-	2/7/25/26	0/2/2/2
54	5MU	1x	54	54	-	0/7/25/26	0/2/2/2
54	5MU	2x	54	54	-	1/7/25/26	0/2/2/2
54	5MC	1x	32	54	-	0/7/25/26	0/2/2/2
54	5MC	2x	32	54	-	1/7/25/26	0/2/2/2
54	PSU	2x	55	54	-	2/7/25/26	0/2/2/2
54	4SU	2x	8	54	-	0/7/25/26	0/2/2/2
54	4SU	1x	8	54	-	0/7/25/26	0/2/2/2

All (28) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	2x	32	5MC	C5-C4	5.99	1.48	1.44
54	1x	32	5MC	C5-C4	5.62	1.48	1.44
54	1x	8	4SU	C4-N3	-4.92	1.32	1.37
54	2x	8	4SU	C4-N3	-4.73	1.32	1.37
54	1x	8	4SU	C4-S4	-4.44	1.60	1.68
54	2x	8	4SU	C4-S4	-4.28	1.61	1.68
54	1x	8	4SU	C2-N3	-4.17	1.30	1.38
54	2x	55	PSU	C6-C5	3.65	1.39	1.35
54	1x	54	5MU	C6-C5	3.37	1.40	1.34
54	1x	55	PSU	C6-C5	3.13	1.38	1.35
54	2x	32	5MC	C6-C5	3.11	1.39	1.34
54	1x	32	5MC	C6-C5	3.09	1.39	1.34
54	2x	8	4SU	C5-C4	-3.01	1.38	1.42
54	2x	8	4SU	C2-N3	-3.01	1.32	1.38
54	1x	8	4SU	C5-C4	-2.97	1.39	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	1x	54	5MU	C4-N3	-2.93	1.33	1.38
54	2x	54	5MU	C6-C5	2.91	1.39	1.34
54	1x	54	5MU	C2-N1	2.65	1.42	1.38
54	1x	54	5MU	C4-C5	2.59	1.49	1.44
54	2x	54	5MU	C4-C5	2.57	1.49	1.44
54	1x	55	PSU	C4-N3	-2.44	1.34	1.38
54	2x	54	5MU	C4-N3	-2.42	1.34	1.38
54	2x	55	PSU	C4-N3	-2.40	1.34	1.38
54	2x	54	5MU	C2-N1	2.38	1.42	1.38
54	1x	32	5MC	C6-N1	-2.23	1.34	1.38
54	2x	8	4SU	C6-C5	2.08	1.39	1.35
54	2x	54	5MU	C6-N1	-2.06	1.34	1.38
54	1x	54	5MU	C2-N3	-2.05	1.34	1.38

All (31) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2x	55	PSU	N1-C2-N3	6.07	121.57	115.17
54	1x	55	PSU	N1-C2-N3	5.52	120.99	115.17
54	1x	54	5MU	N3-C2-N1	5.25	121.72	114.89
54	2x	54	5MU	N3-C2-N1	4.82	121.16	114.89
54	2x	54	5MU	C4-N3-C2	-4.78	121.07	127.34
54	1x	54	5MU	C4-N3-C2	-4.45	121.51	127.34
54	2x	54	5MU	C5-C4-N3	3.96	118.77	115.32
54	2x	55	PSU	C4-N3-C2	-3.92	120.97	126.37
54	1x	54	5MU	C5-C4-N3	3.71	118.55	115.32
54	1x	55	PSU	C4-N3-C2	-3.69	121.29	126.37
54	1x	55	PSU	O2-C2-N1	-3.59	119.08	122.79
54	2x	54	5MU	O4-C4-C5	-3.53	120.88	124.92
54	2x	32	5MC	O2-C2-N3	-3.35	117.04	122.33
54	2x	54	5MU	C5-C6-N1	-3.31	119.72	123.31
54	1x	32	5MC	C5-C6-N1	-3.21	119.82	123.31
54	1x	54	5MU	C5-C6-N1	-3.18	119.86	123.31
54	1x	8	4SU	C6-C5-C4	-3.10	117.27	119.95
54	2x	55	PSU	O2-C2-N1	-3.09	119.61	122.79
54	1x	8	4SU	O2-C2-N1	3.06	126.78	122.80
54	2x	32	5MC	C5-C4-N3	-3.05	118.63	121.75
54	1x	32	5MC	C5-C4-N3	-3.00	118.68	121.75
54	2x	32	5MC	C5-C6-N1	-2.94	120.12	123.31
54	1x	8	4SU	C5-C4-N3	2.91	117.46	114.75
54	2x	8	4SU	C6-C5-C4	-2.82	117.51	119.95
54	2x	8	4SU	C1'-N1-C2	2.70	122.43	117.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2x	8	4SU	C5-C4-N3	2.56	117.13	114.75
54	1x	54	5MU	O4-C4-C5	-2.55	122.00	124.92
54	2x	54	5MU	O2-C2-N1	-2.44	119.62	122.80
54	1x	8	4SU	O2-C2-N3	-2.22	117.39	121.49
54	2x	55	PSU	C5-C6-N1	-2.16	119.14	122.14
54	2x	8	4SU	C6-N1-C2	-2.05	118.50	121.00

There are no chirality outliers.

All (6) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
54	1x	55	PSU	O4'-C4'-C5'-O5'
54	2x	55	PSU	O4'-C4'-C5'-O5'
54	2x	54	5MU	C3'-C4'-C5'-O5'
54	1x	55	PSU	C3'-C4'-C5'-O5'
54	2x	32	5MC	C2'-C1'-N1-C2
54	2x	55	PSU	C3'-C4'-C5'-O5'

There are no ring outliers.

2 monomers are involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
54	2x	55	PSU	1	0
54	1x	8	4SU	1	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2494 ligands modelled in this entry, 2492 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
58	SF4	2d	501	35	0,12,12	-	-	-		
58	SF4	1d	501	35	0,12,12	-	-	-		

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
58	SF4	2d	501	35	-	-	0/6/5/5
58	SF4	1d	501	35	-	-	0/6/5/5

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th 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	2746/2915 (94%)	-0.38	28 (1%) 79 73	22, 41, 87, 114	0
1	2A	2790/2915 (95%)	-0.28	22 (0%) 82 77	25, 46, 93, 111	0
2	1B	120/121 (99%)	0.15	1 (0%) 82 77	36, 65, 80, 91	0
2	2B	120/121 (99%)	0.65	2 (1%) 69 61	41, 70, 83, 92	0
3	1D	275/276 (99%)	-0.21	0 100 100	23, 40, 57, 77	0
3	2D	275/276 (99%)	-0.17	2 (0%) 84 79	24, 43, 59, 78	0
4	1E	204/206 (99%)	-0.12	0 100 100	21, 43, 66, 81	0
4	2E	204/206 (99%)	0.01	0 100 100	23, 45, 67, 82	0
5	1F	203/210 (96%)	0.09	1 (0%) 87 83	22, 50, 75, 90	0
5	2F	203/210 (96%)	0.14	1 (0%) 87 83	24, 54, 76, 93	0
6	1G	181/182 (99%)	0.56	6 (3%) 49 40	50, 70, 83, 98	0
6	2G	181/182 (99%)	1.09	14 (7%) 19 16	54, 73, 85, 100	0
7	1H	174/180 (96%)	0.64	4 (2%) 61 52	48, 64, 77, 82	0
7	2H	174/180 (96%)	0.88	8 (4%) 37 29	56, 69, 81, 83	0
8	1I	146/148 (98%)	0.55	3 (2%) 63 54	45, 75, 84, 89	0
8	2I	146/148 (98%)	0.69	6 (4%) 41 33	47, 76, 85, 92	0
9	1N	140/140 (100%)	0.18	0 100 100	27, 46, 66, 79	0
9	2N	140/140 (100%)	0.16	0 100 100	30, 50, 70, 81	0
10	1O	122/122 (100%)	-0.00	0 100 100	33, 45, 63, 70	0
10	2O	122/122 (100%)	-0.06	0 100 100	34, 47, 63, 73	0
11	1P	149/150 (99%)	0.23	0 100 100	22, 52, 75, 86	0
11	2P	149/150 (99%)	0.30	2 (1%) 75 67	25, 56, 78, 89	0
12	1Q	141/141 (100%)	0.33	4 (2%) 55 46	31, 49, 63, 87	0
12	2Q	141/141 (100%)	0.36	2 (1%) 73 65	35, 52, 66, 85	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	1R	118/118 (100%)	-0.39	0 100 100	19, 30, 47, 57	0
13	2R	118/118 (100%)	0.14	1 (0%) 82 77	35, 51, 65, 76	0
14	1S	110/112 (98%)	-0.06	1 (0%) 81 75	33, 49, 65, 68	0
14	2S	110/112 (98%)	1.33	23 (20%) 2 2	65, 79, 88, 93	0
15	1T	131/146 (89%)	-0.10	3 (2%) 61 52	29, 41, 70, 90	0
15	2T	131/146 (89%)	0.22	0 100 100	47, 58, 78, 90	0
16	1U	116/118 (98%)	-0.58	1 (0%) 81 75	19, 27, 44, 64	0
16	2U	116/118 (98%)	0.34	1 (0%) 81 75	37, 59, 77, 88	0
17	1V	101/101 (100%)	0.08	1 (0%) 79 73	27, 49, 65, 74	0
17	2V	101/101 (100%)	0.20	2 (1%) 65 56	30, 54, 71, 78	0
18	1W	112/113 (99%)	-0.25	0 100 100	23, 35, 55, 84	0
18	2W	112/113 (99%)	-0.20	1 (0%) 81 75	26, 37, 56, 87	0
19	1X	95/96 (98%)	0.29	3 (3%) 50 41	31, 46, 66, 78	0
19	2X	95/96 (98%)	0.44	4 (4%) 40 32	34, 49, 69, 78	0
20	1Y	107/110 (97%)	-0.07	1 (0%) 81 75	29, 47, 68, 85	0
20	2Y	107/110 (97%)	0.88	7 (6%) 25 20	55, 72, 83, 98	0
21	1Z	186/206 (90%)	0.53	1 (0%) 87 83	51, 68, 82, 92	0
21	2Z	186/206 (90%)	0.91	3 (1%) 70 62	55, 71, 84, 93	0
22	10	75/85 (88%)	0.25	1 (1%) 75 67	33, 45, 59, 66	0
22	20	75/85 (88%)	0.51	4 (5%) 32 25	37, 50, 64, 68	0
23	11	97/98 (98%)	0.13	1 (1%) 79 73	28, 47, 71, 78	0
23	21	97/98 (98%)	0.25	3 (3%) 51 42	30, 49, 73, 78	0
24	12	70/72 (97%)	0.47	2 (2%) 53 45	42, 58, 72, 80	0
24	22	70/72 (97%)	0.48	0 100 100	45, 61, 74, 79	0
25	13	59/60 (98%)	0.21	1 (1%) 69 61	32, 45, 65, 78	0
25	23	59/60 (98%)	0.13	1 (1%) 69 61	35, 50, 69, 80	0
26	14	69/71 (97%)	0.66	7 (10%) 12 10	52, 75, 99, 102	0
26	24	69/71 (97%)	1.33	11 (15%) 5 4	78, 93, 98, 103	0
27	15	59/60 (98%)	-0.58	0 100 100	15, 30, 45, 72	0
27	25	59/60 (98%)	-0.09	0 100 100	33, 50, 67, 72	0
28	16	53/54 (98%)	-0.08	0 100 100	38, 48, 59, 70	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	26	53/54 (98%)	0.01	0 100 100	42, 51, 62, 72	0
29	17	48/49 (97%)	-0.07	2 (4%) 40 32	24, 31, 64, 81	0
29	27	48/49 (97%)	0.07	2 (4%) 40 32	26, 34, 64, 82	0
30	18	64/65 (98%)	0.07	0 100 100	30, 41, 49, 63	0
30	28	64/65 (98%)	0.17	0 100 100	33, 43, 52, 64	0
31	19	37/37 (100%)	0.45	3 (8%) 18 15	38, 48, 70, 74	0
31	29	37/37 (100%)	0.77	2 (5%) 31 24	43, 53, 71, 77	0
32	1a	1477/1521 (97%)	0.19	23 (1%) 70 62	34, 72, 98, 114	0
32	2a	1483/1521 (97%)	0.38	33 (2%) 62 53	43, 78, 101, 115	0
33	1b	231/256 (90%)	1.04	34 (14%) 6 4	67, 86, 96, 115	0
33	2b	231/256 (90%)	1.16	32 (13%) 6 5	71, 88, 97, 106	0
34	1c	206/239 (86%)	1.07	25 (12%) 8 7	70, 84, 93, 99	0
34	2c	206/239 (86%)	1.34	27 (13%) 7 6	73, 85, 94, 96	0
35	1d	208/209 (99%)	0.89	10 (4%) 35 28	56, 77, 88, 100	0
35	2d	208/209 (99%)	0.82	11 (5%) 32 25	56, 73, 84, 92	0
36	1e	148/162 (91%)	0.30	3 (2%) 65 56	47, 67, 79, 87	0
36	2e	148/162 (91%)	0.67	3 (2%) 65 56	56, 74, 84, 90	0
37	1f	100/101 (99%)	0.44	0 100 100	55, 73, 84, 90	0
37	2f	100/101 (99%)	0.52	3 (3%) 52 43	56, 74, 83, 87	0
38	1g	155/156 (99%)	0.82	9 (5%) 29 22	66, 79, 91, 98	0
38	2g	155/156 (99%)	0.97	20 (12%) 7 6	67, 81, 91, 97	0
39	1h	137/138 (99%)	0.40	1 (0%) 84 79	53, 69, 77, 82	0
39	2h	137/138 (99%)	0.79	6 (4%) 39 30	62, 75, 84, 91	0
40	1i	127/128 (99%)	1.40	27 (21%) 2 2	61, 87, 95, 97	0
40	2i	127/128 (99%)	2.00	52 (40%) 0 0	67, 88, 95, 102	0
41	1j	97/105 (92%)	1.45	21 (21%) 2 2	57, 87, 95, 98	0
41	2j	96/105 (91%)	1.83	41 (42%) 0 0	76, 91, 101, 102	0
42	1k	114/129 (88%)	0.34	2 (1%) 67 59	38, 67, 80, 94	0
42	2k	114/129 (88%)	0.58	6 (5%) 32 25	52, 76, 86, 92	0
43	1l	122/132 (92%)	0.54	5 (4%) 41 33	49, 63, 76, 89	0
43	2l	122/132 (92%)	0.57	3 (2%) 58 48	56, 67, 76, 82	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	1m	118/126 (93%)	0.80	5 (4%) 40 32	58, 80, 87, 92	0
44	2m	116/126 (92%)	1.42	27 (23%) 2 2	70, 83, 89, 96	0
45	1n	60/61 (98%)	1.24	5 (8%) 17 14	60, 77, 86, 92	0
45	2n	60/61 (98%)	2.38	40 (66%) 0 0	77, 88, 94, 96	0
46	1o	88/89 (98%)	0.52	1 (1%) 78 71	50, 65, 82, 86	0
46	2o	88/89 (98%)	0.52	0 100 100	60, 74, 87, 92	0
47	1p	82/88 (93%)	1.22	11 (13%) 7 5	62, 77, 88, 93	0
47	2p	82/88 (93%)	0.89	3 (3%) 45 37	59, 70, 79, 91	0
48	1q	99/105 (94%)	0.66	3 (3%) 52 43	47, 68, 80, 83	0
48	2q	99/105 (94%)	0.57	3 (3%) 52 43	58, 72, 81, 85	0
49	1r	68/88 (77%)	0.50	0 100 100	58, 68, 83, 87	0
49	2r	68/88 (77%)	0.54	2 (2%) 53 45	63, 74, 84, 88	0
50	1s	84/93 (90%)	1.18	10 (11%) 9 7	67, 81, 92, 98	0
50	2s	83/93 (89%)	1.95	32 (38%) 1 0	76, 91, 102, 105	0
51	1t	96/106 (90%)	1.08	12 (12%) 8 7	57, 75, 84, 90	0
51	2t	96/106 (90%)	0.82	10 (10%) 11 10	56, 73, 84, 87	0
52	1u	23/27 (85%)	1.57	5 (21%) 2 2	68, 77, 82, 85	0
52	2u	23/27 (85%)	1.91	9 (39%) 1 0	68, 80, 85, 88	0
53	1v	5/24 (20%)	0.55	1 (20%) 3 2	50, 55, 86, 88	0
53	2v	5/24 (20%)	1.03	1 (20%) 3 2	73, 74, 89, 103	0
54	1x	72/77 (93%)	0.03	0 100 100	34, 68, 85, 99	0
54	2x	72/77 (93%)	0.15	0 100 100	36, 71, 87, 101	0
55	1z	12/15 (80%)	0.42	2 (16%) 4 3	29, 36, 72, 81	0
55	2z	13/15 (86%)	1.47	4 (30%) 1 1	31, 37, 84, 91	0
All	All	20521/21474 (95%)	0.26	782 (3%) 44 36	15, 62, 92, 115	0

All (782) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
55	2z	13	PRO	7.2
7	1H	2	SER	5.9
55	2z	12	PRO	5.7
38	1g	79	ARG	5.5
29	17	48	LYS	5.2

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Mol	Chain	Res	Type	RSRZ
32	2a	981	G	5.1
32	1a	980	G	5.1
40	2i	16	ARG	5.0
32	1a	981	G	5.0
50	2s	38	SER	4.9
41	1j	62	HIS	4.6
40	2i	15	ALA	4.6
1	1A	2815	G	4.6
45	2n	18	VAL	4.6
50	2s	8	GLY	4.5
45	2n	25	VAL	4.5
50	2s	71	LEU	4.4
50	2s	11	VAL	4.3
45	2n	17	LYS	4.3
40	1i	13	ALA	4.2
41	1j	98	ILE	4.2
12	1Q	59	ARG	4.2
34	2c	180	ALA	4.2
1	1A	8	U	4.2
44	2m	102	ARG	4.1
20	2Y	5	MET	4.1
52	2u	14	TRP	4.1
34	2c	2	GLY	4.1
52	2u	11	GLY	4.1
40	2i	66	ARG	4.1
41	2j	5	ARG	4.1
6	2G	28	VAL	4.1
52	2u	6	ARG	4.1
32	2a	980	G	4.1
41	2j	40	LEU	4.0
40	2i	14	VAL	4.0
34	2c	155	GLY	4.0
40	2i	17	VAL	4.0
40	2i	102	LEU	3.9
34	1c	28	GLN	3.9
20	2Y	1	MET	3.9
38	2g	78	ARG	3.9
40	2i	42	ARG	3.9
1	1A	1149	C	3.9
50	2s	52	TYR	3.9
50	2s	33	THR	3.9
38	2g	5	ARG	3.9

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Mol	Chain	Res	Type	RSRZ
38	2g	83	ALA	3.9
40	1i	2	GLU	3.9
1	1A	2813	C	3.9
29	27	48	LYS	3.8
40	2i	126	SER	3.8
50	2s	9	VAL	3.8
47	1p	41	PRO	3.8
6	1G	51	ARG	3.8
38	1g	78	ARG	3.7
45	1n	59	ALA	3.7
40	2i	115	GLY	3.7
32	2a	1184	G	3.7
38	1g	80	VAL	3.7
40	2i	29	ASN	3.6
33	2b	187	LEU	3.6
50	2s	35	SER	3.6
26	24	49	PHE	3.6
41	2j	63	PHE	3.6
45	2n	16	PHE	3.6
50	2s	76	PRO	3.6
45	2n	37	PHE	3.6
26	14	53	GLU	3.6
38	1g	156	TRP	3.6
34	2c	129	ALA	3.5
40	2i	61	ALA	3.5
45	2n	35	ARG	3.5
40	2i	68	GLY	3.5
40	1i	106	ALA	3.5
40	2i	65	VAL	3.5
50	2s	51	VAL	3.5
51	1t	10	LEU	3.5
45	2n	3	ARG	3.5
1	1A	2814	C	3.5
34	2c	186	PHE	3.5
40	2i	28	VAL	3.5
40	2i	67	GLY	3.5
33	2b	97	TRP	3.5
15	1T	130	ALA	3.4
35	2d	2	GLY	3.4
43	1l	18	VAL	3.4
34	2c	179	ARG	3.4
50	2s	12	ASP	3.4

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Mol	Chain	Res	Type	RSRZ
40	1i	102	LEU	3.4
15	1T	37	GLY	3.4
40	2i	119	ALA	3.4
45	2n	32	SER	3.4
32	2a	1268	A	3.4
50	2s	13	ASP	3.4
32	2a	1206	G	3.3
55	2z	10	PRO	3.3
43	1l	126	LYS	3.3
38	2g	16	LEU	3.3
41	2j	44	VAL	3.3
44	2m	90	LEU	3.3
41	2j	49	VAL	3.3
40	2i	36	TYR	3.3
44	2m	87	TYR	3.3
45	2n	34	TYR	3.3
1	2A	1582	C	3.3
45	2n	2	ALA	3.3
50	2s	34	TRP	3.3
33	1b	227	GLY	3.3
50	1s	85	LYS	3.3
50	2s	14	HIS	3.3
51	1t	67	ALA	3.3
52	2u	17	THR	3.3
32	1a	982	G	3.3
7	2H	2	SER	3.3
34	2c	8	ILE	3.2
52	2u	13	ILE	3.2
15	1T	131	ALA	3.2
45	2n	33	VAL	3.2
35	2d	49	ARG	3.2
26	24	56	VAL	3.2
1	1A	1098	C	3.2
14	2S	35	ILE	3.2
41	2j	37	PRO	3.2
35	2d	164	ALA	3.2
45	2n	49	HIS	3.2
47	1p	19	ILE	3.2
40	2i	20	ARG	3.1
40	1i	105	ASP	3.1
45	1n	2	ALA	3.1
1	1A	33	C	3.1

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Mol	Chain	Res	Type	RSRZ
40	1i	109	VAL	3.1
20	1Y	1	MET	3.1
34	2c	172	ARG	3.1
7	2H	111	HIS	3.1
24	12	15	LYS	3.1
32	2a	1207	A	3.1
21	2Z	1	MET	3.1
33	2b	101	MET	3.1
51	1t	103	GLY	3.1
40	2i	63	ILE	3.1
45	2n	9	LYS	3.1
8	2I	46	ALA	3.1
33	2b	165	VAL	3.1
45	1n	16	PHE	3.1
34	1c	2	GLY	3.1
34	1c	9	GLY	3.1
40	2i	30	GLY	3.1
33	1b	131	PRO	3.1
38	2g	38	LEU	3.1
40	2i	10	ARG	3.1
51	1t	14	LYS	3.1
38	2g	156	TRP	3.1
44	2m	60	VAL	3.1
1	1A	9	G	3.1
34	2c	190	ARG	3.1
41	2j	55	LYS	3.1
1	1A	934	C	3.1
45	2n	21	TYR	3.0
8	2I	11	ASN	3.0
45	2n	60	SER	3.0
44	2m	6	GLY	3.0
41	1j	70	ARG	3.0
40	2i	110	GLU	3.0
32	2a	1509	A	3.0
33	1b	237	ALA	3.0
1	1A	669	C	3.0
2	2B	88	C	3.0
42	2k	13	GLN	3.0
55	1z	11	ARG	3.0
55	2z	11	ARG	3.0
38	2g	12	LEU	3.0
40	1i	64	THR	3.0

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Mol	Chain	Res	Type	RSRZ
1	2A	33	C	3.0
12	1Q	24	GLY	3.0
45	1n	7	ILE	3.0
50	2s	15	LEU	3.0
41	2j	72	VAL	3.0
32	1a	979	A	3.0
14	2S	32	LEU	3.0
1	1A	2904	C	3.0
1	2A	1149	C	3.0
41	1j	63	PHE	3.0
40	2i	9	ARG	2.9
43	1l	89	ARG	2.9
40	2i	5	TYR	2.9
40	1i	69	GLY	2.9
50	2s	16	LEU	2.9
38	2g	84	ASN	2.9
1	2A	2815	G	2.9
45	2n	15	LYS	2.9
44	2m	64	TRP	2.9
33	1b	167	PRO	2.9
40	2i	2	GLU	2.9
37	2f	89	MET	2.9
33	2b	152	PHE	2.9
34	1c	207	VAL	2.9
33	1b	130	ARG	2.9
14	2S	58	LEU	2.9
41	2j	65	LEU	2.9
45	2n	6	LEU	2.9
39	2h	131	GLY	2.9
45	2n	38	GLY	2.9
14	2S	93	LYS	2.9
40	2i	11	LYS	2.9
40	2i	103	THR	2.9
45	2n	42	ILE	2.9
51	1t	55	ILE	2.9
6	2G	53	LEU	2.9
35	1d	104	VAL	2.9
20	2Y	90	LEU	2.9
40	2i	99	LEU	2.9
33	2b	99	GLY	2.8
41	2j	93	GLY	2.8
41	2j	64	GLU	2.8

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Mol	Chain	Res	Type	RSRZ
1	2A	1216	G	2.8
8	2I	146	ALA	2.8
8	2I	96	ASP	2.8
38	1g	77	SER	2.8
45	2n	7	ILE	2.8
1	1A	1934	A	2.8
20	2Y	57	GLN	2.8
50	1s	56	GLN	2.8
33	2b	197	VAL	2.8
40	1i	10	ARG	2.8
45	2n	29	ARG	2.8
51	1t	12	ALA	2.8
52	1u	10	ARG	2.8
33	1b	195	ASP	2.8
34	2c	5	ILE	2.8
44	2m	9	ILE	2.8
34	2c	41	GLY	2.8
45	1n	38	GLY	2.8
50	2s	68	GLY	2.8
40	1i	12	GLU	2.8
41	1j	64	GLU	2.8
33	2b	92	TYR	2.8
14	2S	29	PHE	2.8
40	2i	106	ALA	2.8
34	1c	178	LEU	2.8
6	1G	48	GLU	2.8
33	1b	30	ARG	2.8
26	14	56	VAL	2.8
29	27	46	VAL	2.8
1	1A	270	U	2.8
51	2t	10	LEU	2.8
41	1j	76	ASN	2.8
40	1i	11	LYS	2.8
35	1d	80	GLU	2.7
52	1u	15	ARG	2.7
8	2I	81	VAL	2.7
33	2b	136	VAL	2.7
40	2i	62	TYR	2.7
20	2Y	34	LYS	2.7
43	1l	91	LYS	2.7
45	2n	22	THR	2.7
40	1i	68	GLY	2.7

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Mol	Chain	Res	Type	RSRZ
6	2G	17	PRO	2.7
8	1I	10	GLU	2.7
32	2a	958	C	2.7
33	2b	188	ALA	2.7
34	2c	189	ALA	2.7
40	2i	76	ALA	2.7
47	2p	7	ALA	2.7
38	2g	42	ILE	2.7
1	2A	2901	G	2.7
32	2a	1202	G	2.7
6	2G	76	SER	2.7
14	2S	3	ARG	2.7
23	1l	2	SER	2.7
42	2k	126	ARG	2.7
41	1j	21	GLN	2.7
33	1b	207	ALA	2.7
40	2i	37	PHE	2.7
50	2s	49	ILE	2.7
7	1H	85	LYS	2.7
34	2c	167	TRP	2.7
33	2b	236	TYR	2.7
40	2i	125	TYR	2.7
36	1e	22	GLY	2.7
40	2i	64	THR	2.7
41	2j	10	GLY	2.7
47	1p	68	ASP	2.7
26	14	57	GLU	2.7
39	2h	53	VAL	2.7
39	2h	2	LEU	2.7
40	2i	96	LEU	2.7
40	1i	15	ALA	2.7
50	2s	40	ILE	2.7
40	2i	117	HIS	2.7
34	1c	201	TYR	2.7
31	29	37	GLY	2.7
44	2m	103	THR	2.7
1	1A	2905	U	2.7
36	2e	20	GLN	2.7
26	24	9	LEU	2.7
33	2b	150	SER	2.7
49	2r	66	LEU	2.7
21	1Z	164	ALA	2.6

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Mol	Chain	Res	Type	RSRZ
14	2S	34	HIS	2.6
14	2S	7	TYR	2.6
44	2m	3	ARG	2.6
32	2a	957	C	2.6
43	2l	18	VAL	2.6
44	2m	101	GLN	2.6
45	2n	8	GLU	2.6
51	2t	24	LEU	2.6
14	2S	52	SER	2.6
14	2S	55	ALA	2.6
33	2b	237	ALA	2.6
45	2n	61	TRP	2.6
1	1A	1220	G	2.6
1	1A	2901	G	2.6
14	2S	92	TYR	2.6
24	12	69	ARG	2.6
41	2j	9	ARG	2.6
5	2F	208	GLY	2.6
35	1d	109	GLY	2.6
44	2m	100	GLY	2.6
34	2c	182	ILE	2.6
32	2a	1201	U	2.6
34	2c	11	ARG	2.6
40	1i	42	ARG	2.6
51	2t	25	ARG	2.6
11	2P	116	GLY	2.6
41	1j	77	PRO	2.6
32	1a	1121	G	2.6
45	2n	44	LEU	2.6
25	23	60	GLU	2.6
33	2b	134	GLU	2.6
40	1i	81	ILE	2.6
38	1g	83	ALA	2.6
45	2n	20	ALA	2.6
32	1a	209	U	2.6
34	1c	6	HIS	2.6
40	1i	117	HIS	2.6
1	1A	2811	A	2.6
32	2a	1165	A	2.6
41	1j	65	LEU	2.6
33	1b	136	VAL	2.6
40	2i	7	THR	2.6

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Mol	Chain	Res	Type	RSRZ
47	1p	22	THR	2.6
26	24	57	GLU	2.6
26	14	59	PHE	2.6
41	2j	78	ASN	2.6
1	2A	10	G	2.5
50	2s	29	ARG	2.5
32	1a	516	A	2.5
36	2e	22	GLY	2.5
50	2s	2	PRO	2.5
19	1X	95	LEU	2.5
35	1d	176	LEU	2.5
51	1t	69	GLY	2.5
52	2u	16	GLY	2.5
50	1s	9	VAL	2.5
34	2c	62	ASP	2.5
42	1k	36	ASP	2.5
50	1s	38	SER	2.5
32	1a	158	C	2.5
34	2c	185	GLY	2.5
26	14	63	TYR	2.5
34	2c	207	VAL	2.5
44	2m	7	VAL	2.5
41	1j	33	GLN	2.5
41	2j	48	THR	2.5
38	2g	2	ALA	2.5
41	1j	32	ALA	2.5
45	2n	30	ALA	2.5
39	2h	135	CYS	2.5
41	2j	59	SER	2.5
14	2S	4	LEU	2.5
33	2b	196	LEU	2.5
40	2i	21	PRO	2.5
41	2j	41	PRO	2.5
50	1s	59	PRO	2.5
7	1H	133	VAL	2.5
1	1A	1554	C	2.5
34	2c	10	PHE	2.5
47	1p	80	PHE	2.5
41	2j	27	ALA	2.5
35	2d	118	ARG	2.5
17	1V	63	GLY	2.5
32	1a	978	U	2.5

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Mol	Chain	Res	Type	RSRZ
41	2j	34	VAL	2.5
34	1c	184	TYR	2.5
40	2i	114	TYR	2.5
45	2n	13	THR	2.5
45	2n	58	LYS	2.5
51	2t	74	LYS	2.5
1	2A	1160	G	2.5
2	2B	118	G	2.5
32	2a	1172	G	2.5
31	19	12	ASP	2.4
50	1s	13	ASP	2.4
26	14	54	GLY	2.4
33	2b	70	PHE	2.4
44	1m	94	ARG	2.4
44	1m	102	ARG	2.4
12	2Q	22	LYS	2.4
1	2A	2801	C	2.4
2	1B	88	C	2.4
32	2a	1205	C	2.4
35	2d	154	ASN	2.4
35	1d	155	LEU	2.4
45	2n	27	CYS	2.4
1	1A	2804	G	2.4
33	1b	234	PRO	2.4
45	2n	14	PRO	2.4
8	2I	92	VAL	2.4
18	2W	112	GLY	2.4
26	24	50	VAL	2.4
37	2f	6	VAL	2.4
32	1a	1023	U	2.4
34	1c	206	GLU	2.4
33	1b	29	ALA	2.4
45	2n	59	ALA	2.4
50	1s	33	THR	2.4
12	1Q	1	MET	2.4
31	19	17	ILE	2.4
41	2j	38	ILE	2.4
23	21	29	GLY	2.4
36	1e	85	GLY	2.4
42	1k	14	VAL	2.4
32	1a	1268	A	2.4
53	2v	14	A	2.4

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Mol	Chain	Res	Type	RSRZ
14	2S	20	ARG	2.4
45	2n	4	LYS	2.4
1	2A	1579	G	2.4
32	1a	988	G	2.4
33	1b	12	GLU	2.4
33	1b	70	PHE	2.4
41	2j	32	ALA	2.4
16	1U	117	GLN	2.4
26	24	67	TYR	2.4
41	2j	87	THR	2.4
50	2s	79	THR	2.4
41	2j	13	HIS	2.4
50	2s	66	MET	2.4
33	1b	41	ILE	2.4
41	2j	50	ILE	2.4
41	1j	93	GLY	2.4
19	1X	68	ARG	2.4
20	2Y	2	ARG	2.4
41	2j	89	ASP	2.4
48	2q	91	ARG	2.4
32	2a	979	A	2.4
32	1a	1239	U	2.4
32	2a	982	G	2.4
47	1p	39	TYR	2.4
34	2c	42	LEU	2.4
34	1c	39	ILE	2.4
35	2d	146	ILE	2.4
44	1m	4	ILE	2.4
34	1c	7	PRO	2.4
6	2G	42	GLY	2.3
14	2S	45	GLY	2.3
35	2d	122	ARG	2.3
41	1j	46	ARG	2.3
45	2n	11	LYS	2.3
51	1t	9	ASN	2.3
51	1t	79	ARG	2.3
26	24	65	ASP	2.3
33	1b	188	ALA	2.3
33	2b	129	GLU	2.3
41	2j	83	GLU	2.3
48	1q	66	SER	2.3
53	1v	14	A	2.3

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Mol	Chain	Res	Type	RSRZ
32	1a	339	U	2.3
40	2i	81	ILE	2.3
41	1j	96	ILE	2.3
44	2m	78	ILE	2.3
6	2G	74	LYS	2.3
55	1z	12	PRO	2.3
1	1A	2812	G	2.3
14	2S	65	VAL	2.3
32	1a	376	G	2.3
32	1a	614	G	2.3
41	2j	66	ARG	2.3
44	2m	94	ARG	2.3
47	1p	79	VAL	2.3
39	1h	15	ASN	2.3
40	1i	67	GLY	2.3
52	1u	2	GLY	2.3
34	2c	60	ALA	2.3
47	1p	82	GLN	2.3
19	2X	92	LEU	2.3
33	1b	187	LEU	2.3
35	1d	162	LEU	2.3
33	1b	97	TRP	2.3
1	1A	1097	C	2.3
1	2A	1120	C	2.3
47	2p	16	HIS	2.3
41	2j	99	LYS	2.3
40	1i	41	VAL	2.3
45	2n	36	PHE	2.3
32	1a	1002	G	2.3
38	2g	117	ALA	2.3
42	2k	89	ALA	2.3
44	2m	5	ALA	2.3
50	2s	50	ALA	2.3
33	2b	118	LEU	2.3
41	1j	71	LEU	2.3
50	1s	22	LEU	2.3
31	29	17	ILE	2.3
35	2d	71	SER	2.3
19	2X	68	ARG	2.3
1	2A	678	A	2.3
7	2H	44	VAL	2.3
21	2Z	175	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
26	24	29	PRO	2.3
52	1u	23	PRO	2.3
32	2a	1099	C	2.3
7	2H	14	GLY	2.3
19	2X	67	GLY	2.3
40	2i	101	PHE	2.3
33	1b	225	ALA	2.3
38	2g	127	ALA	2.3
41	2j	61	GLU	2.3
34	2c	178	LEU	2.3
35	1d	157	LEU	2.3
36	1e	20	GLN	2.3
40	2i	79	LEU	2.3
41	2j	8	LEU	2.3
51	1t	62	LEU	2.3
33	1b	27	LYS	2.3
43	1l	28	LYS	2.3
1	1A	10	G	2.3
14	2S	39	ILE	2.3
32	2a	1204	G	2.3
34	2c	201	TYR	2.3
40	2i	109	VAL	2.3
44	2m	97	PRO	2.3
8	1I	90	GLY	2.3
20	2Y	58	GLY	2.3
38	1g	81	GLY	2.3
32	2a	1239	U	2.3
1	1A	2802	A	2.2
1	2A	1088	C	2.2
6	2G	35	GLU	2.2
42	2k	117	ASN	2.2
44	2m	106	ASN	2.2
50	2s	24	ALA	2.2
39	2h	86	ILE	2.2
44	2m	4	ILE	2.2
6	2G	15	VAL	2.2
47	2p	39	TYR	2.2
50	2s	80	TYR	2.2
34	2c	171	GLY	2.2
40	2i	8	GLY	2.2
41	2j	47	PHE	2.2
34	1c	189	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
44	2m	51	ALA	2.2
51	2t	21	LYS	2.2
52	2u	3	LYS	2.2
16	2U	88	ILE	2.2
51	2t	100	ILE	2.2
12	1Q	5	ARG	2.2
14	2S	5	THR	2.2
33	2b	67	THR	2.2
40	1i	65	VAL	2.2
41	1j	44	VAL	2.2
50	2s	67	VAL	2.2
33	2b	148	TYR	2.2
33	1b	22	LYS	2.2
1	2A	9	G	2.2
1	2A	2812	G	2.2
3	2D	2	ALA	2.2
22	20	75	LEU	2.2
37	2f	61	LEU	2.2
38	2g	36	LYS	2.2
40	1i	19	LEU	2.2
45	2n	10	ALA	2.2
51	1t	74	LYS	2.2
31	19	28	GLU	2.2
32	2a	996	G	2.2
32	2a	1025	G	2.2
32	2a	1265	G	2.2
33	2b	170	GLU	2.2
41	2j	74	ILE	2.2
47	1p	42	ARG	2.2
50	2s	31	ILE	2.2
50	2s	36	ARG	2.2
32	1a	160	C	2.2
33	2b	189	ASP	2.2
6	2G	109	VAL	2.2
6	2G	160	VAL	2.2
7	1H	45	VAL	2.2
14	2S	28	VAL	2.2
14	2S	91	PRO	2.2
41	2j	24	VAL	2.2
26	24	52	THR	2.2
33	1b	228	GLY	2.2
38	2g	154	TYR	2.2

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Mol	Chain	Res	Type	RSRZ
43	2l	69	TYR	2.2
52	1u	18	TYR	2.2
40	2i	112	LYS	2.2
41	2j	71	LEU	2.2
44	2m	81	LEU	2.2
33	2b	123	ALA	2.2
33	1b	214	ILE	2.2
33	2b	42	ILE	2.2
33	2b	144	ARG	2.2
33	2b	201	ILE	2.2
34	1c	8	ILE	2.2
38	2g	4	ARG	2.2
51	2t	9	ASN	2.2
1	1A	2205	G	2.2
1	2A	159	G	2.2
32	2a	1356	G	2.2
1	1A	571	A	2.2
32	1a	1120	C	2.2
33	1b	101	MET	2.2
40	2i	27	THR	2.2
22	20	76	GLY	2.2
34	1c	171	GLY	2.2
12	2Q	104	PHE	2.2
34	1c	23	TYR	2.2
22	20	84	LEU	2.2
33	1b	9	GLU	2.2
44	2m	42	ALA	2.2
44	2m	75	ALA	2.2
38	1g	5	ARG	2.1
41	1j	5	ARG	2.1
1	2A	1071	U	2.1
33	1b	19	HIS	2.1
7	2H	8	PRO	2.1
14	2S	98	VAL	2.1
34	1c	195	VAL	2.1
34	2c	55	VAL	2.1
41	2j	77	PRO	2.1
1	1A	2902	G	2.1
1	2A	1108	G	2.1
1	2A	1134	G	2.1
32	1a	176	G	2.1
32	1a	1509	A	2.1

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Mol	Chain	Res	Type	RSRZ
32	2a	1469	G	2.1
35	2d	124	GLY	2.1
45	2n	28	GLY	2.1
32	2a	1303	C	2.1
34	1c	33	LEU	2.1
45	2n	39	LEU	2.1
48	2q	98	LEU	2.1
40	2i	92	TYR	2.1
26	24	66	SER	2.1
40	1i	126	SER	2.1
40	2i	13	ALA	2.1
34	1c	125	GLU	2.1
45	2n	31	ARG	2.1
48	2q	24	GLU	2.1
51	2t	23	ARG	2.1
52	2u	15	ARG	2.1
1	1A	1465	U	2.1
7	2H	131	VAL	2.1
51	2t	98	PRO	2.1
3	2D	275	LYS	2.1
14	2S	59	LYS	2.1
40	2i	105	ASP	2.1
35	1d	69	GLY	2.1
35	2d	167	GLY	2.1
40	1i	8	GLY	2.1
50	2s	63	THR	2.1
35	1d	101	LEU	2.1
32	2a	956	A	2.1
33	2b	186	ALA	2.1
44	2m	118	ALA	2.1
6	1G	35	GLU	2.1
32	2a	1203	G	2.1
33	1b	201	ILE	2.1
1	2A	1121	C	2.1
23	21	2	SER	2.1
11	2P	68	GLN	2.1
17	2V	72	VAL	2.1
5	1F	14	PRO	2.1
6	2G	142	PRO	2.1
33	1b	133	LYS	2.1
43	2l	49	ASN	2.1
51	2t	29	LYS	2.1

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Mol	Chain	Res	Type	RSRZ
1	1A	1150	U	2.1
6	2G	175	LEU	2.1
33	1b	11	LEU	2.1
34	2c	159	GLY	2.1
34	2c	197	GLY	2.1
40	1i	39	GLY	2.1
41	2j	36	GLY	2.1
41	2j	58	ASP	2.1
46	1o	89	GLY	2.1
14	1S	3	ARG	2.1
44	2m	104	ARG	2.1
52	2u	10	ARG	2.1
6	1G	46	ALA	2.1
6	2G	151	ALA	2.1
38	2g	7	ALA	2.1
34	1c	90	GLU	2.1
38	1g	151	TYR	2.1
32	2a	952	A	2.1
19	2X	31	HIS	2.1
1	2A	2330	G	2.1
32	2a	1235	G	2.1
8	1I	8	PRO	2.1
41	2j	91	PRO	2.1
40	2i	40	LEU	2.1
14	2S	12	PHE	2.1
32	1a	211	U	2.1
34	1c	81	GLY	2.1
48	1q	33	GLY	2.1
22	20	43	THR	2.1
26	14	55	ARG	2.1
34	1c	30	ARG	2.1
39	2h	122	ARG	2.1
41	2j	42	THR	2.1
45	2n	12	ARG	2.1
50	2s	3	ARG	2.1
6	2G	61	ALA	2.1
36	2e	13	ILE	2.1
49	2r	60	ALA	2.1
40	2i	12	GLU	2.1
33	2b	31	TYR	2.1
34	1c	193	TYR	2.1
33	2b	133	LYS	2.0

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Mol	Chain	Res	Type	RSRZ
40	1i	113	LYS	2.0
33	1b	16	HIS	2.0
33	2b	140	HIS	2.0
42	2k	104	GLN	2.0
47	1p	16	HIS	2.0
7	2H	45	VAL	2.0
7	2H	169	VAL	2.0
29	17	46	VAL	2.0
32	1a	1432	A	2.0
34	1c	64	VAL	2.0
1	2A	1154	C	2.0
32	2a	1304	C	2.0
35	2d	155	LEU	2.0
40	2i	85	LEU	2.0
41	1j	8	LEU	2.0
44	2m	48	LEU	2.0
6	1G	80	PHE	2.0
14	2S	60	GLY	2.0
35	1d	139	ARG	2.0
38	2g	82	GLY	2.0
41	1j	47	PHE	2.0
42	2k	90	GLY	2.0
44	2m	95	GLY	2.0
48	1q	72	ARG	2.0
33	1b	222	ILE	2.0
6	1G	50	ALA	2.0
38	2g	39	ALA	2.0
44	1m	2	ALA	2.0
47	1p	70	ALA	2.0
33	2b	12	GLU	2.0
40	1i	4	TYR	2.0
44	1m	59	TYR	2.0
50	1s	6	LYS	2.0
33	2b	48	MET	2.0
17	2V	73	SER	2.0
33	1b	7	VAL	2.0
41	1j	72	VAL	2.0
51	1t	16	HIS	2.0
25	13	2	PRO	2.0
32	2a	1339	A	2.0
33	1b	10	LEU	2.0
41	1j	90	LEU	2.0

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Mol	Chain	Res	Type	RSRZ
19	1X	65	ARG	2.0
38	2g	79	ARG	2.0
41	2j	76	ASN	2.0
50	1s	29	ARG	2.0
23	21	28	GLY	2.0
26	24	45	GLY	2.0
33	1b	122	PHE	2.0
22	10	10	THR	2.0
34	1c	169	ALA	2.0
40	1i	122	ALA	2.0
41	2j	67	THR	2.0
13	2R	69	ASP	2.0
32	2a	1510	U	2.0
32	2a	1000	G	2.0
33	1b	134	GLU	2.0
34	1c	62	ASP	2.0
40	1i	62	TYR	2.0
21	2Z	96	VAL	2.0
38	2g	141	VAL	2.0
44	2m	15	VAL	2.0
50	2s	41	VAL	2.0

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

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
54	PSU	2x	55	20/21	0.83	0.11	62,68,78,88	0
54	4SU	2x	8	20/21	0.88	0.10	57,78,89,92	0
54	5MU	2x	54	21/22	0.89	0.10	72,76,86,101	0
54	5MC	2x	32	21/22	0.89	0.14	68,80,88,91	0
54	5MU	1x	54	21/22	0.92	0.10	50,67,76,78	0
54	PSU	1x	55	20/21	0.93	0.09	57,65,79,80	0
54	5MC	1x	32	21/22	0.93	0.12	51,62,76,86	0
54	4SU	1x	8	20/21	0.95	0.09	47,65,79,80	0

6.3 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

6.4 Ligands ⓘ

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($\text{\AA}^2$)	Q<0.9
56	MG	1A	3298	1/1	0.50	0.25	81,81,81,81	0
56	MG	1A	3901	1/1	0.53	0.27	86,86,86,86	0
56	MG	2a	3145	1/1	0.53	0.18	95,95,95,95	0
56	MG	1A	3517	1/1	0.54	0.18	69,69,69,69	0
56	MG	1A	4076	1/1	0.57	0.25	72,72,72,72	0
56	MG	1a	1784	1/1	0.58	0.26	80,80,80,80	0
56	MG	1A	3348	1/1	0.58	0.15	52,52,52,52	0
56	MG	1A	4037	1/1	0.59	0.31	75,75,75,75	0
56	MG	1A	3525	1/1	0.60	0.19	74,74,74,74	0
56	MG	2A	3224	1/1	0.62	0.19	73,73,73,73	0
56	MG	1a	1800	1/1	0.62	0.22	79,79,79,79	0
56	MG	2a	3167	1/1	0.63	0.20	59,59,59,59	0
56	MG	2q	201	1/1	0.63	0.14	58,58,58,58	0
56	MG	1a	1773	1/1	0.64	0.36	77,77,77,77	0
56	MG	1A	3511	1/1	0.64	0.18	55,55,55,55	0
56	MG	2a	3121	1/1	0.64	0.21	88,88,88,88	0
56	MG	2a	3150	1/1	0.65	0.20	76,76,76,76	0
56	MG	1A	4016	1/1	0.65	0.17	77,77,77,77	0
56	MG	2A	3476	1/1	0.65	0.26	66,66,66,66	0
56	MG	1A	3369	1/1	0.68	0.21	67,67,67,67	0
56	MG	1a	1615	1/1	0.68	0.16	66,66,66,66	0
56	MG	1a	1752	1/1	0.68	0.15	61,61,61,61	0
56	MG	1A	4058	1/1	0.68	0.17	48,48,48,48	0
56	MG	2a	3053	1/1	0.68	0.13	99,99,99,99	0
56	MG	1A	3411	1/1	0.69	0.25	51,51,51,51	0
56	MG	1A	3433	1/1	0.69	0.16	51,51,51,51	0
56	MG	1A	4041	1/1	0.69	0.13	57,57,57,57	0
56	MG	2a	3234	1/1	0.69	0.31	82,82,82,82	0
56	MG	1a	1738	1/1	0.69	0.22	73,73,73,73	0
56	MG	2B	202	1/1	0.70	0.17	55,55,55,55	0
56	MG	1A	3847	1/1	0.70	0.18	55,55,55,55	0
56	MG	1a	1783	1/1	0.70	0.15	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3242	1/1	0.70	0.19	67,67,67,67	0
56	MG	2x	107	1/1	0.70	0.17	78,78,78,78	0
56	MG	1m	201	1/1	0.71	0.13	95,95,95,95	0
56	MG	2a	3230	1/1	0.71	0.15	67,67,67,67	0
56	MG	2A	3498	1/1	0.71	0.16	69,69,69,69	0
56	MG	1A	3333	1/1	0.71	0.24	57,57,57,57	0
56	MG	2x	106	1/1	0.71	0.14	82,82,82,82	0
56	MG	2a	3006	1/1	0.71	0.22	77,77,77,77	0
56	MG	2a	3223	1/1	0.72	0.28	77,77,77,77	0
56	MG	1a	1848	1/1	0.72	0.19	77,77,77,77	0
56	MG	1a	1645	1/1	0.72	0.15	78,78,78,78	0
56	MG	2a	3051	1/1	0.73	0.13	91,91,91,91	0
56	MG	1A	3318	1/1	0.73	0.17	65,65,65,65	0
56	MG	2A	3432	1/1	0.73	0.15	55,55,55,55	0
56	MG	2a	3114	1/1	0.74	0.17	77,77,77,77	0
56	MG	2a	3157	1/1	0.74	0.32	108,108,108,108	0
56	MG	1A	4034	1/1	0.74	0.18	72,72,72,72	0
56	MG	2q	202	1/1	0.74	0.18	59,59,59,59	0
56	MG	2a	3168	1/1	0.74	0.23	67,67,67,67	0
56	MG	2A	3456	1/1	0.74	0.31	64,64,64,64	0
56	MG	2a	3162	1/1	0.75	0.18	79,79,79,79	0
56	MG	1A	3510	1/1	0.75	0.12	46,46,46,46	0
56	MG	2a	3146	1/1	0.75	0.16	71,71,71,71	0
56	MG	2a	3049	1/1	0.75	0.15	79,79,79,79	0
56	MG	2A	3445	1/1	0.75	0.28	74,74,74,74	0
56	MG	1A	3974	1/1	0.76	0.25	59,59,59,59	0
56	MG	1A	4000	1/1	0.76	0.20	69,69,69,69	0
56	MG	2a	3019	1/1	0.76	0.11	72,72,72,72	0
56	MG	2a	3047	1/1	0.76	0.17	79,79,79,79	0
56	MG	2A	3339	1/1	0.76	0.27	63,63,63,63	0
56	MG	2A	3380	1/1	0.76	0.15	59,59,59,59	0
56	MG	1A	3557	1/1	0.76	0.14	71,71,71,71	0
56	MG	2a	3054	1/1	0.76	0.11	96,96,96,96	0
56	MG	1B	214	1/1	0.76	0.16	56,56,56,56	0
56	MG	1Q	206	1/1	0.76	0.17	53,53,53,53	0
56	MG	1A	3408	1/1	0.76	0.32	58,58,58,58	0
56	MG	1A	3493	1/1	0.76	0.10	64,64,64,64	0
56	MG	2A	3404	1/1	0.77	0.21	64,64,64,64	0
56	MG	1A	4027	1/1	0.77	0.17	62,62,62,62	0
56	MG	2a	3039	1/1	0.77	0.22	67,67,67,67	0
56	MG	2A	3443	1/1	0.77	0.26	63,63,63,63	0
56	MG	2A	3197	1/1	0.77	0.12	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1F	304	1/1	0.77	0.21	73,73,73,73	0
56	MG	1A	3644	1/1	0.77	0.12	45,45,45,45	0
56	MG	2A	3490	1/1	0.77	0.32	66,66,66,66	0
56	MG	2a	3101	1/1	0.77	0.21	77,77,77,77	0
56	MG	1a	1852	1/1	0.77	0.19	82,82,82,82	0
56	MG	2A	3391	1/1	0.77	0.17	52,52,52,52	0
56	MG	2a	3142	1/1	0.77	0.26	80,80,80,80	0
56	MG	2a	3004	1/1	0.77	0.28	61,61,61,61	0
56	MG	1A	3491	1/1	0.78	0.09	54,54,54,54	0
56	MG	2A	3370	1/1	0.78	0.25	65,65,65,65	0
56	MG	1A	3989	1/1	0.78	0.39	31,31,31,31	0
56	MG	1A	3513	1/1	0.78	0.30	59,59,59,59	0
56	MG	2a	3151	1/1	0.78	0.11	97,97,97,97	0
56	MG	2a	3031	1/1	0.78	0.14	88,88,88,88	0
56	MG	2a	3161	1/1	0.78	0.14	63,63,63,63	0
56	MG	1Z	301	1/1	0.78	0.15	94,94,94,94	0
56	MG	2a	3165	1/1	0.78	0.20	74,74,74,74	0
56	MG	10	106	1/1	0.78	0.19	54,54,54,54	0
56	MG	18	3002	1/1	0.78	0.11	58,58,58,58	0
56	MG	1A	4054	1/1	0.78	0.25	69,69,69,69	0
56	MG	1A	3218	1/1	0.78	0.14	58,58,58,58	0
56	MG	2A	3171	1/1	0.78	0.11	49,49,49,49	0
56	MG	2a	3070	1/1	0.78	0.28	66,66,66,66	0
56	MG	2A	3483	1/1	0.78	0.12	72,72,72,72	0
56	MG	1A	3465	1/1	0.78	0.11	59,59,59,59	0
56	MG	1a	1747	1/1	0.78	0.17	64,64,64,64	0
56	MG	1a	1782	1/1	0.79	0.13	73,73,73,73	0
56	MG	2A	3194	1/1	0.79	0.17	56,56,56,56	0
56	MG	1H	3002	1/1	0.79	0.11	62,62,62,62	0
56	MG	11	102	1/1	0.79	0.16	65,65,65,65	0
56	MG	2A	3308	1/1	0.79	0.21	53,53,53,53	0
56	MG	2a	3055	1/1	0.79	0.13	81,81,81,81	0
56	MG	12	3001	1/1	0.79	0.19	57,57,57,57	0
56	MG	2a	3072	1/1	0.79	0.18	65,65,65,65	0
56	MG	2a	3206	1/1	0.79	0.17	56,56,56,56	0
56	MG	2a	3208	1/1	0.79	0.17	65,65,65,65	0
56	MG	2a	3076	1/1	0.79	0.19	65,65,65,65	0
56	MG	1a	1811	1/1	0.79	0.12	66,66,66,66	0
56	MG	1A	4066	1/1	0.79	0.25	35,35,35,35	0
56	MG	1a	1764	1/1	0.79	0.14	59,59,59,59	0
56	MG	1a	1871	1/1	0.79	0.34	69,69,69,69	0
56	MG	1A	3345	1/1	0.79	0.17	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3114	1/1	0.79	0.20	50,50,50,50	0
56	MG	1A	3101	1/1	0.80	0.13	50,50,50,50	0
56	MG	1A	3935	1/1	0.80	0.13	52,52,52,52	0
56	MG	1a	1718	1/1	0.80	0.14	75,75,75,75	0
56	MG	1P	204	1/1	0.80	0.15	61,61,61,61	0
56	MG	1A	3138	1/1	0.80	0.17	48,48,48,48	0
56	MG	1T	206	1/1	0.80	0.17	76,76,76,76	0
56	MG	2A	3104	1/1	0.80	0.11	59,59,59,59	0
56	MG	1A	3041	1/1	0.80	0.21	51,51,51,51	0
56	MG	2a	3187	1/1	0.80	0.28	77,77,77,77	0
56	MG	2a	3189	1/1	0.80	0.27	76,76,76,76	0
56	MG	1A	3728	1/1	0.80	0.19	62,62,62,62	0
56	MG	2A	3172	1/1	0.80	0.12	63,63,63,63	0
56	MG	2a	3210	1/1	0.80	0.16	78,78,78,78	0
56	MG	1A	3417	1/1	0.80	0.08	76,76,76,76	0
56	MG	1A	3891	1/1	0.80	0.28	68,68,68,68	0
56	MG	2A	3561	1/1	0.80	0.12	55,55,55,55	0
56	MG	2a	3254	1/1	0.80	0.29	76,76,76,76	0
56	MG	1A	4033	1/1	0.80	0.18	62,62,62,62	0
56	MG	2A	3261	1/1	0.80	0.11	43,43,43,43	0
56	MG	1a	1789	1/1	0.80	0.18	60,60,60,60	0
56	MG	1a	1792	1/1	0.80	0.19	92,92,92,92	0
56	MG	2A	3128	1/1	0.81	0.14	56,56,56,56	0
56	MG	1a	1820	1/1	0.81	0.14	79,79,79,79	0
56	MG	1a	1786	1/1	0.81	0.20	49,49,49,49	0
56	MG	2A	3433	1/1	0.81	0.14	43,43,43,43	0
56	MG	2a	3193	1/1	0.81	0.12	65,65,65,65	0
56	MG	2a	3138	1/1	0.81	0.20	81,81,81,81	0
56	MG	2a	3141	1/1	0.81	0.14	70,70,70,70	0
56	MG	1A	3019	1/1	0.81	0.22	46,46,46,46	0
56	MG	1a	1791	1/1	0.81	0.28	82,82,82,82	0
56	MG	2a	3226	1/1	0.81	0.16	77,77,77,77	0
56	MG	2a	3229	1/1	0.81	0.17	57,57,57,57	0
56	MG	1a	1872	1/1	0.81	0.12	57,57,57,57	0
56	MG	1a	1880	1/1	0.81	0.20	69,69,69,69	0
56	MG	2A	3278	1/1	0.81	0.14	43,43,43,43	0
56	MG	2l	3002	1/1	0.81	0.25	68,68,68,68	0
56	MG	1A	3368	1/1	0.81	0.17	65,65,65,65	0
56	MG	1o	101	1/1	0.81	0.15	81,81,81,81	0
56	MG	1B	223	1/1	0.81	0.14	65,65,65,65	0
56	MG	14	502	1/1	0.81	0.20	64,64,64,64	0
56	MG	1a	1842	1/1	0.82	0.23	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	3153	1/1	0.82	0.12	92,92,92,92	0
56	MG	1a	1761	1/1	0.82	0.15	65,65,65,65	0
56	MG	1A	4025	1/1	0.82	0.19	80,80,80,80	0
56	MG	1B	210	1/1	0.82	0.12	56,56,56,56	0
56	MG	2a	3164	1/1	0.82	0.19	80,80,80,80	0
56	MG	1A	3515	1/1	0.82	0.38	41,41,41,41	0
56	MG	1A	3351	1/1	0.82	0.11	46,46,46,46	0
56	MG	1a	1905	1/1	0.82	0.13	67,67,67,67	0
56	MG	1e	201	1/1	0.82	0.14	66,66,66,66	0
56	MG	1E	307	1/1	0.82	0.09	57,57,57,57	0
56	MG	1A	3916	1/1	0.82	0.23	45,45,45,45	0
56	MG	2a	3058	1/1	0.82	0.17	66,66,66,66	0
56	MG	2A	3054	1/1	0.82	0.21	58,58,58,58	0
56	MG	1A	3416	1/1	0.82	0.18	66,66,66,66	0
56	MG	1a	1656	1/1	0.82	0.10	84,84,84,84	0
56	MG	1A	3494	1/1	0.82	0.34	68,68,68,68	0
56	MG	1a	1798	1/1	0.82	0.15	71,71,71,71	0
56	MG	2a	3117	1/1	0.82	0.36	66,66,66,66	0
56	MG	1A	3383	1/1	0.82	0.13	67,67,67,67	0
56	MG	1A	3405	1/1	0.82	0.29	41,41,41,41	0
56	MG	2A	3505	1/1	0.82	0.18	50,50,50,50	0
56	MG	1A	3121	1/1	0.82	0.07	72,72,72,72	0
56	MG	1a	1823	1/1	0.82	0.12	71,71,71,71	0
56	MG	2a	3001	1/1	0.82	0.27	62,62,62,62	0
56	MG	2A	3230	1/1	0.82	0.18	47,47,47,47	0
56	MG	2A	3087	1/1	0.83	0.11	53,53,53,53	0
56	MG	2A	3093	1/1	0.83	0.18	57,57,57,57	0
56	MG	2A	3486	1/1	0.83	0.11	42,42,42,42	0
56	MG	1A	3550	1/1	0.83	0.18	68,68,68,68	0
56	MG	2a	3149	1/1	0.83	0.13	63,63,63,63	0
56	MG	1H	3004	1/1	0.83	0.10	66,66,66,66	0
56	MG	1a	1668	1/1	0.83	0.15	63,63,63,63	0
56	MG	2a	3152	1/1	0.83	0.16	67,67,67,67	0
56	MG	1A	3456	1/1	0.83	0.10	71,71,71,71	0
56	MG	1a	1732	1/1	0.83	0.27	63,63,63,63	0
56	MG	2a	3158	1/1	0.83	0.24	65,65,65,65	0
56	MG	1A	3366	1/1	0.83	0.11	42,42,42,42	0
56	MG	1a	1739	1/1	0.83	0.14	70,70,70,70	0
56	MG	1a	1827	1/1	0.83	0.19	68,68,68,68	0
56	MG	1A	3056	1/1	0.83	0.10	59,59,59,59	0
56	MG	1A	3747	1/1	0.83	0.21	50,50,50,50	0
56	MG	2a	3032	1/1	0.83	0.15	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	3169	1/1	0.83	0.25	67,67,67,67	0
56	MG	2a	3170	1/1	0.83	0.21	72,72,72,72	0
56	MG	2A	3272	1/1	0.83	0.19	67,67,67,67	0
56	MG	1A	3444	1/1	0.83	0.17	57,57,57,57	0
56	MG	2a	3191	1/1	0.83	0.10	88,88,88,88	0
56	MG	1A	3881	1/1	0.83	0.14	64,64,64,64	0
56	MG	2a	3197	1/1	0.83	0.13	78,78,78,78	0
56	MG	2a	3198	1/1	0.83	0.16	65,65,65,65	0
56	MG	2A	3336	1/1	0.83	0.15	74,74,74,74	0
56	MG	1A	3451	1/1	0.83	0.12	66,66,66,66	0
56	MG	2A	3364	1/1	0.83	0.11	44,44,44,44	0
56	MG	1a	1781	1/1	0.83	0.11	75,75,75,75	0
56	MG	1B	229	1/1	0.83	0.10	36,36,36,36	0
56	MG	1b	3001	1/1	0.83	0.19	70,70,70,70	0
56	MG	1A	3509	1/1	0.83	0.19	68,68,68,68	0
56	MG	1h	8002	1/1	0.83	0.28	80,80,80,80	0
56	MG	2a	3240	1/1	0.83	0.27	66,66,66,66	0
56	MG	2a	3243	1/1	0.83	0.24	74,74,74,74	0
56	MG	1A	3529	1/1	0.83	0.16	61,61,61,61	0
56	MG	1a	1627	1/1	0.83	0.18	70,70,70,70	0
56	MG	2A	3035	1/1	0.83	0.20	54,54,54,54	0
56	MG	1a	1639	1/1	0.83	0.31	77,77,77,77	0
56	MG	2a	3126	1/1	0.83	0.25	60,60,60,60	0
56	MG	2A	3467	1/1	0.83	0.10	47,47,47,47	0
56	MG	1A	3749	1/1	0.84	0.20	43,43,43,43	0
56	MG	2A	3374	1/1	0.84	0.12	58,58,58,58	0
56	MG	1A	3449	1/1	0.84	0.14	67,67,67,67	0
56	MG	1H	3003	1/1	0.84	0.12	65,65,65,65	0
56	MG	2A	3401	1/1	0.84	0.29	70,70,70,70	0
56	MG	1A	3115	1/1	0.84	0.15	56,56,56,56	0
56	MG	2A	3162	1/1	0.84	0.07	40,40,40,40	0
56	MG	1A	3146	1/1	0.84	0.24	62,62,62,62	0
56	MG	2A	3439	1/1	0.84	0.10	60,60,60,60	0
56	MG	2a	3061	1/1	0.84	0.13	71,71,71,71	0
56	MG	1a	1756	1/1	0.84	0.21	58,58,58,58	0
56	MG	2A	3177	1/1	0.84	0.16	54,54,54,54	0
56	MG	2A	3189	1/1	0.84	0.21	52,52,52,52	0
56	MG	1a	1909	1/1	0.84	0.09	71,71,71,71	0
56	MG	1A	3619	1/1	0.84	0.14	56,56,56,56	0
56	MG	1d	503	1/1	0.84	0.17	77,77,77,77	0
56	MG	1a	1806	1/1	0.84	0.13	51,51,51,51	0
56	MG	2a	3122	1/1	0.84	0.32	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	3217	1/1	0.84	0.21	68,68,68,68	0
56	MG	2a	3218	1/1	0.84	0.19	67,67,67,67	0
56	MG	2A	3239	1/1	0.84	0.23	59,59,59,59	0
56	MG	2a	3130	1/1	0.84	0.12	50,50,50,50	0
56	MG	2A	3256	1/1	0.84	0.15	43,43,43,43	0
56	MG	1A	3506	1/1	0.84	0.25	75,75,75,75	0
56	MG	1a	1818	1/1	0.84	0.13	81,81,81,81	0
56	MG	2A	3275	1/1	0.84	0.15	51,51,51,51	0
56	MG	2G	3001	1/1	0.84	0.09	56,56,56,56	0
56	MG	2Z	301	1/1	0.84	0.15	70,70,70,70	0
56	MG	2e	3001	1/1	0.84	0.20	74,74,74,74	0
56	MG	1A	3508	1/1	0.84	0.13	68,68,68,68	0
56	MG	1A	3948	1/1	0.84	0.27	41,41,41,41	0
56	MG	1A	3004	1/1	0.84	0.11	54,54,54,54	0
56	MG	2A	3074	1/1	0.84	0.09	54,54,54,54	0
56	MG	1a	1719	1/1	0.84	0.28	68,68,68,68	0
56	MG	2a	3118	1/1	0.85	0.18	60,60,60,60	0
56	MG	1a	1751	1/1	0.85	0.17	64,64,64,64	0
56	MG	1N	3002	1/1	0.85	0.11	48,48,48,48	0
56	MG	1A	3514	1/1	0.85	0.32	59,59,59,59	0
56	MG	1a	1757	1/1	0.85	0.15	69,69,69,69	0
56	MG	1A	3485	1/1	0.85	0.21	57,57,57,57	0
56	MG	1A	3402	1/1	0.85	0.27	60,60,60,60	0
56	MG	1X	3001	1/1	0.85	0.23	56,56,56,56	0
56	MG	1r	3002	1/1	0.85	0.17	70,70,70,70	0
56	MG	1a	1776	1/1	0.85	0.07	67,67,67,67	0
56	MG	1A	3016	1/1	0.85	0.10	56,56,56,56	0
56	MG	1A	3198	1/1	0.85	0.12	50,50,50,50	0
56	MG	2A	3482	1/1	0.85	0.14	52,52,52,52	0
56	MG	1A	3922	1/1	0.85	0.13	25,25,25,25	0
56	MG	1A	4061	1/1	0.85	0.16	61,61,61,61	0
56	MG	1A	3927	1/1	0.85	0.29	66,66,66,66	0
56	MG	2A	3494	1/1	0.85	0.17	38,38,38,38	0
56	MG	1A	3502	1/1	0.85	0.10	70,70,70,70	0
56	MG	1A	4083	1/1	0.85	0.18	65,65,65,65	0
56	MG	2A	3559	1/1	0.85	0.09	56,56,56,56	0
56	MG	1a	1623	1/1	0.85	0.09	67,67,67,67	0
56	MG	1a	1795	1/1	0.85	0.14	64,64,64,64	0
56	MG	1A	3941	1/1	0.85	0.11	60,60,60,60	0
56	MG	1A	3301	1/1	0.85	0.15	64,64,64,64	0
56	MG	1a	1802	1/1	0.85	0.25	68,68,68,68	0
56	MG	2a	3175	1/1	0.85	0.16	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1644	1/1	0.85	0.22	75,75,75,75	0
56	MG	1A	3970	1/1	0.85	0.23	64,64,64,64	0
56	MG	2a	3014	1/1	0.85	0.25	64,64,64,64	0
56	MG	1a	1815	1/1	0.85	0.14	73,73,73,73	0
56	MG	1B	227	1/1	0.85	0.08	69,69,69,69	0
56	MG	1a	1819	1/1	0.85	0.20	73,73,73,73	0
56	MG	2A	3246	1/1	0.85	0.16	55,55,55,55	0
56	MG	2a	3043	1/1	0.85	0.22	78,78,78,78	0
56	MG	2a	3045	1/1	0.85	0.23	68,68,68,68	0
56	MG	1A	3593	1/1	0.85	0.16	62,62,62,62	0
56	MG	2A	3257	1/1	0.85	0.18	67,67,67,67	0
56	MG	1a	1713	1/1	0.85	0.12	66,66,66,66	0
56	MG	1B	230	1/1	0.85	0.08	67,67,67,67	0
56	MG	1a	1831	1/1	0.85	0.15	84,84,84,84	0
56	MG	1A	3453	1/1	0.85	0.11	72,72,72,72	0
56	MG	2a	3057	1/1	0.85	0.21	70,70,70,70	0
56	MG	2A	3298	1/1	0.85	0.12	52,52,52,52	0
56	MG	1A	3087	1/1	0.85	0.15	45,45,45,45	0
56	MG	1A	3384	1/1	0.85	0.32	59,59,59,59	0
56	MG	1A	3473	1/1	0.85	0.17	55,55,55,55	0
56	MG	1a	1744	1/1	0.85	0.32	58,58,58,58	0
56	MG	1a	1746	1/1	0.85	0.16	59,59,59,59	0
56	MG	2a	3111	1/1	0.85	0.22	60,60,60,60	0
56	MG	1a	1899	1/1	0.85	0.16	64,64,64,64	0
56	MG	1A	3479	1/1	0.85	0.11	59,59,59,59	0
56	MG	1T	202	1/1	0.86	0.15	51,51,51,51	0
56	MG	2A	3366	1/1	0.86	0.15	50,50,50,50	0
56	MG	1A	3914	1/1	0.86	0.17	41,41,41,41	0
56	MG	1A	3092	1/1	0.86	0.23	44,44,44,44	0
56	MG	1A	3450	1/1	0.86	0.25	52,52,52,52	0
56	MG	1Z	302	1/1	0.86	0.11	65,65,65,65	0
56	MG	1A	4063	1/1	0.86	0.14	47,47,47,47	0
56	MG	1A	3281	1/1	0.86	0.24	62,62,62,62	0
56	MG	2A	3408	1/1	0.86	0.11	62,62,62,62	0
56	MG	1A	3012	1/1	0.86	0.24	66,66,66,66	0
56	MG	2a	3133	1/1	0.86	0.08	63,63,63,63	0
56	MG	1A	3174	1/1	0.86	0.15	47,47,47,47	0
56	MG	2A	3030	1/1	0.86	0.26	64,64,64,64	0
56	MG	1A	3646	1/1	0.86	0.12	65,65,65,65	0
56	MG	1a	1602	1/1	0.86	0.15	61,61,61,61	0
56	MG	1a	1603	1/1	0.86	0.22	69,69,69,69	0
56	MG	2a	3148	1/1	0.86	0.20	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1605	1/1	0.86	0.24	68,68,68,68	0
56	MG	1A	3689	1/1	0.86	0.15	65,65,65,65	0
56	MG	2A	3479	1/1	0.86	0.16	47,47,47,47	0
56	MG	2A	3099	1/1	0.86	0.07	61,61,61,61	0
56	MG	2A	3101	1/1	0.86	0.12	56,56,56,56	0
56	MG	1B	216	1/1	0.86	0.11	70,70,70,70	0
56	MG	1A	3727	1/1	0.86	0.12	49,49,49,49	0
56	MG	2a	3159	1/1	0.86	0.12	58,58,58,58	0
56	MG	1a	1797	1/1	0.86	0.08	73,73,73,73	0
56	MG	2A	3496	1/1	0.86	0.10	35,35,35,35	0
56	MG	2A	3131	1/1	0.86	0.16	56,56,56,56	0
56	MG	1A	3023	1/1	0.86	0.09	55,55,55,55	0
56	MG	2A	3510	1/1	0.86	0.20	61,61,61,61	0
56	MG	2A	3515	1/1	0.86	0.14	55,55,55,55	0
56	MG	1A	3326	1/1	0.86	0.10	62,62,62,62	0
56	MG	1a	1801	1/1	0.86	0.12	65,65,65,65	0
56	MG	1A	3421	1/1	0.86	0.20	38,38,38,38	0
56	MG	2A	3186	1/1	0.86	0.23	59,59,59,59	0
56	MG	1E	301	1/1	0.86	0.31	40,40,40,40	0
56	MG	1E	304	1/1	0.86	0.15	65,65,65,65	0
56	MG	1a	1694	1/1	0.86	0.20	51,51,51,51	0
56	MG	2A	3208	1/1	0.86	0.11	48,48,48,48	0
56	MG	1A	3038	1/1	0.86	0.16	55,55,55,55	0
56	MG	2a	3199	1/1	0.86	0.25	64,64,64,64	0
56	MG	1A	3876	1/1	0.86	0.10	33,33,33,33	0
56	MG	1F	307	1/1	0.86	0.29	59,59,59,59	0
56	MG	1A	3435	1/1	0.86	0.15	66,66,66,66	0
56	MG	2a	3038	1/1	0.86	0.24	58,58,58,58	0
56	MG	1a	1733	1/1	0.86	0.22	52,52,52,52	0
56	MG	1a	1736	1/1	0.86	0.16	51,51,51,51	0
56	MG	2A	3258	1/1	0.86	0.20	62,62,62,62	0
56	MG	2a	3228	1/1	0.86	0.21	58,58,58,58	0
56	MG	1A	3337	1/1	0.86	0.14	44,44,44,44	0
56	MG	1A	3897	1/1	0.86	0.19	60,60,60,60	0
56	MG	2A	3274	1/1	0.86	0.10	37,37,37,37	0
56	MG	1A	4038	1/1	0.86	0.13	54,54,54,54	0
56	MG	1A	3446	1/1	0.86	0.13	58,58,58,58	0
56	MG	2a	3253	1/1	0.86	0.17	54,54,54,54	0
56	MG	1A	4044	1/1	0.86	0.29	44,44,44,44	0
56	MG	2a	3056	1/1	0.86	0.16	58,58,58,58	0
56	MG	1a	1873	1/1	0.86	0.14	60,60,60,60	0
56	MG	1a	1750	1/1	0.86	0.22	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1R	204	1/1	0.86	0.19	70,70,70,70	0
56	MG	2A	3342	1/1	0.86	0.17	61,61,61,61	0
56	MG	2A	3359	1/1	0.86	0.20	57,57,57,57	0
56	MG	1A	3512	1/1	0.87	0.15	50,50,50,50	0
56	MG	1a	1775	1/1	0.87	0.09	65,65,65,65	0
56	MG	1a	1864	1/1	0.87	0.30	69,69,69,69	0
56	MG	1a	1686	1/1	0.87	0.18	62,62,62,62	0
56	MG	1a	1692	1/1	0.87	0.24	64,64,64,64	0
56	MG	2a	3135	1/1	0.87	0.10	73,73,73,73	0
56	MG	1A	3322	1/1	0.87	0.18	53,53,53,53	0
56	MG	2A	3495	1/1	0.87	0.18	60,60,60,60	0
56	MG	2A	3217	1/1	0.87	0.08	41,41,41,41	0
56	MG	1A	3083	1/1	0.87	0.10	45,45,45,45	0
56	MG	1a	1716	1/1	0.87	0.22	54,54,54,54	0
56	MG	1A	3278	1/1	0.87	0.21	50,50,50,50	0
56	MG	1A	3084	1/1	0.87	0.17	53,53,53,53	0
56	MG	2A	3526	1/1	0.87	0.10	50,50,50,50	0
56	MG	2A	3547	1/1	0.87	0.15	52,52,52,52	0
56	MG	1a	1729	1/1	0.87	0.22	75,75,75,75	0
56	MG	19	102	1/1	0.87	0.13	50,50,50,50	0
56	MG	1A	3432	1/1	0.87	0.11	53,53,53,53	0
56	MG	2B	208	1/1	0.87	0.14	58,58,58,58	0
56	MG	2B	210	1/1	0.87	0.15	65,65,65,65	0
56	MG	1e	203	1/1	0.87	0.13	84,84,84,84	0
56	MG	2A	3265	1/1	0.87	0.12	47,47,47,47	0
56	MG	1a	1796	1/1	0.87	0.10	85,85,85,85	0
56	MG	1A	3050	1/1	0.87	0.10	48,48,48,48	0
56	MG	1A	3024	1/1	0.87	0.15	56,56,56,56	0
56	MG	2a	3009	1/1	0.87	0.14	84,84,84,84	0
56	MG	1a	1608	1/1	0.87	0.10	70,70,70,70	0
56	MG	2A	3009	1/1	0.87	0.12	50,50,50,50	0
56	MG	2a	3020	1/1	0.87	0.19	44,44,44,44	0
56	MG	2a	3022	1/1	0.87	0.16	77,77,77,77	0
56	MG	2A	3011	1/1	0.87	0.08	48,48,48,48	0
56	MG	1a	1610	1/1	0.87	0.16	69,69,69,69	0
56	MG	1A	3758	1/1	0.87	0.19	49,49,49,49	0
56	MG	1A	3237	1/1	0.87	0.12	58,58,58,58	0
56	MG	2a	3042	1/1	0.87	0.13	72,72,72,72	0
56	MG	2A	3073	1/1	0.87	0.08	38,38,38,38	0
56	MG	2a	3203	1/1	0.87	0.15	58,58,58,58	0
56	MG	2a	3044	1/1	0.87	0.12	71,71,71,71	0
56	MG	1A	3865	1/1	0.87	0.14	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3077	1/1	0.87	0.12	43,43,43,43	0
56	MG	2a	3212	1/1	0.87	0.14	46,46,46,46	0
56	MG	1a	1813	1/1	0.87	0.18	75,75,75,75	0
56	MG	1a	1814	1/1	0.87	0.14	67,67,67,67	0
56	MG	1A	4048	1/1	0.87	0.13	48,48,48,48	0
56	MG	1a	1640	1/1	0.87	0.27	78,78,78,78	0
56	MG	2A	3102	1/1	0.87	0.11	51,51,51,51	0
56	MG	1a	1643	1/1	0.87	0.15	68,68,68,68	0
56	MG	1D	306	1/1	0.87	0.17	49,49,49,49	0
56	MG	2A	3410	1/1	0.87	0.12	52,52,52,52	0
56	MG	1a	1760	1/1	0.87	0.21	79,79,79,79	0
56	MG	2A	3130	1/1	0.87	0.15	49,49,49,49	0
56	MG	2A	3435	1/1	0.87	0.14	46,46,46,46	0
56	MG	1a	1825	1/1	0.87	0.10	73,73,73,73	0
56	MG	2a	3100	1/1	0.87	0.36	80,80,80,80	0
56	MG	2A	3147	1/1	0.87	0.18	62,62,62,62	0
56	MG	2A	3151	1/1	0.87	0.27	54,54,54,54	0
56	MG	1A	3356	1/1	0.87	0.10	63,63,63,63	0
56	MG	1A	3879	1/1	0.87	0.14	49,49,49,49	0
56	MG	1a	1767	1/1	0.87	0.10	71,71,71,71	0
56	MG	2A	3057	1/1	0.88	0.09	52,52,52,52	0
56	MG	2A	3372	1/1	0.88	0.10	33,33,33,33	0
56	MG	1R	202	1/1	0.88	0.42	55,55,55,55	0
56	MG	1A	3464	1/1	0.88	0.11	57,57,57,57	0
56	MG	1A	4047	1/1	0.88	0.24	47,47,47,47	0
56	MG	2A	3392	1/1	0.88	0.10	55,55,55,55	0
56	MG	2A	3399	1/1	0.88	0.26	64,64,64,64	0
56	MG	1T	203	1/1	0.88	0.12	75,75,75,75	0
56	MG	2a	3092	1/1	0.88	0.21	62,62,62,62	0
56	MG	2a	3093	1/1	0.88	0.27	66,66,66,66	0
56	MG	1A	3556	1/1	0.88	0.22	58,58,58,58	0
56	MG	1A	3104	1/1	0.88	0.16	52,52,52,52	0
56	MG	2A	3409	1/1	0.88	0.14	64,64,64,64	0
56	MG	1A	3587	1/1	0.88	0.20	42,42,42,42	0
56	MG	2A	3415	1/1	0.88	0.23	57,57,57,57	0
56	MG	2A	3425	1/1	0.88	0.10	48,48,48,48	0
56	MG	1A	3899	1/1	0.88	0.16	77,77,77,77	0
56	MG	1A	3472	1/1	0.88	0.11	53,53,53,53	0
56	MG	1A	3614	1/1	0.88	0.20	57,57,57,57	0
56	MG	2A	3124	1/1	0.88	0.29	65,65,65,65	0
56	MG	1A	3239	1/1	0.88	0.10	50,50,50,50	0
56	MG	1A	3643	1/1	0.88	0.13	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1B	208	1/1	0.88	0.25	63,63,63,63	0
56	MG	2A	3463	1/1	0.88	0.18	44,44,44,44	0
56	MG	2A	3135	1/1	0.88	0.11	43,43,43,43	0
56	MG	2A	3141	1/1	0.88	0.21	49,49,49,49	0
56	MG	1B	209	1/1	0.88	0.19	56,56,56,56	0
56	MG	2a	3147	1/1	0.88	0.14	68,68,68,68	0
56	MG	1a	1755	1/1	0.88	0.13	57,57,57,57	0
56	MG	2A	3153	1/1	0.88	0.10	52,52,52,52	0
56	MG	1A	3074	1/1	0.88	0.18	63,63,63,63	0
56	MG	1A	3370	1/1	0.88	0.09	49,49,49,49	0
56	MG	1A	3263	1/1	0.88	0.12	42,42,42,42	0
56	MG	1A	3699	1/1	0.88	0.20	58,58,58,58	0
56	MG	2A	3181	1/1	0.88	0.10	48,48,48,48	0
56	MG	1A	3969	1/1	0.88	0.16	77,77,77,77	0
56	MG	1A	3355	1/1	0.88	0.09	64,64,64,64	0
56	MG	1a	1874	1/1	0.88	0.11	48,48,48,48	0
56	MG	2A	3514	1/1	0.88	0.10	71,71,71,71	0
56	MG	1a	1772	1/1	0.88	0.20	62,62,62,62	0
56	MG	2A	3516	1/1	0.88	0.09	53,53,53,53	0
56	MG	1a	1892	1/1	0.88	0.12	58,58,58,58	0
56	MG	2A	3214	1/1	0.88	0.35	45,45,45,45	0
56	MG	1A	3387	1/1	0.88	0.13	54,54,54,54	0
56	MG	1A	3496	1/1	0.88	0.16	42,42,42,42	0
56	MG	1A	3998	1/1	0.88	0.16	59,59,59,59	0
56	MG	2B	205	1/1	0.88	0.32	59,59,59,59	0
56	MG	1E	302	1/1	0.88	0.17	41,41,41,41	0
56	MG	2A	3244	1/1	0.88	0.21	85,85,85,85	0
56	MG	2a	3192	1/1	0.88	0.18	61,61,61,61	0
56	MG	2D	301	1/1	0.88	0.12	49,49,49,49	0
56	MG	2D	302	1/1	0.88	0.09	57,57,57,57	0
56	MG	1A	3521	1/1	0.88	0.13	46,46,46,46	0
56	MG	1A	3754	1/1	0.88	0.24	39,39,39,39	0
56	MG	1A	3500	1/1	0.88	0.11	53,53,53,53	0
56	MG	1A	3838	1/1	0.88	0.14	64,64,64,64	0
56	MG	2a	3005	1/1	0.88	0.07	72,72,72,72	0
56	MG	2a	3209	1/1	0.88	0.12	53,53,53,53	0
56	MG	1A	3336	1/1	0.88	0.17	58,58,58,58	0
56	MG	1a	1671	1/1	0.88	0.10	77,77,77,77	0
56	MG	2a	3214	1/1	0.88	0.12	73,73,73,73	0
56	MG	2A	3270	1/1	0.88	0.13	59,59,59,59	0
56	MG	1q	202	1/1	0.88	0.17	53,53,53,53	0
56	MG	1a	1678	1/1	0.88	0.18	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	3225	1/1	0.88	0.15	59,59,59,59	0
56	MG	1x	108	1/1	0.88	0.23	49,49,49,49	0
56	MG	2a	3030	1/1	0.88	0.12	51,51,51,51	0
56	MG	1x	110	1/1	0.88	0.08	73,73,73,73	0
56	MG	2A	3279	1/1	0.88	0.15	51,51,51,51	0
56	MG	2A	3294	1/1	0.88	0.22	50,50,50,50	0
56	MG	2A	3006	1/1	0.88	0.15	59,59,59,59	0
56	MG	1A	3860	1/1	0.88	0.10	38,38,38,38	0
56	MG	2a	3252	1/1	0.88	0.15	67,67,67,67	0
56	MG	2A	3010	1/1	0.88	0.23	68,68,68,68	0
56	MG	1A	3532	1/1	0.88	0.08	62,62,62,62	0
56	MG	2A	3015	1/1	0.88	0.15	57,57,57,57	0
56	MG	2A	3345	1/1	0.88	0.14	60,60,60,60	0
56	MG	1A	3873	1/1	0.88	0.13	41,41,41,41	0
56	MG	1A	4039	1/1	0.88	0.12	56,56,56,56	0
56	MG	1A	3544	1/1	0.88	0.12	61,61,61,61	0
56	MG	2A	3368	1/1	0.88	0.23	48,48,48,48	0
56	MG	1A	3443	1/1	0.89	0.14	72,72,72,72	0
56	MG	1A	3590	1/1	0.89	0.12	51,51,51,51	0
56	MG	2A	3344	1/1	0.89	0.22	59,59,59,59	0
56	MG	2A	3012	1/1	0.89	0.21	71,71,71,71	0
56	MG	2A	3353	1/1	0.89	0.14	41,41,41,41	0
56	MG	1A	3020	1/1	0.89	0.19	40,40,40,40	0
56	MG	2A	3021	1/1	0.89	0.18	58,58,58,58	0
56	MG	1A	3123	1/1	0.89	0.16	49,49,49,49	0
56	MG	1a	1688	1/1	0.89	0.16	61,61,61,61	0
56	MG	2A	3040	1/1	0.89	0.17	57,57,57,57	0
56	MG	1A	3448	1/1	0.89	0.09	56,56,56,56	0
56	MG	1A	3339	1/1	0.89	0.16	56,56,56,56	0
56	MG	2a	3064	1/1	0.89	0.13	79,79,79,79	0
56	MG	2a	3069	1/1	0.89	0.14	65,65,65,65	0
56	MG	2A	3065	1/1	0.89	0.17	55,55,55,55	0
56	MG	2A	3388	1/1	0.89	0.13	55,55,55,55	0
56	MG	1A	3396	1/1	0.89	0.16	55,55,55,55	0
56	MG	1A	3908	1/1	0.89	0.12	51,51,51,51	0
56	MG	2A	3075	1/1	0.89	0.18	48,48,48,48	0
56	MG	1a	1803	1/1	0.89	0.11	66,66,66,66	0
56	MG	2A	3082	1/1	0.89	0.14	57,57,57,57	0
56	MG	2a	3106	1/1	0.89	0.23	52,52,52,52	0
56	MG	1A	3235	1/1	0.89	0.19	53,53,53,53	0
56	MG	1a	1810	1/1	0.89	0.08	59,59,59,59	0
56	MG	1A	3403	1/1	0.89	0.23	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1726	1/1	0.89	0.14	68,68,68,68	0
56	MG	1A	3404	1/1	0.89	0.20	54,54,54,54	0
56	MG	1A	4074	1/1	0.89	0.14	47,47,47,47	0
56	MG	1A	3107	1/1	0.89	0.18	53,53,53,53	0
56	MG	2a	3128	1/1	0.89	0.20	62,62,62,62	0
56	MG	10	101	1/1	0.89	0.17	49,49,49,49	0
56	MG	1A	3316	1/1	0.89	0.19	51,51,51,51	0
56	MG	2A	3129	1/1	0.89	0.08	33,33,33,33	0
56	MG	1B	202	1/1	0.89	0.20	63,63,63,63	0
56	MG	2A	3452	1/1	0.89	0.12	60,60,60,60	0
56	MG	1a	1740	1/1	0.89	0.23	63,63,63,63	0
56	MG	2A	3134	1/1	0.89	0.11	44,44,44,44	0
56	MG	1a	1741	1/1	0.89	0.08	48,48,48,48	0
56	MG	2A	3469	1/1	0.89	0.09	49,49,49,49	0
56	MG	2A	3471	1/1	0.89	0.20	63,63,63,63	0
56	MG	1A	3059	1/1	0.89	0.21	32,32,32,32	0
56	MG	1a	1839	1/1	0.89	0.20	53,53,53,53	0
56	MG	2A	3149	1/1	0.89	0.14	63,63,63,63	0
56	MG	1A	3319	1/1	0.89	0.17	75,75,75,75	0
56	MG	2A	3485	1/1	0.89	0.11	56,56,56,56	0
56	MG	1A	3954	1/1	0.89	0.10	16,16,16,16	0
56	MG	1a	1749	1/1	0.89	0.12	64,64,64,64	0
56	MG	1A	3320	1/1	0.89	0.19	70,70,70,70	0
56	MG	1A	3481	1/1	0.89	0.23	46,46,46,46	0
56	MG	1A	3764	1/1	0.89	0.12	68,68,68,68	0
56	MG	1A	3769	1/1	0.89	0.19	55,55,55,55	0
56	MG	1a	1606	1/1	0.89	0.14	71,71,71,71	0
56	MG	1a	1878	1/1	0.89	0.15	67,67,67,67	0
56	MG	1a	1879	1/1	0.89	0.10	52,52,52,52	0
56	MG	1A	3991	1/1	0.89	0.30	38,38,38,38	0
56	MG	1a	1881	1/1	0.89	0.19	52,52,52,52	0
56	MG	2A	3519	1/1	0.89	0.13	52,52,52,52	0
56	MG	2a	3186	1/1	0.89	0.13	50,50,50,50	0
56	MG	1a	1886	1/1	0.89	0.13	56,56,56,56	0
56	MG	2A	3535	1/1	0.89	0.14	52,52,52,52	0
56	MG	2A	3537	1/1	0.89	0.14	47,47,47,47	0
56	MG	1a	1887	1/1	0.89	0.14	47,47,47,47	0
56	MG	2A	3557	1/1	0.89	0.10	54,54,54,54	0
56	MG	2A	3223	1/1	0.89	0.12	70,70,70,70	0
56	MG	1A	3119	1/1	0.89	0.18	59,59,59,59	0
56	MG	1a	1898	1/1	0.89	0.10	59,59,59,59	0
56	MG	2a	3202	1/1	0.89	0.13	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3234	1/1	0.89	0.08	65,65,65,65	0
56	MG	1A	3427	1/1	0.89	0.11	51,51,51,51	0
56	MG	1a	1762	1/1	0.89	0.28	71,71,71,71	0
56	MG	1D	311	1/1	0.89	0.10	51,51,51,51	0
56	MG	2A	3247	1/1	0.89	0.14	59,59,59,59	0
56	MG	1a	1626	1/1	0.89	0.17	68,68,68,68	0
56	MG	2a	3213	1/1	0.89	0.14	71,71,71,71	0
56	MG	1A	3855	1/1	0.89	0.13	48,48,48,48	0
56	MG	1A	3857	1/1	0.89	0.14	51,51,51,51	0
56	MG	1a	1774	1/1	0.89	0.13	62,62,62,62	0
56	MG	1A	3259	1/1	0.89	0.13	53,53,53,53	0
56	MG	1k	201	1/1	0.89	0.10	49,49,49,49	0
56	MG	1A	3187	1/1	0.89	0.23	52,52,52,52	0
56	MG	1a	1777	1/1	0.89	0.12	54,54,54,54	0
56	MG	2a	3017	1/1	0.89	0.19	61,61,61,61	0
56	MG	1A	3868	1/1	0.89	0.10	84,84,84,84	0
56	MG	1A	4036	1/1	0.89	0.10	54,54,54,54	0
56	MG	1a	1650	1/1	0.89	0.26	49,49,49,49	0
56	MG	2a	3023	1/1	0.89	0.17	66,66,66,66	0
56	MG	2a	3025	1/1	0.89	0.18	60,60,60,60	0
56	MG	2A	3281	1/1	0.89	0.09	45,45,45,45	0
56	MG	2A	3288	1/1	0.89	0.09	41,41,41,41	0
56	MG	2d	503	1/1	0.89	0.08	62,62,62,62	0
56	MG	1a	1655	1/1	0.89	0.24	60,60,60,60	0
56	MG	2a	3036	1/1	0.89	0.09	59,59,59,59	0
56	MG	2A	3003	1/1	0.89	0.10	43,43,43,43	0
56	MG	1A	3373	1/1	0.89	0.14	44,44,44,44	0
56	MG	2t	201	1/1	0.89	0.16	58,58,58,58	0
56	MG	2A	3318	1/1	0.89	0.09	43,43,43,43	0
56	MG	1a	1661	1/1	0.89	0.09	59,59,59,59	0
56	MG	2A	3343	1/1	0.90	0.11	55,55,55,55	0
56	MG	1a	1680	1/1	0.90	0.13	55,55,55,55	0
56	MG	2A	3052	1/1	0.90	0.14	37,37,37,37	0
56	MG	1a	1685	1/1	0.90	0.17	55,55,55,55	0
56	MG	2A	3357	1/1	0.90	0.16	52,52,52,52	0
56	MG	2A	3055	1/1	0.90	0.15	35,35,35,35	0
56	MG	2a	3052	1/1	0.90	0.09	81,81,81,81	0
56	MG	1A	3558	1/1	0.90	0.22	43,43,43,43	0
56	MG	1A	4023	1/1	0.90	0.17	52,52,52,52	0
56	MG	1A	3856	1/1	0.90	0.11	55,55,55,55	0
56	MG	1a	1693	1/1	0.90	0.11	53,53,53,53	0
56	MG	1A	3567	1/1	0.90	0.10	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1696	1/1	0.90	0.13	48,48,48,48	0
56	MG	2a	3060	1/1	0.90	0.10	81,81,81,81	0
56	MG	1a	1700	1/1	0.90	0.13	60,60,60,60	0
56	MG	1A	4029	1/1	0.90	0.14	42,42,42,42	0
56	MG	2a	3065	1/1	0.90	0.11	93,93,93,93	0
56	MG	2a	3068	1/1	0.90	0.09	56,56,56,56	0
56	MG	2A	3089	1/1	0.90	0.17	36,36,36,36	0
56	MG	1N	3007	1/1	0.90	0.14	54,54,54,54	0
56	MG	1A	3418	1/1	0.90	0.10	48,48,48,48	0
56	MG	1Q	202	1/1	0.90	0.16	32,32,32,32	0
56	MG	1A	3272	1/1	0.90	0.20	58,58,58,58	0
56	MG	1A	3462	1/1	0.90	0.10	47,47,47,47	0
56	MG	1a	1834	1/1	0.90	0.14	57,57,57,57	0
56	MG	1a	1837	1/1	0.90	0.09	48,48,48,48	0
56	MG	2A	3412	1/1	0.90	0.20	54,54,54,54	0
56	MG	1A	3870	1/1	0.90	0.09	44,44,44,44	0
56	MG	1A	3599	1/1	0.90	0.09	38,38,38,38	0
56	MG	1A	3423	1/1	0.90	0.10	42,42,42,42	0
56	MG	1A	3878	1/1	0.90	0.08	37,37,37,37	0
56	MG	1a	1858	1/1	0.90	0.09	56,56,56,56	0
56	MG	1a	1859	1/1	0.90	0.17	59,59,59,59	0
56	MG	1a	1860	1/1	0.90	0.14	61,61,61,61	0
56	MG	1U	205	1/1	0.90	0.35	41,41,41,41	0
56	MG	1W	3006	1/1	0.90	0.19	40,40,40,40	0
56	MG	1A	3273	1/1	0.90	0.11	37,37,37,37	0
56	MG	1A	3350	1/1	0.90	0.19	60,60,60,60	0
56	MG	2a	3136	1/1	0.90	0.21	56,56,56,56	0
56	MG	2A	3160	1/1	0.90	0.16	49,49,49,49	0
56	MG	1A	3884	1/1	0.90	0.23	58,58,58,58	0
56	MG	2A	3167	1/1	0.90	0.14	45,45,45,45	0
56	MG	2A	3168	1/1	0.90	0.10	33,33,33,33	0
56	MG	1A	3889	1/1	0.90	0.15	55,55,55,55	0
56	MG	1A	3184	1/1	0.90	0.27	52,52,52,52	0
56	MG	1A	3478	1/1	0.90	0.14	49,49,49,49	0
56	MG	2A	3178	1/1	0.90	0.14	54,54,54,54	0
56	MG	1A	3030	1/1	0.90	0.09	46,46,46,46	0
56	MG	2A	3487	1/1	0.90	0.06	40,40,40,40	0
56	MG	13	101	1/1	0.90	0.15	47,47,47,47	0
56	MG	1A	3436	1/1	0.90	0.19	51,51,51,51	0
56	MG	2A	3192	1/1	0.90	0.19	43,43,43,43	0
56	MG	15	104	1/1	0.90	0.14	53,53,53,53	0
56	MG	1a	1894	1/1	0.90	0.28	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3504	1/1	0.90	0.14	42,42,42,42	0
56	MG	2A	3198	1/1	0.90	0.08	56,56,56,56	0
56	MG	2a	3163	1/1	0.90	0.12	94,94,94,94	0
56	MG	1a	1895	1/1	0.90	0.26	59,59,59,59	0
56	MG	1A	3713	1/1	0.90	0.08	61,61,61,61	0
56	MG	1A	3289	1/1	0.90	0.10	61,61,61,61	0
56	MG	2A	3219	1/1	0.90	0.27	56,56,56,56	0
56	MG	2A	3220	1/1	0.90	0.12	72,72,72,72	0
56	MG	2A	3525	1/1	0.90	0.22	36,36,36,36	0
56	MG	2A	3221	1/1	0.90	0.09	39,39,39,39	0
56	MG	1a	1601	1/1	0.90	0.14	63,63,63,63	0
56	MG	1A	4078	1/1	0.90	0.20	65,65,65,65	0
56	MG	1A	3488	1/1	0.90	0.10	43,43,43,43	0
56	MG	2A	3549	1/1	0.90	0.13	49,49,49,49	0
56	MG	1A	3733	1/1	0.90	0.18	49,49,49,49	0
56	MG	2A	3558	1/1	0.90	0.32	43,43,43,43	0
56	MG	1B	206	1/1	0.90	0.15	51,51,51,51	0
56	MG	2A	3241	1/1	0.90	0.14	56,56,56,56	0
56	MG	1A	3926	1/1	0.90	0.14	51,51,51,51	0
56	MG	2a	3200	1/1	0.90	0.12	71,71,71,71	0
56	MG	1A	3094	1/1	0.90	0.10	54,54,54,54	0
56	MG	1A	3335	1/1	0.90	0.34	58,58,58,58	0
56	MG	2a	3204	1/1	0.90	0.08	57,57,57,57	0
56	MG	1A	3936	1/1	0.90	0.18	33,33,33,33	0
56	MG	1A	3533	1/1	0.90	0.14	56,56,56,56	0
56	MG	1p	3002	1/1	0.90	0.14	77,77,77,77	0
56	MG	1B	221	1/1	0.90	0.10	30,30,30,30	0
56	MG	2O	201	1/1	0.90	0.13	54,54,54,54	0
56	MG	2Q	3001	1/1	0.90	0.12	45,45,45,45	0
56	MG	2X	8001	1/1	0.90	0.11	45,45,45,45	0
56	MG	2a	3216	1/1	0.90	0.14	55,55,55,55	0
56	MG	1a	1628	1/1	0.90	0.13	57,57,57,57	0
56	MG	1x	105	1/1	0.90	0.18	64,64,64,64	0
56	MG	1x	106	1/1	0.90	0.09	42,42,42,42	0
56	MG	1A	3540	1/1	0.90	0.31	48,48,48,48	0
56	MG	1A	3063	1/1	0.90	0.13	57,57,57,57	0
56	MG	1A	3313	1/1	0.90	0.08	42,42,42,42	0
56	MG	2a	3012	1/1	0.90	0.16	58,58,58,58	0
56	MG	1A	3771	1/1	0.90	0.14	55,55,55,55	0
56	MG	2a	3231	1/1	0.90	0.19	59,59,59,59	0
56	MG	2A	3007	1/1	0.90	0.14	77,77,77,77	0
56	MG	2a	3235	1/1	0.90	0.15	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	3236	1/1	0.90	0.23	83,83,83,83	0
56	MG	1A	3793	1/1	0.90	0.11	55,55,55,55	0
56	MG	1A	3983	1/1	0.90	0.13	31,31,31,31	0
56	MG	2a	3250	1/1	0.90	0.13	63,63,63,63	0
56	MG	1A	3794	1/1	0.90	0.09	19,19,19,19	0
56	MG	2A	3304	1/1	0.90	0.09	66,66,66,66	0
56	MG	1A	3090	1/1	0.90	0.14	47,47,47,47	0
56	MG	2a	3255	1/1	0.90	0.09	57,57,57,57	0
56	MG	2d	502	1/1	0.90	0.31	61,61,61,61	0
56	MG	2a	3027	1/1	0.90	0.16	47,47,47,47	0
56	MG	2A	3314	1/1	0.90	0.11	43,43,43,43	0
56	MG	2A	3316	1/1	0.90	0.11	55,55,55,55	0
56	MG	1A	3845	1/1	0.90	0.42	35,35,35,35	0
56	MG	2A	3329	1/1	0.90	0.15	55,55,55,55	0
56	MG	1A	3999	1/1	0.90	0.17	51,51,51,51	0
56	MG	2v	101	1/1	0.90	0.12	65,65,65,65	0
56	MG	2x	101	1/1	0.90	0.12	72,72,72,72	0
56	MG	2x	104	1/1	0.90	0.22	84,84,84,84	0
56	MG	1F	302	1/1	0.90	0.17	39,39,39,39	0
56	MG	1A	3376	1/1	0.90	0.10	49,49,49,49	0
56	MG	1A	3516	1/1	0.91	0.23	52,52,52,52	0
56	MG	2a	3026	1/1	0.91	0.20	54,54,54,54	0
56	MG	2A	3259	1/1	0.91	0.14	39,39,39,39	0
56	MG	1A	3997	1/1	0.91	0.08	32,32,32,32	0
56	MG	1A	3162	1/1	0.91	0.21	38,38,38,38	0
56	MG	1A	3397	1/1	0.91	0.09	36,36,36,36	0
56	MG	1R	203	1/1	0.91	0.08	35,35,35,35	0
56	MG	1A	3400	1/1	0.91	0.11	37,37,37,37	0
56	MG	1A	4002	1/1	0.91	0.14	65,65,65,65	0
56	MG	2a	3040	1/1	0.91	0.16	58,58,58,58	0
56	MG	1a	1748	1/1	0.91	0.15	55,55,55,55	0
56	MG	1A	4010	1/1	0.91	0.13	37,37,37,37	0
56	MG	1A	3792	1/1	0.91	0.10	62,62,62,62	0
56	MG	1U	202	1/1	0.91	0.27	51,51,51,51	0
56	MG	1A	3076	1/1	0.91	0.10	51,51,51,51	0
56	MG	1A	3276	1/1	0.91	0.17	51,51,51,51	0
56	MG	2A	3301	1/1	0.91	0.06	42,42,42,42	0
56	MG	1A	4026	1/1	0.91	0.23	63,63,63,63	0
56	MG	1A	3827	1/1	0.91	0.12	30,30,30,30	0
56	MG	2A	3005	1/1	0.91	0.10	59,59,59,59	0
56	MG	1A	3835	1/1	0.91	0.10	47,47,47,47	0
56	MG	1A	3343	1/1	0.91	0.10	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3328	1/1	0.91	0.13	70,70,70,70	0
56	MG	10	103	1/1	0.91	0.24	62,62,62,62	0
56	MG	1A	3535	1/1	0.91	0.14	59,59,59,59	0
56	MG	1a	1765	1/1	0.91	0.11	58,58,58,58	0
56	MG	2a	3063	1/1	0.91	0.07	85,85,85,85	0
56	MG	1A	4035	1/1	0.91	0.11	46,46,46,46	0
56	MG	1a	1769	1/1	0.91	0.13	63,63,63,63	0
56	MG	2A	3017	1/1	0.91	0.23	46,46,46,46	0
56	MG	1A	3467	1/1	0.91	0.15	54,54,54,54	0
56	MG	2A	3348	1/1	0.91	0.14	60,60,60,60	0
56	MG	2A	3026	1/1	0.91	0.17	49,49,49,49	0
56	MG	2a	3075	1/1	0.91	0.06	59,59,59,59	0
56	MG	2A	3029	1/1	0.91	0.10	57,57,57,57	0
56	MG	2a	3088	1/1	0.91	0.12	76,76,76,76	0
56	MG	1A	3849	1/1	0.91	0.09	52,52,52,52	0
56	MG	2A	3031	1/1	0.91	0.08	47,47,47,47	0
56	MG	2a	3096	1/1	0.91	0.15	55,55,55,55	0
56	MG	1A	3103	1/1	0.91	0.24	32,32,32,32	0
56	MG	1A	3055	1/1	0.91	0.23	45,45,45,45	0
56	MG	2A	3041	1/1	0.91	0.08	41,41,41,41	0
56	MG	1A	3285	1/1	0.91	0.16	32,32,32,32	0
56	MG	1A	3858	1/1	0.91	0.23	53,53,53,53	0
56	MG	2a	3115	1/1	0.91	0.21	50,50,50,50	0
56	MG	1A	3035	1/1	0.91	0.09	44,44,44,44	0
56	MG	1A	3206	1/1	0.91	0.23	45,45,45,45	0
56	MG	2a	3119	1/1	0.91	0.10	69,69,69,69	0
56	MG	1A	3866	1/1	0.91	0.17	42,42,42,42	0
56	MG	1A	3114	1/1	0.91	0.13	48,48,48,48	0
56	MG	2a	3124	1/1	0.91	0.15	62,62,62,62	0
56	MG	2A	3396	1/1	0.91	0.14	49,49,49,49	0
56	MG	1A	4060	1/1	0.91	0.08	31,31,31,31	0
56	MG	1A	3579	1/1	0.91	0.13	41,41,41,41	0
56	MG	1A	3486	1/1	0.91	0.07	57,57,57,57	0
56	MG	2A	3081	1/1	0.91	0.18	54,54,54,54	0
56	MG	1a	1611	1/1	0.91	0.07	46,46,46,46	0
56	MG	1A	4064	1/1	0.91	0.15	57,57,57,57	0
56	MG	1a	1619	1/1	0.91	0.07	75,75,75,75	0
56	MG	2A	3091	1/1	0.91	0.12	49,49,49,49	0
56	MG	2A	3092	1/1	0.91	0.19	48,48,48,48	0
56	MG	1a	1620	1/1	0.91	0.17	54,54,54,54	0
56	MG	2A	3098	1/1	0.91	0.13	41,41,41,41	0
56	MG	1a	1622	1/1	0.91	0.08	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3588	1/1	0.91	0.13	60,60,60,60	0
56	MG	1A	3877	1/1	0.91	0.13	39,39,39,39	0
56	MG	1A	3419	1/1	0.91	0.21	52,52,52,52	0
56	MG	2A	3106	1/1	0.91	0.11	47,47,47,47	0
56	MG	2A	3107	1/1	0.91	0.14	49,49,49,49	0
56	MG	2a	3155	1/1	0.91	0.14	87,87,87,87	0
56	MG	2A	3457	1/1	0.91	0.15	46,46,46,46	0
56	MG	2A	3109	1/1	0.91	0.18	54,54,54,54	0
56	MG	2A	3466	1/1	0.91	0.09	45,45,45,45	0
56	MG	1A	3229	1/1	0.91	0.13	50,50,50,50	0
56	MG	1a	1629	1/1	0.91	0.17	63,63,63,63	0
56	MG	1a	1633	1/1	0.91	0.07	77,77,77,77	0
56	MG	1A	3422	1/1	0.91	0.08	40,40,40,40	0
56	MG	2A	3478	1/1	0.91	0.10	50,50,50,50	0
56	MG	1A	3367	1/1	0.91	0.10	48,48,48,48	0
56	MG	2A	3481	1/1	0.91	0.10	46,46,46,46	0
56	MG	1a	1641	1/1	0.91	0.21	47,47,47,47	0
56	MG	1B	205	1/1	0.91	0.19	56,56,56,56	0
56	MG	2a	3173	1/1	0.91	0.09	43,43,43,43	0
56	MG	1A	3616	1/1	0.91	0.09	29,29,29,29	0
56	MG	2a	3177	1/1	0.91	0.20	69,69,69,69	0
56	MG	2a	3183	1/1	0.91	0.14	60,60,60,60	0
56	MG	2A	3136	1/1	0.91	0.15	61,61,61,61	0
56	MG	1A	3010	1/1	0.91	0.11	66,66,66,66	0
56	MG	1a	1646	1/1	0.91	0.14	80,80,80,80	0
56	MG	1A	3631	1/1	0.91	0.11	43,43,43,43	0
56	MG	1a	1824	1/1	0.91	0.12	54,54,54,54	0
56	MG	1a	1653	1/1	0.91	0.23	56,56,56,56	0
56	MG	2A	3159	1/1	0.91	0.16	49,49,49,49	0
56	MG	1A	3632	1/1	0.91	0.13	67,67,67,67	0
56	MG	1A	3497	1/1	0.91	0.15	55,55,55,55	0
56	MG	2A	3163	1/1	0.91	0.16	56,56,56,56	0
56	MG	2A	3512	1/1	0.91	0.14	38,38,38,38	0
56	MG	1A	3009	1/1	0.91	0.32	42,42,42,42	0
56	MG	1a	1662	1/1	0.91	0.14	60,60,60,60	0
56	MG	1a	1667	1/1	0.91	0.10	64,64,64,64	0
56	MG	2A	3518	1/1	0.91	0.10	32,32,32,32	0
56	MG	1A	3238	1/1	0.91	0.17	52,52,52,52	0
56	MG	2A	3174	1/1	0.91	0.13	56,56,56,56	0
56	MG	1a	1669	1/1	0.91	0.14	37,37,37,37	0
56	MG	1A	3666	1/1	0.91	0.07	25,25,25,25	0
56	MG	1B	225	1/1	0.91	0.14	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3184	1/1	0.91	0.08	45,45,45,45	0
56	MG	1A	3918	1/1	0.91	0.13	61,61,61,61	0
56	MG	1A	3091	1/1	0.91	0.27	54,54,54,54	0
56	MG	1A	3066	1/1	0.91	0.11	56,56,56,56	0
56	MG	2A	3193	1/1	0.91	0.10	37,37,37,37	0
56	MG	1a	1870	1/1	0.91	0.14	75,75,75,75	0
56	MG	2A	3196	1/1	0.91	0.10	47,47,47,47	0
56	MG	1A	3711	1/1	0.91	0.12	61,61,61,61	0
56	MG	1A	3439	1/1	0.91	0.07	50,50,50,50	0
56	MG	1A	3014	1/1	0.91	0.12	55,55,55,55	0
56	MG	2a	3232	1/1	0.91	0.23	54,54,54,54	0
56	MG	2A	3211	1/1	0.91	0.21	33,33,33,33	0
56	MG	1A	3940	1/1	0.91	0.20	65,65,65,65	0
56	MG	2A	3215	1/1	0.91	0.11	31,31,31,31	0
56	MG	1a	1876	1/1	0.91	0.19	62,62,62,62	0
56	MG	2a	3241	1/1	0.91	0.15	73,73,73,73	0
56	MG	2a	3242	1/1	0.91	0.11	73,73,73,73	0
56	MG	2O	202	1/1	0.91	0.09	37,37,37,37	0
56	MG	2a	3248	1/1	0.91	0.16	56,56,56,56	0
56	MG	1A	3095	1/1	0.91	0.12	46,46,46,46	0
56	MG	2Q	3005	1/1	0.91	0.09	54,54,54,54	0
56	MG	1a	1697	1/1	0.91	0.14	56,56,56,56	0
56	MG	1A	3271	1/1	0.91	0.20	54,54,54,54	0
56	MG	25	502	1/1	0.91	0.31	54,54,54,54	0
56	MG	1a	1704	1/1	0.91	0.23	48,48,48,48	0
56	MG	1a	1706	1/1	0.91	0.18	52,52,52,52	0
56	MG	2A	3226	1/1	0.91	0.11	42,42,42,42	0
56	MG	1A	3953	1/1	0.91	0.12	38,38,38,38	0
56	MG	1A	3390	1/1	0.91	0.09	52,52,52,52	0
56	MG	1F	306	1/1	0.91	0.20	59,59,59,59	0
56	MG	1A	3963	1/1	0.91	0.09	27,27,27,27	0
56	MG	1A	3391	1/1	0.91	0.10	51,51,51,51	0
56	MG	1A	3750	1/1	0.91	0.08	28,28,28,28	0
56	MG	1A	3751	1/1	0.91	0.14	74,74,74,74	0
56	MG	1A	3753	1/1	0.91	0.09	34,34,34,34	0
56	MG	1A	3395	1/1	0.91	0.12	46,46,46,46	0
56	MG	1A	3027	1/1	0.92	0.13	47,47,47,47	0
56	MG	2A	3255	1/1	0.92	0.13	43,43,43,43	0
56	MG	1A	3156	1/1	0.92	0.17	50,50,50,50	0
56	MG	11	101	1/1	0.92	0.11	50,50,50,50	0
56	MG	1A	3623	1/1	0.92	0.13	45,45,45,45	0
56	MG	1A	3329	1/1	0.92	0.20	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1r	3001	1/1	0.92	0.12	61,61,61,61	0
56	MG	1A	3120	1/1	0.92	0.10	59,59,59,59	0
56	MG	1r	3003	1/1	0.92	0.06	49,49,49,49	0
56	MG	1t	3001	1/1	0.92	0.17	53,53,53,53	0
56	MG	1x	103	1/1	0.92	0.15	48,48,48,48	0
56	MG	13	102	1/1	0.92	0.07	46,46,46,46	0
56	MG	1a	1754	1/1	0.92	0.20	51,51,51,51	0
56	MG	1A	3077	1/1	0.92	0.13	48,48,48,48	0
56	MG	1A	4050	1/1	0.92	0.26	84,84,84,84	0
56	MG	2A	3002	1/1	0.92	0.09	40,40,40,40	0
56	MG	1A	4053	1/1	0.92	0.29	52,52,52,52	0
56	MG	1a	1759	1/1	0.92	0.36	66,66,66,66	0
56	MG	1A	3372	1/1	0.92	0.10	50,50,50,50	0
56	MG	1A	3175	1/1	0.92	0.24	43,43,43,43	0
56	MG	1A	3375	1/1	0.92	0.08	44,44,44,44	0
56	MG	1A	3007	1/1	0.92	0.15	73,73,73,73	0
56	MG	1A	3378	1/1	0.92	0.14	35,35,35,35	0
56	MG	1A	3701	1/1	0.92	0.05	29,29,29,29	0
56	MG	2A	3320	1/1	0.92	0.17	53,53,53,53	0
56	MG	1A	3890	1/1	0.92	0.13	31,31,31,31	0
56	MG	1A	3704	1/1	0.92	0.08	45,45,45,45	0
56	MG	1A	3706	1/1	0.92	0.07	15,15,15,15	0
56	MG	1A	3476	1/1	0.92	0.20	56,56,56,56	0
56	MG	2a	3059	1/1	0.92	0.07	69,69,69,69	0
56	MG	1a	1616	1/1	0.92	0.21	55,55,55,55	0
56	MG	1a	1618	1/1	0.92	0.10	77,77,77,77	0
56	MG	1A	3527	1/1	0.92	0.20	69,69,69,69	0
56	MG	1A	4088	1/1	0.92	0.15	45,45,45,45	0
56	MG	1B	201	1/1	0.92	0.09	40,40,40,40	0
56	MG	2a	3066	1/1	0.92	0.19	64,64,64,64	0
56	MG	1A	3716	1/1	0.92	0.10	38,38,38,38	0
56	MG	1a	1625	1/1	0.92	0.06	34,34,34,34	0
56	MG	2A	3358	1/1	0.92	0.08	60,60,60,60	0
56	MG	1A	3719	1/1	0.92	0.09	56,56,56,56	0
56	MG	2a	3073	1/1	0.92	0.16	63,63,63,63	0
56	MG	1a	1787	1/1	0.92	0.13	52,52,52,52	0
56	MG	1A	3722	1/1	0.92	0.13	49,49,49,49	0
56	MG	2a	3087	1/1	0.92	0.18	57,57,57,57	0
56	MG	2A	3064	1/1	0.92	0.27	56,56,56,56	0
56	MG	2A	3369	1/1	0.92	0.15	56,56,56,56	0
56	MG	1A	3477	1/1	0.92	0.20	40,40,40,40	0
56	MG	2A	3371	1/1	0.92	0.12	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3070	1/1	0.92	0.17	53,53,53,53	0
56	MG	1A	3920	1/1	0.92	0.15	65,65,65,65	0
56	MG	1a	1632	1/1	0.92	0.11	32,32,32,32	0
56	MG	2a	3109	1/1	0.92	0.23	42,42,42,42	0
56	MG	1A	3186	1/1	0.92	0.16	24,24,24,24	0
56	MG	1A	3425	1/1	0.92	0.11	50,50,50,50	0
56	MG	1A	3740	1/1	0.92	0.15	68,68,68,68	0
56	MG	2A	3393	1/1	0.92	0.12	56,56,56,56	0
56	MG	2A	3395	1/1	0.92	0.14	47,47,47,47	0
56	MG	1a	1799	1/1	0.92	0.14	57,57,57,57	0
56	MG	2a	3120	1/1	0.92	0.18	62,62,62,62	0
56	MG	2A	3084	1/1	0.92	0.08	26,26,26,26	0
56	MG	1A	3741	1/1	0.92	0.09	63,63,63,63	0
56	MG	2a	3123	1/1	0.92	0.11	39,39,39,39	0
56	MG	1A	3341	1/1	0.92	0.07	53,53,53,53	0
56	MG	1A	3484	1/1	0.92	0.08	45,45,45,45	0
56	MG	1A	3541	1/1	0.92	0.09	56,56,56,56	0
56	MG	1A	3942	1/1	0.92	0.10	91,91,91,91	0
56	MG	1a	1809	1/1	0.92	0.10	54,54,54,54	0
56	MG	2a	3134	1/1	0.92	0.27	55,55,55,55	0
56	MG	1a	1647	1/1	0.92	0.17	53,53,53,53	0
56	MG	2A	3419	1/1	0.92	0.26	61,61,61,61	0
56	MG	2a	3137	1/1	0.92	0.14	62,62,62,62	0
56	MG	2A	3421	1/1	0.92	0.23	41,41,41,41	0
56	MG	1a	1649	1/1	0.92	0.10	59,59,59,59	0
56	MG	2A	3431	1/1	0.92	0.12	50,50,50,50	0
56	MG	2a	3144	1/1	0.92	0.12	66,66,66,66	0
56	MG	1a	1812	1/1	0.92	0.09	53,53,53,53	0
56	MG	1A	3429	1/1	0.92	0.10	52,52,52,52	0
56	MG	1A	3547	1/1	0.92	0.14	61,61,61,61	0
56	MG	2A	3436	1/1	0.92	0.10	44,44,44,44	0
56	MG	2A	3437	1/1	0.92	0.10	69,69,69,69	0
56	MG	1D	310	1/1	0.92	0.06	42,42,42,42	0
56	MG	1A	3430	1/1	0.92	0.24	41,41,41,41	0
56	MG	1a	1660	1/1	0.92	0.10	23,23,23,23	0
56	MG	2A	3448	1/1	0.92	0.09	62,62,62,62	0
56	MG	2A	3116	1/1	0.92	0.10	54,54,54,54	0
56	MG	2A	3117	1/1	0.92	0.20	46,46,46,46	0
56	MG	2A	3118	1/1	0.92	0.20	52,52,52,52	0
56	MG	2A	3461	1/1	0.92	0.15	53,53,53,53	0
56	MG	2A	3462	1/1	0.92	0.10	46,46,46,46	0
56	MG	1A	3554	1/1	0.92	0.16	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1822	1/1	0.92	0.18	56,56,56,56	0
56	MG	1A	3964	1/1	0.92	0.10	50,50,50,50	0
56	MG	1a	1666	1/1	0.92	0.09	72,72,72,72	0
56	MG	1A	3555	1/1	0.92	0.12	61,61,61,61	0
56	MG	2A	3133	1/1	0.92	0.08	35,35,35,35	0
56	MG	1A	3765	1/1	0.92	0.10	45,45,45,45	0
56	MG	1A	3300	1/1	0.92	0.24	41,41,41,41	0
56	MG	1A	3125	1/1	0.92	0.13	52,52,52,52	0
56	MG	1a	1673	1/1	0.92	0.10	46,46,46,46	0
56	MG	2a	3176	1/1	0.92	0.22	50,50,50,50	0
56	MG	1a	1674	1/1	0.92	0.15	62,62,62,62	0
56	MG	2a	3178	1/1	0.92	0.14	55,55,55,55	0
56	MG	2a	3182	1/1	0.92	0.11	78,78,78,78	0
56	MG	1A	3984	1/1	0.92	0.22	32,32,32,32	0
56	MG	1a	1679	1/1	0.92	0.11	45,45,45,45	0
56	MG	1a	1851	1/1	0.92	0.09	56,56,56,56	0
56	MG	2A	3489	1/1	0.92	0.11	52,52,52,52	0
56	MG	2A	3154	1/1	0.92	0.19	42,42,42,42	0
56	MG	1A	3252	1/1	0.92	0.10	56,56,56,56	0
56	MG	1a	1853	1/1	0.92	0.10	70,70,70,70	0
56	MG	1a	1857	1/1	0.92	0.12	71,71,71,71	0
56	MG	1G	3001	1/1	0.92	0.09	50,50,50,50	0
56	MG	2A	3164	1/1	0.92	0.29	51,51,51,51	0
56	MG	1A	3563	1/1	0.92	0.12	54,54,54,54	0
56	MG	1a	1687	1/1	0.92	0.10	42,42,42,42	0
56	MG	1A	3995	1/1	0.92	0.12	54,54,54,54	0
56	MG	2A	3513	1/1	0.92	0.13	26,26,26,26	0
56	MG	1a	1866	1/1	0.92	0.17	73,73,73,73	0
56	MG	2a	3207	1/1	0.92	0.11	59,59,59,59	0
56	MG	1A	3394	1/1	0.92	0.11	42,42,42,42	0
56	MG	1A	3806	1/1	0.92	0.12	38,38,38,38	0
56	MG	1N	3003	1/1	0.92	0.10	38,38,38,38	0
56	MG	1A	3813	1/1	0.92	0.10	48,48,48,48	0
56	MG	2A	3522	1/1	0.92	0.18	43,43,43,43	0
56	MG	1O	3003	1/1	0.92	0.14	60,60,60,60	0
56	MG	1P	201	1/1	0.92	0.14	49,49,49,49	0
56	MG	2A	3528	1/1	0.92	0.14	46,46,46,46	0
56	MG	1a	1702	1/1	0.92	0.13	60,60,60,60	0
56	MG	2a	3222	1/1	0.92	0.13	62,62,62,62	0
56	MG	2A	3190	1/1	0.92	0.15	48,48,48,48	0
56	MG	2A	3539	1/1	0.92	0.18	57,57,57,57	0
56	MG	1A	3826	1/1	0.92	0.09	17,17,17,17	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3575	1/1	0.92	0.18	57,57,57,57	0
56	MG	1A	4007	1/1	0.92	0.12	35,35,35,35	0
56	MG	1a	1882	1/1	0.92	0.27	60,60,60,60	0
56	MG	1A	3578	1/1	0.92	0.10	48,48,48,48	0
56	MG	1A	3837	1/1	0.92	0.09	26,26,26,26	0
56	MG	2a	3233	1/1	0.92	0.13	58,58,58,58	0
56	MG	1a	1888	1/1	0.92	0.18	60,60,60,60	0
56	MG	1a	1889	1/1	0.92	0.06	42,42,42,42	0
56	MG	1A	4017	1/1	0.92	0.12	61,61,61,61	0
56	MG	1A	3188	1/1	0.92	0.12	53,53,53,53	0
56	MG	1A	3585	1/1	0.92	0.10	14,14,14,14	0
56	MG	1a	1896	1/1	0.92	0.21	46,46,46,46	0
56	MG	2F	302	1/1	0.92	0.17	48,48,48,48	0
56	MG	1A	3846	1/1	0.92	0.11	66,66,66,66	0
56	MG	2N	8001	1/1	0.92	0.09	63,63,63,63	0
56	MG	1A	3194	1/1	0.92	0.07	39,39,39,39	0
56	MG	1a	1900	1/1	0.92	0.16	47,47,47,47	0
56	MG	1a	1903	1/1	0.92	0.14	56,56,56,56	0
56	MG	1a	1734	1/1	0.92	0.22	53,53,53,53	0
56	MG	2A	3228	1/1	0.92	0.11	44,44,44,44	0
56	MG	1A	3195	1/1	0.92	0.12	44,44,44,44	0
56	MG	23	101	1/1	0.92	0.16	50,50,50,50	0
56	MG	2A	3233	1/1	0.92	0.07	52,52,52,52	0
56	MG	1A	3005	1/1	0.92	0.13	57,57,57,57	0
56	MG	2A	3236	1/1	0.92	0.07	60,60,60,60	0
56	MG	1A	3504	1/1	0.92	0.13	62,62,62,62	0
56	MG	2A	3240	1/1	0.92	0.11	34,34,34,34	0
56	MG	1A	3358	1/1	0.92	0.07	61,61,61,61	0
56	MG	1A	3610	1/1	0.92	0.08	48,48,48,48	0
56	MG	1A	3362	1/1	0.92	0.11	49,49,49,49	0
56	MG	2a	3015	1/1	0.92	0.14	62,62,62,62	0
56	MG	2z	8001	1/1	0.92	0.17	69,69,69,69	0
56	MG	2A	3235	1/1	0.93	0.10	57,57,57,57	0
56	MG	1A	3992	1/1	0.93	0.09	36,36,36,36	0
56	MG	28	103	1/1	0.93	0.14	56,56,56,56	0
56	MG	1a	1717	1/1	0.93	0.07	47,47,47,47	0
56	MG	1P	202	1/1	0.93	0.17	59,59,59,59	0
56	MG	1A	3360	1/1	0.93	0.26	57,57,57,57	0
56	MG	2A	3243	1/1	0.93	0.08	69,69,69,69	0
56	MG	2a	3008	1/1	0.93	0.09	53,53,53,53	0
56	MG	1a	1720	1/1	0.93	0.16	45,45,45,45	0
56	MG	2a	3010	1/1	0.93	0.17	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	3011	1/1	0.93	0.21	58,58,58,58	0
56	MG	1A	3996	1/1	0.93	0.10	37,37,37,37	0
56	MG	1a	1727	1/1	0.93	0.09	56,56,56,56	0
56	MG	2A	3252	1/1	0.93	0.09	43,43,43,43	0
56	MG	1Q	204	1/1	0.93	0.10	45,45,45,45	0
56	MG	2a	3018	1/1	0.93	0.07	62,62,62,62	0
56	MG	1A	3307	1/1	0.93	0.10	63,63,63,63	0
56	MG	1Q	209	1/1	0.93	0.13	59,59,59,59	0
56	MG	1A	3228	1/1	0.93	0.12	48,48,48,48	0
56	MG	1A	3026	1/1	0.93	0.10	47,47,47,47	0
56	MG	1A	3420	1/1	0.93	0.09	54,54,54,54	0
56	MG	2A	3262	1/1	0.93	0.06	53,53,53,53	0
56	MG	1A	3772	1/1	0.93	0.17	43,43,43,43	0
56	MG	1A	3777	1/1	0.93	0.10	30,30,30,30	0
56	MG	1A	3562	1/1	0.93	0.07	54,54,54,54	0
56	MG	1a	1742	1/1	0.93	0.21	68,68,68,68	0
56	MG	2a	3033	1/1	0.93	0.29	64,64,64,64	0
56	MG	1A	4015	1/1	0.93	0.15	46,46,46,46	0
56	MG	1A	3157	1/1	0.93	0.16	43,43,43,43	0
56	MG	1V	202	1/1	0.93	0.07	28,28,28,28	0
56	MG	1A	3236	1/1	0.93	0.14	58,58,58,58	0
56	MG	2A	3284	1/1	0.93	0.09	34,34,34,34	0
56	MG	1A	4020	1/1	0.93	0.06	26,26,26,26	0
56	MG	1A	4022	1/1	0.93	0.08	43,43,43,43	0
56	MG	1x	109	1/1	0.93	0.16	66,66,66,66	0
56	MG	1A	3800	1/1	0.93	0.06	32,32,32,32	0
56	MG	1A	3804	1/1	0.93	0.06	66,66,66,66	0
56	MG	1a	1753	1/1	0.93	0.10	48,48,48,48	0
56	MG	2A	3310	1/1	0.93	0.20	55,55,55,55	0
56	MG	2A	3311	1/1	0.93	0.12	41,41,41,41	0
56	MG	1A	3490	1/1	0.93	0.08	57,57,57,57	0
56	MG	1A	3576	1/1	0.93	0.10	65,65,65,65	0
56	MG	2A	3317	1/1	0.93	0.17	36,36,36,36	0
56	MG	1A	3825	1/1	0.93	0.21	45,45,45,45	0
56	MG	1A	4030	1/1	0.93	0.12	43,43,43,43	0
56	MG	1A	3008	1/1	0.93	0.18	51,51,51,51	0
56	MG	1A	3492	1/1	0.93	0.23	47,47,47,47	0
56	MG	1A	3832	1/1	0.93	0.08	34,34,34,34	0
56	MG	2A	3013	1/1	0.93	0.05	60,60,60,60	0
56	MG	1A	3583	1/1	0.93	0.15	49,49,49,49	0
56	MG	15	102	1/1	0.93	0.15	52,52,52,52	0
56	MG	2A	3019	1/1	0.93	0.07	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3020	1/1	0.93	0.15	39,39,39,39	0
56	MG	1A	3371	1/1	0.93	0.06	46,46,46,46	0
56	MG	1a	1766	1/1	0.93	0.10	50,50,50,50	0
56	MG	2a	3071	1/1	0.93	0.17	72,72,72,72	0
56	MG	1A	3165	1/1	0.93	0.18	23,23,23,23	0
56	MG	1a	1768	1/1	0.93	0.11	56,56,56,56	0
56	MG	1A	3323	1/1	0.93	0.08	41,41,41,41	0
56	MG	2A	3360	1/1	0.93	0.17	43,43,43,43	0
56	MG	2a	3081	1/1	0.93	0.13	65,65,65,65	0
56	MG	2A	3363	1/1	0.93	0.08	49,49,49,49	0
56	MG	2A	3032	1/1	0.93	0.18	62,62,62,62	0
56	MG	1A	3324	1/1	0.93	0.14	57,57,57,57	0
56	MG	1A	3499	1/1	0.93	0.08	64,64,64,64	0
56	MG	1A	3594	1/1	0.93	0.12	40,40,40,40	0
56	MG	1A	3595	1/1	0.93	0.11	66,66,66,66	0
56	MG	1A	4049	1/1	0.93	0.12	49,49,49,49	0
56	MG	2a	3104	1/1	0.93	0.19	54,54,54,54	0
56	MG	1a	1607	1/1	0.93	0.12	60,60,60,60	0
56	MG	1A	3086	1/1	0.93	0.14	52,52,52,52	0
56	MG	1A	3605	1/1	0.93	0.10	31,31,31,31	0
56	MG	2a	3112	1/1	0.93	0.19	53,53,53,53	0
56	MG	1A	3501	1/1	0.93	0.11	51,51,51,51	0
56	MG	2A	3390	1/1	0.93	0.11	35,35,35,35	0
56	MG	2A	3066	1/1	0.93	0.16	48,48,48,48	0
56	MG	1A	3029	1/1	0.93	0.05	71,71,71,71	0
56	MG	2A	3071	1/1	0.93	0.09	46,46,46,46	0
56	MG	1A	3861	1/1	0.93	0.05	42,42,42,42	0
56	MG	1A	3331	1/1	0.93	0.15	62,62,62,62	0
56	MG	1a	1788	1/1	0.93	0.10	51,51,51,51	0
56	MG	1A	3618	1/1	0.93	0.15	68,68,68,68	0
56	MG	2A	3079	1/1	0.93	0.09	50,50,50,50	0
56	MG	2A	3405	1/1	0.93	0.11	46,46,46,46	0
56	MG	2A	3406	1/1	0.93	0.14	55,55,55,55	0
56	MG	2a	3129	1/1	0.93	0.13	60,60,60,60	0
56	MG	2A	3080	1/1	0.93	0.15	59,59,59,59	0
56	MG	1A	3505	1/1	0.93	0.11	49,49,49,49	0
56	MG	1a	1621	1/1	0.93	0.07	57,57,57,57	0
56	MG	1A	3621	1/1	0.93	0.11	40,40,40,40	0
56	MG	1A	4072	1/1	0.93	0.12	48,48,48,48	0
56	MG	1a	1624	1/1	0.93	0.07	80,80,80,80	0
56	MG	1A	3178	1/1	0.93	0.10	37,37,37,37	0
56	MG	2A	3423	1/1	0.93	0.07	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	4075	1/1	0.93	0.16	61,61,61,61	0
56	MG	2a	3143	1/1	0.93	0.10	42,42,42,42	0
56	MG	1A	3624	1/1	0.93	0.10	40,40,40,40	0
56	MG	1A	4077	1/1	0.93	0.06	47,47,47,47	0
56	MG	1A	3437	1/1	0.93	0.07	46,46,46,46	0
56	MG	2A	3434	1/1	0.93	0.10	42,42,42,42	0
56	MG	1a	1630	1/1	0.93	0.07	42,42,42,42	0
56	MG	1A	3386	1/1	0.93	0.10	68,68,68,68	0
56	MG	1A	4086	1/1	0.93	0.12	63,63,63,63	0
56	MG	2A	3438	1/1	0.93	0.14	53,53,53,53	0
56	MG	1A	3633	1/1	0.93	0.10	50,50,50,50	0
56	MG	2A	3440	1/1	0.93	0.10	50,50,50,50	0
56	MG	1A	4090	1/1	0.93	0.17	26,26,26,26	0
56	MG	1A	3635	1/1	0.93	0.14	50,50,50,50	0
56	MG	2A	3112	1/1	0.93	0.15	59,59,59,59	0
56	MG	1A	3638	1/1	0.93	0.10	38,38,38,38	0
56	MG	2A	3455	1/1	0.93	0.15	62,62,62,62	0
56	MG	1A	3117	1/1	0.93	0.13	62,62,62,62	0
56	MG	1A	3389	1/1	0.93	0.23	56,56,56,56	0
56	MG	1a	1816	1/1	0.93	0.12	76,76,76,76	0
56	MG	1A	3057	1/1	0.93	0.09	47,47,47,47	0
56	MG	2a	3166	1/1	0.93	0.13	60,60,60,60	0
56	MG	1A	3022	1/1	0.93	0.14	49,49,49,49	0
56	MG	2A	3465	1/1	0.93	0.12	45,45,45,45	0
56	MG	1A	3670	1/1	0.93	0.10	37,37,37,37	0
56	MG	1A	3393	1/1	0.93	0.14	42,42,42,42	0
56	MG	1a	1651	1/1	0.93	0.10	62,62,62,62	0
56	MG	1A	3691	1/1	0.93	0.08	54,54,54,54	0
56	MG	2A	3474	1/1	0.93	0.10	51,51,51,51	0
56	MG	2A	3475	1/1	0.93	0.08	39,39,39,39	0
56	MG	1A	3338	1/1	0.93	0.09	52,52,52,52	0
56	MG	1A	3017	1/1	0.93	0.10	53,53,53,53	0
56	MG	1a	1829	1/1	0.93	0.07	45,45,45,45	0
56	MG	2A	3138	1/1	0.93	0.11	47,47,47,47	0
56	MG	1a	1830	1/1	0.93	0.18	68,68,68,68	0
56	MG	2A	3142	1/1	0.93	0.22	56,56,56,56	0
56	MG	2A	3484	1/1	0.93	0.11	47,47,47,47	0
56	MG	1A	3452	1/1	0.93	0.13	50,50,50,50	0
56	MG	1B	226	1/1	0.93	0.15	71,71,71,71	0
56	MG	2a	3196	1/1	0.93	0.12	70,70,70,70	0
56	MG	1A	3519	1/1	0.93	0.09	48,48,48,48	0
56	MG	1A	3707	1/1	0.93	0.11	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1841	1/1	0.93	0.17	52,52,52,52	0
56	MG	2A	3491	1/1	0.93	0.13	46,46,46,46	0
56	MG	1A	3710	1/1	0.93	0.08	48,48,48,48	0
56	MG	1a	1845	1/1	0.93	0.11	62,62,62,62	0
56	MG	1A	3193	1/1	0.93	0.10	53,53,53,53	0
56	MG	1A	3522	1/1	0.93	0.09	50,50,50,50	0
56	MG	1a	1670	1/1	0.93	0.08	50,50,50,50	0
56	MG	2A	3166	1/1	0.93	0.09	32,32,32,32	0
56	MG	2A	3508	1/1	0.93	0.09	42,42,42,42	0
56	MG	1A	3015	1/1	0.93	0.17	51,51,51,51	0
56	MG	1a	1854	1/1	0.93	0.11	60,60,60,60	0
56	MG	1D	312	1/1	0.93	0.11	45,45,45,45	0
56	MG	1A	3460	1/1	0.93	0.23	52,52,52,52	0
56	MG	1a	1675	1/1	0.93	0.10	42,42,42,42	0
56	MG	1A	3039	1/1	0.93	0.10	71,71,71,71	0
56	MG	1A	3025	1/1	0.93	0.14	55,55,55,55	0
56	MG	2a	3221	1/1	0.93	0.24	57,57,57,57	0
56	MG	1a	1865	1/1	0.93	0.15	51,51,51,51	0
56	MG	1A	3204	1/1	0.93	0.23	33,33,33,33	0
56	MG	1a	1867	1/1	0.93	0.16	64,64,64,64	0
56	MG	2A	3187	1/1	0.93	0.17	40,40,40,40	0
56	MG	1a	1682	1/1	0.93	0.07	47,47,47,47	0
56	MG	2A	3529	1/1	0.93	0.24	53,53,53,53	0
56	MG	1a	1684	1/1	0.93	0.12	57,57,57,57	0
56	MG	1E	310	1/1	0.93	0.13	49,49,49,49	0
56	MG	1A	3729	1/1	0.93	0.19	60,60,60,60	0
56	MG	1A	3466	1/1	0.93	0.11	55,55,55,55	0
56	MG	2A	3195	1/1	0.93	0.15	47,47,47,47	0
56	MG	1A	3047	1/1	0.93	0.15	54,54,54,54	0
56	MG	1a	1690	1/1	0.93	0.06	57,57,57,57	0
56	MG	1A	3214	1/1	0.93	0.10	34,34,34,34	0
56	MG	2A	3207	1/1	0.93	0.17	49,49,49,49	0
56	MG	2B	201	1/1	0.93	0.14	57,57,57,57	0
56	MG	1A	3744	1/1	0.93	0.09	43,43,43,43	0
56	MG	1H	3001	1/1	0.93	0.14	35,35,35,35	0
56	MG	1A	3542	1/1	0.93	0.24	63,63,63,63	0
56	MG	2a	3251	1/1	0.93	0.15	43,43,43,43	0
56	MG	2B	209	1/1	0.93	0.31	57,57,57,57	0
56	MG	1a	1885	1/1	0.93	0.12	54,54,54,54	0
56	MG	1A	3215	1/1	0.93	0.11	49,49,49,49	0
56	MG	1A	3410	1/1	0.93	0.07	42,42,42,42	0
56	MG	2E	301	1/1	0.93	0.22	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2E	303	1/1	0.93	0.05	60,60,60,60	0
56	MG	2E	304	1/1	0.93	0.04	56,56,56,56	0
56	MG	2I	3001	1/1	0.93	0.10	65,65,65,65	0
56	MG	1A	3549	1/1	0.93	0.14	73,73,73,73	0
56	MG	2I	3004	1/1	0.93	0.10	60,60,60,60	0
56	MG	1A	3987	1/1	0.93	0.11	58,58,58,58	0
56	MG	1a	1891	1/1	0.93	0.14	51,51,51,51	0
56	MG	1A	3153	1/1	0.93	0.14	20,20,20,20	0
56	MG	1a	1707	1/1	0.93	0.09	31,31,31,31	0
56	MG	1a	1710	1/1	0.93	0.13	45,45,45,45	0
56	MG	2x	103	1/1	0.93	0.13	65,65,65,65	0
56	MG	1A	3552	1/1	0.93	0.10	51,51,51,51	0
56	MG	2x	105	1/1	0.93	0.13	52,52,52,52	0
56	MG	1a	1897	1/1	0.93	0.20	84,84,84,84	0
56	MG	2Y	502	1/1	0.93	0.14	51,51,51,51	0
56	MG	1a	1715	1/1	0.93	0.17	50,50,50,50	0
57	ZN	24	501	1/1	0.93	0.08	133,133,133,133	0
56	MG	1A	3169	1/1	0.94	0.07	55,55,55,55	0
56	MG	1A	3447	1/1	0.94	0.08	54,54,54,54	0
56	MG	2R	201	1/1	0.94	0.17	49,49,49,49	0
56	MG	1A	3093	1/1	0.94	0.07	48,48,48,48	0
56	MG	2A	3249	1/1	0.94	0.12	56,56,56,56	0
56	MG	1A	3002	1/1	0.94	0.18	38,38,38,38	0
56	MG	1A	3060	1/1	0.94	0.08	46,46,46,46	0
56	MG	1u	8001	1/1	0.94	0.08	53,53,53,53	0
56	MG	28	101	1/1	0.94	0.14	45,45,45,45	0
56	MG	1x	101	1/1	0.94	0.06	64,64,64,64	0
56	MG	1x	102	1/1	0.94	0.16	67,67,67,67	0
56	MG	2a	3003	1/1	0.94	0.18	55,55,55,55	0
56	MG	1A	3634	1/1	0.94	0.10	38,38,38,38	0
56	MG	1x	104	1/1	0.94	0.12	56,56,56,56	0
56	MG	1A	3098	1/1	0.94	0.13	40,40,40,40	0
56	MG	16	101	1/1	0.94	0.16	55,55,55,55	0
56	MG	2A	3267	1/1	0.94	0.18	38,38,38,38	0
56	MG	2A	3268	1/1	0.94	0.13	44,44,44,44	0
56	MG	17	102	1/1	0.94	0.13	60,60,60,60	0
56	MG	2A	3271	1/1	0.94	0.08	50,50,50,50	0
56	MG	2a	3013	1/1	0.94	0.16	50,50,50,50	0
56	MG	18	3001	1/1	0.94	0.17	50,50,50,50	0
56	MG	1A	3636	1/1	0.94	0.21	49,49,49,49	0
56	MG	1A	3256	1/1	0.94	0.42	44,44,44,44	0
56	MG	2A	3277	1/1	0.94	0.10	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	19	104	1/1	0.94	0.08	42,42,42,42	0
56	MG	1A	3862	1/1	0.94	0.15	45,45,45,45	0
56	MG	1A	3639	1/1	0.94	0.13	47,47,47,47	0
56	MG	1A	3641	1/1	0.94	0.09	52,52,52,52	0
56	MG	1A	3867	1/1	0.94	0.13	60,60,60,60	0
56	MG	2A	3289	1/1	0.94	0.10	37,37,37,37	0
56	MG	1A	3392	1/1	0.94	0.08	33,33,33,33	0
56	MG	2a	3028	1/1	0.94	0.07	38,38,38,38	0
56	MG	1A	3869	1/1	0.94	0.06	40,40,40,40	0
56	MG	1A	3524	1/1	0.94	0.07	68,68,68,68	0
56	MG	1A	3454	1/1	0.94	0.07	64,64,64,64	0
56	MG	2A	3305	1/1	0.94	0.10	50,50,50,50	0
56	MG	2A	3306	1/1	0.94	0.06	32,32,32,32	0
56	MG	2a	3037	1/1	0.94	0.15	50,50,50,50	0
56	MG	2A	3014	1/1	0.94	0.13	52,52,52,52	0
56	MG	1A	3649	1/1	0.94	0.11	26,26,26,26	0
56	MG	1a	1612	1/1	0.94	0.09	57,57,57,57	0
56	MG	2a	3041	1/1	0.94	0.08	50,50,50,50	0
56	MG	2A	3312	1/1	0.94	0.09	38,38,38,38	0
56	MG	1a	1614	1/1	0.94	0.06	66,66,66,66	0
56	MG	1A	3659	1/1	0.94	0.08	17,17,17,17	0
56	MG	1A	3526	1/1	0.94	0.12	47,47,47,47	0
56	MG	2A	3025	1/1	0.94	0.26	55,55,55,55	0
56	MG	1A	3100	1/1	0.94	0.10	51,51,51,51	0
56	MG	2A	3322	1/1	0.94	0.08	49,49,49,49	0
56	MG	1A	3680	1/1	0.94	0.16	44,44,44,44	0
56	MG	1A	3457	1/1	0.94	0.09	61,61,61,61	0
56	MG	2A	3331	1/1	0.94	0.17	45,45,45,45	0
56	MG	1A	3885	1/1	0.94	0.12	54,54,54,54	0
56	MG	1A	3887	1/1	0.94	0.15	45,45,45,45	0
56	MG	2A	3340	1/1	0.94	0.14	52,52,52,52	0
56	MG	2A	3034	1/1	0.94	0.18	44,44,44,44	0
56	MG	1A	3690	1/1	0.94	0.07	21,21,21,21	0
56	MG	1A	3261	1/1	0.94	0.38	68,68,68,68	0
56	MG	1A	3697	1/1	0.94	0.12	41,41,41,41	0
56	MG	2a	3062	1/1	0.94	0.07	81,81,81,81	0
56	MG	2A	3051	1/1	0.94	0.12	35,35,35,35	0
56	MG	2A	3352	1/1	0.94	0.09	38,38,38,38	0
56	MG	1A	3895	1/1	0.94	0.05	40,40,40,40	0
56	MG	1A	3124	1/1	0.94	0.20	36,36,36,36	0
56	MG	1A	3534	1/1	0.94	0.11	55,55,55,55	0
56	MG	1a	1794	1/1	0.94	0.06	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3061	1/1	0.94	0.13	29,29,29,29	0
56	MG	2A	3361	1/1	0.94	0.10	34,34,34,34	0
56	MG	2A	3063	1/1	0.94	0.21	48,48,48,48	0
56	MG	1A	3267	1/1	0.94	0.12	22,22,22,22	0
56	MG	2a	3074	1/1	0.94	0.20	47,47,47,47	0
56	MG	2A	3365	1/1	0.94	0.06	41,41,41,41	0
56	MG	1B	207	1/1	0.94	0.15	52,52,52,52	0
56	MG	2a	3077	1/1	0.94	0.10	51,51,51,51	0
56	MG	2a	3080	1/1	0.94	0.31	55,55,55,55	0
56	MG	1A	3907	1/1	0.94	0.10	50,50,50,50	0
56	MG	2a	3083	1/1	0.94	0.10	49,49,49,49	0
56	MG	2A	3067	1/1	0.94	0.12	49,49,49,49	0
56	MG	2A	3068	1/1	0.94	0.10	52,52,52,52	0
56	MG	2a	3090	1/1	0.94	0.19	47,47,47,47	0
56	MG	1A	3537	1/1	0.94	0.10	53,53,53,53	0
56	MG	1a	1636	1/1	0.94	0.25	53,53,53,53	0
56	MG	2a	3094	1/1	0.94	0.24	55,55,55,55	0
56	MG	2a	3095	1/1	0.94	0.08	41,41,41,41	0
56	MG	2A	3072	1/1	0.94	0.08	29,29,29,29	0
56	MG	2a	3097	1/1	0.94	0.14	55,55,55,55	0
56	MG	2A	3378	1/1	0.94	0.09	41,41,41,41	0
56	MG	1A	3270	1/1	0.94	0.09	41,41,41,41	0
56	MG	1B	212	1/1	0.94	0.25	59,59,59,59	0
56	MG	1B	213	1/1	0.94	0.07	50,50,50,50	0
56	MG	2A	3076	1/1	0.94	0.17	56,56,56,56	0
56	MG	1A	3709	1/1	0.94	0.15	38,38,38,38	0
56	MG	1A	3049	1/1	0.94	0.07	37,37,37,37	0
56	MG	2a	3113	1/1	0.94	0.30	50,50,50,50	0
56	MG	1a	1807	1/1	0.94	0.09	55,55,55,55	0
56	MG	1A	3127	1/1	0.94	0.14	40,40,40,40	0
56	MG	2a	3116	1/1	0.94	0.12	45,45,45,45	0
56	MG	1A	3543	1/1	0.94	0.12	46,46,46,46	0
56	MG	2A	3400	1/1	0.94	0.11	48,48,48,48	0
56	MG	1A	3471	1/1	0.94	0.12	55,55,55,55	0
56	MG	2A	3403	1/1	0.94	0.09	57,57,57,57	0
56	MG	2A	3085	1/1	0.94	0.12	38,38,38,38	0
56	MG	2A	3086	1/1	0.94	0.13	47,47,47,47	0
56	MG	1A	3718	1/1	0.94	0.11	36,36,36,36	0
56	MG	1A	3018	1/1	0.94	0.11	53,53,53,53	0
56	MG	1A	3548	1/1	0.94	0.09	72,72,72,72	0
56	MG	2a	3127	1/1	0.94	0.12	50,50,50,50	0
56	MG	1A	3139	1/1	0.94	0.12	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1654	1/1	0.94	0.07	45,45,45,45	0
56	MG	1D	301	1/1	0.94	0.15	32,32,32,32	0
56	MG	2a	3132	1/1	0.94	0.10	57,57,57,57	0
56	MG	2A	3417	1/1	0.94	0.08	44,44,44,44	0
56	MG	2A	3418	1/1	0.94	0.13	52,52,52,52	0
56	MG	1D	305	1/1	0.94	0.15	13,13,13,13	0
56	MG	2A	3420	1/1	0.94	0.35	72,72,72,72	0
56	MG	1a	1657	1/1	0.94	0.10	62,62,62,62	0
56	MG	1A	3145	1/1	0.94	0.17	38,38,38,38	0
56	MG	2a	3140	1/1	0.94	0.18	49,49,49,49	0
56	MG	1A	3407	1/1	0.94	0.17	40,40,40,40	0
56	MG	1A	3947	1/1	0.94	0.17	42,42,42,42	0
56	MG	1a	1663	1/1	0.94	0.11	52,52,52,52	0
56	MG	1a	1664	1/1	0.94	0.15	62,62,62,62	0
56	MG	1A	3199	1/1	0.94	0.14	44,44,44,44	0
56	MG	1A	3089	1/1	0.94	0.05	52,52,52,52	0
56	MG	1A	3147	1/1	0.94	0.12	28,28,28,28	0
56	MG	1a	1833	1/1	0.94	0.10	62,62,62,62	0
56	MG	1A	3483	1/1	0.94	0.12	41,41,41,41	0
56	MG	2A	3122	1/1	0.94	0.20	51,51,51,51	0
56	MG	1A	3414	1/1	0.94	0.15	50,50,50,50	0
56	MG	2A	3442	1/1	0.94	0.06	66,66,66,66	0
56	MG	2A	3125	1/1	0.94	0.15	52,52,52,52	0
56	MG	2A	3127	1/1	0.94	0.14	43,43,43,43	0
56	MG	1A	3559	1/1	0.94	0.07	55,55,55,55	0
56	MG	2A	3449	1/1	0.94	0.08	57,57,57,57	0
56	MG	1a	1672	1/1	0.94	0.17	47,47,47,47	0
56	MG	2A	3454	1/1	0.94	0.09	57,57,57,57	0
56	MG	1A	3290	1/1	0.94	0.12	30,30,30,30	0
56	MG	1F	303	1/1	0.94	0.35	32,32,32,32	0
56	MG	1A	3972	1/1	0.94	0.08	41,41,41,41	0
56	MG	1a	1850	1/1	0.94	0.13	44,44,44,44	0
56	MG	1A	3297	1/1	0.94	0.17	49,49,49,49	0
56	MG	1A	3975	1/1	0.94	0.12	44,44,44,44	0
56	MG	1A	3977	1/1	0.94	0.06	31,31,31,31	0
56	MG	1A	3208	1/1	0.94	0.05	55,55,55,55	0
56	MG	1a	1855	1/1	0.94	0.18	48,48,48,48	0
56	MG	2a	3171	1/1	0.94	0.12	46,46,46,46	0
56	MG	2A	3143	1/1	0.94	0.07	41,41,41,41	0
56	MG	1A	3105	1/1	0.94	0.16	47,47,47,47	0
56	MG	2A	3473	1/1	0.94	0.10	41,41,41,41	0
56	MG	1A	3757	1/1	0.94	0.08	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3006	1/1	0.94	0.11	54,54,54,54	0
56	MG	1A	3990	1/1	0.94	0.16	17,17,17,17	0
56	MG	2A	3477	1/1	0.94	0.07	47,47,47,47	0
56	MG	1A	3302	1/1	0.94	0.14	59,59,59,59	0
56	MG	2A	3158	1/1	0.94	0.06	39,39,39,39	0
56	MG	2a	3188	1/1	0.94	0.16	53,53,53,53	0
56	MG	1N	3005	1/1	0.94	0.11	45,45,45,45	0
56	MG	1N	3006	1/1	0.94	0.08	55,55,55,55	0
56	MG	1A	3306	1/1	0.94	0.31	69,69,69,69	0
56	MG	1a	1869	1/1	0.94	0.18	68,68,68,68	0
56	MG	2a	3195	1/1	0.94	0.09	48,48,48,48	0
56	MG	1A	3111	1/1	0.94	0.20	35,35,35,35	0
56	MG	1A	3495	1/1	0.94	0.11	41,41,41,41	0
56	MG	1A	3424	1/1	0.94	0.10	37,37,37,37	0
56	MG	2A	3488	1/1	0.94	0.09	69,69,69,69	0
56	MG	1a	1698	1/1	0.94	0.18	63,63,63,63	0
56	MG	1a	1699	1/1	0.94	0.18	58,58,58,58	0
56	MG	1A	3773	1/1	0.94	0.16	48,48,48,48	0
56	MG	1a	1701	1/1	0.94	0.10	63,63,63,63	0
56	MG	2a	3205	1/1	0.94	0.22	57,57,57,57	0
56	MG	1Q	201	1/1	0.94	0.08	33,33,33,33	0
56	MG	1a	1703	1/1	0.94	0.16	52,52,52,52	0
56	MG	1A	3311	1/1	0.94	0.12	44,44,44,44	0
56	MG	2A	3499	1/1	0.94	0.08	49,49,49,49	0
56	MG	2A	3501	1/1	0.94	0.08	37,37,37,37	0
56	MG	2a	3211	1/1	0.94	0.16	55,55,55,55	0
56	MG	2A	3182	1/1	0.94	0.05	36,36,36,36	0
56	MG	1A	3786	1/1	0.94	0.13	23,23,23,23	0
56	MG	1A	3589	1/1	0.94	0.12	36,36,36,36	0
56	MG	2A	3509	1/1	0.94	0.07	46,46,46,46	0
56	MG	1A	3426	1/1	0.94	0.09	54,54,54,54	0
56	MG	2A	3188	1/1	0.94	0.12	41,41,41,41	0
56	MG	2a	3219	1/1	0.94	0.13	62,62,62,62	0
56	MG	1A	3161	1/1	0.94	0.22	47,47,47,47	0
56	MG	1A	3315	1/1	0.94	0.10	65,65,65,65	0
56	MG	2A	3191	1/1	0.94	0.16	37,37,37,37	0
56	MG	1A	3802	1/1	0.94	0.14	65,65,65,65	0
56	MG	1R	205	1/1	0.94	0.11	28,28,28,28	0
56	MG	1A	3033	1/1	0.94	0.10	50,50,50,50	0
56	MG	2A	3521	1/1	0.94	0.08	41,41,41,41	0
56	MG	1A	4019	1/1	0.94	0.12	39,39,39,39	0
56	MG	1T	204	1/1	0.94	0.12	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3374	1/1	0.94	0.14	26,26,26,26	0
56	MG	1A	3808	1/1	0.94	0.08	73,73,73,73	0
56	MG	2A	3200	1/1	0.94	0.11	50,50,50,50	0
56	MG	2A	3531	1/1	0.94	0.15	52,52,52,52	0
56	MG	1a	1728	1/1	0.94	0.19	46,46,46,46	0
56	MG	2a	3237	1/1	0.94	0.08	59,59,59,59	0
56	MG	2a	3239	1/1	0.94	0.24	55,55,55,55	0
56	MG	1A	3317	1/1	0.94	0.24	63,63,63,63	0
56	MG	1A	3232	1/1	0.94	0.07	44,44,44,44	0
56	MG	2A	3541	1/1	0.94	0.15	38,38,38,38	0
56	MG	2A	3213	1/1	0.94	0.16	42,42,42,42	0
56	MG	1W	3004	1/1	0.94	0.09	40,40,40,40	0
56	MG	2A	3555	1/1	0.94	0.17	49,49,49,49	0
56	MG	1a	1904	1/1	0.94	0.23	76,76,76,76	0
56	MG	1A	3613	1/1	0.94	0.11	41,41,41,41	0
56	MG	1a	1908	1/1	0.94	0.08	53,53,53,53	0
56	MG	1A	3164	1/1	0.94	0.08	40,40,40,40	0
56	MG	1a	1737	1/1	0.94	0.22	48,48,48,48	0
56	MG	1d	502	1/1	0.94	0.12	82,82,82,82	0
56	MG	2B	204	1/1	0.94	0.29	65,65,65,65	0
56	MG	1A	3379	1/1	0.94	0.27	43,43,43,43	0
56	MG	2f	201	1/1	0.94	0.11	48,48,48,48	0
56	MG	2B	206	1/1	0.94	0.13	37,37,37,37	0
56	MG	1A	3380	1/1	0.94	0.09	49,49,49,49	0
56	MG	1e	202	1/1	0.94	0.12	65,65,65,65	0
56	MG	2A	3229	1/1	0.94	0.17	59,59,59,59	0
56	MG	1A	4031	1/1	0.94	0.20	66,66,66,66	0
56	MG	2q	203	1/1	0.94	0.20	53,53,53,53	0
56	MG	2r	3001	1/1	0.94	0.10	55,55,55,55	0
56	MG	1A	3381	1/1	0.94	0.15	54,54,54,54	0
56	MG	10	105	1/1	0.94	0.10	52,52,52,52	0
56	MG	1l	202	1/1	0.94	0.05	58,58,58,58	0
56	MG	1A	3044	1/1	0.94	0.21	60,60,60,60	0
56	MG	2A	3238	1/1	0.94	0.12	30,30,30,30	0
56	MG	2F	304	1/1	0.94	0.06	41,41,41,41	0
56	MG	1n	102	1/1	0.94	0.08	53,53,53,53	0
56	MG	1a	1745	1/1	0.94	0.06	55,55,55,55	0
56	MG	1o	103	1/1	0.94	0.16	47,47,47,47	0
56	MG	1A	3622	1/1	0.94	0.06	36,36,36,36	0
56	MG	1A	3080	1/1	0.95	0.12	53,53,53,53	0
56	MG	1A	3937	1/1	0.95	0.13	52,52,52,52	0
56	MG	1a	1906	1/1	0.95	0.18	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2F	301	1/1	0.95	0.10	49,49,49,49	0
56	MG	1A	3938	1/1	0.95	0.07	45,45,45,45	0
56	MG	1F	305	1/1	0.95	0.07	40,40,40,40	0
56	MG	1A	3939	1/1	0.95	0.11	19,19,19,19	0
56	MG	1A	3568	1/1	0.95	0.11	45,45,45,45	0
56	MG	1A	3569	1/1	0.95	0.06	40,40,40,40	0
56	MG	1G	3003	1/1	0.95	0.06	43,43,43,43	0
56	MG	2P	201	1/1	0.95	0.10	33,33,33,33	0
56	MG	1A	3409	1/1	0.95	0.10	42,42,42,42	0
56	MG	2Q	3002	1/1	0.95	0.15	55,55,55,55	0
56	MG	2Q	3004	1/1	0.95	0.15	41,41,41,41	0
56	MG	1A	3489	1/1	0.95	0.08	41,41,41,41	0
56	MG	1h	8001	1/1	0.95	0.07	60,60,60,60	0
56	MG	1a	1714	1/1	0.95	0.14	57,57,57,57	0
56	MG	1A	3257	1/1	0.95	0.15	39,39,39,39	0
56	MG	2A	3245	1/1	0.95	0.14	52,52,52,52	0
56	MG	1A	3952	1/1	0.95	0.08	40,40,40,40	0
56	MG	1N	3001	1/1	0.95	0.13	44,44,44,44	0
56	MG	1A	3752	1/1	0.95	0.06	63,63,63,63	0
56	MG	2A	3251	1/1	0.95	0.10	49,49,49,49	0
56	MG	1A	3046	1/1	0.95	0.14	45,45,45,45	0
56	MG	2a	3002	1/1	0.95	0.15	58,58,58,58	0
56	MG	1o	102	1/1	0.95	0.05	72,72,72,72	0
56	MG	1A	3959	1/1	0.95	0.08	53,53,53,53	0
56	MG	1a	1721	1/1	0.95	0.15	45,45,45,45	0
56	MG	1A	3580	1/1	0.95	0.10	36,36,36,36	0
56	MG	2a	3007	1/1	0.95	0.23	40,40,40,40	0
56	MG	1A	3128	1/1	0.95	0.09	50,50,50,50	0
56	MG	1O	3001	1/1	0.95	0.10	39,39,39,39	0
56	MG	1O	3002	1/1	0.95	0.10	47,47,47,47	0
56	MG	2A	3263	1/1	0.95	0.06	42,42,42,42	0
56	MG	1a	1730	1/1	0.95	0.15	44,44,44,44	0
56	MG	2A	3266	1/1	0.95	0.06	41,41,41,41	0
56	MG	1A	3968	1/1	0.95	0.10	26,26,26,26	0
56	MG	1v	3001	1/1	0.95	0.12	41,41,41,41	0
56	MG	1A	3415	1/1	0.95	0.07	39,39,39,39	0
56	MG	1A	3759	1/1	0.95	0.10	68,68,68,68	0
56	MG	1P	203	1/1	0.95	0.33	28,28,28,28	0
56	MG	1A	3971	1/1	0.95	0.05	27,27,27,27	0
56	MG	1A	3761	1/1	0.95	0.07	67,67,67,67	0
56	MG	1A	3262	1/1	0.95	0.15	28,28,28,28	0
56	MG	2a	3024	1/1	0.95	0.10	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1x	107	1/1	0.95	0.23	48,48,48,48	0
56	MG	1A	3129	1/1	0.95	0.07	42,42,42,42	0
56	MG	2A	3280	1/1	0.95	0.09	58,58,58,58	0
56	MG	1A	3976	1/1	0.95	0.14	42,42,42,42	0
56	MG	1A	3766	1/1	0.95	0.12	37,37,37,37	0
56	MG	2A	3001	1/1	0.95	0.07	35,35,35,35	0
56	MG	1A	3979	1/1	0.95	0.11	55,55,55,55	0
56	MG	2A	3290	1/1	0.95	0.09	36,36,36,36	0
56	MG	2a	3034	1/1	0.95	0.09	43,43,43,43	0
56	MG	2A	3293	1/1	0.95	0.09	30,30,30,30	0
56	MG	1A	3982	1/1	0.95	0.09	21,21,21,21	0
56	MG	2A	3296	1/1	0.95	0.17	57,57,57,57	0
56	MG	1A	3768	1/1	0.95	0.07	8,8,8,8	0
56	MG	1A	3265	1/1	0.95	0.14	27,27,27,27	0
56	MG	1A	3136	1/1	0.95	0.10	35,35,35,35	0
56	MG	1A	3013	1/1	0.95	0.23	43,43,43,43	0
56	MG	1A	3085	1/1	0.95	0.12	48,48,48,48	0
56	MG	1A	3774	1/1	0.95	0.09	43,43,43,43	0
56	MG	2A	3309	1/1	0.95	0.10	37,37,37,37	0
56	MG	1A	3061	1/1	0.95	0.07	51,51,51,51	0
56	MG	2a	3048	1/1	0.95	0.14	66,66,66,66	0
56	MG	1U	204	1/1	0.95	0.15	40,40,40,40	0
56	MG	2a	3050	1/1	0.95	0.06	86,86,86,86	0
56	MG	1A	3779	1/1	0.95	0.09	35,35,35,35	0
56	MG	2A	3313	1/1	0.95	0.14	46,46,46,46	0
56	MG	1A	3780	1/1	0.95	0.09	26,26,26,26	0
56	MG	2A	3016	1/1	0.95	0.09	51,51,51,51	0
56	MG	1W	3001	1/1	0.95	0.14	53,53,53,53	0
56	MG	2A	3018	1/1	0.95	0.09	47,47,47,47	0
56	MG	1A	3106	1/1	0.95	0.06	48,48,48,48	0
56	MG	2A	3321	1/1	0.95	0.14	26,26,26,26	0
56	MG	1W	3005	1/1	0.95	0.20	42,42,42,42	0
56	MG	1A	3787	1/1	0.95	0.07	26,26,26,26	0
56	MG	1A	3601	1/1	0.95	0.09	36,36,36,36	0
56	MG	1A	3001	1/1	0.95	0.17	31,31,31,31	0
56	MG	2A	3334	1/1	0.95	0.10	53,53,53,53	0
56	MG	2A	3027	1/1	0.95	0.10	56,56,56,56	0
56	MG	2A	3028	1/1	0.95	0.12	53,53,53,53	0
56	MG	1a	1763	1/1	0.95	0.17	55,55,55,55	0
56	MG	2a	3067	1/1	0.95	0.30	57,57,57,57	0
56	MG	1A	3200	1/1	0.95	0.12	39,39,39,39	0
56	MG	1A	4003	1/1	0.95	0.09	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	4005	1/1	0.95	0.10	42,42,42,42	0
56	MG	10	104	1/1	0.95	0.12	47,47,47,47	0
56	MG	1A	4006	1/1	0.95	0.08	35,35,35,35	0
56	MG	2A	3350	1/1	0.95	0.09	62,62,62,62	0
56	MG	2A	3351	1/1	0.95	0.12	49,49,49,49	0
56	MG	1A	3280	1/1	0.95	0.11	43,43,43,43	0
56	MG	1A	3201	1/1	0.95	0.07	40,40,40,40	0
56	MG	2A	3043	1/1	0.95	0.13	42,42,42,42	0
56	MG	2a	3078	1/1	0.95	0.16	61,61,61,61	0
56	MG	2A	3045	1/1	0.95	0.15	48,48,48,48	0
56	MG	2A	3046	1/1	0.95	0.30	60,60,60,60	0
56	MG	2a	3082	1/1	0.95	0.21	54,54,54,54	0
56	MG	2A	3048	1/1	0.95	0.07	45,45,45,45	0
56	MG	1A	4014	1/1	0.95	0.10	57,57,57,57	0
56	MG	2A	3362	1/1	0.95	0.11	42,42,42,42	0
56	MG	1A	3361	1/1	0.95	0.12	45,45,45,45	0
56	MG	2a	3091	1/1	0.95	0.14	46,46,46,46	0
56	MG	2A	3053	1/1	0.95	0.10	43,43,43,43	0
56	MG	1A	3283	1/1	0.95	0.25	43,43,43,43	0
56	MG	1A	3364	1/1	0.95	0.10	64,64,64,64	0
56	MG	2A	3367	1/1	0.95	0.14	54,54,54,54	0
56	MG	2A	3056	1/1	0.95	0.13	52,52,52,52	0
56	MG	1A	4018	1/1	0.95	0.07	45,45,45,45	0
56	MG	2a	3098	1/1	0.95	0.26	55,55,55,55	0
56	MG	1a	1779	1/1	0.95	0.07	66,66,66,66	0
56	MG	2A	3062	1/1	0.95	0.10	46,46,46,46	0
56	MG	1A	3620	1/1	0.95	0.06	55,55,55,55	0
56	MG	2A	3373	1/1	0.95	0.11	48,48,48,48	0
56	MG	1A	3818	1/1	0.95	0.10	59,59,59,59	0
56	MG	2A	3376	1/1	0.95	0.07	19,19,19,19	0
56	MG	1A	3820	1/1	0.95	0.12	71,71,71,71	0
56	MG	1A	3824	1/1	0.95	0.09	49,49,49,49	0
56	MG	2A	3381	1/1	0.95	0.17	41,41,41,41	0
56	MG	1a	1785	1/1	0.95	0.08	60,60,60,60	0
56	MG	2A	3389	1/1	0.95	0.09	39,39,39,39	0
56	MG	1A	3202	1/1	0.95	0.15	50,50,50,50	0
56	MG	2A	3069	1/1	0.95	0.21	42,42,42,42	0
56	MG	1A	3286	1/1	0.95	0.10	40,40,40,40	0
56	MG	1A	3150	1/1	0.95	0.24	44,44,44,44	0
56	MG	1A	3828	1/1	0.95	0.07	49,49,49,49	0
56	MG	1A	3830	1/1	0.95	0.05	34,34,34,34	0
56	MG	1A	3831	1/1	0.95	0.07	18,18,18,18	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	4032	1/1	0.95	0.08	38,38,38,38	0
56	MG	1A	3205	1/1	0.95	0.12	33,33,33,33	0
56	MG	2A	3402	1/1	0.95	0.15	44,44,44,44	0
56	MG	1A	3834	1/1	0.95	0.09	63,63,63,63	0
56	MG	2A	3078	1/1	0.95	0.09	48,48,48,48	0
56	MG	1A	3438	1/1	0.95	0.08	49,49,49,49	0
56	MG	1A	3836	1/1	0.95	0.05	25,25,25,25	0
56	MG	1a	1609	1/1	0.95	0.12	58,58,58,58	0
56	MG	1A	3152	1/1	0.95	0.08	30,30,30,30	0
56	MG	2A	3083	1/1	0.95	0.09	39,39,39,39	0
56	MG	1A	3442	1/1	0.95	0.07	39,39,39,39	0
56	MG	2A	3413	1/1	0.95	0.07	55,55,55,55	0
56	MG	1A	3520	1/1	0.95	0.08	61,61,61,61	0
56	MG	2a	3139	1/1	0.95	0.13	53,53,53,53	0
56	MG	2A	3416	1/1	0.95	0.07	36,36,36,36	0
56	MG	1a	1613	1/1	0.95	0.09	77,77,77,77	0
56	MG	1a	1805	1/1	0.95	0.11	61,61,61,61	0
56	MG	1A	3207	1/1	0.95	0.16	42,42,42,42	0
56	MG	1A	3021	1/1	0.95	0.06	56,56,56,56	0
56	MG	1A	4046	1/1	0.95	0.13	45,45,45,45	0
56	MG	1A	3209	1/1	0.95	0.17	39,39,39,39	0
56	MG	2A	3096	1/1	0.95	0.11	47,47,47,47	0
56	MG	2A	3428	1/1	0.95	0.09	59,59,59,59	0
56	MG	2A	3429	1/1	0.95	0.10	53,53,53,53	0
56	MG	2A	3097	1/1	0.95	0.17	51,51,51,51	0
56	MG	1A	3850	1/1	0.95	0.10	47,47,47,47	0
56	MG	1A	3853	1/1	0.95	0.07	35,35,35,35	0
56	MG	1A	3210	1/1	0.95	0.07	40,40,40,40	0
56	MG	1A	4052	1/1	0.95	0.31	33,33,33,33	0
56	MG	2a	3156	1/1	0.95	0.12	50,50,50,50	0
56	MG	2A	3103	1/1	0.95	0.08	46,46,46,46	0
56	MG	1A	3640	1/1	0.95	0.12	38,38,38,38	0
56	MG	1A	3305	1/1	0.95	0.15	50,50,50,50	0
56	MG	2a	3160	1/1	0.95	0.09	61,61,61,61	0
56	MG	1A	4057	1/1	0.95	0.15	50,50,50,50	0
56	MG	1A	3112	1/1	0.95	0.20	51,51,51,51	0
56	MG	2A	3110	1/1	0.95	0.22	53,53,53,53	0
56	MG	1A	4059	1/1	0.95	0.15	28,28,28,28	0
56	MG	1a	1821	1/1	0.95	0.14	52,52,52,52	0
56	MG	2A	3446	1/1	0.95	0.09	55,55,55,55	0
56	MG	1A	3859	1/1	0.95	0.08	52,52,52,52	0
56	MG	1A	3067	1/1	0.95	0.19	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	4062	1/1	0.95	0.10	49,49,49,49	0
56	MG	2A	3120	1/1	0.95	0.13	58,58,58,58	0
56	MG	2A	3121	1/1	0.95	0.14	38,38,38,38	0
56	MG	1A	3530	1/1	0.95	0.06	47,47,47,47	0
56	MG	2a	3174	1/1	0.95	0.11	51,51,51,51	0
56	MG	1a	1826	1/1	0.95	0.09	59,59,59,59	0
56	MG	1A	3648	1/1	0.95	0.07	26,26,26,26	0
56	MG	1a	1828	1/1	0.95	0.08	70,70,70,70	0
56	MG	1a	1634	1/1	0.95	0.24	55,55,55,55	0
56	MG	1A	4065	1/1	0.95	0.07	33,33,33,33	0
56	MG	1a	1638	1/1	0.95	0.07	52,52,52,52	0
56	MG	1a	1832	1/1	0.95	0.10	52,52,52,52	0
56	MG	1A	3863	1/1	0.95	0.14	38,38,38,38	0
56	MG	1A	4070	1/1	0.95	0.14	47,47,47,47	0
56	MG	1A	3864	1/1	0.95	0.06	38,38,38,38	0
56	MG	1A	3308	1/1	0.95	0.18	49,49,49,49	0
56	MG	1A	3309	1/1	0.95	0.16	59,59,59,59	0
56	MG	1A	3310	1/1	0.95	0.10	52,52,52,52	0
56	MG	1a	1844	1/1	0.95	0.11	56,56,56,56	0
56	MG	1A	3382	1/1	0.95	0.07	53,53,53,53	0
56	MG	2A	3144	1/1	0.95	0.17	41,41,41,41	0
56	MG	1A	3216	1/1	0.95	0.10	39,39,39,39	0
56	MG	1A	3687	1/1	0.95	0.11	17,17,17,17	0
56	MG	1A	4085	1/1	0.95	0.30	34,34,34,34	0
56	MG	1A	3871	1/1	0.95	0.07	31,31,31,31	0
56	MG	1a	1652	1/1	0.95	0.25	60,60,60,60	0
56	MG	1A	3539	1/1	0.95	0.07	45,45,45,45	0
56	MG	1A	3312	1/1	0.95	0.12	41,41,41,41	0
56	MG	1A	3217	1/1	0.95	0.10	56,56,56,56	0
56	MG	2A	3161	1/1	0.95	0.08	38,38,38,38	0
56	MG	1A	3314	1/1	0.95	0.08	51,51,51,51	0
56	MG	1A	3160	1/1	0.95	0.08	46,46,46,46	0
56	MG	2A	3493	1/1	0.95	0.06	39,39,39,39	0
56	MG	1a	1659	1/1	0.95	0.08	52,52,52,52	0
56	MG	2A	3165	1/1	0.95	0.16	42,42,42,42	0
56	MG	1a	1862	1/1	0.95	0.10	35,35,35,35	0
56	MG	2A	3497	1/1	0.95	0.12	46,46,46,46	0
56	MG	1A	3880	1/1	0.95	0.16	38,38,38,38	0
56	MG	1A	3070	1/1	0.95	0.13	48,48,48,48	0
56	MG	1A	3031	1/1	0.95	0.14	60,60,60,60	0
56	MG	1A	3705	1/1	0.95	0.10	59,59,59,59	0
56	MG	1a	1868	1/1	0.95	0.12	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3176	1/1	0.95	0.12	38,38,38,38	0
56	MG	1A	3075	1/1	0.95	0.07	46,46,46,46	0
56	MG	1A	3888	1/1	0.95	0.08	43,43,43,43	0
56	MG	2A	3511	1/1	0.95	0.11	40,40,40,40	0
56	MG	2A	3179	1/1	0.95	0.23	29,29,29,29	0
56	MG	1A	3003	1/1	0.95	0.07	44,44,44,44	0
56	MG	1A	3708	1/1	0.95	0.11	59,59,59,59	0
56	MG	2A	3183	1/1	0.95	0.14	46,46,46,46	0
56	MG	1A	3167	1/1	0.95	0.12	25,25,25,25	0
56	MG	1A	3321	1/1	0.95	0.15	33,33,33,33	0
56	MG	1A	3553	1/1	0.95	0.12	63,63,63,63	0
56	MG	1a	1877	1/1	0.95	0.10	52,52,52,52	0
56	MG	1A	3712	1/1	0.95	0.13	56,56,56,56	0
56	MG	1A	3045	1/1	0.95	0.06	39,39,39,39	0
56	MG	1A	3905	1/1	0.95	0.18	45,45,45,45	0
56	MG	1A	3171	1/1	0.95	0.27	51,51,51,51	0
56	MG	1A	3172	1/1	0.95	0.07	31,31,31,31	0
56	MG	1a	1883	1/1	0.95	0.15	53,53,53,53	0
56	MG	2A	3532	1/1	0.95	0.12	46,46,46,46	0
56	MG	2a	3245	1/1	0.95	0.12	64,64,64,64	0
56	MG	2a	3246	1/1	0.95	0.13	60,60,60,60	0
56	MG	2a	3247	1/1	0.95	0.14	50,50,50,50	0
56	MG	1A	3909	1/1	0.95	0.08	46,46,46,46	0
56	MG	1A	3912	1/1	0.95	0.11	56,56,56,56	0
56	MG	1A	3241	1/1	0.95	0.12	23,23,23,23	0
56	MG	1D	307	1/1	0.95	0.16	37,37,37,37	0
56	MG	2A	3542	1/1	0.95	0.12	56,56,56,56	0
56	MG	2A	3543	1/1	0.95	0.14	49,49,49,49	0
56	MG	2A	3545	1/1	0.95	0.10	53,53,53,53	0
56	MG	2A	3546	1/1	0.95	0.11	49,49,49,49	0
56	MG	1D	308	1/1	0.95	0.10	54,54,54,54	0
56	MG	2A	3204	1/1	0.95	0.19	53,53,53,53	0
56	MG	2e	3002	1/1	0.95	0.06	64,64,64,64	0
56	MG	2A	3553	1/1	0.95	0.11	41,41,41,41	0
56	MG	2A	3554	1/1	0.95	0.13	59,59,59,59	0
56	MG	2A	3205	1/1	0.95	0.10	43,43,43,43	0
56	MG	1a	1890	1/1	0.95	0.16	40,40,40,40	0
56	MG	1A	3327	1/1	0.95	0.07	44,44,44,44	0
56	MG	1A	3078	1/1	0.95	0.10	61,61,61,61	0
56	MG	2A	3212	1/1	0.95	0.19	34,34,34,34	0
56	MG	1A	3560	1/1	0.95	0.06	63,63,63,63	0
56	MG	1D	313	1/1	0.95	0.09	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2B	203	1/1	0.95	0.13	51,51,51,51	0
56	MG	1A	3921	1/1	0.95	0.06	45,45,45,45	0
56	MG	1A	3561	1/1	0.95	0.09	72,72,72,72	0
56	MG	2A	3218	1/1	0.95	0.21	54,54,54,54	0
56	MG	1A	3099	1/1	0.95	0.15	55,55,55,55	0
56	MG	1E	306	1/1	0.95	0.09	57,57,57,57	0
56	MG	1A	3735	1/1	0.95	0.09	63,63,63,63	0
56	MG	1a	1902	1/1	0.95	0.09	62,62,62,62	0
56	MG	1A	3332	1/1	0.95	0.10	35,35,35,35	0
57	ZN	2n	501	1/1	0.95	0.07	110,110,110,110	0
56	MG	1A	3848	1/1	0.96	0.07	45,45,45,45	0
56	MG	2A	3283	1/1	0.96	0.09	35,35,35,35	0
56	MG	1A	3656	1/1	0.96	0.09	20,20,20,20	0
56	MG	2A	3287	1/1	0.96	0.12	33,33,33,33	0
56	MG	2A	3033	1/1	0.96	0.22	47,47,47,47	0
56	MG	20	8001	1/1	0.96	0.07	62,62,62,62	0
56	MG	16	102	1/1	0.96	0.10	40,40,40,40	0
56	MG	1A	3538	1/1	0.96	0.08	39,39,39,39	0
56	MG	2A	3037	1/1	0.96	0.17	42,42,42,42	0
56	MG	2A	3038	1/1	0.96	0.06	45,45,45,45	0
56	MG	2A	3295	1/1	0.96	0.09	38,38,38,38	0
56	MG	2A	3039	1/1	0.96	0.17	38,38,38,38	0
56	MG	2A	3297	1/1	0.96	0.07	40,40,40,40	0
56	MG	1A	3661	1/1	0.96	0.07	30,30,30,30	0
56	MG	2A	3299	1/1	0.96	0.12	64,64,64,64	0
56	MG	1A	3131	1/1	0.96	0.12	31,31,31,31	0
56	MG	2A	3302	1/1	0.96	0.11	41,41,41,41	0
56	MG	2A	3042	1/1	0.96	0.16	46,46,46,46	0
56	MG	1A	3133	1/1	0.96	0.24	48,48,48,48	0
56	MG	2A	3044	1/1	0.96	0.12	51,51,51,51	0
56	MG	1A	3672	1/1	0.96	0.12	29,29,29,29	0
56	MG	1A	3676	1/1	0.96	0.11	40,40,40,40	0
56	MG	2A	3047	1/1	0.96	0.12	37,37,37,37	0
56	MG	1A	3679	1/1	0.96	0.06	38,38,38,38	0
56	MG	2A	3049	1/1	0.96	0.12	56,56,56,56	0
56	MG	2a	3016	1/1	0.96	0.27	65,65,65,65	0
56	MG	2A	3050	1/1	0.96	0.29	55,55,55,55	0
56	MG	1a	1790	1/1	0.96	0.09	62,62,62,62	0
56	MG	1A	3463	1/1	0.96	0.07	39,39,39,39	0
56	MG	1A	3682	1/1	0.96	0.12	29,29,29,29	0
56	MG	2a	3021	1/1	0.96	0.08	58,58,58,58	0
56	MG	1A	3684	1/1	0.96	0.08	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3319	1/1	0.96	0.20	51,51,51,51	0
56	MG	1A	3686	1/1	0.96	0.11	28,28,28,28	0
56	MG	1A	3266	1/1	0.96	0.10	18,18,18,18	0
56	MG	1A	3116	1/1	0.96	0.05	52,52,52,52	0
56	MG	2A	3324	1/1	0.96	0.04	43,43,43,43	0
56	MG	2A	3058	1/1	0.96	0.10	51,51,51,51	0
56	MG	2a	3029	1/1	0.96	0.09	66,66,66,66	0
56	MG	2A	3060	1/1	0.96	0.12	40,40,40,40	0
56	MG	1A	3268	1/1	0.96	0.15	23,23,23,23	0
56	MG	1A	3269	1/1	0.96	0.12	53,53,53,53	0
56	MG	1A	3470	1/1	0.96	0.07	51,51,51,51	0
56	MG	2A	3338	1/1	0.96	0.12	46,46,46,46	0
56	MG	2a	3035	1/1	0.96	0.11	59,59,59,59	0
56	MG	1A	3166	1/1	0.96	0.13	35,35,35,35	0
56	MG	1A	3137	1/1	0.96	0.10	36,36,36,36	0
56	MG	1A	3051	1/1	0.96	0.28	47,47,47,47	0
56	MG	1A	3872	1/1	0.96	0.08	39,39,39,39	0
56	MG	1a	1617	1/1	0.96	0.18	55,55,55,55	0
56	MG	1A	3474	1/1	0.96	0.09	58,58,58,58	0
56	MG	1A	3875	1/1	0.96	0.07	38,38,38,38	0
56	MG	1A	3475	1/1	0.96	0.11	66,66,66,66	0
56	MG	1A	3052	1/1	0.96	0.11	51,51,51,51	0
56	MG	1A	3334	1/1	0.96	0.09	73,73,73,73	0
56	MG	2a	3046	1/1	0.96	0.05	70,70,70,70	0
56	MG	1A	3140	1/1	0.96	0.08	36,36,36,36	0
56	MG	1A	3141	1/1	0.96	0.09	39,39,39,39	0
56	MG	1A	3279	1/1	0.96	0.20	41,41,41,41	0
56	MG	1A	3406	1/1	0.96	0.13	49,49,49,49	0
56	MG	1A	4068	1/1	0.96	0.10	39,39,39,39	0
56	MG	1A	3143	1/1	0.96	0.06	34,34,34,34	0
56	MG	1A	4071	1/1	0.96	0.15	44,44,44,44	0
56	MG	1A	3886	1/1	0.96	0.05	42,42,42,42	0
56	MG	1A	3714	1/1	0.96	0.15	49,49,49,49	0
56	MG	1A	3042	1/1	0.96	0.10	42,42,42,42	0
56	MG	1A	3717	1/1	0.96	0.15	55,55,55,55	0
56	MG	1A	3340	1/1	0.96	0.10	59,59,59,59	0
56	MG	1a	1637	1/1	0.96	0.10	51,51,51,51	0
56	MG	1A	3564	1/1	0.96	0.06	36,36,36,36	0
56	MG	2A	3088	1/1	0.96	0.06	44,44,44,44	0
56	MG	1A	3720	1/1	0.96	0.12	45,45,45,45	0
56	MG	2A	3090	1/1	0.96	0.20	58,58,58,58	0
56	MG	1A	4084	1/1	0.96	0.24	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3721	1/1	0.96	0.06	45,45,45,45	0
56	MG	1a	1642	1/1	0.96	0.04	58,58,58,58	0
56	MG	2A	3377	1/1	0.96	0.07	33,33,33,33	0
56	MG	2A	3094	1/1	0.96	0.11	43,43,43,43	0
56	MG	1A	3565	1/1	0.96	0.08	41,41,41,41	0
56	MG	1A	4087	1/1	0.96	0.17	42,42,42,42	0
56	MG	2A	3385	1/1	0.96	0.07	61,61,61,61	0
56	MG	2A	3387	1/1	0.96	0.20	38,38,38,38	0
56	MG	1A	3726	1/1	0.96	0.07	46,46,46,46	0
56	MG	1a	1836	1/1	0.96	0.07	51,51,51,51	0
56	MG	1A	3903	1/1	0.96	0.18	71,71,71,71	0
56	MG	1A	3487	1/1	0.96	0.10	40,40,40,40	0
56	MG	1A	3282	1/1	0.96	0.16	54,54,54,54	0
56	MG	1B	203	1/1	0.96	0.11	39,39,39,39	0
56	MG	2a	3079	1/1	0.96	0.07	52,52,52,52	0
56	MG	2A	3394	1/1	0.96	0.16	54,54,54,54	0
56	MG	1a	1843	1/1	0.96	0.09	55,55,55,55	0
56	MG	1A	3220	1/1	0.96	0.30	41,41,41,41	0
56	MG	1A	3574	1/1	0.96	0.11	37,37,37,37	0
56	MG	2a	3085	1/1	0.96	0.15	48,48,48,48	0
56	MG	2a	3086	1/1	0.96	0.08	50,50,50,50	0
56	MG	1a	1847	1/1	0.96	0.07	53,53,53,53	0
56	MG	2A	3111	1/1	0.96	0.15	36,36,36,36	0
56	MG	1A	3910	1/1	0.96	0.10	61,61,61,61	0
56	MG	1a	1849	1/1	0.96	0.06	38,38,38,38	0
56	MG	2A	3115	1/1	0.96	0.15	41,41,41,41	0
56	MG	1A	3911	1/1	0.96	0.09	30,30,30,30	0
56	MG	1A	3222	1/1	0.96	0.10	19,19,19,19	0
56	MG	2A	3407	1/1	0.96	0.14	46,46,46,46	0
56	MG	1A	3913	1/1	0.96	0.06	28,28,28,28	0
56	MG	1A	3739	1/1	0.96	0.13	34,34,34,34	0
56	MG	1a	1658	1/1	0.96	0.10	58,58,58,58	0
56	MG	2A	3411	1/1	0.96	0.04	47,47,47,47	0
56	MG	1A	3915	1/1	0.96	0.14	52,52,52,52	0
56	MG	2a	3102	1/1	0.96	0.12	44,44,44,44	0
56	MG	2A	3123	1/1	0.96	0.19	57,57,57,57	0
56	MG	1A	3223	1/1	0.96	0.14	29,29,29,29	0
56	MG	1A	3917	1/1	0.96	0.04	35,35,35,35	0
56	MG	2A	3126	1/1	0.96	0.26	43,43,43,43	0
56	MG	1A	3577	1/1	0.96	0.11	30,30,30,30	0
56	MG	1A	3349	1/1	0.96	0.07	35,35,35,35	0
56	MG	1A	3745	1/1	0.96	0.06	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3287	1/1	0.96	0.16	38,38,38,38	0
56	MG	2A	3422	1/1	0.96	0.09	73,73,73,73	0
56	MG	1A	3923	1/1	0.96	0.08	40,40,40,40	0
56	MG	1A	3924	1/1	0.96	0.12	52,52,52,52	0
56	MG	2A	3427	1/1	0.96	0.22	54,54,54,54	0
56	MG	1A	3288	1/1	0.96	0.22	42,42,42,42	0
56	MG	1A	3352	1/1	0.96	0.20	57,57,57,57	0
56	MG	2A	3430	1/1	0.96	0.21	50,50,50,50	0
56	MG	1D	302	1/1	0.96	0.13	52,52,52,52	0
56	MG	2A	3137	1/1	0.96	0.08	33,33,33,33	0
56	MG	1D	304	1/1	0.96	0.12	34,34,34,34	0
56	MG	1A	3928	1/1	0.96	0.11	29,29,29,29	0
56	MG	1A	3929	1/1	0.96	0.07	29,29,29,29	0
56	MG	1A	3930	1/1	0.96	0.09	55,55,55,55	0
56	MG	1a	1676	1/1	0.96	0.07	55,55,55,55	0
56	MG	1a	1875	1/1	0.96	0.08	58,58,58,58	0
56	MG	2A	3148	1/1	0.96	0.11	38,38,38,38	0
56	MG	1A	3931	1/1	0.96	0.06	32,32,32,32	0
56	MG	2A	3441	1/1	0.96	0.12	55,55,55,55	0
56	MG	2A	3150	1/1	0.96	0.11	30,30,30,30	0
56	MG	1D	309	1/1	0.96	0.14	56,56,56,56	0
56	MG	1A	3932	1/1	0.96	0.10	59,59,59,59	0
56	MG	1a	1681	1/1	0.96	0.12	47,47,47,47	0
56	MG	2A	3155	1/1	0.96	0.17	37,37,37,37	0
56	MG	2A	3157	1/1	0.96	0.06	31,31,31,31	0
56	MG	2A	3450	1/1	0.96	0.06	56,56,56,56	0
56	MG	1A	3933	1/1	0.96	0.08	46,46,46,46	0
56	MG	2A	3453	1/1	0.96	0.08	31,31,31,31	0
56	MG	1a	1683	1/1	0.96	0.07	58,58,58,58	0
56	MG	1A	3584	1/1	0.96	0.07	39,39,39,39	0
56	MG	1A	3354	1/1	0.96	0.10	84,84,84,84	0
56	MG	1a	1884	1/1	0.96	0.10	46,46,46,46	0
56	MG	1A	3179	1/1	0.96	0.16	22,22,22,22	0
56	MG	1A	3498	1/1	0.96	0.09	53,53,53,53	0
56	MG	1A	3048	1/1	0.96	0.17	51,51,51,51	0
56	MG	1A	3294	1/1	0.96	0.17	55,55,55,55	0
56	MG	1A	3591	1/1	0.96	0.12	32,32,32,32	0
56	MG	1E	308	1/1	0.96	0.17	35,35,35,35	0
56	MG	2A	3468	1/1	0.96	0.10	47,47,47,47	0
56	MG	2A	3169	1/1	0.96	0.11	37,37,37,37	0
56	MG	1A	3296	1/1	0.96	0.09	49,49,49,49	0
56	MG	2A	3472	1/1	0.96	0.06	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1695	1/1	0.96	0.17	53,53,53,53	0
56	MG	1a	1893	1/1	0.96	0.18	69,69,69,69	0
56	MG	2A	3175	1/1	0.96	0.14	34,34,34,34	0
56	MG	1E	312	1/1	0.96	0.05	44,44,44,44	0
56	MG	1F	301	1/1	0.96	0.19	30,30,30,30	0
56	MG	1A	3944	1/1	0.96	0.20	39,39,39,39	0
56	MG	1A	3945	1/1	0.96	0.17	30,30,30,30	0
56	MG	2A	3180	1/1	0.96	0.09	29,29,29,29	0
56	MG	1A	3946	1/1	0.96	0.13	24,24,24,24	0
56	MG	1A	3231	1/1	0.96	0.06	42,42,42,42	0
56	MG	1A	3122	1/1	0.96	0.07	56,56,56,56	0
56	MG	1a	1901	1/1	0.96	0.12	47,47,47,47	0
56	MG	1A	3949	1/1	0.96	0.07	35,35,35,35	0
56	MG	1A	3596	1/1	0.96	0.16	44,44,44,44	0
56	MG	1G	3002	1/1	0.96	0.14	52,52,52,52	0
56	MG	1A	3767	1/1	0.96	0.10	33,33,33,33	0
56	MG	1A	3597	1/1	0.96	0.14	71,71,71,71	0
56	MG	1a	1907	1/1	0.96	0.13	36,36,36,36	0
56	MG	2a	3179	1/1	0.96	0.05	58,58,58,58	0
56	MG	1a	1711	1/1	0.96	0.11	62,62,62,62	0
56	MG	1A	3957	1/1	0.96	0.11	34,34,34,34	0
56	MG	2a	3185	1/1	0.96	0.12	57,57,57,57	0
56	MG	1A	3363	1/1	0.96	0.06	49,49,49,49	0
56	MG	1A	3428	1/1	0.96	0.06	43,43,43,43	0
56	MG	1A	3602	1/1	0.96	0.07	41,41,41,41	0
56	MG	1A	3603	1/1	0.96	0.14	62,62,62,62	0
56	MG	1A	3507	1/1	0.96	0.06	45,45,45,45	0
56	MG	2A	3500	1/1	0.96	0.06	45,45,45,45	0
56	MG	2A	3199	1/1	0.96	0.12	21,21,21,21	0
56	MG	2a	3194	1/1	0.96	0.16	44,44,44,44	0
56	MG	2A	3503	1/1	0.96	0.06	37,37,37,37	0
56	MG	1A	3234	1/1	0.96	0.09	46,46,46,46	0
56	MG	1f	3001	1/1	0.96	0.16	57,57,57,57	0
56	MG	2A	3506	1/1	0.96	0.09	51,51,51,51	0
56	MG	1A	3148	1/1	0.96	0.16	51,51,51,51	0
56	MG	1A	3149	1/1	0.96	0.20	32,32,32,32	0
56	MG	1a	1724	1/1	0.96	0.07	62,62,62,62	0
56	MG	1A	3973	1/1	0.96	0.10	50,50,50,50	0
56	MG	1A	3303	1/1	0.96	0.12	50,50,50,50	0
56	MG	1A	3304	1/1	0.96	0.10	45,45,45,45	0
56	MG	1A	3791	1/1	0.96	0.19	51,51,51,51	0
56	MG	1A	3097	1/1	0.96	0.15	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1731	1/1	0.96	0.10	37,37,37,37	0
56	MG	2A	3517	1/1	0.96	0.06	47,47,47,47	0
56	MG	1p	3001	1/1	0.96	0.21	52,52,52,52	0
56	MG	1A	3151	1/1	0.96	0.08	45,45,45,45	0
56	MG	1q	201	1/1	0.96	0.17	58,58,58,58	0
56	MG	1A	3980	1/1	0.96	0.18	59,59,59,59	0
56	MG	2A	3524	1/1	0.96	0.08	50,50,50,50	0
56	MG	1A	3110	1/1	0.96	0.10	65,65,65,65	0
56	MG	1A	3799	1/1	0.96	0.06	20,20,20,20	0
56	MG	2A	3225	1/1	0.96	0.16	58,58,58,58	0
56	MG	1A	3197	1/1	0.96	0.06	23,23,23,23	0
56	MG	2A	3227	1/1	0.96	0.11	38,38,38,38	0
56	MG	1A	3441	1/1	0.96	0.08	49,49,49,49	0
56	MG	2A	3534	1/1	0.96	0.12	39,39,39,39	0
56	MG	2a	3224	1/1	0.96	0.10	60,60,60,60	0
56	MG	1A	3988	1/1	0.96	0.25	39,39,39,39	0
56	MG	1A	3518	1/1	0.96	0.07	51,51,51,51	0
56	MG	2A	3231	1/1	0.96	0.12	57,57,57,57	0
56	MG	2A	3540	1/1	0.96	0.10	46,46,46,46	0
56	MG	1A	3625	1/1	0.96	0.05	31,31,31,31	0
56	MG	1A	3627	1/1	0.96	0.10	41,41,41,41	0
56	MG	1a	1743	1/1	0.96	0.12	44,44,44,44	0
56	MG	2A	3544	1/1	0.96	0.06	48,48,48,48	0
56	MG	1A	3629	1/1	0.96	0.10	33,33,33,33	0
56	MG	1T	201	1/1	0.96	0.09	41,41,41,41	0
56	MG	1A	3814	1/1	0.96	0.08	49,49,49,49	0
56	MG	1A	3072	1/1	0.96	0.10	46,46,46,46	0
56	MG	2A	3550	1/1	0.96	0.06	39,39,39,39	0
56	MG	2A	3551	1/1	0.96	0.08	32,32,32,32	0
56	MG	2A	3552	1/1	0.96	0.13	44,44,44,44	0
56	MG	1A	3819	1/1	0.96	0.05	43,43,43,43	0
56	MG	1T	205	1/1	0.96	0.06	56,56,56,56	0
56	MG	2a	3244	1/1	0.96	0.09	64,64,64,64	0
56	MG	1A	3247	1/1	0.96	0.17	35,35,35,35	0
56	MG	2A	3556	1/1	0.96	0.06	55,55,55,55	0
56	MG	1z	8001	1/1	0.96	0.11	56,56,56,56	0
56	MG	1A	3823	1/1	0.96	0.10	17,17,17,17	0
56	MG	1A	3248	1/1	0.96	0.09	47,47,47,47	0
56	MG	2A	3560	1/1	0.96	0.08	41,41,41,41	0
56	MG	1A	4001	1/1	0.96	0.11	35,35,35,35	0
56	MG	1A	3377	1/1	0.96	0.14	24,24,24,24	0
56	MG	1A	3154	1/1	0.96	0.21	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3253	1/1	0.96	0.06	59,59,59,59	0
56	MG	1A	3255	1/1	0.96	0.06	45,45,45,45	0
56	MG	1A	3126	1/1	0.96	0.10	27,27,27,27	0
56	MG	1A	3829	1/1	0.96	0.06	18,18,18,18	0
56	MG	1A	3079	1/1	0.96	0.10	53,53,53,53	0
56	MG	1A	4011	1/1	0.96	0.08	68,68,68,68	0
56	MG	1A	4013	1/1	0.96	0.09	42,42,42,42	0
56	MG	1A	3258	1/1	0.96	0.16	63,63,63,63	0
56	MG	2I	3003	1/1	0.96	0.14	57,57,57,57	0
56	MG	1A	3073	1/1	0.96	0.08	46,46,46,46	0
56	MG	1A	3260	1/1	0.96	0.12	31,31,31,31	0
56	MG	1A	3385	1/1	0.96	0.14	45,45,45,45	0
56	MG	1A	3645	1/1	0.96	0.07	36,36,36,36	0
56	MG	1A	3203	1/1	0.96	0.28	47,47,47,47	0
56	MG	2A	3269	1/1	0.96	0.13	38,38,38,38	0
56	MG	1A	3081	1/1	0.96	0.15	40,40,40,40	0
56	MG	1a	1771	1/1	0.96	0.06	48,48,48,48	0
56	MG	2x	102	1/1	0.96	0.27	68,68,68,68	0
56	MG	2A	3022	1/1	0.96	0.05	46,46,46,46	0
56	MG	1A	3840	1/1	0.96	0.15	59,59,59,59	0
56	MG	1A	3841	1/1	0.96	0.06	44,44,44,44	0
56	MG	1A	3458	1/1	0.96	0.10	48,48,48,48	0
56	MG	1A	3650	1/1	0.96	0.09	28,28,28,28	0
56	MG	1A	3654	1/1	0.96	0.08	44,44,44,44	0
56	MG	2Q	3003	1/1	0.96	0.15	44,44,44,44	0
56	MG	15	103	1/1	0.96	0.19	28,28,28,28	0
56	MG	2A	3206	1/1	0.97	0.15	50,50,50,50	0
56	MG	1A	3192	1/1	0.97	0.18	46,46,46,46	0
56	MG	1A	3839	1/1	0.97	0.07	18,18,18,18	0
56	MG	2A	3210	1/1	0.97	0.21	31,31,31,31	0
56	MG	2A	3023	1/1	0.97	0.14	45,45,45,45	0
56	MG	2A	3024	1/1	0.97	0.11	55,55,55,55	0
56	MG	1A	3011	1/1	0.97	0.06	47,47,47,47	0
56	MG	1B	228	1/1	0.97	0.07	36,36,36,36	0
56	MG	1a	1635	1/1	0.97	0.08	56,56,56,56	0
56	MG	2A	3216	1/1	0.97	0.08	44,44,44,44	0
56	MG	1A	3455	1/1	0.97	0.06	58,58,58,58	0
56	MG	2A	3444	1/1	0.97	0.08	63,63,63,63	0
56	MG	1A	3274	1/1	0.97	0.15	47,47,47,47	0
56	MG	1A	3275	1/1	0.97	0.09	41,41,41,41	0
56	MG	1A	3357	1/1	0.97	0.05	54,54,54,54	0
56	MG	1A	3459	1/1	0.97	0.13	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3211	1/1	0.97	0.17	37,37,37,37	0
56	MG	1A	3978	1/1	0.97	0.07	36,36,36,36	0
56	MG	1A	3461	1/1	0.97	0.17	48,48,48,48	0
56	MG	1A	3851	1/1	0.97	0.06	65,65,65,65	0
56	MG	1A	3852	1/1	0.97	0.08	30,30,30,30	0
56	MG	1A	3277	1/1	0.97	0.11	34,34,34,34	0
56	MG	1A	3213	1/1	0.97	0.23	44,44,44,44	0
56	MG	2A	3460	1/1	0.97	0.05	45,45,45,45	0
56	MG	1a	1648	1/1	0.97	0.10	48,48,48,48	0
56	MG	1A	3985	1/1	0.97	0.06	34,34,34,34	0
56	MG	1A	3986	1/1	0.97	0.13	49,49,49,49	0
56	MG	1A	3523	1/1	0.97	0.14	50,50,50,50	0
56	MG	1A	3053	1/1	0.97	0.10	36,36,36,36	0
56	MG	1E	303	1/1	0.97	0.06	31,31,31,31	0
56	MG	2A	3237	1/1	0.97	0.10	37,37,37,37	0
56	MG	1A	3243	1/1	0.97	0.10	38,38,38,38	0
56	MG	2A	3470	1/1	0.97	0.05	64,64,64,64	0
56	MG	1A	3412	1/1	0.97	0.07	42,42,42,42	0
56	MG	1A	3413	1/1	0.97	0.10	60,60,60,60	0
56	MG	1A	3528	1/1	0.97	0.13	42,42,42,42	0
56	MG	2a	3089	1/1	0.97	0.05	46,46,46,46	0
56	MG	2A	3242	1/1	0.97	0.14	22,22,22,22	0
56	MG	1E	309	1/1	0.97	0.05	54,54,54,54	0
56	MG	1A	3724	1/1	0.97	0.09	38,38,38,38	0
56	MG	1E	311	1/1	0.97	0.09	40,40,40,40	0
56	MG	1A	3468	1/1	0.97	0.07	39,39,39,39	0
56	MG	1A	3611	1/1	0.97	0.07	35,35,35,35	0
56	MG	1A	3469	1/1	0.97	0.16	33,33,33,33	0
56	MG	1A	3244	1/1	0.97	0.05	35,35,35,35	0
56	MG	1a	1665	1/1	0.97	0.07	50,50,50,50	0
56	MG	2A	3059	1/1	0.97	0.09	37,37,37,37	0
56	MG	1A	3731	1/1	0.97	0.06	45,45,45,45	0
56	MG	1A	3245	1/1	0.97	0.11	18,18,18,18	0
56	MG	2a	3103	1/1	0.97	0.12	48,48,48,48	0
56	MG	1a	1838	1/1	0.97	0.13	39,39,39,39	0
56	MG	1A	3734	1/1	0.97	0.06	46,46,46,46	0
56	MG	1A	3108	1/1	0.97	0.06	52,52,52,52	0
56	MG	2A	3260	1/1	0.97	0.13	39,39,39,39	0
56	MG	1F	308	1/1	0.97	0.05	36,36,36,36	0
56	MG	1A	4004	1/1	0.97	0.10	49,49,49,49	0
56	MG	1A	3284	1/1	0.97	0.11	52,52,52,52	0
56	MG	1A	3536	1/1	0.97	0.18	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3196	1/1	0.97	0.16	37,37,37,37	0
56	MG	1A	3874	1/1	0.97	0.04	28,28,28,28	0
56	MG	1A	3742	1/1	0.97	0.07	52,52,52,52	0
56	MG	1A	4012	1/1	0.97	0.05	47,47,47,47	0
56	MG	1A	3109	1/1	0.97	0.04	45,45,45,45	0
56	MG	1A	3253	1/1	0.97	0.16	32,32,32,32	0
56	MG	1A	3325	1/1	0.97	0.05	41,41,41,41	0
56	MG	1N	3004	1/1	0.97	0.03	26,26,26,26	0
56	MG	1A	3068	1/1	0.97	0.17	45,45,45,45	0
56	MG	2a	3125	1/1	0.97	0.15	33,33,33,33	0
56	MG	2A	3276	1/1	0.97	0.04	60,60,60,60	0
56	MG	1a	1856	1/1	0.97	0.09	41,41,41,41	0
56	MG	1A	3219	1/1	0.97	0.10	56,56,56,56	0
56	MG	1A	3480	1/1	0.97	0.08	54,54,54,54	0
56	MG	1A	3882	1/1	0.97	0.12	36,36,36,36	0
56	MG	2a	3131	1/1	0.97	0.29	48,48,48,48	0
56	MG	1A	3883	1/1	0.97	0.09	36,36,36,36	0
56	MG	2A	3282	1/1	0.97	0.06	35,35,35,35	0
56	MG	1A	4021	1/1	0.97	0.09	59,59,59,59	0
56	MG	1A	3630	1/1	0.97	0.08	37,37,37,37	0
56	MG	1a	1691	1/1	0.97	0.05	66,66,66,66	0
56	MG	1A	3054	1/1	0.97	0.15	53,53,53,53	0
56	MG	1A	4024	1/1	0.97	0.10	39,39,39,39	0
56	MG	1A	3545	1/1	0.97	0.11	50,50,50,50	0
56	MG	2A	3292	1/1	0.97	0.06	21,21,21,21	0
56	MG	1P	205	1/1	0.97	0.07	53,53,53,53	0
56	MG	1P	206	1/1	0.97	0.13	42,42,42,42	0
56	MG	1A	3546	1/1	0.97	0.09	66,66,66,66	0
56	MG	1A	3330	1/1	0.97	0.13	39,39,39,39	0
56	MG	2A	3527	1/1	0.97	0.07	39,39,39,39	0
56	MG	1A	4028	1/1	0.97	0.14	63,63,63,63	0
56	MG	1A	3291	1/1	0.97	0.17	41,41,41,41	0
56	MG	2A	3530	1/1	0.97	0.19	43,43,43,43	0
56	MG	2A	3095	1/1	0.97	0.07	46,46,46,46	0
56	MG	1Q	207	1/1	0.97	0.17	41,41,41,41	0
56	MG	1A	3293	1/1	0.97	0.10	11,11,11,11	0
56	MG	2A	3303	1/1	0.97	0.11	30,30,30,30	0
56	MG	1A	3637	1/1	0.97	0.06	43,43,43,43	0
56	MG	2a	3154	1/1	0.97	0.10	71,71,71,71	0
56	MG	2A	3538	1/1	0.97	0.12	39,39,39,39	0
56	MG	1A	3892	1/1	0.97	0.06	46,46,46,46	0
56	MG	2A	3100	1/1	0.97	0.05	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3307	1/1	0.97	0.15	60,60,60,60	0
56	MG	1A	3102	1/1	0.97	0.22	49,49,49,49	0
56	MG	1A	3551	1/1	0.97	0.10	55,55,55,55	0
56	MG	1a	1708	1/1	0.97	0.10	67,67,67,67	0
56	MG	1R	206	1/1	0.97	0.11	32,32,32,32	0
56	MG	2A	3105	1/1	0.97	0.15	28,28,28,28	0
56	MG	1A	3295	1/1	0.97	0.10	42,42,42,42	0
56	MG	2A	3548	1/1	0.97	0.06	38,38,38,38	0
56	MG	1A	3900	1/1	0.97	0.12	39,39,39,39	0
56	MG	2A	3108	1/1	0.97	0.15	52,52,52,52	0
56	MG	1A	3182	1/1	0.97	0.17	32,32,32,32	0
56	MG	1A	3902	1/1	0.97	0.13	42,42,42,42	0
56	MG	1A	3642	1/1	0.97	0.13	38,38,38,38	0
56	MG	1A	4040	1/1	0.97	0.13	32,32,32,32	0
56	MG	1A	3431	1/1	0.97	0.06	43,43,43,43	0
56	MG	1A	3224	1/1	0.97	0.05	33,33,33,33	0
56	MG	2A	3323	1/1	0.97	0.13	43,43,43,43	0
56	MG	1A	4045	1/1	0.97	0.06	23,23,23,23	0
56	MG	2A	3325	1/1	0.97	0.11	48,48,48,48	0
56	MG	1U	206	1/1	0.97	0.29	38,38,38,38	0
56	MG	1a	1722	1/1	0.97	0.13	47,47,47,47	0
56	MG	2a	3180	1/1	0.97	0.13	46,46,46,46	0
56	MG	2a	3181	1/1	0.97	0.08	58,58,58,58	0
56	MG	2A	3119	1/1	0.97	0.08	35,35,35,35	0
56	MG	1A	3227	1/1	0.97	0.11	26,26,26,26	0
56	MG	2A	3335	1/1	0.97	0.09	35,35,35,35	0
56	MG	1a	1725	1/1	0.97	0.20	51,51,51,51	0
56	MG	1A	3434	1/1	0.97	0.09	50,50,50,50	0
56	MG	1W	3002	1/1	0.97	0.14	35,35,35,35	0
56	MG	1A	3775	1/1	0.97	0.06	31,31,31,31	0
56	MG	1A	3776	1/1	0.97	0.07	31,31,31,31	0
56	MG	1A	3647	1/1	0.97	0.08	19,19,19,19	0
56	MG	1A	3778	1/1	0.97	0.07	19,19,19,19	0
56	MG	1A	3299	1/1	0.97	0.14	59,59,59,59	0
56	MG	2D	304	1/1	0.97	0.06	36,36,36,36	0
56	MG	1A	3183	1/1	0.97	0.13	28,28,28,28	0
56	MG	2A	3349	1/1	0.97	0.06	67,67,67,67	0
56	MG	1A	4055	1/1	0.97	0.06	43,43,43,43	0
56	MG	1A	4056	1/1	0.97	0.04	29,29,29,29	0
56	MG	2A	3132	1/1	0.97	0.08	45,45,45,45	0
56	MG	1A	3783	1/1	0.97	0.08	28,28,28,28	0
56	MG	2A	3356	1/1	0.97	0.06	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3071	1/1	0.97	0.23	37,37,37,37	0
56	MG	1A	3651	1/1	0.97	0.06	14,14,14,14	0
56	MG	1A	3788	1/1	0.97	0.13	30,30,30,30	0
56	MG	2O	203	1/1	0.97	0.06	41,41,41,41	0
56	MG	1A	3789	1/1	0.97	0.07	14,14,14,14	0
56	MG	1I	103	1/1	0.97	0.06	42,42,42,42	0
56	MG	2A	3140	1/1	0.97	0.14	33,33,33,33	0
56	MG	1A	3790	1/1	0.97	0.09	19,19,19,19	0
56	MG	1A	3230	1/1	0.97	0.14	35,35,35,35	0
56	MG	1A	3388	1/1	0.97	0.07	55,55,55,55	0
56	MG	1A	3925	1/1	0.97	0.13	56,56,56,56	0
56	MG	2T	201	1/1	0.97	0.06	41,41,41,41	0
56	MG	2A	3146	1/1	0.97	0.07	35,35,35,35	0
56	MG	1A	3658	1/1	0.97	0.04	13,13,13,13	0
56	MG	1A	3440	1/1	0.97	0.06	39,39,39,39	0
56	MG	1A	3342	1/1	0.97	0.13	53,53,53,53	0
56	MG	1A	3665	1/1	0.97	0.13	24,24,24,24	0
56	MG	1I	201	1/1	0.97	0.07	35,35,35,35	0
56	MG	1A	3036	1/1	0.97	0.17	40,40,40,40	0
56	MG	28	102	1/1	0.97	0.15	50,50,50,50	0
56	MG	16	104	1/1	0.97	0.06	53,53,53,53	0
56	MG	2a	3227	1/1	0.97	0.09	62,62,62,62	0
56	MG	16	105	1/1	0.97	0.10	44,44,44,44	0
56	MG	2A	3156	1/1	0.97	0.09	23,23,23,23	0
56	MG	17	101	1/1	0.97	0.05	26,26,26,26	0
56	MG	2A	3379	1/1	0.97	0.05	35,35,35,35	0
56	MG	1A	4073	1/1	0.97	0.25	48,48,48,48	0
56	MG	1A	3667	1/1	0.97	0.13	14,14,14,14	0
56	MG	2A	3382	1/1	0.97	0.08	46,46,46,46	0
56	MG	1A	3805	1/1	0.97	0.08	49,49,49,49	0
56	MG	1a	1758	1/1	0.97	0.14	67,67,67,67	0
56	MG	18	3003	1/1	0.97	0.08	35,35,35,35	0
56	MG	19	101	1/1	0.97	0.14	51,51,51,51	0
56	MG	1q	203	1/1	0.97	0.19	53,53,53,53	0
56	MG	1A	3669	1/1	0.97	0.06	17,17,17,17	0
56	MG	1A	3566	1/1	0.97	0.09	34,34,34,34	0
56	MG	19	106	1/1	0.97	0.07	45,45,45,45	0
56	MG	1A	3812	1/1	0.97	0.04	48,48,48,48	0
56	MG	1A	4080	1/1	0.97	0.23	36,36,36,36	0
56	MG	2A	3170	1/1	0.97	0.06	33,33,33,33	0
56	MG	2A	3398	1/1	0.97	0.07	32,32,32,32	0
56	MG	1A	3344	1/1	0.97	0.07	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1604	1/1	0.97	0.08	60,60,60,60	0
56	MG	1A	3675	1/1	0.97	0.10	42,42,42,42	0
56	MG	1A	3037	1/1	0.97	0.17	40,40,40,40	0
56	MG	1a	1770	1/1	0.97	0.06	70,70,70,70	0
56	MG	1A	3678	1/1	0.97	0.06	39,39,39,39	0
56	MG	1A	3503	1/1	0.97	0.07	30,30,30,30	0
56	MG	1A	3570	1/1	0.97	0.13	46,46,46,46	0
56	MG	1A	3571	1/1	0.97	0.12	32,32,32,32	0
56	MG	1A	3445	1/1	0.97	0.07	46,46,46,46	0
56	MG	1A	3346	1/1	0.97	0.06	55,55,55,55	0
56	MG	1A	3347	1/1	0.97	0.05	56,56,56,56	0
56	MG	1a	1778	1/1	0.97	0.04	48,48,48,48	0
56	MG	2A	3185	1/1	0.97	0.12	32,32,32,32	0
56	MG	1A	3233	1/1	0.97	0.11	36,36,36,36	0
56	MG	1a	1780	1/1	0.97	0.05	56,56,56,56	0
56	MG	1A	3168	1/1	0.97	0.12	35,35,35,35	0
56	MG	1A	3950	1/1	0.97	0.14	64,64,64,64	0
56	MG	1A	3189	1/1	0.97	0.14	34,34,34,34	0
56	MG	1A	3399	1/1	0.97	0.20	45,45,45,45	0
56	MG	1A	3698	1/1	0.97	0.06	26,26,26,26	0
56	MG	1B	211	1/1	0.97	0.05	39,39,39,39	0
56	MG	1A	3833	1/1	0.97	0.04	50,50,50,50	0
56	MG	1A	3581	1/1	0.97	0.15	54,54,54,54	0
56	MG	1A	3962	1/1	0.97	0.08	14,14,14,14	0
56	MG	2A	3426	1/1	0.97	0.05	46,46,46,46	0
56	MG	1B	215	1/1	0.97	0.08	74,74,74,74	0
56	MG	1A	3582	1/1	0.97	0.09	25,25,25,25	0
56	MG	1B	218	1/1	0.97	0.07	34,34,34,34	0
56	MG	1A	3702	1/1	0.97	0.05	20,20,20,20	0
56	MG	1B	222	1/1	0.97	0.09	59,59,59,59	0
57	ZN	29	501	1/1	0.97	0.05	66,66,66,66	0
56	MG	1A	3190	1/1	0.97	0.10	42,42,42,42	0
56	MG	1A	3809	1/1	0.98	0.09	33,33,33,33	0
56	MG	2a	3105	1/1	0.98	0.10	62,62,62,62	0
56	MG	1A	4089	1/1	0.98	0.10	29,29,29,29	0
56	MG	2a	3108	1/1	0.98	0.10	68,68,68,68	0
56	MG	2A	3383	1/1	0.98	0.08	29,29,29,29	0
56	MG	2a	3110	1/1	0.98	0.07	55,55,55,55	0
56	MG	2A	3384	1/1	0.98	0.05	39,39,39,39	0
56	MG	1A	3810	1/1	0.98	0.04	30,30,30,30	0
56	MG	2A	3386	1/1	0.98	0.09	37,37,37,37	0
56	MG	1A	3811	1/1	0.98	0.11	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1V	201	1/1	0.98	0.18	39,39,39,39	0
56	MG	1A	3893	1/1	0.98	0.10	51,51,51,51	0
56	MG	2A	3232	1/1	0.98	0.06	47,47,47,47	0
56	MG	1a	1793	1/1	0.98	0.07	83,83,83,83	0
56	MG	1A	3894	1/1	0.98	0.10	50,50,50,50	0
56	MG	1A	3163	1/1	0.98	0.04	32,32,32,32	0
56	MG	1W	3003	1/1	0.98	0.15	33,33,33,33	0
56	MG	1a	1677	1/1	0.98	0.10	48,48,48,48	0
56	MG	1A	3660	1/1	0.98	0.04	24,24,24,24	0
56	MG	2A	3397	1/1	0.98	0.04	58,58,58,58	0
56	MG	1A	3993	1/1	0.98	0.04	34,34,34,34	0
56	MG	1A	3994	1/1	0.98	0.07	23,23,23,23	0
56	MG	1A	3898	1/1	0.98	0.06	52,52,52,52	0
56	MG	1Y	502	1/1	0.98	0.08	40,40,40,40	0
56	MG	1A	3398	1/1	0.98	0.05	46,46,46,46	0
56	MG	1a	1804	1/1	0.98	0.15	37,37,37,37	0
56	MG	1A	3817	1/1	0.98	0.07	40,40,40,40	0
56	MG	2B	207	1/1	0.98	0.07	67,67,67,67	0
56	MG	1A	3730	1/1	0.98	0.04	34,34,34,34	0
56	MG	10	102	1/1	0.98	0.04	48,48,48,48	0
56	MG	1a	1808	1/1	0.98	0.08	33,33,33,33	0
56	MG	2A	3250	1/1	0.98	0.16	30,30,30,30	0
56	MG	1A	3118	1/1	0.98	0.05	47,47,47,47	0
56	MG	2D	303	1/1	0.98	0.24	45,45,45,45	0
56	MG	1A	3212	1/1	0.98	0.18	36,36,36,36	0
56	MG	2D	305	1/1	0.98	0.09	29,29,29,29	0
56	MG	1a	1689	1/1	0.98	0.08	48,48,48,48	0
56	MG	2A	3254	1/1	0.98	0.06	30,30,30,30	0
56	MG	1A	3904	1/1	0.98	0.07	17,17,17,17	0
56	MG	2A	3414	1/1	0.98	0.20	50,50,50,50	0
56	MG	1A	3821	1/1	0.98	0.06	21,21,21,21	0
56	MG	2F	303	1/1	0.98	0.09	52,52,52,52	0
56	MG	1A	3906	1/1	0.98	0.07	53,53,53,53	0
56	MG	1B	219	1/1	0.98	0.08	62,62,62,62	0
56	MG	1B	220	1/1	0.98	0.04	42,42,42,42	0
56	MG	1A	3617	1/1	0.98	0.12	13,13,13,13	0
56	MG	1A	3130	1/1	0.98	0.11	21,21,21,21	0
56	MG	1A	3240	1/1	0.98	0.07	32,32,32,32	0
56	MG	1B	224	1/1	0.98	0.06	58,58,58,58	0
56	MG	1A	3572	1/1	0.98	0.06	52,52,52,52	0
56	MG	2A	3424	1/1	0.98	0.07	63,63,63,63	0
56	MG	1A	4009	1/1	0.98	0.07	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3673	1/1	0.98	0.04	25,25,25,25	0
56	MG	1A	3674	1/1	0.98	0.05	24,24,24,24	0
56	MG	1A	3032	1/1	0.98	0.16	44,44,44,44	0
56	MG	2R	202	1/1	0.98	0.05	35,35,35,35	0
56	MG	1A	3132	1/1	0.98	0.08	33,33,33,33	0
56	MG	2U	201	1/1	0.98	0.11	49,49,49,49	0
56	MG	1A	3746	1/1	0.98	0.05	46,46,46,46	0
56	MG	1A	3677	1/1	0.98	0.05	39,39,39,39	0
56	MG	2A	3008	1/1	0.98	0.05	51,51,51,51	0
56	MG	1D	303	1/1	0.98	0.11	38,38,38,38	0
56	MG	1a	1709	1/1	0.98	0.14	61,61,61,61	0
56	MG	1A	3748	1/1	0.98	0.05	13,13,13,13	0
56	MG	1A	3058	1/1	0.98	0.10	45,45,45,45	0
56	MG	2A	3139	1/1	0.98	0.14	35,35,35,35	0
56	MG	1a	1712	1/1	0.98	0.07	40,40,40,40	0
56	MG	1a	1835	1/1	0.98	0.06	51,51,51,51	0
56	MG	1A	3919	1/1	0.98	0.06	51,51,51,51	0
56	MG	1A	3043	1/1	0.98	0.07	55,55,55,55	0
56	MG	1A	3170	1/1	0.98	0.07	25,25,25,25	0
56	MG	2A	3285	1/1	0.98	0.07	33,33,33,33	0
56	MG	2A	3286	1/1	0.98	0.13	47,47,47,47	0
56	MG	2A	3145	1/1	0.98	0.09	25,25,25,25	0
56	MG	1A	3626	1/1	0.98	0.10	45,45,45,45	0
56	MG	2A	3447	1/1	0.98	0.11	43,43,43,43	0
56	MG	1a	1840	1/1	0.98	0.10	27,27,27,27	0
56	MG	1A	3683	1/1	0.98	0.04	42,42,42,42	0
56	MG	2a	3184	1/1	0.98	0.17	53,53,53,53	0
56	MG	2A	3291	1/1	0.98	0.06	37,37,37,37	0
56	MG	2A	3451	1/1	0.98	0.07	59,59,59,59	0
56	MG	1A	3069	1/1	0.98	0.07	39,39,39,39	0
56	MG	1A	3755	1/1	0.98	0.03	26,26,26,26	0
56	MG	1A	3628	1/1	0.98	0.12	43,43,43,43	0
56	MG	2a	3190	1/1	0.98	0.04	47,47,47,47	0
56	MG	1A	3842	1/1	0.98	0.06	54,54,54,54	0
56	MG	1A	3843	1/1	0.98	0.12	53,53,53,53	0
56	MG	1A	3028	1/1	0.98	0.07	50,50,50,50	0
56	MG	2A	3458	1/1	0.98	0.05	54,54,54,54	0
56	MG	1A	3249	1/1	0.98	0.04	20,20,20,20	0
56	MG	1E	305	1/1	0.98	0.08	14,14,14,14	0
56	MG	1A	3250	1/1	0.98	0.08	22,22,22,22	0
56	MG	1A	3763	1/1	0.98	0.06	42,42,42,42	0
56	MG	2A	3464	1/1	0.98	0.06	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3251	1/1	0.98	0.09	31,31,31,31	0
56	MG	2a	3201	1/1	0.98	0.04	66,66,66,66	0
56	MG	1A	3934	1/1	0.98	0.06	35,35,35,35	0
56	MG	1A	3692	1/1	0.98	0.05	18,18,18,18	0
56	MG	1A	3693	1/1	0.98	0.05	25,25,25,25	0
56	MG	1A	3694	1/1	0.98	0.05	28,28,28,28	0
56	MG	2A	3036	1/1	0.98	0.12	30,30,30,30	0
56	MG	1A	3695	1/1	0.98	0.06	13,13,13,13	0
56	MG	1a	1735	1/1	0.98	0.07	45,45,45,45	0
56	MG	1A	3854	1/1	0.98	0.10	42,42,42,42	0
56	MG	1A	3696	1/1	0.98	0.12	32,32,32,32	0
56	MG	1a	1863	1/1	0.98	0.12	42,42,42,42	0
56	MG	1A	3770	1/1	0.98	0.05	50,50,50,50	0
56	MG	2A	3315	1/1	0.98	0.07	39,39,39,39	0
56	MG	1A	3221	1/1	0.98	0.18	28,28,28,28	0
56	MG	2A	3173	1/1	0.98	0.11	27,27,27,27	0
56	MG	1A	4042	1/1	0.98	0.13	44,44,44,44	0
56	MG	1A	4043	1/1	0.98	0.09	26,26,26,26	0
56	MG	1A	3943	1/1	0.98	0.11	44,44,44,44	0
56	MG	2a	3220	1/1	0.98	0.11	85,85,85,85	0
56	MG	1A	3040	1/1	0.98	0.08	36,36,36,36	0
56	MG	1A	3062	1/1	0.98	0.05	56,56,56,56	0
56	MG	1A	3700	1/1	0.98	0.06	31,31,31,31	0
56	MG	1A	3176	1/1	0.98	0.07	30,30,30,30	0
56	MG	1A	3226	1/1	0.98	0.09	23,23,23,23	0
56	MG	2A	3326	1/1	0.98	0.09	43,43,43,43	0
56	MG	1A	3703	1/1	0.98	0.07	18,18,18,18	0
56	MG	1A	3177	1/1	0.98	0.04	33,33,33,33	0
56	MG	2A	3492	1/1	0.98	0.12	67,67,67,67	0
56	MG	1a	1631	1/1	0.98	0.11	44,44,44,44	0
56	MG	1A	3951	1/1	0.98	0.08	36,36,36,36	0
56	MG	1A	3082	1/1	0.98	0.04	33,33,33,33	0
56	MG	1A	3158	1/1	0.98	0.15	32,32,32,32	0
56	MG	2A	3337	1/1	0.98	0.06	59,59,59,59	0
56	MG	1A	3782	1/1	0.98	0.05	19,19,19,19	0
56	MG	1A	3955	1/1	0.98	0.05	21,21,21,21	0
56	MG	1A	3180	1/1	0.98	0.06	34,34,34,34	0
56	MG	2a	3238	1/1	0.98	0.05	57,57,57,57	0
56	MG	1A	3958	1/1	0.98	0.09	40,40,40,40	0
56	MG	1A	3784	1/1	0.98	0.10	20,20,20,20	0
56	MG	1A	3785	1/1	0.98	0.06	26,26,26,26	0
56	MG	1A	3292	1/1	0.98	0.10	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3346	1/1	0.98	0.04	69,69,69,69	0
56	MG	1A	3181	1/1	0.98	0.16	38,38,38,38	0
56	MG	1A	3967	1/1	0.98	0.11	57,57,57,57	0
56	MG	1A	3159	1/1	0.98	0.13	36,36,36,36	0
56	MG	1A	3598	1/1	0.98	0.08	30,30,30,30	0
56	MG	1A	3359	1/1	0.98	0.07	37,37,37,37	0
56	MG	2a	3249	1/1	0.98	0.07	36,36,36,36	0
56	MG	1A	3600	1/1	0.98	0.06	56,56,56,56	0
56	MG	2A	3354	1/1	0.98	0.04	48,48,48,48	0
56	MG	2A	3355	1/1	0.98	0.10	45,45,45,45	0
56	MG	2A	3201	1/1	0.98	0.13	47,47,47,47	0
56	MG	2A	3202	1/1	0.98	0.07	38,38,38,38	0
56	MG	1A	3264	1/1	0.98	0.18	27,27,27,27	0
56	MG	1A	3034	1/1	0.98	0.12	49,49,49,49	0
56	MG	2A	3520	1/1	0.98	0.07	37,37,37,37	0
56	MG	1Q	203	1/1	0.98	0.10	41,41,41,41	0
56	MG	1A	3144	1/1	0.98	0.09	48,48,48,48	0
56	MG	2A	3523	1/1	0.98	0.13	34,34,34,34	0
56	MG	1A	3064	1/1	0.98	0.07	48,48,48,48	0
56	MG	2A	3209	1/1	0.98	0.28	54,54,54,54	0
56	MG	2a	3084	1/1	0.98	0.10	50,50,50,50	0
56	MG	1A	3652	1/1	0.98	0.07	24,24,24,24	0
56	MG	2l	3005	1/1	0.98	0.09	44,44,44,44	0
56	MG	1A	3801	1/1	0.98	0.06	40,40,40,40	0
56	MG	1R	201	1/1	0.98	0.03	32,32,32,32	0
56	MG	1A	3653	1/1	0.98	0.12	48,48,48,48	0
56	MG	1A	3803	1/1	0.98	0.06	22,22,22,22	0
56	MG	1A	4079	1/1	0.98	0.11	33,33,33,33	0
56	MG	1A	3608	1/1	0.98	0.10	26,26,26,26	0
56	MG	2A	3533	1/1	0.98	0.10	47,47,47,47	0
56	MG	1A	4081	1/1	0.98	0.12	42,42,42,42	0
56	MG	1A	4082	1/1	0.98	0.06	66,66,66,66	0
56	MG	2A	3536	1/1	0.98	0.10	42,42,42,42	0
56	MG	1A	3981	1/1	0.98	0.11	42,42,42,42	0
56	MG	1A	3609	1/1	0.98	0.09	38,38,38,38	0
56	MG	1A	3657	1/1	0.98	0.04	34,34,34,34	0
56	MG	2A	3222	1/1	0.98	0.08	62,62,62,62	0
57	ZN	14	501	1/1	0.98	0.04	103,103,103,103	0
57	ZN	1n	101	1/1	0.98	0.04	83,83,83,83	0
57	ZN	2Y	501	1/1	0.98	0.04	99,99,99,99	0
56	MG	1A	3807	1/1	0.98	0.05	46,46,46,46	0
57	ZN	26	501	1/1	0.98	0.03	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3531	1/1	0.98	0.06	45,45,45,45	0
56	MG	1U	201	1/1	0.98	0.04	26,26,26,26	0
58	SF4	1d	501	8/8	0.98	0.06	64,72,77,86	0
56	MG	1A	3715	1/1	0.99	0.04	9,9,9,9	0
56	MG	1A	4067	1/1	0.99	0.04	21,21,21,21	0
56	MG	2a	3107	1/1	0.99	0.03	57,57,57,57	0
56	MG	1A	3185	1/1	0.99	0.08	38,38,38,38	0
56	MG	1A	4069	1/1	0.99	0.04	47,47,47,47	0
56	MG	1A	3482	1/1	0.99	0.05	12,12,12,12	0
56	MG	1A	3096	1/1	0.99	0.16	40,40,40,40	0
56	MG	1A	3762	1/1	0.99	0.03	39,39,39,39	0
56	MG	1A	3960	1/1	0.99	0.03	28,28,28,28	0
56	MG	1A	3961	1/1	0.99	0.03	40,40,40,40	0
56	MG	2A	3375	1/1	0.99	0.09	46,46,46,46	0
56	MG	2A	3459	1/1	0.99	0.04	29,29,29,29	0
56	MG	1A	3685	1/1	0.99	0.05	16,16,16,16	0
56	MG	1A	3328	1/1	0.99	0.04	27,27,27,27	0
56	MG	2A	3004	1/1	0.99	0.05	59,59,59,59	0
56	MG	1A	3088	1/1	0.99	0.05	53,53,53,53	0
56	MG	1U	203	1/1	0.99	0.08	29,29,29,29	0
56	MG	1A	3965	1/1	0.99	0.06	36,36,36,36	0
56	MG	1a	1817	1/1	0.99	0.04	54,54,54,54	0
56	MG	2a	3215	1/1	0.99	0.08	53,53,53,53	0
56	MG	1A	3966	1/1	0.99	0.05	19,19,19,19	0
56	MG	2A	3300	1/1	0.99	0.03	38,38,38,38	0
56	MG	1A	3688	1/1	0.99	0.06	8,8,8,8	0
56	MG	2A	3152	1/1	0.99	0.14	30,30,30,30	0
56	MG	1A	3723	1/1	0.99	0.03	29,29,29,29	0
56	MG	1A	3655	1/1	0.99	0.05	24,24,24,24	0
56	MG	1A	3815	1/1	0.99	0.04	20,20,20,20	0
56	MG	1A	3816	1/1	0.99	0.04	51,51,51,51	0
56	MG	1A	3725	1/1	0.99	0.03	18,18,18,18	0
56	MG	1A	3604	1/1	0.99	0.06	36,36,36,36	0
56	MG	1A	3113	1/1	0.99	0.05	35,35,35,35	0
56	MG	1A	3606	1/1	0.99	0.05	28,28,28,28	0
56	MG	1A	3246	1/1	0.99	0.04	23,23,23,23	0
56	MG	2A	3480	1/1	0.99	0.05	21,21,21,21	0
56	MG	1A	3822	1/1	0.99	0.06	21,21,21,21	0
56	MG	1A	3134	1/1	0.99	0.07	23,23,23,23	0
56	MG	1A	3155	1/1	0.99	0.15	39,39,39,39	0
56	MG	1A	3732	1/1	0.99	0.05	26,26,26,26	0
56	MG	1B	204	1/1	0.99	0.04	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3662	1/1	0.99	0.06	30,30,30,30	0
56	MG	1A	3663	1/1	0.99	0.02	19,19,19,19	0
56	MG	1A	3664	1/1	0.99	0.07	19,19,19,19	0
56	MG	1A	3737	1/1	0.99	0.03	18,18,18,18	0
56	MG	1a	1705	1/1	0.99	0.09	58,58,58,58	0
56	MG	2E	302	1/1	0.99	0.17	36,36,36,36	0
56	MG	1A	3781	1/1	0.99	0.04	24,24,24,24	0
56	MG	1A	3365	1/1	0.99	0.04	30,30,30,30	0
56	MG	1A	3612	1/1	0.99	0.07	23,23,23,23	0
56	MG	2A	3248	1/1	0.99	0.06	35,35,35,35	0
56	MG	1A	3191	1/1	0.99	0.12	28,28,28,28	0
56	MG	2A	3327	1/1	0.99	0.06	44,44,44,44	0
56	MG	1A	3401	1/1	0.99	0.09	30,30,30,30	0
56	MG	1A	3743	1/1	0.99	0.04	30,30,30,30	0
56	MG	2A	3330	1/1	0.99	0.06	40,40,40,40	0
56	MG	1A	3615	1/1	0.99	0.04	39,39,39,39	0
56	MG	2A	3333	1/1	0.99	0.04	35,35,35,35	0
56	MG	2A	3502	1/1	0.99	0.03	37,37,37,37	0
56	MG	1a	1846	1/1	0.99	0.03	25,25,25,25	0
56	MG	1A	3671	1/1	0.99	0.08	27,27,27,27	0
56	MG	1B	217	1/1	0.99	0.03	38,38,38,38	0
56	MG	1A	3225	1/1	0.99	0.03	21,21,21,21	0
56	MG	2A	3507	1/1	0.99	0.03	38,38,38,38	0
56	MG	1A	3135	1/1	0.99	0.16	30,30,30,30	0
56	MG	1A	3592	1/1	0.99	0.07	25,25,25,25	0
56	MG	2A	3113	1/1	0.99	0.12	29,29,29,29	0
56	MG	2A	3341	1/1	0.99	0.06	51,51,51,51	0
56	MG	1A	4051	1/1	0.99	0.13	15,15,15,15	0
56	MG	1A	3173	1/1	0.99	0.04	40,40,40,40	0
56	MG	2a	3172	1/1	0.99	0.05	42,42,42,42	0
56	MG	1A	3353	1/1	0.99	0.06	40,40,40,40	0
56	MG	1A	3573	1/1	0.99	0.10	41,41,41,41	0
56	MG	2A	3264	1/1	0.99	0.06	29,29,29,29	0
56	MG	2A	3347	1/1	0.99	0.05	56,56,56,56	0
56	MG	1A	3795	1/1	0.99	0.08	13,13,13,13	0
56	MG	1a	1723	1/1	0.99	0.07	62,62,62,62	0
56	MG	1A	3796	1/1	0.99	0.09	24,24,24,24	0
56	MG	1A	3896	1/1	0.99	0.04	72,72,72,72	0
56	MG	1A	3797	1/1	0.99	0.03	28,28,28,28	0
56	MG	1a	1861	1/1	0.99	0.07	51,51,51,51	0
56	MG	1A	3798	1/1	0.99	0.04	19,19,19,19	0
56	MG	1A	3142	1/1	0.99	0.03	20,20,20,20	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3273	1/1	0.99	0.06	53,53,53,53	0
56	MG	19	105	1/1	0.99	0.13	34,34,34,34	0
56	MG	1Q	205	1/1	0.99	0.03	40,40,40,40	0
57	ZN	1Y	501	1/1	0.99	0.02	62,62,62,62	0
56	MG	1A	3254	1/1	0.99	0.08	41,41,41,41	0
57	ZN	15	101	1/1	0.99	0.07	54,54,54,54	0
57	ZN	16	103	1/1	0.99	0.07	45,45,45,45	0
56	MG	1A	3065	1/1	0.99	0.03	39,39,39,39	0
56	MG	2a	3099	1/1	0.99	0.18	41,41,41,41	0
56	MG	1Q	208	1/1	0.99	0.02	37,37,37,37	0
56	MG	2A	3203	1/1	0.99	0.08	43,43,43,43	0
56	MG	1A	3681	1/1	0.99	0.04	19,19,19,19	0
56	MG	1A	4008	1/1	0.99	0.03	20,20,20,20	0
56	MG	1A	3756	1/1	0.99	0.06	30,30,30,30	0
58	SF4	2d	501	8/8	0.99	0.04	58,72,80,87	0
56	MG	1A	3844	1/1	1.00	0.03	18,18,18,18	0
57	ZN	19	103	1/1	1.00	0.05	47,47,47,47	0
56	MG	1A	3760	1/1	1.00	0.02	34,34,34,34	0
56	MG	1A	3586	1/1	1.00	0.08	33,33,33,33	0
56	MG	1A	3736	1/1	1.00	0.06	15,15,15,15	0
57	ZN	25	501	1/1	1.00	0.03	50,50,50,50	0
56	MG	1A	3607	1/1	1.00	0.07	26,26,26,26	0
56	MG	1A	3738	1/1	1.00	0.05	17,17,17,17	0
56	MG	1A	3668	1/1	1.00	0.04	17,17,17,17	0
56	MG	1A	3956	1/1	1.00	0.06	12,12,12,12	0
56	MG	2A	3332	1/1	1.00	0.02	42,42,42,42	0

6.5 Other polymers ⓘ

There are no such residues in this entry.